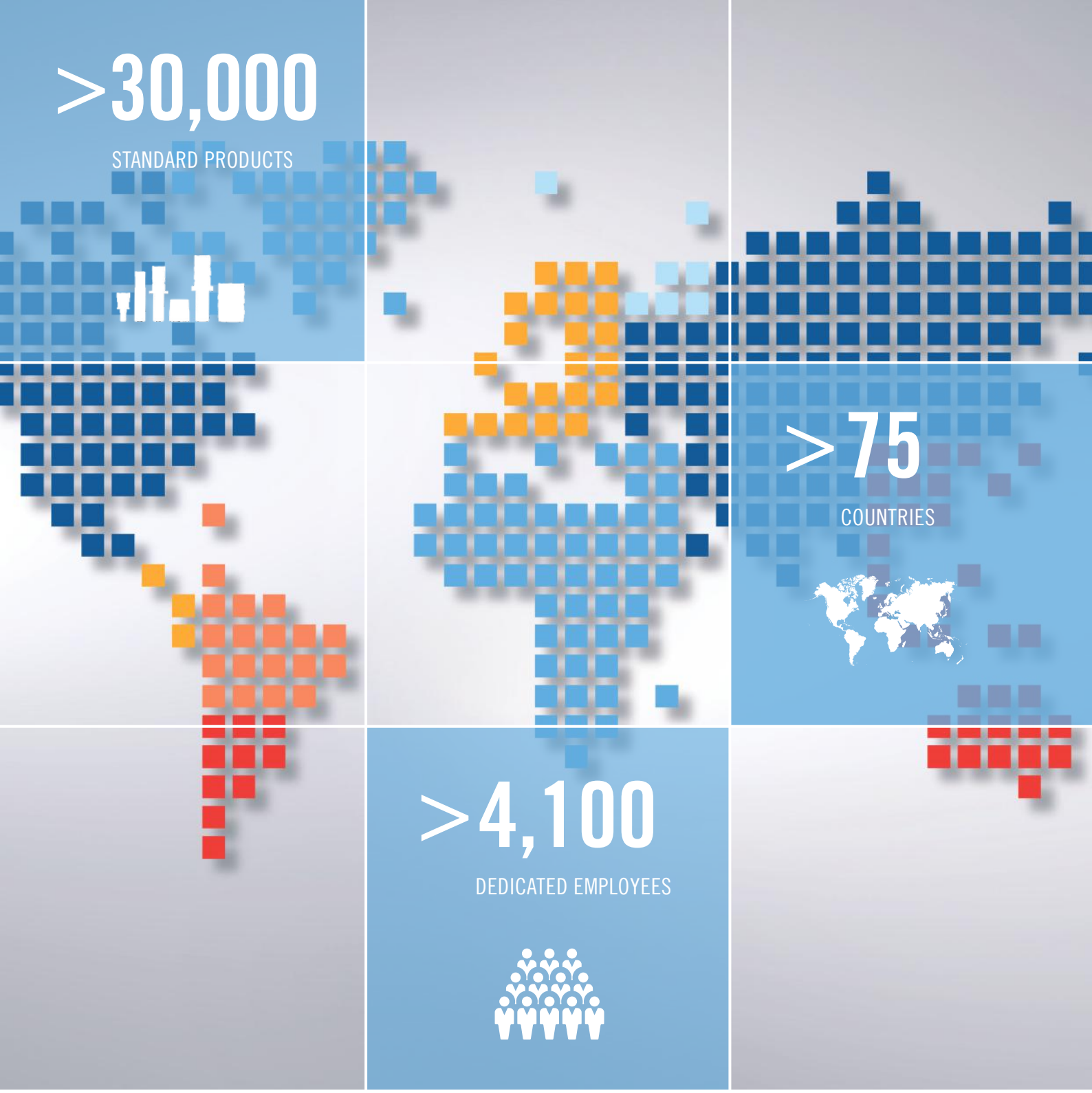


# CATALOG & TECHNICAL GUIDE 2023.2

# HOLEMAKING

SECO




Headquartered in Fagersta, Sweden and present in more than 75 countries, Seco Tools is a leading global provider of metal cutting solutions for milling, stationary tools, holemaking and tooling systems.

For more than 80 years, the company has provided the technologies, processes and support that manufacturers depend on for maximum productivity and profitability. For more information on how Seco's innovative products and expert services bring success to manufacturers across all industry segments, please visit www.secotools.com.

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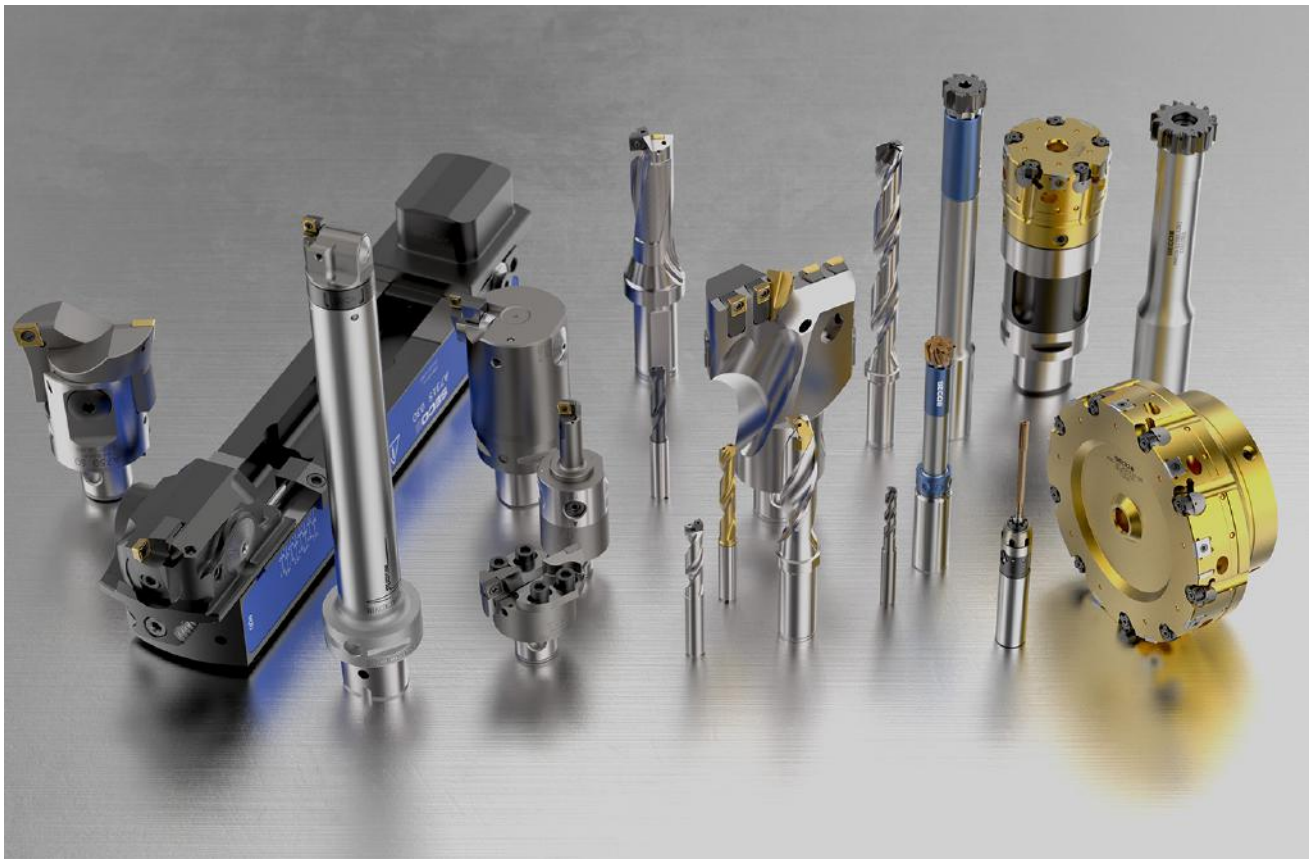
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# Overcome any holemaking challenge

Holemaking can mean the difference between profit or scrapped parts and success requires the highest quality tooling for the greatest level of productivity enhancements and cost-reduction opportunities. To achieve that level of success, manufacturers need a partner who can help prove out processes and test new solutions. A partner with the ability to meet all your unique challenges with a truly comprehensive range of drilling, reaming, boring and threading tools.

Seco Tools is your single-source provider for comprehensive holemaking solutions. With years of experience developing holemaking solutions for customers' challenging applications, we have the R&D and metal cutting expertise to help manufacturers achieve fully optimal processes.

We are committed to our customers' holemaking productivity. That means you can purchase tools, receive technical support, consult with experts and develop solutions with just one provider and with access to the industry's most comprehensive range of indexable and solid drills, reamers, threaders and boring heads.



# What are you looking for in making a hole?

| | Drilling | | | Reaming | | | | Boring | | Threading | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Seco Universal Seco Feedmax™ | Crownloc® Crownloc® Plus | Perfomax® | Precimaster™ Plus | Nanofix™ | Bifix® | Xfix™ | Rough boring | Fine boring | Threadmaster™ | Threadmaster™ Taps | | Thread milling 396.18/.19/.20 |
| Page(s) | 24-170 | 171-224 | 225-320 | 325-364 | 365-398 | 399-425 | 426-467 | 495-584 | 585-631 | See Threading catalog | | | |
| |  |  |  |  |  |  |  |  |  |  |  |  |  |
| IT | 7-9 | 9-10 | 12 | 6-8 | 6-8 | 6-7 | 6-7 | 9-10 | 5-6 | – | – | – | – |
| ⊕ | 0,02 mm *(0.0008")* | 0,05 mm *(0.002")* | – | Follow the pre-bore | Follow the pre-bore | Follow the pre-bore | Follow the pre-bore | 0,005 mm *(0.0002")* | 0,005 mm *(0.0002")* | – | Follow the pre-bore | Follow the pre-bore | – |
| ⌭ | 0,02 mm *(0.0008")* | 0,05 mm *(0.002")* | – | 0,007 mm *(0.0003")* | 0,007 mm *(0.0003")* | 0,005 mm *(0.0002")* | 0,005 mm *(0.0002")* | 0,02 mm *(0.0008")* | 0,01 mm *(0.0004")* | – | – | – | – |
| $\sqrt{R_a}$ | 1,0 µm *(39 µin)* | 1,6 µm *(63 µin)* | 2,0 µm *(79 µin)* | 0,6 µm *(24 µin)* | 0,6 µm *(24 µin)* | 0,25 µm *(10 µin)* | 0,8 µm *(31 µin)* | 1,0 µm *(39 µin)* | 0,6 µm *(24 µin)* | – | – | – | – |
| TCTR | – | – | – | – | – | – | – | – | – | – | 6H<br>6HX<br>6G<br>2B<br>Normal | 5HX<br>2BX<br>Normal-X<br>6HX<br>6GX | – |
| Thread form | – | – | – | – | – | – | – | – | – | M<br>MF<br>UNC<br>UNF<br>NPT<br>NPTF<br>BSP | M<br>MF<br>UNC<br>UNF<br>G<br>NPT<br>NPTF | M<br>MF<br>UNC<br>UNF<br>G | ISO<br>UN<br>W<br>NPT<br>NPTF<br>BSPT |

⊕ **Positioning accuracy**
Seco Feedmax, A750 rough boring heads and the whole range of fine boring heads are the holemaking tools that offer the best positioning accuracy.

⌭ **Hole geometry**
For excellent hole geometry, such as roundness and straightness, all of Seco's drilling, boring and reaming tools offer the same high and consistent quality. Seco's boring heads will always guarantee the best results on straightness.

$\sqrt{R_a}$ **Surface finish**
For a really smooth hole surface Bifix is your first choice, and Seco's fine boring heads offer a full range of machining capabilities.

**TCTR** = Thread Tolerance Class

**IT** = Hole tolerance

# ISO attributes

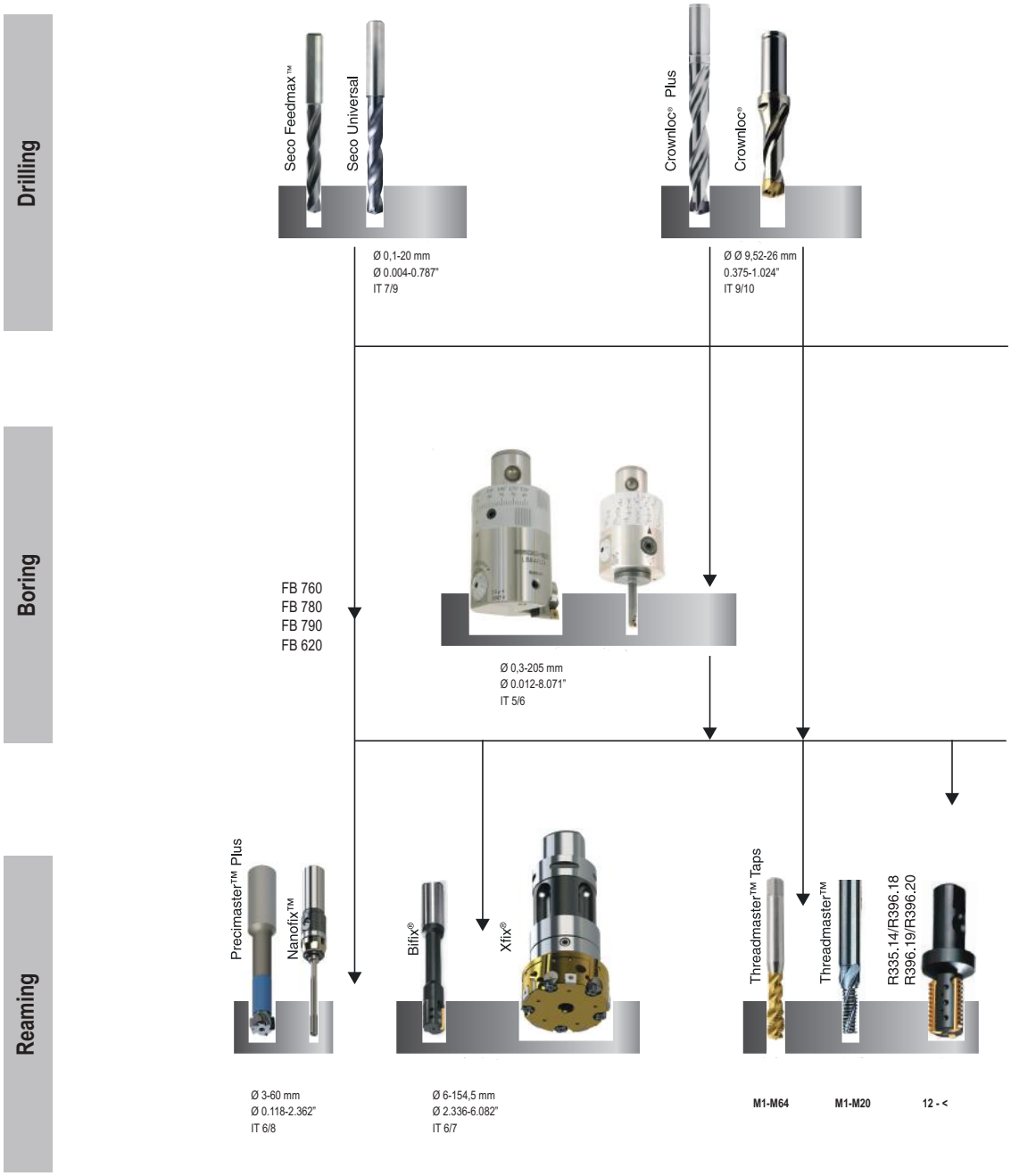
| ISO attribute | Explanation |
|---|---|
| ADJLN | Minimum adjustment limit |
| ADJLX | Maximum adjustment limit |
| ADJRG | Adjustment range |
| AN | Clearance angle major |
| APMX | Depth of cut maximum |
| AZ | Maximum plunge depth |
| B | Shank width |
| BD | Body diameter |
| BD1 | Body diameter 1 |
| BD2 | Body diameter 2 |
| BDX | Body diameter maximum |
| BHTA | Body half taper angle |
| BLQ | Balance quality code |
| BN | Face land width |
| CBDP | Connection bore depth |
| CDX | Cutting depth maximum |
| CEDC | Cutting edge count |
| CHA | Cross hole angle |
| CHW | Corner chamfer width |
| CNT | Coolant entry thread size |
| CW | Cutting width |
| CZC | Connection size code |
| D1 | Fixing hole diameter |
| DC | Cutting diameter |
| DCB | Connection bore diameter |
| DCBN | Connection bore diameter minimum |
| DCBX | Connection bore diameter maximum |
| DCB1 | Connection bore diameter 1 |
| DCC | Design configuration style code |
| DCINN | Minimum cutting diameter internal |
| DCINX | Maximum cutting diameter internal |
| DCN | Minimum cutting diameter |
| DCON | Connection diameter |
| DCX | Maximum cutting diameter |
| DF | Flange diameter |
| DMM | Shank diameter |
| FLGW | Flange width |
| GAN | Insert rake angle |
| GB | Face land angle |
| HTB | Body height |
| IC | Inscribed circle diameter |
| INSD | Insert diameter |
| INSL | Insert length |
| KRINS | Major cutting edge angle |
| L | Cutting edge length |
| LB | Body length |
| LB1 | Body length 1 |
| LCF | Chip flute length |
| LE | Cutting edge effective length |
| LF | Functional length |
| LFS | Secondary functional length |
| LH | Head length |
| LPR | Protruding length |
| LS | Shank length |
| LSC | Clamping length |
| LU | Usable length |
| LUX | Maximum usable length |
| M | M-dimension |
| OAL | Overall length |
| RE | Corner radius |
| S | Insert thickness |
| TDZ | Thread diameter size |
| WB | Body width |
| WF | Functional width |

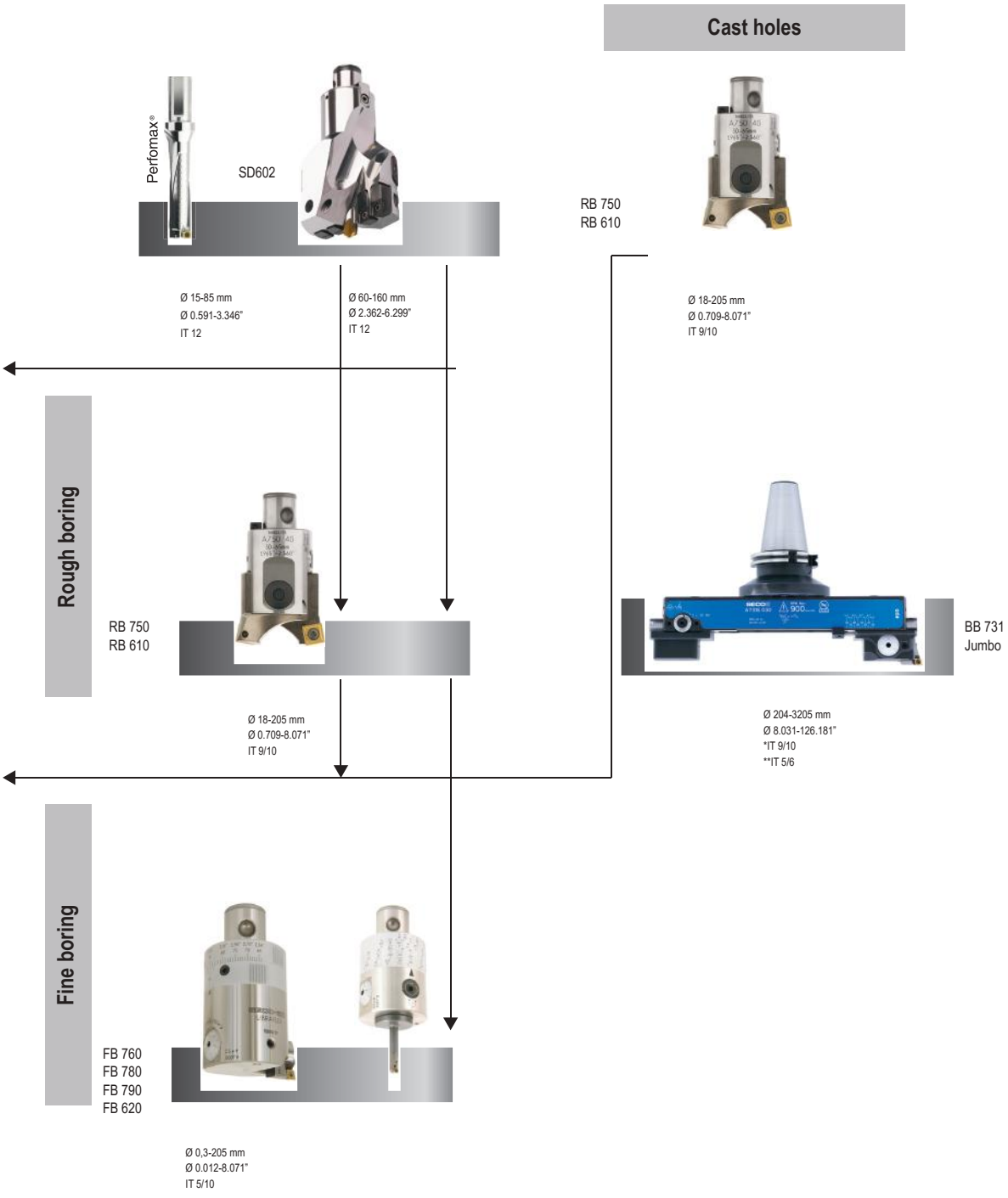
# Tool guide

Feedmax, Crownloc and Perfomax are used to drill holes 0.1-160 mm (0.004-6.299") in diameter, with tolerances from IT7 to IT12.
For already cast holes, rough boring or semi-finishing is often used, with Bridge Bars and Jumbo Bridge Bars used for the large diameters.
Finally, high quality holes are made with reaming and fine boring heads, reaching tolerances of IT5 or IT6.
* Rough IT9/10, ** Fine IT 5/6

Threadmaster DTM, TM, TM2, 396.18 and 396.19;
The same cutter could be used for machining right and left hand threads. Metric and UN versions are only for internal threading. It's also possible to make all types of tolerances with the same cutter.

Threadmaster Tap:
Available in the most popular threads and tolerances in both cutting and forming taps.




Cast holes
Perfomax®
SD602
RB 750
RB 610
Ø 15-85 mm
Ø 0.591-3.346"
IT 12
Ø 60-160 mm
Ø 2.362-6.299"
IT 12
Ø 18-205 mm
Ø 0.709-8.071"
IT 9/10
Rough boring
RB 750
RB 610
BB 731
Jumbo
Ø 18-205 mm
Ø 0.709-8.071"
IT 9/10
Ø 204-3205 mm
Ø 8.031-126.181"
*IT 9/10
**IT 5/6
Fine boring
FB 760
FB 780
FB 790
FB 620
Ø 0,3-205 mm
Ø 0.012-8.071"
IT 5/10

# Drilling range – Choice of drill

## Seco Feedmax™ Solid carbide drills



**PRODUCTIVITY**

- High feeds and cutting speeds
- Close tolerance holes
- For applications with high stability
- For all workpiece materials

## Crownloc® & Crownloc® Plus Exchangeble crown drills



**FLEXIBILITY**

- Exchangeable carbide tips
- Geometries for different workpiece materials
- No regrinding
- Several tip diameters for each drill body

## Perfomax® Indexable insert drills



**COST EFFECTIVENESS**

- Grades and geometries for all workpiece materials
- Square inserts for low cost/hole
- Drilling, plunging, crossing holes with angled entrance or exit, boring, etc.
- High application security

# SMG - Introduction

As example the reference materials EN C45E for SMG P4 and EN 42 CrMo 4 for both SMG P5 and SMG H5 see further details in the following tables.
In SMG classification of workpiece materials involves a specific material standard in a specific condition assigned as reference for easy and unambigious adjustment of cutting data for any actual material compared to any Seco reference material. As examples the reference materials EN C45E for SMG P4 and EN 42 CrMo 4 for both SMG P5 and SMG H5 shown below in table 1 where the reference level material property is indicated.

The foundation for SMG is a classification of workpiece materials based on their type rather than their relative machinability and consequently it contains workpiece materials like composites. It is comprehensive enough, but still easy to identify to which SMG a particular material belongs.
Each SMG has a specific material standard in a specific condition assigned as reference to allow easy adjustment of cutting data for any actual material compared to any Seco reference material see pages 674-685.

| SMG | Description | Properties | Reference |
|---|---|---|---|
| P4 | Low-alloy general structural steels, 0.25% < C < 0.67%wt<br>Low-alloy Quench & Temper steels | 520 < $R_m$ < 1200 | C 45E<br>$R_m$ = 660 N/mm$^2$ |
| P5 | Structural steels, 0.25% < C < 0.67%wt<br>Quench & Temper steels | 550 < $R_m$ < 1200 | 42 CrMo 4<br>$R_m$ = 700 N/mm$^2$ |

| SMG | Description | Properties | Reference |
|---|---|---|---|
| H5 | Quenched & Tempered steels | 38 < HRC < 56 | 42 CrMo 4<br>50 HRC |

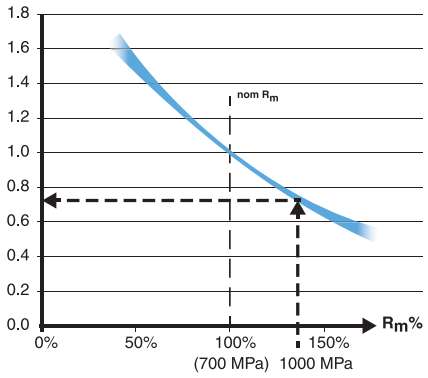
Focusing specifically on EN 42 CrMo 4 in annealed condition, the ultimate tensile strength $R_m$ may typically vary between $R_m$ = 630 N/mm$^2$ and $R_m$ = 780 N/mm$^2$, which provide a reference level for SMG P5.

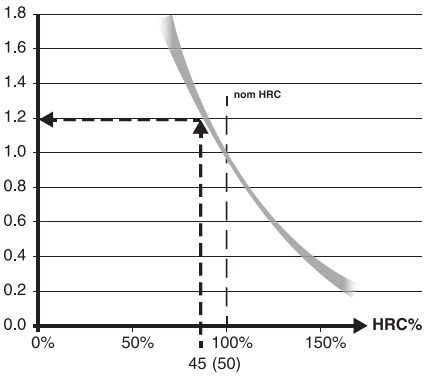
In Quenched & Tempered condition, the ultimate tensile strength Rm may typically be between $R_m$ = 900 N/mm$^2$ and $R_m$ = 1100 N/mm$^2$ thus still belongs to SMG P5.
However, if hardened above $R_m$ = 1200 N/mm$^2$ it now belongs to SMG H5.

| SMG | EN | W.-Nr | AFNOR | BS | UNI | JIS | AISI / ASTM | GOST | Condition | $R_{m_nom}$ | $HRC_{nom}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| P4 | 42 CrMo 4 | 1.1201 | 42 CD 4 | 708 M 40 | 42 CrMo 4 | SCM 440 (H) | 4142, 4140 | 38HM | Annealed | 700 | |
| | 42 CrMo 4 | 1.1201 | 42 CD 4 | 708 M 40 | 42 CrMo 4 | SCM 440 (H) | 4142, 4140 | 38HM | Quenched & Tempered | 1000 | |
| H5 | 42 CrMo 4 | 1.1201 | 42 CD 4 | 708 M 40 | 42 CrMo 4 | SCM 440 (H) | 4142, 4140 | 38HM | Quenched & Tempered | | 45 |
| | 42 CrMo 4 | 1.1201 | 42 CD 4 | 708 M 40 | 42 CrMo 4 | SCM 440 (H) | 4142, 4140 | 38HM | Quenched & Tempered | | 50 |

The EN 42CrMo4 quench & tempered steel could be used to illustrate the machinability dependence of materials' condition.

The graphs below indicate how speed recommendations for a nominal material conditions may be adjusted for relative $R_m$ (left diagram valid for ISO-P) and for relative HRC (valid for ISO-H).




To further illustrate how the SMG P5 nominal $v_c$ can be adjusted to a more accurate recommended $v_c$ we need ultimate tensile strength Rm data and in this case we use the EN 42 CrMo 4 quenched & tempered to $R_m$ = 1000 N/mm2 according to above table (bold blue arrows). Assume that we find that the SMG P5 nominal $v_c$ = 280 m/min for a certain product and machining.
Then, actual recommended $v_c$ = 280 m/min x 0,75 = 210 m/min. Consequently in the SMG H5 the nominal $v_c$ can be adjusted using the hardened EN 42 CrMo 4 at HRC 45 (smaller grey arrows).

Assume that the SMG H5 nominal $v_c$ = 50 m/min for a certain product and machining using a coated cemented carbide tool then, actual recommended $v_c$ = 50 m/min x 1,2 = 60 m/min.
For further workpiece material details please see page(s) 674-685 and suggested cutting data at applicable pages.
For more convenient cutting data handling we recommend applicable tools in My Pages – Suggest on www.secotools.com

# High performance and Universal solutions

**What are you looking for in your solid drill application?**

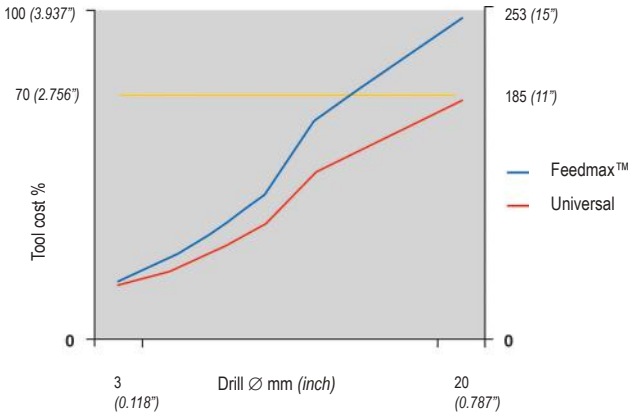
### Universal – Versatile general performance solid carbide drill

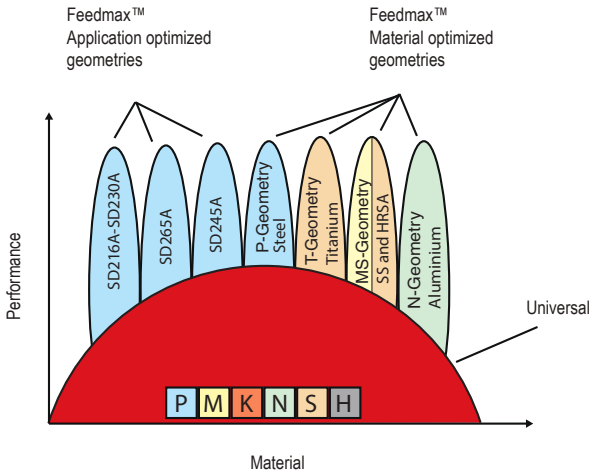
Universal is a multi purpose general performance solid carbide drill, that can be used in a wide range of materials and applications in all industry segments. Thanks to the design with a strong self centering 140 degree drill point, polished chip flutes and the excellent quality of the drill - high capacity utilization, application security and versatility is provided at a very low cost.
With Universal stock holding cost can be reduced and greater machining flexibility is offered, leading to reduced set-up time. Universal is an alternative to Feedmax™ in operations when versatility, flexibility and reduced stock holding cost are the main targets.

### Feedmax™ – Productive high performance solid carbide drill

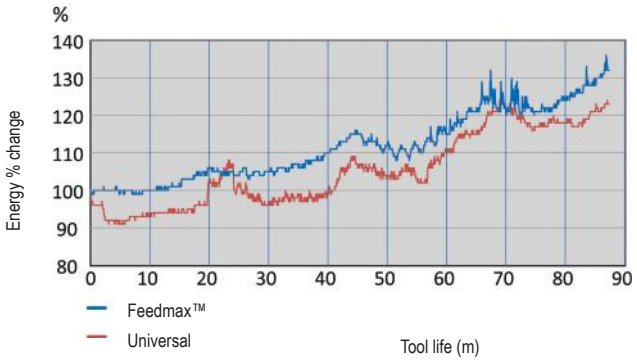
Feedmax™ offers a unique combination of state-of-the-art carbide, coating- and geometry technology.
Feedmax™ is designed for high productivity and low cost per hole with high feeds up to 0,70 mm/rev *(0.028 in/rev)* and high cutting speeds up to 220 m/min *(720 sf/min)*. With excellent centering capabilities - high hole quality is achieved with no need for center drilling operations. Thanks to the modern coating with high hot hardness, the strong cutting edges with protective corner chamfers, high strength carbide rod, excellent chip evacuation capabilities and a superb cutting edge quality - a long and predictable tool life is achieved.
Feedmax™ has a wide range of optimized geometries for different materials and applications, to obtain a good quality hole at the lowest cost.

MRR, Metal removal rate ($cm^3$ / min)




**Tool life, lower cutting data**

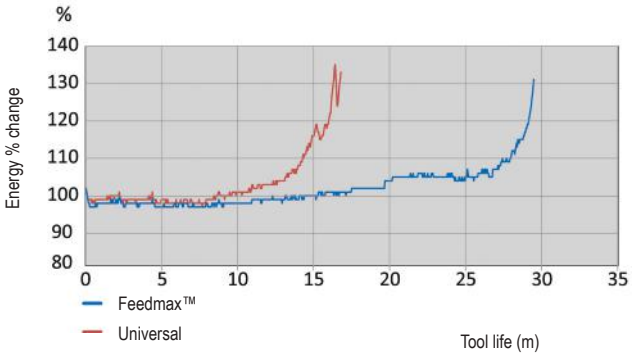



First hole is set as reference, 100% based on the spindle power
Cutting data
$v_c$ = 90 m/min
f = 0,15 mm/rev

*$v_c$ = 295 sf/min*
*f = 0.006 in/rev*

Material = SMG P5-P6, SS2244, DIN41CrMo4, AISI 4140

**Tool life, high cutting data**




First hole is set as reference, 100% based on the spindle power
Cutting data
$v_c$ = 160 m/min
f = 0,24 mm/rev

*$v_c$ = 525 sf/min*
*f = 0.009 in/rev*

Material =SMG P5-P6, SS2244, DIN41CrMo4, AISI 4140

# Range overview

| Universal & Feedmax™ | Page(s) | ∅ Range | Drill depth | Drill ∅ tolerance | Hole tolerance (1) | Surface finish (2) |
|---|---|---|---|---|---|---|
| **SD1103**  | 25, 26, 27, 28, 29, 30 | 3-20 mm *(0.118-0.787")* | ~ 3 x D | m7 | IT 8-9 | Ra 1-2 µm *(Ra 39-79 µin)* |
| **SD1103A**  | 31, 32, 33, 34, 35, 36 | 3-20 mm *(0.118-0.787")* | ~ 3 x D | m7 | IT 8-9 | Ra 1-2 µm *(Ra 39-79 µin)* |
| **SD1105A**  | 37, 38, 39, 40, 41, 42, 43, 44 | 3-20 mm *(0.118-0.787")* | ~ 5 x D | m7 | IT 8-9 | Ra 1-3 µm *(Ra 39-118 µin)* |
| **SD1108A**  | 45, 46, 47, 48, 49 | 3-20 mm *(0.118-0.787")* | ~ 8 x D | m7 | IT 9 | Ra 1-3 µm *(Ra 39-118 µin)* |
| **SD1112A**  | 50, 51, 52, 53 | 3-20 mm *(0.118-0.787")* | ~ 12 x D | m7 | IT 9 | Ra 1-3 µm *(Ra 39-118 µin)* |
| **SD203A-P**  | 55, 56, 57, 58, 59, 60 | 2-20 mm *(0.078-0.787")* | ~ 3 x D | m7 | IT 8-9 | Ra 1-2 µm *(Ra 39-79 µin)* |
| **SD205A-P**  | 61, 62, 63, 64, 65, 66, 67, 68 | 2-20 mm *(0.078-0.787")* | ~ 5 x D | m7 | IT 8-9 | Ra 1-2 µm *(Ra 39-79 µin)* |
| **SD206, SD206A**  | 69, 70 | 0,7-2,0 mm *(0.027-0.078")* | ~ 6 x D | h6 | IT 9 | Ra 1-2 µm *(Ra 39-79 µin)* |
| **SD207A-P**  | 71, 72, 73 | 3-20 mm *(0.118-0.787")* | ~ 7 x D | m7 | IT 9 | Ra 1-3 µm *(Ra 39-118 µin)* |

1) Variations can occur depending on the material and the cutting data used.
2) Drill depth, cutting data, coolant pressure and material can cause deterioration of the surface finish.

# Range overview

| Feedmax™ | Page(s) | ∅ Range | Drill depth | Drill ∅ tolerance | Hole tolerance (1) | Surface finish (2) |
|---|---|---|---|---|---|---|
| **SD216A**  | 74 | 3-12 mm *(0.118-0.472")* | ~ 16 x D | m7 | IT 9 | Ra 1-3 µm *(Ra 39-118 µin)* |
| **SD230A**  | 75 | 4-10 mm *(0.157-0.393")* | ~ 30 x D | m7 | IT 9 | Ra 1-3 µm *(Ra 39-118 µin)* |
| **SD2040A**  | 76 | 3-8 mm *(0.118-0.315")* | ~ 40 x D | e8 | IT 9-10 | Ra 1-3 µm *(Ra 39-118 µin)* |
| **SD2050A**  | 77 | 3-6,35 mm *(0.118-0.250")* | ~ 50 x D | e8 | IT 9 | Ra 1-3 µm *(Ra 39-118 µin)* |
| **SD2060A**  | 78 | 3-5 mm *(0.118-0.197")* | ~ 60 x D | e8 | IT 9 | Ra 1-3 µm *(Ra 39-118 µin)* |
| **SD245A**  | 79-80, 81 | 5-14 mm *(0.196-0.551")* | ~ 5 x D | m7 | IT 8 | Ra 1-2 µm *(Ra 39-79 µin)* |
| **SD265A**  | 83 | 6-16 mm *(0.236-0.630")* | ~ 5 x D | js6 | IT 7 | Ra 1-2 µm *(Ra 39-79 µin)* |
| **SD203A-MS Superalloys**  | 90, 91, 92, 93, 94 | 2-20 mm *(0.079-0.551")* | ~ 3 x D | m7 | IT 8-9 | Ra 1-2 µm *(Ra 39-79 µin)* |
| **SD205A-MS Superalloys**  | 95, 96, 97, 98 | 2-20 mm *(0.079-0.551")* | ~ 5 x D | m7 | IT 8-9 | Ra 1-2 µm *(Ra 39-79 µin)* |

1) Variations can occur depending on the material and the cutting data used.
2) Drill depth, cutting data, coolant pressure and material can cause deterioration of the surface finish.

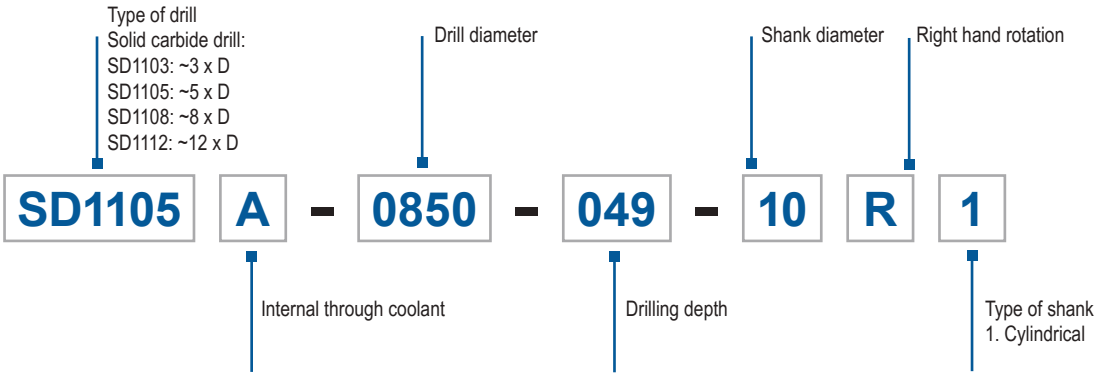
# Range overview

| Feedmax™ | Page(s) | ∅ Range | Drill depth | Drill ∅ tolerance | Hole tolerance (1) | Surface finish (2) |
|---|---|---|---|---|---|---|
| **SD203A-M**  | 99, 100, 101 | 3-20 mm *(0.098-0.551")* | ~ 3 x D | m7 | IT 8-9 | Ra 1-2 µm *(Ra 39-79 µin)* |
| **SD205A-M**  | 102, 103, 104 | 3-20 mm *(0.098-0.551")* | ~ 5 x D | m7 | IT 8-9 | Ra 1-2 µm *(Ra 39-79 µin)* |
| **SD203A-T, SD205A-T**  | 105, 106 | 3-20 mm *(0.118-0.787")* | ~ 3 x D, ~ 5 x D | m7 | IT 8-9 | Ra 1-2 µm *(Ra 39-79 µin)* |
| **SD203A-N**  | 107, 108 | 3-20 mm *(0.118-0.787")* | ~ 3 x D | m7 | IT 8-9 | Ra 1-2 µm *(Ra 39-79 µin)* |
| **SD205A-C1, -C2**  | 112-113 | 3,2-12,7 mm *(0.125-0.500")* | ~ 5 x D | m7 | IT 9 | – |
| **SD203-CX1**  | 114 | 3,26-9,53 mm *(0.128-0.375")* | ~ 5 x D | m7 | IT 9 | – |
| **SD22**  | 116, 117, 118, 119, 120, 121, 122 | 0,1-2,0 mm *(0.004-0.079")* | ~ 2 x D | 0,005/0 mm (+0.0002"/0) | – | – |
| **SD26**  | 123, 124, 125, 126, 127, 128, 129 | 0,1-2,0 mm *(0.004-0.079")* | ~ 6 x D | 0/-0,004 mm (0/-0.00016") | – | – |

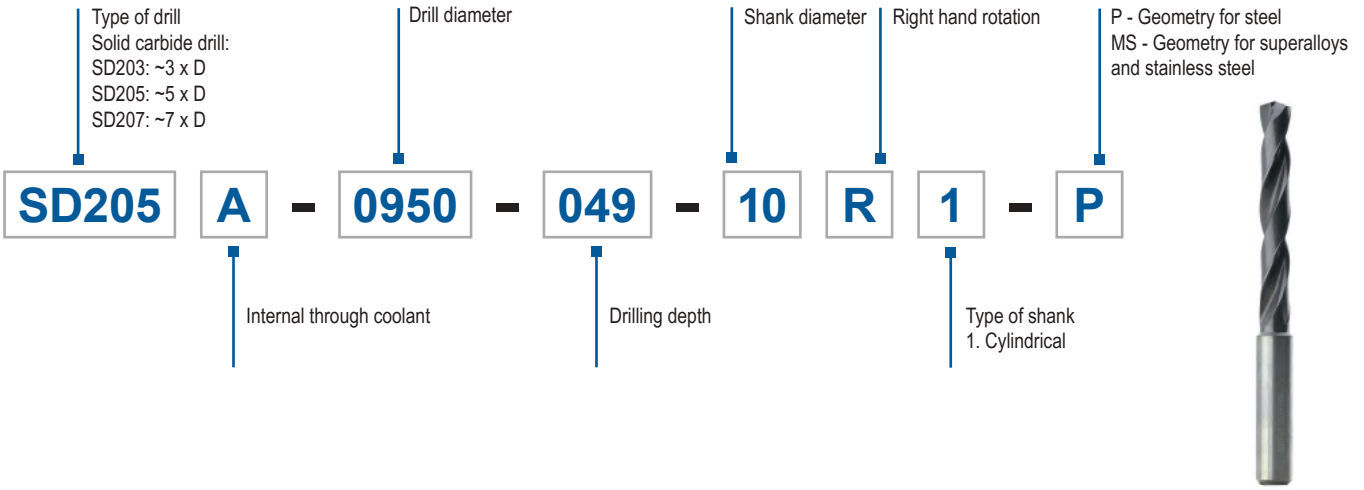
1) Variations can occur depending on the material and the cutting data used.
2) Drill depth, cutting data, coolant pressure and material can cause deterioration of the surface finish.

# Code keys

## Universal

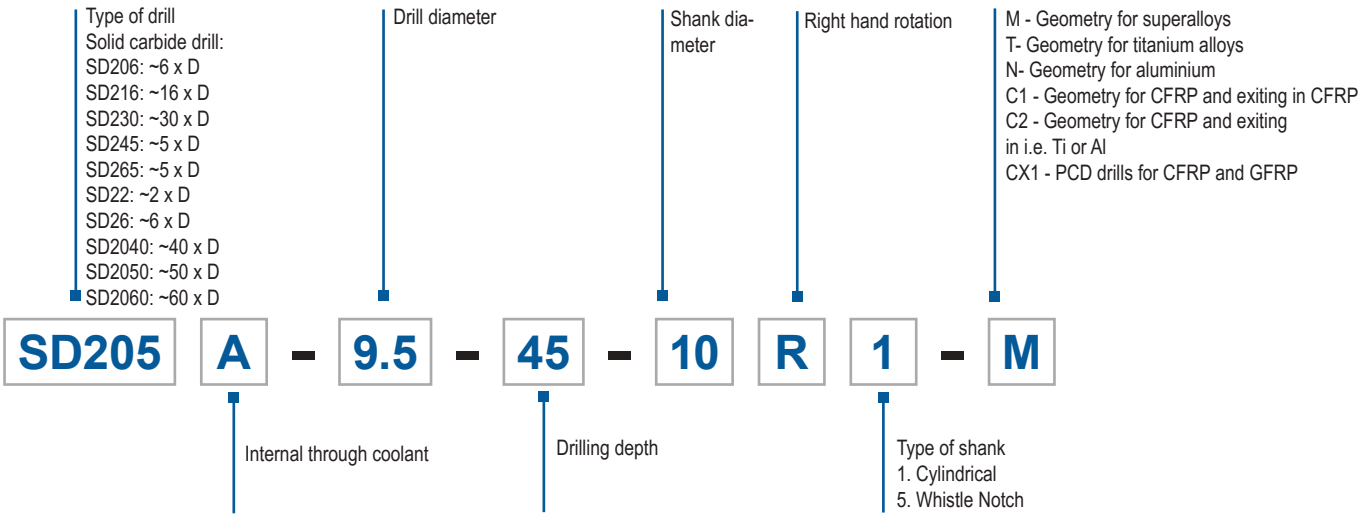



## Feedmax™






## Feedmax™



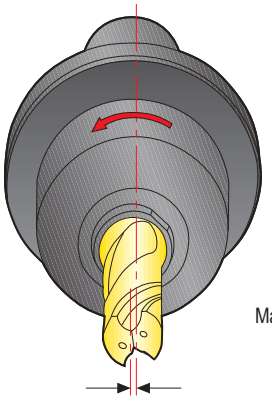
# Set up

**Holding/run-Out**
Drills with cylindrical shanks can be used with Shrinkfitholder, hydraulic chucks or collet chucks.
Keep the total indicated run-out of the drill within 0,04 mm (0.0016”) measured in the spindle.
For best result keep run-out 0,02 mm (0.0008”).

**Stability**
The stability of the application is important to obtain the best tool life and hole accuracy.
Check the condition of the machine spindle, fixture and fixturing of the component to secure maximum stability and rigidity.
Unstable conditions can cause tool breakages.

**Tool Life**
Drills should not be used with flank wear exceeding 0,1-0,3 mm (0.004-0.012”) measured at the largest point.

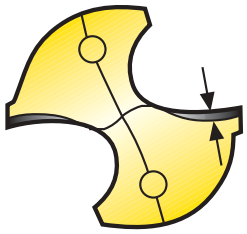
## Recommended Tool Holders



Max. 0,04 mm (0.0016”)

For best result use holders:
Type 5603 - Shrinkfit holders, DIN type
Type 5834 - Hydraulic chucks
Type 5672 - High precision collet chucks
For more information see Tooling Systems catalog

0,1-0,3 mm (0.004-0.012”)



**Shrinkfit holder**

(For cylindrical, R1 shanks only)



**Hydraulic chuck**

(For cylindrical, R1 shanks only)



**High precision collet chucks**

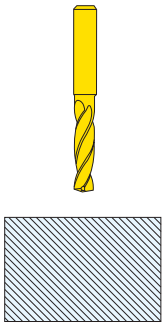
(For cylindrical, R1 shanks only)



# Machining methods

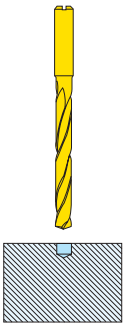
## Hole entrance on a machined surface

3-15 x D



No pre-drilling or entrance feed needed.

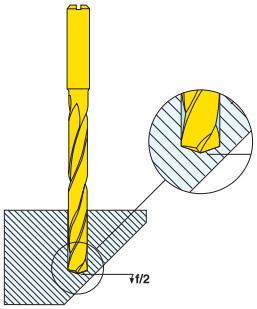
> 16 x D



When using a longer drill it's recommended to drill a pilot hole.

## Angled Hole Exits

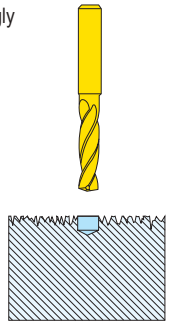
Before hole exit reduce the feed/rev by 50%.




Or use SD245A drills.

## Irregular/angled Hole entrance

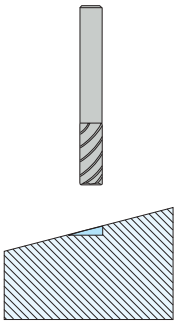
If irregular or angle entrance use pre operations accordingly



Regular hole entrance

Pre drill with a short standard Feedmax.

Pre-machining alternatives

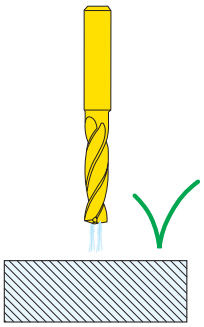


Angle-hole entrance

Machine a flat using an end mill from the Seco range.

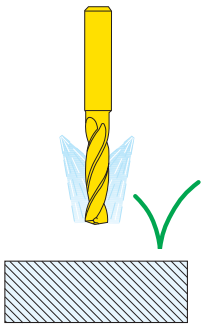
## Coolant Recommendations

1.



First choice

2.



≤ 5 x D

1. Coolant pressure*
Minimum recommended coolant pressure 10 bar with ≤ 5 x D
Minimum recommended coolant pressure 30 bar with > 5 x D
Minimum recommended coolant pressure 40 bar with > 16 x D

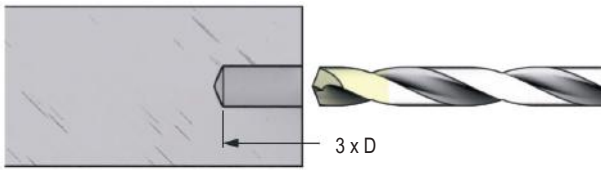
2. Coolant mix
Recommended emulsion mix 6-8%.
When drilling in stainless steels, superalloys and high strength steels a mix of 10% is recommended.

*If lower coolant pressure is used, adjust by reducing cutting data accordingly.

# Machining strategy – Productivity

**SD216A (16 x D) to SD2040A (40 x D)**

## 1. Pilot drilling

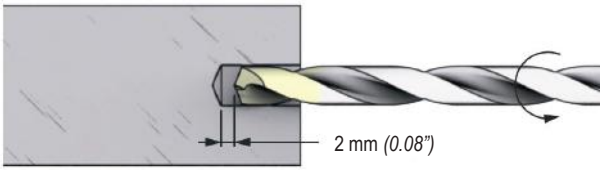





≥10 bar
ON

- SD203A

## 2. Feeding in

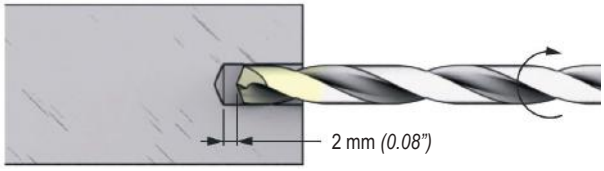





OFF

- Up to SD2040A
- With counter clockwise rotation and stop 2 mm above hole depth
- $n_{max}$ = 100 rpm
- $v_f$ = 1000 mm/min

## 3. Change spindle rotation

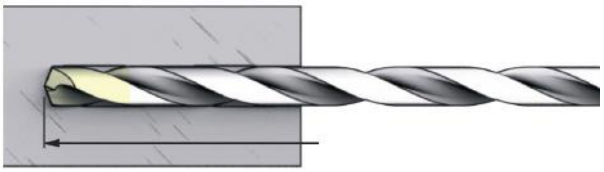





≥30 bar
ON

- Up to SD2040A
- Change rotation to clockwise and start coolant

## 4. Deep-hole drilling

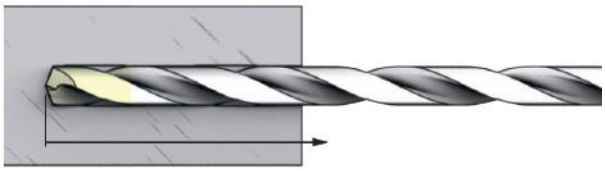




≥30 bar
ON

- Up to SD2040A
- $v_c$ = 100%
- $v_f$ = 100%

## 5. Retracting





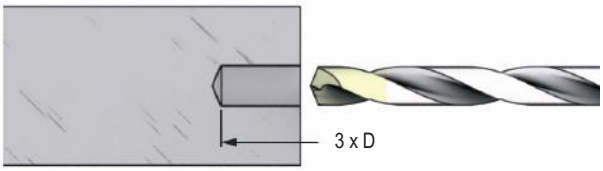
OFF

- Up to SD2040A
- $n_{max}$ = 100 rpm
- $v_f$ = 1000 mm/min

# Machining strategy – Tool-cost saving

**SD230A (30 x D) to SD2060A (60 x D)**

## 1. Pilot drilling

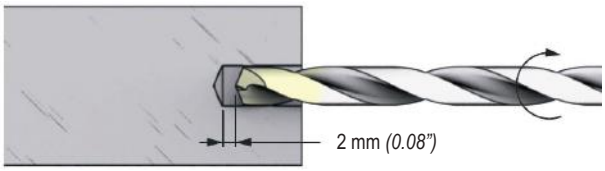





≥10 bar
ON

- SD203A

## 2. Feeding in

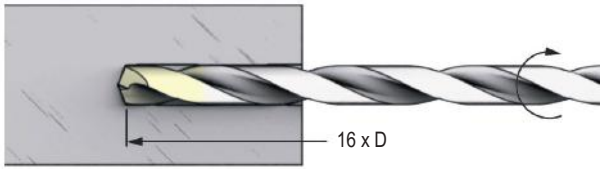





OFF

- SD216A
- With clockwise rotation and stop 2 mm above hole depth
- $n_{max}$ = 100 rpm
- $v_f$ = 1000 mm/min

## 3. Pre drilling

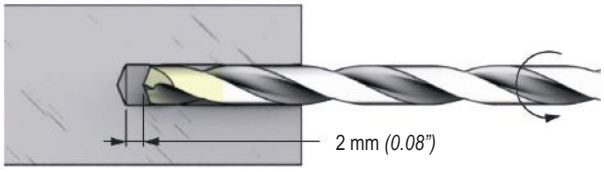





≥10 bar
ON

- SD216A
- $v_c$ = 100%
- $v_f$ = 100%

## 4. Feeding in

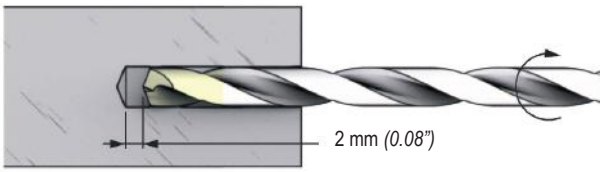





OFF

- SD230A - SD2060A
- With counter clockwise rotation and stop 2 mm above hole depth
- $n_{max}$ = 100 rpm
- $v_f$ = 1000 mm/min

## 5. Change spindle rotation

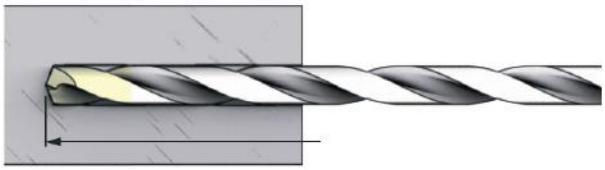





≥30 bar
ON

- SD230A - SD2060A
- Change rotation to clockwise and start coolant

## 6. Deep-hole drilling

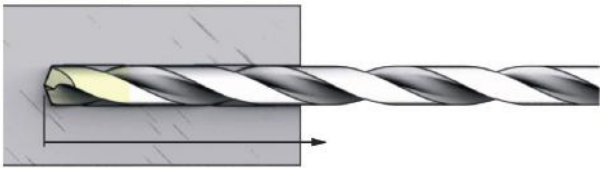




≥30 bar
ON

- SD230A - SD2060A
- $v_c$ = 100%
- $v_f$ = 100%

## 7. Retracting





OFF

- SD230A - SD2060A
- $n_{max}$ = 100 rpm
- $v_f$ = 1000 mm/min

# Chamfer module mounting instructions

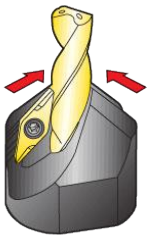
**1.**



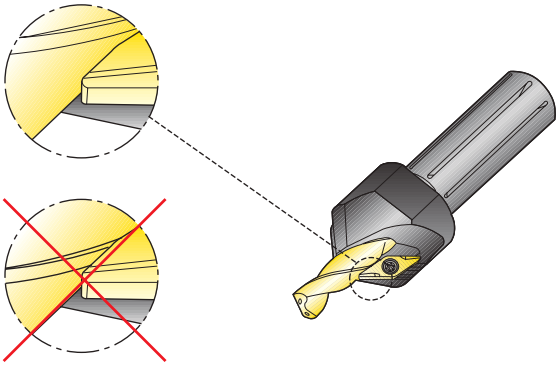
**2.**

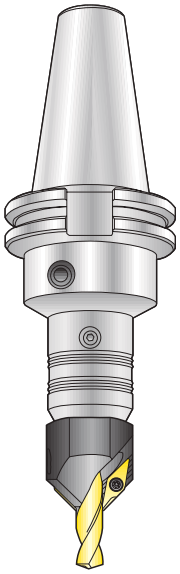


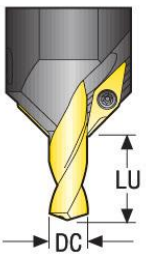
**3.**



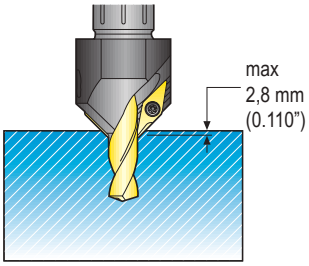
**4.**








**Maximum chamfer depth**




| Drill diameter DC | | LU drilling depth (min-max) SD1103 / SD203A | | SD1105 / SD205A | | SD207A | |
|---|---|---|---|---|---|---|---|
| mm | *inch* | mm | *inch* | mm | *inch* | mm | *inch* |
| 4,00-4,75 | *.157-.187* | 4-17 | *.157-.669* | 10-27 | *.394-1.063* | 30-45 | *1.181-1.772* |
| 4,76-6,00 | *.187-.236* | 6-20 | *.236-.787* | 18-32 | *.709-1.260* | 30-45 | *1.181-1.772* |
| 6,01-8,00 | *.241-.315* | 15-27 | *.590-1.063* | 28-42 | *1.102-1.653* | 42-57 | *1.653-2.244* |
| 8,01-10,00 | *.315-.394* | 17-31 | *.669-1.220* | 34-48 | *1.338-1.890* | 47-62 | *1.850-2.441* |
| 10,01-12,00 | *.394-.472* | 21-36 | *.826-1.417* | 40-56 | *1.575-2.205* | 57-72 | *2.244-2.835* |
| 12,01-14,00 | *.473-.551* | 22-37 | *.866-1.457* | 43-59 | *1.693-2.323* | 68-83 | *2.677-3.268* |
| 14,01-16,00 | *.552-.630* | 23-39 | *.906-1.535* | 44-60 | *1.732-2.362* | 76-92 | *2.992-3.622* |

To be used with cylindrical shank only (R1).



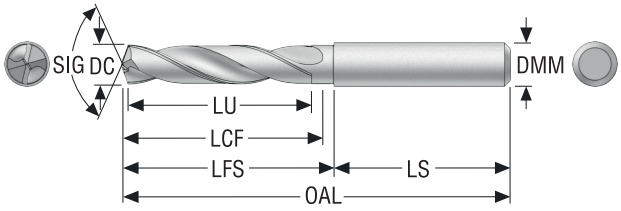
# Seco Universal – Single diameter drills

Seco Universal solid carbide drills are a cost effective and versatile solution with a perfect fit for small and medium batch production. The Seco Universal drills are suitable for most applications across all industry segments.

- Multi-purpose, 4-facett point geometry that provides excellent centering capability
- Highly wear resistant TiAlN coating secures for long tool life
- Can be used in conjunction with Threadmaster™ Tap and in pre-bore operations with Nanofix™/ Precimaster™ Plus

# SD1103

Drilling depth ~ 3 x D – Metric/Inch






- Cylindrical shank DIN 6537A
- DC tolerance m7
- External coolant
- For cutting data see page(s) 140
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD1103-0300-014-06R1<br>*SD_DRILL_3.0MM_3XD* | 02898974 | 3,0<br>*0.118* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0310-014-06R1<br>*SD_DRILL_3.1MM_3XD* | 02898975 | 3,1<br>*0.122* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0318-014-06R1<br>*SD_DRILL_1/8_3XD* | 02898976 | 3,175<br>*0.125* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0320-014-06R1<br>*SD_DRILL_3.2MM_3XD* | 02898977 | 3,2<br>*0.126* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0325-014-06R1<br>*SD_DRILL_3.25MM_3XD* | 02898978 | 3,25<br>*0.128* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0330-014-06R1<br>*SD_DRILL_3.3MM_3XD* | 02898979 | 3,3<br>*0.130* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0340-014-06R1<br>*SD_DRILL_3.4MM_3XD* | 02898980 | 3,4<br>*0.134* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0350-014-06R1<br>*SD_DRILL_3.5MM_3XD* | 02898981 | 3,5<br>*0.138* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0357-014-06R1<br>*SD_DRILL_9/64_3XD* | 02898982 | 3,572<br>*0.141* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0360-014-06R1<br>*SD_DRILL_3.6MM_3XD* | 02898983 | 3,6<br>*0.142* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0365-014-06R1<br>*SD_DRILL_3.65MM_3XD* | 02898984 | 3,65<br>*0.144* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0370-014-06R1<br>*SD_DRILL_3.7MM_3XD* | 02898985 | 3,7<br>*0.146* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0380-017-06R1<br>*SD_DRILL_3.8MM_3XD* | 02898986 | 3,8<br>*0.150* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0390-017-06R1<br>*SD_DRILL_3.9MM_3XD* | 02898987 | 3,9<br>*0.154* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0397-017-06R1<br>*SD_DRILL_5/32_3XD* | 02898988 | 3,969<br>*0.156* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0400-017-06R1<br>*SD_DRILL_4.0MM_3XD* | 02898989 | 4,0<br>*0.157* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0410-017-06R1<br>*SD_DRILL_4.1MM_3XD* | 02898990 | 4,1<br>*0.161* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0420-017-06R1<br>*SD_DRILL_4.2MM_3XD* | 02898991 | 4,2<br>*0.165* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0430-017-06R1<br>*SD_DRILL_4.3MM_3XD* | 02898992 | 4,3<br>*0.169* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0437-017-06R1<br>*SD_DRILL_11/64_3XD* | 02898993 | 4,366<br>*0.172* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0440-017-06R1<br>*SD_DRILL_4.4MM_3XD* | 02898994 | 4,4<br>*0.173* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD1103-0450-017-06R1<br>*SD_DRILL_4.5MM_3XD* | 02898995 | 4,5<br>*0.177* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0460-017-06R1<br>*SD_DRILL_4.6MM_3XD* | 02898996 | 4,6<br>*0.181* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0465-017-06R1<br>*SD_DRILL_4.65MM_3XD* | 02898997 | 4,65<br>*0.183* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0470-017-06R1<br>*SD_DRILL_4.7MM_3XD* | 02898998 | 4,7<br>*0.185* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0476-020-06R1<br>*SD_DRILL_3/16_3XD* | 02898999 | 4,763<br>*0.188* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0480-020-06R1<br>*SD_DRILL_4.8MM_3XD* | 02899000 | 4,8<br>*0.189* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0490-020-06R1<br>*SD_DRILL_4.9MM_3XD* | 02899001 | 4,9<br>*0.193* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0500-020-06R1<br>*SD_DRILL_5.0MM_3XD* | 02899002 | 5,0<br>*0.197* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0510-020-06R1<br>*SD_DRILL_5.1MM_3XD* | 02899003 | 5,1<br>*0.201* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0516-020-06R1<br>*SD_DRILL_13/64_3XD* | 02899004 | 5,159<br>*0.203* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0520-020-06R1<br>*SD_DRILL_5.2MM_3XD* | 02899005 | 5,2<br>*0.205* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0530-020-06R1<br>*SD_DRILL_5.3MM_3XD* | 02899006 | 5,3<br>*0.209* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0540-020-06R1<br>*SD_DRILL_5.4MM_3XD* | 02899007 | 5,4<br>*0.213* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0550-020-06R1<br>*SD_DRILL_5.5MM_3XD* | 02899008 | 5,5<br>*0.217* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0555-020-06R1<br>*SD_DRILL_5.55MM_3XD* | 02899009 | 5,55<br>*0.219* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0556-020-06R1<br>*SD_DRILL_7/32_3XD* | 02899010 | 5,556<br>*0.219* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0560-020-06R1<br>*SD_DRILL_5.6MM_3XD* | 02899011 | 5,6<br>*0.220* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0570-020-06R1<br>*SD_DRILL_5.7MM_3XD* | 02899012 | 5,7<br>*0.224* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0580-020-06R1<br>*SD_DRILL_5.8MM_3XD* | 02899013 | 5,8<br>*0.228* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0590-020-06R1<br>*SD_DRILL_5.9MM_3XD* | 02899014 | 5,9<br>*0.232* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0595-020-06R1<br>*SD_DRILL_15/64_3XD* | 02899015 | 5,953<br>*0.234* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0600-020-06R1<br>*SD_DRILL_6.0MM_3XD* | 02899016 | 6,0<br>*0.236* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103-0610-024-08R1<br>*SD_DRILL_6.1MM_3XD* | 02899017 | 6,1<br>*0.240* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103-0620-024-08R1<br>*SD_DRILL_6.2MM_3XD* | 02899018 | 6,2<br>*0.244* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103-0630-024-08R1<br>*SD_DRILL_6.3MM_3XD* | 02899019 | 6,3<br>*0.248* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103-0635-024-08R1<br>*SD_DRILL_1/4_3XD* | 02899020 | 6,35<br>*0.250* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103-0640-024-08R1<br>*SD_DRILL_6.4MM_3XD* | 02899021 | 6,4<br>*0.252* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103-0650-024-08R1<br>*SD_DRILL_6.5MM_3XD* | 02899022 | 6,5<br>*0.256* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103-0660-024-08R1<br>*SD_DRILL_6.6MM_3XD* | 02899024 | 6,6<br>*0.260* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103-0675-024-08R1<br>*SD_DRILL_17/64_3XD* | 02899025 | 6,747<br>*0.266* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103-0680-024-08R1<br>*SD_DRILL_6.8MM_3XD* | 02899026 | 6,8<br>*0.268* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD1103-0690-024-08R1<br>*SD_DRILL_6.9MM_3XD* | 02899027 | 6,9<br>*0.272* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103-0700-024-08R1<br>*SD_DRILL_7.0MM_3XD* | 02899028 | 7,0<br>*0.276* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103-0710-029-08R1<br>*SD_DRILL_7.1MM_3XD* | 02899029 | 7,1<br>*0.280* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103-0714-029-08R1<br>*SD_DRILL_9/32_3XD* | 02899030 | 7,144<br>*0.281* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103-0720-029-08R1<br>*SD_DRILL_7.2MM_3XD* | 02899031 | 7,2<br>*0.283* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103-0730-029-08R1<br>*SD_DRILL_7.3MM_3XD* | 02899032 | 7,3<br>*0.287* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103-0740-029-08R1<br>*SD_DRILL_7.4MM_3XD* | 02899033 | 7,4<br>*0.291* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103-0750-029-08R1<br>*SD_DRILL_7.5MM_3XD* | 02899034 | 7,5<br>*0.295* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103-0754-029-08R1<br>*SD_DRILL_19/64_3XD* | 02899035 | 7,541<br>*0.297* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103-0755-029-08R1<br>*SD_DRILL_7.55MM_3XD* | 02899036 | 7,55<br>*0.297* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103-0760-029-08R1<br>*SD_DRILL_7.6MM_3XD* | 02899037 | 7,6<br>*0.299* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103-0770-029-08R1<br>*SD_DRILL_7.7MM_3XD* | 02899038 | 7,7<br>*0.303* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103-0780-029-08R1<br>*SD_DRILL_7.8MM_3XD* | 02899040 | 7,8<br>*0.307* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103-0790-029-08R1<br>*SD_DRILL_7.9MM_3XD* | 02899041 | 7,9<br>*0.311* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103-0794-029-08R1<br>*SD_DRILL_5/16_3XD* | 02899042 | 7,938<br>*0.313* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103-0800-029-08R1<br>*SD_DRILL_8.0MM_3XD* | 02899043 | 8,0<br>*0.315* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103-0810-035-10R1<br>*SD_DRILL_8.1MM_3XD* | 02899044 | 8,1<br>*0.319* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103-0820-035-10R1<br>*SD_DRILL_8.2MM_3XD* | 02899045 | 8,2<br>*0.323* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103-0830-035-10R1<br>*SD_DRILL_8.3MM_3XD* | 02899046 | 8,3<br>*0.327* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103-0833-035-10R1<br>*SD_DRILL_21/64_3XD* | 02899047 | 8,334<br>*0.328* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103-0840-035-10R1<br>*SD_DRILL_8.4MM_3XD* | 02899048 | 8,4<br>*0.331* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103-0850-035-10R1<br>*SD_DRILL_8.5MM_3XD* | 02899049 | 8,5<br>*0.335* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103-0860-035-10R1<br>*SD_DRILL_8.6MM_3XD* | 02899050 | 8,6<br>*0.339* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103-0870-035-10R1<br>*SD_DRILL_8.7MM_3XD* | 02899051 | 8,7<br>*0.343* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103-0873-035-10R1<br>*SD_DRILL_11/32_3XD* | 02899052 | 8,731<br>*0.344* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103-0880-035-10R1<br>*SD_DRILL_8.8MM_3XD* | 02899053 | 8,8<br>*0.346* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103-0890-035-10R1<br>*SD_DRILL_8.9MM_3XD* | 02899054 | 8,9<br>*0.350* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103-0900-035-10R1<br>*SD_DRILL_9.0MM_3XD* | 02899055 | 9,0<br>*0.354* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103-0910-035-10R1<br>*SD_DRILL_9.1MM_3XD* | 02899056 | 9,1<br>*0.358* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103-0913-035-10R1<br>*SD_DRILL_23/64_3XD* | 02899058 | 9,128<br>*0.359* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103-0920-035-10R1<br>*SD_DRILL_9.2MM_3XD* | 02899059 | 9,2<br>*0.362* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |

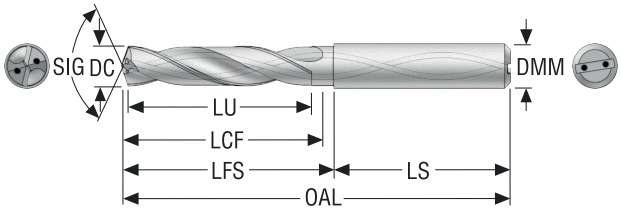
| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD1103-0930-035-10R1<br>*SD_DRILL_9.3MM_3XD* | 02899060 | 9,3<br>*0.366* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103-0940-035-10R1<br>*SD_DRILL_9.4MM_3XD* | 02899061 | 9,4<br>*0.370* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103-0950-035-10R1<br>*SD_DRILL_9.5MM_3XD* | 02899062 | 9,5<br>*0.374* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103-0953-035-10R1<br>*SD_DRILL_3/8_3XD* | 02899063 | 9,525<br>*0.375* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103-0955-035-10R1<br>*SD_DRILL_9.55MM_3XD* | 02899064 | 9,55<br>*0.376* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103-0960-035-10R1<br>*SD_DRILL_9.6MM_3XD* | 02899065 | 9,6<br>*0.378* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103-0970-035-10R1<br>*SD_DRILL_9.7MM_3XD* | 02899066 | 9,7<br>*0.382* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103-0980-035-10R1<br>*SD_DRILL_9.8MM_3XD* | 02899067 | 9,8<br>*0.386* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103-0990-035-10R1<br>*SD_DRILL_9.9MM_3XD* | 02899068 | 9,9<br>*0.390* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103-0992-035-10R1<br>*SD_DRILL_25/64_3XD* | 02899069 | 9,922<br>*0.391* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103-1000-035-10R1<br>*SD_DRILL_10.0MM_3XD* | 02899070 | 10,0<br>*0.394* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103-1020-040-12R1<br>*SD_DRILL_10.2MM_3XD* | 02899071 | 10,2<br>*0.402* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103-1032-040-12R1<br>*SD_DRILL_13/32_3XD* | 02899072 | 10,319<br>*0.406* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103-1040-040-12R1<br>*SD_DRILL_10.4MM_3XD* | 02899073 | 10,4<br>*0.409* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103-1050-040-12R1<br>*SD_DRILL_10.5MM_3XD* | 02899074 | 10,5<br>*0.413* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103-1060-040-12R1<br>*SD_DRILL_10.6MM_3XD* | 02899075 | 10,6<br>*0.417* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103-1072-040-12R1<br>*SD_DRILL_27/64_3XD* | 02899076 | 10,716<br>*0.422* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103-1080-040-12R1<br>*SD_DRILL_10.8MM_3XD* | 02899077 | 10,8<br>*0.425* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103-1090-040-12R1<br>*SD_DRILL_10.9MM_3XD* | 02899078 | 10,9<br>*0.429* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103-1100-040-12R1<br>*SD_DRILL_11.0MM_3XD* | 02899079 | 11,0<br>*0.433* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103-1110-040-12R1<br>*SD_DRILL_11.1MM_3XD* | 02899080 | 11,1<br>*0.437* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103-1111-040-12R1<br>*SD_DRILL_7/16_3XD* | 02899081 | 11,113<br>*0.438* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103-1120-040-12R1<br>*SD_DRILL_11.2MM_3XD* | 02899082 | 11,2<br>*0.441* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103-1130-040-12R1<br>*SD_DRILL_11.3MM_3XD* | 02899083 | 11,3<br>*0.445* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103-1140-040-12R1<br>*SD_DRILL_11.4MM_3XD* | 02899084 | 11,4<br>*0.449* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103-1150-040-12R1<br>*SD_DRILL_11.5MM_3XD* | 02899085 | 11,5<br>*0.453* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103-1151-040-12R1<br>*SD_DRILL_29/64_3XD* | 02899086 | 11,509<br>*0.453* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103-1155-040-12R1<br>*SD_DRILL_11.55MM_3XD* | 02899087 | 11,55<br>*0.455* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103-1160-040-12R1<br>*SD_DRILL_11.6MM_3XD* | 02899088 | 11,6<br>*0.457* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103-1170-040-12R1<br>*SD_DRILL_11.7MM_3XD* | 02899089 | 11,7<br>*0.461* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103-1180-040-12R1<br>*SD_DRILL_11.8MM_3XD* | 02899090 | 11,8<br>*0.465* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD1103-1190-040-12R1<br>*SD_DRILL_11.9MM_3XD* | 02899091 | 11,9<br>*0.469* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103-1191-040-12R1<br>*SD_DRILL_15/32_3XD* | 02899092 | 11,906<br>*0.469* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103-1200-040-12R1<br>*SD_DRILL_12.0MM_3XD* | 02899093 | 12,0<br>*0.472* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103-1210-043-14R1<br>*SD_DRILL_12.1MM_3XD* | 02899094 | 12,1<br>*0.476* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103-1220-043-14R1<br>*SD_DRILL_12.2MM_3XD* | 02899095 | 12,2<br>*0.480* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103-1230-043-14R1<br>*SD_DRILL_31/64_3XD* | 02899096 | 12,303<br>*0.484* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103-1240-043-14R1<br>*SD_DRILL_12.4MM_3XD* | 02899097 | 12,4<br>*0.488* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103-1250-043-14R1<br>*SD_DRILL_12.5MM_3XD* | 02899098 | 12,5<br>*0.492* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103-1260-043-14R1<br>*SD_DRILL_12.6MM_3XD* | 02899099 | 12,6<br>*0.496* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103-1270-043-14R1<br>*SD_DRILL_1/2_3XD* | 02899100 | 12,7<br>*0.500* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103-1275-043-14R1<br>*SD_DRILL_12.75MM_3XD* | 02899101 | 12,75<br>*0.502* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103-1280-043-14R1<br>*SD_DRILL_12.8MM_3XD* | 02899102 | 12,8<br>*0.504* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103-1290-043-14R1<br>*SD_DRILL_12.9MM_3XD* | 02899103 | 12,9<br>*0.508* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103-1300-043-14R1<br>*SD_DRILL_13.0MM_3XD* | 02899104 | 13,0<br>*0.512* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103-1310-043-14R1<br>*SD_DRILL_33/64_3XD* | 02899105 | 13,1<br>*0.516* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103-1320-043-14R1<br>*SD_DRILL_13.2MM_3XD* | 02899106 | 13,2<br>*0.520* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103-1330-043-14R1<br>*SD_DRILL_13.3MM_3XD* | 02899107 | 13,3<br>*0.524* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103-1340-043-14R1<br>*SD_DRILL_13.4MM_3XD* | 02899108 | 13,4<br>*0.528* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103-1349-043-14R1<br>*SD_DRILL_17/32_3XD* | 02899109 | 13,494<br>*0.531* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103-1350-043-14R1<br>*SD_DRILL_13.5MM_3XD* | 02899110 | 13,5<br>*0.531* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103-1360-043-14R1<br>*SD_DRILL_13.6MM_3XD* | 02899111 | 13,6<br>*0.535* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103-1370-043-14R1<br>*SD_DRILL_13.7MM_3XD* | 02899112 | 13,7<br>*0.539* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103-1380-043-14R1<br>*SD_DRILL_13.8MM_3XD* | 02899113 | 13,8<br>*0.543* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103-1390-043-14R1<br>*SD_DRILL_35/64_3XD* | 02899114 | 13,9<br>*0.547* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103-1400-043-14R1<br>*SD_DRILL_14.0MM_3XD* | 02899115 | 14,0<br>*0.551* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103-1420-045-16R1<br>*SD_DRILL_14.2MM_3XD* | 02899116 | 14,2<br>*0.559* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1103-1429-045-16R1<br>*SD_DRILL_9/16_3XD* | 02899117 | 14,288<br>*0.563* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1103-1450-045-16R1<br>*SD_DRILL_14.5MM_3XD* | 02899119 | 14,5<br>*0.571* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1103-1470-045-16R1<br>*SD_DRILL_14.7MM_3XD* | 02899120 | 14,7<br>*0.579* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1103-1475-045-16R1<br>*SD_DRILL_14.75MM_3XD* | 02899121 | 14,75<br>*0.581* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1103-1480-045-16R1<br>*SD_DRILL_14.8MM_3XD* | 02899122 | 14,8<br>*0.583* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD1103-1500-045-16R1<br>*SD_DRILL_15.0MM_3XD* | 02899123 | 15,0<br>*0.591* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1103-1510-045-16R1<br>*SD_DRILL_15.1MM_3XD* | 02899124 | 15,1<br>*0.594* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1103-1530-045-16R1<br>*SD_DRILL_15.3MM_3XD* | 02899125 | 15,3<br>*0.602* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1103-1550-045-16R1<br>*SD_DRILL_15.5MM_3XD* | 02899126 | 15,5<br>*0.610* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1103-1570-045-16R1<br>*SD_DRILL_15.7MM_3XD* | 02899127 | 15,7<br>*0.618* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1103-1580-045-16R1<br>*SD_DRILL_15.8MM_3XD* | 02899128 | 15,8<br>*0.622* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1103-1588-045-16R1<br>*SD_DRILL_5/8_3XD* | 02899129 | 15,875<br>*0.625* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1103-1600-045-16R1<br>*SD_DRILL_16.0MM_3XD* | 02899130 | 16,0<br>*0.630* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1103-1650-051-18R1<br>*SD_DRILL_16.5MM_3XD* | 02899131 | 16,5<br>*0.650* | 51,0<br>*2.008* | 123,0<br>*4.843* | 75,0<br>*2.953* | 48,0<br>*1.890* | 73,0<br>*2.874* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1103-1700-051-18R1<br>*SD_DRILL_17.0MM_3XD* | 02899132 | 17,0<br>*0.669* | 51,0<br>*2.008* | 123,0<br>*4.843* | 75,0<br>*2.953* | 48,0<br>*1.890* | 73,0<br>*2.874* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1103-1750-051-18R1<br>*SD_DRILL_17.5MM_3XD* | 02899133 | 17,5<br>*0.689* | 51,0<br>*2.008* | 123,0<br>*4.843* | 75,0<br>*2.953* | 48,0<br>*1.890* | 73,0<br>*2.874* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1103-1800-051-18R1<br>*SD_DRILL_18.0MM_3XD* | 02899134 | 18,0<br>*0.709* | 51,0<br>*2.008* | 123,0<br>*4.843* | 75,0<br>*2.953* | 48,0<br>*1.890* | 73,0<br>*2.874* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1103-1850-055-20R1<br>*SD_DRILL_18.5MM_3XD* | 02899135 | 18,5<br>*0.728* | 55,0<br>*2.165* | 131,0<br>*5.157* | 81,0<br>*3.189* | 50,0<br>*1.969* | 79,0<br>*3.110* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1103-1900-055-20R1<br>*SD_DRILL_19.0MM_3XD* | 02899136 | 19,0<br>*0.748* | 55,0<br>*2.165* | 131,0<br>*5.157* | 81,0<br>*3.189* | 50,0<br>*1.969* | 79,0<br>*3.110* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1103-1905-055-20R1<br>*SD_DRILL_3/4_3XD* | 02899137 | 19,05<br>*0.750* | 55,0<br>*2.165* | 131,0<br>*5.157* | 81,0<br>*3.189* | 50,0<br>*1.969* | 79,0<br>*3.110* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1103-1950-055-20R1<br>*SD_DRILL_19.5MM_3XD* | 02899138 | 19,5<br>*0.768* | 55,0<br>*2.165* | 131,0<br>*5.157* | 81,0<br>*3.189* | 50,0<br>*1.969* | 79,0<br>*3.110* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1103-2000-055-20R1<br>*SD_DRILL_20.0MM_3XD* | 02899139 | 20,0<br>*0.787* | 55,0<br>*2.165* | 131,0<br>*5.157* | 81,0<br>*3.189* | 50,0<br>*1.969* | 79,0<br>*3.110* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |

# SD1103A

Drilling depth ~ 3 x D – Metric/Inch






- Cylindrical shank DIN 6537A
- DC tolerance m7
- Internal coolant
- For cutting data see page(s) 141
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD1103A-0300-014-06R1<br>*SD_DRILL_3.0MM_3XD_A* | 02898244 | 3,0<br>*0.118* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0310-014-06R1<br>*SD_DRILL_3.1MM_3XD_A* | 02898245 | 3,1<br>*0.122* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0318-014-06R1<br>*SD_DRILL_1/8_3XD_A* | 02898246 | 3,175<br>*0.125* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0320-014-06R1<br>*SD_DRILL_3.2MM_3XD_A* | 02898247 | 3,2<br>*0.126* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0325-014-06R1<br>*SD_DRILL_3.25MM_3XD_A* | 02898248 | 3,25<br>*0.128* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0330-014-06R1<br>*SD_DRILL_3.3MM_3XD_A* | 02898249 | 3,3<br>*0.130* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0340-014-06R1<br>*SD_DRILL_3.4MM_3XD_A* | 02898250 | 3,4<br>*0.134* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0350-014-06R1<br>*SD_DRILL_3.5MM_3XD_A* | 02898251 | 3,5<br>*0.138* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0357-014-06R1<br>*SD_DRILL_9/64_3XD_A* | 02898252 | 3,572<br>*0.141* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0360-014-06R1<br>*SD_DRILL_3.6MM_3XD_A* | 02898253 | 3,6<br>*0.142* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0365-014-06R1<br>*SD_DRILL_3.65MM_3XD_A* | 02898254 | 3,65<br>*0.144* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0370-014-06R1<br>*SD_DRILL_3.7MM_3XD_A* | 02898255 | 3,7<br>*0.146* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0380-017-06R1<br>*SD_DRILL_3.8MM_3XD_A* | 02898256 | 3,8<br>*0.150* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0390-017-06R1<br>*SD_DRILL_3.9MM_3XD_A* | 02898257 | 3,9<br>*0.154* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0397-017-06R1<br>*SD_DRILL_5/32_3XD_A* | 02898258 | 3,969<br>*0.156* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0400-017-06R1<br>*SD_DRILL_4.0MM_3XD_A* | 02898259 | 4,0<br>*0.157* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0410-017-06R1<br>*SD_DRILL_4.1MM_3XD_A* | 02898260 | 4,1<br>*0.161* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0420-017-06R1<br>*SD_DRILL_4.2MM_3XD_A* | 02898261 | 4,2<br>*0.165* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0430-017-06R1<br>*SD_DRILL_4.3MM_3XD_A* | 02898262 | 4,3<br>*0.169* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0437-017-06R1<br>*SD_DRILL_11/64_3XD_A* | 02898263 | 4,366<br>*0.172* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0450-017-06R1<br>*SD_DRILL_4.5MM_3XD_A* | 02898264 | 4,5<br>*0.177* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD1103A-0460-017-06R1<br>*SD_DRILL_4.6MM_3XD_A* | 02898265 | 4,6<br>*0.181* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0465-017-06R1<br>*SD_DRILL_4.65MM_3XD_A* | 02898266 | 4,65<br>*0.183* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0470-017-06R1<br>*SD_DRILL_4.7MM_3XD_A* | 02898267 | 4,7<br>*0.185* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0476-020-06R1<br>*SD_DRILL_3/16_3XD_A* | 02898268 | 4,763<br>*0.188* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0480-020-06R1<br>*SD_DRILL_4.8MM_3XD_A* | 02898269 | 4,8<br>*0.189* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0490-020-06R1<br>*SD_DRILL_4.9MM_3XD_A* | 02898270 | 4,9<br>*0.193* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0500-020-06R1<br>*SD_DRILL_5.0MM_3XD_A* | 02898271 | 5,0<br>*0.197* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0510-020-06R1<br>*SD_DRILL_5.1MM_3XD_A* | 02898272 | 5,1<br>*0.201* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0516-020-06R1<br>*SD_DRILL_13/64_3XD_A* | 02898273 | 5,159<br>*0.203* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0520-020-06R1<br>*SD_DRILL_5.2MM_3XD_A* | 02898275 | 5,2<br>*0.205* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0530-020-06R1<br>*SD_DRILL_5.3MM_3XD_A* | 02898276 | 5,3<br>*0.209* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0540-020-06R1<br>*SD_DRILL_5.4MM_3XD_A* | 02898277 | 5,4<br>*0.213* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0550-020-06R1<br>*SD_DRILL_5.5MM_3XD_A* | 02898278 | 5,5<br>*0.217* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0555-020-06R1<br>*SD_DRILL_5.55MM_3XD_A* | 02898279 | 5,55<br>*0.219* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0556-020-06R1<br>*SD_DRILL_7/32_3XD_A* | 02898280 | 5,556<br>*0.219* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0560-020-06R1<br>*SD_DRILL_5.6MM_3XD_A* | 02898281 | 5,6<br>*0.220* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0570-020-06R1<br>*SD_DRILL_5.7MM_3XD_A* | 02898282 | 5,7<br>*0.224* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0580-020-06R1<br>*SD_DRILL_5.8MM_3XD_A* | 02898283 | 5,8<br>*0.228* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0590-020-06R1<br>*SD_DRILL_5.9MM_3XD_A* | 02898284 | 5,9<br>*0.232* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0595-020-06R1<br>*SD_DRILL_15/64_3XD_A* | 02898285 | 5,953<br>*0.234* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0600-020-06R1<br>*SD_DRILL_6.0MM_3XD_A* | 02898286 | 6,0<br>*0.236* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1103A-0610-024-08R1<br>*SD_DRILL_6.1MM_3XD_A* | 02898287 | 6,1<br>*0.240* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103A-0620-024-08R1<br>*SD_DRILL_6.2MM_3XD_A* | 02898288 | 6,2<br>*0.244* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103A-0630-024-08R1<br>*SD_DRILL_6.3MM_3XD_A* | 02898289 | 6,3<br>*0.248* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103A-0635-024-08R1<br>*SD_DRILL_1/4_3XD_A* | 02898290 | 6,35<br>*0.250* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103A-0640-024-08R1<br>*SD_DRILL_6.4MM_3XD_A* | 02898291 | 6,4<br>*0.252* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103A-0650-024-08R1<br>*SD_DRILL_6.5MM_3XD_A* | 02898292 | 6,5<br>*0.256* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103A-0660-024-08R1<br>*SD_DRILL_6.6MM_3XD_A* | 02898293 | 6,6<br>*0.260* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103A-0670-024-08R1<br>*SD_DRILL_6.7MM_3XD_A* | 02898294 | 6,7<br>*0.264* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103A-0675-024-08R1<br>*SD_DRILL_17/64_3XD_A* | 02898295 | 6,747<br>*0.266* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103A-0680-024-08R1<br>*SD_DRILL_6.8MM_3XD_A* | 02898296 | 6,8<br>*0.268* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD1103A-0690-024-08R1<br>*SD_DRILL_6.9MM_3XD_A* | 02898297 | 6,9<br>*0.272* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103A-0700-024-08R1<br>*SD_DRILL_7.0MM_3XD_A* | 02898298 | 7,0<br>*0.276* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103A-0710-029-08R1<br>*SD_DRILL_7.1MM_3XD_A* | 02898299 | 7,1<br>*0.280* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103A-0714-029-08R1<br>*SD_DRILL_9/32_3XD_A* | 02898300 | 7,144<br>*0.281* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103A-0720-029-08R1<br>*SD_DRILL_7.2MM_3XD_A* | 02898301 | 7,2<br>*0.283* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103A-0730-029-08R1<br>*SD_DRILL_7.3MM_3XD_A* | 02898302 | 7,3<br>*0.287* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103A-0740-029-08R1<br>*SD_DRILL_7.4MM_3XD_A* | 02898303 | 7,4<br>*0.291* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103A-0750-029-08R1<br>*SD_DRILL_7.5MM_3XD_A* | 02898304 | 7,5<br>*0.295* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103A-0754-029-08R1<br>*SD_DRILL_19/64_3XD_A* | 02898305 | 7,541<br>*0.297* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103A-0755-029-08R1<br>*SD_DRILL_7.55MM_3XD_A* | 02898306 | 7,55<br>*0.297* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103A-0760-029-08R1<br>*SD_DRILL_7.6MM_3XD_A* | 02898307 | 7,6<br>*0.299* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103A-0770-029-08R1<br>*SD_DRILL_7.7MM_3XD_A* | 02898308 | 7,7<br>*0.303* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103A-0780-029-08R1<br>*SD_DRILL_7.8MM_3XD_A* | 02898309 | 7,8<br>*0.307* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103A-0790-029-08R1<br>*SD_DRILL_7.9MM_3XD_A* | 02898310 | 7,9<br>*0.311* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103A-0794-029-08R1<br>*SD_DRILL_5/16_3XD_A* | 02898311 | 7,938<br>*0.313* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103A-0800-029-08R1<br>*SD_DRILL_8.0MM_3XD_A* | 02898312 | 8,0<br>*0.315* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1103A-0810-035-10R1<br>*SD_DRILL_8.1MM_3XD_A* | 02898313 | 8,1<br>*0.319* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103A-0820-035-10R1<br>*SD_DRILL_8.2MM_3XD_A* | 02898314 | 8,2<br>*0.323* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103A-0830-035-10R1<br>*SD_DRILL_8.3MM_3XD_A* | 02898315 | 8,3<br>*0.327* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103A-0833-035-10R1<br>*SD_DRILL_21/64_3XD_A* | 02898316 | 8,334<br>*0.328* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103A-0840-035-10R1<br>*SD_DRILL_8.4MM_3XD_A* | 02898317 | 8,4<br>*0.331* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103A-0850-035-10R1<br>*SD_DRILL_8.5MM_3XD_A* | 02898318 | 8,5<br>*0.335* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103A-0860-035-10R1<br>*SD_DRILL_8.6MM_3XD_A* | 02898319 | 8,6<br>*0.339* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103A-0870-035-10R1<br>*SD_DRILL_8.7MM_3XD_A* | 02898320 | 8,7<br>*0.343* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103A-0873-035-10R1<br>*SD_DRILL_11/32_3XD_A* | 02898321 | 8,731<br>*0.344* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103A-0880-035-10R1<br>*SD_DRILL_8.8MM_3XD_A* | 02898322 | 8,8<br>*0.346* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103A-0890-035-10R1<br>*SD_DRILL_8.9MM_3XD_A* | 02898323 | 8,9<br>*0.350* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103A-0900-035-10R1<br>*SD_DRILL_9.0MM_3XD_A* | 02898324 | 9,0<br>*0.354* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103A-0910-035-10R1<br>*SD_DRILL_9.1MM_3XD_A* | 02898325 | 9,1<br>*0.358* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103A-0913-035-10R1<br>*SD_DRILL_23/64_3XD_A* | 02898326 | 9,128<br>*0.359* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103A-0920-035-10R1<br>*SD_DRILL_9.2MM_3XD_A* | 02898327 | 9,2<br>*0.362* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |

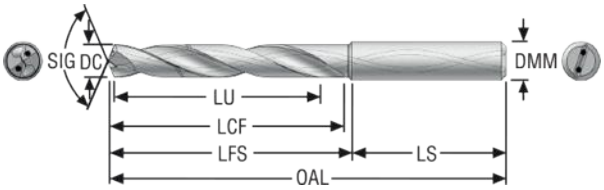
| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD1103A-0930-035-10R1<br>*SD_DRILL_9.3MM_3XD_A* | 02898328 | 9,3<br>*0.366* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103A-0940-035-10R1<br>*SD_DRILL_9.4MM_3XD_A* | 02898329 | 9,4<br>*0.370* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103A-0950-035-10R1<br>*SD_DRILL_9.5MM_3XD_A* | 02898330 | 9,5<br>*0.374* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103A-0953-035-10R1<br>*SD_DRILL_3/8_3XD_A* | 02898331 | 9,525<br>*0.375* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103A-0955-035-10R1<br>*SD_DRILL_9.55MM_3XD_A* | 02898332 | 9,55<br>*0.376* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103A-0960-035-10R1<br>*SD_DRILL_9.6MM_3XD_A* | 02898333 | 9,6<br>*0.378* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103A-0970-035-10R1<br>*SD_DRILL_9.7MM_3XD_A* | 02898334 | 9,7<br>*0.382* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103A-0980-035-10R1<br>*SD_DRILL_9.8MM_3XD_A* | 02898335 | 9,8<br>*0.386* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103A-0990-035-10R1<br>*SD_DRILL_9.9MM_3XD_A* | 02898336 | 9,9<br>*0.390* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103A-0992-035-10R1<br>*SD_DRILL_25/64_3XD_A* | 02898337 | 9,922<br>*0.391* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103A-1000-035-10R1<br>*SD_DRILL_10.0MM_3XD_A* | 02898338 | 10,0<br>*0.394* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1103A-1020-040-12R1<br>*SD_DRILL_10.2MM_3XD_A* | 02898339 | 10,2<br>*0.402* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103A-1032-040-12R1<br>*SD_DRILL_13/32_3XD_A* | 02898340 | 10,319<br>*0.406* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103A-1040-040-12R1<br>*SD_DRILL_10.4MM_3XD_A* | 02898341 | 10,4<br>*0.409* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103A-1050-040-12R1<br>*SD_DRILL_10.5MM_3XD_A* | 02898342 | 10,5<br>*0.413* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103A-1060-040-12R1<br>*SD_DRILL_10.6MM_3XD_A* | 02898343 | 10,6<br>*0.417* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103A-1072-040-12R1<br>*SD_DRILL_27/64_3XD_A* | 02898344 | 10,716<br>*0.422* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103A-1080-040-12R1<br>*SD_DRILL_10.8MM_3XD_A* | 02898345 | 10,8<br>*0.425* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103A-1090-040-12R1<br>*SD_DRILL_10.9MM_3XD_A* | 02898346 | 10,9<br>*0.429* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103A-1100-040-12R1<br>*SD_DRILL_11.0MM_3XD_A* | 02898347 | 11,0<br>*0.433* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103A-1110-040-12R1<br>*SD_DRILL_11.1MM_3XD_A* | 02898348 | 11,1<br>*0.437* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103A-1111-040-12R1<br>*SD_DRILL_7/16_3XD_A* | 02898349 | 11,113<br>*0.438* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103A-1120-040-12R1<br>*SD_DRILL_11.2MM_3XD_A* | 02898350 | 11,2<br>*0.441* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103A-1130-040-12R1<br>*SD_DRILL_11.3MM_3XD_A* | 02898351 | 11,3<br>*0.445* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103A-1140-040-12R1<br>*SD_DRILL_11.4MM_3XD_A* | 02898352 | 11,4<br>*0.449* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103A-1150-040-12R1<br>*SD_DRILL_11.5MM_3XD_A* | 02898353 | 11,5<br>*0.453* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103A-1151-040-12R1<br>*SD_DRILL_29/64_3XD_A* | 02898354 | 11,509<br>*0.453* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103A-1155-040-12R1<br>*SD_DRILL_11.55MM_3XD_A* | 02898355 | 11,55<br>*0.455* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103A-1160-040-12R1<br>*SD_DRILL_11.6MM_3XD_A* | 02898356 | 11,6<br>*0.457* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103A-1170-040-12R1<br>*SD_DRILL_11.7MM_3XD_A* | 02898357 | 11,7<br>*0.461* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103A-1180-040-12R1<br>*SD_DRILL_11.8MM_3XD_A* | 02898358 | 11,8<br>*0.465* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD1103A-1190-040-12R1<br>*SD_DRILL_11.9MM_3XD_A* | 02898359 | 11,9<br>*0.469* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103A-1191-040-12R1<br>*SD_DRILL_15/32_3XD_A* | 02898360 | 11,906<br>*0.469* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103A-1200-040-12R1<br>*SD_DRILL_12.0MM_3XD_A* | 02898361 | 12,0<br>*0.472* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1103A-1210-043-14R1<br>*SD_DRILL_12.1MM_3XD_A* | 02898362 | 12,1<br>*0.476* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103A-1220-043-14R1<br>*SD_DRILL_12.2MM_3XD_A* | 02898363 | 12,2<br>*0.480* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103A-1230-043-14R1<br>*SD_DRILL_31/64_3XD_A* | 02898364 | 12,303<br>*0.484* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103A-1240-043-14R1<br>*SD_DRILL_12.4MM_3XD_A* | 02898365 | 12,4<br>*0.488* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103A-1250-043-14R1<br>*SD_DRILL_12.5MM_3XD_A* | 02898366 | 12,5<br>*0.492* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103A-1260-043-14R1<br>*SD_DRILL_12.6MM_3XD_A* | 02898367 | 12,6<br>*0.496* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103A-1270-043-14R1<br>*SD_DRILL_1/2_3XD_A* | 02898368 | 12,7<br>*0.500* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103A-1275-043-14R1<br>*SD_DRILL_12.75MM_3XD_A* | 02898369 | 12,75<br>*0.502* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103A-1280-043-14R1<br>*SD_DRILL_12.8MM_3XD_A* | 02898370 | 12,8<br>*0.504* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103A-1290-043-14R1<br>*SD_DRILL_12.9MM_3XD_A* | 02898371 | 12,9<br>*0.508* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103A-1300-043-14R1<br>*SD_DRILL_13.0MM_3XD_A* | 02898372 | 13,0<br>*0.512* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103A-1310-043-14R1<br>*SD_DRILL_33/64_3XD_A* | 02898373 | 13,1<br>*0.516* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103A-1320-043-14R1<br>*SD_DRILL_13.2MM_3XD_A* | 02898374 | 13,2<br>*0.520* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103A-1330-043-14R1<br>*SD_DRILL_13.3MM_3XD_A* | 02898375 | 13,3<br>*0.524* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103A-1340-043-14R1<br>*SD_DRILL_13.4MM_3XD_A* | 02898376 | 13,4<br>*0.528* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103A-1349-043-14R1<br>*SD_DRILL_17/32_3XD_A* | 02898377 | 13,494<br>*0.531* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103A-1350-043-14R1<br>*SD_DRILL_13.5MM_3XD_A* | 02898378 | 13,5<br>*0.531* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103A-1360-043-14R1<br>*SD_DRILL_13.6MM_3XD_A* | 02898379 | 13,6<br>*0.535* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103A-1370-043-14R1<br>*SD_DRILL_13.7MM_3XD_A* | 02898380 | 13,7<br>*0.539* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103A-1380-043-14R1<br>*SD_DRILL_13.8MM_3XD_A* | 02898381 | 13,8<br>*0.543* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103A-1390-043-14R1<br>*SD_DRILL_13.9MM_3XD_A* | 02898382 | 13,9<br>*0.547* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103A-1400-043-14R1<br>*SD_DRILL_14.0MM_3XD_A* | 02898383 | 14,0<br>*0.551* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1103A-1420-045-16R1<br>*SD_DRILL_14.2MM_3XD_A* | 02898384 | 14,2<br>*0.559* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1103A-1429-045-16R1<br>*SD_DRILL_9/16_3XD_A* | 02898385 | 14,288<br>*0.563* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1103A-1450-045-16R1<br>*SD_DRILL_14.5MM_3XD_A* | 02898386 | 14,5<br>*0.571* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1103A-1470-045-16R1<br>*SD_DRILL_14.7MM_3XD_A* | 02898387 | 14,7<br>*0.579* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1103A-1475-045-16R1<br>*SD_DRILL_14.75MM_3XD_A* | 02898388 | 14,75<br>*0.581* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1103A-1480-045-16R1<br>*SD_DRILL_14.8MM_3XD_A* | 02898389 | 14,8<br>*0.583* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD1103A-1500-045-16R1<br>*SD_DRILL_15.0MM_3XD_A* | 02898390 | 15,0<br>*0.591* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1103A-1510-045-16R1<br>*SD_DRILL_15.1MM_3XD_A* | 02898391 | 15,1<br>*0.594* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1103A-1530-045-16R1<br>*SD_DRILL_15.3MM_3XD_A* | 02898392 | 15,3<br>*0.602* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1103A-1550-045-16R1<br>*SD_DRILL_15.5MM_3XD_A* | 02898393 | 15,5<br>*0.610* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1103A-1570-045-16R1<br>*SD_DRILL_15.7MM_3XD_A* | 02898394 | 15,7<br>*0.618* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1103A-1580-045-16R1<br>*SD_DRILL_15.8MM_3XD_A* | 02898395 | 15,8<br>*0.622* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1103A-1588-045-16R1<br>*SD_DRILL_5/8_3XD_A* | 02898396 | 15,875<br>*0.625* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1103A-1600-045-16R1<br>*SD_DRILL_16.0MM_3XD_A* | 02898397 | 16,0<br>*0.630* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1103A-1650-051-18R1<br>*SD_DRILL_16.5MM_3XD_A* | 02898398 | 16,5<br>*0.650* | 51,0<br>*2.008* | 123,0<br>*4.843* | 75,0<br>*2.953* | 48,0<br>*1.890* | 73,0<br>*2.874* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1103A-1700-051-18R1<br>*SD_DRILL_17.0MM_3XD_A* | 02898399 | 17,0<br>*0.669* | 51,0<br>*2.008* | 123,0<br>*4.843* | 75,0<br>*2.953* | 48,0<br>*1.890* | 73,0<br>*2.874* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1103A-1750-051-18R1<br>*SD_DRILL_17.5MM_3XD_A* | 02898400 | 17,5<br>*0.689* | 51,0<br>*2.008* | 123,0<br>*4.843* | 75,0<br>*2.953* | 48,0<br>*1.890* | 73,0<br>*2.874* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1103A-1800-051-18R1<br>*SD_DRILL_18.0MM_3XD_A* | 02898401 | 18,0<br>*0.709* | 51,0<br>*2.008* | 123,0<br>*4.843* | 75,0<br>*2.953* | 48,0<br>*1.890* | 73,0<br>*2.874* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1103A-1850-055-20R1<br>*SD_DRILL_18.5MM_3XD_A* | 02898402 | 18,5<br>*0.728* | 55,0<br>*2.165* | 131,0<br>*5.157* | 81,0<br>*3.189* | 50,0<br>*1.969* | 79,0<br>*3.110* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1103A-1900-055-20R1<br>*SD_DRILL_19.0MM_3XD_A* | 02898403 | 19,0<br>*0.748* | 55,0<br>*2.165* | 131,0<br>*5.157* | 81,0<br>*3.189* | 50,0<br>*1.969* | 79,0<br>*3.110* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1103A-1905-055-20R1<br>*SD_DRILL_3/4_3XD_A* | 02898404 | 19,05<br>*0.750* | 55,0<br>*2.165* | 131,0<br>*5.157* | 81,0<br>*3.189* | 50,0<br>*1.969* | 79,0<br>*3.110* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1103A-1950-055-20R1<br>*SD_DRILL_19.5MM_3XD_A* | 02898405 | 19,5<br>*0.768* | 55,0<br>*2.165* | 131,0<br>*5.157* | 81,0<br>*3.189* | 50,0<br>*1.969* | 79,0<br>*3.110* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1103A-2000-055-20R1<br>*SD_DRILL_20.0MM_3XD_A* | 02898406 | 20,0<br>*0.787* | 55,0<br>*2.165* | 131,0<br>*5.157* | 81,0<br>*3.189* | 50,0<br>*1.969* | 79,0<br>*3.110* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |

# SD1105A

Drilling depth ~ 5 x D – Metric/Inch






- Cylindrical shank DIN 6537A
- Internal coolant
- For cutting data see page(s) 142
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD1105A-0300-023-06R1<br>*SD_DRILL_3.0MM_5XD_A* | 02897845 | 3,0<br>*0.118* | 23,0<br>*0.906* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0310-023-06R1<br>*SD_DRILL_3.1MM_5XD_A* | 02897846 | 3,1<br>*0.122* | 23,0<br>*0.906* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0318-023-06R1<br>*SD_DRILL_1/8_5XD_A* | 02897847 | 3,175<br>*0.125* | 23,0<br>*0.906* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0320-023-06R1<br>*SD_DRILL_3.2MM_5XD_A* | 02897848 | 3,2<br>*0.126* | 23,0<br>*0.906* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0325-023-06R1<br>*SD_DRILL_3.25MM_5XD_A* | 02897849 | 3,25<br>*0.128* | 23,0<br>*0.906* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0330-023-06R1<br>*SD_DRILL_3.3MM_5XD_A* | 02897850 | 3,3<br>*0.130* | 23,0<br>*0.906* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0340-023-06R1<br>*SD_DRILL_3.4MM_5XD_A* | 02897851 | 3,4<br>*0.134* | 23,0<br>*0.906* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0350-023-06R1<br>*SD_DRILL_3.5MM_5XD_A* | 02897852 | 3,5<br>*0.138* | 23,0<br>*0.906* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0357-023-06R1<br>*SD_DRILL_9/64_5XD_A* | 02897853 | 3,572<br>*0.141* | 23,0<br>*0.906* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0360-023-06R1<br>*SD_DRILL_3.6MM_5XD_A* | 02897854 | 3,6<br>*0.142* | 23,0<br>*0.906* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0365-023-06R1<br>*SD_DRILL_3.65MM_5XD_A* | 02897855 | 3,65<br>*0.144* | 23,0<br>*0.906* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0370-023-06R1<br>*SD_DRILL_3.7MM_5XD_A* | 02897856 | 3,7<br>*0.146* | 23,0<br>*0.906* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0380-029-06R1<br>*SD_DRILL_3.8MM_5XD_A* | 02897857 | 3,8<br>*0.150* | 29,0<br>*1.142* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 36,0<br>*1.417* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0390-029-06R1<br>*SD_DRILL_3.9MM_5XD_A* | 02897858 | 3,9<br>*0.154* | 29,0<br>*1.142* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 36,0<br>*1.417* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0397-029-06R1<br>*SD_DRILL_5/32_5XD_A* | 02897859 | 3,969<br>*0.156* | 29,0<br>*1.142* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 36,0<br>*1.417* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0400-029-06R1<br>*SD_DRILL_4.0MM_5XD_A* | 02897860 | 4,0<br>*0.157* | 29,0<br>*1.142* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 36,0<br>*1.417* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0410-029-06R1<br>*SD_DRILL_4.1MM_5XD_A* | 02897861 | 4,1<br>*0.161* | 29,0<br>*1.142* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 36,0<br>*1.417* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0420-029-06R1<br>*SD_DRILL_4.2MM_5XD_A* | 02897862 | 4,2<br>*0.165* | 29,0<br>*1.142* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 36,0<br>*1.417* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0430-029-06R1<br>*SD_DRILL_4.3MM_5XD_A* | 02897863 | 4,3<br>*0.169* | 29,0<br>*1.142* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 36,0<br>*1.417* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0437-029-06R1<br>*SD_DRILL_11/64_5XD_A* | 02897864 | 4,366<br>*0.172* | 29,0<br>*1.142* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 36,0<br>*1.417* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0440-029-06R1<br>*SD_DRILL_4.4MM_5XD_A* | 02897865 | 4,4<br>*0.173* | 29,0<br>*1.142* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 36,0<br>*1.417* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0450-029-06R1<br>*SD_DRILL_4.5MM_5XD_A* | 02897866 | 4,5<br>*0.177* | 29,0<br>*1.142* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 36,0<br>*1.417* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD1105A-0460-029-06R1<br>*SD_DRILL_4.6MM_5XD_A* | 02897867 | 4,6<br>*0.181* | 29,0<br>*1.142* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 36,0<br>*1.417* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0465-029-06R1<br>*SD_DRILL_4.65MM_5XD_A* | 02897868 | 4,65<br>*0.183* | 29,0<br>*1.142* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 36,0<br>*1.417* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0470-029-06R1<br>*SD_DRILL_4.7MM_5XD_A* | 02897869 | 4,7<br>*0.185* | 29,0<br>*1.142* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 36,0<br>*1.417* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0476-035-06R1<br>*SD_DRILL_3/16_5XD_A* | 02897870 | 4,763<br>*0.188* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0480-035-06R1<br>*SD_DRILL_4.8MM_5XD_A* | 02897871 | 4,8<br>*0.189* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0490-035-06R1<br>*SD_DRILL_4.9MM_5XD_A* | 02897872 | 4,9<br>*0.193* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0500-035-06R1<br>*SD_DRILL_5.0MM_5XD_A* | 02897873 | 5,0<br>*0.197* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0510-035-06R1<br>*SD_DRILL_5.1MM_5XD_A* | 02897874 | 5,1<br>*0.201* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0516-035-06R1<br>*SD_DRILL_13/64_5XD_A* | 02897875 | 5,159<br>*0.203* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0520-035-06R1<br>*SD_DRILL_5.2MM_5XD_A* | 02897876 | 5,2<br>*0.205* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0530-035-06R1<br>*SD_DRILL_5.3MM_5XD_A* | 02897877 | 5,3<br>*0.209* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0540-035-06R1<br>*SD_DRILL_5.4MM_5XD_A* | 02897878 | 5,4<br>*0.213* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0550-035-06R1<br>*SD_DRILL_5.5MM_5XD_A* | 02897879 | 5,5<br>*0.217* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0555-035-06R1<br>*SD_DRILL_5.55MM_5XD_A* | 02897880 | 5,55<br>*0.219* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0556-035-06R1<br>*SD_DRILL_7/32_5XD_A* | 02897881 | 5,556<br>*0.219* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0560-035-06R1<br>*SD_DRILL_5.6MM_5XD_A* | 02897882 | 5,6<br>*0.220* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0570-035-06R1<br>*SD_DRILL_5.7MM_5XD_A* | 02897883 | 5,7<br>*0.224* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0580-035-06R1<br>*SD_DRILL_5.8MM_5XD_A* | 02897884 | 5,8<br>*0.228* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0590-035-06R1<br>*SD_DRILL_5.9MM_5XD_A* | 02897885 | 5,9<br>*0.232* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0595-035-06R1<br>*SD_DRILL_15/64_5XD_A* | 02897886 | 5,953<br>*0.234* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0600-035-06R1<br>*SD_DRILL_6.0MM_5XD_A* | 02897887 | 6,0<br>*0.236* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1105A-0610-043-08R1<br>*SD_DRILL_6.1MM_5XD_A* | 02897888 | 6,1<br>*0.240* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1105A-0620-043-08R1<br>*SD_DRILL_6.2MM_5XD_A* | 02897889 | 6,2<br>*0.244* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1105A-0630-043-08R1<br>*SD_DRILL_6.3MM_5XD_A* | 02897890 | 6,3<br>*0.248* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1105A-0635-043-08R1<br>*SD_DRILL_1/4_5XD_A* | 02897891 | 6,35<br>*0.250* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1105A-0640-043-08R1<br>*SD_DRILL_6.4MM_5XD_A* | 02897892 | 6,4<br>*0.252* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1105A-0650-043-08R1<br>*SD_DRILL_6.5MM_5XD_A* | 02897893 | 6,5<br>*0.256* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1105A-0660-043-08R1<br>*SD_DRILL_6.6MM_5XD_A* | 02897894 | 6,6<br>*0.260* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1105A-0670-043-08R1<br>*SD_DRILL_6.7MM_5XD_A* | 02897895 | 6,7<br>*0.264* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1105A-0675-043-08R1<br>*SD_DRILL_17/64_5XD_A* | 02897896 | 6,747<br>*0.266* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1105A-0680-043-08R1<br>*SD_DRILL_6.8MM_5XD_A* | 02897897 | 6,8<br>*0.268* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD1105A-0690-043-08R1<br>*SD_DRILL_6.9MM_5XD_A* | 02897898 | 6,9<br>*0.272* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1105A-0700-043-08R1<br>*SD_DRILL_7.0MM_5XD_A* | 02897899 | 7,0<br>*0.276* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1105A-0710-043-08R1<br>*SD_DRILL_7.1MM_5XD_A* | 02897900 | 7,1<br>*0.280* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1105A-0714-043-08R1<br>*SD_DRILL_9/32_5XD_A* | 02897901 | 7,144<br>*0.281* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1105A-0720-043-08R1<br>*SD_DRILL_7.2MM_5XD_A* | 02897902 | 7,2<br>*0.283* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1105A-0730-043-08R1<br>*SD_DRILL_7.3MM_5XD_A* | 02897903 | 7,3<br>*0.287* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1105A-0740-043-08R1<br>*SD_DRILL_7.4MM_5XD_A* | 02897904 | 7,4<br>*0.291* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1105A-0750-043-08R1<br>*SD_DRILL_7.5MM_5XD_A* | 02897905 | 7,5<br>*0.295* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1105A-0754-043-08R1<br>*SD_DRILL_19/64_5XD_A* | 02897906 | 7,541<br>*0.297* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1105A-0755-043-08R1<br>*SD_DRILL_7.55MM_5XD_A* | 02897907 | 7,55<br>*0.297* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1105A-0760-043-08R1<br>*SD_DRILL_7.6MM_5XD_A* | 02897908 | 7,6<br>*0.299* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1105A-0770-043-08R1<br>*SD_DRILL_7.7MM_5XD_A* | 02897909 | 7,7<br>*0.303* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1105A-0780-043-08R1<br>*SD_DRILL_7.8MM_5XD_A* | 02897910 | 7,8<br>*0.307* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1105A-0790-043-08R1<br>*SD_DRILL_7.9MM_5XD_A* | 02897911 | 7,9<br>*0.311* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1105A-0794-043-08R1<br>*SD_DRILL_5/16_5XD_A* | 02897912 | 7,938<br>*0.313* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1105A-0800-043-08R1<br>*SD_DRILL_8.0MM_5XD_A* | 02897913 | 8,0<br>*0.315* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1105A-0810-049-10R1<br>*SD_DRILL_8.1MM_5XD_A* | 02897914 | 8,1<br>*0.319* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1105A-0820-049-10R1<br>*SD_DRILL_8.2MM_5XD_A* | 02897915 | 8,2<br>*0.323* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1105A-0830-049-10R1<br>*SD_DRILL_8.3MM_5XD_A* | 02897916 | 8,3<br>*0.327* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1105A-0833-049-10R1<br>*SD_DRILL_21/64_5XD_A* | 02897917 | 8,334<br>*0.328* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1105A-0840-049-10R1<br>*SD_DRILL_8.4MM_5XD_A* | 02897918 | 8,4<br>*0.331* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1105A-0850-049-10R1<br>*SD_DRILL_8.5MM_5XD_A* | 02897919 | 8,5<br>*0.335* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1105A-0860-049-10R1<br>*SD_DRILL_8.6MM_5XD_A* | 02897920 | 8,6<br>*0.339* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1105A-0870-049-10R1<br>*SD_DRILL_8.7MM_5XD_A* | 02897921 | 8,7<br>*0.343* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1105A-0873-049-10R1<br>*SD_DRILL_11/32_5XD_A* | 02897922 | 8,731<br>*0.344* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1105A-0880-049-10R1<br>*SD_DRILL_8.8MM_5XD_A* | 02897923 | 8,8<br>*0.346* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1105A-0890-049-10R1<br>*SD_DRILL_8.9MM_5XD_A* | 02897924 | 8,9<br>*0.350* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1105A-0900-049-10R1<br>*SD_DRILL_9.0MM_5XD_A* | 02897925 | 9,0<br>*0.354* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1105A-0910-049-10R1<br>*SD_DRILL_9.1MM_5XD_A* | 02897926 | 9,1<br>*0.358* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1105A-0913-049-10R1<br>*SD_DRILL_23/64_5XD_A* | 02897927 | 9,128<br>*0.359* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1105A-0920-049-10R1<br>*SD_DRILL_9.2MM_5XD_A* | 02897928 | 9,2<br>*0.362* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD1105A-0930-049-10R1<br>*SD_DRILL_9.3MM_5XD_A* | 02897929 | 9,3<br>*0.366* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1105A-0940-049-10R1<br>*SD_DRILL_9.4MM_5XD_A* | 02897930 | 9,4<br>*0.370* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1105A-0950-049-10R1<br>*SD_DRILL_9.5MM_5XD_A* | 02897931 | 9,5<br>*0.374* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1105A-0953-049-10R1<br>*SD_DRILL_3/8_5XD_A* | 02897932 | 9,525<br>*0.375* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1105A-0955-049-10R1<br>*SD_DRILL_9.55MM_5XD_A* | 02897933 | 9,55<br>*0.376* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1105A-0960-049-10R1<br>*SD_DRILL_9.6MM_5XD_A* | 02897934 | 9,6<br>*0.378* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1105A-0970-049-10R1<br>*SD_DRILL_9.7MM_5XD_A* | 02897935 | 9,7<br>*0.382* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1105A-0980-049-10R1<br>*SD_DRILL_9.8MM_5XD_A* | 02897936 | 9,8<br>*0.386* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1105A-0990-049-10R1<br>*SD_DRILL_9.9MM_5XD_A* | 02897937 | 9,9<br>*0.390* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1105A-0992-049-10R1<br>*SD_DRILL_25/64_5XD_A* | 02897938 | 9,922<br>*0.391* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1105A-1000-049-10R1<br>*SD_DRILL_10.0MM_5XD_A* | 02897939 | 10,0<br>*0.394* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1105A-1010-056-12R1<br>*SD_DRILL_10.1MM_5XD_A* | 02897940 | 10,1<br>*0.398* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1105A-1020-056-12R1<br>*SD_DRILL_10.2MM_5XD_A* | 02897941 | 10,2<br>*0.402* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1105A-1030-056-12R1<br>*SD_DRILL_10.3MM_5XD_A* | 02897942 | 10,3<br>*0.406* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1105A-1032-056-12R1<br>*SD_DRILL_13/32_5XD_A* | 02897943 | 10,319<br>*0.406* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1105A-1040-056-12R1<br>*SD_DRILL_10.4MM_5XD_A* | 02897944 | 10,4<br>*0.409* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1105A-1050-056-12R1<br>*SD_DRILL_10.5MM_5XD_A* | 02897945 | 10,5<br>*0.413* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1105A-1060-056-12R1<br>*SD_DRILL_10.6MM_5XD_A* | 02897946 | 10,6<br>*0.417* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1105A-1070-056-12R1<br>*SD_DRILL_10.7MM_5XD_A* | 02897947 | 10,7<br>*0.421* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1105A-1072-056-12R1<br>*SD_DRILL_27/64_5XD_A* | 02897948 | 10,716<br>*0.422* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1105A-1080-056-12R1<br>*SD_DRILL_10.8MM_5XD_A* | 02897949 | 10,8<br>*0.425* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1105A-1090-056-12R1<br>*SD_DRILL_10.9MM_5XD_A* | 02897951 | 10,9<br>*0.429* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1105A-1100-056-12R1<br>*SD_DRILL_11.0MM_5XD_A* | 02897952 | 11,0<br>*0.433* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1105A-1110-056-12R1<br>*SD_DRILL_11.1MM_5XD_A* | 02897953 | 11,1<br>*0.437* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1105A-1111-056-12R1<br>*SD_DRILL_7/16_5XD_A* | 02897954 | 11,113<br>*0.438* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1105A-1120-056-12R1<br>*SD_DRILL_11.2MM_5XD_A* | 02897955 | 11,2<br>*0.441* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1105A-1130-056-12R1<br>*SD_DRILL_11.3MM_5XD_A* | 02897956 | 11,3<br>*0.445* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1105A-1140-056-12R1<br>*SD_DRILL_11.4MM_5XD_A* | 02897957 | 11,4<br>*0.449* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1105A-1150-056-12R1<br>*SD_DRILL_11.5MM_5XD_A* | 02897958 | 11,5<br>*0.453* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1105A-1151-056-12R1<br>*SD_DRILL_29/64_5XD_A* | 02897959 | 11,509<br>*0.453* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1105A-1155-056-12R1<br>*SD_DRILL_11.55MM_5XD_A* | 02897960 | 11,55<br>*0.455* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD1105A-1160-056-12R1<br>*SD_DRILL_11.6MM_5XD_A* | 02897961 | 11,6<br>*0.457* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1105A-1170-056-12R1<br>*SD_DRILL_11.7MM_5XD_A* | 02897962 | 11,7<br>*0.461* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1105A-1180-056-12R1<br>*SD_DRILL_11.8MM_5XD_A* | 02897963 | 11,8<br>*0.465* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1105A-1190-056-12R1<br>*SD_DRILL_11.9MM_5XD_A* | 02897964 | 11,9<br>*0.469* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1105A-1191-056-12R1<br>*SD_DRILL_15/32_5XD_A* | 02897965 | 11,906<br>*0.469* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1105A-1200-056-12R1<br>*SD_DRILL_12.0MM_5XD_A* | 02897966 | 12,0<br>*0.472* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1105A-1210-060-14R1<br>*SD_DRILL_12.1MM_5XD_A* | 02897967 | 12,1<br>*0.476* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1105A-1220-060-14R1<br>*SD_DRILL_12.2MM_5XD_A* | 02897968 | 12,2<br>*0.480* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1105A-1225-060-14R1<br>*SD_DRILL_12.25MM_5XD_A* | 02897969 | 12,25<br>*0.482* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1105A-1230-060-14R1<br>*SD_DRILL_31/64_5XD_A* | 02897970 | 12,303<br>*0.484* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1105A-1240-060-14R1<br>*SD_DRILL_12.4MM_5XD_A* | 02897972 | 12,4<br>*0.488* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1105A-1250-060-14R1<br>*SD_DRILL_12.5MM_5XD_A* | 02897973 | 12,5<br>*0.492* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1105A-1260-060-14R1<br>*SD_DRILL_12.6MM_5XD_A* | 02897974 | 12,6<br>*0.496* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1105A-1270-060-14R1<br>*SD_DRILL_1/2_5XD_A* | 02897950 | 12,7<br>*0.500* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1105A-1275-060-14R1<br>*SD_DRILL_12.75MM_5XD_A* | 02897976 | 12,75<br>*0.502* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1105A-1280-060-14R1<br>*SD_DRILL_12.8MM_5XD_A* | 02897977 | 12,8<br>*0.504* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1105A-1290-060-14R1<br>*SD_DRILL_12.9MM_5XD_A* | 02897978 | 12,9<br>*0.508* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1105A-1300-060-14R1<br>*SD_DRILL_13.0MM_5XD_A* | 02897979 | 13,0<br>*0.512* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1105A-1310-060-14R1<br>*SD_DRILL_33/64_5XD_A* | 02897980 | 13,1<br>*0.516* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1105A-1320-060-14R1<br>*SD_DRILL_13.2MM_5XD_A* | 02897981 | 13,2<br>*0.520* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1105A-1330-060-14R1<br>*SD_DRILL_13.3MM_5XD_A* | 02897982 | 13,3<br>*0.524* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1105A-1340-060-14R1<br>*SD_DRILL_13.4MM_5XD_A* | 02897983 | 13,4<br>*0.528* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1105A-1349-060-14R1<br>*SD_DRILL_17/32_5XD_A* | 02897984 | 13,494<br>*0.531* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1105A-1350-060-14R1<br>*SD_DRILL_13.5MM_5XD_A* | 02897985 | 13,5<br>*0.531* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1105A-1360-060-14R1<br>*SD_DRILL_13.6MM_5XD_A* | 02897986 | 13,6<br>*0.535* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1105A-1370-060-14R1<br>*SD_DRILL_13.7MM_5XD_A* | 02897987 | 13,7<br>*0.539* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1105A-1380-060-14R1<br>*SD_DRILL_13.8MM_5XD_A* | 02897988 | 13,8<br>*0.543* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1105A-1390-060-14R1<br>*SD_DRILL_35/64_5XD_A* | 02897989 | 13,9<br>*0.547* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1105A-1400-060-14R1<br>*SD_DRILL_14.0MM_5XD_A* | 02897990 | 14,0<br>*0.551* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1105A-1410-063-16R1<br>*SD_DRILL_14.1MM_5XD_A* | 02897991 | 14,1<br>*0.555* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1105A-1420-063-16R1<br>*SD_DRILL_14.2MM_5XD_A* | 02897992 | 14,2<br>*0.559* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |

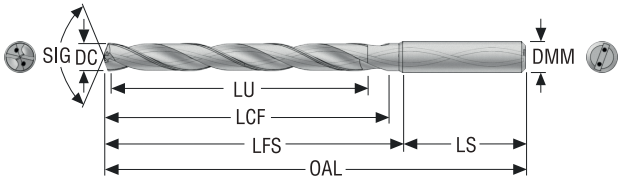
| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD1105A-1429-063-16R1<br>*SD_DRILL_9/16_5XD_A* | 02897993 | 14,288<br>*0.563* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1105A-1430-063-16R1<br>*SD_DRILL_14.3MM_5XD_A* | 02897994 | 14,3<br>*0.563* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1105A-1440-063-16R1<br>*SD_DRILL_14.4MM_5XD_A* | 02897995 | 14,4<br>*0.567* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1105A-1450-063-16R1<br>*SD_DRILL_14.5MM_5XD_A* | 02897996 | 14,5<br>*0.571* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1105A-1460-063-16R1<br>*SD_DRILL_14.6MM_5XD_A* | 02897997 | 14,6<br>*0.575* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1105A-1470-063-16R1<br>*SD_DRILL_14.7MM_5XD_A* | 02897998 | 14,7<br>*0.579* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1105A-1475-063-16R1<br>*SD_DRILL_14.75MM_5XD_A* | 02897999 | 14,75<br>*0.581* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1105A-1480-063-16R1<br>*SD_DRILL_14.8MM_5XD_A* | 02898000 | 14,8<br>*0.583* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1105A-1490-063-16R1<br>*SD_DRILL_14.9MM_5XD_A* | 02898001 | 14,9<br>*0.587* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1105A-1500-063-16R1<br>*SD_DRILL_15.0MM_5XD_A* | 02898002 | 15,0<br>*0.591* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1105A-1510-063-16R1<br>*SD_DRILL_15.1MM_5XD_A* | 02898003 | 15,1<br>*0.594* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1105A-1520-063-16R1<br>*SD_DRILL_15.2MM_5XD_A* | 02898004 | 15,2<br>*0.598* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1105A-1530-063-16R1<br>*SD_DRILL_15.3MM_5XD_A* | 02898005 | 15,3<br>*0.602* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1105A-1540-063-16R1<br>*SD_DRILL_15.4MM_5XD_A* | 02898006 | 15,4<br>*0.606* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1105A-1550-063-16R1<br>*SD_DRILL_15.5MM_5XD_A* | 02898007 | 15,5<br>*0.610* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1105A-1560-063-16R1<br>*SD_DRILL_15.6MM_5XD_A* | 02898008 | 15,6<br>*0.614* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1105A-1570-063-16R1<br>*SD_DRILL_15.7MM_5XD_A* | 02898009 | 15,7<br>*0.618* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1105A-1580-063-16R1<br>*SD_DRILL_15.8MM_5XD_A* | 02898010 | 15,8<br>*0.622* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1105A-1588-063-16R1<br>*SD_DRILL_5/8_5XD_A* | 02898011 | 15,875<br>*0.625* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1105A-1590-063-16R1<br>*SD_DRILL_15.9MM_5XD_A* | 02898012 | 15,9<br>*0.626* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1105A-1600-063-16R1<br>*SD_DRILL_16.0MM_5XD_A* | 02898013 | 16,0<br>*0.630* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1105A-1610-071-18R1<br>*SD_DRILL_16.1MM_5XD_A* | 02898014 | 16,1<br>*0.634* | 71,0<br>*2.795* | 143,0<br>*5.630* | 95,0<br>*3.740* | 48,0<br>*1.890* | 93,0<br>*3.661* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1105A-1620-071-18R1<br>*SD_DRILL_16.2MM_5XD_A* | 02898015 | 16,2<br>*0.638* | 71,0<br>*2.795* | 143,0<br>*5.630* | 95,0<br>*3.740* | 48,0<br>*1.890* | 93,0<br>*3.661* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1105A-1630-071-18R1<br>*SD_DRILL_16.3MM_5XD_A* | 02898016 | 16,3<br>*0.642* | 71,0<br>*2.795* | 143,0<br>*5.630* | 95,0<br>*3.740* | 48,0<br>*1.890* | 93,0<br>*3.661* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1105A-1640-071-18R1<br>*SD_DRILL_16.4MM_5XD_A* | 02898017 | 16,4<br>*0.646* | 71,0<br>*2.795* | 143,0<br>*5.630* | 95,0<br>*3.740* | 48,0<br>*1.890* | 93,0<br>*3.661* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1105A-1650-071-18R1<br>*SD_DRILL_16.5MM_5XD_A* | 02898018 | 16,5<br>*0.650* | 71,0<br>*2.795* | 143,0<br>*5.630* | 95,0<br>*3.740* | 48,0<br>*1.890* | 93,0<br>*3.661* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1105A-1660-071-18R1<br>*SD_DRILL_16.6MM_5XD_A* | 02898019 | 16,6<br>*0.654* | 71,0<br>*2.795* | 143,0<br>*5.630* | 95,0<br>*3.740* | 48,0<br>*1.890* | 93,0<br>*3.661* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1105A-1670-071-18R1<br>*SD_DRILL_16.7MM_5XD_A* | 02898020 | 16,7<br>*0.657* | 71,0<br>*2.795* | 143,0<br>*5.630* | 95,0<br>*3.740* | 48,0<br>*1.890* | 93,0<br>*3.661* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1105A-1675-071-18R1<br>*SD_DRILL_16.75MM_5XD_A* | 02898021 | 16,75<br>*0.659* | 71,0<br>*2.795* | 143,0<br>*5.630* | 95,0<br>*3.740* | 48,0<br>*1.890* | 93,0<br>*3.661* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1105A-1680-071-18R1<br>*SD_DRILL_16.8MM_5XD_A* | 02898022 | 16,8<br>*0.661* | 71,0<br>*2.795* | 143,0<br>*5.630* | 95,0<br>*3.740* | 48,0<br>*1.890* | 93,0<br>*3.661* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1105A-1690-071-18R1<br>*SD_DRILL_16.9MM_5XD_A* | 02898023 | 16,9<br>*0.665* | 71,0<br>*2.795* | 143,0<br>*5.630* | 95,0<br>*3.740* | 48,0<br>*1.890* | 93,0<br>*3.661* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD1105A-1700-071-18R1<br>*SD_DRILL_17.0MM_5XD_A* | 02898024 | 17,0<br>*0.669* | 71,0<br>*2.795* | 143,0<br>*5.630* | 95,0<br>*3.740* | 48,0<br>*1.890* | 93,0<br>*3.661* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1105A-1710-071-18R1<br>*SD_DRILL_17.1MM_5XD_A* | 02898025 | 17,1<br>*0.673* | 71,0<br>*2.795* | 143,0<br>*5.630* | 95,0<br>*3.740* | 48,0<br>*1.890* | 93,0<br>*3.661* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1105A-1720-071-18R1<br>*SD_DRILL_17.2MM_5XD_A* | 02898026 | 17,2<br>*0.677* | 71,0<br>*2.795* | 143,0<br>*5.630* | 95,0<br>*3.740* | 48,0<br>*1.890* | 93,0<br>*3.661* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1105A-1730-071-18R1<br>*SD_DRILL_17.3MM_5XD_A* | 02898027 | 17,3<br>*0.681* | 71,0<br>*2.795* | 143,0<br>*5.630* | 95,0<br>*3.740* | 48,0<br>*1.890* | 93,0<br>*3.661* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1105A-1740-071-18R1<br>*SD_DRILL_17.4MM_5XD_A* | 02898028 | 17,4<br>*0.685* | 71,0<br>*2.795* | 143,0<br>*5.630* | 95,0<br>*3.740* | 48,0<br>*1.890* | 93,0<br>*3.661* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1105A-1750-071-18R1<br>*SD_DRILL_17.5MM_5XD_A* | 02898029 | 17,5<br>*0.689* | 71,0<br>*2.795* | 143,0<br>*5.630* | 95,0<br>*3.740* | 48,0<br>*1.890* | 93,0<br>*3.661* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1105A-1760-071-18R1<br>*SD_DRILL_17.6MM_5XD_A* | 02898030 | 17,6<br>*0.693* | 71,0<br>*2.795* | 143,0<br>*5.630* | 95,0<br>*3.740* | 48,0<br>*1.890* | 93,0<br>*3.661* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1105A-1770-071-18R1<br>*SD_DRILL_17.7MM_5XD_A* | 02898031 | 17,7<br>*0.697* | 71,0<br>*2.795* | 143,0<br>*5.630* | 95,0<br>*3.740* | 48,0<br>*1.890* | 93,0<br>*3.661* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1105A-1780-071-18R1<br>*SD_DRILL_17.8MM_5XD_A* | 02898032 | 17,8<br>*0.701* | 71,0<br>*2.795* | 143,0<br>*5.630* | 95,0<br>*3.740* | 48,0<br>*1.890* | 93,0<br>*3.661* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1105A-1790-071-18R1<br>*SD_DRILL_17.9MM_5XD_A* | 02898033 | 17,9<br>*0.705* | 71,0<br>*2.795* | 143,0<br>*5.630* | 95,0<br>*3.740* | 48,0<br>*1.890* | 93,0<br>*3.661* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1105A-1800-071-18R1<br>*SD_DRILL_18.0MM_5XD_A* | 02898034 | 18,0<br>*0.709* | 71,0<br>*2.795* | 143,0<br>*5.630* | 95,0<br>*3.740* | 48,0<br>*1.890* | 93,0<br>*3.661* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1105A-1810-077-20R1<br>*SD_DRILL_18.1MM_5XD_A* | 02898035 | 18,1<br>*0.713* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1105A-1820-077-20R1<br>*SD_DRILL_18.2MM_5XD_A* | 02898036 | 18,2<br>*0.717* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1105A-1830-077-20R1<br>*SD_DRILL_18.3MM_5XD_A* | 02898037 | 18,3<br>*0.720* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1105A-1840-077-20R1<br>*SD_DRILL_18.4MM_5XD_A* | 02898038 | 18,4<br>*0.724* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1105A-1850-077-20R1<br>*SD_DRILL_18.5MM_5XD_A* | 02898039 | 18,5<br>*0.728* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1105A-1860-077-20R1<br>*SD_DRILL_18.6MM_5XD_A* | 02898040 | 18,6<br>*0.732* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1105A-1870-077-20R1<br>*SD_DRILL_18.7MM_5XD_A* | 02898041 | 18,7<br>*0.736* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1105A-1880-077-20R1<br>*SD_DRILL_18.8MM_5XD_A* | 02898042 | 18,8<br>*0.740* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1105A-1890-077-20R1<br>*SD_DRILL_18.9MM_5XD_A* | 02898043 | 18,9<br>*0.744* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1105A-1900-077-20R1<br>*SD_DRILL_19.0MM_5XD_A* | 02898044 | 19,0<br>*0.748* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1105A-1905-077-20R1<br>*SD_DRILL_3/4_5XD_A* | 02898045 | 19,05<br>*0.750* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1105A-1910-077-20R1<br>*SD_DRILL_19.1MM_5XD_A* | 02898046 | 19,1<br>*0.752* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1105A-1920-077-20R1<br>*SD_DRILL_19.2MM_5XD_A* | 02898047 | 19,2<br>*0.756* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1105A-1930-077-20R1<br>*SD_DRILL_19.3MM_5XD_A* | 02898048 | 19,3<br>*0.760* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1105A-1940-077-20R1<br>*SD_DRILL_19.4MM_5XD_A* | 02898049 | 19,4<br>*0.764* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1105A-1950-077-20R1<br>*SD_DRILL_19.5MM_5XD_A* | 02898050 | 19,5<br>*0.768* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1105A-1960-077-20R1<br>*SD_DRILL_19.6MM_5XD_A* | 02898051 | 19,6<br>*0.772* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1105A-1970-077-20R1<br>*SD_DRILL_19.7MM_5XD_A* | 02898052 | 19,7<br>*0.776* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1105A-1980-077-20R1<br>*SD_DRILL_19.8MM_5XD_A* | 02898053 | 19,8<br>*0.780* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD1105A-1990-077-20R1<br>*SD_DRILL_19.9MM_5XD_A* | 02898054 | 19,9<br>*0.783* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1105A-2000-077-20R1<br>*SD_DRILL_20.0MM_5XD_A* | 02898055 | 20,0<br>*0.787* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |

# SD1108A

Drilling depth ~ 8 x D – Metric/Inch






- Cylindrical shank DIN 6537A
- DC tolerance m7
- Internal coolant
- For cutting data see page(s) 143
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD1108A-0300-028-06R1<br>*SD_DRILL_3.0MM_8XD_A* | 03295178 | 3,0<br>*0.118* | 28,0<br>*1.102* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0310-028-06R1<br>*SD_DRILL_3.1MM_8XD_A* | 03295179 | 3,1<br>*0.122* | 28,0<br>*1.102* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0318-028-06R1<br>*SD_DRILL_1/8_8XD_A* | 03323680 | 3,175<br>*0.125* | 28,0<br>*1.102* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0320-028-06R1<br>*SD_DRILL_3.2MM_8XD_A* | 03295180 | 3,2<br>*0.126* | 28,0<br>*1.102* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0330-028-06R1<br>*SD_DRILL_3.3MM_8XD_A* | 03295181 | 3,3<br>*0.130* | 28,0<br>*1.102* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0340-028-06R1<br>*SD_DRILL_3.4MM_8XD_A* | 03295182 | 3,4<br>*0.134* | 28,0<br>*1.102* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0350-028-06R1<br>*SD_DRILL_3.5MM_8XD_A* | 03295183 | 3,5<br>*0.138* | 28,0<br>*1.102* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0357-028-06R1<br>*SD_DRILL_9/64_8XD_A* | 03323681 | 3,572<br>*0.141* | 28,0<br>*1.102* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0360-028-06R1<br>*SD_DRILL_3.6MM_8XD_A* | 03295184 | 3,6<br>*0.142* | 28,0<br>*1.102* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0370-028-06R1<br>*SD_DRILL_3.7MM_8XD_A* | 03295185 | 3,7<br>*0.146* | 28,0<br>*1.102* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0380-037-06R1<br>*SD_DRILL_3.8MM_8XD_A* | 03295186 | 3,8<br>*0.150* | 37,0<br>*1.457* | 85,0<br>*3.346* | 49,0<br>*1.929* | 36,0<br>*1.417* | 45,0<br>*1.772* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0390-037-06R1<br>*SD_DRILL_3.9MM_8XD_A* | 03295187 | 3,9<br>*0.154* | 37,0<br>*1.457* | 85,0<br>*3.346* | 49,0<br>*1.929* | 36,0<br>*1.417* | 45,0<br>*1.772* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0397-037-06R1<br>*SD_DRILL_5/32_8XD_A* | 03323682 | 3,969<br>*0.156* | 37,0<br>*1.457* | 85,0<br>*3.346* | 49,0<br>*1.929* | 36,0<br>*1.417* | 45,0<br>*1.772* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0400-037-06R1<br>*SD_DRILL_4.0MM_8XD_A* | 03295188 | 4,0<br>*0.157* | 37,0<br>*1.457* | 85,0<br>*3.346* | 49,0<br>*1.929* | 36,0<br>*1.417* | 45,0<br>*1.772* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0410-037-06R1<br>*SD_DRILL_4.1MM_8XD_A* | 03295189 | 4,1<br>*0.161* | 37,0<br>*1.457* | 85,0<br>*3.346* | 49,0<br>*1.929* | 36,0<br>*1.417* | 45,0<br>*1.772* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0420-037-06R1<br>*SD_DRILL_4.2MM_8XD_A* | 03295190 | 4,2<br>*0.165* | 37,0<br>*1.457* | 85,0<br>*3.346* | 49,0<br>*1.929* | 36,0<br>*1.417* | 45,0<br>*1.772* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0430-037-06R1<br>*SD_DRILL_4.3MM_8XD_A* | 03295191 | 4,3<br>*0.169* | 37,0<br>*1.457* | 85,0<br>*3.346* | 49,0<br>*1.929* | 36,0<br>*1.417* | 45,0<br>*1.772* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0437-037-06R1<br>*SD_DRILL_11/64_8XD_A* | 03323683 | 4,366<br>*0.172* | 37,0<br>*1.457* | 85,0<br>*3.346* | 49,0<br>*1.929* | 36,0<br>*1.417* | 45,0<br>*1.772* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0440-037-06R1<br>*SD_DRILL_4.4MM_8XD_A* | 03295192 | 4,4<br>*0.173* | 37,0<br>*1.457* | 85,0<br>*3.346* | 49,0<br>*1.929* | 36,0<br>*1.417* | 45,0<br>*1.772* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0450-037-06R1<br>*SD_DRILL_4.5MM_8XD_A* | 03295193 | 4,5<br>*0.177* | 37,0<br>*1.457* | 85,0<br>*3.346* | 49,0<br>*1.929* | 36,0<br>*1.417* | 45,0<br>*1.772* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0460-037-06R1<br>*SD_DRILL_4.6MM_8XD_A* | 03295194 | 4,6<br>*0.181* | 37,0<br>*1.457* | 85,0<br>*3.346* | 49,0<br>*1.929* | 36,0<br>*1.417* | 45,0<br>*1.772* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD1108A-0470-037-06R1<br>*SD_DRILL_4.7MM_8XD_A* | 03295195 | 4,7<br>*0.185* | 37,0<br>*1.457* | 85,0<br>*3.346* | 49,0<br>*1.929* | 36,0<br>*1.417* | 45,0<br>*1.772* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0476-048-06R1<br>*SD_DRILL_3/16_8XD_A* | 03323684 | 4,763<br>*0.188* | 48,0<br>*1.890* | 97,0<br>*3.819* | 61,0<br>*2.402* | 36,0<br>*1.417* | 57,0<br>*2.244* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0480-048-06R1<br>*SD_DRILL_4.8MM_8XD_A* | 03295197 | 4,8<br>*0.189* | 48,0<br>*1.890* | 97,0<br>*3.819* | 61,0<br>*2.402* | 36,0<br>*1.417* | 57,0<br>*2.244* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0490-048-06R1<br>*SD_DRILL_4.9MM_8XD_A* | 03295198 | 4,9<br>*0.193* | 48,0<br>*1.890* | 97,0<br>*3.819* | 61,0<br>*2.402* | 36,0<br>*1.417* | 57,0<br>*2.244* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0500-048-06R1<br>*SD_DRILL_5.0MM_8XD_A* | 03295199 | 5,0<br>*0.197* | 48,0<br>*1.890* | 97,0<br>*3.819* | 61,0<br>*2.402* | 36,0<br>*1.417* | 57,0<br>*2.244* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0510-048-06R1<br>*SD_DRILL_5.1MM_8XD_A* | 03295200 | 5,1<br>*0.201* | 48,0<br>*1.890* | 97,0<br>*3.819* | 61,0<br>*2.402* | 36,0<br>*1.417* | 57,0<br>*2.244* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0516-048-06R1<br>*SD_DRILL_13/64_8XD_A* | 03323685 | 5,159<br>*0.203* | 48,0<br>*1.890* | 97,0<br>*3.819* | 61,0<br>*2.402* | 36,0<br>*1.417* | 57,0<br>*2.244* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0520-048-06R1<br>*SD_DRILL_5.2MM_8XD_A* | 03295201 | 5,2<br>*0.205* | 48,0<br>*1.890* | 97,0<br>*3.819* | 61,0<br>*2.402* | 36,0<br>*1.417* | 57,0<br>*2.244* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0530-048-06R1<br>*SD_DRILL_5.3MM_8XD_A* | 03295202 | 5,3<br>*0.209* | 48,0<br>*1.890* | 97,0<br>*3.819* | 61,0<br>*2.402* | 36,0<br>*1.417* | 57,0<br>*2.244* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0540-048-06R1<br>*SD_DRILL_5.4MM_8XD_A* | 03295203 | 5,4<br>*0.213* | 48,0<br>*1.890* | 97,0<br>*3.819* | 61,0<br>*2.402* | 36,0<br>*1.417* | 57,0<br>*2.244* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0550-048-06R1<br>*SD_DRILL_5.5MM_8XD_A* | 03295204 | 5,5<br>*0.217* | 48,0<br>*1.890* | 97,0<br>*3.819* | 61,0<br>*2.402* | 36,0<br>*1.417* | 57,0<br>*2.244* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0556-048-06R1<br>*SD_DRILL_7/32_8XD_A* | 03295206 | 5,556<br>*0.219* | 48,0<br>*1.890* | 97,0<br>*3.819* | 61,0<br>*2.402* | 36,0<br>*1.417* | 57,0<br>*2.244* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0560-048-06R1<br>*SD_DRILL_5.6MM_8XD_A* | 03295207 | 5,6<br>*0.220* | 48,0<br>*1.890* | 97,0<br>*3.819* | 61,0<br>*2.402* | 36,0<br>*1.417* | 57,0<br>*2.244* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0570-048-06R1<br>*SD_DRILL_5.7MM_8XD_A* | 03295208 | 5,7<br>*0.224* | 48,0<br>*1.890* | 97,0<br>*3.819* | 61,0<br>*2.402* | 36,0<br>*1.417* | 57,0<br>*2.244* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0580-048-06R1<br>*SD_DRILL_5.8MM_8XD_A* | 03295012 | 5,8<br>*0.228* | 48,0<br>*1.890* | 97,0<br>*3.819* | 61,0<br>*2.402* | 36,0<br>*1.417* | 57,0<br>*2.244* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0590-048-06R1<br>*SD_DRILL_5.9MM_8XD_A* | 03295013 | 5,9<br>*0.232* | 48,0<br>*1.890* | 97,0<br>*3.819* | 61,0<br>*2.402* | 36,0<br>*1.417* | 57,0<br>*2.244* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0595-048-06R1<br>*SD_DRILL_15/64_8XD_A* | 03323686 | 5,953<br>*0.234* | 48,0<br>*1.890* | 97,0<br>*3.819* | 61,0<br>*2.402* | 36,0<br>*1.417* | 57,0<br>*2.244* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0600-048-06R1<br>*SD_DRILL_6.0MM_8XD_A* | 03295014 | 6,0<br>*0.236* | 48,0<br>*1.890* | 97,0<br>*3.819* | 61,0<br>*2.402* | 36,0<br>*1.417* | 57,0<br>*2.244* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1108A-0610-055-08R1<br>*SD_DRILL_6.1MM_8XD_A* | 03295015 | 6,1<br>*0.240* | 55,0<br>*2.165* | 106,0<br>*4.173* | 70,0<br>*2.756* | 36,0<br>*1.417* | 66,0<br>*2.598* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1108A-0620-055-08R1<br>*SD_DRILL_6.2MM_8XD_A* | 03295016 | 6,2<br>*0.244* | 55,0<br>*2.165* | 106,0<br>*4.173* | 70,0<br>*2.756* | 36,0<br>*1.417* | 66,0<br>*2.598* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1108A-0630-055-08R1<br>*SD_DRILL_6.3MM_8XD_A* | 03295017 | 6,3<br>*0.248* | 55,0<br>*2.165* | 106,0<br>*4.173* | 70,0<br>*2.756* | 36,0<br>*1.417* | 66,0<br>*2.598* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1108A-0635-055-08R1<br>*SD_DRILL_1/4_8XD_A* | 03295018 | 6,35<br>*0.250* | 55,0<br>*2.165* | 106,0<br>*4.173* | 70,0<br>*2.756* | 36,0<br>*1.417* | 66,0<br>*2.598* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1108A-0640-055-08R1<br>*SD_DRILL_6.4MM_8XD_A* | 03295019 | 6,4<br>*0.252* | 55,0<br>*2.165* | 106,0<br>*4.173* | 70,0<br>*2.756* | 36,0<br>*1.417* | 66,0<br>*2.598* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1108A-0650-055-08R1<br>*SD_DRILL_6.5MM_8XD_A* | 03295020 | 6,5<br>*0.256* | 55,0<br>*2.165* | 106,0<br>*4.173* | 70,0<br>*2.756* | 36,0<br>*1.417* | 66,0<br>*2.598* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1108A-0660-055-08R1<br>*SD_DRILL_6.6MM_8XD_A* | 03295021 | 6,6<br>*0.260* | 55,0<br>*2.165* | 106,0<br>*4.173* | 70,0<br>*2.756* | 36,0<br>*1.417* | 66,0<br>*2.598* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1108A-0670-055-08R1<br>*SD_DRILL_6.7MM_8XD_A* | 03295022 | 6,7<br>*0.264* | 55,0<br>*2.165* | 106,0<br>*4.173* | 70,0<br>*2.756* | 36,0<br>*1.417* | 66,0<br>*2.598* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1108A-0675-055-08R1<br>*SD_DRILL_17/64_8XD_A* | 03323687 | 6,747<br>*0.266* | 55,0<br>*2.165* | 106,0<br>*4.173* | 70,0<br>*2.756* | 36,0<br>*1.417* | 66,0<br>*2.598* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1108A-0680-055-08R1<br>*SD_DRILL_6.8MM_8XD_A* | 03295023 | 6,8<br>*0.268* | 55,0<br>*2.165* | 106,0<br>*4.173* | 70,0<br>*2.756* | 36,0<br>*1.417* | 66,0<br>*2.598* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1108A-0690-055-08R1<br>*SD_DRILL_6.9MM_8XD_A* | 03295024 | 6,9<br>*0.272* | 55,0<br>*2.165* | 106,0<br>*4.173* | 70,0<br>*2.756* | 36,0<br>*1.417* | 66,0<br>*2.598* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1108A-0700-055-08R1<br>*SD_DRILL_7.0MM_8XD_A* | 03295025 | 7,0<br>*0.276* | 55,0<br>*2.165* | 106,0<br>*4.173* | 70,0<br>*2.756* | 36,0<br>*1.417* | 66,0<br>*2.598* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1108A-0710-064-08R1<br>*SD_DRILL_7.1MM_8XD_A* | 03295026 | 7,1<br>*0.280* | 64,0<br>*2.520* | 116,0<br>*4.567* | 80,0<br>*3.150* | 36,0<br>*1.417* | 76,0<br>*2.992* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD1108A-0714-064-08R1<br>*SD_DRILL_9/32_8XD_A* | 03323688 | 7,144<br>*0.281* | 64,0<br>*2.520* | 116,0<br>*4.567* | 80,0<br>*3.150* | 36,0<br>*1.417* | 76,0<br>*2.992* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1108A-0730-064-08R1<br>*SD_DRILL_7.3MM_8XD_A* | 03323689 | 7,3<br>*0.287* | 64,0<br>*2.520* | 116,0<br>*4.567* | 80,0<br>*3.150* | 36,0<br>*1.417* | 76,0<br>*2.992* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1108A-0740-064-08R1<br>*SD_DRILL_7.4MM_8XD_A* | 03295027 | 7,4<br>*0.291* | 64,0<br>*2.520* | 116,0<br>*4.567* | 80,0<br>*3.150* | 36,0<br>*1.417* | 76,0<br>*2.992* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1108A-0750-064-08R1<br>*SD_DRILL_7.5MM_8XD_A* | 03295028 | 7,5<br>*0.295* | 64,0<br>*2.520* | 116,0<br>*4.567* | 80,0<br>*3.150* | 36,0<br>*1.417* | 76,0<br>*2.992* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1108A-0754-064-08R1<br>*SD_DRILL_19/64_8XD_A* | 03323690 | 7,541<br>*0.297* | 64,0<br>*2.520* | 116,0<br>*4.567* | 80,0<br>*3.150* | 36,0<br>*1.417* | 76,0<br>*2.992* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1108A-0760-064-08R1<br>*SD_DRILL_7.6MM_8XD_A* | 03323691 | 7,6<br>*0.299* | 64,0<br>*2.520* | 116,0<br>*4.567* | 80,0<br>*3.150* | 36,0<br>*1.417* | 76,0<br>*2.992* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1108A-0770-064-08R1<br>*SD_DRILL_7.7MM_8XD_A* | 03295029 | 7,7<br>*0.303* | 64,0<br>*2.520* | 116,0<br>*4.567* | 80,0<br>*3.150* | 36,0<br>*1.417* | 76,0<br>*2.992* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1108A-0780-064-08R1<br>*SD_DRILL_7.8MM_8XD_A* | 03295030 | 7,8<br>*0.307* | 64,0<br>*2.520* | 116,0<br>*4.567* | 80,0<br>*3.150* | 36,0<br>*1.417* | 76,0<br>*2.992* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1108A-0790-064-08R1<br>*SD_DRILL_7.9MM_8XD_A* | 03295031 | 7,9<br>*0.311* | 64,0<br>*2.520* | 116,0<br>*4.567* | 80,0<br>*3.150* | 36,0<br>*1.417* | 76,0<br>*2.992* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1108A-0794-064-08R1<br>*SD_DRILL_5/16_8XD_A* | 03323692 | 7,938<br>*0.313* | 64,0<br>*2.520* | 116,0<br>*4.567* | 80,0<br>*3.150* | 36,0<br>*1.417* | 76,0<br>*2.992* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1108A-0800-064-08R1<br>*SD_DRILL_8.0MM_8XD_A* | 03295032 | 8,0<br>*0.315* | 64,0<br>*2.520* | 116,0<br>*4.567* | 80,0<br>*3.150* | 36,0<br>*1.417* | 76,0<br>*2.992* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1108A-0810-080-10R1<br>*SD_DRILL_8.1MM_8XD_A* | 03295033 | 8,1<br>*0.319* | 80,0<br>*3.150* | 139,0<br>*5.472* | 99,0<br>*3.898* | 40,0<br>*1.575* | 95,0<br>*3.740* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1108A-0820-080-10R1<br>*SD_DRILL_8.2MM_8XD_A* | 03295034 | 8,2<br>*0.323* | 80,0<br>*3.150* | 139,0<br>*5.472* | 99,0<br>*3.898* | 40,0<br>*1.575* | 95,0<br>*3.740* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1108A-0830-080-10R1<br>*SD_DRILL_8.3MM_8XD_A* | 03295035 | 8,3<br>*0.327* | 80,0<br>*3.150* | 139,0<br>*5.472* | 99,0<br>*3.898* | 40,0<br>*1.575* | 95,0<br>*3.740* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1108A-0833-080-10R1<br>*SD_DRILL_21/64_8XD_A* | 03323693 | 8,334<br>*0.328* | 80,0<br>*3.150* | 139,0<br>*5.472* | 99,0<br>*3.898* | 40,0<br>*1.575* | 95,0<br>*3.740* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1108A-0840-080-10R1<br>*SD_DRILL_8.4MM_8XD_A* | 03295036 | 8,4<br>*0.331* | 80,0<br>*3.150* | 139,0<br>*5.472* | 99,0<br>*3.898* | 40,0<br>*1.575* | 95,0<br>*3.740* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1108A-0850-080-10R1<br>*SD_DRILL_8.5MM_8XD_A* | 03295037 | 8,5<br>*0.335* | 80,0<br>*3.150* | 139,0<br>*5.472* | 99,0<br>*3.898* | 40,0<br>*1.575* | 95,0<br>*3.740* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1108A-0860-080-10R1<br>*SD_DRILL_8.6MM_8XD_A* | 03295038 | 8,6<br>*0.339* | 80,0<br>*3.150* | 139,0<br>*5.472* | 99,0<br>*3.898* | 40,0<br>*1.575* | 95,0<br>*3.740* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1108A-0870-080-10R1<br>*SD_DRILL_8.7MM_8XD_A* | 03295039 | 8,7<br>*0.343* | 80,0<br>*3.150* | 139,0<br>*5.472* | 99,0<br>*3.898* | 40,0<br>*1.575* | 95,0<br>*3.740* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1108A-0873-080-10R1<br>*SD_DRILL_11/32_8XD_A* | 03323694 | 8,731<br>*0.344* | 80,0<br>*3.150* | 139,0<br>*5.472* | 99,0<br>*3.898* | 40,0<br>*1.575* | 95,0<br>*3.740* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1108A-0880-080-10R1<br>*SD_DRILL_8.8MM_8XD_A* | 03295040 | 8,8<br>*0.346* | 80,0<br>*3.150* | 139,0<br>*5.472* | 99,0<br>*3.898* | 40,0<br>*1.575* | 95,0<br>*3.740* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1108A-0900-080-10R1<br>*SD_DRILL_9.0MM_8XD_A* | 03295041 | 9,0<br>*0.354* | 80,0<br>*3.150* | 139,0<br>*5.472* | 99,0<br>*3.898* | 40,0<br>*1.575* | 95,0<br>*3.740* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1108A-0910-080-10R1<br>*SD_DRILL_9.1MM_8XD_A* | 03295042 | 9,1<br>*0.358* | 80,0<br>*3.150* | 139,0<br>*5.472* | 99,0<br>*3.898* | 40,0<br>*1.575* | 95,0<br>*3.740* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1108A-0913-080-10R1<br>*SD_DRILL_23/64_8XD_A* | 03323695 | 9,128<br>*0.359* | 80,0<br>*3.150* | 139,0<br>*5.472* | 99,0<br>*3.898* | 40,0<br>*1.575* | 95,0<br>*3.740* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1108A-0930-080-10R1<br>*SD_DRILL_9.3MM_8XD_A* | 03295043 | 9,3<br>*0.366* | 80,0<br>*3.150* | 139,0<br>*5.472* | 99,0<br>*3.898* | 40,0<br>*1.575* | 95,0<br>*3.740* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1108A-0940-080-10R1<br>*SD_DRILL_9.4MM_8XD_A* | 03295044 | 9,4<br>*0.370* | 80,0<br>*3.150* | 139,0<br>*5.472* | 99,0<br>*3.898* | 40,0<br>*1.575* | 95,0<br>*3.740* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1108A-0950-080-10R1<br>*SD_DRILL_9.5MM_8XD_A* | 03295045 | 9,5<br>*0.374* | 80,0<br>*3.150* | 139,0<br>*5.472* | 99,0<br>*3.898* | 40,0<br>*1.575* | 95,0<br>*3.740* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1108A-0953-080-10R1<br>*SD_DRILL_3/8_8XD_A* | 03323696 | 9,525<br>*0.375* | 80,0<br>*3.150* | 139,0<br>*5.472* | 99,0<br>*3.898* | 40,0<br>*1.575* | 95,0<br>*3.740* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1108A-0970-080-10R1<br>*SD_DRILL_9.7MM_8XD_A* | 03295046 | 9,7<br>*0.382* | 80,0<br>*3.150* | 139,0<br>*5.472* | 99,0<br>*3.898* | 40,0<br>*1.575* | 95,0<br>*3.740* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1108A-0980-080-10R1<br>*SD_DRILL_9.8MM_8XD_A* | 03295047 | 9,8<br>*0.386* | 80,0<br>*3.150* | 139,0<br>*5.472* | 99,0<br>*3.898* | 40,0<br>*1.575* | 95,0<br>*3.740* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1108A-0990-080-10R1<br>*SD_DRILL_9.9MM_8XD_A* | 03295048 | 9,9<br>*0.390* | 80,0<br>*3.150* | 139,0<br>*5.472* | 99,0<br>*3.898* | 40,0<br>*1.575* | 95,0<br>*3.740* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |

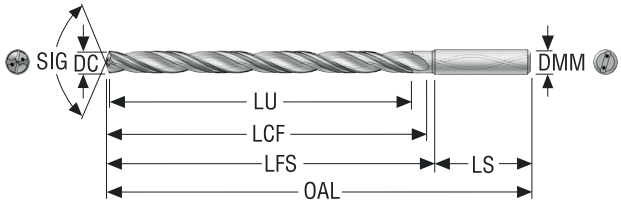
| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD1108A-0992-080-10R1<br>*SD_DRILL_25/64_8XD_A* | 03323697 | 9,922<br>*0.391* | 80,0<br>*3.150* | 139,0<br>*5.472* | 99,0<br>*3.898* | 40,0<br>*1.575* | 95,0<br>*3.740* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1108A-1000-080-10R1<br>*SD_DRILL_10.0MM_8XD_A* | 03295049 | 10,0<br>*0.394* | 80,0<br>*3.150* | 139,0<br>*5.472* | 99,0<br>*3.898* | 40,0<br>*1.575* | 95,0<br>*3.740* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1108A-1020-096-12R1<br>*SD_DRILL_10.2MM_8XD_A* | 03295050 | 10,2<br>*0.402* | 96,0<br>*3.780* | 163,0<br>*6.417* | 118,0<br>*4.646* | 45,0<br>*1.772* | 114,0<br>*4.488* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1108A-1030-096-12R1<br>*SD_DRILL_10.3MM_8XD_A* | 03295051 | 10,3<br>*0.406* | 96,0<br>*3.780* | 163,0<br>*6.417* | 118,0<br>*4.646* | 45,0<br>*1.772* | 114,0<br>*4.488* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1108A-1032-096-12R1<br>*SD_DRILL_13/32_8XD_A* | 03323698 | 10,319<br>*0.406* | 96,0<br>*3.780* | 163,0<br>*6.417* | 118,0<br>*4.646* | 45,0<br>*1.772* | 114,0<br>*4.488* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1108A-1040-096-12R1<br>*SD_DRILL_10.4MM_8XD_A* | 03295053 | 10,4<br>*0.409* | 96,0<br>*3.780* | 163,0<br>*6.417* | 118,0<br>*4.646* | 45,0<br>*1.772* | 114,0<br>*4.488* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1108A-1050-096-12R1<br>*SD_DRILL_10.5MM_8XD_A* | 03295054 | 10,5<br>*0.413* | 96,0<br>*3.780* | 163,0<br>*6.417* | 118,0<br>*4.646* | 45,0<br>*1.772* | 114,0<br>*4.488* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1108A-1070-096-12R1<br>*SD_DRILL_10.7MM_8XD_A* | 03295055 | 10,7<br>*0.421* | 96,0<br>*3.780* | 163,0<br>*6.417* | 118,0<br>*4.646* | 45,0<br>*1.772* | 114,0<br>*4.488* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1108A-1072-096-12R1<br>*SD_DRILL_27/64_8XD_A* | 03323699 | 10,716<br>*0.422* | 96,0<br>*3.780* | 163,0<br>*6.417* | 118,0<br>*4.646* | 45,0<br>*1.772* | 114,0<br>*4.488* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1108A-1080-096-12R1<br>*SD_DRILL_10.8MM_8XD_A* | 03295056 | 10,8<br>*0.425* | 96,0<br>*3.780* | 163,0<br>*6.417* | 118,0<br>*4.646* | 45,0<br>*1.772* | 114,0<br>*4.488* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1108A-1100-096-12R1<br>*SD_DRILL_11.0MM_8XD_A* | 03295057 | 11,0<br>*0.433* | 96,0<br>*3.780* | 163,0<br>*6.417* | 118,0<br>*4.646* | 45,0<br>*1.772* | 114,0<br>*4.488* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1108A-1111-096-12R1<br>*SD_DRILL_7/16_8XD_A* | 03323700 | 11,113<br>*0.438* | 96,0<br>*3.780* | 163,0<br>*6.417* | 118,0<br>*4.646* | 45,0<br>*1.772* | 114,0<br>*4.488* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1108A-1120-096-12R1<br>*SD_DRILL_11.2MM_8XD_A* | 03295058 | 11,2<br>*0.441* | 96,0<br>*3.780* | 163,0<br>*6.417* | 118,0<br>*4.646* | 45,0<br>*1.772* | 114,0<br>*4.488* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1108A-1130-096-12R1<br>*SD_DRILL_11.3MM_8XD_A* | 03295059 | 11,3<br>*0.445* | 96,0<br>*3.780* | 163,0<br>*6.417* | 118,0<br>*4.646* | 45,0<br>*1.772* | 114,0<br>*4.488* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1108A-1150-096-12R1<br>*SD_DRILL_11.5MM_8XD_A* | 03295060 | 11,5<br>*0.453* | 96,0<br>*3.780* | 163,0<br>*6.417* | 118,0<br>*4.646* | 45,0<br>*1.772* | 114,0<br>*4.488* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1108A-1170-096-12R1<br>*SD_DRILL_11.7MM_8XD_A* | 03295061 | 11,7<br>*0.461* | 96,0<br>*3.780* | 163,0<br>*6.417* | 118,0<br>*4.646* | 45,0<br>*1.772* | 114,0<br>*4.488* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1108A-1180-096-12R1<br>*SD_DRILL_11.8MM_8XD_A* | 03295062 | 11,8<br>*0.465* | 96,0<br>*3.780* | 163,0<br>*6.417* | 118,0<br>*4.646* | 45,0<br>*1.772* | 114,0<br>*4.488* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1108A-1190-096-12R1<br>*SD_DRILL_11.9MM_8XD_A* | 03295063 | 11,9<br>*0.469* | 96,0<br>*3.780* | 163,0<br>*6.417* | 118,0<br>*4.646* | 45,0<br>*1.772* | 114,0<br>*4.488* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1108A-1191-096-12R1<br>*SD_DRILL_15/32_8XD_A* | 03323701 | 11,906<br>*0.469* | 96,0<br>*3.780* | 163,0<br>*6.417* | 118,0<br>*4.646* | 45,0<br>*1.772* | 114,0<br>*4.488* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1108A-1200-096-12R1<br>*SD_DRILL_12.0MM_8XD_A* | 03295064 | 12,0<br>*0.472* | 96,0<br>*3.780* | 163,0<br>*6.417* | 118,0<br>*4.646* | 45,0<br>*1.772* | 114,0<br>*4.488* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1108A-1230-119-14R1<br>*SD_DRILL_31/64_8XD_A* | 03295065 | 12,3<br>*0.484* | 119,0<br>*4.685* | 182,0<br>*7.165* | 137,0<br>*5.394* | 45,0<br>*1.772* | 133,0<br>*5.236* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1108A-1250-119-14R1<br>*SD_DRILL_12.5MM_8XD_A* | 03295066 | 12,5<br>*0.492* | 119,0<br>*4.685* | 182,0<br>*7.165* | 137,0<br>*5.394* | 45,0<br>*1.772* | 133,0<br>*5.236* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1108A-1270-119-14R1<br>*SD_DRILL_1/2_8XD_A* | 03295067 | 12,7<br>*0.500* | 119,0<br>*4.685* | 182,0<br>*7.165* | 137,0<br>*5.394* | 45,0<br>*1.772* | 133,0<br>*5.236* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1108A-1300-119-14R1<br>*SD_DRILL_13.0MM_8XD_A* | 03295068 | 13,0<br>*0.512* | 119,0<br>*4.685* | 182,0<br>*7.165* | 137,0<br>*5.394* | 45,0<br>*1.772* | 133,0<br>*5.236* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1108A-1349-119-14R1<br>*SD_DRILL_17/32_8XD_A* | 03323702 | 13,494<br>*0.531* | 119,0<br>*4.685* | 182,0<br>*7.165* | 137,0<br>*5.394* | 45,0<br>*1.772* | 133,0<br>*5.236* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1108A-1350-119-14R1<br>*SD_DRILL_13.5MM_8XD_A* | 03295069 | 13,5<br>*0.531* | 119,0<br>*4.685* | 182,0<br>*7.165* | 137,0<br>*5.394* | 45,0<br>*1.772* | 133,0<br>*5.236* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1108A-1400-119-14R1<br>*SD_DRILL_14.0MM_8XD_A* | 03295070 | 14,0<br>*0.551* | 119,0<br>*4.685* | 182,0<br>*7.165* | 137,0<br>*5.394* | 45,0<br>*1.772* | 133,0<br>*5.236* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1108A-1429-136-16R1<br>*SD_DRILL_9/16_8XD_A* | 03295071 | 14,288<br>*0.563* | 136,0<br>*5.354* | 204,0<br>*8.031* | 156,0<br>*6.142* | 48,0<br>*1.890* | 152,0<br>*5.984* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1108A-1450-136-16R1<br>*SD_DRILL_14.5MM_8XD_A* | 03295072 | 14,5<br>*0.571* | 136,0<br>*5.354* | 204,0<br>*8.031* | 156,0<br>*6.142* | 48,0<br>*1.890* | 152,0<br>*5.984* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1108A-1500-136-16R1<br>*SD_DRILL_15.0MM_8XD_A* | 03295073 | 15,0<br>*0.591* | 136,0<br>*5.354* | 204,0<br>*8.031* | 156,0<br>*6.142* | 48,0<br>*1.890* | 152,0<br>*5.984* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1108A-1550-136-16R1<br>*SD_DRILL_15.5MM_8XD_A* | 03295074 | 15,5<br>*0.610* | 136,0<br>*5.354* | 204,0<br>*8.031* | 156,0<br>*6.142* | 48,0<br>*1.890* | 152,0<br>*5.984* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD1108A-1588-136-16R1<br>*SD_DRILL_5/8_8XD_A* | 03295075 | 15,875<br>*0.625* | 136,0<br>*5.354* | 204,0<br>*8.031* | 156,0<br>*6.142* | 48,0<br>*1.890* | 152,0<br>*5.984* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1108A-1600-136-16R1<br>*SD_DRILL_16.0MM_8XD_A* | 03295076 | 16,0<br>*0.630* | 136,0<br>*5.354* | 204,0<br>*8.031* | 156,0<br>*6.142* | 48,0<br>*1.890* | 152,0<br>*5.984* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1108A-1650-153-18R1<br>*SD_DRILL_16.5MM_8XD_A* | 03295077 | 16,5<br>*0.650* | 153,0<br>*6.024* | 223,0<br>*8.780* | 175,0<br>*6.890* | 48,0<br>*1.890* | 171,0<br>*6.732* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1108A-1700-153-18R1<br>*SD_DRILL_17.0MM_8XD_A* | 03295078 | 17,0<br>*0.669* | 153,0<br>*6.024* | 223,0<br>*8.780* | 175,0<br>*6.890* | 48,0<br>*1.890* | 171,0<br>*6.732* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1108A-1750-153-18R1<br>*SD_DRILL_17.5MM_8XD_A* | 03295079 | 17,5<br>*0.689* | 153,0<br>*6.024* | 223,0<br>*8.780* | 175,0<br>*6.890* | 48,0<br>*1.890* | 171,0<br>*6.732* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1108A-1800-153-18R1<br>*SD_DRILL_18.0MM_8XD_A* | 03295080 | 18,0<br>*0.709* | 153,0<br>*6.024* | 223,0<br>*8.780* | 175,0<br>*6.890* | 48,0<br>*1.890* | 171,0<br>*6.732* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1108A-1850-170-20R1<br>*SD_DRILL_18.5MM_8XD_A* | 03295081 | 18,5<br>*0.728* | 170,0<br>*6.693* | 244,0<br>*9.606* | 194,0<br>*7.638* | 50,0<br>*1.969* | 190,0<br>*7.480* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1108A-1900-170-20R1<br>*SD_DRILL_19.0MM_8XD_A* | 03295082 | 19,0<br>*0.748* | 170,0<br>*6.693* | 244,0<br>*9.606* | 194,0<br>*7.638* | 50,0<br>*1.969* | 190,0<br>*7.480* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1108A-1905-170-20R1<br>*SD_DRILL_3/4_8XD_A* | 03323703 | 19,05<br>*0.750* | 170,0<br>*6.693* | 244,0<br>*9.606* | 194,0<br>*7.638* | 50,0<br>*1.969* | 190,0<br>*7.480* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1108A-1950-170-20R1<br>*SD_DRILL_19.5MM_8XD_A* | 03295083 | 19,5<br>*0.768* | 170,0<br>*6.693* | 244,0<br>*9.606* | 194,0<br>*7.638* | 50,0<br>*1.969* | 190,0<br>*7.480* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1108A-2000-170-20R1<br>*SD_DRILL_20.0MM_8XD_A* | 03295084 | 20,0<br>*0.787* | 170,0<br>*6.693* | 244,0<br>*9.606* | 194,0<br>*7.638* | 50,0<br>*1.969* | 190,0<br>*7.480* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |

# SD1112A

Drilling depth ~ 12 x D – Metric/Inch






- Cylindrical shank DIN 6537A
- DC tolerance m7
- Internal coolant
- For cutting data see page(s) 144
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD1112A-0300-048-06R1<br>*SD_DRILL_3.0MM_12XD_A* | 03295085 | 3,0<br>*0.118* | 48,0<br>*1.890* | 92,0<br>*3.622* | 56,0<br>*2.205* | 36,0<br>*1.417* | 54,0<br>*2.126* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0310-048-06R1<br>*SD_DRILL_3.1MM_12XD_A* | 03295086 | 3,1<br>*0.122* | 48,0<br>*1.890* | 92,0<br>*3.622* | 56,0<br>*2.205* | 36,0<br>*1.417* | 54,0<br>*2.126* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0318-048-06R1<br>*SD_DRILL_1/8_12XD_A* | 03323704 | 3,175<br>*0.125* | 48,0<br>*1.890* | 92,0<br>*3.622* | 56,0<br>*2.205* | 36,0<br>*1.417* | 54,0<br>*2.126* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0320-048-06R1<br>*SD_DRILL_3.2MM_12XD_A* | 03295087 | 3,2<br>*0.126* | 48,0<br>*1.890* | 92,0<br>*3.622* | 56,0<br>*2.205* | 36,0<br>*1.417* | 54,0<br>*2.126* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0330-048-06R1<br>*SD_DRILL_3.3MM_12XD_A* | 03295088 | 3,3<br>*0.130* | 48,0<br>*1.890* | 92,0<br>*3.622* | 56,0<br>*2.205* | 36,0<br>*1.417* | 54,0<br>*2.126* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0340-048-06R1<br>*SD_DRILL_3.4MM_12XD_A* | 03295089 | 3,4<br>*0.134* | 48,0<br>*1.890* | 92,0<br>*3.622* | 56,0<br>*2.205* | 36,0<br>*1.417* | 54,0<br>*2.126* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0350-048-06R1<br>*SD_DRILL_3.5MM_12XD_A* | 03295090 | 3,5<br>*0.138* | 48,0<br>*1.890* | 92,0<br>*3.622* | 56,0<br>*2.205* | 36,0<br>*1.417* | 54,0<br>*2.126* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0357-048-06R1<br>*SD_DRILL_9/64_12XD_A* | 03323705 | 3,572<br>*0.141* | 48,0<br>*1.890* | 92,0<br>*3.622* | 56,0<br>*2.205* | 36,0<br>*1.417* | 54,0<br>*2.126* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0360-048-06R1<br>*SD_DRILL_3.6MM_12XD_A* | 03295091 | 3,6<br>*0.142* | 48,0<br>*1.890* | 92,0<br>*3.622* | 56,0<br>*2.205* | 36,0<br>*1.417* | 54,0<br>*2.126* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0370-048-06R1<br>*SD_DRILL_3.7MM_12XD_A* | 03295092 | 3,7<br>*0.146* | 48,0<br>*1.890* | 92,0<br>*3.622* | 56,0<br>*2.205* | 36,0<br>*1.417* | 54,0<br>*2.126* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0380-056-06R1<br>*SD_DRILL_3.8MM_12XD_A* | 03295093 | 3,8<br>*0.150* | 56,0<br>*2.205* | 102,0<br>*4.016* | 66,0<br>*2.598* | 36,0<br>*1.417* | 64,0<br>*2.520* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0390-056-06R1<br>*SD_DRILL_3.9MM_12XD_A* | 03295094 | 3,9<br>*0.154* | 56,0<br>*2.205* | 102,0<br>*4.016* | 66,0<br>*2.598* | 36,0<br>*1.417* | 64,0<br>*2.520* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0397-056-06R1<br>*SD_DRILL_5/32_12XD_A* | 03323706 | 3,969<br>*0.156* | 56,0<br>*2.205* | 102,0<br>*4.016* | 66,0<br>*2.598* | 36,0<br>*1.417* | 64,0<br>*2.520* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0400-056-06R1<br>*SD_DRILL_4.0MM_12XD_A* | 03295095 | 4,0<br>*0.157* | 56,0<br>*2.205* | 102,0<br>*4.016* | 66,0<br>*2.598* | 36,0<br>*1.417* | 64,0<br>*2.520* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0410-056-06R1<br>*SD_DRILL_4.1MM_12XD_A* | 03295096 | 4,1<br>*0.161* | 56,0<br>*2.205* | 102,0<br>*4.016* | 66,0<br>*2.598* | 36,0<br>*1.417* | 64,0<br>*2.520* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0420-056-06R1<br>*SD_DRILL_4.2MM_12XD_A* | 03295097 | 4,2<br>*0.165* | 56,0<br>*2.205* | 102,0<br>*4.016* | 66,0<br>*2.598* | 36,0<br>*1.417* | 64,0<br>*2.520* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0430-056-06R1<br>*SD_DRILL_4.3MM_12XD_A* | 03295098 | 4,3<br>*0.169* | 56,0<br>*2.205* | 102,0<br>*4.016* | 66,0<br>*2.598* | 36,0<br>*1.417* | 64,0<br>*2.520* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0437-056-06R1<br>*SD_DRILL_11/64_12XD_A* | 03323707 | 4,366<br>*0.172* | 56,0<br>*2.205* | 102,0<br>*4.016* | 66,0<br>*2.598* | 36,0<br>*1.417* | 64,0<br>*2.520* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0440-056-06R1<br>*SD_DRILL_4.4MM_12XD_A* | 03295099 | 4,4<br>*0.173* | 56,0<br>*2.205* | 102,0<br>*4.016* | 66,0<br>*2.598* | 36,0<br>*1.417* | 64,0<br>*2.520* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0450-056-06R1<br>*SD_DRILL_4.5MM_12XD_A* | 03295100 | 4,5<br>*0.177* | 56,0<br>*2.205* | 102,0<br>*4.016* | 66,0<br>*2.598* | 36,0<br>*1.417* | 64,0<br>*2.520* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0460-056-06R1<br>*SD_DRILL_4.6MM_12XD_A* | 03295101 | 4,6<br>*0.181* | 56,0<br>*2.205* | 102,0<br>*4.016* | 66,0<br>*2.598* | 36,0<br>*1.417* | 64,0<br>*2.520* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD1112A-0470-056-06R1<br>*SD_DRILL_4.7MM_12XD_A* | 03295102 | 4,7<br>*0.185* | 56,0<br>*2.205* | 102,0<br>*4.016* | 66,0<br>*2.598* | 36,0<br>*1.417* | 64,0<br>*2.520* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0476-074-06R1<br>*SD_DRILL_3/16_12XD_A* | 03323708 | 4,763<br>*0.188* | 74,0<br>*2.913* | 121,0<br>*4.764* | 85,0<br>*3.346* | 36,0<br>*1.417* | 83,0<br>*3.268* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0480-074-06R1<br>*SD_DRILL_4.8MM_12XD_A* | 03295103 | 4,8<br>*0.189* | 74,0<br>*2.913* | 121,0<br>*4.764* | 85,0<br>*3.346* | 36,0<br>*1.417* | 83,0<br>*3.268* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0490-074-06R1<br>*SD_DRILL_4.9MM_12XD_A* | 03295104 | 4,9<br>*0.193* | 74,0<br>*2.913* | 121,0<br>*4.764* | 85,0<br>*3.346* | 36,0<br>*1.417* | 83,0<br>*3.268* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0500-074-06R1<br>*SD_DRILL_5.0MM_12XD_A* | 03295105 | 5,0<br>*0.197* | 74,0<br>*2.913* | 121,0<br>*4.764* | 85,0<br>*3.346* | 36,0<br>*1.417* | 83,0<br>*3.268* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0510-074-06R1<br>*SD_DRILL_5.1MM_12XD_A* | 03295106 | 5,1<br>*0.201* | 74,0<br>*2.913* | 121,0<br>*4.764* | 85,0<br>*3.346* | 36,0<br>*1.417* | 83,0<br>*3.268* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0516-074-06R1<br>*SD_DRILL_13/64_12XD_A* | 03323709 | 5,159<br>*0.203* | 74,0<br>*2.913* | 121,0<br>*4.764* | 85,0<br>*3.346* | 36,0<br>*1.417* | 83,0<br>*3.268* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0520-074-06R1<br>*SD_DRILL_5.2MM_12XD_A* | 03295107 | 5,2<br>*0.205* | 74,0<br>*2.913* | 121,0<br>*4.764* | 85,0<br>*3.346* | 36,0<br>*1.417* | 83,0<br>*3.268* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0530-074-06R1<br>*SD_DRILL_5.3MM_12XD_A* | 03295108 | 5,3<br>*0.209* | 74,0<br>*2.913* | 121,0<br>*4.764* | 85,0<br>*3.346* | 36,0<br>*1.417* | 83,0<br>*3.268* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0540-074-06R1<br>*SD_DRILL_5.4MM_12XD_A* | 03295109 | 5,4<br>*0.213* | 74,0<br>*2.913* | 121,0<br>*4.764* | 85,0<br>*3.346* | 36,0<br>*1.417* | 83,0<br>*3.268* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0550-074-06R1<br>*SD_DRILL_5.5MM_12XD_A* | 03295110 | 5,5<br>*0.217* | 74,0<br>*2.913* | 121,0<br>*4.764* | 85,0<br>*3.346* | 36,0<br>*1.417* | 83,0<br>*3.268* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0556-074-06R1<br>*SD_DRILL_7/32_12XD_A* | 03295111 | 5,556<br>*0.219* | 74,0<br>*2.913* | 121,0<br>*4.764* | 85,0<br>*3.346* | 36,0<br>*1.417* | 83,0<br>*3.268* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0560-074-06R1<br>*SD_DRILL_5.6MM_12XD_A* | 03295112 | 5,6<br>*0.220* | 74,0<br>*2.913* | 121,0<br>*4.764* | 85,0<br>*3.346* | 36,0<br>*1.417* | 83,0<br>*3.268* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0570-074-06R1<br>*SD_DRILL_5.7MM_12XD_A* | 03295113 | 5,7<br>*0.224* | 74,0<br>*2.913* | 121,0<br>*4.764* | 85,0<br>*3.346* | 36,0<br>*1.417* | 83,0<br>*3.268* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0580-074-06R1<br>*SD_DRILL_5.8MM_12XD_A* | 03295114 | 5,8<br>*0.228* | 74,0<br>*2.913* | 121,0<br>*4.764* | 85,0<br>*3.346* | 36,0<br>*1.417* | 83,0<br>*3.268* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0590-074-06R1<br>*SD_DRILL_5.9MM_12XD_A* | 03295115 | 5,9<br>*0.232* | 74,0<br>*2.913* | 121,0<br>*4.764* | 85,0<br>*3.346* | 36,0<br>*1.417* | 83,0<br>*3.268* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0600-074-06R1<br>*SD_DRILL_6.0MM_12XD_A* | 03295116 | 6,0<br>*0.236* | 74,0<br>*2.913* | 121,0<br>*4.764* | 85,0<br>*3.346* | 36,0<br>*1.417* | 83,0<br>*3.268* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD1112A-0610-098-08R1<br>*SD_DRILL_6.1MM_12XD_A* | 03295117 | 6,1<br>*0.240* | 98,0<br>*3.858* | 148,0<br>*5.827* | 112,0<br>*4.409* | 36,0<br>*1.417* | 110,0<br>*4.331* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1112A-0620-098-08R1<br>*SD_DRILL_6.2MM_12XD_A* | 03295118 | 6,2<br>*0.244* | 98,0<br>*3.858* | 148,0<br>*5.827* | 112,0<br>*4.409* | 36,0<br>*1.417* | 110,0<br>*4.331* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1112A-0630-098-08R1<br>*SD_DRILL_6.3MM_12XD_A* | 03295119 | 6,3<br>*0.248* | 98,0<br>*3.858* | 148,0<br>*5.827* | 112,0<br>*4.409* | 36,0<br>*1.417* | 110,0<br>*4.331* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1112A-0635-098-08R1<br>*SD_DRILL_1/4_12XD_A* | 03295120 | 6,35<br>*0.250* | 98,0<br>*3.858* | 148,0<br>*5.827* | 112,0<br>*4.409* | 36,0<br>*1.417* | 110,0<br>*4.331* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1112A-0640-098-08R1<br>*SD_DRILL_6.4MM_12XD_A* | 03295121 | 6,4<br>*0.252* | 98,0<br>*3.858* | 148,0<br>*5.827* | 112,0<br>*4.409* | 36,0<br>*1.417* | 110,0<br>*4.331* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1112A-0650-098-08R1<br>*SD_DRILL_6.5MM_12XD_A* | 03295122 | 6,5<br>*0.256* | 98,0<br>*3.858* | 148,0<br>*5.827* | 112,0<br>*4.409* | 36,0<br>*1.417* | 110,0<br>*4.331* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1112A-0660-098-08R1<br>*SD_DRILL_6.6MM_12XD_A* | 03295123 | 6,6<br>*0.260* | 98,0<br>*3.858* | 148,0<br>*5.827* | 112,0<br>*4.409* | 36,0<br>*1.417* | 110,0<br>*4.331* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1112A-0670-098-08R1<br>*SD_DRILL_6.7MM_12XD_A* | 03295124 | 6,7<br>*0.264* | 98,0<br>*3.858* | 148,0<br>*5.827* | 112,0<br>*4.409* | 36,0<br>*1.417* | 110,0<br>*4.331* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1112A-0675-098-08R1<br>*SD_DRILL_17/64_12XD_A* | 03323710 | 6,747<br>*0.266* | 98,0<br>*3.858* | 148,0<br>*5.827* | 128,0<br>*5.039* | 36,0<br>*1.417* | 110,0<br>*4.331* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1112A-0680-098-08R1<br>*SD_DRILL_6.8MM_12XD_A* | 03295125 | 6,8<br>*0.268* | 98,0<br>*3.858* | 148,0<br>*5.827* | 112,0<br>*4.409* | 36,0<br>*1.417* | 110,0<br>*4.331* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1112A-0690-098-08R1<br>*SD_DRILL_6.9MM_12XD_A* | 03295126 | 6,9<br>*0.272* | 98,0<br>*3.858* | 148,0<br>*5.827* | 112,0<br>*4.409* | 36,0<br>*1.417* | 110,0<br>*4.331* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1112A-0700-098-08R1<br>*SD_DRILL_7.0MM_12XD_A* | 03295127 | 7,0<br>*0.276* | 98,0<br>*3.858* | 148,0<br>*5.827* | 112,0<br>*4.409* | 36,0<br>*1.417* | 110,0<br>*4.331* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1112A-0710-098-08R1<br>*SD_DRILL_7.1MM_12XD_A* | 03295128 | 7,1<br>*0.280* | 98,0<br>*3.858* | 148,0<br>*5.827* | 112,0<br>*4.409* | 36,0<br>*1.417* | 110,0<br>*4.331* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1112A-0714-098-08R1<br>*SD_DRILL_9/32_12XD_A* | 03323711 | 7,144<br>*0.281* | 98,0<br>*3.858* | 148,0<br>*5.827* | 128,0<br>*5.039* | 36,0<br>*1.417* | 110,0<br>*4.331* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD1112A-0730-098-08R1<br>*SD_DRILL_7.3MM_12XD_A* | 03323712 | 7,3<br>*0.287* | 98,0<br>*3.858* | 148,0<br>*5.827* | 128,0<br>*5.039* | 36,0<br>*1.417* | 110,0<br>*4.331* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1112A-0740-098-08R1<br>*SD_DRILL_7.4MM_12XD_A* | 03295129 | 7,4<br>*0.291* | 98,0<br>*3.858* | 148,0<br>*5.827* | 112,0<br>*4.409* | 36,0<br>*1.417* | 110,0<br>*4.331* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1112A-0750-098-08R1<br>*SD_DRILL_7.5MM_12XD_A* | 03295130 | 7,5<br>*0.295* | 98,0<br>*3.858* | 148,0<br>*5.827* | 112,0<br>*4.409* | 36,0<br>*1.417* | 110,0<br>*4.331* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1112A-0754-098-08R1<br>*SD_DRILL_19/64_12XD_A* | 03323713 | 7,541<br>*0.297* | 98,0<br>*3.858* | 148,0<br>*5.827* | 128,0<br>*5.039* | 36,0<br>*1.417* | 110,0<br>*4.331* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1112A-0780-098-08R1<br>*SD_DRILL_7.8MM_12XD_A* | 03295131 | 7,8<br>*0.307* | 98,0<br>*3.858* | 148,0<br>*5.827* | 112,0<br>*4.409* | 36,0<br>*1.417* | 110,0<br>*4.331* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1112A-0790-098-08R1<br>*SD_DRILL_7.9MM_12XD_A* | 03295132 | 7,9<br>*0.311* | 98,0<br>*3.858* | 148,0<br>*5.827* | 112,0<br>*4.409* | 36,0<br>*1.417* | 110,0<br>*4.331* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1112A-0794-098-08R1<br>*SD_DRILL_5/16_12XD_A* | 03323714 | 7,938<br>*0.313* | 98,0<br>*3.858* | 148,0<br>*5.827* | 128,0<br>*5.039* | 36,0<br>*1.417* | 110,0<br>*4.331* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1112A-0800-098-08R1<br>*SD_DRILL_8.0MM_12XD_A* | 03295133 | 8,0<br>*0.315* | 98,0<br>*3.858* | 148,0<br>*5.827* | 112,0<br>*4.409* | 36,0<br>*1.417* | 110,0<br>*4.331* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD1112A-0810-123-10R1<br>*SD_DRILL_8.1MM_12XD_A* | 03295135 | 8,1<br>*0.319* | 123,0<br>*4.843* | 180,0<br>*7.087* | 140,0<br>*5.512* | 40,0<br>*1.575* | 138,0<br>*5.433* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1112A-0820-123-10R1<br>*SD_DRILL_8.2MM_12XD_A* | 03295136 | 8,2<br>*0.323* | 123,0<br>*4.843* | 180,0<br>*7.087* | 140,0<br>*5.512* | 40,0<br>*1.575* | 138,0<br>*5.433* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1112A-0830-123-10R1<br>*SD_DRILL_8.3MM_12XD_A* | 03295137 | 8,3<br>*0.327* | 123,0<br>*4.843* | 180,0<br>*7.087* | 140,0<br>*5.512* | 40,0<br>*1.575* | 138,0<br>*5.433* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1112A-0840-123-10R1<br>*SD_DRILL_8.4MM_12XD_A* | 03295138 | 8,4<br>*0.331* | 123,0<br>*4.843* | 180,0<br>*7.087* | 140,0<br>*5.512* | 40,0<br>*1.575* | 138,0<br>*5.433* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1112A-0850-123-10R1<br>*SD_DRILL_8.5MM_12XD_A* | 03295139 | 8,5<br>*0.335* | 123,0<br>*4.843* | 180,0<br>*7.087* | 140,0<br>*5.512* | 40,0<br>*1.575* | 138,0<br>*5.433* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1112A-0860-123-10R1<br>*SD_DRILL_8.6MM_12XD_A* | 03295140 | 8,6<br>*0.339* | 123,0<br>*4.843* | 180,0<br>*7.087* | 140,0<br>*5.512* | 40,0<br>*1.575* | 138,0<br>*5.433* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1112A-0870-123-10R1<br>*SD_DRILL_8.7MM_12XD_A* | 03295141 | 8,7<br>*0.343* | 123,0<br>*4.843* | 180,0<br>*7.087* | 140,0<br>*5.512* | 40,0<br>*1.575* | 138,0<br>*5.433* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1112A-0873-123-10R1<br>*SD_DRILL_11/32_12XD_A* | 03323715 | 8,731<br>*0.344* | 123,0<br>*4.843* | 180,0<br>*7.087* | 140,0<br>*5.512* | 40,0<br>*1.575* | 138,0<br>*5.433* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1112A-0880-123-10R1<br>*SD_DRILL_8.8MM_12XD_A* | 03295142 | 8,8<br>*0.346* | 123,0<br>*4.843* | 180,0<br>*7.087* | 140,0<br>*5.512* | 40,0<br>*1.575* | 138,0<br>*5.433* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1112A-0900-123-10R1<br>*SD_DRILL_9.0MM_12XD_A* | 03295143 | 9,0<br>*0.354* | 123,0<br>*4.843* | 180,0<br>*7.087* | 140,0<br>*5.512* | 40,0<br>*1.575* | 138,0<br>*5.433* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1112A-0913-123-10R1<br>*SD_DRILL_23/64_12XD_A* | 03323716 | 9,128<br>*0.359* | 123,0<br>*4.843* | 180,0<br>*7.087* | 140,0<br>*5.512* | 40,0<br>*1.575* | 138,0<br>*5.433* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1112A-0930-123-10R1<br>*SD_DRILL_9.3MM_12XD_A* | 03295144 | 9,3<br>*0.366* | 123,0<br>*4.843* | 180,0<br>*7.087* | 140,0<br>*5.512* | 40,0<br>*1.575* | 138,0<br>*5.433* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1112A-0950-123-10R1<br>*SD_DRILL_9.5MM_12XD_A* | 03295145 | 9,5<br>*0.374* | 123,0<br>*4.843* | 180,0<br>*7.087* | 140,0<br>*5.512* | 40,0<br>*1.575* | 138,0<br>*5.433* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1112A-0953-123-10R1<br>*SD_DRILL_3/8_12XD_A* | 03323717 | 9,525<br>*0.375* | 123,0<br>*4.843* | 180,0<br>*7.087* | 140,0<br>*5.512* | 40,0<br>*1.575* | 138,0<br>*5.433* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1112A-0970-123-10R1<br>*SD_DRILL_9.7MM_12XD_A* | 03295146 | 9,7<br>*0.382* | 123,0<br>*4.843* | 180,0<br>*7.087* | 140,0<br>*5.512* | 40,0<br>*1.575* | 138,0<br>*5.433* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1112A-0980-123-10R1<br>*SD_DRILL_9.8MM_12XD_A* | 03295147 | 9,8<br>*0.386* | 123,0<br>*4.843* | 180,0<br>*7.087* | 140,0<br>*5.512* | 40,0<br>*1.575* | 138,0<br>*5.433* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1112A-0992-123-10R1<br>*SD_DRILL_25/64_12XD_A* | 03323718 | 9,922<br>*0.391* | 123,0<br>*4.843* | 180,0<br>*7.087* | 140,0<br>*5.512* | 40,0<br>*1.575* | 138,0<br>*5.433* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1112A-1000-123-10R1<br>*SD_DRILL_10.0MM_12XD_A* | 03295148 | 10,0<br>*0.394* | 123,0<br>*4.843* | 180,0<br>*7.087* | 140,0<br>*5.512* | 40,0<br>*1.575* | 138,0<br>*5.433* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD1112A-1020-140-12R1<br>*SD_DRILL_10.2MM_12XD_A* | 03295149 | 10,2<br>*0.402* | 140,0<br>*5.512* | 206,0<br>*8.110* | 161,0<br>*6.339* | 45,0<br>*1.772* | 158,0<br>*6.220* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1112A-1030-140-12R1<br>*SD_DRILL_10.3MM_12XD_A* | 03295150 | 10,3<br>*0.406* | 140,0<br>*5.512* | 206,0<br>*8.110* | 161,0<br>*6.339* | 45,0<br>*1.772* | 158,0<br>*6.220* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1112A-1032-140-12R1<br>*SD_DRILL_13/32_12XD_A* | 03323719 | 10,319<br>*0.406* | 140,0<br>*5.512* | 206,0<br>*8.110* | 161,0<br>*6.339* | 45,0<br>*1.772* | 158,0<br>*6.220* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1112A-1050-140-12R1<br>*SD_DRILL_10.5MM_12XD_A* | 03295151 | 10,5<br>*0.413* | 140,0<br>*5.512* | 206,0<br>*8.110* | 161,0<br>*6.339* | 45,0<br>*1.772* | 158,0<br>*6.220* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1112A-1072-140-12R1<br>*SD_DRILL_27/64_12XD_A* | 03323720 | 10,716<br>*0.422* | 140,0<br>*5.512* | 206,0<br>*8.110* | 161,0<br>*6.339* | 45,0<br>*1.772* | 158,0<br>*6.220* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD1112A-1080-140-12R1<br>*SD_DRILL_10.8MM_12XD_A* | 03295152 | 10,8<br>*0.425* | 140,0<br>*5.512* | 206,0<br>*8.110* | 161,0<br>*6.339* | 45,0<br>*1.772* | 158,0<br>*6.220* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1112A-1100-140-12R1<br>*SD_DRILL_11.0MM_12XD_A* | 03295153 | 11,0<br>*0.433* | 140,0<br>*5.512* | 206,0<br>*8.110* | 161,0<br>*6.339* | 45,0<br>*1.772* | 158,0<br>*6.220* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1112A-1111-140-12R1<br>*SD_DRILL_7/16_12XD_A* | 03323722 | 11,113<br>*0.438* | 140,0<br>*5.512* | 206,0<br>*8.110* | 161,0<br>*6.339* | 45,0<br>*1.772* | 158,0<br>*6.220* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1112A-1120-140-12R1<br>*SD_DRILL_11.2MM_12XD_A* | 03295154 | 11,2<br>*0.441* | 140,0<br>*5.512* | 206,0<br>*8.110* | 161,0<br>*6.339* | 45,0<br>*1.772* | 158,0<br>*6.220* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1112A-1150-140-12R1<br>*SD_DRILL_11.5MM_12XD_A* | 03295155 | 11,5<br>*0.453* | 140,0<br>*5.512* | 206,0<br>*8.110* | 161,0<br>*6.339* | 45,0<br>*1.772* | 158,0<br>*6.220* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1112A-1170-140-12R1<br>*SD_DRILL_11.7MM_12XD_A* | 03295156 | 11,7<br>*0.461* | 140,0<br>*5.512* | 206,0<br>*8.110* | 161,0<br>*6.339* | 45,0<br>*1.772* | 158,0<br>*6.220* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1112A-1180-140-12R1<br>*SD_DRILL_11.8MM_12XD_A* | 03295157 | 11,8<br>*0.465* | 140,0<br>*5.512* | 206,0<br>*8.110* | 161,0<br>*6.339* | 45,0<br>*1.772* | 158,0<br>*6.220* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1112A-1191-140-12R1<br>*SD_DRILL_15/32_12XD_A* | 03323723 | 11,906<br>*0.469* | 140,0<br>*5.512* | 206,0<br>*8.110* | 161,0<br>*6.339* | 45,0<br>*1.772* | 158,0<br>*6.220* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1112A-1200-140-12R1<br>*SD_DRILL_12.0MM_12XD_A* | 03295158 | 12,0<br>*0.472* | 140,0<br>*5.512* | 206,0<br>*8.110* | 161,0<br>*6.339* | 45,0<br>*1.772* | 158,0<br>*6.220* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD1112A-1220-168-14R1<br>*SD_DRILL_12.2MM_12XD_A* | 03295159 | 12,2<br>*0.480* | 168,0<br>*6.614* | 230,0<br>*9.055* | 185,0<br>*7.283* | 45,0<br>*1.772* | 182,0<br>*7.165* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1112A-1230-168-14R1<br>*SD_DRILL_31/64_12XD_A* | 03295160 | 12,3<br>*0.484* | 168,0<br>*6.614* | 230,0<br>*9.055* | 185,0<br>*7.283* | 45,0<br>*1.772* | 182,0<br>*7.165* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1112A-1250-168-14R1<br>*SD_DRILL_12.5MM_12XD_A* | 03295161 | 12,5<br>*0.492* | 168,0<br>*6.614* | 230,0<br>*9.055* | 185,0<br>*7.283* | 45,0<br>*1.772* | 182,0<br>*7.165* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1112A-1270-168-14R1<br>*SD_DRILL_1/2_12XD_A* | 03295162 | 12,7<br>*0.500* | 168,0<br>*6.614* | 230,0<br>*9.055* | 185,0<br>*7.283* | 45,0<br>*1.772* | 182,0<br>*7.165* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1112A-1300-168-14R1<br>*SD_DRILL_13.0MM_12XD_A* | 03295163 | 13,0<br>*0.512* | 168,0<br>*6.614* | 230,0<br>*9.055* | 185,0<br>*7.283* | 45,0<br>*1.772* | 182,0<br>*7.165* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1112A-1349-168-14R1<br>*SD_DRILL_17/32_12XD_A* | 03323724 | 13,494<br>*0.531* | 168,0<br>*6.614* | 230,0<br>*9.055* | 185,0<br>*7.283* | 45,0<br>*1.772* | 182,0<br>*7.165* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1112A-1350-168-14R1<br>*SD_DRILL_13.5MM_12XD_A* | 03295164 | 13,5<br>*0.531* | 168,0<br>*6.614* | 230,0<br>*9.055* | 185,0<br>*7.283* | 45,0<br>*1.772* | 182,0<br>*7.165* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1112A-1400-168-14R1<br>*SD_DRILL_14.0MM_12XD_A* | 03295165 | 14,0<br>*0.551* | 168,0<br>*6.614* | 230,0<br>*9.055* | 185,0<br>*7.283* | 45,0<br>*1.772* | 182,0<br>*7.165* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD1112A-1429-192-16R1<br>*SD_DRILL_9/16_12XD_A* | 03295166 | 14,288<br>*0.563* | 192,0<br>*7.559* | 260,0<br>*10.236* | 212,0<br>*8.346* | 48,0<br>*1.890* | 208,0<br>*8.189* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1112A-1450-192-16R1<br>*SD_DRILL_14.5MM_12XD_A* | 03295167 | 14,5<br>*0.571* | 192,0<br>*7.559* | 260,0<br>*10.236* | 212,0<br>*8.346* | 48,0<br>*1.890* | 208,0<br>*8.189* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1112A-1500-192-16R1<br>*SD_DRILL_15.0MM_12XD_A* | 03295168 | 15,0<br>*0.591* | 192,0<br>*7.559* | 260,0<br>*10.236* | 212,0<br>*8.346* | 48,0<br>*1.890* | 208,0<br>*8.189* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1112A-1550-192-16R1<br>*SD_DRILL_15.5MM_12XD_A* | 03295169 | 15,5<br>*0.610* | 192,0<br>*7.559* | 260,0<br>*10.236* | 212,0<br>*8.346* | 48,0<br>*1.890* | 208,0<br>*8.189* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1112A-1588-192-16R1<br>*SD_DRILL_5/8_12XD_A* | 03295170 | 15,875<br>*0.625* | 192,0<br>*7.559* | 260,0<br>*10.236* | 212,0<br>*8.346* | 48,0<br>*1.890* | 208,0<br>*8.189* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1112A-1600-192-16R1<br>*SD_DRILL_16.0MM_12XD_A* | 03295171 | 16,0<br>*0.630* | 192,0<br>*7.559* | 260,0<br>*10.236* | 212,0<br>*8.346* | 48,0<br>*1.890* | 208,0<br>*8.189* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD1112A-1650-216-18R1<br>*SD_DRILL_16.5MM_12XD_A* | 03295172 | 16,5<br>*0.650* | 216,0<br>*8.504* | 285,0<br>*11.220* | 237,0<br>*9.331* | 48,0<br>*1.890* | 234,0<br>*9.213* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1112A-1700-216-18R1<br>*SD_DRILL_17.0MM_12XD_A* | 03295173 | 17,0<br>*0.669* | 216,0<br>*8.504* | 285,0<br>*11.220* | 237,0<br>*9.331* | 48,0<br>*1.890* | 234,0<br>*9.213* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1112A-1750-216-18R1<br>*SD_DRILL_17.5MM_12XD_A* | 03295174 | 17,5<br>*0.689* | 216,0<br>*8.504* | 285,0<br>*11.220* | 237,0<br>*9.331* | 48,0<br>*1.890* | 234,0<br>*9.213* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1112A-1800-216-18R1<br>*SD_DRILL_18.0MM_12XD_A* | 03295175 | 18,0<br>*0.709* | 216,0<br>*8.504* | 285,0<br>*11.220* | 237,0<br>*9.331* | 48,0<br>*1.890* | 234,0<br>*9.213* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD1112A-1900-238-20R1<br>*SD_DRILL_19.0MM_12XD_A* | 03295176 | 19,0<br>*0.748* | 238,0<br>*9.370* | 310,0<br>*12.205* | 260,0<br>*10.236* | 50,0<br>*1.969* | 258,0<br>*10.157* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD1112A-2000-238-20R1<br>*SD_DRILL_20.0MM_12XD_A* | 03295177 | 20,0<br>*0.787* | 238,0<br>*9.370* | 310,0<br>*12.205* | 260,0<br>*10.236* | 50,0<br>*1.969* | 258,0<br>*10.157* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |



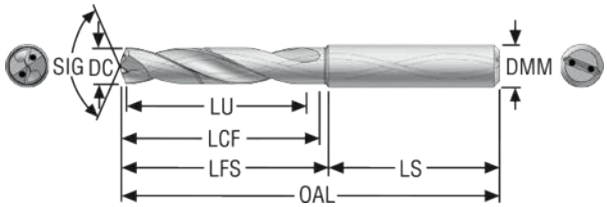
# Feedmax -P – single diameter drills

Designed for high productivity and low cost per hole offering a unique combination of state-of-the-art carbide, coating and geometry technology.

- Self-centering geometry for high quality holes with no need for center-drilling operation.
- A special TiAlN coating gives Seco Feedmax drills high hot hardness that in combination with a strong cutting edge, ensures for long and predictable tool life

# SD203A-P

Drilling depth ~ 3 x D – Metric/Inch






- Cylindrical shank DIN 6537A
- DC tolerance m7
- Internal coolant
- For cutting data see page(s) 145-146
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD203A-0200-007-04R1-P | 03045918 | 2,0<br>*0.079* | 7,0<br>*0.276* | 41,0<br>*1.614* | 14,0<br>*0.551* | 27,0<br>*1.063* | 11,0<br>*0.433* | 4,0<br>*0.157* | 140° | TiAlN | IT8-9 |
| SD203A-0210-007-04R1-P | 03045919 | 2,1<br>*0.083* | 7,0<br>*0.276* | 41,0<br>*1.614* | 14,0<br>*0.551* | 27,0<br>*1.063* | 11,0<br>*0.433* | 4,0<br>*0.157* | 140° | TiAlN | IT8-9 |
| SD203A-0220-007-04R1-P | 03045920 | 2,2<br>*0.087* | 7,0<br>*0.276* | 41,0<br>*1.614* | 14,0<br>*0.551* | 27,0<br>*1.063* | 11,0<br>*0.433* | 4,0<br>*0.157* | 140° | TiAlN | IT8-9 |
| SD203A-0230-008-04R1-P | 03045921 | 2,3<br>*0.091* | 8,0<br>*0.315* | 44,0<br>*1.732* | 17,0<br>*0.669* | 27,0<br>*1.063* | 12,5<br>*0.492* | 4,0<br>*0.157* | 140° | TiAlN | IT8-9 |
| SD203A-0235-008-04R1-P | 03138154 | 2,35<br>*0.093* | 8,0<br>*0.315* | 44,0<br>*1.732* | 17,0<br>*0.669* | 27,0<br>*1.063* | 12,5<br>*0.492* | 4,0<br>*0.157* | 140° | TiAlN | IT8-9 |
| SD203A-0238-008-04R1-P | 03120476 | 2,381<br>*0.094* | 8,0<br>*0.315* | 44,0<br>*1.732* | 17,0<br>*0.669* | 27,0<br>*1.063* | 12,5<br>*0.492* | 4,0<br>*0.157* | 140° | TiAlN | IT8-9 |
| SD203A-0240-008-04R1-P | 03045922 | 2,4<br>*0.094* | 8,0<br>*0.315* | 44,0<br>*1.732* | 17,0<br>*0.669* | 27,0<br>*1.063* | 12,5<br>*0.492* | 4,0<br>*0.157* | 140° | TiAlN | IT8-9 |
| SD203A-0250-008-04R1-P | 03045923 | 2,5<br>*0.098* | 8,0<br>*0.315* | 44,0<br>*1.732* | 17,0<br>*0.669* | 27,0<br>*1.063* | 12,5<br>*0.492* | 4,0<br>*0.157* | 140° | TiAlN | IT8-9 |
| SD203A-0260-008-04R1-P | 03045924 | 2,6<br>*0.102* | 8,0<br>*0.315* | 44,0<br>*1.732* | 17,0<br>*0.669* | 27,0<br>*1.063* | 12,5<br>*0.492* | 4,0<br>*0.157* | 140° | TiAlN | IT8-9 |
| SD203A-0270-009-04R1-P | 03045925 | 2,7<br>*0.106* | 9,0<br>*0.354* | 44,0<br>*1.732* | 17,0<br>*0.669* | 27,0<br>*1.063* | 14,5<br>*0.571* | 4,0<br>*0.157* | 140° | TiAlN | IT8-9 |
| SD203A-0278-009-04R1-P | 03120495 | 2,778<br>*0.109* | 9,0<br>*0.354* | 44,0<br>*1.732* | 17,0<br>*0.669* | 27,0<br>*1.063* | 14,5<br>*0.571* | 4,0<br>*0.157* | 140° | TiAlN | IT8-9 |
| SD203A-0280-009-04R1-P | 03045926 | 2,8<br>*0.110* | 9,0<br>*0.354* | 44,0<br>*1.732* | 17,0<br>*0.669* | 27,0<br>*1.063* | 14,5<br>*0.571* | 4,0<br>*0.157* | 140° | TiAlN | IT8-9 |
| SD203A-0290-009-04R1-P | 03045927 | 2,9<br>*0.114* | 9,0<br>*0.354* | 44,0<br>*1.732* | 17,0<br>*0.669* | 27,0<br>*1.063* | 14,5<br>*0.571* | 4,0<br>*0.157* | 140° | TiAlN | IT8-9 |
| SD203A-0300-014-06R1-P | 03045928 | 3,0<br>*0.118* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0310-014-06R1-P | 03045929 | 3,1<br>*0.122* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0318-014-06R1-P | 03046061 | 3,175<br>*0.125* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0320-014-06R1-P | 03045930 | 3,2<br>*0.126* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0325-014-06R1-P | 03045931 | 3,25<br>*0.128* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0330-014-06R1-P | 03045932 | 3,3<br>*0.130* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0340-014-06R1-P | 03045933 | 3,4<br>*0.134* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0350-014-06R1-P | 03045934 | 3,5<br>*0.138* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0357-014-06R1-P | 03046062 | 3,572<br>*0.141* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD203A-0360-014-06R1-P | 03045935 | 3,6<br>*0.142* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0365-014-06R1-P | 03045936 | 3,65<br>*0.144* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0370-014-06R1-P | 03045937 | 3,7<br>*0.146* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0380-017-06R1-P | 03045938 | 3,8<br>*0.150* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0390-017-06R1-P | 03045939 | 3,9<br>*0.154* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0397-017-06R1-P | 03046063 | 3,97<br>*0.156* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0400-017-06R1-P | 03045940 | 4,0<br>*0.157* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0410-017-06R1-P | 03045941 | 4,1<br>*0.161* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0420-017-06R1-P | 03045942 | 4,2<br>*0.165* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0430-017-06R1-P | 03045943 | 4,3<br>*0.169* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0437-017-06R1-P | 03046064 | 4,366<br>*0.172* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0450-017-06R1-P | 03045944 | 4,5<br>*0.177* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0460-017-06R1-P | 03045945 | 4,6<br>*0.181* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0465-017-06R1-P | 03045946 | 4,65<br>*0.183* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0470-017-06R1-P | 03045947 | 4,7<br>*0.185* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0476-020-06R1-P | 03046065 | 4,763<br>*0.188* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0480-020-06R1-P | 03045948 | 4,8<br>*0.189* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0490-020-06R1-P | 03045949 | 4,9<br>*0.193* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0500-020-06R1-P | 03045950 | 5,0<br>*0.197* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0510-020-06R1-P | 03045951 | 5,1<br>*0.201* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0516-020-06R1-P | 03046066 | 5,159<br>*0.203* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0520-020-06R1-P | 03045952 | 5,2<br>*0.205* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0530-020-06R1-P | 03045953 | 5,3<br>*0.209* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0540-020-06R1-P | 03045954 | 5,4<br>*0.213* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0550-020-06R1-P | 03045955 | 5,5<br>*0.217* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0555-020-06R1-P | 03045956 | 5,55<br>*0.219* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0556-020-06R1-P | 03046067 | 5,556<br>*0.219* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0560-020-06R1-P | 03045957 | 5,6<br>*0.220* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0570-020-06R1-P | 03045958 | 5,7<br>*0.224* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0580-020-06R1-P | 03045959 | 5,8<br>*0.228* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0590-020-06R1-P | 03045960 | 5,9<br>*0.232* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD203A-0595-020-06R1-P | 03046068 | 5,953<br>*0.234* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0600-020-06R1-P | 03045961 | 6,0<br>*0.236* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD203A-0610-024-08R1-P | 03045962 | 6,1<br>*0.240* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD203A-0620-024-08R1-P | 03045963 | 6,2<br>*0.244* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD203A-0630-024-08R1-P | 03045964 | 6,3<br>*0.248* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD203A-0635-024-08R1-P | 03046069 | 6,35<br>*0.250* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD203A-0640-024-08R1-P | 03045965 | 6,4<br>*0.252* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD203A-0650-024-08R1-P | 03045966 | 6,5<br>*0.256* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD203A-0660-024-08R1-P | 03045967 | 6,6<br>*0.260* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD203A-0670-024-08R1-P | 03045968 | 6,7<br>*0.264* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD203A-0675-024-08R1-P | 03046070 | 6,747<br>*0.266* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD203A-0680-024-08R1-P | 03045969 | 6,8<br>*0.268* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD203A-0690-024-08R1-P | 03045970 | 6,9<br>*0.272* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD203A-0700-024-08R1-P | 03045971 | 7,0<br>*0.276* | 24,0<br>*0.945* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD203A-0710-029-08R1-P | 03045972 | 7,1<br>*0.280* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD203A-0714-029-08R1-P | 03046071 | 7,144<br>*0.281* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD203A-0720-029-08R1-P | 03045973 | 7,2<br>*0.283* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD203A-0730-029-08R1-P | 03045974 | 7,3<br>*0.287* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD203A-0740-029-08R1-P | 03045975 | 7,4<br>*0.291* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD203A-0750-029-08R1-P | 03045976 | 7,5<br>*0.295* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD203A-0754-029-08R1-P | 03046072 | 7,541<br>*0.297* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD203A-0755-029-08R1-P | 03045977 | 7,55<br>*0.297* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD203A-0760-029-08R1-P | 03045978 | 7,6<br>*0.299* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD203A-0770-029-08R1-P | 03045979 | 7,7<br>*0.303* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD203A-0780-029-08R1-P | 03045980 | 7,8<br>*0.307* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD203A-0790-029-08R1-P | 03045981 | 7,9<br>*0.311* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD203A-0794-029-08R1-P | 03046073 | 7,938<br>*0.313* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD203A-0800-029-08R1-P | 03045982 | 8,0<br>*0.315* | 29,0<br>*1.142* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD203A-0810-035-10R1-P | 03045983 | 8,1<br>*0.319* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD203A-0820-035-10R1-P | 03045984 | 8,2<br>*0.323* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD203A-0830-035-10R1-P | 03045985 | 8,3<br>*0.327* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |

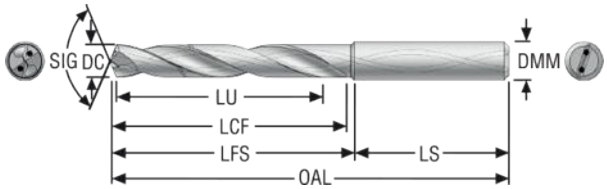
| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD203A-0833-035-10R1-P | 03046074 | 8,334<br>*0.328* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD203A-0840-035-10R1-P | 03045986 | 8,4<br>*0.331* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD203A-0850-035-10R1-P | 03045987 | 8,5<br>*0.335* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD203A-0860-035-10R1-P | 03045988 | 8,6<br>*0.339* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD203A-0870-035-10R1-P | 03045989 | 8,7<br>*0.343* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD203A-0873-035-10R1-P | 03046075 | 8,731<br>*0.344* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD203A-0880-035-10R1-P | 03045990 | 8,8<br>*0.346* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD203A-0890-035-10R1-P | 03045991 | 8,9<br>*0.350* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD203A-0900-035-10R1-P | 03045992 | 9,0<br>*0.354* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD203A-0910-035-10R1-P | 03045993 | 9,1<br>*0.358* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD203A-0913-035-10R1-P | 03046076 | 9,128<br>*0.359* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD203A-0920-035-10R1-P | 03045994 | 9,2<br>*0.362* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD203A-0930-035-10R1-P | 03045995 | 9,3<br>*0.366* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD203A-0940-035-10R1-P | 03045996 | 9,4<br>*0.370* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD203A-0950-035-10R1-P | 03045997 | 9,5<br>*0.374* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD203A-0953-035-10R1-P | 03046077 | 9,525<br>*0.375* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD203A-0955-035-10R1-P | 03045998 | 9,55<br>*0.376* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD203A-0960-035-10R1-P | 03045999 | 9,6<br>*0.378* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD203A-0970-035-10R1-P | 03046000 | 9,7<br>*0.382* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD203A-0980-035-10R1-P | 03046001 | 9,8<br>*0.386* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD203A-0990-035-10R1-P | 03046002 | 9,9<br>*0.390* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD203A-0992-035-10R1-P | 03046078 | 9,922<br>*0.391* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD203A-1000-035-10R1-P | 03046003 | 10,0<br>*0.394* | 35,0<br>*1.378* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD203A-1020-040-12R1-P | 03046004 | 10,2<br>*0.402* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |
| SD203A-1032-040-12R1-P | 03046079 | 10,319<br>*0.406* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |
| SD203A-1040-040-12R1-P | 03046005 | 10,4<br>*0.409* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |
| SD203A-1050-040-12R1-P | 03046006 | 10,5<br>*0.413* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |
| SD203A-1060-040-12R1-P | 03046007 | 10,6<br>*0.417* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |
| SD203A-1072-040-12R1-P | 03046080 | 10,716<br>*0.422* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |
| SD203A-1080-040-12R1-P | 03046008 | 10,8<br>*0.425* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |
| SD203A-1090-040-12R1-P | 03046009 | 10,9<br>*0.429* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD203A-1100-040-12R1-P | 03046010 | 11,0<br>*0.433* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |
| SD203A-1110-040-12R1-P | 03046011 | 11,1<br>*0.437* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |
| SD203A-1111-040-12R1-P | 03046081 | 11,113<br>*0.438* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |
| SD203A-1120-040-12R1-P | 03046012 | 11,2<br>*0.441* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |
| SD203A-1130-040-12R1-P | 03046013 | 11,3<br>*0.445* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |
| SD203A-1140-040-12R1-P | 03046014 | 11,4<br>*0.449* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |
| SD203A-1150-040-12R1-P | 03046015 | 11,5<br>*0.453* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |
| SD203A-1151-040-12R1-P | 03046082 | 11,509<br>*0.453* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |
| SD203A-1155-040-12R1-P | 03046016 | 11,55<br>*0.455* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |
| SD203A-1160-040-12R1-P | 03046017 | 11,6<br>*0.457* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |
| SD203A-1170-040-12R1-P | 03046018 | 11,7<br>*0.461* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |
| SD203A-1180-040-12R1-P | 03046019 | 11,8<br>*0.465* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |
| SD203A-1190-040-12R1-P | 03046020 | 11,9<br>*0.469* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |
| SD203A-1191-040-12R1-P | 03046083 | 11,906<br>*0.469* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |
| SD203A-1200-040-12R1-P | 03046021 | 12,0<br>*0.472* | 40,0<br>*1.575* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |
| SD203A-1210-043-14R1-P | 03046022 | 12,1<br>*0.476* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD203A-1220-043-14R1-P | 03046023 | 12,2<br>*0.480* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD203A-1230-043-14R1-P | 03046084 | 12,303<br>*0.484* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD203A-1240-043-14R1-P | 03046024 | 12,4<br>*0.488* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD203A-1250-043-14R1-P | 03046025 | 12,5<br>*0.492* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD203A-1260-043-14R1-P | 03046026 | 12,6<br>*0.496* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD203A-1270-043-14R1-P | 03046085 | 12,7<br>*0.500* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD203A-1275-043-14R1-P | 03046027 | 12,75<br>*0.502* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD203A-1280-043-14R1-P | 03046028 | 12,8<br>*0.504* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD203A-1290-043-14R1-P | 03046029 | 12,9<br>*0.508* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD203A-1300-043-14R1-P | 03046030 | 13,0<br>*0.512* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD203A-1310-043-14R1-P | 03046031 | 13,1<br>*0.516* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD203A-1320-043-14R1-P | 03046032 | 13,2<br>*0.520* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD203A-1330-043-14R1-P | 03046033 | 13,3<br>*0.524* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD203A-1340-043-14R1-P | 03046034 | 13,4<br>*0.528* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD203A-1349-043-14R1-P | 03046086 | 13,494<br>*0.531* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD203A-1350-043-14R1-P | 03046035 | 13,5<br>*0.531* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD203A-1360-043-14R1-P | 03046036 | 13,6<br>*0.535* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD203A-1370-043-14R1-P | 03046037 | 13,7<br>*0.539* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD203A-1380-043-14R1-P | 03046038 | 13,8<br>*0.543* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD203A-1390-043-14R1-P | 03046039 | 13,9<br>*0.547* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD203A-1400-043-14R1-P | 03046040 | 14,0<br>*0.551* | 43,0<br>*1.693* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD203A-1420-045-16R1-P | 03046041 | 14,2<br>*0.559* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD203A-1425-045-16R1-P | 03138155 | 14,25<br>*0.561* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD203A-1429-045-16R1-P | 03046087 | 14,288<br>*0.563* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD203A-1450-045-16R1-P | 03046042 | 14,5<br>*0.571* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD203A-1470-045-16R1-P | 03046043 | 14,7<br>*0.579* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD203A-1475-045-16R1-P | 03046044 | 14,75<br>*0.581* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD203A-1480-045-16R1-P | 03046045 | 14,8<br>*0.583* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD203A-1500-045-16R1-P | 03046046 | 15,0<br>*0.591* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD203A-1510-045-16R1-P | 03046047 | 15,1<br>*0.594* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD203A-1530-045-16R1-P | 03046048 | 15,3<br>*0.602* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD203A-1550-045-16R1-P | 03046049 | 15,5<br>*0.610* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD203A-1570-045-16R1-P | 03046050 | 15,7<br>*0.618* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD203A-1580-045-16R1-P | 03046051 | 15,8<br>*0.622* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD203A-1588-045-16R1-P | 03046088 | 15,875<br>*0.625* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD203A-1600-045-16R1-P | 03046052 | 16,0<br>*0.630* | 45,0<br>*1.772* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD203A-1650-051-18R1-P | 03046053 | 16,5<br>*0.650* | 51,0<br>*2.008* | 123,0<br>*4.843* | 75,0<br>*2.953* | 48,0<br>*1.890* | 73,0<br>*2.874* | 18,0<br>*0.709* | 140° | TiAlN | IT8-9 |
| SD203A-1700-051-18R1-P | 03046054 | 17,0<br>*0.669* | 51,0<br>*2.008* | 123,0<br>*4.843* | 75,0<br>*2.953* | 48,0<br>*1.890* | 73,0<br>*2.874* | 18,0<br>*0.709* | 140° | TiAlN | IT8-9 |
| SD203A-1750-051-18R1-P | 03046055 | 17,5<br>*0.689* | 51,0<br>*2.008* | 123,0<br>*4.843* | 75,0<br>*2.953* | 48,0<br>*1.890* | 73,0<br>*2.874* | 18,0<br>*0.709* | 140° | TiAlN | IT8-9 |
| SD203A-1800-051-18R1-P | 03046056 | 18,0<br>*0.709* | 51,0<br>*2.008* | 123,0<br>*4.843* | 75,0<br>*2.953* | 48,0<br>*1.890* | 73,0<br>*2.874* | 18,0<br>*0.709* | 140° | TiAlN | IT8-9 |
| SD203A-1850-055-20R1-P | 03046057 | 18,5<br>*0.728* | 55,0<br>*2.165* | 131,0<br>*5.157* | 81,0<br>*3.189* | 50,0<br>*1.969* | 79,0<br>*3.110* | 20,0<br>*0.787* | 140° | TiAlN | IT8-9 |
| SD203A-1900-055-20R1-P | 03046058 | 19,0<br>*0.748* | 55,0<br>*2.165* | 131,0<br>*5.157* | 81,0<br>*3.189* | 50,0<br>*1.969* | 79,0<br>*3.110* | 20,0<br>*0.787* | 140° | TiAlN | IT8-9 |
| SD203A-1905-055-20R1-P | 03046089 | 19,05<br>*0.750* | 55,0<br>*2.165* | 131,0<br>*5.157* | 81,0<br>*3.189* | 50,0<br>*1.969* | 79,0<br>*3.110* | 20,0<br>*0.787* | 140° | TiAlN | IT8-9 |
| SD203A-1950-055-20R1-P | 03046059 | 19,5<br>*0.768* | 55,0<br>*2.165* | 131,0<br>*5.157* | 81,0<br>*3.189* | 50,0<br>*1.969* | 79,0<br>*3.110* | 20,0<br>*0.787* | 140° | TiAlN | IT8-9 |
| SD203A-1980-055-20R1-P | 03138156 | 19,8<br>*0.780* | 55,0<br>*2.165* | 131,0<br>*5.157* | 81,0<br>*3.189* | 50,0<br>*1.969* | 79,0<br>*3.110* | 20,0<br>*0.787* | 140° | TiAlN | IT8-9 |
| SD203A-2000-055-20R1-P | 03046060 | 20,0<br>*0.787* | 55,0<br>*2.165* | 131,0<br>*5.157* | 81,0<br>*3.189* | 50,0<br>*1.969* | 79,0<br>*3.110* | 20,0<br>*0.787* | 140° | TiAlN | IT8-9 |

# SD205A-P

Drilling depth ~ 5 x D – Metric/Inch






- Cylindrical shank DIN 6537A
- DC tolerance m7
- Internal coolant
- For cutting data see page(s) 147-148
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD205A-0200-012-04R1-P | 03046131 | 2,0<br>*0.079* | 12,0<br>*0.472* | 46,0<br>*1.811* | 19,0 mm<br>*0.748* | 27,0<br>*1.063* | 15,0<br>*0.591* | 4,0<br>*0.157* | 140° | TiAlN | IT8-9 |
| SD205A-0210-012-04R1-P | 03046132 | 2,1<br>*0.083* | 12,0<br>*0.472* | 46,0<br>*1.811* | 19,0 mm<br>*0.748* | 27,0<br>*1.063* | 15,0<br>*0.591* | 4,0<br>*0.157* | 140° | TiAlN | IT8-9 |
| SD205A-0220-012-04R1-P | 03046133 | 2,2<br>*0.087* | 12,0<br>*0.472* | 46,0<br>*1.811* | 19,0 mm<br>*0.748* | 27,0<br>*1.063* | 15,0<br>*0.591* | 4,0<br>*0.157* | 140° | TiAlN | IT8-9 |
| SD205A-0230-012-04R1-P | 03046134 | 2,3<br>*0.091* | 12,0<br>*0.472* | 46,0<br>*1.811* | 19,0 mm<br>*0.748* | 27,0<br>*1.063* | 15,0<br>*0.591* | 4,0<br>*0.157* | 140° | TiAlN | IT8-9 |
| SD205A-0238-013-04R1-P | 03120477 | 2,381<br>*0.094* | 13,0<br>*0.512* | 50,0<br>*1.969* | 23,0 mm<br>*0.906* | 27,0<br>*1.063* | 17,5<br>*0.689* | 4,0<br>*0.157* | 140° | TiAlN | IT8-9 |
| SD205A-0240-013-04R1-P | 03046135 | 2,4<br>*0.094* | 13,0<br>*0.512* | 50,0<br>*1.969* | 23,0 mm<br>*0.906* | 27,0<br>*1.063* | 17,5<br>*0.689* | 4,0<br>*0.157* | 140° | TiAlN | IT8-9 |
| SD205A-0250-013-04R1-P | 03046136 | 2,5<br>*0.098* | 13,0<br>*0.512* | 50,0<br>*1.969* | 23,0 mm<br>*0.906* | 27,0<br>*1.063* | 17,5<br>*0.689* | 4,0<br>*0.157* | 140° | TiAlN | IT8-9 |
| SD205A-0260-013-04R1-P | 03046137 | 2,6<br>*0.102* | 13,0<br>*0.512* | 50,0<br>*1.969* | 23,0 mm<br>*0.906* | 27,0<br>*1.063* | 17,5<br>*0.689* | 4,0<br>*0.157* | 140° | TiAlN | IT8-9 |
| SD205A-0270-015-04R1-P | 03046138 | 2,7<br>*0.106* | 15,0<br>*0.591* | 50,0<br>*1.969* | 23,0 mm<br>*0.906* | 27,0<br>*1.063* | 20,5<br>*0.807* | 4,0<br>*0.157* | 140° | TiAlN | IT8-9 |
| SD205A-0278-015-04R1-P | 03120496 | 2,778<br>*0.109* | 15,0<br>*0.591* | 50,0<br>*1.969* | 23,0 mm<br>*0.906* | 27,0<br>*1.063* | 20,5<br>*0.807* | 4,0<br>*0.157* | 140° | TiAlN | IT8-9 |
| SD205A-0280-015-04R1-P | 03046139 | 2,8<br>*0.110* | 15,0<br>*0.591* | 50,0<br>*1.969* | 23,0 mm<br>*0.906* | 27,0<br>*1.063* | 20,5<br>*0.807* | 4,0<br>*0.157* | 140° | TiAlN | IT8-9 |
| SD205A-0290-015-04R1-P | 03046141 | 2,9<br>*0.114* | 15,0<br>*0.591* | 50,0<br>*1.969* | 23,0 mm<br>*0.906* | 27,0<br>*1.063* | 20,5<br>*0.807* | 4,0<br>*0.157* | 140° | TiAlN | IT8-9 |
| SD205A-0300-023-06R1-P | 03046142 | 3,0<br>*0.118* | 23,0<br>*0.906* | 66,0<br>*2.598* | 30,0 mm<br>*1.181* | 36,0<br>*1.417* | 26,0<br>*1.024* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0310-023-06R1-P | 03046143 | 3,1<br>*0.122* | 23,0<br>*0.906* | 66,0<br>*2.598* | 30,0 mm<br>*1.181* | 36,0<br>*1.417* | 26,0<br>*1.024* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0318-023-06R1-P | 03046327 | 3,175<br>*0.125* | 23,0<br>*0.906* | 66,0<br>*2.598* | 30,0 mm<br>*1.181* | 36,0<br>*1.417* | 26,0<br>*1.024* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0320-023-06R1-P | 03046144 | 3,2<br>*0.126* | 23,0<br>*0.906* | 66,0<br>*2.598* | 30,0 mm<br>*1.181* | 36,0<br>*1.417* | 26,0<br>*1.024* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0325-023-06R1-P | 03046145 | 3,25<br>*0.128* | 23,0<br>*0.906* | 66,0<br>*2.598* | 30,0 mm<br>*1.181* | 36,0<br>*1.417* | 26,0<br>*1.024* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0330-023-06R1-P | 03046146 | 3,3<br>*0.130* | 23,0<br>*0.906* | 66,0<br>*2.598* | 30,0 mm<br>*1.181* | 36,0<br>*1.417* | 26,0<br>*1.024* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0340-023-06R1-P | 03046147 | 3,4<br>*0.134* | 23,0<br>*0.906* | 66,0<br>*2.598* | 30,0 mm<br>*1.181* | 36,0<br>*1.417* | 26,0<br>*1.024* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0350-023-06R1-P | 03046148 | 3,5<br>*0.138* | 23,0<br>*0.906* | 66,0<br>*2.598* | 30,0 mm<br>*1.181* | 36,0<br>*1.417* | 26,0<br>*1.024* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0357-023-06R1-P | 03046328 | 3,572<br>*0.141* | 23,0<br>*0.906* | 66,0<br>*2.598* | 30,0 mm<br>*1.181* | 36,0<br>*1.417* | 26,0<br>*1.024* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0360-023-06R1-P | 03046149 | 3,6<br>*0.142* | 23,0<br>*0.906* | 66,0<br>*2.598* | 30,0 mm<br>*1.181* | 36,0<br>*1.417* | 26,0<br>*1.024* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD205A-0365-023-06R1-P | 03046150 | 3,65<br>*0.144* | 23,0<br>*0.906* | 66,0<br>*2.598* | 30,0 mm<br>*1.181* | 36,0<br>*1.417* | 26,0<br>*1.024* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0370-023-06R1-P | 03046151 | 3,7<br>*0.146* | 23,0<br>*0.906* | 66,0<br>*2.598* | 30,0 mm<br>*1.181* | 36,0<br>*1.417* | 26,0<br>*1.024* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0380-029-06R1-P | 03046152 | 3,8<br>*0.150* | 29,0<br>*1.142* | 74,0<br>*2.913* | 38,0 mm<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0390-029-06R1-P | 03046153 | 3,9<br>*0.154* | 29,0<br>*1.142* | 74,0<br>*2.913* | 38,0 mm<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0397-029-06R1-P | 03046329 | 3,97<br>*0.156* | 29,0<br>*1.142* | 74,0<br>*2.913* | 38,0 mm<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0400-029-06R1-P | 03046154 | 4,0<br>*0.157* | 29,0<br>*1.142* | 74,0<br>*2.913* | 38,0 mm<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0410-029-06R1-P | 03046155 | 4,1<br>*0.161* | 29,0<br>*1.142* | 74,0<br>*2.913* | 38,0 mm<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0420-029-06R1-P | 03046157 | 4,2<br>*0.165* | 29,0<br>*1.142* | 74,0<br>*2.913* | 38,0 mm<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0430-029-06R1-P | 03046158 | 4,3<br>*0.169* | 29,0<br>*1.142* | 74,0<br>*2.913* | 38,0 mm<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0437-029-06R1-P | 03046330 | 4,366<br>*0.172* | 29,0<br>*1.142* | 74,0<br>*2.913* | 38,0 mm<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0440-029-06R1-P | 03046159 | 4,4<br>*0.173* | 29,0<br>*1.142* | 74,0<br>*2.913* | 38,0 mm<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0450-029-06R1-P | 03046160 | 4,5<br>*0.177* | 29,0<br>*1.142* | 74,0<br>*2.913* | 38,0 mm<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0460-029-06R1-P | 03046161 | 4,6<br>*0.181* | 29,0<br>*1.142* | 74,0<br>*2.913* | 38,0 mm<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0465-029-06R1-P | 03046162 | 4,65<br>*0.183* | 29,0<br>*1.142* | 74,0<br>*2.913* | 38,0 mm<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0470-029-06R1-P | 03046163 | 4,7<br>*0.185* | 29,0<br>*1.142* | 74,0<br>*2.913* | 38,0 mm<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0476-035-06R1-P | 03046331 | 4,763<br>*0.188* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0 mm<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0480-035-06R1-P | 03046164 | 4,8<br>*0.189* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0 mm<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0490-035-06R1-P | 03046165 | 4,9<br>*0.193* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0 mm<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0500-035-06R1-P | 03046166 | 5,0<br>*0.197* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0 mm<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0510-035-06R1-P | 03046167 | 5,1<br>*0.201* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0 mm<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0516-035-06R1-P | 03046332 | 5,159<br>*0.203* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0 mm<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0520-035-06R1-P | 03046168 | 5,2<br>*0.205* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0 mm<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0530-035-06R1-P | 03046169 | 5,3<br>*0.209* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0 mm<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0540-035-06R1-P | 03046170 | 5,4<br>*0.213* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0 mm<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0550-035-06R1-P | 03046171 | 5,5<br>*0.217* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0 mm<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0555-035-06R1-P | 03046172 | 5,55<br>*0.219* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0 mm<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0556-035-06R1-P | 03046333 | 5,556<br>*0.219* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0 mm<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0560-035-06R1-P | 03046173 | 5,6<br>*0.220* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0 mm<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0570-035-06R1-P | 03046174 | 5,7<br>*0.224* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0 mm<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0580-035-06R1-P | 03046175 | 5,8<br>*0.228* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0 mm<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0590-035-06R1-P | 03046176 | 5,9<br>*0.232* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0 mm<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD205A-0595-035-06R1-P | 03046334 | 5,953<br>*0.234* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0 mm<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0600-035-06R1-P | 03046177 | 6,0<br>*0.236* | 35,0<br>*1.378* | 82,0<br>*3.228* | 46,0 mm<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN | IT8-9 |
| SD205A-0610-043-08R1-P | 03046179 | 6,1<br>*0.240* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0 mm<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD205A-0620-043-08R1-P | 03046180 | 6,2<br>*0.244* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0 mm<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD205A-0630-043-08R1-P | 03046181 | 6,3<br>*0.248* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0 mm<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD205A-0635-043-08R1-P | 03046335 | 6,35<br>*0.250* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0 mm<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD205A-0640-043-08R1-P | 03046182 | 6,4<br>*0.252* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0 mm<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD205A-0650-043-08R1-P | 03046183 | 6,5<br>*0.256* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0 mm<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD205A-0660-043-08R1-P | 03046184 | 6,6<br>*0.260* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0 mm<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD205A-0670-043-08R1-P | 03046185 | 6,7<br>*0.264* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0 mm<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD205A-0675-043-08R1-P | 03046336 | 6,747<br>*0.266* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0 mm<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD205A-0680-043-08R1-P | 03046186 | 6,8<br>*0.268* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0 mm<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD205A-0690-043-08R1-P | 03046187 | 6,9<br>*0.272* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0 mm<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD205A-0700-043-08R1-P | 03046188 | 7,0<br>*0.276* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0 mm<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD205A-0710-043-08R1-P | 03046190 | 7,1<br>*0.280* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0 mm<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD205A-0714-043-08R1-P | 03046337 | 7,144<br>*0.281* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0 mm<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD205A-0720-043-08R1-P | 03046191 | 7,2<br>*0.283* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0 mm<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD205A-0730-043-08R1-P | 03046192 | 7,3<br>*0.287* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0 mm<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD205A-0740-043-08R1-P | 03046193 | 7,4<br>*0.291* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0 mm<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD205A-0750-043-08R1-P | 03046194 | 7,5<br>*0.295* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0 mm<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD205A-0754-043-08R1-P | 03046338 | 7,541<br>*0.297* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0 mm<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD205A-0755-043-08R1-P | 03046195 | 7,55<br>*0.297* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0 mm<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD205A-0760-043-08R1-P | 03046196 | 7,6<br>*0.299* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0 mm<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD205A-0770-043-08R1-P | 03046197 | 7,7<br>*0.303* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0 mm<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD205A-0780-043-08R1-P | 03046198 | 7,8<br>*0.307* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0 mm<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD205A-0790-043-08R1-P | 03046199 | 7,9<br>*0.311* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0 mm<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD205A-0794-043-08R1-P | 03046339 | 7,938<br>*0.313* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0 mm<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD205A-0800-043-08R1-P | 03046200 | 8,0<br>*0.315* | 43,0<br>*1.693* | 91,0<br>*3.583* | 55,0 mm<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN | IT8-9 |
| SD205A-0810-049-10R1-P | 03046201 | 8,1<br>*0.319* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0 mm<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD205A-0820-049-10R1-P | 03046202 | 8,2<br>*0.323* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0 mm<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD205A-0830-049-10R1-P | 03046203 | 8,3<br>*0.327* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0 mm<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD205A-0833-049-10R1-P | 03046340 | 8,334<br>*0.328* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0 mm<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD205A-0840-049-10R1-P | 03046204 | 8,4<br>*0.331* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0 mm<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD205A-0850-049-10R1-P | 03046205 | 8,5<br>*0.335* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0 mm<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD205A-0860-049-10R1-P | 03046206 | 8,6<br>*0.339* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0 mm<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD205A-0870-049-10R1-P | 03046207 | 8,7<br>*0.343* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0 mm<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD205A-0873-049-10R1-P | 03046341 | 8,731<br>*0.344* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0 mm<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD205A-0880-049-10R1-P | 03046208 | 8,8<br>*0.346* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0 mm<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD205A-0890-049-10R1-P | 03046209 | 8,9<br>*0.350* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0 mm<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD205A-0900-049-10R1-P | 03046210 | 9,0<br>*0.354* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0 mm<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD205A-0910-049-10R1-P | 03046211 | 9,1<br>*0.358* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0 mm<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD205A-0913-049-10R1-P | 03046342 | 9,128<br>*0.359* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0 mm<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD205A-0920-049-10R1-P | 03046212 | 9,2<br>*0.362* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0 mm<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD205A-0930-049-10R1-P | 03046213 | 9,3<br>*0.366* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0 mm<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD205A-0940-049-10R1-P | 03046214 | 9,4<br>*0.370* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0 mm<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD205A-0950-049-10R1-P | 03046215 | 9,5<br>*0.374* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0 mm<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD205A-0953-049-10R1-P | 03046343 | 9,525<br>*0.375* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0 mm<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD205A-0955-049-10R1-P | 03046216 | 9,55<br>*0.376* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0 mm<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD205A-0960-049-10R1-P | 03046217 | 9,6<br>*0.378* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0 mm<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD205A-0970-049-10R1-P | 03046218 | 9,7<br>*0.382* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0 mm<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD205A-0980-049-10R1-P | 03046219 | 9,8<br>*0.386* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0 mm<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD205A-0990-049-10R1-P | 03046220 | 9,9<br>*0.390* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0 mm<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD205A-0992-049-10R1-P | 03046344 | 9,922<br>*0.391* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0 mm<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD205A-1000-049-10R1-P | 03046221 | 10,0<br>*0.394* | 49,0<br>*1.929* | 103,0<br>*4.055* | 63,0 mm<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN | IT8-9 |
| SD205A-1010-056-12R1-P | 03046222 | 10,1<br>*0.398* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0 mm<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |
| SD205A-1020-056-12R1-P | 03046223 | 10,2<br>*0.402* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0 mm<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |
| SD205A-1030-056-12R1-P | 03046224 | 10,3<br>*0.406* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0 mm<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |
| SD205A-1032-056-12R1-P | 03046345 | 10,319<br>*0.406* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0 mm<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |
| SD205A-1040-056-12R1-P | 03046225 | 10,4<br>*0.409* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0 mm<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |
| SD205A-1050-056-12R1-P | 03046226 | 10,5<br>*0.413* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0 mm<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |
| SD205A-1060-056-12R1-P | 03046227 | 10,6<br>*0.417* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0 mm<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |
| SD205A-1070-056-12R1-P | 03046228 | 10,7<br>*0.421* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0 mm<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN | IT8-9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>Inch | mm<br>Inch | mm<br>Inch | mm<br>Inch | mm<br>Inch | mm<br>Inch | mm<br>Inch | | | |
| SD205A-1072-056-12R1-P | 03046346 | 10,716<br>0.422 | 56,0<br>2.205 | 118,0<br>4.646 | 73,0 mm<br>2.874 | 45,0<br>1.772 | 71,0<br>2.795 | 12,0<br>0.472 | 140° | TiAlN | IT8-9 |
| SD205A-1080-056-12R1-P | 03046229 | 10,8<br>0.425 | 56,0<br>2.205 | 118,0<br>4.646 | 73,0 mm<br>2.874 | 45,0<br>1.772 | 71,0<br>2.795 | 12,0<br>0.472 | 140° | TiAlN | IT8-9 |
| SD205A-1090-056-12R1-P | 03046230 | 10,9<br>0.429 | 56,0<br>2.205 | 118,0<br>4.646 | 73,0 mm<br>2.874 | 45,0<br>1.772 | 71,0<br>2.795 | 12,0<br>0.472 | 140° | TiAlN | IT8-9 |
| SD205A-1100-056-12R1-P | 03046231 | 11,0<br>0.433 | 56,0<br>2.205 | 118,0<br>4.646 | 73,0 mm<br>2.874 | 45,0<br>1.772 | 71,0<br>2.795 | 12,0<br>0.472 | 140° | TiAlN | IT8-9 |
| SD205A-1110-056-12R1-P | 03046232 | 11,1<br>0.437 | 56,0<br>2.205 | 118,0<br>4.646 | 73,0 mm<br>2.874 | 45,0<br>1.772 | 71,0<br>2.795 | 12,0<br>0.472 | 140° | TiAlN | IT8-9 |
| SD205A-1111-056-12R1-P | 03046347 | 11,113<br>0.438 | 56,0<br>2.205 | 118,0<br>4.646 | 73,0 mm<br>2.874 | 45,0<br>1.772 | 71,0<br>2.795 | 12,0<br>0.472 | 140° | TiAlN | IT8-9 |
| SD205A-1120-056-12R1-P | 03046233 | 11,2<br>0.441 | 56,0<br>2.205 | 118,0<br>4.646 | 73,0 mm<br>2.874 | 45,0<br>1.772 | 71,0<br>2.795 | 12,0<br>0.472 | 140° | TiAlN | IT8-9 |
| SD205A-1130-056-12R1-P | 03046234 | 11,3<br>0.445 | 56,0<br>2.205 | 118,0<br>4.646 | 73,0 mm<br>2.874 | 45,0<br>1.772 | 71,0<br>2.795 | 12,0<br>0.472 | 140° | TiAlN | IT8-9 |
| SD205A-1140-056-12R1-P | 03046235 | 11,4<br>0.449 | 56,0<br>2.205 | 118,0<br>4.646 | 73,0 mm<br>2.874 | 45,0<br>1.772 | 71,0<br>2.795 | 12,0<br>0.472 | 140° | TiAlN | IT8-9 |
| SD205A-1150-056-12R1-P | 03046236 | 11,5<br>0.453 | 56,0<br>2.205 | 118,0<br>4.646 | 73,0 mm<br>2.874 | 45,0<br>1.772 | 71,0<br>2.795 | 12,0<br>0.472 | 140° | TiAlN | IT8-9 |
| SD205A-1151-056-12R1-P | 03046348 | 11,509<br>0.453 | 56,0<br>2.205 | 118,0<br>4.646 | 73,0 mm<br>2.874 | 45,0<br>1.772 | 71,0<br>2.795 | 12,0<br>0.472 | 140° | TiAlN | IT8-9 |
| SD205A-1155-056-12R1-P | 03046237 | 11,55<br>0.455 | 56,0<br>2.205 | 118,0<br>4.646 | 73,0 mm<br>2.874 | 45,0<br>1.772 | 71,0<br>2.795 | 12,0<br>0.472 | 140° | TiAlN | IT8-9 |
| SD205A-1160-056-12R1-P | 03046238 | 11,6<br>0.457 | 56,0<br>2.205 | 118,0<br>4.646 | 73,0 mm<br>2.874 | 45,0<br>1.772 | 71,0<br>2.795 | 12,0<br>0.472 | 140° | TiAlN | IT8-9 |
| SD205A-1170-056-12R1-P | 03046239 | 11,7<br>0.461 | 56,0<br>2.205 | 118,0<br>4.646 | 73,0 mm<br>2.874 | 45,0<br>1.772 | 71,0<br>2.795 | 12,0<br>0.472 | 140° | TiAlN | IT8-9 |
| SD205A-1180-056-12R1-P | 03046240 | 11,8<br>0.465 | 56,0<br>2.205 | 118,0<br>4.646 | 73,0 mm<br>2.874 | 45,0<br>1.772 | 71,0<br>2.795 | 12,0<br>0.472 | 140° | TiAlN | IT8-9 |
| SD205A-1190-056-12R1-P | 03046241 | 11,9<br>0.469 | 56,0<br>2.205 | 118,0<br>4.646 | 73,0 mm<br>2.874 | 45,0<br>1.772 | 71,0<br>2.795 | 12,0<br>0.472 | 140° | TiAlN | IT8-9 |
| SD205A-1191-056-12R1-P | 03046349 | 11,906<br>0.469 | 56,0<br>2.205 | 118,0<br>4.646 | 73,0 mm<br>2.874 | 45,0<br>1.772 | 71,0<br>2.795 | 12,0<br>0.472 | 140° | TiAlN | IT8-9 |
| SD205A-1200-056-12R1-P | 03046242 | 12,0<br>0.472 | 56,0<br>2.205 | 118,0<br>4.646 | 73,0 mm<br>2.874 | 45,0<br>1.772 | 71,0<br>2.795 | 12,0<br>0.472 | 140° | TiAlN | IT8-9 |
| SD205A-1210-060-14R1-P | 03046243 | 12,1<br>0.476 | 60,0<br>2.362 | 124,0<br>4.882 | 79,0 mm<br>3.110 | 45,0<br>1.772 | 77,0<br>3.031 | 14,0<br>0.551 | 140° | TiAlN | IT8-9 |
| SD205A-1220-060-14R1-P | 03046244 | 12,2<br>0.480 | 60,0<br>2.362 | 124,0<br>4.882 | 79,0 mm<br>3.110 | 45,0<br>1.772 | 77,0<br>3.031 | 14,0<br>0.551 | 140° | TiAlN | IT8-9 |
| SD205A-1225-060-14R1-P | 03046245 | 12,25<br>0.482 | 60,0<br>2.362 | 124,0<br>4.882 | 79,0 mm<br>3.110 | 45,0<br>1.772 | 77,0<br>3.031 | 14,0<br>0.551 | 140° | TiAlN | IT8-9 |
| SD205A-1230-060-14R1-P | 03138157 | 12,3<br>0.484 | 60,0<br>2.362 | 124,0<br>4.882 | 79,0 mm<br>3.110 | 45,0<br>1.772 | 77,0<br>3.031 | 14,0<br>0.551 | 140° | TiAlN | IT8-9 |
| SD205A-1240-060-14R1-P | 03046246 | 12,4<br>0.488 | 60,0<br>2.362 | 124,0<br>4.882 | 79,0 mm<br>3.110 | 45,0<br>1.772 | 77,0<br>3.031 | 14,0<br>0.551 | 140° | TiAlN | IT8-9 |
| SD205A-1250-060-14R1-P | 03046247 | 12,5<br>0.492 | 60,0<br>2.362 | 124,0<br>4.882 | 79,0 mm<br>3.110 | 45,0<br>1.772 | 77,0<br>3.031 | 14,0<br>0.551 | 140° | TiAlN | IT8-9 |
| SD205A-1260-060-14R1-P | 03046248 | 12,6<br>0.496 | 60,0<br>2.362 | 124,0<br>4.882 | 79,0 mm<br>3.110 | 45,0<br>1.772 | 77,0<br>3.031 | 14,0<br>0.551 | 140° | TiAlN | IT8-9 |
| SD205A-1270-060-14R1-P | 03120497 | 12,7<br>0.500 | 60,0<br>2.362 | 124,0<br>4.882 | 79,0 mm<br>3.110 | 45,0<br>1.772 | 77,0<br>3.031 | 14,0<br>0.551 | 140° | TiAlN | IT8-9 |
| SD205A-1275-060-14R1-P | 03046249 | 12,75<br>0.502 | 60,0<br>2.362 | 124,0<br>4.882 | 79,0 mm<br>3.110 | 45,0<br>1.772 | 77,0<br>3.031 | 14,0<br>0.551 | 140° | TiAlN | IT8-9 |
| SD205A-1280-060-14R1-P | 03046250 | 12,8<br>0.504 | 60,0<br>2.362 | 124,0<br>4.882 | 79,0 mm<br>3.110 | 45,0<br>1.772 | 77,0<br>3.031 | 14,0<br>0.551 | 140° | TiAlN | IT8-9 |
| SD205A-1290-060-14R1-P | 03046251 | 12,9<br>0.508 | 60,0<br>2.362 | 124,0<br>4.882 | 79,0 mm<br>3.110 | 45,0<br>1.772 | 77,0<br>3.031 | 14,0<br>0.551 | 140° | TiAlN | IT8-9 |
| SD205A-1300-060-14R1-P | 03046252 | 13,0<br>0.512 | 60,0<br>2.362 | 124,0<br>4.882 | 79,0 mm<br>3.110 | 45,0<br>1.772 | 77,0<br>3.031 | 14,0<br>0.551 | 140° | TiAlN | IT8-9 |
| SD205A-1310-060-14R1-P | 03046253 | 13,1<br>0.516 | 60,0<br>2.362 | 124,0<br>4.882 | 79,0 mm<br>3.110 | 45,0<br>1.772 | 77,0<br>3.031 | 14,0<br>0.551 | 140° | TiAlN | IT8-9 |

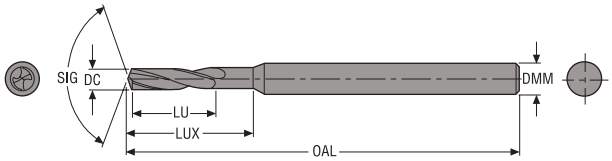
| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD205A-1320-060-14R1-P | 03046254 | 13,2<br>*0.520* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0 mm<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD205A-1330-060-14R1-P | 03046255 | 13,3<br>*0.524* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0 mm<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD205A-1340-060-14R1-P | 03046256 | 13,4<br>*0.528* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0 mm<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD205A-1349-060-14R1-P | 03046350 | 13,494<br>*0.531* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0 mm<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD205A-1350-060-14R1-P | 03046257 | 13,5<br>*0.531* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0 mm<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD205A-1355-060-14R1-P | 03138158 | 13,55<br>*0.533* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0 mm<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD205A-1360-060-14R1-P | 03046258 | 13,6<br>*0.535* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0 mm<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD205A-1370-060-14R1-P | 03046259 | 13,7<br>*0.539* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0 mm<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD205A-1380-060-14R1-P | 03046260 | 13,8<br>*0.543* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0 mm<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD205A-1389-060-14R1-P | 03120498 | 13,891<br>*0.547* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0 mm<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD205A-1390-060-14R1-P | 03046261 | 13,9<br>*0.547* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0 mm<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD205A-1400-060-14R1-P | 03046262 | 14,0<br>*0.551* | 60,0<br>*2.362* | 124,0<br>*4.882* | 79,0 mm<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN | IT8-9 |
| SD205A-1410-063-16R1-P | 03046263 | 14,1<br>*0.555* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0 mm<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD205A-1420-063-16R1-P | 03046264 | 14,2<br>*0.559* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0 mm<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD205A-1425-063-16R1-P | 03138159 | 14,25<br>*0.561* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0 mm<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD205A-1429-063-16R1-P | 03046351 | 14,288<br>*0.563* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0 mm<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD205A-1430-063-16R1-P | 03046265 | 14,3<br>*0.563* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0 mm<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD205A-1440-063-16R1-P | 03046266 | 14,4<br>*0.567* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0 mm<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD205A-1450-063-16R1-P | 03046267 | 14,5<br>*0.571* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0 mm<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD205A-1460-063-16R1-P | 03046268 | 14,6<br>*0.575* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0 mm<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD205A-1470-063-16R1-P | 03046269 | 14,7<br>*0.579* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0 mm<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD205A-1475-063-16R1-P | 03046270 | 14,75<br>*0.581* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0 mm<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD205A-1480-063-16R1-P | 03046271 | 14,8<br>*0.583* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0 mm<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD205A-1490-063-16R1-P | 03046272 | 14,9<br>*0.587* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0 mm<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD205A-1500-063-16R1-P | 03046273 | 15,0<br>*0.591* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0 mm<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD205A-1510-063-16R1-P | 03046274 | 15,1<br>*0.594* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0 mm<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD205A-1520-063-16R1-P | 03046275 | 15,2<br>*0.598* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0 mm<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD205A-1525-063-16R1-P | 03138160 | 15,25<br>*0.600* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0 mm<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD205A-1530-063-16R1-P | 03046276 | 15,3<br>*0.602* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0 mm<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD205A-1540-063-16R1-P | 03046277 | 15,4<br>*0.606* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0 mm<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |
| SD205A-1550-063-16R1-P | 03046278 | 15,5<br>*0.610* | 63,0<br>*2.480* | 133,0<br>*5.236* | 85,0 mm<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN | IT8-9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>Inch | mm<br>Inch | mm<br>Inch | mm<br>Inch | mm<br>Inch | mm<br>Inch | mm<br>Inch | | | |
| SD205A-1560-063-16R1-P | 03046280 | 15,6<br>0.614 | 63,0<br>2.480 | 133,0<br>5.236 | 85,0 mm<br>3.346 | 48,0<br>1.890 | 83,0<br>3.268 | 16,0<br>0.630 | 140° | TiAlN | IT8-9 |
| SD205A-1570-063-16R1-P | 03046281 | 15,7<br>0.618 | 63,0<br>2.480 | 133,0<br>5.236 | 85,0 mm<br>3.346 | 48,0<br>1.890 | 83,0<br>3.268 | 16,0<br>0.630 | 140° | TiAlN | IT8-9 |
| SD205A-1580-063-16R1-P | 03046282 | 15,8<br>0.622 | 63,0<br>2.480 | 133,0<br>5.236 | 85,0 mm<br>3.346 | 48,0<br>1.890 | 83,0<br>3.268 | 16,0<br>0.630 | 140° | TiAlN | IT8-9 |
| SD205A-1588-063-16R1-P | 03046352 | 15,875<br>0.625 | 63,0<br>2.480 | 133,0<br>5.236 | 85,0 mm<br>3.346 | 48,0<br>1.890 | 83,0<br>3.268 | 16,0<br>0.630 | 140° | TiAlN | IT8-9 |
| SD205A-1590-063-16R1-P | 03046283 | 15,9<br>0.626 | 63,0<br>2.480 | 133,0<br>5.236 | 85,0 mm<br>3.346 | 48,0<br>1.890 | 83,0<br>3.268 | 16,0<br>0.630 | 140° | TiAlN | IT8-9 |
| SD205A-1600-063-16R1-P | 03046284 | 16,0<br>0.630 | 63,0<br>2.480 | 133,0<br>5.236 | 85,0 mm<br>3.346 | 48,0<br>1.890 | 83,0<br>3.268 | 16,0<br>0.630 | 140° | TiAlN | IT8-9 |
| SD205A-1610-071-18R1-P | 03046285 | 16,1<br>0.634 | 71,0<br>2.795 | 143,0<br>5.630 | 95,0 mm<br>3.740 | 48,0<br>1.890 | 93,0<br>3.661 | 18,0<br>0.709 | 140° | TiAlN | IT8-9 |
| SD205A-1620-071-18R1-P | 03046286 | 16,2<br>0.638 | 71,0<br>2.795 | 143,0<br>5.630 | 95,0 mm<br>3.740 | 48,0<br>1.890 | 93,0<br>3.661 | 18,0<br>0.709 | 140° | TiAlN | IT8-9 |
| SD205A-1625-071-18R1-P | 03138161 | 16,25<br>0.640 | 71,0<br>2.795 | 143,0<br>5.630 | 95,0 mm<br>3.740 | 48,0<br>1.890 | 93,0<br>3.661 | 18,0<br>0.709 | 140° | TiAlN | IT8-9 |
| SD205A-1630-071-18R1-P | 03046287 | 16,3<br>0.642 | 71,0<br>2.795 | 143,0<br>5.630 | 95,0 mm<br>3.740 | 48,0<br>1.890 | 93,0<br>3.661 | 18,0<br>0.709 | 140° | TiAlN | IT8-9 |
| SD205A-1640-071-18R1-P | 03046288 | 16,4<br>0.646 | 71,0<br>2.795 | 143,0<br>5.630 | 95,0 mm<br>3.740 | 48,0<br>1.890 | 93,0<br>3.661 | 18,0<br>0.709 | 140° | TiAlN | IT8-9 |
| SD205A-1650-071-18R1-P | 03046289 | 16,5<br>0.650 | 71,0<br>2.795 | 143,0<br>5.630 | 95,0 mm<br>3.740 | 48,0<br>1.890 | 93,0<br>3.661 | 18,0<br>0.709 | 140° | TiAlN | IT8-9 |
| SD205A-1660-071-18R1-P | 03046290 | 16,6<br>0.654 | 71,0<br>2.795 | 143,0<br>5.630 | 95,0 mm<br>3.740 | 48,0<br>1.890 | 93,0<br>3.661 | 18,0<br>0.709 | 140° | TiAlN | IT8-9 |
| SD205A-1667-071-18R1-P | 03120499 | 16,669<br>0.656 | 71,0<br>2.795 | 143,0<br>5.630 | 95,0 mm<br>3.740 | 48,0<br>1.890 | 93,0<br>3.661 | 18,0<br>0.709 | 140° | TiAlN | IT8-9 |
| SD205A-1670-071-18R1-P | 03046291 | 16,7<br>0.657 | 71,0<br>2.795 | 143,0<br>5.630 | 95,0 mm<br>3.740 | 48,0<br>1.890 | 93,0<br>3.661 | 18,0<br>0.709 | 140° | TiAlN | IT8-9 |
| SD205A-1675-071-18R1-P | 03046292 | 16,75<br>0.659 | 71,0<br>2.795 | 143,0<br>5.630 | 95,0 mm<br>3.740 | 48,0<br>1.890 | 93,0<br>3.661 | 18,0<br>0.709 | 140° | TiAlN | IT8-9 |
| SD205A-1680-071-18R1-P | 03046293 | 16,8<br>0.661 | 71,0<br>2.795 | 143,0<br>5.630 | 95,0 mm<br>3.740 | 48,0<br>1.890 | 93,0<br>3.661 | 18,0<br>0.709 | 140° | TiAlN | IT8-9 |
| SD205A-1690-071-18R1-P | 03046294 | 16,9<br>0.665 | 71,0<br>2.795 | 143,0<br>5.630 | 95,0 mm<br>3.740 | 48,0<br>1.890 | 93,0<br>3.661 | 18,0<br>0.709 | 140° | TiAlN | IT8-9 |
| SD205A-1700-071-18R1-P | 03046296 | 17,0<br>0.669 | 71,0<br>2.795 | 143,0<br>5.630 | 95,0 mm<br>3.740 | 48,0<br>1.890 | 93,0<br>3.661 | 18,0<br>0.709 | 140° | TiAlN | IT8-9 |
| SD205A-1710-071-18R1-P | 03046297 | 17,1<br>0.673 | 71,0<br>2.795 | 143,0<br>5.630 | 95,0 mm<br>3.740 | 48,0<br>1.890 | 93,0<br>3.661 | 18,0<br>0.709 | 140° | TiAlN | IT8-9 |
| SD205A-1720-071-18R1-P | 03046298 | 17,2<br>0.677 | 71,0<br>2.795 | 143,0<br>5.630 | 95,0 mm<br>3.740 | 48,0<br>1.890 | 93,0<br>3.661 | 18,0<br>0.709 | 140° | TiAlN | IT8-9 |
| SD205A-1730-071-18R1-P | 03046299 | 17,3<br>0.681 | 71,0<br>2.795 | 143,0<br>5.630 | 95,0 mm<br>3.740 | 48,0<br>1.890 | 93,0<br>3.661 | 18,0<br>0.709 | 140° | TiAlN | IT8-9 |
| SD205A-1740-071-18R1-P | 03046300 | 17,4<br>0.685 | 71,0<br>2.795 | 143,0<br>5.630 | 95,0 mm<br>3.740 | 48,0<br>1.890 | 93,0<br>3.661 | 18,0<br>0.709 | 140° | TiAlN | IT8-9 |
| SD205A-1746-071-18R1-P | 03120500 | 17,463<br>0.688 | 71,0<br>2.795 | 143,0<br>5.630 | 95,0 mm<br>3.740 | 48,0<br>1.890 | 93,0<br>3.661 | 18,0<br>0.709 | 140° | TiAlN | IT8-9 |
| SD205A-1750-071-18R1-P | 03046301 | 17,5<br>0.689 | 71,0<br>2.795 | 143,0<br>5.630 | 95,0 mm<br>3.740 | 48,0<br>1.890 | 93,0<br>3.661 | 18,0<br>0.709 | 140° | TiAlN | IT8-9 |
| SD205A-1760-071-18R1-P | 03046302 | 17,6<br>0.693 | 71,0<br>2.795 | 143,0<br>5.630 | 95,0 mm<br>3.740 | 48,0<br>1.890 | 93,0<br>3.661 | 18,0<br>0.709 | 140° | TiAlN | IT8-9 |
| SD205A-1770-071-18R1-P | 03046303 | 17,7<br>0.697 | 71,0<br>2.795 | 143,0<br>5.630 | 95,0 mm<br>3.740 | 48,0<br>1.890 | 93,0<br>3.661 | 18,0<br>0.709 | 140° | TiAlN | IT8-9 |
| SD205A-1780-071-18R1-P | 03046304 | 17,8<br>0.701 | 71,0<br>2.795 | 143,0<br>5.630 | 95,0 mm<br>3.740 | 48,0<br>1.890 | 93,0<br>3.661 | 18,0<br>0.709 | 140° | TiAlN | IT8-9 |
| SD205A-1790-071-18R1-P | 03046305 | 17,9<br>0.705 | 71,0<br>2.795 | 143,0<br>5.630 | 95,0 mm<br>3.740 | 48,0<br>1.890 | 93,0<br>3.661 | 18,0<br>0.709 | 140° | TiAlN | IT8-9 |
| SD205A-1800-071-18R1-P | 03046306 | 18,0<br>0.709 | 71,0<br>2.795 | 143,0<br>5.630 | 95,0 mm<br>3.740 | 48,0<br>1.890 | 93,0<br>3.661 | 18,0<br>0.709 | 140° | TiAlN | IT8-9 |
| SD205A-1810-077-20R1-P | 03046307 | 18,1<br>0.713 | 77,0<br>3.031 | 153,0<br>6.024 | 103,0 mm<br>4.055 | 50,0<br>1.969 | 101,0<br>3.976 | 20,0<br>0.787 | 140° | TiAlN | IT8-9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD205A-1820-077-20R1-P | 03046308 | 18,2<br>*0.717* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0 mm<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT8-9 |
| SD205A-1830-077-20R1-P | 03046309 | 18,3<br>*0.720* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0 mm<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT8-9 |
| SD205A-1840-077-20R1-P | 03046310 | 18,4<br>*0.724* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0 mm<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT8-9 |
| SD205A-1850-077-20R1-P | 03046311 | 18,5<br>*0.728* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0 mm<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT8-9 |
| SD205A-1860-077-20R1-P | 03046312 | 18,6<br>*0.732* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0 mm<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT8-9 |
| SD205A-1870-077-20R1-P | 03046313 | 18,7<br>*0.736* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0 mm<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT8-9 |
| SD205A-1880-077-20R1-P | 03046314 | 18,8<br>*0.740* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0 mm<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT8-9 |
| SD205A-1890-077-20R1-P | 03046315 | 18,9<br>*0.744* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0 mm<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT8-9 |
| SD205A-1900-077-20R1-P | 03046316 | 19,0<br>*0.748* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0 mm<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT8-9 |
| SD205A-1905-077-20R1-P | 03046353 | 19,05<br>*0.750* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0 mm<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT8-9 |
| SD205A-1910-077-20R1-P | 03046317 | 19,1<br>*0.752* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0 mm<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT8-9 |
| SD205A-1920-077-20R1-P | 03046318 | 19,2<br>*0.756* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0 mm<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT8-9 |
| SD205A-1930-077-20R1-P | 03046319 | 19,3<br>*0.760* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0 mm<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT8-9 |
| SD205A-1940-077-20R1-P | 03046320 | 19,4<br>*0.764* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0 mm<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT8-9 |
| SD205A-1950-077-20R1-P | 03046321 | 19,5<br>*0.768* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0 mm<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT8-9 |
| SD205A-1960-077-20R1-P | 03046322 | 19,6<br>*0.772* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0 mm<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT8-9 |
| SD205A-1970-077-20R1-P | 03046323 | 19,7<br>*0.776* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0 mm<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT8-9 |
| SD205A-1980-077-20R1-P | 03046324 | 19,8<br>*0.780* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0 mm<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT8-9 |
| SD205A-1990-077-20R1-P | 03046325 | 19,9<br>*0.783* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0 mm<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT8-9 |
| SD205A-2000-077-20R1-P | 03046326 | 20,0<br>*0.787* | 77,0<br>*3.031* | 153,0<br>*6.024* | 103,0 mm<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN | IT8-9 |

# SD206

Drilling depth ~ 6 x D – Metric/Inch





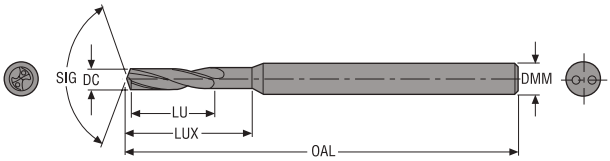

- Cylindrical shank
- External coolant
- For cutting data see page(s) 149

| Designation | Item number | DC | LU | OAL | LUX | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD206-0.70-4.2-3R1 | 02731644 | 0,7<br>*0.028* | 4,2<br>*0.165* | 38,0<br>*1.496* | 6,0<br>*0.236* | 3,0<br>*0.118* | 140° | TiAlN | IT9 |
| SD206-0.80-4.8-3R1 | 02731645 | 0,8<br>*0.031* | 4,8<br>*0.189* | 38,0<br>*1.496* | 6,7<br>*0.264* | 3,0<br>*0.118* | 140° | TiAlN | IT9 |
| SD206-0.90-5.4-3R1 | 02731646 | 0,9<br>*0.035* | 5,4<br>*0.213* | 38,0<br>*1.496* | 7,8<br>*0.307* | 3,0<br>*0.118* | 140° | TiAlN | IT9 |
| SD206-1.00-6.0-3R1 | 02731647 | 1,0<br>*0.039* | 6,0<br>*0.236* | 38,0<br>*1.496* | 8,0<br>*0.315* | 3,0<br>*0.118* | 140° | TiAlN | IT9 |
| SD206-1.10-6.6-3R1 | 02731648 | 1,1<br>*0.043* | 6,6<br>*0.260* | 38,0<br>*1.496* | 8,6<br>*0.339* | 3,0<br>*0.118* | 140° | TiAlN | IT9 |
| SD206-1.20-7.2-3R1 | 02731649 | 1,2<br>*0.047* | 7,2<br>*0.283* | 38,0<br>*1.496* | 9,2<br>*0.362* | 3,0<br>*0.118* | 140° | TiAlN | IT9 |
| SD206-1.30-7.8-3R1 | 02731650 | 1,3<br>*0.051* | 7,8<br>*0.307* | 38,0<br>*1.496* | 9,8<br>*0.386* | 3,0<br>*0.118* | 140° | TiAlN | IT9 |
| SD206-1.40-8.4-3R1 | 02731651 | 1,4<br>*0.055* | 8,4<br>*0.331* | 38,0<br>*1.496* | 10,4<br>*0.409* | 3,0<br>*0.118* | 140° | TiAlN | IT9 |
| SD206-1.50-9.0-3R1 | 02731652 | 1,5<br>*0.059* | 9,0<br>*0.354* | 38,0<br>*1.496* | 11,0<br>*0.433* | 3,0<br>*0.118* | 140° | TiAlN | IT9 |
| SD206-1.60-9.6-3R1 | 02731653 | 1,6<br>*0.063* | 9,6<br>*0.378* | 38,0<br>*1.496* | 11,6<br>*0.457* | 3,0<br>*0.118* | 140° | TiAlN | IT9 |
| SD206-1.70-10.2-3R1 | 02731654 | 1,7<br>*0.067* | 10,2<br>*0.402* | 38,0<br>*1.496* | 12,2<br>*0.480* | 3,0<br>*0.118* | 140° | TiAlN | IT9 |
| SD206-1.80-10.8-3R1 | 02731655 | 1,8<br>*0.071* | 10,8<br>*0.425* | 38,0<br>*1.496* | 12,8<br>*0.504* | 3,0<br>*0.118* | 140° | TiAlN | IT9 |
| SD206-1.90-11.4-3R1 | 02731656 | 1,9<br>*0.075* | 11,4<br>*0.449* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 140° | TiAlN | IT9 |
| SD206-2.00-12.0-3R1 | 02731657 | 2,0<br>*0.079* | 12,0<br>*0.472* | 50,0<br>*1.969* | 14,0<br>*0.551* | 3,0<br>*0.118* | 140° | TiAlN | IT9 |

# SD206A

Drilling depth ~ 6 x D – Metric/Inch



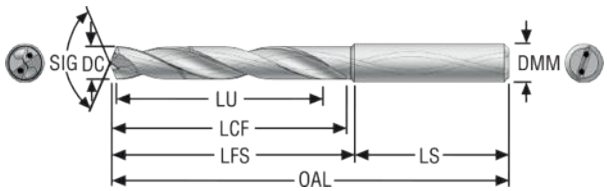



- Cylindrical shank
- Internal coolant
- For cutting data see page(s) 150

| Designation | Item number | DC | LU | OAL | LUX | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD206A-1.00-6.0-3R1 | 02731658 | 1,0<br>*0.039* | 6,0<br>*0.236* | 38,0<br>*1.496* | 8,0<br>*0.315* | 3,0<br>*0.118* | 140° | TiAlN | IT9 |
| SD206A-1.10-6.6-3R1 | 02731659 | 1,1<br>*0.043* | 6,6<br>*0.260* | 38,0<br>*1.496* | 8,6<br>*0.339* | 3,0<br>*0.118* | 140° | TiAlN | IT9 |
| SD206A-1.20-7.2-3R1 | 02731660 | 1,2<br>*0.047* | 7,2<br>*0.283* | 38,0<br>*1.496* | 9,2<br>*0.362* | 3,0<br>*0.118* | 140° | TiAlN | IT9 |
| SD206A-1.30-7.8-3R1 | 02731661 | 1,3<br>*0.051* | 7,8<br>*0.307* | 38,0<br>*1.496* | 9,8<br>*0.386* | 3,0<br>*0.118* | 140° | TiAlN | IT9 |
| SD206A-1.40-8.4-3R1 | 02731662 | 1,4<br>*0.055* | 8,4<br>*0.331* | 38,0<br>*1.496* | 10,4<br>*0.409* | 3,0<br>*0.118* | 140° | TiAlN | IT9 |
| SD206A-1.50-9.0-3R1 | 02731663 | 1,5<br>*0.059* | 9,0<br>*0.354* | 38,0<br>*1.496* | 11,0<br>*0.433* | 3,0<br>*0.118* | 140° | TiAlN | IT9 |
| SD206A-1.60-9.6-3R1 | 02731664 | 1,6<br>*0.063* | 9,6<br>*0.378* | 38,0<br>*1.496* | 11,6<br>*0.457* | 3,0<br>*0.118* | 140° | TiAlN | IT9 |
| SD206A-1.70-10.2-3R1 | 02731665 | 1,7<br>*0.067* | 10,2<br>*0.402* | 38,0<br>*1.496* | 12,2<br>*0.480* | 3,0<br>*0.118* | 140° | TiAlN | IT9 |
| SD206A-1.80-10.8-3R1 | 02731666 | 1,8<br>*0.071* | 10,8<br>*0.425* | 38,0<br>*1.496* | 12,8<br>*0.504* | 3,0<br>*0.118* | 140° | TiAlN | IT9 |
| SD206A-1.90-11.4-3R1 | 02731667 | 1,9<br>*0.075* | 11,4<br>*0.449* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 140° | TiAlN | IT9 |
| SD206A-2.00-12.0-3R1 | 02731668 | 2,0<br>*0.079* | 12,0<br>*0.472* | 50,0<br>*1.969* | 14,0<br>*0.551* | 3,0<br>*0.118* | 140° | TiAlN | IT9 |

# SD207A-P

Drilling depth ~ 7 x D – Metric/Inch






- Cylindrical shank DIN 6537A
- Internal coolant
- For cutting data see page(s) 151
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD207A-0300-030-06R1-P | 03046358 | 3,0<br>*0.118* | 30,0<br>*1.181* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 36,0<br>*1.417* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD207A-0330-030-06R1-P | 03046359 | 3,3<br>*0.130* | 30,0<br>*1.181* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 36,0<br>*1.417* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD207A-0350-030-06R1-P | 03046360 | 3,5<br>*0.138* | 30,0<br>*1.181* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 36,0<br>*1.417* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD207A-0400-037-06R1-P | 03046361 | 4,0<br>*0.157* | 37,0<br>*1.457* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 43,0<br>*1.693* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD207A-0450-037-06R1-P | 03046412 | 4,5<br>*0.177* | 37,0<br>*1.457* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 43,0<br>*1.693* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD207A-0480-045-06R1-P | 03046413 | 4,8<br>*0.189* | 45,0<br>*1.772* | 94,0<br>*3.701* | 58,0<br>*2.283* | 36,0<br>*1.417* | 56,0<br>*2.205* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD207A-0500-045-06R1-P | 03046414 | 5,0<br>*0.197* | 45,0<br>*1.772* | 94,0<br>*3.701* | 58,0<br>*2.283* | 36,0<br>*1.417* | 56,0<br>*2.205* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD207A-0520-045-06R1-P | 03046362 | 5,2<br>*0.205* | 45,0<br>*1.772* | 94,0<br>*3.701* | 58,0<br>*2.283* | 36,0<br>*1.417* | 56,0<br>*2.205* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD207A-0550-045-06R1-P | 03046363 | 5,5<br>*0.217* | 45,0<br>*1.772* | 94,0<br>*3.701* | 58,0<br>*2.283* | 36,0<br>*1.417* | 56,0<br>*2.205* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD207A-0580-045-06R1-P | 03046407 | 5,8<br>*0.228* | 45,0<br>*1.772* | 94,0<br>*3.701* | 58,0<br>*2.283* | 36,0<br>*1.417* | 56,0<br>*2.205* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD207A-0600-045-06R1-P | 03046364 | 6,0<br>*0.236* | 45,0<br>*1.772* | 94,0<br>*3.701* | 58,0<br>*2.283* | 36,0<br>*1.417* | 56,0<br>*2.205* | 6,0<br>*0.236* | 140° | TiAlN | IT9 |
| SD207A-0635-057-08R1-P | 03046365 | 6,35<br>*0.250* | 57,0<br>*2.244* | 110,0<br>*4.331* | 74,0<br>*2.913* | 36,0<br>*1.417* | 67,0<br>*2.638* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD207A-0650-057-08R1-P | 03046366 | 6,5<br>*0.256* | 57,0<br>*2.244* | 110,0<br>*4.331* | 74,0<br>*2.913* | 36,0<br>*1.417* | 67,0<br>*2.638* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD207A-0680-057-08R1-P | 03046367 | 6,8<br>*0.268* | 57,0<br>*2.244* | 110,0<br>*4.331* | 74,0<br>*2.913* | 36,0<br>*1.417* | 67,0<br>*2.638* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD207A-0690-057-08R1-P | 03046368 | 6,9<br>*0.272* | 57,0<br>*2.244* | 110,0<br>*4.331* | 74,0<br>*2.913* | 36,0<br>*1.417* | 67,0<br>*2.638* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD207A-0700-057-08R1-P | 03046369 | 7,0<br>*0.276* | 57,0<br>*2.244* | 110,0<br>*4.331* | 74,0<br>*2.913* | 36,0<br>*1.417* | 67,0<br>*2.638* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD207A-0750-057-08R1-P | 03046370 | 7,5<br>*0.295* | 57,0<br>*2.244* | 110,0<br>*4.331* | 74,0<br>*2.913* | 36,0<br>*1.417* | 72,0<br>*2.835* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD207A-0780-057-08R1-P | 03046371 | 7,8<br>*0.307* | 57,0<br>*2.244* | 110,0<br>*4.331* | 74,0<br>*2.913* | 36,0<br>*1.417* | 72,0<br>*2.835* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD207A-0800-057-08R1-P | 03046372 | 8,0<br>*0.315* | 57,0<br>*2.244* | 110,0<br>*4.331* | 74,0<br>*2.913* | 36,0<br>*1.417* | 72,0<br>*2.835* | 8,0<br>*0.315* | 140° | TiAlN | IT9 |
| SD207A-0850-062-10R1-P | 03046373 | 8,5<br>*0.335* | 62,0<br>*2.441* | 122,0<br>*4.803* | 82,0<br>*3.228* | 40,0<br>*1.575* | 80,0<br>*3.150* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD207A-0860-062-10R1-P | 03046374 | 8,6<br>*0.339* | 62,0<br>*2.441* | 122,0<br>*4.803* | 82,0<br>*3.228* | 40,0<br>*1.575* | 80,0<br>*3.150* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD207A-0870-062-10R1-P | 03046411 | 8,7<br>*0.343* | 62,0<br>*2.441* | 122,0<br>*4.803* | 82,0<br>*3.228* | 40,0<br>*1.575* | 80,0<br>*3.150* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |

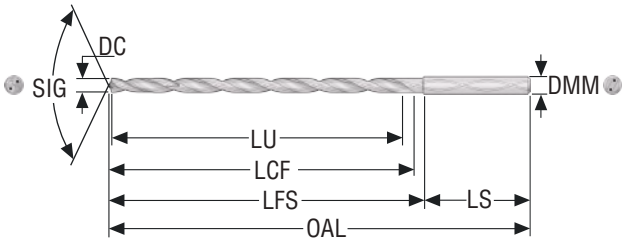
| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD207A-0880-062-10R1-P | 03046408 | 8,8<br>*0.346* | 62,0<br>*2.441* | 122,0<br>*4.803* | 82,0<br>*3.228* | 40,0<br>*1.575* | 80,0<br>*3.150* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD207A-0900-062-10R1-P | 03046375 | 9,0<br>*0.354* | 62,0<br>*2.441* | 122,0<br>*4.803* | 82,0<br>*3.228* | 40,0<br>*1.575* | 80,0<br>*3.150* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD207A-0950-062-10R1-P | 03046376 | 9,5<br>*0.374* | 62,0<br>*2.441* | 122,0<br>*4.803* | 82,0<br>*3.228* | 40,0<br>*1.575* | 80,0<br>*3.150* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD207A-0953-062-10R1-P | 03046377 | 9,525<br>*0.375* | 62,0<br>*2.441* | 122,0<br>*4.803* | 82,0<br>*3.228* | 40,0<br>*1.575* | 80,0<br>*3.150* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD207A-0975-062-10R1-P | 03046402 | 9,75<br>*0.384* | 62,0<br>*2.441* | 122,0<br>*4.803* | 82,0<br>*3.228* | 40,0<br>*1.575* | 80,0<br>*3.150* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD207A-0980-062-10R1-P | 03046403 | 9,8<br>*0.386* | 62,0<br>*2.441* | 122,0<br>*4.803* | 82,0<br>*3.228* | 40,0<br>*1.575* | 80,0<br>*3.150* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD207A-1000-062-10R1-P | 03046378 | 10,0<br>*0.394* | 62,0<br>*2.441* | 122,0<br>*4.803* | 82,0<br>*3.228* | 40,0<br>*1.575* | 80,0<br>*3.150* | 10,0<br>*0.394* | 140° | TiAlN | IT9 |
| SD207A-1020-072-12R1-P | 03046379 | 10,2<br>*0.402* | 72,0<br>*2.835* | 141,0<br>*5.551* | 96,0<br>*3.780* | 45,0<br>*1.772* | 94,0<br>*3.701* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD207A-1040-072-12R1-P | 03046401 | 10,4<br>*0.409* | 72,0<br>*2.835* | 141,0<br>*5.551* | 96,0<br>*3.780* | 45,0<br>*1.772* | 94,0<br>*3.701* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD207A-1050-072-12R1-P | 03046380 | 10,5<br>*0.413* | 72,0<br>*2.835* | 141,0<br>*5.551* | 96,0<br>*3.780* | 45,0<br>*1.772* | 94,0<br>*3.701* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD207A-1080-072-12R1-P | 03046404 | 10,8<br>*0.425* | 72,0<br>*2.835* | 141,0<br>*5.551* | 96,0<br>*3.780* | 45,0<br>*1.772* | 94,0<br>*3.701* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD207A-1100-072-12R1-P | 03046381 | 11,0<br>*0.433* | 72,0<br>*2.835* | 141,0<br>*5.551* | 96,0<br>*3.780* | 45,0<br>*1.772* | 94,0<br>*3.701* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD207A-1150-072-12R1-P | 03046382 | 11,5<br>*0.453* | 72,0<br>*2.835* | 141,0<br>*5.551* | 96,0<br>*3.780* | 45,0<br>*1.772* | 94,0<br>*3.701* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD207A-1180-072-12R1-P | 03046405 | 11,8<br>*0.465* | 72,0<br>*2.835* | 141,0<br>*5.551* | 96,0<br>*3.780* | 45,0<br>*1.772* | 94,0<br>*3.701* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD207A-1200-072-12R1-P | 03046383 | 12,0<br>*0.472* | 72,0<br>*2.835* | 141,0<br>*5.551* | 96,0<br>*3.780* | 45,0<br>*1.772* | 94,0<br>*3.701* | 12,0<br>*0.472* | 140° | TiAlN | IT9 |
| SD207A-1225-083-14R1-P | 03046415 | 12,25<br>*0.482* | 83,0<br>*3.268* | 155,0<br>*6.102* | 110,0<br>*4.331* | 45,0<br>*1.772* | 108,0<br>*4.252* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD207A-1250-083-14R1-P | 03046384 | 12,5<br>*0.492* | 83,0<br>*3.268* | 155,0<br>*6.102* | 110,0<br>*4.331* | 45,0<br>*1.772* | 108,0<br>*4.252* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD207A-1270-083-14R1-P | 03046385 | 12,7<br>*0.500* | 83,0<br>*3.268* | 155,0<br>*6.102* | 110,0<br>*4.331* | 45,0<br>*1.772* | 108,0<br>*4.252* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD207A-1280-083-14R1-P | 03046416 | 12,8<br>*0.504* | 83,0<br>*3.268* | 155,0<br>*6.102* | 110,0<br>*4.331* | 45,0<br>*1.772* | 108,0<br>*4.252* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD207A-1300-083-14R1-P | 03046386 | 13,0<br>*0.512* | 83,0<br>*3.268* | 155,0<br>*6.102* | 110,0<br>*4.331* | 45,0<br>*1.772* | 108,0<br>*4.252* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD207A-1350-083-14R1-P | 03046387 | 13,5<br>*0.531* | 83,0<br>*3.268* | 155,0<br>*6.102* | 110,0<br>*4.331* | 45,0<br>*1.772* | 108,0<br>*4.252* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD207A-1380-083-14R1-P | 03046409 | 13,8<br>*0.543* | 83,0<br>*3.268* | 155,0<br>*6.102* | 110,0<br>*4.331* | 45,0<br>*1.772* | 108,0<br>*4.252* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD207A-1400-083-14R1-P | 03046388 | 14,0<br>*0.551* | 83,0<br>*3.268* | 155,0<br>*6.102* | 110,0<br>*4.331* | 45,0<br>*1.772* | 108,0<br>*4.252* | 14,0<br>*0.551* | 140° | TiAlN | IT9 |
| SD207A-1425-092-16R1-P | 03046417 | 14,25<br>*0.561* | 92,0<br>*3.622* | 171,0<br>*6.732* | 123,0<br>*4.843* | 48,0<br>*1.890* | 121,0<br>*4.764* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD207A-1450-092-16R1-P | 03046389 | 14,5<br>*0.571* | 92,0<br>*3.622* | 171,0<br>*6.732* | 123,0<br>*4.843* | 48,0<br>*1.890* | 121,0<br>*4.764* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD207A-1480-092-16R1-P | 03046418 | 14,8<br>*0.583* | 92,0<br>*3.622* | 171,0<br>*6.732* | 123,0<br>*4.843* | 48,0<br>*1.890* | 121,0<br>*4.764* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD207A-1500-092-16R1-P | 03046390 | 15,0<br>*0.591* | 92,0<br>*3.622* | 171,0<br>*6.732* | 123,0<br>*4.843* | 48,0<br>*1.890* | 121,0<br>*4.764* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD207A-1550-092-16R1-P | 03046391 | 15,5<br>*0.610* | 92,0<br>*3.622* | 171,0<br>*6.732* | 123,0<br>*4.843* | 48,0<br>*1.890* | 121,0<br>*4.764* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD207A-1580-092-16R1-P | 03046410 | 15,8<br>*0.622* | 92,0<br>*3.622* | 171,0<br>*6.732* | 123,0<br>*4.843* | 48,0<br>*1.890* | 121,0<br>*4.764* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD207A-1600-092-16R1-P | 03046392 | 16,0<br>*0.630* | 92,0<br>*3.622* | 171,0<br>*6.732* | 123,0<br>*4.843* | 48,0<br>*1.890* | 121,0<br>*4.764* | 16,0<br>*0.630* | 140° | TiAlN | IT9 |
| SD207A-1650-103-18R1-P | 03046393 | 16,5<br>*0.650* | 103,0<br>*4.055* | 185,0<br>*7.283* | 137,0<br>*5.394* | 48,0<br>*1.890* | 135,0<br>*5.315* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD207A-1680-103-18R1-P | 03046419 | 16,8<br>*0.661* | 103,0<br>*4.055* | 185,0<br>*7.283* | 137,0<br>*5.394* | 48,0<br>*1.890* | 135,0<br>*5.315* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD207A-1700-103-18R1-P | 03046394 | 17,0<br>*0.669* | 103,0<br>*4.055* | 185,0<br>*7.283* | 137,0<br>*5.394* | 48,0<br>*1.890* | 135,0<br>*5.315* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD207A-1750-103-18R1-P | 03046395 | 17,5<br>*0.689* | 103,0<br>*4.055* | 185,0<br>*7.283* | 137,0<br>*5.394* | 48,0<br>*1.890* | 135,0<br>*5.315* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD207A-1780-103-18R1-P | 03046420 | 17,8<br>*0.701* | 103,0<br>*4.055* | 185,0<br>*7.283* | 137,0<br>*5.394* | 48,0<br>*1.890* | 135,0<br>*5.315* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD207A-1800-103-18R1-P | 03046396 | 18,0<br>*0.709* | 103,0<br>*4.055* | 185,0<br>*7.283* | 137,0<br>*5.394* | 48,0<br>*1.890* | 135,0<br>*5.315* | 18,0<br>*0.709* | 140° | TiAlN | IT9 |
| SD207A-1850-112-20R1-P | 03046397 | 18,5<br>*0.728* | 112,0<br>*4.409* | 200,0<br>*7.874* | 150,0<br>*5.906* | 50,0<br>*1.969* | 148,0<br>*5.827* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD207A-1880-112-20R1-P | 03046421 | 18,8<br>*0.740* | 112,0<br>*4.409* | 200,0<br>*7.874* | 150,0<br>*5.906* | 50,0<br>*1.969* | 148,0<br>*5.827* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD207A-1900-112-20R1-P | 03046398 | 19,0<br>*0.748* | 112,0<br>*4.409* | 200,0<br>*7.874* | 150,0<br>*5.906* | 50,0<br>*1.969* | 148,0<br>*5.827* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD207A-1905-112-20R1-P | 03046399 | 19,05<br>*0.750* | 112,0<br>*4.409* | 200,0<br>*7.874* | 150,0<br>*5.906* | 50,0<br>*1.969* | 148,0<br>*5.827* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD207A-1980-112-20R1-P | 03046406 | 19,8<br>*0.780* | 112,0<br>*4.409* | 200,0<br>*7.874* | 150,0<br>*5.906* | 50,0<br>*1.969* | 148,0<br>*5.827* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |
| SD207A-2000-112-20R1-P | 03046400 | 20,0<br>*0.787* | 112,0<br>*4.409* | 200,0<br>*7.874* | 150,0<br>*5.906* | 50,0<br>*1.969* | 148,0<br>*5.827* | 20,0<br>*0.787* | 140° | TiAlN | IT9 |

# SD216A

Drilling depth ~ 16 x D – Metric/Inch



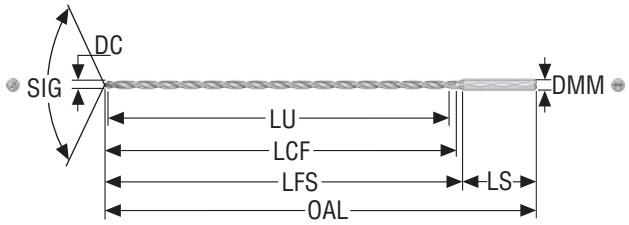



- Cylindrical shank DIN 6537A
- Internal coolant
- For cutting data see page(s) 152
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD216A-3.0-50-4R1 | 02712383 | 3,0<br>*0.118* | 50,0<br>*1.969* | 88,0<br>*3.465* | 61,0<br>*2.402* | 27,0<br>*1.063* | 56,0<br>*2.205* | 4,0<br>*0.157* | 136° | TiAlN + TiN | IT9 |
| SD216A-3.5-60-4R1 | 02712384 | 3,5<br>*0.138* | 60,0<br>*2.362* | 99,0<br>*3.898* | 72,0<br>*2.835* | 27,0<br>*1.063* | 67,0<br>*2.638* | 4,0<br>*0.157* | 136° | TiAlN + TiN | IT9 |
| SD216A-4.0-60-4R1 | 02712385 | 4,0<br>*0.157* | 60,0<br>*2.362* | 99,0<br>*3.898* | 72,0<br>*2.835* | 27,0<br>*1.063* | 67,0<br>*2.638* | 4,0<br>*0.157* | 136° | TiAlN + TiN | IT9 |
| SD216A-4.5-70-6R1 | 02712386 | 4,5<br>*0.177* | 70,0<br>*2.756* | 117,0<br>*4.606* | 81,0<br>*3.189* | 36,0<br>*1.417* | 79,0<br>*3.110* | 6,0<br>*0.236* | 136° | TiAlN + TiN | IT9 |
| SD216A-5.0-90-6R1 | 02637529 | 5,0<br>*0.197* | 90,0<br>*3.543* | 142,0<br>*5.591* | 106,0<br>*4.173* | 36,0<br>*1.417* | 103,0<br>*4.055* | 6,0<br>*0.236* | 136° | TiAlN + TiN | IT9 |
| SD216A-5.5-90-6R1 | 02637530 | 5,5<br>*0.217* | 90,0<br>*3.543* | 142,0<br>*5.591* | 106,0<br>*4.173* | 36,0<br>*1.417* | 103,0<br>*4.055* | 6,0<br>*0.236* | 136° | TiAlN + TiN | IT9 |
| SD216A-6.0-90-6R1 | 02637531 | 6,0<br>*0.236* | 90,0<br>*3.543* | 142,0<br>*5.591* | 106,0<br>*4.173* | 36,0<br>*1.417* | 103,0<br>*4.055* | 6,0<br>*0.236* | 136° | TiAlN + TiN | IT9 |
| SD216A-6.35-120-8R1 | 02656536 | 6,35<br>*0.250* | 120,0<br>*4.724* | 177,0<br>*6.969* | 141,0<br>*5.551* | 36,0<br>*1.417* | 137,0<br>*5.394* | 8,0<br>*0.315* | 136° | TiAlN + TiN | IT9 |
| SD216A-6.5-120-8R1 | 02637532 | 6,5<br>*0.256* | 120,0<br>*4.724* | 177,0<br>*6.969* | 141,0<br>*5.551* | 36,0<br>*1.417* | 137,0<br>*5.394* | 8,0<br>*0.315* | 136° | TiAlN + TiN | IT9 |
| SD216A-7.0-120-8R1 | 02637533 | 7,0<br>*0.276* | 120,0<br>*4.724* | 177,0<br>*6.969* | 141,0<br>*5.551* | 36,0<br>*1.417* | 137,0<br>*5.394* | 8,0<br>*0.315* | 136° | TiAlN + TiN | IT9 |
| SD216A-7.5-120-8R1 | 02637534 | 7,5<br>*0.295* | 120,0<br>*4.724* | 177,0<br>*6.969* | 141,0<br>*5.551* | 36,0<br>*1.417* | 137,0<br>*5.394* | 8,0<br>*0.315* | 136° | TiAlN + TiN | IT9 |
| SD216A-8.0-120-8R1 | 02637536 | 8,0<br>*0.315* | 120,0<br>*4.724* | 177,0<br>*6.969* | 141,0<br>*5.551* | 36,0<br>*1.417* | 137,0<br>*5.394* | 8,0<br>*0.315* | 136° | TiAlN + TiN | IT9 |
| SD216A-8.5-150-10R1 | 02637539 | 8,5<br>*0.335* | 150,0<br>*5.906* | 216,0<br>*8.504* | 176,0<br>*6.929* | 40,0<br>*1.575* | 172,0<br>*6.772* | 10,0<br>*0.394* | 136° | TiAlN + TiN | IT9 |
| SD216A-9.0-150-10R1 | 02637540 | 9,0<br>*0.354* | 150,0<br>*5.906* | 216,0<br>*8.504* | 176,0<br>*6.929* | 40,0<br>*1.575* | 172,0<br>*6.772* | 10,0<br>*0.394* | 136° | TiAlN + TiN | IT9 |
| SD216A-9.5-150-10R1 | 02637541 | 9,5<br>*0.374* | 150,0<br>*5.906* | 216,0<br>*8.504* | 176,0<br>*6.929* | 40,0<br>*1.575* | 172,0<br>*6.772* | 10,0<br>*0.394* | 136° | TiAlN + TiN | IT9 |
| SD216A-9.52-150-10R1 | 02656537 | 9,52<br>*0.375* | 150,0<br>*5.906* | 216,0<br>*8.504* | 176,0<br>*6.929* | 40,0<br>*1.575* | 172,0<br>*6.772* | 10,0<br>*0.394* | 136° | TiAlN + TiN | IT9 |
| SD216A-10.0-150-10R1 | 02637542 | 10,0<br>*0.394* | 150,0<br>*5.906* | 216,0<br>*8.504* | 176,0<br>*6.929* | 40,0<br>*1.575* | 172,0<br>*6.772* | 10,0<br>*0.394* | 136° | TiAlN + TiN | IT9 |
| SD216A-10.5-180-12R1 | 02637543 | 10,5<br>*0.413* | 180,0<br>*7.087* | 256,0<br>*10.079* | 211,0<br>*8.307* | 45,0<br>*1.772* | 207,0<br>*8.150* | 12,0<br>*0.472* | 136° | TiAlN + TiN | IT9 |
| SD216A-11.0-180-12R1 | 02637544 | 11,0<br>*0.433* | 180,0<br>*7.087* | 256,0<br>*10.079* | 211,0<br>*8.307* | 45,0<br>*1.772* | 207,0<br>*8.150* | 12,0<br>*0.472* | 136° | TiAlN + TiN | IT9 |
| SD216A-11.5-180-12R1 | 02637545 | 11,5<br>*0.453* | 180,0<br>*7.087* | 256,0<br>*10.079* | 211,0<br>*8.307* | 45,0<br>*1.772* | 207,0<br>*8.150* | 12,0<br>*0.472* | 136° | TiAlN + TiN | IT9 |
| SD216A-12.0-180-12R1 | 02637546 | 12,0<br>*0.472* | 180,0<br>*7.087* | 256,0<br>*10.079* | 211,0<br>*8.307* | 45,0<br>*1.772* | 207,0<br>*8.150* | 12,0<br>*0.472* | 136° | TiAlN + TiN | IT9 |

# SD230A

Drilling depth ~ 30 x D – Metric/Inch





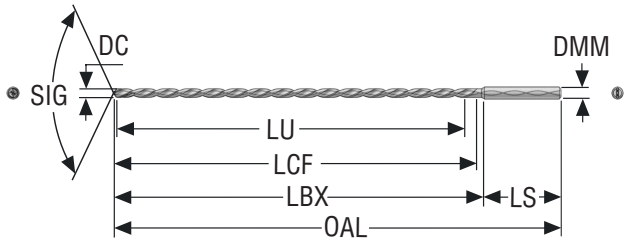

- Cylindrical shank DIN 6537A
- Internal coolant
- For cutting data see page(s) 153
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD230A-4.0-112-4R1 | 02712361 | 4,0<br>*0.157* | 112,0<br>*4.409* | 151,0<br>*5.945* | 124,0<br>*4.882* | 27,0<br>*1.063* | 119,0<br>*4.685* | 4,0<br>*0.157* | 136° | TiAlN + TiN | IT9 |
| SD230A-4.5-135-6R1 | 02712362 | 4,5<br>*0.177* | 135,0<br>*5.315* | 185,0<br>*7.283* | 149,0<br>*5.866* | 36,0<br>*1.417* | 145,0<br>*5.709* | 6,0<br>*0.236* | 136° | TiAlN + TiN | IT9 |
| SD230A-5.0-170-6R1 | 02712363 | 5,0<br>*0.197* | 170,0<br>*6.693* | 220,0<br>*8.661* | 184,0<br>*7.244* | 36,0<br>*1.417* | 180,0<br>*7.087* | 6,0<br>*0.236* | 136° | TiAlN + TiN | IT9 |
| SD230A-5.5-170-6R1 | 02712364 | 5,5<br>*0.217* | 170,0<br>*6.693* | 220,0<br>*8.661* | 184,0<br>*7.244* | 36,0<br>*1.417* | 180,0<br>*7.087* | 6,0<br>*0.236* | 136° | TiAlN + TiN | IT9 |
| SD230A-6.0-170-6R1 | 02712365 | 6,0<br>*0.236* | 170,0<br>*6.693* | 220,0<br>*8.661* | 184,0<br>*7.244* | 36,0<br>*1.417* | 180,0<br>*7.087* | 6,0<br>*0.236* | 136° | TiAlN + TiN | IT9 |
| SD230A-02500-886-0315R1 | 02712366 | 6,35<br>*0.250* | 225,0<br>*8.858* | 279,0<br>*10.984* | 243,0<br>*9.567* | 36,0<br>*1.417* | 239,0<br>*9.409* | 8,0<br>*0.315* | 136° | TiAlN + TiN | IT9 |
| SD230A-6.5-225-8R1 | 02712367 | 6,5<br>*0.256* | 225,0<br>*8.858* | 279,0<br>*10.984* | 243,0<br>*9.567* | 36,0<br>*1.417* | 239,0<br>*9.409* | 8,0<br>*0.315* | 136° | TiAlN + TiN | IT9 |
| SD230A-7.0-225-8R1 | 02712370 | 7,0<br>*0.276* | 225,0<br>*8.858* | 279,0<br>*10.984* | 243,0<br>*9.567* | 36,0<br>*1.417* | 239,0<br>*9.409* | 8,0<br>*0.315* | 136° | TiAlN + TiN | IT9 |
| SD230A-7.5-225-8R1 | 02712371 | 7,5<br>*0.295* | 225,0<br>*8.858* | 279,0<br>*10.984* | 243,0<br>*9.567* | 36,0<br>*1.417* | 239,0<br>*9.409* | 8,0<br>*0.315* | 136° | TiAlN + TiN | IT9 |
| SD230A-03125-886-0315R1 | 02712374 | 7,938<br>*0.313* | 225,0<br>*8.858* | 279,0<br>*10.984* | 243,0<br>*9.567* | 36,0<br>*1.417* | 239,0<br>*9.409* | 8,0<br>*0.315* | 136° | TiAlN + TiN | IT9 |
| SD230A-8.0-225-8R1 | 02712376 | 8,0<br>*0.315* | 225,0<br>*8.858* | 279,0<br>*10.984* | 243,0<br>*9.567* | 36,0<br>*1.417* | 239,0<br>*9.409* | 8,0<br>*0.315* | 136° | TiAlN + TiN | IT9 |
| SD230A-8.5-285-10R1 | 02712378 | 8,5<br>*0.335* | 285,0<br>*11.220* | 346,0<br>*13.622* | 306,0<br>*12.047* | 40,0<br>*1.575* | 302,0<br>*11.890* | 10,0<br>*0.394* | 136° | TiAlN + TiN | IT9 |
| SD230A-9.0-285-10R1 | 02712379 | 9,0<br>*0.354* | 285,0<br>*11.220* | 346,0<br>*13.622* | 306,0<br>*12.047* | 40,0<br>*1.575* | 302,0<br>*11.890* | 10,0<br>*0.394* | 136° | TiAlN + TiN | IT9 |
| SD230A-9.5-285-10R1 | 02712380 | 9,5<br>*0.374* | 285,0<br>*11.220* | 346,0<br>*13.622* | 306,0<br>*12.047* | 40,0<br>*1.575* | 302,0<br>*11.890* | 10,0<br>*0.394* | 136° | TiAlN + TiN | IT9 |
| SD230A-03750-1122-0394R1 | 02712381 | 9,525<br>*0.375* | 285,0<br>*11.220* | 346,0<br>*13.622* | 306,0<br>*12.047* | 40,0<br>*1.575* | 302,0<br>*11.890* | 10,0<br>*0.394* | 136° | TiAlN + TiN | IT9 |
| SD230A-10.0-285-10R1 | 02712382 | 10,0<br>*0.394* | 285,0<br>*11.220* | 346,0<br>*13.622* | 306,0<br>*12.047* | 40,0<br>*1.575* | 302,0<br>*11.890* | 10,0<br>*0.394* | 136° | TiAlN + TiN | IT9 |

# SD2040A

Drilling depth ~ 40 x D – Metric/Inch



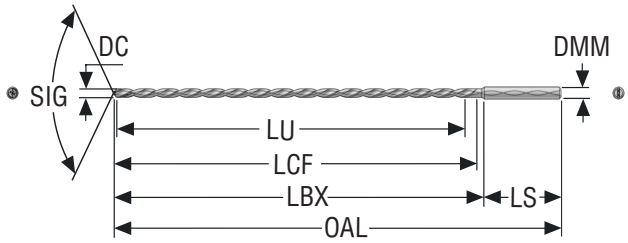



- Cylindrical shank DIN 6537A
- Internal coolant
- For cutting data see page(s) 154
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | DMM | LU | LCF | LBX | OAL | LS | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD2040A-0300-120-04R1 | 10143441 | 3,0<br>*0.118* | 4,0<br>*0.157* | 120<br>*4.724* | 128,0<br>*5.039* | 130,0<br>*5.118* | 157,0<br>*6.181* | 27,0<br>*1.063* | 133° | TiAlN + TiN | IT9-10 |
| SD2040A-0400-160-04R1 | 10143442 | 4,0<br>*0.157* | 4,0<br>*0.157* | 160<br>*6.299* | 169,0<br>*6.654* | 142,0<br>*5.591* | 198,0<br>*7.795* | 27,0<br>*1.063* | 133° | TiAlN + TiN | IT9-10 |
| SD2040A-0450-180-06R1 | 10143443 | 4,5<br>*0.177* | 6,0<br>*0.236* | 180<br>*7.087* | 190,0<br>*7.480* | 202,0<br>*7.953* | 238,0<br>*9.370* | 36,0<br>*1.417* | 133° | TiAlN + TiN | IT9-10 |
| SD2040A-0500-200-06R1 | 10143444 | 5,0<br>*0.197* | 6,0<br>*0.236* | 200<br>*7.874* | 210,5<br>*8.287* | 213,0<br>*8.386* | 249,0<br>*9.803* | 36,0<br>*1.417* | 133° | TiAlN + TiN | IT9-10 |
| SD2040A-0600-240-06R1 | 10143445 | 6,0<br>*0.236* | 6,0<br>*0.236* | 240<br>*9.449* | 252,0<br>*9.921* | 254,0<br>*10.000* | 290,0<br>*11.417* | 36,0<br>*1.417* | 133° | TiAlN + TiN | IT9-10 |
| SD2040A-0635-254-08R1 | 10143446 | 6,35<br>*0.250* | 8,0<br>*0.315* | 254<br>*10.000* | 266,5<br>*10.492* | 275,0<br>*10.827* | 311,0<br>*12.244* | 36,0<br>*1.417* | 133° | TiAlN + TiN | IT9-10 |
| SD2040A-0650-260-08R1 | 10143447 | 6,5<br>*0.256* | 8,0<br>*0.315* | 260<br>*10.236* | 273,0<br>*10.748* | 275,0<br>*10.827* | 311,0<br>*12.244* | 36,0<br>*1.417* | 133° | TiAlN + TiN | IT9-10 |
| SD2040A-0700-280-08R1 | 10143448 | 7,0<br>*0.276* | 8,0<br>*0.315* | 280<br>*11.024* | 293,5<br>*11.555* | 296,0<br>*11.654* | 332,0<br>*13.071* | 36,0<br>*1.417* | 133° | TiAlN + TiN | IT9-10 |
| SD2040A-0750-300-08R1 | 10143449 | 7,5<br>*0.295* | 8,0<br>*0.315* | 300<br>*11.811* | 314,0<br>*12.362* | 316,0<br>*12.441* | 352,0<br>*13.858* | 36,0<br>*1.417* | 133° | TiAlN + TiN | IT9-10 |
| SD2040A-0800-320-08R1 | 10143450 | 8,0<br>*0.315* | 8,0<br>*0.315* | 320<br>*12.598* | 335,0<br>*13.189* | 337,0<br>*13.268* | 373,0<br>*14.685* | 36,0<br>*1.417* | 133° | TiAlN + TiN | IT9-10 |

# SD2050A

Drilling depth ~ 50 x D – Metric/Inch





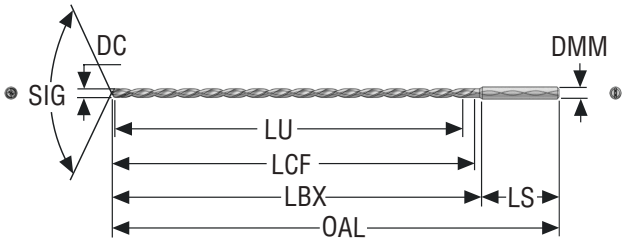

- Cylindrical shank DIN 6537A
- Internal coolant
- For cutting data see page(s) 154
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | DMM | LU | LCF | LBX | OAL | LS | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD2050A-0300-150-04R1 | 10188284 | 3,0<br>*0.118* | 4,0<br>*0.157* | 150<br>*5.906* | 157,5<br>*6.201* | 161,0<br>*6.339* | 188,0<br>*7.402* | 27,0<br>*1.063* | 133° | TiAlN + TiN | IT9 |
| SD2050A-0400-200-04R1 | 10188285 | 4,0<br>*0.157* | 4,0<br>*0.157* | 200<br>*7.874* | 209,0<br>*8.228* | 213,0<br>*8.386* | 240,0<br>*9.449* | 27,0<br>*1.063* | 133° | TiAlN + TiN | IT9 |
| SD2050A-0450-225-06R1 | 10188286 | 4,5<br>*0.177* | 6,0<br>*0.236* | 225<br>*8.858* | 234,75<br>*9.242* | 252,0<br>*9.921* | 288,0<br>*11.339* | 36,0<br>*1.417* | 133° | TiAlN + TiN | IT9 |
| SD2050A-0500-250-06R1 | 10188287 | 5,0<br>*0.197* | 6,0<br>*0.236* | 250<br>*9.843* | 260,5<br>*10.256* | 264,0<br>*10.394* | 300,0<br>*11.811* | 36,0<br>*1.417* | 133° | TiAlN + TiN | IT9 |
| SD2050A-0600-300-06R1 | 10188288 | 6,0<br>*0.236* | 6,0<br>*0.236* | 300<br>*11.811* | 312,0<br>*12.283* | 316,0<br>*12.441* | 352,0<br>*13.858* | 36,0<br>*1.417* | 133° | TiAlN + TiN | IT9 |
| SD2050A-0635-318-08R1 | 10188289 | 6,35<br>*0.250* | 8,0<br>*0.315* | 318<br>*12.520* | 330,5<br>*13.012* | 337,0<br>*13.268* | 373,0<br>*14.685* | 36,0<br>*1.417* | 133° | TiAlN + TiN | IT9 |

# SD2060A

Drilling depth ~ 60 x D – Metric/Inch






- Cylindrical shank DIN 6537A
- Internal coolant
- For cutting data see page(s) 154
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | DMM | LU | LCF | LBX | OAL | LS | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD2060A-0300-180-04R1 | 10188290 | 3,0<br>*0.118* | 4,0<br>*0.157* | 180<br>*7.087* | 187,5<br>*7.382* | 191,0<br>*7.520* | 218,0<br>*8.583* | 27,0<br>*1.063* | 133° | TiAlN + TiN | IT9 |
| SD2060A-0400-240-04R1 | 10188291 | 4,0<br>*0.157* | 4,0<br>*0.157* | 240<br>*9.449* | 249,0<br>*9.803* | 253,0<br>*9.961* | 280,0<br>*11.024* | 27,0<br>*1.063* | 133° | TiAlN + TiN | IT9 |
| SD2060A-0450-270-06R1 | 10188292 | 4,5<br>*0.177* | 6,0<br>*0.236* | 270<br>*10.630* | 280,0<br>*11.024* | 283,0<br>*11.142* | 319,0<br>*12.559* | 36,0<br>*1.417* | 133° | TiAlN + TiN | IT9 |
| SD2060A-0500-300-06R1 | 10188293 | 5,0<br>*0.197* | 6,0<br>*0.236* | 300<br>*11.811* | 310,5<br>*12.224* | 314,0<br>*12.362* | 350,0<br>*13.780* | 36,0<br>*1.417* | 133° | TiAlN + TiN | IT9 |



# Feedmax™ SD245A

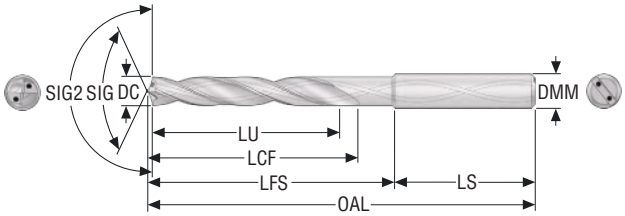
Seco Feedmax SD245A solid carbide drills bring high levels of stability and overall improved machining performance to holemaking applications with irregular exits and cross-hole interruptions. The following features enable the user to achieve good hole geometry:

- Four land margins
- An optimized self-centering point
- Highly wear-resistant TiAlN+TiN coating
- Enhanced edge preparation

# SD245A

Drilling depth ~ 5 x D – Metric/Inch






- Cylindrical shank DIN 6537A
- Internal coolant
- For cutting data see page(s) 155
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD245A-5.0-32-6R1 | 02691683 | 5,0<br>*0.197* | 32,0<br>*1.260* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140°/180° | TiAlN + TiN | IT8 |
| SD245A-6.0-32-6R1 | 02691684 | 6,0<br>*0.236* | 32,0<br>*1.260* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140°/180° | TiAlN + TiN | IT8 |
| SD245A-02500-138-0315R1 | 02691686 | 6,35<br>*0.2500* | 35,0<br>*1.378* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140°/180° | TiAlN + TiN | IT8 |
| SD245A-6.5-35-8R1 | 02691687 | 6,5<br>*0.256* | 35,0<br>*1.378* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140°/180° | TiAlN + TiN | IT8 |
| SD245A-02656-157-0315R1 | 02691688 | 6,747<br>*0.2656* | 40,0<br>*1.575* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140°/180° | TiAlN + TiN | IT8 |
| SD245A-6.8-40-8R1 | 02691689 | 6,8<br>*0.268* | 40,0<br>*1.575* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140°/180° | TiAlN + TiN | IT8 |
| SD245A-7.0-40-8R1 | 02691690 | 7,0<br>*0.276* | 40,0<br>*1.575* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140°/180° | TiAlN + TiN | IT8 |
| SD245A-02813-157-0315R1 | 02691691 | 7,144<br>*0.2813* | 40,0<br>*1.575* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140°/180° | TiAlN + TiN | IT8 |
| SD245A-7.5-40-8R1 | 02691692 | 7,5<br>*0.295* | 40,0<br>*1.575* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140°/180° | TiAlN + TiN | IT8 |
| SD245A-03125-165-0315R1 | 02691693 | 7,938<br>*0.3125* | 42,0<br>*1.654* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140°/180° | TiAlN + TiN | IT8 |
| SD245A-8.0-42-8R1 | 02691694 | 8,0<br>*0.315* | 42,0<br>*1.654* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140°/180° | TiAlN + TiN | IT8 |
| SD245A-8.5-42-10R1 | 02691695 | 8,5<br>*0.335* | 42,0<br>*1.654* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140°/180° | TiAlN + TiN | IT8 |
| SD245A-9.0-45-10R1 | 02546059 | 9,0<br>*0.354* | 45,0<br>*1.772* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140°/180° | TiAlN + TiN | IT8 |
| SD245A-9.5-45-10R1 | 02691696 | 9,5<br>*0.374* | 45,0<br>*1.772* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140°/180° | TiAlN + TiN | IT8 |
| SD245A-03750-189-0394R1 | 02691697 | 9,525<br>*0.3750* | 48,0<br>*1.890* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140°/180° | TiAlN + TiN | IT8 |
| SD245A-10.0-48-10R1 | 02536888 | 10,0<br>*0.394* | 48,0<br>*1.890* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140°/180° | TiAlN + TiN | IT8 |
| SD245A-10.2-48-12R1 | 02691699 | 10,2<br>*0.402* | 48,0<br>*1.890* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140°/180° | TiAlN + TiN | IT8 |
| SD245A-04063-189-0472R1 | 02691700 | 10,319<br>*0.4063* | 48,0<br>*1.890* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140°/180° | TiAlN + TiN | IT8 |
| SD245A-10.5-48-12R1 | 02691701 | 10,5<br>*0.413* | 48,0<br>*1.890* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140°/180° | TiAlN + TiN | IT8 |
| SD245A-11.0-56-12R1 | 02561860 | 11,0<br>*0.433* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140°/180° | TiAlN + TiN | IT8 |
| SD245A-04375-221-0472R1 | 02691702 | 11,113<br>*0.4375* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140°/180° | TiAlN + TiN | IT8 |
| SD245A-11.5-56-12R1 | 02691704 | 11,5<br>*0.453* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140°/180° | TiAlN + TiN | IT8 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD245A-12.0-56-12R1 | 02691705 | 12,0<br>*0.472* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140°/180° | TiAlN + TiN | IT8 |
| SD245A-12.5-56-14R1 | 02691706 | 12,5<br>*0.492* | 56,0<br>*2.205* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140°/180° | TiAlN + TiN | IT8 |
| SD245A-0500-221-0551R1 | 02691707 | 12,7<br>*0.500* | 56,0<br>*2.205* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140°/180° | TiAlN + TiN | IT8 |
| SD245A-13.0-56-14R1 | 02691708 | 13,0<br>*0.512* | 56,0<br>*2.205* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140°/180° | TiAlN + TiN | IT8 |
| SD245A-05312-232-0551R1 | 02691709 | 13,494<br>*0.5312* | 59,0<br>*2.323* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140°/180° | TiAlN + TiN | IT8 |
| SD245A-13.5-59-14R1 | 02691710 | 13,5<br>*0.5312* | 59,0<br>*2.323* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140°/180° | TiAlN + TiN | IT8 |
| SD245A-14.0-59-14R1 | 02691711 | 14,0<br>*0.551* | 59,0<br>*2.323* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140°/180° | TiAlN + TiN | IT8 |



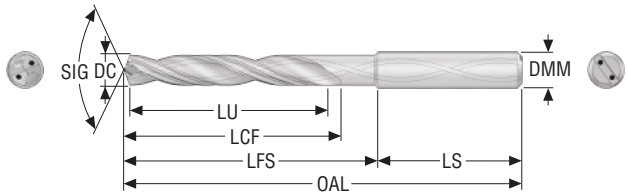
# Feedmax™ SD265A

Seco Feedmax SD265A IT 7 high precision drills offer impeccable accuracy. Additionally, one SD265A drill can take the place of multiple tools and simplify complex drilling tasks. The following features enable the user to drill holes in a single pass:

- Optimized drill geometry and self-centering point
- Total of 6 land margins
- Tight manufacturing tolerances (±3µ)
- TiAlN coating for low friction and great wear resistance

# SD265A

Drilling depth ~ 5 x D – Metric/Inch






- Cylindrical shank DIN 6537A
- Internal coolant
- For cutting data see page(s) 156
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD265A-6.006-32-6R1 | 02691714 | 6,006<br>*0.236* | 32,0<br>*1.260* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT7 |
| SD265A-02497-138-0315R1 | 02722876 | 6,35<br>*0.250* | 35,0<br>*1.378* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT7 |
| SD265A-03122-165-0315R1 | 02722877 | 7,938<br>*0.313* | 42,0<br>*1.654* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT7 |
| SD265A-8.008-42-8R1 | 02691715 | 8,008<br>*0.315* | 42,0<br>*1.654* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT7 |
| SD265A-03747-189-0394R1 | 02722878 | 9,525<br>*0.375* | 48,0<br>*1.890* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN + TiN | IT7 |
| SD265A-10.008-48-10R1 | 02691716 | 10,008<br>*0.394* | 48,0<br>*1.890* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN + TiN | IT7 |
| SD265A-12.009-56-12R1 | 02691717 | 12,009<br>*0.473* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN + TiN | IT7 |
| SD265A-04997-221-0551R1 | 02722879 | 12,7<br>*0.500* | 56,0<br>*2.205* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN + TiN | IT7 |
| SD265A-14.009-59-14R1 | 02691718 | 14,009<br>*0.552* | 59,0<br>*2.323* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN + TiN | IT7 |
| SD265A-16.009-62-16R1 | 02691719 | 16,009<br>*0.630* | 62,0<br>*2.441* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN + TiN | IT7 |



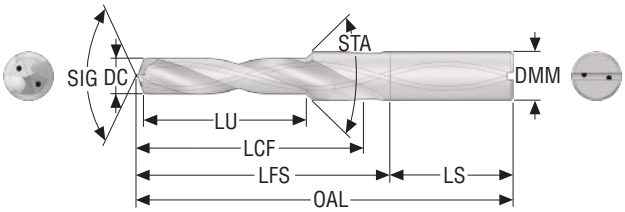
# Feedmax™ – Chamfer drills

Seco Feedmax™ chamfer drills combine drilling and chamfering into a single process to maximize efficiency. The standard stocked range covers pre-drilling applications for common standard metric threads from M4 to M16.

- Special design minimizes cost per hole and increases productivity
- Special low friction coating provides high hot hardness and excellent chip evacuation
- The self-centering geometry provides high hole quality using a 45-degree (90-degree included angle) chamfer angle

# Chamfer drills – M4 - M16 Thread

Metric/Inch





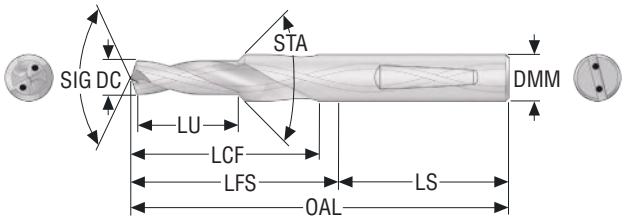

- Cylindrical shank DIN 6537A
- Internal coolant
- Coating: TiAlN + TiN
- Hole tolerance: IT8-9
- Included chamfer angle = 90°
- For cutting data see page(s) 145, 146

| Designation | Item number | Tap thread type | Tap thread size | DC | LU | OAL | LFS | LS | LCF | DMM |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* |
| SD203A-C45-3.3-11.4-6R1 | 02500320 | Normal pitch Metric thread | M4 | 3,3<br>*0.130* | 11,4<br>*0.449* | 66,0<br>*2.598* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* |
| SD203A-C45-3.4-11.4-6R1 | 02500323 | Normal pitch Metric thread | M4 | 3,4<br>*0.134* | 11,4<br>*0.449* | 66,0<br>*2.598* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* |
| SD203A-C45-4.2-13.6-6R1 | 02500324 | Normal pitch Metric thread | M5 | 4,2<br>*0.165* | 13,6<br>*0.535* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* |
| SD203A-C45-4.3-13.6-6R1 | 02500325 | Normal pitch Metric thread | M5 | 4,3<br>*0.169* | 13,6<br>*0.535* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* |
| SD203A-C45-5.0-16.5-8R1 | 02500326 | Normal pitch Metric thread | M6 | 5,0<br>*0.197* | 16,5<br>*0.650* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 28,0<br>*1.102* | 8,0<br>*0.315* |
| SD203A-C45-5.1-16.5-8R1 | 02500327 | Normal pitch Metric thread | M6 | 5,1<br>*0.201* | 16,5<br>*0.650* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 28,0<br>*1.102* | 8,0<br>*0.315* |
| SD203A-C45-6.8-21-10R1 | 02500328 | Normal pitch Metric thread | M8 | 6,8<br>*0.268* | 21,0<br>*0.827* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 34,0<br>*1.339* | 10,0<br>*0.394* |
| SD203A-C45-6.9-21-10R1 | 02500330 | Normal pitch Metric thread | M8 | 6,9<br>*0.272* | 21,0<br>*0.827* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 34,0<br>*1.339* | 10,0<br>*0.394* |
| SD203A-C45-7.0-21-10R1 | 02500331 | Fine pitch Metric thread | M8x1.0 | 7,0<br>*0.276* | 21,0<br>*0.827* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 34,0<br>*1.339* | 10,0<br>*0.394* |
| SD203A-C45-8.5-25.5-12R1 | 02500333 | Normal pitch Metric thread | M10 | 8,5<br>*0.335* | 25,5<br>*1.004* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 47,0<br>*1.850* | 12,0<br>*0.472* |
| SD203A-C45-8.7-25.5-12R1 | 02500334 | Normal pitch Metric thread | M10 | 8,7<br>*0.343* | 25,5<br>*1.004* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 47,0<br>*1.850* | 12,0<br>*0.472* |
| SD203A-C45-9.0-25.5-12R1 | 02500340 | Fine pitch Metric thread | M10x1.0 | 9,0<br>*0.354* | 25,5<br>*1.004* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 47,0<br>*1.850* | 12,0<br>*0.472* |
| SD203A-C45-10.2-30.0-14R1 | 02500342 | Normal pitch Metric thread | M12 | 10,2<br>*0.402* | 30,0<br>*1.181* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 55,0<br>*2.165* | 14,0<br>*0.551* |
| SD203A-C45-10.4-30.0-14R1 | 02500343 | Normal pitch Metric thread | M12 | 10,4<br>*0.409* | 30,0<br>*1.181* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 55,0<br>*2.165* | 14,0<br>*0.551* |
| SD203A-C45-10.5-30.0-14R1 | 02500344 | Fine pitch Metric thread | M12x1.5 | 10,5<br>*0.413* | 34,5<br>*1.358* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 55,0<br>*2.165* | 14,0<br>*0.551* |
| SD203A-C45-12.0-34.5-16R1 | 02500346 | Normal pitch Metric thread | M14 | 12,0<br>*0.472* | 34,5<br>*1.358* | 115,0<br>*4.528* | 70,0<br>*2.756* | 45,0<br>*1.772* | 60,0<br>*2.362* | 16,0<br>*0.630* |
| SD203A-C45-12.25-34.5-16R1 | 02500348 | Normal pitch Metric thread | M14 | 12,25<br>*0.482* | 34,5<br>*1.358* | 115,0<br>*4.528* | 70,0<br>*2.756* | 45,0<br>*1.772* | 60,0<br>*2.362* | 16,0<br>*0.630* |
| SD203A-C45-12.5-34.5-16R1 | 02500349 | Fine pitch Metric thread | M14x1.5 | 12,5<br>*0.492* | 34,5<br>*1.358* | 115,0<br>*4.528* | 70,0<br>*2.756* | 45,0<br>*1.772* | 60,0<br>*2.362* | 16,0<br>*0.630* |
| SD203A-C45-14.0-38.5-18R1 | 02500350 | Normal pitch Metric thread | M16 | 14,0<br>*0.551* | 38,5<br>*1.516* | 123,0<br>*4.843* | 75,0<br>*2.953* | 48,0<br>*1.890* | 65,0<br>*2.559* | 18,0<br>*0.709* |
| SD203A-C45-14.25-38.5-18R1 | 02500354 | Normal pitch Metric thread | M16 | 14,25<br>*0.561* | 38,5<br>*1.516* | 123,0<br>*4.843* | 75,0<br>*2.953* | 48,0<br>*1.890* | 65,0<br>*2.559* | 18,0<br>*0.709* |
| SD203A-C45-14.5-38.5-18R1 | 02500356 | Fine pitch Metric thread | M16x1.5 | 14,5<br>*0.571* | 38,5<br>*1.516* | 123,0<br>*4.843* | 75,0<br>*2.953* | 48,0<br>*1.890* | 65,0<br>*2.559* | 18,0<br>*0.709* |

# Chamfer drills – M4 - M16 Thread

Metric/Inch



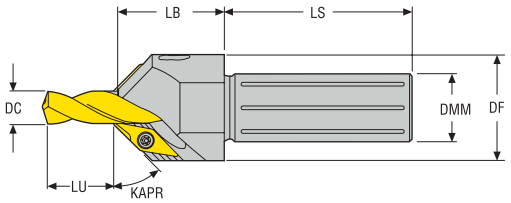



- Whistle Notch shank DIN6537B
- Internal coolant
- Coating: TiAlN + TiN
- Hole tolerance: IT8-9
- Included chamfer angle = 90°
- For cutting data see page(s) 145, 146

| Designation | Item number | Tap thread type | Tap thread size | DC | LU | OAL | LFS | LS | LCF | DMM |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* |
| SD203A-C45-3.3-11.4-6R5 | 02500382 | Normal pitch Metric thread | M4 | 3,3<br>*0.130* | 11,4<br>*0.449* | 66,0<br>*2.598* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* |
| SD203A-C45-3.4-11.4-6R5 | 02500383 | Normal pitch Metric thread | M4 | 3,4<br>*0.134* | 11,4<br>*0.449* | 66,0<br>*2.598* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* |
| SD203A-C45-4.2-13.6-6R5 | 02500391 | Normal pitch Metric thread | M5 | 4,2<br>*0.165* | 13,6<br>*0.535* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* |
| SD203A-C45-4.3-13.6-6R5 | 02500392 | Normal pitch Metric thread | M5 | 4,3<br>*0.169* | 13,6<br>*0.535* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* |
| SD203A-C45-5.0-16.5-8R5 | 02500393 | Normal pitch Metric thread | M6 | 5,0<br>*0.197* | 16,5<br>*0.650* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 28,0<br>*1.102* | 8,0<br>*0.315* |
| SD203A-C45-5.1-16.5-8R5 | 02500394 | Normal pitch Metric thread | M6 | 5,1<br>*0.201* | 16,5<br>*0.650* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 28,0<br>*1.102* | 8,0<br>*0.315* |
| SD203A-C45-6.8-21.0-10R5 | 02500395 | Normal pitch Metric thread | M8 | 6,8<br>*0.268* | 21,0<br>*0.827* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 34,0<br>*1.339* | 10,0<br>*0.394* |
| SD203A-C45-6.9-21.0-10R5 | 02500396 | Normal pitch Metric thread | M8 | 6,9<br>*0.272* | 21,0<br>*0.827* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 34,0<br>*1.339* | 10,0<br>*0.394* |
| SD203A-C45-7.0-21.0-10R5 | 02500398 | Fine pitch Metric thread | M8x1.0 | 7,0<br>*0.276* | 21,0<br>*0.827* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 34,0<br>*1.339* | 10,0<br>*0.394* |
| SD203A-C45-8.5-25.5-12R5 | 02500401 | Normal pitch Metric thread | M10 | 8,5<br>*0.335* | 25,5<br>*1.004* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 47,0<br>*1.850* | 12,0<br>*0.472* |
| SD203A-C45-8.7-25.5-12R5 | 02500403 | Normal pitch Metric thread | M10 | 8,7<br>*0.343* | 25,5<br>*1.004* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 47,0<br>*1.850* | 12,0<br>*0.472* |
| SD203A-C45-9.0-25.5-12R5 | 02500410 | Fine pitch Metric thread | M10x1.0 | 9,0<br>*0.354* | 25,5<br>*1.004* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 47,0<br>*1.850* | 12,0<br>*0.472* |
| SD203A-C45-10.2-30.0-14R5 | 02500412 | Normal pitch Metric thread | M12 | 10,2<br>*0.402* | 30,0<br>*1.181* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 55,0<br>*2.165* | 14,0<br>*0.551* |
| SD203A-C45-10.4-30.0-14R5 | 02500414 | Normal pitch Metric thread | M12 | 10,4<br>*0.409* | 30,0<br>*1.181* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 55,0<br>*2.165* | 14,0<br>*0.551* |
| SD203A-C45-10.5-30.0-14R5 | 02500416 | Fine pitch Metric thread | M12x1.5 | 10,5<br>*0.413* | 34,5<br>*1.358* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 55,0<br>*2.165* | 14,0<br>*0.551* |
| SD203A-C45-12.0-34.5-16R5 | 02500417 | Normal pitch Metric thread | M14 | 12,0<br>*0.472* | 34,5<br>*1.358* | 115,0<br>*4.528* | 70,0<br>*2.756* | 45,0<br>*1.772* | 60,0<br>*2.362* | 16,0<br>*0.630* |
| SD203A-C45-12.25-34.5-16R5 | 02500418 | Normal pitch Metric thread | M14 | 12,25<br>*0.482* | 34,5<br>*1.358* | 115,0<br>*4.528* | 70,0<br>*2.756* | 45,0<br>*1.772* | 60,0<br>*2.362* | 16,0<br>*0.630* |
| SD203A-C45-12.5-34.5-16R5 | 02500420 | Fine pitch Metric thread | M14x1.5 | 12,5<br>*0.492* | 34,5<br>*1.358* | 115,0<br>*4.528* | 70,0<br>*2.756* | 45,0<br>*1.772* | 60,0<br>*2.362* | 16,0<br>*0.630* |
| SD203A-C45-14.0-38.5-18R5 | 02500423 | Normal pitch Metric thread | M16 | 14,0<br>*0.551* | 38,5<br>*1.516* | 123,0<br>*4.843* | 75,0<br>*2.953* | 48,0<br>*1.890* | 65,0<br>*2.559* | 18,0<br>*0.709* |
| SD203A-C45-14.25-38.5-18R5 | 02500424 | Normal pitch Metric thread | M16 | 14,25<br>*0.561* | 38,5<br>*1.516* | 123,0<br>*4.843* | 75,0<br>*2.953* | 48,0<br>*1.890* | 65,0<br>*2.559* | 18,0<br>*0.709* |
| SD203A-C45-14.5-38.5-18R5 | 02500425 | Fine pitch Metric thread | M16x1.5 | 14,5<br>*0.571* | 38,5<br>*1.516* | 123,0<br>*4.843* | 75,0<br>*2.953* | 48,0<br>*1.890* | 65,0<br>*2.559* | 18,0<br>*0.709* |

# Chamfer module for Universal and Feedmax drills

Metric



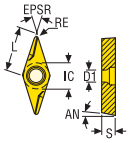



| Designation | Item number | DC | Drill depth LU 3 x D LU (min-max) | 5 x D LU (min-max) | 7 x D LU (min-max) | Max chamfer depth | LB | DF | LS | DMM | KAPR° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm | mm | mm | mm | mm | mm | mm | mm | mm | |
| SD200-C45-10R1 | 02510280 | 8,01-10,0 | 17,0-31,0 | 34,0-48,0 | 47,0-62,0 | 2,8 | 25,0 | 25,0 | 44,5 | 16,0 | 45,0 |
| SD200-C45-12R1 | 02510281 | 10,01-12,0 | 21,0-36,0 | 40,0-56,0 | 57,0-72,0 | 2,8 | 25,0 | 28,0 | 46,5 | 20,0 | 45,0 |
| SD200-C45-14R1 | 02510283 | 12,01-14,0 | 22,0-37,0 | 43,0-59,0 | 68,0-83,0 | 2,8 | 25,0 | 30,0 | 46,5 | 20,0 | 45,0 |
| SD200-C45-16R1 | 02510285 | 14,01-16,0 | 23,0-39,0 | 44,0-60,0 | 76,0-92,0 | 2,8 | 34,0 | 32,0 | 53,0 | 25,0 | 45,0 |
| SD200-C45-6R1 | 02510275 | 4,01-6,1 | 4,0-17,0 | 10,0-27,0 | 30,0-45,0 | 2,8 | 25,0 | 21,0 | 41,0 | 12,0 | 45,0 |
| SD200-C45-8R1 | 02510278 | 6,01-8,0 | 15,0-27,0 | 24,0-35,0 | 42,0-57,0 | 2,8 | 25,0 | 25,0 | 44,5 | 16,0 | 45,0 |

## Spare Parts, included in delivery

| For drill dia. (mm) | Insert key | Insert screw | Locking key | Locking screw | Cassette |
|---|---|---|---|---|---|
| |  |  |  |  |  |
| | Insert | Insert | Module | Module | Module |
| 4,00 - 16,00 | T07P-2 | C02205-T07P | H1.5-2D | SH3040 | SD200-3x7.3 |

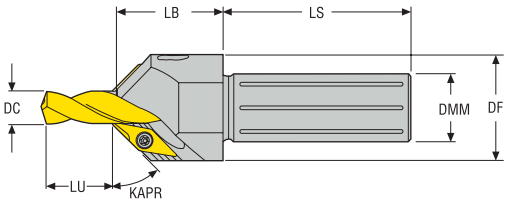
## Insert

| Tolerances: mm | Size | L mm | EPSR | RE mm | IC mm | D1 mm | AN | S mm |
|---|---|---|---|---|---|---|---|---|
|  | C45 | 9,000 | 45° | 0,200 | 5,556 | 2,900 | 7° | 2,500 |
| IC = ±0,025<br>S = ±0,07<br>RE = ±0,10 | Grade: T400D | | | | | | | |
| | Designation: SD200-C45 | | | | | | | |
| | Item number: 02510325 | | | | | | | |

# Chamfer module for Universal and Feedmax drills

Inch



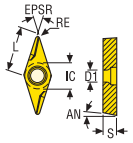



| Designation | Item number | DC | Drill depth LU 3 x D LU (min-max) | 5 x D LU (min-max) | 7 x D LU (min-max) | Max chamfer depth | DF | LB | LS | DMM | KAPR° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | |
| SD200-C45-10-625R1 | 02510291 | 0.315-0.394 | 0.669-1.220 | 1.339-1.890 | 1.850-2.441 | 0.110 | 0.984 | 0.984 | 1.752 | 0.625 | 45 |
| SD200-C45-12-750R1 | 02510292 | 0.394-0.472 | 0.827-1.417 | 1.575-2.205 | 2.244-2.835 | 0.110 | 1.102 | 0.984 | 1.831 | 0.750 | 45 |
| SD200-C45-14-750R1 | 02510293 | 0.473-0.551 | 0.866-1.457 | 1.693-2.323 | 2.677-3.268 | 0.110 | 1.181 | 0.984 | 1.831 | 0.750 | 45 |
| SD200-C45-16-1000R1 | 02510295 | 0.552-0.630 | 0.906-1.535 | 1.732-2.362 | 2.992-3.622 | 0.110 | 1.260 | 1.339 | 2.087 | 1.000 | 45 |
| SD200-C45-6-500R1 | 02510287 | 0.158-0.240 | 0.157-0.669 | 0.394-1.063 | 1.181-1.772 | 0.110 | 0.827 | 0.984 | 1.614 | 0.500 | 45 |
| SD200-C45-8-625R1 | 02510289 | 0.237-0.315 | 0.591-1.063 | 0.945-1.378 | 1.654-2.244 | 0.110 | 0.984 | 0.984 | 1.752 | 0.625 | 45 |

## Spare Parts, included in delivery

| For drill dia. (inch) | Insert key | Insert screw | Locking key | Cassette |
|---|---|---|---|---|
| |  |  |  |  |
| | Insert | Insert | Module | Module |
| 0.1574 - 0.6299 | T07P-2 | C02205-T07P | H1.5-2D | SD200-3x7.3 |

## Insert




Tolerances: inch

IC = ±0.001
S = ±0.0027
RE = ±0.004

| Size | L inch | EPSR | RE inch | IC inch | D1 inch | AN | S inch |
|---|---|---|---|---|---|---|---|
| C45 | 0.3543 | 45° | 0.0078 | 0.2187 | 0.1141 | 7° | 0.0984 |
| Grade: T400D | | | | | | | |
| Designation: SD200-C45 | | | | | | | |
| Item number: 02510325 | | | | | | | |

# Chamfer module mounting instructions

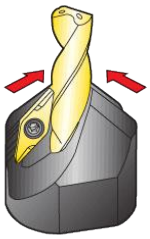
**1.**



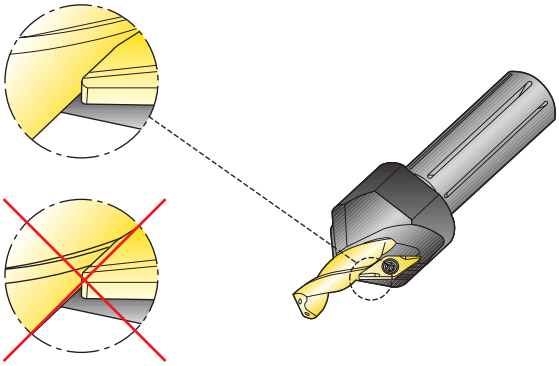
**2.**

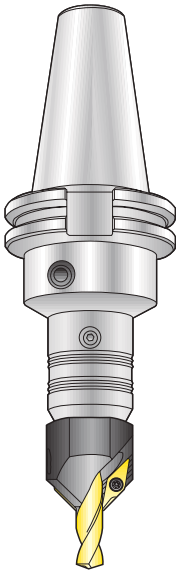


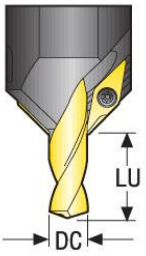
**3.**



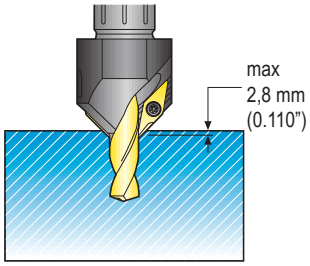
**4.**








**Maximum chamfer depth**



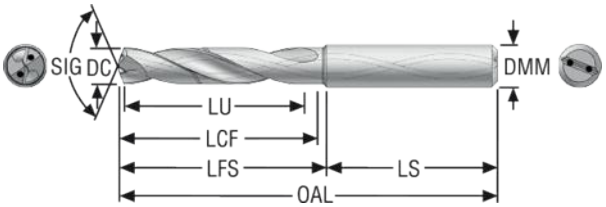

| Drill diameter DC | | LU drilling depth (min-max) SD1103 / SD203A | | SD1105 / SD205A | | SD207A | |
|---|---|---|---|---|---|---|---|
| mm | *inch* | mm | *inch* | mm | *inch* | mm | *inch* |
| 4,00-4,75 | *.157-.187* | 4-17 | *.157-.669* | 10-27 | *.394-1.063* | 30-45 | *1.181-1.772* |
| 4,76-6,00 | *.187-.236* | 6-20 | *.236-.787* | 18-32 | *.709-1.260* | 30-45 | *1.181-1.772* |
| 6,01-8,00 | *.241-.315* | 15-27 | *.590-1.063* | 28-42 | *1.102-1.653* | 42-57 | *1.653-2.244* |
| 8,01-10,00 | *.315-.394* | 17-31 | *.669-1.220* | 34-48 | *1.338-1.890* | 47-62 | *1.850-2.441* |
| 10,01-12,00 | *.394-.472* | 21-36 | *.826-1.417* | 40-56 | *1.575-2.205* | 57-72 | *2.244-2.835* |
| 12,01-14,00 | *.473-.551* | 22-37 | *.866-1.457* | 43-59 | *1.693-2.323* | 68-83 | *2.677-3.268* |
| 14,01-16,00 | *.552-.630* | 23-39 | *.906-1.535* | 44-60 | *1.732-2.362* | 76-92 | *2.992-3.622* |

To be used with cylindrical shank only (R1).

# SD203A, -MS

Drilling depth ~ 3 x D – Metric/Inch






- Cylindrical shank DIN 6537A
- DC tolerance m7
- Internal coolant
- For cutting data see page(s) 157-158
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD203A-0200-007-04R1-MS | 10004064 | 2,0<br>*0.079* | 7,0<br>*0.276* | 41,0<br>*1.614* | 14,0<br>*0.551* | 27,0<br>*1.063* | 11,0<br>*0.433* | 4,0<br>*0.157* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0210-007-04R1-MS | 10004065 | 2,1<br>*0.083* | 7,0<br>*0.276* | 41,0<br>*1.614* | 14,0<br>*0.551* | 27,0<br>*1.063* | 11,0<br>*0.433* | 4,0<br>*0.157* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0220-007-04R1-MS | 10004066 | 2,2<br>*0.087* | 7,0<br>*0.276* | 41,0<br>*1.614* | 14,0<br>*0.551* | 27,0<br>*1.063* | 11,0<br>*0.433* | 4,0<br>*0.157* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0230-008-04R1-MS | 10004067 | 2,3<br>*0.091* | 8,0<br>*0.315* | 44,0<br>*1.732* | 17,0<br>*0.669* | 27,0<br>*1.063* | 12,5<br>*0.492* | 4,0<br>*0.157* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0240-008-04R1-MS | 10004068 | 2,4<br>*0.094* | 8,0<br>*0.315* | 44,0<br>*1.732* | 17,0<br>*0.669* | 27,0<br>*1.063* | 12,5<br>*0.492* | 4,0<br>*0.157* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0250-008-04R1-MS | 10004072 | 2,5<br>*0.098* | 8,0<br>*0.315* | 44,0<br>*1.732* | 17,0<br>*0.669* | 27,0<br>*1.063* | 12,5<br>*0.492* | 4,0<br>*0.157* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0260-008-04R1-MS | 10004073 | 2,6<br>*0.102* | 8,0<br>*0.315* | 44,0<br>*1.732* | 17,0<br>*0.669* | 27,0<br>*1.063* | 12,5<br>*0.492* | 4,0<br>*0.157* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0270-009-04R1-MS | 10004074 | 2,7<br>*0.106* | 9,0<br>*0.354* | 44,0<br>*1.732* | 17,0<br>*0.669* | 27,0<br>*1.063* | 14,5<br>*0.571* | 4,0<br>*0.157* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0278-009-04R1-MS | 10004075 | 2,78<br>*0.109* | 9,0<br>*0.354* | 44,0<br>*1.732* | 17,0<br>*0.669* | 27,0<br>*1.063* | 14,5<br>*0.571* | 4,0<br>*0.157* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0290-009-04R1-MS | 10004076 | 2,9<br>*0.114* | 9,0<br>*0.354* | 44,0<br>*1.732* | 17,0<br>*0.669* | 27,0<br>*1.063* | 14,5<br>*0.571* | 4,0<br>*0.157* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0300-014-06R1-MS | 10004077 | 3,0<br>*0.118* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0310-014-06R1-MS | 10004078 | 3,1<br>*0.122* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0320-014-06R1-MS | 10004079 | 3,2<br>*0.126* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0330-014-06R1-MS | 10004080 | 3,3<br>*0.130* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0340-014-06R1-MS | 10004081 | 3,4<br>*0.134* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0350-015-06R1-MS | 10004083 | 3,5<br>*0.138* | 15,0<br>*0.591* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0357-015-06R1-MS | 10004084 | 3,57<br>*0.141* | 15,0<br>*0.591* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0370-015-06R1-MS | 10004085 | 3,7<br>*0.146* | 15,0<br>*0.591* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0380-017-06R1-MS | 10004086 | 3,8<br>*0.150* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0390-017-06R1-MS | 10004087 | 3,9<br>*0.154* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0397-017-06R1-MS | 10004088 | 3,97<br>*0.156* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0400-017-06R1-MS | 10004089 | 4,0<br>*0.157* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD203A-0410-017-06R1-MS | 10004090 | 4,1<br>*0.161* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0420-017-06R1-MS | 10004091 | 4,2<br>*0.165* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0430-018-06R1-MS | 10004092 | 4,3<br>*0.169* | 18,0<br>*0.709* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0450-018-06R1-MS | 10004093 | 4,5<br>*0.177* | 18,0<br>*0.709* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0460-018-06R1-MS | 10004094 | 4,6<br>*0.181* | 18,0<br>*0.709* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 26,0<br>*1.024* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0465-018-06R1-MS | 10004095 | 4,65<br>*0.183* | 18,0<br>*0.709* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 26,0<br>*1.024* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0470-018-06R1-MS | 10004096 | 4,7<br>*0.185* | 18,0<br>*0.709* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 26,0<br>*1.024* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0476-020-06R1-MS | 10004097 | 4,76<br>*0.187* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0480-020-06R1-MS | 10004098 | 4,8<br>*0.189* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0490-020-06R1-MS | 10004099 | 4,9<br>*0.193* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0500-020-06R1-MS | 10004101 | 5,0<br>*0.197* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0510-020-06R1-MS | 10004102 | 5,1<br>*0.201* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0516-020-06R1-MS | 10004103 | 5,16<br>*0.203* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0520-020-06R1-MS | 10004104 | 5,2<br>*0.205* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0530-020-06R1-MS | 10004105 | 5,3<br>*0.209* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0540-020-06R1-MS | 10004106 | 5,4<br>*0.213* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0550-020-06R1-MS | 10004107 | 5,5<br>*0.217* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0556-020-06R1-MS | 10004108 | 5,56<br>*0.219* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0560-021-06R1-MS | 10004109 | 5,6<br>*0.220* | 21,0<br>*0.827* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0570-021-06R1-MS | 10004110 | 5,7<br>*0.224* | 21,0<br>*0.827* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0580-021-06R1-MS | 10004111 | 5,8<br>*0.228* | 21,0<br>*0.827* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0590-021-06R1-MS | 10004112 | 5,9<br>*0.232* | 21,0<br>*0.827* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0595-021-06R1-MS | 10004113 | 5,95<br>*0.234* | 21,0<br>*0.827* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0600-021-06R1-MS | 10004114 | 6,0<br>*0.236* | 21,0<br>*0.827* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0610-021-08R1-MS | 10004115 | 6,1<br>*0.240* | 21,0<br>*0.827* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0620-021-08R1-MS | 10004116 | 6,2<br>*0.244* | 21,0<br>*0.827* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0630-021-08R1-MS | 10004117 | 6,3<br>*0.248* | 21,0<br>*0.827* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0635-023-08R1-MS | 10004121 | 6,35<br>*0.250* | 23,0<br>*0.906* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0650-023-08R1-MS | 10004122 | 6,5<br>*0.256* | 23,0<br>*0.906* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0660-023-08R1-MS | 10004123 | 6,6<br>*0.260* | 23,0<br>*0.906* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0675-025-08R1-MS | 10004124 | 6,75<br>*0.266* | 25,0<br>*0.984* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |

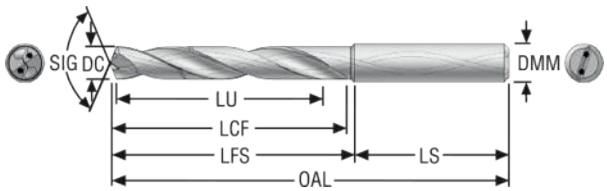
| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD203A-0680-025-08R1-MS | 10004125 | 6,8<br>*0.268* | 25,0<br>*0.984* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0690-025-08R1-MS | 10004127 | 6,9<br>*0.272* | 25,0<br>*0.984* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0700-025-08R1-MS | 10004128 | 7,0<br>*0.276* | 25,0<br>*0.984* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0710-025-08R1-MS | 10004129 | 7,1<br>*0.280* | 25,0<br>*0.984* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0714-025-08R1-MS | 10004130 | 7,14<br>*0.281* | 25,0<br>*0.984* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0720-025-08R1-MS | 10004132 | 7,2<br>*0.283* | 25,0<br>*0.984* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0730-025-08R1-MS | 10004133 | 7,3<br>*0.287* | 25,0<br>*0.984* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0740-025-08R1-MS | 10004134 | 7,4<br>*0.291* | 25,0<br>*0.984* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0750-025-08R1-MS | 10004135 | 7,5<br>*0.295* | 25,0<br>*0.984* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0760-027-08R1-MS | 10004136 | 7,6<br>*0.299* | 27,0<br>*1.063* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0780-027-08R1-MS | 10004137 | 7,8<br>*0.307* | 27,0<br>*1.063* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0794-027-08R1-MS | 10004138 | 7,94<br>*0.313* | 27,0<br>*1.063* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0800-027-08R1-MS | 10004139 | 8,0<br>*0.315* | 27,0<br>*1.063* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0810-027-10R1-MS | 10004140 | 8,1<br>*0.319* | 27,0<br>*1.063* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0820-027-10R1-MS | 10004141 | 8,2<br>*0.323* | 27,0<br>*1.063* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0830-027-10R1-MS | 10004143 | 8,3<br>*0.327* | 27,0<br>*1.063* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0840-027-10R1-MS | 10004144 | 8,4<br>*0.331* | 27,0<br>*1.063* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0850-027-10R1-MS | 10004146 | 8,5<br>*0.335* | 27,0<br>*1.063* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0860-029-10R1-MS | 10004147 | 8,6<br>*0.339* | 29,0<br>*1.142* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0870-029-10R1-MS | 10004148 | 8,7<br>*0.343* | 29,0<br>*1.142* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0873-029-10R1-MS | 10004149 | 8,73<br>*0.344* | 29,0<br>*1.142* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0880-029-10R1-MS | 10004150 | 8,8<br>*0.346* | 29,0<br>*1.142* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0900-029-10R1-MS | 10004151 | 9,0<br>*0.354* | 29,0<br>*1.142* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0910-029-10R1-MS | 10004153 | 9,1<br>*0.358* | 29,0<br>*1.142* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0913-029-10R1-MS | 10004154 | 9,13<br>*0.359* | 29,0<br>*1.142* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0920-029-10R1-MS | 10004156 | 9,2<br>*0.362* | 29,0<br>*1.142* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0930-029-10R1-MS | 10004157 | 9,3<br>*0.366* | 29,0<br>*1.142* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0950-029-10R1-MS | 10004158 | 9,5<br>*0.374* | 29,0<br>*1.142* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0953-031-10R1-MS | 10004160 | 9,53<br>*0.375* | 31,0<br>*1.220* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0970-031-10R1-MS | 10004161 | 9,7<br>*0.382* | 31,0<br>*1.220* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0980-031-10R1-MS | 10004162 | 9,8<br>*0.386* | 31,0<br>*1.220* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD203A-0990-031-10R1-MS | 10004163 | 9,9<br>*0.390* | 31,0<br>*1.220* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-0992-031-10R1-MS | 10004164 | 9,92<br>*0.391* | 31,0<br>*1.220* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1000-031-10R1-MS | 10004165 | 10,0<br>*0.394* | 31,0<br>*1.220* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1010-031-12R1-MS | 10004166 | 10,1<br>*0.398* | 31,0<br>*1.220* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1020-031-12R1-MS | 10004167 | 10,2<br>*0.402* | 31,0<br>*1.220* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1032-031-12R1-MS | 10004168 | 10,32<br>*0.406* | 31,0<br>*1.220* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1040-031-12R1-MS | 10004169 | 10,4<br>*0.409* | 31,0<br>*1.220* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1050-031-12R1-MS | 10004170 | 10,5<br>*0.413* | 31,0<br>*1.220* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1072-033-12R1-MS | 10004171 | 10,72<br>*0.422* | 33,0<br>*1.299* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1080-033-12R1-MS | 10004172 | 10,8<br>*0.425* | 33,0<br>*1.299* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1100-033-12R1-MS | 10004173 | 11,0<br>*0.433* | 33,0<br>*1.299* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1111-033-12R1-MS | 10004174 | 11,11<br>*0.437* | 33,0<br>*1.299* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1120-033-12R1-MS | 10004175 | 11,2<br>*0.441* | 33,0<br>*1.299* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1150-033-12R1-MS | 10004176 | 11,5<br>*0.453* | 33,0<br>*1.299* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1180-033-12R1-MS | 10004177 | 11,8<br>*0.465* | 33,0<br>*1.299* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1191-036-12R1-MS | 10004309 | 11,91<br>*0.469* | 36,0<br>*1.417* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1200-036-12R1-MS | 10004314 | 12,0<br>*0.472* | 36,0<br>*1.417* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1210-036-14R1-MS | 10004315 | 12,1<br>*0.476* | 36,0<br>*1.417* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1250-036-14R1-MS | 10004316 | 12,5<br>*0.492* | 36,0<br>*1.417* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1270-036-14R1-MS | 10004317 | 12,7<br>*0.500* | 36,0<br>*1.417* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1300-036-14R1-MS | 10004319 | 13,0<br>*0.512* | 36,0<br>*1.417* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1310-036-14R1-MS | 10004320 | 13,1<br>*0.516* | 36,0<br>*1.417* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1350-037-14R1-MS | 10004321 | 13,5<br>*0.531* | 37,0<br>*1.457* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1400-037-14R1-MS | 10004325 | 14,0<br>*0.551* | 37,0<br>*1.457* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1420-037-16R1-MS | 10004332 | 14,2<br>*0.559* | 37,0<br>*1.457* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1425-038-16R1-MS | 10004333 | 14,25<br>*0.561* | 38,0<br>*1.496* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1470-038-16R1-MS | 10004334 | 14,7<br>*0.579* | 38,0<br>*1.496* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1500-040-16R1-MS | 10004335 | 15,0<br>*0.591* | 40,0<br>*1.575* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1525-040-16R1-MS | 10004336 | 15,25<br>*0.600* | 40,0<br>*1.575* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1550-040-16R1-MS | 10004338 | 15,5<br>*0.610* | 40,0<br>*1.575* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1588-040-16R1-MS | 10004339 | 15,88<br>*0.625* | 40,0<br>*1.575* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN + NbN | IT8-9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD203A-1600-040-16R1-MS | 10004340 | 16,0<br>*0.630* | 40,0<br>*1.575* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1650-045-18R1-MS | 10004341 | 16,5<br>*0.650* | 45,0<br>*1.772* | 123,0<br>*4.843* | 75,0<br>*2.953* | 48,0<br>*1.890* | 73,0<br>*2.874* | 18,0<br>*0.709* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1700-045-18R1-MS | 10004342 | 17,0<br>*0.669* | 45,0<br>*1.772* | 123,0<br>*4.843* | 75,0<br>*2.953* | 48,0<br>*1.890* | 73,0<br>*2.874* | 18,0<br>*0.709* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1750-045-18R1-MS | 10004343 | 17,5<br>*0.689* | 45,0<br>*1.772* | 123,0<br>*4.843* | 75,0<br>*2.953* | 48,0<br>*1.890* | 73,0<br>*2.874* | 18,0<br>*0.709* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1800-045-18R1-MS | 10004344 | 18,0<br>*0.709* | 45,0<br>*1.772* | 123,0<br>*4.843* | 75,0<br>*2.953* | 48,0<br>*1.890* | 73,0<br>*2.874* | 18,0<br>*0.709* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1850-050-20R1-MS | 10004345 | 18,5<br>*0.728* | 50,0<br>*1.969* | 131,0<br>*5.157* | 81,0<br>*3.189* | 50,0<br>*1.969* | 79,0<br>*3.110* | 20,0<br>*0.787* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1900-050-20R1-MS | 10004346 | 19,0<br>*0.748* | 50,0<br>*1.969* | 131,0<br>*5.157* | 81,0<br>*3.189* | 50,0<br>*1.969* | 79,0<br>*3.110* | 20,0<br>*0.787* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1905-050-20R1-MS | 10004347 | 19,05<br>*0.750* | 50,0<br>*1.969* | 131,0<br>*5.157* | 81,0<br>*3.189* | 50,0<br>*1.969* | 79,0<br>*3.110* | 20,0<br>*0.787* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-1950-050-20R1-MS | 10004348 | 19,5<br>*0.768* | 50,0<br>*1.969* | 131,0<br>*5.157* | 81,0<br>*3.189* | 50,0<br>*1.969* | 79,0<br>*3.110* | 20,0<br>*0.787* | 140° | TiAlN + NbN | IT8-9 |
| SD203A-2000-050-20R1-MS | 10004349 | 20,0<br>*0.787* | 50,0<br>*1.969* | 131,0<br>*5.157* | 81,0<br>*3.189* | 50,0<br>*1.969* | 79,0<br>*3.110* | 20,0<br>*0.787* | 140° | TiAlN + NbN | IT8-9 |

# SD205A, -MS

Drilling depth ~ 5 x D – Metric/Inch






- Cylindrical shank DIN 6537A
- DC tolerance m7
- Internal coolant
- For cutting data see page(s) 159-160
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD205A-0200-012-04R1-MS | 10004179 | 2,0<br>*0.079* | 12,0<br>*0.472* | 46,0<br>*1.811* | 19,0<br>*0.748* | 27,0<br>*1.063* | 15,0<br>*0.591* | 4,0<br>*0.157* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0210-012-04R1-MS | 10004180 | 2,1<br>*0.083* | 12,0<br>*0.472* | 46,0<br>*1.811* | 19,0<br>*0.748* | 27,0<br>*1.063* | 15,0<br>*0.591* | 4,0<br>*0.157* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0220-012-04R1-MS | 10004181 | 2,2<br>*0.087* | 12,0<br>*0.472* | 46,0<br>*1.811* | 19,0<br>*0.748* | 27,0<br>*1.063* | 15,0<br>*0.591* | 4,0<br>*0.157* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0230-012-04R1-MS | 10004182 | 2,3<br>*0.091* | 12,0<br>*0.472* | 46,0<br>*1.811* | 19,0<br>*0.748* | 27,0<br>*1.063* | 15,0<br>*0.591* | 4,0<br>*0.157* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0240-013-04R1-MS | 10004183 | 2,4<br>*0.094* | 13,0<br>*0.512* | 50,0<br>*1.969* | 23,0<br>*0.906* | 27,0<br>*1.063* | 17,5<br>*0.689* | 4,0<br>*0.157* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0250-013-04R1-MS | 10004184 | 2,5<br>*0.098* | 13,0<br>*0.512* | 50,0<br>*1.969* | 23,0<br>*0.906* | 27,0<br>*1.063* | 17,5<br>*0.689* | 4,0<br>*0.157* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0260-013-04R1-MS | 10004185 | 2,6<br>*0.102* | 13,0<br>*0.512* | 50,0<br>*1.969* | 23,0<br>*0.906* | 27,0<br>*1.063* | 17,5<br>*0.689* | 4,0<br>*0.157* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0270-013-04R1-MS | 10004186 | 2,7<br>*0.106* | 15,0<br>*0.591* | 50,0<br>*1.969* | 23,0<br>*0.906* | 27,0<br>*1.063* | 20,5<br>*0.807* | 4,0<br>*0.157* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0280-013-04R1-MS | 10004187 | 2,8<br>*0.110* | 15,0<br>*0.591* | 50,0<br>*1.969* | 23,0<br>*0.906* | 27,0<br>*1.063* | 20,5<br>*0.807* | 4,0<br>*0.157* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0300-021-06R1-MS | 10004188 | 3,0<br>*0.118* | 21,0<br>*0.827* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 26,0<br>*1.024* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0310-021-06R1-MS | 10004189 | 3,1<br>*0.122* | 21,0<br>*0.827* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 26,0<br>*1.024* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0318-021-06R1-MS | 10004191 | 3,18<br>*0.125* | 21,0<br>*0.827* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 26,0<br>*1.024* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0330-021-06R1-MS | 10004192 | 3,3<br>*0.130* | 21,0<br>*0.827* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 26,0<br>*1.024* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0340-021-06R1-MS | 10004193 | 3,4<br>*0.134* | 21,0<br>*0.827* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 26,0<br>*1.024* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0350-021-06R1-MS | 10004194 | 3,5<br>*0.138* | 21,0<br>*0.827* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 26,0<br>*1.024* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0360-027-06R1-MS | 10004195 | 3,6<br>*0.142* | 21,0<br>*0.827* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 26,0<br>*1.024* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0380-027-06R1-MS | 10004196 | 3,8<br>*0.150* | 27,0<br>*1.063* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0390-027-06R1-MS | 10004197 | 3,9<br>*0.154* | 27,0<br>*1.063* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0400-027-06R1-MS | 10004198 | 4,0<br>*0.157* | 27,0<br>*1.063* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0410-027-06R1-MS | 10004199 | 4,1<br>*0.161* | 27,0<br>*1.063* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0420-027-06R1-MS | 10004200 | 4,2<br>*0.165* | 27,0<br>*1.063* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0430-027-06R1-MS | 10004201 | 4,3<br>*0.169* | 27,0<br>*1.063* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |

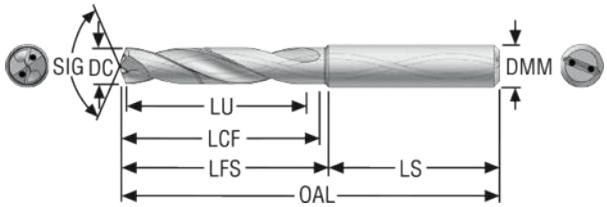
| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD205A-0450-027-06R1-MS | 10004202 | 4,5<br>*0.177* | 27,0<br>*1.063* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0460-027-06R1-MS | 10004203 | 4,6<br>*0.181* | 27,0<br>*1.063* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0465-027-06R1-MS | 10004205 | 4,65<br>*0.183* | 27,0<br>*1.063* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0470-027-06R1-MS | 10004206 | 4,7<br>*0.185* | 27,0<br>*1.063* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0476-027-06R1-MS | 10004208 | 4,76<br>*0.187* | 32,0<br>*1.260* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0490-032-06R1-MS | 10004209 | 4,9<br>*0.193* | 32,0<br>*1.260* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0500-032-06R1-MS | 10004211 | 5,0<br>*0.197* | 32,0<br>*1.260* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0510-032-06R1-MS | 10004212 | 5,1<br>*0.201* | 32,0<br>*1.260* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0516-032-06R1-MS | 10004213 | 5,16<br>*0.203* | 32,0<br>*1.260* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0520-032-06R1-MS | 10004214 | 5,2<br>*0.205* | 32,0<br>*1.260* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0550-032-06R1-MS | 10004215 | 5,5<br>*0.217* | 32,0<br>*1.260* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0556-032-06R1-MS | 10004216 | 5,56<br>*0.219* | 32,0<br>*1.260* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0560-032-06R1-MS | 10004218 | 5,6<br>*0.220* | 32,0<br>*1.260* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0580-032-06R1-MS | 10004219 | 5,8<br>*0.228* | 32,0<br>*1.260* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0590-032-06R1-MS | 10004220 | 5,9<br>*0.232* | 32,0<br>*1.260* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0595-032-06R1-MS | 10004221 | 5,95<br>*0.234* | 32,0<br>*1.260* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0600-032-06R1-MS | 10004222 | 6,0<br>*0.236* | 32,0<br>*1.260* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0620-035-08R1-MS | 10004224 | 6,2<br>*0.244* | 35,0<br>*1.378* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0630-035-08R1-MS | 10004225 | 6,3<br>*0.248* | 35,0<br>*1.378* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0635-035-08R1-MS | 10004226 | 6,35<br>*0.250* | 35,0<br>*1.378* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0640-035-08R1-MS | 10004227 | 6,4<br>*0.252* | 35,0<br>*1.378* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0650-035-08R1-MS | 10004228 | 6,5<br>*0.256* | 35,0<br>*1.378* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0660-035-08R1-MS | 10004229 | 6,6<br>*0.260* | 35,0<br>*1.378* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0670-035-08R1-MS | 10004231 | 6,7<br>*0.264* | 35,0<br>*1.378* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0680-040-08R1-MS | 10004234 | 6,8<br>*0.268* | 40,0<br>*1.575* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0690-040-08R1-MS | 10004235 | 6,9<br>*0.272* | 40,0<br>*1.575* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0700-040-08R1-MS | 10004236 | 7,0<br>*0.276* | 40,0<br>*1.575* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0710-040-08R1-MS | 10004237 | 7,1<br>*0.280* | 40,0<br>*1.575* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0714-040-08R1-MS | 10004238 | 7,14<br>*0.281* | 40,0<br>*1.575* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0720-040-08R1-MS | 10004239 | 7,2<br>*0.283* | 40,0<br>*1.575* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0750-040-08R1-MS | 10004240 | 7,5<br>*0.295* | 40,0<br>*1.575* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD205A-0780-042-08R1-MS | 10004241 | 7,8<br>*0.307* | 42,0<br>*1.654* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0794-042-08R1-MS | 10004243 | 7,94<br>*0.313* | 42,0<br>*1.654* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0800-042-08R1-MS | 10004245 | 8,0<br>*0.315* | 42,0<br>*1.654* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0810-042-10R1-MS | 10004246 | 8,1<br>*0.319* | 42,0<br>*1.654* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0820-042-10R1-MS | 10004247 | 8,2<br>*0.323* | 42,0<br>*1.654* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0840-042-10R1-MS | 10004250 | 8,4<br>*0.331* | 42,0<br>*1.654* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0850-042-10R1-MS | 10004251 | 8,5<br>*0.335* | 42,0<br>*1.654* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0870-045-10R1-MS | 10004252 | 8,7<br>*0.343* | 45,0<br>*1.772* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0880-045-10R1-MS | 10004255 | 8,8<br>*0.346* | 45,0<br>*1.772* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0900-045-10R1-MS | 10004256 | 9,0<br>*0.354* | 45,0<br>*1.772* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0910-045-10R1-MS | 10004257 | 9,1<br>*0.358* | 45,0<br>*1.772* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0950-045-10R1-MS | 10004258 | 9,5<br>*0.374* | 45,0<br>*1.772* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0953-048-10R1-MS | 10004259 | 9,53<br>*0.375* | 48,0<br>*1.890* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0980-048-10R1-MS | 10004266 | 9,8<br>*0.386* | 48,0<br>*1.890* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-0992-048-10R1-MS | 10004269 | 9,92<br>*0.391* | 48,0<br>*1.890* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1000-048-10R1-MS | 10004270 | 10,0<br>*0.394* | 48,0<br>*1.890* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1020-048-12R1-MS | 10004272 | 10,2<br>*0.402* | 48,0<br>*1.890* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1030-048-12R1-MS | 10004273 | 10,3<br>*0.406* | 48,0<br>*1.890* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1050-048-12R1-MS | 10004274 | 10,5<br>*0.413* | 48,0<br>*1.890* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1070-056-12R1-MS | 10004275 | 10,7<br>*0.421* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1080-056-12R1-MS | 10004276 | 10,8<br>*0.425* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1100-056-12R1-MS | 10004277 | 11,0<br>*0.433* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1111-056-12R1-MS | 10004278 | 11,11<br>*0.437* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1130-056-12R1-MS | 10004279 | 11,3<br>*0.445* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1150-056-12R1-MS | 10004280 | 11,5<br>*0.453* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1180-056-12R1-MS | 10004281 | 11,8<br>*0.465* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1200-056-12R1-MS | 10004282 | 12,0<br>*0.472* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1220-056-14R1-MS | 10004283 | 12,2<br>*0.480* | 56,0<br>*2.205* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1250-056-14R1-MS | 10004284 | 12,5<br>*0.492* | 56,0<br>*2.205* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1270-056-14R1-MS | 10004285 | 12,7<br>*0.500* | 56,0<br>*2.205* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1300-056-14R1-MS | 10004286 | 13,0<br>*0.512* | 56,0<br>*2.205* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN + NbN | IT8-9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD205A-1310-056-14R1-MS | 10004287 | 13,1<br>*0.516* | 59,0<br>*2.323* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1350-059-14R1-MS | 10004288 | 13,5<br>*0.531* | 59,0<br>*2.323* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1400-059-14R1-MS | 10004290 | 14,0<br>*0.551* | 59,0<br>*2.323* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1420-060-16R1-MS | 10004291 | 14,2<br>*0.559* | 60,0<br>*2.362* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1425-060-16R1-MS | 10004292 | 14,25<br>*0.561* | 60,0<br>*2.362* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1450-060-16R1-MS | 10004293 | 14,5<br>*0.571* | 60,0<br>*2.362* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1500-060-16R1-MS | 10004295 | 15,0<br>*0.591* | 60,0<br>*2.362* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1550-062-16R1-MS | 10004296 | 15,5<br>*0.610* | 62,0<br>*2.441* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1580-062-16R1-MS | 10004297 | 15,8<br>*0.622* | 62,0<br>*2.441* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1600-062-16R1-MS | 10004298 | 16,0<br>*0.630* | 62,0<br>*2.441* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1650-071-18R1-MS | 10004299 | 16,5<br>*0.650* | 64,0<br>*2.520* | 143,0<br>*5.630* | 95,0<br>*3.740* | 48,0<br>*1.890* | 93,0<br>*3.661* | 18,0<br>*0.709* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1700-071-18R1-MS | 10004300 | 17,0<br>*0.669* | 64,0<br>*2.520* | 143,0<br>*5.630* | 95,0<br>*3.740* | 48,0<br>*1.890* | 93,0<br>*3.661* | 18,0<br>*0.709* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1750-071-18R1-MS | 10004301 | 17,5<br>*0.689* | 66,0<br>*2.598* | 143,0<br>*5.630* | 95,0<br>*3.740* | 48,0<br>*1.890* | 93,0<br>*3.661* | 18,0<br>*0.709* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1800-071-18R1-MS | 10004302 | 18,0<br>*0.709* | 66,0<br>*2.598* | 143,0<br>*5.630* | 95,0<br>*3.740* | 48,0<br>*1.890* | 93,0<br>*3.661* | 18,0<br>*0.709* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1850-077-20R1-MS | 10004303 | 18,5<br>*0.728* | 71,0<br>*2.795* | 153,0<br>*6.024* | 103,0<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1900-077-20R1-MS | 10004304 | 19,0<br>*0.748* | 71,0<br>*2.795* | 153,0<br>*6.024* | 103,0<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1930-077-20R1-MS | 10004305 | 19,3<br>*0.760* | 71,0<br>*2.795* | 153,0<br>*6.024* | 103,0<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-1950-077-20R1-MS | 10004306 | 19,5<br>*0.768* | 71,0<br>*2.795* | 153,0<br>*6.024* | 103,0<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN + NbN | IT8-9 |
| SD205A-2000-077-20R1-MS | 10004307 | 20,0<br>*0.787* | 71,0<br>*2.795* | 153,0<br>*6.024* | 103,0<br>*4.055* | 50,0<br>*1.969* | 101,0<br>*3.976* | 20,0<br>*0.787* | 140° | TiAlN + NbN | IT8-9 |

# SD203A, -M

Drilling depth ~ 3 x D – Metric/Inch






- Cylindrical shank DIN 6537A
- DC tolerance m7
- Internal coolant
- For cutting data see page(s) 161-162
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD203A-3.0-14-6R1-M | 02569995 | 3,0<br>*0.118* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-3.1-14-6R1-M | 02570998 | 3,1<br>*0.122* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-3.3-14-6R1-M | 02555958 | 3,3<br>*0.130* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-3.4-14-6R1-M | 02570984 | 3,4<br>*0.134* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-3.5-15-6R1-M | 02533784 | 3,5<br>*0.138* | 15,0<br>*0.591* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-3.9-17-6R1-M | 02570988 | 3,9<br>*0.154* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-4.0-17-6R1-M | 02539902 | 4,0<br>*0.157* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-4.2-17-6R1-M | 02555959 | 4,2<br>*0.165* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-4.3-18-6R1-M | 02533700 | 4,3<br>*0.169* | 18,0<br>*0.709* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-4.5-18-6R1-M | 02570993 | 4,5<br>*0.177* | 18,0<br>*0.709* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-01875-079-0236R1-M | 02450103 | 4,763<br>*0.188* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-4.8-20-6R1-M | 02570982 | 4,8<br>*0.189* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-4.9-20-6R1-M | 02592709 | 4,9<br>*0.193* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-5.0-20-6R1-M | 02450075 | 5,0<br>*0.197* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-5.5-21-6R1-M | 02544249 | 5,5<br>*0.217* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-02188-083-0236R1-M | 02450104 | 5,558<br>*0.219* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-5.6-21-6R1-M | 02544028 | 5,6<br>*0.220* | 21,0<br>*0.827* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-5.9-21-6R1-M | 02515290 | 5,9<br>*0.232* | 21,0<br>*0.827* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-6.0-21-6R1-M | 02450076 | 6,0<br>*0.236* | 21,0<br>*0.827* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-02500-091-0315R1-M | 02450105 | 6,35<br>*0.250* | 23,0<br>*0.906* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-6.5-23-8R1-M | 02450077 | 6,5<br>*0.256* | 23,0<br>*0.906* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-6.6-23-8R1-M | 02450078 | 6,6<br>*0.260* | 23,0<br>*0.906* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT8-9 |

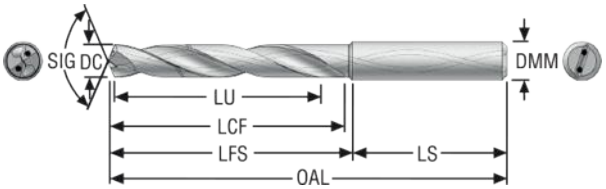
| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD203A-02656-098-0315R1-M | 02450106 | 6,746<br>*0.266* | 25,0<br>*0.984* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-6.8-25-8R1-M | 02450079 | 6,8<br>*0.268* | 25,0<br>*0.984* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-6.9-25-8R1-M | 02450080 | 6,9<br>*0.272* | 25,0<br>*0.984* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-7.0-25-8R1-M | 02450081 | 7,0<br>*0.276* | 25,0<br>*0.984* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-02813-098-0315R1-M | 02450107 | 7,145<br>*0.281* | 25,0<br>*0.984* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-7.2-25-8R1-M | 02537185 | 7,2<br>*0.283* | 25,0<br>*0.984* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-7.3-25-8R1-M | 02530109 | 7,3<br>*0.287* | 25,0<br>*0.984* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-7.5-25-8R1-M | 02450082 | 7,5<br>*0.295* | 25,0<br>*0.984* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-7.6-27-8R1-M | 02545197 | 7,6<br>*0.299* | 27,0<br>*1.063* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-7.8-27-8R1-M | 02450083 | 7,8<br>*0.307* | 27,0<br>*1.063* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-03125-106-0315R1-M | 02450108 | 7,938<br>*0.313* | 27,0<br>*1.063* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-8.0-27-8R1-M | 02450084 | 8,0<br>*0.315* | 27,0<br>*1.063* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-8.5-27-10R1-M | 02450085 | 8,5<br>*0.335* | 27,0<br>*1.063* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-03438-114-0394R1-M | 02450109 | 8,733<br>*0.344* | 29,0<br>*1.142* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-8.8-29-10R1-M | 02450086 | 8,8<br>*0.346* | 29,0<br>*1.142* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-9.0-29-10R1-M | 02450087 | 9,0<br>*0.354* | 29,0<br>*1.142* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-03594-114-0394R1-M | 02450110 | 9,129<br>*0.359* | 29,0<br>*1.142* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-9.2-29-10R1-M | 02546516 | 9,2<br>*0.362* | 29,0<br>*1.142* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-9.3-29-10R1-M | 02582375 | 9,3<br>*0.366* | 29,0<br>*1.142* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-9.5-29-10R1-M | 02450088 | 9,5<br>*0.374* | 29,0<br>*1.142* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-03750-122-0394R1-M | 02450111 | 9,525<br>*0.375* | 29,0<br>*1.142* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-9.8-31-10R1-M | 02450089 | 9,8<br>*0.386* | 31,0<br>*1.220* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-9.9-31-10R1-M | 02515293 | 9,9<br>*0.390* | 31,0<br>*1.220* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-10.0-31-10R1-M | 02450090 | 10,0<br>*0.394* | 31,0<br>*1.220* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-10.2-31-12R1-M | 02450091 | 10,2<br>*0.402* | 31,0<br>*1.220* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-04063-122-0472R1-M | 02450112 | 10,32<br>*0.406* | 31,0<br>*1.220* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-10.4-31-12R1-M | 02535267 | 10,4<br>*0.409* | 31,0<br>*1.220* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-10.5-31-12R1-M | 02450092 | 10,5<br>*0.413* | 31,0<br>*1.220* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-04219-130-0472R1-M | 02450113 | 10,716<br>*0.422* | 33,0<br>*1.299* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-10.8-33-12R1-M | 02450093 | 10,8<br>*0.425* | 33,0<br>*1.299* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-11.0-33-12R1-M | 02450094 | 11,0<br>*0.433* | 33,0<br>*1.299* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN + TiN | IT8-9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD203A-04375-130-0472R1-M | 02450114 | 11,113<br>*0.438* | 33,0<br>*1.299* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-11.5-33-12R1-M | 02450095 | 11,5<br>*0.453* | 33,0<br>*1.299* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-11.8-33-12R1-M | 02450096 | 11,8<br>*0.465* | 33,0<br>*1.299* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-04688-142-0472R1-M | 02592711 | 11,908<br>*0.469* | 36,0<br>*1.417* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-12.0-36-12R1-M | 02450097 | 12,0<br>*0.472* | 36,0<br>*1.417* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-12.25-36-14R1-M | 02592712 | 12,25<br>*0.482* | 36,0<br>*1.417* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-12.3-36-14R1-M | 02450098 | 12,3<br>*0.484* | 36,0<br>*1.417* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-12.5-36-14R1-M | 02450099 | 12,5<br>*0.492* | 36,0<br>*1.417* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-05000-142-0551R1-M | 02450115 | 12,7<br>*0.500* | 36,0<br>*1.417* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-12.9-36-14R1-M | 02538263 | 12,9<br>*0.508* | 36,0<br>*1.417* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-13.0-36-14R1-M | 02450100 | 13,0<br>*0.512* | 36,0<br>*1.417* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-13.5-37-14R1-M | 02450101 | 13,5<br>*0.531* | 37,0<br>*1.457* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-14.0-37-14R1-M | 02450102 | 14,0<br>*0.551* | 37,0<br>*1.457* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | TiAlN + TiN | IT8-9 |
| SD203A-14.25-38-16R1-M | 02592715 | 14,25<br>*0.561* | 38,0<br>*1.496* | 115,0<br>*4.528* | 67,0<br>*2.638* | 48,0<br>*1.890* | 65,0<br>*2.559* | 16,0<br>*0.630* | 140° | TiAlN + TiN | IT8-9 |

# SD205A, -M

Drilling depth ~ 5 x D – Metric/Inch






- Cylindrical shank DIN 6537A
- DC tolerance m7
- Internal coolant
- For cutting data see page(s) 163- 164
- For intermediate diameters see the MyDesign software.

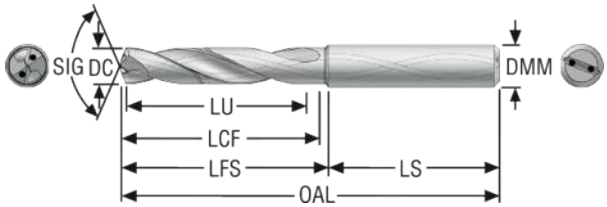
| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD205A-2.5-13-4R1-M | 02666989 | 2,5<br>*0.098* | 13,0<br>*0.512* | 46,0<br>*1.811* | 19,0<br>*0.748* | 27,0<br>*1.063* | 17,5<br>*0.689* | 4,0<br>*0.157* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-3.0-21-6R1-M | 02556426 | 3,0<br>*0.118* | 21,0<br>*0.827* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 26,0<br>*1.024* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-3.1-21-6R1-M | 02642448 | 3,1<br>*0.122* | 21,0<br>*0.827* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 26,0<br>*1.024* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-3.18-21-6R1-M | 02541863 | 3,18<br>*0.125* | 21,0<br>*0.827* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 26,0<br>*1.024* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-3.3-21-6R1-M | 02555960 | 3,3<br>*0.130* | 21,0<br>*0.827* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 26,0<br>*1.024* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-3.4-21-6R1-M | 02554264 | 3,4<br>*0.134* | 21,0<br>*0.827* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 26,0<br>*1.024* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-3.5-21-6R1-M | 02533780 | 3,5<br>*0.138* | 21,0<br>*0.827* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 26,0<br>*1.024* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-4.0-27-6R1-M | 02508340 | 4,0<br>*0.157* | 27,0<br>*1.063* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-4.2-27-6R1-M | 02502549 | 4,2<br>*0.165* | 27,0<br>*1.063* | 74,0<br>*2.913* | 40,0<br>*1.575* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-4.3-27-6R1-M | 02592718 | 4,3<br>*0.169* | 27,0<br>*1.063* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-4.5-27-6R1-M | 02563659 | 4,5<br>*0.177* | 27,0<br>*1.063* | 74,0<br>*2.913* | 38,0<br>*1.496* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-4.7-27-6R1-M | 02604031 | 4,7<br>*0.185* | 27,0<br>*1.063* | 74,0<br>*2.913* | 40,0<br>*1.575* | 36,0<br>*1.417* | 34,0<br>*1.339* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-01875-126-0236R1-M | 02450062 | 4,763<br>*0.188* | 32,0<br>*1.260* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-4.9-32-6R1-M | 02592720 | 4,9<br>*0.193* | 32,0<br>*1.260* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-5.0-32-6R1-M | 02450034 | 5,0<br>*0.197* | 32,0<br>*1.260* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-5.1-32-6R1-M | 02600034 | 5,1<br>*0.201* | 32,0<br>*1.260* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-5.2-32-6R1-M | 02504408 | 5,2<br>*0.205* | 32,0<br>*1.260* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-5.5-32-6R1-M | 02537341 | 5,5<br>*0.217* | 32,0<br>*1.260* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-02188-126-0236R1-M | 02450063 | 5,558<br>*0.219* | 32,0<br>*1.260* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-5.6-32-6R1-M | 02612445 | 5,6<br>*0.220* | 32,0<br>*1.260* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-5.9-32-6R1-M | 02539334 | 5,9<br>*0.232* | 32,0<br>*1.260* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-6.0-32-6R1-M | 02450035 | 6,0<br>*0.236* | 32,0<br>*1.260* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140° | TiAlN + TiN | IT8-9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD205A-6.2-35-8R1-M | 02547543 | 6,2<br>*0.244* | 35,0<br>*1.378* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-02500-138-0315R1-M | 02450064 | 6,35<br>*0.250* | 35,0<br>*1.378* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-6.4-35-8R1-M | 02666488 | 6,4<br>*0.252* | 35,0<br>*1.378* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-6.5-35-8R1-M | 02450036 | 6,5<br>*0.256* | 35,0<br>*1.378* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-6.6-35-8R1-M | 02450037 | 6,6<br>*0.260* | 35,0<br>*1.378* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-6.8-40-8R1-M | 02450038 | 6,8<br>*0.268* | 40,0<br>*1.575* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-6.9-40-8R1-M | 02450039 | 6,9<br>*0.272* | 40,0<br>*1.575* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-02813-157-0315R1-M | 02450066 | 7,145<br>*0.281* | 40,0<br>*1.575* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-7.2-40-8R1-M | 02519059 | 7,2<br>*0.283* | 40,0<br>*1.575* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-7.5-40-8R1-M | 02450041 | 7,5<br>*0.295* | 40,0<br>*1.575* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-7.8-42-8R1-M | 02450042 | 7,8<br>*0.307* | 42,0<br>*1.654* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-03125-165-0315R1-M | 02450067 | 7,938<br>*0.313* | 42,0<br>*1.654* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-8.0-42-8R1-M | 02450043 | 8,0<br>*0.315* | 42,0<br>*1.654* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-8.1-42-10R1-M | 02672327 | 8,1<br>*0.319* | 42,0<br>*1.654* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-8.4-42-10R1-M | 02570977 | 8,4<br>*0.331* | 42,0<br>*1.654* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-8.5-42-10R1-M | 02450044 | 8,5<br>*0.335* | 42,0<br>*1.654* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-8.8-45-10R1-M | 02450045 | 8,8<br>*0.346* | 45,0<br>*1.772* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-9.0-45-10R1-M | 02450046 | 9,0<br>*0.354* | 45,0<br>*1.772* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-9.2-45-10R1-M | 02516406 | 9,2<br>*0.362* | 45,0<br>*1.772* | 103,0<br>*4.055* | 42,0<br>*1.654* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-9.5-45-10R1-M | 02450047 | 9,5<br>*0.374* | 45,0<br>*1.772* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-03750-189-0394R1-M | 02450070 | 9,525<br>*0.375* | 48,0<br>*1.890* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-9.8-48-10R1-M | 02450048 | 9,8<br>*0.386* | 48,0<br>*1.890* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-10.0-48-10R1-M | 02450049 | 10,0<br>*0.394* | 48,0<br>*1.890* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-10.2-48-12R1-M | 02450050 | 10,2<br>*0.402* | 48,0<br>*1.890* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-10.5-48-12R1-M | 02450051 | 10,5<br>*0.413* | 48,0<br>*1.890* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-10.8-56-12R1-M | 02450052 | 10,8<br>*0.425* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-10.9-56-12R1-M | 02592725 | 10,9<br>*0.429* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-11.0-56-12R1-M | 02450053 | 11,0<br>*0.433* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-04375-221-0472R1-M | 02450073 | 11,113<br>*0.438* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-11.5-56-12R1-M | 02450054 | 11,5<br>*0.453* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-11.8-56-12R1-M | 02450055 | 11,8<br>*0.465* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN + TiN | IT8-9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD205A-12.0-56-12R1-M | 02450056 | 12,0<br>*0.472* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-12.5-56-14R1-M | 02450058 | 12,5<br>*0.492* | 56,0<br>*2.205* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-05000-221-0551R1-M | 02450074 | 12,7<br>*0.500* | 56,0<br>*2.205* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-12.9-56-14R1-M | 02592729 | 12,9<br>*0.508* | 56,0<br>*2.205* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-13.0-56-14R1-M | 02450059 | 13,0<br>*0.512* | 56,0<br>*2.205* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-13.5-59-14R1-M | 02450060 | 13,5<br>*0.531* | 59,0<br>*2.323* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-14.0-59-14R1-M | 02450061 | 14,0<br>*0.551* | 59,0<br>*2.323* | 124,0<br>*4.882* | 79,0<br>*3.110* | 45,0<br>*1.772* | 77,0<br>*3.031* | 14,0<br>*0.551* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-14.25-60-16R1-M | 02592732 | 14,25<br>*0.561* | 60,0<br>*2.362* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-14.5-60-16R1-M | 03117534 | 14,5<br>*0.571* | 60,0<br>*2.362* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-15.0-60-16R1-M | 02570652 | 15,0<br>*0.591* | 60,0<br>*2.362* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-15.5-62-16R1-M | 02543076 | 15,5<br>*0.610* | 62,0<br>*2.441* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN + TiN | IT8-9 |
| SD205A-16.0-62-16R1-M | 02555961 | 16,0<br>*0.630* | 62,0<br>*2.441* | 133,0<br>*5.236* | 85,0<br>*3.346* | 48,0<br>*1.890* | 83,0<br>*3.268* | 16,0<br>*0.630* | 140° | TiAlN + TiN | IT8-9 |

# SD203A, -T

Drilling depth ~ 3 x D – Metric/Inch





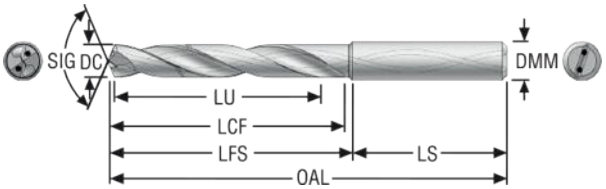

- Cylindrical shank DIN 6537A
- DC tolerance m7
- Internal coolant
- Cutting data - www.secotools.com
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD203A-01875-079-0236R1-T | 02569147 | 4,763<br>*0.188* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | Uncoated | IT8-9 |
| SD203A-5.0-20-6R1-T | 02523021 | 5,0<br>*0.197* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | Uncoated | IT8-9 |
| SD203A-02188-083-0236R1-T | 02569156 | 5,558<br>*0.219* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | Uncoated | IT8-9 |
| SD203A-6.0-21-6R1-T | 02542682 | 6,0<br>*0.236* | 21,0<br>*0.827* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | Uncoated | IT8-9 |
| SD203A-02500-091-0315R1-T | 02569149 | 6,35<br>*0.250* | 23,0<br>*0.906* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | Uncoated | IT8-9 |
| SD203A-6.5-23-8R1-T | 02545316 | 6,5<br>*0.256* | 23,0<br>*0.906* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | Uncoated | IT8-9 |
| SD203A-6.9-25-8R1-T | 02537280 | 6,9<br>*0.272* | 25,0<br>*0.984* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | Uncoated | IT8-9 |
| SD203A-7.0-25-8R1-T | 02525985 | 7,0<br>*0.276* | 25,0<br>*0.984* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | Uncoated | IT8-9 |
| SD203A-02813-098-0315R1-T | 02569151 | 7,145<br>*0.281* | 25,0<br>*0.984* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | Uncoated | IT8-9 |
| SD203A-7.5-25-8R1-T | 02527667 | 7,5<br>*0.295* | 25,0<br>*0.984* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | Uncoated | IT8-9 |
| SD203A-03125-106-0315R1-T | 02569152 | 7,938<br>*0.313* | 27,0<br>*1.063* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | Uncoated | IT8-9 |
| SD203A-8.0-27-8R1-T | 02513679 | 8,0<br>*0.315* | 27,0<br>*1.063* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | Uncoated | IT8-9 |
| SD203A-8.5-27-10R1-T | 02548250 | 8,5<br>*0.335* | 27,0<br>*1.063* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | Uncoated | IT8-9 |
| SD203A-8.8-29-10R1-T | 02569153 | 8,8<br>*0.346* | 29,0<br>*1.142* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | Uncoated | IT8-9 |
| SD203A-9.0-29-10R1-T | 02524440 | 9,0<br>*0.354* | 29,0<br>*1.142* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | Uncoated | IT8-9 |
| SD203A-9.5-29-10R1-T | 02545386 | 9,5<br>*0.374* | 29,0<br>*1.142* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | Uncoated | IT8-9 |
| SD203A-10.0-31-10R1-T | 02525984 | 10,0<br>*0.394* | 31,0<br>*1.220* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | Uncoated | IT8-9 |
| SD203A-10.5-31-12R1-T | 02545387 | 10,5<br>*0.413* | 31,0<br>*1.220* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | Uncoated | IT8-9 |
| SD203A-11.0-33-12R1-T | 02569155 | 11,0<br>*0.433* | 33,0<br>*1.299* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | Uncoated | IT8-9 |
| SD203A-11.5-33-12R1-T | 02567385 | 11,5<br>*0.453* | 33,0<br>*1.299* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | Uncoated | IT8-9 |
| SD203A-12.0-36-12R1-T | 02562784 | 12,0<br>*0.472* | 36,0<br>*1.417* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | Uncoated | IT8-9 |

# SD205A, -T

Drilling depth ~ 5 x D – Metric/Inch



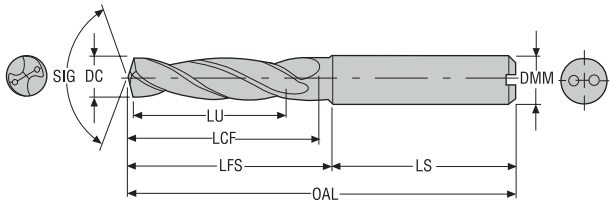



- Cylindrical shank DIN 6537A
- DC tolerance m7
- Internal coolant
- Cutting data - www.secotools.com
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD205A-8.0-42-8R1-T | 02569164 | 8,0<br>*0.315* | 42,0<br>*1.654* | 91,0<br>*3.583* | 55,0<br>*2.165* | 36,0<br>*1.417* | 53,0<br>*2.087* | 8,0<br>*0.315* | 140° | Uncoated | IT8-9 |
| SD205A-12.0-56-12R1-T | 02527621 | 12,0<br>*0.472* | 56,0<br>*2.205* | 118,0<br>*4.646* | 73,0<br>*2.874* | 45,0<br>*1.772* | 71,0<br>*2.795* | 12,0<br>*0.472* | 140° | Uncoated | IT8-9 |

# SD203A, -N

Drilling depth ~ 3 x D – Metric/Inch






- Cylindrical shank DIN 6537A
- DC tolerance m7
- Internal coolant
- For cutting data see page(s) 145- 146
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD203A-2.5-8-4R1-N | 02691548 | 2,5<br>*0.098* | 8,0<br>*0.315* | 44,0<br>*1.732* | 16,0<br>*0.630* | 28,0<br>*1.102* | 13,0<br>*0.512* | 4,0<br>*0.157* | 140° | DLC Coated | IT8-9 |
| SD203A-3.0-14-6R1-N | 02691549 | 3,0<br>*0.118* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | DLC Coated | IT8-9 |
| SD203A-3.3-14-6R1-N | 02691551 | 3,3<br>*0.130* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | DLC Coated | IT8-9 |
| SD203A-3.5-15-6R1-N | 02691552 | 3,5<br>*0.138* | 15,0<br>*0.591* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 20,0<br>*0.787* | 6,0<br>*0.236* | 140° | DLC Coated | IT8-9 |
| SD203A-4.0-17-6R1-N | 02691553 | 4,0<br>*0.157* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | DLC Coated | IT8-9 |
| SD203A-4.1-17-6R1-N | 02691554 | 4,1<br>*0.161* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | DLC Coated | IT8-9 |
| SD203A-4.5-18-6R1-N | 02691555 | 4,5<br>*0.177* | 18,0<br>*0.709* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 24,0<br>*0.945* | 6,0<br>*0.236* | 140° | DLC Coated | IT8-9 |
| SD203A-5.0-20-6R1-N | 02691556 | 5,0<br>*0.197* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | DLC Coated | IT8-9 |
| SD203A-5.2-20-6R1-N | 02691557 | 5,2<br>*0.205* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | DLC Coated | IT8-9 |
| SD203A-5.5-20-6R1-N | 02691558 | 5,5<br>*0.217* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | DLC Coated | IT8-9 |
| SD203A-6.0-21-6R1-N | 02691559 | 6,0<br>*0.236* | 21,0<br>*0.827* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 140° | DLC Coated | IT8-9 |
| SD203A-02500-091-0315R1-N | 02691560 | 6,35<br>*0.250* | 23,0<br>*0.906* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | DLC Coated | IT8-9 |
| SD203A-6.5-23-8R1-N | 02691562 | 6,5<br>*0.256* | 23,0<br>*0.906* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | DLC Coated | IT8-9 |
| SD203A-02656-098-0315R1-N | 02691564 | 6,746<br>*0.266* | 25,0<br>*0.984* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | DLC Coated | IT8-9 |
| SD203A-6.8-25-8R1-N | 02691565 | 6,8<br>*0.268* | 25,0<br>*0.984* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | DLC Coated | IT8-9 |
| SD203A-7.0-25-8R1-N | 02643590 | 7,0<br>*0.276* | 25,0<br>*0.984* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | DLC Coated | IT8-9 |
| SD203A-7.1-25-8R1-N | 02691567 | 7,1<br>*0.280* | 25,0<br>*0.984* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 140° | DLC Coated | IT8-9 |
| SD203A-02813-098-0315R1-N | 02691568 | 7,145<br>*0.281* | 25,0<br>*0.984* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | DLC Coated | IT8-9 |
| SD203A-7.5-25-8R1-N | 02691569 | 7,5<br>*0.295* | 25,0<br>*0.984* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | DLC Coated | IT8-9 |
| SD203A-03125-106-0315R1-N | 02691570 | 7,938<br>*0.313* | 27,0<br>*1.063* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | DLC Coated | IT8-9 |
| SD203A-8.0-27-8R1-N | 02691571 | 8,0<br>*0.315* | 27,0<br>*1.063* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 140° | DLC Coated | IT8-9 |
| SD203A-8.5-27-10R1-N | 02643592 | 8,5<br>*0.335* | 27,0<br>*1.063* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | DLC Coated | IT8-9 |

| Designation | Item number | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating | Hole tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | |
| SD203A-9.0-29-10R1-N | 02691574 | 9,0<br>*0.354* | 29,0<br>*1.142* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | DLC Coated | IT8-9 |
| SD203A-9.5-29-10R1-N | 02691575 | 9,5<br>*0.374* | 29,0<br>*1.142* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | DLC Coated | IT8-9 |
| SD203A-03750-122-0394R1-N | 02691576 | 9,525<br>*0.375* | 31,0<br>*1.220* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | DLC Coated | IT8-9 |
| SD203A-10.0-31-10R1-N | 02691577 | 10,0<br>*0.394* | 31,0<br>*1.220* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 140° | DLC Coated | IT8-9 |
| SD203A-10.2-31-12R1-N | 02691578 | 10,2<br>*0.402* | 31,0<br>*1.220* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | DLC Coated | IT8-9 |
| SD203A-04063-122-0472R1-N | 02691579 | 10,32<br>*0.406* | 31,0<br>*1.220* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | DLC Coated | IT8-9 |
| SD203A-10.5-31-12R1-N | 02691580 | 10,5<br>*0.413* | 31,0<br>*1.220* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | DLC Coated | IT8-9 |
| SD203A-11.0-33-12R1-N | 02691582 | 11,0<br>*0.433* | 33,0<br>*1.299* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | DLC Coated | IT8-9 |
| SD203A-04375-130-0472R1-N | 02691585 | 11,113<br>*0.438* | 33,0<br>*1.299* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | DLC Coated | IT8-9 |
| SD203A-11.5-33-12R1-N | 02691588 | 11,5<br>*0.453* | 33,0<br>*1.299* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | DLC Coated | IT8-9 |
| SD203A-12.0-36-12R1-N | 02691589 | 12,0<br>*0.472* | 36,0<br>*1.417* | 102,0<br>*4.016* | 57,0<br>*2.244* | 45,0<br>*1.772* | 55,0<br>*2.165* | 12,0<br>*0.472* | 140° | DLC Coated | IT8-9 |
| SD203A-12.5-36-14R1-N | 02691591 | 12,5<br>*0.492* | 36,0<br>*1.417* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | DLC Coated | IT8-9 |
| SD203A-05000-142-0551R1-N | 02691592 | 12,7<br>*0.500* | 36,0<br>*1.417* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | DLC Coated | IT8-9 |
| SD203A-13.0-36-14R1-N | 02691594 | 13,0<br>*0.512* | 36,0<br>*1.417* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | DLC Coated | IT8-9 |
| SD203A-05312-146-0551R1-N | 02691596 | 13,492<br>*0.531* | 37,0<br>*1.457* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | DLC Coated | IT8-9 |
| SD203A-13.5-37-14R1-N | 02691597 | 13,5<br>*0.531* | 37,0<br>*1.457* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | DLC Coated | IT8-9 |
| SD203A-14.0-37-14R1-N | 02691598 | 14,0<br>*0.551* | 37,0<br>*1.457* | 107,0<br>*4.213* | 62,0<br>*2.441* | 45,0<br>*1.772* | 60,0<br>*2.362* | 14,0<br>*0.551* | 140° | DLC Coated | IT8-9 |

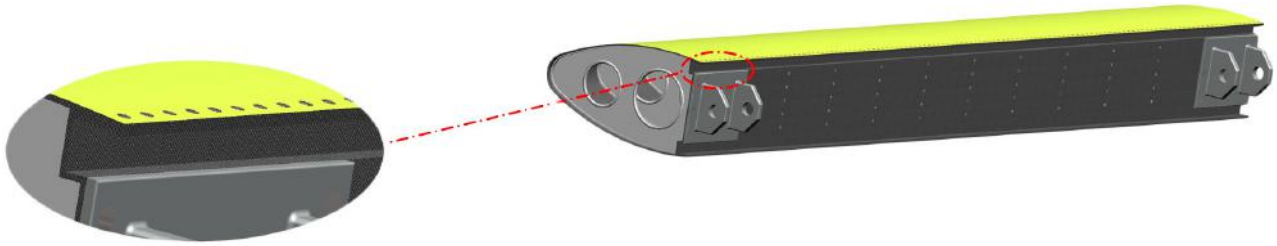


# Composite drilling

Seco offers two distinct solutions for composite drilling: diamond-coated drills and polycrystalline diamond (PCD) drills. These tools feature geometries that are optimized specifically for regular composites or stacked materials.

- C1 and CX1 point geometry optimized for applications existing in CFRP material
- The C2:s flat geometry drill point machines stacked composite materials that incorporate layers of aluminum
- CX1 are polycrystalline diamond (PCD) drills that offer enhanced productivity and long tool life over conventional drills when machining composite materials
- Both C1 and C2 are diamond-coated carbide drills featuring a Dura diamond coating that provides very good toughness and abrasive resistance

# Composite machining



## When hole quality is in focus

With issues like entrance and exit delamination and splintering, the focus has been clear; design tools specifically optimized for composite applications, and tools specifically optimized for sandwich materials. In both cases particular consideration was given to achieving excellent performance in both entering and exiting. (In sandwich material this usually involves exiting in either Al or Ti).

- No push-up delamination (entrance)
- No pull-down delamination (exit)

The Dura diamond coating secures good dimensional tolerance throughout the long tool life.





## Application sample

Plain CFRP/GFRP
(exit in composite material)

C1 geometry
CX1 geometry





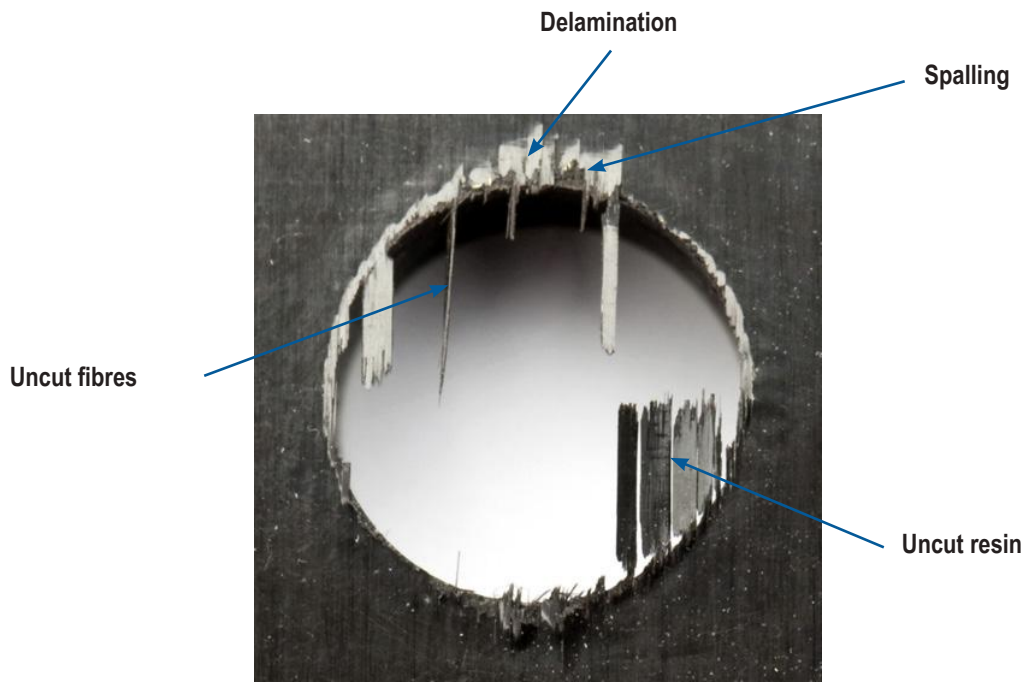

Sandwich material
(exit in Al/Ti)

C2 geometry





# Troubleshooting – Hole exit

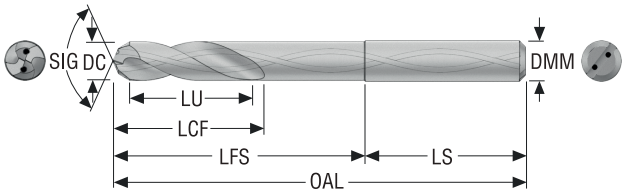



| Problem: | Delamination (peel up / push down) | Spalling | Uncut fibres | Uncut resin |
|---|---|---|---|---|
| **Solution:** | **Peel up**<br>▪ Use tool with more negative geometry<br>▪ Reduce feed/rev<br><br>**Push down**<br>▪ Reduce feed/rev | ▪ Use tool with more positive geometry<br>▪ Reduce feed/rev | ▪ Use tool with a sharper geometry<br>▪ Reduce feed/rev | ▪ Use tool with a sharper geometry<br>▪ Reduce feed/rev<br>▪ Reduce cutting speed |
| **Problem:** | **Melted resin (too much heat)** | **Poor tool life** | | |
| **Solution:** | ▪ Reduce cutting speed | ▪ Reduce cutting speed | | |

# SD205A-C1

Drilling depth ~ 5 x D – Metric/Inch



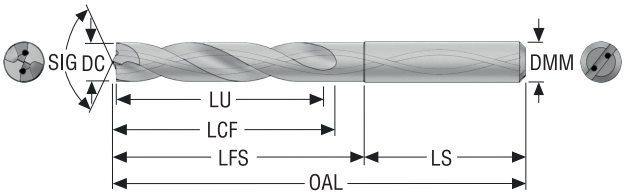



- Cylindrical shank DIN 6537A
- Internal coolant
- For cutting data see page(s) 165

| Designation | Item number | Expected hole tolerance | | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm | *Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | |
| SD205A-6.0-31-6R1-C1 | 02740089 | 5,975/6,025 | *0.2352/0.2372* | 6,0<br>*0.236* | 31,0<br>*1.220* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 60°/130° | Dura diamond |
| SD205A-9.55-46-10R1-C1 | 02740092 | 9,525/9,576 | *0.3750/0.3770* | 9,55<br>*0.376* | 46,0<br>*1.811* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 60°/130° | Dura diamond |

# SD205A-C2

Drilling depth ~ 5 x D – Metric/Inch





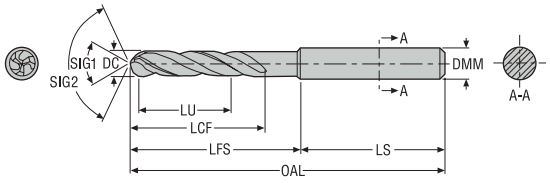

- Cylindrical shank DIN 6537A
- Internal coolant
- For cutting data see page(s) 165

| Designation | Item number | Expected hole tolerance | | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle | Coating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm | *Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | |
| SD205A-6.0-32-6R1-C2 | 02740099 | 5,975/6,025 | *0.2352/0.2372* | 6,0<br>*0.236* | 32,0<br>*1.260* | 82,0<br>*3.228* | 46,0<br>*1.811* | 36,0<br>*1.417* | 44,0<br>*1.732* | 6,0<br>*0.236* | 140°/180° | Dura diamond |
| SD205A-9.55-48-10R1-C2 | 02740103 | 9,525/9,576 | *0.3750/0.3770* | 9,55<br>*0.376* | 48,0<br>*1.890* | 103,0<br>*4.055* | 63,0<br>*2.480* | 40,0<br>*1.575* | 61,0<br>*2.402* | 10,0<br>*0.394* | 140°/180° | Dura diamond |

# SD203-CX1

Drilling depth ~ 3 x D – Metric/Inch






- Cylindrical shank DIN 6537A
- PCD cutting edges
- For cutting data see page(s) 165

| Designation | Item number | Expected hole tolerance | | DC | LU | OAL | LFS | LS | LCF | DMM | Point angle |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm | *Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | |
| SD203-3.26-14-6R1-CX1 | 02827923 | 3,235/3,285 | *0.1273/0.1293* | 3,26<br>*0.128* | 14,0<br>*0.551* | 62,0<br>*2.441* | 26,0<br>*1.024* | 36,0<br>*1.417* | 21,0<br>*0.827* | 6,0<br>*0.236* | 60°/130° |
| SD203-4.17-17-6R1-CX1 | 02827924 | 4,142/4,192 | *0.1630/0.1650* | 4,17<br>*0.164* | 17,0<br>*0.669* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 25,0<br>*0.984* | 6,0<br>*0.236* | 60°/130° |
| SD203-4.83-20-6R1-CX1 | 02827925 | 4,805/4,855 | *0.1891/0.1911* | 4,83<br>*0.190* | 20,0<br>*0.787* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 60°/130° |
| SD203-6.06-21-6R1-CX1 | 02827926 | 6,035/6,085 | *0.2375/0.2395* | 6,06<br>*0.239* | 21,0<br>*0.827* | 66,0<br>*2.598* | 30,0<br>*1.181* | 36,0<br>*1.417* | 28,0<br>*1.102* | 6,0<br>*0.236* | 60°/130° |
| SD203-6.36-23-8R1-CX1 | 02827927 | 6,33/6,38 | *0.2492/0.2511* | 6,36<br>*0.250* | 23,0<br>*0.906* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 34,0<br>*1.339* | 8,0<br>*0.315* | 60°/130° |
| SD203-7.94-27-8R1-CX1 | 02827928 | 7,913/7,963 | *0.3115/0.3135* | 7,94<br>*0.313* | 27,0<br>*1.063* | 79,0<br>*3.110* | 43,0<br>*1.693* | 36,0<br>*1.417* | 41,0<br>*1.614* | 8,0<br>*0.315* | 60°/130° |
| SD203-9.53-31-10R1-CX1 | 02827929 | 9,504/9,554 | *0.3741/0.3761* | 9,53<br>*0.375* | 31,0<br>*1.220* | 89,0<br>*3.504* | 49,0<br>*1.929* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,0<br>*0.394* | 60°/130° |



# Micro drilling

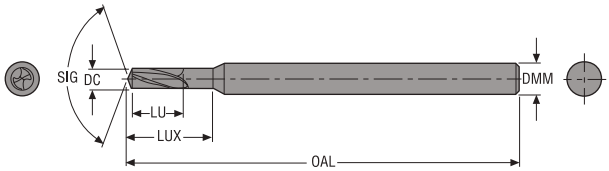
Seco addresses micro drilling applications with a portfolio of dedicated products that includes the SD22 and SD26 ranges of small solid carbide micro drills.

- Capable of delivering dramatic performance increases compared to traditional HSS drills
- Suitable for applications in the automotive and medical industries, as well as for small part production in the general engineering industry

# SD22

## Drilling depth ~ 2 x D (Pilot drill) – Metric/Inch






- Cylindrical shank
- External coolant
- For cutting data see page(s) 166-170

| Designation | Item number | DC | LU | OAL | LUX | DMM | Point angle | Coating |
|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | |
| SD22-0.10-0.20-3R1 | 02731574 | 0,1<br>*0.004* | 0,2<br>*0.008* | 38,0<br>*1.496* | 0,55<br>*0.022* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.11-0.22-3R1 | 02730362 | 0,11<br>*0.004* | 0,22<br>*0.009* | 38,0<br>*1.496* | 0,55<br>*0.022* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.12-0.24-3R1 | 02730460 | 0,12<br>*0.005* | 0,24<br>*0.009* | 38,0<br>*1.496* | 0,55<br>*0.022* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.13-0.26-3R1 | 02730461 | 0,13<br>*0.005* | 0,26<br>*0.010* | 38,0<br>*1.496* | 0,6<br>*0.024* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.14-0.28-3R1 | 02730462 | 0,14<br>*0.006* | 0,28<br>*0.011* | 38,0<br>*1.496* | 0,6<br>*0.024* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.15-0.30-3R1 | 02731575 | 0,15<br>*0.006* | 0,3<br>*0.012* | 38,0<br>*1.496* | 0,6<br>*0.024* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.16-0.32-3R1 | 02730464 | 0,16<br>*0.006* | 0,32<br>*0.013* | 38,0<br>*1.496* | 0,6<br>*0.024* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.17-0.34-3R1 | 02730465 | 0,17<br>*0.007* | 0,34<br>*0.013* | 38,0<br>*1.496* | 0,7<br>*0.028* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.18-0.36-3R1 | 02730466 | 0,18<br>*0.007* | 0,36<br>*0.014* | 38,0<br>*1.496* | 0,7<br>*0.028* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.19-0.38-3R1 | 02730467 | 0,19<br>*0.007* | 0,38<br>*0.015* | 38,0<br>*1.496* | 0,7<br>*0.028* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.20-0.40-3R1 | 02731576 | 0,2<br>*0.008* | 0,4<br>*0.016* | 38,0<br>*1.496* | 0,75<br>*0.030* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.21-0.42-3R1 | 02730468 | 0,21<br>*0.008* | 0,42<br>*0.017* | 38,0<br>*1.496* | 0,75<br>*0.030* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.22-0.44-3R1 | 02730469 | 0,22<br>*0.009* | 0,44<br>*0.017* | 38,0<br>*1.496* | 0,8<br>*0.031* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.23-0.46-3R1 | 02730470 | 0,23<br>*0.009* | 0,46<br>*0.018* | 38,0<br>*1.496* | 0,8<br>*0.031* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.24-0.48-3R1 | 02730471 | 0,24<br>*0.009* | 0,48<br>*0.019* | 38,0<br>*1.496* | 0,8<br>*0.031* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.25-0.50-3R1 | 02731577 | 0,25<br>*0.010* | 0,5<br>*0.020* | 38,0<br>*1.496* | 0,9<br>*0.035* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.26-0.52-3R1 | 02730472 | 0,26<br>*0.010* | 0,52<br>*0.020* | 38,0<br>*1.496* | 0,9<br>*0.035* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.27-0.54-3R1 | 02730473 | 0,27<br>*0.011* | 0,54<br>*0.021* | 38,0<br>*1.496* | 0,9<br>*0.035* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.28-0.56-3R1 | 02730474 | 0,28<br>*0.011* | 0,56<br>*0.022* | 38,0<br>*1.496* | 1,0<br>*0.039* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.29-0.58-3R1 | 02730475 | 0,29<br>*0.011* | 0,58<br>*0.023* | 38,0<br>*1.496* | 1,0<br>*0.039* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.30-0.60-3R1 | 02731579 | 0,3<br>*0.012* | 0,6<br>*0.024* | 38,0<br>*1.496* | 1,2<br>*0.047* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.31-0.62-3R1 | 02730476 | 0,31<br>*0.012* | 0,62<br>*0.024* | 38,0<br>*1.496* | 1,2<br>*0.047* | 3,0<br>*0.118* | 130° | Uncoated |

| Designation | Item number | DC | LU | OAL | LUX | DMM | Point angle | Coating |
|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | |
| SD22-0.32-0.64-3R1 | 02730477 | 0,32<br>*0.013* | 0,64<br>*0.025* | 38,0<br>*1.496* | 1,2<br>*0.047* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.33-0.66-3R1 | 02730478 | 0,33<br>*0.013* | 0,66<br>*0.026* | 38,0<br>*1.496* | 1,2<br>*0.047* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.34-0.68-3R1 | 02730479 | 0,34<br>*0.013* | 0,68<br>*0.027* | 38,0<br>*1.496* | 1,35<br>*0.053* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.35-0.70-3R1 | 02731580 | 0,35<br>*0.014* | 0,7<br>*0.028* | 38,0<br>*1.496* | 1,35<br>*0.053* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.36-0.72-3R1 | 02730480 | 0,36<br>*0.014* | 0,72<br>*0.028* | 38,0<br>*1.496* | 1,35<br>*0.053* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.37-0.74-3R1 | 02730481 | 0,37<br>*0.015* | 0,74<br>*0.029* | 38,0<br>*1.496* | 1,35<br>*0.053* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.38-0.76-3R1 | 02730482 | 0,38<br>*0.015* | 0,76<br>*0.030* | 38,0<br>*1.496* | 1,5<br>*0.059* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.39-0.78-3R1 | 02730483 | 0,39<br>*0.015* | 0,78<br>*0.031* | 38,0<br>*1.496* | 1,5<br>*0.059* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.40-0.80-3R1 | 02731581 | 0,4<br>*0.016* | 0,8<br>*0.031* | 38,0<br>*1.496* | 1,6<br>*0.063* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.41-0.82-3R1 | 02730484 | 0,41<br>*0.016* | 0,82<br>*0.032* | 38,0<br>*1.496* | 1,6<br>*0.063* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.42-0.84-3R1 | 02730485 | 0,42<br>*0.017* | 0,84<br>*0.033* | 38,0<br>*1.496* | 1,6<br>*0.063* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.43-0.86-3R1 | 02730486 | 0,43<br>*0.017* | 0,86<br>*0.034* | 38,0<br>*1.496* | 1,6<br>*0.063* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.44-0.88-3R1 | 02730487 | 0,44<br>*0.017* | 0,88<br>*0.035* | 38,0<br>*1.496* | 1,6<br>*0.063* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.45-0.90-3R1 | 02731582 | 0,45<br>*0.018* | 0,9<br>*0.035* | 38,0<br>*1.496* | 1,6<br>*0.063* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.46-0.92-3R1 | 02730488 | 0,46<br>*0.018* | 0,92<br>*0.036* | 38,0<br>*1.496* | 1,7<br>*0.067* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.47-0.94-3R1 | 02730489 | 0,47<br>*0.019* | 0,94<br>*0.037* | 38,0<br>*1.496* | 1,7<br>*0.067* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.48-0.96-3R1 | 02730490 | 0,48<br>*0.019* | 0,96<br>*0.038* | 38,0<br>*1.496* | 1,7<br>*0.067* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.49-0.98-3R1 | 02730491 | 0,49<br>*0.019* | 0,98<br>*0.039* | 38,0<br>*1.496* | 1,7<br>*0.067* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.50-1.00-3R1 | 02731584 | 0,5<br>*0.020* | 1,0<br>*0.039* | 38,0<br>*1.496* | 1,7<br>*0.067* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.51-1.02-3R1 | 02730492 | 0,51<br>*0.020* | 1,02<br>*0.040* | 38,0<br>*1.496* | 1,8<br>*0.071* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.52-1.04-3R1 | 02730493 | 0,52<br>*0.020* | 1,04<br>*0.041* | 38,0<br>*1.496* | 1,8<br>*0.071* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.53-1.06-3R1 | 02730494 | 0,53<br>*0.021* | 1,06<br>*0.042* | 38,0<br>*1.496* | 1,8<br>*0.071* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.54-1.08-3R1 | 02730495 | 0,54<br>*0.021* | 1,08<br>*0.043* | 38,0<br>*1.496* | 1,8<br>*0.071* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.55-1.10-3R1 | 02731585 | 0,55<br>*0.022* | 1,1<br>*0.043* | 38,0<br>*1.496* | 1,8<br>*0.071* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.56-1.12-3R1 | 02730496 | 0,56<br>*0.022* | 1,12<br>*0.044* | 38,0<br>*1.496* | 1,9<br>*0.075* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.57-1.14-3R1 | 02730497 | 0,57<br>*0.022* | 1,14<br>*0.045* | 38,0<br>*1.496* | 1,9<br>*0.075* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.58-1.16-3R1 | 02730498 | 0,58<br>*0.023* | 1,16<br>*0.046* | 38,0<br>*1.496* | 1,9<br>*0.075* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.59-1.18-3R1 | 02730499 | 0,59<br>*0.023* | 1,18<br>*0.046* | 38,0<br>*1.496* | 1,9<br>*0.075* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.60-1.20-3R1 | 02731586 | 0,6<br>*0.024* | 1,2<br>*0.047* | 38,0<br>*1.496* | 1,9<br>*0.075* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.61-1.22-3R1 | 02730500 | 0,61<br>*0.024* | 1,22<br>*0.048* | 38,0<br>*1.496* | 2,0<br>*0.079* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.62-1.24-3R1 | 02730501 | 0,62<br>*0.024* | 1,24<br>*0.049* | 38,0<br>*1.496* | 2,0<br>*0.079* | 3,0<br>*0.118* | 130° | Uncoated |

| Designation | Item number | DC | LU | OAL | LUX | DMM | Point angle | Coating |
|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | |
| SD22-0.63-1.26-3R1 | 02730502 | 0,63<br>*0.025* | 1,26<br>*0.050* | 38,0<br>*1.496* | 2,0<br>*0.079* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.64-1.28-3R1 | 02730503 | 0,64<br>*0.025* | 1,28<br>*0.050* | 38,0<br>*1.496* | 2,0<br>*0.079* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.65-1.30-3R1 | 02731587 | 0,65<br>*0.026* | 1,3<br>*0.051* | 38,0<br>*1.496* | 2,0<br>*0.079* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.66-1.32-3R1 | 02730504 | 0,66<br>*0.026* | 1,32<br>*0.052* | 38,0<br>*1.496* | 2,1<br>*0.083* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.67-1.34-3R1 | 02730505 | 0,67<br>*0.026* | 1,34<br>*0.053* | 38,0<br>*1.496* | 2,1<br>*0.083* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.68-1.36-3R1 | 02730506 | 0,68<br>*0.027* | 1,36<br>*0.054* | 38,0<br>*1.496* | 2,1<br>*0.083* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.69-1.38-3R1 | 02730507 | 0,69<br>*0.027* | 1,38<br>*0.054* | 38,0<br>*1.496* | 2,1<br>*0.083* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.70-1.40-3R1 | 02731589 | 0,7<br>*0.028* | 1,4<br>*0.055* | 38,0<br>*1.496* | 2,1<br>*0.083* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.71-1.42-3R1 | 02730508 | 0,71<br>*0.028* | 1,42<br>*0.056* | 38,0<br>*1.496* | 2,2<br>*0.087* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.72-1.44-3R1 | 02730509 | 0,72<br>*0.028* | 1,44<br>*0.057* | 38,0<br>*1.496* | 2,2<br>*0.087* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.73-1.46-3R1 | 02730510 | 0,73<br>*0.029* | 1,46<br>*0.057* | 38,0<br>*1.496* | 2,2<br>*0.087* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.74-1.48-3R1 | 02730511 | 0,74<br>*0.029* | 1,48<br>*0.058* | 38,0<br>*1.496* | 2,2<br>*0.087* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.75-1.50-3R1 | 02731590 | 0,75<br>*0.030* | 1,5<br>*0.059* | 38,0<br>*1.496* | 2,2<br>*0.087* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.76-1.52-3R1 | 02730512 | 0,76<br>*0.030* | 1,52<br>*0.060* | 38,0<br>*1.496* | 2,3<br>*0.091* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.77-1.54-3R1 | 02730513 | 0,77<br>*0.030* | 1,54<br>*0.061* | 38,0<br>*1.496* | 2,3<br>*0.091* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.78-1.56-3R1 | 02730514 | 0,78<br>*0.031* | 1,56<br>*0.061* | 38,0<br>*1.496* | 2,3<br>*0.091* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.79-1.58-3R1 | 02730515 | 0,79<br>*0.031* | 1,58<br>*0.062* | 38,0<br>*1.496* | 2,3<br>*0.091* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.80-1.60-3R1 | 02731592 | 0,8<br>*0.031* | 1,6<br>*0.063* | 38,0<br>*1.496* | 2,3<br>*0.091* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.81-1.62-3R1 | 02730516 | 0,81<br>*0.032* | 1,62<br>*0.064* | 38,0<br>*1.496* | 2,4<br>*0.094* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.82-1.64-3R1 | 02730517 | 0,82<br>*0.032* | 1,64<br>*0.065* | 38,0<br>*1.496* | 2,4<br>*0.094* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.83-1.66-3R1 | 02730518 | 0,83<br>*0.033* | 1,66<br>*0.065* | 38,0<br>*1.496* | 2,4<br>*0.094* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.84-1.68-3R1 | 02730519 | 0,84<br>*0.033* | 1,68<br>*0.066* | 38,0<br>*1.496* | 2,4<br>*0.094* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.85-1.70-3R1 | 02731593 | 0,85<br>*0.033* | 1,7<br>*0.067* | 38,0<br>*1.496* | 2,4<br>*0.094* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.86-1.72-3R1 | 02730520 | 0,86<br>*0.034* | 1,72<br>*0.068* | 38,0<br>*1.496* | 2,5<br>*0.098* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.87-1.74-3R1 | 02730521 | 0,87<br>*0.034* | 1,74<br>*0.069* | 38,0<br>*1.496* | 2,5<br>*0.098* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.88-1.76-3R1 | 02730522 | 0,88<br>*0.035* | 1,76<br>*0.069* | 38,0<br>*1.496* | 2,5<br>*0.098* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.89-1.78-3R1 | 02730523 | 0,89<br>*0.035* | 1,78<br>*0.070* | 38,0<br>*1.496* | 2,5<br>*0.098* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.90-1.80-3R1 | 02731594 | 0,9<br>*0.035* | 1,8<br>*0.071* | 38,0<br>*1.496* | 2,5<br>*0.098* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.91-1.82-3R1 | 02730524 | 0,91<br>*0.036* | 1,82<br>*0.072* | 38,0<br>*1.496* | 2,6<br>*0.102* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.92-1.84-3R1 | 02730525 | 0,92<br>*0.036* | 1,84<br>*0.072* | 38,0<br>*1.496* | 2,6<br>*0.102* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.93-1.86-3R1 | 02730526 | 0,93<br>*0.037* | 1,86<br>*0.073* | 38,0<br>*1.496* | 2,6<br>*0.102* | 3,0<br>*0.118* | 130° | Uncoated |

| Designation | Item number | DC | LU | OAL | LUX | DMM | Point angle | Coating |
|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | |
| SD22-0.94-1.88-3R1 | 02730527 | 0,94<br>*0.037* | 1,88<br>*0.074* | 38,0<br>*1.496* | 2,6<br>*0.102* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.95-1.90-3R1 | 02731595 | 0,95<br>*0.037* | 1,9<br>*0.075* | 38,0<br>*1.496* | 2,6<br>*0.102* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.96-1.92-3R1 | 02730528 | 0,96<br>*0.038* | 1,92<br>*0.076* | 38,0<br>*1.496* | 2,7<br>*0.106* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.97-1.94-3R1 | 02730529 | 0,97<br>*0.038* | 1,94<br>*0.076* | 38,0<br>*1.496* | 2,7<br>*0.106* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.98-1.96-3R1 | 02730530 | 0,98<br>*0.039* | 1,96<br>*0.077* | 38,0<br>*1.496* | 2,7<br>*0.106* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-0.99-1.98-3R1 | 02730531 | 0,99<br>*0.039* | 1,98<br>*0.078* | 38,0<br>*1.496* | 2,7<br>*0.106* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.00-2.00-3R1 | 02731596 | 1,0<br>*0.039* | 2,0<br>*0.079* | 38,0<br>*1.496* | 2,7<br>*0.106* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.01-2.02-3R1 | 02730532 | 1,01<br>*0.040* | 2,02<br>*0.080* | 38,0<br>*1.496* | 3,5<br>*0.138* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.02-2.04-3R1 | 02730533 | 1,02<br>*0.040* | 2,04<br>*0.080* | 38,0<br>*1.496* | 3,5<br>*0.138* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.03-2.06-3R1 | 02730534 | 1,03<br>*0.041* | 2,06<br>*0.081* | 38,0<br>*1.496* | 3,5<br>*0.138* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.04-2.08-3R1 | 02730535 | 1,04<br>*0.041* | 2,08<br>*0.082* | 38,0<br>*1.496* | 3,5<br>*0.138* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.05-2.10-3R1 | 02730536 | 1,05<br>*0.041* | 2,1<br>*0.083* | 38,0<br>*1.496* | 3,5<br>*0.138* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.06-2.12-3R1 | 02730537 | 1,06<br>*0.042* | 2,12<br>*0.083* | 38,0<br>*1.496* | 3,6<br>*0.142* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.07-2.14-3R1 | 02730538 | 1,07<br>*0.042* | 2,14<br>*0.084* | 38,0<br>*1.496* | 3,6<br>*0.142* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.08-2.16-3R1 | 02730539 | 1,08<br>*0.043* | 2,16<br>*0.085* | 38,0<br>*1.496* | 3,6<br>*0.142* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.09-2.18-3R1 | 02730540 | 1,09<br>*0.043* | 2,18<br>*0.086* | 38,0<br>*1.496* | 3,6<br>*0.142* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.10-2.20-3R1 | 02731598 | 1,1<br>*0.043* | 2,2<br>*0.087* | 38,0<br>*1.496* | 3,6<br>*0.142* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.11-2.22-3R1 | 02730541 | 1,11<br>*0.044* | 2,22<br>*0.087* | 38,0<br>*1.496* | 3,7<br>*0.146* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.12-2.24-3R1 | 02730542 | 1,12<br>*0.044* | 2,24<br>*0.088* | 38,0<br>*1.496* | 3,7<br>*0.146* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.13-2.26-3R1 | 02730543 | 1,13<br>*0.044* | 2,26<br>*0.089* | 38,0<br>*1.496* | 3,7<br>*0.146* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.14-2.28-3R1 | 02730544 | 1,14<br>*0.045* | 2,28<br>*0.090* | 38,0<br>*1.496* | 3,7<br>*0.146* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.15-2.30-3R1 | 02730545 | 1,15<br>*0.045* | 2,3<br>*0.091* | 38,0<br>*1.496* | 3,7<br>*0.146* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.16-2.32-3R1 | 02730546 | 1,16<br>*0.046* | 2,32<br>*0.091* | 38,0<br>*1.496* | 3,8<br>*0.150* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.17-2.34-3R1 | 02730547 | 1,17<br>*0.046* | 2,34<br>*0.092* | 38,0<br>*1.496* | 3,8<br>*0.150* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.18-2.36-3R1 | 02730548 | 1,18<br>*0.046* | 2,36<br>*0.093* | 38,0<br>*1.496* | 3,8<br>*0.150* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.19-2.38-3R1 | 02730549 | 1,19<br>*0.047* | 2,38<br>*0.094* | 38,0<br>*1.496* | 3,8<br>*0.150* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.20-2.40-3R1 | 02731599 | 1,2<br>*0.047* | 2,4<br>*0.094* | 38,0<br>*1.496* | 3,8<br>*0.150* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.21-2.42-3R1 | 02730550 | 1,21<br>*0.048* | 2,42<br>*0.095* | 38,0<br>*1.496* | 4,2<br>*0.165* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.22-2.44-3R1 | 02730551 | 1,22<br>*0.048* | 2,44<br>*0.096* | 38,0<br>*1.496* | 4,2<br>*0.165* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.23-2.46-3R1 | 02730552 | 1,23<br>*0.048* | 2,46<br>*0.097* | 38,0<br>*1.496* | 4,2<br>*0.165* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.24-2.48-3R1 | 02730553 | 1,24<br>*0.049* | 2,48<br>*0.098* | 38,0<br>*1.496* | 4,2<br>*0.165* | 3,0<br>*0.118* | 130° | Uncoated |

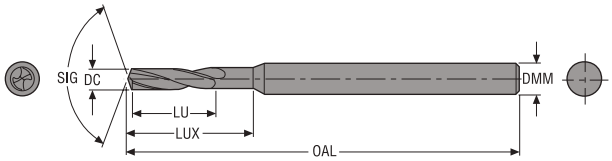
| Designation | Item number | DC | LU | OAL | LUX | DMM | Point angle | Coating |
|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | |
| SD22-1.25-2.50-3R1 | 02730554 | 1,25<br>*0.049* | 2,5<br>*0.098* | 38,0<br>*1.496* | 4,2<br>*0.165* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.26-2.52-3R1 | 02730555 | 1,26<br>*0.050* | 2,52<br>*0.099* | 38,0<br>*1.496* | 4,3<br>*0.169* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.27-2.54-3R1 | 02730556 | 1,27<br>*0.050* | 2,54<br>*0.100* | 38,0<br>*1.496* | 4,3<br>*0.169* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.28-2.56-3R1 | 02730557 | 1,28<br>*0.050* | 2,56<br>*0.101* | 38,0<br>*1.496* | 4,3<br>*0.169* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.29-2.58-3R1 | 02730558 | 1,29<br>*0.051* | 2,58<br>*0.102* | 38,0<br>*1.496* | 4,3<br>*0.169* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.30-2.60-3R1 | 02731600 | 1,3<br>*0.051* | 2,6<br>*0.102* | 38,0<br>*1.496* | 4,3<br>*0.169* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.31-2.62-3R1 | 02730559 | 1,31<br>*0.052* | 2,62<br>*0.103* | 38,0<br>*1.496* | 4,4<br>*0.173* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.32-2.64-3R1 | 02730560 | 1,32<br>*0.052* | 2,64<br>*0.104* | 38,0<br>*1.496* | 4,4<br>*0.173* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.33-2.66-3R1 | 02730561 | 1,33<br>*0.052* | 2,66<br>*0.105* | 38,0<br>*1.496* | 4,4<br>*0.173* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.34-2.68-3R1 | 02730562 | 1,34<br>*0.053* | 2,68<br>*0.106* | 38,0<br>*1.496* | 4,4<br>*0.173* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.35-2.70-3R1 | 02730563 | 1,35<br>*0.053* | 2,7<br>*0.106* | 38,0<br>*1.496* | 4,4<br>*0.173* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.36-2.72-3R1 | 02730564 | 1,36<br>*0.054* | 2,72<br>*0.107* | 38,0<br>*1.496* | 4,5<br>*0.177* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.37-2.74-3R1 | 02730565 | 1,37<br>*0.054* | 2,74<br>*0.108* | 38,0<br>*1.496* | 4,5<br>*0.177* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.38-2.76-3R1 | 02730566 | 1,38<br>*0.054* | 2,76<br>*0.109* | 38,0<br>*1.496* | 4,5<br>*0.177* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.39-2.78-3R1 | 02730567 | 1,39<br>*0.055* | 2,78<br>*0.109* | 38,0<br>*1.496* | 4,5<br>*0.177* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.40-2.80-3R1 | 02731602 | 1,4<br>*0.055* | 2,8<br>*0.110* | 38,0<br>*1.496* | 4,5<br>*0.177* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.41-2.82-3R1 | 02730568 | 1,41<br>*0.056* | 2,82<br>*0.111* | 38,0<br>*1.496* | 4,6<br>*0.181* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.42-2.84-3R1 | 02730569 | 1,42<br>*0.056* | 2,84<br>*0.112* | 38,0<br>*1.496* | 4,6<br>*0.181* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.43-2.86-3R1 | 02730570 | 1,43<br>*0.056* | 2,86<br>*0.113* | 38,0<br>*1.496* | 4,6<br>*0.181* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.44-2.88-3R1 | 02730571 | 1,44<br>*0.057* | 2,88<br>*0.113* | 38,0<br>*1.496* | 4,6<br>*0.181* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.45-2.90-3R1 | 02730572 | 1,45<br>*0.057* | 2,9<br>*0.114* | 38,0<br>*1.496* | 4,6<br>*0.181* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.46-2.92-3R1 | 02730573 | 1,46<br>*0.057* | 2,92<br>*0.115* | 38,0<br>*1.496* | 4,7<br>*0.185* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.47-2.94-3R1 | 02730574 | 1,47<br>*0.058* | 2,94<br>*0.116* | 38,0<br>*1.496* | 4,7<br>*0.185* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.48-2.96-3R1 | 02730575 | 1,48<br>*0.058* | 2,96<br>*0.117* | 38,0<br>*1.496* | 4,7<br>*0.185* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.49-2.98-3R1 | 02730576 | 1,49<br>*0.059* | 2,98<br>*0.117* | 38,0<br>*1.496* | 4,7<br>*0.185* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.50-3.00-3R1 | 02731603 | 1,5<br>*0.059* | 3,0<br>*0.118* | 38,0<br>*1.496* | 4,7<br>*0.185* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.51-3.02-3R1 | 02730577 | 1,51<br>*0.059* | 3,02<br>*0.119* | 38,0<br>*1.496* | 5,1<br>*0.201* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.52-3.04-3R1 | 02730578 | 1,52<br>*0.060* | 3,04<br>*0.120* | 38,0<br>*1.496* | 5,1<br>*0.201* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.53-3.06-3R1 | 02730579 | 1,53<br>*0.060* | 3,06<br>*0.120* | 38,0<br>*1.496* | 5,1<br>*0.201* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.54-3.08-3R1 | 02730580 | 1,54<br>*0.061* | 3,08<br>*0.121* | 38,0<br>*1.496* | 5,1<br>*0.201* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.55-3.10-3R1 | 02730581 | 1,55<br>*0.061* | 3,1<br>*0.122* | 38,0<br>*1.496* | 5,1<br>*0.201* | 3,0<br>*0.118* | 130° | Uncoated |

| Designation | Item number | DC | LU | OAL | LUX | DMM | Point angle | Coating |
|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | |
| SD22-1.56-3.12-3R1 | 02730582 | 1,56<br>*0.061* | 3,12<br>*0.123* | 38,0<br>*1.496* | 5,2<br>*0.205* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.57-3.14-3R1 | 02730583 | 1,57<br>*0.062* | 3,14<br>*0.124* | 38,0<br>*1.496* | 5,2<br>*0.205* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.58-3.16-3R1 | 02730584 | 1,58<br>*0.062* | 3,16<br>*0.124* | 38,0<br>*1.496* | 5,2<br>*0.205* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.59-3.18-3R1 | 02730585 | 1,59<br>*0.063* | 3,18<br>*0.125* | 38,0<br>*1.496* | 5,2<br>*0.205* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.60-3.20-3R1 | 02731605 | 1,6<br>*0.063* | 3,2<br>*0.126* | 38,0<br>*1.496* | 5,2<br>*0.205* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.61-3.22-3R1 | 02730586 | 1,61<br>*0.063* | 3,22<br>*0.127* | 38,0<br>*1.496* | 5,3<br>*0.209* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.62-3.24-3R1 | 02730587 | 1,62<br>*0.064* | 3,24<br>*0.128* | 38,0<br>*1.496* | 5,3<br>*0.209* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.63-3.26-3R1 | 02730588 | 1,63<br>*0.064* | 3,26<br>*0.128* | 38,0<br>*1.496* | 5,3<br>*0.209* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.64-3.28-3R1 | 02730589 | 1,64<br>*0.065* | 3,28<br>*0.129* | 38,0<br>*1.496* | 5,3<br>*0.209* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.65-3.30-3R1 | 02730590 | 1,65<br>*0.065* | 3,3<br>*0.130* | 38,0<br>*1.496* | 5,3<br>*0.209* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.66-3.32-3R1 | 02730592 | 1,66<br>*0.065* | 3,32<br>*0.131* | 38,0<br>*1.496* | 5,4<br>*0.213* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.67-3.34-3R1 | 02730593 | 1,67<br>*0.066* | 3,34<br>*0.131* | 38,0<br>*1.496* | 5,4<br>*0.213* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.68-3.36-3R1 | 02730594 | 1,68<br>*0.066* | 3,36<br>*0.132* | 38,0<br>*1.496* | 5,4<br>*0.213* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.69-3.38-3R1 | 02730595 | 1,69<br>*0.067* | 3,38<br>*0.133* | 38,0<br>*1.496* | 5,4<br>*0.213* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.70-3.40-3R1 | 02731606 | 1,7<br>*0.067* | 3,4<br>*0.134* | 38,0<br>*1.496* | 5,4<br>*0.213* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.71-3.42-3R1 | 02730596 | 1,71<br>*0.067* | 3,42<br>*0.135* | 38,0<br>*1.496* | 5,5<br>*0.217* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.72-3.44-3R1 | 02730597 | 1,72<br>*0.068* | 3,44<br>*0.135* | 38,0<br>*1.496* | 5,5<br>*0.217* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.73-3.46-3R1 | 02730598 | 1,73<br>*0.068* | 3,46<br>*0.136* | 38,0<br>*1.496* | 5,5<br>*0.217* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.74-3.48-3R1 | 02730599 | 1,74<br>*0.069* | 3,48<br>*0.137* | 38,0<br>*1.496* | 5,5<br>*0.217* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.75-3.50-3R1 | 02730601 | 1,75<br>*0.069* | 3,5<br>*0.138* | 38,0<br>*1.496* | 5,5<br>*0.217* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.76-3.52-3R1 | 02730602 | 1,76<br>*0.069* | 3,52<br>*0.139* | 38,0<br>*1.496* | 5,6<br>*0.220* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.77-3.54-3R1 | 02730603 | 1,77<br>*0.070* | 3,54<br>*0.139* | 38,0<br>*1.496* | 5,6<br>*0.220* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.78-3.56-3R1 | 02730604 | 1,78<br>*0.070* | 3,56<br>*0.140* | 38,0<br>*1.496* | 5,6<br>*0.220* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.79-3.58-3R1 | 02730605 | 1,79<br>*0.070* | 3,58<br>*0.141* | 38,0<br>*1.496* | 5,6<br>*0.220* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.80-3.60-3R1 | 02731607 | 1,8<br>*0.071* | 3,6<br>*0.142* | 38,0<br>*1.496* | 5,6<br>*0.220* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.81-3.62-3R1 | 02730606 | 1,81<br>*0.071* | 3,62<br>*0.143* | 38,0<br>*1.496* | 5,7<br>*0.224* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.82-3.64-3R1 | 02730607 | 1,82<br>*0.072* | 3,64<br>*0.143* | 38,0<br>*1.496* | 5,7<br>*0.224* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.83-3.66-3R1 | 02730608 | 1,83<br>*0.072* | 3,66<br>*0.144* | 38,0<br>*1.496* | 5,7<br>*0.224* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.84-3.68-3R1 | 02730609 | 1,84<br>*0.072* | 3,68<br>*0.145* | 38,0<br>*1.496* | 5,7<br>*0.224* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.85-3.70-3R1 | 02730610 | 1,85<br>*0.073* | 3,7<br>*0.146* | 38,0<br>*1.496* | 5,7<br>*0.224* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.86-3.72-3R1 | 02730611 | 1,86<br>*0.073* | 3,72<br>*0.146* | 38,0<br>*1.496* | 5,8<br>*0.228* | 3,0<br>*0.118* | 130° | Uncoated |

| Designation | Item number | DC | LU | OAL | LUX | DMM | Point angle | Coating |
|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | |
| SD22-1.87-3.74-3R1 | 02730612 | 1,87<br>*0.074* | 3,74<br>*0.147* | 38,0<br>*1.496* | 5,8<br>*0.228* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.88-3.76-3R1 | 02730613 | 1,88<br>*0.074* | 3,76<br>*0.148* | 38,0<br>*1.496* | 5,8<br>*0.228* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.89-3.78-3R1 | 02730614 | 1,89<br>*0.074* | 3,78<br>*0.149* | 38,0<br>*1.496* | 5,8<br>*0.228* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.90-3.80-3R1 | 02731609 | 1,9<br>*0.075* | 3,8<br>*0.150* | 38,0<br>*1.496* | 5,8<br>*0.228* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.91-3.82-3R1 | 02730615 | 1,91<br>*0.075* | 3,82<br>*0.150* | 38,0<br>*1.496* | 5,9<br>*0.232* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.92-3.84-3R1 | 02730616 | 1,92<br>*0.076* | 3,84<br>*0.151* | 38,0<br>*1.496* | 5,9<br>*0.232* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.93-3.86-3R1 | 02730617 | 1,93<br>*0.076* | 3,86<br>*0.152* | 38,0<br>*1.496* | 5,9<br>*0.232* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.94-3.88-3R1 | 02730618 | 1,94<br>*0.076* | 3,88<br>*0.153* | 38,0<br>*1.496* | 5,9<br>*0.232* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.95-3.90-3R1 | 02730619 | 1,95<br>*0.077* | 3,9<br>*0.154* | 38,0<br>*1.496* | 5,9<br>*0.232* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.96-3.92-3R1 | 02730620 | 1,96<br>*0.077* | 3,92<br>*0.154* | 38,0<br>*1.496* | 6,0<br>*0.236* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.97-3.94-3R1 | 02730621 | 1,97<br>*0.078* | 3,94<br>*0.155* | 38,0<br>*1.496* | 6,0<br>*0.236* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.98-3.96-3R1 | 02730622 | 1,98<br>*0.078* | 3,96<br>*0.156* | 38,0<br>*1.496* | 6,0<br>*0.236* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-1.99-3.98-3R1 | 02730623 | 1,99<br>*0.078* | 3,98<br>*0.157* | 38,0<br>*1.496* | 6,0<br>*0.236* | 3,0<br>*0.118* | 130° | Uncoated |
| SD22-2.00-4.00-3R1 | 02731610 | 2,0<br>*0.079* | 4,0<br>*0.157* | 38,0<br>*1.496* | 6,0<br>*0.236* | 3,0<br>*0.118* | 130° | Uncoated |

# SD26

Drilling depth ~ 6 x D – Metric/Inch






- Cylindrical shank
- External coolant
- For cutting data see page(s) 166-170

| Designation | Item number | DC | LU | OAL | LUX | DMM | Point angle | Coating |
|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | |
| SD26-0.10-0.40-3R1 | 02731612 | 0,1<br>*0.004* | 0,4<br>*0.016* | 38,0<br>*1.496* | 0,7<br>*0.028* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.11-0.40-3R1 | 02730624 | 0,11<br>*0.004* | 0,4<br>*0.016* | 38,0<br>*1.496* | 0,7<br>*0.028* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.12-0.40-3R1 | 02730625 | 0,12<br>*0.005* | 0,4<br>*0.016* | 38,0<br>*1.496* | 0,7<br>*0.028* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.13-0.65-3R1 | 02730626 | 0,13<br>*0.005* | 0,65<br>*0.026* | 38,0<br>*1.496* | 1,0<br>*0.039* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.14-0.65-3R1 | 02730627 | 0,14<br>*0.006* | 0,65<br>*0.026* | 38,0<br>*1.496* | 1,0<br>*0.039* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.15-0.65-3R1 | 02731613 | 0,15<br>*0.006* | 0,9<br>*0.035* | 38,0<br>*1.496* | 1,4<br>*0.055* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.16-0.90-3R1 | 02730628 | 0,16<br>*0.006* | 0,9<br>*0.035* | 38,0<br>*1.496* | 1,4<br>*0.055* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.17-0.90-3R1 | 02730629 | 0,17<br>*0.007* | 0,9<br>*0.035* | 38,0<br>*1.496* | 1,4<br>*0.055* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.18-0.90-3R1 | 02730630 | 0,18<br>*0.007* | 0,9<br>*0.035* | 38,0<br>*1.496* | 1,4<br>*0.055* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.19-0.90-3R1 | 02730631 | 0,19<br>*0.007* | 0,9<br>*0.035* | 38,0<br>*1.496* | 1,4<br>*0.055* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.20-1.25-3R1 | 02731615 | 0,2<br>*0.008* | 1,25<br>*0.049* | 38,0<br>*1.496* | 1,8<br>*0.071* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.21-1.25-3R1 | 02730632 | 0,21<br>*0.008* | 1,25<br>*0.049* | 38,0<br>*1.496* | 1,8<br>*0.071* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.22-1.25-3R1 | 02730633 | 0,22<br>*0.009* | 1,25<br>*0.049* | 38,0<br>*1.496* | 1,8<br>*0.071* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.23-1.25-3R1 | 02730634 | 0,23<br>*0.009* | 1,25<br>*0.049* | 38,0<br>*1.496* | 1,8<br>*0.071* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.24-1.25-3R1 | 02730635 | 0,24<br>*0.009* | 1,25<br>*0.049* | 38,0<br>*1.496* | 1,8<br>*0.071* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.25-1.55-3R1 | 02731617 | 0,25<br>*0.010* | 1,55<br>*0.061* | 38,0<br>*1.496* | 2,2<br>*0.087* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.26-1.55-3R1 | 02730636 | 0,26<br>*0.010* | 1,55<br>*0.061* | 38,0<br>*1.496* | 2,2<br>*0.087* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.27-1.55-3R1 | 02730637 | 0,27<br>*0.011* | 1,55<br>*0.061* | 38,0<br>*1.496* | 2,2<br>*0.087* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.28-1.55-3R1 | 02730638 | 0,28<br>*0.011* | 1,55<br>*0.061* | 38,0<br>*1.496* | 2,2<br>*0.087* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.29-1.55-3R1 | 02730639 | 0,29<br>*0.011* | 1,55<br>*0.061* | 38,0<br>*1.496* | 2,2<br>*0.087* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.30-1.80-3R1 | 02731618 | 0,3<br>*0.012* | 1,8<br>*0.071* | 38,0<br>*1.496* | 2,4<br>*0.094* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.31-1.80-3R1 | 02730640 | 0,31<br>*0.012* | 1,8<br>*0.071* | 38,0<br>*1.496* | 2,4<br>*0.094* | 3,0<br>*0.118* | 130° | Uncoated |

| Designation | Item number | DC | LU | OAL | LUX | DMM | Point angle | Coating |
|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | |
| SD26-0.32-1.80-3R1 | 02730641 | 0,32<br>*0.013* | 1,8<br>*0.071* | 38,0<br>*1.496* | 2,4<br>*0.094* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.33-1.80-3R1 | 02730642 | 0,33<br>*0.013* | 1,8<br>*0.071* | 38,0<br>*1.496* | 2,4<br>*0.094* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.34-1.80-3R1 | 02730643 | 0,34<br>*0.013* | 1,8<br>*0.071* | 38,0<br>*1.496* | 2,4<br>*0.094* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.35-2.20-3R1 | 02731619 | 0,35<br>*0.014* | 2,2<br>*0.087* | 38,0<br>*1.496* | 2,8<br>*0.110* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.36-2.20-3R1 | 02730644 | 0,36<br>*0.014* | 2,2<br>*0.087* | 38,0<br>*1.496* | 2,8<br>*0.110* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.37-2.20-3R1 | 02730645 | 0,37<br>*0.015* | 2,2<br>*0.087* | 38,0<br>*1.496* | 2,8<br>*0.110* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.38-2.20-3R1 | 02730646 | 0,38<br>*0.015* | 2,2<br>*0.087* | 38,0<br>*1.496* | 2,8<br>*0.110* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.39-2.70-3R1 | 02730647 | 0,39<br>*0.015* | 2,7<br>*0.106* | 38,0<br>*1.496* | 3,6<br>*0.142* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.40-2.70-3R1 | 02731620 | 0,4<br>*0.016* | 2,7<br>*0.106* | 38,0<br>*1.496* | 3,6<br>*0.142* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.41-2.70-3R1 | 02730648 | 0,41<br>*0.016* | 2,7<br>*0.106* | 38,0<br>*1.496* | 3,6<br>*0.142* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.42-2.70-3R1 | 02730649 | 0,42<br>*0.017* | 2,7<br>*0.106* | 38,0<br>*1.496* | 3,6<br>*0.142* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.43-2.70-3R1 | 02730650 | 0,43<br>*0.017* | 2,7<br>*0.106* | 38,0<br>*1.496* | 3,6<br>*0.142* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.44-2.70-3R1 | 02730651 | 0,44<br>*0.017* | 2,7<br>*0.106* | 38,0<br>*1.496* | 3,6<br>*0.142* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.45-2.70-3R1 | 02731621 | 0,45<br>*0.018* | 2,7<br>*0.106* | 38,0<br>*1.496* | 3,6<br>*0.142* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.46-2.70-3R1 | 02730652 | 0,46<br>*0.018* | 2,7<br>*0.106* | 38,0<br>*1.496* | 3,6<br>*0.142* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.47-2.70-3R1 | 02730653 | 0,47<br>*0.019* | 2,7<br>*0.106* | 38,0<br>*1.496* | 3,6<br>*0.142* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.48-2.70-3R1 | 02730654 | 0,48<br>*0.019* | 2,7<br>*0.106* | 38,0<br>*1.496* | 3,6<br>*0.142* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.49-3.20-3R1 | 02730655 | 0,49<br>*0.019* | 3,2<br>*0.126* | 38,0<br>*1.496* | 4,0<br>*0.157* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.50-3.20-3R1 | 02731622 | 0,5<br>*0.020* | 3,2<br>*0.126* | 38,0<br>*1.496* | 4,0<br>*0.157* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.51-3.20-3R1 | 02730656 | 0,51<br>*0.020* | 3,2<br>*0.126* | 38,0<br>*1.496* | 4,0<br>*0.157* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.52-3.20-3R1 | 02730657 | 0,52<br>*0.020* | 3,2<br>*0.126* | 38,0<br>*1.496* | 4,0<br>*0.157* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.53-3.20-3R1 | 02730658 | 0,53<br>*0.021* | 3,2<br>*0.126* | 38,0<br>*1.496* | 4,0<br>*0.157* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.54-3.60-3R1 | 02730659 | 0,54<br>*0.021* | 3,6<br>*0.142* | 38,0<br>*1.496* | 4,5<br>*0.177* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.55-3.60-3R1 | 02731623 | 0,55<br>*0.022* | 3,6<br>*0.142* | 38,0<br>*1.496* | 4,5<br>*0.177* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.56-3.60-3R1 | 02730660 | 0,56<br>*0.022* | 3,6<br>*0.142* | 38,0<br>*1.496* | 4,5<br>*0.177* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.57-3.60-3R1 | 02730661 | 0,57<br>*0.022* | 3,6<br>*0.142* | 38,0<br>*1.496* | 4,5<br>*0.177* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.58-3.60-3R1 | 02730662 | 0,58<br>*0.023* | 3,6<br>*0.142* | 38,0<br>*1.496* | 4,5<br>*0.177* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.59-3.60-3R1 | 02730663 | 0,59<br>*0.023* | 3,6<br>*0.142* | 38,0<br>*1.496* | 4,5<br>*0.177* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.60-3.60-3R1 | 02731624 | 0,6<br>*0.024* | 3,6<br>*0.142* | 38,0<br>*1.496* | 4,5<br>*0.177* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.61-3.90-3R1 | 02730664 | 0,61<br>*0.024* | 3,6<br>*0.142* | 38,0<br>*1.496* | 4,5<br>*0.177* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.62-3.90-3R1 | 02730665 | 0,62<br>*0.024* | 3,9<br>*0.154* | 38,0<br>*1.496* | 5,0<br>*0.197* | 3,0<br>*0.118* | 130° | Uncoated |

| Designation | Item number | DC | LU | OAL | LUX | DMM | Point angle | Coating |
|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | |
| SD26-0.63-3.90-3R1 | 02730666 | 0,63<br>*0.025* | 3,9<br>*0.154* | 38,0<br>*1.496* | 5,0<br>*0.197* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.64-3.90-3R1 | 02730667 | 0,64<br>*0.025* | 3,9<br>*0.154* | 38,0<br>*1.496* | 5,0<br>*0.197* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.65-3.90-3R1 | 02731625 | 0,65<br>*0.026* | 3,9<br>*0.154* | 38,0<br>*1.496* | 5,0<br>*0.197* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.66-3.90-3R1 | 02730668 | 0,66<br>*0.026* | 3,9<br>*0.154* | 38,0<br>*1.496* | 5,0<br>*0.197* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.67-3.90-3R1 | 02730669 | 0,67<br>*0.026* | 3,9<br>*0.154* | 38,0<br>*1.496* | 5,0<br>*0.197* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.68-4.50-3R1 | 02730670 | 0,68<br>*0.027* | 4,5<br>*0.177* | 38,0<br>*1.496* | 5,6<br>*0.220* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.69-4.50-3R1 | 02730671 | 0,69<br>*0.027* | 4,5<br>*0.177* | 38,0<br>*1.496* | 5,6<br>*0.220* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.70-4.50-3R1 | 02731626 | 0,7<br>*0.028* | 4,5<br>*0.177* | 38,0<br>*1.496* | 5,6<br>*0.220* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.71-4.50-3R1 | 02730672 | 0,71<br>*0.028* | 4,5<br>*0.177* | 38,0<br>*1.496* | 5,6<br>*0.220* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.72-4.50-3R1 | 02730673 | 0,72<br>*0.028* | 4,5<br>*0.177* | 38,0<br>*1.496* | 5,6<br>*0.220* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.73-4.50-3R1 | 02730674 | 0,73<br>*0.029* | 4,5<br>*0.177* | 38,0<br>*1.496* | 5,6<br>*0.220* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.74-4.50-3R1 | 02730675 | 0,74<br>*0.029* | 4,5<br>*0.177* | 38,0<br>*1.496* | 5,6<br>*0.220* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.75-4.50-3R1 | 02731627 | 0,75<br>*0.030* | 4,5<br>*0.177* | 38,0<br>*1.496* | 5,6<br>*0.220* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.76-5.00-3R1 | 02730676 | 0,76<br>*0.030* | 5,0<br>*0.197* | 38,0<br>*1.496* | 6,3<br>*0.248* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.77-5.00-3R1 | 02730677 | 0,77<br>*0.030* | 5,0<br>*0.197* | 38,0<br>*1.496* | 6,3<br>*0.248* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.78-5.00-3R1 | 02730678 | 0,78<br>*0.031* | 5,0<br>*0.197* | 38,0<br>*1.496* | 6,3<br>*0.248* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.79-5.00-3R1 | 02730679 | 0,79<br>*0.031* | 5,0<br>*0.197* | 38,0<br>*1.496* | 6,3<br>*0.248* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.80-5.00-3R1 | 02731628 | 0,8<br>*0.031* | 5,0<br>*0.197* | 38,0<br>*1.496* | 6,3<br>*0.248* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.81-5.00-3R1 | 02730680 | 0,81<br>*0.032* | 5,0<br>*0.197* | 38,0<br>*1.496* | 6,3<br>*0.248* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.82-5.00-3R1 | 02730681 | 0,82<br>*0.032* | 5,0<br>*0.197* | 38,0<br>*1.496* | 6,3<br>*0.248* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.83-5.00-3R1 | 02730682 | 0,83<br>*0.033* | 5,0<br>*0.197* | 38,0<br>*1.496* | 6,3<br>*0.248* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.84-5.00-3R1 | 02730683 | 0,84<br>*0.033* | 5,0<br>*0.197* | 38,0<br>*1.496* | 6,3<br>*0.248* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.85-5.00-3R1 | 02731629 | 0,85<br>*0.033* | 5,0<br>*0.197* | 38,0<br>*1.496* | 6,3<br>*0.248* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.86-5.70-3R1 | 02730684 | 0,86<br>*0.034* | 5,7<br>*0.224* | 38,0<br>*1.496* | 7,1<br>*0.280* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.87-5.70-3R1 | 02730685 | 0,87<br>*0.034* | 5,7<br>*0.224* | 38,0<br>*1.496* | 7,1<br>*0.280* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.88-5.70-3R1 | 02730686 | 0,88<br>*0.035* | 5,7<br>*0.224* | 38,0<br>*1.496* | 7,1<br>*0.280* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.89-5.70-3R1 | 02730687 | 0,89<br>*0.035* | 5,7<br>*0.224* | 38,0<br>*1.496* | 7,1<br>*0.280* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.90-5.70-3R1 | 02731630 | 0,9<br>*0.035* | 5,7<br>*0.224* | 38,0<br>*1.496* | 7,1<br>*0.280* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.91-5.70-3R1 | 02730688 | 0,91<br>*0.036* | 5,7<br>*0.224* | 38,0<br>*1.496* | 7,1<br>*0.280* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.92-5.70-3R1 | 02730689 | 0,92<br>*0.036* | 5,7<br>*0.224* | 38,0<br>*1.496* | 7,1<br>*0.280* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.93-5.70-3R1 | 02730690 | 0,93<br>*0.037* | 5,7<br>*0.224* | 38,0<br>*1.496* | 7,1<br>*0.280* | 3,0<br>*0.118* | 130° | Uncoated |

| Designation | Item number | DC | LU | OAL | LUX | DMM | Point angle | Coating |
|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | |
| SD26-0.94-5.70-3R1 | 02730691 | 0,94<br>*0.037* | 5,7<br>*0.224* | 38,0<br>*1.496* | 7,1<br>*0.280* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.95-5.70-3R1 | 02731631 | 0,95<br>*0.037* | 5,7<br>*0.224* | 38,0<br>*1.496* | 7,1<br>*0.280* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.96-6.50-3R1 | 02730692 | 0,96<br>*0.038* | 6,5<br>*0.256* | 38,0<br>*1.496* | 8,0<br>*0.315* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.97-6.50-3R1 | 02730693 | 0,97<br>*0.038* | 6,5<br>*0.256* | 38,0<br>*1.496* | 8,0<br>*0.315* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.98-6.50-3R1 | 02730694 | 0,98<br>*0.039* | 6,5<br>*0.256* | 38,0<br>*1.496* | 8,0<br>*0.315* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-0.99-6.50-3R1 | 02730695 | 0,99<br>*0.039* | 6,5<br>*0.256* | 38,0<br>*1.496* | 8,0<br>*0.315* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.00-6.50-3R1 | 02731632 | 1,0<br>*0.039* | 6,5<br>*0.256* | 38,0<br>*1.496* | 8,0<br>*0.315* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.01-6.50-3R1 | 02730696 | 1,01<br>*0.040* | 6,5<br>*0.256* | 38,0<br>*1.496* | 8,0<br>*0.315* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.02-6.50-3R1 | 02730697 | 1,02<br>*0.040* | 6,5<br>*0.256* | 38,0<br>*1.496* | 8,0<br>*0.315* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.03-6.50-3R1 | 02730698 | 1,03<br>*0.041* | 6,5<br>*0.256* | 38,0<br>*1.496* | 8,0<br>*0.315* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.04-6.50-3R1 | 02730699 | 1,04<br>*0.041* | 6,5<br>*0.256* | 38,0<br>*1.496* | 8,0<br>*0.315* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.05-6.50-3R1 | 02730700 | 1,05<br>*0.041* | 6,5<br>*0.256* | 38,0<br>*1.496* | 8,0<br>*0.315* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.06-7.30-3R1 | 02730701 | 1,06<br>*0.042* | 7,3<br>*0.287* | 38,0<br>*1.496* | 9,0<br>*0.354* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.07-7.30-3R1 | 02730702 | 1,07<br>*0.042* | 7,3<br>*0.287* | 38,0<br>*1.496* | 9,0<br>*0.354* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.08-7.30-3R1 | 02730703 | 1,08<br>*0.043* | 7,3<br>*0.287* | 38,0<br>*1.496* | 9,0<br>*0.354* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.09-7.30-3R1 | 02730704 | 1,09<br>*0.043* | 7,3<br>*0.287* | 38,0<br>*1.496* | 9,0<br>*0.354* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.10-7.30-3R1 | 02731633 | 1,1<br>*0.043* | 7,3<br>*0.287* | 38,0<br>*1.496* | 9,0<br>*0.354* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.11-7.30-3R1 | 02730705 | 1,11<br>*0.044* | 7,3<br>*0.287* | 38,0<br>*1.496* | 9,0<br>*0.354* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.12-7.30-3R1 | 02730706 | 1,12<br>*0.044* | 7,3<br>*0.287* | 38,0<br>*1.496* | 9,0<br>*0.354* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.13-7.30-3R1 | 02730707 | 1,13<br>*0.044* | 7,3<br>*0.287* | 38,0<br>*1.496* | 9,0<br>*0.354* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.14-7.30-3R1 | 02730708 | 1,14<br>*0.045* | 7,3<br>*0.287* | 38,0<br>*1.496* | 9,0<br>*0.354* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.15-7.30-3R1 | 02730709 | 1,15<br>*0.045* | 7,3<br>*0.287* | 38,0<br>*1.496* | 9,0<br>*0.354* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.16-8.20-3R1 | 02730710 | 1,16<br>*0.046* | 8,2<br>*0.323* | 38,0<br>*1.496* | 10,0<br>*0.394* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.17-8.20-3R1 | 02730711 | 1,17<br>*0.046* | 8,2<br>*0.323* | 38,0<br>*1.496* | 10,0<br>*0.394* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.18-8.20-3R1 | 02730712 | 1,18<br>*0.046* | 8,2<br>*0.323* | 38,0<br>*1.496* | 10,0<br>*0.394* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.19-8.20-3R1 | 02730713 | 1,19<br>*0.047* | 8,2<br>*0.323* | 38,0<br>*1.496* | 10,0<br>*0.394* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.20-8.20-3R1 | 02731634 | 1,2<br>*0.047* | 8,2<br>*0.323* | 38,0<br>*1.496* | 10,0<br>*0.394* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.21-8.20-3R1 | 02730714 | 1,21<br>*0.048* | 8,2<br>*0.323* | 38,0<br>*1.496* | 10,0<br>*0.394* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.22-8.20-3R1 | 02730715 | 1,22<br>*0.048* | 8,2<br>*0.323* | 38,0<br>*1.496* | 10,0<br>*0.394* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.23-8.20-3R1 | 02730716 | 1,23<br>*0.048* | 8,2<br>*0.323* | 38,0<br>*1.496* | 10,0<br>*0.394* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.24-8.20-3R1 | 02730717 | 1,24<br>*0.049* | 8,2<br>*0.323* | 38,0<br>*1.496* | 10,0<br>*0.394* | 3,0<br>*0.118* | 130° | Uncoated |

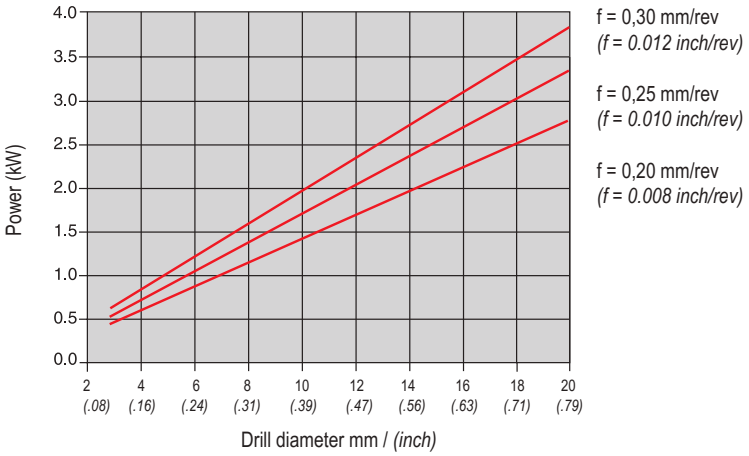
| Designation | Item number | DC | LU | OAL | LUX | DMM | Point angle | Coating |
|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | |
| SD26-1.25-8.20-3R1 | 02730718 | 1,25<br>*0.049* | 8,2<br>*0.323* | 38,0<br>*1.496* | 10,0<br>*0.394* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.26-8.20-3R1 | 02730719 | 1,26<br>*0.050* | 8,2<br>*0.323* | 38,0<br>*1.496* | 10,0<br>*0.394* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.27-8.20-3R1 | 02730720 | 1,27<br>*0.050* | 8,2<br>*0.323* | 38,0<br>*1.496* | 10,0<br>*0.394* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.28-8.20-3R1 | 02730721 | 1,28<br>*0.050* | 8,2<br>*0.323* | 38,0<br>*1.496* | 10,0<br>*0.394* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.29-8.20-3R1 | 02730722 | 1,29<br>*0.051* | 8,2<br>*0.323* | 38,0<br>*1.496* | 10,0<br>*0.394* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.30-8.20-3R1 | 02731635 | 1,3<br>*0.051* | 8,2<br>*0.323* | 38,0<br>*1.496* | 10,0<br>*0.394* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.31-9.20-3R1 | 02730723 | 1,31<br>*0.052* | 9,2<br>*0.362* | 38,0<br>*1.496* | 11,2<br>*0.441* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.32-9.20-3R1 | 02730724 | 1,32<br>*0.052* | 9,2<br>*0.362* | 38,0<br>*1.496* | 11,2<br>*0.441* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.33-9.20-3R1 | 02730725 | 1,33<br>*0.052* | 9,2<br>*0.362* | 38,0<br>*1.496* | 11,2<br>*0.441* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.34-9.20-3R1 | 02730726 | 1,34<br>*0.053* | 9,2<br>*0.362* | 38,0<br>*1.496* | 11,2<br>*0.441* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.35-9.20-3R1 | 02730727 | 1,35<br>*0.053* | 9,2<br>*0.362* | 38,0<br>*1.496* | 11,2<br>*0.441* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.36-9.20-3R1 | 02730728 | 1,36<br>*0.054* | 9,2<br>*0.362* | 38,0<br>*1.496* | 11,2<br>*0.441* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.37-9.20-3R1 | 02730729 | 1,37<br>*0.054* | 9,2<br>*0.362* | 38,0<br>*1.496* | 11,2<br>*0.441* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.38-9.20-3R1 | 02730730 | 1,38<br>*0.054* | 9,2<br>*0.362* | 38,0<br>*1.496* | 11,2<br>*0.441* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.39-9.20-3R1 | 02730731 | 1,39<br>*0.055* | 9,2<br>*0.362* | 38,0<br>*1.496* | 11,2<br>*0.441* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.40-9.20-3R1 | 02731637 | 1,4<br>*0.055* | 9,2<br>*0.362* | 38,0<br>*1.496* | 11,2<br>*0.441* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.41-9.20-3R1 | 02730732 | 1,41<br>*0.056* | 9,2<br>*0.362* | 38,0<br>*1.496* | 11,2<br>*0.441* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.42-9.20-3R1 | 02730733 | 1,42<br>*0.056* | 9,2<br>*0.362* | 38,0<br>*1.496* | 11,2<br>*0.441* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.43-9.20-3R1 | 02730734 | 1,43<br>*0.056* | 9,2<br>*0.362* | 38,0<br>*1.496* | 11,2<br>*0.441* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.44-9.20-3R1 | 02730735 | 1,44<br>*0.057* | 9,2<br>*0.362* | 38,0<br>*1.496* | 11,2<br>*0.441* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.45-9.20-3R1 | 02730736 | 1,45<br>*0.057* | 9,2<br>*0.362* | 38,0<br>*1.496* | 11,2<br>*0.441* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.46-9.20-3R1 | 02730737 | 1,46<br>*0.057* | 9,2<br>*0.362* | 38,0<br>*1.496* | 11,2<br>*0.441* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.47-9.20-3R1 | 02730738 | 1,47<br>*0.058* | 9,2<br>*0.362* | 38,0<br>*1.496* | 11,2<br>*0.441* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.48-9.20-3R1 | 02730739 | 1,48<br>*0.058* | 9,2<br>*0.362* | 38,0<br>*1.496* | 11,2<br>*0.441* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.49-9.20-3R1 | 02730740 | 1,49<br>*0.059* | 9,2<br>*0.362* | 38,0<br>*1.496* | 11,2<br>*0.441* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.50-9.20-3R1 | 02731638 | 1,5<br>*0.059* | 9,2<br>*0.362* | 38,0<br>*1.496* | 11,2<br>*0.441* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.51-11.20-3R1 | 02730741 | 1,51<br>*0.059* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.52-11.20-3R1 | 02730742 | 1,52<br>*0.060* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.53-11.20-3R1 | 02730743 | 1,53<br>*0.060* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.54-11.20-3R1 | 02730744 | 1,54<br>*0.061* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.55-11.20-3R1 | 02730745 | 1,55<br>*0.061* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |

| Designation | Item number | DC | LU | OAL | LUX | DMM | Point angle | Coating |
|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | |
| SD26-1.56-11.20-3R1 | 02730746 | 1,56<br>*0.061* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.57-11.20-3R1 | 02730747 | 1,57<br>*0.062* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.58-11.20-3R1 | 02730748 | 1,58<br>*0.062* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.59-11.20-3R1 | 02730749 | 1,59<br>*0.063* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.60-11.20-3R1 | 02731639 | 1,6<br>*0.063* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.61-11.20-3R1 | 02730750 | 1,61<br>*0.063* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.62-11.20-3R1 | 02730751 | 1,62<br>*0.064* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.63-11.20-3R1 | 02730752 | 1,63<br>*0.064* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.64-11.20-3R1 | 02730753 | 1,64<br>*0.065* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.65-11.20-3R1 | 02730754 | 1,65<br>*0.065* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.66-11.20-3R1 | 02730755 | 1,66<br>*0.065* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.67-11.20-3R1 | 02730756 | 1,67<br>*0.066* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.68-11.20-3R1 | 02730757 | 1,68<br>*0.066* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.69-11.20-3R1 | 02730758 | 1,69<br>*0.067* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.70-11.20-3R1 | 02731640 | 1,7<br>*0.067* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.71-11.20-3R1 | 02730759 | 1,71<br>*0.067* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.72-11.20-3R1 | 02730760 | 1,72<br>*0.068* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.73-11.20-3R1 | 02730761 | 1,73<br>*0.068* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.74-11.20-3R1 | 02730762 | 1,74<br>*0.069* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.75-11.20-3R1 | 02730763 | 1,75<br>*0.069* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.76-11.20-3R1 | 02730764 | 1,76<br>*0.069* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.77-11.20-3R1 | 02730765 | 1,77<br>*0.070* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.78-11.20-3R1 | 02730766 | 1,78<br>*0.070* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.79-11.20-3R1 | 02730767 | 1,79<br>*0.070* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.80-11.20-3R1 | 02731641 | 1,8<br>*0.071* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.81-11.20-3R1 | 02730768 | 1,81<br>*0.071* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.82-11.20-3R1 | 02730769 | 1,82<br>*0.072* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.83-11.20-3R1 | 02730770 | 1,83<br>*0.072* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.84-11.20-3R1 | 02730771 | 1,84<br>*0.072* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.85-11.20-3R1 | 02730772 | 1,85<br>*0.073* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.86-11.20-3R1 | 02730773 | 1,86<br>*0.073* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |

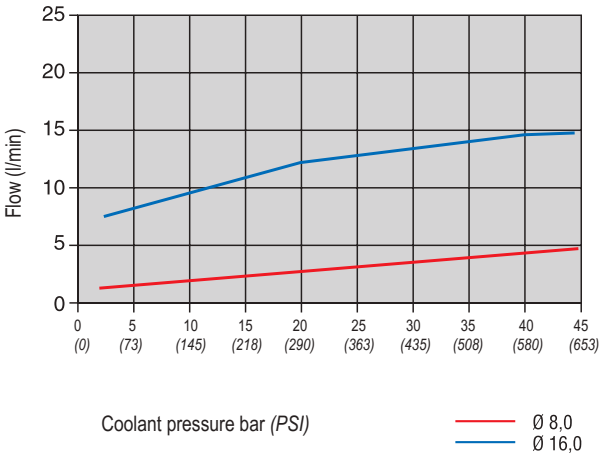
| Designation | Item number | DC | LU | OAL | LUX | DMM | Point angle | Coating |
|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | |
| SD26-1.87-11.20-3R1 | 02730774 | 1,87<br>*0.074* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.88-11.20-3R1 | 02730775 | 1,88<br>*0.074* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.89-11.20-3R1 | 02730776 | 1,89<br>*0.074* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.90-11.20-3R1 | 02731642 | 1,9<br>*0.075* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.91-11.20-3R1 | 02730777 | 1,91<br>*0.075* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.92-11.20-3R1 | 02730778 | 1,92<br>*0.076* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.93-11.20-3R1 | 02730779 | 1,93<br>*0.076* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.94-11.20-3R1 | 02730780 | 1,94<br>*0.076* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.95-11.20-3R1 | 02730781 | 1,95<br>*0.077* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.96-11.20-3R1 | 02730782 | 1,96<br>*0.077* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.97-11.20-3R1 | 02730783 | 1,97<br>*0.078* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.98-11.20-3R1 | 02730784 | 1,98<br>*0.078* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-1.99-11.20-3R1 | 02730785 | 1,99<br>*0.078* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |
| SD26-2.00-11.20-3R1 | 02731643 | 2,0<br>*0.079* | 11,2<br>*0.441* | 38,0<br>*1.496* | 13,4<br>*0.528* | 3,0<br>*0.118* | 130° | Uncoated |

# Machining data

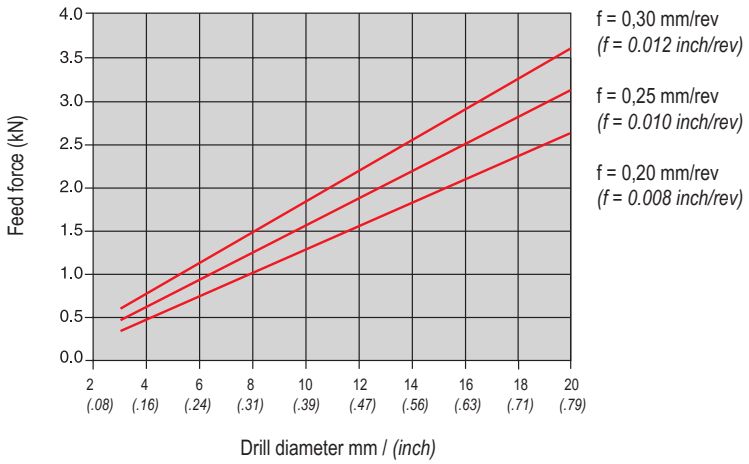
## Net power consumption




## Coolant flow at different pressures




## Feed force




Method:
Adjust feed up or down to obtain as good chip formation as possible. Increased feed/rev gives shorter chips.

The values showing feed force and net power consumption above are basic values and vary with type of cutting data, material and tool wear.

## Machining data

| SD1103, SD1103A, SD1105A, SD203A, SD205A, SD206, SD206A, SD207A, SD216A, SD230A IT8–9/$R_a$ 1–3* | | | | | |
|---|---|---|---|---|---|
| Drill ∅ DC (mm) | IT9 tolerance (µm) | IT10 tolerance (µm) | Drill ∅ DC *(inch)* | IT9 tolerance *(inch)* | IT10 tolerance *(inch)* |
| < 3 | 14 | 25 | *-0.118* | *0.0006* | *0.0010* |
| 3-6 | 18 | 30 | *> 0.118-0.236* | *0.0007* | *0.0012* |
| 6-10 | 22 | 36 | *> 0.236-0.394* | *0.0009* | *0.0014* |
| 10-18 | 27 | 43 | *> 0.394-0.709* | *0.0011* | *0.0017* |
| > 18 | 33 | 52 | *> 0.709* | *0.0013* | *0.0020* |

*Deterioration of surface finish can occur when drilling in low carbon steel or stainless steel.

# Troubleshooting – Initial check points

- Fixturing stability
- Machine spindle condition
- Tool holder condition

- Clamping of tool:
  - Run-out within 0,04 TIR
  - If using pre drilling within 0,04 TIR

- Chip evacuation:
  - Cutting data

- Coolant:
  - Pressure
  - Flow
  - Concentration

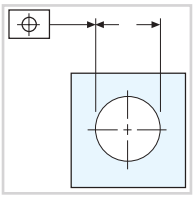
**Rapid flank wear**

- Reduce the cutting speed
- Increase coolant concentration



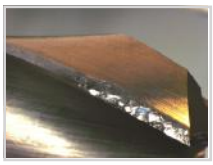
**Unsatisfactory diameter tolerance**

- Increase the feed/rev
- Use a reaming operation, see page(s) 324
- Use a boring operation, see page(s) 493-494



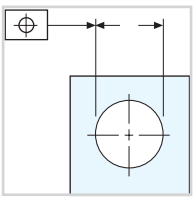
**Wear/Periphery land**

- Reduce the cutting speed
- Increase coolant concentration



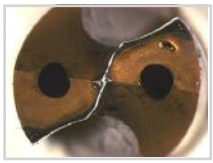
**Unsatisfactory positioning of the hole**

- Reduce feed/rev on entrance
- Reduce feed/rev
- Use a boring operation, see page(s) 493-494
- If drilling through rough, hard and angled surfaces - reduce the feed by 30-50% during entrance and exit
- Centre drill with a 140° point angle



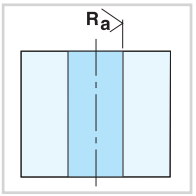
**Chipping/Centre**

- Reduce feed/rev on entrance
- Reduce feed/rev
- Use a boring operation, see page(s) 493-494



**Unsatisfactory surface finish**

- Reduce the feed/rev
- Increase the cutting speed
- Use a reaming operation, see page(s) 324



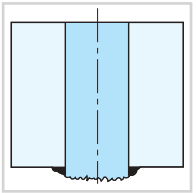

**Chipping/Outer corner, cutting edge**

- Reduce feed during entrance/exit
- Reduce the cutting speed
- Increase coolant concentration
- Regrind the drill



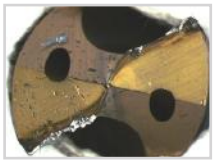
**Burrs on exit**

- Reduce the feed/rev on exit
- Reduce the width of edge preparation (BN)



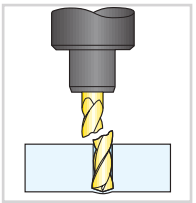
**Built-up edge**

- If closer to the periphery increase the cutting speed
- If closer to centre increase feed/rev
- If the drill is worn, regrind it



**Breakage on contact/at hole bottom**

- Reduce the feed/rev during entrance/exit
- Adjust cutting data for improved chip evacuation

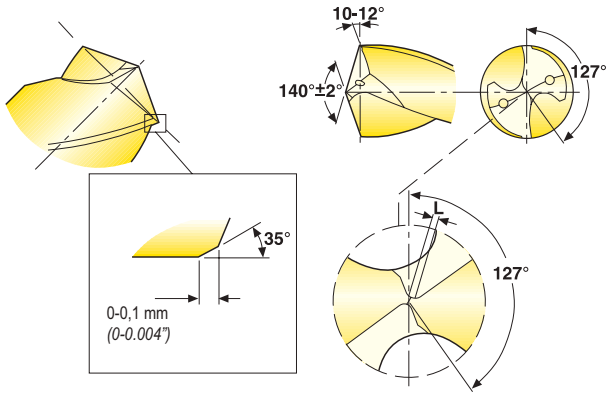


# Regrinding instructions for SD1103, SD1103A, SD1105A, SD1108A and SD1112A

Specifications:
Proposed specification of diamond wheels:
Point relief: Wheel shape12A2 Grit size D54 (picture 1).
Gashing: Wheel shape 1A1 or 1V1 Grit size D64-D46 (picture 2-3).
Corner chamfer: Wheel shape 1A1 or 12A2 (picture 1).
Edge treatment: grinding K-land or brushing (picture 4).

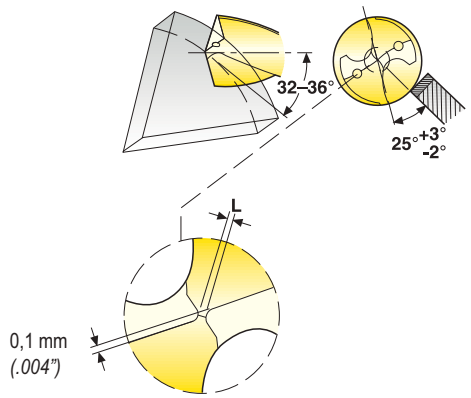
Important:
- The cutting edges must be uniform and have the same size of edge preparation.
- The edge preparation must be applied on the whole length of the cutting edges.

## 1. Four facet point



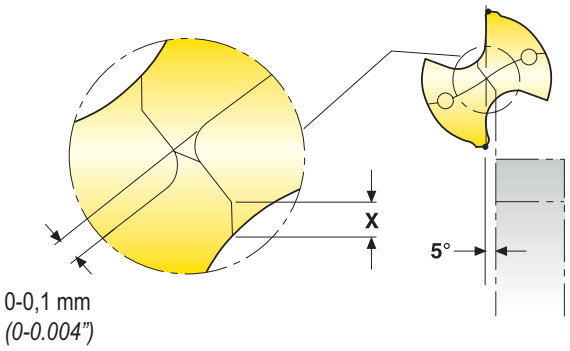

Lip height distance (axial run-out) to be within 0,02 mm *(0.008")*

## 2. Web thinning



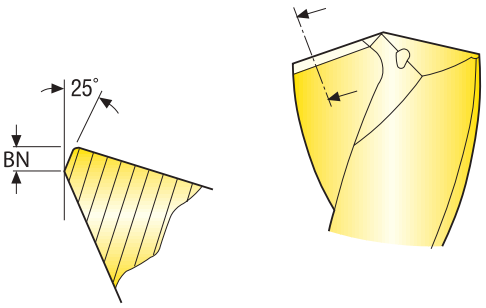

| Drill ∅ DC mm | L mm | Drill ∅ DC *inch* | L *inch* |
|---|---|---|---|
| 2-10 | 0,1-0,3 | *0.079-0.394* | *0.004-0.012* |
| 10-20 | 0,2-0,4 | *0.394-0.787* | *0.008-0.016* |

## 3. Grinding of flat X




X = 0,08 x (0.003) x drill diameter DC

## 4. Edge preparation




| Workpiece material | BN | | | |
|---|---|---|---|---|
| | Drill ∅ ≤ 10 mm | Drill ∅ > 10 mm | Drill ∅ ≤ 0.394 *inch* | Drill ∅ > 0.394 *inch* |
| Steel | 0,05 | 0,10 | *0.002* | *0.004* |
| Stainless steel | 0,05 | 0,05 | *0.002* | *0.002* |
| Cast iron | 0,05 | 0,10 | *0.002* | *0.004* |

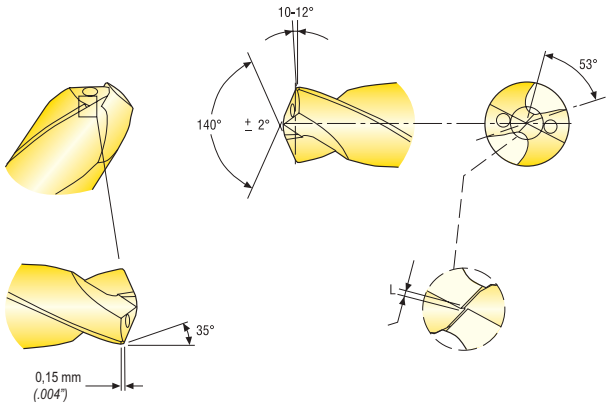
Max. allowed flank wear before regrinding is 0,1-0,3 mm *(0.004-0.012")* measured at the largest point.

# Regrinding instructions for SD203A, SD205A and SD207A -P geometry

Specifications:
Proposed specification of diamond wheels:
Conical clearance: Wheel shape12A2 Grit size D54 (picture 1).
Gashing: Wheel shape 1A1 or 1V1 Grit size D64-D46 (picture 2-3).
Corner chamfer: Wheel shape 1A1 or 12A2 (picture 1).
Edge treatment: grinding K-land or brushing (picture 4).

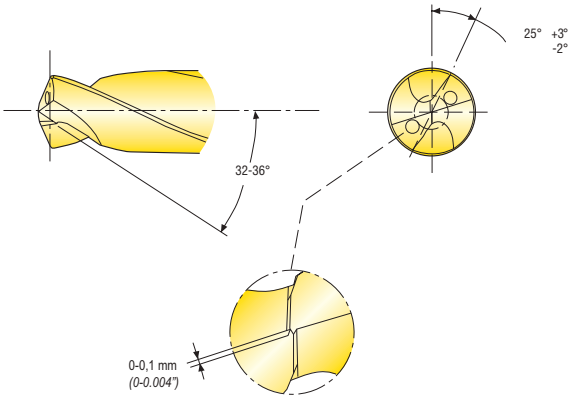
Important:
- The cutting edges must be uniform and have the same size of edge preparation.
- The edge preparation must be applied on the whole length of the cutting edges.

## 1. Conical flank



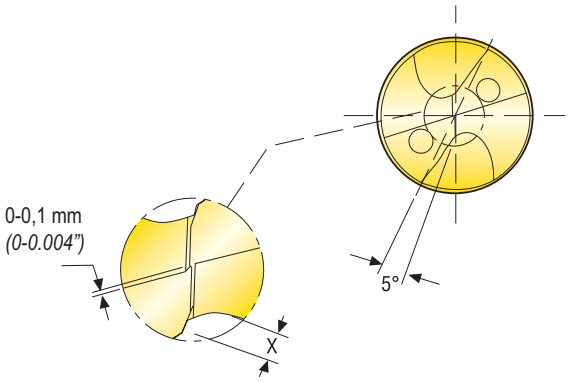

Lip height distance (axial run-out) to be within 0,02 mm *(0.008")*

## 2. Web thinning



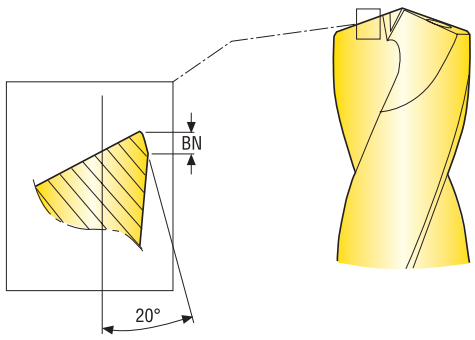

| Drill ∅ DC mm | L mm | Drill ∅ DC *inch* | L *inch* |
|---|---|---|---|
| 2-10 | 0,1-0,3 | *0.079-0.394* | *0.004-0.012* |
| 10-20 | 0,2-0,4 | *0.394-0.787* | *0.008-0.016* |

## 3. Grinding of flat X




X = 0,08 x (0.003) x drill diameter DC

## 4. Edge preparation



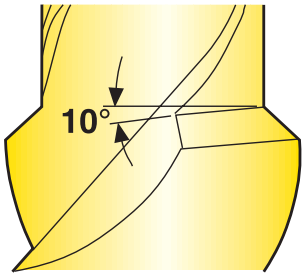

| Workpiece material | BN | | | |
|---|---|---|---|---|
| | Drill ∅ ≤ 10 mm | Drill ∅ > 10 mm | Drill ∅ ≤ 0.394 *inch* | Drill ∅ > 0.394 *inch* |
| Steel | 0,05 | 0,10 | *0.002* | *0.004* |
| Stainless steel | 0,05 | 0,05 | *0.002* | *0.002* |
| Cast iron | 0,05 | 0,10 | *0.002* | *0.004* |

Max. allowed flank wear before regrinding is 0,1-0,3 mm *(0.004-0.012")* measured at the largest point.

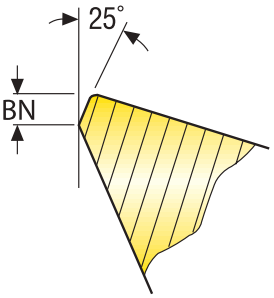
# Regrinding instructions for chamfer drills

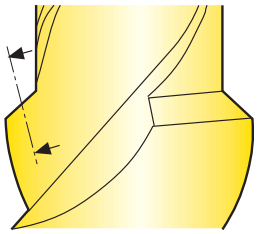
The regrinding instructions are the same as for SD203, SD203A, SD205A and SD207A except for the chamfer.

**1.** **Chamfer relief**




**2.** **Edge preparation, chamfer**



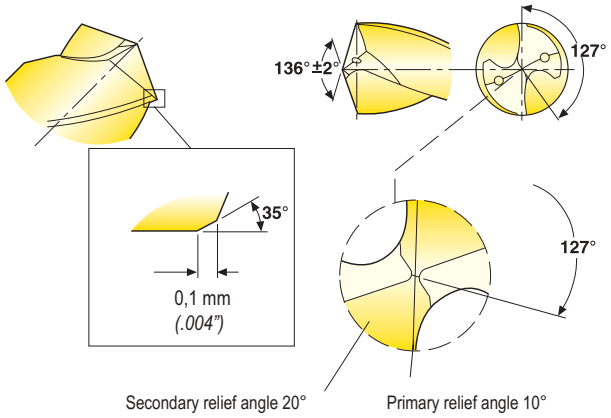
| Workpiece material | BN | | | |
|---|---|---|---|---|
| | Drill ∅ ≤ 10 mm | Drill ∅ > 10 mm | Drill ∅ ≤ 0.394 *inch* | Drill ∅ > 0.394 *inch* |
| Steel | 0,05 | 0,05 | *0.002* | *0.002* |
| Stainless steel | 0,05 | 0,05 | *0.002* | *0.002* |
| Cast iron | 0,05 | 0,05 | *0.002* | *0.002* |

# Regrinding instructions for SD212A, SD216A, SD220A, SD225A and SD230A geometry

Specifications:
Proposed specification of diamond wheels:
Point relief: Wheel shape11V9 Grit size D54 (picture 1).
Gashing: Wheel shape 1A1 or 1V1 Grit size D64-D46 (picture 2-3).
Corner chamfer: Wheel shape 1A1 or 12A2 (picture 1).
Edge treatment: grinding K-land or brushing (picture 4).

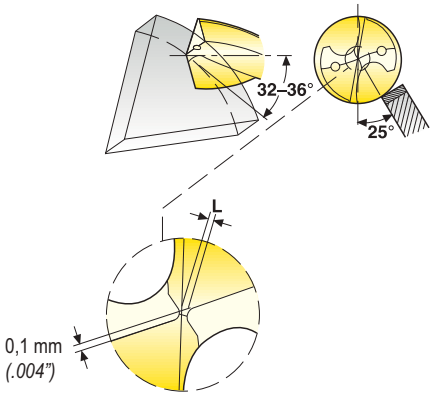
Important:
- The cutting edges must be uniform and have the same size of edge preparation.
- The edge preparation must be applied on the whole length of the cutting edges.

## 1. Conical flank



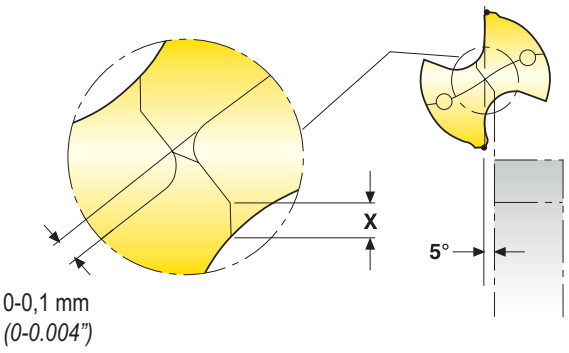

Lip height distance (axial run-out) to be within 0,02 mm *(0.008")*

## 2. Web thinning



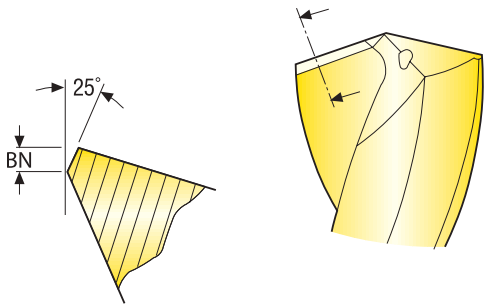

| Drill ∅ DC mm | L mm | Drill ∅ DC *inch* | L *inch* |
|---|---|---|---|
| 2-10 | 0,2 | *0.079-0.394* | *0.008* |
| 10-20 | 0,4 | *0.394-0.787* | *0.016* |

## 3. Grinding of flat X




X = 0,08 x (0.003) x drill diameter DC

## 4. Edge preparation

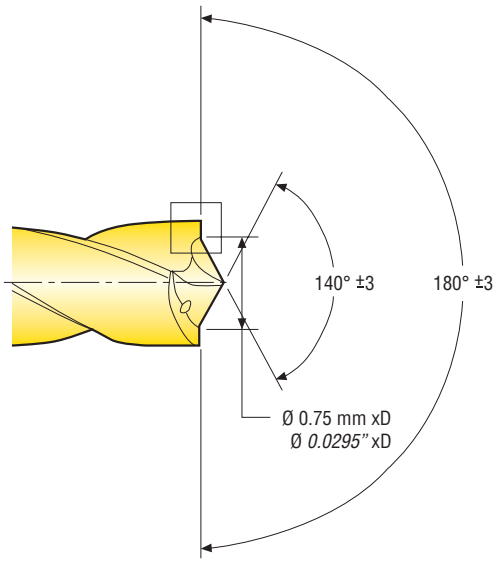



| Workpiece material | BN | | | |
|---|---|---|---|---|
| | Drill ∅ ≤ 10 mm | Drill ∅ > 10 mm | Drill ∅ ≤ 0.394 *inch* | Drill ∅ > 0.394 *inch* |
| Steel | 0,05 | 0,10 | *0.002* | *0.004* |
| Stainless steel | 0,05 | 0,05 | *0.002* | *0.002* |
| Cast iron | 0,05 | 0,10 | *0.002* | *0.004* |

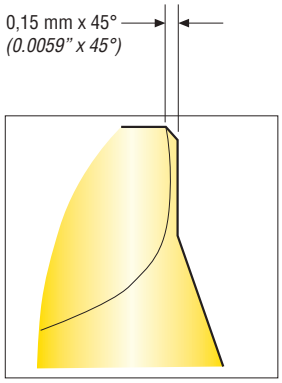
Max. allowed flank wear before regrinding is 0,1-0,3 mm *(0.004-0.012")* measured at the largest point.

# Regrinding instructions for SD243, SD243A, SD245A and SD247A

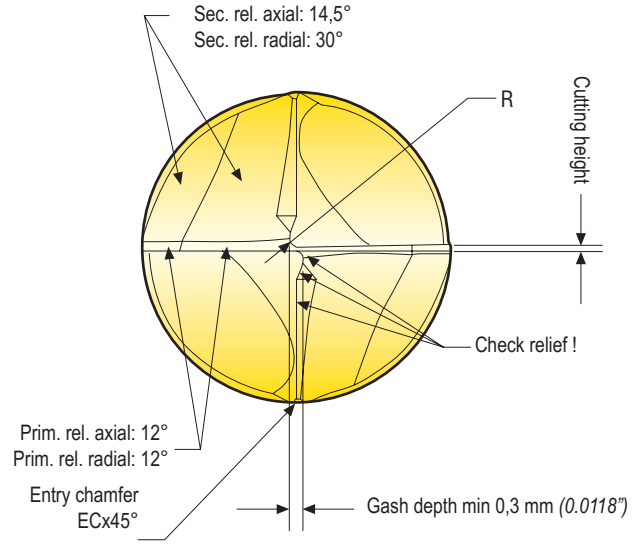
## 1. Point angles




## 2. Corner chamfer

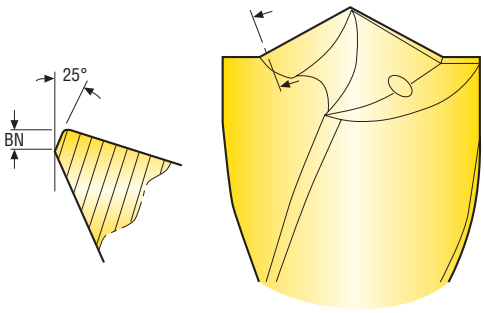



## 3.




| Dimensions in mm *(inch)* | Cutting height mm *(inch)* | R mm *(inch)* | EC mm *(inch)* |
|---|---|---|---|
| – 10 *(0.3937)* | 0,2 *(0.0079)* | 0,2 *(0.0079)* | 0,3 *(0.0118)* |
| 10,01 *(0.3941)* – | 0,3 *(0.0118)* | 0,4 *(0.0157)* | 0,5 *(0.0197)* |

## 4. Edge preparation



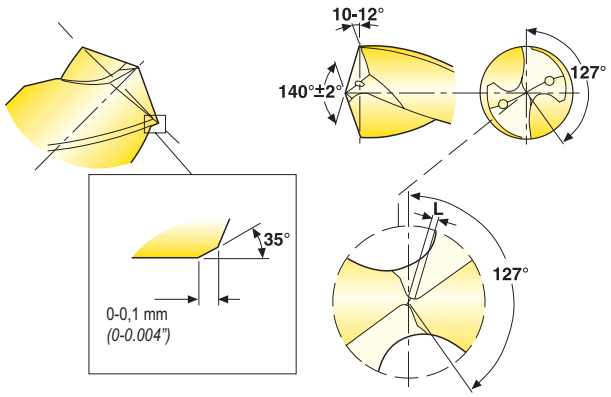

| Workpiece material | BN Drill ∅ ≤ 10 mm | Drill ∅ > 10 mm | Drill ∅ ≤ 0.394 *inch* | Drill ∅ > 0.394 *inch* |
|---|---|---|---|---|
| Steel | 0,05 | 0,10 | *0.002* | *0.004* |
| Stainless steel | 0,05 | 0,05 | *0.002* | *0.002* |
| Cast iron | 0,05 | 0,10 | *0.002* | *0.004* |

# Regrinding instructions for SD265A

Specifications:
Proposed specification of diamond wheels:
Conical clearance: Wheel shape12A2 Grit size D54 (picture 1).
Gashing: Wheel shape 1A1 or 1V1 Grit size D64-D46 (picture 2-3).
Corner chamfer: Wheel shape 1A1 or 12A2 (picture 1).
Edge treatment: grinding K-land or brushing (picture 4).

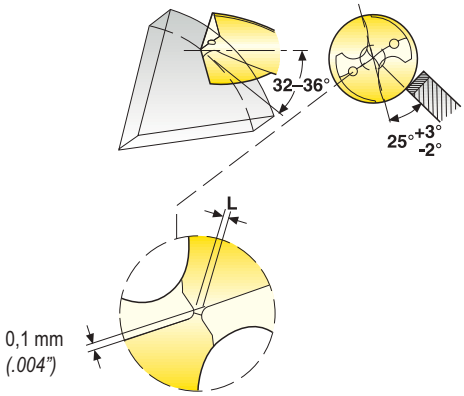
Important:
- The cutting edges must be uniform and have the same size of edge preparation.
- The edge preparation must be applied on the whole length of the cutting edges.

## 1. Conical flank



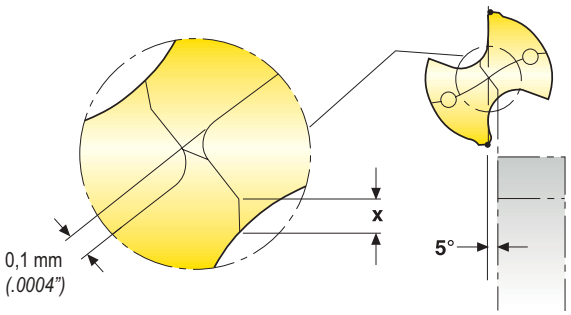

Lip height distance (axial run-out) to be within 0,02 mm *(0.008")*

## 2. Web thinning



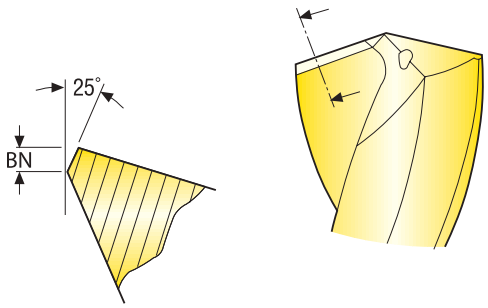

| Drill ∅ DC mm | L mm | Drill ∅ DC *inch* | L *inch* |
|---|---|---|---|
| 2-10 | 0,2 | *0.079-0.394* | *0.008* |
| 10-20 | 0,4 | *0.394-0.787* | *0.016* |

## 3. Grinding of flat X




X = 0,08 x (0.003) x drill diameter DC

## 4. Edge preparation




| Workpiece material | BN | | | |
|---|---|---|---|---|
| | Drill ∅ ≤ 10 mm | Drill ∅ > 10 mm | Drill ∅ ≤ 0.394 *inch* | Drill ∅ > 0.394 *inch* |
| Steel | 0,05 | 0,10 | *0.002* | *0.004* |
| Stainless steel | 0,05 | 0,05 | *0.002* | *0.002* |
| Cast iron | 0,05 | 0,10 | *0.002* | *0.004* |

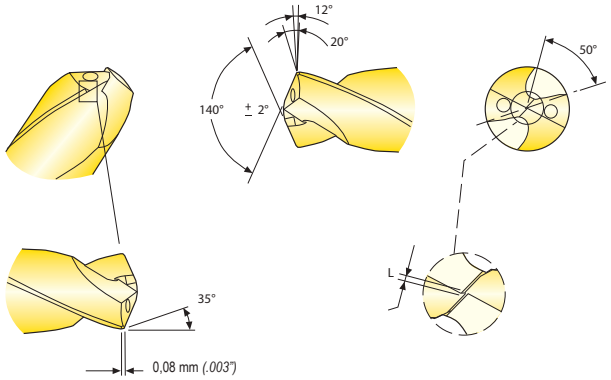
Max. allowed flank wear before regrinding is 0,1-0,3 mm *(0.004-0.012")* measured at the largest point.

# Regrinding instructions for -MS geometry

Specifications:
Proposed specification of diamond wheels:
Conical clearance: Wheel shape12A2 Grit size D54 (picture 1).
Gashing: Wheel shape 1A1 or 1V1 Grit size D64-D46 (picture 2-3).
Corner chamfer: Wheel shape 1A1 or 12A2 (picture 1).
Edge treatment: grinding K-land or brushing (picture 4).

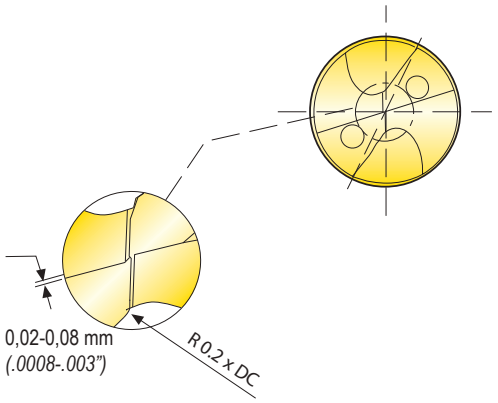
Important:
- The cutting edges must be uniform and have the same size of edge preparation.
- The edge preparation must be applied on the whole length of the cutting edges.

## 1. Four facet

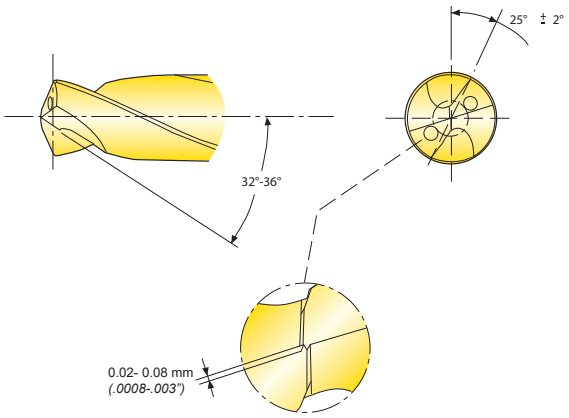



Lip height distance (axial run-out) to be within 0,02 mm *(0.008")*

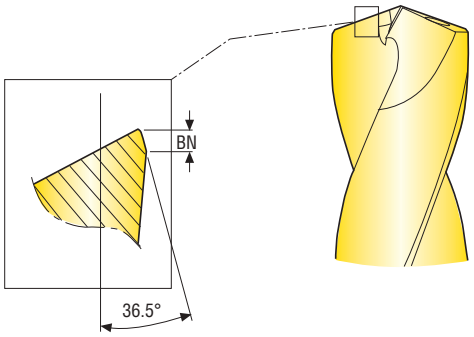
## 2. Grinding of radius R




## 3. Web thinning




## 4. Edge preparation




| Drill ∅ DC mm | BN mm | Drill ∅ DC *inch* | BN *inch* |
|---|---|---|---|
| 2-3 | 0,2 | *0.079-0.118* | *0.00787* |
| 3-6 | 0,025 | *0.118-0.236* | *0.00098* |
| 6-10 | 0,04 | *0.236-0.394* | *0.00157* |
| 10-20 | 0,055 | *0.394-0.787* | *0.00216* |
| 20- | 0,07 | *0.787-* | *0.00275* |

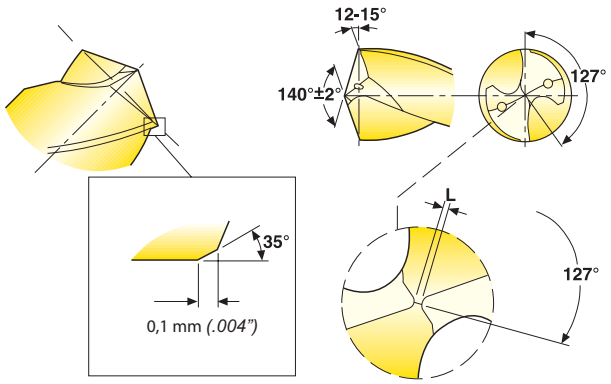
Max. allowed flank wear before regrinding is 0,1-0,3 mm *(0.004-0.012")* measured at the largest point.

# Regrinding instructions for -M and -T geometry

Specifications:
Proposed specification of diamond wheels:
Conical clearance: Wheel shape12A2 Grit size D54 (picture 1).
Gashing: Wheel shape 1A1 or 1V1 Grit size D64-D46 (picture 2-3).
Corner chamfer: Wheel shape 1A1 or 12A2 (picture 1).
Edge treatment: grinding K-land or brushing (picture 4).

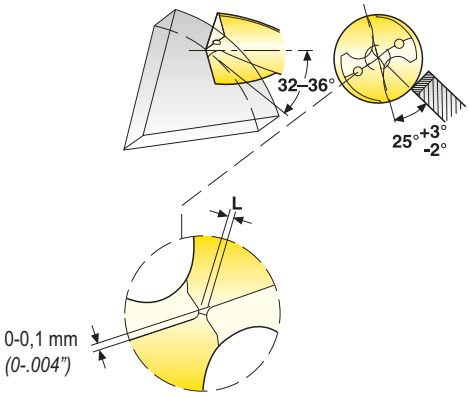
Important:
- The cutting edges must be uniform and have the same size of edge preparation.
- The edge preparation must be applied on the whole length of the cutting edges.

## 1. Conical flank



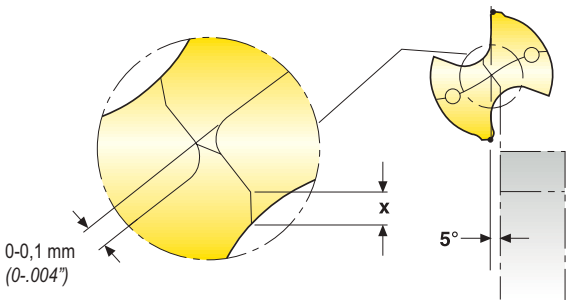

Lip height distance (axial run-out) to be within 0,01 mm *(0.0004")*

## 2. Web thinning

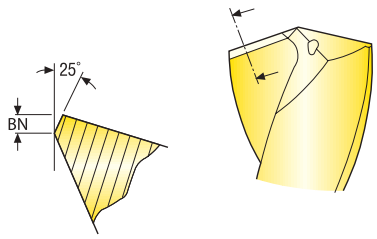



| Drill ∅ DC mm | L mm | Drill ∅ DC *inch* | L *inch* |
|---|---|---|---|
| 3-6 | 0,1-0,2 | *0.118-0.236* | *0.004-0.008* |
| 6-10 | 0,13-0,27 | *0.236-0.394* | *0.005-0.011* |
| 10-20 | 0,2-0,4 | *0.394-0.787* | *0.008-0.016* |

## 3. Grinding of flat X




## 4. Edge preparation




BN = 0,02 mm *(0.008")*

Max. allowed flank wear before regrinding is 0,1-0,3 mm *(0.004-0.012")* measured at the largest point.

## SD1103 – ∅ 3-20 mm / *0.118-0.787 inch*

| SMG | f | | | | | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ø 3,00<br>*Ø 0.118* | Ø 4,00<br>*Ø 0.157* | Ø 6,00<br>*Ø 0.236* | Ø 8,00<br>*Ø 0.315* | Ø 10,00<br>*Ø 0.394* | Ø 12,00<br>*Ø 0.472* | Ø 14,00<br>*Ø 0.551* | Ø 16,00<br>*Ø 0.630* | Ø 18,00<br>*Ø 0.709* | Ø 20,00<br>*Ø 0.787* | |
| P1 | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 105<br>*345* |
| P2 | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 0,36<br>*0.014* | 105<br>*345* |
| P3 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,34<br>*0.013* | 90<br>*295* |
| P4 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 80<br>*260* |
| P5 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 75<br>*245* |
| P6 | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 85<br>*280* |
| P7 | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 80<br>*260* |
| P8 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,34<br>*0.013* | 75<br>*245* |
| P11 | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 75<br>*245* |
| P12 | 0,075<br>*0.0030* | 0,085<br>*0.0034* | 0,11<br>*0.0044* | 0,14<br>*0.0055* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,19<br>*0.0075* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,22<br>*0.0085* | 46<br>*150* |
| M1 | 0,080<br>*0.0032* | 0,095<br>*0.0038* | 0,13<br>*0.0050* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 55<br>*180* |
| M2 | 0,070<br>*0.0028* | 0,085<br>*0.0034* | 0,12<br>*0.0048* | 0,15<br>*0.0060* | 0,18<br>*0.0070* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,24<br>*0.0095* | 0,25<br>*0.010* | 0,26<br>*0.010* | 45<br>*150* |
| K1 | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,34<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 70<br>*230* |
| K2 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 60<br>*195* |
| K3 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 50<br>*165* |
| K4 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 49<br>*160* |
| K5 | 0,10<br>*0.0040* | 0,11<br>*0.0044* | 0,15<br>*0.0060* | 0,18<br>*0.0070* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,25<br>*0.010* | 0,28<br>*0.011* | 0,28<br>*0.011* | 0,30<br>*0.012* | 29<br>*95* |
| H3 | 0,048<br>*0.0019* | 0,055<br>*0.0022* | 0,075<br>*0.0030* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,13<br>*0.0050* | 0,14<br>*0.0055* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 24<br>*80* |
| H5 | 0,075<br>*0.0030* | 0,085<br>*0.0034* | 0,11<br>*0.0044* | 0,14<br>*0.0055* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,19<br>*0.0075* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,22<br>*0.0085* | 45<br>*150* |
| H7 | 0,048<br>*0.0019* | 0,055<br>*0.0022* | 0,075<br>*0.0030* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,13<br>*0.0050* | 0,14<br>*0.0055* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 24<br>*80* |
| H8 | 0,055<br>*0.0022* | 0,065<br>*0.0026* | 0,085<br>*0.0034* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 0,16<br>*0.0065* | 0,17<br>*0.0065* | 0,17<br>*0.0065* | 45<br>*150* |
| H11 | 0,075<br>*0.0030* | 0,085<br>*0.0034* | 0,11<br>*0.0044* | 0,14<br>*0.0055* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,19<br>*0.0075* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,22<br>*0.0085* | 60<br>*195* |
| H12 | 0,055<br>*0.0022* | 0,065<br>*0.0026* | 0,085<br>*0.0034* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 0,16<br>*0.0065* | 0,17<br>*0.0065* | 0,17<br>*0.0065* | 27<br>*90* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD1103A – ∅ 3-20 mm / *0.118-0.787 inch*

| SMG | f | | | | | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ø 3,00<br>*Ø 0.118* | Ø 4,00<br>*Ø 0.157* | Ø 6,00<br>*Ø 0.236* | Ø 8,00<br>*Ø 0.315* | Ø 10,00<br>*Ø 0.394* | Ø 12,00<br>*Ø 0.472* | Ø 14,00<br>*Ø 0.551* | Ø 16,00<br>*Ø 0.630* | Ø 18,00<br>*Ø 0.709* | Ø 20,00<br>*Ø 0.787* | |
| P1 | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 150<br>*490* |
| P2 | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 0,36<br>*0.014* | 145<br>*475* |
| P3 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,34<br>*0.013* | 125<br>*410* |
| P4 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 110<br>*360* |
| P5 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 105<br>*345* |
| P6 | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 120<br>*395* |
| P7 | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 110<br>*360* |
| P8 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,34<br>*0.013* | 105<br>*345* |
| P11 | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 75<br>*245* |
| P12 | 0,075<br>*0.0030* | 0,085<br>*0.0034* | 0,11<br>*0.0044* | 0,14<br>*0.0055* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,19<br>*0.0075* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,22<br>*0.0085* | 50<br>*165* |
| M1 | 0,080<br>*0.0032* | 0,095<br>*0.0038* | 0,13<br>*0.0050* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 80<br>*260* |
| M2 | 0,070<br>*0.0028* | 0,085<br>*0.0034* | 0,12<br>*0.0048* | 0,15<br>*0.0060* | 0,18<br>*0.0070* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,24<br>*0.0095* | 0,25<br>*0.010* | 0,26<br>*0.010* | 65<br>*215* |
| M3 | 0,055<br>*0.0022* | 0,070<br>*0.0028* | 0,095<br>*0.0038* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,19<br>*0.0075* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 48<br>*155* |
| M4 | 0,050<br>*0.0020* | 0,060<br>*0.0024* | 0,085<br>*0.0034* | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,18<br>*0.0070* | 0,19<br>*0.0075* | 36<br>*120* |
| M5 | 0,050<br>*0.0020* | 0,060<br>*0.0024* | 0,085<br>*0.0034* | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,18<br>*0.0070* | 0,19<br>*0.0075* | 30<br>*100* |
| K1 | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,34<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 95<br>*310* |
| K2 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 80<br>*260* |
| K3 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 70<br>*230* |
| K4 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 65<br>*215* |
| K5 | 0,10<br>*0.0040* | 0,11<br>*0.0044* | 0,15<br>*0.0060* | 0,18<br>*0.0070* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,25<br>*0.010* | 0,28<br>*0.011* | 0,28<br>*0.011* | 0,30<br>*0.012* | 39<br>*130* |
| N1 | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,28<br>*0.011* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 0,38<br>*0.015* | 0,40<br>*0.016* | 260<br>*850* |
| N2 | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,28<br>*0.011* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 0,38<br>*0.015* | 0,40<br>*0.016* | 170<br>*560* |
| N3 | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,28<br>*0.011* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 0,38<br>*0.015* | 0,40<br>*0.016* | 110<br>*360* |
| N11 | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,28<br>*0.011* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 0,38<br>*0.015* | 0,40<br>*0.016* | 210<br>*690* |
| H3 | 0,048<br>*0.0019* | 0,055<br>*0.0022* | 0,075<br>*0.0030* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,13<br>*0.0050* | 0,14<br>*0.0055* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 34<br>*110* |
| H5 | 0,075<br>*0.0030* | 0,085<br>*0.0034* | 0,11<br>*0.0044* | 0,14<br>*0.0055* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,19<br>*0.0075* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,22<br>*0.0085* | 65<br>*215* |
| H7 | 0,048<br>*0.0019* | 0,055<br>*0.0022* | 0,075<br>*0.0030* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,13<br>*0.0050* | 0,14<br>*0.0055* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 34<br>*110* |
| H8 | 0,055<br>*0.0022* | 0,065<br>*0.0026* | 0,085<br>*0.0034* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 0,16<br>*0.0065* | 0,17<br>*0.0065* | 0,17<br>*0.0065* | 65<br>*215* |
| H11 | 0,075<br>*0.0030* | 0,085<br>*0.0034* | 0,11<br>*0.0044* | 0,14<br>*0.0055* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,19<br>*0.0075* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,22<br>*0.0085* | 80<br>*260* |
| H12 | 0,055<br>*0.0022* | 0,065<br>*0.0026* | 0,085<br>*0.0034* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 0,16<br>*0.0065* | 0,17<br>*0.0065* | 0,17<br>*0.0065* | 38<br>*125* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD1105A – ∅ 3-20 mm / *0.118-0.787 inch*

| SMG | f | | | | | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ø 3,00<br>*Ø 0.118* | Ø 4,00<br>*Ø 0.157* | Ø 6,00<br>*Ø 0.236* | Ø 8,00<br>*Ø 0.315* | Ø 10,00<br>*Ø 0.394* | Ø 12,00<br>*Ø 0.472* | Ø 14,00<br>*Ø 0.551* | Ø 16,00<br>*Ø 0.630* | Ø 18,00<br>*Ø 0.709* | Ø 20,00<br>*Ø 0.787* | |
| P1 | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 135<br>*445* |
| P2 | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 0,36<br>*0.014* | 135<br>*445* |
| P3 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,34<br>*0.013* | 115<br>*375* |
| P4 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 100<br>*330* |
| P5 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 95<br>*310* |
| P6 | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 110<br>*360* |
| P7 | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 100<br>*330* |
| P8 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,34<br>*0.013* | 95<br>*310* |
| P11 | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 65<br>*215* |
| P12 | 0,075<br>*0.0030* | 0,085<br>*0.0034* | 0,11<br>*0.0044* | 0,14<br>*0.0055* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,19<br>*0.0075* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,22<br>*0.0085* | 48<br>*155* |
| M1 | 0,080<br>*0.0032* | 0,095<br>*0.0038* | 0,13<br>*0.0050* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 70<br>*230* |
| M2 | 0,070<br>*0.0028* | 0,085<br>*0.0034* | 0,12<br>*0.0048* | 0,15<br>*0.0060* | 0,18<br>*0.0070* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,24<br>*0.0095* | 0,25<br>*0.010* | 0,26<br>*0.010* | 60<br>*195* |
| M3 | 0,055<br>*0.0022* | 0,070<br>*0.0028* | 0,095<br>*0.0038* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,19<br>*0.0075* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 44<br>*145* |
| M4 | 0,050<br>*0.0020* | 0,060<br>*0.0024* | 0,085<br>*0.0034* | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,18<br>*0.0070* | 0,19<br>*0.0075* | 33<br>*110* |
| M5 | 0,050<br>*0.0020* | 0,060<br>*0.0024* | 0,085<br>*0.0034* | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,18<br>*0.0070* | 0,19<br>*0.0075* | 27<br>*90* |
| K1 | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,34<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 85<br>*280* |
| K2 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 75<br>*245* |
| K3 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 65<br>*215* |
| K4 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 60<br>*195* |
| K5 | 0,10<br>*0.0040* | 0,11<br>*0.0044* | 0,15<br>*0.0060* | 0,18<br>*0.0070* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,25<br>*0.010* | 0,28<br>*0.011* | 0,28<br>*0.011* | 0,30<br>*0.012* | 36<br>*120* |
| N1 | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,28<br>*0.011* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 0,38<br>*0.015* | 0,40<br>*0.016* | 240<br>*790* |
| N2 | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,28<br>*0.011* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 0,38<br>*0.015* | 0,40<br>*0.016* | 155<br>*510* |
| N3 | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,28<br>*0.011* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 0,38<br>*0.015* | 0,40<br>*0.016* | 100<br>*330* |
| N11 | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,28<br>*0.011* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 0,38<br>*0.015* | 0,40<br>*0.016* | 190<br>*620* |
| H3 | 0,048<br>*0.0019* | 0,055<br>*0.0022* | 0,075<br>*0.0030* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,13<br>*0.0050* | 0,14<br>*0.0055* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 31<br>*100* |
| H5 | 0,075<br>*0.0030* | 0,085<br>*0.0034* | 0,11<br>*0.0044* | 0,14<br>*0.0055* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,19<br>*0.0075* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,22<br>*0.0085* | 60<br>*195* |
| H7 | 0,048<br>*0.0019* | 0,055<br>*0.0022* | 0,075<br>*0.0030* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,13<br>*0.0050* | 0,14<br>*0.0055* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 31<br>*100* |
| H8 | 0,055<br>*0.0022* | 0,065<br>*0.0026* | 0,085<br>*0.0034* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 0,16<br>*0.0065* | 0,17<br>*0.0065* | 0,17<br>*0.0065* | 60<br>*195* |
| H11 | 0,075<br>*0.0030* | 0,085<br>*0.0034* | 0,11<br>*0.0044* | 0,14<br>*0.0055* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,19<br>*0.0075* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,22<br>*0.0085* | 75<br>*245* |
| H12 | 0,055<br>*0.0022* | 0,065<br>*0.0026* | 0,085<br>*0.0034* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 0,16<br>*0.0065* | 0,17<br>*0.0065* | 0,17<br>*0.0065* | 35<br>*115* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD1108A – ∅ 3-20 mm / *0.118-0.787 inch*

| SMG | f | | | | | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ø 3,00<br>*Ø 0.118* | Ø 4,00<br>*Ø 0.157* | Ø 6,00<br>*Ø 0.236* | Ø 8,00<br>*Ø 0.315* | Ø 10,00<br>*Ø 0.394* | Ø 12,00<br>*Ø 0.472* | Ø 14,00<br>*Ø 0.551* | Ø 16,00<br>*Ø 0.630* | Ø 18,00<br>*Ø 0.709* | Ø 20,00<br>*Ø 0.787* | |
| P1 | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 120<br>*395* |
| P2 | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 0,36<br>*0.014* | 115<br>*375* |
| P3 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,34<br>*0.013* | 100<br>*330* |
| P4 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 85<br>*280* |
| P5 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 85<br>*280* |
| P6 | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 95<br>*310* |
| P7 | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 90<br>*295* |
| P8 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,34<br>*0.013* | 85<br>*280* |
| P11 | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 60<br>*195* |
| P12 | 0,075<br>*0.0030* | 0,085<br>*0.0034* | 0,11<br>*0.0044* | 0,14<br>*0.0055* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,19<br>*0.0075* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,22<br>*0.0085* | 42<br>*140* |
| M1 | 0,080<br>*0.0032* | 0,095<br>*0.0038* | 0,13<br>*0.0050* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 60<br>*195* |
| M2 | 0,070<br>*0.0028* | 0,085<br>*0.0034* | 0,12<br>*0.0048* | 0,15<br>*0.0060* | 0,18<br>*0.0070* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,24<br>*0.0095* | 0,25<br>*0.010* | 0,26<br>*0.010* | 50<br>*165* |
| M3 | 0,055<br>*0.0022* | 0,070<br>*0.0028* | 0,095<br>*0.0038* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,19<br>*0.0075* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 38<br>*125* |
| M4 | 0,050<br>*0.0020* | 0,060<br>*0.0024* | 0,085<br>*0.0034* | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,18<br>*0.0070* | 0,19<br>*0.0075* | 29<br>*95* |
| M5 | 0,050<br>*0.0020* | 0,060<br>*0.0024* | 0,085<br>*0.0034* | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,18<br>*0.0070* | 0,19<br>*0.0075* | 24<br>*80* |
| K1 | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,34<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 75<br>*245* |
| K2 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 65<br>*215* |
| K3 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 55<br>*180* |
| K4 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 50<br>*165* |
| K5 | 0,10<br>*0.0040* | 0,11<br>*0.0044* | 0,15<br>*0.0060* | 0,18<br>*0.0070* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,25<br>*0.010* | 0,28<br>*0.011* | 0,28<br>*0.011* | 0,30<br>*0.012* | 31<br>*100* |
| N1 | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,28<br>*0.011* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 0,38<br>*0.015* | 0,40<br>*0.016* | 205<br>*670* |
| N2 | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,28<br>*0.011* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 0,38<br>*0.015* | 0,40<br>*0.016* | 135<br>*445* |
| N3 | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,28<br>*0.011* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 0,38<br>*0.015* | 0,40<br>*0.016* | 90<br>*295* |
| N11 | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,28<br>*0.011* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 0,38<br>*0.015* | 0,40<br>*0.016* | 165<br>*540* |
| H3 | 0,048<br>*0.0019* | 0,055<br>*0.0022* | 0,075<br>*0.0030* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,13<br>*0.0050* | 0,14<br>*0.0055* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 27<br>*90* |
| H5 | 0,075<br>*0.0030* | 0,085<br>*0.0034* | 0,11<br>*0.0044* | 0,14<br>*0.0055* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,19<br>*0.0075* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,22<br>*0.0085* | 50<br>*165* |
| H7 | 0,048<br>*0.0019* | 0,055<br>*0.0022* | 0,075<br>*0.0030* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,13<br>*0.0050* | 0,14<br>*0.0055* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 27<br>*90* |
| H8 | 0,055<br>*0.0022* | 0,065<br>*0.0026* | 0,085<br>*0.0034* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 0,16<br>*0.0065* | 0,17<br>*0.0065* | 0,17<br>*0.0065* | 50<br>*165* |
| H11 | 0,075<br>*0.0030* | 0,085<br>*0.0034* | 0,11<br>*0.0044* | 0,14<br>*0.0055* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,19<br>*0.0075* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,22<br>*0.0085* | 65<br>*215* |
| H12 | 0,055<br>*0.0022* | 0,065<br>*0.0026* | 0,085<br>*0.0034* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 0,16<br>*0.0065* | 0,17<br>*0.0065* | 0,17<br>*0.0065* | 30<br>*100* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

When drilling in stainless steel with 8xD and 12xD a pre-drilling operation might be needed

## SD1112A – ∅ 3-20 mm / *0.118-0.787 inch*

| SMG | f | | | | | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ø 3,00<br>*Ø 0.118* | Ø 4,00<br>*Ø 0.157* | Ø 6,00<br>*Ø 0.236* | Ø 8,00<br>*Ø 0.315* | Ø 10,00<br>*Ø 0.394* | Ø 12,00<br>*Ø 0.472* | Ø 14,00<br>*Ø 0.551* | Ø 16,00<br>*Ø 0.630* | Ø 18,00<br>*Ø 0.709* | Ø 20,00<br>*Ø 0.787* | |
| P1 | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 100<br>*330* |
| P2 | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 0,36<br>*0.014* | 100<br>*330* |
| P3 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,34<br>*0.013* | 85<br>*280* |
| P4 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 75<br>*245* |
| P5 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 70<br>*230* |
| P6 | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 80<br>*260* |
| P7 | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 75<br>*245* |
| P8 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,34<br>*0.013* | 70<br>*230* |
| P11 | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 50<br>*165* |
| P12 | 0,075<br>*0.0030* | 0,085<br>*0.0034* | 0,11<br>*0.0044* | 0,14<br>*0.0055* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,19<br>*0.0075* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,22<br>*0.0085* | 36<br>*120* |
| M1 | 0,080<br>*0.0032* | 0,095<br>*0.0038* | 0,13<br>*0.0050* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 55<br>*180* |
| M2 | 0,070<br>*0.0028* | 0,085<br>*0.0034* | 0,12<br>*0.0048* | 0,15<br>*0.0060* | 0,18<br>*0.0070* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,24<br>*0.0095* | 0,25<br>*0.010* | 0,26<br>*0.010* | 43<br>*140* |
| M3 | 0,055<br>*0.0022* | 0,070<br>*0.0028* | 0,095<br>*0.0038* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,19<br>*0.0075* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 33<br>*110* |
| M4 | 0,050<br>*0.0020* | 0,060<br>*0.0024* | 0,085<br>*0.0034* | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,18<br>*0.0070* | 0,19<br>*0.0075* | 25<br>*80* |
| M5 | 0,050<br>*0.0020* | 0,060<br>*0.0024* | 0,085<br>*0.0034* | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,18<br>*0.0070* | 0,19<br>*0.0075* | 21<br>*70* |
| K1 | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,34<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 65<br>*215* |
| K2 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 55<br>*180* |
| K3 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 47<br>*155* |
| K4 | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,28<br>*0.011* | 0,30<br>*0.012* | 0,32<br>*0.013* | 0,34<br>*0.013* | 45<br>*150* |
| K5 | 0,10<br>*0.0040* | 0,11<br>*0.0044* | 0,15<br>*0.0060* | 0,18<br>*0.0070* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,25<br>*0.010* | 0,28<br>*0.011* | 0,28<br>*0.011* | 0,30<br>*0.012* | 27<br>*90* |
| N1 | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,28<br>*0.011* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 0,38<br>*0.015* | 0,40<br>*0.016* | 180<br>*590* |
| N2 | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,28<br>*0.011* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 0,38<br>*0.015* | 0,40<br>*0.016* | 115<br>*375* |
| N3 | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,28<br>*0.011* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 0,38<br>*0.015* | 0,40<br>*0.016* | 75<br>*245* |
| N11 | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,28<br>*0.011* | 0,32<br>*0.013* | 0,34<br>*0.013* | 0,36<br>*0.014* | 0,38<br>*0.015* | 0,40<br>*0.016* | 145<br>*475* |
| H3 | 0,048<br>*0.0019* | 0,055<br>*0.0022* | 0,075<br>*0.0030* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,13<br>*0.0050* | 0,14<br>*0.0055* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 23<br>*75* |
| H5 | 0,075<br>*0.0030* | 0,085<br>*0.0034* | 0,11<br>*0.0044* | 0,14<br>*0.0055* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,19<br>*0.0075* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,22<br>*0.0085* | 43<br>*140* |
| H7 | 0,048<br>*0.0019* | 0,055<br>*0.0022* | 0,075<br>*0.0030* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,13<br>*0.0050* | 0,14<br>*0.0055* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 23<br>*75* |
| H8 | 0,055<br>*0.0022* | 0,065<br>*0.0026* | 0,085<br>*0.0034* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 0,16<br>*0.0065* | 0,17<br>*0.0065* | 0,17<br>*0.0065* | 43<br>*140* |
| H11 | 0,075<br>*0.0030* | 0,085<br>*0.0034* | 0,11<br>*0.0044* | 0,14<br>*0.0055* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,19<br>*0.0075* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,22<br>*0.0085* | 55<br>*180* |
| H12 | 0,055<br>*0.0022* | 0,065<br>*0.0026* | 0,085<br>*0.0034* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 0,16<br>*0.0065* | 0,17<br>*0.0065* | 0,17<br>*0.0065* | 26<br>*85* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

When drilling in stainless steel with 8xD and 12xD a pre-drilling operation might be needed

## SD203A – ∅ 2-8 mm / *0.079-0.315 inch*

| SMG | | f | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|
| | | Ø 2,00<br>*Ø 0.079* | Ø 3,00<br>*Ø 0.118* | Ø 4,00<br>*Ø 0.157* | Ø 5,00<br>*Ø 0.197* | Ø 6,00<br>*Ø 0.236* | Ø 8,00<br>*Ø 0.315* | |
| P1 | P<br>*P* | 0,14<br>*0.0055* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,32<br>*0.013* | 185<br>*610* |
| P2 | P<br>*P* | 0,14<br>*0.0055* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,32<br>*0.013* | 180<br>*590* |
| P3 | P<br>*P* | 0,14<br>*0.0055* | 0,16<br>*0.0065* | 0,19<br>*0.0075* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,32<br>*0.013* | 155<br>*510* |
| P4 | P<br>*P* | 0,10<br>*0.0040* | 0,13<br>*0.0050* | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,19<br>*0.0075* | 0,24<br>*0.0095* | 210<br>*690* |
| P5 | P<br>*P* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,17<br>*0.0065* | 0,19<br>*0.0075* | 0,22<br>*0.0085* | 205<br>*670* |
| P6 | P<br>*P* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,16<br>*0.0065* | 0,19<br>*0.0075* | 0,22<br>*0.0085* | 230<br>*750* |
| P7 | P<br>*P* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,16<br>*0.0065* | 0,19<br>*0.0075* | 0,22<br>*0.0085* | 215<br>*710* |
| P8 | P<br>*P* | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,19<br>*0.0075* | 0,24<br>*0.0095* | 200<br>*660* |
| P11 | P<br>*P* | 0,060<br>*0.0024* | 0,075<br>*0.0030* | 0,085<br>*0.0034* | 0,10<br>*0.0040* | 0,11<br>*0.0044* | 0,14<br>*0.0055* | 105<br>*345* |
| P12 | P<br>*P* | 0,060<br>*0.0024* | 0,075<br>*0.0030* | 0,085<br>*0.0034* | 0,10<br>*0.0040* | 0,11<br>*0.0044* | 0,14<br>*0.0055* | 75<br>*245* |
| M1 | MS<br>*MS* | 0,075<br>*0.0030* | 0,095<br>*0.0038* | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,15<br>*0.0060* | 0,19<br>*0.0075* | 110<br>*360* |
| M2 | MS<br>*MS* | 0,065<br>*0.0026* | 0,085<br>*0.0034* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,17<br>*0.0065* | 90<br>*295* |
| M3 | MS<br>*MS* | 0,095<br>*0.0038* | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 45<br>*150* |
| M4 | MS<br>*MS* | 0,048<br>*0.0019* | 0,060<br>*0.0024* | 0,070<br>*0.0028* | 0,085<br>*0.0034* | 0,095<br>*0.0038* | 0,12<br>*0.0048* | 50<br>*165* |
| M5 | MS<br>*MS* | 0,048<br>*0.0019* | 0,060<br>*0.0024* | 0,070<br>*0.0028* | 0,085<br>*0.0034* | 0,095<br>*0.0038* | 0,12<br>*0.0048* | 42<br>*140* |
| K1 | P<br>*P* | 0,15<br>*0.0060* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,28<br>*0.011* | 0,36<br>*0.014* | 175<br>*570* |
| K2 | P<br>*P* | 0,14<br>*0.0055* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,26<br>*0.010* | 0,32<br>*0.013* | 150<br>*490* |
| K3 | P<br>*P* | 0,14<br>*0.0055* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,26<br>*0.010* | 0,32<br>*0.013* | 125<br>*410* |
| K4 | P<br>*P* | 0,14<br>*0.0055* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,26<br>*0.010* | 0,32<br>*0.013* | 120<br>*395* |
| K5 | P<br>*P* | 0,12<br>*0.0048* | 0,15<br>*0.0060* | 0,18<br>*0.0070* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,28<br>*0.011* | 70<br>*230* |
| N1 | N<br>*N* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,19<br>*0.0075* | 0,22<br>*0.0085* | 0,26<br>*0.010* | 0,32<br>*0.013* | 350<br>*1150* |
| N2 | MS<br>*MS* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,19<br>*0.0075* | 0,22<br>*0.0085* | 0,26<br>*0.010* | 0,32<br>*0.013* | 225<br>*740* |
| N3 | MS<br>*MS* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,19<br>*0.0075* | 0,22<br>*0.0085* | 0,26<br>*0.010* | 0,32<br>*0.013* | 150<br>*490* |
| N11 | MS<br>*MS* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,19<br>*0.0075* | 0,22<br>*0.0085* | 0,26<br>*0.010* | 0,32<br>*0.013* | 285<br>*940* |
| S1 | MS<br>*MS* | 0,040<br>*0.0016* | 0,048<br>*0.0019* | 0,055<br>*0.0022* | 0,065<br>*0.0026* | 0,075<br>*0.0030* | 0,095<br>*0.0038* | 39<br>*130* |
| S2 | MS<br>*MS* | 0,040<br>*0.0016* | 0,048<br>*0.0019* | 0,055<br>*0.0022* | 0,065<br>*0.0026* | 0,075<br>*0.0030* | 0,095<br>*0.0038* | 28<br>*90* |
| S3 | MS<br>*MS* | 0,040<br>*0.0016* | 0,048<br>*0.0019* | 0,055<br>*0.0022* | 0,065<br>*0.0026* | 0,075<br>*0.0030* | 0,095<br>*0.0038* | 28<br>*90* |
| S11 | MS<br>*MS* | 0,070<br>*0.0028* | 0,085<br>*0.0034* | 0,095<br>*0.0038* | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 70<br>*230* |
| S12 | MS<br>*MS* | 0,070<br>*0.0028* | 0,085<br>*0.0034* | 0,095<br>*0.0038* | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 55<br>*180* |
| S13 | MS<br>*MS* | 0,065<br>*0.0026* | 0,075<br>*0.0030* | 0,085<br>*0.0034* | 0,095<br>*0.0038* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 43<br>*140* |
| H3 | P<br>*P* | 0,055<br>*0.0022* | 0,070<br>*0.0028* | 0,080<br>*0.0032* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 28<br>*90* |
| H5 | P<br>*P* | 0,085<br>*0.0034* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,13<br>*0.0050* | 0,15<br>*0.0060* | 0,18<br>*0.0070* | 55<br>*180* |
| H7 | P<br>*P* | 0,055<br>*0.0022* | 0,070<br>*0.0028* | 0,080<br>*0.0032* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 28<br>*90* |
| H8 | P<br>*P* | 0,065<br>*0.0026* | 0,080<br>*0.0032* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 55<br>*180* |
| H11 | P<br>*P* | 0,085<br>*0.0034* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,13<br>*0.0050* | 0,15<br>*0.0060* | 0,18<br>*0.0070* | 65<br>*215* |
| H12 | P<br>*P* | 0,065<br>*0.0026* | 0,080<br>*0.0032* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 80<br>*260* |
| H21 | P<br>*P* | 0,065<br>*0.0026* | 0,080<br>*0.0032* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 55<br>*180* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD203A – ∅ 10-20 mm / *0.394-0.787 inch*

| SMG | | f | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|
| | | Ø 10,00<br>*Ø 0.394* | Ø 12,00<br>*Ø 0.472* | Ø 14,00<br>*Ø 0.551* | Ø 16,00<br>*Ø 0.630* | Ø 18,00<br>*Ø 0.709* | Ø 20,00<br>*Ø 0.787* | |
| P1 | P | 0,38 | 0,44 | 0,48 | 0,50 | 0,55 | 0,55 | 185 |
| | *P* | *0.015* | *0.017* | *0.019* | *0.020* | *0.022* | *0.022* | *610* |
| P2 | P | 0,38 | 0,44 | 0,48 | 0,50 | 0,55 | 0,60 | 180 |
| | *P* | *0.015* | *0.017* | *0.019* | *0.020* | *0.022* | *0.024* | *590* |
| P3 | P | 0,36 | 0,42 | 0,46 | 0,50 | 0,50 | 0,55 | 155 |
| | *P* | *0.014* | *0.017* | *0.018* | *0.020* | *0.020* | *0.022* | *510* |
| P4 | P | 0,28 | 0,30 | 0,34 | 0,36 | 0,38 | 0,40 | 210 |
| | *P* | *0.011* | *0.012* | *0.013* | *0.014* | *0.015* | *0.016* | *690* |
| P5 | P | 0,26 | 0,30 | 0,32 | 0,34 | 0,36 | 0,38 | 205 |
| | *P* | *0.010* | *0.012* | *0.013* | *0.013* | *0.014* | *0.015* | *670* |
| P6 | P | 0,26 | 0,30 | 0,32 | 0,34 | 0,36 | 0,38 | 230 |
| | *P* | *0.010* | *0.012* | *0.013* | *0.013* | *0.014* | *0.015* | *750* |
| P7 | P | 0,26 | 0,30 | 0,32 | 0,34 | 0,36 | 0,38 | 215 |
| | *P* | *0.010* | *0.012* | *0.013* | *0.013* | *0.014* | *0.015* | *710* |
| P8 | P | 0,28 | 0,32 | 0,34 | 0,36 | 0,38 | 0,40 | 200 |
| | *P* | *0.011* | *0.013* | *0.013* | *0.014* | *0.015* | *0.016* | *660* |
| P11 | P | 0,16 | 0,18 | 0,20 | 0,22 | 0,24 | 0,24 | 105 |
| | *P* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.0095* | *0.0095* | *345* |
| P12 | P | 0,16 | 0,18 | 0,20 | 0,22 | 0,24 | 0,24 | 75 |
| | *P* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.0095* | *0.0095* | *245* |
| M1 | MS | 0,22 | 0,25 | 0,28 | 0,30 | 0,30 | 0,32 | 110 |
| | *MS* | *0.0085* | *0.010* | *0.011* | *0.012* | *0.012* | *0.013* | *360* |
| M2 | MS | 0,20 | 0,22 | 0,25 | 0,26 | 0,28 | 0,30 | 90 |
| | *MS* | *0.0080* | *0.0085* | *0.010* | *0.010* | *0.011* | *0.012* | *295* |
| M3 | MS | 0,24 | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 45 |
| | *MS* | *0.0095* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *150* |
| M4 | MS | 0,14 | 0,16 | 0,17 | 0,19 | 0,20 | 0,20 | 50 |
| | *MS* | *0.0055* | *0.0065* | *0.0065* | *0.0075* | *0.0080* | *0.0080* | *165* |
| M5 | MS | 0,14 | 0,16 | 0,17 | 0,19 | 0,20 | 0,20 | 42 |
| | *MS* | *0.0055* | *0.0065* | *0.0065* | *0.0075* | *0.0080* | *0.0080* | *140* |
| K1 | P | 0,42 | 0,48 | 0,50 | 0,55 | 0,60 | 0,65 | 175 |
| | *P* | *0.017* | *0.019* | *0.020* | *0.022* | *0.024* | *0.026* | *570* |
| K2 | P | 0,38 | 0,42 | 0,48 | 0,50 | 0,55 | 0,55 | 150 |
| | *P* | *0.015* | *0.017* | *0.019* | *0.020* | *0.022* | *0.022* | *490* |
| K3 | P | 0,38 | 0,42 | 0,48 | 0,50 | 0,55 | 0,55 | 125 |
| | *P* | *0.015* | *0.017* | *0.019* | *0.020* | *0.022* | *0.022* | *410* |
| K4 | P | 0,38 | 0,42 | 0,48 | 0,50 | 0,55 | 0,55 | 120 |
| | *P* | *0.015* | *0.017* | *0.019* | *0.020* | *0.022* | *0.022* | *395* |
| K5 | P | 0,34 | 0,38 | 0,42 | 0,46 | 0,48 | 0,50 | 70 |
| | *P* | *0.013* | *0.015* | *0.017* | *0.018* | *0.019* | *0.020* | *230* |
| N1 | N | 0,38 | 0,42 | 0,46 | 0,50 | 0,55 | 0,55 | 350 |
| | *N* | *0.015* | *0.017* | *0.018* | *0.020* | *0.022* | *0.022* | *1150* |
| N2 | MS | 0,38 | 0,42 | 0,46 | 0,50 | 0,55 | 0,55 | 225 |
| | *MS* | *0.015* | *0.017* | *0.018* | *0.020* | *0.022* | *0.022* | *740* |
| N3 | MS | 0,38 | 0,42 | 0,46 | 0,50 | 0,55 | 0,55 | 150 |
| | *MS* | *0.015* | *0.017* | *0.018* | *0.020* | *0.022* | *0.022* | *490* |
| N11 | MS | 0,38 | 0,42 | 0,46 | 0,50 | 0,55 | 0,55 | 285 |
| | *MS* | *0.015* | *0.017* | *0.018* | *0.020* | *0.022* | *0.022* | *940* |
| S1 | MS | 0,11 | 0,13 | 0,15 | 0,16 | 0,17 | 0,19 | 39 |
| | *MS* | *0.0044* | *0.0050* | *0.0060* | *0.0065* | *0.0065* | *0.0075* | *130* |
| S2 | MS | 0,11 | 0,13 | 0,15 | 0,16 | 0,17 | 0,19 | 28 |
| | *MS* | *0.0044* | *0.0050* | *0.0060* | *0.0065* | *0.0065* | *0.0075* | *90* |
| S3 | MS | 0,11 | 0,13 | 0,15 | 0,16 | 0,17 | 0,19 | 28 |
| | *MS* | *0.0044* | *0.0050* | *0.0060* | *0.0065* | *0.0065* | *0.0075* | *90* |
| S11 | MS | 0,17 | 0,19 | 0,22 | 0,24 | 0,25 | 0,26 | 70 |
| | *MS* | *0.0065* | *0.0075* | *0.0085* | *0.0095* | *0.010* | *0.010* | *230* |
| S12 | MS | 0,17 | 0,19 | 0,22 | 0,24 | 0,25 | 0,26 | 55 |
| | *MS* | *0.0065* | *0.0075* | *0.0085* | *0.0095* | *0.010* | *0.010* | *180* |
| S13 | MS | 0,15 | 0,17 | 0,19 | 0,20 | 0,22 | 0,22 | 43 |
| | *MS* | *0.0060* | *0.0065* | *0.0075* | *0.0080* | *0.0085* | *0.0085* | *140* |
| H3 | P | 0,14 | 0,16 | 0,18 | 0,19 | 0,20 | 0,20 | 28 |
| | *P* | *0.0055* | *0.0065* | *0.0070* | *0.0075* | *0.0080* | *0.0080* | *90* |
| H5 | P | 0,22 | 0,24 | 0,26 | 0,28 | 0,30 | 0,32 | 55 |
| | *P* | *0.0085* | *0.0095* | *0.010* | *0.011* | *0.012* | *0.013* | *180* |
| H7 | P | 0,14 | 0,16 | 0,18 | 0,19 | 0,20 | 0,20 | 28 |
| | *P* | *0.0055* | *0.0065* | *0.0070* | *0.0075* | *0.0080* | *0.0080* | *90* |
| H8 | P | 0,16 | 0,19 | 0,20 | 0,22 | 0,24 | 0,24 | 55 |
| | *P* | *0.0065* | *0.0075* | *0.0080* | *0.0085* | *0.0095* | *0.0095* | *180* |
| H11 | P | 0,22 | 0,24 | 0,26 | 0,28 | 0,30 | 0,32 | 65 |
| | *P* | *0.0085* | *0.0095* | *0.010* | *0.011* | *0.012* | *0.013* | *215* |
| H12 | P | 0,16 | 0,19 | 0,20 | 0,22 | 0,24 | 0,24 | 80 |
| | *P* | *0.0065* | *0.0075* | *0.0080* | *0.0085* | *0.0095* | *0.0095* | *260* |
| H21 | P | 0,16 | 0,19 | 0,20 | 0,22 | 0,24 | 0,24 | 55 |
| | *P* | *0.0065* | *0.0075* | *0.0080* | *0.0085* | *0.0095* | *0.0095* | *180* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD205A – ∅ 2-8 mm / *0.079-0.315 inch*

| SMG | | f | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|
| | | Ø 2,00<br>*Ø 0.079* | Ø 3,00<br>*Ø 0.118* | Ø 4,00<br>*Ø 0.157* | Ø 5,00<br>*Ø 0.197* | Ø 6,00<br>*Ø 0.236* | Ø 8,00<br>*Ø 0.315* | |
| P1 | P<br>*P* | 0,14<br>*0.0055* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,32<br>*0.013* | 170<br>*560* |
| P2 | P<br>*P* | 0,14<br>*0.0055* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,32<br>*0.013* | 165<br>*540* |
| P3 | P<br>*P* | 0,14<br>*0.0055* | 0,16<br>*0.0065* | 0,19<br>*0.0075* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,32<br>*0.013* | 140<br>*460* |
| P4 | P<br>*P* | 0,10<br>*0.0040* | 0,13<br>*0.0050* | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,19<br>*0.0075* | 0,24<br>*0.0095* | 195<br>*640* |
| P5 | P<br>*P* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,17<br>*0.0065* | 0,19<br>*0.0075* | 0,22<br>*0.0085* | 185<br>*610* |
| P6 | P<br>*P* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,16<br>*0.0065* | 0,19<br>*0.0075* | 0,22<br>*0.0085* | 210<br>*690* |
| P7 | P<br>*P* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,16<br>*0.0065* | 0,19<br>*0.0075* | 0,22<br>*0.0085* | 200<br>*660* |
| P8 | P<br>*P* | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,19<br>*0.0075* | 0,24<br>*0.0095* | 185<br>*610* |
| P11 | P<br>*P* | 0,060<br>*0.0024* | 0,075<br>*0.0030* | 0,085<br>*0.0034* | 0,10<br>*0.0040* | 0,11<br>*0.0044* | 0,14<br>*0.0055* | 95<br>*310* |
| P12 | P<br>*P* | 0,060<br>*0.0024* | 0,075<br>*0.0030* | 0,085<br>*0.0034* | 0,10<br>*0.0040* | 0,11<br>*0.0044* | 0,14<br>*0.0055* | 65<br>*215* |
| M1 | MS<br>*MS* | 0,075<br>*0.0030* | 0,095<br>*0.0038* | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,15<br>*0.0060* | 0,19<br>*0.0075* | 110<br>*360* |
| M2 | MS<br>*MS* | 0,065<br>*0.0026* | 0,085<br>*0.0034* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,17<br>*0.0065* | 90<br>*295* |
| M3 | MS<br>*MS* | 0,095<br>*0.0038* | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 45<br>*150* |
| M4 | MS<br>*MS* | 0,048<br>*0.0019* | 0,060<br>*0.0024* | 0,070<br>*0.0028* | 0,085<br>*0.0034* | 0,095<br>*0.0038* | 0,12<br>*0.0048* | 50<br>*165* |
| M5 | MS<br>*MS* | 0,048<br>*0.0019* | 0,060<br>*0.0024* | 0,070<br>*0.0028* | 0,085<br>*0.0034* | 0,095<br>*0.0038* | 0,12<br>*0.0048* | 42<br>*140* |
| K1 | P<br>*P* | 0,15<br>*0.0060* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,28<br>*0.011* | 0,36<br>*0.014* | 160<br>*520* |
| K2 | P<br>*P* | 0,14<br>*0.0055* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,26<br>*0.010* | 0,32<br>*0.013* | 135<br>*445* |
| K3 | P<br>*P* | 0,14<br>*0.0055* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,26<br>*0.010* | 0,32<br>*0.013* | 115<br>*375* |
| K4 | P<br>*P* | 0,14<br>*0.0055* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,26<br>*0.010* | 0,32<br>*0.013* | 110<br>*360* |
| K5 | P<br>*P* | 0,12<br>*0.0048* | 0,15<br>*0.0060* | 0,18<br>*0.0070* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,28<br>*0.011* | 65<br>*215* |
| N1 | N<br>*N* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,19<br>*0.0075* | 0,22<br>*0.0085* | 0,26<br>*0.010* | 0,32<br>*0.013* | 350<br>*1150* |
| N2 | MS<br>*MS* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,19<br>*0.0075* | 0,22<br>*0.0085* | 0,26<br>*0.010* | 0,32<br>*0.013* | 225<br>*740* |
| N3 | MS<br>*MS* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,19<br>*0.0075* | 0,22<br>*0.0085* | 0,26<br>*0.010* | 0,32<br>*0.013* | 150<br>*490* |
| N11 | MS<br>*MS* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,19<br>*0.0075* | 0,22<br>*0.0085* | 0,26<br>*0.010* | 0,32<br>*0.013* | 285<br>*940* |
| S1 | MS<br>*MS* | 0,040<br>*0.0016* | 0,048<br>*0.0019* | 0,055<br>*0.0022* | 0,065<br>*0.0026* | 0,075<br>*0.0030* | 0,095<br>*0.0038* | 39<br>*130* |
| S2 | MS<br>*MS* | 0,040<br>*0.0016* | 0,048<br>*0.0019* | 0,055<br>*0.0022* | 0,065<br>*0.0026* | 0,075<br>*0.0030* | 0,095<br>*0.0038* | 28<br>*90* |
| S3 | MS<br>*MS* | 0,040<br>*0.0016* | 0,048<br>*0.0019* | 0,055<br>*0.0022* | 0,065<br>*0.0026* | 0,075<br>*0.0030* | 0,095<br>*0.0038* | 28<br>*90* |
| S11 | MS<br>*MS* | 0,070<br>*0.0028* | 0,085<br>*0.0034* | 0,095<br>*0.0038* | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 70<br>*230* |
| S12 | MS<br>*MS* | 0,070<br>*0.0028* | 0,085<br>*0.0034* | 0,095<br>*0.0038* | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 55<br>*180* |
| S13 | MS<br>*MS* | 0,065<br>*0.0026* | 0,075<br>*0.0030* | 0,085<br>*0.0034* | 0,095<br>*0.0038* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 43<br>*140* |
| H3 | P<br>*P* | 0,055<br>*0.0022* | 0,070<br>*0.0028* | 0,080<br>*0.0032* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 26<br>*85* |
| H5 | P<br>*P* | 0,085<br>*0.0034* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,13<br>*0.0050* | 0,15<br>*0.0060* | 0,18<br>*0.0070* | 48<br>*155* |
| H7 | P<br>*P* | 0,055<br>*0.0022* | 0,070<br>*0.0028* | 0,080<br>*0.0032* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 26<br>*85* |
| H8 | P<br>*P* | 0,065<br>*0.0026* | 0,080<br>*0.0032* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 48<br>*155* |
| H11 | P<br>*P* | 0,085<br>*0.0034* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,13<br>*0.0050* | 0,15<br>*0.0060* | 0,18<br>*0.0070* | 60<br>*195* |
| H12 | P<br>*P* | 0,065<br>*0.0026* | 0,080<br>*0.0032* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 70<br>*230* |
| H21 | P<br>*P* | 0,065<br>*0.0026* | 0,080<br>*0.0032* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 48<br>*155* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD205A – ∅ 10-20 mm / *0.394-0.787 inch*

| SMG | | f | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|
| | | Ø 10,00<br>*Ø 0.394* | Ø 12,00<br>*Ø 0.472* | Ø 14,00<br>*Ø 0.551* | Ø 16,00<br>*Ø 0.630* | Ø 18,00<br>*Ø 0.709* | Ø 20,00<br>*Ø 0.787* | |
| P1 | P | 0,38 | 0,44 | 0,48 | 0,50 | 0,55 | 0,55 | 170 |
| | *P* | *0.015* | *0.017* | *0.019* | *0.020* | *0.022* | *0.022* | *560* |
| P2 | P | 0,38 | 0,44 | 0,48 | 0,50 | 0,55 | 0,60 | 165 |
| | *P* | *0.015* | *0.017* | *0.019* | *0.020* | *0.022* | *0.024* | *540* |
| P3 | P | 0,36 | 0,42 | 0,46 | 0,50 | 0,50 | 0,55 | 140 |
| | *P* | *0.014* | *0.017* | *0.018* | *0.020* | *0.020* | *0.022* | *460* |
| P4 | P | 0,28 | 0,30 | 0,34 | 0,36 | 0,38 | 0,40 | 195 |
| | *P* | *0.011* | *0.012* | *0.013* | *0.014* | *0.015* | *0.016* | *640* |
| P5 | P | 0,26 | 0,30 | 0,32 | 0,34 | 0,36 | 0,38 | 185 |
| | *P* | *0.010* | *0.012* | *0.013* | *0.013* | *0.014* | *0.015* | *610* |
| P6 | P | 0,26 | 0,30 | 0,32 | 0,34 | 0,36 | 0,38 | 210 |
| | *P* | *0.010* | *0.012* | *0.013* | *0.013* | *0.014* | *0.015* | *690* |
| P7 | P | 0,26 | 0,30 | 0,32 | 0,34 | 0,36 | 0,38 | 200 |
| | *P* | *0.010* | *0.012* | *0.013* | *0.013* | *0.014* | *0.015* | *660* |
| P8 | P | 0,28 | 0,32 | 0,34 | 0,36 | 0,38 | 0,40 | 185 |
| | *P* | *0.011* | *0.013* | *0.013* | *0.014* | *0.015* | *0.016* | *610* |
| P11 | P | 0,16 | 0,18 | 0,20 | 0,22 | 0,24 | 0,24 | 95 |
| | *P* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.0095* | *0.0095* | *310* |
| M1 | MS | 0,22 | 0,25 | 0,28 | 0,30 | 0,30 | 0,32 | 110 |
| | *MS* | *0.0085* | *0.010* | *0.011* | *0.012* | *0.012* | *0.013* | *360* |
| M2 | MS | 0,20 | 0,22 | 0,25 | 0,26 | 0,28 | 0,30 | 90 |
| | *MS* | *0.0080* | *0.0085* | *0.010* | *0.010* | *0.011* | *0.012* | *295* |
| M3 | MS | 0,24 | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 45 |
| | *MS* | *0.0095* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *150* |
| M4 | MS | 0,14 | 0,16 | 0,17 | 0,19 | 0,20 | 0,20 | 50 |
| | *MS* | *0.0055* | *0.0065* | *0.0065* | *0.0075* | *0.0080* | *0.0080* | *165* |
| M5 | MS | 0,14 | 0,16 | 0,17 | 0,19 | 0,20 | 0,20 | 42 |
| | *MS* | *0.0055* | *0.0065* | *0.0065* | *0.0075* | *0.0080* | *0.0080* | *140* |
| K1 | P | 0,42 | 0,48 | 0,50 | 0,55 | 0,60 | 0,65 | 160 |
| | *P* | *0.017* | *0.019* | *0.020* | *0.022* | *0.024* | *0.026* | *520* |
| K2 | P | 0,38 | 0,42 | 0,48 | 0,50 | 0,55 | 0,55 | 135 |
| | *P* | *0.015* | *0.017* | *0.019* | *0.020* | *0.022* | *0.022* | *445* |
| K3 | P | 0,38 | 0,42 | 0,48 | 0,50 | 0,55 | 0,55 | 115 |
| | *P* | *0.015* | *0.017* | *0.019* | *0.020* | *0.022* | *0.022* | *375* |
| K4 | P | 0,38 | 0,42 | 0,48 | 0,50 | 0,55 | 0,55 | 110 |
| | *P* | *0.015* | *0.017* | *0.019* | *0.020* | *0.022* | *0.022* | *360* |
| K5 | P | 0,34 | 0,38 | 0,42 | 0,46 | 0,48 | 0,50 | 65 |
| | *P* | *0.013* | *0.015* | *0.017* | *0.018* | *0.019* | *0.020* | *215* |
| N1 | N | 0,38 | 0,42 | 0,46 | 0,50 | 0,55 | 0,55 | 350 |
| | *N* | *0.015* | *0.017* | *0.018* | *0.020* | *0.022* | *0.022* | *1150* |
| N2 | MS | 0,38 | 0,42 | 0,46 | 0,50 | 0,55 | 0,55 | 225 |
| | *MS* | *0.015* | *0.017* | *0.018* | *0.020* | *0.022* | *0.022* | *740* |
| N3 | MS | 0,38 | 0,42 | 0,46 | 0,50 | 0,55 | 0,55 | 150 |
| | *MS* | *0.015* | *0.017* | *0.018* | *0.020* | *0.022* | *0.022* | *490* |
| N11 | MS | 0,38 | 0,42 | 0,46 | 0,50 | 0,55 | 0,55 | 285 |
| | *MS* | *0.015* | *0.017* | *0.018* | *0.020* | *0.022* | *0.022* | *940* |
| S1 | MS | 0,11 | 0,13 | 0,15 | 0,16 | 0,17 | 0,19 | 39 |
| | *MS* | *0.0044* | *0.0050* | *0.0060* | *0.0065* | *0.0065* | *0.0075* | *130* |
| S2 | MS | 0,11 | 0,13 | 0,15 | 0,16 | 0,17 | 0,19 | 28 |
| | *MS* | *0.0044* | *0.0050* | *0.0060* | *0.0065* | *0.0065* | *0.0075* | *90* |
| S3 | MS | 0,11 | 0,13 | 0,15 | 0,16 | 0,17 | 0,19 | 28 |
| | *MS* | *0.0044* | *0.0050* | *0.0060* | *0.0065* | *0.0065* | *0.0075* | *90* |
| S11 | MS | 0,17 | 0,19 | 0,22 | 0,24 | 0,25 | 0,26 | 70 |
| | *MS* | *0.0065* | *0.0075* | *0.0085* | *0.0095* | *0.010* | *0.010* | *230* |
| S12 | MS | 0,17 | 0,19 | 0,22 | 0,24 | 0,25 | 0,26 | 55 |
| | *MS* | *0.0065* | *0.0075* | *0.0085* | *0.0095* | *0.010* | *0.010* | *180* |
| S13 | MS | 0,15 | 0,17 | 0,19 | 0,20 | 0,22 | 0,22 | 43 |
| | *MS* | *0.0060* | *0.0065* | *0.0075* | *0.0080* | *0.0085* | *0.0085* | *140* |
| H3 | P | 0,14 | 0,16 | 0,18 | 0,19 | 0,20 | 0,20 | 26 |
| | *P* | *0.0055* | *0.0065* | *0.0070* | *0.0075* | *0.0080* | *0.0080* | *85* |
| H5 | P | 0,22 | 0,24 | 0,26 | 0,28 | 0,30 | 0,32 | 48 |
| | *P* | *0.0085* | *0.0095* | *0.010* | *0.011* | *0.012* | *0.013* | *155* |
| H7 | P | 0,14 | 0,16 | 0,18 | 0,19 | 0,20 | 0,20 | 26 |
| | *P* | *0.0055* | *0.0065* | *0.0070* | *0.0075* | *0.0080* | *0.0080* | *85* |
| H8 | P | 0,16 | 0,19 | 0,20 | 0,22 | 0,24 | 0,24 | 48 |
| | *P* | *0.0065* | *0.0075* | *0.0080* | *0.0085* | *0.0095* | *0.0095* | *155* |
| H11 | P | 0,22 | 0,24 | 0,26 | 0,28 | 0,30 | 0,32 | 60 |
| | *P* | *0.0085* | *0.0095* | *0.010* | *0.011* | *0.012* | *0.013* | *195* |
| H12 | P | 0,16 | 0,19 | 0,20 | 0,22 | 0,24 | 0,24 | 70 |
| | *P* | *0.0065* | *0.0075* | *0.0080* | *0.0085* | *0.0095* | *0.0095* | *230* |
| H21 | P | 0,16 | 0,19 | 0,20 | 0,22 | 0,24 | 0,24 | 48 |
| | *P* | *0.0065* | *0.0075* | *0.0080* | *0.0085* | *0.0095* | *0.0095* | *155* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD206 – ∅ 0,7-2 mm / *0.0276-0.0787 inch*

| SMG | | f | | | $v_c$ |
|---|---|---|---|---|---|
| | | Ø 0,70<br>*Ø 0.0276* | Ø 1,00<br>*Ø 0.0394* | Ø 2,00<br>*Ø 0,0787* | |
| P1 | P | 0,080 | 0,090 | 0,11 | 140 |
| | *P* | *0.0032* | *0.0036* | *0.0044* | *460* |
| P2 | P | 0,085 | 0,090 | 0,12 | 140 |
| | *P* | *0.0034* | *0.0036* | *0.0048* | *460* |
| P3 | P | 0,080 | 0,085 | 0,11 | 120 |
| | *P* | *0.0032* | *0.0034* | *0.0044* | *395* |
| P4 | P | 0,080 | 0,085 | 0,11 | 105 |
| | *P* | *0.0032* | *0.0034* | *0.0044* | *345* |
| P5 | P | 0,075 | 0,085 | 0,11 | 100 |
| | *P* | *0.0030* | *0.0034* | *0.0044* | *330* |
| P6 | P | 0,075 | 0,080 | 0,10 | 110 |
| | *P* | *0.0030* | *0.0032* | *0.0040* | *360* |
| P7 | P | 0,075 | 0,080 | 0,10 | 105 |
| | *P* | *0.0030* | *0.0032* | *0.0040* | *345* |
| P8 | P | 0,080 | 0,085 | 0,11 | 100 |
| | *P* | *0.0032* | *0.0034* | *0.0044* | *330* |
| P11 | P | 0,075 | 0,080 | 0,10 | 105 |
| | *P* | *0.0030* | *0.0032* | *0.0040* | *345* |
| P12 | P | 0,050 | 0,055 | 0,070 | 60 |
| | *P* | *0.0020* | *0.0022* | *0.0028* | *195* |
| K1 | P | 0,085 | 0,090 | 0,12 | 100 |
| | *P* | *0.0034* | *0.0036* | *0.0048* | *330* |
| K2 | P | 0,075 | 0,085 | 0,11 | 85 |
| | *P* | *0.0030* | *0.0034* | *0.0044* | *280* |
| K3 | P | 0,075 | 0,085 | 0,11 | 75 |
| | *P* | *0.0030* | *0.0034* | *0.0044* | *245* |
| K4 | P | 0,075 | 0,085 | 0,11 | 70 |
| | *P* | *0.0030* | *0.0034* | *0.0044* | *230* |
| K5 | P | 0,070 | 0,075 | 0,095 | 42 |
| | *P* | *0.0028* | *0.0030* | *0.0038* | *140* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD206A – ∅ 1-2 mm / *0.0394-0.0787 inch*

| SMG | | f | | | $v_c$ |
|---|---|---|---|---|---|
| | | Ø 1,00<br>*Ø 0.0394* | Ø 1,50<br>*Ø 0.0591* | Ø 2,00<br>*Ø 0.0787* | |
| P1 | P | 0,090 | 0,10 | 0,11 | 175 |
| | *P* | *0.0036* | *0.0040* | *0.0044* | *570* |
| P2 | P | 0,090 | 0,10 | 0,12 | 170 |
| | *P* | *0.0036* | *0.0040* | *0.0048* | *560* |
| P3 | P | 0,085 | 0,10 | 0,11 | 145 |
| | *P* | *0.0034* | *0.0040* | *0.0044* | *475* |
| P4 | P | 0,085 | 0,095 | 0,11 | 130 |
| | *P* | *0.0034* | *0.0038* | *0.0044* | *425* |
| P5 | P | 0,085 | 0,095 | 0,11 | 125 |
| | *P* | *0.0034* | *0.0038* | *0.0044* | *410* |
| P6 | P | 0,080 | 0,095 | 0,10 | 140 |
| | *P* | *0.0032* | *0.0038* | *0.0040* | *460* |
| P7 | P | 0,080 | 0,095 | 0,10 | 130 |
| | *P* | *0.0032* | *0.0038* | *0.0040* | *425* |
| P8 | P | 0,085 | 0,10 | 0,11 | 125 |
| | *P* | *0.0034* | *0.0040* | *0.0044* | *410* |
| P11 | P | 0,080 | 0,095 | 0,10 | 125 |
| | *P* | *0.0032* | *0.0038* | *0.0040* | *410* |
| P12 | P | 0,055 | 0,065 | 0,070 | 75 |
| | *P* | *0.0022* | *0.0026* | *0.0028* | *245* |
| M1 | P | 0,055 | 0,065 | 0,075 | 95 |
| | *P* | *0.0022* | *0.0026* | *0.0030* | *310* |
| M2 | P | 0,050 | 0,060 | 0,070 | 75 |
| | *P* | *0.0020* | *0.0024* | *0.0028* | *245* |
| M3 | P | 0,042 | 0,048 | 0,055 | 60 |
| | *P* | *0.0017* | *0.0019* | *0.0022* | *195* |
| M4 | P | 0,036 | 0,042 | 0,048 | 43 |
| | *P* | *0.0014* | *0.0017* | *0.0019* | *140* |
| M5 | P | 0,036 | 0,042 | 0,048 | 36 |
| | *P* | *0.0014* | *0.0017* | *0.0019* | *120* |
| K1 | P | 0,095 | 0,11 | 0,12 | 115 |
| | *P* | *0.0038* | *0.0044* | *0.0048* | *375* |
| K2 | P | 0,085 | 0,10 | 0,11 | 100 |
| | *P* | *0.0034* | *0.0040* | *0.0044* | *330* |
| K3 | P | 0,085 | 0,10 | 0,11 | 85 |
| | *P* | *0.0034* | *0.0040* | *0.0044* | *280* |
| K4 | P | 0,085 | 0,10 | 0,11 | 80 |
| | *P* | *0.0034* | *0.0040* | *0.0044* | *260* |
| K5 | P | 0,075 | 0,090 | 0,10 | 47 |
| | *P* | *0.0030* | *0.0036* | *0.0040* | *155* |
| N2 | P | 0,10 | 0,12 | 0,13 | 190 |
| | *P* | *0.0040* | *0.0048* | *0.0050* | *620* |
| N3 | P | 0,10 | 0,12 | 0,13 | 125 |
| | *P* | *0.0040* | *0.0048* | *0.0050* | *410* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD207A – ∅ 3-20 mm / *0.118-0.787 inch*

| SMG | | f | | | | | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Ø 3,00<br>*Ø 0.118* | Ø 5,00<br>*Ø 0.197* | Ø 6,00<br>*Ø 0.236* | Ø 8,00<br>*Ø 0.315* | Ø 10,00<br>*Ø 0.394* | Ø 12,00<br>*Ø 0.472* | Ø 14,00<br>*Ø 0.551* | Ø 16,00<br>*Ø 0.630* | Ø 18,00<br>*Ø 0.709* | Ø 20,00<br>*Ø 0.787* | |
| P1 | P | 0,17 | 0,24 | 0,26 | 0,32 | 0,38 | 0,44 | 0,48 | 0,50 | 0,55 | 0,55 | 155 |
| | *P* | *0.0065* | *0.0095* | *0.010* | *0.013* | *0.015* | *0.017* | *0.019* | *0.020* | *0.022* | *0.022* | *510* |
| P2 | P | 0,17 | 0,24 | 0,26 | 0,32 | 0,38 | 0,44 | 0,48 | 0,50 | 0,55 | 0,60 | 155 |
| | *P* | *0.0065* | *0.0095* | *0.010* | *0.013* | *0.015* | *0.017* | *0.019* | *0.020* | *0.022* | *0.024* | *510* |
| P3 | P | 0,16 | 0,22 | 0,25 | 0,32 | 0,36 | 0,42 | 0,46 | 0,50 | 0,50 | 0,55 | 130 |
| | *P* | *0.0065* | *0.0085* | *0.010* | *0.013* | *0.014* | *0.017* | *0.018* | *0.020* | *0.020* | *0.022* | *425* |
| P4 | P | 0,13 | 0,17 | 0,19 | 0,24 | 0,28 | 0,30 | 0,34 | 0,36 | 0,38 | 0,40 | 180 |
| | *P* | *0.0050* | *0.0065* | *0.0075* | *0.0095* | *0.011* | *0.012* | *0.013* | *0.014* | *0.015* | *0.016* | *590* |
| P5 | P | 0,12 | 0,17 | 0,19 | 0,22 | 0,26 | 0,30 | 0,32 | 0,34 | 0,36 | 0,38 | 175 |
| | *P* | *0.0048* | *0.0065* | *0.0075* | *0.0085* | *0.010* | *0.012* | *0.013* | *0.013* | *0.014* | *0.015* | *570* |
| P6 | P | 0,12 | 0,16 | 0,19 | 0,22 | 0,26 | 0,30 | 0,32 | 0,34 | 0,36 | 0,38 | 195 |
| | *P* | *0.0048* | *0.0065* | *0.0075* | *0.0085* | *0.010* | *0.012* | *0.013* | *0.013* | *0.014* | *0.015* | *640* |
| P7 | P | 0,12 | 0,16 | 0,19 | 0,22 | 0,26 | 0,30 | 0,32 | 0,34 | 0,36 | 0,38 | 185 |
| | *P* | *0.0048* | *0.0065* | *0.0075* | *0.0085* | *0.010* | *0.012* | *0.013* | *0.013* | *0.014* | *0.015* | *610* |
| P8 | P | 0,13 | 0,17 | 0,19 | 0,24 | 0,28 | 0,32 | 0,34 | 0,36 | 0,38 | 0,40 | 175 |
| | *P* | *0.0050* | *0.0065* | *0.0075* | *0.0095* | *0.011* | *0.013* | *0.013* | *0.014* | *0.015* | *0.016* | *570* |
| P11 | P | 0,075 | 0,10 | 0,11 | 0,14 | 0,16 | 0,18 | 0,20 | 0,22 | 0,24 | 0,24 | 90 |
| | *P* | *0.0030* | *0.0040* | *0.0044* | *0.0055* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.0095* | *0.0095* | *295* |
| M1 | P | 0,095 | 0,13 | 0,15 | 0,19 | 0,22 | 0,25 | 0,28 | 0,30 | 0,30 | 0,32 | 50 |
| | *P* | *0.0038* | *0.0050* | *0.0060* | *0.0075* | *0.0085* | *0.010* | *0.011* | *0.012* | *0.012* | *0.013* | *165* |
| M2 | P | 0,085 | 0,12 | 0,14 | 0,17 | 0,20 | 0,22 | 0,25 | 0,26 | 0,28 | 0,30 | 41 |
| | *P* | *0.0034* | *0.0048* | *0.0055* | *0.0065* | *0.0080* | *0.0085* | *0.010* | *0.010* | *0.011* | *0.012* | *135* |
| M3 | P | 0,065 | 0,095 | 0,11 | 0,14 | 0,16 | 0,18 | 0,20 | 0,22 | 0,22 | 0,24 | 31 |
| | *P* | *0.0026* | *0.0038* | *0.0044* | *0.0055* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.0085* | *0.0095* | *100* |
| M4 | P | 0,060 | 0,085 | 0,095 | 0,12 | 0,14 | 0,16 | 0,17 | 0,19 | 0,20 | 0,20 | 24 |
| | *P* | *0.0024* | *0.0034* | *0.0038* | *0.0048* | *0.0055* | *0.0065* | *0.0065* | *0.0075* | *0.0080* | *0.0080* | *80* |
| M5 | P | 0,060 | 0,085 | 0,095 | 0,12 | 0,14 | 0,16 | 0,17 | 0,19 | 0,20 | 0,20 | 20 |
| | *P* | *0.0024* | *0.0034* | *0.0038* | *0.0048* | *0.0055* | *0.0065* | *0.0065* | *0.0075* | *0.0080* | *0.0080* | *65* |
| K1 | P | 0,18 | 0,25 | 0,28 | 0,36 | 0,42 | 0,48 | 0,50 | 0,55 | 0,60 | 0,65 | 150 |
| | *P* | *0.0070* | *0.010* | *0.011* | *0.014* | *0.017* | *0.019* | *0.020* | *0.022* | *0.024* | *0.026* | *490* |
| K2 | P | 0,17 | 0,22 | 0,26 | 0,32 | 0,38 | 0,42 | 0,48 | 0,50 | 0,55 | 0,55 | 130 |
| | *P* | *0.0065* | *0.0085* | *0.010* | *0.013* | *0.015* | *0.017* | *0.019* | *0.020* | *0.022* | *0.022* | *425* |
| K3 | P | 0,17 | 0,22 | 0,26 | 0,32 | 0,38 | 0,42 | 0,48 | 0,50 | 0,55 | 0,55 | 110 |
| | *P* | *0.0065* | *0.0085* | *0.010* | *0.013* | *0.015* | *0.017* | *0.019* | *0.020* | *0.022* | *0.022* | *360* |
| K4 | P | 0,17 | 0,22 | 0,26 | 0,32 | 0,38 | 0,42 | 0,48 | 0,50 | 0,55 | 0,55 | 105 |
| | *P* | *0.0065* | *0.0085* | *0.010* | *0.013* | *0.015* | *0.017* | *0.019* | *0.020* | *0.022* | *0.022* | *345* |
| K5 | P | 0,15 | 0,20 | 0,24 | 0,28 | 0,34 | 0,38 | 0,42 | 0,46 | 0,48 | 0,50 | 60 |
| | *P* | *0.0060* | *0.0080* | *0.0095* | *0.011* | *0.013* | *0.015* | *0.017* | *0.018* | *0.019* | *0.020* | *195* |
| H3 | P | 0,070 | 0,090 | 0,10 | 0,12 | 0,14 | 0,16 | 0,18 | 0,19 | 0,20 | 0,20 | 24 |
| | *P* | *0.0028* | *0.0036* | *0.0040* | *0.0048* | *0.0055* | *0.0065* | *0.0070* | *0.0075* | *0.0080* | *0.0080* | *80* |
| H5 | P | 0,10 | 0,13 | 0,15 | 0,18 | 0,22 | 0,24 | 0,26 | 0,28 | 0,30 | 0,32 | 45 |
| | *P* | *0.0040* | *0.0050* | *0.0060* | *0.0070* | *0.0085* | *0.0095* | *0.010* | *0.011* | *0.012* | *0.013* | *150* |
| H7 | P | 0,070 | 0,090 | 0,10 | 0,12 | 0,14 | 0,16 | 0,18 | 0,19 | 0,20 | 0,20 | 24 |
| | *P* | *0.0028* | *0.0036* | *0.0040* | *0.0048* | *0.0055* | *0.0065* | *0.0070* | *0.0075* | *0.0080* | *0.0080* | *80* |
| H8 | P | 0,080 | 0,10 | 0,12 | 0,14 | 0,16 | 0,19 | 0,20 | 0,22 | 0,24 | 0,24 | 45 |
| | *P* | *0.0032* | *0.0040* | *0.0048* | *0.0055* | *0.0065* | *0.0075* | *0.0080* | *0.0085* | *0.0095* | *0.0095* | *150* |
| H11 | P | 0,10 | 0,13 | 0,15 | 0,18 | 0,22 | 0,24 | 0,26 | 0,28 | 0,30 | 0,32 | 60 |
| | *P* | *0.0040* | *0.0050* | *0.0060* | *0.0070* | *0.0085* | *0.0095* | *0.010* | *0.011* | *0.012* | *0.013* | *195* |
| H12 | P | 0,080 | 0,10 | 0,12 | 0,14 | 0,16 | 0,19 | 0,20 | 0,22 | 0,24 | 0,24 | 65 |
| | *P* | *0.0032* | *0.0040* | *0.0048* | *0.0055* | *0.0065* | *0.0075* | *0.0080* | *0.0085* | *0.0095* | *0.0095* | *215* |
| H21 | P | 0,080 | 0,10 | 0,12 | 0,14 | 0,16 | 0,19 | 0,20 | 0,22 | 0,24 | 0,24 | 45 |
| | *P* | *0.0032* | *0.0040* | *0.0048* | *0.0055* | *0.0065* | *0.0075* | *0.0080* | *0.0085* | *0.0095* | *0.0095* | *150* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD216A – ∅ 3-14 mm / *0.118-0.551 inch*

| SMG | | f | | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|---|
| | | Ø 3,00<br>*Ø 0.118* | Ø 5,00<br>*Ø 0.197* | Ø 6,00<br>*Ø 0.236* | Ø 8,00<br>*Ø 0.315* | Ø 10,00<br>*Ø 0.394* | Ø 12,00<br>*Ø 0.472* | Ø 14,00<br>*Ø 0.551* | |
| P1 | P | 0,13 | 0,18 | 0,20 | 0,25 | 0,30 | 0,32 | 0,36 | 125 |
| | *P* | *0.0050* | *0.0070* | *0.0080* | *0.010* | *0.012* | *0.013* | *0.014* | *410* |
| P2 | P | 0,14 | 0,18 | 0,20 | 0,26 | 0,30 | 0,34 | 0,36 | 120 |
| | *P* | *0.0055* | *0.0070* | *0.0080* | *0.010* | *0.012* | *0.013* | *0.014* | *395* |
| P3 | P | 0,13 | 0,17 | 0,20 | 0,24 | 0,28 | 0,32 | 0,34 | 105 |
| | *P* | *0.0050* | *0.0065* | *0.0080* | *0.0095* | *0.011* | *0.013* | *0.013* | *345* |
| P4 | P | 0,13 | 0,17 | 0,19 | 0,24 | 0,28 | 0,30 | 0,34 | 90 |
| | *P* | *0.0050* | *0.0065* | *0.0075* | *0.0095* | *0.011* | *0.012* | *0.013* | *295* |
| P5 | P | 0,12 | 0,17 | 0,19 | 0,24 | 0,28 | 0,30 | 0,34 | 85 |
| | *P* | *0.0048* | *0.0065* | *0.0075* | *0.0095* | *0.011* | *0.012* | *0.013* | *280* |
| P6 | P | 0,12 | 0,17 | 0,19 | 0,24 | 0,26 | 0,30 | 0,32 | 95 |
| | *P* | *0.0048* | *0.0065* | *0.0075* | *0.0095* | *0.010* | *0.012* | *0.013* | *310* |
| P7 | P | 0,12 | 0,17 | 0,19 | 0,24 | 0,26 | 0,30 | 0,32 | 90 |
| | *P* | *0.0048* | *0.0065* | *0.0075* | *0.0095* | *0.010* | *0.012* | *0.013* | *295* |
| P8 | P | 0,13 | 0,17 | 0,20 | 0,24 | 0,28 | 0,32 | 0,34 | 85 |
| | *P* | *0.0050* | *0.0065* | *0.0080* | *0.0095* | *0.011* | *0.013* | *0.013* | *280* |
| P11 | P | 0,12 | 0,17 | 0,19 | 0,24 | 0,26 | 0,30 | 0,32 | 90 |
| | *P* | *0.0048* | *0.0065* | *0.0075* | *0.0095* | *0.010* | *0.012* | *0.013* | *295* |
| P12 | P | 0,085 | 0,11 | 0,13 | 0,16 | 0,18 | 0,20 | 0,22 | 55 |
| | *P* | *0.0034* | *0.0044* | *0.0050* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *180* |
| M1 | P | 0,095 | 0,13 | 0,15 | 0,19 | 0,22 | 0,25 | 0,28 | 65 |
| | *P* | *0.0038* | *0.0050* | *0.0060* | *0.0075* | *0.0085* | *0.010* | *0.011* | *215* |
| M2 | P | 0,085 | 0,12 | 0,14 | 0,17 | 0,20 | 0,22 | 0,25 | 55 |
| | *P* | *0.0034* | *0.0048* | *0.0055* | *0.0065* | *0.0080* | *0.0085* | *0.010* | *180* |
| M3 | P | 0,070 | 0,095 | 0,11 | 0,14 | 0,16 | 0,18 | 0,20 | 41 |
| | *P* | *0.0028* | *0.0038* | *0.0044* | *0.0055* | *0.0065* | *0.0070* | *0.0080* | *135* |
| M4 | P | 0,060 | 0,085 | 0,095 | 0,12 | 0,14 | 0,16 | 0,18 | 31 |
| | *P* | *0.0024* | *0.0034* | *0.0038* | *0.0048* | *0.0055* | *0.0065* | *0.0070* | *100* |
| M5 | P | 0,060 | 0,085 | 0,095 | 0,12 | 0,14 | 0,16 | 0,18 | 25 |
| | *P* | *0.0024* | *0.0034* | *0.0038* | *0.0048* | *0.0055* | *0.0065* | *0.0070* | *80* |
| K1 | P | 0,15 | 0,22 | 0,24 | 0,30 | 0,36 | 0,40 | 0,44 | 80 |
| | *P* | *0.0060* | *0.0085* | *0.0095* | *0.012* | *0.014* | *0.016* | *0.017* | *260* |
| K2 | P | 0,14 | 0,19 | 0,22 | 0,28 | 0,32 | 0,36 | 0,40 | 70 |
| | *P* | *0.0055* | *0.0075* | *0.0085* | *0.011* | *0.013* | *0.014* | *0.016* | *230* |
| K3 | P | 0,14 | 0,19 | 0,22 | 0,28 | 0,32 | 0,36 | 0,40 | 60 |
| | *P* | *0.0055* | *0.0075* | *0.0085* | *0.011* | *0.013* | *0.014* | *0.016* | *195* |
| K4 | P | 0,14 | 0,19 | 0,22 | 0,28 | 0,32 | 0,36 | 0,40 | 55 |
| | *P* | *0.0055* | *0.0075* | *0.0085* | *0.011* | *0.013* | *0.014* | *0.016* | *180* |
| K5 | P | 0,12 | 0,17 | 0,20 | 0,25 | 0,30 | 0,32 | 0,36 | 33 |
| | *P* | *0.0048* | *0.0065* | *0.0080* | *0.010* | *0.012* | *0.013* | *0.014* | *110* |
| N2 | P | 0,16 | 0,22 | 0,26 | 0,32 | 0,38 | 0,42 | 0,46 | 135 |
| | *P* | *0.0065* | *0.0085* | *0.010* | *0.013* | *0.015* | *0.017* | *0.018* | *445* |
| N3 | P | 0,16 | 0,22 | 0,26 | 0,32 | 0,38 | 0,42 | 0,46 | 90 |
| | *P* | *0.0065* | *0.0085* | *0.010* | *0.013* | *0.015* | *0.017* | *0.018* | *295* |
| H3 | P | 0,055 | 0,075 | 0,085 | 0,10 | 0,12 | 0,14 | 0,15 | 22 |
| | *P* | *0.0022* | *0.0030* | *0.0034* | *0.0040* | *0.0048* | *0.0055* | *0.0060* | *70* |
| H5 | P | 0,085 | 0,11 | 0,13 | 0,16 | 0,18 | 0,20 | 0,22 | 40 |
| | *P* | *0.0034* | *0.0044* | *0.0050* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *130* |
| H7 | P | 0,055 | 0,075 | 0,085 | 0,10 | 0,12 | 0,14 | 0,15 | 22 |
| | *P* | *0.0022* | *0.0030* | *0.0034* | *0.0040* | *0.0048* | *0.0055* | *0.0060* | *70* |
| H8 | P | 0,065 | 0,085 | 0,10 | 0,12 | 0,14 | 0,16 | 0,17 | 40 |
| | *P* | *0.0026* | *0.0034* | *0.0040* | *0.0048* | *0.0055* | *0.0065* | *0.0065* | *130* |
| H11 | P | 0,085 | 0,11 | 0,13 | 0,16 | 0,18 | 0,20 | 0,22 | 50 |
| | *P* | *0.0034* | *0.0044* | *0.0050* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *165* |
| H12 | P | 0,065 | 0,085 | 0,10 | 0,12 | 0,14 | 0,16 | 0,17 | 31 |
| | *P* | *0.0026* | *0.0034* | *0.0040* | *0.0048* | *0.0055* | *0.0065* | *0.0065* | *100* |
| H21 | P | 0,065 | 0,085 | 0,10 | 0,12 | 0,14 | 0,16 | 0,17 | 40 |
| | *P* | *0.0026* | *0.0034* | *0.0040* | *0.0048* | *0.0055* | *0.0065* | *0.0065* | *130* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD230A – ∅ 3-12 mm / *0.118-0.472 inch*

| SMG | | f | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|
| | | Ø 3,00<br>*Ø 0.118* | Ø 5,00<br>*Ø 0.197* | Ø 6,00<br>*Ø 0.236* | Ø 8,00<br>*Ø 0.315* | Ø 10,00<br>*Ø 0.394* | Ø 12,00<br>*Ø 0.472* | |
| P1 | P | 0,13 | 0,18 | 0,20 | 0,25 | 0,30 | 0,32 | 90 |
| | *P* | *0.0050* | *0.0070* | *0.0080* | *0.010* | *0.012* | *0.013* | *295* |
| P2 | P | 0,14 | 0,18 | 0,20 | 0,26 | 0,30 | 0,34 | 90 |
| | *P* | *0.0055* | *0.0070* | *0.0080* | *0.010* | *0.012* | *0.013* | *295* |
| P3 | P | 0,13 | 0,17 | 0,20 | 0,24 | 0,28 | 0,32 | 75 |
| | *P* | *0.0050* | *0.0065* | *0.0080* | *0.0095* | *0.011* | *0.013* | *245* |
| P4 | P | 0,13 | 0,17 | 0,19 | 0,24 | 0,28 | 0,30 | 70 |
| | *P* | *0.0050* | *0.0065* | *0.0075* | *0.0095* | *0.011* | *0.012* | *230* |
| P5 | P | 0,12 | 0,17 | 0,19 | 0,24 | 0,28 | 0,30 | 65 |
| | *P* | *0.0048* | *0.0065* | *0.0075* | *0.0095* | *0.011* | *0.012* | *215* |
| P6 | P | 0,12 | 0,17 | 0,19 | 0,24 | 0,26 | 0,30 | 75 |
| | *P* | *0.0048* | *0.0065* | *0.0075* | *0.0095* | *0.010* | *0.012* | *245* |
| P7 | P | 0,12 | 0,17 | 0,19 | 0,24 | 0,26 | 0,30 | 70 |
| | *P* | *0.0048* | *0.0065* | *0.0075* | *0.0095* | *0.010* | *0.012* | *230* |
| P8 | P | 0,13 | 0,17 | 0,20 | 0,24 | 0,28 | 0,32 | 65 |
| | *P* | *0.0050* | *0.0065* | *0.0080* | *0.0095* | *0.011* | *0.013* | *215* |
| P11 | P | 0,12 | 0,17 | 0,19 | 0,24 | 0,26 | 0,30 | 65 |
| | *P* | *0.0048* | *0.0065* | *0.0075* | *0.0095* | *0.010* | *0.012* | *215* |
| P12 | P | 0,085 | 0,11 | 0,13 | 0,16 | 0,18 | 0,20 | 39 |
| | *P* | *0.0034* | *0.0044* | *0.0050* | *0.0065* | *0.0070* | *0.0080* | *130* |
| M1 | P | 0,095 | 0,13 | 0,15 | 0,19 | 0,22 | 0,25 | 50 |
| | *P* | *0.0038* | *0.0050* | *0.0060* | *0.0075* | *0.0085* | *0.010* | *165* |
| M2 | P | 0,085 | 0,12 | 0,14 | 0,17 | 0,20 | 0,22 | 40 |
| | *P* | *0.0034* | *0.0048* | *0.0055* | *0.0065* | *0.0080* | *0.0085* | *130* |
| M3 | P | 0,070 | 0,095 | 0,11 | 0,14 | 0,16 | 0,18 | 30 |
| | *P* | *0.0028* | *0.0038* | *0.0044* | *0.0055* | *0.0065* | *0.0070* | *100* |
| M4 | P | 0,060 | 0,085 | 0,095 | 0,12 | 0,14 | 0,16 | 23 |
| | *P* | *0.0024* | *0.0034* | *0.0038* | *0.0048* | *0.0055* | *0.0065* | *75* |
| M5 | P | 0,060 | 0,085 | 0,095 | 0,12 | 0,14 | 0,16 | 19 |
| | *P* | *0.0024* | *0.0034* | *0.0038* | *0.0048* | *0.0055* | *0.0065* | *60* |
| K1 | P | 0,15 | 0,22 | 0,24 | 0,30 | 0,36 | 0,40 | 60 |
| | *P* | *0.0060* | *0.0085* | *0.0095* | *0.012* | *0.014* | *0.016* | *195* |
| K2 | P | 0,14 | 0,19 | 0,22 | 0,28 | 0,32 | 0,36 | 50 |
| | *P* | *0.0055* | *0.0075* | *0.0085* | *0.011* | *0.013* | *0.014* | *165* |
| K3 | P | 0,14 | 0,19 | 0,22 | 0,28 | 0,32 | 0,36 | 44 |
| | *P* | *0.0055* | *0.0075* | *0.0085* | *0.011* | *0.013* | *0.014* | *145* |
| K4 | P | 0,14 | 0,19 | 0,22 | 0,28 | 0,32 | 0,36 | 42 |
| | *P* | *0.0055* | *0.0075* | *0.0085* | *0.011* | *0.013* | *0.014* | *140* |
| K5 | P | 0,12 | 0,17 | 0,20 | 0,25 | 0,30 | 0,32 | 25 |
| | *P* | *0.0048* | *0.0065* | *0.0080* | *0.010* | *0.012* | *0.013* | *80* |
| N2 | P | 0,16 | 0,22 | 0,26 | 0,32 | 0,38 | 0,42 | 100 |
| | *P* | *0.0065* | *0.0085* | *0.010* | *0.013* | *0.015* | *0.017* | *330* |
| N3 | P | 0,16 | 0,22 | 0,26 | 0,32 | 0,38 | 0,42 | 65 |
| | *P* | *0.0065* | *0.0085* | *0.010* | *0.013* | *0.015* | *0.017* | *215* |
| H3 | P | 0,055 | 0,075 | 0,085 | 0,10 | 0,12 | 0,14 | 16 |
| | *P* | *0.0022* | *0.0030* | *0.0034* | *0.0040* | *0.0048* | *0.0055* | *50* |
| H5 | P | 0,085 | 0,11 | 0,13 | 0,16 | 0,18 | 0,20 | 30 |
| | *P* | *0.0034* | *0.0044* | *0.0050* | *0.0065* | *0.0070* | *0.0080* | *100* |
| H7 | P | 0,055 | 0,075 | 0,085 | 0,10 | 0,12 | 0,14 | 16 |
| | *P* | *0.0022* | *0.0030* | *0.0034* | *0.0040* | *0.0048* | *0.0055* | *50* |
| H8 | P | 0,065 | 0,085 | 0,10 | 0,12 | 0,14 | 0,16 | 30 |
| | *P* | *0.0026* | *0.0034* | *0.0040* | *0.0048* | *0.0055* | *0.0065* | *100* |
| H11 | P | 0,085 | 0,11 | 0,13 | 0,16 | 0,18 | 0,20 | 39 |
| | *P* | *0.0034* | *0.0044* | *0.0050* | *0.0065* | *0.0070* | *0.0080* | *130* |
| H12 | P | 0,065 | 0,085 | 0,10 | 0,12 | 0,14 | 0,16 | 24 |
| | *P* | *0.0026* | *0.0034* | *0.0040* | *0.0048* | *0.0055* | *0.0065* | *80* |
| H21 | P | 0,065 | 0,085 | 0,10 | 0,12 | 0,14 | 0,16 | 30 |
| | *P* | *0.0026* | *0.0034* | *0.0040* | *0.0048* | *0.0055* | *0.0065* | *100* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD2040-2060A – ∅ 3-8 mm / *0.118-0.315 inch*

| SMG | f | | | | $v_c$ |
|---|---|---|---|---|---|
| | Ø3,00<br>*Ø 0.118* | Ø5,00<br>*Ø 0.197* | Ø6,00<br>*Ø 0.236* | Ø8,00<br>*Ø 0.315* | |
| P1 | 0,14<br>*0.0055* | 0,18<br>*0.0070* | 0,20<br>*0.0080* | 0,25<br>*0.010* | 85<br>*280* |
| P2 | 0,14<br>*0.0055* | 0,19<br>*0.0075* | 0,22<br>*0.0085* | 0,26<br>*0.010* | 85<br>*280* |
| P3 | 0,13<br>*0.0050* | 0,18<br>*0.0070* | 0,20<br>*0.0080* | 0,25<br>*0.010* | 70<br>*230* |
| P4 | 0,13<br>*0.0050* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 65<br>*215* |
| P5 | 0,13<br>*0.0050* | 0,17<br>*0.0065* | 0,19<br>*0.0075* | 0,24<br>*0.0095* | 60<br>*195* |
| P6 | 0,12<br>*0.0048* | 0,17<br>*0.0065* | 0,19<br>*0.0075* | 0,24<br>*0.0095* | 65<br>*215* |
| P7 | 0,12<br>*0.0048* | 0,17<br>*0.0065* | 0,19<br>*0.0075* | 0,24<br>*0.0095* | 65<br>*215* |
| P8 | 0,13<br>*0.0050* | 0,18<br>*0.0070* | 0,20<br>*0.0080* | 0,25<br>*0.010* | 60<br>*195* |
| P11 | 0,12<br>*0.0048* | 0,17<br>*0.0065* | 0,19<br>*0.0075* | 0,24<br>*0.0095* | 60<br>*195* |
| P12 | 0,085<br>*0.0034* | 0,12<br>*0.0048* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 36<br>*120* |
| M1 | 0,095<br>*0.0038* | 0,13<br>*0.0050* | 0,15<br>*0.0060* | 0,19<br>*0.0075* | 37<br>*120* |
| M2 | 0,085<br>*0.0034* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,17<br>*0.0065* | 30<br>*100* |
| M3 | 0,070<br>*0.0028* | 0,095<br>*0.0038* | 0,11<br>*0.0044* | 0,14<br>*0.0055* | 23<br>*75* |
| M4 | 0,060<br>*0.0024* | 0,085<br>*0.0034* | 0,095<br>*0.0038* | 0,12<br>*0.0048* | 17<br>*55* |
| M5 | 0,060<br>*0.0024* | 0,085<br>*0.0034* | 0,095<br>*0.0038* | 0,12<br>*0.0048* | 14<br>*46* |
| K1 | 0,15<br>*0.0060* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,30<br>*0.012* | 43<br>*140* |
| K2 | 0,14<br>*0.0055* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,28<br>*0.011* | 37<br>*120* |
| K3 | 0,14<br>*0.0055* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,28<br>*0.011* | 31<br>*100* |
| K4 | 0,14<br>*0.0055* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,28<br>*0.011* | 30<br>*100* |
| K5 | 0,13<br>*0.0050* | 0,18<br>*0.0070* | 0,20<br>*0.0080* | 0,25<br>*0.010* | 18<br>*60* |
| N2 | 0,16<br>*0.0065* | 0,22<br>*0.0085* | 0,26<br>*0.010* | 0,32<br>*0.013* | 105<br>*345* |
| N3 | 0,16<br>*0.0065* | 0,22<br>*0.0085* | 0,26<br>*0.010* | 0,32<br>*0.013* | 70<br>*230* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD245A – ∅ 4-16 mm / *0.157-0.630 inch*

| SMG | | f | | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|---|
| | | Ø 4,00<br>*Ø 0.157* | Ø 6,00<br>*Ø 0.236* | Ø 8,00<br>*Ø 0.315* | Ø 10,00<br>*Ø 0.394* | Ø 12,00<br>*Ø 0.472* | Ø 14,00<br>*Ø 0.551* | Ø 16,00<br>*Ø 0.630* | |
| P1 | P | 0,11 | 0,15 | 0,19 | 0,22 | 0,26 | 0,28 | 0,32 | 185 |
| | *P* | *0.0044* | *0.0060* | *0.0075* | *0.0085* | *0.010* | *0.011* | *0.013* | *610* |
| P2 | P | 0,11 | 0,15 | 0,19 | 0,22 | 0,26 | 0,30 | 0,32 | 180 |
| | *P* | *0.0044* | *0.0060* | *0.0075* | *0.0085* | *0.010* | *0.012* | *0.013* | *590* |
| P3 | P | 0,11 | 0,14 | 0,18 | 0,22 | 0,25 | 0,28 | 0,30 | 155 |
| | *P* | *0.0044* | *0.0055* | *0.0070* | *0.0085* | *0.010* | *0.011* | *0.012* | *510* |
| P4 | P | 0,11 | 0,14 | 0,18 | 0,22 | 0,24 | 0,26 | 0,30 | 135 |
| | *P* | *0.0044* | *0.0055* | *0.0070* | *0.0085* | *0.0095* | *0.010* | *0.012* | *445* |
| P5 | P | 0,10 | 0,14 | 0,17 | 0,20 | 0,24 | 0,26 | 0,28 | 130 |
| | *P* | *0.0040* | *0.0055* | *0.0065* | *0.0080* | *0.0095* | *0.010* | *0.011* | *425* |
| P6 | P | 0,10 | 0,14 | 0,17 | 0,20 | 0,24 | 0,26 | 0,28 | 145 |
| | *P* | *0.0040* | *0.0055* | *0.0065* | *0.0080* | *0.0095* | *0.010* | *0.011* | *475* |
| P7 | P | 0,10 | 0,14 | 0,17 | 0,20 | 0,24 | 0,26 | 0,28 | 140 |
| | *P* | *0.0040* | *0.0055* | *0.0065* | *0.0080* | *0.0095* | *0.010* | *0.011* | *460* |
| P8 | P | 0,11 | 0,14 | 0,18 | 0,22 | 0,25 | 0,28 | 0,30 | 130 |
| | *P* | *0.0044* | *0.0055* | *0.0070* | *0.0085* | *0.010* | *0.011* | *0.012* | *425* |
| P11 | P | 0,10 | 0,14 | 0,17 | 0,20 | 0,24 | 0,26 | 0,28 | 135 |
| | *P* | *0.0040* | *0.0055* | *0.0065* | *0.0080* | *0.0095* | *0.010* | *0.011* | *445* |
| P12 | P | 0,070 | 0,095 | 0,12 | 0,14 | 0,16 | 0,18 | 0,20 | 80 |
| | *P* | *0.0028* | *0.0038* | *0.0048* | *0.0055* | *0.0065* | *0.0070* | *0.0080* | *260* |
| M1 | P | 0,11 | 0,15 | 0,19 | 0,22 | 0,26 | 0,30 | 0,32 | 100 |
| | *P* | *0.0044* | *0.0060* | *0.0075* | *0.0085* | *0.010* | *0.012* | *0.013* | *330* |
| M2 | P | 0,10 | 0,14 | 0,17 | 0,20 | 0,24 | 0,26 | 0,28 | 80 |
| | *P* | *0.0040* | *0.0055* | *0.0065* | *0.0080* | *0.0095* | *0.010* | *0.011* | *260* |
| K1 | P | 0,11 | 0,15 | 0,19 | 0,22 | 0,26 | 0,30 | 0,32 | 120 |
| | *P* | *0.0044* | *0.0060* | *0.0075* | *0.0085* | *0.010* | *0.012* | *0.013* | *395* |
| K2 | P | 0,10 | 0,14 | 0,17 | 0,20 | 0,24 | 0,26 | 0,28 | 105 |
| | *P* | *0.0040* | *0.0055* | *0.0065* | *0.0080* | *0.0095* | *0.010* | *0.011* | *345* |
| K3 | P | 0,10 | 0,14 | 0,17 | 0,20 | 0,24 | 0,26 | 0,28 | 90 |
| | *P* | *0.0040* | *0.0055* | *0.0065* | *0.0080* | *0.0095* | *0.010* | *0.011* | *295* |
| K4 | P | 0,10 | 0,14 | 0,17 | 0,20 | 0,24 | 0,26 | 0,28 | 85 |
| | *P* | *0.0040* | *0.0055* | *0.0065* | *0.0080* | *0.0095* | *0.010* | *0.011* | *280* |
| K5 | P | 0,095 | 0,12 | 0,16 | 0,19 | 0,22 | 0,24 | 0,26 | 50 |
| | *P* | *0.0038* | *0.0048* | *0.0065* | *0.0075* | *0.0085* | *0.0095* | *0.010* | *165* |
| N2 | P | 0,14 | 0,19 | 0,24 | 0,28 | 0,34 | 0,38 | 0,40 | 200 |
| | *P* | *0.0055* | *0.0075* | *0.0095* | *0.011* | *0.013* | *0.015* | *0.016* | *660* |
| N3 | P | 0,14 | 0,19 | 0,24 | 0,28 | 0,34 | 0,38 | 0,40 | 135 |
| | *P* | *0.0055* | *0.0075* | *0.0095* | *0.011* | *0.013* | *0.015* | *0.016* | *445* |
| N11 | P | 0,14 | 0,19 | 0,24 | 0,28 | 0,34 | 0,38 | 0,40 | 255 |
| | *P* | *0.0055* | *0.0075* | *0.0095* | *0.011* | *0.013* | *0.015* | *0.016* | *840* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD265A – ∅ 4-16 mm / *0.157-0.630 inch*

| SMG | | f | | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|---|
| | | Ø 4,00<br>*Ø 0.157* | Ø 6,00<br>*Ø 0.236* | Ø 8,00<br>*Ø 0.315* | Ø 10,00<br>*Ø 0.394* | Ø 12,00<br>*Ø 0.472* | Ø 14,00<br>*Ø 0.551* | Ø 16,00<br>*Ø 0.630* | |
| P1 | P | 0,12 | 0,16 | 0,20 | 0,24 | 0,28 | 0,30 | 0,34 | 180 |
| | *P* | *0.0048* | *0.0065* | *0.0080* | *0.0095* | *0.011* | *0.012* | *0.013* | *590* |
| P2 | P | 0,12 | 0,16 | 0,20 | 0,24 | 0,28 | 0,30 | 0,34 | 175 |
| | *P* | *0.0048* | *0.0065* | *0.0080* | *0.0095* | *0.011* | *0.012* | *0.013* | *570* |
| P3 | P | 0,11 | 0,15 | 0,19 | 0,22 | 0,26 | 0,30 | 0,32 | 150 |
| | *P* | *0.0044* | *0.0060* | *0.0075* | *0.0085* | *0.010* | *0.012* | *0.013* | *490* |
| P4 | P | 0,11 | 0,15 | 0,19 | 0,22 | 0,26 | 0,28 | 0,32 | 135 |
| | *P* | *0.0044* | *0.0060* | *0.0075* | *0.0085* | *0.010* | *0.011* | *0.013* | *445* |
| P5 | P | 0,11 | 0,15 | 0,18 | 0,22 | 0,25 | 0,28 | 0,30 | 130 |
| | *P* | *0.0044* | *0.0060* | *0.0070* | *0.0085* | *0.010* | *0.011* | *0.012* | *425* |
| P6 | P | 0,11 | 0,15 | 0,18 | 0,22 | 0,25 | 0,28 | 0,30 | 145 |
| | *P* | *0.0044* | *0.0060* | *0.0070* | *0.0085* | *0.010* | *0.011* | *0.012* | *475* |
| P7 | P | 0,11 | 0,15 | 0,18 | 0,22 | 0,25 | 0,28 | 0,30 | 135 |
| | *P* | *0.0044* | *0.0060* | *0.0070* | *0.0085* | *0.010* | *0.011* | *0.012* | *445* |
| P8 | P | 0,11 | 0,15 | 0,19 | 0,22 | 0,26 | 0,30 | 0,32 | 130 |
| | *P* | *0.0044* | *0.0060* | *0.0075* | *0.0085* | *0.010* | *0.012* | *0.013* | *425* |
| P11 | P | 0,11 | 0,15 | 0,18 | 0,22 | 0,25 | 0,28 | 0,30 | 130 |
| | *P* | *0.0044* | *0.0060* | *0.0070* | *0.0085* | *0.010* | *0.011* | *0.012* | *425* |
| P12 | P | 0,075 | 0,10 | 0,12 | 0,15 | 0,17 | 0,19 | 0,20 | 80 |
| | *P* | *0.0030* | *0.0040* | *0.0048* | *0.0060* | *0.0065* | *0.0075* | *0.0080* | *260* |
| M1 | P | 0,12 | 0,16 | 0,20 | 0,24 | 0,28 | 0,30 | 0,34 | 100 |
| | *P* | *0.0048* | *0.0065* | *0.0080* | *0.0095* | *0.011* | *0.012* | *0.013* | *330* |
| M2 | P | 0,11 | 0,15 | 0,18 | 0,22 | 0,25 | 0,28 | 0,30 | 80 |
| | *P* | *0.0044* | *0.0060* | *0.0070* | *0.0085* | *0.010* | *0.011* | *0.012* | *260* |
| K1 | P | 0,12 | 0,16 | 0,20 | 0,24 | 0,28 | 0,30 | 0,34 | 120 |
| | *P* | *0.0048* | *0.0065* | *0.0080* | *0.0095* | *0.011* | *0.012* | *0.013* | *395* |
| K2 | P | 0,11 | 0,15 | 0,18 | 0,22 | 0,25 | 0,28 | 0,30 | 100 |
| | *P* | *0.0044* | *0.0060* | *0.0070* | *0.0085* | *0.010* | *0.011* | *0.012* | *330* |
| K3 | P | 0,11 | 0,15 | 0,18 | 0,22 | 0,25 | 0,28 | 0,30 | 85 |
| | *P* | *0.0044* | *0.0060* | *0.0070* | *0.0085* | *0.010* | *0.011* | *0.012* | *280* |
| K4 | P | 0,11 | 0,15 | 0,18 | 0,22 | 0,25 | 0,28 | 0,30 | 85 |
| | *P* | *0.0044* | *0.0060* | *0.0070* | *0.0085* | *0.010* | *0.011* | *0.012* | *280* |
| K5 | P | 0,10 | 0,13 | 0,17 | 0,20 | 0,22 | 0,25 | 0,28 | 49 |
| | *P* | *0.0040* | *0.0050* | *0.0065* | *0.0080* | *0.0085* | *0.010* | *0.011* | *160* |
| N2 | P | 0,15 | 0,20 | 0,26 | 0,30 | 0,36 | 0,40 | 0,42 | 195 |
| | *P* | *0.0060* | *0.0080* | *0.010* | *0.012* | *0.014* | *0.016* | *0.017* | *640* |
| N3 | P | 0,15 | 0,20 | 0,26 | 0,30 | 0,36 | 0,40 | 0,42 | 130 |
| | *P* | *0.0060* | *0.0080* | *0.010* | *0.012* | *0.014* | *0.016* | *0.017* | *425* |
| N11 | P | 0,15 | 0,20 | 0,26 | 0,30 | 0,36 | 0,40 | 0,42 | 250 |
| | *P* | *0.0060* | *0.0080* | *0.010* | *0.012* | *0.014* | *0.016* | *0.017* | *820* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD203A -MS ∅ 2-8 mm / *0.079-0.315 inch*

| SMG | | f | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|
| | | Ø 2,00<br>*Ø 0.079* | Ø 3,00<br>*Ø 0.118* | Ø 4,00<br>*Ø 0.157* | Ø 5,00<br>*Ø 0.197* | Ø 6,00<br>*Ø 0.236* | Ø 8,00<br>*Ø 0.315* | |
| P11 | MS | 0,060 | 0,080 | 0,10 | 0,12 | 0,14 | 0,18 | 90 |
| | *MS* | *0.0024* | *0.0032* | *0.0040* | *0.0048* | *0.0055* | *0.0070* | *295* |
| P12 | MS | 0,060 | 0,070 | 0,080 | 0,090 | 0,10 | 0,12 | 65 |
| | *MS* | *0.0024* | *0.0028* | *0.0032* | *0.0036* | *0.0040* | *0.0048* | *215* |
| M1 | MS | 0,075 | 0,095 | 0,11 | 0,13 | 0,15 | 0,19 | 110 |
| | *MS* | *0.0030* | *0.0038* | *0.0044* | *0.0050* | *0.0060* | *0.0075* | *360* |
| M2 | MS | 0,065 | 0,085 | 0,10 | 0,12 | 0,14 | 0,17 | 90 |
| | *MS* | *0.0026* | *0.0034* | *0.0040* | *0.0048* | *0.0055* | *0.0065* | *295* |
| M3 | MS | 0,095 | 0,11 | 0,13 | 0,15 | 0,17 | 0,20 | 45 |
| | *MS* | *0.0038* | *0.0044* | *0.0050* | *0.0060* | *0.0065* | *0.0080* | *150* |
| M4 | MS | 0,048 | 0,060 | 0,070 | 0,085 | 0,095 | 0,12 | 50 |
| | *MS* | *0.0019* | *0.0024* | *0.0028* | *0.0034* | *0.0038* | *0.0048* | *165* |
| M5 | MS | 0,048 | 0,060 | 0,070 | 0,085 | 0,095 | 0,12 | 42 |
| | *MS* | *0.0019* | *0.0024* | *0.0028* | *0.0034* | *0.0038* | *0.0048* | *140* |
| N1 | MS | 0,13 | 0,16 | 0,19 | 0,22 | 0,26 | 0,32 | 345 |
| | *MS* | *0.0050* | *0.0065* | *0.0075* | *0.0085* | *0.010* | *0.013* | *1125* |
| N2 | MS | 0,13 | 0,16 | 0,19 | 0,22 | 0,26 | 0,32 | 225 |
| | *MS* | *0.0050* | *0.0065* | *0.0075* | *0.0085* | *0.010* | *0.013* | *740* |
| N3 | MS | 0,13 | 0,16 | 0,19 | 0,22 | 0,26 | 0,32 | 150 |
| | *MS* | *0.0050* | *0.0065* | *0.0075* | *0.0085* | *0.010* | *0.013* | *490* |
| N11 | MS | 0,13 | 0,16 | 0,19 | 0,22 | 0,26 | 0,32 | 285 |
| | *MS* | *0.0050* | *0.0065* | *0.0075* | *0.0085* | *0.010* | *0.013* | *940* |
| S1 | MS | 0,040 | 0,048 | 0,055 | 0,065 | 0,075 | 0,095 | 39 |
| | *MS* | *0.0016* | *0.0019* | *0.0022* | *0.0026* | *0.0030* | *0.0038* | *130* |
| S2 | MS | 0,040 | 0,048 | 0,055 | 0,065 | 0,075 | 0,095 | 28 |
| | *MS* | *0.0016* | *0.0019* | *0.0022* | *0.0026* | *0.0030* | *0.0038* | *90* |
| S3 | MS | 0,040 | 0,048 | 0,055 | 0,065 | 0,075 | 0,095 | 28 |
| | *MS* | *0.0016* | *0.0019* | *0.0022* | *0.0026* | *0.0030* | *0.0038* | *90* |
| S11 | MS | 0,070 | 0,085 | 0,095 | 0,11 | 0,12 | 0,14 | 70 |
| | *MS* | *0.0028* | *0.0034* | *0.0038* | *0.0044* | *0.0048* | *0.0055* | *230* |
| S12 | MS | 0,070 | 0,085 | 0,095 | 0,11 | 0,12 | 0,14 | 55 |
| | *MS* | *0.0028* | *0.0034* | *0.0038* | *0.0044* | *0.0048* | *0.0055* | *180* |
| S13 | MS | 0,065 | 0,075 | 0,085 | 0,095 | 0,10 | 0,12 | 43 |
| | *MS* | *0.0026* | *0.0030* | *0.0034* | *0.0038* | *0.0040* | *0.0048* | *140* |
| H3 | MS | 0,046 | 0,055 | 0,065 | 0,075 | 0,085 | 0,10 | 36 |
| | *MS* | *0.0018* | *0.0022* | *0.0026* | *0.0030* | *0.0034* | *0.0040* | *120* |
| H5 | MS | 0,070 | 0,085 | 0,10 | 0,11 | 0,13 | 0,16 | 65 |
| | *MS* | *0.0028* | *0.0034* | *0.0040* | *0.0044* | *0.0050* | *0.0065* | *215* |
| H7 | MS | 0,046 | 0,055 | 0,065 | 0,075 | 0,085 | 0,10 | 36 |
| | *MS* | *0.0018* | *0.0022* | *0.0026* | *0.0030* | *0.0034* | *0.0040* | *120* |
| H8 | MS | 0,055 | 0,065 | 0,075 | 0,085 | 0,095 | 0,12 | 65 |
| | *MS* | *0.0022* | *0.0026* | *0.0030* | *0.0034* | *0.0038* | *0.0048* | *215* |
| H11 | MS | 0,070 | 0,085 | 0,10 | 0,11 | 0,13 | 0,16 | 85 |
| | *MS* | *0.0028* | *0.0034* | *0.0040* | *0.0044* | *0.0050* | *0.0065* | *280* |
| H12 | MS | 0,055 | 0,065 | 0,075 | 0,085 | 0,095 | 0,12 | 80 |
| | *MS* | *0.0022* | *0.0026* | *0.0030* | *0.0034* | *0.0038* | *0.0048* | *260* |
| H21 | MS | 0,055 | 0,065 | 0,075 | 0,085 | 0,095 | 0,12 | 65 |
| | *MS* | *0.0022* | *0.0026* | *0.0030* | *0.0034* | *0.0038* | *0.0048* | *215* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD203A -MS ∅ 10-20 mm / *0.394-0.787 inch*

| SMG | | f | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|
| | | Ø 10,00<br>*Ø 0.394* | Ø 12,00<br>*Ø 0.472* | Ø 14,00<br>*Ø 0.551* | Ø 16,00<br>*Ø 0.630* | Ø 18,00<br>*Ø 0.709* | Ø 20,00<br>*Ø 0.787* | |
| P11 | MS | 0,22 | 0,24 | 0,26 | 0,30 | 0,30 | 0,32 | 90 |
| | *MS* | *0.0085* | *0.0095* | *0.010* | *0.012* | *0.012* | *0.013* | *295* |
| P12 | MS | 0,14 | 0,15 | 0,16 | 0,18 | 0,18 | 0,19 | 65 |
| | *MS* | *0.0055* | *0.0060* | *0.0065* | *0.0070* | *0.0070* | *0.0075* | *215* |
| M1 | MS | 0,22 | 0,25 | 0,28 | 0,30 | 0,30 | 0,32 | 110 |
| | *MS* | *0.0085* | *0.010* | *0.011* | *0.012* | *0.012* | *0.013* | *360* |
| M2 | MS | 0,20 | 0,22 | 0,25 | 0,26 | 0,28 | 0,30 | 90 |
| | *MS* | *0.0080* | *0.0085* | *0.010* | *0.010* | *0.011* | *0.012* | *295* |
| M3 | MS | 0,24 | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 45 |
| | *MS* | *0.0095* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *150* |
| M4 | MS | 0,14 | 0,16 | 0,17 | 0,19 | 0,20 | 0,20 | 50 |
| | *MS* | *0.0055* | *0.0065* | *0.0065* | *0.0075* | *0.0080* | *0.0080* | *165* |
| M5 | MS | 0,14 | 0,16 | 0,17 | 0,19 | 0,20 | 0,20 | 42 |
| | *MS* | *0.0055* | *0.0065* | *0.0065* | *0.0075* | *0.0080* | *0.0080* | *140* |
| N1 | MS | 0,38 | 0,42 | 0,46 | 0,50 | 0,55 | 0,55 | 345 |
| | *MS* | *0.015* | *0.017* | *0.018* | *0.020* | *0.022* | *0.022* | *1125* |
| N2 | MS | 0,38 | 0,42 | 0,46 | 0,50 | 0,55 | 0,55 | 225 |
| | *MS* | *0.015* | *0.017* | *0.018* | *0.020* | *0.022* | *0.022* | *740* |
| N3 | MS | 0,38 | 0,42 | 0,46 | 0,50 | 0,55 | 0,55 | 150 |
| | *MS* | *0.015* | *0.017* | *0.018* | *0.020* | *0.022* | *0.022* | *490* |
| N11 | MS | 0,38 | 0,42 | 0,46 | 0,50 | 0,55 | 0,55 | 285 |
| | *MS* | *0.015* | *0.017* | *0.018* | *0.020* | *0.022* | *0.022* | *940* |
| S1 | MS | 0,11 | 0,13 | 0,15 | 0,16 | 0,17 | 0,19 | 39 |
| | *MS* | *0.0044* | *0.0050* | *0.0060* | *0.0065* | *0.0065* | *0.0075* | *130* |
| S2 | MS | 0,11 | 0,13 | 0,15 | 0,16 | 0,17 | 0,19 | 28 |
| | *MS* | *0.0044* | *0.0050* | *0.0060* | *0.0065* | *0.0065* | *0.0075* | *90* |
| S3 | MS | 0,11 | 0,13 | 0,15 | 0,16 | 0,17 | 0,19 | 28 |
| | *MS* | *0.0044* | *0.0050* | *0.0060* | *0.0065* | *0.0065* | *0.0075* | *90* |
| S11 | MS | 0,17 | 0,19 | 0,22 | 0,24 | 0,25 | 0,26 | 70 |
| | *MS* | *0.0065* | *0.0075* | *0.0085* | *0.0095* | *0.010* | *0.010* | *230* |
| S12 | MS | 0,17 | 0,19 | 0,22 | 0,24 | 0,25 | 0,26 | 55 |
| | *MS* | *0.0065* | *0.0075* | *0.0085* | *0.0095* | *0.010* | *0.010* | *180* |
| S13 | MS | 0,15 | 0,17 | 0,19 | 0,20 | 0,22 | 0,22 | 43 |
| | *MS* | *0.0060* | *0.0065* | *0.0075* | *0.0080* | *0.0085* | *0.0085* | *140* |
| H3 | MS | 0,12 | 0,13 | 0,15 | 0,16 | 0,17 | 0,17 | 36 |
| | *MS* | *0.0048* | *0.0050* | *0.0060* | *0.0065* | *0.0065* | *0.0065* | *120* |
| H5 | MS | 0,18 | 0,20 | 0,22 | 0,24 | 0,25 | 0,26 | 65 |
| | *MS* | *0.0070* | *0.0080* | *0.0085* | *0.0095* | *0.010* | *0.010* | *215* |
| H7 | MS | 0,12 | 0,13 | 0,15 | 0,16 | 0,17 | 0,17 | 36 |
| | *MS* | *0.0048* | *0.0050* | *0.0060* | *0.0065* | *0.0065* | *0.0065* | *120* |
| H8 | MS | 0,14 | 0,16 | 0,17 | 0,18 | 0,19 | 0,20 | 65 |
| | *MS* | *0.0055* | *0.0065* | *0.0065* | *0.0070* | *0.0075* | *0.0080* | *215* |
| H11 | MS | 0,18 | 0,20 | 0,22 | 0,24 | 0,25 | 0,26 | 85 |
| | *MS* | *0.0070* | *0.0080* | *0.0085* | *0.0095* | *0.010* | *0.010* | *280* |
| H12 | MS | 0,14 | 0,16 | 0,17 | 0,18 | 0,19 | 0,20 | 80 |
| | *MS* | *0.0055* | *0.0065* | *0.0065* | *0.0070* | *0.0075* | *0.0080* | *260* |
| H21 | MS | 0,14 | 0,16 | 0,17 | 0,18 | 0,19 | 0,20 | 65 |
| | *MS* | *0.0055* | *0.0065* | *0.0065* | *0.0070* | *0.0075* | *0.0080* | *215* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD205A -MS ∅ 2-8 mm / *0.079-0.315 inch*

| SMG | | f | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|
| | | Ø 2,00<br>*Ø 0.079* | Ø 3,00<br>*Ø 0.118* | Ø 4,00<br>*Ø 0.157* | Ø 5,00<br>*Ø 0.197* | Ø 6,00<br>*Ø 0.236* | Ø 8,00<br>*Ø 0.315* | |
| P11 | MS | 0,060 | 0,080 | 0,10 | 0,12 | 0,14 | 0,18 | 80 |
| | *MS* | *0.0024* | *0.0032* | *0.0040* | *0.0048* | *0.0055* | *0.0070* | *260* |
| P12 | MS | 0,060 | 0,070 | 0,080 | 0,090 | 0,10 | 0,12 | 60 |
| | *MS* | *0.0024* | *0.0028* | *0.0032* | *0.0036* | *0.0040* | *0.0048* | *195* |
| M1 | MS | 0,075 | 0,095 | 0,11 | 0,13 | 0,15 | 0,19 | 100 |
| | *MS* | *0.0030* | *0.0038* | *0.0044* | *0.0050* | *0.0060* | *0.0075* | *330* |
| M2 | MS | 0,065 | 0,085 | 0,10 | 0,12 | 0,14 | 0,17 | 80 |
| | *MS* | *0.0026* | *0.0034* | *0.0040* | *0.0048* | *0.0055* | *0.0065* | *260* |
| M3 | MS | 0,095 | 0,11 | 0,13 | 0,15 | 0,17 | 0,20 | 40 |
| | *MS* | *0.0038* | *0.0044* | *0.0050* | *0.0060* | *0.0065* | *0.0080* | *130* |
| M4 | MS | 0,048 | 0,060 | 0,070 | 0,085 | 0,095 | 0,12 | 46 |
| | *MS* | *0.0019* | *0.0024* | *0.0028* | *0.0034* | *0.0038* | *0.0048* | *150* |
| M5 | MS | 0,048 | 0,060 | 0,070 | 0,085 | 0,095 | 0,12 | 38 |
| | *MS* | *0.0019* | *0.0024* | *0.0028* | *0.0034* | *0.0038* | *0.0048* | *125* |
| N1 | MS | 0,13 | 0,16 | 0,19 | 0,22 | 0,26 | 0,32 | 310 |
| | *MS* | *0.0050* | *0.0065* | *0.0075* | *0.0085* | *0.010* | *0.013* | *1025* |
| N2 | MS | 0,13 | 0,16 | 0,19 | 0,22 | 0,26 | 0,32 | 200 |
| | *MS* | *0.0050* | *0.0065* | *0.0075* | *0.0085* | *0.010* | *0.013* | *660* |
| N3 | MS | 0,13 | 0,16 | 0,19 | 0,22 | 0,26 | 0,32 | 135 |
| | *MS* | *0.0050* | *0.0065* | *0.0075* | *0.0085* | *0.010* | *0.013* | *445* |
| N11 | MS | 0,13 | 0,16 | 0,19 | 0,22 | 0,26 | 0,32 | 255 |
| | *MS* | *0.0050* | *0.0065* | *0.0075* | *0.0085* | *0.010* | *0.013* | *840* |
| S1 | MS | 0,040 | 0,048 | 0,055 | 0,065 | 0,075 | 0,095 | 35 |
| | *MS* | *0.0016* | *0.0019* | *0.0022* | *0.0026* | *0.0030* | *0.0038* | *115* |
| S2 | MS | 0,040 | 0,048 | 0,055 | 0,065 | 0,075 | 0,095 | 25 |
| | *MS* | *0.0016* | *0.0019* | *0.0022* | *0.0026* | *0.0030* | *0.0038* | *80* |
| S3 | MS | 0,040 | 0,048 | 0,055 | 0,065 | 0,075 | 0,095 | 25 |
| | *MS* | *0.0016* | *0.0019* | *0.0022* | *0.0026* | *0.0030* | *0.0038* | *80* |
| S11 | MS | 0,020 | 0,030 | 0,040 | 0,050 | 0,060 | 0,080 | 45 |
| | *MS* | *0.00080* | *0.0012* | *0.0016* | *0.0020* | *0.0024* | *0.0032* | *150* |
| S12 | MS | 0,020 | 0,030 | 0,040 | 0,050 | 0,060 | 0,080 | 35 |
| | *MS* | *0.00080* | *0.0012* | *0.0016* | *0.0020* | *0.0024* | *0.0032* | *115* |
| S13 | MS | 0,017 | 0,026 | 0,035 | 0,044 | 0,050 | 0.070 | 27 |
| | *MS* | *0.00068* | *0.0010* | *0.0014* | *0.0018* | *0.0020* | *0.0028* | *90* |
| H3 | MS | 0,046 | 0,055 | 0,065 | 0,075 | 0,085 | 0,10 | 33 |
| | *MS* | *0.0018* | *0.0022* | *0.0026* | *0.0030* | *0.0034* | *0.0040* | *110* |
| H5 | MS | 0,070 | 0,085 | 0,10 | 0,11 | 0,13 | 0,16 | 60 |
| | *MS* | *0.0028* | *0.0034* | *0.0040* | *0.0044* | *0.0050* | *0.0065* | *195* |
| H7 | MS | 0,046 | 0,055 | 0,065 | 0,075 | 0,085 | 0,10 | 33 |
| | *MS* | *0.0018* | *0.0022* | *0.0026* | *0.0030* | *0.0034* | *0.0040* | *110* |
| H8 | MS | 0,055 | 0,065 | 0,075 | 0,085 | 0,095 | 0,12 | 60 |
| | *MS* | *0.0022* | *0.0026* | *0.0030* | *0.0034* | *0.0038* | *0.0048* | *195* |
| H11 | MS | 0,070 | 0,085 | 0,10 | 0,11 | 0,13 | 0,16 | 75 |
| | *MS* | *0.0028* | *0.0034* | *0.0040* | *0.0044* | *0.0050* | *0.0065* | *245* |
| H12 | MS | 0,055 | 0,065 | 0,075 | 0,085 | 0,095 | 0,12 | 70 |
| | *MS* | *0.0022* | *0.0026* | *0.0030* | *0.0034* | *0.0038* | *0.0048* | *230* |
| H21 | MS | 0,055 | 0,065 | 0,075 | 0,085 | 0,095 | 0,12 | 60 |
| | *MS* | *0.0022* | *0.0026* | *0.0030* | *0.0034* | *0.0038* | *0.0048* | *195* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD205A -MS ∅ 10-20 mm / *0.394-0.787 inch*

| SMG | | f | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|
| | | Ø 10,00<br>*Ø 0.394* | Ø 12,00<br>*Ø 0.472* | Ø 14,00<br>*Ø 0.551* | Ø 16,00<br>*Ø 0.630* | Ø 18,00<br>*Ø 0.709* | Ø 20,00<br>*Ø 0.787* | |
| P11 | MS | 0,22 | 0,24 | 0,26 | 0,30 | 0,30 | 0,32 | 80 |
| | *MS* | *0.0085* | *0.0095* | *0.010* | *0.012* | *0.012* | *0.013* | *260* |
| P12 | MS | 0,14 | 0,15 | 0,16 | 0,18 | 0,18 | 0,19 | 60 |
| | *MS* | *0.0055* | *0.0060* | *0.0065* | *0.0070* | *0.0070* | *0.0075* | *195* |
| M1 | MS | 0,22 | 0,25 | 0,28 | 0,30 | 0,30 | 0,32 | 100 |
| | *MS* | *0.0085* | *0.010* | *0.011* | *0.012* | *0.012* | *0.013* | *330* |
| M2 | MS | 0,20 | 0,22 | 0,25 | 0,26 | 0,28 | 0,30 | 80 |
| | *MS* | *0.0080* | *0.0085* | *0.010* | *0.010* | *0.011* | *0.012* | *260* |
| M3 | MS | 0,24 | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 40 |
| | *MS* | *0.0095* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *130* |
| M4 | MS | 0,14 | 0,16 | 0,17 | 0,19 | 0,20 | 0,20 | 46 |
| | *MS* | *0.0055* | *0.0065* | *0.0065* | *0.0075* | *0.0080* | *0.0080* | *150* |
| M5 | MS | 0,14 | 0,16 | 0,17 | 0,19 | 0,20 | 0,20 | 38 |
| | *MS* | *0.0055* | *0.0065* | *0.0065* | *0.0075* | *0.0080* | *0.0080* | *125* |
| N1 | MS | 0,38 | 0,42 | 0,46 | 0,50 | 0,55 | 0,55 | 310 |
| | *MS* | *0.015* | *0.017* | *0.018* | *0.020* | *0.022* | *0.022* | *1025* |
| N2 | MS | 0,38 | 0,42 | 0,46 | 0,50 | 0,55 | 0,55 | 200 |
| | *MS* | *0.015* | *0.017* | *0.018* | *0.020* | *0.022* | *0.022* | *660* |
| N3 | MS | 0,38 | 0,42 | 0,46 | 0,50 | 0,55 | 0,55 | 135 |
| | *MS* | *0.015* | *0.017* | *0.018* | *0.020* | *0.022* | *0.022* | *445* |
| N11 | MS | 0,38 | 0,42 | 0,46 | 0,50 | 0,55 | 0,55 | 255 |
| | *MS* | *0.015* | *0.017* | *0.018* | *0.020* | *0.022* | *0.022* | *840* |
| S1 | MS | 0,11 | 0,13 | 0,15 | 0,16 | 0,17 | 0,19 | 35 |
| | *MS* | *0.0044* | *0.0050* | *0.0060* | *0.0065* | *0.0065* | *0.0075* | *115* |
| S2 | MS | 0,11 | 0,13 | 0,15 | 0,16 | 0,17 | 0,19 | 25 |
| | *MS* | *0.0044* | *0.0050* | *0.0060* | *0.0065* | *0.0065* | *0.0075* | *80* |
| S3 | MS | 0,11 | 0,13 | 0,15 | 0,16 | 0,17 | 0,19 | 25 |
| | *MS* | *0.0044* | *0.0050* | *0.0060* | *0.0065* | *0.0065* | *0.0075* | *80* |
| S11 | MS | 0,10 | 0,12 | 0,14 | 0,16 | 0,18 | 0,20 | 45 |
| | *MS* | *0.0040* | *0.0048* | *0.0055* | *0.0065* | *0.0070* | *0.0080* | *150* |
| S12 | MS | 0,10 | 0,12 | 0,14 | 0,16 | 0,18 | 0,20 | 35 |
| | *MS* | *0.0040* | *0.0048* | *0.0055* | *0.0065* | *0.0070* | *0.0080* | *115* |
| S13 | MS | 0,085 | 0,11 | 0,12 | 0,14 | 0,16 | 0,17 | 27 |
| | *MS* | *0.0034* | *0.0044* | *0.0048* | *0.0055* | *0.0065* | *0.0070* | *90* |
| H3 | MS | 0,12 | 0,13 | 0,15 | 0,16 | 0,17 | 0,17 | 33 |
| | *MS* | *0.0048* | *0.0050* | *0.0060* | *0.0065* | *0.0065* | *0.0065* | *110* |
| H5 | MS | 0,18 | 0,20 | 0,22 | 0,24 | 0,25 | 0,26 | 60 |
| | *MS* | *0.0070* | *0.0080* | *0.0085* | *0.0095* | *0.010* | *0.010* | *195* |
| H7 | MS | 0,12 | 0,13 | 0,15 | 0,16 | 0,17 | 0,17 | 33 |
| | *MS* | *0.0048* | *0.0050* | *0.0060* | *0.0065* | *0.0065* | *0.0065* | *110* |
| H8 | MS | 0,14 | 0,16 | 0,17 | 0,18 | 0,19 | 0,20 | 60 |
| | *MS* | *0.0055* | *0.0065* | *0.0065* | *0.0070* | *0.0075* | *0.0080* | *195* |
| H11 | MS | 0,18 | 0,20 | 0,22 | 0,24 | 0,25 | 0,26 | 75 |
| | *MS* | *0.0070* | *0.0080* | *0.0085* | *0.0095* | *0.010* | *0.010* | *245* |
| H12 | MS | 0,14 | 0,16 | 0,17 | 0,18 | 0,19 | 0,20 | 70 |
| | *MS* | *0.0055* | *0.0065* | *0.0065* | *0.0070* | *0.0075* | *0.0080* | *230* |
| H21 | MS | 0,14 | 0,16 | 0,17 | 0,18 | 0,19 | 0,20 | 60 |
| | *MS* | *0.0055* | *0.0065* | *0.0065* | *0.0070* | *0.0075* | *0.0080* | *195* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD203A – ∅ 2-8 mm / *0.079-0.315 inch*

| SMG | | f | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|
| | | Ø 2,00<br>*Ø 0.079* | Ø 3,00<br>*Ø 0.118* | Ø 4,00<br>*Ø 0.157* | Ø 5,00<br>*Ø 0.197* | Ø 6,00<br>*Ø 0.236* | Ø 8,00<br>*Ø 0.315* | |
| P11 | M | 0,060 | 0,075 | 0,085 | 0,10 | 0,11 | 0,14 | 150 |
| | *M* | *0.0024* | *0.0030* | *0.0034* | *0.0040* | *0.0044* | *0.0055* | *490* |
| P12 | M | 0,060 | 0,075 | 0,085 | 0,10 | 0,11 | 0,14 | 90 |
| | *M* | *0.0024* | *0.0030* | *0.0034* | *0.0040* | *0.0044* | *0.0055* | *295* |
| M1 | M | 0,075 | 0,095 | 0,11 | 0,13 | 0,15 | 0,19 | 110 |
| | *M* | *0.0030* | *0.0038* | *0.0044* | *0.0050* | *0.0060* | *0.0075* | *360* |
| M2 | M | 0,065 | 0,085 | 0,10 | 0,12 | 0,14 | 0,17 | 90 |
| | *M* | *0.0026* | *0.0034* | *0.0040* | *0.0048* | *0.0055* | *0.0065* | *295* |
| M3 | M | 0,055 | 0,065 | 0,080 | 0,095 | 0,11 | 0,14 | 70 |
| | *M* | *0.0022* | *0.0026* | *0.0032* | *0.0038* | *0.0044* | *0.0055* | *230* |
| M4 | M | 0,048 | 0,060 | 0,070 | 0,085 | 0,095 | 0,12 | 50 |
| | *M* | *0.0019* | *0.0024* | *0.0028* | *0.0034* | *0.0038* | *0.0048* | *165* |
| M5 | M | 0,048 | 0,060 | 0,070 | 0,085 | 0,095 | 0,12 | 42 |
| | *M* | *0.0019* | *0.0024* | *0.0028* | *0.0034* | *0.0038* | *0.0048* | *140* |
| N1 | M | 0,13 | 0,16 | 0,19 | 0,22 | 0,26 | 0,32 | 345 |
| | *M* | *0.0050* | *0.0065* | *0.0075* | *0.0085* | *0.010* | *0.013* | *1125* |
| N2 | M | 0,13 | 0,16 | 0,19 | 0,22 | 0,26 | 0,32 | 225 |
| | *M* | *0.0050* | *0.0065* | *0.0075* | *0.0085* | *0.010* | *0.013* | *740* |
| N3 | M | 0,13 | 0,16 | 0,19 | 0,22 | 0,26 | 0,32 | 150 |
| | *M* | *0.0050* | *0.0065* | *0.0075* | *0.0085* | *0.010* | *0.013* | *490* |
| N11 | M | 0,13 | 0,16 | 0,19 | 0,22 | 0,26 | 0,32 | 285 |
| | *M* | *0.0050* | *0.0065* | *0.0075* | *0.0085* | *0.010* | *0.013* | *940* |
| S1 | M | 0,040 | 0,048 | 0,055 | 0,065 | 0,075 | 0,095 | 39 |
| | *M* | *0.0016* | *0.0019* | *0.0022* | *0.0026* | *0.0030* | *0.0038* | *130* |
| S2 | M | 0,040 | 0,048 | 0,055 | 0,065 | 0,075 | 0,095 | 28 |
| | *M* | *0.0016* | *0.0019* | *0.0022* | *0.0026* | *0.0030* | *0.0038* | *90* |
| S3 | M | 0,040 | 0,048 | 0,055 | 0,065 | 0,075 | 0,095 | 28 |
| | *M* | *0.0016* | *0.0019* | *0.0022* | *0.0026* | *0.0030* | *0.0038* | *90* |
| S11 | M | 0,070 | 0,085 | 0,095 | 0,11 | 0,12 | 0,14 | 70 |
| | *M* | *0.0028* | *0.0034* | *0.0038* | *0.0044* | *0.0048* | *0.0055* | *230* |
| S12 | M | 0,070 | 0,085 | 0,095 | 0,11 | 0,12 | 0,14 | 55 |
| | *M* | *0.0028* | *0.0034* | *0.0038* | *0.0044* | *0.0048* | *0.0055* | *180* |
| S13 | M | 0,065 | 0,075 | 0,085 | 0,095 | 0,10 | 0,12 | 43 |
| | *M* | *0.0026* | *0.0030* | *0.0034* | *0.0038* | *0.0040* | *0.0048* | *140* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD203A – ∅ 10-20 mm / *0.394-0.787 inch*

| SMG | | f | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|
| | | Ø 10,00<br>*Ø 0.394* | Ø 12,00<br>*Ø 0.472* | Ø 14,00<br>*Ø 0.551* | Ø 16,00<br>*Ø 0.630* | Ø 18,00<br>*Ø 0.709* | Ø 20,00<br>*Ø 0.787* | |
| P11 | M | 0,16 | 0,18 | 0,20 | 0,22 | 0,24 | 0,24 | 150 |
| | *M* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.0095* | *0.0095* | *490* |
| P12 | M | 0,16 | 0,18 | 0,20 | 0,22 | 0,24 | 0,24 | 90 |
| | *M* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.0095* | *0.0095* | *295* |
| M1 | M | 0,22 | 0,25 | 0,28 | 0,30 | 0,30 | 0,32 | 110 |
| | *M* | *0.0085* | *0.010* | *0.011* | *0.012* | *0.012* | *0.013* | *360* |
| M2 | M | 0,20 | 0,22 | 0,25 | 0,26 | 0,28 | 0,30 | 90 |
| | *M* | *0.0080* | *0.0085* | *0.010* | *0.010* | *0.011* | *0.012* | *295* |
| M3 | M | 0,16 | 0,18 | 0,20 | 0,22 | 0,22 | 0,24 | 70 |
| | *M* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.0085* | *0.0095* | *230* |
| M4 | M | 0,14 | 0,16 | 0,17 | 0,19 | 0,20 | 0,20 | 50 |
| | *M* | *0.0055* | *0.0065* | *0.0065* | *0.0075* | *0.0080* | *0.0080* | *165* |
| M5 | M | 0,14 | 0,16 | 0,17 | 0,19 | 0,20 | 0,20 | 42 |
| | *M* | *0.0055* | *0.0065* | *0.0065* | *0.0075* | *0.0080* | *0.0080* | *140* |
| N1 | M | 0,38 | 0,42 | 0,46 | 0,50 | 0,55 | 0,55 | 345 |
| | *M* | *0.015* | *0.017* | *0.018* | *0.020* | *0.022* | *0.022* | *1125* |
| N2 | M | 0,38 | 0,42 | 0,46 | 0,50 | 0,55 | 0,55 | 225 |
| | *M* | *0.015* | *0.017* | *0.018* | *0.020* | *0.022* | *0.022* | *740* |
| N3 | M | 0,38 | 0,42 | 0,46 | 0,50 | 0,55 | 0,55 | 150 |
| | *M* | *0.015* | *0.017* | *0.018* | *0.020* | *0.022* | *0.022* | *490* |
| N11 | M | 0,38 | 0,42 | 0,46 | 0,50 | 0,55 | 0,55 | 285 |
| | *M* | *0.015* | *0.017* | *0.018* | *0.020* | *0.022* | *0.022* | *940* |
| S1 | M | 0,11 | 0,13 | 0,15 | 0,16 | 0,17 | 0,19 | 39 |
| | *M* | *0.0044* | *0.0050* | *0.0060* | *0.0065* | *0.0065* | *0.0075* | *130* |
| S2 | M | 0,11 | 0,13 | 0,15 | 0,16 | 0,17 | 0,19 | 28 |
| | *M* | *0.0044* | *0.0050* | *0.0060* | *0.0065* | *0.0065* | *0.0075* | *90* |
| S3 | M | 0,11 | 0,13 | 0,15 | 0,16 | 0,17 | 0,19 | 28 |
| | *M* | *0.0044* | *0.0050* | *0.0060* | *0.0065* | *0.0065* | *0.0075* | *90* |
| S11 | M | 0,17 | 0,19 | 0,22 | 0,24 | 0,25 | 0,26 | 70 |
| | *M* | *0.0065* | *0.0075* | *0.0085* | *0.0095* | *0.010* | *0.010* | *230* |
| S12 | M | 0,17 | 0,19 | 0,22 | 0,24 | 0,25 | 0,26 | 55 |
| | *M* | *0.0065* | *0.0075* | *0.0085* | *0.0095* | *0.010* | *0.010* | *180* |
| S13 | M | 0,15 | 0,17 | 0,19 | 0,20 | 0,22 | 0,22 | 43 |
| | *M* | *0.0060* | *0.0065* | *0.0075* | *0.0080* | *0.0085* | *0.0085* | *140* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD205A-M – ∅ 2-8 mm / *0.079-0.315 inch*

| SMG | | f | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|
| | | Ø2,00<br>*Ø 0.079* | Ø3,00<br>*Ø 0.118* | Ø4,00<br>*Ø 0.157* | Ø5,00<br>*Ø 0.197* | Ø6,00<br>*Ø 0.236* | Ø8,00<br>*Ø 0.315* | |
| P11 | M | 0,060 | 0,075 | 0,085 | 0,10 | 0,11 | 0,14 | 135 |
| | *M* | *0.0024* | *0.0030* | *0.0034* | *0.0040* | *0.0044* | *0.0055* | *445* |
| P12 | M | 0,060 | 0,075 | 0,085 | 0,10 | 0,11 | 0,14 | 80 |
| | *M* | *0.0024* | *0.0030* | *0.0034* | *0.0040* | *0.0044* | *0.0055* | *260* |
| M1 | M | 0,075 | 0,095 | 0,11 | 0,13 | 0,15 | 0,19 | 100 |
| | *M* | *0.0030* | *0.0038* | *0.0044* | *0.0050* | *0.0060* | *0.0075* | *330* |
| M2 | M | 0,065 | 0,085 | 0,10 | 0,12 | 0,14 | 0,17 | 80 |
| | *M* | *0.0026* | *0.0034* | *0.0040* | *0.0048* | *0.0055* | *0.0065* | *260* |
| M3 | M | 0,055 | 0,065 | 0,080 | 0,095 | 0,11 | 0,14 | 60 |
| | *M* | *0.0022* | *0.0026* | *0.0032* | *0.0038* | *0.0044* | *0.0055* | *195* |
| M4 | M | 0,048 | 0,060 | 0,070 | 0,085 | 0,095 | 0,12 | 46 |
| | *M* | *0.0019* | *0.0024* | *0.0028* | *0.0034* | *0.0038* | *0.0048* | *150* |
| M5 | M | 0,048 | 0,060 | 0,070 | 0,085 | 0,095 | 0,12 | 38 |
| | *M* | *0.0019* | *0.0024* | *0.0028* | *0.0034* | *0.0038* | *0.0048* | *125* |
| N1 | M | 0,13 | 0,16 | 0,19 | 0,22 | 0,26 | 0,32 | 310 |
| | *M* | *0.0050* | *0.0065* | *0.0075* | *0.0085* | *0.010* | *0.013* | *1025* |
| N2 | M | 0,13 | 0,16 | 0,19 | 0,22 | 0,26 | 0,32 | 200 |
| | *M* | *0.0050* | *0.0065* | *0.0075* | *0.0085* | *0.010* | *0.013* | *660* |
| N3 | M | 0,13 | 0,16 | 0,19 | 0,22 | 0,26 | 0,32 | 135 |
| | *M* | *0.0050* | *0.0065* | *0.0075* | *0.0085* | *0.010* | *0.013* | *445* |
| N11 | M | 0,13 | 0,16 | 0,19 | 0,22 | 0,26 | 0,32 | 255 |
| | *M* | *0.0050* | *0.0065* | *0.0075* | *0.0085* | *0.010* | *0.013* | *840* |
| S1 | M | 0,040 | 0,048 | 0,055 | 0,065 | 0,075 | 0,095 | 35 |
| | *M* | *0.0016* | *0.0019* | *0.0022* | *0.0026* | *0.0030* | *0.0038* | *115* |
| S2 | M | 0,040 | 0,048 | 0,055 | 0,065 | 0,075 | 0,095 | 25 |
| | *M* | *0.0016* | *0.0019* | *0.0022* | *0.0026* | *0.0030* | *0.0038* | *80* |
| S3 | M | 0,040 | 0,048 | 0,055 | 0,065 | 0,075 | 0,095 | 25 |
| | *M* | *0.0016* | *0.0019* | *0.0022* | *0.0026* | *0.0030* | *0.0038* | *80* |
| S11 | M | 0,070 | 0,085 | 0,095 | 0,11 | 0,12 | 0,14 | 65 |
| | *M* | *0.0028* | *0.0034* | *0.0038* | *0.0044* | *0.0048* | *0.0055* | *215* |
| S12 | M | 0,070 | 0,085 | 0,095 | 0,11 | 0,12 | 0,14 | 50 |
| | *M* | *0.0028* | *0.0034* | *0.0038* | *0.0044* | *0.0048* | *0.0055* | *165* |
| S13 | M | 0,065 | 0,075 | 0,085 | 0,095 | 0,10 | 0,12 | 39 |
| | *M* | *0.0026* | *0.0030* | *0.0034* | *0.0038* | *0.0040* | *0.0048* | *130* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD205A-M – ∅ 10-20 mm / *0.394-0.787 inch*

| SMG | | f | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|
| | | Ø10,00<br>*Ø 0.394* | Ø12,00<br>*Ø 0.472* | Ø14,00<br>*Ø 0.551* | Ø16,00<br>*Ø 0.630* | Ø18,00<br>*Ø 0.709* | Ø20,00<br>*Ø 0.787* | |
| P11 | M | 0,16 | 0,18 | 0,20 | 0,22 | 0,24 | 0,24 | 135 |
| | *M* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.0095* | *0.0095* | *445* |
| P12 | M | 0,16 | 0,18 | 0,20 | 0,22 | 0,24 | 0,24 | 80 |
| | *M* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.0095* | *0.0095* | *260* |
| M1 | M | 0,22 | 0,25 | 0,28 | 0,30 | 0,30 | 0,32 | 100 |
| | *M* | *0.0085* | *0.010* | *0.011* | *0.012* | *0.012* | *0.013* | *330* |
| M2 | M | 0,20 | 0,22 | 0,25 | 0,26 | 0,28 | 0,30 | 80 |
| | *M* | *0.0080* | *0.0085* | *0.010* | *0.010* | *0.011* | *0.012* | *260* |
| M3 | M | 0,16 | 0,18 | 0,20 | 0,22 | 0,22 | 0,24 | 60 |
| | *M* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.0085* | *0.0095* | *195* |
| M4 | M | 0,14 | 0,16 | 0,17 | 0,19 | 0,20 | 0,20 | 45 |
| | *M* | *0.0055* | *0.0065* | *0.0065* | *0.0075* | *0.0080* | *0.0080* | *150* |
| M5 | M | 0,14 | 0,16 | 0,17 | 0,19 | 0,20 | 0,20 | 37 |
| | *M* | *0.0055* | *0.0065* | *0.0065* | *0.0075* | *0.0080* | *0.0080* | *120* |
| N1 | M | 0,38 | 0,42 | 0,46 | 0,50 | 0,55 | 0,55 | 305 |
| | *M* | *0.015* | *0.017* | *0.018* | *0.020* | *0.022* | *0.022* | *1000* |
| N2 | M | 0,38 | 0,42 | 0,46 | 0,50 | 0,55 | 0,55 | 195 |
| | *M* | *0.015* | *0.017* | *0.018* | *0.020* | *0.022* | *0.022* | *640* |
| N3 | M | 0,38 | 0,42 | 0,46 | 0,50 | 0,55 | 0,55 | 130 |
| | *M* | *0.015* | *0.017* | *0.018* | *0.020* | *0.022* | *0.022* | *425* |
| N11 | M | 0,38 | 0,42 | 0,46 | 0,50 | 0,55 | 0,55 | 250 |
| | *M* | *0.015* | *0.017* | *0.018* | *0.020* | *0.022* | *0.022* | *820* |
| S1 | M | 0,11 | 0,13 | 0,15 | 0,16 | 0,17 | 0,19 | 34 |
| | *M* | *0.0044* | *0.0050* | *0.0060* | *0.0065* | *0.0065* | *0.0075* | *110* |
| S2 | M | 0,11 | 0,13 | 0,15 | 0,16 | 0,17 | 0,19 | 25 |
| | *M* | *0.0044* | *0.0050* | *0.0060* | *0.0065* | *0.0065* | *0.0075* | *80* |
| S3 | M | 0,11 | 0,13 | 0,15 | 0,16 | 0,17 | 0,19 | 25 |
| | *M* | *0.0044* | *0.0050* | *0.0060* | *0.0065* | *0.0065* | *0.0075* | *80* |
| S11 | M | 0,17 | 0,19 | 0,22 | 0,24 | 0,25 | 0,26 | 65 |
| | *M* | *0.0065* | *0.0075* | *0.0085* | *0.0095* | *0.010* | *0.010* | *215* |
| S12 | M | 0,17 | 0,19 | 0,22 | 0,24 | 0,25 | 0,26 | 49 |
| | *M* | *0.0065* | *0.0075* | *0.0085* | *0.0095* | *0.010* | *0.010* | *160* |
| S13 | M | 0,15 | 0,17 | 0,19 | 0,20 | 0,22 | 0,22 | 38 |
| | *M* | *0.0060* | *0.0065* | *0.0075* | *0.0080* | *0.0085* | *0.0085* | *125* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD205A-C1 – ∅ 3-13 mm / *0.118-0.512 inch*

| SMG | | f | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|
| | | Ø 3,00<br>*Ø 0.118* | Ø 5,00<br>*Ø 0.197* | Ø 7,00<br>*Ø 0.276* | Ø 9,00<br>*Ø 0.354* | Ø 11,00<br>*Ø 0.433* | Ø 13,00<br>*Ø 0.512* | |
| TS2 | C1<br>*C1* | 0,060<br>*0.0024* | 0,060<br>*0.0024* | 0,065<br>*0.0026* | 0,070<br>*0.0028* | 0,075<br>*0.0030* | 0,080<br>*0.0032* | 65<br>*215* |
| TS3 | C1<br>*C1* | 0,060<br>*0.0024* | 0,060<br>*0.0024* | 0,065<br>*0.0026* | 0,070<br>*0.0028* | 0,075<br>*0.0030* | 0,080<br>*0.0032* | 50<br>*165* |
| TP2 | C1<br>*C1* | 0,060<br>*0.0024* | 0,060<br>*0.0024* | 0,065<br>*0.0026* | 0,070<br>*0.0028* | 0,075<br>*0.0030* | 0,080<br>*0.0032* | 65<br>*215* |
| TP3 | C1<br>*C1* | 0,060<br>*0.0024* | 0,060<br>*0.0024* | 0,065<br>*0.0026* | 0,070<br>*0.0028* | 0,075<br>*0.0030* | 0,080<br>*0.0032* | 50<br>*165* |

## SD205A-C2 – ∅ 3-13 mm / *0.118-0.512 inch*

| SMG | | f | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|
| | | Ø 3,00<br>*Ø 0.118* | Ø 5,00<br>*Ø 0.197* | Ø 7,00<br>*Ø 0.276* | Ø 9,00<br>*Ø 0.354* | Ø 11,00<br>*Ø 0.433* | Ø 13,00<br>*Ø 0.512* | |
| N1 | C2<br>*C2* | 0,095<br>*0.0038* | 0,10<br>*0.0040* | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,13<br>*0.0050* | 0,14<br>*0.0055* | 80<br>*260* |
| N2 | C2<br>*C2* | 0,095<br>*0.0038* | 0,10<br>*0.0040* | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,13<br>*0.0050* | 0,14<br>*0.0055* | 50<br>*165* |
| N3 | C2<br>*C2* | 0,095<br>*0.0038* | 0,10<br>*0.0040* | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,13<br>*0.0050* | 0,14<br>*0.0055* | 33<br>*110* |
| S11 | C2<br>*C2* | 0,055<br>*0.0022* | 0,065<br>*0.0026* | 0,080<br>*0.0032* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 0,11<br>*0.0044* | 50<br>*165* |
| S12 | C2<br>*C2* | 0,055<br>*0.0022* | 0,065<br>*0.0026* | 0,080<br>*0.0032* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 0,11<br>*0.0044* | 40<br>*130* |
| S13 | C2<br>*C2* | 0,048<br>*0.0019* | 0,060<br>*0.0024* | 0,070<br>*0.0028* | 0,080<br>*0.0032* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 31<br>*100* |

## SD203-CX1 – ∅ 3-9 mm / *0.118-0.354 inch*

| SMG | | f | | | | $v_c$ |
|---|---|---|---|---|---|---|
| | | Ø 3,00<br>*Ø 0.118* | Ø 5,00<br>*Ø 0.197* | Ø 7,00<br>*Ø 0.276* | Ø 9,00<br>*Ø 0.354* | |
| TS2 | CX1<br>*CX1* | 0,075<br>*0.0030* | 0,085<br>*0.0034* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 150<br>*490* |
| TS3 | CX1<br>*CX1* | 0,075<br>*0.0030* | 0,085<br>*0.0034* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 120<br>*395* |
| TP2 | CX1<br>*CX1* | 0,075<br>*0.0030* | 0,085<br>*0.0034* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 150<br>*490* |
| TP3 | CX1<br>*CX1* | 0,075<br>*0.0030* | 0,085<br>*0.0034* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 120<br>*395* |

## SD22 & SD26 – ∅ 0,1-0,3 mm / *0.0039-0.0118 inch*

| SMG | f | | | $v_c$ |
|---|---|---|---|---|
| | Ø 0,10<br>*Ø 0.0039* | Ø 0,20<br>*Ø 0.0079* | Ø 0,30<br>*Ø 0.0118* | |
| P1 | 0,0011<br>*0.000044* | 0,0017<br>*0.000065* | 0,0024<br>*0.000095* | 11<br>*36* |
| P2 | 0,0011<br>*0.000044* | 0,0017<br>*0.000065* | 0,0024<br>*0.000095* | 11<br>*36* |
| P3 | 0,0010<br>*0.000040* | 0,0016<br>*0.000065* | 0,0022<br>*0.000085* | 10<br>*33* |
| P4 | 0,0010<br>*0.000040* | 0,0016<br>*0.000065* | 0,0022<br>*0.000085* | 8<br>*26* |
| P5 | 0,0010<br>*0.000040* | 0,0016<br>*0.000065* | 0,0022<br>*0.000085* | 8<br>*26* |
| P6 | 0,0010<br>*0.000040* | 0,0016<br>*0.000065* | 0,0022<br>*0.000085* | 9<br>*30* |
| P7 | 0,0010<br>*0.000040* | 0,0016<br>*0.000065* | 0,0022<br>*0.000085* | 8<br>*26* |
| P8 | 0,0010<br>*0.000040* | 0,0016<br>*0.000065* | 0,0022<br>*0.000085* | 8<br>*26* |
| P11 | 0,0010<br>*0.000040* | 0,0016<br>*0.000065* | 0,0022<br>*0.000085* | 8<br>*26* |
| P12 | 0,00070<br>*0.000028* | 0,0011<br>*0.000044* | 0,0015<br>*0.000060* | 5<br>*16* |
| M1 | 0,0011<br>*0.000044* | 0,0017<br>*0.000065* | 0,0024<br>*0.000095* | 2<br>*7* |
| M2 | 0,0010<br>*0.000040* | 0,0016<br>*0.000065* | 0,0022<br>*0.000085* | 2<br>*7* |
| K1 | 0,0011<br>*0.000044* | 0,0017<br>*0.000065* | 0,0024<br>*0.000095* | 6<br>*20* |
| K2 | 0,0010<br>*0.000040* | 0,0016<br>*0.000065* | 0,0022<br>*0.000085* | 5<br>*16* |
| K3 | 0,0010<br>*0.000040* | 0,0016<br>*0.000065* | 0,0022<br>*0.000085* | 4<br>*13* |
| K4 | 0,0010<br>*0.000040* | 0,0016<br>*0.000065* | 0,0022<br>*0.000085* | 4<br>*13* |
| K5 | 0,00090<br>*0.000036* | 0,0014<br>*0.000055* | 0,0019<br>*0.000075* | 3<br>*10* |
| N2 | 0,0014<br>*0.000055* | 0,0022<br>*0.000085* | 0,0030<br>*0.00012* | 15<br>*49* |
| N3 | 0,0014<br>*0.000055* | 0,0022<br>*0.000085* | 0,0030<br>*0.00012* | 10<br>*33* |
| S11 | 0,00080<br>*0.000032* | 0,0013<br>*0.000050* | 0,0017<br>*0.000065* | 4<br>*13* |
| S12 | 0,00080<br>*0.000032* | 0,0013<br>*0.000050* | 0,0017<br>*0.000065* | 3<br>*10* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD22 & SD26 – ∅ 0,4-0,5 mm / *0.0157-0.0197 inch*

| SMG | f | | $v_c$ |
|---|---|---|---|
| | Ø 0,40<br>*Ø 0.0157* | Ø 0,50<br>*Ø 0.0197* | |
| P1 | 0,0030<br>*0.00012* | 0,0036<br>*0.00014* | 14<br>*46* |
| P2 | 0,0030<br>*0.00012* | 0,0036<br>*0.00014* | 14<br>*46* |
| P3 | 0,0028<br>*0.00011* | 0,0034<br>*0.00013* | 12<br>*39* |
| P4 | 0,0028<br>*0.00011* | 0,0034<br>*0.00013* | 10<br>*33* |
| P5 | 0,0028<br>*0.00011* | 0,0034<br>*0.00013* | 10<br>*33* |
| P6 | 0,0028<br>*0.00011* | 0,0032<br>*0.00013* | 11<br>*36* |
| P7 | 0,0028<br>*0.00011* | 0,0032<br>*0.00013* | 11<br>*36* |
| P8 | 0,0028<br>*0.00011* | 0,0034<br>*0.00013* | 10<br>*33* |
| P11 | 0,0028<br>*0.00011* | 0,0032<br>*0.00013* | 10<br>*33* |
| P12 | 0,0019<br>*0.000075* | 0,0022<br>*0.000085* | 6<br>*20* |
| M1 | 0,0030<br>*0.00012* | 0,0036<br>*0.00014* | 5<br>*16* |
| M2 | 0,0028<br>*0.00011* | 0,0034<br>*0.00013* | 4<br>*13* |
| K1 | 0,0030<br>*0.00012* | 0,0036<br>*0.00014* | 10<br>*33* |
| K2 | 0,0028<br>*0.00011* | 0,0034<br>*0.00013* | 9<br>*30* |
| K3 | 0,0028<br>*0.00011* | 0,0034<br>*0.00013* | 7<br>*23* |
| K4 | 0,0028<br>*0.00011* | 0,0034<br>*0.00013* | 7<br>*23* |
| K5 | 0,0025<br>*0.00010* | 0,0030<br>*0.00012* | 4<br>*13* |
| N2 | 0,0038<br>*0.00015* | 0,0046<br>*0.00018* | 30<br>*100* |
| N3 | 0,0038<br>*0.00015* | 0,0046<br>*0.00018* | 20<br>*65* |
| S11 | 0,0022<br>*0.000085* | 0,0026<br>*0.00010* | 8<br>*26* |
| S12 | 0,0022<br>*0.000085* | 0,0026<br>*0.00010* | 6<br>*20* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD22 & SD26 – ∅ 0,6-0,8 mm / *0.0236-0.0315 inch*

| SMG | f | | | $v_c$ |
|---|---|---|---|---|
| | Ø 0,60<br>*Ø 0.0236* | Ø 0,70<br>*Ø 0.0276* | Ø 0,80<br>*Ø 0.0315* | |
| P1 | 0,0042<br>*0.00017* | 0,0048<br>*0.00019* | 0,0055<br>*0.00022* | 28<br>*90* |
| P2 | 0,0042<br>*0.00017* | 0,0050<br>*0.00020* | 0,0055<br>*0.00022* | 28<br>*90* |
| P3 | 0,0040<br>*0.00016* | 0,0046<br>*0.00018* | 0,0055<br>*0.00022* | 24<br>*80* |
| P4 | 0,0040<br>*0.00016* | 0,0046<br>*0.00018* | 0,0050<br>*0.00020* | 21<br>*70* |
| P5 | 0,0038<br>*0.00015* | 0,0044<br>*0.00017* | 0,0050<br>*0.00020* | 20<br>*65* |
| P6 | 0,0038<br>*0.00015* | 0,0044<br>*0.00017* | 0,0050<br>*0.00020* | 22<br>*70* |
| P7 | 0,0038<br>*0.00015* | 0,0044<br>*0.00017* | 0,0050<br>*0.00020* | 21<br>*70* |
| P8 | 0,0040<br>*0.00016* | 0,0046<br>*0.00018* | 0,0055<br>*0.00022* | 20<br>*65* |
| P11 | 0,0038<br>*0.00015* | 0,0044<br>*0.00017* | 0,0050<br>*0.00020* | 21<br>*70* |
| P12 | 0,0026<br>*0.00010* | 0,0030<br>*0.00012* | 0,0034<br>*0.00013* | 12<br>*39* |
| M1 | 0,0042<br>*0.00017* | 0,0050<br>*0.00020* | 0,0055<br>*0.00022* | 9<br>*30* |
| M2 | 0,0038<br>*0.00015* | 0,0044<br>*0.00017* | 0,0050<br>*0.00020* | 7<br>*23* |
| K1 | 0,0042<br>*0.00017* | 0,0050<br>*0.00020* | 0,0055<br>*0.00022* | 15<br>*49* |
| K2 | 0,0038<br>*0.00015* | 0,0044<br>*0.00017* | 0,0050<br>*0.00020* | 13<br>*43* |
| K3 | 0,0038<br>*0.00015* | 0,0044<br>*0.00017* | 0,0050<br>*0.00020* | 11<br>*36* |
| K4 | 0,0038<br>*0.00015* | 0,0044<br>*0.00017* | 0,0050<br>*0.00020* | 10<br>*33* |
| K5 | 0,0036<br>*0.00014* | 0,0040<br>*0.00016* | 0,0046<br>*0.00018* | 6<br>*20* |
| N2 | 0,0055<br>*0.00022* | 0,0065<br>*0.00026* | 0,0070<br>*0.00028* | 60<br>*195* |
| N3 | 0,0055<br>*0.00022* | 0,0065<br>*0.00026* | 0,0070<br>*0.00028* | 40<br>*130* |
| S11 | 0,0032<br>*0.00013* | 0,0036<br>*0.00014* | 0,0040<br>*0.00016* | 13<br>*43* |
| S12 | 0,0032<br>*0.00013* | 0,0036<br>*0.00014* | 0,0040<br>*0.00016* | 10<br>*33* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD22 & SD26 – ∅ 0,9-1,1 mm / *0.0354-0.0433 inch*

| SMG | f | | | $v_c$ |
|---|---|---|---|---|
| | Ø 0,90<br>*Ø 0.0354* | Ø 1,00<br>*Ø 0.0394* | Ø 1,10<br>*Ø 0.0433* | |
| P1 | 0,0060<br>*0.00024* | 0,0065<br>*0.00026* | 0,0075<br>*0.00030* | 50<br>*165* |
| P2 | 0,0060<br>*0.00024* | 0,0070<br>*0.00028* | 0,0075<br>*0.00030* | 48<br>*155* |
| P3 | 0,0060<br>*0.00024* | 0,0065<br>*0.00026* | 0,0070<br>*0.00028* | 42<br>*140* |
| P4 | 0,0055<br>*0.00022* | 0,0065<br>*0.00026* | 0,0070<br>*0.00028* | 37<br>*120* |
| P5 | 0,0055<br>*0.00022* | 0,0060<br>*0.00024* | 0,0070<br>*0.00028* | 35<br>*115* |
| P6 | 0,0055<br>*0.00022* | 0,0060<br>*0.00024* | 0,0065<br>*0.00026* | 39<br>*130* |
| P7 | 0,0055<br>*0.00022* | 0,0060<br>*0.00024* | 0,0065<br>*0.00026* | 37<br>*120* |
| P8 | 0,0060<br>*0.00024* | 0,0065<br>*0.00026* | 0,0070<br>*0.00028* | 35<br>*115* |
| P11 | 0,0055<br>*0.00022* | 0,0060<br>*0.00024* | 0,0065<br>*0.00026* | 36<br>*120* |
| P12 | 0,0038<br>*0.00015* | 0,0042<br>*0.00017* | 0,0046<br>*0.00018* | 21<br>*70* |
| M1 | 0,0060<br>*0.00024* | 0,0070<br>*0.00028* | 0,0075<br>*0.00030* | 12<br>*39* |
| M2 | 0,0055<br>*0.00022* | 0,0060<br>*0.00024* | 0,0070<br>*0.00028* | 10<br>*33* |
| K1 | 0,0060<br>*0.00024* | 0,0070<br>*0.00028* | 0,0075<br>*0.00030* | 20<br>*65* |
| K2 | 0,0055<br>*0.00022* | 0,0060<br>*0.00024* | 0,0070<br>*0.00028* | 17<br>*55* |
| K3 | 0,0055<br>*0.00022* | 0,0060<br>*0.00024* | 0,0070<br>*0.00028* | 15<br>*49* |
| K4 | 0,0055<br>*0.00022* | 0,0060<br>*0.00024* | 0,0070<br>*0.00028* | 14<br>*46* |
| K5 | 0,0050<br>*0.00020* | 0,0055<br>*0.00022* | 0,0060<br>*0.00024* | 8<br>*26* |
| N2 | 0,0080<br>*0.00032* | 0,0085<br>*0.00034* | 0,0095<br>*0.00038* | 80<br>*260* |
| N3 | 0,0080<br>*0.00032* | 0,0085<br>*0.00034* | 0,0095<br>*0.00038* | 55<br>*180* |
| S11 | 0,0046<br>*0.00018* | 0,0050<br>*0.00020* | 0,0055<br>*0.00022* | 19<br>*60* |
| S12 | 0,0046<br>*0.00018* | 0,0050<br>*0.00020* | 0,0055<br>*0.00022* | 15<br>*49* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD22 & SD26 – ∅ 1,2-2,0 mm / *0.0472-0.0787 inch*

| SMG | f | | | | | $v_c$ |
|---|---|---|---|---|---|---|
| | Ø 1,20<br>*Ø 0.0472* | Ø 1,40<br>*Ø 0.0551* | Ø 1,60<br>*Ø 0.0630* | Ø 1,80<br>*Ø 0.0709* | Ø 2,00<br>*Ø 0.0787* | |
| P1 | 0,0080<br>*0.00032* | 0,0090<br>*0.00036* | 0,010<br>*0.00040* | 0,012<br>*0.00048* | 0,013<br>*0.00050* | 70<br>*230* |
| P2 | 0,0080<br>*0.00032* | 0,0095<br>*0.00038* | 0,011<br>*0.00044* | 0,012<br>*0.00048* | 0,013<br>*0.00050* | 70<br>*230* |
| P3 | 0,0075<br>*0.00030* | 0,0090<br>*0.00036* | 0,010<br>*0.00040* | 0,011<br>*0.00044* | 0,012<br>*0.00048* | 60<br>*195* |
| P4 | 0,0075<br>*0.00030* | 0,0085<br>*0.00034* | 0,010<br>*0.00040* | 0,011<br>*0.00044* | 0,012<br>*0.00048* | 50<br>*165* |
| P5 | 0,0075<br>*0.00030* | 0,0085<br>*0.00034* | 0,0095<br>*0.00038* | 0,011<br>*0.00044* | 0,012<br>*0.00048* | 50<br>*165* |
| P6 | 0,0075<br>*0.00030* | 0,0085<br>*0.00034* | 0,0095<br>*0.00038* | 0,011<br>*0.00044* | 0,012<br>*0.00048* | 55<br>*180* |
| P7 | 0,0075<br>*0.00030* | 0,0085<br>*0.00034* | 0,0095<br>*0.00038* | 0,011<br>*0.00044* | 0,012<br>*0.00048* | 55<br>*180* |
| P8 | 0,0075<br>*0.00030* | 0,0090<br>*0.00036* | 0,010<br>*0.00040* | 0,011<br>*0.00044* | 0,012<br>*0.00048* | 50<br>*165* |
| P11 | 0,0075<br>*0.00030* | 0,0085<br>*0.00034* | 0,0095<br>*0.00038* | 0,011<br>*0.00044* | 0,012<br>*0.00048* | 50<br>*165* |
| P12 | 0,0050<br>*0.00020* | 0,0060<br>*0.00024* | 0,0065<br>*0.00026* | 0,0075<br>*0.00030* | 0,0080<br>*0.00032* | 30<br>*100* |
| M1 | 0,0080<br>*0.00032* | 0,0095<br>*0.00038* | 0,011<br>*0.00044* | 0,012<br>*0.00048* | 0,013<br>*0.00050* | 15<br>*49* |
| M2 | 0,0075<br>*0.00030* | 0,0085<br>*0.00034* | 0,0095<br>*0.00038* | 0,011<br>*0.00044* | 0,012<br>*0.00048* | 12<br>*39* |
| K1 | 0,0080<br>*0.00032* | 0,0095<br>*0.00038* | 0,011<br>*0.00044* | 0,012<br>*0.00048* | 0,013<br>*0.00050* | 35<br>*115* |
| K2 | 0,0075<br>*0.00030* | 0,0085<br>*0.00034* | 0,0095<br>*0.00038* | 0,011<br>*0.00044* | 0,012<br>*0.00048* | 30<br>*100* |
| K3 | 0,0075<br>*0.00030* | 0,0085<br>*0.00034* | 0,0095<br>*0.00038* | 0,011<br>*0.00044* | 0,012<br>*0.00048* | 26<br>*85* |
| K4 | 0,0075<br>*0.00030* | 0,0085<br>*0.00034* | 0,0095<br>*0.00038* | 0,011<br>*0.00044* | 0,012<br>*0.00048* | 25<br>*80* |
| K5 | 0,0065<br>*0.00026* | 0,0075<br>*0.00030* | 0,0085<br>*0.00034* | 0,010<br>*0.00040* | 0,011<br>*0.00044* | 15<br>*49* |
| N2 | 0,010<br>*0.00040* | 0,012<br>*0.00048* | 0,014<br>*0.00055* | 0,015<br>*0.00060* | 0,017<br>*0.00065* | 100<br>*330* |
| N3 | 0,010<br>*0.00040* | 0,012<br>*0.00048* | 0,014<br>*0.00055* | 0,015<br>*0.00060* | 0,017<br>*0.00065* | 65<br>*215* |
| S11 | 0,0060<br>*0.00024* | 0,0070<br>*0.00028* | 0,0075<br>*0.00030* | 0,0085<br>*0.00034* | 0,0095<br>*0.00038* | 26<br>*85* |
| S12 | 0,0060<br>*0.00024* | 0,0070<br>*0.00028* | 0,0075<br>*0.00030* | 0,0085<br>*0.00034* | 0,0095<br>*0.00038* | 20<br>*65* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values



# Seco Crownloc®

Seco Crownloc® is a range of exchangeable tip drills designed to offer high quality holes at a lower cost. Matching the quality of high precision drills, Crownloc uses replaceable crowns to eliminate the need for and cost of regrinding.

- Double coolant holes through the crown permit a high volume of coolant to reach the cutting edges
- Crownloc® is available in a large range of optimized tip geometries for different applications and workpiece materials

# Range overview

| Crownloc® | ∅ Range | Drill depth | Drill ∅ tolerance | Hole tolerance (1) | Surface finish (2) |
|---|---|---|---|---|---|
| **SD101**  Page(s) 175-176 | 12,00-25,99 mm *(0.472-1.023")* | 1,5 x D | k7 | IT 10 | Ra 1-3 µm *(Ra 39-118 µin)* |
| **SD103**  Page(s) 177-178 | 9,52-25,99 mm *(0.375-1.023")* | 3 x D | k7 | IT 10 | Ra 1-3 µm *(Ra 39-118 µin)* |
| **SD105**  Page(s) 179-180 | 10,00-25,99 mm *(0.394-1.023")* | 5 x D | k7 | IT 10 | Ra 1-3 µm *(Ra 39-118 µin)* |
| **SD107**  Page(s) 181-182 | 12,00-25,99 mm *(0.472-1.023")* | 7 x D | k7 | IT 10 | Ra 1-4 µm *(Ra 39-157 µin)* |
| **Chamfer module**  Page(s) 190 | 12.00-19,99 mm *(0.472-0.787")* | – | – | – | – |

1) Variations can occur depending on the material and the cutting data used.
2) Drill depth, cutting data, coolant pressure and material can cause deterioration of the surface finish.

# Code keys

## Code key drill bodies

### Metric



Type of drill
SD101: 1,5 x D
SD103: 3 x D
SD105: 5 x D
SD107: 7 x D

Min/max
Crown diameter

**SD103 – 14.00/14.99 – 50 – 16 – R 7**

- 50: Drilling depth
- 16: Shank diameter
- R: Right hand rotation
- 7: Type of shank 1. Cylindrical 7. ISO 9766

### Inch

**50 – 0750 – R 7**

## Code key crowns

Drill diameter

**SD100 – 14.00 – P**

Type of geometry
P = Steel
M = Stainless Steel
K = Cast iron

## Geometries

**P-geometry**
**- Universal geometry, first choice for drilling in steel**



**M-geometry**
**- For stainless steels and high temp alloys**



**K-geometry**
**- First choice for drilling in cast iron**



## Spare part kits

| Drill diameter mm (Inch) | SD101 | SD103 | SD105 | SD107 |
|---|---|---|---|---|
| 10,00-11,99 | – | SD103-SP-4.0 | SD105-SP-4.0 | – |
| 12,00-13,99 | SD101-SP-5.0 | SD103-SP-5.0 | SD105-SP-5.0 | SD107-SP-5.0 |
| 14,00-16,99 | SD101-SP-6.0 | SD103-SP-6.0 | SD105-SP-6.0 | SD107-SP-6.0 |
| 17,00-19,99 | SD101-SP-7.0 | SD103-SP-7.0 | SD105-SP-7.0 | SD107-SP-7.0 |
| 20,00-25,99 | SD101-SP-8.0 | SD103-SP-8.0 | SD105-SP-8.0 | SD107-SP-8.0 |

# Mounting instructions

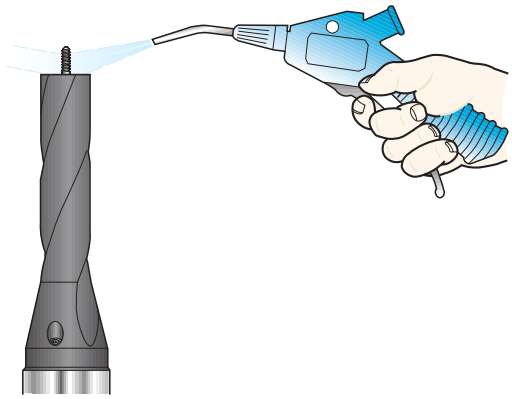
1. Clean the locking interface of the drill body carefully to remove any chips or debris.
2. Make sure that the pull rod is fully extended.
3. Mount new crown onto the pull rod and turn it until it reaches the bottom of the thread.

Turn the crown slightly counterclockwise (backwards) until the locking interfaces fit.
Push the crown towards the body into the right position while turning the clamping screw.
Make sure the interfaces fit.
Tighten the clamping screw firmly using the torque key.

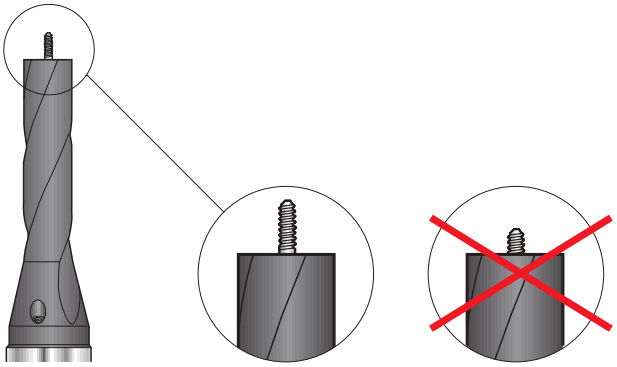
**Stability**
The stability of the applicationis important in obtaining the best tool life and hole accuracy. Check the condition of the machine spindle, fixture and fixturing of the component to secure maximum stability and rigidity. Unstable conditions can cause tool breakages.

**Rotating**
Total Indicated Run-out (TIR) should not exceed 0,06 mm *(0.002")* in a rotating application. Measure the run-out when the drill is mounted in the spindle.

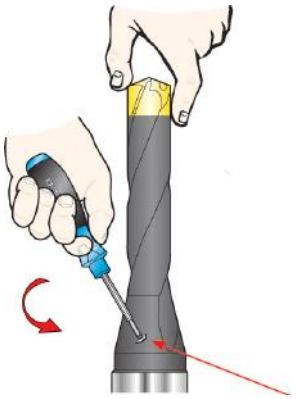
**1.**



**2.**

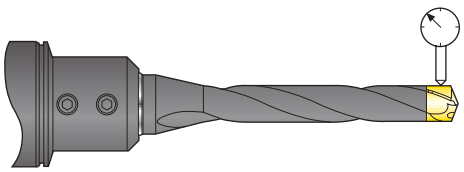


**3.**



| Drill ∅ DC mm | $M_c$ Nm | Drill ∅ DC *inch* | $M_c$ *in/lbs* |
|---|---|---|---|
| 10,00-13,99 | 0,8-1,0 | *0.394-0.551* | *7-9* |
| 14,00-16,99 | 1,8-2,2 | *0.551-0.669* | *16-19.5* |
| 17,00-25,99 | 2,5-3,0 | *0.669-1.023* | *22-26* |

**Stationary**
The distance between the drill point and the rotating center of the workpiece should not exceed 0.03 mm *(0.001")* radially in a stationary application.



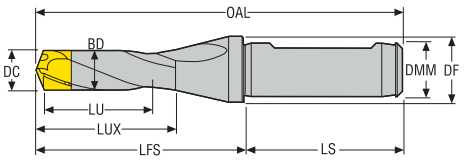
**Recommended tool holders**
For best results, use holders type DIN 1835 B/DIN 6535 HB (Weldon). For further information see Tooling catalog.



**Weldon**

# SD101 – R7

Drilling depth ~ 1,5 x D – Metric shank






- Internal coolant
- ISO9766 fits holders: Weldon 1835B, ISO 5414, DIN 60880
- For cutting data see page(s) 193

| Designation | Item number | DC | LU | OAL | LUX | BD | LFS | LS | DMM | DF |
|---|---|---|---|---|---|---|---|---|---|---|
| | | mm | mm | mm | mm | mm | mm | mm | mm | mm |
| SD101-12.00/12.49-20-16R7 | 02445790 | 12,0-12,49 | 20,0 | 96,0 | 32,0 | 11,5 | 48,0 | 48,0 | 16,0 | 20,0 |
| SD101-12.50/12.99-20-16R7 | 02445791 | 12,5-12,99 | 20,0 | 96,4 | 32,4 | 12,0 | 48,4 | 48,0 | 16,0 | 20,0 |
| SD101-13.00/13.99-20-16R7 | 02445792 | 13,0-13,99 | 20,0 | 96,8 | 32,8 | 12,5 | 48,8 | 48,0 | 16,0 | 20,0 |
| SD101-14.00/14.99-25-16R7 | 02445793 | 14,0-14,99 | 25,0 | 102,4 | 38,4 | 13,5 | 54,4 | 48,0 | 16,0 | 20,0 |
| SD101-15.00/15.99-25-16R7 | 02445794 | 15,0-15,99 | 25,0 | 103,3 | 39,3 | 14,5 | 55,3 | 48,0 | 16,0 | 20,0 |
| SD101-16.00/16.99-25-16R7 | 02445795 | 16,0-16,99 | 25,0 | 104,0 | 40,0 | 15,5 | 56,0 | 48,0 | 16,0 | 20,0 |
| SD101-17.00/17.99-30-20R7 | 02445796 | 17,0-17,99 | 30,0 | 110,7 | 44,7 | 16,5 | 60,7 | 50,0 | 20,0 | 25,0 |
| SD101-18.00/18.99-30-20R7 | 02445797 | 18,0-18,99 | 30,0 | 111,7 | 45,7 | 17,5 | 61,7 | 50,0 | 20,0 | 25,0 |
| SD101-19.00/19.99-30-20R7 | 02445798 | 19,0-19,99 | 30,0 | 112,5 | 46,5 | 18,5 | 62,5 | 50,0 | 20,0 | 25,0 |
| SD101-20.00/21.99-40-25R7 | 02462832 | 20,0-21,99 | 40,0 | 129,5 | 53,5 | 19,5 | 73,5 | 56,0 | 25,0 | 31,0 |
| SD101-22.00/23.99-40-25R7 | 02462833 | 22,0-23,99 | 40,0 | 129,5 | 53,5 | 21,5 | 73,5 | 56,0 | 25,0 | 31,0 |
| SD101-24.00/25.99-40-25R7 | 02462834 | 24,0-25,99 | 40,0 | 129,5 | 53,5 | 23,5 | 73,5 | 56,0 | 25,0 | 31,0 |

## Spare Parts, included in delivery

| For drill dia. (mm) | Locking key | Locking screw | Spare parts set |
|---|---|---|---|
| |  |  |  |
| 12,00-13,99 | H1.5-2D | MP6SS3X12 | SD101-SP-5.0 |
| 14,00-16,99 | H2.0-2D | MP6SS4X12 | SD101-SP-6.0 |
| 17,00-19,99 | H2.5-2D | MP6SS5X16 | SD101-SP-7.0 |
| 20,00-25,99 | H2.5-2D | MP6SS5X16 | SD101-SP-8.0 |

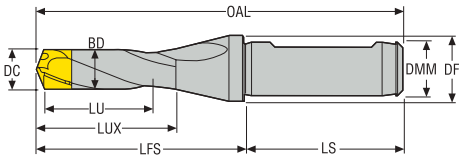
## Accessories

| Replacement blade | Torque key |
|---|---|
|  |  |
| H00-1.5 | H00-1509 |
| H00-2.0 | H00-2020 |
| H00-2.5 | H00-2530 |
| H00-2.5 | H00-2535 |

# SD101 – R7

Drilling depth ~ 1,5 x D – Inch shank






- Internal coolant
- ISO9766 fits holders: Weldon 1835B, ISO 5414, DIN 60880
- For cutting data see page(s) 193

| Designation | Item number | DC | LU | BD | DF | OAL | LS | LFS | LUX | DMM |
|---|---|---|---|---|---|---|---|---|---|---|
| | | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* |
| SD101-12.00/12.49-20-0625R7 | 02445817 | 0.472-0.492 | 0.787 | 0.453 | 0.787 | 3.780 | 1.890 | 1.890 | 1.260 | 0.625 |
| SD101-12.50/12.99-20-0625R7 | 02445818 | 0.492-0.511 | 0.787 | 0.472 | 0.787 | 3.795 | 1.890 | 1.906 | 1.276 | 0.625 |
| SD101-13.00/13.99-20-0625R7 | 02445819 | 0.512-0.551 | 0.787 | 0.492 | 0.787 | 3.811 | 1.890 | 1.921 | 1.291 | 0.625 |
| SD101-14.00/14.99-25-0625R7 | 02445820 | 0.551-0.590 | 0.984 | 0.531 | 0.787 | 4.031 | 1.890 | 2.142 | 1.512 | 0.625 |
| SD101-15.00/15.99-25-0625R7 | 02445821 | 0.591-0.630 | 0.984 | 0.571 | 0.787 | 4.067 | 1.890 | 2.177 | 1.547 | 0.625 |
| SD101-16.00/16.99-25-0625R7 | 02445822 | 0.630-0.669 | 0.984 | 0.610 | 0.787 | 4.094 | 1.890 | 2.205 | 1.575 | 0.625 |
| SD101-17.00/17.99-30-0750R7 | 02445823 | 0.669-0.708 | 1.181 | 0.650 | 0.984 | 4.358 | 1.969 | 2.390 | 1.760 | 0.750 |
| SD101-18.00/18.99-30-0750R7 | 02445824 | 0.709-0.748 | 1.181 | 0.689 | 0.984 | 4.398 | 1.969 | 2.429 | 1.799 | 0.750 |
| SD101-19.00/19.99-30-0750R7 | 02445825 | 0.748-0.787 | 1.181 | 0.728 | 0.984 | 4.429 | 1.969 | 2.461 | 1.831 | 0.750 |
| SD101-20.00/21.99-40-1000R7 | 02466044 | 0.787-0.866 | 1.575 | 0.768 | 1.220 | 5.098 | 2.205 | 2.894 | 2.106 | 1.000 |
| SD101-22.00/23.99-40-1000R7 | 02466045 | 0.866-0.944 | 1.575 | 0.846 | 1.220 | 5.098 | 2.205 | 2.894 | 2.106 | 1.000 |
| SD101-24.00/25.99-40-1000R7 | 02466046 | 0.945-1.023 | 1.575 | 0.925 | 1.220 | 5.098 | 2.205 | 2.894 | 2.106 | 1.000 |

## Spare Parts, included in delivery

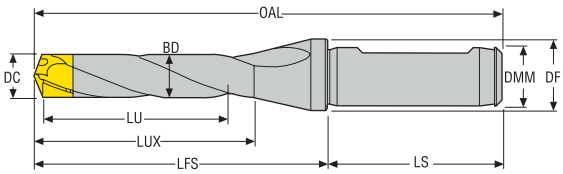
| For drill dia. (inch) | Locking key | Locking screw | Spare parts set |
|---|---|---|---|
| |  |  |  |
| 0.472-0.551 | H1.5-2D | MP6SS3X12 | SD101-SP-5.0 |
| 0.551-0.669 | H2.0-2D | MP6SS4X12 | SD101-SP-6.0 |
| 0.669-0.787 | H2.5-2D | MP6SS5X16 | SD101-SP-7.0 |
| 0.787-1.023 | H2.5-2D | MP6SS5X16 | SD101-SP-8.0 |

## Accessories

| Replacement blade | Torque key |
|---|---|
|  |  |
| H00-1.5 | H00-1509 |
| H00-2.0 | H00-2020 |
| H00-2.5 | H00-2530 |
| H00-2.5 | H00-2535 |

# SD103 – R7

Drilling depth ~ 3 x D – Metric shank






- Internal coolant
- ISO9766 fits holders: Weldon 1835B, ISO 5414, DIN 60880
- For cutting data see page(s) 194

| Designation | Item number | DC | LU | OAL | LUX | BD | LFS | LS | DMM | DF |
|---|---|---|---|---|---|---|---|---|---|---|
| | | mm | mm | mm | mm | mm | mm | mm | mm | mm |
| SD103-10.00/10.49-30-16R7 | 02462815 | 10,0-10,49 | 30,0 | 101,0 | 38,0 | 9,5 | 53,0 | 48,0 | 16,0 | 20,0 |
| SD103-10.50/10.99-30-16R7 | 02462818 | 10,5-10,99 | 30,0 | 101,0 | 38,0 | 10,0 | 53,0 | 48,0 | 16,0 | 20,0 |
| SD103-11.00/11.49-30-16R7 | 02462819 | 11,0-11,49 | 30,0 | 101,0 | 38,0 | 10,5 | 53,0 | 48,0 | 16,0 | 20,0 |
| SD103-11.50/11.99-30-16R7 | 02462820 | 11,5-11,99 | 30,0 | 101,0 | 38,0 | 11,0 | 53,0 | 48,0 | 16,0 | 20,0 |
| SD103-12.00/12.49-40-16R7 | 02445799 | 12,0-12,49 | 40,0 | 116,0 | 48,0 | 11,5 | 68,0 | 48,0 | 16,0 | 20,0 |
| SD103-12.50/12.99-40-16R7 | 02445800 | 12,5-12,99 | 40,0 | 116,4 | 48,4 | 12,0 | 68,4 | 48,0 | 16,0 | 20,0 |
| SD103-13.00/13.99-40-16R7 | 02445801 | 13,0-13,99 | 40,0 | 116,8 | 48,8 | 12,5 | 68,8 | 48,0 | 16,0 | 20,0 |
| SD103-14.00/14.99-50-16R7 | 02445802 | 14,0-14,99 | 50,0 | 127,4 | 59,4 | 13,5 | 79,4 | 48,0 | 16,0 | 20,0 |
| SD103-15.00/15.99-50-16R7 | 02445803 | 15,0-15,99 | 50,0 | 128,3 | 60,3 | 14,5 | 80,3 | 48,0 | 16,0 | 20,0 |
| SD103-16.00/16.99-50-16R7 | 02445804 | 16,0-16,99 | 50,0 | 129,0 | 61,0 | 15,5 | 81,0 | 48,0 | 16,0 | 20,0 |
| SD103-17.00/17.99-60-20R7 | 02445805 | 17,0-17,99 | 60,0 | 140,7 | 67,7 | 16,5 | 90,7 | 50,0 | 20,0 | 25,0 |
| SD103-18.00/18.99-60-20R7 | 02445806 | 18,0-18,99 | 60,0 | 141,7 | 68,7 | 17,5 | 91,7 | 50,0 | 20,0 | 25,0 |
| SD103-19.00/19.99-60-20R7 | 02445807 | 19,0-19,99 | 60,0 | 142,5 | 69,5 | 18,5 | 92,7 | 50,0 | 20,0 | 25,0 |
| SD103-20.00/21.99-75-25R7 | 02462836 | 20,0-21,99 | 75,0 | 164,5 | 88,5 | 19,5 | 108,5 | 56,0 | 25,0 | 31,0 |
| SD103-22.00/23.99-75-25R7 | 02462838 | 22,0-23,99 | 75,0 | 164,5 | 88,5 | 21,5 | 108,5 | 56,0 | 25,0 | 31,0 |
| SD103-24.00/25.99-75-25R7 | 02462841 | 24,0-25,99 | 75,0 | 164,5 | 88,5 | 23,5 | 108,5 | 56,0 | 25,0 | 31,0 |

## Spare Parts, included in delivery

| For drill dia. (mm) | Locking key | Locking screw | Spare parts set |
|---|---|---|---|
| |  |  |  |
| 10,00-11,99 | H1.5-2D | MP6SS3X12 | SD103-SP-4.0 |
| 12,00-13,99 | H1.5-2D | MP6SS3X12 | SD103-SP-5.0 |
| 14,00-16,99 | H2.0-2D | MP6SS4X12 | SD103-SP-6.0 |
| 17,00-19,99 | H2.5-2D | MP6SS5X16 | SD103-SP-7.0 |
| 20,00-25,99 | H2.5-2D | MP6SS5X16 | SD103-SP-8.0 |

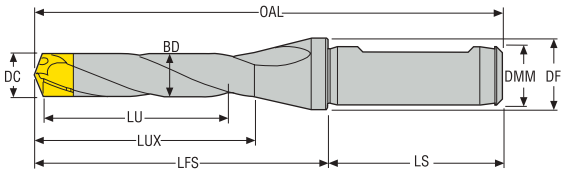
## Accessories

| Replacement blade | Torque key |
|---|---|
|  |  |
| H00-1.5 | H00-1509 |
| H00-1.5 | H00-1509 |
| H00-2.0 | H00-2020 |
| H00-2.5 | H00-2530 |
| H00-2.5 | H00-2535 |

# SD103 – R7

## Drilling depth ~ 3 x D – Inch shank






- Internal coolant
- ISO9766 fits holders: Weldon 1835B, ISO 5414, DIN 60880
- For cutting data see page(s) 194

| Designation | Item number | DC | LU | BD | DF | OAL | LS | LFS | LUX | DMM |
|---|---|---|---|---|---|---|---|---|---|---|
| | | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* |
| SD103-09.50/09.99-30-0625R7 | 02673828 | 0.374-0.393 | 1.181 | 0.354 | 0.787 | 4.252 | 1.969 | 2.323 | 1.835 | 0.625 |
| SD103-10.00/10.49-30-0625R7 | 02466011 | 0.394-0.413 | 1.181 | 0.374 | 0.787 | 3.976 | 1.890 | 2.087 | 1.496 | 0.625 |
| SD103-10.50/10.99-30-0625R7 | 02466012 | 0.413-0.433 | 1.181 | 0.394 | 0.787 | 3.976 | 1.890 | 2.087 | 1.496 | 0.625 |
| SD103-11.00/11.49-30-0625R7 | 02466013 | 0.433-0.452 | 1.181 | 0.413 | 0.787 | 3.976 | 1.890 | 2.087 | 1.496 | 0.625 |
| SD103-11.50/11.99-30-0625R7 | 02466014 | 0.453-0.472 | 1.181 | 0.433 | 0.787 | 3.976 | 1.890 | 2.087 | 1.496 | 0.625 |
| SD103-12.00/12.49-40-0625R7 | 02445826 | 0.472-0.492 | 1.575 | 0.453 | 0.787 | 4.567 | 1.890 | 2.677 | 1.890 | 0.625 |
| SD103-12.50/12.99-40-0625R7 | 02445827 | 0.492-0.511 | 1.575 | 0.472 | 0.787 | 4.583 | 1.890 | 2.693 | 1.906 | 0.625 |
| SD103-13.00/13.99-40-0625R7 | 02445828 | 0.512-0.551 | 1.575 | 0.492 | 0.787 | 4.598 | 1.890 | 2.709 | 1.921 | 0.625 |
| SD103-14.00/14.99-50-0625R7 | 02445829 | 0.551-0.590 | 1.969 | 0.531 | 0.787 | 5.016 | 1.890 | 3.126 | 2.339 | 0.625 |
| SD103-15.00/15.99-50-0625R7 | 02445830 | 0.591-0.630 | 1.969 | 0.571 | 0.787 | 5.051 | 1.890 | 3.161 | 2.374 | 0.625 |
| SD103-16.00/16.99-50-0625R7 | 02445831 | 0.630-0.669 | 1.969 | 0.610 | 0.787 | 5.079 | 1.890 | 3.189 | 2.402 | 0.625 |
| SD103-17.00/17.99-60-0750R7 | 02445832 | 0.669-0.708 | 2.362 | 0.650 | 0.984 | 5.539 | 1.969 | 3.571 | 2.665 | 0.750 |
| SD103-18.00/18.99-60-0750R7 | 02445833 | 0.709-0.748 | 2.362 | 0.689 | 0.984 | 5.579 | 1.969 | 3.610 | 2.705 | 0.750 |
| SD103-19.00/19.99-60-0750R7 | 02445834 | 0.748-0.787 | 2.362 | 0.728 | 0.984 | 5.610 | 1.969 | 3.650 | 2.736 | 0.750 |
| SD103-20.00/21.99-75-1000R7 | 02466049 | 0.787-0.866 | 2.953 | 0.768 | 1.220 | 6.476 | 2.205 | 4.272 | 3.484 | 1.000 |
| SD103-22.00/23.99-75-1000R7 | 02466050 | 0.866-0.944 | 2.953 | 0.846 | 1.220 | 6.476 | 2.205 | 4.272 | 3.484 | 1.000 |
| SD103-24.00/25.99-75-1000R7 | 02466051 | 0.945-1.023 | 2.953 | 0.925 | 1.220 | 6.476 | 2.205 | 4.272 | 3.484 | 1.000 |

### Spare Parts, included in delivery

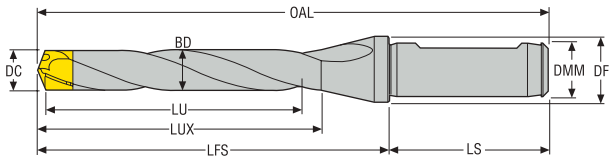
| For drill dia. (inch) | Locking key | Locking screw | Spare parts set |
|---|---|---|---|
| |  |  |  |
| 0.374-0.393 | H1.5-2D | MP6SS3X12 | – |
| 0.394-0.472 | H1.5-2D | MP6SS3X12 | SD103-SP-4.0 |
| 0.472-0.551 | H1.5-2D | MP6SS3X12 | SD103-SP-5.0 |
| 0.551-0.669 | H2.0-2D | MP6SS4X12 | SD103-SP-6.0 |
| 0.669-0.787 | H2.5-2D | MP6SS5X16 | SD103-SP-7.0 |
| 0.787-1.023 | H2.5-2D | MP6SS5X16 | SD103-SP-8.0 |

### Accessories

| Replacement blade | Torque key |
|---|---|
|  |  |
| H00-1.5 | H00-1509 |
| H00-1.5 | H00-1509 |
| H00-1.5 | H00-1509 |
| H00-2.0 | H00-2020 |
| H00-2.5 | H00-2530 |
| H00-2.5 | H00-2535 |

# SD105 – R7

Drilling depth ~ 5 x D – Metric shank






- Internal coolant
- ISO9766 fits holders: Weldon 1835B, ISO 5414, DIN 60880
- For cutting data see page(s) 195

| Designation | Item number | DC | LU | OAL | LUX | BD | LFS | LS | DMM | DF |
|---|---|---|---|---|---|---|---|---|---|---|
| | | mm | mm | mm | mm | mm | mm | mm | mm | mm |
| SD105-10.00/10.49-50-16R7 | 02462822 | 10,0-10,49 | 50,0 | 120,1 | 57,3 | 9,5 | 72,1 | 48,0 | 16,0 | 20,0 |
| SD105-10.50/10.99-50-16R7 | 02462824 | 10,5-10,99 | 50,0 | 120,6 | 57,3 | 10,0 | 72,6 | 48,0 | 16,0 | 20,0 |
| SD105-11.00/11.49-50-16R7 | 02462828 | 11,0-11,49 | 50,0 | 120,9 | 57,3 | 10,5 | 72,9 | 48,0 | 16,0 | 20,0 |
| SD105-11.50/11.99-50-16R7 | 02462830 | 11,5-11,99 | 50,0 | 121,3 | 58,3 | 11,0 | 73,3 | 48,0 | 16,0 | 20,0 |
| SD105-12.00/12.49-65-16R7 | 02445808 | 12,0-12,49 | 65,0 | 141,0 | 73,0 | 11,5 | 93,0 | 48,0 | 16,0 | 20,0 |
| SD105-12.50/12.99-65-16R7 | 02445809 | 12,5-12,99 | 65,0 | 141,4 | 73,4 | 12,0 | 93,4 | 48,0 | 16,0 | 20,0 |
| SD105-13.00/13.99-65-16R7 | 02445810 | 13,0-13,99 | 65,0 | 141,8 | 73,8 | 12,5 | 93,8 | 48,0 | 16,0 | 20,0 |
| SD105-14.00/14.99-80-16R7 | 02445811 | 14,0-14,99 | 80,0 | 157,4 | 89,4 | 13,5 | 109,4 | 48,0 | 16,0 | 20,0 |
| SD105-15.00/15.99-80-16R7 | 02445812 | 15,0-15,99 | 80,0 | 158,3 | 90,3 | 14,5 | 110,3 | 48,0 | 16,0 | 20,0 |
| SD105-16.00/16.99-80-16R7 | 02445813 | 16,0-16,99 | 80,0 | 159,0 | 91,0 | 15,5 | 111,0 | 48,0 | 16,0 | 20,0 |
| SD105-17.00/17.99-95-20R7 | 02445814 | 17,0-17,99 | 95,0 | 176,7 | 107,7 | 16,5 | 126,7 | 50,0 | 20,0 | 25,0 |
| SD105-18.00/18.99-95-20R7 | 02445815 | 18,0-18,99 | 95,0 | 177,7 | 108,7 | 17,5 | 127,7 | 50,0 | 20,0 | 25,0 |
| SD105-19.00/19.99-95-20R7 | 02445816 | 19,0-19,99 | 95,0 | 178,5 | 109,5 | 18,5 | 128,5 | 50,0 | 20,0 | 25,0 |
| SD105-20.00/21.99-125-25R7 | 02462843 | 20,0-21,99 | 125,0 | 214,5 | 138,5 | 19,5 | 158,5 | 56,0 | 25,0 | 31,0 |
| SD105-22.00/23.99-125-25R7 | 02462848 | 22,0-23,99 | 125,0 | 214,5 | 138,5 | 21,5 | 158,5 | 56,0 | 25,0 | 31,0 |
| SD105-24.00/25.99-125-25R7 | 02462850 | 24,0-25,99 | 125,0 | 214,5 | 138,5 | 23,5 | 158,5 | 56,0 | 25,0 | 31,0 |

## Spare Parts, included in delivery

| For drill dia. (mm) | Locking key | Locking screw | Spare parts set |
|---|---|---|---|
| |  |  |  |
| 10,00-11,99 | H1.5-2D | MP6SS3X12 | SD105-SP-4.0 |
| 12,00-13,99 | H1.5-2D | MP6SS3X12 | SD105-SP-5.0 |
| 14,00-16,99 | H2.0-2D | MP6SS4X12 | SD105-SP-6.0 |
| 17,00-19,99 | H2.5-2D | MP6SS5X16 | SD105-SP-7.0 |
| 20,00-25,99 | H2.5-2D | MP6SS5X16 | SD105-SP-8.0 |

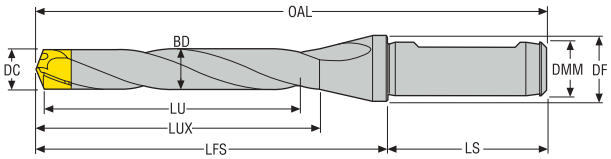
## Accessories

| Replacement blade | Torque key |
|---|---|
|  |  |
| H00-1.5 | H00-1509 |
| H00-1.5 | H00-1509 |
| H00-2.0 | H00-2020 |
| H00-2.5 | H00-2530 |
| H00-2.5 | H00-2535 |

# SD105 – R7

Drilling depth ~ 5 x D – Inch shank






- Internal coolant
- ISO9766 fits holders: Weldon 1835B, ISO 5414, DIN 60880
- For cutting data see page(s) 195

| Designation | Item number | DC | LU | BD | DF | OAL | LS | LFS | LUX | DMM |
|---|---|---|---|---|---|---|---|---|---|---|
| | | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* |
| SD105-10.00/10.49-50-0625R7 | 02466034 | 0.394-0.413 | 1.969 | 0.374 | 0.787 | 4.728 | 1.890 | 2.839 | 2.256 | 0.625 |
| SD105-10.50/10.99-50-0625R7 | 02466037 | 0.413-0.433 | 1.969 | 0.394 | 0.787 | 4.748 | 1.890 | 2.858 | 2.256 | 0.625 |
| SD105-11.00/11.49-50-0625R7 | 02466041 | 0.433-0.452 | 1.969 | 0.413 | 0.787 | 4.760 | 1.890 | 2.870 | 2.256 | 0.625 |
| SD105-11.50/11.99-50-0625R7 | 02466042 | 0.453-0.472 | 1.969 | 0.433 | 0.787 | 4.776 | 1.890 | 2.886 | 2.295 | 0.625 |
| SD105-12.00/12.49-65-0625R7 | 02445835 | 0.472-0.492 | 2.559 | 0.453 | 0.787 | 5.551 | 1.890 | 3.661 | 2.874 | 0.625 |
| SD105-12.50/12.99-65-0625R7 | 02445836 | 0.492-0.511 | 2.559 | 0.472 | 0.787 | 5.567 | 1.890 | 3.677 | 2.890 | 0.625 |
| SD105-13.00/13.99-65-0625R7 | 02445837 | 0.512-0.551 | 2.559 | 0.492 | 0.787 | 5.583 | 1.890 | 3.693 | 2.906 | 0.625 |
| SD105-14.00/14.99-80-0625R7 | 02445838 | 0.551-0.590 | 3.150 | 0.531 | 0.787 | 6.197 | 1.890 | 4.307 | 3.520 | 0.625 |
| SD105-15.00/15.99-80-0625R7 | 02445839 | 0.591-0.630 | 3.150 | 0.571 | 0.787 | 6.232 | 1.890 | 4.343 | 3.555 | 0.625 |
| SD105-16.00/16.99-80-0625R7 | 02445840 | 0.630-0.669 | 3.150 | 0.610 | 0.787 | 6.260 | 1.890 | 4.370 | 3.583 | 0.625 |
| SD105-17.00/17.99-95-0750R7 | 02445841 | 0.669-0.708 | 3.740 | 0.650 | 0.984 | 6.957 | 1.969 | 4.988 | 4.240 | 0.750 |
| SD105-18.00/18.99-95-0750R7 | 02445842 | 0.709-0.748 | 3.740 | 0.689 | 0.984 | 6.996 | 1.969 | 5.028 | 4.280 | 0.750 |
| SD105-19.00/19.99-95-0750R7 | 02445843 | 0.748-0.787 | 3.740 | 0.728 | 0.984 | 7.028 | 1.969 | 5.059 | 4.311 | 0.750 |
| SD105-20.00/21.99-125-1000R7 | 02466052 | 0.787-0.866 | 4.921 | 0.768 | 1.220 | 8.445 | 2.205 | 6.240 | 5.453 | 1.000 |
| SD105-22.00/23.99-125-1000R7 | 02466053 | 0.866-0.944 | 4.921 | 0.846 | 1.220 | 8.445 | 2.205 | 6.240 | 5.453 | 1.000 |
| SD105-24.00/25.99-125-1000R7 | 02466054 | 0.945-1.023 | 4.921 | 0.925 | 1.220 | 8.445 | 2.205 | 6.240 | 5.453 | 1.000 |

## Spare Parts, included in delivery

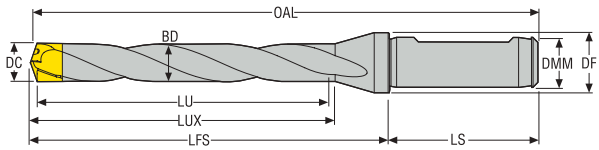
| For drill dia. (inch) | Locking key | Locking screw | Spare parts set |
|---|---|---|---|
| |  |  |  |
| 0.394-0.472 | H1.5-2D | MP6SS3X12 | SD105-SP-4.0 |
| 0.472-0.551 | H1.5-2D | MP6SS3X12 | SD105-SP-5.0 |
| 0.551-0.669 | H2.0-2D | MP6SS4X12 | SD105-SP-6.0 |
| 0.669-0.787 | H2.5-2D | MP6SS5X16 | SD105-SP-7.0 |
| 0.787-1.023 | H2.5-2D | MP6SS5X16 | SD105-SP-8.0 |

## Accessories

| Replacement blade | Torque key |
|---|---|
|  |  |
| H00-1.5 | H00-1509 |
| H00-1.5 | H00-1509 |
| H00-2.0 | H00-2020 |
| H00-2.5 | H00-2530 |
| H00-2.5 | H00-2535 |

# SD107 – R7

Drilling depth ~ 7 x D – Metric shank






- Internal coolant
- ISO9766 fits holders: Weldon 1835B, ISO 5414, DIN 60880
- For cutting data see page(s) 196

| Designation | Item number | DC | LU | OAL | LUX | BD | LFS | LS | DMM | DF |
|---|---|---|---|---|---|---|---|---|---|---|
| | | mm | mm | mm | mm | mm | mm | mm | mm | mm |
| SD107-12.00/12.49-90-16R7 | 02427470 | 12,0-12,49 | 90,0 | 166,5 | 100,5 | 11,5 | 118,5 | 48,0 | 16,0 | 20,0 |
| SD107-12.50/12.99-90-16R7 | 02427472 | 12,5-12,99 | 90,0 | 167,0 | 101,0 | 12,0 | 119,0 | 48,0 | 16,0 | 20,0 |
| SD107-13.00/13.99-90-16R7 | 02427473 | 13,0-13,99 | 90,0 | 167,5 | 101,5 | 12,5 | 119,5 | 48,0 | 16,0 | 20,0 |
| SD107-14.00/14.99-110-16R7 | 02427474 | 14,0-14,99 | 110,0 | 188,0 | 122,0 | 13,5 | 140,0 | 48,0 | 16,0 | 20,0 |
| SD107-15.00/15.99-110-16R7 | 02427476 | 15,0-15,99 | 110,0 | 189,0 | 123,0 | 14,5 | 141,0 | 48,0 | 16,0 | 20,0 |
| SD107-16.00/16.99-110-16R7 | 02427443 | 16,0-16,99 | 110,0 | 189,5 | 123,5 | 15,5 | 141,5 | 48,0 | 16,0 | 20,0 |
| SD107-17.00/17.99-130-20R7 | 02427478 | 17,0-17,99 | 130,0 | 212,5 | 144,5 | 16,5 | 162,5 | 50,0 | 20,0 | 25,0 |
| SD107-18.00/18.99-130-20R7 | 02427479 | 18,0-18,99 | 130,0 | 213,5 | 145,5 | 17,5 | 163,5 | 50,0 | 20,0 | 25,0 |
| SD107-19.00/19.99-130-20R7 | 02427480 | 19,0-19,99 | 130,0 | 214,5 | 146,5 | 18,5 | 164,5 | 50,0 | 20,0 | 25,0 |
| SD107-20.00/21.99-175-25R7 | 02530422 | 20,0-21,99 | 175,0 | 264,5 | 188,5 | 19,5 | 208,5 | 56,0 | 25,0 | 31,0 |
| SD107-22.00/23.99-175-25R7 | 02530423 | 22,0-23,99 | 175,0 | 264,5 | 188,5 | 21,5 | 208,5 | 56,0 | 25,0 | 31,0 |
| SD107-24.00/25.99-175-25R7 | 02517867 | 24,0-25,99 | 175,0 | 264,5 | 188,5 | 23,5 | 208,5 | 56,0 | 25,0 | 31,0 |

## Spare Parts, included in delivery

| For drill dia. (mm) | Locking key | Locking screw | Spare parts set |
|---|---|---|---|
| |  |  |  |
| 12,00-13,99 | H1.5-2D | MP6SS3X12 | SD107-SP-5.0 |
| 14,00-16,99 | H2.0-2D | MP6SS4X12 | SD107-SP-6.0 |
| 17,00-19,99 | H2.5-2D | MP6SS5X16 | SD107-SP-7.0 |
| 20,00-25,99 | H2.5-2D | MP6SS5X16 | SD107-SP-8.0 |

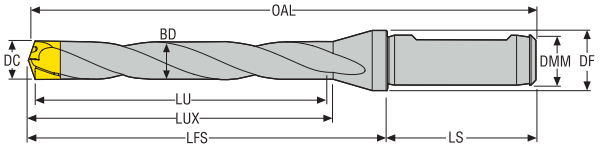
## Accessories

| Replacement blade | Torque key |
|---|---|
|  |  |
| H00-1.5 | H00-1509 |
| H00-2.0 | H00-2020 |
| H00-2.5 | H00-2530 |
| H00-2.5 | H00-2535 |

# SD107 – R7

Drilling depth ~ 7 x D – Inch shank






- Internal coolant
- ISO9766 fits holders: Weldon 1835B, ISO 5414, DIN 60880
- For cutting data see page(s) 196

| Designation | Item number | DC | LU | BD | DF | OAL | LS | LFS | LUX | DMM |
|---|---|---|---|---|---|---|---|---|---|---|
| | | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* |
| SD107-12.00/12.49-90-0625R7 | 00040003 | 0.472-0.492 | 3.543 | 0.453 | 0.787 | 6.555 | 1.890 | 4.665 | 3.957 | 0.625 |
| SD107-12.50/12.99-90-0625R7 | 00040004 | 0.492-0.511 | 3.543 | 0.472 | 0.787 | 6.575 | 1.890 | 4.685 | 3.976 | 0.625 |
| SD107-13.00/13.99-90-0625R7 | 00040005 | 0.512-0.551 | 3.543 | 0.492 | 0.787 | 6.594 | 1.890 | 4.705 | 3.996 | 0.625 |
| SD107-14.00/14.99-110-0625R7 | 00040006 | 0.551-0.590 | 4.331 | 0.531 | 0.787 | 7.402 | 1.890 | 5.512 | 4.803 | 0.625 |
| SD107-15.00/15.99-110-0625R7 | 00040007 | 0.591-0.630 | 4.331 | 0.571 | 0.787 | 7.441 | 1.890 | 5.551 | 4.843 | 0.625 |
| SD107-16.00/16.99-110-0625R7 | 00040008 | 0.630-0.669 | 4.331 | 0.610 | 0.787 | 7.461 | 1.890 | 5.571 | 4.862 | 0.625 |
| SD107-17.00/17.99-130-0750R7 | 00040009 | 0.669-0.708 | 5.118 | 0.650 | 0.984 | 8.366 | 1.969 | 6.398 | 5.689 | 0.750 |
| SD107-18.00/18.99-130-0750R7 | 00040010 | 0.709-0.748 | 5.118 | 0.689 | 0.984 | 8.406 | 1.969 | 6.437 | 5.728 | 0.750 |
| SD107-19.00/19.99-130-0750R7 | 00040011 | 0.748-0.787 | 5.118 | 0.728 | 0.984 | 8.445 | 1.969 | 6.476 | 5.768 | 0.750 |
| SD107-20.00/21.99-175-1000R7 | 02529095 | 0.787-0.866 | 6.890 | 0.768 | 1.220 | 10.413 | 2.205 | 8.209 | 7.421 | 1.000 |
| SD107-22.00/23.99-175-1000R7 | 02530424 | 0.866-0.944 | 6.890 | 0.846 | 1.220 | 10.413 | 2.205 | 8.209 | 7.421 | 1.000 |
| SD107-24.00/25.99-175-1000R7 | 02530425 | 0.945-1.023 | 6.890 | 0.925 | 1.220 | 10.413 | 2.205 | 8.209 | 7.421 | 1.000 |

## Spare Parts, included in delivery

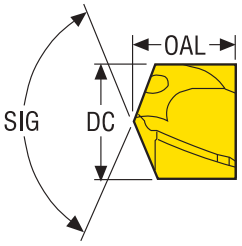
| For drill dia. (inch) | Locking key | Locking screw | Spare parts set |
|---|---|---|---|
| |  |  |  |
| 0.472-0.551 | H1.5-2D | MP6SS3X12 | SD107-SP-5.0 |
| 0.551-0.669 | H2.0-2D | MP6SS4X12 | SD107-SP-6.0 |
| 0.669-0.787 | H2.5-2D | MP6SS5X16 | SD107-SP-7.0 |
| 0.787-1.023 | H2.5-2D | MP6SS5X16 | SD107-SP-8.0 |

## Accessories

| For drill dia. (inch) | Replacement blade | Torque key |
|---|---|---|
| |  |  |
| 0.472-0.551 | H00-1.5 | H00-1509 |
| 0.551-0.669 | H00-2.0 | H00-2020 |
| 0.669-0.787 | H00-2.5 | H00-2530 |
| 0.787-1.023 | H00-2.5 | H00-2535 |

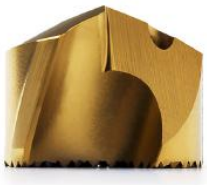
# Crowns – Geometry -P, -M and -K

Point angle 140°







| Designation | Item number | P-geometry for steel | M-geometry for stainless steels and high temp alloys | K-geometry for cast iron | DC | | OAL | |
|---|---|---|---|---|---|---|---|---|
| | | | | | mm | *inch* | mm | *inch* |
| SD100-10.00-M | 02469072 | – | ■ | – | 10,0 | *0.394* | 8,1 | *0.319* |
| SD100-10.00-P | 02469022 | ■ | – | – | 10,0 | *0.394* | 8,1 | *0.319* |
| SD100-10.10-P | 02469024 | ■ | – | – | 10,1 | *0.398* | 8,1 | *0.319* |
| SD100-10.20-K | 02544440 | – | – | ■ | 10,2 | *0.402* | 8,1 | *0.319* |
| SD100-10.20-M | 02469074 | – | ■ | – | 10,2 | *0.402* | 8,1 | *0.319* |
| SD100-10.20-P | 02469025 | ■ | – | – | 10,2 | *0.402* | 8,1 | *0.319* |
| SD100-10.30-P | 02469026 | ■ | – | – | 10,3 | *0.406* | 8,1 | *0.319* |
| SD100-10.319-M | 02469075 | – | ■ | – | 10,319 | *0.406* | 8,1 | *0.319* |
| SD100-10.319-P | 02469027 | ■ | – | – | 10,319 | *0.406* | 8,1 | *0.319* |
| SD100-10.40-P | 02592734 | ■ | – | – | 10,4 | *0.409* | 8,1 | *0.319* |
| SD100-10.50-K | 02556726 | – | – | ■ | 10,5 | *0.413* | 8,5 | *0.335* |
| SD100-10.50-M | 02469076 | – | ■ | – | 10,5 | *0.413* | 8,5 | *0.335* |
| SD100-10.50-P | 02469034 | ■ | – | – | 10,5 | *0.413* | 8,5 | *0.335* |
| SD100-10.70-P | 02469036 | ■ | – | – | 10,7 | *0.421* | 8,5 | *0.335* |
| SD100-10.716-P | 02469037 | ■ | – | – | 10,716 | *0.422* | 8,5 | *0.335* |
| SD100-10.80-M | 02469078 | – | ■ | – | 10,8 | *0.425* | 8,5 | *0.335* |
| SD100-10.80-P | 02469038 | ■ | – | – | 10,8 | *0.425* | 8,5 | *0.335* |
| SD100-10.90-P | 02469041 | ■ | – | – | 10,9 | *0.429* | 8,5 | *0.335* |
| SD100-11.00-M | 02469079 | – | ■ | – | 11,0 | *0.433* | 8,8 | *0.346* |
| SD100-11.00-P | 02469052 | ■ | – | – | 11,0 | *0.433* | 8,8 | *0.346* |
| SD100-11.113-M | 02469080 | – | ■ | – | 11,113 | *0.438* | 8,8 | *0.346* |
| SD100-11.113-P | 02469056 | ■ | – | – | 11,113 | *0.438* | 8,8 | *0.346* |
| SD100-11.20-M | 02469082 | – | ■ | – | 11,2 | *0.441* | 8,8 | *0.346* |
| SD100-11.20-P | 02469058 | ■ | – | – | 11,2 | *0.441* | 8,8 | *0.346* |
| SD100-11.30-P | 02469063 | ■ | – | – | 11,3 | *0.445* | 8,8 | *0.346* |
| SD100-11.509-M | 02469083 | – | ■ | – | 11,509 | *0.453* | 9,4 | *0.370* |
| SD100-11.509-P | 02469067 | ■ | – | – | 11,509 | *0.453* | 9,4 | *0.370* |
| SD100-11.50-P | 02469065 | ■ | – | – | 11,5 | *0.453* | 9,4 | *0.370* |
| SD100-11.70-P | 02469068 | ■ | – | – | 11,7 | *0.461* | 9,4 | *0.370* |
| SD100-11.80-K | 02542583 | – | – | ■ | 11,8 | *0.465* | 9,4 | *0.370* |
| SD100-11.80-M | 02469085 | – | ■ | – | 11,8 | *0.465* | 9,4 | *0.370* |
| SD100-11.80-P | 02469069 | ■ | – | – | 11,8 | *0.465* | 9,4 | *0.370* |
| SD100-11.907-M | 02592744 | – | ■ | – | 11,907 | *0.469* | 9,4 | *0.370* |
| SD100-11.907-P | 02469070 | ■ | – | – | 11,907 | *0.469* | 9,4 | *0.370* |
| SD100-12.00-K | 00090316 | – | – | ■ | 12,0 | *0.472* | 9,6 | *0.378* |
| SD100-12.00-M | 00090315 | – | ■ | – | 12,0 | *0.472* | 9,6 | *0.378* |
| SD100-12.00-P | 00090314 | ■ | – | – | 12,0 | *0.472* | 9,6 | *0.378* |
| SD100-12.10-P | 00039002 | ■ | – | – | 12,1 | *0.476* | 9,6 | *0.378* |

| Designation | Item number | P-geometry for steel | M-geometry for stainless steels and high temp alloys | K-geometry for cast iron | DC | | OAL | |
|---|---|---|---|---|---|---|---|---|
| | | | | | mm | *inch* | mm | *inch* |
| SD100-12.20-P | 00048248 | ■ | – | – | 12,2 | *0.480* | 9,6 | *0.378* |
| SD100-12.30-M | 00071559 | – | ■ | – | 12,3 | *0.484* | 9,6 | *0.378* |
| SD100-12.30-P | 00071546 | ■ | – | – | 12,3 | *0.484* | 9,6 | *0.378* |
| SD100-12.41-M | 00059768 | – | ■ | – | 12,41 | *0.489* | 9,6 | *0.378* |
| SD100-12.41-P | 00059767 | ■ | – | – | 12,41 | *0.489* | 9,6 | *0.378* |
| SD100-12.50-K | 00090319 | – | – | ■ | 12,5 | *0.492* | 10,0 | *0.394* |
| SD100-12.50-M | 00090318 | – | ■ | – | 12,5 | *0.492* | 10,0 | *0.394* |
| SD100-12.50-P | 00090317 | ■ | – | – | 12,5 | *0.492* | 10,0 | *0.394* |
| SD100-12.60-P | 02207212 | ■ | – | – | 12,6 | *0.496* | 10,0 | *0.394* |
| SD100-12.70-K | 00059633 | – | – | ■ | 12,7 | *0.500* | 10,0 | *0.394* |
| SD100-12.70-M | 00059632 | – | ■ | – | 12,7 | *0.500* | 10,0 | *0.394* |
| SD100-12.70-P | 00059631 | ■ | – | – | 12,7 | *0.500* | 10,0 | *0.394* |
| SD100-12.80-K | 00059636 | – | – | ■ | 12,8 | *0.504* | 10,0 | *0.394* |
| SD100-12.80-M | 00059635 | – | ■ | – | 12,8 | *0.504* | 10,0 | *0.394* |
| SD100-12.80-P | 00059634 | ■ | – | – | 12,8 | *0.504* | 10,0 | *0.394* |
| SD100-12.90-M | 02503935 | – | ■ | – | 12,9 | *0.508* | 10,0 | *0.394* |
| SD100-12.90-P | 00030891 | ■ | – | – | 12,9 | *0.508* | 10,0 | *0.394* |
| SD100-13.00-K | 00098529 | – | – | ■ | 13,0 | *0.512* | 10,4 | *0.409* |
| SD100-13.00-M | 00098528 | – | ■ | – | 13,0 | *0.512* | 10,4 | *0.409* |
| SD100-13.00-P | 00098527 | ■ | – | – | 13,0 | *0.512* | 10,4 | *0.409* |
| SD100-13.10-K | 00059639 | – | – | ■ | 13,1 | *0.516* | 10,4 | *0.409* |
| SD100-13.10-M | 00059638 | – | ■ | – | 13,1 | *0.516* | 10,4 | *0.409* |
| SD100-13.10-P | 00059637 | ■ | – | – | 13,1 | *0.516* | 10,4 | *0.409* |
| SD100-13.20-P | 00030894 | ■ | – | – | 13,2 | *0.520* | 10,4 | *0.409* |
| SD100-13.30-M | 00059641 | – | ■ | – | 13,3 | *0.524* | 10,4 | *0.409* |
| SD100-13.30-P | 00059640 | ■ | – | – | 13,3 | *0.524* | 10,4 | *0.409* |
| SD100-13.50-K | 00098532 | – | – | ■ | 13,5 | *0.531* | 10,4 | *0.409* |
| SD100-13.50-M | 00098531 | – | ■ | – | 13,5 | *0.531* | 10,4 | *0.409* |
| SD100-13.50-P | 00098530 | ■ | – | – | 13,5 | *0.531* | 10,4 | *0.409* |
| SD100-13.70-M | 00059644 | – | ■ | – | 13,7 | *0.539* | 10,4 | *0.409* |
| SD100-13.70-P | 00059643 | ■ | – | – | 13,7 | *0.539* | 10,4 | *0.409* |
| SD100-13.80-K | 00059648 | – | – | ■ | 13,8 | *0.543* | 10,4 | *0.409* |
| SD100-13.80-M | 00059647 | – | ■ | – | 13,8 | *0.543* | 10,4 | *0.409* |
| SD100-13.80-P | 00059646 | ■ | – | – | 13,8 | *0.543* | 10,4 | *0.409* |
| SD100-13.89-M | 00059771 | – | ■ | – | 13,89 | *0.547* | 10,4 | *0.409* |
| SD100-13.89-P | 00059770 | ■ | – | – | 13,89 | *0.547* | 10,4 | *0.409* |
| SD100-14.00-K | 00090322 | – | – | ■ | 14,0 | *0.551* | 11,0 | *0.433* |
| SD100-14.00-M | 00090321 | – | ■ | – | 14,0 | *0.551* | 11,0 | *0.433* |
| SD100-14.00-P | 00090320 | ■ | – | – | 14,0 | *0.551* | 11,0 | *0.433* |
| SD100-14.10-P | 00082712 | ■ | – | – | 14,1 | *0.555* | 11,0 | *0.433* |
| SD100-14.20-K | 00071549 | – | – | ■ | 14,2 | *0.559* | 11,0 | *0.433* |
| SD100-14.20-M | 00071561 | – | ■ | – | 14,2 | *0.559* | 11,0 | *0.433* |
| SD100-14.20-P | 00071548 | ■ | – | – | 14,2 | *0.559* | 11,0 | *0.433* |
| SD100-14.29-K | 00059675 | – | – | ■ | 14,29 | *0.563* | 11,0 | *0.433* |
| SD100-14.29-M | 00059674 | – | ■ | – | 14,29 | *0.563* | 11,0 | *0.433* |
| SD100-14.29-P | 00059673 | ■ | – | – | 14,29 | *0.563* | 11,0 | *0.433* |
| SD100-14.40-P | 02207869 | ■ | – | – | 14,4 | *0.567* | 11,0 | *0.433* |
| SD100-14.50-K | 00090325 | – | – | ■ | 14,5 | *0.571* | 11,0 | *0.433* |
| SD100-14.50-M | 00090324 | – | ■ | – | 14,5 | *0.571* | 11,0 | *0.433* |
| SD100-14.50-P | 00090323 | ■ | – | – | 14,5 | *0.571* | 11,0 | *0.433* |
| SD100-14.68-K | 00059775 | – | – | ■ | 14,68 | *0.578* | 11,0 | *0.433* |

| Designation | Item number | P-geometry for steel | M-geometry for stainless steels and high temp alloys | K-geometry for cast iron | DC | | OAL | |
|---|---|---|---|---|---|---|---|---|
| | | | | | mm | *inch* | mm | *inch* |
| SD100-14.68-M | 00059774 | – | ■ | – | 14,68 | *0.578* | 11,0 | *0.433* |
| SD100-14.68-P | 00059773 | ■ | – | – | 14,68 | *0.578* | 11,0 | *0.433* |
| SD100-14.70-M | 00059650 | – | ■ | – | 14,7 | *0.579* | 11,0 | *0.433* |
| SD100-14.70-P | 00059649 | ■ | – | – | 14,7 | *0.579* | 11,0 | *0.433* |
| SD100-14.80-M | 00059653 | – | ■ | – | 14,8 | *0.583* | 11,0 | *0.433* |
| SD100-14.80-P | 00059652 | ■ | – | – | 14,8 | *0.583* | 11,0 | *0.433* |
| SD100-14.90-M | 02592745 | – | ■ | – | 14,9 | *0.587* | 11,0 | *0.433* |
| SD100-14.90-P | 00030895 | ■ | – | – | 14,9 | *0.587* | 11,0 | *0.433* |
| SD100-15.00-K | 00090328 | – | – | ■ | 15,0 | *0.591* | 11,9 | *0.469* |
| SD100-15.00-M | 00090327 | – | ■ | – | 15,0 | *0.591* | 11,9 | *0.469* |
| SD100-15.00-P | 00090326 | ■ | – | – | 15,0 | *0.591* | 11,9 | *0.469* |
| SD100-15.08-M | 00059777 | – | ■ | – | 15,08 | *0.594* | 11,9 | *0.469* |
| SD100-15.08-P | 00059776 | ■ | – | – | 15,08 | *0.594* | 11,9 | *0.469* |
| SD100-15.10-P | 00079342 | ■ | – | – | 15,1 | *0.594* | 11,9 | *0.469* |
| SD100-15.20-P | 00030896 | ■ | – | – | 15,2 | *0.598* | 11,9 | *0.469* |
| SD100-15.25-K | 00071551 | – | – | ■ | 15,25 | *0.600* | 11,9 | *0.469* |
| SD100-15.25-M | 00071562 | – | ■ | – | 15,25 | *0.600* | 11,9 | *0.469* |
| SD100-15.25-P | 00071550 | ■ | – | – | 15,25 | *0.600* | 11,9 | *0.469* |
| SD100-15.48-K | 00022926 | – | – | ■ | 15,48 | *0.609* | 11,9 | *0.469* |
| SD100-15.48-M | 00059780 | – | ■ | – | 15,48 | *0.609* | 11,9 | *0.469* |
| SD100-15.48-P | 00059779 | ■ | – | – | 15,48 | *0.609* | 11,9 | *0.469* |
| SD100-15.50-K | 00098535 | – | – | ■ | 15,5 | *0.610* | 11,9 | *0.469* |
| SD100-15.50-M | 00098534 | – | ■ | – | 15,5 | *0.610* | 11,9 | *0.469* |
| SD100-15.50-P | 00098533 | ■ | – | – | 15,5 | *0.610* | 11,9 | *0.469* |
| SD100-15.70-M | 00059656 | – | ■ | – | 15,7 | *0.618* | 11,9 | *0.469* |
| SD100-15.70-P | 00059655 | ■ | – | – | 15,7 | *0.618* | 11,9 | *0.469* |
| SD100-15.80-K | 00059660 | – | – | ■ | 15,8 | *0.622* | 11,9 | *0.469* |
| SD100-15.80-M | 00059659 | – | ■ | – | 15,8 | *0.622* | 11,9 | *0.469* |
| SD100-15.80-P | 00059658 | ■ | – | – | 15,8 | *0.622* | 11,9 | *0.469* |
| SD100-15.88-K | 00059678 | – | – | ■ | 15,88 | *0.625* | 11,9 | *0.469* |
| SD100-15.88-M | 00059677 | – | ■ | – | 15,88 | *0.625* | 11,9 | *0.469* |
| SD100-15.88-P | 00059676 | ■ | – | – | 15,88 | *0.625* | 11,9 | *0.469* |
| SD100-16.00-K | 00098538 | – | – | ■ | 16,0 | *0.630* | 12,6 | *0.496* |
| SD100-16.00-M | 00098537 | – | ■ | – | 16,0 | *0.630* | 12,6 | *0.496* |
| SD100-16.00-P | 00098536 | ■ | – | – | 16,0 | *0.630* | 12,6 | *0.496* |
| SD100-16.10-P | 00077964 | ■ | – | – | 16,1 | *0.634* | 12,6 | *0.496* |
| SD100-16.20-P | 00047365 | ■ | – | – | 16,2 | *0.638* | 12,6 | *0.496* |
| SD100-16.25-P | 00034081 | ■ | – | – | 16,25 | *0.640* | 12,6 | *0.496* |
| SD100-16.27-K | 00022929 | – | – | ■ | 16,27 | *0.641* | 12,6 | *0.496* |
| SD100-16.27-M | 00022928 | – | ■ | – | 16,27 | *0.641* | 12,6 | *0.496* |
| SD100-16.27-P | 00022927 | ■ | – | – | 16,27 | *0.641* | 12,6 | *0.496* |
| SD100-16.40-P | 02301114 | ■ | – | – | 16,4 | *0.646* | 12,6 | *0.496* |
| SD100-16.50-K | 00098541 | – | – | ■ | 16,5 | *0.650* | 12,6 | *0.496* |
| SD100-16.50-M | 00098540 | – | ■ | – | 16,5 | *0.650* | 12,6 | *0.496* |
| SD100-16.50-P | 00098539 | ■ | – | – | 16,5 | *0.650* | 12,6 | *0.496* |
| SD100-16.67-K | 00059681 | – | – | ■ | 16,67 | *0.656* | 12,6 | *0.496* |
| SD100-16.67-M | 00059680 | – | ■ | – | 16,67 | *0.656* | 12,6 | *0.496* |
| SD100-16.67-P | 00059679 | ■ | – | – | 16,67 | *0.656* | 12,6 | *0.496* |
| SD100-16.70-K | 00059663 | – | – | ■ | 16,7 | *0.657* | 12,6 | *0.496* |
| SD100-16.70-M | 00059662 | – | ■ | – | 16,7 | *0.657* | 12,6 | *0.496* |
| SD100-16.70-P | 00059661 | ■ | – | – | 16,7 | *0.657* | 12,6 | *0.496* |

| Designation | Item number | P-geometry for steel | M-geometry for stainless steels and high temp alloys | K-geometry for cast iron | DC | | OAL | |
|---|---|---|---|---|---|---|---|---|
| | | | | | mm | *inch* | mm | *inch* |
| SD100-16.80-K | 00059666 | – | – | ■ | 16,8 | *0.661* | 12,6 | *0.496* |
| SD100-16.80-M | 00059665 | – | ■ | – | 16,8 | *0.661* | 12,6 | *0.496* |
| SD100-16.80-P | 00059664 | ■ | – | – | 16,8 | *0.661* | 12,6 | *0.496* |
| SD100-16.90-M | 02593463 | – | ■ | – | 16,9 | *0.665* | 12,6 | *0.496* |
| SD100-16.90-P | 00030898 | ■ | – | – | 16,9 | *0.665* | 12,6 | *0.496* |
| SD100-17.00-K | 00090331 | – | – | ■ | 17,0 | *0.669* | 13,3 | *0.524* |
| SD100-17.00-M | 00090330 | – | ■ | – | 17,0 | *0.669* | 13,3 | *0.524* |
| SD100-17.00-P | 00090329 | ■ | – | – | 17,0 | *0.669* | 13,3 | *0.524* |
| SD100-17.07-K | 00022933 | – | – | ■ | 17,07 | *0.672* | 13,3 | *0.524* |
| SD100-17.07-M | 00022932 | – | ■ | – | 17,07 | *0.672* | 13,3 | *0.524* |
| SD100-17.07-P | 00022931 | ■ | – | – | 17,07 | *0.672* | 13,3 | *0.524* |
| SD100-17.10-P | 00034083 | ■ | – | – | 17,1 | *0.673* | 13,3 | *0.524* |
| SD100-17.20-K | 02515762 | – | – | ■ | 17,2 | *0.677* | 13,3 | *0.524* |
| SD100-17.20-P | 00047714 | ■ | – | – | 17,2 | *0.677* | 13,3 | *0.524* |
| SD100-17.30-K | 02203711 | – | – | ■ | 17,3 | *0.681* | 13,3 | *0.524* |
| SD100-17.46-M | 00059683 | – | ■ | – | 17,46 | *0.687* | 13,3 | *0.524* |
| SD100-17.46-P | 00059682 | ■ | – | – | 17,46 | *0.687* | 13,3 | *0.524* |
| SD100-17.50-K | 00090334 | – | – | ■ | 17,5 | *0.689* | 13,3 | *0.524* |
| SD100-17.50-M | 00090333 | – | ■ | – | 17,5 | *0.689* | 13,3 | *0.524* |
| SD100-17.50-P | 00090332 | ■ | – | – | 17,5 | *0.689* | 13,3 | *0.524* |
| SD100-17.70-K | 00059669 | – | – | ■ | 17,7 | *0.697* | 13,3 | *0.524* |
| SD100-17.70-M | 00059668 | – | ■ | – | 17,7 | *0.697* | 13,3 | *0.524* |
| SD100-17.70-P | 00059667 | ■ | – | – | 17,7 | *0.697* | 13,3 | *0.524* |
| SD100-17.80-K | 00059672 | – | – | ■ | 17,8 | *0.701* | 13,3 | *0.524* |
| SD100-17.80-M | 00059671 | – | ■ | – | 17,8 | *0.701* | 13,3 | *0.524* |
| SD100-17.80-P | 00059670 | ■ | – | – | 17,8 | *0.701* | 13,3 | *0.524* |
| SD100-17.86-K | 00022936 | – | – | ■ | 17,86 | *0.703* | 13,3 | *0.524* |
| SD100-17.86-M | 00022935 | – | ■ | – | 17,86 | *0.703* | 13,3 | *0.524* |
| SD100-17.86-P | 00022934 | ■ | – | – | 17,86 | *0.703* | 13,3 | *0.524* |
| SD100-17.90-M | 02442098 | – | ■ | – | 17,9 | *0.705* | 13,3 | *0.524* |
| SD100-17.90-P | 00047693 | ■ | – | – | 17,9 | *0.705* | 13,3 | *0.524* |
| SD100-18.00-K | 00090337 | – | – | ■ | 18,0 | *0.709* | 14,4 | *0.567* |
| SD100-18.00-M | 00090336 | – | ■ | – | 18,0 | *0.709* | 14,4 | *0.567* |
| SD100-18.00-P | 00090335 | ■ | – | – | 18,0 | *0.709* | 14,4 | *0.567* |
| SD100-18.10-P | 00030900 | ■ | – | – | 18,1 | *0.713* | 14,4 | *0.567* |
| SD100-18.20-P | 00038469 | ■ | – | – | 18,2 | *0.717* | 14,4 | *0.567* |
| SD100-18.26-K | 00035196 | – | – | ■ | 18,26 | *0.719* | 14,4 | *0.567* |
| SD100-18.26-M | 00022938 | – | ■ | – | 18,26 | *0.719* | 14,4 | *0.567* |
| SD100-18.26-P | 00022937 | ■ | – | – | 18,26 | *0.719* | 14,4 | *0.567* |
| SD100-18.50-K | 00059687 | – | – | ■ | 18,5 | *0.728* | 14,4 | *0.567* |
| SD100-18.50-M | 00059686 | – | ■ | – | 18,5 | *0.728* | 14,4 | *0.567* |
| SD100-18.50-P | 00059685 | ■ | – | – | 18,5 | *0.728* | 14,4 | *0.567* |
| SD100-18.65-M | 00035198 | – | ■ | – | 18,65 | *0.734* | 14,4 | *0.567* |
| SD100-18.65-P | 00035197 | ■ | – | – | 18,65 | *0.734* | 14,4 | *0.567* |
| SD100-18.70-M | 00059689 | – | ■ | – | 18,7 | *0.736* | 14,4 | *0.567* |
| SD100-18.70-P | 00059688 | ■ | – | – | 18,7 | *0.736* | 14,4 | *0.567* |
| SD100-18.80-K | 00059693 | – | – | ■ | 18,8 | *0.740* | 14,4 | *0.567* |
| SD100-18.80-M | 00059692 | – | ■ | – | 18,8 | *0.740* | 14,4 | *0.567* |
| SD100-18.80-P | 00059691 | ■ | – | – | 18,0 | *0.709* | 14,4 | *0.567* |
| SD100-18.90-M | 02592746 | – | ■ | – | 18,9 | *0.744* | 14,4 | *0.567* |
| SD100-18.90-P | 00030901 | ■ | – | – | 18,9 | *0.744* | 14,4 | *0.567* |

| Designation | Item number | P-geometry for steel | M-geometry for stainless steels and high temp alloys | K-geometry for cast iron | DC | | OAL | |
|---|---|---|---|---|---|---|---|---|
| | | | | | mm | *inch* | mm | *inch* |
| SD100-19.00-K | 00059696 | – | – | ■ | 19,0 | *0.748* | 15,2 | *0.598* |
| SD100-19.00-M | 00059695 | – | ■ | – | 19,0 | *0.748* | 15,2 | *0.598* |
| SD100-19.00-P | 00059694 | ■ | – | – | 19,0 | *0.748* | 15,2 | *0.598* |
| SD100-19.05-K | 00059699 | – | – | ■ | 19,05 | *0.750* | 15,2 | *0.598* |
| SD100-19.05-M | 00059698 | – | ■ | – | 19,05 | *0.750* | 15,2 | *0.598* |
| SD100-19.05-P | 00059697 | ■ | – | – | 19,05 | *0.750* | 15,2 | *0.598* |
| SD100-19.10-P | 00030902 | ■ | – | – | 19,1 | *0.752* | 15,2 | *0.598* |
| SD100-19.20-K | 00071566 | – | – | ■ | 19,2 | *0.756* | 15,2 | *0.598* |
| SD100-19.20-M | 00071564 | – | ■ | – | 19,2 | *0.756* | 15,2 | *0.598* |
| SD100-19.20-P | 00071563 | ■ | – | – | 19,2 | *0.756* | 15,2 | *0.598* |
| SD100-19.25-P | 00048318 | ■ | – | – | 19,25 | *0.758* | 15,2 | *0.598* |
| SD100-19.45-K | 00035202 | – | – | ■ | 19,45 | *0.766* | 15,2 | *0.598* |
| SD100-19.45-M | 00035201 | – | ■ | – | 19,45 | *0.766* | 15,2 | *0.598* |
| SD100-19.45-P | 00035200 | ■ | – | – | 19,45 | *0.766* | 15,2 | *0.598* |
| SD100-19.50-K | 00059702 | – | – | ■ | 19,5 | *0.768* | 15,2 | *0.598* |
| SD100-19.50-M | 00059701 | – | ■ | – | 19,5 | *0.768* | 15,2 | *0.598* |
| SD100-19.50-P | 00059700 | ■ | – | – | 19,5 | *0.768* | 15,2 | *0.598* |
| SD100-19.70-K | 00059705 | – | – | ■ | 19,7 | *0.776* | 15,2 | *0.598* |
| SD100-19.70-M | 00059704 | – | ■ | – | 19,7 | *0.776* | 15,2 | *0.598* |
| SD100-19.70-P | 00059703 | ■ | – | – | 19,7 | *0.776* | 15,2 | *0.598* |
| SD100-19.80-K | 00059708 | – | – | ■ | 19,8 | *0.780* | 15,2 | *0.598* |
| SD100-19.80-M | 00059707 | – | ■ | – | 19,8 | *0.780* | 15,2 | *0.598* |
| SD100-19.80-P | 00059706 | ■ | – | – | 19,8 | *0.780* | 15,2 | *0.598* |
| SD100-19.84-M | 00035204 | – | ■ | – | 19,84 | *0.781* | 15,2 | *0.598* |
| SD100-19.84-P | 00035203 | ■ | – | – | 19,84 | *0.781* | 15,2 | *0.598* |
| SD100-19.90-M | 02592747 | – | ■ | – | 19,9 | *0.783* | 15,2 | *0.598* |
| SD100-19.90-P | 00010065 | ■ | – | – | 19,9 | *0.783* | 15,2 | *0.598* |
| SD100-19.99-P | 00081744 | ■ | – | – | 19,99 | *0.787* | 15,2 | *0.598* |
| SD100-20.00-K | 02433368 | – | – | ■ | 20,0 | *0.787* | 15,2 | *0.598* |
| SD100-20.00-M | 02469176 | – | ■ | – | 20,0 | *0.787* | 15,2 | *0.598* |
| SD100-20.00-P | 02469095 | ■ | – | – | 20,0 | *0.787* | 15,2 | *0.598* |
| SD100-20.241-P | 02469096 | ■ | – | – | 20,241 | *0.797* | 15,2 | *0.598* |
| SD100-20.50-K | 02569177 | – | – | ■ | 20,5 | *0.807* | 15,2 | *0.598* |
| SD100-20.50-M | 02469178 | – | ■ | – | 20,5 | *0.807* | 15,2 | *0.598* |
| SD100-20.50-P | 02469098 | ■ | – | – | 20,5 | *0.807* | 15,2 | *0.598* |
| SD100-20.638-M | 02469179 | – | ■ | – | 20,638 | *0.813* | 15,2 | *0.598* |
| SD100-20.638-P | 02469100 | ■ | – | – | 20,638 | *0.813* | 15,2 | *0.598* |
| SD100-20.80-P | 02508750 | ■ | – | – | 20,8 | *0.819* | 15,2 | *0.598* |
| SD100-20.90-P | 02586615 | ■ | – | – | 20,9 | *0.823* | 15,2 | *0.598* |
| SD100-21.00-K | 02523183 | – | – | ■ | 21,0 | *0.827* | 15,2 | *0.598* |
| SD100-21.00-M | 02469180 | – | ■ | – | 21,0 | *0.827* | 15,2 | *0.598* |
| SD100-21.00-P | 02469118 | ■ | – | – | 21,0 | *0.827* | 15,2 | *0.598* |
| SD100-21.034-P | 02469120 | ■ | – | – | 21,034 | *0.828* | 15,2 | *0.598* |
| SD100-21.20-P | 02469121 | ■ | – | – | 21,2 | *0.835* | 15,2 | *0.598* |
| SD100-21.30-P | 02521624 | ■ | – | – | 21,3 | *0.839* | 15,2 | *0.598* |
| SD100-21.430-M | 02469182 | – | ■ | – | 21,43 | *0.844* | 15,2 | *0.598* |
| SD100-21.430-P | 02469122 | ■ | – | – | 21,43 | *0.844* | 15,2 | *0.598* |
| SD100-21.50-K | 02521338 | – | – | ■ | 21,5 | *0.846* | 15,2 | *0.598* |
| SD100-21.50-M | 02469183 | – | ■ | – | 21,5 | *0.846* | 15,2 | *0.598* |
| SD100-21.50-P | 02469124 | ■ | – | – | 21,5 | *0.846* | 15,2 | *0.598* |
| SD100-21.80-K | 02592763 | – | – | ■ | 21,8 | *0.858* | 15,2 | *0.598* |

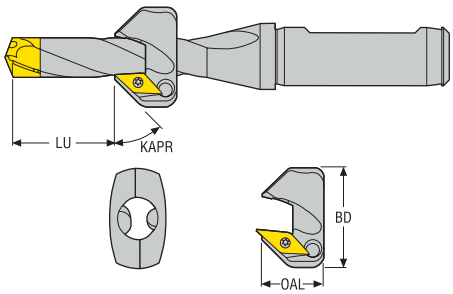
| Designation | Item number | P-geometry for steel | M-geometry for stainless steels and high temp alloys | K-geometry for cast iron | DC | | OAL | |
|---|---|---|---|---|---|---|---|---|
| | | | | | mm | *inch* | mm | *inch* |
| SD100-21.80-M | 02555978 | – | ■ | – | 21,8 | *0.858* | 15,2 | *0.598* |
| SD100-21.80-P | 02592735 | ■ | – | – | 21,8 | *0.858* | 15,2 | *0.598* |
| SD100-21.829-P | 02469125 | ■ | – | – | 21,829 | *0.859* | 15,2 | *0.598* |
| SD100-21.90-M | 02592752 | – | ■ | – | 21,9 | *0.862* | 15,2 | *0.598* |
| SD100-21.90-P | 02592736 | ■ | – | – | 21,9 | *0.862* | 15,2 | *0.598* |
| SD100-22.00-K | 02511599 | – | – | ■ | 22,0 | *0.866* | 15,2 | *0.598* |
| SD100-22.00-M | 02469185 | – | ■ | – | 22,0 | *0.866* | 15,2 | *0.598* |
| SD100-22.00-P | 02469128 | ■ | – | – | 22,0 | *0.866* | 15,2 | *0.598* |
| SD100-22.225-M | 02469186 | – | ■ | – | 22,225 | *0.875* | 15,2 | *0.598* |
| SD100-22.225-P | 02469129 | ■ | – | – | 22,225 | *0.875* | 15,2 | *0.598* |
| SD100-22.50-K | 02569178 | – | – | ■ | 22,5 | *0.886* | 15,2 | *0.598* |
| SD100-22.50-M | 02469188 | – | ■ | – | 22,5 | *0.886* | 15,2 | *0.598* |
| SD100-22.50-P | 02469132 | ■ | – | – | 22,5 | *0.886* | 15,2 | *0.598* |
| SD100-22.621-P | 02469133 | ■ | – | – | 22,621 | *0.891* | 15,2 | *0.598* |
| SD100-22.80-M | 02592754 | – | ■ | – | 22,8 | *0.898* | 15,2 | *0.598* |
| SD100-22.80-P | 02539323 | ■ | – | – | 22,8 | *0.898* | 15,2 | *0.598* |
| SD100-22.90-P | 02592738 | ■ | – | – | 22,9 | *0.902* | 15,2 | *0.598* |
| SD100-23.00-K | 02515181 | – | – | ■ | 23,0 | *0.906* | 15,2 | *0.598* |
| SD100-23.00-M | 02469189 | – | ■ | – | 23,0 | *0.906* | 15,2 | *0.598* |
| SD100-23.00-P | 02469134 | ■ | – | – | 23,0 | *0.906* | 15,2 | *0.598* |
| SD100-23.416-P | 02469136 | ■ | – | – | 23,416 | *0.922* | 15,2 | *0.598* |
| SD100-23.50-K | 02551252 | – | – | ■ | 23,5 | *0.925* | 15,2 | *0.598* |
| SD100-23.50-M | 02469190 | – | ■ | – | 23,5 | *0.925* | 15,2 | *0.598* |
| SD100-23.50-P | 02469138 | ■ | – | – | 23,5 | *0.925* | 15,2 | *0.598* |
| SD100-23.813-K | 02592766 | – | – | ■ | 23,813 | *0.938* | 15,2 | *0.598* |
| SD100-23.813-M | 02554971 | – | ■ | – | 23,813 | *0.938* | 15,2 | *0.598* |
| SD100-23.813-P | 02469140 | ■ | – | – | 23,813 | *0.938* | 15,2 | *0.598* |
| SD100-23.90-M | 02592756 | – | ■ | – | 23,9 | *0.941* | 15,2 | *0.598* |
| SD100-23.90-P | 02592739 | ■ | – | – | 23,9 | *0.941* | 15,2 | *0.598* |
| SD100-24.00-K | 02569179 | – | – | ■ | 24,0 | *0.945* | 15,2 | *0.598* |
| SD100-24.00-M | 02469191 | – | ■ | – | 24,0 | *0.945* | 15,2 | *0.598* |
| SD100-24.00-P | 02469141 | ■ | – | – | 24,0 | *0.945* | 15,2 | *0.598* |
| SD100-24.209-P | 02469142 | ■ | – | – | 24,209 | *0.953* | 15,2 | *0.598* |
| SD100-24.50-K | 02569180 | – | – | ■ | 24,5 | *0.965* | 15,2 | *0.598* |
| SD100-24.50-M | 02469192 | – | ■ | – | 24,5 | *0.965* | 15,2 | *0.598* |
| SD100-24.50-P | 02469144 | ■ | – | – | 24,5 | *0.965* | 15,2 | *0.598* |
| SD100-24.605-P | 02469145 | ■ | – | – | 24,605 | *0.969* | 15,2 | *0.598* |
| SD100-24.80-K | 02592767 | – | – | ■ | 24,8 | *0.976* | 15,2 | *0.598* |
| SD100-24.80-M | 02508165 | – | ■ | – | 24,8 | *0.976* | 15,2 | *0.598* |
| SD100-24.80-P | 02529665 | ■ | – | – | 24,8 | *0.976* | 15,2 | *0.598* |
| SD100-24.90-M | 02592757 | – | ■ | – | 24,9 | *0.980* | 15,2 | *0.598* |
| SD100-24.90-P | 02592740 | ■ | – | – | 24,9 | *0.980* | 15,2 | *0.598* |
| SD100-25.00-K | 02524629 | – | – | ■ | 25,0 | *0.984* | 15,2 | *0.598* |
| SD100-25.00-M | 02469193 | – | ■ | – | 25,0 | *0.984* | 15,2 | *0.598* |
| SD100-25.00-P | 02469146 | ■ | – | – | 25,0 | *0.984* | 15,2 | *0.598* |
| SD100-25.400-M | 02469194 | – | ■ | – | 25,4 | *1.000* | 15,2 | *0.598* |
| SD100-25.400-P | 02469147 | ■ | – | – | 25,4 | *1.000* | 15,2 | *0.598* |
| SD100-25.40-K | 02569181 | – | – | ■ | 25,4 | *1.000* | 15,2 | *0.598* |
| SD100-25.50-P | 02536609 | ■ | – | – | 25,5 | *1.004* | 15,2 | *0.598* |
| SD100-25.60-P | 02519477 | ■ | – | – | 25,6 | *1.008* | 15,2 | *0.598* |
| SD100-25.80-M | 02592758 | – | ■ | – | 25,8 | *1.016* | 15,2 | *0.598* |

| Designation | Item number | P-geometry for steel | M-geometry for stainless steels and high temp alloys | K-geometry for cast iron | DC | | OAL | |
|---|---|---|---|---|---|---|---|---|
| | | | | | mm | *inch* | mm | *inch* |
| SD100-25.80-P | 02581593 | ■ | – | – | 25,8 | *1.016* | 15,2 | *0.598* |
| SD100-25.90-M | 02592759 | – | ■ | – | 25,9 | *1.020* | 15,2 | *0.598* |
| SD100-25.90-P | 02592741 | ■ | – | – | 25,9 | *1.020* | 15,2 | *0.598* |
| SD100-25.99-K | 02516403 | – | – | ■ | 25,99 | *1.023* | 15,2 | *0.598* |
| SD100-25.99-P | 02516402 | ■ | – | – | 25,99 | *1.023* | 15,2 | *0.598* |
| SD100-9.52-M | 02700334 | – | ■ | – | 9,52 | *0.375* | 8,08 | *0.318* |
| SD100-9.52-P | 02673829 | ■ | – | – | 9,52 | *0.375* | 8,08 | *0.318* |

■ **Stock standard.**

# Chamfer module



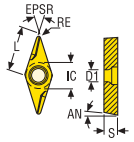



| Designation | Item number | For drill body | Drill depth LU SD101 (min-max) | | SD103 (min-max) | | SD105 (min-max) | | SD107 (min-max) | | Max chamfer depth | OAL | BD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* |
| SD100-C45-12.00/12.49 | 00014922 | SD10x-12.00/12.49 | 12,0 *0.472* | 13,0 *0.512* | 12,0 *0.472* | 28,0 *1.102* | 28,0 *1.102* | 53,0 *2.087* | 53,0 *2.087* | 78,0 *3.071* | 1,5 *0.059* | 19,0 *0.748* | 28,0 *1.102* |
| SD100-C45-12.50/12.99 | 00014923 | SD10x-12.50/12.99 | 12,0 *0.472* | 14,0 *0.551* | 12,0 *0.472* | 29,0 *1.142* | 29,0 *1.142* | 54,0 *2.126* | 54,0 *2.126* | 79,0 *3.110* | 1,5 *0.059* | 19,0 *0.748* | 28,0 *1.102* |
| SD100-C45-13.00/13.99 | 00014924 | SD10x-13.00/13.99 | 13,0 *0.512* | 14,0 *0.551* | 13,0 *0.512* | 29,0 *1.142* | 29,0 *1.142* | 54,0 *2.126* | 54,0 *2.126* | 79,0 *3.110* | 1,5 *0.059* | 19,0 *0.748* | 28,0 *1.102* |
| SD100-C45-14.00/14.99 | 00014928 | SD10x-14.00/14.99 | 14,0 *0.551* | 20,0 *0.787* | 14,0 *0.551* | 40,0 *1.575* | 40,0 *1.575* | 70,0 *2.756* | 70,0 *2.756* | 100,0 *3.937* | 2,0 *0.079* | 19,0 *0.748* | 31,0 *1.220* |
| SD100-C45-15.00/15.99 | 00014931 | SD10x-15.00/15.99 | 14,0 *0.551* | 21,0 *0.827* | 14,0 *0.551* | 41,0 *1.614* | 41,0 *1.614* | 71,0 *2.795* | 71,0 *2.795* | 101,0 *3.976* | 2,0 *0.079* | 19,0 *0.748* | 31,0 *1.220* |
| SD100-C45-16.00/16.99 | 00014932 | SD10x-16.00/16.99 | 15,0 *0.591* | 22,0 *0.866* | 15,0 *0.591* | 42,0 *1.654* | 42,0 *1.654* | 72,0 *2.835* | 72,0 *2.835* | 102,0 *4.016* | 2,0 *0.079* | 19,0 *0.748* | 31,0 *1.220* |
| SD100-C45-17.00/17.99 | 00014933 | SD10x-17.00/17.99 | 16,0 *0.630* | 25,0 *0.984* | 16,0 *0.630* | 51,0 *2.008* | 51,0 *2.008* | 87,0 *3.425* | 87,0 *3.425* | 123,0 *4.843* | 2,0 *0.079* | 19,0 *0.748* | 36,0 *1.417* |
| SD100-C45-18.00/18.99 | 00014935 | SD10x-18.00/18.99 | 17,0 *0.669* | 26,0 *1.024* | 17,0 *0.669* | 52,0 *2.047* | 52,0 *2.047* | 88,0 *3.465* | 88,0 *3.465* | 124,0 *4.882* | 2,0 *0.079* | 19,0 *0.748* | 36,0 *1.417* |
| SD100-C45-19.00/19.99 | 00014936 | SD10x-19.00/19.99 | 18,0 *0.709* | 27,0 *1.063* | 18,0 *0.709* | 53,0 *2.087* | 53,0 *2.087* | 89,0 *3.504* | 89,0 *3.504* | 125,0 *4.921* | 2,0 *0.079* | 19,0 *0.748* | 36,0 *1.417* |

## Spare Parts, included in delivery

| For drill dia. (mm) | Insert screw | | Insert key | Locking key |
|---|---|---|---|---|
| |  | |  |  |
| | Insert | Module | Insert | Module |
| SD100-12.00–16.99 | C02205-T07P | C04011-T15P | T07P-2 | T15P-2 |
| SD100-17.00–19.99 | C02205-T07P | C05012-T15P | T07P-2 | T15P-2 |

## Insert



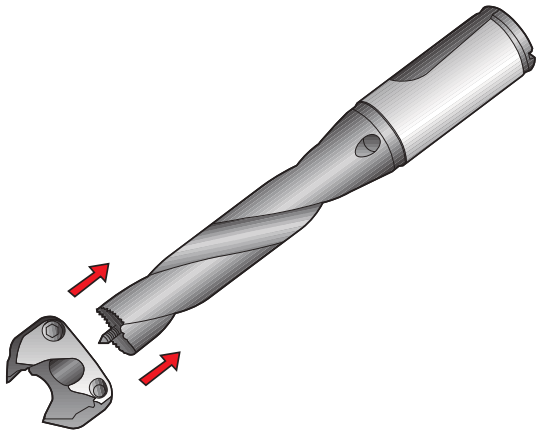

**Tolerances:** *mm/inch*

IC = ±0,025/*.0009842*
S = ±0,07/*.0027559*
RE = ±0,10/*.0039370*

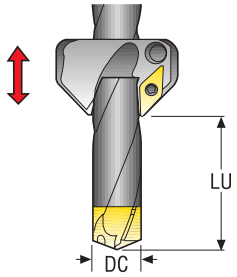
| Size | L mm/*inch* | EPSR | RE mm/*inch* | IC mm/*inch* | D1 mm/*inch* | AN | S mm/*inch* |
|---|---|---|---|---|---|---|---|
| **09** | **9,0**/*.2187* | **35°** | **0,2**/*.0078* | **5,556**/*.2187* | **2,9**/*.1141* | **7°** | **2,5**/*.0984* |
| **Grade: T400D** | | | | | | | |
| **Designation: VCGX090202-D1** | | | | | | | |
| **Item number: 00014948** | | | | | | | |

# Chamfer module – Mounting instruction/placement of module

**1.** Fit the module on the drill without chamfer insert or crown mounted.

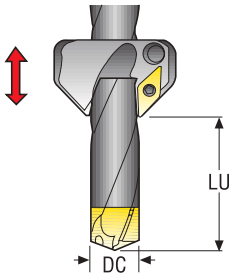


**2.1** If possible, place the module as close to the shank as possible.



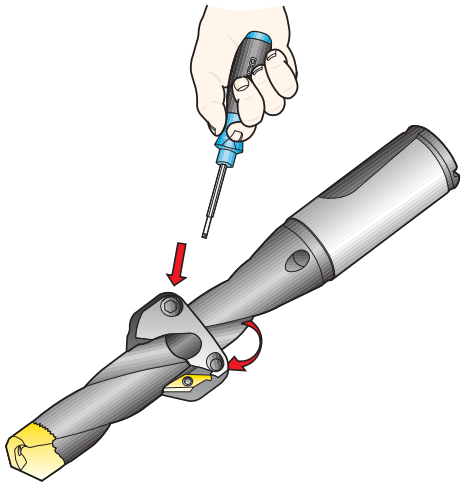

| DC | | LU drilling depth (min-max) | | | |
|---|---|---|---|---|---|
| | | SD101 | | SD103 | |
| mm | inch | mm | inch | mm | inch |
| 12 | .472 | 12-13 | .472-.512 | 12-28 | .472-1.102 |
| 12,5 | .492 | 12-14 | .472-.551 | 12-29 | .472-1.142 |
| 13 | .512 | 13-14 | .512-.551 | 13-29 | .512-1.142 |
| 14 | .551 | 14-20 | .551-.787 | 14-40 | .551-1.575 |
| 15 | .591 | 14-21 | .551-.827 | 14-41 | .551-1.614 |
| 16 | .630 | 15-22 | .591-.866 | 15-42 | .591-1.654 |
| 17 | .669 | 16-25 | .630-.984 | 16-51 | .630-2.008 |
| 18 | .709 | 17-26 | .669-1.024 | 17-52 | .669-2.047 |
| 19 | .748 | 18-27 | .709-1.063 | 18-53 | .709-2.087 |

**2.2** If possible, place the module as close to the shank as possible.




| DC | | LU drilling depth (min-max) | | | |
|---|---|---|---|---|---|
| | | SD105 | | SD107 | |
| mm | inch | mm | inch | mm | inch |
| 12 | .472 | 28-53 | 1.102-2.087 | 53-78 | 2.087-3.071 |
| 12,5 | .492 | 29-54 | 1.142-2.126 | 54-79 | 2.126-3.110 |
| 13 | .512 | 29-54 | 1.142-2.126 | 54-79 | 2.126-3.110 |
| 14 | .551 | 40-70 | 1.575-2.756 | 70-100 | 2.756-3.937 |
| 15 | .591 | 41-71 | 1.614-2.785 | 71-101 | 2.795-3.976 |
| 16 | .630 | 42-72 | 1.654-2.835 | 72-102 | 2.835-4.016 |
| 17 | .669 | 51-87 | 2.008-3.425 | 87-123 | 3.425-4.843 |
| 18 | .709 | 52-88 | 2.047-3.465 | 88-124 | 3.465-4.882 |
| 19 | .748 | 53-89 | 2.087-3.504 | 89-125 | 3.504-4.921 |

**4.** Tighten both screws according to the table below.



| DC | | M | |
|---|---|---|---|
| mm | inch | Nm | in-lbs |
| 12-19 | .472-.748 | 3-4 | 26-35 |

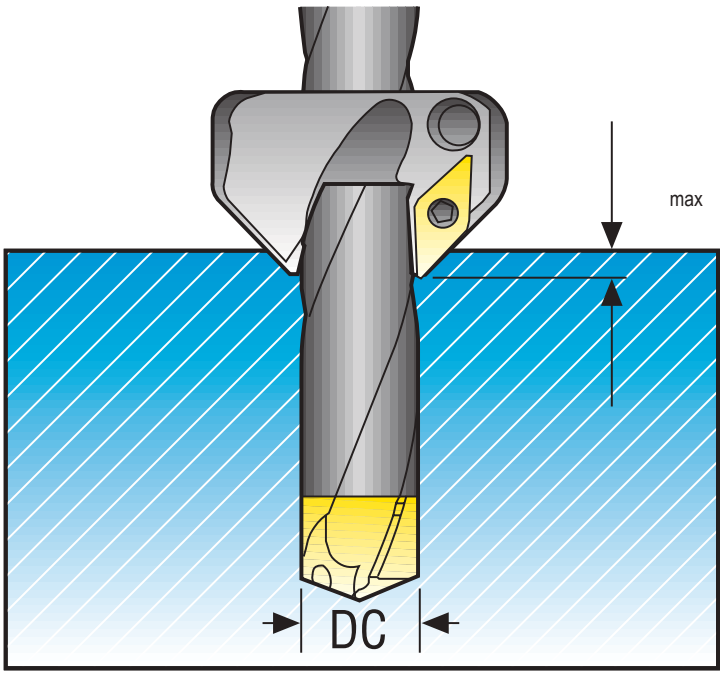
# Chamfer module

The recommended cutting speeds and feeds for Crownloc® on pages 193-196 should also be used during the chamfering operation.

### Troubleshooting

| | |
|---|---|
| Vibrations during chamfering | • Reduce cutting speed<br>• If possible, move the module closer to the shank of the drill<br>• If possible, use a shorter drill |

### Maximum chamfer depth




| DC | | Max | |
|---|---|---|---|
| mm | *inch* | mm | *inch* |
| 12-13 | *.472-512* | 1,5 | *.059* |
| 14-19 | *.551-.748* | 2 | *.079* |

## SD101 – ∅ 10-26 mm / *0.394-1.024 inch*

| SMG | | f | | | | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Ø 10.00<br>*Ø 0.394* | Ø 12.00<br>*Ø 0.472* | Ø 14.00<br>*Ø 0.551* | Ø 16.00<br>*Ø 0.630* | Ø 18.00<br>*Ø 0.709* | Ø 20.00<br>*Ø 0.787* | Ø 22.00<br>*Ø 0.866* | Ø 24.00<br>*Ø 0.945* | Ø 26.00<br>*Ø 1.024* | |
| P1 | P | 0,20 | 0,24 | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 0,34 | 0,36 | 125 |
| | *P* | *0.0080* | *0.0095* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *0.013* | *0.014* | *410* |
| P2 | P | 0,20 | 0,24 | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 0,36 | 0,36 | 120 |
| | *P* | *0.0080* | *0.0095* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *0.014* | *0.014* | *395* |
| P3 | P | 0,19 | 0,22 | 0,25 | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 0,34 | 105 |
| | *P* | *0.0075* | *0.0085* | *0.010* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *0.013* | *345* |
| P4 | P | 0,19 | 0,22 | 0,24 | 0,26 | 0,28 | 0,30 | 0,32 | 0,32 | 0,34 | 95 |
| | *P* | *0.0075* | *0.0085* | *0.0095* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *0.013* | *310* |
| P5 | P | 0,19 | 0,22 | 0,24 | 0,26 | 0,28 | 0,30 | 0,30 | 0,32 | 0,34 | 90 |
| | *P* | *0.0075* | *0.0085* | *0.0095* | *0.010* | *0.011* | *0.012* | *0.012* | *0.013* | *0.013* | *295* |
| P6 | P | 0,18 | 0,22 | 0,24 | 0,26 | 0,28 | 0,28 | 0,30 | 0,32 | 0,32 | 100 |
| | *P* | *0.0070* | *0.0085* | *0.0095* | *0.010* | *0.011* | *0.011* | *0.012* | *0.013* | *0.013* | *330* |
| P7 | P | 0,18 | 0,22 | 0,24 | 0,26 | 0,28 | 0,28 | 0,30 | 0,32 | 0,32 | 95 |
| | *P* | *0.0070* | *0.0085* | *0.0095* | *0.010* | *0.011* | *0.011* | *0.012* | *0.013* | *0.013* | *310* |
| P8 | P | 0,19 | 0,22 | 0,25 | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 0,34 | 90 |
| | *P* | *0.0075* | *0.0085* | *0.010* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *0.013* | *295* |
| P11 | P | 0,18 | 0,22 | 0,24 | 0,26 | 0,28 | 0,28 | 0,30 | 0,32 | 0,32 | 90 |
| | *P* | *0.0070* | *0.0085* | *0.0095* | *0.010* | *0.011* | *0.011* | *0.012* | *0.013* | *0.013* | *295* |
| P12 | P | 0,13 | 0,15 | 0,16 | 0,18 | 0,19 | 0,20 | 0,20 | 0,22 | 0,22 | 55 |
| | *P* | *0.0050* | *0.0060* | *0.0065* | *0.0070* | *0.0075* | *0.0080* | *0.0080* | *0.0085* | *0.0085* | *180* |
| M1 | M | 0,14 | 0,15 | 0,15 | 0,16 | 0,16 | 0,16 | 0,17 | 0,17 | 0,17 | 85 |
| | *M* | *0.0055* | *0.0060* | *0.0060* | *0.0065* | *0.0065* | *0.0065* | *0.0065* | *0.0065* | *0.0065* | *280* |
| M2 | M | 0,13 | 0,13 | 0,14 | 0,14 | 0,15 | 0,15 | 0,15 | 0,16 | 0,16 | 70 |
| | *M* | *0.0050* | *0.0050* | *0.0055* | *0.0055* | *0.0060* | *0.0060* | *0.0060* | *0.0065* | *0.0065* | *230* |
| M3 | M | 0,10 | 0,11 | 0,11 | 0,11 | 0,12 | 0,12 | 0,12 | 0,12 | 0,13 | 50 |
| | *M* | *0.0040* | *0.0044* | *0.0044* | *0.0044* | *0.0048* | *0.0048* | *0.0048* | *0.0048* | *0.0050* | *165* |
| M4 | M | 0,090 | 0,095 | 0,095 | 0,10 | 0,10 | 0,10 | 0,11 | 0,11 | 0,11 | 39 |
| | *M* | *0.0036* | *0.0038* | *0.0038* | *0.0040* | *0.0040* | *0.0040* | *0.0044* | *0.0044* | *0.0044* | *130* |
| M5 | M | 0,090 | 0,095 | 0,095 | 0,10 | 0,10 | 0,10 | 0,11 | 0,11 | 0,11 | 33 |
| | *M* | *0.0036* | *0.0038* | *0.0038* | *0.0040* | *0.0040* | *0.0040* | *0.0044* | *0.0044* | *0.0044* | *110* |
| K1 | K | 0,28 | 0,32 | 0,34 | 0,36 | 0,38 | 0,40 | 0,42 | 0,42 | 0,44 | 100 |
| | *K* | *0.011* | *0.013* | *0.013* | *0.014* | *0.015* | *0.016* | *0.017* | *0.017* | *0.017* | *330* |
| K2 | K | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 0,36 | 0,38 | 0,38 | 0,40 | 85 |
| | *K* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *0.014* | *0.015* | *0.015* | *0.016* | *280* |
| K3 | K | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 0,36 | 0,38 | 0,38 | 0,40 | 70 |
| | *K* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *0.014* | *0.015* | *0.015* | *0.016* | *230* |
| K4 | K | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 0,36 | 0,38 | 0,38 | 0,40 | 70 |
| | *K* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *0.014* | *0.015* | *0.015* | *0.016* | *230* |
| K5 | K | 0,24 | 0,26 | 0,28 | 0,30 | 0,32 | 0,32 | 0,34 | 0,36 | 0,36 | 41 |
| | *K* | *0.0095* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *0.013* | *0.014* | *0.014* | *135* |
| N1 | M | 0,18 | 0,19 | 0,19 | 0,20 | 0,20 | 0,20 | 0,22 | 0,22 | 0,22 | 335 |
| | *M* | *0.0070* | *0.0075* | *0.0075* | *0.0080* | *0.0080* | *0.0080* | *0.0085* | *0.0085* | *0.0085* | *1100* |
| N2 | M | 0,18 | 0,19 | 0,19 | 0,20 | 0,20 | 0,20 | 0,22 | 0,22 | 0,22 | 215 |
| | *M* | *0.0070* | *0.0075* | *0.0075* | *0.0080* | *0.0080* | *0.0080* | *0.0085* | *0.0085* | *0.0085* | *710* |
| N3 | M | 0,18 | 0,19 | 0,19 | 0,20 | 0,20 | 0,20 | 0,22 | 0,22 | 0,22 | 145 |
| | *M* | *0.0070* | *0.0075* | *0.0075* | *0.0080* | *0.0080* | *0.0080* | *0.0085* | *0.0085* | *0.0085* | *475* |
| N11 | M | 0,18 | 0,19 | 0,19 | 0,20 | 0,20 | 0,20 | 0,22 | 0,22 | 0,22 | 170 |
| | *M* | *0.0070* | *0.0075* | *0.0075* | *0.0080* | *0.0080* | *0.0080* | *0.0085* | *0.0085* | *0.0085* | *560* |
| S1 | M | 0,090 | 0,095 | 0,095 | 0,10 | 0,10 | 0,10 | 0,11 | 0,11 | 0,11 | 34 |
| | *M* | *0.0036* | *0.0038* | *0.0038* | *0.0040* | *0.0040* | *0.0040* | *0.0044* | *0.0044* | *0.0044* | *110* |
| S2 | M | 0,090 | 0,095 | 0,095 | 0,10 | 0,10 | 0,10 | 0,11 | 0,11 | 0,11 | 25 |
| | *M* | *0.0036* | *0.0038* | *0.0038* | *0.0040* | *0.0040* | *0.0040* | *0.0044* | *0.0044* | *0.0044* | *80* |
| S3 | M | 0,085 | 0,085 | 0,090 | 0,095 | 0,095 | 0,095 | 0,10 | 0,10 | 0,10 | 25 |
| | *M* | *0.0034* | *0.0034* | *0.0036* | *0.0038* | *0.0038* | *0.0038* | *0.0040* | *0.0040* | *0.0040* | *80* |
| S11 | M | 0,10 | 0,11 | 0,11 | 0,11 | 0,12 | 0,12 | 0,12 | 0,12 | 0,13 | 65 |
| | *M* | *0.0040* | *0.0044* | *0.0044* | *0.0044* | *0.0048* | *0.0048* | *0.0048* | *0.0048* | *0.0050* | *215* |
| S12 | M | 0,10 | 0,11 | 0,11 | 0,11 | 0,12 | 0,12 | 0,12 | 0,12 | 0,13 | 49 |
| | *M* | *0.0040* | *0.0044* | *0.0044* | *0.0044* | *0.0048* | *0.0048* | *0.0048* | *0.0048* | *0.0050* | *160* |
| S13 | M | 0,090 | 0,095 | 0,095 | 0,10 | 0,10 | 0,10 | 0,11 | 0,11 | 0,11 | 38 |
| | *M* | *0.0036* | *0.0038* | *0.0038* | *0.0040* | *0.0040* | *0.0040* | *0.0044* | *0.0044* | *0.0044* | *125* |
| H3 | P | 0,085 | 0,095 | 0,11 | 0,12 | 0,12 | 0,13 | 0,14 | 0,14 | 0,15 | 27 |
| | *P* | *0.0034* | *0.0038* | *0.0044* | *0.0048* | *0.0048* | *0.0050* | *0.0055* | *0.0055* | *0.0060* | *90* |
| H5 | P | 0,13 | 0,15 | 0,16 | 0,18 | 0,19 | 0,20 | 0,20 | 0,22 | 0,22 | 50 |
| | *P* | *0.0050* | *0.0060* | *0.0065* | *0.0070* | *0.0075* | *0.0080* | *0.0080* | *0.0085* | *0.0085* | *165* |
| H7 | P | 0,085 | 0,095 | 0,11 | 0,12 | 0,12 | 0,13 | 0,14 | 0,14 | 0,15 | 27 |
| | *P* | *0.0034* | *0.0038* | *0.0044* | *0.0048* | *0.0048* | *0.0050* | *0.0055* | *0.0055* | *0.0060* | *90* |
| H8 | P | 0,095 | 0,11 | 0,12 | 0,13 | 0,14 | 0,15 | 0,16 | 0,17 | 0,17 | 50 |
| | *P* | *0.0038* | *0.0044* | *0.0048* | *0.0050* | *0.0055* | *0.0060* | *0.0065* | *0.0065* | *0.0065* | *165* |
| H11 | P | 0,13 | 0,15 | 0,16 | 0,18 | 0,19 | 0,20 | 0,20 | 0,22 | 0,22 | 65 |
| | *P* | *0.0050* | *0.0060* | *0.0065* | *0.0070* | *0.0075* | *0.0080* | *0.0080* | *0.0085* | *0.0085* | *215* |
| H12 | P | 0,095 | 0,11 | 0,12 | 0,13 | 0,14 | 0,15 | 0,16 | 0,17 | 0,17 | 32 |
| | *P* | *0.0038* | *0.0044* | *0.0048* | *0.0050* | *0.0055* | *0.0060* | *0.0065* | *0.0065* | *0.0065* | *105* |
| H21 | P | 0,095 | 0,11 | 0,12 | 0,13 | 0,14 | 0,15 | 0,16 | 0,17 | 0,17 | 50 |
| | *P* | *0.0038* | *0.0044* | *0.0048* | *0.0050* | *0.0055* | *0.0060* | *0.0065* | *0.0065* | *0.0065* | *165* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD103 – ∅ 10-26 mm / *0.394-1.024 inch*

| SMG | | f | | | | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Ø 10.00<br>*Ø 0.394* | Ø 12.00<br>*Ø 0.472* | Ø 14.00<br>*Ø 0.551* | Ø 16.00<br>*Ø 0.630* | Ø 18.00<br>*Ø 0.709* | Ø 20.00<br>*Ø 0.787* | Ø 22.00<br>*Ø 0.866* | Ø 24.00<br>*Ø 0.945* | Ø 26.00<br>*Ø 1.024* | |
| P1 | P | 0,20 | 0,24 | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 0,34 | 0,36 | 120 |
| | *P* | *0.008* | *0.0095* | *0.01* | *0.011* | *0.012* | *0.013* | *0.013* | *0.013* | *0.014* | *395* |
| P2 | P | 0,20 | 0,24 | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 0,36 | 0,36 | 115 |
| | *P* | *0.008* | *0.0095* | *0.01* | *0.011* | *0.012* | *0.013* | *0.013* | *0.014* | *0.014* | *375* |
| P3 | P | 0,19 | 0,22 | 0,25 | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 0,34 | 100 |
| | *P* | *0.0075* | *0.0085* | *0.01* | *0.01* | *0.011* | *0.012* | *0.013* | *0.013* | *0.013* | *330* |
| P4 | P | 0,19 | 0,22 | 0,24 | 0,26 | 0,28 | 0,30 | 0,32 | 0,32 | 0,34 | 85 |
| | *P* | *0.0075* | *0.0085* | *0.0095* | *0.01* | *0.011* | *0.012* | *0.013* | *0.013* | *0.013* | *280* |
| P5 | P | 0,19 | 0,22 | 0,24 | 0,26 | 0,28 | 0,30 | 0,30 | 0,32 | 0,34 | 85 |
| | *P* | *0.0075* | *0.0085* | *0.0095* | *0.01* | *0.011* | *0.012* | *0.012* | *0.013* | *0.013* | *280* |
| P6 | P | 0,18 | 0,22 | 0,24 | 0,26 | 0,28 | 0,28 | 0,30 | 0,32 | 0,32 | 95 |
| | *P* | *0.007* | *0.0085* | *0.0095* | *0.01* | *0.011* | *0.011* | *0.012* | *0.013* | *0.013* | *310* |
| P7 | P | 0,18 | 0,22 | 0,24 | 0,26 | 0,28 | 0,28 | 0,30 | 0,32 | 0,32 | 90 |
| | *P* | *0.007* | *0.0085* | *0.0095* | *0.01* | *0.011* | *0.011* | *0.012* | *0.013* | *0.013* | *295* |
| P8 | P | 0,19 | 0,22 | 0,25 | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 0,34 | 85 |
| | *P* | *0.0075* | *0.0085* | *0.01* | *0.01* | *0.011* | *0.012* | *0.013* | *0.013* | *0.013* | *280* |
| P11 | P | 0,18 | 0,22 | 0,24 | 0,26 | 0,28 | 0,28 | 0,30 | 0,32 | 0,32 | 85 |
| | *P* | *0.007* | *0.0085* | *0.0095* | *0.01* | *0.011* | *0.011* | *0.012* | *0.013* | *0.013* | *280* |
| P12 | P | 0,13 | 0,15 | 0,16 | 0,18 | 0,19 | 0,20 | 0,20 | 0,22 | 0,22 | 50 |
| | *P* | *0.005* | *0.006* | *0.0065* | *0.007* | *0.0075* | *0.008* | *0.008* | *0.0085* | *0.0085* | *165* |
| M1 | M | 0,14 | 0,15 | 0,15 | 0,16 | 0,16 | 0,16 | 0,17 | 0,17 | 0,17 | 80 |
| | *M* | *0.0055* | *0.006* | *0.006* | *0.0065* | *0.0065* | *0.0065* | *0.0065* | *0.0065* | *0.0065* | *260* |
| M2 | M | 0,13 | 0,13 | 0,14 | 0,14 | 0,15 | 0,15 | 0,15 | 0,16 | 0,16 | 65 |
| | *M* | *0.005* | *0.005* | *0.0055* | *0.0055* | *0.006* | *0.006* | *0.006* | *0.0065* | *0.0065* | *215* |
| M3 | M | 0,10 | 0,11 | 0,11 | 0,11 | 0,12 | 0,12 | 0,12 | 0,12 | 0,13 | 49 |
| | *M* | *0.004* | *0.0044* | *0.0044* | *0.0044* | *0.0048* | *0.0048* | *0.0048* | *0.0048* | *0.005* | *160* |
| M4 | M | 0,090 | 0,095 | 0,095 | 0,10 | 0,10 | 0,10 | 0,11 | 0,11 | 0,11 | 37 |
| | *M* | *0.0036* | *0.0038* | *0.0038* | *0.004* | *0.004* | *0.004* | *0.0044* | *0.0044* | *0.0044* | *120* |
| M5 | M | 0,090 | 0,095 | 0,095 | 0,10 | 0,10 | 0,10 | 0,11 | 0,11 | 0,11 | 31 |
| | *M* | *0.0036* | *0.0038* | *0.0038* | *0.004* | *0.004* | *0.004* | *0.0044* | *0.0044* | *0.0044* | *100* |
| K1 | K | 0,28 | 0,32 | 0,34 | 0,36 | 0,38 | 0,40 | 0,42 | 0,42 | 0,44 | 90 |
| | *K* | *0.011* | *0.013* | *0.013* | *0.014* | *0.015* | *0.016* | *0.017* | *0.017* | *0.017* | *295* |
| K2 | K | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 0,36 | 0,38 | 0,38 | 0,40 | 80 |
| | *K* | *0.01* | *0.011* | *0.012* | *0.013* | *0.013* | *0.014* | *0.015* | *0.015* | *0.016* | *260* |
| K3 | K | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 0,36 | 0,38 | 0,38 | 0,40 | 65 |
| | *K* | *0.01* | *0.011* | *0.012* | *0.013* | *0.013* | *0.014* | *0.015* | *0.015* | *0.016* | *215* |
| K4 | K | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 0,36 | 0,38 | 0,38 | 0,40 | 65 |
| | *K* | *0.01* | *0.011* | *0.012* | *0.013* | *0.013* | *0.014* | *0.015* | *0.015* | *0.016* | *215* |
| K5 | K | 0,24 | 0,26 | 0,28 | 0,30 | 0,32 | 0,32 | 0,34 | 0,36 | 0,36 | 38 |
| | *K* | *0.0095* | *0.01* | *0.011* | *0.012* | *0.013* | *0.013* | *0.013* | *0.014* | *0.014* | *125* |
| N1 | M | 0,18 | 0,19 | 0,19 | 0,20 | 0,20 | 0,20 | 0,22 | 0,22 | 0,22 | 315 |
| | *M* | *0.007* | *0.0075* | *0.0075* | *0.008* | *0.008* | *0.008* | *0.0085* | *0.0085* | *0.0085* | *1025* |
| N2 | M | 0,18 | 0,19 | 0,19 | 0,20 | 0,20 | 0,20 | 0,22 | 0,22 | 0,22 | 200 |
| | *M* | *0.007* | *0.0075* | *0.0075* | *0.008* | *0.008* | *0.008* | *0.0085* | *0.0085* | *0.0085* | *660* |
| N3 | M | 0,18 | 0,19 | 0,19 | 0,20 | 0,20 | 0,20 | 0,22 | 0,22 | 0,22 | 135 |
| | *M* | *0.007* | *0.0075* | *0.0075* | *0.008* | *0.008* | *0.008* | *0.0085* | *0.0085* | *0.0085* | *445* |
| N11 | M | 0,18 | 0,19 | 0,19 | 0,20 | 0,20 | 0,20 | 0,22 | 0,22 | 0,22 | 160 |
| | *M* | *0.007* | *0.0075* | *0.0075* | *0.008* | *0.008* | *0.008* | *0.0085* | *0.0085* | *0.0085* | *520* |
| S1 | M | 0,090 | 0,095 | 0,095 | 0,10 | 0,10 | 0,10 | 0,11 | 0,11 | 0,11 | 32 |
| | *M* | *0.0036* | *0.0038* | *0.0038* | *0.004* | *0.004* | *0.004* | *0.0044* | *0.0044* | *0.0044* | *105* |
| S2 | M | 0,090 | 0,095 | 0,095 | 0,10 | 0,10 | 0,10 | 0,11 | 0,11 | 0,11 | 23 |
| | *M* | *0.0036* | *0.0038* | *0.0038* | *0.004* | *0.004* | *0.004* | *0.0044* | *0.0044* | *0.0044* | *75* |
| S3 | M | 0,085 | 0,085 | 0,090 | 0,095 | 0,095 | 0,095 | 0,10 | 0,10 | 0,10 | 23 |
| | *M* | *0.0034* | *0.0034* | *0.0036* | *0.0038* | *0.0038* | *0.0038* | *0.004* | *0.004* | *0.004* | *75* |
| S11 | M | 0,10 | 0,11 | 0,11 | 0,11 | 0,12 | 0,12 | 0,12 | 0,12 | 0,13 | 60 |
| | *M* | *0.004* | *0.0044* | *0.0044* | *0.0044* | *0.0048* | *0.0048* | *0.0048* | *0.0048* | *0.005* | *195* |
| S12 | M | 0,10 | 0,11 | 0,11 | 0,11 | 0,12 | 0,12 | 0,12 | 0,12 | 0,13 | 46 |
| | *M* | *0.004* | *0.0044* | *0.0044* | *0.0044* | *0.0048* | *0.0048* | *0.0048* | *0.0048* | *0.005* | *150* |
| S13 | M | 0,090 | 0,095 | 0,095 | 0,10 | 0,10 | 0,10 | 0,11 | 0,11 | 0,11 | 36 |
| | *M* | *0.0036* | *0.0038* | *0.0038* | *0.004* | *0.004* | *0.004* | *0.0044* | *0.0044* | *0.0044* | *120* |
| H3 | P | 0,085 | 0,095 | 0,11 | 0,12 | 0,12 | 0,13 | 0,14 | 0,14 | 0,15 | 25 |
| | *P* | *0.0034* | *0.0038* | *0.0044* | *0.0048* | *0.0048* | *0.005* | *0.0055* | *0.0055* | *0.006* | *80* |
| H5 | P | 0,13 | 0,15 | 0,16 | 0,18 | 0,19 | 0,20 | 0,20 | 0,22 | 0,22 | 46 |
| | *P* | *0.005* | *0.006* | *0.0065* | *0.007* | *0.0075* | *0.008* | *0.008* | *0.0085* | *0.0085* | *150* |
| H7 | P | 0,085 | 0,095 | 0,11 | 0,12 | 0,12 | 0,13 | 0,14 | 0,14 | 0,15 | 25 |
| | *P* | *0.0034* | *0.0038* | *0.0044* | *0.0048* | *0.0048* | *0.005* | *0.0055* | *0.0055* | *0.006* | *80* |
| H8 | P | 0,095 | 0,11 | 0,12 | 0,13 | 0,14 | 0,15 | 0,16 | 0,17 | 0,17 | 46 |
| | *P* | *0.0038* | *0.0044* | *0.0048* | *0.005* | *0.0055* | *0.006* | *0.0065* | *0.0065* | *0.0065* | *150* |
| H11 | P | 0,13 | 0,15 | 0,16 | 0,18 | 0,19 | 0,20 | 0,20 | 0,22 | 0,22 | 60 |
| | *P* | *0.005* | *0.006* | *0.0065* | *0.007* | *0.0075* | *0.008* | *0.008* | *0.0085* | *0.0085* | *195* |
| H12 | P | 0,095 | 0,11 | 0,12 | 0,13 | 0,14 | 0,15 | 0,16 | 0,17 | 0,17 | 30 |
| | *P* | *0.0038* | *0.0044* | *0.0048* | *0.005* | *0.0055* | *0.006* | *0.0065* | *0.0065* | *0.0065* | *100* |
| H21 | P | 0,095 | 0,11 | 0,12 | 0,13 | 0,14 | 0,15 | 0,16 | 0,17 | 0,17 | 46 |
| | *P* | *0.0038* | *0.0044* | *0.0048* | *0.005* | *0.0055* | *0.006* | *0.0065* | *0.0065* | *0.0065* | *150* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD105 – ∅ 10-26 mm / *0.394-1.024 inch*

| SMG | | f | | | | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Ø 10.00<br>*Ø 0.394* | Ø 12.00<br>*Ø 0.472* | Ø 14.00<br>*Ø 0.551* | Ø 16.00<br>*Ø 0.630* | Ø 18.00<br>*Ø 0.709* | Ø 20.00<br>*Ø 0.787* | Ø 22.00<br>*Ø 0.866* | Ø 24.00<br>*Ø 0.945* | Ø 26.00<br>*Ø 1.024* | |
| P1 | P | 0,20 | 0,24 | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 0,34 | 0,36 | 110 |
| | *P* | *0.0080* | *0.0095* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *0.013* | *0.014* | *360* |
| P2 | P | 0,20 | 0,24 | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 0,36 | 0,36 | 110 |
| | *P* | *0.0080* | *0.0095* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *0.014* | *0.014* | *360* |
| P3 | P | 0,19 | 0,22 | 0,25 | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 0,34 | 95 |
| | *P* | *0.0075* | *0.0085* | *0.010* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *0.013* | *310* |
| P4 | P | 0,19 | 0,22 | 0,24 | 0,26 | 0,28 | 0,30 | 0,32 | 0,32 | 0,34 | 85 |
| | *P* | *0.0075* | *0.0085* | *0.0095* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *0.013* | *280* |
| P5 | P | 0,19 | 0,22 | 0,24 | 0,26 | 0,28 | 0,30 | 0,30 | 0,32 | 0,34 | 80 |
| | *P* | *0.0075* | *0.0085* | *0.0095* | *0.010* | *0.011* | *0.012* | *0.012* | *0.013* | *0.013* | *260* |
| P6 | P | 0,18 | 0,22 | 0,24 | 0,26 | 0,28 | 0,28 | 0,30 | 0,32 | 0,32 | 90 |
| | *P* | *0.0070* | *0.0085* | *0.0095* | *0.010* | *0.011* | *0.011* | *0.012* | *0.013* | *0.013* | *295* |
| P7 | P | 0,18 | 0,22 | 0,24 | 0,26 | 0,28 | 0,28 | 0,30 | 0,32 | 0,32 | 85 |
| | *P* | *0.0070* | *0.0085* | *0.0095* | *0.010* | *0.011* | *0.011* | *0.012* | *0.013* | *0.013* | *280* |
| P8 | P | 0,19 | 0,22 | 0,25 | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 0,34 | 80 |
| | *P* | *0.0075* | *0.0085* | *0.010* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *0.013* | *260* |
| P11 | P | 0,18 | 0,22 | 0,24 | 0,26 | 0,28 | 0,28 | 0,30 | 0,32 | 0,32 | 80 |
| | *P* | *0.0070* | *0.0085* | *0.0095* | *0.010* | *0.011* | *0.011* | *0.012* | *0.013* | *0.013* | *260* |
| P12 | P | 0,13 | 0,15 | 0,16 | 0,18 | 0,19 | 0,20 | 0,20 | 0,22 | 0,22 | 48 |
| | *P* | *0.0050* | *0.0060* | *0.0065* | *0.0070* | *0.0075* | *0.0080* | *0.0080* | *0.0085* | *0.0085* | *155* |
| M1 | M | 0,14 | 0,15 | 0,15 | 0,16 | 0,16 | 0,16 | 0,17 | 0,17 | 0,17 | 75 |
| | *M* | *0.0055* | *0.0060* | *0.0060* | *0.0065* | *0.0065* | *0.0065* | *0.0065* | *0.0065* | *0.0065* | *245* |
| M2 | M | 0,13 | 0,13 | 0,14 | 0,14 | 0,15 | 0,15 | 0,15 | 0,16 | 0,16 | 60 |
| | *M* | *0.0050* | *0.0050* | *0.0055* | *0.0055* | *0.0060* | *0.0060* | *0.0060* | *0.0065* | *0.0065* | *195* |
| M3 | M | 0,10 | 0,11 | 0,11 | 0,11 | 0,12 | 0,12 | 0,12 | 0,12 | 0,13 | 46 |
| | *M* | *0.0040* | *0.0044* | *0.0044* | *0.0044* | *0.0048* | *0.0048* | *0.0048* | *0.0048* | *0.0050* | *150* |
| M4 | M | 0,090 | 0,095 | 0,095 | 0,10 | 0,10 | 0,10 | 0,11 | 0,11 | 0,11 | 35 |
| | *M* | *0.0036* | *0.0038* | *0.0038* | *0.0040* | *0.0040* | *0.0040* | *0.0044* | *0.0044* | *0.0044* | *115* |
| M5 | M | 0,090 | 0,095 | 0,095 | 0,10 | 0,10 | 0,10 | 0,11 | 0,11 | 0,11 | 29 |
| | *M* | *0.0036* | *0.0038* | *0.0038* | *0.0040* | *0.0040* | *0.0040* | *0.0044* | *0.0044* | *0.0044* | *95* |
| K1 | K | 0,28 | 0,32 | 0,34 | 0,36 | 0,38 | 0,40 | 0,42 | 0,42 | 0,44 | 90 |
| | *K* | *0.011* | *0.013* | *0.013* | *0.014* | *0.015* | *0.016* | *0.017* | *0.017* | *0.017* | *295* |
| K2 | K | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 0,36 | 0,38 | 0,38 | 0,40 | 75 |
| | *K* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *0.014* | *0.015* | *0.015* | *0.016* | *245* |
| K3 | K | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 0,36 | 0,38 | 0,38 | 0,40 | 65 |
| | *K* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *0.014* | *0.015* | *0.015* | *0.016* | *215* |
| K4 | K | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 0,36 | 0,38 | 0,38 | 0,40 | 60 |
| | *K* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *0.014* | *0.015* | *0.015* | *0.016* | *195* |
| K5 | K | 0,24 | 0,26 | 0,28 | 0,30 | 0,32 | 0,32 | 0,34 | 0,36 | 0,36 | 36 |
| | *K* | *0.0095* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *0.013* | *0.014* | *0.014* | *120* |
| N1 | M | 0,18 | 0,19 | 0,19 | 0,20 | 0,20 | 0,20 | 0,22 | 0,22 | 0,22 | 300 |
| | *M* | *0.0070* | *0.0075* | *0.0075* | *0.0080* | *0.0080* | *0.0080* | *0.0085* | *0.0085* | *0.0085* | *980* |
| N2 | M | 0,18 | 0,19 | 0,19 | 0,20 | 0,20 | 0,20 | 0,22 | 0,22 | 0,22 | 190 |
| | *M* | *0.0070* | *0.0075* | *0.0075* | *0.0080* | *0.0080* | *0.0080* | *0.0085* | *0.0085* | *0.0085* | *620* |
| N3 | M | 0,18 | 0,19 | 0,19 | 0,20 | 0,20 | 0,20 | 0,22 | 0,22 | 0,22 | 130 |
| | *M* | *0.0070* | *0.0075* | *0.0075* | *0.0080* | *0.0080* | *0.0080* | *0.0085* | *0.0085* | *0.0085* | *425* |
| N11 | M | 0,18 | 0,19 | 0,19 | 0,20 | 0,20 | 0,20 | 0,22 | 0,22 | 0,22 | 150 |
| | *M* | *0.0070* | *0.0075* | *0.0075* | *0.0080* | *0.0080* | *0.0080* | *0.0085* | *0.0085* | *0.0085* | *490* |
| S1 | M | 0,090 | 0,095 | 0,095 | 0,10 | 0,10 | 0,10 | 0,11 | 0,11 | 0,11 | 30 |
| | *M* | *0.0036* | *0.0038* | *0.0038* | *0.0040* | *0.0040* | *0.0040* | *0.0044* | *0.0044* | *0.0044* | *100* |
| S2 | M | 0,090 | 0,095 | 0,095 | 0,10 | 0,10 | 0,10 | 0,11 | 0,11 | 0,11 | 22 |
| | *M* | *0.0036* | *0.0038* | *0.0038* | *0.0040* | *0.0040* | *0.0040* | *0.0044* | *0.0044* | *0.0044* | *70* |
| S3 | M | 0,085 | 0,085 | 0,090 | 0,095 | 0,095 | 0,095 | 0,10 | 0,10 | 0,10 | 22 |
| | *M* | *0.0034* | *0.0034* | *0.0036* | *0.0038* | *0.0038* | *0.0038* | *0.0040* | *0.0040* | *0.0040* | *70* |
| S11 | M | 0,10 | 0,11 | 0,11 | 0,11 | 0,12 | 0,12 | 0,12 | 0,12 | 0,13 | 55 |
| | *M* | *0.0040* | *0.0044* | *0.0044* | *0.0044* | *0.0048* | *0.0048* | *0.0048* | *0.0048* | *0.0050* | *180* |
| S12 | M | 0,10 | 0,11 | 0,11 | 0,11 | 0,12 | 0,12 | 0,12 | 0,12 | 0,13 | 44 |
| | *M* | *0.0040* | *0.0044* | *0.0044* | *0.0044* | *0.0048* | *0.0048* | *0.0048* | *0.0048* | *0.0050* | *145* |
| S13 | M | 0,090 | 0,095 | 0,095 | 0,10 | 0,10 | 0,10 | 0,11 | 0,11 | 0,11 | 34 |
| | *M* | *0.0036* | *0.0038* | *0.0038* | *0.0040* | *0.0040* | *0.0040* | *0.0044* | *0.0044* | *0.0044* | *110* |
| H3 | P | 0,085 | 0,095 | 0,11 | 0,12 | 0,12 | 0,13 | 0,14 | 0,14 | 0,15 | 24 |
| | *P* | *0.0034* | *0.0038* | *0.0044* | *0.0048* | *0.0048* | *0.0050* | *0.0055* | *0.0055* | *0.0060* | *80* |
| H5 | P | 0,13 | 0,15 | 0,16 | 0,18 | 0,19 | 0,20 | 0,20 | 0,22 | 0,22 | 44 |
| | *P* | *0.0050* | *0.0060* | *0.0065* | *0.0070* | *0.0075* | *0.0080* | *0.0080* | *0.0085* | *0.0085* | *145* |
| H7 | P | 0,085 | 0,095 | 0,11 | 0,12 | 0,12 | 0,13 | 0,14 | 0,14 | 0,15 | 24 |
| | *P* | *0.0034* | *0.0038* | *0.0044* | *0.0048* | *0.0048* | *0.0050* | *0.0055* | *0.0055* | *0.0060* | *80* |
| H8 | P | 0,095 | 0,11 | 0,12 | 0,13 | 0,14 | 0,15 | 0,16 | 0,17 | 0,17 | 44 |
| | *P* | *0.0038* | *0.0044* | *0.0048* | *0.0050* | *0.0055* | *0.0060* | *0.0065* | *0.0065* | *0.0065* | *145* |
| H11 | P | 0,13 | 0,15 | 0,16 | 0,18 | 0,19 | 0,20 | 0,20 | 0,22 | 0,22 | 55 |
| | *P* | *0.0050* | *0.0060* | *0.0065* | *0.0070* | *0.0075* | *0.0080* | *0.0080* | *0.0085* | *0.0085* | *180* |
| H12 | P | 0,095 | 0,11 | 0,12 | 0,13 | 0,14 | 0,15 | 0,16 | 0,17 | 0,17 | 29 |
| | *P* | *0.0038* | *0.0044* | *0.0048* | *0.0050* | *0.0055* | *0.0060* | *0.0065* | *0.0065* | *0.0065* | *95* |
| H21 | P | 0,095 | 0,11 | 0,12 | 0,13 | 0,14 | 0,15 | 0,16 | 0,17 | 0,17 | 44 |
| | *P* | *0.0038* | *0.0044* | *0.0048* | *0.0050* | *0.0055* | *0.0060* | *0.0065* | *0.0065* | *0.0065* | *145* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD107 – ∅ 10-26 mm / *0.394-1.024 inch*

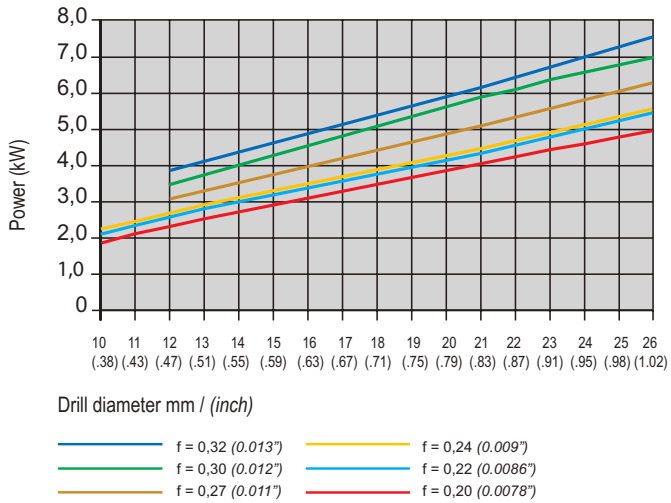
| SMG | | f | | | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Ø 12.00<br>*Ø 0.472* | Ø 14.00<br>*Ø 0.551* | Ø 16.00<br>*Ø 0.630* | Ø 18.00<br>*Ø 0.709* | Ø 20.00<br>*Ø 0.787* | Ø 22.00<br>*Ø 0.866* | Ø 24.00<br>*Ø 0.945* | Ø 26.00<br>*Ø 1.024* | |
| P1 | P | 0,24 | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 0,34 | 0,36 | 110 |
| | *P* | *0.0095* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *0.013* | *0.014* | *360* |
| P2 | P | 0,24 | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 0,36 | 0,36 | 105 |
| | *P* | *0.0095* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *0.014* | *0.014* | *345* |
| P3 | P | 0,22 | 0,25 | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 0,34 | 90 |
| | *P* | *0.0085* | *0.010* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *0.013* | *295* |
| P4 | P | 0,22 | 0,24 | 0,26 | 0,28 | 0,30 | 0,32 | 0,32 | 0,34 | 80 |
| | *P* | *0.0085* | *0.0095* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *0.013* | *260* |
| P5 | P | 0,22 | 0,24 | 0,26 | 0,28 | 0,30 | 0,30 | 0,32 | 0,34 | 75 |
| | *P* | *0.0085* | *0.0095* | *0.010* | *0.011* | *0.012* | *0.012* | *0.013* | *0.013* | *245* |
| P6 | P | 0,22 | 0,24 | 0,26 | 0,28 | 0,28 | 0,30 | 0,32 | 0,32 | 85 |
| | *P* | *0.0085* | *0.0095* | *0.010* | *0.011* | *0.011* | *0.012* | *0.013* | *0.013* | *280* |
| P7 | P | 0,22 | 0,24 | 0,26 | 0,28 | 0,28 | 0,30 | 0,32 | 0,32 | 80 |
| | *P* | *0.0085* | *0.0095* | *0.010* | *0.011* | *0.011* | *0.012* | *0.013* | *0.013* | *260* |
| P8 | P | 0,22 | 0,25 | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 0,34 | 75 |
| | *P* | *0.0085* | *0.010* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *0.013* | *245* |
| P11 | P | 0,22 | 0,24 | 0,26 | 0,28 | 0,28 | 0,30 | 0,32 | 0,32 | 80 |
| | *P* | *0.0085* | *0.0095* | *0.010* | *0.011* | *0.011* | *0.012* | *0.013* | *0.013* | *260* |
| P12 | P | 0,15 | 0,16 | 0,18 | 0,19 | 0,20 | 0,20 | 0,22 | 0,22 | 47 |
| | *P* | *0.0060* | *0.0065* | *0.0070* | *0.0075* | *0.0080* | *0.0080* | *0.0085* | *0.0085* | *155* |
| M1 | M | 0,15 | 0,15 | 0,16 | 0,16 | 0,16 | 0,17 | 0,17 | 0,17 | 75 |
| | *M* | *0.0060* | *0.0060* | *0.0065* | *0.0065* | *0.0065* | *0.0065* | *0.0065* | *0.0065* | *245* |
| M2 | M | 0,13 | 0,14 | 0,14 | 0,15 | 0,15 | 0,15 | 0,16 | 0,16 | 60 |
| | *M* | *0.0050* | *0.0055* | *0.0055* | *0.0060* | *0.0060* | *0.0060* | *0.0065* | *0.0065* | *195* |
| M3 | M | 0,11 | 0,11 | 0,11 | 0,12 | 0,12 | 0,12 | 0,12 | 0,13 | 45 |
| | *M* | *0.0044* | *0.0044* | *0.0044* | *0.0048* | *0.0048* | *0.0048* | *0.0048* | *0.0050* | *150* |
| M4 | M | 0,095 | 0,095 | 0,10 | 0,10 | 0,10 | 0,11 | 0,11 | 0,11 | 34 |
| | *M* | *0.0038* | *0.0038* | *0.0040* | *0.0040* | *0.0040* | *0.0044* | *0.0044* | *0.0044* | *110* |
| M5 | M | 0,095 | 0,095 | 0,10 | 0,10 | 0,10 | 0,11 | 0,11 | 0,11 | 28 |
| | *M* | *0.0038* | *0.0038* | *0.0040* | *0.0040* | *0.0040* | *0.0044* | *0.0044* | *0.0044* | *90* |
| K1 | K | 0,32 | 0,34 | 0,36 | 0,38 | 0,40 | 0,42 | 0,42 | 0,44 | 85 |
| | *K* | *0.013* | *0.013* | *0.014* | *0.015* | *0.016* | *0.017* | *0.017* | *0.017* | *280* |
| K2 | K | 0,28 | 0,30 | 0,32 | 0,34 | 0,36 | 0,38 | 0,38 | 0,40 | 75 |
| | *K* | *0.011* | *0.012* | *0.013* | *0.013* | *0.014* | *0.015* | *0.015* | *0.016* | *245* |
| K3 | K | 0,28 | 0,30 | 0,32 | 0,34 | 0,36 | 0,38 | 0,38 | 0,40 | 60 |
| | *K* | *0.011* | *0.012* | *0.013* | *0.013* | *0.014* | *0.015* | *0.015* | *0.016* | *195* |
| K4 | K | 0,28 | 0,30 | 0,32 | 0,34 | 0,36 | 0,38 | 0,38 | 0,40 | 60 |
| | *K* | *0.011* | *0.012* | *0.013* | *0.013* | *0.014* | *0.015* | *0.015* | *0.016* | *195* |
| K5 | K | 0,26 | 0,28 | 0,30 | 0,32 | 0,32 | 0,34 | 0,36 | 0,36 | 35 |
| | *K* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *0.013* | *0.014* | *0.014* | *115* |
| N1 | M | 0,19 | 0,19 | 0,20 | 0,20 | 0,20 | 0,22 | 0,22 | 0,22 | 290 |
| | *M* | *0.0075* | *0.0075* | *0.0080* | *0.0080* | *0.0080* | *0.0085* | *0.0085* | *0.0085* | *950* |
| N2 | M | 0,19 | 0,19 | 0,20 | 0,20 | 0,20 | 0,22 | 0,22 | 0,22 | 185 |
| | *M* | *0.0075* | *0.0075* | *0.0080* | *0.0080* | *0.0080* | *0.0085* | *0.0085* | *0.0085* | *610* |
| N3 | M | 0,19 | 0,19 | 0,20 | 0,20 | 0,20 | 0,22 | 0,22 | 0,22 | 125 |
| | *M* | *0.0075* | *0.0075* | *0.0080* | *0.0080* | *0.0080* | *0.0085* | *0.0085* | *0.0085* | *410* |
| N11 | M | 0,19 | 0,19 | 0,20 | 0,20 | 0,20 | 0,22 | 0,22 | 0,22 | 145 |
| | *M* | *0.0075* | *0.0075* | *0.0080* | *0.0080* | *0.0080* | *0.0085* | *0.0085* | *0.0085* | *475* |
| S1 | M | 0,095 | 0,095 | 0,10 | 0,10 | 0,10 | 0,11 | 0,11 | 0,11 | 29 |
| | *M* | *0.0038* | *0.0038* | *0.0040* | *0.0040* | *0.0040* | *0.0044* | *0.0044* | *0.0044* | *95* |
| S2 | M | 0,095 | 0,095 | 0,10 | 0,10 | 0,10 | 0,11 | 0,11 | 0,11 | 21 |
| | *M* | *0.0038* | *0.0038* | *0.0040* | *0.0040* | *0.0040* | *0.0044* | *0.0044* | *0.0044* | *70* |
| S3 | M | 0,085 | 0,090 | 0,095 | 0,095 | 0,095 | 0,10 | 0,10 | 0,10 | 21 |
| | *M* | *0.0034* | *0.0036* | *0.0038* | *0.0038* | *0.0038* | *0.0040* | *0.0040* | *0.0040* | *70* |
| S11 | M | 0,11 | 0,11 | 0,11 | 0,12 | 0,12 | 0,12 | 0,12 | 0,13 | 55 |
| | *M* | *0.0044* | *0.0044* | *0.0044* | *0.0048* | *0.0048* | *0.0048* | *0.0048* | *0.0050* | *180* |
| S12 | M | 0,11 | 0,11 | 0,11 | 0,12 | 0,12 | 0,12 | 0,12 | 0,13 | 42 |
| | *M* | *0.0044* | *0.0044* | *0.0044* | *0.0048* | *0.0048* | *0.0048* | *0.0048* | *0.0050* | *140* |
| S13 | M | 0,095 | 0,095 | 0,10 | 0,10 | 0,10 | 0,11 | 0,11 | 0,11 | 33 |
| | *M* | *0.0038* | *0.0038* | *0.0040* | *0.0040* | *0.0040* | *0.0044* | *0.0044* | *0.0044* | *110* |
| H3 | P | 0,095 | 0,11 | 0,12 | 0,12 | 0,13 | 0,14 | 0,14 | 0,15 | 23 |
| | *P* | *0.0038* | *0.0044* | *0.0048* | *0.0048* | *0.0050* | *0.0055* | *0.0055* | *0.0060* | *75* |
| H5 | P | 0,15 | 0,16 | 0,18 | 0,19 | 0,20 | 0,20 | 0,22 | 0,22 | 43 |
| | *P* | *0.0060* | *0.0065* | *0.0070* | *0.0075* | *0.0080* | *0.0080* | *0.0085* | *0.0085* | *140* |
| H7 | P | 0,095 | 0,11 | 0,12 | 0,12 | 0,13 | 0,14 | 0,14 | 0,15 | 23 |
| | *P* | *0.0038* | *0.0044* | *0.0048* | *0.0048* | *0.0050* | *0.0055* | *0.0055* | *0.0060* | *75* |
| H8 | P | 0,11 | 0,12 | 0,13 | 0,14 | 0,15 | 0,16 | 0,17 | 0,17 | 43 |
| | *P* | *0.0044* | *0.0048* | *0.0050* | *0.0055* | *0.0060* | *0.0065* | *0.0065* | *0.0065* | *140* |
| H11 | P | 0,15 | 0,16 | 0,18 | 0,19 | 0,20 | 0,20 | 0,22 | 0,22 | 55 |
| | *P* | *0.0060* | *0.0065* | *0.0070* | *0.0075* | *0.0080* | *0.0080* | *0.0085* | *0.0085* | *180* |
| H12 | P | 0,11 | 0,12 | 0,13 | 0,14 | 0,15 | 0,16 | 0,17 | 0,17 | 28 |
| | *P* | *0.0044* | *0.0048* | *0.0050* | *0.0055* | *0.0060* | *0.0065* | *0.0065* | *0.0065* | *90* |
| H21 | P | 0,11 | 0,12 | 0,13 | 0,14 | 0,15 | 0,16 | 0,17 | 0,17 | 43 |
| | *P* | *0.0044* | *0.0048* | *0.0050* | *0.0055* | *0.0060* | *0.0065* | *0.0065* | *0.0065* | *140* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

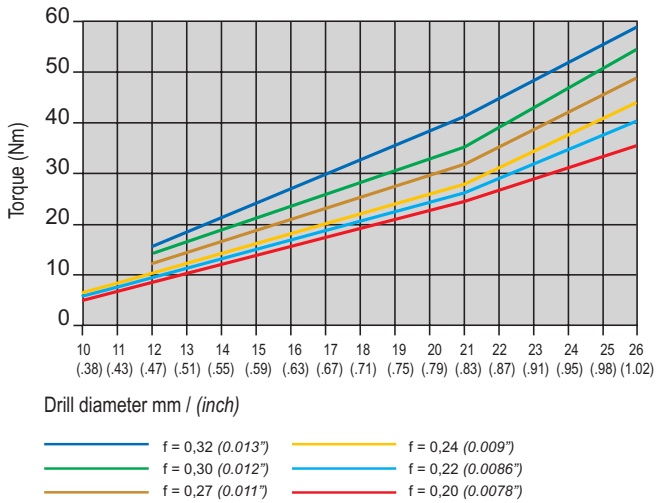
# Machining data

The values in the graphs vary with e.g. cutting data, material, efficiency of the machine and tool wear.
The graphs below are valid for Seco Material Group (SMG) P5-P6 and cutting speed 90 m/min *(295 sf/min)*.

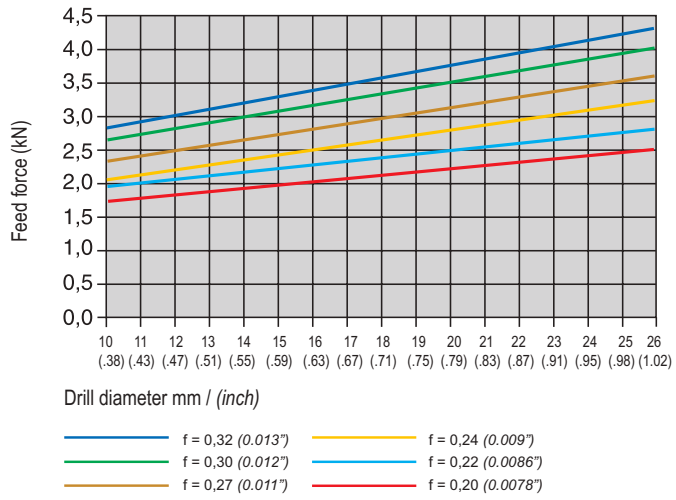
### Net power consumption



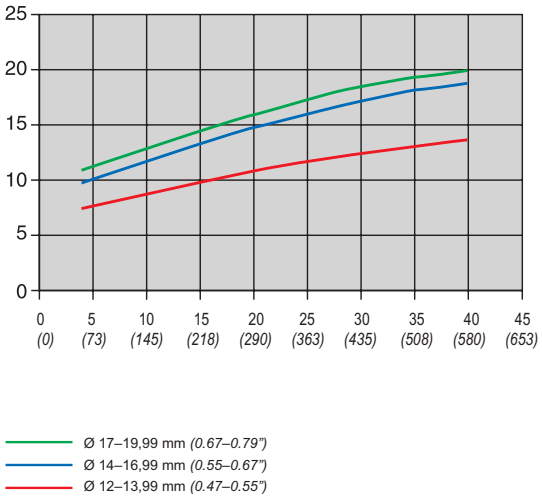

### Drilling torque




### Feed force



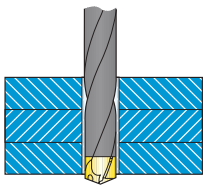

### Coolant flow at different pressures




Recommended coolant flow Dx1 l/min
Minimum coolant flow D/2 l/min
D = Drill diameter
Minimum recommended coolant pressure 10 bar *(145 PSI)* with < 3 x D
Minimum recommended coolant pressure 20 bar *(290 PSI)* with > 3 x D
Minimum recommended coolant pressure 40 bar *(580 PSI)* with > 5 x D

**Coolant mix**
Recommended emulsion mix is 6–8%.
When drilling in stainless steels, superalloys and high strength steels a mix of 10% is recommended.

**Machining recommendations**
It is possible to drill stacked material as long as the pieces are securely clamped together, so that there are no air gaps between the parts. Air gaps can affect chip evacuation, and thereby damage the drill.



### Hole tolerances/Surface finish

| SD101, SD103, SD105 and SD107<br>IT9-10 / $R_a$ 1-4*, $R_a$ 39-157 µin* | | | | | |
|---|---|---|---|---|---|
| Drill ∅ DC (mm) | IT9 tolerance (µm) | IT10 tolerance (µm) | Drill ∅ DC *(inch)* | IT9 tolerance *(inch)* | IT10 tolerance *(inch)* |
| 0 – +10-18 | 0 – +43 | 0 – +70 | *0 – +0.394-0.709* | *0 – +0.0017* | *0 – +0.0028* |
| 0 – +18-30 | 0 – +52 | 0 – +84 | *0 – +0.709-1.181* | *0 – +0.0020* | *0 – +0.0033* |

*Deterioration of surface finish and hole tolerance can occur when drilling in low carbon steel or stainless steel. Use the shortest drill possible for best hole quality.

# Troubleshooting – Initial check points:

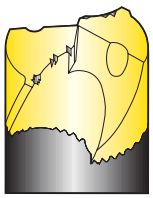
- Fixturing stability
- Machine spindle condition
- Tool holder condition

- Clamping of tool:
  - Run-out within 0,06 TIR

- Chip evacuation:
  - Cutting data

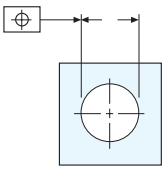
- Coolant:
  - Pressure
  - Flow
  - Concentration

### Cutting edges get chipped



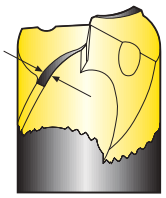
- Reduce the feed/rev
- If the drill vibrates, reduce the cutting speed and increase the feed rate
- When drilling through rough, hard or angled surfaces, reduce the feed rate by 30%-50% during entrance and exit

### Unsatisfactory diameter tolerance



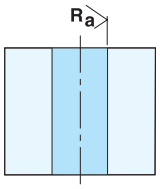
- Increase the feed/rev
- Use a Seco Feedmax solid carbide drill, see page(s) 15-17
- Use a reaming operation, see page(s) 324
- Use a boring operation, see pages(s) 493-494

### Too fast flank wear



- Check that correct geometry is used
- Reduce the cutting speed

### Unsatisfactory surface finish



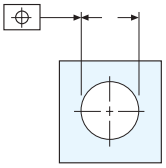

- Reduce the feed/rev
- Increase the cutting speed
- Check that the correct geometry is used
- Use a Seco Feedmax solid carbide drill, see page(s) 15-17
- Use a reaming operation, see page(s) 324

### Groove wear



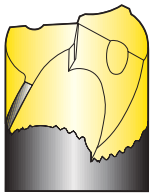
- Reduce the feed /rev
- Reduce the cutting speed
- Increase the coolant concentration

### Unsatisfactory positioning of the hole



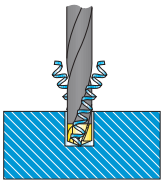
- Reduce the feed/rev
- If drilling through rough, hard and angled surface - reduce the feed by 30%-50% during entrance and exit
- Pre drill with a 140˚ point angle
- Use a Seco Feedmax solid carbide drill see Feedmax page(s) 15-17
- Use a boring operation, see page(s) 493-494

### Wear of peripheral land margins



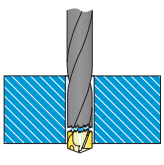
- Check that the correct geometry is used
- Reduce the cutting speed
- Increase the coolant concentration
- When drilling through rough, hard or angled surfaces, reduce the feed rate by 30-50% during entrance and exit

### Chip jamming due to long chips



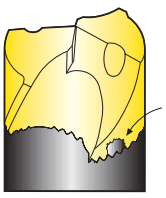
- Increase the feed
- In long chipping materials SMG P1-P4, SMG M1-M2:
  - Increase cutting speed and reduce feed/rev
  - Use the L geometry (MyDesign)

### Breakage at hole exit



- If the crown connection breaks when the crown is just about to break through the material. The failure is caused by:
  - The interface has not been cleaned thoroughly and there is still dirt or chips left between crown and drill body
  - The crown has not been clamped securely. Use the torque key
  - Too few threads are holding the crown

### Chipping of the locking interface



- Minor chipping is not hazardous to the locking system. It will not affect the drilling result
- If major chipping occurs when using a high feed rate or when drilling through angled surfaces - reduce the feed rate



# Crownloc® Plus

Seco Crownloc® Plus is a new generation of Seco drills with exchangeable crowns. Featuring a new locking interface, Crownloc Plus improves chip evacuation and wear resistance in a variety of materials.

- Strong drill body design, high-strength locking interface with deep and wide flutes and polished body
- The first choice for general applications, the P geometry is a strong and versatile solution
- The M geometry provides excellent performance in high temperature alloys, titanium, titanium alloys and stainless steel

# Range overview

| Crownloc® Plus | ∅ Range | Drill depth | Drill ∅ tolerance | Hole tolerance (1) | Surface finish (2) |
|---|---|---|---|---|---|
| **SD403**  Page(s) 203-206 | 12,00-19,99 mm *(0.472-0.787")* | ~ 3 x D | k7 | IT 9-10 | Ra 1-3 µm *(Ra 39-118 µin)* |
| **SD405**  Page(s) 207-210 | 12,00-19,99 mm *(0.472-0.787")* | ~ 5 x D | k7 | IT 10 | Ra 1-3 µm *(Ra 39-118 µin)* |
| **SD408**  Page(s) 211-214 | 12,00-19,99 mm *(0.472-0.787")* | ~ 8 x D | k7 | IT 10 | Ra 1-3 µm *(Ra 39-118 µin)* |

1) Variations can occur depending on the material and the cutting data used.
2) Drill depth, cutting data, coolant pressure and material can cause deterioration of the surface finish.

# Code keys

## Crownloc® Plus drill bodies

### Metric

Type of drill
SD403: 3 x D
SD405: 5 x D
SD408: 8 x D

Min/max
Crown diameter

| SD403 | - | 14.00/14.99 | - | 45 | - | 16 | - | R | 7 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Drilling depth | | Shank diameter | | Right hand rotation | Type of shank<br>1. Cylindrical<br>7. ISO 9766 |

### Inch

| 45 | - | 0750 | - | R | 7 |
|---|---|---|---|---|---|



## Code key crowns

Drill diameter

| SD400 | - | 14.00 | - | P |
|---|---|---|---|---|
| | | | | Type of geometry<br>P = Steel<br>M = Stainless Steel |



## Geometries

**P-geometry**
**- Universal geometry, first choice for drilling in steel**



**M-geometry**
**- For stainless steels and high temp alloys**



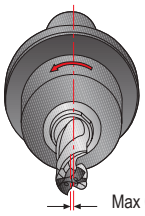
# Mounting instructions

## 1. Stability

The stability of the application is important to obtain the best tool life and hole accuracy. Check the condition of the machine spindle, fixture and fixturing of the component to secure maximum stability and rigidity.
Unstable conditions can cause tool breakages.

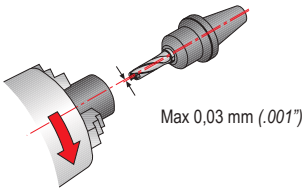
## 2. Rotating

Total Indicated Run-out (TIR) should not exceed 0.06 mm *(0.002")* in a rotating application.
Measure the run-out when turning the drill 360° in the spindle.




## 3. Stationary

The distance between the drill point and the rotating center of the workpiece should not exceed 0.03 mm *(0.001")* radially in a stationary application.




## 4. Recommended tool holders

Seco Tools offers a wide range of tools holders (Collet chucks, Shrinkfit holders, Weldon Hydraulic chucks...), available for a variety of machine spindle types.
For best results, use holders type ERHP 5672, High precision chuck.
For further information see Tooling Systems catalog.



**High precision collet chuck**
(For cylindrical, -R1 shanks only)



**Hydraulic chuck**
(For cylindrical, -R1 shanks only)

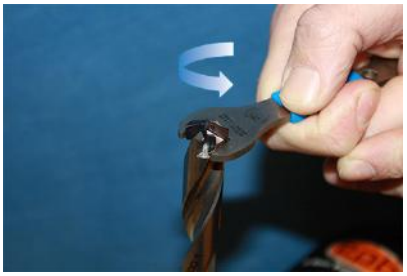


**Weldon**

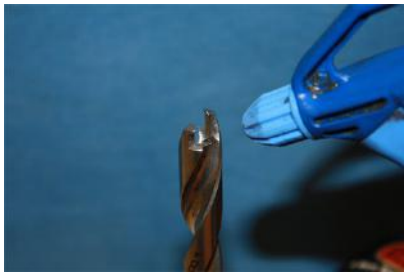
**1.**
To unclamp the crown, find the two flats on the Crown for the key.



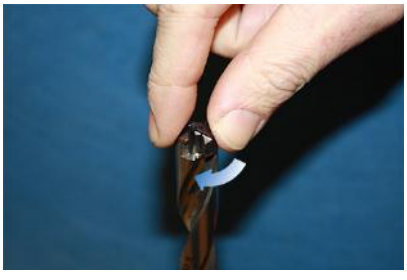
**2.**
Turn the key counterclockwise to unclamp it with a quarter of a turn.



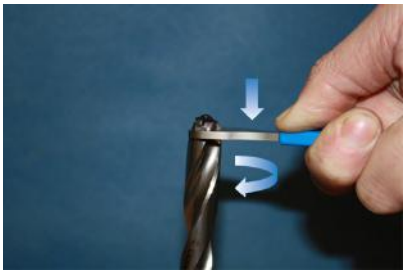
**3.**
Clean the connection, before mounting the crown.



**4.**
Pre-clamp the crown with your fingers for easier clamping, before using the key.



**5.**
Simultaneously press down the crown when clamping on a quarter of a turn clockwise using the key and keep it perpendicular to the drill body.

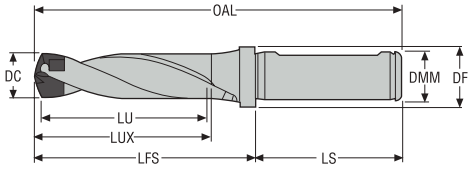


**6.**
When the crown is mounted in the drill body, full contact should be achieved in the connection between the suporting surfaces of the drill body and the Crown, see picture.



# SD403 – R7

Drilling depth ~ 3 x D – Metric shank






- Internal coolant
- ISO9766 fits holders: Weldon 1835B, ISO 5414, DIN 60880
- For cutting data see page(s) 219

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF |
|---|---|---|---|---|---|---|---|---|---|
| | | mm | mm | mm | mm | mm | mm | mm | mm |
| SD403-12.00/12.49-38-16R7 | 02622894 | 12,0-12,49 | 38,0 | 106,2 | 46,2 | 58,2 | 48,0 | 16,0 | 20,0 |
| SD403-12.50/12.99-39-16R7 | 02622895 | 12,5-12,99 | 39,0 | 108,0 | 47,5 | 60,0 | 48,0 | 16,0 | 20,0 |
| SD403-13.00/13.99-42-16R7 | 02622896 | 13,0-13,99 | 42,0 | 111,9 | 50,9 | 63,9 | 48,0 | 16,0 | 20,0 |
| SD403-14.00/14.99-45-16R7 | 02622898 | 14,0-14,99 | 45,0 | 116,5 | 54,5 | 68,5 | 48,0 | 16,0 | 20,0 |
| SD403-15.00/15.99-48-16R7 | 02622899 | 15,0-15,99 | 48,0 | 121,2 | 58,2 | 73,2 | 48,0 | 16,0 | 20,0 |
| SD403-16.00/16.99-51-20R7 | 02622900 | 16,0-16,99 | 51,0 | 127,9 | 61,9 | 77,9 | 50,0 | 20,0 | 24,0 |
| SD403-17.00/17.99-54-20R7 | 02622902 | 17,0-17,99 | 54,0 | 132,6 | 65,6 | 82,6 | 50,0 | 20,0 | 24,0 |
| SD403-18.00/18.99-57-20R7 | 02622903 | 18,0-18,99 | 57,0 | 137,3 | 69,3 | 87,3 | 50,0 | 20,0 | 24,0 |
| SD403-19.00/19.99-60-20R7 | 02622905 | 19,0-19,99 | 60,0 | 142,0 | 73,0 | 92,0 | 50,0 | 20,0 | 24,0 |

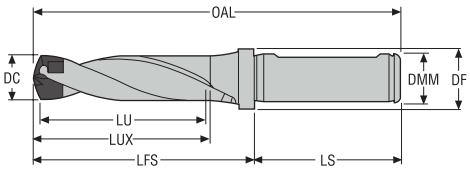
## Accessories

| For drill dia. (mm) | Key |
|---|---|
| |  |
| 12,00-12,99 | SD400-K05 |
| 13,00-14,99 | SD400-K06 |
| 15,00-16,99 | SD400-K07 |
| 17,00-18,99 | SD400-K08 |
| 19,00-19,99 | SD400-K09 |

# SD403 – R7

Drilling depth ~ 3 x D – Inch shank






- Internal coolant
- ISO9766 fits holders: Weldon 1835B, ISO 5414, DIN 60880
- For cutting data see page(s) 219

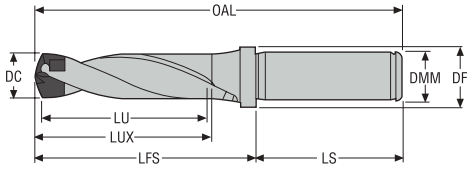
| Designation | Item number | DC | LU | DF | OAL | LS | LFS | LUX | DMM |
|---|---|---|---|---|---|---|---|---|---|
| | | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* |
| SD403-12.00/12.49-38-0625R7 | 02622942 | 0.472-0.492 | 1.496 | 0.787 | 4.181 | 1.890 | 2.291 | 1.819 | 0.625 |
| SD403-12.50/12.99-39-0625R7 | 02622943 | 0.492-0.511 | 1.535 | 0.787 | 4.252 | 1.890 | 2.362 | 1.870 | 0.625 |
| SD403-13.00/13.99-42-0625R7 | 02622944 | 0.512-0.551 | 1.654 | 0.787 | 4.406 | 1.890 | 2.516 | 2.004 | 0.625 |
| SD403-14.00/14.99-45-0625R7 | 02622945 | 0.551-0.590 | 1.772 | 0.787 | 4.587 | 1.890 | 2.697 | 2.146 | 0.625 |
| SD403-15.00/15.99-48-0625R7 | 02622946 | 0.591-0.630 | 1.890 | 0.787 | 4.772 | 1.890 | 2.882 | 2.291 | 0.625 |
| SD403-16.00/16.99-51-0750R7 | 02622947 | 0.630-0.669 | 2.008 | 0.945 | 5.035 | 1.969 | 3.067 | 2.437 | 0.750 |
| SD403-17.00/17.99-54-0750R7 | 02622948 | 0.669-0.708 | 2.126 | 0.945 | 5.220 | 1.969 | 3.252 | 2.583 | 0.750 |
| SD403-18.00/18.99-57-0750R7 | 02622949 | 0.709-0.748 | 2.244 | 0.945 | 5.406 | 1.969 | 3.437 | 2.728 | 0.750 |
| SD403-19.00/19.99-60-0750R7 | 02622950 | 0.748-0.787 | 2.362 | 0.945 | 5.591 | 1.969 | 3.622 | 2.874 | 0.750 |

## Accessories

| For drill dia. (inch) | Key |
|---|---|
| |  |
| 0.472-0.511 | SD400-K05 |
| 0.512-0.590 | SD400-K06 |
| 0.591-0.669 | SD400-K07 |
| 0.669-0.748 | SD400-K08 |
| 0.748-0.787 | SD400-K09 |

# SD403 – R1

Drilling depth ~ 3 x D – Metric shank






- Internal coolant
- Cylindrical shank (R1) fits holders: 5834 and 5672
- For cutting data see page(s) 219

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF |
|---|---|---|---|---|---|---|---|---|---|
| | | mm | mm | mm | mm | mm | mm | mm | mm |
| SD403-12.00/12.49-38-16R1 | 02622920 | 12,0-12,49 | 38,0 | 106,2 | 46,2 | 58,2 | 48,0 | 16,0 | 20,0 |
| SD403-12.50/12.99-39-16R1 | 02622921 | 12,5-12,99 | 39,0 | 108,0 | 47,5 | 60,0 | 48,0 | 16,0 | 20,0 |
| SD403-13.00/13.99-42-16R1 | 02622922 | 13,0-13,99 | 42,0 | 111,9 | 50,9 | 63,9 | 48,0 | 16,0 | 20,0 |
| SD403-14.00/14.99-45-16R1 | 02622923 | 14,0-14,99 | 45,0 | 116,5 | 54,5 | 68,5 | 48,0 | 16,0 | 20,0 |
| SD403-15.00/15.99-48-16R1 | 02622924 | 15,0-15,99 | 48,0 | 121,2 | 58,2 | 73,2 | 48,0 | 16,0 | 20,0 |
| SD403-16.00/16.99-51-20R1 | 02622927 | 16,0-16,99 | 51,0 | 127,9 | 61,9 | 77,9 | 50,0 | 20,0 | 24,0 |
| SD403-17.00/17.99-54-20R1 | 02622928 | 17,0-17,99 | 54,0 | 132,6 | 65,6 | 82,6 | 50,0 | 20,0 | 24,0 |
| SD403-18.00/18.99-57-20R1 | 02622930 | 18,0-18,99 | 57,0 | 137,3 | 69,3 | 87,3 | 50,0 | 20,0 | 24,0 |
| SD403-19.00/19.99-60-20R1 | 02622931 | 19,0-19,99 | 60,0 | 142,0 | 73,0 | 92,0 | 50,0 | 20,0 | 24,0 |

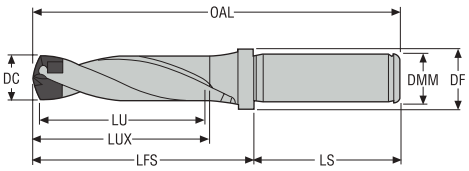
## Accessories

| For drill dia. (mm) | Key |
|---|---|
| |  |
| 12,00-12,99 | SD400-K05 |
| 13,00-14,99 | SD400-K06 |
| 15,00-16,99 | SD400-K07 |
| 17,00-18,99 | SD400-K08 |
| 19,00-19,99 | SD400-K09 |

# SD403 – R1

## Drilling depth ~ 3 x D – Inch shank






- Internal coolant
- Cylindrical shank (R1) fits holders: 5834 and 5672
- For cutting data see page(s) 219

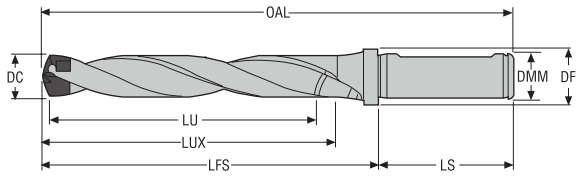
| Designation | Item number | DC | LU | DF | OAL | LS | LFS | LUX | DMM |
|---|---|---|---|---|---|---|---|---|---|
| | | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* |
| SD403-12.00/12.49-38-0625R1 | 02623538 | 0.472-0.492 | 1.496 | 0.787 | 4.181 | 1.890 | 2.291 | 1.819 | 0.625 |
| SD403-12.50/12.99-39-0625R1 | 02623539 | 0.492-0.511 | 1.535 | 0.787 | 4.252 | 1.890 | 2.362 | 1.870 | 0.625 |
| SD403-13.00/13.99-42-0625R1 | 02623540 | 0.512-0.551 | 1.654 | 0.787 | 4.406 | 1.890 | 2.516 | 2.004 | 0.625 |
| SD403-14.00/14.99-45-0625R1 | 02623541 | 0.551-0.590 | 1.772 | 0.787 | 4.587 | 1.890 | 2.697 | 2.146 | 0.625 |
| SD403-15.00/15.99-48-0625R1 | 02623542 | 0.591-0.630 | 1.890 | 0.787 | 4.772 | 1.890 | 2.882 | 2.291 | 0.625 |
| SD403-16.00/16.99-51-0750R1 | 02623543 | 0.630-0.669 | 2.008 | 0.945 | 5.035 | 1.969 | 3.067 | 2.437 | 0.750 |
| SD403-17.00/17.99-54-0750R1 | 02623544 | 0.669-0.708 | 2.126 | 0.945 | 5.220 | 1.969 | 3.252 | 2.583 | 0.750 |
| SD403-18.00/18.99-57-0750R1 | 02623545 | 0.709-0.748 | 2.244 | 0.945 | 5.406 | 1.969 | 3.437 | 2.728 | 0.750 |
| SD403-19.00/19.99-60-0750R1 | 02623546 | 0.748-0.787 | 2.362 | 0.945 | 5.591 | 1.969 | 3.622 | 2.874 | 0.750 |

### Accessories

| For drill dia. (inch) | Key |
|---|---|
| |  |
| 0.472-0.511 | SD400-K05 |
| 0.512-0.590 | SD400-K06 |
| 0.591-0.669 | SD400-K07 |
| 0.669-0.748 | SD400-K08 |
| 0.748-0.787 | SD400-K09 |

# SD405 – R7

Drilling depth ~ 5 x D – Metric shank






- Internal coolant
- ISO9766 fits holders: Weldon 1835B, ISO 5414, DIN 60880
- For cutting data see page(s) 220

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF |
|---|---|---|---|---|---|---|---|---|---|
| | | mm | mm | mm | mm | mm | mm | mm | mm |
| SD405-12.00/12.49-63-16R7 | 02623554 | 12,0-12,49 | 63,0 | 131,2 | 71,2 | 83,2 | 48,0 | 16,0 | 20,0 |
| SD405-12.50/12.99-65-16R7 | 02623555 | 12,5-12,99 | 65,0 | 134,0 | 73,5 | 86,0 | 48,0 | 16,0 | 20,0 |
| SD405-13.00/13.99-70-16R7 | 02623556 | 13,0-13,99 | 70,0 | 139,9 | 78,9 | 91,9 | 48,0 | 16,0 | 20,0 |
| SD405-14.00/14.99-75-16R7 | 02623557 | 14,0-14,99 | 75,0 | 146,5 | 84,5 | 98,5 | 48,0 | 16,0 | 20,0 |
| SD405-15.00/15.99-80-16R7 | 02623558 | 15,0-15,99 | 80,0 | 153,2 | 90,2 | 105,2 | 48,0 | 16,0 | 20,0 |
| SD405-16.00/16.99-85-20R7 | 02623559 | 16,0-16,99 | 85,0 | 161,9 | 95,9 | 111,9 | 50,0 | 20,0 | 24,0 |
| SD405-17.00/17.99-90-20R7 | 02623560 | 17,0-17,99 | 90,0 | 168,6 | 101,6 | 118,6 | 50,0 | 20,0 | 24,0 |
| SD405-18.00/18.99-95-20R7 | 02623561 | 18,0-18,99 | 95,0 | 175,3 | 107,3 | 125,3 | 50,0 | 20,0 | 24,0 |
| SD405-19.00/19.99-100-20R7 | 02623562 | 19,0-19,99 | 100,0 | 182,0 | 113,0 | 132,0 | 50,0 | 20,0 | 24,0 |

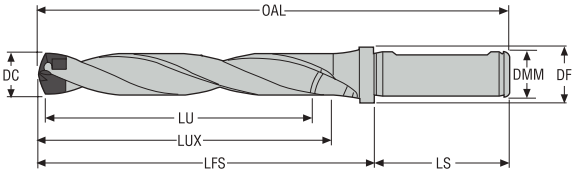
## Accessories

| For drill dia. (mm) | Key |
|---|---|
| |  |
| 12,00-12,99 | SD400-K05 |
| 13,00-14,99 | SD400-K06 |
| 15,00-16,99 | SD400-K07 |
| 17,00-18,99 | SD400-K08 |
| 19,00-19,99 | SD400-K09 |

# SD405 – R7

## Drilling depth ~ 5 x D – Inch shank






- Internal coolant
- ISO9766 fits holders: Weldon 1835B, ISO 5414, DIN 60880
- For cutting data see page(s) 220

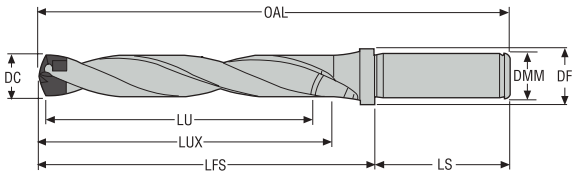
| Designation | Item number | DC | LU | DF | OAL | LS | LFS | LUX | DMM |
|---|---|---|---|---|---|---|---|---|---|
| | | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* |
| SD405-12.00/12.49-63-0625R7 | 02623586 | 0.472-0.492 | 2.480 | 0.787 | 5.165 | 1.890 | 3.276 | 2.803 | 0.625 |
| SD405-12.50/12.99-65-0625R7 | 02623587 | 0.492-0.511 | 2.559 | 0.787 | 5.276 | 1.890 | 3.386 | 2.894 | 0.625 |
| SD405-13.00/13.99-70-0625R7 | 02623588 | 0.512-0.551 | 2.756 | 0.787 | 5.508 | 1.890 | 3.618 | 3.106 | 0.625 |
| SD405-14.00/14.99-75-0625R7 | 02623589 | 0.551-0.590 | 2.953 | 0.787 | 5.768 | 1.890 | 3.878 | 3.327 | 0.625 |
| SD405-15.00/15.99-80-0625R7 | 02623590 | 0.591-0.630 | 3.150 | 0.787 | 6.031 | 1.890 | 4.142 | 3.551 | 0.625 |
| SD405-16.00/16.99-85-0750R7 | 02623591 | 0.630-0.669 | 3.346 | 0.945 | 6.374 | 1.969 | 4.406 | 3.776 | 0.750 |
| SD405-17.00/17.99-90-0750R7 | 02623592 | 0.669-0.708 | 3.543 | 0.945 | 6.638 | 1.969 | 4.669 | 4.000 | 0.750 |
| SD405-18.00/18.99-95-0750R7 | 02623593 | 0.709-0.748 | 3.740 | 0.945 | 6.902 | 1.969 | 4.933 | 4.224 | 0.750 |
| SD405-19.00/19.99-100-0750R7 | 02623594 | 0.748-0.787 | 3.937 | 0.945 | 7.165 | 1.969 | 5.197 | 4.449 | 0.750 |

### Accessories

| For drill dia. (inch) | Key |
|---|---|
| |  |
| 0.472-0.511 | SD400-K05 |
| 0.512-0.590 | SD400-K06 |
| 0.591-0.669 | SD400-K07 |
| 0.669-0.748 | SD400-K08 |
| 0.748-0.787 | SD400-K09 |

# SD405 – R1

Drilling depth ~ 5 x D – Metric shank






- Internal coolant
- Cylindrical shank (R1) fits holders: 5834 and 5672
- For cutting data see page(s) 220

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF |
|---|---|---|---|---|---|---|---|---|---|
| | | mm | mm | mm | mm | mm | mm | mm | mm |
| SD405-12.00/12.49-63-16R1 | 02623570 | 12,0-12,49 | 63,0 | 131,2 | 71,2 | 83,2 | 48,0 | 16,0 | 20,0 |
| SD405-12.50/12.99-65-16R1 | 02623571 | 12,5-12,99 | 65,0 | 134,0 | 73,5 | 86,0 | 48,0 | 16,0 | 20,0 |
| SD405-13.00/13.99-70-16R1 | 02623572 | 13,0-13,99 | 70,0 | 139,9 | 78,9 | 91,9 | 48,0 | 16,0 | 20,0 |
| SD405-14.00/14.99-75-16R1 | 02623573 | 14,0-14,99 | 75,0 | 146,5 | 84,5 | 98,5 | 48,0 | 16,0 | 20,0 |
| SD405-15.00/15.99-80-16R1 | 02623574 | 15,0-15,99 | 80,0 | 153,2 | 90,2 | 105,2 | 48,0 | 16,0 | 20,0 |
| SD405-16.00/16.99-85-20R1 | 02623575 | 16,0-16,99 | 85,0 | 161,9 | 95,9 | 111,9 | 50,0 | 20,0 | 24,0 |
| SD405-17.00/17.99-90-20R1 | 02623576 | 17,0-17,99 | 90,0 | 168,6 | 101,6 | 118,6 | 50,0 | 20,0 | 24,0 |
| SD405-18.00/18.99-95-20R1 | 02623577 | 18,0-18,99 | 95,0 | 175,3 | 107,3 | 125,3 | 50,0 | 20,0 | 24,0 |
| SD405-19.00/19.99-100-20R1 | 02623578 | 19,0-19,99 | 100,0 | 182,0 | 113,0 | 132,0 | 50,0 | 20,0 | 24,0 |

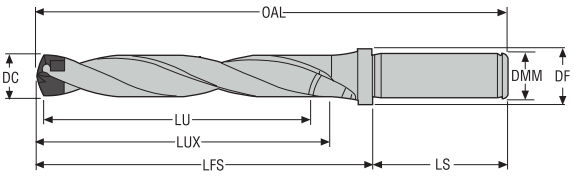
## Accessories

| For drill dia. (mm) | Key |
|---|---|
| |  |
| 12,00-12,99 | SD400-K05 |
| 13,00-14,99 | SD400-K06 |
| 15,00-16,99 | SD400-K07 |
| 17,00-18,99 | SD400-K08 |
| 19,00-19,99 | SD400-K09 |

# SD405 – R1

Drilling depth ~ 5 x D – Inch shank






- Internal coolant
- Cylindrical shank (R1) fits holders: 5834 and 5672
- For cutting data see page(s) 220

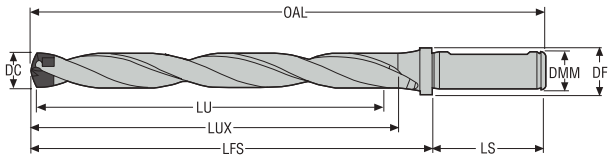
| Designation | Item number | DC | LU | DF | OAL | LS | LFS | LUX | DMM |
|---|---|---|---|---|---|---|---|---|---|
| | | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* |
| SD405-12.00/12.49-63-0625R1 | 02623603 | 0.472-0.492 | 2.480 | 0.787 | 5.165 | 1.890 | 3.276 | 2.803 | 0.625 |
| SD405-12.50/12.99-65-0625R1 | 02623604 | 0.492-0.511 | 2.559 | 0.787 | 5.276 | 1.890 | 3.386 | 2.894 | 0.625 |
| SD405-13.00/13.99-70-0625R1 | 02623605 | 0.512-0.551 | 2.756 | 0.787 | 5.508 | 1.890 | 3.618 | 3.106 | 0.625 |
| SD405-14.00/14.99-75-0625R1 | 02623606 | 0.551-0.590 | 2.953 | 0.787 | 5.768 | 1.890 | 3.878 | 3.327 | 0.625 |
| SD405-15.00/15.99-80-0625R1 | 02623607 | 0.591-0.630 | 3.150 | 0.787 | 6.031 | 1.890 | 4.142 | 3.551 | 0.625 |
| SD405-16.00/16.99-85-0750R1 | 02623608 | 0.630-0.669 | 3.346 | 0.945 | 6.374 | 1.969 | 4.406 | 3.776 | 0.750 |
| SD405-17.00/17.99-90-0750R1 | 02623609 | 0.669-0.708 | 3.543 | 0.945 | 6.638 | 1.969 | 4.669 | 4.000 | 0.750 |
| SD405-18.00/18.99-95-0750R1 | 02623610 | 0.709-0.748 | 3.740 | 0.945 | 6.902 | 1.969 | 4.933 | 4.224 | 0.750 |
| SD405-19.00/19.99-100-0750R1 | 02623611 | 0.748-0.787 | 3.937 | 0.945 | 7.165 | 1.969 | 5.197 | 4.449 | 0.750 |

## Accessories

| For drill dia. (inch) | Key |
|---|---|
| |  |
| 0.472-0.511 | SD400-K05 |
| 0.512-0.590 | SD400-K06 |
| 0.591-0.669 | SD400-K07 |
| 0.669-0.748 | SD400-K08 |
| 0.748-0.787 | SD400-K09 |

# SD408 – R7

Drilling depth ~ 8 x D – Metric shank






- Internal coolant
- ISO9766 fits holders: Weldon 1835B, ISO 5414, DIN 60880
- For cutting data see page(s) 221

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF |
|---|---|---|---|---|---|---|---|---|---|
| | | mm | mm | mm | mm | mm | mm | mm | mm |
| SD408-12.00/12.49-100-16R7 | 02623615 | 12,0-12,49 | 100,0 | 168,2 | 108,2 | 120,2 | 48,0 | 16,0 | 20,0 |
| SD408-12.50/12.99-104-16R7 | 02623616 | 12,5-12,99 | 104,0 | 173,0 | 112,5 | 125,0 | 48,0 | 16,0 | 20,0 |
| SD408-13.00/13.99-112-16R7 | 02623617 | 13,0-13,99 | 112,0 | 181,9 | 120,9 | 133,9 | 48,0 | 16,0 | 20,0 |
| SD408-14.00/14.99-120-16R7 | 02623618 | 14,0-14,99 | 120,0 | 191,5 | 129,5 | 143,5 | 48,0 | 16,0 | 20,0 |
| SD408-15.00/15.99-128-16R7 | 02623619 | 15,0-15,99 | 128,0 | 201,2 | 138,2 | 153,2 | 48,0 | 16,0 | 20,0 |
| SD408-16.00/16.99-136-20R7 | 02623620 | 16,0-16,99 | 136,0 | 212,9 | 146,9 | 162,9 | 50,0 | 20,0 | 24,0 |
| SD408-17.00/17.99-144-20R7 | 02623621 | 17,0-17,99 | 144,0 | 222,6 | 155,6 | 172,6 | 50,0 | 20,0 | 24,0 |
| SD408-18.00/18.99-152-20R7 | 02623622 | 18,0-18,99 | 152,0 | 232,3 | 164,3 | 182,3 | 50,0 | 20,0 | 24,0 |
| SD408-19.00/19.99-160-20R7 | 02623623 | 19,0-19,99 | 160,0 | 242,0 | 173,0 | 192,0 | 50,0 | 20,0 | 24,0 |

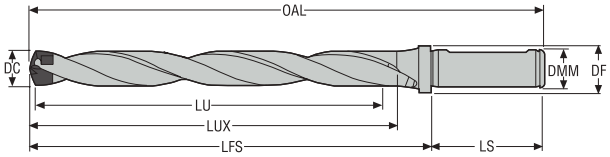
## Accessories

| For drill dia. (mm) | Key |
|---|---|
| |  |
| 12,00-12,99 | SD400-K05 |
| 13,00-14,99 | SD400-K06 |
| 15,00-16,99 | SD400-K07 |
| 17,00-18,99 | SD400-K08 |
| 19,00-19,99 | SD400-K09 |

# SD408 – R7

## Drilling depth ~ 8 x D – Inch shank






- Internal coolant
- ISO9766 fits holders: Weldon 1835B, ISO 5414, DIN 60880
- For cutting data see page(s) 221

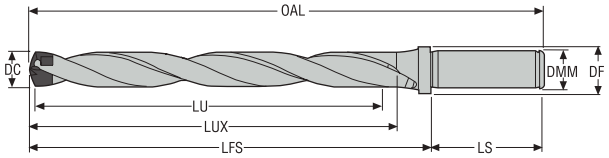
| Designation | Item number | DC | LU | DF | OAL | LS | LFS | LUX | DMM |
|---|---|---|---|---|---|---|---|---|---|
| | | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* |
| SD408-12.00/12.49-100-0625R7 | 02623639 | 0.472-0.492 | 3.937 | 0.787 | 6.622 | 1.890 | 4.732 | 4.260 | 0.625 |
| SD408-12.50/12.99-104-0625R7 | 02623640 | 0.492-0.511 | 4.094 | 0.787 | 6.811 | 1.890 | 4.921 | 4.429 | 0.625 |
| SD408-13.00/13.99-112-0625R7 | 02623641 | 0.512-0.551 | 4.409 | 0.787 | 7.161 | 1.890 | 5.272 | 4.760 | 0.625 |
| SD408-14.00/14.99-120-0625R7 | 02623642 | 0.551-0.590 | 4.724 | 0.787 | 7.539 | 1.890 | 5.650 | 5.098 | 0.625 |
| SD408-15.00/15.99-128-0625R7 | 02623643 | 0.591-0.630 | 5.039 | 0.787 | 7.921 | 1.890 | 6.031 | 5.441 | 0.625 |
| SD408-16.00/16.99-136-0750R7 | 02623644 | 0.630-0.669 | 5.354 | 0.945 | 8.382 | 1.969 | 6.413 | 5.783 | 0.750 |
| SD408-17.00/17.99-144-0750R7 | 02623645 | 0.669-0.708 | 5.669 | 0.945 | 8.764 | 1.969 | 6.795 | 6.126 | 0.750 |
| SD408-18.00/18.99-152-0750R7 | 02623646 | 0.709-0.748 | 5.984 | 0.945 | 9.146 | 1.969 | 7.177 | 6.469 | 0.750 |
| SD408-19.00/19.99-160-0750R7 | 02623647 | 0.748-0.787 | 6.299 | 0.945 | 9.528 | 1.969 | 7.559 | 6.811 | 0.750 |

### Accessories

| For drill dia. (inch) | Key |
|---|---|
| |  |
| 0.472-0.511 | SD400-K05 |
| 0.512-0.590 | SD400-K06 |
| 0.591-0.669 | SD400-K07 |
| 0.669-0.748 | SD400-K08 |
| 0.748-0.787 | SD400-K09 |

# SD408 – R1

Drilling depth ~ 8 x D – Metric shank






- Internal coolant
- Cylindrical shank (R1) fits holders: 5834 and 5672
- For cutting data see page(s) 221

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF |
|---|---|---|---|---|---|---|---|---|---|
| | | mm | mm | mm | mm | mm | mm | mm | mm |
| SD408-12.00/12.49-100-16R1 | 02623627 | 12,0-12,49 | 100,0 | 168,2 | 108,2 | 120,2 | 48,0 | 16,0 | 20,0 |
| SD408-12.50/12.99-104-16R1 | 02623628 | 12,5-12,99 | 104,0 | 173,0 | 112,5 | 125,0 | 48,0 | 16,0 | 20,0 |
| SD408-13.00/13.99-112-16R1 | 02623629 | 13,0-13,99 | 112,0 | 181,9 | 120,9 | 133,9 | 48,0 | 16,0 | 20,0 |
| SD408-14.00/14.99-120-16R1 | 02623630 | 14,0-14,99 | 120,0 | 191,5 | 129,5 | 143,5 | 48,0 | 16,0 | 20,0 |
| SD408-15.00/15.99-128-16R1 | 02623631 | 15,0-15,99 | 128,0 | 201,2 | 138,2 | 153,2 | 48,0 | 16,0 | 20,0 |
| SD408-16.00/16.99-136-20R1 | 02623632 | 16,0-16,99 | 136,0 | 212,9 | 146,9 | 162,9 | 50,0 | 20,0 | 24,0 |
| SD408-17.00/17.99-144-20R1 | 02623633 | 17,0-17,99 | 144,0 | 222,6 | 155,6 | 172,6 | 50,0 | 20,0 | 24,0 |
| SD408-18.00/18.99-152-20R1 | 02623634 | 18,0-18,99 | 152,0 | 232,3 | 164,3 | 182,3 | 50,0 | 20,0 | 24,0 |
| SD408-19.00/19.99-160-20R1 | 02623635 | 19,0-19,99 | 160,0 | 242,0 | 173,0 | 192,0 | 50,0 | 20,0 | 24,0 |

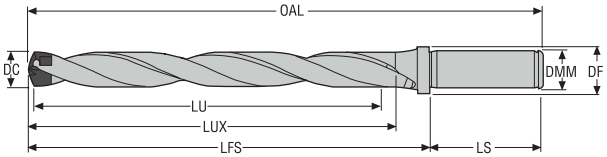
## Accessories

| For drill dia. (mm) | Key |
|---|---|
| |  |
| 12,00-12,99 | SD400-K05 |
| 13,00-14,99 | SD400-K06 |
| 15,00-16,99 | SD400-K07 |
| 17,00-18,99 | SD400-K08 |
| 19,00-19,99 | SD400-K09 |

# SD408 – R1

Drilling depth ~ 8 x D – Inch shank





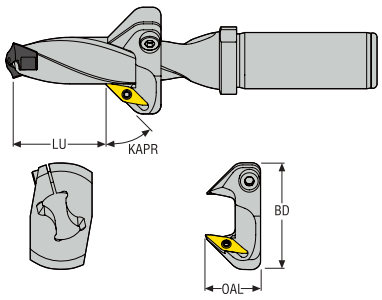

- Internal coolant
- Cylindrical shank (R1) fits holders: 5834 and 5672
- For cutting data see page(s) 221

| Designation | Item number | DC | LU | DF | OAL | LS | LFS | LUX | DMM |
|---|---|---|---|---|---|---|---|---|---|
| | | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* |
| SD408-12.00/12.49-100-0625R1 | 02623651 | 0.472-0.492 | 3.937 | 0.787 | 6.622 | 1.890 | 4.732 | 4.260 | 0.625 |
| SD408-12.50/12.99-104-0625R1 | 02623652 | 0.492-0.511 | 4.094 | 0.787 | 6.811 | 1.890 | 4.921 | 4.429 | 0.625 |
| SD408-13.00/13.99-112-0625R1 | 02623653 | 0.512-0.551 | 4.409 | 0.787 | 7.161 | 1.890 | 5.272 | 4.760 | 0.625 |
| SD408-14.00/14.99-120-0625R1 | 02623654 | 0.551-0.590 | 4.724 | 0.787 | 7.539 | 1.890 | 5.650 | 5.098 | 0.625 |
| SD408-15.00/15.99-128-0625R1 | 02623655 | 0.591-0.630 | 5.039 | 0.787 | 7.921 | 1.890 | 6.031 | 5.441 | 0.625 |
| SD408-16.00/16.99-136-0750R1 | 02623656 | 0.630-0.669 | 5.354 | 0.945 | 8.382 | 1.969 | 6.413 | 5.783 | 0.750 |
| SD408-17.00/17.99-144-0750R1 | 02623657 | 0.669-0.708 | 5.669 | 0.945 | 8.764 | 1.969 | 6.795 | 6.126 | 0.750 |
| SD408-18.00/18.99-152-0750R1 | 02623658 | 0.709-0.748 | 5.984 | 0.945 | 9.146 | 1.969 | 7.177 | 6.469 | 0.750 |
| SD408-19.00/19.99-160-0750R1 | 02623659 | 0.748-0.787 | 6.299 | 0.945 | 9.528 | 1.969 | 7.559 | 6.811 | 0.750 |

## Accessories

| For drill dia. (inch) | Key |
|---|---|
| |  |
| 0.472-0.511 | SD400-K05 |
| 0.512-0.590 | SD400-K06 |
| 0.591-0.669 | SD400-K07 |
| 0.669-0.748 | SD400-K08 |
| 0.748-0.787 | SD400-K09 |

# Chamfer module



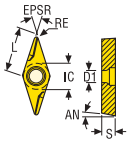



| Designation | Item number | For drill body | Drill depth LU SD403 (min-max) | | SD405 (min-max) | | SD408 (min-max) | | Max chamfer depth | OAL | BD | KAPR° |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | |
| SD400-C45-12.00/12.49 | 02846075 | SD40x-12.00/12.49 | 6,0 *0.236* | 22,0 *0.866* | 6,0 *0.236* | 47,0 *1.850* | 47,0 *1.850* | 84,0 *3.307* | 1,5 *0.059* | 20,0 *0.787* | 34,0 *1.339* | 45 |
| SD400-C45-12.50/12.99 | 02846076 | SD40x-12.50/12.99 | 7,0 *0.276* | 23,0 *0.906* | 7,0 *0.276* | 48,0 *1.890* | 48,0 *1.890* | 88,0 *3.465* | 1,5 *0.059* | 20,0 *0.787* | 34,0 *1.339* | 45 |
| SD400-C45-13.00/13.99 | 02846077 | SD40x-13.00/13.99 | 7,0 *0.276* | 27,0 *1.063* | 7,0 *0.276* | 55,0 *2.165* | 55,0 *2.165* | 97,0 *3.819* | 1,5 *0.059* | 20,0 *0.787* | 34,0 *1.339* | 45 |
| SD400-C45-14.00/14.99 | 02846078 | SD40x-14.00/14.99 | 7,0 *0.276* | 33,0 *1.299* | 7,0 *0.276* | 60,0 *2.362* | 60,0 *2.362* | 105,0 *4.134* | 1,5 *0.059* | 20,0 *0.787* | 36,0 *1.417* | 45 |
| SD400-C45-15.00/15.99 | 02846079 | SD40x-15.00/15.99 | 8,0 *0.315* | 35,0 *1.378* | 8,0 *0.315* | 67,0 *2.638* | 67,0 *2.638* | 114,0 *4.488* | 1,5 *0.059* | 20,0 *0.787* | 36,0 *1.417* | 45 |
| SD400-C45-16.00/16.99 | 02846080 | SD40x-16.00/16.99 | 8,0 *0.315* | 38,0 *1.496* | 8,0 *0.315* | 72,0 *2.835* | 72,0 *2.835* | 123,0 *4.843* | 1,5 *0.059* | 20,0 *0.787* | 38,0 *1.496* | 45 |
| SD400-C45-17.00/17.99 | 02846117 | SD40x-17.00/17.99 | 9,0 *0.354* | 43,0 *1.693* | 9,0 *0.354* | 79,0 *3.110* | 79,0 *3.110* | 132,0 *5.197* | 1,5 *0.059* | 20,0 *0.787* | 38,0 *1.496* | 45 |
| SD400-C45-18.00/18.99 | 02846082 | SD40x-18.00/18.99 | 9,0 *0.354* | 45,0 *1.772* | 9,0 *0.354* | 83,0 *3.268* | 83,0 *3.268* | 140,0 *5.512* | 1,5 *0.059* | 20,0 *0.787* | 40,0 *1.575* | 45 |
| SD400-C45-19.00/19.99 | 02846083 | SD40x-19.00/19.99 | 10,0 *0.394* | 49,0 *1.929* | 10,0 *0.394* | 89,0 *3.504* | 89,0 *3.504* | 149,0 *5.866* | 1,5 *0.059* | 20,0 *0.787* | 40,0 *1.575* | 45 |

## Spare Parts, included in delivery

| For drill dia. (mm) | Insert key | Insert screw | Locking key | Locking key | Locking screw 1 | Locking screw 2 |
|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |
| SD400-C45... | T07P-2 | C02505-T07P | 2SMS795 | 3SMS795 | MC6S4X8 | P6SS4X8 |

## Insert




Tolerances: mm/*inch*

IC = ±0,025/*.0009842*
S = ±0,07/*.0027559*
RE = ±0,10/*.0039370*

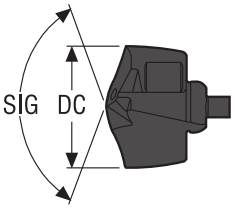
| Size | L mm/*inch* | EPSR | RE mm/*inch* | IC mm/*inch* | D1 mm/*inch* | AN | S mm/*inch* |
|---|---|---|---|---|---|---|---|
| **09** | **9,0**/*.2187* | **35°** | **0,2**/*.0078* | **5,556**/*.2187* | **2,9**/*.1141* | **7°** | **2,5**/*.0984* |
| **Grade: T400D** | | | | | | | |
| **Designation:** VCGX090202-D1 | | | | | | | |
| **Item number:** 00014948 | | | | | | | |

# Crowns – Geometry -P and -M

Point angle 140°








| Designation | Item number | P-geometry for steel | M-geometry for stainless steels and high temp alloys | DC | |
|---|---|---|---|---|---|
| | | | | mm | *inch* |
| SD400-12.00-M | 02826210 | – | ■ | 12,0 | *0.472* |
| SD400-12.00-P | 02630908 | ■ | – | 12,0 | *0.472* |
| SD400-12.10-P | 02630910 | ■ | – | 12,1 | *0.476* |
| SD400-12.20-P | 02630911 | ■ | – | 12,2 | *0.480* |
| SD400-12.30-M | 02826211 | – | ■ | 12,3 | *0.484* |
| SD400-12.30-P | 02630912 | ■ | – | 12,3 | *0.484* |
| SD400-12.41-M | 02826212 | – | ■ | 12,41 | *0.489* |
| SD400-12.41-P | 02630913 | ■ | – | 12,41 | *0.489* |
| SD400-12.50-M | 02826213 | – | ■ | 12,5 | *0.492* |
| SD400-12.50-P | 02630915 | ■ | – | 12,5 | *0.492* |
| SD400-12.60-P | 02630916 | ■ | – | 12,6 | *0.496* |
| SD400-12.70-M | 02826214 | – | ■ | 12,7 | *0.500* |
| SD400-12.70-P | 02630917 | ■ | – | 12,7 | *0.500* |
| SD400-12.80-M | 02826215 | – | ■ | 12,8 | *0.504* |
| SD400-12.80-P | 02630918 | ■ | – | 12,8 | *0.504* |
| SD400-12.90-M | 02826216 | – | ■ | 12,9 | *0.508* |
| SD400-12.90-P | 02630919 | ■ | – | 12,9 | *0.508* |
| SD400-13.00-M | 02826217 | – | ■ | 13,0 | *0.512* |
| SD400-13.00-P | 02634577 | ■ | – | 13,0 | *0.512* |
| SD400-13.10-M | 02826218 | – | ■ | 13,1 | *0.516* |
| SD400-13.10-P | 02634578 | ■ | – | 13,1 | *0.516* |
| SD400-13.20-P | 02634579 | ■ | – | 13,2 | *0.520* |
| SD400-13.30-M | 02826219 | – | ■ | 13,3 | *0.524* |
| SD400-13.30-P | 02634580 | ■ | – | 13,3 | *0.524* |
| SD400-13.50-M | 02826220 | – | ■ | 13,5 | *0.531* |
| SD400-13.50-P | 02634581 | ■ | – | 13,5 | *0.531* |
| SD400-13.70-M | 02826221 | – | ■ | 13,7 | *0.539* |
| SD400-13.70-P | 02634582 | ■ | – | 13,7 | *0.539* |
| SD400-13.80-M | 02826222 | – | ■ | 13,8 | *0.543* |
| SD400-13.80-P | 02634583 | ■ | – | 13,8 | *0.543* |
| SD400-13.89-M | 02826223 | – | ■ | 13,89 | *0.547* |
| SD400-13.89-P | 02634584 | ■ | – | 13,89 | *0.547* |
| SD400-14.00-M | 02826224 | – | ■ | 14,0 | *0.551* |
| SD400-14.00-P | 02634589 | ■ | – | 14,0 | *0.551* |
| SD400-14.10-P | 02634590 | ■ | – | 14,1 | *0.555* |
| SD400-14.20-M | 02826225 | – | ■ | 14,2 | *0.559* |
| SD400-14.20-P | 02634591 | ■ | – | 14,2 | *0.559* |
| SD400-14.288-M | 02826226 | – | ■ | 14,29 | *0.563* |
| SD400-14.288-P | 02634592 | ■ | – | 14,288 | *0.563* |

| Designation | Item number | P-geometry for steel | M-geometry for stainless steels and high temp alloys | DC | |
|---|---|---|---|---|---|
| | | | | mm | *inch* |
| SD400-14.40-P | 02634593 | ■ | – | 14,4 | *0.567* |
| SD400-14.50-M | 02826227 | – | ■ | 14,5 | *0.571* |
| SD400-14.50-P | 02634594 | ■ | – | 14,5 | *0.571* |
| SD400-14.68-M | 02826228 | – | ■ | 14,68 | *0.578* |
| SD400-14.68-P | 02634595 | ■ | – | 14,68 | *0.578* |
| SD400-14.70-M | 02826229 | – | ■ | 14,7 | *0.579* |
| SD400-14.70-P | 02634596 | ■ | – | 14,7 | *0.579* |
| SD400-14.80-M | 02826230 | – | ■ | 14,8 | *0.583* |
| SD400-14.80-P | 02634597 | ■ | – | 14,8 | *0.583* |
| SD400-14.90-M | 02826231 | – | ■ | 14,9 | *0.587* |
| SD400-14.90-P | 02634598 | ■ | – | 14,9 | *0.587* |
| SD400-15.00-M | 02826232 | – | ■ | 15,0 | *0.591* |
| SD400-15.00-P | 02634599 | ■ | – | 15,0 | *0.591* |
| SD400-15.08-M | 02826233 | – | ■ | 15,08 | *0.594* |
| SD400-15.08-P | 02634600 | ■ | – | 15,08 | *0.594* |
| SD400-15.10-P | 02634601 | ■ | – | 15,1 | *0.594* |
| SD400-15.20-P | 02634602 | ■ | – | 15,2 | *0.598* |
| SD400-15.25-M | 02826234 | – | ■ | 15,25 | *0.600* |
| SD400-15.25-P | 02634603 | ■ | – | 15,25 | *0.600* |
| SD400-15.478-M | 02826235 | – | ■ | 15,48 | *0.609* |
| SD400-15.478-P | 02634604 | ■ | – | 15,478 | *0.609* |
| SD400-15.50-M | 02826236 | – | ■ | 15,5 | *0.610* |
| SD400-15.50-P | 02634605 | ■ | – | 15,5 | *0.610* |
| SD400-15.70-M | 02826237 | – | ■ | 15,7 | *0.618* |
| SD400-15.70-P | 02634607 | ■ | – | 15,7 | *0.618* |
| SD400-15.80-M | 02826238 | – | ■ | 15,8 | *0.622* |
| SD400-15.80-P | 02634608 | ■ | – | 15,8 | *0.622* |
| SD400-15.875-M | 02826239 | – | ■ | 15,88 | *0.625* |
| SD400-15.875-P | 02634609 | ■ | – | 15,875 | *0.625* |
| SD400-16.00-M | 02826240 | – | ■ | 16,0 | *0.630* |
| SD400-16.00-P | 02635956 | ■ | – | 16,0 | *0.630* |
| SD400-16.10-P | 02635957 | ■ | – | 16,1 | *0.634* |
| SD400-16.20-P | 02635958 | ■ | – | 16,2 | *0.638* |
| SD400-16.25-P | 02635959 | ■ | – | 16,25 | *0.640* |
| SD400-16.27-M | 02826241 | – | ■ | 16,27 | *0.641* |
| SD400-16.27-P | 02635960 | ■ | – | 16,27 | *0.641* |
| SD400-16.40-P | 02635962 | ■ | – | 16,4 | *0.646* |
| SD400-16.50-M | 02826242 | – | ■ | 16,5 | *0.650* |
| SD400-16.50-P | 02635963 | ■ | – | 16,5 | *0.650* |
| SD400-16.669-M | 02826243 | – | ■ | 16,67 | *0.656* |
| SD400-16.669-P | 02635964 | ■ | – | 16,669 | *0.656* |
| SD400-16.70-M | 02826244 | – | ■ | 16,7 | *0.657* |
| SD400-16.70-P | 02635966 | ■ | – | 16,7 | *0.657* |
| SD400-16.80-M | 02826245 | – | ■ | 16,8 | *0.661* |
| SD400-16.80-P | 02635968 | ■ | – | 16,8 | *0.661* |
| SD400-16.90-P | 02635969 | ■ | – | 16,9 | *0.665* |
| SD400-17.00-M | 02826246 | – | ■ | 17,0 | *0.669* |
| SD400-17.00-P | 02635970 | ■ | – | 17,0 | *0.669* |
| SD400-17.065-M | 02826247 | – | ■ | 17,07 | *0.672* |
| SD400-17.065-P | 02635972 | ■ | – | 17,065 | *0.672* |
| SD400-17.10-P | 02635973 | ■ | – | 17,1 | *0.673* |

| Designation | Item number | P-geometry for steel | M-geometry for stainless steels and high temp alloys | DC | |
|---|---|---|---|---|---|
| | | | | mm | *inch* |
| SD400-17.20-P | 02635974 | ■ | – | 17,2 | *0.677* |
| SD400-17.35-P | 02888828 | ■ | – | 17,35 | *0.683* |
| SD400-17.463-M | 02826248 | – | ■ | 17,46 | *0.687* |
| SD400-17.463-P | 02635975 | ■ | – | 17,463 | *0.688* |
| SD400-17.50-M | 02826249 | – | ■ | 17,5 | *0.689* |
| SD400-17.50-P | 02635976 | ■ | – | 17,5 | *0.689* |
| SD400-17.70-M | 02826250 | – | ■ | 17,7 | *0.697* |
| SD400-17.70-P | 02635977 | ■ | – | 17,7 | *0.697* |
| SD400-17.80-M | 02826251 | – | ■ | 17,8 | *0.701* |
| SD400-17.80-P | 02635978 | ■ | – | 17,8 | *0.701* |
| SD400-17.859-M | 02826252 | – | ■ | 17,86 | *0.703* |
| SD400-17.859-P | 02635979 | ■ | – | 17,859 | *0.703* |
| SD400-17.90-M | 02826253 | – | ■ | 17,9 | *0.705* |
| SD400-17.90-P | 02635980 | ■ | – | 17,9 | *0.705* |
| SD400-18.00-M | 02826254 | – | ■ | 18,0 | *0.709* |
| SD400-18.00-P | 02635981 | ■ | – | 18,0 | *0.709* |
| SD400-18.10-P | 02635982 | ■ | – | 18,1 | *0.713* |
| SD400-18.20-P | 02635983 | ■ | – | 18,2 | *0.717* |
| SD400-18.256-M | 02826255 | – | ■ | 18,26 | *0.719* |
| SD400-18.256-P | 02635984 | ■ | – | 18,256 | *0.719* |
| SD400-18.50-M | 02826256 | – | ■ | 18,5 | *0.728* |
| SD400-18.50-P | 02635985 | ■ | – | 18,5 | *0.728* |
| SD400-18.653-M | 02826257 | – | ■ | 18,65 | *0.734* |
| SD400-18.653-P | 02635986 | ■ | – | 18,653 | *0.734* |
| SD400-18.70-M | 02826258 | – | ■ | 18,7 | *0.736* |
| SD400-18.70-P | 02635987 | ■ | – | 18,7 | *0.736* |
| SD400-18.80-M | 02826259 | – | ■ | 18,8 | *0.740* |
| SD400-18.80-P | 02635988 | ■ | – | 18,8 | *0.740* |
| SD400-18.90-M | 02826260 | – | ■ | 18,9 | *0.744* |
| SD400-18.90-P | 02635989 | ■ | – | 18,9 | *0.744* |
| SD400-19.00-M | 02826261 | – | ■ | 19,0 | *0.748* |
| SD400-19.00-P | 02635991 | ■ | – | 19,0 | *0.748* |
| SD400-19.05-M | 02826262 | – | ■ | 19,05 | *0.750* |
| SD400-19.05-P | 02635992 | ■ | – | 19,05 | *0.750* |
| SD400-19.10-P | 02635993 | ■ | – | 19,1 | *0.752* |
| SD400-19.20-M | 02826263 | – | ■ | 19,2 | *0.756* |
| SD400-19.20-P | 02635995 | ■ | – | 19,2 | *0.756* |
| SD400-19.25-M | 02925410 | – | ■ | 19,25 | *0.758* |
| SD400-19.447-M | 02826264 | – | ■ | 19,45 | *0.766* |
| SD400-19.447-P | 02635997 | ■ | – | 19,447 | *0.766* |
| SD400-19.50-M | 02826265 | – | ■ | 19,5 | *0.768* |
| SD400-19.50-P | 02635998 | ■ | – | 19,5 | *0.768* |
| SD400-19.70-M | 02826266 | – | ■ | 19,7 | *0.776* |
| SD400-19.70-P | 02635999 | ■ | – | 19,7 | *0.776* |
| SD400-19.80-M | 02826267 | – | ■ | 19,8 | *0.780* |
| SD400-19.80-P | 02636000 | ■ | – | 19,8 | *0.780* |
| SD400-19.844-M | 02826268 | – | ■ | 19,84 | *0.781* |
| SD400-19.844-P | 02636001 | ■ | – | 19,844 | *0.781* |
| SD400-19.90-M | 02826269 | – | ■ | 19,9 | *0.783* |
| SD400-19.90-P | 02636002 | ■ | – | 19,9 | *0.783* |

■ **Stock standard.**

## SD403 – ∅ 12-20 mm / *0.472-0.787 inch*

| SMG | | f | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|
| | | Ø12,00<br>*Ø 0.472* | Ø14,00<br>*Ø 0.551* | Ø16,00<br>*Ø 0.630* | Ø18,00<br>*Ø 0.709* | Ø20,00<br>*Ø 0.787* | |
| P1 | P | 0,30 | 0,32 | 0,34 | 0,36 | 0,36 | 155 |
| | *P* | *0.012* | *0.013* | *0.013* | *0.014* | *0.014* | *510* |
| P2 | P | 0,30 | 0,32 | 0,34 | 0,36 | 0,38 | 150 |
| | *P* | *0.012* | *0.013* | *0.013* | *0.014* | *0.015* | *490* |
| P3 | P | 0,28 | 0,30 | 0,32 | 0,34 | 0,36 | 130 |
| | *P* | *0.011* | *0.012* | *0.013* | *0.013* | *0.014* | *425* |
| P4 | P | 0,28 | 0,30 | 0,32 | 0,34 | 0,34 | 115 |
| | *P* | *0.011* | *0.012* | *0.013* | *0.013* | *0.013* | *375* |
| P5 | P | 0,28 | 0,30 | 0,32 | 0,32 | 0,34 | 110 |
| | *P* | *0.011* | *0.012* | *0.013* | *0.013* | *0.013* | *360* |
| P6 | P | 0,28 | 0,30 | 0,30 | 0,32 | 0,34 | 120 |
| | *P* | *0.011* | *0.012* | *0.012* | *0.013* | *0.013* | *395* |
| P7 | P | 0,28 | 0,30 | 0,30 | 0,32 | 0,34 | 115 |
| | *P* | *0.011* | *0.012* | *0.012* | *0.013* | *0.013* | *375* |
| P8 | P | 0,28 | 0,30 | 0,32 | 0,34 | 0,36 | 110 |
| | *P* | *0.011* | *0.012* | *0.013* | *0.013* | *0.014* | *360* |
| P11 | P | 0,28 | 0,30 | 0,30 | 0,32 | 0,34 | 110 |
| | *P* | *0.011* | *0.012* | *0.012* | *0.013* | *0.013* | *360* |
| P12 | P | 0,19 | 0,20 | 0,22 | 0,22 | 0,24 | 65 |
| | *P* | *0.0075* | *0.0080* | *0.0085* | *0.0085* | *0.0095* | *215* |
| M1 | M | 0,17 | 0,19 | 0,20 | 0,22 | 0,22 | 95 |
| | *M* | *0.0065* | *0.0075* | *0.0080* | *0.0085* | *0.0085* | *310* |
| M2 | M | 0,16 | 0,17 | 0,18 | 0,19 | 0,20 | 80 |
| | *M* | *0.0065* | *0.0065* | *0.0070* | *0.0075* | *0.0080* | *260* |
| M3 | M | 0,13 | 0,14 | 0,14 | 0,15 | 0,16 | 60 |
| | *M* | *0.0050* | *0.0055* | *0.0055* | *0.0060* | *0.0065* | *195* |
| M4 | M | 0,11 | 0,12 | 0,13 | 0,13 | 0,14 | 45 |
| | *M* | *0.0044* | *0.0048* | *0.0050* | *0.0050* | *0.0055* | *150* |
| M5 | M | 0,11 | 0,12 | 0,13 | 0,13 | 0,14 | 37 |
| | *M* | *0.0044* | *0.0048* | *0.0050* | *0.0050* | *0.0055* | *120* |
| K1 | P | 0,28 | 0,30 | 0,32 | 0,34 | 0,36 | 110 |
| | *P* | *0.011* | *0.012* | *0.013* | *0.013* | *0.014* | *360* |
| K2 | P | 0,26 | 0,28 | 0,30 | 0,32 | 0,32 | 95 |
| | *P* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *310* |
| K3 | P | 0,26 | 0,28 | 0,30 | 0,32 | 0,32 | 80 |
| | *P* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *260* |
| K4 | P | 0,26 | 0,28 | 0,30 | 0,32 | 0,32 | 75 |
| | *P* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *245* |
| K5 | P | 0,24 | 0,25 | 0,26 | 0,28 | 0,30 | 45 |
| | *P* | *0.0095* | *0.010* | *0.010* | *0.011* | *0.012* | *150* |
| N2 | M | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 215 |
| | *M* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *710* |
| N3 | M | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 145 |
| | *M* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *475* |
| N11 | M | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 170 |
| | *M* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *560* |
| S1 | M | 0,095 | 0,11 | 0,12 | 0,13 | 0,13 | 34 |
| | *M* | *0.0038* | *0.0044* | *0.0048* | *0.0050* | *0.0050* | *110* |
| S2 | M | 0,095 | 0,11 | 0,12 | 0,13 | 0,13 | 24 |
| | *M* | *0.0038* | *0.0044* | *0.0048* | *0.0050* | *0.0050* | *80* |
| S3 | M | 0,095 | 0,11 | 0,12 | 0,13 | 0,13 | 24 |
| | *M* | *0.0038* | *0.0044* | *0.0048* | *0.0050* | *0.0050* | *80* |
| S11 | M | 0,16 | 0,17 | 0,19 | 0,20 | 0,22 | 65 |
| | *M* | *0.0065* | *0.0065* | *0.0075* | *0.0080* | *0.0085* | *215* |
| S12 | M | 0,16 | 0,17 | 0,19 | 0,20 | 0,22 | 49 |
| | *M* | *0.0065* | *0.0065* | *0.0075* | *0.0080* | *0.0085* | *160* |
| S13 | M | 0,14 | 0,15 | 0,17 | 0,18 | 0,19 | 38 |
| | *M* | *0.0055* | *0.0060* | *0.0065* | *0.0070* | *0.0075* | *125* |
| H3 | P | 0,12 | 0,13 | 0,14 | 0,15 | 0,15 | 32 |
| | *P* | *0.0048* | *0.0050* | *0.0055* | *0.0060* | *0.0060* | *105* |
| H5 | P | 0,19 | 0,20 | 0,22 | 0,22 | 0,24 | 60 |
| | *P* | *0.0075* | *0.0080* | *0.0085* | *0.0085* | *0.0095* | *195* |
| H7 | P | 0,12 | 0,13 | 0,14 | 0,15 | 0,15 | 32 |
| | *P* | *0.0048* | *0.0050* | *0.0055* | *0.0060* | *0.0060* | *105* |
| H8 | P | 0,14 | 0,15 | 0,16 | 0,17 | 0,18 | 60 |
| | *P* | *0.0055* | *0.0060* | *0.0065* | *0.0065* | *0.0070* | *195* |
| H11 | P | 0,19 | 0,20 | 0,22 | 0,22 | 0,24 | 75 |
| | *P* | *0.0075* | *0.0080* | *0.0085* | *0.0085* | *0.0095* | *245* |
| H12 | P | 0,14 | 0,15 | 0,16 | 0,17 | 0,18 | 39 |
| | *P* | *0.0055* | *0.0060* | *0.0065* | *0.0065* | *0.0070* | *130* |
| H21 | P | 0,14 | 0,15 | 0,16 | 0,17 | 0,18 | 60 |
| | *P* | *0.0055* | *0.0060* | *0.0065* | *0.0065* | *0.0070* | *195* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD405 – ∅ 12-20 mm / *0.472-0.787 inch*

| SMG | | f | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|
| | | Ø 12,00<br>*Ø 0.472* | Ø 14,00<br>*Ø 0.551* | Ø 16,00<br>*Ø 0.630* | Ø 18,00<br>*Ø 0.709* | Ø 20,00<br>*Ø 0.787* | |
| P1 | P | 0,30 | 0,32 | 0,34 | 0,36 | 0,36 | 125 |
| | *P* | *0.012* | *0.013* | *0.013* | *0.014* | *0.014* | *410* |
| P2 | P | 0,30 | 0,32 | 0,34 | 0,36 | 0,38 | 120 |
| | *P* | *0.012* | *0.013* | *0.013* | *0.014* | *0.015* | *395* |
| P3 | P | 0,28 | 0,30 | 0,32 | 0,34 | 0,36 | 105 |
| | *P* | *0.011* | *0.012* | *0.013* | *0.013* | *0.014* | *345* |
| P4 | P | 0,28 | 0,30 | 0,32 | 0,34 | 0,34 | 95 |
| | *P* | *0.011* | *0.012* | *0.013* | *0.013* | *0.013* | *310* |
| P5 | P | 0,28 | 0,30 | 0,32 | 0,32 | 0,34 | 90 |
| | *P* | *0.011* | *0.012* | *0.013* | *0.013* | *0.013* | *295* |
| P6 | P | 0,28 | 0,30 | 0,30 | 0,32 | 0,34 | 100 |
| | *P* | *0.011* | *0.012* | *0.012* | *0.013* | *0.013* | *330* |
| P7 | P | 0,28 | 0,30 | 0,30 | 0,32 | 0,34 | 95 |
| | *P* | *0.011* | *0.012* | *0.012* | *0.013* | *0.013* | *310* |
| P8 | P | 0,28 | 0,30 | 0,32 | 0,34 | 0,36 | 90 |
| | *P* | *0.011* | *0.012* | *0.013* | *0.013* | *0.014* | *295* |
| P11 | P | 0,28 | 0,30 | 0,30 | 0,32 | 0,34 | 90 |
| | *P* | *0.011* | *0.012* | *0.012* | *0.013* | *0.013* | *295* |
| P12 | P | 0,19 | 0,20 | 0,22 | 0,22 | 0,24 | 55 |
| | *P* | *0.0075* | *0.0080* | *0.0085* | *0.0085* | *0.0095* | *180* |
| M1 | M | 0,17 | 0,19 | 0,20 | 0,22 | 0,22 | 80 |
| | *M* | *0.0065* | *0.0075* | *0.0080* | *0.0085* | *0.0085* | *260* |
| M2 | M | 0,16 | 0,17 | 0,18 | 0,19 | 0,20 | 65 |
| | *M* | *0.0065* | *0.0065* | *0.0070* | *0.0075* | *0.0080* | *215* |
| M3 | M | 0,13 | 0,14 | 0,14 | 0,15 | 0,16 | 49 |
| | *M* | *0.0050* | *0.0055* | *0.0055* | *0.0060* | *0.0065* | *160* |
| M4 | M | 0,11 | 0,12 | 0,13 | 0,13 | 0,14 | 37 |
| | *M* | *0.0044* | *0.0048* | *0.0050* | *0.0050* | *0.0055* | *120* |
| M5 | M | 0,11 | 0,12 | 0,13 | 0,13 | 0,14 | 31 |
| | *M* | *0.0044* | *0.0048* | *0.0050* | *0.0050* | *0.0055* | *100* |
| K1 | P | 0,28 | 0,30 | 0,32 | 0,34 | 0,36 | 90 |
| | *P* | *0.011* | *0.012* | *0.013* | *0.013* | *0.014* | *295* |
| K2 | P | 0,26 | 0,28 | 0,30 | 0,32 | 0,32 | 75 |
| | *P* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *245* |
| K3 | P | 0,26 | 0,28 | 0,30 | 0,32 | 0,32 | 65 |
| | *P* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *215* |
| K4 | P | 0,26 | 0,28 | 0,30 | 0,32 | 0,32 | 60 |
| | *P* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *195* |
| K5 | P | 0,24 | 0,25 | 0,26 | 0,28 | 0,30 | 37 |
| | *P* | *0.0095* | *0.010* | *0.010* | *0.011* | *0.012* | *120* |
| N2 | M | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 175 |
| | *M* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *570* |
| N3 | M | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 120 |
| | *M* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *395* |
| N11 | M | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 140 |
| | *M* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *460* |
| S1 | M | 0,095 | 0,11 | 0,12 | 0,13 | 0,13 | 28 |
| | *M* | *0.0038* | *0.0044* | *0.0048* | *0.0050* | *0.0050* | *90* |
| S2 | M | 0,095 | 0,11 | 0,12 | 0,13 | 0,13 | 20 |
| | *M* | *0.0038* | *0.0044* | *0.0048* | *0.0050* | *0.0050* | *65* |
| S3 | M | 0,095 | 0,11 | 0,12 | 0,13 | 0,13 | 20 |
| | *M* | *0.0038* | *0.0044* | *0.0048* | *0.0050* | *0.0050* | *65* |
| S11 | M | 0,16 | 0,17 | 0,19 | 0,20 | 0,22 | 50 |
| | *M* | *0.0065* | *0.0065* | *0.0075* | *0.0080* | *0.0085* | *165* |
| S12 | M | 0,16 | 0,17 | 0,19 | 0,20 | 0,22 | 40 |
| | *M* | *0.0065* | *0.0065* | *0.0075* | *0.0080* | *0.0085* | *130* |
| S13 | M | 0,14 | 0,15 | 0,17 | 0,18 | 0,19 | 31 |
| | *M* | *0.0055* | *0.0060* | *0.0065* | *0.0070* | *0.0075* | *100* |
| H3 | P | 0,12 | 0,13 | 0,14 | 0,15 | 0,15 | 26 |
| | *P* | *0.0048* | *0.0050* | *0.0055* | *0.0060* | *0.0060* | *85* |
| H5 | P | 0,19 | 0,20 | 0,22 | 0,22 | 0,24 | 49 |
| | *P* | *0.0075* | *0.0080* | *0.0085* | *0.0085* | *0.0095* | *160* |
| H7 | P | 0,12 | 0,13 | 0,14 | 0,15 | 0,15 | 26 |
| | *P* | *0.0048* | *0.0050* | *0.0055* | *0.0060* | *0.0060* | *85* |
| H8 | P | 0,14 | 0,15 | 0,16 | 0,17 | 0,18 | 49 |
| | *P* | *0.0055* | *0.0060* | *0.0065* | *0.0065* | *0.0070* | *160* |
| H11 | P | 0,19 | 0,20 | 0,22 | 0,22 | 0,24 | 60 |
| | *P* | *0.0075* | *0.0080* | *0.0085* | *0.0085* | *0.0095* | *195* |
| H12 | P | 0,14 | 0,15 | 0,16 | 0,17 | 0,18 | 32 |
| | *P* | *0.0055* | *0.0060* | *0.0065* | *0.0065* | *0.0070* | *105* |
| H21 | P | 0,14 | 0,15 | 0,16 | 0,17 | 0,18 | 49 |
| | *P* | *0.0055* | *0.0060* | *0.0065* | *0.0065* | *0.0070* | *160* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD408 – ∅ 12-20 mm / *0.472-0.787 inch*

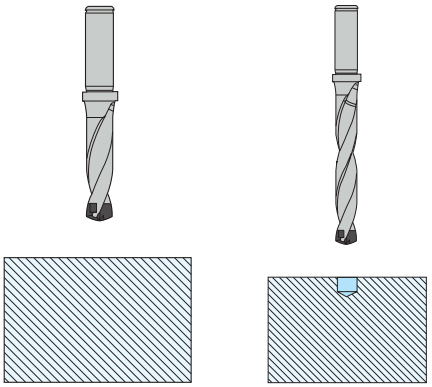
| SMG | | f | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|
| | | Ø 12,00<br>*Ø 0.472* | Ø 14,00<br>*Ø 0.551* | Ø 16,00<br>*Ø 0.630* | Ø 18,00<br>*Ø 0.709* | Ø 20,00<br>*Ø 0.787* | |
| P1 | P | 0,30 | 0,32 | 0,34 | 0,36 | 0,36 | 100 |
| | *P* | *0.012* | *0.013* | *0.013* | *0.014* | *0.014* | *330* |
| P2 | P | 0,30 | 0,32 | 0,34 | 0,36 | 0,38 | 100 |
| | *P* | *0.012* | *0.013* | *0.013* | *0.014* | *0.015* | *330* |
| P3 | P | 0,28 | 0,30 | 0,32 | 0,34 | 0,36 | 85 |
| | *P* | *0.011* | *0.012* | *0.013* | *0.013* | *0.014* | *280* |
| P4 | P | 0,28 | 0,30 | 0,32 | 0,34 | 0,34 | 75 |
| | *P* | *0.011* | *0.012* | *0.013* | *0.013* | *0.013* | *245* |
| P5 | P | 0,28 | 0,30 | 0,32 | 0,32 | 0,34 | 70 |
| | *P* | *0.011* | *0.012* | *0.013* | *0.013* | *0.013* | *230* |
| P6 | P | 0,28 | 0,30 | 0,30 | 0,32 | 0,34 | 80 |
| | *P* | *0.011* | *0.012* | *0.012* | *0.013* | *0.013* | *260* |
| P7 | P | 0,28 | 0,30 | 0,30 | 0,32 | 0,34 | 75 |
| | *P* | *0.011* | *0.012* | *0.012* | *0.013* | *0.013* | *245* |
| P8 | P | 0,28 | 0,30 | 0,32 | 0,34 | 0,36 | 70 |
| | *P* | *0.011* | *0.012* | *0.013* | *0.013* | *0.014* | *230* |
| P11 | P | 0,28 | 0,30 | 0,30 | 0,32 | 0,34 | 75 |
| | *P* | *0.011* | *0.012* | *0.012* | *0.013* | *0.013* | *245* |
| P12 | P | 0,19 | 0,20 | 0,22 | 0,22 | 0,24 | 43 |
| | *P* | *0.0075* | *0.0080* | *0.0085* | *0.0085* | *0.0095* | *140* |
| M1 | M | 0,17 | 0,19 | 0,20 | 0,22 | 0,22 | 65 |
| | *M* | *0.0065* | *0.0075* | *0.0080* | *0.0085* | *0.0085* | *215* |
| M2 | M | 0,16 | 0,17 | 0,18 | 0,19 | 0,20 | 50 |
| | *M* | *0.0065* | *0.0065* | *0.0070* | *0.0075* | *0.0080* | *165* |
| M3 | M | 0,13 | 0,14 | 0,14 | 0,15 | 0,16 | 39 |
| | *M* | *0.0050* | *0.0055* | *0.0055* | *0.0060* | *0.0065* | *130* |
| M4 | M | 0,11 | 0,12 | 0,13 | 0,13 | 0,14 | 29 |
| | *M* | *0.0044* | *0.0048* | *0.0050* | *0.0050* | *0.0055* | *95* |
| M5 | M | 0,11 | 0,12 | 0,13 | 0,13 | 0,14 | 24 |
| | *M* | *0.0044* | *0.0048* | *0.0050* | *0.0050* | *0.0055* | *80* |
| K1 | P | 0,28 | 0,30 | 0,32 | 0,34 | 0,36 | 70 |
| | *P* | *0.011* | *0.012* | *0.013* | *0.013* | *0.014* | *230* |
| K2 | P | 0,26 | 0,28 | 0,30 | 0,32 | 0,32 | 60 |
| | *P* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *195* |
| K3 | P | 0,26 | 0,28 | 0,30 | 0,32 | 0,32 | 50 |
| | *P* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *165* |
| K4 | P | 0,26 | 0,28 | 0,30 | 0,32 | 0,32 | 49 |
| | *P* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *160* |
| K5 | P | 0,24 | 0,25 | 0,26 | 0,28 | 0,30 | 29 |
| | *P* | *0.0095* | *0.010* | *0.010* | *0.011* | *0.012* | *95* |
| N2 | M | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 140 |
| | *M* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *460* |
| N3 | M | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 95 |
| | *M* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *310* |
| N11 | M | 0,26 | 0,28 | 0,30 | 0,32 | 0,34 | 110 |
| | *M* | *0.010* | *0.011* | *0.012* | *0.013* | *0.013* | *360* |
| S1 | M | 0,095 | 0,11 | 0,12 | 0,13 | 0,13 | 22 |
| | *M* | *0.0038* | *0.0044* | *0.0048* | *0.0050* | *0.0050* | *70* |
| S2 | M | 0,095 | 0,11 | 0,12 | 0,13 | 0,13 | 16 |
| | *M* | *0.0038* | *0.0044* | *0.0048* | *0.0050* | *0.0050* | *50* |
| S3 | M | 0,095 | 0,11 | 0,12 | 0,13 | 0,13 | 16 |
| | *M* | *0.0038* | *0.0044* | *0.0048* | *0.0050* | *0.0050* | *50* |
| S11 | M | 0,16 | 0,17 | 0,19 | 0,20 | 0,22 | 42 |
| | *M* | *0.0065* | *0.0065* | *0.0075* | *0.0080* | *0.0085* | *140* |
| S12 | M | 0,16 | 0,17 | 0,19 | 0,20 | 0,22 | 32 |
| | *M* | *0.0065* | *0.0065* | *0.0075* | *0.0080* | *0.0085* | *105* |
| S13 | M | 0,14 | 0,15 | 0,17 | 0,18 | 0,19 | 25 |
| | *M* | *0.0055* | *0.0060* | *0.0065* | *0.0070* | *0.0075* | *80* |
| H3 | P | 0,12 | 0,13 | 0,14 | 0,15 | 0,15 | 21 |
| | *P* | *0.0048* | *0.0050* | *0.0055* | *0.0060* | *0.0060* | *70* |
| H5 | P | 0,19 | 0,20 | 0,22 | 0,22 | 0,24 | 39 |
| | *P* | *0.0075* | *0.0080* | *0.0085* | *0.0085* | *0.0095* | *130* |
| H7 | P | 0,12 | 0,13 | 0,14 | 0,15 | 0,15 | 21 |
| | *P* | *0.0048* | *0.0050* | *0.0055* | *0.0060* | *0.0060* | *70* |
| H8 | P | 0,14 | 0,15 | 0,16 | 0,17 | 0,18 | 39 |
| | *P* | *0.0055* | *0.0060* | *0.0065* | *0.0065* | *0.0070* | *130* |
| H11 | P | 0,19 | 0,20 | 0,22 | 0,22 | 0,24 | 49 |
| | *P* | *0.0075* | *0.0080* | *0.0085* | *0.0085* | *0.0095* | *160* |
| H12 | P | 0,14 | 0,15 | 0,16 | 0,17 | 0,18 | 26 |
| | *P* | *0.0055* | *0.0060* | *0.0065* | *0.0065* | *0.0070* | *85* |
| H21 | P | 0,14 | 0,15 | 0,16 | 0,17 | 0,18 | 39 |
| | *P* | *0.0055* | *0.0060* | *0.0065* | *0.0065* | *0.0070* | *130* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

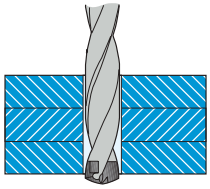
# Application information

## Application information

**Machined suface**
No pre-drilling or entrance feed needed when using SD403 and SD405. When using a SD408 drill body pre-drilling is always recommended. (When using SD405 in stainless steel a pre-drilling operation might be needed.)



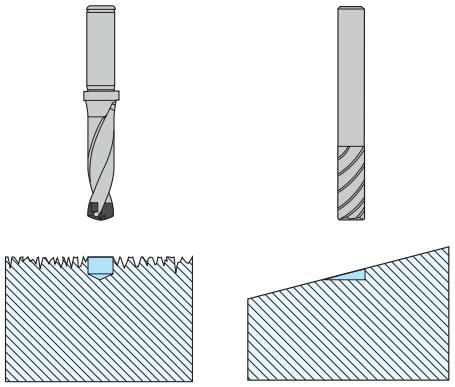
**Stacked material**
It is possible to drill stacked material as long as the pieces are securely clamped together, so that there are no air gaps between the parts. Air gaps can affect chip evacuation, and thereby damage the drill.



## Irregular/Angled hole entrance

If irregular or angle entrance use pre operations accordingly. When using drills > 3 x D pre-drilling with a standard tool e.g. SD403 is recommended

Pre-drilling operation alternatives



Irregular hole entrance

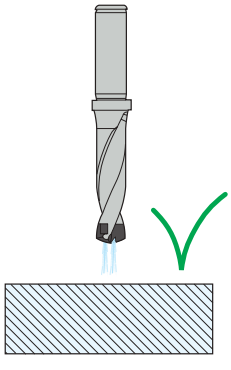
Angled hole entrance

Machine a flat using an end mill from the Seco range.

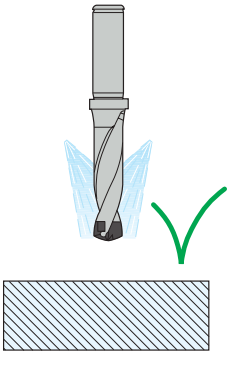
## Coolant recommendations

**Coolant pressure**
Minimum recommended coolant pressure 10 bar (145 PSI) with ≤ 3 x D
Minimum recommended coolant pressure 30 bar (435 PSI) with > 3 x D

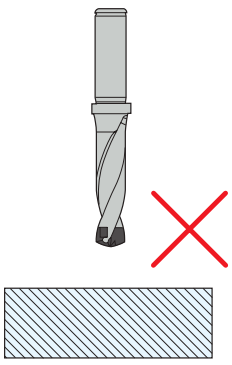
**Coolant mix**
Recommended emulsion mix 6-8%. When drilling in stainless steels, superalloys and high strength steels a mix of 10% is recommended



First choice



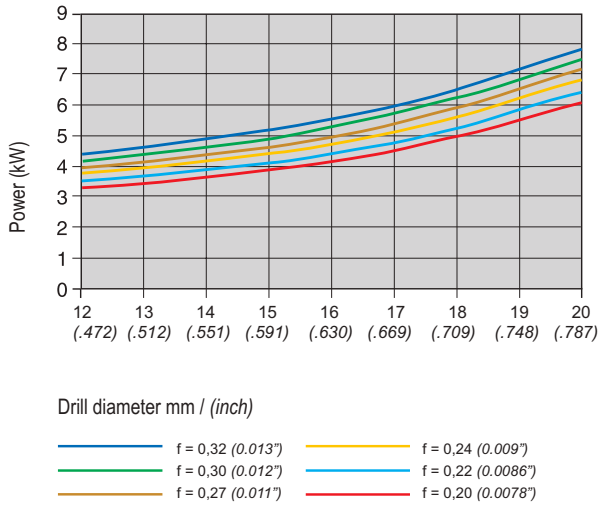
< 3 x D



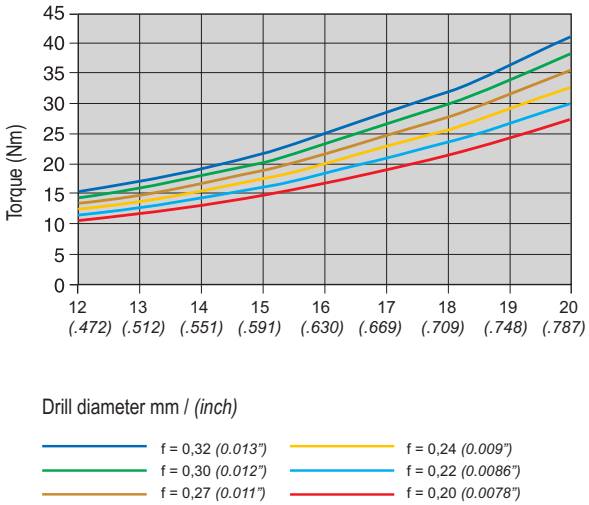
# Machining data

The values in the graphs vary with e.g. cutting data, material, efficiency of the machine and tool wear.
The graphs below are valid for Seco Material Group (SMG) P5-P6 and cutting speed 90 m/min *(295 sf/min)*.

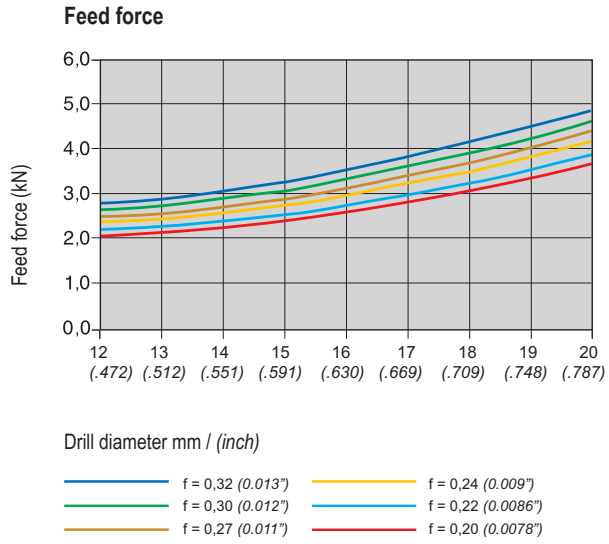
### Net power consumption



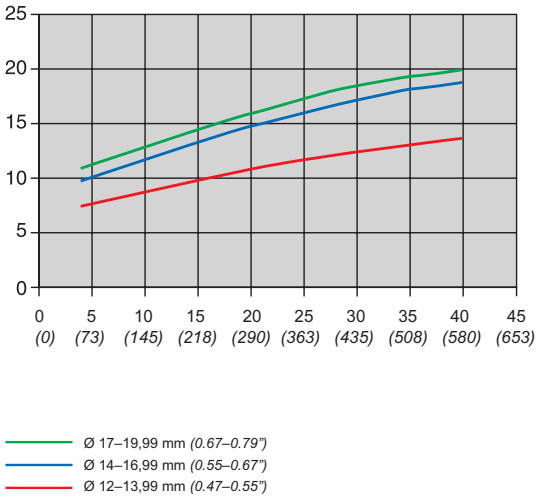

### Drilling torque




### Feed force




### Coolant flow at different pressures




Recommended coolant flow Dx1 l/min
Minimum coolant flow D/2 l/min
D = Drill diameter
Minimum recommended coolant pressure 10 bar *(145 PSI)* with ≤ 3 x D
Minimum recommended coolant pressure 20 bar *(290 PSI)* with ≤ 5 x D
Minimum recommended coolant pressure 40 bar *(580 PSI)* with > 5 x D

**Coolant mix**
Recommended emulsion mix is 6–8%.
When drilling in stainless steels, superalloys and high strength steels a mix of 10% is recommended.

### Hole tolerances/Surface finish

| SD403, SD405 and SD408<br>IT9-10 / $R_a$ 1-4*, *$R_a$ 39-157 µin** | | | | | |
|---|---|---|---|---|---|
| **Drill ∅ DC (mm)** | **IT9 tolerance (µm)** | **IT10 tolerance (µm)** | **Drill ∅ DC** *(inch)* | **IT9 tolerance** *(inch)* | **IT10 tolerance** *(inch)* |
| 10-18 | 0 – +43 | 0 – +70 | *0 – +0.394-0.709* | *0 – +0.0017* | *0 – +0.0028* |
| 18-30 | 0 – +52 | 0 – +84 | *0 – +0.709-1.181* | *0 – +0.0020* | *0 – +0.0033* |

*Deterioration of surface finish and hole tolerance can occur when drilling in low carbon steel or stainless steel. Use the shortest drill possible for best hole quality.

# Troubleshooting – Initial check points:

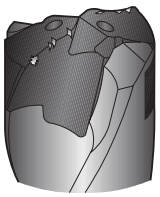
- Fixturing stability
- Machine spindle condition
- Tool holder condition

- Clamping of tool:
  - Run-out within 0,06 TIR

- Chip evacuation:
  - Cutting data

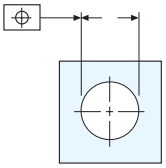
- Coolant:
  - Pressure
  - Flow
  - Concentration

**Cutting edges get chipped**



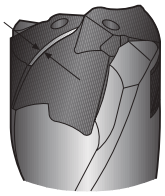
- Reduce the feed/rev
- If the drill vibrates, reduce the cutting speed and increase the feed rate
- When drilling through rough, hard or angled surfaces, reduce the feed rate by 30%-50% during entrance and exit

**Unsatisfactory diameter tolerance**



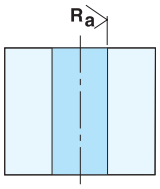
- Increase the feed/rev
- Use a Seco Feedmax solid carbide drill, see page(s) 15-17
- Use a reaming operation, see page(s) 324
- Use a boring operation, see pages(s) 493-494

**Too fast flank wear**



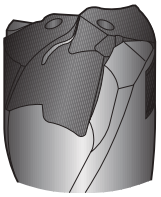
- Check that correct geometry is used
- Reduce the cutting speed

**Unsatisfactory surface finish**



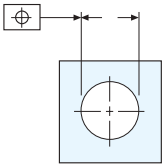

- Reduce the feed/rev
- Increase the cutting speed
- Check that the correct geometry is used
- Use a Seco Feedmax solid carbide drill, see page(s) 15-17
- Use a reaming operation, see page(s) 324

**Groove wear**



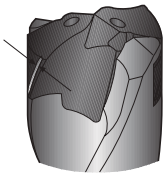
- Reduce the feed /rev
- Reduce the cutting speed
- Increase the coolant concentration

**Unsatisfactory positioning of the hole**



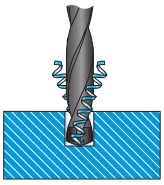
- Reduce the feed/rev
- If drilling through rough, hard and angled surface - reduce the feed by 30%-50% during entrance and exit
- Pre drill with a 140˚ point angle
- Use a Seco Feedmax solid carbide drill see Feedmax page(s) 15-17
- Use a boring operation, see page(s) 493-494

**Wear of peripheral land margins**



- Check that the correct geometry is used
- Reduce the cutting speed
- Increase the coolant concentration
- When drilling through rough, hard or angled surfaces, reduce the feed rate by 30-50% during entrance and exit

**Chip jamming due to long chips**



- Increase the feed
- In long chipping materials SMG P1-P4, SMG M1-M2:
  - Increase cutting speed and reduce feed/rev
  - Use the L geometry



# Perfomax®

Perfomax® is a long-standing, proven range of indexable insert drills that offers an economical solution when it comes to productively drilling holes.

- Reliable and trustworthy, square inserts each offer four cutting edges
- Most modern inserts grades and geometries for different workpiece materials
- The drill body design features a unique chip flute design and through coolant holes on all sizes to optimize chip evacuation

# Range overview

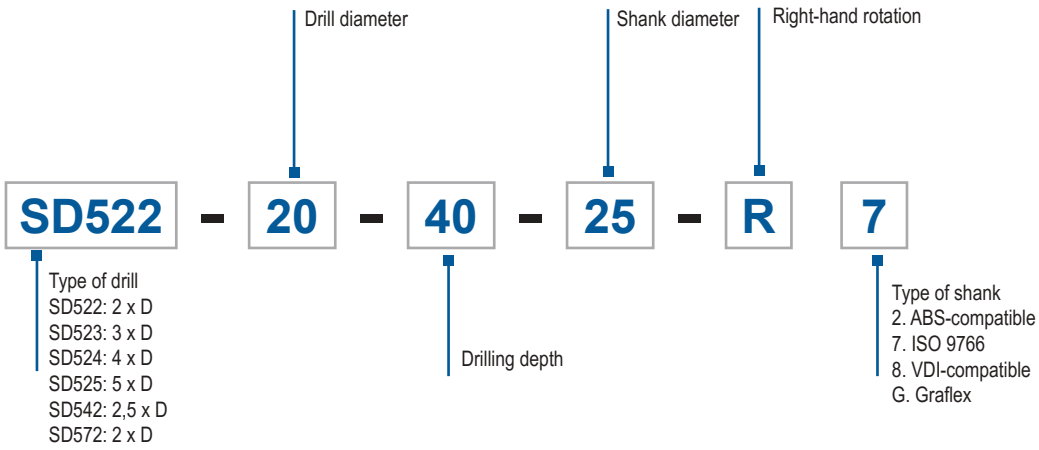
| Perfomax® | ∅ Range | Drill depth | Drill ∅ tolerance | Hole tolerance |
|---|---|---|---|---|
| **SD522**<br>  <br>Page(s) 232, 233, 234, 235-239, 240, 241 | 15-59 mm<br>*(0.594-2.375“)* | ~ 2 x D | +/- 0,1 mm<br>*(+/- 0.004”)* | +0/+ 0,2 mm<br>*(+0/+ 0.008”)* |
| **SD523**<br>  <br>Page(s) 242, 243, 244, 245-258, 259, 260 | 15-59 mm<br>*(0.594-2.375“)* | ~ 3 x D | +/- 0,1 mm<br>*(+/- 0.004”)* | +0/+ 0,3 mm<br>*(+0/+ 0.012”)* |
| **SD524**<br>  <br>Page(s) 261, 262, 263-273, 274 | 17-59 mm<br>*(0.594-2.375“)* | ~ 4 x D | +/- 0,1 mm<br>*(+/- 0.004”)* | + 0,4 mm<br>*(+0/+ 0.016”)* |
| **SD525**<br>  <br>Page(s) 275, 276-277 | 19-45 mm<br>*(0.750-2.000“)* | ~ 5 x D | +/- 0,1 mm<br>*(+/- 0.004”)* | +0/+ 0,5 mm<br>*(+0/+ 0.020”)* |
| **SD542**<br>  <br>Page(s) 278-279 | 60-85 mm<br>*(2.250-3.500“)* | ~ 2.5 x D | +/- 0,1 mm<br>*(+/- 0.004”)* | +0/+ 0,2 mm<br>*(+0/+ 0.008”)* |

# Range overview

| Perfomax® | ∅ Range | Drill depth | Drill ∅ tolerance | Hole tolerance |
|---|---|---|---|---|
| **SD572**<br>  <br>Page(s) 280, 281 | 15-47 mm<br>*(0.591"-1.850")* | ~ 2 x D | +/- 0,1 mm<br>*(+/- 0.004")* | +0/+ 0,2 mm<br>*(+0/+ 0.008")* |
| **SD602**<br>  <br>Page(s) 284-288 | 60-160 mm<br>*(2.5"-4.000")* | ~ 1-10 x D | +/- 0,2 mm<br>*(+/- 0.008")* | – |

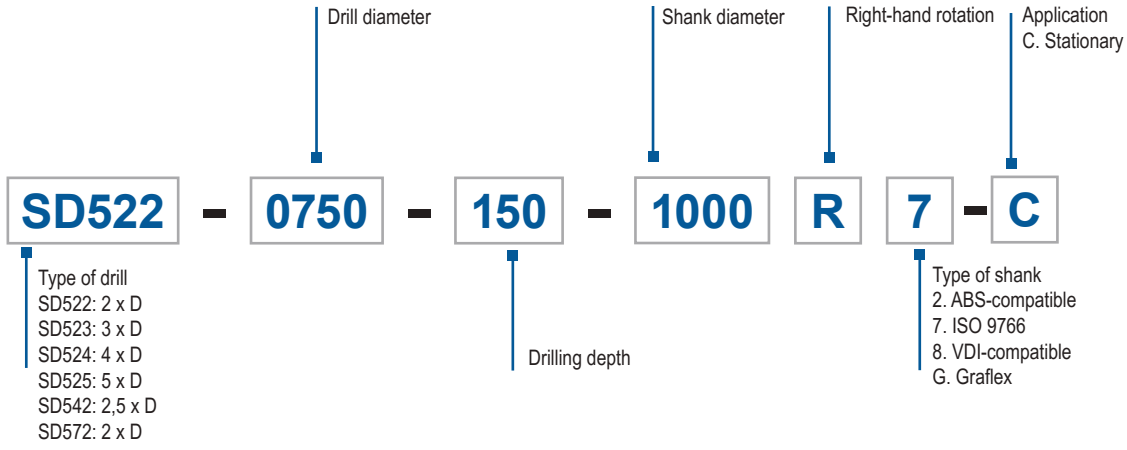
# Code keys- Indexable insert drill

## Metric

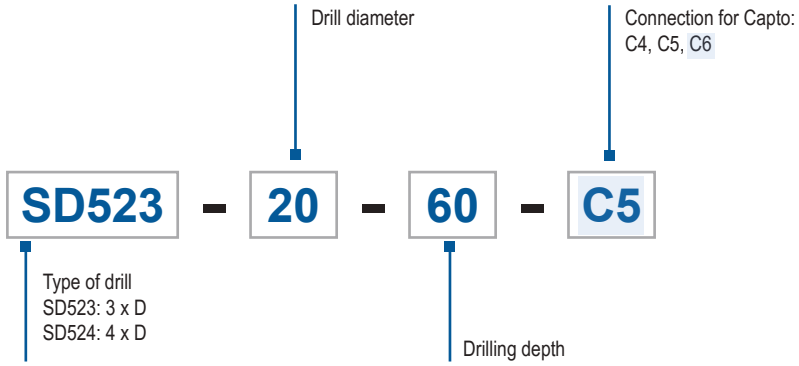





## Inch



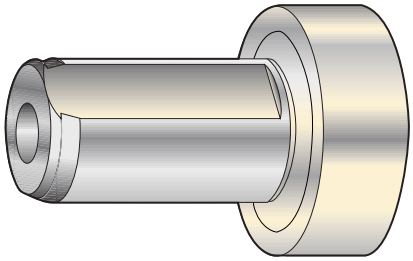

## Capto™



# Shanks

## Shanks

-R7

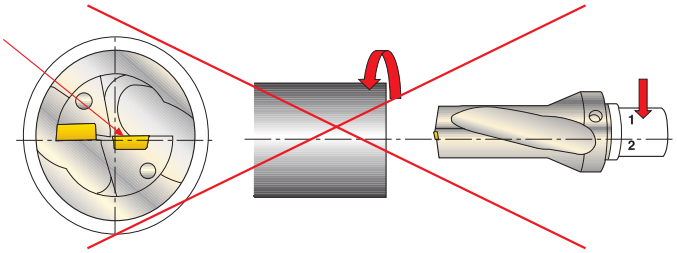


**ISO 9766**
Universal choice fits into most holders on the market such as:

- Weldon 1835B
- ISO 5414
- DIN 69880

Coolant inlet at the back end of the drill.

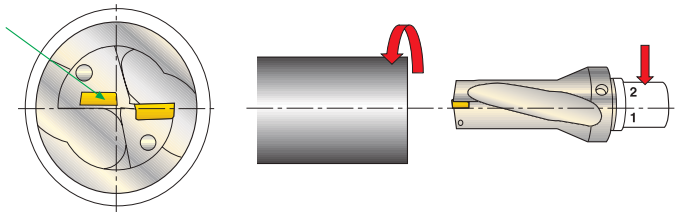
R7 and R7-C




**Shanks with two or four flats**
Center insert cutting edge above workpiece center line.

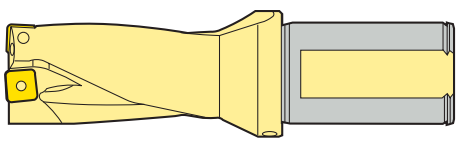
**For non rotating applications:**

- An additional flat is added to the shank for increased flexibility in lathe applications.
- In such applications the workpiece center line and the drill center line must align.
- If they don't the center insert could be located above the workpiece center line resulting in poor performance of the drill.




By turning the drill 180 degrees the second flat gives the possibility to compensate for this misalignment in a fast and simple way.

**Shanks with four flats**
Center insert cutting edge above workpiece center line.

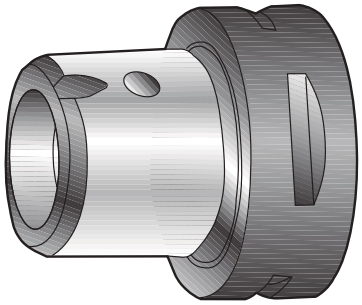


**NOTE!**

- If a drill with -7 shank is used in a rotating application together with our adjustable holder, the flat located on the same side as the center insert must be used.
- Otherwise the drill diameter will be positioned in the wrong way.

# Shanks

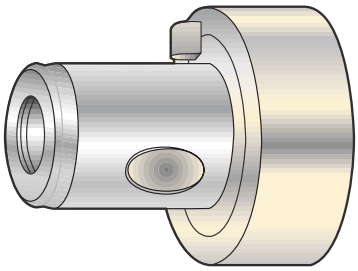
## Seco-Capto



**Seco-Capto C4, C5, C6**

- Flexible - Same tool holder can easily be used in different machines.
- Modular - Possibility to build tools with extension adapters.
- High torque transmission - Torque load is spread symmetrically.
- High rigidity - Tight press fit guarantees that there is no play in the coupling.
- Accurate - Tapered polygon coupling produces a strong, self centering joint within 2 microns.

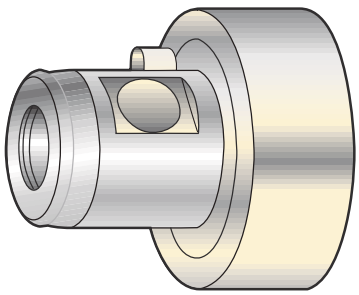
## Graflex



**- G**

- Fits directly into Graflex holders and locked with two ball headed locking screws placed at 120°.
- Modular assemblies delivering rigidity and good run-out.
- Cylinder/face connection - great accuracy.
- Quick and easy assembling/disassembling of the modules for high flexibility.
- Coolant inlet at the back end of the drill.

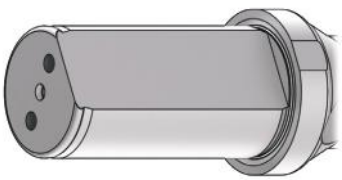
## ABS 50 (compatible)



**- 2**

- An ABS 50 Compatible shank.
- Fits directly into ABS 50 holder with one locking screw.
- Coolant inlet at the back end of the drill.

## VDI 30 and VDI 40 (compatible)



**- 8**

- VDI compatible shank.
- Fits directly into holders for:
  – VDI 3425 bl.2
  – DIN 69880

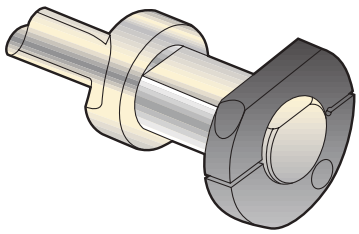
**NOTE!**
The coolant ring must be ordered separately.

# Shanks – Coolant ring

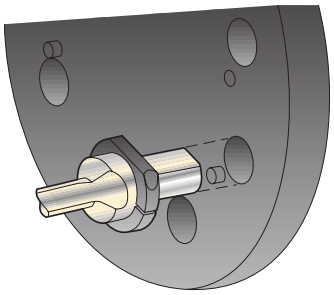
| VDI 30 | | | |
|---|---|---|---|
| Drill depth | Drill diameter | | Accessories Coolant ring |
| | mm | *inch* | |
| 2 x D | 15-31 | *0.591-1.220* | SDA5-30R8 |
| 3 x D | 15-31 | *0.591-1.220* | SDA5-30R8 |
| 4 x D | 17-31 | *0.669-1.220* | SDA5-30R8 |
| 5 x D | 19-31 | *0.748-1.220* | SDA5-30R8 |

| VDI 40 | | | | | |
|---|---|---|---|---|---|
| Drill depth | Drill diameter | | Plug | Locking screw | Accessories Coolant ring |
| | mm | *inch* | | | |
| 2 x D | 15-31 | *0.591-1.220* | | | SDA5-40R8 |
| 3 x D | 15-31 | *0.591-1.220* | | | SDA5-40R8 |
| 4 x D | 17-31 | *0.669-1.220* | | | SDA5-40R8 |
| 5 x D | 19-31 | *0.748-1.220* | | | SDA5-40R8 |
| 2 x D | 41-59 | *1.614-2.323* | R1/4" | P6SS8x8 | SDA5-40R8 |
| 3 x D | 41-59 | *1.614-2.323* | R1/4" | P6SS8x8 | SDA5-40R8 |

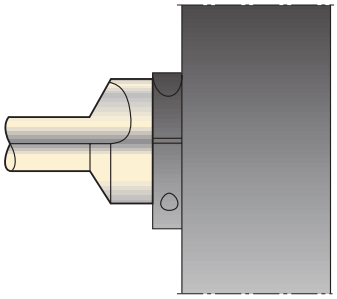
**1.** Fit the ring around the drill but do not tighten the locking screw.



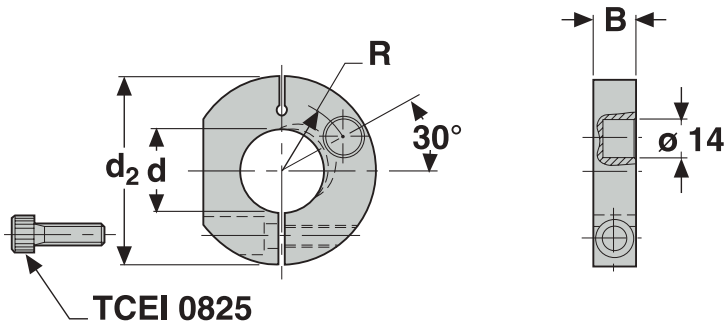
**2.** Lock the drill in the collet.



**3.** Tighten the locking screw in the coolant ring.



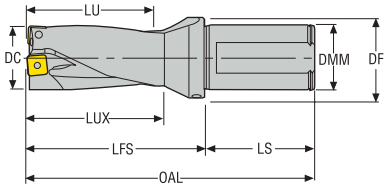
**Coolant ring**



# SD522

## Drilling depth ~ 2 X D – Metric/Inch






- ISO 9766 shank, -7
- Internal coolant
- For insert information see page(s) 294-300
- For cutting data see page(s) 301, 302
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF | Insert | | Radial adjustment | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | Center insert | Periph insert | mm -<br>*Inch -* | mm +<br>*Inch +* |
| SD522-15-30-20R7 | 03080744 | 15,0<br>*0.591* | 30,0<br>*1.181* | 110,0<br>*4.331* | 35,0<br>*1.378* | 60,0<br>*2.362* | 50,0<br>*1.969* | 20,0<br>*0.787* | 30,0<br>*1.181* | SPGX0502 | SCGX050204 | 0,22<br>*0.009* | 0,31<br>*0.012* |
| SD522-15-30-25R7 | 03080745 | 15,0<br>*0.591* | 30,0<br>*1.181* | 116,0<br>*4.567* | 35,0<br>*1.378* | 60,0<br>*2.362* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0502 | SCGX050204 | 0,22<br>*0.009* | 0,31<br>*0.012* |
| SD522-15.5-31-20R7 | 03080740 | 15,5<br>*0.610* | 31,0<br>*1.220* | 111,0<br>*4.370* | 36,0<br>*1.417* | 61,0<br>*2.402* | 50,0<br>*1.969* | 20,0<br>*0.787* | 30,0<br>*1.181* | SPGX0502 | SCGX050204 | 0,17<br>*0.007* | 0,36<br>*0.014* |
| SD522-15.5-31-25R7 | 03080741 | 15,5<br>*0.610* | 31,0<br>*1.220* | 117,0<br>*4.606* | 36,0<br>*1.417* | 61,0<br>*2.402* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0502 | SCGX050204 | 0,17<br>*0.007* | 0,36<br>*0.014* |
| SD522-16-32-20R7 | 03080749 | 16,0<br>*0.630* | 32,0<br>*1.260* | 112,0<br>*4.409* | 37,0<br>*1.457* | 62,0<br>*2.441* | 50,0<br>*1.969* | 20,0<br>*0.787* | 30,0<br>*1.181* | SPGX0502 | SCGX050204 | 0,12<br>*0.005* | 0,41<br>*0.016* |
| SD522-16-32-25R7 | 03080750 | 16,0<br>*0.630* | 32,0<br>*1.260* | 118,0<br>*4.646* | 37,0<br>*1.457* | 62,0<br>*2.441* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0502 | SCGX050204 | 0,12<br>*0.005* | 0,41<br>*0.016* |
| SD522-16.5-33-20R7 | 03080746 | 16,5<br>*0.650* | 33,0<br>*1.299* | 113,0<br>*4.449* | 38,0<br>*1.496* | 63,0<br>*2.480* | 50,0<br>*1.969* | 20,0<br>*0.787* | 30,0<br>*1.181* | SPGX0502 | SCGX050204 | 0,07<br>*0.003* | 0,46<br>*0.018* |
| SD522-16.5-33-25R7 | 03080747 | 16,5<br>*0.650* | 33,0<br>*1.299* | 119,0<br>*4.685* | 38,0<br>*1.496* | 63,0<br>*2.480* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0502 | SCGX050204 | 0,07<br>*0.003* | 0,46<br>*0.018* |
| SD522-17-34-20R7 | 03080754 | 17,0<br>*0.669* | 34,0<br>*1.339* | 114,0<br>*4.488* | 39,0<br>*1.535* | 64,0<br>*2.520* | 50,0<br>*1.969* | 20,0<br>*0.787* | 30,0<br>*1.181* | SPGX0502 | SCGX050204 | 0,02<br>*0.001* | 0,5<br>*0.020* |
| SD522-17-34-25R7 | 03080755 | 17,0<br>*0.669* | 34,0<br>*1.339* | 120,0<br>*4.724* | 39,0<br>*1.535* | 64,0<br>*2.520* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0502 | SCGX050204 | 0,02<br>*0.001* | 0,5<br>*0.020* |
| SD522-17.5-35-20R7 | 03080752 | 17,5<br>*0.689* | 35,0<br>*1.378* | 115,0<br>*4.528* | 40,0<br>*1.575* | 65,0<br>*2.559* | 50,0<br>*1.969* | 20,0<br>*0.787* | 30,0<br>*1.181* | SPGX0602 | SCGX050204 | 0,43<br>*0.017* | 0,1<br>*0.004* |
| SD522-17.5-35-25R7 | 03080753 | 17,5<br>*0.689* | 35,0<br>*1.378* | 121,0<br>*4.764* | 40,0<br>*1.575* | 65,0<br>*2.559* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0602 | SCGX050204 | 0,43<br>*0.017* | 0,1<br>*0.004* |
| SD522-18-36-20R7 | 03080760 | 18,0<br>*0.709* | 36,0<br>*1.417* | 116,0<br>*4.567* | 41,0<br>*1.614* | 66,0<br>*2.598* | 50,0<br>*1.969* | 20,0<br>*0.787* | 30,0<br>*1.181* | SPGX0602 | SCGX050204 | 0,32<br>*0.013* | 0,21<br>*0.008* |
| SD522-18-36-25R7 | 03080761 | 18,0<br>*0.709* | 36,0<br>*1.417* | 122,0<br>*4.803* | 41,0<br>*1.614* | 66,0<br>*2.598* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0602 | SCGX050204 | 0,32<br>*0.013* | 0,21<br>*0.008* |
| SD522-18.5-37-20R7 | 03080758 | 18,5<br>*0.728* | 37,0<br>*1.457* | 117,0<br>*4.606* | 42,0<br>*1.654* | 67,0<br>*2.638* | 50,0<br>*1.969* | 20,0<br>*0.787* | 30,0<br>*1.181* | SPGX0602 | SCGX050204 | 0,22<br>*0.009* | 0,31<br>*0.012* |
| SD522-18.5-37-25R7 | 03080759 | 18,5<br>*0.728* | 37,0<br>*1.457* | 123,0<br>*4.843* | 42,0<br>*1.654* | 67,0<br>*2.638* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0602 | SCGX050204 | 0,22<br>*0.009* | 0,31<br>*0.012* |
| SD522-19-38-20R7 | 03080765 | 19,0<br>*0.748* | 38,0<br>*1.496* | 118,0<br>*4.646* | 43,0<br>*1.693* | 68,0<br>*2.677* | 50,0<br>*1.969* | 20,0<br>*0.787* | 30,0<br>*1.181* | SPGX0602 | SCGX050204 | 0,11<br>*0.004* | 0,42<br>*0.017* |
| SD522-19-38-25R7 | 03080766 | 19,0<br>*0.748* | 38,0<br>*1.496* | 124,0<br>*4.882* | 43,0<br>*1.693* | 68,0<br>*2.677* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0602 | SCGX050204 | 0,11<br>*0.004* | 0,42<br>*0.017* |
| SD522-19.5-39-20R7 | 03080764 | 19,5<br>*0.768* | 39,0<br>*1.535* | 119,0<br>*4.685* | 44,0<br>*1.732* | 69,0<br>*2.717* | 50,0<br>*1.969* | 20,0<br>*0.787* | 30,0<br>*1.181* | SPGX0602 | SCGX060204 | 0,11<br>*0.004* | 0,42<br>*0.017* |
| SD522-20-40-25R7 | 03080771 | 20,0<br>*0.787* | 40,0<br>*1.575* | 126,0<br>*4.961* | 45,0<br>*1.772* | 70,0<br>*2.756* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0602 | SCGX060204 | 0,07<br>*0.003* | 0,46<br>*0.018* |
| SD522-21-42-25R7 | 03080775 | 21,0<br>*0.827* | 42,0<br>*1.654* | 128,0<br>*5.039* | 47,0<br>*1.850* | 72,0<br>*2.835* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0602 | SCGX060204 | 0,01<br>*0* | 0,5<br>*0.020* |
| SD522-22-44-25R7 | 03080777 | 22,0<br>*0.866* | 44,0<br>*1.732* | 130,0<br>*5.118* | 49,0<br>*1.929* | 74,0<br>*2.913* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0703 | SCGX060204 | 0,44<br>*0.017* | 0,46<br>*0.018* |

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF | Insert | | Radial adjustment | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | Center insert | Periph insert | mm -<br>*Inch -* | mm +<br>*Inch +* |
| SD522-23-46-25R7 | 03080781 | 23,0<br>*0.906* | 46,0<br>*1.811* | 132,0<br>*5.197* | 51,0<br>*2.008* | 76,0<br>*2.992* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0703 | SCGX070308 | 0,33<br>*0.013* | 0,5<br>*0.020* |
| SD522-23.5-47-25R7 | 03192517 | 23,5<br>*0.925* | 47,0<br>*1.850* | 133,0<br>*5.236* | 52,0<br>*2.047* | 77,0<br>*3.031* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0703 | SCGX070308 | 0,23<br>*0.009* | 0,5<br>*0.020* |
| SD522-24-48-25R7 | 03080785 | 24,0<br>*0.945* | 48,0<br>*1.890* | 134,0<br>*5.276* | 53,0<br>*2.087* | 78,0<br>*3.071* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0703 | SCGX070308 | 0,11<br>*0.004* | 0,5<br>*0.020* |
| SD522-25-50-32R7 | 03080788 | 25,0<br>*0.984* | 50,0<br>*1.969* | 140,0<br>*5.512* | 55,0<br>*2.165* | 80,0<br>*3.150* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0703 | SCGX070308 | 0,11<br>*0.004* | 0,5<br>*0.020* |
| SD522-26-52-32R7 | 03080790 | 26,0<br>*1.024* | 52,0<br>*2.047* | 142,0<br>*5.591* | 57,0<br>*2.244* | 82,0<br>*3.228* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0903 | SCGX070308 | 0,5<br>*0.020* | 0,11<br>*0.004* |
| SD522-27-54-32R7 | 03080792 | 27,0<br>*1.063* | 54,0<br>*2.126* | 144,0<br>*5.669* | 59,0<br>*2.323* | 84,0<br>*3.307* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0903 | SCGX070308 | 0,5<br>*0.020* | 0,26<br>*0.010* |
| SD522-28-56-32R7 | 03080795 | 28,0<br>*1.102* | 56,0<br>*2.205* | 146,0<br>*5.748* | 61,0<br>*2.402* | 86,0<br>*3.386* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0903 | SCGX070308 | 0,28<br>*0.011* | 0,5<br>*0.020* |
| SD522-29-58-32R7 | 03080796 | 29,0<br>*1.142* | 58,0<br>*2.283* | 148,0<br>*5.827* | 63,0<br>*2.480* | 88,0<br>*3.465* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0903 | SCGX09T308 | 0,18<br>*0.007* | 0,5<br>*0.020* |
| SD522-30-60-32R7 | 03080798 | 30,0<br>*1.181* | 60,0<br>*2.362* | 150,0<br>*5.906* | 65,0<br>*2.559* | 90,0<br>*3.543* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0903 | SCGX09T308 | 0,12<br>*0.005* | 0,5<br>*0.020* |
| SD522-31-62-32R7 | 03080801 | 31,0<br>*1.220* | 62,0<br>*2.441* | 152,0<br>*5.984* | 67,0<br>*2.638* | 92,0<br>*3.622* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0903 | SCGX09T308 | 0,12<br>*0.005* | 0,5<br>*0.020* |
| SD522-32-64-32R7 | 03080802 | 32,0<br>*1.260* | 64,0<br>*2.520* | 154,0<br>*6.063* | 69,0<br>*2.717* | 94,0<br>*3.701* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX11T3 | SCGX09T308 | 0,5<br>*0.020* | 0,31<br>*0.012* |
| SD522-32-64-40R7 | 03080803 | 32,0<br>*1.260* | 64,0<br>*2.520* | 162,0<br>*6.378* | 69,0<br>*2.717* | 94,0<br>*3.701* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 | 0,5<br>*0.020* | 0,31<br>*0.012* |
| SD522-33-66-32R7 | 03080805 | 33,0<br>*1.299* | 66,0<br>*2.598* | 156,0<br>*6.142* | 71,0<br>*2.795* | 96,0<br>*3.780* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX11T3 | SCGX09T308 | 0,5<br>*0.020* | 0,46<br>*0.018* |
| SD522-33-66-40R7 | 03080806 | 33,0<br>*1.299* | 66,0<br>*2.598* | 164,0<br>*6.457* | 71,0<br>*2.795* | 96,0<br>*3.780* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 | 0,5<br>*0.020* | 0,46<br>*0.018* |
| SD522-34-68-32R7 | 03080808 | 34,0<br>*1.339* | 68,0<br>*2.677* | 158,0<br>*6.220* | 73,0<br>*2.874* | 98,0<br>*3.858* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX11T3 | SCGX09T308 | 0,22<br>*0.009* | 0,5<br>*0.020* |
| SD522-34-68-40R7 | 03080809 | 34,0<br>*1.339* | 68,0<br>*2.677* | 166,0<br>*6.535* | 73,0<br>*2.874* | 98,0<br>*3.858* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 | 0,22<br>*0.009* | 0,5<br>*0.020* |
| SD522-35-70-32R7 | 03080810 | 35,0<br>*1.378* | 70,0<br>*2.756* | 160,0<br>*6.299* | 75,0<br>*2.953* | 100,0<br>*3.937* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX11T3 | SCGX11T308 | 0,22<br>*0.009* | 0,5<br>*0.020* |
| SD522-35-70-40R7 | 03080811 | 35,0<br>*1.378* | 70,0<br>*2.756* | 168,0<br>*6.614* | 75,0<br>*2.953* | 100,0<br>*3.937* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX11T3 | SCGX11T308 | 0,22<br>*0.009* | 0,5<br>*0.020* |
| SD522-36-72-32R7 | 03080813 | 36,0<br>*1.417* | 72,0<br>*2.835* | 162,0<br>*6.378* | 77,0<br>*3.031* | 102,0<br>*4.016* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX11T3 | SCGX11T308 | 0,09<br>*0.004* | 0,5<br>*0.020* |
| SD522-36-72-40R7 | 03080814 | 36,0<br>*1.417* | 72,0<br>*2.835* | 170,0<br>*6.693* | 77,0<br>*3.031* | 102,0<br>*4.016* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX11T3 | SCGX11T308 | 0,09<br>*0.004* | 0,5<br>*0.020* |
| SD522-37-74-32R7 | 03080816 | 37,0<br>*1.457* | 74,0<br>*2.913* | 164,0<br>*6.457* | 79,0<br>*3.110* | 104,0<br>*4.094* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX11T3 | SCGX11T308 | 0,09<br>*0.004* | 0,5<br>*0.020* |
| SD522-37-74-40R7 | 03080817 | 37,0<br>*1.457* | 74,0<br>*2.913* | 172,0<br>*6.772* | 79,0<br>*3.110* | 104,0<br>*4.094* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX11T3 | SCGX11T308 | 0,09<br>*0.004* | 0,5<br>*0.020* |
| SD522-38-76-32R7 | 03080818 | 38,0<br>*1.496* | 76,0<br>*2.992* | 166,0<br>*6.535* | 81,0<br>*3.189* | 106,0<br>*4.173* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX12T3 | SCGX11T308 | 0,5<br>*0.020* | 0,5<br>*0.020* |
| SD522-38-76-40R7 | 03080819 | 38,0<br>*1.496* | 76,0<br>*2.992* | 174,0<br>*6.850* | 81,0<br>*3.189* | 106,0<br>*4.173* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX12T3 | SCGX11T308 | 0,5<br>*0.020* | 0,5<br>*0.020* |
| SD522-39-78-32R7 | 03080821 | 39,0<br>*1.535* | 78,0<br>*3.071* | 168,0<br>*6.614* | 83,0<br>*3.268* | 108,0<br>*4.252* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX12T3 | SCGX11T308 | 0,39<br>*0.015* | 0,5<br>*0.020* |
| SD522-39-78-40R7 | 03080822 | 39,0<br>*1.535* | 78,0<br>*3.071* | 176,0<br>*6.929* | 83,0<br>*3.268* | 108,0<br>*4.252* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX12T3 | SCGX11T308 | 0,39<br>*0.015* | 0,5<br>*0.020* |
| SD522-40-80-32R7 | 03080823 | 40,0<br>*1.575* | 80,0<br>*3.150* | 170,0<br>*6.693* | 85,0<br>*3.346* | 110,0<br>*4.331* | 60,0<br>*2.362* | 32,0<br>*1.260* | 50,0<br>*1.969* | SPGX12T3 | SCGX11T308 | 0,19<br>*0.007* | 0,5<br>*0.020* |
| SD522-40-80-40R7 | 03080824 | 40,0<br>*1.575* | 80,0<br>*3.150* | 178,0<br>*7.008* | 85,0<br>*3.346* | 110,0<br>*4.331* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX12T3 | SCGX11T308 | 0,19<br>*0.007* | 0,5<br>*0.020* |
| SD522-41-82-40R7 | 03080826 | 41,0<br>*1.614* | 82,0<br>*3.228* | 180,0<br>*7.087* | 87,0<br>*3.425* | 112,0<br>*4.409* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX12T3 | SCGX120408 | 0,19<br>*0.007* | 0,5<br>*0.020* |
| SD522-42-84-40R7 | 03080828 | 42,0<br>*1.654* | 84,0<br>*3.307* | 182,0<br>*7.165* | 89,0<br>*3.504* | 114,0<br>*4.488* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX12T3 | SCGX120408 | 0,19<br>*0.007* | 0,5<br>*0.020* |
| SD522-43-86-40R7 | 03080830 | 43,0<br>*1.693* | 86,0<br>*3.386* | 184,0<br>*7.244* | 91,0<br>*3.583* | 116,0<br>*4.567* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX12T3 | SCGX120408 | 0,05<br>*0.002* | 0,5<br>*0.020* |

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF | Insert | | Radial adjustment | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | Center insert | Periph insert | mm -<br>*Inch -* | mm +<br>*Inch +* |
| SD522-44-88-40R7 | 03080832 | 44,0<br>*1.732* | 88,0<br>*3.465* | 186,0<br>*7.323* | 93,0<br>*3.661* | 118,0<br>*4.646* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX1504 | SCGX120408 | 0,5<br>*0.020* | 0,41<br>*0.016* |
| SD522-45-90-40R7 | 03080834 | 45,0<br>*1.772* | 90,0<br>*3.543* | 188,0<br>*7.402* | 95,0<br>*3.740* | 120,0<br>*4.724* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX1504 | SCGX150512 | 0,5<br>*0.020* | 0,41<br>*0.016* |
| SD522-46-92-40R7 | 03080835 | 46,0<br>*1.811* | 92,0<br>*3.622* | 190,0<br>*7.480* | 97,0<br>*3.819* | 122,0<br>*4.803* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX1504 | SCGX150512 | 0,5<br>*0.020* | 0,5<br>*0.020* |
| SD522-47-94-40R7 | 03080836 | 47,0<br>*1.850* | 94,0<br>*3.701* | 192,0<br>*7.559* | 99,0<br>*3.898* | 124,0<br>*4.882* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX1504 | SCGX150512 | 0,5<br>*0.020* | 0,5<br>*0.020* |
| SD522-48-96-40R7 | 03080837 | 48,0<br>*1.890* | 96,0<br>*3.780* | 194,0<br>*7.638* | 101,0<br>*3.976* | 126,0<br>*4.961* | 68,0<br>*2.677* | 40,0<br>*1.575* | 59,35<br>*2.337* | SPGX1504 | SCGX150512 | 0,45<br>*0.018* | 0,5<br>*0.020* |
| SD522-49-98-40R7 | 03080838 | 49,0<br>*1.929* | 98,0<br>*3.858* | 196,0<br>*7.717* | 103,0<br>*4.055* | 128,0<br>*5.039* | 68,0<br>*2.677* | 40,0<br>*1.575* | 59,35<br>*2.337* | SPGX1504 | SCGX150512 | 0,2<br>*0.008* | 0,5<br>*0.020* |
| SD522-50-100-40R7 | 03080839 | 50,0<br>*1.969* | 100,0<br>*3.937* | 198,0<br>*7.795* | 105,0<br>*4.134* | 130,0<br>*5.118* | 68,0<br>*2.677* | 40,0<br>*1.575* | 59,35<br>*2.337* | SPGX1504 | SCGX150512 | 0,2<br>*0.008* | 0,5<br>*0.020* |
| SD522-51-102-40R7 | 03080840 | 51,0<br>*2.008* | 102,0<br>*4.016* | 200,0<br>*7.874* | 107,0<br>*4.213* | 132,0<br>*5.197* | 68,0<br>*2.677* | 40,0<br>*1.575* | 59,35<br>*2.337* | SPGX1504 | SCGX150512 | 0,2<br>*0.008* | 0,5<br>*0.020* |
| SD522-52-104-40R7 | 03080841 | 52,0<br>*2.047* | 104,0<br>*4.094* | 202,0<br>*7.953* | 109,0<br>*4.291* | 134,0<br>*5.276* | 68,0<br>*2.677* | 40,0<br>*1.575* | 59,35<br>*2.337* | SPGX1904 | SCGX150512 | 0,5<br>*0.020* | 0,42<br>*0.017* |
| SD522-53-106-40R7 | 03080842 | 53,0<br>*2.087* | 106,0<br>*4.173* | 204,0<br>*8.031* | 111,0<br>*4.370* | 136,0<br>*5.354* | 68,0<br>*2.677* | 40,0<br>*1.575* | 59,35<br>*2.337* | SPGX1904 | SCGX150512 | 0,5<br>*0.020* | 0,42<br>*0.017* |
| SD522-54-108-40R7 | 03080843 | 54,0<br>*2.126* | 108,0<br>*4.252* | 206,0<br>*8.110* | 113,0<br>*4.449* | 138,0<br>*5.433* | 68,0<br>*2.677* | 40,0<br>*1.575* | 59,35<br>*2.337* | SPGX1904 | SCGX150512 | 0,5<br>*0.020* | 0,5<br>*0.020* |
| SD522-55-110-40R7 | 03080844 | 55,0<br>*2.165* | 110,0<br>*4.331* | 208,0<br>*8.189* | 115,0<br>*4.528* | 140,0<br>*5.512* | 68,0<br>*2.677* | 40,0<br>*1.575* | 59,35<br>*2.337* | SPGX1904 | SCGX150512 | 0,5<br>*0.020* | 0,5<br>*0.020* |
| SD522-56-112-40R7 | 03080845 | 56,0<br>*2.205* | 112,0<br>*4.409* | 210,0<br>*8.268* | 117,0<br>*4.606* | 142,0<br>*5.591* | 68,0<br>*2.677* | 40,0<br>*1.575* | 59,35<br>*2.337* | SPGX1904 | SCGX150512 | 0,5<br>*0.020* | 0,5<br>*0.020* |
| SD522-57-114-40R7 | 03080846 | 57,0<br>*2.244* | 114,0<br>*4.488* | 212,0<br>*8.346* | 119,0<br>*4.685* | 144,0<br>*5.669* | 68,0<br>*2.677* | 40,0<br>*1.575* | 59,35<br>*2.337* | SPGX1904 | SCGX150512 | 0,39<br>*0.015* | 0,5<br>*0.020* |
| SD522-58-116-40R7 | 03080847 | 58,0<br>*2.283* | 116,0<br>*4.567* | 214,0<br>*8.425* | 121,0<br>*4.764* | 146,0<br>*5.748* | 68,0<br>*2.677* | 40,0<br>*1.575* | 63,0<br>*2.480* | SPGX1904 | SCGX150512 | 0,09<br>*0.004* | 0,5<br>*0.020* |
| SD522-59-118-40R7 | 03080848 | 59,0<br>*2.323* | 118,0<br>*4.646* | 216,0<br>*8.504* | 123,0<br>*4.843* | 148,0<br>*5.827* | 68,0<br>*2.677* | 40,0<br>*1.575* | 63,0<br>*2.480* | SPGX1904 | SCGX150512 | 0,09<br>*0.004* | 0,5<br>*0.020* |

## Spare Parts, included in delivery

| For drill dia. (mm) | Insert screw | | Insert key |
|---|---|---|---|
| |  | |  |
| | Center insert | Periph insert | |
| 15,00-17,45 | C02245-T07P | C02245-T07P | T07P-2 |
| 17,46-19,49 | C02205-T07P | C02245-T07P | T07P-2 |
| 19,50-21,24 | C02205-T07P | C02205-T07P | T07P-2 |
| 21,25-22,49 | C02506-T08P | C02506-T08P | T08P-2 |
| 22,50-25,49 | C02507-T08P | C03007-T08P | T08P-2 |
| 25,50-28,49 | C03007-T09P | C03007-T09P | T09P-2 |
| 28,50-31,49 | C03007-T09P | C03009-T09P | T09P-2 |
| 31,50-40,49 | C03508-T15P | C03508-T15P | T15P-2D |
| 40,50-43,24 | C03508-T15P | C05012-T15P | T15P-2D |
| 43,25-59,00 | C04011-T15P | C05012-T15P | T15P-2D |

## Accessories

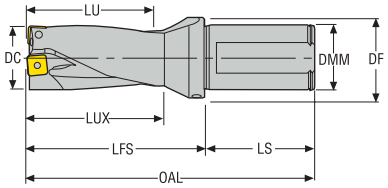
| For drill dia. (mm) | Torque wrench* | Replacement blade | Torque value |
|---|---|---|---|
| |  |  | |
| 15,00-17,45 | T00-07P09 | T00-07P | 0,9 Nm |
| 17,46-19,49 | T00-07P09 | T00-07P | 0,9 Nm |
| 19,50-21,24 | T00-07P09 | T00-07P | 0,9 Nm |
| 21,25-22,49 | T00-08P12 | T00-08P | 1,2 Nm |
| 22,50-25,49 | T00-08P12 | T00-08P | 1,2 Nm |
| 25,50-28,49 | T00-09P20 | T00-09P | 2,0 Nm |
| 28,50-31,49 | T00-09P20 | T00-09P | 2,0 Nm |
| 31,50-40,49 | T00-15P30 | T00-15P | 3,0 Nm |
| 40,50-43,24 | T00-15P30 | T00-15P | 3,0 Nm |
| 43,25-59,00 | T00-15P30 | T00-15P | 3,0 Nm |

*Including blade.

# SD522

Drilling depth ~ 2 X D – Inch






- ISO 9766 shank, R7
- Internal coolant
- For insert information see page(s) 294-300
- For cutting data see page(s) 301, 302
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF | Insert | | Radial adjustment | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | Center insert | Periph insert | *Inch* - | *Inch* + |
| SD522-0594-119-1000R7 | 03080704 | 0.594 | 1.190 | 4.621 | 1.387 | 2.371 | 2.250 | 1.000 | 1.378 | SPGX0502 | SCGX050204 | 0.008 | 0.013 |
| SD522-0625-125-1000R7 | 03080705 | 0.625 | 1.250 | 4.681 | 1.447 | 2.431 | 2.250 | 1.000 | 1.378 | SPGX0502 | SCGX050204 | 0.005 | 0.015 |
| SD522-0656-131-1000R7 | 03080707 | 0.656 | 1.310 | 4.741 | 1.507 | 2.491 | 2.250 | 1.000 | 1.378 | SPGX0502 | SCGX050204 | 0.002 | 0.019 |
| SD522-0687-137-1000R7 | 03080709 | 0.687 | 1.370 | 4.801 | 1.567 | 2.551 | 2.250 | 1.000 | 1.378 | SPGX0502 | SCGX050204 | 0 | 0.020 |
| SD522-0709-142-1000R7 | 03080710 | 0.709 | 1.420 | 4.851 | 1.617 | 2.601 | 2.250 | 1.000 | 1.378 | SPGX0602 | SCGX050204 | 0.013 | 0.008 |
| SD522-0750-150-1000R7 | 03080712 | 0.750 | 1.500 | 4.931 | 1.697 | 2.681 | 2.250 | 1.000 | 1.378 | SPGX0602 | SCGX050204 | 0.004 | 0.017 |
| SD522-0766-153-1000R7 | 03080713 | 0.766 | 1.530 | 4.961 | 1.727 | 2.711 | 2.250 | 1.000 | 1.378 | SPGX0602 | SCGX050204 | 0.001 | 0.020 |
| SD522-0787-157-1000R7 | 03080714 | 0.787 | 1.570 | 5.001 | 1.767 | 2.751 | 2.250 | 1.000 | 1.378 | SPGX0602 | SCGX060204 | 0.003 | 0.018 |
| SD522-0812-162-1000R7 | 03080715 | 0.812 | 1.620 | 5.051 | 1.817 | 2.801 | 2.250 | 1.000 | 1.378 | SPGX0602 | SCGX060204 | 0.001 | 0.020 |
| SD522-0827-165-1000R7 | 03080717 | 0.827 | 1.650 | 5.081 | 1.847 | 2.831 | 2.250 | 1.000 | 1.378 | SPGX0602 | SCGX060204 | 0 | 0.020 |
| SD522-0875-175-1000R7 | 03080718 | 0.875 | 1.750 | 5.181 | 1.947 | 2.931 | 2.250 | 1.000 | 1.378 | SPGX0703 | SCGX060204 | 0.015 | 0.020 |
| SD522-0906-181-1000R7 | 03080720 | 0.906 | 1.810 | 5.241 | 2.007 | 2.991 | 2.250 | 1.000 | 1.378 | SPGX0703 | SCGX070308 | 0.013 | 0.020 |
| SD522-0922-184-1000R7 | 03080721 | 0.922 | 1.840 | 5.271 | 2.037 | 3.021 | 2.250 | 1.000 | 1.378 | SPGX0703 | SCGX070308 | 0.010 | 0.020 |
| SD522-0937-187-1000R7 | 03080722 | 0.937 | 1.870 | 5.301 | 2.067 | 3.051 | 2.250 | 1.000 | 1.378 | SPGX0703 | SCGX070308 | 0.004 | 0.020 |
| SD522-0984-197-1250R7 | 03080724 | 0.984 | 1.970 | 5.526 | 2.167 | 3.151 | 2.375 | 1.250 | 1.654 | SPGX0703 | SCGX070308 | 0.004 | 0.020 |
| SD522-1000-200-1250R7 | 03080725 | 1.000 | 2.000 | 5.556 | 2.197 | 3.181 | 2.375 | 1.250 | 1.654 | SPGX0703 | SCGX070308 | 0.004 | 0.020 |
| SD522-1032-206-1250R7 | 03080727 | 1.032 | 2.060 | 5.616 | 2.257 | 3.241 | 2.375 | 1.250 | 1.654 | SPGX0903 | SCGX070308 | 0.020 | 0.004 |
| SD522-1062-212-1250R7 | 03080728 | 1.062 | 2.120 | 5.676 | 2.317 | 3.301 | 2.375 | 1.250 | 1.654 | SPGX0903 | SCGX070308 | 0.020 | 0.010 |
| SD522-1125-225-1250R7 | 03080730 | 1.125 | 2.250 | 5.806 | 2.447 | 3.431 | 2.375 | 1.250 | 1.654 | SPGX0903 | SCGX09T308 | 0.008 | 0.020 |
| SD522-1187-237-1250R7 | 03080732 | 1.187 | 2.370 | 5.926 | 2.567 | 3.551 | 2.375 | 1.250 | 1.654 | SPGX0903 | SCGX09T308 | 0.005 | 0.020 |
| SD522-1250-250-1500R7 | 03080735 | 1.250 | 2.500 | 6.306 | 2.697 | 3.681 | 2.625 | 1.500 | 1.969 | SPGX11T3 | SCGX09T308 | 0.020 | 0.011 |
| SD522-1312-262-1500R7 | 03080736 | 1.312 | 2.620 | 6.426 | 2.817 | 3.801 | 2.625 | 1.500 | 1.969 | SPGX11T3 | SCGX09T308 | 0.020 | 0.020 |
| SD522-1375-275-1500R7 | 03080737 | 1.375 | 2.750 | 6.556 | 2.947 | 3.931 | 2.625 | 1.500 | 1.969 | SPGX11T3 | SCGX11T308 | 0.009 | 0.020 |
| SD522-1437-287-1500R7 | 03080739 | 1.437 | 2.870 | 6.676 | 3.067 | 4.051 | 2.625 | 1.500 | 1.969 | SPGX11T3 | SCGX11T308 | 0.004 | 0.020 |
| SD522-1500-300-1500R7 | 03080743 | 1.500 | 3.000 | 6.806 | 3.197 | 4.181 | 2.625 | 1.500 | 1.969 | SPGX12T3 | SCGX11T308 | 0.020 | 0.020 |
| SD522-1625-325-1500R7 | 03080748 | 1.625 | 3.250 | 7.056 | 3.447 | 4.431 | 2.625 | 1.500 | 1.969 | SPGX12T3 | SCGX120408 | 0.007 | 0.020 |
| SD522-1750-350-1500R7 | 03080756 | 1.750 | 3.500 | 7.306 | 3.697 | 4.681 | 2.625 | 1.500 | 1.969 | SPGX1504 | SCGX120408 | 0.020 | 0.016 |
| SD522-1875-375-1500R7 | 03080763 | 1.875 | 3.750 | 7.556 | 3.947 | 4.931 | 2.625 | 1.500 | 1.969 | SPGX1504 | SCGX150512 | 0.020 | 0.020 |
| SD522-2000-400-1500R7 | 03080769 | 2.000 | 4.000 | 7.806 | 4.197 | 5.181 | 2.625 | 1.500 | 2.337 | SPGX1504 | SCGX150512 | 0.008 | 0.020 |
| SD522-2125-425-1500R7 | 03080773 | 2.125 | 4.250 | 8.056 | 4.447 | 5.431 | 2.625 | 1.500 | 2.337 | SPGX1904 | SCGX150512 | 0.020 | 0.020 |
| SD522-2250-450-1500R7 | 03080779 | 2.250 | 4.500 | 8.306 | 4.697 | 5.681 | 2.625 | 1.500 | 2.337 | SPGX1904 | SCGX150512 | 0.013 | 0.020 |
| SD522-2375-475-1500R7 | 03080783 | 2.375 | 4.750 | 8.556 | 4.947 | 5.931 | 2.625 | 1.500 | 2.480 | SPGX1904 | SCGX150512 | 0.004 | 0.020 |

## Spare Parts, included in delivery

| For drill dia. (inch) | Insert screw | | Insert key |
|---|---|---|---|
| |  | |  |
| | Center insert | Periph insert | |
| 0.594-0.687 | C02245-T07P | C02245-T07P | T07P-2 |
| 0.709-0.766 | C02205-T07P | C02245-T07P | T07P-2 |
| 0.787 | C02205-T07P | C02205-T07P | T07P-2 |
| 0.812-0.827 | C02205-T07P | C02205-T07P | T07P-2 |
| 0.875 | C02506-T08P | C02506-T08P | T08P-2 |
| 0.906-1.000 | C02507-T08P | C03007-T08P | T08P-2 |
| 1.032-1.062 | C03007-T09P | C03007-T09P | T09P-2 |
| 1.125-1.187 | C03007-T09P | C03009-T09P | T09P-2 |
| 1.250-1.500 | C03508-T15P | C03508-T15P | T15P-2D |
| 1.625 | C03508-T15P | C05012-T15P | T15P-2D |
| 1.750-2.375 | C04011-T15P | C05012-T15P | T15P-2D |

## Accessories

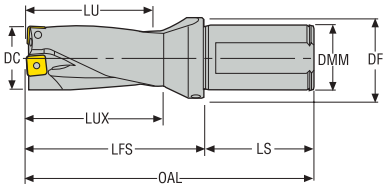
| For drill dia. (inch) | Torque wrench* | Replacement blade | Torque value |
|---|---|---|---|
| |  |  | |
| 0.594-0.687 | T00-07P09 | T00-07P | 8 in/lbs |
| 0.709-0.766 | T00-07P09 | T00-07P | 8 in/lbs |
| 0.787 | T00-07P09 | T00-07P | 8 in/lbs |
| 0.812-0.827 | T00-07P09 | T00-07P | 8 in/lbs |
| 0.875 | T00-08P12 | T00-08P | 10.6 in/lbs |
| 0.906-1.000 | T00-08P12 | T00-08P | 10.6 in/lbs |
| 1.032-1.062 | T00-09P20 | T00-09P | 17.7 in/lbs |
| 1.125-1.187 | T00-09P20 | T00-09P | 17.7 in/lbs |
| 1.250-1.500 | T00-15P30 | T00-15P | 26.6 in/lbs |
| 1.625 | T00-15P30 | T00-15P | 26.6 in/lbs |
| 1.750-2.375 | T00-15P30 | T00-15P | 26.6 in/lbs |

*Including blade.

# SD522

Drilling depth ~ 2 X D – Inch






- ISO 9766 shank, R7-C
- Internal coolant
- For insert information see page(s) 294-300
- For cutting data see page(s) 301-302
- For intermediate diameters see the MyDesign software.
- For stationary applications

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF | Insert | | Radial adjustment | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | Center insert | Periph insert | *Inch -* | *Inch +* |
| SD522-0625-125-1000R7-C | 03080706 | 0.625 | 1.250 | 5.378 | 1.447 | 2.628 | 2.750 | 1.000 | 1.378 | SPGX0502 | SCGX050204 | 0.005 | 0.015 |
| SD522-0687-137-1000R7-C | 03080708 | 0.687 | 1.370 | 5.498 | 1.567 | 2.748 | 2.750 | 1.000 | 1.378 | SPGX0502 | SCGX050204 | 0 | 0.020 |
| SD522-0750-150-1000R7-C | 03080711 | 0.750 | 1.500 | 5.628 | 1.697 | 2.878 | 2.750 | 1.000 | 1.378 | SPGX0602 | SCGX050204 | 0.004 | 0.017 |
| SD522-0812-162-1000R7-C | 03080716 | 0.812 | 1.620 | 5.748 | 1.817 | 2.998 | 2.750 | 1.000 | 1.378 | SPGX0602 | SCGX060204 | 0.001 | 0.020 |
| SD522-0875-175-1000R7-C | 03080719 | 0.875 | 1.750 | 5.878 | 1.947 | 3.128 | 2.750 | 1.000 | 1.378 | SPGX0703 | SCGX060204 | 0.015 | 0.020 |
| SD522-0937-187-1000R7-C | 03080723 | 0.937 | 1.870 | 5.998 | 2.067 | 3.248 | 2.750 | 1.000 | 1.378 | SPGX0703 | SCGX070308 | 0.004 | 0.020 |
| SD522-1000-200-1250R7-C | 03080726 | 1.000 | 2.000 | 6.128 | 2.197 | 3.378 | 2.750 | 1.250 | 1.654 | SPGX0703 | SCGX070308 | 0.004 | 0.020 |
| SD522-1062-212-1250R7-C | 03080729 | 1.062 | 2.120 | 6.248 | 2.317 | 3.498 | 2.750 | 1.250 | 1.654 | SPGX0903 | SCGX070308 | 0.020 | 0.010 |
| SD522-1125-225-1250R7-C | 03080731 | 1.125 | 2.250 | 6.378 | 2.447 | 3.628 | 2.750 | 1.250 | 1.654 | SPGX0903 | SCGX09T308 | 0.008 | 0.020 |
| SD522-1187-237-1250R7-C | 03080733 | 1.187 | 2.370 | 6.498 | 2.567 | 3.748 | 2.750 | 1.250 | 1.654 | SPGX0903 | SCGX09T308 | 0.005 | 0.020 |
| SD522-1250-250-1500R7-C | 03080734 | 1.250 | 2.500 | 6.628 | 2.697 | 3.878 | 2.750 | 1.500 | 1.969 | SPGX11T3 | SCGX09T308 | 0.020 | 0.011 |
| SD522-1375-275-1500R7-C | 03080738 | 1.375 | 2.750 | 6.878 | 2.947 | 4.128 | 2.750 | 1.500 | 1.969 | SPGX11T3 | SCGX11T308 | 0.009 | 0.020 |
| SD522-1500-300-1500R7-C | 03080742 | 1.500 | 3.000 | 7.128 | 3.197 | 4.378 | 2.750 | 1.500 | 1.969 | SPGX12T3 | SCGX11T308 | 0.020 | 0.020 |
| SD522-1750-350-1500R7-C | 03080757 | 1.750 | 3.500 | 7.628 | 3.697 | 4.878 | 2.750 | 1.500 | 1.969 | SPGX1504 | SCGX120408 | 0.020 | 0.016 |
| SD522-2000-400-1500R7-C | 03080770 | 2.000 | 4.000 | 8.128 | 4.197 | 5.378 | 2.750 | 1.500 | 2.337 | SPGX1504 | SCGX150512 | 0.008 | 0.020 |
| SD522-2125-425-1500R7-C | 03080774 | 2.125 | 4.250 | 8.378 | 4.447 | 5.628 | 2.750 | 1.500 | 2.337 | SPGX1904 | SCGX150512 | 0.020 | 0.020 |
| SD522-2250-450-1500R7-C | 03080780 | 2.250 | 4.500 | 8.628 | 4.697 | 5.878 | 2.750 | 1.500 | 2.337 | SPGX1904 | SCGX150512 | 0.013 | 0.020 |
| SD522-2375-475-1500R7-C | 03080784 | 2.375 | 4.750 | 8.878 | 4.947 | 6.128 | 2.750 | 1.500 | 2.480 | SPGX1904 | SCGX150512 | 0.004 | 0.020 |

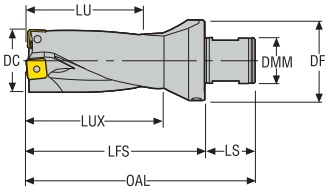
## Spare Parts, included in delivery

## Accessories

| For drill dia. (inch) | Hose adapter | Insert screw centre | Insert screw periph | Key | Plug | Torque wrench |
|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |
| 0.625 | 1310 | C02245-T07P | C02245-T07P | T07P-2 | R1/4 | T00-07P09 |
| 0.687 | 1310 | C02245-T07P | C02245-T07P | T07P-2 | R1/4 | T00-07P09 |
| 0.750 | 1310 | C02205-T07P | C02245-T07P | T07P-2 | R1/4 | T00-07P09 |
| 0.812 | 1310 | C02205-T07P | C02205-T07P | T07P-2 | R1/4 | T00-07P09 |
| 0.875 | 1310 | C02506-T08P | C02506-T08P | T08P-2 | R1/4 | T00-08P12 |
| 0.937-1.000 | 1310 | C02507-T08P | C03007-T08P | T08P-2 | R1/4 | T00-08P12 |
| 1.062 | 1310 | C03007-T09P | C03007-T09P | T09P-2 | R1/4 | T00-09P20 |
| 1.125-1.187 | 1310 | C03007-T09P | C03009-T09P | T09P-2 | R1/4 | T00-09P20 |
| 1.250-1.500 | 1310 | C03508-T15P | C03508-T15P | T15P-2D | R1/4 | T00-15P30 |
| 1.750-2.375 | 1310 | C04011-T15P | C05012-T15P | T15P-2D | R1/4 | T00-15P35 |

# SD522

Drilling depth ~ 2 X D – Metric/Inch






- ABS 50 compatible shank, R2
- Internal coolant
- For insert information see page(s) 294-300
- For cutting data see page(s) 301, 302
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF | Insert | | Radial adjustment | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | Center insert | Periph insert | mm -<br>*Inch -* | mm +<br>*Inch +* |
| SD522-15-30-50R2 | 03081056 | 15,0<br>*0.591* | 30,0<br>*1.181* | 91,0<br>*3.583* | 35,0<br>*1.378* | 60,0<br>*2.362* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0502 | SCGX050204 | 0,22<br>*0.009* | 0,31<br>*0.012* |
| SD522-15.5-31-50R2 | 03081057 | 15,5<br>*0.610* | 31,0<br>*1.220* | 92,0<br>*3.622* | 36,0<br>*1.417* | 61,0<br>*2.402* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0502 | SCGX050204 | 0,17<br>*0.007* | 0,36<br>*0.014* |
| SD522-16-32-50R2 | 03080751 | 16,0<br>*0.630* | 32,0<br>*1.260* | 93,0<br>*3.661* | 37,0<br>*1.457* | 62,0<br>*2.441* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0502 | SCGX050204 | 0,12<br>*0.005* | 0,41<br>*0.016* |
| SD522-16.5-33-50R2 | 03081058 | 16,5<br>*0.650* | 33,0<br>*1.299* | 94,0<br>*3.701* | 38,0<br>*1.496* | 63,0<br>*2.480* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0502 | SCGX050204 | 0,07<br>*0.003* | 0,46<br>*0.018* |
| SD522-17-34-50R2 | 03081059 | 17,0<br>*0.669* | 34,0<br>*1.339* | 95,0<br>*3.740* | 39,0<br>*1.535* | 64,0<br>*2.520* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0502 | SCGX050204 | 0,02<br>*0.001* | 0,5<br>*0.020* |
| SD522-17.5-35-50R2 | 03081060 | 17,5<br>*0.689* | 35,0<br>*1.378* | 96,0<br>*3.780* | 40,0<br>*1.575* | 65,0<br>*2.559* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0602 | SCGX050204 | 0,43<br>*0.017* | 0,1<br>*0.004* |
| SD522-18-36-50R2 | 03080762 | 18,0<br>*0.709* | 36,0<br>*1.417* | 97,0<br>*3.819* | 41,0<br>*1.614* | 66,0<br>*2.598* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0602 | SCGX050204 | 0,32<br>*0.013* | 0,21<br>*0.008* |
| SD522-18.5-37-50R2 | 03081061 | 18,5<br>*0.728* | 37,0<br>*1.457* | 98,0<br>*3.858* | 42,0<br>*1.654* | 67,0<br>*2.638* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0602 | SCGX050204 | 0,22<br>*0.009* | 0,31<br>*0.012* |
| SD522-19-38-50R2 | 03080767 | 19,0<br>*0.748* | 38,0<br>*1.496* | 99,0<br>*3.898* | 43,0<br>*1.693* | 68,0<br>*2.677* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0602 | SCGX050204 | 0,11<br>*0.004* | 0,42<br>*0.017* |
| SD522-20-40-50R2 | 03080772 | 20,0<br>*0.787* | 40,0<br>*1.575* | 101,0<br>*3.976* | 45,0<br>*1.772* | 70,0<br>*2.756* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0602 | SCGX060204 | 0,07<br>*0.003* | 0,46<br>*0.018* |
| SD522-20.62-42-50R2 | 03080768 | 20,62<br>*0.812* | 42,0<br>*1.654* | 103,0<br>*4.055* | 47,0<br>*1.850* | 72,0<br>*2.835* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0602 | SCGX060204 | 0,03<br>*0.001* | 0,5<br>*0.020* |
| SD522-21-42-50R2 | 03081062 | 21,0<br>*0.827* | 42,0<br>*1.654* | 103,0<br>*4.055* | 47,0<br>*1.850* | 72,0<br>*2.835* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0602 | SCGX060204 | 0,01<br>*0* | 0,5<br>*0.020* |
| SD522-22-44-50R2 | 03080778 | 22,0<br>*0.866* | 44,0<br>*1.732* | 105,0<br>*4.134* | 49,0<br>*1.929* | 74,0<br>*2.913* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0703 | SCGX060204 | 0,44<br>*0.017* | 0,46<br>*0.018* |
| SD522-22.23-45-50R2 | 03080776 | 22,23<br>*0.875* | 45,0<br>*1.772* | 106,0<br>*4.173* | 50,0<br>*1.969* | 75,0<br>*2.953* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0703 | SCGX060204 | 0,39<br>*0.015* | 0,5<br>*0.020* |
| SD522-23-46-50R2 | 03080782 | 23,0<br>*0.906* | 46,0<br>*1.811* | 107,0<br>*4.213* | 51,0<br>*2.008* | 76,0<br>*2.992* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0703 | SCGX070308 | 0,33<br>*0.013* | 0,5<br>*0.020* |
| SD522-24-48-50R2 | 03080786 | 24,0<br>*0.945* | 48,0<br>*1.890* | 109,0<br>*4.291* | 53,0<br>*2.087* | 78,0<br>*3.071* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0703 | SCGX070308 | 0,11<br>*0.004* | 0,5<br>*0.020* |
| SD522-25-50-50R2 | 03080789 | 25,0<br>*0.984* | 50,0<br>*1.969* | 111,0<br>*4.370* | 55,0<br>*2.165* | 80,0<br>*3.150* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0703 | SCGX070308 | 0,11<br>*0.004* | 0,5<br>*0.020* |
| SD522-25.40-51-50R2 | 03080787 | 25,4<br>*1.000* | 51,0<br>*2.008* | 112,0<br>*4.409* | 56,0<br>*2.205* | 81,0<br>*3.189* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0703 | SCGX070308 | 0,11<br>*0.004* | 0,5<br>*0.020* |
| SD522-26-52-50R2 | 03080791 | 26,0<br>*1.024* | 52,0<br>*2.047* | 113,0<br>*4.449* | 57,0<br>*2.244* | 82,0<br>*3.228* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0903 | SCGX070308 | 0,5<br>*0.020* | 0,11<br>*0.004* |
| SD522-27-54-50R2 | 03080793 | 27,0<br>*1.063* | 54,0<br>*2.126* | 115,0<br>*4.528* | 59,0<br>*2.323* | 84,0<br>*3.307* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0903 | SCGX070308 | 0,5<br>*0.020* | 0,26<br>*0.010* |
| SD522-28-56-50R2 | 03081087 | 28,0<br>*1.102* | 56,0<br>*2.205* | 117,0<br>*4.606* | 61,0<br>*2.402* | 86,0<br>*3.386* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0903 | SCGX070308 | 0,28<br>*0.011* | 0,5<br>*0.020* |
| SD522-28.59-58-50R2 | 03080794 | 28,59<br>*1.126* | 58,0<br>*2.283* | 119,0<br>*4.685* | 63,0<br>*2.480* | 88,0<br>*3.465* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0903 | SCGX09T308 | 0,21<br>*0.008* | 0,5<br>*0.020* |

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF | Insert | | Radial adjustment | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | Center insert | Periph insert | mm -<br>*Inch -* | mm +<br>*Inch +* |
| SD522-29-58-50R2 | 03080797 | 29,0<br>*1.142* | 58,0<br>*2.283* | 119,0<br>*4.685* | 63,0<br>*2.480* | 88,0<br>*3.465* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0903 | SCGX09T308 | 0,18<br>*0.007* | 0,5<br>*0.020* |
| SD522-30-60-50R2 | 03080799 | 30,0<br>*1.181* | 60,0<br>*2.362* | 121,0<br>*4.764* | 65,0<br>*2.559* | 90,0<br>*3.543* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0903 | SCGX09T308 | 0,12<br>*0.005* | 0,5<br>*0.020* |
| SD522-31-62-50R2 | 03081063 | 31,0<br>*1.220* | 62,0<br>*2.441* | 123,0<br>*4.843* | 67,0<br>*2.638* | 92,0<br>*3.622* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0903 | SCGX09T308 | 0,12<br>*0.005* | 0,5<br>*0.020* |
| SD522-31.75-64-50R2 | 03080800 | 31,75<br>*1.250* | 64,0<br>*2.520* | 125,0<br>*4.921* | 69,0<br>*2.717* | 94,0<br>*3.701* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 | 0,5<br>*0.020* | 0,28<br>*0.011* |
| SD522-32-64-50R2 | 03080804 | 32,0<br>*1.260* | 64,0<br>*2.520* | 125,0<br>*4.921* | 69,0<br>*2.717* | 94,0<br>*3.701* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 | 0,5<br>*0.020* | 0,31<br>*0.012* |
| SD522-33-66-50R2 | 03080807 | 33,0<br>*1.299* | 66,0<br>*2.598* | 127,0<br>*5.000* | 71,0<br>*2.795* | 96,0<br>*3.780* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 | 0,5<br>*0.020* | 0,46<br>*0.018* |
| SD522-34-68-50R2 | 03081064 | 34,0<br>*1.339* | 68,0<br>*2.677* | 129,0<br>*5.079* | 73,0<br>*2.874* | 98,0<br>*3.858* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 | 0,22<br>*0.009* | 0,5<br>*0.020* |
| SD522-35-70-50R2 | 03080812 | 35,0<br>*1.378* | 70,0<br>*2.756* | 131,0<br>*5.157* | 75,0<br>*2.953* | 100,0<br>*3.937* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX11T3 | SCGX11T308 | 0,22<br>*0.009* | 0,5<br>*0.020* |
| SD522-36-72-50R2 | 03080815 | 36,0<br>*1.417* | 72,0<br>*2.835* | 133,0<br>*5.236* | 77,0<br>*3.031* | 102,0<br>*4.016* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX11T3 | SCGX11T308 | 0,09<br>*0.004* | 0,5<br>*0.020* |
| SD522-37-74-50R2 | 03081065 | 37,0<br>*1.457* | 74,0<br>*2.913* | 135,0<br>*5.315* | 79,0<br>*3.110* | 104,0<br>*4.094* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX11T3 | SCGX11T308 | 0,09<br>*0.004* | 0,5<br>*0.020* |
| SD522-38-76-50R2 | 03080820 | 38,0<br>*1.496* | 76,0<br>*2.992* | 137,0<br>*5.394* | 81,0<br>*3.189* | 106,0<br>*4.173* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX12T3 | SCGX11T308 | 0,5<br>*0.020* | 0,5<br>*0.020* |
| SD522-39-78-50R2 | 03081066 | 39,0<br>*1.535* | 78,0<br>*3.071* | 139,0<br>*5.472* | 83,0<br>*3.268* | 108,0<br>*4.252* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX12T3 | SCGX11T308 | 0,39<br>*0.015* | 0,5<br>*0.020* |
| SD522-40-80-50R2 | 03080825 | 40,0<br>*1.575* | 80,0<br>*3.150* | 141,0<br>*5.551* | 85,0<br>*3.346* | 110,0<br>*4.331* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX12T3 | SCGX11T308 | 0,19<br>*0.007* | 0,5<br>*0.020* |
| SD522-41-82-50R2 | 03080827 | 41,0<br>*1.614* | 82,0<br>*3.228* | 143,0<br>*5.630* | 87,0<br>*3.425* | 112,0<br>*4.409* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX12T3 | SCGX120408 | 0,19<br>*0.007* | 0,5<br>*0.020* |
| SD522-42-84-50R2 | 03080829 | 42,0<br>*1.654* | 84,0<br>*3.307* | 145,0<br>*5.709* | 89,0<br>*3.504* | 114,0<br>*4.488* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX12T3 | SCGX120408 | 0,19<br>*0.007* | 0,5<br>*0.020* |
| SD522-43-86-50R2 | 03081067 | 43,0<br>*1.693* | 86,0<br>*3.386* | 147,0<br>*5.787* | 91,0<br>*3.583* | 116,0<br>*4.567* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX12T3 | SCGX120408 | 0,05<br>*0.002* | 0,5<br>*0.020* |
| SD522-44.45-89-50R2 | 03080831 | 44,45<br>*1.750* | 89,0<br>*3.504* | 150,0<br>*5.906* | 94,0<br>*3.701* | 119,0<br>*4.685* | 31,0<br>*1.220* | 50,0<br>*1.969* | 50,0<br>*1.969* | SPGX1504 | SCGX120408 | 0,5<br>*0.020* | 0,41<br>*0.016* |

## Spare Parts, included in delivery

| For drill dia. (mm) | Insert screw | | Insert key |
|---|---|---|---|
| |  | |  |
| | Center insert | Periph insert | |
| 15,00-17,45 | C02245-T07P | C02245-T07P | T07P-2 |
| 17,46-19,49 | C02205-T07P | C02245-T07P | T07P-2 |
| 19,50-21,24 | C02205-T07P | C02205-T07P | T07P-2 |
| 21,25-22,49 | C02506-T08P | C02506-T08P | T08P-2 |
| 22,50-25,49 | C02507-T08P | C03007-T08P | T08P-2 |
| 25,50-28,49 | C03007-T09P | C03007-T09P | T09P-2 |
| 28,50-31,49 | C03007-T09P | C03009-T09P | T09P-2 |
| 31,50-40,49 | C03508-T15P | C03508-T15P | T15P-2D |
| 40,50-43,24 | C03508-T15P | C05012-T15P | T15P-2D |
| 43,25-59,00 | C04011-T15P | C05012-T15P | T15P-2D |

## Accessories

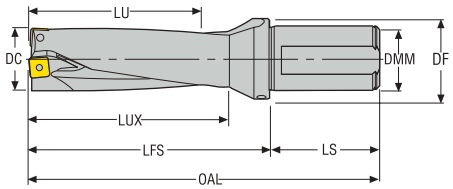
| For drill dia. (mm) | Torque wrench* | Replacement blade | Torque value |
|---|---|---|---|
| |  |  | |
| 15,00-17,45 | T00-07P09 | T00-07P | 0,9 Nm |
| 17,46-19,49 | T00-07P09 | T00-07P | 0,9 Nm |
| 19,50-21,24 | T00-07P09 | T00-07P | 0,9 Nm |
| 21,25-22,49 | T00-08P12 | T00-08P | 1,2 Nm |
| 22,50-25,49 | T00-08P12 | T00-08P | 1,2 Nm |
| 25,50-28,49 | T00-09P20 | T00-09P | 2,0 Nm |
| 28,50-31,49 | T00-09P20 | T00-09P | 2,0 Nm |
| 31,50-40,49 | T00-15P30 | T00-15P | 3,0 Nm |
| 40,50-43,24 | T00-15P30 | T00-15P | 3,0 Nm |
| 43,25-59,00 | T00-15P30 | T00-15P | 3,0 Nm |

*Including blade.

# SD523

Drilling depth ~ 3 x D – Metric/Inch






- ISO 9766 shank, -7
- Internal coolant
- For insert information see page(s) 294-300
- For cutting data see page(s) 303-304
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF | Insert | | Radial adjustment | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | Center insert | Periph insert | mm -<br>*Inch -* | mm +<br>*Inch +* |
| SD523-15-45-20R7 | 03080548 | 15,0<br>*0.591* | 45,0<br>*1.772* | 125,0<br>*4.921* | 50,0<br>*1.969* | 75,0<br>*2.953* | 50,0<br>*1.969* | 20,0<br>*0.787* | 30,0<br>*1.181* | SPGX0502 | SCGX050204 | 0,22<br>*0.009* | 0,31<br>*0.012* |
| SD523-15-45-25R7 | 03080549 | 15,0<br>*0.591* | 45,0<br>*1.772* | 131,0<br>*5.157* | 50,0<br>*1.969* | 75,0<br>*2.953* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0502 | SCGX050204 | 0,22<br>*0.009* | 0,31<br>*0.012* |
| SD523-15.5-47-20R7 | 03080544 | 15,5<br>*0.610* | 47,0<br>*1.850* | 127,0<br>*5.000* | 52,0<br>*2.047* | 77,0<br>*3.031* | 50,0<br>*1.969* | 20,0<br>*0.787* | 30,0<br>*1.181* | SPGX0502 | SCGX050204 | 0,17<br>*0.007* | 0,36<br>*0.014* |
| SD523-15.5-47-25R7 | 03080545 | 15,5<br>*0.610* | 47,0<br>*1.850* | 133,0<br>*5.236* | 52,0<br>*2.047* | 77,0<br>*3.031* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0502 | SCGX050204 | 0,17<br>*0.007* | 0,36<br>*0.014* |
| SD523-16-48-20R7 | 03080557 | 16,0<br>*0.630* | 48,0<br>*1.890* | 128,0<br>*5.039* | 53,0<br>*2.087* | 78,0<br>*3.071* | 50,0<br>*1.969* | 20,0<br>*0.787* | 30,0<br>*1.181* | SPGX0502 | SCGX050204 | 0,12<br>*0.005* | 0,41<br>*0.016* |
| SD523-16-48-25R7 | 03080558 | 16,0<br>*0.630* | 48,0<br>*1.890* | 134,0<br>*5.276* | 53,0<br>*2.087* | 78,0<br>*3.071* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0502 | SCGX050204 | 0,12<br>*0.005* | 0,41<br>*0.016* |
| SD523-16.5-50-20R7 | 03080552 | 16,5<br>*0.650* | 50,0<br>*1.969* | 130,0<br>*5.118* | 55,0<br>*2.165* | 80,0<br>*3.150* | 50,0<br>*1.969* | 20,0<br>*0.787* | 30,0<br>*1.181* | SPGX0502 | SCGX050204 | 0,07<br>*0.003* | 0,46<br>*0.018* |
| SD523-16.5-50-25R7 | 03080554 | 16,5<br>*0.650* | 50,0<br>*1.969* | 136,0<br>*5.354* | 55,0<br>*2.165* | 80,0<br>*3.150* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0502 | SCGX050204 | 0,07<br>*0.003* | 0,46<br>*0.018* |
| SD523-17-51-20R7 | 03080568 | 17,0<br>*0.669* | 51,0<br>*2.008* | 131,0<br>*5.157* | 56,0<br>*2.205* | 81,0<br>*3.189* | 50,0<br>*1.969* | 20,0<br>*0.787* | 30,0<br>*1.181* | SPGX0502 | SCGX050204 | 0,02<br>*0.001* | 0,5<br>*0.020* |
| SD523-17-51-25R7 | 03080569 | 17,0<br>*0.669* | 51,0<br>*2.008* | 137,0<br>*5.394* | 56,0<br>*2.205* | 81,0<br>*3.189* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0502 | SCGX050204 | 0,02<br>*0.001* | 0,5<br>*0.020* |
| SD523-17.5-53-20R7 | 03080562 | 17,5<br>*0.689* | 53,0<br>*2.087* | 133,0<br>*5.236* | 58,0<br>*2.283* | 83,0<br>*3.268* | 50,0<br>*1.969* | 20,0<br>*0.787* | 30,0<br>*1.181* | SPGX0602 | SCGX050204 | 0,43<br>*0.017* | 0,1<br>*0.004* |
| SD523-17.5-53-25R7 | 03080563 | 17,5<br>*0.689* | 53,0<br>*2.087* | 139,0<br>*5.472* | 58,0<br>*2.283* | 83,0<br>*3.268* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0602 | SCGX050204 | 0,43<br>*0.017* | 0,1<br>*0.004* |
| SD523-18-54-20R7 | 03080574 | 18,0<br>*0.709* | 54,0<br>*2.126* | 134,0<br>*5.276* | 59,0<br>*2.323* | 84,0<br>*3.307* | 50,0<br>*1.969* | 20,0<br>*0.787* | 30,0<br>*1.181* | SPGX0602 | SCGX050204 | 0,32<br>*0.013* | 0,21<br>*0.008* |
| SD523-18-54-25R7 | 03080575 | 18,0<br>*0.709* | 54,0<br>*2.126* | 140,0<br>*5.512* | 59,0<br>*2.323* | 84,0<br>*3.307* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0602 | SCGX050204 | 0,32<br>*0.013* | 0,21<br>*0.008* |
| SD523-18.5-56-20R7 | 03080570 | 18,5<br>*0.728* | 56,0<br>*2.205* | 136,0<br>*5.354* | 61,0<br>*2.402* | 86,0<br>*3.386* | 50,0<br>*1.969* | 20,0<br>*0.787* | 30,0<br>*1.181* | SPGX0602 | SCGX050204 | 0,22<br>*0.009* | 0,31<br>*0.012* |
| SD523-18.5-56-25R7 | 03080571 | 18,5<br>*0.728* | 56,0<br>*2.205* | 142,0<br>*5.591* | 61,0<br>*2.402* | 86,0<br>*3.386* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0602 | SCGX050204 | 0,22<br>*0.009* | 0,31<br>*0.012* |
| SD523-19-57-20R7 | 03080583 | 19,0<br>*0.748* | 57,0<br>*2.244* | 137,0<br>*5.394* | 62,0<br>*2.441* | 87,0<br>*3.425* | 50,0<br>*1.969* | 20,0<br>*0.787* | 30,0<br>*1.181* | SPGX0602 | SCGX050204 | 0,11<br>*0.004* | 0,42<br>*0.017* |
| SD523-19-57-25R7 | 03080584 | 19,0<br>*0.748* | 57,0<br>*2.244* | 143,0<br>*5.630* | 62,0<br>*2.441* | 87,0<br>*3.425* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0602 | SCGX050204 | 0,11<br>*0.004* | 0,42<br>*0.017* |
| SD523-19.5-59-20R7 | 03080579 | 19,5<br>*0.768* | 59,0<br>*2.323* | 139,0<br>*5.472* | 64,0<br>*2.520* | 89,0<br>*3.504* | 50,0<br>*1.969* | 20,0<br>*0.787* | 30,0<br>*1.181* | SPGX0602 | SCGX060204 | 0,11<br>*0.004* | 0,42<br>*0.017* |
| SD523-19.5-59-25R7 | 03080580 | 19,5<br>*0.768* | 59,0<br>*2.323* | 145,0<br>*5.709* | 64,0<br>*2.520* | 89,0<br>*3.504* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0602 | SCGX060204 | 0,11<br>*0.004* | 0,42<br>*0.017* |
| SD523-20-60-25R7 | 03080590 | 20,0<br>*0.787* | 60,0<br>*2.362* | 146,0<br>*5.748* | 65,0<br>*2.559* | 90,0<br>*3.543* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0602 | SCGX060204 | 0,07<br>*0.003* | 0,46<br>*0.018* |
| SD523-20.5-62-25R7 | 03080586 | 20,5<br>*0.807* | 62,0<br>*2.441* | 148,0<br>*5.827* | 67,0<br>*2.638* | 92,0<br>*3.622* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0602 | SCGX060204 | 0,04<br>*0.002* | 0,49<br>*0.019* |

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF | Insert | | Radial adjustment | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | Center insert | Periph insert | mm -<br>*Inch -* | mm +<br>*Inch +* |
| SD523-21-63-25R7 | 03080599 | 21,0<br>*0.827* | 63,0<br>*2.480* | 149,0<br>*5.866* | 68,0<br>*2.677* | 93,0<br>*3.661* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0602 | SCGX060204 | 0,01<br>*0* | 0,5<br>*0.020* |
| SD523-21.5-65-25R7 | 03080595 | 21,5<br>*0.846* | 65,0<br>*2.559* | 151,0<br>*5.945* | 70,0<br>*2.756* | 95,0<br>*3.740* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0703 | SCGX060204 | 0,5<br>*0.020* | 0,36<br>*0.014* |
| SD523-22-66-25R7 | 03080605 | 22,0<br>*0.866* | 66,0<br>*2.598* | 152,0<br>*5.984* | 71,0<br>*2.795* | 96,0<br>*3.780* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0703 | SCGX060204 | 0,44<br>*0.017* | 0,46<br>*0.018* |
| SD523-22.5-68-25R7 | 03080602 | 22,5<br>*0.886* | 68,0<br>*2.677* | 154,0<br>*6.063* | 73,0<br>*2.874* | 98,0<br>*3.858* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0703 | SCGX070308 | 0,42<br>*0.017* | 0,47<br>*0.019* |
| SD523-23-69-25R7 | 03080608 | 23,0<br>*0.906* | 69,0<br>*2.717* | 155,0<br>*6.102* | 74,0<br>*2.913* | 99,0<br>*3.898* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0703 | SCGX070308 | 0,33<br>*0.013* | 0,5<br>*0.020* |
| SD523-23.5-71-25R7 | 03080607 | 23,5<br>*0.925* | 71,0<br>*2.795* | 157,0<br>*6.181* | 76,0<br>*2.992* | 101,0<br>*3.976* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0703 | SCGX070308 | 0,23<br>*0.009* | 0,5<br>*0.020* |
| SD523-24-72-25R7 | 03080612 | 24,0<br>*0.945* | 72,0<br>*2.835* | 158,0<br>*6.220* | 77,0<br>*3.031* | 102,0<br>*4.016* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0703 | SCGX070308 | 0,11<br>*0.004* | 0,5<br>*0.020* |
| SD523-24.5-74-25R7 | 03080611 | 24,5<br>*0.965* | 74,0<br>*2.913* | 160,0<br>*6.299* | 79,0<br>*3.110* | 104,0<br>*4.094* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0703 | SCGX070308 | 0,11<br>*0.004* | 0,5<br>*0.020* |
| SD523-25-75-32R7 | 03080616 | 25,0<br>*0.984* | 75,0<br>*2.953* | 165,0<br>*6.496* | 80,0<br>*3.150* | 105,0<br>*4.134* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0703 | SCGX070308 | 0,11<br>*0.004* | 0,5<br>*0.020* |
| SD523-25.5-77-32R7 | 03080615 | 25,5<br>*1.004* | 77,0<br>*3.031* | 167,0<br>*6.575* | 82,0<br>*3.228* | 107,0<br>*4.213* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0903 | SCGX070308 | 0,5<br>*0.020* | 0,11<br>*0.004* |
| SD523-26-78-32R7 | 03080619 | 26,0<br>*1.024* | 78,0<br>*3.071* | 168,0<br>*6.614* | 83,0<br>*3.268* | 108,0<br>*4.252* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0903 | SCGX070308 | 0,5<br>*0.020* | 0,11<br>*0.004* |
| SD523-26.5-80-32R7 | 03080618 | 26,5<br>*1.043* | 80,0<br>*3.150* | 170,0<br>*6.693* | 85,0<br>*3.346* | 110,0<br>*4.331* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0903 | SCGX070308 | 0,5<br>*0.020* | 0,19<br>*0.007* |
| SD523-27-81-32R7 | 03080622 | 27,0<br>*1.063* | 81,0<br>*3.189* | 171,0<br>*6.732* | 86,0<br>*3.386* | 111,0<br>*4.370* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0903 | SCGX070308 | 0,5<br>*0.020* | 0,26<br>*0.010* |
| SD523-27.5-83-32R7 | 03080621 | 27,5<br>*1.083* | 83,0<br>*3.268* | 173,0<br>*6.811* | 88,0<br>*3.465* | 113,0<br>*4.449* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0903 | SCGX070308 | 0,46<br>*0.018* | 0,44<br>*0.017* |
| SD523-28-84-32R7 | 03080626 | 28,0<br>*1.102* | 84,0<br>*3.307* | 174,0<br>*6.850* | 89,0<br>*3.504* | 114,0<br>*4.488* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0903 | SCGX070308 | 0,28<br>*0.011* | 0,5<br>*0.020* |
| SD523-28.5-86-32R7 | 03080624 | 28,5<br>*1.122* | 86,0<br>*3.386* | 176,0<br>*6.929* | 91,0<br>*3.583* | 116,0<br>*4.567* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0903 | SCGX09T308 | 0,21<br>*0.008* | 0,5<br>*0.020* |
| SD523-29-87-32R7 | 03080629 | 29,0<br>*1.142* | 87,0<br>*3.425* | 177,0<br>*6.969* | 92,0<br>*3.622* | 117,0<br>*4.606* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0903 | SCGX09T308 | 0,18<br>*0.007* | 0,5<br>*0.020* |
| SD523-29.5-89-32R7 | 03080628 | 29,5<br>*1.161* | 89,0<br>*3.504* | 179,0<br>*7.047* | 94,0<br>*3.701* | 119,0<br>*4.685* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0903 | SCGX09T308 | 0,15<br>*0.006* | 0,5<br>*0.020* |
| SD523-30-90-32R7 | 03080632 | 30,0<br>*1.181* | 90,0<br>*3.543* | 180,0<br>*7.087* | 95,0<br>*3.740* | 120,0<br>*4.724* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0903 | SCGX09T308 | 0,12<br>*0.005* | 0,5<br>*0.020* |
| SD523-30.5-92-32R7 | 03080631 | 30,5<br>*1.201* | 92,0<br>*3.622* | 182,0<br>*7.165* | 97,0<br>*3.819* | 122,0<br>*4.803* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0903 | SCGX09T308 | 0,12<br>*0.005* | 0,5<br>*0.020* |
| SD523-31-93-32R7 | 03080636 | 31,0<br>*1.220* | 93,0<br>*3.661* | 183,0<br>*7.205* | 98,0<br>*3.858* | 123,0<br>*4.843* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0903 | SCGX09T308 | 0,12<br>*0.005* | 0,5<br>*0.020* |
| SD523-31.5-95-32R7 | 03080634 | 31,5<br>*1.240* | 95,0<br>*3.740* | 185,0<br>*7.283* | 100,0<br>*3.937* | 125,0<br>*4.921* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX11T3 | SCGX09T308 | 0,5<br>*0.020* | 0,24<br>*0.009* |
| SD523-32-96-32R7 | 03080638 | 32,0<br>*1.260* | 96,0<br>*3.780* | 186,0<br>*7.323* | 101,0<br>*3.976* | 126,0<br>*4.961* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX11T3 | SCGX09T308 | 0,5<br>*0.020* | 0,31<br>*0.012* |
| SD523-32-96-40R7 | 03080639 | 32,0<br>*1.260* | 96,0<br>*3.780* | 194,0<br>*7.638* | 101,0<br>*3.976* | 126,0<br>*4.961* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 | 0,5<br>*0.020* | 0,31<br>*0.012* |
| SD523-33-99-32R7 | 03080641 | 33,0<br>*1.299* | 99,0<br>*3.898* | 189,0<br>*7.441* | 104,0<br>*4.094* | 129,0<br>*5.079* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX11T3 | SCGX09T308 | 0,5<br>*0.020* | 0,46<br>*0.018* |
| SD523-33-99-40R7 | 03080642 | 33,0<br>*1.299* | 99,0<br>*3.898* | 197,0<br>*7.756* | 104,0<br>*4.094* | 129,0<br>*5.079* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 | 0,5<br>*0.020* | 0,46<br>*0.018* |
| SD523-34-102-32R7 | 03080644 | 34,0<br>*1.339* | 102,0<br>*4.016* | 192,0<br>*7.559* | 107,0<br>*4.213* | 132,0<br>*5.197* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX11T3 | SCGX09T308 | 0,22<br>*0.009* | 0,5<br>*0.020* |
| SD523-34-102-40R7 | 03080645 | 34,0<br>*1.339* | 102,0<br>*4.016* | 200,0<br>*7.874* | 107,0<br>*4.213* | 132,0<br>*5.197* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 | 0,22<br>*0.009* | 0,5<br>*0.020* |
| SD523-35-105-32R7 | 03080648 | 35,0<br>*1.378* | 105,0<br>*4.134* | 195,0<br>*7.677* | 110,0<br>*4.331* | 135,0<br>*5.315* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX11T3 | SCGX11T308 | 0,22<br>*0.009* | 0,5<br>*0.020* |
| SD523-35-105-40R7 | 03080649 | 35,0<br>*1.378* | 105,0<br>*4.134* | 203,0<br>*7.992* | 110,0<br>*4.331* | 135,0<br>*5.315* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX11T3 | SCGX11T308 | 0,22<br>*0.009* | 0,5<br>*0.020* |
| SD523-35.5-107-40R7 | 03080647 | 35,5<br>*1.398* | 107,0<br>*4.213* | 205,0<br>*8.071* | 112,0<br>*4.409* | 137,0<br>*5.394* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX11T3 | SCGX11T308 | 0,09<br>*0.004* | 0,5<br>*0.020* |

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF | Insert | | Radial adjustment | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | Center insert | Periph insert | mm -<br>*Inch -* | mm +<br>*Inch +* |
| SD523-36-108-32R7 | 03080651 | 36,0<br>*1.417* | 108,0<br>*4.252* | 198,0<br>*7.795* | 113,0<br>*4.449* | 138,0<br>*5.433* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX11T3 | SCGX11T308 | 0,09<br>*0.004* | 0,5<br>*0.020* |
| SD523-36-108-40R7 | 03080652 | 36,0<br>*1.417* | 108,0<br>*4.252* | 206,0<br>*8.110* | 113,0<br>*4.449* | 138,0<br>*5.433* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX11T3 | SCGX11T308 | 0,09<br>*0.004* | 0,5<br>*0.020* |
| SD523-37-111-32R7 | 03080653 | 37,0<br>*1.457* | 111,0<br>*4.370* | 201,0<br>*7.913* | 116,0<br>*4.567* | 141,0<br>*5.551* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX11T3 | SCGX11T308 | 0,09<br>*0.004* | 0,5<br>*0.020* |
| SD523-37-111-40R7 | 03080654 | 37,0<br>*1.457* | 111,0<br>*4.370* | 209,0<br>*8.228* | 116,0<br>*4.567* | 141,0<br>*5.551* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX11T3 | SCGX11T308 | 0,09<br>*0.004* | 0,5<br>*0.020* |
| SD523-38-114-32R7 | 03080655 | 38,0<br>*1.496* | 114,0<br>*4.488* | 204,0<br>*8.031* | 119,0<br>*4.685* | 144,0<br>*5.669* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX12T3 | SCGX11T308 | 0,5<br>*0.020* | 0,5<br>*0.020* |
| SD523-38-114-40R7 | 03080656 | 38,0<br>*1.496* | 114,0<br>*4.488* | 212,0<br>*8.346* | 119,0<br>*4.685* | 144,0<br>*5.669* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX12T3 | SCGX11T308 | 0,5<br>*0.020* | 0,5<br>*0.020* |
| SD523-39-117-32R7 | 03080658 | 39,0<br>*1.535* | 117,0<br>*4.606* | 207,0<br>*8.150* | 122,0<br>*4.803* | 147,0<br>*5.787* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX12T3 | SCGX11T308 | 0,39<br>*0.015* | 0,5<br>*0.020* |
| SD523-39-117-40R7 | 03080659 | 39,0<br>*1.535* | 117,0<br>*4.606* | 215,0<br>*8.465* | 122,0<br>*4.803* | 147,0<br>*5.787* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX12T3 | SCGX11T308 | 0,39<br>*0.015* | 0,5<br>*0.020* |
| SD523-40-120-32R7 | 03080661 | 40,0<br>*1.575* | 120,0<br>*4.724* | 210,0<br>*8.268* | 125,0<br>*4.921* | 150,0<br>*5.906* | 60,0<br>*2.362* | 32,0<br>*1.260* | 50,0<br>*1.969* | SPGX12T3 | SCGX11T308 | 0,19<br>*0.007* | 0,5<br>*0.020* |
| SD523-40-120-40R7 | 03080662 | 40,0<br>*1.575* | 120,0<br>*4.724* | 218,0<br>*8.583* | 125,0<br>*4.921* | 150,0<br>*5.906* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX12T3 | SCGX11T308 | 0,19<br>*0.007* | 0,5<br>*0.020* |
| SD523-41-123-40R7 | 03080665 | 41,0<br>*1.614* | 123,0<br>*4.843* | 221,0<br>*8.701* | 128,0<br>*5.039* | 153,0<br>*6.024* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX12T3 | SCGX120408 | 0,19<br>*0.007* | 0,5<br>*0.020* |
| SD523-41.5-125-40R7 | 03080663 | 41,5<br>*1.634* | 125,0<br>*4.921* | 223,0<br>*8.780* | 130,0<br>*5.118* | 155,0<br>*6.102* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX12T3 | SCGX120408 | 0,19<br>*0.007* | 0,5<br>*0.020* |
| SD523-42-126-40R7 | 03080666 | 42,0<br>*1.654* | 126,0<br>*4.961* | 224,0<br>*8.819* | 131,0<br>*5.157* | 156,0<br>*6.142* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX12T3 | SCGX120408 | 0,19<br>*0.007* | 0,5<br>*0.020* |
| SD523-43-129-40R7 | 03080667 | 43,0<br>*1.693* | 129,0<br>*5.079* | 227,0<br>*8.937* | 134,0<br>*5.276* | 159,0<br>*6.260* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX12T3 | SCGX120408 | 0,05<br>*0.002* | 0,5<br>*0.020* |
| SD523-44-132-40R7 | 03080670 | 44,0<br>*1.732* | 132,0<br>*5.197* | 230,0<br>*9.055* | 137,0<br>*5.394* | 162,0<br>*6.378* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX1504 | SCGX120408 | 0,5<br>*0.020* | 0,41<br>*0.016* |
| SD523-44.5-134-40R7 | 03080669 | 44,5<br>*1.752* | 134,0<br>*5.276* | 232,0<br>*9.134* | 139,0<br>*5.472* | 164,0<br>*6.457* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX1504 | SCGX150512 | 0,5<br>*0.020* | 0,41<br>*0.016* |
| SD523-45-135-40R7 | 03080672 | 45,0<br>*1.772* | 135,0<br>*5.315* | 233,0<br>*9.173* | 140,0<br>*5.512* | 165,0<br>*6.496* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX1504 | SCGX150512 | 0,5<br>*0.020* | 0,41<br>*0.016* |
| SD523-46-138-40R7 | 03080673 | 46,0<br>*1.811* | 138,0<br>*5.433* | 236,0<br>*9.291* | 143,0<br>*5.630* | 168,0<br>*6.614* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX1504 | SCGX150512 | 0,5<br>*0.020* | 0,5<br>*0.020* |
| SD523-47-141-40R7 | 03080675 | 47,0<br>*1.850* | 141,0<br>*5.551* | 239,0<br>*9.409* | 146,0<br>*5.748* | 171,0<br>*6.732* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX1504 | SCGX150512 | 0,5<br>*0.020* | 0,5<br>*0.020* |
| SD523-47.5-143-40R7 | 03080674 | 47,5<br>*1.870* | 143,0<br>*5.630* | 241,0<br>*9.488* | 148,0<br>*5.827* | 173,0<br>*6.811* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX1504 | SCGX150512 | 0,5<br>*0.020* | 0,5<br>*0.020* |
| SD523-48-144-40R7 | 03080676 | 48,0<br>*1.890* | 144,0<br>*5.669* | 242,0<br>*9.528* | 149,0<br>*5.866* | 174,0<br>*6.850* | 68,0<br>*2.677* | 40,0<br>*1.575* | 59,35<br>*2.337* | SPGX1504 | SCGX150512 | 0,45<br>*0.018* | 0,5<br>*0.020* |
| SD523-49-147-40R7 | 03080677 | 49,0<br>*1.929* | 147,0<br>*5.787* | 245,0<br>*9.646* | 152,0<br>*5.984* | 177,0<br>*6.969* | 68,0<br>*2.677* | 40,0<br>*1.575* | 59,35<br>*2.337* | SPGX1504 | SCGX150512 | 0,2<br>*0.008* | 0,5<br>*0.020* |
| SD523-50-150-40R7 | 03080678 | 50,0<br>*1.969* | 150,0<br>*5.906* | 248,0<br>*9.764* | 155,0<br>*6.102* | 180,0<br>*7.087* | 68,0<br>*2.677* | 40,0<br>*1.575* | 59,35<br>*2.337* | SPGX1504 | SCGX150512 | 0,2<br>*0.008* | 0,5<br>*0.020* |
| SD523-51-153-40R7 | 03080679 | 51,0<br>*2.008* | 153,0<br>*6.024* | 251,0<br>*9.882* | 158,0<br>*6.220* | 183,0<br>*7.205* | 68,0<br>*2.677* | 40,0<br>*1.575* | 59,35<br>*2.337* | SPGX1504 | SCGX150512 | 0,2<br>*0.008* | 0,5<br>*0.020* |
| SD523-52-156-40R7 | 03080680 | 52,0<br>*2.047* | 156,0<br>*6.142* | 254,0<br>*10.000* | 161,0<br>*6.339* | 186,0<br>*7.323* | 68,0<br>*2.677* | 40,0<br>*1.575* | 59,35<br>*2.337* | SPGX1904 | SCGX150512 | 0,5<br>*0.020* | 0,42<br>*0.017* |
| SD523-53-159-40R7 | 03080681 | 53,0<br>*2.087* | 159,0<br>*6.260* | 257,0<br>*10.118* | 164,0<br>*6.457* | 189,0<br>*7.441* | 68,0<br>*2.677* | 40,0<br>*1.575* | 59,35<br>*2.337* | SPGX1904 | SCGX150512 | 0,5<br>*0.020* | 0,42<br>*0.017* |
| SD523-54-162-40R7 | 03080682 | 54,0<br>*2.126* | 162,0<br>*6.378* | 260,0<br>*10.236* | 167,0<br>*6.575* | 192,0<br>*7.559* | 68,0<br>*2.677* | 40,0<br>*1.575* | 59,35<br>*2.337* | SPGX1904 | SCGX150512 | 0,5<br>*0.020* | 0,5<br>*0.020* |
| SD523-55-165-40R7 | 03080683 | 55,0<br>*2.165* | 165,0<br>*6.496* | 263,0<br>*10.354* | 170,0<br>*6.693* | 195,0<br>*7.677* | 68,0<br>*2.677* | 40,0<br>*1.575* | 59,35<br>*2.337* | SPGX1904 | SCGX150512 | 0,5<br>*0.020* | 0,5<br>*0.020* |
| SD523-56-168-40R7 | 03080684 | 56,0<br>*2.205* | 168,0<br>*6.614* | 266,0<br>*10.472* | 173,0<br>*6.811* | 198,0<br>*7.795* | 68,0<br>*2.677* | 40,0<br>*1.575* | 59,35<br>*2.337* | SPGX1904 | SCGX150512 | 0,5<br>*0.020* | 0,5<br>*0.020* |
| SD523-57-171-40R7 | 03080685 | 57,0<br>*2.244* | 171,0<br>*6.732* | 269,0<br>*10.591* | 176,0<br>*6.929* | 201,0<br>*7.913* | 68,0<br>*2.677* | 40,0<br>*1.575* | 59,35<br>*2.337* | SPGX1904 | SCGX150512 | 0,39<br>*0.015* | 0,5<br>*0.020* |

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF | Insert | | Radial adjustment | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | Center insert | Periph insert | mm -<br>*Inch -* | mm +<br>*Inch +* |
| SD523-58-174-40R7 | 03080686 | 58,0<br>*2.283* | 174,0<br>*6.850* | 272,0<br>*10.709* | 179,0<br>*7.047* | 204,0<br>*8.031* | 68,0<br>*2.677* | 40,0<br>*1.575* | 63,0<br>*2.480* | SPGX1904 | SCGX150512 | 0,09<br>*0.004* | 0,5<br>*0.020* |
| SD523-59-177-40R7 | 03080687 | 59,0<br>*2.323* | 177,0<br>*6.969* | 275,0<br>*10.827* | 182,0<br>*7.165* | 207,0<br>*8.150* | 68,0<br>*2.677* | 40,0<br>*1.575* | 63,0<br>*2.480* | SPGX1904 | SCGX150512 | 0,09<br>*0.004* | 0,5<br>*0.020* |

## Spare Parts, included in delivery

| For drill dia. (mm) | Insert screw | | Insert key |
|---|---|---|---|
| |  | |  |
| | Center insert | Periph insert | |
| 15,00-17,45 | C02245-T07P | C02245-T07P | T07P-2 |
| 17,46-19,49 | C02205-T07P | C02245-T07P | T07P-2 |
| 19,50-21,24 | C02205-T07P | C02205-T07P | T07P-2 |
| 21,25-22,49 | C02506-T08P | C02506-T08P | T08P-2 |
| 22,50-25,49 | C02507-T08P | C03007-T08P | T08P-2 |
| 25,50-28,49 | C03007-T09P | C03007-T09P | T09P-2 |
| 28,50-31,49 | C03007-T09P | C03009-T09P | T09P-2 |
| 31,50-40,49 | C03508-T15P | C03508-T15P | T15P-2D |
| 40,50-43,24 | C03508-T15P | C05012-T15P | T15P-2D |
| 43,25-59,00 | C04011-T15P | C05012-T15P | T15P-2D |

## Accessories

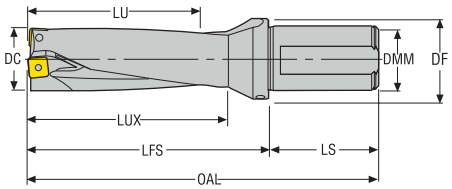
| For drill dia. (mm) | Torque wrench* | Replacement blade | Torque value |
|---|---|---|---|
| |  |  | |
| 15,00-17,45 | T00-07P09 | T00-07P | 0,9 Nm |
| 17,46-19,49 | T00-07P09 | T00-07P | 0,9 Nm |
| 19,50-21,24 | T00-07P09 | T00-07P | 0,9 Nm |
| 21,25-22,49 | T00-08P12 | T00-08P | 1,2 Nm |
| 22,50-25,49 | T00-08P12 | T00-08P | 1,2 Nm |
| 25,50-28,49 | T00-09P20 | T00-09P | 2,0 Nm |
| 28,50-31,49 | T00-09P20 | T00-09P | 2,0 Nm |
| 31,50-40,49 | T00-15P30 | T00-15P | 3,0 Nm |
| 40,50-43,24 | T00-15P30 | T00-15P | 3,0 Nm |
| 43,25-59,00 | T00-15P30 | T00-15P | 3,0 Nm |

*Including blade.

# SD523

Drilling depth ~ 3 x D – Inch






- ISO 9766 shank, -7
- Internal coolant
- For insert information see page(s) 294-300
- For cutting data see page(s) 303-304
- For intermediate diameters see the MyDesign software.

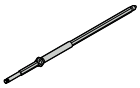
| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF | Insert | | Radial adjustment | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | Center insert | Periph insert | *Inch* - | *Inch* + |
| SD523-0562-169-1000R7 | 03080485 | 0.562 | 1.686 | 5.117 | 1.883 | 2.867 | 2.250 | 1.000 | 1.378 | SPGX0502 | SCGX050204 | 0.011 | 0.009 |
| SD523-0594-178-1000R7 | 03080486 | 0.594 | 1.780 | 5.211 | 1.977 | 2.961 | 2.250 | 1.000 | 1.378 | SPGX0502 | SCGX050204 | 0.008 | 0.013 |
| SD523-0625-188-1000R7 | 03080488 | 0.625 | 1.880 | 5.311 | 2.077 | 3.061 | 2.250 | 1.000 | 1.378 | SPGX0502 | SCGX050204 | 0.005 | 0.015 |
| SD523-0656-197-1000R7 | 03080490 | 0.656 | 1.970 | 5.401 | 2.167 | 3.151 | 2.250 | 1.000 | 1.378 | SPGX0502 | SCGX050204 | 0.002 | 0.019 |
| SD523-0687-206-1000R7 | 03080493 | 0.687 | 2.030 | 5.461 | 2.227 | 3.211 | 2.250 | 1.000 | 1.378 | SPGX0502 | SCGX050204 | 0 | 0.020 |
| SD523-0709-213-1000R7 | 03080494 | 0.709 | 2.130 | 5.561 | 2.327 | 3.311 | 2.250 | 1.000 | 1.378 | SPGX0602 | SCGX050204 | 0.013 | 0.008 |
| SD523-0750-225-1000R7 | 03080497 | 0.750 | 2.250 | 5.681 | 2.447 | 3.431 | 2.250 | 1.000 | 1.378 | SPGX0602 | SCGX050204 | 0.004 | 0.017 |
| SD523-0766-230-1000R7 | 03080499 | 0.766 | 2.300 | 5.731 | 2.497 | 3.481 | 2.250 | 1.000 | 1.378 | SPGX0602 | SCGX050204 | 0.001 | 0.020 |
| SD523-0787-236-1000R7 | 03080501 | 0.787 | 2.360 | 5.791 | 2.557 | 3.541 | 2.250 | 1.000 | 1.378 | SPGX0602 | SCGX060204 | 0.003 | 0.018 |
| SD523-0812-244-1000R7 | 03080503 | 0.812 | 2.440 | 5.871 | 2.637 | 3.621 | 2.250 | 1.000 | 1.378 | SPGX0602 | SCGX060204 | 0.001 | 0.020 |
| SD523-0827-248-1000R7 | 03080505 | 0.827 | 2.480 | 5.911 | 2.677 | 3.661 | 2.250 | 1.000 | 1.378 | SPGX0602 | SCGX060204 | 0 | 0.020 |
| SD523-0875-263-1000R7 | 03080507 | 0.875 | 2.630 | 6.061 | 2.827 | 3.811 | 2.250 | 1.000 | 1.378 | SPGX0703 | SCGX060204 | 0.015 | 0.020 |
| SD523-0906-272-1000R7 | 03080509 | 0.906 | 2.720 | 6.151 | 2.917 | 3.901 | 2.250 | 1.000 | 1.378 | SPGX0703 | SCGX070308 | 0.013 | 0.020 |
| SD523-0922-276-1000R7 | 03080512 | 0.922 | 2.760 | 6.191 | 2.957 | 3.941 | 2.250 | 1.000 | 1.378 | SPGX0703 | SCGX070308 | 0.010 | 0.020 |
| SD523-0937-281-1000R7 | 03080514 | 0.937 | 2.810 | 6.241 | 3.007 | 3.991 | 2.250 | 1.000 | 1.378 | SPGX0703 | SCGX070308 | 0.004 | 0.020 |
| SD523-0984-295-1250R7 | 03080516 | 0.984 | 2.950 | 6.506 | 3.147 | 4.131 | 2.375 | 1.250 | 1.654 | SPGX0703 | SCGX070308 | 0.004 | 0.020 |
| SD523-1000-300-1250R7 | 03080518 | 1.000 | 3.000 | 6.556 | 3.197 | 4.181 | 2.375 | 1.250 | 1.654 | SPGX0703 | SCGX070308 | 0.004 | 0.020 |
| SD523-1032-310-1250R7 | 03080521 | 1.032 | 3.100 | 6.656 | 3.297 | 4.281 | 2.375 | 1.250 | 1.654 | SPGX0903 | SCGX070308 | 0.020 | 0.004 |
| SD523-1062-319-1250R7 | 03080522 | 1.062 | 3.190 | 6.746 | 3.387 | 4.371 | 2.375 | 1.250 | 1.654 | SPGX0903 | SCGX070308 | 0.020 | 0.010 |
| SD523-1109-332-1250R7 | 03080525 | 1.109 | 3.320 | 6.876 | 3.517 | 4.501 | 2.375 | 1.250 | 1.654 | SPGX0903 | SCGX070308 | 0.009 | 0.020 |
| SD523-1125-338-1250R7 | 03080526 | 1.125 | 3.380 | 6.936 | 3.577 | 4.561 | 2.375 | 1.250 | 1.654 | SPGX0903 | SCGX09T308 | 0.008 | 0.020 |
| SD523-1172-351-1250R7 | 03080528 | 1.172 | 3.510 | 7.066 | 3.707 | 4.691 | 2.375 | 1.250 | 1.654 | SPGX0903 | SCGX09T308 | 0.005 | 0.020 |
| SD523-1187-356-1250R7 | 03080530 | 1.187 | 3.560 | 7.116 | 3.757 | 4.741 | 2.375 | 1.250 | 1.654 | SPGX0903 | SCGX09T308 | 0.005 | 0.020 |
| SD523-1250-375-1500R7 | 03080533 | 1.250 | 3.750 | 7.556 | 3.947 | 4.931 | 2.625 | 1.500 | 1.969 | SPGX11T3 | SCGX09T308 | 0.020 | 0.011 |
| SD523-1312-394-1500R7 | 03080535 | 1.312 | 3.940 | 7.746 | 4.137 | 5.121 | 2.625 | 1.500 | 1.969 | SPGX11T3 | SCGX09T308 | 0.020 | 0.020 |
| SD523-1344-403-1500R7 | 03080537 | 1.344 | 4.030 | 7.836 | 4.227 | 5.211 | 2.625 | 1.500 | 1.969 | SPGX11T3 | SCGX09T308 | 0.006 | 0.020 |
| SD523-1375-413-1500R7 | 03080539 | 1.375 | 4.130 | 7.936 | 4.327 | 5.311 | 2.625 | 1.500 | 1.969 | SPGX11T3 | SCGX11T308 | 0.009 | 0.020 |
| SD523-1422-426-1500R7 | 03080541 | 1.422 | 4.260 | 8.066 | 4.457 | 5.441 | 2.625 | 1.500 | 1.969 | SPGX11T3 | SCGX11T308 | 0.004 | 0.020 |
| SD523-1437-431-1500R7 | 03080542 | 1.437 | 4.310 | 8.116 | 4.507 | 5.491 | 2.625 | 1.500 | 1.969 | SPGX11T3 | SCGX11T308 | 0.004 | 0.020 |
| SD523-1500-450-1500R7 | 03080547 | 1.500 | 4.500 | 8.306 | 4.697 | 5.681 | 2.625 | 1.500 | 1.969 | SPGX12T3 | SCGX11T308 | 0.020 | 0.020 |
| SD523-1562-469-1500R7 | 03080550 | 1.562 | 4.690 | 8.496 | 4.887 | 5.871 | 2.625 | 1.500 | 1.969 | SPGX12T3 | SCGX11T308 | 0.010 | 0.020 |
| SD523-1625-488-1500R7 | 03080555 | 1.625 | 4.880 | 8.686 | 5.077 | 6.061 | 2.625 | 1.500 | 1.969 | SPGX12T3 | SCGX120408 | 0.007 | 0.020 |
| SD523-1687-506-1500R7 | 03080560 | 1.687 | 5.060 | 8.866 | 5.257 | 6.241 | 2.625 | 1.500 | 1.969 | SPGX12T3 | SCGX120408 | 0.004 | 0.020 |
| SD523-1750-525-1500R7 | 03080565 | 1.750 | 5.250 | 9.056 | 5.447 | 6.431 | 2.625 | 1.500 | 1.969 | SPGX1504 | SCGX120408 | 0.020 | 0.016 |
| SD523-1812-544-1500R7 | 03080572 | 1.812 | 5.440 | 9.246 | 5.637 | 6.621 | 2.625 | 1.500 | 1.969 | SPGX1504 | SCGX150512 | 0.020 | 0.020 |
| SD523-1875-563-1500R7 | 03080577 | 1.875 | 5.630 | 9.436 | 5.827 | 6.811 | 2.625 | 1.500 | 1.969 | SPGX1504 | SCGX150512 | 0.020 | 0.020 |

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF | Insert | | Radial adjustment | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | Center insert | Periph insert | *Inch -* | *Inch +* |
| SD523-1937-581-1500R7 | 03080581 | 1.937 | 5.810 | 9.616 | 6.007 | 6.991 | 2.625 | 1.500 | 2.337 | SPGX1504 | SCGX150512 | 0.008 | 0.020 |
| SD523-2000-600-1500R7 | 03080588 | 2.000 | 6.000 | 9.806 | 6.197 | 7.181 | 2.625 | 1.500 | 2.337 | SPGX1504 | SCGX150512 | 0.008 | 0.020 |
| SD523-2062-619-1500R7 | 03080593 | 2.062 | 6.190 | 9.996 | 6.387 | 7.371 | 2.625 | 1.500 | 2.337 | SPGX1904 | SCGX150512 | 0.020 | 0.017 |
| SD523-2125-638-1500R7 | 03080596 | 2.125 | 6.380 | 10.186 | 6.577 | 7.561 | 2.625 | 1.500 | 2.337 | SPGX1904 | SCGX150512 | 0.020 | 0.020 |
| SD523-2250-675-1500R7 | 03080603 | 2.250 | 6.750 | 10.556 | 6.947 | 7.931 | 2.625 | 1.500 | 2.337 | SPGX1904 | SCGX150512 | 0.013 | 0.020 |
| SD523-2375-713-1500R7 | 03080609 | 2.375 | 7.130 | 10.936 | 7.327 | 8.311 | 2.625 | 1.500 | 2.480 | SPGX1904 | SCGX150512 | 0.004 | 0.020 |

## Spare Parts, included in delivery

| For drill dia. (inch) | Insert screw centre | Insert screw periph | Key |
|---|---|---|---|
| |  |  |  |
| 0.562-0.687 | C02245-T07P | C02245-T07P | T07P-2 |
| 0.709-0.766 | C02205-T07P | C02245-T07P | T07P-2 |
| 0.787-0.827 | C02205-T07P | C02205-T07P | T07P-2 |
| 0.875 | C02506-T08P | C02506-T08P | T08P-2 |
| 0.906 | C02507-T08P | C03007-T08P | T08P-2 |
| 0.922 | C02506-T08P | C03007-T08P | T08P-2 |
| 0.937-1.000 | C02507-T08P | C03007-T08P | T08P-2 |
| 1.032-1.109 | C03007-T09P | C03007-T09P | T09P-2 |
| 1.125-1.187 | C03007-T09P | C03009-T09P | T09P-2 |
| 1.250-1.562 | C03508-T15P | C03508-T15P | T15P-2D |
| 1.625-1.687 | C03508-T15P | C05012-T15P | T15P-2D |
| 1.750-2.375 | C04011-T15P | C05012-T15P | T15P-2D |

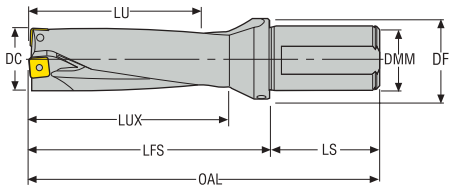
## Accessories

| For drill dia. (inch) | Replacement blade | Torque wrench |
|---|---|---|
| |  |  |
| 0.562-0.687 | T00-07P | T00-07P09 |
| 0.709-0.766 | – | T00-07P09 |
| 0.787-0.827 | – | T00-07P09 |
| 0.875 | – | T00-08P12 |
| 0.906 | – | T00-08P12 |
| 0.922 | – | T00-08P12 |
| 0.937-1.000 | – | T00-08P12 |
| 1.032-1.109 | – | T00-09P20 |
| 1.125-1.187 | – | T00-09P20 |
| 1.250-1.562 | – | T00-15P30 |
| 1.625-1.687 | – | T00-15P30 |
| 1.750-2.375 | – | T00-15P35 |

# SD523

Drilling depth ~ 3 x D – Inch






- ISO 9766 shank, R7-C
- Internal coolant
- For insert information see page(s) 294-300
- For cutting data see page(s) 303-304
- For intermediate diameters see the MyDesign software.
- For stationary applications

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF | Insert | | Radial adjustment | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | Center insert | Periph insert | *Inch -* | *Inch +* |
| SD523-0594-178-1000R7-C | 03080487 | 0.594 | 1.780 | 5.908 | 1.977 | 3.158 | 2.750 | 1.000 | 1.378 | SPGX0502 | SCGX050204 | 0.008 | 0.013 |
| SD523-0625-188-1000R7-C | 03080489 | 0.625 | 1.880 | 6.008 | 2.077 | 3.258 | 2.750 | 1.000 | 1.378 | SPGX0502 | SCGX050204 | 0.005 | 0.015 |
| SD523-0656-197-1000R7-C | 03080491 | 0.656 | 1.970 | 6.098 | 2.167 | 3.348 | 2.750 | 1.000 | 1.378 | SPGX0502 | SCGX050204 | 0.002 | 0.019 |
| SD523-0687-206-1000R7-C | 03080492 | 0.687 | 2.060 | 6.188 | 2.257 | 3.438 | 2.750 | 1.000 | 1.378 | SPGX0502 | SCGX050204 | 0 | 0.020 |
| SD523-0709-213-1000R7-C | 03080495 | 0.709 | 2.130 | 6.258 | 2.327 | 3.508 | 2.750 | 1.000 | 1.378 | SPGX0602 | SCGX050204 | 0.013 | 0.008 |
| SD523-0750-225-1000R7-C | 03080496 | 0.750 | 2.250 | 6.378 | 2.447 | 3.628 | 2.750 | 1.000 | 1.378 | SPGX0602 | SCGX050204 | 0.004 | 0.017 |
| SD523-0766-230-1000R7-C | 03080500 | 0.766 | 2.300 | 6.428 | 2.497 | 3.678 | 2.750 | 1.000 | 1.378 | SPGX0602 | SCGX050204 | 0.001 | 0.020 |
| SD523-0787-236-1000R7-C | 03080502 | 0.787 | 2.360 | 6.488 | 2.557 | 3.738 | 2.750 | 1.000 | 1.378 | SPGX0602 | SCGX060204 | 0.003 | 0.018 |
| SD523-0812-244-1000R7-C | 03080504 | 0.812 | 2.440 | 6.568 | 2.637 | 3.818 | 2.750 | 1.000 | 1.378 | SPGX0602 | SCGX060204 | 0.001 | 0.020 |
| SD523-0827-248-1000R7-C | 03080506 | 0.827 | 2.480 | 6.608 | 2.677 | 3.858 | 2.750 | 1.000 | 1.378 | SPGX0602 | SCGX060204 | 0 | 0.020 |
| SD523-0875-263-1000R7-C | 03080508 | 0.875 | 2.630 | 6.758 | 2.827 | 4.008 | 2.750 | 1.000 | 1.378 | SPGX0703 | SCGX060204 | 0.015 | 0.020 |
| SD523-0906-272-1000R7-C | 03080511 | 0.906 | 2.720 | 6.848 | 2.917 | 4.098 | 2.750 | 1.000 | 1.378 | SPGX0703 | SCGX070308 | 0.013 | 0.020 |
| SD523-0922-276-1000R7-C | 03080513 | 0.922 | 2.760 | 6.888 | 2.957 | 4.138 | 2.750 | 1.000 | 1.378 | SPGX0703 | SCGX070308 | 0.010 | 0.020 |
| SD523-0937-281-1000R7-C | 03080515 | 0.937 | 2.810 | 6.938 | 3.007 | 4.188 | 2.750 | 1.000 | 1.378 | SPGX0703 | SCGX070308 | 0.004 | 0.020 |
| SD523-0984-295-1250R7-C | 03080517 | 0.984 | 2.950 | 7.078 | 3.147 | 4.328 | 2.750 | 1.250 | 1.654 | SPGX0703 | SCGX070308 | 0.004 | 0.020 |
| SD523-1000-300-1250R7-C | 03080519 | 1.000 | 3.000 | 7.128 | 3.197 | 4.378 | 2.750 | 1.250 | 1.654 | SPGX0703 | SCGX070308 | 0.004 | 0.020 |
| SD523-1032-310-1250R7-C | 03080520 | 1.032 | 3.100 | 7.228 | 3.297 | 4.478 | 2.750 | 1.250 | 1.654 | SPGX0903 | SCGX070308 | 0.020 | 0.004 |
| SD523-1062-319-1250R7-C | 03080523 | 1.062 | 3.190 | 7.318 | 3.387 | 4.568 | 2.750 | 1.250 | 1.654 | SPGX0903 | SCGX070308 | 0.020 | 0.010 |
| SD523-1109-332-1250R7-C | 03080524 | 1.109 | 3.320 | 7.448 | 3.517 | 4.698 | 2.750 | 1.250 | 1.654 | SPGX0903 | SCGX070308 | 0.009 | 0.020 |
| SD523-1125-338-1250R7-C | 03080527 | 1.125 | 3.380 | 7.508 | 3.577 | 4.758 | 2.750 | 1.250 | 1.654 | SPGX0903 | SCGX09T308 | 0.008 | 0.020 |
| SD523-1172-351-1250R7-C | 03080529 | 1.172 | 3.510 | 7.638 | 3.707 | 4.888 | 2.750 | 1.250 | 1.654 | SPGX0903 | SCGX09T308 | 0.005 | 0.020 |
| SD523-1187-356-1250R7-C | 03080531 | 1.187 | 3.560 | 7.688 | 3.757 | 4.938 | 2.750 | 1.250 | 1.654 | SPGX0903 | SCGX09T308 | 0.005 | 0.020 |
| SD523-1250-375-1500R7-C | 03080532 | 1.250 | 3.750 | 7.878 | 3.947 | 5.128 | 2.750 | 1.500 | 1.969 | SPGX11T3 | SCGX09T308 | 0.020 | 0.011 |
| SD523-1312-394-1500R7-C | 03080536 | 1.312 | 3.940 | 8.068 | 4.137 | 5.318 | 2.750 | 1.500 | 1.969 | SPGX11T3 | SCGX09T308 | 0.020 | 0.020 |
| SD523-1344-403-1500R7-C | 03080538 | 1.344 | 4.030 | 8.158 | 4.227 | 5.408 | 2.750 | 1.500 | 1.969 | SPGX11T3 | SCGX09T308 | 0.006 | 0.020 |
| SD523-1375-413-1500R7-C | 03080540 | 1.375 | 4.130 | 8.258 | 4.327 | 5.508 | 2.750 | 1.500 | 1.969 | SPGX11T3 | SCGX11T308 | 0.009 | 0.020 |
| SD523-1422-426-1500R7-C | 03080900 | 1.422 | 4.260 | 8.388 | 4.457 | 5.638 | 2.750 | 1.500 | 1.969 | SPGX11T3 | SCGX11T308 | 0.004 | 0.020 |
| SD523-1437-431-1500R7-C | 03080543 | 1.437 | 4.310 | 8.438 | 4.507 | 5.688 | 2.750 | 1.500 | 1.969 | SPGX11T3 | SCGX11T308 | 0.004 | 0.020 |
| SD523-1500-450-1500R7-C | 03080546 | 1.500 | 4.500 | 8.628 | 4.697 | 5.878 | 2.750 | 1.500 | 1.969 | SPGX12T3 | SCGX11T308 | 0.020 | 0.020 |
| SD523-1562-469-1500R7-C | 03080551 | 1.562 | 4.690 | 8.818 | 4.887 | 6.068 | 2.750 | 1.500 | 1.969 | SPGX12T3 | SCGX11T308 | 0.010 | 0.020 |
| SD523-1625-488-1500R7-C | 03080556 | 1.625 | 4.880 | 9.008 | 5.077 | 6.258 | 2.750 | 1.500 | 1.969 | SPGX12T3 | SCGX120408 | 0.007 | 0.020 |
| SD523-1687-506-1500R7-C | 03080561 | 1.687 | 5.060 | 9.188 | 5.257 | 6.438 | 2.750 | 1.500 | 1.969 | SPGX12T3 | SCGX120408 | 0.004 | 0.020 |
| SD523-1750-525-1500R7-C | 03080566 | 1.750 | 5.250 | 9.378 | 5.447 | 6.628 | 2.750 | 1.500 | 1.969 | SPGX1504 | SCGX120408 | 0.020 | 0.016 |
| SD523-1812-544-1500R7-C | 03080573 | 1.812 | 5.440 | 9.568 | 5.637 | 6.818 | 2.750 | 1.500 | 1.969 | SPGX1504 | SCGX150512 | 0.020 | 0.020 |
| SD523-1875-563-1500R7-C | 03080578 | 1.875 | 5.630 | 9.758 | 5.827 | 7.008 | 2.750 | 1.500 | 1.969 | SPGX1504 | SCGX150512 | 0.020 | 0.020 |

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF | Insert | | Radial adjustment | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | Center insert | Periph insert | *Inch -* | *Inch +* |
| SD523-1937-581-1500R7-C | 03080582 | 1.937 | 5.810 | 9.938 | 6.007 | 7.188 | 2.750 | 1.500 | 2.337 | SPGX1504 | SCGX150512 | 0.008 | 0.020 |
| SD523-2000-600-1500R7-C | 03080589 | 2.000 | 6.000 | 10.128 | 6.197 | 7.378 | 2.750 | 1.500 | 2.337 | SPGX1504 | SCGX150512 | 0.008 | 0.020 |
| SD523-2125-638-1500R7-C | 03080598 | 2.125 | 6.380 | 10.508 | 6.577 | 7.758 | 2.750 | 1.500 | 2.337 | SPGX1904 | SCGX150512 | 0.020 | 0.020 |
| SD523-2250-675-1500R7-C | 03080604 | 2.250 | 6.750 | 10.878 | 6.947 | 8.128 | 2.750 | 1.500 | 2.337 | SPGX1904 | SCGX150512 | 0.013 | 0.020 |
| SD523-2375-713-1500R7-C | 03080610 | 2.375 | 7.130 | 11.258 | 7.327 | 8.508 | 2.750 | 1.500 | 2.480 | SPGX1904 | SCGX150512 | 0.004 | 0.020 |

## Spare Parts, included in delivery

| For drill dia. (inch) | Hose adapter | Insert screw centre | Insert screw periph | Key | Plug |
|---|---|---|---|---|---|
| |  |  |  |  |  |
| 0.594-0.687 | 1310 | C02245-T07P | C02245-T07P | T07P-2 | R1/4 |
| 0.709-0.766 | 1310 | C02205-T07P | C02245-T07P | T07P-2 | R1/4 |
| 0.787-0.827 | 1310 | C02205-T07P | C02205-T07P | T07P-2 | R1/4 |
| 0.875 | 1310 | C02506-T08P | C02506-T08P | T08P-2 | R1/4 |
| 0.906-0.922 | 1310 | C02506-T08P | C03007-T08P | T08P-2 | R1/4 |
| 0.937-1.000 | 1310 | C02507-T08P | C03007-T08P | T08P-2 | R1/4 |
| 1.032-1.109 | 1310 | C03007-T09P | C03007-T09P | T09P-2 | R1/4 |
| 1.125-1.187 | 1310 | C03007-T09P | C03009-T09P | T09P-2 | R1/4 |
| 1.250-1.562 | 1310 | C03508-T15P | C03508-T15P | T15P-2D | R1/4 |
| 1.625-1.687 | 1310 | C03508-T15P | C05012-T15P | T15P-2D | R1/4 |
| 1.750-2.375 | 1310 | C04011-T15P | C05012-T15P | T15P-2D | R1/4 |

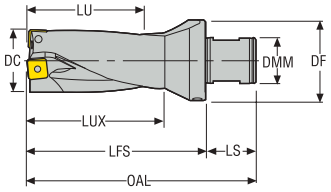
## Accessories

| For drill dia. (inch) | Torque wrench |
|---|---|
| |  |
| 0.594-0.687 | T00-07P09 |
| 0.709-0.766 | T00-07P09 |
| 0.787-0.827 | T00-07P09 |
| 0.875 | T00-08P12 |
| 0.906-0.922 | T00-08P12 |
| 0.937-1.000 | T00-08P12 |
| 1.032-1.109 | T00-09P20 |
| 1.125-1.187 | T00-09P20 |
| 1.250-1.562 | T00-15P30 |
| 1.625-1.687 | T00-15P30 |
| 1.750-2.375 | T00-15P35 |

# SD523

Drilling depth ~ 3 x D – Metric/Inch






- ABS 50 compatible shank, -2
- Internal coolant
- For insert information see page(s) 294-300
- For cutting data see page(s) 303-304
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF | Insert | | Radial adjustment | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | Center insert | Periph insert | mm -<br>*Inch -* | mm +<br>*Inch +* |
| SD523-15-45-50R2 | 03080864 | 15,0<br>*0.591* | 45,0<br>*1.772* | 106,0<br>*4.173* | 50,0<br>*1.969* | 75,0<br>*2.953* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0502 | SCGX050204 | 0,22<br>*0.009* | 0,31<br>*0.012* |
| SD523-15.5-47-50R2 | 03080865 | 15,5<br>*0.610* | 47,0<br>*1.850* | 108,0<br>*4.252* | 52,0<br>*2.047* | 77,0<br>*3.031* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0502 | SCGX050204 | 0,17<br>*0.007* | 0,36<br>*0.014* |
| SD523-16-48-50R2 | 03080559 | 16,0<br>*0.630* | 48,0<br>*1.890* | 109,0<br>*4.291* | 53,0<br>*2.087* | 78,0<br>*3.071* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0502 | SCGX050204 | 0,12<br>*0.005* | 0,41<br>*0.016* |
| SD523-16.5-50-50R2 | 03080866 | 16,5<br>*0.650* | 50,0<br>*1.969* | 111,0<br>*4.370* | 55,0<br>*2.165* | 80,0<br>*3.150* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0502 | SCGX050204 | 0,07<br>*0.003* | 0,46<br>*0.018* |
| SD523-17-51-50R2 | 03080867 | 17,0<br>*0.669* | 51,0<br>*2.008* | 112,0<br>*4.409* | 56,0<br>*2.205* | 81,0<br>*3.189* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0502 | SCGX050204 | 0,02<br>*0.001* | 0,5<br>*0.020* |
| SD523-17.5-53-50R2 | 03080564 | 17,5<br>*0.689* | 53,0<br>*2.087* | 114,0<br>*4.488* | 58,0<br>*2.283* | 83,0<br>*3.268* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0602 | SCGX050204 | 0,43<br>*0.017* | 0,1<br>*0.004* |
| SD523-18-54-50R2 | 03080576 | 18,0<br>*0.709* | 54,0<br>*2.126* | 115,0<br>*4.528* | 59,0<br>*2.323* | 84,0<br>*3.307* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0602 | SCGX050204 | 0,32<br>*0.013* | 0,21<br>*0.008* |
| SD523-18.5-56-50R2 | 03080868 | 18,5<br>*0.728* | 56,0<br>*2.205* | 117,0<br>*4.606* | 61,0<br>*2.402* | 86,0<br>*3.386* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0602 | SCGX050204 | 0,22<br>*0.009* | 0,31<br>*0.012* |
| SD523-19-57-50R2 | 03080585 | 19,0<br>*0.748* | 57,0<br>*2.244* | 118,0<br>*4.646* | 62,0<br>*2.441* | 87,0<br>*3.425* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0602 | SCGX050204 | 0,11<br>*0.004* | 0,42<br>*0.017* |
| SD523-20-60-50R2 | 03080591 | 20,0<br>*0.787* | 60,0<br>*2.362* | 121,0<br>*4.764* | 65,0<br>*2.559* | 90,0<br>*3.543* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0602 | SCGX060204 | 0,07<br>*0.003* | 0,46<br>*0.018* |
| SD523-20.62-62-50R2 | 03080587 | 20,62<br>*0.812* | 62,0<br>*2.441* | 123,0<br>*4.843* | 67,0<br>*2.638* | 92,0<br>*3.622* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0602 | SCGX060204 | 0,03<br>*0.001* | 0,5<br>*0.020* |
| SD523-21-63-50R2 | 03080600 | 21,0<br>*0.827* | 63,0<br>*2.480* | 124,0<br>*4.882* | 68,0<br>*2.677* | 93,0<br>*3.661* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0602 | SCGX060204 | 0,01<br>*0* | 0,5<br>*0.020* |
| SD523-22-66-50R2 | 03080606 | 22,0<br>*0.866* | 66,0<br>*2.598* | 127,0<br>*5.000* | 71,0<br>*2.795* | 96,0<br>*3.780* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0703 | SCGX060204 | 0,44<br>*0.017* | 0,46<br>*0.018* |
| SD523-22.23-67-50R2 | 03080601 | 22,23<br>*0.875* | 67,0<br>*2.638* | 128,0<br>*5.039* | 72,0<br>*2.835* | 97,0<br>*3.819* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0703 | SCGX060204 | 0,39<br>*0.015* | 0,5<br>*0.020* |
| SD523-23-69-50R2 | 03080869 | 23,0<br>*0.906* | 69,0<br>*2.717* | 130,0<br>*5.118* | 74,0<br>*2.913* | 99,0<br>*3.898* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0703 | SCGX070308 | 0,33<br>*0.013* | 0,5<br>*0.020* |
| SD523-24-72-50R2 | 03080613 | 24,0<br>*0.945* | 72,0<br>*2.835* | 133,0<br>*5.236* | 77,0<br>*3.031* | 102,0<br>*4.016* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0703 | SCGX070308 | 0,11<br>*0.004* | 0,5<br>*0.020* |
| SD523-25-75-50R2 | 03080617 | 25,0<br>*0.984* | 75,0<br>*2.953* | 136,0<br>*5.354* | 80,0<br>*3.150* | 105,0<br>*4.134* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0703 | SCGX070308 | 0,11<br>*0.004* | 0,5<br>*0.020* |
| SD523-25.40-77-50R2 | 03080614 | 25,4<br>*1.000* | 77,0<br>*3.031* | 138,0<br>*5.433* | 82,0<br>*3.228* | 107,0<br>*4.213* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0703 | SCGX070308 | 0,11<br>*0.004* | 0,5<br>*0.020* |
| SD523-26-78-50R2 | 03080620 | 26,0<br>*1.024* | 78,0<br>*3.071* | 139,0<br>*5.472* | 83,0<br>*3.268* | 108,0<br>*4.252* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0903 | SCGX070308 | 0,5<br>*0.020* | 0,11<br>*0.004* |
| SD523-27-81-50R2 | 03080623 | 27,0<br>*1.063* | 81,0<br>*3.189* | 142,0<br>*5.591* | 86,0<br>*3.386* | 111,0<br>*4.370* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0903 | SCGX070308 | 0,5<br>*0.020* | 0,26<br>*0.010* |
| SD523-28-84-50R2 | 03080627 | 28,0<br>*1.102* | 84,0<br>*3.307* | 145,0<br>*5.709* | 89,0<br>*3.504* | 114,0<br>*4.488* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0903 | SCGX070308 | 0,28<br>*0.011* | 0,5<br>*0.020* |
| SD523-28.59-86-50R2 | 03080625 | 28,59<br>*1.126* | 86,0<br>*3.386* | 147,0<br>*5.787* | 91,0<br>*3.583* | 116,0<br>*4.567* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0903 | SCGX09T308 | 0,21<br>*0.008* | 0,5<br>*0.020* |

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF | Insert | | Radial adjustment | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | Center insert | Periph insert | mm -<br>*Inch -* | mm +<br>*Inch +* |
| SD523-29-87-50R2 | 03080630 | 29,0<br>*1.142* | 87,0<br>*3.425* | 148,0<br>*5.827* | 92,0<br>*3.622* | 117,0<br>*4.606* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0903 | SCGX09T308 | 0,18<br>*0.007* | 0,5<br>*0.020* |
| SD523-30-90-50R2 | 03080633 | 30,0<br>*1.181* | 90,0<br>*3.543* | 151,0<br>*5.945* | 95,0<br>*3.740* | 120,0<br>*4.724* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0903 | SCGX09T308 | 0,12<br>*0.005* | 0,5<br>*0.020* |
| SD523-31-93-50R2 | 03080637 | 31,0<br>*1.220* | 93,0<br>*3.661* | 154,0<br>*6.063* | 98,0<br>*3.858* | 123,0<br>*4.843* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0903 | SCGX09T308 | 0,12<br>*0.005* | 0,5<br>*0.020* |
| SD523-31.75-96-50R2 | 03080635 | 31,75<br>*1.250* | 96,0<br>*3.780* | 157,0<br>*6.181* | 101,0<br>*3.976* | 126,0<br>*4.961* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 | 0,5<br>*0.020* | 0,28<br>*0.011* |
| SD523-32-96-50R2 | 03080640 | 32,0<br>*1.260* | 96,0<br>*3.780* | 157,0<br>*6.181* | 101,0<br>*3.976* | 126,0<br>*4.961* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 | 0,5<br>*0.020* | 0,31<br>*0.012* |
| SD523-33-99-50R2 | 03080643 | 33,0<br>*1.299* | 99,0<br>*3.898* | 160,0<br>*6.299* | 104,0<br>*4.094* | 129,0<br>*5.079* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 | 0,5<br>*0.020* | 0,46<br>*0.018* |
| SD523-34-102-50R2 | 03080646 | 34,0<br>*1.339* | 102,0<br>*4.016* | 163,0<br>*6.417* | 107,0<br>*4.213* | 132,0<br>*5.197* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 | 0,22<br>*0.009* | 0,5<br>*0.020* |
| SD523-35-105-50R2 | 03080650 | 35,0<br>*1.378* | 105,0<br>*4.134* | 166,0<br>*6.535* | 110,0<br>*4.331* | 135,0<br>*5.315* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX11T3 | SCGX11T308 | 0,22<br>*0.009* | 0,5<br>*0.020* |
| SD523-36-108-50R2 | 03080870 | 36,0<br>*1.417* | 108,0<br>*4.252* | 169,0<br>*6.654* | 113,0<br>*4.449* | 138,0<br>*5.433* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX11T3 | SCGX11T308 | 0,09<br>*0.004* | 0,5<br>*0.020* |
| SD523-37-111-50R2 | 03080871 | 37,0<br>*1.457* | 111,0<br>*4.370* | 172,0<br>*6.772* | 116,0<br>*4.567* | 141,0<br>*5.551* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX11T3 | SCGX11T308 | 0,09<br>*0.004* | 0,5<br>*0.020* |
| SD523-38-114-50R2 | 03080657 | 38,0<br>*1.496* | 114,0<br>*4.488* | 175,0<br>*6.890* | 119,0<br>*4.685* | 144,0<br>*5.669* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX12T3 | SCGX11T308 | 0,5<br>*0.020* | 0,5<br>*0.020* |
| SD523-39-117-50R2 | 03080660 | 39,0<br>*1.535* | 117,0<br>*4.606* | 178,0<br>*7.008* | 122,0<br>*4.803* | 147,0<br>*5.787* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX12T3 | SCGX11T308 | 0,39<br>*0.015* | 0,5<br>*0.020* |
| SD523-40-120-50R2 | 03080872 | 40,0<br>*1.575* | 120,0<br>*4.724* | 181,0<br>*7.126* | 125,0<br>*4.921* | 150,0<br>*5.906* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX12T3 | SCGX11T308 | 0,19<br>*0.007* | 0,5<br>*0.020* |
| SD523-41-123-50R2 | 03080873 | 41,0<br>*1.614* | 123,0<br>*4.843* | 184,0<br>*7.244* | 128,0<br>*5.039* | 153,0<br>*6.024* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX12T3 | SCGX120408 | 0,19<br>*0.007* | 0,5<br>*0.020* |
| SD523-42-126-50R2 | 03080874 | 42,0<br>*1.654* | 126,0<br>*4.961* | 187,0<br>*7.362* | 131,0<br>*5.157* | 156,0<br>*6.142* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX12T3 | SCGX120408 | 0,19<br>*0.007* | 0,5<br>*0.020* |
| SD523-43-129-50R2 | 03080875 | 43,0<br>*1.693* | 129,0<br>*5.079* | 190,0<br>*7.480* | 134,0<br>*5.276* | 159,0<br>*6.260* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX12T3 | SCGX120408 | 0,05<br>*0.002* | 0,5<br>*0.020* |
| SD523-44-132-50R2 | 03080671 | 44,0<br>*1.732* | 132,0<br>*5.197* | 193,0<br>*7.598* | 137,0<br>*5.394* | 162,0<br>*6.378* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX1504 | SCGX120408 | 0,5<br>*0.020* | 0,41<br>*0.016* |
| SD523-44.45-134-50R2 | 03080668 | 44,45<br>*1.750* | 134,0<br>*5.276* | 195,0<br>*7.677* | 139,0<br>*5.472* | 164,0<br>*6.457* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX1504 | SCGX120408 | 0,5<br>*0.020* | 0,41<br>*0.016* |

## Spare Parts, included in delivery

| For drill dia. (mm) | Insert screw | | Insert key |
|---|---|---|---|
| |  | |  |
| | Center insert | Periph insert | |
| 15,00-17,45 | C02245-T07P | C02245-T07P | T07P-2 |
| 17,46-19,49 | C02205-T07P | C02245-T07P | T07P-2 |
| 19,50-21,24 | C02205-T07P | C02205-T07P | T07P-2 |
| 21,25-22,49 | C02506-T08P | C02506-T08P | T08P-2 |
| 22,50-25,49 | C02507-T08P | C03007-T08P | T08P-2 |
| 25,50-28,49 | C03007-T09P | C03007-T09P | T09P-2 |
| 28,50-31,49 | C03007-T09P | C03009-T09P | T09P-2 |
| 31,50-40,49 | C03508-T15P | C03508-T15P | T15P-2D |
| 40,50-43,24 | C03508-T15P | C05012-T15P | T15P-2D |
| 43,25-59,00 | C04011-T15P | C05012-T15P | T15P-2D |

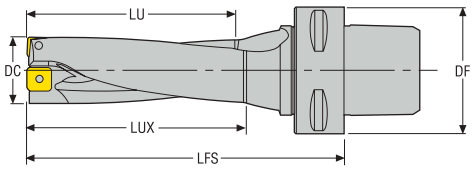
## Accessories

| For drill dia. (mm) | Torque wrench* | Replacement blade | Torque value |
|---|---|---|---|
| |  |  | |
| 15,00-17,45 | T00-07P09 | T00-07P | 0,9 Nm |
| 17,46-19,49 | T00-07P09 | T00-07P | 0,9 Nm |
| 19,50-21,24 | T00-07P09 | T00-07P | 0,9 Nm |
| 21,25-22,49 | T00-08P12 | T00-08P | 1,2 Nm |
| 22,50-25,49 | T00-08P12 | T00-08P | 1,2 Nm |
| 25,50-28,49 | T00-09P20 | T00-09P | 2,0 Nm |
| 28,50-31,49 | T00-09P20 | T00-09P | 2,0 Nm |
| 31,50-40,49 | T00-15P30 | T00-15P | 3,0 Nm |
| 40,50-43,24 | T00-15P30 | T00-15P | 3,0 Nm |
| 43,25-59,00 | T00-15P30 | T00-15P | 3,0 Nm |

*Including blade.

# SD523

Drilling depth ~ 3 x D – Metric/Inch






- Seco-Capto™ C4 shank
- Internal coolant
- For insert information see page(s) 294-300
- For cutting data see page(s) 303-304
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | LUX | LFS | DF | Insert | | Radial adjustment | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | Center insert | Periph insert | mm -<br>*Inch -* | mm +<br>*Inch +* |
| SD523-15-45-C4 | 03080920 | 15,0<br>*0.591* | 45,0<br>*1.772* | 50,0<br>*1.969* | 82,0<br>*3.228* | 40,0<br>*1.575* | SPGX0502 | SCGX050204 | 0,22<br>*0.009* | 0,31<br>*0.012* |
| SD523-15.5-47-C4 | 03080921 | 15,5<br>*0.610* | 47,0<br>*1.850* | 52,0<br>*2.047* | 84,0<br>*3.307* | 40,0<br>*1.575* | SPGX0502 | SCGX050204 | 0,17<br>*0.007* | 0,36<br>*0.014* |
| SD523-16-48-C4 | 03080922 | 16,0<br>*0.630* | 48,0<br>*1.890* | 53,0<br>*2.087* | 86,0<br>*3.386* | 40,0<br>*1.575* | SPGX0502 | SCGX050204 | 0,12<br>*0.005* | 0,41<br>*0.016* |
| SD523-16.5-50-C4 | 03080923 | 16,5<br>*0.650* | 50,0<br>*1.969* | 55,0<br>*2.165* | 88,0<br>*3.465* | 40,0<br>*1.575* | SPGX0502 | SCGX050204 | 0,07<br>*0.003* | 0,46<br>*0.018* |
| SD523-17-51-C4 | 03080925 | 17,0<br>*0.669* | 51,0<br>*2.008* | 56,0<br>*2.205* | 89,0<br>*3.504* | 40,0<br>*1.575* | SPGX0502 | SCGX050204 | 0,02<br>*0.001* | 0,5<br>*0.020* |
| SD523-17.5-53-C4 | 03080926 | 17,5<br>*0.689* | 53,0<br>*2.087* | 58,0<br>*2.283* | 92,0<br>*3.622* | 40,0<br>*1.575* | SPGX0602 | SCGX050204 | 0,43<br>*0.017* | 0,1<br>*0.004* |
| SD523-18-54-C4 | 03080927 | 18,0<br>*0.709* | 54,0<br>*2.126* | 59,0<br>*2.323* | 93,0<br>*3.661* | 40,0<br>*1.575* | SPGX0602 | SCGX050204 | 0,32<br>*0.013* | 0,21<br>*0.008* |
| SD523-18.5-56-C4 | 03080928 | 18,5<br>*0.728* | 56,0<br>*2.205* | 61,0<br>*2.402* | 95,0<br>*3.740* | 40,0<br>*1.575* | SPGX0602 | SCGX050204 | 0,22<br>*0.009* | 0,31<br>*0.012* |
| SD523-19-57-C4 | 03080929 | 19,0<br>*0.748* | 57,0<br>*2.244* | 62,0<br>*2.441* | 96,0<br>*3.780* | 40,0<br>*1.575* | SPGX0602 | SCGX050204 | 0,11<br>*0.004* | 0,42<br>*0.017* |
| SD523-20-60-C4 | 03080930 | 20,0<br>*0.787* | 60,0<br>*2.362* | 65,0<br>*2.559* | 101,0<br>*3.976* | 40,0<br>*1.575* | SPGX0602 | SCGX060204 | 0,07<br>*0.003* | 0,46<br>*0.018* |
| SD523-20.62-62-C4 | 03081006 | 20,62<br>*0.812* | 62,0<br>*2.441* | 67,0<br>*2.638* | 103,0<br>*4.055* | 40,0<br>*1.575* | SPGX0602 | SCGX060204 | 0,03<br>*0.001* | 0,5<br>*0.020* |
| SD523-21-63-C4 | 03080931 | 21,0<br>*0.827* | 63,0<br>*2.480* | 68,0<br>*2.677* | 104,0<br>*4.094* | 40,0<br>*1.575* | SPGX0602 | SCGX060204 | 0,01<br>*0* | 0,5<br>*0.020* |
| SD523-22-66-C4 | 03080932 | 22,0<br>*0.866* | 66,0<br>*2.598* | 71,0<br>*2.795* | 107,0<br>*4.213* | 40,0<br>*1.575* | SPGX0703 | SCGX060204 | 0,44<br>*0.017* | 0,46<br>*0.018* |
| SD523-22.23-67-C4 | 03081008 | 22,23<br>*0.875* | 67,0<br>*2.638* | 72,0<br>*2.835* | 108,0<br>*4.252* | 40,0<br>*1.575* | SPGX0703 | SCGX060204 | 0,39<br>*0.015* | 0,5<br>*0.020* |
| SD523-23-69-C4 | 03080933 | 23,0<br>*0.906* | 69,0<br>*2.717* | 74,0<br>*2.913* | 111,0<br>*4.370* | 40,0<br>*1.575* | SPGX0703 | SCGX070308 | 0,33<br>*0.013* | 0,5<br>*0.020* |
| SD523-24-72-C4 | 03080934 | 24,0<br>*0.945* | 72,0<br>*2.835* | 77,0<br>*3.031* | 115,0<br>*4.528* | 40,0<br>*1.575* | SPGX0703 | SCGX070308 | 0,11<br>*0.004* | 0,5<br>*0.020* |
| SD523-25-75-C4 | 03080935 | 25,0<br>*0.984* | 75,0<br>*2.953* | 80,0<br>*3.150* | 119,0<br>*4.685* | 40,0<br>*1.575* | SPGX0703 | SCGX070308 | 0,11<br>*0.004* | 0,5<br>*0.020* |
| SD523-25.4-77-C4 | 03081009 | 25,4<br>*1.000* | 77,0<br>*3.031* | 82,0<br>*3.228* | 121,0<br>*4.764* | 40,0<br>*1.575* | SPGX0703 | SCGX070308 | 0,11<br>*0.004* | 0,5<br>*0.020* |
| SD523-26-78-C4 | 03080936 | 26,0<br>*1.024* | 78,0<br>*3.071* | 83,0<br>*3.268* | 122,0<br>*4.803* | 40,0<br>*1.575* | SPGX0903 | SCGX070308 | 0,5<br>*0.020* | 0,11<br>*0.004* |
| SD523-27-81-C4 | 03080937 | 27,0<br>*1.063* | 81,0<br>*3.189* | 86,0<br>*3.386* | 125,0<br>*4.921* | 40,0<br>*1.575* | SPGX0903 | SCGX070308 | 0,5<br>*0.020* | 0,26<br>*0.010* |
| SD523-28-84-C4 | 03080938 | 28,0<br>*1.102* | 84,0<br>*3.307* | 89,0<br>*3.504* | 129,0<br>*5.079* | 40,0<br>*1.575* | SPGX0903 | SCGX070308 | 0,28<br>*0.011* | 0,5<br>*0.020* |
| SD523-28.59-86-C4 | 03081010 | 28,59<br>*1.126* | 86,0<br>*3.386* | 91,0<br>*3.583* | 131,0<br>*5.157* | 40,0<br>*1.575* | SPGX0903 | SCGX09T308 | 0,21<br>*0.008* | 0,5<br>*0.020* |

| Designation | Item number | DC | LU | LUX | LFS | DF | Insert | | Radial adjustment | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | Center insert | Periph insert | mm -<br>*Inch -* | mm +<br>*Inch +* |
| SD523-29-87-C4 | 03080939 | 29,0<br>*1.142* | 87,0<br>*3.425* | 92,0<br>*3.622* | 132,0<br>*5.197* | 40,0<br>*1.575* | SPGX0903 | SCGX09T308 | 0,18<br>*0.007* | 0,5<br>*0.020* |
| SD523-30-90-C4 | 03080940 | 30,0<br>*1.181* | 90,0<br>*3.543* | 95,0<br>*3.740* | 135,0<br>*5.315* | 40,0<br>*1.575* | SPGX0903 | SCGX09T308 | 0,12<br>*0.005* | 0,5<br>*0.020* |

## Spare Parts, included in delivery

| For drill dia. (mm) | Insert screw | | Insert key |
|---|---|---|---|
| |  | |  |
| | Center insert | Periph insert | |
| 15,00-17,45 | C02245-T07P | C02245-T07P | T07P-2 |
| 17,46-19,49 | C02205-T07P | C02245-T07P | T07P-2 |
| 19,50-21,24 | C02205-T07P | C02205-T07P | T07P-2 |
| 21,25-22,49 | C02506-T08P | C02506-T08P | T08P-2 |
| 22,50-25,49 | C02507-T08P | C03007-T08P | T08P-2 |
| 25,50-28,49 | C03007-T09P | C03007-T09P | T09P-2 |
| 28,50-31,49 | C03007-T09P | C03009-T09P | T09P-2 |
| 31,50-40,49 | C03508-T15P | C03508-T15P | T15P-2D |
| 40,50-43,24 | C03508-T15P | C05012-T15P | T15P-2D |
| 43,25-59,00 | C04011-T15P | C05012-T15P | T15P-2D |

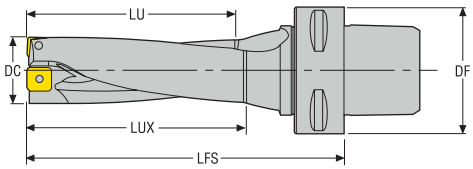
## Accessories

| For drill dia. (mm) | Torque wrench* | Replacement blade | Torque value |
|---|---|---|---|
| |  |  | |
| 15,00-17,45 | T00-07P09 | T00-07P | 0,9 Nm |
| 17,46-19,49 | T00-07P09 | T00-07P | 0,9 Nm |
| 19,50-21,24 | T00-07P09 | T00-07P | 0,9 Nm |
| 21,25-22,49 | T00-08P12 | T00-08P | 1,2 Nm |
| 22,50-25,49 | T00-08P12 | T00-08P | 1,2 Nm |
| 25,50-28,49 | T00-09P20 | T00-09P | 2,0 Nm |
| 28,50-31,49 | T00-09P20 | T00-09P | 2,0 Nm |
| 31,50-40,49 | T00-15P30 | T00-15P | 3,0 Nm |
| 40,50-43,24 | T00-15P30 | T00-15P | 3,0 Nm |
| 43,25-59,00 | T00-15P30 | T00-15P | 3,0 Nm |

*Including blade.

# SD523

Drilling depth ~ 3 x D – Metric/Inch






- Seco-Capto™ C5 shank
- Internal coolant
- For insert information see page(s) 294-300
- For cutting data see page(s) 303-304
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | LUX | LFS | DF | Insert | | Radial adjustment | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | Center insert | Periph insert | mm -<br>*Inch -* | mm +<br>*Inch +* |
| SD523-15-45-C5 | 03080941 | 15,0<br>*0.591* | 45,0<br>*1.772* | 50,0<br>*1.969* | 82,0<br>*3.228* | 50,0<br>*1.969* | SPGX0502 | SCGX050204 | 0,22<br>*0.009* | 0,31<br>*0.012* |
| SD523-15.5-47-C5 | 03080942 | 15,5<br>*0.610* | 47,0<br>*1.850* | 52,0<br>*2.047* | 84,0<br>*3.307* | 50,0<br>*1.969* | SPGX0502 | SCGX050204 | 0,17<br>*0.007* | 0,36<br>*0.014* |
| SD523-16-48-C5 | 03080943 | 16,0<br>*0.630* | 48,0<br>*1.890* | 53,0<br>*2.087* | 86,0<br>*3.386* | 50,0<br>*1.969* | SPGX0502 | SCGX050204 | 0,12<br>*0.005* | 0,41<br>*0.016* |
| SD523-16.5-50-C5 | 03080944 | 16,5<br>*0.650* | 50,0<br>*1.969* | 55,0<br>*2.165* | 88,0<br>*3.465* | 50,0<br>*1.969* | SPGX0502 | SCGX050204 | 0,07<br>*0.003* | 0,46<br>*0.018* |
| SD523-17-51-C5 | 03080945 | 17,0<br>*0.669* | 51,0<br>*2.008* | 56,0<br>*2.205* | 89,0<br>*3.504* | 50,0<br>*1.969* | SPGX0502 | SCGX050204 | 0,02<br>*0.001* | 0,5<br>*0.020* |
| SD523-17.5-53-C5 | 03080946 | 17,5<br>*0.689* | 53,0<br>*2.087* | 58,0<br>*2.283* | 92,0<br>*3.622* | 50,0<br>*1.969* | SPGX0602 | SCGX050204 | 0,43<br>*0.017* | 0,1<br>*0.004* |
| SD523-18-54-C5 | 03080947 | 18,0<br>*0.709* | 54,0<br>*2.126* | 59,0<br>*2.323* | 93,0<br>*3.661* | 50,0<br>*1.969* | SPGX0602 | SCGX050204 | 0,32<br>*0.013* | 0,21<br>*0.008* |
| SD523-18.5-56-C5 | 03080948 | 18,5<br>*0.728* | 56,0<br>*2.205* | 61,0<br>*2.402* | 95,0<br>*3.740* | 50,0<br>*1.969* | SPGX0602 | SCGX050204 | 0,22<br>*0.009* | 0,31<br>*0.012* |
| SD523-19-57-C5 | 03080949 | 19,0<br>*0.748* | 57,0<br>*2.244* | 62,0<br>*2.441* | 96,0<br>*3.780* | 50,0<br>*1.969* | SPGX0602 | SCGX050204 | 0,11<br>*0.004* | 0,42<br>*0.017* |
| SD523-20-60-C5 | 03080950 | 20,0<br>*0.787* | 60,0<br>*2.362* | 65,0<br>*2.559* | 101,0<br>*3.976* | 50,0<br>*1.969* | SPGX0602 | SCGX060204 | 0,07<br>*0.003* | 0,46<br>*0.018* |
| SD523-20.62-62-C5 | 03081001 | 20,62<br>*0.812* | 62,0<br>*2.441* | 67,0<br>*2.638* | 103,0<br>*4.055* | 50,0<br>*1.969* | SPGX0602 | SCGX060204 | 0,03<br>*0.001* | 0,5<br>*0.020* |
| SD523-21-63-C5 | 03080951 | 21,0<br>*0.827* | 63,0<br>*2.480* | 68,0<br>*2.677* | 104,0<br>*4.094* | 50,0<br>*1.969* | SPGX0602 | SCGX060204 | 0,01<br>*0* | 0,5<br>*0.020* |
| SD523-22-66-C5 | 03080952 | 22,0<br>*0.866* | 66,0<br>*2.598* | 71,0<br>*2.795* | 107,0<br>*4.213* | 50,0<br>*1.969* | SPGX0703 | SCGX060204 | 0,44<br>*0.017* | 0,46<br>*0.018* |
| SD523-22.23-67-C5 | 03081002 | 22,23<br>*0.875* | 67,0<br>*2.638* | 72,0<br>*2.835* | 108,0<br>*4.252* | 50,0<br>*1.969* | SPGX0703 | SCGX060204 | 0,39<br>*0.015* | 0,5<br>*0.020* |
| SD523-23-69-C5 | 03080953 | 23,0<br>*0.906* | 69,0<br>*2.717* | 74,0<br>*2.913* | 111,0<br>*4.370* | 50,0<br>*1.969* | SPGX0703 | SCGX070308 | 0,33<br>*0.013* | 0,5<br>*0.020* |
| SD523-24-72-C5 | 03080954 | 24,0<br>*0.945* | 72,0<br>*2.835* | 77,0<br>*3.031* | 115,0<br>*4.528* | 50,0<br>*1.969* | SPGX0703 | SCGX070308 | 0,11<br>*0.004* | 0,5<br>*0.020* |
| SD523-25-75-C5 | 03080955 | 25,0<br>*0.984* | 75,0<br>*2.953* | 80,0<br>*3.150* | 119,0<br>*4.685* | 50,0<br>*1.969* | SPGX0703 | SCGX070308 | 0,11<br>*0.004* | 0,5<br>*0.020* |
| SD523-25.4-77-C5 | 03081003 | 25,4<br>*1.000* | 77,0<br>*3.031* | 82,0<br>*3.228* | 121,0<br>*4.764* | 50,0<br>*1.969* | SPGX0703 | SCGX070308 | 0,11<br>*0.004* | 0,5<br>*0.020* |
| SD523-26-78-C5 | 03080956 | 26,0<br>*1.024* | 78,0<br>*3.071* | 83,0<br>*3.268* | 122,0<br>*4.803* | 50,0<br>*1.969* | SPGX0903 | SCGX070308 | 0,5<br>*0.020* | 0,11<br>*0.004* |
| SD523-27-81-C5 | 03080957 | 27,0<br>*1.063* | 81,0<br>*3.189* | 86,0<br>*3.386* | 125,0<br>*4.921* | 50,0<br>*1.969* | SPGX0903 | SCGX070308 | 0,5<br>*0.020* | 0,26<br>*0.010* |
| SD523-28-84-C5 | 03080958 | 28,0<br>*1.102* | 84,0<br>*3.307* | 89,0<br>*3.504* | 129,0<br>*5.079* | 50,0<br>*1.969* | SPGX0903 | SCGX070308 | 0,28<br>*0.011* | 0,5<br>*0.020* |
| SD523-28.59-86-C5 | 03081004 | 28,59<br>*1.126* | 86,0<br>*3.386* | 91,0<br>*3.583* | 131,0<br>*5.157* | 50,0<br>*1.969* | SPGX0903 | SCGX09T308 | 0,21<br>*0.008* | 0,5<br>*0.020* |

| Designation | Item number | DC | LU | LUX | LFS | DF | Insert | | Radial adjustment | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | Center insert | Periph insert | mm -<br>*Inch -* | mm +<br>*Inch +* |
| SD523-29-87-C5 | 03080959 | 29,0<br>*1.142* | 87,0<br>*3.425* | 92,0<br>*3.622* | 132,0<br>*5.197* | 50,0<br>*1.969* | SPGX0903 | SCGX09T308 | 0,18<br>*0.007* | 0,5<br>*0.020* |
| SD523-30-90-C5 | 03080960 | 30,0<br>*1.181* | 90,0<br>*3.543* | 95,0<br>*3.740* | 135,0<br>*5.315* | 50,0<br>*1.969* | SPGX0903 | SCGX09T308 | 0,12<br>*0.005* | 0,5<br>*0.020* |
| SD523-31-93-C5 | 03080961 | 31,0<br>*1.220* | 93,0<br>*3.661* | 98,0<br>*3.858* | 138,0<br>*5.433* | 50,0<br>*1.969* | SPGX0903 | SCGX09T308 | 0,12<br>*0.005* | 0,5<br>*0.020* |
| SD523-31.75-96-C5 | 03081005 | 31,75<br>*1.250* | 96,0<br>*3.780* | 101,0<br>*3.976* | 142,0<br>*5.591* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 | 0,5<br>*0.020* | 0,28<br>*0.011* |
| SD523-32-96-C5 | 03080962 | 32,0<br>*1.260* | 96,0<br>*3.780* | 101,0<br>*3.976* | 142,0<br>*5.591* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 | 0,5<br>*0.020* | 0,31<br>*0.012* |
| SD523-33-99-C5 | 03080963 | 33,0<br>*1.299* | 99,0<br>*3.898* | 104,0<br>*4.094* | 145,0<br>*5.709* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 | 0,5<br>*0.020* | 0,46<br>*0.018* |
| SD523-34-102-C5 | 03080964 | 34,0<br>*1.339* | 102,0<br>*4.016* | 107,0<br>*4.213* | 148,0<br>*5.827* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 | 0,22<br>*0.009* | 0,5<br>*0.020* |
| SD523-35-105-C5 | 03080965 | 35,0<br>*1.378* | 105,0<br>*4.134* | 110,0<br>*4.331* | 151,0<br>*5.945* | 50,0<br>*1.969* | SPGX11T3 | SCGX11T308 | 0,22<br>*0.009* | 0,5<br>*0.020* |
| SD523-36-108-C5 | 03080966 | 36,0<br>*1.417* | 108,0<br>*4.252* | 113,0<br>*4.449* | 154,0<br>*6.063* | 50,0<br>*1.969* | SPGX11T3 | SCGX11T308 | 0,09<br>*0.004* | 0,5<br>*0.020* |
| SD523-37-111-C5 | 03080967 | 37,0<br>*1.457* | 111,0<br>*4.370* | 116,0<br>*4.567* | 157,0<br>*6.181* | 50,0<br>*1.969* | SPGX11T3 | SCGX11T308 | 0,09<br>*0.004* | 0,5<br>*0.020* |
| SD523-38-114-C5 | 03080968 | 38,0<br>*1.496* | 114,0<br>*4.488* | 119,0<br>*4.685* | 160,0<br>*6.299* | 50,0<br>*1.969* | SPGX12T3 | SCGX11T308 | 0,5<br>*0.020* | 0,5<br>*0.020* |
| SD523-39-117-C5 | 03080969 | 39,0<br>*1.535* | 117,0<br>*4.606* | 122,0<br>*4.803* | 163,0<br>*6.417* | 50,0<br>*1.969* | SPGX12T3 | SCGX11T308 | 0,39<br>*0.015* | 0,5<br>*0.020* |
| SD523-40-120-C5 | 03080970 | 40,0<br>*1.575* | 120,0<br>*4.724* | 125,0<br>*4.921* | 166,0<br>*6.535* | 50,0<br>*1.969* | SPGX12T3 | SCGX11T308 | 0,19<br>*0.007* | 0,5<br>*0.020* |

## Spare Parts, included in delivery

| For drill dia. (mm) | Insert screw | | Insert key |
|---|---|---|---|
| |  | |  |
| | Center insert | Periph insert | |
| 15,00-17,45 | C02245-T07P | C02245-T07P | T07P-2 |
| 17,46-19,49 | C02205-T07P | C02245-T07P | T07P-2 |
| 19,50-21,24 | C02205-T07P | C02205-T07P | T07P-2 |
| 21,25-22,49 | C02506-T08P | C02506-T08P | T08P-2 |
| 22,50-25,49 | C02507-T08P | C03007-T08P | T08P-2 |
| 25,50-28,49 | C03007-T09P | C03007-T09P | T09P-2 |
| 28,50-31,49 | C03007-T09P | C03009-T09P | T09P-2 |
| 31,50-40,49 | C03508-T15P | C03508-T15P | T15P-2D |
| 40,50-43,24 | C03508-T15P | C05012-T15P | T15P-2D |
| 43,25-59,00 | C04011-T15P | C05012-T15P | T15P-2D |

## Accessories

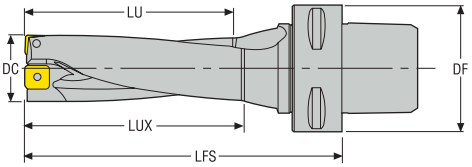
| For drill dia. (mm) | Torque wrench* | Replacement blade | Torque value |
|---|---|---|---|
| |  |  | |
| 15,00-17,45 | T00-07P09 | T00-07P | 0,9 Nm |
| 17,46-19,49 | T00-07P09 | T00-07P | 0,9 Nm |
| 19,50-21,24 | T00-07P09 | T00-07P | 0,9 Nm |
| 21,25-22,49 | T00-08P12 | T00-08P | 1,2 Nm |
| 22,50-25,49 | T00-08P12 | T00-08P | 1,2 Nm |
| 25,50-28,49 | T00-09P20 | T00-09P | 2,0 Nm |
| 28,50-31,49 | T00-09P20 | T00-09P | 2,0 Nm |
| 31,50-40,49 | T00-15P30 | T00-15P | 3,0 Nm |
| 40,50-43,24 | T00-15P30 | T00-15P | 3,0 Nm |
| 43,25-59,00 | T00-15P30 | T00-15P | 3,0 Nm |

*Including blade.

# SD523

Drilling depth ~ 3 x D – Metric/Inch






- Seco-Capto™ C6 shank
- Internal coolant
- For insert information see page(s) 294-300
- For cutting data see page(s) 303-304
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | LUX | LFS | DF | Insert | | Radial adjustment | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | Center insert | Periph insert | mm -<br>*Inch -* | mm +<br>*Inch +* |
| SD523-15-45-C6 | 03080971 | 15,0<br>*0.591* | 45,0<br>*1.772* | 50,0<br>*1.969* | 84,0<br>*3.307* | 63,0<br>*2.480* | SPGX0502 | SCGX050204 | 0,22<br>*0.009* | 0,31<br>*0.012* |
| SD523-15.5-47-C6 | 03080972 | 15,5<br>*0.610* | 47,0<br>*1.850* | 52,0<br>*2.047* | 86,0<br>*3.386* | 63,0<br>*2.480* | SPGX0502 | SCGX050204 | 0,17<br>*0.007* | 0,36<br>*0.014* |
| SD523-16-48-C6 | 03080973 | 16,0<br>*0.630* | 48,0<br>*1.890* | 53,0<br>*2.087* | 88,0<br>*3.465* | 63,0<br>*2.480* | SPGX0502 | SCGX050204 | 0,12<br>*0.005* | 0,41<br>*0.016* |
| SD523-16.5-50-C6 | 03080974 | 16,5<br>*0.650* | 50,0<br>*1.969* | 55,0<br>*2.165* | 90,0<br>*3.543* | 63,0<br>*2.480* | SPGX0502 | SCGX050204 | 0,07<br>*0.003* | 0,46<br>*0.018* |
| SD523-17-51-C6 | 03080975 | 17,0<br>*0.669* | 51,0<br>*2.008* | 56,0<br>*2.205* | 91,0<br>*3.583* | 63,0<br>*2.480* | SPGX0502 | SCGX050204 | 0,02<br>*0.001* | 0,5<br>*0.020* |
| SD523-17.5-53-C6 | 03080976 | 17,5<br>*0.689* | 53,0<br>*2.087* | 58,0<br>*2.283* | 94,0<br>*3.701* | 63,0<br>*2.480* | SPGX0602 | SCGX050204 | 0,43<br>*0.017* | 0,1<br>*0.004* |
| SD523-18-54-C6 | 03080977 | 18,0<br>*0.709* | 54,0<br>*2.126* | 59,0<br>*2.323* | 95,0<br>*3.740* | 63,0<br>*2.480* | SPGX0602 | SCGX050204 | 0,32<br>*0.013* | 0,21<br>*0.008* |
| SD523-18.5-56-C6 | 03080978 | 18,5<br>*0.728* | 56,0<br>*2.205* | 61,0<br>*2.402* | 97,0<br>*3.819* | 63,0<br>*2.480* | SPGX0602 | SCGX050204 | 0,22<br>*0.009* | 0,31<br>*0.012* |
| SD523-19-57-C6 | 03080979 | 19,0<br>*0.748* | 57,0<br>*2.244* | 62,0<br>*2.441* | 98,0<br>*3.858* | 63,0<br>*2.480* | SPGX0602 | SCGX050204 | 0,11<br>*0.004* | 0,42<br>*0.017* |
| SD523-20-60-C6 | 03080980 | 20,0<br>*0.787* | 60,0<br>*2.362* | 65,0<br>*2.559* | 103,0<br>*4.055* | 63,0<br>*2.480* | SPGX0602 | SCGX060204 | 0,07<br>*0.003* | 0,46<br>*0.018* |
| SD523-20.62-62-C6 | 03081011 | 20,62<br>*0.812* | 62,0<br>*2.441* | 67,0<br>*2.638* | 105,0<br>*4.134* | 63,0<br>*2.480* | SPGX0602 | SCGX060204 | 0,03<br>*0.001* | 0,5<br>*0.020* |
| SD523-21-63-C6 | 03080981 | 21,0<br>*0.827* | 63,0<br>*2.480* | 68,0<br>*2.677* | 106,0<br>*4.173* | 63,0<br>*2.480* | SPGX0602 | SCGX060204 | 0,01<br>*0* | 0,5<br>*0.020* |
| SD523-22-66-C6 | 03080982 | 22,0<br>*0.866* | 66,0<br>*2.598* | 71,0<br>*2.795* | 109,0<br>*4.291* | 63,0<br>*2.480* | SPGX0703 | SCGX060204 | 0,44<br>*0.017* | 0,46<br>*0.018* |
| SD523-22.23-67-C6 | 03081012 | 22,23<br>*0.875* | 67,0<br>*2.638* | 72,0<br>*2.835* | 110,0<br>*4.331* | 63,0<br>*2.480* | SPGX0703 | SCGX060204 | 0,39<br>*0.015* | 0,5<br>*0.020* |
| SD523-23-69-C6 | 03080983 | 23,0<br>*0.906* | 69,0<br>*2.717* | 74,0<br>*2.913* | 113,0<br>*4.449* | 63,0<br>*2.480* | SPGX0703 | SCGX070308 | 0,33<br>*0.013* | 0,5<br>*0.020* |
| SD523-24-72-C6 | 03080984 | 24,0<br>*0.945* | 72,0<br>*2.835* | 77,0<br>*3.031* | 117,0<br>*4.606* | 63,0<br>*2.480* | SPGX0703 | SCGX070308 | 0,11<br>*0.004* | 0,5<br>*0.020* |
| SD523-25-75-C6 | 03080985 | 25,0<br>*0.984* | 75,0<br>*2.953* | 80,0<br>*3.150* | 121,0<br>*4.764* | 63,0<br>*2.480* | SPGX0703 | SCGX070308 | 0,11<br>*0.004* | 0,5<br>*0.020* |
| SD523-25.4-77-C6 | 03081013 | 25,4<br>*1.000* | 77,0<br>*3.031* | 82,0<br>*3.228* | 123,0<br>*4.843* | 63,0<br>*2.480* | SPGX0703 | SCGX070308 | 0,11<br>*0.004* | 0,5<br>*0.020* |
| SD523-26-78-C6 | 03080986 | 26,0<br>*1.024* | 78,0<br>*3.071* | 83,0<br>*3.268* | 124,0<br>*4.882* | 63,0<br>*2.480* | SPGX0903 | SCGX070308 | 0,5<br>*0.020* | 0,11<br>*0.004* |
| SD523-27-81-C6 | 03080987 | 27,0<br>*1.063* | 81,0<br>*3.189* | 86,0<br>*3.386* | 127,0<br>*5.000* | 63,0<br>*2.480* | SPGX0903 | SCGX070308 | 0,5<br>*0.020* | 0,26<br>*0.010* |
| SD523-28-84-C6 | 03080988 | 28,0<br>*1.102* | 84,0<br>*3.307* | 89,0<br>*3.504* | 131,0<br>*5.157* | 63,0<br>*2.480* | SPGX0903 | SCGX070308 | 0,28<br>*0.011* | 0,5<br>*0.020* |
| SD523-28.59-86-C6 | 03081014 | 28,59<br>*1.126* | 86,0<br>*3.386* | 91,0<br>*3.583* | 133,0<br>*5.236* | 63,0<br>*2.480* | SPGX0903 | SCGX09T308 | 0,21<br>*0.008* | 0,5<br>*0.020* |

| Designation | Item number | DC | LU | LUX | LFS | DF | Insert | | Radial adjustment | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | Center insert | Periph insert | mm -<br>*Inch -* | mm +<br>*Inch +* |
| SD523-29-87-C6 | 03080989 | 29,0<br>*1.142* | 87,0<br>*3.425* | 92,0<br>*3.622* | 134,0<br>*5.276* | 63,0<br>*2.480* | SPGX0903 | SCGX09T308 | 0,18<br>*0.007* | 0,5<br>*0.020* |
| SD523-30-90-C6 | 03080990 | 30,0<br>*1.181* | 90,0<br>*3.543* | 95,0<br>*3.740* | 137,0<br>*5.394* | 63,0<br>*2.480* | SPGX0903 | SCGX09T308 | 0,12<br>*0.005* | 0,5<br>*0.020* |
| SD523-31-93-C6 | 03080991 | 31,0<br>*1.220* | 93,0<br>*3.661* | 98,0<br>*3.858* | 140,0<br>*5.512* | 63,0<br>*2.480* | SPGX0903 | SCGX09T308 | 0,12<br>*0.005* | 0,5<br>*0.020* |
| SD523-31.75-96-C6 | 03081015 | 31,75<br>*1.250* | 96,0<br>*3.780* | 101,0<br>*3.976* | 144,0<br>*5.669* | 63,0<br>*2.480* | SPGX11T3 | SCGX09T308 | 0,5<br>*0.020* | 0,28<br>*0.011* |
| SD523-32-96-C6 | 03080992 | 32,0<br>*1.260* | 96,0<br>*3.780* | 101,0<br>*3.976* | 144,0<br>*5.669* | 63,0<br>*2.480* | SPGX11T3 | SCGX09T308 | 0,5<br>*0.020* | 0,31<br>*0.012* |
| SD523-33-99-C6 | 03080993 | 33,0<br>*1.299* | 99,0<br>*3.898* | 104,0<br>*4.094* | 147,0<br>*5.787* | 63,0<br>*2.480* | SPGX11T3 | SCGX09T308 | 0,5<br>*0.020* | 0,46<br>*0.018* |
| SD523-34-102-C6 | 03080994 | 34,0<br>*1.339* | 102,0<br>*4.016* | 107,0<br>*4.213* | 150,0<br>*5.906* | 63,0<br>*2.480* | SPGX11T3 | SCGX09T308 | 0,22<br>*0.009* | 0,5<br>*0.020* |
| SD523-35-105-C6 | 03080995 | 35,0<br>*1.378* | 105,0<br>*4.134* | 110,0<br>*4.331* | 153,0<br>*6.024* | 63,0<br>*2.480* | SPGX11T3 | SCGX11T308 | 0,22<br>*0.009* | 0,5<br>*0.020* |
| SD523-36-108-C6 | 03080996 | 36,0<br>*1.417* | 108,0<br>*4.252* | 113,0<br>*4.449* | 156,0<br>*6.142* | 63,0<br>*2.480* | SPGX11T3 | SCGX11T308 | 0,09<br>*0.004* | 0,5<br>*0.020* |
| SD523-37-111-C6 | 03080997 | 37,0<br>*1.457* | 111,0<br>*4.370* | 116,0<br>*4.567* | 159,0<br>*6.260* | 63,0<br>*2.480* | SPGX11T3 | SCGX11T308 | 0,09<br>*0.004* | 0,5<br>*0.020* |
| SD523-38-114-C6 | 03080998 | 38,0<br>*1.496* | 114,0<br>*4.488* | 119,0<br>*4.685* | 162,0<br>*6.378* | 63,0<br>*2.480* | SPGX12T3 | SCGX11T308 | 0,5<br>*0.020* | 0,5<br>*0.020* |
| SD523-39-117-C6 | 03080999 | 39,0<br>*1.535* | 117,0<br>*4.606* | 122,0<br>*4.803* | 165,0<br>*6.496* | 63,0<br>*2.480* | SPGX12T3 | SCGX11T308 | 0,39<br>*0.015* | 0,5<br>*0.020* |
| SD523-40-120-C6 | 03081000 | 40,0<br>*1.575* | 120,0<br>*4.724* | 125,0<br>*4.921* | 168,0<br>*6.614* | 63,0<br>*2.480* | SPGX12T3 | SCGX11T308 | 0,19<br>*0.007* | 0,5<br>*0.020* |

## Spare Parts, included in delivery

| For drill dia. (mm) | Insert screw | | Insert key |
|---|---|---|---|
| |  | |  |
| | Center insert | Periph insert | |
| 15,00-17,45 | C02245-T07P | C02245-T07P | T07P-2 |
| 17,46-19,49 | C02205-T07P | C02245-T07P | T07P-2 |
| 19,50-21,24 | C02205-T07P | C02205-T07P | T07P-2 |
| 21,25-22,49 | C02506-T08P | C02506-T08P | T08P-2 |
| 22,50-25,49 | C02507-T08P | C03007-T08P | T08P-2 |
| 25,50-28,49 | C03007-T09P | C03007-T09P | T09P-2 |
| 28,50-31,49 | C03007-T09P | C03009-T09P | T09P-2 |
| 31,50-40,49 | C03508-T15P | C03508-T15P | T15P-2D |
| 40,50-43,24 | C03508-T15P | C05012-T15P | T15P-2D |
| 43,25-59,00 | C04011-T15P | C05012-T15P | T15P-2D |

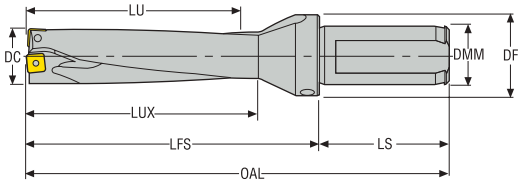
## Accessories

| For drill dia. (mm) | Torque wrench* | Replacement blade | Torque value |
|---|---|---|---|
| |  |  | |
| 15,00-17,45 | T00-07P09 | T00-07P | 0,9 Nm |
| 17,46-19,49 | T00-07P09 | T00-07P | 0,9 Nm |
| 19,50-21,24 | T00-07P09 | T00-07P | 0,9 Nm |
| 21,25-22,49 | T00-08P12 | T00-08P | 1,2 Nm |
| 22,50-25,49 | T00-08P12 | T00-08P | 1,2 Nm |
| 25,50-28,49 | T00-09P20 | T00-09P | 2,0 Nm |
| 28,50-31,49 | T00-09P20 | T00-09P | 2,0 Nm |
| 31,50-40,49 | T00-15P30 | T00-15P | 3,0 Nm |
| 40,50-43,24 | T00-15P30 | T00-15P | 3,0 Nm |
| 43,25-59,00 | T00-15P30 | T00-15P | 3,0 Nm |

*Including blade.

# SD524

## Drilling depth ~ 4 x D – Metric/Inch






- ISO 9766 shank, -7
- Internal coolant
- For insert information see page(s) 294-300
- For cutting data see page(s) 305, 306
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF | Insert | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | Center insert | Periph insert |
| SD524-17-68-25R7 | 03080330 | 17,0<br>*0.669* | 68,0<br>*2.677* | 154,0<br>*6.063* | 73,0<br>*2.874* | 98,0<br>*3.858* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0502 | SCGX050204 |
| SD524-17.5-70-25R7 | 03080326 | 17,5<br>*0.689* | 70,0<br>*2.756* | 156,0<br>*6.142* | 75,0<br>*2.953* | 100,0<br>*3.937* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0602 | SCGX050204 |
| SD524-18-72-25R7 | 03080333 | 18,0<br>*0.709* | 72,0<br>*2.835* | 158,0<br>*6.220* | 77,0<br>*3.031* | 102,0<br>*4.016* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0602 | SCGX050204 |
| SD524-18.5-74-25R7 | 03080331 | 18,5<br>*0.728* | 74,0<br>*2.913* | 160,0<br>*6.299* | 79,0<br>*3.110* | 104,0<br>*4.094* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0602 | SCGX050204 |
| SD524-19-76-25R7 | 03080336 | 19,0<br>*0.748* | 76,0<br>*2.992* | 162,0<br>*6.378* | 81,0<br>*3.189* | 106,0<br>*4.173* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0602 | SCGX050204 |
| SD524-20-80-25R7 | 03080340 | 20,0<br>*0.787* | 80,0<br>*3.150* | 166,0<br>*6.535* | 85,0<br>*3.346* | 110,0<br>*4.331* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0602 | SCGX060204 |
| SD524-21-84-25R7 | 03080344 | 21,0<br>*0.827* | 84,0<br>*3.307* | 170,0<br>*6.693* | 89,0<br>*3.504* | 114,0<br>*4.488* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0602 | SCGX060204 |
| SD524-22-88-25R7 | 03080348 | 22,0<br>*0.866* | 88,0<br>*3.465* | 174,0<br>*6.850* | 93,0<br>*3.661* | 118,0<br>*4.646* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0703 | SCGX060204 |
| SD524-23-92-25R7 | 03080351 | 23,0<br>*0.906* | 92,0<br>*3.622* | 178,0<br>*7.008* | 97,0<br>*3.819* | 122,0<br>*4.803* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0703 | SCGX070308 |
| SD524-24-96-25R7 | 03080352 | 24,0<br>*0.945* | 96,0<br>*3.780* | 182,0<br>*7.165* | 101,0<br>*3.976* | 126,0<br>*4.961* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0703 | SCGX070308 |
| SD524-25-100-32R7 | 03080353 | 25,0<br>*0.984* | 100,0<br>*3.937* | 190,0<br>*7.480* | 105,0<br>*4.134* | 130,0<br>*5.118* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0703 | SCGX070308 |
| SD524-26-104-32R7 | 03080354 | 26,0<br>*1.024* | 104,0<br>*4.094* | 194,0<br>*7.638* | 109,0<br>*4.291* | 134,0<br>*5.276* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0903 | SCGX070308 |
| SD524-27-108-32R7 | 03080355 | 27,0<br>*1.063* | 108,0<br>*4.252* | 198,0<br>*7.795* | 113,0<br>*4.449* | 138,0<br>*5.433* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0903 | SCGX070308 |
| SD524-28-112-32R7 | 03080356 | 28,0<br>*1.102* | 112,0<br>*4.409* | 202,0<br>*7.953* | 117,0<br>*4.606* | 142,0<br>*5.591* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0903 | SCGX070308 |
| SD524-29-116-32R7 | 03080357 | 29,0<br>*1.142* | 116,0<br>*4.567* | 206,0<br>*8.110* | 121,0<br>*4.764* | 146,0<br>*5.748* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0903 | SCGX09T308 |
| SD524-30-120-32R7 | 03080358 | 30,0<br>*1.181* | 120,0<br>*4.724* | 210,0<br>*8.268* | 125,0<br>*4.921* | 150,0<br>*5.906* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0903 | SCGX09T308 |
| SD524-31-124-32R7 | 03080360 | 31,0<br>*1.220* | 124,0<br>*4.882* | 214,0<br>*8.425* | 129,0<br>*5.079* | 154,0<br>*6.063* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0903 | SCGX09T308 |
| SD524-32-128-40R7 | 03080361 | 32,0<br>*1.260* | 128,0<br>*5.039* | 226,0<br>*8.898* | 133,0<br>*5.236* | 158,0<br>*6.220* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 |
| SD524-33-132-40R7 | 03080362 | 33,0<br>*1.299* | 132,0<br>*5.197* | 230,0<br>*9.055* | 137,0<br>*5.394* | 162,0<br>*6.378* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 |
| SD524-34-136-40R7 | 03080363 | 34,0<br>*1.339* | 136,0<br>*5.354* | 234,0<br>*9.213* | 141,0<br>*5.551* | 166,0<br>*6.535* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 |
| SD524-35-140-40R7 | 03080364 | 35,0<br>*1.378* | 140,0<br>*5.512* | 238,0<br>*9.370* | 145,0<br>*5.709* | 170,0<br>*6.693* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX11T3 | SCGX11T308 |
| SD524-36-144-40R7 | 03080365 | 36,0<br>*1.417* | 144,0<br>*5.669* | 242,0<br>*9.528* | 149,0<br>*5.866* | 174,0<br>*6.850* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX11T3 | SCGX11T308 |

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF | Insert | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | Center insert | Periph insert |
| SD524-37-148-40R7 | 03080366 | 37,0<br>*1.457* | 148,0<br>*5.827* | 246,0<br>*9.685* | 153,0<br>*6.024* | 178,0<br>*7.008* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX11T3 | SCGX11T308 |
| SD524-38-152-40R7 | 03080367 | 38,0<br>*1.496* | 152,0<br>*5.984* | 250,0<br>*9.843* | 157,0<br>*6.181* | 182,0<br>*7.165* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX12T3 | SCGX11T308 |
| SD524-39-156-40R7 | 03080368 | 39,0<br>*1.535* | 156,0<br>*6.142* | 254,0<br>*10.000* | 161,0<br>*6.339* | 186,0<br>*7.323* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX12T3 | SCGX11T308 |
| SD524-40-160-40R7 | 03080369 | 40,0<br>*1.575* | 160,0<br>*6.299* | 258,0<br>*10.157* | 165,0<br>*6.496* | 190,0<br>*7.480* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX12T3 | SCGX11T308 |
| SD524-41-164-40R7 | 03080370 | 41,0<br>*1.614* | 164,0<br>*6.457* | 262,0<br>*10.315* | 169,0<br>*6.654* | 194,0<br>*7.638* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX12T3 | SCGX120408 |
| SD524-42-168-40R7 | 03080371 | 42,0<br>*1.654* | 168,0<br>*6.614* | 266,0<br>*10.472* | 173,0<br>*6.811* | 198,0<br>*7.795* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX12T3 | SCGX120408 |
| SD524-43-172-40R7 | 03080372 | 43,0<br>*1.693* | 172,0<br>*6.772* | 270,0<br>*10.630* | 177,0<br>*6.969* | 202,0<br>*7.953* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX12T3 | SCGX120408 |
| SD524-44-176-40R7 | 03080373 | 44,0<br>*1.732* | 176,0<br>*6.929* | 274,0<br>*10.787* | 181,0<br>*7.126* | 206,0<br>*8.110* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX1504 | SCGX120408 |
| SD524-45-180-40R7 | 03080374 | 45,0<br>*1.772* | 180,0<br>*7.087* | 278,0<br>*10.945* | 185,0<br>*7.283* | 210,0<br>*8.268* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX1504 | SCGX150512 |
| SD524-46-184-40R7 | 03080375 | 46,0<br>*1.811* | 184,0<br>*7.244* | 282,0<br>*11.102* | 189,0<br>*7.441* | 214,0<br>*8.425* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX1504 | SCGX150512 |
| SD524-47-188-40R7 | 03080376 | 47,0<br>*1.850* | 188,0<br>*7.402* | 286,0<br>*11.260* | 193,0<br>*7.598* | 218,0<br>*8.583* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX1504 | SCGX150512 |
| SD524-48-192-40R7 | 03080377 | 48,0<br>*1.890* | 192,0<br>*7.559* | 290,0<br>*11.417* | 197,0<br>*7.756* | 222,0<br>*8.740* | 68,0<br>*2.677* | 40,0<br>*1.575* | 59,35<br>*2.337* | SPGX1504 | SCGX150512 |
| SD524-49-196-40R7 | 03080378 | 49,0<br>*1.929* | 196,0<br>*7.717* | 294,0<br>*11.575* | 201,0<br>*7.913* | 226,0<br>*8.898* | 68,0<br>*2.677* | 40,0<br>*1.575* | 59,35<br>*2.337* | SPGX1504 | SCGX150512 |
| SD524-50-200-40R7 | 03080379 | 50,0<br>*1.969* | 200,0<br>*7.874* | 298,0<br>*11.732* | 205,0<br>*8.071* | 230,0<br>*9.055* | 68,0<br>*2.677* | 40,0<br>*1.575* | 59,35<br>*2.337* | SPGX1504 | SCGX150512 |
| SD524-51-204-40R7 | 03080380 | 51,0<br>*2.008* | 204,0<br>*8.031* | 302,0<br>*11.890* | 209,0<br>*8.228* | 234,0<br>*9.213* | 68,0<br>*2.677* | 40,0<br>*1.575* | 59,35<br>*2.337* | SPGX1504 | SCGX150512 |
| SD524-52-208-40R7 | 03080381 | 52,0<br>*2.047* | 208,0<br>*8.189* | 306,0<br>*12.047* | 213,0<br>*8.386* | 238,0<br>*9.370* | 68,0<br>*2.677* | 40,0<br>*1.575* | 59,35<br>*2.337* | SPGX1904 | SCGX150512 |
| SD524-53-212-40R7 | 03080382 | 53,0<br>*2.087* | 212,0<br>*8.346* | 310,0<br>*12.205* | 217,0<br>*8.543* | 242,0<br>*9.528* | 68,0<br>*2.677* | 40,0<br>*1.575* | 59,35<br>*2.337* | SPGX1904 | SCGX150512 |
| SD524-54-216-40R7 | 03080383 | 54,0<br>*2.126* | 216,0<br>*8.504* | 314,0<br>*12.362* | 221,0<br>*8.701* | 246,0<br>*9.685* | 68,0<br>*2.677* | 40,0<br>*1.575* | 59,35<br>*2.337* | SPGX1904 | SCGX150512 |
| SD524-55-220-40R7 | 03080384 | 55,0<br>*2.165* | 220,0<br>*8.661* | 318,0<br>*12.520* | 225,0<br>*8.858* | 250,0<br>*9.843* | 68,0<br>*2.677* | 40,0<br>*1.575* | 59,35<br>*2.337* | SPGX1904 | SCGX150512 |
| SD524-56-224-40R7 | 03080385 | 56,0<br>*2.205* | 224,0<br>*8.819* | 322,0<br>*12.677* | 229,0<br>*9.016* | 254,0<br>*10.000* | 68,0<br>*2.677* | 40,0<br>*1.575* | 59,35<br>*2.337* | SPGX1904 | SCGX150512 |
| SD524-57-228-40R7 | 03080386 | 57,0<br>*2.244* | 228,0<br>*8.976* | 326,0<br>*12.835* | 233,0<br>*9.173* | 258,0<br>*10.157* | 68,0<br>*2.677* | 40,0<br>*1.575* | 59,35<br>*2.337* | SPGX1904 | SCGX150512 |
| SD524-58-232-40R7 | 03080387 | 58,0<br>*2.283* | 232,0<br>*9.134* | 330,0<br>*12.992* | 237,0<br>*9.331* | 262,0<br>*10.315* | 68,0<br>*2.677* | 40,0<br>*1.575* | 63,0<br>*2.480* | SPGX1904 | SCGX150512 |
| SD524-59-236-40R7 | 03080388 | 59,0<br>*2.323* | 236,0<br>*9.291* | 334,0<br>*13.150* | 241,0<br>*9.488* | 266,0<br>*10.472* | 68,0<br>*2.677* | 40,0<br>*1.575* | 63,0<br>*2.480* | SPGX1904 | SCGX150512 |

## Spare Parts, included in delivery

| For drill dia. (mm) | Insert screw | | Insert key |
|---|---|---|---|
| |  | |  |
| | Center insert | Periph insert | |
| 15,00-17,45 | C02245-T07P | C02245-T07P | T07P-2 |
| 17,46-19,49 | C02205-T07P | C02245-T07P | T07P-2 |
| 19,50-21,24 | C02205-T07P | C02205-T07P | T07P-2 |
| 21,25-22,49 | C02506-T08P | C02506-T08P | T08P-2 |
| 22,50-25,49 | C02507-T08P | C03007-T08P | T08P-2 |
| 25,50-28,49 | C03007-T09P | C03007-T09P | T09P-2 |
| 28,50-31,49 | C03007-T09P | C03009-T09P | T09P-2 |
| 31,50-40,49 | C03508-T15P | C03508-T15P | T15P-2D |
| 40,50-43,24 | C03508-T15P | C05012-T15P | T15P-2D |
| 43,25-59,00 | C04011-T15P | C05012-T15P | T15P-2D |

## Accessories

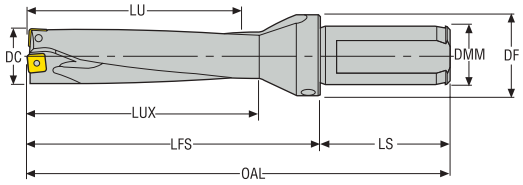
| For drill dia. (mm) | Torque wrench* | Replacement blade | Torque value |
|---|---|---|---|
| |  |  | |
| 15,00-17,45 | T00-07P09 | T00-07P | 0,9 Nm |
| 17,46-19,49 | T00-07P09 | T00-07P | 0,9 Nm |
| 19,50-21,24 | T00-07P09 | T00-07P | 0,9 Nm |
| 21,25-22,49 | T00-08P12 | T00-08P | 1,2 Nm |
| 22,50-25,49 | T00-08P12 | T00-08P | 1,2 Nm |
| 25,50-28,49 | T00-09P20 | T00-09P | 2,0 Nm |
| 28,50-31,49 | T00-09P20 | T00-09P | 2,0 Nm |
| 31,50-40,49 | T00-15P30 | T00-15P | 3,0 Nm |
| 40,50-43,24 | T00-15P30 | T00-15P | 3,0 Nm |
| 43,25-59,00 | T00-15P30 | T00-15P | 3,0 Nm |

*Including blade.

# SD524

Drilling depth ~ 4 x D – Inch






- ISO 9766 shank, R7
- Internal coolant
- For insert information see page(s) 294-300
- For cutting data see page(s) 305, 306
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF | Insert | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | Center insert | Periph insert |
| SD524-0594-238-1000R7 | 03080280 | 0.594 | 2.380 | 5.811 | 2.577 | 3.561 | 2.250 | 1.000 | 1.378 | SPGX0502 | SCGX050204 |
| SD524-0625-250-1000R7 | 03080281 | 0.625 | 2.500 | 5.931 | 2.697 | 3.681 | 2.250 | 1.000 | 1.378 | SPGX0502 | SCGX050204 |
| SD524-0656-262-1000R7 | 03080283 | 0.656 | 2.620 | 6.051 | 2.817 | 3.801 | 2.250 | 1.000 | 1.378 | SPGX0502 | SCGX050204 |
| SD524-0687-275-1000R7 | 03080285 | 0.687 | 2.750 | 6.181 | 2.947 | 3.931 | 2.250 | 1.000 | 1.378 | SPGX0502 | SCGX050204 |
| SD524-0709-284-1000R7 | 03080286 | 0.709 | 2.840 | 6.271 | 3.037 | 4.021 | 2.250 | 1.000 | 1.378 | SPGX0602 | SCGX050204 |
| SD524-0750-300-1000R7 | 03080288 | 0.750 | 3.000 | 6.431 | 3.197 | 4.181 | 2.250 | 1.000 | 1.378 | SPGX0602 | SCGX050204 |
| SD524-0766-306-1000R7 | 03080289 | 0.766 | 3.060 | 6.491 | 3.257 | 4.241 | 2.250 | 1.000 | 1.378 | SPGX0602 | SCGX050204 |
| SD524-0787-315-1000R7 | 03080290 | 0.787 | 3.150 | 6.581 | 3.347 | 4.331 | 2.250 | 1.000 | 1.378 | SPGX0602 | SCGX060204 |
| SD524-0812-325-1000R7 | 03080292 | 0.812 | 3.250 | 6.681 | 3.447 | 4.431 | 2.250 | 1.000 | 1.378 | SPGX0602 | SCGX060204 |
| SD524-0827-331-1000R7 | 03080294 | 0.827 | 3.310 | 6.741 | 3.507 | 4.491 | 2.250 | 1.000 | 1.378 | SPGX0602 | SCGX060204 |
| SD524-0875-350-1000R7 | 03080295 | 0.875 | 3.500 | 6.931 | 3.697 | 4.681 | 2.250 | 1.000 | 1.378 | SPGX0703 | SCGX060204 |
| SD524-0906-362-1000R7 | 03080297 | 0.906 | 3.620 | 7.051 | 3.817 | 4.801 | 2.250 | 1.000 | 1.378 | SPGX0703 | SCGX070308 |
| SD524-0922-369-1000R7 | 03080298 | 0.922 | 3.690 | 7.121 | 3.887 | 4.871 | 2.250 | 1.000 | 1.378 | SPGX0703 | SCGX070308 |
| SD524-0937-375-1000R7 | 03080299 | 0.937 | 3.750 | 7.181 | 3.947 | 4.931 | 2.250 | 1.000 | 1.378 | SPGX0703 | SCGX070308 |
| SD524-0984-394-1250R7 | 03080301 | 0.984 | 3.940 | 7.496 | 4.137 | 5.121 | 2.375 | 1.250 | 1.654 | SPGX0703 | SCGX070308 |
| SD524-1000-400-1250R7 | 03080302 | 1.000 | 4.000 | 7.556 | 4.197 | 5.181 | 2.375 | 1.250 | 1.654 | SPGX0703 | SCGX070308 |
| SD524-1032-413-1250R7 | 03080304 | 1.032 | 4.130 | 7.686 | 4.327 | 5.311 | 2.375 | 1.250 | 1.654 | SPGX0903 | SCGX070308 |
| SD524-1062-425-1250R7 | 03080305 | 1.062 | 4.250 | 7.806 | 4.447 | 5.431 | 2.375 | 1.250 | 1.654 | SPGX0903 | SCGX070308 |
| SD524-1109-443-1250R7 | 03080307 | 1.109 | 4.430 | 7.986 | 4.627 | 5.611 | 2.375 | 1.250 | 1.654 | SPGX0903 | SCGX070308 |
| SD524-1125-450-1250R7 | 03080308 | 1.125 | 4.500 | 8.056 | 4.697 | 5.681 | 2.375 | 1.250 | 1.654 | SPGX0903 | SCGX09T308 |
| SD524-1172-469-1250R7 | 03080310 | 1.172 | 4.690 | 8.246 | 4.887 | 5.871 | 2.375 | 1.250 | 1.654 | SPGX0903 | SCGX09T308 |
| SD524-1187-475-1250R7 | 03080311 | 1.187 | 4.750 | 8.306 | 4.947 | 5.931 | 2.375 | 1.250 | 1.654 | SPGX0903 | SCGX09T308 |
| SD524-1250-500-1500R7 | 03080314 | 1.250 | 5.000 | 8.806 | 5.197 | 6.181 | 2.625 | 1.500 | 1.969 | SPGX11T3 | SCGX09T308 |
| SD524-1312-525-1500R7 | 03080315 | 1.312 | 5.250 | 9.056 | 5.447 | 6.431 | 2.625 | 1.500 | 1.969 | SPGX11T3 | SCGX09T308 |
| SD524-1344-538-1500R7 | 03080317 | 1.344 | 5.380 | 9.186 | 5.577 | 6.561 | 2.625 | 1.500 | 1.969 | SPGX11T3 | SCGX09T308 |
| SD524-1375-550-1500R7 | 03080318 | 1.375 | 5.500 | 9.306 | 5.697 | 6.681 | 2.625 | 1.500 | 1.969 | SPGX11T3 | SCGX11T308 |
| SD524-1437-575-1500R7 | 03080320 | 1.437 | 5.750 | 9.556 | 5.947 | 6.931 | 2.625 | 1.500 | 1.969 | SPGX11T3 | SCGX11T308 |
| SD524-1500-600-1500R7 | 03080322 | 1.500 | 6.000 | 9.806 | 6.197 | 7.181 | 2.625 | 1.500 | 1.969 | SPGX12T3 | SCGX11T308 |
| SD524-1562-625-1500R7 | 03080323 | 1.562 | 6.250 | 10.056 | 6.447 | 7.431 | 2.625 | 1.500 | 1.969 | SPGX12T3 | SCGX11T308 |
| SD524-1625-650-1500R7 | 03080324 | 1.625 | 6.500 | 10.306 | 6.697 | 7.681 | 2.625 | 1.500 | 1.969 | SPGX12T3 | SCGX120408 |
| SD524-1687-675-1500R7 | 03080325 | 1.687 | 6.750 | 10.556 | 6.947 | 7.931 | 2.625 | 1.500 | 1.969 | SPGX12T3 | SCGX120408 |
| SD524-1750-700-1500R7 | 03080328 | 1.750 | 7.000 | 10.806 | 7.197 | 8.181 | 2.625 | 1.500 | 1.969 | SPGX1504 | SCGX120408 |
| SD524-1812-725-1500R7 | 03080332 | 1.812 | 7.250 | 11.056 | 7.447 | 8.431 | 2.625 | 1.500 | 1.969 | SPGX1504 | SCGX150512 |
| SD524-1875-750-1500R7 | 03080334 | 1.875 | 7.500 | 11.306 | 7.697 | 8.681 | 2.625 | 1.500 | 1.969 | SPGX1504 | SCGX150512 |
| SD524-1937-775-1500R7 | 03080335 | 1.937 | 7.750 | 11.556 | 7.947 | 8.931 | 2.625 | 1.500 | 2.337 | SPGX1504 | SCGX150512 |
| SD524-2000-800-1500R7 | 03080337 | 2.000 | 8.000 | 11.806 | 8.197 | 9.181 | 2.625 | 1.500 | 2.337 | SPGX1504 | SCGX150512 |

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF | Insert | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | Center insert | Periph insert |
| SD524-2062-825-1500R7 | 03080339 | 2.062 | 8.250 | 12.056 | 8.447 | 9.431 | 2.625 | 1.500 | 2.337 | SPGX1904 | SCGX150512 |
| SD524-2125-850-1500R7 | 03080342 | 2.125 | 8.500 | 12.306 | 8.697 | 9.681 | 2.625 | 1.500 | 2.337 | SPGX1904 | SCGX150512 |
| SD524-2250-900-1500R7 | 03080346 | 2.250 | 9.000 | 12.806 | 9.197 | 10.181 | 2.625 | 1.500 | 2.337 | SPGX1904 | SCGX150512 |
| SD524-2375-950-1500R7 | 03080349 | 2.375 | 9.500 | 13.306 | 9.697 | 10.681 | 2.625 | 1.500 | 2.480 | SPGX1904 | SCGX150512 |

## Spare Parts, included in delivery

| For drill dia. (inch) | Insert screw centre | Insert screw periph | Key |
|---|---|---|---|
| |  |  |  |
| 0.594-0.687 | C02245-T07P | C02245-T07P | T07P-2 |
| 0.709-0.766 | C02205-T07P | C02245-T07P | T07P-2 |
| 0.787-0.827 | C02205-T07P | C02205-T07P | T07P-2 |
| 0.875-0.905 | C02506-T08P | C02506-T08P | T08P-2 |
| 0.906-1.000 | C02507-T08P | C03007-T08P | T08P-2 |
| 1.032-1.109 | C03007-T09P | C03007-T09P | T09P-2 |
| 1.125-1.187 | C03007-T09P | C03009-T09P | T09P-2 |
| 1.250-1.562 | C03508-T15P | C03508-T15P | T15P-2D |
| 1.625-1.687 | C03508-T15P | C05012-T15P | T15P-2D |
| 1.750-2.375 | C04011-T15P | C05012-T15P | T15P-2D |

## Accessories

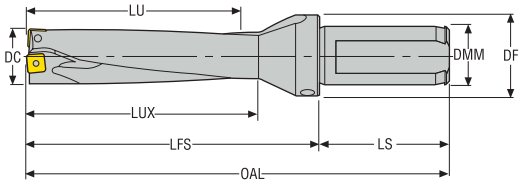
| For drill dia. (inch) | Torque wrench |
|---|---|
| |  |
| 0.594-0.687 | T00-07P09 |
| 0.709-0.766 | T00-07P09 |
| 0.787-0.827 | T00-07P09 |
| 0.875-0.905 | T00-08P12 |
| 0.906-1.000 | T00-08P12 |
| 1.032-1.109 | T00-09P20 |
| 1.125-1.187 | T00-09P20 |
| 1.250-1.562 | T00-15P30 |
| 1.625-1.687 | T00-15P30 |
| 1.750-2.375 | T00-15P35 |

Torque wrench including blade.

# SD524

Drilling depth ~ 4 x D – Inch






- ISO 9766 shank, R7-C
- Internal coolant
- For insert information see page(s) 294-300
- For cutting data see page(s) 305, 306
- For intermediate diameters see the MyDesign software.
- For stationary applications

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF | Insert | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | Center insert | Periph insert |
| SD524-0625-250-1000R7-C | 03080282 | 0.625 | 2.500 | 6.628 | 2.697 | 3.878 | 2.750 | 1.000 | 1.378 | SPGX0502 | SCGX050204 |
| SD524-0687-275-1000R7-C | 03080284 | 0.687 | 2.750 | 6.878 | 2.947 | 4.128 | 2.750 | 1.000 | 1.378 | SCGX0502 | SCGX050204 |
| SD524-0750-300-1000R7-C | 03080287 | 0.750 | 3.000 | 7.128 | 3.197 | 4.378 | 2.750 | 1.000 | 1.378 | SPGX0602 | SCGX050204 |
| SD524-0812-325-1000R7-C | 03080293 | 0.812 | 3.250 | 7.378 | 3.447 | 4.628 | 2.750 | 1.000 | 1.378 | SPGX0602 | SCGX060204 |
| SD524-0875-350-1000R7-C | 03080296 | 0.875 | 3.500 | 7.628 | 3.697 | 4.878 | 2.750 | 1.000 | 1.378 | SPGX0703 | SCGX060204 |
| SD524-0937-375-1000R7-C | 03080300 | 0.937 | 3.750 | 7.878 | 3.947 | 5.128 | 2.750 | 1.000 | 1.378 | SPGX0703 | SCGX070308 |
| SD524-1000-400-1250R7-C | 03080303 | 1.000 | 4.000 | 8.128 | 4.197 | 5.378 | 2.750 | 1.250 | 1.654 | SPGX0703 | SCGX070308 |
| SD524-1062-425-1250R7-C | 03080306 | 1.062 | 4.250 | 8.378 | 4.447 | 5.628 | 2.750 | 1.250 | 1.654 | SPGX0903 | SCGX070308 |
| SD524-1125-450-1250R7-C | 03080309 | 1.125 | 4.500 | 8.628 | 4.697 | 5.878 | 2.750 | 1.250 | 1.654 | SPGX0903 | SCGX09T308 |
| SD524-1187-475-1250R7-C | 03080312 | 1.187 | 4.750 | 8.878 | 4.947 | 6.128 | 2.750 | 1.250 | 1.654 | SPGX0903 | SCGX09T308 |
| SD524-1250-500-1500R7-C | 03080313 | 1.250 | 5.000 | 9.128 | 5.197 | 6.378 | 2.750 | 1.500 | 1.969 | SPGX11T3 | SCGX09T308 |
| SD524-1312-525-1500R7-C | 03080316 | 1.312 | 5.250 | 9.378 | 5.447 | 6.628 | 2.750 | 1.500 | 1.969 | SPGX11T3 | SCGX09T308 |
| SD524-1375-550-1500R7-C | 03080319 | 1.375 | 5.500 | 9.628 | 5.697 | 6.878 | 2.750 | 1.500 | 1.969 | SPGX11T3 | SCGX11T308 |
| SD524-1500-600-1500R7-C | 03080321 | 1.500 | 6.000 | 10.128 | 6.197 | 7.378 | 2.750 | 1.500 | 1.969 | SPGX12T3 | SCGX11T308 |
| SD524-1750-700-1500R7-C | 03080329 | 1.750 | 7.000 | 11.128 | 7.197 | 8.378 | 2.750 | 1.500 | 1.969 | SPGX1504 | SCGX120408 |
| SD524-2000-800-1500R7-C | 03080338 | 2.000 | 8.000 | 12.128 | 8.197 | 9.378 | 2.750 | 1.500 | 2.337 | SPGX1504 | SCGX150512 |
| SD524-2125-850-1500R7-C | 03080343 | 2.125 | 8.500 | 12.628 | 8.697 | 9.878 | 2.750 | 1.500 | 2.337 | SPGX1904 | SCGX150512 |
| SD524-2250-900-1500R7-C | 03080347 | 2.250 | 9.000 | 13.128 | 9.197 | 10.378 | 2.750 | 1.500 | 2.337 | SPGX1904 | SCGX150512 |
| SD524-2375-950-1500R7-C | 03080350 | 2.375 | 9.500 | 13.628 | 9.697 | 10.878 | 2.750 | 1.500 | 2.480 | SPGX1904 | SCGX150512 |

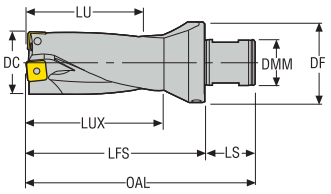
## Spare Parts, included in delivery

## Accessories

| For drill dia. (inch) | Hose adapter | Insert screw centre | Insert screw periph | Key | Plug | Torque wrench |
|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |
| 0.625-0.687 | 1310 | C02245-T07P | C02245-T07P | T07P-2 | R1/4 | T00-07P09 |
| 0.750 | 1310 | C02205-T07P | C02245-T07P | T07P-2 | R1/4 | T00-07P09 |
| 0.812 | 1310 | C02205-T07P | C02205-T07P | T07P-2 | R1/4 | T00-07P09 |
| 0.875 | 1310 | C02506-T08P | C02506-T08P | T08P-2 | R1/4 | T00-08P12 |
| 0.937-1.000 | 1310 | C02507-T08P | C03007-T08P | T08P-2 | R1/4 | T00-08P12 |
| 1.062 | 1310 | C03007-T09P | C03007-T09P | T09P-2 | R1/4 | T00-09P20 |
| 1.125-1.187 | 1310 | C03007-T09P | C03009-T09P | T09P-2 | R1/4 | T00-09P20 |
| 1.250-1.375 | 1310 | C03508-T15P | C03508-T15P | T15P-2D | R1/4 | T00-15P30 |
| 1.750-2.375 | 1310 | C04011-T15P | C05012-T15P | T15P-2D | R1/4 | T00-15P35 |

# SD524

Drilling depth ~ 4 x D – Metric/Inch






- ABS 50 compatible shank, -2
- Internal coolant
- For insert information see page(s) 294-300
- For cutting data see page(s) 305, 306
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF | Insert | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | Center insert | Periph insert |
| SD524-17-68-50R2 | 03080208 | 17,0<br>*0.669* | 68,0<br>*2.677* | 129,0<br>*5.079* | 73,0<br>*2.874* | 98,0<br>*3.858* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0502 | SCGX050204 |
| SD524-17.5-70-50R2 | 03080327 | 17,5<br>*0.689* | 70,0<br>*2.756* | 131,0<br>*5.157* | 75,0<br>*2.953* | 100,0<br>*3.937* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0602 | SCGX050204 |
| SD524-18-72-50R2 | 03080209 | 18,0<br>*0.709* | 72,0<br>*2.835* | 133,0<br>*5.236* | 77,0<br>*3.031* | 102,0<br>*4.016* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0602 | SCGX050204 |
| SD524-18.5-74-50R2 | 03080210 | 18,5<br>*0.728* | 74,0<br>*2.913* | 135,0<br>*5.315* | 79,0<br>*3.110* | 104,0<br>*4.094* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0602 | SCGX050204 |
| SD524-19-76-50R2 | 03080422 | 19,0<br>*0.748* | 76,0<br>*2.992* | 137,0<br>*5.394* | 81,0<br>*3.189* | 106,0<br>*4.173* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0602 | SCGX050204 |
| SD524-20-80-50R2 | 03080341 | 20,0<br>*0.787* | 80,0<br>*3.150* | 141,0<br>*5.551* | 85,0<br>*3.346* | 110,0<br>*4.331* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0602 | SCGX060204 |
| SD524-20.62-83-50R2 | 03080215 | 20,62<br>*0.812* | 83,0<br>*3.268* | 144,0<br>*5.669* | 88,0<br>*3.465* | 113,0<br>*4.449* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0602 | SCGX060204 |
| SD524-21-84-50R2 | 03080345 | 21,0<br>*0.827* | 84,0<br>*3.307* | 145,0<br>*5.709* | 89,0<br>*3.504* | 114,0<br>*4.488* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0602 | SCGX060204 |
| SD524-22-88-50R2 | 03080193 | 22,0<br>*0.866* | 88,0<br>*3.465* | 149,0<br>*5.866* | 93,0<br>*3.661* | 118,0<br>*4.646* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0703 | SCGX060204 |
| SD524-22.23-89-50R2 | 03080216 | 22,23<br>*0.875* | 89,0<br>*3.504* | 150,0<br>*5.906* | 94,0<br>*3.701* | 119,0<br>*4.685* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0703 | SCGX060204 |
| SD524-23-92-50R2 | 03080194 | 23,0<br>*0.906* | 92,0<br>*3.622* | 153,0<br>*6.024* | 97,0<br>*3.819* | 122,0<br>*4.803* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0703 | SCGX070308 |
| SD524-24-96-50R2 | 03080195 | 24,0<br>*0.945* | 96,0<br>*3.780* | 157,0<br>*6.181* | 101,0<br>*3.976* | 126,0<br>*4.961* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0703 | SCGX070308 |
| SD524-25-100-50R2 | 03080196 | 25,0<br>*0.984* | 100,0<br>*3.937* | 161,0<br>*6.339* | 105,0<br>*4.134* | 130,0<br>*5.118* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0703 | SCGX070308 |
| SD524-25.4-102-50R2 | 03080217 | 25,4<br>*1.000* | 102,0<br>*4.016* | 163,0<br>*6.417* | 107,0<br>*4.213* | 132,0<br>*5.197* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0703 | SCGX070308 |
| SD524-26-104-50R2 | 03080423 | 26,0<br>*1.024* | 104,0<br>*4.094* | 165,0<br>*6.496* | 109,0<br>*4.291* | 134,0<br>*5.276* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0903 | SCGX070308 |
| SD524-27-108-50R2 | 03080197 | 27,0<br>*1.063* | 108,0<br>*4.252* | 169,0<br>*6.654* | 113,0<br>*4.449* | 138,0<br>*5.433* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0903 | SCGX070308 |
| SD524-28-112-50R2 | 03080424 | 28,0<br>*1.102* | 112,0<br>*4.409* | 173,0<br>*6.811* | 117,0<br>*4.606* | 142,0<br>*5.591* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0903 | SCGX070308 |
| SD524-28.59-115-50R2 | 03080218 | 28,59<br>*1.126* | 115,0<br>*4.528* | 176,0<br>*6.929* | 120,0<br>*4.724* | 145,0<br>*5.709* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0903 | SCGX070308 |
| SD524-29-116-50R2 | 03080198 | 29,0<br>*1.142* | 116,0<br>*4.567* | 177,0<br>*6.969* | 121,0<br>*4.764* | 146,0<br>*5.748* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0903 | SCGX09T308 |
| SD524-30-120-50R2 | 03080199 | 30,0<br>*1.181* | 120,0<br>*4.724* | 181,0<br>*7.126* | 125,0<br>*4.921* | 150,0<br>*5.906* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0903 | SCGX09T308 |
| SD524-31-124-50R2 | 03080200 | 31,0<br>*1.220* | 124,0<br>*4.882* | 185,0<br>*7.283* | 129,0<br>*5.079* | 154,0<br>*6.063* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX0903 | SCGX09T308 |
| SD524-31.75-127-50R2 | 03080359 | 31,75<br>*1.250* | 127,0<br>*5.000* | 188,0<br>*7.402* | 132,0<br>*5.197* | 157,0<br>*6.181* | 31,0<br>*1.220* | 50,0<br>*1.969* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 |

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF | Insert | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | Center insert | Periph insert |
| SD524-32-128-50R2 | 03080425 | 32,0<br>*1.260* | 128,0<br>*5.039* | 189,0<br>*7.441* | 133,0<br>*5.236* | 158,0<br>*6.220* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 |
| SD524-33-132-50R2 | 03080201 | 33,0<br>*1.299* | 132,0<br>*5.197* | 193,0<br>*7.598* | 137,0<br>*5.394* | 162,0<br>*6.378* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 |
| SD524-34-136-50R2 | 03080207 | 34,0<br>*1.339* | 136,0<br>*5.354* | 197,0<br>*7.756* | 141,0<br>*5.551* | 166,0<br>*6.535* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 |
| SD524-35-140-50R2 | 03080202 | 35,0<br>*1.378* | 140,0<br>*5.512* | 201,0<br>*7.913* | 145,0<br>*5.709* | 170,0<br>*6.693* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX11T3 | SCGX11T308 |
| SD524-36-144-50R2 | 03080203 | 36,0<br>*1.417* | 144,0<br>*5.669* | 205,0<br>*8.071* | 149,0<br>*5.866* | 174,0<br>*6.850* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX11T3 | SCGX11T308 |
| SD524-37-148-50R2 | 03080204 | 37,0<br>*1.457* | 148,0<br>*5.827* | 209,0<br>*8.228* | 153,0<br>*6.024* | 178,0<br>*7.008* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX11T3 | SCGX11T308 |
| SD524-38-152-50R2 | 03080426 | 38,0<br>*1.496* | 152,0<br>*5.984* | 213,0<br>*8.386* | 157,0<br>*6.181* | 182,0<br>*7.165* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX12T3 | SCGX11T308 |
| SD524-39-156-50R2 | 03080205 | 39,0<br>*1.535* | 156,0<br>*6.142* | 217,0<br>*8.543* | 161,0<br>*6.339* | 186,0<br>*7.323* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX12T3 | SCGX11T308 |
| SD524-40-160-50R2 | 03080206 | 40,0<br>*1.575* | 160,0<br>*6.299* | 221,0<br>*8.701* | 165,0<br>*6.496* | 190,0<br>*7.480* | 31,0<br>*1.220* | 28,0<br>*1.102* | 50,0<br>*1.969* | SPGX12T3 | SCGX11T308 |

## Spare Parts, included in delivery

| For drill dia. (mm) | Insert screw | | Insert key |
|---|---|---|---|
| |  | |  |
| | Center insert | Periph insert | |
| 15,00-17,45 | C02245-T07P | C02245-T07P | T07P-2 |
| 17,46-19,49 | C02205-T07P | C02245-T07P | T07P-2 |
| 19,50-21,24 | C02205-T07P | C02205-T07P | T07P-2 |
| 21,25-22,49 | C02506-T08P | C02506-T08P | T08P-2 |
| 22,50-25,49 | C02507-T08P | C03007-T08P | T08P-2 |
| 25,50-28,49 | C03007-T09P | C03007-T09P | T09P-2 |
| 28,50-31,49 | C03007-T09P | C03009-T09P | T09P-2 |
| 31,50-40,49 | C03508-T15P | C03508-T15P | T15P-2D |
| 40,50-43,24 | C03508-T15P | C05012-T15P | T15P-2D |
| 43,25-59,00 | C04011-T15P | C05012-T15P | T15P-2D |

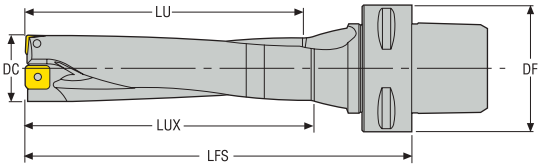
## Accessories

| For drill dia. (mm) | Torque wrench* | Replacement blade | Torque value |
|---|---|---|---|
| |  |  | |
| 15,00-17,45 | T00-07P09 | T00-07P | 0,9 Nm |
| 17,46-19,49 | T00-07P09 | T00-07P | 0,9 Nm |
| 19,50-21,24 | T00-07P09 | T00-07P | 0,9 Nm |
| 21,25-22,49 | T00-08P12 | T00-08P | 1,2 Nm |
| 22,50-25,49 | T00-08P12 | T00-08P | 1,2 Nm |
| 25,50-28,49 | T00-09P20 | T00-09P | 2,0 Nm |
| 28,50-31,49 | T00-09P20 | T00-09P | 2,0 Nm |
| 31,50-40,49 | T00-15P30 | T00-15P | 3,0 Nm |
| 40,50-43,24 | T00-15P30 | T00-15P | 3,0 Nm |
| 43,25-59,00 | T00-15P30 | T00-15P | 3,0 Nm |

*Including blade.

# SD524

Drilling depth ~ 4 x D – Metric/Inch






- Seco-Capto™ C4 shank
- Internal coolant
- For insert information see page(s) 294-300
- For cutting data see page(s) 305, 306
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | LUX | LFS | DF | Insert | |
|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | Center insert | Periph insert |
| SD524-17-68-C4 | 03080219 | 17,0<br>*0.669* | 68,0<br>*2.677* | 73,0<br>*2.874* | 106,0<br>*4.173* | 40,0<br>*1.575* | SPGX0502 | SCGX050204 |
| SD524-17.5-70-C4 | 03080220 | 17,5<br>*0.689* | 70,0<br>*2.756* | 75,0<br>*2.953* | 109,0<br>*4.291* | 40,0<br>*1.575* | SPGX0602 | SCGX050204 |
| SD524-18-72-C4 | 03080221 | 18,0<br>*0.709* | 72,0<br>*2.835* | 77,0<br>*3.031* | 111,0<br>*4.370* | 40,0<br>*1.575* | SPGX0602 | SCGX050204 |
| SD524-18.5-74-C4 | 03080222 | 18,5<br>*0.728* | 74,0<br>*2.913* | 79,0<br>*3.110* | 113,0<br>*4.449* | 40,0<br>*1.575* | SPGX0602 | SCGX050204 |
| SD524-19-76-C4 | 03080223 | 19,0<br>*0.748* | 76,0<br>*2.992* | 81,0<br>*3.189* | 115,0<br>*4.528* | 40,0<br>*1.575* | SPGX0602 | SCGX050204 |
| SD524-20-80-C4 | 03080224 | 20,0<br>*0.787* | 80,0<br>*3.150* | 85,0<br>*3.346* | 121,0<br>*4.764* | 40,0<br>*1.575* | SPGX0602 | SCGX060204 |
| SD524-20.62-83-C4 | 03080413 | 20,62<br>*0.812* | 83,0<br>*3.268* | 88,0<br>*3.465* | 124,0<br>*4.882* | 40,0<br>*1.575* | SPGX0602 | SCGX060204 |
| SD524-21-84-C4 | 03080225 | 21,0<br>*0.827* | 84,0<br>*3.307* | 89,0<br>*3.504* | 125,0<br>*4.921* | 40,0<br>*1.575* | SPGX0602 | SCGX060204 |
| SD524-22-88-C4 | 03080226 | 22,0<br>*0.866* | 88,0<br>*3.465* | 93,0<br>*3.661* | 129,0<br>*5.079* | 40,0<br>*1.575* | SPGX0703 | SCGX060204 |
| SD524-22.23-89-C4 | 03080414 | 22,23<br>*0.875* | 89,0<br>*3.504* | 94,0<br>*3.701* | 130,0<br>*5.118* | 40,0<br>*1.575* | SPGX0703 | SCGX060204 |
| SD524-23-92-C4 | 03080227 | 23,0<br>*0.906* | 92,0<br>*3.622* | 97,0<br>*3.819* | 134,0<br>*5.276* | 40,0<br>*1.575* | SPGX0703 | SCGX070308 |
| SD524-24-96-C4 | 03080228 | 24,0<br>*0.945* | 96,0<br>*3.780* | 101,0<br>*3.976* | 139,0<br>*5.472* | 40,0<br>*1.575* | SPGX0703 | SCGX070308 |
| SD524-25-100-C4 | 03080229 | 25,0<br>*0.984* | 100,0<br>*3.937* | 105,0<br>*4.134* | 144,0<br>*5.669* | 40,0<br>*1.575* | SPGX0703 | SCGX070308 |
| SD524-25.4-102-C4 | 03080415 | 25,4<br>*1.000* | 102,0<br>*4.016* | 107,0<br>*4.213* | 146,0<br>*5.748* | 40,0<br>*1.575* | SPGX0703 | SCGX070308 |
| SD524-26-104-C4 | 03080230 | 26,0<br>*1.024* | 104,0<br>*4.094* | 109,0<br>*4.291* | 148,0<br>*5.827* | 40,0<br>*1.575* | SPGX0903 | SCGX070308 |
| SD524-27-108-C4 | 03080231 | 27,0<br>*1.063* | 108,0<br>*4.252* | 113,0<br>*4.449* | 152,0<br>*5.984* | 40,0<br>*1.575* | SPGX0903 | SCGX070308 |
| SD524-28-112-C4 | 03080232 | 28,0<br>*1.102* | 112,0<br>*4.409* | 117,0<br>*4.606* | 157,0<br>*6.181* | 40,0<br>*1.575* | SPGX0903 | SCGX070308 |
| SD524-28.59-115-C4 | 03080416 | 28,59<br>*1.126* | 115,0<br>*4.528* | 120,0<br>*4.724* | 160,0<br>*6.299* | 40,0<br>*1.575* | SPGX0903 | SCGX070308 |
| SD524-29-116-C4 | 03080233 | 29,0<br>*1.142* | 116,0<br>*4.567* | 121,0<br>*4.764* | 161,0<br>*6.339* | 40,0<br>*1.575* | SPGX0903 | SCGX09T308 |
| SD524-30-120-C4 | 03080234 | 30,0<br>*1.181* | 120,0<br>*4.724* | 125,0<br>*4.921* | 165,0<br>*6.496* | 40,0<br>*1.575* | SPGX0903 | SCGX09T308 |

## Spare Parts, included in delivery

| For drill dia. (mm) | Insert screw | | Insert key |
|---|---|---|---|
| |  | |  |
| | Center insert | Periph insert | |
| 15,00-17,45 | C02245-T07P | C02245-T07P | T07P-2 |
| 17,46-19,49 | C02205-T07P | C02245-T07P | T07P-2 |
| 19,50-21,24 | C02205-T07P | C02205-T07P | T07P-2 |
| 21,25-22,49 | C02506-T08P | C02506-T08P | T08P-2 |
| 22,50-25,49 | C02507-T08P | C03007-T08P | T08P-2 |
| 25,50-28,49 | C03007-T09P | C03007-T09P | T09P-2 |
| 28,50-31,49 | C03007-T09P | C03009-T09P | T09P-2 |
| 31,50-40,49 | C03508-T15P | C03508-T15P | T15P-2D |
| 40,50-43,24 | C03508-T15P | C05012-T15P | T15P-2D |
| 43,25-59,00 | C04011-T15P | C05012-T15P | T15P-2D |

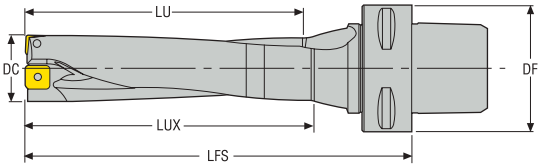
## Accessories

| For drill dia. (mm) | Torque wrench* | Replacement blade | Torque value |
|---|---|---|---|
| |  |  | |
| 15,00-17,45 | T00-07P09 | T00-07P | 0,9 Nm |
| 17,46-19,49 | T00-07P09 | T00-07P | 0,9 Nm |
| 19,50-21,24 | T00-07P09 | T00-07P | 0,9 Nm |
| 21,25-22,49 | T00-08P12 | T00-08P | 1,2 Nm |
| 22,50-25,49 | T00-08P12 | T00-08P | 1,2 Nm |
| 25,50-28,49 | T00-09P20 | T00-09P | 2,0 Nm |
| 28,50-31,49 | T00-09P20 | T00-09P | 2,0 Nm |
| 31,50-40,49 | T00-15P30 | T00-15P | 3,0 Nm |
| 40,50-43,24 | T00-15P30 | T00-15P | 3,0 Nm |
| 43,25-59,00 | T00-15P30 | T00-15P | 3,0 Nm |

*Including blade.

# SD524

Drilling depth ~ 4 x D – Metric/Inch






- Seco-Capto™ C5 shank
- Internal coolant
- For insert information see page(s) 294-300
- For cutting data see page(s) 305, 306
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | LUX | LFS | DF | Insert | |
|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | Center insert | Periph insert |
| SD524-17-68-C5 | 03080235 | 17,0<br>*0.669* | 68,0<br>*2.677* | 73,0<br>*2.874* | 106,0<br>*4.173* | 50,0<br>*1.969* | SPGX0502 | SCGX050204 |
| SD524-17.5-70-C5 | 03080237 | 17,5<br>*0.689* | 70,0<br>*2.756* | 75,0<br>*2.953* | 109,0<br>*4.291* | 50,0<br>*1.969* | SPGX0602 | SCGX050204 |
| SD524-18-72-C5 | 03080238 | 18,0<br>*0.709* | 72,0<br>*2.835* | 77,0<br>*3.031* | 111,0<br>*4.370* | 50,0<br>*1.969* | SPGX0602 | SCGX050204 |
| SD524-18.5-74-C5 | 03080239 | 18,5<br>*0.728* | 74,0<br>*2.913* | 79,0<br>*3.110* | 113,0<br>*4.449* | 50,0<br>*1.969* | SPGX0602 | SCGX050204 |
| SD524-19-76-C5 | 03080240 | 19,0<br>*0.748* | 76,0<br>*2.992* | 81,0<br>*3.189* | 115,0<br>*4.528* | 50,0<br>*1.969* | SPGX0602 | SCGX050204 |
| SD524-20-80-C5 | 03080241 | 20,0<br>*0.787* | 80,0<br>*3.150* | 85,0<br>*3.346* | 121,0<br>*4.764* | 50,0<br>*1.969* | SPGX0602 | SCGX060204 |
| SD524-20.62-83-C5 | 03080408 | 20,62<br>*0.812* | 83,0<br>*3.268* | 88,0<br>*3.465* | 124,0<br>*4.882* | 50,0<br>*1.969* | SPGX0602 | SCGX060204 |
| SD524-21-84-C5 | 03080242 | 21,0<br>*0.827* | 84,0<br>*3.307* | 89,0<br>*3.504* | 125,0<br>*4.921* | 50,0<br>*1.969* | SPGX0602 | SCGX060204 |
| SD524-22-88-C5 | 03080243 | 22,0<br>*0.866* | 88,0<br>*3.465* | 93,0<br>*3.661* | 129,0<br>*5.079* | 50,0<br>*1.969* | SPGX0703 | SCGX060204 |
| SD524-22.23-89-C5 | 03080409 | 22,23<br>*0.875* | 89,0<br>*3.504* | 94,0<br>*3.701* | 130,0<br>*5.118* | 50,0<br>*1.969* | SPGX0703 | SCGX060204 |
| SD524-23-92-C5 | 03080244 | 23,0<br>*0.906* | 92,0<br>*3.622* | 97,0<br>*3.819* | 134,0<br>*5.276* | 50,0<br>*1.969* | SPGX0703 | SCGX070308 |
| SD524-24-96-C5 | 03080245 | 24,0<br>*0.945* | 96,0<br>*3.780* | 101,0<br>*3.976* | 139,0<br>*5.472* | 50,0<br>*1.969* | SPGX0703 | SCGX070308 |
| SD524-25-100-C5 | 03080246 | 25,0<br>*0.984* | 100,0<br>*3.937* | 105,0<br>*4.134* | 144,0<br>*5.669* | 50,0<br>*1.969* | SPGX0703 | SCGX070308 |
| SD524-25.4-102-C5 | 03080410 | 25,4<br>*1.000* | 102,0<br>*4.016* | 107,0<br>*4.213* | 146,0<br>*5.748* | 50,0<br>*1.969* | SPGX0703 | SCGX070308 |
| SD524-26-104-C5 | 03080247 | 26,0<br>*1.024* | 104,0<br>*4.094* | 109,0<br>*4.291* | 148,0<br>*5.827* | 50,0<br>*1.969* | SPGX0903 | SCGX070308 |
| SD524-27-108-C5 | 03080248 | 27,0<br>*1.063* | 108,0<br>*4.252* | 113,0<br>*4.449* | 152,0<br>*5.984* | 50,0<br>*1.969* | SPGX0903 | SCGX070308 |
| SD524-28-112-C5 | 03080249 | 28,0<br>*1.102* | 112,0<br>*4.409* | 117,0<br>*4.606* | 157,0<br>*6.181* | 50,0<br>*1.969* | SPGX0903 | SCGX070308 |
| SD524-28.59-115-C5 | 03080411 | 28,59<br>*1.126* | 115,0<br>*4.528* | 120,0<br>*4.724* | 160,0<br>*6.299* | 50,0<br>*1.969* | SPGX0903 | SCGX070308 |
| SD524-29-116-C5 | 03080250 | 29,0<br>*1.142* | 116,0<br>*4.567* | 121,0<br>*4.764* | 161,0<br>*6.339* | 50,0<br>*1.969* | SPGX0903 | SCGX09T308 |
| SD524-30-120-C5 | 03080251 | 30,0<br>*1.181* | 120,0<br>*4.724* | 125,0<br>*4.921* | 165,0<br>*6.496* | 50,0<br>*1.969* | SPGX0903 | SCGX09T308 |
| SD524-31-124-C5 | 03080252 | 31,0<br>*1.220* | 124,0<br>*4.882* | 129,0<br>*5.079* | 169,0<br>*6.654* | 50,0<br>*1.969* | SPGX0903 | SCGX09T308 |
| SD524-31.75-127-C5 | 03080412 | 31,75<br>*1.250* | 127,0<br>*5.000* | 132,0<br>*5.197* | 173,0<br>*6.811* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 |

| Designation | Item number | DC | LU | LUX | LFS | DF | Insert | |
|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | Center insert | Periph insert |
| SD524-32-128-C5 | 03080253 | 32,0<br>*1.260* | 128,0<br>*5.039* | 133,0<br>*5.236* | 174,0<br>*6.850* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 |
| SD524-33-132-C5 | 03080254 | 33,0<br>*1.299* | 132,0<br>*5.197* | 137,0<br>*5.394* | 178,0<br>*7.008* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 |
| SD524-34-136-C5 | 03080255 | 34,0<br>*1.339* | 136,0<br>*5.354* | 141,0<br>*5.551* | 182,0<br>*7.165* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 |
| SD524-35-140-C5 | 03080256 | 35,0<br>*1.378* | 140,0<br>*5.512* | 145,0<br>*5.709* | 186,0<br>*7.323* | 50,0<br>*1.969* | SPGX11T3 | SCGX11T308 |
| SD524-36-144-C5 | 03080257 | 36,0<br>*1.417* | 144,0<br>*5.669* | 149,0<br>*5.866* | 190,0<br>*7.480* | 50,0<br>*1.969* | SPGX11T3 | SCGX11T308 |
| SD524-37-148-C5 | 03080258 | 37,0<br>*1.457* | 148,0<br>*5.827* | 153,0<br>*6.024* | 194,0<br>*7.638* | 50,0<br>*1.969* | SPGX11T3 | SCGX11T308 |
| SD524-38-152-C5 | 03080259 | 38,0<br>*1.496* | 152,0<br>*5.984* | 157,0<br>*6.181* | 198,0<br>*7.795* | 50,0<br>*1.969* | SPGX12T3 | SCGX11T308 |
| SD524-39-156-C5 | 03080260 | 39,0<br>*1.535* | 156,0<br>*6.142* | 161,0<br>*6.339* | 202,0<br>*7.953* | 50,0<br>*1.969* | SPGX12T3 | SCGX11T308 |
| SD524-40-160-C5 | 03080261 | 40,0<br>*1.575* | 160,0<br>*6.299* | 165,0<br>*6.496* | 206,0<br>*8.110* | 50,0<br>*1.969* | SPGX12T3 | SCGX11T308 |

## Spare Parts, included in delivery

| For drill dia. (mm) | Insert screw | | Insert key |
|---|---|---|---|
| |  | |  |
| | Center insert | Periph insert | |
| 15,00-17,45 | C02245-T07P | C02245-T07P | T07P-2 |
| 17,46-19,49 | C02205-T07P | C02245-T07P | T07P-2 |
| 19,50-21,24 | C02205-T07P | C02205-T07P | T07P-2 |
| 21,25-22,49 | C02506-T08P | C02506-T08P | T08P-2 |
| 22,50-25,49 | C02507-T08P | C03007-T08P | T08P-2 |
| 25,50-28,49 | C03007-T09P | C03007-T09P | T09P-2 |
| 28,50-31,49 | C03007-T09P | C03009-T09P | T09P-2 |
| 31,50-40,49 | C03508-T15P | C03508-T15P | T15P-2D |
| 40,50-43,24 | C03508-T15P | C05012-T15P | T15P-2D |
| 43,25-59,00 | C04011-T15P | C05012-T15P | T15P-2D |

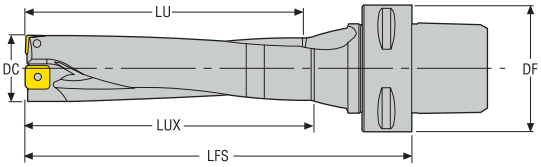
## Accessories

| For drill dia. (mm) | Torque wrench* | Replacement blade | Torque value |
|---|---|---|---|
| |  |  | |
| 15,00-17,45 | T00-07P09 | T00-07P | 0,9 Nm |
| 17,46-19,49 | T00-07P09 | T00-07P | 0,9 Nm |
| 19,50-21,24 | T00-07P09 | T00-07P | 0,9 Nm |
| 21,25-22,49 | T00-08P12 | T00-08P | 1,2 Nm |
| 22,50-25,49 | T00-08P12 | T00-08P | 1,2 Nm |
| 25,50-28,49 | T00-09P20 | T00-09P | 2,0 Nm |
| 28,50-31,49 | T00-09P20 | T00-09P | 2,0 Nm |
| 31,50-40,49 | T00-15P30 | T00-15P | 3,0 Nm |
| 40,50-43,24 | T00-15P30 | T00-15P | 3,0 Nm |
| 43,25-59,00 | T00-15P30 | T00-15P | 3,0 Nm |

*Including blade.

# SD524

Drilling depth ~ 4 x D – Metric/Inch






- Seco-Capto™ C6 shank
- Internal coolant
- For insert information see page(s) 294-300
- For cutting data see page(s) 305, 306
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | LUX | LFS | DF | Insert | |
|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | Center insert | Periph insert |
| SD524-17-68-C6 | 03080262 | 17,0<br>*0.669* | 68,0<br>*2.677* | 73,0<br>*2.874* | 108,0<br>*4.252* | 63,0<br>*2.480* | SPGX0502 | SCGX050204 |
| SD524-17.5-70-C6 | 03080263 | 17,5<br>*0.689* | 70,0<br>*2.756* | 75,0<br>*2.953* | 111,0<br>*4.370* | 63,0<br>*2.480* | SPGX0602 | SCGX050204 |
| SD524-18-72-C6 | 03080265 | 18,0<br>*0.709* | 72,0<br>*2.835* | 77,0<br>*3.031* | 113,0<br>*4.449* | 63,0<br>*2.480* | SPGX0602 | SCGX050204 |
| SD524-18.5-74-C6 | 03080266 | 18,5<br>*0.728* | 74,0<br>*2.913* | 79,0<br>*3.110* | 115,0<br>*4.528* | 63,0<br>*2.480* | SPGX0602 | SCGX050204 |
| SD524-19-76-C6 | 03080267 | 19,0<br>*0.748* | 76,0<br>*2.992* | 81,0<br>*3.189* | 117,0<br>*4.606* | 63,0<br>*2.480* | SPGX0602 | SCGX050204 |
| SD524-20-80-C6 | 03080268 | 20,0<br>*0.787* | 80,0<br>*3.150* | 85,0<br>*3.346* | 123,0<br>*4.843* | 63,0<br>*2.480* | SPGX0602 | SCGX060204 |
| SD524-20.62-83-C6 | 03080417 | 20,62<br>*0.812* | 83,0<br>*3.268* | 88,0<br>*3.465* | 126,0<br>*4.961* | 63,0<br>*2.480* | SPGX0602 | SCGX060204 |
| SD524-21-84-C6 | 03080269 | 21,0<br>*0.827* | 84,0<br>*3.307* | 89,0<br>*3.504* | 127,0<br>*5.000* | 63,0<br>*2.480* | SPGX0602 | SCGX060204 |
| SD524-22-88-C6 | 03080270 | 22,0<br>*0.866* | 88,0<br>*3.465* | 93,0<br>*3.661* | 131,0<br>*5.157* | 63,0<br>*2.480* | SPGX0703 | SCGX060204 |
| SD524-22.23-89-C6 | 03080418 | 22,23<br>*0.875* | 89,0<br>*3.504* | 94,0<br>*3.701* | 132,0<br>*5.197* | 63,0<br>*2.480* | SPGX0703 | SCGX060204 |
| SD524-23-92-C6 | 03080271 | 23,0<br>*0.906* | 92,0<br>*3.622* | 97,0<br>*3.819* | 136,0<br>*5.354* | 63,0<br>*2.480* | SPGX0703 | SCGX070308 |
| SD524-24-96-C6 | 03080272 | 24,0<br>*0.945* | 96,0<br>*3.780* | 101,0<br>*3.976* | 141,0<br>*5.551* | 63,0<br>*2.480* | SPGX0703 | SCGX070308 |
| SD524-25-100-C6 | 03080392 | 25,0<br>*0.984* | 100,0<br>*3.937* | 105,0<br>*4.134* | 146,0<br>*5.748* | 63,0<br>*2.480* | SPGX0703 | SCGX070308 |
| SD524-25.4-102-C6 | 03080419 | 25,4<br>*1.000* | 102,0<br>*4.016* | 107,0<br>*4.213* | 148,0<br>*5.827* | 63,0<br>*2.480* | SPGX0703 | SCGX070308 |
| SD524-26-104-C6 | 03080393 | 26,0<br>*1.024* | 104,0<br>*4.094* | 109,0<br>*4.291* | 150,0<br>*5.906* | 63,0<br>*2.480* | SPGX0903 | SCGX070308 |
| SD524-27-108-C6 | 03080394 | 27,0<br>*1.063* | 108,0<br>*4.252* | 113,0<br>*4.449* | 154,0<br>*6.063* | 63,0<br>*2.480* | SPGX0903 | SCGX070308 |
| SD524-28-112-C6 | 03080395 | 28,0<br>*1.102* | 112,0<br>*4.409* | 117,0<br>*4.606* | 159,0<br>*6.260* | 63,0<br>*2.480* | SPGX0903 | SCGX070308 |
| SD524-28.59-115-C6 | 03080420 | 28,59<br>*1.126* | 115,0<br>*4.528* | 120,0<br>*4.724* | 162,0<br>*6.378* | 63,0<br>*2.480* | SPGX0903 | SCGX070308 |
| SD524-29-116-C6 | 03080396 | 29,0<br>*1.142* | 116,0<br>*4.567* | 121,0<br>*4.764* | 163,0<br>*6.417* | 63,0<br>*2.480* | SPGX0903 | SCGX09T308 |
| SD524-30-120-C6 | 03080397 | 30,0<br>*1.181* | 120,0<br>*4.724* | 125,0<br>*4.921* | 167,0<br>*6.575* | 63,0<br>*2.480* | SPGX0903 | SCGX09T308 |
| SD524-31-124-C6 | 03080398 | 31,0<br>*1.220* | 124,0<br>*4.882* | 129,0<br>*5.079* | 171,0<br>*6.732* | 63,0<br>*2.480* | SPGX0903 | SCGX09T308 |
| SD524-31.75-127-C6 | 03080421 | 31,75<br>*1.250* | 127,0<br>*5.000* | 132,0<br>*5.197* | 175,0<br>*6.890* | 63,0<br>*2.480* | SPGX0903 | SCGX09T308 |

| Designation | Item number | DC | LU | LUX | LFS | DF | Insert | |
|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | Center insert | Periph insert |
| SD524-32-128-C6 | 03080399 | 32,0<br>*1.260* | 128,0<br>*5.039* | 133,0<br>*5.236* | 176,0<br>*6.929* | 63,0<br>*2.480* | SPGX11T3 | SCGX09T308 |
| SD524-33-132-C6 | 03080400 | 33,0<br>*1.299* | 132,0<br>*5.197* | 137,0<br>*5.394* | 180,0<br>*7.087* | 63,0<br>*2.480* | SPGX11T3 | SCGX09T308 |
| SD524-34-136-C6 | 03080401 | 34,0<br>*1.339* | 136,0<br>*5.354* | 141,0<br>*5.551* | 184,0<br>*7.244* | 63,0<br>*2.480* | SPGX11T3 | SCGX09T308 |
| SD524-35-140-C6 | 03080402 | 35,0<br>*1.378* | 140,0<br>*5.512* | 145,0<br>*5.709* | 188,0<br>*7.402* | 63,0<br>*2.480* | SPGX11T3 | SCGX11T308 |
| SD524-36-144-C6 | 03080403 | 36,0<br>*1.417* | 144,0<br>*5.669* | 149,0<br>*5.866* | 192,0<br>*7.559* | 63,0<br>*2.480* | SPGX11T3 | SCGX11T308 |
| SD524-37-148-C6 | 03080404 | 37,0<br>*1.457* | 148,0<br>*5.827* | 153,0<br>*6.024* | 196,0<br>*7.717* | 63,0<br>*2.480* | SPGX11T3 | SCGX11T308 |
| SD524-38-152-C6 | 03080405 | 38,0<br>*1.496* | 152,0<br>*5.984* | 157,0<br>*6.181* | 200,0<br>*7.874* | 63,0<br>*2.480* | SPGX12T3 | SCGX11T308 |
| SD524-39-156-C6 | 03080406 | 39,0<br>*1.535* | 156,0<br>*6.142* | 161,0<br>*6.339* | 204,0<br>*8.031* | 63,0<br>*2.480* | SPGX12T3 | SCGX11T308 |
| SD524-40-160-C6 | 03080407 | 40,0<br>*1.575* | 160,0<br>*6.299* | 165,0<br>*6.496* | 208,0<br>*8.189* | 63,0<br>*2.480* | SPGX12T3 | SCGX11T308 |

## Spare Parts, included in delivery

| For drill dia. (mm) | Insert screw | | Insert key |
|---|---|---|---|
| |  | |  |
| | Center insert | Periph insert | |
| 15,00-17,45 | C02245-T07P | C02245-T07P | T07P-2 |
| 17,46-19,49 | C02205-T07P | C02245-T07P | T07P-2 |
| 19,50-21,24 | C02205-T07P | C02205-T07P | T07P-2 |
| 21,25-22,49 | C02506-T08P | C02506-T08P | T08P-2 |
| 22,50-25,49 | C02507-T08P | C03007-T08P | T08P-2 |
| 25,50-28,49 | C03007-T09P | C03007-T09P | T09P-2 |
| 28,50-31,49 | C03007-T09P | C03009-T09P | T09P-2 |
| 31,50-40,49 | C03508-T15P | C03508-T15P | T15P-2D |
| 40,50-43,24 | C03508-T15P | C05012-T15P | T15P-2D |
| 43,25-59,00 | C04011-T15P | C05012-T15P | T15P-2D |

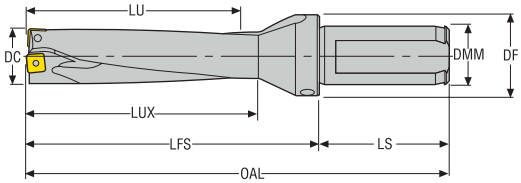
## Accessories

| For drill dia. (mm) | Torque wrench* | Replacement blade | Torque value |
|---|---|---|---|
| |  |  | |
| 15,00-17,45 | T00-07P09 | T00-07P | 0,9 Nm |
| 17,46-19,49 | T00-07P09 | T00-07P | 0,9 Nm |
| 19,50-21,24 | T00-07P09 | T00-07P | 0,9 Nm |
| 21,25-22,49 | T00-08P12 | T00-08P | 1,2 Nm |
| 22,50-25,49 | T00-08P12 | T00-08P | 1,2 Nm |
| 25,50-28,49 | T00-09P20 | T00-09P | 2,0 Nm |
| 28,50-31,49 | T00-09P20 | T00-09P | 2,0 Nm |
| 31,50-40,49 | T00-15P30 | T00-15P | 3,0 Nm |
| 40,50-43,24 | T00-15P30 | T00-15P | 3,0 Nm |
| 43,25-59,00 | T00-15P30 | T00-15P | 3,0 Nm |

*Including blade.

# SD525

## Drilling depth ~ 5 x D – Metric/Inch






- ISO 9766 shank, -7
- Internal coolant
- For insert information see page(s) 294-300
- For cutting data see page(s) 307, 308
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF | Insert | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | Center insert | Periph insert |
| SD525-19-95-25R7 | 03079580 | 19,0<br>*0.748* | 95,0<br>*3.740* | 181,0<br>*7.126* | 100,0<br>*3.937* | 125,0<br>*4.921* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0602 | SCGX050204 |
| SD525-20-100-25R7 | 03079582 | 20,0<br>*0.787* | 100,0<br>*3.937* | 186,0<br>*7.323* | 105,0<br>*4.134* | 130,0<br>*5.118* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0602 | SCGX060204 |
| SD525-21-105-25R7 | 03079583 | 21,0<br>*0.827* | 105,0<br>*4.134* | 191,0<br>*7.520* | 110,0<br>*4.331* | 135,0<br>*5.315* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0602 | SCGX060204 |
| SD525-22-110-25R7 | 03079584 | 22,0<br>*0.866* | 110,0<br>*4.331* | 196,0<br>*7.717* | 115,0<br>*4.528* | 140,0<br>*5.512* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0703 | SCGX060204 |
| SD525-23-115-25R7 | 03079585 | 23,0<br>*0.906* | 115,0<br>*4.528* | 201,0<br>*7.913* | 120,0<br>*4.724* | 145,0<br>*5.709* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0703 | SCGX070308 |
| SD525-24-120-25R7 | 03079586 | 24,0<br>*0.945* | 120,0<br>*4.724* | 206,0<br>*8.110* | 125,0<br>*4.921* | 150,0<br>*5.906* | 56,0<br>*2.205* | 25,0<br>*0.984* | 35,0<br>*1.378* | SPGX0703 | SCGX070308 |
| SD525-25-125-32R7 | 03079587 | 25,0<br>*0.984* | 125,0<br>*4.921* | 215,0<br>*8.465* | 130,0<br>*5.118* | 155,0<br>*6.102* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0703 | SCGX070308 |
| SD525-26-130-32R7 | 03079588 | 26,0<br>*1.024* | 130,0<br>*5.118* | 220,0<br>*8.661* | 135,0<br>*5.315* | 160,0<br>*6.299* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0903 | SCGX070308 |
| SD525-27-135-32R7 | 03079589 | 27,0<br>*1.063* | 135,0<br>*5.315* | 225,0<br>*8.858* | 140,0<br>*5.512* | 165,0<br>*6.496* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0903 | SCGX070308 |
| SD525-28-140-32R7 | 03079590 | 28,0<br>*1.102* | 140,0<br>*5.512* | 230,0<br>*9.055* | 145,0<br>*5.709* | 170,0<br>*6.693* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0903 | SCGX070308 |
| SD525-29-145-32R7 | 03079591 | 29,0<br>*1.142* | 145,0<br>*5.709* | 235,0<br>*9.252* | 150,0<br>*5.906* | 175,0<br>*6.890* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0903 | SCGX09T308 |
| SD525-30-150-32R7 | 03079592 | 30,0<br>*1.181* | 150,0<br>*5.906* | 240,0<br>*9.449* | 155,0<br>*6.102* | 180,0<br>*7.087* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0903 | SCGX09T308 |
| SD525-31-155-32R7 | 03079593 | 31,0<br>*1.220* | 155,0<br>*6.102* | 245,0<br>*9.646* | 160,0<br>*6.299* | 185,0<br>*7.283* | 60,0<br>*2.362* | 32,0<br>*1.260* | 42,0<br>*1.654* | SPGX0903 | SCGX09T308 |
| SD525-32-160-40R7 | 03079595 | 32,0<br>*1.260* | 160,0<br>*6.299* | 258,0<br>*10.157* | 165,0<br>*6.496* | 190,0<br>*7.480* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 |
| SD525-33-165-40R7 | 03079596 | 33,0<br>*1.299* | 165,0<br>*6.496* | 263,0<br>*10.354* | 170,0<br>*6.693* | 195,0<br>*7.677* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 |
| SD525-34-170-40R7 | 03079597 | 34,0<br>*1.339* | 170,0<br>*6.693* | 268,0<br>*10.551* | 175,0<br>*6.890* | 200,0<br>*7.874* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX11T3 | SCGX09T308 |
| SD525-35-175-40R7 | 03079598 | 35,0<br>*1.378* | 175,0<br>*6.890* | 273,0<br>*10.748* | 180,0<br>*7.087* | 205,0<br>*8.071* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX11T3 | SCGX11T308 |
| SD525-36-180-40R7 | 03079599 | 36,0<br>*1.417* | 180,0<br>*7.087* | 278,0<br>*10.945* | 185,0<br>*7.283* | 210,0<br>*8.268* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX11T3 | SCGX11T308 |
| SD525-37-185-40R7 | 03079600 | 37,0<br>*1.457* | 185,0<br>*7.283* | 283,0<br>*11.142* | 190,0<br>*7.480* | 215,0<br>*8.465* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX11T3 | SCGX11T308 |
| SD525-38-190-40R7 | 03079601 | 38,0<br>*1.496* | 190,0<br>*7.480* | 288,0<br>*11.339* | 195,0<br>*7.677* | 220,0<br>*8.661* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX12T3 | SCGX11T308 |
| SD525-39-195-40R7 | 03079602 | 39,0<br>*1.535* | 195,0<br>*7.677* | 293,0<br>*11.535* | 200,0<br>*7.874* | 225,0<br>*8.858* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX12T3 | SCGX11T308 |
| SD525-40-200-40R7 | 03079603 | 40,0<br>*1.575* | 200,0<br>*7.874* | 298,0<br>*11.732* | 205,0<br>*8.071* | 230,0<br>*9.055* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX12T3 | SCGX11T308 |

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF | Insert | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | Center insert | Periph insert |
| SD525-41-205-40R7 | 03079604 | 41,0<br>*1.614* | 205,0<br>*8.071* | 303,0<br>*11.929* | 210,0<br>*8.268* | 235,0<br>*9.252* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX12T3 | SCGX120408 |
| SD525-42-210-40R7 | 03079605 | 42,0<br>*1.654* | 210,0<br>*8.268* | 308,0<br>*12.126* | 215,0<br>*8.465* | 240,0<br>*9.449* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX12T3 | SCGX120408 |
| SD525-43-215-40R7 | 03079606 | 43,0<br>*1.693* | 215,0<br>*8.465* | 313,0<br>*12.323* | 220,0<br>*8.661* | 245,0<br>*9.646* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX12T3 | SCGX120408 |
| SD525-44-220-40R7 | 03079607 | 44,0<br>*1.732* | 220,0<br>*8.661* | 318,0<br>*12.520* | 225,0<br>*8.858* | 250,0<br>*9.843* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX1504 | SCGX120408 |
| SD525-45-225-40R7 | 03079608 | 45,0<br>*1.772* | 225,0<br>*8.858* | 323,0<br>*12.717* | 230,0<br>*9.055* | 255,0<br>*10.039* | 68,0<br>*2.677* | 40,0<br>*1.575* | 50,0<br>*1.969* | SPGX1504 | SCGX150512 |

## Spare Parts, included in delivery

| For drill dia. (mm) | Insert screw | | Insert key |
|---|---|---|---|
| |  | |  |
| | Center insert | Periph insert | |
| 15,00-17,45 | C02245-T07P | C02245-T07P | T07P-2 |
| 17,46-19,49 | C02205-T07P | C02245-T07P | T07P-2 |
| 19,50-21,24 | C02205-T07P | C02205-T07P | T07P-2 |
| 21,25-22,49 | C02506-T08P | C02506-T08P | T08P-2 |
| 22,50-25,49 | C02507-T08P | C03007-T08P | T08P-2 |
| 25,50-28,49 | C03007-T09P | C03007-T09P | T09P-2 |
| 28,50-31,49 | C03007-T09P | C03009-T09P | T09P-2 |
| 31,50-40,49 | C03508-T15P | C03508-T15P | T15P-2D |
| 40,50-43,24 | C03508-T15P | C05012-T15P | T15P-2D |
| 43,25-59,00 | C04011-T15P | C05012-T15P | T15P-2D |

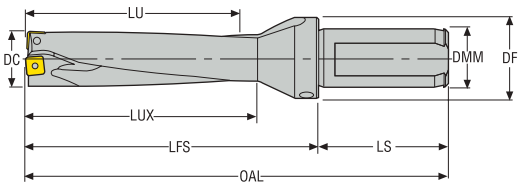
## Accessories

| For drill dia. (mm) | Torque wrench* | Replacement blade | Torque value |
|---|---|---|---|
| |  |  | |
| 15,00-17,45 | T00-07P09 | T00-07P | 0,9 Nm |
| 17,46-19,49 | T00-07P09 | T00-07P | 0,9 Nm |
| 19,50-21,24 | T00-07P09 | T00-07P | 0,9 Nm |
| 21,25-22,49 | T00-08P12 | T00-08P | 1,2 Nm |
| 22,50-25,49 | T00-08P12 | T00-08P | 1,2 Nm |
| 25,50-28,49 | T00-09P20 | T00-09P | 2,0 Nm |
| 28,50-31,49 | T00-09P20 | T00-09P | 2,0 Nm |
| 31,50-40,49 | T00-15P30 | T00-15P | 3,0 Nm |
| 40,50-43,24 | T00-15P30 | T00-15P | 3,0 Nm |
| 43,25-59,00 | T00-15P30 | T00-15P | 3,0 Nm |

*Including blade.

# SD525

Drilling depth ~ 5 x D – Inch






- ISO 9766 shank, -7
- Internal coolant
- For insert information see page(s) 294-300
- For cutting data see page(s) 307, 308
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | OAL | LUX | LFS | LS | DMM | DF | Insert | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | Center insert | Periph insert |
| SD525-0750-375-1000R7 | 03079565 | 0.750 | 3.750 | 7.181 | 3.947 | 4.931 | 2.250 | 1.000 | 1.378 | SPGX0602 | SCGX050204 |
| SD525-0812-406-1000R7 | 03079566 | 0.812 | 4.060 | 7.491 | 4.257 | 5.241 | 2.250 | 1.000 | 1.378 | SPGX0602 | SCGX060204 |
| SD525-0875-438-1000R7 | 03079567 | 0.875 | 4.380 | 7.811 | 4.577 | 5.561 | 2.250 | 1.000 | 1.378 | SPGX0703 | SCGX060204 |
| SD525-0937-469-1000R7 | 03079568 | 0.937 | 4.690 | 8.121 | 4.887 | 5.871 | 2.250 | 1.000 | 1.378 | SPGX0703 | SCGX070308 |
| SD525-1000-500-1250R7 | 03079569 | 1.000 | 5.000 | 8.556 | 5.197 | 6.181 | 2.375 | 1.250 | 1.654 | SPGX0703 | SCGX070308 |
| SD525-1062-531-1250R7 | 03079570 | 1.062 | 5.310 | 8.866 | 5.507 | 6.491 | 2.375 | 1.250 | 1.654 | SPGX0903 | SCGX070308 |
| SD525-1125-563-1250R7 | 03079571 | 1.125 | 5.630 | 9.186 | 5.827 | 6.811 | 2.375 | 1.250 | 1.654 | SPGX0903 | SCGX09T308 |
| SD525-1187-594-1250R7 | 03079572 | 1.187 | 5.940 | 9.496 | 6.137 | 7.121 | 2.375 | 1.250 | 1.654 | SPGX0903 | SCGX09T308 |
| SD525-1250-625-1500R7 | 03079573 | 1.250 | 6.250 | 10.056 | 6.447 | 7.431 | 2.625 | 1.500 | 1.969 | SPGX11T3 | SCGX09T308 |
| SD525-1375-687-1500R7 | 03079574 | 1.375 | 6.870 | 10.676 | 7.067 | 8.051 | 2.625 | 1.500 | 1.969 | SPGX11T3 | SCGX11T308 |
| SD525-1500-750-1500R7 | 03079575 | 1.500 | 7.500 | 11.306 | 7.697 | 8.681 | 2.625 | 1.500 | 1.969 | SPGX12T3 | SCGX11T308 |
| SD525-1625-812-1500R7 | 03079576 | 1.625 | 8.120 | 11.926 | 8.317 | 9.301 | 2.625 | 1.500 | 1.969 | SPGX12T3 | SCGX120408 |
| SD525-1750-875-1500R7 | 03079577 | 1.750 | 8.750 | 12.556 | 8.947 | 9.931 | 2.625 | 1.500 | 1.969 | SPGX1504 | SCGX120408 |
| SD525-1875-937-1500R7 | 03079578 | 1.875 | 9.370 | 13.176 | 9.567 | 10.551 | 2.625 | 1.500 | 1.969 | SPGX1504 | SCGX150512 |
| SD525-1937-968-1500R7 | 03079579 | 1.937 | 9.680 | 13.486 | 9.877 | 10.861 | 2.625 | 1.500 | 2.337 | SPGX1504 | SCGX150512 |
| SD525-2000-1000-1500R7 | 03079581 | 2.000 | 10.000 | 13.806 | 10.197 | 11.181 | 2.625 | 1.500 | 2.337 | SPGX1504 | SCGX150512 |

## Spare Parts, included in delivery

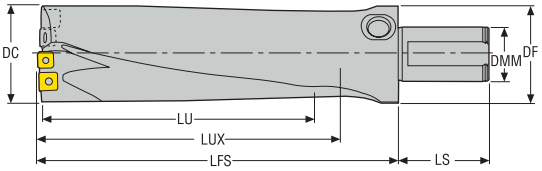
## Accessories

| For drill dia. (inch) | Insert screw centre | Insert screw periph | Key | Torque wrench |
|---|---|---|---|---|
| |  |  |  |  |
| 0.750 | C02205-T07P | C02245-T07P | T07P-2 | T00-07P09 |
| 0.812 | C02205-T07P | C02205-T07P | T07P-2 | T00-07P09 |
| 0.875 | C02506-T08P | C02506-T08P | T08P-2 | T00-08P12 |
| 0.937-1.000 | C02507-T08P | C03007-T08P | T08P-2 | T00-08P12 |
| 1.062 | C03007-T09P | C03007-T09P | T09P-2 | T00-09P20 |
| 1.125-1.187 | C03007-T09P | C03009-T09P | T09P-2 | T00-09P20 |
| 1.250-1.500 | C03508-T15P | C03508-T15P | T15P-2D | T00-15P30 |
| 1.625 | C03508-T15P | C05012-T15P | T15P-2D | T00-15P30 |
| 1.750-2.000 | C04011-T15P | C05012-T15P | T15P-2D | T00-15P35 |

# SD542

Drilling depth ~ 2,5 X D – Metric






- ISO 9766 shank, -7
- Internal coolant
- For insert information see page(s) 294-300
- For cutting data see page(s) 309, 310
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | LUX | LFS | LS | DMM | DF | Insert | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | mm | mm | mm | mm | mm | mm | mm | Center insert | Periph insert |
| SD542-60-150-40R7 | 02590456 | 60,0 | 150,0 | 156,0 | 201,5 | 68,0 | 40,0 | 79,0 | SPGX0903-C1 | SCGX09T308.. |
| SD542-65-162.5-40R7 | 02590457 | 65,0 | 162,5 | 169,5 | 214,0 | 68,0 | 40,0 | 79,0 | SPGX11T3-C1 | SCGX09T308.. |
| SD542-70-175-40R7 | 02590458 | 70,0 | 175,0 | 182,5 | 226,5 | 68,0 | 40,0 | 79,0 | SPGX11T3-C1 | SCGX120408.. |
| SD542-75-187.5-50R7 | 02590459 | 75,0 | 187,5 | 196,0 | 239,0 | 78,0 | 50,0 | 79,0 | SPGX11T3-C1 | SCGX120408.. |
| SD542-80-200-50R7 | 02590460 | 80,0 | 200,0 | 210,0 | 251,5 | 78,0 | 50,0 | 79,0 | SPGX12T3-C1 | SCGX120408.. |
| SD542-85-212.5-50R7 | 02590461 | 85,0 | 212,5 | 221,0 | 264,0 | 78,0 | 50,0 | 89,0 | SPGX12T3-C1 | SCGX120408.. |

## Spare Parts, included in delivery

| For drill dia. (mm) | Insert screw | | Insert key | Plug | Hose adapter |
|---|---|---|---|---|---|
| |  | |  |  |  |
| | Center insert | Periph insert | | | |
| 60,00-64,99 | C03007-T09P | C03009-T09P | T09P-2 | R3/8 | R3/8-HA |
| 65,00-68,99 | C03508-T15P | C03508-T15P | T15P-2D | R3/8 | R3/8-HA |
| 69,00-86,99 | C03508-T15P | C05012-T15P | T15P-2D | R3/8 | R3/8-HA |

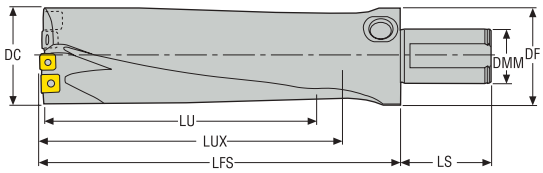
## Accessories

| For drill dia. (mm) | Torque wrench* | Replacement blade | Torque value |
|---|---|---|---|
| |  |  | |
| 15,00-17,45 | T00-09P20 | T00-09P | 3,0 Nm |
| 17,46-19,49 | T00-15P30 | T00-15P | 3,0 Nm |
| 19,50-21,24 | T00-15P30 | T00-15P | 3,0 Nm |

*Including blade.

# SD542

Drilling depth ~ 2.5 X D – Inch






- ISO 9766 shank, -7
- Internal coolant
- For insert information see page(s) 294-300
- For cutting data see page(s) 309, 310
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | LUX | LFS | LS | DMM | DF | Insert | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | Center insert | Periph insert |
| SD542-2250-563-1500R7 | 02602085 | 2.250 | 5.630 | 5.800 | 7.000 | 4.500 | 1.500 | 3.110 | SPGX 0903-C1 | SCGX 09T308.. |
| SD542-2500-625-1500R7 | 02602087 | 2.500 | 6.250 | 6.520 | 8.280 | 4.500 | 1.500 | 3.110 | SPGX 0903-C1 | SCGX 09T308.. |
| SD542-2750-688-1500R7 | 02602088 | 2.750 | 6.880 | 7.190 | 8.900 | 4.500 | 1.500 | 3.110 | SPGX 11T3-C1 | SCGX 120408.. |
| SD542-3000-750-2000R7 | 02602089 | 3.000 | 7.500 | 7.860 | 9.530 | 4.500 | 2.000 | 3.110 | SPGX 11T3-C1 | SCGX 120408.. |
| SD542-3250-813-2500R7 | 02602090 | 3.250 | 8.130 | 8.460 | 10.150 | 4.500 | 2.500 | 3.500 | SPGX 12T3-C1 | SCGX 120408.. |
| SD542-3500-875-2500R7 | 02602091 | 3.500 | 8.750 | 9.140 | 10.780 | 4.500 | 2.500 | 3.500 | SPGX 1504-C1 | SCGX 120408.. |

## Spare Parts, included in delivery

| For drill dia. (mm) | Insert screw | | Insert key | Plug | Hose adapter |
|---|---|---|---|---|---|
| |  | |  |  |  |
| | Center insert | Periph insert | | | |
| 60,00-64,99 | C03007-T09P | C03009-T09P | T09P-2 | R3/8 | R3/8-HA |
| 65,00-68,99 | C03508-T15P | C03508-T15P | T15P-2D | R3/8 | R3/8-HA |
| 69,00-86,99 | C03508-T15P | C05012-T15P | T15P-2D | R3/8 | R3/8-HA |

## Accessories

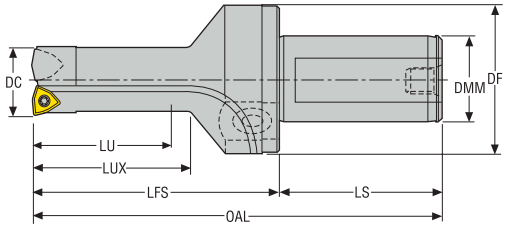
| For drill dia. (mm) | Torque wrench* | Replacement blade | Torque value |
|---|---|---|---|
| |  |  | |
| 15,00-17,45 | T00-09P20 | T00-09P | 3,0 Nm |
| 17,46-19,49 | T00-15P30 | T00-15P | 3,0 Nm |
| 19,50-21,24 | T00-15P30 | T00-15P | 3,0 Nm |

*Including blade.

# SD572

Drilling depth ~ 2 X D – Metric






- ISO 9766 shank, -7
- Internal coolant
- For insert information see page(s) 294-300
- For cutting data see page(s) 311-312
- For intermediate diameters see the MyDesign software.

| Designation | Item number | DC | LU | LUX | LFS | LS | DMM | DF | Insert | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | mm | mm | mm | mm | mm | mm | mm | Center insert | Periph insert |
| SD572-15-30-25R7 | 02595777 | 15,0 | 30,0 | 35,0 | 65,0 | 56,0 | 25,0 | 42,0 | WCMX030208-86 | WCMX030208.. |
| SD572-16-32-25R7 | 02595778 | 16,0 | 32,0 | 37,0 | 67,0 | 56,0 | 25,0 | 42,0 | WCMX030208-86 | WCMX030208.. |
| SD572-17-34-25R7 | 02595779 | 17,0 | 34,0 | 39,0 | 69,0 | 56,0 | 25,0 | 42,0 | WCMX030208-86 | WCMX030208.. |
| SD572-19-38-25R7 | 02595780 | 19,0 | 38,0 | 43,0 | 73,0 | 56,0 | 25,0 | 42,0 | WCMX040208-86 | WCMX030208.. |
| SD572-22-44-25R7 | 02595781 | 22,0 | 44,0 | 49,0 | 79,0 | 56,0 | 25,0 | 42,0 | WCMX050308-86 | WCMX040208.. |
| SD572-27-54-32R7 | 02595783 | 27,0 | 54,0 | 59,0 | 89,0 | 60,0 | 32,0 | 50,0 | WCMX06T308-86 | WCMX050308.. |
| SD572-33-66-40R7 | 02595784 | 33,0 | 66,0 | 71,0 | 101,0 | 68,0 | 40,0 | 59,0 | WCMX080412-86 | WCMX06T308.. |
| SD572-41-82-40R7 | 02595785 | 41,0 | 82,0 | 87,0 | 117,0 | 68,0 | 40,0 | 59,0 | WCMX080412-86 | WCMX080412.. |
| SD572-47-94-40R7 | 02595786 | 47,0 | 94,0 | 99,0 | 129,0 | 68,0 | 40,0 | 59,0 | WCMX080412-86 | WCMX080412.. |

## Spare Parts, included in delivery

| For drill dia. (mm) | Insert screw | | Insert key | Plug | Hose adapter |
|---|---|---|---|---|---|
| |  | |  |  |  |
| | Center insert | Periph insert | | | |
| 15,00-20,50 | C02205-T07P | C02205-T07P | T07P-2 | R1/4 | 1310 |
| 20,51-24,50 | C03007-T08P | C02506-T08P | T08P-2 | R1/4 | 1310 |
| 24,51-32,50 | C03508-T15P | C03007-T08P | T08P-2, T15P-2D | R1/4 | 1310 |
| 32,51-36,50 | C03508-T15P | C03508-T15P | T15P-2D | R1/4 | 1310 |
| 36,51-59,00 | C04011-T15P | C04011-T15P | T15P-2D | R1/4 | 1310 |

## Accessories

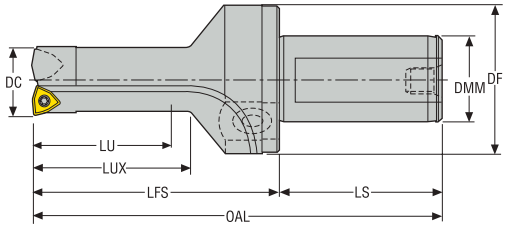
| For drill dia. (mm) | Torque wrench* | Replacement blade | Torque value |
|---|---|---|---|
| |  |  | |
| 15,00-20,50 | T00-07P09 | T00-07P | 0,9 Nm |
| 20,51-24,50 | T00-08P12 | T00-08P | 1,2 Nm |
| 24,51-32,50 | T00-08P12 | T00-08P | 1,2 Nm |
| 32,51-36,50 | T00-15P30 | T00-15P | 3,0 Nm |
| 36,51-59,00 | T00-15P30 | T00-15P | 3,0 Nm |

*Including blade.

# SD572

Drilling depth ~ 2 X D – Inch





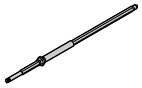

- ISO 9766 shank, -7
- Internal coolant
- For insert information see page(s) 294-300
- For cutting data see page(s) 311-312
- For intermediate diameters see the MyDesign software.

| Designation | Item number | Hole dia. min-max (inch) | DC | LU | LUX | LFS | DF | Insert | |
|---|---|---|---|---|---|---|---|---|---|
| | | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | Center insert | Periph insert |
| SD572-0591-118-1000R7 | 02602128 | 0.591-0.709 | 0.591 | 1.182 | 1.379 | 2.56 | 1.775 | WCMX030208-86 | WCMX 030208.. |
| SD572-0669-134-1000R7 | 02602129 | 0.669-0.748 | 0.669 | 1.338 | 1.535 | 2.716 | 1.775 | WCMX030208-86 | WCMX 030208.. |
| SD572-0748-150-1000R7 | 02602131 | 0.748-0.866 | 0.748 | 1.496 | 1.69 | 2.874 | 1.775 | WCMX040208-86 | WCMX 030208.. |
| SD572-0866-173-1000R7 | 02602132 | 0.866-1.062 | 0.866 | 1.732 | 1.929 | 3.11 | 1.775 | WCMX050308-86 | WCMX 040208.. |
| SD572-1062-212-1250R7 | 02602133 | 1.062-1.299 | 1.062 | 2.124 | 2.321 | 3.502 | 2.165 | WCMX06T308-86 | WCMX 050308.. |
| SD572-1299-260-1500R7 | 02602134 | 1.299-1.614 | 1.299 | 2.598 | 2.795 | 3.976 | 2.303 | WCMX080412-86 | WCMX 06T308.. |
| SD572-1614-322-1500R7 | 02602135 | 1.614-1.850 | 1.614 | 3.228 | 3.425 | 4.606 | 2.303 | WCMX080412-86 | WCMX 080412.. |
| SD572-1850-370-1500R7 | 02602136 | 1.850-2.047 | 1.85 | 3.7 | 3.7 | 5.078 | 2.303 | WCMX080412-86 | WCMX 080412.. |

## Spare Parts, included in delivery

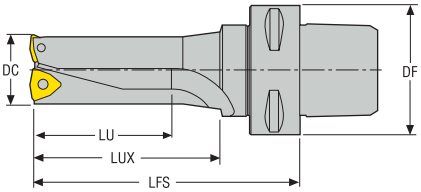
| For drill dia. (inch) | Hose adapter | Insert key | Insert screw centre | Insert screw periph | Key (Flag) | Screw |
|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |
| 0.591-0.748 | 1310 | T07P-2 | C02205-T07P | C02245-T07P | C02245-T07P | R1/4 |
| 0.866 | 1310 | T08P-2 | C02506-T08P | C03007-T08P | – | R1/4 |
| 1.062 | 1310 | T08P-2 | C03508-T15P | C03007-T08P | T15P-2D | R1/4 |
| 1.299 | 1310 | T15P-2D | C03508-T15P | C02506-T08P | C02506-T08P | R1/4 |
| 1.614-1.850 | 1310 | T15P-2D | C04011-T15P | C04011-T15P | – | R1/4 |

## Accessories

| For drill dia. (inch) | Replacement blade | Torque key |
|---|---|---|
| |  |  |
| 0.591-0.748 | – | T00-07P09 |
| 0.866 | – | T00-08P12 |
| 1.062 | T00-15P | T00-15P30 |
| 1.299 | – | T00-15P30 |
| 1.614-1.850 | – | T00-15P30 |

# SD572

## Drilling depth ~ 2 X D – Metric






- Seco-Capto™ C5 shank
- Internal coolant
- For insert information see page(s) 294-300
- For cutting data see page(s) 311-312
- For intermediate diameters see the MyDesign software.

| Designation | Item number | Hole dia min-max (mm) | DC | LU | LUX | LFS | DF | Insert | |
|---|---|---|---|---|---|---|---|---|---|
| | | mm | mm | mm | mm | mm | mm | Center insert | Periph insert |
| SD572-15-30-C5 | 02595831 | 14,8-18,0 | 15,0 | 30,0 | 35,0 | 85,0 | 50,0 | WCMX030208-86 | WCMX030208.. |
| SD572-16-32-C5 | 02595832 | 15,8-18,0 | 16,0 | 32,0 | 37,0 | 87,0 | 50,0 | WCMX030208-86 | WCMX030208.. |
| SD572-17-34-C5 | 02595833 | 16,8-19,0 | 17,0 | 34,0 | 39,0 | 89,0 | 50,0 | WCMX030208-86 | WCMX030208.. |
| SD572-19-38-C5 | 02595834 | 18,8-22,0 | 19,0 | 38,0 | 43,0 | 93,0 | 50,0 | WCMX040208-86 | WCMX030208.. |
| SD572-22-44-C5 | 02595835 | 21,8-27,0 | 22,0 | 44,0 | 49,0 | 99,0 | 50,0 | WCMX050308-86 | WCMX040208.. |
| SD572-27-54-C5 | 02595836 | 26,8-33,0 | 27,0 | 54,0 | 59,0 | 109,0 | 50,0 | WCMX06T308-86 | WCMX050308.. |
| SD572-33-66-C5 | 02595837 | 32,8-41,0 | 33,0 | 66,0 | 71,0 | 121,0 | 50,0 | WCMX080412-86 | WCMX06T308.. |
| SD572-41-82-C5 | 02595838 | 40,8-47,0 | 41,0 | 82,0 | 87,0 | 157,0 | 50,0 | WCMX080412-86 | WCMX080412.. |
| SD572-47-94-C5 | 02595839 | 46,8-52,0 | 47,0 | 94,0 | 99,0 | 169,0 | 50,0 | WCMX080412-86 | WCMX080412.. |

## Spare Parts, included in delivery

| For drill dia. (mm) | Insert screw | | Insert key | Plug | Hose adapter |
|---|---|---|---|---|---|
| |  | |  |  |  |
| | Center insert | Periph insert | | | |
| 15,00-20,50 | C02205-T07P | C02205-T07P | T07P-2 | R1/4 | 1310 |
| 20,51-24,50 | C03007-T08P | C02506-T08P | T08P-2 | R1/4 | 1310 |
| 24,51-32,50 | C03508-T15P | C03007-T08P | T08P-2, T15P-2D | R1/4 | 1310 |
| 32,51-36,50 | C03508-T15P | C03508-T15P | T15P-2D | R1/4 | 1310 |
| 36,51-59,00 | C04011-T15P | C04011-T15P | T15P-2D | R1/4 | 1310 |

## Accessories

| For drill dia. (mm) | Torque wrench* | Replacement blade | Torque value |
|---|---|---|---|
| |  |  | |
| 15,00-20,50 | T00-07P09 | T00-07P | 0,9 Nm |
| 20,51-24,50 | T00-08P12 | T00-08P | 1,2 Nm |
| 24,51-32,50 | T00-08P12 | T00-08P | 1,2 Nm |
| 32,51-36,50 | T00-15P30 | T00-15P | 3,0 Nm |
| 36,51-59,00 | T00-15P30 | T00-15P | 3,0 Nm |

*Including blade.



# Perfomax® SD602

Seco's Perfomax® SD602 is a modular drill head system specifically designed for deep hole applications that require large diameters drilled safely and efficiently.

- DP3000 grade inserts provide the toughness needed to optimize Perfomax® SD602.
- The grade allows for high feeds and speeds.
- High flexibility by using extensions to reach the required drilling depth.

# Code keys

## Drilling bodies

| Type of drill SD602: Pilot drill and cartridge | Possible drill diameter 89 - Lower diameter 90 - Upper diameter | Flange diameter | Shank type |
|---|---|---|---|
| SD602 | 89/90 | 50 | RG |



## Pilot drill

| | Drill diameter | |
|---|---|---|
| SD601 | 1 | 10 | R |
| | 0 = Solid carbide<br>1 = HSS | | Right-hand rotation |



(Pilot drill has to be purchased separately)

## Cassette

| | Insert size<br>SCGX07<br>SCGX09<br>SCGX12<br>SCGX15 | |
|---|---|---|
| SD600 | C | 07 | N |
| | C = Center<br>P = Periphery | | N = Nominal diameter |



-N



-U

## Kit

| | Periphery | | |
|---|---|---|---|
| SD602 | 1 | P | 07 | N |
| | 0 = incl 2 pads (< ∅ 135 mm)<br>1 = incl 4 pads (> ∅ 135 mm) | | Insert size<br>SCGX07<br>SCGX09<br>SCGX12<br>SCGX15 | N – Nominal diameter<br>U – Lower diameter |



-N



-U

Note: Please select nominal (-N) or lower (-U) diameter spare parts kit “D” on page 288 to complete drill body assembly. Kit “D” must be ordered separately.

## Inch

| | | |
|---|---|---|
| SD602 | 3500 | RG |

## Pad

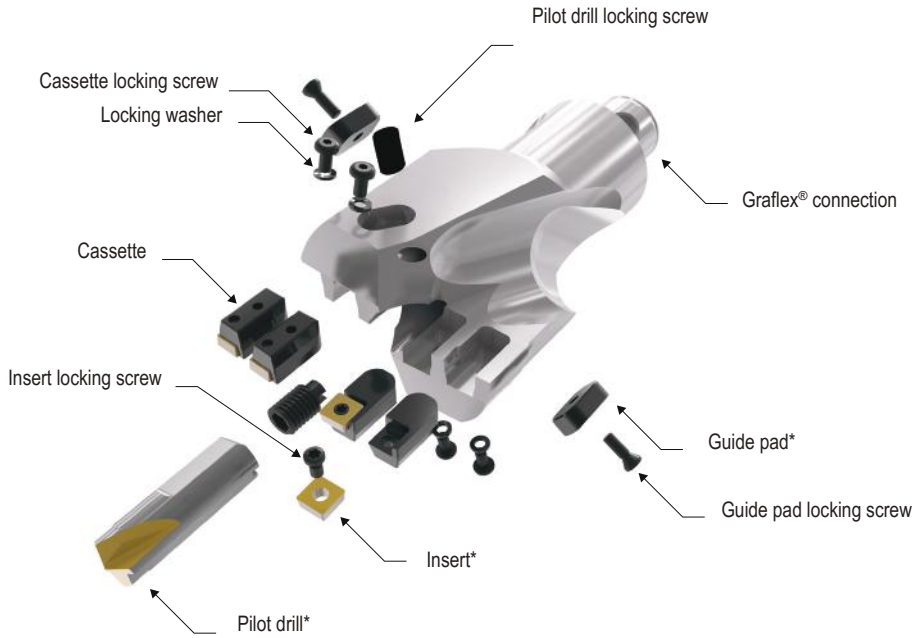
| | | |
|---|---|---|
| PAD | L20R25 | -N |
| | | N = Nominal diameter |





# Modular drill head assembly

## SD602-59/60-40RG






**Example: Diameter 59; SD602-59-40RG**
**Use kit: SD6020-P07***



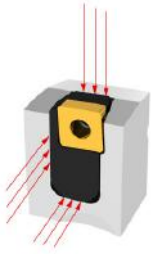
**Example: Diameter 60; SD602-60-40RG**
**Use kit: SD6020-P07-N***

### Mounting instruction

- Tighten the cassette locking screw
- Mount the inserts
- Mount the pilot drill and fix it to the bottom of the hole if you need to extend the pilot drill use the adjusting screw
- Mount the extensions

### Mounting of cartridge and guide pad

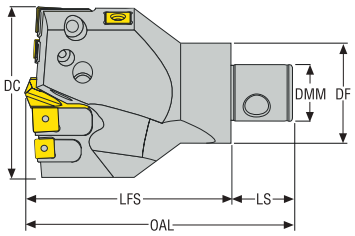
- Mount the cassette
- Make sure that there are no air gaps between the cassette and the walls
- Tighten the cassette locking screw with the torque key:
  SD600-x-07: 3 Nm
  SD600-x-09: 3 Nm
  SD600-x-12: 8 Nm
  SD600-x-15: 8 Nm
- Mount the guide pad
- Tighten the pad locking screw



*** Not included in delivery.** Periph kit, pilot drill and inserts needs to be ordered seperately.

# SD602

## Modular drill head – Metric/Inch






- Internal coolant
- For insert information see page(s) 294-300
- For cutting data see page(s) 313-314
- Adjustable length pilot drill

| | | | Capacity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Item number | Designation | Graflex size | DCN | DCX | OAL | LFS | LS | DF | DMM | Weight | Insert |
| | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | |
| 02846693 | SD602-119/120-63RG | G6 | 119,0<br>*4.685* | 120,0<br>*4.724* | 185,0<br>*7.283* | 145,0<br>*5.709* | 40,0<br>*1.575* | 63,0<br>*2.480* | 36,0<br>*1.417* | 3,5<br>*7.720* | SCGX15 |
| 02846694 | SD602-139/140-90RG | G7 | 139,0<br>*5.472* | 140,0<br>*5.512* | 210,0<br>*8.268* | 160,0<br>*6.299* | 50,0<br>*1.969* | 90,0<br>*3.543* | 46,0<br>*1.811* | 6,1<br>*13.450* | SCGX12 |
| 02846695 | SD602-159/160-90RG | G7 | 159,0<br>*6.260* | 160,0<br>*6.299* | 210,0<br>*8.268* | 160,0<br>*6.299* | 50,0<br>*1.969* | 90,0<br>*3.543* | 46,0<br>*1.811* | 6,6<br>*14.550* | SCGX12/15 |
| 02846698 | SD602-2500-40RG | G4 | 62,5<br>*2.461* | 63,5<br>*2.500* | 129,0<br>*5.079* | 105,0<br>*4.134* | 24,0<br>*0.945* | 40,0<br>*1.575* | 22,0<br>*0.866* | 1,0<br>*2.200* | SCGX07 |
| 02846699 | SD602-2750-40RG | G4 | 68,85<br>*2.711* | 69,85<br>*2.750* | 129,0<br>*5.079* | 105,0<br>*4.134* | 24,0<br>*0.945* | 40,0<br>*1.575* | 22,0<br>*0.866* | 1,1<br>*2.430* | SCGX07/09 |
| 02846700 | SD602-3000-40RG | G4 | 75,2<br>*2.961* | 76,2<br>*3.000* | 129,0<br>*5.079* | 105,0<br>*4.134* | 24,0<br>*0.945* | 40,0<br>*1.575* | 22,0<br>*0.866* | 1,1<br>*2.430* | SCGX09 |
| 02846701 | SD602-3250-50RG | G5 | 81,55<br>*3.211* | 82,55<br>*3.250* | 160,0<br>*6.299* | 130,0<br>*5.118* | 30,0<br>*1.181* | 50,0<br>*1.969* | 28,0<br>*1.102* | 1,8<br>*3.970* | SCGX09/12 |
| 02846702 | SD602-3500-50RG | G5 | 87,9<br>*3.461* | 88,9<br>*3.500* | 160,0<br>*6.299* | 130,0<br>*5.118* | 30,0<br>*1.181* | 50,0<br>*1.969* | 28,0<br>*1.102* | 1,9<br>*4.190* | SCGX09/12 |
| 02846703 | SD602-4000-63RG | G6 | 100,6<br>*3.961* | 101,6<br>*4.000* | 185,0<br>*7.283* | 145,0<br>*5.709* | 40,0<br>*1.575* | 63,0<br>*2.480* | 36,0<br>*1.417* | 3,2<br>*7.050* | SCGX12 |
| 02846688 | SD602-59/60-40RG | G4 | 59,0<br>*2.323* | 60,0<br>*2.362* | 129,0<br>*5.079* | 105,0<br>*4.134* | 24,0<br>*0.945* | 40,0<br>*1.575* | 22,0<br>*0.866* | 0,9<br>*1.980* | SCGX07 |
| 02846689 | SD602-69/70-40RG | G4 | 69,0<br>*2.717* | 70,0<br>*2.756* | 129,0<br>*5.079* | 105,0<br>*4.134* | 24,0<br>*0.945* | 40,0<br>*1.575* | 22,0<br>*0.866* | 1,1<br>*2.430* | SCGX09 |
| 02846690 | SD602-79/80-50RG | G5 | 79,0<br>*3.110* | 80,0<br>*3.150* | 160,0<br>*6.299* | 130,0<br>*5.118* | 30,0<br>*1.181* | 50,0<br>*1.969* | 28,0<br>*1.102* | 1,8<br>*3.970* | SCGX09 |
| 02846691 | SD602-89/90-50RG | G5 | 89,0<br>*3.504* | 90,0<br>*3.543* | 160,0<br>*6.299* | 130,0<br>*5.118* | 30,0<br>*1.181* | 50,0<br>*1.969* | 28,0<br>*1.102* | 2,0<br>*4.410* | SCGX09/12 |
| 02846692 | SD602-99/100-63RG | G6 | 99,0<br>*3.898* | 100,0<br>*3.937* | 185,0<br>*7.283* | 145,0<br>*5.709* | 40,0<br>*1.575* | 63,0<br>*2.480* | 36,0<br>*1.417* | 3,1<br>*6.830* | SCGX12 |

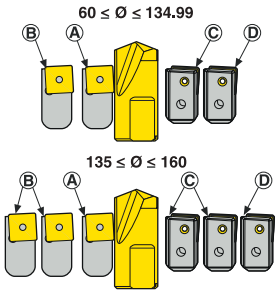
## Spare Parts, included in delivery

| Cassette | Cassette | Cassette screw | Washer | Insert screw | Insert key | Guide pad* | Guide pad* | Pad screw |
|---|---|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |  |  |
| SD600-C-07 | SD600-P-07-N | K6S4x8 | LW0408 | C03007-T09P | T09P-2, T15P-2D | PAD-L20R25 | PAD-L20R25-N | C04014-T15P |
| SD600-C-09 | SD600-P-09-N | K6S4x8 | LW0408 | C03508-T15P | T15P-2D | PAD-L20R25 | PAD-L20R25-N | C04014-T15P |
| SD600-C-12 | SD600-P-12-N | K6S6x10 | LW0611 | C05012-T15P | T15P-2D | PAD-L20R25 | PAD-L20R25-N | C04014-T15P |
| SD600-C-15 | SD600-P-15-N | K6S6x12 | LW0611 | C05012-T15P | T15P-2D | PAD-L20R25 | PAD-L20R25-N | C04014-T15P |

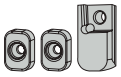
*Not included in delivery

# SD602

Modular drill head




## Spare Parts, included in delivery

| Designation | For drill dia. (mm) | For drill dia. (inch) | Pilot screw | Adjusting screw | Cassette (A) | Cassette (B) | Cassette (C) | Periph kit* (D) | Pilot drill* x=0 Solid carbide x=1 HSS |
|---|---|---|---|---|---|---|---|---|---|
| | | |  |  |  |  |  |  |  |
| SD602-59/60-40RG | 59 | 2.323 | P6SS 8X8 | 19TLR0816 | SD600-C-07 | SD600-C-07 | SD600-P-07 | SD6020-P-07-U | SD601x-10-R |
| SD602-59/60-40RG | 60 | 2.362 | P6SS 8X8 | 19TLR0816 | SD600-C-07 | SD600-C-07 | SD600-P-07 | SD6020-P-07-N | SD601x-10-R |
| SD602-2500-40RG | 62,5 | 2.461 | P6SS 8X8 | 19TLR0816 | SD600-C-07 | SD600-C-07 | SD600-P-07 | SD6020-P-07-U | SD601x-10-R |
| SD602-2500-40RG | 63,5 | 2.500 | P6SS 8X8 | 19TLR0816 | SD600-C-07 | SD600-C-07 | SD600-P-07 | SD6020-P-07-N | SD601x-10-R |
| SD602-2750-40RG | 68,85 | 2.711 | P6SS 8X8 | 19TLR0816 | SD600-C-09 | SD600-C-07 | SD600-P-07 | SD6020-P-07-U | SD601x-10-R |
| SD602-2750-40RG | 69,85 | 2.750 | P6SS 8X8 | 19TLR0816 | SD600-C-09 | SD600-C-07 | SD600-P-07 | SD6020-P-07-N | SD601x-10-R |
| SD602-69/70-40RG | 69 | 2.717 | P6SS 8X8 | 19TLR0816 | SD600-C-09 | SD600-C-09 | SD600-P-09 | SD6020-P-09-U | SD601x-10-R |
| SD602-69/70-40RG | 70 | 2.756 | P6SS 8X8 | 19TLR0816 | SD600-C-09 | SD600-C-09 | SD600-P-09 | SD6020-P-09-N | SD601x-10-R |
| SD602-3000-40RG | 75,2 | 2.961 | P6SS 10X10 | 19TLR1016 | SD600-C-09 | SD600-C-09 | SD600-P-09 | SD6020-P-09-U | SD601x-15-R |
| SD602-3000-40RG | 76,2 | 3.000 | P6SS 10X10 | 19TLR1016 | SD600-C-09 | SD600-C-09 | SD600-P-09 | SD6020-P-09-N | SD601x-15-R |
| SD602-79/80-50RG | 79 | 3.110 | P6SS 10X10 | 19TLR1016 | SD600-C-09 | SD600-C-09 | SD600-P-09 | SD6020-P-09-U | SD601x-15-R |
| SD602-79/80-50RG | 80 | 3.150 | P6SS 10X10 | 19TLR1016 | SD600-C-09 | SD600-C-09 | SD600-P-09 | SD6020-P-09-N | SD601x-15-R |
| SD602-3250-50RG | 81,55 | 3.211 | P6SS 10X10 | 19TLR1016 | SD600-C-12 | SD600-C-09 | SD600-P-09 | SD6020-P-09-U | SD601x-15-R |
| SD602-3250-50RG | 82,55 | 3.250 | P6SS 10X10 | 19TLR1016 | SD600-C-12 | SD600-C-09 | SD600-P-09 | SD6020-P-09-N | SD601x-15-R |
| SD602-3500-50RG | 87,9 | 3.461 | P6SS 10X10 | 19TLR1016 | SD600-C-12 | SD600-C-09 | SD600-P-09 | SD6020-P-12-U | SD601x-15-R |
| SD602-3500-50RG | 88,9 | 3.500 | P6SS 10X10 | 19TLR1016 | SD600-C-12 | SD600-C-09 | SD600-P-09 | SD6020-P-12-N | SD601x-15-R |
| SD602-89/90-50RG | 89 | 3.504 | P6SS 10X10 | 19TLR1016 | SD600-C-12 | SD600-C-09 | SD600-P-09 | SD6020-P-12-U | SD601x-15-R |
| SD602-89/90-50RG | 90 | 3.543 | P6SS 10X10 | 19TLR1016 | SD600-C-12 | SD600-C-09 | SD600-P-09 | SD6020-P-12-N | SD601x-15-R |
| SD602-99/100-63RG | 99 | 3.898 | P6SS 10X10 | 19TLR1016 | SD600-C-12 | SD600-C-12 | SD600-P-12 | SD6020-P-12-U | SD601x-15-R |
| SD602-99/100-63RG | 100 | 3.937 | P6SS 10X10 | 19TLR1016 | SD600-C-12 | SD600-C-12 | SD600-P-12 | SD6020-P-12-N | SD601x-15-R |
| SD602-4000-63RG | 100,6 | 3.961 | P6SS 10X10 | 19TLR1016 | SD600-C-12 | SD600-C-12 | SD600-P-12 | SD6020-P-12-U | SD601x-15-R |
| SD602-4000-63RG | 101,6 | 4.000 | P6SS 10X10 | 19TLR1016 | SD600-C-12 | SD600-C-12 | SD600-P-12 | SD6020-P-12-N | SD601x-15-R |
| SD602-119/120-63RG | 119 | 4.685 | P6SS 10X10 | 19TLR1016 | SD600-C-15 | SD600-C-15 | SD600-P-15 | SD6020-P-15-U | SD601x-15-R |
| SD602-119/120-63RG | 120 | 4.724 | P6SS 10X10 | 19TLR1016 | SD600-C-15 | SD600-C-15 | SD600-P-15 | SD6020-P-15-N | SD601x-15-R |
| SD602-139/140-90RG | 139 | 5.472 | P6SS 12X12 | 19TLR1216 | SD600-C-12 | SD600-C-12 | SD600-P-12 | SD6021-P-12-U | SD601x-25-R |
| SD602-139/140-90RG | 140 | 5.512 | P6SS 12X12 | 19TLR1216 | SD600-C-12 | SD600-C-12 | SD600-P-12 | SD6021-P-12-N | SD601x-25-R |
| SD602-159/160-90RG | 159 | 6.260 | P6SS 12X12 | 19TLR1216 | SD600-C-15 | SD600-C-12 | SD600-P-12 | SD6021-P-15-U | SD601x-25-R |
| SD602-159/160-90RG | 160 | 6.299 | P6SS 12X12 | 19TLR1216 | SD600-C-15 | SD600-C-12 | SD600-P-12 | SD6021-P-15-N | SD601x-25-R |

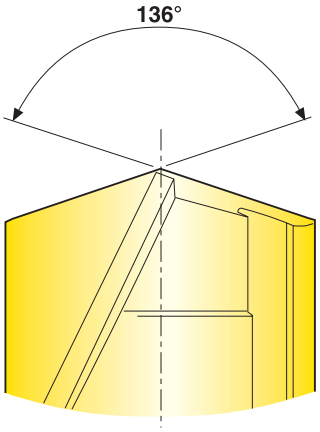
*Not included in delivery. Periph kit, U-undersize, N-nominal.
For insert size see page 294-300

# Regrinding instructions for SD602

Specifications:
Proposed specification of diamond wheels:
Conical clearance: Wheel shape12A2 Grit size D54 (picture 1).
Gashing: Wheel shape 1A1 or 1V1 Grit size D64-D46 (picture 2-3).
Corner chamfer: Wheel shape 1A1 or 12A2 (picture 1).
Edge treatment: grinding K-land or brushing (picture 2).

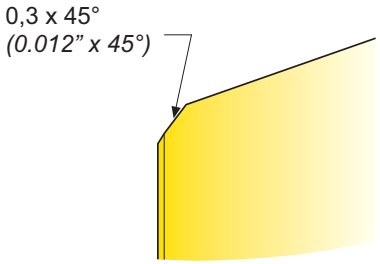
Important:
- The cutting edges must be uniform and have the same size of edge preparation.
- The edge preparation must be applied on the whole length of the cutting edges.

## 1. Point angle

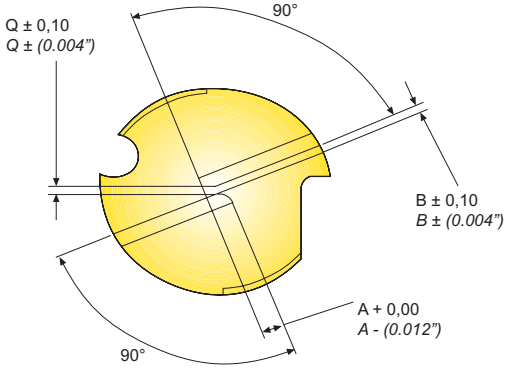



Edge preparation 0-0,1 mm *(0-.004")* x 20°. Drill point conical relief 10°.

## 2. Corner chamfer




## 3.

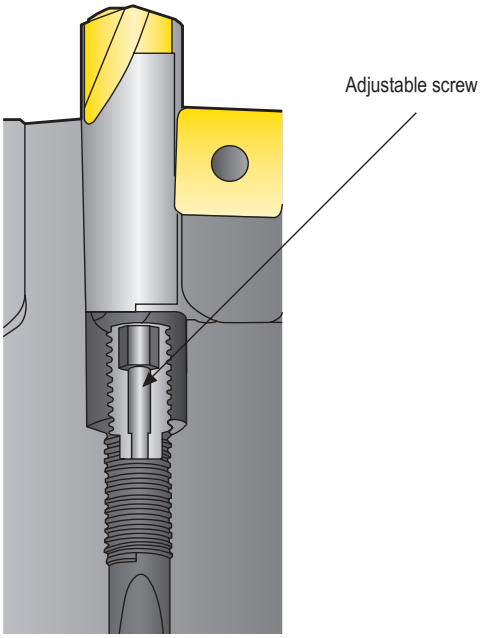



## 4.

| Dimensions in mm (*inch*) | | | | |
|---|---|---|---|---|
| Diameter | A | B | C | Minimum length |
| 10 mm | 1,5 *(0.059)* | 0,5 *(0.020)* | 0,57 *(0.022)* | 38 *(1.496)* |
| 15 mm | 1,5 *(0.059)* | 0,6 *(0.024)* | 0,68 *(0.027)* | 45 *(1.772)* |
| 25 mm | 1,5 *(0.059)* | 1,4 *(0.055)* | 1,6 *(0.063)* | 57 *(2.244)* |

# Modular drill head assembly

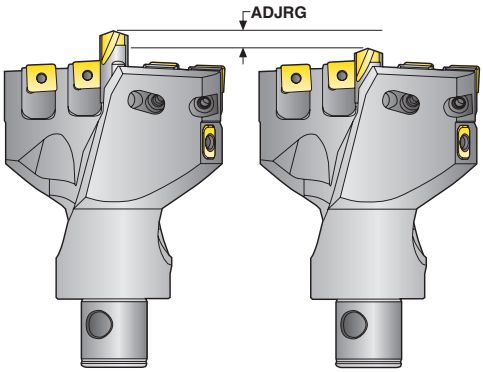
## Feature: Adjustable pilot drill



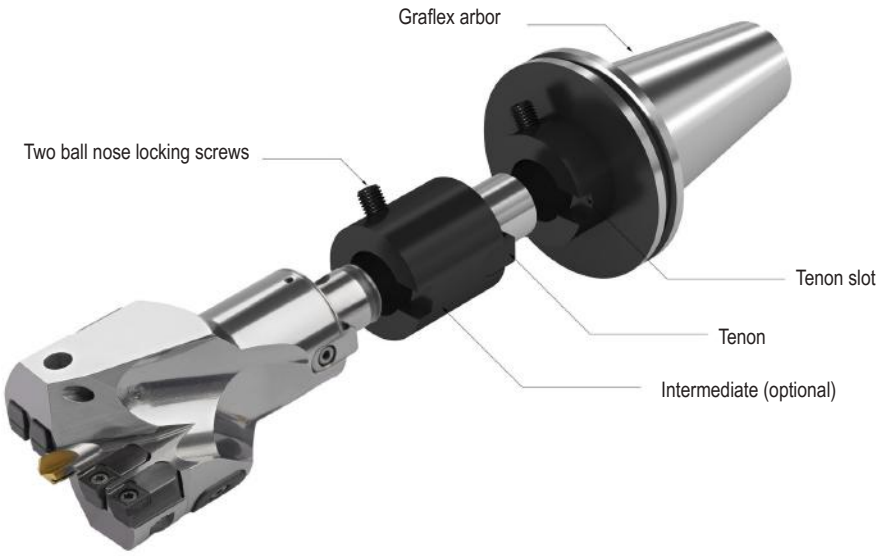

| Drill | Adjustable length distance ADJRG | |
|---|---|---|
| | mm | *inch* |
| SD602-59/60-40RG | 3,0 | *0.118* |
| SD602-69/70-40RG | 3,0 | *0.118* |
| SD602-79/80-50RG | 5,0 | *0.197* |
| SD602-89/90-50RG | 5,0 | *0.197* |
| SD602-99/100-63RG | 5,0 | *0.197* |
| SD602-119/120-63RG | 5,0 | *0.197* |
| SD602-139/140-90RG | 5,0 | *0.197* |
| SD602-159/160-90RG | 5,0 | *0.197* |
| SD602-2500-40RG | 3,0 | *0.118* |
| SD602-2750-40RG | 3,0 | *0.118* |
| SD602-3000-40RG | 5,0 | *0.197* |
| SD602-3250-50RG | 5,0 | *0.197* |
| SD602-3500-50RG | 5,0 | *0.197* |
| SD602-4000-63RG | 5,0 | *0.197* |

## Feature: Adjustable length distance

Benefits: Same setting length after regrinding of pilot drill.
Possibility to adjust the pilot drill overhang.
With drill depths > 5 x D it is recommended to adjust it 5 mm (*0.197*") further out.
Recommendation: In case of re-entering the hole the pilot drill should be adjusted 3 mm (*0.118*") further out from its original position to ensure a better centering.

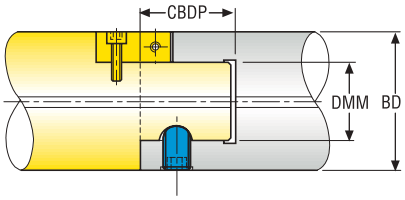


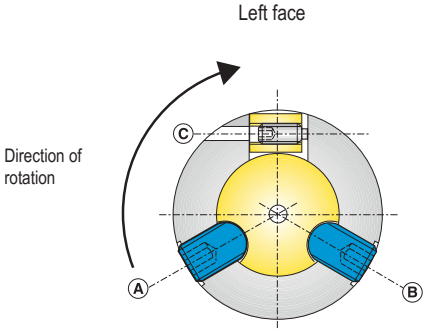
# Modular drill head assembly




## Mounting instruction

1. Clean the parts to be assembled and apply thin oxidation protection film.
2. Assemble the parts ensuring that the left face of the tenon contacts the left face of the tenon slot.
3. Lightly tighten screw A (drill heads needs to be moved back and forth to find the lowest point for screw A).
4. Lightly tighten screw B.
5. 'Torque' the blocking screw C.
6. 'Torque' screw A.
7. 'Torque' screw B.
8. Double check the blocking screw tightening.



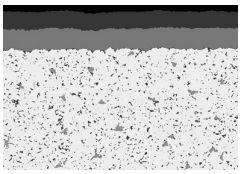
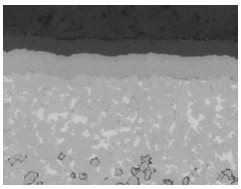
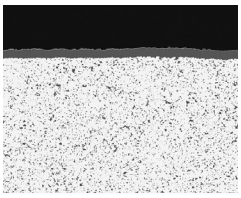
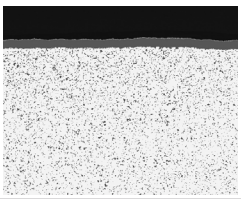

| Graflex size | DMM mm (*inch*) | BD mm (*inch*) | CBDP mm (*inch*) | Recommended Graflex connection locking torques | |
|---|---|---|---|---|---|
| | | | | Ball nose screws (A) & (B) | Tenon blocking screw (C) |
| 4 | 22 *(0.866)* | 40 *(1.575)* | 24 *(0.945)* | 20 Nm *(14.7 ft/lbs)* | 0.7 Nm *(0.5 ft/lbs)* |
| 5 | 28 *(1.102)* | 50 *(1.969)* | 30 *(1.181)* | 25 Nm *(18.4 ft/lbs)* | 2 Nm *(1.5 ft/lbs)* |
| 6 | 36 *(1.417)* | 63 *(2.480)* | 40 *(1.575)* | 35 Nm *(25.8 ft/lbs)* | 4 Nm *(2.9 ft/lbs)* |
| 7 | 46 *(1.811)* | 90 *(3.543)* | 50 *(1.969)* | 60 Nm *(44.2 ft/lbs)* | 8 Nm *(5.9 ft/lbs)* |

# Insert grade

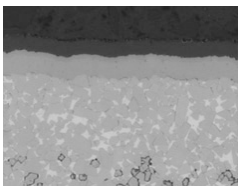
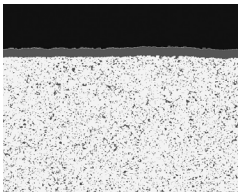
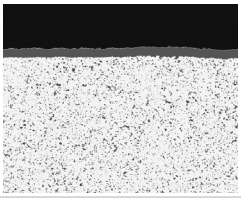
**Features:**
- 4 cutting edges per insert
- Strong square inserts

**Benefits:**
- Economy
- Reliability
- Performance
- Low cost per hole

## Peripheral insert

| | | |
|---|---|---|
| **DP2000** |  | DURATOMIC® coating technology<br>Optimized grade for steel and cast iron machining<br>For machining with very high cutting speeds<br>A unique combination of superior edge toughness and a thick wear resistant coating<br>Ti(C,N) + $Al_2O_3$ DURATOMIC® |
| **DP3000** |  | DURATOMIC® coating technology<br>Universal grade<br>Superior wear resistance and edge toughness<br>Tough grade for maximum application security<br>Ti(C,N) + $Al_2O_3$ DURATOMIC®<br>Gradient substrate |
| **DS2050** |  | Optimized grade for Titanium, super alloys and difficult stainless steel<br>PVD coated<br>TiAlN + NbN |
| **T250D** |  | First choice in hardened steel and in high Si content aluminum Sharp cutting edge through micrograin substrate and pvd coating<br>(TiAl)N + TiN |

## Center insert

| | | |
|---|---|---|
| **DP3000** |  | DURATOMIC® coating technology<br>Universal grade<br>Superior wear resistance and edge toughness<br>Tough grade for maximum application security<br>Ti(C,N) + $Al_2O_3$ DURATOMIC®<br>Gradient substrate |
| **DS4050** |  | Optimized grade for Titanium, super alloys and difficult stainless steel<br>PVD coated<br>TiAlN + NbN |
| **T400D** |  | First choice<br>Tough center insert grade for maximum application security<br>PVD coated<br>(Ti, Al)N + TiN |

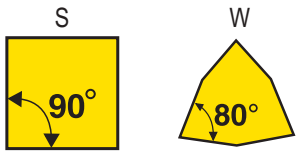
# Geometries

| WCMX-85 | WCMX-86 | SCGX-MP | SCGX-P1 | SCGX-P2 | SPGX-C1 | SPGX-MC |
|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |

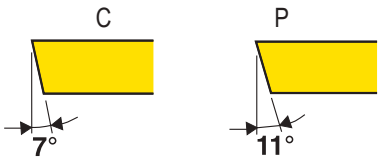



| S | C | G | X | 06 | 02 | 04 | - | P1 |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | | 10 |

## 1. Insert shape




## 2. Insert side clearance angle



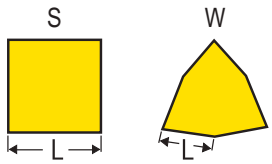

## 4. Type

X=Special

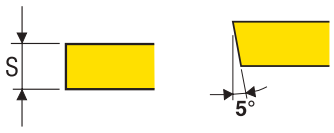
## 3. Tolerances

| Tol. class | Tolerance +/- mm (*inch*) m | S | IC | For IC dimension in mm (*inch*) 5,556 (0.2187) | 6,35 (0.2500) | 7,937 (0.3125) | 7,94 (0.3126) | 9,525 (0.3750) | 11,509 (0.4531) | 12,7 (0.5000) | 15,875 (0.6250) | 19,05 (0.7500) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| G | 0,025 (0.001) | 0,13 (0.005) | 0,025 (0.001) | • | • | • | | • | • | • | • | • |
| M | 0,013 (0.005) | 0,13 (0.005) | 0,05 (0.002) | • | • | | • | • | • | • | • | • |
| M | 0,013 (0.005) | 0,13 (0.005) | 0,08 (0.003) | | | | | | | • | | |

## 5. Cutting edge length




## 6. Thickness




02 = 2,38 mm *(0.094")*
03 = 3,18 mm *(0.125")*
T3 = 3,97 mm *(0.156")*

04 = 4,76 mm *(0.187")*
05 = 5,56 mm *(0.219")*

## 7. Insert with corner chamfers/nose radius



nose radius

04 = 0,4 mm *(0.016")*
08 = 0,8 mm *(0.031")*
12 = 1,2 mm *(0.047")*
etc.

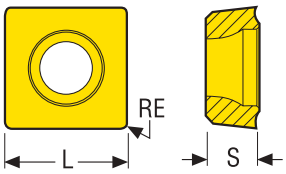
## 10. Internal designation

e.g. chipbreaker designation

P1 = xx
P2 = xx
85 = xx
86 = xx

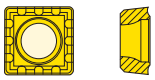
# Indexable inserts – Peripherial insert, type P1*

for SD522, SD523, SD524, SD525, SD542, SD602




**Tolerances:**
L = ±0,025 (0.001")
S = ±0,13 (0.005")
RE = ±0,1 (0.004")

**SCGX-P1**



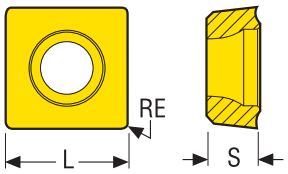
| Designation | Inserts | L | S | RE | Grades | | |
|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | T250D | DP2000 | DP3000 |
| SCGX060204-P1 | SCGX-P1 | 6,35<br>*0,25* | 2,381<br>*0,094* | 0,4<br>*0,016* | 00059712 | 02590849 | 02807362 |
| SCGX070308-P1 | SCGX-P1 | 7,938<br>*0,313* | 3,18<br>*0,125* | 0,8<br>*0,031* | 00059713 | 02590850 | 02807363 |
| SCGX09T308-P1 | SCGX-P1 | 9,525<br>*0,375* | 3,969<br>*0,156* | 0,8<br>*0,031* | 00059714 | 02590851 | 02807364 |
| SCGX11T308-P1 | SCGX-P1 | 11,509<br>*0,453* | 3,97<br>*0,156* | 0,8<br>*0,031* | 03136962 | 03136963 | 03136964 |
| SCGX120408-P1 | SCGX-P1 | 12,7<br>*0,5* | 4,762<br>*0,187* | 0,8<br>*0,031* | 00059715 | 02590852 | 02807365 |
| SCGX150512-P1 | SCGX-P1 | 15,875<br>*0,625* | 5,556<br>*0,219* | 1,2<br>*0,047* | 00059716 | 02590853 | 02807366 |

*Chipbreaker for low feed rates and for good surface finish in all materials

# Indexable inserts – Peripherial insert, type P2**

for SD522, SD523, SD524, SD525, SD542, SD602

**Tolerances:**
L = ±0,025 (0.001")
S = ±0,13 (0.005")
RE = ±0,1 (0.004")




**SCGX-P2**

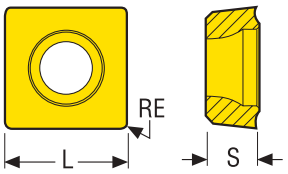


| Designation | Inserts | L | S | RE | Grades | | |
|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | **T250D** | **DP2000** | **DP3000** |
| SCGX050204-P2 | SCGX-P2 | 5,556<br>*0,219* | 2,38<br>*0,094* | 0,4<br>*0,016* | 00059711 | 02590854 | 02807356 |
| SCGX060204-P2 | SCGX-P2 | 6,35<br>*0,25* | 2,38<br>*0,094* | 0,4<br>*0,016* | 02526803 | 02590855 | 02807357 |
| SCGX070308-P2 | SCGX-P2 | 7,937<br>*0,312* | 3,18<br>*0,125* | 0,8<br>*0,031* | 02526787 | 02590856 | 02807358 |
| SCGX09T308-P2 | SCGX-P2 | 9,525<br>*0,375* | 3,97<br>*0,156* | 0,8<br>*0,031* | 02794476 | 02590857 | 02807359 |
| SCGX11T308-P2 | SCGX-P2 | 11,509<br>*0,453* | 3,97<br>*0,156* | 0,8<br>*0,031* | 03097760 | 03097761 | 03097762 |
| SCGX120408-P2 | SCGX-P2 | 12,7<br>*0,5* | 4,76<br>*0,187* | 0,8<br>*0,031* | 02794477 | 02590858 | 02807360 |
| SCGX150512-P2 | SCGX-P2 | 15,875<br>*0,625* | 5,56<br>*0,219* | 1,2<br>*0,047* | 02794478 | 02590859 | 02807361 |

**Chipbreaker for high feed rates in steel, stainless steel and cast iron

# Indexable inserts – Peripherial insert, for type MP

for SD522, SD523, SD524, SD525, SD542, SD602




**Tolerances:**
L = ±0,025 (0.001")
S = ±0,13 (0.005")
RE = ±0,1 (0.004")

**SCGX-MP**

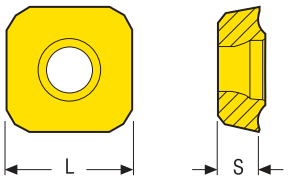


| Designation | Inserts | L | S | RE | Grades |
|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | **DS2050** |
| SCGX050204-MP | SCGX-MP | 5,56<br>*0,219* | 2,38<br>*0,094* | 0,4<br>*0,016* | 03134312 |
| SCGX060204-MP | SCGX-MP | 6,35<br>*0,25* | 6,35<br>*0,25* | 0,4<br>*0,016* | 03134313 |
| SCGX070308-MP | SCGX-MP | 7,94<br>*0,313* | 3,18<br>*0,125* | 0,8<br>*0,031* | 03134314 |
| SCGX09T308-MP | SCGX-MP | 9,525<br>*0,375* | 3,97<br>*0,156* | 0,8<br>*0,031* | 03134315 |
| SCGX11T308-MP | SCGX-MP | 11,509<br>*0,453* | 3,97<br>*0,156* | 0,8<br>*0,031* | 03134316 |
| SCGX120408-MP | SCGX-MP | 12,7<br>*0,5* | 4,76<br>*0,187* | 0,8<br>*0,031* | 03134317 |
| SCGX150512-MP | SCGX-MP | 15,875<br>*0,625* | 5,56<br>*0,219* | 1,2<br>*0,047* | 03134318 |

# Indexable inserts – Centre insert, type C1

for SD522, SD523, SD524, SD525, SD542

**Tolerances:**
L = ±0,025 (0.001")
S = ±0,13 (0.005")



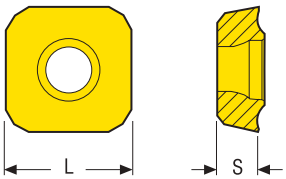

**SPGX-C1**



| Designation | Inserts | L | S | Grades | |
|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | **T400D** | **DP3000** |
| SPGX0502-C1 | SPGX-C1 | 5,556<br>*0,219* | 2,38<br>*0,094* | 74077370 | 02807367 |
| SPGX0602-C1 | SPGX-C1 | 6,35<br>*0,25* | 2,38<br>*0,094* | 74077371 | 02807368 |
| SPGX0703-C1 | SPGX-C1 | 7,937<br>*0,312* | 3,18<br>*0,125* | 74077372 | 02807369 |
| SPGX0903-C1 | SPGX-C1 | 9,525<br>*0,375* | 3,18<br>*0,125* | 74077373 | 02807370 |
| SPGX11T3-C1 | SPGX-C1 | 11,509<br>*0,453* | 3,97<br>*0,156* | 74077374 | 02807371 |
| SPGX12T3-C1 | SPGX-C1 | 12,7<br>*0,5* | 3,97<br>*0,156* | 74077375 | 02807372 |
| SPGX1504-C1 | SPGX-C1 | 15,875<br>*0,625* | 4,76<br>*0,187* | 74077376 | 02807373 |
| SPGX1904-C1 | SPGX-C1 | 19,05<br>*0,75* | 4,76<br>*0,187* | 74077377 | 02807374 |

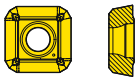
# Indexable inserts – Centre insert, type MC

for SD522, SD523, SD524, SD525, SD542




**Tolerances:**
L = ±0,025 (0.001")
S = ±0,13 (0.005")

**SPGX-MC**

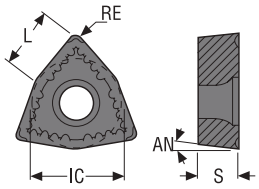


| Designation | Inserts | L | S | Grades |
|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | **DS4050** |
| SPGX0502-MC | SPGX-MC | 5,56<br>*0,219* | 2,38<br>*0,094* | 03134319 |
| SPGX0602-MC | SPGX-MC | 6,35<br>*0,25* | 2,38<br>*0,094* | 03134320 |
| SPGX0703-MC | SPGX-MC | 7,94<br>*0,313* | 3,18<br>*0,125* | 03134321 |
| SPGX0903-MC | SPGX-MC | 9,525<br>*0,375* | 3,18<br>*0,125* | 03134322 |
| SPGX11T3-MC | SPGX-MC | 11,509<br>*0,453* | 3,97<br>*0,156* | 03134323 |
| SPGX12T3-MC | SPGX-MC | 12,7<br>*0,5* | 3,97<br>*0,156* | 03134324 |
| SPGX1504-MC | SPGX-MC | 15,875<br>*0,625* | 4,76<br>*0,187* | 03134325 |
| SPGX1904-MC | SPGX-MC | 19,05<br>*0,75* | 4,76<br>*0,187* | 03134326 |

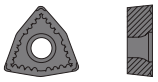
# Indexable inserts – Peripherial insert, type 85*

for SD572

**Tolerances:**
S = ±0,13 (0.005")
RE = ±0,1 (0.004")




**WCMX-85**

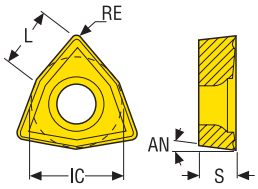


| Designation | Inserts | IC | L | S | RE | Grades |
|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | **DP3000** |
| WCMX040208-85 | WCMX-85 | 6,35<br>*0,25* | 3,99<br>*0,157* | 2,38<br>*0,094* | 0,8<br>*0,031* | 02807375 |
| WCMX050308-85 | WCMX-85 | 7,94<br>*0,313* | 5,07<br>*0,2* | 3,18<br>*0,125* | 0,8<br>*0,031* | 02807376 |
| WCMX06T308-85 | WCMX-85 | 9,525<br>*0,375* | 6,14<br>*0,242* | 3,97<br>*0,156* | 0,8<br>*0,031* | 02807377 |
| WCMX080412-85 | WCMX-85 | 12,7<br>*0,5* | 8,14<br>*0,32* | 4,76<br>*0,187* | 1,2<br>*0,047* | 02807378 |

**Chipbreaker for high feed rates in steel, stainless steel and cast iron

# Indexable inserts – Center insert & Peripherial insert, type 86**

for SD572




**Tolerances:**
S = ±0,13 (0.005")
RE = ±0,1 (0.004")

**WCMX-86**



| Designation | Inserts | IC | L | S | RE | Grades | | |
|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | T400D | DP2000 | DP3000 |
| WCMX030208-86 | WCMX-86 | 5,556<br>*0,219* | 3,46<br>*0,136* | 2,38<br>*0,094* | 0,8<br>*0,031* | 02506629 | 02899808 | 02807379 |
| WCMX040208-86 | WCMX-86 | 6,35<br>*0,25* | 3,99<br>*0,157* | 2,38<br>*0,094* | 0,8<br>*0,031* | 02506638 | 02899809 | 02807380 |
| WCMX050308-86 | WCMX-86 | 7,94<br>*0,313* | 5,07<br>*0,2* | 3,18<br>*0,125* | 0,8<br>*0,031* | 02506640 | 02899810 | 02807381 |
| WCMX06T308-86 | WCMX-86 | 9,525<br>*0,375* | 6,14<br>*0,242* | 3,97<br>*0,156* | 0,8<br>*0,031* | 02506645 | 02899811 | 02807382 |
| WCMX080412-86 | WCMX-86 | 12,7<br>*0,5* | 8,14<br>*0,32* | 4,76<br>*0,187* | 1,2<br>*0,047* | 02506646 | 02899812 | 02807383 |

**Chipbreaker for high feed rates in steel, stainless steel and cast iron

## SD522 ∅ 15-60 mm / *0.590-2.375 inch*

| SMG | | f | | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|---|
| | | Ø 15,00-19,49<br>*Ø 0.590-0.767* | Ø 19,50-22,49<br>*Ø 0.768-0.885* | Ø 22,50-28,49<br>*Ø 0.886-1.121* | Ø 28,50-34,49<br>*Ø 1.122-1.357* | Ø 34,50-40,49<br>*Ø1.358-1.593* | Ø 40,49-44,49<br>*Ø 1.594-1.751* | Ø 44,50-59,99<br>*Ø 1.752-2.375* | |
| P1 | P1 DP2000 | 0,060 | 0,070 | 0,085 | 0,095 | 0,11 | 0,12 | 0,13 | 460 |
| | *P1 DP2000* | *0.0024* | *0.0028* | *0.0034* | *0.0038* | *0.0044* | *0.0048* | *0.0050* | *1500* |
| P2 | P1 DP2000 | 0,060 | 0,070 | 0,085 | 0,10 | 0,11 | 0,12 | 0,13 | 450 |
| | *P1 DP2000* | *0.0024* | *0.0028* | *0.0034* | *0.0040* | *0.0044* | *0.0048* | *0.0050* | *1475* |
| P3 | P2 DP3000 | 0,12 | 0,14 | 0,17 | 0,19 | 0,22 | 0,22 | 0,26 | 345 |
| | *P2 DP3000* | *0.0048* | *0.0055* | *0.0065* | *0.0075* | *0.0085* | *0.0085* | *0.010* | *1125* |
| P4 | P2 DP3000 | 0,12 | 0,13 | 0,16 | 0,19 | 0,22 | 0,22 | 0,25 | 220 |
| | *P2 DP3000* | *0.0048* | *0.0050* | *0.0065* | *0.0075* | *0.0085* | *0.0085* | *0.010* | *720* |
| P5 | P2 DP3000 | 0,11 | 0,13 | 0,16 | 0,18 | 0,20 | 0,22 | 0,25 | 210 |
| | *P2 DP3000* | *0.0044* | *0.0050* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.010* | *690* |
| P6 | P2 DP3000 | 0,11 | 0,13 | 0,16 | 0,18 | 0,20 | 0,22 | 0,25 | 235 |
| | *P2 DP3000* | *0.0044* | *0.0050* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.010* | *770* |
| P7 | P2 DP3000 | 0,11 | 0,13 | 0,16 | 0,18 | 0,20 | 0,22 | 0,25 | 225 |
| | *P2 DP3000* | *0.0044* | *0.0050* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.010* | *740* |
| P8 | P2 DP3000 | 0,12 | 0,14 | 0,17 | 0,19 | 0,22 | 0,22 | 0,26 | 210 |
| | *P2 DP3000* | *0.0048* | *0.0055* | *0.0065* | *0.0075* | *0.0085* | *0.0085* | *0.010* | *690* |
| P11 | P2 DP3000 | 0,11 | 0,13 | 0,16 | 0,18 | 0,20 | 0,22 | 0,25 | 215 |
| | *P2 DP3000* | *0.0044* | *0.0050* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.010* | *710* |
| P12 | P2 DP3000 | 0,075 | 0,090 | 0,11 | 0,12 | 0,14 | 0,15 | 0,17 | 130 |
| | *P2 DP3000* | *0.0030* | *0.0036* | *0.0044* | *0.0048* | *0.0055* | *0.0060* | *0.0065* | *425* |
| M1 | P2 DP3000 | 0,085 | 0,10 | 0,12 | 0,14 | 0,16 | 0,17 | 0,19 | 260 |
| | *P2 DP3000* | *0.0034* | *0.0040* | *0.0048* | *0.0055* | *0.0065* | *0.0065* | *0.0075* | *850* |
| M2 | P2 DP3000 | 0,080 | 0,090 | 0,11 | 0,13 | 0,14 | 0,15 | 0,17 | 210 |
| | *P2 DP3000* | *0.0032* | *0.0036* | *0.0044* | *0.0050* | *0.0055* | *0.0060* | *0.0065* | *690* |
| M3 | MP DS2050 | 0,065 | 0,075 | 0,090 | 0,10 | 0,12 | 0,13 | 0,14 | 160 |
| | *MP DS2050* | *0.0026* | *0.0030* | *0.0036* | *0.0040* | *0.0048* | *0.0050* | *0.0055* | *520* |
| M4 | MP DS2050 | 0,055 | 0,065 | 0,080 | 0,090 | 0,10 | 0,11 | 0,12 | 140 |
| | *MP DS2050* | *0.0022* | *0.0026* | *0.0032* | *0.0036* | *0.0040* | *0.0044* | *0.0048* | *460* |
| M5 | MP DS2050 | 0,055 | 0,065 | 0,080 | 0,090 | 0,10 | 0,11 | 0,12 | 115 |
| | *MP DS2050* | *0.0022* | *0.0026* | *0.0032* | *0.0036* | *0.0040* | *0.0044* | *0.0048* | *375* |
| K1 | P2 DP2000 | 0,12 | 0,14 | 0,17 | 0,20 | 0,22 | 0,24 | 0,26 | 250 |
| | *P2 DP2000* | *0.0048* | *0.0055* | *0.0065* | *0.0080* | *0.0085* | *0.0095* | *0.010* | *820* |
| K2 | P2 DP2000 | 0,11 | 0,13 | 0,16 | 0,18 | 0,20 | 0,22 | 0,24 | 215 |
| | *P2 DP2000* | *0.0044* | *0.0050* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.0095* | *710* |
| K3 | P2 DP2000 | 0,11 | 0,13 | 0,16 | 0,18 | 0,20 | 0,22 | 0,24 | 185 |
| | *P2 DP2000* | *0.0044* | *0.0050* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.0095* | *610* |
| K4 | P2 DP2000 | 0,11 | 0,13 | 0,16 | 0,18 | 0,20 | 0,22 | 0,24 | 175 |
| | *P2 DP2000* | *0.0044* | *0.0050* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.0095* | *570* |
| K5 | P2 DP2000 | 0,10 | 0,11 | 0,14 | 0,16 | 0,18 | 0,19 | 0,22 | 105 |
| | *P2 DP2000* | *0.0040* | *0.0044* | *0.0055* | *0.0065* | *0.0070* | *0.0075* | *0.0085* | *345* |
| N1 | P1 T250D | 0,12 | 0,14 | 0,17 | 0,20 | 0,22 | 0,24 | 0,26 | 365 |
| | *P1 T250D* | *0.0048* | *0.0055* | *0.0065* | *0.0080* | *0.0085* | *0.0095* | *0.010* | *1200* |
| N2 | P1 T250D | 0,12 | 0,14 | 0,17 | 0,20 | 0,22 | 0,24 | 0,26 | 235 |
| | *P1 T250D* | *0.0048* | *0.0055* | *0.0065* | *0.0080* | *0.0085* | *0.0095* | *0.010* | *770* |
| N3 | P1 T250D | 0,12 | 0,14 | 0,17 | 0,20 | 0,22 | 0,24 | 0,26 | 155 |
| | *P1 T250D* | *0.0048* | *0.0055* | *0.0065* | *0.0080* | *0.0085* | *0.0095* | *0.010* | *510* |
| N11 | P1 T250D | 0,12 | 0,14 | 0,17 | 0,20 | 0,22 | 0,24 | 0,26 | 310 |
| | *P1 T250D* | *0.0048* | *0.0055* | *0.0065* | *0.0080* | *0.0085* | *0.0095* | *0.010* | *1025* |
| S1 | MP DS2050 | 0,090 | 0,11 | 0,13 | 0,15 | 0,17 | 0,18 | 0,20 | 60 |
| | *MP DS2050* | *0.0036* | *0.0044* | *0.0050* | *0.0060* | *0.0065* | *0.0070* | *0.0080* | *195* |
| S2 | MP DS2050 | 0,090 | 0,11 | 0,13 | 0,15 | 0,17 | 0,18 | 0,20 | 48 |
| | *MP DS2050* | *0.0036* | *0.0044* | *0.0050* | *0.0060* | *0.0065* | *0.0070* | *0.0080* | *155* |
| S3 | MP DS2050 | 0,085 | 0,10 | 0,12 | 0,14 | 0,16 | 0,17 | 0,19 | 41 |
| | *MP DS2050* | *0.0034* | *0.0040* | *0.0048* | *0.0055* | *0.0065* | *0.0065* | *0.0075* | *135* |
| S11 | MP DS2050 | 0,11 | 0,12 | 0,15 | 0,17 | 0,19 | 0,20 | 0,24 | 85 |
| | *MP DS2050* | *0.0044* | *0.0048* | *0.0060* | *0.0065* | *0.0075* | *0.0080* | *0.0095* | *280* |
| S12 | MP DS2050 | 0,11 | 0,12 | 0,15 | 0,17 | 0,19 | 0,20 | 0,24 | 65 |
| | *MP DS2050* | *0.0044* | *0.0048* | *0.0060* | *0.0065* | *0.0075* | *0.0080* | *0.0095* | *215* |
| S13 | MP DS2050 | 0,090 | 0,11 | 0,13 | 0,15 | 0,17 | 0,18 | 0,20 | 50 |
| | *MP DS2050* | *0.0036* | *0.0044* | *0.0050* | *0.0060* | *0.0065* | *0.0070* | *0.0080* | *165* |
| H3 | P1 T250D | 0,050 | 0,060 | 0,070 | 0,080 | 0,095 | 0,10 | 0,11 | 70 |
| | *P1 T250D* | *0.0020* | *0.0024* | *0.0028* | *0.0032* | *0.0038* | *0.0040* | *0.0044* | *230* |
| H5 | P1 T250D | 0,075 | 0,090 | 0,11 | 0,12 | 0,14 | 0,15 | 0,17 | 130 |
| | *P1 T250D* | *0.0030* | *0.0036* | *0.0044* | *0.0048* | *0.0055* | *0.0060* | *0.0065* | *425* |
| H7 | P1 T250D | 0,050 | 0,060 | 0,070 | 0,080 | 0,095 | 0,10 | 0,11 | 70 |
| | *P1 T250D* | *0.0020* | *0.0024* | *0.0028* | *0.0032* | *0.0038* | *0.0040* | *0.0044* | *230* |
| H8 | P1 T250D | 0,060 | 0,070 | 0,085 | 0,095 | 0,11 | 0,11 | 0,13 | 130 |
| | *P1 T250D* | *0.0024* | *0.0028* | *0.0034* | *0.0038* | *0.0044* | *0.0044* | *0.0050* | *425* |
| H11 | P1 T250D | 0,075 | 0,090 | 0,11 | 0,12 | 0,14 | 0,15 | 0,17 | 165 |
| | *P1 T250D* | *0.0030* | *0.0036* | *0.0044* | *0.0048* | *0.0055* | *0.0060* | *0.0065* | *540* |
| H12 | P1 T250D | 0,060 | 0,070 | 0,085 | 0,095 | 0,11 | 0,11 | 0,13 | 150 |
| | *P1 T250D* | *0.0024* | *0.0028* | *0.0034* | *0.0038* | *0.0044* | *0.0044* | *0.0050* | *490* |
| H21 | P1 T250D | 0,060 | 0,070 | 0,085 | 0,095 | 0,11 | 0,11 | 0,13 | 130 |
| | *P1 T250D* | *0.0024* | *0.0028* | *0.0034* | *0.0038* | *0.0044* | *0.0044* | *0.0050* | *425* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD522 Cutting speed

| SMG | $v_c$ | | | |
|---|---|---|---|---|
| | DP2000 | DP3000 | T250D | DS2050 |
| P1 | 460<br>*1500* | 415<br>*1350* | 315<br>*1025* | 415<br>*1350* |
| P2 | 450<br>*1475* | 405<br>*1325* | 305<br>*1000* | 405<br>*1325* |
| P3 | 385<br>*1275* | 345<br>*1125* | 265<br>*870* | 345<br>*1125* |
| P4 | 285<br>*940* | 220<br>*720* | 140<br>*460* | —<br>— |
| P5 | 270<br>*890* | 210<br>*690* | 135<br>*445* | —<br>— |
| P6 | 305<br>*1000* | 235<br>*770* | 150<br>*490* | —<br>— |
| P7 | 285<br>*940* | 225<br>*740* | 140<br>*460* | —<br>— |
| P8 | 270<br>*890* | 210<br>*690* | 135<br>*445* | —<br>— |
| P11 | 280<br>*920* | 215<br>*710* | 140<br>*460* | —<br>— |
| P12 | 165<br>*540* | 130<br>*425* | 80<br>*260* | —<br>— |
| M1 | —<br>— | 260<br>*850* | 160<br>*520* | —<br>— |
| M2 | —<br>— | 210<br>*690* | 130<br>*425* | —<br>— |
| M3 | —<br>— | 160<br>*520* | 100<br>*330* | 160<br>*520* |
| M4 | —<br>— | 120<br>*395* | 75<br>*245* | 140<br>*460* |
| M5 | —<br>— | 100<br>*330* | 60<br>*195* | 115<br>*375* |
| K1 | 250<br>*820* | 235<br>*770* | —<br>— | —<br>— |
| K2 | 215<br>*710* | 205<br>*670* | —<br>— | —<br>— |
| K3 | 185<br>*610* | 175<br>*570* | —<br>— | —<br>— |
| K4 | 175<br>*570* | 165<br>*540* | —<br>— | —<br>— |
| K5 | 105<br>*345* | 100<br>*330* | —<br>— | —<br>— |
| N1 | —<br>— | 420<br>*1375* | 365<br>*1200* | 365<br>*1200* |
| N2 | —<br>— | 270<br>*890* | 235<br>*770* | 235<br>*770* |
| N3 | —<br>— | 180<br>*590* | 155<br>*510* | 155<br>*510* |
| N11 | —<br>— | 350<br>*1150* | 310<br>*1025* | 310<br>*1025* |
| S1 | —<br>— | —<br>— | 40<br>*130* | 60<br>*195* |
| S2 | —<br>— | —<br>— | 30<br>*100* | 48<br>*155* |
| S3 | —<br>— | —<br>— | 30<br>*100* | 41<br>*135* |
| S11 | —<br>— | —<br>— | 80<br>*260* | 85<br>*280* |
| S12 | —<br>— | —<br>— | 60<br>*195* | 65<br>*215* |
| S13 | —<br>— | —<br>— | 46<br>*150* | 50<br>*165* |
| H3 | —<br>— | 70<br>*230* | 70<br>*230* | —<br>— |
| H5 | —<br>— | 130<br>*425* | 130<br>*425* | —<br>— |
| H7 | —<br>— | 70<br>*230* | 70<br>*230* | —<br>— |
| H8 | —<br>— | 130<br>*425* | 130<br>*425* | —<br>— |
| H11 | —<br>— | 165<br>*540* | 165<br>*540* | —<br>— |
| H12 | —<br>— | 75<br>*245* | 150<br>*490* | —<br>— |
| H21 | —<br>— | 130<br>*425* | 130<br>*425* | —<br>— |

SMG = Seco material group $V_c$ = m/min (sf/min) All cutting data are start values

## SD523 ∅ 15-60 mm / *0.590-2.375 inch*

| SMG | | f | | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|---|
| | | Ø 15,00-19,49<br>*Ø 0.590-0.767* | Ø 19,50-22,49<br>*Ø 0.768-0.885* | Ø 22,50-28,49<br>*Ø 0.886-1.121* | Ø 28,50-34,49<br>*Ø 1.122-1.357* | Ø 34,50-40,49<br>*Ø1.358-1.593* | Ø 40,49-44,49<br>*Ø 1.594-1.751* | Ø 44,50-59,99<br>*Ø 1.752-2.375* | |
| P1 | P1 DP2000 | 0,060 | 0,070 | 0,085 | 0,095 | 0,11 | 0,12 | 0,13 | 415 |
| | *P1 DP2000* | *0.0024* | *0.0028* | *0.0034* | *0.0038* | *0.0044* | *0.0048* | *0.0050* | *1350* |
| P2 | P1 DP2000 | 0,060 | 0,070 | 0,085 | 0,10 | 0,11 | 0,12 | 0,13 | 405 |
| | *P1 DP2000* | *0.0024* | *0.0028* | *0.0034* | *0.0040* | *0.0044* | *0.0048* | *0.0050* | *1325* |
| P3 | P2 DP3000 | 0,12 | 0,14 | 0,17 | 0,19 | 0,22 | 0,22 | 0,26 | 310 |
| | *P2 DP3000* | *0.0048* | *0.0055* | *0.0065* | *0.0075* | *0.0085* | *0.0085* | *0.010* | *1025* |
| P4 | P2 DP3000 | 0,12 | 0,13 | 0,16 | 0,19 | 0,22 | 0,22 | 0,25 | 190 |
| | *P2 DP3000* | *0.0048* | *0.0050* | *0.0065* | *0.0075* | *0.0085* | *0.0085* | *0.010* | *620* |
| P5 | P2 DP3000 | 0,11 | 0,13 | 0,16 | 0,18 | 0,20 | 0,22 | 0,25 | 180 |
| | *P2 DP3000* | *0.0044* | *0.0050* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.010* | *590* |
| P6 | P2 DP3000 | 0,11 | 0,13 | 0,16 | 0,18 | 0,20 | 0,22 | 0,25 | 200 |
| | *P2 DP3000* | *0.0044* | *0.0050* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.010* | *660* |
| P7 | P2 DP3000 | 0,11 | 0,13 | 0,16 | 0,18 | 0,20 | 0,22 | 0,25 | 190 |
| | *P2 DP3000* | *0.0044* | *0.0050* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.010* | *620* |
| P8 | P2 DP3000 | 0,12 | 0,14 | 0,17 | 0,19 | 0,22 | 0,22 | 0,26 | 180 |
| | *P2 DP3000* | *0.0048* | *0.0055* | *0.0065* | *0.0075* | *0.0085* | *0.0085* | *0.010* | *590* |
| P11 | P2 DP3000 | 0,11 | 0,13 | 0,16 | 0,18 | 0,20 | 0,22 | 0,25 | 185 |
| | *P2 DP3000* | *0.0044* | *0.0050* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.010* | *610* |
| P12 | P2 DP3000 | 0,075 | 0,090 | 0,11 | 0,12 | 0,14 | 0,15 | 0,17 | 110 |
| | *P2 DP3000* | *0.0030* | *0.0036* | *0.0044* | *0.0048* | *0.0055* | *0.0060* | *0.0065* | *360* |
| M1 | P2 DP3000 | 0,085 | 0,10 | 0,12 | 0,14 | 0,16 | 0,17 | 0,19 | 245 |
| | *P2 DP3000* | *0.0034* | *0.0040* | *0.0048* | *0.0055* | *0.0065* | *0.0065* | *0.0075* | *800* |
| M2 | P2 DP3000 | 0,080 | 0,090 | 0,11 | 0,13 | 0,14 | 0,15 | 0,17 | 195 |
| | *P2 DP3000* | *0.0032* | *0.0036* | *0.0044* | *0.0050* | *0.0055* | *0.0060* | *0.0065* | *640* |
| M3 | MP DS2050 | 0,065 | 0,075 | 0,090 | 0,10 | 0,12 | 0,13 | 0,14 | 150 |
| | *MP DS2050* | *0.0026* | *0.0030* | *0.0036* | *0.0040* | *0.0048* | *0.0050* | *0.0055* | *490* |
| M4 | MP DS2050 | 0,055 | 0,065 | 0,080 | 0,090 | 0,10 | 0,11 | 0,12 | 120 |
| | *MP DS2050* | *0.0022* | *0.0026* | *0.0032* | *0.0036* | *0.0040* | *0.0044* | *0.0048* | *395* |
| M5 | MP DS2050 | 0,055 | 0,065 | 0,080 | 0,090 | 0,10 | 0,11 | 0,12 | 100 |
| | *MP DS2050* | *0.0022* | *0.0026* | *0.0032* | *0.0036* | *0.0040* | *0.0044* | *0.0048* | *330* |
| K1 | P2 DP2000 | 0,12 | 0,14 | 0,17 | 0,20 | 0,22 | 0,24 | 0,26 | 225 |
| | *P2 DP2000* | *0.0048* | *0.0055* | *0.0065* | *0.0080* | *0.0085* | *0.0095* | *0.010* | *740* |
| K2 | P2 DP2000 | 0,11 | 0,13 | 0,16 | 0,18 | 0,20 | 0,22 | 0,24 | 195 |
| | *P2 DP2000* | *0.0044* | *0.0050* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.0095* | *640* |
| K3 | P2 DP2000 | 0,11 | 0,13 | 0,16 | 0,18 | 0,20 | 0,22 | 0,24 | 165 |
| | *P2 DP2000* | *0.0044* | *0.0050* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.0095* | *540* |
| K4 | P2 DP2000 | 0,11 | 0,13 | 0,16 | 0,18 | 0,20 | 0,22 | 0,24 | 160 |
| | *P2 DP2000* | *0.0044* | *0.0050* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.0095* | *520* |
| K5 | P2 DP2000 | 0,10 | 0,11 | 0,14 | 0,16 | 0,18 | 0,19 | 0,22 | 95 |
| | *P2 DP2000* | *0.0040* | *0.0044* | *0.0055* | *0.0065* | *0.0070* | *0.0075* | *0.0085* | *310* |
| N1 | P1 T250D | 0,12 | 0,14 | 0,17 | 0,20 | 0,22 | 0,24 | 0,26 | 310 |
| | *P1 T250D* | *0.0048* | *0.0055* | *0.0065* | *0.0080* | *0.0085* | *0.0095* | *0.010* | *1025* |
| N2 | P1 T250D | 0,12 | 0,14 | 0,17 | 0,20 | 0,22 | 0,24 | 0,26 | 200 |
| | *P1 T250D* | *0.0048* | *0.0055* | *0.0065* | *0.0080* | *0.0085* | *0.0095* | *0.010* | *660* |
| N3 | P1 T250D | 0,12 | 0,14 | 0,17 | 0,20 | 0,22 | 0,24 | 0,26 | 135 |
| | *P1 T250D* | *0.0048* | *0.0055* | *0.0065* | *0.0080* | *0.0085* | *0.0095* | *0.010* | *445* |
| N11 | P1 T250D | 0,12 | 0,14 | 0,17 | 0,20 | 0,22 | 0,24 | 0,26 | 260 |
| | *P1 T250D* | *0.0048* | *0.0055* | *0.0065* | *0.0080* | *0.0085* | *0.0095* | *0.010* | *850* |
| S1 | MP DS2050 | 0,090 | 0,11 | 0,13 | 0,15 | 0,17 | 0,18 | 0,20 | 55 |
| | *MP DS2050* | *0.0036* | *0.0044* | *0.0050* | *0.0060* | *0.0065* | *0.0070* | *0.0080* | *180* |
| S2 | MP DS2050 | 0,090 | 0,11 | 0,13 | 0,15 | 0,17 | 0,18 | 0,20 | 43 |
| | *MP DS2050* | *0.0036* | *0.0044* | *0.0050* | *0.0060* | *0.0065* | *0.0070* | *0.0080* | *140* |
| S3 | MP DS2050 | 0,085 | 0,10 | 0,12 | 0,14 | 0,16 | 0,17 | 0,19 | 37 |
| | *MP DS2050* | *0.0034* | *0.0040* | *0.0048* | *0.0055* | *0.0065* | *0.0065* | *0.0075* | *120* |
| S11 | MP DS2050 | 0,11 | 0,12 | 0,15 | 0,17 | 0,19 | 0,20 | 0,24 | 75 |
| | *MP DS2050* | *0.0044* | *0.0048* | *0.0060* | *0.0065* | *0.0075* | *0.0080* | *0.0095* | *245* |
| S12 | MP DS2050 | 0,11 | 0,12 | 0,15 | 0,17 | 0,19 | 0,20 | 0,24 | 60 |
| | *MP DS2050* | *0.0044* | *0.0048* | *0.0060* | *0.0065* | *0.0075* | *0.0080* | *0.0095* | *195* |
| S13 | MP DS2050 | 0,090 | 0,11 | 0,13 | 0,15 | 0,17 | 0,18 | 0,20 | 45 |
| | *MP DS2050* | *0.0036* | *0.0044* | *0.0050* | *0.0060* | *0.0065* | *0.0070* | *0.0080* | *150* |
| H3 | P1 T250D | 0,050 | 0,060 | 0,070 | 0,080 | 0,095 | 0,10 | 0,11 | 60 |
| | *P1 T250D* | *0.0020* | *0.0024* | *0.0028* | *0.0032* | *0.0038* | *0.0040* | *0.0044* | *195* |
| H5 | P1 T250D | 0,075 | 0,090 | 0,11 | 0,12 | 0,14 | 0,15 | 0,17 | 110 |
| | *P1 T250D* | *0.0030* | *0.0036* | *0.0044* | *0.0048* | *0.0055* | *0.0060* | *0.0065* | *360* |
| H7 | P1 T250D | 0,050 | 0,060 | 0,070 | 0,080 | 0,095 | 0,10 | 0,11 | 60 |
| | *P1 T250D* | *0.0020* | *0.0024* | *0.0028* | *0.0032* | *0.0038* | *0.0040* | *0.0044* | *195* |
| H8 | P1 T250D | 0,060 | 0,070 | 0,085 | 0,095 | 0,11 | 0,11 | 0,13 | 110 |
| | *P1 T250D* | *0.0024* | *0.0028* | *0.0034* | *0.0038* | *0.0044* | *0.0044* | *0.0050* | *360* |
| H11 | P1 T250D | 0,075 | 0,090 | 0,11 | 0,12 | 0,14 | 0,15 | 0,17 | 140 |
| | *P1 T250D* | *0.0030* | *0.0036* | *0.0044* | *0.0048* | *0.0055* | *0.0060* | *0.0065* | *460* |
| H12 | P1 T250D | 0,060 | 0,070 | 0,085 | 0,095 | 0,11 | 0,11 | 0,13 | 130 |
| | *P1 T250D* | *0.0024* | *0.0028* | *0.0034* | *0.0038* | *0.0044* | *0.0044* | *0.0050* | *425* |
| H21 | P1 T250D | 0,060 | 0,070 | 0,085 | 0,095 | 0,11 | 0,11 | 0,13 | 110 |
| | *P1 T250D* | *0.0024* | *0.0028* | *0.0034* | *0.0038* | *0.0044* | *0.0044* | *0.0050* | *360* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD523 Cutting speed

| SMG | $v_c$ | | | |
|---|---|---|---|---|
| | DP2000 | DP3000 | T250D | DS2050 |
| P1 | 415<br>*1350* | 370<br>*1225* | 265<br>*870* | 370<br>*1225* |
| P2 | 405<br>*1325* | 360<br>*1175* | 260<br>*850* | 360<br>*1175* |
| P3 | 345<br>*1125* | 310<br>*1025* | 225<br>*740* | 310<br>*1025* |
| P4 | 230<br>*750* | 190<br>*620* | 120<br>*395* | —<br>— |
| P5 | 220<br>*720* | 180<br>*590* | 115<br>*375* | —<br>— |
| P6 | 250<br>*820* | 200<br>*660* | 130<br>*425* | —<br>— |
| P7 | 235<br>*770* | 190<br>*620* | 120<br>*395* | —<br>— |
| P8 | 220<br>*720* | 180<br>*590* | 115<br>*375* | —<br>— |
| P11 | 225<br>*740* | 185<br>*610* | 115<br>*375* | —<br>— |
| P12 | 135<br>*445* | 110<br>*360* | 70<br>*230* | —<br>— |
| M1 | —<br>— | 245<br>*800* | 135<br>*445* | —<br>— |
| M2 | —<br>— | 195<br>*640* | 110<br>*360* | —<br>— |
| M3 | —<br>— | 150<br>*490* | 85<br>*280* | 150<br>*490* |
| M4 | —<br>— | 115<br>*375* | 65<br>*215* | 120<br>*395* |
| M5 | —<br>— | 95<br>*310* | 55<br>*180* | 100<br>*330* |
| K1 | 225<br>*740* | 215<br>*710* | —<br>— | —<br>— |
| K2 | 195<br>*640* | 185<br>*610* | —<br>— | —<br>— |
| K3 | 165<br>*540* | 160<br>*520* | —<br>— | —<br>— |
| K4 | 160<br>*520* | 150<br>*490* | —<br>— | —<br>— |
| K5 | 95<br>*310* | 90<br>*295* | —<br>— | —<br>— |
| N1 | —<br>— | 360<br>*1175* | 310<br>*1025* | 310<br>*1025* |
| N2 | —<br>— | 230<br>*750* | 200<br>*660* | 200<br>*660* |
| N3 | —<br>— | 155<br>*510* | 135<br>*445* | 135<br>*445* |
| N11 | —<br>— | 300<br>*980* | 260<br>*850* | 260<br>*850* |
| S1 | —<br>— | —<br>— | 34<br>*110* | 55<br>*180* |
| S2 | —<br>— | —<br>— | 25<br>*80* | 43<br>*140* |
| S3 | —<br>— | —<br>— | 25<br>*80* | 37<br>*120* |
| S11 | —<br>— | —<br>— | 65<br>*215* | 75<br>*245* |
| S12 | —<br>— | —<br>— | 50<br>*165* | 60<br>*195* |
| S13 | —<br>— | —<br>— | 39<br>*130* | 45<br>*150* |
| H3 | —<br>— | 60<br>*195* | 60<br>*195* | —<br>— |
| H5 | —<br>— | 115<br>*375* | 110<br>*360* | —<br>— |
| H7 | —<br>— | 60<br>*195* | 60<br>*195* | —<br>— |
| H8 | —<br>— | 115<br>*375* | 110<br>*360* | —<br>— |
| H11 | —<br>— | 145<br>*475* | 140<br>*460* | —<br>— |
| H12 | —<br>— | 65<br>*215* | 130<br>*425* | —<br>— |
| H21 | —<br>— | 115<br>*375* | 110<br>*360* | —<br>— |

SMG = Seco material group $V_c$ = m/min (sf/min) All cutting data are start values

## SD524 ∅ 17-60 mm / *0.590-2.375 inch*

| SMG | | f | | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|---|
| | | Ø 15,00-19,49<br>*Ø 0.590-0.767* | Ø 19,50-22,49<br>*Ø 0.768-0.885* | Ø 22,50-28,49<br>*Ø 0.886-1.121* | Ø 28,50-34,49<br>*Ø 1.122-1.357* | Ø 34,50-40,49<br>*Ø1.358-1.593* | Ø 40,49-44,49<br>*Ø 1.594-1.751* | Ø 44,50-59,99<br>*Ø 1.752-2.375* | |
| P1 | P1 DP2000 | 0,060 | 0,070 | 0,085 | 0,095 | 0,11 | 0,12 | 0,13 | 380 |
| | *P1 DP2000* | *0.0024* | *0.0028* | *0.0034* | *0.0038* | *0.0044* | *0.0048* | *0.0050* | *1250* |
| P2 | P1 DP2000 | 0,060 | 0,070 | 0,085 | 0,10 | 0,11 | 0,12 | 0,13 | 370 |
| | *P1 DP2000* | *0.0024* | *0.0028* | *0.0034* | *0.0040* | *0.0044* | *0.0048* | *0.0050* | *1225* |
| P3 | P2 DP3000 | 0,12 | 0,14 | 0,17 | 0,19 | 0,22 | 0,22 | 0,26 | 285 |
| | *P2 DP3000* | *0.0048* | *0.0055* | *0.0065* | *0.0075* | *0.0085* | *0.0085* | *0.010* | *940* |
| P4 | P2 DP3000 | 0,12 | 0,13 | 0,16 | 0,19 | 0,22 | 0,22 | 0,25 | 165 |
| | *P2 DP3000* | *0.0048* | *0.0050* | *0.0065* | *0.0075* | *0.0085* | *0.0085* | *0.010* | *540* |
| P5 | P2 DP3000 | 0,11 | 0,13 | 0,16 | 0,18 | 0,20 | 0,22 | 0,25 | 160 |
| | *P2 DP3000* | *0.0044* | *0.0050* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.010* | *520* |
| P6 | P2 DP3000 | 0,11 | 0,13 | 0,16 | 0,18 | 0,20 | 0,22 | 0,25 | 180 |
| | *P2 DP3000* | *0.0044* | *0.0050* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.010* | *590* |
| P7 | P2 DP3000 | 0,11 | 0,13 | 0,16 | 0,18 | 0,20 | 0,22 | 0,25 | 170 |
| | *P2 DP3000* | *0.0044* | *0.0050* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.010* | *560* |
| P8 | P2 DP3000 | 0,12 | 0,14 | 0,17 | 0,19 | 0,22 | 0,22 | 0,26 | 160 |
| | *P2 DP3000* | *0.0048* | *0.0055* | *0.0065* | *0.0075* | *0.0085* | *0.0085* | *0.010* | *520* |
| P11 | P2 DP3000 | 0,11 | 0,13 | 0,16 | 0,18 | 0,20 | 0,22 | 0,25 | 165 |
| | *P2 DP3000* | *0.0044* | *0.0050* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.010* | *540* |
| P12 | P2 DP3000 | 0,075 | 0,090 | 0,11 | 0,12 | 0,14 | 0,15 | 0,17 | 95 |
| | *P2 DP3000* | *0.0030* | *0.0036* | *0.0044* | *0.0048* | *0.0055* | *0.0060* | *0.0065* | *310* |
| M1 | P2 DP3000 | 0,085 | 0,10 | 0,12 | 0,14 | 0,16 | 0,17 | 0,19 | 235 |
| | *P2 DP3000* | *0.0034* | *0.0040* | *0.0048* | *0.0055* | *0.0065* | *0.0065* | *0.0075* | *770* |
| M2 | P2 DP3000 | 0,080 | 0,090 | 0,11 | 0,13 | 0,14 | 0,15 | 0,17 | 190 |
| | *P2 DP3000* | *0.0032* | *0.0036* | *0.0044* | *0.0050* | *0.0055* | *0.0060* | *0.0065* | *620* |
| M3 | MP DS2050 | 0,065 | 0,075 | 0,090 | 0,10 | 0,12 | 0,13 | 0,14 | 145 |
| | *MP DS2050* | *0.0026* | *0.0030* | *0.0036* | *0.0040* | *0.0048* | *0.0050* | *0.0055* | *475* |
| M4 | MP DS2050 | 0,055 | 0,065 | 0,080 | 0,090 | 0,10 | 0,11 | 0,12 | 105 |
| | *MP DS2050* | *0.0022* | *0.0026* | *0.0032* | *0.0036* | *0.0040* | *0.0044* | *0.0048* | *345* |
| M5 | MP DS2050 | 0,055 | 0,065 | 0,080 | 0,090 | 0,10 | 0,11 | 0,12 | 90 |
| | *MP DS2050* | *0.0022* | *0.0026* | *0.0032* | *0.0036* | *0.0040* | *0.0044* | *0.0048* | *295* |
| K1 | P2 DP2000 | 0,12 | 0,14 | 0,17 | 0,20 | 0,22 | 0,24 | 0,26 | 210 |
| | *P2 DP2000* | *0.0048* | *0.0055* | *0.0065* | *0.0080* | *0.0085* | *0.0095* | *0.010* | *690* |
| K2 | P2 DP2000 | 0,11 | 0,13 | 0,16 | 0,18 | 0,20 | 0,22 | 0,24 | 180 |
| | *P2 DP2000* | *0.0044* | *0.0050* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.0095* | *590* |
| K3 | P2 DP2000 | 0,11 | 0,13 | 0,16 | 0,18 | 0,20 | 0,22 | 0,24 | 155 |
| | *P2 DP2000* | *0.0044* | *0.0050* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.0095* | *510* |
| K4 | P2 DP2000 | 0,11 | 0,13 | 0,16 | 0,18 | 0,20 | 0,22 | 0,24 | 145 |
| | *P2 DP2000* | *0.0044* | *0.0050* | *0.0065* | *0.0070* | *0.0080* | *0.0085* | *0.0095* | *475* |
| K5 | P2 DP2000 | 0,10 | 0,11 | 0,14 | 0,16 | 0,18 | 0,19 | 0,22 | 85 |
| | *P2 DP2000* | *0.0040* | *0.0044* | *0.0055* | *0.0065* | *0.0070* | *0.0075* | *0.0085* | *280* |
| N1 | P1 T250D | 0,12 | 0,14 | 0,17 | 0,20 | 0,22 | 0,24 | 0,26 | 270 |
| | *P1 T250D* | *0.0048* | *0.0055* | *0.0065* | *0.0080* | *0.0085* | *0.0095* | *0.010* | *890* |
| N2 | P1 T250D | 0,12 | 0,14 | 0,17 | 0,20 | 0,22 | 0,24 | 0,26 | 175 |
| | *P1 T250D* | *0.0048* | *0.0055* | *0.0065* | *0.0080* | *0.0085* | *0.0095* | *0.010* | *570* |
| N3 | P1 T250D | 0,12 | 0,14 | 0,17 | 0,20 | 0,22 | 0,24 | 0,26 | 115 |
| | *P1 T250D* | *0.0048* | *0.0055* | *0.0065* | *0.0080* | *0.0085* | *0.0095* | *0.010* | *375* |
| N11 | P1 T250D | 0,12 | 0,14 | 0,17 | 0,20 | 0,22 | 0,24 | 0,26 | 230 |
| | *P1 T250D* | *0.0048* | *0.0055* | *0.0065* | *0.0080* | *0.0085* | *0.0095* | *0.010* | *750* |
| S1 | MP DS2050 | 0,090 | 0,11 | 0,13 | 0,15 | 0,17 | 0,18 | 0,20 | 48 |
| | *MP DS2050* | *0.0036* | *0.0044* | *0.0050* | *0.0060* | *0.0065* | *0.0070* | *0.0080* | *155* |
| S2 | MP DS2050 | 0,090 | 0,11 | 0,13 | 0,15 | 0,17 | 0,18 | 0,20 | 39 |
| | *MP DS2050* | *0.0036* | *0.0044* | *0.0050* | *0.0060* | *0.0065* | *0.0070* | *0.0080* | *130* |
| S3 | MP DS2050 | 0,085 | 0,10 | 0,12 | 0,14 | 0,16 | 0,17 | 0,19 | 33 |
| | *MP DS2050* | *0.0034* | *0.0040* | *0.0048* | *0.0055* | *0.0065* | *0.0065* | *0.0075* | *110* |
| S11 | MP DS2050 | 0,11 | 0,12 | 0,15 | 0,17 | 0,19 | 0,20 | 0,24 | 70 |
| | *MP DS2050* | *0.0044* | *0.0048* | *0.0060* | *0.0065* | *0.0075* | *0.0080* | *0.0095* | *230* |
| S12 | MP DS2050 | 0,11 | 0,12 | 0,15 | 0,17 | 0,19 | 0,20 | 0,24 | 55 |
| | *MP DS2050* | *0.0044* | *0.0048* | *0.0060* | *0.0065* | *0.0075* | *0.0080* | *0.0095* | *180* |
| S13 | MP DS2050 | 0,090 | 0,11 | 0,13 | 0,15 | 0,17 | 0,18 | 0,20 | 41 |
| | *MP DS2050* | *0.0036* | *0.0044* | *0.0050* | *0.0060* | *0.0065* | *0.0070* | *0.0080* | *135* |
| H3 | P1 T250D | 0,050 | 0,060 | 0,070 | 0,080 | 0,095 | 0,10 | 0,11 | 50 |
| | *P1 T250D* | *0.0020* | *0.0024* | *0.0028* | *0.0032* | *0.0038* | *0.0040* | *0.0044* | *165* |
| H5 | P1 T250D | 0,075 | 0,090 | 0,11 | 0,12 | 0,14 | 0,15 | 0,17 | 95 |
| | *P1 T250D* | *0.0030* | *0.0036* | *0.0044* | *0.0048* | *0.0055* | *0.0060* | *0.0065* | *310* |
| H7 | P1 T250D | 0,050 | 0,060 | 0,070 | 0,080 | 0,095 | 0,10 | 0,11 | 50 |
| | *P1 T250D* | *0.0020* | *0.0024* | *0.0028* | *0.0032* | *0.0038* | *0.0040* | *0.0044* | *165* |
| H8 | P1 T250D | 0,060 | 0,070 | 0,085 | 0,095 | 0,11 | 0,11 | 0,13 | 95 |
| | *P1 T250D* | *0.0024* | *0.0028* | *0.0034* | *0.0038* | *0.0044* | *0.0044* | *0.0050* | *310* |
| H11 | P1 T250D | 0,075 | 0,090 | 0,11 | 0,12 | 0,14 | 0,15 | 0,17 | 125 |
| | *P1 T250D* | *0.0030* | *0.0036* | *0.0044* | *0.0048* | *0.0055* | *0.0060* | *0.0065* | *410* |
| H12 | P1 T250D | 0,060 | 0,070 | 0,085 | 0,095 | 0,11 | 0,11 | 0,13 | 110 |
| | *P1 T250D* | *0.0024* | *0.0028* | *0.0034* | *0.0038* | *0.0044* | *0.0044* | *0.0050* | *360* |
| H21 | P1 T250D | 0,060 | 0,070 | 0,085 | 0,095 | 0,11 | 0,11 | 0,13 | 95 |
| | *P1 T250D* | *0.0024* | *0.0028* | *0.0034* | *0.0038* | *0.0044* | *0.0044* | *0.0050* | *310* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD524 Cutting speed

| SMG | $v_c$ | | | |
|---|---|---|---|---|
| | DP2000 | DP3000 | T250D | DS2050 |
| P1 | 380<br>*1250* | 340<br>*1125* | 230<br>*750* | 340<br>*1125* |
| P2 | 370<br>*1225* | 330<br>*1075* | 225<br>*740* | 330<br>*1075* |
| P3 | 320<br>*1050* | 285<br>*940* | 195<br>*640* | 285<br>*940* |
| P4 | 195<br>*640* | 165<br>*540* | 105<br>*345* | —<br>— |
| P5 | 185<br>*610* | 160<br>*520* | 100<br>*330* | —<br>— |
| P6 | 210<br>*690* | 180<br>*590* | 110<br>*360* | —<br>— |
| P7 | 195<br>*640* | 170<br>*560* | 105<br>*345* | —<br>— |
| P8 | 185<br>*610* | 160<br>*520* | 100<br>*330* | —<br>— |
| P11 | 190<br>*620* | 165<br>*540* | 100<br>*330* | —<br>— |
| P12 | 110<br>*360* | 95<br>*310* | 60<br>*195* | —<br>— |
| M1 | —<br>— | 235<br>*770* | 120<br>*395* | —<br>— |
| M2 | —<br>— | 190<br>*620* | 95<br>*310* | —<br>— |
| M3 | —<br>— | 145<br>*475* | 75<br>*245* | 145<br>*475* |
| M4 | —<br>— | 110<br>*360* | 55<br>*180* | 105<br>*345* |
| M5 | —<br>— | 90<br>*295* | 46<br>*150* | 90<br>*295* |
| K1 | 210<br>*690* | 200<br>*660* | —<br>— | —<br>— |
| K2 | 180<br>*590* | 170<br>*560* | —<br>— | —<br>— |
| K3 | 155<br>*510* | 145<br>*475* | —<br>— | —<br>— |
| K4 | 145<br>*475* | 140<br>*460* | —<br>— | —<br>— |
| K5 | 85<br>*280* | 85<br>*280* | —<br>— | —<br>— |
| N1 | —<br>— | 315<br>*1025* | 270<br>*890* | 270<br>*890* |
| N2 | —<br>— | 205<br>*670* | 175<br>*570* | 175<br>*570* |
| N3 | —<br>— | 135<br>*445* | 115<br>*375* | 115<br>*375* |
| N11 | —<br>— | 265<br>*870* | 230<br>*750* | 230<br>*750* |
| S1 | —<br>— | —<br>— | 29<br>*95* | 48<br>*155* |
| S2 | —<br>— | —<br>— | 22<br>*70* | 39<br>*130* |
| S3 | —<br>— | —<br>— | 22<br>*70* | 33<br>*110* |
| S11 | —<br>— | —<br>— | 55<br>*180* | 70<br>*230* |
| S12 | —<br>— | —<br>— | 44<br>*145* | 55<br>*180* |
| S13 | —<br>— | —<br>— | 34<br>*110* | 41<br>*135* |
| H3 | —<br>— | 55<br>*180* | 50<br>*165* | —<br>— |
| H5 | —<br>— | 100<br>*330* | 95<br>*310* | —<br>— |
| H7 | —<br>— | 55<br>*180* | 50<br>*165* | —<br>— |
| H8 | —<br>— | 100<br>*330* | 95<br>*310* | —<br>— |
| H11 | —<br>— | 125<br>*410* | 125<br>*410* | —<br>— |
| H12 | —<br>— | 55<br>*180* | 110<br>*360* | —<br>— |
| H21 | —<br>— | 100<br>*330* | 95<br>*310* | —<br>— |

SMG = Seco material group $V_c$ = m/min (sf/min) All cutting data are start values

## SD525 ∅ 19-45 mm / *0.768-2.000 inch*

| SMG | | f | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|
| | | Ø 19,50-22,49<br>*Ø 0.768-0.885* | Ø 22,50-28,49<br>*Ø 0.886-1.121* | Ø 28,50-34,49<br>*Ø 1.122-1.357* | Ø 34,50-40,49<br>*Ø1.358-1.593* | Ø 40,49-45,00<br>*Ø 1.594-2.000* | |
| P1 | P2 DP3000<br>*P2 DP3000* | 0,070<br>*0.0028* | 0,085<br>*0.0034* | 0,095<br>*0.0038* | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 320<br>*1050* |
| P2 | P2 DP3000<br>*P2 DP3000* | 0,070<br>*0.0028* | 0,085<br>*0.0034* | 0,10<br>*0.0040* | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 310<br>*1025* |
| P3 | P2 DP3000<br>*P2 DP3000* | 0,14<br>*0.0055* | 0,17<br>*0.0065* | 0,19<br>*0.0075* | 0,22<br>*0.0085* | 0,22<br>*0.0085* | 265<br>*870* |
| P4 | P2 DP3000<br>*P2 DP3000* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,19<br>*0.0075* | 0,22<br>*0.0085* | 0,22<br>*0.0085* | 150<br>*490* |
| P5 | P2 DP3000<br>*P2 DP3000* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 140<br>*460* |
| P6 | P2 DP3000<br>*P2 DP3000* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 160<br>*520* |
| P7 | P2 DP3000<br>*P2 DP3000* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 150<br>*490* |
| P8 | P2 DP3000<br>*P2 DP3000* | 0,14<br>*0.0055* | 0,17<br>*0.0065* | 0,19<br>*0.0075* | 0,22<br>*0.0085* | 0,22<br>*0.0085* | 140<br>*460* |
| P11 | P2 DP3000<br>*P2 DP3000* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 145<br>*475* |
| P12 | P2 DP3000<br>*P2 DP3000* | 0,090<br>*0.0036* | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 85<br>*280* |
| M1 | P2 DP3000<br>*P2 DP3000* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,16<br>*0.0065* | 0,17<br>*0.0065* | 225<br>*740* |
| M2 | P2 DP3000<br>*P2 DP3000* | 0,090<br>*0.0036* | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 180<br>*590* |
| M3 | MP DS2050<br>*MP DS2050* | 0,075<br>*0.0030* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,13<br>*0.0050* | 140<br>*460* |
| M4 | MP DS2050<br>*MP DS2050* | 0,065<br>*0.0026* | 0,080<br>*0.0032* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 0,11<br>*0.0044* | 95<br>*310* |
| M5 | MP DS2050<br>*MP DS2050* | 0,065<br>*0.0026* | 0,080<br>*0.0032* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 0,11<br>*0.0044* | 80<br>*260* |
| K1 | P2 DP3000<br>*P2 DP3000* | 0,14<br>*0.0055* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,24<br>*0.0095* | 185<br>*610* |
| K2 | P2 DP3000<br>*P2 DP3000* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 160<br>*520* |
| K3 | P2 DP3000<br>*P2 DP3000* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 135<br>*445* |
| K4 | P2 DP3000<br>*P2 DP3000* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 130<br>*425* |
| K5 | P2 DP3000<br>*P2 DP3000* | 0,11<br>*0.0044* | 0,14<br>*0.0055* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,19<br>*0.0075* | 80<br>*260* |
| N1 | P1 T250D<br>*P1 T250D* | 0,14<br>*0.0055* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,24<br>*0.0095* | 240<br>*790* |
| N2 | P1 T250D<br>*P1 T250D* | 0,14<br>*0.0055* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,24<br>*0.0095* | 155<br>*510* |
| N3 | P1 T250D<br>*P1 T250D* | 0,14<br>*0.0055* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,24<br>*0.0095* | 100<br>*330* |
| N11 | P1 T250D<br>*P1 T250D* | 0,14<br>*0.0055* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,22<br>*0.0085* | 0,24<br>*0.0095* | 200<br>*660* |
| S1 | MP DS2050<br>*MP DS2050* | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,18<br>*0.0070* | 44<br>*145* |
| S2 | MP DS2050<br>*MP DS2050* | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,18<br>*0.0070* | 36<br>*120* |
| S3 | MP DS2050<br>*MP DS2050* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,16<br>*0.0065* | 0,17<br>*0.0065* | 31<br>*100* |
| S11 | MP DS2050<br>*MP DS2050* | 0,12<br>*0.0048* | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,19<br>*0.0075* | 0,20<br>*0.0080* | 65<br>*215* |
| S12 | MP DS2050<br>*MP DS2050* | 0,12<br>*0.0048* | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,19<br>*0.0075* | 0,20<br>*0.0080* | 49<br>*160* |
| S13 | MP DS2050<br>*MP DS2050* | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,18<br>*0.0070* | 38<br>*125* |
| H3 | P1 T250D<br>*P1 T250D* | 0,060<br>*0.0024* | 0,070<br>*0.0028* | 0,085<br>*0.0034* | 0,095<br>*0.0038* | 0,10<br>*0.0040* | 46<br>*150* |
| H5 | P1 T250D<br>*P1 T250D* | 0,090<br>*0.0036* | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 85<br>*280* |
| H7 | P1 T250D<br>*P1 T250D* | 0,060<br>*0.0024* | 0,070<br>*0.0028* | 0,085<br>*0.0034* | 0,095<br>*0.0038* | 0,10<br>*0.0040* | 46<br>*150* |
| H8 | P1 T250D<br>*P1 T250D* | 0,070<br>*0.0028* | 0,085<br>*0.0034* | 0,095<br>*0.0038* | 0,11<br>*0.0044* | 0,11<br>*0.0044* | 85<br>*280* |
| H11 | P1 T250D<br>*P1 T250D* | 0,090<br>*0.0036* | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,15<br>*0.0060* | 110<br>*360* |
| H12 | P1 T250D<br>*P1 T250D* | 0,070<br>*0.0028* | 0,085<br>*0.0034* | 0,095<br>*0.0038* | 0,11<br>*0.0044* | 0,11<br>*0.0044* | 100<br>*330* |
| H21 | P1 T250D<br>*P1 T250D* | 0,070<br>*0.0028* | 0,085<br>*0.0034* | 0,095<br>*0.0038* | 0,11<br>*0.0044* | 0,11<br>*0.0044* | 85<br>*280* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD525 Cutting speed

| SMG | $v_c$ | | | |
|---|---|---|---|---|
| | DP2000 | DP3000 | T250D | DS2050 |
| P1 | 355<br>*1175* | 320<br>*1050* | 205<br>*670* | 320<br>*1050* |
| P2 | 345<br>*1125* | 310<br>*1025* | 200<br>*660* | 310<br>*1025* |
| P3 | 295<br>*970* | 265<br>*870* | 170<br>*560* | 265<br>*870* |
| P4 | 165<br>*540* | 150<br>*490* | 90<br>*295* | —<br>— |
| P5 | 155<br>*510* | 140<br>*460* | 90<br>*295* | —<br>— |
| P6 | 175<br>*570* | 160<br>*520* | 100<br>*330* | —<br>— |
| P7 | 165<br>*540* | 150<br>*490* | 95<br>*310* | —<br>— |
| P8 | 155<br>*510* | 140<br>*460* | 90<br>*295* | —<br>— |
| P11 | 160<br>*520* | 145<br>*475* | 90<br>*295* | —<br>— |
| P12 | 95<br>*310* | 85<br>*280* | 55<br>*180* | —<br>— |
| M1 | —<br>— | 225<br>*740* | 105<br>*345* | —<br>— |
| M2 | —<br>— | 180<br>*590* | 85<br>*280* | —<br>— |
| M3 | —<br>— | 140<br>*460* | 65<br>*215* | 140<br>*460* |
| M4 | —<br>— | 105<br>*345* | 49<br>*160* | 95<br>*310* |
| M5 | —<br>— | 85<br>*280* | 41<br>*135* | 80<br>*260* |
| K1 | 195<br>*640* | 185<br>*610* | —<br>— | —<br>— |
| K2 | 170<br>*560* | 160<br>*520* | —<br>— | —<br>— |
| K3 | 145<br>*475* | 135<br>*445* | —<br>— | —<br>— |
| K4 | 140<br>*460* | 130<br>*425* | —<br>— | —<br>— |
| K5 | 80<br>*260* | 80<br>*260* | —<br>— | —<br>— |
| N1 | —<br>— | 285<br>*940* | 240<br>*790* | 240<br>*790* |
| N2 | —<br>— | 185<br>*610* | 155<br>*510* | 155<br>*510* |
| N3 | —<br>— | 120<br>*395* | 100<br>*330* | 100<br>*330* |
| N11 | —<br>— | 235<br>*770* | 200<br>*660* | 200<br>*660* |
| S1 | —<br>— | —<br>— | 26<br>*85* | 44<br>*145* |
| S2 | —<br>— | —<br>— | 20<br>*65* | 36<br>*120* |
| S3 | —<br>— | —<br>— | 20<br>*65* | 31<br>*100* |
| S11 | —<br>— | —<br>— | 50<br>*165* | 65<br>*215* |
| S12 | —<br>— | —<br>— | 39<br>*130* | 49<br>*160* |
| S13 | —<br>— | —<br>— | 30<br>*100* | 38<br>*125* |
| H3 | —<br>— | 48<br>*155* | 46<br>*150* | —<br>— |
| H5 | —<br>— | 90<br>*295* | 85<br>*280* | —<br>— |
| H7 | —<br>— | 48<br>*155* | 46<br>*150* | —<br>— |
| H8 | —<br>— | 90<br>*295* | 85<br>*280* | —<br>— |
| H11 | —<br>— | 115<br>*375* | 110<br>*360* | —<br>— |
| H12 | —<br>— | 50<br>*165* | 100<br>*330* | —<br>— |
| H21 | —<br>— | 90<br>*295* | 85<br>*280* | —<br>— |

SMG = Seco material group $V_c$ = m/min (sf/min) All cutting data are start values

## SD542 ∅ 60-85 mm / *2.250-3.500 inch*

| SMG | | f | | $v_c$ |
|---|---|---|---|---|
| | | Ø 60,00-65,00<br>*Ø 2.250-2.559* | Ø 70,00-85,00<br>*Ø 2.750-3.500* | |
| P1 | P2 DP3000<br>*P2 DP3000* | 0,095<br>*0.0038* | 0,12<br>*0.0048* | 390<br>*1275* |
| P2 | P2 DP3000<br>*P2 DP3000* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 380<br>*1250* |
| P3 | P2 DP3000<br>*P2 DP3000* | 0,19<br>*0.0075* | 0,22<br>*0.0085* | 325<br>*1075* |
| P4 | P2 DP3000<br>*P2 DP3000* | 0,19<br>*0.0075* | 0,22<br>*0.0085* | 205<br>*670* |
| P5 | P2 DP3000<br>*P2 DP3000* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 195<br>*640* |
| P6 | P2 DP3000<br>*P2 DP3000* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 220<br>*720* |
| P7 | P2 DP3000<br>*P2 DP3000* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 205<br>*670* |
| P8 | P2 DP3000<br>*P2 DP3000* | 0,19<br>*0.0075* | 0,22<br>*0.0085* | 195<br>*640* |
| P11 | P2 DP3000<br>*P2 DP3000* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 200<br>*660* |
| P12 | P2 DP3000<br>*P2 DP3000* | 0,12<br>*0.0048* | 0,15<br>*0.0060* | 120<br>*395* |
| M1 | P2 DP3000<br>*P2 DP3000* | 0,14<br>*0.0055* | 0,17<br>*0.0065* | 250<br>*820* |
| M2 | P2 DP3000<br>*P2 DP3000* | 0,13<br>*0.0050* | 0,15<br>*0.0060* | 205<br>*670* |
| M3 | P1 T250D<br>*P1 T250D* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 90<br>*295* |
| M4 | P1 T250D<br>*P1 T250D* | 0,090<br>*0.0036* | 0,11<br>*0.0044* | 70<br>*230* |
| M5 | P1 T250D<br>*P1 T250D* | 0,090<br>*0.0036* | 0,11<br>*0.0044* | 55<br>*180* |
| K1 | P2 DP3000<br>*P2 DP3000* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 225<br>*740* |
| K2 | P2 DP3000<br>*P2 DP3000* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 195<br>*640* |
| K3 | P2 DP3000<br>*P2 DP3000* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 165<br>*540* |
| K4 | P2 DP3000<br>*P2 DP3000* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 160<br>*520* |
| K5 | P2 DP3000<br>*P2 DP3000* | 0,16<br>*0.0065* | 0,19<br>*0.0075* | 95<br>*310* |
| N1 | P1 T250D<br>*P1 T250D* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 335<br>*1100* |
| N2 | P1 T250D<br>*P1 T250D* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 215<br>*710* |
| N3 | P1 T250D<br>*P1 T250D* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 145<br>*475* |
| N11 | P1 T250D<br>*P1 T250D* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 285<br>*940* |
| S1 | MP DS2050<br>*MP DS2050* | 0,15<br>*0.0060* | 0,18<br>*0.0070* | 55<br>*180* |
| S2 | MP DS2050<br>*MP DS2050* | 0,15<br>*0.0060* | 0,18<br>*0.0070* | 45<br>*150* |
| S3 | MP DS2050<br>*MP DS2050* | 0,14<br>*0.0055* | 0,17<br>*0.0065* | 39<br>*130* |
| S11 | MP DS2050<br>*MP DS2050* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 80<br>*260* |
| S12 | MP DS2050<br>*MP DS2050* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 60<br>*195* |
| S13 | MP DS2050<br>*MP DS2050* | 0,15<br>*0.0060* | 0,18<br>*0.0070* | 48<br>*155* |
| H3 | P1 T250D<br>*P1 T250D* | 0,080<br>*0.0032* | 0,10<br>*0.0040* | 65<br>*215* |
| H5 | P1 T250D<br>*P1 T250D* | 0,12<br>*0.0048* | 0,15<br>*0.0060* | 120<br>*395* |
| H7 | P1 T250D<br>*P1 T250D* | 0,080<br>*0.0032* | 0,10<br>*0.0040* | 65<br>*215* |
| H8 | P1 T250D<br>*P1 T250D* | 0,095<br>*0.0038* | 0,11<br>*0.0044* | 120<br>*395* |
| H11 | P1 T250D<br>*P1 T250D* | 0,12<br>*0.0048* | 0,15<br>*0.0060* | 155<br>*510* |
| H12 | P1 T250D<br>*P1 T250D* | 0,095<br>*0.0038* | 0,11<br>*0.0044* | 140<br>*460* |
| H21 | P1 T250D<br>*P1 T250D* | 0,095<br>*0.0038* | 0,11<br>*0.0044* | 120<br>*395* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD542 Cutting speed

| SMG | $v_c$ | | | |
|---|---|---|---|---|
| | DP2000 | DP3000 | T250D | DS2050 |
| P1 | 435<br>*1425* | 390<br>*1275* | 290<br>*950* | 390<br>*1275* |
| P2 | 425<br>*1400* | 380<br>*1250* | 280<br>*920* | 380<br>*1250* |
| P3 | 365<br>*1200* | 325<br>*1075* | 240<br>*790* | 325<br>*1075* |
| P4 | 255<br>*840* | 205<br>*670* | 130<br>*425* | —<br>— |
| P5 | 245<br>*800* | 195<br>*640* | 125<br>*410* | —<br>— |
| P6 | 275<br>*900* | 220<br>*720* | 140<br>*460* | —<br>— |
| P7 | 260<br>*850* | 205<br>*670* | 130<br>*425* | —<br>— |
| P8 | 245<br>*800* | 195<br>*640* | 125<br>*410* | —<br>— |
| P11 | 250<br>*820* | 200<br>*660* | 125<br>*410* | —<br>— |
| P12 | 150<br>*490* | 120<br>*395* | 75<br>*245* | —<br>— |
| M1 | —<br>— | 250<br>*820* | 150<br>*490* | —<br>— |
| M2 | —<br>— | 205<br>*670* | 120<br>*395* | —<br>— |
| M3 | —<br>— | 155<br>*510* | 90<br>*295* | 155<br>*510* |
| M4 | —<br>— | 115<br>*375* | 70<br>*230* | 130<br>*425* |
| M5 | —<br>— | 95<br>*310* | 55<br>*180* | 105<br>*345* |
| K1 | 235<br>*770* | 225<br>*740* | —<br>— | —<br>— |
| K2 | 205<br>*670* | 195<br>*640* | —<br>— | —<br>— |
| K3 | 175<br>*570* | 165<br>*540* | —<br>— | —<br>— |
| K4 | 165<br>*540* | 160<br>*520* | —<br>— | —<br>— |
| K5 | 100<br>*330* | 95<br>*310* | —<br>— | —<br>— |
| N1 | —<br>— | 390<br>*1275* | 335<br>*1100* | 335<br>*1100* |
| N2 | —<br>— | 250<br>*820* | 215<br>*710* | 215<br>*710* |
| N3 | —<br>— | 165<br>*540* | 145<br>*475* | 145<br>*475* |
| N11 | —<br>— | 325<br>*1075* | 285<br>*940* | 285<br>*940* |
| S1 | —<br>— | —<br>— | 37<br>*120* | 55<br>*180* |
| S2 | —<br>— | —<br>— | 27<br>*90* | 45<br>*150* |
| S3 | —<br>— | —<br>— | 27<br>*90* | 39<br>*130* |
| S11 | —<br>— | —<br>— | 70<br>*230* | 80<br>*260* |
| S12 | —<br>— | —<br>— | 55<br>*180* | 60<br>*195* |
| S13 | —<br>— | —<br>— | 43<br>*140* | 48<br>*155* |
| H3 | —<br>— | 65<br>*215* | 65<br>*215* | —<br>— |
| H5 | —<br>— | 120<br>*395* | 120<br>*395* | —<br>— |
| H7 | —<br>— | 65<br>*215* | 65<br>*215* | —<br>— |
| H8 | —<br>— | 120<br>*395* | 120<br>*395* | —<br>— |
| H11 | —<br>— | 155<br>*510* | 155<br>*510* | —<br>— |
| H12 | —<br>— | 70<br>*230* | 140<br>*460* | —<br>— |
| H21 | —<br>— | 120<br>*395* | 120<br>*395* | —<br>— |

SMG = Seco material group $V_c$ = m/min (sf/min) All cutting data are start values

## SD572 ∅ 15-52 mm / *0.590-2.0472 inch*

| SMG | | f | | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|---|
| | | Ø 15,00-17,00<br>*Ø 0.590-0.669* | Ø 18,00-20,00<br>*Ø 0.670-0.787* | Ø 21,00-24,00<br>*Ø 0.788-0.944* | Ø 25,00-32,00<br>*Ø 0.945-1.259* | Ø 33,00-36,00<br>*Ø 1.260-1.417* | Ø 37,00-52,00<br>*Ø 1.418-1.850* | |
| P1 | 85 DP3000<br>*85 DP3000* | 0,042<br>*0.0017* | 0,042<br>*0.0017* | 0,048<br>*0.0019* | 0,060<br>*0.0024* | 0,070<br>*0.0028* | 0,085<br>*0.0034* | 310<br>*1025* |
| P2 | 85 DP3000<br>*85 DP3000* | 0,042<br>*0.0017* | 0,042<br>*0.0017* | 0,050<br>*0.0020* | 0,060<br>*0.0024* | 0,070<br>*0.0028* | 0,085<br>*0.0034* | 305<br>*1000* |
| P3 | 86 DP3000<br>*86 DP3000* | 0,12<br>*0.0048* | 0,12<br>*0.0048* | 0,13<br>*0.0050* | 0,17<br>*0.0065* | 0,19<br>*0.0075* | 0,22<br>*0.0085* | 260<br>*850* |
| P4 | 86 DP3000<br>*86 DP3000* | 0,11<br>*0.0044* | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,19<br>*0.0075* | 0,22<br>*0.0085* | 230<br>*750* |
| P5 | 86 DP3000<br>*86 DP3000* | 0,11<br>*0.0044* | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 220<br>*720* |
| P6 | 86 DP3000<br>*86 DP3000* | 0,11<br>*0.0044* | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 245<br>*800* |
| P7 | 86 DP3000<br>*86 DP3000* | 0,11<br>*0.0044* | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 235<br>*770* |
| P8 | 86 DP3000<br>*86 DP3000* | 0,12<br>*0.0048* | 0,12<br>*0.0048* | 0,13<br>*0.0050* | 0,17<br>*0.0065* | 0,19<br>*0.0075* | 0,22<br>*0.0085* | 220<br>*720* |
| P11 | 86 DP3000<br>*86 DP3000* | 0,11<br>*0.0044* | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 225<br>*740* |
| P12 | 86 DP3000<br>*86 DP3000* | 0,075<br>*0.0030* | 0,075<br>*0.0030* | 0,085<br>*0.0034* | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,15<br>*0.0060* | 135<br>*445* |
| M1 | 86 DP3000<br>*86 DP3000* | 0,075<br>*0.0030* | 0,075<br>*0.0030* | 0,085<br>*0.0034* | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,15<br>*0.0060* | 235<br>*770* |
| M2 | 86 DP3000<br>*86 DP3000* | 0,070<br>*0.0028* | 0,070<br>*0.0028* | 0,080<br>*0.0032* | 0,10<br>*0.0040* | 0,11<br>*0.0044* | 0,14<br>*0.0055* | 190<br>*620* |
| M3 | 85 DP3000<br>*85 DP3000* | 0,034<br>*0.0013* | 0,034<br>*0.0013* | 0,040<br>*0.0016* | 0,048<br>*0.0019* | 0,055<br>*0.0022* | 0,070<br>*0.0028* | 145<br>*475* |
| M4 | 85 DP3000<br>*85 DP3000* | 0,030<br>*0.0012* | 0,030<br>*0.0012* | 0,034<br>*0.0013* | 0,042<br>*0.0017* | 0,050<br>*0.0020* | 0,060<br>*0.0024* | 110<br>*360* |
| M5 | 85 DP3000<br>*85 DP3000* | 0,030<br>*0.0012* | 0,030<br>*0.0012* | 0,034<br>*0.0013* | 0,042<br>*0.0017* | 0,050<br>*0.0020* | 0,060<br>*0.0024* | 90<br>*295* |
| K1 | 86 DP3000<br>*86 DP3000* | 0,12<br>*0.0048* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 180<br>*590* |
| K2 | 86 DP3000<br>*86 DP3000* | 0,11<br>*0.0044* | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 155<br>*510* |
| K3 | 86 DP3000<br>*86 DP3000* | 0,11<br>*0.0044* | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 130<br>*425* |
| K4 | 86 DP3000<br>*86 DP3000* | 0,11<br>*0.0044* | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 125<br>*410* |
| K5 | 86 DP3000<br>*86 DP3000* | 0,10<br>*0.0040* | 0,10<br>*0.0040* | 0,11<br>*0.0044* | 0,14<br>*0.0055* | 0,16<br>*0.0065* | 0,19<br>*0.0075* | 75<br>*245* |
| S1 | 85 DP3000<br>*85 DP3000* | 0,055<br>*0.0022* | 0,055<br>*0.0022* | 0,060<br>*0.0024* | 0,075<br>*0.0030* | 0,090<br>*0.0036* | 0,11<br>*0.0044* | 40<br>*130* |
| S2 | 85 DP3000<br>*85 DP3000* | 0,055<br>*0.0022* | 0,055<br>*0.0022* | 0,060<br>*0.0024* | 0,075<br>*0.0030* | 0,090<br>*0.0036* | 0,11<br>*0.0044* | 30<br>*100* |
| S3 | 85 DP3000<br>*85 DP3000* | 0,050<br>*0.0020* | 0,050<br>*0.0020* | 0,060<br>*0.0024* | 0,070<br>*0.0028* | 0,085<br>*0.0034* | 0,10<br>*0.0040* | 30<br>*100* |
| S11 | 85 DP3000<br>*85 DP3000* | 0,060<br>*0.0024* | 0,060<br>*0.0024* | 0,070<br>*0.0028* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 80<br>*260* |
| S12 | 85 DP3000<br>*85 DP3000* | 0,060<br>*0.0024* | 0,060<br>*0.0024* | 0,070<br>*0.0028* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 60<br>*195* |
| S13 | 85 DP3000<br>*85 DP3000* | 0,055<br>*0.0022* | 0,055<br>*0.0022* | 0,060<br>*0.0024* | 0,075<br>*0.0030* | 0,090<br>*0.0036* | 0,11<br>*0.0044* | 47<br>*155* |
| H3 | 86 DP3000<br>*86 DP3000* | 0,050<br>*0.0020* | 0,050<br>*0.0020* | 0,060<br>*0.0024* | 0,070<br>*0.0028* | 0,085<br>*0.0034* | 0,10<br>*0.0040* | 80<br>*260* |
| H5 | 86 DP3000<br>*86 DP3000* | 0,075<br>*0.0030* | 0,075<br>*0.0030* | 0,085<br>*0.0034* | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,15<br>*0.0060* | 150<br>*490* |
| H7 | 86 DP3000<br>*86 DP3000* | 0,050<br>*0.0020* | 0,050<br>*0.0020* | 0,060<br>*0.0024* | 0,070<br>*0.0028* | 0,085<br>*0.0034* | 0,10<br>*0.0040* | 80<br>*260* |
| H8 | 86 DP3000<br>*86 DP3000* | 0,060<br>*0.0024* | 0,060<br>*0.0024* | 0,065<br>*0.0026* | 0,085<br>*0.0034* | 0,095<br>*0.0038* | 0,11<br>*0.0044* | 150<br>*490* |
| H11 | 86 DP3000<br>*86 DP3000* | 0,075<br>*0.0030* | 0,075<br>*0.0030* | 0,085<br>*0.0034* | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,15<br>*0.0060* | 195<br>*640* |
| H12 | 86 DP3000<br>*86 DP3000* | 0,060<br>*0.0024* | 0,060<br>*0.0024* | 0,065<br>*0.0026* | 0,085<br>*0.0034* | 0,095<br>*0.0038* | 0,11<br>*0.0044* | 80<br>*260* |
| H21 | 86 DP3000<br>*86 DP3000* | 0,060<br>*0.0024* | 0,060<br>*0.0024* | 0,065<br>*0.0026* | 0,085<br>*0.0034* | 0,095<br>*0.0038* | 0,11<br>*0.0044* | 150<br>*490* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD572 Cutting speed

| SMG | $v_c$ |
|---|---|
| | DP2000 |
| P1 | 375<br>*1225* |
| P2 | 365<br>*1200* |
| P3 | 315<br>*1025* |
| P4 | 280<br>*920* |
| P5 | 265<br>*870* |
| P6 | 300<br>*980* |
| P7 | 280<br>*920* |
| P8 | 265<br>*870* |
| P11 | 275<br>*900* |
| P12 | 160<br>*520* |
| M1 | 285<br>*940* |
| M2 | 230<br>*750* |
| M3 | 175<br>*570* |
| M4 | 130<br>*425* |
| M5 | 110<br>*360* |
| K1 | 215<br>*710* |
| K2 | 185<br>*610* |
| K3 | 160<br>*520* |
| K4 | 150<br>*490* |
| K5 | 90<br>*295* |
| S1 | —<br>— |
| S2 | —<br>— |
| S3 | —<br>— |
| S11 | —<br>— |
| S12 | —<br>— |
| S13 | —<br>— |
| H3 | 80<br>*260* |
| H5 | 150<br>*490* |
| H7 | 80<br>*260* |
| H8 | 150<br>*490* |
| H11 | 195<br>*640* |
| H12 | 95<br>*310* |
| H21 | 150<br>*490* |

SMG = Seco material group $V_c$ = m/min (sf/min) All cutting data are start values

## SD602 ∅ 60-160 mm / *2.362-6.300 inch*

| SMG | | f | | | | | $v_c$ |
|---|---|---|---|---|---|---|---|
| | | Ø 60,00-69,99<br>*Ø 2.362-2.755* | Ø 70,00-91,99<br>*Ø 2.756-3.621* | Ø 92,00-110,99<br>*Ø 3.622-4.369* | Ø 111,00-134,99<br>*Ø 4.370-4.314* | Ø 135,00-160,00<br>*Ø 4.315-6.300* | |
| P1 | P2 DP3000<br>*P2 DP3000* | 0,085<br>*0.0034* | 0,095<br>*0.0038* | 0,12<br>*0.0048* | 0,13<br>*0.0050* | 0,12<br>*0.0048* | 295<br>*970* |
| P2 | P2 DP3000<br>*P2 DP3000* | 0,085<br>*0.0034* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,13<br>*0.0050* | 0,12<br>*0.0048* | 285<br>*940* |
| P3 | P2 DP3000<br>*P2 DP3000* | 0,17<br>*0.0065* | 0,19<br>*0.0075* | 0,22<br>*0.0085* | 0,26<br>*0.010* | 0,22<br>*0.0085* | 245<br>*800* |
| P4 | P2 DP3000<br>*P2 DP3000* | 0,16<br>*0.0065* | 0,19<br>*0.0075* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,22<br>*0.0085* | 130<br>*425* |
| P5 | P2 DP3000<br>*P2 DP3000* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,22<br>*0.0085* | 125<br>*410* |
| P6 | P2 DP3000<br>*P2 DP3000* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,22<br>*0.0085* | 140<br>*460* |
| P7 | P2 DP3000<br>*P2 DP3000* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,22<br>*0.0085* | 135<br>*445* |
| P8 | P2 DP3000<br>*P2 DP3000* | 0,17<br>*0.0065* | 0,19<br>*0.0075* | 0,22<br>*0.0085* | 0,26<br>*0.010* | 0,22<br>*0.0085* | 125<br>*410* |
| P11 | P2 DP3000<br>*P2 DP3000* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 0,25<br>*0.010* | 0,22<br>*0.0085* | 130<br>*425* |
| P12 | P2 DP3000<br>*P2 DP3000* | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,15<br>*0.0060* | 75<br>*245* |
| M1 | P2 DP3000<br>*P2 DP3000* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,17<br>*0.0065* | 0,19<br>*0.0075* | 0,17<br>*0.0065* | 215<br>*710* |
| M2 | P2 DP3000<br>*P2 DP3000* | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,15<br>*0.0060* | 175<br>*570* |
| M3 | P1 DP3000<br>*P1 DP3000* | 0,090<br>*0.0036* | 0,10<br>*0.0040* | 0,12<br>*0.0048* | 0,14<br>*0.0055* | 0,12<br>*0.0048* | 135<br>*445* |
| M4 | P1 DP3000<br>*P1 DP3000* | 0,075<br>*0.0030* | 0,090<br>*0.0036* | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,11<br>*0.0044* | 100<br>*330* |
| M5 | P1 DP3000<br>*P1 DP3000* | 0,075<br>*0.0030* | 0,090<br>*0.0036* | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,11<br>*0.0044* | 85<br>*280* |
| K1 | P2 DP3000<br>*P2 DP3000* | 0,17<br>*0.0065* | 0,20<br>*0.0080* | 0,24<br>*0.0095* | 0,26<br>*0.010* | 0,24<br>*0.0095* | 175<br>*570* |
| K2 | P2 DP3000<br>*P2 DP3000* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 0,24<br>*0.0095* | 0,22<br>*0.0085* | 150<br>*490* |
| K3 | P2 DP3000<br>*P2 DP3000* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 0,24<br>*0.0095* | 0,22<br>*0.0085* | 130<br>*425* |
| K4 | P2 DP3000<br>*P2 DP3000* | 0,16<br>*0.0065* | 0,18<br>*0.0070* | 0,22<br>*0.0085* | 0,24<br>*0.0095* | 0,22<br>*0.0085* | 120<br>*395* |
| K5 | P2 DP3000<br>*P2 DP3000* | 0,14<br>*0.0055* | 0,16<br>*0.0065* | 0,19<br>*0.0075* | 0,22<br>*0.0085* | 0,19<br>*0.0075* | 75<br>*245* |
| H3 | P2 DP3000<br>*P2 DP3000* | 0,070<br>*0.0028* | 0,080<br>*0.0032* | 0,10<br>*0.0040* | 0,11<br>*0.0044* | 0,10<br>*0.0040* | 42<br>*140* |
| H5 | P2 DP3000<br>*P2 DP3000* | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,15<br>*0.0060* | 80<br>*260* |
| H7 | P2 DP3000<br>*P2 DP3000* | 0,070<br>*0.0028* | 0,080<br>*0.0032* | 0,10<br>*0.0040* | 0,11<br>*0.0044* | 0,10<br>*0.0040* | 42<br>*140* |
| H8 | P2 DP3000<br>*P2 DP3000* | 0,085<br>*0.0034* | 0,095<br>*0.0038* | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,11<br>*0.0044* | 80<br>*260* |
| H11 | P2 DP3000<br>*P2 DP3000* | 0,11<br>*0.0044* | 0,12<br>*0.0048* | 0,15<br>*0.0060* | 0,17<br>*0.0065* | 0,15<br>*0.0060* | 100<br>*330* |
| H12 | P2 DP3000<br>*P2 DP3000* | 0,085<br>*0.0034* | 0,095<br>*0.0038* | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,11<br>*0.0044* | 45<br>*150* |
| H21 | P2 DP3000<br>*P2 DP3000* | 0,085<br>*0.0034* | 0,095<br>*0.0038* | 0,11<br>*0.0044* | 0,13<br>*0.0050* | 0,11<br>*0.0044* | 80<br>*260* |

SMG = Seco material group f = mm/rev (IPR) $v_c$ = m/min (sf/min) All cutting data are start values

## SD602 Cutting speed

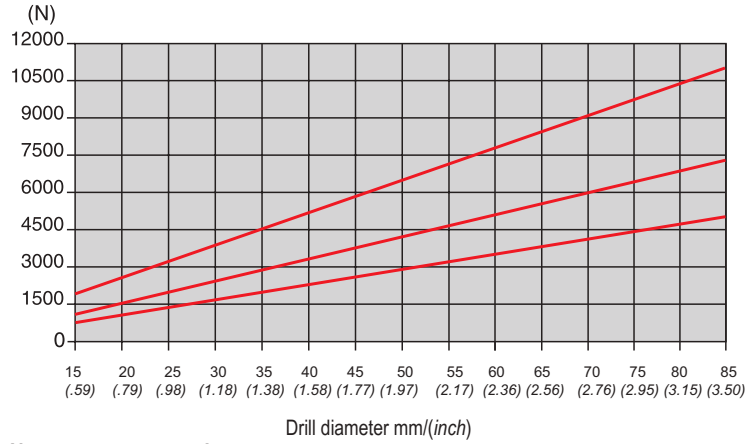
| SMG | $v_c$ | |
|---|---|---|
| | T250D | DS2050 |
| P1 | 180<br>*590* | 295<br>*970* |
| P2 | 175<br>*570* | 285<br>*940* |
| P3 | 150<br>*490* | 245<br>*800* |
| P4 | 80<br>*260* | —<br>— |
| P5 | 75<br>*245* | —<br>— |
| P6 | 85<br>*280* | —<br>— |
| P7 | 80<br>*260* | —<br>— |
| P8 | 75<br>*245* | —<br>— |
| P11 | 80<br>*260* | —<br>— |
| P12 | 46<br>*150* | —<br>— |
| M1 | 90<br>*295* | —<br>— |
| M2 | 75<br>*245* | —<br>— |
| M3 | 55<br>*180* | 135<br>*445* |
| M4 | 43<br>*140* | 85<br>*280* |
| M5 | 36<br>*120* | 70<br>*230* |
| K1 | —<br>— | —<br>— |
| K2 | —<br>— | —<br>— |
| K3 | —<br>— | —<br>— |
| K4 | —<br>— | —<br>— |
| K5 | —<br>— | —<br>— |
| H3 | 40<br>*130* | —<br>— |
| H5 | 75<br>*245* | —<br>— |
| H7 | 40<br>*130* | —<br>— |
| H8 | 75<br>*245* | —<br>— |
| H11 | 95<br>*310* | —<br>— |
| H12 | 85<br>*280* | —<br>— |
| H21 | 75<br>*245* | —<br>— |

SMG = Seco material group $V_c$ = m/min (sf/min) All cutting data are start values

# Machining data SD522, SD523, SD524, SD525, SD542 and SD572 - Power consumption, coolant volume requirement and force graphs

The values in the graphs vary with e.g. cutting data, material, efficiency of the machine and tool wear.
The graphs below are valid for Seco Material Group (SMG) P5-P6 and cutting speed 200 m/min (*655 sf/min*).

### Feed force

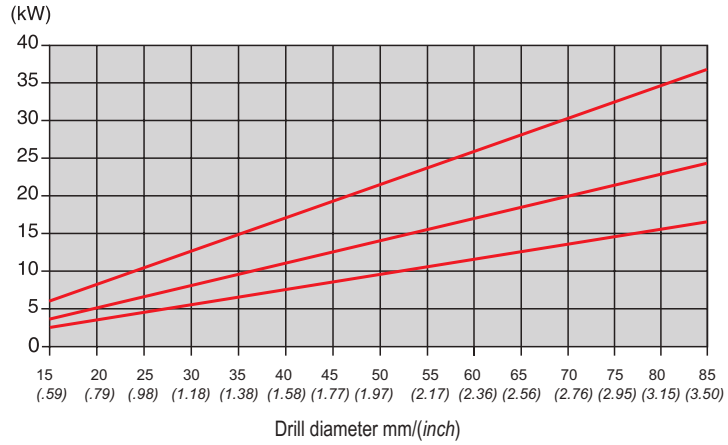



f = 0,18 mm/rev
*(f = 0.007 inch/rev)*

f = 0,12 mm/rev
*(f = 0.005 inch/rev)*

f = 0,08 mm/rev
*(f = 0.003 inch/rev)*

### Net power consumption

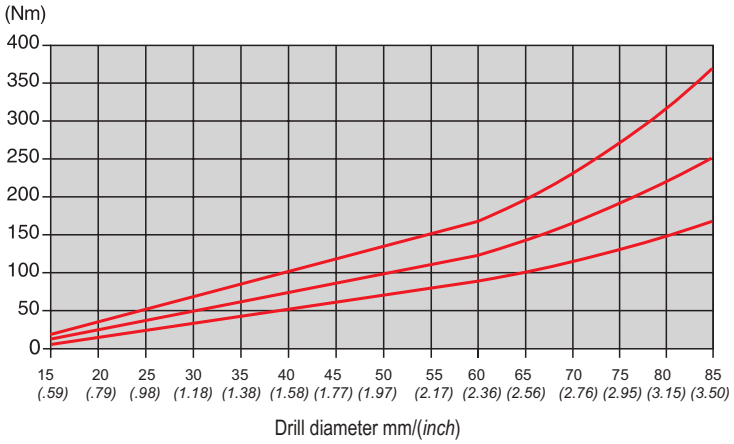



f = 0,18 mm/rev
*(f = 0.007 inch/rev)*

f = 0,12 mm/rev
*(f = 0.005 inch/rev)*

f = 0,08 mm/rev
*(f = 0.003 inch/rev)*

### Drilling torque




f = 0,18 mm/rev
*(f = 0.007 inch/rev)*

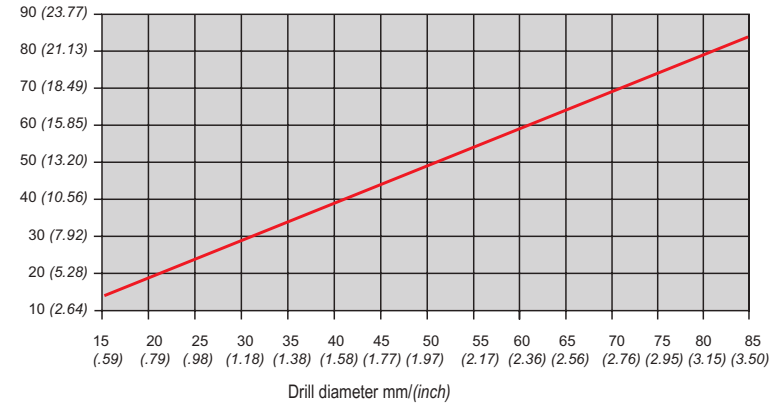
f = 0,12 mm/rev
*(f = 0.005 inch/rev)*

f = 0,08 mm/rev
*(f = 0.003 inch/rev)*

# Machining data

## Coolant volume requirement

Litres/minute *(Gallons/minute)*

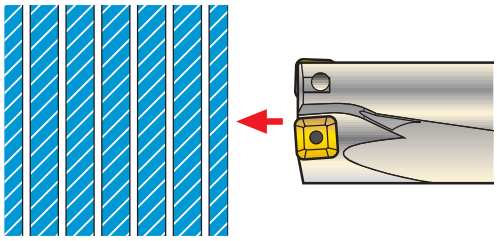



## Coolant pressure requirement

**Recommended pressure bar** *(PSI)*

| Drilling depth | Drill diameter mm (*inch*) 15–25 *(0.591-0.984)* | > 25–40 *> 0.984-1.575* | > 40 *> 1.575* |
|---|---|---|---|
| < 3 x D | 6 *(87)* | 4,5 *(65)* | 3 *(44)* |
| ≥ 3 x D | 12 *(174)* | 9 *(130)* | 6 *(87)* |

## Drilling of stacked materials



Drilling of stacked materials with no air gaps between the layers, max 0,2 mm *(0.008")*, can be done with SD522 2 x D, SD523 3 x D and the SD542 2.5 x D and the SD542 2.5 x D drill. The component must be securely fixed so no flexing occurs when breaking through each layer.

## Cutting data and insert recommendations for drilling of stacked materials

| | Insert geometry | Carbide grade |
|---|---|---|
| **Center insert** | SPGX-C1 | T400D |
| **Periph insert** | SCGX-P2 | DP3000 |

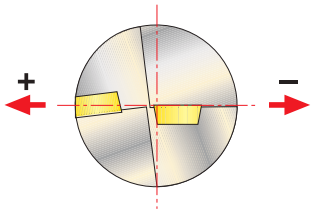
**Cutting speed:** See recommendations for DP3000 carbide grade
**Feed / rev:** See recommendations for P2 geometry

If a problem occurs when breaking through each layer, reduce the fed / rev by 30-50 %.

**Caution!**
The disc produced when the drill breaks through can be ejected at high speed when using the drill as a stationary tool, (rotating workpiece).
It is most important to ensure that the machine is adequately guarded to ensure operator safety.

## Set up

**Hole diameter adjustment and set-up recommendation**
The insert drills can be displaced off-center to achieve a smaller or larger hole diameter than the actual drill.
For measurement see 'Radial adjustment' in the tool data table in the catalogue pages.



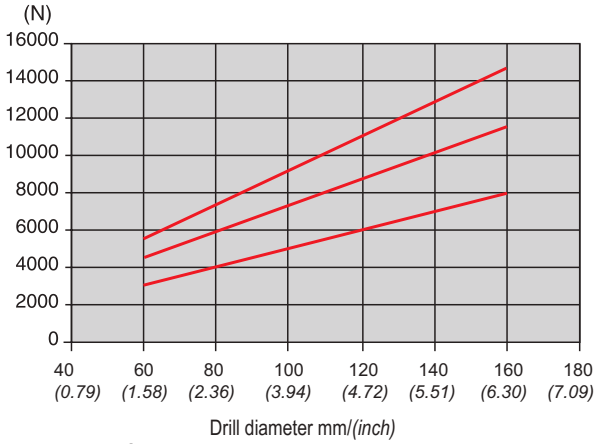

**Rotating**
Seco's adjustable holder is recommended for precision hole diameter IT10 setting when using SD522 and SD523, 3 x D as rotating drills.

**Stationary**
When mounting the drill make sure the cutting edges are parallel with the guide ways of the cross slide and that the drill center line and workpiece center line align. To achieve a larger hole diameter, displace the drill so that the periphery insert moves away from the workpiece center line.

# Machining data SD602 - Power consumption, coolant volume requirement and force graphs

The values in the graphs vary with e.g., cutting data, material, with a machine efficiency of 80%.
The graphs below are valid for SMG P5-P6 and cutting speed 200 m/min *(655 sf/min)*.

**Feed force**

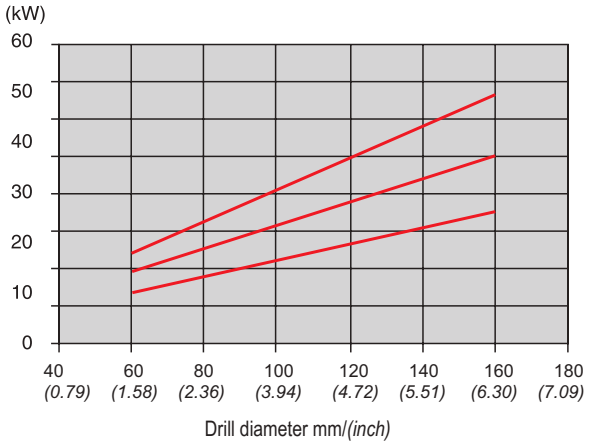



f = 0,18 mm/rev
*(f = 0.007 inch/rev)*

f = 0,12 mm/rev
*(f = 0.005 inch/rev)*

f = 0,08 mm/rev
*(f = 0.003 inch/rev)*

**Net power consumption**

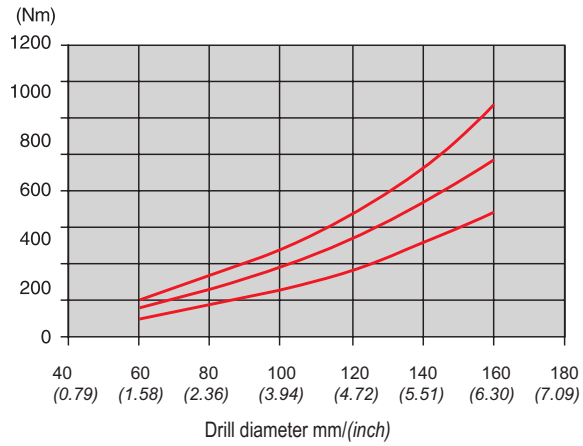



f = 0,18 mm/rev
*(f = 0.007 inch/rev)*

f = 0,12 mm/rev
*(f = 0.005 inch/rev)*

f = 0,08 mm/rev
*(f = 0.003 inch/rev)*

**Drilling torque**



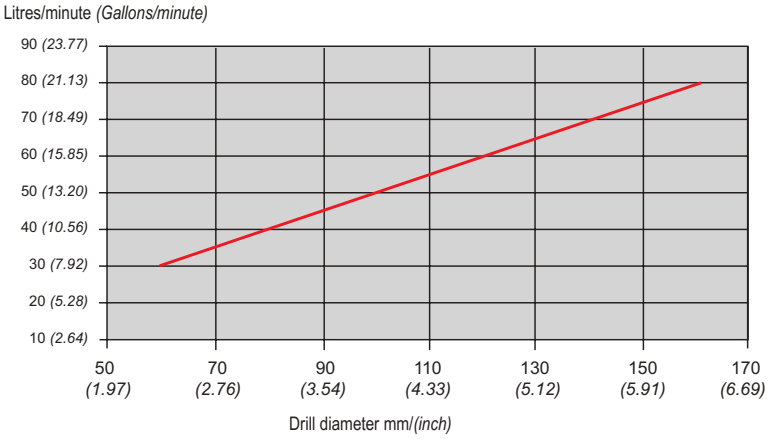

f = 0,18 mm/rev
*(f = 0.007 inch/rev)*

f = 0,12 mm/rev
*(f = 0.005 inch/rev)*

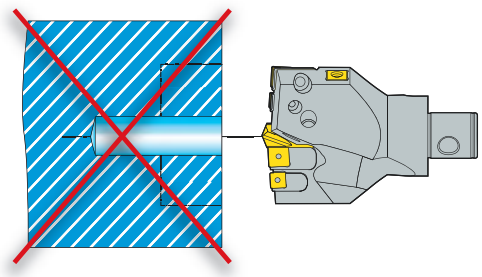
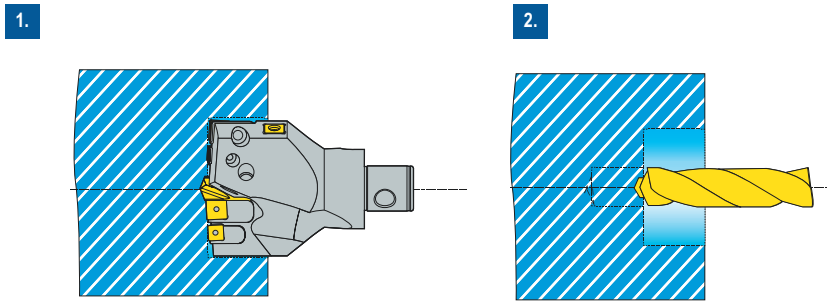
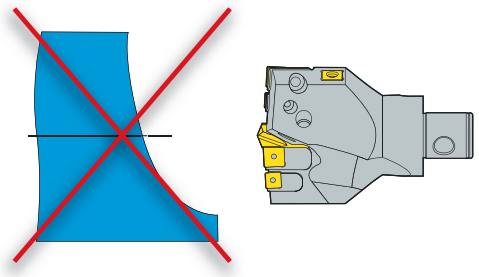
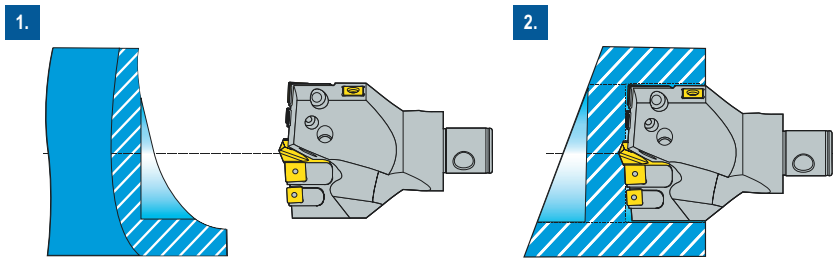
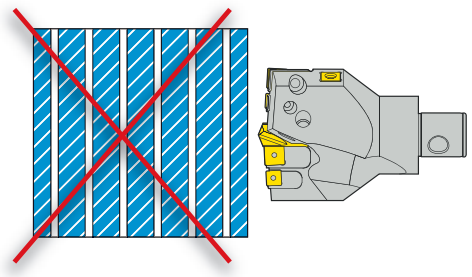
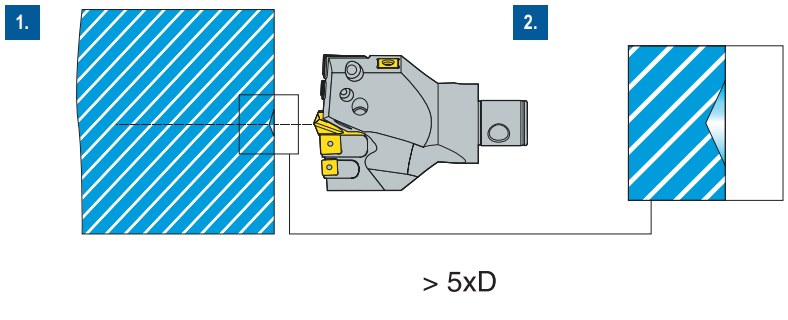
f = 0,08 mm/rev
*(f = 0.003 inch/rev)*

# Machining data SD602

## Coolant volume requirement



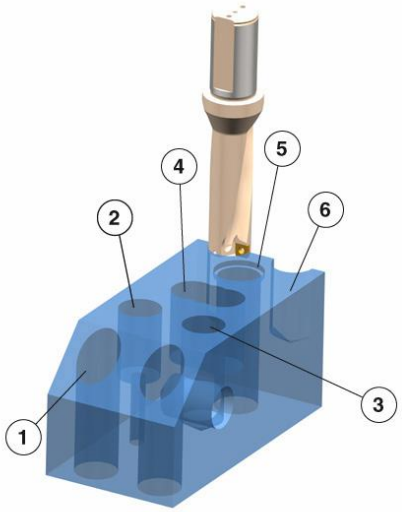

## Methods

| Not recommended | Solution |
|---|---|
|  |   |
|  |   |
|  |   |

# Versatility

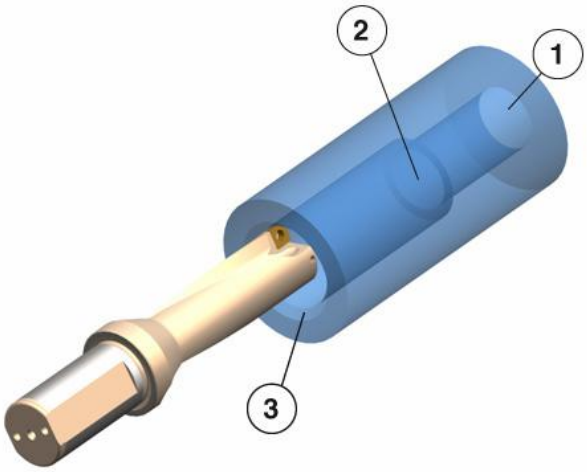
### Applications

1. Hole with angled entrance
2. Boring
3. Drilling across an existing hole
4. Drilling and plunging
5. Drilling and milling countersink by circular interpolation
6. Plunging




### Multiple choice in non rotating operations

1. Drilling
2. Boring / Conical hole
3. Chamfering




### Recommendations

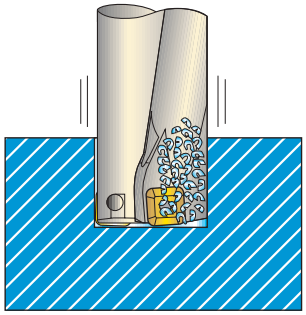
- 2 x D and 3 x D drills (SD522, SD523)
- Reduce the feed ~ 50% when the drill is not fully engaged
- Use grade DP3000
- Use -P2 chipbreaker

# Troubleshooting

## Vibrations

### Applications

- Check mounting of drill
- Check mounting of workpiece
- Increase feed. If a very soft material, reduce feed and increase speed
- Reduce the cutting speed



### Insufficient torque

- Reduce feed
- Choose a geometry with harder chipbreaking for lower feeds

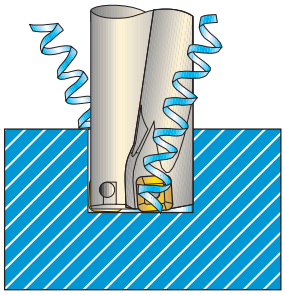
### Insufficient power

- Reduce cutting speed
- Reduce feed
- Choose a geometry with harder chipbreaking for lower feeds (SCGX-P1)

## Chip jamming problems

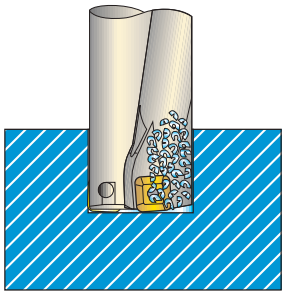
### Chip jamming problems due to long chips

- Increase feed. If a very soft material, reduce feed and increase speed
- Choose a geometry with harder chipbreaking for lower feeds (SCGX-P1)



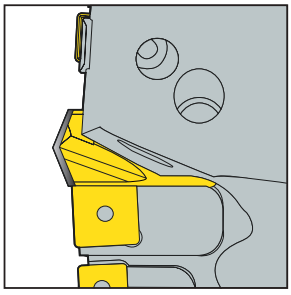
### Chip jamming problems despite short chips

- Increase coolant pressure / volume
- Reduce cutting speed



### Rapid flank wear on pilot drill

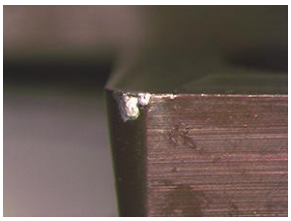
- Reduce the cutting speed
- Increase coolant concentration



## Tool life problems

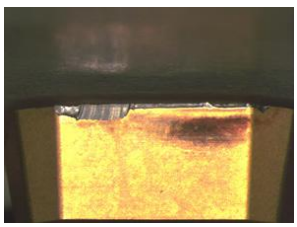
### Chipping of periphery insert

- Reduce entrance feed
- Choose a tougher grade
- Choose a geometry with softer chipbreaking for higher feeds (SCGX-P2)
- Reduce feed
- Reduce cutting speed



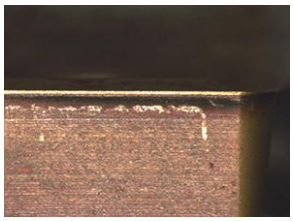
### Chipping of center insert

- Check mounting of drill
- Check mounting of workpiece
- Reduce entrance feed
- Increase feed
- Reduce cutting speed

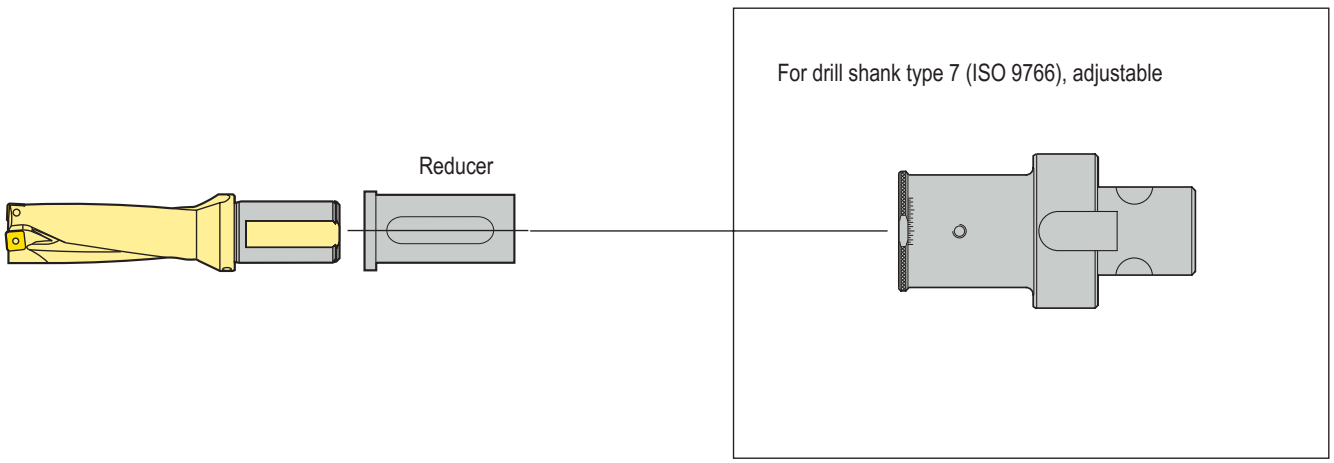


### Rapid flank wear on periphery insert

- Reduce cutting speed
- Increase coolant pressure volume
- Choose a more wear resistant grade



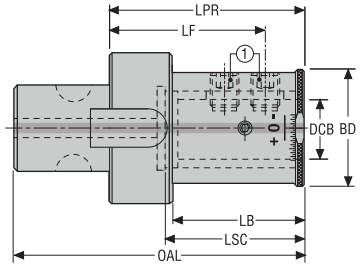
# Adjustable holders for drills



# ADH 6101 – Adjustable drill holders, for type 7 drill shanks

Graflex®






- For Perfomax® drills
- Adjustable from -0,3 mm to +0,8

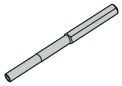
1. Locking screw

| Item number | Designation | Machine side Graflex shank size | Workpiece side For drill shank type | DCB | OAL | LPR | BD | LF | LB | LSC | Weight | Balancing |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | kg *lbs* | |
| 02422113 | BM061610025 | G6 | R7 | 25,0 *0.984* | 110,0 *4.331* | 70,0 *2.756* | 49,0 *1.929* | 55,0 *2.165* | 54,0 *2.126* | 54,0 *2.126* | 1,12 *2.470* | PB |
| 02422114 | BM061610032 | G6 | R7 | 32,0 *1.260* | 125,0 *4.921* | 85,0 *3.346* | 71,0 *2.795* | 70,0 *2.756* | 66,0 *2.598* | 60,5 *2.382* | 2,09 *4.610* | PB |
| 02422115 | BM061610040 | G6 | R7 | 40,0 *1.575* | 125,0 *4.921* | 85,0 *3.346* | 81,0 *3.189* | 70,0 *2.756* | 66,0 *2.598* | 60,5 *2.382* | 2,38 *5.250* | PB |
| 02422116 | BM061610125 | G6 | R7 | 25,4 *1.000* | 110,0 *4.331* | 70,0 *2.756* | 49,0 *1.929* | 55,0 *2.165* | 54,0 *2.126* | 54,5 *2.146* | 1,11 *2.450* | PB |
| 02422118 | BM061610138 | G6 | R7 | 38,1 *1.500* | 125,0 *4.921* | 85,0 *3.346* | 81,0 *3.189* | 70,0 *2.756* | 66,0 *2.598* | 60,5 *2.382* | 2,45 *5.400* | PB |

## Spare Parts, included in delivery

| For DCB | Locking screw | Tenon |
|---|---|---|
| |  |  |
| 25/0.984 | 950AF1210014 | 90M61 |
| 32/1.260 | – | 90M61 |
| 40/1.575 | – | 90M61 |
| 25,4/1.000 | 950AF1210014 | 90M61 |
| 38,1/1.500 | – | 90M61 |

## Accessories

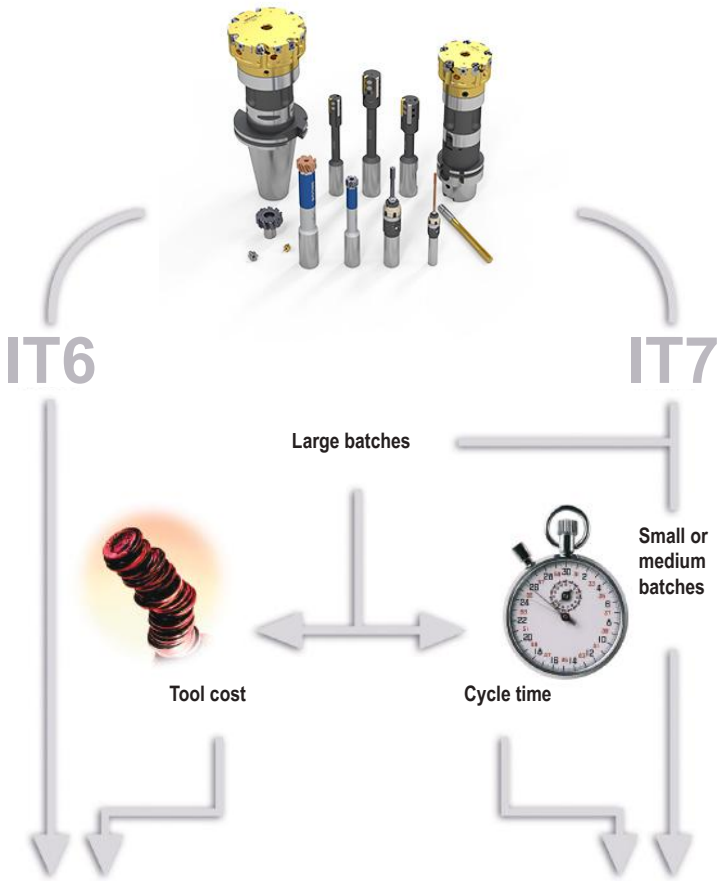
| For DCB | Key | Key (T-handle) |
|---|---|---|
| |  |  |
| 25/0.984 | H6B-H6.0L | DOUBLE-T |
| 32/1.260 | H6B-H6.0L | DOUBLE-T |
| 40/1.575 | H6B-H6.0L | DOUBLE-T |
| 25,4/1.000 | H6B-H6.0L | DOUBLE-T |
| 38,1/1.500 | – | – |

PB=Pre-balanced by design (see Balancing Guide page in Tooling Systems catalogue for more details)

# Multi-cut or indexable insert – Choosing the best solution

Quality, performance and tool cost, all these objectives can be met. The choice of a reaming tool depends on hole tolerance, production quantity and cycle time. Seco Holemaking systems can meet these demands.
With Precimaster, Bifix, Xfix and Nanofix reamers Seco can solve all problems related to reaming operations.

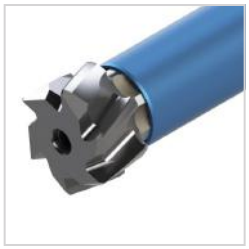
## The chart below helps you to choose the ideal reaming tool




Bifix®



Precimaster™ Plus



Xfix™



Nanofix™



# Range overview

| | ∅ Range | Reaming depth | Hole ∅ tolerance | Intermediate diameter | Surface finish |
|---|---|---|---|---|---|
| **Precimaster™ Plus**<br>  <br>Page(s) 325-364 | 7,75-60,500 mm<br>*(0.3051-2.3818")* | ~ 2-10 x D | IT 6-7-8 | Yes, available through My Design | $R_a$ 0,2-1,2 µm<br>*($R_a$ 7.87-47.2 µin)* |
| **Nanofix™**<br>  <br>Page(s) 365-398 | 2,970-12,050 mm<br>*(0.1169-0.4744")* | ~ 5-12 x D | IT 7 | Yes, available through My Design | $R_a$ 0,2-1,2 µm<br>*($R_a$ 7.87-47.2 µin)* |
| **Bifix®**<br>  <br>Page(s) 399-425 | 5,900-60,500 mm<br>*(0.2323-2.3819")* | ~ 2-7 x D | IT 6-7 | Yes, available through My Design | $R_a$ 0,2-0,8 µm<br>*($R_a$ 7.87-31.5 µin)* |
| **Xfix™**<br>  <br>Page(s) 426-467 | 39,500-154,500 mm<br>*(1.5551-6.0827")* | ~ 2,5-6,5 x D | IT 6 | Yes, available through My Design | $R_a$ 0,8-1,6 µm<br>*($R_a$ 31-63 µin)* |




# Precimaster™ Plus

Precimaster™ Plus is a modular reamer system that boosts reaming speed, stability and versatility for more precise, cost-effective hole production.

- The system features an innovative high-precision connection, solid-carbide disposable heads as well as common holders for blind and through-hole applications
- Enables tolerances held between 15 and 25 microns and surface finishes of $R_a$ 0.4 to $R_a$ 0.8 µm (RMS 15 to 35 micro/inch)

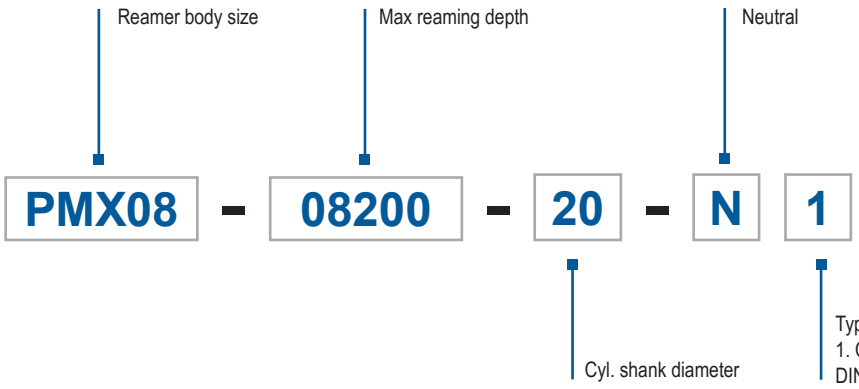
# Precimaster™ Plus – Range overview

| | ∅ Range | Reaming depth | Hole ∅ tolerance | Intermediate diameter | Surface finish |
|---|---|---|---|---|---|
| **PMX5 / PMX6 / PMX8**  | 7,75-60 mm *(0.3051-2.3622")* | ~ 2-3 x D | IT 6-7-8 | Yes, available through My Design | $R_a$ 0,4-0,8 µm *($R_a$ 15.7-31.5* µin) |
| **PMX5 / PMX6 / PMX8**  | 7,75-60 mm *(0.3051-2.3622")* | ~ 4-5 x D | IT 6-7-8 | Yes, available through My Design | $R_a$ 0,4-0,8 µm *($R_a$ 15.7-31.5* µin) |
| **PMX5 / PMX6 / PMX8**  | 7,75-60 mm *(0.3051-2.3622")* | ~ 8-10 x D | IT 6-7-8 | Yes, available through My Design | $R_a$ 0,4-0,8 µm *($R_a$ 15.7-31.5* µin) |

# Code keys

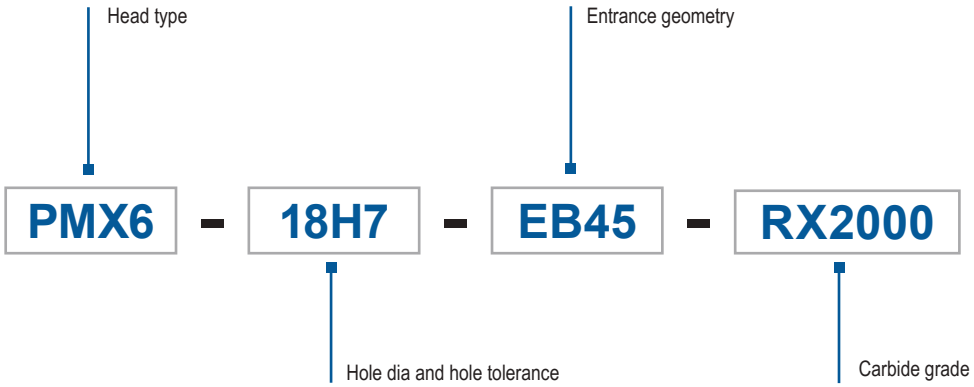
**Precimaster Plus toolholders are suitable for both blind and through holes.**

### Tool shank





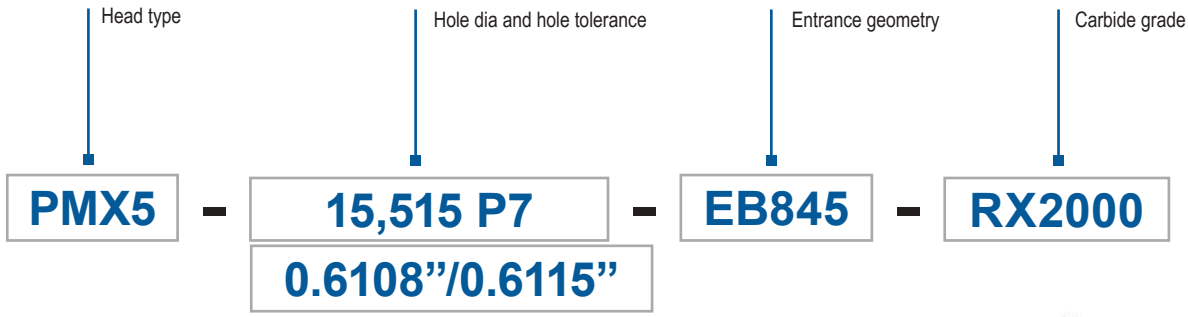

### Head






PMX6

### Head intermediate diameter




PMX4: RH helical flutes design, suitable for blind bores only.
PMX5: Straight flutes design, suitable for blind and through bores.
PMX6: LH helical flutes design, suitable for through bores only.
PMX8: Straight flutes expandable, suitable for blind and through bores
Left hand flute design improves the action of pushing the chips forward.
Right hand fllute design improves the action of evacuating the chips forward.
See Precimaster Plus head choice page 334.



PMX4



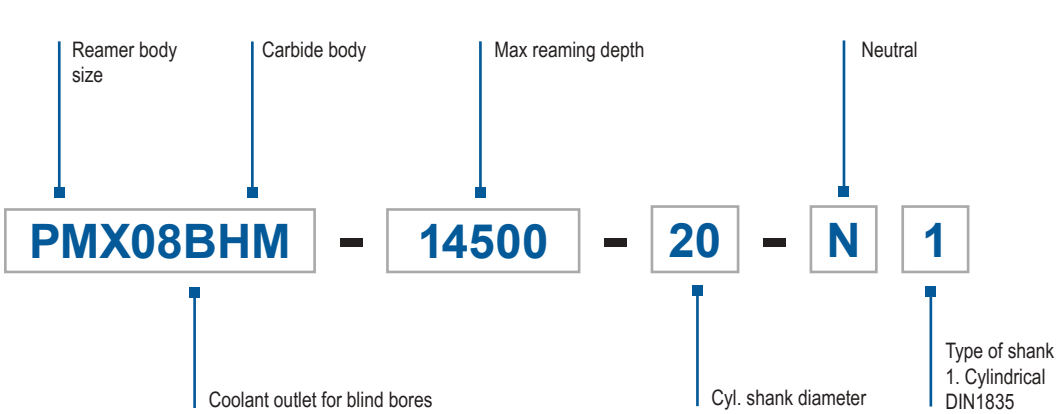
PMX5



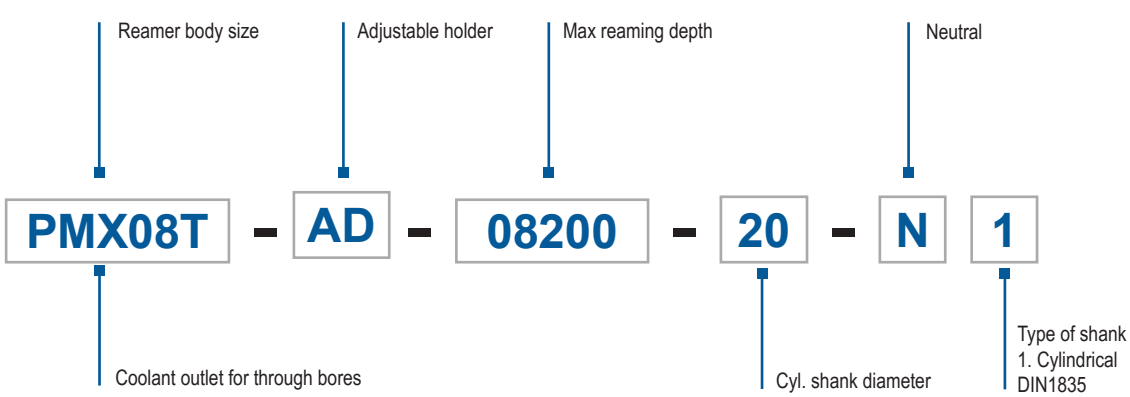
PMX8

# Code keys

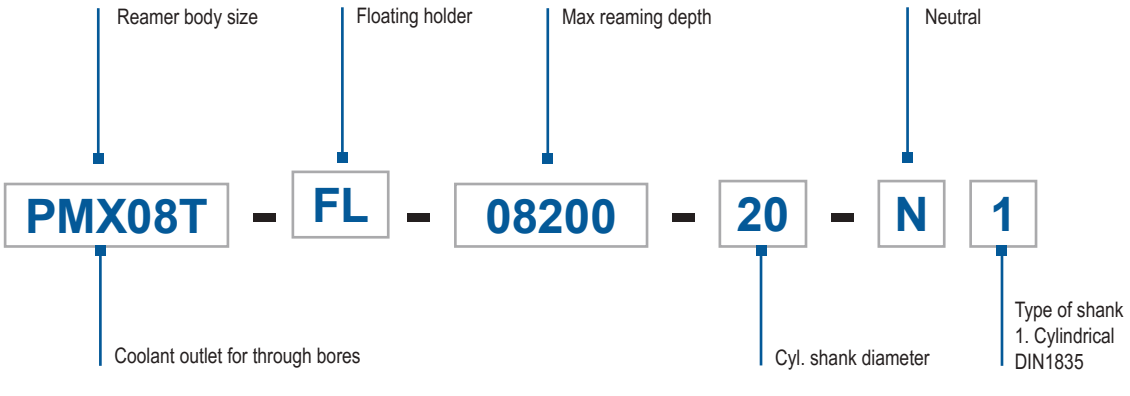
**Precimaster Plus toolholders are suitable for both blind and through holes.**





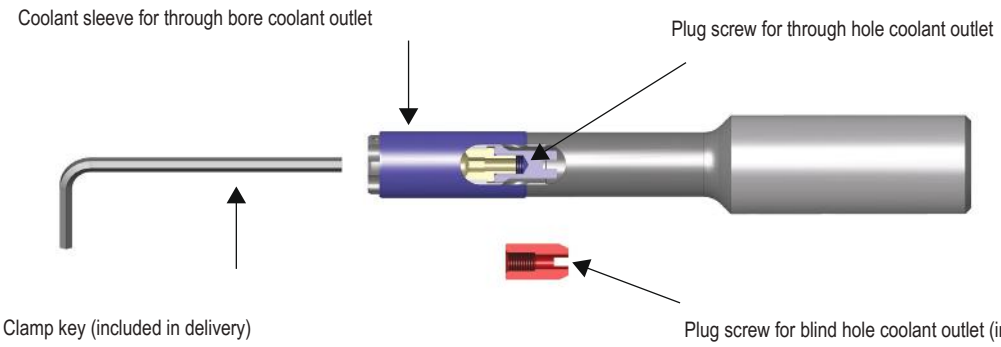





# Coolant set-up

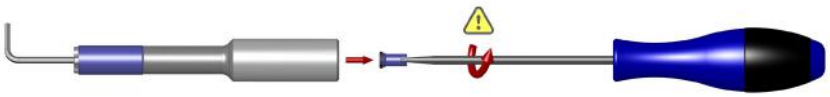
## Coolant outlet set-up procedure: Spare parts description




## Coolant outlet set-up procedure: Blind bores coolant outlet set-up

**1.**

Remove plug screw for through bore (blue)
**Note:** plug screws are LH screw



Use flat screw driver OR allen key, recommended hand-tool sizes as per table

| Body size | Flat blade screw driver size mm | Flat blade screw driver size *inch* | Allen Key size mm | Allen Key size *inch* |
|---|---|---|---|---|
| |  | |  | |
| PMX05 | 1,2 x 4 x 120 | *0.05 x 0.16 x 4.72* | 2 x 120 | *0.08 x 4.72* |
| PMX06 | 1,0 x 5,5 x 150 | *0.04 x 0.22 x 5.9* | 2,5 x 150 | *0.10 x 5.9* |
| PMX08 | 1,2 x 6,5 x 200 | *0.05 x 0.26 x 7.87* | 3 x 200 | *0.12 x 7.87* |
| PMX12 | 1,2 x 8 x 200 | *0.05 x 0.31 x 6.89* | 5 x 200 | *0.2 x 6.89* |

**2.**

Remove coolant sleeve



**3.**

Mount plug screw for blind bores (red)
**Note**: plug screws are LH screw



# Head mounting

**1.**

Make sure head geometry is suitable with coolant style


PMX5/PMX8


PMX6

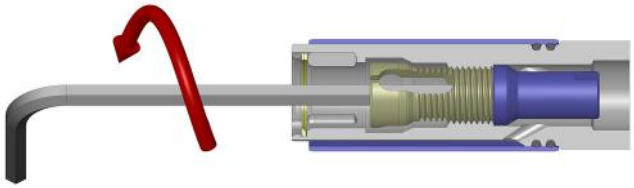

Through bores


PMX5/PMX8


Blind bores

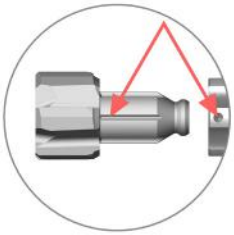
**2.**

Position clamp before head mounting



**3.**

Align index groove with red dot on body



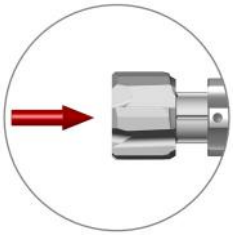
Small Groove



Large Grooves

**4.**

Place head into body



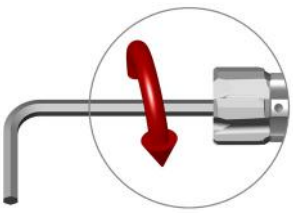
**5.**

Push head inside body until “click” is achieved




**6.**

Clamp head using allen key

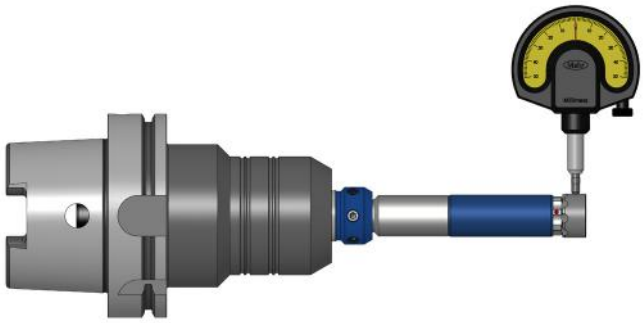


| PMX Shank Size | Recommended clamping torque |
|---|---|
| PMX05 | 0,5 Nm |
| PMX06 | 0,9 Nm |
| PMX08 | 1,2 Nm |
| PMX12 | 2,0 Nm |
| PMX16 | 5,0 Nm |

# Set up – Run-out

## Rotating tool

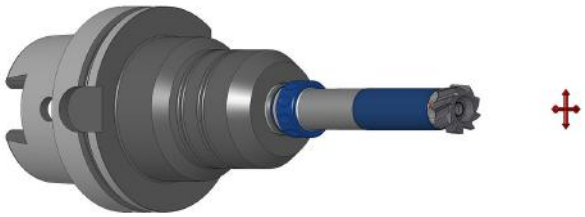
Max recommended run-out: 10-15 µm *(393.7008-590.5512 µin)*.
Hydraulic chuck , Shrinkfit, holder or precision collet holder is recommended.
For best run-out control, we recommend to use Precimaster Plus PMX-AD adjustable adapters, see page(s) 347-348.



## Static tool

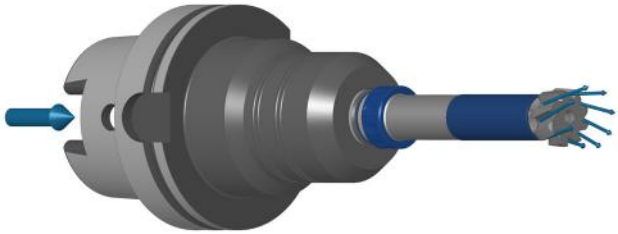
Use Precimaster Plus floating holders PMX - FL, see page(s) 349-350.

Floating holders allow reamer self-centering in pre-bore.



## Coolant requirements

To reach maximum tool life and hole quality, the following coolant requirements should be observed.
Coolant through the tool is recommended.
External coolant supply can be used if reaming depth < 2 x D.
Quality soluble oil with 40 % minimum mineral oil.
Neat oil recommended for stainless steel.
Concentration minimum 6–8 %.
Filtration 30–50 µm *(1200-2000 µin)*.
Volume min 0,5 l/min/mm *(3.35 gal/min/inch)* in tool diameter.
(Ex: Reamer ∅ 10, min volume is 5 l/min *(1.3 gal/min)*.

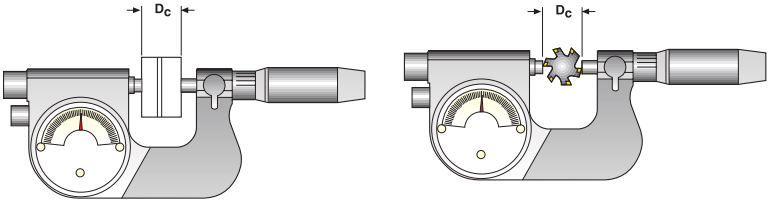


## Diameter measurement

Gauge clock micrometer prior to ∅ measurement.

**Important**
Precimaster reamers have differential pitch between the teeth.
When measuring the diameter, make sure that you have 2 teeth 180° opposite.

Use clock micrometer and measuring blocks for gauging.



# Adjusting shanks set-up:

**1.**
Mount setting master (supplied with adjustable holder).

Mount tool in the spindle.

**2.**
Set-up clock as shown.



**3.**
Rotate tool manually till lowest point is reached.



**4.**
Proceed to run-out compensation using adjusting screws.
Direction as shown with arrows.

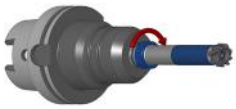
**5.**
Check run-out and repeat compensation if necessary.



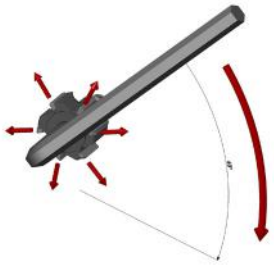
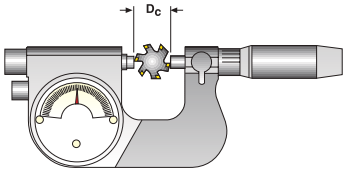
**6.**
When maximum run-out is less than 5 µm *(197 µin)*, secure adjusting screws clamping to avoid loosing adjustment



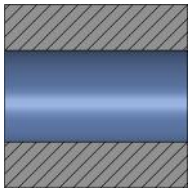
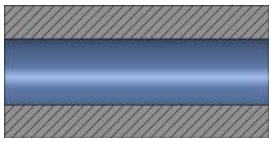
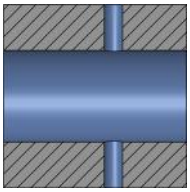
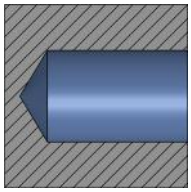
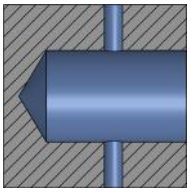
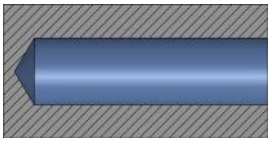
## Floating shanks set-up:

| | |
|---|---|
| **1.** Completely lock floating shank turning adjusting ring clockwise. |  |
| **2.** Open floating shank 2 or 3 clicks turning adjusting ring anti-clockwise. |  |
| **3.** Proceed to further floating value adjustment if necessary. Too much floating value can create unstable conditions at bore entry. Too few floating value can create vibrations and tapered bore. |  |

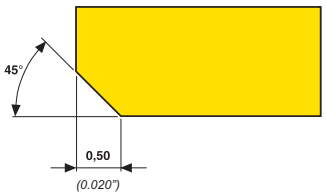
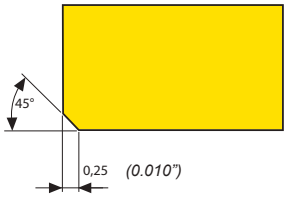
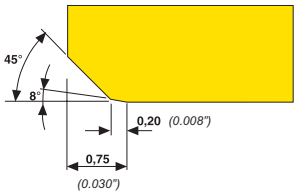
## Expandable reamer wear compensation

| | |
|---|---|
| **1.** Use hexagonal allen key to compensate tool Ø wearing (60° increments = approximately 0.005 µm *(0.197 µin)* compensation on Ø) |  |
| **2.** Check Ø dimension after expansion using clock micrometer |   |

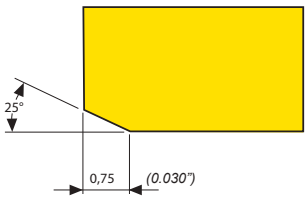
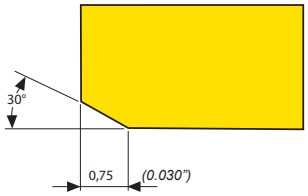
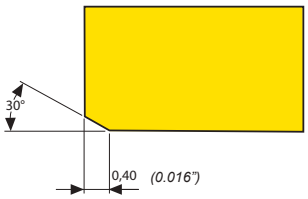
# Head choice

| Workpiece | Diameter to ream ∅ 8-60 mm *(0.3150-2.3622")* | |
|---|---|---|
| Short through hole < 3 x D  | **PMX5 / PMX8**  |  |
| Long through hole > 3 x D  | **PMX6**<br>For through bore application, toolholder coolant outlet must be set for through holes: see coolant set-up pages.  | |
| Crossing hole  | | |
| Blind hole  | **PMX5 / PMX8**<br>For blind bore application, toolholder coolant outlet must be set for blind holes: see coolant set-up pages  |  |
| Blind and crossing hole  | | |
| Blind hole > 3x D  | **PMX4**<br>For blind bore difficult application, toolholder coolant outlet must be set for blind holes: see coolant set-up pages.  | |

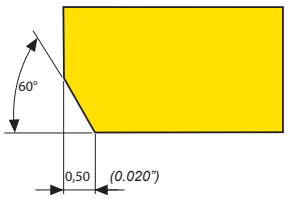
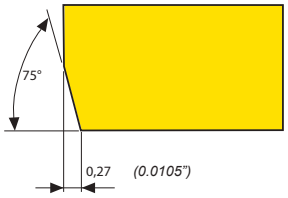
# Geometry choice – Applications

| Lead geometry - EB45 | |
|---|---|
| Chip control ++<br>Surface finish+++ $R_a$ 0,8 - 1,2 µm<br>*(Surface finish+++ $R_a$ 31 - 47 µin)*<br>Versatile |  |
| **Lead geometry - EBS45** | |
| Chip control +++<br>Surface Finish + $R_a$ 0,8- 1,2 µm<br>*(Surface Finish + $R_a$ 31- 47 µin)*<br>Short EB45 |  |
| **Lead geometry - EB845** | |
| Chip control ++<br>Surface finish+++ $R_a$ 0,2 - 0,8 µm<br>*(Surface finish+++ $R_a$ 8 - 31 µin)* |  |

# Geometry choice – Applications

| Lead geometry - EB25 | |
|---|---|
| Feed performance +++<br>Surface finish ++ $R_a$ 0,4 - 0,8 µm<br>*(Surface Finish ++ $R_a$ 16 - 31 µin)*<br>Chip control + |  |
| **Lead geometry - EB30** | |
| Feed performance +++<br>Surface Finish ++ $R_a$ 0,4 - 0,8 µm<br>*(Surface Finish ++ $R_a$ 16 - 31 µin)*<br>Chip control + |  |
| **Lead geometry - EBS30** | |
| Feed performance +++<br>Surface finish ++ $R_a$ 0,4 - 0,8 µm<br>*(Surface Finish ++ $R_a$ 16 - 31 µin)*<br>Chip control +<br>Short EB30 |  |

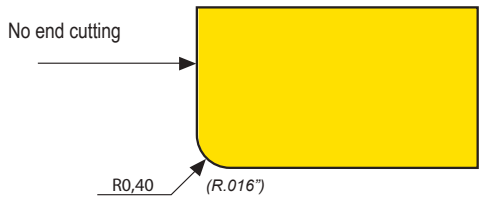
# Geometry choice – Applications

| Lead geometry - EB60 | |
|---|---|
| Feed performance +<br>Surface Finish ++ $R_a$ 0,8 - 1,2 µm<br>*(Surface Finish ++ $R_a$ 31-47 µin)*<br>Chip control ++ |  |
| **Lead geometry - EB75** | |
| Feed performance +<br>Surface Finish ++ $R_a$ 0,8 - 1,2 µm<br>*(Surface Finish ++ $R_a$ 31-47 µin)*<br>Chip control ++ |  |

# Geometry choice – Applications

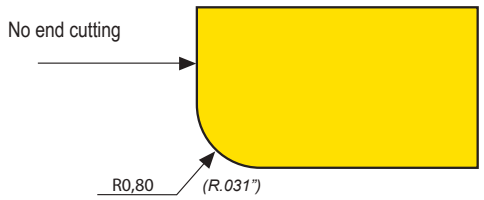
## Lead geometry - RE040

Feed performance ++
Surface Finish ++ $R_a$ 0,4 - 0,8 µm
*(Surface Finish ++ $R_a$ 16 - 31 µin)*
Chip control +



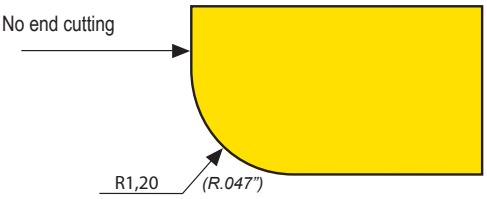

## Lead geometry - RE080

Feed performance ++
Surface Finish ++ $R_a$ 0,4 - 0,8 µm
*(Surface Finish ++ $R_a$ 16 - 31 µin)*
Chip control +




## Lead geometry - RE120

Feed performance ++
Surface Finish ++ $R_a$ 0,4 - 0,8 µm
*(Surface Finish ++ $R_a$ 16 - 31 µin)*
Chip control +
Available from Ø 14 mm *(0.551")*

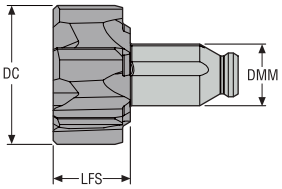


| Grades | | |
|---|---|---|
|  | **RX2000** | **Coated**<br>High performance coated grade suitable for all materials. |
|  | **CP20** | **Coated**<br>A versatile coated grade suitable for most materials, except aluminum.<br>TiN |
|  | **H15** | **Uncoated**<br>A tough micrograin grade for all materials. Suitable for fine-reaming operations due to edge sharpness. |
|  | **CF** | **Cermet**<br>A wear resistant grade for performance optimization in steel. |
|  | **RX1500** | **Coated Cermet**<br>A resistant coated grade for performance optimization in steel and cast iron. |
|  | **RN2010** | **Uncoated**<br>A sub-micrograin uncoated grade with optimized geometries for N-materials (non ferrous). |
|  | **RM2020** | **Coated**<br>A tough coated grade suitable for fine reaming operation with optimized geometries for M materials. |
|  | **RM2090** | **Coated**<br>A wear resistant coated grade with specific geometries for M materials. Optimization in M materials. |
|  | **RK2050** | **Coated**<br>A tough coated grade suitable for fine reaming operation with optimized geometries for K materials. |
|  | **RK1550** | **Coated Cermet**<br>A wear resistant coated grade with specific geometries for K materials. Optimization in K materials. |
|  | **RS2090** | **Coated**<br>A wear resistant coated grade with specific geometries for S materials. Optimization in S materials. |

# Heads for through and blind holes

∅ 8-32 mm / *0.315-1.260”*






- For choice of geometry, please see page(s) 335-338
- For cutting data see page(s) 357-364

| Designation | Item number | DC | Drill size* | | LFS | DMM | Body size | Geometries | | | Grades | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm | mm | | mm | mm | | EB45 | EB845 | EB30 | H15 | CP20 | RX2000 | CF | RX1500 |
| PMX5-10H7-EB30 | 10020602 | 10,0 | 9,8/9,9 | 6 | 7,0 | 6,0 | PMX06-xx | ☐ | ☐ | ■ | ☐ | ☐ | ■ | – | – |
| PMX5-11H7-EB45 | 02925754 | 11,0 | 10,8/10,9 | 6 | 7,0 | 6,0 | PMX06-xx | ■ | ☐ | ☐ | ☐ | ☐ | ■ | – | – |
| PMX5-12H7-EB30 | 10019482 | 12,0 | 11,8/11,908 | 6 | 7,0 | 6,0 | PMX06-xx | ☐ | ☐ | ■ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-12H7-EB45 | 02925755 | 12,0 | 11,8/11,908 | 6 | 7,0 | 6,0 | PMX06-xx | ■ | ☐ | ☐ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-13H7-EB30 | 10019483 | 13,0 | 12,8/12,9 | 6 | 7,0 | 6,0 | PMX06-xx | ☐ | ☐ | ■ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-13H7-EB45 | 02925756 | 13,0 | 12,8/12,9 | 6 | 7,0 | 6,0 | PMX06-xx | ■ | ☐ | ☐ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-14H7-EB30 | 10019484 | 14,0 | 13,8/13,891 | 6 | 7,0 | 6,0 | PMX06-xx | ☐ | ☐ | ■ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-14H7-EB45 | 02925757 | 14,0 | 13,8/13,891 | 6 | 7,0 | 6,0 | PMX06-xx | ■ | ☐ | ☐ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-15H7-EB30 | 10019485 | 15,0 | 14,8/14,9 | 6 | 10,0 | 8,0 | PMX08-xx | ☐ | ☐ | ■ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-15H7-EB45 | 02925758 | 15,0 | 14,8/14,9 | 6 | 10,0 | 8,0 | PMX08-xx | ■ | ☐ | ☐ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-16H7-EB30 | 10019486 | 16,0 | 15,8/15,9 | 6 | 10,0 | 8,0 | PMX08-xx | ☐ | ☐ | ■ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-16H7-EB45 | 02925759 | 16,0 | 15,8/15,9 | 6 | 10,0 | 8,0 | PMX08-xx | ■ | ☐ | ☐ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-17H7-EB30 | 10019487 | 17,0 | 16,8/16,9 | 6 | 10,0 | 8,0 | PMX08-xx | ☐ | ☐ | ■ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-17H7-EB45 | 02925760 | 17,0 | 16,8/16,9 | 6 | 10,0 | 8,0 | PMX08-xx | ■ | ☐ | ☐ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-18H7-EB30 | 10019488 | 18,0 | 17,8/17,9 | 6 | 10,0 | 8,0 | PMX08-xx | ☐ | ☐ | ■ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-18H7-EB45 | 02925761 | 18,0 | 17,8/17,9 | 6 | 10,0 | 8,0 | PMX08-xx | ■ | ☐ | ☐ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-19H7-EB30 | 10019489 | 19,0 | 18,8/18,9 | 6 | 10,0 | 8,0 | PMX08-xx | ☐ | ☐ | ■ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-19H7-EB45 | 02925762 | 19,0 | 18,8/18,9 | 6 | 10,0 | 8,0 | PMX08-xx | ■ | ☐ | ☐ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-20H7-EB30 | 10020603 | 20,0 | 19,8/19,9 | 6 | 10,0 | 8,0 | PMX08-xx | ☐ | ☐ | ■ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-20H7-EB45 | 02925763 | 20,0 | 19,8/19,9 | 6 | 10,0 | 8,0 | PMX08-xx | ■ | ☐ | ☐ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-21H7-EB45 | 02925764 | 21,0 | 20,8/20,9 | 6 | 10,0 | 8,0 | PMX08-xx | ■ | ☐ | ☐ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-22H7-EB30 | 10020604 | 22,0 | 21,8/21,9 | 8 | 12,0 | 12,0 | PMX12-xx | ☐ | ☐ | ■ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-22H7-EB45 | 02925765 | 22,0 | 21,8/21,9 | 8 | 12,0 | 12,0 | PMX12-xx | ■ | ☐ | ☐ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-23H7-EB30 | 10019490 | 23,0 | 22,8/22,9 | 8 | 12,0 | 12,0 | PMX12-xx | ☐ | ☐ | ■ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-23H7-EB45 | 02925766 | 23,0 | 22,8/22,9 | 8 | 12,0 | 12,0 | PMX12-xx | ■ | ☐ | ☐ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-24H7-EB30 | 10019491 | 24,0 | 23,813/23,9 | 8 | 12,0 | 12,0 | PMX12-xx | ☐ | ☐ | ■ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-24H7-EB45 | 02925767 | 24,0 | 23,813/23,9 | 8 | 12,0 | 12,0 | PMX12-xx | ■ | ☐ | ☐ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-25H7-EB30 | 10019492 | 25,0 | 24,8/24,9 | 8 | 12,0 | 12,0 | PMX12-xx | ☐ | ☐ | ■ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-25H7-EB45 | 02925768 | 25,0 | 24,8/24,9 | 8 | 12,0 | 12,0 | PMX12-xx | ■ | ☐ | ☐ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-26H7-EB30 | 10019493 | 26,0 | 25,8/25,9 | 8 | 12,0 | 12,0 | PMX12-xx | ☐ | ☐ | ■ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-26H7-EB45 | 02925769 | 26,0 | 25,8/25,9 | 8 | 12,0 | 12,0 | PMX12-xx | ■ | ☐ | ☐ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-27H7-EB45 | 02925770 | 27,0 | 26,8/26,9 | 8 | 12,0 | 12,0 | PMX12-xx | ■ | ☐ | ☐ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-28H7-EB30 | 10019494 | 28,0 | 26,8/26,9 | 8 | 12,0 | 12,0 | PMX12-xx | ☐ | ☐ | ■ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-28H7-EB45 | 02925771 | 28,0 | 27,8/27,9 | 8 | 12,0 | 12,0 | PMX12-xx | ■ | ☐ | ☐ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-29H7-EB45 | 02925772 | 29,0 | 28,8/28,9 | 8 | 12,0 | 12,0 | PMX12-xx | ■ | ☐ | ☐ | ☐ | ☐ | ■ | ☐ | ☐ |
| PMX5-30H7-EB30 | 10019495 | 30,0 | 29,8/29,9 | 8 | 12,0 | 12,0 | PMX12-xx | ☐ | ☐ | ■ | ☐ | ☐ | ■ | ☐ | ☐ |

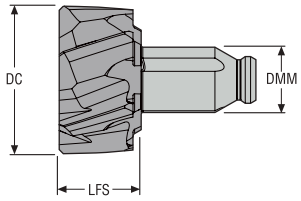
| Designation | Item number | DC | Drill size* | | LFS | DMM | Body size | Geometries | | | Grades | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm | mm | | mm | mm | | EB45 | EB845 | EB30 | H15 | CP20 | RX2000 | CF | RX1500 |
| PMX5-30H7-EB45 | 02925773 | 30,0 | 29,8/29,9 | 8 | 12,0 | 12,0 | PMX12-xx | ■ | □ | □ | □ | □ | ■ | □ | □ |
| PMX5-32H7-EB30 | 10019496 | 32,0 | 31,8/31,9 | 8 | 12,0 | 12,0 | PMX12-xx | □ | □ | ■ | □ | □ | ■ | □ | □ |
| PMX5-32H7-EB45 | 02925775 | 32,0 | 31,8/31,9 | 8 | 12,0 | 12,0 | PMX12-xx | ■ | □ | □ | □ | □ | ■ | □ | □ |
| PMX5-8H7-EB45 | 03123158 | 8,0 | 7,8/7,9 | 6 | 6,0 | 4,5 | PMX05-xx | ■ | □ | □ | □ | □ | ■ | □ | □ |
| PMX5-9H7-EB45 | 03123159 | 9,0 | 8,8/8,9 | 6 | 6,0 | 4,5 | PMX05-xx | ■ | □ | □ | □ | □ | ■ | □ | □ |
| PMX6-10H7-EB45 | 02965863 | 10,0 | 9,8/9,9 | 6 | 7,0 | 6,0 | PMX06-xx | ■ | □ | □ | □ | □ | ■ | □ | □ |

□= **Non stock standard.**
Note: When ordering Precimaster Plus reamers for intermediate diameters, please state diameter and tolerance of hole to be reamed.
**Ordering example:** PMX5-16.515 P7-EB45 RM2020. PMX6-16.515 P7-EB45 RM2020.

# Heads for through holes

∅ 8-32 mm / *0.315-1.260”*





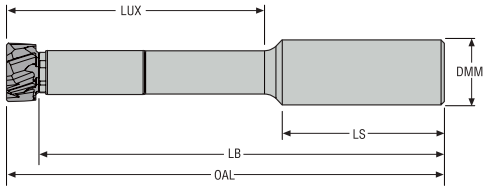

- For choice of geometry, please see page(s) 335-338
- For cutting data see page(s) 357-364

| Designation | Item number | DC | Drill size* | | LFS | DMM | Body size | Geometries | | | Grades | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm | mm | | mm | mm | | EB45 | EB845 | EB30 | H15 | CP20 | RX2000 | CF | RX1500 |
| PMX6-10H7-EB45 | 02965863 | 10,0 | 9,8/9,9 | 6 | 7,0 | 6,0 | PMX06-xx | ■ | □ | □ | □ | □ | ■ | – | – |
| PMX6-11H7-EB45 | 02925776 | 11,0 | 10,8/10,9 | 6 | 7,0 | 6,0 | PMX06-xx | ■ | □ | □ | □ | □ | ■ | – | – |
| PMX6-12H7-EB45 | 02925777 | 12,0 | 11,8/11,908 | 6 | 7,0 | 6,0 | PMX06-xx | ■ | □ | □ | □ | □ | ■ | □ | □ |
| PMX6-13H7-EB45 | 02925778 | 13,0 | 12,8/12,9 | 6 | 7,0 | 6,0 | PMX06-xx | ■ | □ | □ | □ | □ | ■ | □ | □ |
| PMX6-14H7-EB45 | 02925779 | 14,0 | 13,8/13,891 | 6 | 7,0 | 6,0 | PMX06-xx | ■ | □ | □ | □ | □ | ■ | □ | □ |
| PMX6-15H7-EB45 | 02925780 | 15,0 | 14,8/14,9 | 6 | 10,0 | 8,0 | PMX08-xx | ■ | □ | □ | □ | □ | ■ | □ | □ |
| PMX6-16H7-EB45 | 02925781 | 16,0 | 15,8/15,9 | 6 | 10,0 | 8,0 | PMX08-xx | ■ | □ | □ | □ | □ | ■ | □ | □ |
| PMX6-17H7-EB45 | 02925782 | 17,0 | 16,8/16,9 | 6 | 10,0 | 8,0 | PMX08-xx | ■ | □ | □ | □ | □ | ■ | □ | □ |
| PMX6-18H7-EB45 | 02925783 | 18,0 | 17,8/17,9 | 6 | 10,0 | 8,0 | PMX08-xx | ■ | □ | □ | □ | □ | ■ | □ | □ |
| PMX6-19H7-EB45 | 02925784 | 19,0 | 18,8/18,9 | 6 | 10,0 | 8,0 | PMX08-xx | ■ | □ | □ | □ | □ | ■ | □ | □ |
| PMX6-20H7-EB45 | 02925785 | 20,0 | 19,8/19,9 | 6 | 10,0 | 8,0 | PMX08-xx | ■ | □ | □ | □ | □ | ■ | □ | □ |
| PMX6-21H7-EB45 | 02925786 | 21,0 | 20,8/20,9 | 6 | 10,0 | 8,0 | PMX08-xx | ■ | □ | □ | □ | □ | ■ | □ | □ |
| PMX6-22H7-EB45 | 02925030 | 22,0 | 21,8/21,9 | 8 | 12,0 | 12,0 | PMX12-xx | ■ | □ | □ | □ | □ | ■ | □ | □ |
| PMX6-23H7-EB45 | 02925031 | 23,0 | 22,8/22,9 | 8 | 12,0 | 12,0 | PMX12-xx | ■ | □ | □ | □ | □ | ■ | □ | □ |
| PMX6-24H7-EB45 | 02925032 | 24,0 | 23,813/23,9 | 8 | 12,0 | 12,0 | PMX12-xx | ■ | □ | □ | □ | □ | ■ | □ | □ |
| PMX6-25H7-EB45 | 02925033 | 25,0 | 24,8/24,9 | 8 | 12,0 | 12,0 | PMX12-xx | ■ | □ | □ | □ | □ | ■ | □ | □ |
| PMX6-26H7-EB45 | 02925034 | 26,0 | 25,8/25,9 | 8 | 12,0 | 12,0 | PMX12-xx | ■ | □ | □ | □ | □ | ■ | □ | □ |
| PMX6-27H7-EB45 | 02925035 | 27,0 | 26,8/26,9 | 8 | 12,0 | 12,0 | PMX12-xx | ■ | □ | □ | □ | □ | ■ | □ | □ |
| PMX6-28H7-EB45 | 02925036 | 28,0 | 27,8/27,9 | 8 | 12,0 | 12,0 | PMX12-xx | ■ | □ | □ | □ | □ | ■ | □ | □ |
| PMX6-29H7-EB45 | 02925037 | 29,0 | 28,8/28,9 | 8 | 12,0 | 12,0 | PMX12-xx | ■ | □ | □ | □ | □ | ■ | □ | □ |
| PMX6-30H7-EB45 | 02925038 | 30,0 | 29,8/29,9 | 8 | 12,0 | 12,0 | PMX12-xx | ■ | □ | □ | □ | □ | ■ | □ | □ |
| PMX6-31H7-EB45 | 02925039 | 31,0 | 30,8/30,9 | 8 | 12,0 | 12,0 | PMX12-xx | ■ | □ | □ | □ | □ | ■ | □ | □ |
| PMX6-32H7-EB45 | 02925040 | 32,0 | 31,8/31,9 | 8 | 12,0 | 12,0 | PMX12-xx | ■ | □ | □ | □ | □ | ■ | □ | □ |
| PMX6-8H7-EB45 | 03123161 | 8,0 | 7,8/7,9 | 6 | 6,0 | 4,5 | PMX05-xx | ■ | □ | □ | □ | □ | ■ | □ | □ |
| PMX6-9H7-EB45 | 03123162 | 9,0 | 8,8/8,9 | 6 | 6,0 | 4,5 | PMX05-xx | ■ | □ | □ | □ | □ | ■ | □ | □ |

*For further information on which drill to use and how to use it see page(s) 8
■ **Stock standard.** □ **Non stock standard.**

# Shanks for through and blind holes

∅ 7,75-60,500 mm / *0.305-2.381”*

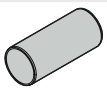





- For choice of geometry, please see page(s) 335-338
- For cutting data see page(s) 357-364

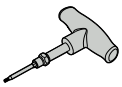
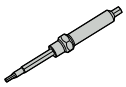
| Designation | Item number | Tool holder material | DC | OAL | LB | LS | LUX | DMM |
|---|---|---|---|---|---|---|---|---|
| | | | mm | mm | mm | mm | mm | mm |
| PMX05-02800-10N1 | 03123012 | Steel | 7,75 - 9,9 | 69,0 | 63,0 | 40,0 | 28,0 | 10,0 |
| PMX05-04100-10N1 | 02929923 | Steel | 7,75 - 9,9 | 84,0 | 78,0 | 40,0 | 41,0 | 10,0 |
| PMX05-10000-10N1 | 03123013 | Steel | 7,75 - 9,9 | 143,0 | 137,0 | 40,0 | 100,0 | 10,0 |
| PMX06-03700-12N1 | 02925828 | Steel | 9,901 - 14,499 | 84,0 | 77,0 | 45,0 | 37,0 | 12,0 |
| PMX06-05700-12N1 | 02925829 | Steel | 9,901 - 14,499 | 104,0 | 97,0 | 45,0 | 57,0 | 12,0 |
| PMX06-12000-12N1 | 02925830 | Steel | 9,901 - 14,499 | 167,0 | 160,0 | 45,0 | 120,0 | 12,0 |
| PMX06HM-12000-12N1 | 02925831 | Carbide | 9,901 - 14,499 | 167,0 | 160,0 | 45,0 | 120,0 | 12,0 |
| PMX08-04600-20N1 | 02925832 | Steel | 14,5 - 21,499 | 99,0 | 89,0 | 50,0 | 46,0 | 20,0 |
| PMX08-08200-20N1 | 02925833 | Steel | 14,5 - 21,499 | 135,0 | 125,0 | 50,0 | 82,0 | 20,0 |
| PMX08-14500-20N1 | 02925834 | Steel | 14,5 - 21,499 | 198,0 | 188,0 | 50,0 | 145,0 | 20,0 |
| PMX08HM-14500-20N1 | 02925835 | Carbide | 14,5 - 21,499 | 198,0 | 188,0 | 50,0 | 145,0 | 20,0 |
| PMX12-06800-25N1 | 02925836 | Steel | 21,5 - 32,499 | 127,0 | 115,0 | 56,0 | 68,0 | 25,0 |
| PMX12-10400-25N1 | 02925837 | Steel | 21,5 - 32,499 | 163,0 | 151,0 | 56,0 | 104,0 | 25,0 |
| PMX12-17000-25N1 | 02925838 | Steel | 21,5 - 32,499 | 229,0 | 217,0 | 56,0 | 170,0 | 25,0 |
| PMX12HM-17000-25N1 | 02925839 | Carbide | 21,5 - 32,499 | 229,0 | 217,0 | 56,0 | 170,0 | 25,0 |
| PMX16-06300-32N1 | 02925840 | Steel | 32,5 - 60,5 | 124,0 | 110,0 | 60,0 | 63,0 | 32,0 |
| PMX16-12700-32N1 | 02925841 | Steel | 32,5 - 60,5 | 188,0 | 174,0 | 60,0 | 127,0 | 32,0 |
| PMX16-17000-32N1 | 02925842 | Steel | 32,5 - 60,5 | 231,0 | 217,0 | 60,0 | 170,0 | 32,0 |
| PMX16HM-17000-32N1 | 02925843 | Carbide | 32,5 - 60,5 | 231,0 | 217,0 | 61,0 | 170,0 | 32,0 |

## Spare Parts, included in delivery

| For shank | For ∅ (mm) | Clamp key | Clamp kit | Coolant kit | Plug screw, blind bore | Plug screw, through bore |
|---|---|---|---|---|---|---|
| | |  |  * |  |  * |  * |
| PMX05 | 7,75-9,900 | 1.5SMS795 | PMX05-CLKI | RT05-KI | SB05 | ST05 |
| PMX06 | 9,901-14,499 | 2SMS795 | PMX06-CLKI | RT06-KI | SB06 | ST06 |
| PMX08 | 14,5-21,499 | 2.5SMS795 | PMX08-CLKI | RT08-KI | SB08 | ST08 |
| PMX12 | 21,5-32,499 | 4SMS795 | PMX12-CLKI | RT12-KI | SB12 | ST12 |
| PMX16 | 32,5-60 | 5SMS795 | PMX16-CLKI | – | SB16 | ST16 |

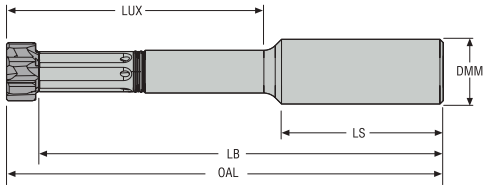
* Spare parts for PMX16 bodies only. For PMX16, plug screws are also used for clamping.

## Accessories

| For ∅ (mm) | Shank Size | Item number | Torque key | Item number | Replacement blade | Item number | Torque key | Item number | Replacement blade | Torque value |
|---|---|---|---|---|---|---|---|---|---|---|
| | | |  | |  | |  | |  | |
| 7,750-9,900 | PMX05 | 03178196 | H00-1505-27 | 03178237 | H00-1.5-27 | – | – | – | – | 0,5 Nm |
| 9,901-14,499 | PMX06 | 03178197 | H00-2009-33 | 03178238 | H00-2.0-33 | – | – | – | – | 0,9 Nm |
| 14,500-21,499 | PMX08 | 03178199 | H00-2512-40 | 03178240 | H00-2.5-40 | – | – | – | – | 1,2 Nm |
| 21,500-32,499 | PMX12 | 03178201 | H00-4020-60 | 03178242 | H00-4.0-60 | – | – | – | – | 2,0 Nm |
| 32,500-60,500 | PMX16 | – | – | – | – | 03271887 | H00T-5050 | 02506761 | H00T-5,0 | 5,0 Nm |

# Shanks for blind holes

∅ 7,75-60,500 mm / *0.305-2.381”*

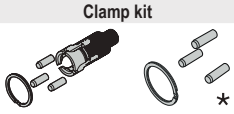





- For choice of geometry, please see page(s) 335-338
- For cutting data see page(s) 357-364

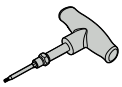
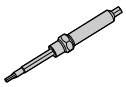
| Designation | Item number | Tool holder material | DC | OAL | LB | LS | LUX | DMM |
|---|---|---|---|---|---|---|---|---|
| | | | mm | mm | mm | mm | mm | mm |
| PMX05B-02800-10N1 | 03144322 | Steel | 7,75 - 9,9 | 69,0 | 63,0 | 40,0 | 28,0 | 10,0 |
| PMX05B-04100-10N1 | 03144323 | Steel | 7,75 - 9,9 | 84,0 | 78,0 | 40,0 | 41,0 | 10,0 |
| PMX05B-10000-10N1 | 03144324 | Steel | 7,75 - 9,9 | 143,0 | 137,0 | 40,0 | 100,0 | 10,0 |
| PMX06B-03700-12N1 | 03075433 | Steel | 9,901 - 14,499 | 84,0 | 77,0 | 45,0 | 37,0 | 12,0 |
| PMX06B-05700-12N1 | 03075434 | Steel | 9,901 - 14,499 | 104,0 | 97,0 | 45,0 | 57,0 | 12,0 |
| PMX06B-12000-12N1 | 03075435 | Steel | 9,901 - 14,499 | 167,0 | 160,0 | 45,0 | 120,0 | 12,0 |
| PMX06BHM-12000-12N1 | 03075436 | Carbide | 9,901 - 14,499 | 167,0 | 160,0 | 45,0 | 120,0 | 12,0 |
| PMX08B-04600-20N1 | 03075437 | Steel | 14,5 - 21,499 | 99,0 | 89,0 | 50,0 | 46,0 | 20,0 |
| PMX08B-08200-20N1 | 03075438 | Steel | 14,5 - 21,499 | 135,0 | 125,0 | 50,0 | 82,0 | 20,0 |
| PMX08B-14500-20N1 | 03075439 | Steel | 14,5 - 21,499 | 198,0 | 188,0 | 50,0 | 145,0 | 20,0 |
| PMX08BHM-14500-20N1 | 03075440 | Carbide | 14,5 - 21,499 | 198,0 | 188,0 | 50,0 | 145,0 | 20,0 |
| PMX12B-06800-25N1 | 03075441 | Steel | 21,5 - 32,499 | 127,0 | 115,0 | 56,0 | 68,0 | 25,0 |
| PMX12B-10400-25N1 | 03075442 | Steel | 21,5 - 32,499 | 163,0 | 151,0 | 56,0 | 104,0 | 25,0 |
| PMX12B-17000-25N1 | 03075443 | Steel | 21,5 - 32,499 | 229,0 | 217,0 | 56,0 | 170,0 | 25,0 |
| PMX12BHM-17000-25N1 | 03075444 | Carbide | 21,5 - 32,499 | 229,0 | 217,0 | 56,0 | 170,0 | 25,0 |
| PMX16B-06300-32N1 | 03075445 | Steel | 32,5 - 60,5 | 124,0 | 110,0 | 61,0 | 63,0 | 32,0 |
| PMX16B-12700-32N1 | 03075446 | Steel | 32,5 - 60,5 | 188,0 | 174,0 | 61,0 | 127,0 | 32,0 |
| PMX16B-17000-32N1 | 03075447 | Steel | 32,5 - 60,5 | 231,0 | 217,0 | 61,0 | 170,0 | 32,0 |
| PMX16BHM-17000-32N1 | 03075448 | Carbide | 32,5 - 60,5 | 231,0 | 217,0 | 61,0 | 170,0 | 32,0 |

## Spare Parts, included in delivery

| For shank | For ∅ (mm) | Clamp key | Clamp kit | Plug screw, blind bore |
|---|---|---|---|---|
| | |  |  * |  * |
| PMX05B | 7,75-9,900 | 1.5SMS795 | PMX05-CLKI | SB05 |
| PMX06B | 9,901-14,499 | 2SMS795 | PMX06-CLKI | SB06 |
| PMX08B | 14,500-21,499 | 2.5SMS795 | PMX08-CLKI | SB08 |
| PMX12B | 21,500-32,499 | 4SMS795 | PMX12-CLKI | SB12 |
| PMX16B | 32,500-60,000 | 5SMS795 | PMX16-CLKI | SB16 |

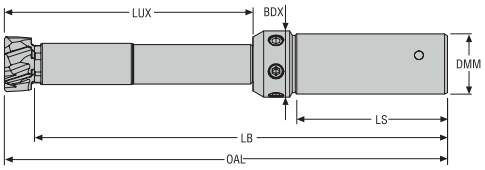
* Spare parts for PMX16 bodies only. For PMX16, plug screws are also used for clamping.

## Accessories

| For ∅ (mm) | Shank Size | Item number | Torque key | Item number | Replacement blade | Item number | Torque key | Item number | Replacement blade | Torque value |
|---|---|---|---|---|---|---|---|---|---|---|
| | | |  | |  | |  | |  | |
| 7,750-9,900 | PMX05 | 03178196 | H00-1505-27 | 03178237 | H00-1.5-27 | – | – | – | – | 0,5 Nm |
| 9,901-14,499 | PMX06 | 03178197 | H00-2009-33 | 03178238 | H00-2.0-33 | – | – | – | – | 0,9 Nm |
| 14,500-21,499 | PMX08 | 03178199 | H00-2512-40 | 03178240 | H00-2.5-40 | – | – | – | – | 1,2 Nm |
| 21,500-32,499 | PMX12 | 03178201 | H00-4020-60 | 03178242 | H00-4.0-60 | – | – | – | – | 2,0 Nm |
| 32,500-60,500 | PMX16 | – | – | – | – | 03271887 | H00T-5050 | 02506761 | H00T-5,0 | 5,0 Nm |

# Adjustable shanks for through holes

∅ 7,75-60,500 mm / *0.305-2.381”*

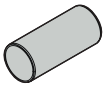




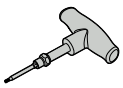
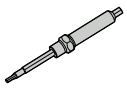

- For choice of geometry, please see page(s) 335-338
- For cutting data see page(s) 357-364

| Designation | Item number | DC | OAL | LB | LS | LUX | DMM |
|---|---|---|---|---|---|---|---|
| | | mm | mm | mm | mm | mm | mm |
| PMX05T-AD-04100-16N1 | 03271918 | 7,75 - 9,9 | 102,0 | 96,0 | 48,0 | 41,0 | 16,0 |
| PMX06T-AD-05700-16N1 | 03002833 | 9,901 - 14,499 | 117,0 | 110,0 | 48,0 | 57,0 | 16,0 |
| PMX08T-AD-08200-20N1 | 03002835 | 14,5 - 21,499 | 147,0 | 137,0 | 50,0 | 82,0 | 20,0 |
| PMX12T-AD-10400-25N1 | 03002837 | 21,5 - 32,499 | 179,0 | 167,0 | 56,0 | 104,0 | 25,0 |
| PMX16T-AD-12700-32N1 | 03002839 | 32,5 - 60,5 | 214,0 | 200,0 | 60,0 | 127,0 | 32,0 |

## Spare Parts, included in delivery

| For shank | For ∅ (mm) | Clamp key | Coolant ring | Setting key | Setting Master | Setting screw |
|---|---|---|---|---|---|---|
| | |  |  |  |  |  |
| PMX05T | 7,750-9,900 | 1.5SMS795 | RT05-KI | 2SMS795 | PMX05-MSTR | HCM4X4X0.5/ISO4026 |
| PMX06T | 9,901-14,499 | 2SMS795 | RT06-KI | – | PMX06-MSTR | HCM4X4X0.5/ISO4026 |
| PMX08T | 14,50-21,499 | 2.5SMS795 | RT08-KI | – | PMX08-MSTR | HCM5X5X0.5/ISO4026 |
| PMX12T | 21,50-32,499 | 4SMS795 | RT12-KI | 3SMS795 | PMX12-MSTR | HCM6X6X0.75/ISO4026 |
| PMX16T | 32,50-60,000 | 5SMS795 | – | 3SMS795 | – | HCM6X6X0.75/ISO4026 |

## Accessories

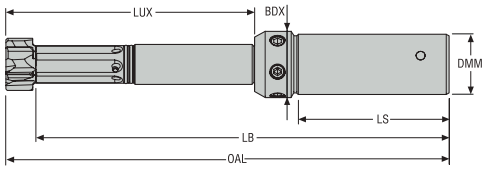
| For ∅ (mm) | Shank Size | Item number | Torque key | Item number | Replacement blade | Item number | Torque key | Item number | Replacement blade | Torque value |
|---|---|---|---|---|---|---|---|---|---|---|
| | | |  | |  | |  | |  | |
| 7,750-9,900 | PMX05 | 03178196 | H00-1505-27 | 03178237 | H00-1.5-27 | – | – | – | – | 0,5 Nm |
| 9,901-14,499 | PMX06 | 03178197 | H00-2009-33 | 03178238 | H00-2.0-33 | – | – | – | – | 0,9 Nm |
| 14,500-21,499 | PMX08 | 03178199 | H00-2512-40 | 03178240 | H00-2.5-40 | – | – | – | – | 1,2 Nm |
| 21,500-32,499 | PMX12 | 03178201 | H00-4020-60 | 03178242 | H00-4.0-60 | – | – | – | – | 2,0 Nm |
| 32,500-60,500 | PMX16 | – | – | – | – | 03271887 | H00T-5050 | 02506761 | H00T-5,0 | 5,0 Nm |

Note: Repair clamp kit PMxx-CLKI are not suitable for PMX FL & AD type

# Adjustable shanks for blind holes

∅ 7,75-60,500 mm / *0.305-2.381”*





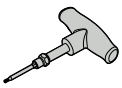
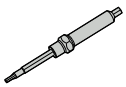

- For choice of geometry, please see page(s) 335-338
- For cutting data see page(s) 357-364

| Designation | Item number | DC | OAL | LB | LS | LUX | DMM |
|---|---|---|---|---|---|---|---|
| | | mm | mm | mm | mm | mm | mm |
| PMX05B-AD-04100-16N1 | 03271919 | 7,75 - 9,9 | 102,0 | 96,0 | 48,0 | 41,0 | 16,0 |
| PMX06B-AD-05700-16N1 | 03002834 | 9,901 - 14,499 | 117,0 | 110,0 | 48,0 | 57,0 | 16,0 |
| PMX08B-AD-08200-20N1 | 03002836 | 14,5 - 21,499 | 147,0 | 137,0 | 50,0 | 82,0 | 20,0 |
| PMX12B-AD-10400-25N1 | 03002838 | 21,5 - 32,499 | 179,0 | 167,0 | 56,0 | 104,0 | 25,0 |
| PMX16B-AD-12700-32N1 | 03002840 | 32,5 - 60,5 | 214,0 | 200,0 | 60,0 | 127,0 | 32,0 |

## Spare Parts, included in delivery

| For shank | For ∅ (mm) | Clamp key | Setting key | Setting Master | Setting screw |
|---|---|---|---|---|---|
| | |  |  |  |  |
| PMX05B | 7,750-9,900 | 1.5SMS795 | 2SMS795 | PMX05-MSTR | HCM4X4X0.5/ISO4026 |
| PMX06B | 9,901-14,499 | 2SMS795 | – | PMX06-MSTR | HCM4X4X0.5/ISO4026 |
| PMX08B | 14,50-21,499 | 2.5SMS795 | – | PMX08-MSTR | HCM5X5X0.5/ISO4026 |
| PMX12B | 21,50-32,499 | 4SMS795 | 3SMS795 | PMX12-MSTR | HCM6X6X0.75/ISO4026 |
| PMX16B | 32,50-60,000 | 5SMS795 | 3SMS795 | – | HCM6X6X0.75/ISO4026 |

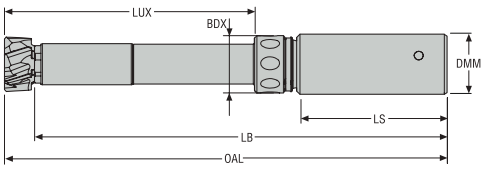
## Accessories

| For ∅ (mm) | Shank Size | Item number | Torque key | Item number | Replacement blade | Item number | Torque key | Item number | Replacement blade | Torque value |
|---|---|---|---|---|---|---|---|---|---|---|
| | | |  | |  | |  | |  | |
| 7,750-9,900 | PMX05 | 03178196 | H00-1505-27 | 03178237 | H00-1.5-27 | – | – | – | – | 0,5 Nm |
| 9,901-14,499 | PMX06 | 03178197 | H00-2009-33 | 03178238 | H00-2.0-33 | – | – | – | – | 0,9 Nm |
| 14,500-21,499 | PMX08 | 03178199 | H00-2512-40 | 03178240 | H00-2.5-40 | – | – | – | – | 1,2 Nm |
| 21,500-32,499 | PMX12 | 03178201 | H00-4020-60 | 03178242 | H00-4.0-60 | – | – | – | – | 2,0 Nm |
| 32,500-60,500 | PMX16 | – | – | – | – | 03271887 | H00T-5050 | 02506761 | H00T-5,0 | 5,0 Nm |

Note: Repair clamp kit PMxx-CLKI are not suitable for PMX FL & AD type

# Floating shanks for through holes

∅ 7,75-60,500 mm / *0.305-2.381”*

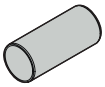




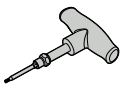
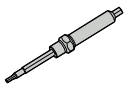

- For choice of geometry, please see page(s) 335-338
- For cutting data see page(s) 357-364

| Designation | Item number | DC | OAL | LB | LS | LUX | DMM |
|---|---|---|---|---|---|---|---|
| | | mm | mm | mm | mm | mm | mm |
| PMX05T-FL-04100-16N1 | 03197751 | 7,75 - 9,9 | 102,0 | 96,0 | 48,0 | 41,0 | 16,0 |
| PMX06T-FL-05700-16N1 | 03002825 | 9,901 - 14,499 | 117,0 | 110,0 | 48,0 | 57,0 | 16,0 |
| PMX08T-FL-08200-20N1 | 03002827 | 14,5 - 21,499 | 147,0 | 137,0 | 50,0 | 82,0 | 20,0 |
| PMX12T-FL-10400-25N1 | 03002829 | 21,5 - 32,499 | 179,0 | 167,0 | 56,0 | 104,0 | 25,0 |
| PMX16T-FL-12700-32N1 | 03002831 | 32,5 - 60,5 | 214,0 | 200,0 | 60,0 | 127,0 | 32,0 |

## Spare Parts, included in delivery

| For shank | For ∅ (mm) | Clamp key | Coolant ring |
|---|---|---|---|
| | |  |  |
| PMX05T | 7,750-9,900 | 1.5SMS795 | RT05-KI |
| PMX06T | 9,901-14,499 | 2SMS795 | RT06-KI |
| PMX08T | 14,50-21,499 | 2.5SMS795 | RT08-KI |
| PMX12T | 21,50-32,499 | 4SMS795 | RT12-KI |
| PMX16T | 32,50-60,000 | 5SMS795 | – |

## Accessories

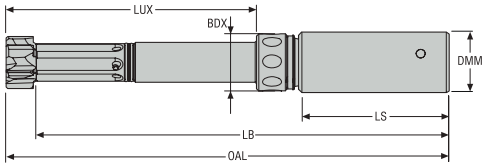
| For ∅ (mm) | Shank Size | Item number | Torque key | Item number | Replacement blade | Item number | Torque key | Item number | Replacement blade | Torque value |
|---|---|---|---|---|---|---|---|---|---|---|
| | | |  | |  | |  | |  | |
| 7,750-9,900 | PMX05 | 03178196 | H00-1505-27 | 03178237 | H00-1.5-27 | – | – | – | – | 0,5 Nm |
| 9,901-14,499 | PMX06 | 03178197 | H00-2009-33 | 03178238 | H00-2.0-33 | – | – | – | – | 0,9 Nm |
| 14,500-21,499 | PMX08 | 03178199 | H00-2512-40 | 03178240 | H00-2.5-40 | – | – | – | – | 1,2 Nm |
| 21,500-32,499 | PMX12 | 03178201 | H00-4020-60 | 03178242 | H00-4.0-60 | – | – | – | – | 2,0 Nm |
| 32,500-60,500 | PMX16 | – | – | – | – | 03271887 | H00T-5050 | 02506761 | H00T-5,0 | 5,0 Nm |

Note: Repair clamp kit PMxx-CLKI are not suitable for PMX FL & AD type

# Floating shanks for blind holes

∅ 7,75-60,500 mm / *0.305-2.381”*





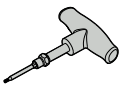
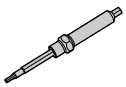

- For choice of geometry, please see page(s) 335-338
- For cutting data see page(s) 357-364

| Designation | Item number | DC | OAL | LB | LS | LUX | DMM |
|---|---|---|---|---|---|---|---|
| | | mm | mm | mm | mm | mm | mm |
| PMX05B-FL-04100-16N1 | 03271916 | 7,75 - 9,9 | 102,0 | 96,0 | 48,0 | 41,0 | 16,0 |
| PMX06B-FL-05700-16N1 | 03002826 | 9,901 - 14,499 | 117,0 | 110,0 | 48,0 | 57,0 | 16,0 |
| PMX08B-FL-08200-20N1 | 03002828 | 14,5 - 21,499 | 147,0 | 137,0 | 50,0 | 82,0 | 20,0 |
| PMX12B-FL-10400-25N1 | 03002830 | 21,5 - 32,499 | 179,0 | 167,0 | 56,0 | 104,0 | 25,0 |
| PMX16B-FL-12700-32N1 | 03002832 | 32,5 - 60,5 | 214,0 | 200,0 | 60,0 | 127,0 | 32,0 |

## Spare Parts, included in delivery

| For shank | For ∅ (mm) | Clamp key |
|---|---|---|
| | |  |
| PMX05B | 7,750-9,900 | 1.5SMS795 |
| PMX06B | 9,901-14,499 | 2SMS795 |
| PMX08B | 14,50-21,499 | 2.5SMS795 |
| PMX12B | 21,50-32,499 | 4SMS795 |
| PMX16B | 32,50-60,500 | 5SMS795 |

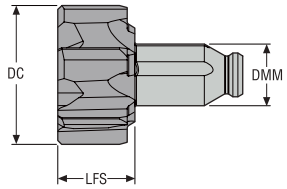
## Accessories

| For ∅ (mm) | Shank Size | Item number | Torque key | Item number | Replacement blade | Item number | Torque key | Item number | Replacement blade | Torque value |
|---|---|---|---|---|---|---|---|---|---|---|
| | | |  | |  | |  | |  | |
| 7,750-9,900 | PMX05 | 03178196 | H00-1505-27 | 03178237 | H00-1.5-27 | – | – | – | – | 0,5 Nm |
| 9,901-14,499 | PMX06 | 03178197 | H00-2009-33 | 03178238 | H00-2.0-33 | – | – | – | – | 0,9 Nm |
| 14,500-21,499 | PMX08 | 03178199 | H00-2512-40 | 03178240 | H00-2.5-40 | – | – | – | – | 1,2 Nm |
| 21,500-32,499 | PMX12 | 03178201 | H00-4020-60 | 03178242 | H00-4.0-60 | – | – | – | – | 2,0 Nm |
| 32,500-60,500 | PMX16 | – | – | – | – | 03271887 | H00T-5050 | 02506761 | H00T-5,0 | 5,0 Nm |

Note: Repair clamp kit PMxx-CLKI are not suitable for PMX FL & AD type

# Heads for through and blind holes, Custom design

∅ 7,75-60,500 mm / *0.305-2.381”*






- For choice of geometry, please see page(s) 335-338
- For cutting data see page(s) 357-364

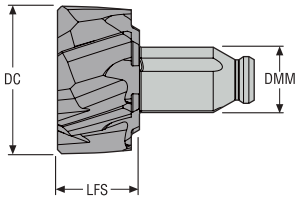
| Designation | DCN | DCX | LFS | DMM | | Body size | Geometries | Grades | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | | H15 | CP20 | RX2000 | RK2050 | RK1550 | CF | RX1500 | RN2010 | RM2020 | RM2090 | RS2090 |
| PMX5-10.0-XX-XXXX | 9,901<br>*0.390* | 14,499<br>*0.571* | 7,0<br>*0.276* | 6,0<br>*0.236* | 6 | PMX06-xx | EB45 EB845 EB30 | □ | □ | □ | □ | □ | – | – | □ | □ | □ | □ |
| PMX5-10.0-XX-XXXX | 9,901<br>*0.390* | 14,499<br>*0.571* | 7,0<br>*0.276* | 6,0<br>*0.236* | 6 | PMX06-xx | EB45 EB845 EB30 | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ |
| PMX5-21.5-XX-XXXX | 21,5<br>*0.846* | 32,499<br>*1.279* | 12,0<br>*0.472* | 12,0<br>*0.472* | 8 | PMX12-XX | EB45 EB845 EB30 | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ |
| PMX5-32.5-XX-XXXX | 32,5<br>*1.280* | 60,5<br>*2.382* | 14,0<br>*0.551* | 16,0<br>*0.630* | 10 | PMX16-xx | EB45 EB845 EB30 | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ |
| PMX5-32.5-XX-XXXX | 32,5<br>*1.280* | 60,5<br>*2.382* | 14,0<br>*0.551* | 16,0<br>*0.630* | 10 | PMX16-XX | EB45 EB845 EB30 | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ |
| PMX5-7.75-XX-XXXX | 7,75<br>*0.305* | 9,9<br>*0.390* | 6,0<br>*0.236* | 4,5<br>*0.177* | 6 | PMX05-xx | EB45 EB845 EB30 | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ |
| PMX5-7.75-XX-XXXX | –<br>– | 9,9<br>*0.390* | 6,0<br>*0.236* | 4,5<br>*0.177* | 6 | PMX05-xx | EB45 EB845 EB30 | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ |
| PMX5-7.75-XX-XXXX | 7,75<br>*0.305* | 9,9<br>*0.390* | 6,0<br>*0.236* | 4,5<br>*0.177* | 6 | PMX05-xx | EB45 EB845 EB30 | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ |

**□= Non stock standard.**
Note: When ordering Precimaster Plus reamers for intermediate diameters, please state diameter and tolerance of hole to be reamed.
**Ordering example:** PMX5-16.515 P7-EB45 RM2020. PMX6-16.515 P7-EB45 RM2020.

# Heads for through holes, Custom design

∅ 7,75-60,500 mm / *0.305-2.381”*







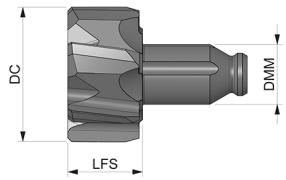
- For choice of geometry, please see page(s) 335-338
- For cutting data see page(s) 357-364


| Designation | DCN | DCX | LFS | DMM | | Body size | Geometries | Grades | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | | H15 | CP20 | RX2000 | RK2050 | RK1550 | CF | RX1500 | RN2010 | RM2020 | RM2090 | RS2090 |
| PMX6-10.0-XX-XXXX | 9,901<br>*0.390* | 14,499<br>*0.571* | 7,0<br>*0.276* | 6,0<br>*0.236* | 6 | PMX06-xx | EB45 EB845 EB30 | □ | □ | □ | □ | □ | – | – | □ | □ | □ | □ |
| PMX6-21.5-XX-XXXX | 21,5<br>*0.846* | 32,499<br>*1.279* | 12,0<br>*0.472* | 12,0<br>*0.472* | 8 | PMX12-xx | EB45 EB845 EB30 | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ |
| PMX6-21.5-XX-XXXX | 21,5<br>*0.846* | 32,499<br>*1.279* | 12,0<br>*0.472* | 12,0<br>*0.472* | 8 | PMX12-XX | EB45 EB845 EB30 | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ |
| PMX6-32.5-XX-XXXX | 32,5<br>*1.280* | 60,5<br>*2.382* | 14,0<br>*0.551* | 16,0<br>*0.630* | 10 | PMX16-xx | EB45 EB845 EB30 | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ |
| PMX6-32.5-XX-XXXX | 32,5<br>*1.280* | 60,5<br>*2.382* | 14,0<br>*0.551* | 16,0<br>*0.630* | 10 | PMX16-XX | EB45 EB845 EB30 | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ |
| PMX6-7.75-XX-XXXX | 7,75<br>*0.305* | 9,9<br>*0.390* | 6,0<br>*0.236* | 4,5<br>*0.177* | 6 | PMX05-xx | EB45 EB845 EB30 | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ |
| PMX6-7.75-XX-XXXX | –<br>– | 9,9<br>*0.390* | 6,0<br>*0.236* | 4,5<br>*0.177* | 6 | PMX05-xx | EB45 EB845 EB30 | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ |
| PMX6-7.75-XX-XXXX | 7,75<br>*0.305* | 9,9<br>*0.390* | 6,0<br>*0.236* | 4,5<br>*0.177* | 6 | PMX05-xx | EB45 EB845 EB30 | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ |

**□= Non stock standard.**
Note: When ordering Precimaster Plus reamers for intermediate diameters, please state diameter and tolerance of hole to be reamed.
**Ordering example:** PMX6-16.515 P7-EB45 RM2020.

# Heads for blind holes, Custom design

∅ 7,75-60,500 mm / *0.305-2.381”*






- For choice of geometry, please see page(s) 335-338
- For cutting data see page(s) 357-364

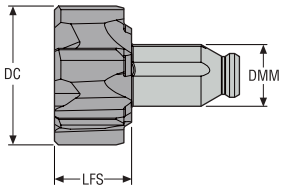
| Designation | DCN | DCX | LFS | DMM | | Body size | Geometries | Grades | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | | H15 | CP20 | RX2000 | RK2050 | RK1550 | CF | RX1500 | RN2010 | RM2020 | RM2090 | RS2090 |
| PMX4-10.0-XX-XXXX | 9,901<br>*0.390* | 14,499<br>*0.571* | 7,0<br>*0.276* | 6,0<br>*0.236* | 6 | PMX06-xx | EB45 EB84 EB30 | □ | □ | □ | □ | □ | – | – | □ | □ | □ | □ |
| PMX4-14.5-XX-XXXX | 14,5<br>*0.571* | 21,499<br>*0.846* | 10,0<br>*0.394* | 8,0<br>*0.315* | 6 | PMX08-xx | EB45 EB84 EB30 | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ |
| PMX4-21.5-XX-XXXX | 21,5<br>*0.846* | 32,499<br>*1.279* | 12,0<br>*0.472* | 12,0<br>*0.472* | 8 | PMX12-xx | EB45 EB84 EB30 | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ |
| PMX4-32.5-XX-XXXX | 32,5<br>*1.280* | 60,5<br>*2.382* | 14,0<br>*0.551* | 16,0<br>*0.630* | 10 | PMX16-xx | EB45 EB84 EB30 | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ |
| PMX4-7.75-XX-XXXX | 7,75<br>*0.305* | 9,9<br>*0.390* | 6,0<br>*0.236* | 4,5<br>*0.177* | 6 | PMX05-xx | EB45 EB84 EB30 | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ |

**□= Non stock standard.**
Note: When ordering Precimaster Plus reamers for intermediate diameters, please state diameter and tolerance of hole to be reamed.
**Ordering example:** PMX4-16.515 P7-EB45 RM2020.

# Expandable heads for through and blind holes

∅ 10,00-32,500 mm / *0.393-1.279”*






- For choice of geometry, please see page(s) 335-338
- For cutting data see page(s) 357-364

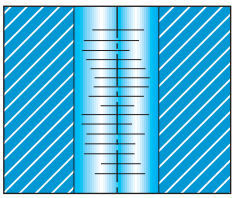
| Designation | DCN | DCX | LFS | DMM | | Body size | Geometries | Grades | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | | H15 | CP20 | RX2000 | RK2050 | RK1550 | CF | RX1500 | RN2010 | RM2020 | RM2090 | RS2090 |
| PMX8-10.0-XX-XXXX | 10,0<br>*0.394* | 14,499<br>*0.571* | 7,0<br>*0.276* | 6,0<br>*0.236* | 6 | PMX06-xx | EB45 EB845 EB30 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| PMX8-10.0-XX-XXXX | 10,0<br>*0.394* | 14,499<br>*0.571* | 7,0<br>*0.276* | 6,0<br>*0.236* | 6 | PMX06-xx | EB45 EB845 EB30 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| PMX8-14.5-XX-XXXX | –<br>– | 21,499<br>*0.846* | 10,0<br>*0.394* | 8,0<br>*0.315* | 6 | PMX08-xx | EB45 EB845 EB30 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| PMX8-21.5-XX-XXXX | 21,5<br>*0.846* | 32,499<br>*1.279* | 12,0<br>*0.472* | 12,0<br>*0.472* | 8 | PMX12-xx | EB45 EB845 EB30 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| PMX8-21.5-XX-XXXX | –<br>– | 32,499<br>*1.279* | 12,0<br>*0.472* | 12,0<br>*0.472* | 8 | PMX12-XX | EB45 EB845 EB30 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| PMX8-21.5-XX-XXXX | 21,5<br>*0.846* | 32,499<br>*1.279* | 12,0<br>*0.472* | 12,0<br>*0.472* | 8 | PMX12-xx | EB45 EB845 EB30 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

☐**= Non stock standard.**
Note: When ordering Precimaster Plus reamers for intermediate diameters, please state diameter and tolerance of hole to be reamed.
**Ordering example:** PMX8-16.515 P7-EB45 RM2020.

# Troubleshooting

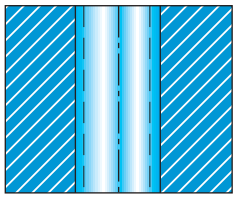
## Poor surface finish

- Check material allowance
- Improve coolant conditions (outlet type, pressure, quality)
- Reduce feed rate



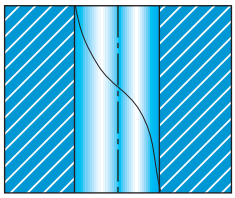
## Too large diameter

- Improve centering (part/tool)



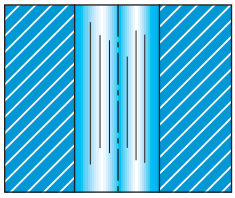
## Retraction marks

- Improve coolant conditions (outlet type, pressure, quality)
- Improve centering (part/tool)
- Reduce feed-out speed



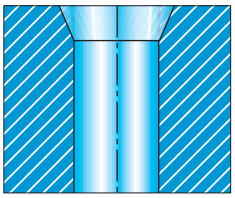
## Facets

- Improve centering (part/tool)
- Check material allowance



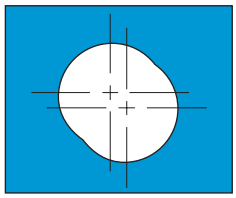
## Tapered entry

- Reduce feed rate
- Improve centering (part/tool)
- Reduce radial run-out



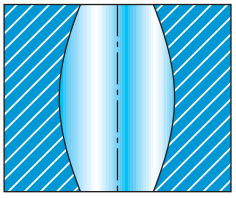
## Off center/Ovality

- Improve clamping (workpiece deformation)
- Check material allowance
- Improve centering (part/tool



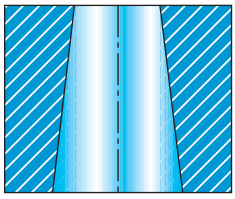
## Deformed hole

- Improve clamping (workpiece deformation)



## Tapered hole

- Improve centering (part/tool)



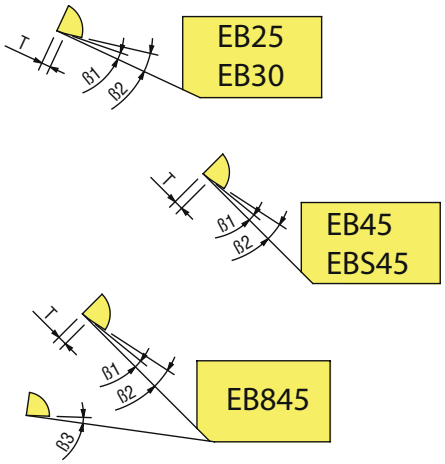
# Regrinding instructions

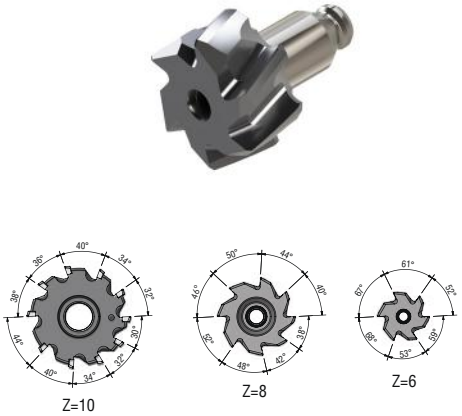
**Specifications**

Diamond grinding wheel
Grain size:
**D6** – For first clearance angle (β1–β3)
**D64** – For second clearance angle (β2)

**Important:**

Regrinding reduces reamer diameter
Recoating may produce oversized diameter
Max run-out on lead chamfers 10 µm *(394 µin)*




| ∅ **Precimaster Plus mm** *(inch)* | $\beta_1$ | $\beta_2$ | $\beta_3$ | **T mm** *(inch)* |
|---|---|---|---|---|
| 7,75–9,999 *(0.3151–0.3937)* | 8° | 18° | 8° | 0,20 *(0.008)* |
| 10,00–14,499 *(0.3937–0.5708)* | 8° | 18° | 8° | 0,20 *(0.008)* |
| 14,500–21,499 *(0.5709–0.8464)* | 8° | 18° | 8° | 0,20 *(0.008)* |
| 21,500–32,499 *(0.8465–1.2795)* | 8° | 18° | 8° | 0,25 *(0.010)* |
| 32,500–60,499 *(1.2795–2.3819)* | 8° | 15° | 8° | 0,30 *(0.012)* |

## Cutting data – PM Plus... -EB45 metric

| SMG | | $a_p$ (∅) | | f | | | $v_c$ | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | z=6 | z=8 z=10 | z=6 | z=8 | z=10 | H15 | CP20 | RX2000 | RK2050 | CF | RX1500 | RK1550 | RN2010 | RM2020 | RM2090 | RS2090 |
| P1 | PMXxx ..6 ..8 -EB45 | 0,10 -0,20 | 0,10 -0,30 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | 25 (15-30) | 60 (30-100) | 80 (30-150) | - | 180 (90-200) | 220 (120-300) | - | - | - | - | - |
| P2 | PMXxx ..6 ..8 -EB45 | 0,10 -0,20 | 0,10 -0,30 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | 25 (15-30) | 60 (30-100) | 80 (30-150) | - | 180 (90-200) | 220 (120-300) | - | - | - | - | - |
| P3 | PMXxx ..6 ..8 -EB45 | 0,10 -0,20 | 0,10 -0,30 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | 25 (15-30) | 60 (30-100) | 80 (30-150) | - | 180 (90-200) | 220 (120-300) | - | - | - | - | - |
| P4 | PMXxx ..6 ..8 -EB45 | 0,10 -0,20 | 0,10 -0,30 | 0,20 -0,70 | 0,30 -1,00 | 0,40 -1,20 | 20 (10-25) | 50 (30-80) | 60 (30-120) | - | 120 (80-150) | 180 (90-200) | - | - | - | - | - |
| P5 | PMXxx ..6 ..8 -EB45 | 0,10 -0,20 | 0,10 -0,30 | 0,20 -0,70 | 0,30 -1,00 | 0,40 -1,20 | 20 (10-25) | 50 (30-80) | 60 (30-120) | - | 120 (80-150) | 180 (90-200) | - | - | - | - | - |
| P6 | PMXxx ..6 ..8 -EB45 | 0,10 -0,20 | 0,10 -0,30 | 0,20 -0,70 | 0,30 -1,00 | 0,40 -1,20 | 20 (10-25) | 50 (30-80) | 60 (30-120) | - | 120 (80-150) | 180 (90-200) | - | - | - | - | - |
| P7 | PMXxx ..6 ..8 -EB45 | 0,10 -0,20 | 0,10 -0,30 | 0,20 -0,70 | 0,30 -1,00 | 0,40 -1,20 | 20 (10-25) | 50 (30-80) | 60 (30-120) | - | 120 (80-150) | 180 (90-200) | - | - | - | - | - |
| P8 | PMXxx ..6 ..8 -EB45 | 0,10 -0,20 | 0,10 -0,30 | 0,20 -0,70 | 0,30 -1,00 | 0,40 -1,20 | 15 (10-20) | 35 (20-60) | 40 (20-80) | - | 80 (60-120) | 120 (80-180) | - | - | - | - | - |
| P11 | PMXxx ..6 ..8 -EB45 | 0,10 -0,20 | 0,10 -0,30 | 0,20 -0,70 | 0,30 -1,00 | 0,40 -1,20 | 15 (10-20) | 35 (20-60) | 40 (20-80) | - | 80 (60-120) | 120 (80-180) | - | - | - | - | - |
| P12 | PMXxx ..6 ..8 -EB45 | 0,10 -0,20 | 0,10 -0,30 | 0,20 -0,70 | 0,30 -1,00 | 0,40 -1,20 | 12 (8-15) | 25 (15-45) | 30 (15-65) | - | 65 (45-95) | 95 (65-145) | - | - | - | - | - |
| M1 | PMXxx ..6 ..8 -EB45 | 0,08 -0,15 | 0,10 -0,20 | 0,20 -0,60 | 0,30 -0,80 | 0,40 -1,00 | 12 (9-15) | 25 (15-45) | 35 (20-70) | - | - | - | - | - | 25 (15-40) | 40 (25-80) | - |
| M2 | PMXxx ..6 ..8 -EB45 | 0,08 -0,15 | 0,10 -0,20 | 0,20 -0,60 | 0,30 -0,80 | 0,40 -1,00 | - | 25 (15-45) | 35 (20-70) | - | - | - | - | - | 25 (15-40) | 40 (25-80) | - |
| M3 | PMXxx ..6 ..8 -EB45 | 0,08 -0,15 | 0,10 -0,20 | 0,20 -0,60 | 0,30 -0,80 | 0,40 -1,00 | - | 25 (15-45) | 35 (20-70) | - | - | - | - | - | 25 (15-40) | 40 (25-80) | - |
| M4 | PMXxx ..6 ..8 -EB45 | 0,08 -0,15 | 0,10 -0,20 | 0,20 -0,60 | 0,30 -0,80 | 0,40 -1,00 | - | 20 (10-30) | 25 (15-50) | - | - | - | - | - | 20 (10-30) | 30 (20-60) | - |
| M5 | PMXxx ..6 ..8 -EB45 | 0,08 -0,15 | 0,10 -0,20 | 0,20 -0,60 | 0,30 -0,80 | 0,40 -1,00 | - | 20 (10-30) | 25 (15-50) | - | - | - | - | - | 20 (10-30) | 30 (20-60) | - |
| K1 | PMXxx ..6 ..8 -EB45 | 0,10 -0,20 | 0,10 -0,25 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | 25 (15-30) | 60 (40-100) | 80 (30-150) | 90 (35-170) | - | 220 (120-300) | 245 (135-335) | - | - | - | - |
| K2 | PMXxx ..6 ..8 -EB45 | 0,10 -0,20 | 0,10 -0,25 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | - | 25 (20-40) | 40 (30-70) | 45 (35-80) | - | 80 (50-100) | 90 (55-110) | - | - | - | - |
| K3 | PMXxx ..6 ..8 -EB45 | 0,10 -0,20 | 0,10 -0,25 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | 25 (15-30) | 60 (40-100) | 80 (30-150) | 90 (35-170) | - | 220 (120-300) | 245 (135-335) | - | - | - | - |
| K4 | PMXxx ..6 ..8 -EB45 | 0,10 -0,20 | 0,10 -0,25 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | 25 (15-30) | 45 (30-70) | 70 (40-120) | 80 (45-135) | 100 (70-150) | 150 (80-200) | 170 (90-225) | - | - | - | - |
| K5 | PMXxx ..6 ..8 -EB45 | 0,10 -0,20 | 0,10 -0,25 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | 25 (15-30) | 45 (30-70) | 70 (40-120) | 80 (45-135) | 100 (70-150) | 150 (80-200) | 170 (90-225) | - | - | - | - |
| K6 | PMXxx ..6 ..8 -EB45 | 0,10 -0,20 | 0,10 -0,25 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | - | 60 (40-100) | 80 (30-150) | 90 (35-170) | - | 220 (120-300) | 245 (135-335) | - | - | - | - |
| K7 | PMXxx ..6 ..8 -EB45 | 0,10 -0,20 | 0,10 -0,25 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | - | 60 (40-100) | 80 (30-150) | 90 (35-170) | - | 220 (120-300) | 245 (135-335) | - | - | - | - |
| N1 | PMXxx ..6 ..8 -EB45 | 0,10 -0,20 | 0,10 -0,30 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | 50 (30-100) | - | 80 (30-150) | - | - | - | - | 50 (30-100) | - | - | - |
| N2 | PMXxx ..6 ..8 -EB45 | 0,10 -0,20 | 0,10 -0,30 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | 50 (30-100) | - | 80 (30-150) | - | - | - | - | 50 (30-100) | - | - | - |
| N3 | PMXxx ..6 ..8 -EB45 | 0,10 -0,20 | 0,10 -0,30 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | 50 (30-100) | - | 80 (30-150) | - | - | - | - | 50 (30-100) | - | - | - |
| N11 | PMXxx ..6 ..8 -EB45 | 0,10 -0,20 | 0,10 -0,30 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | 50 (30-100) | - | 80 (30-150) | - | - | - | - | 50 (30-100) | - | - | - |
| S1 | PMXxx ..6 ..8 -EB45 | 0,08 -0,15 | 0,10 -0,15 | 0,20 -0,60 | 0,30 -0,80 | 0,40 -1,00 | - | 20 (10-25) | 20 (10-25) | - | - | - | - | - | - | - | 25 (12-30) |
| S2 | PMXxx ..6 ..8 -EB45 | 0,08 -0,15 | 0,10 -0,15 | 0,20 -0,60 | 0,30 -0,80 | 0,40 -1,00 | - | 20 (10-25) | 20 (10-25) | - | - | - | - | - | - | - | 25 (12-30) |
| S3 | PMXxx ..6 ..8 -EB45 | 0,08 -0,15 | 0,10 -0,15 | 0,20 -0,60 | 0,30 -0,80 | 0,40 -1,00 | - | 20 (10-25) | 20 (10-25) | - | - | - | - | - | - | - | 25 (12-30) |
| S11 | PMXxx ..6 ..8 -EB45 | 0,08 -0,15 | 0,10 -0,15 | 0,20 -0,60 | 0,30 -0,80 | 0,40 -1,00 | 20 (15-30) | 30 (15-40) | 40 (20-50) | - | - | - | - | - | - | - | 50 (25-65) |
| S12 | PMXxx ..6 ..8 -EB45 | 0,08 -0,15 | 0,10 -0,15 | 0,20 -0,60 | 0,30 -0,80 | 0,40 -1,00 | 20 (15-30) | 30 (15-40) | 40 (20-50) | - | - | - | - | - | - | - | 50 (25-65) |
| S13 | PMXxx ..6 ..8 -EB45 | 0,08 -0,15 | 0,10 -0,15 | 0,20 -0,60 | 0,30 -0,80 | 0,40 -1,00 | 20 (15-30) | 30 (15-40) | 40 (20-50) | - | - | - | - | - | - | - | 50 (25-65) |

The table continues on next page.

## Cutting data – PM Plus... -EB45 metric

| SMG | | $a_p$ (∅) | | f | | | $v_c$ | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | z=6 | z=8 z=10 | z=6 | z=8 | z=10 | H15 | CP20 | RX2000 | RK2050 | CF | RX1500 | RK1550 | RN2010 | RM2020 | RM2090 | RS2090 |
| H3 | PMXxx ..6 ..8 -EB45 | 0,08 -0,15 | 0,10 -0,15 | 0,20 -0,40 | 0,30 -0,60 | 0,40 -0,75 | - | - | 10 (8-15) | - | - | - | - | - | - | - | - |
| H5 | PMXxx ..6 ..8 -EB45 | 0,08 -0,15 | 0,10 -0,15 | 0,20 -0,40 | 0,30 -0,60 | 0,40 -0,75 | - | - | 10 (8-15) | - | - | - | - | - | - | - | - |
| H7 | PMXxx ..6 ..8 -EB45 | 0,08 -0,15 | 0,10 -0,15 | 0,20 -0,40 | 0,30 -0,60 | 0,40 -0,75 | - | - | 10 (8-15) | - | - | - | - | - | - | - | - |
| H8 | PMXxx ..6 ..8 -EB45 | 0,08 -0,15 | 0,10 -0,15 | 0,20 -0,40 | 0,30 -0,60 | 0,40 -0,75 | - | - | 10 (8-15) | - | - | - | - | - | - | - | - |
| H11 | PMXxx ..6 ..8 -EB45 | 0,08 -0,15 | 0,10 -0,15 | 0,20 -0,40 | 0,30 -0,60 | 0,40 -0,75 | - | - | 10 (8-15) | - | - | - | - | - | - | - | - |
| H12 | PMXxx ..6 ..8 -EB45 | 0,08 -0,15 | 0,10 -0,15 | 0,20 -0,40 | 0,30 -0,60 | 0,40 -0,75 | - | - | 10 (8-15) | - | - | - | - | - | - | - | - |
| H21 | PMXxx ..6 ..8 -EB45 | 0,08 -0,15 | 0,10 -0,15 | 0,20 -0,40 | 0,30 -0,60 | 0,40 -0,75 | - | - | 10 (8-15) | - | - | - | - | - | - | - | - |
| H31 | PMXxx ..6 ..8 -EB45 | 0,08 -0,15 | 0,10 -0,15 | 0,20 -0,40 | 0,30 -0,60 | 0,40 -0,75 | - | - | 10 (8-15) | - | - | - | - | - | - | - | - |
| PM1 | PMXxx ..6 ..8 -EB45 | 0,10- 0,20 | 0,10 -0,30 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | - | 50 (30-80) | 70 (40-100) | - | - | - | - | - | - | - | - |
| PM2 | PMXxx ..6 ..8 -EB45 | 0,10- 0,20 | 0,10 -0,30 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | - | 50 (30-80) | 70 (40-100) | - | - | - | - | - | - | - | - |
| PM3 | PMXxx ..6 ..8 -EB45 | 0,10- 0,20 | 0,10 -0,30 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | - | 50 (30-80) | 70 (40-100) | - | - | - | - | - | - | - | - |
| TS1 | PMXxx ..6 ..8 -EB45 | 0,10 -0,15 | 0,10 -0,20 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | 20 (15-25) | - | 40 (20-60) | - | - | - | - | - | - | - | - |
| TS2 | PMXxx ..6 ..8 -EB45 | 0,10 -0,15 | 0,10 -0,20 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | 20 (15-25) | - | 40 (20-60) | - | - | - | - | - | - | - | - |
| TS3 | PMXxx ..6 ..8 -EB45 | 0,10 -0,15 | 0,10 -0,20 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | 20 (15-25) | - | 40 (20-60) | - | - | - | - | - | - | - | - |
| TS4 | PMXxx ..6 ..8 -EB45 | 0,10 -0,15 | 0,10 -0,20 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | 20 (15-25) | - | 40 (20-60) | - | - | - | - | - | - | - | - |
| TP1 | PMXxx ..6 ..8 -EB45 | 0,10 -0,15 | 0,10 -0,20 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | 20 (15-25) | - | 40 (20-60) | - | - | - | - | - | - | - | - |
| TP2 | PMXxx ..6 ..8 -EB45 | 0,10 -0,15 | 0,10 -0,20 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | 20 (15-25) | - | 40 (20-60) | - | - | - | - | - | - | - | - |
| TP3 | PMXxx ..6 ..8 -EB45 | 0,10 -0,15 | 0,10 -0,20 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | 20 (15-25) | - | 40 (20-60) | - | - | - | - | - | - | - | - |
| TP4 | PMXxx ..6 ..8 -EB45 | 0,10 -0,15 | 0,10 -0,20 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | 20 (15-25) | - | 40 (20-60) | - | - | - | - | - | - | - | - |
| GR1 | PMXxx ..6 ..8 -EB45 | 0,10 -0,30 | 0,10 -0,40 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | 40 (80-20) | - | 60 (30-120) | - | - | - | - | - | - | - | - |

SMG = Seco material group
$a_p$ = mm
f = mm/rev
$v_c$= m/min
All cutting data are start values

## Cutting data – PM Plus...-EB45 *inch*

| SMG | | $a_p$ (∅) | | f | | | $v_c$ | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | z=6 | z=8 z=10 | z=6 | z=8 | z=10 | H15 | CP20 | RX2000 | RK2050 | CF | RX1500 | RK1550 | RN2010 | RM2020 | RM2090 | RS2090 |
| P1 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.012 | .012 -.035 | .016 -.047 | .020 -.059 | 80 (50-100) | 195 (100-330) | 260 (100-490) | – | 590 (295-655) | 720 (395-985) | – | – | – | – | – |
| P2 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.012 | .012 -.035 | .016 -.047 | .020 -.059 | 80 (50-100) | 195 (100-330) | 260 (100-490) | – | 590 (295-655) | 720 (395-985) | – | – | – | – | – |
| P3 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.012 | .012 -.035 | .016 -.047 | .020 -.059 | 80 (50-100) | 195 (100-330) | 260 (100-490) | – | 590 (295-655) | 720 (395-985) | – | – | – | – | – |
| P4 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.012 | .008 -.028 | .012 -.039 | .016 -.047 | 65 (35-80) | 165 (100-260) | 195 (100-395) | – | 395 (260-490) | 590 (295-655) | – | – | – | – | – |
| P5 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.012 | .008 -.028 | .012 -.039 | .016 -.047 | 65 (35-80) | 165 (100-260) | 195 (100-395) | – | 395 (260-490) | 590 (295-655) | – | – | – | – | – |
| P6 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.012 | .008 -.028 | .012 -.039 | .016 -.047 | 65 (35-80) | 165 (100-260) | 195 (100-395) | – | 395 (260-490) | 590 (295-655) | – | – | – | – | – |
| P7 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.012 | .008 -.028 | .012 -.039 | .016 -.047 | 65 (35-80) | 165 (100-260) | 195 (100-395) | – | 395 (260-490) | 590 (295-655) | – | – | – | – | – |
| P8 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.012 | .008 -.028 | .012 -.039 | .016 -.047 | 50 (35-65) | 115 (65-195) | 130 (65-260) | – | 260 (195-395) | 395 (260-590) | – | – | – | – | – |
| P11 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.012 | .008 -.028 | .012 -.039 | .016 -.047 | 50 (35-65) | 115 (65-195) | 130 (65-260) | – | 260 (195-395) | 395 (260-590) | – | – | – | – | – |
| P12 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.008 | .008 -.028 | .012 -.039 | .016 -.047 | 40 (25-50) | 80 (50-130) | 100 (50-215) | – | 215 (150-315) | 315 (215-480) | – | – | – | – | – |
| M1 | PMXxx ..6 ..8 -EB45 | .003 -.006 | .004 -.008 | .008 -.024 | .012 -.031 | .016 -.039 | 40 (30-50) | 80 (50-130) | 115 (65-230) | – | – | – | – | – | 80 (50-130) | 130 (80-260) | – |
| M2 | PMXxx ..6 ..8 -EB45 | .003 -.006 | .004 -.008 | .008 -.024 | .012 -.031 | .016 -.039 | – | 80 (50-130) | 115 (65-230) | – | – | – | – | – | 80 (50-130) | 130 (80-260) | – |
| M3 | PMXxx ..6 ..8 -EB45 | .003 -.006 | .004 -.008 | .008 -.024 | .012 -.031 | .016 -.039 | – | 80 (50-130) | 115 (65-230) | – | – | – | – | – | 80 (50-130) | 130 (80-260) | – |
| M4 | PMXxx ..6 ..8 -EB45 | .003 -.006 | .004 -.008 | .008 -.024 | .012 -.031 | .016 -.039 | – | 65 (35-100) | 80 (50-165) | – | – | – | – | – | 65 (35-100) | 100 (65-195) | – |
| M5 | PMXxx ..6 ..8 -EB45 | .003 -.006 | .004 -.008 | .008 -.024 | .012 -.031 | .016 -.039 | – | 65 (35-100) | 80 (50-165) | – | – | – | – | – | 65 (35-100) | 100 (65-195) | – |
| K1 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.010 | .012 -.035 | .016 -.047 | .020 -.059 | 80 (50-100) | 195 (130-330) | 260 (100-490) | 290 (110-550) | – | 720 (395-985) | 805 (440-1105) | – | – | – | – |
| K2 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.010 | .012 -.035 | .016 -.047 | .020 -.059 | – | 80 (65-130) | 130 (100-230) | 145 (110-260) | – | 260 (165-330) | 290 (185-370) | – | – | – | – |
| K3 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.010 | .012 -.035 | .016 -.047 | .020 -.059 | 80 (50-100) | 195 (130-330) | 260 (100-490) | 290 (110-550) | – | 720 (395-985) | 805 (440-1105) | – | – | – | – |
| K4 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.010 | .012 -.035 | .016 -.047 | .020 -.059 | 80 (50-100) | 150 (100-230) | 230 (130-395) | 260 (145-440) | 330 (230-490) | 490 (260-655) | 550 (290-735) | – | – | – | – |
| K5 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.010 | .012 -.035 | .016 -.047 | .020 -.059 | 80 (50-100) | 150 (100-230) | 230 (130-395) | 260 (145-440) | 330 (230-490) | 490 (260-655) | 550 (290-735) | – | – | – | – |
| K6 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.010 | .012 -.035 | .016 -.047 | .020 -.059 | – | 195 (130-330) | 260 (100-490) | 290 (110-550) | – | 720 (395-985) | 805 (440-1105) | – | – | – | – |
| K7 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.010 | .012 -.035 | .016 -.047 | .020 -.059 | – | 195 (130-330) | 260 (100-490) | 290 (110-550) | – | 720 (395-985) | 805 (440-1105) | – | – | – | – |
| N1 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.012 | .012 -.035 | .016 -.047 | .020 -.059 | 165 (100-330) | – | 260 (100-490) | – | – | – | – | 165 (100-330) | – | – | – |
| N2 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.012 | .012 -.035 | .016 -.047 | .020 -.059 | 165 (100-330) | – | 260 (100-490) | – | – | – | – | 165 (100-330) | – | – | – |
| N3 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.012 | .012 -.035 | .016 -.047 | .020 -.059 | 165 (100-330) | – | 260 (100-490) | – | – | – | – | 165 (100-330) | – | – | – |
| N11 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.012 | .012 -.035 | .016 -.047 | .020 -.059 | 165 (100-330) | – | 260 (100-490) | – | – | – | – | 165 (100-330) | – | – | – |
| S1 | PMXxx ..6 ..8 -EB45 | .003 -.006 | .004 -.006 | .008 -.024 | .012 -.031 | .016 -.039 | – | 65 (35-80) | 65 (35-80) | – | – | – | – | – | – | – | 80 (40-100) |
| S2 | PMXxx ..6 ..8 -EB45 | .003 -.006 | .004 -.006 | .008 -.024 | .012 -.031 | .016 -.039 | – | 65 (35-80) | 65 (35-80) | – | – | – | – | – | – | – | 80 (40-100) |
| S3 | PMXxx ..6 ..8 -EB45 | .003 -.006 | .004 -.006 | .008 -.024 | .012 -.031 | .016 -.039 | – | 65 (35-80) | 65 (35-80) | – | – | – | – | – | – | – | 80 (40-100) |
| S11 | PMXxx ..6 ..8 -EB45 | .003 -.006 | .004 -.006 | .008 -.024 | .012 -.031 | .016 -.039 | 65 (50-100) | 100 (50-130) | 130 (65-165) | – | – | – | – | – | – | – | 165 (80-215) |
| S12 | PMXxx ..6 ..8 -EB45 | .003 -.006 | .004 -.006 | .008 -.024 | .012 -.031 | .016 -.039 | 65 (50-100) | 100 (50-130) | 130 (65-165) | – | – | – | – | – | – | – | 165 (80-215) |
| S13 | PMXxx ..6 ..8 -EB45 | .003 -.006 | .004 -.006 | .008 -.024 | .012 -.031 | .016 -.039 | 65 (50-100) | 100 (50-130) | 130 (65-165) | – | – | – | – | – | – | – | 165 (80-215) |

The table continues on next page.

## Cutting data – PM Plus...-EB45 *inch*

| SMG | | $a_p$ (∅) | | f | | | $v_c$ | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | z=6 | z=8 z=10 | z=6 | z=8 | z=10 | H15 | CP20 | RX2000 | RK2050 | CF | RX1500 | RK1550 | RN2010 | RM2020 | RM2090 | RS2090 |
| H5 | *PMXxx ..6 ..8 -EB45* | .003 -.006 | .004 -.006 | .008 -.016 | .012 -.024 | .016 -.030 | – | – | 35 (25-50) | – | – | – | – | - | - | - | - |
| H7 | *PMXxx ..6 ..8 -EB45* | .003 -.006 | .004 -.006 | .008 -.016 | .012 -.024 | .016 -.030 | – | – | 35 (25-50) | – | – | – | – | - | - | - | - |
| H8 | *PMXxx ..6 ..8 -EB45* | .003 -.006 | .004 -.006 | .008 -.016 | .012 -.024 | .016 -.030 | – | – | 35 (25-50) | – | – | – | – | - | - | - | - |
| H11 | *PMXxx ..6 ..8 -EB45* | .003 -.006 | .004 -.006 | .008 -.016 | .012 -.024 | .016 -.030 | – | – | 35 (25-50) | – | – | – | – | - | - | - | - |
| H12 | *PMXxx ..6 ..8 -EB45* | .003 -.006 | .004 -.006 | .008 -.016 | .012 -.024 | .016 -.030 | – | – | 35 (25-50) | – | – | – | – | - | - | - | - |
| H21 | *PMXxx ..6 ..8 -EB45* | .003 -.006 | .004 -.006 | .008 -.016 | .012 -.024 | .016 -.030 | – | – | 35 (25-50) | – | – | – | – | - | - | - | - |
| H31 | *PMXxx ..6 ..8 -EB45* | .003 -.006 | .004 -.006 | .008 -.016 | .012 -.024 | .016 -.030 | – | – | 35 (25-50) | – | – | – | – | - | - | - | - |
| PM1 | *PMXxx ..6 ..8 -EB45* | .004 -.008 | .004 -.012 | .012 -.035 | .016 -.047 | .020 -.059 | – | 165 (100-260) | 230 (130-330) | – | – | – | – | - | - | - | - |
| PM2 | *PMXxx ..6 ..8 -EB45* | .004 -.008 | .004 -.012 | .012 -.035 | .016 -.047 | .020 -.059 | – | 165 (100-260) | 230 (130-330) | – | – | – | – | - | - | - | - |
| PM3 | *PMXxx ..6 ..8 -EB45* | .004 -.008 | .004 -.012 | .012 -.035 | .016 -.047 | .020 -.059 | – | 165 (100-260) | 230 (130-330) | – | – | – | – | - | - | - | - |
| TS1 | *PMXxx ..6 ..8 -EB45* | .004 -.006 | .004 -.008 | .012 -.035 | .016 -.047 | .020 -.059 | 65 (50-80) | – | 130 (65-195) | – | – | – | – | - | - | - | - |
| TS2 | *PMXxx ..6 ..8 -EB45* | .004 -.006 | .004 -.008 | .012 -.035 | .016 -.047 | .020 -.059 | 65 (50-80) | – | 130 (65-195) | – | – | – | – | - | - | - | - |
| TS3 | *PMXxx ..6 ..8 -EB45* | .004 -.006 | .004 -.008 | .012 -.035 | .016 -.047 | .020 -.059 | 65 (50-80) | – | 130 (65-195) | – | – | – | – | - | - | - | - |
| TS4 | *PMXxx ..6 ..8 -EB45* | .004 -.006 | .004 -.008 | .012 -.035 | .016 -.047 | .020 -.059 | 65 (50-80) | – | 130 (65-195) | – | – | – | – | - | - | - | - |
| TP1 | *PMXxx ..6 ..8 -EB45* | .004 -.006 | .004 -.008 | .012 -.035 | .016 -.047 | .020 -.059 | 65 (50-80) | – | 130 (65-195) | – | – | – | – | - | - | - | - |
| TP2 | *PMXxx ..6 ..8 -EB45* | .004 -.006 | .004 -.008 | .012 -.035 | .016 -.047 | .020 -.059 | 65 (50-80) | – | 130 (65-195) | – | – | – | – | - | - | - | - |
| TP3 | *PMXxx ..6 ..8 -EB45* | .004 -.006 | .004 -.008 | .012 -.035 | .016 -.047 | .020 -.059 | 65 (50-80) | – | 130 (65-195) | – | – | – | – | - | - | - | - |
| TP4 | *PMXxx ..6 ..8 -EB45* | .004 -.006 | .004 -.008 | .012 -.035 | .016 -.047 | .020 -.059 | 65 (50-80) | – | 130 (65-195) | – | – | – | – | - | - | - | - |
| GR1 | *PMXxx ..6 ..8 -EB45* | .004 -.012 | .004 -.016 | .012 -.035 | .016 -.047 | .020 -.059 | 130 (260-65) | – | 195 (100-395) | – | – | – | – | - | - | - | - |

SMG = Seco material group
$a_p$ = *inch*
f = in/rev
$v_c$= sf/min
All cutting data are start values

## Cutting data – PM Plus...-EB845 metric

| SMG | | $a_p$ (∅) | | f | | | $v_c$ | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | z=6 | z=8 z=10 | z=6 | z=8 | z=10 | H15 | CP20 | RX2000 | RK2050 | CF | RX1500 | RK1550 | RM2020 | RM2090 | RS2090 |
| P3 | PMXxx ..6 ..8 -EB845 | 0,10 -0,20 | 0,10 -0,30 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | 25 (15-30) | 60 (30-100) | 80 (30-150) | – | 180 (90-200) | 220 (120-300) | – | – | – | – |
| P4 | PMXxx ..6 ..8 -EB845 | 0,10 -0,20 | 0,10 -0,30 | 0,20 -0,70 | 0,30 -1,00 | 0,40 -1,20 | 20 (10-25) | 50 (30-80) | 60 (30-120) | – | 120 (80-150) | 180 (90-200) | – | – | – | – |
| P5 | PMXxx ..6 ..8 -EB845 | 0,10 -0,20 | 0,10 -0,30 | 0,20 -0,70 | 0,30 -1,00 | 0,40 -1,20 | 20 (10-25) | 50 (30-80) | 60 (30-120) | – | 120 (80-150) | 180 (90-200) | – | – | – | – |
| P6 | PMXxx ..6 ..8 -EB845 | 0,10 -0,20 | 0,10 -0,30 | 0,20 -0,70 | 0,30 -1,00 | 0,40 -1,20 | 20 (10-25) | 50 (30-80) | 60 (30-120) | – | 120 (80-150) | 180 (90-200) | – | – | – | – |
| P7 | PMXxx ..6 ..8 -EB845 | 0,10 -0,20 | 0,10 -0,30 | 0,20 -0,70 | 0,30 -1,00 | 0,40 -1,20 | 20 (10-25) | 50 (30-80) | 60 (30-120) | – | 120 (80-150) | 180 (90-200) | – | – | – | – |
| P8 | PMXxx ..6 ..8 -EB845 | 0,10 -0,20 | 0,10 -0,30 | 0,20 -0,70 | 0,30 -1,00 | 0,40 -1,20 | 15 (10-20) | 35 (20-60) | 40 (20-80) | – | 80 (60-120) | 120 (80-180) | – | – | – | – |
| P11 | PMXxx ..6 ..8 -EB845 | 0,10 -0,20 | 0,10 -0,30 | 0,20 -0,70 | 0,30 -1,00 | 0,40 -1,20 | 15 (10-20) | 35 (20-60) | 40 (20-80) | – | 80 (60-120) | 120 (80-180) | – | – | – | – |
| P12 | PMXxx ..6 ..8 -EB845 | 0,10 -0,20 | 0,10 -0,30 | 0,20 -0,70 | 0,30 -1,00 | 0,40 -1,20 | 12 (8-15) | 25 (15-45) | 30 (15-65) | – | 65 (45-95) | 95 (65-145) | – | – | – | – |
| M1 | PMXxx ..6 ..8 -EB845 | 0,08 -0,15 | 0,10 -0,20 | 0,20 -0,60 | 0,30 -0,80 | 0,40 -1,00 | 12 (9-15) | 25 (15-45) | 35 (20-70) | – | – | – | – | 25 (15-40) | 35 (20-70) | – |
| M2 | PMXxx ..6 ..8 -EB845 | 0,08 -0,15 | 0,10 -0,20 | 0,20 -0,60 | 0,30 -0,80 | 0,40 -1,00 | – | 25 (15-45) | 35 (20-70) | – | – | – | – | 25 (15-40) | 35 (20-70) | – |
| M3 | PMXxx ..6 ..8 -EB845 | 0,08 -0,15 | 0,10 -0,20 | 0,20 -0,60 | 0,30 -0,80 | 0,40 -1,00 | – | 25 (15-45) | 35 (20-70) | – | – | – | – | 25 (15-40) | 35 (20-70) | – |
| M4 | PMXxx ..6 ..8 -EB845 | 0,08 -0,15 | 0,10 -0,20 | 0,20 -0,60 | 0,30 -0,80 | 0,40 -1,00 | – | 20 (10-30) | 25 (15-50) | – | – | – | – | 20 (10-30) | 25 (15-50) | – |
| M5 | PMXxx ..6 ..8 -EB845 | 0,08 -0,15 | 0,10 -0,20 | 0,20 -0,60 | 0,30 -0,80 | 0,40 -1,00 | – | 20 (10-30) | 25 (15-50) | – | – | – | – | 20 (10-30) | 25 (15-50) | – |
| K1 | PMXxx ..6 ..8 -EB845 | 0,10 -0,20 | 0,10 -0,25 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | 25 (15-30) | 60 (40-100) | 80 (30-150) | 90 (35-170) | – | 220 (120-300) | 245 (135-335) | – | – | – |
| K2 | PMXxx ..6 ..8 -EB845 | 0,10 -0,20 | 0,10 -0,25 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | – | 25 (20-40) | 40 (30-70) | 45 (35-80) | – | 80 (50-100) | 90 (55-110) | – | – | – |
| K3 | PMXxx ..6 ..8 -EB845 | 0,10 -0,20 | 0,10 -0,25 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | 25 (15-30) | 60 (40-100) | 80 (30-150) | 90 (35-170) | – | 220 (120-300) | 245 (135-335) | – | – | – |
| K4 | PMXxx ..6 ..8 -EB845 | 0,10 -0,20 | 0,10 -0,25 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | 25 (15-30) | 45 (30-70) | 70 (40-120) | 80 (45-135) | 100 (70-150) | 150 (80-200) | 170 (90-225) | – | – | – |
| K5 | PMXxx ..6 ..8 -EB845 | 0,10 -0,20 | 0,10 -0,25 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | 25 (15-30) | 45 (30-70) | 70 (40-120) | 80 (45-135) | 100 (70-150) | 150 (80-200) | 170 (90-225) | – | – | – |
| K6 | PMXxx ..6 ..8 -EB845 | 0,10 -0,20 | 0,10 -0,25 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | – | 60 (40-100) | 80 (30-150) | 90 (35-170) | – | 220 (120-300) | 245 (135-335) | – | – | – |
| K7 | PMXxx ..6 ..8 -EB845 | 0,10 -0,20 | 0,10 -0,25 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | – | 60 (40-100) | 80 (30-150) | 90 (35-170) | – | 220 (120-300) | 245 (135-335) | – | – | – |
| S1 | PMXxx ..6 ..8 -EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,20 -0,60 | 0,30 -0,80 | 0,40 -1,00 | – | 20 (10-25) | 20 (10-25) | – | – | – | – | – | – | 25 (12-30) |
| S2 | PMXxx ..6 ..8 -EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,20 -0,60 | 0,30 -0,80 | 0,40 -1,00 | – | 20 (10-25) | 20 (10-25) | – | – | – | – | – | – | 25 (12-30) |
| S3 | PMXxx ..6 ..8 -EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,20 -0,60 | 0,30 -0,80 | 0,40 -1,00 | – | 20 (10-25) | 20 (10-25) | – | – | – | – | – | – | 25 (12-30) |
| S11 | PMXxx ..6 ..8 -EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,20 -0,60 | 0,30 -0,80 | 0,40 -1,00 | 20 (15-30) | 30 (15-40) | 40 (20-50) | – | – | – | – | – | – | 50 (25-65) |
| S12 | PMXxx ..6 ..8 -EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,20 -0,60 | 0,30 -0,80 | 0,40 -1,00 | 20 (15-30) | 30 (15-40) | 40 (20-50) | – | – | – | – | – | – | 50 (25-65) |
| S13 | PMXxx ..6 ..8 -EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,20 -0,60 | 0,30 -0,80 | 0,40 -1,00 | 20 (15-30) | 30 (15-40) | 40 (20-50) | – | – | – | – | – | – | 50 (25-65) |
| H3 | PMXxx ..6 ..8 -EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,20 -0,40 | 0,30 -0,60 | 0,40 -0,75 | – | – | 10 (8-15) | – | – | – | – | – | – | – |
| H5 | PMXxx ..6 ..8 -EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,20 -0,40 | 0,30 -0,60 | 0,40 -0,75 | – | – | 10 (8-15) | – | – | – | – | – | – | – |
| H7 | PMXxx ..6 ..8 -EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,20 -0,40 | 0,30 -0,60 | 0,40 -0,75 | – | – | 10 (8-15) | – | – | – | – | – | – | – |
| H8 | PMXxx ..6 ..8 -EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,20 -0,40 | 0,30 -0,60 | 0,40 -0,75 | – | – | 10 (8-15) | – | – | – | – | – | – | – |
| H11 | PMXxx ..6 ..8 -EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,20 -0,40 | 0,30 -0,60 | 0,40 -0,75 | – | – | 10 (8-15) | – | – | – | – | – | – | – |
| H12 | PMXxx ..6 ..8 -EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,20 -0,40 | 0,30 -0,60 | 0,40 -0,75 | – | – | 10 (8-15) | – | – | – | – | – | – | – |
| H21 | PMXxx ..6 ..8 -EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,20 -0,40 | 0,30 -0,60 | 0,40 -0,75 | – | – | 10 (8-15) | – | – | – | – | – | – | – |
| H31 | PMXxx ..6 ..8 -EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,20 -0,40 | 0,30 -0,60 | 0,40 -0,75 | – | – | 10 (8-15) | – | – | – | – | – | – | – |
| PM1 | PMXxx ..6 ..8 -EB845 | 0,10- 0,20 | 0,10 -0,30 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | – | 50 (30-80) | 70 (40-100) | – | – | – | – | – | – | – |
| PM2 | PMXxx ..6 ..8 -EB845 | 0,10- 0,20 | 0,10 -0,30 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | – | 50 (30-80) | 70 (40-100) | – | – | – | – | – | – | – |
| PM3 | PMXxx ..6 ..8 -EB845 | 0,10- 0,20 | 0,10 -0,30 | 0,30 -0,90 | 0,40 -1,20 | 0,50 -1,50 | – | 50 (30-80) | 70 (40-100) | – | – | – | – | – | – | – |

SMG = Seco material group
$a_p$ = mm
f = mm/rev
$v_c$= m/min
All cutting data are start values

## Cutting data – PM Plus...-EB845 *inch*

| SMG | | $a_p$ (∅) | | f | | | $v_c$ | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | z=6 | z=8 z=10 | z=6 | z=8 | z=10 | H15 | CP20 | RX2000 | RK2050 | CF | RX1500 | RK1550 | RM2020 | RM2090 | RS2090 |
| P3 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.012 | .012 -.035 | .016 -.047 | .020 -.059 | 80 (50-100) | 195 (100-330) | 260 (100-490) | – | 590 (295-655) | 720 (395-985) | – | – | – | – |
| P4 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.012 | .008 -.028 | .012 -.039 | .016 -.047 | 65 (35-80) | 165 (100-260) | 195 (100-395) | – | 395 (260-490) | 590 (295-655) | – | – | – | – |
| P5 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.012 | .008 -.028 | .012 -.039 | .016 -.047 | 65 (35-80) | 165 (100-260) | 195 (100-395) | – | 395 (260-490) | 590 (295-655) | – | – | – | – |
| P6 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.012 | .008 -.028 | .012 -.039 | .016 -.047 | 65 (35-80) | 165 (100-260) | 195 (100-395) | – | 395 (260-490) | 590 (295-655) | – | – | – | – |
| P7 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.012 | .008 -.028 | .012 -.039 | .016 -.047 | 65 (35-80) | 165 (100-260) | 195 (100-395) | – | 395 (260-490) | 590 (295-655) | – | – | – | – |
| P8 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.012 | .008 -.028 | .012 -.039 | .016 -.047 | 50 (35-65) | 115 (65-195) | 130 (65-260) | – | 260 (195-395) | 395 (260-590) | – | – | – | – |
| P11 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.012 | .008 -.028 | .012 -.039 | .016 -.047 | 50 (35-65) | 115 (65-195) | 130 (65-260) | – | 260 (195-395) | 395 (260-590) | – | – | – | – |
| P12 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.012 | .008 -.028 | .012 -.039 | .016 -.047 | 40 (25-50) | 80 (50-130) | 100 (50-215) | – | 215 (150-315) | 315 (215-480) | – | – | | |
| M1 | PMXxx ..6 ..8 -EB45 | .003 -.006 | .004 -.008 | .008 -.024 | .012 -.031 | .016 -.039 | 40 (30-50) | 80 (50-130) | 115 (65-230) | – | – | – | – | 80 (50-130) | 115 (65-230) | – |
| M2 | PMXxx ..6 ..8 -EB45 | .003 -.006 | .004 -.008 | .008 -.024 | .012 -.031 | .016 -.039 | – | 80 (50-130) | 115 (65-230) | – | – | – | – | 80 (50-130) | 115 (65-230) | – |
| M3 | PMXxx ..6 ..8 -EB45 | .003 -.006 | .004 -.008 | .008 -.024 | .012 -.031 | .016 -.039 | – | 80 (50-130) | 115 (65-230) | – | – | – | – | 80 (50-130) | 115 (65-230) | – |
| M4 | PMXxx ..6 ..8 -EB45 | .003 -.006 | .004 -.008 | .008 -.024 | .012 -.031 | .016 -.039 | – | 65 (35-100) | 80 (50-165) | – | – | – | – | 65 (35-100) | 80 (50-165) | – |
| M5 | PMXxx ..6 ..8 -EB45 | .003 -.006 | .004 -.008 | .008 -.024 | .012 -.031 | .016 -.039 | – | 65 (35-100) | 80 (50-165) | – | – | – | – | 65 (35-100) | 80 (50-165) | – |
| K1 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.010 | .012 -.035 | .016 -.047 | .020 -.059 | 80 (50-100) | 195 (130-330) | 260 (100-490) | 290 (110-550) | – | 720 (395-985) | 805 (440-1105) | – | – | – |
| K2 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.010 | .012 -.035 | .016 -.047 | .020 -.059 | – | 80 (65-130) | 130 (100-230) | 145 (110-260) | – | 260 (165-330) | 290 (185-370) | – | – | – |
| K3 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.010 | .012 -.035 | .016 -.047 | .020 -.059 | 80 (50-100) | 195 (130-330) | 260 (100-490) | 290 (110-550) | – | 720 (395-985) | 805 (440-1105) | – | – | – |
| K4 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.010 | .012 -.035 | .016 -.047 | .020 -.059 | 80 (50-100) | 150 (100-230) | 230 (130-395) | 260 (145-440) | 330 (230-490) | 490 (260-655) | 550 (290-735) | – | – | – |
| K5 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.010 | .012 -.035 | .016 -.047 | .020 -.059 | 80 (50-100) | 150 (100-230) | 230 (130-395) | 260 (145-440) | 330 (230-490) | 490 (260-655) | 550 (290-735) | – | – | – |
| K6 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.010 | .012 -.035 | .016 -.047 | .020 -.059 | – | 195 (130-330) | 260 (100-490) | 290 (110-550) | – | 720 (395-985) | 805 (440-1105) | – | – | – |
| K7 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.010 | .012 -.035 | .016 -.047 | .020 -.059 | – | 195 (130-330) | 260 (100-490) | 290 (110-550) | – | 720 (395-985) | 805 (440-1105) | – | – | - |
| S1 | PMXxx ..6 ..8 -EB45 | .003 -.006 | .004 -.006 | .008 -.024 | .012 -.031 | .016 -.039 | – | 65 (35-80) | 65 (35-80) | – | – | – | – | – | – | 80 (40-100) |
| S2 | PMXxx ..6 ..8 -EB45 | .003 -.006 | .004 -.006 | .008 -.024 | .012 -.031 | .016 -.039 | – | 65 (35-80) | 65 (35-80) | – | – | – | – | – | – | 80 (40-100) |
| S3 | PMXxx ..6 ..8 -EB45 | .003 -.006 | .004 -.006 | .008 -.024 | .012 -.031 | .016 -.039 | – | 65 (35-80) | 65 (35-80) | – | – | – | – | – | – | 80 (40-100) |
| S11 | PMXxx ..6 ..8 -EB45 | .003 -.006 | .004 -.006 | .008 -.024 | .012 -.031 | .016 -.039 | 65 (50-100) | 100 (50-130) | 130 (65-165) | – | – | – | – | – | – | 165 (80-215) |
| S12 | PMXxx ..6 ..8 -EB45 | .003 -.006 | .004 -.006 | .008 -.024 | .012 -.031 | .016 -.039 | 65 (50-100) | 100 (50-130) | 130 (65-165) | – | – | – | – | – | – | 165 (80-215) |
| S13 | PMXxx ..6 ..8 -EB45 | .003 -.006 | .004 -.006 | .008 -.024 | .012 -.031 | .016 -.039 | 65 (50-100) | 100 (50-130) | 130 (65-165) | – | – | – | – | – | – | 165 (80-215) |
| H3 | PMXxx ..6 ..8 -EB45 | .003 -.006 | .004 -.006 | .008 -.016 | .012 -.024 | .016 -.030 | – | – | 35 (25-50) | – | – | – | – | – | – | – |
| H5 | PMXxx ..6 ..8 -EB45 | .003 -.006 | .004 -.006 | .008 -.016 | .012 -.024 | .016 -.030 | – | – | 35 (25-50) | – | – | – | – | – | – | – |
| H7 | PMXxx ..6 ..8 -EB45 | .003 -.006 | .004 -.006 | .008 -.016 | .012 -.024 | .016 -.030 | – | – | 35 (25-50) | – | – | – | – | – | – | – |
| H8 | PMXxx ..6 ..8 -EB45 | .003 -.006 | .004 -.006 | .008 -.016 | .012 -.024 | .016 -.030 | – | – | 35 (25-50) | – | – | – | – | – | – | – |
| H11 | PMXxx ..6 ..8 -EB45 | .003 -.006 | .004 -.006 | .008 -.016 | .012 -.024 | .016 -.030 | – | – | 35 (25-50) | – | – | – | – | – | – | – |
| H12 | PMXxx ..6 ..8 -EB45 | .003 -.006 | .004 -.006 | .008 -.016 | .012 -.024 | .016 -.030 | – | – | 35 (25-50) | – | – | – | – | – | – | – |
| H21 | PMXxx ..6 ..8 -EB45 | .003 -.006 | .004 -.006 | .008 -.016 | .012 -.024 | .016 -.030 | – | – | 35 (25-50) | – | – | – | – | – | – | – |
| H31 | PMXxx ..6 ..8 -EB45 | .003 -.006 | .004 -.006 | .008 -.016 | .012 -.024 | .016 -.030 | – | – | 35 (25-50) | – | – | – | – | – | – | – |
| PM1 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.012 | .012 -.035 | .016 -.047 | .020 -.059 | – | 165 (100-260) | 230 (130-330) | – | – | – | – | – | – | – |
| PM2 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.012 | .012 -.035 | .016 -.047 | .020 -.059 | – | 165 (100-260) | 230 (130-330) | – | – | – | – | – | – | – |
| PM3 | PMXxx ..6 ..8 -EB45 | .004 -.008 | .004 -.012 | .012 -.035 | .016 -.047 | .020 -.059 | – | 165 (100-260) | 230 (130-330) | – | – | – | – | – | – | – |

SMG = Seco material group
$a_p$ = *inch*
f = in/rev
$v_c$= sf/min
All cutting data are start values

## Cutting data – Plus... -EB25/EB30 metric

| SMG | | $a_p$ (∅) | | f | | | $v_c$ | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | z=6 | z=8 z=10 | z=6 | z=8 | z=10 | H15 | CP20 | RX2000 | RK2050 | CF | RX1500 | RK1550 |
| P1 | PMXxx ..6 ..8 -EB25/EB30 | 0,10-0,20 | 0,10-0,30 | 0,80-1,80 | 1,00-2,40 | 1,20-3,00 | 25 (15-30) | 60 (30-100) | 80 (30-150) | – | 180 (90-200) | 220 (120-300) | – |
| P2 | PMXxx ..6 ..8 -EB25/EB30 | 0,10-0,20 | 0,10-0,30 | 0,80-1,80 | 1,00-2,40 | 1,20-3,00 | 25 (15-30) | 60 (30-100) | 80 (30-150) | – | 180 (90-200) | 220 (120-300) | – |
| P3 | PMXxx ..6 ..8 -EB25/EB30 | 0,10-0,20 | 0,10-0,30 | 0,80-1,80 | 1,00-2,40 | 1,20-3,00 | 25 (15-30) | 60 (30-100) | 80 (30-150) | – | 180 (90-200) | 220 (120-300) | – |
| P4 | PMXxx ..6 ..8 -EB25/EB30 | 0,10-0,20 | 0,10-0,30 | 0,80-1,80 | 1,00-2,40 | 1,20-3,00 | 20 (10-25) | 50 (30-80) | 60 (30-120) | – | 120 (80-150) | 180 (90-200) | – |
| P5 | PMXxx ..6 ..8 -EB25/EB30 | 0,10-0,20 | 0,10-0,30 | 0,80-1,80 | 1,00-2,40 | 1,20-3,00 | 20 (10-25) | 50 (30-80) | 60 (30-120) | – | 120 (80-150) | 180 (90-200) | – |
| P6 | PMXxx ..6 ..8 -EB25/EB30 | 0,10-0,20 | 0,10-0,30 | 0,80-1,80 | 1,00-2,40 | 1,20-3,00 | 20 (10-25) | 50 (30-80) | 60 (30-120) | – | 120 (80-150) | 180 (90-200) | – |
| P7 | PMXxx ..6 ..8 -EB25/EB30 | 0,10-0,20 | 0,10-0,30 | 0,80-1,80 | 1,00-2,40 | 1,20-3,00 | 20 (10-25) | 50 (30-80) | 60 (30-120) | – | 120 (80-150) | 180 (90-200) | – |
| M1 | PMXxx ..6 ..8 -EB25/EB30 | 0,08-0,15 | 0,10-0,20 | 0,80-1,20 | 1,00-2,00 | 1,20-2,50 | – | 25 (15-40) | 35 (20-70) | – | – | – | – |
| K1 | PMXxx ..6 ..8 -EB25/EB30 | 0,10-0,20 | 0,10-0,25 | 0,80-2,20 | 1,00-2,80 | 1,20-3,50 | 25 (15-30) | 60 (40-100) | 80 (30-150) | 90 (35-170) | – | 220 (120-300) | 245 (135-335) |
| K2 | PMXxx ..6 ..8 -EB25/EB30 | 0,10-0,20 | 0,10-0,25 | 0,80-1,80 | 1,00-2,40 | 1,20-3,00 | – | 25 (20-40) | 40 (30-70) | 45 (35-80) | – | 80 (50-100) | 90 (55-110) |
| K3 | PMXxx ..6 ..8 -EB25/EB30 | 0,10-0,20 | 0,10-0,25 | 0,80-2,20 | 1,00-2,80 | 1,20-3,50 | 25 (15-30) | 60 (40-100) | 80 (30-150) | 90 (35-170) | – | 220 (120-300) | 245 (135-335) |
| K4 | PMXxx ..6 ..8 -EB25/EB30 | 0,10-0,20 | 0,10-0,25 | 0,80-2,20 | 1,00-2,80 | 1,20-3,50 | 25 (15-30) | 45 (30-70) | 70 (40-120) | 80 (45-135) | 100 (70-150) | 150 (80-200) | 170 (90-225) |
| K5 | PMXxx ..6 ..8 -EB25/EB30 | 0,10-0,20 | 0,10-0,25 | 0,80-2,20 | 1,00-2,80 | 1,20-3,50 | 25 (15-30) | 45 (30-70) | 70 (40-120) | 80 (45-135) | 100 (70-150) | 150 (80-200) | 170 (90-225) |
| K6 | PMXxx ..6 ..8 -EB25/EB30 | 0,10-0,20 | 0,10-0,25 | 0,80-1,80 | 1,00-2,40 | 1,20-3,00 | – | 60 (40-100) | 80 (30-150) | 90 (35-170) | – | 220 (120-300) | 245 (135-335) |
| K7 | PMXxx ..6 ..8 -EB25/EB30 | 0,10-0,20 | 0,10-0,25 | 0,80-1,80 | 1,00-2,40 | 1,20-3,00 | – | 60 (40-100) | 80 (30-150) | 90 (35-170) | – | 220 (120-300) | 245 (135-335) |
| N1 | PMXxx ..6 ..8 -EB25/EB30 | 0,10-0,20 | 0,10-0,30 | 0,80-2,20 | 1,00-2,80 | 1,20-3,50 | 50 (30-100) | – | – | – | – | – | – |
| N2 | PMXxx ..6 ..8 -EB25/EB30 | 0,10-0,20 | 0,10-0,30 | 0,80-2,20 | 1,00-2,80 | 1,20-3,50 | 50 (30-100) | – | – | – | – | – | – |
| N3 | PMXxx ..6 ..8 -EB25/EB30 | 0,10-0,20 | 0,10-0,30 | 0,80-2,20 | 1,00-2,80 | 1,20-3,50 | 50 (30-100) | – | – | – | – | – | – |
| N11 | PMXxx ..6 ..8 -EB25/EB30 | 0,10-0,20 | 0,10-0,30 | 0,80-2,20 | 1,00-2,80 | 1,20-3,50 | 50 (30-100) | – | – | – | – | – | – |
| PM1 | PMXxx ..6 ..8 -EB25/EB30 | 0,10-0,20 | 0,10-0,30 | 0,50-1,80 | 0,80-2,00 | 1,00-2,50 | – | 50 (30-80) | 70 (40-100) | – | – | – | – |
| PM2 | PMXxx ..6 ..8 -EB25/EB30 | 0,10-0,20 | 0,10-0,30 | 0,50-1,80 | 0,80-2,00 | 1,00-2,50 | – | 50 (30-80) | 70 (40-100) | – | – | – | – |
| PM3 | PMXxx ..6 ..8 -EB25/EB30 | 0,10-0,20 | 0,10-0,30 | 0,50-1,80 | 0,80-2,00 | 1,00-2,50 | – | 50 (30-80) | 70 (40-100) | – | – | – | – |

SMG = Seco material group
$a_p$ = mm
f = mm/rev
$v_c$= m/min
All cutting data are start values

## Cutting data – PM Plus... -EB25/EB30 *inch*

| SMG | | $a_p$ (∅) | | f | | | $v_c$ | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | z=6 | z=8 z=10 | z=6 | z=8 | z=10 | H15 | CP20 | RX2000 | RK2050 | CF | RX1500 | RK1550 |
| P1 | *PMXxx ..6 ..8 -EB25/EB30* | *.004 –.008* | *.004 –.012* | *.031 –.071* | *.039 –.094* | *.047-.118* | *80 (50-100)* | *195 (100-330)* | *260 (100-490)* | – | *590 (295-655)* | *720 (395-985)* | – |
| P2 | *PMXxx ..6 ..8 -EB25/EB30* | *.004 –.008* | *.004 –.012* | *.031 –.071* | *.039 –.094* | *.047-.118* | *80 (50-100)* | *195 (100-330)* | *260 (100-490)* | – | *590 (295-655)* | *720 (395-985)* | – |
| P3 | *PMXxx ..6 ..8 -EB25/EB30* | *.004 –.008* | *.004 –.012* | *.031 –.071* | *.039 –.094* | *.047-.118* | *80 (50-100)* | *195 (100-330)* | *260 (100-490)* | – | *590 (295-655)* | *720 (395-985)* | – |
| P4 | *PMXxx ..6 ..8 -EB25/EB30* | *.004 –.008* | *.004 –.012* | *.031 –.071* | *.039 –.094* | *.047-.118* | *65 (35-80)* | *165 (100-260)* | *195 (100-395)* | – | *395 (260-490)* | *590 (295-655)* | – |
| P5 | *PMXxx ..6 ..8 -EB25/EB30* | *.004 –.008* | *.004 –.012* | *.031 –.071* | *.039 –.094* | *.047-.118* | *65 (35-80)* | *165 (100-260)* | *195 (100-395)* | – | *395 (260-490)* | *590 (295-655)* | – |
| P6 | *PMXxx ..6 ..8 -EB25/EB30* | *.004 –.008* | *.004 –.012* | *.031 –.071* | *.039 –.094* | *.047-.118* | *65 (35-80)* | *165 (100-260)* | *195 (100-395)* | – | *395 (260-490)* | *590 (295-655)* | – |
| P7 | *PMXxx ..6 ..8 -EB25/EB30* | *.004 –.008* | *.004 –.012* | *.031 –.071* | *.039 –.094* | *.047-.118* | *65 (35-80)* | *165 (100-260)* | *195 (100-395)* | – | *395 (260-490)* | *590 (295-655)* | – |
| M1 | *PMXxx ..6 ..8 -EB25/EB30* | *.003 –.006* | *.004 –.008* | *.031 –.047* | *.039 –.079* | *.039-.098* | – | *80 (50-130)* | *115 (65-230)* | – | – | – | – |
| K1 | *PMXxx ..6 ..8 -EB25/EB30* | *.004 –.008* | *.004 –.010* | *.031 –.087* | *.039 –.110* | *.047-.138* | *80 (50-100)* | *195 (130-330)* | *260 (100-490)* | *290 (110-550)* | – | *720 (395-985)* | *805 (440-1105)* |
| K2 | *PMXxx ..6 ..8 -EB25/EB30* | *.004 –.008* | *.004 –.010* | *.031 –.071* | *.039 –.094* | *.047-.118* | – | *80 (65-130)* | *130 (100-230)* | *145 (110-260)* | – | *260 (165-330)* | *290 (185-370)* |
| K3 | *PMXxx ..6 ..8 -EB25/EB30* | *.004 –.008* | *.004 –.010* | *.031 –.087* | *.039 –.110* | *.047-.138* | *80 (50-100)* | *195 (130-330)* | *260 (100-490)* | *290 (110-550)* | – | *720 (395-985)* | *805 (440-1105)* |
| K4 | *PMXxx ..6 ..8 -EB25/EB30* | *.004 –.008* | *.004 –.010* | *.031 –.087* | *.039 –.110* | *.047-.138* | *80 (50-100)* | *150 (100-230)* | *230 (130-395)* | *260 (145-440)* | *330 (230-490)* | *490 (260-655)* | *550 (290-735)* |
| K5 | *PMXxx ..6 ..8 -EB25/EB30* | *.004 –.008* | *.004 –.010* | *.031 –.087* | *.039 –.110* | *.047-.138* | *80 (50-100)* | *150 (100-230)* | *230 (130-395)* | *260 (145-440)* | *330 (230-490)* | *490 (260-655)* | *550 (290-735)* |
| K6 | *PMXxx ..6 ..8 -EB25/EB30* | *.004 –.008* | *.004 –.010* | *.031 –.071* | *.039 –.094* | *.047-.118* | – | *195 (130-330)* | *260 (100-490)* | *290 (110-550)* | – | *720 (395-985)* | *805 (440-1105)* |
| K7 | *PMXxx ..6 ..8 -EB25/EB30* | *.004 –.008* | *.004 –.010* | *.031 –.071* | *.039 –.094* | *.047-.118* | – | *195 (130-330)* | *260 (100-490)* | *290 (110-550)* | – | *720 (395-985)* | *805 (440-1105)* |
| N1 | *PMXxx ..6 ..8 -EB25/EB30* | *.004 –.008* | *.004 –.012* | *.031 –.087* | *.039 –.110* | *.047-.138* | *165 (100-330)* | – | – | – | – | – | – |
| N2 | *PMXxx ..6 ..8 -EB25/EB30* | *.004 –.008* | *.004 –.012* | *.031 –.087* | *.039 –.110* | *.047-.138* | *165 (100-330)* | – | – | – | – | – | – |
| N3 | *PMXxx ..6 ..8 -EB25/EB30* | *.004 –.008* | *.004 –.012* | *.031 –.087* | *.039 –.110* | *.047-.138* | *165 (100-330)* | – | – | – | – | – | – |
| N11 | *PMXxx ..6 ..8 -EB25/EB30* | *.004 –.008* | *.004 –.012* | *.031 –.087* | *.039 –.110* | *.047-.138* | *165 (100-330)* | – | – | – | – | – | – |
| PM1 | *PMXxx ..6 ..8 -EB25/EB30* | *.004 –.008* | *.004 –.012* | *.020 –.071* | *.031 –.079* | *.039-.098* | – | *165 (100-260)* | *230 (130-330)* | – | – | – | – |
| PM2 | *PMXxx ..6 ..8 -EB25/EB30* | *.004 –.008* | *.004 –.012* | *.020 –.071* | *.031 –.079* | *.039-.098* | – | *165 (100-260)* | *230 (130-330)* | – | – | – | – |
| PM3 | *PMXxx ..6 ..8 -EB25/EB30* | *.004 –.008* | *.004 –.012* | *.020 –.071* | *.031 –.079* | *.039-.098* | – | *165 (100-260)* | *230 (130-330)* | – | – | – | – |

SMG = Seco material group
$a_p$ = *inch*
f = in/rev
$v_c$= sf/min
All cutting data are start values



# Nanofix™

Nanofix™ Solid Carbide Reamers are designed for small diameters from 2.97 to 12.05 mm (.117” - .474”).

- Internal coolant with simple adjustable system so the outlet style can be set for either through or blind bore, depending on application
- Enables tolerances held between 10 and 15 µm (.0004-.0006”)
- Eight available geometries: EB45, EBS45, EB845, EB25, EB30, EBS30, EB60 and EB75

# Range overview

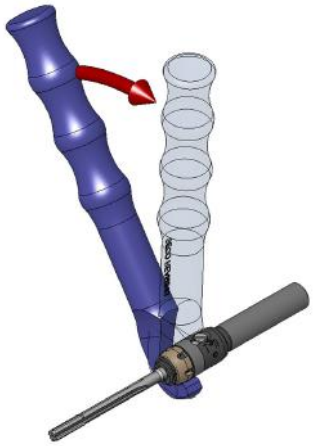
| | ∅ Range | Reaming depth | Hole ∅ tolerance | Intermediate diameter | Surface finish |
|---|---|---|---|---|---|
| **Nanofix™**  | 2,97-12,05 mm *(0.1169-0.4744")* | 5-12 x D | IT 7 | Yes, available through My Design | $R_a$ 0,8-1,2 µm *($R_a$ 31-47 µin)* |

Nanofix™ is a Seco solid carbide reamer programme dedicated for small ∅ from 2,97 to 12,05 mm *(0.1169 to 0.4744")*.
Design includes a unique patented Quick-fit clamping system that will allow it to hold the entire diameter range with only 2 tool holders .
Tool holders have internal coolant with a simple adjustable system so the outlet style can be set for either through or blind bore, depending on application.

# Quick-fit

## Quick-fit

Quick and easy tool change.
Accurate repositioning in run-out and length.



## 2 Quick-fit sizes to cover the complete diameter range



Quick-fit ∅ 10 mm for
∅ 6,051-12,050 mm
*(∅ 0.2382-0.4744")*



Quick-fit ∅ 6 mm for
∅ 2,97-6,050 mm
*(∅ 0.1169-0.2382")*

## Same tool for blind or through hole application



through

Turn coolant style adjusting screw by 1/4 of a revolution to change coolant outlet from through to blind and vice-versa.



blind

# Code keys

## Shanks

| Shank type | | Working length | | Cylindrical shank diameter | | | | |
|---|---|---|---|---|---|---|---|---|
| NFQF06 | – | 03300 | – | 12 | – | N | – | 1 |
| | | | | | | Neutral | | Cyl. shank DIN 1835 |



## Reamers

| Reamer type | | Hole diameter and tolerance | | | | Lead geometry | | Grade |
|---|---|---|---|---|---|---|---|---|
| NF06 | – | 4H7 | – | EB45 | – | | | RX2000 |



## Intermediate diameter reamers

| Reamer type | | Hole diameter and tolerance | | | | Lead geometry | | Grade |
|---|---|---|---|---|---|---|---|---|
| NF6 | – | 10,1H7 | – | EB845 | – | | | RX2000 |
| 0.3976”-0.3983” | | | | | | | | |



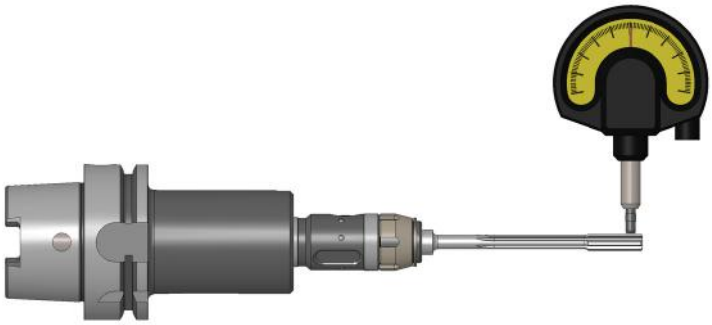
NF06/NF10/NS06/NS10: straight flutes design, suitable for through and blind holes.
NF4/NS4: RH helical flutes design, suitable for blind bores only.
NF6/NS6: LH helical flutes design, suitable for through bores only.
Left hand flute design improves the action of pushing the chips forward.
Right hand flute design improves the action of evacuating the chips backward.
See Nanofix flutes geometries choice on page(s) 371.

# Run-out

## Rotating tool

Max. run-out recommended: 5 µm *(197 µin)*.
Precision holder is recommended : Hydraulic chuck, D-type collet chuck or 5672 collet chuck.

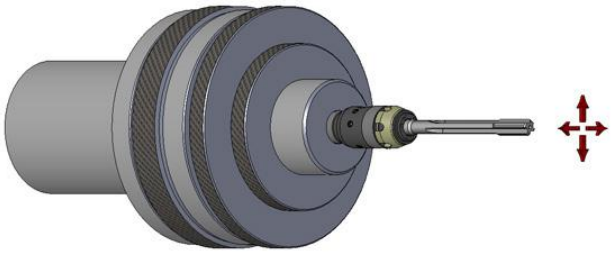
Note: due to coolant outlet adjustment sealing o-ring, the use of a Shrinkfit holder is not recommended.



## Static tool

Use a Seco floating holder, see page 482-486.

Floating holders allow reamer self-centering in pre-bore.



## Coolant requirements

To reach maximum tool life and hole quality, the following coolant requirements should be observed.

Coolant through the tool is recommended.
External coolant supply can be used with cutting condition reduced by 75%.

Soluble oil with 40% minimum mineral oil.
Neat oil recommended for stainless steel.

Concentration minimum 6–8%.
Filtration 30–50 µm *(1181-1969 µin)*.
Volume min 0,5 l/min/mm *(0.13 gal/min/inch)* in tool diameter (Ex: Reamer ∅10, min volume is 5 l/min *(1.3 gal/min)*.

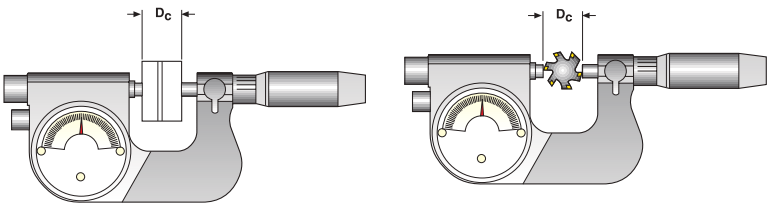


## Diameter measurement

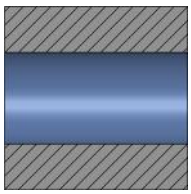
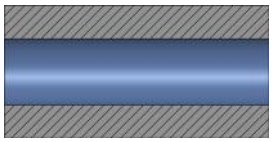
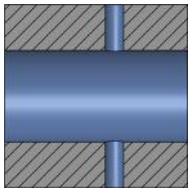
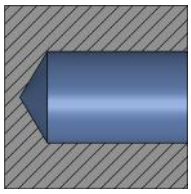
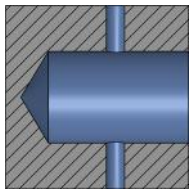
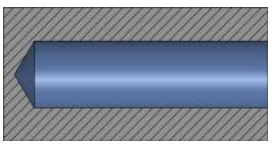
Gauge clock micrometer prior to ∅ measurement.

**Important!**
Nanofix reamers have differential pitch on teeth.
When measuring the diameter, make sure that you have 2 teeth 180° opposite.

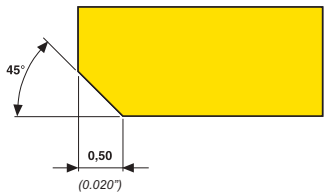
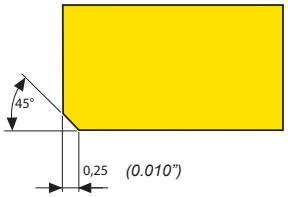
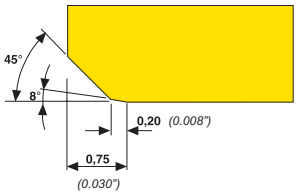
Use clock micrometer and measuring blocks for gauging.



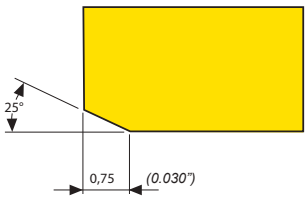
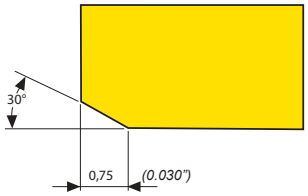
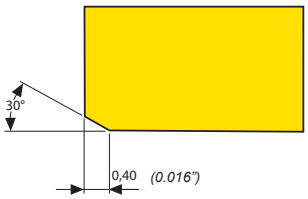
# Flute geometry choice

| Workpiece | Diameter to ream ∅ 2,97-12,50 mm *(0.1169-0.4744")* | |
|---|---|---|
| Short through hole < 3 x D  | **Straight flutes**<br><br>NF06<br>NS06<br>NF10<br>NS10 |  |
| Long through hole > 3 x D  | **LH helical flutes**<br><br>NF6<br>NS6 |  |
| Crossing hole  | | |
| Blind hole  | **Straight flutes**<br><br>NF06<br>NS06<br>NF10<br>NS10 |  |
| Blind and crossing hole  | | |
| Blind hole > 3x D  | **RH helical flutes**<br><br>NF4<br>NS4 |  |

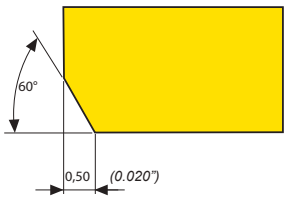
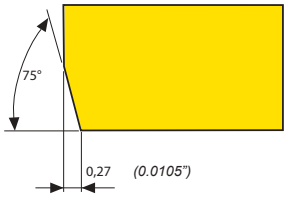
# Geometry choice – Applications

| Lead geometry - EB45 | |
|---|---|
| Chip control ++<br>Surface finish+++ $R_a$ 0,8 - 1,2 µm<br>*(Surface finish+++ $R_a$ 31 - 47 µin)*<br>Versatile |  |
| **Lead geometry - EBS45** | |
| Chip control +++<br>Surface Finish + $R_a$ 0,8- 1,2 µm<br>*(Surface Finish + $R_a$ 31- 47 µin)*<br>Short EB45 |  |
| **Lead geometry - EB845** | |
| Chip control ++<br>Surface finish+++ $R_a$ 0,2 - 0,8 µm<br>*(Surface finish+++ $R_a$ 8 - 31 µin)* |  |

# Geometry choice – Applications

| Lead geometry - EB25 | |
|---|---|
| Feed performance +++<br>Surface finish ++ $R_a$ 0,4 - 0,8 µm<br>*(Surface Finish ++ $R_a$ 16 - 31 µin)*<br>Chip control + |  |
| **Lead geometry - EB30** | |
| Feed performance +++<br>Surface Finish ++ $R_a$ 0,4 - 0,8 µm<br>*(Surface Finish ++ $R_a$ 16 - 31 µin)*<br>Chip control + |  |
| **Lead geometry - EBS30** | |
| Feed performance +++<br>Surface finish ++ $R_a$ 0,4 - 0,8 µm<br>*(Surface Finish ++ $R_a$ 16 - 31 µin)*<br>Chip control +<br>Short EB30 |  |

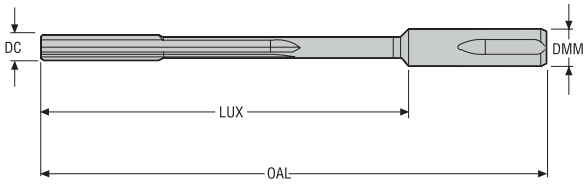
# Geometry choice – Applications

| Lead geometry - EB60 | |
|---|---|
| Feed performance +<br>Surface Finish ++ $R_a$ 0,8 - 1,2 µm<br>*(Surface Finish ++ $R_a$ 31 - 47 µin)*<br>Chip control ++ |  |
| **Lead geometry - EB75** | |
| Feed performance +<br>Surface Finish ++ $R_a$ 0,8 - 1,2 µm<br>*(Surface Finish ++ $R_a$ 31-47 µin)*<br>Chip control ++ |  |

| Grades | | |
|---|---|---|
|  | **RX2000** | **Coated**<br>High performance coated grade suitable for all materials. |
|  | **CP20** | **Coated**<br>A versatile coated grade suitable for most materials, except aluminum.<br>TiN |
|  | **H15** | **Uncoated**<br>A tough micrograin grade for all materials. Suitable for fine-reaming operations due to edge sharpness. |
|  | **RN2010** | **Uncoated**<br>A sub-micrograin uncoated grade with optimized geometries for N-materials (non ferrous). |
|  | **RM2020** | **Coated**<br>A tough coated grade suitable for fine reaming operation with optimized geometries for M materials. |
|  | **RM2090** | **Coated**<br>A wear resistant coated grade with specific geometries for M materials. Optimization in M materials. |
|  | **RK2050** | **Coated**<br>A tough coated grade suitable for fine reaming operation with optimized geometries for K materials. |
|  | **RS2090** | **Coated**<br>A wear resistant coated grade with specific geometries for S materials. Optimization in S materials. |

# Reamer for blind and through holes

∅ 2,97-12,05 mm / *0.116-0.474”*






| Designation | Item number | DC | Hole dia min-max | | LUX | DMM | OAL | | Geometries | | | Grades | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | EB45 | EB845 | EB30 | RX2000 | RK2050 | H15 |
| NF06-2.98H7-EB45 | 02728853 | 2,98<br>*0.1173* | 2,98<br>*0.1173* | 2,99<br>*0.1177* | 40,0<br>*1.5750* | 6,0<br>*0.2360* | 60,0<br>*2.3620* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-2.99H7-EB45 | 02728854 | 2,99<br>*0.1177* | 2,99<br>*0.1177* | 3,0<br>*0.1181* | 40,0<br>*1.5750* | 6,0<br>*0.2360* | 60,0<br>*2.3620* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-3.01H7-EB45 | 02728860 | 3,01<br>*0.1185* | 3,01<br>*0.1185* | 3,022<br>*0.1190* | 40,0<br>*1.5750* | 6,0<br>*0.2360* | 60,0<br>*2.3620* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-3.02H7-EB45 | 02728862 | 3,02<br>*0.1189* | 3,02<br>*0.1189* | 3,032<br>*0.1194* | 40,0<br>*1.5750* | 6,0<br>*0.2360* | 60,0<br>*2.3620* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-3.03H7-EB45 | 02728864 | 3,03<br>*0.1193* | 3,03<br>*0.1193* | 3,042<br>*0.1198* | 40,0<br>*1.5750* | 6,0<br>*0.2360* | 60,0<br>*2.3620* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-3.04H7-EB45 | 02728865 | 3,04<br>*0.1197* | 3,04<br>*0.1197* | 3,052<br>*0.1202* | 40,0<br>*1.5750* | 6,0<br>*0.2360* | 60,0<br>*2.3620* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-3.05H7-EB45 | 02728866 | 3,05<br>*0.1201* | 3,05<br>*0.1201* | 3,062<br>*0.1206* | 40,0<br>*1.5750* | 6,0<br>*0.2360* | 60,0<br>*2.3620* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-3.167H7-EB45 | 02761485 | 3,167<br>*0.1247* | 3,167<br>*0.1247* | 3,179<br>*0.1252* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-3.175H7-EB45 | 02761489 | 3,175<br>*0.1250* | 3,175<br>*0.1250* | 3,187<br>*0.1255* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-3.51H7-EB45 | 02728869 | 3,51<br>*0.1382* | 3,51<br>*0.1382* | 3,522<br>*0.1387* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-3.5H7-EB45 | 02728868 | 3,5<br>*0.1378* | 3,5<br>*0.1378* | 3,512<br>*0.1383* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-3.97H7-EB45 | 02728871 | 3,97<br>*0.1563* | 3,97<br>*0.1563* | 3,982<br>*0.1568* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-3.98H7-EB45 | 02728872 | 3,98<br>*0.1567* | 3,98<br>*0.1567* | 3,992<br>*0.1572* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-3.99H7-EB45 | 02728873 | 3,99<br>*0.1571* | 3,99<br>*0.1571* | 4,002<br>*0.1576* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-3H7-EB45 | 02728858 | 3,0<br>*0.1181* | 3,0<br>*0.1181* | 3,01<br>*0.1185* | 40,0<br>*1.5750* | 6,0<br>*0.2360* | 60,0<br>*2.3620* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-4.01H7-EB45 | 02728875 | 4,01<br>*0.1579* | 4,01<br>*0.1579* | 4,022<br>*0.1583* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-4.02H7-EB45 | 02728876 | 4,02<br>*0.1583* | 4,02<br>*0.1583* | 4,032<br>*0.1587* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-4.04H7-EB45 | 02728879 | 4,04<br>*0.1591* | 4,04<br>*0.1591* | 4,052<br>*0.1595* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-4.05H7-EB45 | 02728880 | 4,05<br>*0.1594* | 4,05<br>*0.1594* | 4,062<br>*0.1599* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-4.5H7-EB45 | 02728881 | 4,5<br>*0.1772* | 4,5<br>*0.1772* | 4,512<br>*0.1776* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-4.750H7-EB45 | 02761490 | 4,75<br>*0.1870* | 4,75<br>*0.1870* | 4,762<br>*0.1875* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-4.762H7-EB45 | 02761494 | 4,762<br>*0.1875* | 4,762<br>*0.1875* | 4,774<br>*0.1880* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-4.97H7-EB45 | 02728882 | 4,97<br>*0.1957* | 4,97<br>*0.1957* | 4,982<br>*0.1961* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |

| Designation | Item number | DC | Hole dia min-max | | LUX | DMM | OAL | | Geometries | | | Grades | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | EB45 | EB845 | EB30 | RX2000 | RK2050 | H15 |
| NF06-4.98H7-EB45 | 02728883 | 4,98<br>*0.1961* | 4,98<br>*0.1961* | 4,992<br>*0.1965* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-4.99H7-EB45 | 02728884 | 4,99<br>*0.1965* | 4,99<br>*0.1965* | 5,002<br>*0.1969* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-4H7-EB45 | 02728874 | 4,0<br>*0.1575* | 4,0<br>*0.1575* | 4,012<br>*0.1580* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-5.01H7-EB45 | 02728928 | 5,01<br>*0.1972* | 5,01<br>*0.1972* | 5,022<br>*0.1977* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-5.02H7-EB45 | 02728929 | 5,02<br>*0.1976* | 5,02<br>*0.1976* | 5,032<br>*0.1981* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-5.03H7-EB45 | 02728930 | 5,03<br>*0.1980* | 5,03<br>*0.1980* | 5,042<br>*0.1985* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-5.05H7-EB45 | 02728932 | 5,05<br>*0.1988* | 5,05<br>*0.1988* | 5,062<br>*0.1993* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-5.5H7-EB45 | 02728933 | 5,5<br>*0.2165* | 5,5<br>*0.2165* | 5,512<br>*0.2170* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-5.97H7-EB45 | 02728934 | 5,97<br>*0.2350* | 5,97<br>*0.2350* | 5,982<br>*0.2355* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-5.98H7-EB45 | 02728935 | 5,98<br>*0.2354* | 5,98<br>*0.2354* | 5,992<br>*0.2359* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-5.99H7-EB45 | 02728936 | 5,99<br>*0.2358* | 5,99<br>*0.2358* | 6,002<br>*0.2363* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-5H7-EB45 | 02728927 | 5,0<br>*0.1969* | 5,0<br>*0.1969* | 5,012<br>*0.1973* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-6.01H7-EB45 | 02728938 | 6,01<br>*0.2366* | 6,01<br>*0.2366* | 6,025<br>*0.2372* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-6.02H7-EB45 | 02728939 | 6,02<br>*0.2370* | 6,02<br>*0.2370* | 6,035<br>*0.2376* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-6.03H7-EB45 | 02728940 | 6,03<br>*0.2374* | 6,03<br>*0.2374* | 6,045<br>*0.2380* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-6.04H7-EB45 | 02728941 | 6,04<br>*0.2378* | 6,04<br>*0.2378* | 6,055<br>*0.2384* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-6.05H7-EB45 | 02728942 | 6,05<br>*0.2382* | 6,05<br>*0.2382* | 6,065<br>*0.2388* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF06-6H7-EB45 | 02728937 | 6,0<br>*0.2362* | 6,0<br>*0.2362* | 6,015<br>*0.2368* | 60,0<br>*2.3620* | 6,0<br>*0.2360* | 80,0<br>*3.1500* | 4 | ■ | □ | □ | ■ | □ | □ |
| NF10-10H7-EB45 | 02728986 | 10,0<br>*0.3937* | 10,0<br>*0.3937* | 10,015<br>*0.3943* | 93,0<br>*3.6610* | 10,0<br>*0.3940* | 125,0<br>*4.9210* | 6 | ■ | □ | □ | ■ | □ | □ |
| NF10-11H7-EB45 | 02728997 | 11,0<br>*0.4331* | 11,0<br>*0.4331* | 11,018<br>*0.4338* | 114,0<br>*4.4880* | 10,0<br>*0.3940* | 145,0<br>*5.7090* | 6 | ■ | □ | □ | ■ | □ | □ |
| NF10-12H7-EB45 | 02729011 | 12,0<br>*0.4724* | 12,0<br>*0.4724* | 12,018<br>*0.4731* | 114,0<br>*4.4880* | 10,0<br>*0.3940* | 145,0<br>*5.7090* | 6 | ■ | □ | □ | ■ | □ | □ |
| NF10-6.334H7-EB45 | 02761987 | 6,334<br>*0.2494* | 6,33<br>*0.2492* | 6,345<br>*0.2498* | 83,0<br>*3.2680* | 10,0<br>*0.3940* | 115,0<br>*4.5280* | 6 | ■ | □ | □ | ■ | □ | □ |
| NF10-6.350H7-EB45 | 02762016 | 6,35<br>*0.2500* | 6,35<br>*0.2500* | 6,365<br>*0.2506* | 83,0<br>*3.2680* | 10,0<br>*0.3940* | 115,0<br>*4.5280* | 6 | ■ | □ | □ | ■ | □ | □ |
| NF10-6.3754H7-EB45 | 02762017 | 6,375<br>*0.2510* | 6,375<br>*0.2510* | 6,39<br>*0.2516* | 83,0<br>*3.2680* | 10,0<br>*0.3940* | 115,0<br>*4.5280* | 6 | ■ | □ | □ | ■ | □ | □ |
| NF10-6.5H7-EB45 | 02728943 | 6,5<br>*0.2559* | 6,5<br>*0.2559* | 6,515<br>*0.2565* | 83,0<br>*3.2680* | 10,0<br>*0.3940* | 115,0<br>*4.5280* | 6 | ■ | □ | □ | ■ | □ | □ |
| NF10-6.98H7-EB45 | 02728947 | 6,98<br>*0.2748* | 6,98<br>*0.2748* | 6,995<br>*0.2754* | 83,0<br>*3.2680* | 10,0<br>*0.3940* | 115,0<br>*4.5280* | 6 | ■ | □ | □ | ■ | □ | □ |
| NF10-7.01H7-EB45 | 02728950 | 7,01<br>*0.2760* | 7,01<br>*0.2760* | 7,025<br>*0.2766* | 83,0<br>*3.2680* | 10,0<br>*0.3940* | 115,0<br>*4.5280* | 6 | ■ | □ | □ | ■ | □ | □ |
| NF10-7.02H7-EB45 | 02728951 | 7,02<br>*0.2764* | 7,02<br>*0.2764* | 7,035<br>*0.2770* | 83,0<br>*3.2680* | 10,0<br>*0.3940* | 115,0<br>*4.5280* | 6 | ■ | □ | □ | ■ | □ | □ |
| NF10-7.05H7-EB45 | 02728954 | 7,05<br>*0.2776* | 7,05<br>*0.2776* | 7,065<br>*0.2781* | 83,0<br>*3.2680* | 10,0<br>*0.3940* | 115,0<br>*4.5280* | 6 | ■ | □ | □ | ■ | □ | □ |
| NF10-7.5H7-EB45 | 02728955 | 7,5<br>*0.2953* | 7,5<br>*0.2953* | 7,515<br>*0.2959* | 83,0<br>*3.2680* | 10,0<br>*0.3940* | 115,0<br>*4.5280* | 6 | ■ | □ | □ | ■ | □ | □ |

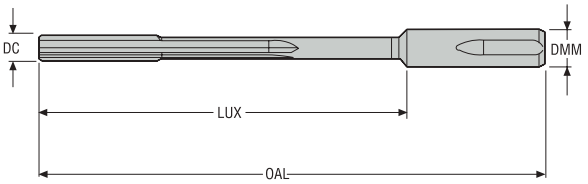
| Designation | Item number | DC | Hole dia min-max | | LUX | DMM | OAL | | Geometries | | | Grades | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | EB45 | EB845 | EB30 | RX2000 | RK2050 | H15 |
| NF10-7.9375H7-EB45 | 02762018 | 7,9375<br>*0.3125* | 7,937<br>*0.3125* | 7,952<br>*0.3131* | 83,0<br>*3.2680* | 10,0<br>*0.3940* | 115,0<br>*4.5280* | 6 | ■ | □ | □ | ■ | □ | □ |
| NF10-7.97H7-EB45 | 02728956 | 7,97<br>*0.3138* | 7,97<br>*0.3138* | 7,985<br>*0.3144* | 83,0<br>*3.2680* | 10,0<br>*0.3940* | 115,0<br>*4.5280* | 6 | ■ | □ | □ | ■ | □ | □ |
| NF10-7.98H7-EB45 | 02728957 | 7,98<br>*0.3142* | 7,98<br>*0.3142* | 7,995<br>*0.3148* | 83,0<br>*3.2680* | 10,0<br>*0.3940* | 115,0<br>*4.5280* | 6 | ■ | □ | □ | ■ | □ | □ |
| NF10-7.99H7-EB45 | 02728958 | 7,99<br>*0.3146* | 7,99<br>*0.3146* | 8,005<br>*0.3152* | 83,0<br>*3.2680* | 10,0<br>*0.3940* | 115,0<br>*4.5280* | 6 | ■ | □ | □ | ■ | □ | □ |
| NF10-7H7-EB45 | 02728949 | 7,0<br>*0.2756* | 7,0<br>*0.2756* | 7,015<br>*0.2762* | 83,0<br>*3.2680* | 10,0<br>*0.3940* | 115,0<br>*4.5280* | 6 | ■ | □ | □ | ■ | □ | □ |
| NF10-8.01H7-EB45 | 02728960 | 8,01<br>*0.3154* | 8,01<br>*0.3154* | 8,025<br>*0.3159* | 83,0<br>*3.2680* | 10,0<br>*0.3940* | 115,0<br>*4.5280* | 6 | ■ | □ | □ | ■ | □ | □ |
| NF10-8.02H7-EB45 | 02728961 | 8,02<br>*0.3157* | 8,02<br>*0.3157* | 8,035<br>*0.3163* | 83,0<br>*3.2680* | 10,0<br>*0.3940* | 115,0<br>*4.5280* | 6 | ■ | □ | □ | ■ | □ | □ |
| NF10-8.03H7-EB45 | 02728962 | 8,03<br>*0.3161* | 8,03<br>*0.3161* | 8,045<br>*0.3167* | 83,0<br>*3.2680* | 10,0<br>*0.3940* | 115,0<br>*4.5280* | 6 | ■ | □ | □ | ■ | □ | □ |
| NF10-8.04H7-EB45 | 02728963 | 8,04<br>*0.3165* | 8,04<br>*0.3165* | 8,055<br>*0.3171* | 83,0<br>*3.2680* | 10,0<br>*0.3940* | 115,0<br>*4.5280* | 6 | ■ | □ | □ | ■ | □ | □ |
| NF10-8.05H7-EB45 | 02728964 | 8,05<br>*0.3169* | 8,05<br>*0.3169* | 8,065<br>*0.3175* | 83,0<br>*3.2680* | 10,0<br>*0.3940* | 115,0<br>*4.5280* | 6 | ■ | □ | □ | ■ | □ | □ |
| NF10-8.5H7-EB45 | 02728965 | 8,5<br>*0.3346* | 8,5<br>*0.3346* | 8,515<br>*0.3352* | 93,0<br>*3.6610* | 10,0<br>*0.3940* | 125,0<br>*4.9210* | 6 | ■ | □ | □ | ■ | □ | □ |
| NF10-8H7-EB45 | 02728959 | 8,0<br>*0.3150* | 8,0<br>*0.3150* | 8,015<br>*0.3156* | 83,0<br>*3.2680* | 10,0<br>*0.3940* | 115,0<br>*4.5280* | 6 | ■ | □ | □ | ■ | □ | □ |
| NF10-9.01H7-EB45 | 02728975 | 9,01<br>*0.3547* | 9,01<br>*0.3547* | 9,025<br>*0.3553* | 93,0<br>*3.6610* | 10,0<br>*0.3940* | 125,0<br>*4.9210* | 6 | ■ | □ | □ | ■ | □ | □ |
| NF10-9.05H7-EB45 | 02728979 | 9,05<br>*0.3563* | 9,05<br>*0.3563* | 9,065<br>*0.3569* | 93,0<br>*3.6610* | 10,0<br>*0.3940* | 125,0<br>*4.9210* | 6 | ■ | □ | □ | ■ | □ | □ |
| NF10-9.5250H7-EB45 | 02762020 | 9,525<br>*0.3750* | 9,525<br>*0.3750* | 9,54<br>*0.3756* | 93,0<br>*3.6610* | 10,0<br>*0.3940* | 125,0<br>*4.9210* | 6 | ■ | □ | □ | ■ | □ | □ |
| NF10-9.5H7-EB45 | 02728980 | 9,5<br>*0.3740* | 9,5<br>*0.3740* | 9,515<br>*0.3746* | 93,0<br>*3.6610* | 10,0<br>*0.3940* | 125,0<br>*4.9210* | 6 | ■ | □ | □ | ■ | □ | □ |
| NF10-9.97H7-EB45 | 02728981 | 9,97<br>*0.3925* | 9,97<br>*0.3925* | 9,985<br>*0.3931* | 93,0<br>*3.6610* | 10,0<br>*0.3940* | 125,0<br>*4.9210* | 6 | ■ | □ | □ | ■ | □ | □ |
| NF10-9.98H7-EB45 | 02728982 | 9,98<br>*0.3929* | 9,98<br>*0.3929* | 9,995<br>*0.3935* | 93,0<br>*3.6610* | 10,0<br>*0.3940* | 125,0<br>*4.9210* | 6 | ■ | □ | □ | ■ | □ | □ |
| NF10-9.99H7-EB45 | 02728983 | 9,99<br>*0.3933* | 9,99<br>*0.3933* | 10,005<br>*0.3939* | 93,0<br>*3.6610* | 10,0<br>*0.3940* | 125,0<br>*4.9210* | 6 | ■ | □ | □ | ■ | □ | □ |
| NF10-9H7-EB45 | 02728974 | 9,0<br>*0.3543* | 9,0<br>*0.3543* | 9,015<br>*0.3549* | 93,0<br>*3.6610* | 10,0<br>*0.3940* | 125,0<br>*4.9210* | 6 | ■ | □ | □ | ■ | □ | □ |

■ **Stock standard.** □ **Non stock standard.**
Note: When ordering Nanofix reamers for intermediate diameters, please state diameter and tolerance of hole to be reamed.
**Ordering example:** NF10-10.187/10.213-EB845, RX2000.

# Intermediate diameter

Straight flutes, long version, for through & blind bores





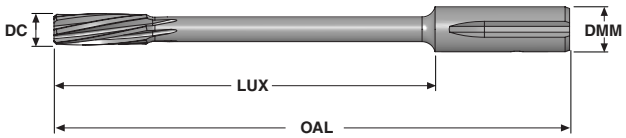

- For choice of geometry, please see page(s) 371-373
- For cutting data see page(s) 390-397

| Designation | DCN | DCX | LUX | DMM | OAL | | Body size | Geometries | Grades | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | | H15 | RK2050 | RX2000 | RN2010 | RM2020 | RM2090 | RS2090 |
| NF06-2.970-XX-XXXX | 2,97<br>*0.117* | 3,05<br>*0.120* | 40,0<br>*0.120* | 6,0<br>*0.236* | 60,0<br>*2.362* | 4 | NFQF06-xx | EB45 EB845 EB30 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NF06-3.051-XX-XXXX | 3,051<br>*0.120* | 6,05<br>*0.238* | 60,0<br>*0.238* | 6,0<br>*0.236* | 80,0<br>*3.150* | 4 | NFQF06-xx | EB45 EB845 EB30 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NF10-6.051-XX-XXXX | 6,051<br>*0.238* | 8,05<br>*0.317* | 83,0<br>*0.317* | 10,0<br>*0.394* | 115,0<br>*4.528* | 6 | NFQF10-xx | EB45 EB845 EB30 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NF10-8.051-XX-XXXX | 8,051<br>*0.317* | 10,05<br>*0.396* | 93,0<br>*0.396* | 10,0<br>*0.394* | 125,0<br>*4.921* | 6 | NFQF10-xx | EB45 EB845 EB30 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NF10-10.051-XX-XXXX | 10,051<br>*0.396* | 12,05<br>*0.474* | 114,0<br>*0.474* | 10,0<br>*0.394* | 145,0<br>*5.709* | 6 | NFQF10-xx | EB45 EB845 EB30 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

☐ **= Non stock standard.**
Note: When ordering Nanofix reamers for intermediate diameters, please state diameter and tolerance of hole to be reamed.
**Ordering example:** NF06-5.187/5.213-EB845, RX2000.

# Intermediate diameter

LH helical flutes, long version, for through bores






- For choice of geometry, please see page(s) 371-373
- For cutting data see page(s) 390-397

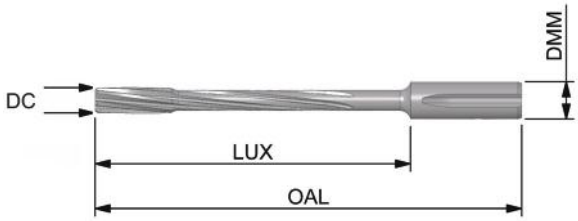
| Designation | DCN | DCX | LUX | DMM | OAL | | Body size | Geometries | Grades | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | | H15 | RK2050 | RX2000 | RN2010 | RM2020 | RM2090 | RS2090 |
| NF6-2.970-XX-XXXX | 2,97<br>*0.117* | 3,05<br>*0.120* | 40,0<br>*1.575* | 6,0<br>*0.236* | 60,0<br>*2.362* | 4 | NFQF06-xx | EB45 EB845 EB30 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NF6-3.051-XX-XXXX | 3,051<br>*0.120* | 6,05<br>*0.238* | 60,0<br>*2.362* | 6,0<br>*0.236* | 80,0<br>*3.150* | 4 | NFQF06-xx | EB45 EB845 EB30 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NF6-6.051-XX-XXXX | 6,051<br>*0.238* | 8,05<br>*0.317* | 83,0<br>*3.268* | 10,0<br>*0.394* | 115,0<br>*4.528* | 6 | NFQF10-xx | EB45 EB845 EB30 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NF6-8.051-XX-XXXX | 8,051<br>*0.317* | 10,05<br>*0.396* | 93,0<br>*3.661* | 10,0<br>*0.394* | 125,0<br>*4.921* | 6 | NFQF10-xx | EB45 EB845 EB30 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NF6-10.051-XX-XXXX | 10,051<br>*0.396* | 12,05<br>*0.474* | 114,0<br>*4.488* | 10,0<br>*0.394* | 145,0<br>*5.709* | 6 | NFQF10-xx | EB45 EB845 EB30 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

☐ **= Non stock standard.**
Note: When ordering Nanofix reamers for intermediate diameters, please state diameter and tolerance of hole to be reamed.
**Ordering example:** NF6-5.187/5.213-EB845, RX2000.

# Intermediate diameter

RH helical flutes, long version, for blind bores





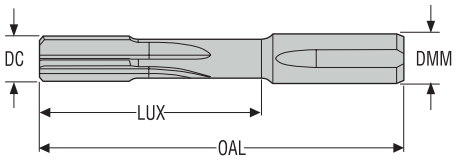

- For choice of geometry, please see page(s) 371-373
- For cutting data see page(s) 390-397

| Designation | DCN | DCX | LUX | DMM | OAL | | Body size | Geometries | Grades | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | | H15 | RK2050 | RX2000 | RN2010 | RM2020 | RM2090 | RS2090 |
| NF4-2.970-XX-XXXX | 2,97<br>*0.117* | 3,05<br>*0.120* | 40,0<br>*1.575* | 6,0<br>*0.236* | 60,0<br>*2.362* | 4 | NFQF06-xx | EB45 EB845 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NF4-3.051-XX-XXXX | 3,051<br>*0.120* | 6,05<br>*0.238* | 60,0<br>*2.362* | 6,0<br>*0.236* | 80,0<br>*3.150* | 4 | NFQF06-xx | EB45 EB845 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NF4-4.051-XX-XXXX | 6,051<br>*0.238* | 8,05<br>*0.317* | 83,0<br>*3.268* | 10,0<br>*0.394* | 115,0<br>*4.528* | 6 | NFQF10-xx | EB45 EB845 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NF4-8.051-XX-XXXX | 8,051<br>*0.317* | 10,05<br>*0.396* | 93,0<br>*3.661* | 10,0<br>*0.394* | 125,0<br>*4.921* | 6 | NFQF10-xx | EB45 EB845 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NF4-10.051-XX-XXXX | 10,051<br>*0.396* | 12,05<br>*0.474* | 114,0<br>*4.488* | 10,0<br>*0.394* | 145,0<br>*5.709* | 6 | NFQF10-xx | EB45 EB845 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

☐ **= Non stock standard.**
Note: When ordering Nanofix reamers for intermediate diameters, please state diameter and tolerance of hole to be reamed.
**Ordering example:** NF4-10.187/10.213-EB845, RX2000.

# Reamer for blind and through holes – short version

∅ 2,97-12,05 mm / *0.116-0.474”*






| Designation | Item number | DC | Hole dia min-max | | LUX | DMM | OAL | | Geometries | | | Grades | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | | EB45 | EB845 | EB30 | RX2000 | RK2050 | H15 |
| NS06-2.97H7-EB... | – | 2,97 *0.1169* | 2,97 *0.1169* | 2,98 *0.1173* | 25,0 *0.9840* | 6,0 *0.2360* | 45,0 *1.7720* | 4 | □ | □ | □ | □ | □ | □ |
| NS06-2.98H7-EB... | – | 2,98 *0.1173* | 2,98 *0.1173* | 2,99 *0.1177* | 25,0 *0.9840* | 6,0 *0.2360* | 45,0 *1.7720* | 4 | □ | □ | □ | □ | □ | □ |
| NS06-2.99H7-EB... | – | 2,99 *0.1177* | 2,99 *0.1177* | 3,00 *0.1181* | 25,0 *0.9840* | 6,0 *0.2360* | 45,0 *1.7720* | 4 | □ | □ | □ | □ | □ | □ |
| NS06-3.00H7-EB... | – | 3,0 *0.1181* | 3,00 *0.1181* | 3,01 *0.1185* | 25,0 *0.9840* | 6,0 *0.2360* | 45,0 *1.7720* | 4 | □ | □ | □ | □ | □ | □ |
| NS06-3.01H7-EB... | – | 3,01 *0.1185* | 3,01 *0.1185* | 3,02 *0.1190* | 25,0 *0.9840* | 6,0 *0.2360* | 45,0 *1.7720* | 4 | □ | □ | □ | □ | □ | □ |
| NS06-3.02H7-EB... | – | 3,02 *0.1189* | 3,02 *0.1189* | 3,03 *0.1194* | 25,0 *0.9840* | 6,0 *0.2360* | 45,0 *1.7720* | 4 | □ | □ | □ | □ | □ | □ |
| NS06-3.03H7-EB... | – | 3,03 *0.1193* | 3,03 *0.1193* | 3,04 *0.1198* | 25,0 *0.9840* | 6,0 *0.2360* | 45,0 *1.7720* | 4 | □ | □ | □ | □ | □ | □ |
| NS06-3.04H7-EB... | – | 3,04 *0.1197* | 3,04 *0.1197* | 3,05 *0.1202* | 25,0 *0.9840* | 6,0 *0.2360* | 45,0 *1.7720* | 4 | □ | □ | □ | □ | □ | □ |
| NS06-3.05H7-EB... | – | 3,05 *0.1201* | 3,05 *0.1201* | 3,06 *0.1206* | 25,0 *0.9840* | 6,0 *0.2360* | 45,0 *1.7720* | 4 | □ | □ | □ | □ | □ | □ |
| NS06-3.167H7-EB... | – | 3,167 *0.1247* | 3,18 *0.1252* | 3,17 *0.1247* | 30,0 *1.1810* | 6,0 *0.2360* | 50,0 *1.9690* | 4 | □ | □ | □ | □ | □ | □ |
| NS06-3.175H7-EB... | – | 3,175 *0.1250* | 3,18 *0.1250* | 3,19 *0.1255* | 30,0 *1.1810* | 6,0 *0.2360* | 50,0 *1.9690* | 4 | □ | □ | □ | □ | □ | □ |
| NS06-3.49H7-EB... | – | 3,49 *0.1374* | 3,49 *0.1374* | 3,50 *0.1379* | 30,0 *1.1810* | 6,0 *0.2360* | 50,0 *1.9690* | 4 | □ | □ | □ | □ | □ | □ |
| NS06-3.50H7-EB... | – | 3,5 *0.1378* | 3,50 *0.1378* | 3,51 *0.1383* | 30,0 *1.1810* | 6,0 *0.2360* | 50,0 *1.9690* | 4 | □ | □ | □ | □ | □ | □ |
| NS06-3.51H7-EB... | – | 3,51 *0.1382* | 3,51 *0.1382* | 3,52 *0.1387* | 30,0 *1.1810* | 6,0 *0.2360* | 50,0 *1.9690* | 4 | □ | □ | □ | □ | □ | □ |
| NS06-3.52H7-EB... | – | 3,52 *0.1386* | 3,52 *0.1386* | 3,53 *0.1391* | 30,0 *1.1810* | 6,0 *0.2360* | 50,0 *1.9690* | 4 | □ | □ | □ | □ | □ | □ |
| NS06-3.97H7-EB... | – | 3,97 *0.1563* | 3,97 *0.1563* | 3,98 *0.1568* | 30,0 *1.1810* | 6,0 *0.2360* | 50,0 *1.9690* | 4 | □ | □ | □ | □ | □ | □ |
| NS06-3.98H7-EB... | – | 3,98 *0.1567* | 3,98 *0.1567* | 3,99 *0.1572* | 30,0 *1.1810* | 6,0 *0.2360* | 50,0 *1.9690* | 4 | □ | □ | □ | □ | □ | □ |
| NS06-3.99H7-EB... | – | 3,99 *0.1571* | 3,99 *0.1571* | 4,00 *0.1576* | 30,0 *1.1810* | 6,0 *0.2360* | 50,0 *1.9690* | 4 | □ | □ | □ | □ | □ | □ |
| NS06-3H7-EB30 | 10019456 | 3,0 *0.1181* | 3,01 *0.1185* | 3,00 *0.1181* | 25,0 *0.9840* | 6,0 *0.2360* | 45,0 *1.7720* | 4 | □ | □ | ■ | ■ | □ | □ |
| NS06-4.00H7-EB... | – | 4,0 *0.1575* | 4,00 *0.1575* | 4,01 *0.1580* | 30,0 *1.1810* | 6,0 *0.2360* | 50,0 *1.9690* | 4 | □ | □ | □ | □ | □ | □ |
| NS06-4.01H7-EB... | – | 4,01 *0.1579* | 4,01 *0.1579* | 4,02 *0.1583* | 30,0 *1.1810* | 6,0 *0.2360* | 50,0 *1.9690* | 4 | □ | □ | □ | □ | □ | □ |
| NS06-4.02H7-EB... | – | 4,02 *0.1583* | 4,02 *0.1583* | 4,03 *0.1587* | 30,0 *1.1810* | 6,0 *0.2360* | 50,0 *1.9690* | 4 | □ | □ | □ | □ | □ | □ |
| NS06-4.03H7-EB... | – | 4,03 *0.1587* | 4,03 *0.1587* | 4,04 *0.1591* | 30,0 *1.1810* | 6,0 *0.2360* | 50,0 *1.9690* | 4 | □ | □ | □ | □ | □ | □ |

| Designation | Item number | DC | Hole dia min-max | | LUX | DMM | OAL | | Geometries | | | Grades | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | EB45 | EB845 | EB30 | RX2000 | RK2050 | H15 |
| NS06-4.04H7-EB... | – | 4,04<br>*0.1591* | 4,04<br>*0.1591* | 4,05<br>*0.1595* | 30,0<br>*1.1810* | 6,0<br>*0.2360* | 50,0<br>*1.9690* | 4 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS06-4.05H7-EB... | – | 4,05<br>*0.1594* | 4,05<br>*0.1594* | 4,06<br>*0.1599* | 30,0<br>*1.1810* | 6,0<br>*0.2360* | 50,0<br>*1.9690* | 4 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS06-4.50H7-EB... | – | 4,5<br>*0.1772* | 4,50<br>*0.1772* | 4,51<br>*0.1776* | 30,0<br>*1.1810* | 6,0<br>*0.2360* | 50,0<br>*1.9690* | 4 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS06-4.750H7-EB... | – | 4,75<br>*0.1870* | 4,75<br>*0.1870* | 4,76<br>*0.1875* | 30,0<br>*1.1810* | 6,0<br>*0.2360* | 50,0<br>*1.9690* | 4 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS06-4.750H7-EB30 | 10019458 | 4,75<br>*0.1870* | 4,76<br>*0.1875* | 4,75<br>*0.1870* | 30,0<br>*1.1810* | 6,0<br>*0.2360* | 50,0<br>*1.9690* | 4 | ☐ | ☐ | ■ | ■ | ☐ | ☐ |
| NS06-4.762H7-EB... | – | 4,762<br>*0.1875* | 4,76<br>*0.1875* | 4,77<br>*0.1880* | 30,0<br>*1.1810* | 6,0<br>*0.2360* | 50,0<br>*1.9690* | 4 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS06-4.97H7-EB... | – | 4,97<br>*0.1957* | 4,97<br>*0.1957* | 4,98<br>*0.1961* | 30,0<br>*1.1810* | 6,0<br>*0.2360* | 50,0<br>*1.9690* | 4 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS06-4.98H7-EB... | – | 4,98<br>*0.1961* | 4,98<br>*0.1961* | 4,99<br>*0.1965* | 30,0<br>*1.1810* | 6,0<br>*0.2360* | 50,0<br>*1.9690* | 4 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS06-4.99H7-EB... | – | 4,99<br>*0.1965* | 4,99<br>*0.1965* | 5,00<br>*0.1969* | 30,0<br>*1.1810* | 6,0<br>*0.2360* | 50,0<br>*1.9690* | 4 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS06-4H7-EB30 | 10019457 | 4,0<br>*0.1575* | 4,01<br>*0.1580* | 4,00<br>*0.1575* | 30,0<br>*1.1810* | 6,0<br>*0.2360* | 50,0<br>*1.9690* | 4 | ☐ | ☐ | ■ | ■ | ☐ | ☐ |
| NS06-5.00H7-EB... | – | 5,0<br>*0.1969* | 5,00<br>*0.1969* | 5,01<br>*0.1973* | 30,0<br>*1.1810* | 6,0<br>*0.2360* | 50,0<br>*1.9690* | 4 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS06-5.01H7-EB... | – | 5,01<br>*0.1972* | 5,01<br>*0.1972* | 5,02<br>*0.1977* | 30,0<br>*1.1810* | 6,0<br>*0.2360* | 50,0<br>*1.9690* | 4 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS06-5.02H7-EB... | – | 5,02<br>*0.1976* | 5,02<br>*0.1976* | 5,03<br>*0.1981* | 30,0<br>*1.1810* | 6,0<br>*0.2360* | 50,0<br>*1.9690* | 4 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS06-5.03H7-EB... | – | 5,03<br>*0.1980* | 5,03<br>*0.1980* | 5,04<br>*0.1985* | 30,0<br>*1.1810* | 6,0<br>*0.2360* | 50,0<br>*1.9690* | 4 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS06-5.04H7-EB... | – | 5,04<br>*0.1984* | 5,04<br>*0.1984* | 5,05<br>*0.1989* | 30,0<br>*1.1810* | 6,0<br>*0.2360* | 50,0<br>*1.9690* | 4 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS06-5.05H7-EB... | – | 5,05<br>*0.1988* | 5,05<br>*0.1988* | 5,06<br>*0.1993* | 30,0<br>*1.1810* | 6,0<br>*0.2360* | 50,0<br>*1.9690* | 4 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS06-5.50H7-EB... | – | 5,5<br>*0.2165* | 5,50<br>*0.2165* | 5,51<br>*0.2170* | 30,0<br>*1.1810* | 6,0<br>*0.2360* | 50,0<br>*1.9690* | 4 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS06-5.97H7-EB... | – | 5,97<br>*0.2350* | 5,97<br>*0.2350* | 5,98<br>*0.2355* | 31,0<br>*1.2200* | 6,0<br>*0.2360* | 50,0<br>*1.9690* | 4 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS06-5.98H7-EB... | – | 5,98<br>*0.2354* | 5,98<br>*0.2354* | 5,99<br>*0.2359* | 31,0<br>*1.2200* | 6,0<br>*0.2360* | 50,0<br>*1.9690* | 4 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS06-5.99H7-EB... | – | 5,99<br>*0.2358* | 5,99<br>*0.2358* | 6,00<br>*0.2363* | 31,0<br>*1.2200* | 6,0<br>*0.2360* | 50,0<br>*1.9690* | 4 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS06-5H7-EB30 | 10019459 | 5,0<br>*0.1969* | 5,01<br>*0.1973* | 5,00<br>*0.1969* | 30,0<br>*1.1810* | 6,0<br>*0.2360* | 50,0<br>*1.9690* | 4 | ☐ | ☐ | ■ | ■ | ☐ | ☐ |
| NS06-6.00H7-EB... | – | 6,0<br>*0.2362* | 6,00<br>*0.2362* | 6,01<br>*0.2367* | 31,0<br>*1.2200* | 6,0<br>*0.2360* | 50,0<br>*1.9690* | 4 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS06-6.01H7-EB... | – | 6,01<br>*0.2366* | 6,01<br>*0.2366* | 6,03<br>*0.2372* | 31,0<br>*1.2200* | 6,0<br>*0.2360* | 50,0<br>*1.9690* | 4 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS06-6.02H7-EB... | – | 6,02<br>*0.2370* | 6,02<br>*0.2370* | 6,04<br>*0.2376* | 31,0<br>*1.2200* | 6,0<br>*0.2360* | 50,0<br>*1.9690* | 4 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS06-6.03H7-EB... | – | 6,03<br>*0.2374* | 6,03<br>*0.2374* | 6,05<br>*0.2380* | 31,0<br>*1.2200* | 6,0<br>*0.2360* | 50,0<br>*1.9690* | 4 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS06-6.04H7-EB... | – | 6,04<br>*0.2378* | 6,04<br>*0.2378* | 6,06<br>*0.2384* | 31,0<br>*1.2200* | 6,0<br>*0.2360* | 50,0<br>*1.9690* | 4 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS06-6.05H7-EB... | – | 6,05<br>*0.2382* | 6,05<br>*0.2382* | 6,07<br>*0.2388* | 31,0<br>*1.2200* | 6,0<br>*0.2360* | 50,0<br>*1.9690* | 4 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS06-6H7-EB30 | 10019460 | 6,0<br>*0.2362* | 6,01<br>*0.2367* | 6,00<br>*0.2362* | 31,0<br>*1.2200* | 6,0<br>*0.2360* | 50,0<br>*1.9690* | 4 | ☐ | ☐ | ■ | ■ | ☐ | ☐ |
| NS10-10.00H7-EB... | – | 10,0<br>*0.3937* | 10,00<br>*0.3937* | 10,02<br>*0.3943* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-10.01H7-EB... | – | 10,01<br>*0.3941* | 10,01<br>*0.3941* | 10,03<br>*0.3948* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

| Designation | Item number | DC | Hole dia min-max | | LUX | DMM | OAL | | Geometries | | | Grades | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | EB45 | EB845 | EB30 | RX2000 | RK2050 | H15 |
| NS10-10.02H7-EB... | – | 10,02<br>*0.3945* | 10,02<br>*0.3945* | 10,04<br>*0.3952* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-10.03H7-EB... | – | 10,03<br>*0.3949* | 10,03<br>*0.3949* | 10,05<br>*0.3956* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-10.04H7-EB... | – | 10,04<br>*0.3953* | 10,04<br>*0.3953* | 10,06<br>*0.3960* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-10.05H7-EB... | – | 10,05<br>*0.3957* | 10,05<br>*0.3957* | 10,07<br>*0.3964* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-10.50H7-EB... | – | 10,5<br>*0.4134* | 10,50<br>*0.4134* | 10,52<br>*0.4141* | 57,0<br>*2.2440* | 10,0<br>*0.3940* | 88,0<br>*3.4650* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-10.97H7-EB... | – | 10,97<br>*0.4319* | 10,97<br>*0.4319* | 10,99<br>*0.4326* | 57,0<br>*2.2440* | 10,0<br>*0.3940* | 88,0<br>*3.4650* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-10.98H7-EB... | – | 10,98<br>*0.4323* | 10,98<br>*0.4323* | 11,00<br>*0.4330* | 57,0<br>*2.2440* | 10,0<br>*0.3940* | 88,0<br>*3.4650* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-10.99H7-EB... | – | 10,99<br>*0.4327* | 10,99<br>*0.4327* | 11,01<br>*0.4334* | 57,0<br>*2.2440* | 10,0<br>*0.3940* | 88,0<br>*3.4650* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-10H7-EB30 | 10019467 | 10,0<br>*0.3937* | 10,02<br>*0.3943* | 10,00<br>*0.3937* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 4 | ☐ | ☐ | ■ | ■ | ☐ | ☐ |
| NS10-11.00H7-EB... | – | 11,0<br>*0.4331* | 11,00<br>*0.4331* | 11,02<br>*0.4338* | 57,0<br>*2.2440* | 10,0<br>*0.3940* | 88,0<br>*3.4650* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-11.01H7-EB... | – | 11,01<br>*0.4335* | 11,01<br>*0.4335* | 11,03<br>*0.4342* | 57,0<br>*2.2440* | 10,0<br>*0.3940* | 88,0<br>*3.4650* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-11.02H7-EB... | – | 11,02<br>*0.4339* | 11,02<br>*0.4339* | 11,04<br>*0.4346* | 57,0<br>*2.2440* | 10,0<br>*0.3940* | 88,0<br>*3.4650* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-11.03H7-EB... | – | 11,03<br>*0.4343* | 11,03<br>*0.4343* | 11,05<br>*0.4350* | 57,0<br>*2.2440* | 10,0<br>*0.3940* | 88,0<br>*3.4650* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-11.04H7-EB... | – | 11,04<br>*0.4346* | 11,04<br>*0.4346* | 11,06<br>*0.4354* | 57,0<br>*2.2440* | 10,0<br>*0.3940* | 88,0<br>*3.4650* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-11.05H7-EB... | – | 11,05<br>*0.4350* | 11,05<br>*0.4350* | 11,07<br>*0.4357* | 57,0<br>*2.2440* | 10,0<br>*0.3940* | 88,0<br>*3.4650* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-11.112H7-EB... | – | 11,112<br>*0.4375* | 11,11<br>*0.4375* | 11,13<br>*0.4382* | 57,0<br>*2.2440* | 10,0<br>*0.3940* | 88,0<br>*3.4650* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-11.50H7-EB... | – | 11,5<br>*0.4528* | 11,50<br>*0.4528* | 11,52<br>*0.4535* | 57,0<br>*2.2440* | 10,0<br>*0.3940* | 88,0<br>*3.4650* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-11.97H7-EB... | – | 11,97<br>*0.4713* | 11,97<br>*0.4713* | 11,99<br>*0.4720* | 57,0<br>*2.2440* | 10,0<br>*0.3940* | 88,0<br>*3.4650* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-11.98H7-EB... | – | 11,98<br>*0.4717* | 11,98<br>*0.4717* | 12,00<br>*0.4724* | 57,0<br>*2.2440* | 10,0<br>*0.3940* | 88,0<br>*3.4650* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-11.99H7-EB... | – | 11,99<br>*0.4720* | 11,99<br>*0.4720* | 12,01<br>*0.4728* | 57,0<br>*2.2440* | 10,0<br>*0.3940* | 88,0<br>*3.4650* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-12.00H7-EB... | – | 12,0<br>*0.4724* | 12,00<br>*0.4724* | 12,02<br>*0.4731* | 57,0<br>*2.2440* | 10,0<br>*0.3940* | 88,0<br>*3.4650* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-12.01H7-EB... | – | 12,01<br>*0.4728* | 12,01<br>*0.4728* | 12,03<br>*0.4735* | 57,0<br>*2.2440* | 10,0<br>*0.3940* | 88,0<br>*3.4650* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-12.02H7-EB... | – | 12,02<br>*0.4732* | 12,02<br>*0.4732* | 12,04<br>*0.4739* | 57,0<br>*2.2440* | 10,0<br>*0.3940* | 88,0<br>*3.4650* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-12.03H7-EB... | – | 12,03<br>*0.4736* | 12,03<br>*0.4736* | 12,05<br>*0.4743* | 57,0<br>*2.2440* | 10,0<br>*0.3940* | 88,0<br>*3.4650* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-12.04H7-EB... | – | 12,04<br>*0.4740* | 12,04<br>*0.4740* | 12,06<br>*0.4747* | 57,0<br>*2.2440* | 10,0<br>*0.3940* | 88,0<br>*3.4650* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-12.05H7-EB... | – | 12,05<br>*0.4744* | 12,05<br>*0.4744* | 12,07<br>*0.4751* | 57,0<br>*2.2440* | 10,0<br>*0.3940* | 88,0<br>*3.4650* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-12H7-EB30 | 10019468 | 12,0<br>*0.4724* | 12,02<br>*0.4731* | 12,00<br>*0.4724* | 57,0<br>*2.2440* | 10,0<br>*0.3940* | 88,0<br>*3.4650* | 4 | ☐ | ☐ | ■ | ■ | ☐ | ☐ |
| NS10-6.334H7-EB... | – | 6,334<br>*0.2494* | 6,33<br>*0.2494* | 6,35<br>*0.2500* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-6.334H7-EB30 | 10019461 | 6,334<br>*0.2494* | 6,35<br>*0.2500* | 6,33<br>*0.2494* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 4 | ☐ | ☐ | ■ | ■ | ☐ | ☐ |
| NS10-6.350H7-EB... | – | 6,35<br>*0.2500* | 6,35<br>*0.2500* | 6,37<br>*0.2506* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

| Designation | Item number | DC | Hole dia min-max | | LUX | DMM | OAL | | Geometries | | | Grades | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | EB45 | EB845 | EB30 | RX2000 | RK2050 | H15 |
| NS10-6.3754H7-EB30 | 10019462 | 6,375<br>*0.2510* | 6,39<br>*0.2516* | 6,38<br>*0.2510* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 4 | ☐ | ☐ | ■ | ■ | ☐ | ☐ |
| NS10-6.375H7-EB... | – | 6,375<br>*0.2510* | 6,38<br>*0.2510* | 6,39<br>*0.2516* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-6.5H7-EB... | – | 6,5<br>*0.2559* | 6,50<br>*0.2559* | 6,52<br>*0.2565* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-6.97H7-EB... | – | 6,97<br>*0.2744* | 6,97<br>*0.2744* | 6,99<br>*0.2750* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-6.98H7-EB... | – | 6,98<br>*0.2748* | 6,98<br>*0.2748* | 7,00<br>*0.2754* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-6.99H7-EB... | – | 6,99<br>*0.2752* | 6,99<br>*0.2752* | 7,01<br>*0.2758* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-7.00H7-EB... | – | 7,0<br>*0.2756* | 7,00<br>*0.2756* | 7,02<br>*0.2762* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-7.01H7-EB... | – | 7,01<br>*0.2760* | 7,01<br>*0.2760* | 7,03<br>*0.2766* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-7.02H7-EB... | – | 7,02<br>*0.2764* | 7,02<br>*0.2764* | 7,04<br>*0.2770* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-7.03H7-EB... | – | 7,03<br>*0.2768* | 7,03<br>*0.2768* | 7,05<br>*0.2774* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-7.04H7-EB... | – | 7,04<br>*0.2772* | 7,04<br>*0.2772* | 7,06<br>*0.2778* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-7.05H7-EB... | – | 7,05<br>*0.2776* | 7,05<br>*0.2776* | 7,07<br>*0.2781* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-7.50H7-EB... | – | 7,5<br>*0.2953* | 7,50<br>*0.2953* | 7,52<br>*0.2959* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-7.9375H7-EB... | – | 7,9375<br>*0.3125* | 7,94<br>*0.3125* | 7,95<br>*0.3131* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-7.97H7-EB... | – | 7,97<br>*0.3138* | 7,97<br>*0.3138* | 7,99<br>*0.3144* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-7.98H7-EB... | – | 7,98<br>*0.3142* | 7,98<br>*0.3142* | 8,00<br>*0.3148* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-7.99H7-EB... | – | 7,99<br>*0.3146* | 7,99<br>*0.3146* | 8,01<br>*0.3152* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-7H7-EB30 | 10019463 | 7,0<br>*0.2756* | 7,02<br>*0.2762* | 7,00<br>*0.2756* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 4 | ☐ | ☐ | ■ | ■ | ☐ | ☐ |
| NS10-8.00H7-EB... | – | 8,0<br>*0.3150* | 8,00<br>*0.3150* | 8,02<br>*0.3156* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-8.01H7-EB... | – | 8,01<br>*0.3154* | 8,01<br>*0.3154* | 8,03<br>*0.3159* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-8.02H7-EB... | – | 8,02<br>*0.3157* | 8,02<br>*0.3157* | 8,04<br>*0.3163* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-8.03H7-EB... | – | 8,03<br>*0.3161* | 8,03<br>*0.3161* | 8,05<br>*0.3167* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-8.04H7-EB... | – | 8,04<br>*0.3165* | 8,04<br>*0.3165* | 8,06<br>*0.3171* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-8.05H7-EB... | – | 8,05<br>*0.3169* | 8,05<br>*0.3169* | 8,07<br>*0.3175* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-8.50H7-EB... | – | 8,5<br>*0.3346* | 8,50<br>*0.3346* | 8,52<br>*0.3352* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-8.97H7-EB... | – | 8,97<br>*0.3531* | 8,97<br>*0.3531* | 8,99<br>*0.3537* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-8.98H7-EB... | – | 8,98<br>*0.3535* | 8,98<br>*0.3535* | 9,00<br>*0.3541* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-8.99H7-EB... | – | 8,99<br>*0.3539* | 8,99<br>*0.3539* | 9,01<br>*0.3545* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-8H7-EB30 | 10019464 | 8,0<br>*0.3150* | 8,02<br>*0.3156* | 8,00<br>*0.3150* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 4 | ☐ | ☐ | ■ | ■ | ☐ | ☐ |
| NS10-9.00H7-EB... | – | 9,0<br>*0.3543* | 9,00<br>*0.3543* | 9,02<br>*0.3549* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

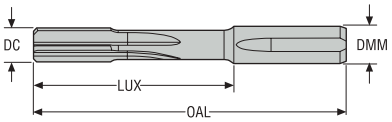
| Designation | Item number | DC | Hole dia min-max | | LUX | DMM | OAL | | Geometries | | | Grades | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | EB45 | EB845 | EB30 | RX2000 | RK2050 | H15 |
| NS10-9.01H7-EB... | – | 9,01<br>*0.3547* | 9,01<br>*0.3547* | 9,03<br>*0.3553* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-9.02H7-EB... | – | 9,02<br>*0.3551* | 9,02<br>*0.3551* | 9,04<br>*0.3557* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-9.03H7-EB... | – | 9,03<br>*0.3555* | 9,03<br>*0.3555* | 9,05<br>*0.3561* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-9.04H7-EB... | – | 9,04<br>*0.3559* | 9,04<br>*0.3559* | 9,06<br>*0.3565* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-9.05H7-EB... | – | 9,05<br>*0.3563* | 9,05<br>*0.3563* | 9,07<br>*0.3569* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-9.50H7-EB... | – | 9,5<br>*0.3740* | 9,50<br>*0.3740* | 9,52<br>*0.3746* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-9.5123H7-EB... | – | 9,5123<br>*0.3745* | 9,51<br>*0.3745* | 9,53<br>*0.3751* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-9.5250H7-EB... | – | 9,525<br>*0.3750* | 9,53<br>*0.3750* | 9,54<br>*0.3756* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-9.525H7-EB30 | 10019466 | 9,525<br>*0.3750* | 9,54<br>*0.3756* | 9,53<br>*0.3750* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 4 | ☐ | ☐ | ■ | ■ | ☐ | ☐ |
| NS10-9.97H7-EB... | – | 9,97<br>*0.3925* | 9,97<br>*0.3925* | 9,99<br>*0.3931* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-9.98H7-EB... | – | 9,98<br>*0.3929* | 9,98<br>*0.3929* | 10,00<br>*0.3935* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-9.99H7-EB... | – | 9,99<br>*0.3933* | 9,99<br>*0.3933* | 10,01<br>*0.3939* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 6 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-9H7-EB30 | 10019465 | 9,0<br>*0.3543* | 9,02<br>*0.3549* | 9,00<br>*0.3543* | 46,0<br>*1.8110* | 10,0<br>*0.3940* | 78,0<br>*3.0710* | 4 | ☐ | ☐ | ■ | ■ | ☐ | ☐ |

■ **Stock standard.** ☐ **Non stock standard.**
Note: When ordering Nanofix reamers for intermediate diameters, please state diameter and tolerance of hole to be reamed.
**Ordering example:** NS10-10.187/10.213-EB845, RX2000.

# Intermediate diameter

Straight flutes, short version, for through & blind bores





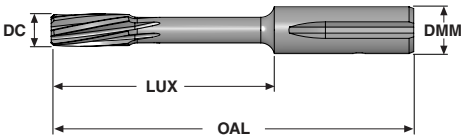

- For choice of geometry, please see page(s) 371-373
- For cutting data see page(s) 390-397

| Designation | DCN | DCX | LUX | DMM | OAL | | Body size | Geometries | Grades | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | | H15 | RK2050 | RX2000 | RN2010 | RM2020 | RM2090 | RS2090 |
| NS06-2.970-XX-XXXX | 2,97<br>*0.117* | 3,05<br>*0.120* | 25,0<br>*0.120* | 6,0<br>*0.236* | 45,0<br>*1.772* | 4 | NFQF06-xx | EB45 EB845 EB30 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS06-3.051-XX-XXXX | 3,051<br>*0.120* | 6,05<br>*0.238* | 30,0<br>*0.238* | 6,0<br>*0.236* | 50,0<br>*1.969* | 4 | NFQF06-xx | EB45 EB845 EB30 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-6.051-XX-XXXX | 6,051<br>*0.238* | 10,05<br>*0.396* | 46,0<br>*0.396* | 10,0<br>*0.394* | 78,0<br>*3.071* | 6 | NFQF10-xx | EB45 EB845 EB30 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS10-10.051-XX-XXXX | 10,051<br>*0.396* | 12,05<br>*0.474* | 57,0<br>*0.474* | 10,0<br>*0.394* | 88,0<br>*3.465* | 6 | NFQF10-xx | EB45 EB845 EB30 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

☐ **= Non stock standard.**
Note: When ordering Nanofix reamers for intermediate diameters, please state diameter and tolerance of hole to be reamed.
**Ordering example:** NS06-5.187/5.213-EB845, RX2000.

# Intermediate diameter

LH helical flutes, short version, for through bores






- For cutting data see page(s) 392-397
- For choice of geometry, please see page(s) 371-373

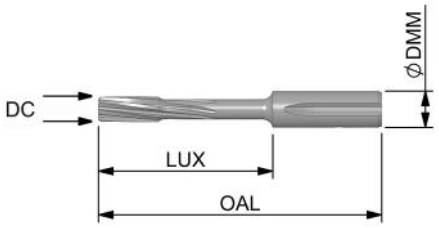
| Designation | DCN | DCX | LUX | DMM | OAL | | Body size | Geometries | Grades | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | | H15 | RK2050 | RX2000 | RN2010 | RM2020 | RM2090 | RS2090 |
| NS6-2.970-XX-XXXX | 2,97<br>*0.117* | 3,05<br>*0.120* | 25,0<br>*0.984* | 6,0<br>*0.236* | 45,0<br>*1.772* | 4 | NFQF06-xx | EB45 EB845 EB30 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS6-3.051-XX-XXXX | 3,051<br>*0.120* | 6,05<br>*0.238* | 30,0<br>*1.181* | 6,0<br>*0.236* | 50,0<br>*1.969* | 4 | NFQF06-xx | EB45 EB845 EB30 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS6-6.051-XX-XXXX | 6,051<br>*0.238* | 8,05<br>*0.317* | 46,0<br>*1.811* | 10,0<br>*0.394* | 78,0<br>*3.071* | 6 | NFQF10-xx | EB45 EB845 EB30 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS6-10.051-XX-XXXX | 10,051<br>*0.396* | 12,05<br>*0.474* | 57,0<br>*2.244* | 10,0<br>*0.394* | 88,0<br>*3.465* | 6 | NFQF10-xx | EB45 EB845 EB30 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

☐ **= Non stock standard.**
Note: When ordering Nanofix reamers for intermediate diameters, please state diameter and tolerance of hole to be reamed.
**Ordering example:** NS6-5.187/5.213-EB845, RX2000.

# Intermediate diameter

RH helical flutes, short version, for blind bores






- For choice of geometry, please see page(s) 371-373
- For cutting data see page(s) 390-397

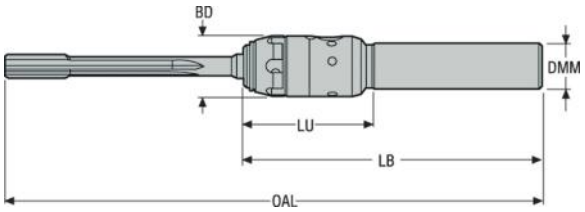
| Designation | DCN | DCX | LUX | DMM | OAL | | Body size | Geometries | Grades | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | | H15 | RK2050 | RX2000 | RN2010 | RM2020 | RM2090 | RS2090 |
| NS4-2.970-XX-XXXX | 2,97<br>*0.117* | 3,05<br>*0.120* | 25,0<br>*0.984* | 6,0<br>*0.236* | 45,0<br>*1.772* | 4 | NFQF06-xx | EB45 EB845 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS4-3.051-XX-XXXX | 3,051<br>*0.120* | 6,05<br>*0.238* | 30,0<br>*1.181* | 6,0<br>*0.236* | 50,0<br>*1.969* | 4 | NFQF06-xx | EB45 EB845 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS4-4.051-XX-XXXX | 6,051<br>*0.238* | 8,05<br>*0.317* | 46,0<br>*1.811* | 10,0<br>*0.394* | 78,0<br>*3.071* | 6 | NFQF10-xx | EB45 EB845 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| NS4-10.051-XX-XXXX | 10,051<br>*0.396* | 12,05<br>*0.474* | 57,0<br>*2.244* | 10,0<br>*0.394* | 88,0<br>*3.465* | 6 | NFQF10-xx | EB45 EB845 | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

☐ **= Non stock standard.**

Note: When ordering Nanofix reamers for intermediate diameters, please state diameter and tolerance of hole to be reamed.

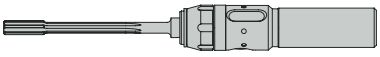
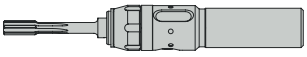
**Ordering example:** NS4-10.187/10.213-EB845, RX2000.

# Nanofix tool holder

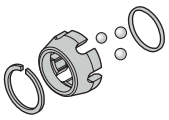





| Item number | Designation | DC | DMM | BD | LU | LB |
|---|---|---|---|---|---|---|
| | | mm | mm | mm | mm | mm |
| 02729041 | NFQF06-03000-16N1 | 2,97-6,05 | 16,0 | 16,0 | 30,0 | 80,0 |
| 02729037 | NFQF06-03300-12N1 | 2,97-6,05 | 12,0 | 16,0 | 35,0 | 80,0 |
| 02729036 | NFQF06-03700-10N1 | 2,97-6,05 | 10,0 | 16,0 | 37,0 | 80,0 |
| 02729046 | NFQF10-04700-20N1 | 6,051-12,05 | 20,0 | 23,0 | 47,0 | 100,0 |
| 02729045 | NFQF10-04900-16N1 | 6,051-12,05 | 16,0 | 23,0 | 49,0 | 100,0 |
| 02729044 | NFQF10-05200-12N1 | 6,051-12,05 | 12,0 | 23,0 | 52,0 | 100,0 |

| | Standard length | Short length |
|---|---|---|
| |  |  |
| **DC** | **OAL** | **OAL** |
| 2,970-3,050 mm *(0.1169-0.1200")* | 124,5 mm *(4.902")* | 109,5 mm *(4.311")* |
| 3,051-6,050 mm *(0.1201-0.2382")* | 144,5 mm *(5.689")* | 113,5 mm *(4.469")* |
| 6,051-8,050 mm *(0.2383-0.3169")* | 189,5 mm *(7.461")* | 149,5 mm *(5.886")* |
| 8,051-10,050 mm *(0.3170-0.3956")* | 199,5 mm *(7.854")* | 152,5 mm *(6.004")* |
| 10,051-12,050 mm *(0.3957-0.4744")* | 219,5 mm *(8.642")* | 162,5 mm *(6.398")* |

## Spare Parts, included in delivery

| DC | Spare Clamping Kit | Key |
|---|---|---|
| |  |  |
| 2,97-6,050 | NF06-CLKI | CLC06KEY |
| 6,051-12,050 | NF10-CLKI | CLC10KEY |

**Spare clamping kit for Nanofix holders includes:**
- 1 clamping nut
- 1 axial stop spring ring
- 3 clamping balls (dia 3,5 mm for size NF06 & dia 5 mm for size NF10)
- 1 fool-proof ball (dia 3 mm for size NF06 & dia 4 mm for size NF10)
- 1 o-ring

Note: fool-proof ball not shown on above view.

## Cutting data – NF/NS...-EB45 metric

| SMG | | $a_p$ (∅) | | f | | $v_c$ | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | z=4 | z=6 | z=4 | z=6 | H15 | CP20 | RX2000 | RK2050 | RN2010 | RM2020 | RM2090 | RS2090 |
| P1 | NF/NS-EB45 | 0,10-0,15 | 0,1-0,20 | 0,10-0,30 | 0,20-0,60 | 25 (15-30) | 60 (30-100) | 80 (30-150) | - | – | – | – | – |
| P2 | NF/NS-EB45 | 0,10-0,15 | 0,1-0,20 | 0,10-0,30 | 0,20-0,60 | 25 (15-30) | 60 (30-100) | 80 (30-150) | - | – | – | – | – |
| P3 | NF/NS-EB45 | 0,10-0,15 | 0,1-0,20 | 0,10-0,30 | 0,20-0,60 | 25 (15-30) | 60 (30-100) | 80 (30-150) | - | – | – | – | – |
| P4 | NF/NS-EB45 | 0,10-0,15 | 0,1-0,20 | 0,10-0,20 | 0,20-0,50 | 20 (10-25) | 50 (30-80) | 60 (30-120) | - | – | – | – | – |
| P5 | NF/NS-EB45 | 0,10-0,15 | 0,1-0,20 | 0,10-0,20 | 0,20-0,50 | 20 (10-25) | 50 (30-80) | 60 (30-120) | - | – | – | – | – |
| P6 | NF/NS-EB45 | 0,10-0,15 | 0,1-0,20 | 0,10-0,20 | 0,20-0,50 | 20 (10-25) | 50 (30-80) | 60 (30-120) | - | – | – | – | – |
| P7 | NF/NS-EB45 | 0,10-0,15 | 0,1-0,20 | 0,10-0,20 | 0,20-0,50 | 20 (10-25) | 50 (30-80) | 60 (30-120) | - | – | – | – | – |
| P8 | NF/NS-EB45 | 0,10-0,15 | 0,1-0,20 | 0,10-0,20 | 0,20-0,50 | 15 (10-20) | 35 (20-60) | 40 (20-80) | - | – | – | – | – |
| P11 | NF/NS-EB45 | 0,10-0,15 | 0,1-0,20 | 0,10-0,20 | 0,20-0,50 | 15 (10-20) | 35 (20-60) | 40 (20-80) | - | – | – | – | – |
| P12 | NF/NS-EB45 | 0,10-0,15 | 0,1-0,20 | 0,10-0,20 | 0,20-0,50 | 12 (8-15) | 25 (15-45) | 30 (15-65) | - | – | – | – | – |
| M1 | NF/NS-EB45 | 0,08-0,15 | 0,10-0,15 | 0,10-0,20 | 0,20-0,50 | 12 (9-15) | 25 (15-40) | 35 (20-60) | - | – | 25 (15-40) | 40 (20-60) | – |
| M2 | NF/NS-EB45 | 0,08-0,15 | 0,10-0,15 | 0,10-0,20 | 0,20-0,50 | – | 25 (15-40) | 35 (20-60) | - | – | 25 (15-40) | 40 (20-60) | – |
| M3 | NF/NS-EB45 | 0,08-0,15 | 0,10-0,15 | 0,10-0,20 | 0,20-0,50 | – | 25 (15-40) | 35 (20-60) | - | – | 25 (15-40) | 40 (20-60) | – |
| M4 | NF/NS-EB45 | 0,08-0,15 | 0,10-0,15 | 0,10-0,20 | 0,20-0,50 | – | 20 (10-30) | 25 (15-40) | - | – | 25 (10-30) | 30 (15-40) | – |
| M5 | NF/NS-EB45 | 0,08-0,15 | 0,10-0,15 | 0,10-0,20 | 0,20-0,50 | – | 20 (10-30) | 25 (15-40) | - | – | 25 (10-30) | 30 (15-40) | – |
| K1 | NF/NS-EB45 | 0,10-0,20 | 0,10-0,25 | 0,10-0,30 | 0,20-0,60 | 25 (15-30) | 60 (40-100) | 80 (30-150) | 90 (35-170) | – | – | – | – |
| K2 | NF/NS-EB45 | 0,10-0,20 | 0,10-0,25 | 0,10-0,30 | 0,20-0,60 | – | 25 (20-40) | 40 (30-70) | 45 (35-80) | – | – | – | – |
| K3 | NF/NS-EB45 | 0,10-0,20 | 0,10-0,25 | 0,10-0,30 | 0,20-0,60 | 25 (15-30) | 60 (40-100) | 80 (30-150) | 90 (35-170) | – | – | – | – |
| K4 | NF/NS-EB45 | 0,10-0,20 | 0,10-0,25 | 0,10-0,30 | 0,20-0,60 | 25 (15-30) | 45 (30-70) | 70 (40-120) | 80 (45-135) | – | – | – | – |
| K5 | NF/NS-EB45 | 0,10-0,20 | 0,10-0,25 | 0,10-0,30 | 0,20-0,60 | 25 (15-30) | 45 (30-70) | 70 (40-120) | 80 (45-135) | – | – | – | – |
| K6 | NF/NS-EB45 | 0,10-0,20 | 0,10-0,25 | 0,10-0,30 | 0,20-0,60 | – | 60 (40-100) | 80 (30-150) | 90 (35-170) | – | – | – | – |
| K7 | NF/NS-EB45 | 0,10-0,20 | 0,10-0,25 | 0,10-0,30 | 0,20-0,60 | – | 60 (40-100) | 80 (30-150) | 90 (35-170) | – | – | – | – |
| N1 | NF/NS-EB45 | 0,10-20 | 0,10-0,30 | 0,10-0,30 | 0,20-0,60 | 50 (20-80) | - | 80 (30-150) | - | 50 (20-80) | – | – | – |
| N2 | NF/NS-EB45 | 0,10-20 | 0,10-0,30 | 0,10-0,30 | 0,20-0,60 | 50 (20-80) | - | 80 (30-150) | - | 50 (20-80) | – | – | – |
| N3 | NF/NS-EB45 | 0,10-20 | 0,10-0,30 | 0,10-0,30 | 0,20-0,60 | 50 (20-80) | - | 80 (30-150) | - | 50 (20-80) | – | – | – |
| N4 | NF/NS-EB45 | 0,10-20 | 0,10-0,30 | 0,10-0,30 | 0,20-0,60 | 50 (20-80) | - | 80 (30-150) | - | 50 (20-80) | – | – | – |
| S1 | NF/NS-EB45 | 0,08-0,15 | 0,10-0,15 | 0,10-0,20 | 0,20-0,30 | – | 15 (8-20) | 20 (10-25) | - | – | – | – | 20 (10-25) |
| S2 | NF/NS-EB45 | 0,08-0,15 | 0,10-0,15 | 0,10-0,20 | 0,20-0,30 | – | 15 (8-20) | 20 (10-25) | - | – | – | – | 20 (10-25) |
| S3 | NF/NS-EB45 | 0,08-0,15 | 0,10-0,15 | 0,10-0,20 | 0,20-0,30 | – | 15 (8-20) | 20 (10-25) | - | – | – | – | 25 (10-25) |
| S11 | NF/NS-EB45 | 0,08-0,15 | 0,10-0,15 | 0,10-0,20 | 0,20-0,30 | 20 (15-30) | 30 (15-40) | 40 (20-50) | - | – | – | – | 30 (20-50) |
| S12 | NF/NS-EB45 | 0,08-0,15 | 0,10-0,15 | 0,10-0,20 | 0,20-0,30 | 20 (15-30) | 30 (15-40) | 40 (20-50) | - | – | – | – | 30 (20-50) |
| S13 | NF/NS-EB45 | 0,08-0,15 | 0,10-0,15 | 0,10-0,20 | 0,20-0,30 | 20 (15-30) | 30 (15-40) | 40 (20-50) | - | – | – | – | 30 (20-50) |

The table continues on next page.

## Cutting data – NF/NS...-EB45 metric

| SMG | | $a_p$ (∅) | | f | | $v_c$ | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | z=4 | z=6 | z=4 | z=6 | H15 | CP20 | RX2000 | RK2050 | RN2010 | RM2020 | RM2090 | RS2090 |
| H3 | NF/NS-EB45 | 0,08-0,15 | 0,10-0,15 | 0,10-0,20 | 0,20-0,30 | – | – | 10 (8-15) | – | – | – | – | – |
| H5 | NF/NS-EB45 | 0,08-0,15 | 0,10-0,15 | 0,10-0,20 | 0,20-0,30 | – | – | 10 (8-15) | – | – | – | – | – |
| H7 | NF/NS-EB45 | 0,08-0,15 | 0,10-0,15 | 0,10-0,20 | 0,20-0,30 | – | – | 10 (8-15) | – | – | – | – | – |
| H8 | NF/NS-EB45 | 0,08-0,15 | 0,10-0,15 | 0,10-0,20 | 0,20-0,30 | – | – | 10 (8-15) | – | – | – | – | – |
| H11 | NF/NS-EB45 | 0,08-0,15 | 0,10-0,15 | 0,10-0,20 | 0,20-0,30 | – | – | 10 (8-15) | – | – | – | – | – |
| H12 | NF/NS-EB45 | 0,08-0,15 | 0,10-0,15 | 0,10-0,20 | 0,20-0,30 | – | – | 10 (8-15) | – | – | – | – | – |
| H21 | NF/NS-EB45 | 0,08-0,15 | 0,10-0,15 | 0,10-0,20 | 0,20-0,30 | – | – | 10 (8-15) | – | – | – | – | – |
| H31 | NF/NS-EB45 | 0,08-0,15 | 0,10-0,15 | 0,10-0,20 | 0,20-0,30 | – | – | 10 (8-15) | – | – | – | – | – |
| PM1 | NF/NS-EB45 | 0,10-0,15 | 0,1-0,20 | 0,10-0,20 | 0,20-0,50 | – | 50 (30-80) | 70 (40-100) | – | – | – | – | – |
| PM2 | NF/NS-EB45 | 0,10-0,15 | 0,1-0,20 | 0,10-0,20 | 0,20-0,50 | – | 50 (30-80) | 70 (40-100) | – | – | – | – | – |
| PM3 | NF/NS-EB45 | 0,10-0,15 | 0,1-0,20 | 0,10-0,20 | 0,20-0,50 | – | 50 (30-80) | 70 (40-100) | – | – | – | – | – |
| TS1 | NF/NS-EB45 | 0,10-0,15 | 0,1-0,20 | 0,10-0,30 | 0,20-0,60 | 20 (15-25) | – | 40 (20-60) | – | – | – | – | – |
| TS2 | NF/NS-EB45 | 0,10-0,15 | 0,1-0,20 | 0,10-0,30 | 0,20-0,60 | 20 (15-25) | – | 40 (20-60) | – | – | – | – | – |
| TS3 | NF/NS-EB45 | 0,10-0,15 | 0,1-0,20 | 0,10-0,30 | 0,20-0,60 | 20 (15-25) | – | 40 (20-60) | – | – | – | – | – |
| TS4 | NF/NS-EB45 | 0,10-0,15 | 0,1-0,20 | 0,10-0,30 | 0,20-0,60 | 20 (15-25) | – | 40 (20-60) | – | – | – | – | – |
| TP1 | NF/NS-EB45 | 0,10-0,15 | 0,1-0,20 | 0,10-0,30 | 0,20-0,60 | 20 (15-25) | – | 40 (20-60) | – | – | – | – | – |
| TP2 | NF/NS-EB45 | 0,10-0,15 | 0,1-0,20 | 0,10-0,30 | 0,20-0,60 | 20 (15-25) | – | 40 (20-60) | – | – | – | – | – |
| TP3 | NF/NS-EB45 | 0,10-0,15 | 0,1-0,20 | 0,10-0,30 | 0,20-0,60 | 20 (15-25) | – | 40 (20-60) | – | – | – | – | – |
| TP4 | NF/NS-EB45 | 0,10-0,15 | 0,1-0,20 | 0,10-0,30 | 0,20-0,60 | 20 (15-25) | – | 40 (20-60) | – | – | – | – | – |
| GR1 | NF/NS-EB45 | 0,10-0,15 | 0,1-0,20 | 0,10-0,30 | 0,20-0,60 | 40 (80-20) | – | 60 (30-120) | – | – | – | – | – |

SMG = Seco material group
$a_p$ = mm
f = mm/rev
$v_c$= m/min
All cutting data are start values

## Cutting data – NF/NS...-EB45 *inch*

| SMG | | $a_p$ (∅) | | f | | $v_c$ | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | z=4 | z=6 | z=4 | z=6 | H15 | CP20 | RX2000 | RK2050 | RN2010 | RM2020 | RM2090 | RS2090 |
| P1 | NF/NS-EB45 | 0.004-0.006 | 0.004-0.008 | 0.004-0.012 | 0.008-0.024 | 80 (50-100) | 195 (100-330) | 260 (100-490) | – | – | – | – | – |
| P2 | NF/NS-EB45 | 0.004-0.006 | 0.004-0.008 | 0.004-0.012 | 0.008-0.024 | 80 (50-100) | 195 (100-330) | 260 (100-490) | – | – | – | – | – |
| P3 | NF/NS-EB45 | 0.004-0.006 | 0.004-0.008 | 0.004-0.012 | 0.008-0.024 | 80 (50-100) | 195 (100-330) | 260 (100-490) | – | – | – | – | – |
| P4 | NF/NS-EB45 | 0.004-0.006 | 0.004-0.008 | 0.004-0.008 | 0.008-0.020 | 65 (35-80) | 165 (100-260) | 195 (100-395) | – | – | – | – | – |
| P5 | NF/NS-EB45 | 0.004-0.006 | 0.004-0.008 | 0.004-0.008 | 0.008-0.020 | 65 (35-80) | 165 (100-260) | 195 (100-395) | – | – | – | – | – |
| P6 | NF/NS-EB45 | 0.004-0.006 | 0.004-0.008 | 0.004-0.008 | 0.008-0.020 | 65 (35-80) | 165 (100-260) | 195 (100-395) | – | – | – | – | – |
| P7 | NF/NS-EB45 | 0.004-0.006 | 0.004-0.008 | 0.004-0.008 | 0.008-0.020 | 65 (35-80) | 165 (100-260) | 195 (100-395) | – | – | – | – | – |
| P8 | NF/NS-EB45 | 0.004-0.006 | 0.004-0.008 | 0.004-0.008 | 0.008-0.020 | 50 (35-65) | 115 (65-195) | 130 (65-260) | – | – | – | – | – |
| P11 | NF/NS-EB45 | 0.004-0.006 | 0.004-0.008 | 0.004-0.008 | 0.008-0.020 | 50 (35-65) | 115 (65-195) | 130 (65-260) | – | – | – | – | – |
| P12 | NF/NS-EB45 | 0.004-0.006 | 0.004-0.008 | 0.004-0.008 | 0.008-0.020 | 40 (25-50) | 80 (50-150) | 100 (50-215) | – | – | – | – | – |
| M1 | NF/NS-EB45 | 0.003-0.006 | 0.004-0.006 | 0.004-0.008 | 0.008-0.020 | 40 (30-50) | 80 (50-130) | 115 (65-195) | – | – | 80 (50-130) | 130 (65-195) | – |
| M2 | NF/NS-EB45 | 0.003-0.006 | 0.004-0.006 | 0.004-0.008 | 0.008-0.020 | – | 80 (50-130) | 115 (65-195) | – | – | 80 (50-130) | 130 (65-195) | – |
| M3 | NF/NS-EB45 | 0.003-0.006 | 0.004-0.006 | 0.004-0.008 | 0.008-0.020 | – | 80 (50-130) | 115 (65-195) | – | – | 80 (50-130) | 130 (65-195) | – |
| M4 | NF/NS-EB45 | 0.003-0.006 | 0.004-0.006 | 0.004-0.008 | 0.008-0.020 | – | 65 (35-100) | 80 (50-130) | – | – | 65 (35-100) | 100 (50-130) | – |
| M5 | NF/NS-EB45 | 0.003-0.006 | 0.004-0.006 | 0.004-0.008 | 0.008-0.020 | – | 65 (35-100) | 80 (50-130) | – | – | 65 (35-100) | 100 (50-130) | – |
| K1 | NF/NS-EB45 | 0.004-0.008 | 0.004-0.010 | 0.004-0.012 | 0.008-0.024 | 80 (50-100) | 195 (130-330) | 260 (100-490) | 290 (110-550) | – | – | – | – |
| K2 | NF/NS-EB45 | 0.004-0.008 | 0.004-0.010 | 0.004-0.012 | 0.008-0.024 | – | 80 (65-130) | 130 (100-230) | 145 (110-260) | – | – | – | – |
| K3 | NF/NS-EB45 | 0.004-0.008 | 0.004-0.010 | 0.004-0.012 | 0.008-0.024 | 80 (50-100) | 195 (130-330) | 260 (100-490) | 290 (110-550) | – | – | – | – |
| K4 | NF/NS-EB45 | 0.004-0.008 | 0.004-0.010 | 0.004-0.012 | 0.008-0.024 | 80 (50-100) | 150 (100-230) | 230 (130-395) | 260 (145-440) | – | – | – | – |
| K5 | NF/NS-EB45 | 0.004-0.008 | 0.004-0.010 | 0.004-0.012 | 0.008-0.024 | 80 (50-100) | 150 (100-230) | 230 (130-395) | 260 (145-440) | – | – | – | – |
| K6 | NF/NS-EB45 | 0.004-0.008 | 0.004-0.010 | 0.004-0.012 | 0.008-0.024 | – | 195 (130-330) | 260 (100-490) | 290 (110-550) | – | – | – | – |
| K7 | NF/NS-EB45 | 0.004-0.008 | 0.004-0.010 | 0.004-0.012 | 0.008-0.024 | – | 195 (130-330) | 260 (100-490) | 290 (110-550) | – | – | – | – |
| N1 | NF/NS-EB45 | 0.004-0.787 | 0.004-0.012 | 0.004-0.012 | 0.008-0.024 | 165 (65-260) | – | 260 (100-490) | – | 165 (65-260) | – | – | – |
| N2 | NF/NS-EB45 | 0.004-0.787 | 0.004-0.012 | 0.004-0.012 | 0.008-0.024 | 165 (65-260) | – | 260 (100-490) | – | 165 (65-260) | – | – | – |
| N3 | NF/NS-EB45 | 0.004-0.787 | 0.004-0.012 | 0.004-0.012 | 0.008-0.024 | 165 (65-260) | – | 260 (100-490) | – | 165 (65-260) | – | – | – |
| N4 | NF/NS-EB45 | 0.004-0.787 | 0.004-0.012 | 0.004-0.012 | 0.008-0.024 | 165 (65-260) | – | 260 (100-490) | – | 165 (65-260) | – | – | – |
| S1 | NF/NS-EB45 | 0.003-0.006 | 0.004-0.006 | 0.004-0.008 | 0.008-0.012 | – | 50 (25-65) | 65 (35-80) | – | – | – | – | 65 (35-80) |
| S2 | NF/NS-EB45 | 0.003-0.006 | 0.004-0.006 | 0.004-0.008 | 0.008-0.012 | – | 50 (25-65) | 65 (35-80) | – | – | – | – | 65 (35-80) |
| S3 | NF/NS-EB45 | 0.003-0.006 | 0.004-0.006 | 0.004-0.008 | 0.008-0.012 | – | 50 (25-65) | 65 (35-80) | – | – | – | – | 80 (35-80) |
| S11 | NF/NS-EB45 | 0.003-0.006 | 0.004-0.006 | 0.004-0.008 | 0.008-0.012 | 65 (50-100) | 100 (50-130) | 130 (65-165) | – | – | – | – | 100 (65-165) |
| S12 | NF/NS-EB45 | 0.003-0.006 | 0.004-0.006 | 0.004-0.008 | 0.008-0.012 | 65 (50-100) | 100 (50-130) | 130 (65-165) | – | – | – | – | 100 (65-165) |
| S13 | NF/NS-EB45 | 0.003-0.006 | 0.004-0.006 | 0.004-0.008 | 0.008-0.012 | 65 (50-100) | 100 (50-130) | 130 (65-165) | – | – | – | – | 100 (65-165) |

The table continues on next page.

## Cutting data – NF/NS...-EB45 *inch*

| SMG | | $a_p$ (∅) | | f | | $v_c$ | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | z=4 | z=6 | z=4 | z=6 | H15 | CP20 | RX2000 | RK2050 | RN2010 | RM2020 | RM2090 | RS2090 |
| H3 | NF/NS-EB45 | 0.003-0.006 | 0.004-0.006 | 0.004-0.008 | 0.008-0.012 | – | – | 35 (25-50) | – | – | – | – | – |
| H5 | NF/NS-EB45 | 0.003-0.006 | 0.004-0.006 | 0.004-0.008 | 0.008-0.012 | – | – | 35 (25-50) | – | – | – | – | – |
| H7 | NF/NS-EB45 | 0.003-0.006 | 0.004-0.006 | 0.004-0.008 | 0.008-0.012 | – | – | 35 (25-50) | – | – | – | – | – |
| H8 | NF/NS-EB45 | 0.003-0.006 | 0.004-0.006 | 0.004-0.008 | 0.008-0.012 | – | – | 35 (25-50) | – | – | – | – | – |
| H11 | NF/NS-EB45 | 0.003-0.006 | 0.004-0.006 | 0.004-0.008 | 0.008-0.012 | – | – | 35 (25-50) | – | – | – | – | – |
| H12 | NF/NS-EB45 | 0.003-0.006 | 0.004-0.006 | 0.004-0.008 | 0.008-0.012 | – | – | 35 (25-50) | – | – | – | – | – |
| H21 | NF/NS-EB45 | 0.003-0.006 | 0.004-0.006 | 0.004-0.008 | 0.008-0.012 | – | – | 35 (25-50) | – | – | – | – | – |
| H31 | NF/NS-EB45 | 0.003-0.006 | 0.004-0.006 | 0.004-0.008 | 0.008-0.012 | – | – | 35 (25-50) | – | – | – | – | – |
| PM1 | NF/NS-EB45 | 0.004-0.006 | 0.004-0.008 | 0.004-0.008 | 0.008-0.020 | – | 165 (100-260) | 230 (130-350) | – | – | – | – | – |
| PM2 | NF/NS-EB45 | 0.004-0.006 | 0.004-0.008 | 0.004-0.008 | 0.008-0.020 | – | 165 (100-260) | 230 (130-350) | – | – | – | – | – |
| PM3 | NF/NS-EB45 | 0.004-0.006 | 0.004-0.008 | 0.004-0.008 | 0.008-0.020 | – | 165 (100-260) | 230 (130-350) | – | – | – | – | – |
| TS1 | NF/NS-EB45 | 0.004-0.006 | 0.004-0.008 | 0.004-0.012 | 0.008-0.024 | 65 (50-80) | – | 130 (65-195) | – | – | – | – | – |
| TS2 | NF/NS-EB45 | 0.004-0.006 | 0.004-0.008 | 0.004-0.012 | 0.008-0.024 | 65 (50-80) | – | 130 (65-195) | – | – | – | – | – |
| TS3 | NF/NS-EB45 | 0.004-0.006 | 0.004-0.008 | 0.004-0.012 | 0.008-0.024 | 65 (50-80) | – | 130 (65-195) | – | – | – | – | – |
| TS4 | NF/NS-EB45 | 0.004-0.006 | 0.004-0.008 | 0.004-0.012 | 0.008-0.024 | 65 (50-80) | – | 130 (65-195) | – | – | – | – | – |
| TP1 | NF/NS-EB45 | 0.004-0.006 | 0.004-0.008 | 0.004-0.012 | 0.008-0.024 | 65 (50-80) | – | 130 (65-195) | – | – | – | – | – |
| TP2 | NF/NS-EB45 | 0.004-0.006 | 0.004-0.008 | 0.004-0.012 | 0.008-0.024 | 65 (50-80) | – | 130 (65-195) | – | – | – | – | – |
| TP3 | NF/NS-EB45 | 0.004-0.006 | 0.004-0.008 | 0.004-0.012 | 0.008-0.024 | 65 (50-80) | – | 130 (65-195) | – | – | – | – | – |
| TP4 | NF/NS-EB45 | 0.004-0.006 | 0.004-0.008 | 0.004-0.012 | 0.008-0.024 | 65 (50-80) | – | 130 (65-195) | – | – | – | – | – |
| GR1 | NF/NS-EB45 | 0.004-0.006 | 0.004-0.008 | 0.004-0.012 | 0.008-0.024 | 130 (65-260) | – | 195 (100-395) | – | – | – | – | – |

SMG = Seco material group
$a_p$ = *inch*
f = in/rev
$v_c$= sf/min
All cutting data are start values

## Cutting data – NF/NS...-EB845 metric

| SMG | | $a_p$ (∅) | | f | | $v_c$ | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | z=4 | z=6 | z=4 | z=6 | H15 | CP20 | RX2000 | RK2050 | RM2020 | RM2090 | RS2090 |
| P3 | NF/NS-EB845 | 0,10 -0,15 | 0,1 -0,20 | 0,10 -0,30 | 0,20 -0,60 | – | 60 (30-100) | 80 (30-150) | – | – | – | - |
| P4 | NF/NS-EB845 | 0,10 -0,15 | 0,1 -0,20 | 0,10 -0,20 | 0,20 -0,50 | – | 50 (30-80) | 60 (30-120) | – | – | – | - |
| P5 | NF/NS-EB845 | 0,10 -0,15 | 0,1 -0,20 | 0,10 -0,20 | 0,20 -0,50 | 20 (10-25) | 50 (30-80) | 60 (30-120) | – | – | – | - |
| P6 | NF/NS-EB845 | 0,10 -0,15 | 0,1 -0,20 | 0,10 -0,20 | 0,20 -0,50 | 20 (10-25) | 50 (30-80) | 60 (30-120) | – | – | – | - |
| P7 | NF/NS-EB845 | 0,10 -0,15 | 0,1 -0,20 | 0,10 -0,20 | 0,20 -0,50 | 20 (10-25) | 50 (30-80) | 60 (30-120) | – | – | – | - |
| P8 | NF/NS-EB845 | 0,10 -0,15 | 0,1 -0,20 | 0,10 -0,20 | 0,20 -0,50 | 15 (10-20) | 35 (20-60) | 40 (20-80) | – | – | – | - |
| P11 | NF/NS-EB845 | 0,10 -0,15 | 0,1 -0,20 | 0,10 -0,20 | 0,20 -0,50 | 15 (10-20) | 35 (20-60) | 40 (20-80) | – | – | – | - |
| P12 | NF/NS-EB845 | 0,10 -0,15 | 0,1 -0,20 | 0,10 -0,20 | 0,20 -0,50 | 12 (8-15) | 25 (15-45) | 30 (15-65) | – | – | – | - |
| M1 | NF/NS-EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,10 -0,20 | 0,20 -0,50 | 12 (9-15) | 25 (15-45) | 35 (20-60) | – | 25 (15-40) | 40 (20-60) | - |
| M2 | NF/NS-EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,10 -0,20 | 0,20 -0,50 | – | 25 (15-45) | 35 (20-60) | – | 25 (15-40) | 40 (20-60) | - |
| M3 | NF/NS-EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,10 -0,20 | 0,20 -0,50 | – | 25 (15-45) | 35 (20-60) | – | 25 (15-40) | 40 (20-60) | - |
| M4 | NF/NS-EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,10 -0,20 | 0,20 -0,50 | – | 20 (10-30) | 25 (15-40) | – | 25 (10-30) | 30 (15-40) | - |
| M5 | NF/NS-EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,10 -0,20 | 0,20 -0,50 | – | 20 (10-30) | 25 (15-40) | – | 25 (10-30) | 30 (15-40) | - |
| K1 | NF/NS-EB845 | 0,10 -0,20 | 0,10 -0,25 | 0,10 -0,30 | 0,20 -0,60 | 25 (15-30) | 60 (40-100) | 80 (30-150) | 90 (35-170) | – | – | |
| K2 | NF/NS-EB845 | 0,10 -0,20 | 0,10 -0,25 | 0,10 -0,30 | 0,20 -0,60 | – | 25 (20-40) | 40 (30-70) | 45 (35-80) | – | – | |
| K3 | NF/NS-EB845 | 0,10 -0,20 | 0,10 -0,25 | 0,10 -0,30 | 0,20 -0,60 | 25 (15-30) | 60 (40-100) | 80 (30-150) | 90 (35-170) | – | – | |
| K4 | NF/NS-EB845 | 0,10 -0,20 | 0,10 -0,25 | 0,10 -0,30 | 0,20 -0,60 | 25 (15-30) | 45 (30-70) | 70 (40-120) | 80 (30-150) | – | – | |
| K5 | NF/NS-EB845 | 0,10 -0,20 | 0,10 -0,25 | 0,10 -0,30 | 0,20 -0,60 | 25 (15-30) | 45 (30-70) | 70 (40-120) | 80 (45-135) | – | – | |
| K6 | NF/NS-EB845 | 0,10 -0,20 | 0,10 -0,25 | 0,10 -0,30 | 0,20 -0,60 | – | 60 (40-100) | 80 (30-150) | 90 (35-170) | – | – | |
| K7 | NF/NS-EB845 | 0,10 -0,20 | 0,10 -0,25 | 0,10 -0,30 | 0,20 -0,60 | – | 60 (40-100) | 80 (30-150) | 90 (35-170) | – | – | - |
| S1 | NF/NS-EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,10 -0,20 | 0,20- 0,30 | – | 15 (8-20) | 20 (10-25) | – | – | – | 20 (10-25) |
| S2 | NF/NS-EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,10 -0,20 | 0,20- 0,30 | – | 15 (8-20) | 20 (10-25) | – | – | – | 20 (10-25) |
| S3 | NF/NS-EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,10 -0,20 | 0,20- 0,30 | – | 15 (8-20) | 20 (10-25) | – | – | – | 25 (10-25) |
| S11 | NF/NS-EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,10 -0,20 | 0,20- 0,30 | 20 (15-30) | 30 (15-40) | 40 (20-50) | – | – | – | 30 (20-50) |
| S12 | NF/NS-EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,10 -0,20 | 0,20- 0,30 | 20 (15-30) | 30 (15-40) | 40 (20-50) | – | – | – | 30 (20-50) |
| S13 | NF/NS-EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,10 -0,20 | 0,20- 0,30 | 20 (15-30) | 30 (15-40) | 40 (20-50) | – | – | – | 30 (20-50) |
| H3 | NF/NS-EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,10 -0,20 | 0,20- 0,30 | – | – | 10 (8-15) | – | – | – | - |
| H5 | NF/NS-EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,10 -0,20 | 0,20- 0,30 | – | – | 10 (8-15) | – | – | – | - |
| H7 | NF/NS-EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,10 -0,20 | 0,20- 0,30 | – | – | 10 (8-15) | – | – | – | - |
| H8 | NF/NS-EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,10 -0,20 | 0,20- 0,30 | – | – | 10 (8-15) | – | – | – | - |
| H11 | NF/NS-EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,10 -0,20 | 0,20- 0,30 | – | – | 10 (8-15) | – | – | – | - |
| H12 | NF/NS-EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,10 -0,20 | 0,20- 0,30 | – | – | 10 (8-15) | – | – | – | - |
| H21 | NF/NS-EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,10 -0,20 | 0,20- 0,30 | – | – | 10 (8-15) | – | – | – | - |
| H31 | NF/NS-EB845 | 0,08 -0,15 | 0,10 -0,15 | 0,10 -0,20 | 0,20- 0,30 | – | – | 10 (8-15) | – | – | – | - |
| PM1 | NF/NS-EB845 | 0,10 -0,15 | 0,1 -0,20 | 0,10 -0,20 | 0,20 -0,50 | – | 50 (30-80) | 70 (40-100) | – | – | – | - |
| PM2 | NF/NS-EB845 | 0,10 -0,15 | 0,1 -0,20 | 0,10 -0,20 | 0,20 -0,50 | – | 50 (30-80) | 70 (40-100) | – | – | – | - |
| PM3 | NF/NS-EB845 | 0,10 -0,15 | 0,1 -0,20 | 0,10 -0,20 | 0,20 -0,50 | – | 50 (30-80) | 70 (40-100) | – | – | – | - |

SMG = Seco material group
$a_p$ = mm
f = mm/rev
$v_c$= m/min
All cutting data are start values

## Cutting data – NF/NS...-EB845 *inch*

| SMG | | $a_p$ (∅) | | f | | $v_c$ | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | z=4 | z=6 | z=4 | z=6 | H15 | CP20 | RX2000 | RK2050 | RM2020 | RM2090 | RS2090 |
| P3 | NF/NS-EB845 | 0.004 –0.006 | 0.004 –0.008 | 0.004 –0.012 | 0.008 –0.024 | – | 195 (100-330) | 260 (100-490) | – | – | – | - |
| P4 | NF/NS-EB845 | 0.004 –0.006 | 0.004 –0.008 | 0.004 –0.008 | 0.008 –0.020 | – | 165 (100-260) | 195 (100-395) | – | – | – | - |
| P5 | NF/NS-EB845 | 0.004 –0.006 | 0.004 –0.008 | 0.004 –0.008 | 0.008 –0.020 | 65 (35-80) | 165 (100-260) | 195 (100-395) | – | – | – | - |
| P6 | NF/NS-EB845 | 0.004 –0.006 | 0.004 –0.008 | 0.004 –0.008 | 0.008 –0.020 | 65 (35-80) | 165 (100-260) | 195 (100-395) | – | – | – | - |
| P7 | NF/NS-EB845 | 0.004 –0.006 | 0.004 –0.008 | 0.004 –0.008 | 0.008 –0.020 | 65 (35-80) | 165 (100-260) | 195 (100-395) | – | – | – | - |
| P8 | NF/NS-EB845 | 0.004 –0.006 | 0.004 –0.008 | 0.004 –0.008 | 0.008 –0.020 | 50 (35-65) | 115 (65-195) | 130 (65-260) | – | – | – | - |
| P11 | NF/NS-EB845 | 0.004 –0.006 | 0.004 –0.008 | 0.004 –0.008 | 0.008 –0.020 | 50 (35-65) | 115 (65-195) | 130 (65-260) | – | – | – | - |
| P12 | NF/NS-EB845 | 0.004 –0.006 | 0.004 –0.008 | 0.004 –0.008 | 0.008 –0.020 | 40 (25-50) | 80 (50-150) | 100 (50-125) | – | – | – | – |
| M1 | NF/NS-EB845 | 0.003 -0.006 | 0.004 –0.006 | 0.004 –0.008 | 0.008 -0.02 | 40 (30-50) | 80 (50-150) | 115 (65-200) | – | 80 (50-130) | 130 (65-195) | - |
| M2 | NF/NS-EB845 | 0.003 -0.006 | 0.004 –0.006 | 0.004 –0.008 | 0.008 -0.02 | – | 80 (50-150) | 115 (65-200) | – | 80 (50-130) | 130 (65-195) | - |
| M3 | NF/NS-EB845 | 0.003 -0.006 | 0.004 –0.006 | 0.004 –0.008 | 0.008 -0.02 | – | 80 (50-150) | 115 (65-200) | – | 80 (50-130) | 130 (65-195) | - |
| M4 | NF/NS-EB845 | 0.003 -0.006 | 0.004 –0.006 | 0.004 –0.008 | 0.008 -0.02 | – | 65 (30-100) | 80 (50-135) | – | 80 (35-100) | 100 (50-130) | - |
| M5 | NF/NS-EB845 | 0.003 -0.006 | 0.004 –0.006 | 0.004 –0.008 | 0.008 -0.02 | – | 65 (30-100) | 80 (50-135) | – | 80 (35-100) | 100 (50-130) | - |
| K1 | NF/NS-EB845 | 0.004 –0.008 | 0.004 –0.010 | 0.004 –0.012 | 0.008 –0.024 | 80 (50-100) | 195 (130-330) | 260 (100-490) | 290 (110-550) | – | – | |
| K2 | NF/NS-EB845 | 0.004 –0.008 | 0.004 –0.010 | 0.004 –0.012 | 0.008 –0.024 | – | 80 (65-130) | 130 (100-230) | 145 (110-260) | – | – | |
| K3 | NF/NS-EB845 | 0.004 –0.008 | 0.004 –0.010 | 0.004 –0.012 | 0.008 –0.024 | 80 (50-100) | 195 (130-330) | 260 (100-490) | 290 (110-550) | – | – | |
| K4 | NF/NS-EB845 | 0.004 –0.008 | 0.004 –0.010 | 0.004 –0.012 | 0.008 –0.024 | 80 (50-100) | 150 (100-330) | 230 (130-395) | 260 (145-440) | – | – | |
| K5 | NF/NS-EB845 | 0.004 –0.008 | 0.004 –0.010 | 0.004 –0.012 | 0.008 –0.024 | 80 (50-100) | 150 (100-330) | 230 (130-395) | 260 (145-440) | – | – | |
| K6 | NF/NS-EB845 | 0.004 –0.008 | 0.004 –0.010 | 0.004 –0.012 | 0.008 –0.024 | – | 195 (130-330) | 260 (100-490) | 290 (110-550) | – | – | |
| K7 | NF/NS-EB845 | 0.004 –0.008 | 0.004 –0.010 | 0.004 –0.012 | 0.008 –0.024 | – | 195 (130-330) | 260 (100-490) | 290 (110-550) | – | – | - |
| S1 | NF/NS-EB845 | 0.003 –0.006 | 0.004 –0.006 | 0.004 –0.008 | 0.008 –0.012 | – | 50 (25-65) | 65 (35-80) | – | – | – | 65 (35-80) |
| S2 | NF/NS-EB845 | 0.003 –0.006 | 0.004 –0.006 | 0.004 –0.008 | 0.008 –0.012 | – | 50 (25-65) | 65 (35-80) | – | – | – | 65 (35-80) |
| S3 | NF/NS-EB845 | 0.003 –0.006 | 0.004 –0.006 | 0.004 –0.008 | 0.008 –0.012 | – | 50 (25-65) | 65 (35-80) | – | – | – | 65 (35-80) |
| S11 | NF/NS-EB845 | 0.003 –0.006 | 0.004 –0.006 | 0.004 –0.008 | 0.008 –0.012 | 65 (50-100) | 100 (50-130) | 130 (65-165) | – | – | – | 100 (65-165) |
| S12 | NF/NS-EB845 | 0.003 –0.006 | 0.004 –0.006 | 0.004 –0.008 | 0.008 –0.012 | 65 (50-100) | 100 (50-130) | 130 (65-165) | – | – | – | 100 (65-165) |
| S13 | NF/NS-EB845 | 0.003 –0.006 | 0.004 –0.006 | 0.004 –0.008 | 0.008 –0.012 | 65 (50-100) | 100 (50-130) | 130 (65-165) | – | – | – | 100 (65-165) |
| H3 | NF/NS-EB845 | 0.003 –0.006 | 0.004 –0.006 | 0.004 –0.008 | 0.008 –0.012 | – | – | 35 (25-50) | – | – | – | - |
| H5 | NF/NS-EB845 | 0.003 –0.006 | 0.004 –0.006 | 0.004 –0.008 | 0.008 –0.012 | – | – | 35 (25-50) | – | – | – | - |
| H7 | NF/NS-EB845 | 0.003 –0.006 | 0.004 –0.006 | 0.004 –0.008 | 0.008 –0.012 | – | – | 35 (25-50) | – | – | – | - |
| H8 | NF/NS-EB845 | 0.003 –0.006 | 0.004 –0.006 | 0.004 –0.008 | 0.008 –0.012 | – | – | 35 (25-50) | – | – | – | - |
| H11 | NF/NS-EB845 | 0.003 –0.006 | 0.004 –0.006 | 0.004 –0.008 | 0.008 –0.012 | – | – | 35 (25-50) | – | – | – | - |
| H12 | NF/NS-EB845 | 0.003 –0.006 | 0.004 –0.006 | 0.004 –0.008 | 0.008 –0.012 | – | – | 35 (25-50) | – | – | – | - |
| H21 | NF/NS-EB845 | 0.003 –0.006 | 0.004 –0.006 | 0.004 –0.008 | 0.008 –0.012 | – | – | 35 (25-50) | – | – | – | - |
| H31 | NF/NS-EB845 | 0.003 –0.006 | 0.004 –0.006 | 0.004 –0.008 | 0.008 –0.012 | – | – | 35 (25-50) | – | – | – | - |
| PM1 | NF/NS-EB845 | 0.004 –0.006 | 0.004 –0.008 | 0.004 –0.008 | 0.008 –0.020 | – | 165 (100-260) | 230 (130-350) | – | – | – | - |
| PM2 | NF/NS-EB845 | 0.004 –0.006 | 0.004 –0.008 | 0.004 –0.008 | 0.008 –0.020 | – | 165 (100-260) | 230 (130-350) | – | – | – | - |
| PM3 | NF/NS-EB845 | 0.004 –0.006 | 0.004 –0.008 | 0.004 –0.008 | 0.008 –0.020 | – | 165 (100-260) | 230 (130-350) | – | – | – | - |

SMG = Seco material group
$a_p$ = *inch*
f = in/rev
$v_c$= sf/min
All cutting data are start values

## Cutting data – NF/NS...-EB25/EB30 metric

| SMG | | $a_p$ (∅) | | f | | $v_c$ | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | z=4 | z=6 | z=4 | z=6 | H15 | CP20 | RX2000 | RK2050 |
| P1 | NF/NS-EB25/EB30 | 0,10-0,15 | 0,1-0,20 | 0,3-0,9 | 0,5-1,2 | 25 (15-30) | 60 (30-100) | 80 (30-150) | – |
| P2 | NF/NS-EB25/EB30 | 0,10-0,15 | 0,1-0,20 | 0,3-0,9 | 0,5-1,2 | 25 (15-30) | 60 (30-100) | 80 (30-150) | – |
| P3 | NF/NS-EB25/EB30 | 0,10-0,15 | 0,1-0,20 | 0,3-0,9 | 0,5-1,2 | 25 (15-30) | 60 (30-100) | 80 (30-150) | – |
| P4 | NF/NS-EB25/EB30 | 0,10-0,15 | 0,1-0,20 | 0,3-0,7 | 0,5-1 | 20 (10-25) | 50 (30-80) | 60 (30-120) | – |
| P5 | NF/NS-EB25/EB30 | 0,10-0,15 | 0,1-0,20 | 0,3-0,7 | 0,5-1 | 20 (10-25) | 50 (30-80) | 60 (30-120) | – |
| P6 | NF/NS-EB25/EB30 | 0,10-0,15 | 0,1-0,20 | 0,3-0,7 | 0,5-1 | 20 (10-25) | 50 (30-80) | 60 (30-120) | – |
| P7 | NF/NS-EB25/EB30 | 0,10-0,15 | 0,1-0,20 | 0,3-0,7 | 0,5-1 | 20 (10-25) | 50 (30-80) | 60 (30-120) | – |
| M1 | NF/NS-EB25/EB30 | 0,08-0,15 | 0,10-0,15 | 0,3-0,7 | 0,5-1 | – | 25 (15-40) | 35 (20-60) | – |
| K1 | NF/NS-EB25/EB30 | 0,10-0,20 | 0,10-0,25 | 0,3-0,9 | 0,5-1,2 | 25 (15-30) | 60 (40-100) | 80 (30-150) | 90 (35-170) |
| K2 | NF/NS-EB25/EB30 | 0,10-0,20 | 0,10-0,25 | 0,3-0,9 | 0,5-1,2 | – | 25 (20-40) | 40 (30-70) | 45 (35-80) |
| K3 | NF/NS-EB25/EB30 | 0,10-0,20 | 0,10-0,25 | 0,3-0,9 | 0,5-1,2 | 25 (15-30) | 60 (40-100) | 80 (30-150) | 90 (35-170) |
| K4 | NF/NS-EB25/EB30 | 0,10-0,20 | 0,10-0,25 | 0,3-0,9 | 0,5-1,2 | 25 (15-30) | 45 (30-70) | 70 (40-120) | 80 (45-135) |
| K5 | NF/NS-EB25/EB30 | 0,10-0,20 | 0,10-0,25 | 0,3-0,9 | 0,5-1,2 | 25 (15-30) | 45 (30-70) | 70 (40-120) | 80 (45-135) |
| K6 | NF/NS-EB25/EB30 | 0,10-0,20 | 0,10-0,25 | 0,3-0,9 | 0,5-1,2 | – | 60 (40-100) | 80 (30-150) | 90 (35-170) |
| K7 | NF/NS-EB25/EB30 | 0,10-0,20 | 0,10-0,25 | 0,3-0,9 | 0,5-1,2 | – | 60 (40-100) | 80 (30-150) | 90 (35-170) |
| N1 | NF/NS-EB25/EB30 | 0,10-20 | 0,10-0,30 | 0,3-0,9 | 0,5-1,2 | 50 (20-80) | – | – | – |
| N2 | NF/NS-EB25/EB30 | 0,10-20 | 0,10-0,30 | 0,3-0,9 | 0,5-1,2 | 50 (20-80) | – | – | – |
| N3 | NF/NS-EB25/EB30 | 0,10-20 | 0,10-0,30 | 0,3-0,9 | 0,5-1,2 | 50 (20-80) | – | – | – |
| N11 | NF/NS-EB25/EB30 | 0,10-20 | 0,10-0,30 | 0,3-0,9 | 0,5-1,2 | 50 (20-80) | – | – | – |
| PM1 | NF/NS-EB25/EB30 | 0,10-0,15 | 0,1-0,20 | 0,3-0,9 | 0,5-1,2 | – | 50 (30-80) | 70 (40-100) | – |
| PM2 | NF/NS-EB25/EB30 | 0,10-0,15 | 0,1-0,20 | 0,3-0,9 | 0,5-1,2 | – | 50 (30-80) | 70 (40-100) | – |
| PM3 | NF/NS-EB25/EB30 | 0,10-0,15 | 0,1-0,20 | 0,3-0,9 | 0,5-1,2 | – | 50 (30-80) | 70 (40-100) | – |

SMG = Seco material group
$a_p$ = mm
f = mm/rev
$v_c$= m/min
All cutting data are start values

## Cutting data – EB25/EB30 *inch*

| SMG | | $a_p$ (∅) | | f | | $v_c$ | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | z=4 | z=6 | z=4 | z=6 | H15 | CP20 | RX2000 | RK2050 |
| P1 | *NF/NS-EB25/EB30* | *0.004–0.006* | *0.004–0.008* | *0.012–0.035* | *0.020–0.047* | *80 (50-100)* | *195 (100-330)* | *260 (100-490)* | – |
| P2 | *NF/NS-EB25/EB30* | *0.004–0.006* | *0.004–0.008* | *0.012–0.035* | *0.020–0.047* | *80 (50-100)* | *195 (100-330)* | *260 (100-490)* | – |
| P3 | *NF/NS-EB25/EB30* | *0.004–0.006* | *0.004–0.008* | *0.012–0.035* | *0.020–0.047* | *80 (50-100)* | *195 (100-330)* | *260 (100-490)* | – |
| P4 | *NF/NS-EB25/EB30* | *0.004–0.006* | *0.004–0.008* | *0.012–0.028* | *0.020–0.039* | *65 (35-80)* | *165 (100-265)* | *195 (100-395)* | – |
| P5 | *NF/NS-EB25/EB30* | *0.004–0.006* | *0.004–0.008* | *0.012–0.028* | *0.020–0.039* | *65 (35-80)* | *165 (100-265)* | *195 (100-395)* | – |
| P6 | *NF/NS-EB25/EB30* | *0.004–0.006* | *0.004–0.008* | *0.012–0.028* | *0.020–0.039* | *65 (35-80)* | *165 (100-265)* | *195 (100-395)* | – |
| P7 | *NF/NS-EB25/EB30* | *0.004–0.006* | *0.004–0.008* | *0.012–0.028* | *0.020–0.039* | *65 (35-80)* | *165 (100-265)* | *195 (100-395)* | – |
| M1 | *NF/NS-EB25/EB30* | *0.003–0.006* | *0.004–0.006* | *0.012–0.028* | *0.020–0.039* | – | *80 (50-130)* | *115 (65-195)* | – |
| K1 | *NF/NS-EB25/EB30* | *0.004–0.008* | *0.004–0.010* | *0.012–0.035* | *0.020–0.047* | *80 (50-100)* | *195 (130-330)* | *260 (100-490)* | *290 (110-550)* |
| K2 | *NF/NS-EB25/EB30* | *0.004–0.008* | *0.004–0.010* | *0.012–0.035* | *0.020–0.047* | – | *80 (65-130)* | *130 (100-230)* | *145 (110-260)* |
| K3 | *NF/NS-EB25/EB30* | *0.004–0.008* | *0.004–0.010* | *0.012–0.035* | *0.020–0.047* | *80 (50-100)* | *195 (130-330)* | *260 (100-490)* | *290 (110-550)* |
| K4 | *NF/NS-EB25/EB30* | *0.004–0.008* | *0.004–0.010* | *0.012–0.035* | *0.020–0.047* | *80 (50-100)* | *150 (100-230)* | *230 (130-395)* | *260 (145-440)* |
| K5 | *NF/NS-EB25/EB30* | *0.004–0.008* | *0.004–0.010* | *0.012–0.035* | *0.020–0.047* | *80 (50-100)* | *150 (100-230)* | *230 (130-395)* | *260 (145-440)* |
| K6 | *NF/NS-EB25/EB30* | *0.004–0.008* | *0.004–0.010* | *0.012–0.035* | *0.020–0.047* | – | *195 (130-330)* | *260 (100-490)* | *290 (110-550)* |
| K7 | *NF/NS-EB25/EB30* | *0.004–0.008* | *0.004–0.010* | *0.012–0.035* | *0.020–0.047* | – | *195 (130-330)* | *260 (100-490)* | *290 (110-550)* |
| N1 | *NF/NS-EB25/EB30* | *0.004–0.787* | *0.004–0.012* | *0.012–0.035* | *0.020–0.047* | *165 (65-265)* | – | – | – |
| N2 | *NF/NS-EB25/EB30* | *0.004–0.787* | *0.004–0.012* | *0.012–0.035* | *0.020–0.047* | *165 (65-265)* | – | – | – |
| N3 | *NF/NS-EB25/EB30* | *0.004–0.787* | *0.004–0.012* | *0.012–0.035* | *0.020–0.047* | *165 (65-265)* | – | – | – |
| N11 | *NF/NS-EB25/EB30* | *0.004–0.787* | *0.004–0.012* | *0.012–0.035* | *0.020–0.047* | *165 (65-265)* | – | – | – |
| PM1 | *NF/NS-EB25/EB30* | *0.004–0.006* | *0.004–0.008* | *0.012–0.035* | *0.020–0.047* | – | *165 (100-265)* | *230 (130-330)* | – |
| PM2 | *NF/NS-EB25/EB30* | *0.004–0.006* | *0.004–0.008* | *0.012–0.035* | *0.020–0.047* | – | *165 (100-265)* | *230 (130-330)* | – |
| PM3 | *NF/NS-EB25/EB30* | *0.004–0.006* | *0.004–0.008* | *0.012–0.035* | *0.020–0.047* | – | *165 (100-265)* | *230 (130-330)* | – |

SMG = Seco material group
$a_p$ = *inch*
f = in/rev
$v_c$= sf/min
All cutting data are start values

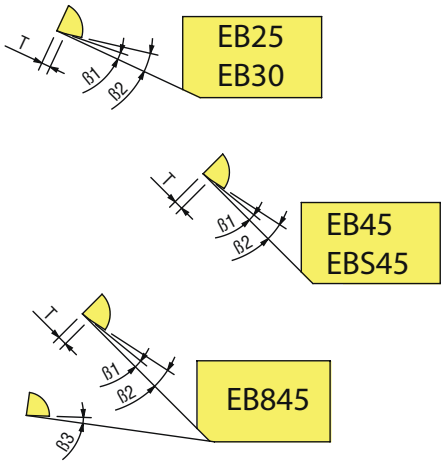
# Regrinding instructions

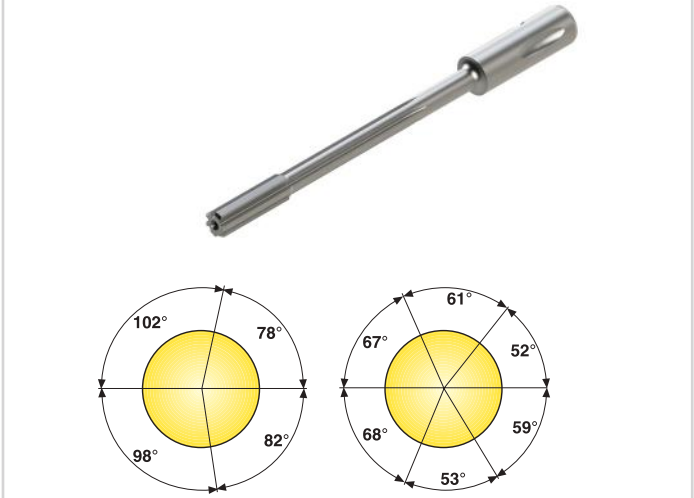
**Specifications**

Diamond grinding wheel
Grain size:
D6 for 1st clearance angle (β1 - β3)
D64 for 2nd clearance angle (β2)

**Important**

Regrinding reduces reamer diameter.
Recoating may produce oversized diameter.
Max run-out on lead chamfers 10 µm *(394 µin)*.




| Nanofix ∅ | β1 | β2 | β3 | T |
|---|---|---|---|---|
| 2,97-9,99 mm | 8° | 18° | 8° | 0,15 mm |
| 10,00-12,050 mm | | | | 0,20 mm |



# Bifix®

Bifix® indexable blade reamers bring high-precision performance to all workpiece material groups

- Enables tolerances held between 8 and 16µm and a surface finish of Ra 0.25 (RMS 12 micro/inch)
- Indexable blades feature two cutting edges per blade
- Three cermet guide pads and an accurate adjusting system

# Range overview

| | ∅ Range | Reaming depth | Hole ∅ tolerance | Intermediate diameter | Surface finish |
|---|---|---|---|---|---|
| **SR80 For through holes**  | 6,875-60,500 mm *(0.2707-2.3819")* | 5-7 x D | IT 6 | Yes, available through My Design | $R_a$ 0,2-0,8 µm *($R_a$ 8-31 µin)* |
| **SR81 For blind holes**  | 7,875-60,500 mm *(0.3100-2.3819")* | 5-7 x D | IT 6-7 | Yes, available through My Design | $R_a$ 0,2-0,8 µm *($R_a$ 8-31 µin)* |
| **SR82 For blind holes short version**  | 7,875-60,500 mm *(0.3100-2.3819")* | 3-5 x D | IT 6-7 | Yes, available through My Design | $R_a$ 0,2-0,8 µm *($R_a$ 8-31 µin)* |

# Code keys

## Reamers

Reamer type:
Type 80: Through hole
Type 81: Blind hole
Type 82: Blind hole, short version



Reamer type:
Type 80: Through hole
Type 81: Blind hole
Type 82: Blind hole, short version

Hole diameter and tolerance

Type of lead geometry
EN1, EN2, EN3

**SR80 - 16,85 P6 - EN1 - R - 9**

**0.6624”-0.6628”**

Shank type: (to be stated when requested style is not standard)
SR80 and SR81: R1 without flat is standard
SR82: R9 with flat is standard

## Blades

**Important:**
The reamer and the blade must have the same lead geometry.

Blade size:
P0, P1, P2, P4

Cutting rake angle:
0°, 6°, 12°

**P2 - EN1 - 06 - CP20**

Type of lead geometry
EN1, EN2, EN3

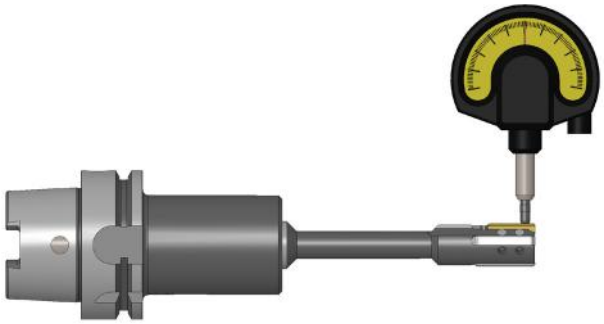
Carbide grade:
CP20, H15

# Set up and machining data

## Rotating tool

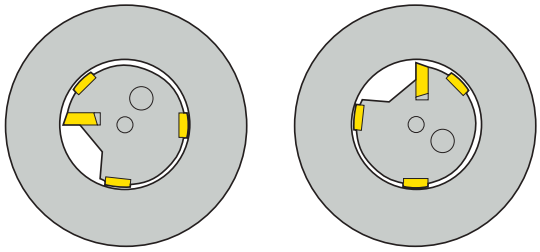
Max. run-out recommended: 0,02 mm *(0.0008")*.
Precision holder is recommended : Hydraulic chuck, D-type collet chuck, 5672 collet chuck or shrink-fit.

**Stationary tool**
Use a Seco floating holder, see page 482-486.



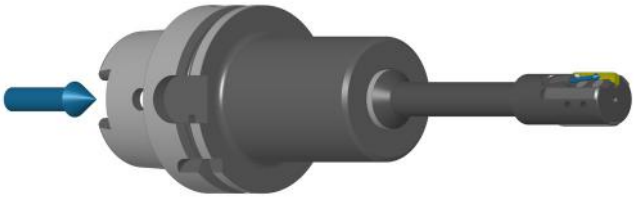
## For optimal chip evacuation

Recommended blade orientation for static tools (see drawing, view from front of tools).



## Coolant requirements

To reach maximum tool life and hole quality, the following coolant requirements should be observed.
Coolant through the tool is recommended. External coolant supply can be used if reaming depth < 2 x D.
Quality soluble oil with 40% minimum mineral oil. Neat oil recommended for stainless steel.
Filtration 30–50 µm *(1200-2000 µin)*.
Volume min 0,5 l/min/mm *(3.35 gal/min/inch)* in tool diameter.
Ex: Reamer ∅ 10, min volume is 5 l/min *(1.3 gal/min)*.



## Setting fixture

**SF-60200-C160C190: Part No. 02885396**
- Horizontal stand
- First choice for Ø smaller than 60 mm *(2.362")*
- 2 clocks
- Maximum tool Ø: 60,5 mm *(2.382")*
- Maximum tool length: 200 mm *(7.784")*



# Geometry choice – Blades

Note that reamer and blade must have the same lead geometry.

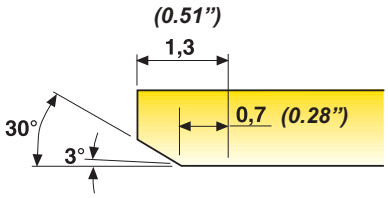
**Grade and rake angle**
Use the tables on page(s) 678-684 to classify the workpiece material into SMG.

Use the cutting data recommendation table on page 414-422 to choose grade and rake angle.

The blade programme is on page(s) 412, 413.

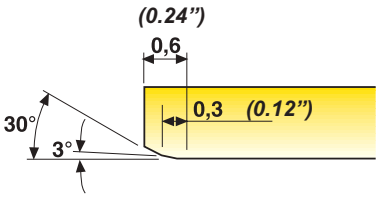
## EN1 – Application

Maximum machining allowance on ∅ 0,5 mm *(0.020")*
Surface Finish + $R_a$ 0,3 - 0,8 µm
*(Surface Finish + $R_a$ 12 - 31 µin)*



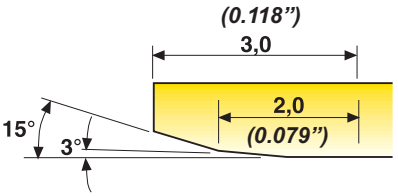

## EN2 – Short lead

Maximum machining allowance on ∅ 0,3 mm *(0.012")*
Surface Finish + $R_a$ 0,4 - 1,2 µm
*(Surface Finish + $R_a$ 16 - 47 µin)*
Maximum feed rate 0,2 mm/rev *(0.008" in/rev)*.
Only to be used when a short lead is required
Designed with end cutting




## EN3 – Extreme surface finish

Maximum machining allowance on ∅ 0,5 mm *(0.020")*
Surface Finish + $R_a$ 0,2 - 0,6 µm
*(Surface Finish + $R_a$ 8 - 24 µin)*
Suitable for all materials except aluminium
To be used when $R_a$ should be < 0,3–0,4 µm *(12-16 µin)*



# Optimization / Grades

Use the blade selection table to choose alternative blades for higher productivity or better security

## Blade selection

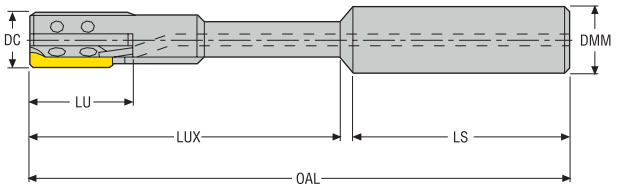
| Blade size | Steel | Stainless steel | Cast iron | Non-ferrous | Aluminium | Wear resistance ⟷ Toughness | | | Designation | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Productivity | Versatility | Security | Blade | Grade |
| P0, P1, P2, P4 | | | | | | | | | | |
| | | | • | • | | | | X | Pxx-ENx-00 | H15 |
| | • | | • | | • | | | X | Pxx-ENx-06 | H15 |
| | | • | | • | • | | | X | Pxx-ENx-12 | H15 |
| | • | | | | | X | | | Pxx-ENx-00 | CP20 |
| | • | | • | | | | X | | Pxx-ENx-06 | CP20 |
| | • | • | | | | | X | | Pxx-ENx-12 | CP20 |
| | • | | • | | | X | | | Pxx-ENx-00 | CP15 |
| | • | | • | | | X | | | Pxx-ENx-06 | CP15 |
| | • | • | | • | • | X | | | Pxx-ENx-12 | CP15 |
| | | | | | | | | | | |

## Grades

| | | |
|---|---|---|
|  | **CP15** | **Coated**<br>A wear-resistant coated grade alternative to CP20. For optimization in cast iron and steels.<br>Also suitable for non-ferrous.<br>Ti(C, N) |
|  | **CP20** | **Coated**<br>A versatile coated grade suitable for most materials, except aluminum.<br>TiN |
|  | **H15** | **Uncoated**<br>A tough micrograin grade for all materials. Suitable for fine-reaming operations due to edge sharpness. |

# For through holes ∅ 7H6-26H6

Shank type R1, cylindrical without flat, SR80






- Blade information on page(s) 412, 413
- Internal through coolant
- For cutting data see page(s) 414-422

| Designation | DC | OAL | LS | LUX | LU | DMM | Blade size |
|---|---|---|---|---|---|---|---|
| | mm | mm | mm | mm | mm | mm | |
| SR80-7H6-EN1 | 7 | 105 | 40 | 63 | 25 | 10 | P0-EN1-xx |
| SR80-8H6-EN1 | 8 | 115 | 40 | 73 | 25 | 10 | P0-EN1-xx |
| SR80-9H6-EN1 | 9 | 115 | 40 | 73 | 25 | 10 | P1-EN1-xx |
| SR80-10H6-EN1 | 10 | 115 | 40 | 74 | 25 | 10 | P1-EN1-xx |
| SR80-11H6-EN1 | 11 | 133 | 48 | 81 | 25 | 16 | P1-EN1-xx |
| SR80-12H6-EN1 | 12 | 133 | 48 | 81 | 25 | 16 | P1-EN1-xx |
| SR80-13H6-EN1 | 13 | 133 | 48 | 81 | 25 | 16 | P2-EN1-xx |
| SR80-14H6-EN1 | 14 | 133 | 48 | 81 | 25 | 16 | P2-EN1-xx |
| SR80-15H6-EN1 | 15 | 133 | 48 | 82 | 25 | 16 | P2-EN1-xx |
| SR80-16H6-EN1 | 16 | 133 | 48 | 82 | 25 | 16 | P2-EN1-xx |
| SR80-17H6-EN1 | 17 | 155 | 50 | 100 | 25 | 20 | P2-EN1-xx |
| SR80-18H6-EN1 | 18 | 155 | 50 | 100 | 25 | 20 | P2-EN1-xx |
| SR80-19H6-EN1 | 19 | 155 | 50 | 100 | 25 | 20 | P2-EN1-xx |
| SR80-20H6-EN1 | 20 | 155 | 50 | 100 | 30 | 20 | P4-EN1-xx |
| SR80-21H6-EN1 | 21 | 191 | 56 | 128 | 30 | 25 | P4-EN1-xx |
| SR80-22H6-EN1 | 22 | 191 | 56 | 129 | 30 | 25 | P4-EN1-xx |
| SR80-23H6-EN1 | 23 | 191 | 56 | 129 | 30 | 25 | P4-EN1-xx |
| SR80-24H6-EN1 | 24 | 191 | 56 | 129 | 30 | 25 | P4-EN1-xx |
| SR80-25H6-EN1 | 25 | 191 | 56 | 129 | 30 | 25 | P4-EN1-xx |
| SR80-26H6-EN1 | 26 | 191 | 56 | 129 | 30 | 25 | P4-EN1-xx |

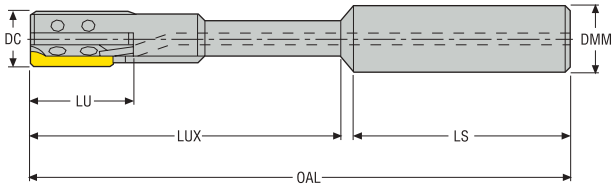
## Spare Parts

| For ∅ (mm) | Adjusting screw | Clamp | Clamp screw | Setting key | Support ball | Torque key | Torque value |
|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  | |
| 7-8 | SH2020 | SR-B0 | LH2040 | 0.9SMS795 | BB1.5 | - | - |
| 9 | SH2025 | SR-B1 | LH2540 | 1.3SMS795 | BB2.0 | H00-1305 | 0,5 Nm |
| 10-12 | SH2525 | SR-B2 | LH2540 | 1.3SMS795 | BB2.0 | H00-1305 | 0,5 Nm |
| 13-19 | SH2540 | SR-B3 | LH3050 | 1.5SMS795 | BB2.5 | H00-1509 | 0,9 Nm |
| 20-60 | SH3060 | SR-B5 | LH4010 | 2SMS795 | BB3.0 | H00-2020 | 2,0 Nm |

# For through holes ∅ 27H6–60H6

Shank type R1, cylindrical without flat, SR80






- Blade information on page(s) 412, 413
- Internal through coolant
- For cutting data see page(s) 414-422

| Designation | DC | OAL | LS | LUX | LU | DMM | Blade size |
|---|---|---|---|---|---|---|---|
| | mm | mm | mm | mm | mm | mm | |
| SR80-27H6-EN1 | 27 | 221 | 56 | 159 | 30 | 25 | P4-EN1-xx |
| SR80-28H6-EN1 | 28 | 221 | 56 | 159 | 30 | 25 | P4-EN1-xx |
| SR80-29H6-EN1 | 29 | 221 | 56 | 159 | 30 | 25 | P4-EN1-xx |
| SR80-30H6-EN1 | 30 | 221 | 56 | 159 | 30 | 25 | P4-EN1-xx |
| SR80-31H6-EN1 | 31 | 221 | 56 | 160 | 30 | 25 | P4-EN1-xx |
| SR80-32H6-EN1 | 32 | 221 | 56 | 160 | 30 | 25 | P4-EN1-xx |
| SR80-34H6-EN1 | 34 | 226 | 56 | 165 | 30 | 25 | P4-EN1-xx |
| SR80-35H6-EN1 | 35 | 226 | 56 | 165 | 30 | 25 | P4-EN1-xx |
| SR80-36H6-EN1 | 36 | 226 | 56 | 166 | 30 | 25 | P4-EN1-xx |
| SR80-38H6-EN1 | 38 | 226 | 56 | 166 | 30 | 25 | P4-EN1-xx |
| SR80-40H6-EN1 | 40 | 226 | 56 | 166 | 30 | 25 | P4-EN1-xx |
| SR80-42H6-EN1 | 42 | 226 | 56 | 167 | 30 | 25 | P4-EN1-xx |
| SR80-44H6-EN1 | 44 | 226 | 56 | 167 | 30 | 25 | P4-EN1-xx |
| SR80-48H6-EN1 | 48 | 226 | 56 | 168 | 30 | 25 | P4-EN1-xx |
| SR80-50H6-EN1 | 50 | 226 | 56 | 168 | 30 | 25 | P4-EN1-xx |
| SR80-52H6-EN1 | 52 | 226 | 56 | 169 | 30 | 25 | P4-EN1-xx |
| SR80-54H6-EN1 | 54 | 226 | 56 | 169 | 30 | 25 | P4-EN1-xx |
| SR80-58H6-EN1 | 58 | 226 | 56 | 169 | 30 | 25 | P4-EN1-xx |
| SR80-60H6-EN1 | 60 | 226 | 56 | 169 | 30 | 25 | P4-EN1-xx |

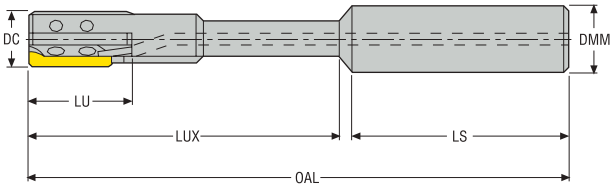
## Spare Parts

| For ∅ (mm) | Adjusting screw | Clamp | Clamp screw | Setting key | Support ball | Torque key | Torque value |
|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  | |
| 20-60 | SH4060 | SR-B5 | LH4010 | 2SMS795 | BB3.0 | H00-2020 | 2,0 Nm |

Torque key is delivered with driving blade

# For through holes – Intermediate diameter

Shank type R1, cylindrical without flat, SR80






- Blade information on page(s) 412, 413
- Important! Reamer and blade must have the same lead geometry
- For choice of lead geometry EN1, EN2 or EN3 see page(s) 403
- For cutting data see page(s) 414-422

| Designation | DC | OAL | LS | LUX | LU | DMM | Blade size |
|---|---|---|---|---|---|---|---|
| | mm | mm | mm | mm | mm | mm | |
| SR80-10.750-XX-XXXX-EN | 10,75 - 12,749 | 133,0 | 48,0 | 81,0 | 25,0 | 16,0 | P1-EN-xx |
| SR80-12.750-XX-XXXX-EN | 12,75 - 16,749 | 133,0 | 48,0 | 81,0 | 25,0 | 16,0 | P2-EN-xx |
| SR80-16.750-XX-XXXX-EN | 16,75 - 19,499 | 155,0 | 50,0 | 100,0 | 25,0 | 20,0 | P2-EN-xx |
| SR80-19.500-XX-XXXX-EN | 19,5 - 20,499 | 155,0 | 50,0 | 100,0 | 30,0 | 20,0 | P4-EN-xx |
| SR80-20.500-XX-XXXX-EN | 20,5 - 26,499 | 191,0 | 56,0 | 129,0 | 30,0 | 25,0 | P4-EN-xx |
| SR80-26.500-XX-XXXX-EN | 26,5 - 32,499 | 221,0 | 56,0 | 160,0 | 30,0 | 25,0 | P4-EN-xx |
| SR80-32.500-XX-XXXX-EN | 32,5 - 38,499 | 226,0 | 56,0 | 165,0 | 30,0 | 25,0 | P4-EN-xx |
| SR80-38.500-XX-XXXX-EN | 38,5 - 40,499 | 226,0 | 56,0 | 166,0 | 30,0 | 25,0 | P4-EN-xx |
| SR80-40.500-XX-XXXX-EN | 40,5 - 44,499 | 226,0 | 56,0 | 167,0 | 30,0 | 25,0 | P4-EN-xx |
| SR80-44.500-XX-XXXX-EN | 44,5 - 50,499 | 226,0 | 56,0 | 168,0 | 30,0 | 25,0 | P4-EN-xx |
| SR80-50.500-XX-XXXX-EN | 50,5 - 60,5 | 226,0 | 56,0 | 169,0 | 30,0 | 25,0 | P4-EN-xx |
| SR80-6.875-XX-XXXX-EN | 6,875 - 7,874 | 105,0 | 40,0 | 63,0 | 15,0 | 10,0 | P0-EN-xx |
| SR80-7.875-XX-XXXX-EN | 7,875 - 8,749 | 115,0 | 40,0 | 73,0 | 25,0 | 10,0 | P0-EN-xx |
| SR80-8.750-XX-XXXX-EN | 8,75 - 9,749 | 115,0 | 40,0 | 73,0 | 25,0 | 10,0 | P1-EN-xx |
| SR80-9.750-XX-XXXX-EN | 9,75 - 10,749 | 115,0 | 40,0 | 73,0 | 25,0 | 10,0 | P1-EN-xx |

## Spare Parts, included in delivery

## Accessories

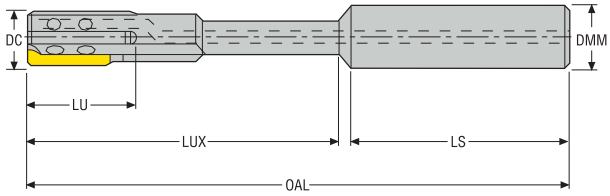
| For ∅ (mm) | Adjusting screw | Clamp | Clamp screw | Setting key | Support ball | Torque key |
|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |
| 9,750-12,749 | SH2525 | SR-B2 | LH2540 | 1.3SMS795 | BB2.0 | H00-1305 |
| 12,750-19,499 | SH3040 | SR-B3 | LH3050 | 1.5SMS795 | BB2.0 | H00-1509 |
| 19,500-60,500 | SH4060 | SR-B5 | LH4010 | 2SMS795 | BB3.0 | H00-2020 |
| 6,875-8,749 | SH2020 | SR-B0 | LH2040 | 0.9SMS795 | BB1.5 | – |
| 8,750-9,749 | SH2525 | SR-B1 | LH2540 | 1.3SMS795 | BB2.0 | H00-1305 |

Torque key is delivered with driving blade
Note! When ordering reamers for intermediate diameter, please state: ∅ and tolerance of bore to be reamed, lead geometry (EN1, EN2 or EN3).
**Ordering example:** SR80-11.50 H7-EN2, P1-EN2-06, CP20.

# For blind holes ∅ 8H6-26H6

Shank type R1, cylindrical without flat, SR81






- Blade information on page(s) 412, 413
- Internal through coolant
- For cutting data see page(s) 414-422

| Designation | DC | OAL | LS | LUX | LU | DMM | Blade size |
|---|---|---|---|---|---|---|---|
| | mm | mm | mm | mm | mm | mm | |
| SR81-8H6-EN1 | 8 | 115 | 40 | 73 | 25 | 10 | P0-EN1-xx |
| SR81-9H6-EN1 | 9 | 115 | 40 | 73 | 25 | 10 | P1-EN1-xx |
| SR81-11H6-EN1 | 11 | 133 | 48 | 81 | 25 | 16 | P1-EN1-xx |
| SR81-13H6-EN1 | 13 | 133 | 48 | 81 | 25 | 16 | P2-EN1-xx |
| SR81-14H6-EN1 | 14 | 133 | 48 | 81 | 25 | 16 | P2-EN1-xx |
| SR81-15H6-EN1 | 15 | 133 | 48 | 82 | 25 | 16 | P2-EN1-xx |
| SR81-16H6-EN1 | 16 | 133 | 48 | 82 | 25 | 16 | P2-EN1-xx |
| SR81-17H6-EN1 | 17 | 155 | 50 | 100 | 25 | 20 | P2-EN1-xx |
| SR81-18H6-EN1 | 18 | 155 | 50 | 100 | 25 | 20 | P2-EN1-xx |
| SR81-19H6-EN1 | 19 | 155 | 50 | 100 | 25 | 20 | P2-EN1-xx |
| SR81-20H6-EN1 | 20 | 155 | 50 | 100 | 30 | 20 | P4-EN1-xx |
| SR81-21H6-EN1 | 21 | 191 | 56 | 128 | 30 | 25 | P4-EN1-xx |
| SR81-22H6-EN1 | 22 | 191 | 56 | 129 | 30 | 25 | P4-EN1-xx |
| SR81-23H6-EN1 | 23 | 191 | 56 | 129 | 30 | 25 | P4-EN1-xx |
| SR81-25H6-EN1 | 25 | 191 | 56 | 129 | 30 | 25 | P4-EN1-xx |
| SR81-26H6-EN1 | 26 | 191 | 56 | 129 | 30 | 25 | P4-EN1-xx |

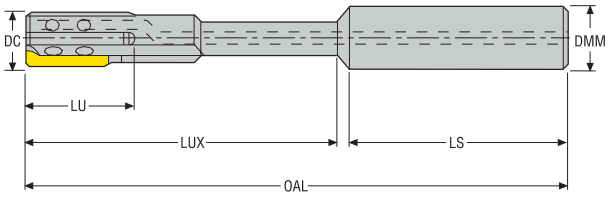
## Spare Parts

| For ∅ (mm) | Adjusting screw | Clamp | Clamp screw | Setting key | Support ball | Torque key | Torque value |
|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  | |
| 8 | SH2020 | SR-B0 | LH2040 | 0.9SMS795 | BB1.5 | - | - |
| 9 | SH2525 | SR-B1 | LH2540 | 1.3SMS795 | BB2.0 | H00-1305 | 0,5 Nm |
| 10-12 | SH2525 | SR-B2 | LH2540 | 1.3SMS795 | BB2.0 | H00-1305 | 0,5 Nm |
| 13-19 | SH3040 | SR-B3 | LH3050 | 1.5SMS795 | BB2.5 | H00-1509 | 0,9 Nm |
| 20-60 | SH4060 | SR-B5 | LH4010 | 2SMS795 | BB3.0 | H00-2020 | 2,0 Nm |

Torque key is delivered with driving blade

# For blind holes ∅ 27H6–60H6

Shank type R1, cylindrical without flat, SR81






- Blade information on page(s) 412, 413
- Internal through coolant
- For cutting data see page(s) 414-422

| Designation | DC | OAL | LS | LUX | LU | DMM | Blade size |
|---|---|---|---|---|---|---|---|
| | mm | mm | mm | mm | mm | mm | |
| SR81-27H6-EN1 | 27 | 221 | 56 | 159 | 30 | 25 | P4-EN1-xx |
| SR81-28H6-EN1 | 28 | 221 | 56 | 159 | 30 | 25 | P4-EN1-xx |
| SR81-29H6-EN1 | 29 | 221 | 56 | 159 | 30 | 25 | P4-EN1-xx |
| SR81-30H6-EN1 | 30 | 221 | 56 | 159 | 30 | 25 | P4-EN1-xx |
| SR81-31H6-EN1 | 31 | 221 | 56 | 160 | 30 | 25 | P4-EN1-xx |
| SR81-32H6-EN1 | 32 | 221 | 56 | 160 | 30 | 25 | P4-EN1-xx |
| SR81-34H6-EN1 | 34 | 226 | 56 | 165 | 30 | 25 | P4-EN1-xx |
| SR81-35H6-EN1 | 35 | 226 | 56 | 165 | 30 | 25 | P4-EN1-xx |
| SR81-36H6-EN1 | 36 | 226 | 56 | 166 | 30 | 25 | P4-EN1-xx |
| SR81-38H6-EN1 | 38 | 226 | 56 | 166 | 30 | 25 | P4-EN1-xx |
| SR81-40H6-EN1 | 40 | 226 | 56 | 166 | 30 | 25 | P4-EN1-xx |
| SR81-42H6-EN1 | 42 | 226 | 56 | 167 | 30 | 25 | P4-EN1-xx |
| SR81-44H6-EN1 | 44 | 226 | 56 | 167 | 30 | 25 | P4-EN1-xx |
| SR81-48H6-EN1 | 48 | 226 | 56 | 168 | 30 | 25 | P4-EN1-xx |
| SR81-50H6-EN1 | 50 | 226 | 56 | 168 | 30 | 25 | P4-EN1-xx |
| SR81-52H6-EN1 | 52 | 226 | 56 | 169 | 30 | 25 | P4-EN1-xx |
| SR81-54H6-EN1 | 54 | 226 | 56 | 169 | 30 | 25 | P4-EN1-xx |
| SR81-58H6-EN1 | 58 | 226 | 56 | 169 | 30 | 25 | P4-EN1-xx |
| SR81-60H6-EN1 | 60 | 226 | 56 | 169 | 30 | 25 | P4-EN1-xx |

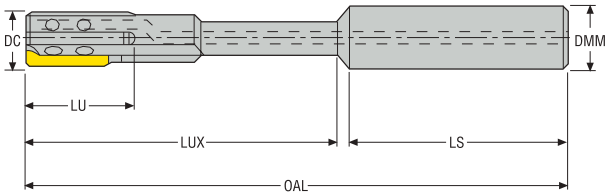
## Spare Parts

| For ∅ (mm) | Adjusting screw | Clamp | Clamp screw | Setting key | Support ball | Torque key | Torque value |
|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  | |
| 20-60 | SH4060 | SR-B5 | LH4010 | 2SMS795 | BB3.0 | H00-2020 | 2,0 Nm |

# For blind holes – Intermediate diameter

Shank type R1, cylindrical without flat, SR81






- Blade information on page(s) 412, 413
- Important! Reamer and blade must have the same lead geometry
- For choice of lead geometry EN1, EN2 or EN3 see page(s) 403
- For cutting data see page(s) 414-422

| Designation | DC | OAL | LS | LUX | LU | DMM | Blade size |
|---|---|---|---|---|---|---|---|
| | mm | mm | mm | mm | mm | mm | |
| SR81-7.875-XX-XXXX-EN | 7,875 - 8,749 | 115,0 | 40,0 | 73,0 | 25,0 | 10,0 | P0-EN-xx |
| SR81-8.750-XX-XXXX-EN | 8,75 - 9,749 | 115,0 | 40,0 | 73,0 | 25,0 | 10,0 | P1-EN-xx |
| SR81-9.750-XX-XXXX-EN | 9,75 - 10,749 | 115,0 | 40,0 | 73,0 | 25,0 | 10,0 | P1-EN-xx |
| SR81-10.750-XX-XXXX-EN | 10,75 - 12,749 | 133,0 | 48,0 | 81,0 | 25,0 | 16,0 | P1-EN-xx |
| SR81-12.750-XX-XXXX-EN | 12,75 - 16,749 | 133,0 | 48,0 | 81,0 | 25,0 | 16,0 | P2-EN-xx |
| SR81-16.750-XX-XXXX-EN | 16,75 - 19,499 | 155,0 | 50,0 | 100,0 | 25,0 | 20,0 | P2-EN-xx |
| SR81-19.500-XX-XXXX-EN | 19,5 - 20,499 | 155,0 | 50,0 | 100,0 | 30,0 | 20,0 | P4-EN-xx |
| SR81-20.500-XX-XXXX-EN | 20,5 - 26,499 | 191,0 | 56,0 | 129,0 | 30,0 | 25,0 | P4-EN-xx |
| SR81-26.500-XX-XXXX-EN | 26,5 - 32,499 | 221,0 | 56,0 | 160,0 | 30,0 | 25,0 | P4-EN-xx |
| SR81-32.500-XX-XXXX-EN | 32,5 - 38,499 | 226,0 | 56,0 | 165,0 | 30,0 | 25,0 | P4-EN-xx |
| SR81-38.500-XX-XXXX-EN | 38,5 - 40,499 | 226,0 | 56,0 | 166,0 | 30,0 | 25,0 | P4-EN-xx |
| SR81-40.500-XX-XXXX-EN | 40,5 - 44,499 | 226,0 | 56,0 | 167,0 | 30,0 | 25,0 | P4-EN-xx |
| SR81-44.500-XX-XXXX-EN | 44,5 - 50,499 | 226,0 | 56,0 | 168,0 | 30,0 | 25,0 | P4-EN-xx |
| SR81-50.500-XX-XXXX-EN | 50,5 - 60,5 | 226,0 | 56,0 | 169,0 | 30,0 | 25,0 | P4-EN-xx |

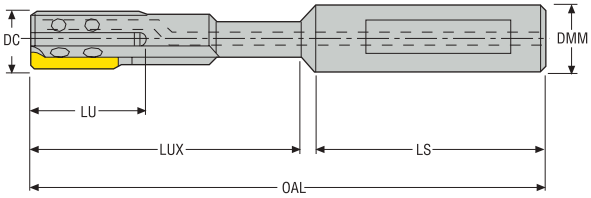
## Spare Parts, included in delivery

## Accessories

| For ∅ (mm) | Adjusting screw | Clamp | Clamp screw | Setting key | Support ball | Torque key |
|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |
| 9,75-12,749 | SH2525 | SR-B2 | LH2540 | 1.3SMS795 | BB2.0 | H00-1305 |
| 12,75-19,499 | SH3040 | SR-B3 | LH3050 | 1.5SMS795 | BB2.5 | H00-1509 |
| 19,5-60,5 | SH4060 | SR-B5 | LH4010 | 2SMS795 | BB3.0 | H00-2020 |
| 7,875-8,749 | SH2020 | SR-B0 | LH2040 | 0.9SMS795 | BB1.5 | – |
| 8,75-9,749 | SH2525 | SR-B1 | LH2540 | 1.3SMS795 | BB2.0 | H00-1305 |

Torque key is delivered with driving blade
Note! When ordering reamers for intermediate diameter, please state: ∅ and tolerance of bore to be reamed, lead geometry (EN1, EN2 or EN3).
**Ordering example:** SR81-11.50 H7-EN2, P1-EN2-06, CP20.

# For blind holes – Short range for turning applications




Shank type R9, cylindrical with flat, SR82



- Blade information on page(s) 412, 413
- Important! Reamer and blade must have the same lead geometry
- For choice of lead geometry EN1, EN2 or EN3 see page(s) 403
- For cutting data see page(s) 414-422

| Designation | DC | OAL | LS | LUX | LU | DMM | Blade size |
|---|---|---|---|---|---|---|---|
| | mm | mm | mm | mm | mm | mm | |
| SR82-7.875-XX-XXXX-EN | 7,875 - 8,749 | 95,0 | 40,0 | 53,0 | 25,0 | 10,0 | P0-EN-xx |
| SR82-8.750-XX-XXXX-EN | 8,75 - 9,749 | 95,0 | 40,0 | 53,0 | 25,0 | 10,0 | P1-EN-xx |
| SR82-9.750-XX-XXXX-EN | 9,75 - 10,749 | 95,0 | 40,0 | 53,0 | 25,0 | 10,0 | P1-EN-xx |
| SR82-10.750-XX-XXXX-EN | 10,75 - 12,749 | 113,0 | 40,0 | 61,0 | 25,0 | 16,0 | P1-EN-xx |
| SR82-12.750-XX-XXXX-EN | 12,75 - 16,749 | 113,0 | 48,0 | 61,0 | 25,0 | 16,0 | P2-EN-xx |
| SR82-16.750-XX-XXXX-EN | 16,75 - 19,499 | 113,0 | 48,0 | 60,0 | 25,0 | 20,0 | P2-EN-xx |
| SR82-19.500-XX-XXXX-EN | 19,5 - 20,499 | 115,0 | 50,0 | 60,0 | 30,0 | 20,0 | P4-EN-xx |
| SR82-20.500-XX-XXXX-EN | 20,5 - 32,499 | 115,0 | 50,0 | 89,0 | 30,0 | 25,0 | P4-EN-xx |
| SR82-32.500-XX-XXXX-EN | 32,5 - 36,499 | 151,0 | 56,0 | 105,0 | 30,0 | 25,0 | P4-EN-xx |
| SR82-36.500-XX-XXXX-EN | 36,5 - 40,499 | 166,0 | 56,0 | 106,0 | 30,0 | 25,0 | P4-EN-xx |
| SR82-40.500-XX-XXXX-EN | 40,5 - 44,499 | 166,0 | 56,0 | 107,0 | 30,0 | 25,0 | P4-EN-xx |
| SR82-44.500-XX-XXXX-EN | 44,5 - 50,499 | 166,0 | 56,0 | 108,0 | 30,0 | 25,0 | P4-EN-xx |
| SR82-50.500-XX-XXXX-EN | 50,5 - 60,5 | 166,0 | 56,0 | 109,0 | 30,0 | 25,0 | P4-EN-xx |

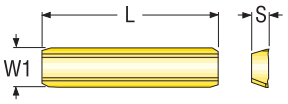
## Spare Parts, included in delivery

## Accessories

| For ∅ (mm) | Adjusting screw | Clamp | Clamp screw | Setting key | Support ball | Torque key |
|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |
| 9,75-12,749 | SH2525 | SR-B2 | LH2540 | 1.3SMS795 | BB2.0 | H00-1305 |
| 12,75-19,499 | SH3040 | SR-B3 | LH3050 | 1.5SMS795 | BB2.5 | H00-1509 |
| 19,5-60,5 | SH4060 | SR-B5 | LH4010 | 2SMS795 | BB3.0 | H00-2020 |
| 7,875-8,749 | SH2020 | SR-B0 | LH2040 | 0.9SMS795 | BB1.5 | – |
| 8,75-9,749 | SH2525 | SR-B1 | LH2540 | 1.3SMS795 | BB2.0 | H00-1305 |

Torque key is delivered with driving blade
Note! When ordering reamers for intermediate diameter, please state: ∅ and tolerance of bore to be reamed, lead geometry (EN1, EN2 or EN3).
**Ordering example:** SR82-11.50 H7EN2, P1-EN2-06, CP20.

# P0-P4 Blades




| Designation | Insert | L | S | W1 | Grades | |
|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | H15 | CP20 |
| P0-EN1-0 | P0 | 20<br>*0.787* | 1,2<br>*0.047* | 2,5<br>*0.098* | 00098229 | 00098244 |
| P0-EN1-06 | P0 | 20<br>*0.787* | 1,2<br>*0.047* | 2,5<br>*0.098* | 00091786 | 00091762 |
| P0-EN1-12 | P0 | 20<br>*0.787* | 1,2<br>*0.047* | 2,5<br>*0.098* | 00097299 | 00091971 |
| P0-EN2-0 | P0 | 20<br>*0.787* | 1,2<br>*0.047* | 2,5<br>*0.098* | 00098234 | 00098249 |
| P0-EN2-06 | P0 | 20<br>*0.787* | 1,2<br>*0.047* | 2,5<br>*0.098* | 00098160 | 00098170 |
| P0-EN2-12 | P0 | 20<br>*0.787* | 1,2<br>*0.047* | 2,5<br>*0.098* | 00098165 | 00098175 |
| P0-EN3-0 | P0 | 20<br>*0.787* | 1,2<br>*0.047* | 2,5<br>*0.098* | 00098239 | 00098254 |
| P0-EN3-06 | P0 | 20<br>*0.787* | 1,2<br>*0.047* | 2,5<br>*0.098* | 00098185 | 00098195 |
| P0-EN3-12 | P0 | 20<br>*0.787* | 1,2<br>*0.047* | 2,5<br>*0.098* | 00098190 | 00098200 |
| P1-EN1-0 | P1 | 20<br>*0.787* | 1,5<br>*0.059* | 3,0<br>*0.118* | 00098230 | 00098245 |
| P1-EN1-06 | P1 | 20<br>*0.787* | 1,5<br>*0.059* | 3,0<br>*0.118* | 00091787 | 00091764 |
| P1-EN1-12 | P1 | 20<br>*0.787* | 1,5<br>*0.059* | 3,0<br>*0.118* | 00097300 | 00091972 |
| P1-EN2-0 | P1 | 20<br>*0.787* | 1,5<br>*0.059* | 3,0<br>*0.118* | 00098235 | 00098250 |
| P1-EN2-06 | P1 | 20<br>*0.787* | 1,5<br>*0.059* | 3,0<br>*0.118* | 00098161 | 00098171 |
| P1-EN2-12 | P1 | 20<br>*0.787* | 1,5<br>*0.059* | 3,0<br>*0.118* | 00098166 | 00098176 |
| P1-EN3-0 | P1 | 20<br>*0.787* | 1,5<br>*0.059* | 3,0<br>*0.118* | 00098240 | 00098255 |
| P1-EN3-06 | P1 | 20<br>*0.787* | 1,5<br>*0.059* | 3,0<br>*0.118* | 00098186 | 00094702 |
| P1-EN3-12 | P1 | 20<br>*0.787* | 1,5<br>*0.059* | 3,0<br>*0.118* | 00098191 | 00098201 |
| P2-EN1-0 | P2 | 20<br>*0.787* | 2,0<br>*0.079* | 4,5<br>*0.177* | 00098231 | 00098246 |
| P2-EN1-06 | P2 | 20<br>*0.787* | 2,0<br>*0.079* | 4,5<br>*0.177* | 00091788 | 00091765 |
| P2-EN1-12 | P2 | 20<br>*0.787* | 2,0<br>*0.079* | 4,5<br>*0.177* | 00097301 | 00091973 |
| P2-EN2-0 | P2 | 20<br>*0.787* | 2,0<br>*0.079* | 4,5<br>*0.177* | 00098236 | 00098251 |
| P2-EN2-06 | P2 | 20<br>*0.787* | 2,0<br>*0.079* | 4,5<br>*0.177* | 00098162 | 00098172 |
| P2-EN2-12 | P2 | 20<br>*0.787* | 2,0<br>*0.079* | 4,5<br>*0.177* | 00098167 | 00098177 |
| P2-EN3-0 | P2 | 20<br>*0.787* | 2,0<br>*0.079* | 4,5<br>*0.177* | 00098241 | 00098256 |

| Designation | Insert | L | S | W1 | Grades | |
|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | H15 | CP20 |
| P2-EN3-06 | P2 | 20<br>*0.787* | 2,0<br>*0.079* | 4,5<br>*0.177* | 00098187 | 00098197 |
| P2-EN3-12 | P2 | 20<br>*0.787* | 2,0<br>*0.079* | 4,5<br>*0.177* | 00098192 | 00098202 |
| P4-EN1-0 | P4 | 25,0<br>*0.984* | 2,3<br>*0.091* | 7,0<br>*0.276* | 00098232 | 00098247 |
| P4-EN1-06 | P4 | 25,0<br>*0.984* | 2,3<br>*0.091* | 7,0<br>*0.276* | 00091789 | 00091766 |
| P4-EN1-12 | P4 | 25,0<br>*0.984* | 2,3<br>*0.091* | 7,0<br>*0.276* | 00098128 | 00091974 |
| P4-EN2-0 | P4 | 25,0<br>*0.984* | 2,3<br>*0.091* | 7,0<br>*0.276* | 00098237 | 00098252 |
| P4-EN2-06 | P4 | 25,0<br>*0.984* | 2,3<br>*0.091* | 7,0<br>*0.276* | 00098163 | 00098173 |
| P4-EN2-12 | P4 | 25,0<br>*0.984* | 2,3<br>*0.091* | 7,0<br>*0.276* | 00098168 | 00098178 |
| P4-EN3-0 | P4 | 25,0<br>*0.984* | 2,3<br>*0.091* | 7,0<br>*0.276* | 00098242 | 00098257 |
| P4-EN3-06 | P4 | 25,0<br>*0.984* | 2,3<br>*0.091* | 7,0<br>*0.276* | 00098188 | 00098198 |
| P4-EN3-12 | P4 | 25,0<br>*0.984* | 2,3<br>*0.091* | 7,0<br>*0.276* | 00098193 | 00098203 |

## Cutting data – Pxx-EN1/EN2-00 metric

| SMG | | $a_p$ (∅) | | f | $v_c$ | |
|---|---|---|---|---|---|---|
| | | Ø < 9 | Ø ≥ 9 | | CP20 | CP15 |
| P5 | Pxx-EN1/EN2-00 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 40 (30-50) | – |
| P6 | Pxx-EN1/EN2-00 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 40 (30-50) | – |
| P7 | Pxx-EN1/EN2-00 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 40 (30-50) | – |
| K1 | Pxx-EN1/EN2-00 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | 90 (80-100) | 120 (80-150) |
| K2 | Pxx-EN1/EN2-00 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | 35 (25-50) | 50 (25-70) |
| K3 | Pxx-EN1/EN2-00 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | 90 (80-100) | 120 (80-150) |
| K4 | Pxx-EN1/EN2-00 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | 70 (60-80) | 90 (80-100) |
| K5 | Pxx-EN1/EN2-00 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | 70 (60-80) | 90 (80-100) |
| K6 | Pxx-EN1/EN2-00 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | 90 (80-100) | 120 (80-150) |
| K7 | Pxx-EN1/EN2-00 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | 90 (80-100) | 120 (80-150) |
| PM1 | Pxx-EN1/EN2-00 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | 50 (25-70) | – |
| PM2 | Pxx-EN1/EN2-00 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | 50 (25-70) | – |
| PM3 | Pxx-EN1/EN2-00 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | 50 (25-70) | – |

SMG = Seco material group
$a_p$ = mm
f = mm/rev
$v_c$= m/min
All cutting data are start values

## Cutting data – Pxx-EN1/EN2-00 *inch*

| SMG | | $a_p$ (∅) | | f | $v_c$ | |
|---|---|---|---|---|---|---|
| | | Ø < 9 | Ø ≥ 9 | | CP20 | CP15 |
| P5 | *Pxx-EN1/EN2-00* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *130 (100-165)* | – |
| P6 | *Pxx-EN1/EN2-00* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *130 (100-165)* | – |
| P7 | *Pxx-EN1/EN2-00* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *130 (100-165)* | – |
| K1 | *Pxx-EN1/EN2-00* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | *295 (260-330)* | *395 (260-490)* |
| K2 | *Pxx-EN1/EN2-00* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | *115 (80-165)* | *165 (80-230)* |
| K3 | *Pxx-EN1/EN2-00* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | *295 (260-330)* | *395 (260-490)* |
| K4 | *Pxx-EN1/EN2-00* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | *230 (195-260)* | *295 (260-330)* |
| K5 | *Pxx-EN1/EN2-00* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | *230 (195-260)* | *295 (260-330)* |
| K6 | *Pxx-EN1/EN2-00* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | *295 (260-330)* | *395 (260-490)* |
| K7 | *Pxx-EN1/EN2-00* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | *295 (260-330)* | *395 (260-490)* |
| PM1 | *Pxx-EN1/EN2-00* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | *165 (80-230)* | – |
| PM2 | *Pxx-EN1/EN2-00* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | *165 (80-230)* | – |
| PM3 | *Pxx-EN1/EN2-00* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | *165 (80-230)* | – |

SMG = Seco material group
$a_p$ = *inch*
f = in/rev
$v_c$= sf/min
All cutting data are start values

## Cutting data – Pxx-EN1/EN2-06 metric

| SMG | | $a_p$ (∅) | | f | $v_c$ | | |
|---|---|---|---|---|---|---|---|
| | | Ø < 9 | Ø ≥ 9 | | H15 | CP20 | CP15 |
| P1 | Pxx-EN1/EN2-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 40 (30-60) | 105 (90-120) | 120 (90-150) |
| P2 | Pxx-EN1/EN2-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 40 (30-60) | 105 (90-120) | 120 (90-150) |
| P3 | Pxx-EN1/EN2-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 40 (30-60) | 105 (90-120) | 120 (90-150) |
| P4 | Pxx-EN1/EN2-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 35 (25-40) | 60 (40-70) | 80 (60-100) |
| P5 | Pxx-EN1/EN2-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 35 (25-40) | 60 (40-70) | 80 (60-100) |
| P6 | Pxx-EN1/EN2-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 35 (25-40) | 60 (40-70) | 80 (60-100) |
| P7 | Pxx-EN1/EN2-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 35 (25-40) | 60 (40-70) | 80 (60-100) |
| P8 | Pxx-EN1/EN2-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 30 (25-40) | 50 (30-60) | 60 (40-70) |
| P11 | Pxx-EN1/EN2-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 30 (25-40) | 50 (30-60) | 60 (40-70) |
| P12 | Pxx-EN1/EN2-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 25 (20-30) | 40 (25-45) | 45 (30-55) |
| M1 | Pxx-EN1/EN2-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 25 (20-30) | 35 (25-40) | 35 (25-40) |
| M2 | Pxx-EN1/EN2-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 25 (20-30) | 35 (25-40) | 35 (25-40) |
| M3 | Pxx-EN1/EN2-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 25 (20-30) | 35 (25-40) | 35 (25-40) |
| M4 | Pxx-EN1/EN2-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 20 (15-30) | 30 (25-40) | 30 (25-40) |
| M5 | Pxx-EN1/EN2-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 20 (15-30) | 30 (25-40) | 30 (25-40) |
| K1 | Pxx-EN1/EN2-06 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | - | 90 (80-100) | 120 (80-150) |
| K2 | Pxx-EN1/EN2-06 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | - | 35 (25-50) | 50 (25-70) |
| K3 | Pxx-EN1/EN2-06 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | - | 90 (80-100) | 120 (80-150) |
| K4 | Pxx-EN1/EN2-06 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | - | 70 (60-80) | 90 (80-100) |
| K5 | Pxx-EN1/EN2-06 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | - | 70 (60-80) | 90 (80-100) |
| K6 | Pxx-EN1/EN2-06 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | - | 90 (80-100) | 120 (80-150) |
| K7 | Pxx-EN1/EN2-06 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | - | 90 (80-100) | 120 (80-150) |
| N11 | Pxx-EN1/EN2-06 | 0,10-0,30 | 0,20-0,50 | 0,10-0,30 | 65 (50-150) | 90 (70-150) | - |
| S1 | Pxx-EN1/EN2-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | - | 25 (15-30) | - |
| S2 | Pxx-EN1/EN2-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | - | 25 (15-30) | - |
| S3 | Pxx-EN1/EN2-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | - | 25 (15-30) | - |
| PM1 | Pxx-EN1/EN2-06 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | - | 50 (25-70) | - |
| PM2 | Pxx-EN1/EN2-06 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | - | 50 (25-70) | - |
| PM3 | Pxx-EN1/EN2-06 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | - | 50 (25-70) | - |

SMG = Seco material group
$a_p$ = mm
f = mm/rev
$v_c$= m/min
All cutting data are start values

## Cutting data – Pxx-EN1/EN2-06 *inch*

| SMG | | $a_p$ (∅) | | f | $v_c$ | | |
|---|---|---|---|---|---|---|---|
| | | Ø < 9 | Ø ≥ 9 | | H15 | CP20 | CP15 |
| P1 | *Pxx-EN1/EN2-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *130 (100-195)* | *345 (295-395)* | *395 (295-490)* |
| P2 | *Pxx-EN1/EN2-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *130 (100-195)* | *345 (295-395)* | *395 (295-490)* |
| P3 | *Pxx-EN1/EN2-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *130 (100-195)* | *345 (295-395)* | *395 (295-490)* |
| P4 | *Pxx-EN1/EN2-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *115 (80-130)* | *195 (130-230)* | *260 (195-330)* |
| P5 | *Pxx-EN1/EN2-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *115 (80-130)* | *195 (130-230)* | *260 (195-330)* |
| P6 | *Pxx-EN1/EN2-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *115 (80-130)* | *195 (130-230)* | *260 (195-330)* |
| P7 | *Pxx-EN1/EN2-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *115 (80-130)* | *195 (130-230)* | *260 (195-330)* |
| P8 | *Pxx-EN1/EN2-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *100 (80-130)* | *165 (100-195)* | *195 (130-230)* |
| P11 | *Pxx-EN1/EN2-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *100 (80-130)* | *165 (100-195)* | *195 (130-230)* |
| P12 | *Pxx-EN1/EN2-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *80 (65-100)* | *130 (80-150)* | *150 (100-180)* |
| M1 | *Pxx-EN1/EN2-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *80 (65-100)* | *115 (80-130)* | *115 (80-130)* |
| M2 | *Pxx-EN1/EN2-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *80 (65-100)* | *115 (80-130)* | *115 (80-130)* |
| M3 | *Pxx-EN1/EN2-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *80 (65-100)* | *115 (80-130)* | *115 (80-130)* |
| M4 | *Pxx-EN1/EN2-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *65 (50-100)* | *100 (80-130)* | *100 (80-130)* |
| M5 | *Pxx-EN1/EN2-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *65 (50-100)* | *100 (80-130)* | *100 (80-130)* |
| K1 | *Pxx-EN1/EN2-06* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *295 (260-330)* | *395 (260-490)* |
| K2 | *Pxx-EN1/EN2-06* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *115 (80-165)* | *165 (80-230)* |
| K3 | *Pxx-EN1/EN2-06* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *295 (260-330)* | *395 (260-490)* |
| K4 | *Pxx-EN1/EN2-06* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *230 (195-260)* | *295 (260-330)* |
| K5 | *Pxx-EN1/EN2-06* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *230 (195-260)* | *295 (260-330)* |
| K6 | *Pxx-EN1/EN2-06* | *0.004–0.012* | *0.008–0.020* | *0.004–0.012* | *215 (165-150)* | *295 (230-490)* | – |
| K7 | *Pxx-EN1/EN2-06* | *0.004–0.012* | *0.008–0.020* | *0.004–0.012* | *215 (165-150)* | *295 (230-490)* | – |
| N11 | *Pxx-EN1/EN2-06* | *0.004–0.012* | *0.008–0.020* | *0.004–0.012* | *215 (165-150)* | *295 (230-490)* | – |
| S1 | *Pxx-EN1/EN2-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | – | *80 (50-100)* | – |
| S2 | *Pxx-EN1/EN2-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | – | *80 (50-100)* | – |
| S3 | *Pxx-EN1/EN2-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | – | *80 (50-100)* | – |
| PM1 | *Pxx-EN1/EN2-06* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *165 (80-230)* | – |
| PM2 | *Pxx-EN1/EN2-06* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *165 (80-230)* | – |
| PM3 | *Pxx-EN1/EN2-06* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *165 (80-230)* | – |

SMG = Seco material group
$a_p$ = *inch*
f = in/rev
$v_c$= sf/min
All cutting data are start values

## Cutting data – Pxx-EN1/EN2-12 metric

| SMG | | $a_p$ (∅) | | f | $v_c$ | | |
|---|---|---|---|---|---|---|---|
| | | Ø < 9 | Ø ≥ 9 | | H15 | CP20 | CP15 |
| P1 | Pxx-EN1/EN2-12 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 40 (30-60) | 105 (90-120) | 120 (90-150) |
| P2 | Pxx-EN1/EN2-12 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 40 (30-60) | 105 (90-120) | 120 (90-150) |
| P3 | Pxx-EN1/EN2-12 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 40 (30-60) | 105 (90-120) | 120 (90-150) |
| P4 | Pxx-EN1/EN2-12 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 35 (25-40) | 60 (40-70) | 80 (60-100) |
| P5 | Pxx-EN1/EN2-12 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 35 (25-40) | 60 (40-70) | 80 (60-100) |
| P6 | Pxx-EN1/EN2-12 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 35 (25-40) | 60 (40-70) | 80 (60-100) |
| P7 | Pxx-EN1/EN2-12 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 35 (25-40) | 60 (40-70) | 80 (60-100) |
| P8 | Pxx-EN1/EN2-12 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 30 (25-40) | 50 (30-60) | 60 (40-70) |
| P11 | Pxx-EN1/EN2-12 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 30 (25-40) | 50 (30-60) | 60 (40-70) |
| P12 | Pxx-EN1/EN2-12 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 25 (20-30) | 40 (25-45) | 45 (30-55) |
| M1 | Pxx-EN1/EN2-12 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 25 (20-30) | 35 (25-40) | 35 (25-40) |
| M2 | Pxx-EN1/EN2-12 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 25 (20-30) | 35 (25-40) | 35 (25-40) |
| M3 | Pxx-EN1/EN2-12 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 25 (20-30) | 35 (25-40) | 35 (25-40) |
| M4 | Pxx-EN1/EN2-12 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 20 (15-30) | 30 (25-40) | 30 (25-40) |
| M5 | Pxx-EN1/EN2-12 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 20 (15-30) | 30 (25-40) | 30 (25-40) |
| K1 | Pxx-EN1/EN2-12 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | – | 90 (80-100) | – |
| K3 | Pxx-EN1/EN2-12 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | – | 90 (80-100) | – |
| K4 | Pxx-EN1/EN2-12 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | – | 70 (60-80) | – |
| K5 | Pxx-EN1/EN2-12 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | – | 70 (60-80) | – |
| N11 | Pxx-EN1/EN2-12 | 0,10-0,30 | 0,20-0,50 | 0,10-0,30 | 65 (50-150) | 90 (70-150) | – |
| S1 | Pxx-EN1/EN2-12 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | – | 25 (15-30) | – |
| S2 | Pxx-EN1/EN2-12 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | – | 25 (15-30) | – |
| S3 | Pxx-EN1/EN2-12 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | – | 25 (15-30) | – |
| PM1 | Pxx-EN1/EN2-12 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | – | 50 (25-70) | – |
| PM2 | Pxx-EN1/EN2-12 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | – | 50 (25-70) | – |
| PM3 | Pxx-EN1/EN2-12 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | – | 50 (25-70) | – |

SMG = Seco material group
$a_p$ = mm
f = mm/rev
$v_c$ = m/min
All cutting data are start values

## Cutting data – Pxx-EN1/EN2-12 *inch*

| SMG | | $a_p$ (∅) | | f | $v_c$ | | |
|---|---|---|---|---|---|---|---|
| | | Ø < 9 | Ø ≥ 9 | | H15 | CP20 | CP15 |
| P1 | *Pxx-EN1/EN2-12* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *130 (100-195)* | *345 (295-395)* | *395 (295-490)* |
| P2 | *Pxx-EN1/EN2-12* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *130 (100-195)* | *345 (295-395)* | *395 (295-490)* |
| P3 | *Pxx-EN1/EN2-12* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *130 (100-195)* | *345 (295-395)* | *395 (295-490)* |
| P4 | *Pxx-EN1/EN2-12* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *115 (80-130)* | *195 (130-230)* | *260 (195-330)* |
| P5 | *Pxx-EN1/EN2-12* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *115 (80-130)* | *195 (130-230)* | *260 (195-330)* |
| P6 | *Pxx-EN1/EN2-12* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *115 (80-130)* | *195 (130-230)* | *260 (195-330)* |
| P7 | *Pxx-EN1/EN2-12* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *115 (80-130)* | *195 (130-230)* | *260 (195-330)* |
| P8 | *Pxx-EN1/EN2-12* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *100 (80-130)* | *165 (100-195)* | *195 (130-230)* |
| P11 | *Pxx-EN1/EN2-12* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *100 (80-130)* | *165 (100-195)* | *195 (130-230)* |
| P12 | *Pxx-EN1/EN2-12* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *80 (65-100)* | *130 (80-150)* | *150 (100-180)* |
| M1 | *Pxx-EN1/EN2-12* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *80 (65-100)* | *115 (80-130)* | *115 (80-130)* |
| M2 | *Pxx-EN1/EN2-12* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *80 (65-100)* | *115 (80-130)* | *115 (80-130)* |
| M3 | *Pxx-EN1/EN2-12* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *80 (65-100)* | *115 (80-130)* | *115 (80-130)* |
| M4 | *Pxx-EN1/EN2-12* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *65 (50-100)* | *100 (80-130)* | *100 (80-130)* |
| M5 | *Pxx-EN1/EN2-12* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *65 (50-100)* | *100 (80-130)* | *100 (80-130)* |
| K1 | *Pxx-EN1/EN2-12* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *295 (260-330)* | – |
| K3 | *Pxx-EN1/EN2-12* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *295 (260-330)* | – |
| K4 | *Pxx-EN1/EN2-12* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *230 (195-260)* | – |
| K5 | *Pxx-EN1/EN2-12* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *230 (195-260)* | – |
| N11 | *Pxx-EN1/EN2-12* | *0.004–0.012* | *0.008–0.020* | *0.004–0.012* | *215 (165-490)* | *295 (230-490)* | – |
| S1 | *Pxx-EN1/EN2-12* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | – | *80 (50-100)* | – |
| S2 | *Pxx-EN1/EN2-12* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | – | *80 (50-100)* | – |
| S3 | *Pxx-EN1/EN2-12* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | – | *80 (50-100)* | – |
| PM1 | *Pxx-EN1/EN2-12* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *165 (80-230)* | – |
| PM2 | *Pxx-EN1/EN2-12* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *165 (80-230)* | – |
| PM3 | *Pxx-EN1/EN2-12* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *165 (80-230)* | – |

SMG = Seco material group
$a_p$ = *inch*
f = in/rev
$v_c$= sf/min
All cutting data are start values

## Cutting data – Pxx-EN3-00 metric

| SMG | | $a_p$ (∅) | | f | $v_c$ | |
|---|---|---|---|---|---|---|
| | | Ø < 9 | Ø ≥ 9 | | CP20 | CP15 |
| P5 | Pxx-EN3-00 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 40 (30-50) | - |
| P6 | Pxx-EN3-00 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 40 (30-50) | - |
| P7 | Pxx-EN3-00 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 40 (30-50) | - |
| K1 | Pxx-EN3-00 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | 90 (80-100) | 120 (80-150) |
| K2 | Pxx-EN3-00 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | 35 (25-50) | 50 (25-70) |
| K3 | Pxx-EN3-00 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | 90 (80-100) | 120 (80-150) |
| K4 | Pxx-EN3-00 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | 70 (60-80) | 90 (80-100) |
| K5 | Pxx-EN3-00 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | 70 (60-80) | 90 (80-100) |
| K6 | Pxx-EN3-00 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | 90 (80-100) | 120 (80-150) |
| K7 | Pxx-EN3-00 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | 90 (80-100) | 120 (80-150) |
| PM1 | Pxx-EN3-00 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | 50 (25-70) | - |
| PM2 | Pxx-EN3-00 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | 50 (25-70) | - |
| PM3 | Pxx-EN3-00 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | 50 (25-70) | - |

SMG = Seco material group
$a_p$ = mm
f = mm/rev
$v_c$= m/min
All cutting data are start values

## Cutting data – Pxx-EN3-00 *inch*

| SMG | | $a_p$ (∅) | | f | $v_c$ | |
|---|---|---|---|---|---|---|
| | | Ø < 9 | Ø ≥ 9 | | CP20 | CP15 |
| P5 | *Pxx-EN3-00* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *130 (100-165)* | – |
| P6 | *Pxx-EN3-00* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *130 (100-165)* | – |
| P7 | *Pxx-EN3-00* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *130 (100-165)* | – |
| K1 | *Pxx-EN3-00* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | *295 (260-330)* | *395 (260-490)* |
| K2 | *Pxx-EN3-00* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | *115 (80-165)* | *165 (80-230)* |
| K3 | *Pxx-EN3-00* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | *295 (260-330)* | *395 (260-490)* |
| K4 | *Pxx-EN3-00* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | *230 (195-260)* | *295 (260-330)* |
| K5 | *Pxx-EN3-00* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | *230 (195-260)* | *295 (260-330)* |
| K6 | *Pxx-EN3-00* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | *295 (260-330)* | *395 (260-490)* |
| K7 | *Pxx-EN3-00* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | *295 (260-330)* | *395 (260-490)* |
| PM1 | *Pxx-EN3-00* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | *165 (80-230)* | – |
| PM2 | *Pxx-EN3-00* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | *165 (80-230)* | – |
| PM3 | *Pxx-EN3-00* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | *165 (80-230)* | – |

SMG = Seco material group
$a_p$ = *inch*
f = in/rev
$v_c$= sf/min
All cutting data are start values

## Cutting data – Pxx-EN3-06 metric

| SMG | | $a_p$ (∅) | | f | $v_c$ | | |
|---|---|---|---|---|---|---|---|
| | | Ø < 9 | Ø ≥ 9 | | H15 | CP20 | CP15 |
| P1 | Pxx-EN3-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 40 (30-60) | 105 (90-120) | 120 (90-150) |
| P2 | Pxx-EN3-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 40 (30-60) | 105 (90-120) | 120 (90-150) |
| P3 | Pxx-EN3-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 40 (30-60) | 105 (90-120) | 120 (90-150) |
| P4 | Pxx-EN3-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 35 (25-40) | 60 (40-70) | 80 (60-100) |
| P5 | Pxx-EN3-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 35 (25-40) | 60 (40-70) | 80 (60-100) |
| P6 | Pxx-EN3-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 35 (25-40) | 60 (40-70) | 80 (60-100) |
| P7 | Pxx-EN3-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 35 (25-40) | 60 (40-70) | 80 (60-100) |
| P8 | Pxx-EN3-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 30 (25-40) | 50 (30-60) | 60 (40-70) |
| P11 | Pxx-EN3-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 30 (25-40) | 50 (30-60) | 60 (40-70) |
| P12 | Pxx-EN3-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 25 (20-30) | 40 (25-45) | 45 (30-55) |
| M1 | Pxx-EN3-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | - | - | 35 (25-40) |
| M2 | Pxx-EN3-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | - | - | 35 (25-40) |
| M3 | Pxx-EN3-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | - | - | 35 (25-40) |
| M4 | Pxx-EN3-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | - | - | 30 (25-40) |
| M5 | Pxx-EN3-06 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | - | - | 30 (25-40) |
| K1 | Pxx-EN3-06 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | - | 90 (80-100) | 120 (80-150) |
| K2 | Pxx-EN3-06 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | - | 35 (25-50) | 50 (25-70) |
| K3 | Pxx-EN3-06 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | - | 90 (80-100) | 120 (80-150) |
| K4 | Pxx-EN3-06 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | - | 70 (60-80) | 90 (80-100) |
| K5 | Pxx-EN3-06 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | - | 70 (60-80) | 90 (80-100) |
| K6 | Pxx-EN3-06 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | - | 90 (80-100) | 120 (80-150) |
| K7 | Pxx-EN3-06 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | - | 90 (80-100) | 120 (80-150) |
| PM1 | Pxx-EN3-06 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | - | 50 (25-70) | - |
| PM2 | Pxx-EN3-06 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | - | 50 (25-70) | - |
| PM3 | Pxx-EN3-06 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | - | 50 (25-70) | - |

SMG = Seco material group
$a_p$ = mm
f = mm/rev
$v_c$= m/min
All cutting data are start values

## Cutting data – Pxx-E3-06 *inch*

| SMG | | $a_p$ (∅) | | f | $v_c$ | | |
|---|---|---|---|---|---|---|---|
| | | Ø < 9 | Ø ≥ 9 | | H15 | CP20 | CP15 |
| P1 | *Pxx-EN3-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *130 (100-195)* | *345 (295-395)* | *395 (295-490)* |
| P2 | *Pxx-EN3-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *130 (100-195)* | *345 (295-395)* | *395 (295-490)* |
| P3 | *Pxx-EN3-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *130 (100-195)* | *345 (295-395)* | *395 (295-490)* |
| P4 | *Pxx-EN3-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *115 (80-130)* | *195 (130-230)* | *260 (195-330)* |
| P5 | *Pxx-EN3-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *115 (80-130)* | *195 (130-230)* | *260 (195-330)* |
| P6 | *Pxx-EN3-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *115 (80-130)* | *195 (130-230)* | *260 (195-330)* |
| P7 | *Pxx-EN3-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *115 (80-130)* | *195 (130-230)* | *260 (195-330)* |
| P8 | *Pxx-EN3-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *100 (80-130)* | *165 (100-195)* | *195 (130-230)* |
| P11 | *Pxx-EN3-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *100 (80-130)* | *165 (100-195)* | *195 (130-230)* |
| P12 | *Pxx-EN3-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *80 (65-100)* | *130 (80-150)* | *150 (100-180)* |
| M1 | *Pxx-EN3-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | – | – | *115 (80-130)* |
| M2 | *Pxx-EN3-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | – | – | *115 (80-130)* |
| M3 | *Pxx-EN3-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | – | – | *115 (80-130)* |
| M4 | *Pxx-EN3-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | – | – | *100 (80-130)* |
| M5 | *Pxx-EN3-06* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | – | – | *100 (80-130)* |
| K1 | *Pxx-EN3-06* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *295 (260-330)* | *395 (260-490)* |
| K2 | *Pxx-EN3-06* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *115 (80-165)* | *165 (80-230)* |
| K3 | *Pxx-EN3-06* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *295 (260-330)* | *395 (260-490)* |
| K4 | *Pxx-EN3-06* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *230 (195-260)* | *295 (260-330)* |
| K5 | *Pxx-EN3-06* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *230 (195-260)* | *295 (260-330)* |
| K6 | *Pxx-EN3-06* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *295 (260-330)* | *395 (260-490)* |
| K7 | *Pxx-EN3-06* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *295 (260-330)* | *395 (260-490)* |
| PM1 | *Pxx-EN3-06* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *165 (80-230)* | – |
| PM2 | *Pxx-EN3-06* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *165 (80-230)* | – |
| PM3 | *Pxx-EN3-06* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *165 (80-230)* | – |

SMG = Seco material group
$a_p$ = *inch*
f = in/rev
$v_c$= sf/min
All cutting data are start values

## Cutting data – Pxx-EN3-12 metric

| SMG | | $a_p$ (∅) | | f | $v_c$ | | |
|---|---|---|---|---|---|---|---|
| | | Ø < 9 | Ø ≥ 9 | | H15 | CP20 | CP15 |
| P1 | Pxx-EN3-12 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 40 (30-60) | 105 (90-120) | 120 (90-150) |
| P2 | Pxx-EN3-12 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 40 (30-60) | 105 (90-120) | 120 (90-150) |
| P3 | Pxx-EN3-12 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 40 (30-60) | 105 (90-120) | 120 (90-150) |
| P4 | Pxx-EN3-12 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 35 (25-40) | 60 (40-70) | 80 (60-100) |
| P5 | Pxx-EN3-12 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 35 (25-40) | 60 (40-70) | 80 (60-100) |
| P6 | Pxx-EN3-12 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 35 (25-40) | 60 (40-70) | 80 (60-100) |
| P7 | Pxx-EN3-12 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 35 (25-40) | 60 (40-70) | 80 (60-100) |
| P8 | Pxx-EN3-12 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 30 (25-40) | 50 (30-60) | 60 (40-70) |
| P11 | Pxx-EN3-12 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 30 (25-40) | 50 (30-60) | 60 (40-70) |
| P12 | Pxx-EN3-12 | 0,10-0,15 | 0,10-0,20 | 0,10-0,30 | 25 (20-30) | 40 (25-45) | 45 (30-55) |
| K1 | Pxx-EN3-12 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | - | 90 (80-100) | - |
| K3 | Pxx-EN3-12 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | - | 90 (80-100) | - |
| K4 | Pxx-EN3-12 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | - | 70 (60-80) | - |
| K5 | Pxx-EN3-12 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | - | 70 (60-80) | - |
| PM1 | Pxx-EN3-12 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | - | 50 (25-70) | - |
| PM2 | Pxx-EN3-12 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | - | 50 (25-70) | - |
| PM3 | Pxx-EN3-12 | 0,10-0,20 | 0,10-0,30 | 0,10-0,30 | - | 50 (25-70) | - |

SMG = Seco material group
$a_p$ = mm
f = mm/rev
$v_c$= m/min
All cutting data are start values

## Cutting data – Pxx-EN3-12 *inch*

| SMG | | $a_p$ (∅) | | f | $v_c$ | | |
|---|---|---|---|---|---|---|---|
| | | Ø < 9 | Ø ≥ 9 | | H15 | CP20 | CP15 |
| P1 | *Pxx-EN3-12* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *130 (100-195)* | *345 (295-395)* | *395 (295-490)* |
| P2 | *Pxx-EN3-12* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *130 (100-195)* | *345 (295-395)* | *395 (295-490)* |
| P3 | *Pxx-EN3-12* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *130 (100-195)* | *345 (295-395)* | *395 (295-490)* |
| P4 | *Pxx-EN3-12* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *115 (80-130)* | *195 (130-230)* | *260 (195-330)* |
| P5 | *Pxx-EN3-12* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *115 (80-130)* | *195 (130-230)* | *260 (195-330)* |
| P6 | *Pxx-EN3-12* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *115 (80-130)* | *195 (130-230)* | *260 (195-330)* |
| P7 | *Pxx-EN3-12* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *115 (80-130)* | *195 (130-230)* | *260 (195-330)* |
| P8 | *Pxx-EN3-12* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *100 (80-130)* | *165 (100-195)* | *195 (130-230)* |
| P11 | *Pxx-EN3-12* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *100 (80-130)* | *165 (100-195)* | *195 (130-230)* |
| P12 | *Pxx-EN3-12* | *0.004–0.006* | *0.004–0.008* | *0.004–0.012* | *80 (65-100)* | *130 (80-150)* | *150 (100-180)* |
| K1 | *Pxx-EN3-12* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *295 (260-330)* | – |
| K3 | *Pxx-EN3-12* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *295 (260-330)* | – |
| K4 | *Pxx-EN3-12* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *230 (195-260)* | – |
| K5 | *Pxx-EN3-12* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *230 (195-260)* | – |
| PM1 | *Pxx-EN3-12* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *165 (80-230)* | – |
| PM2 | *Pxx-EN3-12* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *165 (80-230)* | – |
| PM3 | *Pxx-EN3-12* | *0.004–0.008* | *0.004–0.012* | *0.004–0.012* | – | *165 (80-230)* | – |

SMG = Seco material group
$a_p$ = *inch*
f = in/rev
$v_c$= sf/min
All cutting data are start values

# Adjustment instructions

| | | |
|---|---|---|
| 1. |  | Loosen the two adjustment screws (7) by a 1/4 turn. |
| 2. |  | Loosen the two clamping screws (5). |
| 3. |  | Clean the blade seat thoroughly then, index the used blade (2) edge or replace it. |
| 4. |  | Firmly push the blade against the axial end stop and the adjustment balls (6). |
| 5. |  | Tighten the clamping screws carefully.<br>(Hold the key at its shortest end for correct torque). |
| 6. |  | Set the µm clock to zero using the cylindrical rear end of guiding pads (3). |

# Adjustment instructions

**7.**



Set the rear end of the blade to a diameter so that a back taper of 0,01 mm/10 mm *(0.0004" per every 0.394")* blade length is achieved (see figure 2).

**8.**



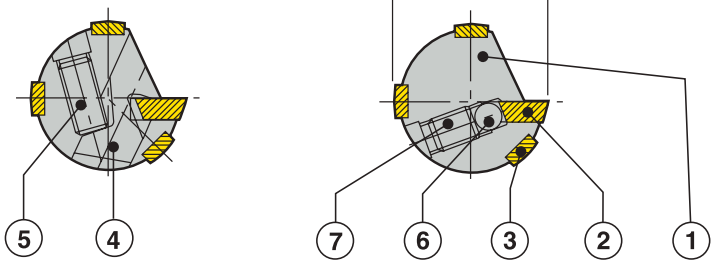
Set the µm clock to zero using the cylindrical front end of guiding pads (3).

**9.**



Set the front end of the blade to 0,02 mm or 0,015 mm *(0.0008" or 0.0006")* above the guide pads (3) clock A, see figure 1.
Check again back taper value (steps 6 and 7) clock B.

**10.**




Note: If the required diameter is exceeded during adjustment, start again from the beginning to eliminate backlash on adjustment screws.

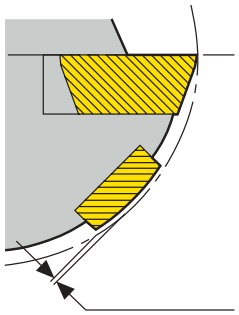


figure 1

0,015 mm (∅ ≤ 10 mm)
0,020 mm (∅ >10 mm)
Clock A value for ∅ setting

*0,0006" (∅ ≤ 0.394")*
*0,0008" (∅ > 0.394")*
*Clock A value for ∅ setting*

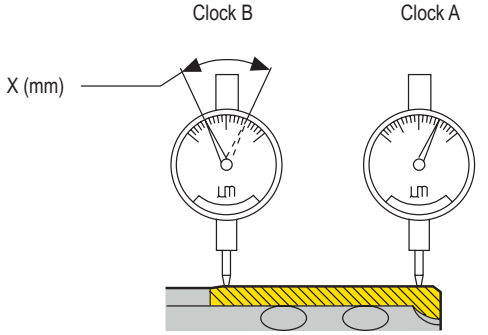



figure 2

- Clock unit = 1 µm *(39 µin)*
- Front and rear clock values valid when set zero on adjacent pad
- Rear clock values calculated on back taper of 1 µm/mm *(0.00004")* of blade

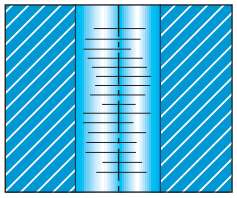
**Setting chart**

| Diameter range mm *(inch)* | Blade size | Front Clock A | Rear Clock B |
|---|---|---|---|
| 6,875-8,749 *(0.271-0.344")* | P0 | +15 | -5 |
| 8,750-10,000 *(0.344-0.394")* | P1 | +15 | -5 |
| 10,001-12,749 *(0.394-0.502")* | P1 | +20 | 0 |
| 12,750-19,499 *(0.502-0.768")* | P2 | +20 | 0 |
| 19,500-60,500 *(0.768-2.382")* | P4 | +20 | 0 |

# Troubleshooting

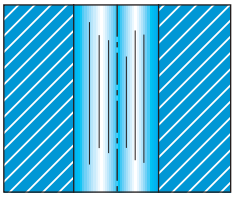
## Poor surface finish

- Check material allowances
- Improve coolant conditions (outlet type, pressure, quality)
- Reduce feed rate
- Change blade (wrong lead geometry or wrong rake angle)
- Check axial position of blade



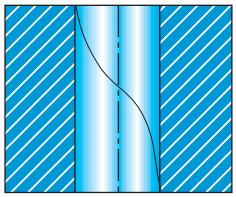
## Facets

- Improve centering (part/tool)
- Increase back taper



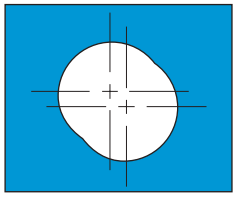
## Retraction marks

- Improve coolant conditions (outlet type, pressure, quality)
- Improve centering (part/tool)
- Increase back taper



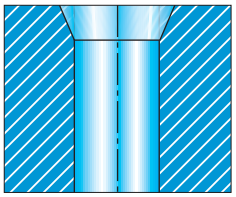
## Off center/Ovality

- Improve clamping (workpiece deformation)
- Check material allowance
- Improve centering (part/tool)
- Check axial position of blade



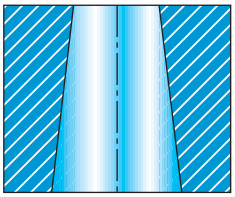
## Tapered entry

- Reduce feed rate
- Improve centering (part/tool)
- Check back taper
- Reduce radial run-out



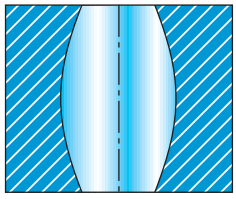
## Tapered hole

- Improve centering (part/tool)
- Check back taper



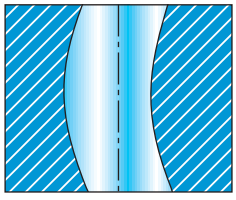
## Deformed hole

- Improve clamping (workpiece deformation)



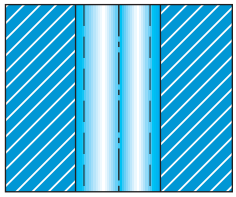
## Curved hole

- Change blade (wrong lead geometry)
- Check axial position of blade



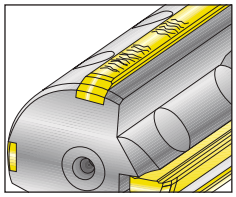
## Too large diameter

- Improve centering (part/tool)
- Adjust diameter (too large)



## Adhesion to pads

- Improve coolant conditions (outlet type, pressure, quality)
- Adjust diameter (too small)





# Xfix™

Xfix™ large-diameter, multi-tooth reamers are all about bringing the highest possible performance and precision to hole production.

- Hole depths up to 6,5xD within a diameter of 9.5 – 154.5 mm (2.03”- 6.083”)
- Quick and easy to adjust, only one screw per tooth is required to set diameter
- Accurate adjusting system to achieve tight tolerances between 16 to 25 µm (.0006”-.0010”)
- Inserts that have either four or eight numbered edges

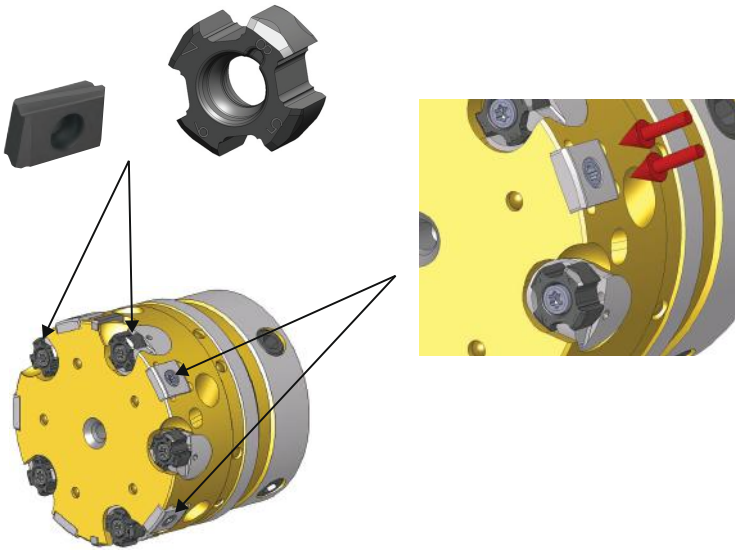
# Range overview

| | ∅ Range | Reaming depth | Drill ∅ tolerance | Intermediate diameter | Surface finish |
|---|---|---|---|---|---|
| **Xfix™**  | 39,500-154,500 mm *(1.5551-6.0827")* | 2,5-6,5 x D | IT 6 | Yes, available through My Design | $R_a$ 0,8-1,2 µm *($R_a$ 31-47 µin)* |

Xfix™ is a specially developed Seco Reaming programme, dedicated for large ∅ 39,5 – 154,5 mm *(1.555" – 6.083")*.
Design includes adjustable and indexable inserts to achieve IT 6 accurate tolerance, as well as a built in adjustable run-out adapter to guarantee component quality.
Multi-teeth construction and patented pre-loaded guiding pads offering maximum stability and productivity for large ∅ reaming operations.

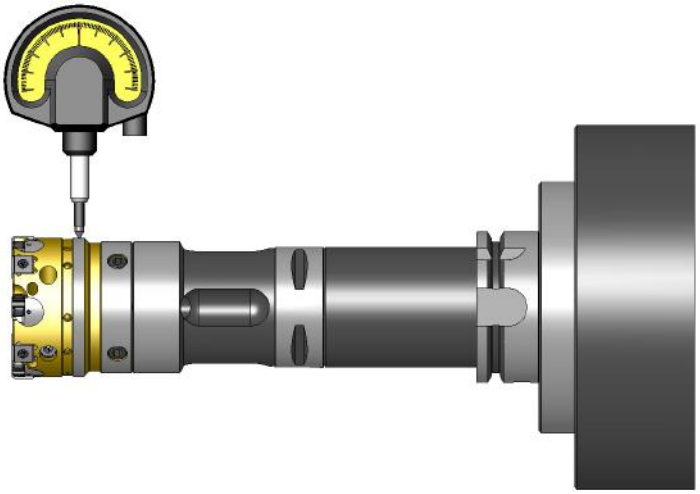
# Feature details

- 4 or 8 cutting edges for optimisation in all materials
- Stable clamping system
- Easy adjustment with 1 adjusting screw for easy setting
- Grade and geometry choice for different applications



- Patented pre-loaded guiding pads system for application stability
- Pads lubrication for performance and safety

- Integrated adjustable adapter for perfect run-out control



- Shanks and extension program from Seco Tooling Systems catalog offer maximum modularity



# Code keys

## Adapters

| Flange size | | Length | | Shank type |
|---|---|---|---|---|
| HF55 | - | 088 | - | C5 |



## Standard heads

| Head type | | Diameter and tolerance | | Number of teeth | | Flange size D |
|---|---|---|---|---|---|---|
| HF85 | - | 60H6 | - | 05 | - | 55 |



## Heads Intermediate

| Head type | | Diameter and tolerance | | Number of teeth | | Flange size D |
|---|---|---|---|---|---|---|
| HF85 | - | 65,2G7 | - | 05 | - | 55 |

Head type information:

- HF85 , through bore, short chipping material
- HF85B, blind bore, short chipping material
- HF86, through bore, all material
- HF86B, blind bore, all material

## Inserts

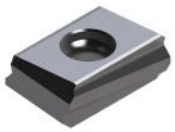
| Insert size | | Lead geometry | | Rake angle | | Grade |
|---|---|---|---|---|---|---|
| RNAX1005 | - | EB45 | - | 03 | - | RX2000 |



RNAX insert for HF85 and HF 85B Xfix heads

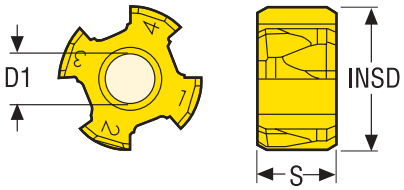
## Inserts

| Insert size | | Lead geometry | | Rake angle | | Grade |
|---|---|---|---|---|---|---|
| LNEG | - | EB45 | - | 06 | - | RX2000 |



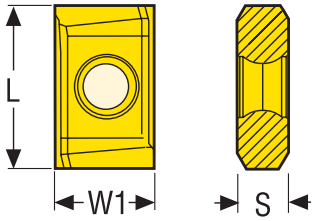
LNEG inserts for HF86 and HF86B Xfix heads

# RNAX



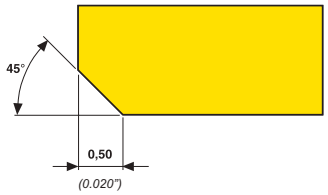

| Designation | Inserts | INSD | S | D1 | Grades | | Rake angle |
|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | RX1500 | RX2000 | |
| RNAX1005-EB1570-03 | RNAX | 10,0<br>*0,394* | 5,5<br>*0,217* | 3,5<br>*0,138* | 02687601 | 02687603 | 3 ° |
| RNAX1005-EB45-03 | RNAX | 10,0<br>*0,394* | 5,5<br>*0,217* | 3,5<br>*0,138* | 02687600 | 02688608 | 3 ° |
| RNAX1005-EB845-03 | RNAX | 10,0<br>*0,394* | 5,5<br>*0,217* | 3,5<br>*0,138* | 02687593 | 02688606 | 3 ° |

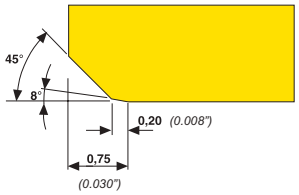
# LNEG

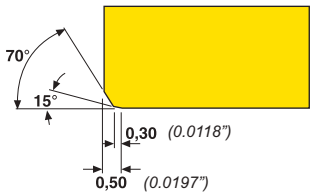



| Designation | Inserts | L | S | W1 | Grades | | | Rake angle |
|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | RX1500 | RX2000 | CF | |
| LNEG1003-EB45-03 | LNEG | 10,0<br>*0,394* | 3,5<br>*0,138* | 6,35<br>*0,25* | | 02781311 | | 3 ° |
| LNEG1003-EB45-06 | LNEG | 10,0<br>*0,394* | 3,5<br>*0,138* | 6,35<br>*0,25* | 02904277 | 02781313 | 02904276 | 6 ° |
| LNEG1003-EB845-03 | LNEG | 10,0<br>*0,394* | 3,5<br>*0,138* | 6,35<br>*0,25* | | 02781314 | | 3 ° |
| LNEG1003-EB845-06 | LNEG | 10,0<br>*0,394* | 3,5<br>*0,138* | 6,35<br>*0,25* | | 02781315 | | 6 ° |

# Lead geometry

| Lead Geometry EB45 – Application | |
|---|---|
| Chip control +++<br>Surface Finish + $R_a$ 1,2 - 2 µm<br>*(Surface Finish + $R_a$ 0.047 - 0.0787 µin)*<br>First choice geometry |  |

| Lead Geometry EB845 – Application | |
|---|---|
| Chip control ++<br>Surface Finish +++ $R_a$ 0,4 - 1,2 µm<br>*(Surface Finish +++ $R_a$ 0.0157 - 0,047 µin)* |  |

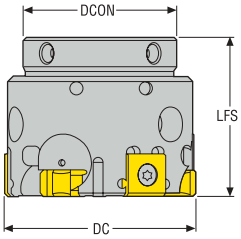
| Lead Geometry EB1570 – Application | |
|---|---|
| Chip control ++<br>Surface Finish ++ $R_a$ 0,8 - 1,6 µm<br>*(Surface Finish ++ $R_a$ 0.031 - 0.0630 µin)*<br>Stability for long reach application +++ |  |

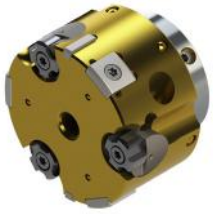
# Grades

| Grades | | |
|---|---|---|
|  | **RX1500** | **Coated Cermet**<br>A resistant coated grade for performance optimization in steel and cast iron. |
|  | **RX2000** | **Coated**<br>High performance coated grade suitable for all materials. |
|  | **CF** | **Cermet**<br>A wear resistant grade for performance optimization in steel. |

# HF85

Heads for RNAX inserts, through bore ∅ 39,5-59,499 mm / *1.555-2.342”*



- For inserts, grades and geometries see page(s) 430-432
- For cutting data see page(s) 457-464

| Designation | DCN | DCX | LFS | DCON | Weight | | Insert |
|---|---|---|---|---|---|---|---|
| | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | | |
| HF85-39.5/44.499-03-32 | 39,5<br>*1.555* | 44,499<br>*1.752* | 33,0<br>*1.299* | 32,0<br>*1.260* | 0,41<br>*0.900* | 3 | RNAX1005... |
| HF85-44.5/49.499-03-32 | 44,5<br>*1.752* | 49,499<br>*1.949* | 33,0<br>*1.299* | 32,0<br>*1.260* | 0,51<br>*1.120* | 3 | RNAX1005... |
| HF85-49.5/54.499-03-32 | 49,5<br>*1.949* | 54,499<br>*2.146* | 33,0<br>*1.299* | 32,0<br>*1.260* | 0,62<br>*1.370* | 3 | RNAX1005... |
| HF85-54.5/59.499-03-32 | 54,5<br>*2.146* | 59,499<br>*2.342* | 33,0<br>*1.299* | 32,0<br>*1.260* | 0,74<br>*1.630* | 3 | RNAX1005... |

## Spare Parts, included in delivery

| For head | Adjusting screw | Cartridge | Clamp screw | Insert screw | Key (Flag) | Setting key | Wedge clamp |
|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |  |
| HF85 03-32 | SH4075S | CARTCYHF16 | LDH4010 | C03010-T09P | H2.0-2D | 2SMS795 | B6027 |

## Accessories

| For head | Torque key | Torx driver for insert/holder locking screw |
|---|---|---|
| |  |  |
| HF85 03-32 | H00-2020 | T00-09P20 |

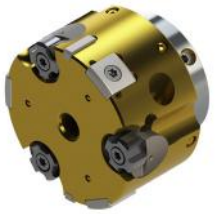
**Note**
Torque driver H00-2020 for clamp screws

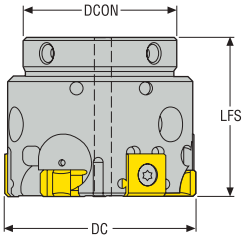
Torque driver T00-09P20 for insert screws

Torque value T00-09P20: 2 Nm.
Torque value H00-2020: 2 Nm.

# HF85B

Heads for RNAX inserts, blind bore ∅ 39,5-59,499 mm / *1.555-2.342”*






- For inserts, grades and geometries see page(s) 430-432
- For cutting data see page(s) 457-464

| Designation | DCN | DCX | LFS | DCON | Weight | | Insert |
|---|---|---|---|---|---|---|---|
| | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | | |
| HF85B-39.5/44.499-03-32 | 39,5<br>*1.555* | 44,499<br>*1.752* | 33,0<br>*1.299* | 32,0<br>*1.260* | 0,41<br>*0.900* | 3 | RNAX1005... |
| HF85B-44.5/49.499-03-32 | 44,5<br>*1.752* | 49,499<br>*1.949* | 33,0<br>*1.299* | 32,0<br>*1.260* | 0,51<br>*1.120* | 3 | RNAX1005... |
| HF85B-49.5/54.499-03-32 | 49,5<br>*1.949* | 54,499<br>*2.146* | 33,0<br>*1.299* | 32,0<br>*1.260* | 0,62<br>*1.370* | 3 | RNAX1005... |
| HF85B-54.5/59.499-03-32 | 54,5<br>*2.146* | 59,499<br>*2.342* | 33,0<br>*1.299* | 32,0<br>*1.260* | 0,74<br>*1.630* | 3 | RNAX1005... |

## Spare Parts, included in delivery

| For head | Adjusting screw | Cartridge | Clamp screw | Insert screw | Key (Flag) | Setting key | Wedge clamp |
|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |  |
| HF85B 03-32 | SH4075S | CARTCYHF16B | LDH4010 | C03010-T09P | H2.0-2D | 2SMS795 | B6027 |

## Accessories

| For head | Torque key | Torx driver for insert/holder locking screw |
|---|---|---|
| |  |  |
| HF85B 03-32 | H00-2020 | T00-09P20 |

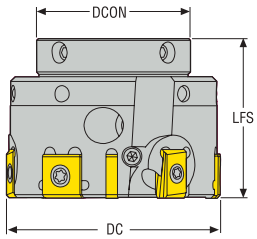
**Note**
Torque driver H00-2020 for clamp screws

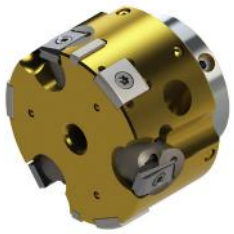
Torque driver T00-09P20 for insert screws

Torque value T00-09P20: 2 Nm.
Torque value H00-2020: 2 Nm.

# HF86

Heads for LNEG inserts, through bore ∅ 39,5-59,499 mm / *1.555-2.342”*



- For inserts, grades and geometries see page(s) 430-432
- For cutting data see page(s) 457-464

| Designation | DCN | DCX | LFS | DCON | Weight | | Insert |
|---|---|---|---|---|---|---|---|
| | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | | |
| HF86-39.5/44.499-03-32 | 39,5<br>*1.555* | 44,499<br>*1.752* | 33,0<br>*1.299* | 32,0<br>*1.260* | 0,41<br>*0.900* | 3 | LNEG1003... |
| HF86-44.5/49.499-03-32 | 44,5<br>*1.752* | 49,499<br>*1.949* | 33,0<br>*1.299* | 32,0<br>*1.260* | 0,51<br>*1.120* | 3 | LNEG1003... |
| HF86-49.5/54.499-03-32 | 49,5<br>*1.949* | 54,499<br>*2.146* | 33,0<br>*1.299* | 32,0<br>*1.260* | 0,62<br>*1.370* | 3 | LNEG1003... |
| HF86-54.5/59.499-03-32 | 54,5<br>*2.146* | 59,499<br>*2.342* | 33,0<br>*1.299* | 32,0<br>*1.260* | 0,74<br>*1.630* | 3 | LNEG1003... |

## Spare Parts, included in delivery

| For head | Adjusting screw | Cartridge | Clamp screw | Insert screw | Key (Flag) | Setting key | Wedge clamp |
|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |  |
| HF86 03-32 | SH4075S | CARTCYLN16 | LDH4010 | C02506-T07P | H2.0-2D | 2SMS795 | B6027 |

## Accessories

| For head | Torque key | Torx driver for insert/holder locking screw |
|---|---|---|
| |  |  |
| HF86 03-32 | H00-2020 | T00-07P09 |

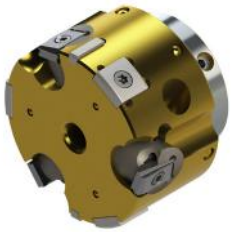
**Note**
Torque driver H00-2020 for clamp screws

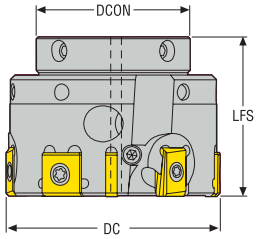
Torque driver T00-07P09 for insert screws

Torque value T00-07P09: 0,9 Nm.
Torque value H00-2020: 2 Nm.

# HF86B

Heads for LNEG inserts, blind bore ∅ 39,5-59,499 mm / *1.555-2.342"*






- For inserts, grades and geometries see page(s) 430-432
- For cutting data see page(s) 457-464

| Designation | DCN | DCX | LFS | DCON | Weight | | Insert |
|---|---|---|---|---|---|---|---|
| | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | | |
| HF86B-39.5/44.499-03-32 | 39,5<br>*1.555* | 44,499<br>*1.752* | 33,0<br>*1.299* | 32,0<br>*1.260* | 0,41<br>*0.900* | 3 | LNEG1003... |
| HF86B-44.5/49.499-03-32 | 44,5<br>*1.752* | 49,499<br>*1.949* | 33,0<br>*1.299* | 32,0<br>*1.260* | 0,51<br>*1.120* | 3 | LNEG1003... |
| HF86B-49.5/54.499-03-32 | 49,5<br>*1.949* | 54,499<br>*2.146* | 33,0<br>*1.299* | 32,0<br>*1.260* | 0,62<br>*1.370* | 3 | LNEG1003... |
| HF86B-54.5/59.499-03-32 | 54,5<br>*2.146* | 59,499<br>*2.342* | 33,0<br>*1.299* | 32,0<br>*1.260* | 0,74<br>*1.630* | 3 | LNEG1003... |

## Spare Parts, included in delivery

| For head | Adjusting screw | Cartridge | Clamp screw | Insert screw | Key (Flag) | Setting key | Wedge clamp |
|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |  |
| HF86B 03-32 | SH4075S | CARTCYLN16B | LDH4010 | C02506-T07P | H2.0-2D | 2SMS795 | B6027 |

## Accessories

| For head | Torque key | Torx driver for insert/holder locking screw |
|---|---|---|
| |  |  |
| HF86B 03-32 | H00-2020 | T00-07P09 |

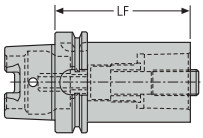
**Note**
Torque driver H00-2020 for clamp screws

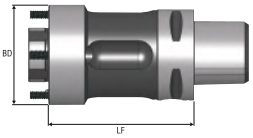
Torque driver T00-07P09 for insert screws

Torque value T00-07P09: 0,9 Nm.
Torque value H00-2020: 2 Nm.

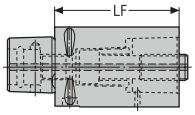
# HF32

Seco-Capto™ shank for ∅ 39,5-59,499 mm

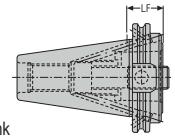



Reamer holder




Extension




Shank



| Designation Reamer holders | Item number | LF min | LF max | Taper | BD | Weight |
|---|---|---|---|---|---|---|
| | | mm | mm | mm | mm | kg |
| HF32...BT40ADB | – | 65 | 252 | BT40ADB | 32 | 0,0 |
| HF32...BT50ADB | – | 75 | 317 | BT50ADB | 32 | 0,0 |
| HF32...DIN40ADB | – | 60 | 252 | DIN40ADB | 32 | 0,0 |
| HF32...DIN50ADB | – | 60 | 317 | DIN50ADB | 32 | 0,0 |
| HF32...HSKA100 | – | 70 | 245 | HSK-A100 | 32 | 0,0 |
| HF32...HSKA63 | – | 65 | 245 | HSK-A63 | 32 | 0,0 |
| HF32...HSKA80 | – | 100 | 209 | HSK-A80 | 32 | 0,0 |
| HF32-050-C3 | 02688610 | – | 50 | C3 | 32 | 0,3 |

Shanks and extensions for HF32-050-C3 (see Seco Tooling Systems for more details).

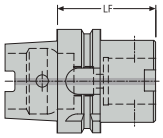
| Designation Shank | Item number | LF | Taper | Seco-Capto size | Weight |
|---|---|---|---|---|---|
| | | mm | | | kg |
| C3-390B.140-40030 | 02924104 | 30 | DIN40 | C3 | 0,8 |
| C3-390B.140-50030 | 02924106 | 30 | DIN50 | C3 | 2,6 |
| C3-390B.140-50060 | 02924107 | 60 | DIN50 | C3 | 2,7 |
| C3-390B.55-40030 | 02925959 | 30 | BT40 | C3 | 0,9 |
| C3-390B.55-40060 | 02925960 | 60 | BT40 | C3 | 1,1 |
| C3-390B.58-50040 | 02925961 | 40 | BT50 | C3 | 3,5 |
| C3-390B.58-50070 | 02925962 | 70 | BT50 | C3 | 3,7 |
| HA06-C4-040-080 | 10197964 | 80 | HSK-A63 | C4 | 1,2 |
| HA10-C3-032-080 | 10197961 | 80 | HSK-A100 | C3 | 2,5 |

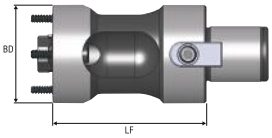
| Designation Extension | Item number | LF | Taper | Seco-Capto size | Weight |
|---|---|---|---|---|---|
| | | mm | | | kg |
| C3-391.01-32060A | 75039884 | – | C3 | C3 | 0,34 |
| C3-391.01-32080A | 00090847 | – | C3 | C3 | 0,5 |
| C4-391.02-32055A | 75039889 | – | C4 | C3 | 0,42 |
| C4-391.02-32070A | 02535687 | – | C4 | C3 | 0,56 |
| C5-391.02-32060A | 75039890 | – | C5 | C3 | 0,64 |
| C6-391.02-32070A | 75039892 | – | C6 | C3 | 1,06 |

# HF32

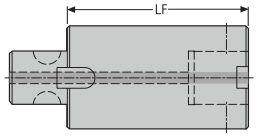
Graflex® shank for ∅ 39,5-59,499 mm



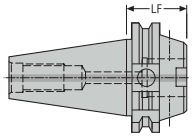



Reamer holder




Extension




Shank

| Designation Reamer holders | Item number | LF min | LF max | Taper | BD | Weight |
|---|---|---|---|---|---|---|
| | | mm | mm | | mm | kg |
| HF32...BT40ADB | – | 65 | 252 | BT40ADB | 32 | 0,0 |
| HF32...BT50ADB | – | 75 | 317 | BT50ADB | 32 | 0,0 |
| HF32...DIN40ADB | – | 60 | 252 | DIN40ADB | 32 | 0,0 |
| HF32...DIN50ADB | – | 60 | 317 | DIN50ADB | 32 | 0,0 |
| HF32...HSKA100 | – | 70 | 245 | HSK-A100 | 32 | 0,0 |
| HF32...HSKA63 | – | 65 | 245 | HSK-A63 | 32 | 0,0 |
| HF32...HSKA80 | – | 100 | 209 | HSK-A80 | 32 | 0,0 |
| HF32-050-G3 | 02698870 | – | 50 | G3 | 32 | 0,4 |

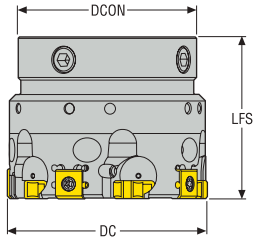
Shanks and extensions for HF32-050-G3 (see Seco Tooling Systems for more details).

| Designation Shank | Item number | LF | Taper | Graflex size | Weight |
|---|---|---|---|---|---|
| | | mm | | | kg |
| EM341440118100 | 02503367 | 100 | BT40 | G3 | 1,31 |
| EM34144011840 | 02503366 | 40 | BT40 | G3 | 1,07 |
| EM341640118120 | 02503377 | 120 | BT50 | G3 | 3,9 |
| EM34164011845 | 02503376 | 45 | BT50 | G3 | 3,58 |
| EM346940118100 | 02503298 | 100 | DIN40 | G3 | 1,22 |
| EM34694011835 | 02420097 | 35 | DIN40 | G3 | 0,91 |
| EM34714011835 | 02503307 | 35 | DIN50 | G3 | 2,67 |
| EM93044011850 | 00086918 | 50 | HSK-A63 | G3 | 0,73 |
| EM93064011855 | 00086925 | 55 | HSK-A100 | G3 | 2,1 |

| Designation Extension | Item number | LF | Taper | Graflex size | Weight |
|---|---|---|---|---|---|
| | | mm | | | kg |
| M402330 | 00056758 | – | G3 | G3 | 0,24 |
| M402331 | 75056759 | – | G3 | G3 | 0,36 |

# HF85

Heads for RNAX inserts, through bore ∅ 59,5-84,499 mm / *2.343-3.327”*






- For inserts, grades and geometries see page(s) 430-432
- For cutting data see page(s) 457-464

| Designation | DCN | DCX | LFS | DCON | Weight | | Insert |
|---|---|---|---|---|---|---|---|
| | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | | |
| HF85-59.5/64.499-05-55 | 59,5<br>*2.343* | 64,499<br>*2.539* | 50,0<br>*1.969* | 55,0<br>*2.165* | 1,3<br>*2.870* | 5 | RNAX1005... |
| HF85-64.5/69.499-05-55 | 64,5<br>*2.539* | 69,499<br>*2.736* | 50,0<br>*1.969* | 55,0<br>*2.165* | 1,5<br>*3.310* | 5 | RNAX1005... |
| HF85-69.5/74.499-05-55 | 69,5<br>*2.736* | 74,499<br>*2.933* | 50,0<br>*1.969* | 55,0<br>*2.165* | 1,75<br>*3.860* | 5 | RNAX1005... |
| HF85-74.5/79.499-05-55 | 74,5<br>*2.933* | 79,499<br>*3.130* | 50,0<br>*1.969* | 55,0<br>*2.165* | 2,0<br>*4.410* | 5 | RNAX1005... |
| HF85-79.5/84.499-05-55 | 79,5<br>*3.130* | 84,499<br>*3.327* | 50,0<br>*1.969* | 55,0<br>*2.165* | 2,2<br>*4.850* | 5 | RNAX1005... |

## Spare Parts, included in delivery

| For head | Adjusting screw | Cartridge | Clamp screw | Insert screw | Key (Flag) | Setting key | Wedge clamp |
|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |  |
| HF85 05-55 | SH4075S | CARTCYHF20 | LDH4012 | C03010-T09P | H2.0-2D | 4SMS795 | B6027 |

## Accessories

| For head | Torque key | Torx driver for insert/holder locking screw |
|---|---|---|
| |  |  |
| HF85 05-55 | H00-2020 | T00-09P20 |

**Note**
Torque driver H00-2020 for clamp screws

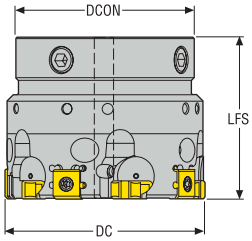
Torque driver T00-09P20 for insert screws

Torque value T00-09P20: 2 Nm.
Torque value H00-2020: 2 Nm.

# HF85B

Heads for RNAX inserts, blind bore ∅ 59,5-84,499 mm / *2.343-3.327”*






- For inserts, grades and geometries see page(s) 430-432
- For cutting data see page(s) 457-464

| Designation | DCN | DCX | LFS | DCON | Weight | | Insert |
|---|---|---|---|---|---|---|---|
| | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | | |
| HF85B-59.5/64.499-05-55 | 59,5<br>*2.343* | 64,499<br>*2.539* | 50,0<br>*1.969* | 55,0<br>*2.165* | 1,3<br>*2.870* | 5 | RNAX1005... |
| HF85B-64.5/69.499-05-55 | 64,5<br>*2.539* | 69,499<br>*2.736* | 50,0<br>*1.969* | 55,0<br>*2.165* | 1,5<br>*3.310* | 5 | RNAX1005... |
| HF85B-69.5/74.499-05-55 | 69,5<br>*2.736* | 74,499<br>*2.933* | 50,0<br>*1.969* | 55,0<br>*2.165* | 1,75<br>*3.860* | 5 | RNAX1005... |
| HF85B-74.5/79.499-05-55 | 74,5<br>*2.933* | 79,499<br>*3.130* | 50,0<br>*1.969* | 55,0<br>*2.165* | 2,0<br>*4.410* | 5 | RNAX1005... |
| HF85B-79.5/84.499-05-55 | 79,5<br>*3.130* | 84,499<br>*3.327* | 50,0<br>*1.969* | 55,0<br>*2.165* | 2,2<br>*4.850* | 5 | RNAX1005... |

## Spare Parts, included in delivery

| For head | Adjusting screw | Cartridge | Clamp screw | Insert screw | Key (Flag) | Setting key | Wedge clamp |
|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |  |
| HF85B 05-55 | SH4075S | CARTCYHF20B | LDH4012 | C03010-T09P | H2.0-2D | 2SMS795 | B6027 |

## Accessories

| For head | Torque key | Torx driver for insert/holder locking screw |
|---|---|---|
| |  |  |
| HF85B 05-55 | H00-2020 | T00-09P20 |

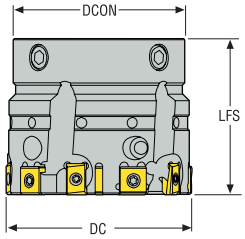
**Note**
Torque driver H00-2020 for clamp screws

Torque driver T00-09P20 for insert screws

Torque value T00-09P20: 2 Nm.
Torque value H00-2020: 2 Nm.

# HF86

Heads for LNEG inserts, through bore ∅ 59,5-84,499 mm / *2.343-3.327”*






- For inserts, grades and geometries see page(s) 430-432
- For cutting data see page(s) 457-464

| Designation | DCN | DCX | LFS | DCON | Weight | | Insert |
|---|---|---|---|---|---|---|---|
| | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | | |
| HF86-59.5-64.499-05-55 | 59,5<br>*2.343* | 64,499<br>*2.539* | 50,0<br>*1.969* | 55,0<br>*2.165* | 1,3<br>*2.870* | 5 | LNEG1003... |
| HF86-64.5-69.499-05-55 | 64,5<br>*2.539* | 69,499<br>*2.736* | 50,0<br>*1.969* | 55,0<br>*2.165* | 1,5<br>*3.310* | 5 | LNEG1003... |
| HF86-69.5-74.499-05-55 | 69,5<br>*2.736* | 74,499<br>*2.933* | 50,0<br>*1.969* | 55,0<br>*2.165* | 1,75<br>*3.860* | 5 | LNEG1003... |
| HF86-74.5-79.499-05-55 | 74,5<br>*2.933* | 94,499<br>*3.720* | 50,0<br>*1.969* | 55,0<br>*2.165* | 2,0<br>*4.410* | 5 | LNEG1003... |
| HF86-79.5-84.499-05-55 | 79,5<br>*3.130* | 84,499<br>*3.327* | 50,0<br>*1.969* | 55,0<br>*2.165* | 2,2<br>*4.850* | 5 | LNEG1003... |

## Spare Parts, included in delivery

| For head | Adjusting screw | Cartridge | Clamp screw | Insert screw | Key (Flag) | Setting key | Wedge clamp |
|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |  |
| HF86 05-55 | SH4075S | CARTCYLN20 | LDH4010 | C02506-T07P | H2.0-2D | 2SMS795 | B6027 |

## Accessories

| For head | Torque key | Torx driver for insert/holder locking screw |
|---|---|---|
| |  |  |
| HF86 05-55 | H00-2020 | T00-07P09 |

**Note**
Torque driver H00-2020 for clamp screws

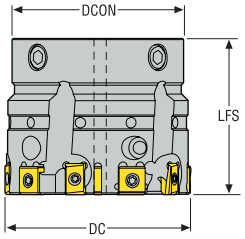
Torque driver T00-07P09 for insert screws

Torque value T00-07P09: 0,9 Nm.
Torque value H00-2020: 2 Nm.

# HF86B

Heads for LNEG inserts, blind bore ∅ 59,5-84,499 mm / *2.343-3.327”*






- For inserts, grades and geometries see page(s) 430-432
- For cutting data see page(s) 457-464

| Designation | DCN | DCX | LFS | DCON | Weight | | Insert |
|---|---|---|---|---|---|---|---|
| | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | | |
| HF86B-59.5/64.499-05-55 | 59,5<br>*2.343* | 64,499<br>*2.539* | 50,0<br>*1.969* | 55,0<br>*2.165* | 1,3<br>*2.870* | 5 | LNEG1003... |
| HF86B-64.5/69.499-05-55 | 64,5<br>*2.539* | 69,499<br>*2.736* | 50,0<br>*1.969* | 55,0<br>*2.165* | 1,5<br>*3.310* | 5 | LNEG1003... |
| HF86B-69.5/74.499-05-55 | 69,5<br>*2.736* | 74,499<br>*2.933* | 50,0<br>*1.969* | 55,0<br>*2.165* | 1,75<br>*3.860* | 5 | LNEG1003... |
| HF86B-74.5/79.499-05-55 | 74,5<br>*2.933* | 79,499<br>*3.130* | 50,0<br>*1.969* | 55,0<br>*2.165* | 2,0<br>*4.410* | 5 | LNEG1003... |
| HF86B-79.5/84.499-05-55 | 79,5<br>*3.130* | 84,499<br>*3.327* | 50,0<br>*1.969* | 55,0<br>*2.165* | 2,2<br>*4.850* | 5 | LNEG1003... |

## Spare Parts, included in delivery

| For head | Adjusting screw | Cartridge | Clamp screw | Insert screw | Key (Flag) | Setting key | Wedge clamp |
|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |  |
| HF86B 05-55 | SH4075S | CARTCYLN20B | LDH4010 | C02506-T07P | H2.0-2D | 2SMS795 | B6027 |

## Accessories

| For head | Torque key | Torx driver for insert/holder locking screw |
|---|---|---|
| |  |  |
| HF86B 05-55 | H00-2020 | T00-07P09 |

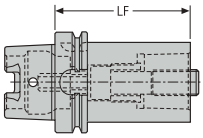
**Note**
Torque driver H00-2020 for clamp screws

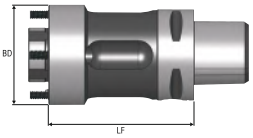
Torque driver T00-07P09 for insert screws

Torque value T00-07P09: 0,9 Nm.
Torque value H00-2020: 2 Nm.

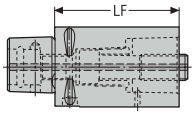
# HF55

Seco-Capto™ shank for ∅ 59,5-84,499 mm

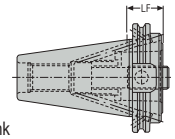



Reamer holder




Extension




Shank



| Designation Reamer holders | Item number | LF min | LF max | Taper | BD | Weight |
|---|---|---|---|---|---|---|
| | | mm | mm | | mm | kg |
| HF55...BT40ADB | – | 80 | 239 | BT40ADB | 55 | 0,0 |
| HF55...BT50ADB | – | 80 | 304 | BT50ADB | 55 | 0,0 |
| HF55...DIN40ADB | – | 80 | 239 | DIN40ADB | 55 | 0,0 |
| HF55...DIN50ADB | – | 80 | 304 | DIN50ADB | 55 | 0,0 |
| HF55...HSKA100 | – | 100 | 239 | HSK-A100 | 55 | 0,0 |
| HF55...HSKA63 | – | 80 | 239 | HSK-A63 | 55 | 0,0 |
| HF55...HSKA80 | – | 100 | 239 | HSK-A80 | 55 | 0,0 |
| HF55-080-C5 | 02688647 | – | 80 | C5 | 55 | 1,5 |

Shanks and extensions for HF55-080-C5 (see Seco Tooling Systems for more details).

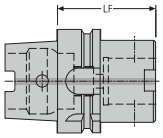
| Designation Shank | Item number | LF | Taper | Seco-Capto size | Weight |
|---|---|---|---|---|---|
| | | mm | | | kg |
| C5-390B.140-40040 | 02924112 | 40 | DIN40 | C5 | 0,9 |
| C5-390B.140-40080 | 02924113 | 80 | DIN40 | C5 | 1,5 |
| C5-390B.140-50030 | 02924114 | 30 | DIN50 | C5 | 2,6 |
| C5-390B.140-50070 | 02924115 | 70 | DIN50 | C5 | 3,1 |
| C5-390B.55-40050 | 02925967 | 50 | BT40 | C5 | 1,1 |
| C5-390B.55-40090 | 02925968 | 90 | BT40 | C5 | 1,7 |
| C5-390B.58-50040 | 02925969 | 40 | BT50 | C5 | 3,4 |
| C5-390B.58-50080 | 02925970 | 80 | BT50 | C5 | 4,0 |
| HA06-C5-050-090 | 10197966 | 90 | HSK-A63 | C5 | 3,1 |
| HA10-C4-040-090 | 10197963 | 90 | HSK-A100 | C4 | 2,6 |

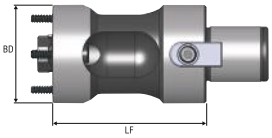
| Designation Extension | Item number | LF | Taper | Seco-Capto size | Weight |
|---|---|---|---|---|---|
| | | mm | | | kg |
| C5-391.01-50080A | 75039886 | – | C5 | C5 | 1,12 |
| C5-391.01-50100A | 00004773 | – | C5 | C5 | 1,39 |
| C6-391.02-50080A | 75039894 | – | C6 | C5 | 1,45 |
| C6-391.02-50110A | 02207400 | – | C6 | C5 | 2,15 |
| C8-391.02-50080B | 03080011 | – | C8 | C5 | 2,4 |

# HF55

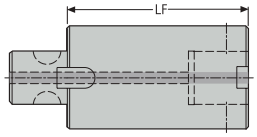
Graflex® shank for ∅ 59,5-84,499 mm



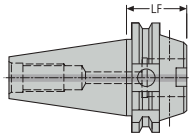



Reamer holder




Extension




Shank

| Designation Reamer holders | Item number | LF min | LF max | Taper | BD | Weight |
|---|---|---|---|---|---|---|
| | | mm | mm | | mm | kg |
| HF55...BT40ADB | – | 80 | 239 | BT40ADB | 55 | 0,0 |
| HF55...BT50ADB | – | 80 | 304 | BT50ADB | 55 | 0,0 |
| HF55...DIN40ADB | – | 80 | 239 | DIN40ADB | 55 | 0,0 |
| HF55...DIN50ADB | – | 80 | 304 | DIN50ADB | 55 | 0,0 |
| HF55...HSKA100 | – | 100 | 239 | HSK-A100 | 55 | 0,0 |
| HF55...HSKA63 | – | 80 | 239 | HSK-A63 | 55 | 0,0 |
| HF55...HSKA80 | – | 100 | 239 | HSK-A80 | 55 | 0,0 |
| HF55-080-G5 | 02698871 | – | 80 | G5 | 55 | 1,3 |

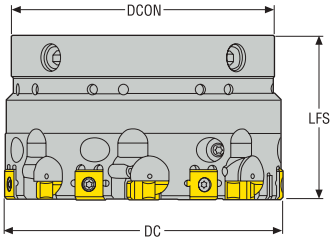
Shanks and extensions for HF55-080-G5 (see Seco Tooling Systems for more details).

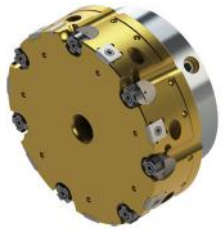
| Designation Shank | Item number | LF | Taper | Graflex size | Weight |
|---|---|---|---|---|---|
| | | mm | | | kg |
| EM341440128120 | 02503372 | 120 | BT40 | G5 | 2,12 |
| EM34144012845 | 02457989 | 45 | BT40 | G5 | 1,12 |
| EM34144012880 | 02503371 | 80 | BT40 | G5 | 1,54 |
| EM341640128100 | 02503381 | 100 | BT50 | G5 | 4,22 |
| EM341640128140 | 02503382 | 140 | BT50 | G5 | 4,8 |
| EM34164012855 | 02503380 | 55 | BT50 | G5 | 4,0 |
| EM346940128120 | 02503302 | 120 | DIN40 | G5 | 2,08 |
| EM34694012840 | 02458421 | 40 | DIN40 | G5 | 0,93 |
| EM34694012880 | 02503301 | 80 | DIN40 | G5 | 1,5 |
| EM34714012840 | 02503312 | 40 | DIN50 | G5 | 2,75 |
| EM930440128100 | 00086921 | 100 | HSK-A63 | G5 | 1,58 |
| EM930440128140 | 00086922 | 140 | HSK-A63 | G5 | 2,18 |
| EM93044012860 | 00086920 | 60 | HSK-A63 | G5 | 0,98 |
| EM930640128110 | 00086928 | 110 | HSK-A100 | G5 | 3,02 |
| EM930640128150 | 00086929 | 150 | HSK-A100 | G5 | 3,7 |
| EM93064012865 | 00086927 | 65 | HSK-A100 | G5 | 2,37 |

| Designation Extension | Item number | LF | Taper | Graflex size | Weight |
|---|---|---|---|---|---|
| | | mm | | | kg |
| M402550 | 00056762 | – | G5 | G5 | 0,72 |
| M402551 | 00056763 | – | G5 | G5 | 1,12 |
| M402552 | 00056764 | – | G5 | G5 | 1,48 |

# HF85

Heads for RNAX inserts, through bore ∅ 84,5-119,499 mm / *3.327-4.705”*



- For inserts, grades and geometries see page(s) 430-432
- For cutting data see page(s) 457-464

| Designation | DCN | DCX | LFS | DCON | Weight | | Insert |
|---|---|---|---|---|---|---|---|
| | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | | |
| HF85-104.5/109.499-07-80 | 104,5<br>*4.114* | 109,499<br>*4.311* | 50,0<br>*1.969* | 80,0<br>*3.150* | 2,4<br>*5.290* | 7 | RNAX1005... |
| HF85-109.5/114.499-07-80 | 109,5<br>*4.311* | 114,499<br>*4.508* | 50,0<br>*1.969* | 80,0<br>*3.150* | 2,61<br>*5.750* | 7 | RNAX1005... |
| HF85-114.5/119.499-07-80 | 114,5<br>*4.508* | 119,499<br>*4.705* | 50,0<br>*1.969* | 80,0<br>*3.150* | 2,82<br>*6.220* | 7 | RNAX1005... |
| HF85-84.5/89.499-07-80 | 84,5<br>*3.327* | 89,499<br>*3.524* | 50,0<br>*1.969* | 80,0<br>*3.150* | 1,68<br>*3.700* | 7 | RNAX1005... |
| HF85-89.5/94.499-07-80 | 89,5<br>*3.524* | 94,499<br>*3.720* | 50,0<br>*1.969* | 80,0<br>*3.150* | 1,85<br>*4.080* | 7 | RNAX1005... |
| HF85-94.5/99.499-07-80 | 94,5<br>*3.720* | 99,499<br>*3.917* | 50,0<br>*1.969* | 80,0<br>*3.150* | 2,02<br>*4.450* | 7 | RNAX1005... |
| HF85-99.5/104.499-07-80 | 99,5<br>*3.917* | 104,499<br>*4.114* | 50,0<br>*1.969* | 80,0<br>*3.150* | 2,2<br>*4.850* | 7 | RNAX1005... |

## Spare Parts, included in delivery

| For head | Adjusting screw | Cartridge | Clamp screw | Insert screw | Key (Flag) | Setting key | Wedge clamp |
|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |  |
| HF85 07-80 | SH4075S | CARTCYHF20 | LDH4012 | C03010-T09P | H2.0-2D | 4SMS795 | B6027 |

## Accessories

| For head | Torque key | Torx driver for insert/holder locking screw |
|---|---|---|
| |  |  |
| HF85 07-80 | H00-2020 | T00-09P20 |

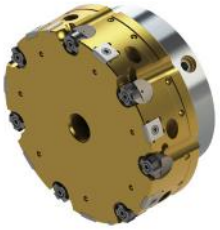
**Note**
Torque driver H00-2020 for clamp screws

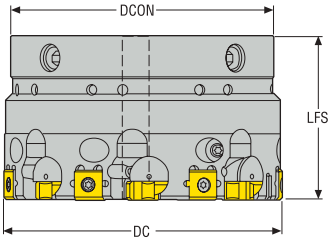
Torque driver T00-09P20 for insert screws

Torque value T00-09P20: 2 Nm.
Torque value H00-2020: 2 Nm.

# HF85B

Heads for RNAX inserts, blind bore ∅ 84,5-119,499 mm / *3.327-4.705"*






- For inserts, grades and geometries see page(s) 430-432
- For cutting data see page(s) 457-464

| Designation | DCN | DCX | LFS | DCON | Weight | | Insert |
|---|---|---|---|---|---|---|---|
| | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | | |
| HF85B-104.5/109.499-07-80 | 104,5<br>*4.114* | 109,499<br>*4.311* | 50,0<br>*1.969* | 80,0<br>*3.150* | 2,4<br>*5.290* | 7 | RNAX1005... |
| HF85B-109.5/114.499-07-80 | 109,5<br>*4.311* | 114,499<br>*4.508* | 50,0<br>*1.969* | 80,0<br>*3.150* | 2,61<br>*5.750* | 7 | RNAX1005... |
| HF85B-114.5/119.499-07-80 | 114,5<br>*4.508* | 119,499<br>*4.705* | 50,0<br>*1.969* | 80,0<br>*3.150* | 2,82<br>*6.220* | 7 | RNAX1005... |
| HF85B-84.5/89.499-07-80 | 84,5<br>*3.327* | 89,499<br>*3.524* | 50,0<br>*1.969* | 80,0<br>*3.150* | 1,68<br>*3.700* | 7 | RNAX1005... |
| HF85B-89.5/94.499-07-80 | 89,5<br>*3.524* | 94,499<br>*3.720* | 50,0<br>*1.969* | 80,0<br>*3.150* | 1,85<br>*4.080* | 7 | RNAX1005... |
| HF85B-94.5/99.499-07-80 | 94,5<br>*3.720* | 99,499<br>*3.917* | 50,0<br>*1.969* | 80,0<br>*3.150* | 2,02<br>*4.450* | 7 | RNAX1005... |
| HF85B-99.5/104.499-07-80 | 99,5<br>*3.917* | 104,499<br>*4.114* | 50,0<br>*1.969* | 80,0<br>*3.150* | 2,2<br>*4.850* | 7 | RNAX1005... |

## Spare Parts, included in delivery

| For head | Adjusting screw | Cartridge | Clamp screw | Insert screw | Key (Flag) | Setting key | Wedge clamp |
|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |  |
| HF85B 07-80 | SH4075S | CARTCYHF20B | LDH4010 | C03010-T09P | H2.0-2D | 2SMS795 | B6027 |

## Accessories

| For head | Torque key | Torx driver for insert/holder locking screw |
|---|---|---|
| |  |  |
| HF85B 07-80 | H00-2020 | T00-09P20 |

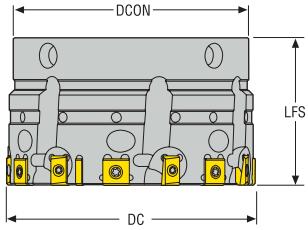
**Note**
Torque driver H00-2020 for clamp screws

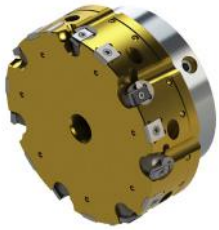
Torque driver T00-09P20 for insert screws

Torque value T00-09P20: 2 Nm.
Torque value H00-2020: 2 Nm.

# HF86

Heads for LNEG inserts, through bore ∅ 84,5-119,499 mm / *3.327-4.705”*



- For inserts, grades and geometries see page(s) 430-432
- For cutting data see page(s) 457-464

| Designation | DCN | DCX | LFS | DCON | Weight | | Insert |
|---|---|---|---|---|---|---|---|
| | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | | |
| HF86-104.5/109.499-07-80 | 104,5<br>*4.114* | 109,499<br>*4.311* | 50,0<br>*1.969* | 80,0<br>*3.150* | 2,4<br>*5.290* | 7 | LNEG1003... |
| HF86-109.5/114.499-07-80 | 109,5<br>*4.311* | 114,499<br>*4.508* | 50,0<br>*1.969* | 80,0<br>*3.150* | 2,61<br>*5.750* | 7 | LNEG1003... |
| HF86-114.5/119.499-07-80 | 114,5<br>*4.508* | 119,499<br>*4.705* | 50,0<br>*1.969* | 80,0<br>*3.150* | 2,82<br>*6.220* | 7 | LNEG1003... |
| HF86-84.5/89.499-07-80 | 84,5<br>*3.327* | 89,499<br>*3.524* | 50,0<br>*1.969* | 80,0<br>*3.150* | 1,68<br>*3.700* | 7 | LNEG1003... |
| HF86-89.5/94.499-07-80 | 89,5<br>*3.524* | 94,499<br>*3.720* | 50,0<br>*1.969* | 80,0<br>*3.150* | 1,85<br>*4.080* | 7 | LNEG1003... |
| HF86-94.5/99.499-07-80 | 94,5<br>*3.720* | 99,499<br>*3.917* | 50,0<br>*1.969* | 80,0<br>*3.150* | 2,02<br>*4.450* | 7 | LNEG1003... |
| HF86-99.5/104.499-07-80 | 99,5<br>*3.917* | 104,499<br>*4.114* | 50,0<br>*1.969* | 80,0<br>*3.150* | 2,2<br>*4.850* | 7 | LNEG1003... |

## Spare Parts, included in delivery

| For head | Adjusting screw | Cartridge | Clamp screw | Insert screw | Key (Flag) | Setting key | Wedge clamp |
|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |  |
| HF86 07-80 | SH4075S | CARTCYLN20 | LDH4010 | C02506-T07P | H2.0-2D | 2SMS795 | B6027 |

## Accessories

| For head | Torque key | Torx driver for insert/holder locking screw |
|---|---|---|
| |  |  |
| HF86 07-80 | H00-2020 | T00-07P09 |

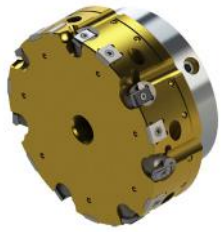
**Note**
Torque driver H00-2020 for clamp screws

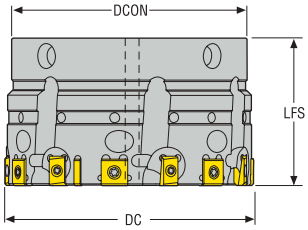
Torque driver T00-07P09 for insert screws

Torque value T00-07P09: 0,9 Nm.
Torque value H00-2020: 2 Nm.

# HF86B

Heads for LNEG inserts, blind bore ∅ 84,5-119,499 mm / *3.327-4.705"*






- For inserts, grades and geometries see page(s) 430-432
- For cutting data see page(s) 457-464

| Designation | DCN | DCX | LFS | DCON | Weight | | Insert |
|---|---|---|---|---|---|---|---|
| | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | | |
| HF86B-104.5/109.499-07-80 | 104,5<br>*4.114* | 109,499<br>*4.311* | 50,0<br>*1.969* | 80,0<br>*3.150* | 2,4<br>*5.290* | 7 | LNEG1003... |
| HF86B-109.5/114.499-07-80 | 109,5<br>*4.311* | 114,499<br>*4.508* | 50,0<br>*1.969* | 80,0<br>*3.150* | 2,61<br>*5.750* | 7 | LNEG1003... |
| HF86B-114.5/119.499-07-80 | 114,5<br>*4.508* | 119,499<br>*4.705* | 50,0<br>*1.969* | 80,0<br>*3.150* | 2,82<br>*6.220* | 7 | LNEG1003... |
| HF86B-84.5/89.499-07-80 | 84,5<br>*3.327* | 89,499<br>*3.524* | 50,0<br>*1.969* | 80,0<br>*3.150* | 1,68<br>*3.700* | 7 | LNEG1003... |
| HF86B-89.5/94.499-07-80 | 89,5<br>*3.524* | 94,499<br>*3.720* | 50,0<br>*1.969* | 80,0<br>*3.150* | 1,85<br>*4.080* | 7 | LNEG1003... |
| HF86B-94.5/99.499-07-80 | 94,5<br>*3.720* | 99,499<br>*3.917* | 50,0<br>*1.969* | 80,0<br>*3.150* | 2,02<br>*4.450* | 7 | LNEG1003... |
| HF86B-99.5/104.499-07-80 | 99,5<br>*3.917* | 104,499<br>*4.114* | 50,0<br>*1.969* | 80,0<br>*3.150* | 2,2<br>*4.850* | 7 | LNEG1003... |

## Spare Parts, included in delivery

| For head | Adjusting screw | Cartridge | Clamp screw | Insert screw | Key (Flag) | Setting key | Wedge clamp |
|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |  |
| HF86B | SH4075S | CARTCYLN20B | LDH4010 | C02506-T07P | H2.0-2D | 2SMS795 | B6027 |

## Accessories

| For head | Torque key | Torx driver for insert/holder locking screw |
|---|---|---|
| |  |  |
| HF86B | H00-2020 | T00-07P09 |

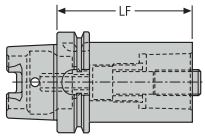
**Note**
Torque driver H00-2020 for clamp screws

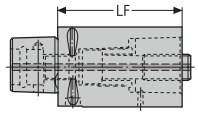
Torque driver T00-07P09 for insert screws

Torque value T00-07P09: 0,9 Nm.
Torque value H00-2020: 2 Nm.

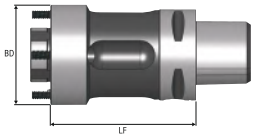
# HF80

Seco-Capto™ shank for ∅ 84,5-119,499 mm

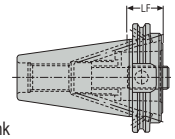



Extension




Reamer holder




Shank



| Designation Reamer holders | Item number | LF min | LF max | Taper | BD | Weight |
|---|---|---|---|---|---|---|
| | | mm | mm | | mm | kg |
| HF80...BT50ADB | – | 80 | 304 | BT50ADB | 80 | 0,0 |
| HF80...DIN50ADB | – | 80 | 304 | DIN50ADB | 80 | 0,0 |
| HF80...HSKA100 | – | 100 | 239 | HSK-A100 | 80 | 0,0 |
| HF80...HSKA80 | – | 100 | 239 | HSK-A80 | 80 | 0,0 |
| HF80-080-C6 | 02688648 | – | 80 | C6 | 80 | 2,5 |

Shanks and extensions for HF80-080-C6 (see Seco Tooling Systems for more details).

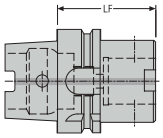
| Designation Shank | Item number | LF | Taper | Seco-Capto size | Weight |
|---|---|---|---|---|---|
| | | mm | | | kg |
| C6-390B.140-40085 | 02924116 | 85 | DIN40 | C6 | 1,8 |
| C6-390B.140-50030 | 02924117 | 30 | DIN50 | C6 | 2,5 |
| C6-390B.140-50080 | 02924118 | 80 | DIN50 | C6 | 3,6 |
| C6-390B.55-40075 | 02925971 | 75 | BT40 | C6 | 1,7 |
| C6-390B.58-50050 | 02925972 | 50 | BT50 | C6 | 3,5 |
| C6-390B.58-50100 | 02925973 | 100 | BT50 | C6 | 4,6 |
| HA10-C6-063-110 | 10197967 | 110 | HSK-A100 | C6 | 3,8 |

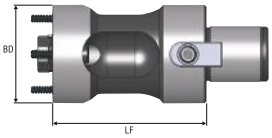
| Designation Extension | Item number | LF | Taper | Seco-Capto size | Weight |
|---|---|---|---|---|---|
| | | mm | | | kg |
| C6-391.01-63060 | 02300834 | – | C6 | C6 | 1,31 |
| C6-391.01-63100A | 75039887 | – | C6 | C6 | 2,2 |
| C6-391.01-63140A | 00004840 | – | C6 | C6 | 3,1 |

# HF80

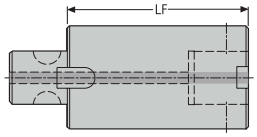
Graflex® shank for ∅ 84,5-119,499 mm



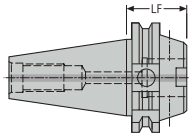



Reamer holder




Extension




Shank

| Designation Reamer holders | Item number | LF min | LF max | Taper | BD | Weight |
|---|---|---|---|---|---|---|
| | | mm | mm | | mm | kg |
| HF80...BT50ADB | – | 80 | 304 | BT50ADB | 80 | 0,0 |
| HF80...DIN50ADB | – | 80 | 304 | DIN50ADB | 80 | 0,0 |
| HF80...HSKA100 | – | 100 | 239 | HSK-A100 | 80 | 0,0 |
| HF80...HSKA80 | – | 100 | 239 | HSK-A80 | 80 | 0,0 |
| HF80-080-G6 | 02698873 | – | 80 | G6 | 80 | 3,0 |

Shanks and extensions for HF80-080-G6 (see Seco Tooling Systems for more details).

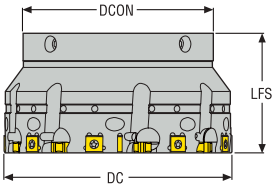
| Designation Shank | Item number | LF | Taper | Graflex size | Weight |
|---|---|---|---|---|---|
| | | mm | | | kg |
| EM341440136120 | 02503374 | 120 | BT40 | G6 | 2,78 |
| EM34144013650 | 02503373 | 50 | BT40 | G6 | 1,13 |
| EM341640136100 | 02503384 | 100 | BT50 | G6 | 4,6 |
| EM341640136140 | 02503385 | 140 | BT50 | G6 | 5,54 |
| EM34164013663 | 02503383 | 63 | BT50 | G6 | 4,2 |
| EM346940136120 | 02503304 | 120 | DIN40 | G6 | 2,65 |
| EM34694013660 | 02503303 | 60 | DIN40 | G6 | 1,24 |
| EM347140136100 | 02503318 | 100 | DIN50 | G6 | 4,1 |
| EM347140136140 | 02503319 | 140 | DIN50 | G6 | 4,99 |
| EM34714013645 | 02503317 | 45 | DIN50 | G6 | 2,88 |
| EM930440136120 | 00086924 | 120 | HSK-A63 | G6 | 2,38 |
| EM93044013670 | 00086923 | 70 | HSK-A63 | G6 | 1,21 |
| EM930640136120 | 00086931 | 120 | HSK-A100 | G6 | 3,82 |
| EM930640136160 | 00086932 | 160 | HSK-A100 | G6 | 4,72 |

Shanks and extensions for HF32-050-G3 (see Seco Tooling Systems for more details).

| Designation Extension | Item number | LF | Taper | Graflex size | Weight |
|---|---|---|---|---|---|
| | | mm | | | kg |
| M402660 | 00056765 | – | G6 | G6 | 1,38 |
| M402661 | 00056766 | – | G6 | G6 | 2,1 |
| M402662 | 00056767 | – | G6 | G6 | 2,82 |

# HF85

Heads for RNAX inserts, through bore ∅ 119,5-154,499 mm / *4.705-6.083”*






- For inserts, grades and geometries see page(s) 430-432
- For cutting data see page(s) 457-464

| Designation | DCN | DCX | LFS | DCON | Weight | | Insert |
|---|---|---|---|---|---|---|---|
| | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | | |
| HF85-119.5/124.499-09-100 | 119,5<br>*4.705* | 124,499<br>*4.902* | 63,0<br>*2.480* | 100,0<br>*3.937* | 3,89<br>*8.580* | 9 | RNAX1005... |
| HF85-124.5/129.499-09-100 | 124,5<br>*4.902* | 129,499<br>*5.098* | 63,0<br>*2.480* | 100,0<br>*3.937* | 4,15<br>*9.150* | 9 | RNAX1005... |
| HF85-129.5/134.499-09-100 | 129,5<br>*5.098* | 134,499<br>*5.295* | 63,0<br>*2.480* | 100,0<br>*3.937* | 4,42<br>*9.740* | 9 | RNAX1005... |
| HF85-134.5/139.499-09-100 | 134,5<br>*5.295* | 139,499<br>*5.492* | 63,0<br>*2.480* | 100,0<br>*3.937* | 4,7<br>*10.360* | 9 | RNAX1005... |
| HF85-139.5/144.499-09-100 | 139,5<br>*5.492* | 144,499<br>*5.689* | 63,0<br>*2.480* | 100,0<br>*3.937* | 4,99<br>*11.000* | 9 | RNAX1005... |
| HF85-144.5/149.499-09-100 | 144,5<br>*5.689* | 149,499<br>*5.886* | 63,0<br>*2.480* | 100,0<br>*3.937* | 5,29<br>*11.660* | 9 | RNAX1005... |
| HF85-149.5/154.499-09-100 | 149,5<br>*5.886* | 154,499<br>*6.083* | 63,0<br>*2.480* | 100,0<br>*3.937* | 5,6<br>*12.350* | 9 | RNAX1005... |

## Spare Parts, included in delivery

| For head | Adjusting screw | Cartridge | Clamp screw | Insert screw | Key (Flag) | Setting key | Wedge clamp |
|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |  |
| HF85 09-100 | SH4075S | CARTCYHF20 | LDH4012 | C03010-T09P | H2.0-2D | 4SMS795 | B6027 |

## Accessories

| For head | Torque key | Torx driver for insert/holder locking screw |
|---|---|---|
| |  |  |
| HF85 09-100 | H00-2020 | T00-09P20 |

**Note**
Torque driver H00-2020 for clamp screws

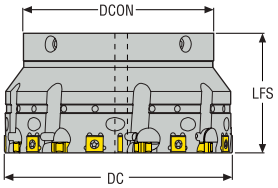
Torque driver T00-09P20 for insert screws

Torque value T00-09P20: 2 Nm.
Torque value H00-2020: 2 Nm.

# HF85B

Heads for RNAX inserts, blind bore ∅ 119,5-154,499 mm / *4.705-6.083”*






- For inserts, grades and geometries see page(s) 430-432
- For cutting data see page(s) 457-464

| Designation | DCN | DCX | LFS | DCON | Weight | | Insert |
|---|---|---|---|---|---|---|---|
| | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | | |
| HF85B-119.5/124.499-09-100 | 119,5<br>*4.705* | 124,499<br>*4.902* | 63,0<br>*2.480* | 100,0<br>*3.937* | 3,89<br>*8.580* | 9 | RNAX1005... |
| HF85B-124.5/129.499-09-100 | 124,5<br>*4.902* | 129,499<br>*5.098* | 63,0<br>*2.480* | 100,0<br>*3.937* | 4,15<br>*9.150* | 9 | RNAX1005... |
| HF85B-134.5/139.499-09-100 | 134,5<br>*5.295* | 139,499<br>*5.492* | 63,0<br>*2.480* | 100,0<br>*3.937* | 4,7<br>*10.360* | 9 | RNAX1005... |
| HF85B-139.5/144.499-09-100 | 139,5<br>*5.492* | 144,499<br>*5.689* | 63,0<br>*2.480* | 100,0<br>*3.937* | 4,99<br>*11.000* | 9 | RNAX1005... |
| HF85B-144.5/149.499-09-100 | 144,5<br>*5.689* | 149,499<br>*5.886* | 63,0<br>*2.480* | 100,0<br>*3.937* | 5,29<br>*11.660* | 9 | RNAX1005... |
| HF85B-149.5/154.499-09-100 | 149,5<br>*5.886* | 154,499<br>*6.083* | 63,0<br>*2.480* | 100,0<br>*3.937* | 5,6<br>*12.350* | 9 | RNAX1005... |

## Spare Parts, included in delivery

| For head | Adjusting screw | Cartridge | Clamp screw | Insert screw | Key (Flag) | Setting key | Wedge clamp |
|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |  |
| HF85B 09-100 | SH4075S | CARTCYHF20B | LDH4012 | C03010-T09P | H2.0-2D | 2SMS795 | B6027 |

## Accessories

| For head | Torque key | Torx driver for insert/holder locking screw |
|---|---|---|
| |  |  |
| HF85B 09-100 | H00-2020 | T00-09P20 |

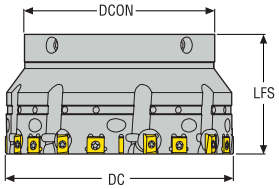
**Note**
Torque driver H00-2020 for clamp screws

Torque driver T00-09P20 for insert screws

Torque value T00-09P20: 2 Nm.
Torque value H00-2020: 2 Nm.

# HF86

Heads for LNEG inserts, through bore ∅ 119,5-154,499 mm / *4.705-6.083”*






- For inserts, grades and geometries see page(s) 430-432
- For cutting data see page(s) 457-464

| Designation | DCN | DCX | LFS | DCON | Weight | | Insert |
|---|---|---|---|---|---|---|---|
| | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | | |
| HF86-119.5/124.499-09-100 | 119,5<br>*4.705* | 124,499<br>*4.902* | 63,0<br>*2.480* | 100,0<br>*3.937* | 3,89<br>*8.580* | 9 | LNEG1003... |
| HF86-124.5/129.499-09-100 | 124,5<br>*4.902* | 129,499<br>*5.098* | 63,0<br>*2.480* | 100,0<br>*3.937* | 4,15<br>*9.150* | 9 | LNEG1003... |
| HF86-129.5/134.499-09-100 | 129,5<br>*5.098* | 134,499<br>*5.295* | 63,0<br>*2.480* | 100,0<br>*3.937* | 4,42<br>*9.740* | 9 | LNEG1003... |
| HF86-134.5/139.499-09-100 | 134,5<br>*5.295* | 139,499<br>*5.492* | 63,0<br>*2.480* | 100,0<br>*3.937* | 4,7<br>*10.360* | 9 | LNEG1003... |
| HF86-139.5/144.499-09-100 | 139,5<br>*5.492* | 144,499<br>*5.689* | 63,0<br>*2.480* | 100,0<br>*3.937* | 4,99<br>*11.000* | 9 | LNEG1003... |
| HF86-144.5/149.499-09-100 | 144,5<br>*5.689* | 149,499<br>*5.886* | 63,0<br>*2.480* | 100,0<br>*3.937* | 5,29<br>*11.660* | 9 | LNEG1003... |
| HF86-149.5/154.499-09-100 | 149,5<br>*5.886* | 154,499<br>*6.083* | 63,0<br>*2.480* | 100,0<br>*3.937* | 5,6<br>*12.350* | 9 | LNEG1003... |

## Spare Parts, included in delivery

| For head | Adjusting screw | Cartridge | Clamp screw | Insert screw | Key (Flag) | Setting key | Wedge clamp |
|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |  |
| HF86 09-100 | SH4075S | CARTCYHF20 | LDH4010 | C02506-T07P | H2.0-2D | 2SMS795 | B6027 |

## Accessories

| For head | Torque key | Torx driver for insert/holder locking screw |
|---|---|---|
| |  |  |
| HF86 09-100 | H00-2020 | T00-07P09 |

**Note**
Torque driver H00-2020 for clamp screws

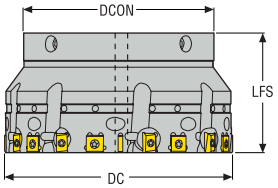
Torque driver T00-07P09 for insert screws

Torque value
T00-07P09: 0,9 Nm.
Torque value H00-2020: 2 Nm.

# HF86B

Heads for LNEG inserts, blind bore ∅ 119,5-154,499 mm / *4.705-6.083”*






- For inserts, grades and geometries see page(s) 430-432
- For cutting data see page(s) 457-464

| Designation | DCN | DCX | LFS | DCON | Weight | | Insert |
|---|---|---|---|---|---|---|---|
| | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | | |
| HF86B-119.5/124.499-09-100 | 119,5<br>*4.705* | 124,499<br>*4.902* | 63,0<br>*2.480* | 100,0<br>*3.937* | 3,89<br>*8.580* | 9 | LNEG1003... |
| HF86B-124.5/129.499-09-100 | 124,5<br>*4.902* | 129,499<br>*5.098* | 63,0<br>*2.480* | 100,0<br>*3.937* | 4,15<br>*9.150* | 9 | LNEG1003... |
| HF86B-129.5/134.499-09-100 | 129,5<br>*5.098* | 134,499<br>*5.295* | 63,0<br>*2.480* | 100,0<br>*3.937* | 4,42<br>*9.740* | 9 | LNEG1003... |
| HF86B-134.5/139.499-09-100 | 134,5<br>*5.295* | 139,499<br>*5.492* | 63,0<br>*2.480* | 100,0<br>*3.937* | 4,7<br>*10.360* | 9 | LNEG1003... |
| HF86B-139.5/144.499-09-100 | 139,5<br>*5.492* | 144,499<br>*5.689* | 63,0<br>*2.480* | 100,0<br>*3.937* | 4,99<br>*11.000* | 9 | LNEG1003... |
| HF86B-144.5/149.499-09-100 | 144,5<br>*5.689* | 149,499<br>*5.886* | 63,0<br>*2.480* | 100,0<br>*3.937* | 5,29<br>*11.660* | 9 | LNEG1003... |
| HF86B-149.5/154.499-09-100 | 149,5<br>*5.886* | 154,499<br>*6.083* | 63,0<br>*2.480* | 100,0<br>*3.937* | 5,6<br>*12.350* | 9 | LNEG1003... |

## Spare Parts, included in delivery

| For head | Adjusting screw | Cartridge | Clamp screw | Insert screw | Key (Flag) | Setting key | Wedge clamp |
|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |  |
| HF86B 09-100 | SH4075S | CARTCYLN20B | LDH4010 | C02506-T07P | H2.0-2D | 2SMS795 | B6027 |

## Accessories

| For head | Torque key | Torx driver for insert/holder locking screw |
|---|---|---|
| |  |  |
| HF86B 09-100 | H00-2020 | T00-07P09 |

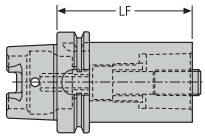
**Note**
Torque driver H00-2020 for clamp screws

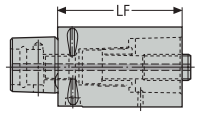
Torque driver T00-07P09 for insert screws

Torque value T00-07P09: 0,9 Nm.
Torque value H00-2020: 2 Nm.

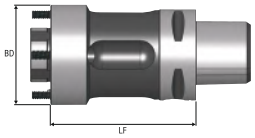
# HF100

Seco-Capto™ shank for ∅ 119,5-154,499 mm

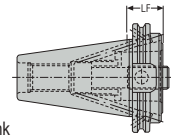



Extension




Reamer holder




Shank



| Designation Reamer holders | Item number | LF min | LF max | Taper | BD | Weight |
|---|---|---|---|---|---|---|
| | | mm | mm | | mm | kg |
| HF100...BT50ADB | – | 100 | 238 | BT50ADB | 100 | 0,0 |
| HF100...DIN50ADB | – | 100 | 238 | DIN50ADB | 100 | 0,0 |
| HF100...HSKA100 | – | 100 | 238 | HSK-A100 | 100 | 0,0 |
| HF100...HSKA80 | – | 100 | 238 | HSK-A80 | 100 | 0,0 |
| HF100-100-C8 | 02688649 | – | 100 | C8 | 100 | 4,9 |

Shanks and extensions for HF100-100-C8 (see Seco Tooling Systems for more details).

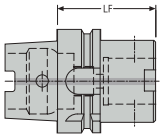
| Designation Shank | Item number | LF | Taper | Seco-Capto size | Weight |
|---|---|---|---|---|---|
| | | mm | | | kg |
| C8-390B.140-50070 | 02924119 | 70 | DIN50 | C8 | 3,7 |
| C8-390B.140-50120 | 02924120 | 120 | DIN50 | C8 | 5,6 |
| C8-390B.58-50070 | 02925974 | 70 | BT50 | C8 | 4,0 |
| C8-390B.58-50120 | 02925975 | 120 | BT50 | C8 | 5,9 |
| HA10-C8-080-120 | 10197968 | 120 | HSK-A100 | C8 | 4,1 |

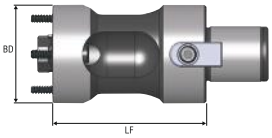
| Designation Extension | Item number | LF | Taper | Seco-Capto size | Weight |
|---|---|---|---|---|---|
| | | mm | | | kg |
| C8-391.01-80100A | 75039888 | – | C8 | C8 | 3,62 |
| C8-391.01-80125A | 00004841 | – | C8 | C8 | 4,54 |

# HF100

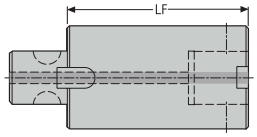
Graflex® shank for ∅ 119,5-154,499 mm



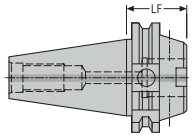



Reamer holder




Extension




Shank

| Designation Reamer holders | Item number | LF min | LF max | Taper | BD | Weight |
|---|---|---|---|---|---|---|
| | | mm | mm | | mm | kg |
| HF100...BT50ADB | – | 100 | 238 | BT50ADB | 100 | 0,0 |
| HF100...DIN50ADB | – | 100 | 238 | DIN50ADB | 100 | 0,0 |
| HF100...HSKA100 | – | 100 | 238 | HSK-A100 | 100 | 0,0 |
| HF100...HSKA80 | – | 100 | 238 | HSK-A80 | 100 | 0,0 |
| HF100-100-G7 | 02698874 | – | 100 | G7 | 100 | 5,2 |

Shanks and extensions for HF100-100-G7 (see Seco Tooling Systems for more details).

| Designation Shank | Item number | LF | Taper | Graflex size | Weight |
|---|---|---|---|---|---|
| | | mm | | | kg |
| EM341640146120 | 02503387 | 120 | BT50 | G7 | 6,8 |
| EM341640146200 | 02503388 | 200 | BT50 | G7 | 10,7 |
| EM34164014665 | 02503386 | 65 | BT50 | G7 | 4,4 |
| EM347140146120 | 02503321 | 120 | DIN50 | G7 | 6,48 |
| EM347140146200 | 02503324 | 200 | DIN50 | G7 | 10,4 |
| EM34714014650 | 02503320 | 50 | DIN50 | G7 | 3,23 |
| EM930640146160 | 00086933 | 160 | HSK-A100 | G7 | 7,67 |
| EM93064014685 | 00074385 | 85 | HSK-A100 | G7 | 3,99 |

| Designation Extension | Item number | LF | Taper | Graflex size | Weight |
|---|---|---|---|---|---|
| | | mm | | | kg |
| M402770 | 00056768 | – | G7 | G7 | 2,9 |
| M402771 | 00056769 | – | G7 | G7 | 4,03 |
| M402772 | 00056770 | – | G7 | G7 | 5,8 |

## Cutting data – LNEG...-EB45 metric

| SMG | | $a_p$ (∅) | f | | | | $v_c$ | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | z=3 | z=5 | z=7 | z=9 | RX2000 | CF | RX1500 |
| P1 | LNEG1003-EB45 | 0,15-0,25 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 120 (80-200) | 180 (120-250) | 220 (120-300) |
| P2 | LNEG1003-EB45 | 0,15-0,25 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 120 (80-200) | 180 (120-250) | 220 (120-300) |
| P3 | LNEG1003-EB45 | 0,15-0,25 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 120 (80-200) | 180 (120-250) | 220 (120-300) |
| P4 | LNEG1003-EB45 | 0,15-0,25 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 60 (40-120) | 80 (60-150) | 100 (80-200) |
| P5 | LNEG1003-EB45 | 0,15-0,25 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 60 (40-120) | 80 (60-150) | 100 (80-200) |
| P6 | LNEG1003-EB45 | 0,15-0,25 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 60 (40-120) | 80 (60-150) | 100 (80-200) |
| P7 | LNEG1003-EB45 | 0,15-0,25 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 60 (40-120) | 80 (60-150) | 100 (80-200) |
| P8 | LNEG1003-EB45 | 0,15-0,25 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 40 (30-70) | 60 (50-100) | 80 (60-120) |
| P11 | LNEG1003-EB45 | 0,15-0,25 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 40 (30-70) | 60 (50-100) | 80 (60-120) |
| P12 | LNEG1003-EB45 | 0,15-0,25 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 30 (25-55) | 45 (40-80) | 65 (45-95) |
| M1 | LNEG1003-EB45 | 0,10-0,20 | 0,15-0,30 | 0,25-0,50 | 0,35-0,70 | 0,45-0,90 | 35 (25-60) | - | - |
| M2 | LNEG1003-EB45 | 0,10-0,20 | 0,15-0,30 | 0,25-0,50 | 0,35-0,70 | 0,45-0,90 | 35 (25-60) | - | - |
| M3 | LNEG1003-EB45 | 0,10-0,20 | 0,15-0,30 | 0,25-0,50 | 0,35-0,70 | 0,45-0,90 | 35 (25-60) | - | - |
| M4 | LNEG1003-EB45 | 0,10-0,20 | 0,15-0,30 | 0,25-0,50 | 0,35-0,70 | 0,45-0,90 | 25 (20-50) | - | - |
| M5 | LNEG1003-EB45 | 0,10-0,20 | 0,15-0,30 | 0,25-0,50 | 0,35-0,70 | 0,45-0,90 | 25 (20-50) | - | - |
| K1 | LNEG1003-EB45 | 0,20-0,50 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 100 (60-200) | - | 220 (150-300) |
| K2 | LNEG1003-EB45 | 0,20-0,50 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 50 (35-80) | - | 70 (50-120) |
| K3 | LNEG1003-EB45 | 0,20-0,50 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 100 (60-200) | - | 220 (150-300) |
| K4 | LNEG1003-EB45 | 0,20-0,50 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 70 (50-120) | 100 (60-120) | 150 (110-200) |
| K5 | LNEG1003-EB45 | 0,20-0,50 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 70 (50-120) | 100 (60-120) | 150 (110-200) |
| K6 | LNEG1003-EB45 | 0,20-0,50 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 100 (60-200) | - | 220 (150-300) |
| K7 | LNEG1003-EB45 | 0,20-0,50 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 100 (60-200) | - | 220 (150-300) |
| H3 | LNEG1003-EB45 | 0,10-0,20 | 0,1-0,25 | 0,15-0,40 | 0,25-0,5 | 0,30-0,7 | 20 (10-30) | - | - |
| H5 | LNEG1003-EB45 | 0,10-0,20 | 0,1-0,25 | 0,15-0,40 | 0,25-0,5 | 0,30-0,7 | 20 (10-30) | - | - |
| H7 | LNEG1003-EB45 | 0,10-0,20 | 0,1-0,25 | 0,15-0,40 | 0,25-0,5 | 0,30-0,7 | 20 (10-30) | - | - |
| H8 | LNEG1003-EB45 | 0,10-0,20 | 0,1-0,25 | 0,15-0,40 | 0,25-0,5 | 0,30-0,7 | 20 (10-30) | - | - |
| H11 | LNEG1003-EB45 | 0,10-0,20 | 0,1-0,25 | 0,15-0,40 | 0,25-0,5 | 0,30-0,7 | 20 (10-30) | - | - |
| H12 | LNEG1003-EB45 | 0,10-0,20 | 0,1-0,25 | 0,15-0,40 | 0,25-0,5 | 0,30-0,7 | 20 (10-30) | - | - |
| H21 | LNEG1003-EB45 | 0,10-0,20 | 0,1-0,25 | 0,15-0,40 | 0,25-0,5 | 0,30-0,7 | 20 (10-30) | - | - |
| H31 | LNEG1003-EB45 | 0,10-0,20 | 0,1-0,25 | 0,15-0,40 | 0,25-0,5 | 0,30-0,7 | 20 (10-30) | - | - |

SMG = Seco material group
$a_p$ = mm
f = mm/rev
$v_c$= m/min
All cutting data are start values

## Cutting data – LNEG...-EB45 *inch*

| SMG | | $a_p$ (∅) | f | | | | $v_c$ | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | z=3 | z=5 | z=7 | z=9 | RX2000 | CF | RX1500 |
| P1 | LNEG1003-EB45 | 0.006–0.010 | 0.006–0.018 | 0.010–0.030 | 0.010–0.041 | 0.018–0.053 | 395 (260-655) | 590 (395-820) | 720 (395-985) |
| P2 | LNEG1003-EB45 | 0.006–0.010 | 0.006–0.018 | 0.010–0.030 | 0.010–0.041 | 0.018–0.053 | 395 (260-655) | 590 (395-820) | 720 (395-985) |
| P3 | LNEG1003-EB45 | 0.006–0.010 | 0.006–0.018 | 0.010–0.030 | 0.010–0.041 | 0.018–0.053 | 395 (260-655) | 590 (395-820) | 720 (395-985) |
| P4 | LNEG1003-EB45 | 0.006–0.010 | 0.006–0.018 | 0.010–0.030 | 0.010–0.041 | 0.018–0.053 | 195 (130-395) | 260 (195-490) | 330 (260-655) |
| P5 | LNEG1003-EB45 | 0.006–0.010 | 0.006–0.018 | 0.010–0.030 | 0.010–0.041 | 0.018–0.053 | 195 (130-395) | 260 (195-490) | 330 (260-655) |
| P6 | LNEG1003-EB45 | 0.006–0.010 | 0.006–0.018 | 0.010–0.030 | 0.010–0.041 | 0.018–0.053 | 195 (130-395) | 260 (195-490) | 330 (260-655) |
| P7 | LNEG1003-EB45 | 0.006–0.010 | 0.006–0.018 | 0.010–0.030 | 0.010–0.041 | 0.018–0.053 | 195 (130-395) | 260 (195-490) | 330 (260-655) |
| P8 | LNEG1003-EB45 | 0.006–0.010 | 0.006–0.018 | 0.010–0.030 | 0.010–0.041 | 0.018–0.053 | 130 (100-230) | 195 (165-330) | 260 (195-395) |
| P11 | LNEG1003-EB45 | 0.006–0.010 | 0.006–0.018 | 0.010–0.030 | 0.010–0.041 | 0.018–0.053 | 130 (100-230) | 195 (165-330) | 260 (195-395) |
| P12 | LNEG1003-EB45 | 0.006–0.010 | 0.006–0.018 | 0.010–0.030 | 0.010–0.041 | 0.010-0.053 | 100 (85-185) | 150 (135-265) | 215 (150-315) |
| M1 | LNEG1003-EB45 | 0.004–0.008 | 0.006–0.012 | 0.010–0.020 | 0.014–0.028 | 0.018–0.035 | 115 (80-195) | – | – |
| M2 | LNEG1003-EB45 | 0.004–0.008 | 0.006–0.012 | 0.010–0.020 | 0.014–0.028 | 0.018–0.035 | 115 (80-195) | – | – |
| M3 | LNEG1003-EB45 | 0.004–0.008 | 0.006–0.012 | 0.010–0.020 | 0.014–0.028 | 0.018–0.035 | 115 (80-195) | – | – |
| M4 | LNEG1003-EB45 | 0.004–0.008 | 0.006–0.012 | 0.010–0.020 | 0.014–0.028 | 0.018–0.035 | 80 (65-165) | – | – |
| M5 | LNEG1003-EB45 | 0.004–0.008 | 0.006–0.012 | 0.010–0.020 | 0.014–0.028 | 0.018–0.035 | 80 (65-165) | – | – |
| K1 | LNEG1003-EB45 | 0.008–0.020 | 0.006–0.018 | 0.010–0.030 | 0.010–0.041 | 0.018–0.053 | 330 (195-655) | – | 720 (490-985) |
| K2 | LNEG1003-EB45 | 0.008–0.020 | 0.006–0.018 | 0.010–0.030 | 0.010–0.041 | 0.018–0.053 | 165 (115-260) | – | 230 (165-395) |
| K3 | LNEG1003-EB45 | 0.008–0.020 | 0.006–0.018 | 0.010–0.030 | 0.010–0.041 | 0.018–0.053 | 330 (195-655) | – | 720 (490-985) |
| K4 | LNEG1003-EB45 | 0.008–0.020 | 0.006–0.018 | 0.010–0.030 | 0.010–0.041 | 0.018–0.053 | 230 (165-395) | 330 (195-395) | 490 (360-655) |
| K5 | LNEG1003-EB45 | 0.008–0.020 | 0.006–0.018 | 0.010–0.030 | 0.010–0.041 | 0.018–0.053 | 230 (165-395) | 330 (195-395) | 490 (360-655) |
| K6 | LNEG1003-EB45 | 0.008–0.020 | 0.006–0.018 | 0.010–0.030 | 0.010–0.041 | 0.018–0.053 | 330 (195-655) | – | 720 (490-985) |
| K7 | LNEG1003-EB45 | 0.008–0.020 | 0.006–0.018 | 0.010–0.030 | 0.010–0.041 | 0.018–0.053 | 330 (195-655) | – | 720 (490-985) |
| H3 | LNEG1003-EB45 | 0.004–0.008 | 0.004–0.010 | 0.006–0.016 | 0.010–0.020 | 0.012–0.028 | 65 (35-100) | – | – |
| H5 | LNEG1003-EB45 | 0.004–0.008 | 0.004–0.010 | 0.006–0.016 | 0.010–0.020 | 0.012–0.028 | 65 (35-100) | – | – |
| H7 | LNEG1003-EB45 | 0.004–0.008 | 0.004–0.010 | 0.006–0.016 | 0.010–0.020 | 0.012–0.028 | 65 (35-100) | – | – |
| H8 | LNEG1003-EB45 | 0.004–0.008 | 0.004–0.010 | 0.006–0.016 | 0.010–0.020 | 0.012–0.028 | 65 (35-100) | – | – |
| H11 | LNEG1003-EB45 | 0.004–0.008 | 0.004–0.010 | 0.006–0.016 | 0.010–0.020 | 0.012–0.028 | 65 (35-100) | – | – |
| H12 | LNEG1003-EB45 | 0.004–0.008 | 0.004–0.010 | 0.006–0.016 | 0.010–0.020 | 0.012–0.028 | 65 (35-100) | – | – |
| H21 | LNEG1003-EB45 | 0.004–0.008 | 0.004–0.010 | 0.006–0.016 | 0.010–0.020 | 0.012–0.028 | 65 (35-100) | – | – |
| H31 | LNEG1003-EB45 | 0.004–0.008 | 0.004–0.010 | 0.006–0.016 | 0.010–0.020 | 0.012–0.028 | 65 (35-100) | – | – |

SMG = Seco material group
$a_p$ = *inch*
f = in/rev
$v_c$= sf/min
All cutting data are start values

## Cutting data – LNEG...-EB845 metric

| SMG | | $a_p$ (∅) | f | | | | $v_c$ |
|---|---|---|---|---|---|---|---|
| | | | z=3 | z=5 | z=7 | z=9 | RX2000 |
| P1 | LNEG1003-EB845 | 0,15-0,25 | 0,15-0,60 | 0,25-1 | 0,35-1,4 | 0,45-1,80 | 120 (80-200) |
| P2 | LNEG1003-EB845 | 0,15-0,25 | 0,15-0,60 | 0,25-1 | 0,35-1,4 | 0,45-1,80 | 120 (80-200) |
| P3 | LNEG1003-EB845 | 0,15-0,25 | 0,15-0,60 | 0,25-1 | 0,35-1,4 | 0,45-1,80 | 120 (80-200) |
| P4 | LNEG1003-EB845 | 0,15-0,25 | 0,15-0,60 | 0,25-1 | 0,35-1,4 | 0,45-1,80 | 60 (40-120) |
| P5 | LNEG1003-EB845 | 0,15-0,25 | 0,15-0,60 | 0,25-1 | 0,35-1,4 | 0,45-1,80 | 60 (40-120) |
| P6 | LNEG1003-EB845 | 0,15-0,25 | 0,15-0,60 | 0,25-1 | 0,35-1,4 | 0,45-1,80 | 60 (40-120) |
| P7 | LNEG1003-EB845 | 0,15-0,25 | 0,15-0,60 | 0,25-1 | 0,35-1,4 | 0,45-1,80 | 60 (40-120) |
| P8 | LNEG1003-EB845 | 0,15-0,25 | 0,15-0,60 | 0,25-1 | 0,35-1,4 | 0,45-1,80 | 40 (30-70) |
| P11 | LNEG1003-EB845 | 0,15-0,25 | 0,15-0,60 | 0,25-1 | 0,35-1,4 | 0,45-1,80 | 40 (30-70) |
| P12 | LNEG1003-EB845 | 0,15-0,25 | 0,15-0,60 | 0,25-1 | 0,35-1,4 | 0,45-1,80 | 30 (25-55) |
| M1 | LNEG1003-EB845 | 0,10-0,20 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 35 (25-60) |
| M2 | LNEG1003-EB845 | 0,10-0,20 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 35 (25-60) |
| M3 | LNEG1003-EB845 | 0,10-0,20 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 35 (25-60) |
| M4 | LNEG1003-EB845 | 0,10-0,20 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 25 (20-50) |
| M5 | LNEG1003-EB845 | 0,10-0,20 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 25 (20-50) |
| K1 | LNEG1003-EB845 | 0,20-0,50 | 0,15-0,60 | 0,25-1 | 0,35-1,4 | 0,45-1,80 | 100 (60-200) |
| K2 | LNEG1003-EB845 | 0,20-0,50 | 0,15-0,60 | 0,25-1 | 0,35-1,4 | 0,45-1,80 | 50 (35-80) |
| K3 | LNEG1003-EB845 | 0,20-0,50 | 0,15-0,60 | 0,25-1 | 0,35-1,4 | 0,45-1,80 | 100 (60-200) |
| K4 | LNEG1003-EB845 | 0,20-0,50 | 0,15-0,60 | 0,25-1 | 0,35-1,4 | 0,45-1,80 | 70 (50-120) |
| K5 | LNEG1003-EB845 | 0,20-0,50 | 0,15-0,60 | 0,25-1 | 0,35-1,4 | 0,45-1,80 | 70 (50-120) |
| K6 | LNEG1003-EB845 | 0,20-0,50 | 0,15-0,60 | 0,25-1 | 0,35-1,4 | 0,45-1,80 | 100 (60-200) |
| K7 | LNEG1003-EB845 | 0,20-0,50 | 0,15-0,60 | 0,25-1 | 0,35-1,4 | 0,45-1,80 | 100 (60-200) |

SMG = Seco material group
$a_p$ = mm
f = mm/rev
$v_c$= m/min
All cutting data are start values

## Cutting data – LNEG...-EB845 *inch*

| SMG | | $a_p$ (∅) | f | | | | $v_c$ |
|---|---|---|---|---|---|---|---|
| | | | z=3 | z=5 | z=7 | z=9 | RX2000 |
| P1 | *LNEG1003-EB845* | *0.006–0.010* | *0.006–0.024* | *0.010–0.039* | *0.014–0.055* | *0.018–0.071* | *395 (260-655)* |
| P2 | *LNEG1003-EB845* | *0.006–0.010* | *0.006–0.024* | *0.010–0.039* | *0.014–0.055* | *0.018–0.071* | *395 (260-655)* |
| P3 | *LNEG1003-EB845* | *0.006–0.010* | *0.006–0.024* | *0.010–0.039* | *0.014–0.055* | *0.018–0.071* | *395 (260-655)* |
| P4 | *LNEG1003-EB845* | *0.006–0.010* | *0.006–0.024* | *0.010–0.039* | *0.014–0.055* | *0.018–0.071* | *195 (130-395)* |
| P5 | *LNEG1003-EB845* | *0.006–0.010* | *0.006–0.024* | *0.010–0.039* | *0.014–0.055* | *0.018–0.071* | *195 (130-395)* |
| P6 | *LNEG1003-EB845* | *0.006–0.010* | *0.006–0.024* | *0.010–0.039* | *0.014–0.055* | *0.018–0.071* | *195 (130-395)* |
| P7 | *LNEG1003-EB845* | *0.006–0.010* | *0.006–0.024* | *0.010–0.039* | *0.014–0.055* | *0.018–0.071* | *195 (130-395)* |
| P8 | *LNEG1003-EB845* | *0.006–0.010* | *0.006–0.024* | *0.010–0.039* | *0.014–0.055* | *0.018–0.071* | *130 (100-230)* |
| P11 | *LNEG1003-EB845* | *0.006–0.010* | *0.006–0.024* | *0.010–0.039* | *0.014–0.055* | *0.018–0.071* | *130 (100-230)* |
| P12 | *LNEG1003-EB845* | *0.006–0.010* | *0.006–0.024* | *0.010–0.039* | *0.014–0.055* | *0.018–0.071* | *100 (85-185)* |
| M1 | *LNEG1003-EB845* | *0.004–0.008* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *115 (80-195)* |
| M2 | *LNEG1003-EB845* | *0.004–0.008* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *115 (80-195)* |
| M3 | *LNEG1003-EB845* | *0.004–0.008* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *115 (80-195)* |
| M4 | *LNEG1003-EB845* | *0.004–0.008* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *80 (65-165)* |
| M5 | *LNEG1003-EB845* | *0.004–0.008* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *80 (65-165)* |
| K1 | *LNEG1003-EB845* | *0.008–0.020* | *0.006–0.024* | *0.010–0.039* | *0.014–0.055* | *0.018–0.071* | *330 (195-655)* |
| K2 | *LNEG1003-EB845* | *0.008–0.020* | *0.006–0.024* | *0.010–0.039* | *0.014–0.055* | *0.018–0.071* | *165 (115-260)* |
| K3 | *LNEG1003-EB845* | *0.008–0.020* | *0.006–0.024* | *0.010–0.039* | *0.014–0.055* | *0.018–0.071* | *330 (195-655)* |
| K4 | *LNEG1003-EB845* | *0.008–0.020* | *0.006–0.024* | *0.010–0.039* | *0.014–0.055* | *0.018–0.071* | *230 (165-395)* |
| K5 | *LNEG1003-EB845* | *0.008–0.020* | *0.006–0.024* | *0.010–0.039* | *0.014–0.055* | *0.018–0.071* | *230 (165-395)* |
| K6 | *LNEG1003-EB845* | *0.008–0.020* | *0.006–0.024* | *0.010–0.039* | *0.014–0.055* | *0.018–0.071* | *330 (195-655)* |
| K7 | *LNEG1003-EB845* | *0.008–0.020* | *0.006–0.024* | *0.010–0.039* | *0.014–0.055* | *0.018–0.071* | *330 (195-655)* |

SMG = Seco material group
$a_p$ = *inch*
f = in/rev
$v_c$= sf/min
All cutting data are start values

## Cutting data – LNEG...-EB1570 metric

| SMG | | $a_p$ (∅) | f | | | | $v_c$ |
|---|---|---|---|---|---|---|---|
| | | | z=3 | z=5 | z=7 | z=9 | RX2000 |
| P4 | LNEG1005-EB1570 | 0,15-0,25 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 60 (40-120) |
| P5 | LNEG1005-EB1570 | 0,15-0,25 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 60 (40-120) |
| P6 | LNEG1005-EB1570 | 0,15-0,25 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 60 (40-120) |
| P7 | LNEG1005-EB1570 | 0,15-0,25 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 60 (40-120) |
| P8 | LNEG1005-EB1570 | 0,15-0,25 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 40 (30-70) |
| P11 | LNEG1005-EB1570 | 0,15-0,25 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 40 (30-70) |
| P12 | LNEG1005-EB1570 | 0,15-0,25 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 30 (25-55) |
| K1 | LNEG1005-EB1570 | 0,20-0,50 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 100 (60-200) |
| K2 | LNEG1005-EB1570 | 0,20-0,50 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 50 (35-80) |
| K3 | LNEG1005-EB1570 | 0,20-0,50 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 100 (60-200) |
| K4 | LNEG1005-EB1570 | 0,20-0,50 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 70 (50-120) |
| K5 | LNEG1005-EB1570 | 0,20-0,50 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 70 (50-120) |
| K6 | LNEG1005-EB1570 | 0,20-0,50 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 100 (60-200) |
| K7 | LNEG1005-EB1570 | 0,20-0,50 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 100 (60-200) |

SMG = Seco material group
$a_p$ = mm
f = mm/rev
$v_c$= m/min
All cutting data are start values

## Cutting data – LNEG...-EB1570 *inch*

| SMG | | $a_p$ (∅) | f | | | | $v_c$ |
|---|---|---|---|---|---|---|---|
| | | | z=3 | z=5 | z=7 | z=9 | RX2000 |
| P4 | *LNEG1005-EB1570* | *0.006–0.010* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *195 (130–395)* |
| P5 | *LNEG1005-EB1570* | *0.006–0.010* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *195 (130–395)* |
| P6 | *LNEG1005-EB1570* | *0.006–0.010* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *195 (130–395)* |
| P7 | *LNEG1005-EB1570* | *0.006–0.010* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *195 (130–395)* |
| P8 | *LNEG1005-EB1570* | *0.006–0.010* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *130 (100–230)* |
| P11 | *LNEG1005-EB1570* | *0.006–0.010* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *130 (100–230)* |
| P12 | *LNEG1005-EB1570* | *0.006–0.010* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *100 (85–185)* |
| K1 | *LNEG1005-EB1570* | *0.008–0.020* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *330 (195–655)* |
| K2 | *LNEG1005-EB1570* | *0.008–0.020* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *165 (115–260)* |
| K3 | *LNEG1005-EB1570* | *0.008–0.020* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *330 (195–655)* |
| K4 | *LNEG1005-EB1570* | *0.008–0.020* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *230 (165–395)* |
| K5 | *LNEG1005-EB1570* | *0.008–0.020* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *230 (165–395)* |
| K6 | *LNEG1005-EB1570* | *0.008–0.020* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *330 (195–655)* |
| K7 | *LNEG1005-EB1570* | *0.008–0.020* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *330 (195–655)* |

SMG = Seco material group
$a_p$ = *inch*
f = in/rev
$v_c$= sf/min
All cutting data are start values

## Cutting data – RNAX...-EB45 metric

| SMG | | $a_p$ (∅) | f | | | | $v_c$ | |
|---|---|---|---|---|---|---|---|---|
| | | | z=3 | z=5 | z=6 | z=9 | RX2000 | RX1500 |
| K1 | RNAX1005-EB45 | 0,20-0,50 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 100 (60-200) | 220 (150-300) |
| K2 | RNAX1005-EB45 | 0,20-0,50 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 50 (35-80) | 70 (50-120) |
| K3 | RNAX1005-EB45 | 0,20-0,50 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 100 (60-200) | 220 (150-300) |
| K4 | RNAX1005-EB45 | 0,20-0,50 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 70 (50-120) | 150 (110-200) |
| K5 | RNAX1005-EB45 | 0,20-0,50 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 70 (50-120) | 150 (110-200) |
| K6 | RNAX1005-EB45 | 0,20-0,50 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 100 (60-200) | 220 (150-300) |
| K7 | RNAX1005-EB45 | 0,20-0,50 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 100 (60-200) | 220 (150-300) |

SMG = Seco material group
$a_p$ = mm
f = mm/rev
$v_c$= m/min
All cutting data are start values

## Cutting data – RNAX...-EB45 *inch*

| SMG | | $a_p$ (∅) | f | | | | $v_c$ | |
|---|---|---|---|---|---|---|---|---|
| | | | z=3 | z=5 | z=6 | z=9 | RX2000 | RX1500 |
| K1 | *RNAX1005-EB45* | *0.008–0.020* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *330 (195-655)* | *720 (490-985)* |
| K2 | *RNAX1005-EB45* | *0.008–0.020* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *165 (115-260)* | *230 (165-395)* |
| K3 | *RNAX1005-EB45* | *0.008–0.020* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *330 (195-655)* | *720 (490-985)* |
| K4 | *RNAX1005-EB45* | *0.008–0.020* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *230 (165-395)* | *490 (360-655)* |
| K5 | *RNAX1005-EB45* | *0.008–0.020* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *230 (165-395)* | *490 (360-655)* |
| K6 | *RNAX1005-EB45* | *0.008–0.020* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *330 (195-655)* | *720 (490-985)* |
| K7 | *RNAX1005-EB45* | *0.008–0.020* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *330 (195-655)* | *720 (490-985)* |

SMG = Seco material group
$a_p$ = *inch*
f = in/rev
$v_c$= sf/min
All cutting data are start values

## Cutting data – RNAX...-EB845 metric

| SMG | | $a_p$ (∅) | f | | | | $v_c$ | |
|---|---|---|---|---|---|---|---|---|
| | | | z=3 | z=5 | z=6 | z=9 | RX2000 | RX1500 |
| K1 | RNAX1005-EB845 | 0,20-0,50 | 0,15-0,60 | 0,25-1 | 0,35-1,4 | 0,45-1,80 | 100 (60-200) | 220 (150-300) |
| K2 | RNAX1005-EB845 | 0,20-0,50 | 0,15-0,60 | 0,25-1 | 0,35-1,4 | 0,45-1,80 | 50 (35-80) | 70 (50-120) |
| K3 | RNAX1005-EB845 | 0,20-0,50 | 0,15-0,60 | 0,25-1 | 0,35-1,4 | 0,45-1,80 | 100 (60-200) | 220 (150-300) |
| K4 | RNAX1005-EB845 | 0,20-0,50 | 0,15-0,60 | 0,25-1 | 0,35-1,4 | 0,45-1,80 | 70 (50-120) | 150 (110-200) |
| K5 | RNAX1005-EB845 | 0,20-0,50 | 0,15-0,60 | 0,25-1 | 0,35-1,4 | 0,45-1,80 | 70 (50-120) | 150 (110-200) |
| K6 | RNAX1005-EB845 | 0,20-0,50 | 0,15-0,60 | 0,25-1 | 0,35-1,4 | 0,45-1,80 | 100 (60-200) | 220 (150-300) |
| K7 | RNAX1005-EB845 | 0,20-0,50 | 0,15-0,60 | 0,25-1 | 0,35-1,4 | 0,45-1,80 | 100 (60-200) | 220 (150-300) |

SMG = Seco material group
$a_p$ = mm
f = mm/rev
$v_c$= m/min
All cutting data are start values

## Cutting data – RNAX...-EB845 *inch*

| SMG | | $a_p$ (∅) | f | | | | $v_c$ | |
|---|---|---|---|---|---|---|---|---|
| | | | z=3 | z=5 | z=6 | z=9 | RX2000 | RX1500 |
| K1 | *RNAX1005-EB845* | *0.008–0.020* | *0.006–0.024* | *0.010–0.039* | *0.014–0.055* | *0.018–0.071* | *330 (195-655)* | *720 (490-985)* |
| K2 | *RNAX1005-EB845* | *0.008–0.020* | *0.006–0.024* | *0.010–0.039* | *0.014–0.055* | *0.018–0.071* | *165 (115-260)* | *230 (165-395)* |
| K3 | *RNAX1005-EB845* | *0.008–0.020* | *0.006–0.024* | *0.010–0.039* | *0.014–0.055* | *0.018–0.071* | *330 (195-655)* | *720 (490-985)* |
| K4 | *RNAX1005-EB845* | *0.008–0.020* | *0.006–0.024* | *0.010–0.039* | *0.014–0.055* | *0.018–0.071* | *230 (165-395)* | *490 (360-655)* |
| K5 | *RNAX1005-EB845* | *0.008–0.020* | *0.006–0.024* | *0.010–0.039* | *0.014–0.055* | *0.018–0.071* | *230 (165-395)* | *490 (360-655)* |
| K6 | *RNAX1005-EB845* | *0.008–0.020* | *0.006–0.024* | *0.010–0.039* | *0.014–0.055* | *0.018–0.071* | *330 (195-655)* | *720 (490-985)* |
| K7 | *RNAX1005-EB845* | *0.008–0.020* | *0.006–0.024* | *0.010–0.039* | *0.014–0.055* | *0.018–0.071* | *330 (195-655)* | *720 (490-985)* |

SMG = Seco material group
$a_p$ = *inch*
f = in/rev
$v_c$= sf/min
All cutting data are start values

## Cutting data – RNAX...-EB1570 metric

| SMG | | $a_p$ (∅) | f | | | | $v_c$ | |
|---|---|---|---|---|---|---|---|---|
| | | | z=3 | z=5 | z=6 | z=9 | RX2000 | RX1500 |
| K1 | RNAX1005-EB1570 | 0,20-0,50 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 100 (60-200) | 220 (150-300) |
| K2 | RNAX1005-EB1570 | 0,20-0,50 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 50 (35-80) | 70 (50-120) |
| K3 | RNAX1005-EB1570 | 0,20-0,50 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 100 (60-200) | 220 (150-300) |
| K4 | RNAX1005-EB1570 | 0,20-0,50 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 70 (50-120) | 150 (110-200) |
| K5 | RNAX1005-EB1570 | 0,20-0,50 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 70 (50-120) | 150 (110-200) |
| K6 | RNAX1005-EB1570 | 0,20-0,50 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 100 (60-200) | 220 (150-300) |
| K7 | RNAX1005-EB1570 | 0,20-0,50 | 0,15-0,45 | 0,25-0,75 | 0,25-1,05 | 0,45-1,35 | 100 (60-200) | 220 (150-300) |

SMG = Seco material group
$a_p$ = mm
f = mm/rev
$v_c$= m/min
All cutting data are start values

## Cutting data – RNAX...-EB1570 *inch*

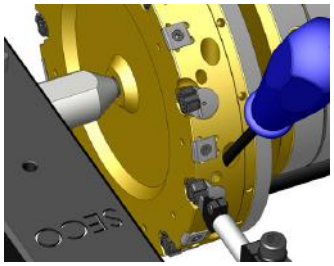
| SMG | | $a_p$ (∅) | f | | | | $v_c$ | |
|---|---|---|---|---|---|---|---|---|
| | | | z=3 | z=5 | z=6 | z=9 | RX2000 | RX1500 |
| K1 | *RNAX1005-EB1570* | *0.008–0.020* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *330 (195-655)* | *720 (490- 985)* |
| K2 | *RNAX1005-EB1570* | *0.008–0.020* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *165 (115-260)* | *230 (165- 395)* |
| K3 | *RNAX1005-EB1570* | *0.008–0.020* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *330 (195-655)* | *720 (490- 985)* |
| K4 | *RNAX1005-EB1570* | *0.008–0.020* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *230 (165-395)* | *490 (360- 655)* |
| K5 | *RNAX1005-EB1570* | *0.008–0.020* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *230 (165-395)* | *490 (360- 655)* |
| K6 | *RNAX1005-EB1570* | *0.008–0.020* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *330 (195-655)* | *720 (490- 985)* |
| K7 | *RNAX1005-EB1570* | *0.008–0.020* | *0.006–0.018* | *0.010–0.030* | *0.010–0.041* | *0.018–0.053* | *330 (195-655)* | *720 (490- 985)* |

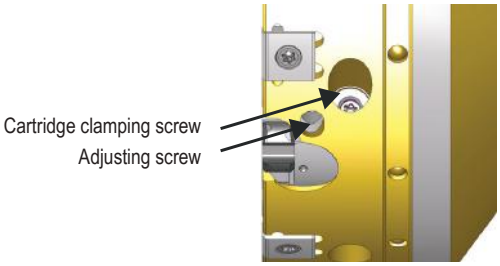
SMG = Seco material group
$a_p$ = *inch*
f = in/rev
$v_c$= sf/min
All cutting data are start values

# Adjusting instructions

**1.**

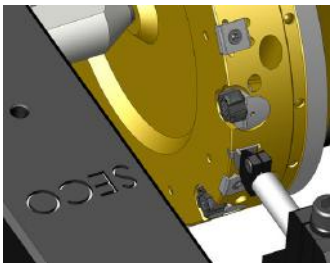
- Loosen cartridge clamping screw.
- Index or replace insert.
- Unclamp adjusting screw by 1/4 of a turn and push cartridge back.
- Gently re-clamp cartridge clamping screw 0,5 Nm approx *(4.4 in/lbs)*.

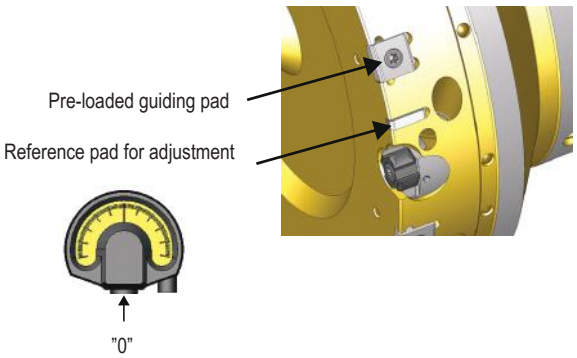





**2.**

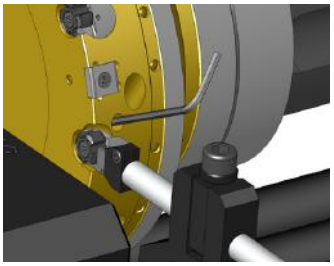
- Set clock to “zero” on reference pad.
- Make sure measuring point is positioned after the lead angle.

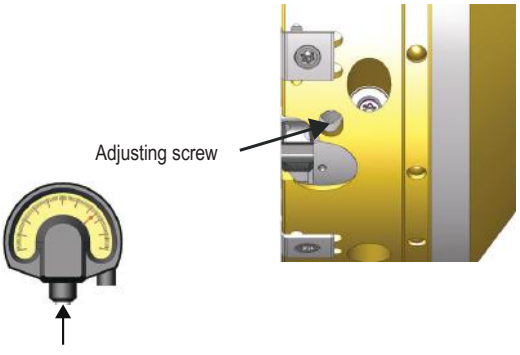





**3.**

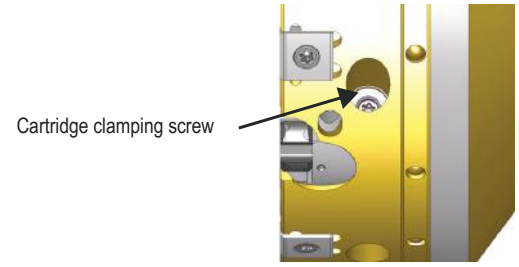
- Set insert 0,025 mm *(0.001“)* above reference pad using adjusting screw.
- Repeat adjusting process for all inserts.






**4.**

- Final clamp cartridge clamping screw 2 Nm *(17.7 in/lbs)*.




Note: If the required diameter is exceeded during adjustment, start again from the beginning to eliminate backlash on adjustment screws.

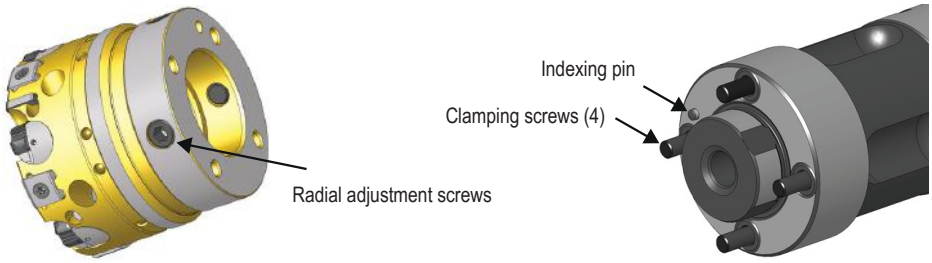
# Adjusting instructions, adapter

**1.**

**Assembly**

- Thoroughly clean flange contact surface.
- Loosen 4 radial adjusting screws so they do not interfere for assembly.
- Put reaming head onto adapter (indexing pin) and tighten the 4 clamping screws.

**Assembly** (drawing 1)

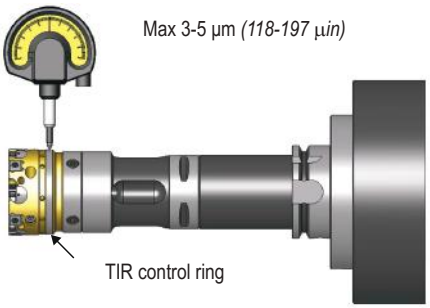



**2.**

**Setting**

- Mount tool in the machine spindle.
- Place µm clock as shown in (drawing 2).
- Unlock spindle so it can rotate freely by hand.
- Start run-out correction using 4 adjusting screws (drawing 3).
- Max run-out 5 µm *(197 µin)*.
- When run-out values get lower than 10 µm *(394 µin)*, proceed to final clamping (drawing 1) see clamping torque table for torque recommended values.

**Setting operation in the machine spindle** (drawing 2)



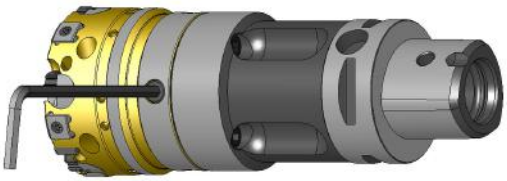

**Clamping screws** (drawing 3)



**3.**

- Finalize run-out adjustment, max 5 µm *(max 197 µin)*.

**Radial adjusting screws** (drawing 4)



**Clamping torque table**

| Diameter mm | *Diameter inch* | Adapter size | Clamping screw | Clamping torque Nm | *Clamping torque in/lbs* |
|---|---|---|---|---|---|
| 39,5-59,499 | *1.555-2.342* | HF32 | CHC M3 x 16 | 2,7 | *24* |
| 59,5-84,499 | *2.342-3.372* | HF55 | CHC M5 x 25 | 5,7 | *50* |
| 84,5-119,499 | *3.372-4.705* | HF80 | CHC M6 x 25 | 9,8 | *87* |
| 119,5-154,499 | *4.705-6.083* | HF100 | CHC M8 x 30 | 24 | *212* |

# Setting fixture – Single clock

**SF-210340-C160: Ordering and Part No. 02885391**

- Horizontal stand
- First choice for Xfix reamers
- 1 clock
- Maximum tool Ø: 210 mm *(8.268")*
- Maximum tool length: 340 mm *(13.386")*
- Included in delivery: additional Ø 57 mm *(2.244")* spring center for HSK 63/80/100 and Capto C8 SSC5700 Part No. 02208620



**SF-210290V-C160: Ordering and Part No. 02885392**

- Vertical stand
- First choice for Xfix reamers
- Maximum tool Ø: 210 mm *(8.268")*
- Maximum tool length: 290 mm *(11.417")*
- Included in delivery: additional Ø 57 mm *(2.244")* spring center for HSK 63/80/100 and Capto C8 SSC5700 Part No. 02208620



# Setting fixture – Multiple clocks

Possibilities for multi-clock set up, refer to setting fixture chapter page 487-492 for more details



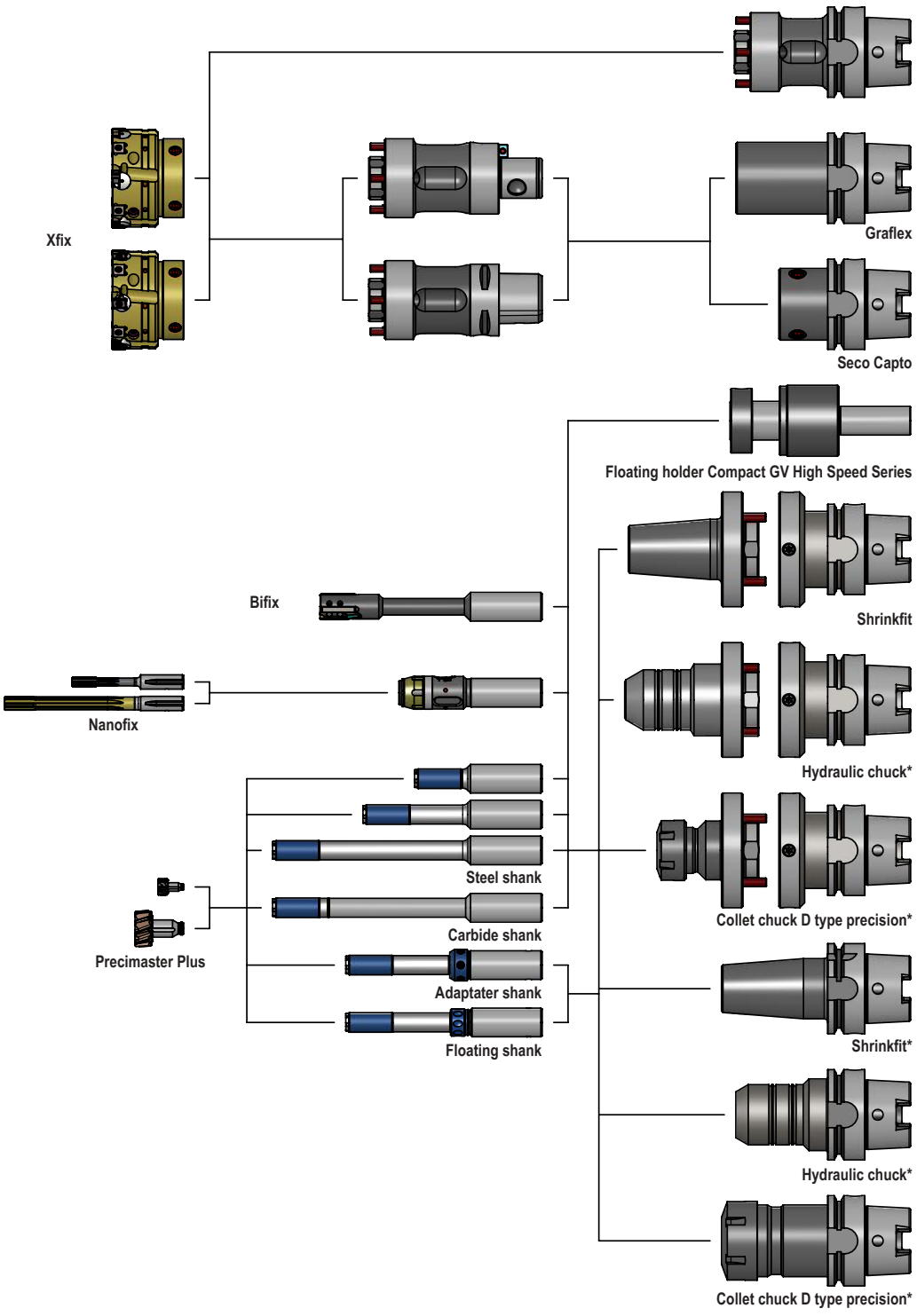
# Tooling overview




| Diameter mm | *Diameter inch* | Max dia/ length ratio |
|---|---|---|
| 39,5-59,499 | *1.555-2.342* | 6,5 x D |
| 59,5-84,499 | *2.342-3.372* | 4,5 x D |
| 84,5-119,499 | *3.372-4.705* | 3,3 x D |
| 119,5-154,499 | *4.705-6.083* | 2,5 x D |

Note: For diameters > 100 mm *(3.937")* or L > 3 x D check max tool weight acceptable in the machine.

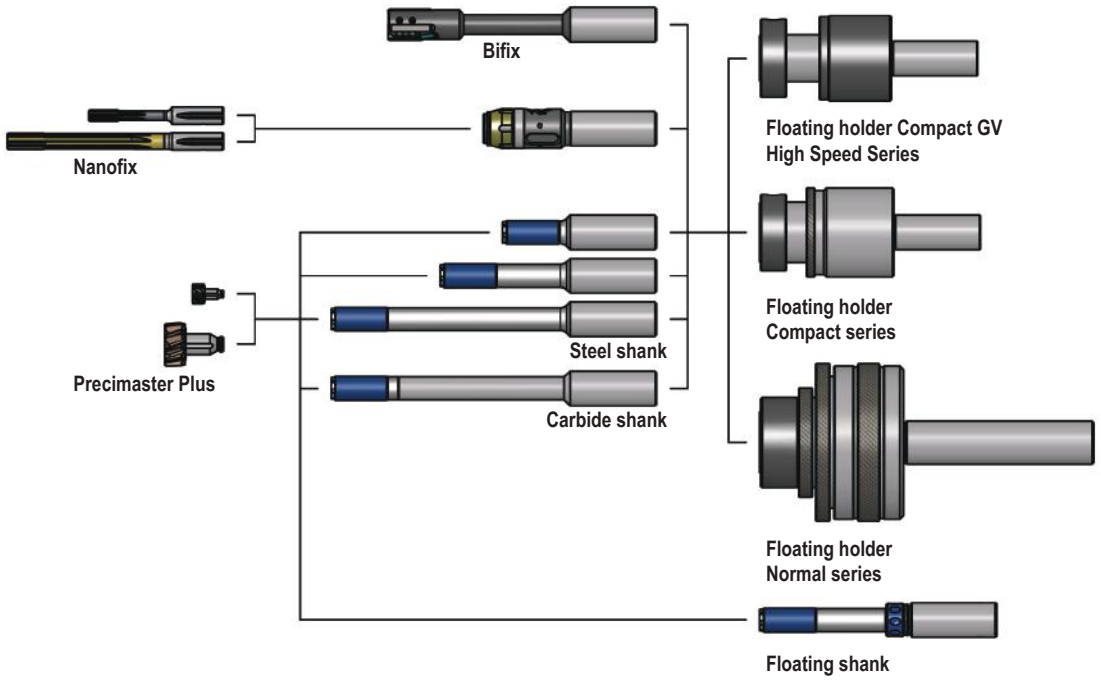
# Rotating applications



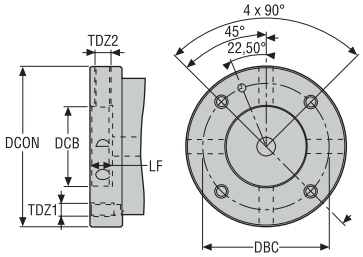

*See catalog TOOLING SYSTEMS

Best performance achieved with rigid mounting (Hydraulic chuck, D type or Shrinkfit)

# Static applications



# Flange dimension

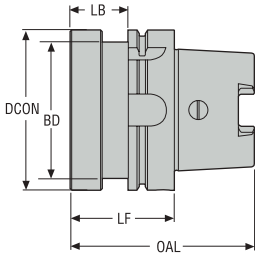





| DCON | DBC +/- 0,1 | DCB F8 | LF | TDZ1 | TDZ2 |
|---|---|---|---|---|---|
| 60 | 44 | 30 | 12 | M5 | M8x1 |
| 70 | 53 | 35 | 12 | M6 | M8x1 |
| 80 | 63 | 40 | 12 | M6 | M8x1 |
| 100 | 79 | 50 | 14 | M8 | M10x1 |
| 117 | 96 | 60 | 14 | M8 | M10x1 |
| 140 | 119 | 80 | 14 | M10 | M10x1 |

# Back end HSK-A





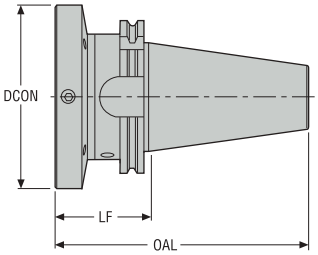

- Note: Coolant tube and screws included in delivery

| Designation | Item number | Taper | DCON | BD | LB | LF | OAL | Weight |
|---|---|---|---|---|---|---|---|---|
| | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* |
| SAH-23405100001 | 02836663 | HSK-A 100 | 60,0<br>*2.362* | 60,0<br>*2.362* | 26,0<br>*1.024* | 55,0<br>*2.165* | 105,0<br>*4.134* | 2,5<br>*5.510* |
| SAH-23405100002 | 02836665 | HSK-A 100 | 80,0<br>*3.150* | 80,0<br>*3.150* | 26,0<br>*1.024* | 55,0<br>*2.165* | 105,0<br>*4.134* | 2,9<br>*6.390* |
| SAH-23405100003 | 02836666 | HSK-A 100 | 100,0<br>*3.937* | 85,0<br>*3.346* | 36,0<br>*1.417* | 65,0<br>*2.559* | 115,0<br>*4.528* | 3,5<br>*7.720* |
| SAH-23405100007 | 02836664 | HSK-A 100 | 70,0<br>*2.756* | 70,0<br>*2.756* | 26,0<br>*1.024* | 55,0<br>*2.165* | 105,0<br>*4.134* | 2,8<br>*6.170* |
| SAH-2340540001 | 02836564 | HSK-A 40 | 60,0<br>*2.362* | 34,0<br>*1.339* | 35,0<br>*1.378* | 55,0<br>*2.165* | 75,0<br>*2.953* | 0,8<br>*1.760* |
| SAH-2340550001 | 02836566 | HSK-A 50 | 60,0<br>*2.362* | 42,0<br>*1.654* | 34,0<br>*1.339* | 60,0<br>*2.362* | 85,0<br>*3.346* | 0,95<br>*2.090* |
| SAH-2340550002 | 02836573 | HSK-A 50 | 80,0<br>*3.150* | 42,0<br>*1.654* | 34,0<br>*1.339* | 60,0<br>*2.362* | 85,0<br>*3.346* | 1,2<br>*2.650* |
| SAH-2340550003 | 02836567 | HSK-A 50 | 70,0<br>*2.756* | 42,0<br>*1.654* | 34,0<br>*1.339* | 60,0<br>*2.362* | 85,0<br>*3.346* | 1,0<br>*2.200* |
| SAH-2340563001 | 02836574 | HSK-A 63 | 60,0<br>*2.362* | 53,0<br>*2.087* | 34,0<br>*1.339* | 60,0<br>*2.362* | 92,0<br>*3.622* | 1,2<br>*2.650* |
| SAH-2340563002 | 02836576 | HSK-A 63 | 80,0<br>*3.150* | 53,0<br>*2.087* | 34,0<br>*1.339* | 60,0<br>*2.362* | 92,0<br>*3.622* | 1,4<br>*3.090* |
| SAH-2340563003 | 02836575 | HSK-A 63 | 70,0<br>*2.756* | 53,0<br>*2.087* | 34,0<br>*1.339* | 60,0<br>*2.362* | 92,0<br>*3.622* | 1,3<br>*2.870* |
| SAH-2340563004 | 02836577 | HSK-A 63 | 100,0<br>*3.937* | 53,0<br>*2.087* | 39,0<br>*1.535* | 65,0<br>*2.559* | 97,0<br>*3.819* | 1,95<br>*4.300* |
| SAH-2340580001 | 02836655 | HSK-A 80 | 60,0<br>*2.362* | 60,0<br>*2.362* | 24,0<br>*0.945* | 50,0<br>*1.969* | 90,0<br>*3.543* | 1,4<br>*3.090* |
| SAH-2340580002 | 02836658 | HSK-A 80 | 80,0<br>*3.150* | 67,0<br>*2.638* | 34,0<br>*1.339* | 60,0<br>*2.362* | 100,0<br>*3.937* | 1,6<br>*3.530* |
| SAH-2340580003 | 02836657 | HSK-A 80 | 70,0<br>*2.756* | 67,0<br>*2.638* | 34,0<br>*1.339* | 60,0<br>*2.362* | 100,0<br>*3.937* | 1,5<br>*3.310* |
| SAH-2340580004 | 02836660 | HSK-A 80 | 100,0<br>*3.937* | 67,0<br>*2.638* | 39,0<br>*1.535* | 65,0<br>*2.559* | 105,0<br>*4.134* | 2,2<br>*4.850* |

## Spare Parts, included in delivery

| For DCON | Clamp screw | Adjusting screw |
|---|---|---|
| |  |  |
| 60 | CHCM5X20/ISO4762 | HCM8X12X1/ISO4028 |
| 70 | CHCM6X20/ISO4762 | HCM8X16X1/ISO4028 |
| 80 | CHCM6X25/ISO4762 | HCM8X16X1/ISO4028 |
| 100 | CHCM8X25/ISO4762 | HCM10X20X1/ISO4028 |

# Back end DIN 69871






- Note: Screws included in delivery

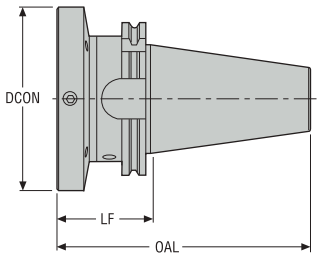
| Designation | Item number | Taper | DCON | LF | OAL | Weight |
|---|---|---|---|---|---|---|
| | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* |
| SAH-2340640201 | 02836683 | DIN40 ADB | 60,0<br>*2.362* | 50,0<br>*1.969* | 118,4<br>*4.661* | 1,1<br>*2.430* |
| SAH-2340640202 | 02836685 | DIN40 ADB | 80,0<br>*3.150* | 55,0<br>*2.165* | 123,4<br>*4.858* | 1,7<br>*3.750* |
| SAH-2340640203 | 02836686 | DIN40 ADB | 100,0<br>*3.937* | 60,0<br>*2.362* | 128,4<br>*5.055* | 2,3<br>*5.070* |
| SAH-2340640204 | 02836684 | DIN40 ADB | 70,0<br>*2.756* | 50,0<br>*1.969* | 118,4<br>*4.661* | 1,2<br>*2.650* |
| SAH-2340650201 | 02836687 | DIN50 ADB | 60,0<br>*2.362* | 50,0<br>*1.969* | 151,8<br>*5.976* | 3,1<br>*6.830* |
| SAH-2340650202 | 02836690 | DIN50 ADB | 80,0<br>*3.150* | 50,0<br>*1.969* | 151,8<br>*5.976* | 3,5<br>*7.720* |
| SAH-2340650203 | 02836691 | DIN50 ADB | 100,0<br>*3.937* | 60,0<br>*2.362* | 161,8<br>*6.370* | 4,3<br>*9.480* |
| SAH-2340650206 | 02836688 | DIN50 ADB | 70,0<br>*2.756* | 50,0<br>*1.969* | 151,8<br>*5.976* | 3,3<br>*7.280* |

## Spare Parts, included in delivery

| For DCON | Clamp screw | Adjusting screw |
|---|---|---|
| |  |  |
| 60 | CHCM5X20/ISO4762 | HCM8X12X1/ISO4028 |
| 70 | CHCM6X20/ISO4762 | HCM8X16X1/ISO4028 |
| 80 | CHCM6X25/ISO4762 | HCM8X16X1/ISO4028 |
| 100 | CHCM8X25/ISO4762 | HCM10X20X1/ISO4028 |

# Back end ANSI CAT





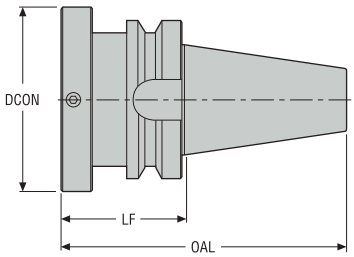

- Note: Screws included in delivery
- Pull-stud thread imperial

| Designation | Item number | Taper | DCON | LF | OAL | Weight |
|---|---|---|---|---|---|---|
| | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* |
| SAH-2784940201 | 02836698 | CAT 40 | 60,0<br>*2.362* | 50,0<br>*1.969* | 118,4<br>*4.661* | 1,1<br>*2.430* |
| SAH-2784940202 | 02836702 | CAT 40 | 80,0<br>*3.150* | 55,0<br>*2.165* | 123,4<br>*4.858* | 1,8<br>*3.970* |
| SAH-2784940203 | 02836704 | CAT 40 | 100,0<br>*3.937* | 60,0<br>*2.362* | 128,4<br>*5.055* | 2,3<br>*5.070* |
| SAH-2784950201 | 02836707 | CAT 50 | 60,0<br>*2.362* | 50,0<br>*1.969* | 151,8<br>*5.976* | 3,1<br>*6.830* |
| SAH-2784950202 | 02836709 | CAT 50 | 80,0<br>*3.150* | 50,0<br>*1.969* | 151,8<br>*5.976* | 3,4<br>*7.500* |
| SAH-2784950203 | 02836710 | CAT 50 | 100,0<br>*3.937* | 60,0<br>*2.362* | 161,8<br>*6.370* | 5,5<br>*12.130* |
| SAH-2784950206 | 02836708 | CAT 50 | 70,0<br>*2.756* | 50,0<br>*1.969* | 151,8<br>*5.976* | 3,3<br>*7.280* |

## Spare Parts, included in delivery

| For DCON | Clamp screw | Adjusting screw |
|---|---|---|
| |  |  |
| 60 | CHCM5X20/ISO4762 | HCM8X12X1/ISO4028 |
| 70 | CHCM6X20/ISO4762 | HCM8X16X1/ISO4028 |
| 80 | CHCM6X25/ISO4762 | HCM8X16X1/ISO4028 |
| 100 | CHCM8X25/ISO4762 | HCM10X20X1/ISO4028 |

# Back end BT






- Note: Screws included in delivery

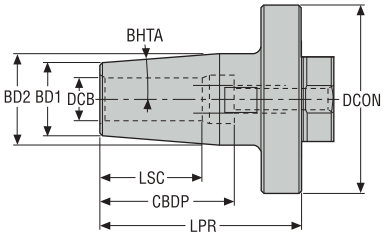
| Designation | Item number | Taper | DCON | LF | OAL | Weight |
|---|---|---|---|---|---|---|
| | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* |
| SAH-2340740001 | 02836717 | BT40 ADB | 60,0<br>*2.362* | 55,0<br>*2.165* | 120,4<br>*4.740* | 1,4<br>*3.090* |
| SAH-2340740002 | 02836719 | BT40 ADB | 80,0<br>*3.150* | 65,0<br>*2.559* | 130,4<br>*5.134* | 2,0<br>*4.410* |
| SAH-2340740003 | 02836721 | BT40 ADB | 100,0<br>*3.937* | 60,0<br>*2.362* | 125,4<br>*4.937* | 2,7<br>*5.950* |
| SAH-2340740004 | 02836718 | BT40 ADB | 70,0<br>*2.756* | 55,0<br>*2.165* | 120,4<br>*4.740* | 1,5<br>*3.310* |
| SAH-2340750001 | 02836724 | BT50 ADB | 60,0<br>*2.362* | 70,0<br>*2.756* | 171,8<br>*6.764* | 4,2<br>*9.260* |
| SAH-2340750002 | 02836725 | BT50 ADB | 70,0<br>*2.756* | 70,0<br>*2.756* | 171,8<br>*6.764* | 4,4<br>*9.700* |
| SAH-2340750003 | 02836726 | BT50 ADB | 80,0<br>*3.150* | 70,0<br>*2.756* | 171,8<br>*6.764* | 4,6<br>*10.140* |
| SAH-2340750004 | 02836727 | BT50 ADB | 100,0<br>*3.937* | 70,0<br>*2.756* | 171,8<br>*6.764* | 4,9<br>*10.800* |

## Spare Parts, included in delivery

| For DCON | Clamp screw | Adjusting screw |
|---|---|---|
| |  |  |
| 60 | CHCM5X20/ISO4762 | HCM8X12X1/ISO4028 |
| 70 | CHCM6X20/ISO4762 | HCM8X16X1/ISO4028 |
| 80 | CHCM6X25/ISO4762 | HCM8X16X1/ISO4028 |
| 100 | CHCM8X25/ISO4762 | HCM10X20X1/ISO4028 |

# Front end Shrinkfit





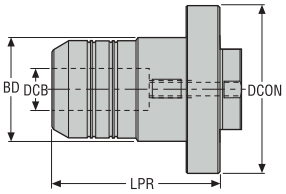

- Note: Adjusting screws included in delivery

| Designation | Item number | DCON | BD2 | BD1 | DCB | LSC | CBDP | LPR | Weight | BHTA° |
|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | |
| SAH-2341006235 | 02836735 | 60,0<br>*2.362* | 27,0<br>*1.063* | 21,0<br>*0.827* | 6,0<br>*0.236* | 22,0<br>*0.866* | 37,5<br>*1.476* | 70,0<br>*2.756* | 0,5<br>*1.100* | 4.5 |
| SAH-2341010237 | 02836736 | 60,0<br>*2.362* | 32,0<br>*1.260* | 24,0<br>*0.945* | 10,0<br>*0.394* | 31,0<br>*1.220* | 42,5<br>*1.673* | 70,0<br>*2.756* | 0,5<br>*1.100* | 4.5 |
| SAH-2341012238 | 02836737 | 60,0<br>*2.362* | 32,0<br>*1.260* | 24,0<br>*0.945* | 12,0<br>*0.472* | 34,0<br>*1.339* | 47,5<br>*1.870* | 70,0<br>*2.756* | 0,52<br>*1.150* | 4.5 |
| SAH-2341016241 | 02836741 | 70,0<br>*2.756* | 34,0<br>*1.339* | 27,0<br>*1.063* | 16,0<br>*0.630* | 39,0<br>*1.535* | 50,5<br>*1.988* | 75,0<br>*2.953* | 0,7<br>*1.540* | 4.5 |
| SAH-2341020251 | 02836742 | 80,0<br>*3.150* | 42,0<br>*1.654* | 33,0<br>*1.299* | 20,0<br>*0.787* | 41,0<br>*1.614* | 52,5<br>*2.067* | 80,0<br>*3.150* | 1,0<br>*2.200* | 4.5 |
| SAH-2341025260 | 02836743 | 100,0<br>*3.937* | 53,0<br>*2.087* | 44,0<br>*1.732* | 25,0<br>*0.984* | 47,0<br>*1.850* | 58,5<br>*2.303* | 80,0<br>*3.150* | 2,2<br>*4.850* | 4.5 |
| SAH-2341032261 | 02836744 | 100,0<br>*3.937* | 53,0<br>*2.087* | 44,0<br>*1.732* | 32,0<br>*1.260* | 51,0<br>*2.008* | 62,5<br>*2.461* | 80,0<br>*3.150* | 2,5<br>*5.510* | 4.5 |

## Spare Parts, included in delivery

| For DCON | Adjusting screw |
|---|---|
| |  |
| 60 | HCM6X12/ISO4028 |
| 70 | HCM6X16/ISO4028 |
| 80 | HCM6X16/ISO4028 |
| 100 | HCM8X12X1/ISO4028 |

# Front end hydraulic chuck






- Note: Adjusting screws included in delivery

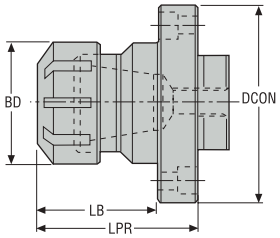
| Designation | Item number | DCON | BD | DCB | LPR | Weight |
|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* |
| SAH-2341112255 | 02836752 | 80,0<br>*3.150* | 32,0<br>*1.260* | 12,0<br>*0.472* | 77,5<br>*3.051* | 1,1<br>*2.430* |
| SAH-2341112259 | 02836757 | 100,0<br>*3.937* | 32,0<br>*1.260* | 12,0<br>*0.472* | 90,0<br>*3.543* | 1,9<br>*4.190* |
| SAH-2341116253 | 02836749 | 70,0<br>*2.756* | 38,0<br>*1.496* | 16,0<br>*0.630* | 50,0<br>*1.969* | 0,75<br>*1.650* |
| SAH-2341116256 | 02836754 | 80,0<br>*3.150* | 38,0<br>*1.496* | 16,0<br>*0.630* | 82,5<br>*3.248* | 1,2<br>*2.650* |
| SAH-2341120257 | 02836755 | 80,0<br>*3.150* | 42,0<br>*1.654* | 20,0<br>*0.787* | 82,5<br>*3.248* | 1,3<br>*2.870* |
| SAH-2341125258 | 02836756 | 80,0<br>*3.150* | 50,0<br>*1.969* | 25,0<br>*0.984* | 90,0<br>*3.543* | 1,7<br>*3.750* |
| SAH-2341125260 | 02836758 | 100,0<br>*3.937* | 50,0<br>*1.969* | 25,0<br>*0.984* | 100,0<br>*3.937* | 2,8<br>*6.170* |
| SAH-2341132261 | 02836759 | 100,0<br>*3.937* | 60,0<br>*2.362* | 32,0<br>*1.260* | 103,0<br>*4.055* | 2,9<br>*6.390* |

## Spare Parts, included in delivery

| For DCON | Adjusting screw |
|---|---|
| |  |
| 70 | HCM6X16/ISO4028 |
| 80 | HCM6X16/ISO4028 |
| 100 | HCM8X12X1/ISO4028 |

# Front end ER collet chuck





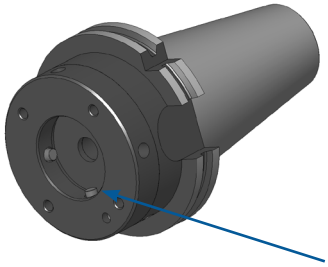

- Note: Adjusting screws included in delivery

| Designation | Item number | Size | DCON | BD | LB | LPR | Weight |
|---|---|---|---|---|---|---|---|
| | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* |
| SAH-23412ER25254 | 02836762 | ER25 | 80,0<br>*3.150* | 42,0<br>*1.654* | 45,0<br>*1.772* | 60,0<br>*2.362* | 1,0<br>*2.200* |
| SAH-23412ER32255 | 02836763 | ER32 | 80,0<br>*3.150* | 50,0<br>*1.969* | 45,0<br>*1.772* | 60,0<br>*2.362* | 1,2<br>*2.650* |
| SAH-23412ER40256 | 02836764 | ER40 | 100,0<br>*3.937* | 63,0<br>*2.480* | 50,0<br>*1.969* | 70,0<br>*2.756* | 1,6<br>*3.530* |

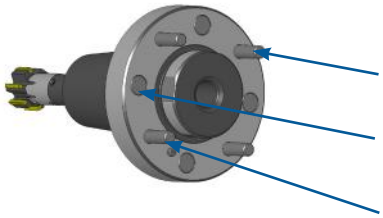
## Spare Parts, included in delivery

| For DCON | Adjusting screw |
|---|---|
| |  |
| 80 | HCM6X16/ISO4028 |
| 100 | HCM8X12X1/ISO4028 |

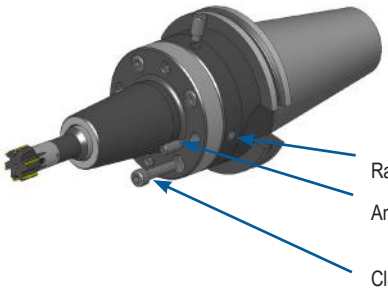
# Assembly instructions




- Clean contact surface
- Make sure radial adjusting screws are not interfering with the assembly



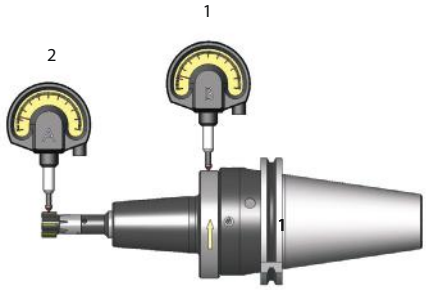

- Make sure angular adjusting screws are not interfering with the assembly



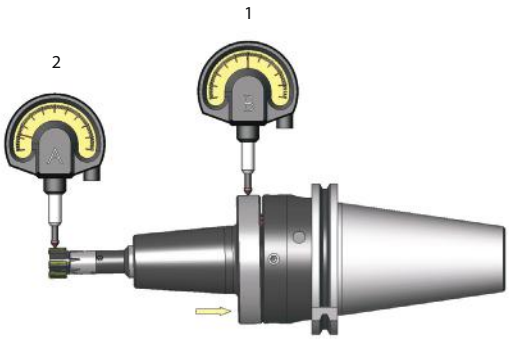

- Proceed to assembly and gently pre-clamp clamping screws (x4)

# Adjusting instructions

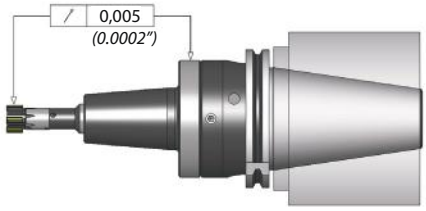
- Mount tool in the machine spindle
- Set up clock 1 as shown (clock 2 not needed at this stage)
- Rotate tool manually until lowest point is reached
- Proceed to radial run-out compensation as shown with arrow
- Check and repeat compensation if necessary




- Set up clock 2 as shown
- Rotate tool manually until lowest point is reached
- Proceed to radial run-out compensation as shown with arrow
- Check and repeat compensation if necessary




- When finished with adjustment, run-out <5 µm *(197 µin)*, finalize clamping to secure assembly
- Adjustable adapter can be pre-set away from the machine using any tool pre-setting device available in the workshop
- Final adjusting must always be made in the machine spindle
- Micron clock must be used. It is acceptable to use one clock for both operations



# Range overview

**The use of a Seco floating holder is recommended**

- When run-out exceeds 0.02 mm *(0.0008")*
- For stationary tools

| | |
|---|---|
| **Compact GV high speed series**<br>• First choice for rotating tools<br>• No adjustment required (factory preset)<br>• Rotation up to 3000 RPM depending on application<br>• Suitable for static applications |  |
| **Compact series**<br>• First choice for stationary tools<br>• Radial adjustment only<br>• Suitable for rotating applications – 800 RPM max |  |
| **Normal series**<br>• When both angular and radial correction is required<br>• Suitable for rotating applications – 800 RPM max |  |

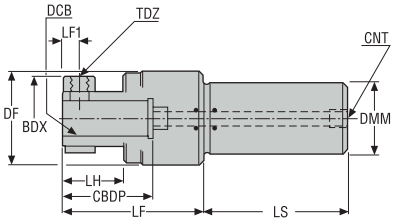
All floating holders for through coolant.
2 types of coolant induction available.

JJL: side inlet
JJ: through shank

Users manual included in delivery.

# Compact GV high speed series

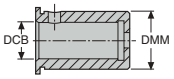





| Item number | Designation | DCB | DMM | LF | LS | DF | BDX | LH | CBDP | CNT | LF1 | TDZ | ADJRG | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm | mm | mm | mm | mm | mm | mm | mm | | mm | | mm | kg |
| 00088959 | SFH-GV11019JJ | 10,0 | 19,05 | 47,5 | 40,0 | 33,0 | 30,0 | 11,5 | 25,0 | 1/8 | 5,5 | M6 | 0,2 | 0,7 |
| 00088945 | SFH-GV11020JJ | 10,0 | 20,0 | 47,5 | 40,0 | 33,0 | 30,0 | 11,5 | 25,0 | 1/8 | 5,5 | M6 | 0,2 | 0,8 |
| 00076815 | SFH-GV21619JJ | 16,0 | 19,05 | 66,0 | 50,0 | 49,5 | 39,0 | 24,5 | 40,0 | 1/8 | 8,0 | M8 | 0,2 | 0,8 |
| 00072133 | SFH-GV21620JJ | 16,0 | 20,0 | 66,0 | 50,0 | 49,5 | 39,0 | 24,5 | 40,0 | 1/8 | 8,0 | M8 | 0,2 | 0,8 |
| 00076827 | SFH-GV22019JJ | 20,0 | 19,05 | 76,0 | 50,0 | 49,5 | 45,0 | 34,5 | 50,0 | 1/8 | 8,0 | M8 | 0,2 | 0,8 |
| 00072134 | SFH-GV22020JJ | 20,0 | 20,0 | 76,0 | 50,0 | 49,5 | 45,0 | 34,5 | 50,0 | 1/8 | 8,0 | M8 | 0,2 | 0,8 |
| 00076828 | SFH-GV32525JJ | 25,0 | 25,4 | 89,0 | 60,0 | 62,0 | 52,0 | 43,5 | 60,0 | 1/4 | 11,0 | M10 | 0,3 | 1,4 |
| 00072135 | SFH-GV32525MJJ | 25,0 | 25,0 | 89,0 | 60,0 | 62,0 | 52,0 | 43,5 | 60,0 | 1/4 | 11,0 | M10 | 0,3 | 1,4 |
| 00088960 | SFH-GV325425JJ | 25,4 | 25,4 | 89,0 | 60,0 | 62,0 | 52,0 | 43,5 | 60,0 | 1/4 | 11,0 | M10 | 0,3 | 1,4 |
| 02602671 | SFH-GV43232JJ | 32,0 | 32,0 | 90,0 | 80,0 | 72,0 | 60,0 | 34,0 | 60,0 | 3/8 | 9,0 | M10 | 0,3 | 2,2 |

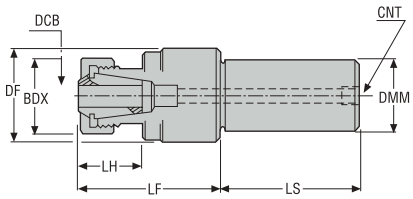
## Accessories

**Designation** **Reduction ring**




| | DCB | DMM |
|---|---|---|
| SRR-BR11016 | 10 | 16 |
| SRR-BR11216 | 12 | 16 |
| SRR-BR11220 | 12 | 20 |
| SRR-BR21620 | 16 | 20 |
| SRR-BR31625 | 16 | 25 |
| SRR-BR32025 | 20 | 25 |
| SRR-GV42532 | 25 | 32 |

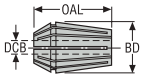
# Compact GV high speed series with collet chuck






| Item number | Designation | CZC | DMM | LF | LS | DF | BDX | LH | CNT | ADJRG | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | mm | mm | mm | mm | mm | mm | | mm | kg |
| 00088961 | SFH-GV3BC25JJ | ER32 | 25,4 | 80,0 | 60,0 | 62,0 | 50,0 | 35,0 | – | 0,3 | 1,3 |
| 00088946 | SFH-GV3BC25MJJ | ER32 | 25,0 | 80,0 | 60,0 | 62,0 | 50,0 | 35,0 | – | 0,3 | 1,3 |
| 00088962 | SFH-GV4BC31JJ | ER40 | 31,75 | 94,0 | 80,0 | 72,0 | 63,0 | 39,0 | – | 0,3 | 0,7 |
| 00088947 | SFH-GV4BC32JJ | ER40 | 32,0 | 94,0 | 80,0 | 72,0 | 63,0 | 39,0 | – | 0,3 | 2,4 |

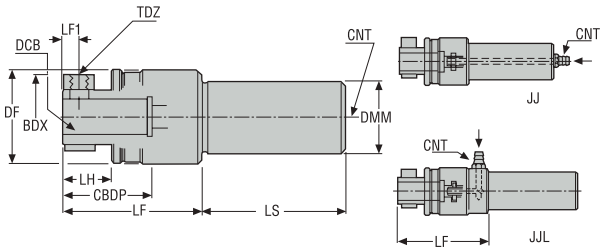
## Accessories

| Designation | Size | Collet* | | | Size | Spanner* |
|---|---|---|---|---|---|---|
| | |  | | | |  |
| | | DCB | BD | OAL | | |
| 58803210 | ER32 | 10 | 33 | 40 | ER32 | 03B587532 |
| 58803212 | ER32 | 12 | 33 | 40 | - | - |
| 58803213 | ER32 | 13 | 33 | 40 | - | - |
| 58803216 | ER32 | 16 | 33 | 40 | - | - |
| 58803220 | ER32 | 20 | 33 | 40 | - | - |
| 58804016 | ER40 | 16 | 41 | 46 | ER40 | 03B537540 |
| 58804020 | ER40 | 20 | 41 | 46 | - | - |
| 58804025 | ER40 | 25 | 41 | 46 | - | - |
| 58804026 | ER40 | 26 | 41 | 46 | - | - |

*Collet and wrenches are not delivered with chucks.

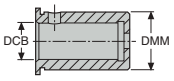
# Compact series





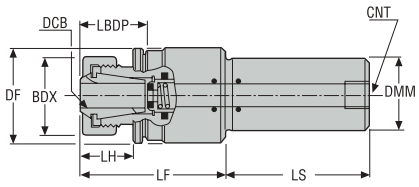

| Item number | Designation | DCB | DMM | LF | LS | DF | BDX | LH | CBDP | CNT | LF1 | TDZ | ADJRG | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm | mm | mm | mm | mm | mm | mm | mm | | mm | | mm | kg |
| 00088963 | SFH-C01019JJ | 10,0 | 19,05 | 44,5 | 40,0 | 38,5 | 30,0 | 11,0 | 25,0 | 1/8 | 6,0 | M6 | 1,0 | 0,575 |
| 00088964 | SFH-C01019JJL | 10,0 | 19,05 | 62,0 | 60,0 | 38,5 | 30,0 | 11,0 | 25,0 | 1/8 | 6,0 | M6 | 1,0 | 0,575 |
| 00088948 | SFH-C01020JJ | 10,0 | 20,0 | 44,5 | 40,0 | 38,5 | 30,0 | 11,0 | 25,0 | 1/8 | 6,0 | M6 | 1,0 | 0,59 |
| 00088949 | SFH-C01020JJL | 10,0 | 20,0 | 62,0 | 60,0 | 38,5 | 30,0 | 11,0 | 25,0 | 1/8 | 6,0 | M6 | 1,0 | 0,59 |
| 00076829 | SFH-C21619CJJ | 16,0 | 19,05 | 67,5 | 50,0 | 51,5 | 34,0 | 17,0 | 40,0 | 1/4 | 8,0 | M6 | 1,5 | 0,97 |
| 00088965 | SFH-C21619JJL | 16,0 | 19,05 | 87,0 | 60,0 | 51,5 | 34,0 | 17,0 | 40,0 | 1/4 | 8,0 | M6 | 1,5 | 1,1 |
| 00072142 | SFH-C21620CJJ | 16,0 | 20,0 | 67,5 | 50,0 | 51,5 | 34,0 | 17,0 | 40,0 | 1/4 | 8,0 | M6 | 1,5 | 0,97 |
| 00088950 | SFH-C21620JJL | 16,0 | 20,0 | 87,0 | 60,0 | 51,5 | 34,0 | 17,0 | 40,0 | 1/4 | 8,0 | M6 | 1,5 | 1,1 |
| 00076830 | SFH-C22019CJJ | 20,0 | 19,05 | 77,5 | 50,0 | 51,5 | 44,0 | 27,0 | 50,0 | 1/4 | 8,0 | M8 | 1,5 | 0,97 |
| 00088966 | SFH-C22019JJL | 20,0 | 19,05 | 97,0 | 70,0 | 51,5 | 44,0 | 27,0 | 50,0 | 1/4 | 8,0 | M8 | 1,5 | 1,1 |
| 00072145 | SFH-C22020CJJ | 20,0 | 20,0 | 77,5 | 50,0 | 51,5 | 44,0 | 27,0 | 50,0 | 1/4 | 8,0 | M8 | 1,5 | 1,0 |
| 00088951 | SFH-C22020JJL | 20,0 | 20,0 | 97,0 | 60,0 | 51,5 | 44,0 | 27,0 | 50,0 | 1/4 | 8,0 | M8 | 1,5 | 1,1 |
| 00076846 | SFH-C32525JJ | 25,0 | 25,4 | 90,0 | 110,0 | 59,5 | 50,0 | 31,0 | 60,0 | 3/8 | 11,0 | M8 | 1,5 | 1,7 |
| 00088967 | SFH-C32525JJL | 25,0 | 25,4 | 125,0 | 70,0 | 59,5 | 50,0 | 31,0 | 60,0 | 3/8 | 11,0 | M8 | 1,5 | 1,98 |
| 00072149 | SFH-C32525MJJ | 25,0 | 25,0 | 90,0 | 110,0 | 59,5 | 50,0 | 31,0 | 60,0 | 3/8 | 11,0 | M8 | 1,5 | 1,7 |
| 00088952 | SFH-C32525MJJL | 25,0 | 25,0 | 125,0 | 70,0 | 59,5 | 50,0 | 31,0 | 60,0 | 3/8 | 11,0 | M8 | 1,5 | 1,98 |

## Accessories

| Designation | Reduction ring | |
|---|---|---|
| |   | |
| | DCB | DMM |
| SRR-BR11016 | 10 | 16 |
| SRR-BR11216 | 12 | 16 |
| SRR-BR11220 | 12 | 20 |
| SRR-BR21620 | 16 | 20 |
| SRR-BR31625 | 16 | 25 |
| SRR-BR32025 | 20 | 25 |

Hose adapter is not included in delivery.

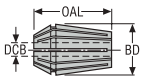
# Compact series with collet chuck






| Item number | Designation | CZC | DMM | LF | LS | DF | BDX | CBDP | LH | CNT | ADJRG | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | mm | mm | mm | mm | mm | mm | mm | | mm | kg |
| 00088968 | SFH-C65BC25CJJ | ER32 | 25,4 | 94,0 | 50,0 | 64,5 | 50,0 | 42,0 | 33,0 | 3/8 | 1,5 | 1,7 |
| 00088953 | SFH-C65BC25MCJJ | ER32 | 25,0 | 94,0 | 50,0 | 64,5 | 50,0 | 42,0 | 33,0 | 3/8 | 1,5 | 1,7 |

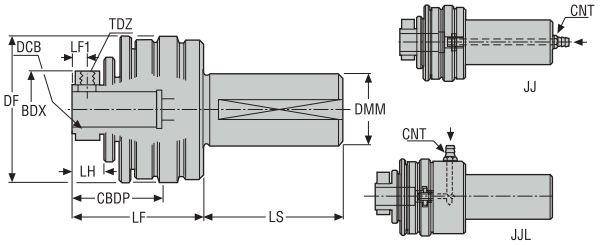
## Accessories

| Designation | Size | Collet* | | | Size | Spanner* |
|---|---|---|---|---|---|---|
| | |  | | | |  |
| | | DCB | BD | OAL | | |
| 58803210 | ER32 | 10 | 33 | 40 | ER32 | 03B587532 |
| 58803212 | ER32 | 12 | 33 | 40 | - | - |
| 58803213 | ER32 | 13 | 33 | 40 | - | - |
| 58803216 | ER32 | 16 | 33 | 40 | - | - |
| 58803220 | ER32 | 20 | 33 | 40 | - | - |
| 58804016 | ER40 | 16 | 41 | 46 | ER40 | 03B537540 |
| 58804020 | ER40 | 20 | 41 | 46 | - | - |
| 58804025 | ER40 | 25 | 41 | 46 | - | - |
| 58804026 | ER40 | 26 | 41 | 46 | - | - |

*Collets and wrenches are not delivered with chucks.

# Normal series

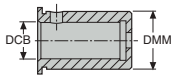





| Item number | Designation | DCB | DMM | LF | LS | DF | BDX | LH | CBDP | CNT | LF1 | TDZ | ADJRG | ANADJ | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm | mm | mm | mm | mm | mm | mm | mm | | mm | | mm | | kg |
| 00088969 | SFH-11619JJ | 16,0 | 19,05 | 64,0 | 50,0 | 62,0 | 34,0 | 16,0 | 40,0 | 1/4 | 8,0 | M6 | 1,5 | 1,0 ° | 0,9 |
| 00088970 | SFH-11619JJL | 16,0 | 19,05 | 81,0 | 40,0 | 62,0 | 34,0 | 16,0 | 40,0 | 1/4 | 8,0 | M6 | 1,5 | 1,0 ° | 1,32 |
| 00088954 | SFH-11620JJ | 16,0 | 20,0 | 64,0 | 50,0 | 62,0 | 34,0 | 16,0 | 40,0 | 1/4 | 8,0 | M6 | 1,5 | 1,0 ° | 0,95 |
| 00088955 | SFH-11620JJL | 16,0 | 20,0 | 81,0 | 40,0 | 62,0 | 34,0 | 16,0 | 40,0 | 1/4 | 8,0 | M6 | 1,5 | 1,0 ° | 1,34 |
| 00088971 | SFH-22025JJ | 20,0 | 25,4 | 74,0 | 65,0 | 82,0 | 44,0 | 16,0 | 50,0 | 3/8 | 8,0 | M8 | 1,5 | 1,0 ° | 1,9 |
| 00088972 | SFH-22025JJL | 20,0 | 25,4 | 98,0 | 70,0 | 82,0 | 44,0 | 16,0 | 50,0 | 1/4 | 8,0 | M8 | 1,5 | 1,0 ° | 2,2 |
| 00088956 | SFH-22025MJJ | 20,0 | 25,0 | 74,0 | 65,0 | 82,0 | 44,0 | 16,0 | 50,0 | 3/8 | 8,0 | M8 | 1,5 | 1,0 ° | 1,9 |
| 00088957 | SFH-22025MJJL | 20,0 | 25,0 | 98,0 | 70,0 | 82,0 | 44,0 | 16,0 | 50,0 | 1/4 | 8,0 | M8 | 1,5 | 1,0 ° | 2,2 |
| 00088973 | SFH-32525JJ | 25,0 | 25,4 | 82,5 | 110,0 | 91,0 | 52,0 | 22,0 | 60,0 | 3/8 | 11,0 | M8 | 2,0 | 1,0 ° | 2,5 |
| 00088958 | SFH-32525MJJ | 25,0 | 25,0 | 82,5 | 110,0 | 91,0 | 52,0 | 22,0 | 60,0 | 3/8 | 11,0 | M8 | 2,0 | 1,0 ° | 2,5 |

## Accessories

| Designation | Reduction ring |
|---|---|




| | DCB | DMM |
|---|---|---|
| SRR-BR11016 | 10 | 16 |
| SRR-BR11216 | 12 | 16 |
| SRR-BR11220 | 12 | 20 |
| SRR-BR21620 | 16 | 20 |
| SRR-BR31625 | 16 | 25 |
| SRR-BR32025 | 20 | 25 |

Hose adapter is not included in delivery.

# Setting fixture – Single clock

**SF-210340-C160: Ordering and Part No. 02885391**

- Horizontal stand
- First choice for Xfix reamers
- 1 clock
- Maximum tool Ø: 210 mm *(8.268")*
- Maximum tool length: 340 mm *(13.386")*
- Included in delivery: additional Ø 57 mm *(2.224")* spring center for HSK 63/80/100 & Capto C8 SSC5700 Part No. 02208620



**SF-210290V-C160: Ordering and Part No. 02885392**

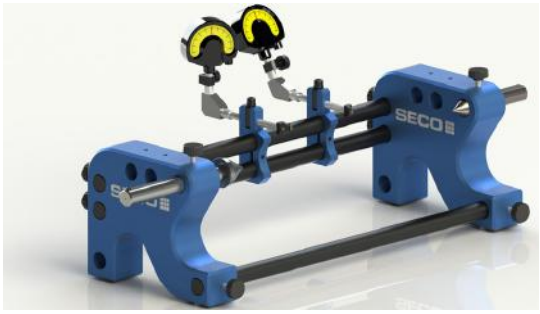
- Vertical stand
- First choice for Xfix reamers
- Maximum tool Ø: 210 mm *(8.268")*
- Maximum tool length: 290 mm *(11.417")*
- Included in delivery: additional Ø 57 mm *(2.224")* spring center for HSK 63/80/100 & Capto C8 SSC5700 Part No. 02208620



# Setting fixture – Dual clock

**SF-210340-C160C190: Ordering and Part No. 02885393**

- Horizontal stand
- First choice for Bifix reamers
- 2 clocks
- Maximum tool Ø: 210 mm *(8.268")*
- Maximum tool length: 340 mm *(13.386")*
- Included in delivery: additional Ø 57 mm *(2.224")* spring center for HSK 63/80/100 & Capto C8 SSC5700 Part No. 02208620 delivery



**SF-210290V-C160C190: Ordering and Part No. 02885394**

- Vertical stand
- First choice for Bifix reamers
- 2 clocks
- Maximum tool Ø: 210 mm *(8.268")*
- Maximum tool length: 290 mm *(11.417")*
- Included in delivery: additional Ø 57 mm *(2.224")* spring center for HSK 63/80/100 & Capto C8 SSC5700 Part No. 02208620



For ordering information, contact your local Seco Tools representative.

# Setting fixture – Single clock large capacity

**SF-210740-C160: Ordering and Part No. 02885385**

- Horizontal stand
- First choice for Xfix reamers
- 1 clock
- Maximum tool Ø: 210 mm *(8.268")*
- Maximum tool length: 740 mm *(29.134")*
- Included in delivery: additional Ø 57 mm *(2.224")* spring center for HSK 63/80/100 & Capto C8 SSC5700 Part No. 02208620



**SF-210690V-C160: Ordering and Part No. 02885387**

- Vertical stand
- First choice for Xfix reamers
- Maximum tool Ø: 210 mm *(8.268")*
- Maximum tool length: 690 mm *(27.165")*
- Included in delivery: additional Ø 57 mm *(2.224")* spring center for HSK 63/80/100 & Capto C8 SSC5700 Part No. 02208620



# Setting fixture – Dual clock large capacity

**SF-210740-C160C190: Ordering and Part No. 02885388**

- Horizontal stand
- First choice for Bifix reamers
- 2 clocks
- Maximum tool Ø: 210 mm *(8.268")*
- Maximum tool length: 740 mm *(29.134")*
- Included in delivery: additional Ø 57 mm *(2.224")* spring center for HSK 63/80/100 & Capto C8 SSC5700 Part No. 02208620delivery



**SF-210690V-C160C190: Ordering and Part No. 02885390**

- Vertical stand
- First choice for Bifix reamers
- 2 clocks
- Maximum tool Ø: 210 mm *(8.268")*
- Maximum tool length: 690 mm *(27.165")*
- Included in delivery: additional Ø 57 mm *(2.224")* spring center for HSK 63/80/100 & Capto C8 SSC5700 Part No. 02208620



For ordering information, contact your local Seco Tools representative.

# Setting fixture – Compact

**SF-60200-C160: Ordering and Part No. 02885395**

- Horizontal stand
- First choice for Ø smaller than 60 mm *(2.362")*
- 1 clock
- Maximum tool Ø: 60,5 mm *(82.382")*
- Maximum tool length: 200 mm *(7.874")*



**SF-60200-C160C190: Ordering and Part No. 02885396**

- Horizontal stand
- First choice for Ø smaller than 60 mm *(2.362")*
- 2 clocks
- Maximum tool Ø: 60,5 mm *(82.382")*
- Maximum tool length: 200 mm *(7.874")*



For ordering information, contact your local Seco Tools representative.

# Additional measuring arms



**SFB-60: Ordering and Part No. 02208619**
- Measuring arm 60°
- Dial gauge included in delivery
- Measuring point not included, see page 491



**SFB-60 WC: Ordering and Part No. 02885754**
- Measuring arm 60°
- Dial gauge not included in delivery
- Measuring point not included, see page 491



**SFB-90: Ordering and Part No. 02208622**
- Measuring arm 90°
- Dial gauge included in delivery
- Measuring point not included, see page 491



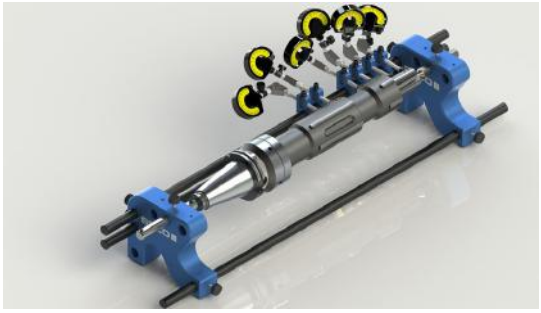
**SFB-90 WC: Ordering and Part No. 02885755**
- Measuring arm 90°
- Dial gauge not included in delivery
- Measuring point not included, see page 491



**DG-1: Ordering and Part No. 75079579**
- Dial gauge, 1 µm *(39 µin)*

# Examples of multi clocks setting fixture assembly

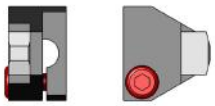




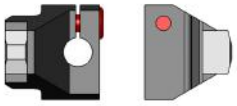
# Accessories



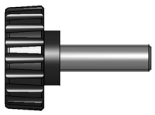
**SMES-406: Ordering and Part No. 02819156**
- Measuring point for Xfix reamers
- Ø 4mm *(0.157")*
- Carbide tipped



**SMES-900: Ordering and Part No. 02208610**
- Measuring point for Bifix reamers
- Carbide tipped



**SMES-909:Ordering and Part No. 02980090**
- Measuring point for Bifix reamers
- Carbide tipped
- 9 mm *(0.354")* offset



**SFHS-20: Ordering and Part No. 02884025**
- Hand-screw
- Suitable for the entire setting fixture range



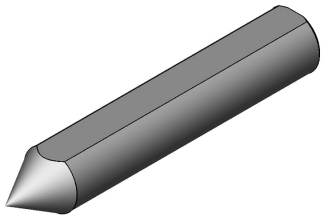


**SFVST- 100: Ordering and Part No. 02884026**
- Steel stand (set of 3)
- Ø 100 mm *(3.937")*
- Suitable to convert horizontal setting fixture to vertical position

# Centre points

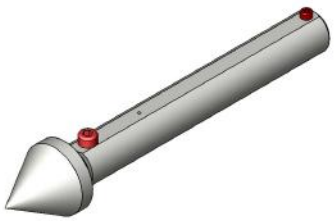
**SFC-2000HM: Ordering and Part No. 02884023**

- Solid carbide fixed center point
- Ø 20 mm *(0.787")*
- Suitable for Xfix and Bifix range standard and special
- To be used at front end of the tool



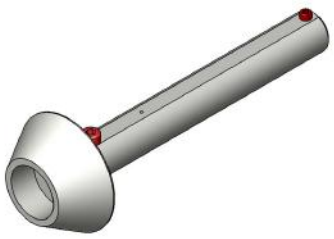
**SSC-3400: Ordering and Part No. 02208617**

- Spring center point
- Ø 34 mm *(1.339")*
- Suitable for Xfix and Bifix range standard and special
- To be used at back end of the tool
- Not suitable for HSK63/80/100 and capto C8



**SSC5700: Ordering and Part No. 02208620**

- Spring center point
- Truncated Ø 57 mm *(2.244")*
- Suitable for Xfix and Bifix range standard and special
- To be used at back end of the tool
- Suitable for HSK63/80/100 and capto C8



# Overview

## Graflex® and Seco-Capto™

**Graflex® and Seco-Capto™ arbors, extensions and reducers to build boring bars**




- Boring bars assemblies can be rapidly built together to the closest required needs, either by using the Graflex or the Seco-Capto modular systems including a wide range of arbors and intermediaries.
- Both systems offer a rigid and precise connection to be used for roughing applications or finishing holes.
- The modules can also receive a large number of tool holders like collet chucks, hydro chucks etc. (see Tooling systems catalog).

Page(s) 495-554, 555

## RB750 boring heads, rough boring

**Twin cutting heads, with insert holders coupling mechanism**




- High metal removal, precise hole geometry and hole position
- Both symmetrical and staggered settings
- Simultaneous adjustment by an insert holders coupling mechanism
- With Graflex® or Seco-Capto™ connections

Ø range 18 to 205 mm
*(0.709 to 8.071")*

IT 9/10

Page(s) 567, 568-574

## RB 610 boring heads, rough boring

**Twin cutting heads**





- High metal removal, precise hole geometry and hole position
- Both symmetrical and staggered settings
- With Graflex® connection for Graflex® modular system
- With GL or BA connection for Steadyline® vibration damping bars

Ø range 28 mm to 116 mm
*(1.102 to 4.567")*

IT 9/10

Page(s) 580-583

## FB 760 boring heads, Axiabore™ type, fine boring

**Fine boring heads, with axial tools**




- Micrometer adjustment for hole precision up to IT5
- High tool rigidity for precise hole geometry and position
- Nanobore™ head for smaller diameters
- Axialibrabore™ and - Axialibrabore™ Plus - are fine balanceable, HSM suitable
- Multi-purpose adapter (MPA) for larger boring diameters, OD-overturning and grooving
- With Graflex® or Seco-Capto™ connections

Ø range 0,3 to 108 mm
*(0.012 to 4.252")*

+ OD-overturning and face grooving

IT 5/6

Page(s) 591-602

# Overview

## FB 620, FB 780 and FB 790 boring heads, radial type

**Fine boring heads, with radial insert holder**





- Micrometer adjustment for hole precision up to IT5
- Precise hole geometry and position
- A790 Libraflex® heads are fine balanceable, HSM suitable insert holder clamping for highest reliability
- Long bores achievable, using carbide extensions (up to 7xD) or Steadyline® bars (up to 10xD)
- Also for chamfering and back-boring
- With Graflex® or Seco-Capto™ connections for modular systems
- With GL or BA connection for Steadyline® vibration damping bars

Ø range 15 to 205 mm
*(0.591 to 8.071")*

IT 5/6

Page(s) 621, 622-630

## Bridge bars and Jumbo boring heads

**For rough and fine boring large diameters**



- Boring blocks available for rough and fine boring, OD-overturning and back-boring
- Strong design for high metal removal in rough boring
- Micrometric adjustment for fine boring
- Optimized boring block design and Jumbo Bridge bars made from high tensile aluminum for high speeds
- To be fitted onto milling cutter holders, flange mounting type

Ø range 204 to 3205 mm
*(8.031-126.181")*

IT 5/6 (fine boring) or 9/10 (rough boring)
+ OD-overturning

IT6

Page(s) 632-649

## Inserts for boring



- For boring applications in all materials
- High toughness for rough boring
- Positive geometries for fine boring
- Grades selected for long life

Page(s) 651-663

## Graflex® or Seco-Capto™ modular holding system



- The boring heads have a Graflex® or a Seco-Capto™ machine side connection shank enabling a full range of boring depths and diameters
- Select the required Graflex® or Seco-Capto™ arbors and intermediates from the TOOLING SYSTEMS catalog (HSK, DIN, BT, ANSI-CAT, Seco-Capto™)
- Graflex® connections spare parts for boring heads are shown in that chapter

Page(s) 664-666

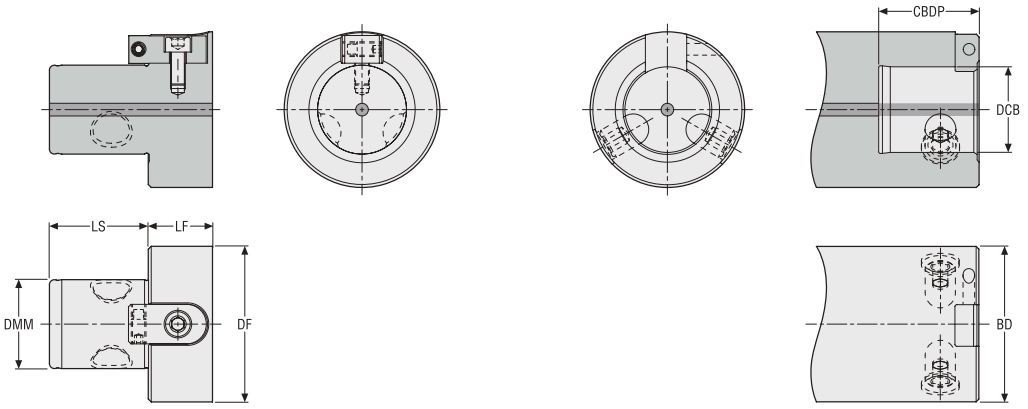


# Graflex®

Graflex® assemblies include arbors, intermediates, tool holders and boring heads that can be rapidly built together when they are needed. Suitable for milling, drilling, tapping, reaming and boring, Graflex® modules offer tooling of variable lengths and diameters and can be fitted on all types of machines simply by substituting the Graflex® basic arbor.

- Excellent connection rigidity
- Wide range of modules offer high flexibility
- Through coolant possibilities

# Graflex®, norm dimensions




| Machine side catalogue designation | Hole for RFID carrier* | DF | DMM | LS | LF |
|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* |
| G0 | No | 16<br>*0.630* | 8<br>*0.315* | 12<br>*0.472* | 8<br>*0.315* |
| G1 | No | 20<br>*0.787* | 11<br>*0.433* | 13<br>*0.512* | 9,5<br>*0.374* |
| G2 | No | 25<br>*0.984* | 14<br>*0.551* | 16<br>*0.630* | 11<br>*0.433* |
| G3 | No | 32<br>*1.260* | 18<br>*0.709* | 20<br>*0.787* | 14<br>*0.551* |
| G4 | No | 40<br>*1.575* | 22<br>*0.866* | 24<br>*0.945* | 17<br>*0.669* |
| G5 | No | 50<br>*1.969* | 28<br>*1.102* | 30<br>*1.181* | 20<br>*0.787* |
| G6 | No | 63<br>*2.480* | 36<br>*1.417* | 40<br>*1.575* | 26<br>*1.024* |
| G7 | No | 90<br>*3.543* | 46<br>*1.811* | 50<br>*1.969* | 26<br>*1.024* |

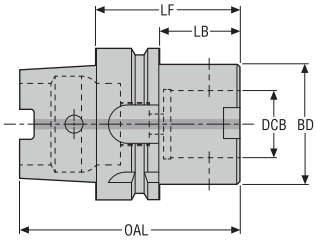
| Workpiece side catalogue designation | Hole for RFID carrier* | CBDP | DCB | BD |
|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* |
| G0 | No | 16<br>*0.630* | 8<br>*0.315* | 12<br>*0.472* |
| G1 | No | 20<br>*0.787* | 11<br>*0.433* | 13<br>*0.512* |
| G2 | No | 25<br>*0.984* | 14<br>*0.551* | 16<br>*0.630* |
| G3 | No | 32<br>*1.260* | 18<br>*0.709* | 20<br>*0.787* |
| G4 | No | 40<br>*1.575* | 22<br>*0.866* | 24<br>*0.945* |
| G5 | No | 50<br>*1.969* | 28<br>*1.102* | 30<br>*1.181* |
| G6 | No | 63<br>*2.480* | 36<br>*1.417* | 40<br>*1.575* |
| G7 | No | 90<br>*3.543* | 46<br>*1.811* | 50<br>*1.969* |

Note: These machine side and workpiece side dimensions are applied to all the holders shown in the product pages.

* No hole for RFID carriers

# G 401 – Graflex® arbors

HSK-A/ ISO12164-1-HSK-A

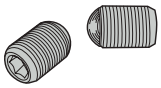





- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 524

| Designation | Item number | CTMS | CTWS | DCB | LF | LB | BD | OAL | RFID hole | Balancing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | kg<br>*lbs* |
| EM93034012870 | 00086917 | HSK-A50 | G5 | 28,0<br>*1.102* | 70,0<br>*2.756* | 44,0<br>*1.732* | 50,0<br>*1.969* | 95,0<br>*3.740* | 1 | PB | 0,79<br>*1.740* |
| EM93044011445 | 02469722 | HSK-A63 | G2 | 14,0<br>*0.551* | 45,0<br>*1.772* | 19,0<br>*0.748* | 25,0<br>*0.984* | 77,0<br>*3.031* | 1 | G6.3 | 0,69<br>*1.520* |
| EM93044011850 | 00086918 | HSK-A63 | G3 | 18,0<br>*0.709* | 50,0<br>*1.969* | 24,0<br>*0.945* | 32,0<br>*1.260* | 82,0<br>*3.228* | 1 | G6.3 | 0,73<br>*1.610* |
| EM93044012255 | 00088217 | HSK-A63 | G4 | 22,0<br>*0.866* | 55,0<br>*2.165* | 29,0<br>*1.142* | 40,0<br>*1.575* | 87,0<br>*3.425* | 1 | G6.3 | 0,83<br>*1.830* |
| EM930440128100 | 00086921 | HSK-A63 | G5 | 28,0<br>*1.102* | 100,0<br>*3.937* | 74,0<br>*2.913* | 50,0<br>*1.969* | 132,0<br>*5.197* | 1 | PB | 1,58<br>*3.480* |
| EM930440128140 | 00086922 | HSK-A63 | G5 | 28,0<br>*1.102* | 140,0<br>*5.512* | 114,0<br>*4.488* | 50,0<br>*1.969* | 172,0<br>*6.772* | 1 | PB | 2,18<br>*4.810* |
| EM93044012860 | 00086920 | HSK-A63 | G5 | 28,0<br>*1.102* | 60,0<br>*2.362* | 34,0<br>*1.339* | 50,0<br>*1.969* | 92,0<br>*3.622* | 1 | PB | 0,98<br>*2.160* |
| EM930440136120 | 00086924 | HSK-A63 | G6 | 36,0<br>*1.417* | 120,0<br>*4.724* | 94,0<br>*3.701* | 63,0<br>*2.480* | 152,0<br>*5.984* | 1 | PB | 2,38<br>*5.250* |
| EM93044013670 | 00086923 | HSK-A63 | G6 | 36,0<br>*1.417* | 70,0<br>*2.756* | 44,0<br>*1.732* | 63,0<br>*2.480* | 102,0<br>*4.016* | 1 | PB | 1,21<br>*2.670* |
| EM93064011855 | 00086925 | HSK-A100 | G3 | 18,0<br>*0.709* | 55,0<br>*2.165* | 26,0<br>*1.024* | 32,0<br>*1.260* | 105,0<br>*4.134* | 1 | G6.3 | 2,1<br>*4.630* |
| EM93064012260 | 00086926 | HSK-A100 | G4 | 22,0<br>*0.866* | 60,0<br>*2.362* | 31,0<br>*1.220* | 40,0<br>*1.575* | 110,0<br>*4.331* | 1 | G6.3 | 2,19<br>*4.830* |
| EM930640128110 | 00086928 | HSK-A100 | G5 | 28,0<br>*1.102* | 110,0<br>*4.331* | 81,0<br>*3.189* | 50,0<br>*1.969* | 160,0<br>*6.299* | 1 | PB | 3,02<br>*6.660* |
| EM930640128150 | 00086929 | HSK-A100 | G5 | 28,0<br>*1.102* | 150,0<br>*5.906* | 121,0<br>*4.764* | 50,0<br>*1.969* | 200,0<br>*7.874* | 1 | PB | 3,7<br>*8.160* |
| EM93064012865 | 00086927 | HSK-A100 | G5 | 28,0<br>*1.102* | 65,0<br>*2.559* | 36,0<br>*1.417* | 50,0<br>*1.969* | 115,0<br>*4.528* | 1 | PB | 2,37<br>*5.220* |
| EM930640136120 | 00086931 | HSK-A100 | G6 | 36,0<br>*1.417* | 120,0<br>*4.724* | 91,0<br>*3.583* | 63,0<br>*2.480* | 170,0<br>*6.693* | 1 | PB | 3,82<br>*8.420* |
| EM930640136160 | 00086932 | HSK-A100 | G6 | 36,0<br>*1.417* | 160,0<br>*6.299* | 131,0<br>*5.157* | 63,0<br>*2.480* | 210,0<br>*8.268* | 1 | PB | 4,72<br>*10.410* |
| EM93064013675 | 00083432 | HSK-A100 | G6 | 36,0<br>*1.417* | 75,0<br>*2.953* | 46,0<br>*1.811* | 63,0<br>*2.480* | 125,0<br>*4.921* | 1 | PB | 2,6<br>*5.730* |
| EM930640146160 | 00086933 | HSK-A100 | G7 | 46,0<br>*1.811* | 160,0<br>*6.299* | 131,0<br>*5.157* | 90,0<br>*3.543* | 210,0<br>*8.268* | 1 | PB | 7,67<br>*16.910* |
| EM93064014685 | 00074385 | HSK-A100 | G7 | 46,0<br>*1.811* | 85,0<br>*3.346* | 56,0<br>*2.205* | 90,0<br>*3.543* | 135,0<br>*5.315* | 1 | PB | 3,99<br>*8.800* |
| HSKA125-G6-120 | 03229653 | HSK-A125 | G6 | 36,0<br>*1.417* | 120,0<br>*4.724* | 91,0<br>*3.583* | 63,0<br>*2.480* | 183,0<br>*7.205* | 1 | PB | 5,1<br>*11.240* |
| HSKA125-G7-120 | 03229654 | HSK-A125 | G7 | 46,0<br>*1.811* | 120,0<br>*4.724* | 91,0<br>*3.583* | 90,0<br>*3.543* | 183,0<br>*7.205* | 1 | PB | 7,1<br>*15.650* |

## Spare Parts, included in delivery

| For size | Assembly screw |
|---|---|
| |  |
| G2 | 90F2 |
| G3 | 90F3 |
| G4 | 90F4 |
| G5 | 90F5 |
| G6 | 90F6 |
| G7 | 90F7 |

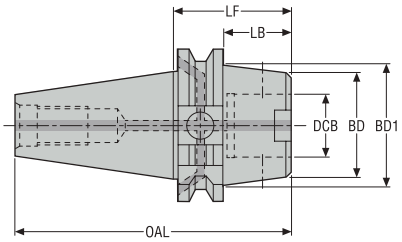
## Accessories

| For size | Locking key |
|---|---|
| |  |
| G2 | 03H025 |
| G3 | 03H03 |
| G4 | 03H04 |
| G5 | 03H05 |
| G6 | 03H06 |
| G7 | 03H10 |

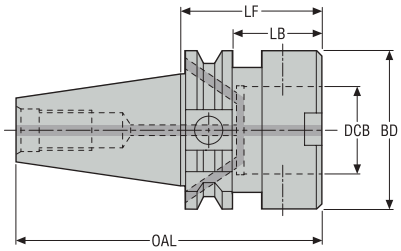
# G 401 – Graflex® arbors

SA/SK/DIN 69871-ADB

**Design 1**




**Design 2**





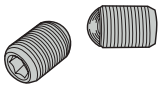

| Designation | Item number | CTMS | CTWS | DCB | LF | LB | BD1 | OAL | Design | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | | kg<br>*lbs* |
| EM34694011190 | 02503292 | DIN40 ADB | G1 | 11,0<br>*0.433* | 90,0<br>*3.543* | 70,9<br>*2.791* | – | 158,4<br>*6.236* | 2 | 1 | G6.3 | 0,94<br>*2.070* |
| EM34694011435 | 02469729 | DIN40 ADB | G2 | 14,0<br>*0.551* | 35,0<br>*1.378* | 15,9<br>*0.626* | – | 103,4<br>*4.071* | 2 | 1 | G6.3 | 0,83<br>*1.830* |
| EM34694011490 | 02503293 | DIN40 ADB | G2 | 14,0<br>*0.551* | 90,0<br>*3.543* | 70,9<br>*2.791* | – | 158,4<br>*6.236* | 2 | 1 | G6.3 | 1,02<br>*2.250* |
| EM346940118100 | 02503298 | DIN40 ADB | G3 | 18,0<br>*0.709* | 100,0<br>*3.937* | 80,9<br>*3.185* | – | 168,4<br>*6.630* | 2 | 1 | G6.3 | 1,22<br>*2.690* |
| EM34694011835 | 02420097 | DIN40 ADB | G3 | 18,0<br>*0.709* | 35,0<br>*1.378* | 15,9<br>*0.626* | 50,0<br>*1.969* | 103,4<br>*4.071* | 1 | 1 | G6.3 | 0,91<br>*2.010* |
| EM346940122100 | 02503300 | DIN40 ADB | G4 | 22,0<br>*0.866* | 100,0<br>*3.937* | 80,9<br>*3.185* | – | 168,4<br>*6.630* | 2 | 1 | G6.3 | 1,44<br>*3.170* |
| EM34694012235 | 02503299 | DIN40 ADB | G4 | 22,0<br>*0.866* | 35,0<br>*1.378* | 15,9<br>*0.626* | 50,0<br>*1.969* | 103,4<br>*4.071* | 1 | 1 | G6.3 | 0,92<br>*2.030* |
| EM346940128120 | 02503302 | DIN40 ADB | G5 | 28,0<br>*1.102* | 120,0<br>*4.724* | 100,9<br>*3.972* | – | 188,4<br>*7.417* | 2 | 1 | PB | 2,08<br>*4.590* |
| EM34694012840 | 02458421 | DIN40 ADB | G5 | 28,0<br>*1.102* | 40,0<br>*1.575* | 20,9<br>*0.823* | – | 108,4<br>*4.268* | 2 | 1 | PB | 0,93<br>*2.050* |
| EM34694012880 | 02503301 | DIN40 ADB | G5 | 28,0<br>*1.102* | 80,0<br>*3.150* | 60,9<br>*2.398* | – | 148,4<br>*5.843* | 2 | 1 | PB | 1,5<br>*3.310* |
| EM346940136120 | 02503304 | DIN40 ADB | G6 | 36,0<br>*1.417* | 120,0<br>*4.724* | 100,9<br>*3.972* | – | 188,4<br>*7.417* | 2 | 1 | PB | 2,65<br>*5.840* |
| EM34694013660 | 02503303 | DIN40 ADB | G6 | 36,0<br>*1.417* | 60,0<br>*2.362* | 40,9<br>*1.610* | – | 128,4<br>*5.055* | 2 | 1 | PB | 1,24<br>*2.730* |
| EM347140114100 | 02503306 | DIN50 ADB | G2 | 14,0<br>*0.551* | 100,0<br>*3.937* | 80,9<br>*3.185* | – | 201,7<br>*7.941* | 2 | 1 | G6.3 | 2,8<br>*6.170* |
| EM347140118110 | 02503308 | DIN50 ADB | G3 | 18,0<br>*0.709* | 110,0<br>*4.331* | 90,9<br>*3.579* | – | 211,7<br>*8.335* | 2 | 1 | G6.3 | 3,0<br>*6.610* |
| EM34714011835 | 02503307 | DIN50 ADB | G3 | 18,0<br>*0.709* | 35,0<br>*1.378* | 15,9<br>*0.626* | – | 136,7<br>*5.382* | 2 | 1 | G6.3 | 2,67<br>*5.890* |
| EM347140122120 | 02503311 | DIN50 ADB | G4 | 22,0<br>*0.866* | 120,0<br>*4.724* | 100,9<br>*3.972* | – | 221,7<br>*8.728* | 2 | 1 | G6.3 | 3,5<br>*7.720* |
| EM34714012235 | 02503309 | DIN50 ADB | G4 | 22,0<br>*0.866* | 35,0<br>*1.378* | 15,9<br>*0.626* | 80,0<br>*3.150* | 136,7<br>*5.382* | 1 | 1 | G6.3 | 2,88<br>*6.350* |
| EM347140128100 | 02503315 | DIN50 ADB | G5 | 28,0<br>*1.102* | 100,0<br>*3.937* | 80,9<br>*3.185* | – | 201,7<br>*7.941* | 2 | 1 | PB | 3,56<br>*7.850* |
| EM347140128140 | 02503316 | DIN50 ADB | G5 | 28,0<br>*1.102* | 140,0<br>*5.512* | 120,9<br>*4.760* | – | 241,7<br>*9.516* | 2 | 1 | PB | 4,08<br>*8.990* |
| EM34714012840 | 02503312 | DIN50 ADB | G5 | 28,0<br>*1.102* | 40,0<br>*1.575* | 20,9<br>*0.823* | – | 141,7<br>*5.579* | 2 | 1 | PB | 2,75<br>*6.060* |
| EM347140136100 | 02503318 | DIN50 ADB | G6 | 36,0<br>*1.417* | 100,0<br>*3.937* | 80,9<br>*3.185* | – | 201,7<br>*7.941* | 2 | 1 | PB | 4,1<br>*9.040* |
| EM347140136140 | 02503319 | DIN50 ADB | G6 | 36,0<br>*1.417* | 140,0<br>*5.512* | 120,9<br>*4.760* | – | 241,7<br>*9.516* | 2 | 1 | PB | 4,99<br>*11.000* |
| EM34714013645 | 02503317 | DIN50 ADB | G6 | 36,0<br>*1.417* | 45,0<br>*1.772* | 25,9<br>*1.020* | – | 146,7<br>*5.776* | 2 | 1 | PB | 2,88<br>*6.350* |

| Designation | Item number | CTMS | CTWS | DCB | LF | LB | BD1 | OAL | Design | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | | | | kg *lbs* |
| EM347140146120 | 02503321 | DIN50 ADB | G7 | 46,0 *1.811* | 120,0 *4.724* | 100,9 *3.972* | – | 221,7 *8.728* | 2 | 1 | PB | 6,48 *14.290* |
| EM347140146200 | 02503324 | DIN50 ADB | G7 | 46,0 *1.811* | 200,0 *7.874* | 180,9 *7.122* | – | 301,7 *11.878* | 2 | 1 | PB | 10,4 *22.930* |
| EM34714014650 | 02503320 | DIN50 ADB | G7 | 46,0 *1.811* | 50,0 *1.969* | 30,9 *1.217* | – | 151,7 *5.972* | 2 | 1 | PB | 3,23 *7.120* |

## Accessories

| For size | Locking key |
|---|---|
| |  |
| DIN40/ G1 | 03H02 |
| DIN40/ G2 | 03H025 |
| DIN40/ G3 | 03H03 |
| DIN40/ G4 | 03H04 |
| DIN40/ G5 | 03H05 |
| DIN40/ G6 | 03H06 |
| DIN50/ G2 | 03H025 |
| DIN50/ G3 | 03H03 |
| DIN50/ G4 | 03H04 |
| DIN50/ G5 | 03H05 |
| DIN50/ G6 | 03H06 |
| DIN50/ G7 | 03H10 |
| EM34714014650 | 03H10 |

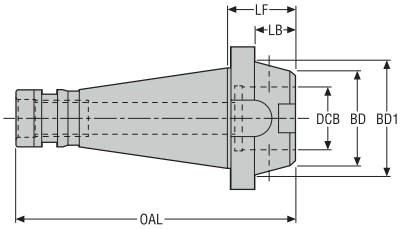
## Spare Parts, included in delivery

| For size | Assembly screw | Sealing Screws |
|---|---|---|
| |  |  |
| DIN40/ G1 | 90F1 | 950A0406 |
| DIN40/ G2 | 90F2 | 950A0406 |
| DIN40/ G3 | 90F3 | 950A0406 |
| DIN40/ G4 | 90F4 | 950A0406 |
| DIN40/ G5 | 90F5 | 950A0406 |
| DIN40/ G6 | 90F6 | 950A0406 |
| DIN50/ G2 | 90F2 | 950A0606 |
| DIN50/ G3 | 90F3 | 950A0606 |
| DIN50/ G4 | 90F4 | 950A0606 |
| DIN50/ G5 | 90F5 | 950A0606 |
| DIN50/ G6 | 90F6 | 950A0606 |
| DIN50/ G7 | 90F7 | 950A0606 |
| EM34714014650 | 90F71 | 950A0606 |

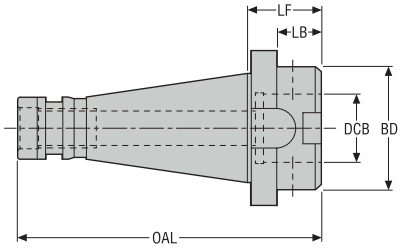
# G 401 – Graflex® arbors

DIN 2080

Design 1




Design 2



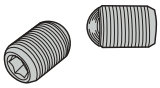



| Designation | Item number | CTMS | CTWS | DCB | LF | LB | BD1 | BD | OAL | Design | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | | kg<br>*lbs* |
| EM00404013650 | 00076707 | DIN(2080)40 | G6 | 36,0<br>*1.417* | 50,0<br>*1.969* | 0,0<br>– | – | 63,0<br>*2.480* | 143,4<br>*5.646* | 2 | 0 | PB | 1,27<br>*2.800* |
| EM00504012835 | 00076710 | DIN(2080)50 | G5 | 28,0<br>*1.102* | 35,0<br>*1.378* | 19,8<br>*0.780* | 78,0<br>*3.071* | 50,0<br>*1.969* | 161,8<br>*6.370* | 1 | 0 | PB | 2,94<br>*6.480* |
| EM00504013640 | 00076714 | DIN(2080)50 | G6 | 36,0<br>*1.417* | 40,0<br>*1.575* | 24,8<br>*0.976* | – | 63,0<br>*2.480* | 166,8<br>*6.567* | 2 | 0 | PB | 2,82<br>*6.220* |
| EM00504014645 | 00076718 | DIN(2080)50 | G7 | 46,0<br>*1.811* | 45,0<br>*1.772* | 29,8<br>*1.173* | – | 90,0<br>*3.543* | 171,8<br>*6.764* | 2 | 0 | PB | 3,34<br>*7.360* |

## Accessories

| For size | Locking key |
|---|---|
| |  |
| G6 | 03H06 |
| G5 | 03H05 |
| G7 | 03H10 |

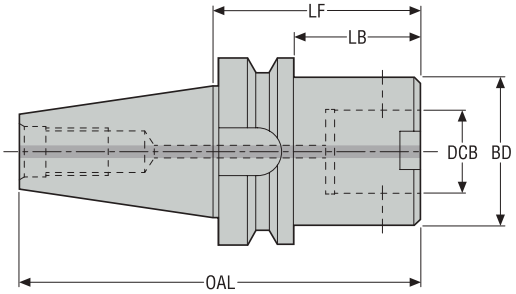
## Spare Parts, included in delivery

| For size | Assembly screw |
|---|---|
| |  |
| G5 | 90F5 |
| G6 | 90F6 |
| G7 | 90F7 |

# G 401 – Graflex® arbors

BT JIS B 6339-AD



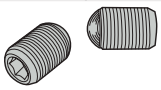



| Designation | Item number | CTMS | CTWS | DCB | LF | LB | BD | OAL | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | kg<br>*lbs* |
| EM40404011835 | 00056699 | BT30 AD | G3 | 18,0<br>*0.709* | 35,0<br>*1.378* | 13,0<br>*0.512* | 32,0<br>*1.260* | 83,4<br>*3.283* | 0 | G6.3 | 0,41<br>*0.900* |
| EM40404012850 | 00056705 | BT30 AD | G5 | 28,0<br>*1.102* | 50,0<br>*1.969* | 25,0<br>*0.984* | 50,0<br>*1.969* | 98,4<br>*3.874* | 0 | PB | 0,62<br>*1.370* |

## Accessories

| For size | Locking key |
|---|---|
| |  |
| EM40404011835 | 03H03 |
| EM40404012850 | 03H05 |

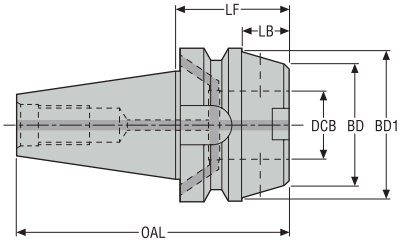
## Spare Parts, included in delivery

| For size | Assembly screw |
|---|---|
| |  |
| EM40404011835 | 90F3 |
| EM40404012850 | 90F5 |

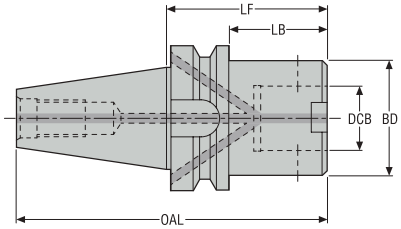
# G 401 – Graflex® arbors

BT JIS B 6339-ADB

**Design 1**




**Design 2**





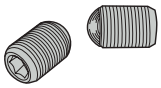

| Designation | Item number | CTMS | CTWS | DCB | LF | LB | BD1 | BD | OAL | Design | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | | kg<br>*lbs* |
| EM34144011190 | 02503364 | BT40 ADB | G1 | 11,0<br>*0.433* | 90,0<br>*3.543* | 63,0<br>*2.480* | – | 20,0<br>*0.787* | 155,4<br>*6.118* | 2 | 1 | G6.3 | 1,06<br>*2.340* |
| EM34144011440 | 02469725 | BT40 ADB | G2 | 14,0<br>*0.551* | 40,0<br>*1.575* | 13,0<br>*0.512* | – | 25,0<br>*0.984* | 105,4<br>*4.150* | 2 | 1 | G6.3 | 0,98<br>*2.160* |
| EM34144011490 | 02503365 | BT40 ADB | G2 | 14,0<br>*0.551* | 90,0<br>*3.543* | 63,0<br>*2.480* | – | 25,0<br>*0.984* | 155,4<br>*6.118* | 2 | 1 | G6.3 | 1,15<br>*2.540* |
| EM341440118100 | 02503367 | BT40 ADB | G3 | 18,0<br>*0.709* | 100,0<br>*3.937* | 73,0<br>*2.874* | – | 32,0<br>*1.260* | 165,4<br>*6.512* | 2 | 1 | G6.3 | 1,31<br>*2.890* |
| EM34144011840 | 02503366 | BT40 ADB | G3 | 18,0<br>*0.709* | 40,0<br>*1.575* | 13,0<br>*0.512* | 62,0<br>*2.441* | 32,0<br>*1.260* | 105,4<br>*4.150* | 1 | 1 | G6.3 | 1,07<br>*2.360* |
| EM341440122100 | 02503370 | BT40 ADB | G4 | 22,0<br>*0.866* | 100,0<br>*3.937* | 73,0<br>*2.874* | – | 40,0<br>*1.575* | 165,4<br>*6.512* | 2 | 1 | G6.3 | 1,54<br>*3.400* |
| EM34144012245 | 02503368 | BT40 ADB | G4 | 22,0<br>*0.866* | 45,0<br>*1.772* | 18,0<br>*0.709* | 62,0<br>*2.441* | 40,0<br>*1.575* | 110,4<br>*4.346* | 1 | 1 | G6.3 | 1,14<br>*2.510* |
| EM341440128120 | 02503372 | BT40 ADB | G5 | 28,0<br>*1.102* | 120,0<br>*4.724* | 93,0<br>*3.661* | – | 50,0<br>*1.969* | 185,4<br>*7.299* | 2 | 1 | PB | 2,12<br>*4.670* |
| EM34144012845 | 02457989 | BT40 ADB | G5 | 28,0<br>*1.102* | 45,0<br>*1.772* | 18,0<br>*0.709* | 62,0<br>*2.441* | 50,0<br>*1.969* | 110,4<br>*4.346* | 1 | 1 | PB | 1,12<br>*2.470* |
| EM34144012880 | 02503371 | BT40 ADB | G5 | 28,0<br>*1.102* | 80,0<br>*3.150* | 53,0<br>*2.087* | – | 50,0<br>*1.969* | 145,4<br>*5.724* | 2 | 1 | PB | 1,54<br>*3.400* |
| EM341440136120 | 02503374 | BT40 ADB | G6 | 36,0<br>*1.417* | 120,0<br>*4.724* | 0,0<br>– | – | 63,0<br>*2.480* | 185,4<br>*7.299* | 2 | 1 | PB | 2,78<br>*6.130* |
| EM34144013650 | 02503373 | BT40 ADB | G6 | 36,0<br>*1.417* | 50,0<br>*1.969* | 0,0<br>– | – | 63,0<br>*2.480* | 115,4<br>*4.543* | 2 | 0 | PB | 1,13<br>*2.490* |
| EM341640114110 | 02503375 | BT50 ADB | G2 | 14,0<br>*0.551* | 110,0<br>*4.331* | 72,0<br>*2.835* | – | 25,0<br>*0.984* | 211,8<br>*8.339* | 2 | 1 | G6.3 | 3,7<br>*8.160* |
| EM341640118120 | 02503377 | BT50 ADB | G3 | 18,0<br>*0.709* | 120,0<br>*4.724* | 82,0<br>*3.228* | – | 32,0<br>*1.260* | 221,8<br>*8.732* | 2 | 1 | G6.3 | 3,9<br>*8.600* |
| EM34164011845 | 02503376 | BT50 ADB | G3 | 18,0<br>*0.709* | 45,0<br>*1.772* | 7,0<br>*0.276* | 70,0<br>*2.756* | 32,0<br>*1.260* | 146,8<br>*5.780* | 1 | 1 | G6.3 | 3,58<br>*7.890* |
| EM341640122140 | 02503379 | BT50 ADB | G4 | 22,0<br>*0.866* | 140,0<br>*5.512* | 102,0<br>*4.016* | – | 40,0<br>*1.575* | 241,8<br>*9.520* | 2 | 1 | G6.3 | 4,5<br>*9.920* |
| EM34164012250 | 02503378 | BT50 ADB | G4 | 22,0<br>*0.866* | 50,0<br>*1.969* | 12,0<br>*0.472* | 70,0<br>*2.756* | 40,0<br>*1.575* | 151,8<br>*5.976* | 1 | 1 | G6.3 | 3,66<br>*8.070* |
| EM341640128100 | 02503381 | BT50 ADB | G5 | 28,0<br>*1.102* | 100,0<br>*3.937* | 62,0<br>*2.441* | – | 50,0<br>*1.969* | 201,8<br>*7.945* | 2 | 1 | PB | 4,22<br>*9.300* |
| EM341640128140 | 02503382 | BT50 ADB | G5 | 28,0<br>*1.102* | 140,0<br>*5.512* | 102,0<br>*4.016* | – | 50,0<br>*1.969* | 241,8<br>*9.520* | 2 | 1 | PB | 4,8<br>*10.580* |
| EM34164012855 | 02503380 | BT50 ADB | G5 | 28,0<br>*1.102* | 55,0<br>*2.165* | 17,0<br>*0.669* | 98,0<br>*3.858* | 50,0<br>*1.969* | 156,8<br>*6.173* | 1 | 1 | PB | 4,0<br>*8.820* |
| EM341640136100 | 02503384 | BT50 ADB | G6 | 36,0<br>*1.417* | 100,0<br>*3.937* | 62,0<br>*2.441* | – | 63,0<br>*2.480* | 201,8<br>*7.945* | 2 | 1 | PB | 4,6<br>*10.140* |
| EM341640136140 | 02503385 | BT50 ADB | G6 | 36,0<br>*1.417* | 140,0<br>*5.512* | 102,0<br>*4.016* | – | 63,0<br>*2.480* | 241,8<br>*9.520* | 2 | 1 | PB | 5,54<br>*12.210* |
| EM34164013663 | 02503383 | BT50 ADB | G6 | 36,0<br>*1.417* | 63,0<br>*2.480* | 25,0<br>*0.984* | 98,0<br>*3.858* | 63,0<br>*2.480* | 164,8<br>*6.488* | 1 | 1 | PB | 4,2<br>*9.260* |

| Designation | Item number | CTMS | CTWS | DCB | LF | LB | BD1 | BD | OAL | Design | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | | kg<br>*lbs* |
| EM341640146120 | 02503387 | BT50 ADB | G7 | 46,0<br>*1.811* | 120,0<br>*4.724* | 82,0<br>*3.228* | – | 90,0<br>*3.543* | 221,8<br>*8.732* | 2 | 1 | PB | 6,8<br>*14.990* |
| EM341640146200 | 02503388 | BT50 ADB | G7 | 46,0<br>*1.811* | 200,0<br>*7.874* | 162,0<br>*6.378* | – | 90,0<br>*3.543* | 301,8<br>*11.882* | 2 | 1 | PB | 10,7<br>*23.590* |
| EM34164014665 | 02503386 | BT50 ADB | G7 | 46,0<br>*1.811* | 65,0<br>*2.559* | 27,0<br>*1.063* | 98,0<br>*3.858* | 90,0<br>*3.543* | 166,8<br>*6.567* | 1 | 1 | PB | 4,4<br>*9.700* |

## Accessories

| For size | Locking key |
|---|---|
| |  |
| BT40/ G1 | 03H02 |
| BT40/ G2 | 03H025 |
| BT40/ G3 | 03H03 |
| BT40/ G4 | 03H04 |
| BT40/ G5 | 03H05 |
| BT40/ G6 | 03H06 |
| BT50/ G2 | 03H025 |
| BT50/ G3 | 03H03 |
| BT50/ G4 | 03H04 |
| BT50/ G5 | 03H05 |
| BT50/ G6 | 03H06 |
| BT50/ G7 | 03H10 |

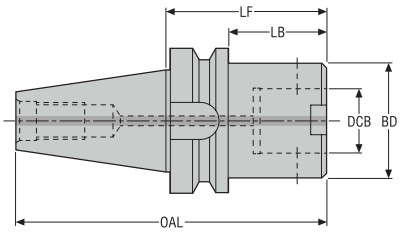
## Spare Parts, included in delivery

| For size | Assembly screw | Sealing Screws |
|---|---|---|
| |  |  |
| BT40/ G1 | 90F1 | 950A0406 |
| BT40/ G2 | 90F2 | 950A0406 |
| BT40/ G3 | 90F3 | 950A0406 |
| BT40/ G4 | 90F4 | 950A0406 |
| BT40/ G5 | 90F5 | 950A0406 |
| BT40/ G6 | 90F6 | 950A0406 |
| BT50/ G2 | 90F2 | 950A0606 |
| BT50/ G3 | 90F3 | 950A0606 |
| BT50/ G4 | 90F4 | 950A0606 |
| BT50/ G5 | 90F5 | 950A0606 |
| BT50/ G6 | 90F6 | 950A0606 |
| BT50/ G7 | 90F7 | 950A0606 |

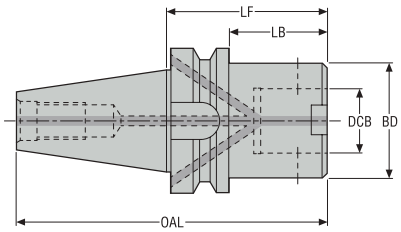
# G 401 – Graflex® arbors

BT Taper-Face-AD/ADB

Design 1




Design 2



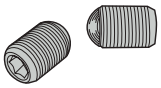



| Designation | Item number | CTMS | CTWS | DCB | LF | LB | BD | OAL | Design | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | | kg<br>*lbs* |
| EM321440122100 | 02998754 | BT40 TF ADB | G4 | 22,0<br>*0.866* | 100,0<br>*3.937* | 73,0<br>*2.874* | 40,0<br>*1.575* | 165,4<br>*6.512* | 2 | 1 | G6.3 | 1,6<br>*3.530* |
| EM321440128120 | 02926006 | BT40 TF ADB | G5 | 28,0<br>*1.102* | 120,0<br>*4.724* | 93,0<br>*3.661* | 50,0<br>*1.969* | 185,4<br>*7.299* | 2 | 1 | PB | 2,1<br>*4.630* |
| EM321440136120 | 02998755 | BT40 TF ADB | G6 | 36,0<br>*1.417* | 120,0<br>*4.724* | 93,0<br>*3.661* | 63,0<br>*2.480* | 185,4<br>*7.299* | 2 | 1 | PB | 2,8<br>*6.170* |
| EM321640128140 | 02998756 | BT50 TF ADB | G5 | 28,0<br>*1.102* | 140,0<br>*5.512* | 102,0<br>*4.016* | 50,0<br>*1.969* | 241,8<br>*9.520* | 2 | 1 | PB | 4,9<br>*10.800* |
| EM321640136140 | 02926009 | BT50 TF ADB | G6 | 36,0<br>*1.417* | 140,0<br>*5.512* | 102,0<br>*4.016* | 63,0<br>*2.480* | 241,8<br>*9.520* | 2 | 1 | PB | 5,6<br>*12.350* |
| EM321640146200 | 02926010 | BT50 TF ADB | G7 | 46,0<br>*1.811* | 200,0<br>*7.874* | 162,0<br>*6.378* | 90,0<br>*3.543* | 301,8<br>*11.882* | 2 | 1 | PB | 10,7<br>*23.590* |
| EM40024011850 | 02998757 | BT30 TF AD | G3 | 18,0<br>*0.709* | 50,0<br>*1.969* | 28,0<br>*1.102* | 32,0<br>*1.260* | 98,4<br>*3.874* | 1 | 0 | G6.3 | 0,5<br>*1.100* |
| EM40024012250 | 02998758 | BT30 TF AD | G4 | 22,0<br>*0.866* | 50,0<br>*1.969* | 28,0<br>*1.102* | 40,0<br>*1.575* | 98,4<br>*3.874* | 1 | 0 | G6.3 | 0,6<br>*1.320* |

## Accessories

| For | Locking key |
|---|---|
| |  |
| EM321440122100 | 03H04 |
| EM321440128120 | 03H05 |
| EM321440136120 | 03H06 |
| EM321640128140 | 03H05 |
| EM321640136140 | 03H06 |
| EM321640146200 | 03H10 |
| EM40024011850 | 03H03 |
| EM40024012250 | 03H04 |

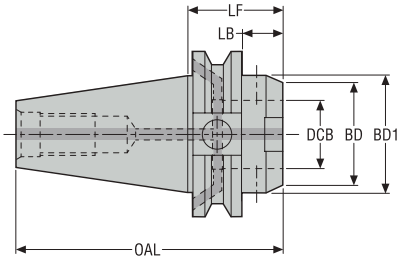
## Spare Parts, included in delivery

| For | Assembly screw | Sealing Screws |
|---|---|---|
| |  |  |
| EM321440122100 | 90F4 | 950A0406 |
| EM321440128120 | 90F5 | 950A0406 |
| EM321440136120 | 90F6 | 950A0406 |
| EM321640128140 | 90F5 | 950A0606 |
| EM321640136140 | 90F6 | 950A0606 |
| EM321640146200 | 90F7 | 950A0606 |
| EM40024011850 | 90F3 | – |
| EM40024012250 | 90F4 | – |

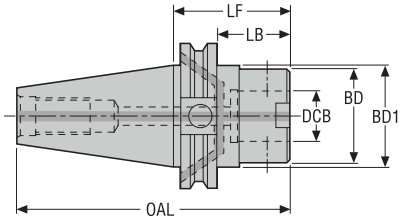
# G 401 – Graflex® arbors

CAT / ASME B5.50-1994-ADB

**Design 1**




**Design 2**



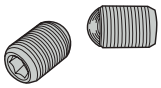



| Designation | Item number | CTMS | CTWS | DCB | LF | LB | BD1 | BD | OAL | Design | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | | | | lbs |
| EM25024011435 | 02469734 | CAT40 ADB | G2 | 0.551 | 1.380 | 0.630 | 1.750 | 0.984 | 4.070 | 1 | 1 | G6.3 | 2.120 |
| EM25024011835 | 00056660 | CAT40 ADB | G3 | 0.709 | 1.380 | 0.630 | 1.750 | 1.260 | 4.070 | 1 | 1 | G6.3 | 2.090 |
| EM25024012235 | 00056661 | CAT40 ADB | G4 | 0.866 | 1.380 | 0.630 | 1.750 | 1.575 | 4.070 | 1 | 1 | G6.3 | 2.030 |
| EM250240128100 | 00056662 | CAT40 ADB | G5 | 1.102 | 3.940 | 3.190 | 1.750 | 1.969 | 7.420 | 2 | 1 | PB | 3.860 |
| EM25024012840 | 00056663 | CAT40 ADB | G5 | 1.102 | 1.570 | 0.820 | 1.750 | 1.969 | 4.270 | 2 | 1 | PB | 1.980 |
| EM25024013660 | 00056665 | CAT40 ADB | G6 | 1.417 | 2.360 | 1.610 | 1.750 | 2.480 | 5.060 | 2 | 1 | PB | 2.710 |
| EM25044011835 | 00056666 | CAT50 ADB | G3 | 0.709 | 1.380 | 0.630 | 2.750 | 1.260 | 5.380 | 1 | 1 | G6.3 | 6.720 |
| EM25044012235 | 00056667 | CAT50 ADB | G4 | 0.866 | 1.380 | 0.630 | 2.750 | 1.575 | 5.380 | 1 | 1 | G6.3 | 6.530 |
| EM250440128100 | 00056668 | CAT50 ADB | G5 | 1.102 | 3.940 | 3.190 | 2.750 | 1.969 | 7.940 | 2 | 1 | PB | 8.380 |
| EM25044012840 | 00056669 | CAT50 ADB | G5 | 1.102 | 1.570 | 0.820 | 2.750 | 1.969 | 5.580 | 2 | 1 | PB | 6.590 |
| EM250440136120 | 00056670 | CAT50 ADB | G6 | 1.417 | 4.720 | 3.970 | 2.750 | 2.480 | 9.520 | 1 | 1 | PB | 10.140 |
| EM25044013645 | 00056671 | CAT50 ADB | G6 | 1.417 | 1.770 | 1.020 | 2.750 | 2.480 | 5.780 | 1 | 1 | PB | 7.050 |
| EM250440146120 | 00056673 | CAT50 ADB | G7 | 1.811 | 4.720 | 3.970 | 2.750 | 3.543 | 8.730 | 2 | 1 | PB | 13.800 |
| EM250440146200 | 00056674 | CAT50 ADB | G7 | 1.811 | 7.870 | 7.120 | 2.750 | 3.543 | 11.880 | 2 | 1 | PB | 22.750 |
| EM25044014665 | 00056675 | CAT50 ADB | G7 | 1.811 | 2.560 | 1.810 | 2.750 | 3.543 | 5.970 | 2 | 1 | PB | 8.330 |

## Accessories

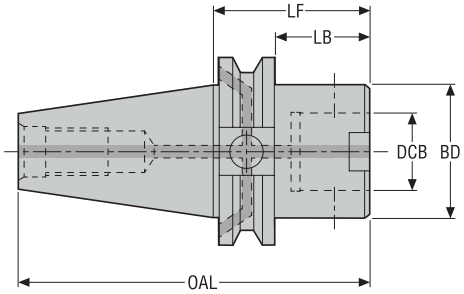
| For size | Locking key |
|---|---|
| |  |
| CAT40/ G2 | 03H025 |
| CAT40/ G3 | 03H03 |
| CAT40/ G4 | 03H04 |
| CAT40/ G5 | 03H05 |
| CAT40/ G6 | 03H06 |
| CAT50/ G3 | 03H03 |
| CAT50/ G4 | 03H04 |
| CAT50/ G5 | 03H05 |
| CAT50/ G6 | 03H06 |
| CAT50/ G7 | 03H10 |

## Spare Parts, included in delivery

| For size | Assembly screw | Sealing Screws |
|---|---|---|
| |  |  |
| CAT40/ G2 | 90F2 | 950A0406 |
| CAT40/ G3 | 90F3 | 950A0406 |
| CAT40/ G4 | 90F4 | 950A0406 |
| CAT40/ G5 | 90F5 | 950A0406 |
| CAT40/ G6 | 90F6 | 950A0406 |
| CAT50/ G3 | 90F3 | 950A0606 |
| CAT50/ G4 | 90F4 | 950A0606 |
| CAT50/ G5 | 90F5 | 950A0606 |
| CAT50/ G6 | 90F6 | 950A0606 |
| CAT50/ G7 | 90F7 | 950A0606 |

# G 401 – Graflex® arbors

CAT TF / ASME B5.50-2009-ADB



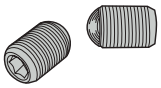



| Designation | Item number | CTMS | CTWS | DCB | LF | LB | BD | OAL | Design | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | | | | lbs |
| EM26424011880 | 02998750 | CAT40 TF ADB | G3 | 0.709 | 3.150 | 2.398 | 1.260 | 5.843 | 2 | 1 | G6.3 | 2.650 |
| EM26424012280 | 02998751 | CAT40 TF ADB | G4 | 0.866 | 3.150 | 2.398 | 1.575 | 5.843 | 2 | 1 | G6.3 | 3.090 |
| EM264240128100 | 02998752 | CAT40 TF ADB | G5 | 1.102 | 3.937 | 3.185 | 1.969 | 6.630 | 2 | 1 | PB | 4.190 |
| EM264240136100 | 02998753 | CAT40 TF ADB | G6 | 1.417 | 3.937 | 3.185 | 2.480 | 6.630 | 2 | 1 | PB | 5.070 |
| EM264440122100 | 02964322 | CAT50 TF ADB | G4 | 0.866 | 3.937 | 3.185 | 1.575 | 7.943 | 2 | 1 | G6.3 | 7.280 |
| EM264440128100 | 02964323 | CAT50 TF ADB | G5 | 1.102 | 3.937 | 3.185 | 1.969 | 7.943 | 2 | 1 | PB | 7.940 |
| EM264440136120 | 02926850 | CAT50 TF ADB | G6 | 1.417 | 4.724 | 3.972 | 2.480 | 8.732 | 1 | 1 | PB | 10.140 |
| EM264440146200 | 02926851 | CAT50 TF ADB | G7 | 1.811 | 7.874 | 7.122 | 3.543 | 11.880 | 2 | 1 | PB | 22.710 |

## Accessories

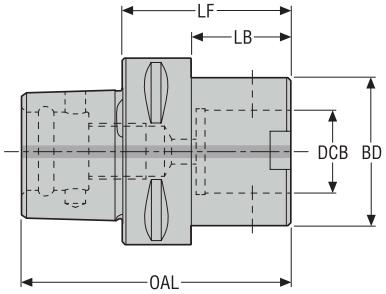
| For size | Locking key |
|---|---|
| |  |
| EM26424011880 | 03H03 |
| EM26424012280 | 03H04 |
| EM264240128100 | 03H05 |
| EM264240136100 | 03H06 |
| EM264440122100 | 03H04 |
| EM264440128100 | 03H05 |
| EM264440136120 | 03H06 |
| EM264440146200 | 03H10 |

## Spare Parts, included in delivery

| For size | Assembly screw | Sealing Screws |
|---|---|---|
| |  |  |
| EM26424011880 | 90F3 | 950A0406 |
| EM26424012280 | 90F4 | 950A0406 |
| EM264240128100 | 90F5 | 950A0406 |
| EM264240136100 | 90F6 | 950A0406 |
| EM264440122100 | 90F4 | 950A0606 |
| EM264440128100 | 90F5 | 950A0606 |
| EM264440136120 | 90F6 | 950A0606 |
| EM264440146200 | 90F7 | 950A0606 |

# G 401 – Graflex® adapters

Seco-Capto™



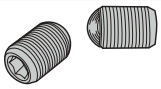



| Designation | Item number | CTMS | CTWS | DCB | LF | LB | BD | OAL | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | kg<br>*lbs* |
| C3-391.0401-08025 | 02532939 | C3 | G0 | 8,0<br>*0.315* | 25,0<br>*0.984* | 7,0<br>*0.276* | 16,0<br>*0.630* | 44,0<br>*1.732* | 0 | G6.3 | 0,14<br>*0.310* |
| C3-391.0401-11025 | 02532940 | C3 | G1 | 11,0<br>*0.433* | 25,0<br>*0.984* | 7,0<br>*0.276* | 20,0<br>*0.787* | 44,0<br>*1.732* | 0 | G6.3 | 0,14<br>*0.310* |
| C3-391.0401-14025 | 02532941 | C3 | G2 | 14,0<br>*0.551* | 25,0<br>*0.984* | 7,0<br>*0.276* | 25,0<br>*0.984* | 44,0<br>*1.732* | 0 | G6.3 | 0,15<br>*0.330* |
| C3-391.0401-18030 | 02532942 | C3 | G3 | 18,0<br>*0.709* | 30,0<br>*1.181* | 0,0<br>– | 32,0<br>*1.260* | 49,0<br>*1.929* | 0 | G6.3 | 0,16<br>*0.350* |
| C4-391.0401-18035 | 02532943 | C4 | G3 | 18,0<br>*0.709* | 35,0<br>*1.378* | 12,0<br>*0.472* | 32,0<br>*1.260* | 59,0<br>*2.323* | 0 | G6.3 | 0,31<br>*0.680* |
| C4-391.0401-22035 | 02532944 | C4 | G4 | 22,0<br>*0.866* | 35,0<br>*1.378* | 0,0<br>– | 40,0<br>*1.575* | 59,0<br>*2.323* | 0 | G6.3 | 0,31<br>*0.680* |
| C5-391.0401-14030 | 02532945 | C5 | G2 | 14,0<br>*0.551* | 30,0<br>*1.181* | 7,0<br>*0.276* | 25,0<br>*0.984* | 60,0<br>*2.362* | 1 | G6.3 | 0,47<br>*1.040* |
| C5-391.0401-18035 | 02532947 | C5 | G3 | 18,0<br>*0.709* | 35,0<br>*1.378* | 12,0<br>*0.472* | 32,0<br>*1.260* | 65,0<br>*2.559* | 1 | G6.3 | 0,47<br>*1.040* |
| C5-391.0401-22035 | 02532948 | C5 | G4 | 22,0<br>*0.866* | 35,0<br>*1.378* | 12,0<br>*0.472* | 40,0<br>*1.575* | 65,0<br>*2.559* | 1 | G6.3 | 0,51<br>*1.120* |
| C5-391.0401-28045 | 02532949 | C5 | G5 | 28,0<br>*1.102* | 45,0<br>*1.772* | 22,0<br>*0.866* | 50,0<br>*1.969* | 75,0<br>*2.953* | 1 | PB | 0,64<br>*1.410* |
| C6-391.0401-18035 | 02532950 | C6 | G3 | 18,0<br>*0.709* | 35,0<br>*1.378* | 10,0<br>*0.394* | 32,0<br>*1.260* | 73,0<br>*2.874* | 1 | G6.3 | 0,84<br>*1.850* |
| C6-391.0401-22040 | 02532951 | C6 | G4 | 22,0<br>*0.866* | 40,0<br>*1.575* | 15,0<br>*0.591* | 40,0<br>*1.575* | 78,0<br>*3.071* | 1 | G6.3 | 0,89<br>*1.960* |
| C6-391.0401-28050 | 02532952 | C6 | G5 | 28,0<br>*1.102* | 50,0<br>*1.969* | 25,0<br>*0.984* | 50,0<br>*1.969* | 88,0<br>*3.465* | 1 | PB | 1,04<br>*2.290* |
| C6-391.0401-36055 | 02532953 | C6 | G6 | 36,0<br>*1.417* | 55,0<br>*2.165* | 0,0<br>– | 63,0<br>*2.480* | 93,0<br>*3.661* | 1 | PB | 1,19<br>*2.620* |
| C8-391.0401-28050 | 02532954 | C8 | G5 | 28,0<br>*1.102* | 50,0<br>*1.969* | 17,0<br>*0.669* | 50,0<br>*1.969* | 98,0<br>*3.858* | 1 | PB | 1,92<br>*4.230* |
| C8-391.0401-36055 | 02532955 | C8 | G6 | 36,0<br>*1.417* | 55,0<br>*2.165* | 22,0<br>*0.866* | 63,0<br>*2.480* | 103,0<br>*4.055* | 1 | PB | 2,02<br>*4.450* |
| C8-391.0401-46065 | 02532956 | C8 | G7 | 46,0<br>*1.811* | 65,0<br>*2.559* | 35,0<br>*1.378* | 90,0<br>*3.543* | 113,0<br>*4.449* | 1 | PB | 2,71<br>*5.970* |

## Accessories

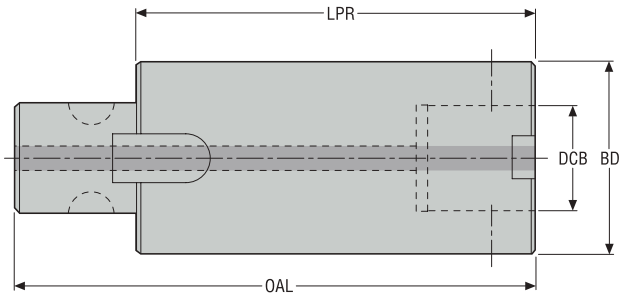
| For size | Locking key |
|---|---|
| |  |
| G0 | 03H02 |
| G1 | 03H02 |
| G2 | 03H025 |
| G3 | 03H03 |
| G4 | 03H04 |
| G5 | 03H05 |
| G6 | 03H06 |
| G7 | 03H10 |

## Spare Parts, included in delivery

| For size | Assembly screw |
|---|---|
| |  |
| G0 | 90F0 |
| G1 | 90F1 |
| G2 | 90F2 |
| G3 | 90F3 |
| G4 | 90F4 |
| G5 | 90F5 |
| G6 | 90F6 |
| G7 | 90F7 |

# G 402 – Graflex® extensions

Graflex®





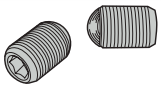

| Designation | Item number | CTMS | CTWS | LPR | DCB | BD | OAL | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | kg<br>*lbs* |
| M402000 | 00056752 | G0 | G0 | 30,0<br>*1.181* | 8,0<br>*0.315* | 16,0<br>*0.630* | 42,0<br>*1.654* | 0 | PB | 0,05<br>*0.110* |
| M402001 | 00056753 | G0 | G0 | 50,0<br>*1.969* | 8,0<br>*0.315* | 16,0<br>*0.630* | 62,0<br>*2.441* | 0 | PB | 0,08<br>*0.180* |
| M402110 | 00056754 | G1 | G1 | 30,0<br>*1.181* | 11,0<br>*0.433* | 20,0<br>*0.787* | 43,0<br>*1.693* | 0 | PB | 0,07<br>*0.150* |
| M402111 | 00056755 | G1 | G1 | 50,0<br>*1.969* | 11,0<br>*0.433* | 20,0<br>*0.787* | 63,0<br>*2.480* | 0 | PB | 0,12<br>*0.260* |
| M402220 | 00056756 | G2 | G2 | 30,0<br>*1.181* | 14,0<br>*0.551* | 25,0<br>*0.984* | 46,0<br>*1.811* | 0 | PB | 0,11<br>*0.240* |
| M402221 | 00056757 | G2 | G2 | 50,0<br>*1.969* | 14,0<br>*0.551* | 25,0<br>*0.984* | 66,0<br>*2.598* | 0 | PB | 0,18<br>*0.400* |
| M402330 | 00056758 | G3 | G3 | 40,0<br>*1.575* | 18,0<br>*0.709* | 32,0<br>*1.260* | 60,0<br>*2.362* | 0 | PB | 0,24<br>*0.530* |
| M402331 | 75056759 | G3 | G3 | 60,0<br>*2.362* | 18,0<br>*0.709* | 32,0<br>*1.260* | 80,0<br>*3.150* | 0 | PB | 0,36<br>*0.790* |
| M402440 | 00056760 | G4 | G4 | 40,0<br>*1.575* | 22,0<br>*0.866* | 40,0<br>*1.575* | 64,0<br>*2.520* | 0 | PB | 0,37<br>*0.820* |
| M402441 | 00056761 | G4 | G4 | 60,0<br>*2.362* | 22,0<br>*0.866* | 40,0<br>*1.575* | 84,0<br>*3.307* | 0 | PB | 0,57<br>*1.260* |
| M402444 | 02786252 | G4 | G4 | 200,0<br>*7.874* | 22,0<br>*0.866* | 40,0<br>*1.575* | 224,0<br>*8.819* | 0 | PB | 1,95<br>*4.300* |
| M402550 | 00056762 | G5 | G5 | 50,0<br>*1.969* | 28,0<br>*1.102* | 50,0<br>*1.969* | 80,0<br>*3.150* | 0 | PB | 0,72<br>*1.590* |
| M402551 | 00056763 | G5 | G5 | 75,0<br>*2.953* | 28,0<br>*1.102* | 50,0<br>*1.969* | 105,0<br>*4.134* | 0 | PB | 1,12<br>*2.470* |
| M402552 | 00056764 | G5 | G5 | 100,0<br>*3.937* | 28,0<br>*1.102* | 50,0<br>*1.969* | 130,0<br>*5.118* | 0 | PB | 1,48<br>*3.260* |
| M402554 | 02786254 | G5 | G5 | 250,0<br>*9.843* | 28,0<br>*1.102* | 50,0<br>*1.969* | 280,0<br>*11.024* | 0 | PB | 3,9<br>*8.600* |
| M402660 | 00056765 | G6 | G6 | 60,0<br>*2.362* | 36,0<br>*1.417* | 63,0<br>*2.480* | 100,0<br>*3.937* | 0 | PB | 1,38<br>*3.040* |
| M402661 | 00056766 | G6 | G6 | 90,0<br>*3.543* | 36,0<br>*1.417* | 63,0<br>*2.480* | 130,0<br>*5.118* | 0 | PB | 2,1<br>*4.630* |
| M402662 | 00056767 | G6 | G6 | 120,0<br>*4.724* | 36,0<br>*1.417* | 63,0<br>*2.480* | 160,0<br>*6.299* | 0 | PB | 2,82<br>*6.220* |
| M402664 | 02786255 | G6 | G6 | 300,0<br>*11.811* | 36,0<br>*1.417* | 63,0<br>*2.480* | 340,0<br>*13.386* | 0 | PB | 7,2<br>*15.870* |
| M402770 | 00056768 | G7 | G7 | 60,0<br>*2.362* | 46,0<br>*1.811* | 90,0<br>*3.543* | 110,0<br>*4.331* | 0 | - | 2,9<br>*6.390* |
| M402771 | 00056769 | G7 | G7 | 90,0<br>*3.543* | 46,0<br>*1.811* | 90,0<br>*3.543* | 140,0<br>*5.512* | 0 | - | 4,03<br>*8.880* |

| Designation | Item number | CTMS | CTWS | LPR | DCB | BD | OAL | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | kg<br>*lbs* |
| M402772 | 00056770 | G7 | G7 | 120,0<br>*4.724* | 46,0<br>*1.811* | 90,0<br>*3.543* | 170,0<br>*6.693* | 0 | - | 5,8<br>*12.790* |
| M402774 | 02786257 | G7 | G7 | 300,0<br>*11.811* | 46,0<br>*1.811* | 90,0<br>*3.543* | 350,0<br>*13.780* | 0 | - | 14,6<br>*32.190* |

## Accessories

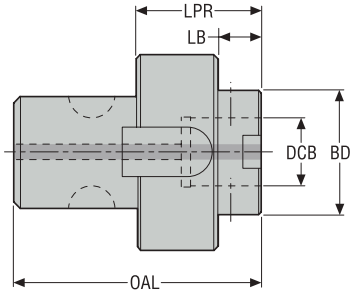
| For size | Locking key |
|---|---|
| |  |
| G0 | 03H02 |
| G1 | 03H02 |
| G2 | 03H025 |
| G3 | 03H03 |
| G4 | 03H04 |
| G5 | 03H05 |
| G6 | 03H06 |
| G7 | 03H10 |

## Spare Parts, included in delivery

| For size | Assembly screw | Tenon |
|---|---|---|
| |  |  |
| G0 | 90F0 | 90M0 |
| G1 | 90F1 | 90M1 |
| G2 | 90F2 | 90M2 |
| G3 | 90F3 | 90M3 |
| G4 | 90F4 | 90M4 |
| G5 | 90F5 | 90M5 |
| G6 | 90F6 | 90M6 |
| G7 | 90F7 | 90M7 |

# G 403 – Graflex® reducers

Graflex®





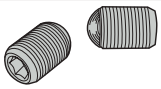


| Designation | Item number | CTMS | CTWS | LPR | LB | DCB | BD | OAL | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | kg<br>*lbs* |
| M40310 | 00056771 | G1 | G0 | 30,0<br>*1.181* | 22,0<br>*0.866* | 8,0<br>*0.315* | 16,0<br>*0.630* | 43,0<br>*1.693* | 0 | PB | 0,06<br>*0.130* |
| M40320 | 00056772 | G2 | G0 | 30,0<br>*1.181* | 19,0<br>*0.748* | 8,0<br>*0.315* | 16,0<br>*0.630* | 46,0<br>*1.811* | 0 | PB | 0,08<br>*0.180* |
| M40321 | 00056773 | G2 | G1 | 30,0<br>*1.181* | 19,0<br>*0.748* | 11,0<br>*0.433* | 20,0<br>*0.787* | 46,0<br>*1.811* | 0 | PB | 0,1<br>*0.220* |
| M40330 | 00056774 | G3 | G0 | 30,0<br>*1.181* | 16,0<br>*0.630* | 8,0<br>*0.315* | 16,0<br>*0.630* | 50,0<br>*1.969* | 0 | PB | 0,15<br>*0.330* |
| M40331 | 00056775 | G3 | G1 | 30,0<br>*1.181* | 16,0<br>*0.630* | 11,0<br>*0.433* | 20,0<br>*0.787* | 50,0<br>*1.969* | 0 | PB | 0,15<br>*0.330* |
| M40332 | 00056776 | G3 | G2 | 30,0<br>*1.181* | 16,0<br>*0.630* | 14,0<br>*0.551* | 25,0<br>*0.984* | 50,0<br>*1.969* | 0 | PB | 0,16<br>*0.350* |
| M40341 | 00056778 | G4 | G1 | 30,0<br>*1.181* | 13,0<br>*0.512* | 11,0<br>*0.433* | 20,0<br>*0.787* | 54,0<br>*2.126* | 0 | PB | 0,25<br>*0.550* |
| M40342 | 00056779 | G4 | G2 | 30,0<br>*1.181* | 13,0<br>*0.512* | 14,0<br>*0.551* | 25,0<br>*0.984* | 54,0<br>*2.126* | 0 | PB | 0,27<br>*0.600* |
| M40343 | 00056780 | G4 | G3 | 30,0<br>*1.181* | 13,0<br>*0.512* | 18,0<br>*0.709* | 32,0<br>*1.260* | 54,0<br>*2.126* | 0 | PB | 0,27<br>*0.600* |
| M40350 | 00056781 | G5 | G0 | 40,0<br>*1.575* | 20,0<br>*0.787* | 8,0<br>*0.315* | 16,0<br>*0.630* | 70,0<br>*2.756* | 0 | PB | 0,47<br>*1.040* |
| M40351 | 00056783 | G5 | G1 | 40,0<br>*1.575* | 20,0<br>*0.787* | 11,0<br>*0.433* | 20,0<br>*0.787* | 70,0<br>*2.756* | 0 | PB | 0,49<br>*1.080* |
| M40352 | 00056785 | G5 | G2 | 40,0<br>*1.575* | 20,0<br>*0.787* | 14,0<br>*0.551* | 25,0<br>*0.984* | 70,0<br>*2.756* | 0 | PB | 0,49<br>*1.080* |
| M40353 | 00056787 | G5 | G3 | 40,0<br>*1.575* | 20,0<br>*0.787* | 18,0<br>*0.709* | 32,0<br>*1.260* | 70,0<br>*2.756* | 0 | PB | 0,52<br>*1.150* |
| M40354 | 00056789 | G5 | G4 | 40,0<br>*1.575* | 20,0<br>*0.787* | 22,0<br>*0.866* | 40,0<br>*1.575* | 70,0<br>*2.756* | 0 | PB | 0,55<br>*1.210* |
| M40363 | 00056797 | G6 | G3 | 40,0<br>*1.575* | 14,0<br>*0.551* | 18,0<br>*0.709* | 32,0<br>*1.260* | 80,0<br>*3.150* | 0 | PB | 0,98<br>*2.160* |
| M40364 | 00056799 | G6 | G4 | 40,0<br>*1.575* | 14,0<br>*0.551* | 22,0<br>*0.866* | 40,0<br>*1.575* | 80,0<br>*3.150* | 0 | PB | 0,97<br>*2.140* |
| M40365 | 00056807 | G6 | G5 | 45,0<br>*1.772* | 19,0<br>*0.748* | 28,0<br>*1.102* | 50,0<br>*1.969* | 85,0<br>*3.346* | 0 | PB | 1,04<br>*2.290* |
| M40375 | 00056811 | G7 | G5 | 50,0<br>*1.969* | 24,0<br>*0.945* | 28,0<br>*1.102* | 50,0<br>*1.969* | 100,0<br>*3.937* | 0 | - | 2,08<br>*4.590* |
| M40376 | 00056812 | G7 | G6 | 55,0<br>*2.165* | 29,0<br>*1.142* | 36,0<br>*1.417* | 63,0<br>*2.480* | 105,0<br>*4.134* | 0 | - | 2,23<br>*4.920* |

## Accessories

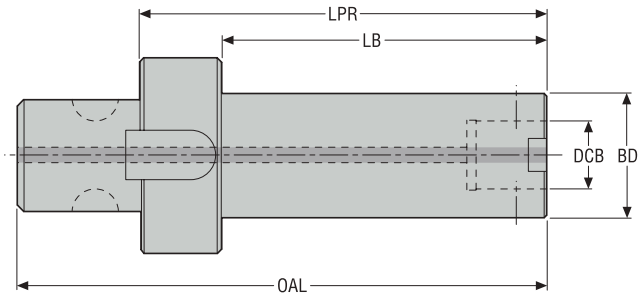
| For size | Locking key |
|---|---|
| |  |
| M40310 | 03H02 |
| M40320 | 03H02 |
| M40321 | 03H02 |
| M40330 | 03H02 |
| M40331 | 03H02 |
| M40332 | 03H025 |
| M40341 | 03H02 |
| M40342 | 03H025 |
| M40343 | 03H03 |
| M40350 | 03H02 |
| M40351 | 03H02 |
| M40352 | 03H025 |
| M40353 | 03H03 |
| M40354 | 03H04 |
| M40363 | 03H03 |
| M40364 | 03H04 |
| M40365 | 03H05 |
| M40375 | 03H05 |
| M40376 | 03H06 |

## Spare Parts, included in delivery

| For size | Assembly screw | Tenon |
|---|---|---|
| |  |  |
| M40310 | 90F0 | 90M1 |
| M40320 | 90F0 | 90M2 |
| M40321 | 90F1 | 90M2 |
| M40330 | 90F0 | 90M3 |
| M40331 | 90F1 | 90M3 |
| M40332 | 90F2 | 90M3 |
| M40341 | 90F1 | 90M4 |
| M40342 | 90F2 | 90M4 |
| M40343 | 90F3 | 90M4 |
| M40350 | 90F0 | 90M5 |
| M40351 | 90F1 | 90M5 |
| M40352 | 90F2 | 90M5 |
| M40353 | 90F3 | 90M5 |
| M40354 | 90F4 | 90M5 |
| M40363 | 90F3 | 90M6 |
| M40364 | 90F4 | 90M6 |
| M40365 | 90F5 | 90M6 |
| M40375 | 90F5 | 90M7 |
| M40376 | 90F6 | 90M7 |

# G 403 – Graflex® long reducers

Graflex®



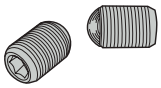



| Designation | Item number | CTMS | CTWS | LPR | LB | DCB | BD | OAL | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | kg<br>*lbs* |
| M40350070 | 00056782 | G5 | G0 | 70,0<br>*2.756* | 50,0<br>*1.969* | 8,0<br>*0.315* | 16,0<br>*0.630* | 100,0<br>*3.937* | 0 | PB | 0,51<br>*1.120* |
| M40351080 | 00056784 | G5 | G1 | 80,0<br>*3.150* | 60,0<br>*2.362* | 11,0<br>*0.433* | 20,0<br>*0.787* | 110,0<br>*4.331* | 0 | PB | 0,57<br>*1.260* |
| M40352100 | 00056786 | G5 | G2 | 100,0<br>*3.937* | 80,0<br>*3.150* | 14,0<br>*0.551* | 25,0<br>*0.984* | 130,0<br>*5.118* | 0 | PB | 0,71<br>*1.570* |
| M40353120 | 00056788 | G5 | G3 | 120,0<br>*4.724* | 100,0<br>*3.937* | 18,0<br>*0.709* | 32,0<br>*1.260* | 150,0<br>*5.906* | 0 | PB | 1,02<br>*2.250* |
| M40354150 | 00056790 | G5 | G4 | 150,0<br>*5.906* | 130,0<br>*5.118* | 22,0<br>*0.866* | 40,0<br>*1.575* | 180,0<br>*7.087* | 0 | PB | 1,62<br>*3.570* |
| M40361090 | 00056794 | G6 | G1 | 90,0<br>*3.543* | 64,0<br>*2.520* | 11,0<br>*0.433* | 20,0<br>*0.787* | 130,0<br>*5.118* | 0 | PB | 1,08<br>*2.380* |
| M40362110 | 00056796 | G6 | G2 | 110,0<br>*4.331* | 84,0<br>*3.307* | 14,0<br>*0.551* | 25,0<br>*0.984* | 150,0<br>*5.906* | 0 | PB | 1,23<br>*2.710* |
| M40363120 | 00056798 | G6 | G3 | 120,0<br>*4.724* | 94,0<br>*3.701* | 18,0<br>*0.709* | 32,0<br>*1.260* | 160,0<br>*6.299* | 0 | PB | 1,46<br>*3.220* |
| M40364150 | 00056800 | G6 | G4 | 150,0<br>*5.906* | 124,0<br>*4.882* | 22,0<br>*0.866* | 40,0<br>*1.575* | 190,0<br>*7.480* | 0 | PB | 2,07<br>*4.560* |
| M40365190 | 00056808 | G6 | G5 | 190,0<br>*7.480* | 164,0<br>*6.457* | 28,0<br>*1.102* | 50,0<br>*1.969* | 230,0<br>*9.055* | 0 | PB | 3,2<br>*7.050* |

## Accessories

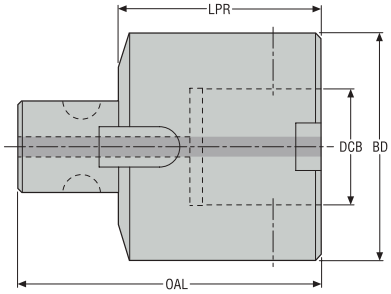
| For size | Locking key |
|---|---|
| |  |
| M40350070 | 03H02 |
| M40351080 | 03H02 |
| M40352100 | 03H025 |
| M40353120 | 03H03 |
| M40354150 | 03H04 |
| M40361090 | 03H02 |
| M40362110 | 03H025 |
| M40363120 | 03H03 |
| M40364150 | 03H04 |
| M40365190 | 03H05 |

## Spare Parts, included in delivery

| For size | Assembly screw | Tenon |
|---|---|---|
| |  |  |
| M40350070 | 90F0 | 90M5 |
| M40351080 | 90F1 | 90M5 |
| M40352100 | 90F2 | 90M5 |
| M40353120 | 90F3 | 90M5 |
| M40354150 | 90F4 | 90M5 |
| M40361090 | 90F1 | 90M6 |
| M40362110 | 90F2 | 90M6 |
| M40363120 | 90F3 | 90M6 |
| M40364150 | 90F4 | 90M6 |
| M40365190 | 90F5 | 90M6 |

# G 403 – Graflex® enlargers

Graflex®



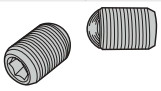



| Designation | Item number | CTMS | CTWS | LPR | DCB | BD | OAL | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | kg<br>*lbs* |
| M40356 | 00056791 | G5 | G6 | 55,0<br>*2.165* | 36,0<br>*1.417* | 63,0<br>*2.480* | 85,0<br>*3.346* | 0 | PB | 1,08<br>*2.380* |
| M40367 | 00056810 | G6 | G7 | 80,0<br>*3.150* | 46,0<br>*1.811* | 90,0<br>*3.543* | 120,0<br>*4.724* | 0 | PB | 3,46<br>*7.630* |

## Accessories

| For | Locking key |
|---|---|
| |  |
| M40356 | 03H06 |
| M40367 | 03H10 |

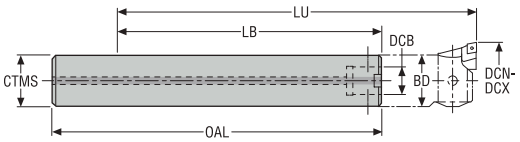
## Spare Parts, included in delivery

| For | Assembly screw | Tenon |
|---|---|---|
| |  |  |
| M40356 | 90F6 | 90M5 |
| M40367 | 90F7 | 90M6 |

# G 401 – Graflex® arbors, steel

## Cylindrical

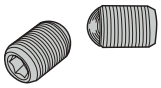





- Suitable for fine boring length up to LU with fitted boring head type A780 or A790
- Cylindrical machine side shank CTMS with tolerance h5, compatible with Shrinkfit holders

| Designation | Item number | CTMS | CTWS | DCB | DCN | DCX | OAL | BD | LU | LB | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | kg<br>*lbs* |
| M4011408 | 00086938 | 14 | G0 | 8,0<br>*0.315* | 15,0<br>*0.591* | 18,5<br>*0.728* | 120,0<br>*4.724* | 14,0<br>*0.551* | 110,0<br>*4.331* | 75,0<br>*2.953* | 0 | G6.3 | 0,12<br>*0.260* |
| M4011608 | 00086935 | 16 | G0 | 8,0<br>*0.315* | 18,0<br>*0.709* | 23,5<br>*0.925* | 150,0<br>*5.906* | 16,0<br>*0.630* | 137,0<br>*5.394* | 102,0<br>*4.016* | 0 | G6.3 | 0,2<br>*0.440* |
| M4012011 | 00086936 | 20 | G1 | 11,0<br>*0.433* | 23,0<br>*0.906* | 31,0<br>*1.220* | 150,0<br>*5.906* | 20,0<br>*0.787* | 140,0<br>*5.512* | 100,0<br>*3.937* | 0 | G6.3 | 0,33<br>*0.730* |
| M4012514 | 00086937 | 25 | G2 | 14,0<br>*0.551* | 30,0<br>*1.181* | 40,0<br>*1.575* | 150,0<br>*5.906* | 25,0<br>*0.984* | 139,0<br>*5.472* | 93,0<br>*3.661* | 0 | G6.3 | 0,53<br>*1.170* |
| M4013218 | 00086939 | 32 | G3 | 18,0<br>*0.709* | 39,0<br>*1.535* | 51,0<br>*2.008* | 150,0<br>*5.906* | 32,0<br>*1.260* | 155,0<br>*6.102* | 90,0<br>*3.543* | 0 | G6.3 | 0,87<br>*1.920* |

### Spare Parts, included in delivery

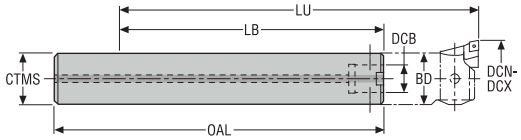
| For | Assembly screw |
|---|---|
| |  |
| M4011408 | 90F01 |
| M4011608 | 90F0 |
| M4012011 | 90F1 |
| M4012514 | 90F2 |
| M4013218 | 90F3 |

### Accessories

| For | Locking key |
|---|---|
| |  |
| M4011408 | 03H025 |
| M4011608 | 03H02 |
| M4012011 | 03H02 |
| M4012514 | 03H025 |
| M4013218 | 03H03 |

# G 401 – Graflex® arbors, steel

Cylindrical

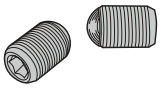





- Suitable for fine boring length up to LU with fitted boring head type A780 or A790
- Cylindrical machine side shank CTMS with tolerance h5, compatible with Shrinkfit holders

| Designation | Item number | CTMS | CTWS | DCB | DCN | DCX | OAL | BD | LU | LB | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *Inch* | | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | | | lbs |
| M40107511 | 00056741 | 0.750 | G1 | 0.433 | 0.906 | 1.220 | 5.906 | 0.827 | 5.510 | 3.906 | 0 | G6.3 | 0.640 |

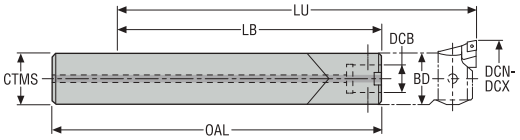
## Spare Parts, included in delivery

| For | Assembly screw | Locking key |
|---|---|---|
| |  |  |
| M40107511 | 90F1 | 03H02 |

# G 401 – Graflex® arbors, carbide

## Cylindrical

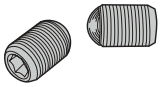





- Suitable for fine boring length up to LU with fitted boring head type A780 or A790
- CTMS tolerance h5

| Designation | Item number | CTMS | CTWS | DCB | DCN | DCX | OAL | BD | LU | LB | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | kg<br>*lbs* |
| M4011408C | 00073004 | 14 | G0 | 8,0<br>*0.315* | 15,0<br>*0.591* | 18,5<br>*0.728* | 152,0<br>*5.984* | 14,0<br>*0.551* | 140,0<br>*5.512* | 105,0<br>*4.134* | 0 | G6.3 | 0,31<br>*0.680* |
| M4011608C | 00056747 | 16 | G0 | 8,0<br>*0.315* | 18,0<br>*0.709* | 23,5<br>*0.925* | 175,0<br>*6.890* | 16,0<br>*0.630* | 160,0<br>*6.299* | 125,0<br>*4.921* | 0 | G6.3 | 0,5<br>*1.100* |
| M4012011C | 00056749 | 20 | G1 | 11,0<br>*0.433* | 23,0<br>*0.906* | 31,0<br>*1.220* | 212,0<br>*8.346* | 20,0<br>*0.787* | 200,0<br>*7.874* | 160,0<br>*6.299* | 0 | G6.3 | 0,89<br>*1.960* |
| M4012514C | 00056750 | 25 | G2 | 14,0<br>*0.551* | 30,0<br>*1.181* | 40,0<br>*1.575* | 262,0<br>*10.315* | 25,0<br>*0.984* | 250,0<br>*9.843* | 204,0<br>*8.031* | 0 | G6.3 | 1,71<br>*3.770* |
| M4013218C | 00056751 | 32 | G3 | 18,0<br>*0.709* | 39,0<br>*1.535* | 51,0<br>*2.008* | 317,0<br>*12.480* | 32,0<br>*1.260* | 320,0<br>*12.598* | 255,0<br>*10.039* | 0 | G6.3 | 3,44<br>*7.580* |

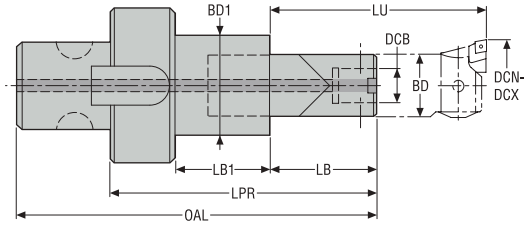
### Spare Parts, included in delivery

| For | Assembly screw |
|---|---|
| |  |
| M4011408C | 90F01 |
| M4011608C | 90F0 |
| M4012011C | 90F1 |
| M4012514C | 90F2 |
| M4013218C | 90F3 |

### Accessories

| For | Locking key |
|---|---|
| |  |
| M4011408C | 03H025 |
| M4011608C | 03H02 |
| M4012011C | 03H02 |
| M4012514C | 03H025 |
| M4013218C | 03H03 |

# G 403 – Graflex® extra long reducers, carbide

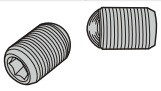





- The extension section is manufactured from carbide
- Suitable for fine boring length up to LU with fitted boring head type A780 or A790

| Designation | Item number | CTMS | CTWS | DCB | DCN | DCX | LPR | LU | BD | BD1 | LB1 | LB | OAL | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | kg<br>*lbs* |
| M40350C150 | 00057604 | G5 | G0 | 8,0<br>*0.315* | 18,0<br>*0.709* | 23,5<br>*0.925* | 150,0<br>*5.906* | 130,0<br>*5.118* | 16,0<br>*0.630* | 32,0<br>*0.630* | 35,0<br>*1.378* | 95,0<br>*3.740* | 180,0<br>*7.087* | 0 | PB | 1,0<br>*2.200* |
| M40351C180 | 00056943 | G5 | G1 | 11,0<br>*0.433* | 23,0<br>*0.906* | 31,0<br>*1.220* | 180,0<br>*7.087* | 160,0<br>*6.299* | 20,0<br>*0.787* | 36,0<br>*0.787* | 40,0<br>*1.575* | 120,0<br>*4.724* | 210,0<br>*8.268* | 0 | PB | 1,33<br>*2.930* |
| M40352C220 | 00057605 | G5 | G2 | 14,0<br>*0.551* | 30,0<br>*1.181* | 40,0<br>*1.575* | 220,0<br>*8.661* | 200,0<br>*7.874* | 25,0<br>*0.984* | 41,0<br>*0.984* | 45,0<br>*1.772* | 155,0<br>*6.102* | 250,0<br>*9.843* | 0 | PB | 2,01<br>*4.430* |

## Spare Parts, included in delivery

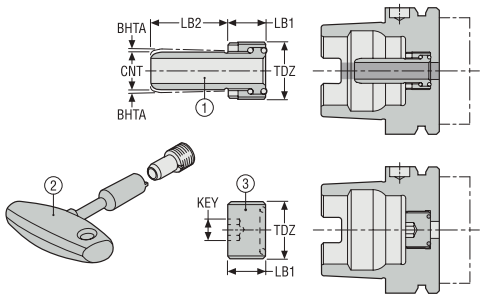
| For | Assembly screw | Tenon |
|---|---|---|
| |  |  |
| M40350C150 | 90F0 | 90M5 |
| M40351C180 | 90F1 | 90M5 |
| M40352C220 | 90F2 | 90M5 |

## Accessories

| For | Locking key |
|---|---|
| |  |
| M40350C150 | 03H02 |
| M40351C180 | 03H02 |
| M40352C220 | 03H025 |

# HSK coolant tubes, tube spanners and sealing plugs






- HSK-A to Seco-Capto holders are delivered with a specific coolant tube available as spare parts and need a specific coolant tube spanner, see product page(s) 531, 532-533, 534

| Description | Designation | Item number | For holders HSK A and E | LB1 | LB2 | KEY | CNT | TDZ | BHTA° |
|---|---|---|---|---|---|---|---|---|---|
| | | | | mm *Inch* | mm *Inch* | mm *Inch* | mm | | |
| Sealing plugs (3) | 02E9301 | 00031588 | HSK-A32 & HSK-E32 | 5,0 *0.197* | – | 3,0 *0.118* | – | M10x1 | – |
| | 02E9302 | 00031593 | HSK-A40 & HSK-E40 | 7,0 *0.276* | – | 4,0 *0.157* | – | M12x1 | – |
| | 02E9303 | 00001002 | HSK-A50 & HSK-E50 | 9,0 *0.354* | – | 5,0 *0.197* | – | M16x1 | – |
| | 02E9304 | 00010101 | HSK-A63 & HSK-E63 | 11,0 *0.433* | – | 6,0 *0.236* | – | M18x1 | – |
| | 02E9306 | 00014002 | HSK-A100 & HSK-E100 | 15,0 *0.591* | – | 10,0 *0.394* | – | M24x1,5 | – |
| | 02E9307 | 00033649 | HSK-A125 | 17,0 *0.669* | – | 12,0 *0.472* | – | M30x1.5 | – |
| Coolant tube spanners (2) | 03E9301 | 00088811 | HSK-A32 & HSK-E32 | – | – | – | – | – | – |
| | 03E9302 | 00088812 | HSK-A40 & HSK-E40 | – | – | – | – | – | – |
| | 03E9303 | 00069969 | HSK-A50 & HSK-E50 | – | – | – | – | – | – |
| | 03E9304 | 00069970 | HSK-A63 & HSK-E63 | – | – | – | – | – | – |
| | 03E9305 | 00032296 | HSK-A80 & HSK-E80 | – | – | – | – | – | – |
| | 03E9306 | 00084012 | HSK-A100 & HSK-E100 | – | – | – | – | – | – |
| Coolant tubes (1) | 20E9301 | 00088814 | HSK-A32 & HSK-E32 | 5,5 *0.217* | 20,5 *0.807* | – | 6 | M10x1 | 1,0 |
| | 20E9302 | 00088815 | HSK-A40 & HSK-E40 | 7,5 *0.295* | 22,0 *0.866* | – | 8 | M12x1 | 1,0 |
| | 20E9303 | 00086740 | HSK-A50 & HSK-E50 | 9,5 *0.374* | 23,5 *0.925* | – | 6 | M16x1 | 1,0 |
| | 20E9304 | 00086741 | HSK-A63 & HSK-E63 | 11,5 *0.453* | 25,0 *0.984* | – | 8 | M18x1 | 1,0 |
| | 20E9306 | 00086742 | HSK-A100 & HSK-E100 | 15,5 *0.610* | 28,5 *1.122* | – | 6 | M24x1,5 | 1,0 |
| | 20E9307 | 00088816 | HSK-A125 | 17,5 *0.689* | 30,5 *1.201* | – | 18 | M30x1.5 | 1,0 |
| Coolant tube spanners (2) | 5680094-07 | 03248614 | HSK-A125 | – | – | – | – | – | – |



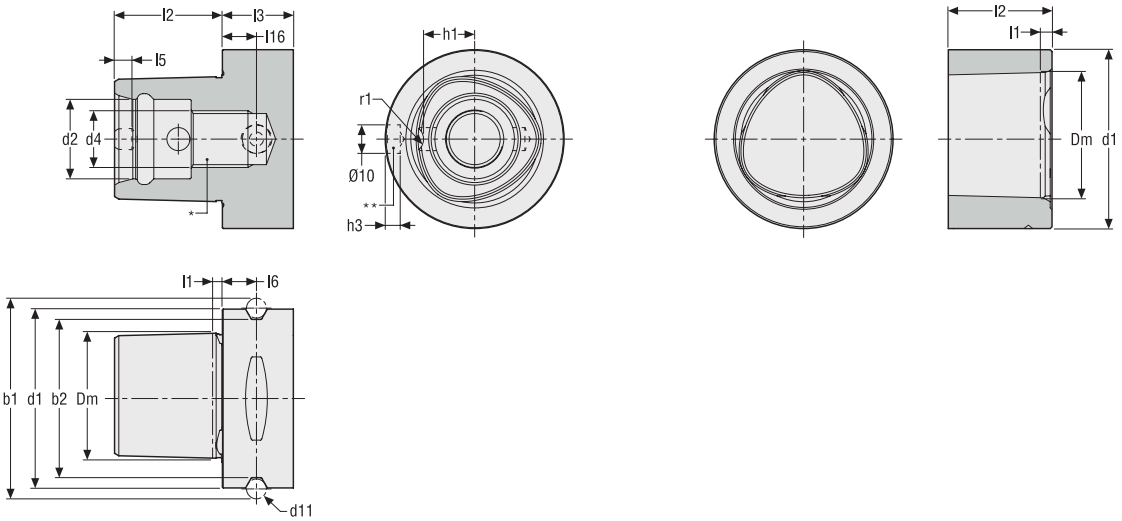
# Seco-Capto™

Seco-Capto™ is a leading quick-change modular tooling system for quick setup and replacement of cutting edge holders. The Seco-Capto™ modular tooling range uses Polygonal Shank Coupling (PSC) in accordance with ISO 26623 and features a self-locking taper joint.

- Tool holders range, such as Shrinkfit, collet chuck and shell mill
- Seco-Capto™ basic arbors with HSK, DIN, BT connections
- Seco-Capto™ cassette for greater reliability and insert clamping

# Seco-Capto™, norm dimensions

ISO 26623-1-PSC/ ISO 26623-2-PSC




| Machine side catalogue designation | Hole for RFID carrier** | $d_1$ | $d_2$ | $d_4$ | $d_{11}$ | Dm | $b_1$ | $b_2$ | $l_1$ | $l_2$ | $l_{3\,min}$ | $l_5$ | $l_6$ | $l_{16}$ | $h_1$ | $h_3$ | $r_1$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* |
| C3 | No** | 32<br>*1.260* | 15<br>*0.591* | M12 | 5<br>*0.197* | 22<br>*0.866* | 39<br>*1.535* | 28,3<br>*1.114* | 2,5<br>*0.098* | 19<br>*0.748* | 15<br>*0.591* | 3,2<br>*0.126* | 6<br>*0.236* | 9<br>*0.354* | 9<br>*0.354* | 5,4<br>*0.213* | 3<br>*0.118* |
| C4 | No** | 40<br>*1.575* | 18<br>*0.709* | M14 | 5<br>*0.197* | 28<br>*1.102* | 46<br>*1.811* | 35,3<br>*1.390* | 2,5<br>*0.098* | 24<br>*0.945* | 20<br>*0.787* | 4<br>*0.157* | 8<br>*0.315* | 12<br>*0.472* | 11<br>*0.433* | 5,2<br>*0.205* | 3<br>*0.118* |
| C5 | ** | 50<br>*1.969* | 21<br>*0.827* | M16 | 7<br>*0.276* | 35<br>*1.378* | 59,3<br>*2.335* | 44,4<br>*1.748* | 3<br>*0.118* | 30<br>*1.181* | 20<br>*0.787* | 5,3<br>*0.209* | 10<br>*0.394* | 12<br>*0.472* | 14<br>*0.551* | 5,1<br>*0.201* | 4<br>*0.157* |
| C6 | ** | 63<br>*2.480* | 28<br>*1.102* | M20 | 7<br>*0.276* | 44<br>*1.732* | 70,7<br>*2.783* | 55,8<br>*2.197* | 3<br>*0.118* | 38<br>*1.496* | 22<br>*0.866* | 6,2<br>*0.244* | 12<br>*0.472* | 12<br>*0.472* | 18<br>*0.709* | 5<br>*0.197* | 5<br>*0.197* |
| C8 | ** | 80<br>*3.150* | 32<br>*1.260* | M20 | 7<br>*0.276* | 55<br>*2.165* | 86<br>*3.386* | 71,1<br>*2.799* | 3<br>*0.118* | 48<br>*1.890* | 30<br>*1.181* | 8<br>*0.315* | 12<br>*0.472* | 12<br>*0.472* | 22,2<br>*0.874* | 4,9<br>*0.193* | 6<br>*0.236* |

| Workpiece side catalogue designation | Hole for RFID carrier** | $d_{1\,min}$ | $d_3$ | Dm | $l_1$ | $l_2$ | $l_3$ | $l_4$ |
|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* |
| C3 | No | 32<br>*1.260* | 2<br>*0.079* | 22<br>*0.866* | 2,3<br>*0.091* | 18,4<br>*0.724* | 16,5<br>*0.650* | 9,4<br>*0.370* |
| C4 | No | 40<br>*1.575* | 2,5<br>*0.098* | 28<br>*1.102* | 2,3<br>*0.091* | 23,4<br>*0.921* | 21<br>*0.827* | 11,5<br>*0.453* |
| C5 | No | 50<br>*1.969* | 3<br>*0.118* | 35<br>*1.378* | 2,8<br>*0.110* | 29,4<br>*1.157* | 26<br>*1.024* | 14,5<br>*0.571* |
| C6 | ** | 63<br>*2.480* | 4<br>*0.157* | 44<br>*1.732* | 2,8<br>*0.110* | 37,4<br>*1.472* | 33,5<br>*1.319* | 18,5<br>*0.728* |
| C8 | ** | 80<br>*3.150* | 5<br>*0.197* | 55<br>*2.165* | 2,8<br>*0.110* | 47,4<br>*1.866* | 43<br>*1.693* | 22,8<br>*0.898* |

Note: These machine side and workpiece side dimensions are applied to all the holders shown in the product pages.

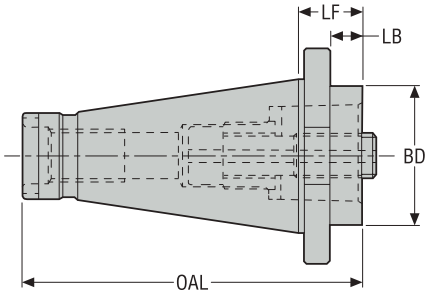
* The Seco-Capto™ machine side of short extensions can only be hold by spindles with segment clamping (not with center bolt clamping). The Seco-Capto™ machine side of short reducers can only be hold by spindles with segment clamping (not with center bolt clamping).

** In order to know if a hole for RFID carrier exists, see 'RFID hole' column in Product pages: 1= hole for RFID carrier available, if required a carrier can be fitted on request, please enquire.

0= hole for RFID carrier not available, if required hole can be machined and a carrier can be fitted on request, please enquire.

# C 00 – DIN 2080 to Seco-Capto™ holders – ISO 26623-2

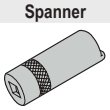
DIN 2080



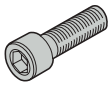



| Designation | Item number | CTMS | CTWS | LF | LB | BD | OAL | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | kg<br>*lbs* |
| C3-390.00-40030 | 75039844 | DIN(2080)40 | C3 | 30,0<br>*1.181* | 18,4<br>*0.724* | 32,0<br>*1.260* | 123,4<br>*4.858* | 0 | - | 0,9<br>*1.980* |
| C3-390.00-50030 | 75039846 | DIN(2080)50 | C3 | 30,0<br>*1.181* | 14,8<br>*0.583* | 32,0<br>*1.260* | 156,8<br>*6.173* | 0 | - | 2,5<br>*5.510* |
| C3-390.00-50060 | 75039847 | DIN(2080)50 | C3 | 60,0<br>*2.362* | 44,8<br>*1.764* | 32,0<br>*1.260* | 186,8<br>*7.354* | 0 | - | 2,5<br>*5.510* |
| C4-390.00-40030 | 75039848 | DIN(2080)40 | C4 | 30,0<br>*1.181* | 18,4<br>*0.724* | 40,0<br>*1.575* | 123,4<br>*4.858* | 0 | - | 1,0<br>*2.200* |
| C4-390.00-40060 | 75039849 | DIN(2080)40 | C4 | 60,0<br>*2.362* | 48,4<br>*1.906* | 40,0<br>*1.575* | 153,4<br>*6.039* | 0 | - | 1,08<br>*2.380* |
| C4-390.00-50030 | 75039850 | DIN(2080)50 | C4 | 30,0<br>*1.181* | 14,8<br>*0.583* | 40,0<br>*1.575* | 156,8<br>*6.173* | 0 | - | 2,5<br>*5.510* |
| C4-390.00-50060 | 75039851 | DIN(2080)50 | C4 | 60,0<br>*2.362* | 44,8<br>*1.764* | 40,0<br>*1.575* | 186,8<br>*7.354* | 0 | - | 2,5<br>*5.510* |
| C5-390.00-40030 | 75039852 | DIN(2080)40 | C5 | 30,0<br>*1.181* | 18,4<br>*0.724* | 50,0<br>*1.969* | 123,4<br>*4.858* | 0 | - | 0,81<br>*1.790* |
| C5-390.00-50030 | 75039854 | DIN(2080)50 | C5 | 30,0<br>*1.181* | 14,8<br>*0.583* | 50,0<br>*1.969* | 156,8<br>*6.173* | 0 | - | 2,62<br>*5.780* |
| C5-390.00-50070 | 75039855 | DIN(2080)50 | C5 | 70,0<br>*2.756* | 54,8<br>*2.157* | 50,0<br>*1.969* | 196,8<br>*7.748* | 0 | - | 3,29<br>*7.250* |
| C6-390.00-40075 | 00048158 | DIN(2080)40 | C6 | 75,0<br>*2.953* | 0,0<br>– | 63,0<br>*2.480* | 168,4<br>*6.630* | 0 | - | 1,82<br>*4.010* |
| C6-390.00-50030 | 75039856 | DIN(2080)50 | C6 | 30,0<br>*1.181* | 14,8<br>*0.583* | 63,0<br>*2.480* | 156,8<br>*6.173* | 0 | - | 2,56<br>*5.640* |
| C6-390.00-50080 | 75039857 | DIN(2080)50 | C6 | 80,0<br>*3.150* | 64,8<br>*2.551* | 63,0<br>*2.480* | 206,8<br>*8.142* | 0 | - | 3,27<br>*7.210* |
| C8-390.00-50070 | 75039858 | DIN(2080)50 | C8 | 70,0<br>*2.756* | 54,8<br>*2.157* | 80,0<br>*3.150* | 196,8<br>*7.748* | 0 | - | 3,8<br>*8.380* |
| C8-390.00-50120 | 75039859 | DIN(2080)50 | C8 | 120,0<br>*4.724* | 104,8<br>*4.126* | 80,0<br>*3.150* | 246,8<br>*9.717* | 0 | – | 5,6<br>*12.350* |

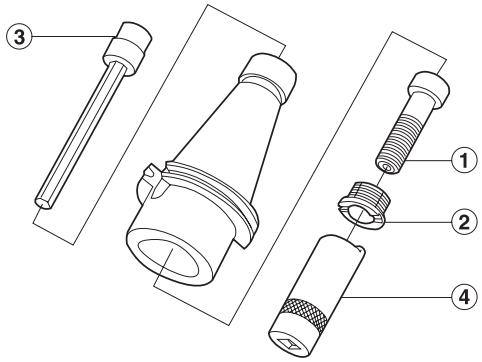
## Accessories

| For | Extension key | Spanner |
|---|---|---|
| |  |  |
| C3 | 5680015-05 | 5680065-13 |
| C4 | 5680015-05 | 5680065-10 |
| C5 | 5680015-01 | 5680065-11 |
| C6-400 | 5680015-01 | 5680065-12 |
| C6-500 | 5680015-02 | 5680065-12 |
| C8 | 5680015-02 | 5680065-12 |

## Spare Parts, included in delivery

| For | Centre screw | Retaining nut |
|---|---|---|
| |  |  |
| C3 | 5512063-10 | 5512091-04 |
| C4 | 5512063-07 | 5512091-03 |
| C5 | 5512063-08 | 5512091-01 |
| C6-400 | 5512063-13 | 5512091-02 |
| C6-500 | 5512063-09 | 5512091-02 |
| C8 | 5512063-09 | 5512091-02 |

## Accessories / Spare Parts

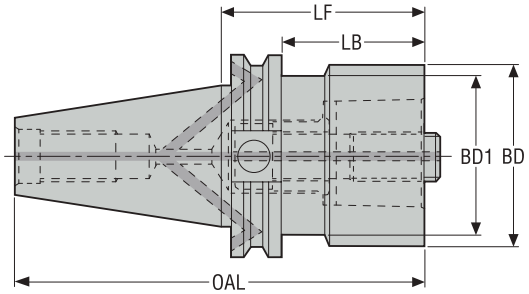



Accessories:
3 = Extension key
4 = Spanner

Spare parts:
1 = Center screw
2 = Retaining nut

# C 55/58 – CAT to Seco-Capto™ holders

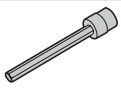
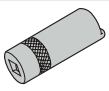
CAT / ASME B5.50-2009-ADB



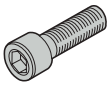



| Designation | Item number | CTMS | CTWS | LF | LB | BD | BD1 | OAL | Design | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | | | | lbs |
| C3-A390B.45-40060 | 02925929 | CAT40 ADB | C3 | 2.362 | 1.610 | 1.260 | 1.260 | 5.055 | 2 | 0 | PB | 2.200 |
| C3-A390B.45-50030 | 02925930 | CAT50 ADB | C3 | 1.181 | 0.429 | 1.260 | 1.260 | 5.185 | 2 | 0 | PB | 5.730 |
| C3-A390B.45-50060 | 02925931 | CAT50 ADB | C3 | 2.362 | 1.610 | 1.260 | 1.260 | 6.366 | 2 | 0 | PB | 5.970 |
| C4-A390B.45-40030 | 02925932 | CAT40 ADB | C4 | 1.181 | 0.429 | 1.575 | 1.575 | 3.874 | 2 | 0 | PB | 1.830 |
| C4-A390B.45-40060 | 02925933 | CAT40 ADB | C4 | 2.362 | 1.610 | 1.575 | 1.575 | 5.055 | 2 | 0 | PB | 2.430 |
| C4-A390B.45-50030 | 02925948 | CAT50 ADB | C4 | 1.181 | 0.429 | 1.575 | 1.575 | 5.185 | 2 | 0 | PB | 5.780 |
| C4-A390B.45-50060 | 02925934 | CAT50 ADB | C4 | 2.362 | 1.610 | 1.969 | 1.575 | 6.366 | 2 | 0 | PB | 6.610 |
| C5-A390B.45-40040 | 02925935 | CAT40 ADB | C5 | 1.575 | 0.823 | 1.969 | 1.969 | 4.268 | 2 | 0 | PB | 2.050 |
| C5-A390B.45-40080 | 02925936 | CAT40 ADB | C5 | 3.150 | 2.398 | 1.969 | 1.969 | 5.843 | 2 | 0 | PB | 3.310 |
| C5-A390B.45-50030 | 02925937 | CAT50 ADB | C5 | 1.181 | 0.429 | 1.969 | 1.969 | 5.185 | 2 | 0 | PB | 5.730 |
| C5-A390B.45-50070 | 02925938 | CAT50 ADB | C5 | 2.756 | 2.004 | 1.969 | 1.969 | 6.760 | 2 | 0 | PB | 6.830 |
| C6-A390B.45-40085 | 02925939 | CAT40 ADB | C6 | 3.346 | 1.378 | 2.480 | 2.480 | 6.039 | 2 | 0 | PB | 4.250 |
| C6-A390B.45-50030 | 02925940 | CAT50 ADB | C6 | 1.181 | 0.429 | 2.480 | 2.480 | 5.185 | 2 | 0 | PB | 5.530 |
| C6-A390B.45-50080 | 02925941 | CAT50 ADB | C6 | 3.150 | 2.398 | 2.480 | 2.480 | 7.154 | 2 | 0 | PB | 7.940 |
| C8-A390B.45-50070 | 02925942 | CAT50 ADB | C8 | 2.756 | 2.004 | 3.150 | 3.150 | 6.760 | 2 | 0 | PB | 8.220 |
| C8-A390B.45-50120 | 02925943 | CAT50 ADB | C8 | 4.724 | 3.972 | 3.150 | 3.150 | 8.728 | 2 | 0 | PB | 12.240 |

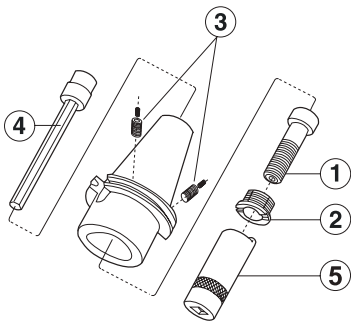
## Accessories

| For size | Extension key | Spanner |
|---|---|---|
| |  |  |
| CAT40/ C3 | 5680015-05 | 5680065-13 |
| CAT50/ C3 | 5680015-05 | 5680065-13 |
| CAT40/ C4 | 5680015-05 | 5680065-10 |
| CAT50/ C4-50030 | 5680015-05 | 5680065-10 |
| CAT50/ C4-50060 | 5680015-05 | 5680065-10 |
| CAT40/ C5 | 5680015-01 | 5680065-11 |
| CAT50/ C5 | 5680015-01 | 5680065-11 |
| CAT40/ C6 | 5680015-01 | 5680065-12 |
| CAT50/ C6 | 5680015-02 | 5680065-12 |
| CAT50/ C8 | 5680015-02 | 5680065-12 |

## Spare Parts, included in delivery

| For size | Centre screw | Plug | Retaining nut |
|---|---|---|---|
| |  |  1x |  |
| CAT40/ C3 | 5512063-10 | 564301701 | 5512091-04 |
| CAT50/ C3 | 5512063-10 | 564301702 | 5512091-04 |
| CAT40/ C4 | 5512063-07 | 564301701 | 5512091-03 |
| CAT50/ C4-50030 | 5512063-07 | 564301701 | 5512091-03 |
| CAT50/ C4-50060 | 5512063-07 | 564301702 | 5512091-03 |
| CAT40/ C5 | 5512063-08 | 564301701 | 5512091-01 |
| CAT50/ C5 | 5512063-08 | 564301702 | 5512091-01 |
| CAT40/ C6 | 5512063-13 | 564301701 | 5512091-02 |
| CAT50/ C6 | 5512063-09 | 564301702 | 5512091-02 |
| CAT50/ C8 | 5512063-09 | 564301702 | 5512091-02 |

## Accessories / Spare Parts



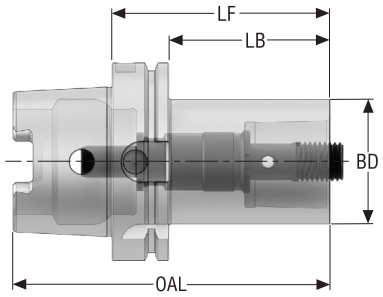

Accessories:
4 = Extension key
5 = Spanner

Spare parts:
1 = Center screw
2 = Retaining nut
3 = Plugs (dowels)

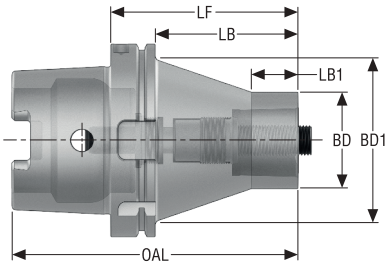
# C 410 – HSK-A to Seco-Capto™ holders – ISO 26623-2

HSK-A/ ISO12164-1-HSK-A

**Design 1**



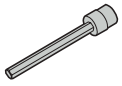
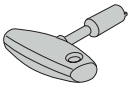
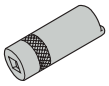

**Design 2**



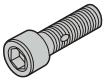
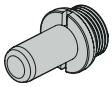



| Designation | Item number | CTMS | CTWS | LF | LB | LB1 | BD | BD1 | OAL | Design | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | | kg<br>*lbs* |
| HA06-C3-032-075 | 10197962 | HSK-A63 | C3 | 75,0<br>*2.953* | 49,0<br>*1.929* | – | 32,0<br>*1.260* | – | 107,0<br>*4.213* | 1 | 1 | PB | 1,0<br>*2.200* |
| HA06-C4-040-080 | 10197964 | HSK-A63 | C4 | 80,0<br>*3.150* | 54,0<br>*2.126* | – | 40,0<br>*1.575* | – | 112,0<br>*4.409* | 1 | 1 | PB | 1,2<br>*2.650* |
| HA06-C5-050-090 | 10197966 | HSK-A63 | C5 | 90,0<br>*3.543* | 64,0<br>*2.520* | – | 50,0<br>*1.969* | – | 122,0<br>*4.803* | 1 | 1 | PB | 3,1<br>*6.830* |
| HA10-C3-032-080 | 10197961 | HSK-A100 | C3 | 80,0<br>*3.150* | 51,0<br>*2.008* | – | 32,0<br>*1.260* | – | 130,0<br>*5.118* | 1 | 1 | PB | 2,5<br>*5.510* |
| HA10-C4-040-090 | 10197963 | HSK-A100 | C4 | 90,0<br>*3.543* | 61,0<br>*2.402* | – | 40,0<br>*1.575* | – | 140,0<br>*5.512* | 1 | 1 | PB | 2,6<br>*5.730* |
| HA10-C5-050-100 | 10197965 | HSK-A100 | C5 | 100,0<br>*3.937* | 71,0<br>*2.795* | – | 50,0<br>*1.969* | – | 150,0<br>*5.906* | 1 | 1 | PB | 3,1<br>*6.830* |
| HA10-C6-063-110 | 10197967 | HSK-A100 | C6 | 110,0<br>*4.331* | 81,0<br>*3.189* | – | 63,0<br>*2.480* | – | 160,0<br>*6.299* | 1 | 1 | PB | 3,8<br>*8.380* |
| HA10-C8-080-120 | 10197968 | HSK-A100 | C8 | 120,0<br>*4.724* | 91,0<br>*3.583* | – | 80,0<br>*3.150* | – | 170,0<br>*6.693* | 1 | 1 | PB | 4,1<br>*9.040* |
| HSKA125-C6-120 | 03229625 | HSK-A125 | C6 | 120,0<br>*4.724* | 91,0<br>*3.583* | – | 63,0<br>*2.480* | – | 183,0<br>*7.205* | 1 | 1 | PB | 5,2<br>*11.460* |
| HSKA125-C6-120-V | 03229626 | HSK-A125 | C6 | 120,0<br>*4.724* | 91,0<br>*3.583* | 30,0<br>*1.181* | 63,0<br>*2.480* | 108,0<br>*4.252* | 183,0<br>*7.205* | 2 | 1 | PB | 6,4<br>*14.110* |
| HSKA125-C8-130 | 03229627 | HSK-A125 | C8 | 130,0<br>*5.118* | 101,0<br>*3.976* | – | 80,0<br>*3.150* | – | 193,0<br>*7.598* | 1 | 1 | PB | 6,5<br>*14.330* |
| HSKA125-C8-130-V | 03229628 | HSK-A125 | C8 | 130,0<br>*5.118* | 101,0<br>*3.976* | 30,0<br>*1.181* | 80,0<br>*3.150* | 105,0<br>*4.134* | 193,0<br>*7.598* | 2 | 1 | PB | 7,8<br>*17.200* |

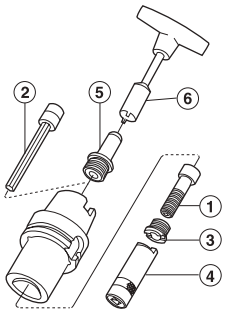
## Accessories

| For | Extension key | Key | Spanner |
|---|---|---|---|
| |  |  |  |
| HA06-C3-032-075 | 5680015-05 | 5680094-04 | 5680065-13 |
| HA06-C4-040-080 | 5680015-05 | 5680094-04 | 5680065-10 |
| HA06-C5-050-090 | 5680015-01 | 5680094-04 | 5680065-11 |
| HA10-C3-032-080 | 5680015-05 | 5680094-06 | 5680065-13 |
| HA10-C4-040-090 | 5680015-05 | 5680094-06 | 5680065-10 |
| HA10-C5-050-100 | 5680015-01 | 5680094-06 | 5680065-11 |
| HA10-C6-063-110 | 5680015-02 | 5680094-06 | 5680065-12 |
| HA10-C8-080-120 | 5680015-02 | 5680094-06 | 5680065-12 |
| HSKA125-C6-120 | 5680015-02 | 5680094-07 | 5680065-12 |
| HSKA125-C6-120-V | 5680015-02 | 5680094-07 | 5680065-12 |
| HSKA125-C8-130 | 5680015-02 | 5680094-07 | 5680065-12 |
| HSKA125-C8-130-V | 5680015-02 | 5680094-07 | 5680065-12 |

## Spare Parts, included in delivery

| For | Centre screw | Coolant tube | Retaining nut |
|---|---|---|---|
| |  |  |  |
| HA06-C3-032-075 | 5512067-01 | 5692020-04 | 5512091-04 |
| HA06-C4-040-080 | 5512067-02 | 5692020-04 | 5512091-03 |
| HA06-C5-050-090 | 5512067-03 | 5692020-04 | 5512091-01 |
| HA10-C3-032-080 | 5512067-01 | 5692020-06 | 5512091-04 |
| HA10-C4-040-090 | 5512067-02 | 5692020-06 | 5512091-03 |
| HA10-C5-050-100 | 5512067-03 | 5692020-06 | 5512091-01 |
| HA10-C6-063-110 | 5512067-04 | 5692020-06 | 5512091-02 |
| HA10-C8-080-120 | 5512067-04 | 5692020-06 | 5512091-02 |
| HSKA125-C6-120 | 5512063-09 | 5692020-07 | 5512091-02 |
| HSKA125-C6-120-V | 5512063-09 | 5692020-07 | 5512091-02 |
| HSKA125-C8-130 | 5512063-09 | 5692020-07 | 5512091-02 |
| HSKA125-C8-130-V | 5512063-09 | 5692020-07 | 5512091-02 |

## Accessories / Spare Parts



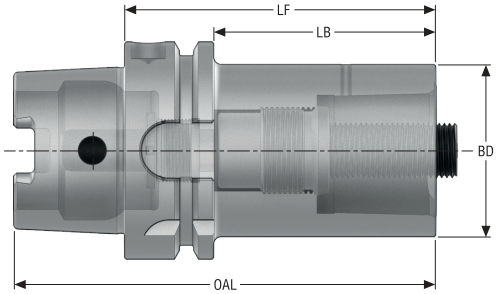

Accessories:
2 = Extension key
4 = Spanner
6 = Key for coolant tube

Spare parts:
1 = Center screw
3 = Retaining nut
5 = Coolant tube*

*A specific coolant tube is delivered together with each HSK-A to Seco-Capto™ holder

# C 411 – HSK-T to Seco-Capto™ holders – ISO 26623-2

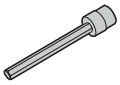
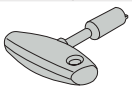
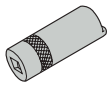
HSK-T/ ISO12164-3-HSK-T



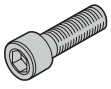
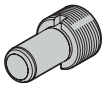



| Designation | Item number | CTMS | CTWS | LF | LB | BD | OAL | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | | | kg *lbs* |
| C4-390.411-100090 | 02786519 | HSK-T100 | C4 | 90,0 *3.543* | 61,0 *2.402* | 40,0 *1.575* | 140,0 *5.512* | 1 | - | 2,4 *5.290* |
| C4-390.411-63080 | 02786511 | HSK-T63 | C4 | 80,0 *3.150* | 54,0 *2.126* | 40,0 *1.575* | 112,0 *4.409* | 1 | - | 1,0 *2.200* |
| C5-390.411-100100 | 02786521 | HSK-T100 | C5 | 100,0 *3.937* | 71,0 *2.795* | 50,0 *1.969* | 150,0 *5.906* | 1 | - | 2,7 *5.950* |
| C5-390.411-63090 | 02786520 | HSK-T63 | C5 | 90,0 *3.543* | 64,0 *2.520* | 50,0 *1.969* | 122,0 *4.803* | 1 | - | 1,3 *2.870* |
| C6-390.411-100110 | 02786522 | HSK-T100 | C6 | 110,0 *4.331* | 81,0 *3.189* | 63,0 *2.480* | 160,0 *6.299* | 1 | - | 3,3 *7.280* |
| C8-390.411-100120 | 02786523 | HSK-T100 | C8 | 120,0 *4.724* | 91,0 *3.583* | 80,0 *3.150* | 170,0 *6.693* | 1 | - | 4,5 *9.920* |

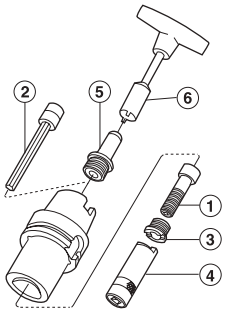
## Accessories

| For | Extension key | Key | Spanner |
|---|---|---|---|
| |  |  |  |
| C4-390.411-100090 | 5680015-05 | 5680094-06 | 5680065-10 |
| C4-390.411-63080 | 5680015-05 | 5680094-04 | 5680065-10 |
| C5-390.411-100100 | 5680015-01 | 5680094-06 | 5680065-11 |
| C5-390.411-63090 | 5680015-01 | 5680094-04 | 5680065-11 |
| C6-390.411-100110 | 5680015-02 | 5680094-06 | 5680065-12 |
| C8-390.411-100120 | 5680015-02 | 5680094-06 | 5680065-12 |

## Spare Parts, included in delivery

| For | Centre screw | Coolant tube | Retaining nut |
|---|---|---|---|
| |  |  |  |
| C4-390.411-100090 | 5512063-07 | 20E9306 | 5512091-03 |
| C4-390.411-63080 | 5512063-07 | 5692020-04 | 5512091-03 |
| C5-390.411-100100 | 5512063-08 | 20E9306 | 5512091-01 |
| C5-390.411-63090 | 5512063-08 | 5692020-04 | 5512091-01 |
| C6-390.411-100110 | 5512063-09 | 5692020-06 | 5512091-02 |
| C8-390.411-100120 | 5512063-09 | 5692020-06 | 5512091-02 |

## Accessories / Spare Parts



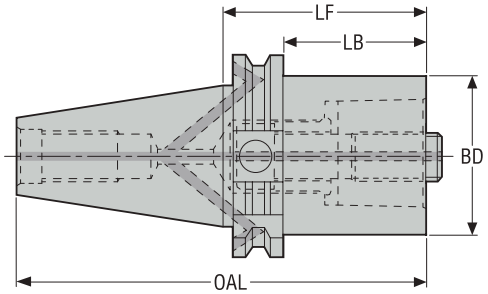

Accessories:
2 = Extension key
4 = Spanner
6 = Key for coolant tube

Spare parts:
1 = Center screw
3 = Retaining nut
5 = Coolant tube*

*A specific coolant tube is delivered together with each HSK-A to Seco-Capto™ holder

# C 140 – DIN to Seco-Capto™ holders – ISO 26623-2

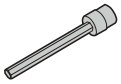
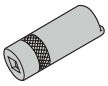
DIN 69871-ADB



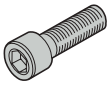



| Designation | Item number | CTMS | CTWS | LF | LB | BD | OAL | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | kg<br>*lbs* |
| C3-390B.140-40030 | 02924104 | DIN40 ADB | C3 | 30,0<br>*1.181* | 10,9<br>*0.429* | 32,0<br>*1.260* | 98,4<br>*3.874* | 0 | PB | 0,8<br>*1.760* |
| C3-390B.140-40060 | 02924105 | DIN40 ADB | C3 | 60,0<br>*2.362* | 40,9<br>*1.610* | 32,0<br>*1.260* | 128,4<br>*5.055* | 0 | PB | 0,9<br>*1.980* |
| C3-390B.140-50030 | 02924106 | DIN50 ADB | C3 | 30,0<br>*1.181* | 10,9<br>*0.429* | 32,0<br>*1.260* | 131,7<br>*5.185* | 0 | PB | 2,6<br>*5.730* |
| C3-390B.140-50060 | 02924107 | DIN50 ADB | C3 | 60,0<br>*2.362* | 40,9<br>*1.610* | 32,0<br>*1.260* | 161,7<br>*6.366* | 0 | PB | 2,7<br>*5.950* |
| C4-390B.140-40030 | 02924108 | DIN40 ADB | C4 | 30,0<br>*1.181* | 10,9<br>*0.429* | 40,0<br>*1.575* | 98,4<br>*3.874* | 0 | PB | 0,8<br>*1.760* |
| C4-390B.140-40060 | 02924109 | DIN40 ADB | C4 | 60,0<br>*2.362* | 40,9<br>*1.610* | 40,0<br>*1.575* | 128,4<br>*5.055* | 0 | PB | 1,1<br>*2.430* |
| C4-390B.140-50030 | 02924110 | DIN50 ADB | C4 | 30,0<br>*1.181* | 10,9<br>*0.429* | 40,0<br>*1.575* | 131,7<br>*5.185* | 0 | PB | 2,6<br>*5.730* |
| C4-390B.140-50060 | 02924111 | DIN50 ADB | C4 | 60,0<br>*2.362* | 40,9<br>*1.610* | 40,0<br>*1.575* | 161,7<br>*6.366* | 0 | PB | 2,8<br>*6.170* |
| C5-390B.140-40040 | 02924112 | DIN40 ADB | C5 | 40,0<br>*1.575* | 20,9<br>*0.823* | 50,0<br>*1.969* | 108,4<br>*4.268* | 0 | PB | 0,9<br>*1.980* |
| C5-390B.140-40080 | 02924113 | DIN40 ADB | C5 | 80,0<br>*3.150* | 60,9<br>*2.398* | 50,0<br>*1.969* | 148,4<br>*5.843* | 0 | PB | 1,5<br>*3.310* |
| C5-390B.140-50030 | 02924114 | DIN50 ADB | C5 | 30,0<br>*1.181* | 10,9<br>*0.429* | 50,0<br>*1.969* | 131,7<br>*5.185* | 0 | PB | 2,6<br>*5.730* |
| C5-390B.140-50070 | 02924115 | DIN50 ADB | C5 | 70,0<br>*2.756* | 50,9<br>*2.004* | 50,0<br>*1.969* | 171,7<br>*6.760* | 0 | PB | 3,1<br>*6.830* |
| C6-390B.140-40085 | 02924116 | DIN40 ADB | C6 | 85,0<br>*3.346* | 65,9<br>*2.594* | 63,0<br>*2.480* | 153,4<br>*6.039* | 0 | PB | 1,8<br>*3.970* |
| C6-390B.140-50030 | 02924117 | DIN50 ADB | C6 | 30,0<br>*1.181* | 10,9<br>*0.429* | 63,0<br>*2.480* | 131,7<br>*5.185* | 0 | PB | 2,5<br>*5.510* |
| C6-390B.140-50080 | 02924118 | DIN50 ADB | C6 | 80,0<br>*3.150* | 60,9<br>*2.398* | 63,0<br>*2.480* | 181,7<br>*7.154* | 0 | PB | 3,6<br>*7.940* |
| C8-390B.140-50070 | 02924119 | DIN50 ADB | C8 | 70,0<br>*2.756* | 50,9<br>*2.004* | 80,0<br>*3.150* | 171,7<br>*6.760* | 0 | PB | 3,7<br>*8.160* |
| C8-390B.140-50120 | 02924120 | DIN50 ADB | C8 | 120,0<br>*4.724* | 100,9<br>*3.972* | 80,0<br>*3.150* | 221,7<br>*8.728* | 0 | PB | 5,6<br>*12.350* |

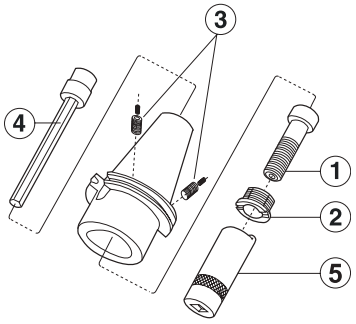
## Accessories

| For | Extension key | Spanner |
|---|---|---|
| |  |  |
| C3-400 | 5680015-05 | 5680065-13 |
| C3-500 | 5680015-05 | 5680065-13 |
| C4-400 | 5680015-05 | 5680065-10 |
| C4-500 | 5680015-05 | 5680065-10 |
| C5-400 | 5680015-01 | 5680065-11 |
| C5-500 | 5680015-01 | 5680065-11 |
| C6-400 | 5680015-01 | 5680065-12 |
| C6-500 | 5680015-02 | 5680065-12 |
| C8 | 5680015-02 | 5680065-12 |

## Spare Parts, included in delivery

| For | Centre screw | Plug | Retaining nut |
|---|---|---|---|
| |  |   |  |
| C3-400 | 5512063-10 | 564301701 | 5512091-04 |
| C3-500 | 5512063-10 | 564301702 | 5512091-04 |
| C4-400 | 5512063-07 | 564301701 | 5512091-03 |
| C4-500 | 5512063-07 | 564301702 | 5512091-03 |
| C5-400 | 5512063-08 | 564301701 | 5512091-01 |
| C5-500 | 5512063-08 | 564301702 | 5512091-01 |
| C6-400 | 5512063-13 | 564301701 | 5512091-02 |
| C6-500 | 5512063-09 | 564301702 | 5512091-02 |
| C8 | 5512063-09 | 564301702 | 5512091-02 |

## Accessories / Spare Parts



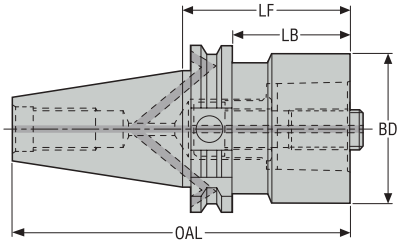

Accessories:
4 = Extension key
5 = Spanner

Spare parts:
1 = Center screw
2 = Retaining nut
3 = Plugs (dowels)

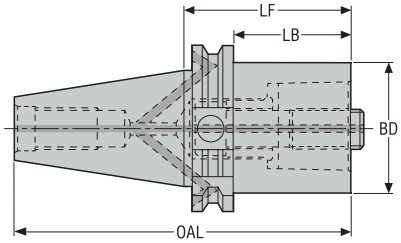
# C 5191 – Seco-Capto™, basic holders – ISO 26623-2

DIN Taper-Face-ADB

Design 1



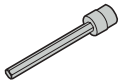
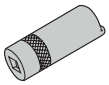

Design 2



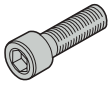



| Designation | Item number | CTMS | CTWS | LF | LB | BD | OAL | Design | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | | | | kg *lbs* |
| E316951915050 | 03030258 | DIN40 TF ADB | C5 | 50,0 *1.969* | 30,9 *1.217* | 50,0 *1.969* | 118,4 *4.661* | 2 | 1 | PB | 1,1 *2.430* |
| E317151915070 | 03030264 | DIN50 TF ADB | C5 | 70,0 *2.756* | 50,9 *2.004* | 50,0 *1.969* | 171,7 *6.760* | 2 | 1 | PB | 3,15 *6.940* |
| E3171519163100 | 03030265 | DIN50 TF ADB | C6 | 100,0 *3.937* | 80,9 *3.185* | 63,0 *2.480* | 201,7 *7.941* | 2 | 1 | PB | 4,08 *8.990* |
| E317151916350 | 03030262 | DIN50 TF ADB | C6 | 50,0 *1.969* | 30,9 *1.217* | 63,0 *2.480* | 151,7 *5.972* | 2 | 0 | - | 2,4 *5.290* |
| E3171519180120 | 03030266 | DIN50 TF ADB | C8 | 120,0 *4.724* | 100,9 *3.972* | 80,0 *3.150* | 221,7 *8.728* | 2 | 0 | - | 5,62 *12.390* |
| E317151918070 | 03030263 | DIN50 TF ADB | C8 | 70,0 *2.756* | 50,9 *2.004* | 80,0 *3.150* | 171,7 *6.760* | 2 | 0 | - | 3,9 *8.600* |

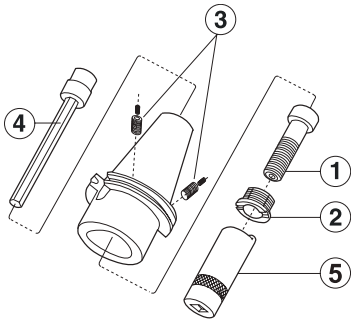
## Accessories

| For | Extension key | Spanner |
|---|---|---|
| |  |  |
| DIN40 TF/ C5 | 5680015-01 | 5680065-11 |
| DIN50 TF/ C5 | 5680015-01 | 5680065-11 |
| DIN50 TF/ C6-C8 | 5680015-02 | 5680065-12 |

## Spare Parts, included in delivery

| For | Centre screw | Plug | Retaining nut |
|---|---|---|---|
| |  |   |  |
| DIN40 TF/ C5 | 5512063-08 | 564301701 | 5512091-01 |
| DIN50 TF/ C5 | 5512063-08 | 564301702 | 5512091-01 |
| DIN50 TF/ C6-C8 | 5512063-09 | 564301702 | 5512091-02 |

## Accessories / Spare Parts



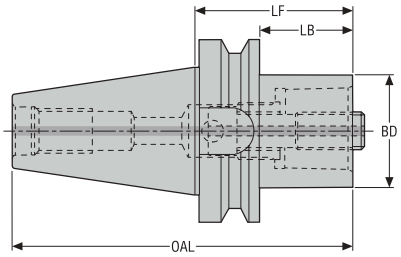

Accessories:
4 = Extension key
5 = Spanner

Spare parts:
1 = Center screw
2 = Retaining nut
3 = Plugs (dowels)

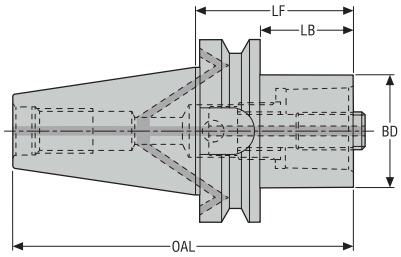
# C 55/58 – BT to Seco-Capto™ holders – ISO 26623-2

BT

**Design 1**



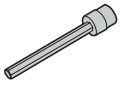
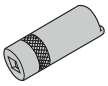

**Design 2**



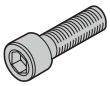



| Designation | Item number | CTMS | CTWS | LF | LB | BD | OAL | Design | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | | | | kg *lbs* |
| C3-390.55-30030 | 75039807 | BT30 AD | C3 | 30,0 *1.181* | 8,0 *0.315* | 32,0 *1.260* | 78,4 *3.087* | 1 | 0 | PB | 0,53 *1.170* |
| C3-390.55-30060 | 75039808 | BT30 AD | C3 | 60,0 *2.362* | 38,0 *1.496* | 32,0 *1.260* | 108,4 *4.268* | 1 | 0 | PB | 0,73 *1.610* |
| C3-390B.55-40030 | 02925959 | BT40 ADB | C3 | 30,0 *1.181* | 3,0 *0.118* | 32,0 *1.260* | 95,4 *3.756* | 2 | 0 | PB | 0,9 *1.980* |
| C3-390B.55-40060 | 02925960 | BT40 ADB | C3 | 60,0 *2.362* | 33,0 *1.299* | 32,0 *1.260* | 125,4 *4.937* | 2 | 0 | PB | 1,1 *2.430* |
| C3-390B.58-50040 | 02925961 | BT50 ADB | C3 | 40,0 *1.575* | 2,0 *0.079* | 32,0 *1.260* | 141,8 *5.583* | 2 | 0 | PB | 3,5 *7.720* |
| C3-390B.58-50070 | 02925962 | BT50 ADB | C3 | 70,0 *2.756* | 32,0 *1.260* | 32,0 *1.260* | 171,8 *6.764* | 2 | 0 | PB | 3,7 *8.160* |
| C4-390B.55-40030 | 02925963 | BT40 ADB | C4 | 30,0 *1.181* | 3,0 *0.118* | 40,0 *1.575* | 95,4 *3.756* | 2 | 0 | PB | 0,9 *1.980* |
| C4-390B.55-40060 | 02925964 | BT40 ADB | C4 | 60,0 *2.362* | 33,0 *1.299* | 40,0 *1.575* | 125,4 *4.937* | 2 | 0 | PB | 1,2 *2.650* |
| C4-390B.58-50040 | 02925965 | BT50 ADB | C4 | 40,0 *1.575* | 2,0 *0.079* | 40,0 *1.575* | 141,8 *5.583* | 2 | 0 | PB | 3,5 *7.720* |
| C4-390B.58-50070 | 02925966 | BT50 ADB | C4 | 70,0 *2.756* | 32,0 *1.260* | 40,0 *1.575* | 171,8 *6.764* | 2 | 0 | PB | 3,8 *8.380* |
| C5-390B.55-40050 | 02925967 | BT40 ADB | C5 | 50,0 *1.969* | 23,0 *0.906* | 50,0 *1.969* | 115,4 *4.543* | 2 | 0 | PB | 1,1 *2.430* |
| C5-390B.55-40090 | 02925968 | BT40 ADB | C5 | 90,0 *3.543* | 63,0 *2.480* | 50,0 *1.969* | 155,4 *6.118* | 2 | 0 | PB | 1,7 *3.750* |
| C5-390B.58-50040 | 02925969 | BT50 ADB | C5 | 40,0 *1.575* | 2,0 *0.079* | 50,0 *1.969* | 141,8 *5.583* | 2 | 0 | PB | 3,4 *7.500* |
| C5-390B.58-50080 | 02925970 | BT50 ADB | C5 | 80,0 *3.150* | 42,0 *1.654* | 50,0 *1.969* | 181,8 *7.157* | 2 | 0 | PB | 4,0 *8.820* |
| C6-390B.55-40075 | 02925971 | BT40 ADB | C6 | 75,0 *2.953* | 54,6 *2.150* | 63,0 *2.480* | 140,4 *5.528* | 2 | 0 | PB | 1,7 *3.750* |
| C6-390B.58-50050 | 02925972 | BT50 ADB | C6 | 50,0 *1.969* | 12,0 *0.472* | 63,0 *2.480* | 151,8 *5.976* | 2 | 0 | PB | 3,5 *7.720* |
| C6-390B.58-50100 | 02925973 | BT50 ADB | C6 | 100,0 *3.937* | 62,0 *2.441* | 63,0 *2.480* | 201,8 *7.945* | 2 | 0 | PB | 4,6 *10.140* |
| C8-390B.58-50070 | 02925974 | BT50 ADB | C8 | 70,0 *2.756* | 32,0 *1.260* | 80,0 *3.150* | 171,8 *6.764* | 2 | 0 | PB | 4,0 *8.820* |
| C8-390B.58-50120 | 02925975 | BT50 ADB | C8 | 120,0 *4.724* | 82,0 *3.228* | 80,0 *3.150* | 221,8 *8.732* | 2 | 0 | PB | 5,9 *13.010* |

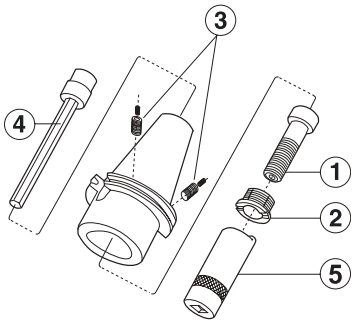
## Accessories

| For | Extension key | Spanner |
|---|---|---|
| |  |  |
| C3-390.55 | 5680015-05 | 5680065-13 |
| C3-390B.55 | 5680015-05 | 5680065-13 |
| C3-390B.58 | 5680015-05 | 5680065-13 |
| C4-390B.55 | 5680015-05 | 5680065-10 |
| C4-390B.58 | 5680015-05 | 5680065-10 |
| C5-390B.55 | 5680015-01 | 5680065-11 |
| C5-390B.58 | 5680015-01 | 5680065-11 |
| C6-390B.55 | 5680015-01 | 5680065-12 |
| C6-390B.58 | 5680015-02 | 5680065-12 |
| C8 | 5680015-02 | 5680065-12 |

## Spare Parts, included in delivery

| For | Centre screw | Plug | Retaining nut |
|---|---|---|---|
| |  |   |  |
| C3-390.55 | 5512063-10 | – | 5512091-04 |
| C3-390B.55 | 5512063-10 | 564301701 | 5512091-04 |
| C3-390B.58 | 5512063-10 | 564301702 | 5512091-04 |
| C4-390B.55 | 5512063-07 | 564301701 | 5512091-03 |
| C4-390B.58 | 5512063-07 | 564301702 | 5512091-03 |
| C5-390B.55 | 5512063-08 | 564301701 | 5512091-01 |
| C5-390B.58 | 5512063-08 | 564301702 | 5512091-01 |
| C6-390B.55 | 5512063-13 | 564301701 | 5512091-02 |
| C6-390B.58 | 5512063-09 | 564301702 | 5512091-02 |
| C8 | 5512063-09 | 564301702 | 5512091-02 |

## Accessories / Spare Parts

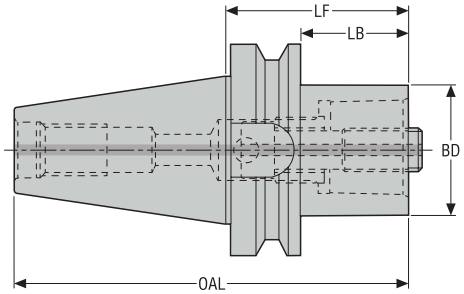



Accessories:
4 = Extension key
5 = Spanner

Spare parts:
1 = Center screw
2 = Retaining nut
3 = Plugs (dowels)

# C 605 – BT Mazak to Seco-Capto™ holders – ISO 26623-2

BT Mazak

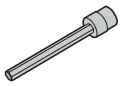
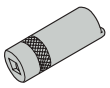




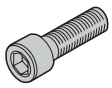

- Mazak design means 90° rotated Seco-Capto™ polygon compared to classic BT basic holders
- For Mazak e-machines

| Designation | Item number | CTMS | CTWS | LF | LB | BD | OAL | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | kg<br>*lbs* |
| C5-390.605-40030 | 02606358 | BT40 AD Mazak | C5 | 30,0<br>*1.181* | 3,0<br>*0.118* | 50,0<br>*1.969* | 95,4<br>*3.756* | 0 | - | 1,1<br>*2.430* |
| C6-390.605-50040 | 02606354 | BT50 AD Mazak | C6 | 40,0<br>*1.575* | 2,0<br>*0.079* | 63,0<br>*2.480* | 141,8<br>*5.583* | 0 | - | 3,3<br>*7.280* |
| C8-390.605-50070 | 02646032 | BT50 AD Mazak | C8 | 70,0<br>*2.756* | 70,0<br>*2.756* | 80,0<br>*3.150* | 171,8<br>*6.764* | 0 | - | 4,1<br>*9.040* |

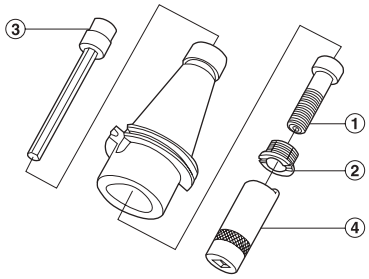
## Accessories

| For size | Extension key | Spanner |
|---|---|---|
| |  |  |
| C5 | 5680015-01 | 5680065-11 |
| C6 | 5680015-02 | 5680065-12 |
| C8 | 5680015-02 | 5680065-12 |

## Spare Parts, included in delivery

| For size | Centre screw | Retaining nut |
|---|---|---|
| |  |  |
| C5 | 5512063-08 | 5512091-01 |
| C6 | 5512063-09 | 5512091-02 |
| C8 | 5512063-09 | 5512091-02 |

## Accessories / Spare Parts



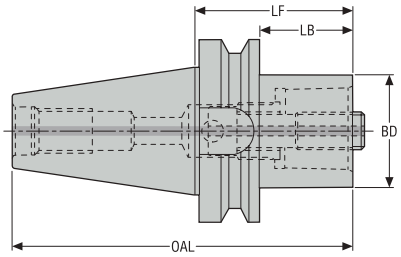

Accessories:
3 = Extension key
4 = Spanner

Spare parts:
1 = Center screw
2 = Retaining nut

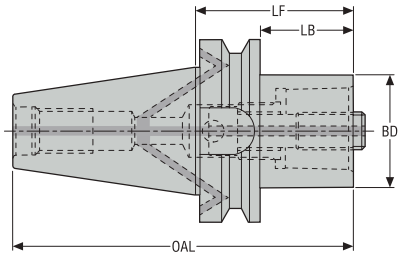
# C 5191 – Seco-Capto™, basic holders – ISO 26623-2

BT Taper-Face-AD/ADB

Design 1



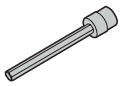
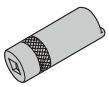

Design 2



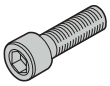



| Designation | Item number | CTMS | CTWS | LF | LB | BD | OAL | Design | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | | | | kg *lbs* |
| E311451914040 | 03030236 | BT40 TF ADB | C4 | 40,0 *1.575* | 13,0 *0.512* | 40,0 *1.575* | 105,4 *4.150* | 2 | 0 | PB | 1,1 *2.430* |
| E311451915050 | 03030237 | BT40 TF ADB | C5 | 50,0 *1.969* | 23,0 *0.906* | 50,0 *1.969* | 115,4 *4.543* | 2 | 0 | PB | 1,2 *2.650* |
| E311451916375 | 03030238 | BT40 TF ADB | C6 | 75,0 *2.953* | 48,0 *1.890* | 63,0 *2.480* | 140,4 *5.528* | 2 | 0 | PB | 1,7 *3.750* |
| E311651914040 | 03030239 | BT50 TF ADB | C4 | 40,0 *1.575* | 2,0 *0.079* | 50,0 *1.969* | 141,8 *5.583* | 2 | 1 | PB | 3,6 *7.940* |
| E311651915040 | 03030240 | BT50 TF ADB | C5 | 40,0 *1.575* | 2,0 *0.079* | 50,0 *1.969* | 141,8 *5.583* | 2 | 0 | PB | 3,5 *7.720* |
| E3116519163100 | 03030242 | BT50 TF ADB | C6 | 100,0 *3.937* | 62,0 *2.441* | 63,0 *2.480* | 201,8 *7.945* | 2 | 0 | PB | 4,63 *10.210* |
| E311651916350 | 03030241 | BT50 TF ADB | C6 | 50,0 *1.969* | 12,0 *0.472* | 63,0 *2.480* | 151,8 *5.976* | 2 | 0 | PB | 3,6 *7.940* |
| E3116519180120 | 03030244 | BT50 TF ADB | C8 | 120,0 *4.724* | 82,0 *3.228* | 80,0 *3.150* | 121,8 *4.795* | 2 | 1 | PB | 5,91 *13.030* |
| E311651918070 | 03030243 | BT50 TF ADB | C8 | 70,0 *2.756* | 32,0 *1.260* | 80,0 *3.150* | 171,8 *6.764* | 2 | 0 | PB | 4,2 *9.260* |
| E400251913240 | 03030234 | BT30 TF AD | C3 | 40,0 *1.575* | 22,0 *0.866* | 32,0 *1.260* | 88,4 *3.480* | 1 | 1 | PB | 0,454 *1.000* |
| E400251914060 | 03030235 | BT30 TF AD | C4 | 60,0 *2.362* | 22,0 *0.866* | 40,0 *1.575* | 108,4 *4.268* | 1 | 1 | PB | 0,651 *1.440* |

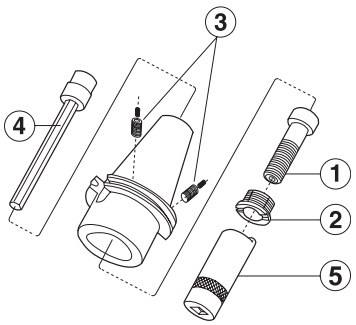
## Accessories

| For Taper/ size | Extension key | Spanner |
|---|---|---|
| |  |  |
| BT40 TF/ C4 | 5680015-05 | 5680065-10 |
| BT40 TF/ C5 | 5680015-01 | 5680065-11 |
| BT40 TF/ C6 | 5680015-01 | 5680065-12 |
| BT50 TF/ C4 | 5680015-05 | 5680065-10 |
| BT50 TF/ C5 | 5680015-01 | 5680065-11 |
| BT50 TF/ C6-C8 | 5680015-02 | 5680065-12 |
| BT30 TF/ C3 | 5680015-05 | 5680065-13 |
| BT30 TF/ C4 | 5680015-05 | 5680065-10 |

## Spare Parts, included in delivery

| For Taper/ size | Centre screw | Plug | Retaining nut |
|---|---|---|---|
| |  |  1x |  |
| BT30 TF/ C3 | 5512063-10 | – | 5512091-04 |
| BT30 TF/ C4 | 5512063-07 | – | 5512091-03 |
| BT40 TF/ C4 | 5512063-07 | 564301701 | 5512091-03 |
| BT40 TF/ C5 | 5512063-08 | 564301701 | 5512091-01 |
| BT40 TF/ C6 | 5512063-13 | 564301701 | 5512091-02 |
| BT50 TF/ C4 | 5512063-07 | 564301702 | 5512091-03 |
| BT50 TF/ C5 | 5512063-08 | 564301702 | 5512091-01 |
| BT50 TF/ C6-C8 | 5512063-09 | 564301702 | 5512091-02 |

## Accessories / Spare Parts



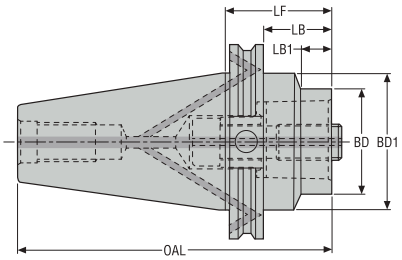

Accessories:
4 = Extension key
5 = Spanner

Spare parts:
1 = Center screw
2 = Retaining nut
3 = Plugs (dowels)

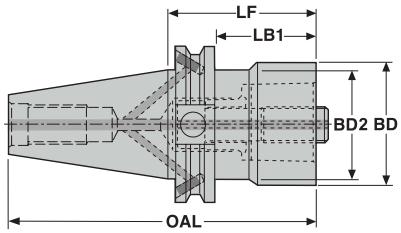
# C 5191 – Seco-Capto™, basic holders

CAT TF / ASME B5.50-1994-ADB

Design 1



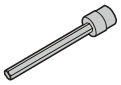
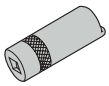

Design 2



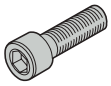



| Designation | Item number | CTMS | CTWS | LF | LB | LB1 | BD | BD1 | OAL | Design | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | | | | lbs |
| E234251915050 | 03030247 | CAT40 TF ADB | C5 | 1.969 | 1.220 | 1.220 | 1.969 | 1.750 | 4.660 | 2 | 1 | PB | 2.250 |
| E234451914040 | 03030249 | CAT50 TF ADB | C4 | 1.575 | 0.090 | 0.090 | 1.575 | 2.750 | 5.580 | 1 | 1 | PB | 6.830 |
| E234451915040 | 03030250 | CAT50 TF ADB | C5 | 1.575 | 0.090 | 0.090 | 1.969 | 2.750 | 5.580 | 1 | 0 | - | 6.390 |
| E234451916340 | 03030251 | CAT50 TF ADB | C6 | 1.575 | 0.120 | 0.120 | 2.480 | 2.750 | 5.580 | 1 | 0 | - | 6.390 |
| E234451916390 | 03030252 | CAT50 TF ADB | C6 | 3.543 | 2.085 | 2.085 | 2.480 | 2.750 | 7.543 | 1 | 0 | - | 8.660 |
| E2344519180100 | 03030253 | CAT50 TF ADB | C8 | 3.937 | 3.185 | 3.185 | 3.150 | 2.750 | 7.937 | 2 | 1 | PB | 9.040 |

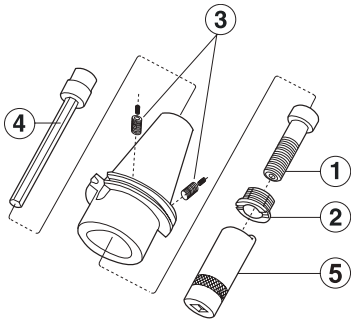
## Accessories

| For Taper/ size | Extension key | Spanner |
|---|---|---|
| |  |  |
| CAT40/ C5 | 5680015-01 | 5680065-11 |
| CAT50/ C4 | 5680015-05 | 5680065-10 |
| CAT50/ C5 | 5680015-01 | 5680065-11 |
| CAT50/ C6 | 5680015-02 | 5680065-12 |
| CAT50/ C8 | 5680015-02 | 5680065-12 |

## Spare Parts, included in delivery

| For Taper/ size | Centre screw | Plug | Retaining nut |
|---|---|---|---|
| |  |   |  |
| CAT40/ C5 | 5512063-08 | 564301701 | 5512091-01 |
| CAT50/ C4 | 5512063-07 | 564301702 | 5512091-03 |
| CAT50/ C5 | 5512063-08 | 564301702 | 5512091-01 |
| CAT50/ C6 | 5512063-09 | 564301702 | 5512091-02 |
| CAT50/ C8 | 5512063-09 | 564301702 | 5512091-02 |

## Accessories / Spare Parts

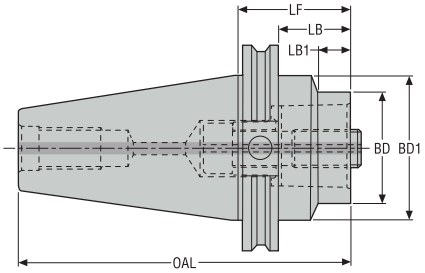



Accessories:
4 = Extension key
5 = Spanner

Spare parts:
1 = Center screw
2 = Retaining nut
3 = Plugs (dowels)

# C 5191 – Seco-Capto™, basic holders

CAT TF Mazak™ e-machine and Mori Seiki NT™ -Series

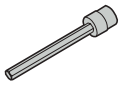
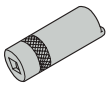




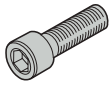

- 90° rotated polygon for precision tool tip control

| Designation | Item number | CTMS | CTWS | LF | LB | LB1 | BD | BD1 | OAL | Design | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | *Inch* | | | | lbs |
| E947451916350 | 03030255 | CAT50 TF AD Mazak | C6 | 1.969 | 0.510 | 0.510 | 2.480 | 2.750 | 5.960 | 1 | 0 | PB | 6.830 |

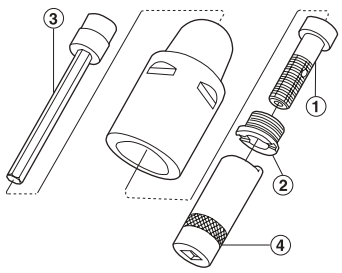
## Accessories

| For size | Extension key | Spanner |
|---|---|---|
| |  |  |
| E947451916350 | 5680015-02 | 5680065-12 |

## Spare Parts, included in delivery

| For size | Centre screw | Retaining nut |
|---|---|---|
| |  |  |
| E947451916350 | 5512063-09 | 5512091-02 |

## Accessories / Spare Parts



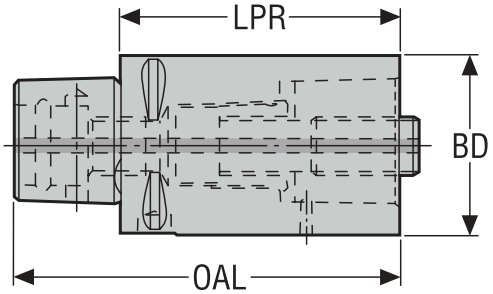

Accessories:
3 = Extension key
4 = Retaining nut spanner

Spare parts:
1 = Center screw
2 = Retaining nut

# C 01 – Seco-Capto™, extensions

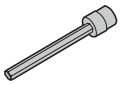
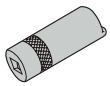
ISO 26623-1



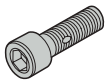



| Designation | Item number | CTMS | CTWS | LPR | BD | OAL | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | kg<br>*lbs* |
| C3-391.01-32060A | 75039884 | C3 | C3 | 60,0<br>*2.362* | 32,0<br>*1.260* | 79,0<br>*3.110* | 0 | - | 0,34<br>*0.750* |
| C3-391.01-32080A | 00090847 | C3 | C3 | 80,0<br>*3.150* | 32,0<br>*1.260* | 99,0<br>*3.898* | 0 | - | 0,5<br>*1.100* |
| C4-391.01-40060A | 75039885 | C4 | C4 | 60,0<br>*2.362* | 40,0<br>*1.575* | 84,0<br>*3.307* | 0 | - | 0,54<br>*1.190* |
| C4-391.01-40080A | 02207391 | C4 | C4 | 80,0<br>*3.150* | 40,0<br>*1.575* | 104,0<br>*4.094* | 0 | - | 0,71<br>*1.570* |
| C5-391.01-50080A | 75039886 | C5 | C5 | 80,0<br>*3.150* | 50,0<br>*1.969* | 110,0<br>*4.331* | 0 | - | 1,12<br>*2.470* |
| C5-391.01-50100A | 00004773 | C5 | C5 | 100,0<br>*3.937* | 50,0<br>*1.969* | 130,0<br>*5.118* | 0 | - | 1,39<br>*3.060* |
| C6-391.01-63100A | 75039887 | C6 | C6 | 100,0<br>*3.937* | 63,0<br>*2.480* | 138,0<br>*5.433* | 0 | - | 2,2<br>*4.850* |
| C6-391.01-63140A | 00004840 | C6 | C6 | 140,0<br>*5.512* | 63,0<br>*2.480* | 178,0<br>*7.008* | 0 | - | 3,1<br>*6.830* |
| C8-391.01-80100A | 75039888 | C8 | C8 | 100,0<br>*3.937* | 80,0<br>*3.150* | 148,0<br>*5.827* | 0 | - | 3,62<br>*7.980* |
| C8-391.01-80125A | 00004841 | C8 | C8 | 125,0<br>*4.921* | 80,0<br>*3.150* | 173,0<br>*6.811* | 0 | - | 4,54<br>*10.010* |

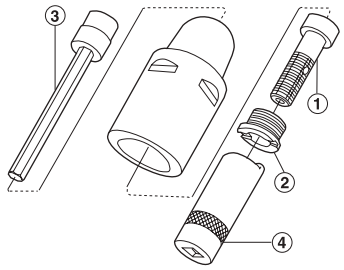
## Accessories

| For size | Extension key | Spanner |
|---|---|---|
| |  |  |
| C3 | 5680015-05 | 5680065-13 |
| C4 | 5680015-05 | 5680065-10 |
| C5 | 5680015-01 | 5680065-11 |
| C6 | 5680015-02 | 5680065-12 |
| C8 | 5680015-02 | 5680065-12 |

## Spare Parts, included in delivery

| For size | Centre screw | Retaining nut |
|---|---|---|
| |  |  |
| C3 | 5512067-01 | 5512091-04 |
| C4 | 5512067-02 | 5512091-03 |
| C5 | 5512067-03 | 5512091-01 |
| C6 | 5512067-04 | 5512091-02 |
| C8 | 5512067-04 | 5512091-02 |

## Accessories / Spare Parts




Accessories:
3 = Extension key
4 = Retaining nut spanner

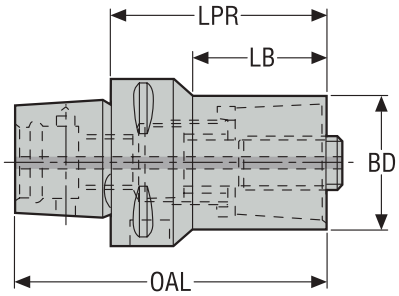
Spare parts:
1 = Center screw
2 = Retaining nut

# C 02 – Seco-Capto™, reducers

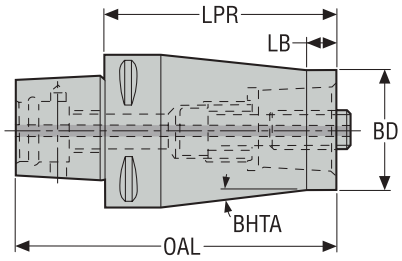
ISO 26623-1



Design 1

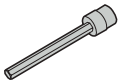
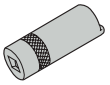



Design 2

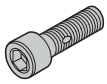



| Designation | Item number | CTMS | CTWS | LPR | LB | BD | OAL | Design | BHTA° | RFID hole | Balancing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | | | | | kg *lbs* |
| C4-391.02-32055A | 75039889 | C4 | C3 | 55,0 *2.165* | 31,0 *1.220* | 32,0 *1.260* | 79,0 *3.110* | 1 | – | 0 | - | 0,42 *0.930* |
| C4-391.02-32070A | 02535687 | C4 | C3 | 70,0 *2.756* | – | 32,0 *1.260* | 94,0 *3.701* | 2 | 6,0 | 0 | - | 0,56 *1.230* |
| C5-391.02-32060A | 75039890 | C5 | C3 | 60,0 *2.362* | 34,8 *1.370* | 32,0 *1.260* | 90,0 *3.543* | 1 | – | 0 | - | 0,64 *1.410* |
| C5-391.02-40065A | 75039891 | C5 | C4 | 65,0 *2.559* | 40,0 *1.575* | 40,0 *1.575* | 95,0 *3.740* | 1 | – | 0 | - | 0,77 *1.700* |
| C6-391.02-32070A | 75039892 | C6 | C3 | 70,0 *2.756* | 39,0 *1.535* | 32,0 *1.260* | 108,0 *4.252* | 1 | – | 0 | - | 1,06 *2.340* |
| C6-391.02-40080A | 75039893 | C6 | C4 | 80,0 *3.150* | 51,4 *2.024* | 40,0 *1.575* | 118,0 *4.646* | 1 | – | 0 | - | 1,24 *2.730* |
| C6-391.02-50080A | 75039894 | C6 | C5 | 80,0 *3.150* | 51,5 *2.028* | 50,0 *1.969* | 118,0 *4.646* | 1 | – | 0 | - | 1,45 *3.200* |
| C6-391.02-50110A | 02207400 | C6 | C5 | 110,0 *4.331* | 12,0 *0.472* | 50,0 *1.969* | 148,0 *5.827* | 2 | 4,5 | 0 | - | 2,15 *4.740* |
| C8-391.02-32060B | 03080008 | C8 | C3 | 60,0 *2.362* | 20,7 *0.815* | 32,0 *1.260* | 108,0 *4.252* | 1 | – | 0 | - | 2,0 *4.410* |
| C8-391.02-40070B | 03080009 | C8 | C4 | 70,0 *2.756* | 31,4 *1.236* | 40,0 *1.575* | 118,0 *4.646* | 1 | – | 0 | - | 2,1 *4.630* |
| C8-391.02-50080B | 03080011 | C8 | C5 | 80,0 *3.150* | 42,8 *1.685* | 50,0 *1.969* | 128,0 *5.039* | 1 | – | 0 | - | 2,4 *5.290* |
| C8-391.02-63080B | 02527212 | C8 | C6 | 80,0 *3.150* | 44,5 *1.752* | 63,0 *2.480* | 128,0 *5.039* | 1 | – | 0 | - | 2,6 *5.730* |
| C8-391.02-63120A | 02207176 | C8 | C6 | 120,0 *4.724* | 12,0 *0.472* | 63,0 *2.480* | 168,0 *6.614* | 2 | 6,0 | 0 | - | 3,96 *8.730* |

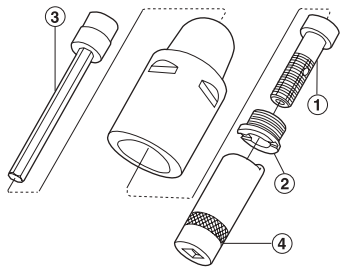
## Accessories

| For size | Extension key | Spanner |
|---|---|---|
| |  |  |
| C...-32 | 5680015-05 | 5680065-13 |
| C...-40 | 5680015-05 | 5680065-10 |
| C...-50 | 5680015-01 | 5680065-11 |
| C...-63 | 5680015-02 | 5680065-12 |

## Spare Parts, included in delivery

| For size | Centre screw | Retaining nut |
|---|---|---|
| |  |  |
| C...-32 | 5512067-01 | 5512091-04 |
| C...-40 | 5512067-02 | 5512091-03 |
| C...-50 | 5512067-03 | 5512091-01 |
| C...-63 | 5512067-04 | 5512091-02 |

## Accessories / Spare Parts



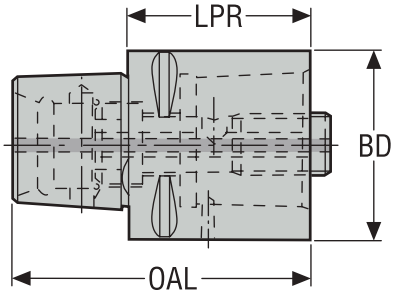

Accessories:
3 = Extension key
4 = Retaining nut spanner

Spare parts:
1 = Center screw
2 = Retaining nut

# C01 Seco-Capto ™ extensions, short version, for segment clamping only

ISO 26623-1

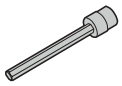




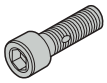

- The Seco-Capto™ machine side of short extensions can only be hold by spindles with segment clamping (not with center bolt clamping)

| Designation | Item number | CTMS | CTWS | LPR | BD | OAL | RFID hole | Balan-cing | Weight |
|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | kg<br>*lbs* |
| C3-391.01-32035 | 02535685 | C3 | C3 | 35,0<br>*1.378* | 32,0<br>*1.260* | 54,0<br>*2.126* | 0 | - | 0,21<br>*0.460* |
| C4-391.01-40040 | 02535686 | C4 | C4 | 40,0<br>*1.575* | 40,0<br>*1.575* | 64,0<br>*2.520* | 0 | - | 0,37<br>*0.820* |
| C5-391.01-50050 | 02484934 | C5 | C5 | 50,0<br>*1.969* | 50,0<br>*1.969* | 80,0<br>*3.150* | 0 | - | 0,7<br>*1.540* |
| C6-391.01-63060 | 02300834 | C6 | C6 | 60,0<br>*2.362* | 63,0<br>*2.480* | 98,0<br>*3.858* | 0 | - | 1,31<br>*2.890* |
| C8-391.01-80065 | 02417041 | C8 | C8 | 65,0<br>*2.559* | 80,0<br>*3.150* | 113,0<br>*4.449* | 0 | - | 2,3<br>*5.070* |

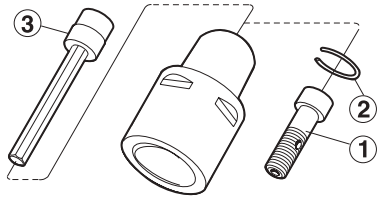
## Accessories

| For | Extension key |
|---|---|
| |  |
| C3-391.01-32035 | 5680015-05 |
| C4-391.01-40040 | 5680015-05 |
| C5-391.01-50050 | 5680015-05 |
| C6-391.01-63060 | 5680015-02 |
| C8-391.01-80065 | 5680015-02 |

## Spare Parts, included in delivery

| For | Centre screw | Circlip |
|---|---|---|
| |  |  |
| C3-391.01-32035 | 5512068-01 | 5545040-02 |
| C4-391.01-40040 | 5512068-02 | 5545040-03 |
| C5-391.01-50050 | 5512068-03 | 5545040-07 |
| C6-391.01-63060 | 5512068-04 | 5545040-08 |
| C8-391.01-80065 | 5512068-05 | 5545040-08 |

## Accessories / Spare Parts



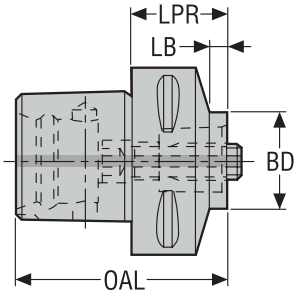

Accessories:
3 = Extension key

Spare parts:
1 = Center screw
2 = Circlip

# C02 Seco-Capto™ reducers, short version, for segment clamping only

ISO 26623-1

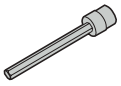




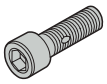

- The Seco-Capto™ machine side of short reducers can only be hold by spindles with segment clamping (not with center bolt clamping)
- * With 180° offset Machine side vs Workpiece side

| Designation | Item number | CTMS | CTWS | LPR | LB | BD | OAL | * | RFID hole | Balancing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | | | | kg<br>*lbs* |
| C5-391.02-32033A | 03080025 | C5 | C3 | 33,0<br>*1.299* | 5,0<br>*0.197* | 32,0<br>*1.260* | 63,0<br>*2.480* | – | 0 | PB | 0,6<br>*1.320* |
| C5-391.02-40040A | 03079983 | C5 | C4 | 40,0<br>*1.575* | 15,0<br>*0.591* | 40,0<br>*1.575* | 70,0<br>*2.756* | – | 0 | - | 0,6<br>*1.320* |
| C6-391.02-32032 | 02535690 | C6 | C3 | 32,0<br>*1.260* | 6,0<br>*0.236* | 32,0<br>*1.260* | 70,0<br>*2.756* | – | 0 | - | 0,85<br>*1.870* |
| C6-391.02-40040 | 02459467 | C6 | C4 | 40,0<br>*1.575* | 11,0<br>*0.433* | 40,0<br>*1.575* | 78,0<br>*3.071* | – | 0 | - | 0,93<br>*2.050* |
| C6-391.02-50050A | 03080019 | C6 | C5 | 50,0<br>*1.969* | 20,0<br>*0.787* | 50,0<br>*1.969* | 88,0<br>*3.465* | – | 0 | - | 1,1<br>*2.430* |
| C8-391.02-50045A | 03080010 | C8 | C5 | 45,0<br>*1.772* | 5,0<br>*0.197* | 50,0<br>*1.969* | 93,0<br>*3.661* | – | 0 | - | 1,9<br>*4.190* |
| C8-391.02-63055A | 03080012 | C8 | C6 | 55,0<br>*2.165* | 15,0<br>*0.591* | 63,0<br>*2.480* | 103,0<br>*4.055* | – | 0 | - | 2,1<br>*4.630* |
| C8-391.02R-63055A | 03080030 | C8 | C6 | 55,0<br>*2.165* | 15,0<br>*0.591* | 63,0<br>*2.480* | 103,0<br>*4.055* | * | 0 | - | 1,9<br>*4.190* |

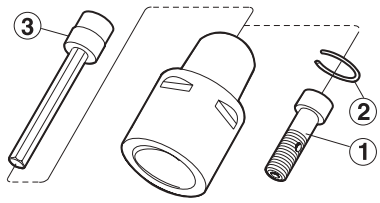
## Accessories

| For | Extension key |
|---|---|
| |  |
| C5-391.02-32033A | 5680015-05 |
| C5-391.02-40040A | 5680015-05 |
| C6-391.02-32032 | 5680015-05 |
| C6-391.02-40040 | 5680015-05 |
| C6-391.02-50050A | 5680015-01 |
| C8-391.02-50045A | 5680015-01 |
| C8-391.02-63055A | 5680015-02 |
| C8-391.02R-63055A | 5680015-02 |

## Spare Parts, included in delivery

| For | Centre screw | Circlip |
|---|---|---|
| |  |  |
| C5-391.02-32033A | 5512068-01 | 5545040-02 |
| C5-391.02-40040A | 5512068-06 | 5545040-07 |
| C6-391.02-32032 | 5512068-01 | 5545040-02 |
| C6-391.02-40040 | 5512068-02 | 5545040-03 |
| C6-391.02-50050A | 5512068-07 | 5545040-08 |
| C8-391.02-50045A | 5512068-08 | 5545040-08 |
| C8-391.02-63055A | 5512068-05 | 5545040-08 |
| C8-391.02R-63055A | 5512068-05 | 5545040-08 |

## Accessories / Spare Parts



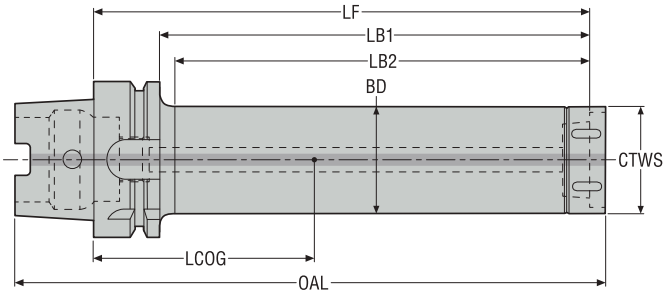

Accessories:
3 = Extension key

Spare parts:
1 = Center screw
2 = Circlip

# GL – Steadyline®, HSK-T/A GL holders

Body diameters 25, 32, 40 and 50 mm / *0.984, 1.260, 1.575 and 1.969 inch*

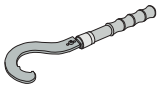





- With dynamic damping, ready to use
- With through coolant
- * Max. RPM only when used in rotating boring

| Designation | Item number | CTMS HSK-T/A | CTWS GL size | BD | LF | LB1 | LB2 | OAL | LCOG | Max. RPM* | RFID hole | Balancing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*inch* | mm<br>*inch* | mm<br>*inch* | mm<br>*inch* | mm<br>*inch* | mm<br>*inch* | | | | kg<br>*lbs* |
| E9374-D32-160-GL32 | 03029521 | HSK-T/A63 | GL32 | 32,0<br>*1.260* | 160,0<br>*6.299* | 134,0<br>*5.276* | 128,0<br>*5.039* | 197,4<br>*7.772* | 58,92<br>*2.320* | 0 | 1 | PB | 1,6<br>*3.530* |
| E9374-D32-224-GL32 | 03029522 | HSK-T/A63 | GL32 | 32,0<br>*1.260* | 224,0<br>*8.819* | 198,0<br>*7.795* | 192,0<br>*7.559* | 261,4<br>*10.291* | 90,22<br>*3.552* | 0 | 1 | PB | 2,0<br>*4.410* |
| E9374-D40-208-GL40 | 03029523 | HSK-T/A63 | GL40 | 40,0<br>*1.575* | 208,0<br>*8.189* | 182,0<br>*7.165* | 176,0<br>*6.929* | 246,4<br>*9.701* | 92,78<br>*3.653* | 0 | 1 | PB | 2,7<br>*5.950* |
| E9374-D40-288-GL40 | 03029524 | HSK-T/A63 | GL40 | 40,0<br>*1.575* | 288,0<br>*11.339* | 262,0<br>*10.315* | 256,0<br>*10.079* | 326,4<br>*12.850* | 134,37<br>*5.290* | 0 | 1 | PB | 3,5<br>*7.720* |
| E9374-D50-268-GL50 | 03029525 | HSK-T/A63 | GL50 | 50,0<br>*1.969* | 268,0<br>*10.551* | 242,0<br>*9.528* | 240,5<br>*9.469* | 307,4<br>*12.102* | 131,8<br>*5.189* | 0 | 1 | PB | 4,8<br>*10.580* |
| E9374-D50-368-GL50 | 03029526 | HSK-T/A63 | GL50 | 50,0<br>*1.969* | 368,0<br>*14.488* | 342,0<br>*13.465* | 340,5<br>*13.406* | 407,4<br>*16.039* | 184,79<br>*7.275* | 0 | 1 | PB | 6,4<br>*14.110* |
| E9376-D32-160-GL32 | 03029527 | HSK-T/A100 | GL32 | 32,0<br>*1.260* | 160,0<br>*6.299* | 131,0<br>*5.157* | 125,0<br>*4.921* | 215,4<br>*8.480* | 32,87<br>*1.294* | 0 | 1 | PB | 3,0<br>*6.610* |
| E9376-D32-224-GL32 | 03029528 | HSK-T/A100 | GL32 | 32,0<br>*1.260* | 224,0<br>*8.819* | 195,0<br>*7.677* | 189,0<br>*7.441* | 279,4<br>*11.000* | 54,97<br>*2.164* | 0 | 1 | PB | 3,4<br>*7.500* |
| E9376-D32-288-GL32 | 03029529 | HSK-T/A100 | GL32 | 32,0<br>*1.260* | 288,0<br>*11.339* | 259,0<br>*10.197* | 253,0<br>*9.961* | 343,4<br>*13.520* | 80,51<br>*3.170* | 0 | 1 | PB | 3,8<br>*8.380* |
| E9376-D40-208-GL40 | 03029530 | HSK-T/A100 | GL40 | 40,0<br>*1.575* | 208,0<br>*8.189* | 179,0<br>*7.047* | 173,0<br>*6.811* | 264,4<br>*10.409* | 62,83<br>*2.474* | 0 | 1 | PB | 4,1<br>*9.040* |
| E9376-D40-288-GL40 | 03029531 | HSK-T/A100 | GL40 | 40,0<br>*1.575* | 288,0<br>*11.339* | 259,0<br>*10.197* | 253,0<br>*9.961* | 344,4<br>*13.559* | 98,31<br>*3.870* | 0 | 1 | PB | 4,9<br>*10.800* |
| E9376-D40-368-GL40 | 03029532 | HSK-T/A100 | GL40 | 40,0<br>*1.575* | 368,0<br>*14.488* | 339,0<br>*13.346* | 333,0<br>*13.110* | 424,4<br>*16.709* | 139,77<br>*5.503* | 0 | 1 | PB | 5,8<br>*12.790* |
| E9376-D50-268-GL50 | 03029533 | HSK-T/A100 | GL50 | 50,0<br>*1.969* | 268,0<br>*10.551* | 239,0<br>*9.409* | 234,0<br>*9.213* | 325,4<br>*12.811* | 104,26<br>*4.105* | 0 | 1 | PB | 6,2<br>*13.670* |
| E9376-D50-368-GL50 | 03029534 | HSK-T/A100 | GL50 | 50,0<br>*1.969* | 368,0<br>*14.488* | 339,0<br>*13.346* | 334,0<br>*13.150* | 425,4<br>*16.748* | 154,26<br>*6.073* | 0 | 1 | PB | 7,8<br>*17.200* |
| E9376-D50-468-GL50 | 03029535 | HSK-T/A100 | GL50 | 50,0<br>*1.969* | 468,0<br>*18.425* | 439,0<br>*17.283* | 434,0<br>*17.087* | 525,4<br>*20.685* | 211,61<br>*8.331* | 0 | 1 | PB | 9,7<br>*21.380* |
| HSKTA63-GL25-130-K | 03214283 | HSK-T/A63 | GL25 | 25,0<br>*0.984* | 130,0<br>*5.118* | 104,0<br>*4.094* | 101,0<br>*3.976* | 166,5<br>*6.555* | 37,0<br>*1.457* | 0 | 1 | PB | 1,1<br>*2.430* |
| HSKTA63-GL25-180-K | 03214284 | HSK-T/A63 | GL25 | 25,0<br>*0.984* | 180,0<br>*7.087* | 154,0<br>*6.063* | 151,0<br>*5.945* | 216,5<br>*8.524* | 57,7<br>*2.272* | 0 | 1 | PB | 1,3<br>*2.870* |
| HSKTA63-GL25-230-K | 03214285 | HSK-T/A63 | GL25 | 25,0<br>*0.984* | 230,0<br>*9.055* | 204,0<br>*8.031* | 201,0<br>*7.913* | 266,5<br>*10.492* | 80,3<br>*3.161* | 0 | 1 | PB | 1,5<br>*3.310* |

## Accessories

| For size | Replaceable end | Torque key |
|---|---|---|
| |  |  |
| GL32 | SL00-32 | SL00-32.250 |
| GL40 | SL00-40 | SL00-40.350 |
| GL50 | SL00-50 | SL00-50.550 |
| GL25 | – | – |

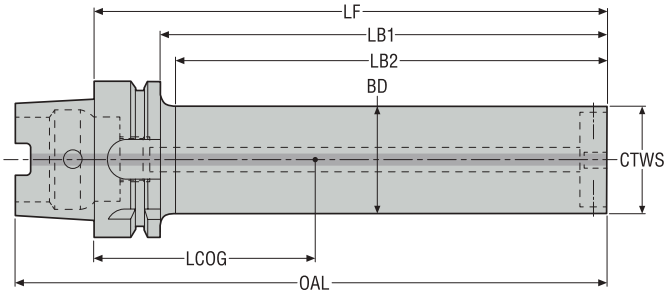
## Spare Parts, included in delivery

| For size | Locking key |
|---|---|
| |  |
| GL32 | SL32 |
| GL40 | SL40 |
| GL50 | SL50 |
| GL25 | SL25 |

# BA – Steadyline®, HSK T/A-BA holders

Body diameters 60 and 80 mm / *2.362 and 3.150 inch*






- With dynamic damping, ready to use
- To hold BA to GL adapters with GL turning heads
- With through coolant
- * Max. RPM only when used in rotating boring

| Designation | Item number | CTMS HSK-T/A size | CTWS BA connection | BD | LF | LB1 | LB2 | OAL | LCOG | Max. RPM* | RFID hole | Balancing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*inch* | mm<br>*inch* | mm<br>*inch* | mm<br>*inch* | mm<br>*inch* | mm<br>*inch* | | | | kg<br>*lbs* |
| E9376-D60-301-BA060 | 03062828 | HSK-T/A100 | BA060 | 60,0<br>*2.362* | 301,0<br>*11.850* | 272,0<br>*10.709* | 267,0<br>*10.512* | 351,0<br>*13.819* | 133,05<br>*5.238* | 4000 | 1 | PB | 8,9<br>*19.620* |
| E9376-D60-421-BA060 | 03062829 | HSK-T/A100 | BA060 | 60,0<br>*2.362* | 421,0<br>*16.575* | 392,0<br>*15.433* | 387,0<br>*15.236* | 471,0<br>*18.543* | 197,17<br>*7.763* | 0 | 1 | PB | 11,8<br>*26.010* |
| E9376-D60-541-BA060 | 03062830 | HSK-T/A100 | BA060 | 60,0<br>*2.362* | 541,0<br>*21.299* | 512,0<br>*20.157* | 507,0<br>*19.961* | 591,0<br>*23.268* | 260,56<br>*10.258* | 0 | 1 | PB | 14,5<br>*31.970* |
| E9376-D80-421-BA080 | 03064109 | HSK-T/A100 | BA080 | 80,0<br>*3.150* | 421,0<br>*16.575* | 392,0<br>*15.433* | 387,0<br>*15.236* | 471,0<br>*18.543* | 209,68<br>*8.255* | 0 | 1 | PB | 19,4<br>*42.770* |
| E9376-D80-581-BA080 | 03064111 | HSK-T/A100 | BA080 | 80,0<br>*3.150* | 581,0<br>*22.874* | 552,0<br>*21.732* | 547,0<br>*21.535* | 631,0<br>*24.843* | 295,45<br>*11.632* | 0 | 1 | PB | 26,2<br>*57.760* |

## Accessories

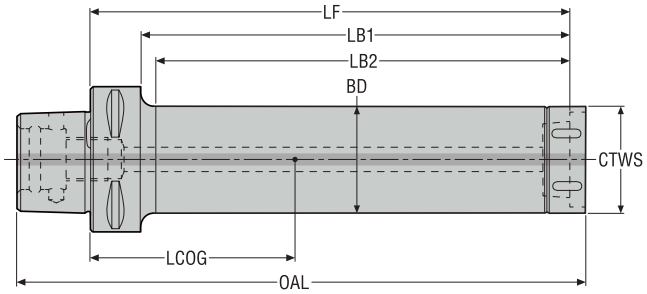
| For size | Locking key |
|---|---|
| |  |
| BA060 | 03H04 |
| BA080 | 03H05 |

## Spare Parts, included in delivery

| For size | Locking screw |
|---|---|
| |  |
| BA060 | 90FQ4 |
| BA080 | 90FQ52 |

# GL – Steadyline®, GL holders

Body diameters 25, 32, 40 and 50 mm / *0.984, 1.260, 1.575 and 1.969 inch*



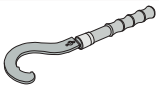



- With dynamic damping, ready to use
- With through coolant
- * Max. RPM only when used in rotating boring

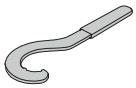
| Designation | Item number | CTMS Seco-Capto™ size | CTWS GL size | BD | LF | LB1 | LB2 | OAL | LCOG | Max. RPM* | RFID hole | Balancing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*inch* | mm<br>*inch* | mm<br>*inch* | mm<br>*inch* | mm<br>*inch* | mm<br>*inch* | | | | kg<br>*lbs* |
| C4-D25-130-GL25 | 03214272 | C4 | GL25 | 25,0<br>*0.984* | 130,0<br>*5.118* | 110,0<br>*4.331* | 107,0<br>*4.213* | 158,5<br>*6.240* | 51,8<br>*2.039* | 0 | 0 | PB | 0,8<br>*1.760* |
| C4-D25-180-GL25 | 03214273 | C4 | GL25 | 25,0<br>*0.984* | 180,0<br>*7.087* | 160,0<br>*6.299* | 157,0<br>*6.181* | 208,5<br>*8.209* | 77,2<br>*3.039* | 0 | 0 | PB | 1,0<br>*2.200* |
| C4-D32-160-GL32 | 02807837 | C4 | GL32 | 32,0<br>*1.260* | 160,0<br>*6.299* | 140,0<br>*5.512* | 137,0<br>*5.394* | 189,4<br>*7.457* | 74,73<br>*2.942* | 0 | 0 | PB | 1,2<br>*2.650* |
| C4-D32-224-GL32 | 02807838 | C4 | GL32 | 32,0<br>*1.260* | 224,0<br>*8.819* | 204,0<br>*8.031* | 201,0<br>*7.913* | 253,4<br>*9.976* | 109,16<br>*4.298* | 0 | 0 | PB | 1,7<br>*3.750* |
| C5-D25-130-GL25 | 03214274 | C5 | GL25 | 25,0<br>*0.984* | 130,0<br>*5.118* | 110,0<br>*4.331* | 107,0<br>*4.213* | 164,5<br>*6.476* | 41,8<br>*1.646* | 0 | 1 | PB | 0,9<br>*1.980* |
| C5-D25-180-GL25 | 03214275 | C5 | GL25 | 25,0<br>*0.984* | 180,0<br>*7.087* | 160,0<br>*6.299* | 157,0<br>*6.181* | 214,5<br>*8.445* | 65,1<br>*2.563* | 0 | 1 | PB | 1,1<br>*2.430* |
| C5-D25-230-GL25 | 03214276 | C5 | GL25 | 25,0<br>*0.984* | 230,0<br>*9.055* | 210,0<br>*8.268* | 207,0<br>*8.150* | 264,5<br>*10.413* | 89,8<br>*3.535* | 0 | 1 | PB | 1,3<br>*2.870* |
| C5-D32-160-GL32 | 02807840 | C5 | GL32 | 32,0<br>*1.260* | 160,0<br>*6.299* | 140,0<br>*5.512* | 136,0<br>*5.354* | 195,4<br>*7.693* | 65,15<br>*2.565* | 0 | 1 | PB | 1,4<br>*3.090* |
| C5-D32-224-GL32 | 02807841 | C5 | GL32 | 32,0<br>*1.260* | 224,0<br>*8.819* | 204,0<br>*8.031* | 200,0<br>*7.874* | 259,4<br>*10.213* | 98,47<br>*3.877* | 0 | 1 | PB | 1,8<br>*3.970* |
| C5-D32-288-GL32 | 02807842 | C5 | GL32 | 32,0<br>*1.260* | 288,0<br>*11.339* | 268,0<br>*10.551* | 264,0<br>*10.394* | 323,4<br>*12.732* | 133,61<br>*5.260* | 0 | 1 | PB | 2,2<br>*4.850* |
| C5-D40-208-GL40 | 02807843 | C5 | GL40 | 40,0<br>*1.575* | 208,0<br>*8.189* | 188,0<br>*7.402* | 184,0<br>*7.244* | 244,4<br>*9.622* | 98,32<br>*3.871* | 0 | 1 | PB | 2,5<br>*5.510* |
| C5-D40-288-GL40 | 02807844 | C5 | GL40 | 40,0<br>*1.575* | 288,0<br>*11.339* | 268,0<br>*10.551* | 264,0<br>*10.394* | 324,4<br>*12.772* | 140,88<br>*5.546* | 0 | 1 | PB | 3,3<br>*7.280* |
| C6-D25-130-GL25 | 03214277 | C6 | GL25 | 25,0<br>*0.984* | 130,0<br>*5.118* | 105,0<br>*4.134* | 102,0<br>*4.016* | 172,5<br>*6.791* | 30,4<br>*1.197* | 0 | 1 | PB | 1,3<br>*2.870* |
| C6-D25-180-GL25 | 03214278 | C6 | GL25 | 25,0<br>*0.984* | 180,0<br>*7.087* | 155,0<br>*6.102* | 152,0<br>*5.984* | 222,5<br>*8.760* | 49,3<br>*1.941* | 0 | 1 | PB | 1,5<br>*3.310* |
| C6-D25-230-GL25 | 03214279 | C6 | GL25 | 25,0<br>*0.984* | 230,0<br>*9.055* | 205,0<br>*8.071* | 202,0<br>*7.953* | 272,5<br>*10.728* | 70,2<br>*2.764* | 0 | 1 | PB | 1,7<br>*3.750* |
| C6-D32-160-GL32 | 02807846 | C6 | GL32 | 32,0<br>*1.260* | 160,0<br>*6.299* | 135,0<br>*5.315* | 129,0<br>*5.079* | 203,4<br>*8.008* | 52,06<br>*2.050* | 0 | 1 | PB | 1,8<br>*3.970* |
| C6-D32-224-GL32 | 02807847 | C6 | GL32 | 32,0<br>*1.260* | 224,0<br>*8.819* | 199,0<br>*7.835* | 193,0<br>*7.598* | 267,4<br>*10.528* | 82,17<br>*3.235* | 0 | 1 | PB | 2,2<br>*4.850* |
| C6-D32-288-GL32 | 02807848 | C6 | GL32 | 32,0<br>*1.260* | 288,0<br>*11.339* | 263,0<br>*10.354* | 257,0<br>*10.118* | 331,4<br>*13.047* | 114,87<br>*4.522* | 0 | 1 | PB | 2,6<br>*5.730* |
| C6-D40-208-GL40 | 02807849 | C6 | GL40 | 40,0<br>*1.575* | 208,0<br>*8.189* | 183,0<br>*7.205* | 177,0<br>*6.969* | 252,4<br>*9.937* | 86,42<br>*3.402* | 0 | 1 | PB | 2,9<br>*6.390* |

| Designation | Item number | CTMS Seco-Capto™ size | CTWS GL size | BD | LF | LB1 | LB2 | OAL | LCOG | Max. RPM* | RFID hole | Balancing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*inch* | mm<br>*inch* | mm<br>*inch* | mm<br>*inch* | mm<br>*inch* | mm<br>*inch* | | | | kg<br>*lbs* |
| C6-D40-288-GL40 | 02807850 | C6 | GL40 | 40,0<br>*1.575* | 288,0<br>*11.339* | 263,0<br>*10.354* | 257,0<br>*10.118* | 332,4<br>*13.087* | 127,5<br>*5.020* | 0 | 1 | PB | 3,7<br>*8.160* |
| C6-D40-368-GL40 | 02807851 | C6 | GL40 | 40,0<br>*1.575* | 368,0<br>*14.488* | 343,0<br>*13.504* | 337,0<br>*13.268* | 412,4<br>*16.236* | 173,14<br>*6.817* | 0 | 1 | PB | 4,6<br>*10.140* |
| C6-D50-268-GL50 | 02807852 | C6 | GL50 | 50,0<br>*1.969* | 268,0<br>*10.551* | 243,0<br>*9.567* | 238,0<br>*9.370* | 313,4<br>*12.339* | 126,6<br>*4.984* | 0 | 1 | PB | 5,0<br>*11.020* |
| C6-D50-368-GL50 | 02807853 | C6 | GL50 | 50,0<br>*1.969* | 368,0<br>*14.488* | 343,0<br>*13.504* | 338,0<br>*13.307* | 413,4<br>*16.276* | 179,44<br>*7.065* | 0 | 1 | PB | 6,6<br>*14.550* |
| C6-D50-468-GL50 | 02807854 | C6 | GL50 | 50,0<br>*1.969* | 468,0<br>*18.425* | 443,0<br>*17.441* | 438,0<br>*17.244* | 513,4<br>*20.213* | 238,49<br>*9.389* | 0 | 1 | PB | 8,5<br>*18.740* |
| C8-D32-224-GL32 | 03029356 | C8 | GL32 | 32,0<br>*1.260* | 224,0<br>*8.819* | 191,0<br>*7.520* | 181,0<br>*7.126* | 277,5<br>*10.925* | 58,17<br>*2.290* | 0 | 1 | PB | 3,2<br>*7.050* |
| C8-D32-288-GL32 | 03029357 | C8 | GL32 | 32,0<br>*1.260* | 288,0<br>*11.339* | 255,0<br>*10.039* | 245,0<br>*9.646* | 341,5<br>*13.445* | 84,7<br>*3.335* | 0 | 1 | PB | 3,6<br>*7.940* |
| C8-D40-288-GL40 | 03029358 | C8 | GL40 | 40,0<br>*1.575* | 288,0<br>*11.339* | 255,0<br>*10.039* | 245,0<br>*9.646* | 341,5<br>*13.445* | 102,14<br>*4.021* | 0 | 1 | PB | 4,7<br>*10.360* |
| C8-D40-368-GL40 | 03029359 | C8 | GL40 | 40,0<br>*1.575* | 368,0<br>*14.488* | 335,0<br>*13.189* | 325,0<br>*12.795* | 422,5<br>*16.634* | 144,04<br>*5.671* | 0 | 1 | PB | 5,6<br>*12.350* |
| C8-D50-268-GL50 | 03029360 | C8 | GL50 | 50,0<br>*1.969* | 268,0<br>*10.551* | 235,0<br>*9.252* | 225,0<br>*8.858* | 323,4<br>*12.732* | 107,59<br>*4.236* | 0 | 1 | PB | 5,9<br>*13.010* |
| C8-D50-368-GL50 | 03029361 | C8 | GL50 | 50,0<br>*1.969* | 368,0<br>*14.488* | 335,0<br>*13.189* | 325,0<br>*12.795* | 423,4<br>*16.669* | 158,08<br>*6.224* | 0 | 1 | PB | 7,5<br>*16.530* |
| C8-D50-468-GL50 | 03029362 | C8 | GL50 | 50,0<br>*1.969* | 468,0<br>*18.425* | 435,0<br>*17.126* | 425,0<br>*16.732* | 523,4<br>*20.606* | 215,6<br>*8.488* | 0 | 1 | PB | 9,4<br>*20.720* |

## Accessories

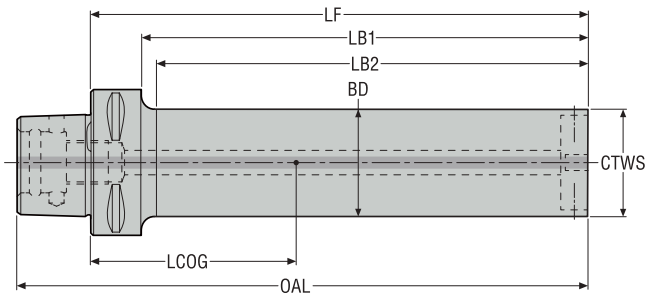
| For size | Replaceable end | Torque key |
|---|---|---|
| |  |  |
| GL25 | – | – |
| GL32 | SL00-32 | SL00-32.250 |
| GL40 | SL00-40 | SL00-40.350 |
| GL50 | SL00-50 | SL00-50.550 |

## Spare Parts, included in delivery

| For size | Locking key |
|---|---|
| |  |
| GL25 | SL25 |
| GL32 | SL32 |
| GL40 | SL40 |
| GL50 | SL50 |

# BA – Steadyline®, BA holders

Body diameters 60 and 80 mm / *2.362 and 3.150 inch*






- With dynamic damping, ready to use
- To hold BA to GL adapters with GL turning heads
- With through coolant
- * Max. RPM only when used in rotating boring

| Designation | Item number | CTMS Seco-Capto™ size | CTWS BA size | BD | LF | LB1 | LB2 | OAL | LCOG | Max. RPM* | RFID hole | Balancing | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*inch* | mm<br>*inch* | mm<br>*inch* | mm<br>*inch* | mm<br>*inch* | mm<br>*inch* | | | | kg<br>*lbs* |
| C6-D60-301-BA060 | 03062831 | C6 | BA060 | 60,0<br>*2.362* | 301,0<br>*11.850* | 276,0<br>*10.866* | 273,0<br>*10.748* | 339,0<br>*13.346* | 151,74<br>*5.974* | 4000 | 1 | PB | 7,8<br>*17.200* |
| C6-D60-421-BA060 | 03062832 | C6 | BA060 | 60,0<br>*2.362* | 421,0<br>*16.575* | 396,0<br>*15.591* | 393,0<br>*15.472* | 459,0<br>*18.071* | 218,63<br>*8.607* | 3000 | 1 | PB | 10,6<br>*23.370* |
| C8-D60-301-BA060 | 03062833 | C8 | BA060 | 60,0<br>*2.362* | 301,0<br>*11.850* | 268,0<br>*10.551* | 263,0<br>*10.354* | 349,0<br>*13.740* | 137,04<br>*5.395* | 4000 | 1 | PB | 8,6<br>*18.960* |
| C8-D60-421-BA060 | 03062834 | C8 | BA060 | 60,0<br>*2.362* | 421,0<br>*16.575* | 388,0<br>*15.276* | 383,0<br>*15.079* | 469,0<br>*18.465* | 202,5<br>*7.972* | 3000 | 1 | PB | 11,4<br>*25.130* |
| C8-D60-541-BA060 | 03062835 | C8 | BA060 | 60,0<br>*2.362* | 541,0<br>*21.299* | 508,0<br>*20.000* | 503,0<br>*19.803* | 589,0<br>*23.189* | 266,78<br>*10.503* | 2000 | 1 | PB | 14,0<br>*30.860* |
| C8-D80-421-BA080 | 03065829 | C8 | BA080 | 80,0<br>*3.150* | 421,0<br>*16.575* | 388,0<br>*15.276* | 383,0<br>*15.079* | 469,0<br>*18.465* | 213,89<br>*8.421* | 3000 | 1 | PB | 18,8<br>*41.450* |
| C8-D80-581-BA080 | 03065830 | C8 | BA080 | 80,0<br>*3.150* | 581,0<br>*22.874* | 548,0<br>*21.575* | 543,0<br>*21.378* | 629,0<br>*24.764* | 300,38<br>*11.826* | 2000 | 1 | PB | 25,1<br>*55.340* |

## Accessories

| For size | Locking key |
|---|---|
| |  |
| BA060 | 03H04 |
| BA080 | 03H05 |

## Spare Parts, included in delivery

| For size | Locking screw |
|---|---|
| |  |
| BA060 | 90FQ4 |
| BA080 | 90FQ52 |

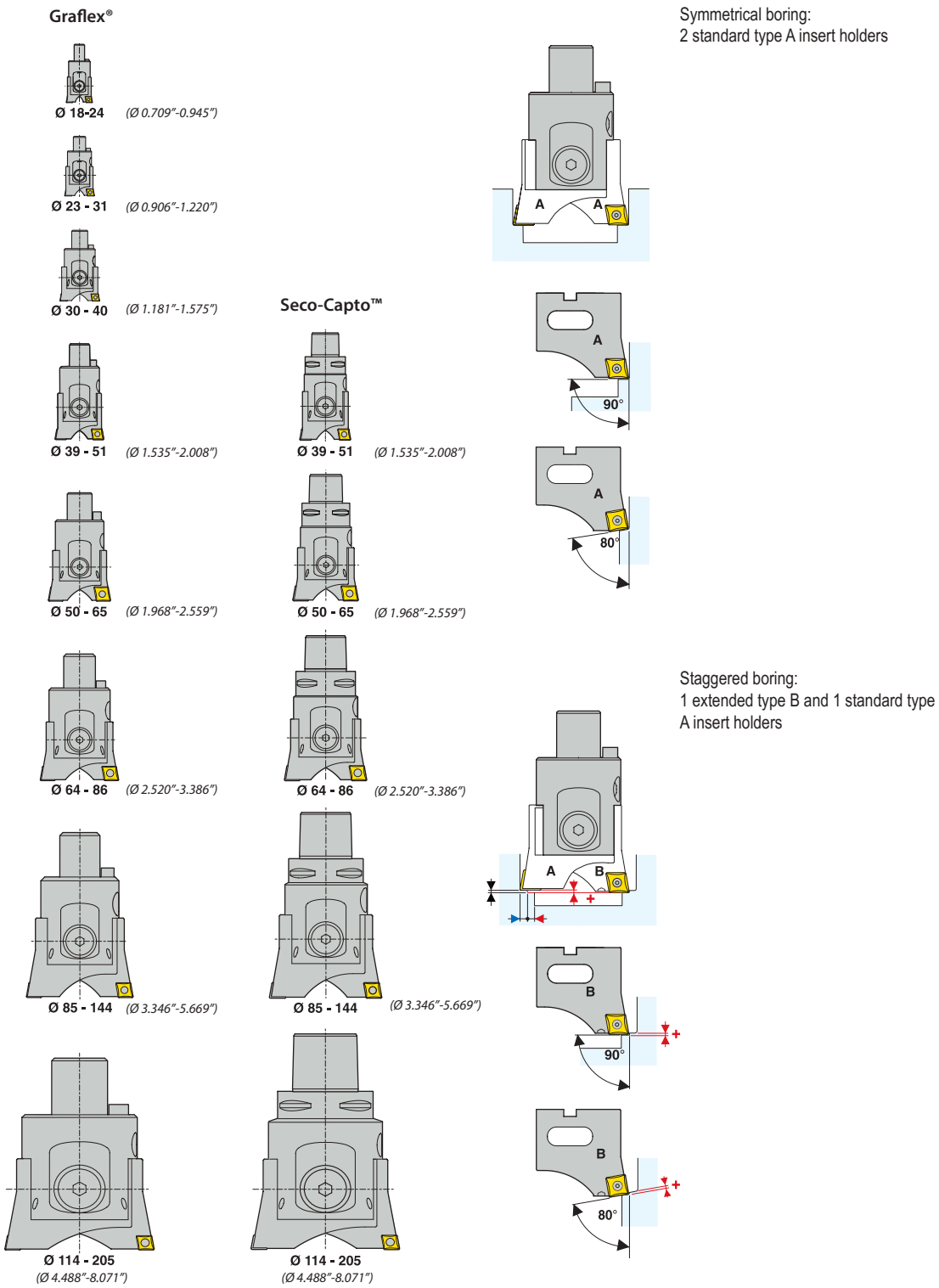


# Rough boring

Seco's range of rough boring products maximize material removal rates and accuracy through strong, highly rigid performance. Designed for symmetrical and staggered designs. Steadyline™ vibration damping solutions complete the range to deliver even greater levels of stability for the machining of deep cavities, where long tool overhangs are needed.

- RB 750 rough boring heads offer the highest possible rough boring performance
- RB 610 rough boring heads are short, simple, robust boring heads for roughing operations

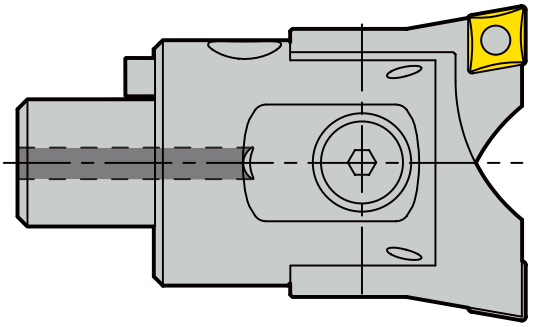
# Overview Rough boring heads



# Features

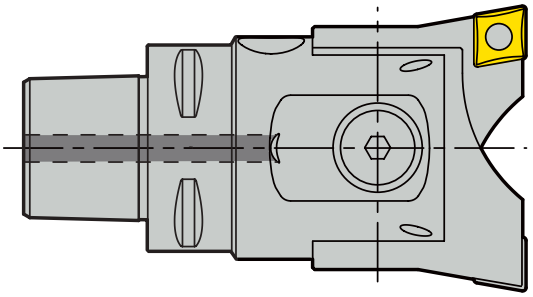
**Graflex® rough boring heads**

- Ø 18 to 205 mm *(0.709-8.071")*
- 8 rough boring heads RB 750 with Graflex® connection for bores Ø 18 to 205 mm *(0.709-8.071")*



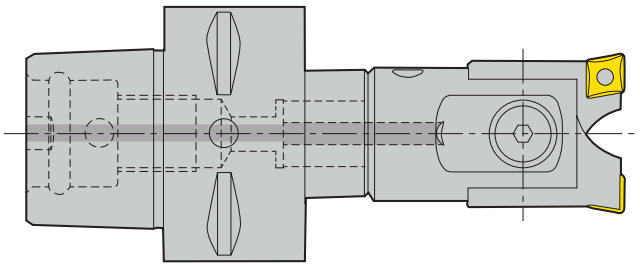
**Seco-Capto™ rough boring heads**

- **Note:** The minimum bore size of the smallest Capto™ rough boring head is Ø 39 mm *(1.535")* with the smallest available Capto™ C3 connection.
- For Ø 18 to 40 mm *(0.709-1.575")* use Graflex® boring heads with connection sizes G0 to G2 in conjunction with the appropriate Capto™/Graflex® adaptor.



**Seco-Capto™ rough boring heads**

- **Note:** Features, Instructions (insert holder fitting, diameter setting, back boring instructions, troubleshooting, recommended machining conditions, maximum speeds), suitable insert holders and suitable inserts are similar for both types of RB 750 rough boring heads of similar boring capacity size, regardless of connection type.
- Modular assemblies and cutting conditions Seco-Capto™ and Graflex® adapters and modular extensions: please see the Tooling Systems catalog.



# Features

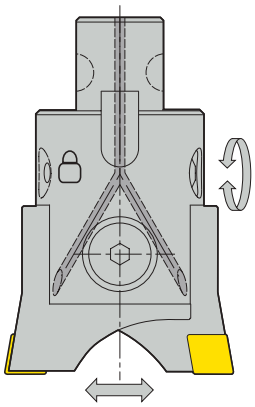
A rough boring head assembly is a combination of 1 body (head) and 2 insert holders.

**Simultaneous or independent adjustments of the insert holders are possible:**

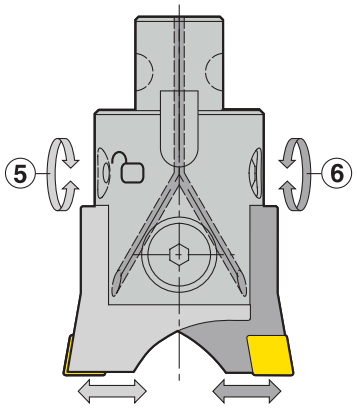
Simultaneous adjustment by the insert holders coupling mechanism (no coupling mechanism in the smallest head Ø 18 to 24 mm *(0.709-0.9445")*.

Each adjusting screw moves both insert holders simultaneously (they are gear coupled).

Diameter adjustment is possible without a presetter (1 increment = 0,1 mm *(0.004")* on the diameter).
Independent adjustment is also possible: disengage the coupling mechanism so that each adjusting screw acts only on its insert holder.



Simultaneous adjustment




Independant adjustment

**Symmetrical boring:**

Symmetrical boring means both cutting edges are set on the same diameter:
It requires two identical type A standard insert holders (with identical lead angle).

**Staggered boring:**

Staggered boring means one cutting edge is offset as a leading cutting edge operating on a smaller diameter than the second edge set on the diameter to be realised: It requires one type A standard insert holder and one type B extended insert holder, achieving the required (+) axial offset.

**90° or 80° lead angle insert holders**

A75…CC… and A75…CP… insert holders have a 90° lead angle for rhombic inserts: mostly suitable for blind holes and requiring less spindle torque.

A75…SC… insert holders have an 80° lead angle for square inserts: mostly suitable for through holes and heavy duty.
Angular orientation of the cutting edges according to ISO.

# Features

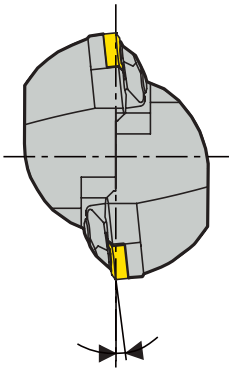
**CC, CP, SC or CN type insert holders**

A750...CC..., A750...CP... and A750...SC... insert holders are with 0° rake angle (GAMO) and 0° inclination angle (LAMS).

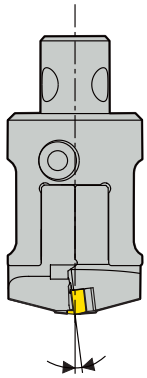
A750...CN... insert holders are with -6° rake angle (GAMO) and -6° inclination angle (LAMS), allowing use of 'negative' CNMM inserts and particularly multi-edges CNMG inserts with 4 cutting edges.

In this case, it is particularly important to select the recommended CN inserts and to respect the recommended cutting data (see page 655).

Using other inserts, e.g. with smaller effective cutting angle, and/or incorrect cutting data, could result in high cutting stresses and machine / workpiece damage.



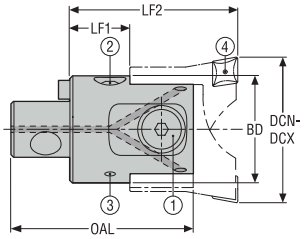
GAMO



LAMS

# RB750

Graflex®





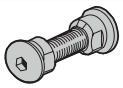

1. Assembly screw
2. Adjusting screw
3. Locking screw of coupling mechanism
4. Insert screw

- Symmetrical and staggered boring is possible
- Simultaneous adjustment by insert holders coupling mechanism

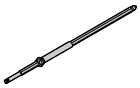
| Designation | Item number | Machine side Graflex size | Workpiece side Capacity DCN-DCX Ø | | OAL | LF1 | LF2 | BD | Weight | Simultaneous adjustment mode | | Independent adjustment mode | | Max. RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | Yes | No | Yes | No | |
| A75000 | 00026687 | G0 | 18,0<br>*0.709* | 24,0<br>*0.945* | 38,0<br>*1.496* | 12,5<br>*0.492* | 35,0<br>*1.378* | 16,5<br>*0.650* | 0,03<br>*0.070* | | ■ | ■ | | 15000 |
| A75010 | 00026688 | G1 | 23,0<br>*0.906* | 31,0<br>*1.220* | 42,5<br>*1.673* | 13,5<br>*0.531* | 40,0<br>*1.575* | 21,5<br>*0.846* | 0,1<br>*0.220* | ■ | | ■ | | 12000 |
| A75020 | 00026689 | G2 | 30,0<br>*1.181* | 40,0<br>*1.575* | 51,0<br>*2.008* | 16,0<br>*0.630* | 46,0<br>*1.811* | 27,0<br>*1.063* | 0,11<br>*0.240* | ■ | | ■ | | 9500 |
| A75030 | 00026690 | G3 | 39,0<br>*1.535* | 51,0<br>*2.008* | 69,0<br>*2.717* | 24,0<br>*0.945* | 65,0<br>*2.559* | 35,0<br>*1.378* | 0,5<br>*1.100* | ■ | | ■ | | 7500 |
| A75040 | 00026691 | G4 | 50,0<br>*1.969* | 65,0<br>*2.559* | 78,0<br>*3.071* | 27,0<br>*1.063* | 72,0<br>*2.835* | 43,0<br>*1.693* | 0,46<br>*1.010* | ■ | | ■ | | 5700 |
| A75050 | 00026692 | G5 | 64,0<br>*2.520* | 86,0<br>*3.386* | 92,0<br>*3.622* | 30,0<br>*1.181* | 82,0<br>*3.228* | 54,0<br>*2.126* | 0,8<br>*1.760* | ■ | | ■ | | 4500 |
| A75060 | 00026693 | G6 | 85,0<br>*3.346* | 144,0<br>*5.669* | 119,0<br>*4.685* | 37,0<br>*1.457* | 105,0<br>*4.134* | 70,0<br>*2.756* | 1,69<br>*3.730* | ■ | | ■ | | 3500 |
| A75070 | 00026694 | G7 | 114,0<br>*4.488* | 205,0<br>*8.071* | 143,0<br>*5.630* | 39,0<br>*1.535* | 120,0<br>*4.724* | 95,0<br>*3.740* | 3,7<br>*8.160* | ■ | | ■ | | 2500 |

Insert holders have to be ordered separately, see page(s) 570-574
Note, weight is without insert holder

## Spare Parts, included in delivery

| For head | Assembly screw | Tenon |
|---|---|---|
| |  |  |
| A75000 | 90A75000 | 90M0 |
| A75010 | 90A75010 | 90M11 |
| A75020 | 90A75020 | 90M21 |
| A75030 | 90A75030 | 90M31 |
| A75040 | 90A75040 | 90M41 |
| A75050 | 90A75050 | 90M51 |
| A75060 | 90A75060 | 90M61 |
| A75070 | 90A75070 | 90M71 |

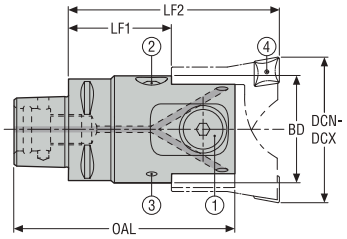
## Accessories

| For head | Clamp key | Driving key | Insert key | Key (T-handle) | Setting key |
|---|---|---|---|---|---|
| |  |  |  |  |  |
| A75000 | 03HL03 | – | H4B-T07P | DOUBLE-T | H1.5-2D |
| A75010 | 03HL03 | H4B-T06P | H4B-T07P | DOUBLE-T | H1.5-2D |
| A75020 | 03HL04 | H4B-T07P | – | DOUBLE-T | H2.0-2D |
| A75030 | 03HL05 | H4B-T08P | – | DOUBLE-T | H2.0-2D |
| A75040 | 03HL05 | H4B-T09P | – | DOUBLE-T | H2.5-2D |
| A75050 | 03HL06 | – | – | DOUBLE-T | 03M03C |
| A75060 | 03HL08 | – | – | DOUBLE-T | – |
| A75070 | 03HL10 | H4B-T15P | H4B-T15PL | DOUBLE-T | – |

**Accessories,** to be ordered separately

# RB750

Seco-Capto™




1. Assembly screw
2. Adjusting screw
3. Locking screw of coupling mechanism
4. Insert screw

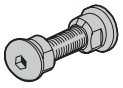


- Symmetrical and staggered boring is possible
- Simultaneous adjustment by insert holders coupling mechanism

| Designation | Item number | Machine side Capto size | Workpiece side Capacity DCN-DCX Ø | | OAL | LF1 | LF2 | BD | Weight | Simultaneous adjustment mode | | Independent adjustment mode | | Max. RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | Yes | No | Yes | No | |
| C3-391.0750-30 | 02809726 | C3 | 39,0<br>*1.535* | 51,0<br>*2.008* | 73,0<br>*2.874* | 29,0<br>*1.142* | 70,0<br>*2.756* | 35,0<br>*1.378* | 0,28<br>*0.620* | ■ | | ■ | | 7500 |
| C4-391.0750-40 | 02809728 | C4 | 50,0<br>*1.969* | 65,0<br>*2.559* | 88,0<br>*3.465* | 37,0<br>*1.457* | 82,0<br>*3.228* | 43,0<br>*1.693* | 0,52<br>*1.150* | ■ | | ■ | | 5700 |
| C5-391.0750-50 | 02809733 | C5 | 64,0<br>*2.520* | 86,0<br>*3.386* | 102,0<br>*4.016* | 40,0<br>*1.575* | 92,0<br>*3.622* | 54,0<br>*2.126* | 0,94<br>*2.070* | ■ | | ■ | | 4500 |
| C6-391.0750-60 | 02809735 | C6 | 85,0<br>*3.346* | 144,0<br>*5.669* | 129,0<br>*5.079* | 49,0<br>*1.929* | 117,0<br>*4.606* | 70,0<br>*2.756* | 2,0<br>*4.410* | ■ | | ■ | | 3500 |
| C8-391.0750-70 | 02809736 | C8 | 114,0<br>*4.488* | 205,0<br>*8.071* | 159,0<br>*6.260* | 57,0<br>*2.244* | 138,0<br>*5.433* | 95,0<br>*3.740* | 4,14<br>*9.130* | ■ | | ■ | | 2500 |

Insert holders have to be ordered separately, see page(s) 570-574
Note, weight is without insert holder

## Spare Parts, included in delivery

| For head | Assembly screw |
|---|---|
| |  |
| C3-...-30 | 90A75030 |
| C4-...-40 | 90A75040 |
| C5-...-50 | 90A75050 |
| C6-...-60 | 90A75060 |
| C8-...-70 | 90A75070 |

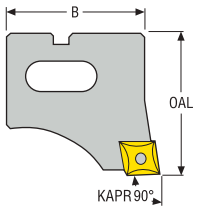
## Accessories

| For head | Clamp key | Driving key | Key (T-handle) | Setting key |
|---|---|---|---|---|
| |  |  |  |  |
| C3-...-30 | 03HL05 | H4B-T08P | DOUBLE-T | H2.0-2D |
| C4-...-40 | 03HL05 | H4B-T09P | DOUBLE-T | H2.5-2D |
| C5-...-50 | 03HL06 | – | DOUBLE-T | 03M03C |
| C6-...-60 | 03HL08 | – | DOUBLE-T | |
| C8-...-70 | 03HL10 | – | DOUBLE-T | |

**Accessories,** to be ordered separately

# Insert holders 90° for CC.. and CP.. inserts






- For fitting onto heads RB 750
- Symmetrical boring requires two standard type A insert holders
- Staggered boring requires one standard type A and one extended type B insert holders

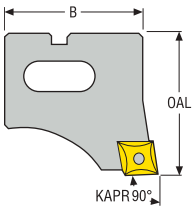
| Designation | Item number | Insert holders type | For head | Capacity DCN-DCX ∅ | | OAL | B | Weight | KRINS° | Suitable insert size |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | | |
| A75000CP0590 | 00026695 | Standard type A | RB 75000 | 18,0<br>*0.709* | 24,0<br>*0.945* | 22,5<br>*0.886* | 16,5<br>*0.650* | 0,01<br>*0.020* | 90 | CP...0502... |
| A75010CC0690 | 00026696 | Standard type A | RB 75010 | 23,0<br>*0.906* | 31,0<br>*1.220* | 26,5<br>*1.043* | 21,5<br>*0.846* | 0,1<br>*0.220* | 90 | CC...0602... |
| A75020CC0690 | 00026697 | Standard type A | RB 75020 | 30,0<br>*1.181* | 40,0<br>*1.575* | 30,0<br>*1.181* | 27,0<br>*1.063* | 0,04<br>*0.090* | 90 | CC...0602... |
| A75030CC0990 | 00026698 | Standard type A | RB 75030 | 39,0<br>*1.535* | 51,0<br>*2.008* | 41,0<br>*1.614* | 35,0<br>*1.378* | 0,1<br>*0.220* | 90 | CC...09T3... |
| A75040CC1290 | 00026699 | Standard type A | RB 75040 | 50,0<br>*1.969* | 65,0<br>*2.559* | 45,0<br>*1.772* | 43,0<br>*1.693* | 0,14<br>*0.310* | 90 | CC...1204... |
| A75050CC1290 | 00026700 | Standard type A | RB 75050 | 64,0<br>*2.520* | 86,0<br>*3.386* | 52,0<br>*2.047* | 54,0<br>*2.126* | 0,3<br>*0.660* | 90 | CC...1204... |
| A75060CC1290 | 00026701 | Standard type A | RB 75060 | 85,0<br>*3.346* | 115,0<br>*4.528* | 68,0<br>*2.677* | 70,0<br>*2.756* | 0,55<br>*1.210* | 90 | CC...1204... |
| A75060CC1690 | 00030763 | Standard type A | RB 75060 | 85,0<br>*3.346* | 115,0<br>*4.528* | 68,0<br>*2.677* | 70,0<br>*2.756* | 0,55<br>*1.210* | 90 | CC...1605... |
| A75065CC1290 | 00026702 | Standard type A | RB 75060 | 114,0<br>*4.488* | 144,0<br>*5.669* | 68,0<br>*2.677* | 100,0<br>*3.937* | 0,89<br>*1.960* | 90 | CC...1204... |
| A75065CC1690 | 00030765 | Standard type A | RB 75060 | 114,0<br>*4.488* | 144,0<br>*5.669* | 68,0<br>*2.677* | 100,0<br>*3.937* | 0,9<br>*1.980* | 90 | CC...1605... |
| A75070CC1290 | 00026703 | Standard type A | RB 75070 | 114,0<br>*4.488* | 160,0<br>*6.299* | 81,0<br>*3.189* | 95,0<br>*3.740* | 1,18<br>*2.600* | 90 | CC...1204... |
| A75070CC1690 | 00030766 | Standard type A | RB 75070 | 114,0<br>*4.488* | 160,0<br>*6.299* | 81,0<br>*3.189* | 95,0<br>*3.740* | 1,18<br>*2.600* | 90 | CC...1605... |
| A75075CC1290 | 00026704 | Standard type A | RB 75070 | 159,0<br>*6.260* | 205,0<br>*8.071* | 81,0<br>*3.189* | 141,0<br>*5.551* | 2,0<br>*4.410* | 90 | CC...1204... |
| A75075CC1690 | 00030771 | Standard type A | RB 75070 | 159,0<br>*6.260* | 205,0<br>*8.071* | 81,0<br>*3.189* | 141,0<br>*5.551* | 2,0<br>*4.410* | 90 | CC...1605... |

## Spare Parts, included in delivery

| For insert size | Insert key | Key (T-handle) | Screw |
|---|---|---|---|
| |  |  |  |
| CP...0502... | H4B-T07P | DOUBLE-T | C02245-T07P |
| CC...0602... | H4B-T07P | DOUBLE-T | C02504-T07P |
| CC...09T3... | H4B-T15P | DOUBLE-T | C04008-T15P |
| CC...1204... | H4B-T15P | DOUBLE-T | C05012-T15P |
| CC...1605... | H4B-T15P | DOUBLE-T | C05012-T15P |

For rough boring recommended inserts, see page(s) 655

# Insert holders 90° for CC.. and CP.. inserts






- For fitting onto heads RB 750
- Symmetrical boring requires two standard type A insert holders
- Staggered boring requires one standard type A and one extended type B insert holders

| Designation | Item number | Insert holders type | For head | Capacity DCN-DCX ∅ | | OAL | B | Weight | KRINS° | Suitable insert size |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | | |
| A75001CP0590 | 00026705 | Extended type B | RB 75000 | 18,0<br>*0.709* | 24,0<br>*0.945* | 22,8<br>*0.898* | 16,5<br>*0.650* | 0,01<br>*0.020* | 90 | CP...0502... |
| A75011CC0690 | 00026706 | Extended type B | RB 75010 | 23,0<br>*0.906* | 31,0<br>*1.220* | 26,85<br>*1.057* | 21,5<br>*0.846* | 0,02<br>*0.040* | 90 | CC...0602... |
| A75021CC0690 | 00026707 | Extended type B | RB 75020 | 30,0<br>*1.181* | 40,0<br>*1.575* | 30,35<br>*1.195* | 27,0<br>*1.063* | 0,1<br>*0.220* | 90 | CC...0602... |
| A75031CC0990 | 00026708 | Extended type B | RB 75030 | 39,0<br>*1.535* | 51,0<br>*2.008* | 41,4<br>*1.630* | 35,0<br>*1.378* | 0,08<br>*0.180* | 90 | CC...09T3... |
| A75041CC1290 | 00026709 | Extended type B | RB 75040 | 50,0<br>*1.969* | 65,0<br>*2.559* | 46,5<br>*1.831* | 43,0<br>*1.693* | 0,13<br>*0.290* | 90 | CC...1204... |
| A75051CC1290 | 00026710 | Extended type B | RB 75050 | 64,0<br>*2.520* | 86,0<br>*3.386* | 52,6<br>*2.071* | 54,0<br>*2.126* | 0,25<br>*0.550* | 90 | CC...1204... |
| A75061CC1290 | 00026711 | Extended type B | RB 75060 | 85,0<br>*3.346* | 115,0<br>*4.528* | 68,6<br>*2.701* | 70,0<br>*2.756* | 0,55<br>*1.210* | 90 | CC...1204... |
| A75061CC1690 | 00030774 | Extended type B | RB 75060 | 85,0<br>*3.346* | 115,0<br>*4.528* | 68,6<br>*2.701* | 70,0<br>*2.756* | 0,55<br>*1.210* | 90 | CC...1605... |
| A75066CC1290 | 00026712 | Extended type B | RB 75060 | 114,0<br>*4.488* | 144,0<br>*5.669* | 68,6<br>*2.701* | 100,0<br>*3.937* | 0,91<br>*2.010* | 90 | CC...1204... |
| A75066CC1690 | 00030775 | Extended type B | RB 75060 | 114,0<br>*4.488* | 144,0<br>*5.669* | 68,6<br>*2.701* | 100,0<br>*3.937* | 0,91<br>*2.010* | 90 | CC...1605... |
| A75071CC1290 | 00026713 | Extended type B | RB 75070 | 114,0<br>*4.488* | 160,0<br>*6.299* | 81,6<br>*3.213* | 95,0<br>*3.740* | 1,16<br>*2.560* | 90 | CC...1204... |
| A75071CC1690 | 00030776 | Extended type B | RB 75070 | 114,0<br>*4.488* | 160,0<br>*6.299* | 81,6<br>*3.213* | 95,0<br>*3.740* | 1,16<br>*2.560* | 90 | CC...1605... |
| A75076CC1290 | 00026714 | Extended type B | RB 75070 | 159,0<br>*6.260* | 205,0<br>*8.071* | 81,6<br>*3.213* | 141,0<br>*5.551* | 2,0<br>*4.410* | 90 | CC...1204... |
| A75076CC1690 | 00030778 | Extended type B | RB 75070 | 159,0<br>*6.260* | 205,0<br>*8.071* | 81,6<br>*3.213* | 141,0<br>*5.551* | 0,9<br>*1.980* | 90 | CC...1605... |

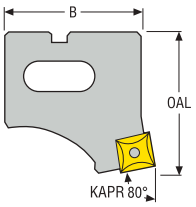
## Spare Parts, included in delivery

| For insert size | Key | Key (T-handle) | Screw |
|---|---|---|---|
| |  |  |  |
| CP...0502... | H4B-T07P | DOUBLE-T | C02245-T07P |
| CC...0602... | H4B-T07P | DOUBLE-T | C02504-T07P |
| CC...09T3... | – | DOUBLE-T | C04008-T15P |
| CC...1204... | – | DOUBLE-T | C05012-T15P |
| CC...1605... | – | DOUBLE-T | C05012-T15P |

For rough boring recommended inserts, see page(s) 655

# Insert holders 80° for SC.. inserts






- For fitting onto heads RB 750
- Symmetrical boring requires two standard type A insert holders
- Staggered boring requires one standard type A and one extended type B insert holders

| Designation | Item number | Insert holders type | For head | Capacity DCN-DCX ∅ | | OAL | B | Weight | KRINS° | Suitable insert size |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | | |
| A75000SC0580 | 00026715 | Standard type A | RB 75000 | 18,0<br>*0.709* | 24,0<br>*0.945* | 22,5<br>*0.886* | 16,5<br>*0.650* | 0,01<br>*0.020* | 80 | SC...0502... |
| A75001SC0580 | 00092946 | Extended type B | RB 75000 | 18,0<br>*0.709* | 24,0<br>*0.945* | 23,2<br>*0.913* | 16,5<br>*0.650* | 0,01<br>*0.020* | 80 | SC...0502... |
| A75010SC0680 | 00026716 | Standard type A | RB 75010 | 23,0<br>*0.906* | 31,0<br>*1.220* | 26,5<br>*1.043* | 21,5<br>*0.846* | 0,02<br>*0.040* | 80 | SC...0602... |
| A75011SC0680 | 00092947 | Extended type B | RB 75010 | 23,0<br>*0.906* | 31,0<br>*1.220* | 27,3<br>*1.075* | 21,5<br>*0.846* | 0,02<br>*0.040* | 80 | SC...0602... |
| A75020SC0680 | 00026717 | Standard type A | RB 75020 | 30,0<br>*1.181* | 40,0<br>*1.575* | 30,0<br>*1.181* | 27,0<br>*1.063* | 0,1<br>*0.220* | 80 | SC...0602... |
| A75021SC0680 | 00092948 | Extended type B | RB 75020 | 30,0<br>*1.181* | 40,0<br>*1.575* | 30,9<br>*1.217* | 27,0<br>*1.063* | 0,04<br>*0.090* | 80 | SC...0602... |
| A75030SC0980 | 00026718 | Standard type A | RB 75030 | 39,0<br>*1.535* | 51,0<br>*2.008* | 41,0<br>*1.614* | 35,0<br>*1.378* | 0,08<br>*0.180* | 80 | SC...09T3... |
| A75031SC0980 | 00092949 | Extended type B | RB 75030 | 39,0<br>*1.535* | 51,0<br>*2.008* | 42,2<br>*1.661* | 35,0<br>*1.378* | 0,08<br>*0.180* | 80 | SC...09T3... |
| A75040SC1280 | 00026719 | Standard type A | RB 75040 | 50,0<br>*1.969* | 65,0<br>*2.559* | 45,0<br>*1.772* | 43,0<br>*1.693* | 0,03<br>*0.070* | 80 | SC...1204... |
| A75041SC1280 | 00092961 | Extended type B | RB 75040 | 50,0<br>*1.969* | 65,0<br>*2.559* | 46,4<br>*1.827* | 43,0<br>*1.693* | 0,14<br>*0.310* | 80 | SC...1204... |
| A75050SC1280 | 00051986 | Standard type A | RB 75050 | 64,0<br>*2.520* | 86,0<br>*3.386* | 52,0<br>*2.047* | 54,0<br>*2.126* | 0,25<br>*0.550* | 80 | SC...1204... |
| A75051SC1280 | 00092962 | Extended type B | RB 75050 | 64,0<br>*2.520* | 86,0<br>*3.386* | 53,7<br>*2.114* | 54,0<br>*2.126* | 0,26<br>*0.570* | 80 | SC...1204... |
| A75060SC1280 | 00052207 | Standard type A | RB 75060 | 85,0<br>*3.346* | 115,0<br>*4.528* | 68,0<br>*2.677* | 70,0<br>*2.756* | 0,56<br>*1.230* | 80 | SC...1204... |
| A75060SC1580 | 00039863 | Standard type A | RB 75060 | 85,0<br>*3.346* | 115,0<br>*4.528* | 68,0<br>*2.677* | 70,0<br>*2.756* | 0,56<br>*1.230* | 80 | SC...1505... |
| A75061SC1280 | 00092963 | Extended type B | RB 75060 | 85,0<br>*3.346* | 115,0<br>*4.528* | 69,8<br>*2.748* | 70,0<br>*2.756* | 0,57<br>*1.260* | 80 | SC...1204... |
| A75061SC1580 | 00039864 | Extended type B | RB 75060 | 85,0<br>*3.346* | 115,0<br>*4.528* | 70,3<br>*2.768* | 70,0<br>*2.756* | 0,57<br>*1.260* | 80 | SC...1505... |
| A75065SC1280 | 00051989 | Standard type A | RB 75060 | 114,0<br>*4.488* | 144,0<br>*5.669* | 68,0<br>*2.677* | 100,0<br>*3.937* | 0,94<br>*2.070* | 80 | SC...1204... |
| A75065SC1580 | 00039865 | Standard type A | RB 75060 | 114,0<br>*4.488* | 144,0<br>*5.669* | 68,0<br>*2.677* | 100,0<br>*3.937* | 1,0<br>*2.200* | 80 | SC...1505... |
| A75066SC1280 | 00092964 | Extended type B | RB 75060 | 114,0<br>*4.488* | 144,0<br>*5.669* | 69,8<br>*2.748* | 100,0<br>*3.937* | 0,96<br>*2.120* | 80 | SC...1204... |
| A75066SC1580 | 00039866 | Extended type B | RB 75060 | 114,0<br>*4.488* | 144,0<br>*5.669* | 70,3<br>*2.768* | 100,0<br>*3.937* | 0,96<br>*2.120* | 80 | SC...1505... |
| A75070SC1280 | 00026723 | Standard type A | RB 75070 | 114,0<br>*4.488* | 160,0<br>*6.299* | 81,4<br>*3.205* | 95,0<br>*3.740* | 1,2<br>*2.650* | 80 | SC...1204... |
| A75070SC1580 | 00039867 | Standard type A | RB 75070 | 114,0<br>*4.488* | 160,0<br>*6.299* | 81,4<br>*3.205* | 95,0<br>*3.740* | 1,18<br>*2.600* | 80 | SC...1505... |

| Designation | Item number | Insert holders type | For head | Capacity DCN-DCX ∅ | | OAL | B | Weight | KRINS° | Suitable insert size |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | | |
| A75071SC1280 | 00092965 | Extended type B | RB 75070 | 114,0<br>*4.488* | 160,0<br>*6.299* | 82,8<br>*3.260* | 95,0<br>*3.740* | 1,21<br>*2.670* | 80 | SC...1204... |
| A75071SC1580 | 00039868 | Extended type B | RB 75070 | 114,0<br>*4.488* | 160,0<br>*6.299* | 83,3<br>*3.280* | 95,0<br>*3.740* | 1,21<br>*2.670* | 80 | SC...1505... |
| A75075SC1280 | 00026724 | Standard type A | RB 75070 | 159,0<br>*6.260* | 205,0<br>*8.071* | 81,4<br>*3.205* | 141,0<br>*5.551* | 2,09<br>*4.610* | 80 | SC...1204... |
| A75075SC1580 | 00039869 | Standard type A | RB 75070 | 159,0<br>*6.260* | 205,0<br>*8.071* | 81,4<br>*3.205* | 141,0<br>*5.551* | 2,1<br>*4.630* | 80 | SC...1505... |
| A75076SC1280 | 00092968 | Extended type B | RB 75070 | 159,0<br>*6.260* | 205,0<br>*8.071* | 82,8<br>*3.260* | 141,0<br>*5.551* | 2,16<br>*4.760* | 80 | SC...1204... |
| A75076SC1580 | 00039870 | Extended type B | RB 75070 | 159,0<br>*6.260* | 205,0<br>*8.071* | 83,3<br>*3.280* | 141,0<br>*5.551* | 2,14<br>*4.720* | 80 | SC...1505... |

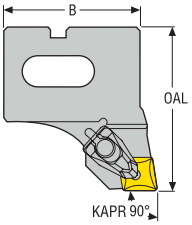
## Spare Parts, included in delivery

| For insert size | Key | Key (T-handle) | Screw |
|---|---|---|---|
| |  |  |  |
| SC...0502... | H4B-T07P | DOUBLE-T | C02245-T07P |
| SC...0602... | H4B-T07P | DOUBLE-T | C02504-T07P |
| SC...09T3... | – | DOUBLE-T | C04008-T15P |
| SC...09T3... | – | DOUBLE-T | C04008-T15P |
| SC...1204... | – | DOUBLE-T | C05012-T15P |
| SC...1505... | – | DOUBLE-T | C05012-T15P |
| SC...1204... | – | DOUBLE-T | C05012-T15P |

For rough boring recommended inserts, see page(s) 655

# Insert holders 90° for CN.. inserts

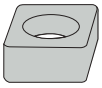





- For fitting onto heads RB 750
- Symmetrical boring requires two standard type A insert holders (Type B extended insert holders for CN.. inserts not available)
- GAMO = Rake angle = - 6°
- LAMS = Inclination angle = - 6°

| Designation | Item number | Insert holders type | For head | Capacity DCN-DCX ∅ | | OAL | B | Weight | KRINS° | Suitable insert size |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | | |
| A75050CN1290 | 02786307 | Standard type A | RB 75050 | 64,0<br>*2.520* | 86,0<br>*3.386* | 63,0<br>*2.480* | 55,0<br>*2.165* | 0,28<br>*0.620* | 90 | CN...1204... |
| A75060CN1290 | 02786308 | Standard type A | RB 75060 | 85,0<br>*3.346* | 115,0<br>*4.528* | 68,0<br>*2.677* | 69,5<br>*2.736* | 0,58<br>*1.280* | 90 | CN...1204... |
| A75065CN1290 | 02786309 | Standard type A | RB 75060 | 114,0<br>*4.488* | 144,0<br>*5.669* | 68,0<br>*2.677* | 99,5<br>*3.917* | 0,98<br>*2.160* | 90 | CN...1204... |
| A75070CN1290 | 02786310 | Standard type A | RB 75070 | 114,0<br>*4.488* | 160,0<br>*6.299* | 85,0<br>*3.346* | 95,0<br>*3.740* | 1,25<br>*2.760* | 90 | CN...1204... |
| A75075CN1290 | 02786311 | Standard type A | RB 75070 | 159,0<br>*6.260* | 205,0<br>*8.071* | 85,0<br>*3.346* | 140,0<br>*5.512* | 2,03<br>*4.480* | 90 | CN...1204... |

## Spare Parts, included in delivery

| For insert size | Anvil screw | Clamp kit | Insert shim | Key (T-handle) |
|---|---|---|---|---|
| |  |  |  |  |
| CN...1204... | CSC6312-T15P | CD12-S12 | UCN120612 | DOUBLE-T |

For rough boring recommended inserts, see page(s) 655

# Instructions
# Recommended machining conditions

**Spindle power:**

As rough boring requires high machine power, we recommend to check that the machine is suitable. Staggered boring is a solution to reduce the power needs, as the feed is divided by two for the same total depth of cut, compared to symmetrical setting.
Optimum performance is obtained with through coolant (higher machining data, better surface finish, better chip evacuation, longer insert life).

For detailed user instructions, please refer to the operating instructions supplied as part of the delivery content of the boring heads and with the Steadyline® bars.
These operating instructions can also be downloaded from www.secotools.com.

**Maximum speeds for rough boring heads**

| Head | Capacity ∅ mm | *Capacity ∅ inch* | Max. RPM | Implied max cutting speed $v_c$ at min. Cap. m/min *(sf/min)* | Implied max cutting speed $v_c$ at max. Cap. m/min *(sf/min)* |
|---|---|---|---|---|---|
| Rough boring heads (with two identical insert holders set symmetrically), with Graflex® connection | | | | | |
| A75000 | 18-24 | *0.709-0.945* | 15000 | 848 *(2782)* | 1131 *(3711)* |
| A75010 | 23-31 | *0.906-1.220* | 12000 | 867 *(2844)* | 1169 *(3835)* |
| A75020 | 30-40 | *1.181-1.575* | 9500 | 895 *(2936)* | 1194 *(3917)* |
| A75030 | 39-51 | *1.535-2.008* | 7500 | 919 *(3015)* | 1202 *(3944)* |
| A75040 | 50-65 | *1.969-2.559* | 5700 | 895 *(2936)* | 1164 *(3819)* |
| A75050 | 64-86 | *2.520-3.386* | 4500 | 905 *(2969)* | 1216 *(3990)* |
| A75060 | 85-115 | *3.346-4.528* | 3500 | 935 *(3068)* | 1264 *(4147)* |
| A75060 | 114-144 | *4.488-5.669* | 2700 | 967 *(3173)* | 1221 *(4006)* |
| A75070 | 114-160 | *4.488-6.299* | 2500 | 895 *(2936)* | 1257 *(4124)* |
| A75070 | 159-205 | *6.260-8.071* | 2000 | 999 *(3278)* | 1288 *(4226)* |
| Rough boring heads (with two identical insert holders set symmetrically), with Seco-Capto™ connection | | | | | |
| C3-391.0750-30 | 39-51 | *1.535-2.008* | 7500 | 919 *(3015)* | 1202 *(3944)* |
| C4-391.0750-40 | 50-65 | *1.969-2.559* | 5700 | 895 *(2936)* | 1164 *(3819)* |
| C5-391.0750-50 | 64-86 | *2.520-3.386* | 4500 | 905 *(2969)* | 1216 *(3990)* |
| C6-391.0750-60 | 85-115 | *3.346-4.528* | 3500 | 935 *(3068)* | 1264 *(4147)* |
| C6-391.0750-60 | 114-144 | *4.488-5.669* | 2700 | 967 *(3173)* | 1221 *(4006)* |
| C8-391.0750-70 | 114-160 | *4.488-6.299* | 2500 | 895 *(2936)* | 1257 *(4124)* |
| C8-391.0750-70 | 159-205 | *6.260-8.071* | 2000 | 999 *(3278)* | 1288 *(4226)* |

**Note**: The maximum speeds are related to the boring head's mechanical design and balancing quality. Speeds inside these limits have to be chosen in regard to the other machining conditions, e.g. work-piece material, cutting edge (insert), tooling length, machine spindle. At speeds from approx. 8000 RPM and above, the basic holders and the extensions/reducers should be fine balanced.

# Troubleshooting instructions

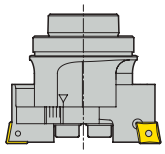
| Problem | Possible cause | Solution |
|---|---|---|
| Poor chip control | Feed rate too low | Increase feed rate |
| | Excessive DOC | Use staggered method |
| Chatter & Vibrations | Excessive speed | Reduce cutting speed, not feed |
| | Extreme L/D ratio | Shorten tool to increase stiffness |
| | | Increase holding arbor's and intermediate's OD |
| | | Use Steadyline bar |
| | | Use carbide or heavy metal extensions |
| | Too large insert radius | Use insert with smaller radius |
| | Unstable workpiece | Improve fixture and clamping support |
| | Lead angle κ is 80° | Change to κ=90°, type CC insert |
| Insert chipping or breaking | Wrong insert | Change to tougher grade of insert |
| | | Use larger radius if available |
| | Severe interrupted cut | Decrease speed, decrease feed |
| | Chips packing and re-cutting | Check for boring bar/bore diameter clearance |
| | | Improve chip control, increase feed |
| Poor tool life | Wrong insert | Change to higher wear resistant grade |
| | Excessive cutting speed | Reduce speed |
| | Insert chipping | Check DOC and feed rate |
| | Too low coolant pressure | Increase coolant pressure |
| Chips not evacuating | Boring assembly to large | Reduce to a smaller head with extended insert holders when possible |
| | Excessive DOC | Use staggered method; prefer CC.. instead of CN.. inserts (particularly when using the boring head at its small diameters). |
| | Inadequate space below bore | Set the workpiece higher onto the table |
| | Poor chip control | See above |
| Insufficient machine power | Excessive feed rate | Reduce feed (not less then 25% of insert radius) |
| | Excessive DOC | Use staggered method |
| | Low machine power | RPM in area of low spindle torque: increase speed |
| | | RPM in area of gear change: adjust RPM |
| | | Change insert to higher rake angle (to HSS in extreme cases) |
| | | Reduce DOC |
| Excessive hole exit burr | Excessive feed rate | Reduce feed |
| | CC type insert holders 90° | Use 80° square insert holder |
| | Cutting forces too high | Reduce DOC |
| | | Reduce insert radius |

# RB 610 Rough boring heads – Overview

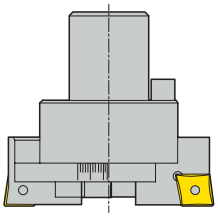
**Graflex® connection**

**GL connection**

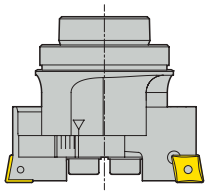
**BA connection**



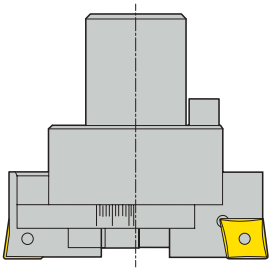
Ø 28–37 mm *(Ø 1.102–1.457")*



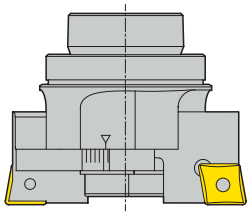
Ø 39–51 mm *(Ø 1.535–2.008")*



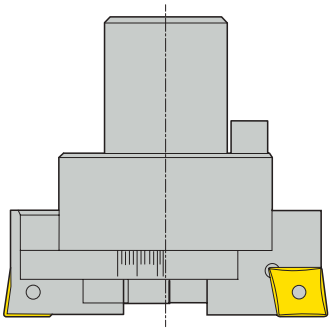
Ø 36–46 mm *(Ø 1.417–1.811")*



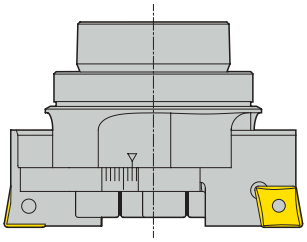
Ø 50–65 mm *(Ø 1.969–2.559")*



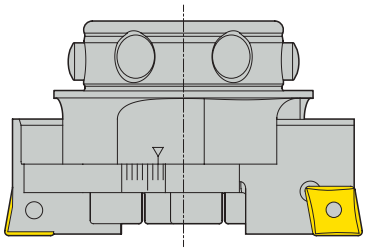
Ø 45–56 mm *(Ø 1.772–2.205")*



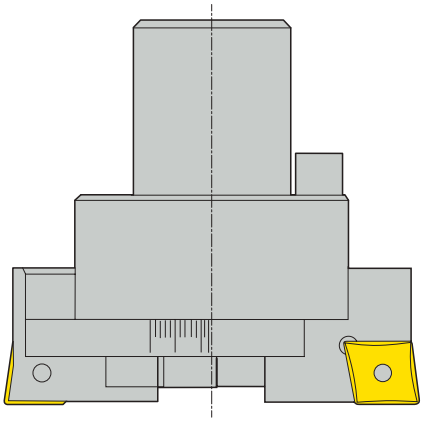
Ø 64–86 mm *(Ø 2.520–3.386")*



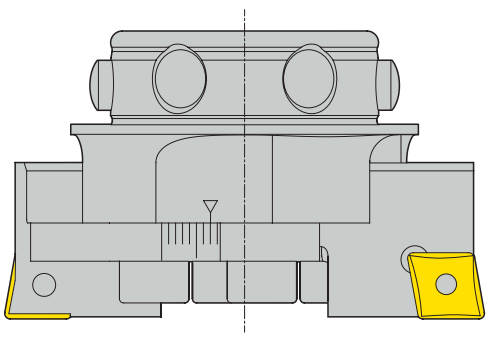
Ø 55–69 mm *(Ø 2.165–2.717")*



Ø 66–88 mm *(Ø 2.598–3.465")*



Ø 85–115 mm *(Ø 3.346–4.528")*



Ø 86–116 mm *(Ø 3.386–4.567")*

# RB 610 Rough boring heads – Guide

### Features

- A rough boring head assembly is a combination of 1 body (head) and 2 insert holders
- Achieving geometrical hole precision starting from cast, flame cut or drilled hole
- Minimised unbalance thanks to a symmetrical design

### Compact

- Short body to maximise the rigidity of the boring assembly and to deliver the best damping performances when used on Steadyline® turning and boring bars
- Reduced weight for fast tool changing and spindle acceleration

### Intuitive and fast setting

- Each insert holder features its push and pull setting mechanism allowing easy and fast setting of the diameter, using a pre-setter
- Diameter scales roughly visualise the insert holders positions

### Insert holders

- A610…CC… insert holders achieve a 90° lead angle for rhombic inserts, 0° rake angle and 0° inclination angle
- The insert holders are suitable for both RB 610 Graflex® and RB 610 GL heads

### Productivity

- High rigidity resulting from a tight fitting of the insert holders into the head's body, and large clamping screws
- Possibility to take a depth of cut ap up to half of the insert's width, maximising the chip removal rate and allowing a total exploitation of the inserts
- Staggered boring using a shim (part of heads delivery contents) to offset one insert holder in order to increase or to split the radial depth of cut
- Through coolant delivery directed towards the cutting edges

### Product range

- RB 610 rough boring heads are available with Graflex® machine side connection, for conventional boring operations up to 6xD overhangs,
- RB 610 rough boring heads with GL and BA machine side connections are designed for longer overhangs with vibration damping Steadyline® assemblies.

## RB 610 Graflex®



- Graflex®: 4 compact rough boring heads for Ø 39–115 mm *1.535–4.528 ")*
- The flexible Graflex® modular System allows to build up optimal boring assemblies from Graflex® adapters, intermediate modules and boring heads

## RB 610 GL and BA, for Steadyline® vibration damping bars



GL



BA

- GL: 4 short and compact rough boring heads, for Ø 28–69 mm *(Ø 1.102–2.717 ")*
- BA: 2 short and compact rough boring heads, for Ø 66–116 mm *(Ø 2.598-4.567")*
- Particularly adapted to the Steadyline® turning and boring bars. Boring performances, when used on long Steadyline® bars, are similar to non-damped shorter assemblies (<6xD).

# RB 610 Rough boring heads – Guide

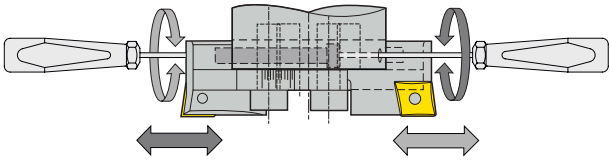
**Setting symmetrical boring:**

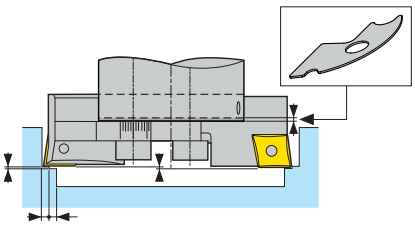
Symmetrical boring means both cutting edges are set on the same diameter and same height.

**Setting staggered boring:**

Staggered boring means one cutting edge is offset as a leading cutting edge (entering the bore first), operating on a smaller diameter than the second edge set on the diameter to be realised: It requires a shim (part of the head delivery content) to be fitted between the boring head's body and one insert holder to achieve the (+) axial offset, see table below.

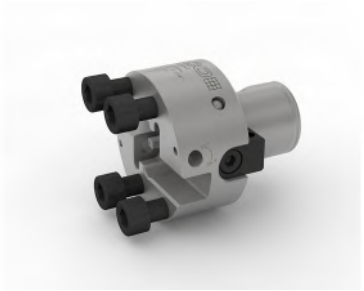
| Shim Part No. | Thickness (mm) | *Thickness (inch)* |
|---|---|---|
| AU6101003 | 0,2 | *0.008* |
| AU6103003 | 0,4 | *0.016* |
| AU6104003 | 0,5 | *0.020* |
| AU6105003 | 0,6 | *0.024* |
| AU6106003 | 0,6 | *0.024* |

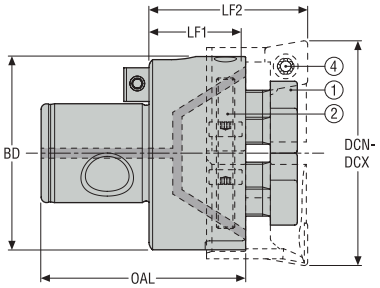




# RB610

Graflex®





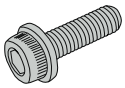

- Symmetrical and staggered boring modes are possible
- Individual insert holder adjusting mechanism
- Internal coolant supply towards cutting edge

1. Assembly screw and clamp key
2 & 4. Insert key for diameter setting and insert screw clamping

| Designation | Item number | Machine side Graflex size | Workpiece side Capacity DCN-DCX Ø | | OAL | LF1 | LF2 | BD | Weight | Max. RPM* |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | |
| A61030 | 02904453 | G3 | 39,0<br>*1.535* | 51,0<br>*2.008* | 43,5<br>*1.713* | 23,5<br>*0.925* | 36,4<br>*1.433* | 34,0<br>*1.339* | 0,18<br>*0.400* | 7500 |
| A61040 | 02904454 | G4 | 50,0<br>*1.969* | 65,0<br>*2.559* | 45,5<br>*1.791* | 21,5<br>*0.846* | 35,3<br>*1.390* | 43,0<br>*1.693* | 0,27<br>*0.600* | 5700 |
| A61050 | 02904455 | G5 | 64,0<br>*2.520* | 86,0<br>*3.386* | 55,0<br>*2.165* | 25,0<br>*0.984* | 42,3<br>*1.665* | 54,0<br>*2.126* | 0,54<br>*1.190* | 4500 |
| A61060 | 02904457 | G6 | 85,0<br>*3.346* | 115,0<br>*4.528* | 69,0<br>*2.717* | 29,0<br>*1.142* | 47,8<br>*1.882* | 63,0<br>*2.480* | 0,93<br>*2.050* | 3500 |

Insert holders have to be ordered separately, see page(s) 583
* Additional information about max RPM, see Instruction pages. Note, weight is without insert holder

## Spare Parts, included in delivery

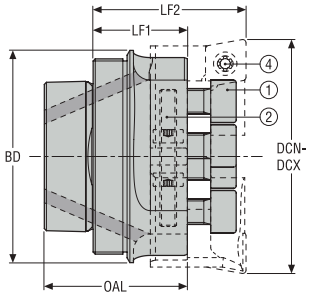
| For head | Assembly screw | Shim, staggered boring | Tenon |
|---|---|---|---|
| |  |  |  |
| A61030 | 950DC0616 | AU6103003 | 90M31 |
| A61040 | 950D0616 | AU6104003 | 90M41 |
| A61050 | 950D0820 | AU6105003 | 90M51 |
| A61060 | 950D0822 | AU6106003 | 90M61 |

## Accessories

| For head | Clamp key | Key (T-handle) |
|---|---|---|
| |  |  |
| A61030 | 03HL05 | DOUBLE-T |
| A61040 | 03HL05 | DOUBLE-T |
| A61050 | 03HL06 | DOUBLE-T |
| A61060 | 03HL06 | DOUBLE-T |

# RB610 Compact

GL





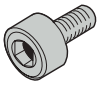

1. Assembly screw and clamp key
2 & 4. Insert key for diameter setting and insert screw clamping

- Designed for GL25, GL32, GL40 and GL50 Steadyline® turning and boring bars
- Symmetrical and staggered boring modes are possible
- Individual insert holder adjusting mechanism
- Internal coolant supply towards cutting edge

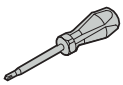
| Designation | Item number | Machine side GL size | Workpiece side Capacity DCN-DCX Ø | | OAL | LF1 | LF2 | BD | Weight | Max. RPM* |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | |
| GL25-RB610-10 | 03307854 | GL25 | 28,0<br>*1.102* | 37,0<br>*1.457* | 21,7<br>*0.854* | 16,2<br>*0.638* | 25,0<br>*0.984* | 25,0<br>*0.984* | 0,1<br>*0.220* | 9500 |
| GL32-0610-20 | 02904458 | GL32 | 36,0<br>*1.417* | 46,0<br>*1.811* | 27,6<br>*1.087* | 21,1<br>*0.831* | 32,0<br>*1.260* | 32,0<br>*1.260* | 0,1<br>*0.220* | 7500 |
| GL40-0610-30 | 02904459 | GL40 | 45,0<br>*1.772* | 56,0<br>*2.205* | 31,6<br>*1.244* | 22,1<br>*0.870* | 35,0<br>*1.378* | 40,0<br>*1.575* | 0,2<br>*0.440* | 5700 |
| GL50-0610-40 | 02904460 | GL50 | 55,0<br>*2.165* | 69,0<br>*2.717* | 33,7<br>*1.327* | 22,2<br>*0.874* | 36,0<br>*1.417* | 50,0<br>*1.969* | 0,3<br>*0.660* | 4500 |

Insert holders have to be ordered separately, see page(s) 583
* Additional information about max RPM, see Instruction pages. Note, weight is without insert holder

## Spare Parts, included in delivery

| For head | Assembly screw | Shim, staggered boring |
|---|---|---|
| |  |  |
| GL25-0610-10 | 950D0410 | AU6101003 |
| GL32-0610-20 | 950DC0412 | AU6102003 |
| GL40-0610-30 | 950DC0616 | AU6103003 |
| GL50-0610-40 | 950D0616 | AU6104003 |

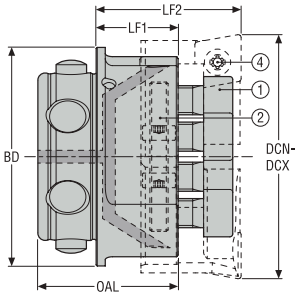
## Accessories

| For head | Clamp key | Insert key | Key (T-handle) |
|---|---|---|---|
| |  |  |  |
| GL25-0610-10 | 03HL03 | T07P-3 | – |
| GL32-0610-20 | 03HL03 | H4B-T07P | DOUBLE-T |
| GL40-0610-30 | 03HL05 | – | DOUBLE-T |
| GL50-0610-40 | 03HL05 | – | DOUBLE-T |

# RB610

BA






- Designed for BA60 and BA80 Steadyline® turning and boring bars
- Symmetrical and staggered boring modes are possible
- Individual insert holder adjusting mechanism
- Internal coolant supply towards cutting edge

1. Assembly screw and clamp key
2 & 4. Insert key for diameter setting and insert screw clamping

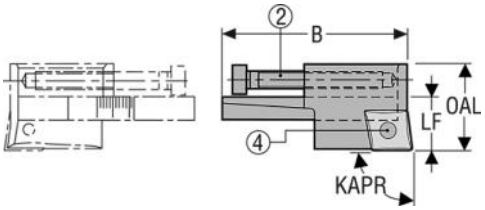
| Designation | Item number | Machine side BA size | Workpiece side Capacity DCN-DCX Ø | | OAL | LF1 | LF2 | BD | Weight | Max. RPM* |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | |
| BA060-RB610-50 | 03204092 | BA060 | 66,0<br>*2.598* | 88,0<br>*3.465* | 38,5<br>*1.516* | 22,5<br>*0.886* | 39,8<br>*1.567* | 60,0<br>*2.362* | 0,8<br>*1.760* | 4000 |
| BA080-RB610-60 | 03204093 | BA080 | 86,0<br>*3.386* | 116,0<br>*4.567* | 44,5<br>*1.752* | 22,5<br>*0.886* | 41,3<br>*1.626* | 80,0<br>*3.150* | 1,1<br>*2.430* | 3000 |

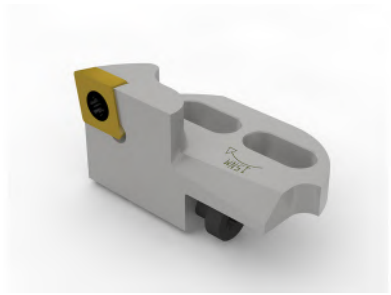
Insert holders have to be ordered separately, see page(s) 583
* Additional information about max RPM, see Instruction pages. Note, weight is without insert holder

## Spare Parts, included in delivery

| For head | Clamp key | Clamp screw | Key (T-handle) | Shim, staggered boring |
|---|---|---|---|---|
| |  |  |  |  |
| BA060-RB610-50 | 03HL06 | 950D0820 | DOUBLE-T | AU6105003 |
| BA080-RB610-60 | 03HL06 | 950D0822 | DOUBLE-T | AU6106003 |

# Insert holders



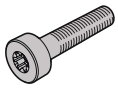



2. Setting screw
4. Insert screw

- Suitable for boring heads RB 610 with Graflex®, GL or BA connection

| Designation | Item number | For boring head | Workpiece side Capacity DCN-DCX Ø | | OAL | LF | B | Weight |
|---|---|---|---|---|---|---|---|---|
| | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* |
| A61010CC0690 | 03307856 | RB 61010 | 28,0<br>*1.102* | 37,0<br>*1.457* | 15,1<br>*0.594* | 15,1<br>*0.594* | 21,75<br>*0.856* | 0,1<br>*0.220* |
| A61020CC0690 | 02971268 | RB 61020 | 36,0<br>*1.417* | 46,0<br>*1.811* | 17,6<br>*0.693* | 10,9<br>*0.429* | 26,0<br>*1.024* | 0,1<br>*0.220* |
| A61030CC0990 | 02904461 | RB 61030 | 39,0<br>*1.535* | 56,0<br>*2.205* | 17,6<br>*0.693* | 12,9<br>*0.508* | 33,0<br>*1.299* | 0,1<br>*0.220* |
| A61040CC0990 | 02904462 | RB 61040 | 50,0<br>*1.969* | 69,0<br>*2.717* | 22,5<br>*0.886* | 13,8<br>*0.543* | 43,8<br>*1.724* | 0,1<br>*0.220* |
| A61050CC1290 | 02904463 | RB 61050 | 64,0<br>*2.520* | 86,0<br>*3.386* | 22,5<br>*0.886* | 17,3<br>*0.681* | 57,4<br>*2.260* | 0,2<br>*0.440* |
| A61060CC1290 | 02904464 | RB 61060 | 85,0<br>*3.346* | 115,0<br>*4.528* | 27,5<br>*1.083* | 18,8<br>*0.740* | 75,0<br>*2.953* | 0,2<br>*0.440* |

## Spare Parts, included in delivery

| For insert holder | Insert screw | Setting screw |
|---|---|---|
| |  |  |
| A61010CC0690 | C02504-T07P | – |
| A61020CC0690 | C02504-T07P | 19A61020 |
| A61030CC0990 | C04008-T15P | 19A61030 |
| A61040CC0990 | C04008-T15P | 19A61040 |
| A61050CC1290 | C05012-T15P | 19A61050 |
| A61060CC1290 | C05012-T15P | 19A61060 |

For rough boring recommended inserts, see page(s) 655
Note: A key for insert screw clamping is part of RB 610 heads delivery contents.

# RB 610 Rough boring heads – Instructions

**Recommended tightening torques. Maximum feed per rev. when staggered.**

| RB 610 boring heads size | 30 | 40 | 50 | 60 |
|---|---|---|---|---|
| Tightening torque of clamp screws for insert holders clamping (Nm) | 2 x 25 | 4 x 25 | 4 x 40 | 4 x 40 |
| f Max. feed rate when staggered boring mm/rev *(in/rev)* | 0,4 *(0.016 “)* | 0,5 *(0.020 “)* | 0,6 *(0.024 “)* | 0,6 *(0.024 “)* |

**Recommended machining conditions**
**Spindle power:**

As rough boring requires high machine power, we recommend to check that the machine is suitable. Staggered boring is a solution to reduce the power needs, as the feed is divided by two for the same total depth of cut, compared to symmetrical setting. Optimum performance is obtained with through coolant (higher machining data, better surface finish, better chip evacuation, longer insert life).

For detailed user instructions, please refer to the operating instructions supplied as part of the delivery content of the boring heads and with the Steadyline® bars. These operating instructions can also be downloaded from www.secotools.com.

**Maximum speeds for RB 610 rough boring heads**

**NOTE!** The maximum speeds shown in boring heads Product pages are related to the boring head’s mechanical design and balancing quality.

Speeds inside these limits have to be chosen in regard to the other machining conditions, e.g. workpiece material, cutting edge (insert), tooling length, machine spindle.

By boring applications with Steadyline® bars, make sure not to overpass the max. RPM of the bars : See the Operating instructions supplied with the Steadyline® turning and boring bars.




# Fine boring

Covering a wide range of hole sizes and materials, Seco's fine boring product families allow for precision adjustments within microns, achieve surface finishes of Ra <1 (RMS 44 micro/inch) and deliver bores within IT6 tolerances. With a consistent focus on precision and rigidity, these products make it easy to maintain even the strictest of part specifications. Steadyline™ vibration damping solutions complete the range to deliver even greater levels of stability for the machining of deep cavities, where long tool overhangs are needed.

- FB 760 Axiabore type fine boring heads are designed for precision and surface finish on small diameters
- FB 620/780/790 radial fine boring heads are designed to deliver the best bore geometries on larger diameters (up to 205 mm)

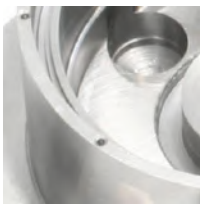
# Overview







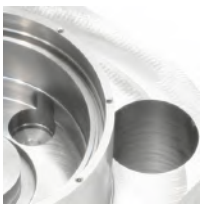
OD-overturning



Grooving

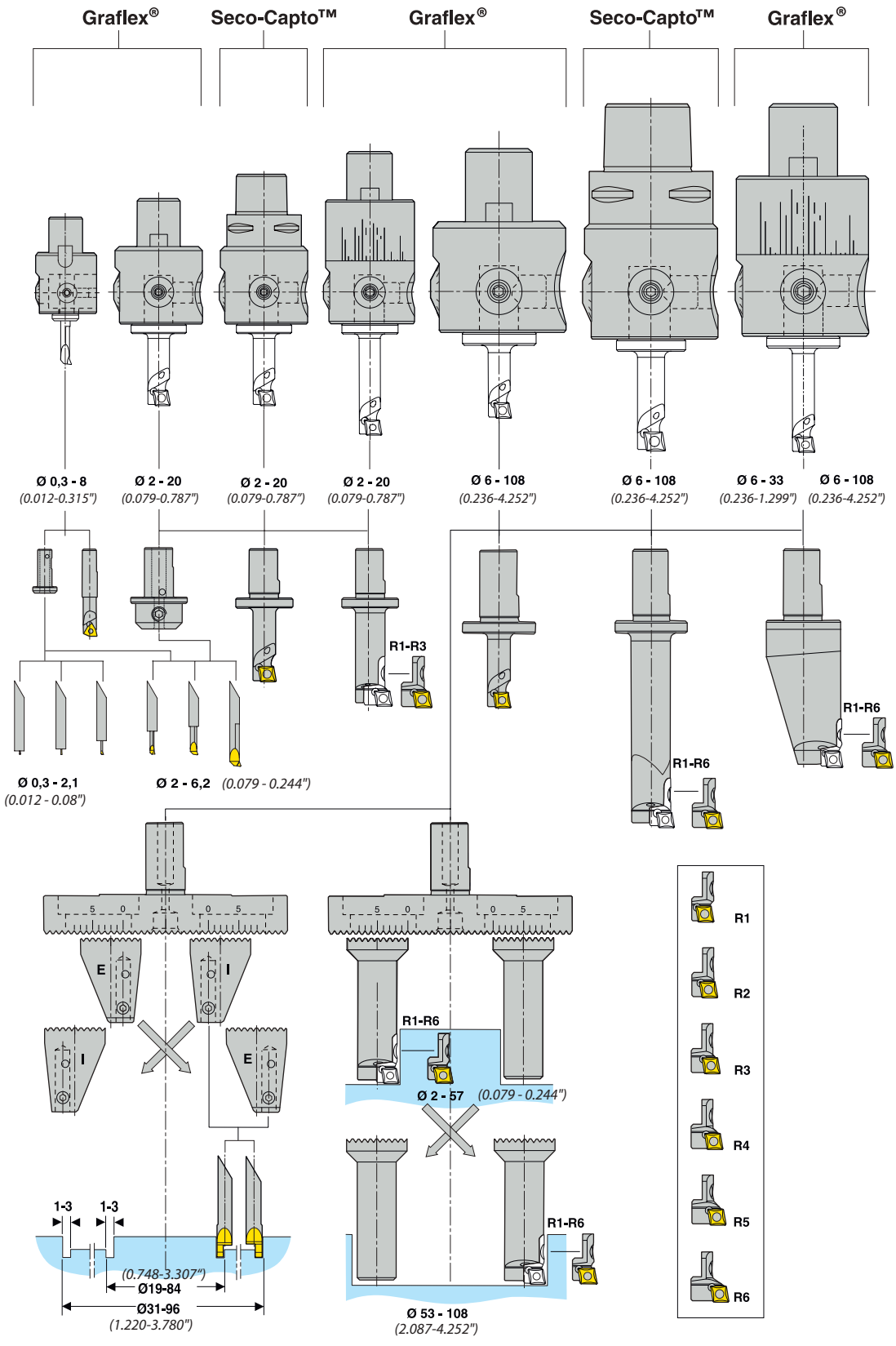


Interrupted cut boring



Boring

# Overview

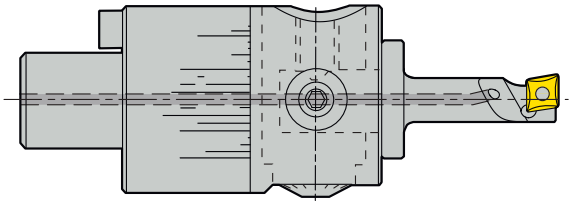

Graflex®
Seco-Capto™
Graflex®
Seco-Capto™
Graflex®
Ø 0,3 - 8
(0.012-0.315")
Ø 2 - 20
(0.079-0.787")
Ø 2 - 20
(0.079-0.787")
Ø 2 - 20
(0.079-0.787")
Ø 6 - 108
(0.236-4.252")
Ø 6 - 108
(0.236-4.252")
Ø 6 - 33
(0.236-1.299")
Ø 6 - 108
(0.236-4.252")
R1-R3
R1-R6
R1-R6
Ø 0,3 - 2,1
(0.012 - 0.08")
Ø 2 - 6,2 (0.079 - 0.244")
E
I
I
E
1-3
1-3
(0.748-3.307")
Ø19-84
Ø31-96
(1.220-3.780")
R1-R6
Ø 2 - 57 (0.079 - 0.244")
R1-R6
Ø 53 - 108
(2.087-4.252")
R1
R2
R3
R4
R5
R6

# Axiabore™ type fine boring heads for bores Ø 0,3-108 mm *(0.012-4.252")*

**An Axiabore™ type head is an assembly of a body (head) and a tool.**

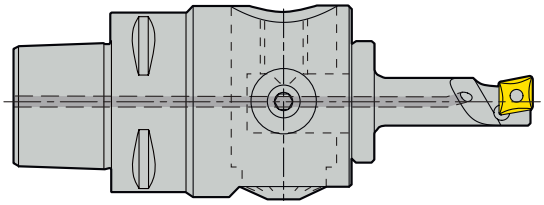
| Axiabore™ type head selection | Capacity ∅ mm | *Capacity ∅ inch* | HSM/ Max speeds | Hole geometry | Cost effective | Multipurpose |
|---|---|---|---|---|---|---|
| Nanobore™ A760 01 | 0,3-8 | *0.012–0.315"* | 30000 RPM | ■■ | ■■ | |
| Axiabore™ A760 02 | 2-20 | *0.079–0.787"* | 12000 RPM | ■ | ■■ | |
| Axiabore™ Plus - A760 03 | 6-108 | *0.236–4.252"* | 8000* RPM or 1000 m/min | ■ | ■■■ | ■■■ |
| Axiabore™ Plus C5-391.0760-03 | 6-108 | *0.236–4.252"* | 8000* RPM | ■ | ■■■ | ■■■ |
| Axialibrabore™ Plus - A760 13 | 6-33 | *0.236–1.299"* | 20000 RPM or 1500 m/min | ■■ | ■ | |

## Axiabore™ type heads exists with Graflex® or Seco-Capto™ connection: 5 Axiabore™ fine boring heads FB 760 with Graflex® connection for bores Ø 0,3–108 mm *(0.012–4.252")*



Nanobore™ A760 01
Axiabore™ A760 02
Axialibrabore™ A760 12
Axiabore™ Plus - A760 03
Axialibrabore™ Plus - A760 13

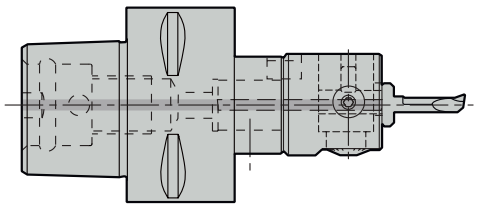
## 2 Axiabore™ fine boring heads FB 760 with Seco-Capto™ connection for bores: Ø 2–108 mm *(0.079–4.252")*



Axiabore™ C3-391.0760-02
Axiabore™ Plus- C5-391.0760-03

**NOTE!** The minimum bore size of the smallest Seco-Capto™ fine boring head is Ø 2 mm *(0.079")* with the smallest available Seco-Capto™ C3 connection. For Ø 0,3-8 mm *(0.012-0.315")* use Nanobore™ head with connection size G2 in conjunction with the appropriate Seco-Capto™/Graflex® adapter.

## Seco-Capto™ adapter and Graflex® head: Ø 0,3–8 mm *(0.012–0.315")*



Graflex® and Seco-Capto™ adapters and modular extensions: please see the Tooling Systems catalog.

**NOTE!** Features, instructions (tool fitting procedure, diameter setting, MPA assembly procedure, maximum speeds, recommended cutting speeds, troubleshooting), suitable tools and insert holders are similar for both types of 760 fine boring heads of similar boring capacity size, regardless of connection type.

# Boring tools

**Note!** In the Product pages, it is clearly mentioned which tools are suitable for which heads.

**Boring tools, solid carbide shank** Ø 4 mm *(Ø 0.1574")* for the smallest diameters Ø 0,3–6,2 mm *(Ø 0.012–0.244")*, lead angle 98°. Require reduction bushes to fit into Nanobore™ and Axia(libra)bore™ heads. The tools have an angled machine side for cutting edge orientation according to ISO.

**Boring bars, insert type shanks** Ø 6, 12 or 16 mm *(Ø 0.236, 0.472, 0.630")* for Ø 6–13 mm *(Ø 0.236–0.512")*, 'steel' type for short tools, 'carbide' type for long tools. For WB..0301.. or CC..0602.. inserts and 90° lead angle. Direct fitting into the heads. The locking flat achieves a cutting edge orientation according to ISO.

**Boring bars**, modular composed of a 'shank' and an 'insert holder' for Ø 13–63 mm *(Ø 0.512–2.480")*. Shanks Ø 12 or 16 mm *(Ø 0.472, 0.630")* in 'steel' for short, 'carbide' for long and 'Lightweight / aluminium' for the largest diameters. Direct fitting into the heads.

Six insert holders for CC..0602.. inserts and 90° lead angle, compatible with all shanks to build up a wide boring capacity on a common shank.

# Multi-purpose adapter (MPA)

MPA for boring and OD-overturning, as well as face grooving on the - Axiabore™ Plus - head. The MPA and tools have a serrated interface, for precise orientation and positioning increments 2,5 mm on diameter *(0.098")*. Directional through coolant nozzle included.

Select the components to build up an MPA type tool on the MPA tool selection charts. See assembly details in the Instructions chapter.

**Set up a Boring or OD-overturning assembly.**
Boring and OD-overturning assemblies use the same shank equipped with an insert holder, and a counterweight. Boring assembly: Select the appropriate insert holder to be assembled onto the boring/OD-overturning shank, using the selection chart 'Boring with MPA' (part of following Product pages).

OD–overturning assembly: Select the appropriate insert holder to be assembled onto the boring/OD-overturning shank, using the selection chart 'OD-overturning with MPA' (part of following Product pages). See assembly details in the Instructions chapter.

**Building a grooving assembly**

A grooving assembly requires:

- A pair of grooving tool holders (one E='External' and one I='Internal')
- One grooving tool 'against Spigot' or 'against Bore'.When the groove is not against a spigot wall nor against a bore wall, both tool types are suitable. See the selection charts 'Grooving tool for grooving with MPA'

# Features

## Nanobore™ head, Part No. A76001



**Ultra small head for fine boring** Ø 0,3–8 mm *(Ø 0.012–0.315")*:
External diameter 25 mm *(0.984")*, length 25 mm *(0.984")*, with Graflex® connection size G2, tool fitting Ø 6 mm *(Ø 0.236")*. Operating speeds up to 30 000 RPM allows performance machining of very small diameters.

The reduction bush 6–4 mm *(0.236–0.157")* with orientation flat and pin for fitting the solid boring tools is part of the head delivery content.

## Axiabore™ head, Part No. A76002



**Small heads for fine boring** Ø 2–20 mm *(Ø 0.079–0.787")*:
External diameter 36,5 mm *(1.401")*, length 32 mm *(1.260")*, with Graflex® connection size G3 and Seco-Capto™ connection size C3, tool fitting Ø 12 mm *(Ø 0.472")*. These heads sizes are optimised for difficult-to-access bores.

The reduction bush 12-4 mm *(0.472–0.157")* with orientation flat and pin for fitting the solid boring tools is part of the head delivery content.

**NOTE!** Smaller tools from Nanobore™ 0,3–2,1 mm *(0.012–0.083")* can also be fitted, but the machining speed will be limited to 12000 RPM: Nanobore® head should be preferred.

## Axiabore™ Plus - head, Part No. A76003 and C5-391.0760-03







**Multi-purpose heads for fine boring** Ø 6–108 mm *(Ø 0.236–4.252")*, OD-overturning Ø 2–57 mm *(Ø 0.079–2.244")* and grooving Ø 19–96 mm *(Ø 0.748–3.780")*:
External diameter 54 mm *(Ø 2.126")*, length 45 mm *(Ø 1.772")*, with Graflex® connection size 5 and Seco-Capto™ connection size 5, tool fitting Ø 16 mm *(Ø 0.630")*.
Suitable tools: all tools with shank Ø 16 mm *(Ø 0.630")*, for direct fitting into the heads.

This head has also been designed to be equipped with the MPA (multi-purpose adapter), to perform large diameter fine boring, OD–overturning and face grooving.

## Axialibrabore™ Plus - head, Part No. A76013

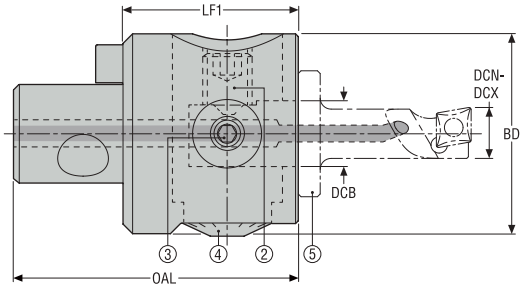


**Balanceable head for fine boring** Ø 6–33 mm *(Ø 0.236–1.299")*:
Same features as the - Axiabore™ Plus - head, but with fine balancing body length 65 mm *(2.559")*.
With Graflex® connection size G5.
Fine balanceable heads allow higher speeds up to 20 000 RPM or 1500 m/min (whichever is reached first without exceeding either of them), improve the hole geometry and reduce the machine spindle stress.
'LibraOne' balancing is performed by setting the graduated balancing ring in line with the mark on the boring head (balancing code of the tool used, and the diameter to be bored). No chart needed.
Fine balancing is only possible for the smallest boring tools Ø 6–33 mm *(Ø 0.236–1.299")*.

**NOTE!** If using a larger 'Alu', or a 'MPA' tool from the - Axiabore™ Plus - onto the - Axialibrabore™ Plus - head, fine balancing is not possible and the balancing ring should be set in the head's pre-balancing position (depending on the operation to be performed, see Instructions chapter).
The maximum speed becomes the same as for the - Axiabore™ Plus.

# FB 760 – Axiabore™ type heads, not balanceable

Graflex®





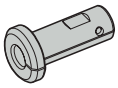

3. Locking screw
4. Micrometric adjusting screw
2. Assembly screw
5. Tool

- With micrometric adjusting (increment 0,01 mm and vernier 2,5 µm, on the diameter)
- Axiabore™ Plus – allows boring, as well as OD-overturning and face grooving

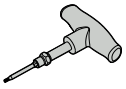
| Designation | Item number | Machine side Graflex size | Workpiece side Capacity DCN-DCX Ø | | * | OAL | LF1 | BD | DCB | Weight | Max operating speed** | | *** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | mm<br>*Inch* | mm<br>*Inch* | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | Max.<br>RPM** | Max.<br>m/min** | |
| A76001 | 02462575 | G2 | 0,3<br>*0.012* | 8,0<br>*0.315* | – | 41,0<br>*1.614* | 25,0<br>*0.984* | 25,0<br>*0.984* | 6,0<br>*0.236* | 0,1<br>*0.220* | 30000 | 1500,0 | – |
| A76002 | 02594930 | G3 | 2,0<br>*0.079* | 20,0<br>*0.787* | – | 52,0<br>*2.047* | 32,0<br>*1.260* | 36,5<br>*1.437* | 12,0<br>*0.472* | 0,29<br>*0.640* | 12000 | 1500,0 | – |
| A76003 | 02594935 | G5 | 6,0<br>*0.236* | 108,0<br>*4.252* | * | 75,0<br>*2.953* | 45,0<br>*1.772* | 54,0<br>*2.126* | 16,0<br>*0.630* | 0,82<br>*1.810* | 8000 | 1000,0 | *** |

Note, weight is without insert holder
For tools, see page(s) 594-596
*Capacities - Axiabore™ Plus - head for boring 6-108 mm *(0.236-4.252")* , OD-overturning 2-57 mm *(0.079-2.244")*, face grooving 19-96 mm *(0.748-3.780")*.
**Maximum speed, whichever is reached first without exceeding either of them.
***Max 5000 RPM when using MPA.

## Spare Parts, included in delivery

| For head | Assembly screw | Key | Key (T-handle) | Locking screw | Reduction bush | Sealing Screws | Tenon |
|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |  |
| A76001 | – | H4B-H2.0 | DOUBLE-T | 19M4001A | 05A7600604 | 950A0406 | 90M21 |
| A76002 | AU7601212 | 03M03C | – | 19A71030 | 05A7601204 | – | 90M3A |
| A76003 | AU7601312 | H6B-H4.0L | DOUBLE-T | 19A71008125 | – | – | 90M5A |

## Accessories

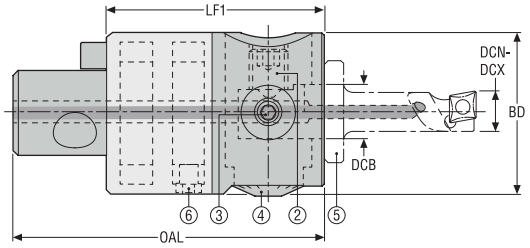
| For head | Magnifying glass | Storage case | Torque key for balancing ring locking screws | Torque key for locking and assembly screws |
|---|---|---|---|---|
| |  |  |  |  |
| A76001 | 935L01 | – | – | H00-2009 |
| A76002 | – | 42M06 | – | H00-3030 |
| A76003 | – | 42M07 | H00T-4060 | – |

**Accessories,** to be ordered separately

# FB 760 – Axiabore™ type heads, balanceable

## Graflex®





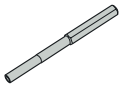

- LibraOne built-in balancing system based on a single balancing setting ring
- With micrometric adjusting (increment 0,01 mm and vernier 2,5 µm, on the diameter)

6. Locking screw 2
3. Locking screw 1
4. Micrometric adjusting screw
2. Assembly screw
5. Tool

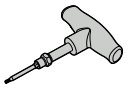
| Designation | Item number | Machine side Graflex size | Workpiece side Capacity DCN-DCX Ø | | * | OAL | LF1 | BD | DCB | Weight | Max operating speed** | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | mm *Inch* | mm *Inch* | | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | kg *lbs* | Max. RPM** | Max. m/min** |
| A76013 | 02594943 | G5 | 6,0 *0.236* | 33,0 *1.299* | * | 95,0 *3.740* | 65,0 *2.559* | 54,0 *2.126* | 16,0 *0.630* | 1,16 *2.560* | 20000 | 1500 |

Note, weight is without insert holder
For tools, see page(s) 594-596
*Capacities – Axialibrabore™ Plus - head, with balancing.
**Maximum speed, whichever is reached first without exceeding either of them.

### Spare Parts, included in delivery

| For head | Assembly screw | Key | Key (T-handle) | Locking screw 1 | Locking screw 2 | Tenon |
|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |
| A76013 | AU7601312 | H6B-H4.0L | DOUBLE-T | 19A71008125 | AU7601318 | 90M5A1 |

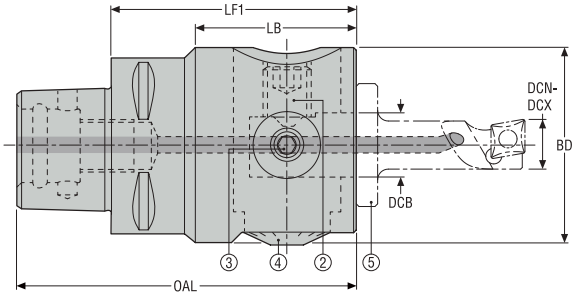
### Accessories

| For head | Storage case | Torque key for balancing ring locking screws | Torque key for locking and assembly screws |
|---|---|---|---|
| |  |  |  |
| A76013 | 42M07 | H00-4020-60 | H00T-4060 |

**Accessories,** to be ordered separately

# FB 760 – Axiabore™ type heads

Seco-Capto™




3. Clamp
4. Micrometric adjusting screw
2. Assembly screw
5. Tool

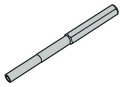


- With micrometric adjusting (increment 0,01 mm and vernier 2,5 µm, on the diameter)
- Axiabore™ Plus – allows boring, as well as OD-overturning and face grooving

| Designation | Item number | Machine side Capto size | Workpiece side Capacity DCN-DCX Ø | | * | OAL | LF1 | LB | BD | DCB | Weight | Max operating speed** | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | mm<br>*Inch* | mm<br>*Inch* | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | Max.<br>RPM** | Max.<br>m/min** |
| C5-391.0760-03 | 02822777 | C5 | 6,0<br>*0.236* | 108,0<br>*4.252* | * | 95,0<br>*3.740* | 65,0<br>*2.559* | 44,0<br>*1.732* | 54,0<br>*2.126* | 16,0<br>*0.630* | 1,12<br>*2.470* | 8000 | 1500,0 |

Note, weight is without insert holder
For tools, see page(s) 594-596
*Max 5000 RPM when using MPA.
**Capacities - Axiabore™ Plus - head for boring 6-108 mm *(0.236-4.252")* , OD-overturning 2-57 mm *(0.079-2.244")*, face grooving 19-96 mm *(0.748-3.780")*.

## Spare Parts, included in delivery

| For head | Assembly screw | Key | Key (T-handle) | Locking screw |
|---|---|---|---|---|
| |  |  |  |  |
| C5-...-03 | AU7601312 | H6B-H4.0L | DOUBLE-T | 19A71008125 |

## Accessories

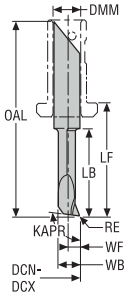
| Torque key for locking and assembly screws |
|---|
|  |
| H00-3030 |

**Accessories,** to be ordered separately

# Boring tools, solid carbide

for FB 760 heads






- KAPR 98°
- Cutting edge orientation ISO
- Coolant along the tool
- Tool material: Solid carbide*

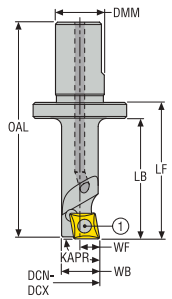
| Designation | Item number | For head | Capacity DCN-DCX ∅ mm*** | | OAL | LB | LF | DMM | WB | WF | RE | Recommended cutting data** $a_p$ | Recommended cutting data** f | Weight | Balancing code |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | |
| A761402 | 02462579 | FB 76001 | 0,3<br>*0.012* | 0,6<br>*0.024* | 30,7<br>*1.209* | 1,2<br>*0.047* | 15,5<br>*0.610* | 4,0<br>*0.157* | 0,25<br>*0.010* | 0,1<br>*0.004* | 0,0<br>*0.0* | 0,02<br>*0.001* | 0,01<br>*0* | 0,01<br>*0.020* | – |
| A761412 | 02462581 | FB 76001 | 0,5<br>*0.020* | 1,1<br>*0.043* | 30,7<br>*1.209* | 2,0<br>*0.079* | 15,5<br>*0.610* | 4,0<br>*0.157* | 0,45<br>*0.018* | 0,2<br>*0.008* | 0,0<br>*0.0* | 0,02<br>*0.001* | 0,01<br>*0* | 0,01<br>*0.020* | – |
| A761422 | 02462583 | FB 76001 | 1,0<br>*0.039* | 2,1<br>*0.083* | 30,7<br>*1.209* | 5,0<br>*0.197* | 15,5<br>*0.610* | 4,0<br>*0.157* | 0,95<br>*0.037* | 0,45<br>*0.018* | 0,1<br>*0.004* | 0,03<br>*0.001* | 0,02<br>*0.001* | 0,01<br>*0.020* | – |
| A761432 | 02462584 | FB 76001/02/12 | 2,0<br>*0.079* | 3,2<br>*0.126* | 30,7<br>*1.209* | 8,0<br>*0.315* | 15,5<br>*0.610* | 4,0<br>*0.157* | 1,8<br>*0.071* | 0,88<br>*0.035* | 0,1<br>*0.004* | 0,05<br>*0.002* | 0,02<br>*0.001* | 0,1<br>*0.220* | E13 |
| A761442 | 02462586 | FB 76001/02/12 | 3,0<br>*0.118* | 4,7<br>*0.185* | 30,7<br>*1.209* | 10,0<br>*0.394* | 15,5<br>*0.610* | 4,0<br>*0.157* | 2,75<br>*0.108* | 1,35<br>*0.053* | 0,15<br>*0.006* | 0,06<br>*0.002* | 0,03<br>*0.001* | 0,01<br>*0.020* | E14 |
| A761452 | 02462587 | FB 76001/02/12 | 4,5<br>*0.177* | 6,2<br>*0.244* | 35,7<br>*1.406* | 15,0<br>*0.591* | 20,5<br>*0.807* | 4,0<br>*0.157* | 3,95<br>*0.156* | 1,95<br>*0.077* | 0,15<br>*0.006* | 0,08<br>*0.003* | 0,03<br>*0.001* | 0,1<br>*0.220* | E15 |

*These tools with shank dia 4 mm require the use of a reduction bush, delivered with the suitable heads and kits.
** For cutting speeds, see page(s) 659-662
***+0,1 mm complementary capacity achievable.

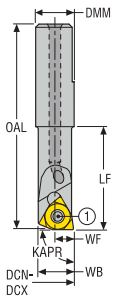
# Boring bars, insert type

for FB 760 heads

B




A




1 = Insert screw



- Cutting edge orientation ISO
- Through coolant
- Only two insert sizes for all tools
- Tool material * = Steel, indexable insert type
- Tool material ** = Carbide, indexable insert type
- KAPR 90°

| Designation | Item number | Tool material | For head | ** Capacity DCN-DCX ∅ | | OAL | LB | LF | DMM | WB | WF | Weight | Design | Suitable insert size | Balancing code |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | mm *Inch* | kg *lbs* | | | |
| A762001 | 02462590 | * | FB 76001 | 6,0 *0.236* | 8,0 *0.315* | 31,7 *1.248* | 0,0 – | 16,0 *0.630* | 6,0 *0.236* | 5,5 *0.217* | 2,9 *0.114* | 0,1 *0.220* | A | WB...0301.. | – |
| A762002 | 02594947 | * | FB 76002/12 | 6,0 *0.236* | 8,0 *0.315* | 39,7 *1.563* | 16,0 *0.630* | 20,0 *0.787* | 12,0 *0.472* | 5,5 *0.217* | 2,9 *0.114* | 0,03 *0.070* | B | WB...0301.. | S21 |
| A762003 | 02594967 | * | FB 76003/13 | 6,0 *0.236* | 8,0 *0.315* | 50,2 *1.976* | 16,0 *0.630* | 21,0 *0.827* | 16,0 *0.630* | 5,5 *0.217* | 2,9 *0.114* | 0,07 *0.150* | B | WB...0301.. | S31 |
| A762201 | 02462591 | ** | FB 76001 | 6,0 *0.236* | 8,0 *0.315* | 41,7 *1.642* | 0,0 – | 26,0 *1.024* | 6,0 *0.236* | 5,5 *0.217* | 2,9 *0.114* | 0,02 *0.040* | A | WB...0301.. | – |
| A762202 | 02594958 | ** | FB 76002/12 | 6,0 *0.236* | 8,0 *0.315* | 50,7 *1.996* | 27,0 *1.063* | 31,0 *1.220* | 12,0 *0.472* | 5,5 *0.217* | 2,9 *0.114* | 0,06 *0.130* | B | WB...0301.. | E21 |
| A762203 | 02594970 | ** | FB 76003/13 | 6,0 *0.236* | 8,0 *0.315* | 61,2 *2.409* | 27,0 *1.063* | 32,0 *1.260* | 16,0 *0.630* | 5,5 *0.217* | 2,9 *0.114* | 0,13 *0.290* | B | WB...0301.. | E31 |
| A763002 | 02594948 | * | FB 76002/12 | 8,0 *0.315* | 10,0 *0.394* | 45,7 *1.799* | 22,0 *0.866* | 26,0 *1.024* | 12,0 *0.472* | 7,4 *0.291* | 3,9 *0.154* | 0,04 *0.090* | B | WB...0301.. | S22 |
| A763003 | 02594968 | * | FB 76003/13 | 8,0 *0.315* | 10,0 *0.394* | 56,2 *2.213* | 22,0 *0.866* | 27,0 *1.063* | 16,0 *0.630* | 7,4 *0.291* | 3,9 *0.154* | 0,1 *0.220* | B | WB...0301.. | S32 |
| A763202 | 02594961 | ** | FB 76002/12 | 8,0 *0.315* | 10,0 *0.394* | 60,7 *2.390* | 37,0 *1.457* | 41,0 *1.614* | 12,0 *0.472* | 7,4 *0.291* | 3,9 *0.154* | 0,07 *0.150* | B | WB...0301.. | E22 |
| A763203 | 02594971 | ** | FB 76003/13 | 8,0 *0.315* | 10,0 *0.394* | 71,2 *2.803* | 37,0 *1.457* | 42,0 *1.654* | 16,0 *0.630* | 7,4 *0.291* | 3,9 *0.154* | 0,14 *0.310* | B | WB...0301.. | E32 |
| A765002 | 02594957 | * | FB 76002/12 | 10,0 *0.394* | 13,0 *0.512* | 53,5 *2.106* | 30,0 *1.181* | 34,0 *1.339* | 12,0 *0.472* | 9,35 *0.368* | 4,8 *0.189* | 0,04 *0.090* | B | CC...0602.. | S23 |
| A765003 | 02594969 | * | FB 76003/13 | 10,0 *0.394* | 13,0 *0.512* | 64,0 *2.520* | 30,0 *1.181* | 35,0 *1.378* | 16,0 *0.630* | 9,35 *0.368* | 4,8 *0.189* | 0,08 *0.180* | B | CC...0602.. | S33 |
| A765202 | 02594962 | ** | FB 76002/12 | 10,0 *0.394* | 13,0 *0.512* | 78,5 *3.091* | 55,0 *2.165* | 59,0 *2.323* | 12,0 *0.472* | 9,35 *0.368* | 4,8 *0.189* | 0,09 *0.200* | B | CC...0602.. | E23 |
| A765203 | 02594972 | ** | FB 76003/13 | 10,0 *0.394* | 13,0 *0.512* | 89,0 *3.504* | 55,0 *2.165* | 60,0 *2.362* | 16,0 *0.630* | 9,35 *0.368* | 4,8 *0.189* | 0,2 *0.440* | B | CC...0602.. | E33 |

## Spare Parts, included in delivery

| For insert size | Insert screw |
|---|---|
| |  |
| WB...0301.. | C02035-T06P |
| CC...0602.. | C02504-T07P |

## Accessories

| Insert key | Key (T-handle) |
|---|---|
|  |  |
| H4B-T06P | DOUBLE-T |
| H4B-T07P | DOUBLE-T |

**+0,2 mm complementary capacity achievable.

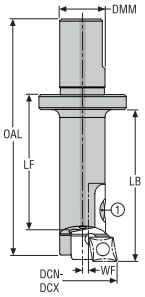
**Accessories,** to be ordered separately

# Boring shanks, for modular fine boring bars

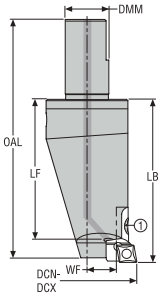
for FB 760 heads



A




B




- Several capacities achievable by interchangeable insert holders
- Shank types 'steel' for short bars, 'carbide' for long bars, 'aluminium' for large bars
- Through coolant

1 = Locking screw

| Designation | Item number | Modular boring shank type | For head | ** Capacity DCN-DCX ∅ | | OAL | LB | LF | DMM | WF | Weight | Design | *** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | | |
| A760A32 | 02594977 | Aluminium | FB 76003/13 | 33,0<br>*1.299* | 48,0<br>*1.890* | 88,0<br>*3.465* | 60,0<br>*2.362* | 50,0<br>*1.969* | 16,0<br>*0.630* | 11,5<br>*0.453* | 0,14<br>*0.310* | B | *** |
| A760A33 | 02594978 | Aluminium | FB 76003/13 | 48,0<br>*1.890* | 63,0<br>*2.480* | 108,0<br>*4.252* | 80,0<br>*3.150* | 70,0<br>*2.756* | 16,0<br>*0.630* | 19,0<br>*0.748* | 0,34<br>*0.750* | B | *** |
| A760E20 | 02594964 | Carbide | FB 76002/12 | 13,0<br>*0.512* | 20,0<br>*0.787* | 82,5<br>*3.248* | 60,0<br>*2.362* | 54,0<br>*2.126* | 12,0<br>*0.472* | 1,4<br>*0.055* | 0,2<br>*0.440* | A | |
| A760E30 | 02594965 | Carbide | FB 76003/13 | 13,0<br>*0.512* | 18,0<br>*0.709* | 103,0<br>*4.055* | 70,0<br>*2.756* | 65,0<br>*2.559* | 16,0<br>*0.630* | 1,4<br>*0.055* | 0,21<br>*0.460* | A | |
| A760E31 | 02594966 | Carbide | FB 76003/13 | 18,0<br>*0.709* | 33,0<br>*1.299* | 113,0<br>*4.449* | 80,0<br>*3.150* | 75,0<br>*2.953* | 16,0<br>*0.630* | 3,9<br>*0.154* | 0,3<br>*0.660* | A | |
| A760S20 | 02594963 | Steel | FB 76002/12 | 13,0<br>*0.512* | 20,0<br>*0.787* | 62,5<br>*2.461* | 40,0<br>*1.575* | 34,0<br>*1.339* | 12,0<br>*0.472* | 1,4<br>*0.055* | 0,1<br>*0.220* | A | |
| A760S30 | 02594973 | Steel | FB 76003/13 | 13,0<br>*0.512* | 18,0<br>*0.709* | 73,0<br>*2.874* | 40,0<br>*1.575* | 35,0<br>*1.378* | 16,0<br>*0.630* | 1,4<br>*0.055* | 0,1<br>*0.220* | A | |
| A760S31 | 02594974 | Steel | FB 76003/13 | 18,0<br>*0.709* | 33,0<br>*1.299* | 83,0<br>*3.268* | 50,0<br>*1.969* | 45,0<br>*1.772* | 16,0<br>*0.630* | 3,9<br>*0.154* | 0,13<br>*0.290* | A | |

## Spare Parts, included in delivery

| For head | Locking screw |
|---|---|
| |  |
| A76003 | C04008-T15P |
| A76002/12 | C04008-T15P |
| A76003/13 | C04008-T15P |

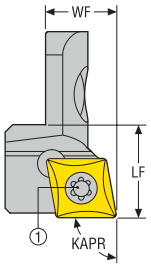
## Accessories

| Key (T-handle) |
|---|
|  |
| DOUBLE-T |
| DOUBLE-T |
| DOUBLE-T |

**+0,2 mm complementary capacity achievable.
*** When used on A760 13, no fine balancing possible. Select the required shank and insert holder(s) combination(s) using the selection chart on page(s) 598.
Note, weight is without insert holder.
**Accessories,** to be ordered separately

# Insert holders, for modular fine boring bars

for FB 760 heads




1 = Insert screw



- Single fitting size suitable for all boring (and OD-overturning) shanks
- One insert size for all insert holders

| Designation | Item number | LF | WF* | Weight | Suitable insert size | KRINS° |
|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | | |
| A765R1 | 02594979 | 10,0<br>*0.394* | 4,95<br>*0.195* | 0,1<br>*0.220* | CC..0602.. | 90 |
| A765R2 | 02594983 | 10,0<br>*0.394* | 6,2<br>*0.244* | 0,1<br>*0.220* | CC..0602.. | 90 |
| A765R3 | 02594984 | 10,0<br>*0.394* | 7,45<br>*0.293* | 0,01<br>*0.020* | CC..0602.. | 90 |
| A765R4 | 02594987 | 10,0<br>*0.394* | 8,7<br>*0.343* | 0,01<br>*0.020* | CC..0602.. | 90 |
| A765R5 | 02594989 | 10,0<br>*0.394* | 9,97<br>*0.393* | 0,01<br>*0.020* | CC..0602.. | 90 |
| A765R6 | 02594990 | 10,0<br>*0.394* | 11,2<br>*0.441* | 0,1<br>*0.220* | CC..0602.. | 90 |

## Spare Parts, included in delivery

| For insert size | Insert screw |
|---|---|
| |  |
| CC...0602... | C02504-T07P |

## Accessories

| Insert key | Key (T-handle) |
|---|---|
|  |  |
| H4B-T07P | DOUBLE-T |

*WF when fitted with insert type CC..060204.

**Accessories,** to be ordered separately

Select the required shank and insert holder(s) combination(s) using the selection chart on page(s) 598.

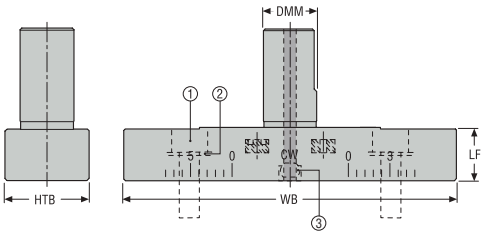
# Selection chart:
# Boring tools and insert holders suitable for FB 760 heads

| For head | Boring capacity DCN-DCX ∅ mm | inch | Boring length LB mm | inch | Designation Boring tool | Insert holder | DMM mm | inch | Suitable insert size | Tool type |
|---|---|---|---|---|---|---|---|---|---|---|
| A760 01 | 0,3-0,6 | 0.012-0.024 | 1,2 | 0.047 | A761402 | – | 4 | 0.157 | – | Solid carbide |
| | 0,5-1,1 | 0.020-0.043 | 2 | 0.078 | A761412 | – | 4 | 0.157 | – | Solid carbide |
| | 1-2,1 | 0.039-0.083 | - | - | A761422 | – | 4 | 0.157 | – | Solid carbide |
| | 2-3,2 | 0.079-0.126 | 8 | 0.315 | A761432 | – | 4 | 0.157 | – | Solid carbide |
| | 3-4,7 | 0.118-0.185 | 10 | 0.394 | A761442 | – | 4 | 0.157 | – | Solid carbide |
| | 4,5-6,2 | 0.177-0.244 | 15 | 0.591 | A761452 | – | 4 | 0.157 | – | Solid carbide |
| | 6-8 | 0.236-0.315 | 16 | 0.630 | A762001 | – | 6 | 0.236 | WB..0301.. | Steel, inserts type |
| | 6-8 | 0.236-0.315 | 26 | 1.024 | A762201 | – | 6 | 0.236 | WB..0301.. | Carbide, inserts type |
| A760 02/ A760 12 | 2-3,2 | 0.079-0.126 | 8 | 0.315 | A761432 | – | 4 | 0.157 | – | Solid carbide |
| | 3-4,7 | 0.118-0.185 | 10 | 0.394 | A761442 | – | 4 | 0.157 | – | Solid carbide |
| | 4,5-6,2 | 0.177-0.244 | 15 | 0.591 | A761452 | – | 4 | 0.157 | – | Solid carbide |
| | 6-8 | 0.236-0.315 | 16 | 0.630 | A762002 | – | 12 | 0.472 | WB..0301.. | Steel, inserts type |
| | 6-8 | 0.236-0.315 | 27 | 1.063 | A762202 | – | 12 | 0.472 | WB..0301.. | Carbide, inserts type |
| | 8-10 | 0.315-0.394 | 22 | 0.866 | A763002 | – | 12 | 0.472 | WB..0301.. | Steel, inserts type |
| | 8-10 | 0.315-0.394 | 37 | 1.457 | A763202 | – | 12 | 0.472 | WB..0301.. | Carbide, inserts type |
| | 10-13 | 0.394-0.512 | 30 | 1.181 | A765002 | – | 12 | 0.472 | CC..0602.. | Steel, inserts type |
| | 10-13 | 0.394-0.512 | 55 | 2.165 | A765202 | – | 12 | 0.472 | CC..0602.. | Carbide, inserts type |
| | 13-15,5 | 0.512-0.610 | 40 | 1.575 | A760S20 | A765R1 | 12 | 0.472 | CC..0602.. | Steel shank with insert holder |
| | 13-15,5 | 0.512-0.610 | 60 | 2.362 | A760E20 | A765R1 | 12 | 0.472 | CC..0602.. | Carbide shank with insert holder |
| | 15,5-18 | 0.610-0.709 | 40 | 1.575 | A760S20 | A765R2 | 12 | 0.472 | CC..0602.. | Steel shank with insert holder |
| | 15,5-18 | 0.610-0.709 | 60 | 2.362 | A760E20 | A765R2 | 12 | 0.472 | CC..0602.. | Carbide shank with insert holder |
| | 18-20 | 0.709-0.787 | 40 | 1.575 | A760S20 | A765R3 | 12 | 0.472 | CC..0602.. | Steel shank with insert holder |
| | 18-20 | 0.709-0.787 | 60 | 2.362 | A760E20 | A765R3 | 12 | 0.472 | CC..0602.. | Carbide shank with insert holder |
| A760 03/ A760 13 | 6-8 | 0.236-0.315 | 16 | 0.630 | A762003 | – | 16 | 0.630 | WB..0301.. | Steel, inserts type |
| | 6-8 | 0.236-0.315 | 32 | 1.260 | A762203 | – | 16 | 0.630 | WB..0301.. | Carbide, inserts type |
| | 8-10 | 0.315-0.394 | 22 | 0.866 | A763003 | – | 16 | 0.630 | WB..0301.. | Steel, inserts type |
| | 8-10 | 0.315-0.394 | 37 | 1.457 | A763203 | – | 16 | 0.630 | WB..0301.. | Carbide, inserts type |
| | 10-13 | 0.394-0.512 | 30 | 1.181 | A765003 | – | 16 | 0.630 | CC..0602.. | Steel, inserts type |
| | 10-13 | 0.394-0.512 | 55 | 2.165 | A765203 | – | 16 | 0.630 | CC..0602.. | Carbide, inserts type |
| | 13-15,5 | 0.512-0.610 | 40 | 1.575 | A760S30 | A765R1 | 16 | 0.630 | CC..0602.. | Steel shank with insert holder |
| | 13-15,5 | 0.512-0.610 | 70 | 2.756 | A760E30 | A765R1 | 16 | 0.630 | CC..0602.. | Carbide shank with insert holder |
| | 15,5-18 | 0.610-0.709 | 40 | 1.575 | A760S30 | A765R2 | 16 | 0.630 | CC..0602.. | Steel shank with insert holder |
| | 15,5-18 | 0.610-0.709 | 70 | 2.756 | A760E30 | A765R2 | 16 | 0.630 | CC..0602.. | Carbide shank with insert holder |
| | 18-20,5 | 0.709-0.807 | 50 | 1.969 | A760S31 | A765R1 | 16 | 0.630 | CC..0602.. | Steel shank with insert holder |
| | 18-20,5 | 0.709-0.807 | 80 | 3.150 | A760E31 | A765R1 | 16 | 0.630 | CC..0602.. | Carbide shank with insert holder |
| | 20,5-23 | 0.807-0.906 | 50 | 1.969 | A760S31 | A765R2 | 16 | 0.630 | CC..0602.. | Steel shank with insert holder |
| | 20,5-23 | 0.807-0.906 | 80 | 3.150 | A760E31 | A765R2 | 16 | 0.630 | CC..0602.. | Carbide shank with insert holder |
| | 23-25,5 | 0.906-1.00 | 50 | 1.969 | A760S31 | A765R3 | 16 | 0.630 | CC..0602.. | Steel shank with insert holder |
| | 23-25,5 | 0.906-1.00 | 80 | 3.150 | A760E31 | A765R3 | 16 | 0.630 | CC..0602.. | Carbide shank with insert holder |
| | 25,5-28 | 1.004-1.102 | 50 | 1.969 | A760S31 | A765R4 | 16 | 0.630 | CC..0602.. | Steel shank with insert holder |
| | 25,5-28 | 1.004-1.102 | 80 | 3.150 | A760E31 | A765R4 | 16 | 0.630 | CC..0602.. | Carbide shank with insert holder |
| | 28-30,5 | 1.102-1.201 | 50 | 1.969 | A760S31 | A765R5 | 16 | 0.630 | CC..0602.. | Steel shank with insert holder |
| | 28-30,5 | 1.102-1.201 | 80 | 3.150 | A760E31 | A765R5 | 16 | 0.630 | CC..0602.. | Carbide shank with insert holder |
| | 30,5-33 | 1.201-1.299 | 50 | 1.969 | A760S31 | A765R6 | 16 | 0.630 | CC..0602.. | Steel shank with insert holder |
| | 30,5-33 | 1.201-1.299 | 80 | 3.150 | A760E31 | A765R6 | 16 | 0.630 | CC..0602.. | Carbide shank with insert holder |
| | 33-35,5* | 1.299-1.398* | 60 | 2.362 | A760A32 | A765R1 | 16 | 0.630 | CC..0602.. | Aluminium shank with insert holder |
| | 35,5-38* | 1.299-1.496* | 60 | 2.362 | A760A32 | A765R2 | 16 | 0.630 | CC..0602.. | Aluminium shank with insert holder |
| | 38-40,5* | 1.496-1.594* | 60 | 2.362 | A760A32 | A765R3 | 16 | 0.630 | CC..0602.. | Aluminium shank with insert holder |
| | 40,5-43* | 1.594-1.693* | 60 | 2.362 | A760A32 | A765R4 | 16 | 0.630 | CC..0602.. | Aluminium shank with insert holder |
| | 43-45,5* | 1.693-1.791* | 60 | 2.362 | A760A32 | A765R5 | 16 | 0.630 | CC..0602.. | Aluminium shank with insert holder |
| | 45,5-48* | 1.791-1.890* | 60 | 2.362 | A760A32 | A765R6 | 16 | 0.630 | CC..0602.. | Aluminium shank with insert holder |
| | 48-50,5* | 1.890-1.988* | 80 | 3.150 | A760A33 | A765R1 | 16 | 0.630 | CC..0602.. | Aluminium shank with insert holder |
| | 50,5-53* | 1.988-2.087* | 80 | 3.150 | A760A33 | A765R2 | 16 | 0.630 | CC..0602.. | Aluminium shank with insert holder |
| | 53-55,5* | 2.087-2.185* | 80 | 3.150 | A760A33 | A765R3 | 16 | 0.630 | CC..0602.. | Aluminium shank with insert holder |
| | 55,5-58* | 2.185-2.283* | 80 | 3.150 | A760A33 | A765R4 | 16 | 0.630 | CC..0602.. | Aluminium shank with insert holder |
| | 58-60,5* | 2.283-2.382* | 80 | 3.150 | A760A33 | A765R5 | 16 | 0.630 | CC..0602.. | Aluminium shank with insert holder |
| | 60,5-63* | 2.382-2.480* | 80 | 3.150 | A760A33 | A765R6 | 16 | 0.630 | CC..0602.. | Aluminium shank with insert holder |

For larger diameters, see Multi-purpose adapter (MPA) section.
* When used on A760 13, no fine balancing possible.

# Multi-purpose adapter (MPA)

for FB 760 heads



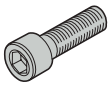



1. Assembly screw
2. Washer
3. Adjustable nozzle

- Suitable for - Axiabore™ Plus - A760 03 head only*
- Designed to hold a shank and a counterweight (for boring or OD-overturning) or two grooving tool holders (for face grooving)
- Through coolant with an adjustable nozzle (3)

| Item number | Designation | Capacity DCN-DCX ∅ | | | | | | HTB | LF | DMM | WB | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | For boring | | For OD-overturning | | For grooving | | | | | | |
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* |
| 02595014 | BDA16BS25100 | 53,0<br>*2.087* | 108,0<br>*4.252* | 2,0<br>*0.079* | 57,0<br>*2.244* | 31,0<br>*1.220* | 96,0<br>*3.780* | 25,0<br>*0.984* | 16,0<br>*0.630* | 16,0<br>*0.630* | 100,0<br>*3.937* | 0,28<br>*0.620* |

## Spare Parts, included in delivery

| For | Assembly screw | Washer |
|---|---|---|
| |  |  |
| BDA16BS25100 | 950D0618 | 940ZC06 |

*When used on an - Axialibrabore™ Plus - A760 13 head, no fine balancing possible, see page(s) 590
Select the required components to realise boring, OD-overturning or grooving assemblies, using following page(s) 603-614

## Accessories

| For head | Clamp key |
|---|---|
| |  |
| BDA16BS25100 | 03HL05 |

**Accessories,** to be ordered separately

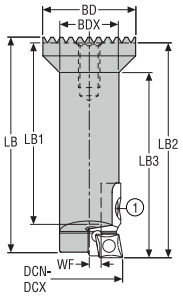
# Shank & counterweight, for boring or OD-overturning on a MPA

for FB 760 heads

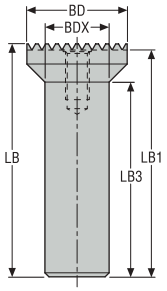


- For fitting onto the MPA
- Shank can be used for boring or OD-overturning
- Takes the same insert holders as the modular boring shanks

A




B




1. Assembly screw

| Item number | Designation | Type | ** Capacity DCN-DCX ∅ | | | | LB | LB1 | LB2 | LB3 | WF | BDX | BD | Weight | Design |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | For boring | | For OD-overturning | | | | | | | | | | |
| | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | |
| 02595016 | BAS25CW1660 | Counter-weight | 53,0<br>*2.087* | 108,0<br>*4.252* | 2,0<br>*0.079* | 57,0<br>*2.244* | 58,0<br>*2.283* | 56,6<br>*2.228* | – | 48,5<br>*1.909* | – | 16,0<br>*0.630* | 25,0<br>*0.984* | 0,2<br>*0.440* | B |
| 02595019 | BAS25MH1660 | Shank* | 53,0<br>*2.087* | 108,0<br>*4.252* | 2,0<br>*0.079* | 57,0<br>*2.244* | 58,5<br>*2.303* | 48,5<br>*1.909* | 58,5<br>*2.303* | 50,0<br>*1.969* | 4,0<br>*0.157* | 16,0<br>*0.630* | 25,0<br>*0.984* | 0,1<br>*0.220* | A |

## Spare Parts, included in delivery

| For | Assembly screw |
|---|---|
| |  |
| BAS25CW1660 | – |
| BAS25MH1660 | C04008-T15P |

## Accessories

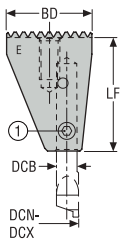
| Key (T-handle) |
|---|
|  |
| – |
| DOUBLE-T |

*Insert holders to be ordered separately, see page(s) 597
**Capacities in boring and OD-overturning are related to the selected insert holder and the setting position of the shanks using the 'Insert holders for boring or OD-overturning selection chart' on page(s) 603-614
**Accessories,** to be ordered separately

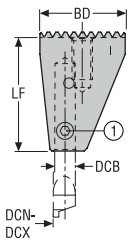
# Grooving tool holders, for face grooving on a MPA

for FB 760 heads

E




I




1. Locking screw



- For fitting onto the MPA
- A grooving tool holder is used either to hold a grooving tool, or to act as a counterweight

| Item number | Designation | Type | * Capacity DCN-DCX ∅ | | DCB | LF | BD | Weight | Design |
|---|---|---|---|---|---|---|---|---|---|
| | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | |
| 02595020 | BAS25FGE35 | Grooving tool holder E (external)* | 39,0<br>*1.535* | 96,0<br>*3.780* | 6,0<br>*0.236* | 35,0<br>*1.378* | 25,0<br>*0.984* | 0,1<br>*0.220* | E (External) |
| 02595021 | BAS25FGI35 | Grooving tool holder I (internal)* | 19,0<br>*0.748* | 76,0<br>*2.992* | 6,0<br>*0.236* | 35,0<br>*1.378* | 25,0<br>*0.984* | 0,1<br>*0.220* | I (Internal) |

## Spare Parts, included in delivery

| For | Locking screw |
|---|---|
| |  |
| BAS25FGE35 | 950L0607T15P |
| BAS25FGI35 | 950L0607T15P |

## Accessories

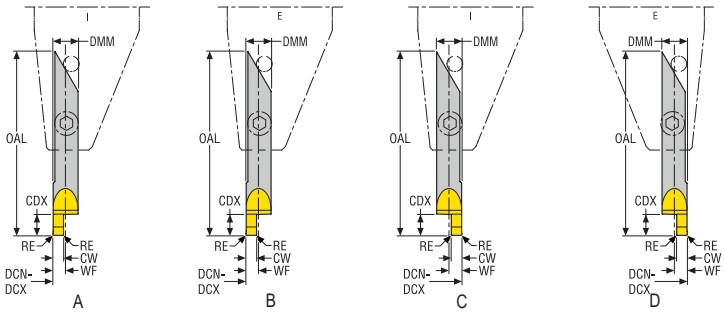
| Key (T-handle) |
|---|
|  |
| DOUBLE-T |
| DOUBLE-T |

*Grooving tools to be ordered separately, see page(s) 602
* Capacity in grooving is related to the selected grooving tool, the setting position and orientation of the grooving tool holder, using the ' Grooving tool against spigot (or against bore) selection charts' see page(s) 603-614
**Accessories,** to be ordered separately

# Grooving tools

for FB 760 heads





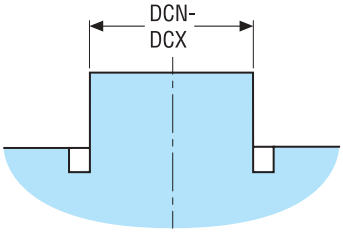

- Can be used for either 'external' or 'internal' grooving tool holders, depending on capacity

| Item number | Designation | Type | * Capacity DCN-DCX ∅ Design A | | Design B | | Design C | | Design D | | OAL | CW | RE | DMM | WF | Groove max. ** | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* |
| 02595022 | AFG0629101581 | Against bore | – | – | – | – | 31,0<br>*1.220* | 76,0<br>*2.992* | 51,0<br>*2.008* | 96,0<br>*3.780* | 42,0<br>*1.654* | 1,0<br>*0.039* | 0,15<br>*0.006* | 6,0<br>*0.236* | 2,95<br>*0.116* | 2,0<br>*0.079* | 0,02<br>*0.040* |
| 02595028 | AFG0629101582 | Against spigot | 19,0<br>*0.748* | 64,0<br>*2.520* | 39,0<br>*1.535* | 84,0<br>*3.307* | – | – | – | – | 42,0<br>*1.654* | 1,0<br>*0.039* | 0,15<br>*0.006* | 6,0<br>*0.236* | 2,95<br>*0.116* | 2,0<br>*0.079* | 0,07<br>*0.150* |
| 02595023 | AFG0629151581 | Against bore | – | – | – | – | 31,0<br>*1.220* | 76,0<br>*2.992* | 51,0<br>*2.008* | 96,0<br>*3.780* | 42,0<br>*1.654* | 1,5<br>*0.059* | 0,15<br>*0.006* | 6,0<br>*0.236* | 2,95<br>*0.116* | 3,0<br>*0.118* | 0,07<br>*0.150* |
| 02595029 | AFG0629151582 | Against spigot | 19,0<br>*0.748* | 64,0<br>*2.520* | 39,0<br>*1.535* | 84,0<br>*3.307* | – | – | – | – | 42,0<br>*1.654* | 1,5<br>*0.059* | 0,15<br>*0.006* | 6,0<br>*0.236* | 2,95<br>*0.116* | 3,0<br>*0.118* | 0,07<br>*0.150* |
| 02595024 | AFG0629201581 | Against bore | – | – | – | – | 31,0<br>*1.220* | 76,0<br>*2.992* | 51,0<br>*2.008* | 96,0<br>*3.780* | 42,0<br>*1.654* | 2,0<br>*0.079* | 0,15<br>*0.006* | 6,0<br>*0.236* | 2,95<br>*0.116* | 4,0<br>*0.157* | 0,07<br>*0.150* |
| 02595031 | AFG0629201582 | Against spigot | 19,0<br>*0.748* | 64,0<br>*2.520* | 39,0<br>*1.535* | 84,0<br>*3.307* | – | – | – | – | 42,0<br>*1.654* | 2,0<br>*0.079* | 0,15<br>*0.006* | 6,0<br>*0.236* | 2,95<br>*0.116* | 5,0<br>*0.197* | 0,07<br>*0.150* |
| 02595026 | AFG0629251581 | Against bore | – | – | – | – | 31,0<br>*1.220* | 76,0<br>*2.992* | 51,0<br>*2.008* | 96,0<br>*3.780* | 42,0<br>*1.654* | 2,5<br>*0.098* | 0,15<br>*0.006* | 6,0<br>*0.236* | 2,95<br>*0.116* | 5,0<br>*0.197* | 0,07<br>*0.150* |
| 02595032 | AFG0629251582 | Against spigot | 19,0<br>*0.748* | 64,0<br>*2.520* | 39,0<br>*1.535* | 84,0<br>*3.307* | – | – | – | – | 42,0<br>*1.654* | 2,5<br>*0.098* | 0,15<br>*0.006* | 6,0<br>*0.236* | 2,95<br>*0.116* | 5,0<br>*0.197* | 0,07<br>*0.150* |
| 02595027 | AFG0629301581 | Against bore | – | – | – | – | 31,0<br>*1.220* | 76,0<br>*2.992* | 51,0<br>*2.008* | 96,0<br>*3.780* | 42,0<br>*1.654* | 3,0<br>*0.118* | 0,15<br>*0.006* | 6,0<br>*0.236* | 2,95<br>*0.116* | 6,0<br>*0.236* | 0,07<br>*0.150* |
| 02595033 | AFG0629301582 | Against spigot | 19,0<br>*0.748* | 64,0<br>*2.520* | 39,0<br>*1.535* | 84,0<br>*3.307* | – | – | – | – | 42,0<br>*1.654* | 3,0<br>*0.118* | 0,15<br>*0.006* | 6,0<br>*0.236* | 2,95<br>*0.116* | 6,0<br>*0.236* | 0,07<br>*0.150* |

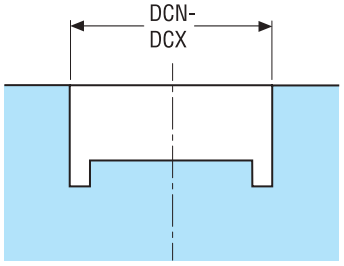
* Capacity in grooving is related to the selected grooving tool, the setting position and orientation of the grooving tool holder, using the ' Grooving tool against spigot (or against bore) selection charts' see page(s) 603-614
** Groove max. depth CDX

## Spare Parts, included in delivery

**Grooving tool -against spigot-**

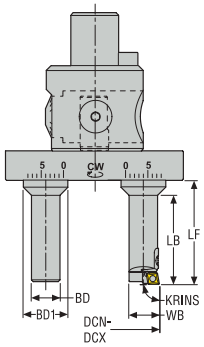



**Grooving tool -against bore-**



# Metric Selection chart:
# Boring tools and insert holders suitable for FB 760 heads

Select a suitable insert holder and note the shank position on the MPA to obtain the required bore capacity.
Note: A boring assembly requires:
- an - Axiabore™ Plus - head (A760 03)
- a MPA (BDA16BS25100)
- a shank (BAS25MH1660)
- a counterweight (BAS25CW1660).
- an insert holder (A765R.) to be selected in the chart
- an insert

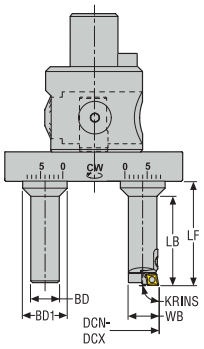



| Capacity DCN-DCX ∅ mm* | Insert holder Designation | Shank position | Dimensions in mm | | | | | Lead angle KRINS° | Suitable insert size |
|---|---|---|---|---|---|---|---|---|---|
| | | | BD | BD1 | LF | LB | WB | | |
| 53-55,5 | A765 R1 | 0 | 16 | 25 | 58,5 | 50 | 17 | 90° | CC..0602.. |
| 55,5-58 | A765 R2 | 0 | 16 | 25 | 58,5 | 50 | 18,2 | 90° | CC..0602.. |
| 58-60,5 | A765 R1 | 1 | 16 | 25 | 58,5 | 50 | 17 | 90° | CC..0602.. |
| | A765 R3 | 0 | 16 | 25 | 58,5 | 50 | 19,5 | 90° | CC..0602.. |
| 60,5-63 | A765 R2 | 1 | 16 | 25 | 58,5 | 50 | 18,2 | 90° | CC..0602.. |
| | A765 R4 | 0 | 16 | 25 | 58,5 | 50 | 20,7 | 90° | CC..0602.. |
| 63-65,5 | A765 R1 | 2 | 16 | 25 | 58,5 | 50 | 17 | 90° | CC..0602.. |
| | A765 R3 | 1 | 16 | 25 | 58,5 | 50 | 19,5 | 90° | CC..0602.. |
| | A765 R5 | 0 | 16 | 25 | 58,5 | 50 | 22 | 90° | CC..0602.. |
| 65,5-68 | A765 R2 | 2 | 16 | 25 | 58,5 | 50 | 18,2 | 90° | CC..0602.. |
| | A765 R4 | 1 | 16 | 25 | 58,5 | 50 | 20,7 | 90° | CC..0602.. |
| | A765 R6 | 0 | 16 | 25 | 58,5 | 50 | 23,3 | 90° | CC..0602.. |
| 68-70,5 | A765 R1 | 3 | 16 | 25 | 58,5 | 50 | 17 | 90° | CC..0602.. |
| | A765 R3 | 2 | 16 | 25 | 58,5 | 50 | 19,5 | 90° | CC..0602.. |
| | A765 R5 | 1 | 16 | 25 | 58,5 | 50 | 22 | 90° | CC..0602.. |
| 70,5-73 | A765 R2 | 3 | 16 | 25 | 58,5 | 50 | 18,2 | 90° | CC..0602.. |
| | A765 R4 | 2 | 16 | 25 | 58,5 | 50 | 20,7 | 90° | CC..0602.. |
| | A765 R6 | 1 | 16 | 25 | 58,5 | 50 | 23,2 | 90° | CC..0602.. |
| 73-75,5 | A765 R1 | 4 | 16 | 25 | 58,5 | 50 | 17 | 90° | CC..0602.. |
| | A765 R3 | 3 | 16 | 25 | 58,5 | 50 | 19,5 | 90° | CC..0602.. |
| | A765 R5 | 2 | 16 | 25 | 58,5 | 50 | 22 | 90° | CC..0602.. |
| 75,5-78 | A765 R2 | 4 | 16 | 25 | 58,5 | 50 | 18,2 | 90° | CC..0602.. |
| | A765 R4 | 3 | 16 | 25 | 58,5 | 50 | 20,7 | 90° | CC..0602.. |
| | A765 R6 | 2 | 16 | 25 | 58,5 | 50 | 23,2 | 90° | CC..0602.. |
| 78-80,5 | A765 R1 | 5 | 16 | 25 | 58,5 | 50 | 17 | 90° | CC..0602.. |
| | A765 R3 | 4 | 16 | 25 | 58,5 | 50 | 19,5 | 90° | CC..0602.. |
| | A765 R5 | 3 | 16 | 25 | 58,5 | 50 | 22 | 90° | CC..0602.. |
| 80,5-83 | A765 R2 | 5 | 16 | 25 | 58,5 | 50 | 18,2 | 90° | CC..0602.. |
| | A765 R4 | 4 | 16 | 25 | 58,5 | 50 | 20,7 | 90° | CC..0602.. |
| | A765 R6 | 3 | 16 | 25 | 58,5 | 50 | 23,2 | 90° | CC..0602.. |
| 83-85,5 | A765 R1 | 6 | 16 | 25 | 58,5 | 50 | 17 | 90° | CC..0602.. |
| | A765 R3 | 5 | 16 | 25 | 58,5 | 50 | 19,5 | 90° | CC..0602.. |
| | A765 R5 | 4 | 16 | 25 | 58,5 | 50 | 22 | 90° | CC..0602.. |
| 85,5-88 | A765 R2 | 6 | 16 | 25 | 58,5 | 50 | 18,2 | 90° | CC..0602.. |
| | A765 R4 | 5 | 16 | 25 | 58,5 | 50 | 20,7 | 90° | CC..0602.. |
| | A765 R6 | 4 | 16 | 25 | 58,5 | 50 | 23,2 | 90° | CC..0602.. |
| 88-90,5 | A765 R1 | 7 | 16 | 25 | 58,5 | 50 | 17 | 90° | CC..0602.. |
| | A765 R3 | 6 | 16 | 25 | 58,5 | 50 | 19,5 | 90° | CC..0602.. |
| | A765 R5 | 5 | 16 | 25 | 58,5 | 50 | 22 | 90° | CC..0602.. |
| 90,5-93 | A765 R2 | 7 | 16 | 25 | 58,5 | 50 | 18,2 | 90° | CC..0602.. |
| | A765 R4 | 6 | 16 | 25 | 58,5 | 50 | 20,7 | 90° | CC..0602.. |
| | A765 R6 | 5 | 16 | 25 | 58,5 | 50 | 23,2 | 90° | CC..0602.. |
| 93-95,5 | A765 R1 | 8 | 16 | 25 | 58,5 | 50 | 17 | 90° | CC..0602.. |
| | A765 R3 | 7 | 16 | 25 | 58,5 | 50 | 19,5 | 90° | CC..0602.. |
| | A765 R5 | 6 | 16 | 25 | 58,5 | 50 | 22 | 90° | CC..0602.. |
| 95,5-98 | A765 R2 | 8 | 16 | 25 | 58,5 | 50 | 18,2 | 90° | CC..0602.. |
| | A765 R4 | 7 | 16 | 25 | 58,5 | 50 | 20,7 | 90° | CC..0602.. |
| | A765 R6 | 6 | 16 | 25 | 58,5 | 50 | 23,2 | 90° | CC..0602.. |
| 98-100,5 | A765 R3 | 8 | 16 | 25 | 58,5 | 50 | 19,5 | 90° | CC..0602.. |
| | A765 R5 | 7 | 16 | 25 | 58,5 | 50 | 22 | 90° | CC..0602.. |
| 100,5-103 | A765 R4 | 8 | 16 | 25 | 58,5 | 50 | 20,7 | 90° | CC..0602.. |
| | A765 R6 | 7 | 16 | 25 | 58,5 | 50 | 23,2 | 90° | CC..0602.. |
| 103-105,5 | A765 R5 | 8 | 16 | 25 | 58,5 | 50 | 22 | 90° | CC..0602.. |
| 105,5-108 | A765 R6 | 8 | 16 | 25 | 58,5 | 50 | 23,2 | 90° | CC..0602.. |

* +0,2 mm *(0.008")* complementary capacity achievable.
Detailed description of insert holders, see page(s) 597

# Inch Selection chart:
# Boring tools and insert holders suitable for FB 760 heads

Select a suitable insert holder and note the shank position on the MPA to obtain the required bore capacity.
Note: A boring assembly requires:
- an - Axiabore™ Plus - head (A760 03)
- a MPA (BDA16BS25100)
- a shank (BAS25MH1660)
- a counterweight (BAS25CW1660).
- an insert holder (A765R.) to be selected in the chart
- an insert

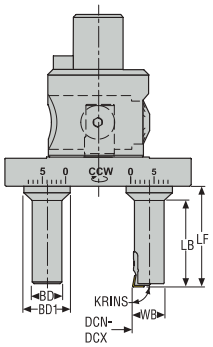



| Capacity DCN-DCX ∅ inch* | Insert holder Designation | Shank position | Dimensions in inch | | | | | Lead angle KRINS° | Suitable insert size |
|---|---|---|---|---|---|---|---|---|---|
| | | | BD | BD1 | LF | LB | WB | | |
| *2.087-2.185* | A765 R1 | 0 | *0.630* | *0.984* | *2.303* | *1.969* | *0.669* | 90° | CC..0602.. |
| *2.185-2.283* | A765 R2 | 0 | *0.630* | *0.984* | *2.303* | *1.969* | *0.717* | 90° | CC..0602.. |
| *2.283-2.382* | A765 R1 | 1 | *0.630* | *0.984* | *2.303* | *1.969* | *0.669* | 90° | CC..0602.. |
| | A765 R3 | 0 | *0.630* | *0.984* | *2.303* | *1.969* | *0.768* | 90° | CC..0602.. |
| *2.382-2.480* | A765 R2 | 1 | *0.630* | *0.984* | *2.303* | *1.969* | *0.717* | 90° | CC..0602.. |
| | A765 R4 | 0 | *0.630* | *0.984* | *2.303* | *1.969* | *0.815* | 90° | CC..0602.. |
| *2.480-2.579* | A765 R1 | 2 | *0.630* | *0.984* | *2.303* | *1.969* | *0.669* | 90° | CC..0602.. |
| | A765 R3 | 1 | *0.630* | *0.984* | *2.303* | *1.969* | *0.768* | 90° | CC..0602.. |
| | A765 R5 | 0 | *0.630* | *0.984* | *2.303* | *1.969* | *0.866* | 90° | CC..0602.. |
| *2.579-2.677* | A765 R2 | 2 | *0.630* | *0.984* | *2.303* | *1.969* | *0.717* | 90° | CC..0602.. |
| | A765 R4 | 1 | *0.630* | *0.984* | *2.303* | *1.969* | *0.815* | 90° | CC..0602.. |
| | A765 R6 | 0 | *0.630* | *0.984* | *2.303* | *1.969* | *0.917* | 90° | CC..0602.. |
| *2.677-2.776* | A765 R1 | 3 | *0.630* | *0.984* | *2.303* | *1.969* | *0.669* | 90° | CC..0602.. |
| | A765 R3 | 2 | *0.630* | *0.984* | *2.303* | *1.969* | *0.768* | 90° | CC..0602.. |
| | A765 R5 | 1 | *0.630* | *0.984* | *2.303* | *1.969* | *0.866* | 90° | CC..0602.. |
| *2.776-2.874* | A765 R2 | 3 | *0.630* | *0.984* | *2.303* | *1.969* | *0.717* | 90° | CC..0602.. |
| | A765 R4 | 2 | *0.630* | *0.984* | *2.303* | *1.969* | *0.815* | 90° | CC..0602.. |
| | A765 R6 | 1 | *0.630* | *0.984* | *2.303* | *1.969* | *0.913* | 90° | CC..0602.. |
| *2.874-2.972* | A765 R1 | 4 | *0.630* | *0.984* | *2.303* | *1.969* | *0.669* | 90° | CC..0602.. |
| | A765 R3 | 3 | *0.630* | *0.984* | *2.303* | *1.969* | *0.768* | 90° | CC..0602.. |
| | A765 R5 | 2 | *0.630* | *0.984* | *2.303* | *1.969* | *0.866* | 90° | CC..0602.. |
| *2.972-3.071* | A765 R2 | 4 | *0.630* | *0.984* | *2.303* | *1.969* | *0.717* | 90° | CC..0602.. |
| | A765 R4 | 3 | *0.630* | *0.984* | *2.303* | *1.969* | *0.815* | 90° | CC..0602.. |
| | A765 R6 | 2 | *0.630* | *0.984* | *2.303* | *1.969* | *0.913* | 90° | CC..0602.. |
| *3.071-3.169* | A765 R1 | 5 | *0.630* | *0.984* | *2.303* | *1.969* | *0.669* | 90° | CC..0602.. |
| | A765 R3 | 4 | *0.630* | *0.984* | *2.303* | *1.969* | *0.768* | 90° | CC..0602.. |
| | A765 R5 | 3 | *0.630* | *0.984* | *2.303* | *1.969* | *0.866* | 90° | CC..0602.. |
| *3.169-3.268* | A765 R2 | 5 | *0.630* | *0.984* | *2.303* | *1.969* | *0.717* | 90° | CC..0602.. |
| | A765 R4 | 4 | *0.630* | *0.984* | *2.303* | *1.969* | *0.815* | 90° | CC..0602.. |
| | A765 R6 | 3 | *0.630* | *0.984* | *2.303* | *1.969* | *0.913* | 90° | CC..0602.. |
| *3.268-3.366* | A765 R1 | 6 | *0.630* | *0.984* | *2.303* | *1.969* | *0.669* | 90° | CC..0602.. |
| | A765 R3 | 5 | *0.630* | *0.984* | *2.303* | *1.969* | *0.768* | 90° | CC..0602.. |
| | A765 R5 | 4 | *0.630* | *0.984* | *2.303* | *1.969* | *0.866* | 90° | CC..0602.. |
| *3.366-3.465* | A765 R2 | 6 | *0.630* | *0.984* | *2.303* | *1.969* | *0.717* | 90° | CC..0602.. |
| | A765 R4 | 5 | *0.630* | *0.984* | *2.303* | *1.969* | *0.815* | 90° | CC..0602.. |
| | A765 R6 | 4 | *0.630* | *0.984* | *2.303* | *1.969* | *0.913* | 90° | CC..0602.. |
| *3.465-3.563* | A765 R1 | 7 | *0.630* | *0.984* | *2.303* | *1.969* | *0.669* | 90° | CC..0602.. |
| | A765 R3 | 6 | *0.630* | *0.984* | *2.303* | *1.969* | *0.768* | 90° | CC..0602.. |
| | A765 R5 | 5 | *0.630* | *0.984* | *2.303* | *1.969* | *0.866* | 90° | CC..0602.. |
| *3.563-3.661* | A765 R2 | 7 | *0.630* | *0.984* | *2.303* | *1.969* | *0.717* | 90° | CC..0602.. |
| | A765 R4 | 6 | *0.630* | *0.984* | *2.303* | *1.969* | *0.815* | 90° | CC..0602.. |
| | A765 R6 | 5 | *0.630* | *0.984* | *2.303* | *1.969* | *0.913* | 90° | CC..0602.. |
| *3.661-3.760* | A765 R1 | 8 | *0.630* | *0.984* | *2.303* | *1.969* | *0.669* | 90° | CC..0602.. |
| | A765 R3 | 7 | *0.630* | *0.984* | *2.303* | *1.969* | *0.768* | 90° | CC..0602.. |
| | A765 R5 | 6 | *0.630* | *0.984* | *2.303* | *1.969* | *0.866* | 90° | CC..0602.. |
| *3.760-3.858* | A765 R2 | 8 | *0.630* | *0.984* | *2.303* | *1.969* | *0.717* | 90° | CC..0602.. |
| | A765 R4 | 7 | *0.630* | *0.984* | *2.303* | *1.969* | *0.815* | 90° | CC..0602.. |
| | A765 R6 | 6 | *0.630* | *0.984* | *2.303* | *1.969* | *0.913* | 90° | CC..0602.. |
| *3.858-3.957* | A765 R3 | 8 | *0.630* | *0.984* | *2.303* | *1.969* | *0.768* | 90° | CC..0602.. |
| | A765 R5 | 7 | *0.630* | *0.984* | *2.303* | *1.969* | *0.866* | 90° | CC..0602.. |
| *3.957-4.055* | A765 R4 | 8 | *0.630* | *0.984* | *2.303* | *1.969* | *0.815* | 90° | CC..0602.. |
| | A765 R6 | 7 | *0.630* | *0.984* | *2.303* | *1.969* | *0.913* | 90° | CC..0602.. |
| *4.055-4.154* | A765 R5 | 8 | *0.630* | *0.984* | *2.303* | *1.969* | *0.866* | 90° | CC..0602.. |
| *4.154-4.252* | A765 R6 | 8 | *0.630* | *0.984* | *2.303* | *1.969* | *0.913* | 90° | CC..0602.. |

* +0,2 mm *(0.008")* complementary capacity achievable.
Detailed description of insert holders, see page(s) 597

# Metric Selection chart:
# Insert holders for OD-overturning with MPA, for FB 760 heads

Select a suitable insert holder and note the shank position on the MPA to obtain the required bore capacity.
Note: A OD-overturning assembly requires:
- an - Axiabore™ Plus - head (A760 03)
- a MPA (BDA16BS25100)
- a shank (BAS25MH1660)
- a counterweight (BAS25CW1660).
- an insert holder (A765R.) to be selected in the chart
- an insert

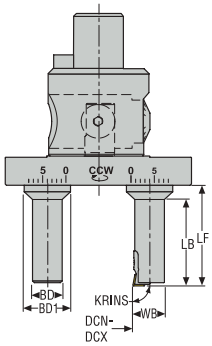



| Capacity DCN-DCX ∅ mm* | Insert holder Designation | Shank position | Dimensions in mm | | | | | Lead angle KRINS° | Suitable insert size |
|---|---|---|---|---|---|---|---|---|---|
| | | | BD | BD1 | LF | LB | WB | | |
| 2-4,5 | A765 R6 | 0 | 16 | 25 | 58,5 | 50 | 23,2 | 90° | CC..0602.. |
| 4,5-7 | A765 R5 | 0 | 16 | 25 | 58,5 | 50 | 22 | 90° | CC..0602.. |
| 7-9,5 | A765 R6 | 1 | 16 | 25 | 58,5 | 50 | 23,2 | 90° | CC..0602.. |
| | A765 R4 | 0 | 16 | 25 | 58,5 | 50 | 20,7 | 90° | CC..0602.. |
| 9,5-12 | A765 R5 | 1 | 16 | 25 | 58,5 | 50 | 22 | 90° | CC..0602.. |
| | A765 R3 | 0 | 16 | 25 | 58,5 | 50 | 19,5 | 90° | CC..0602.. |
| 12-14,5 | A765 R6 | 2 | 16 | 25 | 58,5 | 50 | 23,2 | 90° | CC..0602.. |
| | A765 R4 | 1 | 16 | 25 | 58,5 | 50 | 20,7 | 90° | CC..0602.. |
| | A765 R2 | 0 | 16 | 25 | 58,5 | 50 | 18,2 | 90° | CC..0602.. |
| 14,5-17 | A765 R5 | 2 | 16 | 25 | 58,5 | 50 | 22 | 90° | CC..0602.. |
| | A765 R3 | 1 | 16 | 25 | 58,5 | 50 | 19,5 | 90° | CC..0602.. |
| | A765 R1 | 0 | 16 | 25 | 58,5 | 50 | 17 | 90° | CC..0602.. |
| 17-19,5 | A765 R6 | 3 | 16 | 25 | 58,5 | 50 | 23,2 | 90° | CC..0602.. |
| | A765 R4 | 2 | 16 | 25 | 58,5 | 50 | 20,7 | 90° | CC..0602.. |
| | A765 R2 | 1 | 16 | 25 | 58,5 | 50 | 18,2 | 90° | CC..0602.. |
| 19,5-22 | A765 R5 | 3 | 16 | 25 | 58,5 | 50 | 22 | 90° | CC..0602.. |
| | A765 R3 | 2 | 16 | 25 | 58,5 | 50 | 19,5 | 90° | CC..0602.. |
| | A765 R1 | 1 | 16 | 25 | 58,5 | 50 | 17 | 90° | CC..0602.. |
| 22-24,5 | A765 R6 | 4 | 16 | 25 | 58,5 | 50 | 23,2 | 90° | CC..0602.. |
| | A765 R4 | 3 | 16 | 25 | 58,5 | 50 | 20,7 | 90° | CC..0602.. |
| | A765 R2 | 2 | 16 | 25 | 58,5 | 50 | 18,2 | 90° | CC..0602.. |
| 24,5-27 | A765 R5 | 4 | 16 | 25 | 58,5 | 50 | 22 | 90° | CC..0602.. |
| | A765 R3 | 3 | 16 | 25 | 58,5 | 50 | 19,5 | 90° | CC..0602.. |
| | A765 R1 | 2 | 16 | 25 | 58,5 | 50 | 17 | 90° | CC..0602.. |
| 27-29,5 | A765 R6 | 5 | 16 | 25 | 58,5 | 50 | 23,2 | 90° | CC..0602.. |
| | A765 R4 | 4 | 16 | 25 | 58,5 | 50 | 20,7 | 90° | CC..0602.. |
| | A765 R2 | 3 | 16 | 25 | 58,5 | 50 | 18,2 | 90° | CC..0602.. |
| 29,5-32 | A765 R5 | 5 | 16 | 25 | 58,5 | 50 | 22 | 90° | CC..0602.. |
| | A765 R3 | 4 | 16 | 25 | 58,5 | 50 | 19,5 | 90° | CC..0602.. |
| | A765 R1 | 3 | 16 | 25 | 58,5 | 50 | 17 | 90° | CC..0602.. |
| 32-34,5 | A765 R6 | 6 | 16 | 25 | 58,5 | 50 | 23,2 | 90° | CC..0602.. |
| | A765 R4 | 5 | 16 | 25 | 58,5 | 50 | 20,7 | 90° | CC..0602.. |
| | A765 R2 | 4 | 16 | 25 | 58,5 | 50 | 18,2 | 90° | CC..0602.. |
| 34,5-37 | A765 R5 | 6 | 16 | 25 | 58,5 | 50 | 22 | 90° | CC..0602.. |
| | A765 R3 | 5 | 16 | 25 | 58,5 | 50 | 19,5 | 90° | CC..0602.. |
| | A765 R1 | 4 | 16 | 25 | 58,5 | 50 | 17 | 90° | CC..0602.. |
| 37-39,5 | A765 R6 | 7 | 16 | 25 | 58,5 | 50 | 23,2 | 90° | CC..0602.. |
| | A765 R4 | 6 | 16 | 25 | 58,5 | 50 | 20,7 | 90° | CC..0602.. |
| | A765 R2 | 5 | 16 | 25 | 58,5 | 50 | 18,2 | 90° | CC..0602.. |
| 39,5-42 | A765 R5 | 7 | 16 | 25 | 58,5 | 50 | 22 | 90° | CC..0602.. |
| | A765 R3 | 6 | 16 | 25 | 58,5 | 50 | 19,5 | 90° | CC..0602.. |
| | A765 R1 | 5 | 16 | 25 | 58,5 | 50 | 17 | 90° | CC..0602.. |
| 42-44,5 | A765 R6 | 8 | 16 | 25 | 58,5 | 50 | 23,2 | 90° | CC..0602.. |
| | A765 R4 | 7 | 16 | 25 | 58,5 | 50 | 20,7 | 90° | CC..0602.. |
| | A765 R2 | 6 | 16 | 25 | 58,5 | 50 | 18,2 | 90° | CC..0602.. |
| 44,5-47 | A765 R5 | 8 | 16 | 25 | 58,5 | 50 | 22 | 90° | CC..0602.. |
| | A765 R3 | 7 | 16 | 25 | 58,5 | 50 | 19,5 | 90° | CC..0602.. |
| | A765 R1 | 6 | 16 | 25 | 58,5 | 50 | 17 | 90° | CC..0602.. |
| 47-49,5 | A765 R4 | 8 | 16 | 25 | 58,5 | 50 | 20,7 | 90° | CC..0602.. |
| | A765 R2 | 7 | 16 | 25 | 58,5 | 50 | 18,2 | 90° | CC..0602.. |
| 49,5-52 | A765 R3 | 8 | 16 | 25 | 58,5 | 50 | 19,5 | 90° | CC..0602.. |
| | A765 R1 | 7 | 16 | 25 | 58,5 | 50 | 17 | 90° | CC..0602.. |
| 52-54,5 | A765 R2 | 8 | 16 | 25 | 58,5 | 50 | 18,2 | 90° | CC..0602.. |
| 54,5-57 | A765 R1 | 8 | 16 | 25 | 58,5 | 50 | 17 | 90° | CC..0602.. |

* +0,2 mm *(0.008")* complementary capacity achievable.
Detailed description of insert holders, see page(s) 597

# Inch Selection chart:
# Insert holders for OD-overturning with MPA, for FB 760 heads

Select a suitable insert holder and note the shank position on the MPA to obtain the required bore capacity.
Note: A OD-overturning assembly requires:
- an - Axiabore™ Plus - head (A760 03)
- a MPA (BDA16BS25100)
- a shank (BAS25MH1660)
- a counterweight (BAS25CW1660).
- an insert holder (A765R.) to be selected in the chart
- an insert

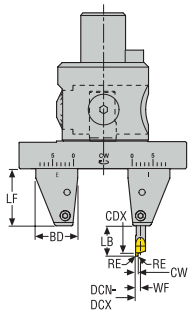


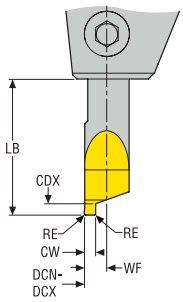

| Capacity DCN-DCX ∅ inch* | Insert holder Designation | Shank position | Dimensions in inch | | | | | Lead angle KRINS° | Suitable insert size |
|---|---|---|---|---|---|---|---|---|---|
| | | | BD | BD1 | LF | LB | WB | | |
| *0.079-0.177* | A765 R6 | 0 | *0.630* | *0.984* | *2.303* | *1.969* | *0.913* | 90° | CC..0602.. |
| *0.177-0.276* | A765 R5 | 0 | *0.630* | *0.984* | *2.303* | *1.969* | *0.866* | 90° | CC..0602.. |
| *0.276-0.374* | A765 R6 | 1 | *0.630* | *0.984* | *2.303* | *1.969* | *0.913* | 90° | CC..0602.. |
| | A765 R4 | 0 | *0.630* | *0.984* | *2.303* | *1.969* | *0.815* | 90° | CC..0602.. |
| *0.374-0.472* | A765 R5 | 1 | *0.630* | *0.984* | *2.303* | *1.969* | *0.866* | 90° | CC..0602.. |
| | A765 R3 | 0 | *0.630* | *0.984* | *2.303* | *1.969* | *0.768* | 90° | CC..0602.. |
| *0.472-0.571* | A765 R6 | 2 | *0.630* | *0.984* | *2.303* | *1.969* | *0.913* | 90° | CC..0602.. |
| | A765 R4 | 1 | *0.630* | *0.984* | *2.303* | *1.969* | *0.815* | 90° | CC..0602.. |
| | A765 R2 | 0 | *0.630* | *0.984* | *2.303* | *1.969* | *0.717* | 90° | CC..0602.. |
| *0.571-0.669* | A765 R5 | 2 | *0.630* | *0.984* | *2.303* | *1.969* | *0.866* | 90° | CC..0602.. |
| | A765 R3 | 1 | *0.630* | *0.984* | *2.303* | *1.969* | *0.768* | 90° | CC..0602.. |
| | A765 R1 | 0 | *0.630* | *0.984* | *2.303* | *1.969* | *0.669* | 90° | CC..0602.. |
| *0.669-0.768* | A765 R6 | 3 | *0.630* | *0.984* | *2.303* | *1.969* | *0.913* | 90° | CC..0602.. |
| | A765 R4 | 2 | *0.630* | *0.984* | *2.303* | *1.969* | *0.815* | 90° | CC..0602.. |
| | A765 R2 | 1 | *0.630* | *0.984* | *2.303* | *1.969* | *0.717* | 90° | CC..0602.. |
| *0.768-0.866* | A765 R5 | 3 | *0.630* | *0.984* | *2.303* | *1.969* | *0.866* | 90° | CC..0602.. |
| | A765 R3 | 2 | *0.630* | *0.984* | *2.303* | *1.969* | *0.768* | 90° | CC..0602.. |
| | A765 R1 | 1 | *0.630* | *0.984* | *2.303* | *1.969* | *0.669* | 90° | CC..0602.. |
| *0.866-0.965* | A765 R6 | 4 | *0.630* | *0.984* | *2.303* | *1.969* | *0.913* | 90° | CC..0602.. |
| | A765 R4 | 3 | *0.630* | *0.984* | *2.303* | *1.969* | *0.815* | 90° | CC..0602.. |
| | A765 R2 | 2 | *0.630* | *0.984* | *2.303* | *1.969* | *0.717* | 90° | CC..0602.. |
| *0.965-1.063* | A765 R5 | 4 | *0.630* | *0.984* | *2.303* | *1.969* | *0.866* | 90° | CC..0602.. |
| | A765 R3 | 3 | *0.630* | *0.984* | *2.303* | *1.969* | *0.768* | 90° | CC..0602.. |
| | A765 R1 | 2 | *0.630* | *0.984* | *2.303* | *1.969* | *0.669* | 90° | CC..0602.. |
| *1.063-1.161* | A765 R6 | 5 | *0.630* | *0.984* | *2.303* | *1.969* | *0.913* | 90° | CC..0602.. |
| | A765 R4 | 4 | *0.630* | *0.984* | *2.303* | *1.969* | *0.815* | 90° | CC..0602.. |
| | A765 R2 | 3 | *0.630* | *0.984* | *2.303* | *1.969* | *0.717* | 90° | CC..0602.. |
| *1.161-1.260* | A765 R5 | 5 | *0.630* | *0.984* | *2.303* | *1.969* | *0.866* | 90° | CC..0602.. |
| | A765 R3 | 4 | *0.630* | *0.984* | *2.303* | *1.969* | *0.768* | 90° | CC..0602.. |
| | A765 R1 | 3 | *0.630* | *0.984* | *2.303* | *1.969* | *0.669* | 90° | CC..0602.. |
| *1.260-1.358* | A765 R6 | 6 | *0.630* | *0.984* | *2.303* | *1.969* | *0.913* | 90° | CC..0602.. |
| | A765 R4 | 5 | *0.630* | *0.984* | *2.303* | *1.969* | *0.815* | 90° | CC..0602.. |
| | A765 R2 | 4 | *0.630* | *0.984* | *2.303* | *1.969* | *0.717* | 90° | CC..0602.. |
| *1.358-1.457* | A765 R5 | 6 | *0.630* | *0.984* | *2.303* | *1.969* | *0.866* | 90° | CC..0602.. |
| | A765 R3 | 5 | *0.630* | *0.984* | *2.303* | *1.969* | *0.768* | 90° | CC..0602.. |
| | A765 R1 | 4 | *0.630* | *0.984* | *2.303* | *1.969* | *0.669* | 90° | CC..0602.. |
| *1.457-1.555* | A765 R6 | 7 | *0.630* | *0.984* | *2.303* | *1.969* | *0.913* | 90° | CC..0602.. |
| | A765 R4 | 6 | *0.630* | *0.984* | *2.303* | *1.969* | *0.815* | 90° | CC..0602.. |
| | A765 R2 | 5 | *0.630* | *0.984* | *2.303* | *1.969* | *0.717* | 90° | CC..0602.. |
| *1.555-1.654* | A765 R5 | 7 | *0.630* | *0.984* | *2.303* | *1.969* | *0.866* | 90° | CC..0602.. |
| | A765 R3 | 6 | *0.630* | *0.984* | *2.303* | *1.969* | *0.768* | 90° | CC..0602.. |
| | A765 R1 | 5 | *0.630* | *0.984* | *2.303* | *1.969* | *0.669* | 90° | CC..0602.. |
| *1.654-1.654* | A765 R6 | 8 | *0.630* | *0.984* | *2.303* | *1.969* | *0.913* | 90° | CC..0602.. |
| | A765 R4 | 7 | *0.630* | *0.984* | *2.303* | *1.969* | *0.815* | 90° | CC..0602.. |
| | A765 R2 | 6 | *0.630* | *0.984* | *2.303* | *1.969* | *0.717* | 90° | CC..0602.. |
| *1.654-1.850* | A765 R5 | 8 | *0.630* | *0.984* | *2.303* | *1.969* | *0.866* | 90° | CC..0602.. |
| | A765 R3 | 7 | *0.630* | *0.984* | *2.303* | *1.969* | *0.768* | 90° | CC..0602.. |
| | A765 R1 | 6 | *0.630* | *0.984* | *2.303* | *1.969* | *0.669* | 90° | CC..0602.. |
| *1.850-1.949* | A765 R4 | 8 | *0.630* | *0.984* | *2.303* | *1.969* | *0.815* | 90° | CC..0602.. |
| | A765 R2 | 7 | *0.630* | *0.984* | *2.303* | *1.969* | *0.717* | 90° | CC..0602.. |
| *1.949-2.047* | A765 R3 | 8 | *0.630* | *0.984* | *2.303* | *1.969* | *0.768* | 90° | CC..0602.. |
| | A765 R1 | 7 | *0.630* | *0.984* | *2.303* | *1.969* | *0.669* | 90° | CC..0602.. |
| *2.047-2.146* | A765 R2 | 8 | *0.630* | *0.984* | *2.303* | *1.969* | *0.717* | 90° | CC..0602.. |
| *2.146-2.244* | A765 R1 | 8 | *0.630* | *0.984* | *2.303* | *1.969* | *0.669* | 90° | CC..0602.. |

* +0,2 mm *(0.008")* complementary capacity achievable.
Detailed description of insert holders, see page(s) 597

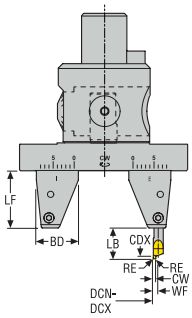
# Metric Selection chart:
# Grooving tool -against spigot- for grooving with MPA, for FB 760 heads

**Assembly case 1**

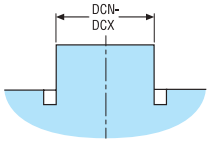



**Assembly case 2**




Select the suitable grooving tool, and note the grooving tool holder position on the MPA to obtain the required groove capacity.




Note: An -against spigot- grooving assembly requires:

- an - Axiabore™ Plus - head (A760 03)
- a MPA (BDA16BS25100)
- an I (internal position) and an E (external position) grooving tool holder (BAS25FGI35 and BAS25FGE35) to either hold a grooving tool or act as a counterweight (see setting position in the chart)
- an -against spigot- grooving tool (AFG...82) to be selected from the chart, related to groove width and diameter.

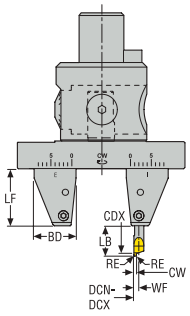
| Capacity DCN-DCX ∅ mm* | Against spigot grooving tool Designation | Grooving toolholder position** | Design | Dimensions in mm BD | CW | LF | LB | WF | RE | Groove max. depth CDX |
|---|---|---|---|---|---|---|---|---|---|---|
| 19-24 | AFG0629 10 1582 | 0-I | 1 | 25 | 1 | 34 | 18 | 2,95 | 0,15 | 2,0 |
| 24-29 | | 1-I | 1 | 25 | 1 | 34 | 18 | 2,95 | 0,15 | 2,0 |
| 29-34 | | 2-I | 1 | 25 | 1 | 34 | 18 | 2,95 | 0,15 | 2,0 |
| 34-39 | | 3-I | 1 | 25 | 1 | 34 | 18 | 2,95 | 0,15 | 2,0 |
| 39-44 | | **0-E** / 4-I | 1/2 | 25 | 1 | 34 | 18 | 2,95 | 0,15 | 2,0 |
| 44-49 | | **1-E** / 5-I | 1/2 | 25 | 1 | 34 | 18 | 2,95 | 0,15 | 2,0 |
| 49-54 | | **2-E** / 6-I | 1/2 | 25 | 1 | 34 | 18 | 2,95 | 0,15 | 2,0 |
| 54-59 | | **3-E** / 7-I | 1/2 | 25 | 1 | 34 | 18 | 2,95 | 0,15 | 2,0 |
| 59-64 | | **4-E** / 8-I | 1/2 | 25 | 1 | 34 | 18 | 2,95 | 0,15 | 2,0 |
| 64-69 | | 5-E | 2 | 25 | 1 | 34 | 18 | 2,95 | 0,15 | 2,0 |
| 69-74 | | 6-E | 2 | 25 | 1 | 34 | 18 | 2,95 | 0,15 | 2,0 |
| 74-79 | | 7-E | 2 | 25 | 1 | 34 | 18 | 2,95 | 0,15 | 2,0 |
| 79-84 | | 8-E | 2 | 25 | 1 | 34 | 18 | 2,95 | 0,15 | 2,0 |
| 19-24 | AFG0629 15 1582 | 0-I | 1 | 25 | 1,5 | 34 | 18 | 2,95 | 0,15 | 3,0 |
| 24-29 | | 1-I | 1 | 25 | 1,5 | 34 | 18 | 2,95 | 0,15 | 3,0 |
| 29-34 | | 2-I | 1 | 25 | 1,5 | 34 | 18 | 2,95 | 0,15 | 3,0 |
| 34-39 | | 3-I | 1 | 25 | 1,5 | 34 | 18 | 2,95 | 0,15 | 3,0 |
| 39-44 | | **0-E** / 4-I | 1/2 | 25 | 1,5 | 34 | 18 | 2,95 | 0,15 | 3,0 |
| 44-49 | | **1-E** / 5-I | 1/2 | 25 | 1,5 | 34 | 18 | 2,95 | 0,15 | 3,0 |
| 49-54 | | **2-E** / 6-I | 1/2 | 25 | 1,5 | 34 | 18 | 2,95 | 0,15 | 3,0 |
| 54-59 | | **3-E** / 7-I | 1/2 | 25 | 1,5 | 34 | 18 | 2,95 | 0,15 | 3,0 |
| 59-64 | | **4-E** / 8-I | 1/2 | 25 | 1,5 | 34 | 18 | 2,95 | 0,15 | 3,0 |
| 64-69 | | 5-E | 2 | 25 | 1,5 | 34 | 18 | 2,95 | 0,15 | 3,0 |
| 69-74 | | 6-E | 2 | 25 | 1,5 | 34 | 18 | 2,95 | 0,15 | 3,0 |
| 74-79 | | 7-E | 2 | 25 | 1,5 | 34 | 18 | 2,95 | 0,15 | 3,0 |
| 79-84 | | 8-E | 2 | 25 | 1,5 | 34 | 18 | 2,95 | 0,15 | 3,0 |
| 19-24 | AFG0629 20 1582 | 0-I | 1 | 25 | 2 | 34 | 18 | 2,95 | 0,15 | 4,0 |
| 24-29 | | 1-I | 1 | 25 | 2 | 34 | 18 | 2,95 | 0,15 | 4,0 |
| 29-34 | | 2-I | 1 | 25 | 2 | 34 | 18 | 2,95 | 0,15 | 4,0 |
| 34-39 | | 3-I | 1 | 25 | 2 | 34 | 18 | 2,95 | 0,15 | 4,0 |
| 39-44 | | **0-E** / 4-I | 1/2 | 25 | 2 | 34 | 18 | 2,95 | 0,15 | 4,0 |
| 44-49 | | **1-E** / 5-I | 1/2 | 25 | 2 | 34 | 18 | 2,95 | 0,15 | 4,0 |
| 49-54 | | **2-E** / 6-I | 1/2 | 25 | 2 | 34 | 18 | 2,95 | 0,15 | 4,0 |
| 54-59 | | **3-E** / 7-I | 1/2 | 25 | 2 | 34 | 18 | 2,95 | 0,15 | 4,0 |
| 59-64 | | **4-E** / 8-I | 1/2 | 25 | 2 | 34 | 18 | 2,95 | 0,15 | 4,0 |
| 64-69 | | 5-E | 2 | 25 | 2 | 34 | 18 | 2,95 | 0,15 | 4,0 |
| 69-74 | | 6-E | 2 | 25 | 2 | 34 | 18 | 2,95 | 0,15 | 4,0 |
| 74-79 | | 7-E | 2 | 25 | 2 | 34 | 18 | 2,95 | 0,15 | 4,0 |
| 79-84 | | 8-E | 2 | 25 | 2 | 34 | 18 | 2,95 | 0,15 | 4,0 |

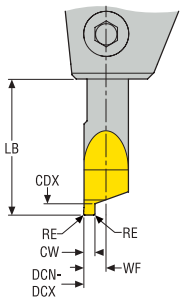
* +0,2 mm *(0.008")* complementary capacity achievable. ** Recommended values in **bold**.

Detailed description of the grooving tools, see page(s) 602

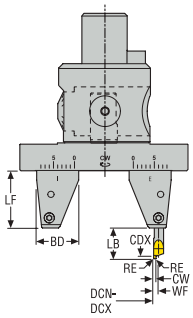
# Metric Selection chart:
# Grooving tool -against spigot- for grooving with MPA, for FB 760 heads

**Assembly case 1**

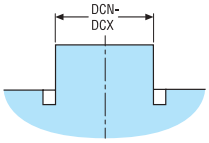



**Assembly case 2**




Select the suitable grooving tool, and note the grooving tool holder position on the MPA to obtain the required groove capacity.




Note: An -against spigot- grooving assembly requires:

- an - Axiabore™ Plus - head (A760 03)
- a MPA (BDA16BS25100)
- an I (internal position) and an E (external position) grooving tool holder (BAS25FGI35 and BAS25FGE35) to either hold a grooving tool or act as a counterweight (see setting position in the chart)
- an -against spigot- grooving tool (AFG...82) to be selected from the chart, related to groove width and diameter.

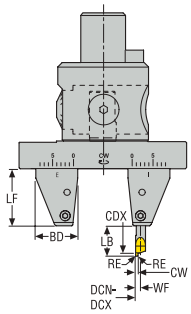
| Capacity DCN-DCX ∅ mm* | Against spigot grooving tool Designation | Grooving toolholder position** | Design | Dimensions in mm BD | CW | LF | LB | WF | RE | Groove max. depth CDX |
|---|---|---|---|---|---|---|---|---|---|---|
| 19-24 | AFG0629 25 1582 | 0-I | 1 | 25 | 2,5 | 34 | 18 | 2,95 | 0,15 | 5,0 |
| 24-29 | | 1-I | 1 | 25 | 2,5 | 34 | 18 | 2,95 | 0,15 | 5,0 |
| 29-34 | | 2-I | 1 | 25 | 2,5 | 34 | 18 | 2,95 | 0,15 | 5,0 |
| 34-39 | | 3-I | 1 | 25 | 2,5 | 34 | 18 | 2,95 | 0,15 | 5,0 |
| 39-44 | | **0-E** / 4-I | 1/2 | 25 | 2,5 | 34 | 18 | 2,95 | 0,15 | 5,0 |
| 44-49 | | **1-E** / 5-I | 1/2 | 25 | 2,5 | 34 | 18 | 2,95 | 0,15 | 5,0 |
| 49-54 | | **2-E** / 6-I | 1/2 | 25 | 2,5 | 34 | 18 | 2,95 | 0,15 | 5,0 |
| 54-59 | | **3-E** / 7-I | 1/2 | 25 | 2,5 | 34 | 18 | 2,95 | 0,15 | 5,0 |
| 59-64 | | **4-E** / 8-I | 1/2 | 25 | 2,5 | 34 | 18 | 2,95 | 0,15 | 5,0 |
| 64-69 | | 5-E | 2 | 25 | 2,5 | 34 | 18 | 2,95 | 0,15 | 5,0 |
| 69-74 | | 6-E | 2 | 25 | 2,5 | 34 | 18 | 2,95 | 0,15 | 5,0 |
| 74-79 | | 7-E | 2 | 25 | 2,5 | 34 | 18 | 2,95 | 0,15 | 5,0 |
| 79-84 | | 8-E | 2 | 25 | 2,5 | 34 | 18 | 2,95 | 0,15 | 5,0 |
| 19-24 | AFG0629 30 1582 | 0-I | 1 | 25 | 3 | 34 | 18 | 2,95 | 0,15 | 6,0 |
| 24-29 | | 1-I | 1 | 25 | 3 | 34 | 18 | 2,95 | 0,15 | 6,0 |
| 29-34 | | 2-I | 1 | 25 | 3 | 34 | 18 | 2,95 | 0,15 | 6,0 |
| 34-39 | | 3-I | 1 | 25 | 3 | 34 | 18 | 2,95 | 0,15 | 6,0 |
| 39-44 | | **0-E** / 4-I | 1/2 | 25 | 3 | 34 | 18 | 2,95 | 0,15 | 6,0 |
| 44-49 | | **1-E** / 5-I | 1/2 | 25 | 3 | 34 | 18 | 2,95 | 0,15 | 6,0 |
| 49-54 | | **2-E** / 6-I | 1/2 | 25 | 3 | 34 | 18 | 2,95 | 0,15 | 6,0 |
| 54-59 | | **3-E** / 7-I | 1/2 | 25 | 3 | 34 | 18 | 2,95 | 0,15 | 6,0 |
| 59-64 | | **4-E** / 8-I | 1/2 | 25 | 3 | 34 | 18 | 2,95 | 0,15 | 6,0 |
| 64-69 | | 5-E | 2 | 25 | 3 | 34 | 18 | 2,95 | 0,15 | 6,0 |
| 69-74 | | 6-E | 2 | 25 | 3 | 34 | 18 | 2,95 | 0,15 | 6,0 |
| 74-79 | | 7-E | 2 | 25 | 3 | 34 | 18 | 2,95 | 0,15 | 6,0 |
| 79-84 | | 8-E | 2 | 25 | 3 | 34 | 18 | 2,95 | 0,15 | 6,0 |

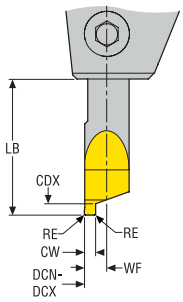
* +0,2 mm *(0.008")* complementary capacity achievable. ** Recommended values in **bold**.

Detailed description of the grooving tools, see page(s) 602

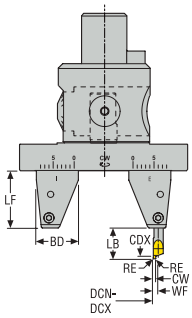
# Inch Selection chart:
# Grooving tool -against spigot- for grooving with MPA, for FB 760 heads

**Assembly case 1**

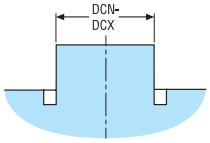



**Assembly case 2**




Select the suitable grooving tool, and note the grooving tool holder position on the MPA to obtain the required groove capacity.




Note: An -against spigot- grooving assembly requires:

- an - Axiabore™ Plus - head (A760 03)
- a MPA (BDA16BS25100)
- an I (internal position) and an E (external position) grooving tool holder (BAS25FGI35 and BAS25FGE35) to either hold a grooving tool or act as a counterweight (see setting position in the chart)
- an -against spigot- grooving tool (AFG...82) to be selected from the chart, related to groove width and diameter.

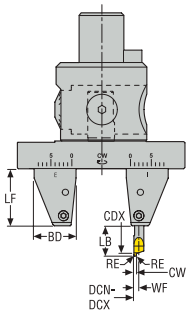
| Capacity DCN-DCX ∅ inch* | Against spigot grooving tool Designation | Grooving toolholder position** | Design | Dimensions in inch | | | | | | Groove max. depth CDX |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | BD | CW | LF | LB | WF | RE | |
| *0.748-0.945* | AFG0629 10 1582 | 0-I | 1 | *0.984* | *0.0394* | *1.339* | *0.709* | *0.116* | *0.006* | 0.079 |
| *0.945-1.142* | | 1-I | 1 | *0.984* | *0.0394* | *1.339* | *0.709* | *0.116* | *0.006* | 0.079 |
| *1.142-1.339* | | 2-I | 1 | *0.984* | *0.0394* | *1.339* | *0.709* | *0.116* | *0.006* | 0.079 |
| *1.339-1.535* | | 3-I | 1 | *0.984* | *0.0394* | *1.339* | *0.709* | *0.116* | *0.006* | 0.079 |
| *1.535-1.732* | | **0-E** / 4-I | 1/2 | *0.984* | *0.0394* | *1.339* | *0.709* | *0.116* | *0.006* | 0.079 |
| *1.732-1.929* | | **1-E** / 5-I | 1/2 | *0.984* | *0.0394* | *1.339* | *0.709* | *0.116* | *0.006* | 0.079 |
| *1.929-2.126* | | **2-E** / 6-I | 1/2 | *0.984* | *0.0394* | *1.339* | *0.709* | *0.116* | *0.006* | 0.079 |
| *2.126-2.323* | | **3-E** / 7-I | 1/2 | *0.984* | *0.0394* | *1.339* | *0.709* | *0.116* | *0.006* | 0.079 |
| *2.323-2.520* | | **4-E** / 8-I | 1/2 | *0.984* | *0.0394* | *1.339* | *0.709* | *0.116* | *0.006* | 0.079 |
| *2.520-2.717* | | 5-E | 2 | *0.984* | *0.0394* | *1.339* | *0.709* | *0.116* | *0.006* | 0.079 |
| *2.717-2.913* | | 6-E | 2 | *0.984* | *0.0394* | *1.339* | *0.709* | *0.116* | *0.006* | 0.079 |
| *2.913-3.110* | | 7-E | 2 | *0.984* | *0.0394* | *1.339* | *0.709* | *0.116* | *0.006* | 0.079 |
| *3.110-3.307* | | 8-E | 2 | *0.984* | *0.0394* | *1.339* | *0.709* | *0.116* | *0.006* | 0.079 |
| *0.748-0.945* | AFG0629 15 1582 | 0-I | 1 | *0.984* | *0.0591* | *1.339* | *0.709* | *0.116* | *0.006* | 0.118 |
| *0.945-1.142* | | 1-I | 1 | *0.984* | *0.0591* | *1.339* | *0.709* | *0.116* | *0.006* | 0.118 |
| *1.142-1.339* | | 2-I | 1 | *0.984* | *0.0591* | *1.339* | *0.709* | *0.116* | *0.006* | 0.118 |
| *1.339-1.535* | | 3-I | 1 | *0.984* | *0.0591* | *1.339* | *0.709* | *0.116* | *0.006* | 0.118 |
| *1.535-1.732* | | **0-E** / 4-I | 1/2 | *0.984* | *0.0591* | *1.339* | *0.709* | *0.116* | *0.006* | 0.118 |
| *1.732-1.929* | | **1-E** / 5-I | 1/2 | *0.984* | *0.0591* | *1.339* | *0.709* | *0.116* | *0.006* | 0.118 |
| *1.929-2.126* | | **2-E** / 6-I | 1/2 | *0.984* | *0.0591* | *1.339* | *0.709* | *0.116* | *0.006* | 0.118 |
| *2.126-2.323* | | **3-E** / 7-I | 1/2 | *0.984* | *0.0591* | *1.339* | *0.709* | *0.116* | *0.006* | 0.118 |
| *2.323-2.520* | | **4-E** / 8-I | 1/2 | *0.984* | *0.0591* | *1.339* | *0.709* | *0.116* | *0.006* | 0.118 |
| *2.520-2.717* | | 5-E | 2 | *0.984* | *0.0591* | *1.339* | *0.709* | *0.116* | *0.006* | 0.118 |
| *2.717-2.913* | | 6-E | 2 | *0.984* | *0.0591* | *1.339* | *0.709* | *0.116* | *0.006* | 0.118 |
| *2.913-3.110* | | 7-E | 2 | *0.984* | *0.0591* | *1.339* | *0.709* | *0.116* | *0.006* | 0.118 |
| *3.110-3.307* | | 8-E | 2 | *0.984* | *0.0591* | *1.339* | *0.709* | *0.116* | *0.006* | 0.118 |
| *0.748-0.945* | AFG0629 20 1582 | 0-I | 1 | *0.984* | *0.0787* | *1.339* | *0.709* | *0.116* | *0.006* | 0.157 |
| *0.945-1.142* | | 1-I | 1 | *0.984* | *0.0787* | *1.339* | *0.709* | *0.116* | *0.006* | 0.157 |
| *1.142-1.339* | | 2-I | 1 | *0.984* | *0.0787* | *1.339* | *0.709* | *0.116* | *0.006* | 0.157 |
| *1.339-1.535* | | 3-I | 1 | *0.984* | *0.0787* | *1.339* | *0.709* | *0.116* | *0.006* | 0.157 |
| *1.535-1.732* | | **0-E** / 4-I | 1/2 | *0.984* | *0.0787* | *1.339* | *0.709* | *0.116* | *0.006* | 0.157 |
| *1.732-1.929* | | **1-E** / 5-I | 1/2 | *0.984* | *0.0787* | *1.339* | *0.709* | *0.116* | *0.006* | 0.157 |
| *1.929-2.126* | | **2-E** / 6-I | 1/2 | *0.984* | *0.0787* | *1.339* | *0.709* | *0.116* | *0.006* | 0.157 |
| *2.126-2.323* | | **3-E** / 7-I | 1/2 | *0.984* | *0.0787* | *1.339* | *0.709* | *0.116* | *0.006* | 0.157 |
| *2.323-2.520* | | **4-E** / 8-I | 1/2 | *0.984* | *0.0787* | *1.339* | *0.709* | *0.116* | *0.006* | 0.157 |
| *2.520-2.717* | | 5-E | 2 | *0.984* | *0.0787* | *1.339* | *0.709* | *0.116* | *0.006* | 0.157 |
| *2.717-2.913* | | 6-E | 2 | *0.984* | *0.0787* | *1.339* | *0.709* | *0.116* | *0.006* | 0.157 |
| *2.913-3.110* | | 7-E | 2 | *0.984* | *0.0787* | *1.339* | *0.709* | *0.116* | *0.006* | 0.157 |
| *3.110-3.307* | | 8-E | 2 | *0.984* | *0.0787* | *1.339* | *0.709* | *0.116* | *0.006* | 0.157 |

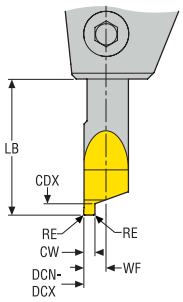
* +0,2 mm *(0.008")* complementary capacity achievable. ** Recommended values in **bold**.

Detailed description of the grooving tools, see page(s) 602

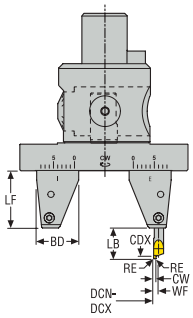
# Inch Selection chart:
# Grooving tool -against spigot- for grooving with MPA, for FB 760 heads

**Assembly case 1**

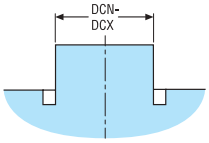



**Assembly case 2**




| | Capacity DCN-DCX ∅ inch* | Against spigot grooving tool Designation | Grooving toolholder position** | Design | Dimensions in inch | | | | | | Groove max. depth CDX |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | BD | CW | LF | LB | WF | RE | |
| Select the suitable grooving tool, and note the grooving tool holder position on the MPA to obtain the required groove capacity. | *0.748-0.945* | AFG0629 25 1582 | 0-I | 1 | *0.984* | *0.0984* | *1.339* | *0.709* | *0.116* | *0.006* | 0.197 |
| | *0.945-1.142* | | 1-I | 1 | *0.984* | *0.0984* | *1.339* | *0.709* | *0.116* | *0.006* | 0.197 |
| | *1.142-1.339* | | 2-I | 1 | *0.984* | *0.0984* | *1.339* | *0.709* | *0.116* | *0.006* | 0.197 |
| | *1.339-1.535* | | 3-I | 1 | *0.984* | *0.0984* | *1.339* | *0.709* | *0.116* | *0.006* | 0.197 |
| | *1.535-1.732* | | **0-E** / 4-I | 1/2 | *0.984* | *0.0984* | *1.339* | *0.709* | *0.116* | *0.006* | 0.197 |
| | *1.732-1.929* | | **1-E** / 5-I | 1/2 | *0.984* | *0.0984* | *1.339* | *0.709* | *0.116* | *0.006* | 0.197 |
| | *1.929-2.126* | | **2-E** / 6-I | 1/2 | *0.984* | *0.0984* | *1.339* | *0.709* | *0.116* | *0.006* | 0.197 |
| | *2.126-2.323* | | **3-E** / 7-I | 1/2 | *0.984* | *0.0984* | *1.339* | *0.709* | *0.116* | *0.006* | 0.197 |
| | *2.323-2.520* | | **4-E** / 8-I | 1/2 | *0.984* | *0.0984* | *1.339* | *0.709* | *0.116* | *0.006* | 0.197 |
| | *2.520-2.717* | | 5-E | 2 | *0.984* | *0.0984* | *1.339* | *0.709* | *0.116* | *0.006* | 0.197 |
| | *2.717-2.913* | | 6-E | 2 | *0.984* | *0.0984* | *1.339* | *0.709* | *0.116* | *0.006* | 0.197 |
| | *2.913-3.110* | | 7-E | 2 | *0.984* | *0.0984* | *1.339* | *0.709* | *0.116* | *0.006* | 0.197 |
| | *3.110-3.307* | | 8-E | 2 | *0.984* | *0.0984* | *1.339* | *0.709* | *0.116* | *0.006* | 0.197 |
| Note: An -against spigot- grooving assembly requires:<br>• an - Axiabore™ Plus - head (A760 03)<br>• a MPA (BDA16BS25100)<br>• an I (internal position) and an E (external position) grooving tool holder (BAS25FGI35 and BAS25FGE35) to either hold a grooving tool or act as a counterweight (see setting position in the chart)<br>• an -against spigot- grooving tool (AFG...82) to be selected from the chart, related to groove width and diameter. | *0.748-0.945* | AFG0629 30 1582 | 0-I | 1 | *0.984* | *0.1181* | *1.339* | *0.709* | *0.116* | *0.006* | 0.236 |
| | *0.945-1.142* | | 1-I | 1 | *0.984* | *0.1181* | *1.339* | *0.709* | *0.116* | *0.006* | 0.236 |
| | *1.142-1.339* | | 2-I | 1 | *0.984* | *0.1181* | *1.339* | *0.709* | *0.116* | *0.006* | 0.236 |
| | *1.339-1.535* | | 3-I | 1 | *0.984* | *0.1181* | *1.339* | *0.709* | *0.116* | *0.006* | 0.236 |
| | *1.535-1.732* | | **0-E** / 4-I | 1/2 | *0.984* | *0.1181* | *1.339* | *0.709* | *0.116* | *0.006* | 0.236 |
| | *1.732-1.929* | | **1-E** / 5-I | 1/2 | *0.984* | *0.1181* | *1.339* | *0.709* | *0.116* | *0.006* | 0.236 |
| | *1.929-2.126* | | **2-E** / 6-I | 1/2 | *0.984* | *0.1181* | *1.339* | *0.709* | *0.116* | *0.006* | 0.236 |
| | *2.126-2.323* | | **3-E** / 7-I | 1/2 | *0.984* | *0.1181* | *1.339* | *0.709* | *0.116* | *0.006* | 0.236 |
| | *2.323-2.520* | | **4-E** / 8-I | 1/2 | *0.984* | *0.1181* | *1.339* | *0.709* | *0.116* | *0.006* | 0.236 |
| | *2.520-2.717* | | 5-E | 2 | *0.984* | *0.1181* | *1.339* | *0.709* | *0.116* | *0.006* | 0.236 |
| | *2.717-2.913* | | 6-E | 2 | *0.984* | *0.1181* | *1.339* | *0.709* | *0.116* | *0.006* | 0.236 |
| | *2.913-3.110* | | 7-E | 2 | *0.984* | *0.1181* | *1.339* | *0.709* | *0.116* | *0.006* | 0.236 |
| | *3.110-3.307* | | 8-E | 2 | *0.984* | *0.1181* | *1.339* | *0.709* | *0.116* | *0.006* | 0.236 |

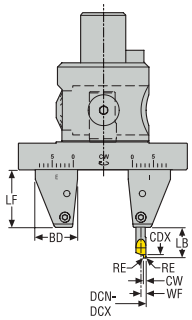


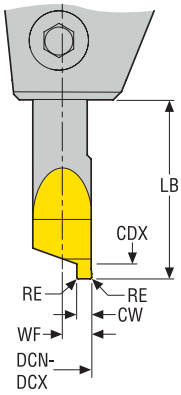

* +0,2 mm *(0.008")* complementary capacity achievable. ** Recommended values in **bold**.

Detailed description of the grooving tools, see page(s) 602

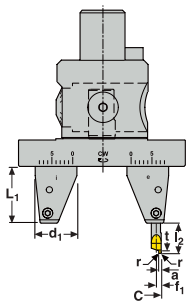
# Metric Selection chart:
# Grooving tool -against bore- for grooving with MPA, for FB 760 heads

**Assembly case 3**

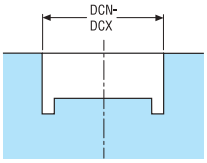



**Assembly case 4**




Select the suitable grooving tool, and note the grooving tool holder position on the MPA to obtain the required groove capacity.




Note : An -against bore- grooving assembly requires:

- an - Axiabore™ Plus - head (A760 03)
- a MPA (BDA16BS25100)
- an I (internal position) and an E (external position) grooving tool holder (BAS25FGI35 and BAS25FGE35) to either hold a grooving tool or act as a counterweight (see setting position in the chart)
- an -against bore- grooving tool (AFG...81) to be selected from the chart, related to groove width and diameter.

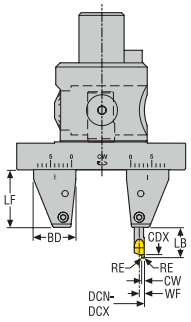
| Capacity DCN-DCX ∅ mm* | Against bore grooving tool Designation | Grooving toolholder position** | Design | Dimensions in mm BD | CW | LF | LB | WF | RE | Groove max. depth CDX |
|---|---|---|---|---|---|---|---|---|---|---|
| 31-36 | AFG0629 10 1581 | 0-I | 3 | 25 | 1 | 34 | 18 | 2,95 | 0,15 | 2,0 |
| 36-41 | | 1-I | 3 | 25 | 1 | 34 | 18 | 2,95 | 0,15 | 2,0 |
| 41-46 | | 2-I | 3 | 25 | 1 | 34 | 18 | 2,95 | 0,15 | 2,0 |
| 46-51 | | 3-I | 3 | 25 | 1 | 34 | 18 | 2,95 | 0,15 | 2,0 |
| 51-56 | | **0-E** / 4-I | 3/4 | 25 | 1 | 34 | 18 | 2,95 | 0,15 | 2,0 |
| 56-61 | | **1-E** / 5-I | 3/4 | 25 | 1 | 34 | 18 | 2,95 | 0,15 | 2,0 |
| 61-66 | | **2-E** / 6-I | 3/4 | 25 | 1 | 34 | 18 | 2,95 | 0,15 | 2,0 |
| 66-71 | | **3-E** / 7-I | 3/4 | 25 | 1 | 34 | 18 | 2,95 | 0,15 | 2,0 |
| 71-76 | | **4-E** / 8-I | 3/4 | 25 | 1 | 34 | 18 | 2,95 | 0,15 | 2,0 |
| 76-81 | | 5-E | 4 | 25 | 1 | 34 | 18 | 2,95 | 0,15 | 2,0 |
| 81-86 | | 6-E | 4 | 25 | 1 | 34 | 18 | 2,95 | 0,15 | 2,0 |
| 86-91 | | 7-E | 4 | 25 | 1 | 34 | 18 | 2,95 | 0,15 | 2,0 |
| 91-96 | | 8-E | 4 | 25 | 1 | 34 | 18 | 2,95 | 0,15 | 2,0 |
| 31-36 | AFG0629 15 1581 | 0-I | 3 | 25 | 1,5 | 34 | 18 | 2,95 | 0,15 | 3,0 |
| 39-41 | | 1-I | 3 | 25 | 1,5 | 34 | 18 | 2,95 | 0,15 | 3,0 |
| 41-46 | | 2-I | 3 | 25 | 1,5 | 34 | 18 | 2,95 | 0,15 | 3,0 |
| 46-51 | | 3-I | 3 | 25 | 1,5 | 34 | 18 | 2,95 | 0,15 | 3,0 |
| 51-56 | | **0-E** / 4-I | 3/4 | 25 | 1,5 | 34 | 18 | 2,95 | 0,15 | 3,0 |
| 56-61 | | **1-E** / 5-I | 3/4 | 25 | 1,5 | 34 | 18 | 2,95 | 0,15 | 3,0 |
| 61-66 | | **2-E** / 6-I | 3/4 | 25 | 1,5 | 34 | 18 | 2,95 | 0,15 | 3,0 |
| 66-71 | | **3-E** / 7-I | 3/4 | 25 | 1,5 | 34 | 18 | 2,95 | 0,15 | 3,0 |
| 71-76 | | **4-E** / 8-I | 3/4 | 25 | 1,5 | 34 | 18 | 2,95 | 0,15 | 3,0 |
| 76-81 | | 5-E | 4 | 25 | 1,5 | 34 | 18 | 2,95 | 0,15 | 3,0 |
| 81-86 | | 6-E | 4 | 25 | 1,5 | 34 | 18 | 2,95 | 0,15 | 3,0 |
| 86-91 | | 7-E | 4 | 25 | 1,5 | 34 | 18 | 2,95 | 0,15 | 3,0 |
| 91-96 | | 8-E | 4 | 25 | 1,5 | 34 | 18 | 2,95 | 0,15 | 3,0 |
| 31-36 | AFG0629 20 1581 | 0-I | 3 | 25 | 2 | 34 | 18 | 2,95 | 0,15 | 4,0 |
| 39-41 | | 1-I | 3 | 25 | 2 | 34 | 18 | 2,95 | 0,15 | 4,0 |
| 41-46 | | 2-I | 3 | 25 | 2 | 34 | 18 | 2,95 | 0,15 | 4,0 |
| 46-51 | | 3-I | 3 | 25 | 2 | 34 | 18 | 2,95 | 0,15 | 4,0 |
| 51-56 | | **0-E** / 4-I | 3/4 | 25 | 2 | 34 | 18 | 2,95 | 0,15 | 4,0 |
| 56-61 | | **1-E** / 5-I | 3/4 | 25 | 2 | 34 | 18 | 2,95 | 0,15 | 4,0 |
| 61-66 | | **2-E** / 6-I | 3/4 | 25 | 2 | 34 | 18 | 2,95 | 0,15 | 4,0 |
| 66-71 | | **3-E** / 7-I | 3/4 | 25 | 2 | 34 | 18 | 2,95 | 0,15 | 4,0 |
| 71-76 | | **4-E** / 8-I | 3/4 | 25 | 2 | 34 | 18 | 2,95 | 0,15 | 4,0 |
| 76-81 | | 5-E | 4 | 25 | 2 | 34 | 18 | 2,95 | 0,15 | 4,0 |
| 81-86 | | 6-E | 4 | 25 | 2 | 34 | 18 | 2,95 | 0,15 | 4,0 |
| 86-91 | | 7-E | 4 | 25 | 2 | 34 | 18 | 2,95 | 0,15 | 4,0 |
| 91-96 | | 8-E | 4 | 25 | 2 | 34 | 18 | 2,95 | 0,15 | 4,0 |

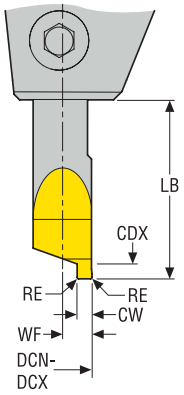
* +0,2 mm *(0.008")* complementary capacity achievable. ** Recommended values in **bold**.

Detailed description of the grooving tools, see page(s) 602

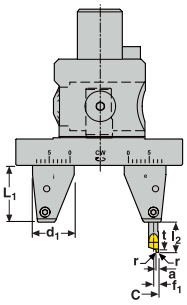
# Metric Selection chart:
# Grooving tool -against bore- for grooving with MPA, for FB 760 heads

**Assembly case 3**

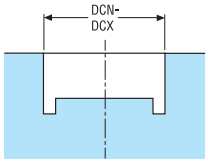



**Assembly case 4**




| | Capacity DCN-DCX ∅ mm* | Against bore grooving tool Designation | Grooving toolholder position** | Design | Dimensions in mm BD | CW | LF | LB | WF | RE | Groove max. depth CDX |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Select the suitable grooving tool, and note the grooving tool holder position on the MPA to obtain the required groove capacity. | 31-36 | AFG0629 25 1581 | 0-I | 3 | 25 | 2,5 | 34 | 18 | 2,95 | 0,15 | 5,0 |
| | 36-41 | | 1-I | 3 | 25 | 2,5 | 34 | 18 | 2,95 | 0,15 | 5,0 |
| | 41-46 | | 2-I | 3 | 25 | 2,5 | 34 | 18 | 2,95 | 0,15 | 5,0 |
| | 46-51 | | 3-I | 3 | 25 | 2,5 | 34 | 18 | 2,95 | 0,15 | 5,0 |
| | 51-56 | | **0-E** / 4-I | 3/4 | 25 | 2,5 | 34 | 18 | 2,95 | 0,15 | 5,0 |
| | 56-61 | | **1-E** / 5-I | 3/4 | 25 | 2,5 | 34 | 18 | 2,95 | 0,15 | 5,0 |
| | 61-66 | | **2-E** / 6-I | 3/4 | 25 | 2,5 | 34 | 18 | 2,95 | 0,15 | 5,0 |
| | 66-71 | | **3-E** / 7-I | 3/4 | 25 | 2,5 | 34 | 18 | 2,95 | 0,15 | 5,0 |
| | 71-76 | | **4-E** / 8-I | 3/4 | 25 | 2,5 | 34 | 18 | 2,95 | 0,15 | 5,0 |
| | 76-81 | | 5-E | 4 | 25 | 2,5 | 34 | 18 | 2,95 | 0,15 | 5,0 |
| | 81-86 | | 6-E | 4 | 25 | 2,5 | 34 | 18 | 2,95 | 0,15 | 5,0 |
| | 86-91 | | 7-E | 4 | 25 | 2,5 | 34 | 18 | 2,95 | 0,15 | 5,0 |
| | 91-96 | | 8-E | 4 | 25 | 2,5 | 34 | 18 | 2,95 | 0,15 | 5,0 |
| Note : An -against bore- grooving assembly requires: | 31-36 | AFG0629 30 1581 | 0-I | 3 | 25 | 3 | 34 | 18 | 2,95 | 0,15 | 6,0 |
| • an - Axiabore™ Plus - head (A760 03) | 39-41 | | 1-I | 3 | 25 | 3 | 34 | 18 | 2,95 | 0,15 | 6,0 |
| • a MPA (BDA16BS25100) | 41-46 | | 2-I | 3 | 25 | 3 | 34 | 18 | 2,95 | 0,15 | 6,0 |
| • an I (internal position) and an E (external position) grooving tool holder (BAS25FGI35 and BAS25FGE35) to either hold a grooving tool or act as a counterweight (see setting position in the chart) | 46-51 | | 3-I | 3 | 25 | 3 | 34 | 18 | 2,95 | 0,15 | 6,0 |
| | 51-56 | | **0-E** / 4-I | 3/4 | 25 | 3 | 34 | 18 | 2,95 | 0,15 | 6,0 |
| | 56-61 | | **1-E** / 5-I | 3/4 | 25 | 3 | 34 | 18 | 2,95 | 0,15 | 6,0 |
| • an -against bore- grooving tool (AFG...81) to be selected from the chart, related to groove width and diameter. | 61-66 | | **2-E** / 6-I | 3/4 | 25 | 3 | 34 | 18 | 2,95 | 0,15 | 6,0 |
| | 66-71 | | **3-E** / 7-I | 3/4 | 25 | 3 | 34 | 18 | 2,95 | 0,15 | 6,0 |
| | 71-76 | | **4-E** / 8-I | 3/4 | 25 | 3 | 34 | 18 | 2,95 | 0,15 | 6,0 |
| | 76-81 | | 5-E | 4 | 25 | 3 | 34 | 18 | 2,95 | 0,15 | 6,0 |
| | 81-86 | | 6-E | 4 | 25 | 3 | 34 | 18 | 2,95 | 0,15 | 6,0 |
| | 86-91 | | 7-E | 4 | 25 | 3 | 34 | 18 | 2,95 | 0,15 | 6,0 |
| | 91-96 | | 8-E | 4 | 25 | 3 | 34 | 18 | 2,95 | 0,15 | 6,0 |

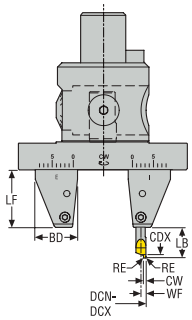


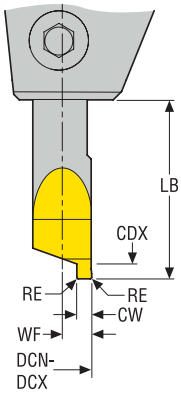

* +0,2 mm *(0.008")* complementary capacity achievable. ** Recommended values in **bold**.

Detailed description of the grooving tools, see page(s) 602

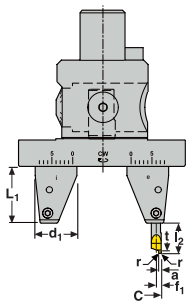
# Inch Selection chart:
# Grooving tool -against bore- for grooving with MPA, for FB 760 heads

**Assembly case 3**

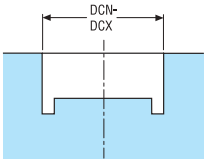



**Assembly case 4**




Select the suitable grooving tool, and note the grooving tool holder position on the MPA to obtain the required groove capacity.




Note : An -against bore- grooving assembly requires:

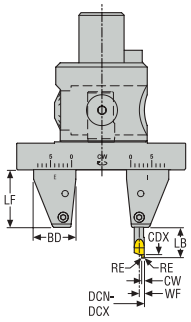
- an - Axiabore™ Plus - head (A760 03)
- a MPA (BDA16BS25100)
- an I (internal position) and an E (external position) grooving tool holder (BAS25FGI35 and BAS25FGE35) to either hold a grooving tool or act as a counterweight (see setting position in the chart)
- an -against bore- grooving tool (AFG...81) to be selected from the chart, related to groove width and diameter.

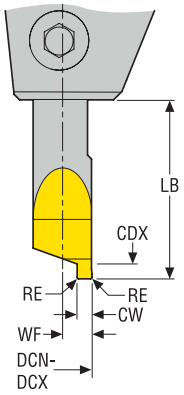
| Capacity DCN-DCX ∅ inch* | Against bore grooving tool Designation | Grooving toolholder position** | Design | Dimensions in inch BD | CW | LF | LB | WF | RE | Groove max. depth CDX |
|---|---|---|---|---|---|---|---|---|---|---|
| *1.220-1.417* | AFG0629 10 1581 | 0-I | 3 | *0.984* | *0.0394* | *1.339* | *0.709* | *0.116* | *0.006* | 0.079 |
| *1.417-1.614* | | 1-I | 3 | *0.984* | *0.0394* | *1.339* | *0.709* | *0.116* | *0.006* | 0.079 |
| *1.614-1.811* | | 2-I | 3 | *0.984* | *0.0394* | *1.339* | *0.709* | *0.116* | *0.006* | 0.079 |
| *1.811-2.008* | | 3-I | 3 | *0.984* | *0.0394* | *1.339* | *0.709* | *0.116* | *0.006* | 0.079 |
| *2.008-2.205* | | **0-E** / 4-I | 3/4 | *0.984* | *0.0394* | *1.339* | *0.709* | *0.116* | *0.006* | 0.079 |
| *2.205-2.402* | | **1-E** / 5-I | 3/4 | *0.984* | *0.0394* | *1.339* | *0.709* | *0.116* | *0.006* | 0.079 |
| *2.402-2.598* | | **2-E** / 6-I | 3/4 | *0.984* | *0.0394* | *1.339* | *0.709* | *0.116* | *0.006* | 0.079 |
| *2.598-2.795* | | **3-E** / 7-I | 3/4 | *0.984* | *0.0394* | *1.339* | *0.709* | *0.116* | *0.006* | 0.079 |
| *2.795-2.992* | | **4-E** / 8-I | 3/4 | *0.984* | *0.0394* | *1.339* | *0.709* | *0.116* | *0.006* | 0.079 |
| *2.992-3.189* | | 5-E | 4 | *0.984* | *0.0394* | *1.339* | *0.709* | *0.116* | *0.006* | 0.079 |
| *3.189-3.386* | | 6-E | 4 | *0.984* | *0.0394* | *1.339* | *0.709* | *0.116* | *0.006* | 0.079 |
| *3.386-3.583* | | 7-E | 4 | *0.984* | *0.0394* | *1.339* | *0.709* | *0.116* | *0.006* | 0.079 |
| *3.583-3.780* | | 8-E | 4 | *0.984* | *0.0394* | *1.339* | *0.709* | *0.116* | *0.006* | 0.079 |
| *1.220-1.417* | AFG0629 15 1581 | 0-I | 3 | *0.984* | *0.0591* | *1.339* | *0.709* | *0.116* | *0.006* | 0.118 |
| *1.417-1.614* | | 1-I | 3 | *0.984* | *0.0591* | *1.339* | *0.709* | *0.116* | *0.006* | 0.118 |
| *1.614-1.811* | | 2-I | 3 | *0.984* | *0.0591* | *1.339* | *0.709* | *0.116* | *0.006* | 0.118 |
| *1.811-2.008* | | 3-I | 3 | *0.984* | *0.0591* | *1.339* | *0.709* | *0.116* | *0.006* | 0.118 |
| *2.008-2.205* | | **0-E** / 4-I | 3/4 | *0.984* | *0.0591* | *1.339* | *0.709* | *0.116* | *0.006* | 0.118 |
| *2.205-2.402* | | **1-E** / 5-I | 3/4 | *0.984* | *0.0591* | *1.339* | *0.709* | *0.116* | *0.006* | 0.118 |
| *2.402-2.598* | | **2-E** / 6-I | 3/4 | *0.984* | *0.0591* | *1.339* | *0.709* | *0.116* | *0.006* | 0.118 |
| *2.598-2.795* | | **3-E** / 7-I | 3/4 | *0.984* | *0.0591* | *1.339* | *0.709* | *0.116* | *0.006* | 0.118 |
| *2.795-2.992* | | **4-E** / 8-I | 3/4 | *0.984* | *0.0591* | *1.339* | *0.709* | *0.116* | *0.006* | 0.118 |
| *2.992-3.189* | | 5-E | 4 | *0.984* | *0.0591* | *1.339* | *0.709* | *0.116* | *0.006* | 0.118 |
| *3.189-3.386* | | 6-E | 4 | *0.984* | *0.0591* | *1.339* | *0.709* | *0.116* | *0.006* | 0.118 |
| *3.386-3.583* | | 7-E | 4 | *0.984* | *0.0591* | *1.339* | *0.709* | *0.116* | *0.006* | 0.118 |
| *3.583-3.780* | | 8-E | 4 | *0.984* | *0.0591* | *1.339* | *0.709* | *0.116* | *0.006* | 0.118 |
| *1.220-1.417* | AFG0629 20 1581 | 0-I | 3 | *0.984* | *0.0787* | *1.339* | *0.709* | *0.116* | *0.006* | 0.157 |
| *1.417-1.614* | | 1-I | 3 | *0.984* | *0.0787* | *1.339* | *0.709* | *0.116* | *0.006* | 0.157 |
| *1.614-1.811* | | 2-I | 3 | *0.984* | *0.0787* | *1.339* | *0.709* | *0.116* | *0.006* | 0.157 |
| *1.811-2.008* | | 3-I | 3 | *0.984* | *0.0787* | *1.339* | *0.709* | *0.116* | *0.006* | 0.157 |
| *2.008-2.205* | | **0-E** / 4-I | 3/4 | *0.984* | *0.0787* | *1.339* | *0.709* | *0.116* | *0.006* | 0.157 |
| *2.205-2.402* | | **1-E** / 5-I | 3/4 | *0.984* | *0.0787* | *1.339* | *0.709* | *0.116* | *0.006* | 0.157 |
| *2.402-2.598* | | **2-E** / 6-I | 3/4 | *0.984* | *0.0787* | *1.339* | *0.709* | *0.116* | *0.006* | 0.157 |
| *2.598-2.795* | | **3-E** / 7-I | 3/4 | *0.984* | *0.0787* | *1.339* | *0.709* | *0.116* | *0.006* | 0.157 |
| *2.795-2.992* | | **4-E** / 8-I | 3/4 | *0.984* | *0.0787* | *1.339* | *0.709* | *0.116* | *0.006* | 0.157 |
| *2.992-3.189* | | 5-E | 4 | *0.984* | *0.0787* | *1.339* | *0.709* | *0.116* | *0.006* | 0.157 |
| *3.189-3.386* | | 6-E | 4 | *0.984* | *0.0787* | *1.339* | *0.709* | *0.116* | *0.006* | 0.157 |
| *3.386-3.583* | | 7-E | 4 | *0.984* | *0.0787* | *1.339* | *0.709* | *0.116* | *0.006* | 0.157 |
| *3.583-3.780* | | 8-E | 4 | *0.984* | *0.0787* | *1.339* | *0.709* | *0.116* | *0.006* | 0.157 |

* +0,2 mm *(0.008")* complementary capacity achievable. ** Recommended values in **bold**.
Detailed description of the grooving tools, see page(s) 602

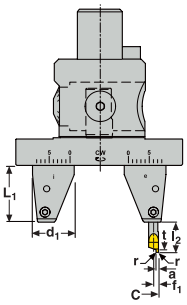
# Inch Selection chart:
# Grooving tool -against bore- for grooving with MPA, for FB 760 heads

**Assembly case 3**

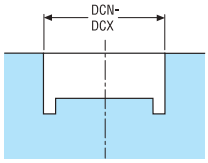



**Assembly case 4**




| | Capacity DCN-DCX ∅ inch* | Against bore grooving tool Designation | Grooving toolholder position** | Design | Dimensions in inch | | | | | | Groove max. depth CDX |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | BD | CW | LF | LB | WF | RE | |
| Select the suitable grooving tool, and note the grooving tool holder position on the MPA to obtain the required groove capacity. | *1.220-1.417* | AFG0629 25 1581 | 0-I | 3 | *0.984* | *0.0984* | *1.339* | *0.709* | *0.116* | *0.006* | 0.197 |
| | *1.417-1.614* | | 1-I | 3 | *0.984* | *0.0984* | *1.339* | *0.709* | *0.116* | *0.006* | 0.197 |
| | *1.614-1.811* | | 2-I | 3 | *0.984* | *0.0984* | *1.339* | *0.709* | *0.116* | *0.006* | 0.197 |
| | *1.811-2.008* | | 3-I | 3 | *0.984* | *0.0984* | *1.339* | *0.709* | *0.116* | *0.006* | 0.197 |
| | *2.008-2.205* | | **0-E** / 4-I | 3/4 | *0.984* | *0.0984* | *1.339* | *0.709* | *0.116* | *0.006* | 0.197 |
| | *2.205-2.402* | | **1-E** / 5-I | 3/4 | *0.984* | *0.0984* | *1.339* | *0.709* | *0.116* | *0.006* | 0.197 |
| | *2.402-2.598* | | **2-E** / 6-I | 3/4 | *0.984* | *0.0984* | *1.339* | *0.709* | *0.116* | *0.006* | 0.197 |
| | *2.598-2.795* | | **3-E** / 7-I | 3/4 | *0.984* | *0.0984* | *1.339* | *0.709* | *0.116* | *0.006* | 0.197 |
| | *2.795-2.992* | | **4-E** / 8-I | 3/4 | *0.984* | *0.0984* | *1.339* | *0.709* | *0.116* | *0.006* | 0.197 |
| | *2.992-3.189* | | 5-E | 4 | *0.984* | *0.0984* | *1.339* | *0.709* | *0.116* | *0.006* | 0.197 |
| | *3.189-3.386* | | 6-E | 4 | *0.984* | *0.0984* | *1.339* | *0.709* | *0.116* | *0.006* | 0.197 |
| | *3.386-3.583* | | 7-E | 4 | *0.984* | *0.0984* | *1.339* | *0.709* | *0.116* | *0.006* | 0.197 |
| | *3.583-3.780* | | 8-E | 4 | *0.984* | *0.0984* | *1.339* | *0.709* | *0.116* | *0.006* | 0.197 |
| Note : An -against bore- grooving assembly requires:<br>• an - Axiabore™ Plus - head (A760 03)<br>• a MPA (BDA16BS25100)<br>• an I (internal position) and an E (external position) grooving tool holder (BAS25FGI35 and BAS25FGE35) to either hold a grooving tool or act as a counterweight (see setting position in the chart)<br>• an -against bore- grooving tool (AFG...81) to be selected from the chart, related to groove width and diameter. | *1.220-1.417* | AFG0629 30 1581 | 0-I | 3 | *0.984* | *0.1181* | *1.339* | *0.709* | *0.116* | *0.006* | 0.236 |
| | *1.417-1.614* | | 1-I | 3 | *0.984* | *0.1181* | *1.339* | *0.709* | *0.116* | *0.006* | 0.236 |
| | *1.614-1.811* | | 2-I | 3 | *0.984* | *0.1181* | *1.339* | *0.709* | *0.116* | *0.006* | 0.236 |
| | *1.811-2.008* | | 3-I | 3 | *0.984* | *0.1181* | *1.339* | *0.709* | *0.116* | *0.006* | 0.236 |
| | *2.008-2.205* | | **0-E** / 4-I | 3/4 | *0.984* | *0.1181* | *1.339* | *0.709* | *0.116* | *0.006* | 0.236 |
| | *2.205-2.402* | | **1-E** / 5-I | 3/4 | *0.984* | *0.1181* | *1.339* | *0.709* | *0.116* | *0.006* | 0.236 |
| | *2.402-2.598* | | **2-E** / 6-I | 3/4 | *0.984* | *0.1181* | *1.339* | *0.709* | *0.116* | *0.006* | 0.236 |
| | *2.598-2.795* | | **3-E** / 7-I | 3/4 | *0.984* | *0.1181* | *1.339* | *0.709* | *0.116* | *0.006* | 0.236 |
| | *2.795-2.992* | | **4-E** / 8-I | 3/4 | *0.984* | *0.1181* | *1.339* | *0.709* | *0.116* | *0.006* | 0.236 |
| | *2.992-3.189* | | 5-E | 4 | *0.984* | *0.1181* | *1.339* | *0.709* | *0.116* | *0.006* | 0.236 |
| | *3.189-3.386* | | 6-E | 4 | *0.984* | *0.1181* | *1.339* | *0.709* | *0.116* | *0.006* | 0.236 |
| | *3.386-3.583* | | 7-E | 4 | *0.984* | *0.1181* | *1.339* | *0.709* | *0.116* | *0.006* | 0.236 |
| | *3.583-3.780* | | 8-E | 4 | *0.984* | *0.1181* | *1.339* | *0.709* | *0.116* | *0.006* | 0.236 |




* +0,2 mm *(0.008")* complementary capacity achievable. ** Recommended values in **bold**.

Detailed description of the grooving tools, see page(s) 602

# Instructions
# Maximum speeds for Axiabore™ type heads

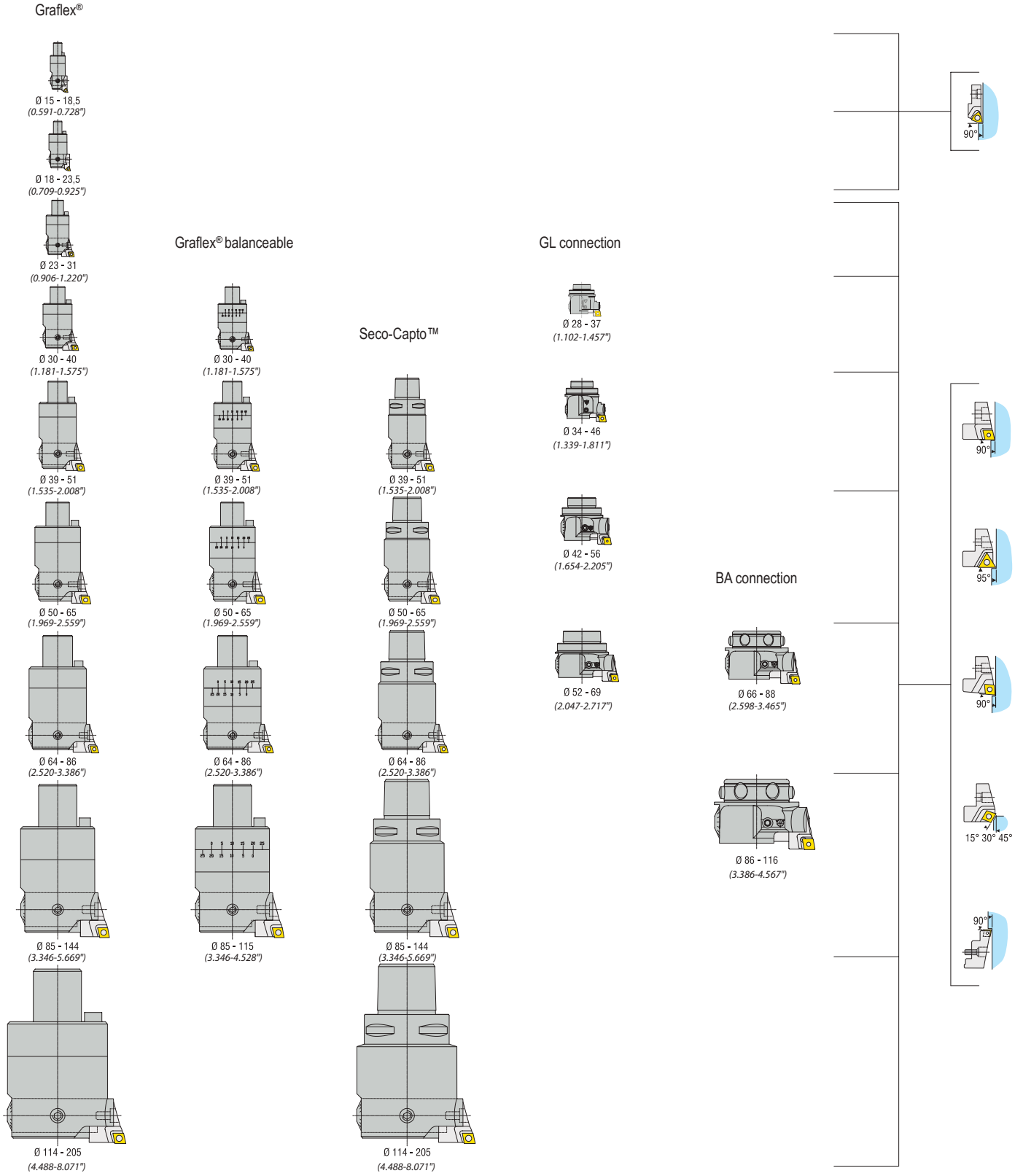
| For further application details refer to the operating instructions supplied with the boring heads and with the GL bars. | | | | | |
|---|---|---|---|---|---|
| **Head** | **Capacity ∅ mm** *(inch)* | **Max. RPM with tool (RPM)** | **Max. RPM with MPA (RPM)** | **Max. cutting speed $v_c$ at min. Cap. m/min** *(sf/min)* | **Max. cutting speed $v_c$ at max. Cap. m/min** *(sf/min)* |
| Axiabore™ type with Graflex® connection | | | | | |
| A76001 | 0,3-8 *(0.0118-0.315)* | 30000 | – | 28* *(92*)* | 754* *(2474*)* |
| A76002 | 2-20 *(0.0787-0.787)* | 12000 | – | 75* *(246*)* | 754* *(2474*)* |
| A76003 | 6-108 *(0.236-4.25)* | 8000** | 5000 | 151* *(495*)* | 1000*** *(3281***)* |
| A76013 | 6-33 *(0.236-1.30)* | 20000** | 5000 | 377* *(1237*)* | 1500*** *(4921***)* |
| Axiabore™ type with Seco-Capto™ connection | | | | | |
| C5-391.0760-03 | 6-108 *(0.236-4.25)* | 8000* | 5000 | 151* *(495*)* | 1000** *(3281**)* |

**Note**: The maximum speeds are related to the boring head's mechanical design and balancing quality. Speeds inside these limits have to be chosen in regard to the other machining conditions, e.g. workpiece material, cutting edge (tools and inserts), tooling length, machine spindle. At speeds from approx. 8000 RPM and above, the holding arbors and intermediates should be fine balanced. Using balanceable heads and fine balanced holders improves the tool life and the boring performances even at lower speeds.
* Implied max. cutting speed with max. RPM.
** Not reachable with all tools, see ***.
*** Max. cutting speed not to be exceeded

# Troubleshooting instructions (also valid for Radial type fine boring heads)

| Problem | Possible cause | Solution |
|---|---|---|
| Poor tool life | Wrong insert grade | Change to more wear resistant grade |
| | Excessive cutting speed | Reduce cutting speed |
| | Excessive DOC | Decrease DOC |
| Chatter & Vibrations | Excessive cutting speed | Reduce cutting speed |
| | High L/D ratio | Shorten tool to increase stiffness |
| | | Use stronger boring tool |
| | | Use Steadyline bar |
| | | Use carbide or heavy metal extensions |
| | Wrong insert | Reduce nose radius of insert |
| | | Use ground geometry inserts |
| | Incorrect stock allowance | Change pre-hole diameter |
| Poor hole diameter tolerance & repeatability | Inaccurate tool changes | Worn and damaged tool shank: replace |
| | | Clean spindle and tool shank |
| | Variation of stock allowance | Add semi-finishing boring step |
| | Low spindle stability | Use sharper ground geometry inserts |
| Poor roundness | Excessive boring tool imbalance | Check the spindle runout |
| | | Change to LIBRAFLEX® boring head |
| | | Check balance ring setting |
| | | Reduce speed |
| | Excessive cutting forces | Check stock allowance and feed rate |
| | Insufficient workpiece clamping | Check for uniform workpiece clamping |
| | Workpiece non-symmetrical | Reduce cutting forces, change to ground insert |
| | | Increase cutting speed, reduce feed |
| Poor positional tolerance | Original bore misaligned | Add a semi-finishing boring step |
| | Excessive DOC | Decrease DOC, make two passes |
| Poor surface finish | Wrong insert radius | Use larger insert radius |
| | Excessive feed rate | Reduce feed to be max. 30% of insert nose radius |
| | Poor chip evacuation | Apply through coolant |
| | | Change insert to higher rake angle (HSS: please enquire) |
| | | Check DOC |
| Tapered bore | Premature tool wear | Change to more wear resistant grade |
| | | Modify cutting speed |
| | | Increase coolant flow |

# Overview


Graflex®
Ø 15 - 18,5
(0.591-0.728")
Ø 18 - 23,5
(0.709-0.925")
Ø 23 - 31
(0.906-1.220")
Ø 30 - 40
(1.181-1.575")
Ø 39 - 51
(1.535-2.008")
Ø 50 - 65
(1.969-2.559")
Ø 64 - 86
(2.520-3.386")
Ø 85 - 144
(3.346-5.669")
Ø 114 - 205
(4.488-8.071")
Graflex® balanceable
Ø 30 - 40
(1.181-1.575")
Ø 39 - 51
(1.535-2.008")
Ø 50 - 65
(1.969-2.559")
Ø 64 - 86
(2.520-3.386")
Ø 85 - 115
(3.346-4.528")
Seco-Capto™
Ø 39 - 51
(1.535-2.008")
Ø 50 - 65
(1.969-2.559")
Ø 64 - 86
(2.520-3.386")
Ø 85 - 144
(3.346-5.669")
Ø 114 - 205
(4.488-8.071")
GL connection
Ø 28 - 37
(1.102-1.457")
Ø 34 - 46
(1.339-1.811")
Ø 42 - 56
(1.654-2.205")
Ø 52 - 69
(2.047-2.717")
BA connection
Ø 66 - 88
(2.598-3.465")
Ø 86 - 116
(3.386-4.567")
90°
90°
95°
90°
15° 30° 45°
90°

# Fine boring heads – Guide

**Features**

A radial type fine boring head is an assembly of a body (head) and an insert holder. FB 620, FB 780 and FB 790 radial, fine boring heads feature:

**Product range**

Seco offers a variety of radial fine boring heads to fulfill all your needs with the most suitable solution:

## FB 620, FB 780 and FB 790 radial, fine boring heads



- Micrometric adjustment: Insert holder setting mechanism with a micrometric adjusting screw, 1 increment = 0,01 mm *(0.0004")* on the diameter and a vernier scale, resolution of 2,5 µm *(98.4 µin)* on the diameter
- The precision of the mechanism guarantees repeatable accuracy
- Angular orientation of the cutting edge according to DIN 69871/ISO 7388 for SA and ISO 12164 for HSK
- Coolant through the head directed towards the cutting edge
- FB 780 and FB 620 boring heads are pre-balanced on median diameter setting. FB 790 are balanceable, for optimized performance.

**Note**: Features, Instructions (insert holder fitting, diameter setting, back boring instructions, troubleshooting, recommended machining conditions, maximum speeds), suitable insert holders and suitable inserts are identical for all types of FB 620, FB 780 and FB 790 fine boring heads of similar boring capacity size, regardless of their machine side connection types.

## FB 620 Fine boring heads, radial types, for Steadyline® vibration damping bars



GL



BA

- 4 fine boring heads with GL machine side connection for fine boring Ø 27–69 mm *(Ø 1.102–2.717")*
- 2 fine boring heads with BA machine side connection for fine boring Ø 66–116 mm *(Ø 2.598–4.567")*

Their compact design achieves best damping performances when used on Steadyline® GL turning and boring bars.

# FB 780 Fine boring heads, radial types

**9 precision boring heads with Graflex® machine side** connection for fine boring ∅ 15-205 mm *(Ø 0.591–8.071")* using radially fitted insert holders.

**5 precision boring heads with Seco-Capto™ machine side** connection for fine boring Ø 39–205 mm *(Ø 1.535–8.071")*.

**Seco-Capto™ adapter and Graflex® head:** ∅ 15-40 mm *(Ø 0.591– 1.575")*.

**Note**: The minimum bore size of the smallest Seco-Capto™ fine boring head is ∅ 39 mm *(Ø 1.535")* with the smallest available Seco-Capto™ C3 connection. For ∅ 15-40 mm *(Ø 0.591–1.575")* use Graflex® boring heads with connection sizes G0 to G2 in conjunction with the appropriate Seco-Capto™/Graflex® adaptor. This offers also boring length modularity when using additional Graflex® extensions.

**Note**: Features, Instructions (insert holder fitting, diameter setting, back boring instructions, troubleshooting, recommended machining conditions, maximum speeds), suitable insert holders and suitable inserts are similar for both types of FB 780 fine boring heads of similar boring capacity size, regardless of connection type.

# FB 790 Balanceable fine boring heads, radial type

**5 balanceable 'Libraflex®' boring heads with Graflex® machine side** connection for fine boring ∅ 30-115 mm *(Ø 1.181–4.528")*, at high speeds, up to 1500 m/min *(4921 sf/min)*, using radially fitted insert holders.

Balancing reduces spindle stress, cutting parameters can be optimized, better machining qualities are achieved even at conventional speeds.

Balancing is performed by setting both graduated rings in accordance with the diameter to be bored (no chart needed).



# Features

**Insert holders**

A radial type fine boring head is an assembly of a body (head) and an insert holder.

The wide range of fine boring, chamfering and back boring insert holders are suitable for FB 620, FB 780 and FB 790 fine boring heads, radial types.

**Fine boring insert holders**

FBIH 782: lead angle 90° for WB inserts
FBIH 724: lead angle 90° for TC inserts
FBIH 725: lead angle 90° for CC inserts
FBIH 726: lead angle 95° for CC inserts

**Note**: 95° lead angle insert holders should be used to avoid face contact when boring up a shoulder.

**Chamfering insert holders, ∅ 23 to 160 mm** *(Ø 0.906–6.299")*

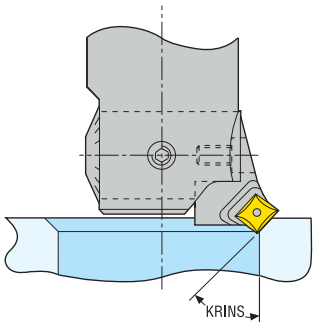
FBIH 729: available with a 15°, 30° or 45° lead angle for CC inserts.

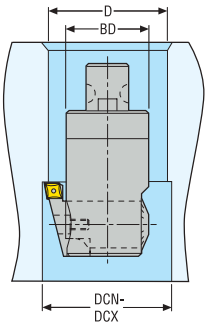
Libraflex® balancing can also be achieved when using chamfering insert holders.

**Back-boring insert holders, ∅ 26,5 to 164 mm** *(Ø 1.043–6.457")*

FBIH A789: lead angle 90° for WB and CC inserts.

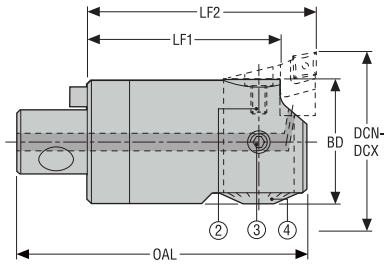
Libraflex® balancing is not possible when using back-boring insert holders. In this case, the highest unbalance reduction is obtained when both balancing rings are set on their largest graduation.



# FB780

Graflex®





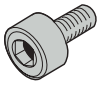

2. Assembly screw
3. Locking screw
4. Micrometric adjusting screw

- With micrometric adjusting (increment 0,01 mm and vernier 2,5 µm, on the diameter)

| Item number | Designation | Machine side Graflex size | Workpiece side Capacity DCN-DCX Ø | | OAL | LF1 | LF2 | BD | Weight | Insert holder size |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | |
| 00056632 | A78008 | G0 | 15,0<br>*0.591* | 18,5<br>*0.728* | 44,0<br>*1.732* | 27,5<br>*1.083* | 35,0<br>*1.378* | 14,0<br>*0.551* | 0,1<br>*0.220* | 09 |
| 00056633 | A78009 | G0 | 18,0<br>*0.709* | 23,5<br>*0.925* | 44,0<br>*1.732* | 27,5<br>*1.083* | 35,0<br>*1.378* | 17,0<br>*0.669* | 0,1<br>*0.220* | 09 |
| 00072991 | A78010 | G1 | 23,0<br>*0.906* | 31,0<br>*1.220* | 51,5<br>*2.028* | 32,5<br>*1.280* | 40,0<br>*1.575* | 21,5<br>*0.846* | 0,11<br>*0.240* | 10 |
| 00072992 | A78020 | G2 | 30,0<br>*1.181* | 40,0<br>*1.575* | 59,5<br>*2.343* | 37,5<br>*1.476* | 45,0<br>*1.772* | 27,0<br>*1.063* | 0,22<br>*0.490* | 20 |
| 00072993 | A78030 | G3 | 39,0<br>*1.535* | 51,0<br>*2.008* | 82,0<br>*3.228* | 54,5<br>*2.146* | 65,0<br>*2.559* | 35,0<br>*1.378* | 0,5<br>*1.100* | 30 |
| 00072995 | A78040 | G4 | 50,0<br>*1.969* | 65,0<br>*2.559* | 93,0<br>*3.661* | 61,5<br>*2.421* | 72,0<br>*2.835* | 43,0<br>*1.693* | 0,9<br>*1.980* | 40 |
| 00072996 | A78050 | G5 | 64,0<br>*2.520* | 86,0<br>*3.386* | 109,0<br>*4.291* | 71,5<br>*2.815* | 82,0<br>*3.228* | 54,0<br>*2.126* | 1,49<br>*3.280* | 50 |
| 00056551 | A78060 | G6 | 85,0<br>*3.346* | 144,0<br>*5.669* | 140,0<br>*5.512* | 88,5<br>*3.484* | 105,0<br>*4.134* | 70,0<br>*2.756* | 3,2<br>*7.050* | *60/65* |
| 00056552 | A78070 | G7 | 114,0<br>*4.488* | 205,0<br>*8.071* | 160,0<br>*6.299* | 98,5<br>*3.878* | 115,0<br>*4.528* | 95,0<br>*3.740* | 6,3<br>*13.890* | *70/75* |

Insert holders have to be ordered separately, see page(s) 627, 628-630
Note, weight is without insert holder

## Spare Parts, included in delivery

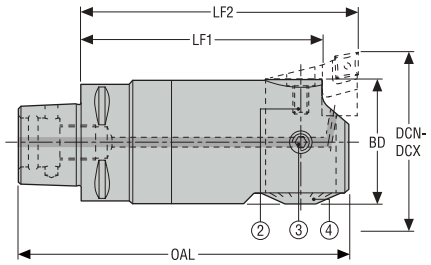
| For | Assembly screw | Key | Key (T-handle) | Locking screw | Tenon |
|---|---|---|---|---|---|
| |  |  |  |  |  |
| A78008 | 960D30050S | H4B-H2.0 | DOUBLE-T | 19A7100403 | – |
| A78009 | – | H4B-H2.0 | DOUBLE-T | 19A71000 | 90M0 |
| A78010 | 19TB0305 | H4B-H2.0 | DOUBLE-T | 19A71000 | 90M1 |
| A78020 | 19TB0305 | – | H4B-H2.0 | 950L0406 | 90M2 |
| A78030 | 19TB04075 | 03M03C | – | 950L0608 | 90M3 |
| A78040 | 19TB04075 | 03M03C | – | 950L0612 | 90M4 |
| A78050 | 950D0410 | 03M03C | – | 950L0616 | 90M5 |
| A78060 | 950D0612 | H6B-H5.0L | DOUBLE-T | 950L1016 | 90M6 |
| A78070 | 950D0616 | H6B-H5.0L | DOUBLE-T | 950L1030 | 90M7 |

## Accessories

| For | Torque key for locking and assembly screws |
|---|---|
| |  |
| A78008 | H00-2009 |
| A78009 | H00-2009 |
| A78010 | H00-2009 |
| A78020 | H00-2009 |
| A78030 | H00-3030 |
| A78040 | H00-3030 |
| A78050 | H00-3030 |
| A78060 | H00T-50100 |
| A78070 | H00T-50100 |

# FB780

Seco-Capto™





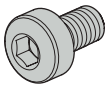
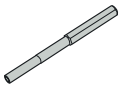
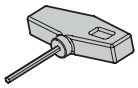

2. Assembly screw
3. Locking screw
4. Micrometric adjusting screw

- With micrometric adjusting (increment 0,01 mm and vernier 2,5 µm, on the diameter)

| Designation | Item number | Machine side Capto size | Workpiece side Capacity DCN-DCX Ø | | OAL | LF1 | LF2 | BD | Weight | Insert holder size |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | |
| C3-391.0780-30 | 02809740 | C3 | 39,0<br>*1.535* | 51,0<br>*2.008* | 86,0<br>*3.386* | 59,5<br>*2.343* | 70,0<br>*2.756* | 35,0<br>*1.378* | 0,48<br>*1.060* | 30 |
| C4-391.0780-40 | 02809742 | C4 | 50,0<br>*1.969* | 65,0<br>*2.559* | 103,0<br>*4.055* | 71,5<br>*2.815* | 82,0<br>*3.228* | 43,0<br>*1.693* | 0,89<br>*1.960* | 40 |
| C5-391.0780-50 | 02809744 | C5 | 64,0<br>*2.520* | 86,0<br>*3.386* | 119,0<br>*4.685* | 81,5<br>*3.209* | 92,0<br>*3.622* | 54,0<br>*2.126* | 1,62<br>*3.570* | 50 |
| C6-391.0780-60 | 02809745 | C6 | 85,0<br>*3.346* | 144,0<br>*5.669* | 150,0<br>*5.906* | 100,5<br>*3.957* | 117,0<br>*4.606* | 70,0<br>*2.756* | 3,3<br>*7.280* | 60 |
| C8-391.0780-70 | 02809747 | C8 | 114,0<br>*4.488* | 205,0<br>*8.071* | 181,0<br>*7.126* | 121,5<br>*4.783* | 138,0<br>*5.433* | 95,0<br>*3.740* | 7,15<br>*15.760* | 70 |

Insert holders have to be ordered separately, see page(s) 627, 628-630
Note, weight is without insert holder

## Spare Parts, included in delivery

| For | Assembly screw | Key | Key (Flag) | Key (T-handle) | Locking screw |
|---|---|---|---|---|---|
| |  |  |  |  |  |
| C3-391.0780-30 | 19TB04075 | – | 03M03C | – | 950L0608 |
| C4-391.0780-40 | 19TB04075 | – | 03M03C | – | 950L0612 |
| C5-391.0780-50 | 950D0410 | – | 03M03C | – | 950L0616 |
| C6-391.0780-60 | 950D0612 | H6B-H5.0L | – | DOUBLE-T | 950L0616 |
| C8-391.0780-70 | 950D0616 | H6B-H5.0L | – | DOUBLE-T | 950L1030 |

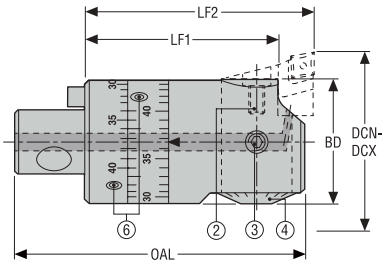
## Accessories

| For | Torque key for locking and assembly screws |
|---|---|
| |  |
| C3-391.0780-30 | H00-3030 |
| C4-391.0780-40 | H00-3030 |
| C5-391.0780-50 | H00-3030 |
| C6-391.0780-60 | H00T-50100 |
| C8-391.0780-70 | H00T-50100 |

# FB790 Libraflex® balanceable

Graflex®





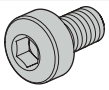

- With micrometric adjusting (increment 0,01 mm and vernier 2,5 µm, on the diameter)
- Balancing by setting both rings in accordance with the diameter to be bored
- For speeds $v_c$ up to 1 495 m/min and more, see page(s) 631

6. Locking screw 2
2. Assembly screw
3. Locking screw 1
4. Micrometric adjusting screw

| Item number | Designation | Machine side Graflex size | Workpiece side Capacity DCN-DCX Ø | | OAL | LF1 | LF2 | BD | Weight | Insert holder size |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | |
| 00055932 | A79020 | G2 | 30,0<br>*1.181* | 40,0<br>*1.575* | 59,5<br>*2.343* | 37,5<br>*1.476* | 45,0<br>*1.772* | 27,0<br>*1.063* | 0,19<br>*0.420* | 20 |
| 00056005 | A79030 | G3 | 39,0<br>*1.535* | 51,0<br>*2.008* | 82,0<br>*3.228* | 54,5<br>*2.146* | 65,0<br>*2.559* | 35,0<br>*1.378* | 0,45<br>*0.990* | 30 |
| 00056006 | A79040 | G4 | 50,0<br>*1.969* | 65,0<br>*2.559* | 93,0<br>*3.661* | 61,5<br>*2.421* | 72,0<br>*2.835* | 43,0<br>*1.693* | 0,78<br>*1.720* | 40 |
| 00056007 | A79050 | G5 | 64,0<br>*2.520* | 86,0<br>*3.386* | 109,0<br>*4.291* | 71,5<br>*2.815* | 82,0<br>*3.228* | 54,0<br>*2.126* | 1,42<br>*3.130* | 50 |
| 00001451 | A79060 | G6 | 85,0<br>*3.346* | 115,0<br>*4.528* | 140,0<br>*5.512* | 88,5<br>*3.484* | 105,0<br>*4.134* | 70,0<br>*2.756* | 2,87<br>*6.330* | 60 |

Insert holders have to be ordered separately, see page(s) 627, 628-630
Note, weight is without insert holder

## Spare Parts, included in delivery

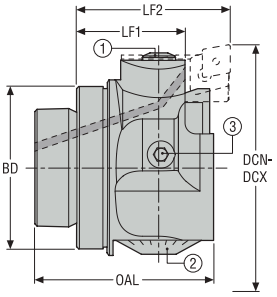
| For head | Assembly screw | Key | Key (T-handle) | Locking screw 1 | Locking screw 2 | Tenon |
|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |
| A79020 | 19TB0305 | H4B-H2.0 | DOUBLE-T | 950L0406 | 960D30045S | 90M2 |
| A79030 | 19TB04075 | 03M03C | – | 950L0608 | AU7901030 | 90M3 |
| A79040 | 19TB04075 | 03M03C | – | 950L0612 | AU7901040 | 90M4 |
| A79050 | 950D0410 | 03M03C | – | 950L0616 | AU7901050 | 90M51 |
| A79060 | 950D0612 | H6B-H5.0L | DOUBLE-T | 950L1016 | AU7901060 | 90M6 |

## Accessories

| For head | Torque key for balancing ring locking screws | Torque key for locking and assembly screws |
|---|---|---|
| |  |  |
| A79020 | H00-2009 | – |
| A79030 | H00-3020 | H00-3030 |
| A79040 | H00-3020 | H00-3030 |
| A79050 | H00-3020 | H00-3030 |
| A79060 | H00T-5050 | H00T-50100 |

# FB 620 GL – Fine boring heads

compact, with GL connection




1. Assembly screw
2. Micrometric adjusting screw
3. Locking screw

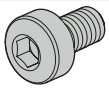


- Designed for GL25, GL32, GL40 and GL50 Steadyline® turning and boring bars
- Internal coolant supply towards cutting edge
- With micrometric adjusting (increment 0,01 mm and vernier 2,5 µm, on the diameter)

| Designation | Item number | Machine side GL size | Workpiece side Capacity DCN-DCX Ø | | OAL | LF1 | LF2 | BD | Weight | Max. RPM** |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | |
| GL25-FB620-10 | 03307855 | GL25 | 27,0<br>*1.063* | 35,0<br>*1.378* | 29,5<br>*1.161* | 17,7<br>*0.697* | 28,0<br>*1.102* | 25,0<br>*0.984* | 0,2<br>*0.440* | 9000 |
| GL32-0620-20 | 02904469 | GL32 | 34,0<br>*1.339* | 46,0<br>*1.811* | 35,2<br>*1.386* | 23,75<br>*0.935* | 32,1<br>*1.264* | 32,0<br>*1.260* | 0,13<br>*0.290* | 7000 |
| GL40-0620-30 | 02904470 | GL40 | 42,0<br>*1.654* | 56,0<br>*2.205* | 40,7<br>*1.602* | 24,75<br>*0.974* | 35,1<br>*1.382* | 40,0<br>*1.575* | 0,22<br>*0.490* | 5600 |
| GL50-0620-40 | 02904471 | GL50 | 52,0<br>*2.047* | 69,0<br>*2.717* | 43,7<br>*1.720* | 25,75<br>*1.014* | 36,1<br>*1.421* | 50,0<br>*1.969* | 0,32<br>*0.710* | 4800 |

Insert holders have to be ordered separately, see page(s) 627, 628-630
** Additional information about max RPM, see Instruction pages.
Note, weight is without insert holder

## Spare Parts, included in delivery

| For head | Assembly screw | Clamp key | Key (T-handle) | Locking screw |
|---|---|---|---|---|
| |  |  |  |  |
| GL25-FB620-10 | 19TB0305 | H2.0-2D | – | 19A71000 |
| GL32-0620-20 | 19TB0305 | H4B-H2.0 | DOUBLE-T | 950L0406 |
| GL40-0620-30 | 19TB04075 | 03M03C | – | 950L0608 |
| GL50-0620-40 | 19TB04075 | 03M03C | – | 950L0608 |

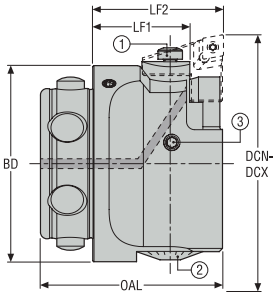
## Accessories

| For head | Torque key for locking and assembly screws |
|---|---|
| |  |
| GL25-FB620-10 | – |
| GL32-0620-20 | H00-2009 |
| GL40-0620-30 | H00-3030 |
| GL50-0620-40 | H00-3030 |

# FB 620 BA – Fine boring heads

with BA connection





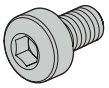
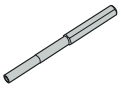
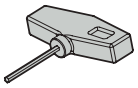

- Designed for BA60 and BA80 Steadyline® turning and boring bars
- Internal coolant supply towards cutting edge
- With micrometric adjusting (increment 0,01 mm and vernier 2,5 µm, on the diameter)

1. Assembly screw
2. Micrometric adjusting screw
3. Locking screw

| Designation | Item number | Machine side BA size | Workpiece side Capacity DCN-DCX Ø | | OAL | LF1 | LF2 | BD | Weight | Max. RPM** |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | |
| BA060-FB620-50 | 03204094 | BA060 | 65,0<br>*2.559* | 87,0<br>*3.425* | 55,7<br>*2.193* | 29,7<br>*1.169* | 40,0<br>*1.575* | 60,0<br>*2.362* | 0,7<br>*1.540* | 4000 |
| BA080-FB620-60 | 03204095 | BA080 | 85,0<br>*3.346* | 115,0<br>*4.528* | 58,2<br>*2.291* | 26,7<br>*1.051* | 41,2<br>*1.622* | 80,0<br>*3.150* | 1,1<br>*2.430* | 3000 |

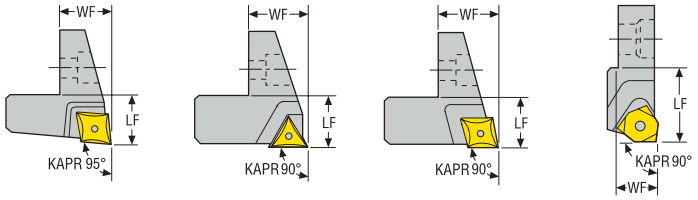
Insert holders have to be ordered separately, see page(s) 584
** Additional information about max RPM, see Instruction pages.
Note, weight is without insert holder

## Spare Parts, included in delivery

| For head | Assembly screw | Key | Key (Flag) | Key (T-handle) | Locking screw |
|---|---|---|---|---|---|
| |  |  |  |  |  |
| BA060-FB620-50 | 19TB04075 | – | 03M03C | – | 950L0608 |
| BA080-FB620-60 | 950D0514 | H6B-H5.0L | – | DOUBLE-T | 950L0608 |

# Insert holder

for fine boring heads FB 620 / 780 / 790




D C B A



- Suitable for radial boring heads FB 620/ 780/ 790
- **The precision balancing of FB A790 heads is not possible when using the large insert holders.

| Designation | Item number | Insert holders type | Capacity DCN-DCX ∅ | | LF | WF | Weight | For boring head | KRINS° | ** | Insert holder size | Suitable insert size | Design |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | | | | | | |
| A72430 | 00056572 | 90° for TC inserts | 39,0<br>*1.535* | 56,0<br>*2.205* | 10,3<br>*0.406* | 7,9<br>*0.311* | 0,01<br>*0.020* | FB 78030 / FB 79030 / FB 62030 | 90 | – | 30 | TC...1102... | C |
| A72440 | 00056573 | 90° for TC inserts | 50,0<br>*1.969* | 69,0<br>*2.717* | 10,3<br>*0.406* | 9,4<br>*0.370* | 0,02<br>*0.040* | FB 78040 / FB 79040 / FB 62040 | 90 | – | 40 | TC...1102... | C |
| A72450 | 00056574 | 90° for TC inserts | 64,0<br>*2.520* | 86,0<br>*3.386* | 10,3<br>*0.406* | 12,4<br>*0.488* | 0,02<br>*0.040* | FB 78050 / FB 79050 / FB 62050 | 90 | – | 50 | TC...1102... | C |
| A72460 | 00056575 | 90° for TC inserts | 85,0<br>*3.346* | 115,0<br>*4.528* | 16,3<br>*0.642* | 18,9<br>*0.744* | 0,08<br>*0.180* | FB 78060 / FB 79060 / FB 731S500 | 90 | – | 60 | TC...1102... | C |
| A72465 | 00056577 | 90° for TC inserts | 114,0<br>*4.488* | 144,0<br>*5.669* | 16,5<br>*0.650* | 33,7<br>*1.327* | 0,09<br>*0.200* | FB 78060 / FB 79060 / FB 731S500 | 90 | ** | 65 | TC...1102... | C |
| A72470 | 00056578 | 90° for TC inserts | 114,0<br>*4.488* | 160,0<br>*6.299* | 16,3<br>*0.642* | 18,9<br>*0.744* | 0,1<br>*0.220* | FB 78070 | 90 | – | 70 | TC...1102... | C |
| A72475 | 00056579 | 90° for TC inserts | 159,0<br>*6.260* | 205,0<br>*8.071* | 16,5<br>*0.650* | 41,7<br>*1.642* | 0,2<br>*0.440* | FB 78070 | 90 | – | 75 | TC...1102... | C |
| A72510 | 00056580 | 90° for CC inserts | 23,0<br>*0.906* | 31,0<br>*1.220* | 10,3<br>*0.406* | 4,5<br>*0.177* | 0,1<br>*0.220* | FB 78010 / FB62010 | 90 | – | 10 | CC...0602... | B |
| A72520 | 00056581 | 90° for CC inserts | 30,0<br>*1.181* | 46,0<br>*1.811* | 8,3<br>*0.327* | 5,0<br>*0.197* | 0,1<br>*0.220* | FB 78020 / FB 79020 / FB 62020 | 90 | – | 20 | CC...0602... | B |
| A72530 | 00056582 | 90° for CC inserts | 39,0<br>*1.535* | 56,0<br>*2.205* | 10,3<br>*0.406* | 8,0<br>*0.315* | 0,1<br>*0.220* | FB 78030 / FB 79030 / FB 62030 | 90 | – | 30 | CC...0602... | B |
| A72540 | 00056583 | 90° for CC inserts | 50,0<br>*1.969* | 69,0<br>*2.717* | 10,3<br>*0.406* | 9,5<br>*0.374* | 0,1<br>*0.220* | FB 78040 / FB 79040 / FB 62040 | 90 | – | 40 | CC...0602... | B |
| A72550 | 00056584 | 90° for CC inserts | 64,0<br>*2.520* | 86,0<br>*3.386* | 10,3<br>*0.406* | 12,5<br>*0.492* | 0,1<br>*0.220* | FB 78050 / FB 79050 / FB 62050 | 90 | – | 50 | CC...0602... | B |
| A72560 | 00056585 | 90° for CC inserts | 85,0<br>*3.346* | 115,0<br>*4.528* | 16,5<br>*0.650* | 18,9<br>*0.744* | 0,2<br>*0.440* | FB 78060 / FB 79060 / FB 731S500 | 90 | – | 60 | CC...09T3... | B |
| A72565 | 00056587 | 90° for CC inserts | 114,0<br>*4.488* | 144,0<br>*5.669* | 16,5<br>*0.650* | 33,7<br>*1.327* | 0,2<br>*0.440* | FB 78060 / FB 79060 / FB 731S500 | 90 | ** | 65 | CC...09T3... | B |
| A7256A | 02689978 | 90° for CC inserts | 85,0<br>*3.346* | 115,0<br>*4.528* | 14,5<br>*0.571* | 18,5<br>*0.728* | 0,05<br>*0.110* | BA080-FB620-60 | 90 | – | 6A | CC...09T3... | B |
| A72570 | 00056588 | 90° for CC inserts | 114,0<br>*4.488* | 160,0<br>*6.299* | 16,5<br>*0.650* | 18,9<br>*0.744* | 0,2<br>*0.440* | FB 78070 | 90 | – | 70 | CC...09T3... | B |
| A72575 | 00056589 | 90° for CC inserts | 159,0<br>*6.260* | 205,0<br>*8.071* | 16,5<br>*0.650* | 41,7<br>*1.642* | 0,2<br>*0.440* | FB 78070 | 90 | – | 75 | CC...09T3... | B |
| A72610 | 00056590 | 95° for CC inserts | 23,0<br>*0.906* | 31,0<br>*1.220* | 10,3<br>*0.406* | 4,5<br>*0.177* | 0,1<br>*0.220* | FB 78010 | 95 | – | 10 | CC...0602... | D |
| A72620 | 00056591 | 95° for CC inserts | 30,0<br>*1.181* | 46,0<br>*1.811* | 8,3<br>*0.327* | 5,0<br>*0.197* | 0,1<br>*0.220* | FB 78020 / FB 79020 / FB 62020 | 95 | – | 20 | CC...0602... | D |
| A72630 | 00056592 | 95° for CC inserts | 39,0<br>*1.535* | 56,0<br>*2.205* | 10,3<br>*0.406* | 8,0<br>*0.315* | 0,1<br>*0.220* | FB 78030 / FB 79030 / FB 62030 | 95 | – | 30 | CC...0602... | D |
| A72640 | 00056593 | 95° for CC inserts | 50,0<br>*1.969* | 69,0<br>*2.717* | 10,3<br>*0.406* | 9,5<br>*0.374* | 0,02<br>*0.040* | FB 78040 / FB 79040/ FB 62040 | 95 | – | 40 | CC...0602... | D |
| A72650 | 00056594 | 95° for CC inserts | 64,0<br>*2.520* | 86,0<br>*3.386* | 10,3<br>*0.406* | 12,5<br>*0.492* | 0,1<br>*0.220* | FB 78050 / FB 79050 / FB 62050 | 95 | – | 50 | CC...0602... | D |

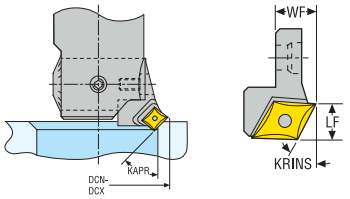
| Designation | Item number | Insert holders type | Capacity DCN-DCX ∅ | | LF | WF | Weight | For boring head | KRINS° | ** | Insert holder size | Suitable insert size | Design |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | | | | | | |
| A72660 | 00056595 | 95° for CC inserts | 85,0<br>*3.346* | 115,0<br>*4.528* | 16,5<br>*0.650* | 18,9<br>*0.744* | 0,2<br>*0.440* | FB 78060 / FB 79060 / FB 731S500 | 95 | – | 60 | CC...09T3... | D |
| A72665 | 00056597 | 95° for CC inserts | 114,0<br>*4.488* | 144,0<br>*5.669* | 16,5<br>*0.650* | 33,7<br>*1.327* | 0,09<br>*0.200* | FB 78060 / FB 79060 / FB 731S500 | 95 | ** | 65 | CC...09T3... | D |
| A72670 | 00056598 | 95° for CC inserts | 114,0<br>*4.488* | 160,0<br>*6.299* | 16,5<br>*0.650* | 18,9<br>*0.744* | 0,09<br>*0.200* | FB 78070 | 95 | – | 70 | CC...09T3... | D |
| A72675 | 00056599 | 95° for CC inserts | 159,0<br>*6.260* | 205,0<br>*8.071* | 16,5<br>*0.650* | 41,7<br>*1.642* | 0,12<br>*0.260* | FB 78070 | 95 | – | 75 | CC...09T3... | D |
| A78209 | 00056634 | 90° for WB inserts | 15,0<br>*0.591* | 23,5<br>*0.925* | 7,2<br>*0.283* | 4,0<br>*0.157* | 0,1<br>*0.220* | FB 78008 / FB 78009 | 90 | – | 09 | WB...0301... | A |

## Spare Parts, included in delivery

| For insert size | Insert key | Insert screw | Key (T-handle) |
|---|---|---|---|
| |  |  |  |
| TC...1102... | H4B-T07P | C02504-T07P | DOUBLE-T |
| CC...0602... | H4B-T07P | C02504-T07P | DOUBLE-T |
| CC...09T3... | H4B-T15P | C04008-T15P | DOUBLE-T |
| WB...0301... | H4B-T06P | C02035-T06P | DOUBLE-T |

# Chamfering insert holders

for fine boring heads FB 620 / 780 / 790






- Suitable for radial boring heads FB 620/ 780/ 790

| Item number | Designation | For boring head | Insert holder size | Capacity DCN-DCX ∅ | | LF | WF | Weight | KRINS° | Suitable insert size |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | | |
| 00086885 | A72910CC0630 | FB 78010 | 10 | 23,0<br>*0.906* | 31,0<br>*1.220* | 10,8<br>*0.425* | 4,5<br>*0.177* | 0,01<br>*0.020* | 30 | CC...0602... |
| 00086886 | A72910CC0645 | FB 78010 | 10 | 23,0<br>*0.906* | 31,0<br>*1.220* | 11,5<br>*0.453* | 4,5<br>*0.177* | 0,01<br>*0.020* | 45 | CC...0602... |
| 00086888 | A72920CC0630 | FB 78020 / FB 79020/ GL32-0620-20 | 20 | 30,0<br>*1.181* | 36,0<br>*1.417* | 10,0<br>*0.394* | 4,9<br>*0.193* | 0,01<br>*0.020* | 30 | CC...0602... |
| 00086889 | A72920CC0645 | FB 78020 / FB 79020 / FB 62020 | 20 | 30,0<br>*1.181* | 46,0<br>*1.811* | 10,0<br>*0.394* | 5,0<br>*0.197* | 0,01<br>*0.020* | 45 | CC...0602... |
| 00086891 | A72930CC0630 | FB 78030 / FB 79030 / FB 62030 | 30 | 39,0<br>*1.535* | 56,0<br>*2.205* | 10,5<br>*0.413* | 8,1<br>*0.319* | 0,01<br>*0.020* | 30 | CC...0602... |
| 00086892 | A72930CC0645 | FB 78030 / FB 79030 / FB 62030 | 30 | 39,0<br>*1.535* | 56,0<br>*2.205* | 10,5<br>*0.413* | 8,1<br>*0.319* | 0,01<br>*0.020* | 45 | CC...0602... |
| 00086894 | A72940CC0630 | FB 78040 / FB 79040 / FB 62040 | 40 | 50,0<br>*1.969* | 69,0<br>*2.717* | 10,5<br>*0.413* | 9,5<br>*0.374* | 0,02<br>*0.040* | 30 | CC...0602... |
| 00086895 | A72940CC0645 | FB 78040 / FB 79040 / FB 62040 | 40 | 50,0<br>*1.969* | 69,0<br>*2.717* | 10,5<br>*0.413* | 9,5<br>*0.374* | 0,02<br>*0.040* | 45 | CC...0602... |
| 00086897 | A72950CC0630 | FB 78050 / FB 79050 | 50 | 64,0<br>*2.520* | 86,0<br>*3.386* | 10,5<br>*0.413* | 12,5<br>*0.492* | 0,02<br>*0.040* | 30 | CC...0602... |
| 00086898 | A72950CC0645 | FB 78050 / FB 79050 | 50 | 64,0<br>*2.520* | 86,0<br>*3.386* | 10,3<br>*0.406* | 12,4<br>*0.488* | 0,02<br>*0.040* | 45 | CC...0602... |
| 00086900 | A72960CC0930 | FB 78060 / FB 79060 / A731S500 | 60 | 85,0<br>*3.346* | 115,0<br>*4.528* | 16,5<br>*0.650* | 19,1<br>*0.752* | 0,08<br>*0.180* | 30 | CC...09T3... |
| 00086901 | A72960CC0945 | FB 78060 / FB 79060 / A731S500 | 60 | 85,0<br>*3.346* | 115,0<br>*4.528* | 16,5<br>*0.650* | 19,1<br>*0.752* | 0,07<br>*0.150* | 45 | CC...09T3... |
| 00086903 | A72970CC0930 | FB 78070 | 70 | 114,0<br>*4.488* | 160,0<br>*6.299* | 16,4<br>*0.646* | 18,8<br>*0.740* | 0,09<br>*0.200* | 30 | CC...09T3... |
| 00086904 | A72970CC0945 | FB 78070 | 70 | 114,0<br>*4.488* | 160,0<br>*6.299* | 16,4<br>*0.646* | 18,8<br>*0.740* | 0,09<br>*0.200* | 45 | CC...09T3... |

For spare insert screws and spare insert keys, see page(s) 663
**For capacity DC with Bridge bars and Jumbo Bridge bars, see page 639

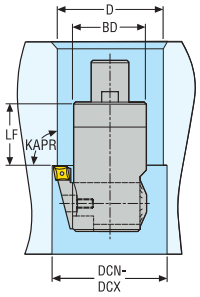
## Spare Parts, included in delivery

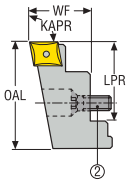
| For insert size | Insert key | Insert screw | Key (T-handle) |
|---|---|---|---|
| |  |  |  |
| CC...0602... | H4B-T07P | C02504-T07P | DOUBLE-T |
| CC...09T3... | H4B-T15P | C04008-T15P | DOUBLE-T |

# Fine back boring insert holders

for fine boring heads FB 620 / 780 / 790






- Suitable for radial boring heads FB 620/ 780/ 790
- The precision balancing of FB 790 heads is not possible when using back-boring insert holders
- KRINS 90°
- Suitable insert size: CC...0602...

| Designation | Item number | For head | Back-boring capacity DCN-DCX Ø | | LF | BD | OAL | LPR | WF | Weight |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | mm | *(Inch)* | mm *(Inch)* | mm *(Inch)* | mm *(Inch)* | mm *(Inch)* | mm *(Inch)* | kg *(lbs)* |
| A789X10CC0690 | 00086907 | A78010<br>A78020 & A79020<br>GL32-0620-20 | 39,5-47,5<br>46-56<br>49,7-61,7 | *(1.555-1.870)*<br>*(1.811-2.205)*<br>*(1.957-2.429)* | 16,5 *(0.650)*<br>21,5 *(0.846)*<br>7,75 *(0.305)* | 21,5 *(0.846)*<br>27 *(1.063)*<br>32 *(1.260)* | 30,5 *(1.201)* | 16,0 *(0.630)* | 12,8 *(0.504)* | 0,01 *(0.020)* |
| A789X30CC0690 | 00086910 | A78030 & A79030<br>A78040 & A79040<br>A78050 & A79050<br>GL40-0620-30<br>GL50-0620-40 | 53-65<br>61-76<br>69-91<br>57,6-70,2<br>67,6-80,2 | *(2.087-2.559)*<br>*(2.402-2.992)*<br>*(2.717-3.583)*<br>*(2.268-2.764)*<br>*(2.661-3.157)* | 32 *(1.260)*<br>39 *(1.535)*<br>49 *(1.929)*<br>1,75 *(0.069)*<br>2,75 *(0.108)* | 35 *(1.378)*<br>43 *(1.693)*<br>54 *(2.126)*<br>40 *(1.575)*<br>50 *(1.969)* | 30,0 *(1.181)* | 23,0 *(0.906)* | 15,0 *(0.591)* | 0,03 *(0.070)* |
| A789X60CC0690 | 00086909 | A78060 & A79060 | 89-119 * | *(3.504-4.685 *)* | 50 *(1.969)* | 70 *(1.969)* | 50,0 *(1.969)* | 38,5 *(1.516)* | 21,0 *(0.827)* | 0,09 *(0.200)* |
| A789X70CC0690 | 00086911 | A78070 | 118-164 | *(4.646-6.457)* | 60 *(2.362)* | 95 *(2.362)* | 50,0 *(1.969)* | 38,5 *(1.516)* | 21,0 *(0.827)* | 0,1 *(0.220)* |

*For Back-boring capacity DC with Bridge bars and Jumbo Bridge bars, see page 643
For spare insert screws and spare insert keys, see page(s) 663
The fine back boring insert holders delivery content includes a specific insert holder clamp screw, to be used instead the standard clamp screw delivered with the boring heads.

DCN/DCX mini = D+BD / 2 + 0,5 mm (0.02") from diameter 39,5 to 47,5 (1.555" to 1.870")
DCB/DCX mini = D+BD / 2 + 1 mm (0.039") from diameter 46 to 64 (1.811" to 2.520")

## Spare Parts, included in delivery

| For | Assembly screw | Insert screw | Key | Key (T-handle) |
|---|---|---|---|---|
| |  |  |  |  |
| A789X10CC0690 | 950F0308 | C02504-T07P | H4B-T07P | DOUBLE-T |
| A789X30CC0690 | 950F0410 | C02504-T07P | H4B-T07P | DOUBLE-T |
| A789X60CC0690 | – | C02504-T07P | H4B-T07P | DOUBLE-T |
| A789X70CC0690 | – | C02504-T07P | H4B-T07P | DOUBLE-T |

# FB 780/ 790 Fine boring heads – Instructions

**Recommended machining conditions**
For further application details refer to the operating instructions supplied with the boring heads and with the GL bars.

**Maximum speeds for fine boring heads, radial type**
The maximum speeds shown in boring heads Product pages are related to the boring head's mechanical design and balancing quality. Speeds inside these limits have to be chosen in regard to the other machining conditions, e.g. workpiece material, cutting edge (insert), tooling length, machine spindle.
By boring applications with Steadyline® bars, make sure not to overpass the max. RPM of the bars: See the Operating instructions supplied with the Steadyline® bars.
Below max. RPM are for boring heads equipped with boring insert holders or chamfering insert holders. When using back boring insert holders on holders on FB 620, FB 790 or FB 780 heads type heads, use max. RPM for A780.. type, similar size.

| Head | Capacity ∅ mm *(inch)* | Max. RPM | Implied max cutting speed $v_c$ at min. Cap. m/min *(sf/min)* | Implied max cutting speed $v_c$ at max. Cap. m/min *(sf/min)* |
|---|---|---|---|---|
| FB 620 Fine boring heads, with GL and BA machine side connection, for Steadyline® vibration damping turning and boring bars | | | | |
| GL25-FB620-10 | 27-35 *(1.063-1.378)* | 9000 | 760 *(2493)* | 1000 *(3281)* |
| GL32-FB620-20 | 34-46 *(1.339-1.811)* | 7000 | 748 *(2454)* | 1012 *(3320)* |
| GL32-FB620-30 | 42-56 *(1.654-2.205)* | 5600 | 739 *(2425)* | 985 *(3232)* |
| GL32-FB620-40 | 52-69 *(2.047-2.717)* | 4800 | 784 *(2572)* | 1040 *(3412)* |
| BA060-FB620-50 | 66-88 *(2.598-3.465)* | 4000 | 830 *(2723)* | 1105 *(3625)* |
| BA080-FB620-60 | 86-116 *(3.386-4.567)* | 3000 | 810 *(2657)* | 1093 *(3586)* |
| FB 790 Fine boring heads, balanceable, with Graflex® connection | | | | |
| A79020 | 30-40 *(1.181-1.575)* | 16000 | 1508 *(4948)* | 2011 *(6598)* |
| A79030 | 39-51 *(1.535-2.008)* | 12250 | 1501 *(4925)* | 1963 *(6440)* |
| A79040 | 50-65 *(1.969-2.559)* | 10000 | 1571 *(5154)* | 2042 *(6699)* |
| A79050 | 64-86 *(2.520-3.386)* | 7500 | 1508 *(4948)* | 2026 *(6647)* |
| A79060 | 85-115 *(3.346-4.528)* | 5600 | 1495 *(4905)* | 2023 *(6637)* |
| FB 780 Fine boring heads, with Graflex® connection | | | | |
| A78008 | 15-18,5 *(0.591-0.728)* | 16000 | 754 *(2474)* | 930 *(3051)* |
| A78009 | 18-23,5 *(0.709-0.925)* | 13000 | 735 *(2411)* | 960 *(3150)* |
| A78010 | 23-31 *(0.906-1.220)* | 10000 | 723 *(2372)* | 974 *(3196)* |
| A78020 | 30-40 *(1.181-1.575)* | 8000 | 754 *(2474)* | 1005 *(3297)* |
| A78030 | 39-51 *(1.535-2.008)* | 6000 | 735 *(2411)* | 961 *(3153)* |
| A78040 | 50-65 *(1.969-2.559)* | 5000 | 785 *(2575)* | 1021 *(3350)* |
| A78050 | 64-86 *(2.520-3.386)* | 3700 | 744 *(2441)* | 1000 *(3281)* |
| A78060 | 85-115 *(3.346-4.528)* | 2700 | 721 *(2365)* | 975 *(3199)* |
| | 114-144 *(4.488-5.669)* | 2200 | 788 *(2585)* | 995 *(3264)* |
| A78070 | 114-160 *(4.488-6.299)* | 2000 | 716 *(2349)* | 1005 *(3297)* |
| | 159-205 *(6.260-8.071)* | 1600 | 799 *(2621)* | 1030 *(3379)* |
| FB 780 Fine boring heads, with Seco-Capto™ connection | | | | |
| C3-391.0780-30 | 39-51 *(1.535-2.008)* | 6000 | 735 *(2411)* | 961 *(3153)* |
| C4-391.0780-40 | 50-65 *(1.969-2.559)* | 5000 | 785 *(2575)* | 1021 *(3350)* |
| C5-391.0780-50 | 64-86 *(2.520-3.386)* | 3700 | 744 *(2441)* | 1000 *(3281)* |
| C6-391.0780-60 | 85-115 *(3.346-4.528)* | 2700 | 721 *(2365)* | 975 *(3199)* |
| | 114-144 *(4.488-5.669)* | 2200 | 788 *(2585)* | 995 *(3264)* |
| C8-391.0780-70 | 114-160 *(4.488-6.299)* | 2000 | 716 *(2349)* | 1005 *(3297)* |
| | 159-205 *(6.260-8.071)* | 1600 | 799 *(2621)* | 1030 *(3379)* |

**Note**: The maximum speeds are related to the boring head's mechanical design and balancing quality. Speeds inside these limits have to be chosen in regard to the other machining conditions, e.g. workpiece material, cutting edge (insert), tooling length, machine spindle. At speeds from approx. 8000 RPM and above, the basic holders and the extensions/reducers should be fine balanced.

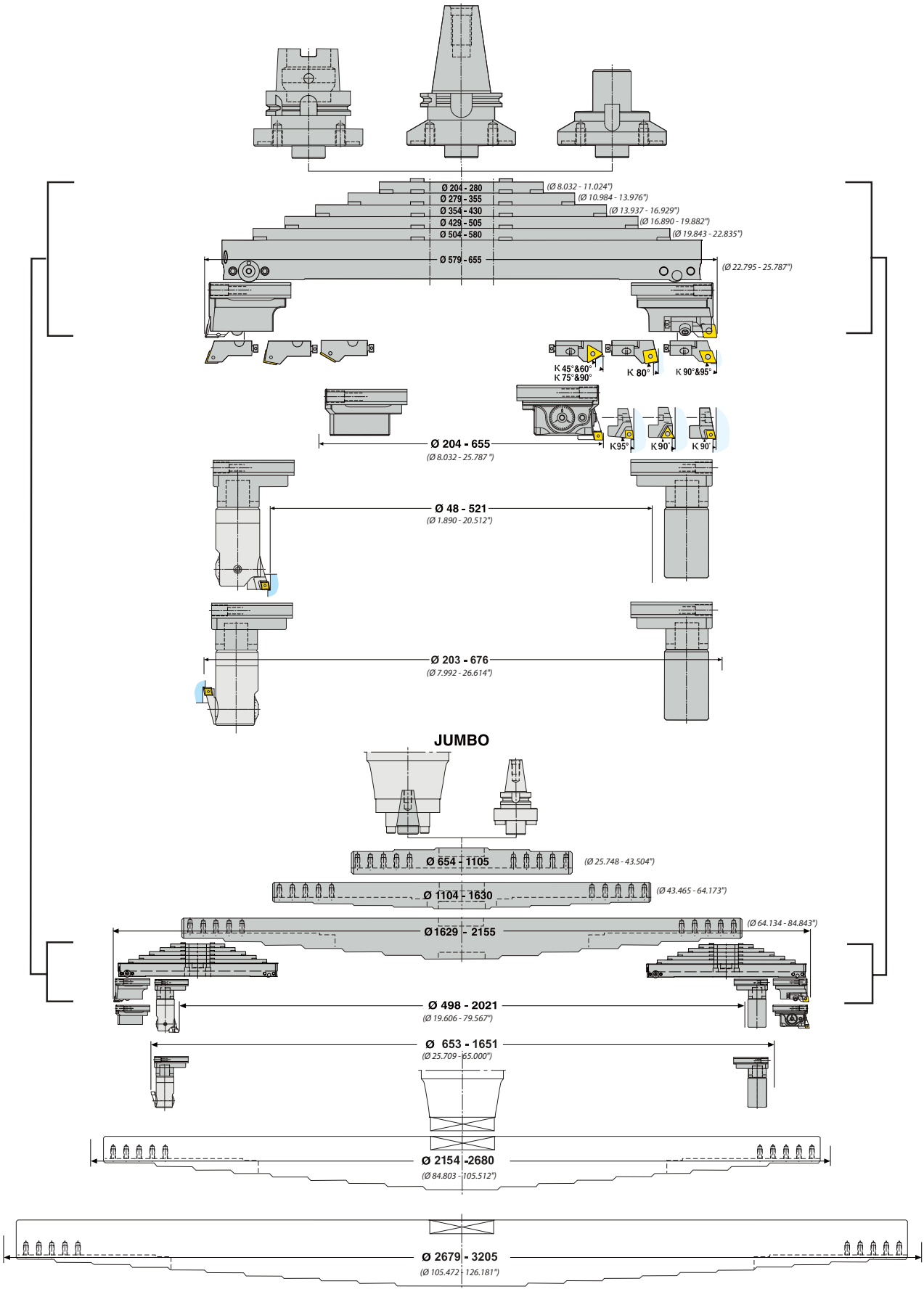


# Bridge bars

Seco offers a complete range of Bridge Bars and Jumbo Bridge Bars for large diameter boring and overturning operations.

- Designed for maximum flexibility, Bridge Bars are available in a large range of diameters as standard products, covering a diameter range of 204 - 655 mm (8.03 - 25.78 inch)
- Seco Jumbo Bridge Bars are made of high tensile aluminum with steel interfaces, and cover the 654 - 2155 mm (25.75 - 84.843 inch) diameter range

# Overview


Ø 204 - 280
(Ø 8.032 - 11.024")
Ø 279 - 355
(Ø 10.984 - 13.976")
Ø 354 - 430
(Ø 13.937 - 16.929")
Ø 429 - 505
(Ø 16.890 - 19.882")
Ø 504 - 580
(Ø 19.843 - 22.835")
Ø 579 - 655
(Ø 22.795 - 25.787")
K 45°&60°
K 75°&90°
K 80°
K 90°&95°
K95°
K 90°
K 90°
Ø 204 - 655
(Ø 8.032 - 25.787 ")
Ø 48 - 521
(Ø 1.890 - 20.512")
Ø 203 - 676
(Ø 7.992 - 26.614")
JUMBO
Ø 654 - 1105
(Ø 25.748 - 43.504")
Ø 1104 - 1630
(Ø 43.465 - 64.173")
Ø 1629 - 2155
(Ø 64.134 - 84.843")
Ø 498 - 2021
(Ø 19.606 - 79.567")
Ø 653 - 1651
(Ø 25.709 - 65.000")
Ø 2154 -2680
(Ø 84.803 - 105.512")
Ø 2679 - 3205
(Ø 105.472 - 126.181")

# Features

### 5 Bridge bars for boring

**Ø 654–3205 mm** *(Ø 25.748–126.181")*, **also OD-overturning Ø 498–3071 mm** *(Ø 19.606–120.906")* **and back-boring Ø 653–3226 mm** *(Ø 25.709–127.008")*.

Jumbo Bridge bars made of high tensile aluminium with spindle steel interfaces, are designed to hold two classic Bridge bars in several positions.

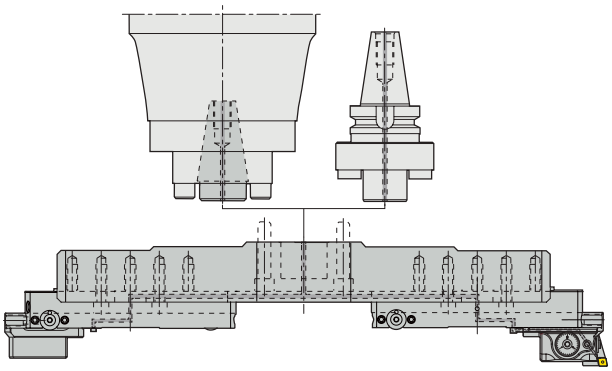
Sizes A731S001, 002, 003 are delivered with 4 locking screws to be fitted onto a milling cutter holder, flange mounting Type 569, spigot Ø 60 mm *(Ø 2.362")* - or to be fitted directly onto the machine spindle (DIN 2079/50 workpiece side), using the centering spigot shown in accessories. Jumbo Bridge bars are delivered with two lifting rings.

Sizes A731S004-...* and A731S005-...* are available on request, with standard or specific spindle fitting possibilities, according to the machine:

| Capacity ∅ mm *(inch)* | Designation | Dimensions in mm (*inch*), see drawing on Product page | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | DCB | LF | HTB | LB | CBDP | WB | DCON | Weight |
| 2154-2680 *(84.803-105.512")* | A731S004-...* | * | 70 *(2.75591")* | 300 *(11.811")* | 160 *(6.29921")* | * | 2140 *(84.25197")* | * | * |
| 2679-3205 *(105.472-126.181")* | A731S005-...* | * | 110 *(4.33071")* | 400 *(15.748")* | 200 *(7.87402")* | * | 2665 *(104.9213")* | * | * |

* designation code and dimensions will be completed related to the spindle fitting type.

### Main features Jumbo Bridge bars



The Jumbo Bridge bars 'S' feature through coolant channels to feed the coolant from the holder or the flange mount towards the two standard Bridge bars, and have a complementary locking screw of the standard Bridge bars.

**Note!** These new Jumbo Bridge bars 'S' can hold all classic Bridge bars (the new 'S', or the previous ones): when using the previous ones, the complementary clamping screw cannot be used. Through coolant to the cutting edge is only possible when using 'S' Jumbo Bridge bars and 'S' standard Bridge bars. In order to keep balance, do not mix new and previous standard Bridge Bars and blocks on the same Jumbo Bridge bar.

# Features

### 6 Bridge bars for boring

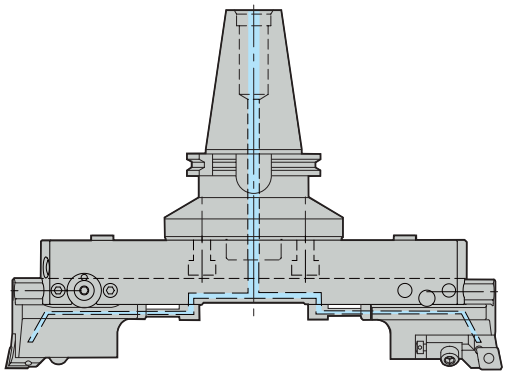
**Ø 204–655 mm** *(Ø 8.032–25.787")* **also OD-overturning Ø 48–521 mm** *Ø 1.890–20.512")* **and back-boring.**

Bridge bars have a machine side connection Ø 130 mm *(Ø 5.118")* for direct fitting onto arbors for Bridge bars (SA and HSK) or onto the Graflex® adapter.

When using the Graflex® adapter, extensions are possible as well as spindle flange clamping, see Graflex® modular system. Angular position of the Bridge bar every 30° onto the arbors or Graflex® adapter, for optimized magazine storage.

Bridge bars can hold rough, fine, counterweight or Graflex® boring blocks. The boring blocks are locked onto the Bridge bar by means of two cylinders actuated by three clamping screws: One of the clamping screws has a stop disc, which limits the block's sliding stroke inside its setting capacity and stops the block from sliding out of the Bridge bar. Precise and step free block sliding for diameter adjustment 38 mm *(Ø 1.496")* stroke on radius, using the block's adjusting screw which is linked to the retaining pin of the Bridge bar.

Coolant through the Bridge bars and the boring blocks, towards the cutting edges.



For the Bridge bar and Jumbo Bridge bar selection, related to the boring, OD-overturning or back-boring diameter to be produced, see Bridge bar selection charts, page(s) 638-643.

Max RPM, see page(s) 649.

**Note!** These Bridge bars (Part No. A731S 0_0) cannot hold previous types of boring blocks (Part No. A731 _00 -without S-).

# Features

### Rough boring block

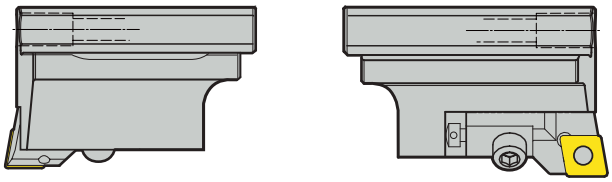
A large twin rough boring head requires two rough boring blocks, each equipped with a cartridge. Rough boring block through coolant, towards the cutting edge.

When using the Graflex® adapter, extensions are possible as well as spindle flange clamping, see Graflex® modular system.

Angular position of the Bridge bar every 30° onto the arbors or Graflex® adapter, for optimized magazine storage.

Bridge bars can hold rough, fine, counterweight or Graflex® boring blocks.

**Cartridges**



A large range of cartridges is available:

- Cartridges with 90° lead angle, recommended in most of the boring applications for a lower power consumption.
- Cartridges with 80° lead angle, recommended for through hole boring (and chamfering), particularly in cast iron to avoid exit failure. The power consumption is higher.
- Other cartridges with ISO5611/h1 = 16 mm *(0.629")* fitting interface are suitable.

**NOTE!** The two cartridges can be set on the same diameter (symmetrical boring) or in a staggered position (staggered boring). A cartridge raising corner shim is available as an accessory (Part No. 18LS0316). Assembling and setting procedures, see page(s) 638-643.

### Fine boring block and counterweight block

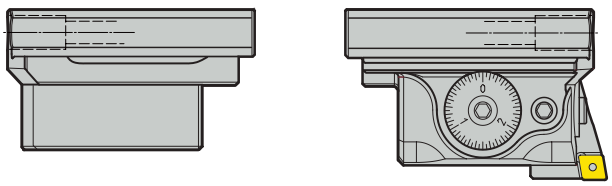
A large fine boring head requires one fine boring block equipped with an insert holder and one counterweight block.

Diameter setting mechanism of the fine boring block with a micrometric setting screw (1 increment = 5 µm *(197 µin)* on the diameter).
The setting system is protected and lubricated for life.

The precision of the mechanism guarantees repeatable accuracy.
The diameter adjusting screw is located on the side of the block to offer easy access.

Fine boring block through coolant, towards the cutting edge.

**Suitable fine boring insert holders A72460, A72560 or A72660**



Suitable fine boring insert holders A72460, A72560 or A72660 have to be ordered separately: they are the same as on radial type fine boring heads, see page(s) 627, 628.

Assembling and setting procedures, see page(s) 638-643.

# Features

### Graflex® boring blocks, for OD-overturning or back-boring

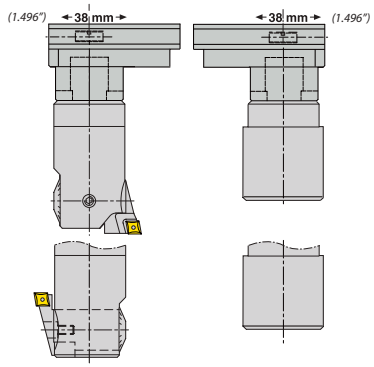
This block has a female Graflex® front connection size G5.

Any Graflex® boring head, special tool or standard Graflex® module size G5 can be mounted onto the Bridge bars, e.g. the drawing showing set-ups for OD-overturning or back-boring using two Graflex® boring blocks fitted with a Graflex® fine boring head A78050 with insert holder (e.g. A72550 for OD-turning) a OD-turningg insert holder (e.g. A789X30CC0690) and a Graflex® counterweight (e.g. Part No. BM050W78050).

Two positions of the Graflex® module are possible on the block, as it has 2x2 ball nose screw positions, and two tenon notches placed at 180°. Block and boring head through coolant, towards the cutting edge.

Assembling and setting procedures, see page(s) 638-643.

**Graflex® boring blocks, for OD-overturning or back-boring**




These boring blocks (Part No. A731S 400, A731S 500, A731S 600, A731S 40128) can also be fitted onto the previous type of Bridge bars (Part No. A731 0_0 -without S-).

Assembling and max. RPM instructions of the previous type of Bridge bars being valid.

In order to keep balance, do not mix new and previous blocks on the same Bridge bar.

**NOTE!** These new boring blocks can also be fitted onto the previous type of Bridge bars

### Advice for 'through coolant' accessories selection

**Roughing (Bridge bar with 2 rough boring blocks):**

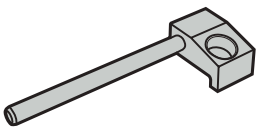
For directable coolant supply onto both cutting edges, use 2 coolant pipe connectors (Part No. AU731S00700), to be mounted onto the Bridge Bar, and 2 directable coolant supply nozzle sets (Part No. AU731S40700), to be mounted onto each rough boring block. For normal through coolant from the block's channel, use 2 coolant pipe connectors (Part No. AU731S00700), to be mounted onto the Bridge Bar.

**Fine boring (Bridge bar with 1 fine boring block & 1 counterweight):**

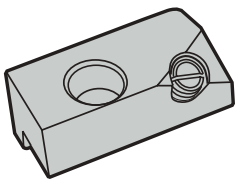
Use 1 coolant pipe connector (Part No. AU731S00700), to be mounted onto the Bridge Bar in order to connect the fine boring block. As the fine boring block originally features a coolant supply nozzles, directable coolant supply is directly obtained.
OD-overturning (e.g. Bridge bar with 2 Graflex® boring blocks equipped with one fine boring head and one counterweight): Use 1 coolant pipe connector (Part No. AU731S00700), to be mounted onto the Bridge bar in order to connect the Graflex® boring block with fitted boring head. Graflex® boring block's central coolant channel will feed coolant into the fitted boring head



Coolant pipe connector
(Part No. AU731S00700)



Directive coolant supply nozzle set
(Part No. AU731S40700)



**NOTE!** Allowable coolant pressure = 70 bars maximum.

# Building Bridge bar boring assemblies

**A rough boring assembly up to Ø 655 mm requires *(Ø 25.787")*: 1 Bridge bar (A731S 0_0) + 2 rough boring blocks (2x A731S 400) with 2 cartridges*.**

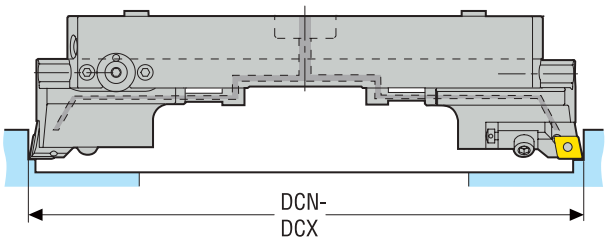



Fig. 1

**A fine boring assembly up to Ø 655 mm requires *(Ø 25.787")*: 1 Bridge bar (A731S 0_0) + 1 fine boring block (A731S 500) with 1 fine boring insert holder size 60** + 1 counterweight block (A731S 600).**

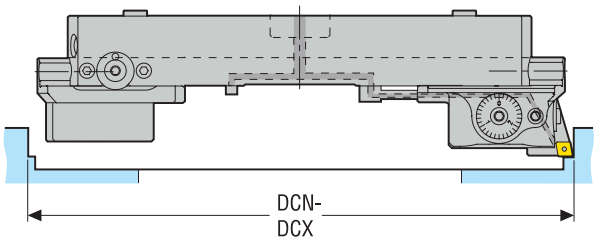



Fig. 2

**A rough boring assembly up to Ø 3205 mm *(Ø 126.181")* requires: 1 Jumbo Bridge bar (A731S 00_) + 2 Bridge bars (A731S 0_0) + 2 rough boring blocks (2x A731S 400) with 2 cartridges*.**

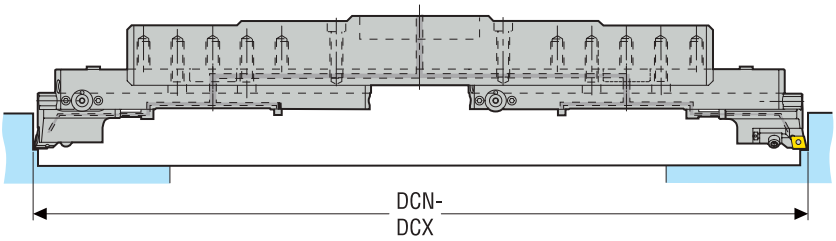



Fig. 3

**A fine boring assembly up to Ø 3205 mm *(Ø 126.181")* requires: 1 Jumbo Bridge bar (A731S 00_) + 2 Bridge bars (A731S 0_0) + 1 fine boring block (A731S 500) with 1 fine boring insert holder size 60** + 1 counterweight block (A731S 600).**

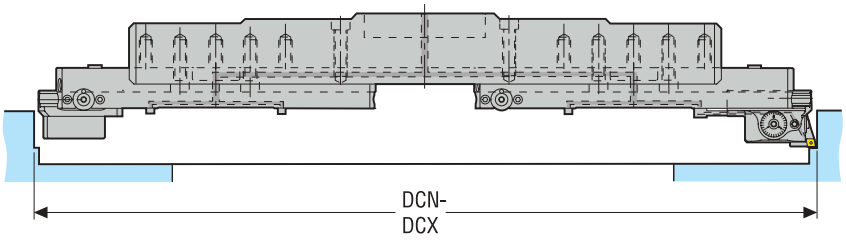



Fig. 4

* Cartridges to be ordered separately.
** Insert holders to be ordered separately.

# Building Bridge bar boring assemblies:
# Bridge bar(s) selection chart to build a required BORING diameter

| For boring DCN-DCX ∅ mm | *For boring DCN-DCX ∅ inch* | Jumbo Bridge bar | Classic Bridge bar(s) | For rough boring | | For fine boring | |
|---|---|---|---|---|---|---|---|
| | | | | | Fig. | | Fig. |
| 204-280 | *8.031-11.024* | – | A731S 010 | 2x A731S 400 + 2 cartridges | 1 | A731S 500 + 1 insert holder + A731S 600 | 2 |
| 279-355 | *10.984-13.976* | – | A731S 020 | | | | |
| 354-430 | *13.937-16.929* | – | A731S 030 | | | | |
| 429-505 | *16.890-19.882* | – | A731S 040 | | | | |
| 504-580 | *(19.843-22.835* | – | A731S 050 | | | | |
| 579-655 | *22.795-25.787* | – | A731S 060 | | | | |
| 654-805 | *25.748-31.693* | A731S 001 | 2x A731S 010 | 2x A731S 400 + 2 cartridges | 3 | A731S 500 + 1 insert holder + A731S 600 | 4 |
| 654-880 | *25.748-34.646* | | 2x A731S 020 | | | | |
| 804-955 | *31.654-37.598* | | 2x A731S 030 | | | | |
| 879-1030 | *34.606-40.551* | | 2x A731S 040 | | | | |
| 1029-1105 | *40.512-43.504* | | 2x A731S 050 | | | | |
| 1104-1255 | *43.465-49.409* | A731S 002 | 2x A731S 010 | 2x A731S 400 + 2 cartridges | 3 | A731S 500 + 1 insert holder + A731S 600 | 4 |
| 1104-1330 | *43.465-52.362* | | 2x A731S 020 | | | | |
| 1179-1405 | *46.417-55.315* | | 2x A731S 030 | | | | |
| 1254-1480 | *49.370-58.268* | | 2x A731S 040 | | | | |
| 1329-1555 | *52.323-61.220* | | 2x A731S 050 | | | | |
| 1404-1630 | *55.276-64.173* | | 2x A731S 060 | | | | |
| 1629-1780 | *64.134-70.079* | A731S 003 | 2x A731S 010 | 2x A731S 400 + 2 cartridges | 3 | A731S 500 + 1 insert holder + A731S 600 | 4 |
| 1629-1855 | *64.134-73.031* | | 2x A731S 020 | | | | |
| 1704-1930 | *67.087-75.984* | | 2x A731S 030 | | | | |
| 1779-2005 | *70.039-78.937* | | 2x A731S 040 | | | | |
| 1854-2080 | *72.992-81.890* | | 2x A731S 050 | | | | |
| 1929-2155 | *75.945-84.843* | | 2x A731S 060 | | | | |
| 2154-2305 | *84.803-90.748* | A731S 004 | 2x A731S 010 | 2x A731S 400 + 2 cartridges | 3 | A731S 500 + 1 insert holder + A731S 600 | 4 |
| 2154-2380 | *84.803-93.701* | | 2x A731S 020 | | | | |
| 2229-2455 | *87.756-96.654* | | 2x A731S 030 | | | | |
| 2304-2530 | *90.709-99.606* | | 2x A731S 040 | | | | |
| 2379-2605 | *93.661-105.512* | | 2x A731S 050 | | | | |
| 2454-2680 | *96.614-105.512* | | 2x A731S 060 | | | | |
| 2679-2830 | *105.472-111.417* | A731S 005 | 2x A731S 010 | 2x A731S 400 + 2 cartridges | 3 | A731S 500 + 1 insert holder + A731S 600 | 4 |
| 2679-2905 | *105.472-114.370* | | 2x A731S 020 | | | | |
| 2754-2980 | *108.425-117.323* | | 2x A731S 030 | | | | |
| 2829-3055 | *111.378-120.276* | | 2x A731S 040 | | | | |
| 2904-3130 | *114.331-123.228* | | 2x A731S 050 | | | | |
| 2979-3205 | *117.283-126.181* | | 2x A731S 060 | | | | |

# Building Bridge bar OD-overturning assemblies:

**A fine OD-overturning assembly up to Ø 521 mm *(Ø 20.512")* requires: 1 Bridge bar (A731S 0_0) + 2 Graflex® blocks (2x A731S 40128) + e.g. 1 fine boring head (A780 50) with 1 fine boring insert holder size 60° + 1 counterweight (BM050W78050).**

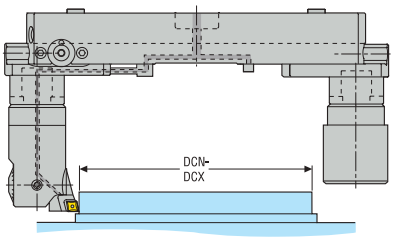



Fig. 1

**A rough boring assembly up to Ø 3205 mm *(Ø 120.906")* requires: 1 Jumbo Bridge bar (A731S 00_) + 2 Bridge bars (A731S 0_0) + 2 rough boring blocks (2x A731S 400) with 2 cartridges*.**

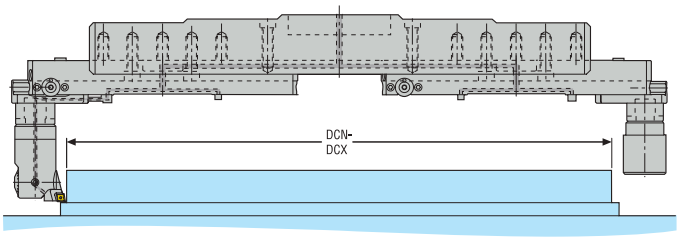



Fig. 2

* Insert holders to be ordered separately.

# Building Bridge bar OD-overturning assemblies:
# Bridge bar(s) selection chart to build a required OD-overturning diameter

| For OD-overturning DCN-DCX ∅ mm | *For OD-overturning* DCN-DCX *∅ inch* | Jumbo Bridge bar | Classic Bridge bar(s) | For fine OD-overturning | Fig. |
|---|---|---|---|---|---|
| 48-146 | *1.890-5.748* | – | A731S 010 | 2x A731S 40128 + 1x A780 50 + 1 insert holder + 1x BM050W78050 | 1 |
| 123-221 | *4.843-8.701* | – | A731S 020 | | |
| 198-296 | *7.795-11.654* | – | A731S 030 | | |
| 273-371 | *10.748-14.606* | – | A731S 040 | | |
| 348-446 | *13.701-17.559* | – | A731S 050 | | |
| 423-521 | *16.654-20.512* | – | A731S 060 | | |
| 498-671 | *19.606-26.417* | A731S 001 | 2x A731S 010 | 2x A731S 40128 + 1x A780 50 + 1 insert holder + 1x BM050W78050 | 2 |
| 498-746 | *19.606-29.370* | | 2x A731S 020 | | |
| 648-821 | *25.512-32.323* | | 2x A731S 030 | | |
| 723-896 | *28.465-35.276* | | 2x A731S 040 | | |
| 873-971 | *34.370-38.228* | | 2x A731S 050 | | |
| 948-1121 | *37.323-44.134* | A731S 002 | 2x A731S 010 | 2x A731S 40128 + 1x A780 50 + 1 insert holder + 1x BM050W78050 | 2 |
| 948-1196 | *37.323-47.087* | | 2x A731S 020 | | |
| 1098-1271 | *43.228-50.039* | | 2x A731S 030 | | |
| 1173-1346 | *46.181-52.992* | | 2x A731S 040 | | |
| 1323-1421 | *52.087-55.945* | | 2x A731S 050 | | |
| 1398-1496 | *55.039-58.898* | | 2x A731S 060 | | |
| 1473-1646 | *57.992-64.803* | A731S 003 | 2x A731S 010 | 2x A731S 40128 + 1x A780 50 + 1 insert holder + 1x BM050W78050 | 2 |
| 1473-1721 | *57.992-67.756* | | 2x A731S 020 | | |
| 1623-1796 | *63.898-70.709* | | 2x A731S 030 | | |
| 1698-1871 | *66.850-73.661* | | 2x A731S 040 | | |
| 1848-1946 | *72.756-76.614* | | 2x A731S 050 | | |
| 1923-2021 | *75.709-79.567* | | 2x A731S 060 | | |
| 1998-2171 | *78.661-85.472* | A731S 004 | 2x A731S 010 | 2x A731S 40128 + 1x A780 50 + 1 insert holder + 1x BM050W78050 | 2 |
| 1998-2246 | *78.661-88.425* | | 2x A731S 020 | | |
| 2148-2321 | *84.567-91.378* | | 2x A731S 030 | | |
| 2223-2396 | *87.520-94.331* | | 2x A731S 040 | | |
| 2373-2471 | *93.425-97.283* | | 2x A731S 050 | | |
| 2448-2546 | *96.378-100.236* | | 2x A731S 060 | | |
| 2523-2696 | *99.331-106.142* | A731S 005 | 2x A731S 010 | 2x A731S 40128 + 1x A780 50 + 1 insert holder + 1x BM050W78050 | 2 |
| 2523-2771 | *99.331-109.094* | | 2x A731S 020 | | |
| 2973-2846 | *117.047-112.047* | | 2x A731S 030 | | |
| 2748-2921 | *108.189-115.000* | | 2x A731S 040 | | |
| 2898-2996 | *114.094-117.953* | | 2x A731S 050 | | |
| 2973-3071 | *117.047-120.906* | | 2x A731S 060 | | |

# Building Bridge bar back-boring assemblies:

**A fine back-boring assembly up to Ø 676 mm *(Ø 26.614")* requires: 1 Bridge bar (A731S 0_0) + 2 Graflex® blocks (2x A731S 40128) + e.g. 1 fine boring head (A780 50) with 1 back boring insert holder size 50* + 1 counterweight (BM050W78050).**

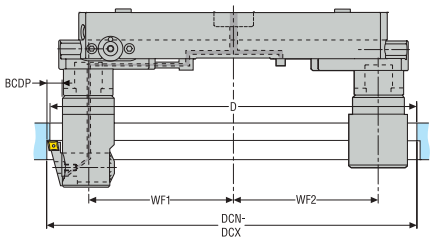



Fig. 1

**A fine back-boring assembly up to Ø 3226 mm (Ø 127.008 ") requires: 1 Jumbo Bridge bar (A731S 00_) + 2 Bridge bars (A731S 0_0) + e.g. 1 fine boring head (A780 50) with 1 back boring insert holder size 50* + 1 counterweight (BM050W78050).**

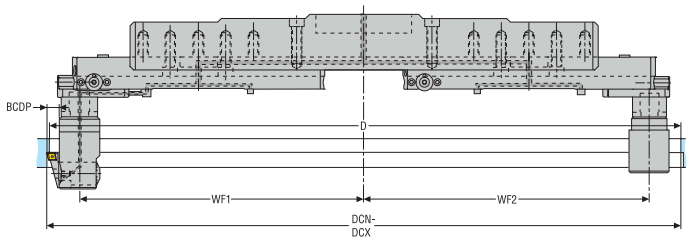



Fig. 2

* Insert holders to be ordered separately.

**Determination of minimum access diameter (D min)**

Balancing condition: WF1 = WF2

D min = DC + 5- BCDP

BCDP = distance between insert's cutting edge and fitted boring head's A78050 body (7,5 < BCDP < 18,5).

**The two extreme cases:**

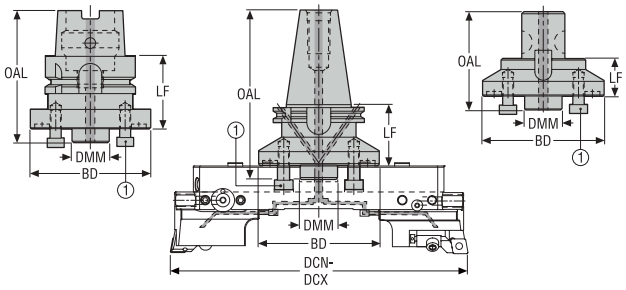
| | |
|---|---|
| Boring head A78050 set to capacity mini: | D min = DCN - 2,5 |
| Boring head A78050 set to capacity maxi: | D min = DCX -13,5 |

# Building Bridge bar back-boring assemblies:
# Bridge bar(s) selection chart to build a required BACK-BORING diameter

| For back boring DCN-DCX ∅ mm | *For back boring DCN-DCX ∅ inch* | Jumbo Bridge bar | Classic Bridge bar(s) | For fine back-boring | Fig. |
|---|---|---|---|---|---|
| 203-301 | *7.992-11.850* | – | A731S 010 | 2x A731S 40128 + 1x A780 50 + 1 back boring insert holder + 1x BM050W78050 | 1 |
| 278-376 | *10.945-14.803* | – | A731S 020 | | |
| 353-451 | *13.898-17.756* | – | A731S 030 | | |
| 428-526 | *16.850-20.709* | – | A731S 040 | | |
| 503-601 | *19.803-23.661* | – | A731S 050 | | |
| 578-676 | *22.756-26.614* | – | A731S 060 | | |
| 653-826 | *25.709-32.520* | A731S 001 | 2x A731S 010 | 2x A731S 40128 + 1x A780 50 + 1 back boring insert holder + 1x BM050W78050 | 2 |
| 653-901 | *25.709-35.472* | | 2x A731S 020 | | |
| 803-976 | *31.614-38.425* | | 2x A731S 030 | | |
| 878-1051 | *34.567-41.378* | | 2x A731S 040 | | |
| 1028-1126 | *40.472-44.331* | | 2x A731S 050 | | |
| 1103-1276 | *43.425-50.236* | A731S 002 | 2x A731S 010 | 2x A731S 40128 + 1x A780 50 + 1 back boring insert holder + 1x BM050W78050 | 2 |
| 1103-1351 | *43.425-53.189* | | 2x A731S 020 | | |
| 1253-1426 | *49.331-56.142* | | 2x A731S 030 | | |
| 1328-1501 | *52.283-59.094* | | 2x A731S 040 | | |
| 1478-1576 | *58.189-62.047* | | 2x A731S 050 | | |
| 1553-1651 | *61.142-65.000* | | 2x A731S 060 | | |
| 1628-1801 | *64.094-70.906* | A731S 003 | 2x A731S 010 | 2x A731S 40128 + 1x A780 50 + 1 back boring insert holder + 1x BM050W78050 | 2 |
| 1628-1876 | *64.094-73.858* | | 2x A731S 020 | | |
| 1778-1951 | *70.000-76.811* | | 2x A731S 030 | | |
| 1853-2026 | *72.953-79.764* | | 2x A731S 040 | | |
| 2003-2101 | *78.858-82.717* | | 2x A731S 050 | | |
| 2078-2176 | *81.811-85.669* | | 2x A731S 060 | | |
| 2153-2326 | *84.764-91.575* | A731S 004 | 2x A731S 010 | 2x A731S 40128 + 1x A780 50 + 1 back boring insert holder + 1x BM050W78050 | 2 |
| 2153-2401 | *84.764-94.528* | | 2x A731S 020 | | |
| 2303-2476 | *90.669-97.480* | | 2x A731S 030 | | |
| 2378-2551 | *93.622-100.433* | | 2x A731S 040 | | |
| 2528-2626 | *99.528-103.386* | | 2x A731S 050 | | |
| 2603-2701 | *102.480-106.339* | | 2x A731S 060 | | |
| 2678-2851 | *105.433-112.244* | A731S 005 | 2x A731S 010 | 2x A731S 40128 + 1x A780 50 + 1 back boring insert holder + 1x BM050W78050 | 2 |
| 2678-2926 | *105.433-115.197* | | 2x A731S 020 | | |
| 2828-3001 | *111.339-118.150* | | 2x A731S 030 | | |
| 2903-3076 | *114.291-121.102* | | 2x A731S 040 | | |
| 3053-3151 | *120.197-124.055* | | 2x A731S 050 | | |
| 3128-3226 | *123.150-127.008* | | 2x A731S 060 | | |

# ABB 731 200 – Holders and adapter for Bridge bars



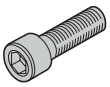



- HSK and SA holders for short assemblies
- Graflex® adapter for extended assemblies
- Angular position of the Bridge bar every 30°
- Delivered with a spigot sealing o'ring ∅ 58×3 mm

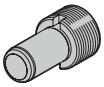
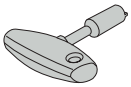
1. Adjusting screw

| Designation | Item number | Machine side connection | Size | Workpiece side Capacity DCN-DCX Ø | | OAL | LF | BD | DMM | Weight |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* |
| A731200 | 00056616 | GRAFLEX | G7 | 204,0<br>*8.031* | 655,0<br>*25.787* | 90,0<br>*3.543* | 40,0<br>*1.575* | 130,0<br>*5.118* | 40,0<br>*1.575* | 3,78<br>*8.330* |
| E3416731200 | 02503393 | BT JIS B 6339-ADB | BT50 ADB | 204,0<br>*8.031* | 655,0<br>*25.787* | 166,75<br>*6.565* | 65,0<br>*2.559* | 130,0<br>*5.118* | 40,0<br>*1.575* | 5,64<br>*12.430* |
| E3471731200 | 02503392 | DIN 69871-ADB | DIN50 ADB | 204,0<br>*8.031* | 655,0<br>*25.787* | 166,75<br>*6.565* | 65,0<br>*2.559* | 130,0<br>*5.118* | 40,0<br>*1.575* | 5,74<br>*12.650* |
| E9306731200 | 02417268 | ISO 12164-1/ DIN69893-A | HSK-A100 | 204,0<br>*8.031* | 655,0<br>*25.787* | 115,0<br>*4.528* | 65,0<br>*2.559* | 130,0<br>*5.118* | 40,0<br>*1.575* | 4,72<br>*10.410* |

## Spare Parts, included in delivery

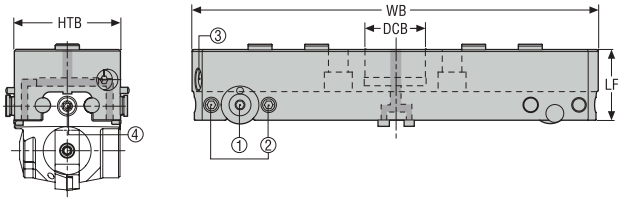
| For | Assembly screw | Key | Sealing Screws | Tenon |
|---|---|---|---|---|
| |  |  |  |  |
| A731200 | 950D1230 | 10SMS795 | – | 90M7 |
| E3416731200 | 950D1230 | 10SMS795 | 950A0606 | – |
| E3471731200 | 950D1230 | 10SMS795 | 950A0606 | – |
| E9306731200 | 950D1230 | 10SMS795 | – | – |

## Accessories

| For | Coolant tube | Sealing plugs | Spanner |
|---|---|---|---|
| |  |  |  |
| A731200 | – | – | – |
| E3416731200 | – | – | – |
| E3471731200 | – | – | – |
| E9306731200 | 20E9306 | 02E9306 | 03E9306 |

Tightening torque 80 Nm. For application details, refer to the operating instructions supplied with the Bridge bars and Boring blocks.
**Accessories,** to be ordered separately

# BB 731S0x0 – Bridge bars



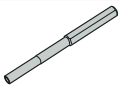

1. Locking screw with stop disc
2. Locking screw
3. Retaining pin
4. Diameter setting screw



- Coolant through the Bridge bar

| Designation | Item number | Workpiece side Capacity DCN-DCX Ø | | HTB | WB | DCB | LF | Weight |
|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* |
| A731S010 | 02753664 | 204,0<br>*8.031* | 280,0<br>*11.024* | 70,0<br>*2.756* | 195,0<br>*7.677* | 40,0<br>*1.575* | 47,0<br>*1.850* | 3,6<br>*7.940* |
| A731S020 | 02753668 | 279,0<br>*10.984* | 355,0<br>*13.976* | 70,0<br>*2.756* | 269,0<br>*10.591* | 40,0<br>*1.575* | 47,0<br>*1.850* | 4,92<br>*10.850* |
| A731S030 | 02753670 | 354,0<br>*13.937* | 430,0<br>*16.929* | 70,0<br>*2.756* | 344,0<br>*13.543* | 40,0<br>*1.575* | 47,0<br>*1.850* | 6,4<br>*14.110* |
| A731S040 | 02753673 | 429,0<br>*16.890* | 505,0<br>*19.882* | 70,0<br>*2.756* | 419,0<br>*16.496* | 40,0<br>*1.575* | 47,0<br>*1.850* | 7,9<br>*17.420* |
| A731S050 | 02753675 | 504,0<br>*19.843* | 580,0<br>*22.835* | 70,0<br>*2.756* | 494,0<br>*19.449* | 40,0<br>*1.575* | 47,0<br>*1.850* | 10,4<br>*22.930* |
| A731S060 | 02753677 | 579,0<br>*22.795* | 655,0<br>*25.787* | 70,0<br>*2.756* | 569,0<br>*22.402* | 40,0<br>*1.575* | 47,0<br>*1.850* | 12,3<br>*27.120* |

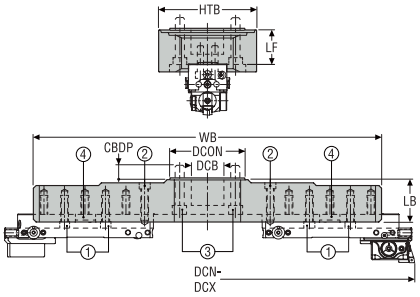
## Spare Parts, included in delivery

| For DCN-DCX | Key | Key (T-handle) | Locking key | Locking screw |
|---|---|---|---|---|
| |  |  |  |  |
| 204-655 | H6B-H5.0L | DOUBLE-T | 03HL05 | 19A71060 |

Tightening torque 20 Nm of the locking screws (2) and locking screw with stop disc (1).
Before diameter setting, make sure retaining pin is engaged. For application details, refer to the operating instructions supplied with the Bridge bars and boring blocks.
Max RPM, see page(s) 649 *For OD-overturning capacities, see Guide page(s) 640-641
For larger diameters, see Jumbo Bridge bars on page(s) 646

# JBB 731S00 – Jumbo Bridge bars





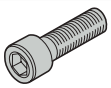
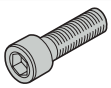
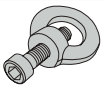
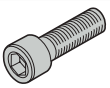
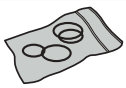

- Jumbo Bridge bars are designed to hold two classic Bridge bars in several positions
- Through coolant Jumbo Bridge bars

1. Assembly screw
2. Locking screw
3. Fixing screw
4. Sealing plug

| Designation | Item number | Workpiece side Capacity DCN-DCX Ø | | HTB | LF | WB | DCON | DCB | CBDP | LB | Weight | ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | |
| A731S001 | 02828506 | 654,0<br>*25.748* | 1105,0<br>*43.504* | 180,0<br>*7.087* | 63,0<br>*2.480* | 640,0<br>*25.197* | 135,0<br>*5.315* | 60,0<br>*2.362* | 24,0<br>*0.945* | 77,0<br>*3.031* | 20,25<br>*44.640* | – |
| A731S002 | 02828516 | 1104,0<br>*43.465* | 1630,0<br>*64.173* | 200,0<br>*7.874* | 50,0<br>*1.969* | 1090,0<br>*42.913* | 135,0<br>*5.315* | 60,0<br>*2.362* | 24,0<br>*0.945* | 80,0<br>*3.150* | 34,5<br>*76.060* | – |
| A731S003 | 02904383 | 1629,0<br>*64.134* | 2155,0<br>*84.843* | 200,0<br>*7.874* | 50,0<br>*1.969* | 1615,0<br>*63.583* | 135,0<br>*5.315* | 60,0<br>*2.362* | 24,0<br>*0.945* | 80,0<br>*3.150* | 67,0<br>*147.710* | ** |

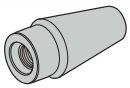
Boring, OD-overturning and back-boring capacities for Jumbo and Bridge bars combinations, see Guide page(s) 638-643
**Larger sizes A731S004-... (∅ 2154-2680 mm) and A731S005-... (∅ 2679-3205 mm) available on request, see Guide page(s) 634
**Accessories,** to be ordered separately

## Spare Parts, included in delivery

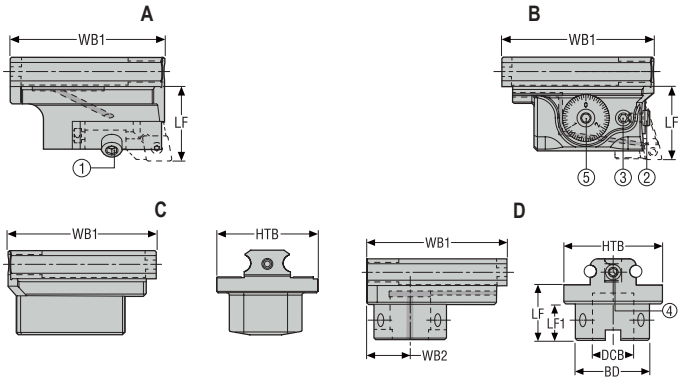
| For DCN-DCX | Assembly screw | Fixing screw | Lever screw | Locking screw | O-ring | Sealing plugs |
|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |
| 654-1105 | 950D1240 | 950D1670 | 90AS03 | 950D1250 | 90JT02 | AU731S01100 |
| 1104-1630 | 950D1240 | 950D1680 | 90AS03 | 950D1250 | 90JT02 | AU731S01100 |
| 1629-2155 | 950D1240 | 950D16120 | 90AS03 | 950D1250 | 90JT02 | AU731S01100 |

Set of O-ring seals contains 6 O-ring seals ∅ 6 mm (0.236") for the coolant channels and 1 O-ring seal ∅ 60 mm (2.362") for the holding bore of Jumbo Bridge bars.

## Accessories

| Centering spigot |
|---|
|  |
| E447153960 |
| E447153960 |
| E447153960 |

# BBB 731S0xx – for boring blocks and Jumbo bridge bars




1. Assembly screw
5. Micrometric adjusting screw
3. Locking screw

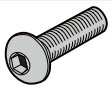
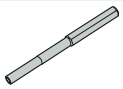
2. Assembly screw
4. Diameter setting screw



- For fitting onto Bridge bars
- Coolant through the rough, fine and Graflex boring blocks

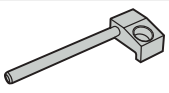
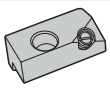
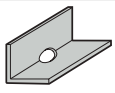
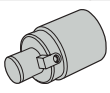
| Item number | Designation | Type of boring block | Workpiece side Capacity DCN-DCX Ø | | DCB | BD | WB1 | WB2 | LF | LF1 | HTB | Weight | Design |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | |
| 02753679 | A731S400 | Rough boring block* | 204,0<br>*8.031* | 2155,0<br>*84.843* | – | – | 97,0<br>*3.819* | – | 47,0<br>*1.850* | – | 70,0<br>*2.756* | 1,33<br>*2.930* | A |
| 02753687 | A731S40128 | Graflex size G5*** | 48,0<br>*1.890* | 2021,0<br>*79.567* | 28,0<br>*1.102* | 50,0<br>*1.969* | 97,0<br>*3.819* | 30,0<br>*1.181* | 36,0<br>*1.417* | 25,0<br>*0.984* | 70,0<br>*2.756* | 0,98<br>*2.160* | D |
| 02753680 | A731S500 | Fine boring block** | 204,0<br>*8.031* | 2155,0<br>*84.843* | – | – | 97,0<br>*3.819* | – | 47,0<br>*1.850* | – | 70,0<br>*2.756* | 1,5<br>*3.310* | B |
| 02753682 | A731S600 | Counterweight | 204,0<br>*8.031* | 2155,0<br>*84.843* | – | – | 97,0<br>*3.819* | – | – | – | 70,0<br>*2.756* | 1,49<br>*3.280* | C |

## Spare Parts, included in delivery

| For | Assembly screw | Barrel locking screw | Key | Key (T-handle) | Locking key | O-ring |
|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |
| A731S400 | 950CB0830 | – | H6B-H5.0L | DOUBLE-T | – | 90JT01 |
| A731S40128 | 90F5 | – | H6B-H5.0L | DOUBLE-T | 03H05 | 90JT01 |
| A731S500 | 950D0612 | 950L1016 | H6B-H5.0L | DOUBLE-T | – | 90JT01 |
| A731S600 | – | – | H6B-H5.0L | DOUBLE-T | – | – |

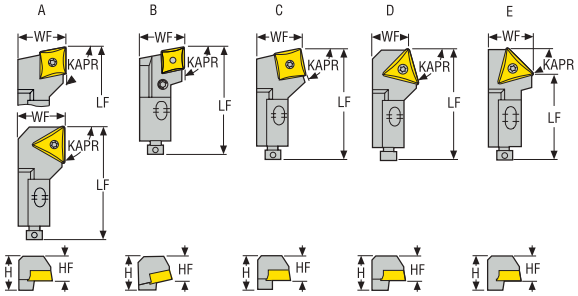
* Cartridges to be ordered separately, see page(s) 648
** Fine boring insert holders size 60 to be ordered separately, see page 627, 628
*** When using boring head A78050, use the counterweight mass BM050W78050, see Accessories below.
Set of O-ring seals contains 6 O-ring seals ∅ 6 mm (0.236") for the coolant channels and 1 O-ring seal ∅ 60 mm (2.362") for the holding bore of Jumbo Bridge bars.
**Accessories,** to be ordered separately

## Accessories

| For | Connection pipe | Coolant kit | Corner shim | Counterweight |
|---|---|---|---|---|
| |  |  |  |  |
| A731S400 | AU731S00700 | AU731S40700 | 18LS0316 | – |
| A731S40128 | AU731S00700 | – | – | BM050W78050 |
| A731S500 | AU731S00700 | – | – | – |
| A731S600 | – | – | – | – |

# Cartridges, for Bridge bars rough boring block A731S400






- For fitting onto the rough boring block

| Designation | Item number | KAPR° | LF | WF | H | HF | Weight | Suitable insert size | Design |
|---|---|---|---|---|---|---|---|---|---|
| | | | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | mm<br>*Inch* | kg<br>*lbs* | | |
| PCGNL16CA-12 | 02484356 | 90 | 63,0<br>*2.480* | 25,0<br>*0.984* | 25,0<br>*0.984* | 16,0<br>*0.630* | 0,2<br>*0.440* | CN..12.. | B |
| SCGCL16CA-16 | 00039871 | 90 | 55,0<br>*2.165* | 25,0<br>*0.984* | 20,0<br>*0.787* | 16,0<br>*0.630* | 0,2<br>*0.440* | CC..16.. | A |
| SSRCL16CA-15 | 00039872 | 75 | 63,0<br>*2.480* | 25,0<br>*0.984* | 20,0<br>*0.787* | 16,0<br>*0.630* | 0,2<br>*0.440* | SC..15.. | C |
| STGCL16CA-16 | 00009197 | 90 | 63,0<br>*2.480* | 24,96<br>*0.983* | 25,0<br>*0.984* | 16,0<br>*0.630* | 0,2<br>*0.440* | TC..16T3.. | A |
| STGCL16CA-22 | 02600181 | 90 | 55,0<br>*2.165* | 25,0<br>*0.984* | 20,0<br>*0.787* | 16,0<br>*0.630* | 0,2<br>*0.440* | TC..2204.. | A |
| STRCL16CA-16 | 00008750 | 75 | 63,0<br>*2.480* | 24,96<br>*0.983* | 25,0<br>*0.984* | 16,0<br>*0.630* | 0,2<br>*0.440* | TC..16T3.. | D |
| STRCL16CA-22 | 02585320 | 75 | 63,0<br>*2.480* | 25,0<br>*0.984* | 20,0<br>*0.787* | 16,0<br>*0.630* | 0,2<br>*0.440* | TC..2204.. | D |
| STSCL16CA-16 | 00009193 | 45 | 53,0<br>*2.087* | 24,96<br>*0.983* | 25,0<br>*0.984* | 16,0<br>*0.630* | 0,2<br>*0.440* | TC..16T3.. | E |
| STTCL16CA-16 | 00009194 | 60 | 63,0<br>*2.480* | 14,96<br>*0.589* | 25,0<br>*0.984* | 16,0<br>*0.630* | 0,2<br>*0.440* | TC..16T3.. | D |

Spare parts for cartridges; see catalog Turning

# Recommended machining conditions

Best performances are obtained with through coolant (higher machining data, better surface finish, better chip evacuation).

Rough boring depends on the priorities: higher feed or larger chip removal use symmetrical setting of the cartridges (most common method, double feed compared to staggered setting), or staggered setting (double depth of cut).
In fine boring in steel, with good conditions, we recommend to use Cermet inserts, for high speeds and long life.

For detailed user instructions, please refer to the operating instructions supplied as part of the delivery content of the boring heads and with the Steadyline® bars. These operating instructions can also be downloaded from www.secotools.com.

# Troubleshooting

Please refer to troubleshooting advice, in rough boring chapter page 576, or fine boring chapter page 616.

# Maximum speeds for Bridge bars

Due to the large sizes of Bridge bar boring heads, unsuitable RPM programming could cause unpredictable damage.
Below max. RPM are for present Bridge bar boring assemblies using present Bridge bar types (Part No. A731S 0_0) rough boring, fine boring and counterweight boring blocks (Part No. A731S _00) and Jumbo Bridge bar (Part No. A731 00_). For other assemblies, please contact your local Seco representative.

**NOTE!** when using present boring blocks (Part No. A731S 400, A731S 500, A731S 600, A731S 40128) onto previous type Bridge bars (Part No.A731 0_0 - without S-), the max RPM to consider are the ones recommended for the previous type Bridge Bars. To maintain balance,do not mix new and previous blocks on the same Bridge bar.

| Head based on | Capacity ∅ mm *(inch)* | Max. RPM | Implied max cutting speed $v_c$ at min. Cap. m/min *(sf/min)* | Implied max cutting speed $v_c$ at max. Cap. m/min *(sf/min)* |
|---|---|---|---|---|
| Bridge bar boring heads (with two boring blocks set symmetrically) | | | | |
| A731S010 | 204-280 *(8.0315-11.0236")* | 1600 | 1025 *(3363)* | 1407 *(4616)* |
| A731S020 | 279-355 *(10.9843-13.9764")* | 1150 | 1007 *(3304)* | 1282 *(4206)* |
| A731S030 | 354-430 *(13.937-16.9291")* | 900 | 1000 *(3281)* | 1215 *(3986)* |
| A731S040 | 429-505 *(16.8898-19.8819")* | 750 | 1010 *(3314)* | 1189 *(3901)* |
| A731S050 | 504-580 *(19.8425-22.8346")* | 650 | 1029 *(3376)* | 1184 *(3885)* |
| A731S060 | 579-655 *(22.7953-25.7874")* | 550 | 1000 *(3281)* | 1131 *(3711)* |
| Jumbo Bridge bars (with two identical Bridge bars and boring blocks set symmetrically) | | | | |
| A731S001 | 654-1105 *(25.748-43.50394")* | 170 | 349 *(1145)* | 590 *(1936)* |
| A731S002 | 1104-1630 *(43.46457-64.17323")* | 100 | 346 *(1135)* | 512 *(1680)* |
| A731S003 | 1629-2155 *(64.13386-84.84252")* | 70 | 358 *(1175)* | 473 *(1552)* |
| A731S004 | 2154-2680 *(84.80315-105.5118")* | 50 | 358 *(1175)* | 420 *(1378)* |
| A731S005 | 2679-3205 *(105.4724-126.1811")* | 40 | 336 *(1102)* | 402 *(1319)* |

**Note**: The maximum speeds are related to the boring head's mechanical design and balancing quality. Speeds inside these limits have to be chosen in regard to the other machining conditions, e.g. workpiece material, cutting edge (insert), tooling length, machine spindle.

# Custom made boring solutions

**Seco Tools Tooling Systems has a strong experience in the design of custom made solutions for boring operations:**



- Steadyline® vibration damping rough and fine boring solutions,
- Multi-edge boring bars,
- Special extensions with guiding pads, for long overhang operations,
- Combined bars for drilling, boring, chamfering, reaming, threading operations...

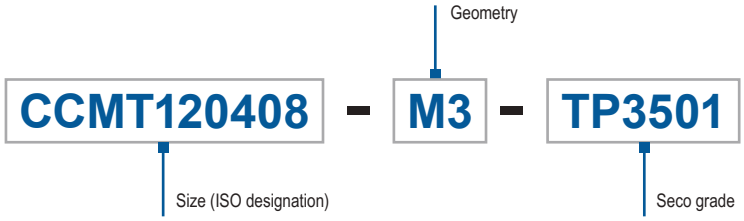
Please contact your local Seco representatives for more information.

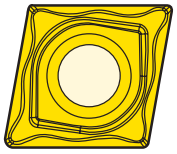
# A selection of inserts for boring

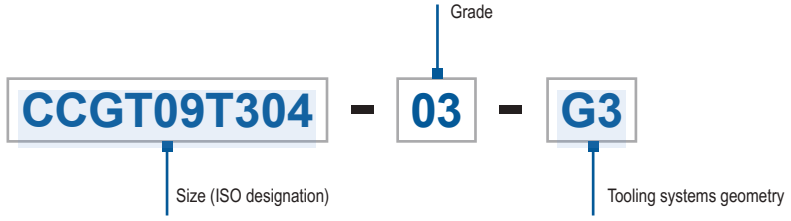
This is a selection of inserts from the total Seco range, which are particularly suitable for boring. The selected insert sizes are those suitable for the range of boring heads.
Inserts for rough boring have high toughness to guarantee high metal removal and positive geometries to minimise spindle torque requirement.

Inserts for fine boring have positive geometries and sharp edge wear resistant grades for accurate control of the bore tolerance, geometry and surface finish.

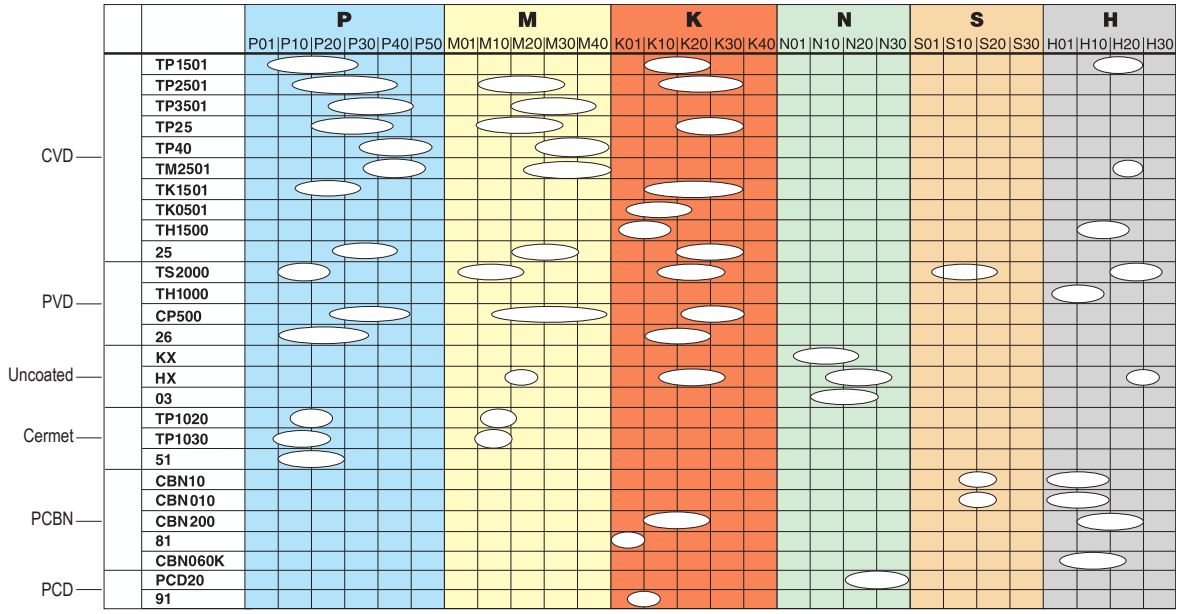
## Code keys, examples



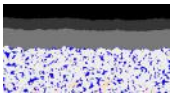
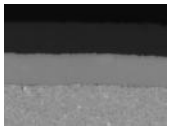
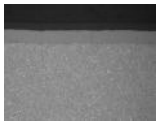
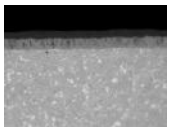
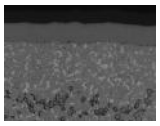
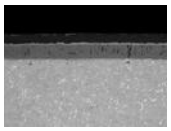
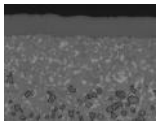
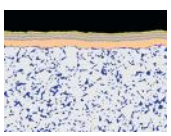





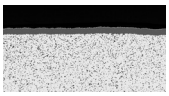
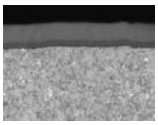
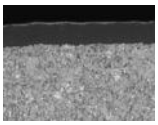

## Insert grades for boring – ISO workpiece material classification



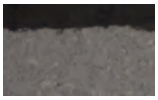
# CVD coated grades recommended for boring

| | | |
|---|---|---|
| **25** |  | Universal grade.<br>The grade is intended for a wide range of boring applications in steel, stainless steel and cast iron.<br>Good combination of wear resistance and toughness.<br>Ti (C, N) + Al2O3. |
| **TH1500** |  | DURATOMIC® technology coated grade. An extremetly hard super micrograin grade intended for machining of partly hardened steels and provide an alternative for cast iron finishing.<br><br>Ti(C,N) + $Al_2O_3$ |
| **TK0501** |  | **Duratomic®** technology coated grade. A extremely wear resistant optimized grade choice for machining of grey cast iron and easier ductile cast irons.<br><br>Ti(C,N) + $Al_2O_3$ + Used Edge Detection (Chrome) |
| **TK1501** |  | **Duratomic®** technology coated grade. A highly wear resistant grade for cast irons in general as well as in steels. The grade is particularly capable in machining of ductile (nodular) cast irons also in more demanding setups and interrupted cuts.<br><br>Ti(C,N) + $Al_2O_3$ + Used Edge Detection (Chrome) |
| **TM2501** |  | Duratomic® grade. A highly capable grade for austenitic stainless steel turning with combinations of high resistance and superior edge toughness. First choice in austenitic stainless steel turning. Complements in steel turning with heavy intermittent cuts.<br><br>Ti(C,N) + $Al_2O_3$ + Used Edge Detection (Chrome) |
| **TP1501** |  | **Duratomic®** technology coated grade. Highly heat and wear resistant grade extremely well suited for productive general turning of steels and a useful backup in other material groups.<br><br>Ti(C,N) + $Al_2O_3$ + ... |
| **TP25** |  | Universal grade for high versatile performance over a wide range of applications in steels, stainless steels and cast irons. Trustworthy alternative at limited cutting speeds or high surface finish requirements.<br><br>Ti(C,N) + $Al_2O_3$ + Used Edge Detection (Chrome) |
| **TP2501** |  | **Duratomic®** technology coated grade. Designed with high wear resistance and edge strength applicable in a wide range of turning applications in steels as well as many stainless steels and cast irons.<br><br>Ti(C,N) + $Al_2O_3$ + ... |
| **TP3501** |  | TP3501 is intended for boring operations where the primary demand is toughness and reliability in machining steels and stainless steels.<br>Ti(C,N) + $Al_2O_3$ DURATOMIC® |
| **TP40** |  | TP40 is the basic grade for turning in the P40 range. Very tough grade for demanding operations on steel castings and forging, and on all types of stainless steel.<br>TiC/Ti(C,N) + TiN |

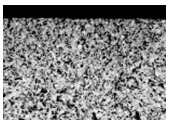
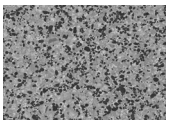
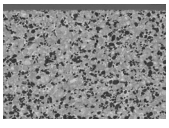
## PVD coated grades recommended for boring

| | | |
|---|---|---|
| **CP500 & 26G6** |  | A very tough micrograin intended for finishing and medium roughing of stainless steel. Can handle intermittent cutting operations very well. CP500 is also an alternative for aluminium alloys.<br>(Ti,Al)N + TiN |
| **TH1000** |  | Very hard supermicrograin grade intended for partly hardened steel components as well as generally workpiece materials such as superalloys and due to remarkable edge toughness it also provides high performance in interupted cuts and hard-surface removal. |
| **TS2000** |  | Hard micrograin principally intended for finishing operations in superalloys and titanium alloys.<br>Also performs well in finishing operations on stainless steel.<br>(Ti,Al)N + TiN |

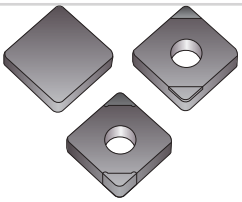
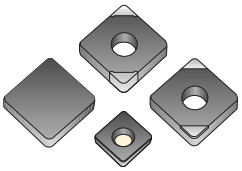
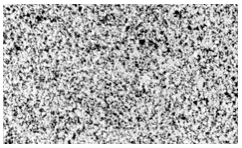
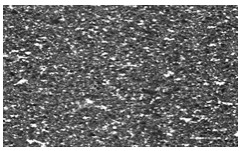
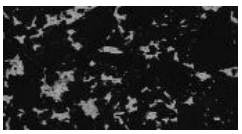
## Uncoated grades recommended for boring

| | | |
|---|---|---|
| **HX** |  | Universal uncoated grade intended for machining of cast iron and hardened steels useful also in non-ferrous materials. |
| **KX & 03G3** |  | Micrograin intended for machining aluminum and other non-ferrous materials. |

## Cermet recommended for boring

| | | |
|---|---|---|
| **51G1** |  | Cermet with very high wear resistance. Intended for finishing operations on steels, in which strict demands are made on surface finish. |
| **TP1020** |  | Cermet with very high wear resistance intended for highest surface finish requirements with predictability and control in steel and stainless steel. |
| **TP1030** |  | PVD-coated Cermet with very high wear resistance intended for high surface finish and productivity requirements with predictability in steel and stainless steel mainly.<br>Ti-Al-Si-N nanolaminate coating. |

# CBN and PCD grades recommended for boring

| | | |
|---|---|---|
| **CBN010** |  | Format: Solid, full-face brazed layer and brazed tips (single and double sided).<br>Composition: 50% CBN content grade with an average grain size of 2 µm and a TiC ceramic binder.<br>Coating: No coating. |
| **CBN060K** |  | Solid, brazed tips (single and double sided) or sintered layer.<br>First choice for continuous to moderate interrupted cuts in hardened steel ($a_p$ < 0,5 mm).<br>New (Ti,Si,Al)N PVD coating developed for high speed machining.<br>New unique superalloy binder. |
| **CBN10 & 81B1** |  | CBN, Cubic boron nitride grade, for light continuous to moderate interrupted cuts.<br>Intended for fine boring in hardened steel and in superalloys. |
| **CBN200** |  | CBN, Cubic boron nitride grade, for finishing of pearlitic cast iron, and sintered iron. |
| **PCD20 & 91J3** |  | PCD, polycrystalline diamond, for boring in aluminium and Al-alloys, copper, brass, bronze and synthetic materials. |

# Inserts, recommended for rough boring, with cutting data

| Designation | Uncoated Ground flank and pressed chipbreaker | | | Coated Pressed chipbreaker | | | | | Coated Ground flank direct chipbreaker, left hand cutting | Depth of cut $a_p$ mm *(inch)* | Feed per tooth f mm *(inch)* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | KX | HX | 03D3 | TP2501 | TP3501 | TP40 | 25C4 | TK1501 | CP500 | | |
| CCGT060204F-AL | 00015710 | | | | | | | | | 2 *(0.079)* | 0,1-0,22 *(0.0039-0.0087)* |
| CCGT060204L-UX | | | | | | | | | 02497631 | 2 *(0.079)* | 0,1-0,22 *(0.0039-0.0087)* |
| CCGT09T304L-UX | | | | | | | | | 02497640 | 2,5 *(0.098)* | 0,1-0,3 *(0.0039-0.0118)* |
| CCGT09T308F-AL | 00015754 | | | | | | | | | 2,5 *(0.098)* | 0,1-0,3 *(0.0039-0.0118)* |
| CCGT120408F-AL | 00015790 | | | | | | | | | 5 *(0.197)* | 0,15-0,4 *(0.0059-0.0157)* |
| CCGT120408L-UX | | | | | | | | | 02610062 | 4 *(0.157)* | 0,15-0,4 *(0.0059-0.0157)* |
| CCMT060204-F1 | | | | 02960857 | 03095430 | 00008505 | | 03062942 | 00096854 | 2 *(0.079)* | 0,1-0,22 *(0.0039-0.0087)* |
| CCMT060204-F2 | | 74011732 | | | | 74018652 | | | | 2 *(0.079)* | 0,1-0,22 *(0.0039-0.0087)* |
| CCMT060204-M3 | | | | 02960858 | 03095431 | | | 03062944 | | 2 *(0.079)* | 0,1-0,22 *(0.0039-0.0087)* |
| CCMT09T308-F1 | | | | 02960861 | 03095443 | 00008518 | | 03063857 | 00096858 | 2,5 *(0.098)* | 0,1-0,3 *(0.0039-0.0118)* |
| CCMT09T308-MF2 | | | | 02956309 | 03095446 | | | | 02754822 | 2,5 *(0.098)* | 0,1-0,3 *(0.0039-0.0118)* |
| CCMT120408-F1 | | | | 02960854 | 03095449 | | | 03062626 | | 4 *(0.157)* | 0,15-0,4 *(0.0059-0.0157)* |
| CCMT120408-MF2 | | | | 02956311 | 03095452 | | | | | 4 *(0.157)* | 0,15-0,4 *(0.0059-0.0157)* |
| CPGT050204 | | | 02434654 | | | | | | | 2 *(0.079)* | 0,08-0,2 *(0.0031-0.0079)* |
| SCMT060204-M3 | | | | 02960423 | 03096621 | | | | | 2,5 *(0.098)* | 0,1-0,22 *(0.0039-0.0087)* |
| SCMT09T308-F1 | | | | 02960396 | 03096625 | | | 03062629 | 00099708 | 2,5 *(0.098)* | 0,1-0,3 *(0.0039-0.0118)* |
| SCMT09T308-MF2 | | | | 02956318 | 03096627 | | | | 02755042 | 2,5 *(0.098)* | 0,1-0,3 *(0.0039-0.0118)* |
| SCMT120408-F1 | | | | 02960397 | 03096630 | | | | 00099804 | 4 *(0.157)* | 0,15-0,4 *(0.0059-0.0055)* |
| SCMT120408-M3 | | | | 02960429 | 03096631 | | | 03063990 | | 4 *(0.157)* | 0,15-0,4 *(0.0059-0.0055)* |
| SCMT150512-F2 | | | | | | 74007348 | | | | 7 *(0.276)* | 0,2-0,5 *(0.0079-0.0197)* |
| TCGT16T308F-AL | 00015875 | | | | | | | | | 4 *(0.157)* | 0,15-0,4 *(0.0059-0.0055)* |
| TCMT16T308-F1 | | | | 02960408 | 03096643 | | | | 00091357 | 5 *(0.197)* | 0,15-0,4 *(0.0059-0.0055)* |
| TCMT16T308-MF2 | | | | 02956323 | 03096645 | | | | 02755046 | 5 *(0.197)* | 0,15-0,4 *(0.0059-0.0055)* |

For recommended cutting speeds, see pages 659-662

# CN.. inserts, recommended for rough boring (double sided)

| Designation | Coated Pressed chipbreaker | | | | Depth of cut $a_p$ mm *(inch)* | Feed per tooth f mm *(inch)* |
|---|---|---|---|---|---|---|
| | TP3500 | TP40 | TM2501 | TP25 | | |
| CNMG120408-M3 | | | 03275990 | 03275989 | 4,5 *(0.177)* | 0,25-0,35 *(0.00984-0.01378)* |
| CNMG120408-MF1 | | | 03275995 | | 4,5 *(0.177)* | 0,25-0,35 *(0.00984-0.01378)* |
| CNMG120408-MF3 | | 74030598 | 03275999 | 03275998 | 4,5 *(0.177)* | 0,25-0,35 *(0.00984-0.01378)* |
| CNMG120408-MF4 | | | 03273904 | | 4,5 *(0.177)* | 0,25-0,35 *(0.00984-0.01378)* |
| CNMG120408-MR7 | | 74017309 | 03276001 | | 4,5 *(0.177)* | 0,25-0,35 *(0.00984-0.01378)* |

For recommended cutting speeds, see pages 659-662

# Inserts, recommended for fine boring, with cutting data

| Designation | Coated | | | | | | | Cermet | | | Depth of cut $a_p$ mm *(inch)* | Feed per tooth f mm *(inch)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | TP1501 | TS2000 | TK1501 | CP500 | 26G6 | TH1000 | TH1500 | 51G1 | TP1020 | TP1030 | | |
| CCGT060200 | | | | | | | | 00083915 | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCGT0602005-F1 | | | | 02430287 | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCGT060201-F1 | | | | 02430307 | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCGT060202 | | | | | 00039546 | | | 00096634 | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCGT060204 | | | | | 00081826 | | | 00048334 | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCGT060204L-UX | | | | 02497631 | | | | | | | 2 *(0.079)* | 0,1-0,22 *(0.0039-0.0087)* |
| CCGT09T301-F1 | | | | 02430311 | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCGT09T302 | | | | | 00048337 | | | 00048339 | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCGT09T304 | | | | | 00077338 | | | 00048344 | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCGT09T304L-UX | | | | 02497640 | | | | | | | 2,5 *(0.098)* | 0,1-0,3 *(0.0039-0.0118)* |
| CCGW060202S-01020-LF | | | | | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCGW060204E-L1-B | | | | | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCGW060204S-01020-LF | | | | | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCGW09T304E-L1-B | | | | | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCGW09T304S-01020-LF | | | | | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCGW09T308E-L1-B | | | | | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCGW09T308S-01020-LF | | | | | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCMT060202-F1 | 02960383 | 02614299 | | 00096853 | | | | | 02754786 | 02754435 | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCMT060204-F1 | 02960856 | 02615873 | 03062942 | 00096854 | | 02825858 | | | 02754791 | 02754792 | 2 *(0.079)* | 0,1-0,22 *(0.0039-0.0087)* |
| CCMT09T302-F1 | 02960837 | | | 00096856 | | | | | 02754805 | 02754806 | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCMT09T304-F1 | 02960844 | 02615874 | 03063856 | 00096857 | | 02731806 | | | 02754811 | 02754812 | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCMT09T308-F1 | 02960853 | 02615876 | 03063857 | 00096858 | | 02731807 | | | | 02754821 | 2,5 *(0.098)* | 0,1-0,3 *(0.0039-0.0118)* |
| CCMW060202F-L1 | | | | | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCMW060204F-L1 | | | | | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCMW09T304F-L1 | | | | | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCMW09T308F-L1 | | | | | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| TCGT110201-F1 | | | | 02430376 | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| TCGT110204 | | | | | | | | 00000721 | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| TCGW110204E-L1-C | | | | | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| TCGW110204S-01020-LF | | | | | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| TCGW110208E-L1-C | | | | | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| TCGW110208S-01020-LF | | | | | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| TCMT110202-F1 | | | | 02430419 | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| TCMT110204-F1 | 02960401 | | | 02430421 | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| TCMT110208-F1 | 02960403 | | | 00098986 | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| TCMW110204F-L1 | | | | | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| WBGT030100 | | | | | | | | 00083089 | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| WBGT030102 | | | | | | | | 00091845 | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| WBGT030102L | | | | 02416632 | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| WBGW030102 | | | | | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |

The table continues on next page.

For recommended cutting speeds, see pages 659-662

# Inserts, recommended for fine boring, with cutting data

| Designation | CBN | | | | PCD | | Depth of cut $a_p$ mm *(inch)* | Feed per tooth f mm *(inch)* |
|---|---|---|---|---|---|---|---|---|
| | CBN010 | CBN060K | CBN200 | 81B1 | PCD20 | 91J3 | | |
| CCGT060200 | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCGT0602005-F1 | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCGT060201-F1 | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCGT060202 | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCGT060204 | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCGT060204L-UX | | | | | | | 2 *(0.079)* | 0,1-0,22 *(0.0039-0.0087)* |
| CCGT09T301-F1 | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCGT09T302 | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCGT09T304 | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCGT09T304L-UX | | | | | | | 2,5 *(0.098)* | 0,1-0,3 *(0.0039-0.0118)* |
| CCGW060202S-01020-LF | | | 02464698 | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCGW060204E-L1-B | 02843086 | 02776337 | 02649599 | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCGW060204S-01020-LF | 02916281 | | 02464699 | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCGW09T304E-L1-B | 02843126 | 02776338 | 02649607 | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCGW09T304S-01020-LF | 02916282 | | 02464702 | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCGW09T308E-L1-B | 02937148 | | 02649608 | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCGW09T308S-01020-LF | | | 02464703 | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCMT060202-F1 | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCMT060204-F1 | | | | | | | 2 *(0.079)* | 0,1-0,22 *(0.0039-0.0087)* |
| CCMT09T302-F1 | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCMT09T304-F1 | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCMT09T308-F1 | | | | | | | 2,5 *(0.098)* | 0,1-0,3 *(0.0039-0.0118)* |
| CCMW060202F-L1 | | | | | 00089760 | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCMW060204F-L1 | | | | | 00005684 | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCMW09T304F-L1 | | | | | 00005686 | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| CCMW09T308F-L1 | | | | | 00095357 | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| TCGT110201-F1 | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| TCGT110204 | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| TCGW110204E-L1-C | 02848657 | 02776346 | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| TCGW110204S-01020-LF | | | 02464742 | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| TCGW110208E-L1-C | 02848792 | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| TCGW110208S-01020-LF | | | 02464744 | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| TCMT110202-F1 | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| TCMT110204-F1 | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| TCMT110208-F1 | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| TCMW110204F-L1 | | | | | 00005689 | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| WBGT030100 | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| WBGT030102 | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| WBGT030102L | | | | | | | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |
| WBGW030102 | | | | 00096761 | | 00096763 | 0,01-0,3 *(0.000394-0.01181)* | 0,03-0,15 *(0.0011811-0.0059055)* |

For recommended cutting speeds, see pages 659-662

## Recommended cutting speeds for boring (related to workpiece material and insert grade) – metric

| SMG | $v_c$ (m/min) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | KX & HX | 03 | TP40 | TP1501 | TP2501 | TP3501 | TK0501 | TK1501 | TH1000 | TH1500 | CP500 |
| P1 | | | 60-180 | 60-350 | 60-250 | 60-230 | | | | | 80-200 |
| P2 | | | 60-180 | 60-350 | 60-250 | 60-230 | | | | | 80-200 |
| P3 | | | 60-180 | 60-350 | 60-250 | 60-230 | | | | | 80-200 |
| P4 | | | 60-180 | 60-350 | 60-250 | 60-230 | | | | | 80-200 |
| P5 | | | 60-150 | 60-300 | 60-250 | 60-230 | | | | | 80-200 |
| P6 | | | 60-140 | 60-300 | 60-230 | 60-200 | | | | | 80-180 |
| P7 | | | 60-140 | 60-300 | 60-230 | 60-200 | | | | | 80-160 |
| P8 | | | 60-120 | 60-250 | 60-230 | 60-200 | | | | | 80-130 |
| P11 | | | 60-120 | 60-300 | 60-250 | 60-200 | | | | | 80-180 |
| M1 | | | 60-130 | 100-200 | 60-200 | 60-200 | | | | | 60-160 |
| M2 | | | 60-130 | 100-200 | 60-200 | 60-200 | | | | | 60-160 |
| M3 | | | 60-120 | 100-180 | 60-200 | 60-200 | | | | | 60-150 |
| M4 | | | 60-110 | 100-180 | 60-190 | 60-190 | | | | | 60-150 |
| M5 | | | 60-110 | 100-180 | 60-180 | 60-180 | | | | | 60-150 |
| K1 | | | 60-140 | 100-250 | | 60-180 | 60-230 | 60-230 | | | 60-160 |
| K2 | | | 60-140 | 100-250 | | 60-180 | 60-230 | 60-230 | | | 60-160 |
| K3 | | | 60-140 | 100-250 | | 60-180 | 60-230 | 60-230 | | | 60-160 |
| K4 | | | 60-140 | 100-250 | | 60-180 | 60-200 | 60-200 | | | 60-160 |
| K5 | | | 60-140 | 100-250 | | 60-180 | 60-200 | 60-200 | | | 60-160 |
| K6 | | | 60-130 | 100-250 | | 60-180 | 60-200 | 60-200 | | | 60-160 |
| K7 | | | 60-130 | 100-250 | | 60-180 | 60-200 | 60-200 | | | 60-160 |
| N1 | 150-800 | 150-800 | | | | | | | | | 150-800 |
| N2 | 150-800 | 150-800 | | | | | | | | | 150-800 |
| N3 | 150-500 | 150-500 | | | | | | | | | 150-500 |
| N11 | 150-400 | 150-400 | | | | | | | | | 150-400 |
| S1 | 20-50 | 20-50 | | | | | | | | | 20-50 |
| S2 | 20-50 | 20-50 | | | | | | | | | 20-50 |
| S3 | 20-50 | 20-50 | | | | | | | | | 20-50 |
| S11 | 20-50 | 20-50 | | | | | | | | | 20-50 |
| S12 | 20-50 | 20-50 | | | | | | | | | 20-50 |
| S13 | 20-50 | 20-50 | | | | | | | | | 20-50 |
| H3 | | | | | | | | | 50-150 | 50-150 | |
| H5 | | | | | | | | | 50-140 | 50-140 | |
| H7 | | | | | | | | | 50-150 | 50-150 | |
| H8 | | | | | | | | | 30-130 | 30-130 | |
| H11 | | | | | | | | | 30-120 | 30-120 | |
| H12 | | | | | | | | | 30-120 | 30-120 | |
| H21 | | | | | | | | | | | |
| H31 | | | | | | | | | | | |

SMG = Seco material group $V_c$ = m/min (sf/min) All cutting data are start values

## Recommended cutting speeds for boring (related to workpiece material and insert grade) – *Inch*

| SMG | $v_c$ *(sf/min)* | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | KX & HX | 03 | TP40 | TP1501 | TP2501 | TP3501 | TK0501 | TK1501 | TH1000 | TH1500 | CP500 |
| P1 | | | 197-591 | 197-1148 | 197-820 | 197-755 | | | | | 262-656 |
| P2 | | | 197-591 | 197-1148 | 197-820 | 197-755 | | | | | 262-656 |
| P3 | | | 197-591 | 197-1148 | 197-820 | 197-755 | | | | | 262-656 |
| P4 | | | 197-591 | 197-1148 | 197-820 | 197-755 | | | | | 262-656 |
| P5 | | | 197-492 | 197-984 | 197-820 | 197-755 | | | | | 262-656 |
| P6 | | | 197-459 | 197-984 | 197-755 | 197-656 | | | | | 262-591 |
| P7 | | | 197-459 | 197-984 | 197-755 | 197-656 | | | | | 262-525 |
| P8 | | | 197-394 | 197-820 | 197-755 | 197-656 | | | | | 262-427 |
| P11 | | | 197-394 | 197-984 | 197-820 | 197-656 | | | | | 262-591 |
| M1 | | | 197-427 | 328-656 | 197-656 | 197-656 | | | | | 197-525 |
| M2 | | | 197-427 | 328-656 | 197-656 | 197-656 | | | | | 197-525 |
| M3 | | | 197-394 | 328-591 | 197-656 | 197-656 | | | | | 197-492 |
| M4 | | | 197-361 | 328-591 | 197-623 | 197-623 | | | | | 197-492 |
| M5 | | | 197-361 | 328-591 | 197-591 | 197-591 | | | | | 197-492 |
| K1 | | | 197-459 | 328-820 | | 197-591 | 197-755 | 197-755 | | | 197-525 |
| K2 | | | 197-459 | 328-820 | | 197-591 | 197-755 | 197-755 | | | 197-525 |
| K3 | | | 197-459 | 328-820 | | 197-591 | 197-755 | 197-755 | | | 197-525 |
| K4 | | | 197-459 | 328-820 | | 197-591 | 197-656 | 197-656 | | | 197-525 |
| K5 | | | 197-459 | 328-820 | | 197-591 | 197-656 | 197-656 | | | 197-525 |
| K6 | | | 197-427 | 328-820 | | 197-591 | 197-656 | 197-656 | | | 197-525 |
| K7 | | | 197-427 | 328-820 | | 197-591 | 197-656 | 197-656 | | | 197-525 |
| N1 | 492-2625 | 492-2625 | | | | | | | | | 492-2625 |
| N2 | 492-2625 | 492-2625 | | | | | | | | | 492-2625 |
| N3 | 492-1640 | 492-1640 | | | | | | | | | 492-1640 |
| N11 | 492-1312 | 492-1312 | | | | | | | | | 492-1312 |
| S1 | 66-164 | 66-164 | | | | | | | | | 66-164 |
| S2 | 66-164 | 66-164 | | | | | | | | | 66-164 |
| S3 | 66-164 | 66-164 | | | | | | | | | 66-164 |
| S11 | 66-164 | 66-164 | | | | | | | | | 66-164 |
| S12 | 66-164 | 66-164 | | | | | | | | | 66-164 |
| S13 | 66-164 | 66-164 | | | | | | | | | 66-164 |
| H3 | | | | | | | | | 164-492 | 164-492 | |
| H5 | | | | | | | | | 164-459 | 164-459 | |
| H7 | | | | | | | | | 164-492 | 164-492 | |
| H8 | | | | | | | | | 98-427 | 98-427 | |
| H11 | | | | | | | | | 98-394 | 98-394 | |
| H12 | | | | | | | | | 98-394 | 98-394 | |
| H21 | | | | | | | | | | | |
| H31 | | | | | | | | | | | |

SMG = Seco material group $V_c$ = m/min (sf/min) All cutting data are start values

## Recommended cutting speeds for boring (related to workpiece material and insert grade) – metric

| SMG | $v_c$ (m/min) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 26 | 25 | TS2000 | TP1020 | TP1030 | 51 | CBN10/ CBN010 | 81 | CBN200 | 82 | PCD20 | 91 | Axiabore |
| P1 | 80-200 | 60-180 | | 100-350 | 100-350 | 100-350 | | | | | | | 80-250 |
| P2 | 80-200 | 60-180 | | 100-350 | 100-350 | 100-350 | | | | | | | 80-250 |
| P3 | 80-200 | 60-180 | | 100-350 | 100-350 | 100-350 | | | | | | | 80-250 |
| P4 | 80-200 | 60-180 | | 100-350 | 100-350 | 100-350 | | | | | | | 80-250 |
| P5 | 80-200 | 60-180 | | 100-350 | 100-350 | 100-350 | | | | | | | 70-230 |
| P6 | 80-180 | 60-160 | | 100-300 | 100-300 | 100-300 | | | | | | | 70-230 |
| P7 | 80-160 | 60-160 | | 100-250 | 100-250 | 100-250 | | | | | | | 70-230 |
| P8 | 80-130 | 60-130 | | 100-250 | 100-250 | 100-250 | | | | | | | 70-200 |
| P11 | 80-180 | 60-150 | | 100-300 | 100-300 | 100-300 | | | | | | | 70-200 |
| M1 | 60-160 | 60-140 | 60-200 | 80-200 | 80-200 | 80-200 | | | | | | | 60-200 |
| M2 | 60-160 | 60-140 | 60-200 | 80-200 | 80-200 | 80-200 | | | | | | | 60-200 |
| M3 | 60-150 | 60-130 | 60-200 | 80-200 | 80-200 | 80-200 | | | | | | | 60-180 |
| M4 | 60-150 | 60-120 | 60-180 | 80-180 | 80-180 | 80-180 | | | | | | | 60-170 |
| M5 | 60-150 | 60-120 | 60-180 | 80-180 | 80-180 | 80-180 | | | | | | | 60-170 |
| K1 | 60-160 | 60-160 | | 100-250 | 100-250 | 100-250 | | | 300-1000 | 300-1000 | | | 60-150 |
| K2 | 60-160 | 60-160 | | 100-250 | 100-250 | 100-250 | | | 300-1000 | 300-1000 | | | 60-150 |
| K3 | 60-160 | 60-160 | | 100-250 | 100-250 | 100-250 | | | 300-1000 | 300-1000 | | | 60-150 |
| K4 | 60-160 | 60-160 | | 100-250 | 100-250 | 100-250 | | | 300-1000 | 300-1000 | | | 60-130 |
| K5 | 60-160 | 60-160 | | 100-250 | 100-250 | 100-250 | | | | | | | 50-100 |
| K6 | 60-160 | 60-160 | | 100-180 | 100-180 | 100-180 | | | | | | | 50-100 |
| K7 | 60-160 | 60-160 | | 100-180 | 100-180 | 100-180 | | | | | | | 50-100 |
| N1 | 150-800 | | | | | | | | | | 300-1500 | 300-1500 | 200-800 |
| N2 | 150-800 | | | | | | | | | | 300-1500 | 300-1500 | 200-800 |
| N3 | 150-500 | | | | | | | | | | 200-800 | 200-800 | 200-800 |
| N11 | 150-400 | | | | | | | | | | 180-800 | 180-800 | 200-800 |
| S1 | 20-50 | | 20-80 | | | | | | | | | | 20-60 |
| S2 | 20-50 | | 20-80 | | | | | | | | | | 20-60 |
| S3 | 20-50 | | 20-80 | | | | | | | | | | 60-50 |
| S11 | 20-50 | | 20-80 | | | | | | | | | | 20-50 |
| S12 | 20-50 | | 20-80 | | | | | | | | | | 20-50 |
| S13 | 20-50 | | 20-80 | | | | | | | | | | 20-50 |
| H3 | | | | | | | 80-180 | 80-180 | | | | | |
| H5 | | | | | | | 80-200 | 80-200 | | | | | |
| H7 | | | | | | | 80-150 | 80-150 | | | | | |
| H8 | | | | | | | 80-150 | 80-150 | | | | | |
| H11 | | | | | | | | | | | | | |
| H12 | | | | | | | | | | | | | |
| H21 | | | | | | | | | | | | | |
| H31 | | | | | | | | | | | | | |

SMG = Seco material group $V_c$ = m/min (sf/min) All cutting data are start values

## Recommended cutting speeds for boring (related to workpiece material and insert grade) – *Inch*

| SMG | $v_c$ *(sf/min)* | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 26 | 25 | TS2000 | TP1020 | TP1030 | 51 | CBN10/ CBN010 | 81 | CBN200 | 82 | PCD20 | 91 | Axiabore |
| P1 | 262-656 | 197-591 | | 328-1148 | 328-1148 | 328-1148 | | | | | | | 262-820 |
| P2 | 262-656 | 197-591 | | 328-1148 | 328-1148 | 328-1148 | | | | | | | 262-820 |
| P3 | 262-656 | 197-591 | | 328-1148 | 328-1148 | 328-1148 | | | | | | | 262-820 |
| P4 | 262-656 | 197-591 | | 328-1148 | 328-1148 | 328-1148 | | | | | | | 262-820 |
| P5 | 262-656 | 197-591 | | 328-1148 | 328-1148 | 328-1148 | | | | | | | 230-755 |
| P6 | 262-591 | 197-525 | | 328-984 | 328-984 | 328-984 | | | | | | | 230-755 |
| P7 | 262-525 | 197-525 | | 328-820 | 328-820 | 328-820 | | | | | | | 230-755 |
| P8 | 262-427 | 197-427 | | 328-820 | 328-820 | 328-820 | | | | | | | 230-656 |
| P11 | 262-591 | 197-492 | | 328-984 | 328-984 | 328-984 | | | | | | | 230-656 |
| M1 | 197-525 | 197-459 | 197-656 | 262-656 | 262-656 | 262-656 | | | | | | | 197-656 |
| M2 | 197-525 | 197-459 | 197-656 | 262-656 | 262-656 | 262-656 | | | | | | | 197-656 |
| M3 | 197-492 | 197-427 | 197-656 | 262-656 | 262-656 | 262-656 | | | | | | | 197-591 |
| M4 | 197-492 | 197-394 | 197-591 | 262-591 | 262-591 | 262-591 | | | | | | | 197-558 |
| M5 | 197-492 | 197-394 | 197-591 | 262-591 | 262-591 | 262-591 | | | | | | | 197-558 |
| K1 | 197-525 | 197-525 | | 328-820 | 328-820 | 328-820 | | | 984-3281 | 984-3281 | | | 197-492 |
| K2 | 197-525 | 197-525 | | 328-820 | 328-820 | 328-820 | | | 984-3281 | 984-3281 | | | 197-492 |
| K3 | 197-525 | 197-525 | | 328-820 | 328-820 | 328-820 | | | 984-3281 | 984-3281 | | | 197-492 |
| K4 | 197-525 | 197-525 | | 328-820 | 328-820 | 328-820 | | | 984-3281 | 984-3281 | | | 197-427 |
| K5 | 197-525 | 197-525 | | 328-820 | 328-820 | 328-820 | | | | | | | 164-328 |
| K6 | 197-525 | 197-525 | | 328-591 | 328-591 | 328-591 | | | | | | | 164-328 |
| K7 | 197-525 | 197-525 | | 328-591 | 328-591 | 328-591 | | | | | | | 164-328 |
| N1 | 492-2625 | | | | | | | | | | 984-4921 | 984-4921 | 656-2625 |
| N2 | 492-2625 | | | | | | | | | | 984-4921 | 984-4921 | 656-2625 |
| N3 | 492-1640 | | | | | | | | | | 656-2625 | 656-2625 | 656-2625 |
| N11 | 492-1312 | | | | | | | | | | 591-2625 | 591-2625 | 656-2625 |
| S1 | 66-164 | | 66-262 | | | | | | | | | | 66-197 |
| S2 | 66-164 | | 66-262 | | | | | | | | | | 66-197 |
| S3 | 66-164 | | 66-262 | | | | | | | | | | 197-164 |
| S11 | 66-164 | | 66-262 | | | | | | | | | | 66-164 |
| S12 | 66-164 | | 66-262 | | | | | | | | | | 66-164 |
| S13 | 66-164 | | 66-262 | | | | | | | | | | 66-164 |
| H3 | | | | | | | 262-591 | 262-591 | | | | | |
| H5 | | | | | | | 262-656 | 262-656 | | | | | |
| H7 | | | | | | | 262-492 | 262-492 | | | | | |
| H8 | | | | | | | 262-492 | 262-492 | | | | | |
| H11 | | | | | | | | | | | | | |
| H12 | | | | | | | | | | | | | |
| H21 | | | | | | | | | | | | | |
| H31 | | | | | | | | | | | | | |

SMG = Seco material group $V_c$ = m/min (sf/min) All cutting data are start values

# Insert locking keys and screws of all boring insert holders, tools and cartridges

| | | Accessories | | Spare Parts | |
|---|---|---|---|---|---|
| | | Torx driver for insert locking screw* | | Insert locking screw | |
| | For insert size | Designation | Torx Plus | Designation | Torx Plus |
| For rough boring insert holders | CP...0502 | T07P-3 | 07 | C02245-T07P | 07 |
| | CC...0602 | T07P-3 | 07 | C02504-T07P | 07 |
| | CC...09T3 | T15P-3 | 15 | C04008-T15P | 15 |
| | CC...1204 | T15P-3 | 15 | C05012-T15P | 15 |
| | CC...1605 | T15P-3 | 15 | C05012-T15P | 15 |
| | SC...0502 | T07P-3 | 07 | C02245-T07P | 07 |
| | SC...0602 | T07P-3 | 07 | C02504-T07P | 07 |
| | SC...09T3 | T15P-3 | 15 | C04008-T15P | 15 |
| | SC...1204 | T15P-3 | 15 | C05012-T15P | 15 |
| | SC...1505 | T15P-3 | 15 | C05012-T15P | 15 |

* One Torx driver is delivered with each rough boring head.

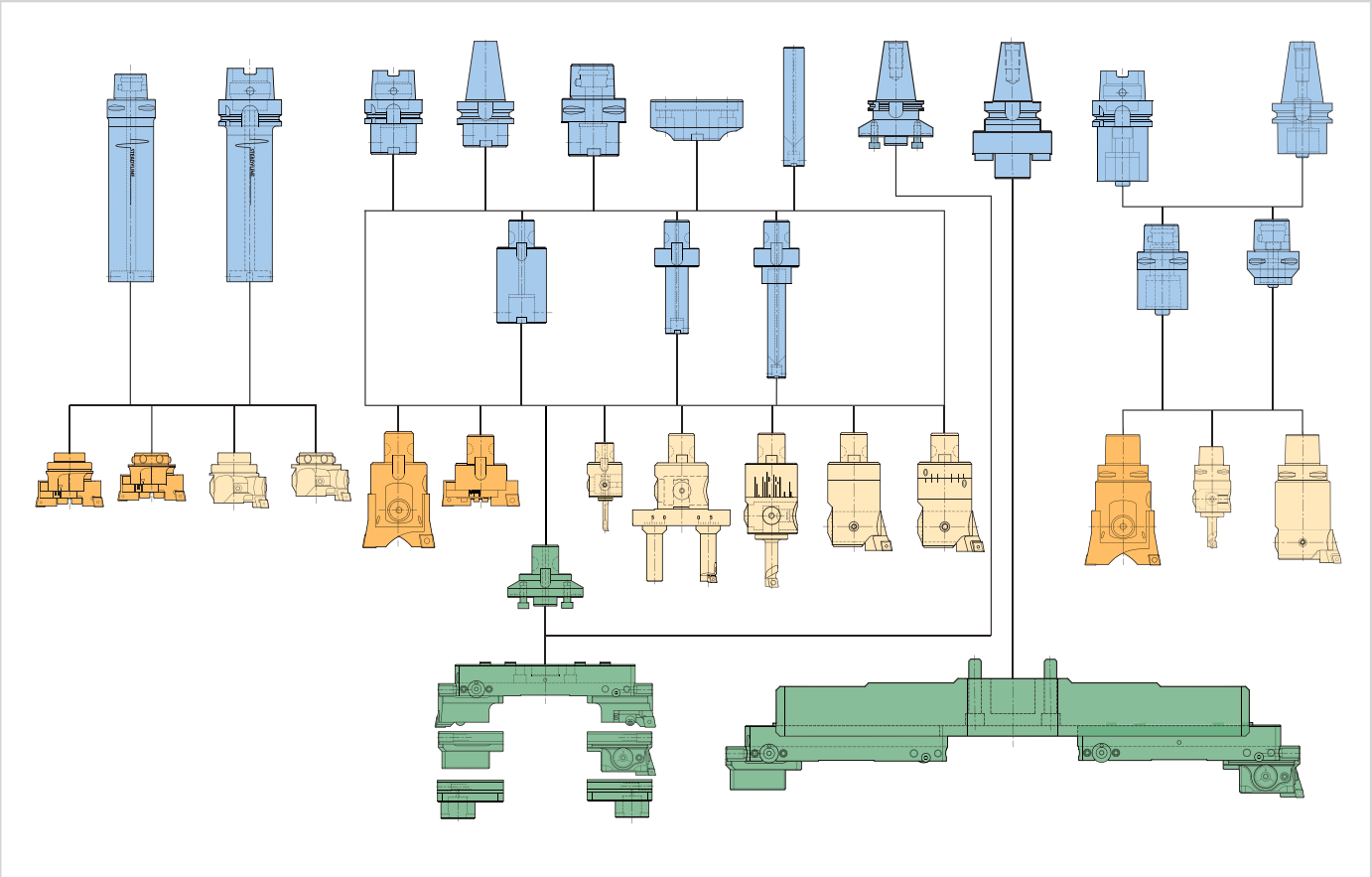
| | | Accessories | | Spare Parts | |
|---|---|---|---|---|---|
| | | Torx driver for insert locking screw* | | Insert locking screw | |
| | For insert size | Designation | Torx Plus | Designation | Torx Plus |
| For Axiabore™ type tool | WB...0301... | T06P-3 | 06 | C02035-T06P | 06 |
| | CC...0602... | T07P-3 | 07 | C02504-T07P | 07 |
| | – | T15P-3 | 15 | C04008-T15P | 15 |

# Spare parts for insert holders

| | | Spare Parts | | | |
|---|---|---|---|---|---|
| | | Insert key | | Insert screw | |
| | For insert size | Designation | Torx Plus | Designation | Torx Plus |
| For fine boring insert holders, chamfering insert holders and back boring insert holders | WB...0301... | T06P-2 | 06 | C02035-T06P | 06 |
| | CC...0602... | T07P-3 | 07 | C02504-T07P | 07 |
| | CC...09T3... | T15P-3 | 15 | C04008-T15P | 15 |
| | TC...1102... | T07P-3 | 07 | C02504-T07P | 07 |

| | | Accessories | | Spare Parts | |
|---|---|---|---|---|---|
| | | Torx driver for insert locking screw* | | Insert locking screw | |
| | For insert size | Designation | Torx Plus | Designation | Torx Plus |
| For cartridges | CC...16... | T15P-2 | 15 | C05012-T15P | 15 |
| | SC...15... | T15P-2 | 15 | C05012-T15P | 15 |
| | TC...16... | T15P-2 | 15 | C03509-T15P | 15 |
| | TC...22... | T15P-2 | 15 | C05012-T15P | 15 |

# Suitable holders for boring heads



## The boring heads feature Graflex®, Seco-Capto™, GL or BA machine side connection

The boring heads can be used on any machine type, using the suitable Graflex® adapter, Seco-Capto™ adapter or Steadyline® vibration boring/turning bar.

**Steadyline® vibration damping for boring operations**
Boring heads with GL or BA machine side connections are designed to be mounted on Steadyline® boring/turning bars with HSK-T/A and Seco-Capto™ machine side connections. This allows to perform rough and fine boring operations with 6xD, 8xD and 10xD projections, in very stable conditions.

**Modular Graflex® and Seco-Capto™ boring bars**
All bore lengths up to 6xD can be reached by selecting the required Graflex® intermediates, e.g. the extra-long ones with extension section in carbide. Highest assembly rigidity is obtained by selecting the longest and widest arbor possible, then completing with smaller intermediates.

The Graflex® and Seco-Capto™ connections guarantees a unique orientation of the boring heads, achieving a cutting edge orientation according to ISO. The Graflex® modules are designed to be clamped together by the side.

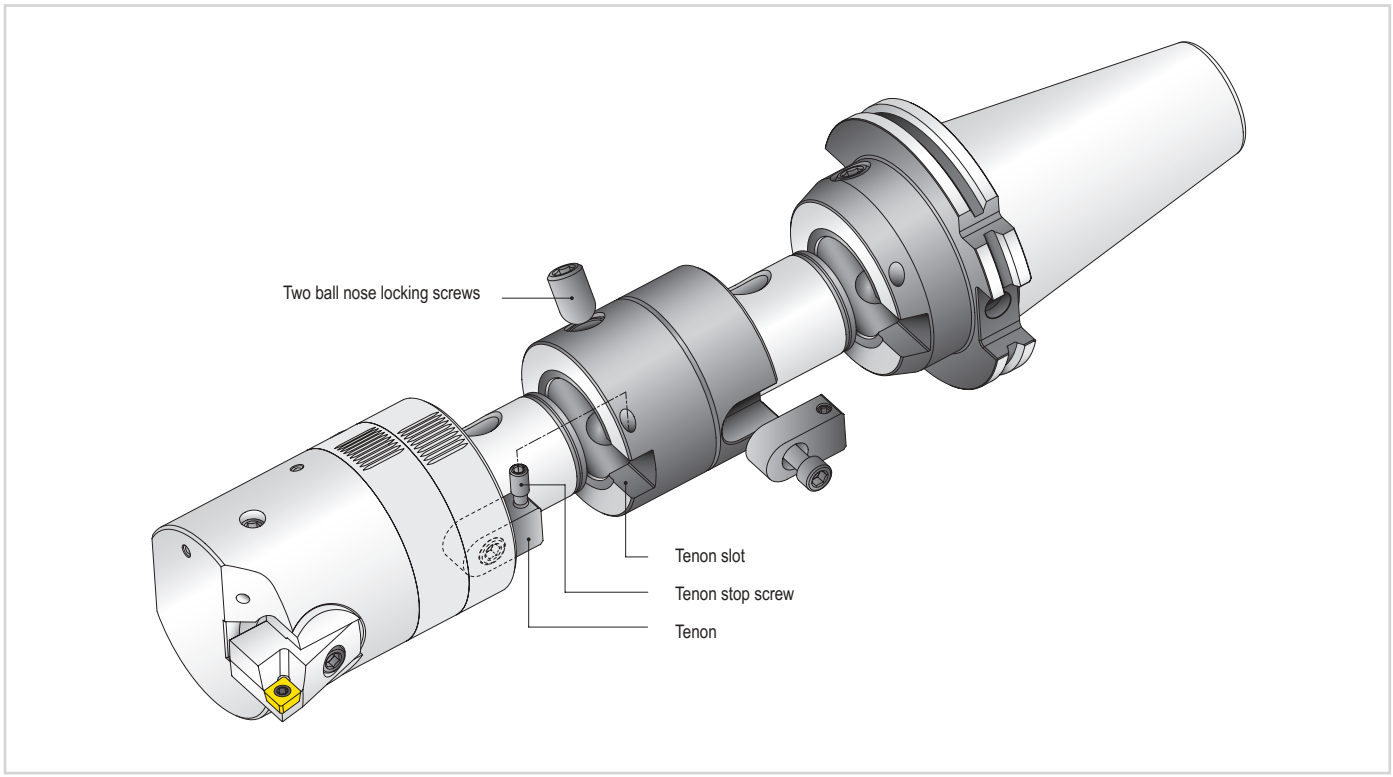
For boring heads with GL machine side connection for Steadyline®, select the shortest Steadyline® bar from the Tooling Systems catalog. These bar exist with HSK-T/A and Seco-Capto™ machine side connection. Other spindle types can be equipped, using the shortest Seco-Capto™ adapters.
For classic boring heads (steel), select the classic Graflex® and Seco-Capto™ arbors and intermediates from the Tooling Systems catalog.
For Bridge bars, see Graflex® adapters and direct holders page 644.

**Note!** Jumbo Bridge bars are designed to be held on milling cutter holders or to be fitted directly on a machine's spindle front.

# Locking advice for Graflex® classic connection shanks G. on boring heads (using a tenon with stop screw).

For boring, no need to tighten the tenon's stop screw, as the connection's self locking action is allowed.
For rough boring in heavy duty, we recommend to apply the 'high value' torques for the Graflex® ball nose screws.

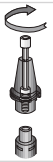
See also the detailed 'Graflex® connection assembly procedure' in the Tooling Systems catalog.



# Locking advice for Seco-Capto™ connection shanks C. on boring heads: No specific advice. For boring heads, the general instructions are applicable, see below.

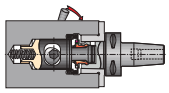
Tightening torques for Seco-Capto™ receivers connections with center bolt clamping (Basic Holders, Intermediates).

| Seco-Capto Size | Centre bolt tightening torque (Nm) | Centre bolt tightening torque (ft/lbs) |
|---|---|---|
| C3 | 40-50 | 30-37 |
| C4 | 50-60 | 37-44 |
| C5 | 90-100 | 66-74 |
| C6 | 160-180 | 118-133 |
| C8 | 160-180 | 118-133 |



Tightening torques for Seco-Capto™ receivers connections with segment clamping, actuated by cam shaft side locking (Flange Mounts.)

| Seco-Capto Size | Cam tightening torque (Nm) | Cam tightening torque (ft/lbs) |
|---|---|---|
| C3 | 35 | 26 |
| C4 | 50 | 37 |
| C5 | 70 | 52 |
| C6 | 90 | 66 |
| C8 | 130 | 96 |

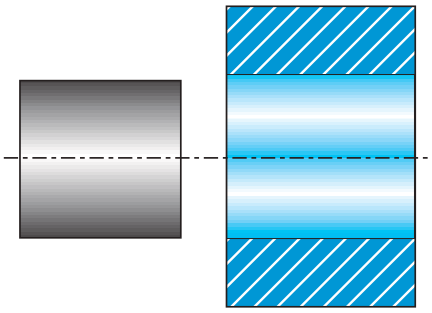


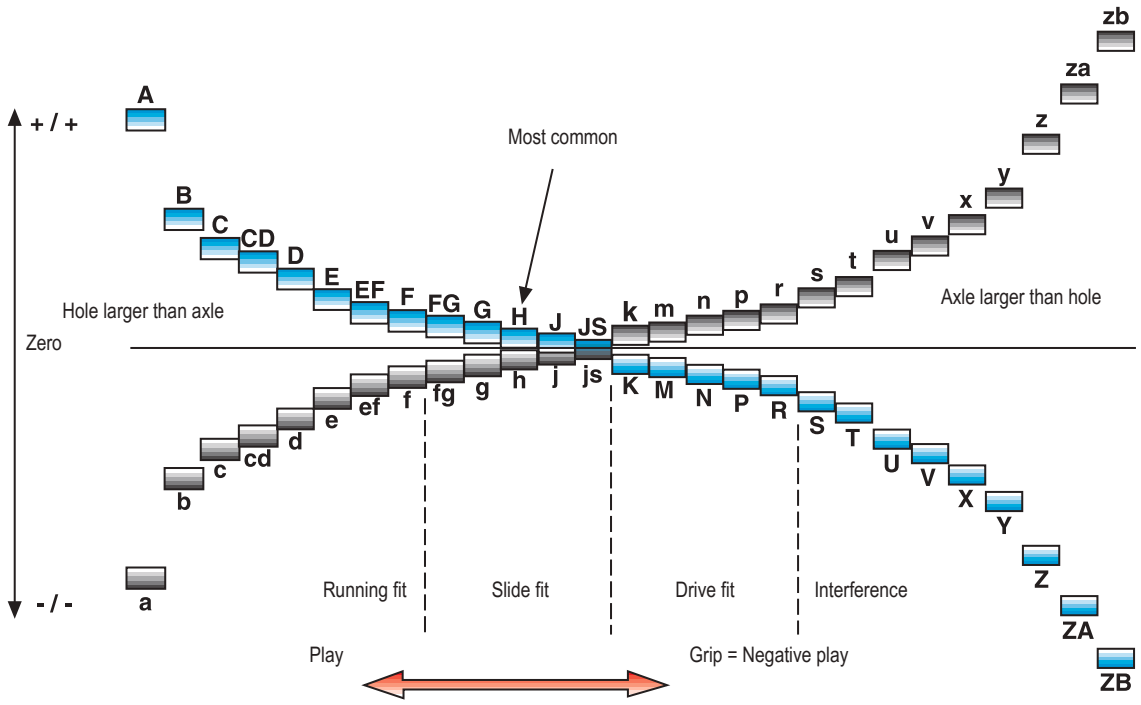
The Seco-Capto™ joint features a self-locking taper. Where the center bolt system is used, unscrew the centre bolt until the bolt head makes contact with the tool holder, causing the bolt to force the taper joint apart. When using the cam shaft side clamping system, over untightening of the cam will force the taper joint apart.

# ISO Standard tolerance for hole and shaft – Axle tolerances

Axle tolerance position is denominated with **small letters**

Bore tolerance position is denominated with **CAPITAL LETTERS**





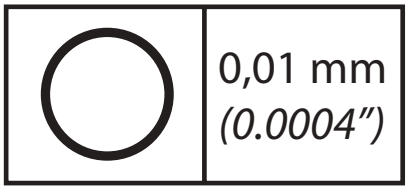
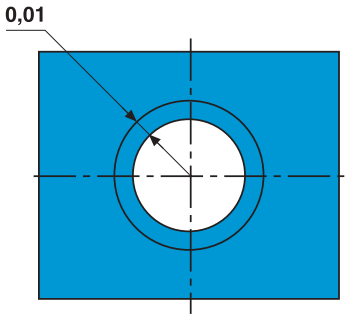
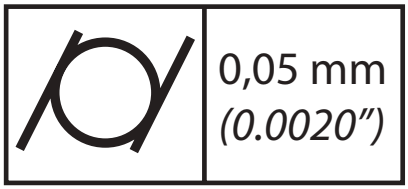
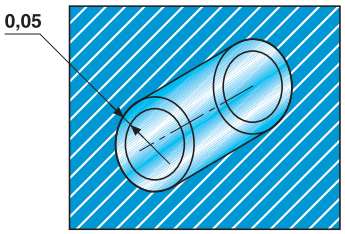
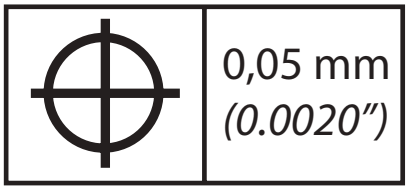
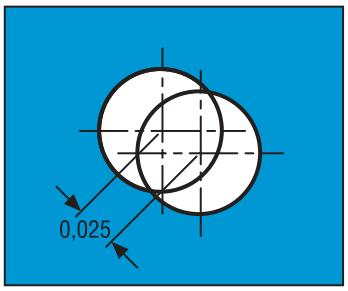
# ISO tolerance table

| ISO tolerances for holes (µm) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hole ∅ mm (inch) | D10 | E9 | F7 | F8 | G7 | G9 | H6 | H7 | H8 | H9 | H10 | H11 | H12 |
| ≤ 3 *(0.118")* | +60<br>+20 | +39<br>+14 | +16<br>+6 | +20<br>+6 | +12<br>+2 | +27<br>+2 | +6<br>0 | +10<br>0 | +14<br>0 | +25<br>0 | +40<br>0 | +60<br>0 | +100<br>0 |
| 3 ≥ 6 *(0.236")* | +78<br>+30 | +50<br>+20 | +22<br>+10 | +28<br>+10 | +16<br>+4 | +34<br>+4 | +8<br>0 | +12<br>0 | +18<br>0 | +30<br>0 | +48<br>0 | +75<br>0 | +120<br>0 |
| 6 ≥ 10 *(0.394")* | +98<br>+40 | +61<br>+25 | +28<br>+13 | +35<br>+13 | +20<br>+5 | +41<br>+5 | +9<br>0 | +15<br>0 | +22<br>0 | +36<br>0 | +58<br>0 | +90<br>0 | +150<br>0 |
| 10 ≥ 18 *(0.708")* | +120<br>+50 | +75<br>+32 | +34<br>+16 | +43<br>+16 | +24<br>+6 | +49<br>+6 | +11<br>0 | +18<br>0 | +27<br>0 | +43<br>0 | +70<br>0 | +110<br>0 | +180<br>0 |
| 18 ≥ 30 *(1.181")* | +149<br>+65 | +92<br>+40 | +41<br>+20 | +53<br>+20 | +28<br>+7 | +59<br>+7 | +13<br>0 | +21<br>0 | +33<br>0 | +52<br>0 | +84<br>0 | +130<br>0 | +210<br>0 |
| 30 ≥ 50 *(1.969")* | +180<br>+80 | +112<br>+50 | +50<br>+25 | +64<br>+25 | +34<br>+9 | +71<br>+9 | +16<br>0 | +25<br>0 | +39<br>0 | +62<br>0 | +100<br>0 | +160<br>0 | +250<br>0 |
| 50 ≥ 65 *(2.559")* | +220<br>+100 | +134<br>+60 | +60<br>+30 | +76<br>+30 | +40<br>+10 | - | +19<br>0 | +30<br>0 | +46<br>0 | +74<br>0 | +120<br>0 | +190<br>0 | +300<br>0 |
| 65 ≥ 80 *(3.150")* | | | | | | | | | | | | | |
| 80 ≥ 100 *(3.937")* | +260<br>+120 | +159<br>+72 | +71<br>+36 | +90<br>+36 | +47<br>+12 | - | +22<br>0 | +35<br>0 | +54<br>0 | +87<br>0 | +140<br>0 | +220<br>0 | +350<br>0 |
| 100 ≥ 120 *(4.724")* | | | | | | | | | | | | | |
| 120 ≥ 140 *(5.512")* | +305<br>+145 | +185<br>+85 | +83<br>+43 | +106<br>+43 | +54<br>+14 | - | +25<br>0 | +40<br>0 | +63<br>0 | +100<br>0 | +160<br>0 | +250<br>0 | +400<br>0 |
| 140 ≥ 160 *(6.299")* | | | | | | | | | | | | | |
| 160 ≥ 180 *(7.087")* | | | | | | | | | | | | | |
| 180 ≥ 200 *(7.874")* | +355<br>+170 | +215<br>+110 | +96<br>+50 | +122<br>+50 | +61<br>+15 | - | +29<br>0 | +46<br>0 | +72<br>0 | +115<br>0 | +185<br>0 | +290<br>0 | +460<br>0 |
| 200 ≥ 225 *(8.858")* | | | | | | | | | | | | | |
| 225 ≥ 250 *(9.843")* | | | | | | | | | | | | | |
| 250 ≥ 280 *(11.0236")* | +400<br>+190 | +240<br>+110 | +108<br>+56 | +137<br>+56 | +69<br>+17 | - | +32<br>0 | +52<br>0 | +81<br>0 | +130<br>0 | 210<br>0 | +320<br>0 | +520<br>0 |
| 280 ≥ 315 *(12.402")* | | | | | | | | | | | | | |
| 315 ≥ 355 *(13.976")* | +440<br>+210 | +265<br>+125 | +119<br>+62 | +151<br>+62 | +75<br>+18 | - | +36<br>0 | +57<br>0 | +89<br>0 | +140<br>0 | +230<br>0 | +360<br>0 | +570<br>0 |
| 355 ≥ 400 *(15.748")* | | | | | | | | | | | | | |

# ISO tolerance table

| ISO tolerances for holes (µm) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hole ∅ mm (inch) | H13 | JS7 | JS9 | K6 | K7 | M6 | M7 | N7 | N9 | P7 | P9 | R7 |
| ≤ 3 *(0.118")* | +140<br>0 | +/-5 | +/-12,5 | 0<br>-6 | 0<br>-10 | -2<br>-8 | -2<br>-12 | -4<br>-14 | -4<br>-29 | -6<br>-16 | -6<br>-31 | -10<br>-20 |
| 3 ≥ 6 *(0.236")* | +180<br>0 | +/-6 | +/-15 | +2<br>-6 | +3<br>-9 | -1<br>-9 | 0<br>-12 | -4<br>-16 | 0<br>-30 | -8<br>-20 | -12<br>-42 | -11<br>-23 |
| 6 ≥ 10 *(0.394")* | +220<br>0 | +/-7,5 | +/-18 | +2<br>-7 | +5<br>-10 | -3<br>-12 | 0<br>-15 | -4<br>-19 | 0<br>-36 | -9<br>-24 | -15<br>-51 | -13<br>-28 |
| 10 ≥ 18 *(0.708")* | +270<br>0 | +/-9 | +/-21,5 | +2<br>-9 | +6<br>-12 | -4<br>-15 | 0<br>-18 | -5<br>-23 | 0<br>-43 | -11<br>-29 | -18<br>-61 | -16<br>-34 |
| 18 ≥ 30 *(1.181")* | +330<br>0 | +/-10,5 | +/-26 | +2<br>-11 | +6<br>-15 | -4<br>-17 | 0<br>-21 | -7<br>-28 | 0<br>-52 | -14<br>-35 | -22<br>-74 | -20<br>-41 |
| 30 ≥ 50 *(1.969")* | +390<br>0 | +/-12,5 | +/-31 | +3<br>-13 | +7<br>-18 | -4<br>-20 | 0<br>-25 | -8<br>-33 | 0<br>-62 | -17<br>-42 | -26<br>-88 | -25<br>-50 |
| 50 ≥ 65 *(2.559")* | +460<br>0 | +/-15 | +/-37 | +4<br>-15 | +9<br>-21 | -5<br>-24 | 0<br>-30 | -9<br>-39 | 0<br>-74 | -21<br>-51 | -32<br>-106 | -30<br>-62 |
| 65 ≥ 80 *(3.150")* | | | | | | | | | | | | |
| 80 ≥ 100 *(3.937")* | +260<br>+120 | +159<br>+72 | +71<br>+36 | +90<br>+36 | +47<br>+12 | - | +22<br>0 | +35<br>0 | +54<br>0 | +87<br>0 | +140<br>0 | +350<br>0 |
| 100 ≥ 120 *(4.724")* | | | | | | | | | | | | |
| 120 ≥ 140 *(5.512")* | +305<br>+145 | +185<br>+85 | +83<br>+43 | +106<br>+43 | +54<br>+14 | - | +25<br>0 | +40<br>0 | +63<br>0 | +100<br>0 | +160<br>0 | +400<br>0 |
| 140 ≥ 160 *(6.299")* | | | | | | | | | | | | |
| 160 ≥ 180 *(7.087")* | | | | | | | | | | | | |
| 180 ≥ 200 *(7.874")* | +355<br>+170 | +215<br>+110 | +96<br>+50 | +122<br>+50 | +61<br>+15 | - | +29<br>0 | +46<br>0 | +72<br>0 | +115<br>0 | +185<br>0 | +460<br>0 |
| 200 ≥ 225 *(8.858")* | | | | | | | | | | | | |
| 225 ≥ 250 *(9.843")* | | | | | | | | | | | | |
| 250 ≥ 280 *(11.0236")* | +400<br>+190 | +240<br>+110 | +108<br>+56 | +137<br>+56 | +69<br>+17 | - | +32<br>0 | +52<br>0 | +81<br>0 | +130<br>0 | 210<br>0 | +520<br>0 |
| 280 ≥ 315 *(12.402")* | | | | | | | | | | | | |
| 315 ≥ 355 *(13.976")* | +440<br>+210 | +265<br>+125 | +119<br>+62 | +151<br>+62 | +75<br>+18 | - | +36<br>0 | +57<br>0 | +89<br>0 | +140<br>0 | +230<br>0 | +570<br>0 |
| 355 ≥ 400 *(15.748")* | | | | | | | | | | | | |

# Geometrical tolerance

| | Drawing symbol | Tolerance area |
|---|---|---|
| **Circularity** |  |  |
| **Cylindricity** |  |  |
| **Positioning localisation** |  |  |

## Cemented carbide inserts and insert carriers

Cemented carbide inserts and cemented carbide insert carriers from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.
These products meet all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.
Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.

**Regrinding:**
Wet or dry grinding can produce potentially hazardous dusts or mists that can irritate skin, eyes, nose, throat and result in lung damage or disease. To avoid injury use proper safety precautions and protective equipment.

**Disposal:**
Seco Tools will buy back used inserts and solid carbide tools for recycling. Inserts and solid carbide tools should be separated from other metal waste (steel, aluminium, copper etc).
All packing material is fully recyclable.

## CBN and PCD inserts

Inserts from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.
This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.
Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.

**Regrinding:**
Wet or dry grinding can produce potentially hazardous dusts or mists that can irritate skin, eyes, nose, throat and result in lung damage or disease. To avoid injury use proper safety precautions and protective equipment.

**Disposal:**
Seco Tools will buy back used CBN- or PCD-tipped inserts for recycling. Inserts should be separated from other metal waste (steel, aluminium, copper etc). Solid CBN-inserts may be discarded as landfill waste.
All packing material is fully recyclable.

## Black oxide insert carriers

Insert carriers from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.
This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.
Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.

**Disposal:**
Used insert carriers may be sent for recycling together with ordinary steel waste (swarf and discarded steel scrap) for recycling.
All packing material is fully recyclable.

## Cermet inserts

Inserts from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.
This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.
Cermet grade C15M inserts do contain nickel and will leach nickel when in contact with the skin. Amount of leaching is higher than specified in norm SS-EN 1811 Reference test method for release of nickel from products intended to come into direct and prolonged contact with the skin. These norms are intended for products that are in direct and prolonged contact with the skin and are therefore not directly applicable for cermet inserts. Persons with known allergic reactions to nickel are advised to wear protective gloves when handling cermet inserts.

**Regrinding:**
Wet or dry grinding can produce potentially hazardous dusts or mists that can irritate skin, eyes, nose, throat and result in lung damage or disease. To avoid injury use proper safety precautions and protective equipment.

**Disposal:**
Used inserts may be recycled. Inserts should be separated from other metal waste (steel, aluminium, copper, etc) including cemented carbide inserts.
All packing material is fully recyclable.

## Nickel coated insert carriers

Insert carriers from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.
This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.
Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.
Insert carriers do contain nickel and will leach nickel when in contact with the skin. Amount of leaching is not higher then norm SS-EN 1811 Reference test method for release of nickel from products intended to come into direct and prolonged contact with the skin.
These norms are intended for products that are in direct and prolonged contact with the skin and are therefore not directly applicable for insert carriers. Persons with known allergic reactions to nickel are advised to wear protective gloves when handling nickel coated insert carriers.

**Disposal:**
Used tools maybe sent for recycling together with ordinary steel waste (swarf and discarded steel scrap) for recycling.
All packing material is fully recyclable.

# Intentionally added alloying elements

| Grade | Cemented carbide | | | | | | | | | | | Coating | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | W | Ti | Ta | Nb | Co | Cr | Ni | Mo | C | N | Ru | Ti | Al | C | N | O | Si | Nb |
| CP20 | ■ | | | | ■ | | | | ■ | | | ■ | | | ■ | | | |
| CP200 | ■ | | | | ■ | ■ | | | ■ | | | ■ | ■ | | ■ | | | |
| CP300 | ■ | ■ | ■ | ■ | ■ | | | | ■ | | | ■ | ■ | | ■ | | | |
| CP500 | ■ | | | | ■ | ■ | | | ■ | | | ■ | ■ | | ■ | | | |
| CP600 | ■ | | | | ■ | ■ | | | ■ | | | ■ | ■ | | ■ | | | |
| C15M | ■ | ■ | ■ | ■ | ■ | | ■ | ■ | ■ | ■ | | | | | | | | |
| CF | ■ | | ■ | | ■ | | ■ | ■ | ■ | | | | | | | | | |
| CM | ■ | | ■ | | ■ | | ■ | ■ | ■ | | | | | | | | | |
| DP2000 | ■ | | ■ | ■ | ■ | | | | ■ | | | ■ | ■ | ■ | ■ | ■ | | |
| DP3000 | ■ | ■ | ■ | ■ | ■ | | | | ■ | ■ | | ■ | ■ | ■ | ■ | ■ | | |
| DS2050 | ■ | | | | ■ | ■ | | | ■ | | | ■ | ■ | | ■ | | | ■ |
| DS4050 | ■ | | | | ■ | ■ | | | ■ | | | ■ | ■ | | ■ | | | ■ |
| F15M | ■ | | | | ■ | ■ | | | ■ | | | ■ | ■ | | ■ | | | |
| F25M | ■ | ■ | ■ | ■ | ■ | | | | ■ | | | ■ | ■ | | ■ | | | |
| F30M | ■ | | | | ■ | ■ | | | ■ | | | ■ | ■ | | ■ | | | |
| F40M | ■ | | | | ■ | ■ | | | ■ | | | ■ | ■ | | ■ | | | |
| HX | ■ | | ■ | | ■ | | | | ■ | | | | | | | | | |
| H02 | ■ | | ■ | | ■ | ■ | | | ■ | | | | | | | | | |
| H15 | ■ | | | | ■ | ■ | | | ■ | | | | | | | | | |
| H25 | ■ | | | | ■ | ■ | | | ■ | | | | | | | | | |
| KX | ■ | | | | ■ | ■ | | | ■ | | | | | | | | | |
| MH1000 | ■ | | | | ■ | ■ | | | ■ | | | ■ | ■ | | ■ | | | |
| MK1500 | ■ | | ■ | | ■ | | | | ■ | | | ■ | ■ | ■ | ■ | ■ | | |
| MK2050 | ■ | | ■ | | ■ | ■ | | | ■ | | | ■ | ■ | | ■ | | ■ | |
| MM4500 | ■ | | | | ■ | ■ | | | ■ | | | ■ | ■ | ■ | ■ | ■ | | |
| MP1501 | ■ | | ■ | ■ | ■ | | | | ■ | | | ■ | ■ | ■ | ■ | ■ | | |
| MP2050 | ■ | | | | ■ | | | | | | ■ | ■ | ■ | | ■ | | ■ | |
| MP2501 | ■ | | ■ | ■ | ■ | | | | ■ | | | ■ | ■ | ■ | ■ | ■ | | |
| MP3000 | ■ | | | | ■ | ■ | | | ■ | | | ■ | ■ | | ■ | | | |
| MS2500 | ■ | | ■ | ■ | ■ | | | | ■ | | | ■ | ■ | ■ | ■ | ■ | | |
| MS2050 | ■ | | | | ■ | ■ | | | ■ | | | ■ | ■ | | ■ | | | ■ |
| RX1500 | ■ | | ■ | | ■ | | ■ | ■ | ■ | | | ■ | ■ | | ■ | | | |
| RX2000 | ■ | | ■ | | ■ | ■ | | | ■ | | | ■ | ■ | | ■ | | | |
| RM2020 | ■ | | | | ■ | | | | ■ | | | ■ | | | | | | |
| RM2090 | ■ | | | | ■ | ■ | | | ■ | | | ■ | ■ | | | | ■ | |
| RN2010 | ■ | | | | ■ | ■ | | | ■ | | | | | | | | | |
| RS2090 | ■ | | | | ■ | ■ | | | ■ | | | ■ | ■ | | | | ■ | |
| T350M | ■ | | ■ | ■ | ■ | | | | ■ | | | ■ | ■ | ■ | ■ | ■ | | |
| T25M | ■ | | ■ | ■ | ■ | | | | ■ | | | ■ | | ■ | ■ | | | |
| TGH1050 | ■ | | | | ■ | ■ | | | ■ | | | ■ | ■ | | ■ | | ■ | |
| TGK1500 | ■ | | ■ | | ■ | | | | ■ | | | ■ | ■ | ■ | ■ | ■ | | |
| TGP25 | ■ | ■ | ■ | ■ | ■ | | | | ■ | | | ■ | ■ | ■ | ■ | ■ | | |
| TGP35 | ■ | | ■ | ■ | ■ | | | | ■ | | | ■ | ■ | ■ | ■ | ■ | | |
| TGP45 | ■ | | ■ | ■ | ■ | | | | ■ | | | ■ | ■ | ■ | ■ | ■ | | |
| TGS2050 | ■ | | | | ■ | ■ | | | ■ | | | ■ | ■ | | ■ | | ■ | |
| TH1000 | ■ | | | | ■ | ■ | | | ■ | | | ■ | ■ | | ■ | | ■ | |
| TH1500 | ■ | | | | ■ | ■ | | | ■ | | | ■ | ■ | ■ | ■ | ■ | | |
| TK0501 | ■ | | | | ■ | ■ | | | ■ | | | ■ | ■ | ■ | ■ | ■ | | |
| TK1501 | ■ | | ■ | | ■ | ■ | | | ■ | | | ■ | ■ | ■ | ■ | ■ | | |
| TM1501 | ■ | ■ | ■ | ■ | ■ | ■ | | | ■ | ■ | | ■ | ■ | ■ | ■ | ■ | | |
| TM2000 | ■ | ■ | ■ | ■ | ■ | | | | ■ | ■ | | ■ | ■ | ■ | ■ | ■ | | |
| TM2501 | ■ | ■ | ■ | ■ | ■ | | | | ■ | ■ | | ■ | ■ | ■ | ■ | ■ | | |
| TM3501 | ■ | | | | ■ | | | | ■ | | | ■ | ■ | ■ | ■ | ■ | | |
| TM4000 | ■ | ■ | ■ | ■ | ■ | | | | ■ | ■ | | ■ | ■ | ■ | ■ | ■ | | |
| TP0501 | ■ | ■ | ■ | ■ | ■ | ■ | | | ■ | | | ■ | ■ | ■ | ■ | ■ | | |
| TP1020 | ■ | ■ | ■ | ■ | ■ | | | | ■ | ■ | | | | | | | | |
| TP1030 | ■ | ■ | ■ | ■ | ■ | | | | ■ | ■ | | ■ | ■ | | ■ | | ■ | |
| TP1501 | ■ | ■ | ■ | ■ | ■ | | | | ■ | ■ | | ■ | ■ | ■ | ■ | ■ | | |
| TP25 | ■ | ■ | ■ | ■ | ■ | ■ | | | ■ | ■ | | ■ | ■ | ■ | ■ | ■ | | |
| TP200 | ■ | ■ | ■ | ■ | ■ | | | | ■ | ■ | | ■ | ■ | ■ | ■ | ■ | | |
| TP2501 | ■ | ■ | ■ | ■ | ■ | ■ | | | ■ | ■ | | ■ | ■ | ■ | ■ | ■ | | |
| TP3501 | ■ | ■ | ■ | ■ | ■ | | | | ■ | ■ | | ■ | ■ | ■ | ■ | ■ | | |
| TP40 | ■ | | ■ | ■ | ■ | | | | ■ | | | ■ | | ■ | ■ | | | |
| TS2000 | ■ | | | | ■ | ■ | | | ■ | | | ■ | ■ | | ■ | | | |
| TS2050 | ■ | | | | ■ | ■ | | | ■ | | | ■ | ■ | | ■ | | ■ | |
| TS2500 | ■ | | ■ | | ■ | | | | ■ | | | ■ | ■ | | ■ | | | |
| TTP2050 | ■ | | | | ■ | ■ | | | ■ | | | ■ | ■ | | ■ | | ■ | |
| T250D | ■ | | | | ■ | ■ | | | ■ | | | ■ | ■ | | ■ | | | |
| T400D | ■ | | | | ■ | ■ | | | ■ | | | ■ | ■ | | ■ | | | |
| T100R | ■ | | ■ | | ■ | ■ | | | ■ | | | ■ | ■ | | ■ | | | |
| T60M | ■ | ■ | ■ | ■ | ■ | | | | ■ | | | ■ | ■ | | ■ | | | |
| 883 | ■ | | ■ | | ■ | | | | ■ | | | | | | | | | |
| 890 | ■ | | | | ■ | ■ | | | ■ | | | | | | | | | |

## Steels, ferritic and martensitic stainless steels

| SMG | Description | Properties | Reference | $k_{c1.1}$ | $m_c$ |
|---|---|---|---|---|---|
| P1 | Free-cutting steels | 360 < $R_m$ < 880 | 11 SMn30<br>$R_m$ = 385 N/mm$^2$ | 1500 | 0,14 |
| P2 | Low-alloy ferritic steels, C < 0.25%wt<br>Low-alloy weldable general structural steels | 320 < $R_m$ < 600 | S235JRG2<br>$R_m$ = 420 N/mm$^2$ | 1600 | 0,23 |
| P3 | Ferritic & ferritic/pearlitic steels, C < 0.25%wt<br>Weldable general structural steels<br>Case-hardening steels | 430 < $R_m$ < 610 | 16 MnCr 5<br>$R_m$ = 550 N/mm$^2$ | 1800 | 0,14 |
| P4 | Low-alloy general structural steels, 0.25% < C < 0.67%wt<br>Low-alloy Quench & Temper steels | 520 < $R_m$ < 1200 | C 45E<br>$R_m$ = 660 N/mm$^2$ | 2000 | 0,15 |
| P5 | Structural steels, 0.25% < C < 0.67%wt<br>Quench & Temper steels | 550 < $R_m$ < 1200 | 42 CrMo 4<br>$R_m$ = 700 N/mm$^2$ | 2020 | 0,18 |
| P6 | Low-alloy through-hardening steels, C > 0.67%wt<br>Low-alloy spring and bearing steels | 520 < $R_m$ < 1200 | C 100S<br>$R_m$ = 600 N/mm$^2$ | 2100 | 0,17 |
| P7 | Through-hardening steels, C > 0.67%wt<br>Spring and bearing steels | 600 < $R_m$ < 1200 | 100 Cr 6<br>$R_m$ = 650 N/mm$^2$ | 2160 | 0,17 |
| P8 | Tool steels<br>High Speed Steels (HSS) | 600 < $R_m$ < 1200 | X 40 CrMoV 5 1<br>$R_m$ = 700 N/mm$^2$ | 2400 | 0,20 |
| P11 | Ferritic & martensitic stainless steels | 415 < $R_m$ < 1200 | X 20 Cr 13<br>$R_m$ = 675 N/mm$^2$ | 2000 | 0,15 |
| P12 | Maraging and precipitation-hardening stainless steels | 500 < $R_m$ < 1200 | X 5 CrNiCuNb 16 4<br>$R_m$ = 1100 N/mm$^2$ | 2100 | 0,17 |

## Free-cutting, austenitic and duplex stainless steels

| SMG | Description | Properties | Reference | $k_{c1.1}$ | $m_c$ |
|---|---|---|---|---|---|
| M1 | Free-cutting austenitic stainless steels | | X 10 CrNiS 18 9 | 1700 | 0,14 |
| M2 | Low-alloy austenitic stainless steels | | X 5 CrNi 18 10 | 1920 | 0,18 |
| M3 | Medium-alloy austenitic stainless steels | | X 2 CrNiMo 18 14 3 | 2070 | 0,17 |
| M4 | High-alloy austenitic and duplex stainless steels | | X 2 CrNiMoN 22 5 3 | 2230 | 0,16 |
| M5 | Difficult high-alloy austenitic and duplex stainless steels | | X 2 CrNiMoN 25 7 4 | 2510 | 0,13 |

## Cast irons

| SMG | Description | Properties | Reference | $k_{c1.1}$ | $m_c$ |
|---|---|---|---|---|---|
| K1 | Grey cast irons (GCI) | | EN-GJL-250 | 930 | 0,32 |
| K2 | Compacted graphite irons (CGI) | | EN-GJV-400 | 1000 | 0,35 |
| K3 | Malleable cast irons (MCI) | | EN-GJMB-550-4 | 1050 | 0,37 |
| K4 | Nodular cast irons (SGI) | | EN-GJS-500-7 | 1160 | 0,37 |
| K5 | Austempered ductile irons (ADI) | | EN-GJS-1000-5 | | |
| K6 | Austenitic lamellar cast irons | | EN-GJLA-XNiCuCr15-6-2 | | |
| K7 | Austenitic nodular cast irons | | EN-GJSA-XNiMn23-4 | | |

## Non-ferrous metals

| SMG | Description | Properties | Reference | $k_{c1.1}$ | $m_c$ |
|---|---|---|---|---|---|
| N1 | Aluminium alloys, Si < 9% | | AW-7075 | | |
| N2 | Aluminium alloys, 9% < Si < 16% | | AC-44200<br>Si = 12% | | |
| N3 | Aluminium alloys, Si >16% | | AlSi17Cu5 | | |
| N11 | Copper alloys | | CW614N | 740 | 0,26 |

## Superalloys and titanium

| SMG | Description | Properties | Reference | $k_{c1.1}$ | $m_c$ |
|---|---|---|---|---|---|
| S1 | Iron-based superalloys | | Discalloy | | |
| S2 | Cobalt-based superalloys | | Stellite 21 | | |
| S3 | Nickel-based superalloys | | Inconel 718 | 2530 | 0,21 |
| S11 | Titanium, low alloyed, ($\alpha$) | | Ti | | |
| S12 | Titanium, medium alloyed, ($\alpha$+$\beta$) | | TiAl6V4 | 1500 | 0,24 |
| S13 | Titanium, high alloyed, (near $\beta$ and $\beta$) | | Ti10V2Fe3Al | | |

## Hard materials

| SMG | Description | Properties | Reference | $k_{c1.1}$ | $m_c$ |
|---|---|---|---|---|---|
| H3 | Case-hardened steels | 58 < HRC < 62 | 16 MnCr 5<br>60 HRC | 2070 | 0,14 |
| H5 | Quenched & Tempered steels | 38 < HRC < 56 | 42 CrMo 4<br>50 HRC | 2320 | 0,18 |
| H7 | Quenched & Tempered steels<br>Bearing steels | 56 < HRC < 64 | 100 Cr 6<br>60 HRC | 2480 | 0,17 |
| H8 | Tool steels<br>High Speed Steels (HSS) | 38 < HRC < 64 | X 40 CrMoV 5 1<br>50 HRC | 2750 | 0,20 |
| H11 | Martensitic stainless steels | 38 < HRC < 50 | X 20 Cr 13<br>45 HRC | 2300 | 0,15 |
| H12 | Maraged and precipitation-hardened stainless steels | 1200 < $R_m$ < 1650 | X 5 CrNiCuNb 16 4<br>$R_m$ = 1450 N/mm$^2$ | 2410 | 0,17 |
| H21 | Manganese steels | 23 < HRC < 64 | X 120 Mn 12<br>50 HRC | | |
| H31 | White cast irons | 50 < HRC < 64 | EN-GJN-HV600(XCr11)<br>55 HRC | | |

## Other difficult materials

| SMG | Description | Properties | Reference | $k_{c1.1}$ | $m_c$ |
|---|---|---|---|---|---|
| PM1 | Low-alloy PM-materials | | F-0008 Fe-0.7C | | |
| PM2 | Medium-alloy PM-materials | | FLC-4608<br>Fe2Cu1.8Ni<br>0.5Mo0.2Mn0.8C | | |
| PM3 | High-alloy PM-materials<br>Exhaust valve seat materials, etc. | | | | |
| HF1 | Hardfacing alloys<br>Welded or plasma-deposited iron-based alloys | | | | |
| HF2 | Hardfacing alloys<br>Welded or plasma-deposited cobalt- and nickel-based alloys | | | | |
| CC1 | Sintered tungsten carbide | | G50 | | |

## Plastics and Composites

| SMG | Description | Properties | Reference | $k_{c1.1}$ | $m_c$ |
|---|---|---|---|---|---|
| TS1 | Thermosetting polymers | | Urea formaldehyde (UF) | | |
| TS2 | Thermosetting carbon-fibre composites | | T300 T700 T800 HTA-S IMA - Epoxy (M21)... | | |
| TS3 | Thermosetting glass-fibre composites | | Epoxy - HX..(42..)/E glass (7781...)... | | |
| TS4 | Thermosetting aramide-fibre composites | | Kevlar 49 | | |
| TP1 | Thermoplastic polymers | | Polycarbonate (PC) | | |
| TP2 | Thermoplastic carbon-fibre composites | | PPS/PEEK - T300.. | | |
| TP3 | Thermoplastic glass-fibre composites | | PPS/PEEK - E-glass or A-glass... | | |
| TP4 | Thermoplastic aramide-fibre composites | | | | |

## Graphite

| SMG | Description | Properties | Reference | $k_{c1.1}$ | $m_c$ |
|---|---|---|---|---|---|
| GR1 | Graphite | | R 8500 | | |

# SMG

| SMG | EN | EN-Nr | W.-Nr | DIN | AFNOR | BS | UNI | JIS | SS | UNS |
|---|---|---|---|---|---|---|---|---|---|---|
| | 11 SMn 30 | 1.0715 | 1.0715 | 9 SMn 28 | S 250 | 230 M 07 | CF 9 SMn 28 | SUM 22 | 1912 | G12130 |
| | 11 SMnPb 30 | 1.0718 | 1.0718 | 9 SMnPb 28 | S 250 Pb | | CF 9 SMnPb 28 | SUM 22 L | 1914 | G12134 |
| | 10 S 20 | 1.0721 | 1.0721 | 10 S 20 | 10 F 1 | 210 M 15 | CF 10 S 20 | | | |
| | | | 1.0722 | 10 SPb 20 | 10 PbF 2 | | CF 10 SPb 20 | | | |
| P1 | 15 SMn 13 | 1.0725 | 1.0723 | 15 S 20 | | 210 A 15 | | SUM 32 | 1922 | |
| | 35 S20 | 1.0726 | 1.0726 | 35 S 20 | 35 MF 4 | 212 M 36 | | | 1957 | G11400 |
| | 46 S20 | 1.0727 | 1.0727 | 46 S 20 | 45 MF 4 | 212 M 44 | | | 1973 | G11460 |
| | 11 SMn 37 | 1.0736 | 1.0736 | 9 SMn 36 | S 300 | 240 M 07 | CF 9 SMn 36 | | | G12150 |
| | 11 SMn 37 | 1.0736 | 1.0736 | 9 SMn 36 | S 300 | 240 M 07 | CF 9 SMn 36 | | | G12150 |
| | S235JR | 1.0037 | 1.0037 | St 37-2 | E 24-2 | | Fe 360 B | STKM 12 C | 1311 | |
| | S235JRG2 | 1.0038 | 1.0116 | St 37-3 | E 24-3, E 24-4 | 4360-40 C | Fe 360 D FF | | 1312, 1313 | |
| | S275J2G3 | 1.0144 | 1.0144 | St 44-3 N | E 28-3, E 28-4 | 4360-43 C | Fe 430 D FF | SM 41 C | 1412, 1414 | |
| | C 10 | 1.0301 | 1.0301 | C 10 | 34 C 10, XC 10 | 045 M 10 | C 10 | S 10 C | | G10100 |
| P2 | | | 1.0401 | C 15 | 37 C 12, XC 18 | 080 M 15 | C 15, C 16 | | 1350 | G10170 |
| | C22 | 1.0402 | 1.0402 | C 22 | C 20 | 050 A 20 | C 20, C 21 | | 1450 | G10200 |
| | S355JR | 1.0570 | 1.0570 | St 52-3 | E 36-3, E 36-4 | 4360-50 C | Fe 510 B | SM 50 YA | 2172, 2132 | |
| | C 15R | 1.1141 | 1.1141 | Ck 15 | XC 15, XC 18 | 080 M 15 | C 15, C 16 | S 15 C, S 15 CK | 1370 | G10170 |
| | | | 1.1158 | Ck 25 | XC 25 | 060 A 25 | C 25 | S 25 C | | G10250 |
| | | | 1.2162 | 21 MnCr 5 | 20 NC 5 | | | SCR 420 H | | |
| | 16 Mo 3 | 1.5415 | 1.5415 | 15 Mo 3 | 15 D 3 | 1501-240 | 16 Mo 3 | | 2912 | |
| | | | 1.5423 | 16 Mo 5 | | 1503-245-420 | 16 Mo 5 | SB 450 M | | G45200 |
| | 14 NiCr 14 | 1.5752 | 1.5752 | 14 NiCr 14 | 12 NC 15 | 655 M 13 | | SNC 815 (H) | | G33106 |
| | | | 1.5919 | 15 CrNi 6 | 16 NC 6 | S 107 | 16 CrNi 4 | | | |
| | 18 NiCrMo 7 6 | 1.6587 | 1.6587 | 18 CrNiMo 7 6 | 18 NCD 6 | 820 A 16 | 18 NiCrMo 7 | | | |
| P3 | 16 MnCr 5 | 1.7131 | 1.7131 | 16 MnCr 5 | 16 MC 5 | 527 M 17 | 16 MnCr 5 | SCR 415 | 2511 | G51170 |
| | 16 MnCrS 5 | 1.7139 | 1.7139 | 16 MnCrS 5 | | | | | | |
| | 20 MnCr 5 | 1.7147 | 1.7147 | 20 MnCr 5 | 20 MC 5 | | 20 MnCr 5 | SMnC 420 (H) | | G51200 |
| | 20 MnCrS 5 | 1.7149 | 1.7149 | 20 MnCrS 5 | 20 MnCrS 5 | | | SMnC 21 H | | |
| | 13 CrMo 4 5 | 1.7335 | 1.7335 | 13 CrMo 4 4 | 15 CD 3.5 | 1501-620 Gr. 27 | 14 CrMo 4 5 | | 2216 | |
| | | | 1.7337 | 16 CrMo 4 4 | 15 CD 4.5 | 1501-620 Gr. 27 | 14 CrMo 4 5 | | 2216 | |
| | 10 CrMo 9 10 | 1.7380 | 1.7380 | 10 CrMo 9 10 | 10 CD 9.10 | 1501-622 Gr. 31 | 12 CrMo 9 10 | | 2218 | J21890 |
| | C35 | | 1.0501 | C 35 | 55 C 35 | 060 A 35 | C 35 | | 1550 | G10350 |
| | E 335 | 1.0503 | 1.0503 | C 45 | 65 C 45 | 80 M 46 | C 45 | S 45 C | 1650 | G10430 |
| | C40 | | 1.0511 | C 40 | 60 C 40 | 080 M 40 | C 40 | S 40 C | | |
| | E 360 | 1.0070 | 1.0535 | St 70-2 | A 70-2 | | Fe 690 | | 1655 | |
| | C60 | 1.0601 | 1.0601 | C 60 | CC 55 | 080 A 62 | C 60 | | | G10600 |
| P4 | | | 1.1157 | 40 Mn 4 | 35 M 5 | 150 M 36 | | | | G10390 |
| | G 28 Mn6 | 1.1165 | 1.1165 | 30 Mn 5 | | 120 M 36 | | SMn 1 H, SCMn 2 | | G13300 |
| | C 35E | 1.1181 | 1.1181 | Ck 35 | XC 38 H1 | 080 M 36 | C 35 | S 35 C | 1572 | G10340 |
| | C 45E | 1.1191 | 1.1191 | Ck 45 | XC 42 | 080 M 46 | C 45 | S 45 C | 1672 | G10420 |
| | C 60E | 1.1221 | 1.1221 | Ck 60 | XC 60 | 080 A 62 | C 60 | S 58 C | 1665, 1678 | G10640 |
| | | | 1.1740 | C 60 W | Y3 55 | | | SK 7 | | |
| | 55 SiCr7 | 1.7100 | 1.0904 | 55 Si 7 | 55 S 7 | 250 A 53 | 55 Si 8 | | 2085, 2090 | |
| | | | 1.2330 | 35 CrMo 4 | 34 CD 4 | 708 A 37 | 35 CrMo 4 | | 2234 | T51620 |
| | | | 1.2542 | 45 WCrV 7 | | BS 1 | 45 WCrV 8 KU | | 2710 | T41901 |
| | | 1.2714 | 1.2714 | 56 NiCrMoV 7 | | BH 224-5 | 56 NiCrMoV7-KU | SKT 4 | | T61206 |
| | | | 1.5121 | 46 MnSi 4 | | | | | | |
| | | | 1.5710 | 36 NiCr 6 | 35 NC 6 | 640 A 35 | | SNC 236 | | |
| | | | 1.5736 | 36 NiCr 10 | 35 NC 11 | | 35 NiCr 9 | SNC 631 (H) | | |
| | 36 CrNiMo 4 | | 1.6511 | 36 CrNiMo 4 | 40 NCD 3 | 816 M 40 | 38 NiCrMo 4 (KB) | | | G98400 |
| P5 | 34 CrNiMo 6 | 1.6582 | 1.6582 | 34 CrNiMo 6 | 35 NCD 6 | 817 M 40 | 35 NiCrMo 6 (KW) | SNCM 447 | 2541 | G43400 |
| | 34 Cr 4 | 1.7033 | 1.7033 | 34 Cr 4 | 32 C 4 | 530 A 32 | 34 Cr 4 (KB) | SCR 430 (H) | | G51320 |
| | 41 Cr 4 | 1.7035 | 1.7035 | 41 Cr 4 | 42 C 4 | 530 M 40 | 41 Cr 4 | SCR 440 (H) | | G51400 |
| | 25 CrMo 4 | 1.7218 | 1.7218 | 25 CrMo 4 | 25 CD 4 S | 708 M 25 | 25 CrMo 4 (KB) | SCM 425 | 2225 | G41300 |
| | 42 CrMo 4 | 1.7225 | 1.7225 | 42 CrMo 4 | 42 CD 4 | 708 M 40 | 42 CrMo 4 | SCM 440 (H) | 2244 | G41400 |
| | 42 CrMo 4 | 1.7225 | 1.7225 | 42 CrMo 4 | 42 CD 4 | 708 M 40 | 42 CrMo 4 | SCM 440 (H) | 2244 | G41400 |
| | | | 1.7361 | 32 CrMo 12 | 30 CD 12 | 722 M 24 | 32 CrMo 12 | | 2240 | |
| | 50 CrV 4 | 1.8159 | 1.8159 | 50 CrV 4 | 50 CV 4 | 735 A 50 | 51 CrV 4 | SUP 10 | 2230 | H61500 |
| | 41 CrAlMo 7 10 | 1.8509 | 1.8509 | 41 CrAlMo 7 | 40 CAD 6.12 | 905 M 39 | 41 CrAlMo 7 | SACM 645 | 2940 | K24065 |
| | C 67S | 1.1231 | 1.1231 | Ck 67 | XC 68 | 060 A 67 | C 70 | | 1770 | G10700 |
| | C 100S | 1.1274 | 1.1274 | Ck 101 | | 060 A 96 | | SUP 4 | 1870 | G10950 |
| P6 | C 105U | 1.1545 | 1.1545 | C 105 W1 | Y1 105 | | C 100 KU | | 1880 | |
| | | | 1.1645 | C 105 W2 | Y1 105 | | C 100 KU | SK 3 | | |
| | | | 1.1663 | C 125 W | Y2 120 | | C 120 KU | SK 2 | | |

# SMG

| U.N.E./ I.H.A. | AISI / ASTM | GOST | ČSN | Misc. Brands | Condition | Structure |
|---|---|---|---|---|---|---|
| | 1213 | | | | Annealed | |
| | 12 L 13 | | | | Annealed | |
| | 1108 | | | | Annealed | |
| | 11 L 08 | | | | Annealed | |
| | | | | | Annealed | |
| | 1140 | 40 | | | Annealed | |
| | 1146 | | | | Annealed | |
| | 1215 | | | | Annealed | |
| | 12 L 14 | | | | Annealed | |
| | | 16D | | | Annealed | |
| | A573 Grade 58 | 18kp | 11 378 | | Annealed | |
| | A573 Grade 70 | St14kP | 11 448 | | Annealed | |
| | 1010 | 10 | | | Annealed | |
| F.1110 | 1015 | 15 | | | Annealed | |
| | 1020, 1023 | 20 | 12 024 | | Annealed | |
| | | 17G1S | 11 523 | | Annealed | |
| F.1511 | 1015 | 15 | | | Annealed | |
| F.1120 | 1025 | 25 | | | Annealed | |
| | | | | | Annealed | |
| | A204 Grade A | | 15 020 | | Annealed | |
| | 4520 | | | | Annealed | |
| | 3310, 9314 | 20X2H4A | 16 420 | | Annealed | |
| | 4320 | | 16 220 | | Annealed | |
| | | | | | Annealed | |
| F.1516 | 5115 | 12KHN2 | 14 220 | | Annealed | |
| | | 18HG | | | Annealed | |
| | 5120 | 20KH | 14 221 | | Annealed | |
| | 5120 H | 20KH | | | Annealed | |
| | A182-F11, A182-F12 | 12KHM | 15 121 | | Annealed | |
| | A387 Grade 12 Cl. 2 | | | | Annealed | |
| F.155 | A182-F22 | 12KH8 | 15 313 | | Annealed | |
| F.1130 | 1035 | 35 | 12 040 | | Annealed | |
| F.5110 | 1045 | 45 | 12 050 | | Annealed | |
| | 1040 | 40 | 12 041 | | Annealed | |
| F.1150 | 1055 | 55 | | | Annealed | |
| | 1060 | 60 | 12 061 | | Annealed | |
| | 1039 | 40G | | | Annealed | |
| | 1330 | 30G2 | | | Annealed | |
| F.1135 | 1035 | 35 | | | Annealed | |
| F.1140 | 1045 | 45 | 12 050 | | Annealed | |
| F.1150 | 1064 | 60 | | | Annealed | |
| | 1060 | 60 | | | Annealed | |
| F.144 | 9255 | 55S2 | | | Annealed | |
| F.1250 | 4135 | 35KHM | | | Annealed | |
| F.5241 | S1 | 5KHV2S | | | Annealed | |
| | L6 | 5KHNV | | | Annealed | |
| | 5045 | | | | Annealed | |
| | 3135 | | | | Quenched & Tempered | |
| | 3435 | | | | Annealed | |
| | 9840 | | | | Quenched & Tempered | |
| F.1280 | 4340 | 38H2N2MA | 16 343 | | Annealed | |
| | 5132 | 35KH | | | Quenched & Tempered | |
| | 5140 | 40H | 14 140 | | Quenched & Tempered | |
| F.1251 | 4130 | 20KHM | 15 130 | | Quenched & Tempered | |
| F.1252 | 4142, 4140 | 38HM | 15 142 | | Annealed | |
| F.1252 | 4142, 4140 | 38HM | 15 142 | | Quenched & Tempered | |
| | | | | | Quenched & Tempered | |
| F.143 | 6150 | 50KHFA | 15 260 | | Quenched & Tempered | |
| F.1740 | A355 Cl. A | | | | Annealed | |
| F.5103 | 1070 | 70 | | | Annealed | |
| F.5117 | 1095 | | | | Annealed | |
| F.5118 | W1 | U10A | | | Annealed | |
| | | U10 | | | Annealed | |
| | W1 | U13 | | | Annealed | |

# SMG

| SMG | EN | EN-Nr | W.-Nr | DIN | AFNOR | BS | UNI | JIS | SS | UNS |
|---|---|---|---|---|---|---|---|---|---|---|
| P7 | 107 CrV 3 | 1.2210 | 1.2210 | 115 CrV 3 | 100 C 3 | | 107 CrV 3 KU | | | T61202 |
| | | | 1.2510 | 100 MnCrW 4 | 90 MWCV 5 | BO 1 | 95 MnWCr 5 KU | SKS 3 | 2140 | T31501 |
| | 90 MnCrV 8 | 1.2842 | 1.2842 | 90 MnCrV 8 | 90 MV 8 | BO 2 | 90 MnVCr 8 KU | | | T31502 |
| | 100 Cr 6 | 1.3505 | 1.3505 | 100 Cr 6 | 100 C 6 | 534 A 99 | 100 Cr 6 | SUJ 2 | 2258 | G51986 |
| P8 | X 210 Cr 12 | 1.2080 | 1.2080 | X 210 Cr 12 | Z 200 C 12 | BD 3 | X 210 Cr 13 KU | SKD 1 | | T30403 |
| | | | 1.2343 | X 38 CrMoV 5 1 | Z 38 CDV 5 | BH 11 | X 37 CrMoV 5 1 KU | SKD 6 | | T20811 |
| | X 40 CrMoV 5 1 | 1.2344 | 1.2344 | X 40 CrMoV 5 1 | Z 40 CDV 5 | BH 13 | X 40 CrMo 5 1 1 KU | SKD 61 | 2242 | T20813 |
| | X 100 CrMoV 5 | 1.2363 | 1.2363 | X 100 CrMoV 5 1 | Z 100 CDV 5 | BA 2 | X 100 CrMoV 5 1 KU | SKD 12 | 2260 | T30102 |
| | | | 1.2365 | X 32 CrMoV 3 3 | 32 DCV 28 | BH 10 | 30 CrMoV 12 27 KU | SKD 7 | | T20810 |
| | | | 1.2436 | X 210 CrW 12 | | | X 215 CrW 12 1 KU | SKD 2 | 2312 | |
| | | | 1.2601 | X 165 CrMoV 12 | | | X 165 CrMoW 12 KU | | 2310 | |
| | | | 1.2713 | 55 NiCrMoV 6 | 55 NCDV 7 | | | SKT 4 | | T61206 |
| | HS 6-5-2-5 | 1.3243 | 1.3243 | S 6-5-2-5 | Z 85 WDKCV 06-05-05-04-02 | | HS 6-5-2-5 | SKH 55 | 2723 | |
| | HS 2-10-1-8 | 1.3247 | 1.3247 | S 2-10-1-8 | Z 110 DKCWV 09-08-04 | BM 42 | HS 2-9-1-8 | SKH 51 | | T11342 |
| | HS 18-1-2-5 | 1.3255 | 1.3255 | S 18-1-2-5 | Z 80 WKCV 18-05-04-01 | BT 4 | HS 18-1-1-5 | SKH 3 | | T12004 |
| | HS 6-5-2 | 1.3343 | 1.3343 | S 6-5-2 | Z 85 WDCV 06-05-04-02 | BM 2 | HS 6-5-2 | SKH 9, SKH 51 | 2722 | T11302 |
| | HS 2-9-2 | 1.3348 | 1.3348 | S 2-9-2 | Z 100 DCWV 09-04-02-02 | | HS 2-9-2 | SKH 58 | 2782 | T11307 |
| | HS 18-0-1 | 1.3355 | 1.3355 | S 18-0-1 | Z 80 WCV 18-04-01 | BT 1 | HS 18-0-1 | SKH 2 | | T12001 |
| P11 | X 6 Cr 13 | 1.4000 | 1.4000 | X 6 Cr 13 | Z 6 C 12 | 403 S 17 | X 6 Cr 13 | SUS 403 | 2301 | S41008 |
| | X 12 Cr 13 | 1.4006 | 1.4006 | X 10 Cr 13 | Z 10 C 13 | 410 S 21 | X 12 Cr 13 | SUS 410 | 2302 | S41000 |
| | X 6 Cr 17 | 1.4016 | 1.4016 | X 6 Cr 17 | Z 8 C 17 | 430 S 15 | X 8 Cr 17 | SUS 430 | 2320 | S43000 |
| | X 20 Cr 13 | 1.4021 | 1.4021 | X 20 Cr 13 | Z 20 C 13 | 420 S 37 | X 20 Cr 13 | SUS 420 J 1 | 2303 | S42000 |
| | X 39 Cr 13 | 1.4031 | 1.4031 | X 40 Cr 13 | Z 40 C 14 | 420 S 45 | X 40 Cr 14 | SUS 420 | 2304 | S40280 |
| | X 70 CrMo 15 | 1.4109 | 1.4109 | X 65 CrMo 14 | Z 70 D 14 | | | SUS 440 A | | S44002 |
| | X 90 CrMoV 18 | 1.4112 | 1.4112 | X 90 CrMoV 18 | Z 2 CND 18 05 | 409 S 19 | X CrTi 12 | SUS 440 B | 2327 | S44003 |
| | X 105 CrMo 17 | 1.4125 | 1.4125 | X 105 CrMo 17 | Z 100 CD 17 | | X 105 CrMo 17 | SUS 440 C | | S44004 |
| | X 3 CrNIMo 13 3 | 1.4313 | 1.4313 | X 5 CrNi 13 4 | Z 5 CN 13.4 | 425 C 11 | X 6 CrNi 13 04 | SCS 5 | 2385 | S41500 |
| | X 18 CrN 28 | 1.4749 | 1.4749 | X 18 CrN 28 | Z 18 C 25 | | | | 2322 | S44600 |
| P12 | X 6 NiCrTiMoV 25 15 | 1.4534 | 1.4534 | X 3 CrNiMoAl 13 8 2 | | | | | | S13800 |
| | X 4 CrNiCuNb 16 4 | 1.4540 | 1.4540 | X 4 CrNiCuNb 16 4 | | | | | | S15500 |
| | | 1.4540 | 1.4540 | X 4 CrNiCuNb 16 4 | Z 4 CNUNb 16.4 M | | | | | S15500 |
| | X 4 CrNiCuNb 16 4 | 1.4540 | 1.4540 | X 4 CrNiCuNb 16 4 | | | | | | S15500 |
| | X 5 CrNiCuNb 16 4 | 1.4542 | 1.4542 | X 5 CrNiCuNb 16 4 | | | | SUS 630 | | S17400 |
| | X 5 CrNiCuNb 17 4 | 1.4548 | 1.4542 | X 5 CrNiCuNb 17 4 | Z 6 CNU 17.4 | | | SCS 24, SUS 630 | | S17400 |
| | X 7 CrNiAl 17 7 | 1.4564 | 1.4564 | X 7 CrNiAl 17 7 | Z 9 CAN 17.7 | 301 S 81 | X 7 CrNiAl 17 7 | SUS 631 | 2388 | S17700 |
| | X 2 NiCoMoTi 18 12 4 | 1.6356 | 1.6356 | X 2 NiCoMoTi 18 12 4 | | | | | | K93160 |
| | X 2 NiCoMoTi 18 9 5 | 1.6358 | 1.6358 | X 2 NiCoMoTi 18 9 5 | Z 2 NKD 19-09 | | | | | K93120 |
| | X 2 NiCoMo 18 9 5 | 1.6358 | 1.6358 | X 2 NiCoMoTi 18 9 5 | Z 2 NKD 19-09 | | | | | K93120 |
| | X 2 NiCoMo 18 8 5 | 1.6359 | 1.6359 | X 2 NiCoMo 18 8 5 | | S 162 | | | | K92890 |
| | X 2 NiCoMo 18 8 5 | 1.6359 | 1.6359 | X 2 NiCoMo 18 8 5 | | S 162 | | | | K92890 |
| M1 | X 10 CrNiS 18 9 | 1.4305 | 1.4305 | X 10 CrNiS 18 9 | Z 10 CNF 18.09 | 303 S 31 | X 10 CrNi 18 09 | SUS 303 | 2346 | S30300 |
| M2 | X 2 CrNi 19 11 | 1.4306 | 1.4306 | X 2 CrNi 19 11 | Z 2 CN 18.10 | 304 S 12 | X 3 Cr Ni 18 11 | SUS 304 L | 2352 | S30403 |
| | X 5 CrNi 18 10 | 1.4301 | 1.4301 | X 5 CrNi 18 10 | Z 6 CN 18.09 | 304 S 31 | X 5 CrNi 18 11 | SUS 304 | 2333 | S30400 |
| | X 5 CrNiMo 17 12 2 | 1.4401 | 1.4401 | X 5 CrNiMo 17 12 2 | Z 3 CND 17.11.1 | 316 S 31 | X 5 CrNiMo 17 12 | SUS 316 | 2347 | S31600 |
| | X 6 CrNiNb 18 10 | 1.4550 | 1.4550 | X 6 CrNiNb 18 10 | Z 6 CNNb 18.10 | 347 S 31 | X 6 CrNiNb 18 11 | SUS 347 | 2338 | S34700 |
| | X 9 CrNi 18 8 | 1.4310 | 1.4310 | X 12 CrNi 17 7 | Z 12 CN 17.07 | 301 S 21 | X 12 CrNi 17 07 | SUS 301 | (2331) | S30100 |
| | X 12 CrNi 18 8 | 1.4300 | 1.4300 | X 12 CrNi 18 8 | Z 12 CN 18 | 302 S 25 | | SUS 302 | 2331 | S30200 |
| M3 | X 2 CrNiMo 18 14 3 | 1.4435 | 1.4435 | X 2 CrNiMo 18 14 3 | Z 2 CND 17.13 | 316 S 12 | X 2 CrNiMo 17 13 2 | SCS 16, SUS 316 L | 2353 | S31603 |
| | X 2 CrNiMoN 17 13 3 | 1.4429 | 1.4429 | X 2 CrNiMoN 17 13 3 | Z 2 CND 17.13 Az | 316 S 62 | X 2 CrNiMoN 17 13 3 | SUS 316 LN | 2375 | S31653 |
| | X 2 CrNiN 18 10 | 1.4311 | 1.4311 | X 2 CrNiN 19 11 | Z 2 CN 18 .10 Az | 304 S 62 | X 2 CrNiN 18 11 | SUS 304 LN | 2371 | S30453 |
| | X 3 CrNiMo 18 12 3 | 1.4466 | 1.4466 | X 5 CrNi 18 15 | | 317 S 16 | X 5 CrNi 18 15 | SUS 317 | 2366 | S31700 |
| | X 9 CrNiSiNCe 21 11 2 | 1.4835 | 1.4893 | X 9 CrNiSiNCe 21 11 2 | | 310 S 31 | | | 2368 | S30815 |
| | X 12 CrNi 25 21 | 1.4335 | 1.4335 | X 12 CrNi 25 21 | Z 12 CN 25.20 | 310 S 24 | X 6 CrNi 26 20 | SUH 310, SUS 310 S | 2361 | S31008 |
| M4 | X 2 CrNiMoN 22 5 3 | 1.4462 | 1.4462 | X 2 CrNiMoN 22 5 | Z 2 CND 22.05 Az | 332 S 15 | X 2 CrNiMoN 22 5 | | 2377 | S31803 |
| | X 2 CrNiMoSi 19 5 | 1.4424 | 1.4417 | X 2 CrNiMoSi 19 5 | Z 2 CND 18.05.03 | | | | 2376 | S31500 |
| | X 2 NiCrMoCu 25 20 5 | 1.4539 | 1.4539 | X 2 NiCrMoCu 25 20 5 | Z 2 NCDU 25 20 | 904 S 13 | | | 2562 | N08904 |
| | X 3 CrNiMo 27 5 2 | 1.4460 | 1.4460 | X 4 CrNiMo 27 5 2 | Z 3 CND 25.7 Az | | X 3 CrNiMo 27 5 2 | SUS 329 J 1 | 2324 | S32900 |
| | X 5 CrNiCuNb 16 4 | 1.4980 | 1.4943 | X 4 NiCrTi 25 15 | Z 6 NCTDV 25.15 | HR 51 | | SUH 660 | 2570 | S66286 |
| M5 | X 1 CrNiMoN 20 18 7 | 1.4547 | 1.4529 | X 1 CrNiMoN 20 18 7 | Z 1 CNDU 20.18.05 Az | | X 1 CrNiMoN 20 18 7 | | 2778 | S31254 |
| | X 1 CrNiMoN 25 22 8 | 1.4652 | 1.4652 | X 2 CrNiMoN 25 22 7 | | | | | | S32654 |
| | X 10 NiCrAlTi 32 20 | 1.4876 | 1.4876 | X 10 NiCrAlTi 32 20 | Z 10 NC 32.21 | | | NCF 800 | | N08800 |
| | X 2 CrNiMoN 25 7 4 | 1.4410 | 1.4410 | X 2 CrNiMoN 25 7 4 | Z 3 CND 25.07 Az | | X 2 CrNiMoN 25 7 4 | | 2328 | S32750 |

# SMG

| U.N.E./ I.H.A. | AISI / ASTM | GOST | ČSN | Misc. Brands | Condition | Structure |
|---|---|---|---|---|---|---|
| F.520L | L2 | 11KHF | | | Annealed | |
| F.5220 | O1 | 9KHVG | | | Annealed | |
| | O2 | 9G2F | | | Annealed | |
| F.5230 | 52100 | SHKH15 | 14 109 | | Annealed | |
| F.5212 | D3 | KH12 | | | Annealed | |
| | H11 | 4KH5MFS | | | Annealed | |
| F.5318 | H13 | 4KH5MF1S | | | Annealed | |
| F.5227 | A2 | 9KH5VF | | | Annealed | |
| | H10 | 3KH3M3F | | | Annealed | |
| F.5213 | | KH12 | | | Annealed | |
| | | KH12MF | | | Annealed | |
| F.520.S | L6 | 5KHNM | | | Annealed | |
| F.5613 | M35 | R6M5K5 | | | Annealed | |
| | M42 | R2AM9K5 | | | Annealed | |
| | T4 | R18K5F2 | | | Annealed | |
| F.5603 | M2 | R6M5 | | | Annealed | |
| | M7 | | | | Annealed | |
| | T1 | R18 | | | Annealed | |
| | 403 | 08KH13 | | | Annealed | Ferritic |
| F.3401 | 410, CA-15 | 12KH13, 08KH13 | | | Annealed | Martensitic |
| F.3113 | 430 | 12KH17 | | | Annealed | Ferritic |
| F.5261 | 420 | 20KH13 | 17 022 | | Annealed | Martensitic |
| F.3404 | 420 | 40KH13 | | | Annealed | Martensitic |
| | 440 A | | | | Annealed | Martensitic |
| | 440 B | 95KH18 | | | Annealed | Martensitic |
| | 440 C | 95KH18 | | | Annealed | Martensitic |
| | A182 F6NM | | | F6NM | Annealed | Martensitic |
| | 446 | 15KH28 | | | Annealed | Ferritic |
| | XM-13 | | | PH 13-8 Mo | Solution annealed | Austenitic |
| | XM-12 | | | 15-5 PH | H1150 | Martensitic |
| | XM-12 | | | 15-5 PH | Solution annealed | Martensitic |
| | XM-12 | | | 15-5 PH | H1025 | Martensitic |
| | SAE 630 | | | 17-4 PH | H1150 | Martensitic |
| | 630 | | | 17-4 PH | Solution annealed | Martensitic |
| | 631 | 09KH17N7YU1 | | 17-7 PH | Solution annealed | Austenitic/Ferritic |
| | AMS 6515 | | | Marage 350 | Solution annealed | Martensitic |
| | AMS 6521 | | | Marage 300 | Solution annealed | Martensitic |
| | AMS 6514 | | | Marage 300, Vascomax C300 | Solution annealed | Martensitic |
| | AMS 6512 | | | Marage 250 | Solution annealed | Martensitic |
| | AMS 6512 | | | Marage 250, Vascomax C250 | Solution annealed | Martensitic |
| F.3508 | 303 | 12KH19N9 | | | Annealed | Austenitic |
| F.3504 | 304 L | 03KH18N11 | | | Annealed | Austenitic |
| F.3504 | 304 | 08KH18N10 | 17 240 | | Annealed | Austenitic |
| F.3534 | 316 | 08KH17H13M2T | 17 346 | | Annealed | Austenitic |
| F.3524 | 347 | 08KH18N12B | | | Annealed | Austenitic |
| F.3517 | 301 | 07KH16N6 | | | Annealed | Austenitic |
| | 302 | 12KH18N9 | | | Annealed | Austenitic |
| F.3533 | (316 L) | 03KH17N14M3 | 17 349 | | Annealed | Austenitic |
| | 316 LN | 03KH16N15M3 | | | Annealed | Austenitic |
| F.3541 | 304 LN | 03KH18N11 | | | Annealed | Austenitic |
| | 317 | 08KH17H15M3T | | | Annealed | Austenitic |
| | | | | 253 MA | Annealed | Austenitic |
| | 310 S | 12KH25N20 | | | Annealed | Austenitic |
| | 329 LN | | | SAF 2205 | Annealed | Duplex |
| | | | | 3RE60 | Annealed | Duplex |
| | 904L | | | | Annealed | Super austenitic |
| | 329 | | | | Annealed | Duplex |
| | 660 | | | A286 | Solution annealed | Austenitic |
| | | | | 254 SMO | Annealed | Super austenitic |
| | | | | 654 SMO | Annealed | Super austenitic |
| | | | | Alloy 800 | Annealed | Austenitic |
| | F 53 | | | SAF 2507 | Annealed | Super duplex |

# SMG

| SMG | EN | EN-Nr | W.-Nr | DIN | AFNOR | BS | UNI | JIS | SS | UNS |
|---|---|---|---|---|---|---|---|---|---|---|
| | EN-GJL-150 | 0.6150 | 0.6150 | GG-15 | Ft 15 D | Grade 150 | G15 | FC 150 | 01 15-00 | F11601 |
| | EN-GJL-200 | 0.6200 | 0.6200 | GG-20 | Ft 20 D | Grade 220 | G20 | FC 200 | 01 20-00 | F12101 |
| K1 | EN-GJL-250 | 0.6250 | 0.6250 | GG-25 | Ft 25 D | Grade 260 | G25 | FC 250 | 01 25-00 | F12401 |
| | EN-GJL-350 | 0.6350 | 0.6350 | GG-35 | Ft 35 D | Grade 350 | G35 | FC 350 | 01 35-00 | F13502 |
| | EN-GJL-215 | | | GG-220 HB | | | | | 02 19 | |
| | EN-GJV-300 | | | GJV-300 | | | | | | |
| | EN-GJV-350 | | | GJV-350 | | | | | | |
| K2 | EN-GJV-400 | | | GJV-400 | | | | | | |
| | EN-GJV-450 | | | GJV-450 | | | | | | |
| | EN-GJV-500 | | | GJV-500 | | | | | | |
| K3 | EN-GJMB-550-4 | 0.8155 | | GTS-55-04 | P 540/5 | P 540/5 | P 55-04 | PCMP55-04 | 08 54-00 | F24130 |
| | EN-GJS-350-22 | 0.7033 | 0.7033 | GGG-35.3 | FGS 370-17 | Grade 350/22 | | FCD 350-22L | 07 17-15 | |
| | EN-GJS-400-15 | 0.7040 | 0.7040 | GGG-40 | FGS 400-12 | Grade 420/12 | GS 400-12 | FCD 400-18L | 07 17-02 | F32800 |
| K4 | EN-GJS-400-18 | 0.7043 | 0.7043 | GGG-40.3 | FGS 370-17 | Grade 370/17 | GSO 42/17 | | 07 17-12 | F32800 |
| | EN-GJS-500-7 | 0.7050 | 0.7050 | GGG-50 | FGS 500-7 | Grade 500/7 | GS 500-7 | FCD 500-7 | 07 27-02 | F33800 |
| | EN-GJS-600-3 | 0.7060 | 0.7060 | GGG-60 | FGS 600-3 | Grade 600/3 | GS 600-3 | FCD 600-3 | 07 32-03 | F34100 |
| | EN-GJS-700-2 | 0.7070 | 0.7070 | GGG-70 | FGS 700-2 | Grade 700/2 | GS 700-2 | FCD 700-2 | 07 37-01 | F34800 |
| | | | | | | | | | | ADI grade 5 |
| | EN-GJS-1000-5 | | | GJS-1000-5 | | | | | | ADI grade 2 |
| K5 | EN-GJS-1200-2 | | | GJS-1200-2 | | | | | | ADI grade 3 |
| | EN-GJS-1400-1 | | | GJS-1400-1 | | | | | | ADI grade 4 |
| | EN-GJS-800-8 | | | GJS-800-8 | | | | | | ADI grade 1 |
| | EN-GJLA-XNiCr 20-2 | 0.6660 | 0.6660 | GGL-NiCr 20 2 | FGL Ni20 Cr2 | Grade F2 | | | 05 23-00 | F41002 |
| K6 | EN-GJLA-XNiCr 30-3 | 0.6676 | 0.6676 | GGL-NiCr 30 3 | FGL Ni30 Cr3 | Grade F3 | | | | F41004 |
| | EN-GJLA-XNiCuCr 15-6-2 | 0.6655 | 0.6655 | GGL-NiCuCr 15 6 2 | FGL Ni15 Cu6 Cr2 | Grade F1 | | | | F41000 |
| | EN-GJSA-XNiMn 13-7 | 0.7652 | 0.7652 | GGG-NiMn 13 7 | FGS Ni13 Mn7 | Grade S6 | | | 07 72-00 | |
| | EN-GJSA-XNiCr 20-2 | 0.7660 | 0.7660 | GGG-NiCr 20 2 | FGS Ni20 Cr2 | Grade S2 | | | | F43000 |
| K7 | EN-GJSA-XNiMn 23-4 | 0.7673 | 0.7673 | GGG-NiMn 23 4 | FGS Ni23 Mn4 | Grade S2M | | | | F43010 |
| | EN-GJSA-XNiCr 30-3 | 0.7676 | 0.7676 | GGG-NiCr 30 3 | FGS Ni30 Cr3 | Grade S3 | | | | F43003 |
| | EN-GJSA-XNi 35 | 0.7683 | 0.7683 | GGG-Ni 35 | FGS Ni35 | | | | | F43006 |
| | AW-1050A | Al99.5 | 3.0255 | Al99.5 | A-5/1050A | 1B | | (A1050) | 4007 | AA1050A |
| | AW-2011 | AlCuBiPb | 3.1655 | AlCuBiPb | A-U5PbBi/2011 | FC1 | | A2011 | 4355 | AA2011 |
| | AW-2014 | AlCuSiMn | 3.1255 | AlCuSiMn | A-U4SG/2014 | H15 | | | 4338 | AA2014 |
| | AW-5005 | AlMg1 | 3.3315 | AlMg1 | A-G0.6 | N41 | | | 4106 | AA5005 |
| | AW-6060 | AlMgSi0.5 | 3.3206 | AlMgSi0.5 | A-GS/6060 | (H9) | | | 4103 | AA6060 |
| | AW-6063 | AlMgSi0.7 | 3.3210 | AlMgSi0.7 | A-GSUC/6061 | (H10) | | (A6063) | 4104, 4107 | AA6005 |
| | AW-3103 | AlMn1 | 3.0515 | AlMn1 | | N3 | | | 4054 | AA3103 |
| N1 | AW-3003 | AlMn1Cu | 3.0517 | AlMn1Cu | A-M1/3003 | | | A3003 | | AA3003 |
| | AW-7020 | AlZn4.5Mg1 | 3.4335 | AlZn4.5Mg1 | A-Z5G/7020 | H17 | | | 4425 | AA7020 |
| | AW-7075 | | 3.4365 | AlZnMgCu1.5 | A-Z5GU/7075 | 2L95/2L96 | | A7075 | | AA7075 |
| | AC-42000 | | 3.2341 | G-AlSi5Mg | A-S7G | LM25 | 3599 | AC 4C | 4244 | |
| | AC-46200 | AlSi8Cu3(Si) | 3.2161 | G-AlSi8Cu3 | | | | | 4251 | A13800 |
| | MG-P-63 | MgAl6Zn | 3.5612 | G-MgAl6Zn | G-A6-Z1 | MAG-E-121 | | | | M11600 |
| | MG-P-61 | MgAl8Zn | 3.5812 | G-MgAl8Zn | (G-A7-Z1) | | | | | |
| | MN65120 | MgSe3Zn2Zr1 | 3.5103 | G-MgSe3Zn2Zr1 | ZRE1 | MAG6-TE | | | | M12330 |
| | AC-43400 | AlSi10Mg(Fe) | 3.2381 | G-AlSi10Mg | A-S10G | LM9 | | | 4253 | A13600 |
| N2 | AC-44200 | AlSi12 | 3.2382 | GD-AlSi12 | | | | | | |
| | AW-6082 | AlMgSi1 | 3.2315 | AlMgSi1 | A-SGM0.7/6082 | H30 | | | 4212 | AA6082 |
| N3 | | AlSi17Cu5 | | | | | | ADC14 | | |
| | CC331G | | 2.0940.01 | CuAl10Fe | CuAl10Fe | AB1 | | | 5710 | C95200 |
| | CC333G | | 2.0975.01 | CuAl10Ni | CuAl10Ni5Fe5 | AB2 | | | 5716 | C95500 |
| | | CuNi10Fe1Mn | 2.0872 | CuNi10Fe1Mn | CuNi10Fe1Mn | CN102 | | | 5667 | C70600 |
| | | | | CuNi10Zn45 | | | | | | |
| | | CW408J | 2.0790 | CuNi18Zn19Pb | CuNi18Zn19Pb1 | | | | | C76300 |
| | CW352H | | 2.1176 | CuPb10Sn | CuSn10Pb10 | LB2 | | | 5640 | C93700 |
| | CC480K | | 2.1050.01 | CuSn10 | CuSn10 | CT1 | | | 5443 | C90700 |
| N11 | | | 2.1087 | CuSn10Zn | | | | | 5458 | C90500 |
| | CW452K | CuSn6 | 2.1020 | CuSn6 | CuSn6 | PB103 | | C5191 | 5428 | C51900 |
| | CW502L | CuZn15 | 2.0240 | CuZn15 | CuZn15 | CZ102 | | C2300 | 5112 | C23000 |
| | CW706R | CuZn28Sn1 | 2.0470 | CuZn28Sn1 | CuZn29Sn1 | | | | 5220 | C44300 |
| | CW508L | CuZn37 | 2.0321 | CuZn37 | CuZn37 | CZ108 | | | 5150 | C27200 |
| | CW717R | CuZn38Sn1 | 2.0530 | CuZn38Sn1 | | | | | | C46400 |
| | CW614N | CuZn39Pb3 | 2.0401 | CuZn39Pb3 | CuZn39Pb3 | CZ121 | | | 5170 | C38500 |
| | CW612N | CuZn40Pb2 | 2.0402 | CuZn40Pb2 | CuZn39Pb2 | CZ120 | | | 5168 | C37800 |
| | CW622N | CuZn44Pb2 | 2.0410 | CuZn44Pb2 | | CZ104 | | | 5272 | C68700 |

# SMG

| U.N.E./ I.H.A. | AISI / ASTM | GOST | ČSN | Misc. Brands | Condition | Structure |
|---|---|---|---|---|---|---|
| | A48 25 B | Sc 15 | 422 415 | | | Grey cast iron (GCI) |
| | A48 30 B | Sc 20 | 422 420 | | | Grey cast iron (GCI) |
| | A48 35 B | Sc 25 | 422 425 | | | Grey cast iron (GCI) |
| | A48 50 B | Sc 35 | | | | Grey cast iron (GCI) |
| | G 3500 | | | | | Grey cast iron (GCI) |
| | Grade 350 | | | | | Compacted graphite iron (CGI) |
| | Grade 400 | | | | | Compacted graphite iron (CGI) |
| | Grade 400-15 | | | | | Compacted graphite iron (CGI) |
| | Grade 450 | | | | | Compacted graphite iron (CGI) |
| | Grade 500 | | | | | Compacted graphite iron (CGI) |
| | A220 60004 | | | | Tempered | Malleable cast iron (MCI) |
| | | | | | | Nodular cast iron (SGI) |
| FGE 38-17 | 60-40-18 | Vc 42-12 | 422 304 | | | Nodular cast iron (SGI) |
| | 60-40-18 | Vc 42-12 | | | | Nodular cast iron (SGI) |
| FGE 50-7 | A536, 80-55-06 | Vc 50-2 | 422 305 | | | Nodular cast iron (SGI) |
| FGE 60-2 | A476, 80-60-03 | Vc 60-2 | 422 306 | | | Nodular cast iron (SGI) |
| FGE 70-2 | A536, 100-70-03 | Vc 70-2 | | | | Nodular cast iron (SGI) |
| | 1600/1300/- | | | | | Austempered ductile iron (ADI) |
| | 1050/700/7 | | | | | Austempered ductile iron (ADI) |
| | 1200/850/4 | | | | | Austempered ductile iron (ADI) |
| | 1400/1100/1 | | | | | Austempered ductile iron (ADI) |
| | 850/550/10 | | | | | Austempered ductile iron (ADI) |
| | A436 Type 2 | | | Ni-Resist 2 | | Austenitic lamellar cast iron |
| | A436 Type 3 | | | Ni-Resist 3 | | Austenitic lamellar cast iron |
| | A436 Type 1 | | | Ni-Resist 1 | | Austenitic lamellar cast iron |
| | | | | Nodumag | | Austenitic nodular cast iron |
| | A436 Type D-2 | | | Ni-Resist D-2 | | Austenitic nodular cast iron |
| | A439 Type D-2M | | | Ni-Resist D-2M | | Austenitic nodular cast iron |
| | A436 Type D-3 | | | Ni-Resist D-3 | | Austenitic nodular cast iron |
| | A439 Type D-5 | | | Ni-Resist D-5 | | Austenitic nodular cast iron |
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| | B26 | | | | | |
| | A380 | | | | | |
| | AZ61A | | | | | |
| | AZ80A | | | | | |
| | AMS 4442 | | | | | |
| | B85 | | | | | |
| | A413.2 | | | | | |
| | | | | | | |
| | B390.0 | | | | | |
| | CA952 | BrA9ZH3L | | | | |
| | CA955 | BrA10ZH4N4L | | | | |
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| | CA937 | | | | | |
| | | | | | | |
| | | | | | | |
| | | BrOF6.5-0.15 | | | | |
| | | L90 | | | | |
| | | LOMsh70-1-0.05 | | | | |
| | | | | | | |
| | | LO60-1 | | | | |
| | | | | | | |
| | | | | | | |
| | | LAMsh77-2-0.05 | | | | |

# SMG

| SMG | EN | EN-Nr | W.-Nr | DIN | AFNOR | BS | UNI | JIS | SS | UNS |
|---|---|---|---|---|---|---|---|---|---|---|
| S1 | | | | | | | | | | |
| S2 | | | | | | | | | | |
| | | | | | | | | | | |
| S3 | NiMo30 | | 2.4810 | | | | | | | N10002 |
| | NiMo16Cr15W | | 2.4819 | | | | | | | N10276 |
| | | | | | | | | | | |
| | NiCr19Fe19Nb5Mo3 | | 2.4668 | | | | | | | N07718 |
| | | | 2.4669 | | | | | | | N07750 |
| | NiCr20TiAl | | 2.4631 | | | | | | | N07080 |
| | | | | | | | | | | |
| | NiCr19Co18Mo4Ti3Al3 | | | | | | | | | N07500 |
| | NiCr20Co13Mo4Ti3Al | | 2.4654 | | | | | | | N07001 |
| S11 | | | 3.7024 | | | | | | | |
| | | | | | | | | | | R54620 |
| S12 | | | | | | | | | | R56320 |
| | TiAl6V4 | | 3.7164 | | | | | | | R56400 |
| S13 | | | | TiV10Fe2Al3 | | | | | | |
| H3 | 16 MnCr 5 | 1.7131 | 1.7131 | 16 MnCr 5 | 16 MC 5 | 527 M 17 | 16 MnCr 5 | SCR 415 | 2511 | G51170 |
| H5 | C 67S | 1.1231 | 1.1231 | Ck 67 | XC 68 | 060 A 67 | C 70 | | 1770 | G10700 |
| | C 75S | 1.1248 | 1.1248 | Ck 75 | XC 75 | 060 A 78 | C 75 | | 1774, 1778 | G10780 |
| | C 100S | 1.1274 | 1.1274 | Ck 101 | | 060 A 96 | | SUP 4 | 1870 | G10950 |
| | C 105U | 1.1545 | 1.1545 | C 105 W1 | Y1 105 | | C 100 KU | | 1880 | |
| | | | 1.2550 | 60 WCrV 7 | 55 WC 20 | | 55 WCrV 8 KU | | | |
| | 55 Cr 3 | 1.7176 | 1.7176 | 55 Cr 3 | 55 C 3 | 527 A 60 | 55 Cr 3 | SUP 9 (A) | 2253 | G51550 |
| | 42 CrMo 4 | 1.7225 | 1.7225 | 42 CrMo 4 | 42 CD 4 | 708 M 40 | 42 CrMo 4 | SCM 440 (H) | 2244 | G41400 |
| H7 | 107 CrV 3 | 1.2210 | 1.2210 | 115 CrV 3 | 100 C 3 | | 107 CrV 3 KU | | | T61202 |
| | | | 1.2510 | 100 MnCrW 4 | 90 MWCV 5 | BO 1 | 95 MnWCr 5 KU | SKS 3 | 2140 | T31501 |
| | 90 MnCrV 8 | 1.2842 | 1.2842 | 90 MnCrV 8 | 90 MV 8 | BO 2 | 90 MnVCr 8 KU | | | T31502 |
| | 100 Cr 6 | 1.3505 | 1.3505 | 100 Cr 6 | 100 C 6 | 534 A 99 | 100 Cr 6 | SUJ 2 | 2258 | G51986 |
| H8 | X 40 CrMoV 5 1 | 1.2344 | 1.2344 | X 40 CrMoV 5 1 | Z 40 CDV 5 | BH 13 | X 40 CrMo 5 1 1 KU | SKD 61 | 2242 | T20813 |
| | X 100 CrMoV 5 | 1.2363 | 1.2363 | X 100 CrMoV 5 1 | Z 100 CDV 5 | BA 2 | X 100 CrMoV 5 1 KU | SKD 12 | 2260 | T30102 |
| | X 155 CrVMo 12 1 | | 1.2379 | X 155 CrVMo 12 1 | Z 160 CDV 12 | BD 2 | X 155 CrVMo 12 1 KU | SKD 11 | | T30402 |
| | | | 1.2436 | X 210 CrW 12 | | | X 215 CrW 12 1 KU | SKD 2 | 2312 | |
| | | | 1.2601 | X 165 CrMoV 12 | | | X 165 CrMoW 12 KU | | 2310 | |
| | | | 1.2713 | 55 NiCrMoV 6 | 55 NCDV 7 | | | SKT 4 | | T61206 |
| | HS 6-5-2-5 | 1.3243 | 1.3243 | S 6-5-2-5 | Z 85 WDKCV 06-05-05-04-02 | | HS 6-5-2-5 | SKH 55 | 2723 | |
| | HS 2-10-1-8 | 1.3247 | 1.3247 | S 2-10-1-8 | Z 110 DKCWV 09-08- | BM 42 | HS 2-9-1-8 | SKH 51 | | T11342 |
| | HS 18-0-1 | 1.3355 | 1.3355 | S 18-0-1 | Z 80 WCV 18-04-01 | BT 1 | HS 18-0-1 | SKH 2 | | T12001 |
| H11 | X 20 Cr 13 | 1.4021 | 1.4021 | X 20 Cr 13 | Z 20 C 13 | 420 S 37 | X 20 Cr 13 | SUS 420 J 1 | 2303 | S42000 |
| | X 70 CrMo 15 | 1.4109 | 1.4109 | X 65 CrMo 14 | Z 70 D 14 | | | SUS 440 A | | S44002 |
| | X 90 CrMoV 18 | 1.4112 | 1.4112 | X 90 CrMoV 18 | Z 2 CND 18 05 | 409 S 19 | X CrTi 12 | SUS 440 B | 2327 | S44003 |
| | X 105 CrMo 17 | 1.4125 | 1.4125 | X 105 CrMo 17 | Z 100 CD 17 | | X 105 CrMo 17 | SUS 440 C | | S44004 |
| H12 | X 4 CrNiCuNb 16 4 | 1.4540 | 1.4540 | X 4 CrNiCuNb 16 4 | | | | | | S15500 |
| | X 5 CrNiCuNb 16 4 | 1.4542 | 1.4542 | X 5 CrNiCuNb 16 4 | | | | SUS 630 | | S17400 |
| | X 5 CrNiCuNb 16 4 | 1.4542 | 1.4542 | X 5 CrNiCuNb 16 4 | | | | SUS 630 | | S17400 |
| | X 7 CrNiAl 17 7 | 1.4568 | 1.4568 | X 7 CrNiAl 17 7 | Z 9 CAN 17.7 | 301 S 81 | X 7 CrNiAl 17 7 | SUS 631 | 2388 | S17700 |
| | X 8 CrNiMoAl 15 7 5 | 1.4574 | 1.4574 | X 8 CrNiMoAl 15 7 5 | | | | | | S15700 |
| | X 6 NiCrTiMoV 25 15 | 1.4980 | 1.4943 | X 4 NiCrTi 25 15 | Z 6 NCTDV 25.15 | HR 51 | | SUH 660 | 2570 | S66286 |
| | X 2 NiCoMo 18 8 5 | 1.6359 | 1.6359 | X 2 NiCoMo 18 8 5 | | S 162 | | | | K92890 |
| | X 2 NiCoMoTi 18 9 5 | 1.6358 | 1.6358 | X 2 NiCoMoTi 18 9 5 | Z 2 NKD 19-09 | | | | | K93120 |
| | X 2 NiCoMoTi 18 9 5 | 1.6358 | 1.6358 | X 2 NiCoMoTi 18 9 5 | Z 2 NKD 19-09 | | | | | K93120 |
| | X 2 NiCoMoTi 18 12 4 | 1.6356 | 1.6356 | X 2 NiCoMoTi 18 12 4 | | | | | | K93160 |
| H21 | X 120 Mn 12 | 1.3401 | 1.3401 | X 120 Mn 12 | Z 120 M 12 | BW 10 | | SC MnH 1 | 2183 | |
| H31 | EN-GJN-HV520 | 0.9620 | 0.9620 | G-X330 NiCr 4 2 | FB Ni4 Cr2 BC | Grade 2 A | | | 05 12-00 | F45001 |
| | EN-GJN-HV550 | 0.9625 | 0.9625 | G-X260 NiCr 4 2 | FB Ni4 Cr2 HC | Grade 2 B | | | 05 13-00 | F45000 |
| | EN-GJN-HV600(XCr11) | 0.9630 | 0.9630 | G-X300 CrNiSi 9 5 2 | FB Cr9 Ni5 | Grade 2 C, D, E | | | 04 57-00 | F45003 |

# SMG

| U.N.E./ I.H.A. | AISI / ASTM | GOST | ČSN | Misc. Brands | Condition | Structure |
|---|---|---|---|---|---|---|
| | | | | Discalloy | Precipitation hardened | |
| | | | | Haynes 25 | | |
| | | | | Stellite 21 | | |
| | | | | Hastelloy C | | |
| | | KHN65MV | | Hastelloy C-276 | | |
| | | | | IN 100 | | |
| | | | | Inconel 718 | | |
| | | | | Inconel X-750 | Solution annealed | |
| | | | | Nimonic 80A | | |
| | | | | René 41 | | |
| | | | | Udimet 500 | | |
| | | | | Waspalloy | | |
| | | | | Ti | Commercially pure | Ti (α) |
| | AMS 4919 | | | Ti 6-2-4-2 | Annealed | Ti (α) |
| | AMS 4943 | | | Ti 3Al-2.5V (grd 9) | Annealed | Ti (α+β) |
| | AMS 4920, Grade 5 | VT6 | | Ti 6Al-4V | Annealed | Ti (α+β) |
| | AMS 4986 | | | Ti 10V-2Fe-3Al | Annealed | Ti (β) |
| F.1516 | 5115 | 12KHN2 | 14 220 | | Case hardened | |
| F.5103 | 1070 | 70 | | | Quenched & Tempered | |
| F.5107 | 1078, 1080 | 75 | | | Quenched & Tempered | |
| F.5117 | 1095 | | | | Quenched & Tempered | |
| F.5118 | W1 | U10A | | | Quenched & Tempered | |
| | S1 | 5KHV2SF | | | Quenched & Tempered | |
| | 5155 | | | | Quenched & Tempered | |
| F.1252 | 4142, 4140 | 38HM | 15 142 | | Quenched & Tempered | |
| F.520L | L2 | 11KHF | | | Quenched & Tempered | |
| F.5220 | O1 | 9KHVG | | | Quenched & Tempered | |
| | O2 | 9G2F | | | Quenched & Tempered | |
| F.5230 | 52100 | SHKH15 | 14 109 | | Quenched & Tempered | |
| F.5318 | H13 | 4KH5MF1S | | | Quenched & Tempered | |
| F.5227 | A2 | 9KH5VF | | | Quenched & Tempered | |
| F.5211 | D2 | KH12MF | | | Quenched & Tempered | |
| F.5213 | | KH12 | | | Quenched & Tempered | |
| | | KH12MF | | | Quenched & Tempered | |
| F.520.S | L6 | 5KHNM | | | Quenched & Tempered | |
| F.5613 | M35 | R6M5K5 | | | Quenched & Tempered | |
| | M42 | R2AM9K5 | | | Quenched & Tempered | |
| | T1 | R18 | | | Quenched & Tempered | |
| F.5261 | 420 | 20KH13 | 17 022 | | Quenched & Tempered | Martensitic |
| | 440 A | | | | Quenched & Tempered | Martensitic |
| | 440 B | 95KH18 | | | Quenched & Tempered | Martensitic |
| | 440 C | 95KH18 | | | Quenched & Tempered | Martensitic |
| | XM-12 | | | 15-5 PH | H900 | Martensitic |
| | SAE 630 | | | 17-4 PH | H1025 | Martensitic |
| | SAE 630 | | | 17-4 PH | H900 | Martensitic |
| | AMS 5528 | 09KH17N7YU1 | | 17-7 PH | TH1050 | Martensitic |
| | 632 | | | PH 15-7 Mo | TH1050 | Martensitic |
| | 660 | | | A286 | Precipitation hardened | Austenitic |
| | AMS 6512 | | | Marage 250 | Precipitation hardened | Martensitic |
| | AMS 6521 | | | Marage 300 | Precipitation hardened | Martensitic |
| | AMS 6521 | | | Marage 300 | Precipitation hardened | Martensitic |
| | AMS 6515 | | | Marage 350 | Precipitation hardened | Martensitic |
| | A128 Grade A | | | Hadfield | | |
| | A532 IB (NiCr-LC | | | Ni-Hard 2 | | White cast iron |
| | A532 IA (NiCr-HC) | | | Ni-Hard 1 | | White cast iron |
| | A532 ID (Ni-HiCr) | | | Ni-Hard 4 | | White cast iron |

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