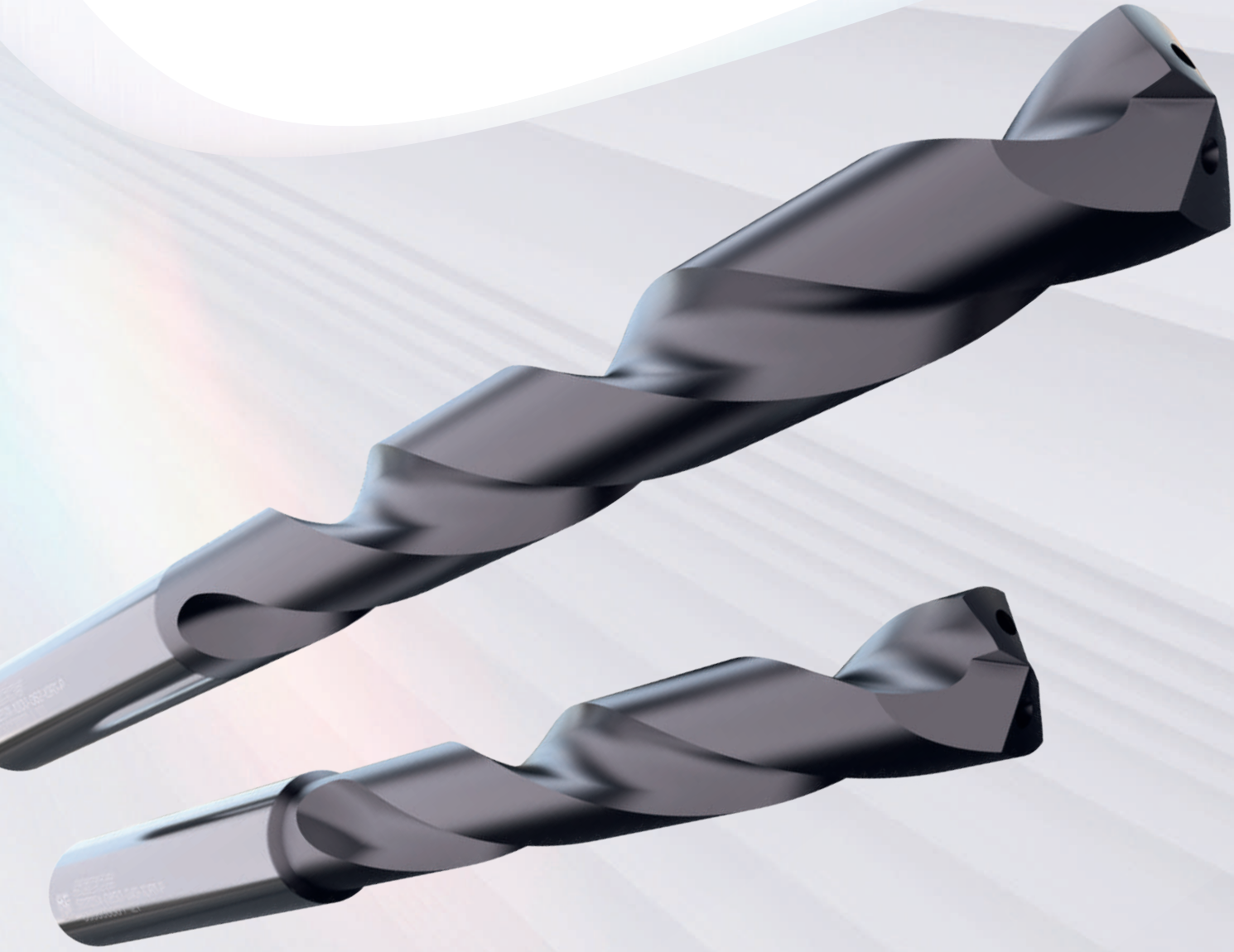
Seco

Catalog & technical guide

Holemaking 2025.1



At Seco, we make tools, tech, and solutions for the most advanced manufacturing challenges on Earth. From our founding in Fagersta Sweden, to today's global company, our business has always been made to measure, and built on trust.

Combining cutting-edge, precision tools with lasting, personal partnerships, we're a true people company helping our partners discover the future of the manufacturing industry.

We're proud to make for makers, invent for inventors, and partner with pioneers. Driving the future forward with our focus on innovation. In short - if the right tool for the job exists, we'll deliver it. If it doesn't, we'll create it.

We're proud to put sustainability at the heart of everything we do, challenging perceptions of our industry, changing the process of manufacturing, and playing our own small part in shaping a brighter looking future.

Made for Makers

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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™ / Nanojet	Bifix®	Xfix™	Rough boring	Fine boring	Threadmaster™	Threadmaster™ Taps		Thread milling 396.18/.19/.20
Page(s)	24-160	161-213	214-298	303-339	340-363	386-412	413-452	585-500	501-551	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 6HX 6G 2B Normal	5HX 2BX Normal-X 6HX 6GX	–
Thread form	–	–	–	–	–	–	–	–	–	M MF UNC UNF NPT NPTF BSP	M MF UNC UNF G NPT NPTF	M MF UNC UNF G	ISO UN W NPT NPTF 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

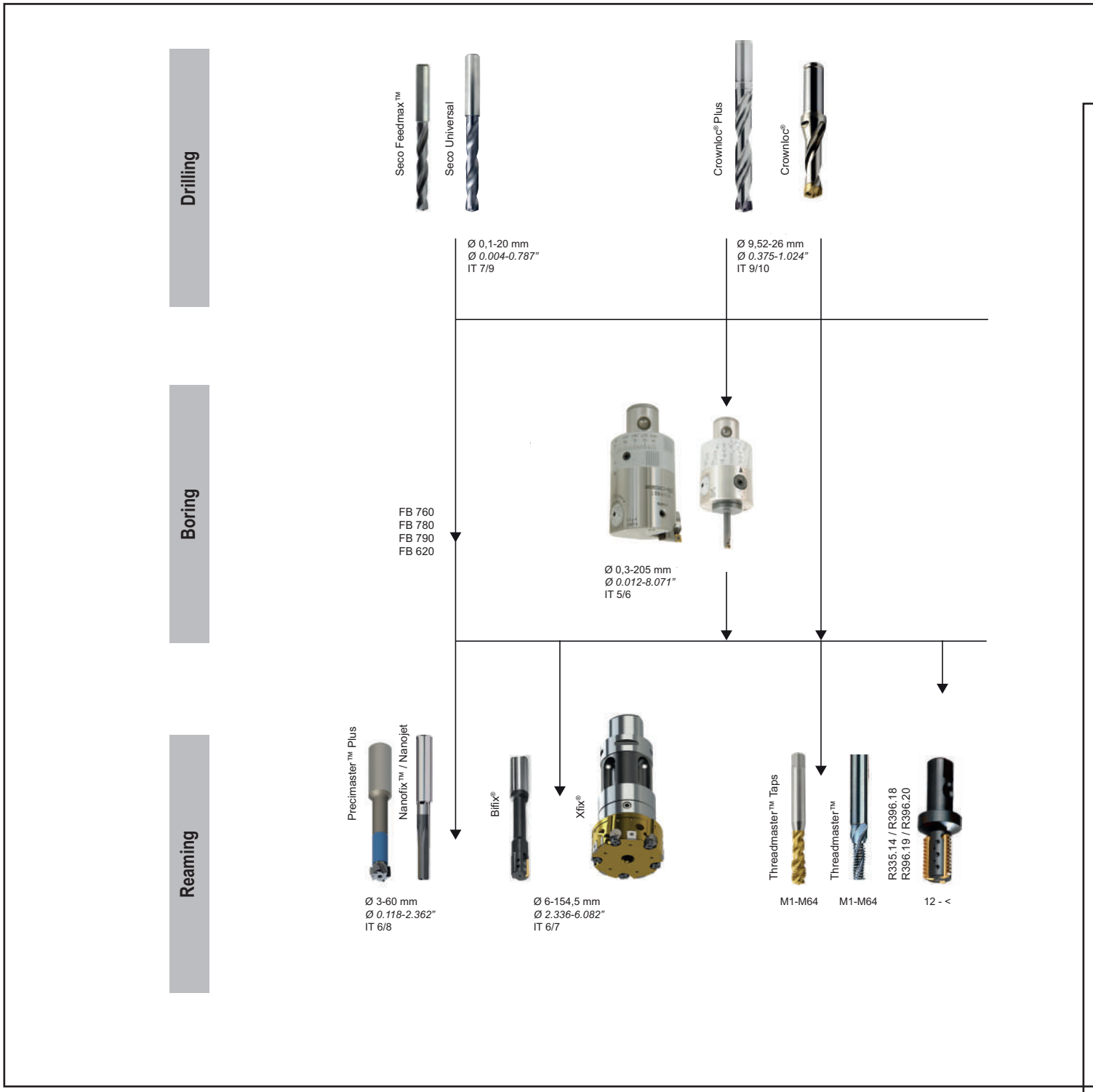
ISO attribute	Explanation
ADJLN	Minimum adjustment limit
ADJLX	Maximum adjustment limit
ADJRG	Adjustment range
AN	Clearance angle major
APMX	Depth of cut maximum
AZ	Maximum plunge depth
B	Shank width
BD	Body diameter
BD1	Body diameter 1
BD2	Body diameter 2
BDX	Body diameter maximum
BHTA	Body half taper 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

Ø 15-85 mm
Ø 0.591-3.346"
IT 12

Ø 60-160 mm
Ø 2.362-6.299"
IT 12

RB 750
RB 610

Ø 18-205 mm
Ø 0.709-8.071"
IT 9/10

Rough boring

RB 750
RB 610

Ø 18-205 mm
Ø 0.709-8.071"
IT 9/10

BB 731
Jumbo

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 646-657.

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

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

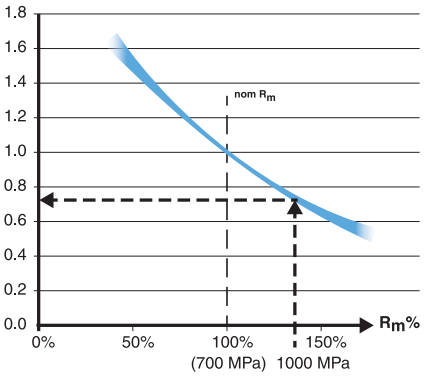
Focusing specifically on EN 42 CrMo 4 in annealed condition, the ultimate tensile strength R_m may typically vary between R_m = 630 N/mm^2 and R_m = 780 N/mm^2, which provide a reference level for SMG P5.

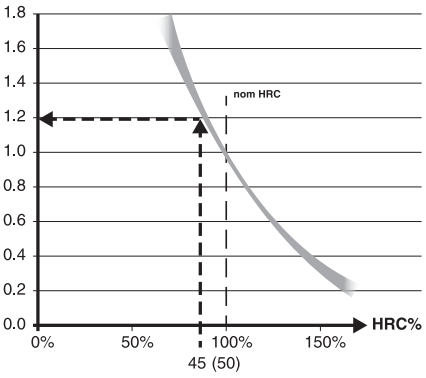
In Quenched & Tempered condition, the ultimate tensile strength Rm may typically be between R_m = 900 N/mm^2 and R_m = 1100 N/mm^2 thus still belongs to SMG P5.
However, if hardened above R_m = 1200 N/mm^2 it now belongs to SMG H5.

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) 646-657 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?

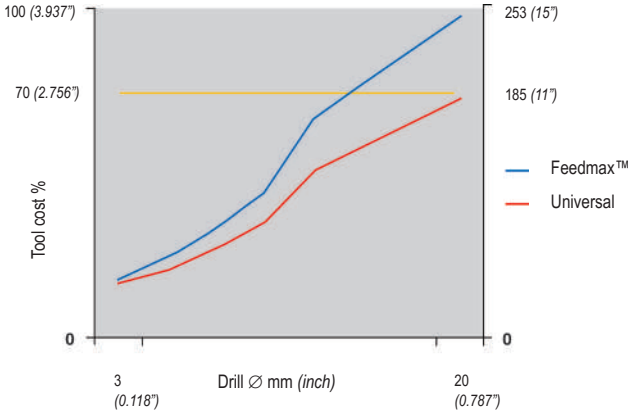
Universal – Versatile general performance solid carbide drill

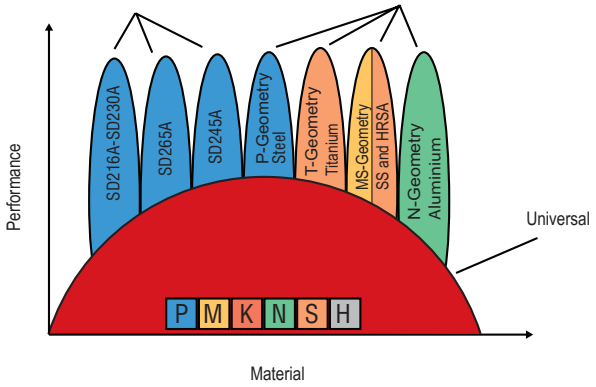
Universal is a multi purpose general performance solid carbide drill, that can be used in a wide range of materials and applications in all industry segments. Thanks to the design with a strong self centering 140 degree drill point, polished chip flutes and the excellent quality of the drill - high capacity 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

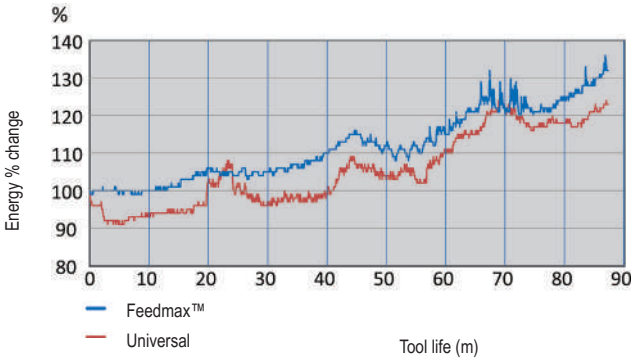
Feedmax™ offers a unique combination of state-of-the-art carbide, coating- and geometry technology.
Feedmax™ is designed for high productivity and low cost per hole with high feeds up to 0,70 mm/rev *(0.028 in/rev)* and high cutting speeds up to 220 m/min *(720 sf/min)*. With excellent centering capabilities - 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

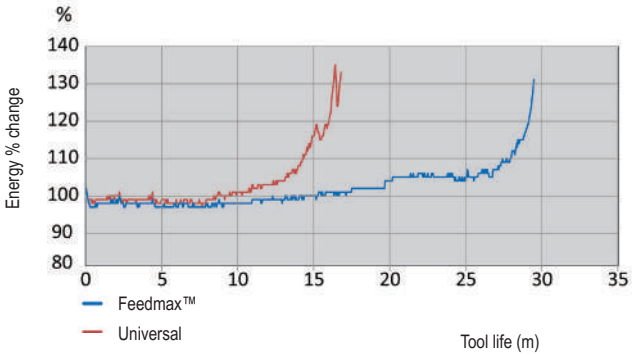


First hole is set as reference, 100% based on the spindle power
Cutting data
v_c = 90 m/min
f = 0,15 mm/rev

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	Page(s) 25, 26, 27, 28, 29	∅ 3-20 mm *(0.118-0.787")*	~ 3 x D	m7	IT 8-9	Ra 1-2 µm *(Ra 39-79 µin)*
SD1103A	Page(s) 30, 31, 32, 33, 34	∅ 3-20 mm *(0.118-0.787")*	~ 3 x D	m7	IT 8-9	Ra 1-2 µm *(Ra 39-79 µin)*
SD1105A	Page(s) 35, 36, 37, 38, 39, 40, 41	∅ 3-20 mm *(0.118-0.787")*	~ 5 x D	m7	IT 8-9	Ra 1-3 µm *(Ra 39-118 µin)*
SD1108A	Page(s) 42, 43, 44, 45	∅ 3-20 mm *(0.118-0.787")*	~ 8 x D	m7	IT 9	Ra 1-3 µm *(Ra 39-118 µin)*
SD1112A	Page(s) 46, 47, 48, 49	∅ 3-20 mm *(0.118-0.787")*	~ 12 x D	m7	IT 9	Ra 1-3 µm *(Ra 39-118 µin)*
SD203A-P	Page(s) 51, 52, 53, 54, 55, 56	∅ 2-20 mm *(0.078-0.787")*	~ 3 x D	m7	IT 8-9	Ra 1-2 µm *(Ra 39-79 µin)*
SD205A-P	Page(s) 57, 58, 59, 60, 61, 62, 63	∅ 2-20 mm *(0.078-0.787")*	~ 5 x D	m7	IT 8-9	Ra 1-2 µm *(Ra 39-79 µin)*
SD206, SD206A	Page(s) 64, 65	∅ 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	Page(s) 66, 67, 68	∅ 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	Page(s) 69	∅ 3-12 mm *(0.118-0.472")*	~ 16 x D	m7	IT 9	Ra 1-3 µm *(Ra 39-118 µin)*
SD230A	Page(s) 70	∅ 4-10 mm *(0.157-0.393")*	~ 30 x D	m7	IT 9	Ra 1-3 µm *(Ra 39-118 µin)*
SD2040A	Page(s) 71	∅ 3-8 mm *(0.118-0.315")*	~ 40 x D	e8	IT 9-10	Ra 1-3 µm *(Ra 39-118 µin)*
SD2050A	Page(s) 72	∅ 3-6,35 mm *(0.118-0.250")*	~ 50 x D	e8	IT 9	Ra 1-3 µm *(Ra 39-118 µin)*
SD2060A	Page(s) 72	∅ 3-5 mm *(0.118-0.197")*	~ 60 x D	e8	IT 9	Ra 1-3 µm *(Ra 39-118 µin)*
SD245A	Page(s) 73-74, 75	∅ 5-14 mm *(0.196-0.551")*	~ 5 x D	m7	IT 8	Ra 1-2 µm *(Ra 39-79 µin)*
SD265A	Page(s) 77	∅ 6-16 mm *(0.236-0.630")*	~ 5 x D	js6	IT 7	Ra 1-2 µm *(Ra 39-79 µin)*
SD203A-MS Superalloys	Page(s) 84, 85, 86, 87	∅ 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	Page(s) 88, 89, 90, 91	∅ 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	Page(s) 92, 93, 94	∅ 3-14,25 mm *(0.118-0.561")*	~ 3 x D	m7	IT 8-9	Ra 1-2 µm *(Ra 39-79 µin)*
SD205A-M	Page(s) 95, 96, 97	∅ 2,5-16 mm *(0.098-0.630")*	~ 5 x D	m7	IT 8-9	Ra 1-2 µm *(Ra 39-79 µin)*
SD203A-T, SD205A-T	Page(s) 98, 99	∅ 4,73-12 mm *(0.188-0.472")*	~ 3 x D, ~ 5 x D	m7	IT 8-9	Ra 1-2 µm *(Ra 39-79 µin)*
SD203A-N	Page(s) 100, 101	∅ 2,5-14 mm *(0.098-0.551)*	~ 3 x D	m7	IT 8-9	Ra 1-2 µm *(Ra 39-79 µin)*
SD205A-C1, -C2	Page(s) 105-105	∅ 6-9,55 mm *(0.236-0.376")*	~ 5 x D	m7	IT 9	–
SD203-CX1	Page(s) 106	∅ 3,26-9,53 mm *(0.128-0.375")*	~ 5 x D	m7	IT 9	–
SD22	Page(s) 108, 109, 110, 111, 112, 113	∅ 0,1-2,0 mm *(0.004-0.079")*	~ 2 x D	0,005/0 mm (+0.0002"/0)	–	–
SD26	Page(s) 114, 115, 116, 117, 118, 119	∅ 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

SD1105	A	–	0850	–	049	–	10	R	1
1	2		3		4		5	6	7

1.
Type of drill – Solid carbide drill:
SD1103: ~3 x D
SD1105: ~5 x D
SD1108: ~8 x D
SD1112: ~12 x D

2.
Internal through coolant

3.
Drill diameter

4.
Drilling depth

5.
Shank diameter

6.
Right hand rotation

7.
Type of shank
1. Cylindrical

Feedmax™

SD205	A	–	0950	–	049	–	10	R	1	–	P
1	2		3		4		5	6	7		8

1.
Type of drill – Solid carbide drill:
SD203: ~3 x D
SD205: ~5 x D
SD207: ~7 x D
SD2040: ~40 x D
SD2050: ~50 x D
SD2060: ~60 x D

2.
Internal through coolant

3.
Drill diameter

4.
Drilling depth

5.
Shank diameter

6.
Right hand rotation

7.
Type of shank
1. Cylindrical

8.
P - Geometry for steel
MS - Geometry for superalloys and stainless steel

Feedmax™

SD205	A	–	9.5	–	45	–	10	R	1	–	M
1	2		3		4		5	6	7		8

1.
Type of drill – Solid carbide drill:
SD206: ~6 x D
SD216: ~16 x D
SD230: ~30 x D
SD245: ~5 x D
SD265: ~5 x D
SD22: ~2 x D
SD26: ~6 x D

2.
Internal through coolant

3.
Drill diameter

4.
Drilling depth

5.
Shank diameter

6.
Right hand rotation

7.
Type of shank
1. Cylindrical
5. Whistle Notch

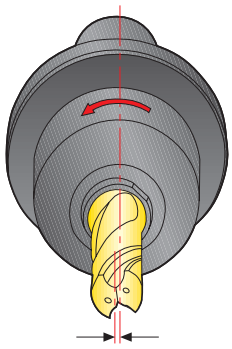
8.
M - Geometry for superalloys
T - Geometry for titanium alloys
N - Geometry for aluminium
C1 - Geometry for CFRP and exiting in CFRP
C2 - Geometry for CFRP and exiting in i.e. Ti or Al
CX1 - PCD drills for CFRP and GFRP

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.

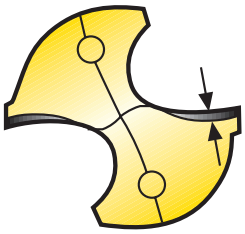
Recommended Tool Holders



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

Max. 0,02 mm (0.0008”)

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.



0,1-0,3 mm (0.004-0.012”)

Shrinkfit holder
(For cylindrical, R1 shanks only)

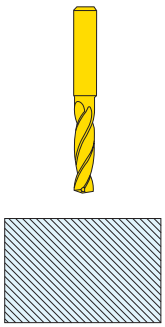
Hydraulic chuck
(For cylindrical, R1 shanks only)

High precision collet chucks
(For cylindrical, R1 shanks only)

Machining methods

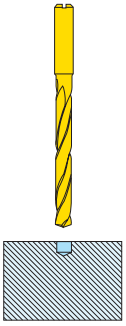
Hole entrance on a machined surface

3-15 x D



No pre-drilling or entrance feed needed.

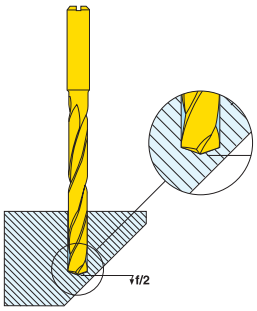
> 16 x D



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

Angled Hole Exits

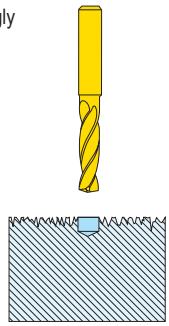
Before hole exit reduce the feed/rev by 50%.



Or use SD245A drills.

Irregular/angled Hole entrance

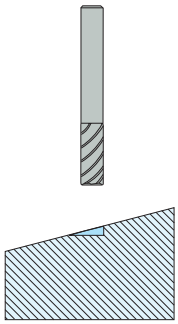
If irregular or angle entrance use pre operations accordingly



Regular hole entrance

Pre drill with a short standard Feedmax.

Pre-machining alternatives

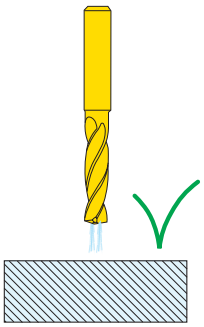


Angle-hole entrance

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

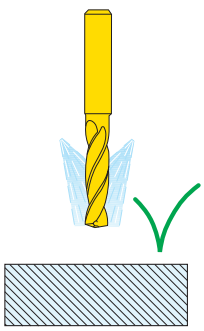
Coolant Recommendations

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

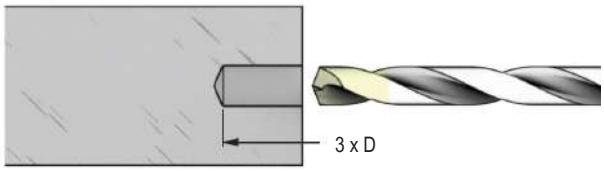
2. Coolant mix
Recommended emulsion mix 6-8%.
When drilling in stainless steels, superalloys and high strength steels a mix of 10% is recommended.

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

Machining strategy – Productivity

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

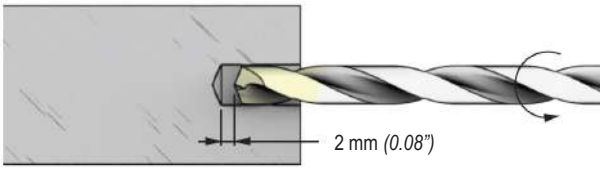
1. Pilot drilling



≥10 bar
ON

- SD203A

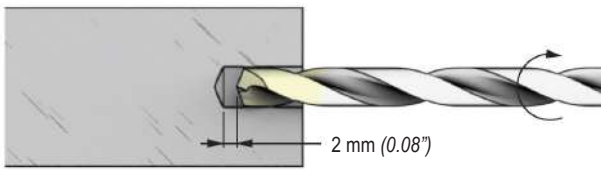
2. Feeding in



OFF

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

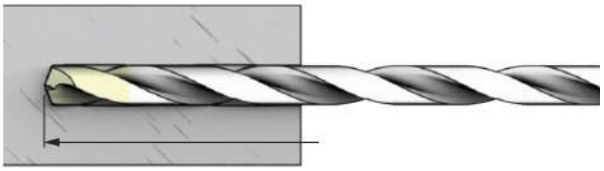
3. Change spindle rotation



≥40 bar
ON

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

4. Deep-hole drilling

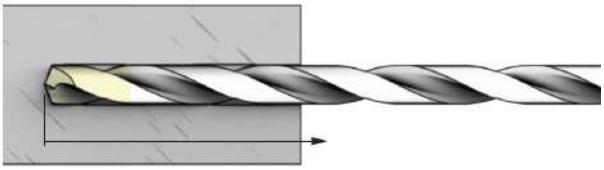


≥40 bar

ON

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

5. Retracting



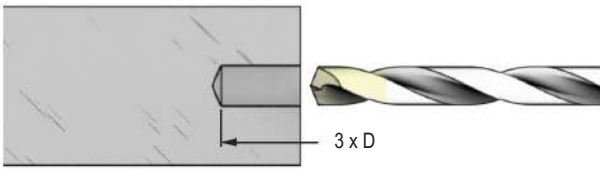
OFF

- 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)

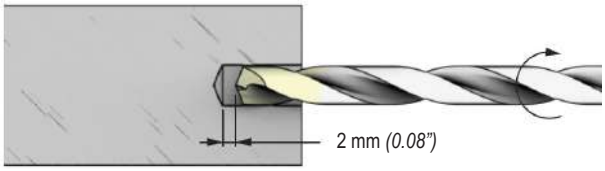
1. Pilot drilling



≥10 bar
ON

– SD203A

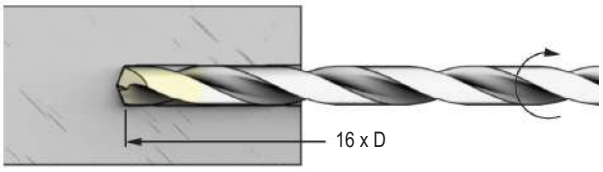
2. Feeding in



OFF

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

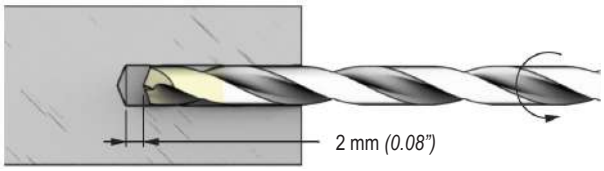
3. Pre drilling



≥10 bar
ON

– SD216A
– v_c = 100%
– v_f = 100%

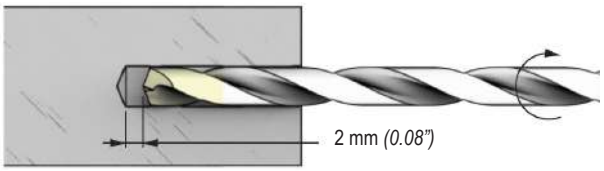
4. Feeding in



OFF

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

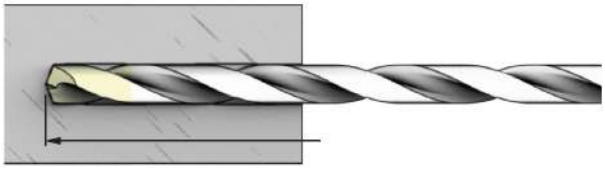
5. Change spindle rotation



≥40 bar
ON

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

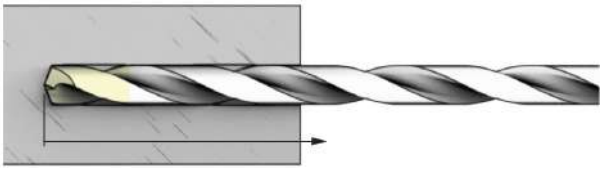
6. Deep-hole drilling



≥40 bar
ON

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

7. Retracting

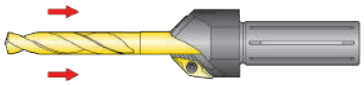


OFF

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

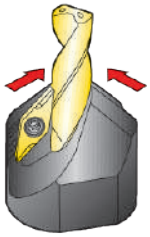
Chamfer module mounting instructions

1.

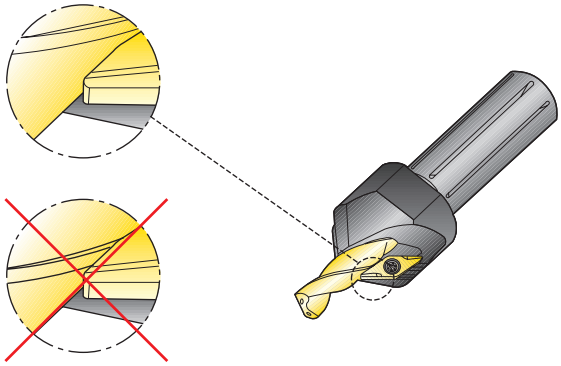


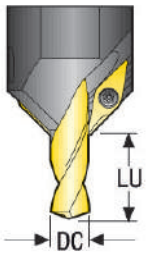
2.

3.

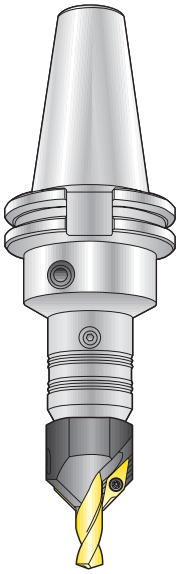


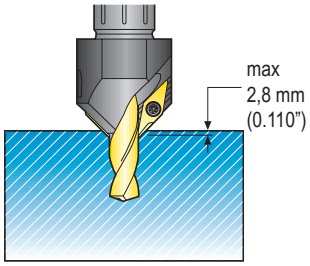
4.





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).

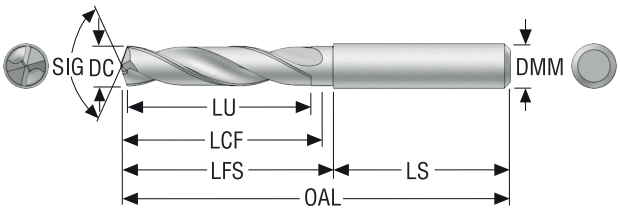
Seco Universal – Single diameter drills

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) 130
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC mm Inch	LU mm Inch	OAL mm Inch	LFS mm Inch	LS mm Inch	LCF mm Inch	DMM mm Inch	Point angle	Coating	Hole tolerance
SD1103-0300-014-06R1 *SD_DRILL_3.0MM_3XD*	02898974	3,0 *0.118*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0310-014-06R1 *SD_DRILL_3.1MM_3XD*	02898975	3,1 *0.122*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0318-014-06R1 *SD_DRILL_1/8_3XD*	02898976	3,175 *0.125*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0320-014-06R1 *SD_DRILL_3.2MM_3XD*	02898977	3,2 *0.126*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0325-014-06R1 *SD_DRILL_3.25MM_3XD*	02898978	3,25 *0.128*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0330-014-06R1 *SD_DRILL_3.3MM_3XD*	02898979	3,3 *0.130*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0340-014-06R1 *SD_DRILL_3.4MM_3XD*	02898980	3,4 *0.134*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0350-014-06R1 *SD_DRILL_3.5MM_3XD*	02898981	3,5 *0.138*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0357-014-06R1 *SD_DRILL_9/64_3XD*	02898982	3,572 *0.141*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0360-014-06R1 *SD_DRILL_3.6MM_3XD*	02898983	3,6 *0.142*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0365-014-06R1 *SD_DRILL_3.65MM_3XD*	02898984	3,65 *0.144*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0370-014-06R1 *SD_DRILL_3.7MM_3XD*	02898985	3,7 *0.146*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0380-017-06R1 *SD_DRILL_3.8MM_3XD*	02898986	3,8 *0.150*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0390-017-06R1 *SD_DRILL_3.9MM_3XD*	02898987	3,9 *0.154*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0397-017-06R1 *SD_DRILL_5/32_3XD*	02898988	3,969 *0.156*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0400-017-06R1 *SD_DRILL_4.0MM_3XD*	02898989	4,0 *0.157*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0410-017-06R1 *SD_DRILL_4.1MM_3XD*	02898990	4,1 *0.161*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0420-017-06R1 *SD_DRILL_4.2MM_3XD*	02898991	4,2 *0.165*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0430-017-06R1 *SD_DRILL_4.3MM_3XD*	02898992	4,3 *0.169*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0437-017-06R1 *SD_DRILL_11/64_3XD*	02898993	4,366 *0.172*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0440-017-06R1 *SD_DRILL_4.4MM_3XD*	02898994	4,4 *0.173*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0450-017-06R1 *SD_DRILL_4.5MM_3XD*	02898995	4,5 *0.177*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0460-017-06R1 *SD_DRILL_4.6MM_3XD*	02898996	4,6 *0.181*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0465-017-06R1 *SD_DRILL_4.65MM_3XD*	02898997	4,65 *0.183*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0470-017-06R1 *SD_DRILL_4.7MM_3XD*	02898998	4,7 *0.185*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1103-0476-020-06R1 *SD_DRILL_3/16_3XD*	02898999	4,763 *0.188*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0480-020-06R1 *SD_DRILL_4.8MM_3XD*	02899000	4,8 *0.189*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0490-020-06R1 *SD_DRILL_4.9MM_3XD*	02899001	4,9 *0.193*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0500-020-06R1 *SD_DRILL_5.0MM_3XD*	02899002	5,0 *0.197*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0510-020-06R1 *SD_DRILL_5.1MM_3XD*	02899003	5,1 *0.201*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0516-020-06R1 *SD_DRILL_13/64_3XD*	02899004	5,159 *0.203*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0520-020-06R1 *SD_DRILL_5.2MM_3XD*	02899005	5,2 *0.205*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0530-020-06R1 *SD_DRILL_5.3MM_3XD*	02899006	5,3 *0.209*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0540-020-06R1 *SD_DRILL_5.4MM_3XD*	02899007	5,4 *0.213*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0550-020-06R1 *SD_DRILL_5.5MM_3XD*	02899008	5,5 *0.217*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0555-020-06R1 *SD_DRILL_5.55MM_3XD*	02899009	5,55 *0.219*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0556-020-06R1 *SD_DRILL_7/32_3XD*	02899010	5,556 *0.219*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0560-020-06R1 *SD_DRILL_5.6MM_3XD*	02899011	5,6 *0.220*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0570-020-06R1 *SD_DRILL_5.7MM_3XD*	02899012	5,7 *0.224*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0580-020-06R1 *SD_DRILL_5.8MM_3XD*	02899013	5,8 *0.228*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0590-020-06R1 *SD_DRILL_5.9MM_3XD*	02899014	5,9 *0.232*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0595-020-06R1 *SD_DRILL_15/64_3XD*	02899015	5,953 *0.234*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0600-020-06R1 *SD_DRILL_6.0MM_3XD*	02899016	6,0 *0.236*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0610-024-08R1 *SD_DRILL_6.1MM_3XD*	02899017	6,1 *0.240*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0620-024-08R1 *SD_DRILL_6.2MM_3XD*	02899018	6,2 *0.244*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0630-024-08R1 *SD_DRILL_6.3MM_3XD*	02899019	6,3 *0.248*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0635-024-08R1 *SD_DRILL_1/4_3XD*	02899020	6,35 *0.250*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0640-024-08R1 *SD_DRILL_6.4MM_3XD*	02899021	6,4 *0.252*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0650-024-08R1 *SD_DRILL_6.5MM_3XD*	02899022	6,5 *0.256*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0660-024-08R1 *SD_DRILL_6.6MM_3XD*	02899024	6,6 *0.260*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0675-024-08R1 *SD_DRILL_17/64_3XD*	02899025	6,747 *0.266*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0680-024-08R1 *SD_DRILL_6.8MM_3XD*	02899026	6,8 *0.268*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0690-024-08R1 *SD_DRILL_6.9MM_3XD*	02899027	6,9 *0.272*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0700-024-08R1 *SD_DRILL_7.0MM_3XD*	02899028	7,0 *0.276*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0710-029-08R1 *SD_DRILL_7.1MM_3XD*	02899029	7,1 *0.280*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0714-029-08R1 *SD_DRILL_9/32_3XD*	02899030	7,144 *0.281*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0720-029-08R1 *SD_DRILL_7.2MM_3XD*	02899031	7,2 *0.283*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0730-029-08R1 *SD_DRILL_7.3MM_3XD*	02899032	7,3 *0.287*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0740-029-08R1 *SD_DRILL_7.4MM_3XD*	02899033	7,4 *0.291*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0750-029-08R1 *SD_DRILL_7.5MM_3XD*	02899034	7,5 *0.295*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9

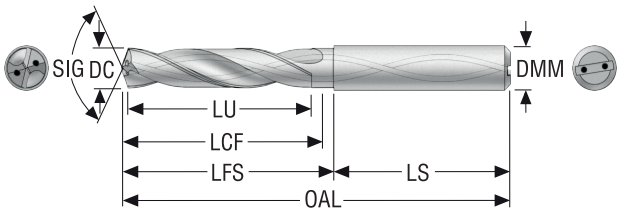
Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1103-0754-029-08R1 *SD_DRILL_19/64_3XD*	02899035	7,541 *0.297*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0755-029-08R1 *SD_DRILL_7.55MM_3XD*	02899036	7,55 *0.297*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0760-029-08R1 *SD_DRILL_7.6MM_3XD*	02899037	7,6 *0.299*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0770-029-08R1 *SD_DRILL_7.7MM_3XD*	02899038	7,7 *0.303*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0780-029-08R1 *SD_DRILL_7.8MM_3XD*	02899040	7,8 *0.307*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0790-029-08R1 *SD_DRILL_7.9MM_3XD*	02899041	7,9 *0.311*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0794-029-08R1 *SD_DRILL_5/16_3XD*	02899042	7,938 *0.313*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0800-029-08R1 *SD_DRILL_8.0MM_3XD*	02899043	8,0 *0.315*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0810-035-10R1 *SD_DRILL_8.1MM_3XD*	02899044	8,1 *0.319*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0820-035-10R1 *SD_DRILL_8.2MM_3XD*	02899045	8,2 *0.323*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0830-035-10R1 *SD_DRILL_8.3MM_3XD*	02899046	8,3 *0.327*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0833-035-10R1 *SD_DRILL_21/64_3XD*	02899047	8,334 *0.328*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0840-035-10R1 *SD_DRILL_8.4MM_3XD*	02899048	8,4 *0.331*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0850-035-10R1 *SD_DRILL_8.5MM_3XD*	02899049	8,5 *0.335*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0860-035-10R1 *SD_DRILL_8.6MM_3XD*	02899050	8,6 *0.339*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0870-035-10R1 *SD_DRILL_8.7MM_3XD*	02899051	8,7 *0.343*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0873-035-10R1 *SD_DRILL_11/32_3XD*	02899052	8,731 *0.344*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0880-035-10R1 *SD_DRILL_8.8MM_3XD*	02899053	8,8 *0.346*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0890-035-10R1 *SD_DRILL_8.9MM_3XD*	02899054	8,9 *0.350*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0900-035-10R1 *SD_DRILL_9.0MM_3XD*	02899055	9,0 *0.354*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0910-035-10R1 *SD_DRILL_9.1MM_3XD*	02899056	9,1 *0.358*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0913-035-10R1 *SD_DRILL_23/64_3XD*	02899058	9,128 *0.359*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0920-035-10R1 *SD_DRILL_9.2MM_3XD*	02899059	9,2 *0.362*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0930-035-10R1 *SD_DRILL_9.3MM_3XD*	02899060	9,3 *0.366*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0940-035-10R1 *SD_DRILL_9.4MM_3XD*	02899061	9,4 *0.370*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0950-035-10R1 *SD_DRILL_9.5MM_3XD*	02899062	9,5 *0.374*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0953-035-10R1 *SD_DRILL_3/8_3XD*	02899063	9,525 *0.375*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0955-035-10R1 *SD_DRILL_9.55MM_3XD*	02899064	9,55 *0.376*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0960-035-10R1 *SD_DRILL_9.6MM_3XD*	02899065	9,6 *0.378*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0970-035-10R1 *SD_DRILL_9.7MM_3XD*	02899066	9,7 *0.382*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0980-035-10R1 *SD_DRILL_9.8MM_3XD*	02899067	9,8 *0.386*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0990-035-10R1 *SD_DRILL_9.9MM_3XD*	02899068	9,9 *0.390*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0992-035-10R1 *SD_DRILL_25/64_3XD*	02899069	9,922 *0.391*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-1000-035-10R1 *SD_DRILL_10.0MM_3XD*	02899070	10,0 *0.394*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-1020-040-12R1 *SD_DRILL_10.2MM_3XD*	02899071	10,2 *0.402*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1103-1032-040-12R1 *SD_DRILL_13/32_3XD*	02899072	10,319 *0.406*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1040-040-12R1 *SD_DRILL_10.4MM_3XD*	02899073	10,4 *0.409*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1050-040-12R1 *SD_DRILL_10.5MM_3XD*	02899074	10,5 *0.413*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1060-040-12R1 *SD_DRILL_10.6MM_3XD*	02899075	10,6 *0.417*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1072-040-12R1 *SD_DRILL_27/64_3XD*	02899076	10,716 *0.422*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1080-040-12R1 *SD_DRILL_10.8MM_3XD*	02899077	10,8 *0.425*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1090-040-12R1 *SD_DRILL_10.9MM_3XD*	02899078	10,9 *0.429*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1100-040-12R1 *SD_DRILL_11.0MM_3XD*	02899079	11,0 *0.433*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1110-040-12R1 *SD_DRILL_11.1MM_3XD*	02899080	11,1 *0.437*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1111-040-12R1 *SD_DRILL_7/16_3XD*	02899081	11,113 *0.438*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1120-040-12R1 *SD_DRILL_11.2MM_3XD*	02899082	11,2 *0.441*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1130-040-12R1 *SD_DRILL_11.3MM_3XD*	02899083	11,3 *0.445*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1140-040-12R1 *SD_DRILL_11.4MM_3XD*	02899084	11,4 *0.449*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1150-040-12R1 *SD_DRILL_11.5MM_3XD*	02899085	11,5 *0.453*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1151-040-12R1 *SD_DRILL_29/64_3XD*	02899086	11,509 *0.453*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1155-040-12R1 *SD_DRILL_11.55MM_3XD*	02899087	11,55 *0.455*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1160-040-12R1 *SD_DRILL_11.6MM_3XD*	02899088	11,6 *0.457*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1170-040-12R1 *SD_DRILL_11.7MM_3XD*	02899089	11,7 *0.461*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1180-040-12R1 *SD_DRILL_11.8MM_3XD*	02899090	11,8 *0.465*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1190-040-12R1 *SD_DRILL_11.9MM_3XD*	02899091	11,9 *0.469*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1191-040-12R1 *SD_DRILL_15/32_3XD*	02899092	11,906 *0.469*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1200-040-12R1 *SD_DRILL_12.0MM_3XD*	02899093	12,0 *0.472*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1210-043-14R1 *SD_DRILL_12.1MM_3XD*	02899094	12,1 *0.476*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1220-043-14R1 *SD_DRILL_12.2MM_3XD*	02899095	12,2 *0.480*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1230-043-14R1 *SD_DRILL_31/64_3XD*	02899096	12,303 *0.484*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1240-043-14R1 *SD_DRILL_12.4MM_3XD*	02899097	12,4 *0.488*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1250-043-14R1 *SD_DRILL_12.5MM_3XD*	02899098	12,5 *0.492*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1260-043-14R1 *SD_DRILL_12.6MM_3XD*	02899099	12,6 *0.496*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1270-043-14R1 *SD_DRILL_1/2_3XD*	02899100	12,7 *0.500*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1275-043-14R1 *SD_DRILL_12.75MM_3XD*	02899101	12,75 *0.502*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1280-043-14R1 *SD_DRILL_12.8MM_3XD*	02899102	12,8 *0.504*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1290-043-14R1 *SD_DRILL_12.9MM_3XD*	02899103	12,9 *0.508*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1300-043-14R1 *SD_DRILL_13.0MM_3XD*	02899104	13,0 *0.512*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1310-043-14R1 *SD_DRILL_33/64_3XD*	02899105	13,1 *0.516*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1320-043-14R1 *SD_DRILL_13.2MM_3XD*	02899106	13,2 *0.520*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1103-1330-043-14R1 *SD_DRILL_13.3MM_3XD*	02899107	13,3 *0.524*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1340-043-14R1 *SD_DRILL_13.4MM_3XD*	02899108	13,4 *0.528*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1349-043-14R1 *SD_DRILL_17/32_3XD*	02899109	13,494 *0.531*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1350-043-14R1 *SD_DRILL_13.5MM_3XD*	02899110	13,5 *0.531*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1360-043-14R1 *SD_DRILL_13.6MM_3XD*	02899111	13,6 *0.535*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1370-043-14R1 *SD_DRILL_13.7MM_3XD*	02899112	13,7 *0.539*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1380-043-14R1 *SD_DRILL_13.8MM_3XD*	02899113	13,8 *0.543*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1390-043-14R1 *SD_DRILL_35/64_3XD*	02899114	13,9 *0.547*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1400-043-14R1 *SD_DRILL_14.0MM_3XD*	02899115	14,0 *0.551*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1420-045-16R1 *SD_DRILL_14.2MM_3XD*	02899116	14,2 *0.559*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103-1429-045-16R1 *SD_DRILL_9/16_3XD*	02899117	14,288 *0.563*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103-1450-045-16R1 *SD_DRILL_14.5MM_3XD*	02899119	14,5 *0.571*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103-1470-045-16R1 *SD_DRILL_14.7MM_3XD*	02899120	14,7 *0.579*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103-1475-045-16R1 *SD_DRILL_14.75MM_3XD*	02899121	14,75 *0.581*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103-1480-045-16R1 *SD_DRILL_14.8MM_3XD*	02899122	14,8 *0.583*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103-1500-045-16R1 *SD_DRILL_15.0MM_3XD*	02899123	15,0 *0.591*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103-1510-045-16R1 *SD_DRILL_15.1MM_3XD*	02899124	15,1 *0.594*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103-1530-045-16R1 *SD_DRILL_15.3MM_3XD*	02899125	15,3 *0.602*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103-1550-045-16R1 *SD_DRILL_15.5MM_3XD*	02899126	15,5 *0.610*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103-1570-045-16R1 *SD_DRILL_15.7MM_3XD*	02899127	15,7 *0.618*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103-1580-045-16R1 *SD_DRILL_15.8MM_3XD*	02899128	15,8 *0.622*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103-1588-045-16R1 *SD_DRILL_5/8_3XD*	02899129	15,875 *0.625*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103-1600-045-16R1 *SD_DRILL_16.0MM_3XD*	02899130	16,0 *0.630*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103-1650-051-18R1 *SD_DRILL_16.5MM_3XD*	02899131	16,5 *0.650*	51,0 *2.008*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN	IT9
SD1103-1700-051-18R1 *SD_DRILL_17.0MM_3XD*	02899132	17,0 *0.669*	51,0 *2.008*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN	IT9
SD1103-1750-051-18R1 *SD_DRILL_17.5MM_3XD*	02899133	17,5 *0.689*	51,0 *2.008*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN	IT9
SD1103-1800-051-18R1 *SD_DRILL_18.0MM_3XD*	02899134	18,0 *0.709*	51,0 *2.008*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN	IT9
SD1103-1850-055-20R1 *SD_DRILL_18.5MM_3XD*	02899135	18,5 *0.728*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN	IT9
SD1103-1900-055-20R1 *SD_DRILL_19.0MM_3XD*	02899136	19,0 *0.748*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN	IT9
SD1103-1905-055-20R1 *SD_DRILL_3/4_3XD*	02899137	19,05 *0.750*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN	IT9
SD1103-1950-055-20R1 *SD_DRILL_19.5MM_3XD*	02899138	19,5 *0.768*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN	IT9
SD1103-2000-055-20R1 *SD_DRILL_20.0MM_3XD*	02899139	20,0 *0.787*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *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) 131
– For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1103A-0300-014-06R1 *SD_DRILL_3.0MM_3XD_A*	02898244	3,0 *0.118*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0310-014-06R1 *SD_DRILL_3.1MM_3XD_A*	02898245	3,1 *0.122*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0318-014-06R1 *SD_DRILL_1/8_3XD_A*	02898246	3,175 *0.125*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0320-014-06R1 *SD_DRILL_3.2MM_3XD_A*	02898247	3,2 *0.126*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0325-014-06R1 *SD_DRILL_3.25MM_3XD_A*	02898248	3,25 *0.128*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0330-014-06R1 *SD_DRILL_3.3MM_3XD_A*	02898249	3,3 *0.130*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0340-014-06R1 *SD_DRILL_3.4MM_3XD_A*	02898250	3,4 *0.134*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0350-014-06R1 *SD_DRILL_3.5MM_3XD_A*	02898251	3,5 *0.138*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0357-014-06R1 *SD_DRILL_9/64_3XD_A*	02898252	3,572 *0.141*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0360-014-06R1 *SD_DRILL_3.6MM_3XD_A*	02898253	3,6 *0.142*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0365-014-06R1 *SD_DRILL_3.65MM_3XD_A*	02898254	3,65 *0.144*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0370-014-06R1 *SD_DRILL_3.7MM_3XD_A*	02898255	3,7 *0.146*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0380-017-06R1 *SD_DRILL_3.8MM_3XD_A*	02898256	3,8 *0.150*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0390-017-06R1 *SD_DRILL_3.9MM_3XD_A*	02898257	3,9 *0.154*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0397-017-06R1 *SD_DRILL_5/32_3XD_A*	02898258	3,969 *0.156*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0400-017-06R1 *SD_DRILL_4.0MM_3XD_A*	02898259	4,0 *0.157*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0410-017-06R1 *SD_DRILL_4.1MM_3XD_A*	02898260	4,1 *0.161*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0420-017-06R1 *SD_DRILL_4.2MM_3XD_A*	02898261	4,2 *0.165*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0430-017-06R1 *SD_DRILL_4.3MM_3XD_A*	02898262	4,3 *0.169*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0437-017-06R1 *SD_DRILL_11/64_3XD_A*	02898263	4,366 *0.172*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0450-017-06R1 *SD_DRILL_4.5MM_3XD_A*	02898264	4,5 *0.177*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0460-017-06R1 *SD_DRILL_4.6MM_3XD_A*	02898265	4,6 *0.181*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0465-017-06R1 *SD_DRILL_4.65MM_3XD_A*	02898266	4,65 *0.183*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0470-017-06R1 *SD_DRILL_4.7MM_3XD_A*	02898267	4,7 *0.185*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0476-020-06R1 *SD_DRILL_3/16_3XD_A*	02898268	4,763 *0.188*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1103A-0480-020-06R1 *SD_DRILL_4.8MM_3XD_A*	02898269	4,8 *0.189*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0490-020-06R1 *SD_DRILL_4.9MM_3XD_A*	02898270	4,9 *0.193*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0500-020-06R1 *SD_DRILL_5.0MM_3XD_A*	02898271	5,0 *0.197*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0510-020-06R1 *SD_DRILL_5.1MM_3XD_A*	02898272	5,1 *0.201*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0516-020-06R1 *SD_DRILL_13/64_3XD_A*	02898273	5,159 *0.203*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0520-020-06R1 *SD_DRILL_5.2MM_3XD_A*	02898275	5,2 *0.205*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0530-020-06R1 *SD_DRILL_5.3MM_3XD_A*	02898276	5,3 *0.209*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0540-020-06R1 *SD_DRILL_5.4MM_3XD_A*	02898277	5,4 *0.213*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0550-020-06R1 *SD_DRILL_5.5MM_3XD_A*	02898278	5,5 *0.217*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0555-020-06R1 *SD_DRILL_5.55MM_3XD_A*	02898279	5,55 *0.219*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0556-020-06R1 *SD_DRILL_7/32_3XD_A*	02898280	5,556 *0.219*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0560-020-06R1 *SD_DRILL_5.6MM_3XD_A*	02898281	5,6 *0.220*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0570-020-06R1 *SD_DRILL_5.7MM_3XD_A*	02898282	5,7 *0.224*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0580-020-06R1 *SD_DRILL_5.8MM_3XD_A*	02898283	5,8 *0.228*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0590-020-06R1 *SD_DRILL_5.9MM_3XD_A*	02898284	5,9 *0.232*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0595-020-06R1 *SD_DRILL_15/64_3XD_A*	02898285	5,953 *0.234*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0600-020-06R1 *SD_DRILL_6.0MM_3XD_A*	02898286	6,0 *0.236*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0610-024-08R1 *SD_DRILL_6.1MM_3XD_A*	02898287	6,1 *0.240*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0620-024-08R1 *SD_DRILL_6.2MM_3XD_A*	02898288	6,2 *0.244*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0630-024-08R1 *SD_DRILL_6.3MM_3XD_A*	02898289	6,3 *0.248*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0635-024-08R1 *SD_DRILL_1/4_3XD_A*	02898290	6,35 *0.250*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0640-024-08R1 *SD_DRILL_6.4MM_3XD_A*	02898291	6,4 *0.252*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0650-024-08R1 *SD_DRILL_6.5MM_3XD_A*	02898292	6,5 *0.256*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0660-024-08R1 *SD_DRILL_6.6MM_3XD_A*	02898293	6,6 *0.260*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0670-024-08R1 *SD_DRILL_6.7MM_3XD_A*	02898294	6,7 *0.264*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0675-024-08R1 *SD_DRILL_17/64_3XD_A*	02898295	6,747 *0.266*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0680-024-08R1 *SD_DRILL_6.8MM_3XD_A*	02898296	6,8 *0.268*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0690-024-08R1 *SD_DRILL_6.9MM_3XD_A*	02898297	6,9 *0.272*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0700-024-08R1 *SD_DRILL_7.0MM_3XD_A*	02898298	7,0 *0.276*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0710-029-08R1 *SD_DRILL_7.1MM_3XD_A*	02898299	7,1 *0.280*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0714-029-08R1 *SD_DRILL_9/32_3XD_A*	02898300	7,144 *0.281*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0720-029-08R1 *SD_DRILL_7.2MM_3XD_A*	02898301	7,2 *0.283*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0730-029-08R1 *SD_DRILL_7.3MM_3XD_A*	02898302	7,3 *0.287*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0740-029-08R1 *SD_DRILL_7.4MM_3XD_A*	02898303	7,4 *0.291*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0750-029-08R1 *SD_DRILL_7.5MM_3XD_A*	02898304	7,5 *0.295*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9

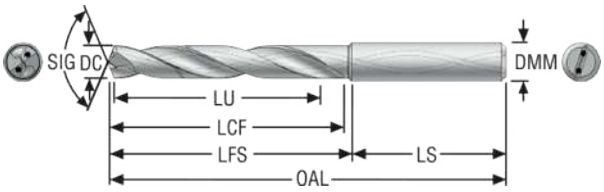
Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1103A-0754-029-08R1 *SD_DRILL_19/64_3XD_A*	02898305	7,541 *0.297*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0755-029-08R1 *SD_DRILL_7.55MM_3XD_A*	02898306	7,55 *0.297*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0760-029-08R1 *SD_DRILL_7.6MM_3XD_A*	02898307	7,6 *0.299*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0770-029-08R1 *SD_DRILL_7.7MM_3XD_A*	02898308	7,7 *0.303*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0780-029-08R1 *SD_DRILL_7.8MM_3XD_A*	02898309	7,8 *0.307*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0790-029-08R1 *SD_DRILL_7.9MM_3XD_A*	02898310	7,9 *0.311*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0794-029-08R1 *SD_DRILL_5/16_3XD_A*	02898311	7,938 *0.313*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0800-029-08R1 *SD_DRILL_8.0MM_3XD_A*	02898312	8,0 *0.315*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0810-035-10R1 *SD_DRILL_8.1MM_3XD_A*	02898313	8,1 *0.319*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0820-035-10R1 *SD_DRILL_8.2MM_3XD_A*	02898314	8,2 *0.323*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0830-035-10R1 *SD_DRILL_8.3MM_3XD_A*	02898315	8,3 *0.327*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0833-035-10R1 *SD_DRILL_21/64_3XD_A*	02898316	8,334 *0.328*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0840-035-10R1 *SD_DRILL_8.4MM_3XD_A*	02898317	8,4 *0.331*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0850-035-10R1 *SD_DRILL_8.5MM_3XD_A*	02898318	8,5 *0.335*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0860-035-10R1 *SD_DRILL_8.6MM_3XD_A*	02898319	8,6 *0.339*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0870-035-10R1 *SD_DRILL_8.7MM_3XD_A*	02898320	8,7 *0.343*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0873-035-10R1 *SD_DRILL_11/32_3XD_A*	02898321	8,731 *0.344*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0880-035-10R1 *SD_DRILL_8.8MM_3XD_A*	02898322	8,8 *0.346*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0890-035-10R1 *SD_DRILL_8.9MM_3XD_A*	02898323	8,9 *0.350*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0900-035-10R1 *SD_DRILL_9.0MM_3XD_A*	02898324	9,0 *0.354*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0910-035-10R1 *SD_DRILL_9.1MM_3XD_A*	02898325	9,1 *0.358*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0913-035-10R1 *SD_DRILL_23/64_3XD_A*	02898326	9,128 *0.359*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0920-035-10R1 *SD_DRILL_9.2MM_3XD_A*	02898327	9,2 *0.362*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0930-035-10R1 *SD_DRILL_9.3MM_3XD_A*	02898328	9,3 *0.366*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0940-035-10R1 *SD_DRILL_9.4MM_3XD_A*	02898329	9,4 *0.370*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0950-035-10R1 *SD_DRILL_9.5MM_3XD_A*	02898330	9,5 *0.374*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0953-035-10R1 *SD_DRILL_3/8_3XD_A*	02898331	9,525 *0.375*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0955-035-10R1 *SD_DRILL_9.55MM_3XD_A*	02898332	9,55 *0.376*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0960-035-10R1 *SD_DRILL_9.6MM_3XD_A*	02898333	9,6 *0.378*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0970-035-10R1 *SD_DRILL_9.7MM_3XD_A*	02898334	9,7 *0.382*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0980-035-10R1 *SD_DRILL_9.8MM_3XD_A*	02898335	9,8 *0.386*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0990-035-10R1 *SD_DRILL_9.9MM_3XD_A*	02898336	9,9 *0.390*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0992-035-10R1 *SD_DRILL_25/64_3XD_A*	02898337	9,922 *0.391*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-1000-035-10R1 *SD_DRILL_10.0MM_3XD_A*	02898338	10,0 *0.394*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-1020-040-12R1 *SD_DRILL_10.2MM_3XD_A*	02898339	10,2 *0.402*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1103A-1032-040-12R1 *SD_DRILL_13/32_3XD_A*	02898340	10,319 *0.406*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1040-040-12R1 *SD_DRILL_10.4MM_3XD_A*	02898341	10,4 *0.409*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1050-040-12R1 *SD_DRILL_10.5MM_3XD_A*	02898342	10,5 *0.413*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1060-040-12R1 *SD_DRILL_10.6MM_3XD_A*	02898343	10,6 *0.417*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1072-040-12R1 *SD_DRILL_27/64_3XD_A*	02898344	10,716 *0.422*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1080-040-12R1 *SD_DRILL_10.8MM_3XD_A*	02898345	10,8 *0.425*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1090-040-12R1 *SD_DRILL_10.9MM_3XD_A*	02898346	10,9 *0.429*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1100-040-12R1 *SD_DRILL_11.0MM_3XD_A*	02898347	11,0 *0.433*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1110-040-12R1 *SD_DRILL_11.1MM_3XD_A*	02898348	11,1 *0.437*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1111-040-12R1 *SD_DRILL_7/16_3XD_A*	02898349	11,113 *0.438*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1120-040-12R1 *SD_DRILL_11.2MM_3XD_A*	02898350	11,2 *0.441*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1130-040-12R1 *SD_DRILL_11.3MM_3XD_A*	02898351	11,3 *0.445*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1140-040-12R1 *SD_DRILL_11.4MM_3XD_A*	02898352	11,4 *0.449*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1150-040-12R1 *SD_DRILL_11.5MM_3XD_A*	02898353	11,5 *0.453*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1151-040-12R1 *SD_DRILL_29/64_3XD_A*	02898354	11,509 *0.453*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1155-040-12R1 *SD_DRILL_11.55MM_3XD_A*	02898355	11,55 *0.455*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1160-040-12R1 *SD_DRILL_11.6MM_3XD_A*	02898356	11,6 *0.457*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1170-040-12R1 *SD_DRILL_11.7MM_3XD_A*	02898357	11,7 *0.461*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1180-040-12R1 *SD_DRILL_11.8MM_3XD_A*	02898358	11,8 *0.465*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1190-040-12R1 *SD_DRILL_11.9MM_3XD_A*	02898359	11,9 *0.469*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1191-040-12R1 *SD_DRILL_15/32_3XD_A*	02898360	11,906 *0.469*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1200-040-12R1 *SD_DRILL_12.0MM_3XD_A*	02898361	12,0 *0.472*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1210-043-14R1 *SD_DRILL_12.1MM_3XD_A*	02898362	12,1 *0.476*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1220-043-14R1 *SD_DRILL_12.2MM_3XD_A*	02898363	12,2 *0.480*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1230-043-14R1 *SD_DRILL_31/64_3XD_A*	02898364	12,303 *0.484*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1240-043-14R1 *SD_DRILL_12.4MM_3XD_A*	02898365	12,4 *0.488*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1250-043-14R1 *SD_DRILL_12.5MM_3XD_A*	02898366	12,5 *0.492*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1260-043-14R1 *SD_DRILL_12.6MM_3XD_A*	02898367	12,6 *0.496*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1270-043-14R1 *SD_DRILL_1/2_3XD_A*	02898368	12,7 *0.500*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1275-043-14R1 *SD_DRILL_12.75MM_3XD_A*	02898369	12,75 *0.502*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1280-043-14R1 *SD_DRILL_12.8MM_3XD_A*	02898370	12,8 *0.504*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1290-043-14R1 *SD_DRILL_12.9MM_3XD_A*	02898371	12,9 *0.508*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1300-043-14R1 *SD_DRILL_13.0MM_3XD_A*	02898372	13,0 *0.512*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1310-043-14R1 *SD_DRILL_33/64_3XD_A*	02898373	13,1 *0.516*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1320-043-14R1 *SD_DRILL_13.2MM_3XD_A*	02898374	13,2 *0.520*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1103A-1330-043-14R1 *SD_DRILL_13.3MM_3XD_A*	02898375	13,3 *0.524*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1340-043-14R1 *SD_DRILL_13.4MM_3XD_A*	02898376	13,4 *0.528*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1349-043-14R1 *SD_DRILL_17/32_3XD_A*	02898377	13,494 *0.531*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1350-043-14R1 *SD_DRILL_13.5MM_3XD_A*	02898378	13,5 *0.531*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1360-043-14R1 *SD_DRILL_13.6MM_3XD_A*	02898379	13,6 *0.535*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1370-043-14R1 *SD_DRILL_13.7MM_3XD_A*	02898380	13,7 *0.539*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1380-043-14R1 *SD_DRILL_13.8MM_3XD_A*	02898381	13,8 *0.543*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1390-043-14R1 *SD_DRILL_13.9MM_3XD_A*	02898382	13,9 *0.547*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1400-043-14R1 *SD_DRILL_14.0MM_3XD_A*	02898383	14,0 *0.551*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1420-045-16R1 *SD_DRILL_14.2MM_3XD_A*	02898384	14,2 *0.559*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103A-1429-045-16R1 *SD_DRILL_9/16_3XD_A*	02898385	14,288 *0.563*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103A-1450-045-16R1 *SD_DRILL_14.5MM_3XD_A*	02898386	14,5 *0.571*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103A-1470-045-16R1 *SD_DRILL_14.7MM_3XD_A*	02898387	14,7 *0.579*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103A-1475-045-16R1 *SD_DRILL_14.75MM_3XD_A*	02898388	14,75 *0.581*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103A-1480-045-16R1 *SD_DRILL_14.8MM_3XD_A*	02898389	14,8 *0.583*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103A-1500-045-16R1 *SD_DRILL_15.0MM_3XD_A*	02898390	15,0 *0.591*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103A-1510-045-16R1 *SD_DRILL_15.1MM_3XD_A*	02898391	15,1 *0.594*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103A-1530-045-16R1 *SD_DRILL_15.3MM_3XD_A*	02898392	15,3 *0.602*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103A-1550-045-16R1 *SD_DRILL_15.5MM_3XD_A*	02898393	15,5 *0.610*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103A-1570-045-16R1 *SD_DRILL_15.7MM_3XD_A*	02898394	15,7 *0.618*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103A-1580-045-16R1 *SD_DRILL_15.8MM_3XD_A*	02898395	15,8 *0.622*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103A-1588-045-16R1 *SD_DRILL_5/8_3XD_A*	02898396	15,875 *0.625*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103A-1600-045-16R1 *SD_DRILL_16.0MM_3XD_A*	02898397	16,0 *0.630*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103A-1650-051-18R1 *SD_DRILL_16.5MM_3XD_A*	02898398	16,5 *0.650*	51,0 *2.008*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN	IT9
SD1103A-1700-051-18R1 *SD_DRILL_17.0MM_3XD_A*	02898399	17,0 *0.669*	51,0 *2.008*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN	IT9
SD1103A-1750-051-18R1 *SD_DRILL_17.5MM_3XD_A*	02898400	17,5 *0.689*	51,0 *2.008*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN	IT9
SD1103A-1800-051-18R1 *SD_DRILL_18.0MM_3XD_A*	02898401	18,0 *0.709*	51,0 *2.008*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN	IT9
SD1103A-1850-055-20R1 *SD_DRILL_18.5MM_3XD_A*	02898402	18,5 *0.728*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN	IT9
SD1103A-1900-055-20R1 *SD_DRILL_19.0MM_3XD_A*	02898403	19,0 *0.748*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN	IT9
SD1103A-1905-055-20R1 *SD_DRILL_3/4_3XD_A*	02898404	19,05 *0.750*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN	IT9
SD1103A-1950-055-20R1 *SD_DRILL_19.5MM_3XD_A*	02898405	19,5 *0.768*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN	IT9
SD1103A-2000-055-20R1 *SD_DRILL_20.0MM_3XD_A*	02898406	20,0 *0.787*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *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) 132
– For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1105A-0300-023-06R1 *SD_DRILL_3.0MM_5XD_A*	02897845	3,0 *0.118*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0310-023-06R1 *SD_DRILL_3.1MM_5XD_A*	02897846	3,1 *0.122*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0318-023-06R1 *SD_DRILL_1/8_5XD_A*	02897847	3,175 *0.125*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0320-023-06R1 *SD_DRILL_3.2MM_5XD_A*	02897848	3,2 *0.126*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0325-023-06R1 *SD_DRILL_3.25MM_5XD_A*	02897849	3,25 *0.128*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0330-023-06R1 *SD_DRILL_3.3MM_5XD_A*	02897850	3,3 *0.130*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0340-023-06R1 *SD_DRILL_3.4MM_5XD_A*	02897851	3,4 *0.134*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0350-023-06R1 *SD_DRILL_3.5MM_5XD_A*	02897852	3,5 *0.138*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0357-023-06R1 *SD_DRILL_9/64_5XD_A*	02897853	3,572 *0.141*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0360-023-06R1 *SD_DRILL_3.6MM_5XD_A*	02897854	3,6 *0.142*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0365-023-06R1 *SD_DRILL_3.65MM_5XD_A*	02897855	3,65 *0.144*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0370-023-06R1 *SD_DRILL_3.7MM_5XD_A*	02897856	3,7 *0.146*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0380-029-06R1 *SD_DRILL_3.8MM_5XD_A*	02897857	3,8 *0.150*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0390-029-06R1 *SD_DRILL_3.9MM_5XD_A*	02897858	3,9 *0.154*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0397-029-06R1 *SD_DRILL_5/32_5XD_A*	02897859	3,969 *0.156*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0400-029-06R1 *SD_DRILL_4.0MM_5XD_A*	02897860	4,0 *0.157*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0410-029-06R1 *SD_DRILL_4.1MM_5XD_A*	02897861	4,1 *0.161*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0420-029-06R1 *SD_DRILL_4.2MM_5XD_A*	02897862	4,2 *0.165*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0430-029-06R1 *SD_DRILL_4.3MM_5XD_A*	02897863	4,3 *0.169*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0437-029-06R1 *SD_DRILL_11/64_5XD_A*	02897864	4,366 *0.172*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0440-029-06R1 *SD_DRILL_4.4MM_5XD_A*	02897865	4,4 *0.173*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0450-029-06R1 *SD_DRILL_4.5MM_5XD_A*	02897866	4,5 *0.177*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0460-029-06R1 *SD_DRILL_4.6MM_5XD_A*	02897867	4,6 *0.181*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0465-029-06R1 *SD_DRILL_4.65MM_5XD_A*	02897868	4,65 *0.183*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0470-029-06R1 *SD_DRILL_4.7MM_5XD_A*	02897869	4,7 *0.185*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0476-035-06R1 *SD_DRILL_3/16_5XD_A*	02897870	4,763 *0.188*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1105A-0480-035-06R1 *SD_DRILL_4.8MM_5XD_A*	02897871	4,8 *0.189*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0490-035-06R1 *SD_DRILL_4.9MM_5XD_A*	02897872	4,9 *0.193*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0500-035-06R1 *SD_DRILL_5.0MM_5XD_A*	02897873	5,0 *0.197*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0510-035-06R1 *SD_DRILL_5.1MM_5XD_A*	02897874	5,1 *0.201*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0516-035-06R1 *SD_DRILL_13/64_5XD_A*	02897875	5,159 *0.203*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0520-035-06R1 *SD_DRILL_5.2MM_5XD_A*	02897876	5,2 *0.205*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0530-035-06R1 *SD_DRILL_5.3MM_5XD_A*	02897877	5,3 *0.209*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0540-035-06R1 *SD_DRILL_5.4MM_5XD_A*	02897878	5,4 *0.213*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0550-035-06R1 *SD_DRILL_5.5MM_5XD_A*	02897879	5,5 *0.217*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0555-035-06R1 *SD_DRILL_5.55MM_5XD_A*	02897880	5,55 *0.219*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0556-035-06R1 *SD_DRILL_7/32_5XD_A*	02897881	5,556 *0.219*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0560-035-06R1 *SD_DRILL_5.6MM_5XD_A*	02897882	5,6 *0.220*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0570-035-06R1 *SD_DRILL_5.7MM_5XD_A*	02897883	5,7 *0.224*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0580-035-06R1 *SD_DRILL_5.8MM_5XD_A*	02897884	5,8 *0.228*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0590-035-06R1 *SD_DRILL_5.9MM_5XD_A*	02897885	5,9 *0.232*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0595-035-06R1 *SD_DRILL_15/64_5XD_A*	02897886	5,953 *0.234*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0600-035-06R1 *SD_DRILL_6.0MM_5XD_A*	02897887	6,0 *0.236*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0610-043-08R1 *SD_DRILL_6.1MM_5XD_A*	02897888	6,1 *0.240*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0620-043-08R1 *SD_DRILL_6.2MM_5XD_A*	02897889	6,2 *0.244*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0630-043-08R1 *SD_DRILL_6.3MM_5XD_A*	02897890	6,3 *0.248*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0635-043-08R1 *SD_DRILL_1/4_5XD_A*	02897891	6,35 *0.250*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0640-043-08R1 *SD_DRILL_6.4MM_5XD_A*	02897892	6,4 *0.252*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0650-043-08R1 *SD_DRILL_6.5MM_5XD_A*	02897893	6,5 *0.256*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0660-043-08R1 *SD_DRILL_6.6MM_5XD_A*	02897894	6,6 *0.260*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0670-043-08R1 *SD_DRILL_6.7MM_5XD_A*	02897895	6,7 *0.264*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0675-043-08R1 *SD_DRILL_17/64_5XD_A*	02897896	6,747 *0.266*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0680-043-08R1 *SD_DRILL_6.8MM_5XD_A*	02897897	6,8 *0.268*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0690-043-08R1 *SD_DRILL_6.9MM_5XD_A*	02897898	6,9 *0.272*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0700-043-08R1 *SD_DRILL_7.0MM_5XD_A*	02897899	7,0 *0.276*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0710-043-08R1 *SD_DRILL_7.1MM_5XD_A*	02897900	7,1 *0.280*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0714-043-08R1 *SD_DRILL_9/32_5XD_A*	02897901	7,144 *0.281*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0720-043-08R1 *SD_DRILL_7.2MM_5XD_A*	02897902	7,2 *0.283*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0730-043-08R1 *SD_DRILL_7.3MM_5XD_A*	02897903	7,3 *0.287*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0740-043-08R1 *SD_DRILL_7.4MM_5XD_A*	02897904	7,4 *0.291*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0750-043-08R1 *SD_DRILL_7.5MM_5XD_A*	02897905	7,5 *0.295*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1105A-0754-043-08R1 *SD_DRILL_19/64_5XD_A*	02897906	7,541 *0.297*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0755-043-08R1 *SD_DRILL_7.55MM_5XD_A*	02897907	7,55 *0.297*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0760-043-08R1 *SD_DRILL_7.6MM_5XD_A*	02897908	7,6 *0.299*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0770-043-08R1 *SD_DRILL_7.7MM_5XD_A*	02897909	7,7 *0.303*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0780-043-08R1 *SD_DRILL_7.8MM_5XD_A*	02897910	7,8 *0.307*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0790-043-08R1 *SD_DRILL_7.9MM_5XD_A*	02897911	7,9 *0.311*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0794-043-08R1 *SD_DRILL_5/16_5XD_A*	02897912	7,938 *0.313*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0800-043-08R1 *SD_DRILL_8.0MM_5XD_A*	02897913	8,0 *0.315*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0810-049-10R1 *SD_DRILL_8.1MM_5XD_A*	02897914	8,1 *0.319*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0820-049-10R1 *SD_DRILL_8.2MM_5XD_A*	02897915	8,2 *0.323*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0830-049-10R1 *SD_DRILL_8.3MM_5XD_A*	02897916	8,3 *0.327*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0833-049-10R1 *SD_DRILL_21/64_5XD_A*	02897917	8,334 *0.328*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0840-049-10R1 *SD_DRILL_8.4MM_5XD_A*	02897918	8,4 *0.331*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0850-049-10R1 *SD_DRILL_8.5MM_5XD_A*	02897919	8,5 *0.335*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0860-049-10R1 *SD_DRILL_8.6MM_5XD_A*	02897920	8,6 *0.339*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0870-049-10R1 *SD_DRILL_8.7MM_5XD_A*	02897921	8,7 *0.343*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0873-049-10R1 *SD_DRILL_11/32_5XD_A*	02897922	8,731 *0.344*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0880-049-10R1 *SD_DRILL_8.8MM_5XD_A*	02897923	8,8 *0.346*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0890-049-10R1 *SD_DRILL_8.9MM_5XD_A*	02897924	8,9 *0.350*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0900-049-10R1 *SD_DRILL_9.0MM_5XD_A*	02897925	9,0 *0.354*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0910-049-10R1 *SD_DRILL_9.1MM_5XD_A*	02897926	9,1 *0.358*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0913-049-10R1 *SD_DRILL_23/64_5XD_A*	02897927	9,128 *0.359*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0920-049-10R1 *SD_DRILL_9.2MM_5XD_A*	02897928	9,2 *0.362*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0930-049-10R1 *SD_DRILL_9.3MM_5XD_A*	02897929	9,3 *0.366*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0940-049-10R1 *SD_DRILL_9.4MM_5XD_A*	02897930	9,4 *0.370*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0950-049-10R1 *SD_DRILL_9.5MM_5XD_A*	02897931	9,5 *0.374*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0953-049-10R1 *SD_DRILL_3/8_5XD_A*	02897932	9,525 *0.375*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0955-049-10R1 *SD_DRILL_9.55MM_5XD_A*	02897933	9,55 *0.376*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0960-049-10R1 *SD_DRILL_9.6MM_5XD_A*	02897934	9,6 *0.378*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0970-049-10R1 *SD_DRILL_9.7MM_5XD_A*	02897935	9,7 *0.382*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0980-049-10R1 *SD_DRILL_9.8MM_5XD_A*	02897936	9,8 *0.386*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0990-049-10R1 *SD_DRILL_9.9MM_5XD_A*	02897937	9,9 *0.390*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0992-049-10R1 *SD_DRILL_25/64_5XD_A*	02897938	9,922 *0.391*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-1000-049-10R1 *SD_DRILL_10.0MM_5XD_A*	02897939	10,0 *0.394*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-1010-056-12R1 *SD_DRILL_10.1MM_5XD_A*	02897940	10,1 *0.398*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1105A-1020-056-12R1 *SD_DRILL_10.2MM_5XD_A*	02897941	10,2 *0.402*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1030-056-12R1 *SD_DRILL_10.3MM_5XD_A*	02897942	10,3 *0.406*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1032-056-12R1 *SD_DRILL_13/32_5XD_A*	02897943	10,319 *0.406*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1040-056-12R1 *SD_DRILL_10.4MM_5XD_A*	02897944	10,4 *0.409*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1050-056-12R1 *SD_DRILL_10.5MM_5XD_A*	02897945	10,5 *0.413*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1060-056-12R1 *SD_DRILL_10.6MM_5XD_A*	02897946	10,6 *0.417*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1070-056-12R1 *SD_DRILL_10.7MM_5XD_A*	02897947	10,7 *0.421*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1072-056-12R1 *SD_DRILL_27/64_5XD_A*	02897948	10,716 *0.422*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1080-056-12R1 *SD_DRILL_10.8MM_5XD_A*	02897949	10,8 *0.425*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1090-056-12R1 *SD_DRILL_10.9MM_5XD_A*	02897951	10,9 *0.429*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1100-056-12R1 *SD_DRILL_11.0MM_5XD_A*	02897952	11,0 *0.433*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1110-056-12R1 *SD_DRILL_11.1MM_5XD_A*	02897953	11,1 *0.437*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1111-056-12R1 *SD_DRILL_7/16_5XD_A*	02897954	11,113 *0.438*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1120-056-12R1 *SD_DRILL_11.2MM_5XD_A*	02897955	11,2 *0.441*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1130-056-12R1 *SD_DRILL_11.3MM_5XD_A*	02897956	11,3 *0.445*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1140-056-12R1 *SD_DRILL_11.4MM_5XD_A*	02897957	11,4 *0.449*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1150-056-12R1 *SD_DRILL_11.5MM_5XD_A*	02897958	11,5 *0.453*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1151-056-12R1 *SD_DRILL_29/64_5XD_A*	02897959	11,509 *0.453*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1155-056-12R1 *SD_DRILL_11.55MM_5XD_A*	02897960	11,55 *0.455*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1160-056-12R1 *SD_DRILL_11.6MM_5XD_A*	02897961	11,6 *0.457*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1170-056-12R1 *SD_DRILL_11.7MM_5XD_A*	02897962	11,7 *0.461*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1180-056-12R1 *SD_DRILL_11.8MM_5XD_A*	02897963	11,8 *0.465*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1190-056-12R1 *SD_DRILL_11.9MM_5XD_A*	02897964	11,9 *0.469*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1191-056-12R1 *SD_DRILL_15/32_5XD_A*	02897965	11,906 *0.469*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1200-056-12R1 *SD_DRILL_12.0MM_5XD_A*	02897966	12,0 *0.472*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1210-060-14R1 *SD_DRILL_12.1MM_5XD_A*	02897967	12,1 *0.476*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1220-060-14R1 *SD_DRILL_12.2MM_5XD_A*	02897968	12,2 *0.480*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1225-060-14R1 *SD_DRILL_12.25MM_5XD_A*	02897969	12,25 *0.482*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1230-060-14R1 *SD_DRILL_31/64_5XD_A*	02897970	12,303 *0.484*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1240-060-14R1 *SD_DRILL_12.4MM_5XD_A*	02897972	12,4 *0.488*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1250-060-14R1 *SD_DRILL_12.5MM_5XD_A*	02897973	12,5 *0.492*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1260-060-14R1 *SD_DRILL_12.6MM_5XD_A*	02897974	12,6 *0.496*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1270-060-14R1 *SD_DRILL_1/2_5XD_A*	02897950	12,7 *0.500*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1275-060-14R1 *SD_DRILL_12.75MM_5XD_A*	02897976	12,75 *0.502*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1280-060-14R1 *SD_DRILL_12.8MM_5XD_A*	02897977	12,8 *0.504*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9

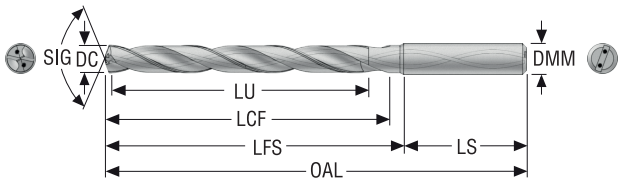
Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1105A-1290-060-14R1 *SD_DRILL_12.9MM_5XD_A*	02897978	12,9 *0.508*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1300-060-14R1 *SD_DRILL_13.0MM_5XD_A*	02897979	13,0 *0.512*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1310-060-14R1 *SD_DRILL_33/64_5XD_A*	02897980	13,1 *0.516*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1320-060-14R1 *SD_DRILL_13.2MM_5XD_A*	02897981	13,2 *0.520*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1330-060-14R1 *SD_DRILL_13.3MM_5XD_A*	02897982	13,3 *0.524*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1340-060-14R1 *SD_DRILL_13.4MM_5XD_A*	02897983	13,4 *0.528*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1349-060-14R1 *SD_DRILL_17/32_5XD_A*	02897984	13,494 *0.531*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1350-060-14R1 *SD_DRILL_13.5MM_5XD_A*	02897985	13,5 *0.531*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1360-060-14R1 *SD_DRILL_13.6MM_5XD_A*	02897986	13,6 *0.535*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1370-060-14R1 *SD_DRILL_13.7MM_5XD_A*	02897987	13,7 *0.539*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1380-060-14R1 *SD_DRILL_13.8MM_5XD_A*	02897988	13,8 *0.543*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1390-060-14R1 *SD_DRILL_35/64_5XD_A*	02897989	13,9 *0.547*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1400-060-14R1 *SD_DRILL_14.0MM_5XD_A*	02897990	14,0 *0.551*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1410-063-16R1 *SD_DRILL_14.1MM_5XD_A*	02897991	14,1 *0.555*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1420-063-16R1 *SD_DRILL_14.2MM_5XD_A*	02897992	14,2 *0.559*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1429-063-16R1 *SD_DRILL_9/16_5XD_A*	02897993	14,288 *0.563*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1430-063-16R1 *SD_DRILL_14.3MM_5XD_A*	02897994	14,3 *0.563*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1440-063-16R1 *SD_DRILL_14.4MM_5XD_A*	02897995	14,4 *0.567*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1450-063-16R1 *SD_DRILL_14.5MM_5XD_A*	02897996	14,5 *0.571*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1460-063-16R1 *SD_DRILL_14.6MM_5XD_A*	02897997	14,6 *0.575*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1470-063-16R1 *SD_DRILL_14.7MM_5XD_A*	02897998	14,7 *0.579*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1475-063-16R1 *SD_DRILL_14.75MM_5XD_A*	02897999	14,75 *0.581*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1480-063-16R1 *SD_DRILL_14.8MM_5XD_A*	02898000	14,8 *0.583*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1490-063-16R1 *SD_DRILL_14.9MM_5XD_A*	02898001	14,9 *0.587*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1500-063-16R1 *SD_DRILL_15.0MM_5XD_A*	02898002	15,0 *0.591*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1510-063-16R1 *SD_DRILL_15.1MM_5XD_A*	02898003	15,1 *0.594*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1520-063-16R1 *SD_DRILL_15.2MM_5XD_A*	02898004	15,2 *0.598*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1530-063-16R1 *SD_DRILL_15.3MM_5XD_A*	02898005	15,3 *0.602*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1540-063-16R1 *SD_DRILL_15.4MM_5XD_A*	02898006	15,4 *0.606*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1550-063-16R1 *SD_DRILL_15.5MM_5XD_A*	02898007	15,5 *0.610*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1560-063-16R1 *SD_DRILL_15.6MM_5XD_A*	02898008	15,6 *0.614*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1570-063-16R1 *SD_DRILL_15.7MM_5XD_A*	02898009	15,7 *0.618*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1580-063-16R1 *SD_DRILL_15.8MM_5XD_A*	02898010	15,8 *0.622*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1588-063-16R1 *SD_DRILL_5/8_5XD_A*	02898011	15,875 *0.625*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1590-063-16R1 *SD_DRILL_15.9MM_5XD_A*	02898012	15,9 *0.626*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1105A-1600-063-16R1 *SD_DRILL_16.0MM_5XD_A*	02898013	16,0 *0.630*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1610-071-18R1 *SD_DRILL_16.1MM_5XD_A*	02898014	16,1 *0.634*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1620-071-18R1 *SD_DRILL_16.2MM_5XD_A*	02898015	16,2 *0.638*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1630-071-18R1 *SD_DRILL_16.3MM_5XD_A*	02898016	16,3 *0.642*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1640-071-18R1 *SD_DRILL_16.4MM_5XD_A*	02898017	16,4 *0.646*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1650-071-18R1 *SD_DRILL_16.5MM_5XD_A*	02898018	16,5 *0.650*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1660-071-18R1 *SD_DRILL_16.6MM_5XD_A*	02898019	16,6 *0.654*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1670-071-18R1 *SD_DRILL_16.7MM_5XD_A*	02898020	16,7 *0.657*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1675-071-18R1 *SD_DRILL_16.75MM_5XD_A*	02898021	16,75 *0.659*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1680-071-18R1 *SD_DRILL_16.8MM_5XD_A*	02898022	16,8 *0.661*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1690-071-18R1 *SD_DRILL_16.9MM_5XD_A*	02898023	16,9 *0.665*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1700-071-18R1 *SD_DRILL_17.0MM_5XD_A*	02898024	17,0 *0.669*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1710-071-18R1 *SD_DRILL_17.1MM_5XD_A*	02898025	17,1 *0.673*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1720-071-18R1 *SD_DRILL_17.2MM_5XD_A*	02898026	17,2 *0.677*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1730-071-18R1 *SD_DRILL_17.3MM_5XD_A*	02898027	17,3 *0.681*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1740-071-18R1 *SD_DRILL_17.4MM_5XD_A*	02898028	17,4 *0.685*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1750-071-18R1 *SD_DRILL_17.5MM_5XD_A*	02898029	17,5 *0.689*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1760-071-18R1 *SD_DRILL_17.6MM_5XD_A*	02898030	17,6 *0.693*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1770-071-18R1 *SD_DRILL_17.7MM_5XD_A*	02898031	17,7 *0.697*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1780-071-18R1 *SD_DRILL_17.8MM_5XD_A*	02898032	17,8 *0.701*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1790-071-18R1 *SD_DRILL_17.9MM_5XD_A*	02898033	17,9 *0.705*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1800-071-18R1 *SD_DRILL_18.0MM_5XD_A*	02898034	18,0 *0.709*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1810-077-20R1 *SD_DRILL_18.1MM_5XD_A*	02898035	18,1 *0.713*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1820-077-20R1 *SD_DRILL_18.2MM_5XD_A*	02898036	18,2 *0.717*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1830-077-20R1 *SD_DRILL_18.3MM_5XD_A*	02898037	18,3 *0.720*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1840-077-20R1 *SD_DRILL_18.4MM_5XD_A*	02898038	18,4 *0.724*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1850-077-20R1 *SD_DRILL_18.5MM_5XD_A*	02898039	18,5 *0.728*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1860-077-20R1 *SD_DRILL_18.6MM_5XD_A*	02898040	18,6 *0.732*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1870-077-20R1 *SD_DRILL_18.7MM_5XD_A*	02898041	18,7 *0.736*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1880-077-20R1 *SD_DRILL_18.8MM_5XD_A*	02898042	18,8 *0.740*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1890-077-20R1 *SD_DRILL_18.9MM_5XD_A*	02898043	18,9 *0.744*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1900-077-20R1 *SD_DRILL_19.0MM_5XD_A*	02898044	19,0 *0.748*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1905-077-20R1 *SD_DRILL_3/4_5XD_A*	02898045	19,05 *0.750*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1910-077-20R1 *SD_DRILL_19.1MM_5XD_A*	02898046	19,1 *0.752*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1920-077-20R1 *SD_DRILL_19.2MM_5XD_A*	02898047	19,2 *0.756*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1105A-1930-077-20R1 *SD_DRILL_19.3MM_5XD_A*	02898048	19,3 *0.760*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1940-077-20R1 *SD_DRILL_19.4MM_5XD_A*	02898049	19,4 *0.764*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1950-077-20R1 *SD_DRILL_19.5MM_5XD_A*	02898050	19,5 *0.768*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1960-077-20R1 *SD_DRILL_19.6MM_5XD_A*	02898051	19,6 *0.772*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1970-077-20R1 *SD_DRILL_19.7MM_5XD_A*	02898052	19,7 *0.776*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1980-077-20R1 *SD_DRILL_19.8MM_5XD_A*	02898053	19,8 *0.780*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1990-077-20R1 *SD_DRILL_19.9MM_5XD_A*	02898054	19,9 *0.783*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-2000-077-20R1 *SD_DRILL_20.0MM_5XD_A*	02898055	20,0 *0.787*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *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) 133
—For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1108A-0300-028-06R1 *SD_DRILL_3.0MM_8XD_A*	03295178	3,0 *0.118*	28,0 *1.102*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0310-028-06R1 *SD_DRILL_3.1MM_8XD_A*	03295179	3,1 *0.122*	28,0 *1.102*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0318-028-06R1 *SD_DRILL_1/8_8XD_A*	03323680	3,175 *0.125*	28,0 *1.102*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0320-028-06R1 *SD_DRILL_3.2MM_8XD_A*	03295180	3,2 *0.126*	28,0 *1.102*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0330-028-06R1 *SD_DRILL_3.3MM_8XD_A*	03295181	3,3 *0.130*	28,0 *1.102*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0340-028-06R1 *SD_DRILL_3.4MM_8XD_A*	03295182	3,4 *0.134*	28,0 *1.102*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0350-028-06R1 *SD_DRILL_3.5MM_8XD_A*	03295183	3,5 *0.138*	28,0 *1.102*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0357-028-06R1 *SD_DRILL_9/64_8XD_A*	03323681	3,572 *0.141*	28,0 *1.102*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0360-028-06R1 *SD_DRILL_3.6MM_8XD_A*	03295184	3,6 *0.142*	28,0 *1.102*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0370-028-06R1 *SD_DRILL_3.7MM_8XD_A*	03295185	3,7 *0.146*	28,0 *1.102*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0380-037-06R1 *SD_DRILL_3.8MM_8XD_A*	03295186	3,8 *0.150*	37,0 *1.457*	85,0 *3.346*	49,0 *1.929*	36,0 *1.417*	45,0 *1.772*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0390-037-06R1 *SD_DRILL_3.9MM_8XD_A*	03295187	3,9 *0.154*	37,0 *1.457*	85,0 *3.346*	49,0 *1.929*	36,0 *1.417*	45,0 *1.772*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0397-037-06R1 *SD_DRILL_5/32_8XD_A*	03323682	3,969 *0.156*	37,0 *1.457*	85,0 *3.346*	49,0 *1.929*	36,0 *1.417*	45,0 *1.772*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0400-037-06R1 *SD_DRILL_4.0MM_8XD_A*	03295188	4,0 *0.157*	37,0 *1.457*	85,0 *3.346*	49,0 *1.929*	36,0 *1.417*	45,0 *1.772*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0410-037-06R1 *SD_DRILL_4.1MM_8XD_A*	03295189	4,1 *0.161*	37,0 *1.457*	85,0 *3.346*	49,0 *1.929*	36,0 *1.417*	45,0 *1.772*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0420-037-06R1 *SD_DRILL_4.2MM_8XD_A*	03295190	4,2 *0.165*	37,0 *1.457*	85,0 *3.346*	49,0 *1.929*	36,0 *1.417*	45,0 *1.772*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0430-037-06R1 *SD_DRILL_4.3MM_8XD_A*	03295191	4,3 *0.169*	37,0 *1.457*	85,0 *3.346*	49,0 *1.929*	36,0 *1.417*	45,0 *1.772*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0437-037-06R1 *SD_DRILL_11/64_8XD_A*	03323683	4,366 *0.172*	37,0 *1.457*	85,0 *3.346*	49,0 *1.929*	36,0 *1.417*	45,0 *1.772*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0440-037-06R1 *SD_DRILL_4.4MM_8XD_A*	03295192	4,4 *0.173*	37,0 *1.457*	85,0 *3.346*	49,0 *1.929*	36,0 *1.417*	45,0 *1.772*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0450-037-06R1 *SD_DRILL_4.5MM_8XD_A*	03295193	4,5 *0.177*	37,0 *1.457*	85,0 *3.346*	49,0 *1.929*	36,0 *1.417*	45,0 *1.772*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0460-037-06R1 *SD_DRILL_4.6MM_8XD_A*	03295194	4,6 *0.181*	37,0 *1.457*	85,0 *3.346*	49,0 *1.929*	36,0 *1.417*	45,0 *1.772*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0470-037-06R1 *SD_DRILL_4.7MM_8XD_A*	03295195	4,7 *0.185*	37,0 *1.457*	85,0 *3.346*	49,0 *1.929*	36,0 *1.417*	45,0 *1.772*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0476-048-06R1 *SD_DRILL_3/16_8XD_A*	03323684	4,763 *0.188*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0480-048-06R1 *SD_DRILL_4.8MM_8XD_A*	03295197	4,8 *0.189*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0490-048-06R1 *SD_DRILL_4.9MM_8XD_A*	03295198	4,9 *0.193*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9

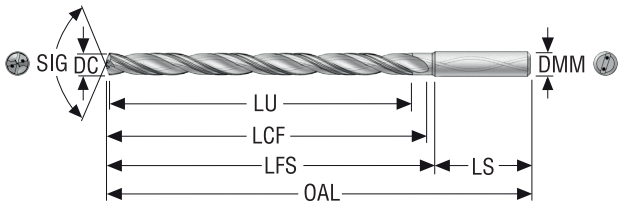
Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1108A-0500-048-06R1 *SD_DRILL_5.0MM_8XD_A*	03295199	5,0 *0.197*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0510-048-06R1 *SD_DRILL_5.1MM_8XD_A*	03295200	5,1 *0.201*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0516-048-06R1 *SD_DRILL_13/64_8XD_A*	03323685	5,159 *0.203*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0520-048-06R1 *SD_DRILL_5.2MM_8XD_A*	03295201	5,2 *0.205*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0530-048-06R1 *SD_DRILL_5.3MM_8XD_A*	03295202	5,3 *0.209*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0540-048-06R1 *SD_DRILL_5.4MM_8XD_A*	03295203	5,4 *0.213*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0550-048-06R1 *SD_DRILL_5.5MM_8XD_A*	03295204	5,5 *0.217*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0556-048-06R1 *SD_DRILL_7/32_8XD_A*	03295206	5,556 *0.219*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0560-048-06R1 *SD_DRILL_5.6MM_8XD_A*	03295207	5,6 *0.220*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0570-048-06R1 *SD_DRILL_5.7MM_8XD_A*	03295208	5,7 *0.224*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0580-048-06R1 *SD_DRILL_5.8MM_8XD_A*	03295012	5,8 *0.228*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0590-048-06R1 *SD_DRILL_5.9MM_8XD_A*	03295013	5,9 *0.232*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0595-048-06R1 *SD_DRILL_15/64_8XD_A*	03323686	5,953 *0.234*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0600-048-06R1 *SD_DRILL_6.0MM_8XD_A*	03295014	6,0 *0.236*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0610-055-08R1 *SD_DRILL_6.1MM_8XD_A*	03295015	6,1 *0.240*	55,0 *2.165*	106,0 *4.173*	70,0 *2.756*	36,0 *1.417*	66,0 *2.598*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0620-055-08R1 *SD_DRILL_6.2MM_8XD_A*	03295016	6,2 *0.244*	55,0 *2.165*	106,0 *4.173*	70,0 *2.756*	36,0 *1.417*	66,0 *2.598*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0630-055-08R1 *SD_DRILL_6.3MM_8XD_A*	03295017	6,3 *0.248*	55,0 *2.165*	106,0 *4.173*	70,0 *2.756*	36,0 *1.417*	66,0 *2.598*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0635-055-08R1 *SD_DRILL_1/4_8XD_A*	03295018	6,35 *0.250*	55,0 *2.165*	106,0 *4.173*	70,0 *2.756*	36,0 *1.417*	66,0 *2.598*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0640-055-08R1 *SD_DRILL_6.4MM_8XD_A*	03295019	6,4 *0.252*	55,0 *2.165*	106,0 *4.173*	70,0 *2.756*	36,0 *1.417*	66,0 *2.598*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0650-055-08R1 *SD_DRILL_6.5MM_8XD_A*	03295020	6,5 *0.256*	55,0 *2.165*	106,0 *4.173*	70,0 *2.756*	36,0 *1.417*	66,0 *2.598*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0660-055-08R1 *SD_DRILL_6.6MM_8XD_A*	03295021	6,6 *0.260*	55,0 *2.165*	106,0 *4.173*	70,0 *2.756*	36,0 *1.417*	66,0 *2.598*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0670-055-08R1 *SD_DRILL_6.7MM_8XD_A*	03295022	6,7 *0.264*	55,0 *2.165*	106,0 *4.173*	70,0 *2.756*	36,0 *1.417*	66,0 *2.598*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0675-055-08R1 *SD_DRILL_17/64_8XD_A*	03323687	6,747 *0.266*	55,0 *2.165*	106,0 *4.173*	70,0 *2.756*	36,0 *1.417*	66,0 *2.598*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0680-055-08R1 *SD_DRILL_6.8MM_8XD_A*	03295023	6,8 *0.268*	55,0 *2.165*	106,0 *4.173*	70,0 *2.756*	36,0 *1.417*	66,0 *2.598*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0690-055-08R1 *SD_DRILL_6.9MM_8XD_A*	03295024	6,9 *0.272*	55,0 *2.165*	106,0 *4.173*	70,0 *2.756*	36,0 *1.417*	66,0 *2.598*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0700-055-08R1 *SD_DRILL_7.0MM_8XD_A*	03295025	7,0 *0.276*	55,0 *2.165*	106,0 *4.173*	70,0 *2.756*	36,0 *1.417*	66,0 *2.598*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0710-064-08R1 *SD_DRILL_7.1MM_8XD_A*	03295026	7,1 *0.280*	64,0 *2.520*	116,0 *4.567*	80,0 *3.150*	36,0 *1.417*	76,0 *2.992*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0714-064-08R1 *SD_DRILL_9/32_8XD_A*	03323688	7,144 *0.281*	64,0 *2.520*	116,0 *4.567*	80,0 *3.150*	36,0 *1.417*	76,0 *2.992*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0730-064-08R1 *SD_DRILL_7.3MM_8XD_A*	03323689	7,3 *0.287*	64,0 *2.520*	116,0 *4.567*	80,0 *3.150*	36,0 *1.417*	76,0 *2.992*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0740-064-08R1 *SD_DRILL_7.4MM_8XD_A*	03295027	7,4 *0.291*	64,0 *2.520*	116,0 *4.567*	80,0 *3.150*	36,0 *1.417*	76,0 *2.992*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0750-064-08R1 *SD_DRILL_7.5MM_8XD_A*	03295028	7,5 *0.295*	64,0 *2.520*	116,0 *4.567*	80,0 *3.150*	36,0 *1.417*	76,0 *2.992*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0754-064-08R1 *SD_DRILL_19/64_8XD_A*	03323690	7,541 *0.297*	64,0 *2.520*	116,0 *4.567*	80,0 *3.150*	36,0 *1.417*	76,0 *2.992*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0760-064-08R1 *SD_DRILL_7.6MM_8XD_A*	03323691	7,6 *0.299*	64,0 *2.520*	116,0 *4.567*	80,0 *3.150*	36,0 *1.417*	76,0 *2.992*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0770-064-08R1 *SD_DRILL_7.7MM_8XD_A*	03295029	7,7 *0.303*	64,0 *2.520*	116,0 *4.567*	80,0 *3.150*	36,0 *1.417*	76,0 *2.992*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0780-064-08R1 *SD_DRILL_7.8MM_8XD_A*	03295030	7,8 *0.307*	64,0 *2.520*	116,0 *4.567*	80,0 *3.150*	36,0 *1.417*	76,0 *2.992*	8,0 *0.315*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1108A-0790-064-08R1 *SD_DRILL_7.9MM_8XD_A*	03295031	7,9 *0.311*	64,0 *2.520*	116,0 *4.567*	80,0 *3.150*	36,0 *1.417*	76,0 *2.992*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0794-064-08R1 *SD_DRILL_5/16_8XD_A*	03323692	7,938 *0.313*	64,0 *2.520*	116,0 *4.567*	80,0 *3.150*	36,0 *1.417*	76,0 *2.992*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0800-064-08R1 *SD_DRILL_8.0MM_8XD_A*	03295032	8,0 *0.315*	64,0 *2.520*	116,0 *4.567*	80,0 *3.150*	36,0 *1.417*	76,0 *2.992*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0810-080-10R1 *SD_DRILL_8.1MM_8XD_A*	03295033	8,1 *0.319*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0820-080-10R1 *SD_DRILL_8.2MM_8XD_A*	03295034	8,2 *0.323*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0830-080-10R1 *SD_DRILL_8.3MM_8XD_A*	03295035	8,3 *0.327*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0833-080-10R1 *SD_DRILL_21/64_8XD_A*	03323693	8,334 *0.328*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0840-080-10R1 *SD_DRILL_8.4MM_8XD_A*	03295036	8,4 *0.331*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0850-080-10R1 *SD_DRILL_8.5MM_8XD_A*	03295037	8,5 *0.335*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0860-080-10R1 *SD_DRILL_8.6MM_8XD_A*	03295038	8,6 *0.339*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0870-080-10R1 *SD_DRILL_8.7MM_8XD_A*	03295039	8,7 *0.343*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0873-080-10R1 *SD_DRILL_11/32_8XD_A*	03323694	8,731 *0.344*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0880-080-10R1 *SD_DRILL_8.8MM_8XD_A*	03295040	8,8 *0.346*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0900-080-10R1 *SD_DRILL_9.0MM_8XD_A*	03295041	9,0 *0.354*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0910-080-10R1 *SD_DRILL_9.1MM_8XD_A*	03295042	9,1 *0.358*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0913-080-10R1 *SD_DRILL_23/64_8XD_A*	03323695	9,128 *0.359*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0930-080-10R1 *SD_DRILL_9.3MM_8XD_A*	03295043	9,3 *0.366*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0940-080-10R1 *SD_DRILL_9.4MM_8XD_A*	03295044	9,4 *0.370*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0950-080-10R1 *SD_DRILL_9.5MM_8XD_A*	03295045	9,5 *0.374*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0953-080-10R1 *SD_DRILL_3/8_8XD_A*	03323696	9,525 *0.375*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0970-080-10R1 *SD_DRILL_9.7MM_8XD_A*	03295046	9,7 *0.382*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0980-080-10R1 *SD_DRILL_9.8MM_8XD_A*	03295047	9,8 *0.386*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0990-080-10R1 *SD_DRILL_9.9MM_8XD_A*	03295048	9,9 *0.390*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0992-080-10R1 *SD_DRILL_25/64_8XD_A*	03323697	9,922 *0.391*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-1000-080-10R1 *SD_DRILL_10.0MM_8XD_A*	03295049	10,0 *0.394*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-1020-096-12R1 *SD_DRILL_10.2MM_8XD_A*	03295050	10,2 *0.402*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1030-096-12R1 *SD_DRILL_10.3MM_8XD_A*	03295051	10,3 *0.406*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1032-096-12R1 *SD_DRILL_13/32_8XD_A*	03323698	10,319 *0.406*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1040-096-12R1 *SD_DRILL_10.4MM_8XD_A*	03295053	10,4 *0.409*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1050-096-12R1 *SD_DRILL_10.5MM_8XD_A*	03295054	10,5 *0.413*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1070-096-12R1 *SD_DRILL_10.7MM_8XD_A*	03295055	10,7 *0.421*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1072-096-12R1 *SD_DRILL_27/64_8XD_A*	03323699	10,716 *0.422*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1080-096-12R1 *SD_DRILL_10.8MM_8XD_A*	03295056	10,8 *0.425*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1100-096-12R1 *SD_DRILL_11.0MM_8XD_A*	03295057	11,0 *0.433*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1111-096-12R1 *SD_DRILL_7/16_8XD_A*	03323700	11,113 *0.438*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1108A-1120-096-12R1 *SD_DRILL_11.2MM_8XD_A*	03295058	11,2 *0.441*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1130-096-12R1 *SD_DRILL_11.3MM_8XD_A*	03295059	11,3 *0.445*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1150-096-12R1 *SD_DRILL_11.5MM_8XD_A*	03295060	11,5 *0.453*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1170-096-12R1 *SD_DRILL_11.7MM_8XD_A*	03295061	11,7 *0.461*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1180-096-12R1 *SD_DRILL_11.8MM_8XD_A*	03295062	11,8 *0.465*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1190-096-12R1 *SD_DRILL_11.9MM_8XD_A*	03295063	11,9 *0.469*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1191-096-12R1 *SD_DRILL_15/32_8XD_A*	03323701	11,906 *0.469*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1200-096-12R1 *SD_DRILL_12.0MM_8XD_A*	03295064	12,0 *0.472*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1230-119-14R1 *SD_DRILL_31/64_8XD_A*	03295065	12,3 *0.484*	119,0 *4.685*	182,0 *7.165*	137,0 *5.394*	45,0 *1.772*	133,0 *5.236*	14,0 *0.551*	140°	TiAlN	IT9
SD1108A-1250-119-14R1 *SD_DRILL_12.5MM_8XD_A*	03295066	12,5 *0.492*	119,0 *4.685*	182,0 *7.165*	137,0 *5.394*	45,0 *1.772*	133,0 *5.236*	14,0 *0.551*	140°	TiAlN	IT9
SD1108A-1270-119-14R1 *SD_DRILL_1/2_8XD_A*	03295067	12,7 *0.500*	119,0 *4.685*	182,0 *7.165*	137,0 *5.394*	45,0 *1.772*	133,0 *5.236*	14,0 *0.551*	140°	TiAlN	IT9
SD1108A-1300-119-14R1 *SD_DRILL_13.0MM_8XD_A*	03295068	13,0 *0.512*	119,0 *4.685*	182,0 *7.165*	137,0 *5.394*	45,0 *1.772*	133,0 *5.236*	14,0 *0.551*	140°	TiAlN	IT9
SD1108A-1349-119-14R1 *SD_DRILL_17/32_8XD_A*	03323702	13,494 *0.531*	119,0 *4.685*	182,0 *7.165*	137,0 *5.394*	45,0 *1.772*	133,0 *5.236*	14,0 *0.551*	140°	TiAlN	IT9
SD1108A-1350-119-14R1 *SD_DRILL_13.5MM_8XD_A*	03295069	13,5 *0.531*	119,0 *4.685*	182,0 *7.165*	137,0 *5.394*	45,0 *1.772*	133,0 *5.236*	14,0 *0.551*	140°	TiAlN	IT9
SD1108A-1400-119-14R1 *SD_DRILL_14.0MM_8XD_A*	03295070	14,0 *0.551*	119,0 *4.685*	182,0 *7.165*	137,0 *5.394*	45,0 *1.772*	133,0 *5.236*	14,0 *0.551*	140°	TiAlN	IT9
SD1108A-1429-136-16R1 *SD_DRILL_9/16_8XD_A*	03295071	14,288 *0.563*	136,0 *5.354*	204,0 *8.031*	156,0 *6.142*	48,0 *1.890*	152,0 *5.984*	16,0 *0.630*	140°	TiAlN	IT9
SD1108A-1450-136-16R1 *SD_DRILL_14.5MM_8XD_A*	03295072	14,5 *0.571*	136,0 *5.354*	204,0 *8.031*	156,0 *6.142*	48,0 *1.890*	152,0 *5.984*	16,0 *0.630*	140°	TiAlN	IT9
SD1108A-1500-136-16R1 *SD_DRILL_15.0MM_8XD_A*	03295073	15,0 *0.591*	136,0 *5.354*	204,0 *8.031*	156,0 *6.142*	48,0 *1.890*	152,0 *5.984*	16,0 *0.630*	140°	TiAlN	IT9
SD1108A-1550-136-16R1 *SD_DRILL_15.5MM_8XD_A*	03295074	15,5 *0.610*	136,0 *5.354*	204,0 *8.031*	156,0 *6.142*	48,0 *1.890*	152,0 *5.984*	16,0 *0.630*	140°	TiAlN	IT9
SD1108A-1588-136-16R1 *SD_DRILL_5/8_8XD_A*	03295075	15,875 *0.625*	136,0 *5.354*	204,0 *8.031*	156,0 *6.142*	48,0 *1.890*	152,0 *5.984*	16,0 *0.630*	140°	TiAlN	IT9
SD1108A-1600-136-16R1 *SD_DRILL_16.0MM_8XD_A*	03295076	16,0 *0.630*	136,0 *5.354*	204,0 *8.031*	156,0 *6.142*	48,0 *1.890*	152,0 *5.984*	16,0 *0.630*	140°	TiAlN	IT9
SD1108A-1650-153-18R1 *SD_DRILL_16.5MM_8XD_A*	03295077	16,5 *0.650*	153,0 *6.024*	223,0 *8.780*	175,0 *6.890*	48,0 *1.890*	171,0 *6.732*	18,0 *0.709*	140°	TiAlN	IT9
SD1108A-1700-153-18R1 *SD_DRILL_17.0MM_8XD_A*	03295078	17,0 *0.669*	153,0 *6.024*	223,0 *8.780*	175,0 *6.890*	48,0 *1.890*	171,0 *6.732*	18,0 *0.709*	140°	TiAlN	IT9
SD1108A-1750-153-18R1 *SD_DRILL_17.5MM_8XD_A*	03295079	17,5 *0.689*	153,0 *6.024*	223,0 *8.780*	175,0 *6.890*	48,0 *1.890*	171,0 *6.732*	18,0 *0.709*	140°	TiAlN	IT9
SD1108A-1800-153-18R1 *SD_DRILL_18.0MM_8XD_A*	03295080	18,0 *0.709*	153,0 *6.024*	223,0 *8.780*	175,0 *6.890*	48,0 *1.890*	171,0 *6.732*	18,0 *0.709*	140°	TiAlN	IT9
SD1108A-1850-170-20R1 *SD_DRILL_18.5MM_8XD_A*	03295081	18,5 *0.728*	170,0 *6.693*	244,0 *9.606*	194,0 *7.638*	50,0 *1.969*	190,0 *7.480*	20,0 *0.787*	140°	TiAlN	IT9
SD1108A-1900-170-20R1 *SD_DRILL_19.0MM_8XD_A*	03295082	19,0 *0.748*	170,0 *6.693*	244,0 *9.606*	194,0 *7.638*	50,0 *1.969*	190,0 *7.480*	20,0 *0.787*	140°	TiAlN	IT9
SD1108A-1905-170-20R1 *SD_DRILL_3/4_8XD_A*	03323703	19,05 *0.750*	170,0 *6.693*	244,0 *9.606*	194,0 *7.638*	50,0 *1.969*	190,0 *7.480*	20,0 *0.787*	140°	TiAlN	IT9
SD1108A-1950-170-20R1 *SD_DRILL_19.5MM_8XD_A*	03295083	19,5 *0.768*	170,0 *6.693*	244,0 *9.606*	194,0 *7.638*	50,0 *1.969*	190,0 *7.480*	20,0 *0.787*	140°	TiAlN	IT9
SD1108A-2000-170-20R1 *SD_DRILL_20.0MM_8XD_A*	03295084	20,0 *0.787*	170,0 *6.693*	244,0 *9.606*	194,0 *7.638*	50,0 *1.969*	190,0 *7.480*	20,0 *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) 134
–For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1112A-0300-048-06R1 *SD_DRILL_3.0MM_12XD_A*	03295085	3,0 *0.118*	48,0 *1.890*	92,0 *3.622*	56,0 *2.205*	36,0 *1.417*	54,0 *2.126*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0310-048-06R1 *SD_DRILL_3.1MM_12XD_A*	03295086	3,1 *0.122*	48,0 *1.890*	92,0 *3.622*	56,0 *2.205*	36,0 *1.417*	54,0 *2.126*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0318-048-06R1 *SD_DRILL_1/8_12XD_A*	03323704	3,175 *0.125*	48,0 *1.890*	92,0 *3.622*	56,0 *2.205*	36,0 *1.417*	54,0 *2.126*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0320-048-06R1 *SD_DRILL_3.2MM_12XD_A*	03295087	3,2 *0.126*	48,0 *1.890*	92,0 *3.622*	56,0 *2.205*	36,0 *1.417*	54,0 *2.126*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0330-048-06R1 *SD_DRILL_3.3MM_12XD_A*	03295088	3,3 *0.130*	48,0 *1.890*	92,0 *3.622*	56,0 *2.205*	36,0 *1.417*	54,0 *2.126*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0340-048-06R1 *SD_DRILL_3.4MM_12XD_A*	03295089	3,4 *0.134*	48,0 *1.890*	92,0 *3.622*	56,0 *2.205*	36,0 *1.417*	54,0 *2.126*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0350-048-06R1 *SD_DRILL_3.5MM_12XD_A*	03295090	3,5 *0.138*	48,0 *1.890*	92,0 *3.622*	56,0 *2.205*	36,0 *1.417*	54,0 *2.126*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0357-048-06R1 *SD_DRILL_9/64_12XD_A*	03323705	3,572 *0.141*	48,0 *1.890*	92,0 *3.622*	56,0 *2.205*	36,0 *1.417*	54,0 *2.126*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0360-048-06R1 *SD_DRILL_3.6MM_12XD_A*	03295091	3,6 *0.142*	48,0 *1.890*	92,0 *3.622*	56,0 *2.205*	36,0 *1.417*	54,0 *2.126*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0370-048-06R1 *SD_DRILL_3.7MM_12XD_A*	03295092	3,7 *0.146*	48,0 *1.890*	92,0 *3.622*	56,0 *2.205*	36,0 *1.417*	54,0 *2.126*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0380-056-06R1 *SD_DRILL_3.8MM_12XD_A*	03295093	3,8 *0.150*	56,0 *2.205*	102,0 *4.016*	66,0 *2.598*	36,0 *1.417*	64,0 *2.520*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0390-056-06R1 *SD_DRILL_3.9MM_12XD_A*	03295094	3,9 *0.154*	56,0 *2.205*	102,0 *4.016*	66,0 *2.598*	36,0 *1.417*	64,0 *2.520*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0397-056-06R1 *SD_DRILL_5/32_12XD_A*	03323706	3,969 *0.156*	56,0 *2.205*	102,0 *4.016*	66,0 *2.598*	36,0 *1.417*	64,0 *2.520*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0400-056-06R1 *SD_DRILL_4.0MM_12XD_A*	03295095	4,0 *0.157*	56,0 *2.205*	102,0 *4.016*	66,0 *2.598*	36,0 *1.417*	64,0 *2.520*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0410-056-06R1 *SD_DRILL_4.1MM_12XD_A*	03295096	4,1 *0.161*	56,0 *2.205*	102,0 *4.016*	66,0 *2.598*	36,0 *1.417*	64,0 *2.520*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0420-056-06R1 *SD_DRILL_4.2MM_12XD_A*	03295097	4,2 *0.165*	56,0 *2.205*	102,0 *4.016*	66,0 *2.598*	36,0 *1.417*	64,0 *2.520*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0430-056-06R1 *SD_DRILL_4.3MM_12XD_A*	03295098	4,3 *0.169*	56,0 *2.205*	102,0 *4.016*	66,0 *2.598*	36,0 *1.417*	64,0 *2.520*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0437-056-06R1 *SD_DRILL_11/64_12XD_A*	03323707	4,366 *0.172*	56,0 *2.205*	102,0 *4.016*	66,0 *2.598*	36,0 *1.417*	64,0 *2.520*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0440-056-06R1 *SD_DRILL_4.4MM_12XD_A*	03295099	4,4 *0.173*	56,0 *2.205*	102,0 *4.016*	66,0 *2.598*	36,0 *1.417*	64,0 *2.520*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0450-056-06R1 *SD_DRILL_4.5MM_12XD_A*	03295100	4,5 *0.177*	56,0 *2.205*	102,0 *4.016*	66,0 *2.598*	36,0 *1.417*	64,0 *2.520*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0460-056-06R1 *SD_DRILL_4.6MM_12XD_A*	03295101	4,6 *0.181*	56,0 *2.205*	102,0 *4.016*	66,0 *2.598*	36,0 *1.417*	64,0 *2.520*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0470-056-06R1 *SD_DRILL_4.7MM_12XD_A*	03295102	4,7 *0.185*	56,0 *2.205*	102,0 *4.016*	66,0 *2.598*	36,0 *1.417*	64,0 *2.520*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0476-074-06R1 *SD_DRILL_3/16_12XD_A*	03323708	4,763 *0.188*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0480-074-06R1 *SD_DRILL_4.8MM_12XD_A*	03295103	4,8 *0.189*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0490-074-06R1 *SD_DRILL_4.9MM_12XD_A*	03295104	4,9 *0.193*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1112A-0500-074-06R1 *SD_DRILL_5.0MM_12XD_A*	03295105	5,0 *0.197*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0510-074-06R1 *SD_DRILL_5.1MM_12XD_A*	03295106	5,1 *0.201*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0516-074-06R1 *SD_DRILL_13/64_12XD_A*	03323709	5,159 *0.203*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0520-074-06R1 *SD_DRILL_5.2MM_12XD_A*	03295107	5,2 *0.205*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0530-074-06R1 *SD_DRILL_5.3MM_12XD_A*	03295108	5,3 *0.209*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0540-074-06R1 *SD_DRILL_5.4MM_12XD_A*	03295109	5,4 *0.213*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0550-074-06R1 *SD_DRILL_5.5MM_12XD_A*	03295110	5,5 *0.217*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0556-074-06R1 *SD_DRILL_7/32_12XD_A*	03295111	5,556 *0.219*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0560-074-06R1 *SD_DRILL_5.6MM_12XD_A*	03295112	5,6 *0.220*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0570-074-06R1 *SD_DRILL_5.7MM_12XD_A*	03295113	5,7 *0.224*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0580-074-06R1 *SD_DRILL_5.8MM_12XD_A*	03295114	5,8 *0.228*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0590-074-06R1 *SD_DRILL_5.9MM_12XD_A*	03295115	5,9 *0.232*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0600-074-06R1 *SD_DRILL_6.0MM_12XD_A*	03295116	6,0 *0.236*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0610-098-08R1 *SD_DRILL_6.1MM_12XD_A*	03295117	6,1 *0.240*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0620-098-08R1 *SD_DRILL_6.2MM_12XD_A*	03295118	6,2 *0.244*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0630-098-08R1 *SD_DRILL_6.3MM_12XD_A*	03295119	6,3 *0.248*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0635-098-08R1 *SD_DRILL_1/4_12XD_A*	03295120	6,35 *0.250*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0640-098-08R1 *SD_DRILL_6.4MM_12XD_A*	03295121	6,4 *0.252*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0650-098-08R1 *SD_DRILL_6.5MM_12XD_A*	03295122	6,5 *0.256*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0660-098-08R1 *SD_DRILL_6.6MM_12XD_A*	03295123	6,6 *0.260*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0670-098-08R1 *SD_DRILL_6.7MM_12XD_A*	03295124	6,7 *0.264*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0675-098-08R1 *SD_DRILL_17/64_12XD_A*	03323710	6,747 *0.266*	98,0 *3.858*	148,0 *5.827*	128,0 *5.039*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0680-098-08R1 *SD_DRILL_6.8MM_12XD_A*	03295125	6,8 *0.268*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0690-098-08R1 *SD_DRILL_6.9MM_12XD_A*	03295126	6,9 *0.272*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0700-098-08R1 *SD_DRILL_7.0MM_12XD_A*	03295127	7,0 *0.276*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0710-098-08R1 *SD_DRILL_7.1MM_12XD_A*	03295128	7,1 *0.280*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0714-098-08R1 *SD_DRILL_9/32_12XD_A*	03323711	7,144 *0.281*	98,0 *3.858*	148,0 *5.827*	128,0 *5.039*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0730-098-08R1 *SD_DRILL_7.3MM_12XD_A*	03323712	7,3 *0.287*	98,0 *3.858*	148,0 *5.827*	128,0 *5.039*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0740-098-08R1 *SD_DRILL_7.4MM_12XD_A*	03295129	7,4 *0.291*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0750-098-08R1 *SD_DRILL_7.5MM_12XD_A*	03295130	7,5 *0.295*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0754-098-08R1 *SD_DRILL_19/64_12XD_A*	03323713	7,541 *0.297*	98,0 *3.858*	148,0 *5.827*	128,0 *5.039*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0780-098-08R1 *SD_DRILL_7.8MM_12XD_A*	03295131	7,8 *0.307*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0790-098-08R1 *SD_DRILL_7.9MM_12XD_A*	03295132	7,9 *0.311*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0794-098-08R1 *SD_DRILL_5/16_12XD_A*	03323714	7,938 *0.313*	98,0 *3.858*	148,0 *5.827*	128,0 *5.039*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0800-098-08R1 *SD_DRILL_8.0MM_12XD_A*	03295133	8,0 *0.315*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1112A-0810-123-10R1 *SD_DRILL_8.1MM_12XD_A*	03295135	8,1 *0.319*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0820-123-10R1 *SD_DRILL_8.2MM_12XD_A*	03295136	8,2 *0.323*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0830-123-10R1 *SD_DRILL_8.3MM_12XD_A*	03295137	8,3 *0.327*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0840-123-10R1 *SD_DRILL_8.4MM_12XD_A*	03295138	8,4 *0.331*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0850-123-10R1 *SD_DRILL_8.5MM_12XD_A*	03295139	8,5 *0.335*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0860-123-10R1 *SD_DRILL_8.6MM_12XD_A*	03295140	8,6 *0.339*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0870-123-10R1 *SD_DRILL_8.7MM_12XD_A*	03295141	8,7 *0.343*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0873-123-10R1 *SD_DRILL_11/32_12XD_A*	03323715	8,731 *0.344*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0880-123-10R1 *SD_DRILL_8.8MM_12XD_A*	03295142	8,8 *0.346*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0900-123-10R1 *SD_DRILL_9.0MM_12XD_A*	03295143	9,0 *0.354*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0913-123-10R1 *SD_DRILL_23/64_12XD_A*	03323716	9,128 *0.359*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0930-123-10R1 *SD_DRILL_9.3MM_12XD_A*	03295144	9,3 *0.366*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0950-123-10R1 *SD_DRILL_9.5MM_12XD_A*	03295145	9,5 *0.374*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0953-123-10R1 *SD_DRILL_3/8_12XD_A*	03323717	9,525 *0.375*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0970-123-10R1 *SD_DRILL_9.7MM_12XD_A*	03295146	9,7 *0.382*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0980-123-10R1 *SD_DRILL_9.8MM_12XD_A*	03295147	9,8 *0.386*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0992-123-10R1 *SD_DRILL_25/64_12XD_A*	03323718	9,922 *0.391*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-1000-123-10R1 *SD_DRILL_10.0MM_12XD_A*	03295148	10,0 *0.394*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-1020-140-12R1 *SD_DRILL_10.2MM_12XD_A*	03295149	10,2 *0.402*	140,0 *5.512*	206,0 *8.110*	161,0 *6.339*	45,0 *1.772*	158,0 *6.220*	12,0 *0.472*	140°	TiAlN	IT9
SD1112A-1030-140-12R1 *SD_DRILL_10.3MM_12XD_A*	03295150	10,3 *0.406*	140,0 *5.512*	206,0 *8.110*	161,0 *6.339*	45,0 *1.772*	158,0 *6.220*	12,0 *0.472*	140°	TiAlN	IT9
SD1112A-1032-140-12R1 *SD_DRILL_13/32_12XD_A*	03323719	10,319 *0.406*	140,0 *5.512*	206,0 *8.110*	161,0 *6.339*	45,0 *1.772*	158,0 *6.220*	12,0 *0.472*	140°	TiAlN	IT9
SD1112A-1050-140-12R1 *SD_DRILL_10.5MM_12XD_A*	03295151	10,5 *0.413*	140,0 *5.512*	206,0 *8.110*	161,0 *6.339*	45,0 *1.772*	158,0 *6.220*	12,0 *0.472*	140°	TiAlN	IT9
SD1112A-1072-140-12R1 *SD_DRILL_27/64_12XD_A*	03323720	10,716 *0.422*	140,0 *5.512*	206,0 *8.110*	161,0 *6.339*	45,0 *1.772*	158,0 *6.220*	12,0 *0.472*	140°	TiAlN	IT9
SD1112A-1080-140-12R1 *SD_DRILL_10.8MM_12XD_A*	03295152	10,8 *0.425*	140,0 *5.512*	206,0 *8.110*	161,0 *6.339*	45,0 *1.772*	158,0 *6.220*	12,0 *0.472*	140°	TiAlN	IT9
SD1112A-1100-140-12R1 *SD_DRILL_11.0MM_12XD_A*	03295153	11,0 *0.433*	140,0 *5.512*	206,0 *8.110*	161,0 *6.339*	45,0 *1.772*	158,0 *6.220*	12,0 *0.472*	140°	TiAlN	IT9
SD1112A-1111-140-12R1 *SD_DRILL_7/16_12XD_A*	03323722	11,113 *0.438*	140,0 *5.512*	206,0 *8.110*	161,0 *6.339*	45,0 *1.772*	158,0 *6.220*	12,0 *0.472*	140°	TiAlN	IT9
SD1112A-1120-140-12R1 *SD_DRILL_11.2MM_12XD_A*	03295154	11,2 *0.441*	140,0 *5.512*	206,0 *8.110*	161,0 *6.339*	45,0 *1.772*	158,0 *6.220*	12,0 *0.472*	140°	TiAlN	IT9
SD1112A-1150-140-12R1 *SD_DRILL_11.5MM_12XD_A*	03295155	11,5 *0.453*	140,0 *5.512*	206,0 *8.110*	161,0 *6.339*	45,0 *1.772*	158,0 *6.220*	12,0 *0.472*	140°	TiAlN	IT9
SD1112A-1170-140-12R1 *SD_DRILL_11.7MM_12XD_A*	03295156	11,7 *0.461*	140,0 *5.512*	206,0 *8.110*	161,0 *6.339*	45,0 *1.772*	158,0 *6.220*	12,0 *0.472*	140°	TiAlN	IT9
SD1112A-1180-140-12R1 *SD_DRILL_11.8MM_12XD_A*	03295157	11,8 *0.465*	140,0 *5.512*	206,0 *8.110*	161,0 *6.339*	45,0 *1.772*	158,0 *6.220*	12,0 *0.472*	140°	TiAlN	IT9
SD1112A-1191-140-12R1 *SD_DRILL_15/32_12XD_A*	03323723	11,906 *0.469*	140,0 *5.512*	206,0 *8.110*	161,0 *6.339*	45,0 *1.772*	158,0 *6.220*	12,0 *0.472*	140°	TiAlN	IT9
SD1112A-1200-140-12R1 *SD_DRILL_12.0MM_12XD_A*	03295158	12,0 *0.472*	140,0 *5.512*	206,0 *8.110*	161,0 *6.339*	45,0 *1.772*	158,0 *6.220*	12,0 *0.472*	140°	TiAlN	IT9
SD1112A-1220-168-14R1 *SD_DRILL_12.2MM_12XD_A*	03295159	12,2 *0.480*	168,0 *6.614*	230,0 *9.055*	185,0 *7.283*	45,0 *1.772*	182,0 *7.165*	14,0 *0.551*	140°	TiAlN	IT9
SD1112A-1230-168-14R1 *SD_DRILL_31/64_12XD_A*	03295160	12,3 *0.484*	168,0 *6.614*	230,0 *9.055*	185,0 *7.283*	45,0 *1.772*	182,0 *7.165*	14,0 *0.551*	140°	TiAlN	IT9
SD1112A-1250-168-14R1 *SD_DRILL_12.5MM_12XD_A*	03295161	12,5 *0.492*	168,0 *6.614*	230,0 *9.055*	185,0 *7.283*	45,0 *1.772*	182,0 *7.165*	14,0 *0.551*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1112A-1270-168-14R1 *SD_DRILL_1/2_12XD_A*	03295162	12,7 *0.500*	168,0 *6.614*	230,0 *9.055*	185,0 *7.283*	45,0 *1.772*	182,0 *7.165*	14,0 *0.551*	140°	TiAlN	IT9
SD1112A-1300-168-14R1 *SD_DRILL_13.0MM_12XD_A*	03295163	13,0 *0.512*	168,0 *6.614*	230,0 *9.055*	185,0 *7.283*	45,0 *1.772*	182,0 *7.165*	14,0 *0.551*	140°	TiAlN	IT9
SD1112A-1349-168-14R1 *SD_DRILL_17/32_12XD_A*	03323724	13,494 *0.531*	168,0 *6.614*	230,0 *9.055*	185,0 *7.283*	45,0 *1.772*	182,0 *7.165*	14,0 *0.551*	140°	TiAlN	IT9
SD1112A-1350-168-14R1 *SD_DRILL_13.5MM_12XD_A*	03295164	13,5 *0.531*	168,0 *6.614*	230,0 *9.055*	185,0 *7.283*	45,0 *1.772*	182,0 *7.165*	14,0 *0.551*	140°	TiAlN	IT9
SD1112A-1400-168-14R1 *SD_DRILL_14.0MM_12XD_A*	03295165	14,0 *0.551*	168,0 *6.614*	230,0 *9.055*	185,0 *7.283*	45,0 *1.772*	182,0 *7.165*	14,0 *0.551*	140°	TiAlN	IT9
SD1112A-1429-192-16R1 *SD_DRILL_9/16_12XD_A*	03295166	14,288 *0.563*	192,0 *7.559*	260,0 *10.236*	212,0 *8.346*	48,0 *1.890*	208,0 *8.189*	16,0 *0.630*	140°	TiAlN	IT9
SD1112A-1450-192-16R1 *SD_DRILL_14.5MM_12XD_A*	03295167	14,5 *0.571*	192,0 *7.559*	260,0 *10.236*	212,0 *8.346*	48,0 *1.890*	208,0 *8.189*	16,0 *0.630*	140°	TiAlN	IT9
SD1112A-1500-192-16R1 *SD_DRILL_15.0MM_12XD_A*	03295168	15,0 *0.591*	192,0 *7.559*	260,0 *10.236*	212,0 *8.346*	48,0 *1.890*	208,0 *8.189*	16,0 *0.630*	140°	TiAlN	IT9
SD1112A-1550-192-16R1 *SD_DRILL_15.5MM_12XD_A*	03295169	15,5 *0.610*	192,0 *7.559*	260,0 *10.236*	212,0 *8.346*	48,0 *1.890*	208,0 *8.189*	16,0 *0.630*	140°	TiAlN	IT9
SD1112A-1588-192-16R1 *SD_DRILL_5/8_12XD_A*	03295170	15,875 *0.625*	192,0 *7.559*	260,0 *10.236*	212,0 *8.346*	48,0 *1.890*	208,0 *8.189*	16,0 *0.630*	140°	TiAlN	IT9
SD1112A-1600-192-16R1 *SD_DRILL_16.0MM_12XD_A*	03295171	16,0 *0.630*	192,0 *7.559*	260,0 *10.236*	212,0 *8.346*	48,0 *1.890*	208,0 *8.189*	16,0 *0.630*	140°	TiAlN	IT9
SD1112A-1650-216-18R1 *SD_DRILL_16.5MM_12XD_A*	03295172	16,5 *0.650*	216,0 *8.504*	285,0 *11.220*	237,0 *9.331*	48,0 *1.890*	234,0 *9.213*	18,0 *0.709*	140°	TiAlN	IT9
SD1112A-1700-216-18R1 *SD_DRILL_17.0MM_12XD_A*	03295173	17,0 *0.669*	216,0 *8.504*	285,0 *11.220*	237,0 *9.331*	48,0 *1.890*	234,0 *9.213*	18,0 *0.709*	140°	TiAlN	IT9
SD1112A-1750-216-18R1 *SD_DRILL_17.5MM_12XD_A*	03295174	17,5 *0.689*	216,0 *8.504*	285,0 *11.220*	237,0 *9.331*	48,0 *1.890*	234,0 *9.213*	18,0 *0.709*	140°	TiAlN	IT9
SD1112A-1800-216-18R1 *SD_DRILL_18.0MM_12XD_A*	03295175	18,0 *0.709*	216,0 *8.504*	285,0 *11.220*	237,0 *9.331*	48,0 *1.890*	234,0 *9.213*	18,0 *0.709*	140°	TiAlN	IT9
SD1112A-1900-238-20R1 *SD_DRILL_19.0MM_12XD_A*	03295176	19,0 *0.748*	238,0 *9.370*	310,0 *12.205*	260,0 *10.236*	50,0 *1.969*	258,0 *10.157*	20,0 *0.787*	140°	TiAlN	IT9
SD1112A-2000-238-20R1 *SD_DRILL_20.0MM_12XD_A*	03295177	20,0 *0.787*	238,0 *9.370*	310,0 *12.205*	260,0 *10.236*	50,0 *1.969*	258,0 *10.157*	20,0 *0.787*	140°	TiAlN	IT9

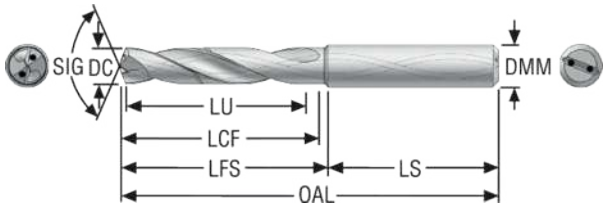
Feedmax -P – single diameter drills

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) 135-136
– For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD203A-0200-007-04R1-P	03045918	2,0 *0.079*	7,0 *0.276*	41,0 *1.614*	14,0 *0.551*	27,0 *1.063*	11,0 *0.433*	4,0 *0.157*	140°	TiAlN	IT8-9
SD203A-0210-007-04R1-P	03045919	2,1 *0.083*	7,0 *0.276*	41,0 *1.614*	14,0 *0.551*	27,0 *1.063*	11,0 *0.433*	4,0 *0.157*	140°	TiAlN	IT8-9
SD203A-0220-007-04R1-P	03045920	2,2 *0.087*	7,0 *0.276*	41,0 *1.614*	14,0 *0.551*	27,0 *1.063*	11,0 *0.433*	4,0 *0.157*	140°	TiAlN	IT8-9
SD203A-0230-008-04R1-P	03045921	2,3 *0.091*	8,0 *0.315*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	12,5 *0.492*	4,0 *0.157*	140°	TiAlN	IT8-9
SD203A-0235-008-04R1-P	03138154	2,35 *0.093*	8,0 *0.315*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	12,5 *0.492*	4,0 *0.157*	140°	TiAlN	IT8-9
SD203A-0238-008-04R1-P	03120476	2,381 *0.094*	8,0 *0.315*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	12,5 *0.492*	4,0 *0.157*	140°	TiAlN	IT8-9
SD203A-0240-008-04R1-P	03045922	2,4 *0.094*	8,0 *0.315*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	12,5 *0.492*	4,0 *0.157*	140°	TiAlN	IT8-9
SD203A-0250-008-04R1-P	03045923	2,5 *0.098*	8,0 *0.315*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	12,5 *0.492*	4,0 *0.157*	140°	TiAlN	IT8-9
SD203A-0260-008-04R1-P	03045924	2,6 *0.102*	8,0 *0.315*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	12,5 *0.492*	4,0 *0.157*	140°	TiAlN	IT8-9
SD203A-0270-009-04R1-P	03045925	2,7 *0.106*	9,0 *0.354*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	14,5 *0.571*	4,0 *0.157*	140°	TiAlN	IT8-9
SD203A-0278-009-04R1-P	03120495	2,778 *0.109*	9,0 *0.354*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	14,5 *0.571*	4,0 *0.157*	140°	TiAlN	IT8-9
SD203A-0280-009-04R1-P	03045926	2,8 *0.110*	9,0 *0.354*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	14,5 *0.571*	4,0 *0.157*	140°	TiAlN	IT8-9
SD203A-0290-009-04R1-P	03045927	2,9 *0.114*	9,0 *0.354*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	14,5 *0.571*	4,0 *0.157*	140°	TiAlN	IT8-9
SD203A-0300-014-06R1-P	03045928	3,0 *0.118*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0310-014-06R1-P	03045929	3,1 *0.122*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0318-014-06R1-P	03046061	3,175 *0.125*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0320-014-06R1-P	03045930	3,2 *0.126*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0325-014-06R1-P	03045931	3,25 *0.128*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0330-014-06R1-P	03045932	3,3 *0.130*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0340-014-06R1-P	03045933	3,4 *0.134*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0350-014-06R1-P	03045934	3,5 *0.138*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0357-014-06R1-P	03046062	3,572 *0.141*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0360-014-06R1-P	03045935	3,6 *0.142*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0365-014-06R1-P	03045936	3,65 *0.144*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0370-014-06R1-P	03045937	3,7 *0.146*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD203A-0380-017-06R1-P	03045938	3,8 *0.150*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0390-017-06R1-P	03045939	3,9 *0.154*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0397-017-06R1-P	03046063	3,97 *0.156*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0400-017-06R1-P	03045940	4,0 *0.157*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0410-017-06R1-P	03045941	4,1 *0.161*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0420-017-06R1-P	03045942	4,2 *0.165*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0430-017-06R1-P	03045943	4,3 *0.169*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0437-017-06R1-P	03046064	4,366 *0.172*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0450-017-06R1-P	03045944	4,5 *0.177*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0460-017-06R1-P	03045945	4,6 *0.181*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0465-017-06R1-P	03045946	4,65 *0.183*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0470-017-06R1-P	03045947	4,7 *0.185*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0476-020-06R1-P	03046065	4,763 *0.188*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0480-020-06R1-P	03045948	4,8 *0.189*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0490-020-06R1-P	03045949	4,9 *0.193*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0500-020-06R1-P	03045950	5,0 *0.197*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0510-020-06R1-P	03045951	5,1 *0.201*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0516-020-06R1-P	03046066	5,159 *0.203*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0520-020-06R1-P	03045952	5,2 *0.205*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0530-020-06R1-P	03045953	5,3 *0.209*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0540-020-06R1-P	03045954	5,4 *0.213*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0550-020-06R1-P	03045955	5,5 *0.217*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0555-020-06R1-P	03045956	5,55 *0.219*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0556-020-06R1-P	03046067	5,556 *0.219*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0560-020-06R1-P	03045957	5,6 *0.220*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0570-020-06R1-P	03045958	5,7 *0.224*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0580-020-06R1-P	03045959	5,8 *0.228*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0590-020-06R1-P	03045960	5,9 *0.232*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0595-020-06R1-P	03046068	5,953 *0.234*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0600-020-06R1-P	03045961	6,0 *0.236*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0610-024-08R1-P	03045962	6,1 *0.240*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT8-9
SD203A-0620-024-08R1-P	03045963	6,2 *0.244*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT8-9
SD203A-0630-024-08R1-P	03045964	6,3 *0.248*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT8-9
SD203A-0635-024-08R1-P	03046069	6,35 *0.250*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT8-9
SD203A-0640-024-08R1-P	03045965	6,4 *0.252*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch			
SD203A-0650-024-08R1-P	03045966	6,5 0.256	24,0 0.945	79,0 3.110	43,0 1.693	36,0 1.417	34,0 1.339	8,0 0.315	140°	TiAlN	IT8-9
SD203A-0660-024-08R1-P	03045967	6,6 0.260	24,0 0.945	79,0 3.110	43,0 1.693	36,0 1.417	34,0 1.339	8,0 0.315	140°	TiAlN	IT8-9
SD203A-0670-024-08R1-P	03045968	6,7 0.264	24,0 0.945	79,0 3.110	43,0 1.693	36,0 1.417	34,0 1.339	8,0 0.315	140°	TiAlN	IT8-9
SD203A-0675-024-08R1-P	03046070	6,747 0.266	24,0 0.945	79,0 3.110	43,0 1.693	36,0 1.417	34,0 1.339	8,0 0.315	140°	TiAlN	IT8-9
SD203A-0680-024-08R1-P	03045969	6,8 0.268	24,0 0.945	79,0 3.110	43,0 1.693	36,0 1.417	34,0 1.339	8,0 0.315	140°	TiAlN	IT8-9
SD203A-0690-024-08R1-P	03045970	6,9 0.272	24,0 0.945	79,0 3.110	43,0 1.693	36,0 1.417	34,0 1.339	8,0 0.315	140°	TiAlN	IT8-9
SD203A-0700-024-08R1-P	03045971	7,0 0.276	24,0 0.945	79,0 3.110	43,0 1.693	36,0 1.417	34,0 1.339	8,0 0.315	140°	TiAlN	IT8-9
SD203A-0710-029-08R1-P	03045972	7,1 0.280	29,0 1.142	79,0 3.110	43,0 1.693	36,0 1.417	41,0 1.614	8,0 0.315	140°	TiAlN	IT8-9
SD203A-0714-029-08R1-P	03046071	7,144 0.281	29,0 1.142	79,0 3.110	43,0 1.693	36,0 1.417	41,0 1.614	8,0 0.315	140°	TiAlN	IT8-9
SD203A-0720-029-08R1-P	03045973	7,2 0.283	29,0 1.142	79,0 3.110	43,0 1.693	36,0 1.417	41,0 1.614	8,0 0.315	140°	TiAlN	IT8-9
SD203A-0730-029-08R1-P	03045974	7,3 0.287	29,0 1.142	79,0 3.110	43,0 1.693	36,0 1.417	41,0 1.614	8,0 0.315	140°	TiAlN	IT8-9
SD203A-0740-029-08R1-P	03045975	7,4 0.291	29,0 1.142	79,0 3.110	43,0 1.693	36,0 1.417	41,0 1.614	8,0 0.315	140°	TiAlN	IT8-9
SD203A-0750-029-08R1-P	03045976	7,5 0.295	29,0 1.142	79,0 3.110	43,0 1.693	36,0 1.417	41,0 1.614	8,0 0.315	140°	TiAlN	IT8-9
SD203A-0754-029-08R1-P	03046072	7,541 0.297	29,0 1.142	79,0 3.110	43,0 1.693	36,0 1.417	41,0 1.614	8,0 0.315	140°	TiAlN	IT8-9
SD203A-0755-029-08R1-P	03045977	7,55 0.297	29,0 1.142	79,0 3.110	43,0 1.693	36,0 1.417	41,0 1.614	8,0 0.315	140°	TiAlN	IT8-9
SD203A-0760-029-08R1-P	03045978	7,6 0.299	29,0 1.142	79,0 3.110	43,0 1.693	36,0 1.417	41,0 1.614	8,0 0.315	140°	TiAlN	IT8-9
SD203A-0770-029-08R1-P	03045979	7,7 0.303	29,0 1.142	79,0 3.110	43,0 1.693	36,0 1.417	41,0 1.614	8,0 0.315	140°	TiAlN	IT8-9
SD203A-0780-029-08R1-P	03045980	7,8 0.307	29,0 1.142	79,0 3.110	43,0 1.693	36,0 1.417	41,0 1.614	8,0 0.315	140°	TiAlN	IT8-9
SD203A-0790-029-08R1-P	03045981	7,9 0.311	29,0 1.142	79,0 3.110	43,0 1.693	36,0 1.417	41,0 1.614	8,0 0.315	140°	TiAlN	IT8-9
SD203A-0794-029-08R1-P	03046073	7,938 0.313	29,0 1.142	79,0 3.110	43,0 1.693	36,0 1.417	41,0 1.614	8,0 0.315	140°	TiAlN	IT8-9
SD203A-0800-029-08R1-P	03045982	8,0 0.315	29,0 1.142	79,0 3.110	43,0 1.693	36,0 1.417	41,0 1.614	8,0 0.315	140°	TiAlN	IT8-9
SD203A-0810-035-10R1-P	03045983	8,1 0.319	35,0 1.378	89,0 3.504	49,0 1.929	40,0 1.575	47,0 1.850	10,0 0.394	140°	TiAlN	IT8-9
SD203A-0820-035-10R1-P	03045984	8,2 0.323	35,0 1.378	89,0 3.504	49,0 1.929	40,0 1.575	47,0 1.850	10,0 0.394	140°	TiAlN	IT8-9
SD203A-0830-035-10R1-P	03045985	8,3 0.327	35,0 1.378	89,0 3.504	49,0 1.929	40,0 1.575	47,0 1.850	10,0 0.394	140°	TiAlN	IT8-9
SD203A-0833-035-10R1-P	03046074	8,334 0.328	35,0 1.378	89,0 3.504	49,0 1.929	40,0 1.575	47,0 1.850	10,0 0.394	140°	TiAlN	IT8-9
SD203A-0840-035-10R1-P	03045986	8,4 0.331	35,0 1.378	89,0 3.504	49,0 1.929	40,0 1.575	47,0 1.850	10,0 0.394	140°	TiAlN	IT8-9
SD203A-0850-035-10R1-P	03045987	8,5 0.335	35,0 1.378	89,0 3.504	49,0 1.929	40,0 1.575	47,0 1.850	10,0 0.394	140°	TiAlN	IT8-9
SD203A-0860-035-10R1-P	03045988	8,6 0.339	35,0 1.378	89,0 3.504	49,0 1.929	40,0 1.575	47,0 1.850	10,0 0.394	140°	TiAlN	IT8-9
SD203A-0870-035-10R1-P	03045989	8,7 0.343	35,0 1.378	89,0 3.504	49,0 1.929	40,0 1.575	47,0 1.850	10,0 0.394	140°	TiAlN	IT8-9
SD203A-0873-035-10R1-P	03046075	8,731 0.344	35,0 1.378	89,0 3.504	49,0 1.929	40,0 1.575	47,0 1.850	10,0 0.394	140°	TiAlN	IT8-9
SD203A-0880-035-10R1-P	03045990	8,8 0.346	35,0 1.378	89,0 3.504	49,0 1.929	40,0 1.575	47,0 1.850	10,0 0.394	140°	TiAlN	IT8-9
SD203A-0890-035-10R1-P	03045991	8,9 0.350	35,0 1.378	89,0 3.504	49,0 1.929	40,0 1.575	47,0 1.850	10,0 0.394	140°	TiAlN	IT8-9
SD203A-0900-035-10R1-P	03045992	9,0 0.354	35,0 1.378	89,0 3.504	49,0 1.929	40,0 1.575	47,0 1.850	10,0 0.394	140°	TiAlN	IT8-9
SD203A-0910-035-10R1-P	03045993	9,1 0.358	35,0 1.378	89,0 3.504	49,0 1.929	40,0 1.575	47,0 1.850	10,0 0.394	140°	TiAlN	IT8-9
SD203A-0913-035-10R1-P	03046076	9,128 0.359	35,0 1.378	89,0 3.504	49,0 1.929	40,0 1.575	47,0 1.850	10,0 0.394	140°	TiAlN	IT8-9

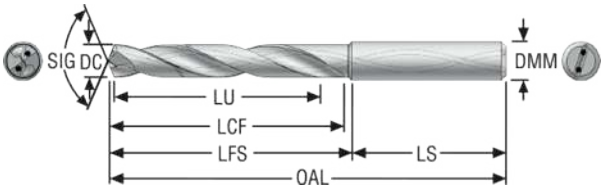
Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD203A-0920-035-10R1-P	03045994	9,2 *0.362*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0930-035-10R1-P	03045995	9,3 *0.366*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0940-035-10R1-P	03045996	9,4 *0.370*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0950-035-10R1-P	03045997	9,5 *0.374*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0953-035-10R1-P	03046077	9,525 *0.375*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0955-035-10R1-P	03045998	9,55 *0.376*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0960-035-10R1-P	03045999	9,6 *0.378*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0970-035-10R1-P	03046000	9,7 *0.382*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0980-035-10R1-P	03046001	9,8 *0.386*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0990-035-10R1-P	03046002	9,9 *0.390*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0992-035-10R1-P	03046078	9,922 *0.391*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-1000-035-10R1-P	03046003	10,0 *0.394*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-1020-040-12R1-P	03046004	10,2 *0.402*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1032-040-12R1-P	03046079	10,319 *0.406*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1040-040-12R1-P	03046005	10,4 *0.409*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1050-040-12R1-P	03046006	10,5 *0.413*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1060-040-12R1-P	03046007	10,6 *0.417*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1072-040-12R1-P	03046080	10,716 *0.422*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1080-040-12R1-P	03046008	10,8 *0.425*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1090-040-12R1-P	03046009	10,9 *0.429*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1100-040-12R1-P	03046010	11,0 *0.433*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1110-040-12R1-P	03046011	11,1 *0.437*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1111-040-12R1-P	03046081	11,113 *0.438*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1120-040-12R1-P	03046012	11,2 *0.441*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1130-040-12R1-P	03046013	11,3 *0.445*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1140-040-12R1-P	03046014	11,4 *0.449*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1150-040-12R1-P	03046015	11,5 *0.453*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1151-040-12R1-P	03046082	11,509 *0.453*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1155-040-12R1-P	03046016	11,55 *0.455*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1160-040-12R1-P	03046017	11,6 *0.457*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1170-040-12R1-P	03046018	11,7 *0.461*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1180-040-12R1-P	03046019	11,8 *0.465*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1190-040-12R1-P	03046020	11,9 *0.469*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1191-040-12R1-P	03046083	11,906 *0.469*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1200-040-12R1-P	03046021	12,0 *0.472*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch			
SD203A-1210-043-14R1-P	03046022	12,1 0.476	43,0 1.693	107,0 4.213	62,0 2.441	45,0 1.772	60,0 2.362	14,0 0.551	140°	TiAlN	IT8-9
SD203A-1220-043-14R1-P	03046023	12,2 0.480	43,0 1.693	107,0 4.213	62,0 2.441	45,0 1.772	60,0 2.362	14,0 0.551	140°	TiAlN	IT8-9
SD203A-1230-043-14R1-P	03046084	12,303 0.484	43,0 1.693	107,0 4.213	62,0 2.441	45,0 1.772	60,0 2.362	14,0 0.551	140°	TiAlN	IT8-9
SD203A-1240-043-14R1-P	03046024	12,4 0.488	43,0 1.693	107,0 4.213	62,0 2.441	45,0 1.772	60,0 2.362	14,0 0.551	140°	TiAlN	IT8-9
SD203A-1250-043-14R1-P	03046025	12,5 0.492	43,0 1.693	107,0 4.213	62,0 2.441	45,0 1.772	60,0 2.362	14,0 0.551	140°	TiAlN	IT8-9
SD203A-1260-043-14R1-P	03046026	12,6 0.496	43,0 1.693	107,0 4.213	62,0 2.441	45,0 1.772	60,0 2.362	14,0 0.551	140°	TiAlN	IT8-9
SD203A-1270-043-14R1-P	03046085	12,7 0.500	43,0 1.693	107,0 4.213	62,0 2.441	45,0 1.772	60,0 2.362	14,0 0.551	140°	TiAlN	IT8-9
SD203A-1275-043-14R1-P	03046027	12,75 0.502	43,0 1.693	107,0 4.213	62,0 2.441	45,0 1.772	60,0 2.362	14,0 0.551	140°	TiAlN	IT8-9
SD203A-1280-043-14R1-P	03046028	12,8 0.504	43,0 1.693	107,0 4.213	62,0 2.441	45,0 1.772	60,0 2.362	14,0 0.551	140°	TiAlN	IT8-9
SD203A-1290-043-14R1-P	03046029	12,9 0.508	43,0 1.693	107,0 4.213	62,0 2.441	45,0 1.772	60,0 2.362	14,0 0.551	140°	TiAlN	IT8-9
SD203A-1300-043-14R1-P	03046030	13,0 0.512	43,0 1.693	107,0 4.213	62,0 2.441	45,0 1.772	60,0 2.362	14,0 0.551	140°	TiAlN	IT8-9
SD203A-1310-043-14R1-P	03046031	13,1 0.516	43,0 1.693	107,0 4.213	62,0 2.441	45,0 1.772	60,0 2.362	14,0 0.551	140°	TiAlN	IT8-9
SD203A-1320-043-14R1-P	03046032	13,2 0.520	43,0 1.693	107,0 4.213	62,0 2.441	45,0 1.772	60,0 2.362	14,0 0.551	140°	TiAlN	IT8-9
SD203A-1330-043-14R1-P	03046033	13,3 0.524	43,0 1.693	107,0 4.213	62,0 2.441	45,0 1.772	60,0 2.362	14,0 0.551	140°	TiAlN	IT8-9
SD203A-1340-043-14R1-P	03046034	13,4 0.528	43,0 1.693	107,0 4.213	62,0 2.441	45,0 1.772	60,0 2.362	14,0 0.551	140°	TiAlN	IT8-9
SD203A-1349-043-14R1-P	03046086	13,494 0.531	43,0 1.693	107,0 4.213	62,0 2.441	45,0 1.772	60,0 2.362	14,0 0.551	140°	TiAlN	IT8-9
SD203A-1350-043-14R1-P	03046035	13,5 0.531	43,0 1.693	107,0 4.213	62,0 2.441	45,0 1.772	60,0 2.362	14,0 0.551	140°	TiAlN	IT8-9
SD203A-1360-043-14R1-P	03046036	13,6 0.535	43,0 1.693	107,0 4.213	62,0 2.441	45,0 1.772	60,0 2.362	14,0 0.551	140°	TiAlN	IT8-9
SD203A-1370-043-14R1-P	03046037	13,7 0.539	43,0 1.693	107,0 4.213	62,0 2.441	45,0 1.772	60,0 2.362	14,0 0.551	140°	TiAlN	IT8-9
SD203A-1380-043-14R1-P	03046038	13,8 0.543	43,0 1.693	107,0 4.213	62,0 2.441	45,0 1.772	60,0 2.362	14,0 0.551	140°	TiAlN	IT8-9
SD203A-1390-043-14R1-P	03046039	13,9 0.547	43,0 1.693	107,0 4.213	62,0 2.441	45,0 1.772	60,0 2.362	14,0 0.551	140°	TiAlN	IT8-9
SD203A-1400-043-14R1-P	03046040	14,0 0.551	43,0 1.693	107,0 4.213	62,0 2.441	45,0 1.772	60,0 2.362	14,0 0.551	140°	TiAlN	IT8-9
SD203A-1420-045-16R1-P	03046041	14,2 0.559	45,0 1.772	115,0 4.528	67,0 2.638	48,0 1.890	65,0 2.559	16,0 0.630	140°	TiAlN	IT8-9
SD203A-1425-045-16R1-P	03138155	14,25 0.561	45,0 1.772	115,0 4.528	67,0 2.638	48,0 1.890	65,0 2.559	16,0 0.630	140°	TiAlN	IT8-9
SD203A-1429-045-16R1-P	03046087	14,288 0.563	45,0 1.772	115,0 4.528	67,0 2.638	48,0 1.890	65,0 2.559	16,0 0.630	140°	TiAlN	IT8-9
SD203A-1450-045-16R1-P	03046042	14,5 0.571	45,0 1.772	115,0 4.528	67,0 2.638	48,0 1.890	65,0 2.559	16,0 0.630	140°	TiAlN	IT8-9
SD203A-1470-045-16R1-P	03046043	14,7 0.579	45,0 1.772	115,0 4.528	67,0 2.638	48,0 1.890	65,0 2.559	16,0 0.630	140°	TiAlN	IT8-9
SD203A-1475-045-16R1-P	03046044	14,75 0.581	45,0 1.772	115,0 4.528	67,0 2.638	48,0 1.890	65,0 2.559	16,0 0.630	140°	TiAlN	IT8-9
SD203A-1480-045-16R1-P	03046045	14,8 0.583	45,0 1.772	115,0 4.528	67,0 2.638	48,0 1.890	65,0 2.559	16,0 0.630	140°	TiAlN	IT8-9
SD203A-1500-045-16R1-P	03046046	15,0 0.591	45,0 1.772	115,0 4.528	67,0 2.638	48,0 1.890	65,0 2.559	16,0 0.630	140°	TiAlN	IT8-9
SD203A-1510-045-16R1-P	03046047	15,1 0.594	45,0 1.772	115,0 4.528	67,0 2.638	48,0 1.890	65,0 2.559	16,0 0.630	140°	TiAlN	IT8-9
SD203A-1530-045-16R1-P	03046048	15,3 0.602	45,0 1.772	115,0 4.528	67,0 2.638	48,0 1.890	65,0 2.559	16,0 0.630	140°	TiAlN	IT8-9
SD203A-1550-045-16R1-P	03046049	15,5 0.610	45,0 1.772	115,0 4.528	67,0 2.638	48,0 1.890	65,0 2.559	16,0 0.630	140°	TiAlN	IT8-9
SD203A-1570-045-16R1-P	03046050	15,7 0.618	45,0 1.772	115,0 4.528	67,0 2.638	48,0 1.890	65,0 2.559	16,0 0.630	140°	TiAlN	IT8-9
SD203A-1580-045-16R1-P	03046051	15,8 0.622	45,0 1.772	115,0 4.528	67,0 2.638	48,0 1.890	65,0 2.559	16,0 0.630	140°	TiAlN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD203A-1588-045-16R1-P	03046088	15,875 *0.625*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT8-9
SD203A-1600-045-16R1-P	03046052	16,0 *0.630*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT8-9
SD203A-1650-051-18R1-P	03046053	16,5 *0.650*	51,0 *2.008*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN	IT8-9
SD203A-1700-051-18R1-P	03046054	17,0 *0.669*	51,0 *2.008*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN	IT8-9
SD203A-1750-051-18R1-P	03046055	17,5 *0.689*	51,0 *2.008*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN	IT8-9
SD203A-1800-051-18R1-P	03046056	18,0 *0.709*	51,0 *2.008*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN	IT8-9
SD203A-1850-055-20R1-P	03046057	18,5 *0.728*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN	IT8-9
SD203A-1900-055-20R1-P	03046058	19,0 *0.748*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN	IT8-9
SD203A-1905-055-20R1-P	03046089	19,05 *0.750*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN	IT8-9
SD203A-1950-055-20R1-P	03046059	19,5 *0.768*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN	IT8-9
SD203A-1980-055-20R1-P	03138156	19,8 *0.780*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN	IT8-9
SD203A-2000-055-20R1-P	03046060	20,0 *0.787*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *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) 137-138
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD205A-0200-012-04R1-P	03046131	2,0 *0.079*	12,0 *0.472*	46,0 *1.811*	19,0 *0.748*	27,0 *1.063*	15,0 *0.591*	4,0 *0.157*	140°	TiAlN	IT8-9
SD205A-0210-012-04R1-P	03046132	2,1 *0.083*	12,0 *0.472*	46,0 *1.811*	19,0 *0.748*	27,0 *1.063*	15,0 *0.591*	4,0 *0.157*	140°	TiAlN	IT8-9
SD205A-0220-012-04R1-P	03046133	2,2 *0.087*	12,0 *0.472*	46,0 *1.811*	19,0 *0.748*	27,0 *1.063*	15,0 *0.591*	4,0 *0.157*	140°	TiAlN	IT8-9
SD205A-0230-012-04R1-P	03046134	2,3 *0.091*	12,0 *0.472*	46,0 *1.811*	19,0 *0.748*	27,0 *1.063*	15,0 *0.591*	4,0 *0.157*	140°	TiAlN	IT8-9
SD205A-0238-013-04R1-P	03120477	2,381 *0.094*	13,0 *0.512*	50,0 *1.969*	23,0 *0.906*	27,0 *1.063*	17,5 *0.689*	4,0 *0.157*	140°	TiAlN	IT8-9
SD205A-0240-013-04R1-P	03046135	2,4 *0.094*	13,0 *0.512*	50,0 *1.969*	23,0 *0.906*	27,0 *1.063*	17,5 *0.689*	4,0 *0.157*	140°	TiAlN	IT8-9
SD205A-0250-013-04R1-P	03046136	2,5 *0.098*	13,0 *0.512*	50,0 *1.969*	23,0 *0.906*	27,0 *1.063*	17,5 *0.689*	4,0 *0.157*	140°	TiAlN	IT8-9
SD205A-0260-013-04R1-P	03046137	2,6 *0.102*	13,0 *0.512*	50,0 *1.969*	23,0 *0.906*	27,0 *1.063*	17,5 *0.689*	4,0 *0.157*	140°	TiAlN	IT8-9
SD205A-0270-015-04R1-P	03046138	2,7 *0.106*	15,0 *0.591*	50,0 *1.969*	23,0 *0.906*	27,0 *1.063*	20,5 *0.807*	4,0 *0.157*	140°	TiAlN	IT8-9
SD205A-0278-015-04R1-P	03120496	2,778 *0.109*	15,0 *0.591*	50,0 *1.969*	23,0 *0.906*	27,0 *1.063*	20,5 *0.807*	4,0 *0.157*	140°	TiAlN	IT8-9
SD205A-0280-015-04R1-P	03046139	2,8 *0.110*	15,0 *0.591*	50,0 *1.969*	23,0 *0.906*	27,0 *1.063*	20,5 *0.807*	4,0 *0.157*	140°	TiAlN	IT8-9
SD205A-0290-015-04R1-P	03046141	2,9 *0.114*	15,0 *0.591*	50,0 *1.969*	23,0 *0.906*	27,0 *1.063*	20,5 *0.807*	4,0 *0.157*	140°	TiAlN	IT8-9
SD205A-0300-023-06R1-P	03046142	3,0 *0.118*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0310-023-06R1-P	03046143	3,1 *0.122*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0318-023-06R1-P	03046327	3,175 *0.125*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0320-023-06R1-P	03046144	3,2 *0.126*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0325-023-06R1-P	03046145	3,25 *0.128*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0330-023-06R1-P	03046146	3,3 *0.130*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0340-023-06R1-P	03046147	3,4 *0.134*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0350-023-06R1-P	03046148	3,5 *0.138*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0357-023-06R1-P	03046328	3,572 *0.141*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0360-023-06R1-P	03046149	3,6 *0.142*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0365-023-06R1-P	03046150	3,65 *0.144*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0370-023-06R1-P	03046151	3,7 *0.146*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0380-029-06R1-P	03046152	3,8 *0.150*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD205A-0390-029-06R1-P	03046153	3,9 *0.154*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0397-029-06R1-P	03046329	3,97 *0.156*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0400-029-06R1-P	03046154	4,0 *0.157*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0410-029-06R1-P	03046155	4,1 *0.161*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0420-029-06R1-P	03046157	4,2 *0.165*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0430-029-06R1-P	03046158	4,3 *0.169*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0437-029-06R1-P	03046330	4,366 *0.172*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0440-029-06R1-P	03046159	4,4 *0.173*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0450-029-06R1-P	03046160	4,5 *0.177*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0460-029-06R1-P	03046161	4,6 *0.181*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0465-029-06R1-P	03046162	4,65 *0.183*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0470-029-06R1-P	03046163	4,7 *0.185*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0476-035-06R1-P	03046331	4,763 *0.188*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0480-035-06R1-P	03046164	4,8 *0.189*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0490-035-06R1-P	03046165	4,9 *0.193*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0500-035-06R1-P	03046166	5,0 *0.197*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0510-035-06R1-P	03046167	5,1 *0.201*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0516-035-06R1-P	03046332	5,159 *0.203*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0520-035-06R1-P	03046168	5,2 *0.205*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0530-035-06R1-P	03046169	5,3 *0.209*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0540-035-06R1-P	03046170	5,4 *0.213*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0550-035-06R1-P	03046171	5,5 *0.217*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0555-035-06R1-P	03046172	5,55 *0.219*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0556-035-06R1-P	03046333	5,556 *0.219*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0560-035-06R1-P	03046173	5,6 *0.220*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0570-035-06R1-P	03046174	5,7 *0.224*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0580-035-06R1-P	03046175	5,8 *0.228*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0590-035-06R1-P	03046176	5,9 *0.232*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0595-035-06R1-P	03046334	5,953 *0.234*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0600-035-06R1-P	03046177	6,0 *0.236*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0610-043-08R1-P	03046179	6,1 *0.240*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9
SD205A-0620-043-08R1-P	03046180	6,2 *0.244*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9
SD205A-0630-043-08R1-P	03046181	6,3 *0.248*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9
SD205A-0635-043-08R1-P	03046335	6,35 *0.250*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9
SD205A-0640-043-08R1-P	03046182	6,4 *0.252*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch			
SD205A-0650-043-08R1-P	03046183	6,5 0.256	43,0 1.693	91,0 3.583	55,0 2.165	36,0 1.417	53,0 2.087	8,0 0.315	140°	TiAlN	IT8-9
SD205A-0660-043-08R1-P	03046184	6,6 0.260	43,0 1.693	91,0 3.583	55,0 2.165	36,0 1.417	53,0 2.087	8,0 0.315	140°	TiAlN	IT8-9
SD205A-0670-043-08R1-P	03046185	6,7 0.264	43,0 1.693	91,0 3.583	55,0 2.165	36,0 1.417	53,0 2.087	8,0 0.315	140°	TiAlN	IT8-9
SD205A-0675-043-08R1-P	03046336	6,747 0.266	43,0 1.693	91,0 3.583	55,0 2.165	36,0 1.417	53,0 2.087	8,0 0.315	140°	TiAlN	IT8-9
SD205A-0680-043-08R1-P	03046186	6,8 0.268	43,0 1.693	91,0 3.583	55,0 2.165	36,0 1.417	53,0 2.087	8,0 0.315	140°	TiAlN	IT8-9
SD205A-0690-043-08R1-P	03046187	6,9 0.272	43,0 1.693	91,0 3.583	55,0 2.165	36,0 1.417	53,0 2.087	8,0 0.315	140°	TiAlN	IT8-9
SD205A-0700-043-08R1-P	03046188	7,0 0.276	43,0 1.693	91,0 3.583	55,0 2.165	36,0 1.417	53,0 2.087	8,0 0.315	140°	TiAlN	IT8-9
SD205A-0710-043-08R1-P	03046190	7,1 0.280	43,0 1.693	91,0 3.583	55,0 2.165	36,0 1.417	53,0 2.087	8,0 0.315	140°	TiAlN	IT8-9
SD205A-0714-043-08R1-P	03046337	7,144 0.281	43,0 1.693	91,0 3.583	55,0 2.165	36,0 1.417	53,0 2.087	8,0 0.315	140°	TiAlN	IT8-9
SD205A-0720-043-08R1-P	03046191	7,2 0.283	43,0 1.693	91,0 3.583	55,0 2.165	36,0 1.417	53,0 2.087	8,0 0.315	140°	TiAlN	IT8-9
SD205A-0730-043-08R1-P	03046192	7,3 0.287	43,0 1.693	91,0 3.583	55,0 2.165	36,0 1.417	53,0 2.087	8,0 0.315	140°	TiAlN	IT8-9
SD205A-0740-043-08R1-P	03046193	7,4 0.291	43,0 1.693	91,0 3.583	55,0 2.165	36,0 1.417	53,0 2.087	8,0 0.315	140°	TiAlN	IT8-9
SD205A-0750-043-08R1-P	03046194	7,5 0.295	43,0 1.693	91,0 3.583	55,0 2.165	36,0 1.417	53,0 2.087	8,0 0.315	140°	TiAlN	IT8-9
SD205A-0754-043-08R1-P	03046338	7,541 0.297	43,0 1.693	91,0 3.583	55,0 2.165	36,0 1.417	53,0 2.087	8,0 0.315	140°	TiAlN	IT8-9
SD205A-0755-043-08R1-P	03046195	7,55 0.297	43,0 1.693	91,0 3.583	55,0 2.165	36,0 1.417	53,0 2.087	8,0 0.315	140°	TiAlN	IT8-9
SD205A-0760-043-08R1-P	03046196	7,6 0.299	43,0 1.693	91,0 3.583	55,0 2.165	36,0 1.417	53,0 2.087	8,0 0.315	140°	TiAlN	IT8-9
SD205A-0770-043-08R1-P	03046197	7,7 0.303	43,0 1.693	91,0 3.583	55,0 2.165	36,0 1.417	53,0 2.087	8,0 0.315	140°	TiAlN	IT8-9
SD205A-0780-043-08R1-P	03046198	7,8 0.307	43,0 1.693	91,0 3.583	55,0 2.165	36,0 1.417	53,0 2.087	8,0 0.315	140°	TiAlN	IT8-9
SD205A-0790-043-08R1-P	03046199	7,9 0.311	43,0 1.693	91,0 3.583	55,0 2.165	36,0 1.417	53,0 2.087	8,0 0.315	140°	TiAlN	IT8-9
SD205A-0794-043-08R1-P	03046339	7,938 0.313	43,0 1.693	91,0 3.583	55,0 2.165	36,0 1.417	53,0 2.087	8,0 0.315	140°	TiAlN	IT8-9
SD205A-0800-043-08R1-P	03046200	8,0 0.315	43,0 1.693	91,0 3.583	55,0 2.165	36,0 1.417	53,0 2.087	8,0 0.315	140°	TiAlN	IT8-9
SD205A-0810-049-10R1-P	03046201	8,1 0.319	49,0 1.929	103,0 4.055	63,0 2.480	40,0 1.575	61,0 2.402	10,0 0.394	140°	TiAlN	IT8-9
SD205A-0820-049-10R1-P	03046202	8,2 0.323	49,0 1.929	103,0 4.055	63,0 2.480	40,0 1.575	61,0 2.402	10,0 0.394	140°	TiAlN	IT8-9
SD205A-0830-049-10R1-P	03046203	8,3 0.327	49,0 1.929	103,0 4.055	63,0 2.480	40,0 1.575	61,0 2.402	10,0 0.394	140°	TiAlN	IT8-9
SD205A-0833-049-10R1-P	03046340	8,334 0.328	49,0 1.929	103,0 4.055	63,0 2.480	40,0 1.575	61,0 2.402	10,0 0.394	140°	TiAlN	IT8-9
SD205A-0840-049-10R1-P	03046204	8,4 0.331	49,0 1.929	103,0 4.055	63,0 2.480	40,0 1.575	61,0 2.402	10,0 0.394	140°	TiAlN	IT8-9
SD205A-0850-049-10R1-P	03046205	8,5 0.335	49,0 1.929	103,0 4.055	63,0 2.480	40,0 1.575	61,0 2.402	10,0 0.394	140°	TiAlN	IT8-9
SD205A-0860-049-10R1-P	03046206	8,6 0.339	49,0 1.929	103,0 4.055	63,0 2.480	40,0 1.575	61,0 2.402	10,0 0.394	140°	TiAlN	IT8-9
SD205A-0870-049-10R1-P	03046207	8,7 0.343	49,0 1.929	103,0 4.055	63,0 2.480	40,0 1.575	61,0 2.402	10,0 0.394	140°	TiAlN	IT8-9
SD205A-0873-049-10R1-P	03046341	8,731 0.344	49,0 1.929	103,0 4.055	63,0 2.480	40,0 1.575	61,0 2.402	10,0 0.394	140°	TiAlN	IT8-9
SD205A-0880-049-10R1-P	03046208	8,8 0.346	49,0 1.929	103,0 4.055	63,0 2.480	40,0 1.575	61,0 2.402	10,0 0.394	140°	TiAlN	IT8-9
SD205A-0890-049-10R1-P	03046209	8,9 0.350	49,0 1.929	103,0 4.055	63,0 2.480	40,0 1.575	61,0 2.402	10,0 0.394	140°	TiAlN	IT8-9
SD205A-0900-049-10R1-P	03046210	9,0 0.354	49,0 1.929	103,0 4.055	63,0 2.480	40,0 1.575	61,0 2.402	10,0 0.394	140°	TiAlN	IT8-9
SD205A-0910-049-10R1-P	03046211	9,1 0.358	49,0 1.929	103,0 4.055	63,0 2.480	40,0 1.575	61,0 2.402	10,0 0.394	140°	TiAlN	IT8-9
SD205A-0913-049-10R1-P	03046342	9,128 0.359	49,0 1.929	103,0 4.055	63,0 2.480	40,0 1.575	61,0 2.402	10,0 0.394	140°	TiAlN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD205A-0920-049-10R1-P	03046212	9,2 *0.362*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0930-049-10R1-P	03046213	9,3 *0.366*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0940-049-10R1-P	03046214	9,4 *0.370*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0950-049-10R1-P	03046215	9,5 *0.374*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0953-049-10R1-P	03046343	9,525 *0.375*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0955-049-10R1-P	03046216	9,55 *0.376*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0960-049-10R1-P	03046217	9,6 *0.378*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0970-049-10R1-P	03046218	9,7 *0.382*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0980-049-10R1-P	03046219	9,8 *0.386*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0990-049-10R1-P	03046220	9,9 *0.390*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0992-049-10R1-P	03046344	9,922 *0.391*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-1000-049-10R1-P	03046221	10,0 *0.394*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-1010-056-12R1-P	03046222	10,1 *0.398*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1020-056-12R1-P	03046223	10,2 *0.402*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1030-056-12R1-P	03046224	10,3 *0.406*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1032-056-12R1-P	03046345	10,319 *0.406*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1040-056-12R1-P	03046225	10,4 *0.409*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1050-056-12R1-P	03046226	10,5 *0.413*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1060-056-12R1-P	03046227	10,6 *0.417*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1070-056-12R1-P	03046228	10,7 *0.421*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1072-056-12R1-P	03046346	10,716 *0.422*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1080-056-12R1-P	03046229	10,8 *0.425*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1090-056-12R1-P	03046230	10,9 *0.429*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1100-056-12R1-P	03046231	11,0 *0.433*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1110-056-12R1-P	03046232	11,1 *0.437*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1111-056-12R1-P	03046347	11,113 *0.438*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1120-056-12R1-P	03046233	11,2 *0.441*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1130-056-12R1-P	03046234	11,3 *0.445*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1140-056-12R1-P	03046235	11,4 *0.449*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1150-056-12R1-P	03046236	11,5 *0.453*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1151-056-12R1-P	03046348	11,509 *0.453*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1155-056-12R1-P	03046237	11,55 *0.455*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1160-056-12R1-P	03046238	11,6 *0.457*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1170-056-12R1-P	03046239	11,7 *0.461*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1180-056-12R1-P	03046240	11,8 *0.465*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9

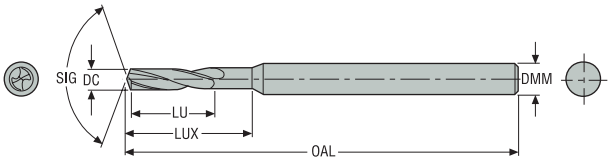
Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch			
SD205A-1190-056-12R1-P	03046241	11,9 0.469	56,0 2.205	118,0 4.646	73,0 2.874	45,0 1.772	71,0 2.795	12,0 0.472	140°	TiAlN	IT8-9
SD205A-1191-056-12R1-P	03046349	11,906 0.469	56,0 2.205	118,0 4.646	73,0 2.874	45,0 1.772	71,0 2.795	12,0 0.472	140°	TiAlN	IT8-9
SD205A-1200-056-12R1-P	03046242	12,0 0.472	56,0 2.205	118,0 4.646	73,0 2.874	45,0 1.772	71,0 2.795	12,0 0.472	140°	TiAlN	IT8-9
SD205A-1210-060-14R1-P	03046243	12,1 0.476	60,0 2.362	124,0 4.882	79,0 3.110	45,0 1.772	77,0 3.031	14,0 0.551	140°	TiAlN	IT8-9
SD205A-1220-060-14R1-P	03046244	12,2 0.480	60,0 2.362	124,0 4.882	79,0 3.110	45,0 1.772	77,0 3.031	14,0 0.551	140°	TiAlN	IT8-9
SD205A-1225-060-14R1-P	03046245	12,25 0.482	60,0 2.362	124,0 4.882	79,0 3.110	45,0 1.772	77,0 3.031	14,0 0.551	140°	TiAlN	IT8-9
SD205A-1230-060-14R1-P	03138157	12,3 0.484	60,0 2.362	124,0 4.882	79,0 3.110	45,0 1.772	77,0 3.031	14,0 0.551	140°	TiAlN	IT8-9
SD205A-1240-060-14R1-P	03046246	12,4 0.488	60,0 2.362	124,0 4.882	79,0 3.110	45,0 1.772	77,0 3.031	14,0 0.551	140°	TiAlN	IT8-9
SD205A-1250-060-14R1-P	03046247	12,5 0.492	60,0 2.362	124,0 4.882	79,0 3.110	45,0 1.772	77,0 3.031	14,0 0.551	140°	TiAlN	IT8-9
SD205A-1260-060-14R1-P	03046248	12,6 0.496	60,0 2.362	124,0 4.882	79,0 3.110	45,0 1.772	77,0 3.031	14,0 0.551	140°	TiAlN	IT8-9
SD205A-1270-060-14R1-P	03120497	12,7 0.500	60,0 2.362	124,0 4.882	79,0 3.110	45,0 1.772	77,0 3.031	14,0 0.551	140°	TiAlN	IT8-9
SD205A-1275-060-14R1-P	03046249	12,75 0.502	60,0 2.362	124,0 4.882	79,0 3.110	45,0 1.772	77,0 3.031	14,0 0.551	140°	TiAlN	IT8-9
SD205A-1280-060-14R1-P	03046250	12,8 0.504	60,0 2.362	124,0 4.882	79,0 3.110	45,0 1.772	77,0 3.031	14,0 0.551	140°	TiAlN	IT8-9
SD205A-1290-060-14R1-P	03046251	12,9 0.508	60,0 2.362	124,0 4.882	79,0 3.110	45,0 1.772	77,0 3.031	14,0 0.551	140°	TiAlN	IT8-9
SD205A-1300-060-14R1-P	03046252	13,0 0.512	60,0 2.362	124,0 4.882	79,0 3.110	45,0 1.772	77,0 3.031	14,0 0.551	140°	TiAlN	IT8-9
SD205A-1310-060-14R1-P	03046253	13,1 0.516	60,0 2.362	124,0 4.882	79,0 3.110	45,0 1.772	77,0 3.031	14,0 0.551	140°	TiAlN	IT8-9
SD205A-1320-060-14R1-P	03046254	13,2 0.520	60,0 2.362	124,0 4.882	79,0 3.110	45,0 1.772	77,0 3.031	14,0 0.551	140°	TiAlN	IT8-9
SD205A-1330-060-14R1-P	03046255	13,3 0.524	60,0 2.362	124,0 4.882	79,0 3.110	45,0 1.772	77,0 3.031	14,0 0.551	140°	TiAlN	IT8-9
SD205A-1340-060-14R1-P	03046256	13,4 0.528	60,0 2.362	124,0 4.882	79,0 3.110	45,0 1.772	77,0 3.031	14,0 0.551	140°	TiAlN	IT8-9
SD205A-1349-060-14R1-P	03046350	13,494 0.531	60,0 2.362	124,0 4.882	79,0 3.110	45,0 1.772	77,0 3.031	14,0 0.551	140°	TiAlN	IT8-9
SD205A-1350-060-14R1-P	03046257	13,5 0.531	60,0 2.362	124,0 4.882	79,0 3.110	45,0 1.772	77,0 3.031	14,0 0.551	140°	TiAlN	IT8-9
SD205A-1355-060-14R1-P	03138158	13,55 0.533	60,0 2.362	124,0 4.882	79,0 3.110	45,0 1.772	77,0 3.031	14,0 0.551	140°	TiAlN	IT8-9
SD205A-1360-060-14R1-P	03046258	13,6 0.535	60,0 2.362	124,0 4.882	79,0 3.110	45,0 1.772	77,0 3.031	14,0 0.551	140°	TiAlN	IT8-9
SD205A-1370-060-14R1-P	03046259	13,7 0.539	60,0 2.362	124,0 4.882	79,0 3.110	45,0 1.772	77,0 3.031	14,0 0.551	140°	TiAlN	IT8-9
SD205A-1380-060-14R1-P	03046260	13,8 0.543	60,0 2.362	124,0 4.882	79,0 3.110	45,0 1.772	77,0 3.031	14,0 0.551	140°	TiAlN	IT8-9
SD205A-1389-060-14R1-P	03120498	13,891 0.547	60,0 2.362	124,0 4.882	79,0 3.110	45,0 1.772	77,0 3.031	14,0 0.551	140°	TiAlN	IT8-9
SD205A-1390-060-14R1-P	03046261	13,9 0.547	60,0 2.362	124,0 4.882	79,0 3.110	45,0 1.772	77,0 3.031	14,0 0.551	140°	TiAlN	IT8-9
SD205A-1400-060-14R1-P	03046262	14,0 0.551	60,0 2.362	124,0 4.882	79,0 3.110	45,0 1.772	77,0 3.031	14,0 0.551	140°	TiAlN	IT8-9
SD205A-1410-063-16R1-P	03046263	14,1 0.555	63,0 2.480	133,0 5.236	85,0 3.346	48,0 1.890	83,0 3.268	16,0 0.630	140°	TiAlN	IT8-9
SD205A-1420-063-16R1-P	03046264	14,2 0.559	63,0 2.480	133,0 5.236	85,0 3.346	48,0 1.890	83,0 3.268	16,0 0.630	140°	TiAlN	IT8-9
SD205A-1425-063-16R1-P	03138159	14,25 0.561	63,0 2.480	133,0 5.236	85,0 3.346	48,0 1.890	83,0 3.268	16,0 0.630	140°	TiAlN	IT8-9
SD205A-1429-063-16R1-P	03046351	14,288 0.563	63,0 2.480	133,0 5.236	85,0 3.346	48,0 1.890	83,0 3.268	16,0 0.630	140°	TiAlN	IT8-9
SD205A-1430-063-16R1-P	03046265	14,3 0.563	63,0 2.480	133,0 5.236	85,0 3.346	48,0 1.890	83,0 3.268	16,0 0.630	140°	TiAlN	IT8-9
SD205A-1440-063-16R1-P	03046266	14,4 0.567	63,0 2.480	133,0 5.236	85,0 3.346	48,0 1.890	83,0 3.268	16,0 0.630	140°	TiAlN	IT8-9
SD205A-1450-063-16R1-P	03046267	14,5 0.571	63,0 2.480	133,0 5.236	85,0 3.346	48,0 1.890	83,0 3.268	16,0 0.630	140°	TiAlN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD205A-1460-063-16R1-P	03046268	14,6 *0.575*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1470-063-16R1-P	03046269	14,7 *0.579*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1475-063-16R1-P	03046270	14,75 *0.581*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1480-063-16R1-P	03046271	14,8 *0.583*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1490-063-16R1-P	03046272	14,9 *0.587*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1500-063-16R1-P	03046273	15,0 *0.591*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1510-063-16R1-P	03046274	15,1 *0.594*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1520-063-16R1-P	03046275	15,2 *0.598*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1525-063-16R1-P	03138160	15,25 *0.600*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1530-063-16R1-P	03046276	15,3 *0.602*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1540-063-16R1-P	03046277	15,4 *0.606*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1550-063-16R1-P	03046278	15,5 *0.610*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1560-063-16R1-P	03046280	15,6 *0.614*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1570-063-16R1-P	03046281	15,7 *0.618*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1580-063-16R1-P	03046282	15,8 *0.622*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1588-063-16R1-P	03046352	15,875 *0.625*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1590-063-16R1-P	03046283	15,9 *0.626*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1600-063-16R1-P	03046284	16,0 *0.630*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1610-071-18R1-P	03046285	16,1 *0.634*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1620-071-18R1-P	03046286	16,2 *0.638*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1625-071-18R1-P	03138161	16,25 *0.640*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1630-071-18R1-P	03046287	16,3 *0.642*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1640-071-18R1-P	03046288	16,4 *0.646*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1650-071-18R1-P	03046289	16,5 *0.650*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1660-071-18R1-P	03046290	16,6 *0.654*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1667-071-18R1-P	03120499	16,669 *0.656*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1670-071-18R1-P	03046291	16,7 *0.657*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1675-071-18R1-P	03046292	16,75 *0.659*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1680-071-18R1-P	03046293	16,8 *0.661*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1690-071-18R1-P	03046294	16,9 *0.665*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1700-071-18R1-P	03046296	17,0 *0.669*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1710-071-18R1-P	03046297	17,1 *0.673*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1720-071-18R1-P	03046298	17,2 *0.677*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1730-071-18R1-P	03046299	17,3 *0.681*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1740-071-18R1-P	03046300	17,4 *0.685*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD205A-1746-071-18R1-P	03120500	17,463 *0.688*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1750-071-18R1-P	03046301	17,5 *0.689*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1760-071-18R1-P	03046302	17,6 *0.693*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1770-071-18R1-P	03046303	17,7 *0.697*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1780-071-18R1-P	03046304	17,8 *0.701*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1790-071-18R1-P	03046305	17,9 *0.705*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1800-071-18R1-P	03046306	18,0 *0.709*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1810-077-20R1-P	03046307	18,1 *0.713*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1820-077-20R1-P	03046308	18,2 *0.717*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1830-077-20R1-P	03046309	18,3 *0.720*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1840-077-20R1-P	03046310	18,4 *0.724*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1850-077-20R1-P	03046311	18,5 *0.728*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1860-077-20R1-P	03046312	18,6 *0.732*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1870-077-20R1-P	03046313	18,7 *0.736*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1880-077-20R1-P	03046314	18,8 *0.740*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1890-077-20R1-P	03046315	18,9 *0.744*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1900-077-20R1-P	03046316	19,0 *0.748*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1905-077-20R1-P	03046353	19,05 *0.750*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1910-077-20R1-P	03046317	19,1 *0.752*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1920-077-20R1-P	03046318	19,2 *0.756*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1930-077-20R1-P	03046319	19,3 *0.760*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1940-077-20R1-P	03046320	19,4 *0.764*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1950-077-20R1-P	03046321	19,5 *0.768*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1960-077-20R1-P	03046322	19,6 *0.772*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1970-077-20R1-P	03046323	19,7 *0.776*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1980-077-20R1-P	03046324	19,8 *0.780*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1990-077-20R1-P	03046325	19,9 *0.783*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-2000-077-20R1-P	03046326	20,0 *0.787*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9

SD206

Drilling depth ~ 6 x D – Metric/Inch

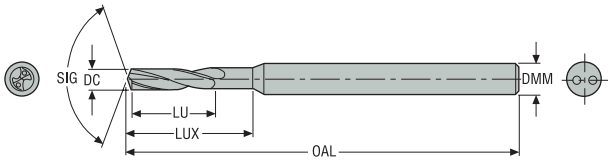


—Cylindrical shank
—External coolant
—For cutting data see page(s) 139

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

SD206A

Drilling depth ~ 6 x D – Metric/Inch

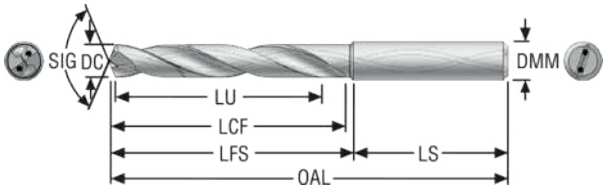


—Cylindrical shank
—Internal coolant
—For cutting data see page(s) 140

Designation	Item number	DC	LU	OAL	LUX	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD206A-1.00-6.0-3R1	02731658	1,0 *0.039*	6,0 *0.236*	38,0 *1.496*	8,0 *0.315*	3,0 *0.118*	140°	TiAlN	IT9
SD206A-1.10-6.6-3R1	02731659	1,1 *0.043*	6,6 *0.260*	38,0 *1.496*	8,6 *0.339*	3,0 *0.118*	140°	TiAlN	IT9
SD206A-1.20-7.2-3R1	02731660	1,2 *0.047*	7,2 *0.283*	38,0 *1.496*	9,2 *0.362*	3,0 *0.118*	140°	TiAlN	IT9
SD206A-1.30-7.8-3R1	02731661	1,3 *0.051*	7,8 *0.307*	38,0 *1.496*	9,8 *0.386*	3,0 *0.118*	140°	TiAlN	IT9
SD206A-1.40-8.4-3R1	02731662	1,4 *0.055*	8,4 *0.331*	38,0 *1.496*	10,4 *0.409*	3,0 *0.118*	140°	TiAlN	IT9
SD206A-1.50-9.0-3R1	02731663	1,5 *0.059*	9,0 *0.354*	38,0 *1.496*	11,0 *0.433*	3,0 *0.118*	140°	TiAlN	IT9
SD206A-1.60-9.6-3R1	02731664	1,6 *0.063*	9,6 *0.378*	38,0 *1.496*	11,6 *0.457*	3,0 *0.118*	140°	TiAlN	IT9
SD206A-1.70-10.2-3R1	02731665	1,7 *0.067*	10,2 *0.402*	38,0 *1.496*	12,2 *0.480*	3,0 *0.118*	140°	TiAlN	IT9
SD206A-1.80-10.8-3R1	02731666	1,8 *0.071*	10,8 *0.425*	38,0 *1.496*	12,8 *0.504*	3,0 *0.118*	140°	TiAlN	IT9
SD206A-1.90-11.4-3R1	02731667	1,9 *0.075*	11,4 *0.449*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	140°	TiAlN	IT9
SD206A-2.00-12.0-3R1	02731668	2,0 *0.079*	12,0 *0.472*	50,0 *1.969*	14,0 *0.551*	3,0 *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) 141
– For intermediate diameters see the MyDesign software.

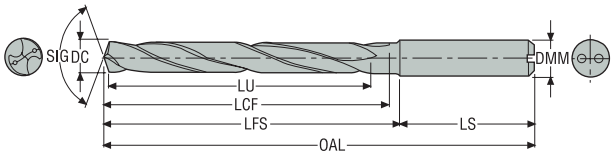
Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD207A-0300-030-06R1-P	03046358	3,0 *0.118*	30,0 *1.181*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD207A-0330-030-06R1-P	03046359	3,3 *0.130*	30,0 *1.181*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD207A-0350-030-06R1-P	03046360	3,5 *0.138*	30,0 *1.181*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD207A-0400-037-06R1-P	03046361	4,0 *0.157*	37,0 *1.457*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	43,0 *1.693*	6,0 *0.236*	140°	TiAlN	IT9
SD207A-0450-037-06R1-P	03046412	4,5 *0.177*	37,0 *1.457*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	43,0 *1.693*	6,0 *0.236*	140°	TiAlN	IT9
SD207A-0480-045-06R1-P	03046413	4,8 *0.189*	45,0 *1.772*	94,0 *3.701*	58,0 *2.283*	36,0 *1.417*	56,0 *2.205*	6,0 *0.236*	140°	TiAlN	IT9
SD207A-0500-045-06R1-P	03046414	5,0 *0.197*	45,0 *1.772*	94,0 *3.701*	58,0 *2.283*	36,0 *1.417*	56,0 *2.205*	6,0 *0.236*	140°	TiAlN	IT9
SD207A-0520-045-06R1-P	03046362	5,2 *0.205*	45,0 *1.772*	94,0 *3.701*	58,0 *2.283*	36,0 *1.417*	56,0 *2.205*	6,0 *0.236*	140°	TiAlN	IT9
SD207A-0550-045-06R1-P	03046363	5,5 *0.217*	45,0 *1.772*	94,0 *3.701*	58,0 *2.283*	36,0 *1.417*	56,0 *2.205*	6,0 *0.236*	140°	TiAlN	IT9
SD207A-0580-045-06R1-P	03046407	5,8 *0.228*	45,0 *1.772*	94,0 *3.701*	58,0 *2.283*	36,0 *1.417*	56,0 *2.205*	6,0 *0.236*	140°	TiAlN	IT9
SD207A-0600-045-06R1-P	03046364	6,0 *0.236*	45,0 *1.772*	94,0 *3.701*	58,0 *2.283*	36,0 *1.417*	56,0 *2.205*	6,0 *0.236*	140°	TiAlN	IT9
SD207A-0635-057-08R1-P	03046365	6,35 *0.250*	57,0 *2.244*	110,0 *4.331*	74,0 *2.913*	36,0 *1.417*	67,0 *2.638*	8,0 *0.315*	140°	TiAlN	IT9
SD207A-0650-057-08R1-P	03046366	6,5 *0.256*	57,0 *2.244*	110,0 *4.331*	74,0 *2.913*	36,0 *1.417*	67,0 *2.638*	8,0 *0.315*	140°	TiAlN	IT9
SD207A-0680-057-08R1-P	03046367	6,8 *0.268*	57,0 *2.244*	110,0 *4.331*	74,0 *2.913*	36,0 *1.417*	67,0 *2.638*	8,0 *0.315*	140°	TiAlN	IT9
SD207A-0690-057-08R1-P	03046368	6,9 *0.272*	57,0 *2.244*	110,0 *4.331*	74,0 *2.913*	36,0 *1.417*	67,0 *2.638*	8,0 *0.315*	140°	TiAlN	IT9
SD207A-0700-057-08R1-P	03046369	7,0 *0.276*	57,0 *2.244*	110,0 *4.331*	74,0 *2.913*	36,0 *1.417*	67,0 *2.638*	8,0 *0.315*	140°	TiAlN	IT9
SD207A-0750-057-08R1-P	03046370	7,5 *0.295*	57,0 *2.244*	110,0 *4.331*	74,0 *2.913*	36,0 *1.417*	72,0 *2.835*	8,0 *0.315*	140°	TiAlN	IT9
SD207A-0780-057-08R1-P	03046371	7,8 *0.307*	57,0 *2.244*	110,0 *4.331*	74,0 *2.913*	36,0 *1.417*	72,0 *2.835*	8,0 *0.315*	140°	TiAlN	IT9
SD207A-0800-057-08R1-P	03046372	8,0 *0.315*	57,0 *2.244*	110,0 *4.331*	74,0 *2.913*	36,0 *1.417*	72,0 *2.835*	8,0 *0.315*	140°	TiAlN	IT9
SD207A-0850-062-10R1-P	03046373	8,5 *0.335*	62,0 *2.441*	122,0 *4.803*	82,0 *3.228*	40,0 *1.575*	80,0 *3.150*	10,0 *0.394*	140°	TiAlN	IT9
SD207A-0860-062-10R1-P	03046374	8,6 *0.339*	62,0 *2.441*	122,0 *4.803*	82,0 *3.228*	40,0 *1.575*	80,0 *3.150*	10,0 *0.394*	140°	TiAlN	IT9
SD207A-0870-062-10R1-P	03046411	8,7 *0.343*	62,0 *2.441*	122,0 *4.803*	82,0 *3.228*	40,0 *1.575*	80,0 *3.150*	10,0 *0.394*	140°	TiAlN	IT9
SD207A-0880-062-10R1-P	03046408	8,8 *0.346*	62,0 *2.441*	122,0 *4.803*	82,0 *3.228*	40,0 *1.575*	80,0 *3.150*	10,0 *0.394*	140°	TiAlN	IT9
SD207A-0900-062-10R1-P	03046375	9,0 *0.354*	62,0 *2.441*	122,0 *4.803*	82,0 *3.228*	40,0 *1.575*	80,0 *3.150*	10,0 *0.394*	140°	TiAlN	IT9
SD207A-0950-062-10R1-P	03046376	9,5 *0.374*	62,0 *2.441*	122,0 *4.803*	82,0 *3.228*	40,0 *1.575*	80,0 *3.150*	10,0 *0.394*	140°	TiAlN	IT9
SD207A-0953-062-10R1-P	03046377	9,525 *0.375*	62,0 *2.441*	122,0 *4.803*	82,0 *3.228*	40,0 *1.575*	80,0 *3.150*	10,0 *0.394*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch			
SD207A-0975-062-10R1-P	03046402	9,75 0.384	62,0 2.441	122,0 4.803	82,0 3.228	40,0 1.575	80,0 3.150	10,0 0.394	140°	TiAlN	IT9
SD207A-0980-062-10R1-P	03046403	9,8 0.386	62,0 2.441	122,0 4.803	82,0 3.228	40,0 1.575	80,0 3.150	10,0 0.394	140°	TiAlN	IT9
SD207A-1000-062-10R1-P	03046378	10,0 0.394	62,0 2.441	122,0 4.803	82,0 3.228	40,0 1.575	80,0 3.150	10,0 0.394	140°	TiAlN	IT9
SD207A-1020-072-12R1-P	03046379	10,2 0.402	72,0 2.835	141,0 5.551	96,0 3.780	45,0 1.772	94,0 3.701	12,0 0.472	140°	TiAlN	IT9
SD207A-1040-072-12R1-P	03046401	10,4 0.409	72,0 2.835	141,0 5.551	96,0 3.780	45,0 1.772	94,0 3.701	12,0 0.472	140°	TiAlN	IT9
SD207A-1050-072-12R1-P	03046380	10,5 0.413	72,0 2.835	141,0 5.551	96,0 3.780	45,0 1.772	94,0 3.701	12,0 0.472	140°	TiAlN	IT9
SD207A-1080-072-12R1-P	03046404	10,8 0.425	72,0 2.835	141,0 5.551	96,0 3.780	45,0 1.772	94,0 3.701	12,0 0.472	140°	TiAlN	IT9
SD207A-1100-072-12R1-P	03046381	11,0 0.433	72,0 2.835	141,0 5.551	96,0 3.780	45,0 1.772	94,0 3.701	12,0 0.472	140°	TiAlN	IT9
SD207A-1150-072-12R1-P	03046382	11,5 0.453	72,0 2.835	141,0 5.551	96,0 3.780	45,0 1.772	94,0 3.701	12,0 0.472	140°	TiAlN	IT9
SD207A-1180-072-12R1-P	03046405	11,8 0.465	72,0 2.835	141,0 5.551	96,0 3.780	45,0 1.772	94,0 3.701	12,0 0.472	140°	TiAlN	IT9
SD207A-1200-072-12R1-P	03046383	12,0 0.472	72,0 2.835	141,0 5.551	96,0 3.780	45,0 1.772	94,0 3.701	12,0 0.472	140°	TiAlN	IT9
SD207A-1225-083-14R1-P	03046415	12,25 0.482	83,0 3.268	155,0 6.102	110,0 4.331	45,0 1.772	108,0 4.252	14,0 0.551	140°	TiAlN	IT9
SD207A-1250-083-14R1-P	03046384	12,5 0.492	83,0 3.268	155,0 6.102	110,0 4.331	45,0 1.772	108,0 4.252	14,0 0.551	140°	TiAlN	IT9
SD207A-1270-083-14R1-P	03046385	12,7 0.500	83,0 3.268	155,0 6.102	110,0 4.331	45,0 1.772	108,0 4.252	14,0 0.551	140°	TiAlN	IT9
SD207A-1280-083-14R1-P	03046416	12,8 0.504	83,0 3.268	155,0 6.102	110,0 4.331	45,0 1.772	108,0 4.252	14,0 0.551	140°	TiAlN	IT9
SD207A-1300-083-14R1-P	03046386	13,0 0.512	83,0 3.268	155,0 6.102	110,0 4.331	45,0 1.772	108,0 4.252	14,0 0.551	140°	TiAlN	IT9
SD207A-1350-083-14R1-P	03046387	13,5 0.531	83,0 3.268	155,0 6.102	110,0 4.331	45,0 1.772	108,0 4.252	14,0 0.551	140°	TiAlN	IT9
SD207A-1380-083-14R1-P	03046409	13,8 0.543	83,0 3.268	155,0 6.102	110,0 4.331	45,0 1.772	108,0 4.252	14,0 0.551	140°	TiAlN	IT9
SD207A-1400-083-14R1-P	03046388	14,0 0.551	83,0 3.268	155,0 6.102	110,0 4.331	45,0 1.772	108,0 4.252	14,0 0.551	140°	TiAlN	IT9
SD207A-1425-092-16R1-P	03046417	14,25 0.561	92,0 3.622	171,0 6.732	123,0 4.843	48,0 1.890	121,0 4.764	16,0 0.630	140°	TiAlN	IT9
SD207A-1450-092-16R1-P	03046389	14,5 0.571	92,0 3.622	171,0 6.732	123,0 4.843	48,0 1.890	121,0 4.764	16,0 0.630	140°	TiAlN	IT9
SD207A-1480-092-16R1-P	03046418	14,8 0.583	92,0 3.622	171,0 6.732	123,0 4.843	48,0 1.890	121,0 4.764	16,0 0.630	140°	TiAlN	IT9
SD207A-1500-092-16R1-P	03046390	15,0 0.591	92,0 3.622	171,0 6.732	123,0 4.843	48,0 1.890	121,0 4.764	16,0 0.630	140°	TiAlN	IT9
SD207A-1550-092-16R1-P	03046391	15,5 0.610	92,0 3.622	171,0 6.732	123,0 4.843	48,0 1.890	121,0 4.764	16,0 0.630	140°	TiAlN	IT9
SD207A-1580-092-16R1-P	03046410	15,8 0.622	92,0 3.622	171,0 6.732	123,0 4.843	48,0 1.890	121,0 4.764	16,0 0.630	140°	TiAlN	IT9
SD207A-1600-092-16R1-P	03046392	16,0 0.630	92,0 3.622	171,0 6.732	123,0 4.843	48,0 1.890	121,0 4.764	16,0 0.630	140°	TiAlN	IT9
SD207A-1650-103-18R1-P	03046393	16,5 0.650	103,0 4.055	185,0 7.283	137,0 5.394	48,0 1.890	135,0 5.315	18,0 0.709	140°	TiAlN	IT9
SD207A-1680-103-18R1-P	03046419	16,8 0.661	103,0 4.055	185,0 7.283	137,0 5.394	48,0 1.890	135,0 5.315	18,0 0.709	140°	TiAlN	IT9
SD207A-1700-103-18R1-P	03046394	17,0 0.669	103,0 4.055	185,0 7.283	137,0 5.394	48,0 1.890	135,0 5.315	18,0 0.709	140°	TiAlN	IT9
SD207A-1750-103-18R1-P	03046395	17,5 0.689	103,0 4.055	185,0 7.283	137,0 5.394	48,0 1.890	135,0 5.315	18,0 0.709	140°	TiAlN	IT9
SD207A-1780-103-18R1-P	03046420	17,8 0.701	103,0 4.055	185,0 7.283	137,0 5.394	48,0 1.890	135,0 5.315	18,0 0.709	140°	TiAlN	IT9
SD207A-1800-103-18R1-P	03046396	18,0 0.709	103,0 4.055	185,0 7.283	137,0 5.394	48,0 1.890	135,0 5.315	18,0 0.709	140°	TiAlN	IT9
SD207A-1850-112-20R1-P	03046397	18,5 0.728	112,0 4.409	200,0 7.874	150,0 5.906	50,0 1.969	148,0 5.827	20,0 0.787	140°	TiAlN	IT9
SD207A-1880-112-20R1-P	03046421	18,8 0.740	112,0 4.409	200,0 7.874	150,0 5.906	50,0 1.969	148,0 5.827	20,0 0.787	140°	TiAlN	IT9
SD207A-1900-112-20R1-P	03046398	19,0 0.748	112,0 4.409	200,0 7.874	150,0 5.906	50,0 1.969	148,0 5.827	20,0 0.787	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD207A-1905-112-20R1-P	03046399	19,05 *0.750*	112,0 *4.409*	200,0 *7.874*	150,0 *5.906*	50,0 *1.969*	148,0 *5.827*	20,0 *0.787*	140°	TiAlN	IT9
SD207A-1980-112-20R1-P	03046406	19,8 *0.780*	112,0 *4.409*	200,0 *7.874*	150,0 *5.906*	50,0 *1.969*	148,0 *5.827*	20,0 *0.787*	140°	TiAlN	IT9
SD207A-2000-112-20R1-P	03046400	20,0 *0.787*	112,0 *4.409*	200,0 *7.874*	150,0 *5.906*	50,0 *1.969*	148,0 *5.827*	20,0 *0.787*	140°	TiAlN	IT9

SD216A

Drilling depth ~ 16 x D – Metric/Inch

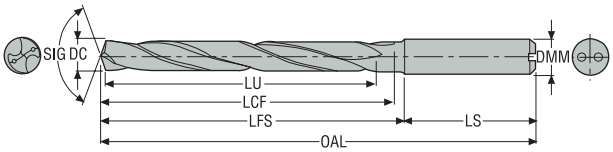


- Cylindrical shank DIN 6537A
- Internal coolant
- For cutting data see page(s) 142
- For intermediate diameters see the MyDesign software.

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

SD230A

Drilling depth ~ 30 x D – Metric/Inch

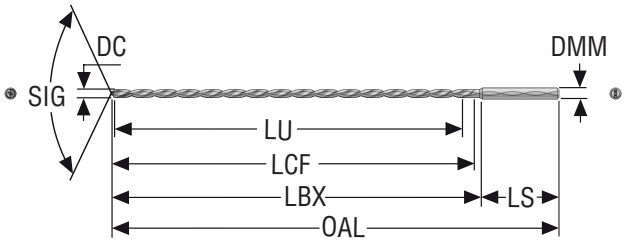


—Cylindrical shank DIN 6537A
—Internal coolant
—For cutting data see page(s) 143
—For intermediate diameters see the MyDesign software.

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

SD2040A

Drilling depth ~ 40 x D – Metric/Inch

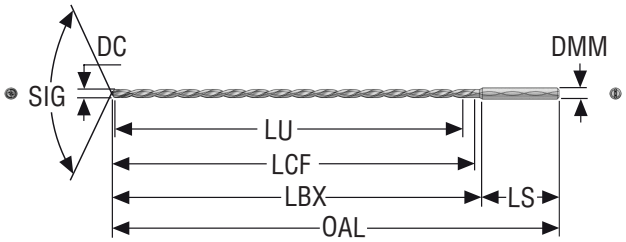


– Cylindrical shank DIN 6537A
– Internal coolant
– For cutting data see page(s) 144
– For intermediate diameters see the MyDesign software.

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

SD2050A

Drilling depth ~ 50 x D – Metric/Inch

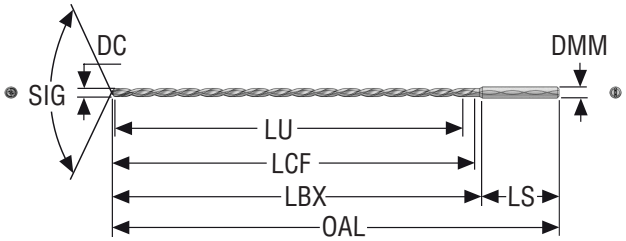


–Cylindrical shank DIN 6537A
–Internal coolant
–For cutting data see page(s) 144
–For intermediate diameters see the MyDesign software.

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

SD2060A

Drilling depth ~ 60 x D – Metric/Inch



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

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

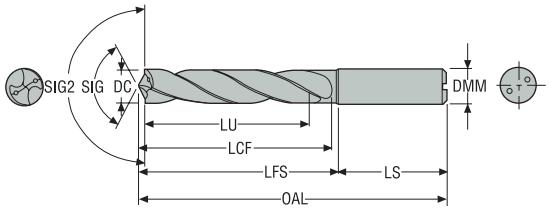
Feedmax™ SD245A

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) 145
—For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD245A-5.0-32-6R1	02691683	5,0 *0.197*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°/180°	TiAlN + TiN	IT8
SD245A-6.0-32-6R1	02691684	6,0 *0.236*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°/180°	TiAlN + TiN	IT8
SD245A-02500-138-0315R1	02691686	6,35 *0.250*	35,0 *1.378*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°/180°	TiAlN + TiN	IT8
SD245A-6.5-35-8R1	02691687	6,5 *0.256*	35,0 *1.378*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°/180°	TiAlN + TiN	IT8
SD245A-02656-157-0315R1	02691688	6,747 *0.2656*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°/180°	TiAlN + TiN	IT8
SD245A-6.8-40-8R1	02691689	6,8 *0.268*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°/180°	TiAlN + TiN	IT8
SD245A-7.0-40-8R1	02691690	7,0 *0.276*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°/180°	TiAlN + TiN	IT8
SD245A-02813-157-0315R1	02691691	7,144 *0.2813*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°/180°	TiAlN + TiN	IT8
SD245A-7.5-40-8R1	02691692	7,5 *0.295*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°/180°	TiAlN + TiN	IT8
SD245A-03125-165-0315R1	02691693	7,938 *0.3125*	42,0 *1.654*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°/180°	TiAlN + TiN	IT8
SD245A-8.0-42-8R1	02691694	8,0 *0.315*	42,0 *1.654*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°/180°	TiAlN + TiN	IT8
SD245A-8.5-42-10R1	02691695	8,5 *0.335*	42,0 *1.654*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°/180°	TiAlN + TiN	IT8
SD245A-9.0-45-10R1	02546059	9,0 *0.354*	45,0 *1.772*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°/180°	TiAlN + TiN	IT8
SD245A-9.5-45-10R1	02691696	9,5 *0.374*	45,0 *1.772*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°/180°	TiAlN + TiN	IT8
SD245A-03750-189-0394R1	02691697	9,525 *0.3750*	48,0 *1.890*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°/180°	TiAlN + TiN	IT8
SD245A-10.0-48-10R1	02536888	10,0 *0.394*	48,0 *1.890*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°/180°	TiAlN + TiN	IT8
SD245A-10.2-48-12R1	02691699	10,2 *0.402*	48,0 *1.890*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°/180°	TiAlN + TiN	IT8
SD245A-04063-189-0472R1	02691700	10,319 *0.4063*	48,0 *1.890*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°/180°	TiAlN + TiN	IT8
SD245A-10.5-48-12R1	02691701	10,5 *0.413*	48,0 *1.890*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°/180°	TiAlN + TiN	IT8
SD245A-11.0-56-12R1	02561860	11,0 *0.433*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°/180°	TiAlN + TiN	IT8
SD245A-04375-221-0472R1	02691702	11,113 *0.4375*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°/180°	TiAlN + TiN	IT8
SD245A-11.5-56-12R1	02691704	11,5 *0.453*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°/180°	TiAlN + TiN	IT8
SD245A-12.0-56-12R1	02691705	12,0 *0.472*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°/180°	TiAlN + TiN	IT8
SD245A-12.5-56-14R1	02691706	12,5 *0.492*	56,0 *2.205*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°/180°	TiAlN + TiN	IT8
SD245A-0500-221-0551R1	02691707	12,7 *0.500*	56,0 *2.205*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°/180°	TiAlN + TiN	IT8
SD245A-13.0-56-14R1	02691708	13,0 *0.512*	56,0 *2.205*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°/180°	TiAlN + TiN	IT8

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD245A-05312-232-0551R1	02691709	13,494 *0.5312*	59,0 *2.323*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°/180°	TiAlN + TiN	IT8
SD245A-13.5-59-14R1	02691710	13,5 *0.5314*	59,0 *2.323*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°/180°	TiAlN + TiN	IT8
SD245A-14.0-59-14R1	02691711	14,0 *0.551*	59,0 *2.323*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°/180°	TiAlN + TiN	IT8

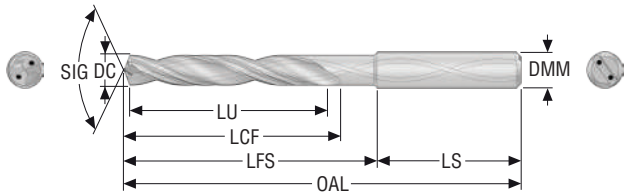
Feedmax™ SD265A

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) 146
- For intermediate diameters see the MyDesign software.

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

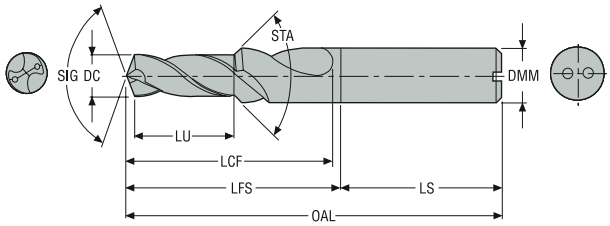
Feedmax™ – Chamfer drills

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

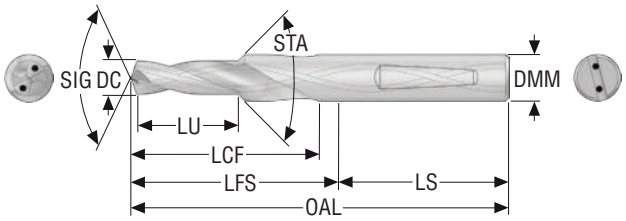


- Cylindrical shank DIN 6537A
- Internal coolant
- Coating: TiAlN + TiN
- Hole tolerance: IT8-9
- Included chamfer angle = 90°
- For cutting data see page(s) 135, 136

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

Chamfer drills – M4 - M16 Thread

Metric/Inch

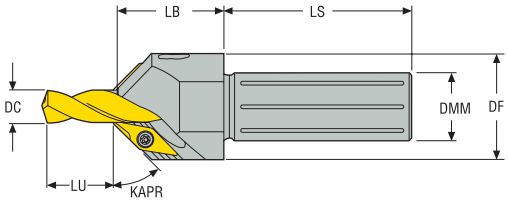


- Whistle Notch shank DIN6537B
- Internal coolant
- Coating: TiAlN + TiN
- Hole tolerance: IT8-9
- Included chamfer angle = 90°
- For cutting data see page(s) 135, 136

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

Chamfer module for Universal and Feedmax drills

Metric

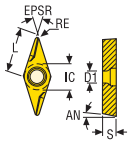


Designation	Item number	DC	Drill depth LU 3 x D (min-max)	5 x D (min-max)	7 x D (min-max)	Max chamfer depth	LB	DF	LS	DMM	KAPR°
		mm	mm	mm	mm	mm	mm	mm	mm	mm	
SD200-C45-6R1	02510275	4,01-6,1	4,0-17,0	10,0-27,0	30,0-45,0	2,8	25,0	21,0	41,0	12,0	45
SD200-C45-8R1	02510278	6,01-8,0	15,0-27,0	24,0-35,0	42,0-57,0	2,8	25,0	25,0	44,5	16,0	45
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
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
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
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

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



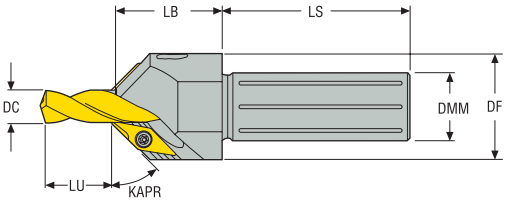
Tolerances: mm

IC = ±0,025
S = ±0,07
RE = ±0,10

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
Grade: T400D							
Designation: SD200-C45							
Item number: 02510325							

Chamfer module for Universal and Feedmax drills

Inch

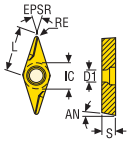


Designation	Item number	DC	Drill depth LU 3 x D (min-max)	5 x D (min-max)	7 x D (min-max)	Max chamfer depth	DF	LB	LS	DMM	KAPR°
		Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	
SD200-C45-6-500R1	02510287	0.158-0.240	0.157-0.669	0.394-1.063	1.181-1.772	0.110	0.827	0.984	1.614	0.500	45
SD200-C45-8-625R1	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
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

Spare Parts, included in delivery

For drill dia. (inch)	Insert key	Insert screw	Locking key	Cassette
	Insert	Insert	Module	Module
0.158 - 0.630	T07P-2	C02205-T07P	H1.5-2D	SD200-3X7.3

Insert

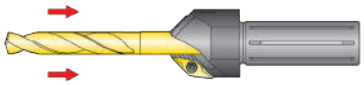


Tolerances: inch
IC = ±0.001
S = ±0.0027
RE = ±0.004

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							

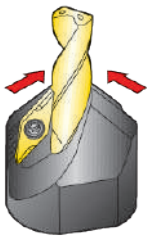
Chamfer module mounting instructions

1.

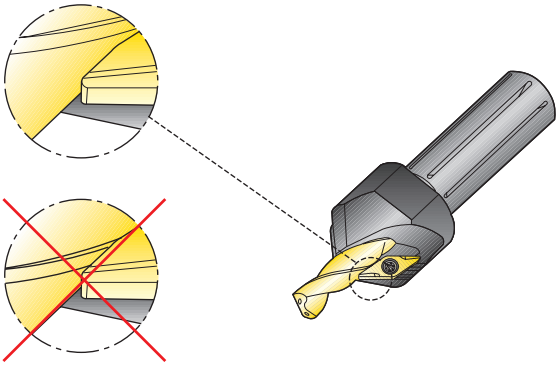


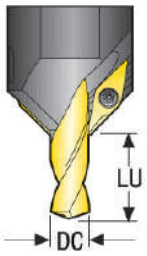
2.

3.

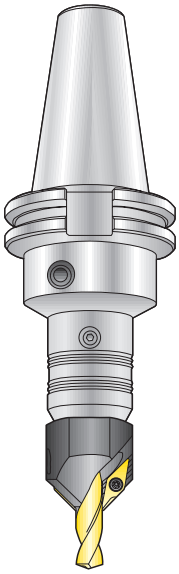


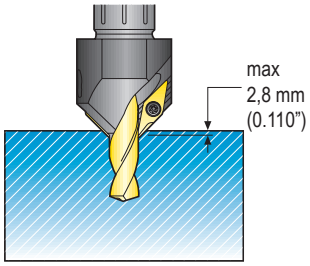
4.





Maximum chamfer depth



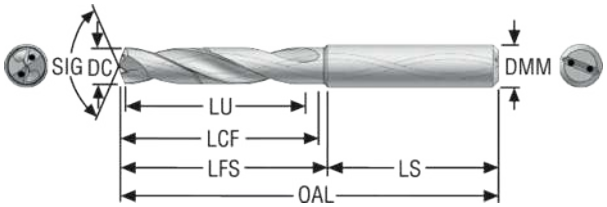


Drill diameter DC		LU drilling depth (min-max)					
		SD1103 / SD203A		SD1105 / SD205A		SD207A	
mm	*inch*	mm	*inch*	mm	*inch*	mm	*inch*
4,00-4,75	*.157-.187*	4-17	*.157-.669*	10-27	*.394-1.063*	30-45	*1.181-1.772*
4,76-6,00	*.187-.236*	6-20	*.236-.787*	18-32	*.709-1.260*	30-45	*1.181-1.772*
6,01-8,00	*.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) 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 *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD203A-0200-007-04R1-MS	10004064	2,0 *0.079*	7,0 *0.276*	41,0 *1.614*	14,0 *0.551*	27,0 *1.063*	11,0 *0.433*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD203A-0210-007-04R1-MS	10004065	2,1 *0.083*	7,0 *0.276*	41,0 *1.614*	14,0 *0.551*	27,0 *1.063*	11,0 *0.433*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD203A-0220-007-04R1-MS	10004066	2,2 *0.087*	7,0 *0.276*	41,0 *1.614*	14,0 *0.551*	27,0 *1.063*	11,0 *0.433*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD203A-0230-008-04R1-MS	10004067	2,3 *0.091*	8,0 *0.315*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	12,5 *0.492*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD203A-0240-008-04R1-MS	10004068	2,4 *0.094*	8,0 *0.315*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	12,5 *0.492*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD203A-0250-008-04R1-MS	10004072	2,5 *0.098*	8,0 *0.315*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	12,5 *0.492*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD203A-0260-008-04R1-MS	10004073	2,6 *0.102*	8,0 *0.315*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	12,5 *0.492*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD203A-0270-009-04R1-MS	10004074	2,7 *0.106*	9,0 *0.354*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	14,5 *0.571*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD203A-0278-009-04R1-MS	10004075	2,78 *0.109*	9,0 *0.354*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	14,5 *0.571*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD203A-0290-009-04R1-MS	10004076	2,9 *0.114*	9,0 *0.354*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	14,5 *0.571*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD203A-0300-014-06R1-MS	10004077	3,0 *0.118*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0310-014-06R1-MS	10004078	3,1 *0.122*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0320-014-06R1-MS	10004079	3,2 *0.126*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0330-014-06R1-MS	10004080	3,3 *0.130*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0340-014-06R1-MS	10004081	3,4 *0.134*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0350-015-06R1-MS	10004083	3,5 *0.138*	15,0 *0.591*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0357-015-06R1-MS	10004084	3,57 *0.141*	15,0 *0.591*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0370-015-06R1-MS	10004085	3,7 *0.146*	15,0 *0.591*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0380-017-06R1-MS	10004086	3,8 *0.150*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0390-017-06R1-MS	10004087	3,9 *0.154*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0397-017-06R1-MS	10004088	3,97 *0.156*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0400-017-06R1-MS	10004089	4,0 *0.157*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0410-017-06R1-MS	10004090	4,1 *0.161*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0420-017-06R1-MS	10004091	4,2 *0.165*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0430-018-06R1-MS	10004092	4,3 *0.169*	18,0 *0.709*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9

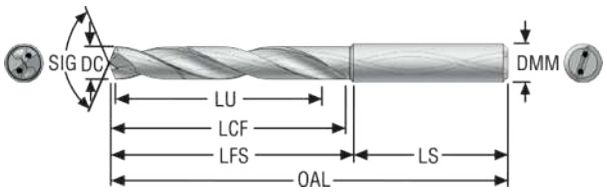
Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD203A-0450-018-06R1-MS	10004093	4,5 *0.177*	18,0 *0.709*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0460-018-06R1-MS	10004094	4,6 *0.181*	18,0 *0.709*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0465-018-06R1-MS	10004095	4,65 *0.183*	18,0 *0.709*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0470-018-06R1-MS	10004096	4,7 *0.185*	18,0 *0.709*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0476-020-06R1-MS	10004097	4,76 *0.187*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0480-020-06R1-MS	10004098	4,8 *0.189*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0490-020-06R1-MS	10004099	4,9 *0.193*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0500-020-06R1-MS	10004101	5,0 *0.197*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0510-020-06R1-MS	10004102	5,1 *0.201*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0516-020-06R1-MS	10004103	5,16 *0.203*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0520-020-06R1-MS	10004104	5,2 *0.205*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0530-020-06R1-MS	10004105	5,3 *0.209*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0540-020-06R1-MS	10004106	5,4 *0.213*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0550-020-06R1-MS	10004107	5,5 *0.217*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0556-020-06R1-MS	10004108	5,56 *0.219*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0560-021-06R1-MS	10004109	5,6 *0.220*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0570-021-06R1-MS	10004110	5,7 *0.224*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0580-021-06R1-MS	10004111	5,8 *0.228*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0590-021-06R1-MS	10004112	5,9 *0.232*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0595-021-06R1-MS	10004113	5,95 *0.234*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0600-021-06R1-MS	10004114	6,0 *0.236*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0610-021-08R1-MS	10004115	6,1 *0.240*	21,0 *0.827*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0620-021-08R1-MS	10004116	6,2 *0.244*	21,0 *0.827*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0630-021-08R1-MS	10004117	6,3 *0.248*	21,0 *0.827*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0635-023-08R1-MS	10004121	6,35 *0.250*	23,0 *0.906*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0650-023-08R1-MS	10004122	6,5 *0.256*	23,0 *0.906*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0660-023-08R1-MS	10004123	6,6 *0.260*	23,0 *0.906*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0675-025-08R1-MS	10004124	6,75 *0.266*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0680-025-08R1-MS	10004125	6,8 *0.268*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0690-025-08R1-MS	10004127	6,9 *0.272*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0700-025-08R1-MS	10004128	7,0 *0.276*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0710-025-08R1-MS	10004129	7,1 *0.280*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0714-025-08R1-MS	10004130	7,14 *0.281*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0720-025-08R1-MS	10004132	7,2 *0.283*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0730-025-08R1-MS	10004133	7,3 *0.287*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD203A-0740-025-08R1-MS	10004134	7,4 *0.291*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0750-025-08R1-MS	10004135	7,5 *0.295*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0760-027-08R1-MS	10004136	7,6 *0.299*	27,0 *1.063*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0780-027-08R1-MS	10004137	7,8 *0.307*	27,0 *1.063*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0794-027-08R1-MS	10004138	7,94 *0.313*	27,0 *1.063*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0800-027-08R1-MS	10004139	8,0 *0.315*	27,0 *1.063*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0810-027-10R1-MS	10004140	8,1 *0.319*	27,0 *1.063*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0820-027-10R1-MS	10004141	8,2 *0.323*	27,0 *1.063*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0830-027-10R1-MS	10004143	8,3 *0.327*	27,0 *1.063*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0840-027-10R1-MS	10004144	8,4 *0.331*	27,0 *1.063*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0850-027-10R1-MS	10004146	8,5 *0.335*	27,0 *1.063*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0860-029-10R1-MS	10004147	8,6 *0.339*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0870-029-10R1-MS	10004148	8,7 *0.343*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0873-029-10R1-MS	10004149	8,73 *0.344*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0880-029-10R1-MS	10004150	8,8 *0.346*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0900-029-10R1-MS	10004151	9,0 *0.354*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0910-029-10R1-MS	10004153	9,1 *0.358*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0913-029-10R1-MS	10004154	9,13 *0.359*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0920-029-10R1-MS	10004156	9,2 *0.362*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0930-029-10R1-MS	10004157	9,3 *0.366*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0950-029-10R1-MS	10004158	9,5 *0.374*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0953-031-10R1-MS	10004160	9,53 *0.375*	31,0 *1.220*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0970-031-10R1-MS	10004161	9,7 *0.382*	31,0 *1.220*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0980-031-10R1-MS	10004162	9,8 *0.386*	31,0 *1.220*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0990-031-10R1-MS	10004163	9,9 *0.390*	31,0 *1.220*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0992-031-10R1-MS	10004164	9,92 *0.391*	31,0 *1.220*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-1000-031-10R1-MS	10004165	10,0 *0.394*	31,0 *1.220*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-1010-031-12R1-MS	10004166	10,1 *0.398*	31,0 *1.220*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD203A-1020-031-12R1-MS	10004167	10,2 *0.402*	31,0 *1.220*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD203A-1032-031-12R1-MS	10004168	10,32 *0.406*	31,0 *1.220*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD203A-1040-031-12R1-MS	10004169	10,4 *0.409*	31,0 *1.220*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD203A-1050-031-12R1-MS	10004170	10,5 *0.413*	31,0 *1.220*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD203A-1072-033-12R1-MS	10004171	10,72 *0.422*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD203A-1080-033-12R1-MS	10004172	10,8 *0.425*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD203A-1100-033-12R1-MS	10004173	11,0 *0.433*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD203A-1111-033-12R1-MS	10004174	11,11 *0.437*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD203A-1120-033-12R1-MS	10004175	11,2 *0.441*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD203A-1150-033-12R1-MS	10004176	11,5 *0.453*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD203A-1180-033-12R1-MS	10004177	11,8 *0.465*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD203A-1191-036-12R1-MS	10004309	11,91 *0.469*	36,0 *1.417*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD203A-1200-036-12R1-MS	10004314	12,0 *0.472*	36,0 *1.417*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD203A-1210-036-14R1-MS	10004315	12,1 *0.476*	36,0 *1.417*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN + NbN	IT8-9
SD203A-1250-036-14R1-MS	10004316	12,5 *0.492*	36,0 *1.417*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN + NbN	IT8-9
SD203A-1270-036-14R1-MS	10004317	12,7 *0.500*	36,0 *1.417*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN + NbN	IT8-9
SD203A-1300-036-14R1-MS	10004319	13,0 *0.512*	36,0 *1.417*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN + NbN	IT8-9
SD203A-1310-036-14R1-MS	10004320	13,1 *0.516*	36,0 *1.417*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN + NbN	IT8-9
SD203A-1350-037-14R1-MS	10004321	13,5 *0.531*	37,0 *1.457*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN + NbN	IT8-9
SD203A-1400-037-14R1-MS	10004325	14,0 *0.551*	37,0 *1.457*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN + NbN	IT8-9
SD203A-1420-037-16R1-MS	10004332	14,2 *0.559*	37,0 *1.457*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN + NbN	IT8-9
SD203A-1425-038-16R1-MS	10004333	14,25 *0.561*	38,0 *1.496*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN + NbN	IT8-9
SD203A-1470-038-16R1-MS	10004334	14,7 *0.579*	38,0 *1.496*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN + NbN	IT8-9
SD203A-1500-040-16R1-MS	10004335	15,0 *0.591*	40,0 *1.575*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN + NbN	IT8-9
SD203A-1525-040-16R1-MS	10004336	15,25 *0.600*	40,0 *1.575*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN + NbN	IT8-9
SD203A-1550-040-16R1-MS	10004338	15,5 *0.610*	40,0 *1.575*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN + NbN	IT8-9
SD203A-1588-040-16R1-MS	10004339	15,88 *0.625*	40,0 *1.575*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN + NbN	IT8-9
SD203A-1600-040-16R1-MS	10004340	16,0 *0.630*	40,0 *1.575*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN + NbN	IT8-9
SD203A-1650-045-18R1-MS	10004341	16,5 *0.650*	45,0 *1.772*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN + NbN	IT8-9
SD203A-1700-045-18R1-MS	10004342	17,0 *0.669*	45,0 *1.772*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN + NbN	IT8-9
SD203A-1750-045-18R1-MS	10004343	17,5 *0.689*	45,0 *1.772*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN + NbN	IT8-9
SD203A-1800-045-18R1-MS	10004344	18,0 *0.709*	45,0 *1.772*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN + NbN	IT8-9
SD203A-1850-050-20R1-MS	10004345	18,5 *0.728*	50,0 *1.969*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN + NbN	IT8-9
SD203A-1900-050-20R1-MS	10004346	19,0 *0.748*	50,0 *1.969*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN + NbN	IT8-9
SD203A-1905-050-20R1-MS	10004347	19,05 *0.750*	50,0 *1.969*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN + NbN	IT8-9
SD203A-1950-050-20R1-MS	10004348	19,5 *0.768*	50,0 *1.969*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN + NbN	IT8-9
SD203A-2000-050-20R1-MS	10004349	20,0 *0.787*	50,0 *1.969*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *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) 149–150
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD205A-0200-012-04R1-MS	10004179	2,0 *0.079*	12,0 *0.472*	46,0 *1.811*	19,0 *0.748*	27,0 *1.063*	15,0 *0.591*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD205A-0210-012-04R1-MS	10004180	2,1 *0.083*	12,0 *0.472*	46,0 *1.811*	19,0 *0.748*	27,0 *1.063*	15,0 *0.591*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD205A-0220-012-04R1-MS	10004181	2,2 *0.087*	12,0 *0.472*	46,0 *1.811*	19,0 *0.748*	27,0 *1.063*	15,0 *0.591*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD205A-0230-012-04R1-MS	10004182	2,3 *0.091*	12,0 *0.472*	46,0 *1.811*	19,0 *0.748*	27,0 *1.063*	15,0 *0.591*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD205A-0240-013-04R1-MS	10004183	2,4 *0.094*	13,0 *0.512*	50,0 *1.969*	23,0 *0.906*	27,0 *1.063*	17,5 *0.689*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD205A-0250-013-04R1-MS	10004184	2,5 *0.098*	13,0 *0.512*	50,0 *1.969*	23,0 *0.906*	27,0 *1.063*	17,5 *0.689*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD205A-0260-013-04R1-MS	10004185	2,6 *0.102*	13,0 *0.512*	50,0 *1.969*	23,0 *0.906*	27,0 *1.063*	17,5 *0.689*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD205A-0270-013-04R1-MS	10004186	2,7 *0.106*	15,0 *0.591*	50,0 *1.969*	23,0 *0.906*	27,0 *1.063*	20,5 *0.807*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD205A-0280-013-04R1-MS	10004187	2,8 *0.110*	15,0 *0.591*	50,0 *1.969*	23,0 *0.906*	27,0 *1.063*	20,5 *0.807*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD205A-0300-021-06R1-MS	10004188	3,0 *0.118*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0310-021-06R1-MS	10004189	3,1 *0.122*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0318-021-06R1-MS	10004191	3,18 *0.125*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0330-021-06R1-MS	10004192	3,3 *0.130*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0340-021-06R1-MS	10004193	3,4 *0.134*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0350-021-06R1-MS	10004194	3,5 *0.138*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0360-027-06R1-MS	10004195	3,6 *0.142*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0380-027-06R1-MS	10004196	3,8 *0.150*	27,0 *1.063*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0390-027-06R1-MS	10004197	3,9 *0.154*	27,0 *1.063*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0400-027-06R1-MS	10004198	4,0 *0.157*	27,0 *1.063*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0410-027-06R1-MS	10004199	4,1 *0.161*	27,0 *1.063*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0420-027-06R1-MS	10004200	4,2 *0.165*	27,0 *1.063*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0430-027-06R1-MS	10004201	4,3 *0.169*	27,0 *1.063*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0450-027-06R1-MS	10004202	4,5 *0.177*	27,0 *1.063*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0460-027-06R1-MS	10004203	4,6 *0.181*	27,0 *1.063*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0465-027-06R1-MS	10004205	4,65 *0.183*	27,0 *1.063*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9

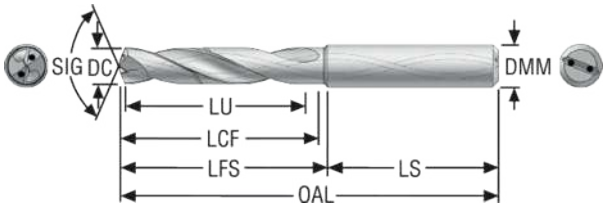
Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD205A-0470-027-06R1-MS	10004206	4,7 *0.185*	27,0 *1.063*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0476-027-06R1-MS	10004208	4,76 *0.187*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0490-032-06R1-MS	10004209	4,9 *0.193*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0500-032-06R1-MS	10004211	5,0 *0.197*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0510-032-06R1-MS	10004212	5,1 *0.201*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0516-032-06R1-MS	10004213	5,16 *0.203*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0520-032-06R1-MS	10004214	5,2 *0.205*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0550-032-06R1-MS	10004215	5,5 *0.217*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0556-032-06R1-MS	10004216	5,56 *0.219*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0560-032-06R1-MS	10004218	5,6 *0.220*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0580-032-06R1-MS	10004219	5,8 *0.228*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0590-032-06R1-MS	10004220	5,9 *0.232*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0595-032-06R1-MS	10004221	5,95 *0.234*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0600-032-06R1-MS	10004222	6,0 *0.236*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0620-035-08R1-MS	10004224	6,2 *0.244*	35,0 *1.378*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0630-035-08R1-MS	10004225	6,3 *0.248*	35,0 *1.378*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0635-035-08R1-MS	10004226	6,35 *0.250*	35,0 *1.378*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0640-035-08R1-MS	10004227	6,4 *0.252*	35,0 *1.378*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0650-035-08R1-MS	10004228	6,5 *0.256*	35,0 *1.378*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0660-035-08R1-MS	10004229	6,6 *0.260*	35,0 *1.378*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0670-035-08R1-MS	10004231	6,7 *0.264*	35,0 *1.378*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0680-040-08R1-MS	10004234	6,8 *0.268*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0690-040-08R1-MS	10004235	6,9 *0.272*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0700-040-08R1-MS	10004236	7,0 *0.276*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0710-040-08R1-MS	10004237	7,1 *0.280*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0714-040-08R1-MS	10004238	7,14 *0.281*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0720-040-08R1-MS	10004239	7,2 *0.283*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0750-040-08R1-MS	10004240	7,5 *0.295*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0780-042-08R1-MS	10004241	7,8 *0.307*	42,0 *1.654*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0794-042-08R1-MS	10004243	7,94 *0.313*	42,0 *1.654*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0800-042-08R1-MS	10004245	8,0 *0.315*	42,0 *1.654*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0810-042-10R1-MS	10004246	8,1 *0.319*	42,0 *1.654*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD205A-0820-042-10R1-MS	10004247	8,2 *0.323*	42,0 *1.654*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD205A-0840-042-10R1-MS	10004250	8,4 *0.331*	42,0 *1.654*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD205A-0850-042-10R1-MS	10004251	8,5 *0.335*	42,0 *1.654*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD205A-0870-045-10R1-MS	10004252	8,7 *0.343*	45,0 *1.772*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD205A-0880-045-10R1-MS	10004255	8,8 *0.346*	45,0 *1.772*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD205A-0900-045-10R1-MS	10004256	9,0 *0.354*	45,0 *1.772*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD205A-0910-045-10R1-MS	10004257	9,1 *0.358*	45,0 *1.772*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD205A-0950-045-10R1-MS	10004258	9,5 *0.374*	45,0 *1.772*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD205A-0953-048-10R1-MS	10004259	9,53 *0.375*	48,0 *1.890*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD205A-0980-048-10R1-MS	10004266	9,8 *0.386*	48,0 *1.890*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD205A-0992-048-10R1-MS	10004269	9,92 *0.391*	48,0 *1.890*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD205A-1000-048-10R1-MS	10004270	10,0 *0.394*	48,0 *1.890*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD205A-1020-048-12R1-MS	10004272	10,2 *0.402*	48,0 *1.890*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD205A-1030-048-12R1-MS	10004273	10,3 *0.406*	48,0 *1.890*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD205A-1050-048-12R1-MS	10004274	10,5 *0.413*	48,0 *1.890*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD205A-1070-056-12R1-MS	10004275	10,7 *0.421*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD205A-1080-056-12R1-MS	10004276	10,8 *0.425*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD205A-1100-056-12R1-MS	10004277	11,0 *0.433*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD205A-1111-056-12R1-MS	10004278	11,11 *0.437*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD205A-1130-056-12R1-MS	10004279	11,3 *0.445*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD205A-1150-056-12R1-MS	10004280	11,5 *0.453*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD205A-1180-056-12R1-MS	10004281	11,8 *0.465*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD205A-1200-056-12R1-MS	10004282	12,0 *0.472*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD205A-1220-056-14R1-MS	10004283	12,2 *0.480*	56,0 *2.205*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN + NbN	IT8-9
SD205A-1250-056-14R1-MS	10004284	12,5 *0.492*	56,0 *2.205*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN + NbN	IT8-9
SD205A-1270-056-14R1-MS	10004285	12,7 *0.500*	56,0 *2.205*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN + NbN	IT8-9
SD205A-1300-056-14R1-MS	10004286	13,0 *0.512*	56,0 *2.205*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN + NbN	IT8-9
SD205A-1310-056-14R1-MS	10004287	13,1 *0.516*	59,0 *2.323*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN + NbN	IT8-9
SD205A-1350-059-14R1-MS	10004288	13,5 *0.531*	59,0 *2.323*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN + NbN	IT8-9
SD205A-1400-059-14R1-MS	10004290	14,0 *0.551*	59,0 *2.323*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN + NbN	IT8-9
SD205A-1420-060-16R1-MS	10004291	14,2 *0.559*	60,0 *2.362*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN + NbN	IT8-9
SD205A-1425-060-16R1-MS	10004292	14,25 *0.561*	60,0 *2.362*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN + NbN	IT8-9
SD205A-1450-060-16R1-MS	10004293	14,5 *0.571*	60,0 *2.362*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN + NbN	IT8-9
SD205A-1500-060-16R1-MS	10004295	15,0 *0.591*	60,0 *2.362*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN + NbN	IT8-9
SD205A-1550-062-16R1-MS	10004296	15,5 *0.610*	62,0 *2.441*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN + NbN	IT8-9
SD205A-1580-062-16R1-MS	10004297	15,8 *0.622*	62,0 *2.441*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN + NbN	IT8-9
SD205A-1600-062-16R1-MS	10004298	16,0 *0.630*	62,0 *2.441*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN + NbN	IT8-9
SD205A-1650-071-18R1-MS	10004299	16,5 *0.650*	64,0 *2.520*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN + NbN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD205A-1700-071-18R1-MS	10004300	17,0 *0.669*	64,0 *2.520*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN + NbN	IT8-9
SD205A-1750-071-18R1-MS	10004301	17,5 *0.689*	66,0 *2.598*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN + NbN	IT8-9
SD205A-1800-071-18R1-MS	10004302	18,0 *0.709*	66,0 *2.598*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN + NbN	IT8-9
SD205A-1850-077-20R1-MS	10004303	18,5 *0.728*	71,0 *2.795*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN + NbN	IT8-9
SD205A-1900-077-20R1-MS	10004304	19,0 *0.748*	71,0 *2.795*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN + NbN	IT8-9
SD205A-1930-077-20R1-MS	10004305	19,3 *0.760*	71,0 *2.795*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN + NbN	IT8-9
SD205A-1950-077-20R1-MS	10004306	19,5 *0.768*	71,0 *2.795*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN + NbN	IT8-9
SD205A-2000-077-20R1-MS	10004307	20,0 *0.787*	71,0 *2.795*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *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) 151-152
- For intermediate diameters see the MyDesign software.

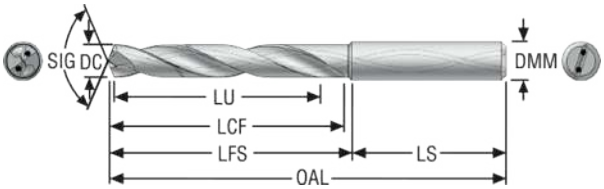
Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD203A-3.0-14-6R1-M	02569995	3,0 *0.118*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-3.1-14-6R1-M	02570998	3,1 *0.122*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-3.3-14-6R1-M	02555958	3,3 *0.130*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-3.4-14-6R1-M	02570984	3,4 *0.134*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-3.5-15-6R1-M	02533784	3,5 *0.138*	15,0 *0.591*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-3.9-17-6R1-M	02570988	3,9 *0.154*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-4.0-17-6R1-M	02539902	4,0 *0.157*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-4.2-17-6R1-M	02555959	4,2 *0.165*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-4.3-18-6R1-M	02533700	4,3 *0.169*	18,0 *0.709*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-4.5-18-6R1-M	02570993	4,5 *0.177*	18,0 *0.709*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-01875-079-0236R1-M	02450103	4,763 *0.188*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-4.8-20-6R1-M	02570982	4,8 *0.189*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-4.9-20-6R1-M	02592709	4,9 *0.193*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-5.0-20-6R1-M	02450075	5,0 *0.197*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-5.5-21-6R1-M	02544249	5,5 *0.217*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-02188-083-0236R1-M	02450104	5,558 *0.219*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-5.6-21-6R1-M	02544028	5,6 *0.220*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-5.9-21-6R1-M	02515290	5,9 *0.232*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-6.0-21-6R1-M	02450076	6,0 *0.236*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-02500-091-0315R1-M	02450105	6,35 *0.250*	23,0 *0.906*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD203A-6.5-23-8R1-M	02450077	6,5 *0.256*	23,0 *0.906*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD203A-6.6-23-8R1-M	02450078	6,6 *0.260*	23,0 *0.906*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD203A-02656-098-0315R1-M	02450106	6,746 *0.266*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD203A-6.8-25-8R1-M	02450079	6,8 *0.268*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD203A-6.9-25-8R1-M	02450080	6,9 *0.272*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD203A-7.0-25-8R1-M	02450081	7,0 *0.276*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD203A-02813-098-0315R1-M	02450107	7,145 *0.281*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD203A-7.2-25-8R1-M	02537185	7,2 *0.283*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD203A-7.3-25-8R1-M	02530109	7,3 *0.287*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD203A-7.5-25-8R1-M	02450082	7,5 *0.295*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD203A-7.6-27-8R1-M	02545197	7,6 *0.299*	27,0 *1.063*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD203A-7.8-27-8R1-M	02450083	7,8 *0.307*	27,0 *1.063*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD203A-03125-106-0315R1-M	02450108	7,938 *0.313*	27,0 *1.063*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD203A-8.0-27-8R1-M	02450084	8,0 *0.315*	27,0 *1.063*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD203A-8.5-27-10R1-M	02450085	8,5 *0.335*	27,0 *1.063*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD203A-03438-114-0394R1-M	02450109	8,733 *0.344*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD203A-8.8-29-10R1-M	02450086	8,8 *0.346*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD203A-9.0-29-10R1-M	02450087	9,0 *0.354*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD203A-03594-114-0394R1-M	02450110	9,129 *0.359*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD203A-9.2-29-10R1-M	02546516	9,2 *0.362*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD203A-9.3-29-10R1-M	02582375	9,3 *0.366*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD203A-9.5-29-10R1-M	02450088	9,5 *0.374*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD203A-03750-122-0394R1-M	02450111	9,525 *0.375*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD203A-9.8-31-10R1-M	02450089	9,8 *0.386*	31,0 *1.220*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD203A-9.9-31-10R1-M	02515293	9,9 *0.390*	31,0 *1.220*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD203A-10.0-31-10R1-M	02450090	10,0 *0.394*	31,0 *1.220*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD203A-10.2-31-12R1-M	02450091	10,2 *0.402*	31,0 *1.220*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD203A-04063-122-0472R1-M	02450112	10,32 *0.406*	31,0 *1.220*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD203A-10.4-31-12R1-M	02535267	10,4 *0.409*	31,0 *1.220*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD203A-10.5-31-12R1-M	02450092	10,5 *0.413*	31,0 *1.220*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD203A-04219-130-0472R1-M	02450113	10,716 *0.422*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD203A-10.8-33-12R1-M	02450093	10,8 *0.425*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD203A-11.0-33-12R1-M	02450094	11,0 *0.433*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD203A-04375-130-0472R1-M	02450114	11,113 *0.438*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD203A-11.5-33-12R1-M	02450095	11,5 *0.453*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD203A-11.8-33-12R1-M	02450096	11,8 *0.465*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD203A-04688-142-0472R1-M	02592711	11,908 *0.469*	36,0 *1.417*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD203A-12.0-36-12R1-M	02450097	12,0 *0.472*	36,0 *1.417*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD203A-12.25-36-14R1-M	02592712	12,25 *0.482*	36,0 *1.417*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN + TiN	IT8-9
SD203A-12.3-36-14R1-M	02450098	12,3 *0.484*	36,0 *1.417*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN + TiN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD203A-12.5-36-14R1-M	02450099	12,5 *0.492*	36,0 *1.417*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN + TiN	IT8-9
SD203A-05000-142-0551R1-M	02450115	12,7 *0.500*	36,0 *1.417*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN + TiN	IT8-9
SD203A-12.9-36-14R1-M	02538263	12,9 *0.508*	36,0 *1.417*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN + TiN	IT8-9
SD203A-13.0-36-14R1-M	02450100	13,0 *0.512*	36,0 *1.417*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN + TiN	IT8-9
SD203A-13.5-37-14R1-M	02450101	13,5 *0.531*	37,0 *1.457*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN + TiN	IT8-9
SD203A-14.0-37-14R1-M	02450102	14,0 *0.551*	37,0 *1.457*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN + TiN	IT8-9
SD203A-14.25-38-16R1-M	02592715	14,25 *0.561*	38,0 *1.496*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *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) 153- 154
—For intermediate diameters see the MyDesign software.

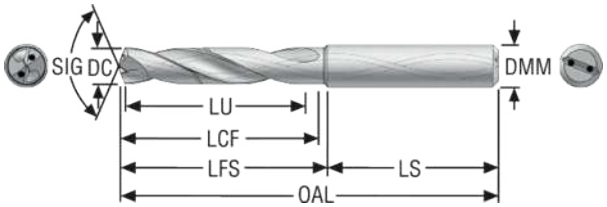
Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD205A-2.5-13-4R1-M	02666989	2,5 *0.098*	13,0 *0.512*	46,0 *1.811*	19,0 *0.748*	27,0 *1.063*	17,5 *0.689*	4,0 *0.157*	140°	TiAlN + TiN	IT8-9
SD205A-3.0-21-6R1-M	02556426	3,0 *0.118*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-3.1-21-6R1-M	02642448	3,1 *0.122*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-3.18-21-6R1-M	02541863	3,18 *0.125*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-3.3-21-6R1-M	02555960	3,3 *0.130*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-3.4-21-6R1-M	02554264	3,4 *0.134*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-3.5-21-6R1-M	02533780	3,5 *0.138*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-4.0-27-6R1-M	02508340	4,0 *0.157*	27,0 *1.063*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-4.2-27-6R1-M	02502549	4,2 *0.165*	27,0 *1.063*	74,0 *2.913*	40,0 *1.575*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-4.3-27-6R1-M	02592718	4,3 *0.169*	27,0 *1.063*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-4.5-27-6R1-M	02563659	4,5 *0.177*	27,0 *1.063*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-4.7-27-6R1-M	02604031	4,7 *0.185*	27,0 *1.063*	74,0 *2.913*	40,0 *1.575*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-01875-126-0236R1-M	02450062	4,763 *0.188*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-4.9-32-6R1-M	02592720	4,9 *0.193*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-5.0-32-6R1-M	02450034	5,0 *0.197*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-5.1-32-6R1-M	02600034	5,1 *0.201*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-5.2-32-6R1-M	02504408	5,2 *0.205*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-5.5-32-6R1-M	02537341	5,5 *0.217*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-02188-126-0236R1-M	02450063	5,558 *0.219*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-5.6-32-6R1-M	02612445	5,6 *0.220*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-5.9-32-6R1-M	02539334	5,9 *0.232*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-6.0-32-6R1-M	02450035	6,0 *0.236*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-6.2-35-8R1-M	02547543	6,2 *0.244*	35,0 *1.378*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD205A-02500-138-0315R1-M	02450064	6,35 *0.250*	35,0 *1.378*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD205A-6.4-35-8R1-M	02666488	6,4 *0.252*	35,0 *1.378*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD205A-6.5-35-8R1-M	02450036	6,5 *0.256*	35,0 *1.378*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD205A-6.6-35-8R1-M	02450037	6,6 *0.260*	35,0 *1.378*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD205A-6.8-40-8R1-M	02450038	6,8 *0.268*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD205A-6.9-40-8R1-M	02450039	6,9 *0.272*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD205A-02813-157-0315R1-M	02450066	7,145 *0.281*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD205A-7.2-40-8R1-M	02519059	7,2 *0.283*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD205A-7.5-40-8R1-M	02450041	7,5 *0.295*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD205A-7.8-42-8R1-M	02450042	7,8 *0.307*	42,0 *1.654*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD205A-03125-165-0315R1-M	02450067	7,938 *0.313*	42,0 *1.654*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD205A-8.0-42-8R1-M	02450043	8,0 *0.315*	42,0 *1.654*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD205A-8.1-42-10R1-M	02672327	8,1 *0.319*	42,0 *1.654*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD205A-8.4-42-10R1-M	02570977	8,4 *0.331*	42,0 *1.654*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD205A-8.5-42-10R1-M	02450044	8,5 *0.335*	42,0 *1.654*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD205A-8.8-45-10R1-M	02450045	8,8 *0.346*	45,0 *1.772*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD205A-9.0-45-10R1-M	02450046	9,0 *0.354*	45,0 *1.772*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD205A-9.2-45-10R1-M	02516406	9,2 *0.362*	45,0 *1.772*	103,0 *4.055*	42,0 *1.654*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD205A-9.5-45-10R1-M	02450047	9,5 *0.374*	45,0 *1.772*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD205A-03750-189-0394R1-M	02450070	9,525 *0.375*	48,0 *1.890*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD205A-9.8-48-10R1-M	02450048	9,8 *0.386*	48,0 *1.890*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD205A-10.0-48-10R1-M	02450049	10,0 *0.394*	48,0 *1.890*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD205A-10.2-48-12R1-M	02450050	10,2 *0.402*	48,0 *1.890*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD205A-10.5-48-12R1-M	02450051	10,5 *0.413*	48,0 *1.890*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD205A-10.8-56-12R1-M	02450052	10,8 *0.425*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD205A-10.9-56-12R1-M	02592725	10,9 *0.429*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD205A-11.0-56-12R1-M	02450053	11,0 *0.433*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD205A-04375-221-0472R1-M	02450073	11,113 *0.438*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD205A-11.5-56-12R1-M	02450054	11,5 *0.453*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD205A-11.8-56-12R1-M	02450055	11,8 *0.465*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD205A-12.0-56-12R1-M	02450056	12,0 *0.472*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD205A-12.5-56-14R1-M	02450058	12,5 *0.492*	56,0 *2.205*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN + TiN	IT8-9
SD205A-05000-221-0551R1-M	02450074	12,7 *0.500*	56,0 *2.205*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN + TiN	IT8-9
SD205A-12.9-56-14R1-M	02592729	12,9 *0.508*	56,0 *2.205*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN + TiN	IT8-9
SD205A-13.0-56-14R1-M	02450059	13,0 *0.512*	56,0 *2.205*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN + TiN	IT8-9
SD205A-13.5-59-14R1-M	02450060	13,5 *0.531*	59,0 *2.323*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN + TiN	IT8-9
SD205A-14.0-59-14R1-M	02450061	14,0 *0.551*	59,0 *2.323*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN + TiN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD205A-14.25-60-16R1-M	02592732	14,25 *0.561*	60,0 *2.362*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN + TiN	IT8-9
SD205A-14.5-60-16R1-M	03117534	14,5 *0.571*	60,0 *2.362*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN + TiN	IT8-9
SD205A-15.0-60-16R1-M	02570652	15,0 *0.591*	60,0 *2.362*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN + TiN	IT8-9
SD205A-15.5-62-16R1-M	02543076	15,5 *0.610*	62,0 *2.441*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN + TiN	IT8-9
SD205A-16.0-62-16R1-M	02555961	16,0 *0.630*	62,0 *2.441*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN + TiN	IT8-9

SD203A, -T

Drilling depth ~ 3 x D – Metric/Inch

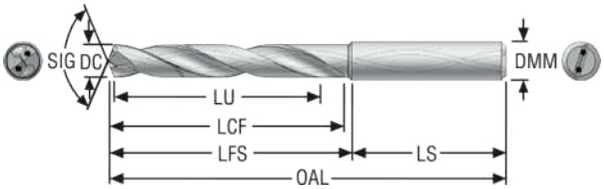


- Cylindrical shank DIN 6537A
- DC tolerance m7
- Internal coolant
- Cutting data - www.secotools.com
- For intermediate diameters see the MyDesign software.

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

SD205A, -T

Drilling depth ~ 5 x D – Metric/Inch

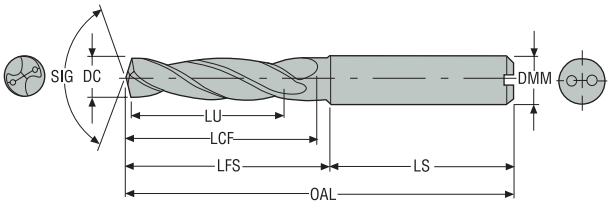


—Cylindrical shank DIN 6537A
—DC tolerance m7
—Internal coolant
—Cutting data - www.secotools.com
—For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD205A-8.0-42-8R1-T	02569164	8,0 *0.315*	42,0 *1.654*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	Uncoated	IT8-9
SD205A-12.0-56-12R1-T	02527621	12,0 *0.472*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *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) 135- 136
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD203A-2.5-8-4R1-N	02691548	2,5 *0.098*	8,0 *0.315*	44,0 *1.732*	16,0 *0.630*	28,0 *1.102*	13,0 *0.512*	4,0 *0.157*	140°	DLC Coated	IT8-9
SD203A-3.0-14-6R1-N	02691549	3,0 *0.118*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	DLC Coated	IT8-9
SD203A-3.3-14-6R1-N	02691551	3,3 *0.130*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	DLC Coated	IT8-9
SD203A-3.5-15-6R1-N	02691552	3,5 *0.138*	15,0 *0.591*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	DLC Coated	IT8-9
SD203A-4.0-17-6R1-N	02691553	4,0 *0.157*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	DLC Coated	IT8-9
SD203A-4.1-17-6R1-N	02691554	4,1 *0.161*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	DLC Coated	IT8-9
SD203A-4.5-18-6R1-N	02691555	4,5 *0.177*	18,0 *0.709*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	DLC Coated	IT8-9
SD203A-5.0-20-6R1-N	02691556	5,0 *0.197*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	DLC Coated	IT8-9
SD203A-5.2-20-6R1-N	02691557	5,2 *0.205*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	DLC Coated	IT8-9
SD203A-5.5-20-6R1-N	02691558	5,5 *0.217*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	DLC Coated	IT8-9
SD203A-6.0-21-6R1-N	02691559	6,0 *0.236*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	DLC Coated	IT8-9
SD203A-02500-091-0315R1-N	02691560	6,35 *0.250*	23,0 *0.906*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	DLC Coated	IT8-9
SD203A-6.5-23-8R1-N	02691562	6,5 *0.256*	23,0 *0.906*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	DLC Coated	IT8-9
SD203A-02656-098-0315R1-N	02691564	6,746 *0.266*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	DLC Coated	IT8-9
SD203A-6.8-25-8R1-N	02691565	6,8 *0.268*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	DLC Coated	IT8-9
SD203A-7.0-25-8R1-N	02643590	7,0 *0.276*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	DLC Coated	IT8-9
SD203A-7.1-25-8R1-N	02691567	7,1 *0.280*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	DLC Coated	IT8-9
SD203A-02813-098-0315R1-N	02691568	7,145 *0.281*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	DLC Coated	IT8-9
SD203A-7.5-25-8R1-N	02691569	7,5 *0.295*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	DLC Coated	IT8-9
SD203A-03125-106-0315R1-N	02691570	7,938 *0.313*	27,0 *1.063*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	DLC Coated	IT8-9
SD203A-8.0-27-8R1-N	02691571	8,0 *0.315*	27,0 *1.063*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	DLC Coated	IT8-9
SD203A-8.5-27-10R1-N	02643592	8,5 *0.335*	27,0 *1.063*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	DLC Coated	IT8-9
SD203A-9.0-29-10R1-N	02691574	9,0 *0.354*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	DLC Coated	IT8-9
SD203A-9.5-29-10R1-N	02691575	9,5 *0.374*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	DLC Coated	IT8-9
SD203A-03750-122-0394R1-N	02691576	9,525 *0.375*	31,0 *1.220*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	DLC Coated	IT8-9

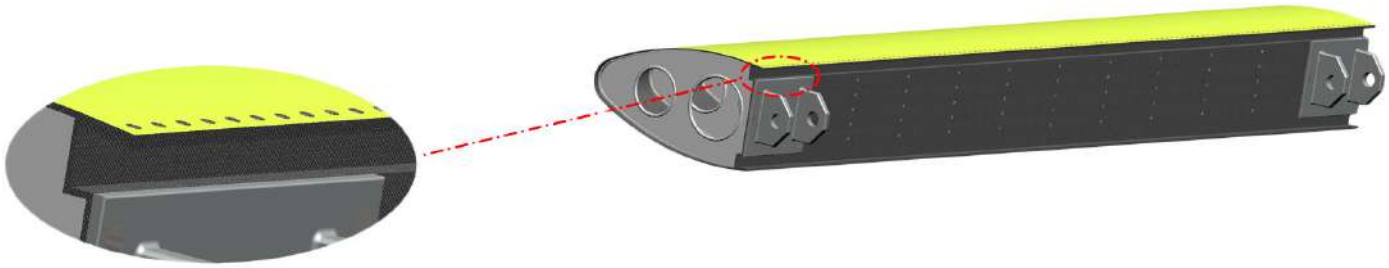
Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD203A-10.0-31-10R1-N	02691577	10,0 *0.394*	31,0 *1.220*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	DLC Coated	IT8-9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

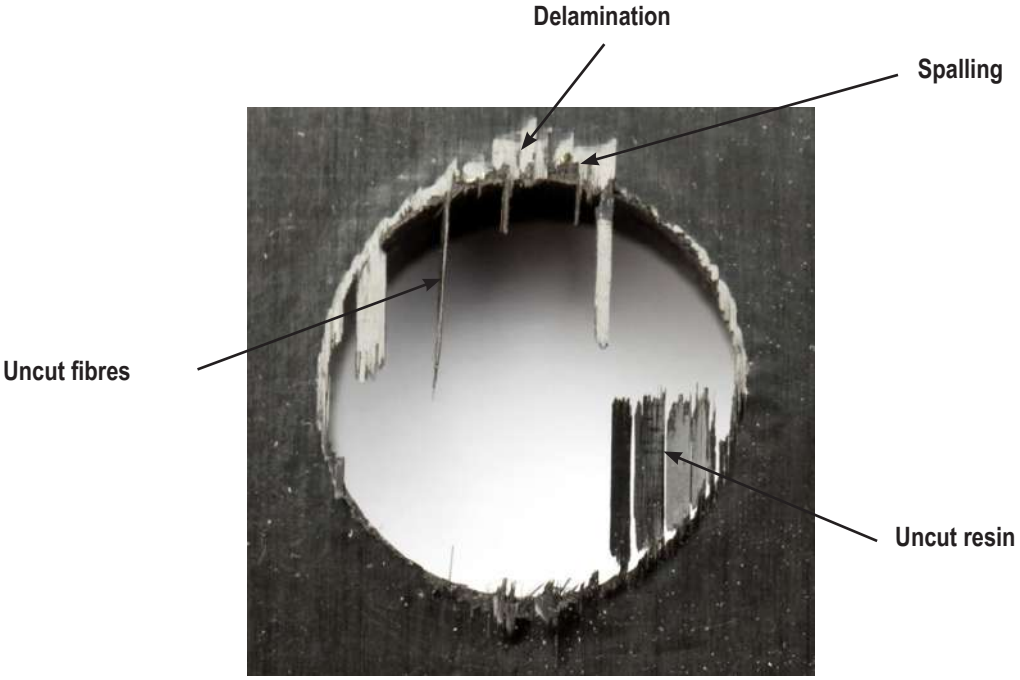
Plain CFRP/GFRP
(exit in composite material)

C1 geometry
CX1 geometry

Sandwich material
(exit in Al/Ti)

C2 geometry

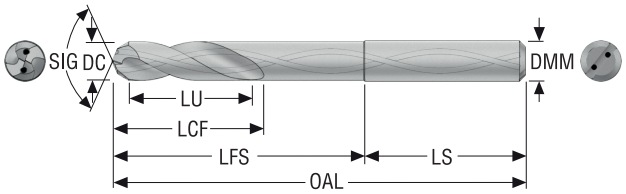
Troubleshooting – Hole exit



Problem:	Delamination (peel up / push down)	Spalling	Uncut fibres	Uncut resin
Solution:	**Peel up** ▪ Use tool with more negative geometry ▪ Reduce feed/rev **Push down** ▪ Reduce feed/rev	▪ Use tool with more positive geometry ▪ Reduce feed/rev	▪ Use tool with a sharper geometry ▪ Reduce feed/rev	▪ Use tool with a sharper geometry ▪ Reduce feed/rev ▪ 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

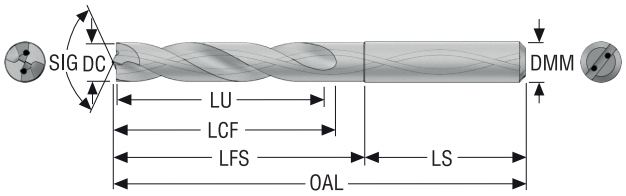


–Cylindrical shank DIN 6537A
–Internal coolant
–For cutting data see page(s) 155

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

SD205A-C2

Drilling depth ~ 5 x D – Metric/Inch

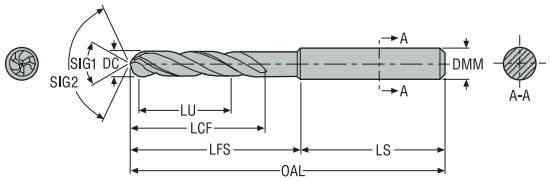


–Cylindrical shank DIN 6537A
–Internal coolant
–For cutting data see page(s) 155

Designation	Item number	Expected hole tolerance		DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating
		mm	Inch	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
SD205A-6.0-32-6R1-C2	02740099	5,975/6,025	*0.2352/0.2372*	6,0 *0.236*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	60°/130°	Dura diamond
SD205A-9.55-48-10R1-C2	02740103	9,525/9,576	*0.3750/0.3770*	9,55 *0.376*	48,0 *1.890*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	60°/130°	Dura diamond

SD203-CX1

Drilling depth ~ 3 x D – Metric/Inch



—Cylindrical shank DIN 6537A
—PCD cutting edges
—For cutting data see page(s) 155

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

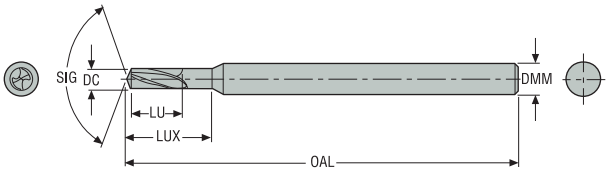
Micro drilling

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) 156–160

Designation	Item number	DC	LU	OAL	LUX	DMM	Point angle	Coating
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
SD22-0.10-0.20-3R1	02731574	0,1 *0.004*	0,2 *0.008*	38,0 *1.496*	0,55 *0.022*	3,0 *0.118*	130°	Uncoated
SD22-0.11-0.22-3R1	02730362	0,11 *0.004*	0,22 *0.009*	38,0 *1.496*	0,55 *0.022*	3,0 *0.118*	130°	Uncoated
SD22-0.12-0.24-3R1	02730460	0,12 *0.005*	0,24 *0.009*	38,0 *1.496*	0,55 *0.022*	3,0 *0.118*	130°	Uncoated
SD22-0.13-0.26-3R1	02730461	0,13 *0.005*	0,26 *0.010*	38,0 *1.496*	0,6 *0.024*	3,0 *0.118*	130°	Uncoated
SD22-0.14-0.28-3R1	02730462	0,14 *0.006*	0,28 *0.011*	38,0 *1.496*	0,6 *0.024*	3,0 *0.118*	130°	Uncoated
SD22-0.15-0.30-3R1	02731575	0,15 *0.006*	0,3 *0.012*	38,0 *1.496*	0,6 *0.024*	3,0 *0.118*	130°	Uncoated
SD22-0.16-0.32-3R1	02730464	0,16 *0.006*	0,32 *0.013*	38,0 *1.496*	0,6 *0.024*	3,0 *0.118*	130°	Uncoated
SD22-0.17-0.34-3R1	02730465	0,17 *0.007*	0,34 *0.013*	38,0 *1.496*	0,7 *0.028*	3,0 *0.118*	130°	Uncoated
SD22-0.18-0.36-3R1	02730466	0,18 *0.007*	0,36 *0.014*	38,0 *1.496*	0,7 *0.028*	3,0 *0.118*	130°	Uncoated
SD22-0.19-0.38-3R1	02730467	0,19 *0.007*	0,38 *0.015*	38,0 *1.496*	0,7 *0.028*	3,0 *0.118*	130°	Uncoated
SD22-0.20-0.40-3R1	02731576	0,2 *0.008*	0,4 *0.016*	38,0 *1.496*	0,75 *0.030*	3,0 *0.118*	130°	Uncoated
SD22-0.21-0.42-3R1	02730468	0,21 *0.008*	0,42 *0.017*	38,0 *1.496*	0,75 *0.030*	3,0 *0.118*	130°	Uncoated
SD22-0.22-0.44-3R1	02730469	0,22 *0.009*	0,44 *0.017*	38,0 *1.496*	0,8 *0.031*	3,0 *0.118*	130°	Uncoated
SD22-0.23-0.46-3R1	02730470	0,23 *0.009*	0,46 *0.018*	38,0 *1.496*	0,8 *0.031*	3,0 *0.118*	130°	Uncoated
SD22-0.24-0.48-3R1	02730471	0,24 *0.009*	0,48 *0.019*	38,0 *1.496*	0,8 *0.031*	3,0 *0.118*	130°	Uncoated
SD22-0.25-0.50-3R1	02731577	0,25 *0.010*	0,5 *0.020*	38,0 *1.496*	0,9 *0.035*	3,0 *0.118*	130°	Uncoated
SD22-0.26-0.52-3R1	02730472	0,26 *0.010*	0,52 *0.020*	38,0 *1.496*	0,9 *0.035*	3,0 *0.118*	130°	Uncoated
SD22-0.27-0.54-3R1	02730473	0,27 *0.011*	0,54 *0.021*	38,0 *1.496*	0,9 *0.035*	3,0 *0.118*	130°	Uncoated
SD22-0.28-0.56-3R1	02730474	0,28 *0.011*	0,56 *0.022*	38,0 *1.496*	1,0 *0.039*	3,0 *0.118*	130°	Uncoated
SD22-0.29-0.58-3R1	02730475	0,29 *0.011*	0,58 *0.023*	38,0 *1.496*	1,0 *0.039*	3,0 *0.118*	130°	Uncoated
SD22-0.30-0.60-3R1	02731579	0,3 *0.012*	0,6 *0.024*	38,0 *1.496*	1,2 *0.047*	3,0 *0.118*	130°	Uncoated
SD22-0.31-0.62-3R1	02730476	0,31 *0.012*	0,62 *0.024*	38,0 *1.496*	1,2 *0.047*	3,0 *0.118*	130°	Uncoated
SD22-0.32-0.64-3R1	02730477	0,32 *0.013*	0,64 *0.025*	38,0 *1.496*	1,2 *0.047*	3,0 *0.118*	130°	Uncoated
SD22-0.33-0.66-3R1	02730478	0,33 *0.013*	0,66 *0.026*	38,0 *1.496*	1,2 *0.047*	3,0 *0.118*	130°	Uncoated
SD22-0.34-0.68-3R1	02730479	0,34 *0.013*	0,68 *0.027*	38,0 *1.496*	1,35 *0.053*	3,0 *0.118*	130°	Uncoated
SD22-0.35-0.70-3R1	02731580	0,35 *0.014*	0,7 *0.028*	38,0 *1.496*	1,35 *0.053*	3,0 *0.118*	130°	Uncoated

Designation	Item number	DC	LU	OAL	LUX	DMM	Point angle	Coating
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
SD22-0.36-0.72-3R1	02730480	0,36 *0.014*	0,72 *0.028*	38,0 *1.496*	1,35 *0.053*	3,0 *0.118*	130°	Uncoated
SD22-0.37-0.74-3R1	02730481	0,37 *0.015*	0,74 *0.029*	38,0 *1.496*	1,35 *0.053*	3,0 *0.118*	130°	Uncoated
SD22-0.38-0.76-3R1	02730482	0,38 *0.015*	0,76 *0.030*	38,0 *1.496*	1,5 *0.059*	3,0 *0.118*	130°	Uncoated
SD22-0.39-0.78-3R1	02730483	0,39 *0.015*	0,78 *0.031*	38,0 *1.496*	1,5 *0.059*	3,0 *0.118*	130°	Uncoated
SD22-0.40-0.80-3R1	02731581	0,4 *0.016*	0,8 *0.031*	38,0 *1.496*	1,6 *0.063*	3,0 *0.118*	130°	Uncoated
SD22-0.41-0.82-3R1	02730484	0,41 *0.016*	0,82 *0.032*	38,0 *1.496*	1,6 *0.063*	3,0 *0.118*	130°	Uncoated
SD22-0.42-0.84-3R1	02730485	0,42 *0.017*	0,84 *0.033*	38,0 *1.496*	1,6 *0.063*	3,0 *0.118*	130°	Uncoated
SD22-0.43-0.86-3R1	02730486	0,43 *0.017*	0,86 *0.034*	38,0 *1.496*	1,6 *0.063*	3,0 *0.118*	130°	Uncoated
SD22-0.44-0.88-3R1	02730487	0,44 *0.017*	0,88 *0.035*	38,0 *1.496*	1,6 *0.063*	3,0 *0.118*	130°	Uncoated
SD22-0.45-0.90-3R1	02731582	0,45 *0.018*	0,9 *0.035*	38,0 *1.496*	1,6 *0.063*	3,0 *0.118*	130°	Uncoated
SD22-0.46-0.92-3R1	02730488	0,46 *0.018*	0,92 *0.036*	38,0 *1.496*	1,7 *0.067*	3,0 *0.118*	130°	Uncoated
SD22-0.47-0.94-3R1	02730489	0,47 *0.019*	0,94 *0.037*	38,0 *1.496*	1,7 *0.067*	3,0 *0.118*	130°	Uncoated
SD22-0.48-0.96-3R1	02730490	0,48 *0.019*	0,96 *0.038*	38,0 *1.496*	1,7 *0.067*	3,0 *0.118*	130°	Uncoated
SD22-0.49-0.98-3R1	02730491	0,49 *0.019*	0,98 *0.039*	38,0 *1.496*	1,7 *0.067*	3,0 *0.118*	130°	Uncoated
SD22-0.50-1.00-3R1	02731584	0,5 *0.020*	1,0 *0.039*	38,0 *1.496*	1,7 *0.067*	3,0 *0.118*	130°	Uncoated
SD22-0.51-1.02-3R1	02730492	0,51 *0.020*	1,02 *0.040*	38,0 *1.496*	1,8 *0.071*	3,0 *0.118*	130°	Uncoated
SD22-0.52-1.04-3R1	02730493	0,52 *0.020*	1,04 *0.041*	38,0 *1.496*	1,8 *0.071*	3,0 *0.118*	130°	Uncoated
SD22-0.53-1.06-3R1	02730494	0,53 *0.021*	1,06 *0.042*	38,0 *1.496*	1,8 *0.071*	3,0 *0.118*	130°	Uncoated
SD22-0.54-1.08-3R1	02730495	0,54 *0.021*	1,08 *0.043*	38,0 *1.496*	1,8 *0.071*	3,0 *0.118*	130°	Uncoated
SD22-0.55-1.10-3R1	02731585	0,55 *0.022*	1,1 *0.043*	38,0 *1.496*	1,8 *0.071*	3,0 *0.118*	130°	Uncoated
SD22-0.56-1.12-3R1	02730496	0,56 *0.022*	1,12 *0.044*	38,0 *1.496*	1,9 *0.075*	3,0 *0.118*	130°	Uncoated
SD22-0.57-1.14-3R1	02730497	0,57 *0.022*	1,14 *0.045*	38,0 *1.496*	1,9 *0.075*	3,0 *0.118*	130°	Uncoated
SD22-0.58-1.16-3R1	02730498	0,58 *0.023*	1,16 *0.046*	38,0 *1.496*	1,9 *0.075*	3,0 *0.118*	130°	Uncoated
SD22-0.59-1.18-3R1	02730499	0,59 *0.023*	1,18 *0.046*	38,0 *1.496*	1,9 *0.075*	3,0 *0.118*	130°	Uncoated
SD22-0.60-1.20-3R1	02731586	0,6 *0.024*	1,2 *0.047*	38,0 *1.496*	1,9 *0.075*	3,0 *0.118*	130°	Uncoated
SD22-0.61-1.22-3R1	02730500	0,61 *0.024*	1,22 *0.048*	38,0 *1.496*	2,0 *0.079*	3,0 *0.118*	130°	Uncoated
SD22-0.62-1.24-3R1	02730501	0,62 *0.024*	1,24 *0.049*	38,0 *1.496*	2,0 *0.079*	3,0 *0.118*	130°	Uncoated
SD22-0.63-1.26-3R1	02730502	0,63 *0.025*	1,26 *0.050*	38,0 *1.496*	2,0 *0.079*	3,0 *0.118*	130°	Uncoated
SD22-0.64-1.28-3R1	02730503	0,64 *0.025*	1,28 *0.050*	38,0 *1.496*	2,0 *0.079*	3,0 *0.118*	130°	Uncoated
SD22-0.65-1.30-3R1	02731587	0,65 *0.026*	1,3 *0.051*	38,0 *1.496*	2,0 *0.079*	3,0 *0.118*	130°	Uncoated
SD22-0.66-1.32-3R1	02730504	0,66 *0.026*	1,32 *0.052*	38,0 *1.496*	2,1 *0.083*	3,0 *0.118*	130°	Uncoated
SD22-0.67-1.34-3R1	02730505	0,67 *0.026*	1,34 *0.053*	38,0 *1.496*	2,1 *0.083*	3,0 *0.118*	130°	Uncoated
SD22-0.68-1.36-3R1	02730506	0,68 *0.027*	1,36 *0.054*	38,0 *1.496*	2,1 *0.083*	3,0 *0.118*	130°	Uncoated
SD22-0.69-1.38-3R1	02730507	0,69 *0.027*	1,38 *0.054*	38,0 *1.496*	2,1 *0.083*	3,0 *0.118*	130°	Uncoated
SD22-0.70-1.40-3R1	02731589	0,7 *0.028*	1,4 *0.055*	38,0 *1.496*	2,1 *0.083*	3,0 *0.118*	130°	Uncoated

Designation	Item number	DC	LU	OAL	LUX	DMM	Point angle	Coating
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
SD22-0.71-1.42-3R1	02730508	0,71 *0.028*	1,42 *0.056*	38,0 *1.496*	2,2 *0.087*	3,0 *0.118*	130°	Uncoated
SD22-0.72-1.44-3R1	02730509	0,72 *0.028*	1,44 *0.057*	38,0 *1.496*	2,2 *0.087*	3,0 *0.118*	130°	Uncoated
SD22-0.73-1.46-3R1	02730510	0,73 *0.029*	1,46 *0.057*	38,0 *1.496*	2,2 *0.087*	3,0 *0.118*	130°	Uncoated
SD22-0.74-1.48-3R1	02730511	0,74 *0.029*	1,48 *0.058*	38,0 *1.496*	2,2 *0.087*	3,0 *0.118*	130°	Uncoated
SD22-0.75-1.50-3R1	02731590	0,75 *0.030*	1,5 *0.059*	38,0 *1.496*	2,2 *0.087*	3,0 *0.118*	130°	Uncoated
SD22-0.76-1.52-3R1	02730512	0,76 *0.030*	1,52 *0.060*	38,0 *1.496*	2,3 *0.091*	3,0 *0.118*	130°	Uncoated
SD22-0.77-1.54-3R1	02730513	0,77 *0.030*	1,54 *0.061*	38,0 *1.496*	2,3 *0.091*	3,0 *0.118*	130°	Uncoated
SD22-0.78-1.56-3R1	02730514	0,78 *0.031*	1,56 *0.061*	38,0 *1.496*	2,3 *0.091*	3,0 *0.118*	130°	Uncoated
SD22-0.79-1.58-3R1	02730515	0,79 *0.031*	1,58 *0.062*	38,0 *1.496*	2,3 *0.091*	3,0 *0.118*	130°	Uncoated
SD22-0.80-1.60-3R1	02731592	0,8 *0.031*	1,6 *0.063*	38,0 *1.496*	2,3 *0.091*	3,0 *0.118*	130°	Uncoated
SD22-0.81-1.62-3R1	02730516	0,81 *0.032*	1,62 *0.064*	38,0 *1.496*	2,4 *0.094*	3,0 *0.118*	130°	Uncoated
SD22-0.82-1.64-3R1	02730517	0,82 *0.032*	1,64 *0.065*	38,0 *1.496*	2,4 *0.094*	3,0 *0.118*	130°	Uncoated
SD22-0.83-1.66-3R1	02730518	0,83 *0.033*	1,66 *0.065*	38,0 *1.496*	2,4 *0.094*	3,0 *0.118*	130°	Uncoated
SD22-0.84-1.68-3R1	02730519	0,84 *0.033*	1,68 *0.066*	38,0 *1.496*	2,4 *0.094*	3,0 *0.118*	130°	Uncoated
SD22-0.85-1.70-3R1	02731593	0,85 *0.033*	1,7 *0.067*	38,0 *1.496*	2,4 *0.094*	3,0 *0.118*	130°	Uncoated
SD22-0.86-1.72-3R1	02730520	0,86 *0.034*	1,72 *0.068*	38,0 *1.496*	2,5 *0.098*	3,0 *0.118*	130°	Uncoated
SD22-0.87-1.74-3R1	02730521	0,87 *0.034*	1,74 *0.069*	38,0 *1.496*	2,5 *0.098*	3,0 *0.118*	130°	Uncoated
SD22-0.88-1.76-3R1	02730522	0,88 *0.035*	1,76 *0.069*	38,0 *1.496*	2,5 *0.098*	3,0 *0.118*	130°	Uncoated
SD22-0.89-1.78-3R1	02730523	0,89 *0.035*	1,78 *0.070*	38,0 *1.496*	2,5 *0.098*	3,0 *0.118*	130°	Uncoated
SD22-0.90-1.80-3R1	02731594	0,9 *0.035*	1,8 *0.071*	38,0 *1.496*	2,5 *0.098*	3,0 *0.118*	130°	Uncoated
SD22-0.91-1.82-3R1	02730524	0,91 *0.036*	1,82 *0.072*	38,0 *1.496*	2,6 *0.102*	3,0 *0.118*	130°	Uncoated
SD22-0.92-1.84-3R1	02730525	0,92 *0.036*	1,84 *0.072*	38,0 *1.496*	2,6 *0.102*	3,0 *0.118*	130°	Uncoated
SD22-0.93-1.86-3R1	02730526	0,93 *0.037*	1,86 *0.073*	38,0 *1.496*	2,6 *0.102*	3,0 *0.118*	130°	Uncoated
SD22-0.94-1.88-3R1	02730527	0,94 *0.037*	1,88 *0.074*	38,0 *1.496*	2,6 *0.102*	3,0 *0.118*	130°	Uncoated
SD22-0.95-1.90-3R1	02731595	0,95 *0.037*	1,9 *0.075*	38,0 *1.496*	2,6 *0.102*	3,0 *0.118*	130°	Uncoated
SD22-0.96-1.92-3R1	02730528	0,96 *0.038*	1,92 *0.076*	38,0 *1.496*	2,7 *0.106*	3,0 *0.118*	130°	Uncoated
SD22-0.97-1.94-3R1	02730529	0,97 *0.038*	1,94 *0.076*	38,0 *1.496*	2,7 *0.106*	3,0 *0.118*	130°	Uncoated
SD22-0.98-1.96-3R1	02730530	0,98 *0.039*	1,96 *0.077*	38,0 *1.496*	2,7 *0.106*	3,0 *0.118*	130°	Uncoated
SD22-0.99-1.98-3R1	02730531	0,99 *0.039*	1,98 *0.078*	38,0 *1.496*	2,7 *0.106*	3,0 *0.118*	130°	Uncoated
SD22-1.00-2.00-3R1	02731596	1,0 *0.039*	2,0 *0.079*	38,0 *1.496*	2,7 *0.106*	3,0 *0.118*	130°	Uncoated
SD22-1.01-2.02-3R1	02730532	1,01 *0.040*	2,02 *0.080*	38,0 *1.496*	3,5 *0.138*	3,0 *0.118*	130°	Uncoated
SD22-1.02-2.04-3R1	02730533	1,02 *0.040*	2,04 *0.080*	38,0 *1.496*	3,5 *0.138*	3,0 *0.118*	130°	Uncoated
SD22-1.03-2.06-3R1	02730534	1,03 *0.041*	2,06 *0.081*	38,0 *1.496*	3,5 *0.138*	3,0 *0.118*	130°	Uncoated
SD22-1.04-2.08-3R1	02730535	1,04 *0.041*	2,08 *0.082*	38,0 *1.496*	3,5 *0.138*	3,0 *0.118*	130°	Uncoated
SD22-1.05-2.10-3R1	02730536	1,05 *0.041*	2,1 *0.083*	38,0 *1.496*	3,5 *0.138*	3,0 *0.118*	130°	Uncoated

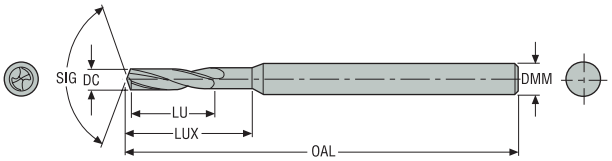
Designation	Item number	DC	LU	OAL	LUX	DMM	Point angle	Coating
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
SD22-1.06-2.12-3R1	02730537	1,06 *0.042*	2,12 *0.083*	38,0 *1.496*	3,6 *0.142*	3,0 *0.118*	130°	Uncoated
SD22-1.07-2.14-3R1	02730538	1,07 *0.042*	2,14 *0.084*	38,0 *1.496*	3,6 *0.142*	3,0 *0.118*	130°	Uncoated
SD22-1.08-2.16-3R1	02730539	1,08 *0.043*	2,16 *0.085*	38,0 *1.496*	3,6 *0.142*	3,0 *0.118*	130°	Uncoated
SD22-1.09-2.18-3R1	02730540	1,09 *0.043*	2,18 *0.086*	38,0 *1.496*	3,6 *0.142*	3,0 *0.118*	130°	Uncoated
SD22-1.10-2.20-3R1	02731598	1,1 *0.043*	2,2 *0.087*	38,0 *1.496*	3,6 *0.142*	3,0 *0.118*	130°	Uncoated
SD22-1.11-2.22-3R1	02730541	1,11 *0.044*	2,22 *0.087*	38,0 *1.496*	3,7 *0.146*	3,0 *0.118*	130°	Uncoated
SD22-1.12-2.24-3R1	02730542	1,12 *0.044*	2,24 *0.088*	38,0 *1.496*	3,7 *0.146*	3,0 *0.118*	130°	Uncoated
SD22-1.13-2.26-3R1	02730543	1,13 *0.044*	2,26 *0.089*	38,0 *1.496*	3,7 *0.146*	3,0 *0.118*	130°	Uncoated
SD22-1.14-2.28-3R1	02730544	1,14 *0.045*	2,28 *0.090*	38,0 *1.496*	3,7 *0.146*	3,0 *0.118*	130°	Uncoated
SD22-1.15-2.30-3R1	02730545	1,15 *0.045*	2,3 *0.091*	38,0 *1.496*	3,7 *0.146*	3,0 *0.118*	130°	Uncoated
SD22-1.16-2.32-3R1	02730546	1,16 *0.046*	2,32 *0.091*	38,0 *1.496*	3,8 *0.150*	3,0 *0.118*	130°	Uncoated
SD22-1.17-2.34-3R1	02730547	1,17 *0.046*	2,34 *0.092*	38,0 *1.496*	3,8 *0.150*	3,0 *0.118*	130°	Uncoated
SD22-1.18-2.36-3R1	02730548	1,18 *0.046*	2,36 *0.093*	38,0 *1.496*	3,8 *0.150*	3,0 *0.118*	130°	Uncoated
SD22-1.19-2.38-3R1	02730549	1,19 *0.047*	2,38 *0.094*	38,0 *1.496*	3,8 *0.150*	3,0 *0.118*	130°	Uncoated
SD22-1.20-2.40-3R1	02731599	1,2 *0.047*	2,4 *0.094*	38,0 *1.496*	3,8 *0.150*	3,0 *0.118*	130°	Uncoated
SD22-1.21-2.42-3R1	02730550	1,21 *0.048*	2,42 *0.095*	38,0 *1.496*	4,2 *0.165*	3,0 *0.118*	130°	Uncoated
SD22-1.22-2.44-3R1	02730551	1,22 *0.048*	2,44 *0.096*	38,0 *1.496*	4,2 *0.165*	3,0 *0.118*	130°	Uncoated
SD22-1.23-2.46-3R1	02730552	1,23 *0.048*	2,46 *0.097*	38,0 *1.496*	4,2 *0.165*	3,0 *0.118*	130°	Uncoated
SD22-1.24-2.48-3R1	02730553	1,24 *0.049*	2,48 *0.098*	38,0 *1.496*	4,2 *0.165*	3,0 *0.118*	130°	Uncoated
SD22-1.25-2.50-3R1	02730554	1,25 *0.049*	2,5 *0.098*	38,0 *1.496*	4,2 *0.165*	3,0 *0.118*	130°	Uncoated
SD22-1.26-2.52-3R1	02730555	1,26 *0.050*	2,52 *0.099*	38,0 *1.496*	4,3 *0.169*	3,0 *0.118*	130°	Uncoated
SD22-1.27-2.54-3R1	02730556	1,27 *0.050*	2,54 *0.100*	38,0 *1.496*	4,3 *0.169*	3,0 *0.118*	130°	Uncoated
SD22-1.28-2.56-3R1	02730557	1,28 *0.050*	2,56 *0.101*	38,0 *1.496*	4,3 *0.169*	3,0 *0.118*	130°	Uncoated
SD22-1.29-2.58-3R1	02730558	1,29 *0.051*	2,58 *0.102*	38,0 *1.496*	4,3 *0.169*	3,0 *0.118*	130°	Uncoated
SD22-1.30-2.60-3R1	02731600	1,3 *0.051*	2,6 *0.102*	38,0 *1.496*	4,3 *0.169*	3,0 *0.118*	130°	Uncoated
SD22-1.31-2.62-3R1	02730559	1,31 *0.052*	2,62 *0.103*	38,0 *1.496*	4,4 *0.173*	3,0 *0.118*	130°	Uncoated
SD22-1.32-2.64-3R1	02730560	1,32 *0.052*	2,64 *0.104*	38,0 *1.496*	4,4 *0.173*	3,0 *0.118*	130°	Uncoated
SD22-1.33-2.66-3R1	02730561	1,33 *0.052*	2,66 *0.105*	38,0 *1.496*	4,4 *0.173*	3,0 *0.118*	130°	Uncoated
SD22-1.34-2.68-3R1	02730562	1,34 *0.053*	2,68 *0.106*	38,0 *1.496*	4,4 *0.173*	3,0 *0.118*	130°	Uncoated
SD22-1.35-2.70-3R1	02730563	1,35 *0.053*	2,7 *0.106*	38,0 *1.496*	4,4 *0.173*	3,0 *0.118*	130°	Uncoated
SD22-1.36-2.72-3R1	02730564	1,36 *0.054*	2,72 *0.107*	38,0 *1.496*	4,5 *0.177*	3,0 *0.118*	130°	Uncoated
SD22-1.37-2.74-3R1	02730565	1,37 *0.054*	2,74 *0.108*	38,0 *1.496*	4,5 *0.177*	3,0 *0.118*	130°	Uncoated
SD22-1.38-2.76-3R1	02730566	1,38 *0.054*	2,76 *0.109*	38,0 *1.496*	4,5 *0.177*	3,0 *0.118*	130°	Uncoated
SD22-1.39-2.78-3R1	02730567	1,39 *0.055*	2,78 *0.109*	38,0 *1.496*	4,5 *0.177*	3,0 *0.118*	130°	Uncoated
SD22-1.40-2.80-3R1	02731602	1,4 *0.055*	2,8 *0.110*	38,0 *1.496*	4,5 *0.177*	3,0 *0.118*	130°	Uncoated

Designation	Item number	DC	LU	OAL	LUX	DMM	Point angle	Coating
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
SD22-1.41-2.82-3R1	02730568	1,41 *0.056*	2,82 *0.111*	38,0 *1.496*	4,6 *0.181*	3,0 *0.118*	130°	Uncoated
SD22-1.42-2.84-3R1	02730569	1,42 *0.056*	2,84 *0.112*	38,0 *1.496*	4,6 *0.181*	3,0 *0.118*	130°	Uncoated
SD22-1.43-2.86-3R1	02730570	1,43 *0.056*	2,86 *0.113*	38,0 *1.496*	4,6 *0.181*	3,0 *0.118*	130°	Uncoated
SD22-1.44-2.88-3R1	02730571	1,44 *0.057*	2,88 *0.113*	38,0 *1.496*	4,6 *0.181*	3,0 *0.118*	130°	Uncoated
SD22-1.45-2.90-3R1	02730572	1,45 *0.057*	2,9 *0.114*	38,0 *1.496*	4,6 *0.181*	3,0 *0.118*	130°	Uncoated
SD22-1.46-2.92-3R1	02730573	1,46 *0.057*	2,92 *0.115*	38,0 *1.496*	4,7 *0.185*	3,0 *0.118*	130°	Uncoated
SD22-1.47-2.94-3R1	02730574	1,47 *0.058*	2,94 *0.116*	38,0 *1.496*	4,7 *0.185*	3,0 *0.118*	130°	Uncoated
SD22-1.48-2.96-3R1	02730575	1,48 *0.058*	2,96 *0.117*	38,0 *1.496*	4,7 *0.185*	3,0 *0.118*	130°	Uncoated
SD22-1.49-2.98-3R1	02730576	1,49 *0.059*	2,98 *0.117*	38,0 *1.496*	4,7 *0.185*	3,0 *0.118*	130°	Uncoated
SD22-1.50-3.00-3R1	02731603	1,5 *0.059*	3,0 *0.118*	38,0 *1.496*	4,7 *0.185*	3,0 *0.118*	130°	Uncoated
SD22-1.51-3.02-3R1	02730577	1,51 *0.059*	3,02 *0.119*	38,0 *1.496*	5,1 *0.201*	3,0 *0.118*	130°	Uncoated
SD22-1.52-3.04-3R1	02730578	1,52 *0.060*	3,04 *0.120*	38,0 *1.496*	5,1 *0.201*	3,0 *0.118*	130°	Uncoated
SD22-1.53-3.06-3R1	02730579	1,53 *0.060*	3,06 *0.120*	38,0 *1.496*	5,1 *0.201*	3,0 *0.118*	130°	Uncoated
SD22-1.54-3.08-3R1	02730580	1,54 *0.061*	3,08 *0.121*	38,0 *1.496*	5,1 *0.201*	3,0 *0.118*	130°	Uncoated
SD22-1.55-3.10-3R1	02730581	1,55 *0.061*	3,1 *0.122*	38,0 *1.496*	5,1 *0.201*	3,0 *0.118*	130°	Uncoated
SD22-1.56-3.12-3R1	02730582	1,56 *0.061*	3,12 *0.123*	38,0 *1.496*	5,2 *0.205*	3,0 *0.118*	130°	Uncoated
SD22-1.57-3.14-3R1	02730583	1,57 *0.062*	3,14 *0.124*	38,0 *1.496*	5,2 *0.205*	3,0 *0.118*	130°	Uncoated
SD22-1.58-3.16-3R1	02730584	1,58 *0.062*	3,16 *0.124*	38,0 *1.496*	5,2 *0.205*	3,0 *0.118*	130°	Uncoated
SD22-1.59-3.18-3R1	02730585	1,59 *0.063*	3,18 *0.125*	38,0 *1.496*	5,2 *0.205*	3,0 *0.118*	130°	Uncoated
SD22-1.60-3.20-3R1	02731605	1,6 *0.063*	3,2 *0.126*	38,0 *1.496*	5,2 *0.205*	3,0 *0.118*	130°	Uncoated
SD22-1.61-3.22-3R1	02730586	1,61 *0.063*	3,22 *0.127*	38,0 *1.496*	5,3 *0.209*	3,0 *0.118*	130°	Uncoated
SD22-1.62-3.24-3R1	02730587	1,62 *0.064*	3,24 *0.128*	38,0 *1.496*	5,3 *0.209*	3,0 *0.118*	130°	Uncoated
SD22-1.63-3.26-3R1	02730588	1,63 *0.064*	3,26 *0.128*	38,0 *1.496*	5,3 *0.209*	3,0 *0.118*	130°	Uncoated
SD22-1.64-3.28-3R1	02730589	1,64 *0.065*	3,28 *0.129*	38,0 *1.496*	5,3 *0.209*	3,0 *0.118*	130°	Uncoated
SD22-1.65-3.30-3R1	02730590	1,65 *0.065*	3,3 *0.130*	38,0 *1.496*	5,3 *0.209*	3,0 *0.118*	130°	Uncoated
SD22-1.66-3.32-3R1	02730592	1,66 *0.065*	3,32 *0.131*	38,0 *1.496*	5,4 *0.213*	3,0 *0.118*	130°	Uncoated
SD22-1.67-3.34-3R1	02730593	1,67 *0.066*	3,34 *0.131*	38,0 *1.496*	5,4 *0.213*	3,0 *0.118*	130°	Uncoated
SD22-1.68-3.36-3R1	02730594	1,68 *0.066*	3,36 *0.132*	38,0 *1.496*	5,4 *0.213*	3,0 *0.118*	130°	Uncoated
SD22-1.69-3.38-3R1	02730595	1,69 *0.067*	3,38 *0.133*	38,0 *1.496*	5,4 *0.213*	3,0 *0.118*	130°	Uncoated
SD22-1.70-3.40-3R1	02731606	1,7 *0.067*	3,4 *0.134*	38,0 *1.496*	5,4 *0.213*	3,0 *0.118*	130°	Uncoated
SD22-1.71-3.42-3R1	02730596	1,71 *0.067*	3,42 *0.135*	38,0 *1.496*	5,5 *0.217*	3,0 *0.118*	130°	Uncoated
SD22-1.72-3.44-3R1	02730597	1,72 *0.068*	3,44 *0.135*	38,0 *1.496*	5,5 *0.217*	3,0 *0.118*	130°	Uncoated
SD22-1.73-3.46-3R1	02730598	1,73 *0.068*	3,46 *0.136*	38,0 *1.496*	5,5 *0.217*	3,0 *0.118*	130°	Uncoated
SD22-1.74-3.48-3R1	02730599	1,74 *0.069*	3,48 *0.137*	38,0 *1.496*	5,5 *0.217*	3,0 *0.118*	130°	Uncoated
SD22-1.75-3.50-3R1	02730601	1,75 *0.069*	3,5 *0.138*	38,0 *1.496*	5,5 *0.217*	3,0 *0.118*	130°	Uncoated

Designation	Item number	DC	LU	OAL	LUX	DMM	Point angle	Coating
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
SD22-1.76-3.52-3R1	02730602	1,76 *0.069*	3,52 *0.139*	38,0 *1.496*	5,6 *0.220*	3,0 *0.118*	130°	Uncoated
SD22-1.77-3.54-3R1	02730603	1,77 *0.070*	3,54 *0.139*	38,0 *1.496*	5,6 *0.220*	3,0 *0.118*	130°	Uncoated
SD22-1.78-3.56-3R1	02730604	1,78 *0.070*	3,56 *0.140*	38,0 *1.496*	5,6 *0.220*	3,0 *0.118*	130°	Uncoated
SD22-1.79-3.58-3R1	02730605	1,79 *0.070*	3,58 *0.141*	38,0 *1.496*	5,6 *0.220*	3,0 *0.118*	130°	Uncoated
SD22-1.80-3.60-3R1	02731607	1,8 *0.071*	3,6 *0.142*	38,0 *1.496*	5,6 *0.220*	3,0 *0.118*	130°	Uncoated
SD22-1.81-3.62-3R1	02730606	1,81 *0.071*	3,62 *0.143*	38,0 *1.496*	5,7 *0.224*	3,0 *0.118*	130°	Uncoated
SD22-1.82-3.64-3R1	02730607	1,82 *0.072*	3,64 *0.143*	38,0 *1.496*	5,7 *0.224*	3,0 *0.118*	130°	Uncoated
SD22-1.83-3.66-3R1	02730608	1,83 *0.072*	3,66 *0.144*	38,0 *1.496*	5,7 *0.224*	3,0 *0.118*	130°	Uncoated
SD22-1.84-3.68-3R1	02730609	1,84 *0.072*	3,68 *0.145*	38,0 *1.496*	5,7 *0.224*	3,0 *0.118*	130°	Uncoated
SD22-1.85-3.70-3R1	02730610	1,85 *0.073*	3,7 *0.146*	38,0 *1.496*	5,7 *0.224*	3,0 *0.118*	130°	Uncoated
SD22-1.86-3.72-3R1	02730611	1,86 *0.073*	3,72 *0.146*	38,0 *1.496*	5,8 *0.228*	3,0 *0.118*	130°	Uncoated
SD22-1.87-3.74-3R1	02730612	1,87 *0.074*	3,74 *0.147*	38,0 *1.496*	5,8 *0.228*	3,0 *0.118*	130°	Uncoated
SD22-1.88-3.76-3R1	02730613	1,88 *0.074*	3,76 *0.148*	38,0 *1.496*	5,8 *0.228*	3,0 *0.118*	130°	Uncoated
SD22-1.89-3.78-3R1	02730614	1,89 *0.074*	3,78 *0.149*	38,0 *1.496*	5,8 *0.228*	3,0 *0.118*	130°	Uncoated
SD22-1.90-3.80-3R1	02731609	1,9 *0.075*	3,8 *0.150*	38,0 *1.496*	5,8 *0.228*	3,0 *0.118*	130°	Uncoated
SD22-1.91-3.82-3R1	02730615	1,91 *0.075*	3,82 *0.150*	38,0 *1.496*	5,9 *0.232*	3,0 *0.118*	130°	Uncoated
SD22-1.92-3.84-3R1	02730616	1,92 *0.076*	3,84 *0.151*	38,0 *1.496*	5,9 *0.232*	3,0 *0.118*	130°	Uncoated
SD22-1.93-3.86-3R1	02730617	1,93 *0.076*	3,86 *0.152*	38,0 *1.496*	5,9 *0.232*	3,0 *0.118*	130°	Uncoated
SD22-1.94-3.88-3R1	02730618	1,94 *0.076*	3,88 *0.153*	38,0 *1.496*	5,9 *0.232*	3,0 *0.118*	130°	Uncoated
SD22-1.95-3.90-3R1	02730619	1,95 *0.077*	3,9 *0.154*	38,0 *1.496*	5,9 *0.232*	3,0 *0.118*	130°	Uncoated
SD22-1.96-3.92-3R1	02730620	1,96 *0.077*	3,92 *0.154*	38,0 *1.496*	6,0 *0.236*	3,0 *0.118*	130°	Uncoated
SD22-1.97-3.94-3R1	02730621	1,97 *0.078*	3,94 *0.155*	38,0 *1.496*	6,0 *0.236*	3,0 *0.118*	130°	Uncoated
SD22-1.98-3.96-3R1	02730622	1,98 *0.078*	3,96 *0.156*	38,0 *1.496*	6,0 *0.236*	3,0 *0.118*	130°	Uncoated
SD22-1.99-3.98-3R1	02730623	1,99 *0.078*	3,98 *0.157*	38,0 *1.496*	6,0 *0.236*	3,0 *0.118*	130°	Uncoated
SD22-2.00-4.00-3R1	02731610	2,0 *0.079*	4,0 *0.157*	38,0 *1.496*	6,0 *0.236*	3,0 *0.118*	130°	Uncoated

SD26

Drilling depth ~ 6 x D – Metric/Inch



–Cylindrical shank
–External coolant
–For cutting data see page(s) 156-160

Designation	Item number	DC	LU	OAL	LUX	DMM	Point angle	Coating
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
SD26-0.10-0.40-3R1	02731612	0,1 *0.004*	0,4 *0.016*	38,0 *1.496*	0,7 *0.028*	3,0 *0.118*	130°	Uncoated
SD26-0.11-0.40-3R1	02730624	0,11 *0.004*	0,4 *0.016*	38,0 *1.496*	0,7 *0.028*	3,0 *0.118*	130°	Uncoated
SD26-0.12-0.40-3R1	02730625	0,12 *0.005*	0,4 *0.016*	38,0 *1.496*	0,7 *0.028*	3,0 *0.118*	130°	Uncoated
SD26-0.13-0.65-3R1	02730626	0,13 *0.005*	0,65 *0.026*	38,0 *1.496*	1,0 *0.039*	3,0 *0.118*	130°	Uncoated
SD26-0.14-0.65-3R1	02730627	0,14 *0.006*	0,65 *0.026*	38,0 *1.496*	1,0 *0.039*	3,0 *0.118*	130°	Uncoated
SD26-0.15-0.65-3R1	02731613	0,15 *0.006*	0,9 *0.035*	38,0 *1.496*	1,4 *0.055*	3,0 *0.118*	130°	Uncoated
SD26-0.16-0.90-3R1	02730628	0,16 *0.006*	0,9 *0.035*	38,0 *1.496*	1,4 *0.055*	3,0 *0.118*	130°	Uncoated
SD26-0.17-0.90-3R1	02730629	0,17 *0.007*	0,9 *0.035*	38,0 *1.496*	1,4 *0.055*	3,0 *0.118*	130°	Uncoated
SD26-0.18-0.90-3R1	02730630	0,18 *0.007*	0,9 *0.035*	38,0 *1.496*	1,4 *0.055*	3,0 *0.118*	130°	Uncoated
SD26-0.19-0.90-3R1	02730631	0,19 *0.007*	0,9 *0.035*	38,0 *1.496*	1,4 *0.055*	3,0 *0.118*	130°	Uncoated
SD26-0.20-1.25-3R1	02731615	0,2 *0.008*	1,25 *0.049*	38,0 *1.496*	1,8 *0.071*	3,0 *0.118*	130°	Uncoated
SD26-0.21-1.25-3R1	02730632	0,21 *0.008*	1,25 *0.049*	38,0 *1.496*	1,8 *0.071*	3,0 *0.118*	130°	Uncoated
SD26-0.22-1.25-3R1	02730633	0,22 *0.009*	1,25 *0.049*	38,0 *1.496*	1,8 *0.071*	3,0 *0.118*	130°	Uncoated
SD26-0.23-1.25-3R1	02730634	0,23 *0.009*	1,25 *0.049*	38,0 *1.496*	1,8 *0.071*	3,0 *0.118*	130°	Uncoated
SD26-0.24-1.25-3R1	02730635	0,24 *0.009*	1,25 *0.049*	38,0 *1.496*	1,8 *0.071*	3,0 *0.118*	130°	Uncoated
SD26-0.25-1.55-3R1	02731617	0,25 *0.010*	1,55 *0.061*	38,0 *1.496*	2,2 *0.087*	3,0 *0.118*	130°	Uncoated
SD26-0.26-1.55-3R1	02730636	0,26 *0.010*	1,55 *0.061*	38,0 *1.496*	2,2 *0.087*	3,0 *0.118*	130°	Uncoated
SD26-0.27-1.55-3R1	02730637	0,27 *0.011*	1,55 *0.061*	38,0 *1.496*	2,2 *0.087*	3,0 *0.118*	130°	Uncoated
SD26-0.28-1.55-3R1	02730638	0,28 *0.011*	1,55 *0.061*	38,0 *1.496*	2,2 *0.087*	3,0 *0.118*	130°	Uncoated
SD26-0.29-1.55-3R1	02730639	0,29 *0.011*	1,55 *0.061*	38,0 *1.496*	2,2 *0.087*	3,0 *0.118*	130°	Uncoated
SD26-0.30-1.80-3R1	02731618	0,3 *0.012*	1,8 *0.071*	38,0 *1.496*	2,4 *0.094*	3,0 *0.118*	130°	Uncoated
SD26-0.31-1.80-3R1	02730640	0,31 *0.012*	1,8 *0.071*	38,0 *1.496*	2,4 *0.094*	3,0 *0.118*	130°	Uncoated
SD26-0.32-1.80-3R1	02730641	0,32 *0.013*	1,8 *0.071*	38,0 *1.496*	2,4 *0.094*	3,0 *0.118*	130°	Uncoated
SD26-0.33-1.80-3R1	02730642	0,33 *0.013*	1,8 *0.071*	38,0 *1.496*	2,4 *0.094*	3,0 *0.118*	130°	Uncoated
SD26-0.34-1.80-3R1	02730643	0,34 *0.013*	1,8 *0.071*	38,0 *1.496*	2,4 *0.094*	3,0 *0.118*	130°	Uncoated
SD26-0.35-2.20-3R1	02731619	0,35 *0.014*	2,2 *0.087*	38,0 *1.496*	2,8 *0.110*	3,0 *0.118*	130°	Uncoated

Designation	Item number	DC	LU	OAL	LUX	DMM	Point angle	Coating
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
SD26-0.36-2.20-3R1	02730644	0,36 *0.014*	2,2 *0.087*	38,0 *1.496*	2,8 *0.110*	3,0 *0.118*	130°	Uncoated
SD26-0.37-2.20-3R1	02730645	0,37 *0.015*	2,2 *0.087*	38,0 *1.496*	2,8 *0.110*	3,0 *0.118*	130°	Uncoated
SD26-0.38-2.20-3R1	02730646	0,38 *0.015*	2,2 *0.087*	38,0 *1.496*	2,8 *0.110*	3,0 *0.118*	130°	Uncoated
SD26-0.39-2.70-3R1	02730647	0,39 *0.015*	2,7 *0.106*	38,0 *1.496*	3,6 *0.142*	3,0 *0.118*	130°	Uncoated
SD26-0.40-2.70-3R1	02731620	0,4 *0.016*	2,7 *0.106*	38,0 *1.496*	3,6 *0.142*	3,0 *0.118*	130°	Uncoated
SD26-0.41-2.70-3R1	02730648	0,41 *0.016*	2,7 *0.106*	38,0 *1.496*	3,6 *0.142*	3,0 *0.118*	130°	Uncoated
SD26-0.42-2.70-3R1	02730649	0,42 *0.017*	2,7 *0.106*	38,0 *1.496*	3,6 *0.142*	3,0 *0.118*	130°	Uncoated
SD26-0.43-2.70-3R1	02730650	0,43 *0.017*	2,7 *0.106*	38,0 *1.496*	3,6 *0.142*	3,0 *0.118*	130°	Uncoated
SD26-0.44-2.70-3R1	02730651	0,44 *0.017*	2,7 *0.106*	38,0 *1.496*	3,6 *0.142*	3,0 *0.118*	130°	Uncoated
SD26-0.45-2.70-3R1	02731621	0,45 *0.018*	2,7 *0.106*	38,0 *1.496*	3,6 *0.142*	3,0 *0.118*	130°	Uncoated
SD26-0.46-2.70-3R1	02730652	0,46 *0.018*	2,7 *0.106*	38,0 *1.496*	3,6 *0.142*	3,0 *0.118*	130°	Uncoated
SD26-0.47-2.70-3R1	02730653	0,47 *0.019*	2,7 *0.106*	38,0 *1.496*	3,6 *0.142*	3,0 *0.118*	130°	Uncoated
SD26-0.48-2.70-3R1	02730654	0,48 *0.019*	2,7 *0.106*	38,0 *1.496*	3,6 *0.142*	3,0 *0.118*	130°	Uncoated
SD26-0.49-3.20-3R1	02730655	0,49 *0.019*	3,2 *0.126*	38,0 *1.496*	4,0 *0.157*	3,0 *0.118*	130°	Uncoated
SD26-0.50-3.20-3R1	02731622	0,5 *0.020*	3,2 *0.126*	38,0 *1.496*	4,0 *0.157*	3,0 *0.118*	130°	Uncoated
SD26-0.51-3.20-3R1	02730656	0,51 *0.020*	3,2 *0.126*	38,0 *1.496*	4,0 *0.157*	3,0 *0.118*	130°	Uncoated
SD26-0.52-3.20-3R1	02730657	0,52 *0.020*	3,2 *0.126*	38,0 *1.496*	4,0 *0.157*	3,0 *0.118*	130°	Uncoated
SD26-0.53-3.20-3R1	02730658	0,53 *0.021*	3,2 *0.126*	38,0 *1.496*	4,0 *0.157*	3,0 *0.118*	130°	Uncoated
SD26-0.54-3.60-3R1	02730659	0,54 *0.021*	3,6 *0.142*	38,0 *1.496*	4,5 *0.177*	3,0 *0.118*	130°	Uncoated
SD26-0.55-3.60-3R1	02731623	0,55 *0.022*	3,6 *0.142*	38,0 *1.496*	4,5 *0.177*	3,0 *0.118*	130°	Uncoated
SD26-0.56-3.60-3R1	02730660	0,56 *0.022*	3,6 *0.142*	38,0 *1.496*	4,5 *0.177*	3,0 *0.118*	130°	Uncoated
SD26-0.57-3.60-3R1	02730661	0,57 *0.022*	3,6 *0.142*	38,0 *1.496*	4,5 *0.177*	3,0 *0.118*	130°	Uncoated
SD26-0.58-3.60-3R1	02730662	0,58 *0.023*	3,6 *0.142*	38,0 *1.496*	4,5 *0.177*	3,0 *0.118*	130°	Uncoated
SD26-0.59-3.60-3R1	02730663	0,59 *0.023*	3,6 *0.142*	38,0 *1.496*	4,5 *0.177*	3,0 *0.118*	130°	Uncoated
SD26-0.60-3.60-3R1	02731624	0,6 *0.024*	3,6 *0.142*	38,0 *1.496*	4,5 *0.177*	3,0 *0.118*	130°	Uncoated
SD26-0.61-3.90-3R1	02730664	0,61 *0.024*	3,6 *0.142*	38,0 *1.496*	4,5 *0.177*	3,0 *0.118*	130°	Uncoated
SD26-0.62-3.90-3R1	02730665	0,62 *0.024*	3,9 *0.154*	38,0 *1.496*	5,0 *0.197*	3,0 *0.118*	130°	Uncoated
SD26-0.63-3.90-3R1	02730666	0,63 *0.025*	3,9 *0.154*	38,0 *1.496*	5,0 *0.197*	3,0 *0.118*	130°	Uncoated
SD26-0.64-3.90-3R1	02730667	0,64 *0.025*	3,9 *0.154*	38,0 *1.496*	5,0 *0.197*	3,0 *0.118*	130°	Uncoated
SD26-0.65-3.90-3R1	02731625	0,65 *0.026*	3,9 *0.154*	38,0 *1.496*	5,0 *0.197*	3,0 *0.118*	130°	Uncoated
SD26-0.66-3.90-3R1	02730668	0,66 *0.026*	3,9 *0.154*	38,0 *1.496*	5,0 *0.197*	3,0 *0.118*	130°	Uncoated
SD26-0.67-3.90-3R1	02730669	0,67 *0.026*	3,9 *0.154*	38,0 *1.496*	5,0 *0.197*	3,0 *0.118*	130°	Uncoated
SD26-0.68-4.50-3R1	02730670	0,68 *0.027*	4,5 *0.177*	38,0 *1.496*	5,6 *0.220*	3,0 *0.118*	130°	Uncoated
SD26-0.69-4.50-3R1	02730671	0,69 *0.027*	4,5 *0.177*	38,0 *1.496*	5,6 *0.220*	3,0 *0.118*	130°	Uncoated
SD26-0.70-4.50-3R1	02731626	0,7 *0.028*	4,5 *0.177*	38,0 *1.496*	5,6 *0.220*	3,0 *0.118*	130°	Uncoated

Designation	Item number	DC	LU	OAL	LUX	DMM	Point angle	Coating
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
SD26-0.71-4.50-3R1	02730672	0,71 *0.028*	4,5 *0.177*	38,0 *1.496*	5,6 *0.220*	3,0 *0.118*	130°	Uncoated
SD26-0.72-4.50-3R1	02730673	0,72 *0.028*	4,5 *0.177*	38,0 *1.496*	5,6 *0.220*	3,0 *0.118*	130°	Uncoated
SD26-0.73-4.50-3R1	02730674	0,73 *0.029*	4,5 *0.177*	38,0 *1.496*	5,6 *0.220*	3,0 *0.118*	130°	Uncoated
SD26-0.74-4.50-3R1	02730675	0,74 *0.029*	4,5 *0.177*	38,0 *1.496*	5,6 *0.220*	3,0 *0.118*	130°	Uncoated
SD26-0.75-4.50-3R1	02731627	0,75 *0.030*	4,5 *0.177*	38,0 *1.496*	5,6 *0.220*	3,0 *0.118*	130°	Uncoated
SD26-0.76-5.00-3R1	02730676	0,76 *0.030*	5,0 *0.197*	38,0 *1.496*	6,3 *0.248*	3,0 *0.118*	130°	Uncoated
SD26-0.77-5.00-3R1	02730677	0,77 *0.030*	5,0 *0.197*	38,0 *1.496*	6,3 *0.248*	3,0 *0.118*	130°	Uncoated
SD26-0.78-5.00-3R1	02730678	0,78 *0.031*	5,0 *0.197*	38,0 *1.496*	6,3 *0.248*	3,0 *0.118*	130°	Uncoated
SD26-0.79-5.00-3R1	02730679	0,79 *0.031*	5,0 *0.197*	38,0 *1.496*	6,3 *0.248*	3,0 *0.118*	130°	Uncoated
SD26-0.80-5.00-3R1	02731628	0,8 *0.031*	5,0 *0.197*	38,0 *1.496*	6,3 *0.248*	3,0 *0.118*	130°	Uncoated
SD26-0.81-5.00-3R1	02730680	0,81 *0.032*	5,0 *0.197*	38,0 *1.496*	6,3 *0.248*	3,0 *0.118*	130°	Uncoated
SD26-0.82-5.00-3R1	02730681	0,82 *0.032*	5,0 *0.197*	38,0 *1.496*	6,3 *0.248*	3,0 *0.118*	130°	Uncoated
SD26-0.83-5.00-3R1	02730682	0,83 *0.033*	5,0 *0.197*	38,0 *1.496*	6,3 *0.248*	3,0 *0.118*	130°	Uncoated
SD26-0.84-5.00-3R1	02730683	0,84 *0.033*	5,0 *0.197*	38,0 *1.496*	6,3 *0.248*	3,0 *0.118*	130°	Uncoated
SD26-0.85-5.00-3R1	02731629	0,85 *0.033*	5,0 *0.197*	38,0 *1.496*	6,3 *0.248*	3,0 *0.118*	130°	Uncoated
SD26-0.86-5.70-3R1	02730684	0,86 *0.034*	5,7 *0.224*	38,0 *1.496*	7,1 *0.280*	3,0 *0.118*	130°	Uncoated
SD26-0.87-5.70-3R1	02730685	0,87 *0.034*	5,7 *0.224*	38,0 *1.496*	7,1 *0.280*	3,0 *0.118*	130°	Uncoated
SD26-0.88-5.70-3R1	02730686	0,88 *0.035*	5,7 *0.224*	38,0 *1.496*	7,1 *0.280*	3,0 *0.118*	130°	Uncoated
SD26-0.89-5.70-3R1	02730687	0,89 *0.035*	5,7 *0.224*	38,0 *1.496*	7,1 *0.280*	3,0 *0.118*	130°	Uncoated
SD26-0.90-5.70-3R1	02731630	0,9 *0.035*	5,7 *0.224*	38,0 *1.496*	7,1 *0.280*	3,0 *0.118*	130°	Uncoated
SD26-0.91-5.70-3R1	02730688	0,91 *0.036*	5,7 *0.224*	38,0 *1.496*	7,1 *0.280*	3,0 *0.118*	130°	Uncoated
SD26-0.92-5.70-3R1	02730689	0,92 *0.036*	5,7 *0.224*	38,0 *1.496*	7,1 *0.280*	3,0 *0.118*	130°	Uncoated
SD26-0.93-5.70-3R1	02730690	0,93 *0.037*	5,7 *0.224*	38,0 *1.496*	7,1 *0.280*	3,0 *0.118*	130°	Uncoated
SD26-0.94-5.70-3R1	02730691	0,94 *0.037*	5,7 *0.224*	38,0 *1.496*	7,1 *0.280*	3,0 *0.118*	130°	Uncoated
SD26-0.95-5.70-3R1	02731631	0,95 *0.037*	5,7 *0.224*	38,0 *1.496*	7,1 *0.280*	3,0 *0.118*	130°	Uncoated
SD26-0.96-6.50-3R1	02730692	0,96 *0.038*	6,5 *0.256*	38,0 *1.496*	8,0 *0.315*	3,0 *0.118*	130°	Uncoated
SD26-0.97-6.50-3R1	02730693	0,97 *0.038*	6,5 *0.256*	38,0 *1.496*	8,0 *0.315*	3,0 *0.118*	130°	Uncoated
SD26-0.98-6.50-3R1	02730694	0,98 *0.039*	6,5 *0.256*	38,0 *1.496*	8,0 *0.315*	3,0 *0.118*	130°	Uncoated
SD26-0.99-6.50-3R1	02730695	0,99 *0.039*	6,5 *0.256*	38,0 *1.496*	8,0 *0.315*	3,0 *0.118*	130°	Uncoated
SD26-1.00-6.50-3R1	02731632	1,0 *0.039*	6,5 *0.256*	38,0 *1.496*	8,0 *0.315*	3,0 *0.118*	130°	Uncoated
SD26-1.01-6.50-3R1	02730696	1,01 *0.040*	6,5 *0.256*	38,0 *1.496*	8,0 *0.315*	3,0 *0.118*	130°	Uncoated
SD26-1.02-6.50-3R1	02730697	1,02 *0.040*	6,5 *0.256*	38,0 *1.496*	8,0 *0.315*	3,0 *0.118*	130°	Uncoated
SD26-1.03-6.50-3R1	02730698	1,03 *0.041*	6,5 *0.256*	38,0 *1.496*	8,0 *0.315*	3,0 *0.118*	130°	Uncoated
SD26-1.04-6.50-3R1	02730699	1,04 *0.041*	6,5 *0.256*	38,0 *1.496*	8,0 *0.315*	3,0 *0.118*	130°	Uncoated
SD26-1.05-6.50-3R1	02730700	1,05 *0.041*	6,5 *0.256*	38,0 *1.496*	8,0 *0.315*	3,0 *0.118*	130°	Uncoated

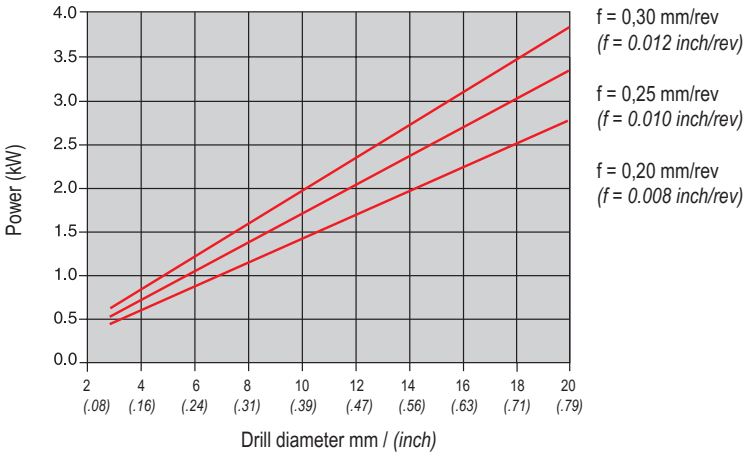
Designation	Item number	DC	LU	OAL	LUX	DMM	Point angle	Coating
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
SD26-1.06-7.30-3R1	02730701	1,06 *0.042*	7,3 *0.287*	38,0 *1.496*	9,0 *0.354*	3,0 *0.118*	130°	Uncoated
SD26-1.07-7.30-3R1	02730702	1,07 *0.042*	7,3 *0.287*	38,0 *1.496*	9,0 *0.354*	3,0 *0.118*	130°	Uncoated
SD26-1.08-7.30-3R1	02730703	1,08 *0.043*	7,3 *0.287*	38,0 *1.496*	9,0 *0.354*	3,0 *0.118*	130°	Uncoated
SD26-1.09-7.30-3R1	02730704	1,09 *0.043*	7,3 *0.287*	38,0 *1.496*	9,0 *0.354*	3,0 *0.118*	130°	Uncoated
SD26-1.10-7.30-3R1	02731633	1,1 *0.043*	7,3 *0.287*	38,0 *1.496*	9,0 *0.354*	3,0 *0.118*	130°	Uncoated
SD26-1.11-7.30-3R1	02730705	1,11 *0.044*	7,3 *0.287*	38,0 *1.496*	9,0 *0.354*	3,0 *0.118*	130°	Uncoated
SD26-1.12-7.30-3R1	02730706	1,12 *0.044*	7,3 *0.287*	38,0 *1.496*	9,0 *0.354*	3,0 *0.118*	130°	Uncoated
SD26-1.13-7.30-3R1	02730707	1,13 *0.044*	7,3 *0.287*	38,0 *1.496*	9,0 *0.354*	3,0 *0.118*	130°	Uncoated
SD26-1.14-7.30-3R1	02730708	1,14 *0.045*	7,3 *0.287*	38,0 *1.496*	9,0 *0.354*	3,0 *0.118*	130°	Uncoated
SD26-1.15-7.30-3R1	02730709	1,15 *0.045*	7,3 *0.287*	38,0 *1.496*	9,0 *0.354*	3,0 *0.118*	130°	Uncoated
SD26-1.16-8.20-3R1	02730710	1,16 *0.046*	8,2 *0.323*	38,0 *1.496*	10,0 *0.394*	3,0 *0.118*	130°	Uncoated
SD26-1.17-8.20-3R1	02730711	1,17 *0.046*	8,2 *0.323*	38,0 *1.496*	10,0 *0.394*	3,0 *0.118*	130°	Uncoated
SD26-1.18-8.20-3R1	02730712	1,18 *0.046*	8,2 *0.323*	38,0 *1.496*	10,0 *0.394*	3,0 *0.118*	130°	Uncoated
SD26-1.19-8.20-3R1	02730713	1,19 *0.047*	8,2 *0.323*	38,0 *1.496*	10,0 *0.394*	3,0 *0.118*	130°	Uncoated
SD26-1.20-8.20-3R1	02731634	1,2 *0.047*	8,2 *0.323*	38,0 *1.496*	10,0 *0.394*	3,0 *0.118*	130°	Uncoated
SD26-1.21-8.20-3R1	02730714	1,21 *0.048*	8,2 *0.323*	38,0 *1.496*	10,0 *0.394*	3,0 *0.118*	130°	Uncoated
SD26-1.22-8.20-3R1	02730715	1,22 *0.048*	8,2 *0.323*	38,0 *1.496*	10,0 *0.394*	3,0 *0.118*	130°	Uncoated
SD26-1.23-8.20-3R1	02730716	1,23 *0.048*	8,2 *0.323*	38,0 *1.496*	10,0 *0.394*	3,0 *0.118*	130°	Uncoated
SD26-1.24-8.20-3R1	02730717	1,24 *0.049*	8,2 *0.323*	38,0 *1.496*	10,0 *0.394*	3,0 *0.118*	130°	Uncoated
SD26-1.25-8.20-3R1	02730718	1,25 *0.049*	8,2 *0.323*	38,0 *1.496*	10,0 *0.394*	3,0 *0.118*	130°	Uncoated
SD26-1.26-8.20-3R1	02730719	1,26 *0.050*	8,2 *0.323*	38,0 *1.496*	10,0 *0.394*	3,0 *0.118*	130°	Uncoated
SD26-1.27-8.20-3R1	02730720	1,27 *0.050*	8,2 *0.323*	38,0 *1.496*	10,0 *0.394*	3,0 *0.118*	130°	Uncoated
SD26-1.28-8.20-3R1	02730721	1,28 *0.050*	8,2 *0.323*	38,0 *1.496*	10,0 *0.394*	3,0 *0.118*	130°	Uncoated
SD26-1.29-8.20-3R1	02730722	1,29 *0.051*	8,2 *0.323*	38,0 *1.496*	10,0 *0.394*	3,0 *0.118*	130°	Uncoated
SD26-1.30-8.20-3R1	02731635	1,3 *0.051*	8,2 *0.323*	38,0 *1.496*	10,0 *0.394*	3,0 *0.118*	130°	Uncoated
SD26-1.31-9.20-3R1	02730723	1,31 *0.052*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.32-9.20-3R1	02730724	1,32 *0.052*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.33-9.20-3R1	02730725	1,33 *0.052*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.34-9.20-3R1	02730726	1,34 *0.053*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.35-9.20-3R1	02730727	1,35 *0.053*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.36-9.20-3R1	02730728	1,36 *0.054*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.37-9.20-3R1	02730729	1,37 *0.054*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.38-9.20-3R1	02730730	1,38 *0.054*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.39-9.20-3R1	02730731	1,39 *0.055*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.40-9.20-3R1	02731637	1,4 *0.055*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated

Designation	Item number	DC	LU	OAL	LUX	DMM	Point angle	Coating
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
SD26-1.41-9.20-3R1	02730732	1,41 *0.056*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.42-9.20-3R1	02730733	1,42 *0.056*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.43-9.20-3R1	02730734	1,43 *0.056*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.44-9.20-3R1	02730735	1,44 *0.057*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.45-9.20-3R1	02730736	1,45 *0.057*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.46-9.20-3R1	02730737	1,46 *0.057*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.47-9.20-3R1	02730738	1,47 *0.058*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.48-9.20-3R1	02730739	1,48 *0.058*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.49-9.20-3R1	02730740	1,49 *0.059*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.50-9.20-3R1	02731638	1,5 *0.059*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.51-11.20-3R1	02730741	1,51 *0.059*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.52-11.20-3R1	02730742	1,52 *0.060*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.53-11.20-3R1	02730743	1,53 *0.060*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.54-11.20-3R1	02730744	1,54 *0.061*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.55-11.20-3R1	02730745	1,55 *0.061*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.56-11.20-3R1	02730746	1,56 *0.061*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.57-11.20-3R1	02730747	1,57 *0.062*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.58-11.20-3R1	02730748	1,58 *0.062*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.59-11.20-3R1	02730749	1,59 *0.063*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.60-11.20-3R1	02731639	1,6 *0.063*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.61-11.20-3R1	02730750	1,61 *0.063*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.62-11.20-3R1	02730751	1,62 *0.064*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.63-11.20-3R1	02730752	1,63 *0.064*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.64-11.20-3R1	02730753	1,64 *0.065*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.65-11.20-3R1	02730754	1,65 *0.065*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.66-11.20-3R1	02730755	1,66 *0.065*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.67-11.20-3R1	02730756	1,67 *0.066*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.68-11.20-3R1	02730757	1,68 *0.066*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.69-11.20-3R1	02730758	1,69 *0.067*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.70-11.20-3R1	02731640	1,7 *0.067*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.71-11.20-3R1	02730759	1,71 *0.067*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.72-11.20-3R1	02730760	1,72 *0.068*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.73-11.20-3R1	02730761	1,73 *0.068*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.74-11.20-3R1	02730762	1,74 *0.069*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.75-11.20-3R1	02730763	1,75 *0.069*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated

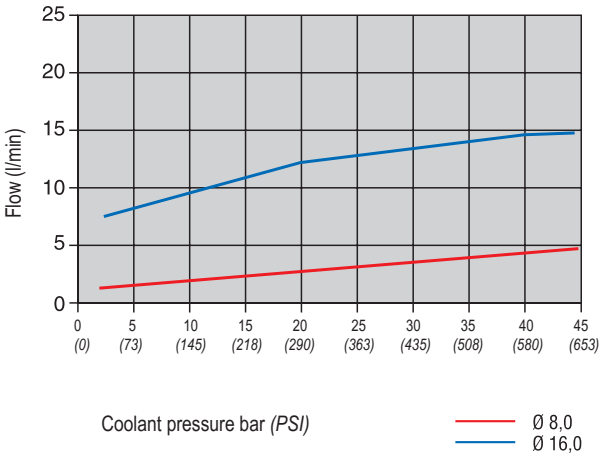
Designation	Item number	DC	LU	OAL	LUX	DMM	Point angle	Coating
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
SD26-1.76-11.20-3R1	02730764	1,76 *0.069*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.77-11.20-3R1	02730765	1,77 *0.070*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.78-11.20-3R1	02730766	1,78 *0.070*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.79-11.20-3R1	02730767	1,79 *0.070*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.80-11.20-3R1	02731641	1,8 *0.071*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.81-11.20-3R1	02730768	1,81 *0.071*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.82-11.20-3R1	02730769	1,82 *0.072*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.83-11.20-3R1	02730770	1,83 *0.072*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.84-11.20-3R1	02730771	1,84 *0.072*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.85-11.20-3R1	02730772	1,85 *0.073*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.86-11.20-3R1	02730773	1,86 *0.073*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.87-11.20-3R1	02730774	1,87 *0.074*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.88-11.20-3R1	02730775	1,88 *0.074*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.89-11.20-3R1	02730776	1,89 *0.074*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.90-11.20-3R1	02731642	1,9 *0.075*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.91-11.20-3R1	02730777	1,91 *0.075*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.92-11.20-3R1	02730778	1,92 *0.076*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.93-11.20-3R1	02730779	1,93 *0.076*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.94-11.20-3R1	02730780	1,94 *0.076*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.95-11.20-3R1	02730781	1,95 *0.077*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.96-11.20-3R1	02730782	1,96 *0.077*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.97-11.20-3R1	02730783	1,97 *0.078*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.98-11.20-3R1	02730784	1,98 *0.078*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.99-11.20-3R1	02730785	1,99 *0.078*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-2.00-11.20-3R1	02731643	2,0 *0.079*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated

Machining data

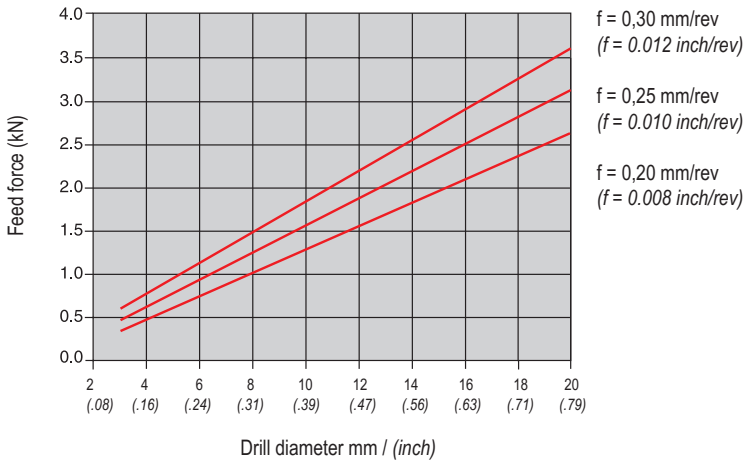
Net power consumption



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

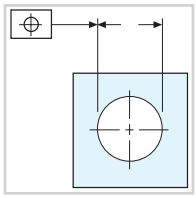
- Coolant:
  - Pressure
  - Flow
  - Concentration

Rapid flank wear

- Reduce the cutting speed
- Increase coolant concentration

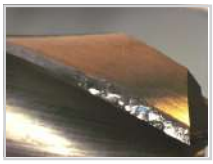
Unsatisfactory diameter tolerance

- Increase the feed/rev
- Use a reaming operation, see page(s) 302
- Use a boring operation, see page(s) 478-479



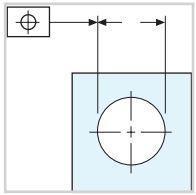
Wear/Periphery land

- 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) 478-479
- 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

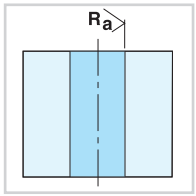


Chipping/Centre

- Reduce feed/rev on entrance
- Reduce feed/rev
- Use a boring operation, see page(s) 478-479

Unsatisfactory surface finish

- Reduce the feed/rev
- Increase the cutting speed
- Use a reaming operation, see page(s) 302

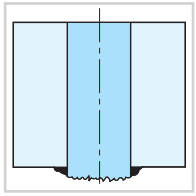


Chipping/Outer corner, cutting edge

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

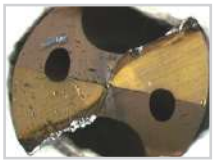
Burrs on exit

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



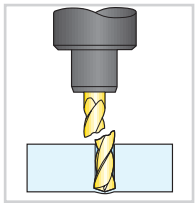
Built-up edge

- 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

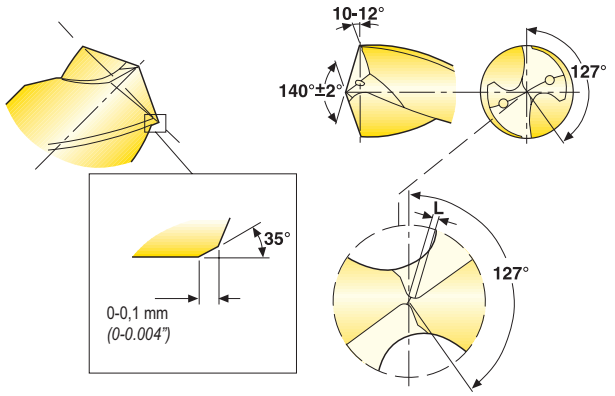


Regrinding instructions for SD1103, SD1103A, SD1105A, SD1108A and SD1112A

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).

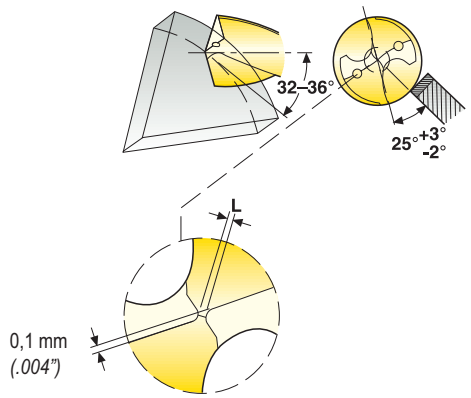
Important:
- The cutting edges must be uniform and have the same size of edge preparation.
- The edge preparation must be applied on the whole length of the cutting edges.

1. Four facet point



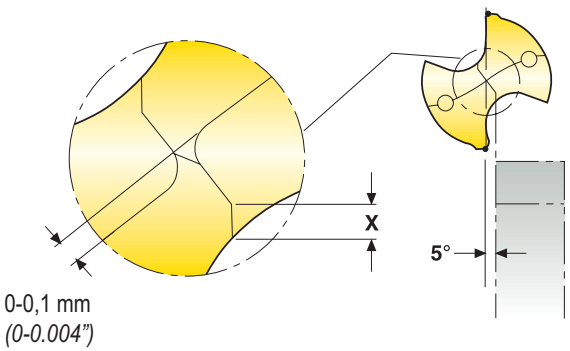
Lip height distance (axial run-out) to be within 0,02 mm *(0.008")*

2. Web thinning



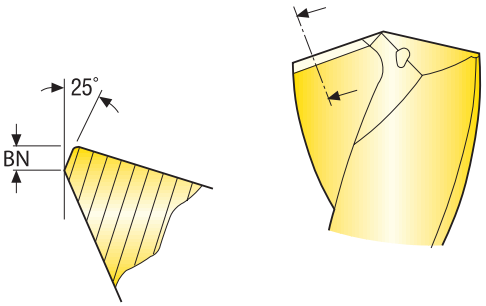
Drill ∅ DC mm	L mm	Drill ∅ DC *inch*	L *inch*
2-10	0,1-0,3	*0.079-0.394*	*0.004-0.012*
10-20	0,2-0,4	*0.394-0.787*	*0.008-0.016*

3. Grinding of flat X



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

4. Edge preparation



Workpiece material	BN Drill ∅ ≤ 10 mm	> 10 mm	≤ 0.394 *inch*	> 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*

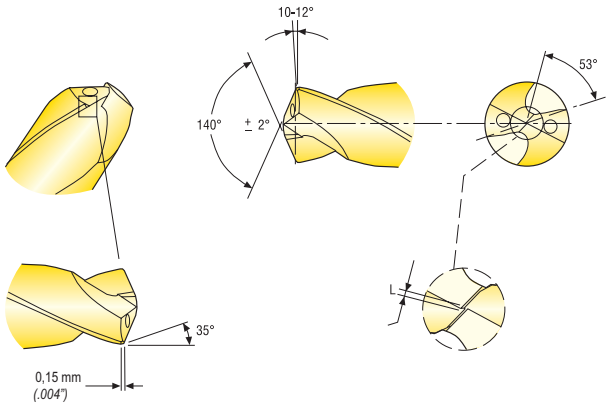
Max. allowed flank wear before regrinding is 0,1-0,3 mm *(0.004-0.012")* measured at the largest point.

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).

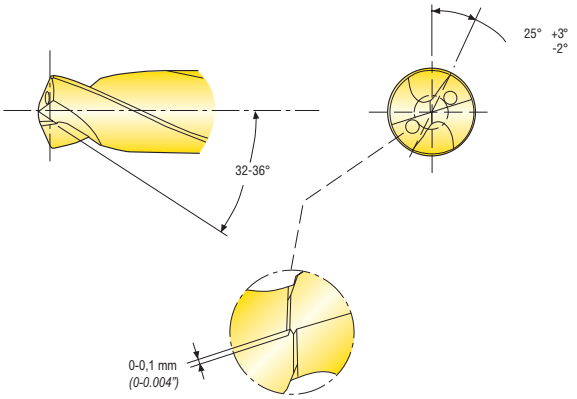
Important:
- The cutting edges must be uniform and have the same size of edge preparation.
- The edge preparation must be applied on the whole length of the cutting edges.

1. Conical flank



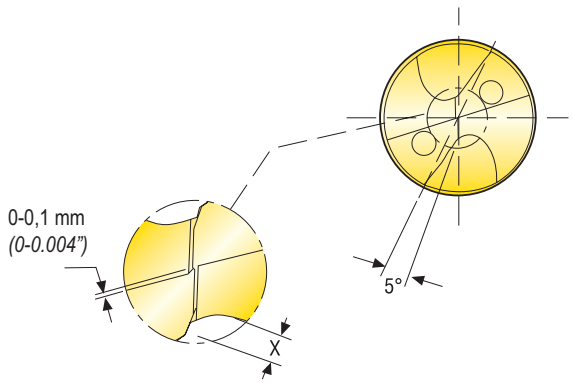
Lip height distance (axial run-out) to be within 0,02 mm *(0.008")*

2. Web thinning



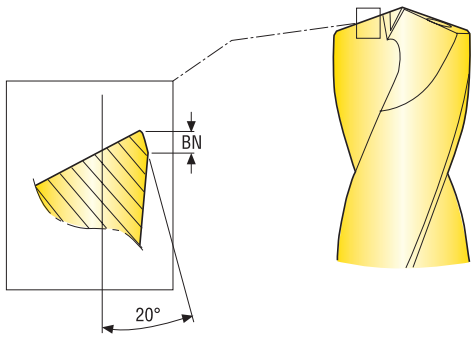
Drill ∅ DC mm	L mm	Drill ∅ DC *inch*	L *inch*
2-10	0,1-0,3	*0.079-0.394*	*0.004-0.012*
10-20	0,2-0,4	*0.394-0.787*	*0.008-0.016*

3. Grinding of flat X



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

4. Edge preparation



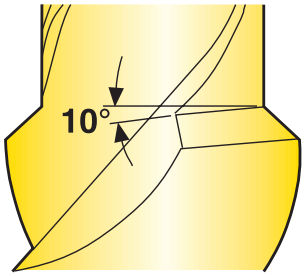
Workpiece material	BN Drill ∅ ≤ 10 mm	BN Drill ∅ > 10 mm	BN Drill ∅ ≤ 0.394 *inch*	BN Drill ∅ > 0.394 *inch*
Steel	0,05	0,10	*0.002*	*0.004*
Stainless steel	0,05	0,05	*0.002*	*0.002*
Cast iron	0,05	0,10	*0.002*	*0.004*

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

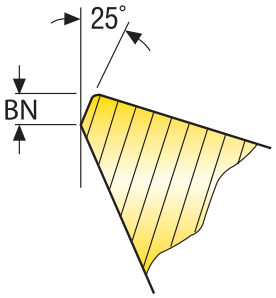
Regrinding instructions for chamfer drills

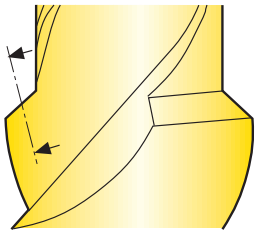
The regrinding instructions are the same as for SD203, SD203A, SD205A and SD207A except for the chamfer.

1. Chamfer relief



2. Edge preparation, chamfer





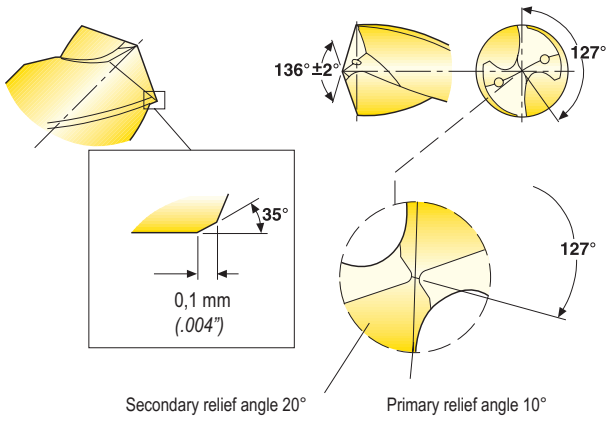
Workpiece material	BN Drill ∅			
	≤ 10 mm	> 10 mm	≤ 0.394 *inch*	> 0.394 *inch*
Steel	0,05	0,05	*0.002*	*0.002*
Stainless steel	0,05	0,05	*0.002*	*0.002*
Cast iron	0,05	0,05	*0.002*	*0.002*

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).

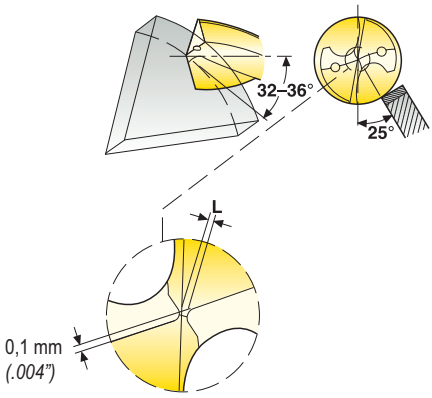
Important:
- The cutting edges must be uniform and have the same size of edge preparation.
- The edge preparation must be applied on the whole length of the cutting edges.

1. Conical flank



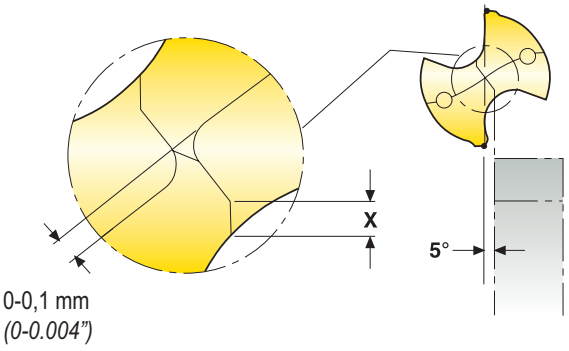
Lip height distance (axial run-out) to be within 0,02 mm *(0.008")*

2. Web thinning



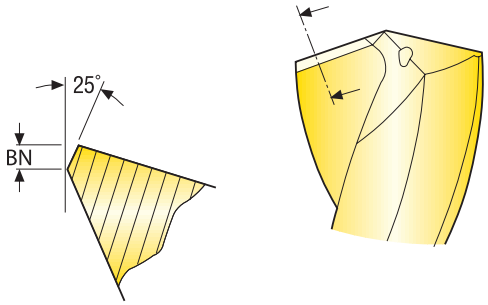
Drill ∅ DC mm	L mm	Drill ∅ DC *inch*	L *inch*
2-10	0,2	*0.079-0.394*	*0.008*
10-20	0,4	*0.394-0.787*	*0.016*

3. Grinding of flat X



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

4. Edge preparation

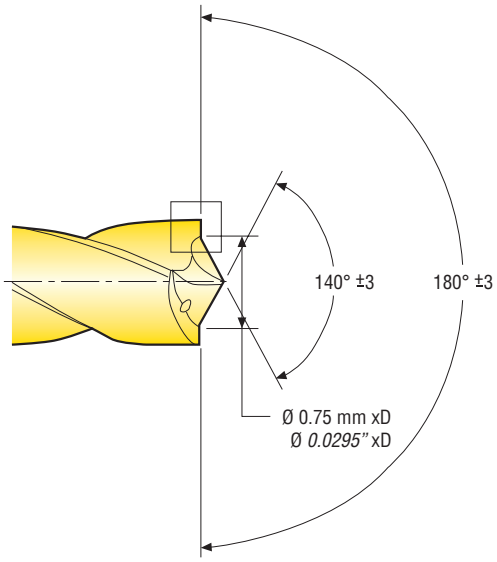


Workpiece material	BN Drill ∅ ≤ 10 mm	BN Drill ∅ > 10 mm	BN Drill ∅ ≤ 0.394 *inch*	BN Drill ∅ > 0.394 *inch*
Steel	0,05	0,10	*0.002*	*0.004*
Stainless steel	0,05	0,05	*0.002*	*0.002*
Cast iron	0,05	0,10	*0.002*	*0.004*

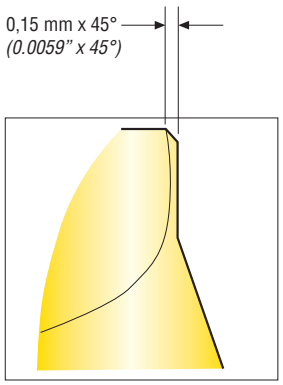
Max. allowed flank wear before regrinding is 0,1-0,3 mm *(0.004-0.012")* measured at the largest point.

Regrinding instructions for SD243, SD243A, SD245A and SD247A

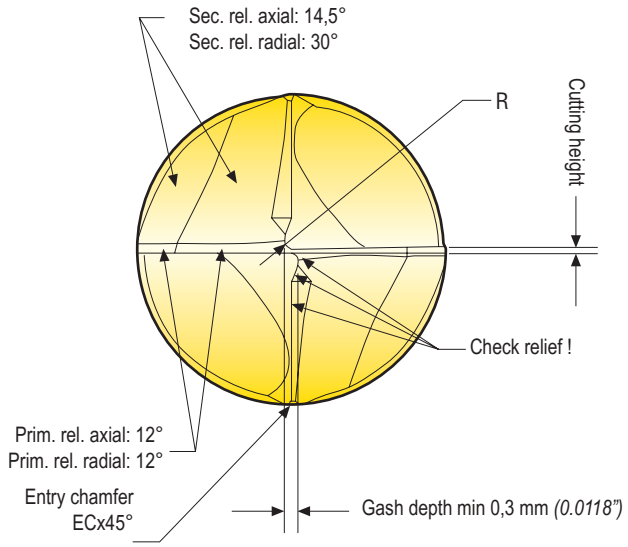
1. Point angles



2. Corner chamfer

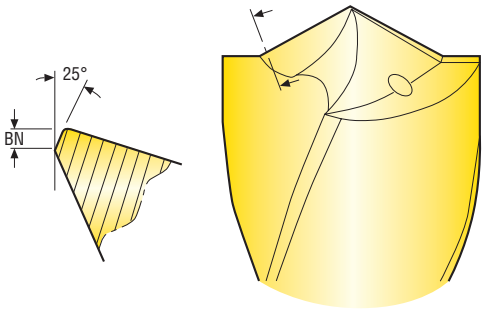


3.



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



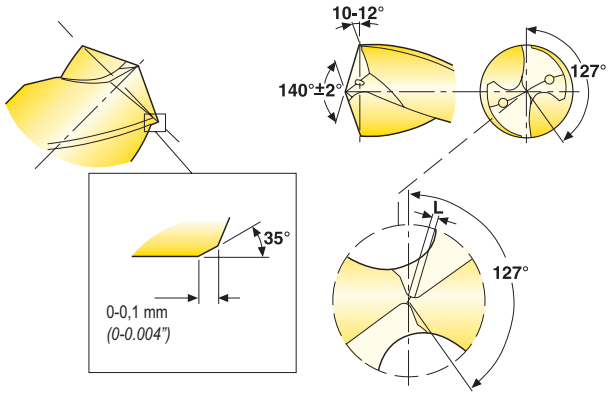
Workpiece material	BN Drill ∅ ≤ 10 mm	BN Drill ∅ > 10 mm	BN Drill ∅ ≤ 0.394 inch	BN Drill ∅ > 0.394 inch
Steel	0,05	0,10	0.002	0.004
Stainless steel	0,05	0,05	0.002	0.002
Cast iron	0,05	0,10	0.002	0.004

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).

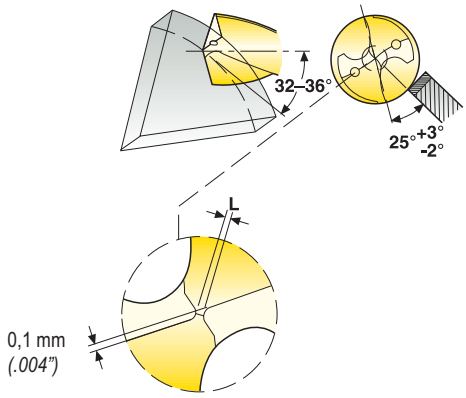
Important:
- The cutting edges must be uniform and have the same size of edge preparation.
- The edge preparation must be applied on the whole length of the cutting edges.

1. Conical flank



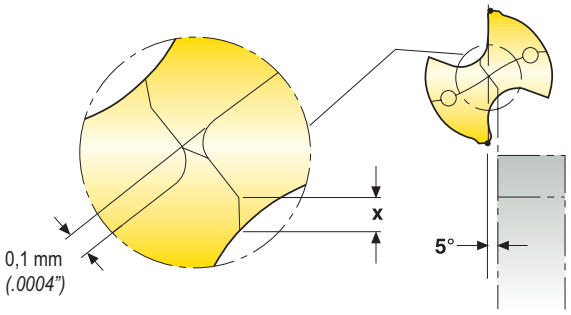
Lip height distance (axial run-out) to be within 0,02 mm *(0.008")*

2. Web thinning



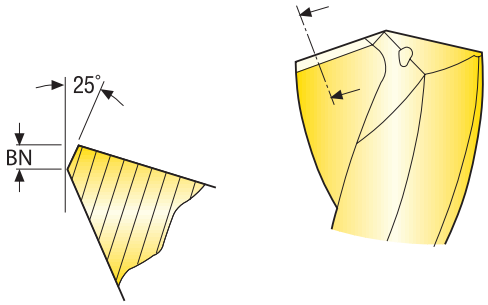
Drill ∅ DC mm	L mm	Drill ∅ DC *inch*	L *inch*
2-10	0,2	*0.079-0.394*	*0.008*
10-20	0,4	*0.394-0.787*	*0.016*

3. Grinding of flat X



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

4. Edge preparation



Workpiece material	BN Drill ∅ ≤ 10 mm	BN Drill ∅ > 10 mm	BN Drill ∅ ≤ 0.394 *inch*	BN 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*

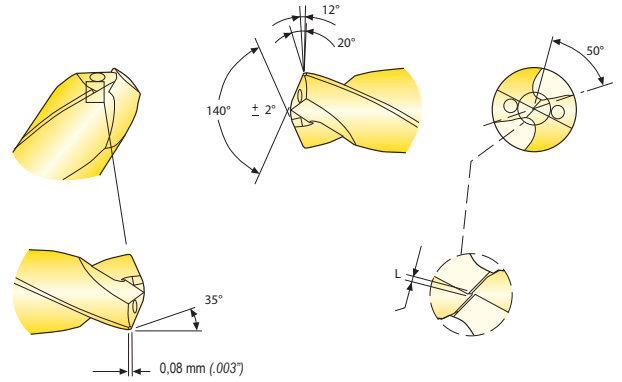
Max. allowed flank wear before regrinding is 0,1-0,3 mm *(0.004-0.012")* measured at the largest point.

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).

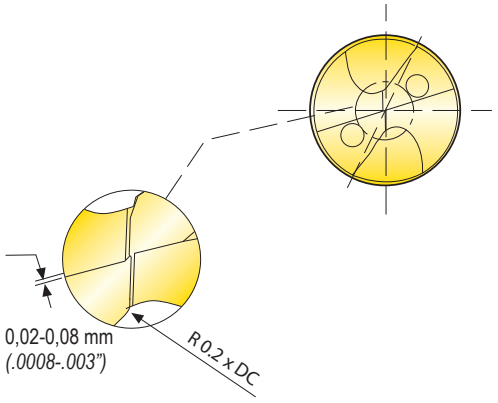
Important:
- The cutting edges must be uniform and have the same size of edge preparation.
- The edge preparation must be applied on the whole length of the cutting edges.

1. Four facet

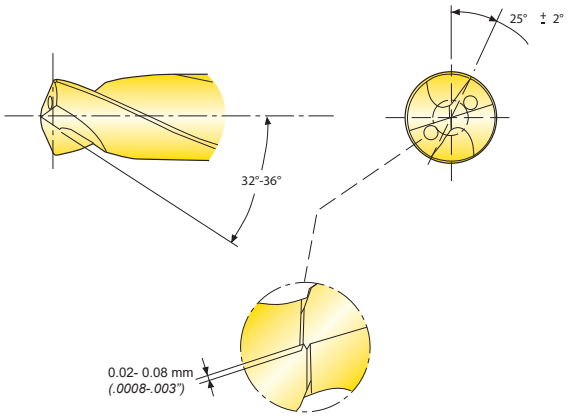


Lip height distance (axial run-out) to be within 0,02 mm *(0.008")*

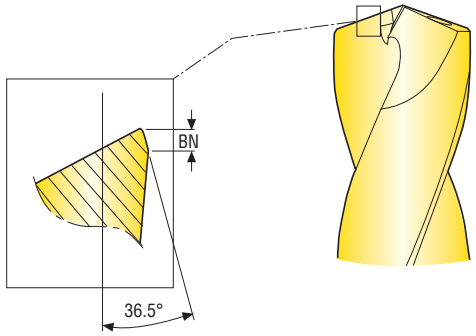
2. Grinding of radius R



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*

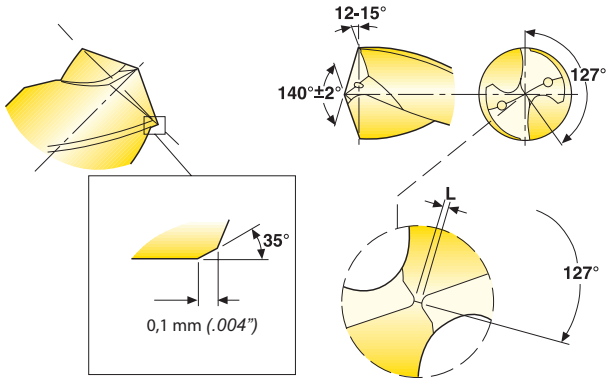
Max. allowed flank wear before regrinding is 0,1-0,3 mm *(0.004-0.012")* measured at the largest point.

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).

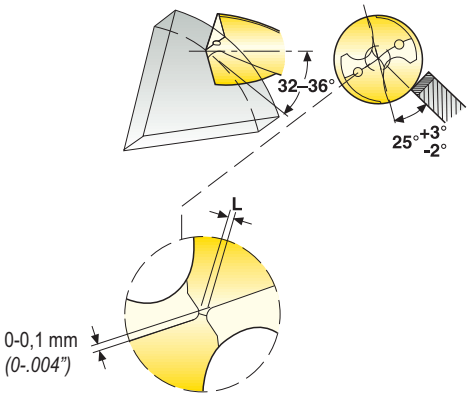
Important:
- The cutting edges must be uniform and have the same size of edge preparation.
- The edge preparation must be applied on the whole length of the cutting edges.

1. Conical flank



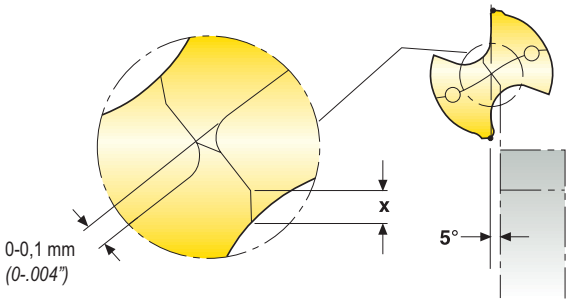
Lip height distance (axial run-out) to be within 0,01 mm *(0.0004")*

2. Web thinning

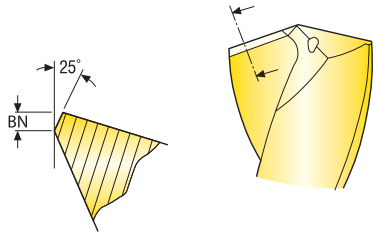


Drill ∅ DC mm	L mm	Drill ∅ DC *inch*	L *inch*
3-6	0,1-0,2	*0.118-0.236*	*0.004-0.008*
6-10	0,13-0,27	*0.236-0.394*	*0.005-0.011*
10-20	0,2-0,4	*0.394-0.787*	*0.008-0.016*

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 *Ø 0.118*	Ø 4,00 *Ø 0.157*	Ø 6,00 *Ø 0.236*	Ø 8,00 *Ø 0.315*	Ø 10,00 *Ø 0.394*	Ø 12,00 *Ø 0.472*	Ø 14,00 *Ø 0.551*	Ø 16,00 *Ø 0.630*	Ø 18,00 *Ø 0.709*	Ø 20,00 *Ø 0.787*	
P1	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	105 *345*
P2	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	0,26 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,36 *0.014*	105 *345*
P3	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	0,34 *0.013*	90 *295*
P4	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	80 *260*
P5	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	75 *245*
P6	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	85 *280*
P7	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	80 *260*
P8	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	0,34 *0.013*	75 *245*
P11	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	75 *245*
P12	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	0,22 *0.0085*	46 *150*
M1	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,22 *0.0085*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	55 *180*
M2	0,070 *0.0028*	0,085 *0.0034*	0,12 *0.0048*	0,15 *0.0060*	0,18 *0.0070*	0,20 *0.0080*	0,22 *0.0085*	0,24 *0.0095*	0,25 *0.010*	0,26 *0.010*	45 *150*
K1	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,34 *0.013*	0,34 *0.013*	0,36 *0.014*	70 *230*
K2	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	60 *195*
K3	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	50 *165*
K4	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	49 *160*
K5	0,10 *0.0040*	0,11 *0.0044*	0,15 *0.0060*	0,18 *0.0070*	0,20 *0.0080*	0,24 *0.0095*	0,25 *0.010*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	29 *95*
H3	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	24 *80*
H5	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	0,22 *0.0085*	45 *150*
H7	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	24 *80*
H8	0,055 *0.0022*	0,065 *0.0026*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,16 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	45 *150*
H11	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	0,22 *0.0085*	60 *195*
H12	0,055 *0.0022*	0,065 *0.0026*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,16 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	27 *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 *Ø 0.118*	Ø 4,00 *Ø 0.157*	Ø 6,00 *Ø 0.236*	Ø 8,00 *Ø 0.315*	Ø 10,00 *Ø 0.394*	Ø 12,00 *Ø 0.472*	Ø 14,00 *Ø 0.551*	Ø 16,00 *Ø 0.630*	Ø 18,00 *Ø 0.709*	Ø 20,00 *Ø 0.787*	
P1	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	150 *490*
P2	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	0,26 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,36 *0.014*	145 *475*
P3	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	0,34 *0.013*	125 *410*
P4	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	110 *360*
P5	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	105 *345*
P6	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	120 *395*
P7	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	110 *360*
P8	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	0,34 *0.013*	105 *345*
P11	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	75 *245*
P12	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	0,22 *0.0085*	50 *165*
M1	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,22 *0.0085*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	80 *260*
M2	0,070 *0.0028*	0,085 *0.0034*	0,12 *0.0048*	0,15 *0.0060*	0,18 *0.0070*	0,20 *0.0080*	0,22 *0.0085*	0,24 *0.0095*	0,25 *0.010*	0,26 *0.010*	65 *215*
M3	0,055 *0.0022*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	48 *155*
M4	0,050 *0.0020*	0,060 *0.0024*	0,085 *0.0034*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,17 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	36 *120*
M5	0,050 *0.0020*	0,060 *0.0024*	0,085 *0.0034*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,17 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	30 *100*
K1	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,34 *0.013*	0,34 *0.013*	0,36 *0.014*	95 *310*
K2	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	80 *260*
K3	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	70 *230*
K4	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	65 *215*
K5	0,10 *0.0040*	0,11 *0.0044*	0,15 *0.0060*	0,18 *0.0070*	0,20 *0.0080*	0,24 *0.0095*	0,25 *0.010*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	39 *130*
N1	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	260 *850*
N2	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	170 *560*
N3	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	110 *360*
N11	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	210 *690*
H3	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	34 *110*
H5	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	0,22 *0.0085*	65 *215*
H7	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	34 *110*
H8	0,055 *0.0022*	0,065 *0.0026*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,16 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	65 *215*
H11	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	0,22 *0.0085*	80 *260*
H12	0,055 *0.0022*	0,065 *0.0026*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,16 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	38 *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 *Ø 0.118*	Ø 4,00 *Ø 0.157*	Ø 6,00 *Ø 0.236*	Ø 8,00 *Ø 0.315*	Ø 10,00 *Ø 0.394*	Ø 12,00 *Ø 0.472*	Ø 14,00 *Ø 0.551*	Ø 16,00 *Ø 0.630*	Ø 18,00 *Ø 0.709*	Ø 20,00 *Ø 0.787*	
P1	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	135 *445*
P2	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	0,26 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,36 *0.014*	135 *445*
P3	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	0,34 *0.013*	115 *375*
P4	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	100 *330*
P5	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	95 *310*
P6	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	110 *360*
P7	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	100 *330*
P8	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	0,34 *0.013*	95 *310*
P11	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	65 *215*
P12	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	0,22 *0.0085*	48 *155*
M1	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,22 *0.0085*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	70 *230*
M2	0,070 *0.0028*	0,085 *0.0034*	0,12 *0.0048*	0,15 *0.0060*	0,18 *0.0070*	0,20 *0.0080*	0,22 *0.0085*	0,24 *0.0095*	0,25 *0.010*	0,26 *0.010*	60 *195*
M3	0,055 *0.0022*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	44 *145*
M4	0,050 *0.0020*	0,060 *0.0024*	0,085 *0.0034*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,17 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	33 *110*
M5	0,050 *0.0020*	0,060 *0.0024*	0,085 *0.0034*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,17 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	27 *90*
K1	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,34 *0.013*	0,34 *0.013*	0,36 *0.014*	85 *280*
K2	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	75 *245*
K3	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	65 *215*
K4	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	60 *195*
K5	0,10 *0.0040*	0,11 *0.0044*	0,15 *0.0060*	0,18 *0.0070*	0,20 *0.0080*	0,24 *0.0095*	0,25 *0.010*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	36 *120*
N1	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	240 *790*
N2	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	155 *510*
N3	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	100 *330*
N11	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	190 *620*
H3	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	31 *100*
H5	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	0,22 *0.0085*	60 *195*
H7	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	31 *100*
H8	0,055 *0.0022*	0,065 *0.0026*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,16 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	60 *195*
H11	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	0,22 *0.0085*	75 *245*
H12	0,055 *0.0022*	0,065 *0.0026*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,16 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	35 *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 *Ø 0.118*	Ø 4,00 *Ø 0.157*	Ø 6,00 *Ø 0.236*	Ø 8,00 *Ø 0.315*	Ø 10,00 *Ø 0.394*	Ø 12,00 *Ø 0.472*	Ø 14,00 *Ø 0.551*	Ø 16,00 *Ø 0.630*	Ø 18,00 *Ø 0.709*	Ø 20,00 *Ø 0.787*	
P1	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	120 *395*
P2	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	0,26 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,36 *0.014*	115 *375*
P3	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	0,34 *0.013*	100 *330*
P4	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	85 *280*
P5	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	85 *280*
P6	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	95 *310*
P7	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	90 *295*
P8	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	0,34 *0.013*	85 *280*
P11	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	60 *195*
P12	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	0,22 *0.0085*	42 *140*
M1	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,22 *0.0085*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	60 *195*
M2	0,070 *0.0028*	0,085 *0.0034*	0,12 *0.0048*	0,15 *0.0060*	0,18 *0.0070*	0,20 *0.0080*	0,22 *0.0085*	0,24 *0.0095*	0,25 *0.010*	0,26 *0.010*	50 *165*
M3	0,055 *0.0022*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	38 *125*
M4	0,050 *0.0020*	0,060 *0.0024*	0,085 *0.0034*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,17 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	29 *95*
M5	0,050 *0.0020*	0,060 *0.0024*	0,085 *0.0034*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,17 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	24 *80*
K1	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,34 *0.013*	0,34 *0.013*	0,36 *0.014*	75 *245*
K2	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	65 *215*
K3	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	55 *180*
K4	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	50 *165*
K5	0,10 *0.0040*	0,11 *0.0044*	0,15 *0.0060*	0,18 *0.0070*	0,20 *0.0080*	0,24 *0.0095*	0,25 *0.010*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	31 *100*
N1	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	205 *670*
N2	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	135 *445*
N3	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	90 *295*
N11	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	165 *540*
H3	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	27 *90*
H5	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	0,22 *0.0085*	50 *165*
H7	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	27 *90*
H8	0,055 *0.0022*	0,065 *0.0026*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,16 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	50 *165*
H11	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	0,22 *0.0085*	65 *215*
H12	0,055 *0.0022*	0,065 *0.0026*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,16 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	30 *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 *Ø 0.118*	Ø 4,00 *Ø 0.157*	Ø 6,00 *Ø 0.236*	Ø 8,00 *Ø 0.315*	Ø 10,00 *Ø 0.394*	Ø 12,00 *Ø 0.472*	Ø 14,00 *Ø 0.551*	Ø 16,00 *Ø 0.630*	Ø 18,00 *Ø 0.709*	Ø 20,00 *Ø 0.787*	
P1	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	100 *330*
P2	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	0,26 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,36 *0.014*	100 *330*
P3	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	0,34 *0.013*	85 *280*
P4	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	75 *245*
P5	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	70 *230*
P6	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	80 *260*
P7	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	75 *245*
P8	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	0,34 *0.013*	70 *230*
P11	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	50 *165*
P12	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	0,22 *0.0085*	36 *120*
M1	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,22 *0.0085*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	55 *180*
M2	0,070 *0.0028*	0,085 *0.0034*	0,12 *0.0048*	0,15 *0.0060*	0,18 *0.0070*	0,20 *0.0080*	0,22 *0.0085*	0,24 *0.0095*	0,25 *0.010*	0,26 *0.010*	43 *140*
M3	0,055 *0.0022*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	33 *110*
M4	0,050 *0.0020*	0,060 *0.0024*	0,085 *0.0034*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,17 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	25 *80*
M5	0,050 *0.0020*	0,060 *0.0024*	0,085 *0.0034*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,17 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	21 *70*
K1	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,34 *0.013*	0,34 *0.013*	0,36 *0.014*	65 *215*
K2	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	55 *180*
K3	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	47 *155*
K4	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	45 *150*
K5	0,10 *0.0040*	0,11 *0.0044*	0,15 *0.0060*	0,18 *0.0070*	0,20 *0.0080*	0,24 *0.0095*	0,25 *0.010*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	27 *90*
N1	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	180 *590*
N2	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	115 *375*
N3	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	75 *245*
N11	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	145 *475*
H3	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	23 *75*
H5	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	0,22 *0.0085*	43 *140*
H7	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	23 *75*
H8	0,055 *0.0022*	0,065 *0.0026*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,16 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	43 *140*
H11	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	0,22 *0.0085*	55 *180*
H12	0,055 *0.0022*	0,065 *0.0026*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,16 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	26 *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 *Ø 0.079*	Ø 3,00 *Ø 0.118*	Ø 4,00 *Ø 0.157*	Ø 5,00 *Ø 0.197*	Ø 6,00 *Ø 0.236*	Ø 8,00 *Ø 0.315*	
P1	P	0,14	0,17	0,20	0,24	0,26	0,32	185
	P	*0.0055*	*0.0065*	*0.0080*	*0.0095*	*0.010*	*0.013*	*610*
P2	P	0,14	0,17	0,20	0,24	0,26	0,32	180
	P	*0.0055*	*0.0065*	*0.0080*	*0.0095*	*0.010*	*0.013*	*590*
P3	P	0,14	0,16	0,19	0,22	0,25	0,32	155
	P	*0.0055*	*0.0065*	*0.0075*	*0.0085*	*0.010*	*0.013*	*510*
P4	P	0,10	0,13	0,15	0,17	0,19	0,24	210
	P	*0.0040*	*0.0050*	*0.0060*	*0.0065*	*0.0075*	*0.0095*	*690*
P5	P	0,10	0,12	0,14	0,17	0,19	0,22	205
	P	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*0.0075*	*0.0085*	*670*
P6	P	0,10	0,12	0,14	0,16	0,19	0,22	230
	P	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*0.0075*	*0.0085*	*750*
P7	P	0,10	0,12	0,14	0,16	0,19	0,22	215
	P	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*0.0075*	*0.0085*	*710*
P8	P	0,11	0,13	0,15	0,17	0,19	0,24	200
	P	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0075*	*0.0095*	*660*
P11	P	0,060	0,075	0,085	0,10	0,11	0,14	105
	P	*0.0024*	*0.0030*	*0.0034*	*0.0040*	*0.0044*	*0.0055*	*345*
P12	P	0,060	0,075	0,085	0,10	0,11	0,14	75
	P	*0.0024*	*0.0030*	*0.0034*	*0.0040*	*0.0044*	*0.0055*	*245*
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*
K1	P	0,15	0,18	0,22	0,25	0,28	0,36	175
	P	*0.0060*	*0.0070*	*0.0085*	*0.010*	*0.011*	*0.014*	*570*
K2	P	0,14	0,17	0,20	0,22	0,26	0,32	150
	P	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.010*	*0.013*	*490*
K3	P	0,14	0,17	0,20	0,22	0,26	0,32	125
	P	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.010*	*0.013*	*410*
K4	P	0,14	0,17	0,20	0,22	0,26	0,32	120
	P	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.010*	*0.013*	*395*
K5	P	0,12	0,15	0,18	0,20	0,24	0,28	70
	P	*0.0048*	*0.0060*	*0.0070*	*0.0080*	*0.0095*	*0.011*	*230*
N1	N	0,13	0,16	0,19	0,22	0,26	0,32	350
	N	*0.0050*	*0.0065*	*0.0075*	*0.0085*	*0.010*	*0.013*	*1150*
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	P	0,055	0,070	0,080	0,090	0,10	0,12	28
	P	*0.0022*	*0.0028*	*0.0032*	*0.0036*	*0.0040*	*0.0048*	*90*
H5	P	0,085	0,10	0,12	0,13	0,15	0,18	55
	P	*0.0034*	*0.0040*	*0.0048*	*0.0050*	*0.0060*	*0.0070*	*180*
H7	P	0,055	0,070	0,080	0,090	0,10	0,12	28
	P	*0.0022*	*0.0028*	*0.0032*	*0.0036*	*0.0040*	*0.0048*	*90*
H8	P	0,065	0,080	0,090	0,10	0,12	0,14	55
	P	*0.0026*	*0.0032*	*0.0036*	*0.0040*	*0.0048*	*0.0055*	*180*
H11	P	0,085	0,10	0,12	0,13	0,15	0,18	65
	P	*0.0034*	*0.0040*	*0.0048*	*0.0050*	*0.0060*	*0.0070*	*215*
H12	P	0,065	0,080	0,090	0,10	0,12	0,14	80
	P	*0.0026*	*0.0032*	*0.0036*	*0.0040*	*0.0048*	*0.0055*	*260*
H21	P	0,065	0,080	0,090	0,10	0,12	0,14	55
	P	*0.0026*	*0.0032*	*0.0036*	*0.0040*	*0.0048*	*0.0055*	*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 *Ø 0.394*	Ø 12,00 *Ø 0.472*	Ø 14,00 *Ø 0.551*	Ø 16,00 *Ø 0.630*	Ø 18,00 *Ø 0.709*	Ø 20,00 *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 *Ø 0.079*	Ø 3,00 *Ø 0.118*	Ø 4,00 *Ø 0.157*	Ø 5,00 *Ø 0.197*	Ø 6,00 *Ø 0.236*	Ø 8,00 *Ø 0.315*	
P1	P	0,14	0,17	0,20	0,24	0,26	0,32	170
	P	*0.0055*	*0.0065*	*0.0080*	*0.0095*	*0.010*	*0.013*	*560*
P2	P	0,14	0,17	0,20	0,24	0,26	0,32	165
	P	*0.0055*	*0.0065*	*0.0080*	*0.0095*	*0.010*	*0.013*	*540*
P3	P	0,14	0,16	0,19	0,22	0,25	0,32	140
	P	*0.0055*	*0.0065*	*0.0075*	*0.0085*	*0.010*	*0.013*	*460*
P4	P	0,10	0,13	0,15	0,17	0,19	0,24	195
	P	*0.0040*	*0.0050*	*0.0060*	*0.0065*	*0.0075*	*0.0095*	*640*
P5	P	0,10	0,12	0,14	0,17	0,19	0,22	185
	P	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*0.0075*	*0.0085*	*610*
P6	P	0,10	0,12	0,14	0,16	0,19	0,22	210
	P	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*0.0075*	*0.0085*	*690*
P7	P	0,10	0,12	0,14	0,16	0,19	0,22	200
	P	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*0.0075*	*0.0085*	*660*
P8	P	0,11	0,13	0,15	0,17	0,19	0,24	185
	P	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0075*	*0.0095*	*610*
P11	P	0,060	0,075	0,085	0,10	0,11	0,14	95
	P	*0.0024*	*0.0030*	*0.0034*	*0.0040*	*0.0044*	*0.0055*	*310*
P12	P	0,060	0,075	0,085	0,10	0,11	0,14	65
	P	*0.0024*	*0.0030*	*0.0034*	*0.0040*	*0.0044*	*0.0055*	*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*
K1	P	0,15	0,18	0,22	0,25	0,28	0,36	160
	P	*0.0060*	*0.0070*	*0.0085*	*0.010*	*0.011*	*0.014*	*520*
K2	P	0,14	0,17	0,20	0,22	0,26	0,32	135
	P	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.010*	*0.013*	*445*
K3	P	0,14	0,17	0,20	0,22	0,26	0,32	115
	P	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.010*	*0.013*	*375*
K4	P	0,14	0,17	0,20	0,22	0,26	0,32	110
	P	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.010*	*0.013*	*360*
K5	P	0,12	0,15	0,18	0,20	0,24	0,28	65
	P	*0.0048*	*0.0060*	*0.0070*	*0.0080*	*0.0095*	*0.011*	*215*
N1	N	0,13	0,16	0,19	0,22	0,26	0,32	350
	N	*0.0050*	*0.0065*	*0.0075*	*0.0085*	*0.010*	*0.013*	*1150*
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	P	0,055	0,070	0,080	0,090	0,10	0,12	26
	P	*0.0022*	*0.0028*	*0.0032*	*0.0036*	*0.0040*	*0.0048*	*85*
H5	P	0,085	0,10	0,12	0,13	0,15	0,18	48
	P	*0.0034*	*0.0040*	*0.0048*	*0.0050*	*0.0060*	*0.0070*	*155*
H7	P	0,055	0,070	0,080	0,090	0,10	0,12	26
	P	*0.0022*	*0.0028*	*0.0032*	*0.0036*	*0.0040*	*0.0048*	*85*
H8	P	0,065	0,080	0,090	0,10	0,12	0,14	48
	P	*0.0026*	*0.0032*	*0.0036*	*0.0040*	*0.0048*	*0.0055*	*155*
H11	P	0,085	0,10	0,12	0,13	0,15	0,18	60
	P	*0.0034*	*0.0040*	*0.0048*	*0.0050*	*0.0060*	*0.0070*	*195*
H12	P	0,065	0,080	0,090	0,10	0,12	0,14	70
	P	*0.0026*	*0.0032*	*0.0036*	*0.0040*	*0.0048*	*0.0055*	*230*
H21	P	0,065	0,080	0,090	0,10	0,12	0,14	48
	P	*0.0026*	*0.0032*	*0.0036*	*0.0040*	*0.0048*	*0.0055*	*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 *Ø 0.394*	Ø 12,00 *Ø 0.472*	Ø 14,00 *Ø 0.551*	Ø 16,00 *Ø 0.630*	Ø 18,00 *Ø 0.709*	Ø 20,00 *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 *Ø 0.0276*	Ø 1,00 *Ø 0.0394*	Ø 2,00 *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 *Ø 0.0394*	Ø 1,50 *Ø 0.0591*	Ø 2,00 *Ø 0.0787*	
P1	P *P*	0,090 *0.0036*	0,10 *0.0040*	0,11 *0.0044*	175 *570*
P2	P *P*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	170 *560*
P3	P *P*	0,085 *0.0034*	0,10 *0.0040*	0,11 *0.0044*	145 *475*
P4	P *P*	0,085 *0.0034*	0,095 *0.0038*	0,11 *0.0044*	130 *425*
P5	P *P*	0,085 *0.0034*	0,095 *0.0038*	0,11 *0.0044*	125 *410*
P6	P *P*	0,080 *0.0032*	0,095 *0.0038*	0,10 *0.0040*	140 *460*
P7	P *P*	0,080 *0.0032*	0,095 *0.0038*	0,10 *0.0040*	130 *425*
P8	P *P*	0,085 *0.0034*	0,10 *0.0040*	0,11 *0.0044*	125 *410*
P11	P *P*	0,080 *0.0032*	0,095 *0.0038*	0,10 *0.0040*	125 *410*
P12	P *P*	0,055 *0.0022*	0,065 *0.0026*	0,070 *0.0028*	75 *245*
M1	P *P*	0,055 *0.0022*	0,065 *0.0026*	0,075 *0.0030*	95 *310*
M2	P *P*	0,050 *0.0020*	0,060 *0.0024*	0,070 *0.0028*	75 *245*
M3	P *P*	0,042 *0.0017*	0,048 *0.0019*	0,055 *0.0022*	60 *195*
M4	P *P*	0,036 *0.0014*	0,042 *0.0017*	0,048 *0.0019*	43 *140*
M5	P *P*	0,036 *0.0014*	0,042 *0.0017*	0,048 *0.0019*	36 *120*
K1	P *P*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	115 *375*
K2	P *P*	0,085 *0.0034*	0,10 *0.0040*	0,11 *0.0044*	100 *330*
K3	P *P*	0,085 *0.0034*	0,10 *0.0040*	0,11 *0.0044*	85 *280*
K4	P *P*	0,085 *0.0034*	0,10 *0.0040*	0,11 *0.0044*	80 *260*
K5	P *P*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	47 *155*
N2	P *P*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	190 *620*
N3	P *P*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	125 *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 *Ø 0.118*	Ø 5,00 *Ø 0.197*	Ø 6,00 *Ø 0.236*	Ø 8,00 *Ø 0.315*	Ø 10,00 *Ø 0.394*	Ø 12,00 *Ø 0.472*	Ø 14,00 *Ø 0.551*	Ø 16,00 *Ø 0.630*	Ø 18,00 *Ø 0.709*	Ø 20,00 *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 *Ø 0.118*	Ø 5,00 *Ø 0.197*	Ø 6,00 *Ø 0.236*	Ø 8,00 *Ø 0.315*	Ø 10,00 *Ø 0.394*	Ø 12,00 *Ø 0.472*	Ø 14,00 *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 *Ø 0.118*	Ø 5,00 *Ø 0.197*	Ø 6,00 *Ø 0.236*	Ø 8,00 *Ø 0.315*	Ø 10,00 *Ø 0.394*	Ø 12,00 *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 *Ø 0.118*	Ø5,00 *Ø 0.197*	Ø6,00 *Ø 0.236*	Ø8,00 *Ø 0.315*	
P1	0,14 *0.0055*	0,18 *0.0070*	0,20 *0.0080*	0,25 *0.010*	85 *280*
P2	0,14 *0.0055*	0,19 *0.0075*	0,22 *0.0085*	0,26 *0.010*	85 *280*
P3	0,13 *0.0050*	0,18 *0.0070*	0,20 *0.0080*	0,25 *0.010*	70 *230*
P4	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	65 *215*
P5	0,13 *0.0050*	0,17 *0.0065*	0,19 *0.0075*	0,24 *0.0095*	60 *195*
P6	0,12 *0.0048*	0,17 *0.0065*	0,19 *0.0075*	0,24 *0.0095*	65 *215*
P7	0,12 *0.0048*	0,17 *0.0065*	0,19 *0.0075*	0,24 *0.0095*	65 *215*
P8	0,13 *0.0050*	0,18 *0.0070*	0,20 *0.0080*	0,25 *0.010*	60 *195*
P11	0,12 *0.0048*	0,17 *0.0065*	0,19 *0.0075*	0,24 *0.0095*	60 *195*
P12	0,085 *0.0034*	0,12 *0.0048*	0,13 *0.0050*	0,16 *0.0065*	36 *120*
M1	0,095 *0.0038*	0,13 *0.0050*	0,15 *0.0060*	0,19 *0.0075*	37 *120*
M2	0,085 *0.0034*	0,12 *0.0048*	0,14 *0.0055*	0,17 *0.0065*	30 *100*
M3	0,070 *0.0028*	0,095 *0.0038*	0,11 *0.0044*	0,14 *0.0055*	23 *75*
M4	0,060 *0.0024*	0,085 *0.0034*	0,095 *0.0038*	0,12 *0.0048*	17 *55*
M5	0,060 *0.0024*	0,085 *0.0034*	0,095 *0.0038*	0,12 *0.0048*	14 *46*
K1	0,15 *0.0060*	0,22 *0.0085*	0,25 *0.010*	0,30 *0.012*	43 *140*
K2	0,14 *0.0055*	0,20 *0.0080*	0,22 *0.0085*	0,28 *0.011*	37 *120*
K3	0,14 *0.0055*	0,20 *0.0080*	0,22 *0.0085*	0,28 *0.011*	31 *100*
K4	0,14 *0.0055*	0,20 *0.0080*	0,22 *0.0085*	0,28 *0.011*	30 *100*
K5	0,13 *0.0050*	0,18 *0.0070*	0,20 *0.0080*	0,25 *0.010*	18 *60*
N2	0,16 *0.0065*	0,22 *0.0085*	0,26 *0.010*	0,32 *0.013*	105 *345*
N3	0,16 *0.0065*	0,22 *0.0085*	0,26 *0.010*	0,32 *0.013*	70 *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 *Ø 0.157*	Ø 6,00 *Ø 0.236*	Ø 8,00 *Ø 0.315*	Ø 10,00 *Ø 0.394*	Ø 12,00 *Ø 0.472*	Ø 14,00 *Ø 0.551*	Ø 16,00 *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 *Ø 0.157*	Ø 6,00 *Ø 0.236*	Ø 8,00 *Ø 0.315*	Ø 10,00 *Ø 0.394*	Ø 12,00 *Ø 0.472*	Ø 14,00 *Ø 0.551*	Ø 16,00 *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 *Ø 0.079*	Ø 3,00 *Ø 0.118*	Ø 4,00 *Ø 0.157*	Ø 5,00 *Ø 0.197*	Ø 6,00 *Ø 0.236*	Ø 8,00 *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 *Ø 0.394*	Ø 12,00 *Ø 0.472*	Ø 14,00 *Ø 0.551*	Ø 16,00 *Ø 0.630*	Ø 18,00 *Ø 0.709*	Ø 20,00 *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 *Ø 0.079*	Ø 3,00 *Ø 0.118*	Ø 4,00 *Ø 0.157*	Ø 5,00 *Ø 0.197*	Ø 6,00 *Ø 0.236*	Ø 8,00 *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 *Ø 0.394*	Ø 12,00 *Ø 0.472*	Ø 14,00 *Ø 0.551*	Ø 16,00 *Ø 0.630*	Ø 18,00 *Ø 0.709*	Ø 20,00 *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 *Ø 0.079*	Ø 3,00 *Ø 0.118*	Ø 4,00 *Ø 0.157*	Ø 5,00 *Ø 0.197*	Ø 6,00 *Ø 0.236*	Ø 8,00 *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 *Ø 0.394*	Ø 12,00 *Ø 0.472*	Ø 14,00 *Ø 0.551*	Ø 16,00 *Ø 0.630*	Ø 18,00 *Ø 0.709*	Ø 20,00 *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 *Ø 0.079*	Ø3,00 *Ø 0.118*	Ø4,00 *Ø 0.157*	Ø5,00 *Ø 0.197*	Ø6,00 *Ø 0.236*	Ø8,00 *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 *Ø 0.394*	Ø12,00 *Ø 0.472*	Ø14,00 *Ø 0.551*	Ø16,00 *Ø 0.630*	Ø18,00 *Ø 0.709*	Ø20,00 *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 *Ø 0.118*	Ø 5,00 *Ø 0.197*	Ø 7,00 *Ø 0.276*	Ø 9,00 *Ø 0.354*	Ø 11,00 *Ø 0.433*	Ø 13,00 *Ø 0.512*	
TS2	C1 *C1*	0,060 *0.0024*	0,060 *0.0024*	0,065 *0.0026*	0,070 *0.0028*	0,075 *0.0030*	0,080 *0.0032*	65 *215*
TS3	C1 *C1*	0,060 *0.0024*	0,060 *0.0024*	0,065 *0.0026*	0,070 *0.0028*	0,075 *0.0030*	0,080 *0.0032*	50 *165*
TP2	C1 *C1*	0,060 *0.0024*	0,060 *0.0024*	0,065 *0.0026*	0,070 *0.0028*	0,075 *0.0030*	0,080 *0.0032*	65 *215*
TP3	C1 *C1*	0,060 *0.0024*	0,060 *0.0024*	0,065 *0.0026*	0,070 *0.0028*	0,075 *0.0030*	0,080 *0.0032*	50 *165*

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

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

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

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

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

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

SMG	f			v_c
	Ø 0,10 *Ø 0.0039*	Ø 0,20 *Ø 0.0079*	Ø 0,30 *Ø 0.0118*	
P1	0,0011 *0.000044*	0,0017 *0.000065*	0,0024 *0.000095*	11 *36*
P2	0,0011 *0.000044*	0,0017 *0.000065*	0,0024 *0.000095*	11 *36*
P3	0,0010 *0.000040*	0,0016 *0.000065*	0,0022 *0.000085*	10 *33*
P4	0,0010 *0.000040*	0,0016 *0.000065*	0,0022 *0.000085*	8 *26*
P5	0,0010 *0.000040*	0,0016 *0.000065*	0,0022 *0.000085*	8 *26*
P6	0,0010 *0.000040*	0,0016 *0.000065*	0,0022 *0.000085*	9 *30*
P7	0,0010 *0.000040*	0,0016 *0.000065*	0,0022 *0.000085*	8 *26*
P8	0,0010 *0.000040*	0,0016 *0.000065*	0,0022 *0.000085*	8 *26*
P11	0,0010 *0.000040*	0,0016 *0.000065*	0,0022 *0.000085*	8 *26*
P12	0,00070 *0.000028*	0,0011 *0.000044*	0,0015 *0.000060*	5 *16*
M1	0,0011 *0.000044*	0,0017 *0.000065*	0,0024 *0.000095*	2 *7*
M2	0,0010 *0.000040*	0,0016 *0.000065*	0,0022 *0.000085*	2 *7*
K1	0,0011 *0.000044*	0,0017 *0.000065*	0,0024 *0.000095*	6 *20*
K2	0,0010 *0.000040*	0,0016 *0.000065*	0,0022 *0.000085*	5 *16*
K3	0,0010 *0.000040*	0,0016 *0.000065*	0,0022 *0.000085*	4 *13*
K4	0,0010 *0.000040*	0,0016 *0.000065*	0,0022 *0.000085*	4 *13*
K5	0,00090 *0.000036*	0,0014 *0.000055*	0,0019 *0.000075*	3 *10*
N2	0,0014 *0.000055*	0,0022 *0.000085*	0,0030 *0.00012*	15 *49*
N3	0,0014 *0.000055*	0,0022 *0.000085*	0,0030 *0.00012*	10 *33*
S11	0,00080 *0.000032*	0,0013 *0.000050*	0,0017 *0.000065*	4 *13*
S12	0,00080 *0.000032*	0,0013 *0.000050*	0,0017 *0.000065*	3 *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 *Ø 0.0157*	Ø 0,50 *Ø 0.0197*	
P1	0,0030 *0.00012*	0,0036 *0.00014*	14 *46*
P2	0,0030 *0.00012*	0,0036 *0.00014*	14 *46*
P3	0,0028 *0.00011*	0,0034 *0.00013*	12 *39*
P4	0,0028 *0.00011*	0,0034 *0.00013*	10 *33*
P5	0,0028 *0.00011*	0,0034 *0.00013*	10 *33*
P6	0,0028 *0.00011*	0,0032 *0.00013*	11 *36*
P7	0,0028 *0.00011*	0,0032 *0.00013*	11 *36*
P8	0,0028 *0.00011*	0,0034 *0.00013*	10 *33*
P11	0,0028 *0.00011*	0,0032 *0.00013*	10 *33*
P12	0,0019 *0.000075*	0,0022 *0.000085*	6 *20*
M1	0,0030 *0.00012*	0,0036 *0.00014*	5 *16*
M2	0,0028 *0.00011*	0,0034 *0.00013*	4 *13*
K1	0,0030 *0.00012*	0,0036 *0.00014*	10 *33*
K2	0,0028 *0.00011*	0,0034 *0.00013*	9 *30*
K3	0,0028 *0.00011*	0,0034 *0.00013*	7 *23*
K4	0,0028 *0.00011*	0,0034 *0.00013*	7 *23*
K5	0,0025 *0.00010*	0,0030 *0.00012*	4 *13*
N2	0,0038 *0.00015*	0,0046 *0.00018*	30 *100*
N3	0,0038 *0.00015*	0,0046 *0.00018*	20 *65*
S11	0,0022 *0.000085*	0,0026 *0.00010*	8 *26*
S12	0,0022 *0.000085*	0,0026 *0.00010*	6 *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 *Ø 0.0236*	Ø 0,70 *Ø 0.0276*	Ø 0,80 *Ø 0.0315*	
P1	0,0042 *0.00017*	0,0048 *0.00019*	0,0055 *0.00022*	28 *90*
P2	0,0042 *0.00017*	0,0050 *0.00020*	0,0055 *0.00022*	28 *90*
P3	0,0040 *0.00016*	0,0046 *0.00018*	0,0055 *0.00022*	24 *80*
P4	0,0040 *0.00016*	0,0046 *0.00018*	0,0050 *0.00020*	21 *70*
P5	0,0038 *0.00015*	0,0044 *0.00017*	0,0050 *0.00020*	20 *65*
P6	0,0038 *0.00015*	0,0044 *0.00017*	0,0050 *0.00020*	22 *70*
P7	0,0038 *0.00015*	0,0044 *0.00017*	0,0050 *0.00020*	21 *70*
P8	0,0040 *0.00016*	0,0046 *0.00018*	0,0055 *0.00022*	20 *65*
P11	0,0038 *0.00015*	0,0044 *0.00017*	0,0050 *0.00020*	21 *70*
P12	0,0026 *0.00010*	0,0030 *0.00012*	0,0034 *0.00013*	12 *39*
M1	0,0042 *0.00017*	0,0050 *0.00020*	0,0055 *0.00022*	9 *30*
M2	0,0038 *0.00015*	0,0044 *0.00017*	0,0050 *0.00020*	7 *23*
K1	0,0042 *0.00017*	0,0050 *0.00020*	0,0055 *0.00022*	15 *49*
K2	0,0038 *0.00015*	0,0044 *0.00017*	0,0050 *0.00020*	13 *43*
K3	0,0038 *0.00015*	0,0044 *0.00017*	0,0050 *0.00020*	11 *36*
K4	0,0038 *0.00015*	0,0044 *0.00017*	0,0050 *0.00020*	10 *33*
K5	0,0036 *0.00014*	0,0040 *0.00016*	0,0046 *0.00018*	6 *20*
N2	0,0055 *0.00022*	0,0065 *0.00026*	0,0070 *0.00028*	60 *195*
N3	0,0055 *0.00022*	0,0065 *0.00026*	0,0070 *0.00028*	40 *130*
S11	0,0032 *0.00013*	0,0036 *0.00014*	0,0040 *0.00016*	13 *43*
S12	0,0032 *0.00013*	0,0036 *0.00014*	0,0040 *0.00016*	10 *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 *Ø 0.0354*	Ø 1,00 *Ø 0.0394*	Ø 1,10 *Ø 0.0433*	
P1	0,0060 *0.00024*	0,0065 *0.00026*	0,0075 *0.00030*	50 *165*
P2	0,0060 *0.00024*	0,0070 *0.00028*	0,0075 *0.00030*	48 *155*
P3	0,0060 *0.00024*	0,0065 *0.00026*	0,0070 *0.00028*	42 *140*
P4	0,0055 *0.00022*	0,0065 *0.00026*	0,0070 *0.00028*	37 *120*
P5	0,0055 *0.00022*	0,0060 *0.00024*	0,0070 *0.00028*	35 *115*
P6	0,0055 *0.00022*	0,0060 *0.00024*	0,0065 *0.00026*	39 *130*
P7	0,0055 *0.00022*	0,0060 *0.00024*	0,0065 *0.00026*	37 *120*
P8	0,0060 *0.00024*	0,0065 *0.00026*	0,0070 *0.00028*	35 *115*
P11	0,0055 *0.00022*	0,0060 *0.00024*	0,0065 *0.00026*	36 *120*
P12	0,0038 *0.00015*	0,0042 *0.00017*	0,0046 *0.00018*	21 *70*
M1	0,0060 *0.00024*	0,0070 *0.00028*	0,0075 *0.00030*	12 *39*
M2	0,0055 *0.00022*	0,0060 *0.00024*	0,0070 *0.00028*	10 *33*
K1	0,0060 *0.00024*	0,0070 *0.00028*	0,0075 *0.00030*	20 *65*
K2	0,0055 *0.00022*	0,0060 *0.00024*	0,0070 *0.00028*	17 *55*
K3	0,0055 *0.00022*	0,0060 *0.00024*	0,0070 *0.00028*	15 *49*
K4	0,0055 *0.00022*	0,0060 *0.00024*	0,0070 *0.00028*	14 *46*
K5	0,0050 *0.00020*	0,0055 *0.00022*	0,0060 *0.00024*	8 *26*
N2	0,0080 *0.00032*	0,0085 *0.00034*	0,0095 *0.00038*	80 *260*
N3	0,0080 *0.00032*	0,0085 *0.00034*	0,0095 *0.00038*	55 *180*
S11	0,0046 *0.00018*	0,0050 *0.00020*	0,0055 *0.00022*	19 *60*
S12	0,0046 *0.00018*	0,0050 *0.00020*	0,0055 *0.00022*	15 *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 *Ø 0.0472*	Ø 1,40 *Ø 0.0551*	Ø 1,60 *Ø 0.0630*	Ø 1,80 *Ø 0.0709*	Ø 2,00 *Ø 0.0787*	
P1	0,0080 *0.00032*	0,0090 *0.00036*	0,010 *0.00040*	0,012 *0.00048*	0,013 *0.00050*	70 *230*
P2	0,0080 *0.00032*	0,0095 *0.00038*	0,011 *0.00044*	0,012 *0.00048*	0,013 *0.00050*	70 *230*
P3	0,0075 *0.00030*	0,0090 *0.00036*	0,010 *0.00040*	0,011 *0.00044*	0,012 *0.00048*	60 *195*
P4	0,0075 *0.00030*	0,0085 *0.00034*	0,010 *0.00040*	0,011 *0.00044*	0,012 *0.00048*	50 *165*
P5	0,0075 *0.00030*	0,0085 *0.00034*	0,0095 *0.00038*	0,011 *0.00044*	0,012 *0.00048*	50 *165*
P6	0,0075 *0.00030*	0,0085 *0.00034*	0,0095 *0.00038*	0,011 *0.00044*	0,012 *0.00048*	55 *180*
P7	0,0075 *0.00030*	0,0085 *0.00034*	0,0095 *0.00038*	0,011 *0.00044*	0,012 *0.00048*	55 *180*
P8	0,0075 *0.00030*	0,0090 *0.00036*	0,010 *0.00040*	0,011 *0.00044*	0,012 *0.00048*	50 *165*
P11	0,0075 *0.00030*	0,0085 *0.00034*	0,0095 *0.00038*	0,011 *0.00044*	0,012 *0.00048*	50 *165*
P12	0,0050 *0.00020*	0,0060 *0.00024*	0,0065 *0.00026*	0,0075 *0.00030*	0,0080 *0.00032*	30 *100*
M1	0,0080 *0.00032*	0,0095 *0.00038*	0,011 *0.00044*	0,012 *0.00048*	0,013 *0.00050*	15 *49*
M2	0,0075 *0.00030*	0,0085 *0.00034*	0,0095 *0.00038*	0,011 *0.00044*	0,012 *0.00048*	12 *39*
K1	0,0080 *0.00032*	0,0095 *0.00038*	0,011 *0.00044*	0,012 *0.00048*	0,013 *0.00050*	35 *115*
K2	0,0075 *0.00030*	0,0085 *0.00034*	0,0095 *0.00038*	0,011 *0.00044*	0,012 *0.00048*	30 *100*
K3	0,0075 *0.00030*	0,0085 *0.00034*	0,0095 *0.00038*	0,011 *0.00044*	0,012 *0.00048*	26 *85*
K4	0,0075 *0.00030*	0,0085 *0.00034*	0,0095 *0.00038*	0,011 *0.00044*	0,012 *0.00048*	25 *80*
K5	0,0065 *0.00026*	0,0075 *0.00030*	0,0085 *0.00034*	0,010 *0.00040*	0,011 *0.00044*	15 *49*
N2	0,010 *0.00040*	0,012 *0.00048*	0,014 *0.00055*	0,015 *0.00060*	0,017 *0.00065*	100 *330*
N3	0,010 *0.00040*	0,012 *0.00048*	0,014 *0.00055*	0,015 *0.00060*	0,017 *0.00065*	65 *215*
S11	0,0060 *0.00024*	0,0070 *0.00028*	0,0075 *0.00030*	0,0085 *0.00034*	0,0095 *0.00038*	26 *85*
S12	0,0060 *0.00024*	0,0070 *0.00028*	0,0075 *0.00030*	0,0085 *0.00034*	0,0095 *0.00038*	20 *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®	Page(s)	∅ Range	Drill depth	Drill ∅ tolerance	Hole tolerance (1)	Surface finish (2)
SD101	Page(s) 165-166	∅ 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) 167-168	∅ 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) 169-170	∅ 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) 171-172	∅ 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) 179	∅ 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

SD103	–	14.00/14.99	–	50	–	16	–	R	7
1		2		3		4		5	6

Inch

				50	–	0750	–	R	7
				3		4		5	6

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

2.
Min/max
Crown diameter

3.
Drilling depth

4.
Shank diameter

5.
Right hand rotation

6
Type of shank
1. Cylindrical
7. ISO 9766

Code key crowns

SD100	–	14.00	–	P
		2		3

2.
Drill diameter

3.
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

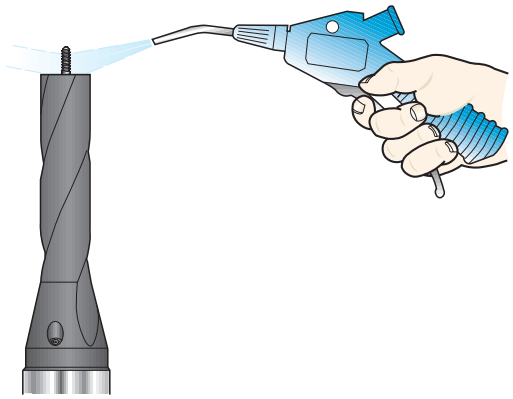
1. Clean the locking interface of the drill body carefully to remove any chips or debris.
2. Make sure that the pull rod is fully extended.
3. Mount new crown onto the pull rod and turn it until it reaches the bottom of the thread.

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.

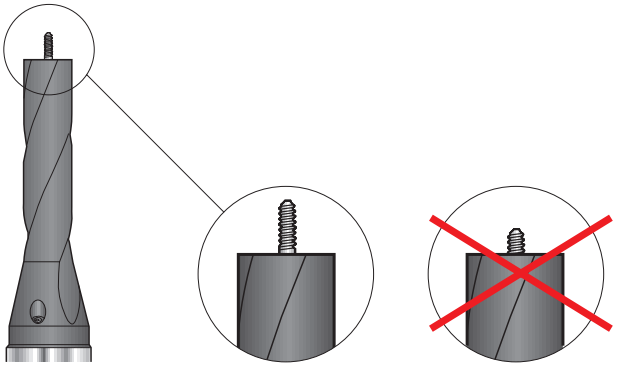
Stability
The stability of the applicationis important in obtaining the best tool life and hole accuracy. Check the condition of the machine spindle, fixture and fixturing of the component to secure maximum stability and rigidity. Unstable conditions can cause tool breakages.

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.

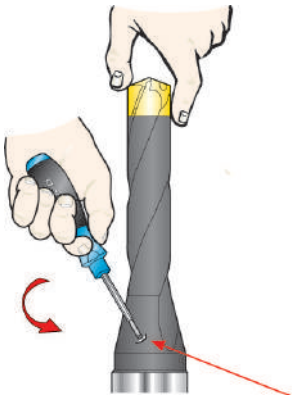
1.



2.

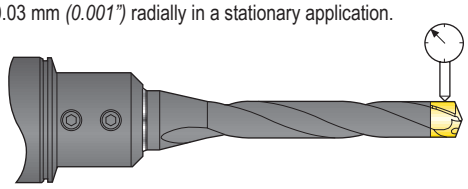


3.



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.

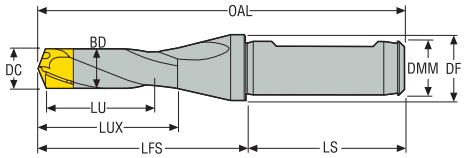


Recommended tool holders
For best results, use holders type DIN 1835 B/DIN 6535 HB (Weldon). For further information see Tooling catalog.

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) 182

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

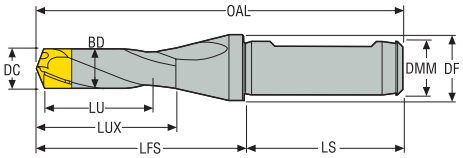
For drill dia. (mm)	Locking key	Locking screw	Spare parts set
12,00-13,99	H1.5-2D	MP6SS3X12	SD101-SP-5.0
14,00-16,99	H2.0-2D	MP6SS4X12	SD101-SP-6.0
17,00-19,99	H2.5-2D	MP6SS5X16	SD101-SP-7.0
20,00-25,99	H2.5-2D	MP6SS5X16	SD101-SP-8.0

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) 182

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

Spare Parts, included in delivery

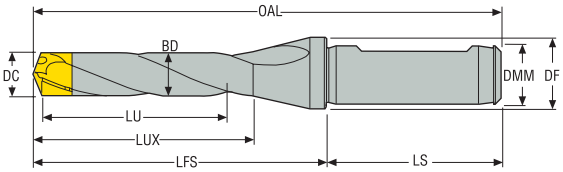
For drill dia. (inch)	Locking key	Locking screw	Spare parts set
0.472-0.551	H1.5-2D	MP6SS3X12	SD101-SP-5.0
0.551-0.669	H2.0-2D	MP6SS4X12	SD101-SP-6.0
0.669-0.787	H2.5-2D	MP6SS5X16	SD101-SP-7.0
0.787-1.023	H2.5-2D	MP6SS5X16	SD101-SP-8.0

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) 183

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

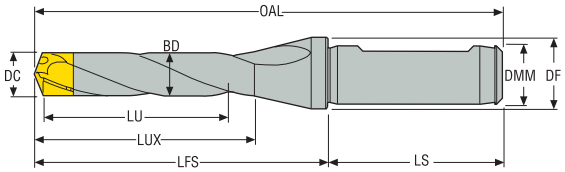
For drill dia. (mm)	Locking key	Locking screw	Spare parts set
10,00-11,99	H1.5-2D	MP6SS3X12	SD103-SP-4.0
12,00-13,99	H1.5-2D	MP6SS3X12	SD103-SP-5.0
14,00-16,99	H2.0-2D	MP6SS4X12	SD103-SP-6.0
17,00-19,99	H2.5-2D	MP6SS5X16	SD103-SP-7.0
20,00-25,99	H2.5-2D	MP6SS5X16	SD103-SP-8.0

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) 183

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

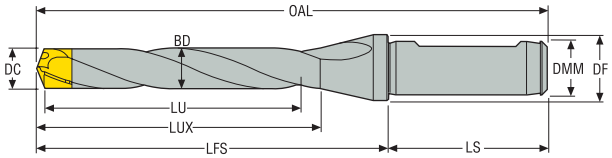
Spare Parts, included in delivery

Accessories

For drill dia. (inch)	Locking key	Locking screw	Spare parts set	Replacement blade	Torque key
0.374-0.393	H1.5-2D	MP6SS3X12	–	H00-1.5	H00-1509
0.394-0.472	H1.5-2D	MP6SS3X12	SD103-SP-4.0	H00-1.5	H00-1509
0.472-0.551	H1.5-2D	MP6SS3X12	SD103-SP-5.0	H00-1.5	H00-1509
0.551-0.669	H2.0-2D	MP6SS4X12	SD103-SP-6.0	H00-2.0	H00-2020
0.669-0.787	H2.5-2D	MP6SS5X16	SD103-SP-7.0	H00-2.5	H00-2530
0.787-1.023	H2.5-2D	MP6SS5X16	SD103-SP-8.0	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) 184

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

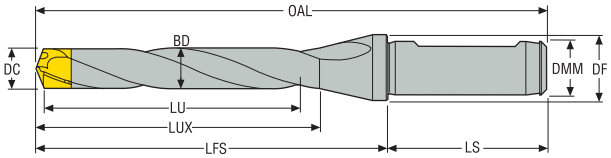
For drill dia. (mm)	Locking key	Locking screw	Spare parts set
10,00-11,99	H1.5-2D	MP6SS3X12	SD105-SP-4.0
12,00-13,99	H1.5-2D	MP6SS3X12	SD105-SP-5.0
14,00-16,99	H2.0-2D	MP6SS4X12	SD105-SP-6.0
17,00-19,99	H2.5-2D	MP6SS5X16	SD105-SP-7.0
20,00-25,99	H2.5-2D	MP6SS5X16	SD105-SP-8.0

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) 184

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

Spare Parts, included in delivery

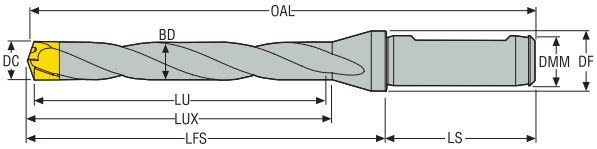
For drill dia. (inch)	Locking key	Locking screw	Spare parts set
0.394-0.472	H1.5-2D	MP6SS3X12	SD105-SP-4.0
0.472-0.551	H1.5-2D	MP6SS3X12	SD105-SP-5.0
0.551-0.669	H2.0-2D	MP6SS4X12	SD105-SP-6.0
0.669-0.787	H2.5-2D	MP6SS5X16	SD105-SP-7.0
0.787-1.023	H2.5-2D	MP6SS5X16	SD105-SP-8.0

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) 185

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

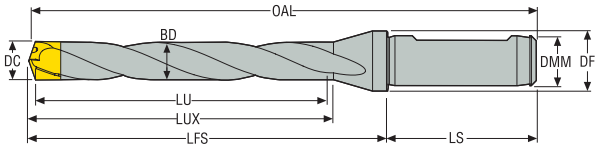
For drill dia. (mm)	Locking key	Locking screw	Spare parts set
12,00-13,99	H1.5-2D	MP6SS3X12	SD107-SP-5.0
14,00-16,99	H2.0-2D	MP6SS4X12	SD107-SP-6.0
17,00-19,99	H2.5-2D	MP6SS5X16	SD107-SP-7.0
20,00-25,99	H2.5-2D	MP6SS5X16	SD107-SP-8.0

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) 185

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

Spare Parts, included in delivery

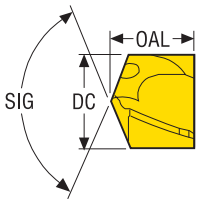
For drill dia. (inch)	Locking key	Locking screw	Spare parts set
0.472-0.551	H1.5-2D	MP6SS3X12	SD107-SP-5.0
0.551-0.669	H2.0-2D	MP6SS4X12	SD107-SP-6.0
0.669-0.787	H2.5-2D	MP6SS5X16	SD107-SP-7.0
0.787-1.023	H2.5-2D	MP6SS5X16	SD107-SP-8.0

Accessories

Replacement blade	Torque key
H00-1.5	H00-1509
H00-2.0	H00-2020
H00-2.5	H00-2530
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*
SD100-9.52-M	02700334	–	■	–	9,52	*0.375*	8,08	*0.318*
SD100-9.52-P	02673829	■	–	–	9,52	*0.375*	8,08	*0.318*
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*
SD100-11.50-P	02469065	■	–	–	11,5	*0.453*	9,4	*0.370*
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*
SD100-11.70-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*
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*

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*
SD100-12.41-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*
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*

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*
SD100-14.80-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*
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*

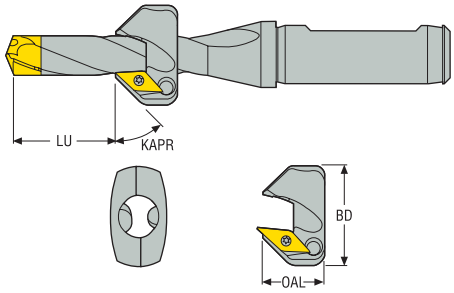
Designation	Item number	P-geometry for steel	M-geometry for stainless steels and high temp alloys	K-geometry for cast iron	DC		OAL	
					mm	*inch*	mm	*inch*
SD100-17.00-K	00090331	–	–	■	17,0	*0.669*	13,3	*0.524*
SD100-17.00-M	00090330	–	■	–	17,0	*0.669*	13,3	*0.524*
SD100-17.00-P	00090329	■	–	–	17,0	*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	■	–	–	18,8	*0.740*	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*
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*

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*
SD100-19.10-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*
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*

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
SD100-22.00-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
SD100-25.40-K	02569181	–	–	■	25,4	1.000	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
SD100-25.50-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
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

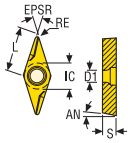
■ Stock standard.

Chamfer module



Designation	Item number	For drill body	KAPR°	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	45 °	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	45 °	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	45 °	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	45 °	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	45 °	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	45 °	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	45 °	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	45 °	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	45 °	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*

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*

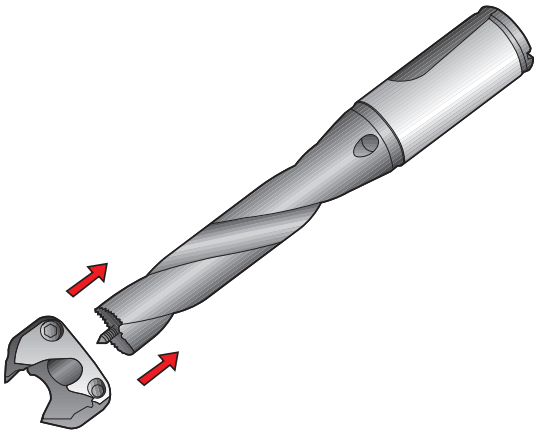
Grade: T400D

Designation: VCGX090202-D1

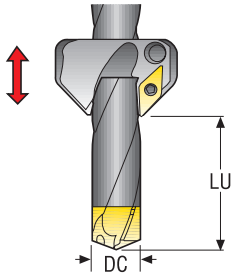
Item number: 00014948

Chamfer module – Mounting instruction/placement of module

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

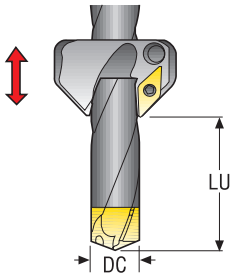


2.1 If possible, place the module as close to the shank as possible.



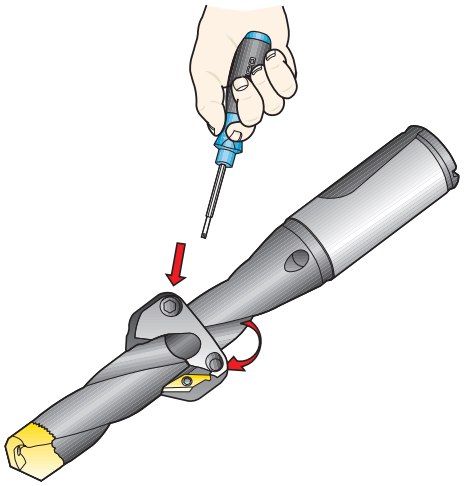
DC		LU drilling depth (min-max)			
		SD101		SD103	
mm	inch	mm	inch	mm	inch
12	.472	12-13	.472-.512	12-28	.472-1.102
12,5	.492	12-14	.472-.551	12-29	.472-1.142
13	.512	13-14	.512-.551	13-29	.512-1.142
14	.551	14-20	.551-.787	14-40	.551-1.575
15	.591	14-21	.551-.827	14-41	.551-1.614
16	.630	15-22	.591-.866	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

3. Tighten both screws according to the table below.



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

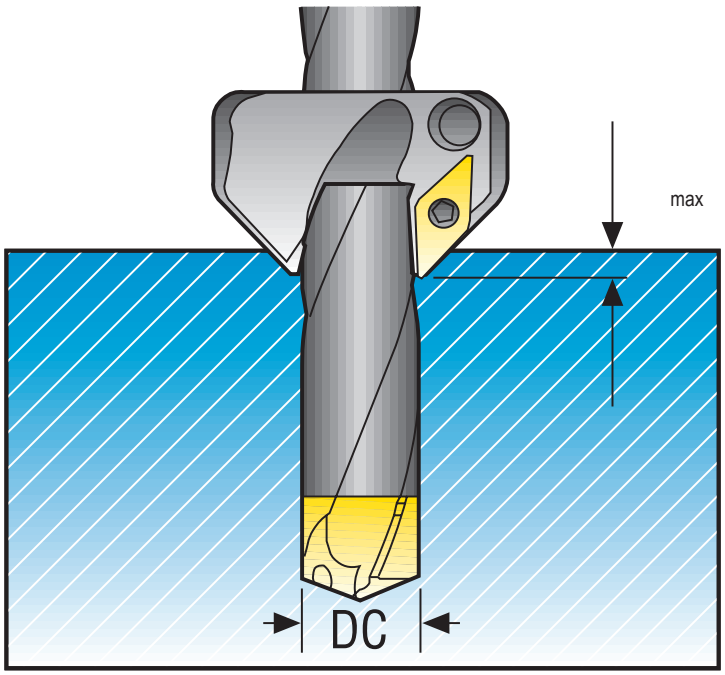
Chamfer module

The recommended cutting speeds and feeds for Crownloc® on pages 182-185 should also be used during the chamfering operation.

Troubleshooting

Vibrations during chamfering	• Reduce cutting speed • If possible, move the module closer to the shank of the drill • 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 *Ø 0.394*	Ø 12.00 *Ø 0.472*	Ø 14.00 *Ø 0.551*	Ø 16.00 *Ø 0.630*	Ø 18.00 *Ø 0.709*	Ø 20.00 *Ø 0.787*	Ø 22.00 *Ø 0.866*	Ø 24.00 *Ø 0.945*	Ø 26.00 *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 *Ø 0.394*	Ø 12.00 *Ø 0.472*	Ø 14.00 *Ø 0.551*	Ø 16.00 *Ø 0.630*	Ø 18.00 *Ø 0.709*	Ø 20.00 *Ø 0.787*	Ø 22.00 *Ø 0.866*	Ø 24.00 *Ø 0.945*	Ø 26.00 *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 *Ø 0.394*	Ø 12.00 *Ø 0.472*	Ø 14.00 *Ø 0.551*	Ø 16.00 *Ø 0.630*	Ø 18.00 *Ø 0.709*	Ø 20.00 *Ø 0.787*	Ø 22.00 *Ø 0.866*	Ø 24.00 *Ø 0.945*	Ø 26.00 *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*

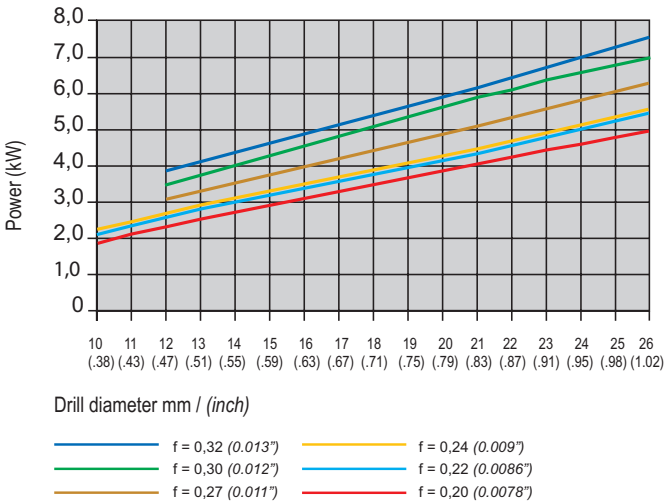
SMG		f								v_c
		Ø 12.00 *Ø 0.472*	Ø 14.00 *Ø 0.551*	Ø 16.00 *Ø 0.630*	Ø 18.00 *Ø 0.709*	Ø 20.00 *Ø 0.787*	Ø 22.00 *Ø 0.866*	Ø 24.00 *Ø 0.945*	Ø 26.00 *Ø 1.024*	
P1	P	0,24	0,26	0,28	0,30	0,32	0,34	0,34	0,36	110
	P	*0.0095*	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*0.013*	*0.014*	*360*
P2	P	0,24	0,26	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

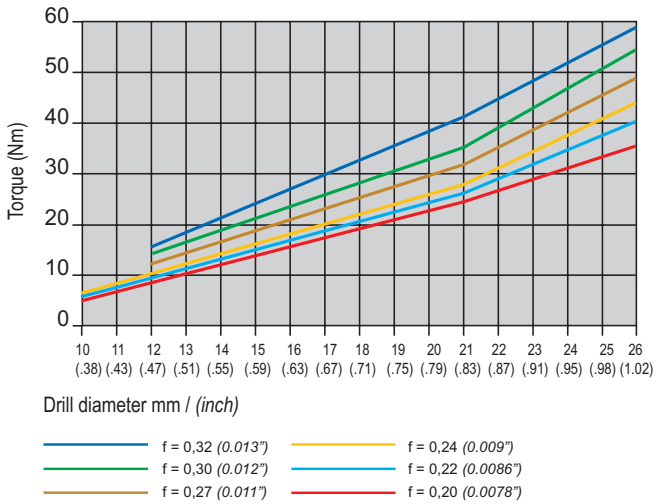
Machining data

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)*.

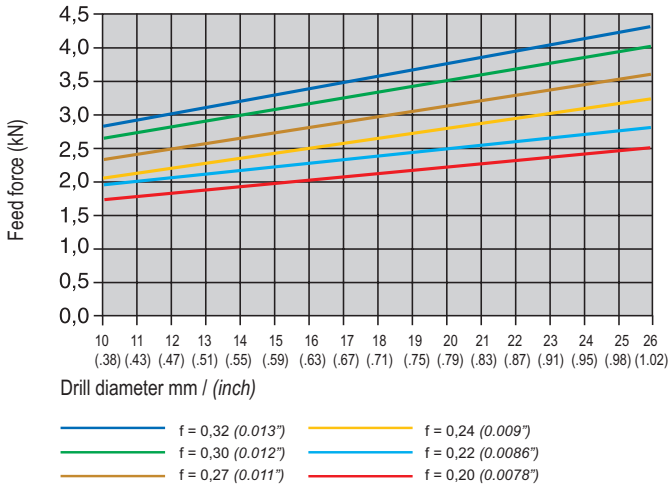
Net power consumption



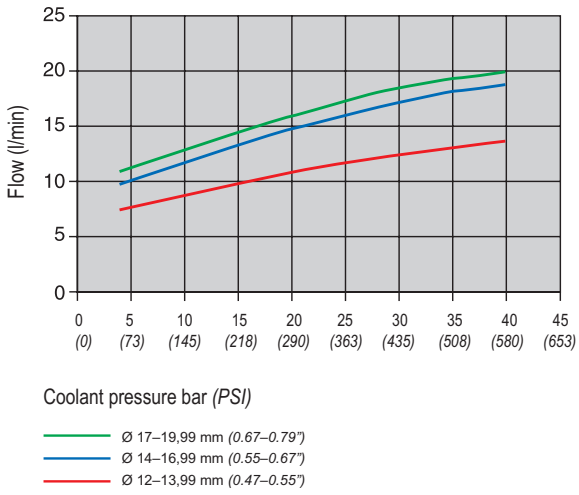
Drilling torque



Feed force



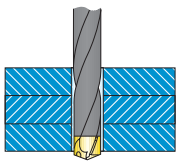
Coolant flow at different pressures



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
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:

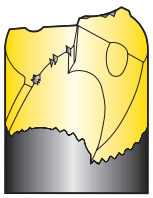
- Fixturing stability
- Machine spindle condition
- Tool holder condition

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

- Chip evacuation:
  - Cutting data

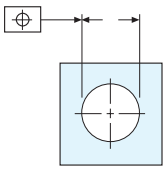
- Coolant:
  - Pressure
  - Flow
  - Concentration

Cutting edges get chipped



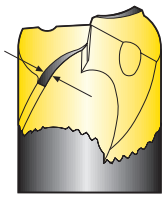
- Reduce the feed/rev
- If the drill vibrates, reduce the cutting speed and increase the feed rate
- When drilling through rough, hard or angled surfaces, reduce the feed rate by 30%-50% during entrance and exit

Unsatisfactory diameter tolerance



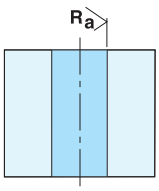
- Increase the feed/rev
- Use a Seco Feedmax solid carbide drill, see page(s) 15-17
- Use a reaming operation, see page(s) 302
- Use a boring operation, see page(s) 478-479

Too fast flank wear



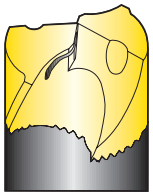
- Check that correct geometry is used
- Reduce the cutting speed

Unsatisfactory surface finish



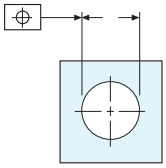
- Reduce the feed/rev
- Increase the cutting speed
- Check that the correct geometry is used
- Use a Seco Feedmax solid carbide drill, see page(s) 15-17
- Use a reaming operation, see page(s) 302

Groove wear



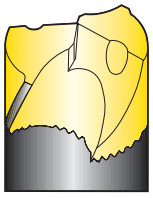
- Reduce the feed /rev
- Reduce the cutting speed
- Increase the coolant concentration

Unsatisfactory positioning of the hole



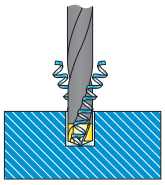
- Reduce the feed/rev
- If drilling through rough, hard and angled surface - reduce the feed by 30%-50% during entrance and exit
- Pre drill with a 140˚ point angle
- Use a Seco Feedmax solid carbide drill see Feedmax page(s) 15-17
- Use a boring operation, see page(s) 478-479

Wear of peripheral land margins



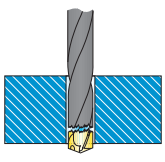
- Check that the correct geometry is used
- Reduce the cutting speed
- Increase the coolant concentration
- When drilling through rough, hard or angled surfaces, reduce the feed rate by 30-50% during entrance and exit

Chip jamming due to long chips



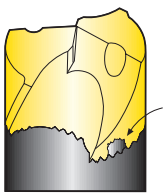
- Increase the feed
- In long chipping materials SMG P1-P4, SMG M1-M2:
  - Increase cutting speed and reduce feed/rev
  - Use the L geometry (MyDesign)

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	Page(s)	∅ Range	Drill depth	Drill ∅ tolerance	Hole tolerance (1)	Surface finish (2)
SD403	Page(s) 192-195	∅ 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) 196-199	∅ 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) 200-203	∅ 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

SD403	–	14.00/14.99	–	45	–	16	–	R	7
1		2		3		4		5	6

Inch

45	–	0750	–	R	7
3		4		5	6

1.
Type of drill
SD403: 3 x D
SD405: 5 x D
SD408: 8 x D

2.
Min/max
Crown diameter

3.
Drilling depth

4.
Shank diameter

5.
Right hand rotation

6
Type of shank
1. Cylindrical
7. ISO 9766

Code key crowns

SD400	–	14.00	–	P
		2		3

2.
Drill diameter

3.
Type of geometry
P = Steel
M = Stainless Steel

Geometries

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

M-geometry
- For stainless steels and high temp alloys

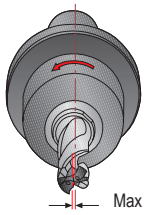
Mounting instructions

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.

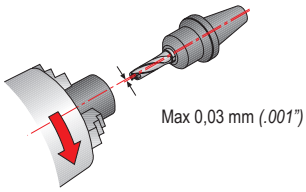
2. Rotating

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.

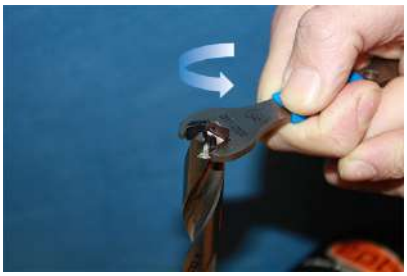
High precision collet chuck
(For cylindrical, -R1 shanks only)

Hydraulic chuck
(For cylindrical, -R1 shanks only)

Weldon

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

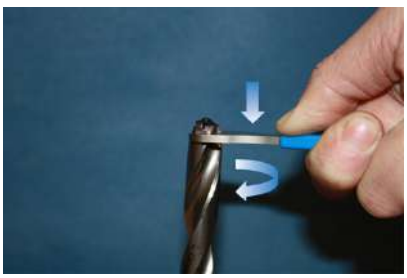
2. Turn the key counterclockwise to unclamp it with a quarter of a turn.



3. Clean the connection, before mounting the crown.

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

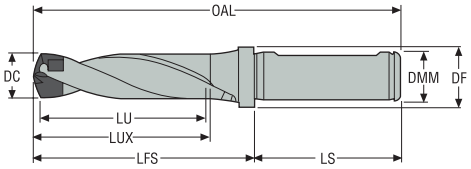
5. Simultaneously press down the crown when clamping on a quarter of a turn clockwise using the key and keep it perpendicular to the drill body.



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) 208

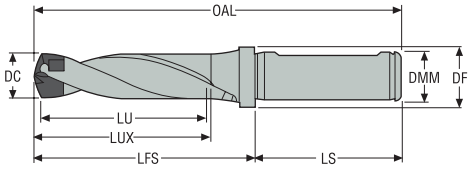
Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF
		mm	mm	mm	mm	mm	mm	mm	mm
SD403-12.00/12.49-38-16R7	02622894	12,0-12,49	38,0	106,2	46,2	58,2	48,0	16,0	20,0
SD403-12.50/12.99-39-16R7	02622895	12,5-12,99	39,0	108,0	47,5	60,0	48,0	16,0	20,0
SD403-13.00/13.99-42-16R7	02622896	13,0-13,99	42,0	111,9	50,9	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) 208

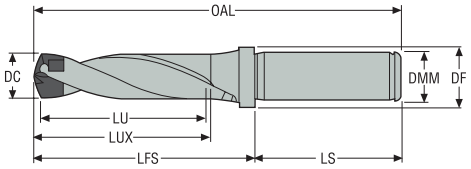
Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF
		Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch
SD403-12.00/12.49-38-0625R7	02622942	0.472-0.492	1.496	4.181	1.819	2.291	1.890	0.625	0.787
SD403-12.50/12.99-39-0625R7	02622943	0.492-0.511	1.535	4.252	1.870	2.362	1.890	0.625	0.787
SD403-13.00/13.99-42-0625R7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

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/HC/HCR/HCS and 5672
—For cutting data see page(s) 208

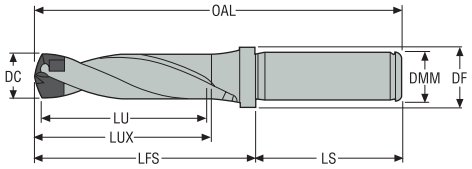
Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF
		mm	mm	mm	mm	mm	mm	mm	mm
SD403-12.00/12.49-38-16R1	02622920	12,0-12,49	38,0	106,2	46,2	58,2	48,0	16,0	20,0
SD403-12.50/12.99-39-16R1	02622921	12,5-12,99	39,0	108,0	47,5	60,0	48,0	16,0	20,0
SD403-13.00/13.99-42-16R1	02622922	13,0-13,99	42,0	111,9	50,9	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/HC/HCR/HCS and 5672
—For cutting data see page(s) 208

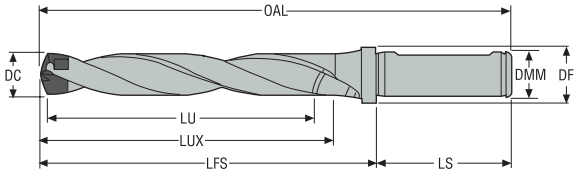
Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF
		Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch
SD403-12.00/12.49-38-0625R1	02623538	0.472-0.492	1.496	4.181	1.819	2.291	1.890	0.625	0.787
SD403-12.50/12.99-39-0625R1	02623539	0.492-0.511	1.535	4.252	1.870	2.362	1.890	0.625	0.787
SD403-13.00/13.99-42-0625R1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

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) 209

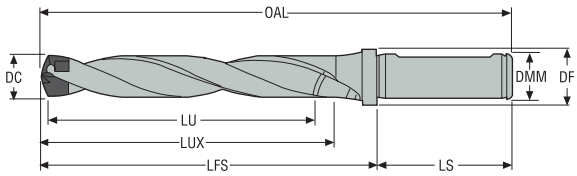
Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF
		mm	mm	mm	mm	mm	mm	mm	mm
SD405-12.00/12.49-63-16R7	02623554	12,0-12,49	63,0	131,2	71,2	83,2	48,0	16,0	20,0
SD405-12.50/12.99-65-16R7	02623555	12,5-12,99	65,0	134,0	73,5	86,0	48,0	16,0	20,0
SD405-13.00/13.99-70-16R7	02623556	13,0-13,99	70,0	139,9	78,9	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) 209

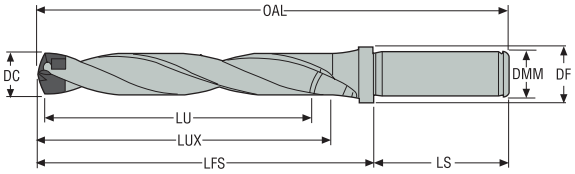
Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF
		Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch
SD405-12.00/12.49-63-0625R7	02623586	0.472-0.492	2.480	5.165	2.803	3.276	1.890	0.625	0.787
SD405-12.50/12.99-65-0625R7	02623587	0.492-0.511	2.559	5.276	2.894	3.386	1.890	0.625	0.787
SD405-13.00/13.99-70-0625R7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

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/HC/HCR/HCS and 5672
—For cutting data see page(s) 209

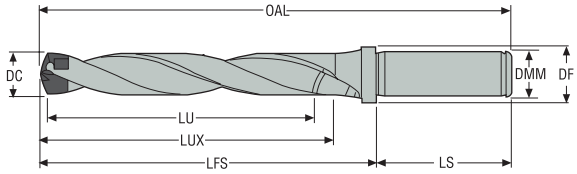
Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF
		mm	mm	mm	mm	mm	mm	mm	mm
SD405-12.00/12.49-63-16R1	02623570	12,0-12,49	63,0	131,2	71,2	83,2	48,0	16,0	20,0
SD405-12.50/12.99-65-16R1	02623571	12,5-12,99	65,0	134,0	73,5	86,0	48,0	16,0	20,0
SD405-13.00/13.99-70-16R1	02623572	13,0-13,99	70,0	139,9	78,9	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/HC/HCR/HCS and 5672
—For cutting data see page(s) 209

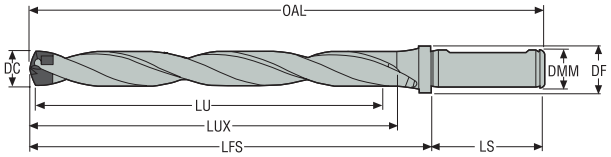
Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF
		Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch
SD405-12.00/12.49-63-0625R1	02623603	0.472-0.492	2.480	5.165	2.803	3.276	1.890	0.625	0.787
SD405-12.50/12.99-65-0625R1	02623604	0.492-0.511	2.559	5.276	2.894	3.386	1.890	0.625	0.787
SD405-13.00/13.99-70-0625R1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

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) 210

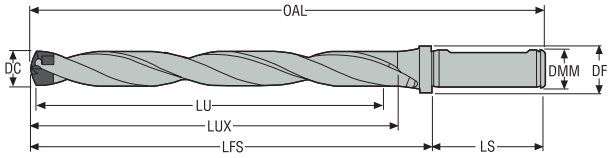
Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF
		mm	mm	mm	mm	mm	mm	mm	mm
SD408-12.00/12.49-100-16R7	02623615	12,0-12,49	100,0	168,2	108,2	120,2	48,0	16,0	20,0
SD408-12.50/12.99-104-16R7	02623616	12,5-12,99	104,0	173,0	112,5	125,0	48,0	16,0	20,0
SD408-13.00/13.99-112-16R7	02623617	13,0-13,99	112,0	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) 210

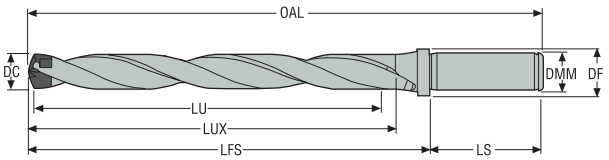
Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF
		Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch
SD408-12.00/12.49-100-0625R7	02623639	0.472-0.492	3.937	6.622	4.260	4.732	1.890	0.625	0.787
SD408-12.50/12.99-104-0625R7	02623640	0.492-0.511	4.094	6.811	4.429	4.921	1.890	0.625	0.787
SD408-13.00/13.99-112-0625R7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

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/HC/HCR/HCS and 5672
—For cutting data see page(s) 210

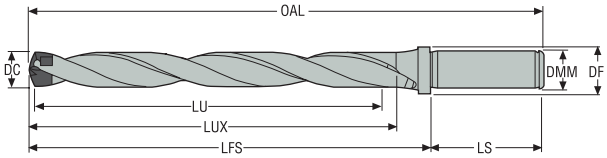
Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF
		mm	mm	mm	mm	mm	mm	mm	mm
SD408-12.00/12.49-100-16R1	02623627	12,0-12,49	100,0	168,2	108,2	120,2	48,0	16,0	20,0
SD408-12.50/12.99-104-16R1	02623628	12,5-12,99	104,0	173,0	112,5	125,0	48,0	16,0	20,0
SD408-13.00/13.99-112-16R1	02623629	13,0-13,99	112,0	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/HC/HCR/HCS and 5672
—For cutting data see page(s) 210

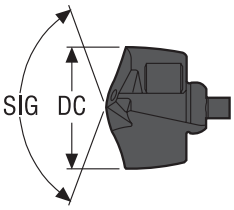
Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF
		Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch
SD408-12.00/12.49-100-0625R1	02623651	0.472-0.492	3.937	6.622	4.260	4.732	1.890	0.625	0.787
SD408-12.50/12.99-104-0625R1	02623652	0.492-0.511	4.094	6.811	4.429	4.921	1.890	0.625	0.787
SD408-13.00/13.99-112-0625R1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

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

Crowns – Geometry -P and -M

Point angle 140°



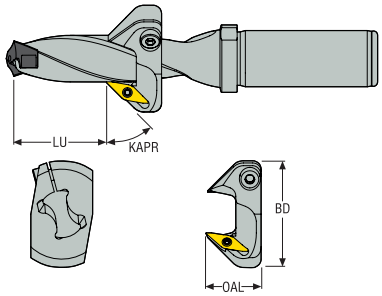
Designation	Item number	P-geometry for steel	M-geometry for stainless steels and high temp alloys	DC	
				mm	*inch*
SD400-12.00-M	02826210	–	■	12,0	*0.472*
SD400-12.00-P	02630908	■	–	12,0	*0.472*
SD400-12.10-P	02630910	■	–	12,1	*0.476*
SD400-12.20-P	02630911	■	–	12,2	*0.480*
SD400-12.30-M	02826211	–	■	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*
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*

Designation	Item number	P-geometry for steel	M-geometry for stainless steels and high temp alloys	DC	
				mm	*inch*
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*
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*

Designation	Item number	P-geometry for steel	M-geometry for stainless steels and high temp alloys	DC	
				mm	*inch*
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*
SD400-19.447-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*

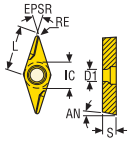
■ Stock standard.

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

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

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

SMG		f					v_c
		Ø12,00 *Ø 0.472*	Ø14,00 *Ø 0.551*	Ø16,00 *Ø 0.630*	Ø18,00 *Ø 0.709*	Ø20,00 *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 *Ø 0.472*	Ø 14,00 *Ø 0.551*	Ø 16,00 *Ø 0.630*	Ø 18,00 *Ø 0.709*	Ø 20,00 *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*

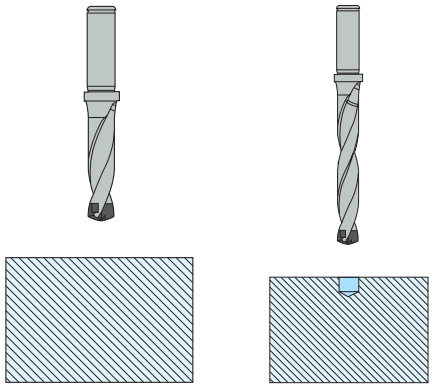
SMG		f					v_c
		Ø 12,00 *Ø 0.472*	Ø 14,00 *Ø 0.551*	Ø 16,00 *Ø 0.630*	Ø 18,00 *Ø 0.709*	Ø 20,00 *Ø 0.787*	
P1	P	0,30	0,32	0,34	0,36	0,36	100
	P	*0.012*	*0.013*	*0.013*	*0.014*	*0.014*	*330*
P2	P	0,30	0,32	0,34	0,36	0,38	100
	P	*0.012*	*0.013*	*0.013*	*0.014*	*0.015*	*330*
P3	P	0,28	0,30	0,32	0,34	0,36	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

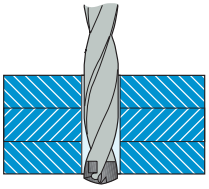
Application information

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.)



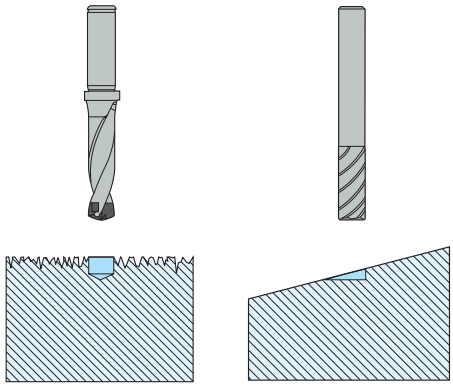
Stacked material
It is possible to drill stacked material as long as the pieces are securely clamped together, so that there are no air gaps between the parts. Air gaps can affect chip evacuation, and thereby damage the drill.



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



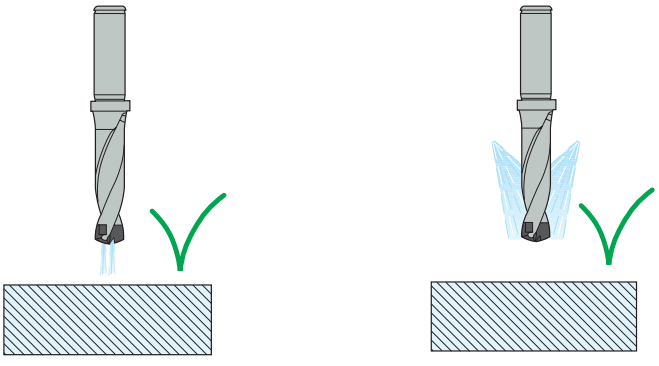
Irregular hole entrance

Angled hole entrance

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

Coolant recommendations

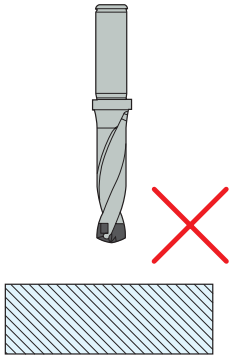
Coolant pressure
Minimum recommended coolant pressure 10 bar (145 PSI) with ≤ 3 x D
Minimum recommended coolant pressure 30 bar (435 PSI) with > 3 x D



First choice

< 3 x D

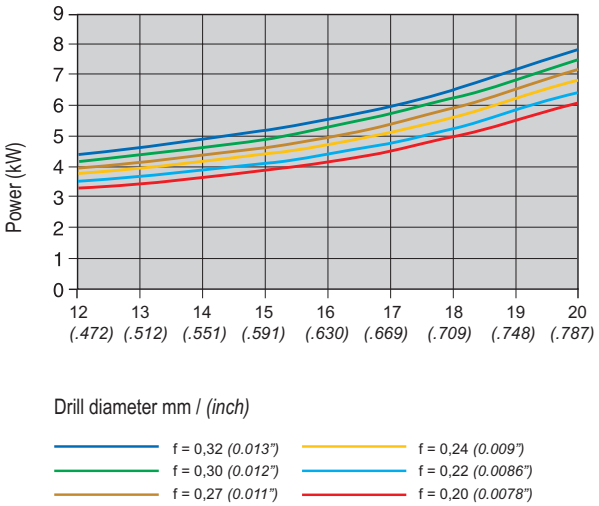
Coolant mix
Recommended emulsion mix 6-8%. When drilling in stainless steels, superalloys and high strength steels a mix of 10% is recommended



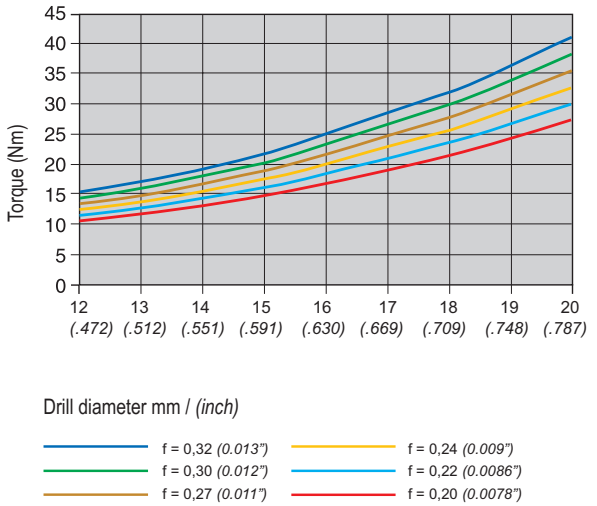
Machining data

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)*.

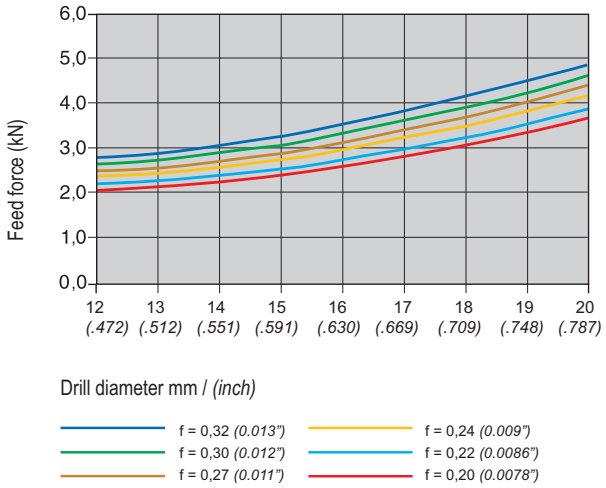
Net power consumption



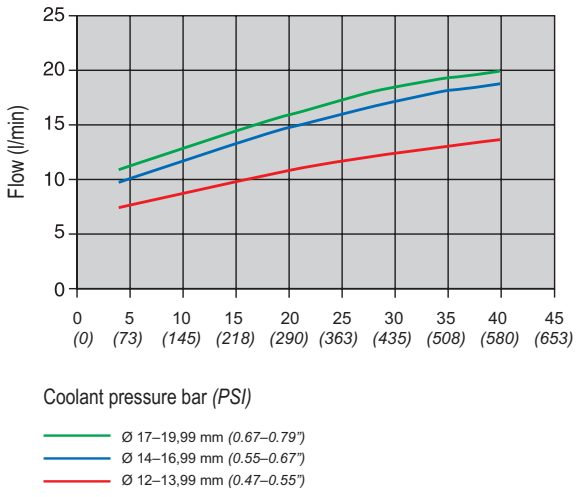
Drilling torque



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
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:

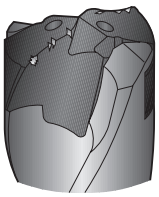
- Fixturing stability
- Machine spindle condition
- Tool holder condition

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

- Chip evacuation:
  - Cutting data

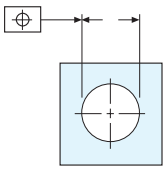
- Coolant:
  - Pressure
  - Flow
  - Concentration

Cutting edges get chipped



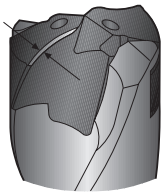
- Reduce the feed/rev
- If the drill vibrates, reduce the cutting speed and increase the feed rate
- When drilling through rough, hard or angled surfaces, reduce the feed rate by 30%-50% during entrance and exit

Unsatisfactory diameter tolerance



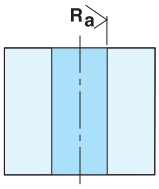
- Increase the feed/rev
- Use a Seco Feedmax solid carbide drill, see page(s) 15-17
- Use a reaming operation, see page(s) 302
- Use a boring operation, see page(s) 478-479

Too fast flank wear



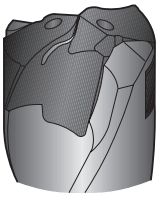
- Check that correct geometry is used
- Reduce the cutting speed

Unsatisfactory surface finish



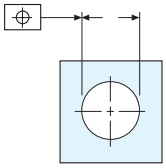
- Reduce the feed/rev
- Increase the cutting speed
- Check that the correct geometry is used
- Use a Seco Feedmax solid carbide drill, see page(s) 15-17
- Use a reaming operation, see page(s) 302

Groove wear



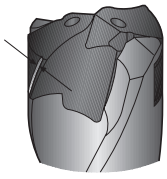
- Reduce the feed /rev
- Reduce the cutting speed
- Increase the coolant concentration

Unsatisfactory positioning of the hole



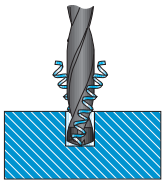
- Reduce the feed/rev
- If drilling through rough, hard and angled surface - reduce the feed by 30%-50% during entrance and exit
- Pre drill with a 140˚ point angle
- Use a Seco Feedmax solid carbide drill see Feedmax page(s) 15-17
- Use a boring operation, see page(s) 478-479

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®	Type	Page(s)	∅ Range	Drill depth	Drill ∅ tolerance	Hole tolerance
	SD522	Page(s) 220, 221, 222-226, 227	∅ 15-59 mm *(0.594-2.375“)*	~ 2 x D	+/- 0,1 mm *(+/- 0.004”)*	+0/+ 0,2 mm *(+0/+ 0.008”)*
	SD523	Page(s) 228, 229, 230, 231-242, 243	∅ 15-59 mm *(0.594-2.375“)*	~ 3 x D	+/- 0,1 mm *(+/- 0.004”)*	+0/+ 0,3 mm *(+0/+ 0.012”)*
	SD524	Page(s) 244, 245-255, 256	∅ 17-59 mm *(0.594-2.375“)*	~ 4 x D	+/- 0,1 mm *(+/- 0.004”)*	+ 0,4 mm *(+/0+ 0.016”)*
	SD525	Page(s) 257, 258-259	∅ 19-45 mm *(0.750-2.000“)*	~ 5 x D	+/- 0,1 mm *(+/- 0.004”)*	+0/+ 0,5 mm *(+0/+ 0.020”)*
	SD542	Page(s) 260-261	∅ 60-85 mm *(2.250-3.500“)*	~ 2.5 x D	+/- 0,1 mm *(+/- 0.004”)*	+0/+ 0,2 mm *(+0/+ 0.008”)*
	SD572	Page(s) 262	∅ 15-47 mm *(0.591“-1.850”)*	~ 2 x D	+/- 0,1 mm *(+/- 0.004”)*	+0/+ 0,2 mm *(+0/+ 0.008”)*
	SD602	Page(s) 265-269	∅ 60-160 mm *(2.5“-4.000“)*	~ 1-10 x D	+/- 0,2 mm *(+/- 0.008”)*	–

Code keys- Indexable insert drill

Metric

SD522	–	20	–	40	–	25	–	R	7
1		2		3		4		5	6

1.
Type of drill
SD522: 2 x D
SD523: 3 x D
SD524: 4 x D
SD525: 5 x D
SD542: 2,5 x D
SD572: 2 x D

2.
Drill diameter

3.
Drilling depth

4.
Shank diameter

5.
Right hand rotation

6
Type of shank
2. ABS-compatible
7. ISO 9766
8. VDI-compatible
G. Graflex

Inch

SD522	–	0750	–	150	–	1000	R	7	–	C
1		2		3		4	5	6		7

1.
Type of drill
SD522: 2 x D
SD523: 3 x D
SD524: 4 x D
SD525: 5 x D
SD542: 2,5 x D
SD572: 2 x D

2.
Drill diameter

3.
Drilling depth

4.
Shank diameter

5.
Right hand rotation

6
Type of shank
2. ABS-compatible
7. ISO 9766
8. VDI-compatible
G. Graflex

7
Application
C. Stationary

Capto™

SD523	–	20	–	60	–	C5
1		2		3		4

1.
Type of drill
SD523: 3 x D
SD524: 4 x D

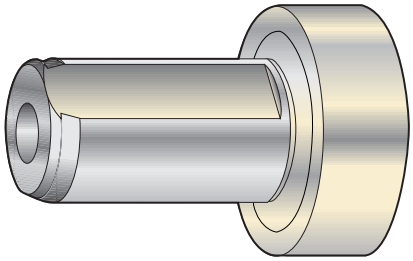
2.
Drill diameter

3.
Drilling depth

4.
Connection for Capto:
C4, C5, C6

Shanks

-R7

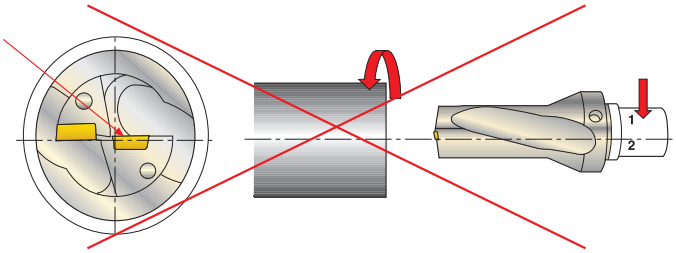


ISO 9766
Universal choice fits into most holders on the market such as:

- Weldon 1835B
- ISO 5414
- DIN 69880

Coolant inlet at the back end of the drill.

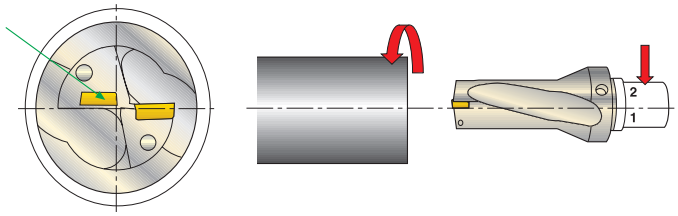
R7 and R7-C



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

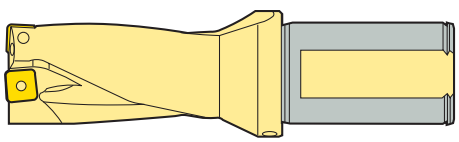
For non rotating applications:

- 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.

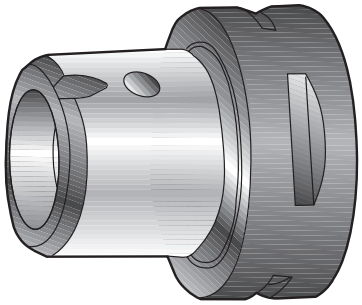


NOTE!

- 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

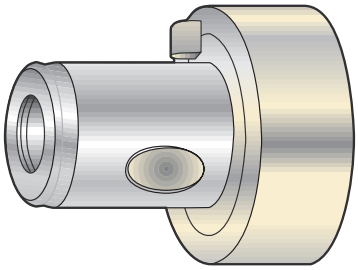
Seco-Capto



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.

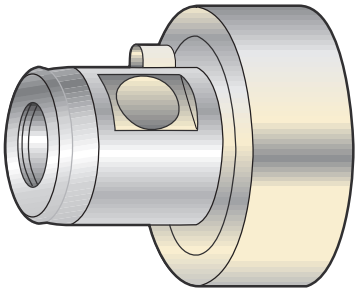
Graflex



- 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.

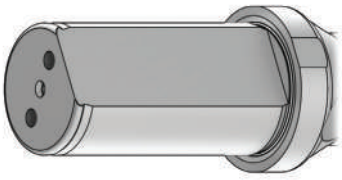
ABS 50 (compatible)



- 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

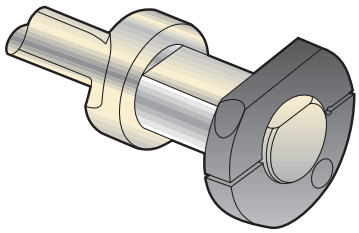
NOTE!
The coolant ring must be ordered separately.

Shanks – Coolant ring

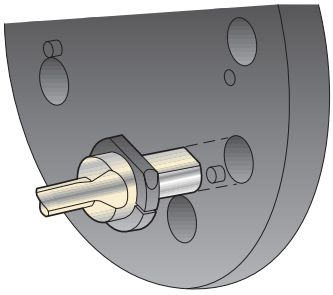
VDI 30			
Drill depth	Drill diameter mm	Drill diameter *inch*	Accessories Coolant ring
2 x D	15-31	*0.591-1.220*	SDA5-30R8
3 x D	15-31	*0.591-1.220*	SDA5-30R8
4 x D	17-31	*0.669-1.220*	SDA5-30R8
5 x D	19-31	*0.748-1.220*	SDA5-30R8

VDI 40					
Drill depth	Drill diameter mm	Drill diameter *inch*	Plug	Locking screw	Accessories Coolant ring
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

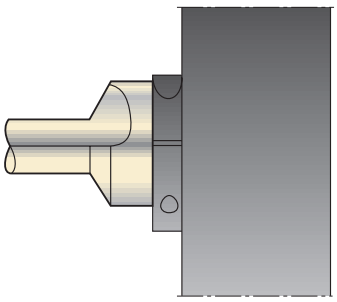
1. Fit the ring around the drill but do not tighten the locking screw.



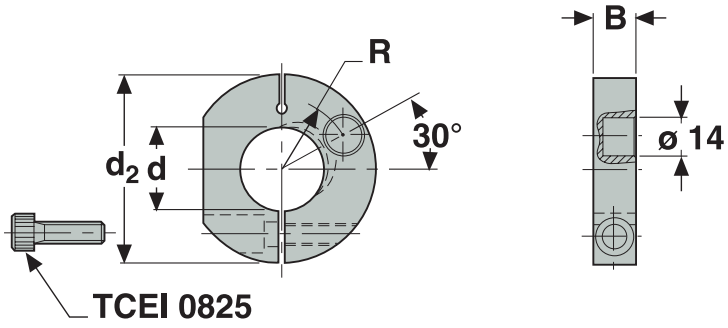
2. Lock the drill in the collet.



3. Tighten the locking screw in the coolant ring.

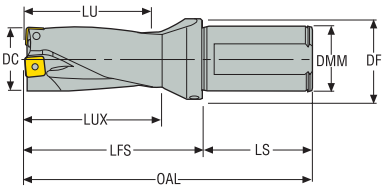


Coolant ring



SD522

Drilling depth ~ 2 X D – Metric/Inch



–ISO 9766 shank, -7
–Internal coolant
–For insert information see page(s) 275-278
–For cutting data see page(s) 279, 280
–For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert		Radial adjustment	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert	mm - Inch -	mm + Inch +
SD522-15-30-20R7	03080744	15,0 *0.591*	30,0 *1.181*	110,0 *4.331*	35,0 *1.378*	60,0 *2.362*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0502	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD522-15-30-25R7	03080745	15,0 *0.591*	30,0 *1.181*	116,0 *4.567*	35,0 *1.378*	60,0 *2.362*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0502	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD522-15.5-31-20R7	03080740	15,5 *0.610*	31,0 *1.220*	111,0 *4.370*	36,0 *1.417*	61,0 *2.402*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0502	SCGX050204	0,17 *0.007*	0,36 *0.014*
SD522-15.5-31-25R7	03080741	15,5 *0.610*	31,0 *1.220*	117,0 *4.606*	36,0 *1.417*	61,0 *2.402*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0502	SCGX050204	0,17 *0.007*	0,36 *0.014*
SD522-16-32-20R7	03080749	16,0 *0.630*	32,0 *1.260*	112,0 *4.409*	37,0 *1.457*	62,0 *2.441*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0502	SCGX050204	0,12 *0.005*	0,41 *0.016*
SD522-16-32-25R7	03080750	16,0 *0.630*	32,0 *1.260*	118,0 *4.646*	37,0 *1.457*	62,0 *2.441*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0502	SCGX050204	0,12 *0.005*	0,41 *0.016*
SD522-16.5-33-20R7	03080746	16,5 *0.650*	33,0 *1.299*	113,0 *4.449*	38,0 *1.496*	63,0 *2.480*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0502	SCGX050204	0,07 *0.003*	0,46 *0.018*
SD522-16.5-33-25R7	03080747	16,5 *0.650*	33,0 *1.299*	119,0 *4.685*	38,0 *1.496*	63,0 *2.480*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0502	SCGX050204	0,07 *0.003*	0,46 *0.018*
SD522-17-34-20R7	03080754	17,0 *0.669*	34,0 *1.339*	114,0 *4.488*	39,0 *1.535*	64,0 *2.520*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0502	SCGX050204	0,02 *0.001*	0,5 *0.020*
SD522-17-34-25R7	03080755	17,0 *0.669*	34,0 *1.339*	120,0 *4.724*	39,0 *1.535*	64,0 *2.520*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0502	SCGX050204	0,02 *0.001*	0,5 *0.020*
SD522-17.5-35-20R7	03080752	17,5 *0.689*	35,0 *1.378*	115,0 *4.528*	40,0 *1.575*	65,0 *2.559*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0602	SCGX050204	0,43 *0.017*	0,1 *0.004*
SD522-17.5-35-25R7	03080753	17,5 *0.689*	35,0 *1.378*	121,0 *4.764*	40,0 *1.575*	65,0 *2.559*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX050204	0,43 *0.017*	0,1 *0.004*
SD522-18-36-20R7	03080760	18,0 *0.709*	36,0 *1.417*	116,0 *4.567*	41,0 *1.614*	66,0 *2.598*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0602	SCGX050204	0,32 *0.013*	0,21 *0.008*
SD522-18-36-25R7	03080761	18,0 *0.709*	36,0 *1.417*	122,0 *4.803*	41,0 *1.614*	66,0 *2.598*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX050204	0,32 *0.013*	0,21 *0.008*
SD522-18.5-37-20R7	03080758	18,5 *0.728*	37,0 *1.457*	117,0 *4.606*	42,0 *1.654*	67,0 *2.638*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0602	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD522-18.5-37-25R7	03080759	18,5 *0.728*	37,0 *1.457*	123,0 *4.843*	42,0 *1.654*	67,0 *2.638*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD522-19-38-20R7	03080765	19,0 *0.748*	38,0 *1.496*	118,0 *4.646*	43,0 *1.693*	68,0 *2.677*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0602	SCGX050204	0,11 *0.004*	0,42 *0.017*
SD522-19-38-25R7	03080766	19,0 *0.748*	38,0 *1.496*	124,0 *4.882*	43,0 *1.693*	68,0 *2.677*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX050204	0,11 *0.004*	0,42 *0.017*
SD522-19.5-39-20R7	03080764	19,5 *0.768*	39,0 *1.535*	119,0 *4.685*	44,0 *1.732*	69,0 *2.717*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0602	SCGX060204	0,11 *0.004*	0,42 *0.017*
SD522-20-40-25R7	03080771	20,0 *0.787*	40,0 *1.575*	126,0 *4.961*	45,0 *1.772*	70,0 *2.756*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX060204	0,07 *0.003*	0,46 *0.018*
SD522-21-42-25R7	03080775	21,0 *0.827*	42,0 *1.654*	128,0 *5.039*	47,0 *1.850*	72,0 *2.835*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX060204	0,01 *0*	0,5 *0.020*
SD522-22-44-25R7	03080777	22,0 *0.866*	44,0 *1.732*	130,0 *5.118*	49,0 *1.929*	74,0 *2.913*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX060204	0,44 *0.017*	0,46 *0.018*
SD522-23-46-25R7	03080781	23,0 *0.906*	46,0 *1.811*	132,0 *5.197*	51,0 *2.008*	76,0 *2.992*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX070308	0,33 *0.013*	0,5 *0.020*
SD522-23.5-47-25R7	03192517	23,5 *0.925*	47,0 *1.850*	133,0 *5.236*	52,0 *2.047*	77,0 *3.031*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX070308	0,23 *0.009*	0,5 *0.020*
SD522-24-48-25R7	03080785	24,0 *0.945*	48,0 *1.890*	134,0 *5.276*	53,0 *2.087*	78,0 *3.071*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert		Radial adjustment	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert	mm - Inch -	mm + Inch +
SD522-25-50-32R7	03080788	25,0 *0.984*	50,0 *1.969*	140,0 *5.512*	55,0 *2.165*	80,0 *3.150*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD522-26-52-32R7	03080790	26,0 *1.024*	52,0 *2.047*	142,0 *5.591*	57,0 *2.244*	82,0 *3.228*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX070308	0,5 *0.020*	0,11 *0.004*
SD522-27-54-32R7	03080792	27,0 *1.063*	54,0 *2.126*	144,0 *5.669*	59,0 *2.323*	84,0 *3.307*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX070308	0,5 *0.020*	0,26 *0.010*
SD522-28-56-32R7	03080795	28,0 *1.102*	56,0 *2.205*	146,0 *5.748*	61,0 *2.402*	86,0 *3.386*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX070308	0,28 *0.011*	0,5 *0.020*
SD522-29-58-32R7	03080796	29,0 *1.142*	58,0 *2.283*	148,0 *5.827*	63,0 *2.480*	88,0 *3.465*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX09T308	0,18 *0.007*	0,5 *0.020*
SD522-30-60-32R7	03080798	30,0 *1.181*	60,0 *2.362*	150,0 *5.906*	65,0 *2.559*	90,0 *3.543*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX09T308	0,12 *0.005*	0,5 *0.020*
SD522-31-62-32R7	03080801	31,0 *1.220*	62,0 *2.441*	152,0 *5.984*	67,0 *2.638*	92,0 *3.622*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX09T308	0,12 *0.005*	0,5 *0.020*
SD522-32-64-32R7	03080802	32,0 *1.260*	64,0 *2.520*	154,0 *6.063*	69,0 *2.717*	94,0 *3.701*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,31 *0.012*
SD522-32-64-40R7	03080803	32,0 *1.260*	64,0 *2.520*	162,0 *6.378*	69,0 *2.717*	94,0 *3.701*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,31 *0.012*
SD522-33-66-32R7	03080805	33,0 *1.299*	66,0 *2.598*	156,0 *6.142*	71,0 *2.795*	96,0 *3.780*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,46 *0.018*
SD522-33-66-40R7	03080806	33,0 *1.299*	66,0 *2.598*	164,0 *6.457*	71,0 *2.795*	96,0 *3.780*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,46 *0.018*
SD522-34-68-32R7	03080808	34,0 *1.339*	68,0 *2.677*	158,0 *6.220*	73,0 *2.874*	98,0 *3.858*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX11T3	SCGX09T308	0,22 *0.009*	0,5 *0.020*
SD522-34-68-40R7	03080809	34,0 *1.339*	68,0 *2.677*	166,0 *6.535*	73,0 *2.874*	98,0 *3.858*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX09T308	0,22 *0.009*	0,5 *0.020*
SD522-35-70-32R7	03080810	35,0 *1.378*	70,0 *2.756*	160,0 *6.299*	75,0 *2.953*	100,0 *3.937*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX11T3	SCGX11T308	0,22 *0.009*	0,5 *0.020*
SD522-35-70-40R7	03080811	35,0 *1.378*	70,0 *2.756*	168,0 *6.614*	75,0 *2.953*	100,0 *3.937*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX11T308	0,22 *0.009*	0,5 *0.020*
SD522-36-72-32R7	03080813	36,0 *1.417*	72,0 *2.835*	162,0 *6.378*	77,0 *3.031*	102,0 *4.016*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX11T3	SCGX11T308	0,09 *0.004*	0,5 *0.020*
SD522-36-72-40R7	03080814	36,0 *1.417*	72,0 *2.835*	170,0 *6.693*	77,0 *3.031*	102,0 *4.016*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX11T308	0,09 *0.004*	0,5 *0.020*
SD522-37-74-32R7	03080816	37,0 *1.457*	74,0 *2.913*	164,0 *6.457*	79,0 *3.110*	104,0 *4.094*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX11T3	SCGX11T308	0,09 *0.004*	0,5 *0.020*
SD522-37-74-40R7	03080817	37,0 *1.457*	74,0 *2.913*	172,0 *6.772*	79,0 *3.110*	104,0 *4.094*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX11T308	0,09 *0.004*	0,5 *0.020*
SD522-38-76-32R7	03080818	38,0 *1.496*	76,0 *2.992*	166,0 *6.535*	81,0 *3.189*	106,0 *4.173*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX12T3	SCGX11T308	0,5 *0.020*	0,5 *0.020*
SD522-38-76-40R7	03080819	38,0 *1.496*	76,0 *2.992*	174,0 *6.850*	81,0 *3.189*	106,0 *4.173*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX11T308	0,5 *0.020*	0,5 *0.020*
SD522-39-78-32R7	03080821	39,0 *1.535*	78,0 *3.071*	168,0 *6.614*	83,0 *3.268*	108,0 *4.252*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX12T3	SCGX11T308	0,39 *0.015*	0,5 *0.020*
SD522-39-78-40R7	03080822	39,0 *1.535*	78,0 *3.071*	176,0 *6.929*	83,0 *3.268*	108,0 *4.252*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX11T308	0,39 *0.015*	0,5 *0.020*
SD522-40-80-32R7	03080823	40,0 *1.575*	80,0 *3.150*	170,0 *6.693*	85,0 *3.346*	110,0 *4.331*	60,0 *2.362*	32,0 *1.260*	50,0 *1.969*	SPGX12T3	SCGX11T308	0,19 *0.007*	0,5 *0.020*
SD522-40-80-40R7	03080824	40,0 *1.575*	80,0 *3.150*	178,0 *7.008*	85,0 *3.346*	110,0 *4.331*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX11T308	0,19 *0.007*	0,5 *0.020*
SD522-41-82-40R7	03080826	41,0 *1.614*	82,0 *3.228*	180,0 *7.087*	87,0 *3.425*	112,0 *4.409*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX120408	0,19 *0.007*	0,5 *0.020*
SD522-42-84-40R7	03080828	42,0 *1.654*	84,0 *3.307*	182,0 *7.165*	89,0 *3.504*	114,0 *4.488*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX120408	0,19 *0.007*	0,5 *0.020*
SD522-43-86-40R7	03080830	43,0 *1.693*	86,0 *3.386*	184,0 *7.244*	91,0 *3.583*	116,0 *4.567*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX120408	0,05 *0.002*	0,5 *0.020*
SD522-44-88-40R7	03080832	44,0 *1.732*	88,0 *3.465*	186,0 *7.323*	93,0 *3.661*	118,0 *4.646*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX1504	SCGX120408	0,5 *0.020*	0,41 *0.016*
SD522-45-90-40R7	03080834	45,0 *1.772*	90,0 *3.543*	188,0 *7.402*	95,0 *3.740*	120,0 *4.724*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX1504	SCGX150512	0,5 *0.020*	0,41 *0.016*
SD522-46-92-40R7	03080835	46,0 *1.811*	92,0 *3.622*	190,0 *7.480*	97,0 *3.819*	122,0 *4.803*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX1504	SCGX150512	0,5 *0.020*	0,5 *0.020*
SD522-47-94-40R7	03080836	47,0 *1.850*	94,0 *3.701*	192,0 *7.559*	99,0 *3.898*	124,0 *4.882*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX1504	SCGX150512	0,5 *0.020*	0,5 *0.020*
SD522-48-96-40R7	03080837	48,0 *1.890*	96,0 *3.780*	194,0 *7.638*	101,0 *3.976*	126,0 *4.961*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1504	SCGX150512	0,45 *0.018*	0,5 *0.020*
SD522-49-98-40R7	03080838	49,0 *1.929*	98,0 *3.858*	196,0 *7.717*	103,0 *4.055*	128,0 *5.039*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1504	SCGX150512	0,2 *0.008*	0,5 *0.020*
SD522-50-100-40R7	03080839	50,0 *1.969*	100,0 *3.937*	198,0 *7.795*	105,0 *4.134*	130,0 *5.118*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1504	SCGX150512	0,2 *0.008*	0,5 *0.020*

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert		Radial adjustment	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert	mm - Inch -	mm + Inch +
SD522-51-102-40R7	03080840	51,0 *2.008*	102,0 *4.016*	200,0 *7.874*	107,0 *4.213*	132,0 *5.197*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1504	SCGX150512	0,2 *0.008*	0,5 *0.020*
SD522-52-104-40R7	03080841	52,0 *2.047*	104,0 *4.094*	202,0 *7.953*	109,0 *4.291*	134,0 *5.276*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1904	SCGX150512	0,5 *0.020*	0,42 *0.017*
SD522-53-106-40R7	03080842	53,0 *2.087*	106,0 *4.173*	204,0 *8.031*	111,0 *4.370*	136,0 *5.354*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1904	SCGX150512	0,5 *0.020*	0,42 *0.017*
SD522-54-108-40R7	03080843	54,0 *2.126*	108,0 *4.252*	206,0 *8.110*	113,0 *4.449*	138,0 *5.433*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1904	SCGX150512	0,5 *0.020*	0,5 *0.020*
SD522-55-110-40R7	03080844	55,0 *2.165*	110,0 *4.331*	208,0 *8.189*	115,0 *4.528*	140,0 *5.512*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1904	SCGX150512	0,5 *0.020*	0,5 *0.020*
SD522-56-112-40R7	03080845	56,0 *2.205*	112,0 *4.409*	210,0 *8.268*	117,0 *4.606*	142,0 *5.591*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1904	SCGX150512	0,5 *0.020*	0,5 *0.020*
SD522-57-114-40R7	03080846	57,0 *2.244*	114,0 *4.488*	212,0 *8.346*	119,0 *4.685*	144,0 *5.669*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1904	SCGX150512	0,39 *0.015*	0,5 *0.020*
SD522-58-116-40R7	03080847	58,0 *2.283*	116,0 *4.567*	214,0 *8.425*	121,0 *4.764*	146,0 *5.748*	68,0 *2.677*	40,0 *1.575*	63,0 *2.480*	SPGX1904	SCGX150512	0,09 *0.004*	0,5 *0.020*
SD522-59-118-40R7	03080848	59,0 *2.323*	118,0 *4.646*	216,0 *8.504*	123,0 *4.843*	148,0 *5.827*	68,0 *2.677*	40,0 *1.575*	63,0 *2.480*	SPGX1904	SCGX150512	0,09 *0.004*	0,5 *0.020*

Spare Parts, included in delivery

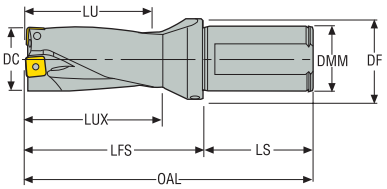
For drill dia. (mm)	Insert screw centre	Insert screw periph	Key
15,00-17,00	C02245-T07P	C02245-T07P	T07P-2
15,00-17,00	–	C02245-T07P	T07P-2
17,5-19,00	C02205-T07P	C02245-T07P	T07P-2
19,5-21,00	C02205-T07P	C02506-T08P	T07P-2
19,5-21,00	–	C02205-T07P	T07P-2
22,00	C02506-T08P	C03007-T09P	T08P-2
23,00-25,00	C02507-T08P	C03007-T08P	T08P-2
26,00-28,00	C03508-T15P	C03007-T09P	T09P-2
26,00-28,00	C03007-T09P	–	T09P-2
29,00-31,00	C03007-T09P	C03009-T09P	T09P-2
32,00-40,00	C03508-T15P	–	T15P-2D
32,00-40,00	–	C03508-T15P	T15P-2D
41,00-43,00	C03508-T15P	C05012-T15P	T15P-2D
42,00-59,00	C04011-T15P	C05012-T15P	T15P-2D

Accessories

For drill dia. (mm)	Torque wrench
15,00-17,00	T00-07P09
17,5-19,00	T00-07P09
19,5-21,00	T00-07P09
22,00	T00-08P12
23,00-25,00	T00-08P12
26,00-28,00	T00-09P20
29,00-31,00	T00-09P20
32,00-40,00	T00-15P30
41,00-43,00	T00-15P30
42,00-59,00	T00-15P35

SD522

Drilling depth ~ 2 X D – Inch



–ISO 9766 shank, R7
–Internal coolant
–For insert information see page(s) 275-278
–For cutting data see page(s) 279, 280
–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

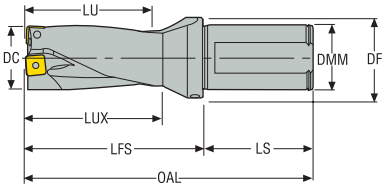
For drill dia. (inch)	Insert screw centre	Insert screw periph	Key
0.594-0.687	C02245-T07P	C02245-T07P	T07P-2
0.709-0.766	C02205-T07P	C02245-T07P	T07P-2
0.787-0.827	C02205-T07P	C02205-T07P	T07P-2
0.875	C02506-T08P	C02506-T08P	T08P-2
0.906-1.000	C02507-T08P	C03007-T08P	T08P-2
1.032-1.062	C03007-T09P	C03007-T09P	T09P-2
1.125-1.187	C03007-T09P	C03009-T09P	T09P-2
1.250-1.500	C03508-T15P	C03508-T15P	T15P-2D
1.250-1.500	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
0.594-0.687	T00-07P09
0.709-0.766	T00-07P09
0.787-0.827	T00-07P09
0.875	T00-08P12
0.906-1.000	T00-08P12
1.032-1.062	T00-09P20
1.125-1.187	T00-09P20
1.250-1.500	T00-15P30
1.625	T00-15P30
1.750-2.375	T00-15P35

SD522

Drilling depth ~ 2 X D – Inch



–ISO 9766 shank, R7-C
–Internal coolant
–For insert information see page(s) 275-278
–For cutting data see page(s) 279-280
–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

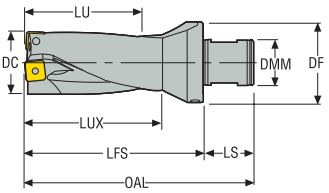
Spare Parts, included in delivery

Accessories

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

SD522

Drilling depth ~ 2 X D – Metric/Inch



– ABS 50 compatible shank, R2
– Internal coolant
– For insert information see page(s) 275–278
– For cutting data see page(s) 279, 280
– For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert		Radial adjustment	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert	mm - Inch -	mm + Inch +
SD522-15-30-50R2	03081056	15,0 *0.591*	30,0 *1.181*	91,0 *3.583*	35,0 *1.378*	60,0 *2.362*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0502	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD522-15.5-31-50R2	03081057	15,5 *0.610*	31,0 *1.220*	92,0 *3.622*	36,0 *1.417*	61,0 *2.402*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0502	SCGX050204	0,17 *0.007*	0,36 *0.014*
SD522-16-32-50R2	03080751	16,0 *0.630*	32,0 *1.260*	93,0 *3.661*	37,0 *1.457*	62,0 *2.441*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0502	SCGX050204	0,12 *0.005*	0,41 *0.016*
SD522-16.5-33-50R2	03081058	16,5 *0.650*	33,0 *1.299*	94,0 *3.701*	38,0 *1.496*	63,0 *2.480*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0502	SCGX050204	0,07 *0.003*	0,46 *0.018*
SD522-17-34-50R2	03081059	17,0 *0.669*	34,0 *1.339*	95,0 *3.740*	39,0 *1.535*	64,0 *2.520*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0502	SCGX050204	0,02 *0.001*	0,5 *0.020*
SD522-17.5-35-50R2	03081060	17,5 *0.689*	35,0 *1.378*	96,0 *3.780*	40,0 *1.575*	65,0 *2.559*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX050204	0,43 *0.017*	0,1 *0.004*
SD522-18-36-50R2	03080762	18,0 *0.709*	36,0 *1.417*	97,0 *3.819*	41,0 *1.614*	66,0 *2.598*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX050204	0,32 *0.013*	0,21 *0.008*
SD522-18.5-37-50R2	03081061	18,5 *0.728*	37,0 *1.457*	98,0 *3.858*	42,0 *1.654*	67,0 *2.638*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD522-19-38-50R2	03080767	19,0 *0.748*	38,0 *1.496*	99,0 *3.898*	43,0 *1.693*	68,0 *2.677*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX050204	0,11 *0.004*	0,42 *0.017*
SD522-20-40-50R2	03080772	20,0 *0.787*	40,0 *1.575*	101,0 *3.976*	45,0 *1.772*	70,0 *2.756*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX060204	0,07 *0.003*	0,46 *0.018*
SD522-20.62-42-50R2	03080768	20,62 *0.812*	42,0 *1.654*	103,0 *4.055*	47,0 *1.850*	72,0 *2.835*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX060204	0,03 *0.001*	0,5 *0.020*
SD522-21-42-50R2	03081062	21,0 *0.827*	42,0 *1.654*	103,0 *4.055*	47,0 *1.850*	72,0 *2.835*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX060204	0,01 *0*	0,5 *0.020*
SD522-22-44-50R2	03080778	22,0 *0.866*	44,0 *1.732*	105,0 *4.134*	49,0 *1.929*	74,0 *2.913*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX060204	0,44 *0.017*	0,46 *0.018*
SD522-22.23-45-50R2	03080776	22,23 *0.875*	45,0 *1.772*	106,0 *4.173*	50,0 *1.969*	75,0 *2.953*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX060204	0,39 *0.015*	0,5 *0.020*
SD522-23-46-50R2	03080782	23,0 *0.906*	46,0 *1.811*	107,0 *4.213*	51,0 *2.008*	76,0 *2.992*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX070308	0,33 *0.013*	0,5 *0.020*
SD522-24-48-50R2	03080786	24,0 *0.945*	48,0 *1.890*	109,0 *4.291*	53,0 *2.087*	78,0 *3.071*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD522-25-50-50R2	03080789	25,0 *0.984*	50,0 *1.969*	111,0 *4.370*	55,0 *2.165*	80,0 *3.150*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD522-25.40-51-50R2	03080787	25,4 *1.000*	51,0 *2.008*	112,0 *4.409*	56,0 *2.205*	81,0 *3.189*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD522-26-52-50R2	03080791	26,0 *1.024*	52,0 *2.047*	113,0 *4.449*	57,0 *2.244*	82,0 *3.228*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX070308	0,5 *0.020*	0,11 *0.004*
SD522-27-54-50R2	03080793	27,0 *1.063*	54,0 *2.126*	115,0 *4.528*	59,0 *2.323*	84,0 *3.307*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX070308	0,5 *0.020*	0,26 *0.010*
SD522-28-56-50R2	03081087	28,0 *1.102*	56,0 *2.205*	117,0 *4.606*	61,0 *2.402*	86,0 *3.386*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX070308	0,28 *0.011*	0,5 *0.020*
SD522-28.59-58-50R2	03080794	28,59 *1.126*	58,0 *2.283*	119,0 *4.685*	63,0 *2.480*	88,0 *3.465*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX09T308	0,21 *0.008*	0,5 *0.020*
SD522-29-58-50R2	03080797	29,0 *1.142*	58,0 *2.283*	119,0 *4.685*	63,0 *2.480*	88,0 *3.465*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX09T308	0,18 *0.007*	0,5 *0.020*
SD522-30-60-50R2	03080799	30,0 *1.181*	60,0 *2.362*	121,0 *4.764*	65,0 *2.559*	90,0 *3.543*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX09T308	0,12 *0.005*	0,5 *0.020*
SD522-31-62-50R2	03081063	31,0 *1.220*	62,0 *2.441*	123,0 *4.843*	67,0 *2.638*	92,0 *3.622*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX09T308	0,12 *0.005*	0,5 *0.020*

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

Spare Parts, included in delivery

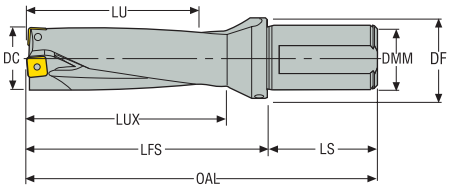
For drill dia. (mm)	Insert screw centre	Insert screw periph	Key
15,00-17,00	C02245-T07P	C02245-T07P	T07P-2
15,00-17,00	C02245-T07P	–	T07P-2
17,50-19,00	C02205-T07P	C02245-T07P	T07P-2
20,00-21,00	C02506-T08P	C02205-T07P	T07P-2
20,00-21,00	C02205-T07P	–	T07P-2
22,00-22,23	C02506-T08P	C03007-T09P	T08P-2
23,00-25,00	C02507-T08P	C03007-T08P	T08P-2
26,00-28,00	C03007-T09P	C03508-T15P	T09P-2
28,59-31,00	C03007-T09P	C03009-T09P	T09P-2
31,75-40,00	C03508-T15P	–	T15P-2D
31,75-40,00	–	C03508-T15P	T15P-2D
41,00-43,00	C03508-T15P	C05012-T15P	T15P-2D
44,45	C04011-T15P	C05012-T15P	T15P-2D

Accessories

Torque wrench
T00-07P09
T00-07P09
T00-07P09
T00-08P12
T00-08P12
T00-09P20
T00-09P20
T00-15P30
T00-15P30
T00-15P35

SD523

Drilling depth ~ 3 x D – Metric/Inch



–ISO 9766 shank, -7
–Internal coolant
–For insert information see page(s) 275-278
–For cutting data see page(s) 281-282
–For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert		Radial adjustment	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert	mm - Inch -	mm + Inch +
SD523-15-45-20R7	03080548	15,0 *0.591*	45,0 *1.772*	125,0 *4.921*	50,0 *1.969*	75,0 *2.953*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0502	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD523-15-45-25R7	03080549	15,0 *0.591*	45,0 *1.772*	131,0 *5.157*	50,0 *1.969*	75,0 *2.953*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0502	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD523-15.5-47-20R7	03080544	15,5 *0.610*	47,0 *1.850*	127,0 *5.000*	52,0 *2.047*	77,0 *3.031*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0502	SCGX050204	0,17 *0.007*	0,36 *0.014*
SD523-15.5-47-25R7	03080545	15,5 *0.610*	47,0 *1.850*	133,0 *5.236*	52,0 *2.047*	77,0 *3.031*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0502	SCGX050204	0,17 *0.007*	0,36 *0.014*
SD523-16-48-20R7	03080557	16,0 *0.630*	48,0 *1.890*	128,0 *5.039*	53,0 *2.087*	78,0 *3.071*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0502	SCGX050204	0,12 *0.005*	0,41 *0.016*
SD523-16-48-25R7	03080558	16,0 *0.630*	48,0 *1.890*	134,0 *5.276*	53,0 *2.087*	78,0 *3.071*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0502	SCGX050204	0,12 *0.005*	0,41 *0.016*
SD523-16.5-50-20R7	03080552	16,5 *0.650*	50,0 *1.969*	130,0 *5.118*	55,0 *2.165*	80,0 *3.150*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0502	SCGX050204	0,07 *0.003*	0,46 *0.018*
SD523-16.5-50-25R7	03080554	16,5 *0.650*	50,0 *1.969*	136,0 *5.354*	55,0 *2.165*	80,0 *3.150*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0502	SCGX050204	0,07 *0.003*	0,46 *0.018*
SD523-17-51-20R7	03080568	17,0 *0.669*	51,0 *2.008*	131,0 *5.157*	56,0 *2.205*	81,0 *3.189*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0502	SCGX050204	0,02 *0.001*	0,5 *0.020*
SD523-17-51-25R7	03080569	17,0 *0.669*	51,0 *2.008*	137,0 *5.394*	56,0 *2.205*	81,0 *3.189*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0502	SCGX050204	0,02 *0.001*	0,5 *0.020*
SD523-17.5-53-20R7	03080562	17,5 *0.689*	53,0 *2.087*	133,0 *5.236*	58,0 *2.283*	83,0 *3.268*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0602	SCGX050204	0,43 *0.017*	0,1 *0.004*
SD523-17.5-53-25R7	03080563	17,5 *0.689*	53,0 *2.087*	139,0 *5.472*	58,0 *2.283*	83,0 *3.268*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX050204	0,43 *0.017*	0,1 *0.004*
SD523-18-54-20R7	03080574	18,0 *0.709*	54,0 *2.126*	134,0 *5.276*	59,0 *2.323*	84,0 *3.307*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0602	SCGX050204	0,32 *0.013*	0,21 *0.008*
SD523-18-54-25R7	03080575	18,0 *0.709*	54,0 *2.126*	140,0 *5.512*	59,0 *2.323*	84,0 *3.307*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX050204	0,32 *0.013*	0,21 *0.008*
SD523-18.5-56-20R7	03080570	18,5 *0.728*	56,0 *2.205*	136,0 *5.354*	61,0 *2.402*	86,0 *3.386*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0602	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD523-18.5-56-25R7	03080571	18,5 *0.728*	56,0 *2.205*	142,0 *5.591*	61,0 *2.402*	86,0 *3.386*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD523-19-57-20R7	03080583	19,0 *0.748*	57,0 *2.244*	137,0 *5.394*	62,0 *2.441*	87,0 *3.425*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0602	SCGX050204	0,11 *0.004*	0,42 *0.017*
SD523-19-57-25R7	03080584	19,0 *0.748*	57,0 *2.244*	143,0 *5.630*	62,0 *2.441*	87,0 *3.425*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX050204	0,11 *0.004*	0,42 *0.017*
SD523-19.5-59-20R7	03080579	19,5 *0.768*	59,0 *2.323*	139,0 *5.472*	64,0 *2.520*	89,0 *3.504*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0602	SCGX060204	0,11 *0.004*	0,42 *0.017*
SD523-19.5-59-25R7	03080580	19,5 *0.768*	59,0 *2.323*	145,0 *5.709*	64,0 *2.520*	89,0 *3.504*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX060204	0,11 *0.004*	0,42 *0.017*
SD523-20-60-25R7	03080590	20,0 *0.787*	60,0 *2.362*	146,0 *5.748*	65,0 *2.559*	90,0 *3.543*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX060204	0,07 *0.003*	0,46 *0.018*
SD523-20.5-62-25R7	03080586	20,5 *0.807*	62,0 *2.441*	148,0 *5.827*	67,0 *2.638*	92,0 *3.622*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX060204	0,04 *0.002*	0,49 *0.019*
SD523-21-63-25R7	03080599	21,0 *0.827*	63,0 *2.480*	149,0 *5.866*	68,0 *2.677*	93,0 *3.661*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX060204	0,01 *0*	0,5 *0.020*
SD523-21.5-65-25R7	03080595	21,5 *0.846*	65,0 *2.559*	151,0 *5.945*	70,0 *2.756*	95,0 *3.740*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX060204	0,5 *0.020*	0,36 *0.014*
SD523-22-66-25R7	03080605	22,0 *0.866*	66,0 *2.598*	152,0 *5.984*	71,0 *2.795*	96,0 *3.780*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX060204	0,44 *0.017*	0,46 *0.018*

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert		Radial adjustment	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert	mm - Inch -	mm + Inch +
SD523-22.5-68-25R7	03080602	22,5 *0.886*	68,0 *2.677*	154,0 *6.063*	73,0 *2.874*	98,0 *3.858*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX070308	0,42 *0.017*	0,47 *0.019*
SD523-23-69-25R7	03080608	23,0 *0.906*	69,0 *2.717*	155,0 *6.102*	74,0 *2.913*	99,0 *3.898*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX070308	0,33 *0.013*	0,5 *0.020*
SD523-23.5-71-25R7	03080607	23,5 *0.925*	71,0 *2.795*	157,0 *6.181*	76,0 *2.992*	101,0 *3.976*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX070308	0,23 *0.009*	0,5 *0.020*
SD523-24-72-25R7	03080612	24,0 *0.945*	72,0 *2.835*	158,0 *6.220*	77,0 *3.031*	102,0 *4.016*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD523-24.5-74-25R7	03080611	24,5 *0.965*	74,0 *2.913*	160,0 *6.299*	79,0 *3.110*	104,0 *4.094*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD523-25-75-32R7	03080616	25,0 *0.984*	75,0 *2.953*	165,0 *6.496*	80,0 *3.150*	105,0 *4.134*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD523-25.5-77-32R7	03080615	25,5 *1.004*	77,0 *3.031*	167,0 *6.575*	82,0 *3.228*	107,0 *4.213*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX070308	0,5 *0.020*	0,11 *0.004*
SD523-26-78-32R7	03080619	26,0 *1.024*	78,0 *3.071*	168,0 *6.614*	83,0 *3.268*	108,0 *4.252*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX070308	0,5 *0.020*	0,11 *0.004*
SD523-26.5-80-32R7	03080618	26,5 *1.043*	80,0 *3.150*	170,0 *6.693*	85,0 *3.346*	110,0 *4.331*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX070308	0,5 *0.020*	0,19 *0.007*
SD523-27-81-32R7	03080622	27,0 *1.063*	81,0 *3.189*	171,0 *6.732*	86,0 *3.386*	111,0 *4.370*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX070308	0,5 *0.020*	0,26 *0.010*
SD523-27.5-83-32R7	03080621	27,5 *1.083*	83,0 *3.268*	173,0 *6.811*	88,0 *3.465*	113,0 *4.449*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX070308	0,46 *0.018*	0,44 *0.017*
SD523-28-84-32R7	03080626	28,0 *1.102*	84,0 *3.307*	174,0 *6.850*	89,0 *3.504*	114,0 *4.488*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX070308	0,28 *0.011*	0,5 *0.020*
SD523-28.5-86-32R7	03080624	28,5 *1.122*	86,0 *3.386*	176,0 *6.929*	91,0 *3.583*	116,0 *4.567*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX09T308	0,21 *0.008*	0,5 *0.020*
SD523-29-87-32R7	03080629	29,0 *1.142*	87,0 *3.425*	177,0 *6.969*	92,0 *3.622*	117,0 *4.606*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX09T308	0,18 *0.007*	0,5 *0.020*
SD523-29.5-89-32R7	03080628	29,5 *1.161*	89,0 *3.504*	179,0 *7.047*	94,0 *3.701*	119,0 *4.685*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX09T308	0,15 *0.006*	0,5 *0.020*
SD523-30-90-32R7	03080632	30,0 *1.181*	90,0 *3.543*	180,0 *7.087*	95,0 *3.740*	120,0 *4.724*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX09T308	0,12 *0.005*	0,5 *0.020*
SD523-30.5-92-32R7	03080631	30,5 *1.201*	92,0 *3.622*	182,0 *7.165*	97,0 *3.819*	122,0 *4.803*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX09T308	0,12 *0.005*	0,5 *0.020*
SD523-31-93-32R7	03080636	31,0 *1.220*	93,0 *3.661*	183,0 *7.205*	98,0 *3.858*	123,0 *4.843*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX09T308	0,12 *0.005*	0,5 *0.020*
SD523-31.5-95-32R7	03080634	31,5 *1.240*	95,0 *3.740*	185,0 *7.283*	100,0 *3.937*	125,0 *4.921*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,24 *0.009*
SD523-32-96-32R7	03080638	32,0 *1.260*	96,0 *3.780*	186,0 *7.323*	101,0 *3.976*	126,0 *4.961*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,31 *0.012*
SD523-32-96-40R7	03080639	32,0 *1.260*	96,0 *3.780*	194,0 *7.638*	101,0 *3.976*	126,0 *4.961*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,31 *0.012*
SD523-33-99-32R7	03080641	33,0 *1.299*	99,0 *3.898*	189,0 *7.441*	104,0 *4.094*	129,0 *5.079*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,46 *0.018*
SD523-33-99-40R7	03080642	33,0 *1.299*	99,0 *3.898*	197,0 *7.756*	104,0 *4.094*	129,0 *5.079*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,46 *0.018*
SD523-34-102-32R7	03080644	34,0 *1.339*	102,0 *4.016*	192,0 *7.559*	107,0 *4.213*	132,0 *5.197*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX11T3	SCGX09T308	0,22 *0.009*	0,5 *0.020*
SD523-34-102-40R7	03080645	34,0 *1.339*	102,0 *4.016*	200,0 *7.874*	107,0 *4.213*	132,0 *5.197*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX09T308	0,22 *0.009*	0,5 *0.020*
SD523-35-105-32R7	03080648	35,0 *1.378*	105,0 *4.134*	195,0 *7.677*	110,0 *4.331*	135,0 *5.315*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX11T3	SCGX11T308	0,22 *0.009*	0,5 *0.020*
SD523-35-105-40R7	03080649	35,0 *1.378*	105,0 *4.134*	203,0 *7.992*	110,0 *4.331*	135,0 *5.315*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX11T308	0,22 *0.009*	0,5 *0.020*
SD523-35.5-107-40R7	03080647	35,5 *1.398*	107,0 *4.213*	205,0 *8.071*	112,0 *4.409*	137,0 *5.394*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX11T308	0,09 *0.004*	0,5 *0.020*
SD523-36-108-32R7	03080651	36,0 *1.417*	108,0 *4.252*	198,0 *7.795*	113,0 *4.449*	138,0 *5.433*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX11T3	SCGX11T308	0,09 *0.004*	0,5 *0.020*
SD523-36-108-40R7	03080652	36,0 *1.417*	108,0 *4.252*	206,0 *8.110*	113,0 *4.449*	138,0 *5.433*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX11T308	0,09 *0.004*	0,5 *0.020*
SD523-37-111-32R7	03080653	37,0 *1.457*	111,0 *4.370*	201,0 *7.913*	116,0 *4.567*	141,0 *5.551*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX11T3	SCGX11T308	0,09 *0.004*	0,5 *0.020*
SD523-37-111-40R7	03080654	37,0 *1.457*	111,0 *4.370*	209,0 *8.228*	116,0 *4.567*	141,0 *5.551*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX11T308	0,09 *0.004*	0,5 *0.020*
SD523-38-114-32R7	03080655	38,0 *1.496*	114,0 *4.488*	204,0 *8.031*	119,0 *4.685*	144,0 *5.669*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX12T3	SCGX11T308	0,5 *0.020*	0,5 *0.020*
SD523-38-114-40R7	03080656	38,0 *1.496*	114,0 *4.488*	212,0 *8.346*	119,0 *4.685*	144,0 *5.669*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX11T308	0,5 *0.020*	0,5 *0.020*
SD523-39-117-32R7	03080658	39,0 *1.535*	117,0 *4.606*	207,0 *8.150*	122,0 *4.803*	147,0 *5.787*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX12T3	SCGX11T308	0,39 *0.015*	0,5 *0.020*

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert		Radial adjustment	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert	mm - Inch -	mm + Inch +
SD523-39-117-40R7	03080659	39,0 *1.535*	117,0 *4.606*	215,0 *8.465*	122,0 *4.803*	147,0 *5.787*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX11T308	0,39 *0.015*	0,5 *0.020*
SD523-40-120-32R7	03080661	40,0 *1.575*	120,0 *4.724*	210,0 *8.268*	125,0 *4.921*	150,0 *5.906*	60,0 *2.362*	32,0 *1.260*	50,0 *1.969*	SPGX12T3	SCGX11T308	0,19 *0.007*	0,5 *0.020*
SD523-40-120-40R7	03080662	40,0 *1.575*	120,0 *4.724*	218,0 *8.583*	125,0 *4.921*	150,0 *5.906*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX11T308	0,19 *0.007*	0,5 *0.020*
SD523-41-123-40R7	03080665	41,0 *1.614*	123,0 *4.843*	221,0 *8.701*	128,0 *5.039*	153,0 *6.024*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX120408	0,19 *0.007*	0,5 *0.020*
SD523-41.5-125-40R7	03080663	41,5 *1.634*	125,0 *4.921*	223,0 *8.780*	130,0 *5.118*	155,0 *6.102*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX120408	0,19 *0.007*	0,5 *0.020*
SD523-42-126-40R7	03080666	42,0 *1.654*	126,0 *4.961*	224,0 *8.819*	131,0 *5.157*	156,0 *6.142*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX120408	0,19 *0.007*	0,5 *0.020*
SD523-43-129-40R7	03080667	43,0 *1.693*	129,0 *5.079*	227,0 *8.937*	134,0 *5.276*	159,0 *6.260*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX120408	0,05 *0.002*	0,5 *0.020*
SD523-44-132-40R7	03080670	44,0 *1.732*	132,0 *5.197*	230,0 *9.055*	137,0 *5.394*	162,0 *6.378*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX1504	SCGX120408	0,5 *0.020*	0,41 *0.016*
SD523-44.5-134-40R7	03080669	44,5 *1.752*	134,0 *5.276*	232,0 *9.134*	139,0 *5.472*	164,0 *6.457*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX1504	SCGX150512	0,5 *0.020*	0,41 *0.016*
SD523-45-135-40R7	03080672	45,0 *1.772*	135,0 *5.315*	233,0 *9.173*	140,0 *5.512*	165,0 *6.496*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX1504	SCGX150512	0,5 *0.020*	0,41 *0.016*
SD523-46-138-40R7	03080673	46,0 *1.811*	138,0 *5.433*	236,0 *9.291*	143,0 *5.630*	168,0 *6.614*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX1504	SCGX150512	0,5 *0.020*	0,5 *0.020*
SD523-47-141-40R7	03080675	47,0 *1.850*	141,0 *5.551*	239,0 *9.409*	146,0 *5.748*	171,0 *6.732*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX1504	SCGX150512	0,5 *0.020*	0,5 *0.020*
SD523-47.5-143-40R7	03080674	47,5 *1.870*	143,0 *5.630*	241,0 *9.488*	148,0 *5.827*	173,0 *6.811*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX1504	SCGX150512	0,5 *0.020*	0,5 *0.020*
SD523-48-144-40R7	03080676	48,0 *1.890*	144,0 *5.669*	242,0 *9.528*	149,0 *5.866*	174,0 *6.850*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1504	SCGX150512	0,45 *0.018*	0,5 *0.020*
SD523-49-147-40R7	03080677	49,0 *1.929*	147,0 *5.787*	245,0 *9.646*	152,0 *5.984*	177,0 *6.969*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1504	SCGX150512	0,2 *0.008*	0,5 *0.020*
SD523-50-150-40R7	03080678	50,0 *1.969*	150,0 *5.906*	248,0 *9.764*	155,0 *6.102*	180,0 *7.087*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1504	SCGX150512	0,2 *0.008*	0,5 *0.020*
SD523-51-153-40R7	03080679	51,0 *2.008*	153,0 *6.024*	251,0 *9.882*	158,0 *6.220*	183,0 *7.205*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1504	SCGX150512	0,2 *0.008*	0,5 *0.020*
SD523-52-156-40R7	03080680	52,0 *2.047*	156,0 *6.142*	254,0 *10.000*	161,0 *6.339*	186,0 *7.323*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1904	SCGX150512	0,5 *0.020*	0,42 *0.017*
SD523-53-159-40R7	03080681	53,0 *2.087*	159,0 *6.260*	257,0 *10.118*	164,0 *6.457*	189,0 *7.441*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1904	SCGX150512	0,5 *0.020*	0,42 *0.017*
SD523-54-162-40R7	03080682	54,0 *2.126*	162,0 *6.378*	260,0 *10.236*	167,0 *6.575*	192,0 *7.559*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1904	SCGX150512	0,5 *0.020*	0,5 *0.020*
SD523-55-165-40R7	03080683	55,0 *2.165*	165,0 *6.496*	263,0 *10.354*	170,0 *6.693*	195,0 *7.677*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1904	SCGX150512	0,5 *0.020*	0,5 *0.020*
SD523-56-168-40R7	03080684	56,0 *2.205*	168,0 *6.614*	266,0 *10.472*	173,0 *6.811*	198,0 *7.795*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1904	SCGX150512	0,5 *0.020*	0,5 *0.020*
SD523-57-171-40R7	03080685	57,0 *2.244*	171,0 *6.732*	269,0 *10.591*	176,0 *6.929*	201,0 *7.913*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1904	SCGX150512	0,39 *0.015*	0,5 *0.020*
SD523-58-174-40R7	03080686	58,0 *2.283*	174,0 *6.850*	272,0 *10.709*	179,0 *7.047*	204,0 *8.031*	68,0 *2.677*	40,0 *1.575*	63,0 *2.480*	SPGX1904	SCGX150512	0,09 *0.004*	0,5 *0.020*
SD523-59-177-40R7	03080687	59,0 *2.323*	177,0 *6.969*	275,0 *10.827*	182,0 *7.165*	207,0 *8.150*	68,0 *2.677*	40,0 *1.575*	63,0 *2.480*	SPGX1904	SCGX150512	0,09 *0.004*	0,5 *0.020*

Spare Parts, included in delivery

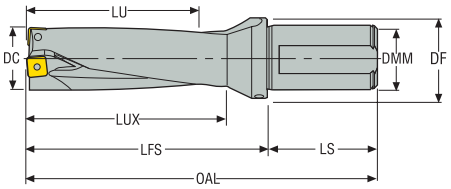
For drill dia. (mm)	Insert screw centre	Insert screw periph	Key
15,00-17,00	C02245-T07P	C02245-T07P	T07P-2
17,50-19,00	C02205-T07P	C02245-T07P	T07P-2
19,50-21,00	C02205-T07P	C02205-T07P	T07P-2
19,50-21,00	C02205-T07P	C02506-T08P	T07P-2
21,50-22,00	–	C02506-T08P	T08P-2
22,50-25,00	C02507-T08P	C03007-T08P	T08P-2
25,50-28,00	–	C03007-T09P	T09P-2
25,50-28,00	C03007-T09P	C03508-T15P	T09P-2
28,50-31,00	C03007-T09P	C03009-T09P	T09P-2
31,50-40,00	–	C03508-T15P	T15P-2D
31,50-40,00	C03508-T15P	–	T15P-2D
41,50-43,00	C03508-T15P	C05012-T15P	T15P-2D
44,00-59,00	C04011-T15P	C05012-T15P	T15P-2D

Accessories

For drill dia. (mm)	Torque wrench
15,00-17,00	T00-07P09
17,50-19,00	T00-07P09
19,50-21,00	T00-07P09
21,50-22,00	T00-08P12
22,50-25,00	T00-08P12
25,50-28,00	T00-09P20
28,50-31,00	T00-09P20
31,50-40,00	T00-15P30
41,50-43,00	T00-15P30
44,00-59,00	T00-15P35

SD523

Drilling depth ~ 3 x D – Inch



–ISO 9766 shank, -7
–Internal coolant
–For insert information see page(s) 275-278
–For cutting data see page(s) 281-282
–For intermediate diameters see the MyDesign software.

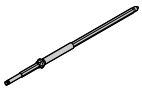
Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert		Radial adjustment	
		Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	Center insert	Periph insert	Inch -	Inch +
SD523-0562-169-1000R7	03080485	0.562	1.686	5.117	1.883	2.867	2.250	1.000	1.378	SPGX0502	SCGX050204	0.011	0.009
SD523-0594-178-1000R7	03080486	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
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

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 +
SD523-2000-600-1500R7	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

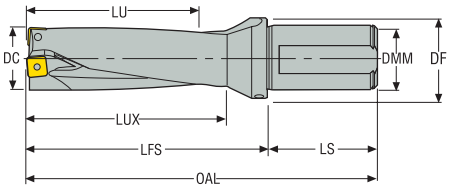
For drill dia. (inch)	Insert screw centre	Insert screw periph	Key
0.562	C02245-T07P	C02245-T07P	T07P-2
0.594-0.687	–	C02245-T07P	T07P-2
0.594-0.687	C02245-T07P	C02205-T07P	T07P-2
0.709-0.766	C02205-T07P	C02245-T07P	T07P-2
0.787-0.827	C02205-T07P	–	T07P-2
0.875	C02506-T08P	C03007-T09P	T08P-2
0.906-1.000	C02507-T08P	C03007-T08P	T08P-2
1.032-1.109	C03508-T15P	C03007-T09P	T09P-2
1.032-1.109	C03007-T09P	–	T09P-2
1.125-1.187	C03007-T09P	C03009-T09P	T09P-2
1.250-1.562	–	C03508-T15P	T15P-2D
1.250-1.562	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	T00-07P	T00-07P09
0.594-0.687	–	T00-07P09
0.709-0.766	–	T00-07P09
0.787-0.827	–	T00-07P09
0.875	–	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

SD523

Drilling depth ~ 3 x D – Inch



–ISO 9766 shank, R7-C
–Internal coolant
–For insert information see page(s) 275-278
–For cutting data see page(s) 281-282
–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
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

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 +
SD523-2000-600-1500R7-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

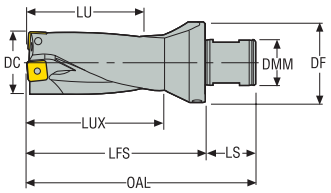
For drill dia. (inch)	Insert screw centre	Insert screw periph	Key	Plug
0.594-0.687	C02245-T07P	C02245-T07P	T07P-2	R1/4
0.709-0.766	C02205-T07P	C02245-T07P	T07P-2	R1/4
0.787-0.827	C02205-T07P	C02205-T07P	T07P-2	R1/4
0.875	C02506-T08P	C02506-T08P	T08P-2	R1/4
0.906	C02507-T08P	C03007-T08P	T08P-2	R1/4
0.922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

Accessories

For drill dia. (inch)	Hose adapter	Torque wrench
0.594-0.687	1310	T00-07P09
0.709-0.766	1310	T00-07P09
0.787-0.827	1310	T00-07P09
0.875	1310	T00-08P12
0.906	1310	T00-08P12
0.922	1310	T00-08P12
0.937-1.000	1310	T00-08P12
1.032-1.109	1310	T00-09P20
1.125-1.187	1310	T00-09P20
1.250-1.562	1310	T00-15P30
1.625-1.687	1310	T00-15P30
1.750-2.375	1310	T00-15P35

SD523

Drilling depth ~ 3 x D – Metric/Inch



– ABS 50 compatible shank, -2
– Internal coolant
– For insert information see page(s) 275-278
– For cutting data see page(s) 281-282
– For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert		Radial adjustment	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert	mm - Inch -	mm + Inch +
SD523-15-45-50R2	03080864	15,0 *0.591*	45,0 *1.772*	106,0 *4.173*	50,0 *1.969*	75,0 *2.953*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0502	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD523-15.5-47-50R2	03080865	15,5 *0.610*	47,0 *1.850*	108,0 *4.252*	52,0 *2.047*	77,0 *3.031*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0502	SCGX050204	0,17 *0.007*	0,36 *0.014*
SD523-16-48-50R2	03080559	16,0 *0.630*	48,0 *1.890*	109,0 *4.291*	53,0 *2.087*	78,0 *3.071*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0502	SCGX050204	0,12 *0.005*	0,41 *0.016*
SD523-16.5-50-50R2	03080866	16,5 *0.650*	50,0 *1.969*	111,0 *4.370*	55,0 *2.165*	80,0 *3.150*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0502	SCGX050204	0,07 *0.003*	0,46 *0.018*
SD523-17-51-50R2	03080867	17,0 *0.669*	51,0 *2.008*	112,0 *4.409*	56,0 *2.205*	81,0 *3.189*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0502	SCGX050204	0,02 *0.001*	0,5 *0.020*
SD523-17.5-53-50R2	03080564	17,5 *0.689*	53,0 *2.087*	114,0 *4.488*	58,0 *2.283*	83,0 *3.268*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX050204	0,43 *0.017*	0,1 *0.004*
SD523-18-54-50R2	03080576	18,0 *0.709*	54,0 *2.126*	115,0 *4.528*	59,0 *2.323*	84,0 *3.307*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX050204	0,32 *0.013*	0,21 *0.008*
SD523-18.5-56-50R2	03080868	18,5 *0.728*	56,0 *2.205*	117,0 *4.606*	61,0 *2.402*	86,0 *3.386*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD523-19-57-50R2	03080585	19,0 *0.748*	57,0 *2.244*	118,0 *4.646*	62,0 *2.441*	87,0 *3.425*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX050204	0,11 *0.004*	0,42 *0.017*
SD523-20-60-50R2	03080591	20,0 *0.787*	60,0 *2.362*	121,0 *4.764*	65,0 *2.559*	90,0 *3.543*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX060204	0,07 *0.003*	0,46 *0.018*
SD523-20.62-62-50R2	03080587	20,62 *0.812*	62,0 *2.441*	123,0 *4.843*	67,0 *2.638*	92,0 *3.622*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX060204	0,03 *0.001*	0,5 *0.020*
SD523-21-63-50R2	03080600	21,0 *0.827*	63,0 *2.480*	124,0 *4.882*	68,0 *2.677*	93,0 *3.661*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX060204	0,01 *0*	0,5 *0.020*
SD523-22-66-50R2	03080606	22,0 *0.866*	66,0 *2.598*	127,0 *5.000*	71,0 *2.795*	96,0 *3.780*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX060204	0,44 *0.017*	0,46 *0.018*
SD523-22.23-67-50R2	03080601	22,23 *0.875*	67,0 *2.638*	128,0 *5.039*	72,0 *2.835*	97,0 *3.819*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX060204	0,39 *0.015*	0,5 *0.020*
SD523-23-69-50R2	03080869	23,0 *0.906*	69,0 *2.717*	130,0 *5.118*	74,0 *2.913*	99,0 *3.898*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX070308	0,33 *0.013*	0,5 *0.020*
SD523-24-72-50R2	03080613	24,0 *0.945*	72,0 *2.835*	133,0 *5.236*	77,0 *3.031*	102,0 *4.016*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD523-25-75-50R2	03080617	25,0 *0.984*	75,0 *2.953*	136,0 *5.354*	80,0 *3.150*	105,0 *4.134*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD523-25.40-77-50R2	03080614	25,4 *1.000*	77,0 *3.031*	138,0 *5.433*	82,0 *3.228*	107,0 *4.213*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD523-26-78-50R2	03080620	26,0 *1.024*	78,0 *3.071*	139,0 *5.472*	83,0 *3.268*	108,0 *4.252*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX070308	0,5 *0.020*	0,11 *0.004*
SD523-27-81-50R2	03080623	27,0 *1.063*	81,0 *3.189*	142,0 *5.591*	86,0 *3.386*	111,0 *4.370*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX070308	0,5 *0.020*	0,26 *0.010*
SD523-28-84-50R2	03080627	28,0 *1.102*	84,0 *3.307*	145,0 *5.709*	89,0 *3.504*	114,0 *4.488*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX070308	0,28 *0.011*	0,5 *0.020*
SD523-28.59-86-50R2	03080625	28,59 *1.126*	86,0 *3.386*	147,0 *5.787*	91,0 *3.583*	116,0 *4.567*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX09T308	0,21 *0.008*	0,5 *0.020*
SD523-29-87-50R2	03080630	29,0 *1.142*	87,0 *3.425*	148,0 *5.827*	92,0 *3.622*	117,0 *4.606*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX09T308	0,18 *0.007*	0,5 *0.020*
SD523-30-90-50R2	03080633	30,0 *1.181*	90,0 *3.543*	151,0 *5.945*	95,0 *3.740*	120,0 *4.724*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX09T308	0,12 *0.005*	0,5 *0.020*
SD523-31-93-50R2	03080637	31,0 *1.220*	93,0 *3.661*	154,0 *6.063*	98,0 *3.858*	123,0 *4.843*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX09T308	0,12 *0.005*	0,5 *0.020*

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

Spare Parts, included in delivery

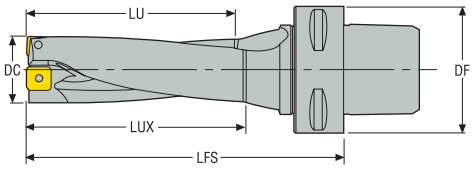
For drill dia. (mm)	Insert screw centre	Insert screw periph	Key
15,00-17,00	C02245-T07P	C02245-T07P	T07P-2
15,00-17,00	C02245-T07P	–	T07P-2
17,50-19,00	C02205-T07P	C02245-T07P	T07P-2
20,00-21,00	C02205-T07P	C02506-T08P	T07P-2
20,00-21,00	–	C02205-T07P	T07P-2
22,00-22,23	C02506-T08P	–	T08P-2
23,00	C02506-T08P	C03007-T08P	T08P-2
24,00-25,40	C02507-T08P	C03007-T08P	T08P-2
26,00-28,00	C03007-T09P	C03508-T15P	T09P-2
28,59-31,00	C03007-T09P	C03009-T09P	T09P-2
31,75-40,00	C03508-T15P	–	T15P-2D
31,75-40,00	–	C03508-T15P	T15P-2D
41,00-43,00	C03508-T15P	C05012-T15P	T15P-2D
44,00-44,45	C04011-T15P	C05012-T15P	T15P-2D

Accessories

Torque wrench
T00-07P09
T00-07P09
T00-07P09
T00-08P12
T00-08P12
T00-08P12
T00-09P20
T00-09P20
T00-15P30
T00-15P30
T00-15P35

SD523

Drilling depth ~ 3 x D – Metric/Inch



–Seco-Capto™ C4 shank
–Internal coolant
–For insert information see page(s) 275-278
–For cutting data see page(s) 281-282
–For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	LUX	LFS	DF	Insert		Radial adjustment	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert	mm - Inch -	mm + Inch +
SD523-15-45-C4	03080920	15,0 *0.591*	45,0 *1.772*	50,0 *1.969*	82,0 *3.228*	40,0 *1.575*	SPGX0502	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD523-15.5-47-C4	03080921	15,5 *0.610*	47,0 *1.850*	52,0 *2.047*	84,0 *3.307*	40,0 *1.575*	SPGX0502	SCGX050204	0,17 *0.007*	0,36 *0.014*
SD523-16-48-C4	03080922	16,0 *0.630*	48,0 *1.890*	53,0 *2.087*	86,0 *3.386*	40,0 *1.575*	SPGX0502	SCGX050204	0,12 *0.005*	0,41 *0.016*
SD523-16.5-50-C4	03080923	16,5 *0.650*	50,0 *1.969*	55,0 *2.165*	88,0 *3.465*	40,0 *1.575*	SPGX0502	SCGX050204	0,07 *0.003*	0,46 *0.018*
SD523-17-51-C4	03080925	17,0 *0.669*	51,0 *2.008*	56,0 *2.205*	89,0 *3.504*	40,0 *1.575*	SPGX0502	SCGX050204	0,02 *0.001*	0,5 *0.020*
SD523-17.5-53-C4	03080926	17,5 *0.689*	53,0 *2.087*	58,0 *2.283*	92,0 *3.622*	40,0 *1.575*	SPGX0602	SCGX050204	0,43 *0.017*	0,1 *0.004*
SD523-18-54-C4	03080927	18,0 *0.709*	54,0 *2.126*	59,0 *2.323*	93,0 *3.661*	40,0 *1.575*	SPGX0602	SCGX050204	0,32 *0.013*	0,21 *0.008*
SD523-18.5-56-C4	03080928	18,5 *0.728*	56,0 *2.205*	61,0 *2.402*	95,0 *3.740*	40,0 *1.575*	SPGX0602	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD523-19-57-C4	03080929	19,0 *0.748*	57,0 *2.244*	62,0 *2.441*	96,0 *3.780*	40,0 *1.575*	SPGX0602	SCGX050204	0,11 *0.004*	0,42 *0.017*
SD523-20-60-C4	03080930	20,0 *0.787*	60,0 *2.362*	65,0 *2.559*	101,0 *3.976*	40,0 *1.575*	SPGX0602	SCGX060204	0,07 *0.003*	0,46 *0.018*
SD523-20.62-62-C4	03081006	20,62 *0.812*	62,0 *2.441*	67,0 *2.638*	103,0 *4.055*	40,0 *1.575*	SPGX0602	SCGX060204	0,03 *0.001*	0,5 *0.020*
SD523-21-63-C4	03080931	21,0 *0.827*	63,0 *2.480*	68,0 *2.677*	104,0 *4.094*	40,0 *1.575*	SPGX0602	SCGX060204	0,01 *0*	0,5 *0.020*
SD523-22-66-C4	03080932	22,0 *0.866*	66,0 *2.598*	71,0 *2.795*	107,0 *4.213*	40,0 *1.575*	SPGX0703	SCGX060204	0,44 *0.017*	0,46 *0.018*
SD523-22.23-67-C4	03081008	22,23 *0.875*	67,0 *2.638*	72,0 *2.835*	108,0 *4.252*	40,0 *1.575*	SPGX0703	SCGX060204	0,39 *0.015*	0,5 *0.020*
SD523-23-69-C4	03080933	23,0 *0.906*	69,0 *2.717*	74,0 *2.913*	111,0 *4.370*	40,0 *1.575*	SPGX0703	SCGX070308	0,33 *0.013*	0,5 *0.020*
SD523-24-72-C4	03080934	24,0 *0.945*	72,0 *2.835*	77,0 *3.031*	115,0 *4.528*	40,0 *1.575*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD523-25-75-C4	03080935	25,0 *0.984*	75,0 *2.953*	80,0 *3.150*	119,0 *4.685*	40,0 *1.575*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD523-25.4-77-C4	03081009	25,4 *1.000*	77,0 *3.031*	82,0 *3.228*	121,0 *4.764*	40,0 *1.575*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD523-26-78-C4	03080936	26,0 *1.024*	78,0 *3.071*	83,0 *3.268*	122,0 *4.803*	40,0 *1.575*	SPGX0903	SCGX070308	0,5 *0.020*	0,11 *0.004*
SD523-27-81-C4	03080937	27,0 *1.063*	81,0 *3.189*	86,0 *3.386*	125,0 *4.921*	40,0 *1.575*	SPGX0903	SCGX070308	0,5 *0.020*	0,26 *0.010*
SD523-28-84-C4	03080938	28,0 *1.102*	84,0 *3.307*	89,0 *3.504*	129,0 *5.079*	40,0 *1.575*	SPGX0903	SCGX070308	0,28 *0.011*	0,5 *0.020*
SD523-28.59-86-C4	03081010	28,59 *1.126*	86,0 *3.386*	91,0 *3.583*	131,0 *5.157*	40,0 *1.575*	SPGX0903	SCGX09T308	0,21 *0.008*	0,5 *0.020*
SD523-29-87-C4	03080939	29,0 *1.142*	87,0 *3.425*	92,0 *3.622*	132,0 *5.197*	40,0 *1.575*	SPGX0903	SCGX09T308	0,18 *0.007*	0,5 *0.020*
SD523-30-90-C4	03080940	30,0 *1.181*	90,0 *3.543*	95,0 *3.740*	135,0 *5.315*	40,0 *1.575*	SPGX0903	SCGX09T308	0,12 *0.005*	0,5 *0.020*

Spare Parts, included in delivery

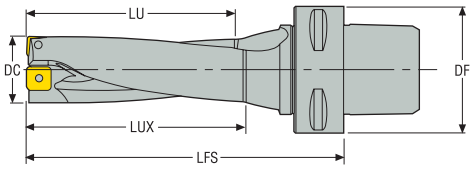
For drill dia. (mm)	Insert screw centre	Insert screw periph	Key
15,00-16,50	C02245-T07P	C02245-T07P	T07P-2
17,50	C02205-T07P	C02245-T07P	T07P-2
17,51	C02245-T07P	C02245-T07P	T07P-2
18,00-19,00	C02205-T07P	C02245-T07P	T07P-2
20,00-21,00	C02205-T07P	C02205-T07P	T07P-2
22,00-22,23	C02506-T08P	C02506-T08P	T08P-2
23,00-25,40	C02507-T08P	C03007-T08P	T08P-2
26,00-28,00	C03007-T09P	C03007-T09P	T09P-2
28,59-30,00	C03007-T09P	C03009-T09P	T09P-2

Accessories

For drill dia. (mm)	Torque wrench
15,00-16,50	T00-07P09
17,50	T00-07P09
17,51	T00-07P09
18,00-19,00	T00-07P09
20,00-21,00	T00-07P09
22,00-22,23	T00-08P12
23,00-25,40	T00-08P12
26,00-28,00	T00-09P20
28,59-30,00	T00-09P20

SD523

Drilling depth ~ 3 x D – Metric/Inch



–Seco-Capto™ C5 shank
–Internal coolant
–For insert information see page(s) 275-278
–For cutting data see page(s) 281-282
–For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	LUX	LFS	DF	Insert		Radial adjustment	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert	mm - Inch -	mm + Inch +
SD523-15-45-C5	03080941	15,0 *0.591*	45,0 *1.772*	50,0 *1.969*	82,0 *3.228*	50,0 *1.969*	SPGX0502	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD523-15.5-47-C5	03080942	15,5 *0.610*	47,0 *1.850*	52,0 *2.047*	84,0 *3.307*	50,0 *1.969*	SPGX0502	SCGX050204	0,17 *0.007*	0,36 *0.014*
SD523-16-48-C5	03080943	16,0 *0.630*	48,0 *1.890*	53,0 *2.087*	86,0 *3.386*	50,0 *1.969*	SPGX0502	SCGX050204	0,12 *0.005*	0,41 *0.016*
SD523-16.5-50-C5	03080944	16,5 *0.650*	50,0 *1.969*	55,0 *2.165*	88,0 *3.465*	50,0 *1.969*	SPGX0502	SCGX050204	0,07 *0.003*	0,46 *0.018*
SD523-17-51-C5	03080945	17,0 *0.669*	51,0 *2.008*	56,0 *2.205*	89,0 *3.504*	50,0 *1.969*	SPGX0502	SCGX050204	0,02 *0.001*	0,5 *0.020*
SD523-17.5-53-C5	03080946	17,5 *0.689*	53,0 *2.087*	58,0 *2.283*	92,0 *3.622*	50,0 *1.969*	SPGX0602	SCGX050204	0,43 *0.017*	0,1 *0.004*
SD523-18-54-C5	03080947	18,0 *0.709*	54,0 *2.126*	59,0 *2.323*	93,0 *3.661*	50,0 *1.969*	SPGX0602	SCGX050204	0,32 *0.013*	0,21 *0.008*
SD523-18.5-56-C5	03080948	18,5 *0.728*	56,0 *2.205*	61,0 *2.402*	95,0 *3.740*	50,0 *1.969*	SPGX0602	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD523-19-57-C5	03080949	19,0 *0.748*	57,0 *2.244*	62,0 *2.441*	96,0 *3.780*	50,0 *1.969*	SPGX0602	SCGX050204	0,11 *0.004*	0,42 *0.017*
SD523-20-60-C5	03080950	20,0 *0.787*	60,0 *2.362*	65,0 *2.559*	101,0 *3.976*	50,0 *1.969*	SPGX0602	SCGX060204	0,07 *0.003*	0,46 *0.018*
SD523-20.62-62-C5	03081001	20,62 *0.812*	62,0 *2.441*	67,0 *2.638*	103,0 *4.055*	50,0 *1.969*	SPGX0602	SCGX060204	0,03 *0.001*	0,5 *0.020*
SD523-21-63-C5	03080951	21,0 *0.827*	63,0 *2.480*	68,0 *2.677*	104,0 *4.094*	50,0 *1.969*	SPGX0602	SCGX060204	0,01 *0*	0,5 *0.020*
SD523-22-66-C5	03080952	22,0 *0.866*	66,0 *2.598*	71,0 *2.795*	107,0 *4.213*	50,0 *1.969*	SPGX0703	SCGX060204	0,44 *0.017*	0,46 *0.018*
SD523-22.23-67-C5	03081002	22,23 *0.875*	67,0 *2.638*	72,0 *2.835*	108,0 *4.252*	50,0 *1.969*	SPGX0703	SCGX060204	0,39 *0.015*	0,5 *0.020*
SD523-23-69-C5	03080953	23,0 *0.906*	69,0 *2.717*	74,0 *2.913*	111,0 *4.370*	50,0 *1.969*	SPGX0703	SCGX070308	0,33 *0.013*	0,5 *0.020*
SD523-24-72-C5	03080954	24,0 *0.945*	72,0 *2.835*	77,0 *3.031*	115,0 *4.528*	50,0 *1.969*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD523-25-75-C5	03080955	25,0 *0.984*	75,0 *2.953*	80,0 *3.150*	119,0 *4.685*	50,0 *1.969*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD523-25.4-77-C5	03081003	25,4 *1.000*	77,0 *3.031*	82,0 *3.228*	121,0 *4.764*	50,0 *1.969*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD523-26-78-C5	03080956	26,0 *1.024*	78,0 *3.071*	83,0 *3.268*	122,0 *4.803*	50,0 *1.969*	SPGX0903	SCGX070308	0,5 *0.020*	0,11 *0.004*
SD523-27-81-C5	03080957	27,0 *1.063*	81,0 *3.189*	86,0 *3.386*	125,0 *4.921*	50,0 *1.969*	SPGX0903	SCGX070308	0,5 *0.020*	0,26 *0.010*
SD523-28-84-C5	03080958	28,0 *1.102*	84,0 *3.307*	89,0 *3.504*	129,0 *5.079*	50,0 *1.969*	SPGX0903	SCGX070308	0,28 *0.011*	0,5 *0.020*
SD523-28.59-86-C5	03081004	28,59 *1.126*	86,0 *3.386*	91,0 *3.583*	131,0 *5.157*	50,0 *1.969*	SPGX0903	SCGX09T308	0,21 *0.008*	0,5 *0.020*
SD523-29-87-C5	03080959	29,0 *1.142*	87,0 *3.425*	92,0 *3.622*	132,0 *5.197*	50,0 *1.969*	SPGX0903	SCGX09T308	0,18 *0.007*	0,5 *0.020*
SD523-30-90-C5	03080960	30,0 *1.181*	90,0 *3.543*	95,0 *3.740*	135,0 *5.315*	50,0 *1.969*	SPGX0903	SCGX09T308	0,12 *0.005*	0,5 *0.020*
SD523-31-93-C5	03080961	31,0 *1.220*	93,0 *3.661*	98,0 *3.858*	138,0 *5.433*	50,0 *1.969*	SPGX0903	SCGX09T308	0,12 *0.005*	0,5 *0.020*

Designation	Item number	DC	LU	LUX	LFS	DF	Insert		Radial adjustment	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert	mm - Inch -	mm + Inch +
SD523-31.75-96-C5	03081005	31,75 *1.250*	96,0 *3.780*	101,0 *3.976*	142,0 *5.591*	50,0 *1.969*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,28 *0.011*
SD523-32-96-C5	03080962	32,0 *1.260*	96,0 *3.780*	101,0 *3.976*	142,0 *5.591*	50,0 *1.969*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,31 *0.012*
SD523-33-99-C5	03080963	33,0 *1.299*	99,0 *3.898*	104,0 *4.094*	145,0 *5.709*	50,0 *1.969*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,46 *0.018*
SD523-34-102-C5	03080964	34,0 *1.339*	102,0 *4.016*	107,0 *4.213*	148,0 *5.827*	50,0 *1.969*	SPGX11T3	SCGX09T308	0,22 *0.009*	0,5 *0.020*
SD523-35-105-C5	03080965	35,0 *1.378*	105,0 *4.134*	110,0 *4.331*	151,0 *5.945*	50,0 *1.969*	SPGX11T3	SCGX11T308	0,22 *0.009*	0,5 *0.020*
SD523-36-108-C5	03080966	36,0 *1.417*	108,0 *4.252*	113,0 *4.449*	154,0 *6.063*	50,0 *1.969*	SPGX11T3	SCGX11T308	0,09 *0.004*	0,5 *0.020*
SD523-37-111-C5	03080967	37,0 *1.457*	111,0 *4.370*	116,0 *4.567*	157,0 *6.181*	50,0 *1.969*	SPGX11T3	SCGX11T308	0,09 *0.004*	0,5 *0.020*
SD523-38-114-C5	03080968	38,0 *1.496*	114,0 *4.488*	119,0 *4.685*	160,0 *6.299*	50,0 *1.969*	SPGX12T3	SCGX11T308	0,5 *0.020*	0,5 *0.020*
SD523-39-117-C5	03080969	39,0 *1.535*	117,0 *4.606*	122,0 *4.803*	163,0 *6.417*	50,0 *1.969*	SPGX12T3	SCGX11T308	0,39 *0.015*	0,5 *0.020*
SD523-40-120-C5	03080970	40,0 *1.575*	120,0 *4.724*	125,0 *4.921*	166,0 *6.535*	50,0 *1.969*	SPGX12T3	SCGX11T308	0,19 *0.007*	0,5 *0.020*

Spare Parts, included in delivery

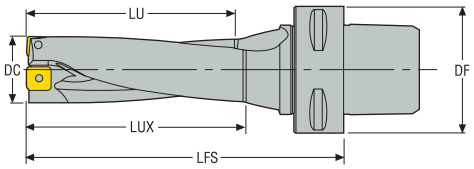
For drill dia. (mm)	Insert screw centre	Insert screw periph	Key
15,00-17,00	C02245-T07P	C02245-T07P	T07P-2
17,50-19,00	C02205-T07P	C02245-T07P	T07P-2
20,00-21,00	C02205-T07P	C02205-T07P	T07P-2
22,00-22,23	C02506-T08P	C02506-T08P	T08P-2
23,00-25,40	C02507-T08P	C03007-T08P	T08P-2
26,00-28,00	C03007-T09P	C03007-T09P	T09P-2
28,59-31,00	C03007-T09P	C03009-T09P	T09P-2
31,75-40,00	C03508-T15P	C03508-T15P	T15P-2D

Accessories

For drill dia. (mm)	Torque wrench
15,00-17,00	T00-07P09
17,50-19,00	T00-07P09
20,00-21,00	T00-07P09
22,00-22,23	T00-08P12
23,00-25,40	T00-08P12
26,00-28,00	T00-09P20
28,59-31,00	T00-09P20
31,75-40,00	T00-15P30

SD523

Drilling depth ~ 3 x D – Metric/Inch



–Seco-Capto™ C6 shank
–Internal coolant
–For insert information see page(s) 275-278
–For cutting data see page(s) 281-282
–For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	LUX	LFS	DF	Insert		Radial adjustment	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert	mm - Inch -	mm + Inch +
SD523-15-45-C6	03080971	15,0 *0.591*	45,0 *1.772*	50,0 *1.969*	84,0 *3.307*	63,0 *2.480*	SPGX0502	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD523-15.5-47-C6	03080972	15,5 *0.610*	47,0 *1.850*	52,0 *2.047*	86,0 *3.386*	63,0 *2.480*	SPGX0502	SCGX050204	0,17 *0.007*	0,36 *0.014*
SD523-16-48-C6	03080973	16,0 *0.630*	48,0 *1.890*	53,0 *2.087*	88,0 *3.465*	63,0 *2.480*	SPGX0502	SCGX050204	0,12 *0.005*	0,41 *0.016*
SD523-16.5-50-C6	03080974	16,5 *0.650*	50,0 *1.969*	55,0 *2.165*	90,0 *3.543*	63,0 *2.480*	SPGX0502	SCGX050204	0,07 *0.003*	0,46 *0.018*
SD523-17-51-C6	03080975	17,0 *0.669*	51,0 *2.008*	56,0 *2.205*	91,0 *3.583*	63,0 *2.480*	SPGX0502	SCGX050204	0,02 *0.001*	0,5 *0.020*
SD523-17.5-53-C6	03080976	17,5 *0.689*	53,0 *2.087*	58,0 *2.283*	94,0 *3.701*	63,0 *2.480*	SPGX0602	SCGX050204	0,43 *0.017*	0,1 *0.004*
SD523-18-54-C6	03080977	18,0 *0.709*	54,0 *2.126*	59,0 *2.323*	95,0 *3.740*	63,0 *2.480*	SPGX0602	SCGX050204	0,32 *0.013*	0,21 *0.008*
SD523-18.5-56-C6	03080978	18,5 *0.728*	56,0 *2.205*	61,0 *2.402*	97,0 *3.819*	63,0 *2.480*	SPGX0602	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD523-19-57-C6	03080979	19,0 *0.748*	57,0 *2.244*	62,0 *2.441*	98,0 *3.858*	63,0 *2.480*	SPGX0602	SCGX050204	0,11 *0.004*	0,42 *0.017*
SD523-20-60-C6	03080980	20,0 *0.787*	60,0 *2.362*	65,0 *2.559*	103,0 *4.055*	63,0 *2.480*	SPGX0602	SCGX060204	0,07 *0.003*	0,46 *0.018*
SD523-20.62-62-C6	03081011	20,62 *0.812*	62,0 *2.441*	67,0 *2.638*	105,0 *4.134*	63,0 *2.480*	SPGX0602	SCGX060204	0,03 *0.001*	0,5 *0.020*
SD523-21-63-C6	03080981	21,0 *0.827*	63,0 *2.480*	68,0 *2.677*	106,0 *4.173*	63,0 *2.480*	SPGX0602	SCGX060204	0,01 *0*	0,5 *0.020*
SD523-22-66-C6	03080982	22,0 *0.866*	66,0 *2.598*	71,0 *2.795*	109,0 *4.291*	63,0 *2.480*	SPGX0703	SCGX060204	0,44 *0.017*	0,46 *0.018*
SD523-22.23-67-C6	03081012	22,23 *0.875*	67,0 *2.638*	72,0 *2.835*	110,0 *4.331*	63,0 *2.480*	SPGX0703	SCGX060204	0,39 *0.015*	0,5 *0.020*
SD523-23-69-C6	03080983	23,0 *0.906*	69,0 *2.717*	74,0 *2.913*	113,0 *4.449*	63,0 *2.480*	SPGX0703	SCGX070308	0,33 *0.013*	0,5 *0.020*
SD523-24-72-C6	03080984	24,0 *0.945*	72,0 *2.835*	77,0 *3.031*	117,0 *4.606*	63,0 *2.480*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD523-25-75-C6	03080985	25,0 *0.984*	75,0 *2.953*	80,0 *3.150*	121,0 *4.764*	63,0 *2.480*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD523-25.4-77-C6	03081013	25,4 *1.000*	77,0 *3.031*	82,0 *3.228*	123,0 *4.843*	63,0 *2.480*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD523-26-78-C6	03080986	26,0 *1.024*	78,0 *3.071*	83,0 *3.268*	124,0 *4.882*	63,0 *2.480*	SPGX0903	SCGX070308	0,5 *0.020*	0,11 *0.004*
SD523-27-81-C6	03080987	27,0 *1.063*	81,0 *3.189*	86,0 *3.386*	127,0 *5.000*	63,0 *2.480*	SPGX0903	SCGX070308	0,5 *0.020*	0,26 *0.010*
SD523-28-84-C6	03080988	28,0 *1.102*	84,0 *3.307*	89,0 *3.504*	131,0 *5.157*	63,0 *2.480*	SPGX0903	SCGX070308	0,28 *0.011*	0,5 *0.020*
SD523-28.59-86-C6	03081014	28,59 *1.126*	86,0 *3.386*	91,0 *3.583*	133,0 *5.236*	63,0 *2.480*	SPGX0903	SCGX09T308	0,21 *0.008*	0,5 *0.020*
SD523-29-87-C6	03080989	29,0 *1.142*	87,0 *3.425*	92,0 *3.622*	134,0 *5.276*	63,0 *2.480*	SPGX0903	SCGX09T308	0,18 *0.007*	0,5 *0.020*
SD523-30-90-C6	03080990	30,0 *1.181*	90,0 *3.543*	95,0 *3.740*	137,0 *5.394*	63,0 *2.480*	SPGX0903	SCGX09T308	0,12 *0.005*	0,5 *0.020*
SD523-31-93-C6	03080991	31,0 *1.220*	93,0 *3.661*	98,0 *3.858*	140,0 *5.512*	63,0 *2.480*	SPGX0903	SCGX09T308	0,12 *0.005*	0,5 *0.020*

Designation	Item number	DC	LU	LUX	LFS	DF	Insert		Radial adjustment	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert	mm - Inch -	mm + Inch +
SD523-31.75-96-C6	03081015	31,75 *1.250*	96,0 *3.780*	101,0 *3.976*	144,0 *5.669*	63,0 *2.480*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,28 *0.011*
SD523-32-96-C6	03080992	32,0 *1.260*	96,0 *3.780*	101,0 *3.976*	144,0 *5.669*	63,0 *2.480*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,31 *0.012*
SD523-33-99-C6	03080993	33,0 *1.299*	99,0 *3.898*	104,0 *4.094*	147,0 *5.787*	63,0 *2.480*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,46 *0.018*
SD523-34-102-C6	03080994	34,0 *1.339*	102,0 *4.016*	107,0 *4.213*	150,0 *5.906*	63,0 *2.480*	SPGX11T3	SCGX09T308	0,22 *0.009*	0,5 *0.020*
SD523-35-105-C6	03080995	35,0 *1.378*	105,0 *4.134*	110,0 *4.331*	153,0 *6.024*	63,0 *2.480*	SPGX11T3	SCGX11T308	0,22 *0.009*	0,5 *0.020*
SD523-36-108-C6	03080996	36,0 *1.417*	108,0 *4.252*	113,0 *4.449*	156,0 *6.142*	63,0 *2.480*	SPGX11T3	SCGX11T308	0,09 *0.004*	0,5 *0.020*
SD523-37-111-C6	03080997	37,0 *1.457*	111,0 *4.370*	116,0 *4.567*	159,0 *6.260*	63,0 *2.480*	SPGX11T3	SCGX11T308	0,09 *0.004*	0,5 *0.020*
SD523-38-114-C6	03080998	38,0 *1.496*	114,0 *4.488*	119,0 *4.685*	162,0 *6.378*	63,0 *2.480*	SPGX12T3	SCGX11T308	0,5 *0.020*	0,5 *0.020*
SD523-39-117-C6	03080999	39,0 *1.535*	117,0 *4.606*	122,0 *4.803*	165,0 *6.496*	63,0 *2.480*	SPGX12T3	SCGX11T308	0,39 *0.015*	0,5 *0.020*
SD523-40-120-C6	03081000	40,0 *1.575*	120,0 *4.724*	125,0 *4.921*	168,0 *6.614*	63,0 *2.480*	SPGX12T3	SCGX11T308	0,19 *0.007*	0,5 *0.020*

Spare Parts, included in delivery

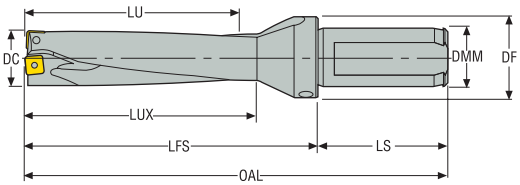
For drill dia. (mm)	Insert screw centre	Insert screw periph	Key
15,50-17,00	C02245-T07P	C02245-T07P	T07P-2
17,50-19,00	C02205-T07P	C02245-T07P	T07P-2
20,00-21,00	C02205-T07P	C02205-T07P	T07P-2
22,00-22,23	C02506-T08P	C02506-T08P	T08P-2
23,00-25,00	C02507-T08P	C03007-T08P	T08P-2
26,00-28,00	C03007-T09P	C03007-T09P	T09P-2
28,59-31,00	C03007-T09P	C03009-T09P	T09P-2
31,75-40,00	C03508-T15P	C03508-T15P	T15P-2D

Accessories

For drill dia. (mm)	Torque wrench
15,50-17,00	T00-07P09
17,50-19,00	T00-07P09
20,00-21,00	T00-07P09
22,00-22,23	T00-08P12
23,00-25,00	T00-08P12
26,00-28,00	T00-09P20
28,59-31,00	T00-09P20
31,75-40,00	T00-15P30

SD524

Drilling depth ~ 4 x D – Metric/Inch



–ISO 9766 shank, -7
–Internal coolant
–For insert information see page(s) 275–278
–For cutting data see page(s) 283, 284
–For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert
SD524-17-68-25R7	03080330	17,0 *0.669*	68,0 *2.677*	154,0 *6.063*	73,0 *2.874*	98,0 *3.858*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0502	SCGX050204
SD524-17.5-70-25R7	03080326	17,5 *0.689*	70,0 *2.756*	156,0 *6.142*	75,0 *2.953*	100,0 *3.937*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX050204
SD524-18-72-25R7	03080333	18,0 *0.709*	72,0 *2.835*	158,0 *6.220*	77,0 *3.031*	102,0 *4.016*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX050204
SD524-18.5-74-25R7	03080331	18,5 *0.728*	74,0 *2.913*	160,0 *6.299*	79,0 *3.110*	104,0 *4.094*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX050204
SD524-19-76-25R7	03080336	19,0 *0.748*	76,0 *2.992*	162,0 *6.378*	81,0 *3.189*	106,0 *4.173*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX050204
SD524-20-80-25R7	03080340	20,0 *0.787*	80,0 *3.150*	166,0 *6.535*	85,0 *3.346*	110,0 *4.331*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX060204
SD524-21-84-25R7	03080344	21,0 *0.827*	84,0 *3.307*	170,0 *6.693*	89,0 *3.504*	114,0 *4.488*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX060204
SD524-22-88-25R7	03080348	22,0 *0.866*	88,0 *3.465*	174,0 *6.850*	93,0 *3.661*	118,0 *4.646*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX060204
SD524-23-92-25R7	03080351	23,0 *0.906*	92,0 *3.622*	178,0 *7.008*	97,0 *3.819*	122,0 *4.803*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX070308
SD524-24-96-25R7	03080352	24,0 *0.945*	96,0 *3.780*	182,0 *7.165*	101,0 *3.976*	126,0 *4.961*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX070308
SD524-25-100-32R7	03080353	25,0 *0.984*	100,0 *3.937*	190,0 *7.480*	105,0 *4.134*	130,0 *5.118*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0703	SCGX070308
SD524-26-104-32R7	03080354	26,0 *1.024*	104,0 *4.094*	194,0 *7.638*	109,0 *4.291*	134,0 *5.276*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX070308
SD524-27-108-32R7	03080355	27,0 *1.063*	108,0 *4.252*	198,0 *7.795*	113,0 *4.449*	138,0 *5.433*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX070308
SD524-28-112-32R7	03080356	28,0 *1.102*	112,0 *4.409*	202,0 *7.953*	117,0 *4.606*	142,0 *5.591*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX070308
SD524-29-116-32R7	03080357	29,0 *1.142*	116,0 *4.567*	206,0 *8.110*	121,0 *4.764*	146,0 *5.748*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX09T308
SD524-30-120-32R7	03080358	30,0 *1.181*	120,0 *4.724*	210,0 *8.268*	125,0 *4.921*	150,0 *5.906*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX09T308
SD524-31-124-32R7	03080360	31,0 *1.220*	124,0 *4.882*	214,0 *8.425*	129,0 *5.079*	154,0 *6.063*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX09T308
SD524-32-128-40R7	03080361	32,0 *1.260*	128,0 *5.039*	226,0 *8.898*	133,0 *5.236*	158,0 *6.220*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX09T308
SD524-33-132-40R7	03080362	33,0 *1.299*	132,0 *5.197*	230,0 *9.055*	137,0 *5.394*	162,0 *6.378*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX09T308
SD524-34-136-40R7	03080363	34,0 *1.339*	136,0 *5.354*	234,0 *9.213*	141,0 *5.551*	166,0 *6.535*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX09T308
SD524-35-140-40R7	03080364	35,0 *1.378*	140,0 *5.512*	238,0 *9.370*	145,0 *5.709*	170,0 *6.693*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX11T308
SD524-36-144-40R7	03080365	36,0 *1.417*	144,0 *5.669*	242,0 *9.528*	149,0 *5.866*	174,0 *6.850*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX11T308
SD524-37-148-40R7	03080366	37,0 *1.457*	148,0 *5.827*	246,0 *9.685*	153,0 *6.024*	178,0 *7.008*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX11T308
SD524-38-152-40R7	03080367	38,0 *1.496*	152,0 *5.984*	250,0 *9.843*	157,0 *6.181*	182,0 *7.165*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX11T308
SD524-39-156-40R7	03080368	39,0 *1.535*	156,0 *6.142*	254,0 *10.000*	161,0 *6.339*	186,0 *7.323*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX11T308

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

Spare Parts, included in delivery

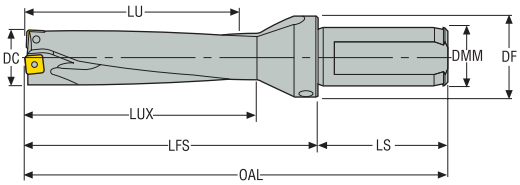
For drill dia. (mm)	Insert screw centre	Insert screw periph	Key
17,00	C02245-T07P	C02245-T07P	T07P-2
17,50-19,76	C02205-T07P	C02245-T07P	T07P-2
20,00-21,00	C02205-T07P	C02205-T07P	T07P-2
20,00-21,00	C02205-T07P	C02506-T08P	T07P-2
22,00	–	C02506-T08P	T08P-2
23,00-25,00	C02507-T08P	C03007-T08P	T08P-2
26,00-28,00	C03007-T09P	–	T09P-2
26,00-28,00	C03508-T15P	C03007-T09P	T09P-2
29,00-31,00	C03007-T09P	C03009-T09P	T09P-2
32,00-40,00	C03508-T15P	–	T15P-2D
32,00-40,00	–	C03508-T15P	T15P-2D
41,00-43,00	C03508-T15P	C05012-T15P	T15P-2D
44,00-59,00	C04011-T15P	C05012-T15P	T15P-2D

Accessories

Torque wrench
T00-07P09
T00-07P09
T00-07P09
T00-08P12
T00-08P12
T00-09P20
T00-09P20
T00-15P30
T00-15P30
T00-15P35

SD524

Drilling depth ~ 4 x D – Inch



–ISO 9766 shank, R7
–Internal coolant
–For insert information see page(s) 275-278
–For cutting data see page(s) 283, 284
–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
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

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert	
		Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	Center insert	Periph insert
SD524-2250-900-1500R7	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

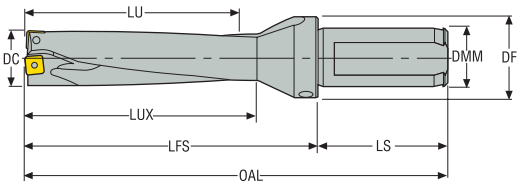
For drill dia. (inch)	Insert screw centre	Insert screw periph	Key
0.594-0.687	C02245-T07P	C02245-T07P	T07P-2
0.594-0.687	–	C02245-T07P	T07P-2
0.709-0.766	C02205-T07P	C02245-T07P	T07P-2
0.787-0.827	C02205-T07P	C02506-T08P	T07P-2
0.875-0.905	C02506-T08P	–	T08P-2
0.906-1.000	C02507-T08P	C03007-T08P	T08P-2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

SD524

Drilling depth ~ 4 x D – Inch



–ISO 9766 shank, R7-C
–Internal coolant
–For insert information see page(s) 275–278
–For cutting data see page(s) 283, 284
–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

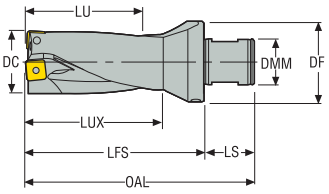
Spare Parts, included in delivery

Accessories

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

SD524

Drilling depth ~ 4 x D – Metric/Inch



– ABS 50 compatible shank, -2
– Internal coolant
– For insert information see page(s) 275-278
– For cutting data see page(s) 283, 284
– For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert
SD524-17-68-50R2	03080208	17,0 *0.669*	68,0 *2.677*	129,0 *5.079*	73,0 *2.874*	98,0 *3.858*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0502	SCGX050204
SD524-17.5-70-50R2	03080327	17,5 *0.689*	70,0 *2.756*	131,0 *5.157*	75,0 *2.953*	100,0 *3.937*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX050204
SD524-18-72-50R2	03080209	18,0 *0.709*	72,0 *2.835*	133,0 *5.236*	77,0 *3.031*	102,0 *4.016*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX050204
SD524-18.5-74-50R2	03080210	18,5 *0.728*	74,0 *2.913*	135,0 *5.315*	79,0 *3.110*	104,0 *4.094*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX050204
SD524-19-76-50R2	03080422	19,0 *0.748*	76,0 *2.992*	137,0 *5.394*	81,0 *3.189*	106,0 *4.173*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX050204
SD524-20-80-50R2	03080341	20,0 *0.787*	80,0 *3.150*	141,0 *5.551*	85,0 *3.346*	110,0 *4.331*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX060204
SD524-20.62-83-50R2	03080215	20,62 *0.812*	83,0 *3.268*	144,0 *5.669*	88,0 *3.465*	113,0 *4.449*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX060204
SD524-21-84-50R2	03080345	21,0 *0.827*	84,0 *3.307*	145,0 *5.709*	89,0 *3.504*	114,0 *4.488*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX060204
SD524-22-88-50R2	03080193	22,0 *0.866*	88,0 *3.465*	149,0 *5.866*	93,0 *3.661*	118,0 *4.646*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX060204
SD524-22.23-89-50R2	03080216	22,23 *0.875*	89,0 *3.504*	150,0 *5.906*	94,0 *3.701*	119,0 *4.685*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX060204
SD524-23-92-50R2	03080194	23,0 *0.906*	92,0 *3.622*	153,0 *6.024*	97,0 *3.819*	122,0 *4.803*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX070308
SD524-24-96-50R2	03080195	24,0 *0.945*	96,0 *3.780*	157,0 *6.181*	101,0 *3.976*	126,0 *4.961*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX070308
SD524-25-100-50R2	03080196	25,0 *0.984*	100,0 *3.937*	161,0 *6.339*	105,0 *4.134*	130,0 *5.118*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX070308
SD524-25.4-102-50R2	03080217	25,4 *1.000*	102,0 *4.016*	163,0 *6.417*	107,0 *4.213*	132,0 *5.197*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX070308
SD524-26-104-50R2	03080423	26,0 *1.024*	104,0 *4.094*	165,0 *6.496*	109,0 *4.291*	134,0 *5.276*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX070308
SD524-27-108-50R2	03080197	27,0 *1.063*	108,0 *4.252*	169,0 *6.654*	113,0 *4.449*	138,0 *5.433*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX070308
SD524-28-112-50R2	03080424	28,0 *1.102*	112,0 *4.409*	173,0 *6.811*	117,0 *4.606*	142,0 *5.591*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX070308
SD524-28.59-115-50R2	03080218	28,59 *1.126*	115,0 *4.528*	176,0 *6.929*	120,0 *4.724*	145,0 *5.709*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX070308
SD524-29-116-50R2	03080198	29,0 *1.142*	116,0 *4.567*	177,0 *6.969*	121,0 *4.764*	146,0 *5.748*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX09T308
SD524-30-120-50R2	03080199	30,0 *1.181*	120,0 *4.724*	181,0 *7.126*	125,0 *4.921*	150,0 *5.906*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX09T308
SD524-31-124-50R2	03080200	31,0 *1.220*	124,0 *4.882*	185,0 *7.283*	129,0 *5.079*	154,0 *6.063*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX09T308
SD524-31.75-127-50R2	03080359	31,75 *1.250*	127,0 *5.000*	188,0 *7.402*	132,0 *5.197*	157,0 *6.181*	31,0 *1.220*	50,0 *1.969*	50,0 *1.969*	SPGX11T3	SCGX09T308
SD524-32-128-50R2	03080425	32,0 *1.260*	128,0 *5.039*	189,0 *7.441*	133,0 *5.236*	158,0 *6.220*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX11T3	SCGX09T308
SD524-33-132-50R2	03080201	33,0 *1.299*	132,0 *5.197*	193,0 *7.598*	137,0 *5.394*	162,0 *6.378*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX11T3	SCGX09T308
SD524-34-136-50R2	03080207	34,0 *1.339*	136,0 *5.354*	197,0 *7.756*	141,0 *5.551*	166,0 *6.535*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX11T3	SCGX09T308

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert
SD524-35-140-50R2	03080202	35,0 *1.378*	140,0 *5.512*	201,0 *7.913*	145,0 *5.709*	170,0 *6.693*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX11T3	SCGX11T308
SD524-36-144-50R2	03080203	36,0 *1.417*	144,0 *5.669*	205,0 *8.071*	149,0 *5.866*	174,0 *6.850*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX11T3	SCGX11T308
SD524-37-148-50R2	03080204	37,0 *1.457*	148,0 *5.827*	209,0 *8.228*	153,0 *6.024*	178,0 *7.008*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX11T3	SCGX11T308
SD524-38-152-50R2	03080426	38,0 *1.496*	152,0 *5.984*	213,0 *8.386*	157,0 *6.181*	182,0 *7.165*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX12T3	SCGX11T308
SD524-39-156-50R2	03080205	39,0 *1.535*	156,0 *6.142*	217,0 *8.543*	161,0 *6.339*	186,0 *7.323*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX12T3	SCGX11T308
SD524-40-160-50R2	03080206	40,0 *1.575*	160,0 *6.299*	221,0 *8.701*	165,0 *6.496*	190,0 *7.480*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX12T3	SCGX11T308

Spare Parts, included in delivery

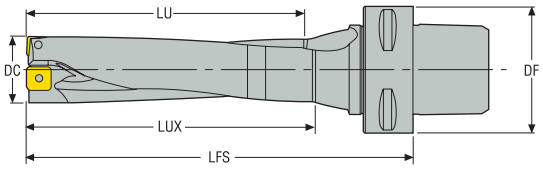
For drill dia. (mm)	Insert screw centre	Insert screw periph	Key
17,00	C02245-T07P	C02245-T07P	T07P-2
17,50-19,00	C02205-T07P	C02245-T07P	T07P-2
20,00-21,00	C02205-T07P	C02205-T07P	T07P-2
20,00-21,00	C02205-T07P	C02506-T08P	T07P-2
22,00-22,23	–	C02506-T08P	T08P-2
23,00-25,40	C02507-T08P	C03007-T08P	T08P-2
26,00-28,00	C03007-T09P	–	T09P-2
28,59-31,00	C03007-T09P	C03009-T09P	T09P-2
31,75-40,00	C03508-T15P	–	T15P-2D
31,75-40,00	–	C03508-T15P	T15P-2D

Accessories

For drill dia. (mm)	Torque wrench
17,00	T00-07P09
17,50-19,00	T00-07P09
20,00-21,00	T00-07P09
22,00-22,23	T00-08P12
23,00-25,40	T00-08P12
26,00-28,00	T00-09P20
28,59-31,00	T00-09P20
31,75-40,00	T00-15P30

SD524

Drilling depth ~ 4 x D – Metric/Inch



–Seco-Capto™ C4 shank
–Internal coolant
–For insert information see page(s) 275-278
–For cutting data see page(s) 283, 284
–For intermediate diameters see the MyDesign software.

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

Spare Parts, included in delivery

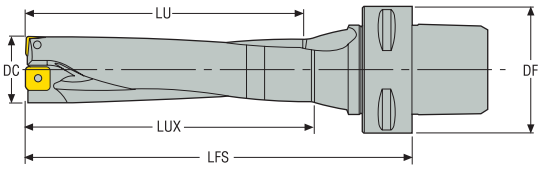
For drill dia. (mm)	Insert screw centre	Insert screw periph	Key
17,00	C02245-T07P	C02245-T07P	T07P-2
17,50-19,00	C02205-T07P	C02245-T07P	T07P-2
20,00-21,00	C02205-T07P	C02205-T07P	T07P-2
22,00-22,23	C02506-T08P	C02506-T08P	T08P-2
23,00-25,40	C02507-T08P	C03007-T08P	T08P-2
26,00-28,00	C03007-T09P	C03007-T09P	T09P-2
28,59-30,00	C03007-T09P	C03009-T09P	T09P-2

Accessories

For drill dia. (mm)	Torque wrench
17,00	T00-07P09
17,50-19,00	T00-07P09
20,00-21,00	T00-07P09
22,00-22,23	T00-08P12
23,00-25,40	T00-08P12
26,00-28,00	T00-09P20
28,59-30,00	T00-09P20

SD524

Drilling depth ~ 4 x D – Metric/Inch



–Seco-Capto™ C5 shank
–Internal coolant
–For insert information see page(s) 275-278
–For cutting data see page(s) 283, 284
–For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	LUX	LFS	DF	Insert	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert
SD524-17-68-C5	03080235	17,0 *0.669*	68,0 *2.677*	73,0 *2.874*	106,0 *4.173*	50,0 *1.969*	SPGX0502	SCGX050204
SD524-17.5-70-C5	03080237	17,5 *0.689*	70,0 *2.756*	75,0 *2.953*	109,0 *4.291*	50,0 *1.969*	SPGX0602	SCGX050204
SD524-18-72-C5	03080238	18,0 *0.709*	72,0 *2.835*	77,0 *3.031*	111,0 *4.370*	50,0 *1.969*	SPGX0602	SCGX050204
SD524-18.5-74-C5	03080239	18,5 *0.728*	74,0 *2.913*	79,0 *3.110*	113,0 *4.449*	50,0 *1.969*	SPGX0602	SCGX050204
SD524-19-76-C5	03080240	19,0 *0.748*	76,0 *2.992*	81,0 *3.189*	115,0 *4.528*	50,0 *1.969*	SPGX0602	SCGX050204
SD524-20-80-C5	03080241	20,0 *0.787*	80,0 *3.150*	85,0 *3.346*	121,0 *4.764*	50,0 *1.969*	SPGX0602	SCGX060204
SD524-20.62-83-C5	03080408	20,62 *0.812*	83,0 *3.268*	88,0 *3.465*	124,0 *4.882*	50,0 *1.969*	SPGX0602	SCGX060204
SD524-21-84-C5	03080242	21,0 *0.827*	84,0 *3.307*	89,0 *3.504*	125,0 *4.921*	50,0 *1.969*	SPGX0602	SCGX060204
SD524-22-88-C5	03080243	22,0 *0.866*	88,0 *3.465*	93,0 *3.661*	129,0 *5.079*	50,0 *1.969*	SPGX0703	SCGX060204
SD524-22.23-89-C5	03080409	22,23 *0.875*	89,0 *3.504*	94,0 *3.701*	130,0 *5.118*	50,0 *1.969*	SPGX0703	SCGX060204
SD524-23-92-C5	03080244	23,0 *0.906*	92,0 *3.622*	97,0 *3.819*	134,0 *5.276*	50,0 *1.969*	SPGX0703	SCGX070308
SD524-24-96-C5	03080245	24,0 *0.945*	96,0 *3.780*	101,0 *3.976*	139,0 *5.472*	50,0 *1.969*	SPGX0703	SCGX070308
SD524-25-100-C5	03080246	25,0 *0.984*	100,0 *3.937*	105,0 *4.134*	144,0 *5.669*	50,0 *1.969*	SPGX0703	SCGX070308
SD524-25.4-102-C5	03080410	25,4 *1.000*	102,0 *4.016*	107,0 *4.213*	146,0 *5.748*	50,0 *1.969*	SPGX0703	SCGX070308
SD524-26-104-C5	03080247	26,0 *1.024*	104,0 *4.094*	109,0 *4.291*	148,0 *5.827*	50,0 *1.969*	SPGX0903	SCGX070308
SD524-27-108-C5	03080248	27,0 *1.063*	108,0 *4.252*	113,0 *4.449*	152,0 *5.984*	50,0 *1.969*	SPGX0903	SCGX070308
SD524-28-112-C5	03080249	28,0 *1.102*	112,0 *4.409*	117,0 *4.606*	157,0 *6.181*	50,0 *1.969*	SPGX0903	SCGX070308
SD524-28.59-115-C5	03080411	28,59 *1.126*	115,0 *4.528*	120,0 *4.724*	160,0 *6.299*	50,0 *1.969*	SPGX0903	SCGX070308
SD524-29-116-C5	03080250	29,0 *1.142*	116,0 *4.567*	121,0 *4.764*	161,0 *6.339*	50,0 *1.969*	SPGX0903	SCGX09T308
SD524-30-120-C5	03080251	30,0 *1.181*	120,0 *4.724*	125,0 *4.921*	165,0 *6.496*	50,0 *1.969*	SPGX0903	SCGX09T308
SD524-31-124-C5	03080252	31,0 *1.220*	124,0 *4.882*	129,0 *5.079*	169,0 *6.654*	50,0 *1.969*	SPGX0903	SCGX09T308
SD524-31.75-127-C5	03080412	31,75 *1.250*	127,0 *5.000*	132,0 *5.197*	173,0 *6.811*	50,0 *1.969*	SPGX11T3	SCGX09T308
SD524-32-128-C5	03080253	32,0 *1.260*	128,0 *5.039*	133,0 *5.236*	174,0 *6.850*	50,0 *1.969*	SPGX11T3	SCGX09T308
SD524-33-132-C5	03080254	33,0 *1.299*	132,0 *5.197*	137,0 *5.394*	178,0 *7.008*	50,0 *1.969*	SPGX11T3	SCGX09T308
SD524-34-136-C5	03080255	34,0 *1.339*	136,0 *5.354*	141,0 *5.551*	182,0 *7.165*	50,0 *1.969*	SPGX11T3	SCGX09T308

Designation	Item number	DC	LU	LUX	LFS	DF	Insert	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert
SD524-35-140-C5	03080256	35,0 *1.378*	140,0 *5.512*	145,0 *5.709*	186,0 *7.323*	50,0 *1.969*	SPGX11T3	SCGX11T308
SD524-36-144-C5	03080257	36,0 *1.417*	144,0 *5.669*	149,0 *5.866*	190,0 *7.480*	50,0 *1.969*	SPGX11T3	SCGX11T308
SD524-37-148-C5	03080258	37,0 *1.457*	148,0 *5.827*	153,0 *6.024*	194,0 *7.638*	50,0 *1.969*	SPGX11T3	SCGX11T308
SD524-38-152-C5	03080259	38,0 *1.496*	152,0 *5.984*	157,0 *6.181*	198,0 *7.795*	50,0 *1.969*	SPGX12T3	SCGX11T308
SD524-39-156-C5	03080260	39,0 *1.535*	156,0 *6.142*	161,0 *6.339*	202,0 *7.953*	50,0 *1.969*	SPGX12T3	SCGX11T308
SD524-40-160-C5	03080261	40,0 *1.575*	160,0 *6.299*	165,0 *6.496*	206,0 *8.110*	50,0 *1.969*	SPGX12T3	SCGX11T308

Spare Parts, included in delivery

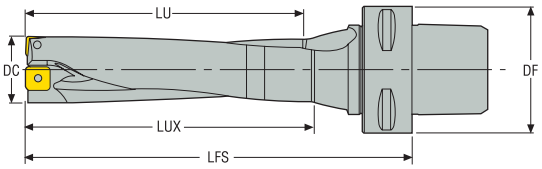
For drill dia. (mm)	Insert screw centre	Insert screw periph	Key
17,00	C02245-T07P	C02245-T07P	T07P-2
17,50-19,00	C02205-T07P	C02245-T07P	T07P-2
20,00-21,00	C02205-T07P	C02205-T07P	T07P-2
22,00-22,23	C02506-T08P	C02506-T08P	T08P-2
23,00-25,40	C02507-T08P	C03007-T08P	T08P-2
26,00-28,00	C03007-T09P	C03007-T09P	T09P-2
28,59-31,00	C03007-T09P	C03009-T09P	T09P-2
31,75-40,00	C03508-T15P	C03508-T15P	T15P-2D

Accessories

For drill dia. (mm)	Torque wrench
17,00	T00-07P09
17,50-19,00	T00-07P09
20,00-21,00	T00-07P09
22,00-22,23	T00-08P12
23,00-25,40	T00-08P12
26,00-28,00	T00-09P20
28,59-31,00	T00-09P20
31,75-40,00	T00-15P30

SD524

Drilling depth ~ 4 x D – Metric/Inch



–Seco-Capto™ C6 shank
–Internal coolant
–For insert information see page(s) 275-278
–For cutting data see page(s) 283, 284
–For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	LUX	LFS	DF	Insert	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert
SD524-17-68-C6	03080262	17,0 *0.669*	68,0 *2.677*	73,0 *2.874*	108,0 *4.252*	63,0 *2.480*	SPGX0502	SCGX050204
SD524-17.5-70-C6	03080263	17,5 *0.689*	70,0 *2.756*	75,0 *2.953*	111,0 *4.370*	63,0 *2.480*	SPGX0602	SCGX050204
SD524-18-72-C6	03080265	18,0 *0.709*	72,0 *2.835*	77,0 *3.031*	113,0 *4.449*	63,0 *2.480*	SPGX0602	SCGX050204
SD524-18.5-74-C6	03080266	18,5 *0.728*	74,0 *2.913*	79,0 *3.110*	115,0 *4.528*	63,0 *2.480*	SPGX0602	SCGX050204
SD524-19-76-C6	03080267	19,0 *0.748*	76,0 *2.992*	81,0 *3.189*	117,0 *4.606*	63,0 *2.480*	SPGX0602	SCGX050204
SD524-20-80-C6	03080268	20,0 *0.787*	80,0 *3.150*	85,0 *3.346*	123,0 *4.843*	63,0 *2.480*	SPGX0602	SCGX060204
SD524-20.62-83-C6	03080417	20,62 *0.812*	83,0 *3.268*	88,0 *3.465*	126,0 *4.961*	63,0 *2.480*	SPGX0602	SCGX060204
SD524-21-84-C6	03080269	21,0 *0.827*	84,0 *3.307*	89,0 *3.504*	127,0 *5.000*	63,0 *2.480*	SPGX0602	SCGX060204
SD524-22-88-C6	03080270	22,0 *0.866*	88,0 *3.465*	93,0 *3.661*	131,0 *5.157*	63,0 *2.480*	SPGX0703	SCGX060204
SD524-22.23-89-C6	03080418	22,23 *0.875*	89,0 *3.504*	94,0 *3.701*	132,0 *5.197*	63,0 *2.480*	SPGX0703	SCGX060204
SD524-23-92-C6	03080271	23,0 *0.906*	92,0 *3.622*	97,0 *3.819*	136,0 *5.354*	63,0 *2.480*	SPGX0703	SCGX070308
SD524-24-96-C6	03080272	24,0 *0.945*	96,0 *3.780*	101,0 *3.976*	141,0 *5.551*	63,0 *2.480*	SPGX0703	SCGX070308
SD524-25-100-C6	03080392	25,0 *0.984*	100,0 *3.937*	105,0 *4.134*	146,0 *5.748*	63,0 *2.480*	SPGX0703	SCGX070308
SD524-25.4-102-C6	03080419	25,4 *1.000*	102,0 *4.016*	107,0 *4.213*	148,0 *5.827*	63,0 *2.480*	SPGX0703	SCGX070308
SD524-26-104-C6	03080393	26,0 *1.024*	104,0 *4.094*	109,0 *4.291*	150,0 *5.906*	63,0 *2.480*	SPGX0903	SCGX070308
SD524-27-108-C6	03080394	27,0 *1.063*	108,0 *4.252*	113,0 *4.449*	154,0 *6.063*	63,0 *2.480*	SPGX0903	SCGX070308
SD524-28-112-C6	03080395	28,0 *1.102*	112,0 *4.409*	117,0 *4.606*	159,0 *6.260*	63,0 *2.480*	SPGX0903	SCGX070308
SD524-28.59-115-C6	03080420	28,59 *1.126*	115,0 *4.528*	120,0 *4.724*	162,0 *6.378*	63,0 *2.480*	SPGX0903	SCGX070308
SD524-29-116-C6	03080396	29,0 *1.142*	116,0 *4.567*	121,0 *4.764*	163,0 *6.417*	63,0 *2.480*	SPGX0903	SCGX09T308
SD524-30-120-C6	03080397	30,0 *1.181*	120,0 *4.724*	125,0 *4.921*	167,0 *6.575*	63,0 *2.480*	SPGX0903	SCGX09T308
SD524-31-124-C6	03080398	31,0 *1.220*	124,0 *4.882*	129,0 *5.079*	171,0 *6.732*	63,0 *2.480*	SPGX0903	SCGX09T308
SD524-31.75-127-C6	03080421	31,75 *1.250*	127,0 *5.000*	132,0 *5.197*	175,0 *6.890*	63,0 *2.480*	SPGX0903	SCGX09T308
SD524-32-128-C6	03080399	32,0 *1.260*	128,0 *5.039*	133,0 *5.236*	176,0 *6.929*	63,0 *2.480*	SPGX11T3	SCGX09T308
SD524-33-132-C6	03080400	33,0 *1.299*	132,0 *5.197*	137,0 *5.394*	180,0 *7.087*	63,0 *2.480*	SPGX11T3	SCGX09T308
SD524-34-136-C6	03080401	34,0 *1.339*	136,0 *5.354*	141,0 *5.551*	184,0 *7.244*	63,0 *2.480*	SPGX11T3	SCGX09T308

Designation	Item number	DC	LU	LUX	LFS	DF	Insert	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert
SD524-35-140-C6	03080402	35,0 *1.378*	140,0 *5.512*	145,0 *5.709*	188,0 *7.402*	63,0 *2.480*	SPGX11T3	SCGX11T308
SD524-36-144-C6	03080403	36,0 *1.417*	144,0 *5.669*	149,0 *5.866*	192,0 *7.559*	63,0 *2.480*	SPGX11T3	SCGX11T308
SD524-37-148-C6	03080404	37,0 *1.457*	148,0 *5.827*	153,0 *6.024*	196,0 *7.717*	63,0 *2.480*	SPGX11T3	SCGX11T308
SD524-38-152-C6	03080405	38,0 *1.496*	152,0 *5.984*	157,0 *6.181*	200,0 *7.874*	63,0 *2.480*	SPGX12T3	SCGX11T308
SD524-39-156-C6	03080406	39,0 *1.535*	156,0 *6.142*	161,0 *6.339*	204,0 *8.031*	63,0 *2.480*	SPGX12T3	SCGX11T308
SD524-40-160-C6	03080407	40,0 *1.575*	160,0 *6.299*	165,0 *6.496*	208,0 *8.189*	63,0 *2.480*	SPGX12T3	SCGX11T308

Spare Parts, included in delivery

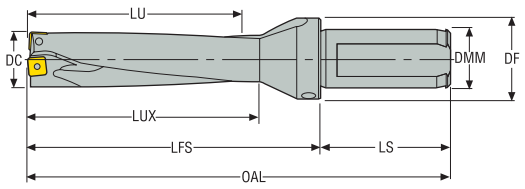
For drill dia. (mm)	Insert screw centre	Insert screw periph	Key
17,00	C02245-T07P	C02245-T07P	T07P-2
17,50-19,00	C02205-T07P	C02245-T07P	T07P-2
20,00-21,00	C02205-T07P	C02205-T07P	T07P-2
22,00-22,23	C02506-T08P	C02506-T08P	T08P-2
23,00-25,40	C02507-T08P	C03007-T08P	T08P-2
26,00-28,00	C03007-T09P	C03007-T09P	T09P-2
28,59-31,00	C03007-T09P	C03009-T09P	T09P-2
31,75-40,00	C03508-T15P	C03508-T15P	T15P-2D

Accessories

For drill dia. (mm)	Torque wrench
17,00	T00-07P09
17,50-19,00	T00-07P09
20,00-21,00	T00-07P09
22,00-22,23	T00-08P12
23,00-25,40	T00-08P12
26,00-28,00	T00-09P20
28,59-31,00	T00-09P20
31,75-40,00	T00-15P30

SD525

Drilling depth ~ 5 x D – Metric/Inch



–ISO 9766 shank, -7
–Internal coolant
–For insert information see page(s) 275-278
–For cutting data see page(s) 285, 286
–For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert
SD525-19-95-25R7	03079580	19,0 *0.748*	95,0 *3.740*	181,0 *7.126*	100,0 *3.937*	125,0 *4.921*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX050204
SD525-20-100-25R7	03079582	20,0 *0.787*	100,0 *3.937*	186,0 *7.323*	105,0 *4.134*	130,0 *5.118*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX060204
SD525-21-105-25R7	03079583	21,0 *0.827*	105,0 *4.134*	191,0 *7.520*	110,0 *4.331*	135,0 *5.315*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX060204
SD525-22-110-25R7	03079584	22,0 *0.866*	110,0 *4.331*	196,0 *7.717*	115,0 *4.528*	140,0 *5.512*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX060204
SD525-23-115-25R7	03079585	23,0 *0.906*	115,0 *4.528*	201,0 *7.913*	120,0 *4.724*	145,0 *5.709*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX070308
SD525-24-120-25R7	03079586	24,0 *0.945*	120,0 *4.724*	206,0 *8.110*	125,0 *4.921*	150,0 *5.906*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX070308
SD525-25-125-32R7	03079587	25,0 *0.984*	125,0 *4.921*	215,0 *8.465*	130,0 *5.118*	155,0 *6.102*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0703	SCGX070308
SD525-26-130-32R7	03079588	26,0 *1.024*	130,0 *5.118*	220,0 *8.661*	135,0 *5.315*	160,0 *6.299*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX070308
SD525-27-135-32R7	03079589	27,0 *1.063*	135,0 *5.315*	225,0 *8.858*	140,0 *5.512*	165,0 *6.496*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX070308
SD525-28-140-32R7	03079590	28,0 *1.102*	140,0 *5.512*	230,0 *9.055*	145,0 *5.709*	170,0 *6.693*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX070308
SD525-29-145-32R7	03079591	29,0 *1.142*	145,0 *5.709*	235,0 *9.252*	150,0 *5.906*	175,0 *6.890*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX09T308
SD525-30-150-32R7	03079592	30,0 *1.181*	150,0 *5.906*	240,0 *9.449*	155,0 *6.102*	180,0 *7.087*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX09T308
SD525-31-155-32R7	03079593	31,0 *1.220*	155,0 *6.102*	245,0 *9.646*	160,0 *6.299*	185,0 *7.283*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX09T308
SD525-32-160-40R7	03079595	32,0 *1.260*	160,0 *6.299*	258,0 *10.157*	165,0 *6.496*	190,0 *7.480*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX09T308
SD525-33-165-40R7	03079596	33,0 *1.299*	165,0 *6.496*	263,0 *10.354*	170,0 *6.693*	195,0 *7.677*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX09T308
SD525-34-170-40R7	03079597	34,0 *1.339*	170,0 *6.693*	268,0 *10.551*	175,0 *6.890*	200,0 *7.874*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX09T308
SD525-35-175-40R7	03079598	35,0 *1.378*	175,0 *6.890*	273,0 *10.748*	180,0 *7.087*	205,0 *8.071*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX11T308
SD525-36-180-40R7	03079599	36,0 *1.417*	180,0 *7.087*	278,0 *10.945*	185,0 *7.283*	210,0 *8.268*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX11T308
SD525-37-185-40R7	03079600	37,0 *1.457*	185,0 *7.283*	283,0 *11.142*	190,0 *7.480*	215,0 *8.465*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX11T308
SD525-38-190-40R7	03079601	38,0 *1.496*	190,0 *7.480*	288,0 *11.339*	195,0 *7.677*	220,0 *8.661*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX11T308
SD525-39-195-40R7	03079602	39,0 *1.535*	195,0 *7.677*	293,0 *11.535*	200,0 *7.874*	225,0 *8.858*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX11T308
SD525-40-200-40R7	03079603	40,0 *1.575*	200,0 *7.874*	298,0 *11.732*	205,0 *8.071*	230,0 *9.055*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX11T308
SD525-41-205-40R7	03079604	41,0 *1.614*	205,0 *8.071*	303,0 *11.929*	210,0 *8.268*	235,0 *9.252*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX120408
SD525-42-210-40R7	03079605	42,0 *1.654*	210,0 *8.268*	308,0 *12.126*	215,0 *8.465*	240,0 *9.449*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX120408
SD525-43-215-40R7	03079606	43,0 *1.693*	215,0 *8.465*	313,0 *12.323*	220,0 *8.661*	245,0 *9.646*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX120408

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert
SD525-44-220-40R7	03079607	44,0 *1.732*	220,0 *8.661*	318,0 *12.520*	225,0 *8.858*	250,0 *9.843*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX1504	SCGX120408
SD525-45-225-40R7	03079608	45,0 *1.772*	225,0 *8.858*	323,0 *12.717*	230,0 *9.055*	255,0 *10.039*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX1504	SCGX150512

Spare Parts, included in delivery

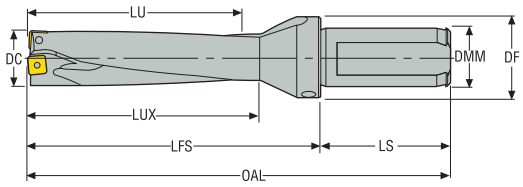
For drill dia. (mm)	Insert screw centre	Insert screw periph	Key
19,00	C02205-T07P	C02245-T07P	T07P-2
20,00-21,00	C02205-T07P	C02205-T07P	T07P-2
22,00	C02506-T08P	C02506-T08P	T08P-2
23,00-25,00	C02507-T08P	C03007-T08P	T08P-2
26,00-28,00	C03007-T09P	C03007-T09P	T09P-2
29,00-31,00	C03007-T09P	C03009-T09P	T09P-2
32,00-40,00	C03508-T15P	C03508-T15P	T15P-2D
32,00-40,00	–	C03508-T15P	T15P-2D
41,00-42,00	C03508-T15P	C05012-T15P	T15P-2D
43,00-45,00	C04011-T15P	C05012-T15P	T15P-2D

Accessories

For drill dia. (mm)	Torque wrench
19,00	T00-07P09
20,00-21,00	T00-07P09
22,00	T00-08P12
23,00-25,00	T00-08P12
26,00-28,00	T00-09P20
29,00-31,00	T00-09P20
32,00-40,00	T00-15P30
41,00-42,00	T00-15P30
43,00-45,00	T00-15P35

SD525

Drilling depth ~ 5 x D – Inch



–ISO 9766 shank, -7
–Internal coolant
–For insert information see page(s) 275-278
–For cutting data see page(s) 285, 286
–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

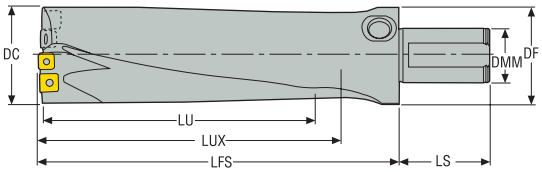
For drill dia. (inch)	Insert screw centre	Insert screw periph	Key
0.750	C02205-T07P	C02245-T07P	T07P-2
0.812	C02205-T07P	C02205-T07P	T07P-2
0.875	C02506-T08P	C02506-T08P	T08P-2
0.937-1.000	C02507-T08P	C03007-T08P	T08P-2
1.062	C03007-T09P	C03007-T09P	T09P-2
1.125-1.187	C03007-T09P	C03009-T09P	T09P-2
1.250-1.500	C03508-T15P	C03508-T15P	T15P-2D
1.625	C03508-T15P	C05012-T15P	T15P-2D
1.750-2.000	C04011-T15P	C05012-T15P	T15P-2D

Accessories

Torque wrench
T00-07P09
T00-07P09
T00-08P12
T00-08P12
T00-09P20
T00-09P20
T00-15P30
T00-15P30
T00-15P35

SD542

Drilling depth ~ 2,5 X D – Metric



–ISO 9766 shank, -7
–Internal coolant
–For insert information see page(s) 275-278
–For cutting data see page(s) 287, 288
–For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert	
		mm	mm	mm	mm	mm	mm	mm	mm	Center insert	Periph insert
SD542-60-150-40R7	02590456	60,0	150,0	269,5	156,0	201,5	68,0	40,0	79,0	SPGX0903-C1	SCGX09T308..
SD542-65-162.5-40R7	02590457	65,0	162,5	282,0	169,5	214,0	68,0	40,0	79,0	SPGX11T3-C1	SCGX09T308..
SD542-70-175-40R7	02590458	70,0	175,0	294,5	182,5	226,5	68,0	40,0	79,0	SPGX11T3-C1	SCGX120408..
SD542-75-187.5-50R7	02590459	75,0	187,5	317,0	196,0	239,0	78,0	50,0	79,0	SPGX11T3-C1	SCGX120408..
SD542-80-200-50R7	02590460	80,0	200,0	329,5	210,0	251,5	78,0	50,0	79,0	SPGX12T3-C1	SCGX120408..
SD542-85-212.5-50R7	02590461	85,0	212,5	342,0	221,0	264,0	78,0	50,0	89,0	SPGX12T3-C1	SCGX120408..

Spare Parts, included in delivery

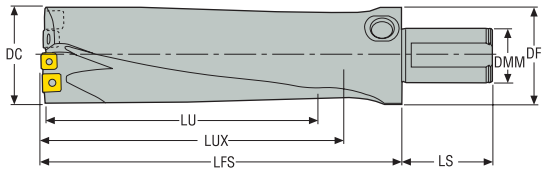
For drill dia. (mm)	Hose adapter	Insert key	Insert screw centre	Insert screw periph	Screw
60,00	R3/8-HA	T09P-2	C03007-T09P	C03009-T09P	R3/8
65,00	R3/8-HA	T15P-2D	C03508-T15P	C03508-T15P	R3/8
70,00-85,00	R3/8-HA	T15P-2D	C03508-T15P	C05012-T15P	R3/8

Accessories

For drill dia. (mm)	Torque key
60,00	T00-09P20
65,00	T00-15P30
70,00-85,00	T00-15P30

SD542

Drilling depth ~ 2.5 X D – Inch



–ISO 9766 shank, -7
–Internal coolant
–For insert information see page(s) 275-278
–For cutting data see page(s) 287, 288
–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
SD542-2250-563-1500R7	02602085	2.250	5.630	11.500	5.800	7.000	4.500	1.500	3.110	SPGX 0903-C1	SCGX 09T308..
SD542-2500-625-1500R7	02602087	2.500	6.250	12.780	6.520	8.280	4.500	1.500	3.110	SPGX 0903-C1	SCGX 09T308..
SD542-2750-688-1500R7	02602088	2.750	6.880	13.400	7.190	8.900	4.500	1.500	3.110	SPGX 11T3-C1	SCGX 120408..
SD542-3000-750-2000R7	02602089	3.000	7.500	14.030	7.860	9.530	4.500	2.000	3.110	SPGX 11T3-C1	SCGX 120408..
SD542-3250-813-2500R7	02602090	3.250	8.130	14.650	8.460	10.150	4.500	2.500	3.500	SPGX 12T3-C1	SCGX 120408..
SD542-3500-875-2500R7	02602091	3.500	8.750	15.280	9.140	10.780	4.500	2.500	3.500	SPGX 1504-C1	SCGX 120408..

Spare Parts, included in delivery

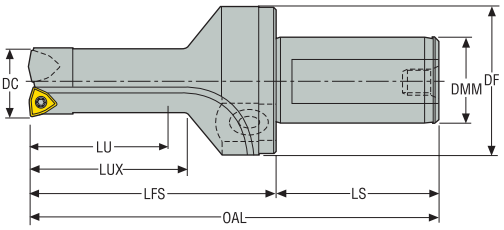
For drill dia. (inch)	Hose adapter	Insert key	Insert screw centre	Insert screw periph	Screw
2.250-2.500	R3/8-HA	T09P-2	C03007-T09P	C03009-T09P	R3/8
2.750-3.250	R3/8-HA	T15P-2D	C03508-T15P	C05012-T15P	R3/8
3.500	R3/8-HA	T15P-2D	C05012-T15P	C05012-T15P	R3/8

Accessories

For drill dia. (inch)	Torque key
2.250-2.500	T00-09P20
2.750-3.250	T00-15P30
3.500	T00-15P30

SD572

Drilling depth ~ 2 X D – Metric



–ISO 9766 shank, -7
–Internal coolant
–For insert information see page(s) 275-278
–For cutting data see page(s) 289-290
–For intermediate diameters see the MyDesign software.

Designation	Item number	Hole dia min-max	DC	LU	LUX	LFS	LS	DMM	DF	Insert	
		mm	mm	mm	mm	mm	mm	mm	mm	Center insert	Periph insert
SD572-15-30-25R7	02595777	14,8 -18	15,0	30,0	35,0	65,0	56,0	25,0	42,0	WCMX030208-86	WCMX030208..
SD572-16-32-25R7	02595778	15,8 -18	16,0	32,0	37,0	67,0	56,0	25,0	42,0	WCMX030208-86	WCMX030208..
SD572-17-34-25R7	02595779	16,8 -19	17,0	34,0	39,0	69,0	56,0	25,0	42,0	WCMX030208-86	WCMX030208..
SD572-19-38-25R7	02595780	18,8 -22	19,0	38,0	43,0	73,0	56,0	25,0	42,0	WCMX040208-86	WCMX030208..
SD572-22-44-25R7	02595781	21,8 -27	22,0	44,0	49,0	79,0	56,0	25,0	42,0	WCMX050308-86	WCMX040208..
SD572-27-54-32R7	02595783	26,8 -33	27,0	54,0	59,0	89,0	60,0	32,0	50,0	WCMX06T308-86	WCMX050308..
SD572-33-66-40R7	02595784	32,8 -41	33,0	66,0	71,0	101,0	68,0	40,0	59,0	WCMX080412-86	WCMX06T308..
SD572-41-82-40R7	02595785	40,8 -47	41,0	82,0	87,0	117,0	68,0	40,0	59,0	WCMX080412-86	WCMX080412..
SD572-47-94-40R7	02595786	46,8 -52	47,0	94,0	99,0	129,0	68,0	40,0	59,0	WCMX080412-86	WCMX080412..

Spare Parts, included in delivery

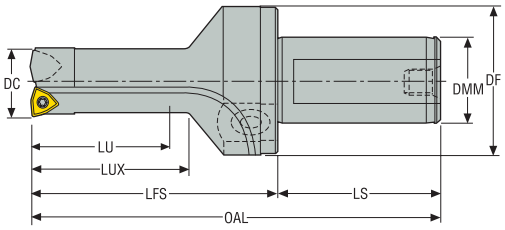
For drill dia. (mm)	Hose adapter	Insert key	Insert screw centre	Insert screw periph	Key (Flag)	Screw
15,00-19,00	1310	T07P-2	C02205-T07P	C02205-T07P	–	R1/4
22,00	1310	T08P-2	C02506-T08P	C03007-T08P	–	R1/4
27,00	1310	T08P-2	C03508-T15P	C03007-T08P	T15P-2D	R1/4
33,00	1310	T15P-2D	C03508-T15P	C03508-T15P	–	R1/4
41,00-47,00	1310	T15P-2D	C04011-T15P	C04011-T15P	–	R1/4

Accessories

For drill dia. (mm)	Replacement blade	Torque key
15,00-19,00	–	T00-07P09
22,00	–	T00-08P12
27,00	T00-15P	T00-15P30
33,00	–	T00-15P30
41,00-47,00	–	T00-15P30

SD572

Drilling depth ~ 2 X D – Inch



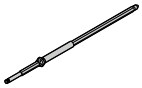
–ISO 9766 shank, -7
–Internal coolant
–For insert information see page(s) 275-278
–For cutting data see page(s) 289-290
–For intermediate diameters see the MyDesign software.

Designation	Item number	Hole dia. min-max	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

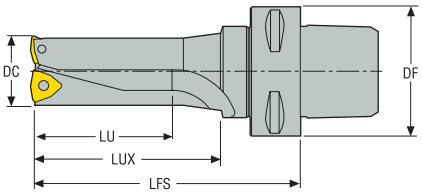
For drill dia. (inch)	Hose adapter	Insert key	Insert screw centre	Insert screw periph	Key (Flag)	Screw
0.591-0.748	1310	T07P-2	C02205-T07P	C02205-T07P	–	R1/4
0.591-0.748	1310	T07P-2	C02205-T07P	–	–	R1/4
0.866	1310	T08P-2	C02506-T08P	C03007-T08P	–	R1/4
1.062	1310	T08P-2	C03508-T15P	C03007-T08P	T15P-2D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



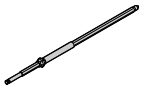
–Seco-Capto™ C5 shank
–Internal coolant
–For insert information see page(s) 275-278
–For cutting data see page(s) 289-290
–For intermediate diameters see the MyDesign software.

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

Spare Parts, included in delivery

For drill dia. (mm)	Insert key	Insert screw centre	Insert screw periph	Key (Flag)	Screw
15,00-19,00	T07P-2	C02205-T07P	C02205-T07P	–	R1/4
22,00	T08P-2	C02506-T08P	C03007-T08P	–	R1/4
27,00	T08P-2	C03508-T15P	C03007-T08P	T15P-2D	R1/4
33,00	T15P-2D	C03508-T15P	C03508-T15P	–	R1/4
41,00-47,00	T15P-2D	C04011-T15P	C04011-T15P	–	R1/4
41,00-47,00	T15P-2D	C04011-T15P	–	–	R1/4

Accessories

For drill dia. (mm)	Replacement blade	Torque key
		
15,00-19,00	–	T00-07P09
22,00	–	T00-08P12
27,00	T00-15P	T00-15P30
33,00	–	T00-15P30
41,00-47,00	–	T00-15P30

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

SD602	–	89/90	–	50	RG
1		2		3	4

1.
Type of drill
SD602: Pilot drill and cartridge

2.
Possible drill diameter
89 - Lower diameter
90 - Upper diameter

3.
Flange diameter

4.
Shank type

Inch

SD602	–	3500	RG

Pilot drill

(Pilot drill has to be purchased separately)

SD601	1	–	10	–	R
	2		3		4

2.
0 = Solid carbide
1 = HSS

3.
Drill diameter

4.
Right-hand rotation

Cassette

-N

-U

SD600	C	–	07	–	N
	2		3		4

2.
C = Center
P = Periphery

3.
Insert size
SCGX07
SCGX09
SCGX12
SCGX15

4.
N = Nominal diameter

Kit

-N

-U

SD602	1	–	P	–	07	–	N
	2		3		4		5

2.
0 = incl 2 pads (< ∅ 135 mm)
1 = incl 4 pads (> ∅ 135 mm)

3.
Periphery

4.
Insert size
SCGX07
SCGX09
SCGX12
SCGX15

5.
N – Nominal diameter
U – Lower diameter

Note: Please select nominal (-N) or lower (-U) diameter spare parts kit “D” on page 269 to complete drill body assembly. Kit “D” must be ordered separately.

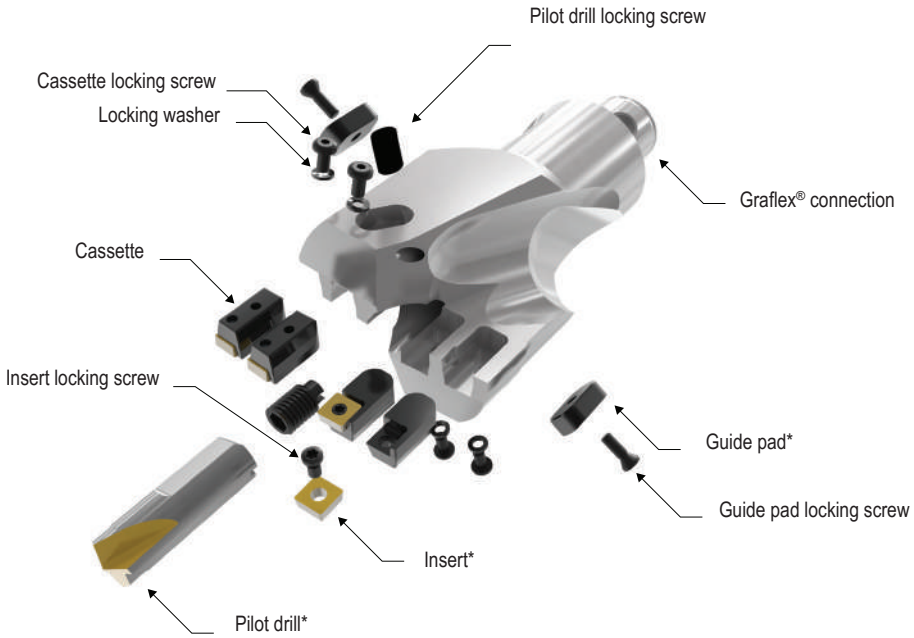
Pad

PAD	–	L20R25	–N
			3

3.
N = Nominal diameter

Modular drill head assembly

SD602-59/60-40RG



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

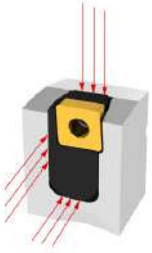
Example: Diameter 60; SD602-60-40RG
Use kit: SD6020-P07-N*

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

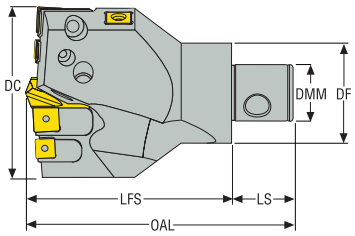
- Mount the cassette
- Make sure that there are no air gaps between the cassette and the walls
- Tighten the cassette locking screw with the torque key:
  SD600-x-07: 3 Nm
  SD600-x-09: 3 Nm
  SD600-x-12: 8 Nm
  SD600-x-15: 8 Nm
- Mount the guide pad
- Tighten the pad locking screw



*** 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) 275-278
—For cutting data see page(s) 291-292
—Adjustable length pilot drill

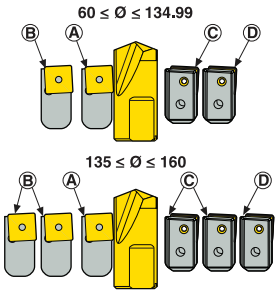
Designation	Item number	Graflex size	Capacity DCN	Capacity DCX	OAL	LFS	LS	DF	DMM	Weight	Insert
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
SD602-59/60-40RG	02846688	G4	59,0 *2.323*	60,0 *2.362*	129,0 *5.079*	105,0 *4.134*	24,0 *0.945*	40,0 *1.575*	22,0 *0.866*	1,0 *2.200*	SCGX07
SD602-69/70-40RG	02846689	G4	69,0 *2.717*	70,0 *2.756*	129,0 *5.079*	105,0 *4.134*	24,0 *0.945*	40,0 *1.575*	22,0 *0.866*	1,2 *2.650*	SCGX09
SD602-79/80-50RG	02846690	G5	79,0 *3.110*	80,0 *3.150*	160,0 *6.299*	130,0 *5.118*	30,0 *1.181*	50,0 *1.969*	28,0 *1.102*	1,9 *4.190*	SCGX09
SD602-89/90-50RG	02846691	G5	89,0 *3.504*	90,0 *3.543*	160,0 *6.299*	130,0 *5.118*	30,0 *1.181*	50,0 *1.969*	28,0 *1.102*	2,1 *4.630*	SCGX09/12
SD602-99/100-63RG	02846692	G6	99,0 *3.898*	100,0 *3.937*	185,0 *7.283*	145,0 *5.709*	40,0 *1.575*	63,0 *2.480*	36,0 *1.417*	3,3 *7.280*	SCGX12
SD602-119/120-63RG	02846693	G6	119,0 *4.685*	120,0 *4.724*	185,0 *7.283*	145,0 *5.709*	40,0 *1.575*	63,0 *2.480*	36,0 *1.417*	3,5 *7.720*	SCGX15
SD602-139/140-90RG	02846694	G7	139,0 *5.472*	140,0 *5.512*	210,0 *8.268*	160,0 *6.299*	50,0 *1.969*	90,0 *3.543*	46,0 *1.811*	6,1 *13.450*	SCGX12
SD602-159/160-90RG	02846695	G7	159,0 *6.260*	160,0 *6.299*	210,0 *8.268*	160,0 *6.299*	50,0 *1.969*	90,0 *3.543*	46,0 *1.811*	7,0 *15.430*	SCGX12/15
SD602-2500-40RG	02846698	G4	62,5 *2.461*	63,5 *2.500*	129,0 *5.079*	105,0 *4.134*	24,0 *0.945*	40,0 *1.575*	22,0 *0.866*	1,0 *2.200*	SCGX07
SD602-2750-40RG	02846699	G4	68,85 *2.711*	69,85 *2.750*	129,0 *5.079*	105,0 *4.134*	24,0 *0.945*	40,0 *1.575*	22,0 *0.866*	1,1 *2.430*	SCGX07/09
SD602-3000-40RG	02846700	G4	75,2 *2.961*	76,2 *3.000*	129,0 *5.079*	105,0 *4.134*	24,0 *0.945*	40,0 *1.575*	22,0 *0.866*	1,2 *2.650*	SCGX09
SD602-3250-50RG	02846701	G5	81,55 *3.211*	82,55 *3.250*	160,0 *6.299*	130,0 *5.118*	30,0 *1.181*	50,0 *1.969*	28,0 *1.102*	2,0 *4.410*	SCGX09/12
SD602-3500-50RG	02846702	G5	87,9 *3.461*	88,9 *3.500*	160,0 *6.299*	130,0 *5.118*	30,0 *1.181*	50,0 *1.969*	28,0 *1.102*	2,1 *4.630*	SCGX09/12
SD602-4000-63RG	02846703	G6	100,6 *3.961*	101,6 *4.000*	185,0 *7.283*	145,0 *5.709*	40,0 *1.575*	63,0 *2.480*	36,0 *1.417*	3,4 *7.500*	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

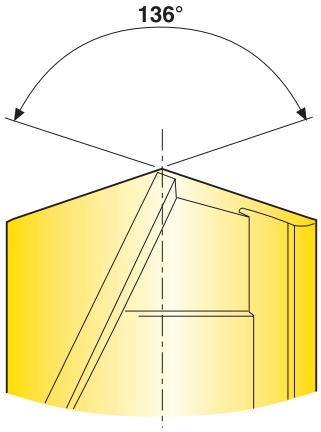
*Not included in delivery. Periph kit, U-undersize, N-nominal.
For insert size see page 275-278

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).

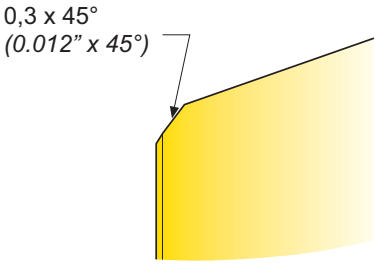
Important:
- The cutting edges must be uniform and have the same size of edge preparation.
- The edge preparation must be applied on the whole length of the cutting edges.

1. Point angle

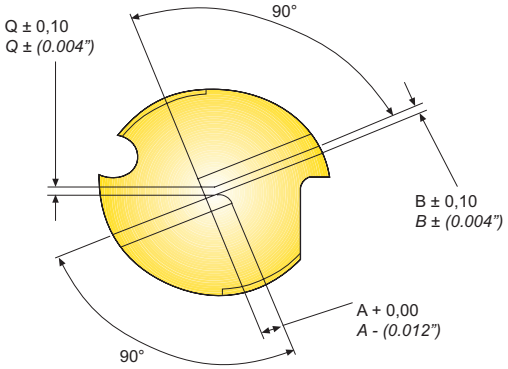


Edge preparation 0-0,1 mm *(0-.004")* x 20°. Drill point conical relief 10°.

2. Corner chamfer



3.



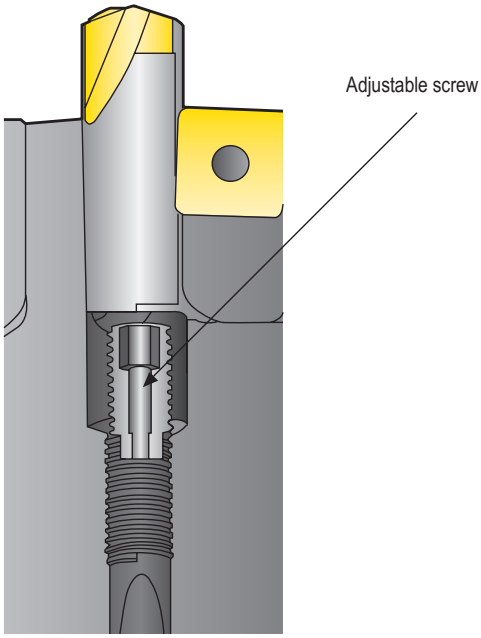
4.

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

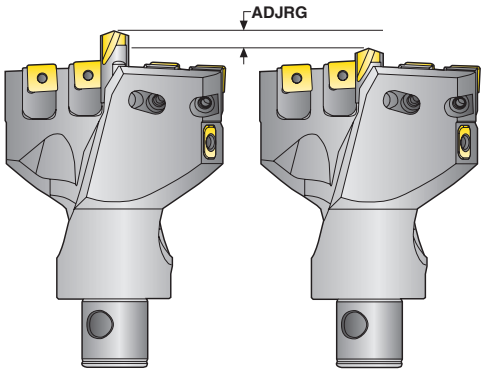
Feature: Adjustable pilot drill



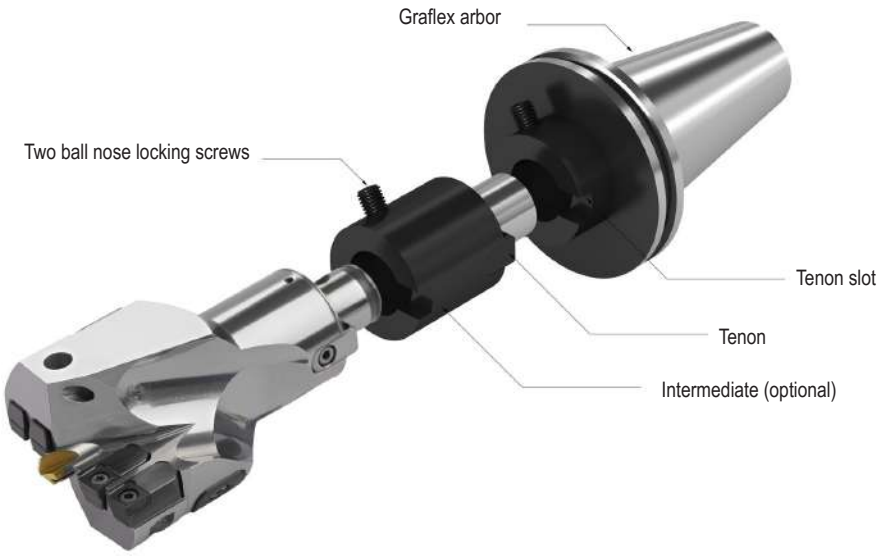
Drill	Adjustable length distance ADJRG mm	*inch*
SD602-59/60-40RG	3,0	*0.118*
SD602-69/70-40RG	3,0	*0.118*
SD602-79/80-50RG	5,0	*0.197*
SD602-89/90-50RG	5,0	*0.197*
SD602-99/100-63RG	5,0	*0.197*
SD602-119/120-63RG	5,0	*0.197*
SD602-139/140-90RG	5,0	*0.197*
SD602-159/160-90RG	5,0	*0.197*
SD602-2500-40RG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

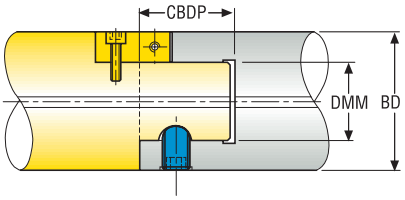


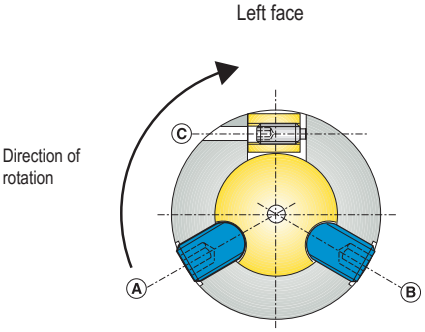
Modular drill head assembly



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.



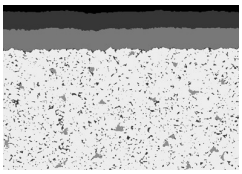
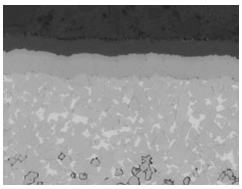
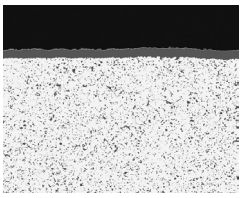
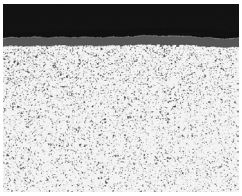
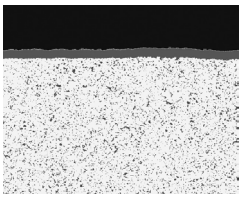
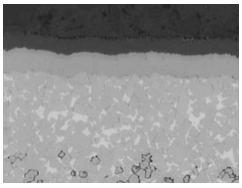
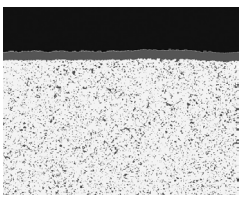


Graflex size	DMM mm (*inch*)	BD mm (*inch*)	CBDP mm (*inch*)	Recommended Graflex connection locking torques: Ball nose screws (A) & (B)	Recommended Graflex connection locking torques: Tenon blocking screw (C)
4	22 *(0.866)*	40 *(1.575)*	24 *(0.945)*	20 Nm *(14.7 ft/lbs)*	0.7 Nm *(0.5 ft/lbs)*
5	28 *(1.102)*	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

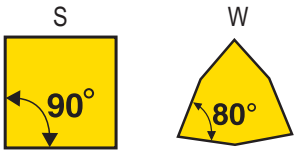
Peripheral insert		
DP2000		DURATOMIC® coating technology Optimized grade for steel and cast iron machining For machining with very high cutting speeds A unique combination of superior edge toughness and a thick wear resistant coating Ti(C,N) + Al_2O_3 DURATOMIC®
DP3000		DURATOMIC® coating technology Universal grade Superior wear resistance and edge toughness Tough grade for maximum application security Ti(C,N) + Al_2O_3 DURATOMIC® Gradient substrate
DS2050		Optimized grade for Titanium, super alloys and difficult stainless steel PVD coated TiAlN + NbN
T250D		First choice in hardened steel and in high Si content aluminum Sharp cutting edge through micrograin substrate and pvd coating (TiAl)N + TiN
Center insert		
T400D		First choice Tough center insert grade for maximum application security PVD coated (Ti, Al)N + TiN
DP3000		DURATOMIC® coating technology Universal grade Superior wear resistance and edge toughness Tough grade for maximum application security Ti(C,N) + Al_2O_3 DURATOMIC® Gradient substrate
DS4050		Optimized grade for Titanium, super alloys and difficult stainless steel PVD coated TiAlN + NbN

Geometries

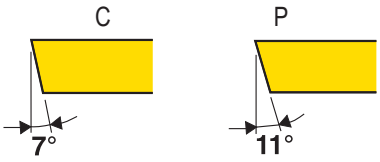
SCGX-P1	SCGX-P2	SCGX-MP	SPGX-C1	SPGX-MC	WCMX-85	WCMX-86

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

1. Insert shape



2. Insert side clearance angle



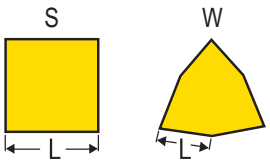
4. Type

X=Special

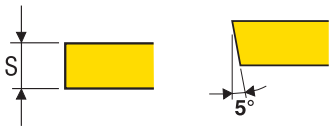
3. Tolerances

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



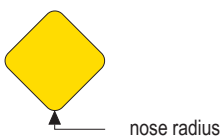
6. Thickness



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



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

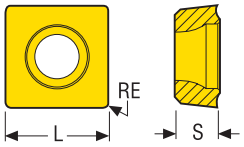
10. Internal designation

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



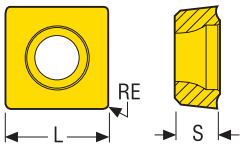
Tolerances:
L = ±0,025 (0.001")
S = ±0,13 (0.005")
RE = ±0,1 (0.004")

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

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

Indexable inserts – Peripherial insert, type P2**

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



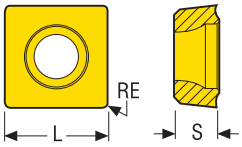
Tolerances:
L = ±0,025 (0.001")
S = ±0,13 (0.005")
RE = ±0,1 (0.004")

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

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

Indexable inserts – Peripherial insert, for type MP

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

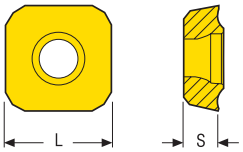


Tolerances:
L = ±0,025 (0.001")
S = ±0,13 (0.005")
RE = ±0,1 (0.004")

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

Indexable inserts – Centre insert, type C1

for SD522, SD523, SD524, SD525, SD542

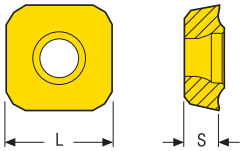


Tolerances:
L = ±0,025 (0.001")
S = ±0,13 (0.005")

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

Indexable inserts – Centre insert, type MC

for SD522, SD523, SD524, SD525, SD542

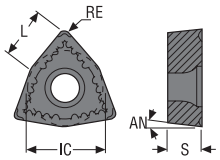


Tolerances:
L = ±0,025 (0.001")
S = ±0,13 (0.005")

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

Indexable inserts – Peripherial insert, type 85*

for SD572



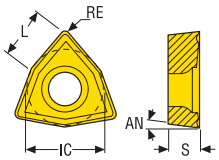
Tolerances:
S = ±0,13 (0.005")
RE = ±0,1 (0.004")

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

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

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

for SD572



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

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

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

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

SMG		f							v_c
		Ø 15,00-19,49 *Ø 0.590-0.767*	Ø 19,50-22,49 *Ø 0.768-0.885*	Ø 22,50-28,49 *Ø 0.886-1.121*	Ø 28,50-34,49 *Ø 1.122-1.357*	Ø 34,50-40,49 *Ø1.358-1.593*	Ø 40,49-44,49 *Ø 1.594-1.751*	Ø 44,50-59,99 *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 *1500*	415 *1350*	315 *1025*	415 *1350*
P2	450 *1475*	405 *1325*	305 *1000*	405 *1325*
P3	385 *1275*	345 *1125*	265 *870*	345 *1125*
P4	285 *940*	220 *720*	140 *460*	— —
P5	270 *890*	210 *690*	135 *445*	— —
P6	305 *1000*	235 *770*	150 *490*	— —
P7	285 *940*	225 *740*	140 *460*	— —
P8	270 *890*	210 *690*	135 *445*	— —
P11	280 *920*	215 *710*	140 *460*	— —
P12	165 *540*	130 *425*	80 *260*	— —
M1	— —	260 *850*	160 *520*	— —
M2	— —	210 *690*	130 *425*	— —
M3	— —	160 *520*	100 *330*	160 *520*
M4	— —	120 *395*	75 *245*	140 *460*
M5	— —	100 *330*	60 *195*	115 *375*
K1	250 *820*	235 *770*	— —	— —
K2	215 *710*	205 *670*	— —	— —
K3	185 *610*	175 *570*	— —	— —
K4	175 *570*	165 *540*	— —	— —
K5	105 *345*	100 *330*	— —	— —
N1	— —	420 *1375*	365 *1200*	365 *1200*
N2	— —	270 *890*	235 *770*	235 *770*
N3	— —	180 *590*	155 *510*	155 *510*
N11	— —	350 *1150*	310 *1025*	310 *1025*
S1	— —	— —	40 *130*	60 *195*
S2	— —	— —	30 *100*	48 *155*
S3	— —	— —	30 *100*	41 *135*
S11	— —	— —	80 *260*	85 *280*
S12	— —	— —	60 *195*	65 *215*
S13	— —	— —	46 *150*	50 *165*
H3	— —	70 *230*	70 *230*	— —
H5	— —	130 *425*	130 *425*	— —
H7	— —	70 *230*	70 *230*	— —
H8	— —	130 *425*	130 *425*	— —
H11	— —	165 *540*	165 *540*	— —
H12	— —	75 *245*	150 *490*	— —
H21	— —	130 *425*	130 *425*	— —

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 *Ø 0.590-0.767*	Ø 19,50-22,49 *Ø 0.768-0.885*	Ø 22,50-28,49 *Ø 0.886-1.121*	Ø 28,50-34,49 *Ø 1.122-1.357*	Ø 34,50-40,49 *Ø1.358-1.593*	Ø 40,49-44,49 *Ø 1.594-1.751*	Ø 44,50-59,99 *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 *1350*	370 *1225*	265 *870*	370 *1225*
P2	405 *1325*	360 *1175*	260 *850*	360 *1175*
P3	345 *1125*	310 *1025*	225 *740*	310 *1025*
P4	230 *750*	190 *620*	120 *395*	— —
P5	220 *720*	180 *590*	115 *375*	— —
P6	250 *820*	200 *660*	130 *425*	— —
P7	235 *770*	190 *620*	120 *395*	— —
P8	220 *720*	180 *590*	115 *375*	— —
P11	225 *740*	185 *610*	115 *375*	— —
P12	135 *445*	110 *360*	70 *230*	— —
M1	— —	245 *800*	135 *445*	— —
M2	— —	195 *640*	110 *360*	— —
M3	— —	150 *490*	85 *280*	150 *490*
M4	— —	115 *375*	65 *215*	120 *395*
M5	— —	95 *310*	55 *180*	100 *330*
K1	225 *740*	215 *710*	— —	— —
K2	195 *640*	185 *610*	— —	— —
K3	165 *540*	160 *520*	— —	— —
K4	160 *520*	150 *490*	— —	— —
K5	95 *310*	90 *295*	— —	— —
N1	— —	360 *1175*	310 *1025*	310 *1025*
N2	— —	230 *750*	200 *660*	200 *660*
N3	— —	155 *510*	135 *445*	135 *445*
N11	— —	300 *980*	260 *850*	260 *850*
S1	— —	— —	34 *110*	55 *180*
S2	— —	— —	25 *80*	43 *140*
S3	— —	— —	25 *80*	37 *120*
S11	— —	— —	65 *215*	75 *245*
S12	— —	— —	50 *165*	60 *195*
S13	— —	— —	39 *130*	45 *150*
H3	— —	60 *195*	60 *195*	— —
H5	— —	115 *375*	110 *360*	— —
H7	— —	60 *195*	60 *195*	— —
H8	— —	115 *375*	110 *360*	— —
H11	— —	145 *475*	140 *460*	— —
H12	— —	65 *215*	130 *425*	— —
H21	— —	115 *375*	110 *360*	— —

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 *Ø 0.590-0.767*	Ø 19,50-22,49 *Ø 0.768-0.885*	Ø 22,50-28,49 *Ø 0.886-1.121*	Ø 28,50-34,49 *Ø 1.122-1.357*	Ø 34,50-40,49 *Ø1.358-1.593*	Ø 40,49-44,49 *Ø 1.594-1.751*	Ø 44,50-59,99 *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 *1250*	340 *1125*	230 *750*	340 *1125*
P2	370 *1225*	330 *1075*	225 *740*	330 *1075*
P3	320 *1050*	285 *940*	195 *640*	285 *940*
P4	195 *640*	165 *540*	105 *345*	— —
P5	185 *610*	160 *520*	100 *330*	— —
P6	210 *690*	180 *590*	110 *360*	— —
P7	195 *640*	170 *560*	105 *345*	— —
P8	185 *610*	160 *520*	100 *330*	— —
P11	190 *620*	165 *540*	100 *330*	— —
P12	110 *360*	95 *310*	60 *195*	— —
M1	— —	235 *770*	120 *395*	— —
M2	— —	190 *620*	95 *310*	— —
M3	— —	145 *475*	75 *245*	145 *475*
M4	— —	110 *360*	55 *180*	105 *345*
M5	— —	90 *295*	46 *150*	90 *295*
K1	210 *690*	200 *660*	— —	— —
K2	180 *590*	170 *560*	— —	— —
K3	155 *510*	145 *475*	— —	— —
K4	145 *475*	140 *460*	— —	— —
K5	85 *280*	85 *280*	— —	— —
N1	— —	315 *1025*	270 *890*	270 *890*
N2	— —	205 *670*	175 *570*	175 *570*
N3	— —	135 *445*	115 *375*	115 *375*
N11	— —	265 *870*	230 *750*	230 *750*
S1	— —	— —	29 *95*	48 *155*
S2	— —	— —	22 *70*	39 *130*
S3	— —	— —	22 *70*	33 *110*
S11	— —	— —	55 *180*	70 *230*
S12	— —	— —	44 *145*	55 *180*
S13	— —	— —	34 *110*	41 *135*
H3	— —	55 *180*	50 *165*	— —
H5	— —	100 *330*	95 *310*	— —
H7	— —	55 *180*	50 *165*	— —
H8	— —	100 *330*	95 *310*	— —
H11	— —	125 *410*	125 *410*	— —
H12	— —	55 *180*	110 *360*	— —
H21	— —	100 *330*	95 *310*	— —

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 *Ø 0.768-0.885*	Ø 22,50-28,49 *Ø 0.886-1.121*	Ø 28,50-34,49 *Ø 1.122-1.357*	Ø 34,50-40,49 *Ø1.358-1.593*	Ø 40,49-45,00 *Ø 1.594-2.000*	
P1	P2 DP3000 *P2 DP3000*	0,070 *0.0028*	0,085 *0.0034*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	320 *1050*
P2	P2 DP3000 *P2 DP3000*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,11 *0.0044*	0,12 *0.0048*	310 *1025*
P3	P2 DP3000 *P2 DP3000*	0,14 *0.0055*	0,17 *0.0065*	0,19 *0.0075*	0,22 *0.0085*	0,22 *0.0085*	265 *870*
P4	P2 DP3000 *P2 DP3000*	0,13 *0.0050*	0,16 *0.0065*	0,19 *0.0075*	0,22 *0.0085*	0,22 *0.0085*	150 *490*
P5	P2 DP3000 *P2 DP3000*	0,13 *0.0050*	0,16 *0.0065*	0,18 *0.0070*	0,20 *0.0080*	0,22 *0.0085*	140 *460*
P6	P2 DP3000 *P2 DP3000*	0,13 *0.0050*	0,16 *0.0065*	0,18 *0.0070*	0,20 *0.0080*	0,22 *0.0085*	160 *520*
P7	P2 DP3000 *P2 DP3000*	0,13 *0.0050*	0,16 *0.0065*	0,18 *0.0070*	0,20 *0.0080*	0,22 *0.0085*	150 *490*
P8	P2 DP3000 *P2 DP3000*	0,14 *0.0055*	0,17 *0.0065*	0,19 *0.0075*	0,22 *0.0085*	0,22 *0.0085*	140 *460*
P11	P2 DP3000 *P2 DP3000*	0,13 *0.0050*	0,16 *0.0065*	0,18 *0.0070*	0,20 *0.0080*	0,22 *0.0085*	145 *475*
P12	P2 DP3000 *P2 DP3000*	0,090 *0.0036*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	85 *280*
M1	P2 DP3000 *P2 DP3000*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	0,17 *0.0065*	225 *740*
M2	P2 DP3000 *P2 DP3000*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,14 *0.0055*	0,15 *0.0060*	180 *590*
M3	MP DS2050 *MP DS2050*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	140 *460*
M4	MP DS2050 *MP DS2050*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	0,10 *0.0040*	0,11 *0.0044*	95 *310*
M5	MP DS2050 *MP DS2050*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	0,10 *0.0040*	0,11 *0.0044*	80 *260*
K1	P2 DP3000 *P2 DP3000*	0,14 *0.0055*	0,17 *0.0065*	0,20 *0.0080*	0,22 *0.0085*	0,24 *0.0095*	185 *610*
K2	P2 DP3000 *P2 DP3000*	0,13 *0.0050*	0,16 *0.0065*	0,18 *0.0070*	0,20 *0.0080*	0,22 *0.0085*	160 *520*
K3	P2 DP3000 *P2 DP3000*	0,13 *0.0050*	0,16 *0.0065*	0,18 *0.0070*	0,20 *0.0080*	0,22 *0.0085*	135 *445*
K4	P2 DP3000 *P2 DP3000*	0,13 *0.0050*	0,16 *0.0065*	0,18 *0.0070*	0,20 *0.0080*	0,22 *0.0085*	130 *425*
K5	P2 DP3000 *P2 DP3000*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	80 *260*
N1	P1 T250D *P1 T250D*	0,14 *0.0055*	0,17 *0.0065*	0,20 *0.0080*	0,22 *0.0085*	0,24 *0.0095*	240 *790*
N2	P1 T250D *P1 T250D*	0,14 *0.0055*	0,17 *0.0065*	0,20 *0.0080*	0,22 *0.0085*	0,24 *0.0095*	155 *510*
N3	P1 T250D *P1 T250D*	0,14 *0.0055*	0,17 *0.0065*	0,20 *0.0080*	0,22 *0.0085*	0,24 *0.0095*	100 *330*
N11	P1 T250D *P1 T250D*	0,14 *0.0055*	0,17 *0.0065*	0,20 *0.0080*	0,22 *0.0085*	0,24 *0.0095*	200 *660*
S1	MP DS2050 *MP DS2050*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	0,17 *0.0065*	0,18 *0.0070*	44 *145*
S2	MP DS2050 *MP DS2050*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	0,17 *0.0065*	0,18 *0.0070*	36 *120*
S3	MP DS2050 *MP DS2050*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	0,17 *0.0065*	31 *100*
S11	MP DS2050 *MP DS2050*	0,12 *0.0048*	0,15 *0.0060*	0,17 *0.0065*	0,19 *0.0075*	0,20 *0.0080*	65 *215*
S12	MP DS2050 *MP DS2050*	0,12 *0.0048*	0,15 *0.0060*	0,17 *0.0065*	0,19 *0.0075*	0,20 *0.0080*	49 *160*
S13	MP DS2050 *MP DS2050*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	0,17 *0.0065*	0,18 *0.0070*	38 *125*
H3	P1 T250D *P1 T250D*	0,060 *0.0024*	0,070 *0.0028*	0,085 *0.0034*	0,095 *0.0038*	0,10 *0.0040*	46 *150*
H5	P1 T250D *P1 T250D*	0,090 *0.0036*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	85 *280*
H7	P1 T250D *P1 T250D*	0,060 *0.0024*	0,070 *0.0028*	0,085 *0.0034*	0,095 *0.0038*	0,10 *0.0040*	46 *150*
H8	P1 T250D *P1 T250D*	0,070 *0.0028*	0,085 *0.0034*	0,095 *0.0038*	0,11 *0.0044*	0,11 *0.0044*	85 *280*
H11	P1 T250D *P1 T250D*	0,090 *0.0036*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	110 *360*
H12	P1 T250D *P1 T250D*	0,070 *0.0028*	0,085 *0.0034*	0,095 *0.0038*	0,11 *0.0044*	0,11 *0.0044*	100 *330*
H21	P1 T250D *P1 T250D*	0,070 *0.0028*	0,085 *0.0034*	0,095 *0.0038*	0,11 *0.0044*	0,11 *0.0044*	85 *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 *1175*	320 *1050*	205 *670*	320 *1050*
P2	345 *1125*	310 *1025*	200 *660*	310 *1025*
P3	295 *970*	265 *870*	170 *560*	265 *870*
P4	165 *540*	150 *490*	90 *295*	— —
P5	155 *510*	140 *460*	90 *295*	— —
P6	175 *570*	160 *520*	100 *330*	— —
P7	165 *540*	150 *490*	95 *310*	— —
P8	155 *510*	140 *460*	90 *295*	— —
P11	160 *520*	145 *475*	90 *295*	— —
P12	95 *310*	85 *280*	55 *180*	— —
M1	— —	225 *740*	105 *345*	— —
M2	— —	180 *590*	85 *280*	— —
M3	— —	140 *460*	65 *215*	140 *460*
M4	— —	105 *345*	49 *160*	95 *310*
M5	— —	85 *280*	41 *135*	80 *260*
K1	195 *640*	185 *610*	— —	— —
K2	170 *560*	160 *520*	— —	— —
K3	145 *475*	135 *445*	— —	— —
K4	140 *460*	130 *425*	— —	— —
K5	80 *260*	80 *260*	— —	— —
N1	— —	285 *940*	240 *790*	240 *790*
N2	— —	185 *610*	155 *510*	155 *510*
N3	— —	120 *395*	100 *330*	100 *330*
N11	— —	235 *770*	200 *660*	200 *660*
S1	— —	— —	26 *85*	44 *145*
S2	— —	— —	20 *65*	36 *120*
S3	— —	— —	20 *65*	31 *100*
S11	— —	— —	50 *165*	65 *215*
S12	— —	— —	39 *130*	49 *160*
S13	— —	— —	30 *100*	38 *125*
H3	— —	48 *155*	46 *150*	— —
H5	— —	90 *295*	85 *280*	— —
H7	— —	48 *155*	46 *150*	— —
H8	— —	90 *295*	85 *280*	— —
H11	— —	115 *375*	110 *360*	— —
H12	— —	50 *165*	100 *330*	— —
H21	— —	90 *295*	85 *280*	— —

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 *Ø 2.250-2.559*	Ø 70,00-85,00 *Ø 2.750-3.500*	
P1	P2 DP3000 *P2 DP3000*	0,095 *0.0038*	0,12 *0.0048*	390 *1275*
P2	P2 DP3000 *P2 DP3000*	0,10 *0.0040*	0,12 *0.0048*	380 *1250*
P3	P2 DP3000 *P2 DP3000*	0,19 *0.0075*	0,22 *0.0085*	325 *1075*
P4	P2 DP3000 *P2 DP3000*	0,19 *0.0075*	0,22 *0.0085*	205 *670*
P5	P2 DP3000 *P2 DP3000*	0,18 *0.0070*	0,22 *0.0085*	195 *640*
P6	P2 DP3000 *P2 DP3000*	0,18 *0.0070*	0,22 *0.0085*	220 *720*
P7	P2 DP3000 *P2 DP3000*	0,18 *0.0070*	0,22 *0.0085*	205 *670*
P8	P2 DP3000 *P2 DP3000*	0,19 *0.0075*	0,22 *0.0085*	195 *640*
P11	P2 DP3000 *P2 DP3000*	0,18 *0.0070*	0,22 *0.0085*	200 *660*
P12	P2 DP3000 *P2 DP3000*	0,12 *0.0048*	0,15 *0.0060*	120 *395*
M1	P2 DP3000 *P2 DP3000*	0,14 *0.0055*	0,17 *0.0065*	250 *820*
M2	P2 DP3000 *P2 DP3000*	0,13 *0.0050*	0,15 *0.0060*	205 *670*
M3	P1 T250D *P1 T250D*	0,10 *0.0040*	0,12 *0.0048*	90 *295*
M4	P1 T250D *P1 T250D*	0,090 *0.0036*	0,11 *0.0044*	70 *230*
M5	P1 T250D *P1 T250D*	0,090 *0.0036*	0,11 *0.0044*	55 *180*
K1	P2 DP3000 *P2 DP3000*	0,20 *0.0080*	0,24 *0.0095*	225 *740*
K2	P2 DP3000 *P2 DP3000*	0,18 *0.0070*	0,22 *0.0085*	195 *640*
K3	P2 DP3000 *P2 DP3000*	0,18 *0.0070*	0,22 *0.0085*	165 *540*
K4	P2 DP3000 *P2 DP3000*	0,18 *0.0070*	0,22 *0.0085*	160 *520*
K5	P2 DP3000 *P2 DP3000*	0,16 *0.0065*	0,19 *0.0075*	95 *310*
N1	P1 T250D *P1 T250D*	0,20 *0.0080*	0,24 *0.0095*	335 *1100*
N2	P1 T250D *P1 T250D*	0,20 *0.0080*	0,24 *0.0095*	215 *710*
N3	P1 T250D *P1 T250D*	0,20 *0.0080*	0,24 *0.0095*	145 *475*
N11	P1 T250D *P1 T250D*	0,20 *0.0080*	0,24 *0.0095*	285 *940*
S1	MP DS2050 *MP DS2050*	0,15 *0.0060*	0,18 *0.0070*	55 *180*
S2	MP DS2050 *MP DS2050*	0,15 *0.0060*	0,18 *0.0070*	45 *150*
S3	MP DS2050 *MP DS2050*	0,14 *0.0055*	0,17 *0.0065*	39 *130*
S11	MP DS2050 *MP DS2050*	0,17 *0.0065*	0,20 *0.0080*	80 *260*
S12	MP DS2050 *MP DS2050*	0,17 *0.0065*	0,20 *0.0080*	60 *195*
S13	MP DS2050 *MP DS2050*	0,15 *0.0060*	0,18 *0.0070*	48 *155*
H3	P1 T250D *P1 T250D*	0,080 *0.0032*	0,10 *0.0040*	65 *215*
H5	P1 T250D *P1 T250D*	0,12 *0.0048*	0,15 *0.0060*	120 *395*
H7	P1 T250D *P1 T250D*	0,080 *0.0032*	0,10 *0.0040*	65 *215*
H8	P1 T250D *P1 T250D*	0,095 *0.0038*	0,11 *0.0044*	120 *395*
H11	P1 T250D *P1 T250D*	0,12 *0.0048*	0,15 *0.0060*	155 *510*
H12	P1 T250D *P1 T250D*	0,095 *0.0038*	0,11 *0.0044*	140 *460*
H21	P1 T250D *P1 T250D*	0,095 *0.0038*	0,11 *0.0044*	120 *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 *1425*	390 *1275*	290 *950*	390 *1275*
P2	425 *1400*	380 *1250*	280 *920*	380 *1250*
P3	365 *1200*	325 *1075*	240 *790*	325 *1075*
P4	255 *840*	205 *670*	130 *425*	— —
P5	245 *800*	195 *640*	125 *410*	— —
P6	275 *900*	220 *720*	140 *460*	— —
P7	260 *850*	205 *670*	130 *425*	— —
P8	245 *800*	195 *640*	125 *410*	— —
P11	250 *820*	200 *660*	125 *410*	— —
P12	150 *490*	120 *395*	75 *245*	— —
M1	— —	250 *820*	150 *490*	— —
M2	— —	205 *670*	120 *395*	— —
M3	— —	155 *510*	90 *295*	155 *510*
M4	— —	115 *375*	70 *230*	130 *425*
M5	— —	95 *310*	55 *180*	105 *345*
K1	235 *770*	225 *740*	— —	— —
K2	205 *670*	195 *640*	— —	— —
K3	175 *570*	165 *540*	— —	— —
K4	165 *540*	160 *520*	— —	— —
K5	100 *330*	95 *310*	— —	— —
N1	— —	390 *1275*	335 *1100*	335 *1100*
N2	— —	250 *820*	215 *710*	215 *710*
N3	— —	165 *540*	145 *475*	145 *475*
N11	— —	325 *1075*	285 *940*	285 *940*
S1	— —	— —	37 *120*	55 *180*
S2	— —	— —	27 *90*	45 *150*
S3	— —	— —	27 *90*	39 *130*
S11	— —	— —	70 *230*	80 *260*
S12	— —	— —	55 *180*	60 *195*
S13	— —	— —	43 *140*	48 *155*
H3	— —	65 *215*	65 *215*	— —
H5	— —	120 *395*	120 *395*	— —
H7	— —	65 *215*	65 *215*	— —
H8	— —	120 *395*	120 *395*	— —
H11	— —	155 *510*	155 *510*	— —
H12	— —	70 *230*	140 *460*	— —
H21	— —	120 *395*	120 *395*	— —

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 *Ø 0.590-0.669*	Ø 18,00-20,00 *Ø 0.670-0.787*	Ø 21,00-24,00 *Ø 0.788-0.944*	Ø 25,00-32,00 *Ø 0.945-1.259*	Ø 33,00-36,00 *Ø 1.260-1.417*	Ø 37,00-52,00 *Ø 1.418-1.850*	
P1	85 DP3000	0,042	0,042	0,048	0,060	0,070	0,085	310
	85 DP3000	*0.0017*	*0.0017*	*0.0019*	*0.0024*	*0.0028*	*0.0034*	*1025*
P2	85 DP3000	0,042	0,042	0,050	0,060	0,070	0,085	305
	85 DP3000	*0.0017*	*0.0017*	*0.0020*	*0.0024*	*0.0028*	*0.0034*	*1000*
P3	86 DP3000	0,12	0,12	0,13	0,17	0,19	0,22	260
	86 DP3000	*0.0048*	*0.0048*	*0.0050*	*0.0065*	*0.0075*	*0.0085*	*850*
P4	86 DP3000	0,11	0,11	0,13	0,16	0,19	0,22	230
	86 DP3000	*0.0044*	*0.0044*	*0.0050*	*0.0065*	*0.0075*	*0.0085*	*750*
P5	86 DP3000	0,11	0,11	0,13	0,16	0,18	0,22	220
	86 DP3000	*0.0044*	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0085*	*720*
P6	86 DP3000	0,11	0,11	0,13	0,16	0,18	0,22	245
	86 DP3000	*0.0044*	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0085*	*800*
P7	86 DP3000	0,11	0,11	0,13	0,16	0,18	0,22	235
	86 DP3000	*0.0044*	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0085*	*770*
P8	86 DP3000	0,12	0,12	0,13	0,17	0,19	0,22	220
	86 DP3000	*0.0048*	*0.0048*	*0.0050*	*0.0065*	*0.0075*	*0.0085*	*720*
P11	86 DP3000	0,11	0,11	0,13	0,16	0,18	0,22	225
	86 DP3000	*0.0044*	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0085*	*740*
P12	86 DP3000	0,075	0,075	0,085	0,11	0,12	0,15	135
	86 DP3000	*0.0030*	*0.0030*	*0.0034*	*0.0044*	*0.0048*	*0.0060*	*445*
M1	86 DP3000	0,075	0,075	0,085	0,11	0,12	0,15	235
	86 DP3000	*0.0030*	*0.0030*	*0.0034*	*0.0044*	*0.0048*	*0.0060*	*770*
M2	86 DP3000	0,070	0,070	0,080	0,10	0,11	0,14	190
	86 DP3000	*0.0028*	*0.0028*	*0.0032*	*0.0040*	*0.0044*	*0.0055*	*620*
M3	85 DP3000	0,034	0,034	0,040	0,048	0,055	0,070	145
	85 DP3000	*0.0013*	*0.0013*	*0.0016*	*0.0019*	*0.0022*	*0.0028*	*475*
M4	85 DP3000	0,030	0,030	0,034	0,042	0,050	0,060	110
	85 DP3000	*0.0012*	*0.0012*	*0.0013*	*0.0017*	*0.0020*	*0.0024*	*360*
M5	85 DP3000	0,030	0,030	0,034	0,042	0,050	0,060	90
	85 DP3000	*0.0012*	*0.0012*	*0.0013*	*0.0017*	*0.0020*	*0.0024*	*295*
K1	86 DP3000	0,12	0,12	0,14	0,17	0,20	0,24	180
	86 DP3000	*0.0048*	*0.0048*	*0.0055*	*0.0065*	*0.0080*	*0.0095*	*590*
K2	86 DP3000	0,11	0,11	0,13	0,16	0,18	0,22	155
	86 DP3000	*0.0044*	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0085*	*510*
K3	86 DP3000	0,11	0,11	0,13	0,16	0,18	0,22	130
	86 DP3000	*0.0044*	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0085*	*425*
K4	86 DP3000	0,11	0,11	0,13	0,16	0,18	0,22	125
	86 DP3000	*0.0044*	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0085*	*410*
K5	86 DP3000	0,10	0,10	0,11	0,14	0,16	0,19	75
	86 DP3000	*0.0040*	*0.0040*	*0.0044*	*0.0055*	*0.0065*	*0.0075*	*245*
S1	85 DP3000	0,055	0,055	0,060	0,075	0,090	0,11	40
	85 DP3000	*0.0022*	*0.0022*	*0.0024*	*0.0030*	*0.0036*	*0.0044*	*130*
S2	85 DP3000	0,055	0,055	0,060	0,075	0,090	0,11	30
	85 DP3000	*0.0022*	*0.0022*	*0.0024*	*0.0030*	*0.0036*	*0.0044*	*100*
S3	85 DP3000	0,050	0,050	0,060	0,070	0,085	0,10	30
	85 DP3000	*0.0020*	*0.0020*	*0.0024*	*0.0028*	*0.0034*	*0.0040*	*100*
S11	85 DP3000	0,060	0,060	0,070	0,090	0,10	0,12	80
	85 DP3000	*0.0024*	*0.0024*	*0.0028*	*0.0036*	*0.0040*	*0.0048*	*260*
S12	85 DP3000	0,060	0,060	0,070	0,090	0,10	0,12	60
	85 DP3000	*0.0024*	*0.0024*	*0.0028*	*0.0036*	*0.0040*	*0.0048*	*195*
S13	85 DP3000	0,055	0,055	0,060	0,075	0,090	0,11	47
	85 DP3000	*0.0022*	*0.0022*	*0.0024*	*0.0030*	*0.0036*	*0.0044*	*155*
H3	86 DP3000	0,050	0,050	0,060	0,070	0,085	0,10	80
	86 DP3000	*0.0020*	*0.0020*	*0.0024*	*0.0028*	*0.0034*	*0.0040*	*260*
H5	86 DP3000	0,075	0,075	0,085	0,11	0,12	0,15	150
	86 DP3000	*0.0030*	*0.0030*	*0.0034*	*0.0044*	*0.0048*	*0.0060*	*490*
H7	86 DP3000	0,050	0,050	0,060	0,070	0,085	0,10	80
	86 DP3000	*0.0020*	*0.0020*	*0.0024*	*0.0028*	*0.0034*	*0.0040*	*260*
H8	86 DP3000	0,060	0,060	0,065	0,085	0,095	0,11	150
	86 DP3000	*0.0024*	*0.0024*	*0.0026*	*0.0034*	*0.0038*	*0.0044*	*490*
H11	86 DP3000	0,075	0,075	0,085	0,11	0,12	0,15	195
	86 DP3000	*0.0030*	*0.0030*	*0.0034*	*0.0044*	*0.0048*	*0.0060*	*640*
H12	86 DP3000	0,060	0,060	0,065	0,085	0,095	0,11	80
	86 DP3000	*0.0024*	*0.0024*	*0.0026*	*0.0034*	*0.0038*	*0.0044*	*260*
H21	86 DP3000	0,060	0,060	0,065	0,085	0,095	0,11	150
	86 DP3000	*0.0024*	*0.0024*	*0.0026*	*0.0034*	*0.0038*	*0.0044*	*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 *1225*
P2	365 *1200*
P3	315 *1025*
P4	280 *920*
P5	265 *870*
P6	300 *980*
P7	280 *920*
P8	265 *870*
P11	275 *900*
P12	160 *520*
M1	285 *940*
M2	230 *750*
M3	175 *570*
M4	130 *425*
M5	110 *360*
K1	215 *710*
K2	185 *610*
K3	160 *520*
K4	150 *490*
K5	90 *295*
S1	—
S2	—
S3	—
S11	—
S12	—
S13	—
H3	80 *260*
H5	150 *490*
H7	80 *260*
H8	150 *490*
H11	195 *640*
H12	95 *310*
H21	150 *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 *Ø 2.362-2.755*	Ø 70,00-91,99 *Ø 2.756-3.621*	Ø 92,00-110,99 *Ø 3.622-4.369*	Ø 111,00-134,99 *Ø 4.370-4.314*	Ø 135,00-160,00 *Ø 4.315-6.300*	
P1	P2 DP3000 *P2 DP3000*	0,085 *0.0034*	0,095 *0.0038*	0,12 *0.0048*	0,13 *0.0050*	0,12 *0.0048*	295 *970*
P2	P2 DP3000 *P2 DP3000*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	0,12 *0.0048*	285 *940*
P3	P2 DP3000 *P2 DP3000*	0,17 *0.0065*	0,19 *0.0075*	0,22 *0.0085*	0,26 *0.010*	0,22 *0.0085*	245 *800*
P4	P2 DP3000 *P2 DP3000*	0,16 *0.0065*	0,19 *0.0075*	0,22 *0.0085*	0,25 *0.010*	0,22 *0.0085*	130 *425*
P5	P2 DP3000 *P2 DP3000*	0,16 *0.0065*	0,18 *0.0070*	0,22 *0.0085*	0,25 *0.010*	0,22 *0.0085*	125 *410*
P6	P2 DP3000 *P2 DP3000*	0,16 *0.0065*	0,18 *0.0070*	0,22 *0.0085*	0,25 *0.010*	0,22 *0.0085*	140 *460*
P7	P2 DP3000 *P2 DP3000*	0,16 *0.0065*	0,18 *0.0070*	0,22 *0.0085*	0,25 *0.010*	0,22 *0.0085*	135 *445*
P8	P2 DP3000 *P2 DP3000*	0,17 *0.0065*	0,19 *0.0075*	0,22 *0.0085*	0,26 *0.010*	0,22 *0.0085*	125 *410*
P11	P2 DP3000 *P2 DP3000*	0,16 *0.0065*	0,18 *0.0070*	0,22 *0.0085*	0,25 *0.010*	0,22 *0.0085*	130 *425*
P12	P2 DP3000 *P2 DP3000*	0,11 *0.0044*	0,12 *0.0048*	0,15 *0.0060*	0,17 *0.0065*	0,15 *0.0060*	75 *245*
M1	P2 DP3000 *P2 DP3000*	0,12 *0.0048*	0,14 *0.0055*	0,17 *0.0065*	0,19 *0.0075*	0,17 *0.0065*	215 *710*
M2	P2 DP3000 *P2 DP3000*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	0,17 *0.0065*	0,15 *0.0060*	175 *570*
M3	P1 DP3000 *P1 DP3000*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,12 *0.0048*	135 *445*
M4	P1 DP3000 *P1 DP3000*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,12 *0.0048*	0,11 *0.0044*	100 *330*
M5	P1 DP3000 *P1 DP3000*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,12 *0.0048*	0,11 *0.0044*	85 *280*
K1	P2 DP3000 *P2 DP3000*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,24 *0.0095*	175 *570*
K2	P2 DP3000 *P2 DP3000*	0,16 *0.0065*	0,18 *0.0070*	0,22 *0.0085*	0,24 *0.0095*	0,22 *0.0085*	150 *490*
K3	P2 DP3000 *P2 DP3000*	0,16 *0.0065*	0,18 *0.0070*	0,22 *0.0085*	0,24 *0.0095*	0,22 *0.0085*	130 *425*
K4	P2 DP3000 *P2 DP3000*	0,16 *0.0065*	0,18 *0.0070*	0,22 *0.0085*	0,24 *0.0095*	0,22 *0.0085*	120 *395*
K5	P2 DP3000 *P2 DP3000*	0,14 *0.0055*	0,16 *0.0065*	0,19 *0.0075*	0,22 *0.0085*	0,19 *0.0075*	75 *245*
H3	P2 DP3000 *P2 DP3000*	0,070 *0.0028*	0,080 *0.0032*	0,10 *0.0040*	0,11 *0.0044*	0,10 *0.0040*	42 *140*
H5	P2 DP3000 *P2 DP3000*	0,11 *0.0044*	0,12 *0.0048*	0,15 *0.0060*	0,17 *0.0065*	0,15 *0.0060*	80 *260*
H7	P2 DP3000 *P2 DP3000*	0,070 *0.0028*	0,080 *0.0032*	0,10 *0.0040*	0,11 *0.0044*	0,10 *0.0040*	42 *140*
H8	P2 DP3000 *P2 DP3000*	0,085 *0.0034*	0,095 *0.0038*	0,11 *0.0044*	0,13 *0.0050*	0,11 *0.0044*	80 *260*
H11	P2 DP3000 *P2 DP3000*	0,11 *0.0044*	0,12 *0.0048*	0,15 *0.0060*	0,17 *0.0065*	0,15 *0.0060*	100 *330*
H12	P2 DP3000 *P2 DP3000*	0,085 *0.0034*	0,095 *0.0038*	0,11 *0.0044*	0,13 *0.0050*	0,11 *0.0044*	45 *150*
H21	P2 DP3000 *P2 DP3000*	0,085 *0.0034*	0,095 *0.0038*	0,11 *0.0044*	0,13 *0.0050*	0,11 *0.0044*	80 *260*

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

SD602 Cutting speed

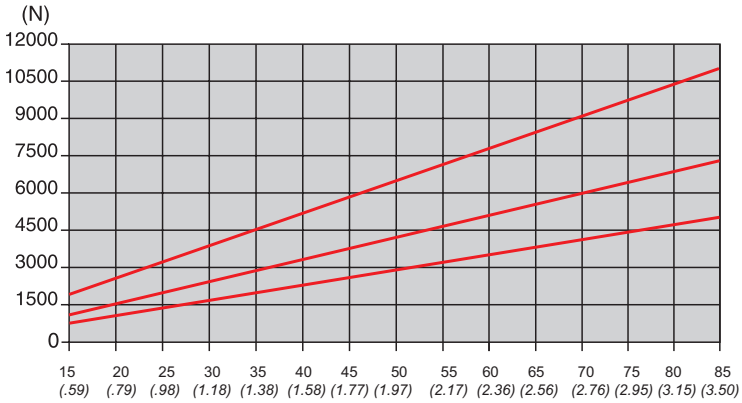
SMG	v_c	
	T250D	DS2050
P1	180 *590*	295 *970*
P2	175 *570*	285 *940*
P3	150 *490*	245 *800*
P4	80 *260*	— —
P5	75 *245*	— —
P6	85 *280*	— —
P7	80 *260*	— —
P8	75 *245*	— —
P11	80 *260*	— —
P12	46 *150*	— —
M1	90 *295*	— —
M2	75 *245*	— —
M3	55 *180*	135 *445*
M4	43 *140*	85 *280*
M5	36 *120*	70 *230*
K1	— —	— —
K2	— —	— —
K3	— —	— —
K4	— —	— —
K5	— —	— —
H3	40 *130*	— —
H5	75 *245*	— —
H7	40 *130*	— —
H8	75 *245*	— —
H11	95 *310*	— —
H12	85 *280*	— —
H21	75 *245*	— —

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

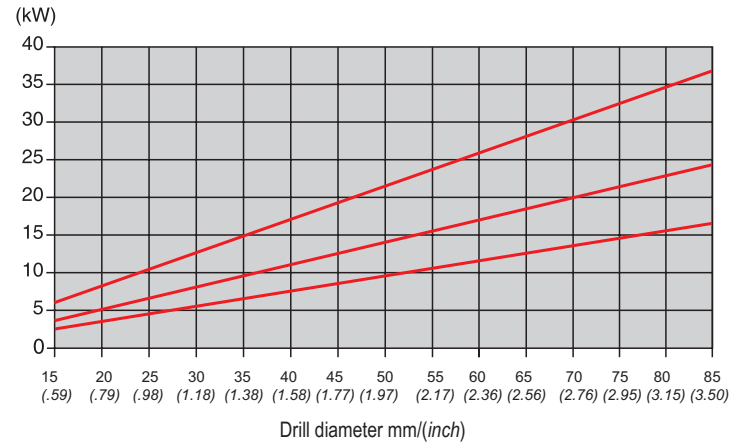


f = 0,18 mm/rev
(f = 0.007 inch/rev)

f = 0,12 mm/rev
(f = 0.005 inch/rev)

f = 0,08 mm/rev
(f = 0.003 inch/rev)

Net power consumption

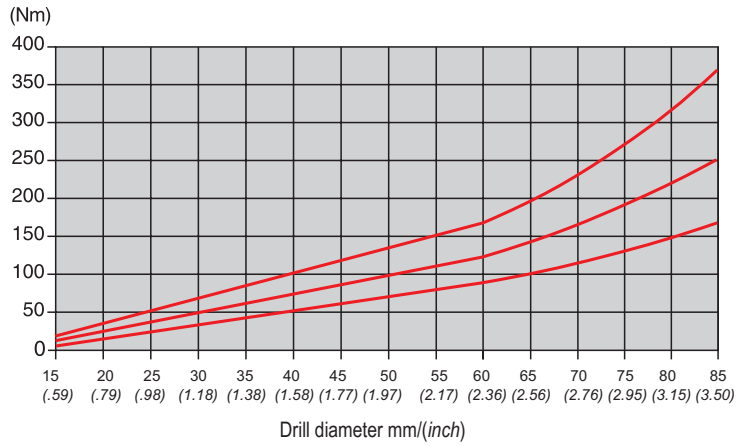


f = 0,18 mm/rev
(f = 0.007 inch/rev)

f = 0,12 mm/rev
(f = 0.005 inch/rev)

f = 0,08 mm/rev
(f = 0.003 inch/rev)

Drilling torque



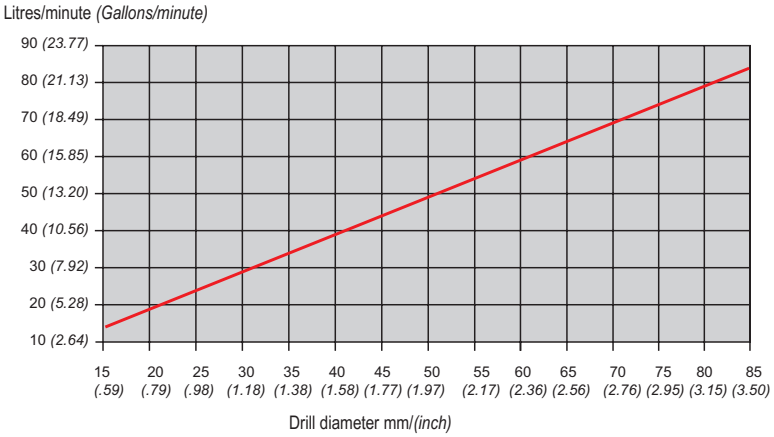
f = 0,18 mm/rev
(f = 0.007 inch/rev)

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

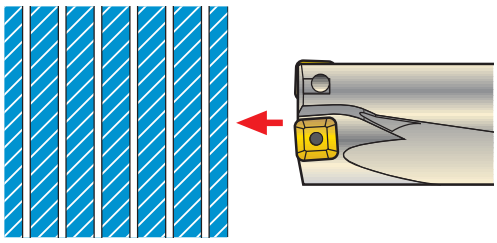


Coolant pressure requirement

Recommended pressure bar *(PSI)*

	Drill diameter mm (*inch*)		
Drilling depth	**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

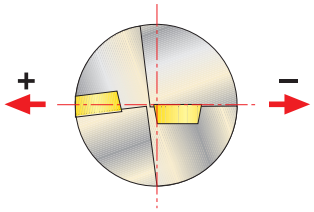
Cutting speed: See recommendations for DP3000 carbide grade
Feed / rev: See recommendations for P2 geometry

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.



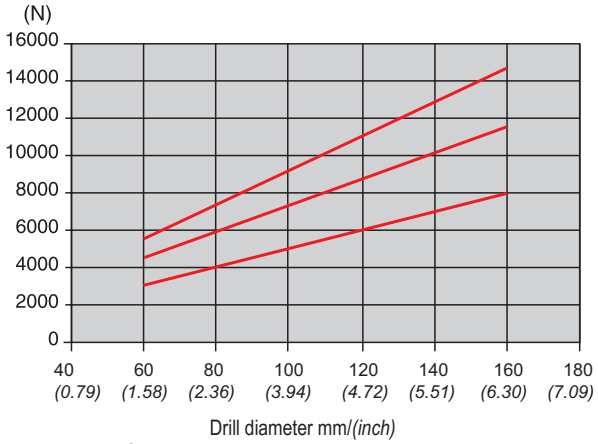
Rotating
Seco's adjustable holder is recommended for precision hole diameter IT10 setting when using SD522 and SD523, 3 x D as rotating drills.

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

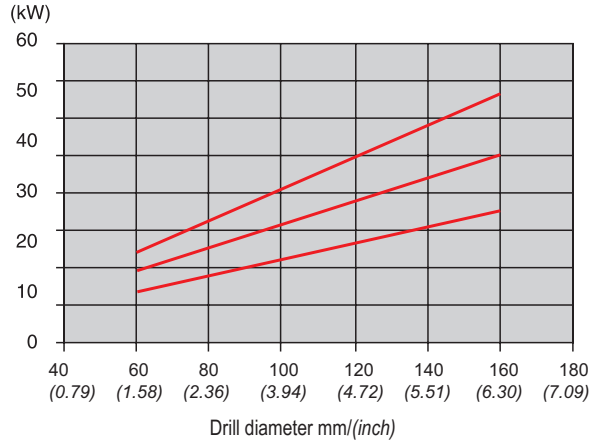


f = 0,18 mm/rev
(f = 0.007 inch/rev)

f = 0,12 mm/rev
(f = 0.005 inch/rev)

f = 0,08 mm/rev
(f = 0.003 inch/rev)

Net power consumption

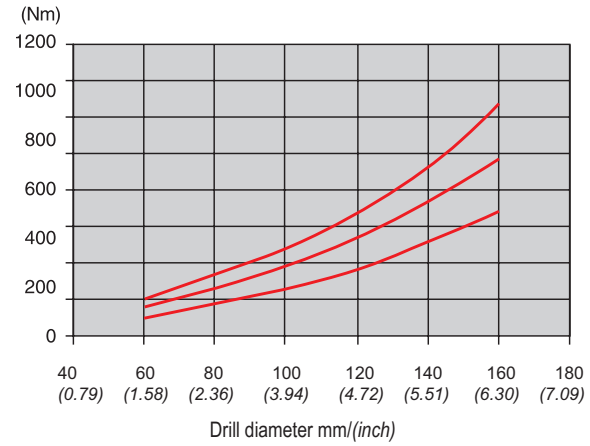


f = 0,18 mm/rev
(f = 0.007 inch/rev)

f = 0,12 mm/rev
(f = 0.005 inch/rev)

f = 0,08 mm/rev
(f = 0.003 inch/rev)

Drilling torque



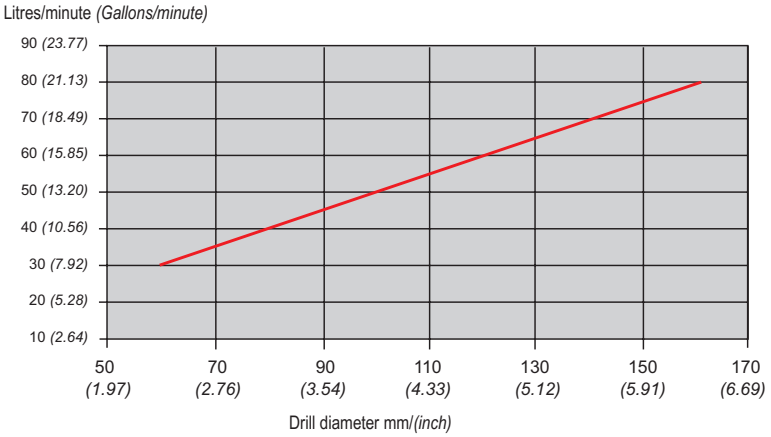
f = 0,18 mm/rev
(f = 0.007 inch/rev)

f = 0,12 mm/rev
(f = 0.005 inch/rev)

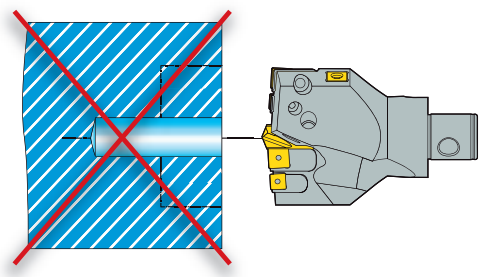
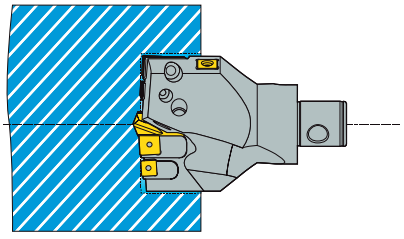
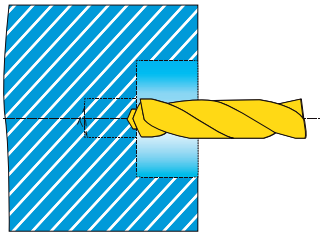
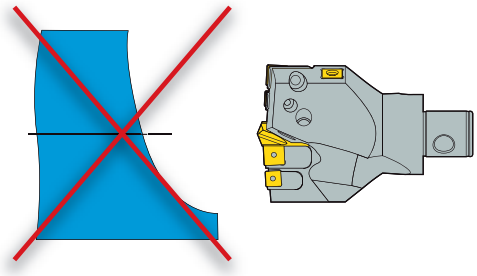
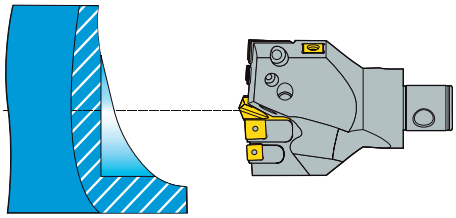
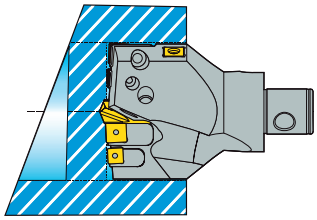
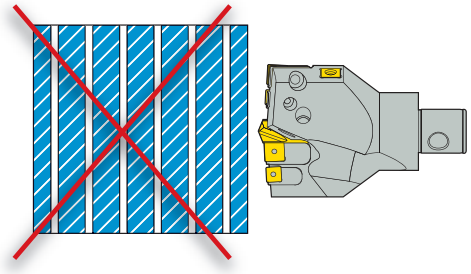
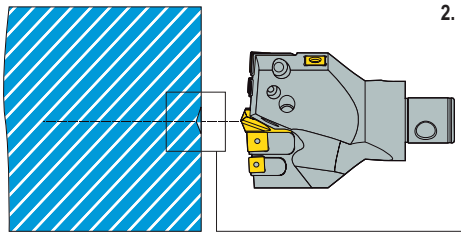
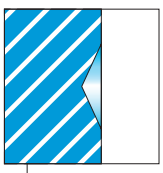
f = 0,08 mm/rev
(f = 0.003 inch/rev)

Machining data SD602

Coolant volume requirement



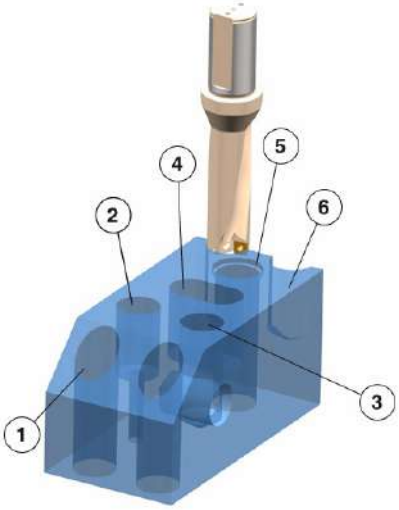
Methods

Not recommended	Solution
	1.  2. 
	1.  2. 
	1.  2.  > 5xD

Versatility

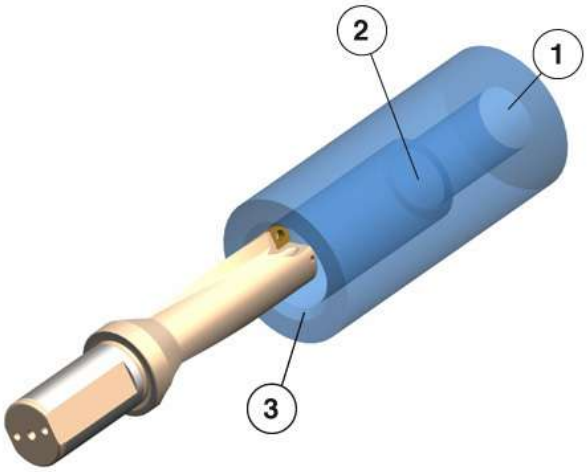
Applications

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

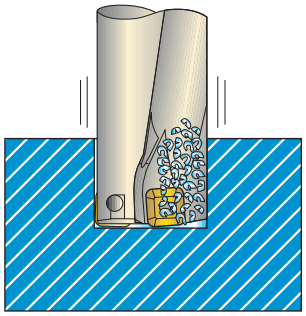
- 2 x D and 3 x D drills (SD522, SD523)
- Reduce the feed ~ 50% when the drill is not fully engaged
- Use grade DP3000
- Use -P2 chipbreaker

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

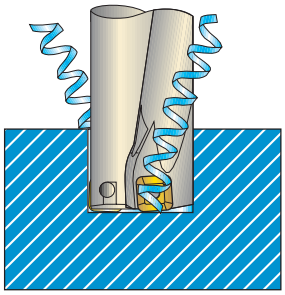
Insufficient power

- Reduce cutting speed
- Reduce feed
- Choose a geometry with harder chipbreaking for lower feeds (SCGX-P1)

Chip jamming problems

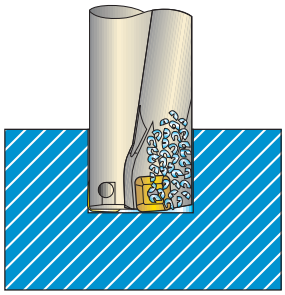
Chip jamming problems due to long chips

- Increase feed. If a very soft material, reduce feed and increase speed
- Choose a geometry with harder chipbreaking for lower feeds (SCGX-P1)



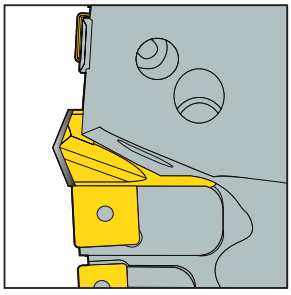
Chip jamming problems despite short chips

- Increase coolant pressure / volume
- Reduce cutting speed



Rapid flank wear on pilot drill

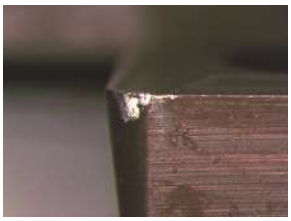
- Reduce the cutting speed
- Increase coolant concentration



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

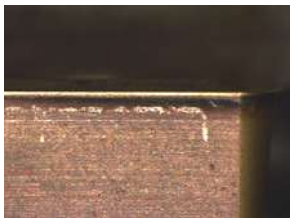


Chipping of center insert

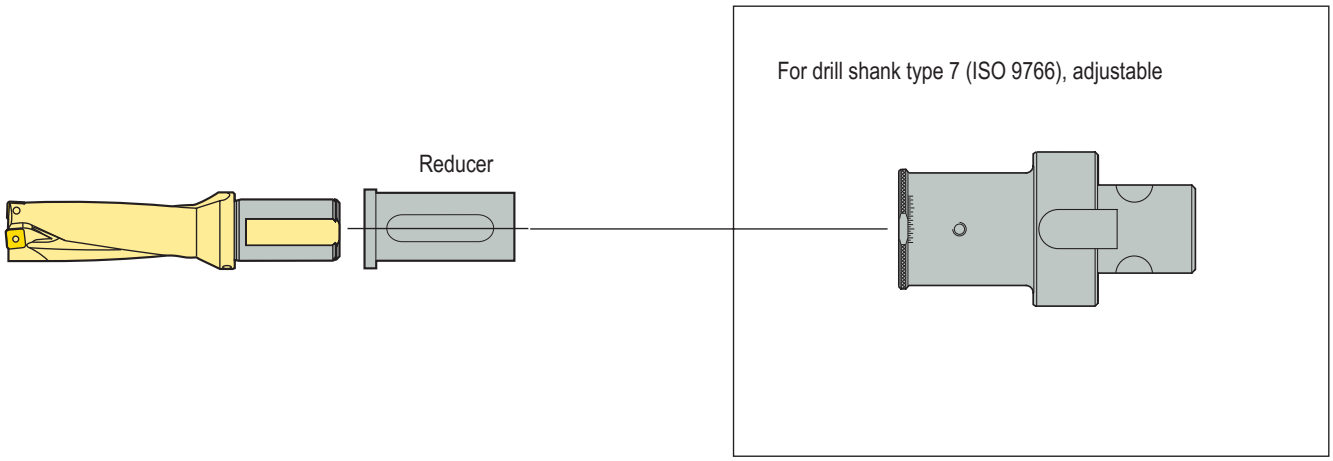
- Check mounting of drill
- Check mounting of workpiece
- Reduce entrance feed
- Increase feed
- Reduce cutting speed

Rapid flank wear on periphery insert

- Reduce cutting speed
- Increase coolant pressure volume
- Choose a more wear resistant grade

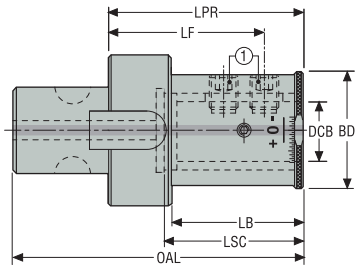


Adjustable holders for drills



ADH 6101 – Adjustable drill holders, for type 7 drill shanks

Graflex®



1. Locking screw

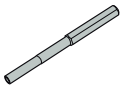
—For Perfomax® drills
—Adjustable from -0,3 mm to +0,8

Designation	Item number	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*	
BM061610025	02422113	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
BM061610125	02422116	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
BM061610032	02422114	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*	2,1 *4.630*	PB
BM061610138	02422118	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
BM061610040	02422115	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*	2,4 *5.290*	PB

Spare Parts, included in delivery

For DCB	Locking screw	Tenon
25,4/1.000	950AF1210014	90M61
25/0.984	950AF1210014	90M61
32/1.260	–	90M61
38,1/1.500	–	90M61
40/1.575	–	90M61

Accessories

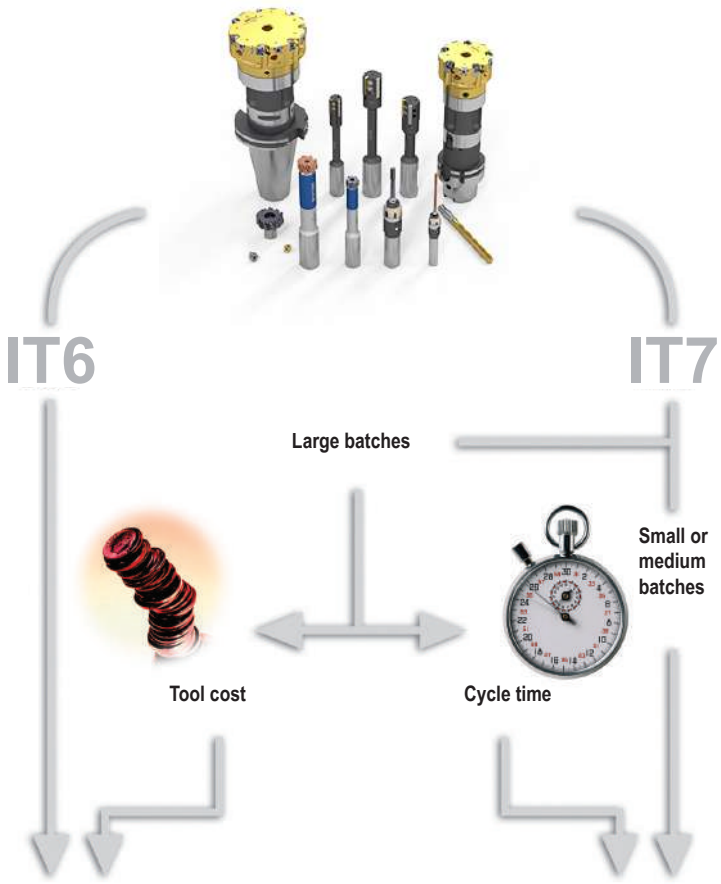
For DCB	Key	Key (T-handle)
		
25,4/1.000	H6B-H6.0L	DOUBLE-T
25/0.984	H6B-H6.0L	DOUBLE-T
32/1.260	H6B-H6.0L	DOUBLE-T
38,1/1.500	H06-4	–
40/1.575	H6B-H6.0L	DOUBLE-T

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™ / Nanojet

Range overview

	Page(s)	∅ Range	Reaming depth	Hole ∅ tolerance	Intermediate diameter	Surface finish
Precimaster™ Plus	Page(s) 303-339	∅ 7,75-60,500 mm *(0.3051-2.3818")*	~ 2-10 x D	IT 6-7-8	Yes, available through My Design	R_a 0,2-1,2 µm *(R_a 7.87-47.2 µin)*
Nanofix™	Page(s) 340-363	∅ 2,970-12,050 mm *(0.1169-0.4744")*	~ 5-12 x D	IT 7	Yes, available through My Design	R_a 0,2-1,2 µm *(R_a 7.87-47.2 µin)*
Nanojet	Page(s) 364-385	∅ 1,461-9,960 mm *(0.057-0.392")*	~ 4-7 x D	IT 7	Yes, available through My Design	R_a 0,2-1,2 µm *(R_a 7.87-47.2 µin)*
Bifix®	Page(s) 386-412	∅ 5,900-60,500 mm *(0.2323-2.3819")*	~ 2-7 x D	IT 6-7	Yes, available through My Design	R_a 0,2-0,8 µm *(R_a 7.87-31.5 µin)*
Xfix™	Page(s) 413-452	∅ 39,500-154,500 mm *(1.5551-6.0827")*	~ 2,5-6,5 x D	IT 6	Yes, available through My Design	R_a 0,8-1,6 µm *(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 0,2-1,2 µm *(R_a 7.87-47.2 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 0,2-1,2 µm *(R_a 7.87-47.2 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 0,2-1,2 µm *(R_a 7.87-47.2 µin)*

Code keys

Precimaster Plus toolholders are suitable for both blind and through holes.

Tool shank

PMX08	–	08200	–	20	–	N	1
1		2		3		4	5

1. Reamer body size

2. Max reaming depth

3. Cyl. shank diameter

4. Neutral

5. Type of shank
1. Cylindrical
DIN1835

Head

PMX6	–	18H7	–	EB45	–	RX2000
1		2		3		4

PMX6

1. Head type

2. Hole dia and hole tolerance

3. Entrance geometry

4. Carbide grade

Head intermediate diameter

PMX5	–	15.515 P7	–	EB845	–	RX2000
1		2		3		4

0.6108”/0.6115”
2

1. Head type

2. Hole dia and hole tolerance

3. Entrance geometry

4. Carbide grade

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 312.

PMX4

PMX5

PMX8

Code keys

Precimaster Plus toolholders are suitable for both blind and through holes.

PMX08 B HM	–	14500	–	20	–	N	1
1 2 3		4		5		6	7

1. Reamer body size

2. Coolant outlet for blind bores

3. Carbide body

4 Max reaming depth

5 Cyl. shank diameter

6. Neutral

7. Type of shank
1. Cylindrical DIN1835

PMX08 T	–	AD	–	08200	–	20	–	N	1
1 2		3		4		5		6	7

1. Reamer body size

2. Coolant outlet for through bores

3. Adjustable holder

4 Max reaming depth

5 Cyl. shank diameter

6. Neutral

7. Type of shank
1. Cylindrical DIN1835

PMX08 T	–	FL	–	08200	–	20	–	N	1
1 2		3		4		5		6	7

1. Reamer body size

2. Coolant outlet for through bores

3. Floating holder

4 Max reaming depth

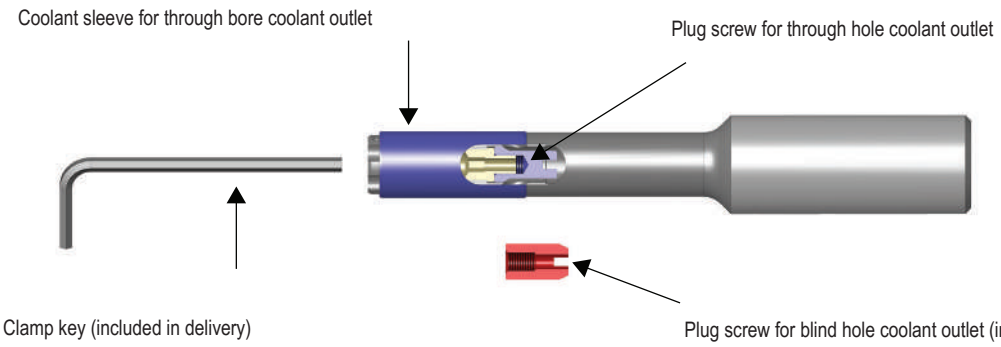
5 Cyl. shank diameter

6. Neutral

7. Type of shank
1. Cylindrical DIN1835

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

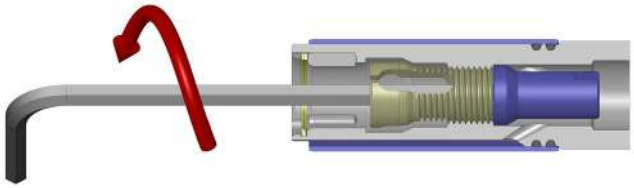
Through bores

PMX5/PMX8

Blind bores

2.

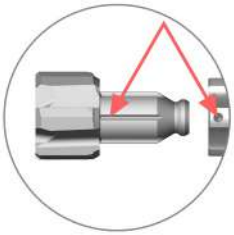
Position clamp before head mounting



3.

Align index groove with red dot on body

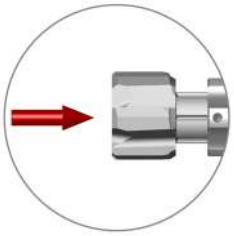
Small Groove



Large Grooves

4.

Place head into body

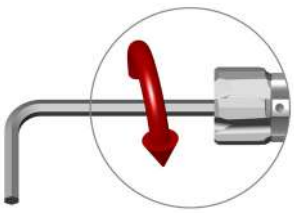


5.

Push head inside body until “click” is achieved

6.

Clamp head using allen key

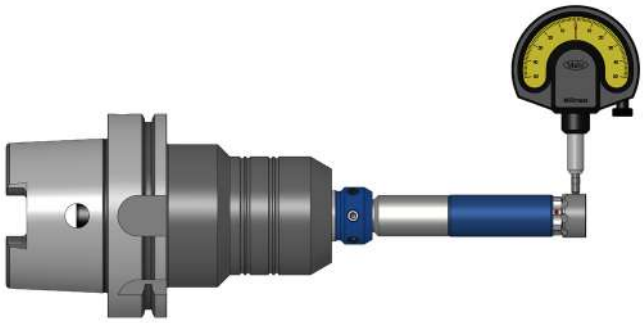


PMX Shank Size	Recommended clamping torque
PMX05	0,5 Nm
PMX06	0,9 Nm
PMX08	1,2 Nm
PMX12	2,0 Nm
PMX16	5,0 Nm

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) 324-325.



Static tool

Use Precimaster Plus floating holders PMX - FL, see page(s) 326-327.

Floating holders allow reamer self-centering in pre-bore.

Coolant requirements

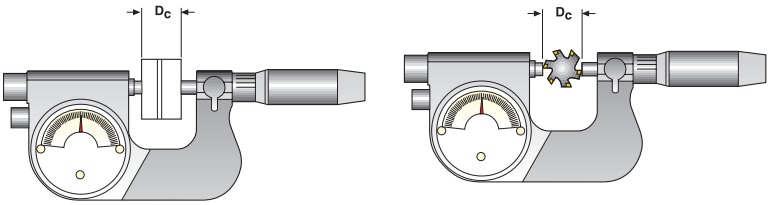
To reach maximum tool life and hole quality, the following coolant requirements should be observed.
Coolant through the tool is recommended.
External coolant supply can be used if reaming depth < 2 x D.
Quality soluble oil with 40 % minimum mineral oil.
Neat oil recommended for stainless steel.
Concentration 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)*.
Recommended coolant pressure: min. 8-10 bars, max. 30 bars

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.



Adjustable 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:

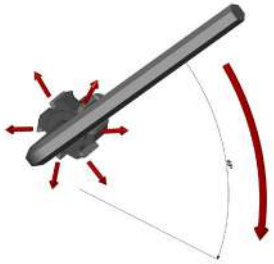
1.
Completely lock floating shank turning adjusting ring clockwise.

2.
Open floating shank 2 or 3 clicks turning adjusting ring anti-clockwise.

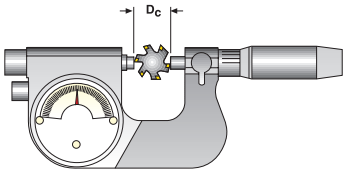
3.
Proceed to further floating value adjustment if necessary. Too much floating value can create unstable conditions at bore entry. Too few floating value can create vibrations and tapered bore.

Expandable reamer wear compensation

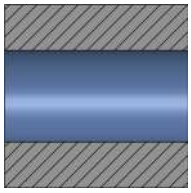
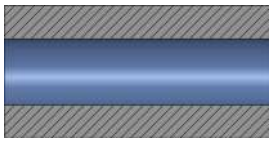
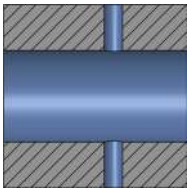
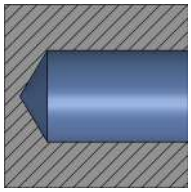
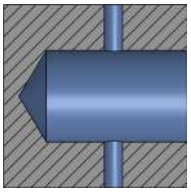
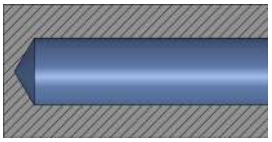
1.
Use hexagonal allen key to compensate tool Ø wearing (60° increments = approximately 0.005 µm *(0.197 µin)* compensation on Ø)



2.
Check Ø dimension after expansion using clock micrometer



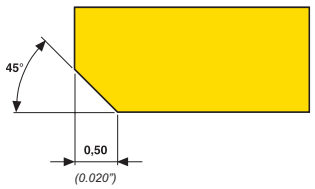
Head choice

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** For through bore application, toolholder coolant outlet must be set for through holes: see coolant set-up pages.	
Crossing hole 		
Blind hole 	**PMX5 / PMX8** 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** For blind bore difficult application, toolholder coolant outlet must be set for blind holes: see coolant set-up pages.	

Geometry choice – Applications

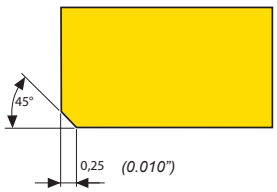
Lead geometry - EB45

Chip control ++
Surface finish+++ R_a 0,8 - 1,2 µm
(Surface finish+++ R_a 31 - 47 µin)
Versatile



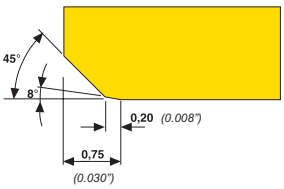
Lead geometry - EBS45

Chip control +++
Surface Finish + R_a 0,8- 1,2 µm
(Surface Finish + R_a 31- 47 µin)
Short EB45



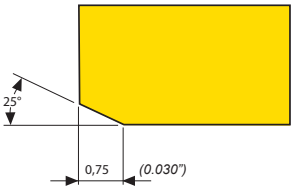
Lead geometry - EB845

Chip control ++
Surface finish+++ R_a 0,2 - 0,8 µm
(Surface finish+++ R_a 8 - 31 µin)



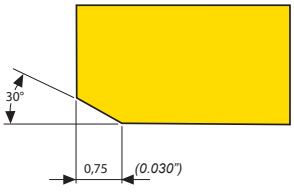
Lead geometry - EB25

Feed performance +++
Surface finish ++ R_a 0,4 - 0,8 µm
(Surface Finish ++ R_a 16 - 31 µin)
Chip control +

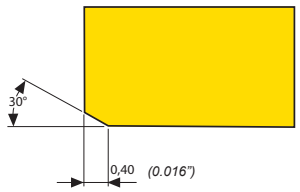
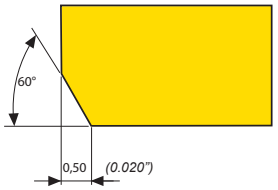
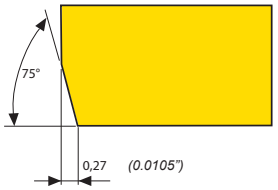


Lead geometry - EB30

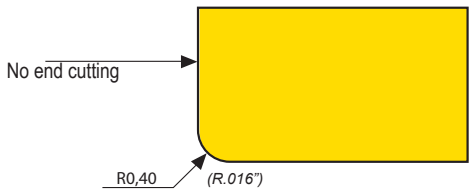
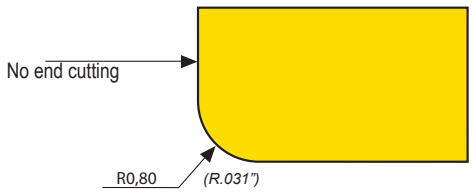
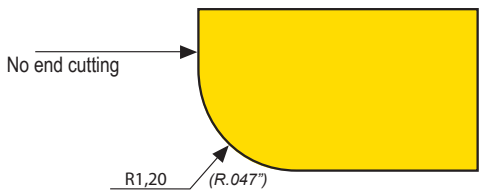
Feed performance +++
Surface Finish ++ R_a 0,4 - 0,8 µm
(Surface Finish ++ R_a 16 - 31 µin)
Chip control +



Geometry choice – Applications

Lead geometry - EBS30 Feed performance +++ Surface finish ++ R_a 0,4 - 0,8 µm *(Surface Finish ++ R_a 16 - 31 µin)* Chip control + Short EB30	
Lead geometry - EB60 Feed performance + Surface Finish ++ R_a 0,8 - 1,2 µm *(Surface Finish ++ R_a 31-47 µin)* Chip control ++	
Lead geometry - EB75 Feed performance + Surface Finish ++ R_a 0,8 - 1,2 µm *(Surface Finish ++ R_a 31-47 µin)* Chip control ++	

Geometry choice – Applications

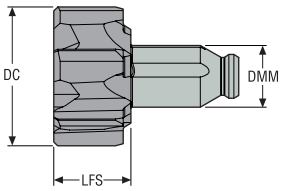
Lead geometry - RE040 Feed performance ++ Surface Finish ++ R_a 0,4 - 0,8 µm *(Surface Finish ++ R_a 16 - 31 µin)* Chip control +	
Lead geometry - RE080 Feed performance ++ Surface Finish ++ R_a 0,4 - 0,8 µm *(Surface Finish ++ R_a 16 - 31 µin)* Chip control +	
Lead geometry - RE120 Feed performance ++ 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** High performance coated grade suitable for all materials.
	CP20	**Coated** A versatile coated grade suitable for most materials, except aluminum. TiN
	H15	**Uncoated** A tough micrograin grade for all materials. Suitable for fine-reaming operations due to edge sharpness.
	CF	**Cermet** A wear resistant grade for performance optimization in steel.
	RX1500	**Coated Cermet** A resistant coated grade for performance optimization in steel and cast iron.
	RN2010	**Uncoated** A sub-micrograin uncoated grade with optimized geometries for N-materials (non ferrous).
	RM2020	**Coated** A tough coated grade suitable for fine reaming operation with optimized geometries for M materials.
	RM2090	**Coated** A wear resistant coated grade with specific geometries for M materials. Optimization in M materials.
	RK2050	**Coated** A tough coated grade suitable for fine reaming operation with optimized geometries for K materials.
	RK1550	**Coated Cermet** A wear resistant coated grade with specific geometries for K materials. Optimization in K materials.
	RS2090	**Coated** 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) 313–315
—For cutting data see page(s) 333–339

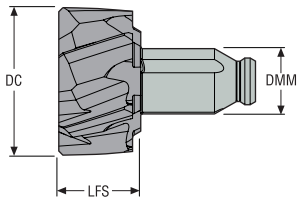
Designation	Item number	DC	Drill size*		LFS	DMM	Body size	Geometries			Grades				
		mm	mm		mm	mm		EB45	EB845	EB30	H15	CP20	RX2000	CF	RX1500
PMX5-8H7-EB45	03123158	8,0	7,8/7,9	6	6,0	4,5	PMX05-xx	■	□	□	□	□	■	–	–
PMX5-9H7-EB45	03123159	9,0	8,8/8,9	6	6,0	4,5	PMX05-xx	■	□	□	□	□	■	–	–
PMX5-10H7-EB30	10020602	10,0	9,8/9,9	6	7,0	6,0	PMX06-xx	□	□	■	□	□	■	□	□
PMX6-10H7-EB45	02965863	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	□	□	■	□	□	■	□	□
PMX5-30H7-EB45	02925773	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
PMX5-32H7-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	■	☐	☐	☐	☐	■	☐	☐

*For further information on which drill to use and how to use it see page(s) 8
■ **Stock standard.** ☐ **Non stock standard.**

Heads for through holes

∅ 8–32 mm / *0.315–1.260"*



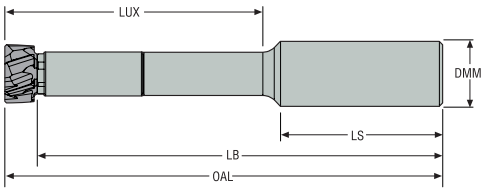
—For choice of geometry, please see page(s) 313–315
—For cutting data see page(s) 333–339

Designation	Item number	DC	Drill size*		LFS	DMM	Body size	Geometries			Grades				
		mm	mm		mm	mm		EB45	EB845	EB30	H15	CP20	RX2000	CF	RX1500
PMX6-8H7-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	■	□	□	□	□	■	–	–
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	■	□	□	□	□	■	□	□

*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

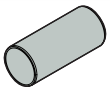
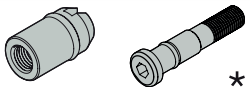
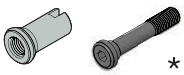
∅ 7,75-60,500 mm / *0.305-2.381"*



—For choice of geometry, please see page(s) 313-315
—For cutting data see page(s) 333-339

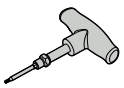
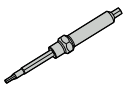
Designation	Item number	Tool holder material	DC	OAL	LB	LS	LUX	DMM
			mm	mm	mm	mm	mm	mm
PMX05-02800-10N1	03123012	Steel	7,75 - 9,9	69,0	63,0	40,0	28,0	10,0
PMX05-04100-10N1	02929923	Steel	7,75 - 9,9	84,0	78,0	40,0	41,0	10,0
PMX05-10000-10N1	03123013	Steel	7,75 - 9,9	143,0	137,0	40,0	100,0	10,0
PMX06-03700-12N1	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

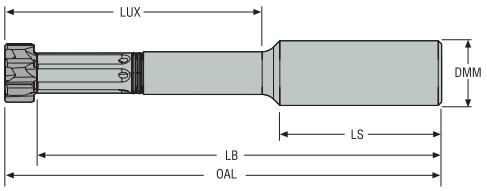
For ∅ (mm)	Shank Size	Item number	Torque key	Item number	Replacement blade	Item number	Torque key	Item number	Replacement blade	Torque value
										
7,750-9,900	PMX05	03178196	H00-1505-27	03178237	H00-1.5-27	–	–	–	–	0,5 Nm
9,901-14,499	PMX06	03178197	H00-2009-33	03178238	H00-2.0-33	–	–	–	–	0,9 Nm
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

Accessories

For ∅ (mm)	Shank Size	Item number	Unisize extractor	Item number	Extraction ring	Item number	Extractor body	Item number	Extraction Kit
7,750-9,900	PMX05	10185807	PMX-EXTR05	10185811	PMX-EXTR-RING05	10185815	PMX-EXTR-BDY	10185816	PMX-EXTR-KIT
9,901-14,499	PMX06	10185808	PMX-EXTR06	10185812	PMX-EXTR-RING06	10185815	PMX-EXTR-BDY	10185816	PMX-EXTR-KIT
14,500-21,499	PMX08	10185809	PMX-EXTR08	10185813	PMX-EXTR-RING08	10185815	PMX-EXTR-BDY	10185816	PMX-EXTR-KIT
21,500-32,499	PMX12	10185810	PMX-EXTR12	10185814	PMX-EXTR-RING012	10185815	PMX-EXTR-BDY	10185816	PMX-EXTR-KIT
32,500-60,500	PMX16	–	–	–	–	–	–	–	–

Shanks for blind holes

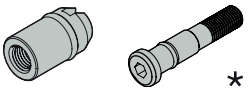
∅ 7,75-60,500 mm / *0.305-2.381"*



—For choice of geometry, please see page(s) 313-315
—For cutting data see page(s) 333-339

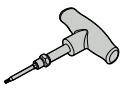
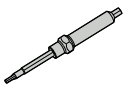
Designation	Item number	Tool holder material	DC	OAL	LB	LS	LUX	DMM
			mm	mm	mm	mm	mm	mm
PMX05B-02800-10N1	03144322	Steel	7,75 - 9,9	69,0	63,0	40,0	28,0	10,0
PMX05B-04100-10N1	03144323	Steel	7,75 - 9,9	84,0	78,0	40,0	41,0	10,0
PMX05B-10000-10N1	03144324	Steel	7,75 - 9,9	143,0	137,0	40,0	100,0	10,0
PMX06B-03700-12N1	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

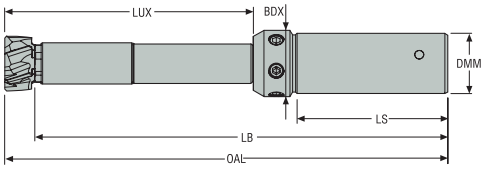
For ∅ (mm)	Shank Size	Item number	Torque key	Item number	Replacement blade	Item number	Torque key	Item number	Replacement blade	Torque value
										
7,750-9,900	PMX05	03178196	H00-1505-27	03178237	H00-1.5-27	–	–	–	–	0,5 Nm
9,901-14,499	PMX06	03178197	H00-2009-33	03178238	H00-2.0-33	–	–	–	–	0,9 Nm
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

Accessories

For ∅ (mm)	Shank Size	Item number	Unisize extractor	Item number	Extraction ring	Item number	Extractor body	Item number	Extraction Kit
7,750-9,900	PMX05	10185807	PMX-EXTR05	10185811	PMX-EXTR-RING05	10185815	PMX-EXTR-BDY	10185816	PMX-EXTR-KIT
9,901-14,499	PMX06	10185808	PMX-EXTR06	10185812	PMX-EXTR-RING06	10185815	PMX-EXTR-BDY	10185816	PMX-EXTR-KIT
14,500-21,499	PMX08	10185809	PMX-EXTR08	10185813	PMX-EXTR-RING08	10185815	PMX-EXTR-BDY	10185816	PMX-EXTR-KIT
21,500-32,499	PMX12	10185810	PMX-EXTR12	10185814	PMX-EXTR-RING012	10185815	PMX-EXTR-BDY	10185816	PMX-EXTR-KIT
32,500-60,500	PMX16	–	–	–	–	–	–	–	–

Adjustable shanks for through holes

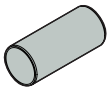
∅ 7,75-60,500 mm / *0.305-2.381"*



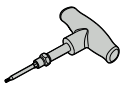
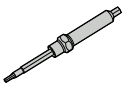
—For choice of geometry, please see page(s) 313-315
—For cutting data see page(s) 333-339

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

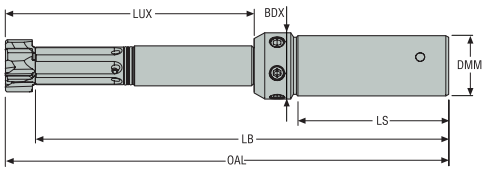
Accessories

For ∅ (mm)	Shank Size	Item number	Unisize extractor	Item number	Extraction ring	Item number	Extractor body	Item number	Extraction Kit
7,750-9,900	PMX05	10185807	PMX-EXTR05	10185811	PMX-EXTR-RING05	10185815	PMX-EXTR-BDY	10185816	PMX-EXTR-KIT
9,901-14,499	PMX06	10185808	PMX-EXTR06	10185812	PMX-EXTR-RING06	10185815	PMX-EXTR-BDY	10185816	PMX-EXTR-KIT
14,500-21,499	PMX08	10185809	PMX-EXTR08	10185813	PMX-EXTR-RING08	10185815	PMX-EXTR-BDY	10185816	PMX-EXTR-KIT
21,500-32,499	PMX12	10185810	PMX-EXTR12	10185814	PMX-EXTR-RING012	10185815	PMX-EXTR-BDY	10185816	PMX-EXTR-KIT
32,500-60,500	PMX16	–	–	–	–	–	–	–	–

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"*



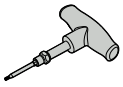
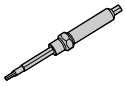
—For choice of geometry, please see page(s) 313-315
—For cutting data see page(s) 333-339

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

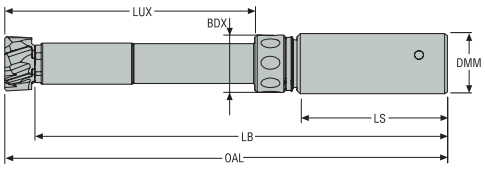
Accessories

For ∅ (mm)	Shank Size	Item number	Unisize extractor	Item number	Extraction ring	Item number	Extractor body	Item number	Extraction Kit
7,750-9,900	PMX05	10185807	PMX-EXTR05	10185811	PMX-EXTR-RING05	10185815	PMX-EXTR-BDY	10185816	PMX-EXTR-KIT
9,901-14,499	PMX06	10185808	PMX-EXTR06	10185812	PMX-EXTR-RING06	10185815	PMX-EXTR-BDY	10185816	PMX-EXTR-KIT
14,500-21,499	PMX08	10185809	PMX-EXTR08	10185813	PMX-EXTR-RING08	10185815	PMX-EXTR-BDY	10185816	PMX-EXTR-KIT
21,500-32,499	PMX12	10185810	PMX-EXTR12	10185814	PMX-EXTR-RING012	10185815	PMX-EXTR-BDY	10185816	PMX-EXTR-KIT
32,500-60,500	PMX16	–	–	–	–	–	–	–	–

Note: Repair clamp kit PMxx-CLKI are not suitable for PMX FL & AD type

Floating shanks for through holes

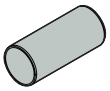
∅ 7,75–60,500 mm / *0.305–2.381"*



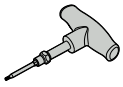
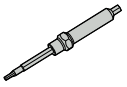
—For choice of geometry, please see page(s) 313–315
—For cutting data see page(s) 333–339

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

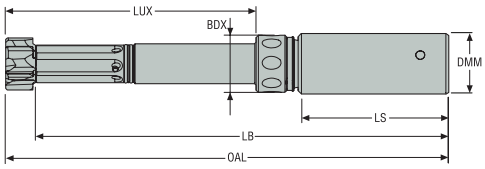
Accessories

For ∅ (mm)	Shank Size	Item number	Unisize extractor	Item number	Extraction ring	Item number	Extractor body	Item number	Extraction Kit
7,750-9,900	PMX05	10185807	PMX-EXTR05	10185811	PMX-EXTR-RING05	10185815	PMX-EXTR-BDY	10185816	PMX-EXTR-KIT
9,901-14,499	PMX06	10185808	PMX-EXTR06	10185812	PMX-EXTR-RING06	10185815	PMX-EXTR-BDY	10185816	PMX-EXTR-KIT
14,500-21,499	PMX08	10185809	PMX-EXTR08	10185813	PMX-EXTR-RING08	10185815	PMX-EXTR-BDY	10185816	PMX-EXTR-KIT
21,500-32,499	PMX12	10185810	PMX-EXTR12	10185814	PMX-EXTR-RING012	10185815	PMX-EXTR-BDY	10185816	PMX-EXTR-KIT
32,500-60,500	PMX16	–	–	–	–	–	–	–	–

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"*



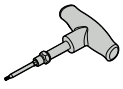
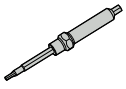
—For choice of geometry, please see page(s) 313-315
—For cutting data see page(s) 333-339

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

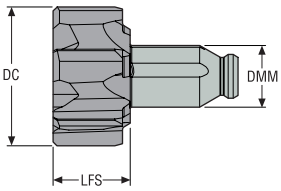
Accessories

For ∅ (mm)	Shank Size	Item number	Unisize extractor	Item number	Extraction ring	Item number	Extractor body	Item number	Extraction Kit
7,750-9,900	PMX05	10185807	PMX-EXTR05	10185811	PMX-EXTR-RING05	10185815	PMX-EXTR-BDY	10185816	PMX-EXTR-KIT
9,901-14,499	PMX06	10185808	PMX-EXTR06	10185812	PMX-EXTR-RING06	10185815	PMX-EXTR-BDY	10185816	PMX-EXTR-KIT
14,500-21,499	PMX08	10185809	PMX-EXTR08	10185813	PMX-EXTR-RING08	10185815	PMX-EXTR-BDY	10185816	PMX-EXTR-KIT
21,500-32,499	PMX12	10185810	PMX-EXTR12	10185814	PMX-EXTR-RING012	10185815	PMX-EXTR-BDY	10185816	PMX-EXTR-KIT
32,500-60,500	PMX16	–	–	–	–	–	–	–	–

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"*



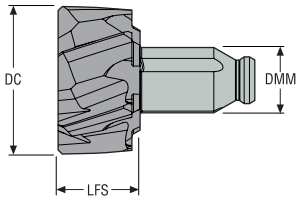
—For choice of geometry, please see page(s) 313–315
—For cutting data see page(s) 333–339

Designation	DCN	DCX	LFS	DMM		Body size	Geometries	Grades										
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				H15	CP20	RX2000	RK2050	RK1550	CF	RX1500	RN2010	RM2020	RM2090	RS2090
PMX5-7.75-XX-XXXX	7,75 *0.305*	9,9 *0.390*	6,0 *0.236*	4,5 *0.177*	6	PMX05-xx	EB45 EB845 EB30	□	□	□	□	□	–	–	□	□	□	□
PMX5-10.0-XX-XXXX	9,901 *0.390*	14,499 *0.571*	7,0 *0.276*	6,0 *0.236*	6	PMX06-xx	EB45 EB845 EB30	□	□	□	□	□	□	□	□	□	□	□
PMX5-14.5-XX-XXXX	14,5 *0.571*	21,499 *0.846*	10,0 *0.394*	8,0 *0.315*	6	PMX08-xx	EB45 EB845 EB30	□	□	□	□	□	□	□	□	□	□	□
PMX5-21.5-XX-XXXX	21,5 *0.846*	32,499 *1.279*	12,0 *0.472*	12,0 *0.472*	8	PMX12-XX	EB45 EB845 EB30	□	□	□	□	□	□	□	□	□	□	□
PMX5-32.5-XX-XXXX	32,5 *1.280*	60,5 *2.382*	14,0 *0.551*	16,0 *0.630*	10	PMX16-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"*



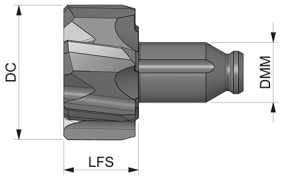
—For choice of geometry, please see page(s) 313–315
—For cutting data see page(s) 333–339

Designation	DCN	DCX	LFS	DMM		Body size	Geometries	Grades										
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				H15	CP20	RX2000	RK2050	RK1550	CF	RX1500	RN2010	RM2020	RM2090	RS2090
PMX6-7.75-XX-XXXX	7,75 *0.305*	9,9 *0.390*	6,0 *0.236*	4,5 *0.177*	6	PMX05-xx	EB45 EB845 EB30	□	□	□	□	□	–	–	□	□	□	□
PMX6-10.0-XX-XXXX	9,901 *0.390*	14,499 *0.571*	7,0 *0.276*	6,0 *0.236*	6	PMX06-xx	EB45 EB845 EB30	□	□	□	□	□	□	□	□	□	□	□
PMX6-14.5-XX-XXXX	14,5 *0.571*	21,499 *0.846*	10,0 *0.394*	8,0 *0.315*	6	PMX08-xx	EB45 EB845 EB30	□	□	□	□	□	□	□	□	□	□	□
PMX6-21.5-XX-XXXX	21,5 *0.846*	32,499 *1.279*	12,0 *0.472*	12,0 *0.472*	8	PMX12-XX	EB45 EB845 EB30	□	□	□	□	□	□	□	□	□	□	□
PMX6-32.5-XX-XXXX	32,5 *1.280*	60,5 *2.382*	14,0 *0.551*	16,0 *0.630*	10	PMX16-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"*



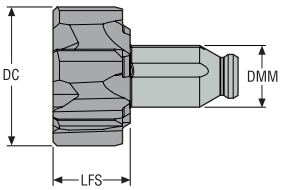
—For choice of geometry, please see page(s) 313-315
—For cutting data see page(s) 333-339

Designation	DCN	DCX	LFS	DMM		Body size	Geometries	Grades										
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				H15	CP20	RX2000	RK2050	RK1550	CF	RX1500	RN2010	RM2020	RM2090	RS2090
PMX4-7.75-XX-XXXX	7,75 *0.305*	9,9 *0.390*	6,0 *0.236*	4,5 *0.177*	6	PMX05-xx	EB45 EB84 EB30	□	□	□	□	□	–	–	□	□	□	□
PMX4-10.0-XX-XXXX	9,901 *0.390*	14,499 *0.571*	7,0 *0.276*	6,0 *0.236*	6	PMX06-xx	EB45 EB84 EB30	□	□	□	□	□	□	□	□	□	□	□
PMX4-14.5-XX-XXXX	14,5 *0.571*	21,499 *0.846*	10,0 *0.394*	8,0 *0.315*	6	PMX08-xx	EB45 EB84 EB30	□	□	□	□	□	□	□	□	□	□	□
PMX4-21.5-XX-XXXX	21,5 *0.846*	32,499 *1.279*	12,0 *0.472*	12,0 *0.472*	8	PMX12-xx	EB45 EB84 EB30	□	□	□	□	□	□	□	□	□	□	□
PMX4-32.5-XX-XXXX	32,5 *1.280*	60,5 *2.382*	14,0 *0.551*	16,0 *0.630*	10	PMX16-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) 313–315
—For cutting data see page(s) 333–339

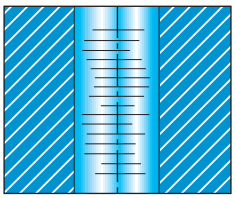
Designation	DCN	DCX	LFS	DMM		Body size	Geometries	Grades										
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				H15	CP20	RX2000	RK2050	RK1550	CF	RX1500	RN2010	RM2020	RM2090	RS2090
PMX8-10.0-XX-XXXX	10,0 *0.394*	14,499 *0.571*	7,0 *0.276*	6,0 *0.236*	6	PMX06-xx	EB45 EB845 EB30	□	□	□	□	□	□	□	□	□	□	□
PMX8-14.5-XX-XXXX	14,5 *0.571*	21,499 *0.846*	10,0 *0.394*	8,0 *0.315*	6	PMX08-xx	EB45 EB845 EB30	□	□	□	□	□	□	□	□	□	□	□
PMX8-21.5-XX-XXXX	21,5 *0.846*	32,499 *1.279*	12,0 *0.472*	12,0 *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

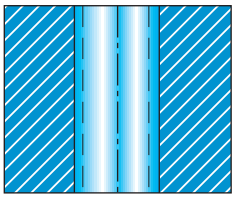
Poor surface finish

- Check material allowance
- Improve coolant conditions (outlet type, pressure, quality)
- Reduce feed rate



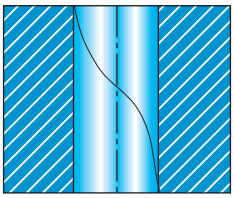
Too large diameter

- Improve centering (part/tool)



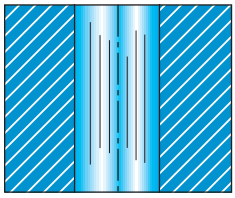
Retraction marks

- Improve coolant conditions (outlet type, pressure, quality)
- Improve centering (part/tool)
- Reduce feed-out speed



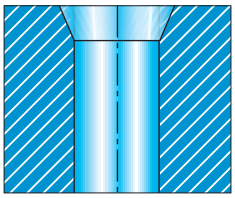
Facets

- Improve centering (part/tool)
- Check material allowance



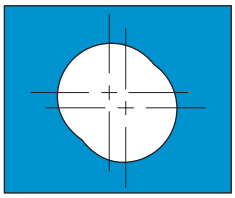
Tapered entry

- Reduce feed rate
- Improve centering (part/tool)
- Reduce radial run-out



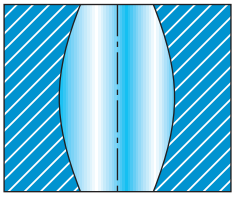
Off center/Ovality

- Improve clamping (workpiece deformation)
- Check material allowance
- Improve centering (part/tool



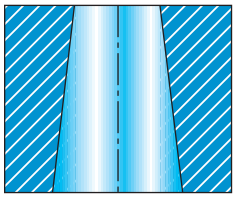
Deformed hole

- Improve clamping (workpiece deformation)



Tapered hole

- Improve centering (part/tool)



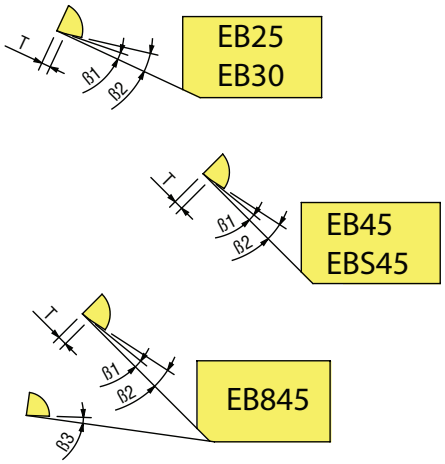
Regrinding instructions

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)*	β_1	β_2	β_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)	–	–	–	–	–	–	–	25 (12-30)
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)	–	–	–	–	–	–	–	25 (12-30)
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)	–	–	–	–	–	–	–	25 (12-30)
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)	–	–	–	–	–	–	–	50 (25-65)
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)	–	–	–	–	–	–	–	50 (25-65)
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)	–	–	–	–	–	–	–	50 (25-65)

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- .008	.004- .008	.012- .035	.016- .047	.020- .059	65 (50-80)	–	130 (65-195)	–	–	–	–	–	–	–	–
TS2	*PMXxx ..6 ..8 -EB45*	.004- .008	.004- .008	.012- .035	.016- .047	.020- .059	65 (50-80)	–	130 (65-195)	–	–	–	–	–	–	–	–
TS3	*PMXxx ..6 ..8 -EB45*	.004- .008	.004- .008	.012- .035	.016- .047	.020- .059	65 (50-80)	–	130 (65-195)	–	–	–	–	–	–	–	–
TS4	*PMXxx ..6 ..8 -EB45*	.004- .008	.004- .008	.012- .035	.016- .047	.020- .059	65 (50-80)	–	130 (65-195)	–	–	–	–	–	–	–	–
TP1	*PMXxx ..6 ..8 -EB45*	.004- .008	.004- .008	.012- .035	.016- .047	.020- .059	65 (50-80)	–	130 (65-195)	–	–	–	–	–	–	–	–
TP2	*PMXxx ..6 ..8 -EB45*	.004- .008	.004- .008	.012- .035	.016- .047	.020- .059	65 (50-80)	–	130 (65-195)	–	–	–	–	–	–	–	–
TP3	*PMXxx ..6 ..8 -EB45*	.004- .008	.004- .008	.012- .035	.016- .047	.020- .059	65 (50-80)	–	130 (65-195)	–	–	–	–	–	–	–	–
TP4	*PMXxx ..6 ..8 -EB45*	.004- .008	.004- .008	.012- .035	.016- .047	.020- .059	65 (50-80)	–	130 (65-195)	–	–	–	–	–	–	–	–
GR1	*PMXxx ..6 ..8 -EB45*	.004- .008	.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

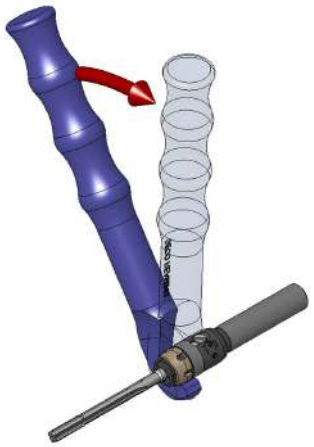
	∅ Range	Reaming depth	Hole ∅ tolerance	Intermediate diameter	Surface finish
Nanofix™	2,97-12,05 mm *(0.1169-0.4744")*	5-12 x D	IT 7	Yes, available through My Design	R_a 0,2-1,2 µm *(R_a 7.87-47.2 µin)*

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

Turn coolant style adjusting screw by 1/4 of a revolution to change coolant outlet from through to blind and vice-versa.

through

blind

Code keys

Shanks

NFQF06	–	03300	–	12	–	N	–	1
1		2		3		4		5

1. Shank type

2. Working length

3. Cylindrical shank diameter

4 Neutral

5 Cyl. shank DIN 1835

Reamers

NF06	–	4H7	–	EB45	–	RX2000
1		2		3		4

1. Reamer type

2. Hole diameter and tolerance

3. Lead geometry

4 Grade

Intermediate diameter reamers

NF6	–	10.1H7	–	EB845	–	RX2000
1		2		3		4

0.3976”–0.3983”
2

1. Reamer type

2. Hole diameter and tolerance

3. Lead geometry

4 Grade

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) 345.

Run-out

Rotating tool

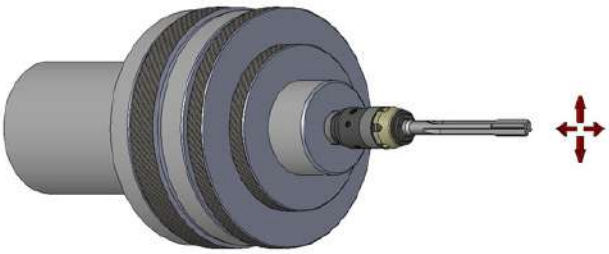
Max. run-out recommended: 5 µm *(197 µin)*.
Precision holder is recommended: Hydraulic chuck, D-type collet chuck or 5672 collet chuck.

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 467-471.

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)*.

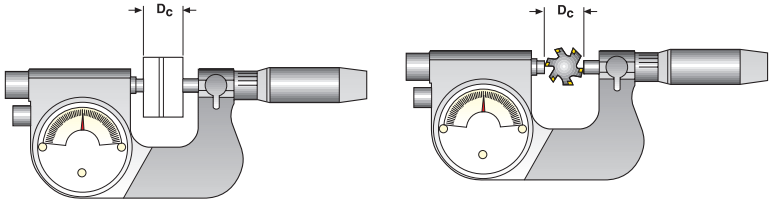
Recommended coolant pressure: min. 8-10 bars, max. 30 bars

Diameter measurement

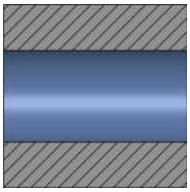
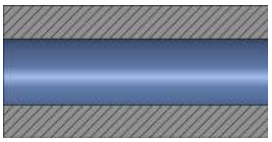
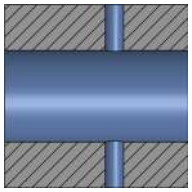
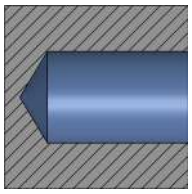
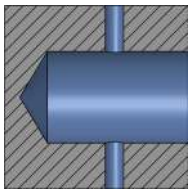
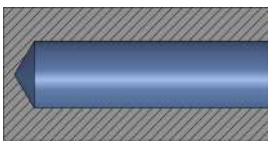
Gauge clock micrometer prior to ∅ measurement.

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.



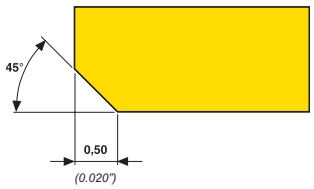
Flute geometry choice

Workpiece	Diameter to ream ∅ 2,97-12,50 mm *(0.1169-0.4744")*	
Short through hole < 3 x D 	**Straight flutes** NF06 NS06 NF10 NS10	
Long through hole > 3 x D 	**LH helical flutes** NF6 NS6	
Crossing hole 		
Blind hole 	**Straight flutes** NF06 NS06 NF10 NS10	
Blind and crossing hole 		
Blind hole > 3x D 	**RH helical flutes** NF4 NS4	

Geometry choice – Applications

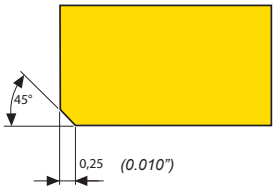
Lead geometry - EB45

Chip control ++
Surface finish+++ R_a 0,8 - 1,2 µm
(Surface finish+++ R_a 31 - 47 µin)
Versatile



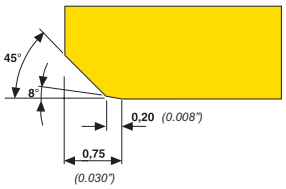
Lead geometry - EBS45

Chip control +++
Surface Finish + R_a 0,8- 1,2 µm
(Surface Finish + R_a 31- 47 µin)
Short EB45



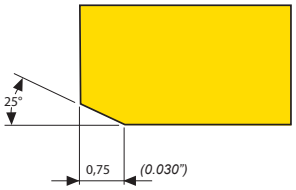
Lead geometry - EB845

Chip control ++
Surface finish+++ R_a 0,2 - 0,8 µm
(Surface finish+++ R_a 8 - 31 µin)



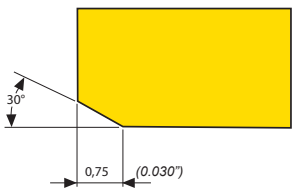
Lead geometry - EB25

Feed performance +++
Surface finish ++ R_a 0,4 - 0,8 µm
(Surface Finish ++ R_a 16 - 31 µin)
Chip control +



Lead geometry - EB30

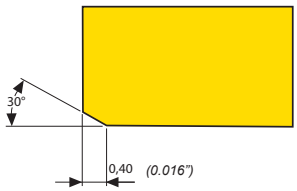
Feed performance +++
Surface Finish ++ R_a 0,4 - 0,8 µm
(Surface Finish ++ R_a 16 - 31 µin)
Chip control +



Geometry choice – Applications

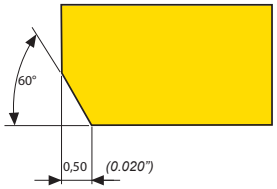
Lead geometry - EBS30

Feed performance +++
Surface finish ++ R_a 0,4 - 0,8 µm
(Surface Finish ++ R_a 16 - 31 µin)
Chip control +
Short EB30



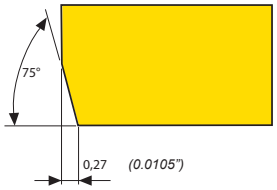
Lead geometry - EB60

Feed performance +
Surface Finish ++ R_a 0,8 - 1,2 µm
(Surface Finish ++ R_a 31 - 47 µin)
Chip control ++



Lead geometry - EB75

Feed performance +
Surface Finish ++ R_a 0,8 - 1,2 µm
(Surface Finish ++ R_a 31-47 µin)
Chip control ++

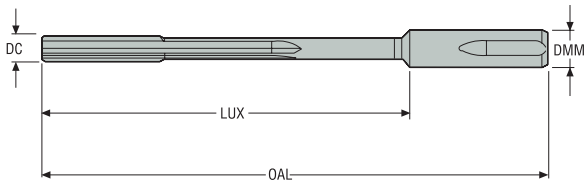


Grades

	RX2000	**Coated** High performance coated grade suitable for all materials.
	CP20	**Coated** A versatile coated grade suitable for most materials, except aluminum. TiN
	H15	**Uncoated** A tough micrograin grade for all materials. Suitable for fine-reaming operations due to edge sharpness.
	RN2010	**Uncoated** A sub-micrograin uncoated grade with optimized geometries for N-materials (non ferrous).
	RM2020	**Coated** A tough coated grade suitable for fine reaming operation with optimized geometries for M materials.
	RM2090	**Coated** A wear resistant coated grade with specific geometries for M materials. Optimization in M materials.
	RK2050	**Coated** A tough coated grade suitable for fine reaming operation with optimized geometries for K materials.
	RS2090	**Coated** A wear resistant coated grade with specific geometries for S materials. Optimization in S materials.

Reamer for blind and through holes

∅ 3,00–12,00 mm / *0.118–0.472"*



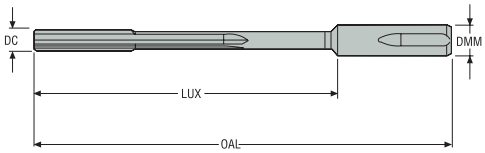
Designation	Item number	DC	Hole dia min-max		LUX	DMM	OAL		Geometries			Grades		
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		EB45	EB845	EB30	RX2000	RK2050	H15
NF06-3H7-EB45	02728858	3,0 *0.1181*	3,0 *0.1181*	3,01 *0.1185*	40,0 *1.5750*	6,0 *0.2360*	60,0 *2.3620*	4	■	□	□	■	□	□
NF06-3.99H7-EB45	02728873	3,99 *0.1571*	3,99 *0.1571*	4,002 *0.1576*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-4H7-EB45	02728874	4,0 *0.1575*	4,0 *0.1575*	4,012 *0.1580*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-4.02H7-EB45	02728876	4,02 *0.1583*	4,02 *0.1583*	4,032 *0.1587*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-4.04H7-EB45	02728879	4,04 *0.1591*	4,04 *0.1591*	4,052 *0.1595*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-4.762H7-EB45	02761494	4,762 *0.1875*	4,762 *0.1875*	4,774 *0.1880*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-4.98H7-EB45	02728883	4,98 *0.1961*	4,98 *0.1961*	4,992 *0.1965*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-5H7-EB45	02728927	5,0 *0.1969*	5,0 *0.1969*	5,012 *0.1973*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-5.01H7-EB45	02728928	5,01 *0.1972*	5,01 *0.1972*	5,022 *0.1977*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-5.02H7-EB45	02728929	5,02 *0.1976*	5,02 *0.1976*	5,032 *0.1981*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-5.03H7-EB45	02728930	5,03 *0.1980*	5,03 *0.1980*	5,042 *0.1985*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-5.05H7-EB45	02728932	5,05 *0.1988*	5,05 *0.1988*	5,062 *0.1993*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-5.5H7-EB45	02728933	5,5 *0.2165*	5,5 *0.2165*	5,512 *0.2170*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-5.98H7-EB45	02728935	5,98 *0.2354*	5,98 *0.2354*	5,992 *0.2359*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-5.99H7-EB45	02728936	5,99 *0.2358*	5,99 *0.2358*	6,002 *0.2363*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-6H7-EB45	02728937	6,0 *0.2362*	6,0 *0.2362*	6,015 *0.2368*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-6.01H7-EB45	02728938	6,01 *0.2366*	6,01 *0.2366*	6,025 *0.2372*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-6.02H7-EB45	02728939	6,02 *0.2370*	6,02 *0.2370*	6,035 *0.2376*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-6.03H7-EB45	02728940	6,03 *0.2374*	6,03 *0.2374*	6,045 *0.2380*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-6.04H7-EB45	02728941	6,04 *0.2378*	6,04 *0.2378*	6,055 *0.2384*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-6.05H7-EB45	02728942	6,05 *0.2382*	6,05 *0.2382*	6,065 *0.2388*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF10-6.350H7-EB45	02762016	6,35 *0.2500*	6,35 *0.2500*	6,365 *0.2506*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□
NF10-7H7-EB45	02728949	7,0 *0.2756*	7,0 *0.2756*	7,015 *0.2762*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□
NF10-7.05H7-EB45	02728954	7,05 *0.2776*	7,05 *0.2776*	7,065 *0.2781*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□
NF10-7.9375H7-EB45	02762018	7,9375 *0.3125*	7,937 *0.3125*	7,952 *0.3131*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□
NF10-7.98H7-EB45	02728957	7,98 *0.3142*	7,98 *0.3142*	7,995 *0.3148*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□

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
NF10-7.99H7-EB45	02728958	7,99 *0.3146*	7,99 *0.3146*	8,005 *0.3152*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□
NF10-8H7-EB45	02728959	8,0 *0.3150*	8,0 *0.3150*	8,015 *0.3156*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□
NF10-8.01H7-EB45	02728960	8,01 *0.3154*	8,01 *0.3154*	8,025 *0.3159*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□
NF10-8.02H7-EB45	02728961	8,02 *0.3157*	8,02 *0.3157*	8,035 *0.3163*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□
NF10-8.03H7-EB45	02728962	8,03 *0.3161*	8,03 *0.3161*	8,045 *0.3167*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□
NF10-8.04H7-EB45	02728963	8,04 *0.3165*	8,04 *0.3165*	8,055 *0.3171*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□
NF10-8.05H7-EB45	02728964	8,05 *0.3169*	8,05 *0.3169*	8,065 *0.3175*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□
NF10-8.5H7-EB45	02728965	8,5 *0.3346*	8,5 *0.3346*	8,515 *0.3352*	93,0 *3.6610*	10,0 *0.3940*	125,0 *4.9210*	6	■	□	□	■	□	□
NF10-9H7-EB45	02728974	9,0 *0.3543*	9,0 *0.3543*	9,015 *0.3549*	93,0 *3.6610*	10,0 *0.3940*	125,0 *4.9210*	6	■	□	□	■	□	□
NF10-9.5250H7-EB45	02762020	9,525 *0.3750*	9,525 *0.3750*	9,54 *0.3756*	93,0 *3.6610*	10,0 *0.3940*	125,0 *4.9210*	6	■	□	□	■	□	□
NF10-9.99H7-EB45	02728983	9,99 *0.3933*	9,99 *0.3933*	10,005 *0.3939*	93,0 *3.6610*	10,0 *0.3940*	125,0 *4.9210*	6	■	□	□	■	□	□
NF10-10H7-EB45	02728986	10,0 *0.3937*	10,0 *0.3937*	10,015 *0.3943*	93,0 *3.6610*	10,0 *0.3940*	125,0 *4.9210*	6	■	□	□	■	□	□
NF10-11H7-EB45	02728997	11,0 *0.4331*	11,0 *0.4331*	11,018 *0.4338*	114,0 *4.4880*	10,0 *0.3940*	145,0 *5.7090*	6	■	□	□	■	□	□
NF10-12H7-EB45	02729011	12,0 *0.4724*	12,0 *0.4724*	12,018 *0.4731*	114,0 *4.4880*	10,0 *0.3940*	145,0 *5.7090*	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



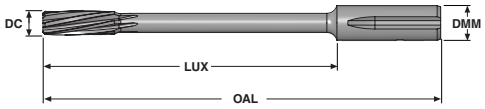
—For choice of geometry, please see page(s) 346–347
—For cutting data see page(s) 356–362

Designation	DCN	DCX	LUX	DMM	OAL		Body size	Geometries	Grades						
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				H15	RK2050	RX2000	RN2010	RM2020	RM2090	RS2090
NF06-2.970-XX-XXXX	2,97 *0.117*	3,05 *0.120*	40,0 *0.120*	6,0 *0.236*	60,0 *2.362*	4	NFQF06-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐
NF06-3.051-XX-XXXX	3,051 *0.120*	6,05 *0.238*	60,0 *0.238*	6,0 *0.236*	80,0 *3.150*	4	NFQF06-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐
NF10-6.051-XX-XXXX	6,051 *0.238*	8,05 *0.317*	83,0 *0.317*	10,0 *0.394*	115,0 *4.528*	6	NFQF10-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐
NF10-8.051-XX-XXXX	8,051 *0.317*	10,05 *0.396*	93,0 *0.396*	10,0 *0.394*	125,0 *4.921*	6	NFQF10-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐
NF10-10.051-XX-XXXX	10,051 *0.396*	12,05 *0.474*	114,0 *0.474*	10,0 *0.394*	145,0 *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



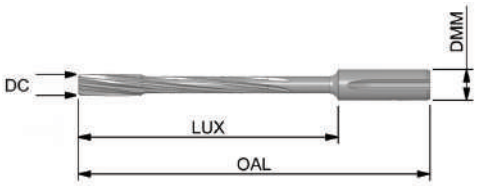
—For choice of geometry, please see page(s) 346–347
—For cutting data see page(s) 356–362

Designation	DCN	DCX	LUX	DMM	OAL		Body size	Geometries	Grades						
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				H15	RK2050	RX2000	RN2010	RM2020	RM2090	RS2090
NF6-2.970-XX-XXXX	2,97 *0.117*	3,05 *0.120*	40,0 *1.575*	6,0 *0.236*	60,0 *2.362*	4	NFQF06-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐
NF6-3.051-XX-XXXX	3,051 *0.120*	6,05 *0.238*	60,0 *2.362*	6,0 *0.236*	80,0 *3.150*	4	NFQF06-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐
NF6-6.051-XX-XXXX	6,051 *0.238*	8,05 *0.317*	83,0 *3.268*	10,0 *0.394*	115,0 *4.528*	6	NFQF10-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐
NF6-8.051-XX-XXXX	8,051 *0.317*	10,05 *0.396*	93,0 *3.661*	10,0 *0.394*	125,0 *4.921*	6	NFQF10-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐
NF6-10.051-XX-XXXX	10,051 *0.396*	12,05 *0.474*	114,0 *4.488*	10,0 *0.394*	145,0 *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



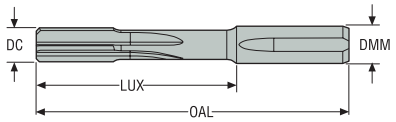
—For choice of geometry, please see page(s) 346-347
—For cutting data see page(s) 356-362

Designation	DCN	DCX	LUX	DMM	OAL		Body size	Geometries	Grades						
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				H15	RK2050	RX2000	RN2010	RM2020	RM2090	RS2090
NF4-2.970-XX-XXXX	2,97 *0.117*	3,05 *0.120*	40,0 *1.575*	6,0 *0.236*	60,0 *2.362*	4	NFQF06-xx	EB45 EB845	☐	☐	☐	☐	☐	☐	☐
NF4-3.051-XX-XXXX	3,051 *0.120*	6,05 *0.238*	60,0 *2.362*	6,0 *0.236*	80,0 *3.150*	4	NFQF06-xx	EB45 EB845	☐	☐	☐	☐	☐	☐	☐
NF4-4.051-XX-XXXX	6,051 *0.238*	8,05 *0.317*	83,0 *3.268*	10,0 *0.394*	115,0 *4.528*	6	NFQF10-xx	EB45 EB845	☐	☐	☐	☐	☐	☐	☐
NF4-8.051-XX-XXXX	8,051 *0.317*	10,05 *0.396*	93,0 *3.661*	10,0 *0.394*	125,0 *4.921*	6	NFQF10-xx	EB45 EB845	☐	☐	☐	☐	☐	☐	☐
NF4-10.051-XX-XXXX	10,051 *0.396*	12,05 *0.474*	114,0 *4.488*	10,0 *0.394*	145,0 *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.

Intermediate diameter

Straight flutes, short version, for through & blind bores



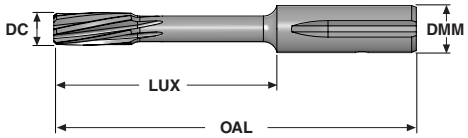
—For choice of geometry, please see page(s) 346–347
—For cutting data see page(s) 356–362

Designation	DCN	DCX	LUX	DMM	OAL		Body size	Geometries	Grades						
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				H15	RK2050	RX2000	RN2010	RM2020	RM2090	RS2090
NS06-2.970-XX-XXXX	2,97 *0.117*	3,05 *0.120*	25,0 *0.120*	6,0 *0.236*	45,0 *1.772*	4	NFQF06-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐
NS06-3.051-XX-XXXX	3,051 *0.120*	6,05 *0.238*	30,0 *0.238*	6,0 *0.236*	50,0 *1.969*	4	NFQF06-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐
NS10-6.051-XX-XXXX	6,051 *0.238*	10,05 *0.396*	46,0 *0.396*	10,0 *0.394*	78,0 *3.071*	6	NFQF10-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐
NS10-10.051-XX-XXXX	10,051 *0.396*	12,05 *0.474*	57,0 *0.474*	10,0 *0.394*	88,0 *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



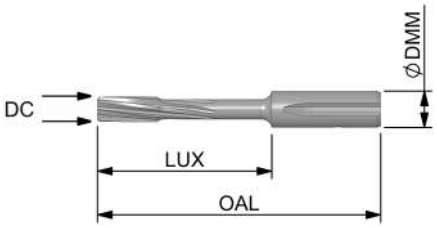
—For cutting data see page(s) 358–362
—For choice of geometry, please see page(s) 346–347

Designation	DCN	DCX	LUX	DMM	OAL		Body size	Geometries	Grades						
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				H15	RK2050	RX2000	RN2010	RM2020	RM2090	RS2090
NS6-2.970-XX-XXXX	2,97 *0.117*	3,05 *0.120*	25,0 *0.984*	6,0 *0.236*	45,0 *1.772*	4	NFQF06-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐
NS6-3.051-XX-XXXX	3,051 *0.120*	6,05 *0.238*	30,0 *1.181*	6,0 *0.236*	50,0 *1.969*	4	NFQF06-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐
NS6-6.051-XX-XXXX	6,051 *0.238*	8,05 *0.317*	46,0 *1.811*	10,0 *0.394*	78,0 *3.071*	6	NFQF10-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐
NS6-10.051-XX-XXXX	10,051 *0.396*	12,05 *0.474*	57,0 *2.244*	10,0 *0.394*	88,0 *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

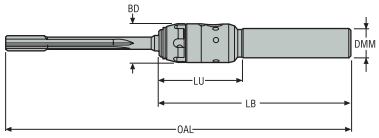


—For choice of geometry, please see page(s) 346-347
—For cutting data see page(s) 356-362

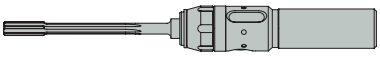
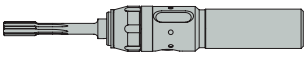
Designation	DCN	DCX	LUX	DMM	OAL		Body size	Geometries	Grades						
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				H15	RK2050	RX2000	RN2010	RM2020	RM2090	RS2090
NS4-2.970-XX-XXXX	2,97 *0.117*	3,05 *0.120*	25,0 *0.984*	6,0 *0.236*	45,0 *1.772*	4	NFQF06-xx	EB45 EB845	☐	☐	☐	☐	☐	☐	☐
NS4-3.051-XX-XXXX	3,051 *0.120*	6,05 *0.238*	30,0 *1.181*	6,0 *0.236*	50,0 *1.969*	4	NFQF06-xx	EB45 EB845	☐	☐	☐	☐	☐	☐	☐
NS4-4.051-XX-XXXX	6,051 *0.238*	8,05 *0.317*	46,0 *1.811*	10,0 *0.394*	78,0 *3.071*	6	NFQF10-xx	EB45 EB845	☐	☐	☐	☐	☐	☐	☐
NS4-10.051-XX-XXXX	10,051 *0.396*	12,05 *0.474*	57,0 *2.244*	10,0 *0.394*	88,0 *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.

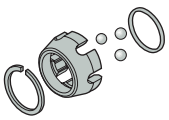
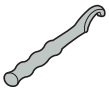
Nanofix tool holder



Designation	Item number	DC	DMM	BD	LU	LB
		mm	mm	mm	mm	mm
NFQF06-03700-10N1	02729036	2,97-6,05	10,0	16,0	37,0	80,0
NFQF06-03300-12N1	02729037	2,97-6,05	12,0	16,0	35,0	80,0
NFQF06-03000-16N1	02729041	2,97-6,05	16,0	16,0	30,0	80,0
NFQF10-05200-12N1	02729044	6,051-12,05	12,0	23,0	52,0	100,0
NFQF10-04900-16N1	02729045	6,051-12,05	16,0	23,0	49,0	100,0
NFQF10-04700-20N1	02729046	6,051-12,05	20,0	23,0	47,0	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	0,10-0,20	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	0,10-0,20	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	0,10-0,20	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	0,10-0,20	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	0,10-0,20	0,10-0,30	0,3-0,9	0,5-1,2	50 (20-80)	–	–	–
N2	NF/NS-EB25/EB30	0,10-0,20	0,10-0,30	0,3-0,9	0,5-1,2	50 (20-80)	–	–	–
N3	NF/NS-EB25/EB30	0,10-0,20	0,10-0,30	0,3-0,9	0,5-1,2	50 (20-80)	–	–	–
N11	NF/NS-EB25/EB30	0,10-0,20	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 – NF/NS...-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

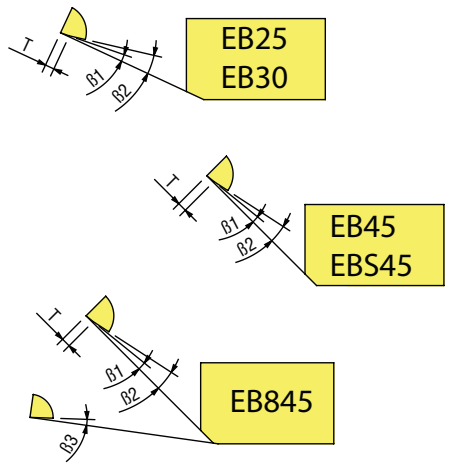
Regrinding instructions

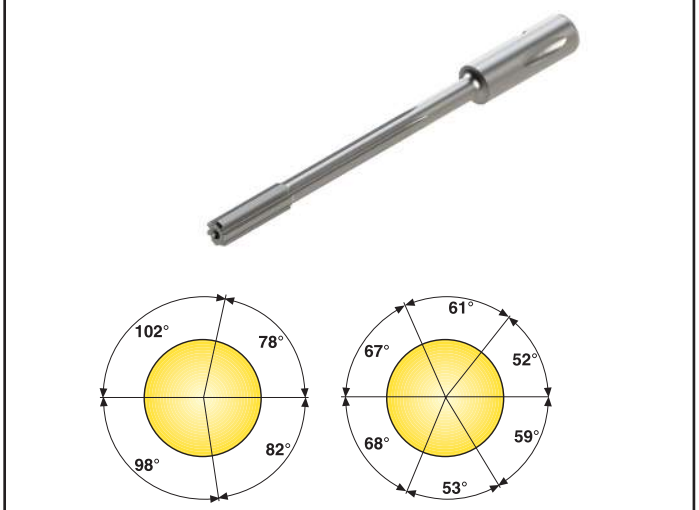
Specifications

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 ∅ mm *(inch)*	β_1	β_2	β_3	T mm *(inch)*
2,97-9,99 *(0.117-0.393)*	8°	18°	8°	0,15 *(0.006)*
10,00-12,050 *(0.394-0.474)*	8°	18°	8°	0,20 *(0.008)*

Nanojet

Nanojet solid carbide reamers are designed for small diameters from 1,461 to 9,960 mm (.057'' - .392").

- Powerful innovative coolant outlet
- 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
Nanojet	1,461-9,960 mm *(0.057-0.392")*	~ 4-7 x D	IT 7	Yes, available through My Design	R_a 0,2-1,2 µm *(R_a 7.87-47.2 µin)*

Nanojet is a solid carbide reamer dedicated for small diameters from 1,461 to 9,960 mm (.057'' - .392).
Design includes an innovative peripherical coolant outlet delivering coolant diretly into the flutes in an optimized and powerful manner.

Code keys

Reamers

N5TS	–	4H7	–	EB45	–	RX2000
1		2		3		4

1.	2.	3.	4
Reamer type	Hole diameter and tolerance	Lead geometry	Grade

Intermediate diameter reamers

N5BS	–	2.5 P7	–	EB30	–	RK2050
1		2		3		4

0.0984”–0.0989”
2

1.	2.	3.	4
Reamer type	Hole diameter and tolerance	Lead geometry	Grade

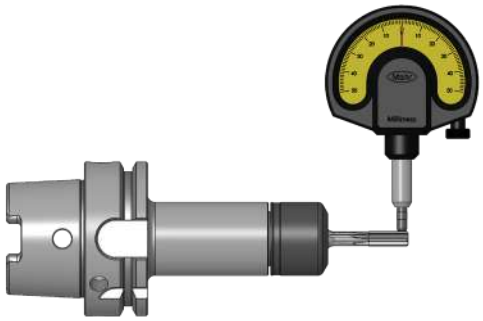
N5TS: straight flutes design, suitable for through holes.
N5BS: straight flutes design, suitable for blind holes.

See Nanojet flutes geometries choice on page(s) 368.

Run-out

Rotating tool

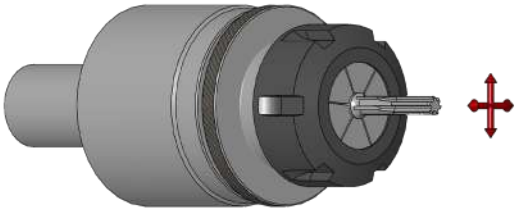
Max. recommended run-out: 5 µm *(197 µin)*.
Precision holder is recommended: Hydraulic chuck, ERHP high precision collet chuck or Shrinkfit holder.



Static tool

Use a Seco floating holder, see page 467-471.

Floating holders allow reamer self-centering in pre-bore.



Coolant requirements

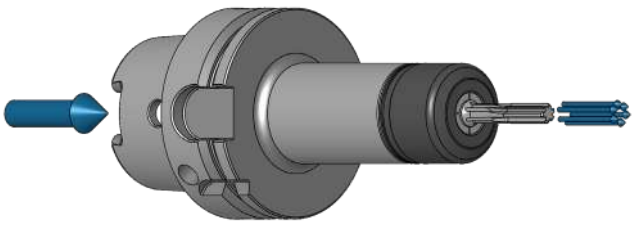
To reach maximum tool life and hole quality, the following coolant requirements should be observed.

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)*.

Recommended coolant pressure: min. 8-10 bars, max. 30 bars

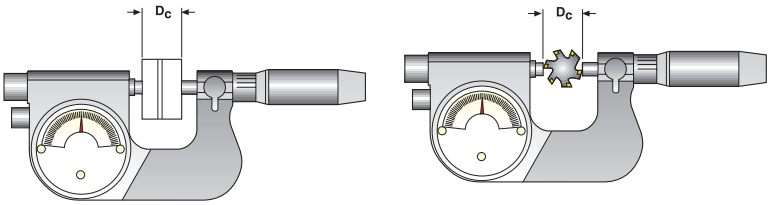


Diameter measurement

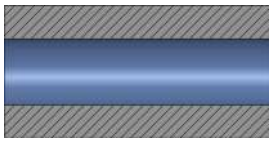
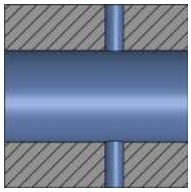
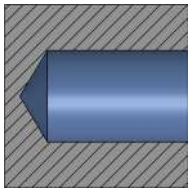
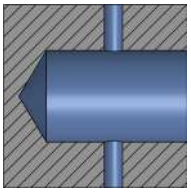
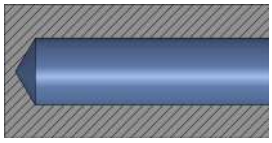
Gauge clock micrometer prior to ∅ measurement.

Important!
Nanojet 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.



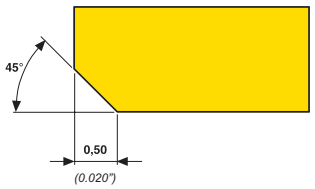
Flute geometry choice

Workpiece	Diameter to ream ∅ 1,461-9,960 mm *(0.057-0.392")*	
Through holes 	**Straight flutes** N5T	
Through and crossing holes 		
Blind hole 	**Straight flutes** N5B	
Blind and crossing hole 		
Blind hole > 3 x D 	**RH helical flutes** N4B	

Geometry choice – Applications

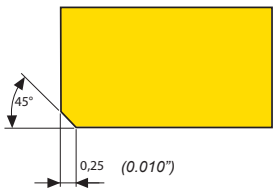
Lead geometry - EB45

Chip control ++
Surface finish+++ R_a 0,8 - 1,2 µm
(Surface finish+++ R_a 31 - 47 µin)
Versatile



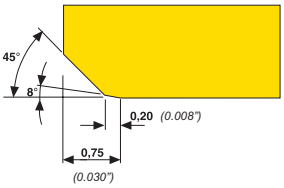
Lead geometry - EBS45

Chip control +++
Surface Finish + R_a 0,8- 1,2 µm
(Surface Finish + R_a 31- 47 µin)
Short EB45



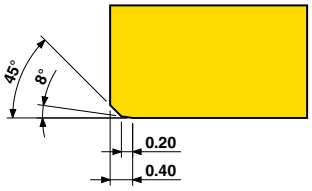
Lead geometry - EB845

Chip control ++
Surface finish+++ R_a 0,2 - 0,8 µm
(Surface finish+++ R_a 8 - 31 µin)



Lead geometry - EBS845

Chip control ++
Surface finish+++ R_a 0,2 - 0,8 µm
(Surface finish+++ R_a 8 - 31 µin)

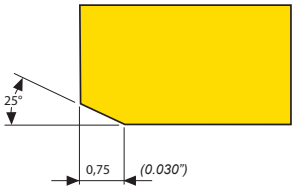


Note: for small diameter lead geometry length dimensions may be slightly smaller than above.

Geometry choice – Applications

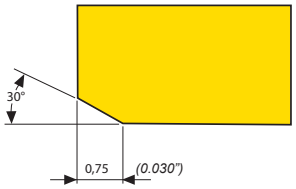
Lead geometry - EB25

Feed performance +++
Surface finish ++ R_a 0,4 - 0,8 µm
(Surface Finish ++ R_a 16 - 31 µin)
Chip control +



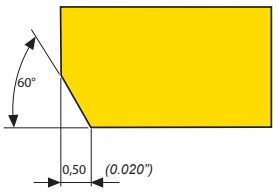
Lead geometry - EB30

Feed performance +++
Surface Finish ++ R_a 0,4 - 0,8 µm
(Surface Finish ++ R_a 16 - 31 µin)
Chip control +



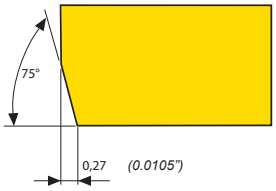
Lead geometry - EB60

Feed performance +
Surface Finish ++ R_a 0,8 - 1,2 µm
(Surface Finish ++ R_a 31 - 47 µin)
Chip control ++



Lead geometry - EB75

Feed performance +
Surface Finish ++ R_a 0,8 - 1,2 µm
(Surface Finish ++ R_a 31-47 µin)
Chip control ++



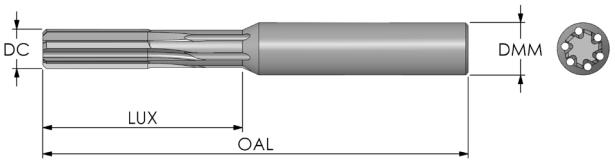
Note: for small diameter lead geometry length dimensions may be slightly smaller than above.

Grades

	RX2000	**Coated** High performance coated grade suitable for all materials.
	CP20	**Coated** A versatile coated grade suitable for most materials, except aluminum. TiN
	H15	**Uncoated** A tough micrograin grade for all materials. Suitable for fine-reaming operations due to edge sharpness.
	RN2010	**Uncoated** A sub-micrograin uncoated grade with optimized geometries for N-materials (non ferrous).
	RM2020	**Coated** A tough coated grade suitable for fine reaming operation with optimized geometries for M materials.
	RM2090	**Coated** A wear resistant coated grade with specific geometries for M materials. Optimization in M materials.
	RK2050	**Coated** A tough coated grade suitable for fine reaming operation with optimized geometries for K materials.
	RS2090	**Coated** A wear resistant coated grade with specific geometries for S materials. Optimization in S materials.

Reamer for through holes

∅ 1,98–9,525 mm / *0.0779–0.3750"*



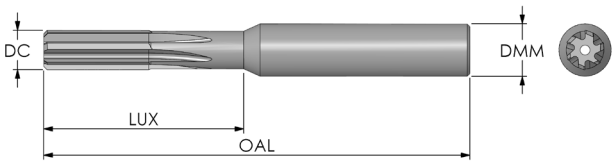
Designation	Item number	DC	Hole dia min-max		LUX	OAL	DMM		Geometries			Grades		
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		EB45	EB845	EB30	RX2000	RK2050	H15
N5TS-1.98H7-EB45	10289732	1,98 *0.0780*	1,98 *0.0780*	1,99 *0.0783*	12,0 *0.4720*	50,0 *1.9690*	3,0 *0.1180*	4	■	□	□	■	□	□
N5TS-1.99H7-EB45	10289733	1,99 *0.0783*	1,99 *0.0783*	2,0 *0.0787*	12,0 *0.4720*	50,0 *1.9690*	3,0 *0.1180*	4	■	□	□	■	□	□
N5TS-2H7-EB45	10238500	2,0 *0.0787*	2,0 *0.0787*	2,01 *0.0791*	12,0 *0.4720*	50,0 *1.9690*	3,0 *0.1180*	4	■	□	□	■	□	□
N5TS-2.01H7-EB45	10289734	2,01 *0.0791*	2,01 *0.0791*	2,02 *0.0795*	12,0 *0.4720*	50,0 *1.9690*	3,0 *0.1180*	4	■	□	□	■	□	□
N5TS-2.02H7-EB45	10289735	2,02 *0.0795*	2,02 *0.0795*	2,03 *0.0799*	12,0 *0.4720*	50,0 *1.9690*	3,0 *0.1180*	4	■	□	□	■	□	□
N5TS-2.98H7-EB45	10289736	2,98 *0.1173*	2,98 *0.1173*	2,99 *0.1177*	21,5 *0.8460*	50,0 *1.9690*	4,0 *0.1570*	4	■	□	□	■	□	□
N5TS-2.99H7-EB45	10289737	2,99 *0.1177*	2,99 *0.1177*	3,0 *0.1181*	21,5 *0.8460*	50,0 *1.9690*	4,0 *0.1570*	4	■	□	□	■	□	□
N5TS-3H7-EB45	10238501	3,0 *0.1181*	3,0 *0.1181*	3,01 *0.1185*	21,0 *0.8270*	50,0 *1.9690*	4,0 *0.1570*	4	■	□	□	■	□	□
N5TS-3.01H7-EB45	10289738	3,01 *0.1185*	3,01 *0.1185*	3,022 *0.1190*	21,5 *0.8460*	50,0 *1.9690*	4,0 *0.1570*	4	■	□	□	■	□	□
N5TS-3.02H7-EB45	10289739	3,02 *0.1189*	3,02 *0.1189*	3,032 *0.1194*	21,5 *0.8460*	50,0 *1.9690*	4,0 *0.1570*	4	■	□	□	■	□	□
N5TS-3.175H7-EB45	10289740	3,175 *0.1250*	3,175 *0.1250*	3,187 *0.1255*	21,5 *0.8460*	50,0 *1.9690*	4,0 *0.1570*	4	■	□	□	■	□	□
N5TS-3.98H7-EB45	10289741	3,98 *0.1567*	3,98 *0.1567*	3,992 *0.1572*	28,5 *1.1220*	55,0 *2.1650*	5,0 *0.1970*	4	■	□	□	■	□	□
N5TS-3.99H7-EB45	10289742	3,99 *0.1571*	3,99 *0.1571*	4,002 *0.1576*	28,5 *1.1220*	55,0 *2.1650*	5,0 *0.1970*	4	■	□	□	■	□	□
N5TS-4H7-EB45	10238502	4,0 *0.1575*	4,0 *0.1575*	4,012 *0.1580*	28,0 *1.1020*	55,0 *2.1650*	5,0 *0.1970*	4	■	□	□	■	□	□
N5TS-4.01H7-EB45	10289743	4,01 *0.1579*	4,01 *0.1579*	4,022 *0.1583*	28,5 *1.1220*	55,0 *2.1650*	5,0 *0.1970*	4	■	□	□	■	□	□
N5TS-4.02H7-EB45	10289744	4,02 *0.1583*	4,02 *0.1583*	4,032 *0.1587*	28,5 *1.1220*	55,0 *2.1650*	5,0 *0.1970*	4	■	□	□	■	□	□
N5TS-4.98H7-EB45	10289745	4,98 *0.1961*	4,98 *0.1961*	4,992 *0.1965*	28,5 *1.1220*	55,0 *2.1650*	6,0 *0.2360*	4	■	□	□	■	□	□
N5TS-4.99H7-EB45	10289746	4,99 *0.1965*	4,99 *0.1965*	5,002 *0.1969*	28,5 *1.1220*	55,0 *2.1650*	6,0 *0.2360*	4	■	□	□	■	□	□
N5TS-5H7-EB45	10238503	5,0 *0.1969*	5,0 *0.1969*	5,012 *0.1973*	28,0 *1.1020*	55,0 *2.1650*	6,0 *0.2360*	4	■	□	□	■	□	□
N5TS-5.01H7-EB45	10289747	5,01 *0.1972*	5,01 *0.1972*	5,022 *0.1977*	28,5 *1.1220*	55,0 *2.1650*	6,0 *0.2360*	4	■	□	□	■	□	□
N5TS-5.02H7-EB45	10290135	5,02 *0.1976*	5,02 *0.1976*	5,032 *0.1981*	28,5 *1.1220*	55,0 *2.1650*	6,0 *0.2360*	4	■	□	□	■	□	□
N5TS-5.98H7-EB45	10289748	5,98 *0.2354*	5,98 *0.2354*	5,992 *0.2359*	30,5 *1.2010*	65,0 *2.5590*	8,0 *0.3150*	6	■	□	□	■	□	□
N5TS-5.99H7-EB45	10289749	5,99 *0.2358*	5,99 *0.2358*	6,002 *0.2363*	30,5 *1.2010*	65,0 *2.5590*	8,0 *0.3150*	6	■	□	□	■	□	□
N5TS-6H7-EB45	10238504	6,0 *0.2362*	6,0 *0.2362*	6,015 *0.2368*	30,0 *1.1810*	65,0 *2.5590*	8,0 *0.3150*	6	■	□	□	■	□	□
N5TS-6.01H7-EB45	10290075	6,01 *0.2366*	6,01 *0.2366*	6,025 *0.2372*	30,5 *1.2010*	65,0 *2.5590*	8,0 *0.3150*	6	■	□	□	■	□	□
N5TS-6.02H7-EB45	10289750	6,02 *0.2370*	6,02 *0.2370*	6,035 *0.2376*	30,5 *1.2010*	65,0 *2.5590*	8,0 *0.3150*	6	■	□	□	■	□	□

Designation	Item number	DC	Hole dia min-max		LUX	OAL	DMM		Geometries			Grades		
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		EB45	EB845	EB30	RX2000	RK2050	H15
N5TS-6.35H7-EB45	10238506	6,35 *0.2500*	6,35 *0.2500*	6,365 *0.2506*	30,0 *1.1810*	65,0 *2.5590*	8,0 *0.3150*	6	■	□	□	■	□	□
N5TS-7H7-EB45	10289625	7,0 *0.2756*	7,0 *0.2756*	7,015 *0.2762*	31,5 *1.2400*	65,0 *2.5590*	8,0 *0.3150*	6	■	□	□	■	□	□
N5TS-7.937H7-EB45	10289626	7,937 *0.3125*	7,937 *0.3125*	7,952 *0.3131*	31,5 *1.2400*	65,0 *2.5590*	8,0 *0.3150*	6	■	□	□	■	□	□
N5TS-7.98H7-EB45	10289751	7,98 *0.3142*	7,98 *0.3142*	7,995 *0.3148*	40,5 *1.5940*	75,0 *2.9530*	10,0 *0.3940*	6	■	□	□	■	□	□
N5TS-7.99H7-EB45	10289752	7,99 *0.3146*	7,99 *0.3146*	8,005 *0.3152*	40,5 *1.5940*	75,0 *2.9530*	10,0 *0.3940*	6	■	□	□	■	□	□
N5TS-8H7-EB45	10238505	8,0 *0.3150*	8,0 *0.3150*	8,015 *0.3156*	40,0 *1.5750*	75,0 *2.9530*	10,0 *0.3940*	6	■	□	□	■	□	□
N5TS-8.01H7-EB45	10289753	8,01 *0.3154*	8,01 *0.3154*	8,025 *0.3159*	40,5 *1.5940*	75,0 *2.9530*	10,0 *0.3940*	6	■	□	□	■	□	□
N5TS-8.02H7-EB45	10289754	8,02 *0.3157*	8,02 *0.3157*	8,035 *0.3163*	40,5 *1.5940*	75,0 *2.9530*	10,0 *0.3940*	6	■	□	□	■	□	□
N5TS-9.525H7-EB45	10289627	9,525 *0.3750*	9,525 *0.3750*	9,54 *0.3756*	40,5 *1.5940*	75,0 *2.9530*	10,0 *0.3940*	6	■	□	□	■	□	□

■ **Stock standard.** □ **Non stock standard.**

Reamer for blind holes

∅ 1,98–9,525 mm / *0.0779–0.3750"*



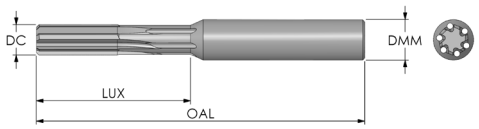
Designation	Item number	DC	Hole dia min-max		LUX	OAL	DMM		Geometries			Grades		
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		EB45	EB845	EB30	RX2000	RK2050	H15
N5BS-1.98H7-EB45	10289755	1,98 *0.0780*	1,98 *0.0780*	1,99 *0.0783*	12,0 *0.4720*	50,0 *1.9690*	3,0 *0.1180*	4	■	□	□	■	□	□
N5BS-1.99H7-EB45	10289756	1,99 *0.0783*	1,99 *0.0783*	2,0 *0.0787*	12,0 *0.4720*	50,0 *1.9690*	3,0 *0.1180*	4	■	□	□	■	□	□
N5BS-2.01H7-EB45	10289757	2,01 *0.0791*	2,01 *0.0791*	2,02 *0.0795*	12,0 *0.4720*	50,0 *1.9690*	3,0 *0.1180*	4	■	□	□	■	□	□
N5BS-2.02H7-EB45	10289758	2,02 *0.0795*	2,02 *0.0795*	2,03 *0.0799*	12,0 *0.4720*	50,0 *1.9690*	3,0 *0.1180*	4	■	□	□	■	□	□
N5BS-2.98H7-EB45	10289759	2,98 *0.1173*	2,98 *0.1173*	2,99 *0.1177*	21,5 *0.8460*	50,0 *1.9690*	4,0 *0.1570*	4	■	□	□	■	□	□
N5BS-2.99H7-EB45	10289760	2,99 *0.1177*	2,99 *0.1177*	3,0 *0.1181*	21,5 *0.8460*	50,0 *1.9690*	4,0 *0.1570*	4	■	□	□	■	□	□
N5BS-2H7-EB45	10284828	3,0 *0.1181*	2,0 *0.0787*	2,01 *0.0791*	12,0 *0.4720*	50,0 *1.9690*	6,0 *0.2360*	4	■	□	□	■	□	□
N5BS-3.01H7-EB45	10289761	3,01 *0.1185*	3,01 *0.1185*	3,022 *0.1190*	21,5 *0.8460*	50,0 *1.9690*	4,0 *0.1570*	4	■	□	□	■	□	□
N5BS-3.02H7-EB45	10289762	3,02 *0.1189*	3,02 *0.1189*	3,032 *0.1194*	21,5 *0.8460*	50,0 *1.9690*	4,0 *0.1570*	4	■	□	□	■	□	□
N5BS-3.175H7-EB45	10289628	3,175 *0.1250*	3,175 *0.1250*	3,187 *0.1255*	21,5 *0.8460*	50,0 *1.9690*	4,0 *0.1570*	4	■	□	□	■	□	□
N5BS-3.98H7-EB45	10289764	3,98 *0.1567*	3,98 *0.1567*	3,992 *0.1572*	28,5 *1.1220*	55,0 *2.1650*	5,0 *0.1970*	4	■	□	□	■	□	□
N5BS-3.99H7-EB45	10289765	3,99 *0.1571*	3,99 *0.1571*	4,002 *0.1576*	28,5 *1.1220*	55,0 *2.1650*	5,0 *0.1970*	4	■	□	□	■	□	□
N5BS-3H7-EB45	10284829	3,0 *0.1181*	3,0 *0.1181*	3,01 *0.1185*	21,5 *0.8460*	50,0 *1.9690*	4,0 *0.1570*	4	■	□	□	■	□	□
N5BS-4.01H7-EB45	10289766	4,01 *0.1579*	4,01 *0.1579*	4,022 *0.1583*	28,5 *1.1220*	55,0 *2.1650*	5,0 *0.1970*	4	■	□	□	■	□	□
N5BS-4.02H7-EB45	10289767	4,02 *0.1583*	4,02 *0.1583*	4,032 *0.1587*	28,5 *1.1220*	55,0 *2.1650*	5,0 *0.1970*	4	■	□	□	■	□	□
N5BS-4.98H7-EB45	10289768	4,98 *0.1961*	4,98 *0.1961*	4,992 *0.1965*	28,5 *1.1220*	55,0 *2.1650*	6,0 *0.2360*	4	■	□	□	■	□	□
N5BS-4.99H7-EB45	10289769	4,99 *0.1965*	4,99 *0.1965*	5,002 *0.1969*	28,5 *1.1220*	55,0 *2.1650*	6,0 *0.2360*	4	■	□	□	■	□	□
N5BS-4H7-EB45	10284830	4,0 *0.1575*	4,0 *0.1575*	4,012 *0.1580*	28,5 *1.1220*	55,0 *2.1650*	5,0 *0.1970*	4	■	□	□	■	□	□
N5BS-5.01H7-EB45	10289770	5,01 *0.1972*	5,01 *0.1972*	5,022 *0.1977*	28,5 *1.1220*	55,0 *2.1650*	6,0 *0.2360*	4	■	□	□	■	□	□
N5BS-5.02H7-EB45	10290138	5,02 *0.1976*	5,02 *0.1976*	5,032 *0.1981*	28,5 *1.1220*	55,0 *2.1650*	6,0 *0.2360*	4	■	□	□	■	□	□
N5BS-5.98H7-EB45	10289771	5,98 *0.2354*	5,98 *0.2354*	5,992 *0.2359*	30,5 *1.2010*	65,0 *2.5590*	8,0 *0.3150*	6	■	□	□	■	□	□
N5BS-5.99H7-EB45	10289772	5,99 *0.2358*	5,99 *0.2358*	6,002 *0.2363*	30,5 *1.2010*	65,0 *2.5590*	8,0 *0.3150*	6	■	□	□	■	□	□
N5BS-5H7-EB45	10284831	5,0 *0.1969*	5,0 *0.1969*	5,012 *0.1973*	28,5 *1.1220*	55,0 *2.1650*	6,0 *0.2360*	4	■	□	□	■	□	□
N5BS-6.01H7-EB45	10289773	6,01 *0.2366*	6,01 *0.2366*	6,025 *0.2372*	30,5 *1.2010*	65,0 *2.5590*	8,0 *0.3150*	6	■	□	□	■	□	□
N5BS-6.02H7-EB45	10289774	6,02 *0.2370*	6,02 *0.2370*	6,035 *0.2376*	30,5 *1.2010*	65,0 *2.5590*	8,0 *0.3150*	6	■	□	□	■	□	□
N5BS-6.35H7-EB45	10284836	6,35 *0.2500*	6,35 *0.2500*	6,365 *0.2506*	30,5 *1.2010*	65,0 *2.5590*	8,0 *0.3150*	6	■	□	□	■	□	□

Designation	Item number	DC	Hole dia min-max		LUX	OAL	DMM		Geometries			Grades		
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		EB45	EB845	EB30	RX2000	RK2050	H15
N5BS-6H7-EB45	10284832	6,0 *0.2362*	6,0 *0.2362*	6,015 *0.2368*	30,5 *1.2010*	65,0 *2.5590*	8,0 *0.3150*	6	■	□	□	■	□	□
N5BS-7.937H7-EB45	10289630	7,937 *0.3125*	7,937 *0.3125*	7,952 *0.3131*	31,5 *1.2400*	65,0 *2.5590*	8,0 *0.3150*	6	■	□	□	■	□	□
N5BS-7.98H7-EB45	10289775	7,98 *0.3142*	7,98 *0.3142*	7,995 *0.3148*	40,5 *1.5940*	75,0 *2.9530*	10,0 *0.3940*	6	■	□	□	■	□	□
N5BS-7.99H7-EB45	10289776	7,99 *0.3146*	7,99 *0.3146*	8,005 *0.3152*	40,5 *1.5940*	75,0 *2.9530*	10,0 *0.3940*	6	■	□	□	■	□	□
N5BS-7H7-EB45	10289629	7,0 *0.2756*	7,0 *0.2756*	7,015 *0.2762*	31,5 *1.2400*	65,0 *2.5590*	8,0 *0.3150*	6	■	□	□	■	□	□
N5BS-8.01H7-EB45	10289777	8,01 *0.3154*	8,01 *0.3154*	8,025 *0.3159*	40,5 *1.5940*	75,0 *2.9530*	10,0 *0.3940*	6	■	□	□	■	□	□
N5BS-8.02H7-EB45	10289778	8,02 *0.3157*	8,02 *0.3157*	8,035 *0.3163*	40,5 *1.5940*	75,0 *2.9530*	10,0 *0.3940*	6	■	□	□	■	□	□
N5BS-8H7-EB45	10284833	8,0 *0.3150*	8,0 *0.3150*	8,015 *0.3156*	40,5 *1.5940*	75,0 *2.9530*	10,0 *0.3940*	6	■	□	□	■	□	□
N5BS-9.525H7-EB45	10289631	9,525 *0.3750*	9,525 *0.3750*	9,54 *0.3756*	40,5 *1.5940*	75,0 *2.9530*	10,0 *0.3940*	6	■	□	□	■	□	□

■ **Stock standard.** □ **Non stock standard.**

Reamer for through holes – Intermediate diameter

Straight flute, short version – ∅ 1,461-9,960 mm / 0.057- 0.392"



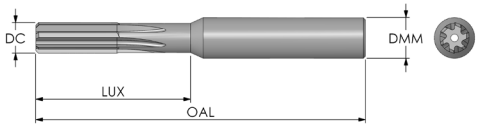
—For choice of geometry, please see page(s) 369-370
—For cutting data see page(s) 378-384

Designation	DCN	DCX	LUX	DMM	OAL		Geometries	Grades						
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			H15	RK2050	RX2000	RN2010	RM2020	RM2090	RS2090
N5TS-1.461-XX.XXX	1,461 *0.058*	2,2 *0.087*	12,0 *0.472*	3,0 *0.118*	50,0 *1.969*	4	EB45 EB845 EB30 EB60 ...	☐	☐	☐	☐	☐	☐	☐
N5TS-2.201-XX.XXX	2,201 *0.087*	2,96 *0.117*	17,0 *0.669*	3,0 *0.118*	50,0 *1.969*	4	EB45 EB845 EB30 EB60 ...	☐	☐	☐	☐	☐	☐	☐
N5TS-2.961-XX.XXX	2,961 *0.117*	3,46 *0.136*	21,0 *0.827*	4,0 *0.157*	50,0 *1.969*	4	EB45 EB845 EB30 EB60 ...	☐	☐	☐	☐	☐	☐	☐
N5TS-3.461-XX.XXX	3,461 *0.136*	3,96 *0.156*	23,0 *0.906*	4,0 *0.157*	50,0 *1.969*	4	EB45 EB845 EB30 EB60 ...	☐	☐	☐	☐	☐	☐	☐
N5TS-3.961-XX.XXX	3,961 *0.156*	4,96 *0.195*	28,0 *1.102*	5,0 *0.197*	55,0 *2.165*	4	EB45 EB845 EB30 EB60 ...	☐	☐	☐	☐	☐	☐	☐
N5TS-4.961-XX.XXX	4,961 *0.195*	5,96 *0.235*	28,0 *1.102*	6,0 *0.236*	55,0 *2.165*	4	EB45 EB845 EB30 EB60 ...	☐	☐	☐	☐	☐	☐	☐
N5TS-5.961-XX.XXX	5,961 *0.235*	6,96 *0.274*	30,0 *1.181*	8,0 *0.315*	65,0 *2.559*	6	EB45 EB845 EB30 EB60 ...	☐	☐	☐	☐	☐	☐	☐
N5TS-6.961-XX.XXX	6,961 *0.274*	7,96 *0.313*	31,0 *1.220*	8,0 *0.315*	65,0 *2.559*	–	EB45 EB845 EB30 EB60 ...	☐	☐	☐	☐	☐	☐	☐
N5TS-7.961-XX.XXX	7,961 *0.313*	9,96 *0.392*	40,0 *1.575*	10,0 *0.394*	75,0 *2.953*	6	EB45 EB845 EB30 EB60 ...	☐	☐	☐	☐	☐	☐	☐

☐ = Non stock standard.
Note: When ordering Nanojet reamers for intermediate diameters, please state diameter and tolerance of hole to be reamed.
Ordering example: N5TS-2,5 R7-EBS45, RS2090

Reamer for blind holes – Intermediate diameter

Straight flute, short version – ∅ 1,461-9,960 mm / 0.057- 0.392"



—For choice of geometry, please see page(s) 369-370
—For cutting data see page(s) 378-384

Designation	DCN	DCX	LUX	DMM	OAL		Geometries	Grades						
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			H15	RK2050	RX2000	RN2010	RM2020	RM2090	RS2090
N5BS-1.461-XX.XXX	1,461 *0.058*	2,2 *0.087*	12,0 *0.472*	3,0 *0.118*	50,0 *1.969*	4	EB45 EB845 EB30 EB60 ...	☐	☐	☐	☐	☐	☐	☐
N5BS-2.201-XX.XXX	2,201 *0.087*	2,96 *0.117*	17,0 *0.669*	3,0 *0.118*	50,0 *1.969*	4	EB45 EB845 EB30 EB60 ...	☐	☐	☐	☐	☐	☐	☐
N5BS-2.961-XX.XXX	2,961 *0.117*	3,46 *0.136*	21,0 *0.827*	4,0 *0.157*	50,0 *1.969*	4	EB45 EB845 EB30 EB60 ...	☐	☐	☐	☐	☐	☐	☐
N5BS-3.461-XX.XXX	3,461 *0.136*	3,96 *0.156*	23,0 *0.906*	4,0 *0.157*	50,0 *1.969*	4	EB45 EB845 EB30 EB60 ...	☐	☐	☐	☐	☐	☐	☐
N5BS-3.961-XX.XXX	3,961 *0.156*	4,96 *0.195*	28,0 *1.102*	5,0 *0.197*	55,0 *2.165*	4	EB45 EB845 EB30 EB60 ...	☐	☐	☐	☐	☐	☐	☐
N5BS-4.961-XX.XXX	4,961 *0.195*	5,96 *0.235*	28,0 *1.102*	6,0 *0.236*	55,0 *2.165*	4	EB45 EB845 EB30 EB60 ...	☐	☐	☐	☐	☐	☐	☐
N5BS-5.961-XX.XXX	5,961 *0.235*	6,96 *0.274*	30,0 *1.181*	8,0 *0.315*	65,0 *2.559*	6	EB45 EB845 EB30 EB60 ...	☐	☐	☐	☐	☐	☐	☐
N5BS-6.961-XX.XXX	6,961 *0.274*	7,96 *0.313*	31,0 *1.220*	8,0 *0.315*	65,0 *2.559*	–	EB45 EB845 EB30 EB60 ...	☐	☐	☐	☐	☐	☐	☐
N5BS-7.961-XX.XXX	7,961 *0.313*	9,96 *0.392*	40,0 *1.575*	10,0 *0.394*	75,0 *2.953*	6	EB45 EB845 EB30 EB60 ...	☐	☐	☐	☐	☐	☐	☐

☐ = Non stock standard.
Note: When ordering Nanojet reamers for intermediate diameters, please state diameter and tolerance of hole to be reamed.
Ordering example: N5BS-8,084/8,100-EB30, RK2050

Cutting data – N5TS/N5BS...-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-EB45	0,10-0,20	0,10-0,30	0,10-0,30	0,20-0,60	50 (20-80)	-	80 (30-150)	-	50 (20-80)	–	–	–
N2	N5T/N5B-EB45	0,10-0,20	0,10-0,30	0,10-0,30	0,20-0,60	50 (20-80)	-	80 (30-150)	-	50 (20-80)	–	–	–
N3	N5T/N5B-EB45	0,10-0,20	0,10-0,30	0,10-0,30	0,20-0,60	50 (20-80)	-	80 (30-150)	-	50 (20-80)	–	–	–
N4	N5T/N5B-EB45	0,10-0,20	0,10-0,30	0,10-0,30	0,20-0,60	50 (20-80)	-	80 (30-150)	-	50 (20-80)	–	–	–
S1	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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 – N5TS/N5BS...-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	N5T/N5B-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	–	–	10 (8-15)	-	–	–	–	–
H5	N5T/N5B-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	–	–	10 (8-15)	-	–	–	–	–
H7	N5T/N5B-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	–	–	10 (8-15)	-	–	–	–	–
H8	N5T/N5B-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	–	–	10 (8-15)	-	–	–	–	–
H11	N5T/N5B-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	–	–	10 (8-15)	-	–	–	–	–
H12	N5T/N5B-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	–	–	10 (8-15)	-	–	–	–	–
H21	N5T/N5B-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	–	–	10 (8-15)	-	–	–	–	–
H31	N5T/N5B-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	–	–	10 (8-15)	-	–	–	–	–
PM1	N5T/N5B-EB45	0,10-0,15	0,1-0,20	0,10-0,20	0,20-0,50	–	50 (30-80)	70 (40-100)	-	–	–	–	–
PM2	N5T/N5B-EB45	0,10-0,15	0,1-0,20	0,10-0,20	0,20-0,50	–	50 (30-80)	70 (40-100)	-	–	–	–	–
PM3	N5T/N5B-EB45	0,10-0,15	0,1-0,20	0,10-0,20	0,20-0,50	–	50 (30-80)	70 (40-100)	-	–	–	–	–
TS1	N5T/N5B-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	20 (15-25)	–	40 (20-60)	-	–	–	–	–
TS2	N5T/N5B-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	20 (15-25)	–	40 (20-60)	-	–	–	–	–
TS3	N5T/N5B-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	20 (15-25)	–	40 (20-60)	-	–	–	–	–
TS4	N5T/N5B-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	20 (15-25)	–	40 (20-60)	-	–	–	–	–
TP1	N5T/N5B-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	20 (15-25)	–	40 (20-60)	-	–	–	–	–
TP2	N5T/N5B-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	20 (15-25)	–	40 (20-60)	-	–	–	–	–
TP3	N5T/N5B-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	20 (15-25)	–	40 (20-60)	-	–	–	–	–
TP4	N5T/N5B-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	20 (15-25)	–	40 (20-60)	-	–	–	–	–
GR1	N5T/N5B-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 – N5TS/N5BS...-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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 – N5TS/N5BS...-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	*N5T/N5B-EB45*	*0.003-0.006*	*0.004-0.006*	*0.004-0.008*	*0.008-0.012*	–	–	*35 (25-50)*	–	–	–	–	–
H5	*N5T/N5B-EB45*	*0.003-0.006*	*0.004-0.006*	*0.004-0.008*	*0.008-0.012*	–	–	*35 (25-50)*	–	–	–	–	–
H7	*N5T/N5B-EB45*	*0.003-0.006*	*0.004-0.006*	*0.004-0.008*	*0.008-0.012*	–	–	*35 (25-50)*	–	–	–	–	–
H8	*N5T/N5B-EB45*	*0.003-0.006*	*0.004-0.006*	*0.004-0.008*	*0.008-0.012*	–	–	*35 (25-50)*	–	–	–	–	–
H11	*N5T/N5B-EB45*	*0.003-0.006*	*0.004-0.006*	*0.004-0.008*	*0.008-0.012*	–	–	*35 (25-50)*	–	–	–	–	–
H12	*N5T/N5B-EB45*	*0.003-0.006*	*0.004-0.006*	*0.004-0.008*	*0.008-0.012*	–	–	*35 (25-50)*	–	–	–	–	–
H21	*N5T/N5B-EB45*	*0.003-0.006*	*0.004-0.006*	*0.004-0.008*	*0.008-0.012*	–	–	*35 (25-50)*	–	–	–	–	–
H31	*N5T/N5B-EB45*	*0.003-0.006*	*0.004-0.006*	*0.004-0.008*	*0.008-0.012*	–	–	*35 (25-50)*	–	–	–	–	–
PM1	*N5T/N5B-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.008*	*0.008-0.020*	–	*165 (100-260)*	*230 (130-350)*	–	–	–	–	–
PM2	*N5T/N5B-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.008*	*0.008-0.020*	–	*165 (100-260)*	*230 (130-350)*	–	–	–	–	–
PM3	*N5T/N5B-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.008*	*0.008-0.020*	–	*165 (100-260)*	*230 (130-350)*	–	–	–	–	–
TS1	*N5T/N5B-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.012*	*0.008-0.024*	*65 (50-80)*	–	*130 (65-195)*	–	–	–	–	–
TS2	*N5T/N5B-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.012*	*0.008-0.024*	*65 (50-80)*	–	*130 (65-195)*	–	–	–	–	–
TS3	*N5T/N5B-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.012*	*0.008-0.024*	*65 (50-80)*	–	*130 (65-195)*	–	–	–	–	–
TS4	*N5T/N5B-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.012*	*0.008-0.024*	*65 (50-80)*	–	*130 (65-195)*	–	–	–	–	–
TP1	*N5T/N5B-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.012*	*0.008-0.024*	*65 (50-80)*	–	*130 (65-195)*	–	–	–	–	–
TP2	*N5T/N5B-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.012*	*0.008-0.024*	*65 (50-80)*	–	*130 (65-195)*	–	–	–	–	–
TP3	*N5T/N5B-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.012*	*0.008-0.024*	*65 (50-80)*	–	*130 (65-195)*	–	–	–	–	–
TP4	*N5T/N5B-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.012*	*0.008-0.024*	*65 (50-80)*	–	*130 (65-195)*	–	–	–	–	–
GR1	*N5T/N5B-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 – N5TS/N5BS...-EB845 metric

SMG		a_p (∅)		f		v_c						
		z=4	z=6	z=4	z=6	H15	CP20	RX2000	RK2050	RM2020	RM2090	RS2090
P3	N5T/N5B-EB845	0,10 -0,15	0,1 -0,20	0,10 -0,30	0,20 -0,60	–	60 (30-100)	80 (30-150)	–	–	–	–
P4	N5T/N5B-EB845	0,10 -0,15	0,1 -0,20	0,10 -0,20	0,20 -0,50	–	50 (30-80)	60 (30-120)	–	–	–	–
P5	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	–	–	10 (8-15)	–	–	–	–
H5	N5T/N5B-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	–	–	10 (8-15)	–	–	–	–
H7	N5T/N5B-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	–	–	10 (8-15)	–	–	–	–
H8	N5T/N5B-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	–	–	10 (8-15)	–	–	–	–
H11	N5T/N5B-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	–	–	10 (8-15)	–	–	–	–
H12	N5T/N5B-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	–	–	10 (8-15)	–	–	–	–
H21	N5T/N5B-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	–	–	10 (8-15)	–	–	–	–
H31	N5T/N5B-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	–	–	10 (8-15)	–	–	–	–
PM1	N5T/N5B-EB845	0,10 -0,15	0,1 -0,20	0,10 -0,20	0,20 -0,50	–	50 (30-80)	70 (40-100)	–	–	–	–
PM2	N5T/N5B-EB845	0,10 -0,15	0,1 -0,20	0,10 -0,20	0,20 -0,50	–	50 (30-80)	70 (40-100)	–	–	–	–
PM3	N5T/N5B-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 – N5TS/N5BS...-EB845 *inch*

SMG		a_p (∅)		f		v_c						
		z=4	z=6	z=4	z=6	H15	CP20	RX2000	RK2050	RM2020	RM2090	RS2090
P3	N5T/N5B-EB845	0.004 –0.006	0.004 –0.008	0.004 –0.012	0.008 –0.024	–	195 (100-330)	260 (100-490)	–	–	–	–
P4	N5T/N5B-EB845	0.004 –0.006	0.004 –0.008	0.004 –0.008	0.008 –0.020	–	165 (100-260)	195 (100-395)	–	–	–	–
P5	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	–	–	35 (25-50)	–	–	–	–
H5	N5T/N5B-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	–	–	35 (25-50)	–	–	–	–
H7	N5T/N5B-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	–	–	35 (25-50)	–	–	–	–
H8	N5T/N5B-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	–	–	35 (25-50)	–	–	–	–
H11	N5T/N5B-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	–	–	35 (25-50)	–	–	–	–
H12	N5T/N5B-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	–	–	35 (25-50)	–	–	–	–
H21	N5T/N5B-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	–	–	35 (25-50)	–	–	–	–
H31	N5T/N5B-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	–	–	35 (25-50)	–	–	–	–
PM1	N5T/N5B-EB845	0.004 –0.006	0.004 –0.008	0.004 –0.008	0.008 –0.020	–	165 (100-260)	230 (130-350)	–	–	–	–
PM2	N5T/N5B-EB845	0.004 –0.006	0.004 –0.008	0.004 –0.008	0.008 –0.020	–	165 (100-260)	230 (130-350)	–	–	–	–
PM3	N5T/N5B-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 – N5TS/N5BS...-EB25/EB30 metric

SMG		a_p (∅)		f		v_c			
		z=4	z=6	z=4	z=6	H15	CP20	RX2000	RK2050
P1	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-EB25/EB30	0,08-0,15	0,10-0,15	0,3-0,7	0,5-1	–	25 (15-40)	35 (20-60)	–
K1	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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	N5T/N5B-EB25/EB30	0,10-0,20	0,10-0,30	0,3-0,9	0,5-1,2	50 (20-80)	–	–	–
N2	N5T/N5B-EB25/EB30	0,10-0,20	0,10-0,30	0,3-0,9	0,5-1,2	50 (20-80)	–	–	–
N3	N5T/N5B-EB25/EB30	0,10-0,20	0,10-0,30	0,3-0,9	0,5-1,2	50 (20-80)	–	–	–
N11	N5T/N5B-EB25/EB30	0,10-0,20	0,10-0,30	0,3-0,9	0,5-1,2	50 (20-80)	–	–	–
PM1	N5T/N5B-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	N5T/N5B-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	N5T/N5B-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 – N5TS/N5BS...-EB25/EB30 *inch*

SMG		a_p (∅)		f		v_c			
		z=4	z=6	z=4	z=6	H15	CP20	RX2000	RK2050
P1	*N5T/N5B-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	*N5T/N5B-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	*N5T/N5B-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	*N5T/N5B-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	*N5T/N5B-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	*N5T/N5B-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	*N5T/N5B-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	*N5T/N5B-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	*N5T/N5B-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	*N5T/N5B-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	*N5T/N5B-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	*N5T/N5B-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	*N5T/N5B-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	*N5T/N5B-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	*N5T/N5B-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	*N5T/N5B-EB25/EB30*	*0.004–0.787*	*0.004–0.012*	*0.012–0.035*	*0.020–0.047*	*165 (65-265)*	–	–	–
N2	*N5T/N5B-EB25/EB30*	*0.004–0.787*	*0.004–0.012*	*0.012–0.035*	*0.020–0.047*	*165 (65-265)*	–	–	–
N3	*N5T/N5B-EB25/EB30*	*0.004–0.787*	*0.004–0.012*	*0.012–0.035*	*0.020–0.047*	*165 (65-265)*	–	–	–
N11	*N5T/N5B-EB25/EB30*	*0.004–0.787*	*0.004–0.012*	*0.012–0.035*	*0.020–0.047*	*165 (65-265)*	–	–	–
PM1	*N5T/N5B-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	*N5T/N5B-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	*N5T/N5B-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

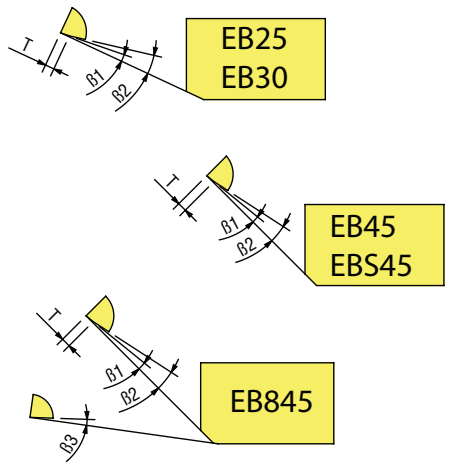
Regrinding instructions

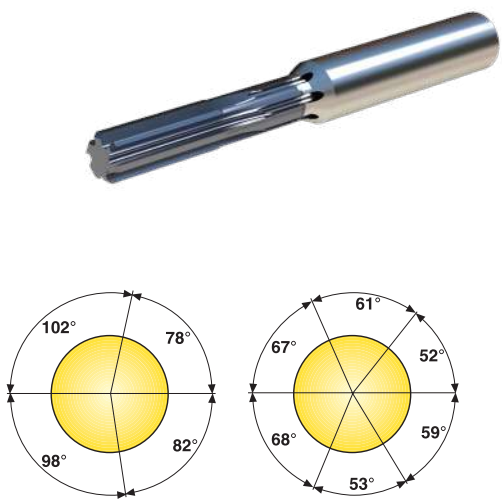
Specifications

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)*.





Nanojet ∅ mm *(inch)*	β_1	β_2	β_3	T mm *(inch)*
1,461-2,460 *(0.0575-0.0968")*	8°	21°	8°	0,10 *(0.004")*
2,461-2,960 *(0.0969-0.1165")*	8°	18°	8°	0,10 *(0.004")*
2,961-9,960 *(0.1166-0.3921")*	8°	18°	8°	0,15 *(0.006")*

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

Unless requested otherwise, reamers are designed to produce a diameter in the middle of the required tolerance.

SR80	–	16.85 P6	–	EN1	–	R	9
1		2		3		4	

0.6624”–0.6628”
2

1.
Reamer type:
Type 80: Through hole
Type 81: Blind hole
Type 82: Blind hole, short version

2.
Hole diameter and tolerance

3.
Type of lead geometry
EN1, EN2, EN3

4
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.

P2	–	EN1	–	06	–	CP20
1		2		3		4

1.
Blade size:
P0, P1, P2, P4

2.
Type of lead geometry
EN1, EN2, EN3

3.
Cutting rake angle:
0°, 6°, 12°

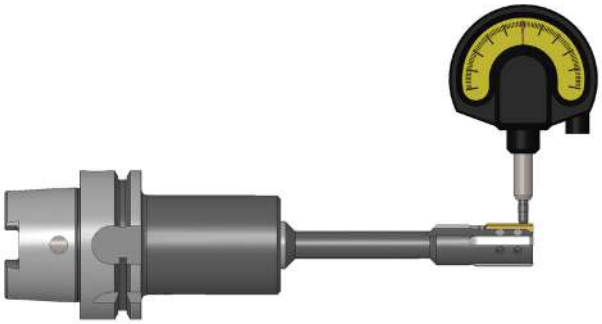
4
Carbide grade:
CP20, H15

Set up and machining data

Rotating tool

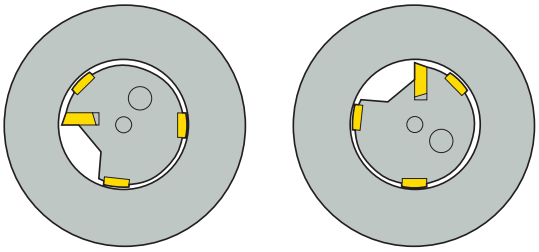
Max. run-out recommended: 0,02 mm *(0.0008")*.
Precision holder is recommended: Hydraulic chuck, D-type collet chuck, 5672 collet chuck or shrink-fit.

Stationary tool
Use a Seco floating holder, see page 467-471.



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)*.

Recommended coolant pressure: min. 8-10 bars, max. 30 bars

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.

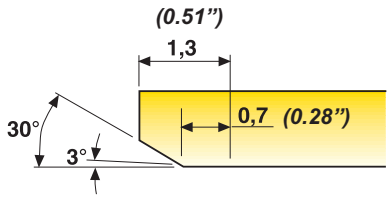
Grade and rake angle
Use the tables on page(s) 650-656 to classify the workpiece material into SMG.

Use the cutting data recommendation table on page 401-409 to choose grade and rake angle.

The blade programme is on page(s) 399, 400.

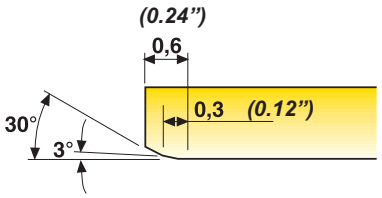
EN1 – Application

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)



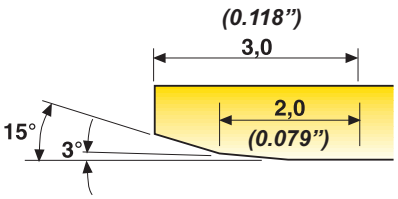
EN2 – Short lead

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

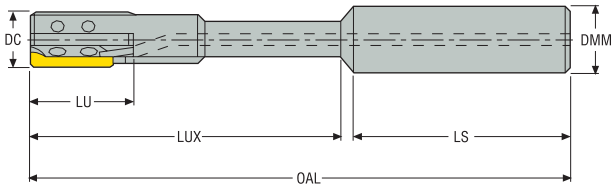
Blade size	Steel	Stainless steel	Cast iron	Non-ferrous	Aluminium	Wear resistance ⟷ Toughness			Designation	
						Productivity	Versatility	Security	Blade	Grade
P0, P1, P2, P4										
			•	•				X	Pxx-ENx-00	H15
	•		•		•			X	Pxx-ENx-06	H15
		•		•	•			X	Pxx-ENx-12	H15
	•					X			Pxx-ENx-00	CP20
	•		•				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** A wear-resistant coated grade alternative to CP20. For optimization in cast iron and steels. Also suitable for non-ferrous. Ti(C, N)
	CP20	**Coated** A versatile coated grade suitable for most materials, except aluminum. TiN
	H15	**Uncoated** 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) 399, 400
—Internal through coolant
—For cutting data see page(s) 401-409

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

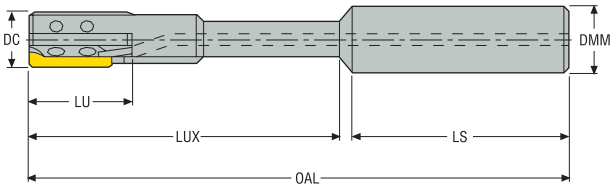
Spare Parts, included in delivery

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

Torque key is delivered with driving blade

For through holes ∅ 27H6–60H6

Shank type R1, cylindrical without flat, SR80



—Blade information on page(s) 399, 400
—Internal through coolant
—For cutting data see page(s) 401-409

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

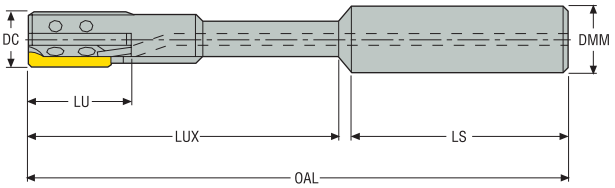
Spare Parts, included in delivery

For ∅ (mm)	Adjusting screw	Clamp	Clamp screw	Setting key	Support ball	Torque key	Torque value
20-60	4060	SR-B5	LH4010	2SMS795	BB3.0	–	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) 399, 400
—Important! Reamer and blade must have the same lead geometry
—For choice of lead geometry EN1, EN2 or EN3 see page(s) 390
—For cutting data see page(s) 401-409

Designation	DC	OAL	LS	LUX	LU	DMM	Blade size
	mm	mm	mm	mm	mm	mm	
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
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

Spare Parts, included in delivery

For ∅ (mm)	Adjusting screw	Clamp	Clamp screw	Setting key	Support ball
6,875-8,749	SH2020	SR-B0	LH2040	0.9SMS795	BB1.5
8,750-9,749	SH2525	SR-B1	LH2540	1.3SMS795	BB2.0
9,750-12,749	SH2525	SR-B2	LH2540	1.3SMS795	BB2.0
12,750-19,499	SH3040	SR-B3	LH3050	1.5SMS795	BB2.0
19,500-60,500	SH4060	SR-B5	LH4010	2SMS795	BB3.0

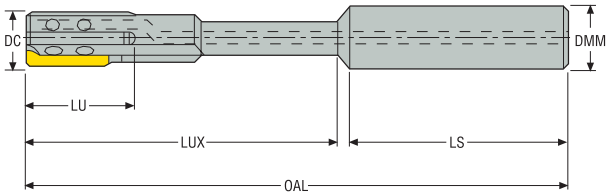
Accessories

Torque key
–
H00-1305
H00-1305
H00-1509
H00-2020

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) 399, 400
—Internal through coolant
—For cutting data see page(s) 401-409

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

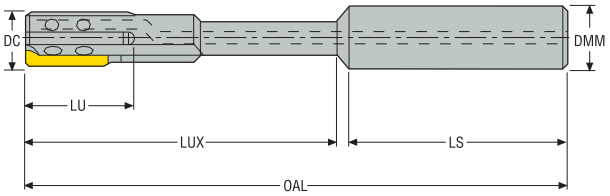
Spare Parts, included in delivery

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) 399, 400
—Internal through coolant
—For cutting data see page(s) 401–409

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

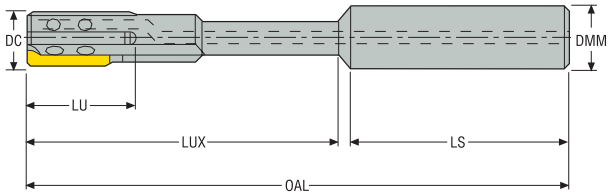
Spare Parts, included in delivery

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 blind holes – Intermediate diameter

Shank type R1, cylindrical without flat, SR81



—Blade information on page(s) 399, 400
—Important! Reamer and blade must have the same lead geometry
—For choice of lead geometry EN1, EN2 or EN3 see page(s) 390
—For cutting data see page(s) 401-409

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

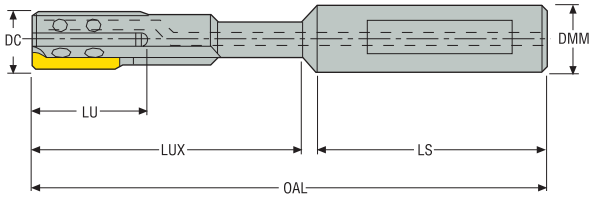
Accessories

For ∅ (mm)	Adjusting screw	Clamp	Clamp screw	Setting key	Support ball	Torque key
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
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

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) 399, 400
—Important! Reamer and blade must have the same lead geometry
—For choice of lead geometry EN1, EN2 or EN3 see page(s) 390
—For cutting data see page(s) 401-409

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

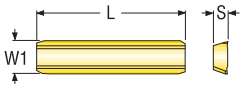
Spare Parts, included in delivery

Accessories

For ∅ (mm)	Adjusting screw	Clamp	Clamp screw	Setting key	Support ball	Torque key
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
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

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 Inch	mm Inch	mm Inch	H15	CP20
P0-EN1-0	P0	20 *0.787*	1,2 *0.047*	2,5 *0.098*	00098229	00098244
P0-EN1-06	P0	20 *0.787*	1,2 *0.047*	2,5 *0.098*	00091786	00091762
P0-EN1-12	P0	20 *0.787*	1,2 *0.047*	2,5 *0.098*	00097299	00091971
P0-EN2-0	P0	20 *0.787*	1,2 *0.047*	2,5 *0.098*	00098234	00098249
P0-EN2-06	P0	20 *0.787*	1,2 *0.047*	2,5 *0.098*	00098160	00098170
P0-EN2-12	P0	20 *0.787*	1,2 *0.047*	2,5 *0.098*	00098165	00098175
P0-EN3-0	P0	20 *0.787*	1,2 *0.047*	2,5 *0.098*	00098239	00098254
P0-EN3-06	P0	20 *0.787*	1,2 *0.047*	2,5 *0.098*	00098185	00098195
P0-EN3-12	P0	20 *0.787*	1,2 *0.047*	2,5 *0.098*	00098190	00098200
P1-EN1-0	P1	20 *0.787*	1,5 *0.059*	3,0 *0.118*	00098230	00098245
P1-EN1-06	P1	20 *0.787*	1,5 *0.059*	3,0 *0.118*	00091787	00091764
P1-EN1-12	P1	20 *0.787*	1,5 *0.059*	3,0 *0.118*	00097300	00091972
P1-EN2-0	P1	20 *0.787*	1,5 *0.059*	3,0 *0.118*	00098235	00098250
P1-EN2-06	P1	20 *0.787*	1,5 *0.059*	3,0 *0.118*	00098161	00098171
P1-EN2-12	P1	20 *0.787*	1,5 *0.059*	3,0 *0.118*	00098166	00098176
P1-EN3-0	P1	20 *0.787*	1,5 *0.059*	3,0 *0.118*	00098240	00098255
P1-EN3-06	P1	20 *0.787*	1,5 *0.059*	3,0 *0.118*	00098186	00094702
P1-EN3-12	P1	20 *0.787*	1,5 *0.059*	3,0 *0.118*	00098191	00098201
P2-EN1-0	P2	20 *0.787*	2,0 *0.079*	4,5 *0.177*	00098231	00098246
P2-EN1-06	P2	20 *0.787*	2,0 *0.079*	4,5 *0.177*	00091788	00091765
P2-EN1-12	P2	20 *0.787*	2,0 *0.079*	4,5 *0.177*	00097301	00091973
P2-EN2-0	P2	20 *0.787*	2,0 *0.079*	4,5 *0.177*	00098236	00098251
P2-EN2-06	P2	20 *0.787*	2,0 *0.079*	4,5 *0.177*	00098162	00098172
P2-EN2-12	P2	20 *0.787*	2,0 *0.079*	4,5 *0.177*	00098167	00098177
P2-EN3-0	P2	20 *0.787*	2,0 *0.079*	4,5 *0.177*	00098241	00098256
P2-EN3-06	P2	20 *0.787*	2,0 *0.079*	4,5 *0.177*	00098187	00098197
P2-EN3-12	P2	20 *0.787*	2,0 *0.079*	4,5 *0.177*	00098192	00098202
P4-EN1-0	P4	25,0 *0.984*	2,3 *0.091*	7,0 *0.276*	00098232	00098247
P4-EN1-06	P4	25,0 *0.984*	2,3 *0.091*	7,0 *0.276*	00091789	00091766
P4-EN1-12	P4	25,0 *0.984*	2,3 *0.091*	7,0 *0.276*	00098128	00091974

Designation	Insert	L	S	W1	Grades	
		mm Inch	mm Inch	mm Inch	H15	CP20
P4-EN2-0	P4	25,0 *0.984*	2,3 *0.091*	7,0 *0.276*	00098237	00098252
P4-EN2-06	P4	25,0 *0.984*	2,3 *0.091*	7,0 *0.276*	00098163	00098173
P4-EN2-12	P4	25,0 *0.984*	2,3 *0.091*	7,0 *0.276*	00098168	00098178
P4-EN3-0	P4	25,0 *0.984*	2,3 *0.091*	7,0 *0.276*	00098242	00098257
P4-EN3-06	P4	25,0 *0.984*	2,3 *0.091*	7,0 *0.276*	00098188	00098198
P4-EN3-12	P4	25,0 *0.984*	2,3 *0.091*	7,0 *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)	-

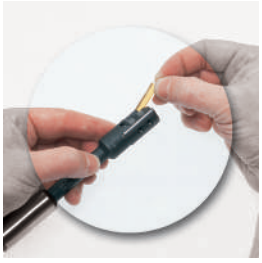
SMG = Seco material group
a_p = mm
f = mm/rev
v_c= m/min
All cutting data are start values

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. (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).

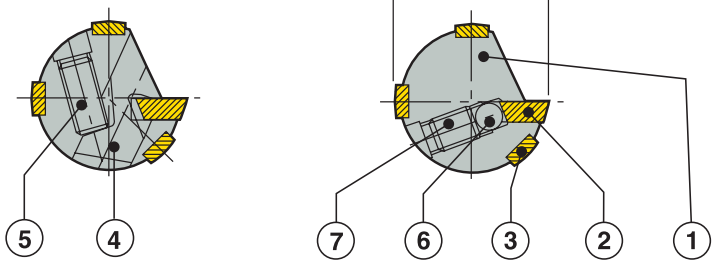
8.

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.



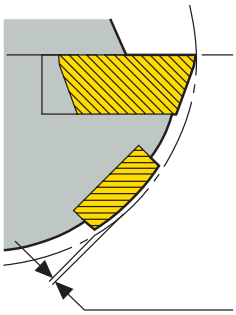


figure 1

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

Note: If the required diameter is exceeded during adjustment, start again from the beginning to eliminate backlash on adjustment screws.

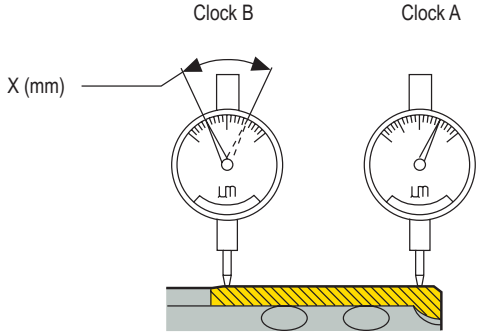


figure 2

– 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

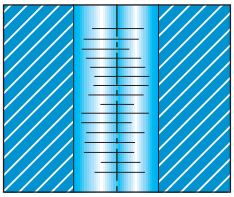
Setting chart

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

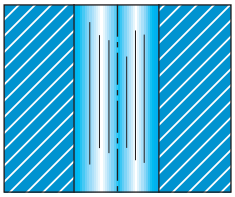
Poor surface finish

- 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



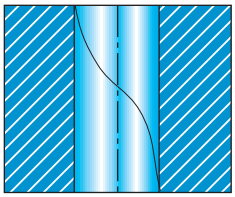
Facets

- Improve centering (part/tool)
- Increase back taper



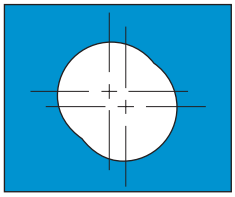
Retraction marks

- Improve coolant conditions (outlet type, pressure, quality)
- Improve centering (part/tool)
- Increase back taper



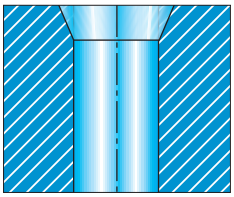
Off center/Ovality

- Improve clamping (workpiece deformation)
- Check material allowance
- Improve centering (part/tool)
- Check axial position of blade



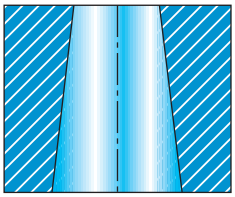
Tapered entry

- Reduce feed rate
- Improve centering (part/tool)
- Check back taper
- Reduce radial run-out



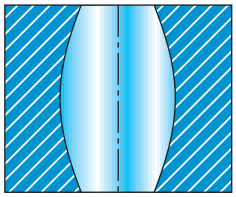
Tapered hole

- Improve centering (part/tool)
- Check back taper



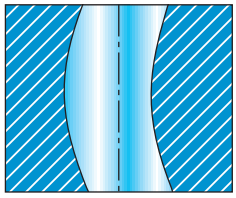
Deformed hole

- Improve clamping (workpiece deformation)



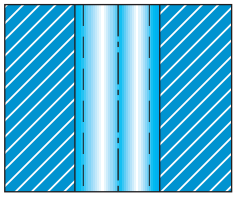
Curved hole

- Change blade (wrong lead geometry)
- Check axial position of blade



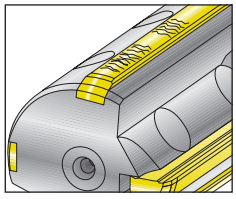
Too large diameter

- 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

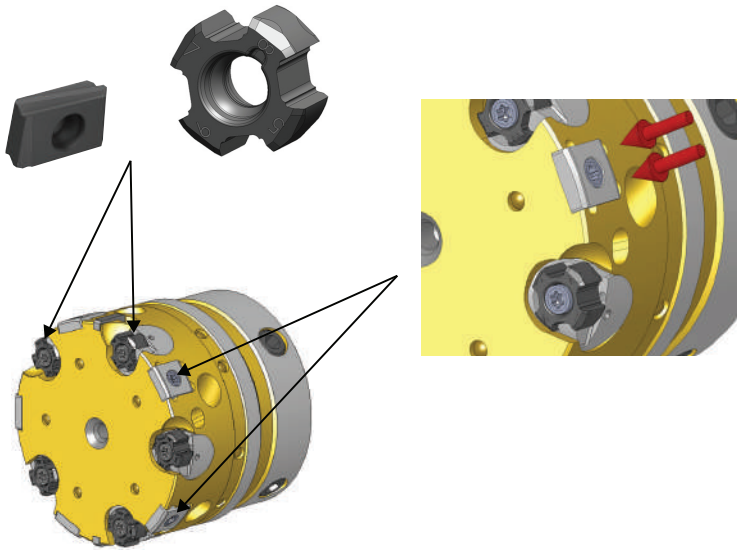
Range overview

	∅ Range	Reaming depth	Hole ∅ 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 on request	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.

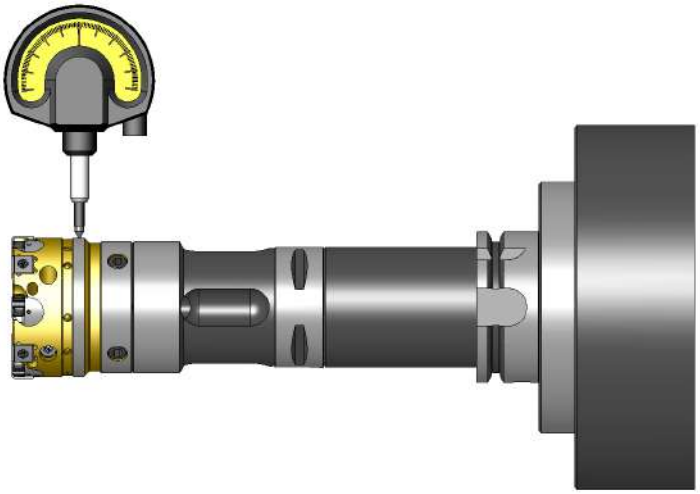
Feature details

- 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

HF55	–	088	–	C5
1		2		3

1. Flange size

2. Length

3. Shank type

Standard heads

HF85	–	60H6	–	05	–	55
1		2		3		4

1. Head type

2. Diameter and tolerance

3. Number of teeth

4. Flange size D

Heads Intermediate

HF85	–	65.2G7	–	05	–	55
1		2		3		4

1. Head type

2. Diameter and tolerance

3. Number of teeth

4. Flange size D

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

RNAX1005	–	EB45	–	03	–	RX2000
1		2		3		4

1. Insert size

2. Lead geometry

3. Rake angle

4. Grade

RNAX insert for HF85 and HF 85B Xfix heads

Inserts

LNEG	–	EB45	–	06	–	RX2000
1		2		3		4

1. Insert size

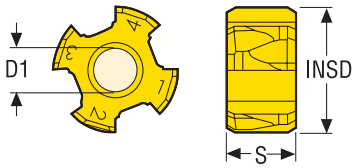
2. Lead geometry

3. Rake angle

4. Grade

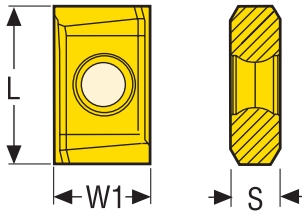
LNEG inserts for HF86 and HF86B Xfix heads

RNAX



Designation	Inserts	INSD	S	D1	Grades		Rake angle
		mm *Inch*	mm *Inch*	mm *Inch*	RX1500	RX2000	
RNAX1005-EB1570-03	RNAX	10,0 *0,394*	5,5 *0,217*	3,5 *0,138*	02687601	02687603	3 °
RNAX1005-EB45-03	RNAX	10,0 *0,394*	5,5 *0,217*	3,5 *0,138*	02687600	02688608	3 °
RNAX1005-EB845-03	RNAX	10,0 *0,394*	5,5 *0,217*	3,5 *0,138*	02687593	02688606	3 °

LNEG

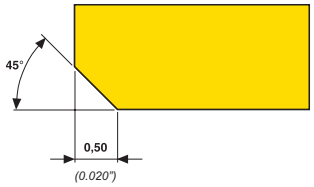


Designation	Inserts	L	S	W1	Grades			Rake angle
		mm *Inch*	mm *Inch*	mm *Inch*	RX1500	RX2000	CF	
LNEG1003-EB45-03	LNEG	10,0 *0,394*	3,5 *0,138*	6,35 *0,25*		02781311		3 °
LNEG1003-EB45-06	LNEG	10,0 *0,394*	3,5 *0,138*	6,35 *0,25*	02904277	02781313	02904276	6 °
LNEG1003-EB845-03	LNEG	10,0 *0,394*	3,5 *0,138*	6,35 *0,25*		02781314		3 °
LNEG1003-EB845-06	LNEG	10,0 *0,394*	3,5 *0,138*	6,35 *0,25*		02781315		6 °

Lead geometry

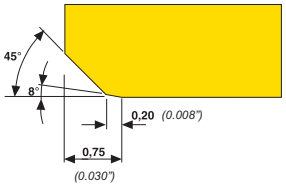
Lead Geometry EB45 – Application

Chip control +++
Surface Finish + R_a 1,2 - 2 µm
(Surface Finish + R_a 0.047 - 0.0787 µin)
First choice geometry



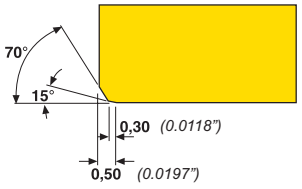
Lead Geometry EB845 – Application

Chip control ++
Surface Finish +++ R_a 0,4 - 1,2 µm
(Surface Finish +++ R_a 0.0157 - 0,047 µin)



Lead Geometry EB1570 – Application

Chip control ++
Surface Finish ++ R_a 0,8 - 1,6 µm
(Surface Finish ++ R_a 0.031 - 0.0630 µin)
Stability for long reach application +++

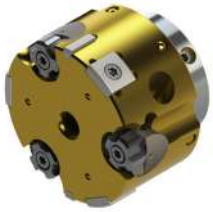


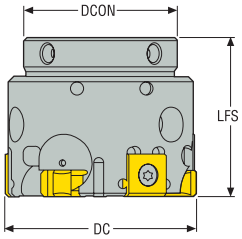
Grades

	RX1500	**Coated Cermet** A resistant coated grade for performance optimization in steel and cast iron.
	RX2000	**Coated** High performance coated grade suitable for all materials.
	CF	**Cermet** 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) 417–418
—For cutting data see page(s) 443–449

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF85-39.5/44.499-03-32	39,5 *1.555*	44,499 *1.752*	33,0 *1.299*	32,0 *1.260*	0,41 *0.900*	3	RNAX1005...
HF85-44.5/49.499-03-32	44,5 *1.752*	49,499 *1.949*	33,0 *1.299*	32,0 *1.260*	0,51 *1.120*	3	RNAX1005...
HF85-49.5/54.499-03-32	49,5 *1.949*	54,499 *2.146*	33,0 *1.299*	32,0 *1.260*	0,62 *1.370*	3	RNAX1005...
HF85-54.5/59.499-03-32	54,5 *2.146*	59,499 *2.342*	33,0 *1.299*	32,0 *1.260*	0,74 *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

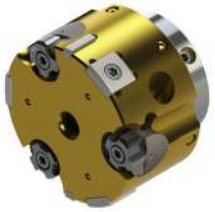
For head	Torque key	Torx driver for insert/holder locking screw
HF85 03-32	H00-2020	T00-09P20

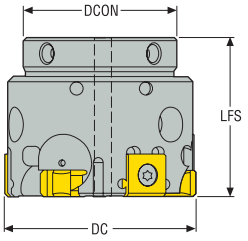
Note
Torque driver H00-2020 for clamp screws
Torque driver T00-09P20 for insert screws

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) 417-418
—For cutting data see page(s) 443-449

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF85B-39.5/44.499-03-32	39,5 *1.555*	44,499 *1.752*	33,0 *1.299*	32,0 *1.260*	0,41 *0.900*	3	RNAX1005...
HF85B-44.5/49.499-03-32	44,5 *1.752*	49,499 *1.949*	33,0 *1.299*	32,0 *1.260*	0,51 *1.120*	3	RNAX1005...
HF85B-49.5/54.499-03-32	49,5 *1.949*	54,499 *2.146*	33,0 *1.299*	32,0 *1.260*	0,62 *1.370*	3	RNAX1005...
HF85B-54.5/59.499-03-32	54,5 *2.146*	59,499 *2.342*	33,0 *1.299*	32,0 *1.260*	0,74 *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

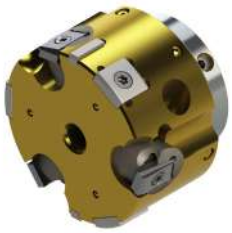
For head	Torque key	Torx driver for insert/holder locking screw
HF85B 03-32	H00-2020	T00-09P20

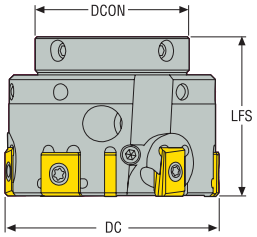
Note
Torque driver H00-2020 for clamp screws
Torque driver T00-09P20 for insert screws

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) 417–418
—For cutting data see page(s) 443–449

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF86-39.5/44.499-03-32	39,5 *1.555*	44,499 *1.752*	33,0 *1.299*	32,0 *1.260*	0,41 *0.900*	3	LNEG1003...
HF86-44.5/49.499-03-32	44,5 *1.752*	49,499 *1.949*	33,0 *1.299*	32,0 *1.260*	0,51 *1.120*	3	LNEG1003...
HF86-49.5/54.499-03-32	49,5 *1.949*	54,499 *2.146*	33,0 *1.299*	32,0 *1.260*	0,62 *1.370*	3	LNEG1003...
HF86-54.5/59.499-03-32	54,5 *2.146*	59,499 *2.342*	33,0 *1.299*	32,0 *1.260*	0,74 *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

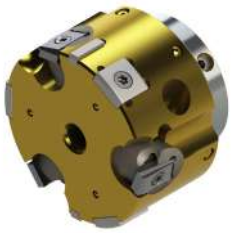
For head	Torque key	Torx driver for insert/holder locking screw
HF86 03-32	H00-2020	T00-07P09

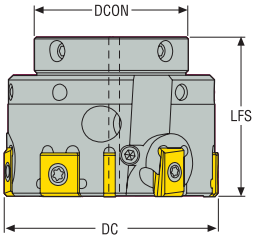
Note
Torque driver H00-2020 for clamp screws
Torque driver T00-07P09 for insert screws

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) 417-418
—For cutting data see page(s) 443-449

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF86B-39.5/44.499-03-32	39,5 *1.555*	44,499 *1.752*	33,0 *1.299*	32,0 *1.260*	0,41 *0.900*	3	LNEG1003...
HF86B-44.5/49.499-03-32	44,5 *1.752*	49,499 *1.949*	33,0 *1.299*	32,0 *1.260*	0,51 *1.120*	3	LNEG1003...
HF86B-49.5/54.499-03-32	49,5 *1.949*	54,499 *2.146*	33,0 *1.299*	32,0 *1.260*	0,62 *1.370*	3	LNEG1003...
HF86B-54.5/59.499-03-32	54,5 *2.146*	59,499 *2.342*	33,0 *1.299*	32,0 *1.260*	0,74 *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

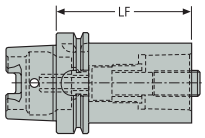
For head	Torque key	Torx driver for insert/holder locking screw
HF86B 03-32	H00-2020	T00-07P09

Note
Torque driver H00-2020 for clamp screws
Torque driver T00-07P09 for insert screws

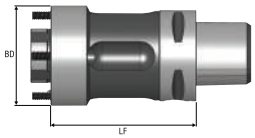
Torque value T00-07P09: 0,9 Nm.
Torque value H00-2020: 2 Nm.

HF32

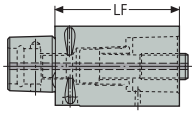
Seco-Capto™ shank for ∅ 39,5-59,499 mm

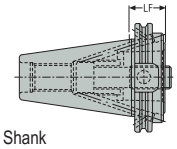


Extension



Reamer holder





Shank

Designation Reamer holders	Item number	LF min	LF max	Taper	BD	Weight
		mm	mm	mm	mm	kg
HF32-050-C3	02688610	–	50	C3	32	0,3
HF32...HSKA63	–	65	245	HSK-A63	32	0,0
HF32...HSKA80	–	100	209	HSK-A80	32	0,0
HF32...HSKA100	–	70	245	HSK-A100	32	0,0
HF32...DIN40ADB	–	60	252	DIN40ADB	32	0,0
HF32...DIN50ADB	–	60	317	DIN50ADB	32	0,0
HF32...BT40ADB	–	65	252	BT40ADB	32	0,0
HF32...BT50ADB	–	75	317	BT50ADB	32	0,0

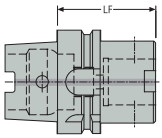
Shanks and extensions for HF32-050-C3 (see Seco Tooling Systems for more details).

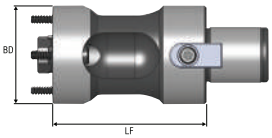
Designation Shank	Item number	LF	Taper	Seco-Capto size	Weight
		mm			kg
HA10-C3-032-080	10197961	80	HSK-A100	C3	2,5
HA06-C4-040-080	10197964	80	HSK-A63	C4	1,1
C3-390B.140-40030	02924104	30	DIN40	C3	0,8
C3-390B.55-40030	02925959	30	BT40	C3	1,0
C3-390B.55-40060	02925960	60	BT40	C3	1,1
C3-390B.140-50030	02924106	30	DIN50	C3	2,6
C3-390B.140-50060	02924107	60	DIN50	C3	2,7
C3-390B.58-50040	02925961	40	BT50	C3	3,5
C3-390B.58-50070	02925962	70	BT50	C3	3,7

Designation Extension	Item number	LF	Taper	Seco-Capto size	Weight
		mm			kg
C3-391.01-32060A	75039884	–	C3	C3	0,4
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	0,7
C6-391.02-32070A	75039892	–	C6	C3	1,1

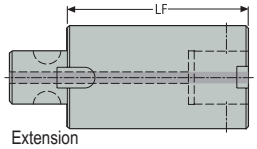
HF32

Graflex® shank for ∅ 39,5-59,499 mm

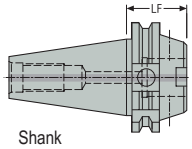




Reamer holder



Extension



Shank

Designation Reamer holders	Item number	LF min	LF max	Taper	BD	Weight
		mm	mm	mm	mm	kg
HF32-050-G3	02698870	–	50	G3	32	0,4
HF32...HSKA63	–	65	245	HSK-A63	32	0,0
HF32...HSKA80	–	100	209	HSK-A80	32	0,0
HF32...HSKA100	–	70	245	HSK-A100	32	0,0
HF32...DIN40ADB	–	60	252	DIN40ADB	32	0,0
HF32...DIN50ADB	–	60	317	DIN50ADB	32	0,0
HF32...BT40ADB	–	65	252	BT40ADB	32	0,0
HF32...BT50ADB	–	75	317	BT50ADB	32	0,0

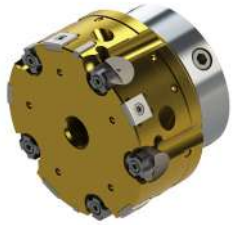
Shanks and extensions for HF32-050-G3 (see Seco Tooling Systems for more details).

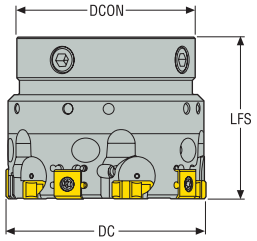
Designation Shank	Item number	LF	Taper	Graflex size	Weight
		mm			kg
EM93044011850	00086918	50	HSK-A63	G3	0,8
EM93064011855	00086925	55	HSK-A100	G3	2,2
EM34694011835	02420097	35	DIN40	G3	1,0
EM346940118100	02503298	100	DIN40	G3	1,3
EM34144011840	02503366	40	BT40	G3	1,07
EM341440118100	02503367	100	BT40	G3	1,31
EM34714011835	02503307	35	DIN50	G3	2,67
EM34164011845	02503376	45	BT50	G3	3,6
EM341640118120	02503377	120	BT50	G3	4,0

Designation Extension	Item number	LF	Taper	Graflex size	Weight
		mm			kg
M402330	00056758	–	G3	G3	0,3
M402331	75056759	–	G3	G3	0,4

HF85

Heads for RNAX inserts, through bore ∅ 59,5–84,499 mm / *2.343–3.327"*





—For inserts, grades and geometries see page(s) 417–418
—For cutting data see page(s) 443–449

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF85-59.5/64.499-05-55	59,5 *2.343*	64,499 *2.539*	50,0 *1.969*	55,0 *2.165*	1,3 *2.870*	5	RNAX1005...
HF85-64.5/69.499-05-55	64,5 *2.539*	69,499 *2.736*	50,0 *1.969*	55,0 *2.165*	1,5 *3.310*	5	RNAX1005...
HF85-69.5/74.499-05-55	69,5 *2.736*	74,499 *2.933*	50,0 *1.969*	55,0 *2.165*	1,75 *3.860*	5	RNAX1005...
HF85-74.5/79.499-05-55	74,5 *2.933*	79,499 *3.130*	50,0 *1.969*	55,0 *2.165*	2,0 *4.410*	5	RNAX1005...
HF85-79.5/84.499-05-55	79,5 *3.130*	84,499 *3.327*	50,0 *1.969*	55,0 *2.165*	2,2 *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

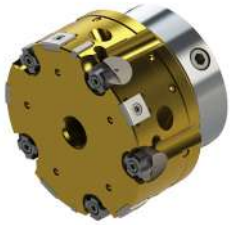
For head	Torque key	Torx driver for insert/holder locking screw
HF85 05-55	H00-2020	T00-09P20

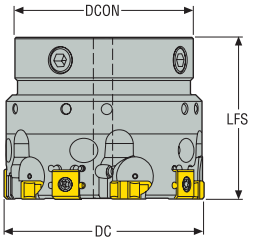
Note
Torque driver H00-2020 for clamp screws
Torque driver T00-09P20 for insert screws

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) 417–418
—For cutting data see page(s) 443–449

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF85B-59.5/64.499-05-55	59,5 *2.343*	64,499 *2.539*	50,0 *1.969*	55,0 *2.165*	1,3 *2.870*	5	RNAX1005...
HF85B-64.5/69.499-05-55	64,5 *2.539*	69,499 *2.736*	50,0 *1.969*	55,0 *2.165*	1,5 *3.310*	5	RNAX1005...
HF85B-69.5/74.499-05-55	69,5 *2.736*	74,499 *2.933*	50,0 *1.969*	55,0 *2.165*	1,75 *3.860*	5	RNAX1005...
HF85B-74.5/79.499-05-55	74,5 *2.933*	79,499 *3.130*	50,0 *1.969*	55,0 *2.165*	2,0 *4.410*	5	RNAX1005...
HF85B-79.5/84.499-05-55	79,5 *3.130*	84,499 *3.327*	50,0 *1.969*	55,0 *2.165*	2,2 *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

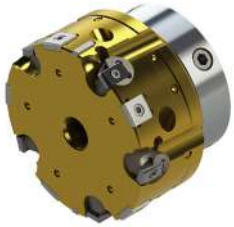
For head	Torque key	Torx driver for insert/holder locking screw
HF85B 05-55	H00-2020	T00-09P20

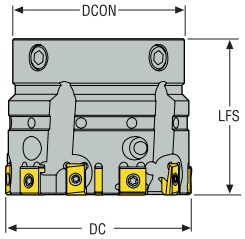
Note
Torque driver H00-2020 for clamp screws
Torque driver T00-09P20 for insert screws

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) 417–418
—For cutting data see page(s) 443–449

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF86-59.5-64.499-05-55	59,5 *2.343*	64,499 *2.539*	50,0 *1.969*	55,0 *2.165*	1,3 *2.870*	5	LNEG1003...
HF86-64.5-69.499-05-55	64,5 *2.539*	69,499 *2.736*	50,0 *1.969*	55,0 *2.165*	1,5 *3.310*	5	LNEG1003...
HF86-69.5-74.499-05-55	69,5 *2.736*	74,499 *2.933*	50,0 *1.969*	55,0 *2.165*	1,75 *3.860*	5	LNEG1003...
HF86-74.5-79.499-05-55	74,5 *2.933*	94,499 *3.720*	50,0 *1.969*	55,0 *2.165*	2,0 *4.410*	5	LNEG1003...
HF86-79.5-84.499-05-55	79,5 *3.130*	84,499 *3.327*	50,0 *1.969*	55,0 *2.165*	2,2 *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

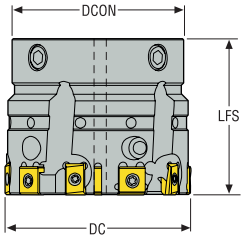
For head	Torque key	Torx driver for insert/holder locking screw
HF86 05-55	H00-2020	T00-07P09

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) 417–418
—For cutting data see page(s) 443–449

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF86B-59.5/64.499-05-55	59,5 *2.343*	64,499 *2.539*	50,0 *1.969*	55,0 *2.165*	1,3 *2.870*	5	LNEG1003...
HF86B-64.5/69.499-05-55	64,5 *2.539*	69,499 *2.736*	50,0 *1.969*	55,0 *2.165*	1,5 *3.310*	5	LNEG1003...
HF86B-69.5/74.499-05-55	69,5 *2.736*	74,499 *2.933*	50,0 *1.969*	55,0 *2.165*	1,75 *3.860*	5	LNEG1003...
HF86B-74.5/79.499-05-55	74,5 *2.933*	79,499 *3.130*	50,0 *1.969*	55,0 *2.165*	2,0 *4.410*	5	LNEG1003...
HF86B-79.5/84.499-05-55	79,5 *3.130*	84,499 *3.327*	50,0 *1.969*	55,0 *2.165*	2,2 *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

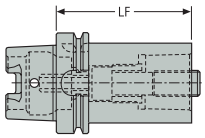
For head	Torque key	Torx driver for insert/holder locking screw
HF86B 05-55	H00-2020	T00-07P09

Note
Torque driver H00-2020 for clamp screws
Torque driver T00-07P09 for insert screws

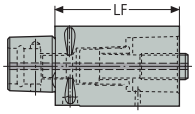
Torque value T00-07P09: 0,9 Nm.
Torque value H00-2020: 2 Nm.

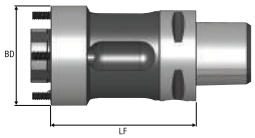
HF55

Seco-Capto™ shank for ∅ 59,5-84,499 mm

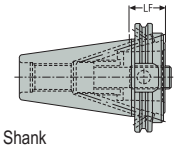


Extension





Reamer holder



Shank

Designation Reamer holders	Item number	LF min	LF max	Taper	BD	Weight
		mm	mm	mm	mm	kg
HF55-080-C5	02688647	–	80	C5	55	1,3
HF55...HSKA63	–	80	239	HSK-A63	55	0,0
HF55...HSKA80	–	100	239	HSK-A80	55	0,0
HF55...HSKA100	–	100	239	HSK-A100	55	0,0
HF55...DIN40ADB	–	80	239	DIN40ADB	55	0,0
HF55...DIN50ADB	–	80	304	DIN50ADB	55	0,0
HF55...BT40ADB	–	80	239	BT40ADB	55	0,0
HF55...BT50ADB	–	80	304	BT50ADB	55	0,0

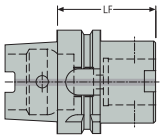
Shanks and extensions for HF55-080-C5 (see Seco Tooling Systems for more details).

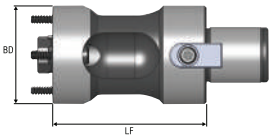
Designation Shank	Item number	LF	Taper	Seco-Capto size	Weight
		mm			kg
HA10-C4-040-090	10197963	90	HSK-A100	C4	2,5
HA06-C5-050-090	10197966	90	HSK-A63	C5	1,3
C5-390B.140-40040	02924112	40	DIN40	C5	0,9
C5-390B.140-40080	02924113	80	DIN40	C5	1,5
C5-390B.55-40050	02925967	50	BT40	C5	1,1
C5-390B.55-40090	02925968	90	BT40	C5	1,7
C5-390B.140-50030	02924114	30	DIN50	C5	2,6
C5-390B.140-50070	02924115	70	DIN50	C5	3,1
C5-390B.58-50040	02925969	40	BT50	C5	3,4
C5-390B.58-50080	02925970	80	BT50	C5	4,0

Designation Extension	Item number	LF	Taper	Seco-Capto size	Weight
		mm			kg
C5-391.01-50080A	75039886	–	C5	C5	1,1
C5-391.01-50100A	00004773	–	C5	C5	1,4
C6-391.02-50080A	75039894	–	C6	C5	1,5
C6-391.02-50110A	02207400	–	C6	C5	2,2
C8-391.02-50080B	03080011	–	C8	C5	2,4

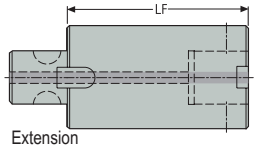
HF55

Graflex® shank for ∅ 59,5–84,499 mm

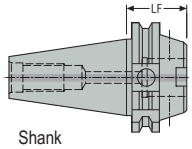




Reamer holder



Extension



Shank

Designation Reamer holders	Item number	LF min	LF max	Taper	BD	Weight
		mm	mm	mm	mm	kg
HF55-080-G5	02698871	–	80	G5	55	1,3
HF55...HSKA63	–	80	239	HSK-A63	55	0,0
HF55...HSKA80	–	100	239	HSK-A80	55	0,0
HF55...HSKA100	–	100	239	HSK-A100	55	0,0
HF55...DIN40ADB	–	80	239	DIN40ADB	55	0,0
HF55...DIN50ADB	–	80	304	DIN50ADB	55	0,0
HF55...BT40ADB	–	80	239	BT40ADB	55	0,0
HF55...BT50ADB	–	80	304	BT50ADB	55	0,0

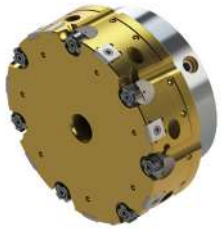
Shanks and extensions for HF55-080-G5 (see Seco Tooling Systems for more details).

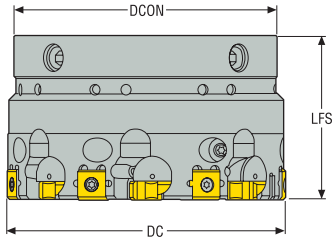
Designation Shank	Item number	LF	Taper	Graflex size	Weight
		mm			kg
EM93044012860	00086920	60	HSK-A63	G5	1,0
EM930440128100	00086921	100	HSK-A63	G5	1,6
EM930440128140	00086922	140	HSK-A63	G5	2,18
EM93064012865	00086927	65	HSK-A100	G5	2,4
EM930640128110	00086928	110	HSK-A100	G5	3,1
EM930640128150	00086929	150	HSK-A100	G5	3,7
EM34694012840	02458421	40	DIN40	G5	1,0
EM34694012880	02503301	80	DIN40	G5	1,5
EM346940128120	02503302	120	DIN40	G5	2,1
EM34144012845	02457989	45	BT40	G5	1,2
EM34144012880	02503371	80	BT40	G5	1,6
EM341440128120	02503372	120	BT40	G5	2,2
EM34714012840	02503312	40	DIN50	G5	2,75
EM341640128100	02503381	100	BT50	G5	4,3
EM34164012855	02503380	55	BT50	G5	4,0
EM341640128140	02503382	140	BT50	G5	4,9

Designation Extension	Item number	LF	Taper	Graflex size	Weight
		mm			kg
M402550	00056762	–	G5	G5	0,8
M402551	00056763	–	G5	G5	1,2
M402552	00056764	–	G5	G5	1,5

HF85

Heads for RNAX inserts, through bore ∅ 84,5–119,499 mm / *3.327–4.705"*





—For inserts, grades and geometries see page(s) 417–418
—For cutting data see page(s) 443–449

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF85-84.5/89.499-07-80	84,5 *3.327*	89,499 *3.524*	50,0 *1.969*	80,0 *3.150*	1,68 *3.700*	7	RNAX1005...
HF85-89.5/94.499-07-80	89,5 *3.524*	94,499 *3.720*	50,0 *1.969*	80,0 *3.150*	1,85 *4.080*	7	RNAX1005...
HF85-94.5/99.499-07-80	94,5 *3.720*	99,499 *3.917*	50,0 *1.969*	80,0 *3.150*	2,02 *4.450*	7	RNAX1005...
HF85-99.5/104.499-07-80	99,5 *3.917*	104,499 *4.114*	50,0 *1.969*	80,0 *3.150*	2,2 *4.850*	7	RNAX1005...
HF85-104.5/109.499-07-80	104,5 *4.114*	109,499 *4.311*	50,0 *1.969*	80,0 *3.150*	2,4 *5.290*	7	RNAX1005...
HF85-109.5/114.499-07-80	109,5 *4.311*	114,499 *4.508*	50,0 *1.969*	80,0 *3.150*	2,61 *5.750*	7	RNAX1005...
HF85-114.5/119.499-07-80	114,5 *4.508*	119,499 *4.705*	50,0 *1.969*	80,0 *3.150*	2,82 *6.220*	7	RNAX1005...

Spare Parts, included in delivery

For	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

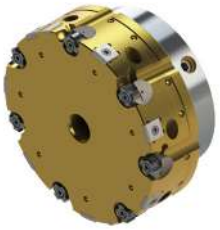
For	Torque key	Torx driver for insert/holder locking screw
HF85 07-80	H00-2020	T00-09P20

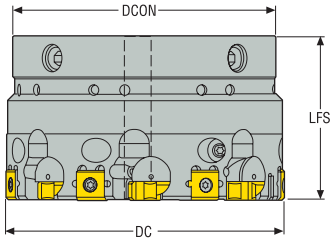
Note
Torque driver H00-2020 for clamp screws
Torque driver T00-09P20 for insert screws

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) 417-418
—For cutting data see page(s) 443-449

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF85B-84.5/89.499-07-80	84,5 *3.327*	89,499 *3.524*	50,0 *1.969*	80,0 *3.150*	1,68 *3.700*	7	RNAX1005...
HF85B-89.5/94.499-07-80	89,5 *3.524*	94,499 *3.720*	50,0 *1.969*	80,0 *3.150*	1,85 *4.080*	7	RNAX1005...
HF85B-94.5/99.499-07-80	94,5 *3.720*	99,499 *3.917*	50,0 *1.969*	80,0 *3.150*	2,02 *4.450*	7	RNAX1005...
HF85B-99.5/104.499-07-80	99,5 *3.917*	104,499 *4.114*	50,0 *1.969*	80,0 *3.150*	2,2 *4.850*	7	RNAX1005...
HF85B-104.5/109.499-07-80	104,5 *4.114*	109,499 *4.311*	50,0 *1.969*	80,0 *3.150*	2,4 *5.290*	7	RNAX1005...
HF85B-109.5/114.499-07-80	109,5 *4.311*	114,499 *4.508*	50,0 *1.969*	80,0 *3.150*	2,61 *5.750*	7	RNAX1005...
HF85B-114.5/119.499-07-80	114,5 *4.508*	119,499 *4.705*	50,0 *1.969*	80,0 *3.150*	2,82 *6.220*	7	RNAX1005...

Spare Parts, included in delivery

For	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

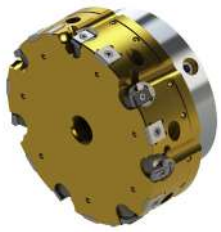
For	Torque key	Torx driver for insert/holder locking screw
HF85B 07-80	H00-2020	T00-09P20

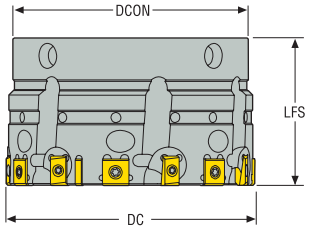
Note
Torque driver H00-2020 for clamp screws
Torque driver T00-09P20 for insert screws

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) 417–418
—For cutting data see page(s) 443–449

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF86-84.5/89.499-07-80	84,5 *3.327*	89,499 *3.524*	50,0 *1.969*	80,0 *3.150*	1,68 *3.700*	7	LNEG1003...
HF86-89.5/94.499-07-80	89,5 *3.524*	94,499 *3.720*	50,0 *1.969*	80,0 *3.150*	1,85 *4.080*	7	LNEG1003...
HF86-94.5/99.499-07-80	94,5 *3.720*	99,499 *3.917*	50,0 *1.969*	80,0 *3.150*	2,02 *4.450*	7	LNEG1003...
HF86-99.5/104.499-07-80	99,5 *3.917*	104,499 *4.114*	50,0 *1.969*	80,0 *3.150*	2,2 *4.850*	7	LNEG1003...
HF86-104.5/109.499-07-80	104,5 *4.114*	109,499 *4.311*	50,0 *1.969*	80,0 *3.150*	2,4 *5.290*	7	LNEG1003...
HF86-109.5/114.499-07-80	109,5 *4.311*	114,499 *4.508*	50,0 *1.969*	80,0 *3.150*	2,61 *5.750*	7	LNEG1003...
HF86-114.5/119.499-07-80	114,5 *4.508*	119,499 *4.705*	50,0 *1.969*	80,0 *3.150*	2,82 *6.220*	7	LNEG1003...

Spare Parts, included in delivery

For	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

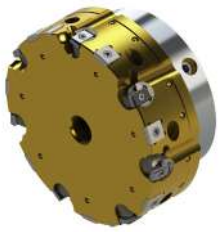
For	Torque key	Torx driver for insert/holder locking screw
HF86 07-80	H00-2020	T00-07P09

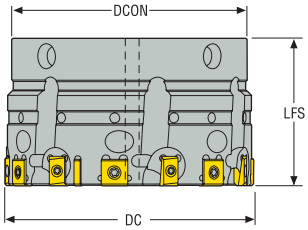
Note
Torque driver H00-2020 for clamp screws
Torque driver T00-07P09 for insert screws

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) 417–418
—For cutting data see page(s) 443–449

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF86B-84.5/89.499-07-80	84,5 *3.327*	89,499 *3.524*	50,0 *1.969*	80,0 *3.150*	1,68 *3.700*	7	LNEG1003...
HF86B-89.5/94.499-07-80	89,5 *3.524*	94,499 *3.720*	50,0 *1.969*	80,0 *3.150*	1,85 *4.080*	7	LNEG1003...
HF86B-94.5/99.499-07-80	94,5 *3.720*	99,499 *3.917*	50,0 *1.969*	80,0 *3.150*	2,02 *4.450*	7	LNEG1003...
HF86B-99.5/104.499-07-80	99,5 *3.917*	104,499 *4.114*	50,0 *1.969*	80,0 *3.150*	2,2 *4.850*	7	LNEG1003...
HF86B-104.5/109.499-07-80	104,5 *4.114*	109,499 *4.311*	50,0 *1.969*	80,0 *3.150*	2,4 *5.290*	7	LNEG1003...
HF86B-109.5/114.499-07-80	109,5 *4.311*	114,499 *4.508*	50,0 *1.969*	80,0 *3.150*	2,61 *5.750*	7	LNEG1003...
HF86B-114.5/119.499-07-80	114,5 *4.508*	119,499 *4.705*	50,0 *1.969*	80,0 *3.150*	2,82 *6.220*	7	LNEG1003...

Spare Parts, included in delivery

For	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

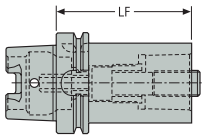
For	Torque key	Torx driver for insert/holder locking screw
HF86B	H00-2020	T00-07P09

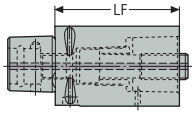
Note
Torque driver H00-2020 for clamp screws
Torque driver T00-07P09 for insert screws

Torque value T00-07P09: 0,9 Nm.
Torque value H00-2020: 2 Nm.

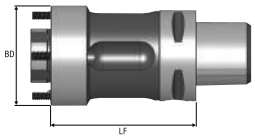
HF80

Seco-Capto™ shank for ∅ 84,5-119,499 mm

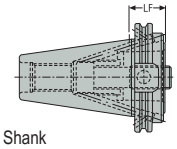




Extension



Reamer holder



Shank

Designation Reamer holders	Item number	LF min	LF max	Taper	BD	Weight
		mm	mm	mm	mm	kg
HF80-080-C6	02688648	–	80	C6	80	2,5
HF80...HSKA80	–	100	239	HSK-A80	80	0,0
HF80...HSKA100	–	100	239	HSK-A100	80	0,0
HF80...DIN50ADB	–	80	304	DIN50ADB	80	0,0
HF80...BT50ADB	–	80	304	BT50ADB	80	0,0

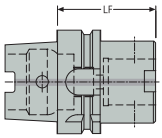
Shanks and extensions for HF80-080-C6 (see Seco Tooling Systems for more details).

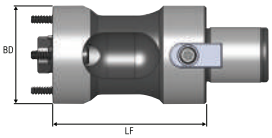
Designation Shank	Item number	LF	Taper	Seco-Capto size	Weight
		mm			kg
HA10-C6-063-110	10197967	110	HSK-A100	C6	3,6
C6-390B.140-40085	02924116	85	DIN40	C6	1,8
C6-390B.140-50030	02924117	30	DIN50	C6	2,4
C6-390B.140-50080	02924118	80	DIN50	C6	3,6
C6-390B.55-40075	02925971	75	BT40	C6	1,7
C6-390B.58-50100	02925973	100	BT50	C6	4,5
C6-390B.58-50050	02925972	50	BT50	C6	3,4

Designation Extension	Item number	LF	Taper	Seco-Capto size	Weight
		mm			kg
C6-391.01-63100A	75039887	–	C6	C6	2,2
C6-391.01-63140A	00004840	–	C6	C6	3,1
C6-391.01-63060	02300834	–	C6	C6	1,3

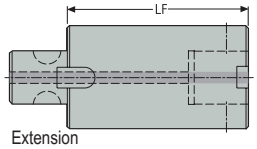
HF80

Graflex® shank for ∅ 84,5–119,499 mm

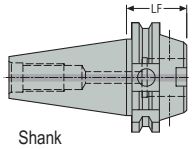




Reamer holder



Extension



Shank

Designation Reamer holders	Item number	LF min	LF max	Taper	BD	Weight
		mm	mm	mm	mm	kg
HF80-080-G6	02698873	–	80	G6	80	2,6
HF80...HSKA80	–	100	239	HSK-A80	80	0,0
HF80...HSKA100	–	100	239	HSK-A100	80	0,0
HF80...DIN50ADB	–	80	304	DIN50ADB	80	0,0
HF80...BT50ADB	–	80	304	BT50ADB	80	0,0
	–	–	–	–	–	–

Shanks and extensions for HF80-080-G6 (see Seco Tooling Systems for more details).

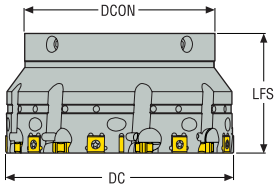
Designation Shank	Item number	LF	Taper	Graflex size	Weight
		mm			kg
EM93044013670	00086923	70	HSK-A63	G6	1,3
EM930440136120	00086924	120	HSK-A63	G6	2,38
EM930640136120	00086931	120	HSK-A100	G6	3,9
EM930640136160	00086932	160	HSK-A100	G6	4,8
EM34694013660	02503303	60	DIN40	G6	1,3
EM346940136120	02503304	120	DIN40	G6	2,7
EM34144013650	02503373	50	BT40	G6	1,2
EM341440136120	02503374	120	BT40	G6	2,8
EM34714013645	02503317	45	DIN50	G6	2,9
EM347140136100	02503318	100	DIN50	G6	4,1
EM347140136140	02503319	140	DIN50	G6	5,1
EM34164013663	02503383	63	BT50	G6	4,3
EM341640136100	02503384	100	BT50	G6	4,7
EM341640136140	02503385	140	BT50	G6	5,6

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	1,4
M402661	00056766	–	G6	G6	2,2
M402662	00056767	–	G6	G6	2,9

HF85

Heads for RNAX inserts, through bore ∅ 119,5–154,499 mm / *4.705–6.083"*



—For inserts, grades and geometries see page(s) 417–418
—For cutting data see page(s) 443–449

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF85-119.5/124.499-09-100	119,5 *4.705*	124,499 *4.902*	63,0 *2.480*	100,0 *3.937*	3,89 *8.580*	9	RNAX1005...
HF85-124.5/129.499-09-100	124,5 *4.902*	129,499 *5.098*	63,0 *2.480*	100,0 *3.937*	4,15 *9.150*	9	RNAX1005...
HF85-129.5/134.499-09-100	129,5 *5.098*	134,499 *5.295*	63,0 *2.480*	100,0 *3.937*	4,42 *9.740*	9	RNAX1005...
HF85-134.5/139.499-09-100	134,5 *5.295*	139,499 *5.492*	63,0 *2.480*	100,0 *3.937*	4,7 *10.360*	9	RNAX1005...
HF85-139.5/144.499-09-100	139,5 *5.492*	144,499 *5.689*	63,0 *2.480*	100,0 *3.937*	4,99 *11.000*	9	RNAX1005...
HF85-144.5/149.499-09-100	144,5 *5.689*	149,499 *5.886*	63,0 *2.480*	100,0 *3.937*	5,29 *11.660*	9	RNAX1005...
HF85-149.5/154.499-09-100	149,5 *5.886*	154,499 *6.083*	63,0 *2.480*	100,0 *3.937*	5,6 *12.350*	9	RNAX1005...

Spare Parts, included in delivery

For	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

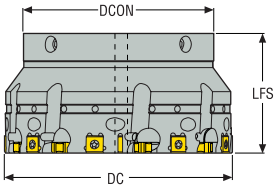
For	Torque key	Torx driver for insert/holder locking screw
HF85 09-100	H00-2020	T00-09P20

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) 417–418
—For cutting data see page(s) 443–449

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF85B-119.5/124.499-09-100	119,5 *4.705*	124,499 *4.902*	63,0 *2.480*	100,0 *3.937*	3,89 *8.580*	9	RNAX1005...
HF85B-124.5/129.499-09-100	124,5 *4.902*	129,499 *5.098*	63,0 *2.480*	100,0 *3.937*	4,15 *9.150*	9	RNAX1005...
HF85B-134.5/139.499-09-100	134,5 *5.295*	139,499 *5.492*	63,0 *2.480*	100,0 *3.937*	4,7 *10.360*	9	RNAX1005...
HF85B-139.5/144.499-09-100	139,5 *5.492*	144,499 *5.689*	63,0 *2.480*	100,0 *3.937*	4,99 *11.000*	9	RNAX1005...
HF85B-144.5/149.499-09-100	144,5 *5.689*	149,499 *5.886*	63,0 *2.480*	100,0 *3.937*	5,29 *11.660*	9	RNAX1005...
HF85B-149.5/154.499-09-100	149,5 *5.886*	154,499 *6.083*	63,0 *2.480*	100,0 *3.937*	5,6 *12.350*	9	RNAX1005...

Spare Parts, included in delivery

For	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

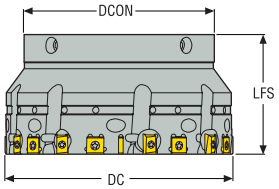
For	Torque key	Torx driver for insert/holder locking screw
HF85B 09-100	H00-2020	T00-09P20

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) 417–418
—For cutting data see page(s) 443–449

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF86-119.5/124.499-09-100	119,5 *4.705*	124,499 *4.902*	63,0 *2.480*	100,0 *3.937*	3,89 *8.580*	9	LNEG1003...
HF86-124.5/129.499-09-100	124,5 *4.902*	129,499 *5.098*	63,0 *2.480*	100,0 *3.937*	4,15 *9.150*	9	LNEG1003...
HF86-129.5/134.499-09-100	129,5 *5.098*	134,499 *5.295*	63,0 *2.480*	100,0 *3.937*	4,42 *9.740*	9	LNEG1003...
HF86-134.5/139.499-09-100	134,5 *5.295*	139,499 *5.492*	63,0 *2.480*	100,0 *3.937*	4,7 *10.360*	9	LNEG1003...
HF86-139.5/144.499-09-100	139,5 *5.492*	144,499 *5.689*	63,0 *2.480*	100,0 *3.937*	4,99 *11.000*	9	LNEG1003...
HF86-144.5/149.499-09-100	144,5 *5.689*	149,499 *5.886*	63,0 *2.480*	100,0 *3.937*	5,29 *11.660*	9	LNEG1003...
HF86-149.5/154.499-09-100	149,5 *5.886*	154,499 *6.083*	63,0 *2.480*	100,0 *3.937*	5,6 *12.350*	9	LNEG1003...

Spare Parts, included in delivery

For	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

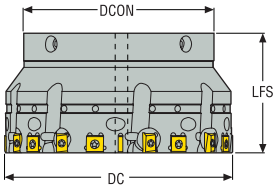
For	Torque key	Torx driver for insert/holder locking screw
HF86 09-100	H00-2020	T00-07P09

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) 417-418
—For cutting data see page(s) 443-449

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF86B-119.5/124.499-09-100	119,5 *4.705*	124,499 *4.902*	63,0 *2.480*	100,0 *3.937*	3,89 *8.580*	9	LNEG1003...
HF86B-124.5/129.499-09-100	124,5 *4.902*	129,499 *5.098*	63,0 *2.480*	100,0 *3.937*	4,15 *9.150*	9	LNEG1003...
HF86B-129.5/134.499-09-100	129,5 *5.098*	134,499 *5.295*	63,0 *2.480*	100,0 *3.937*	4,42 *9.740*	9	LNEG1003...
HF86B-134.5/139.499-09-100	134,5 *5.295*	139,499 *5.492*	63,0 *2.480*	100,0 *3.937*	4,7 *10.360*	9	LNEG1003...
HF86B-139.5/144.499-09-100	139,5 *5.492*	144,499 *5.689*	63,0 *2.480*	100,0 *3.937*	4,99 *11.000*	9	LNEG1003...
HF86B-144.5/149.499-09-100	144,5 *5.689*	149,499 *5.886*	63,0 *2.480*	100,0 *3.937*	5,29 *11.660*	9	LNEG1003...
HF86B-149.5/154.499-09-100	149,5 *5.886*	154,499 *6.083*	63,0 *2.480*	100,0 *3.937*	5,6 *12.350*	9	LNEG1003...

Spare Parts, included in delivery

For	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

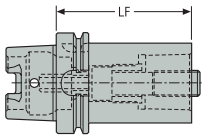
For	Torque key	Torx driver for insert/holder locking screw
HF86B 09-100	H00-2020	T00-07P09

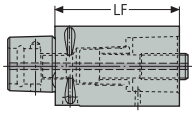
Note
Torque driver H00-2020 for clamp screws
Torque driver T00-07P09 for insert screws

Torque value T00-07P09: 0,9 Nm.
Torque value H00-2020: 2 Nm.

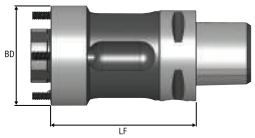
HF100

Seco-Capto™ shank for ∅ 119,5-154,499 mm

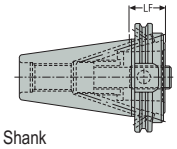




Extension



Reamer holder



Shank

Designation Reamer holders	Item number	LF min	LF max	Taper	BD	Weight
		mm	mm	mm	mm	kg
HF100-100-C8	02688649	–	100	C8	100	4,9
HF100...HSKA80	–	100	238	HSK-A80	100	0,0
HF100...HSKA100	–	100	238	HSK-A100	100	0,0
HF100...DIN50ADB	–	100	238	DIN50ADB	100	0,0
HF100...BT50ADB	–	100	238	BT50ADB	100	0,0

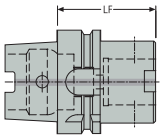
Shanks and extensions for HF100-100-C8 (see Seco Tooling Systems for more details).

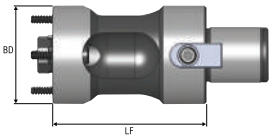
Designation Shank	Item number	LF	Taper	Seco-Capto size	Weight
		mm			kg
HA10-C8-080-120	10197968	120	HSK-A100	C8	4,8
C8-390B.140-50070	02924119	70	DIN50	C8	3,7
C8-390B.140-50120	02924120	120	DIN50	C8	5,5
C8-390B.58-50070	02925974	70	BT50	C8	4,0
C8-390B.58-50120	02925975	120	BT50	C8	5,9

Designation Extension	Item number	LF	Taper	Seco-Capto size	Weight
		mm			kg
C8-391.01-80100A	75039888	–	C8	C8	3,7
C8-391.01-80125A	00004841	–	C8	C8	4,7

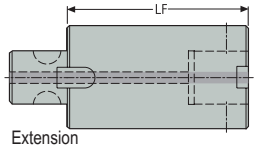
HF100

Graflex® shank for ∅ 119,5–154,499 mm

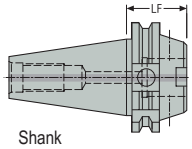




Reamer holder



Extension



Shank

Designation Reamer holders	Item number	LF min	LF max	Taper	BD	Weight
		mm	mm	mm	mm	kg
HF100-100-G7	02698874	–	100	G7	100	5,2
HF100...HSKA80	–	100	238	HSK-A80	100	0,0
HF100...HSKA100	–	100	238	HSK-A100	100	0,0
HF100...DIN50ADB	–	100	238	DIN50ADB	100	0,0
HF100...BT50ADB	–	100	238	BT50ADB	100	0,0

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
EM93064014685	00074385	85	HSK-A100	G7	4,0
EM930640146160	00086933	160	HSK-A100	G7	7,67
EM34714014650	02503320	50	DIN50	G7	3,3
EM347140146120	02503321	120	DIN50	G7	6,5
EM347140146200	02503324	200	DIN50	G7	10,4
EM34164014665	02503386	65	BT50	G7	4,4
EM341640146120	02503387	120	BT50	G7	6,9
EM341640146200	02503388	200	BT50	G7	10,7

Designation Extension	Item number	LF	Taper	Graflex size	Weight
		mm			kg
M402770	00056768	–	G7	G7	2,9
M402771	00056769	–	G7	G7	4,4
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 = *inch*. f = in/rev. v_c= sf/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*

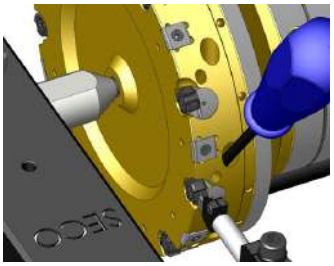
SMG		a_p (∅)	f				v_c	
			z=3	z=5	z=6	z=9	RX2000	RX1500
K1	*RNAX1005-EB1570*	*0.008–0.020*	*0.006–0.018*	*0.010–0.030*	*0.010–0.041*	*0.018–0.053*	*330 (195-655)*	*720 (490- 985)*
K2	*RNAX1005-EB1570*	*0.008–0.020*	*0.006–0.018*	*0.010–0.030*	*0.010–0.041*	*0.018–0.053*	*165 (115-260)*	*230 (165- 395)*
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

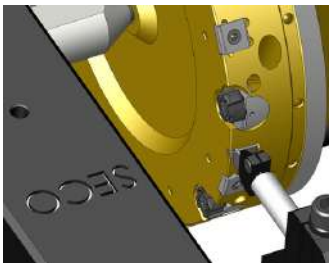
1.

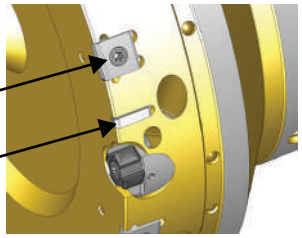
- Loosen cartridge clamping screw.
- Index or replace insert.
- Unclamp adjusting screw by 1/4 of a turn and push cartridge back.
- Gently re-clamp cartridge clamping screw 0,5 Nm approx *(4.4 in/lbs)*.

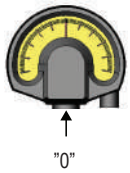


2.

- Set clock to “zero” on reference pad.
- Make sure measuring point is positioned after the lead angle.

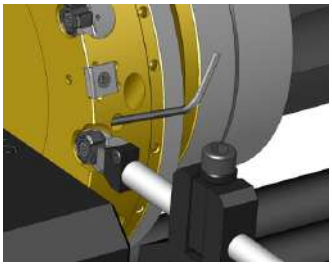


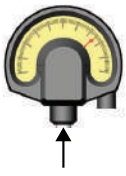




3.

- 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.

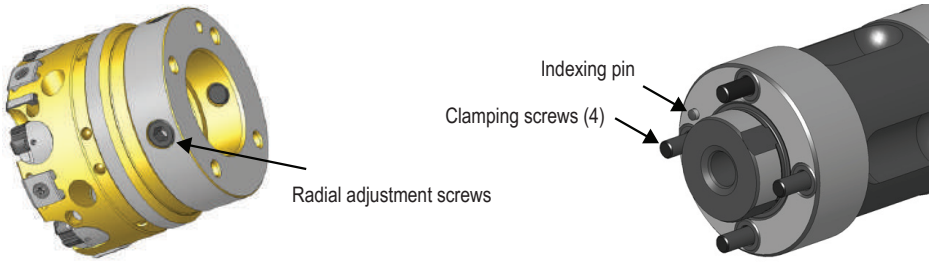
Adjusting instructions, adapter

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)

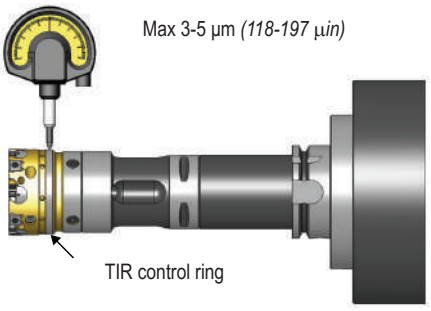


2.

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

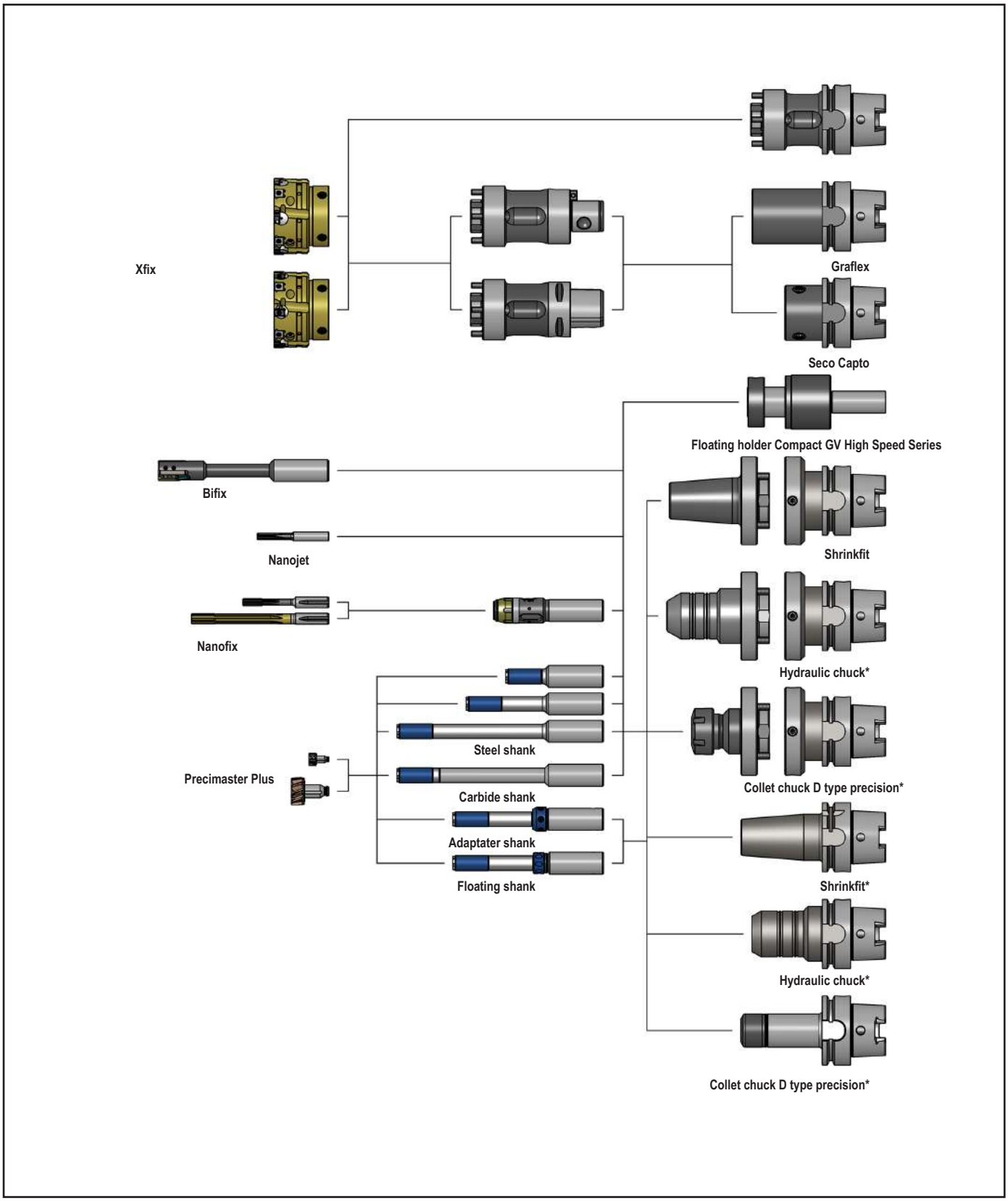
Possibilities for multi-clock set up, refer to setting fixture chapter page 472-477 for more details	

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.

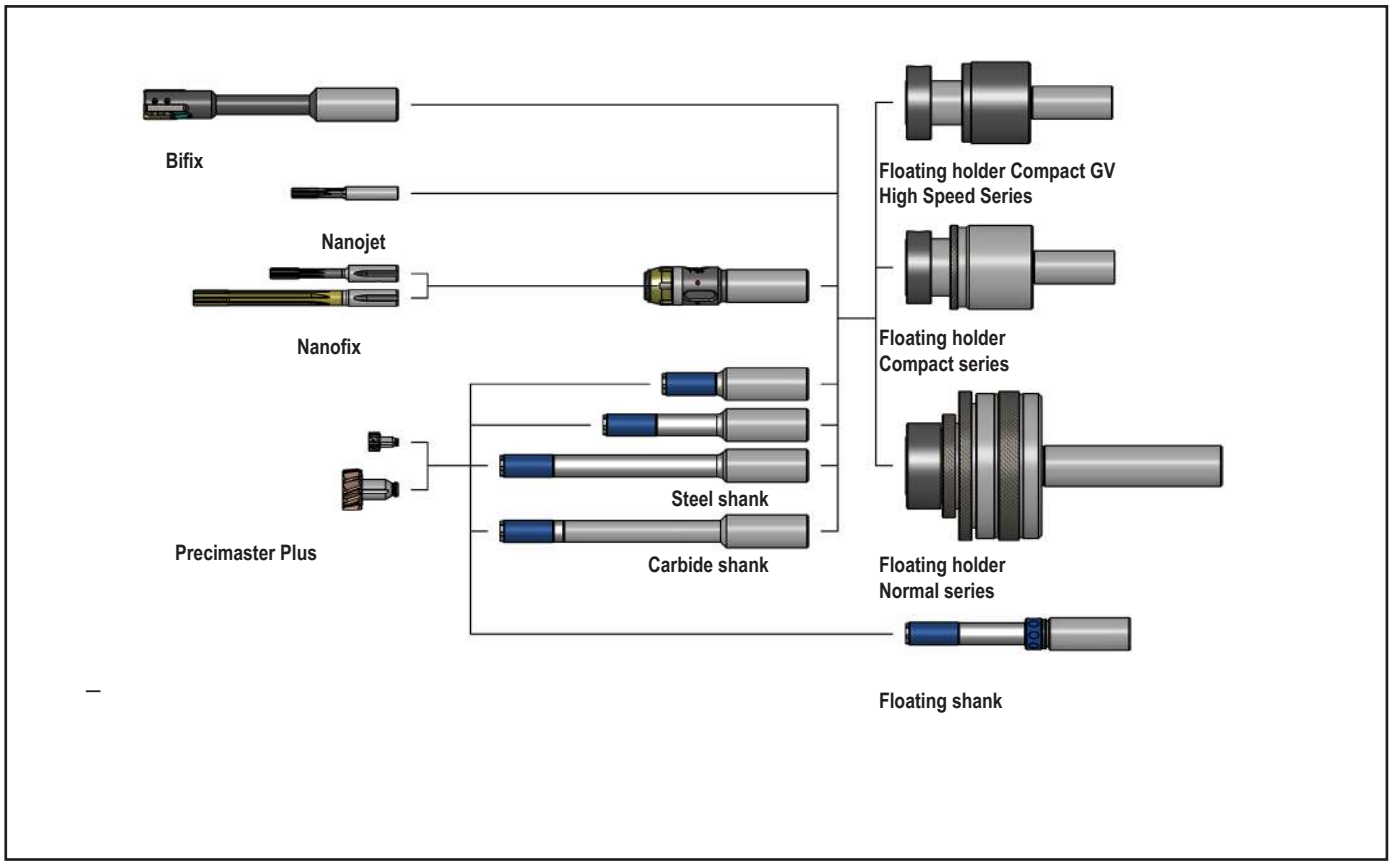
Rotating applications



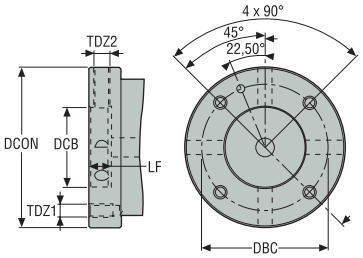
*See catalog TOOLING SYSTEMS

Best performance achieved with rigid mounting (Hydraulic chuck, D type or Shrinkfit)

Static applications



Flange dimension

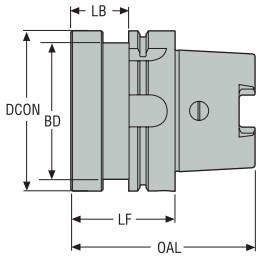


DCON	DBC +/- 0,1	DCB F8	LF	TDZ1	TDZ2
60	44	30	12	M5	M8x1
70	53	35	12	M6	M8x1
80	63	40	12	M6	M8x1
100	79	50	14	M8	M10x1
117	96	60	14	M8	M10x1
140	119	80	14	M10	M10x1

Spare Parts, included in delivery

For	Adjusting screw	Clamp screw
60	HCM8X12X1/ISO4028	CHCM5X20/ISO4762
70	HCM8X16X1/ISO4028	CHCM6X20/ISO4762
100	HCM10X20X1/ISO4028	CHCM8X25/ISO4762

Back end HSK-A



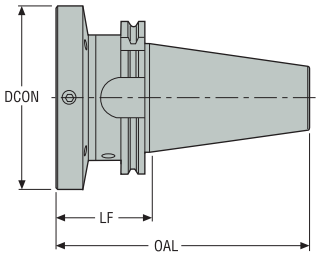
—Note: Coolant tube and screws included in delivery

Designation	Item number	Taper	DCON	BD	LB	LF	OAL	Weight
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*
SAH-23405100001	02836663	HSK-A 100	60,0 *2.362*	60,0 *2.362*	26,0 *1.024*	55,0 *2.165*	105,0 *4.134*	2,5 *5.510*
SAH-2340550001	02836566	HSK-A 50	60,0 *2.362*	42,0 *1.654*	34,0 *1.339*	60,0 *2.362*	85,0 *3.346*	0,95 *2.090*
SAH-2340580001	02836655	HSK-A 80	60,0 *2.362*	60,0 *2.362*	24,0 *0.945*	50,0 *1.969*	90,0 *3.543*	1,4 *3.090*
SAH-2340563001	02836574	HSK-A 63	60,0 *2.362*	53,0 *2.087*	34,0 *1.339*	60,0 *2.362*	92,0 *3.622*	1,2 *2.650*
SAH-23405100007	02836664	HSK-A 100	70,0 *2.756*	70,0 *2.756*	26,0 *1.024*	55,0 *2.165*	105,0 *4.134*	2,7 *5.950*
SAH-2340563003	02836575	HSK-A 63	70,0 *2.756*	53,0 *2.087*	34,0 *1.339*	60,0 *2.362*	92,0 *3.622*	1,3 *2.870*
SAH-2340580003	02836657	HSK-A 80	70,0 *2.756*	67,0 *2.638*	34,0 *1.339*	60,0 *2.362*	100,0 *3.937*	1,5 *3.310*
SAH-23405100002	02836665	HSK-A 100	80,0 *3.150*	80,0 *3.150*	26,0 *1.024*	55,0 *2.165*	105,0 *4.134*	2,9 *6.390*
SAH-2340563002	02836576	HSK-A 63	80,0 *3.150*	53,0 *2.087*	34,0 *1.339*	60,0 *2.362*	92,0 *3.622*	1,4 *3.090*
SAH-2340580002	02836658	HSK-A 80	80,0 *3.150*	67,0 *2.638*	34,0 *1.339*	60,0 *2.362*	100,0 *3.937*	1,6 *3.530*
SAH-2340563004	02836577	HSK-A 63	100,0 *3.937*	53,0 *2.087*	39,0 *1.535*	65,0 *2.559*	97,0 *3.819*	1,95 *4.300*
SAH-23405100003	02836666	HSK-A 100	100,0 *3.937*	85,0 *3.346*	36,0 *1.417*	65,0 *2.559*	115,0 *4.528*	3,5 *7.720*
SAH-2340580004	02836660	HSK-A 80	100,0 *3.937*	67,0 *2.638*	39,0 *1.535*	65,0 *2.559*	105,0 *4.134*	2,2 *4.850*

Spare Parts, included in delivery

For DCON	Adjusting screw	Clamp screw
60	HCM8X12X1/ISO4028	CHCM5X20/ISO4762
70	HCM8X16X1/ISO4028	CHCM6X20/ISO4762
80	HCM8X16X1/ISO4028	CHCM6X25/ISO4762
100	HCM10X20X1/ISO4028	CHCM8X25/ISO4762

Back end DIN 69871



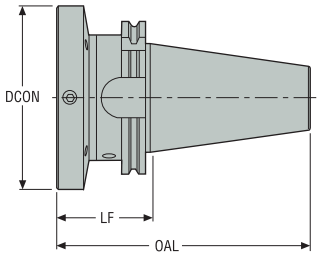
—Note: Screws included in delivery

Designation	Item number	Taper	DCON	LF	OAL	Weight
			mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*
SAH-2340640201	02836683	DIN40 ADB	60,0 *2.362*	50,0 *1.969*	118,4 *4.661*	1,3 *2.870*
SAH-2340650201	02836687	DIN50 ADB	60,0 *2.362*	50,0 *1.969*	151,8 *5.976*	3,1 *6.830*
SAH-2340650202	02836690	DIN50 ADB	80,0 *3.150*	50,0 *1.969*	151,8 *5.976*	3,5 *7.720*
SAH-2340640202	02836685	DIN40 ADB	80,0 *3.150*	55,0 *2.165*	123,4 *4.858*	1,7 *3.750*
SAH-2340640203	02836686	DIN40 ADB	100,0 *3.937*	60,0 *2.362*	128,4 *5.055*	2,3 *5.070*
SAH-2340650203	02836691	DIN50 ADB	100,0 *3.937*	60,0 *2.362*	161,8 *6.370*	4,3 *9.480*

Spare Parts, included in delivery

For DCON	Adjusting screw	Clamp screw
60	HCM8X12X1/ISO4028	CHCM5X20/ISO4762
80	HCM8X16X1/ISO4028	CHCM6X25/ISO4762
100	HCM10X20X1/ISO4028	CHCM8X25/ISO4762

Back end ANSI CAT



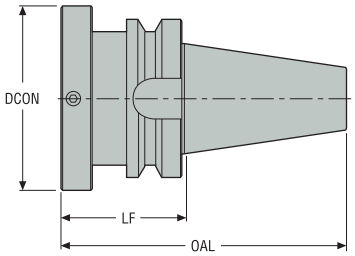
—Note: Screws included in delivery
—Pull-stud thread imperial

Designation	Item number	Taper	DCON	LF	OAL	Weight
			mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*
SAH-2784940201	02836698	CAT 40	60,0 *2.362*	50,0 *1.969*	118,4 *4.661*	1,1 *2.430*
SAH-2784950201	02836707	CAT 50	60,0 *2.362*	50,0 *1.969*	151,8 *5.976*	3,1 *6.830*
SAH-2784940202	02836702	CAT 40	80,0 *3.150*	60,0 *2.362*	128,4 *5.055*	1,8 *3.970*
SAH-2784950202	02836709	CAT 50	80,0 *3.150*	60,0 *2.362*	161,8 *6.370*	3,4 *7.500*
SAH-2784940203	02836704	CAT 40	100,0 *3.937*	60,0 *2.362*	128,4 *5.055*	2,3 *5.070*
SAH-2784950203	02836710	CAT 50	100,0 *3.937*	80,0 *3.150*	181,8 *7.157*	5,5 *12.130*

Spare Parts, included in delivery

For DCON	Adjusting screw	Clamp screw
60	HCM8X12X1/ISO4028	CHCM5X20/ISO4762
80	HCM8X16X1/ISO4028	CHCM6X25/ISO4762
100	HCM10X20X1/ISO4028	CHCM8X25/ISO4762

Back end BT



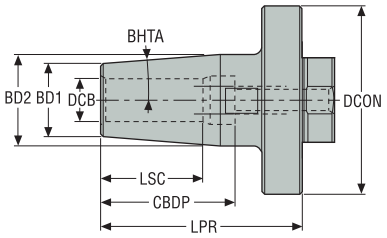
—Note: Screws included in delivery

Designation	Item number	Taper	DCON	LF	OAL	Weight
			mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*
SAH-2340740001	02836717	BT40 ADB	60,0 *2.362*	55,0 *2.165*	120,4 *4.740*	1,4 *3.090*
SAH-2340750001	02836724	BT50 ADB	60,0 *2.362*	70,0 *2.756*	171,8 *6.764*	4,2 *9.260*
SAH-2340740004	02836718	BT40 ADB	70,0 *2.756*	55,0 *2.165*	120,4 *4.740*	1,5 *3.310*
SAH-2340750002	02836725	BT50 ADB	70,0 *2.756*	70,0 *2.756*	171,8 *6.764*	4,4 *9.700*
SAH-2340740002	02836719	BT40 ADB	80,0 *3.150*	65,0 *2.559*	130,4 *5.134*	2,0 *4.410*
SAH-2340750003	02836726	BT50 ADB	80,0 *3.150*	70,0 *2.756*	171,8 *6.764*	4,6 *10.140*
SAH-2340740003	02836721	BT40 ADB	100,0 *3.937*	60,0 *2.362*	125,4 *4.937*	2,7 *5.950*
SAH-2340750004	02836727	BT50 ADB	100,0 *3.937*	70,0 *2.756*	171,8 *6.764*	5,1 *11.240*

Spare Parts, included in delivery

For DCON	Adjusting screw	Clamp screw
60	HCM8X12X1/ISO4028	CHCM5X20/ISO4762
70	HCM8X16X1/ISO4028	CHCM6X20/ISO4762
80	HCM8X16X1/ISO4028	CHCM6X25/ISO4762
100	HCM10X20X1/ISO4028	CHCM8X25/ISO4762

Front end Shrinkfit



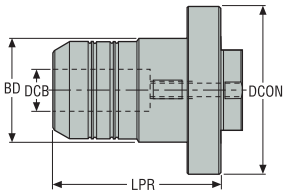
—Note: Adjusting screws included in delivery

Designation	Item number	DCON	BD2	BD1	DCB	LSC	CBDP	LPR	Weight	BHTA°
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
SAH-2341008236	10280202	60,0 *2.362*	27,0 *1.063*	21,0 *0.827*	8,0 *0.315*	26,0 *1.024*	36,0 *1.417*	70,0 *2.756*	0,5 *1.100*	4.5
SAH-2341012238	02836737	60,0 *2.362*	32,0 *1.260*	24,0 *0.945*	12,0 *0.472*	34,0 *1.339*	47,5 *1.870*	70,0 *2.756*	0,52 *1.150*	4.5
SAH-2341016241	02836741	70,0 *2.756*	34,0 *1.339*	27,0 *1.063*	16,0 *0.630*	39,0 *1.535*	50,5 *1.988*	75,0 *2.953*	0,7 *1.540*	4.5
SAH-2341020251	02836742	80,0 *3.150*	42,0 *1.654*	33,0 *1.299*	20,0 *0.787*	41,0 *1.614*	52,5 *2.067*	80,0 *3.150*	1,0 *2.200*	4.5
SAH-2341025260	02836743	100,0 *3.937*	53,0 *2.087*	44,0 *1.732*	25,0 *0.984*	47,0 *1.850*	58,5 *2.303*	80,0 *3.150*	2,2 *4.850*	4.5
SAH-2341032261	02836744	100,0 *3.937*	53,0 *2.087*	44,0 *1.732*	32,0 *1.260*	51,0 *2.008*	62,5 *2.461*	80,0 *3.150*	2,5 *5.510*	4.5

Spare Parts, included in delivery

For DCON	Adjusting screw
60	HCM6X12/ISO4028
70/80	HCM6X16/ISO4028
100	HCM8X12X1/ISO4028

Front end hydraulic chuck



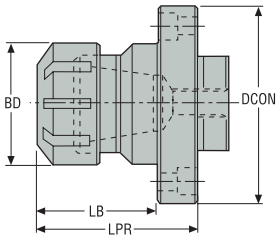
—Note: Adjusting screws included in delivery

Designation	Item number	DCON	BD	DCB	LPR	Weight
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*
SAH-2341106240	10280197	60,0 *2.362*	26,0 *1.024*	6,0 *0.236*	50,0 *1.969*	0,8 *1.760*
SAH-2341116253	02836749	70,0 *2.756*	38,0 *1.496*	16,0 *0.630*	50,0 *1.969*	0,75 *1.650*
SAH-2341104267	10280198	80,0 *3.150*	22,5 *0.886*	4,0 *0.157*	66,0 *2.598*	0,9 *1.980*
SAH-2341106268	10280199	80,0 *3.150*	26,5 *1.043*	6,0 *0.236*	64,5 *2.539*	0,9 *1.980*
SAH-2341108269	10280200	80,0 *3.150*	28,0 *1.102*	8,0 *0.315*	77,5 *3.051*	1,1 *2.430*
SAH-2341110242	10280201	80,0 *3.150*	30,0 *1.181*	10,0 *0.394*	77,5 *3.051*	1,1 *2.430*
SAH-2341112255	02836752	80,0 *3.150*	32,0 *1.260*	12,0 *0.472*	77,5 *3.051*	1,1 *2.430*
SAH-2341116256	02836754	80,0 *3.150*	38,0 *1.496*	16,0 *0.630*	82,5 *3.248*	1,2 *2.650*
SAH-2341120257	02836755	80,0 *3.150*	42,0 *1.654*	20,0 *0.787*	82,5 *3.248*	1,3 *2.870*
SAH-2341125258	02836756	80,0 *3.150*	50,0 *1.969*	25,0 *0.984*	90,0 *3.543*	1,7 *3.750*
SAH-2341112259	02836757	100,0 *3.937*	32,0 *1.260*	12,0 *0.472*	90,0 *3.543*	1,9 *4.190*
SAH-2341125260	02836758	100,0 *3.937*	50,0 *1.969*	25,0 *0.984*	100,0 *3.937*	2,8 *6.170*
SAH-2341132261	02836759	100,0 *3.937*	60,0 *2.362*	32,0 *1.260*	103,0 *4.055*	2,9 *6.390*

Spare Parts, included in delivery

For DCON	Adjusting screw
60	HCM6X12/ISO4028
70/80	HCM6X16/ISO4028
100	HCM8X12X1/ISO4028

Front end ER collet chuck



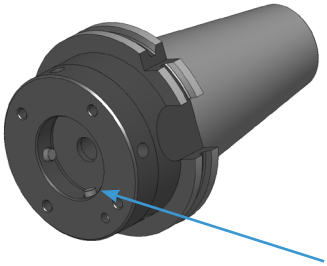
—Note: Adjusting screws included in delivery

Designation	Item number	Size	DCON	BD	LB	LPR	Weight
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*
SAH-23412ER25254	02836762	ER25	80,0 *3.150*	42,0 *1.654*	45,0 *1.772*	60,0 *2.362*	1,0 *2.200*
SAH-23412ER32255	02836763	ER32	80,0 *3.150*	50,0 *1.969*	45,0 *1.772*	60,0 *2.362*	1,2 *2.650*
SAH-23412ER40256	02836764	ER40	100,0 *3.937*	63,0 *2.480*	50,0 *1.969*	70,0 *2.756*	1,6 *3.530*

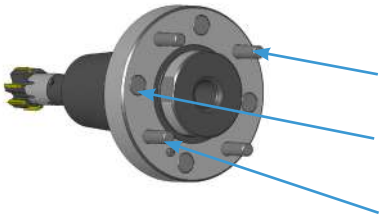
Spare Parts, included in delivery

For DCON	Adjusting screw
80	HCM6X16/ISO4028
100	HCM8X12X1/ISO4028

Assembly instructions



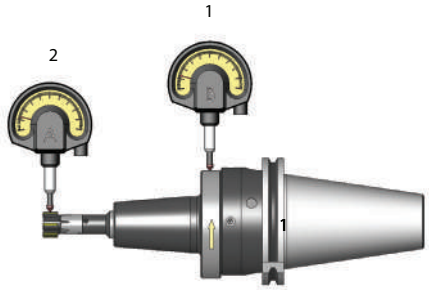
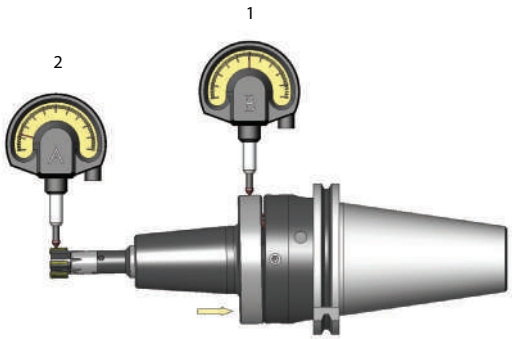
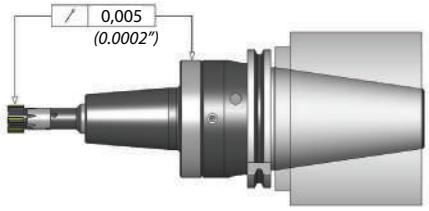
– Clean contact surface
– Make sure radial adjusting screws are not interfering with the assembly



– 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

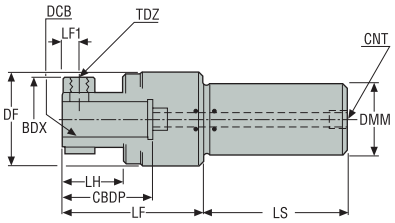
Compact GV high speed series – First choice for rotating tools – No adjustment required (factory preset) – Rotation up to 3000 RPM depending on application – Suitable for static applications	
Compact series – First choice for stationary tools – Radial adjustment only – Suitable for rotating applications – 800 RPM max	
Normal series – When both angular and radial correction is required – 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

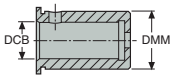
Users manual included in delivery.

Compact GV high speed series

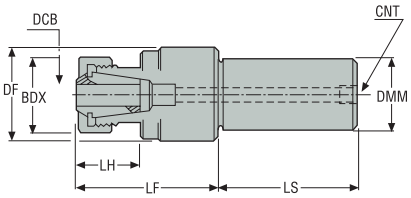


Designation	Item number	DCB	DMM	LF	LS	DF	BDX	LH	CBDP	CNT	LF1	TDZ	ADJRG	Weight
		mm	mm	mm	mm	mm	mm	mm	mm		mm		mm	kg
SFH-GV11019JJ	00088959	10,0	19,05	47,5	40,0	33,0	30,0	11,5	25,0	1/8	5,5	M6	0,2	0,7
SFH-GV11020JJ	00088945	10,0	20,0	47,5	40,0	33,0	30,0	11,5	25,0	1/8	5,5	M6	0,2	0,8
SFH-GV21619JJ	00076815	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
SFH-GV21620JJ	00072133	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
SFH-GV22019JJ	00076827	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
SFH-GV22020JJ	00072134	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
SFH-GV32525JJ	00076828	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
SFH-GV32525MJJ	00072135	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
SFH-GV325425JJ	00088960	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
SFH-GV43232JJ	02602671	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

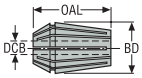
Designation	Reduction ring	
		
	DCB	DMM
SRR-BR11016	10	16
SRR-BR11216	12	16
SRR-BR11220	12	20
SRR-BR21620	16	20
SRR-BR31625	16	25
SRR-BR32025	20	25
SRR-GV42532	25	32

Compact GV high speed series with collet chuck



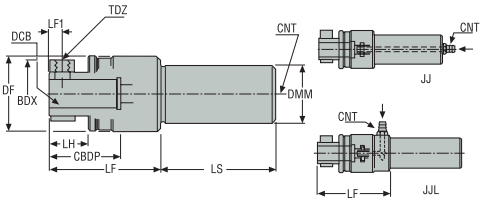
Designation	Item number	CZC	DMM	LF	LS	DF	BDX	LH	CNT	ADJRG	Weight
			mm	mm	mm	mm	mm	mm		mm	kg
SFH-GV3BC25MJJ	00088946	ER32	25,0	80,0	60,0	62,0	50,0	35,0	1/4	0,3	1,3
SFH-GV3BC25JJ	00088961	ER32	25,4	80,0	60,0	62,0	50,0	35,0	1/4	0,3	1,3
SFH-GV4BC31JJ	00088962	ER40	31,75	94,0	80,0	72,0	63,0	39,0	3/8	0,3	0,7
SFH-GV4BC32JJ	00088947	ER40	32,0	94,0	80,0	72,0	63,0	39,0	3/8	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	–	–

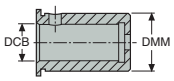
*Collet and wrenches are not delivered with chucks.

Compact series



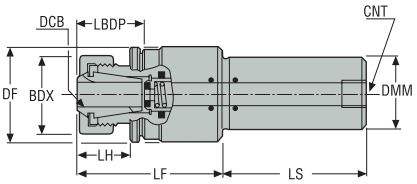
Designation	Item number	DCB	DMM	LF	LS	DF	BDX	LH	CBDP	CNT	LF1	TDZ	ADJRG	Weight
		mm	mm	mm	mm	mm	mm	mm	mm		mm		mm	kg
SFH-C01019JJ	00088963	10,0	19,05	44,5	40,0	38,5	30,0	11,0	25,0	1/8	6,0	M6	1,0	0,575
SFH-C01020JJ	00088948	10,0	20,0	44,5	40,0	38,5	30,0	11,0	25,0	1/8	6,0	M6	1,0	0,59
SFH-C21620CJJ	00072142	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
SFH-C21619CJJ	00076829	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
SFH-C22019JJL	00088966	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
SFH-C22019CJJ	00076830	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
SFH-C22020CJJ	00072145	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
SFH-C22020JJL	00088951	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
SFH-C32525JJ	00076846	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
SFH-C32525JJL	00088967	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
SFH-C32525MJJ	00072149	25,0	25,0	90,0	110,0	59,5	50,0	31,0	60,0	3/8	11,0	M8	1,5	1,6

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

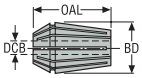
Hose adapter is not included in delivery.

Compact series with collet chuck



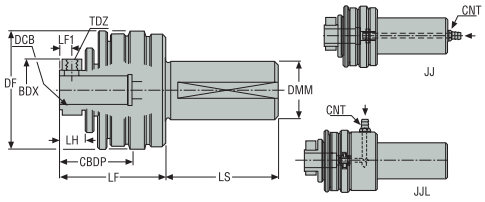
Designation	Item number	CZC	DMM	LF	LS	DF	BDX	CBDP	LH	CNT	ADJRG	Weight
			mm	mm	mm	mm	mm	mm	mm		mm	kg
SFH-C65BC25MCJJ	00088953	ER32	25,0	94,0	50,0	64,5	50,0	42,0	33,0	3/8	1,5	1,7
SFH-C65BC25CJJ	00088968	ER32	25,4	94,0	50,0	64,5	50,0	42,0	33,0	3/8	1,5	1,7

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	–	–

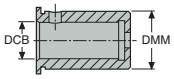
*Collets and wrenches are not delivered with chucks.

Normal series



Designation	Item number	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
SFH-11619JJ	00088969	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
SFH-11619JJL	00088970	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
SFH-11620JJ	00088954	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
SFH-11620JJL	00088955	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
SFH-22025JJ	00088971	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
SFH-22025JJL	00088972	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
SFH-22025MJJ	00088956	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
SFH-32525JJ	00088973	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
SFH-32525MJJ	00088958	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

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. 02208620

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")*	

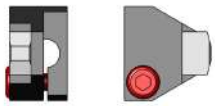
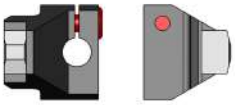
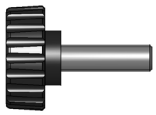
For ordering information, contact your local Seco Tools representative.

Additional measuring arms

	SFB-60: Ordering and Part No. 02208619 – Measuring arm 60° – Dial gauge included in delivery – Measuring point not included, see page 476
	SFB-60 WC: Ordering and Part No. 02885754 – Measuring arm 60° – Dial gauge not included in delivery – Measuring point not included, see page 476
	SFB-90: Ordering and Part No. 02208622 – Measuring arm 90° – Dial gauge included in delivery – Measuring point not included, see page 476
	SFB-90 WC: Ordering and Part No. 02885755 – Measuring arm 90° – Dial gauge not included in delivery – Measuring point not included, see page 476
	DG-1: Ordering and Part No. 75079579 – Dial gauge, 1 µm *(39 µin)*

Examples of multi clocks setting fixture assembly

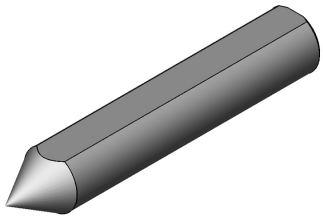
Accessories

	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

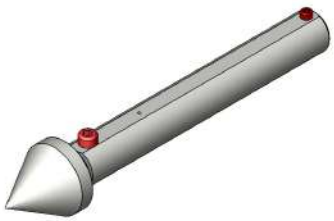
SFC-2000HM: Ordering and Part No. 02884023

– 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



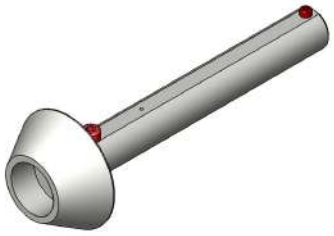
SSC-3400: Ordering and Part No. 02208617

– 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

RB750 boring heads, rough boring

Twin cutting heads, with insert holders coupling mechanism

Page(s) 484-490

- 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

RB610 boring heads, rough boring

Twin cutting heads, short lengths

Page(s) 496-499

- 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

FB760 boring heads, Axiabore™ type, fine boring

Fine boring heads, with axial tools

Page(s) 505-523

- 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
- Digital version also available, for easy and quick diameter setting

Ø range 0,3 to 108 mm
(0.012 to 4.252")

+ OD-overturning and face grooving

IT 5/6

Graflex® and Seco-Capto™

Graflex® and Seco-Capto™ arbors, extensions and reducers to build boring bars

Page(s) 585-636

- 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 intermediates.
- 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).

Overview

FB780, FB790, FB620 boring heads, radial type

Fine boring heads, with radial insert holder

- Micrometer adjustment for hole precision up to IT 5
- 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 and IT 6

Page(s) 542-550

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) 552-569

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) 571-583

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 (HSK, DIN, BT, ANSI-CAT, Seco-Capto™) and intermediates
- Graflex® connections spare parts for boring heads are shown in that chapter

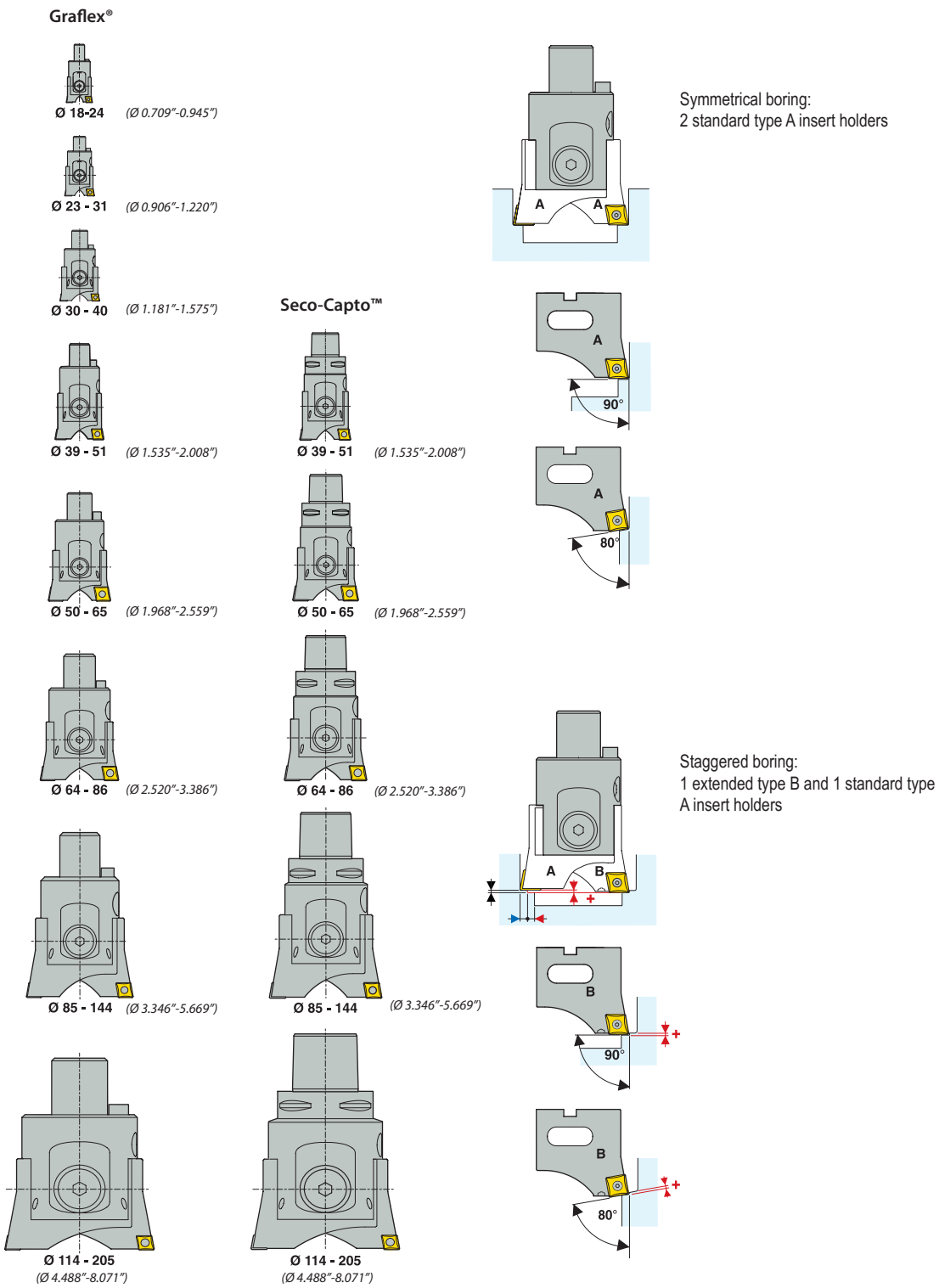
Page(s) 584-586

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

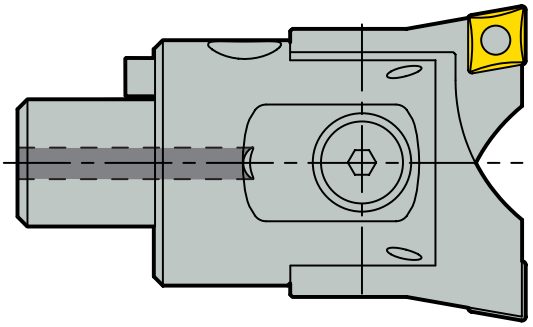
Overview Rough boring heads



Features

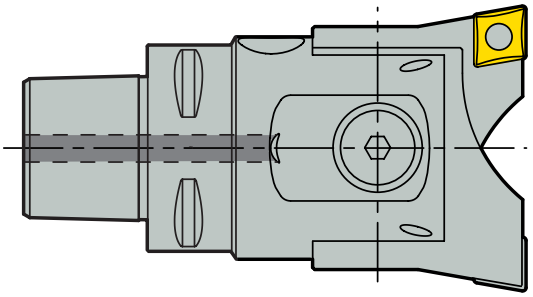
Graflex® rough boring heads

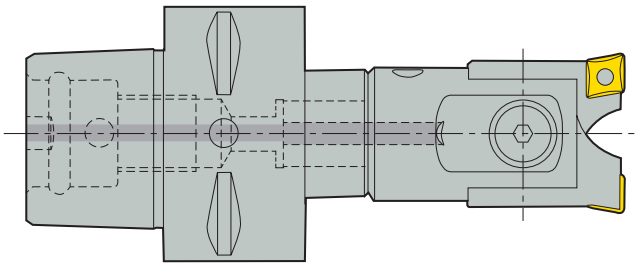
– Ø 18 to 205 mm *(0.709-8.071")*
– 8 rough boring heads RB 750 with Graflex® connection for bores Ø 18 to 205 mm *(0.709-8.071")*



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.
– **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.



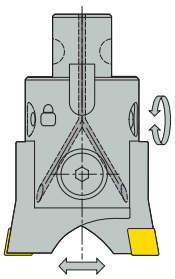


Features

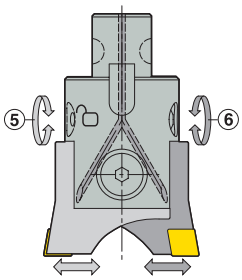
A rough boring head assembly is a combination of 1 body (head) and 2 insert holders.

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.

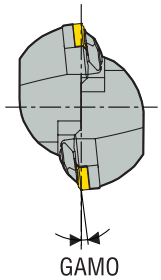
CC, CP, SC or CN type insert holders

A750...CC..., A750...CP... and A750...SC... insert holders are with 0° rake angle (GAMO) and 0° inclination angle (LAMS).

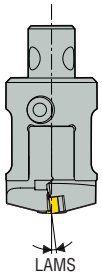
A750...CN... insert holders are with -6° rake angle (GAMO) and -6° inclination angle (LAMS), allowing use of 'negative' CNMM inserts and particularly multi-edges CNMG inserts with 4 cutting edges.

In this case, it is particularly important to select the recommended CN inserts and to respect the recommended cutting data (see page 575).

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.



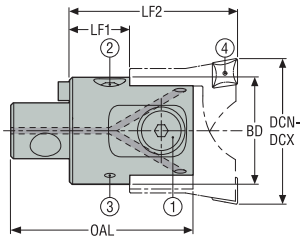
GAMO



LAMS

RB750

Graflex®

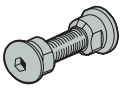


1. Assembly screw
2. Adjusting screw
3. Locking screw of coupling mechanism
4. Insert screw

—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 *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	Yes	No	Yes	No	
A75000	00026687	G0	18,0 *0.709*	24,0 *0.945*	38,0 *1.496*	12,5 *0.492*	35,0 *1.378*	16,5 *0.650*	0,1 *0.220*		■	■		15000
A75010	00026688	G1	23,0 *0.906*	31,0 *1.220*	42,5 *1.673*	13,5 *0.531*	40,0 *1.575*	21,5 *0.846*	0,1 *0.220*	■		■		12000
A75020	00026689	G2	30,0 *1.181*	40,0 *1.575*	51,0 *2.008*	16,0 *0.630*	46,0 *1.811*	27,0 *1.063*	0,2 *0.440*	■		■		9500
A75030	00026690	G3	39,0 *1.535*	51,0 *2.008*	69,0 *2.717*	24,0 *0.945*	65,0 *2.559*	35,0 *1.378*	0,3 *0.660*	■		■		7500
A75040	00026691	G4	50,0 *1.969*	65,0 *2.559*	78,0 *3.071*	27,0 *1.063*	72,0 *2.835*	43,0 *1.693*	0,5 *1.100*	■		■		5700
A75050	00026692	G5	64,0 *2.520*	86,0 *3.386*	92,0 *3.622*	30,0 *1.181*	82,0 *3.228*	54,0 *2.126*	0,9 *1.980*	■		■		4500
A75060	00026693	G6	85,0 *3.346*	144,0 *5.669*	119,0 *4.685*	37,0 *1.457*	105,0 *4.134*	70,0 *2.756*	1,8 *3.970*	■		■		3500
A75070	00026694	G7	114,0 *4.488*	205,0 *8.071*	143,0 *5.630*	39,0 *1.535*	120,0 *4.724*	95,0 *3.740*	3,7 *8.160*	■		■		2500

Spare Parts, included in delivery

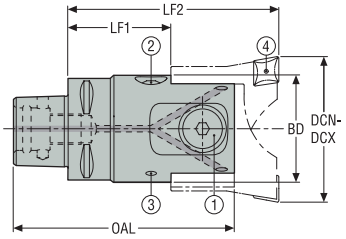
For head	Assembly screw	Tenon
		
A75000	90A75000	90M0
A75010	90A75010	90M11
A75020	90A75020	90M21
A75030	90A75030	90M31
A75040	90A75040	90M41
A75050	90A75050	90M51
A75060	90A75060	90M61
A75070	90A75070	90M71

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	H04-4
A75070	03HL10	H4B-T15P	H4B-T15PL	DOUBLE-T	H04-4

RB750

Seco-Capto™

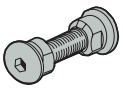


1. Assembly screw
2. Adjusting screw
3. Locking screw of coupling mechanism
4. Insert screw

—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 *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	Yes	No	Yes	No	
C3-391.0750-30	02809726	C3	39,0 *1.535*	51,0 *2.008*	73,0 *2.874*	29,0 *1.142*	70,0 *2.756*	35,0 *1.378*	0,3 *0.660*	■		■		7500
C4-391.0750-40	02809728	C4	50,0 *1.969*	65,0 *2.559*	88,0 *3.465*	37,0 *1.457*	82,0 *3.228*	43,0 *1.693*	0,6 *1.320*	■		■		5700
C5-391.0750-50	02809733	C5	64,0 *2.520*	86,0 *3.386*	102,0 *4.016*	40,0 *1.575*	92,0 *3.622*	54,0 *2.126*	1,0 *2.200*	■		■		4500
C6-391.0750-60	02809735	C6	85,0 *3.346*	144,0 *5.669*	129,0 *5.079*	49,0 *1.929*	117,0 *4.606*	70,0 *2.756*	1,9 *4.190*	■		■		3500
C8-391.0750-70	02809736	C8	114,0 *4.488*	205,0 *8.071*	159,0 *6.260*	57,0 *2.244*	138,0 *5.433*	95,0 *3.740*	4,1 *9.040*	■		■		2500

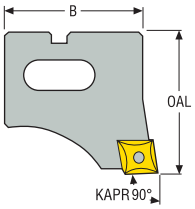
Spare Parts, included in delivery

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	H04-4
C8-...-70	03HL10	–	DOUBLE-T	H04-4

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

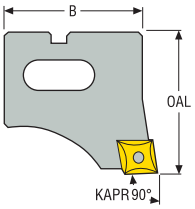
Designation	Item number	Insert holders type	For head	Capacity DCN-DCX ∅		OAL	B	Weight	KRINS°	Suitable insert size
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
A75000CP0590	00026695	Standard type A	RB 75000	18,0 *0.709*	24,0 *0.945*	22,5 *0.886*	16,5 *0.650*	0,1 *0.2*	90	CP...0502...
A75010CC0690	00026696	Standard type A	RB 75010	23,0 *0.906*	31,0 *1.220*	26,5 *1.043*	21,5 *0.846*	0,1 *0.2*	90	CC...0602...
A75020CC0690	00026697	Standard type A	RB 75020	30,0 *1.181*	40,0 *1.575*	30,0 *1.181*	27,0 *1.063*	0,04 *0.1*	90	CC...0602...
A75030CC0990	00026698	Standard type A	RB 75030	39,0 *1.535*	51,0 *2.008*	41,0 *1.614*	35,0 *1.378*	0,1 *0.2*	90	CC...09T3...
A75040CC1290	00026699	Standard type A	RB 75040	50,0 *1.969*	65,0 *2.559*	45,0 *1.772*	43,0 *1.693*	0,2 *0.4*	90	CC...1204...
A75050CC1290	00026700	Standard type A	RB 75050	64,0 *2.520*	86,0 *3.386*	52,0 *2.047*	54,0 *2.126*	0,3 *0.7*	90	CC...1204...
A75060CC1290	00026701	Standard type A	RB 75060	85,0 *3.346*	115,0 *4.528*	68,0 *2.677*	70,0 *2.756*	0,6 *1.3*	90	CC...1204...
A75060CC1690	00030763	Standard type A	RB 75060	85,0 *3.346*	115,0 *4.528*	68,0 *2.677*	70,0 *2.756*	0,6 *1.3*	90	CC...1605...
A75065CC1290	00026702	Standard type A	RB 75060	114,0 *4.488*	144,0 *5.669*	68,0 *2.677*	100,0 *3.937*	0,9 *2.0*	90	CC...1204...
A75065CC1690	00030765	Standard type A	RB 75060	114,0 *4.488*	144,0 *5.669*	68,0 *2.677*	100,0 *3.937*	0,9 *2.0*	90	CC...1605...
A75070CC1290	00026703	Standard type A	RB 75070	114,0 *4.488*	160,0 *6.299*	81,0 *3.189*	95,0 *3.740*	1,2 *2.7*	90	CC...1204...
A75070CC1690	00030766	Standard type A	RB 75070	114,0 *4.488*	160,0 *6.299*	81,0 *3.189*	95,0 *3.740*	1,2 *2.7*	90	CC...1605...
A75075CC1290	00026704	Standard type A	RB 75070	159,0 *6.260*	205,0 *8.071*	81,0 *3.189*	141,0 *5.551*	2,0 *4.4*	90	CC...1204...
A75075CC1690	00030771	Standard type A	RB 75070	159,0 *6.260*	205,0 *8.071*	81,0 *3.189*	141,0 *5.551*	2,0 *4.4*	90	CC...1605...

Spare Parts, included in delivery

For insert size	Insert key	Key (T-handle)	Screw
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
CP...0502...	H4B-T07P	DOUBLE-T	C02245-T07P

For rough boring recommended inserts, see page(s) 575

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

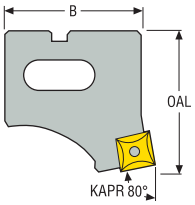
Designation	Item number	Insert holders type	For head	Capacity DCN-DCX ∅		OAL	B	Weight	KRINS°	Suitable insert size
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
A75001CP0590	00026705	Extended type B	RB 75000	18,0 *0.709*	24,0 *0.945*	22,8 *0.898*	16,5 *0.650*	0,1 *0.2*	90	CP...0502...
A75011CC0690	00026706	Extended type B	RB 75010	23,0 *0.906*	31,0 *1.220*	26,85 *1.057*	21,5 *0.846*	0,1 *0.2*	90	CC...0602...
A75021CC0690	00026707	Extended type B	RB 75020	30,0 *1.181*	40,0 *1.575*	30,35 *1.195*	27,0 *1.063*	0,1 *0.2*	90	CC...0602...
A75031CC0990	00026708	Extended type B	RB 75030	39,0 *1.535*	51,0 *2.008*	41,4 *1.630*	35,0 *1.378*	0,1 *0.2*	90	CC...09T3...
A75041CC1290	00026709	Extended type B	RB 75040	50,0 *1.969*	65,0 *2.559*	46,5 *1.831*	43,0 *1.693*	0,2 *0.4*	90	CC...1204...
A75051CC1290	00026710	Extended type B	RB 75050	64,0 *2.520*	86,0 *3.386*	52,6 *2.071*	54,0 *2.126*	0,25 *0.6*	90	CC...1204...
A75061CC1290	00026711	Extended type B	RB 75060	85,0 *3.346*	115,0 *4.528*	68,6 *2.701*	70,0 *2.756*	0,6 *1.3*	90	CC...1204...
A75061CC1690	00030774	Extended type B	RB 75060	85,0 *3.346*	115,0 *4.528*	68,6 *2.701*	70,0 *2.756*	0,6 *1.3*	90	CC...1605...
A75066CC1290	00026712	Extended type B	RB 75060	114,0 *4.488*	144,0 *5.669*	68,6 *2.701*	100,0 *3.937*	1,0 *2.2*	90	CC...1204...
A75066CC1690	00030775	Extended type B	RB 75060	114,0 *4.488*	144,0 *5.669*	68,6 *2.701*	100,0 *3.937*	0,91 *2.0*	90	CC...1605...
A75071CC1290	00026713	Extended type B	RB 75070	114,0 *4.488*	160,0 *6.299*	81,6 *3.213*	95,0 *3.740*	1,2 *2.7*	90	CC...1204...
A75071CC1690	00030776	Extended type B	RB 75070	114,0 *4.488*	160,0 *6.299*	81,6 *3.213*	95,0 *3.740*	1,16 *2.6*	90	CC...1605...
A75076CC1290	00026714	Extended type B	RB 75070	159,0 *6.260*	205,0 *8.071*	81,6 *3.213*	141,0 *5.551*	2,0 *4.4*	90	CC...1204...
A75076CC1690	00030778	Extended type B	RB 75070	159,0 *6.260*	205,0 *8.071*	81,6 *3.213*	141,0 *5.551*	0,9 *2.0*	90	CC...1605...

Spare Parts, included in delivery

For insert size	Key	Key (T-handle)	Screw
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
CP...0502...	H4B-T07P	DOUBLE-T	C02245-T07P

For rough boring recommended inserts, see page(s) 575

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 *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
A75000SC0580	00026715	Standard type A	RB 75000	18,0 *0.709*	24,0 *0.945*	22,5 *0.886*	16,5 *0.650*	0,1 *0.2*	80	SC...0502...
A75010SC0680	00026716	Standard type A	RB 75010	23,0 *0.906*	31,0 *1.220*	26,5 *1.043*	21,5 *0.846*	0,1 *0.2*	80	SC...0602...
A75020SC0680	00026717	Standard type A	RB 75020	30,0 *1.181*	40,0 *1.575*	30,0 *1.181*	27,0 *1.063*	0,1 *0.2*	80	SC...0602...
A75030SC0980	00026718	Standard type A	RB 75030	39,0 *1.535*	51,0 *2.008*	41,0 *1.614*	35,0 *1.378*	0,1 *0.2*	80	SC...09T3...
A75040SC1280	00026719	Standard type A	RB 75040	50,0 *1.969*	65,0 *2.559*	45,0 *1.772*	43,0 *1.693*	0,2 *0.4*	80	SC...1204...
A75050SC1280	00051986	Standard type A	RB 75050	64,0 *2.520*	86,0 *3.386*	52,0 *2.047*	54,0 *2.126*	0,3 *0.7*	80	SC...1204...
A75060SC1280	00052207	Standard type A	RB 75060	85,0 *3.346*	115,0 *4.528*	68,0 *2.677*	70,0 *2.756*	0,56 *1.2*	80	SC...1204...
A75060SC1580	00039863	Standard type A	RB 75060	85,0 *3.346*	115,0 *4.528*	68,0 *2.677*	70,0 *2.756*	0,56 *1.2*	80	SC...1505...
A75065SC1280	00051989	Standard type A	RB 75060	114,0 *4.488*	144,0 *5.669*	68,0 *2.677*	100,0 *3.937*	1,0 *2.2*	80	SC...1204...
A75065SC1580	00039865	Standard type A	RB 75060	114,0 *4.488*	144,0 *5.669*	68,0 *2.677*	100,0 *3.937*	1,0 *2.2*	80	SC...1505...
A75070SC1280	00026723	Standard type A	RB 75070	114,0 *4.488*	160,0 *6.299*	81,4 *3.205*	95,0 *3.740*	1,2 *2.7*	80	SC...1204...
A75070SC1580	00039867	Standard type A	RB 75070	114,0 *4.488*	160,0 *6.299*	81,4 *3.205*	95,0 *3.740*	1,18 *2.6*	80	SC...1505...
A75075SC1280	00026724	Standard type A	RB 75070	159,0 *6.260*	205,0 *8.071*	81,4 *3.205*	141,0 *5.551*	2,2 *4.9*	80	SC...1204...
A75075SC1580	00039869	Standard type A	RB 75070	159,0 *6.260*	205,0 *8.071*	81,4 *3.205*	141,0 *5.551*	2,1 *4.6*	80	SC...1505...
A75001SC0580	00092946	Extended type B	RB 75000	18,0 *0.709*	24,0 *0.945*	23,2 *0.913*	16,5 *0.650*	0,01 *0.0*	80	SC...0502...
A75011SC0680	00092947	Extended type B	RB 75010	23,0 *0.906*	31,0 *1.220*	27,3 *1.075*	21,5 *0.846*	0,02 *0.0*	80	SC...0602...
A75021SC0680	00092948	Extended type B	RB 75020	30,0 *1.181*	40,0 *1.575*	30,9 *1.217*	27,0 *1.063*	0,04 *0.1*	80	SC...0602...
A75031SC0980	00092949	Extended type B	RB 75030	39,0 *1.535*	51,0 *2.008*	42,2 *1.661*	35,0 *1.378*	0,08 *0.2*	80	SC...09T3...
A75041SC1280	00092961	Extended type B	RB 75040	50,0 *1.969*	65,0 *2.559*	46,4 *1.827*	43,0 *1.693*	0,2 *0.4*	80	SC...1204...
A75051SC1280	00092962	Extended type B	RB 75050	64,0 *2.520*	86,0 *3.386*	53,7 *2.114*	54,0 *2.126*	0,3 *0.7*	80	SC...1204...
A75061SC1580	00039864	Extended type B	RB 75060	85,0 *3.346*	115,0 *4.528*	70,3 *2.768*	70,0 *2.756*	0,57 *1.3*	80	SC...1505...
A75061SC1280	00092963	Extended type B	RB 75060	85,0 *3.346*	115,0 *4.528*	69,8 *2.748*	70,0 *2.756*	0,57 *1.3*	80	SC...1204...
A75066SC1280	00092964	Extended type B	RB 75060	114,0 *4.488*	144,0 *5.669*	69,8 *2.748*	100,0 *3.937*	0,96 *2.1*	80	SC...1204...
A75066SC1580	00039866	Extended type B	RB 75060	114,0 *4.488*	144,0 *5.669*	70,3 *2.768*	100,0 *3.937*	0,96 *2.1*	80	SC...1505...
A75071SC1280	00092965	Extended type B	RB 75070	114,0 *4.488*	160,0 *6.299*	82,8 *3.260*	95,0 *3.740*	1,2 *2.7*	80	SC...1204...
A75071SC1580	00039868	Extended type B	RB 75070	114,0 *4.488*	160,0 *6.299*	83,3 *3.280*	95,0 *3.740*	1,21 *2.7*	80	SC...1505...

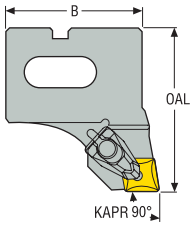
Designation	Item number	Insert holders type	For head	Capacity DCN-DCX ∅		OAL	B	Weight	KRINS°	Suitable insert size
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
A75076SC1280	00092968	Extended type B	RB 75070	159,0 *6.260*	205,0 *8.071*	82,8 *3.260*	141,0 *5.551*	2,16 *4.8*	80	SC...1204...
A75076SC1580	00039870	Extended type B	RB 75070	159,0 *6.260*	205,0 *8.071*	83,3 *3.280*	141,0 *5.551*	2,14 *4.7*	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...1204...	–	DOUBLE-T	C05012-T15P
SC...1505...	–	DOUBLE-T	C05012-T15P

For rough boring recommended inserts, see page(s) 575

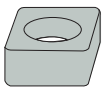
Insert holders 90° for CN.. inserts



—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 *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
A75050CN1290	02786307	Standard type A	RB 75050	64,0 *2.520*	86,0 *3.386*	63,0 *2.480*	55,0 *2.165*	0,4 *0.9*	90	CN...1204...
A75060CN1290	02786308	Standard type A	RB 75060	85,0 *3.346*	115,0 *4.528*	68,0 *2.677*	69,5 *2.736*	0,6 *1.3*	90	CN...1204...
A75065CN1290	02786309	Standard type A	RB 75060	114,0 *4.488*	144,0 *5.669*	68,0 *2.677*	99,5 *3.917*	0,9 *2.0*	90	CN...1204...
A75070CN1290	02786310	Standard type A	RB 75070	114,0 *4.488*	160,0 *6.299*	85,0 *3.346*	95,0 *3.740*	1,2 *2.7*	90	CN...1204...
A75075CN1290	02786311	Standard type A	RB 75070	159,0 *6.260*	205,0 *8.071*	85,0 *3.346*	140,0 *5.512*	2,03 *4.5*	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) 575

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)*

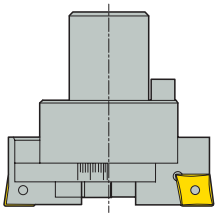
Note: The maximum speeds are related to the boring head's mechanical design and balancing quality. Speeds inside these limits have to be chosen in regard to the other machining conditions, e.g. work-piece material, cutting edge (insert), tooling length, machine spindle. At speeds from approx. 8000 RPM and above, the basic holders and the extensions/reducers should be fine balanced.

Troubleshooting instructions

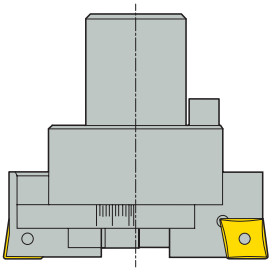
Problem	Possible cause	Solution
Poor chip control	Feed rate too low	Increase feed rate
	Excessive DOC	Use staggered method
Chatter & Vibrations	Excessive speed	Reduce cutting speed, not feed
	Extreme L/D ratio	Shorten tool to increase stiffness
		Increase holding arbor's and intermediate's OD
		Use Steadyline 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

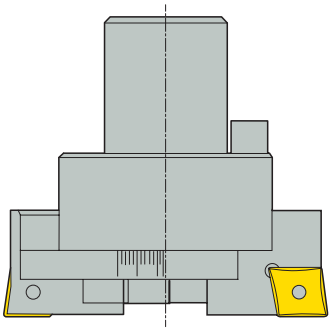
Graflex® connection



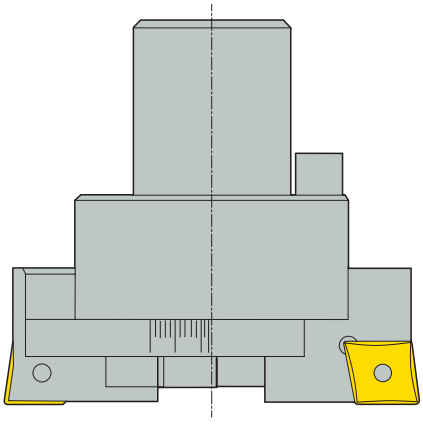
Ø 39–51 mm *(Ø 1.535–2.008")*



Ø 50–65 mm *(Ø 1.969–2.559")*

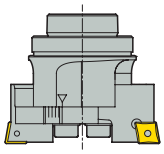


Ø 64–86 mm *(Ø 2.520–3.386")*

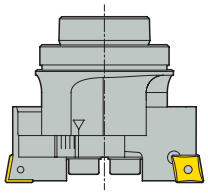


Ø 85–115 mm *(Ø 3.346–4.528")*

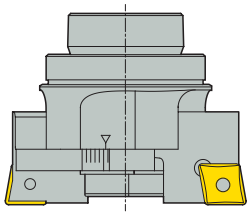
GL connection



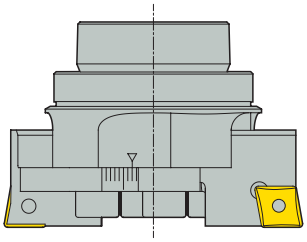
Ø 28–37 mm *(Ø 1.102–1.457")*



Ø 36–46 mm *(Ø 1.417–1.811")*

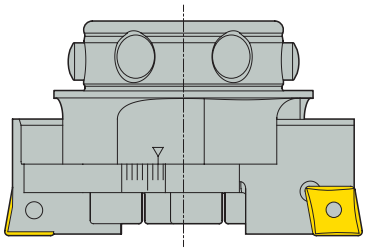


Ø 45–56 mm *(Ø 1.772–2.205")*

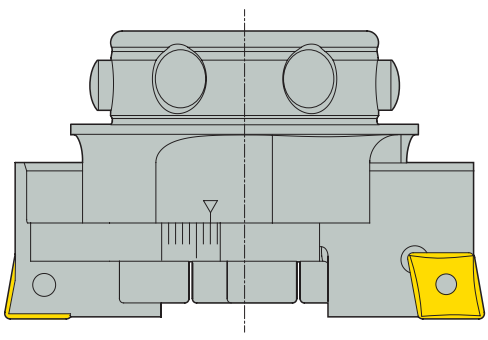


Ø 55–69 mm *(Ø 2.165–2.717")*

BA connection



Ø 66–88 mm *(Ø 2.598–3.465")*



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 *(Ø 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

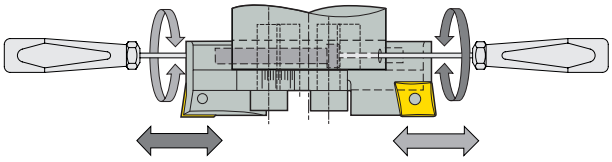
Setting symmetrical boring:

Symmetrical boring means both cutting edges are set on the same diameter and same height.

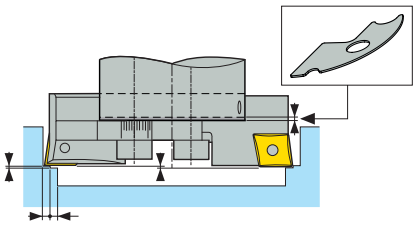
Setting staggered boring:

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 realized: 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*



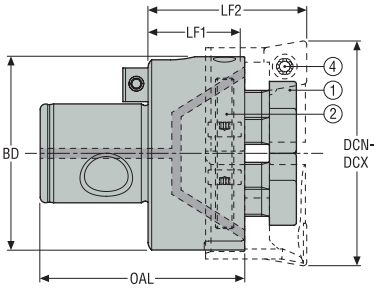
Setting symmetrical boring



Setting staggered boring

RB610

Graflex®



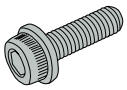
—Symmetrical and staggered boring modes are possible
—Individual insert holder adjusting mechanism
—Internal coolant supply towards cutting edge

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 *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
A61030	02904453	G3	39,0 *1.535*	51,0 *2.008*	43,5 *1.713*	23,5 *0.925*	36,4 *1.433*	34,0 *1.339*	0,2 *0.4*	7500
A61040	02904454	G4	50,0 *1.969*	65,0 *2.559*	45,5 *1.791*	21,5 *0.846*	35,3 *1.390*	43,0 *1.693*	0,3 *0.7*	5700
A61050	02904455	G5	64,0 *2.520*	86,0 *3.386*	55,0 *2.165*	25,0 *0.984*	42,3 *1.665*	54,0 *2.126*	0,7 *1.5*	4500
A61060	02904457	G6	85,0 *3.346*	115,0 *4.528*	69,0 *2.717*	29,0 *1.142*	47,8 *1.882*	63,0 *2.480*	1,0 *2.2*	3500

Insert holders have to be ordered separately, see page(s) 499
* Additional information about max RPM, see Instruction pages. Note, weight is without insert holder

Spare Parts, included in delivery

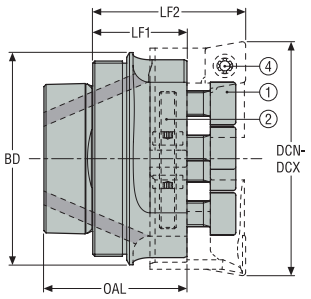
For head	Assembly screw	Shim, staggered boring	Tenon
			
A61030	950DC0616	AU6103003	90M31
A61040	950D0616	AU6104003	90M41
A61050	950D0820	AU6105003	90M51
A61060	950D0822	AU6106003	90M61

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



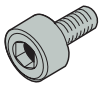
—Designed for GL25, GL32, GL40 and GL50 Steadyline® turning and boring bars
—Symmetrical and staggered boring modes are possible
—Individual insert holder adjusting mechanism
—Internal coolant supply towards cutting edge

1. Assembly screw and clamp key
2 & 4. Insert key for diameter setting and insert screw clamping

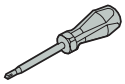
Designation	Item number	Machine side GL size	Workpiece side Capacity DCN-DCX Ø		OAL	LF1	LF2	BD	Weight	Max. RPM*
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
GL25-RB610-10	03307854	GL25	28,0 *1.102*	37,0 *1.457*	21,7 *0.854*	16,2 *0.638*	25,0 *0.984*	25,0 *0.984*	0,1 *0.2*	9500
GL32-0610-20	02904458	GL32	36,0 *1.417*	46,0 *1.811*	27,6 *1.087*	21,1 *0.831*	32,0 *1.260*	32,0 *1.260*	0,2 *0.4*	7500
GL40-0610-30	02904459	GL40	45,0 *1.772*	56,0 *2.205*	31,6 *1.244*	22,1 *0.870*	35,0 *1.378*	40,0 *1.575*	0,2 *0.4*	5700
GL50-0610-40	02904460	GL50	55,0 *2.165*	69,0 *2.717*	33,7 *1.327*	22,2 *0.874*	36,0 *1.417*	50,0 *1.969*	0,3 *0.7*	4500

Insert holders have to be ordered separately, see page(s) 499
* Additional information about max RPM, see Instruction pages. Note, weight is without insert holder

Spare Parts, included in delivery

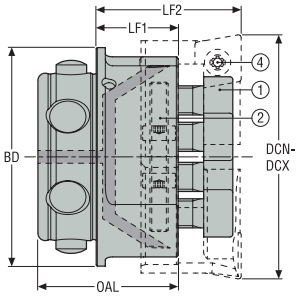
For head	Assembly screw	Shim, staggered boring
		
GL25-0610-10	950D0410	AU6101003
GL32-0610-20	950DC0412	AU6102003
GL40-0610-30	950DC0616	AU6103003
GL50-0610-40	950D0616	AU6104003

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



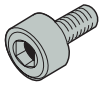
—Designed for BA60 and BA80 Steadyline® turning and boring bars
—Symmetrical and staggered boring modes are possible
—Individual insert holder adjusting mechanism
—Internal coolant supply towards cutting edge

1. Assembly screw and clamp key
2 & 4. Insert key for diameter setting and insert screw clamping

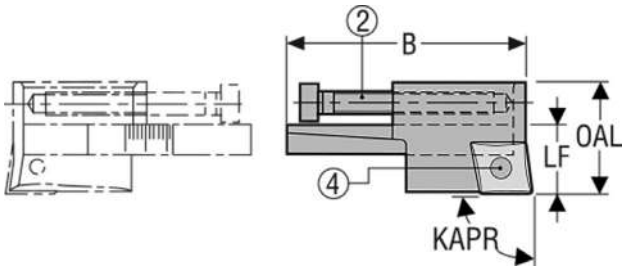
Designation	Item number	Machine side BA size	Workpiece side Capacity DCN-DCX Ø		OAL	LF1	LF2	BD	Weight	Max. RPM*
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
BA060-RB610-50	03204092	BA060	66,0 *2.598*	88,0 *3.465*	38,5 *1.516*	22,5 *0.886*	39,8 *1.567*	60,0 *2.362*	0,7 *1.5*	4000
BA080-RB610-60	03204093	BA080	86,0 *3.386*	116,0 *4.567*	44,5 *1.752*	22,5 *0.886*	41,3 *1.626*	80,0 *3.150*	1,2 *2.7*	3000

Insert holders have to be ordered separately, see page(s) 499
* 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

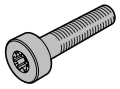


—Suitable for boring heads RB 610 with Graflex®, GL or BA connection

2. Setting screw
4. Insert screw

Designation	Item number	For boring head	Workpiece side Capacity DCN-DCX Ø		OAL	LF	B	Weight
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*
A61010CC0690	03307856	RB 61010	28,0 *1.102*	37,0 *1.457*	15,1 *0.594*	8,8 *0.346*	21,75 *0.856*	0,1 *0.2*
A61020CC0690	02971268	RB 61020	36,0 *1.417*	46,0 *1.811*	17,6 *0.693*	10,9 *0.429*	26,0 *1.024*	0,1 *0.2*
A61030CC0990	02904461	RB 61030	39,0 *1.535*	56,0 *2.205*	21,6 *0.850*	12,9 *0.508*	33,0 *1.299*	0,1 *0.2*
A61040CC0990	02904462	RB 61040	50,0 *1.969*	69,0 *2.717*	22,5 *0.886*	13,8 *0.543*	43,8 *1.724*	0,1 *0.2*
A61050CC1290	02904463	RB 61050	64,0 *2.520*	86,0 *3.386*	27,5 *1.083*	17,3 *0.681*	57,4 *2.260*	0,2 *0.4*
A61060CC1290	02904464	RB 61060	85,0 *3.346*	115,0 *4.528*	30,5 *1.201*	18,8 *0.740*	75,0 *2.953*	0,2 *0.4*

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) 575
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 IT5 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 Digital and Analog boring heads are designed for precision and surface finish on small diameters
- Our range of Axiabore™ fine boring heads now also includes the Digital version, which makes the operator's life easier and reduces the frequency of human errors. The Digital version helps easier and faster set-ups with good process reliability and efficiency in fine boring on high-tolerance parts
- FB 620/780/790 radial fine boring heads are designed to deliver the best bore geometries on larger diameters (up to 205 mm)

Overview

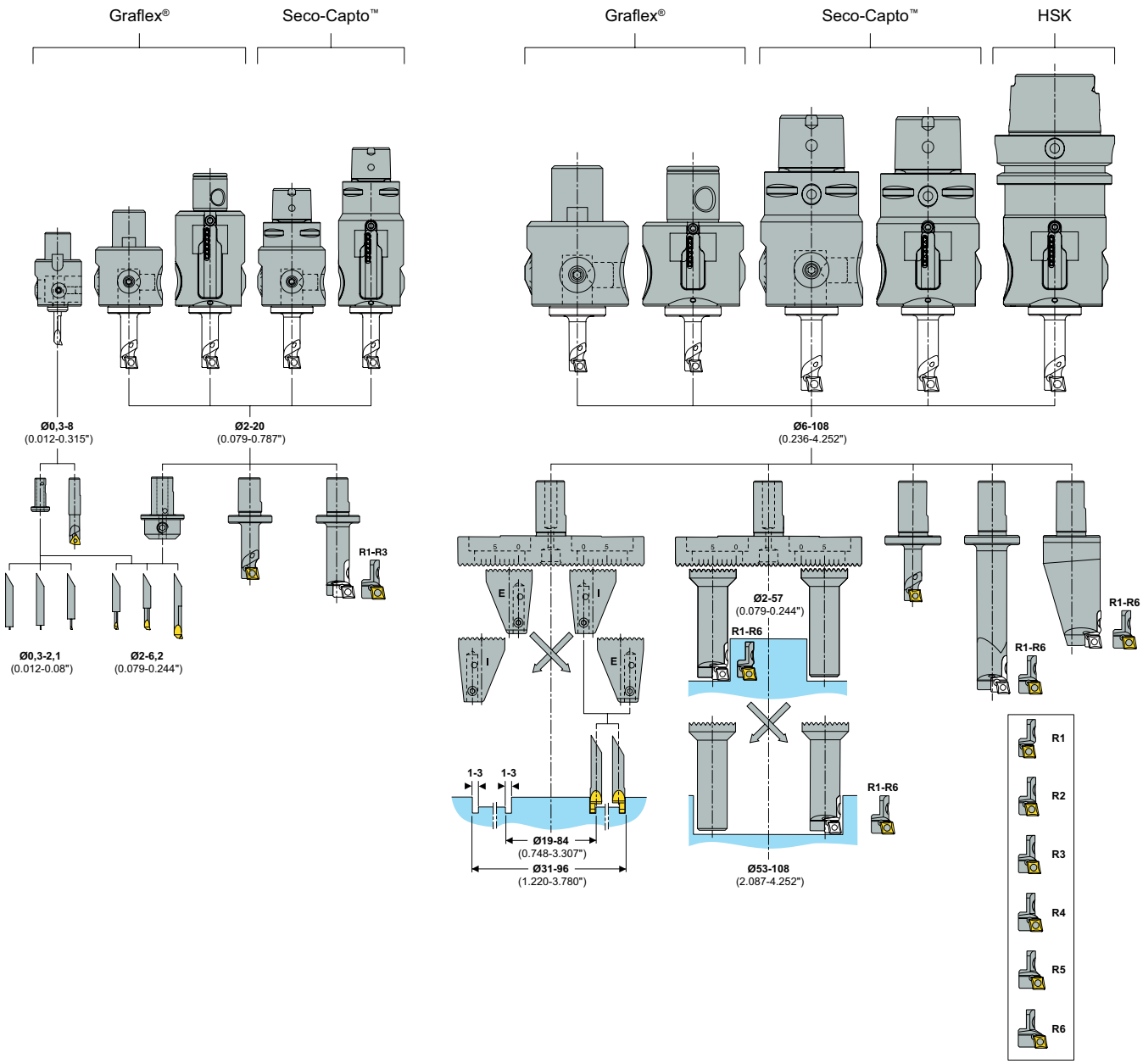
OD-overturning

Grooving

Interrupted cut boring

Boring

Overview


Graflex®
Seco-Capto™
Graflex®
Seco-Capto™
HSK
Ø0,3-8
(0.012-0.315")
Ø2-20
(0.079-0.787")
Ø6-108
(0.236-4.252")
R1-R3
Ø0,3-2,1
(0.012-0.08")
Ø2-6,2
(0.079-0.244")
E
I
1-3
1-3
Ø19-84
(0.748-3.307")
Ø31-96
(1.220-3.780")
Ø2-57
(0.079-0.244")
R1-R6
R1-R6
R1-R6
R1-R6
Ø53-108
(2.087-4.252")
R1
R2
R3
R4
R5
R6

Digital fine boring heads Axial type

The digital Axial fine boring heads provide excellent results for boring operation (IT5 achievable). It replaces the use of an analogic vernier by a removable, universal digital display: when the vernier of a conventional, analogic boring head is not always easy to use for diameter adjustment on the machine, the large display screen of the FB 760 D series allows comfortable and reliable diameter adjustments.

The FB 760 D series revolutions the boring philosophy, as it eliminates the need of a presetter: all the presetting and adjusting operations are made directly on the machine, using the universal digital display controller.

Boring tools
Boring tools, solid carbide shank Ø 4 mm for the smallest diameters Ø 2–108 mm (Ø 0.079"–4.252"), lead angle 98°. The tools have an angled machine side for cutting-edge orientation according to ISO.

Storage box
The Digital display come with a unique and sustainable packaging box.

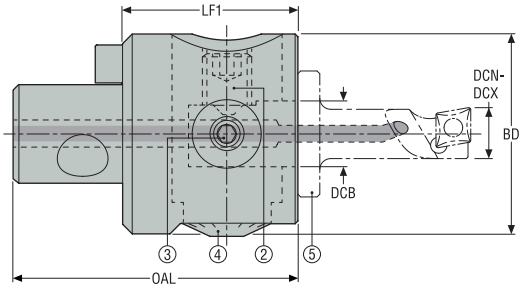
Features

Universal digital display, for FB 760 D fine boring heads
The universal digital display controller can be used for any number of boring heads. Featuring a large display screen, can be used in mm or inch value.

The universal digital display has been designed to make your life easy:
- Wide display screen to facilitate the reading - resolution of 1 µm.
- An intuitive and easy-to-use system, easy to switch between.
- Self-holding controller: once it has been connected to the boring head, the controller remains in place and lets the operator free to use both hands to perform the diameter setting.
- One universal digital display for any number of boring heads. Delivered with a USB wire, the universal digital display can be power charged on the USB port of your machine or computer.

FB 760 – Axiabore™ type heads, not balanceable

Graflex®



—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

3. Locking screw
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**
A76001	02462575	G2	0,3 *0.012*	8,0 *0.315*	41,0 *1.614*	25,0 *0.984*	25,0 *0.984*	6,0 *0.236*	0,2 *0.4*		30000	1500
A76002	02594930	G3	2,0 *0.079*	20,0 *0.787*	52,0 *2.047*	32,0 *1.260*	36,5 *1.437*	12,0 *0.472*	0,4 *0.9*		12000	1500
A76003	02594935	G5	6,0 *0.236*	108,0 *4.252*	75,0 *2.953*	45,0 *1.772*	54,0 *2.126*	16,0 *0.630*	0,9 *2.0*	*	8000	1000

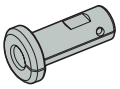
Note, weight is without insert holder

For tools, see page(s) 515-517

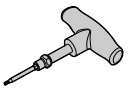
*Capacities - Axiabore™ Plus - head for boring 6-108 mm *(0.236-4.252")* , OD-overturning 2-57 mm *(0.079-2.244")*, face grooving 19-96 mm *(0.748-3.780")*.
*Max 5000 RPM when using MPA.

**Maximum speed, whichever is reached first without exceeding either of them.

Spare Parts, included in delivery

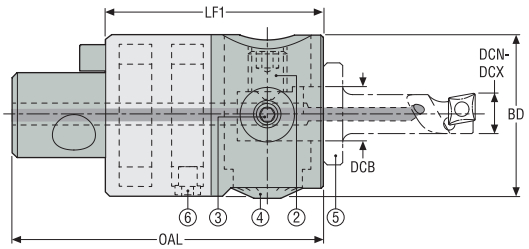
For head	Assembly screw	Key	Key (T-handle)	Locking screw	Reduction bush	Sealing Screws	Tenon
							
A76001	–	H4B-H2.0	DOUBLE-T	19M4001A	05A7600604	950A0406	90M21
A76002	AU7601212	03M03C	–	19A71030	05A7601204	–	90M3A
A76003	AU7601312	H6B-H4.0L	DOUBLE-T	19A71008125	–	–	90M5A

Accessories

For head	Torque key for balancing ring locking screws	Torque key for locking and assembly screws
		
A76001	–	H00-2009
A76002	–	H00-3030
A76003	H00T-4060	–

FB 760 – Axiabore™ type heads, balanceable

Graflex®



6. Locking screw 2
3. Locking screw 1
4. Micrometric adjusting screw
2. Assembly screw
5. Tool

—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)

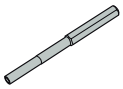
Designation	Item number	Machine side Graflex size	Workpiece side Capacity DCN-DCX Ø		OAL	LF1	BD	DCB	Weight	*	Max operating speed**	
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		Max. RPM**	Max. m/min**
A76013	02594943	G5	6,0 *0.236*	33,0 *1.299*	95,0 *3.740*	65,0 *2.559*	54,0 *2.126*	16,0 *0.630*	1,2 *2.7*	*	20000	1500

Note, weight is without insert holder

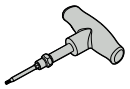
For tools, see page(s) 515-517

*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

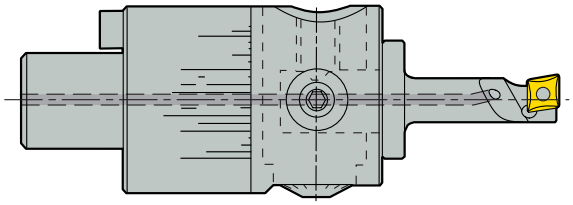
For head	Torque key for balancing ring locking screws	Torque key for locking and assembly screws
		
A76013	H00-4020-60	H00T-4060

Axiabore™ type fine boring heads for bores Ø 0,3-108 mm *(0.012-4.252")*

Axiabore™ type head selection	Capacity ∅ mm	*Capacity Ø inch*	HSM/ Max speeds	Digital	Balanceable	Hole geometry	Cost effective
Nanobore™ (size 1)	0,3-8	*0.012–0.315"*	30000 RPM			■■	■■
Axiabore™ (size 2)	2-20	*0.079–0.787"*	12000 RPM			■	■■
Digital Axiabore™ (size 2)	2-20	*0.079–0.787"*	12000 RPM	✓		■	■■
Axiabore™ Plus (size 3)	6-108	*0.236–4.252"*	8000* RPM or 1000 m/min			■	■■■
Digital Axiabore™ Plus (size 3)	6-108	*0.236–4.252"*	8000* RPM or 1000 m/min	✓		■	■■■
Axialibrabore™ Plus (size 3)	6-108	*0.236–4.252"*	20000* RPM or 1500 m/min		✓	■■	■

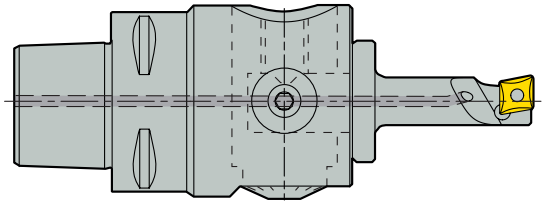
* Max 5000 RPM when using MPA.

5 Axiabore™ type heads exists with Graflex®, Seco-Capto™ and HSK-A connection



Nanobore™ (size 1)
Axiabore™ (size 2)
Digital Axiabore™ (size 2)
Axiabore™ Plus (size 3)
Digital Axiabore™ Plus (size 3)
Axialibrabore™ Plus (size 3)

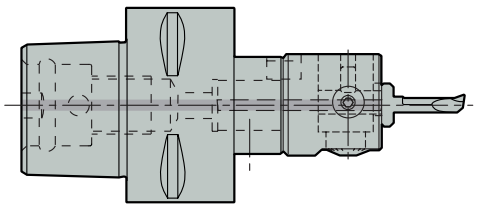
2 Axiabore™ fine boring heads FB 760 with Seco-Capto™ connection for bores: Ø 2–108 mm *(0.079–4.252")*



Axiabore™ – C3-391.0760-02
Axiabore™ Plus – C5-391.0760-03
Digital Axiabore™ – C3-391.FB760-02-D
Digital Axiabore™ Plus – C5-391.FB760-03-D

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.

Digital display for digital fine boring heads

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.

Diameter setting resolution: 2,5 µm *(0,0001")*

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.

Diameter setting resolution: 2,5 µm *(0,0001")* on diameter for analog heads, 1 µm *(0,00004")* on diameter for digital heads

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.

Diameter setting resolution: 2,5 µm *(0,0001")* on diameter for analog heads, 1 µm *(0,00004")* on diameter for digital heads

Axialibrabore™ Plus - head, Part No. A76013

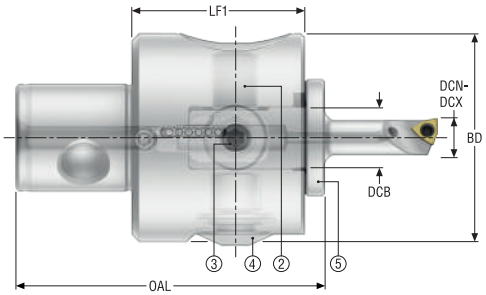
Balanceable head for fine boring Ø 6–33 mm *(Ø 0.236–1.299")*:
Same features as the - Axiabore™ Plus - head, but with fine balancing body length 65 mm *(2.559")*.
With Graflex® connection size G5.
Fine balanceable heads allow higher speeds up to 20 000 RPM or 1500 m/min (whichever is reached first without 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.

Diameter setting resolution: 2,5 µm *(0,0001")*

FB 760 D Digital Axiabore type heads, not balanceable

Graflex®



—Compatible with digital display to see the vernier scale increment on the wide display (digital display to be ordered separetly)
—Axiabore™ Plus – allows boring, as well as OD-overturning and face grooving

3. Clamp
4. Micrometric adjusting screw
2. Assembly screw
5. Tool

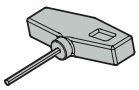
Designation	Item number	Machine side Graflex size	Workpiece side Capacity DCN-DCX Ø		OAL	LF1	BD	DCB	Weight	Max operating speed**	
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	Max. RPM**	Max. m/min**
G3-FB760-02-D	10215570	G3	2,0 *0.079*	20,0 *0.787*	70,0 *2.756*	50,0 *1.969*	36,5 *1.437*	12,0 *0.472*	0,5 *1.1*	12000	1500
G5-FB760-03-D	10215571	G5	6,0 *0.236*	108,0 *4.252*	75,0 *2.953*	45,0 *1.772*	54,0 *2.126*	16,0 *0.630*	0,9 *2.0*	8000	1000

Note, weight is without insert holder

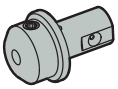
**Maximum speed, whichever is reached first without exceeding either of them.

Insert holders and universal digital display controller have to be ordered separately, see next pages.

Spare Parts, included in delivery

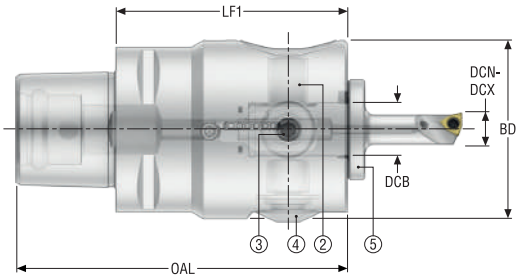
For head	Assembly screw	Key	Key (T-handle)	Locking screw
				
G3	AU7601212	03M03C	–	19A71030
G5	AU7601312	H6B-H4.0L	DOUBLE-T	19A71008125

Accessories

For head	Digital display	Reduction bush	Torque key
			
G3	990FBDD01-Y	05A7601204	H00-3030
G5	990FBDD01-Y	–	H00-3030

FB 760 D Digital Axiabore type heads

Seco-Capto™



—Compatible with digital display to see the vernier scale increment on the wide display (digital display to be ordered separetly)
—Axiabore™ Plus – allows boring, as well as OD-overturning and face grooving

3. Clamp
4. Micrometric adjusting screw
2. Assembly screw
5. Tool

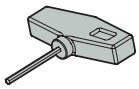
Designation	Item number	Machine side Capto size	Workpiece side Capacity DCN-DCX Ø		OAL	LF1	BD	DCB	Weight	Max operating speed**	
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	Max. RPM**	Max. m/min**
C3-391.FB760-02-D	10215575	C3	2,0 *0.079*	20,0 *0.787*	89,0 *3.504*	70,0 *2.756*	36,5 *1.437*	12,0 *0.472*	0,5 *1.1*	12000	1500
C5-391.FB760-03-D	10215576	C5	6,0 *0.236*	108,0 *4.252*	100,0 *3.937*	70,0 *2.756*	54,0 *2.126*	16,0 *0.630*	1,3 *2.9*	8000	1000

Note, weight is without insert holder

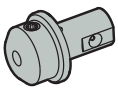
**Maximum speed, whichever is reached first without exceeding either of them.

Insert holders and universal digital display controller have to be ordered separately, see next pages.

Spare Parts, included in delivery

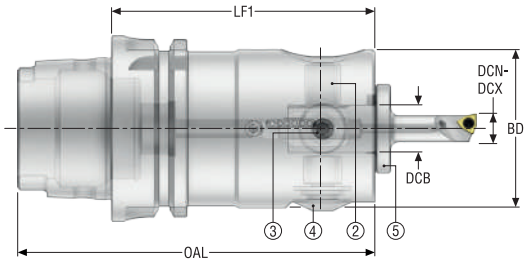
For head	Assembly screw	Key	Key (T-handle)	Locking screw
				
C3	AU7601212	03M03C	–	19A71030
C5	AU7601312	H6B-H4.0L	DOUBLE-T	19A71008125

Accessories

For head	Digital display	Reduction bush	Torque key
			
C3	990FBDD01-Y	05A7601204	H00-3030
C5	990FBDD01-Y	–	H00-3030

FB 760 – Axiabore™ type heads

HSK-A



- Compatible with digital display to see the vernier scale increment on the wide display (digital display to be ordered separetly)
- Axiabore™ Plus – allows boring, as well as OD-overturning and face grooving

3. Clamp
4. Micrometric adjusting screw
2. Assembly screw
5. Tool

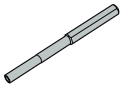
Designation	Item number	Machine side Graflex size	Workpiece side Capacity DCN-DCX Ø		OAL	LF1	BD	DCB	Weight	Max operating speed**	
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	Max. RPM**	Max. m/min**
HSKA63-FB760-03-D	10215578	HSK-A63	6,0 *0.236*	108,0 *4.252*	122,0 *4.803*	90,0 *3.543*	54,0 *2.126*	16,0 *0.630*	1,8 *4.0*	8000	1000

Note, weight is without insert holder

**Maximum speed, whichever is reached first without exceeding either of them.

Insert holders and universal digital display controller have to be ordered separately, see next pages.

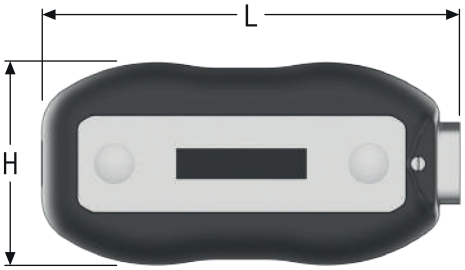
Spare Parts, included in delivery

For head	Assembly screw	Key	Key (T-handle)	Locking screw
				
HSKA	AU7601312	H6B-H4.0L	DOUBLE-T	19A71008125

Accessories

For head	Digital display	Torque key
HSKA	990FBDD01-Y	H00-3030

Digital display for Digital boring heads

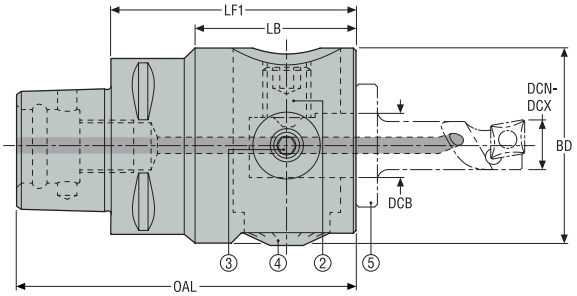


—Digital display for digital fine boring heads
—One digital display can be used for all Seco digital boring heads
—Diameter setting in mm or inch is possible
—Reversible display with magnet for better grip when mounted on digital boring head during setup
—Rechargeable, disposable battery inside

Designation	Item number	L	H	Weight
		mm *Inch*	mm *Inch*	kg *lbs*
990FBDD01	10215579	74,25 *2.92*	36 *1.42*	0,2 *0.008*

FB 760 – Axiabore™ type heads

Seco-Capto™



—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

3. Clamp
4. Micrometric adjusting screw
2. Assembly screw
5. Tool

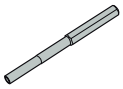
Designation	Item number	Machine side Capto size	Workpiece side Capacity DCN-DCX Ø		OAL	LF1	BD	DCB	Weight	*	Max operating speed**	
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		Max. RPM**	Max. m/min**
C5-391.0760-03	02822777	C5	6,0 *0.236*	108,0 *4.252*	95,0 *3.740*	65,0 *2.559*	54,0 *2.126*	16,0 *0.630*	1,2 *2.7*	*	8000	1500

Note, weight is without insert holder

For tools, see page(s) 515-517

*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")*.

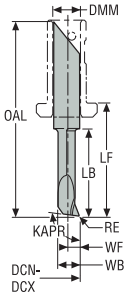
Spare Parts, included in delivery

For head	Assembly screw	Key	Key (T-handle)	Locking screw
				
C5-...-03	AU7601312	H6B-H4.0L	DOUBLE-T	19A71008125

Accessories

For head	Torque key for locking and assembly screws
C5-...-03	H00-3030

Boring tools, solid carbide
for FB 760 heads



—Suitable for both Digital and Analog boring 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 *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
A761402	02462579	FB 76001	0,3 *0.012*	0,6 *0.024*	30,7 *1.209*	1,2 *0.047*	15,5 *0.610*	4,0 *0.157*	0,25 *0.010*	0,1 *0.004*	0,0 *0.0*	0,02 *0.001*	0,01 *0*	0,01 *0.0*	–
A761412	02462581	FB 76001	0,5 *0.020*	1,1 *0.043*	30,7 *1.209*	2,0 *0.079*	15,5 *0.610*	4,0 *0.157*	0,45 *0.018*	0,2 *0.008*	0,0 *0.0*	0,02 *0.001*	0,01 *0*	0,1 *0.2*	–
A761422	02462583	FB 76001	1,0 *0.039*	2,1 *0.083*	30,7 *1.209*	5,0 *0.197*	15,5 *0.610*	4,0 *0.157*	0,95 *0.037*	0,45 *0.018*	0,1 *0.004*	0,03 *0.001*	0,02 *0.001*	0,1 *0.2*	–
A761432	02462584	FB 76001/02/12	2,0 *0.079*	3,2 *0.126*	30,7 *1.209*	8,0 *0.315*	15,5 *0.610*	4,0 *0.157*	1,8 *0.071*	0,88 *0.035*	0,1 *0.004*	0,05 *0.002*	0,02 *0.001*	0,1 *0.2*	E13
A761442	02462586	FB 76001/02/12	3,0 *0.118*	4,7 *0.185*	30,7 *1.209*	10,0 *0.394*	15,5 *0.610*	4,0 *0.157*	2,75 *0.108*	1,35 *0.053*	0,15 *0.006*	0,06 *0.002*	0,03 *0.001*	0,1 *0.2*	E14
A761452	02462587	FB 76001/02/12	4,5 *0.177*	6,2 *0.244*	35,7 *1.406*	15,0 *0.591*	20,5 *0.807*	4,0 *0.157*	3,95 *0.156*	1,95 *0.077*	0,15 *0.006*	0,08 *0.003*	0,03 *0.001*	0,1 *0.2*	E15

*These tools with shank dia 4 mm require the use of a reduction bush, delivered with the suitable heads and kits.

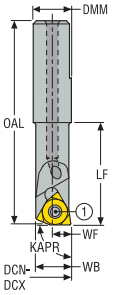
** For cutting speeds, see page(s) 579–582

***+0,1 mm complementary capacity achievable.

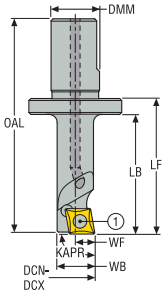
Boring bars, insert type

for FB 760 heads

Design 1



Design 2



1 = Insert screw

- Suitable for both Digital and Analog boring heads
- 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 *0.2*	1	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*	0,1 *0.2*	2	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*	0,1 *0.2*	2	WB...0301..	S31
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*	0,1 *0.2*	2	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 *0.2*	2	WB...0301..	S32
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*	0,1 *0.2*	2	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*	0,1 *0.2*	2	CC...0602..	S33
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*	0,1 *0.2*	1	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*	0,1 *0.2*	2	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*	0,2 *0.4*	2	WB...0301..	E31
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*	0,1 *0.2*	2	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*	0,2 *0.4*	2	WB...0301..	E32
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*	0,1 *0.2*	2	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 *0.4*	2	CC...0602..	E33

**+0,2 mm complementary capacity achievable.

Spare Parts, included in delivery

For insert size	Insert screw
CC...0602..	C02504-T07P
WB...0301..	C02035-T06P

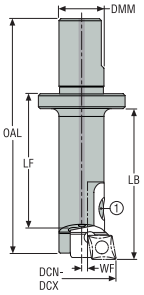
Accessories

Insert key	Key (T-handle)
H4B-T07P	DOUBLE-T
H4B-T06P	DOUBLE-T

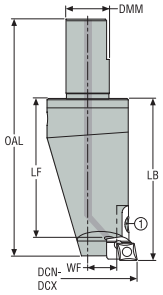
Boring shanks, for modular fine boring bars

for FB 760 heads

Design 1



Design 2



—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 *Inch*	mm *Inch*		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
A760S20	02594963	Steel	FB 76002/12	13,0 *0.512*	20,0 *0.787*		62,5 *2.461*	40,0 *1.575*	34,0 *1.339*	12,0 *0.472*	1,4 *0.055*	0,1 *0.2*	1
A760S30	02594973	Steel	FB 76003/13	13,0 *0.512*	18,0 *0.709*		73,0 *2.874*	40,0 *1.575*	35,0 *1.378*	16,0 *0.630*	1,4 *0.055*	0,1 *0.2*	1
A760S31	02594974	Steel	FB 76003/13	18,0 *0.709*	33,0 *1.299*		83,0 *3.268*	50,0 *1.969*	45,0 *1.772*	16,0 *0.630*	3,9 *0.154*	0,1 *0.2*	1
A760E20	02594964	Carbide	FB 76002/12	13,0 *0.512*	20,0 *0.787*		82,5 *3.248*	60,0 *2.362*	54,0 *2.126*	12,0 *0.472*	1,4 *0.055*	0,2 *0.4*	1
A760E30	02594965	Carbide	FB 76003/13	13,0 *0.512*	18,0 *0.709*		103,0 *4.055*	70,0 *2.756*	65,0 *2.559*	16,0 *0.630*	1,4 *0.055*	0,2 *0.4*	1
A760E31	02594966	Carbide	FB 76003/13	18,0 *0.709*	33,0 *1.299*		113,0 *4.449*	80,0 *3.150*	75,0 *2.953*	16,0 *0.630*	3,9 *0.154*	0,3 *0.7*	1
A760A32	02594977	Aluminium	FB 76003/13	33,0 *1.299*	48,0 *1.890*	***	88,0 *3.465*	60,0 *2.362*	50,0 *1.969*	16,0 *0.630*	11,5 *0.453*	0,2 *0.4*	2
A760A33	02594978	Aluminium	FB 76003/13	48,0 *1.890*	63,0 *2.480*	***	108,0 *4.252*	80,0 *3.150*	70,0 *2.756*	16,0 *0.630*	19,0 *0.748*	0,4 *0.9*	2

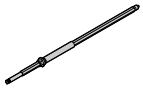
Note, weight is without insert holder.

**+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) 519.

Spare Parts, included in delivery

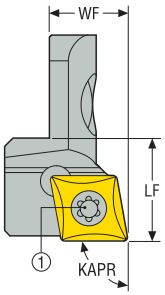
For head	Locking screw
A76002/12	C04008-T15P
A76003	C04008-T15P
A76003/13	C04008-T15P

Accessories

Key (T-handle)	Locking key
	
DOUBLE-T	H6B-T15P
DOUBLE-T	H6B-T15P
DOUBLE-T	H6B-T15P

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 *Inch*	mm *Inch*	kg *lbs*		
A765R1	02594979	10,0 *0.394*	4,95 *0.195*	0,1 *0.2*	CC...0602...	90
A765R2	02594983	10,0 *0.394*	6,2 *0.244*	0,1 *0.2*	CC...0602...	90
A765R3	02594984	10,0 *0.394*	7,45 *0.293*	0,1 *0.2*	CC...0602...	90
A765R4	02594987	10,0 *0.394*	8,7 *0.343*	0,1 *0.2*	CC...0602...	90
A765R5	02594989	10,0 *0.394*	9,97 *0.393*	0,1 *0.2*	CC...0602...	90
A765R6	02594990	10,0 *0.394*	11,2 *0.441*	0,1 *0.2*	CC...0602...	90

*WF when fitted with insert type CC..060204.
Select the required shank and insert holder(s) combination(s) using the selection chart on page(s) 519.

Spare Parts, included in delivery

For insert size	Insert screw
CC...0602...	C02504-T07P

Accessories

Insert key	Key (T-handle)
H4B-T07P	DOUBLE-T

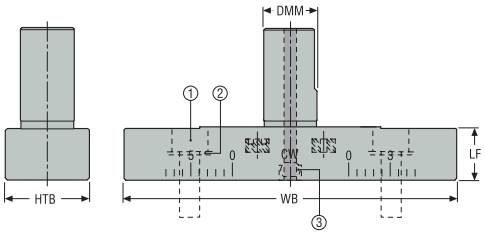
Selection chart:
Boring tools and insert holders suitable for FB 760 heads

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

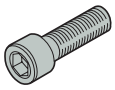


—Suitable for both Digital and Analog Axiabore™ Plus – A760 03 head only*
—Designed to hold a shank and a counterweight (for boring or OD-overturning) or two grooving tool holders (for face grooving)
—Through coolant with an adjustable nozzle (3)

1. Assembly screw
2. Washer
3. Adjustable nozzle

Designation	Item number	Capacity DCN-DCX ∅ For boring		For OD-overturning		For grooving		HTB	LF	DMM	WB	Weight
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*
BDA16BS25100	02595014	53,0 *2.087*	108,0 *4.252*	2,0 *0.079*	57,0 *2.244*	31,0 *1.220*	96,0 *3.780*	25,0 *0.984*	16,0 *0.630*	16,0 *0.630*	100,0 *3.937*	0,3 *0.660*

Spare Parts, included in delivery

For	Assembly screw	Washer
		
BDA16BS25100	950D0618	940ZC06

Accessories

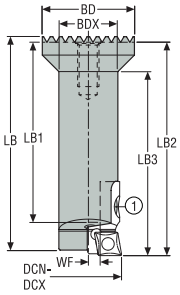
For head	Clamp key
BDA16BS25100	03HL05

*When used on an - Axialibrabore™ Plus - A760 13 head, no fine balancing possible, see page(s) 509
Select the required components to realise boring, OD-overturning or grooving assemblies, using following page(s) 524-535

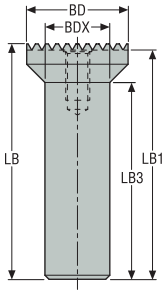
Shank & counterweight, for boring or OD-overturning on a MPA

for FB 760 heads

Design A



Design B



—For fitting onto the MPA
—Shank can be used for boring or OD-overturning
—Takes the same insert holders as the modular boring shanks

1. Assembly screw

			** Capacity DCN-DCX ∅												
Designation	Item number	Type	For boring		For OD-overturning		LB	LB1	LB2	LB3	WF	BDX	BD	Weight	Design
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
BAS25MH1660	02595019	Shank*	53,0 *2.087*	108,0 *4.252*	2,0 *0.079*	57,0 *2.244*	58,5 *2.303*	48,5 *1.909*	58,5 *2.303*	50,0 *1.969*	4,0 *0.157*	16,0 *0.630*	25,0 *0.984*	0,1 *0.2*	A
BAS25CW1660	02595016	Counter-weight	53,0 *2.087*	108,0 *4.252*	2,0 *0.079*	57,0 *2.244*	58,0 *2.283*	56,6 *2.228*	–	48,5 *1.909*	–	16,0 *0.630*	25,0 *0.984*	0,2 *0.4*	B

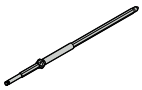
*Insert holders to be ordered separately, see page(s) 518

**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) 524–535

Spare Parts, included in delivery

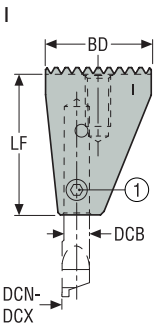
For	Assembly screw
BAS25CW1660	–
BAS25MH1660	C04008-T15P

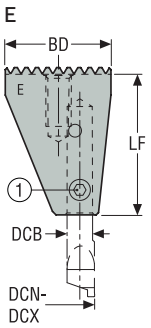
Accessories

For	Clamp key	Key (T-handle)
		
BAS25CW1660	–	–
BAS25MH1660	H6B-T15P	DOUBLE-T

Grooving tool holders, for face grooving on a MPA

for FB 760 heads





—For fitting onto the MPA
—A grooving tool holder is used either to hold a grooving tool, or to act as a counterweight

1. Locking screw

Designation	Item number	Type	* Capacity DCN-DCX ∅ mm *Inch*	mm *Inch*	DCB mm *Inch*	LF mm *Inch*	BD mm *Inch*	Weight kg *lbs*	Design
BAS25FGI35	02595021	Grooving tool holder I (internal)*	19,0 *0.748*	76,0 *2.992*	6,0 *0.236*	35,0 *1.378*	25,0 *0.984*	0,1 *0.2*	I (Internal)
BAS25FGE35	02595020	Grooving tool holder E (external)*	39,0 *1.535*	96,0 *3.780*	6,0 *0.236*	35,0 *1.378*	25,0 *0.984*	0,1 *0.2*	E (External)

*Grooving tools to be ordered separately, see page(s) 523

* 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) 524-535

Spare Parts, included in delivery

For	Locking screw
BAS25FGE35	950L0607T15P
BAS25FGI35	950L0607T15P

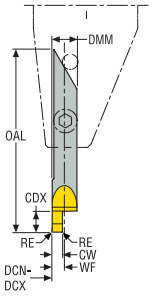
Accessories

For	Key (T-handle)	Locking key
BAS25FGE35	DOUBLE-T	H6B-T15P
BAS25FGI35	DOUBLE-T	H6B-T15P

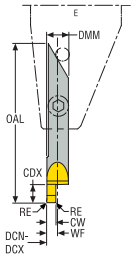
Grooving tools
for FB 760 heads

—Can be used for either 'external' or 'internal' grooving tool holders, depending on capacity

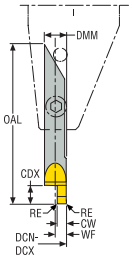
A



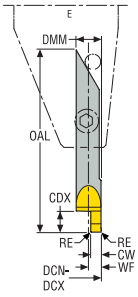
B



C



D

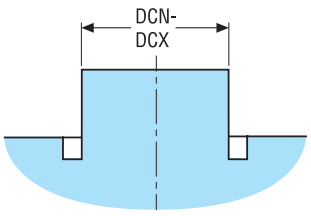


Designation	Item number	Type	* Capacity DCN-DCX ∅ Design A		Design B		Design C		Design D		OAL	CW	RE	DMM	WF	Groove max. **	Weight
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*
AFG0629101582	02595028	Against spigot	19,0 *0.748*	64,0 *2.520*	39,0 *1.535*	84,0 *3.307*	–	–	–	–	42,0 *1.654*	1,0 *0.039*	0,15 *0.006*	6,0 *0.236*	2,95 *0.116*	2,0 *0.079*	0,07 *0.150*
AFG0629151582	02595029	Against spigot	19,0 *0.748*	64,0 *2.520*	39,0 *1.535*	84,0 *3.307*	–	–	–	–	42,0 *1.654*	1,5 *0.059*	0,15 *0.006*	6,0 *0.236*	2,95 *0.116*	3,0 *0.118*	0,07 *0.150*
AFG0629201582	02595031	Against spigot	19,0 *0.748*	64,0 *2.520*	39,0 *1.535*	84,0 *3.307*	–	–	–	–	42,0 *1.654*	2,0 *0.079*	0,15 *0.006*	6,0 *0.236*	2,95 *0.116*	5,0 *0.197*	0,1 *0.220*
AFG0629251582	02595032	Against spigot	19,0 *0.748*	64,0 *2.520*	39,0 *1.535*	84,0 *3.307*	–	–	–	–	42,0 *1.654*	2,5 *0.098*	0,15 *0.006*	6,0 *0.236*	2,95 *0.116*	5,0 *0.197*	0,1 *0.220*
AFG0629301582	02595033	Against spigot	19,0 *0.748*	64,0 *2.520*	39,0 *1.535*	84,0 *3.307*	–	–	–	–	42,0 *1.654*	3,0 *0.118*	0,15 *0.006*	6,0 *0.236*	2,95 *0.116*	6,0 *0.236*	0,1 *0.220*
AFG0629101581	02595022	Against bore	–	–	–	–	31,0 *1.220*	76,0 *2.992*	51,0 *2.008*	96,0 *3.780*	42,0 *1.654*	1,0 *0.039*	0,15 *0.006*	6,0 *0.236*	2,95 *0.116*	2,0 *0.079*	0,1 *0.220*
AFG0629151581	02595023	Against bore	–	–	–	–	31,0 *1.220*	76,0 *2.992*	51,0 *2.008*	96,0 *3.780*	42,0 *1.654*	1,5 *0.059*	0,15 *0.006*	6,0 *0.236*	2,95 *0.116*	3,0 *0.118*	0,07 *0.150*
AFG0629201581	02595024	Against bore	–	–	–	–	31,0 *1.220*	76,0 *2.992*	51,0 *2.008*	96,0 *3.780*	42,0 *1.654*	2,0 *0.079*	0,15 *0.006*	6,0 *0.236*	2,95 *0.116*	4,0 *0.157*	0,1 *0.220*
AFG0629251581	02595026	Against bore	–	–	–	–	31,0 *1.220*	76,0 *2.992*	51,0 *2.008*	96,0 *3.780*	42,0 *1.654*	2,5 *0.098*	0,15 *0.006*	6,0 *0.236*	2,95 *0.116*	5,0 *0.197*	0,1 *0.220*
AFG0629301581	02595027	Against bore	–	–	–	–	31,0 *1.220*	76,0 *2.992*	51,0 *2.008*	96,0 *3.780*	42,0 *1.654*	3,0 *0.118*	0,15 *0.006*	6,0 *0.236*	2,95 *0.116*	6,0 *0.236*	0,1 *0.220*

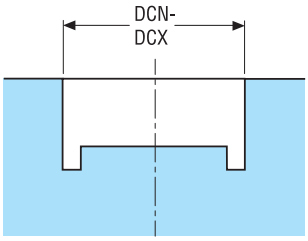
* Capacity in grooving is related to the selected grooving tool, the setting position and orientation of the grooving tool holder, using the ' Grooving tool against spigot (or against bore) selection charts' see page(s) 524–535

** Groove max. depth CDX

Grooving tool -against spigot-

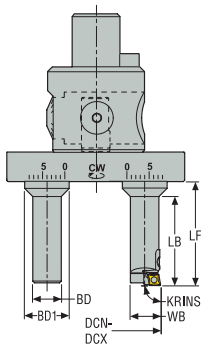


Grooving tool -against bore-



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

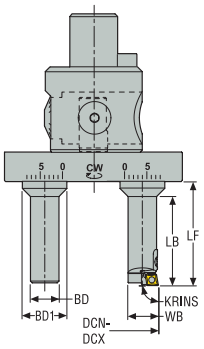


Capacity DCN-DCX ∅ mm*	Insert holder Designation	Shank position	Dimensions in mm					Lead angle KRINS°	Suitable insert size
			BD	BD1	LF	LB	WB		
53-55,5	A765 R1	0	16	25	58,5	50	17	90°	CC..0602..
55,5-58	A765 R2	0	16	25	58,5	50	18,2	90°	CC..0602..
58-60,5	A765 R1	1	16	25	58,5	50	17	90°	CC..0602..
	A765 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) 518

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

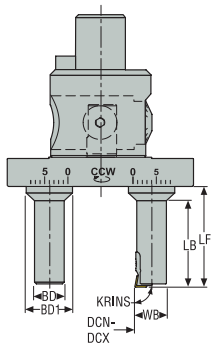


Capacity DCN-DCX ∅ inch*	Insert holder Designation	Shank position	Dimensions in inch					Lead angle KRINS°	Suitable insert size
			BD	BD1	LF	LB	WB		
2.087-2.185	A765 R1	0	*0.630*	*0.984*	*2.303*	*1.969*	*0.669*	90°	CC..0602..
2.185-2.283	A765 R2	0	*0.630*	*0.984*	*2.303*	*1.969*	*0.717*	90°	CC..0602..
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) 518

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

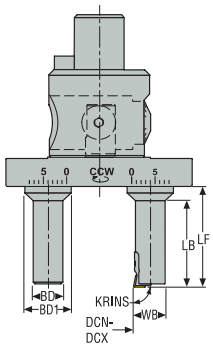


Capacity DCN-DCX ∅ mm*	Insert holder Designation	Shank position	Dimensions in mm					Lead angle KRINS°	Suitable insert size
			BD	BD1	LF	LB	WB		
2-4,5	A765 R6	0	16	25	58,5	50	23,2	90°	CC..0602..
4,5-7	A765 R5	0	16	25	58,5	50	22	90°	CC..0602..
7-9,5	A765 R6	1	16	25	58,5	50	23,2	90°	CC..0602..
	A765 R4	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) 518

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

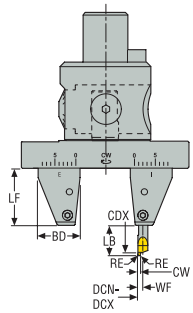


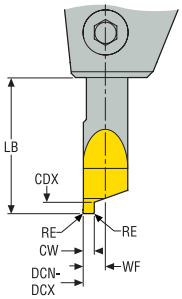
Capacity DCN-DCX ∅ inch*	Insert holder Designation	Shank position	Dimensions in inch					Lead angle KRINS°	Suitable insert size
			BD	BD1	LF	LB	WB		
0.079-0.177	A765 R6	0	*0.630*	*0.984*	*2.303*	*1.969*	*0.913*	90°	CC..0602..
0.177-0.276	A765 R5	0	*0.630*	*0.984*	*2.303*	*1.969*	*0.866*	90°	CC..0602..
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) 518

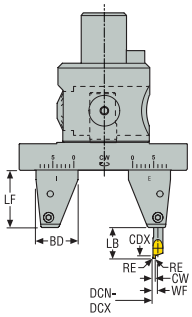
Metric Selection chart:
Grooving tool -against spigot- for grooving with MPA, for FB 760 heads

Assembly case 1

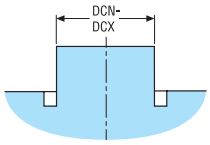




Assembly case 2



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:

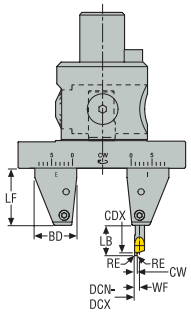
- an - Axiabore™ Plus - head (A760 03)
- a MPA (BDA16BS25100)
- an I (internal position) and an E (external position) grooving tool holder (BAS25FGI35 and BAS25FGE35) to either hold a grooving tool or act as a counterweight (see setting position in the chart)
- an -against spigot- grooving tool (AFG...82) to be selected from the chart, related to groove width and diameter.

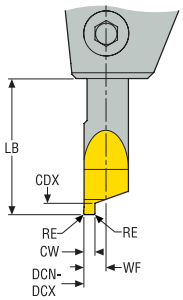
Capacity DCN-DCX ∅ mm*	Against spigot grooving tool Designation	Grooving toolholder position**	Design	Dimensions in mm BD	CW	LF	LB	WF	RE	Groove max. depth CDX
19-24	AFG0629 10 1582	0-I	1	25	1	34	18	2,95	0,15	2,0
24-29		1-I	1	25	1	34	18	2,95	0,15	2,0
29-34		2-I	1	25	1	34	18	2,95	0,15	2,0
34-39		3-I	1	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) 523

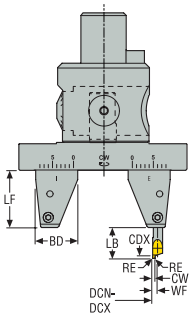
Metric Selection chart:
Grooving tool -against spigot- for grooving with MPA, for FB 760 heads

Assembly case 1

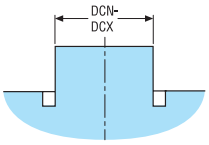




Assembly case 2



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:

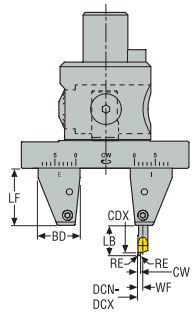
- an - Axiabore™ Plus - head (A760 03)
- a MPA (BDA16BS25100)
- an I (internal position) and an E (external position) grooving tool holder (BAS25FGI35 and BAS25FGE35) to either hold a grooving tool or act as a counterweight (see setting position in the chart)
- an -against spigot- grooving tool (AFG...82) to be selected from the chart, related to groove width and diameter.

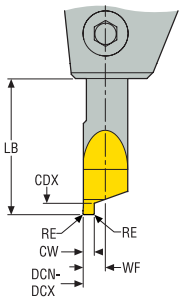
Capacity DCN-DCX ∅ mm*	Against spigot grooving tool Designation	Grooving toolholder position**	Design	Dimensions in mm BD	CW	LF	LB	WF	RE	Groove max. depth CDX
19-24	AFG0629 25 1582	0-I	1	25	2,5	34	18	2,95	0,15	5,0
24-29		1-I	1	25	2,5	34	18	2,95	0,15	5,0
29-34		2-I	1	25	2,5	34	18	2,95	0,15	5,0
34-39		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) 523

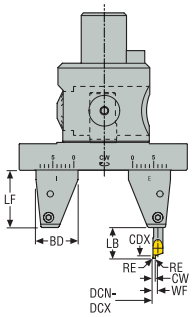
Inch Selection chart:
Grooving tool -against spigot- for grooving with MPA, for FB 760 heads

Assembly case 1

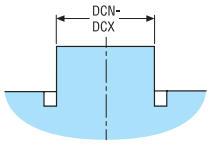




Assembly case 2



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.

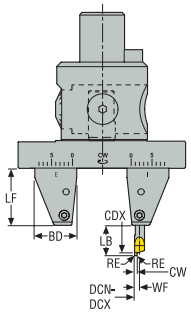
Capacity DCN-DCX ∅ inch*	Against spigot grooving tool Designation	Grooving toolholder position**	Design	Dimensions in inch						Groove max. depth CDX
				BD	CW	LF	LB	WF	RE	
0.748-0.945	AFG0629 10 1582	0-I	1	*0.984*	*0.0394*	*1.339*	*0.709*	*0.116*	*0.006*	0.079
0.945-1.142		1-I	1	*0.984*	*0.0394*	*1.339*	*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

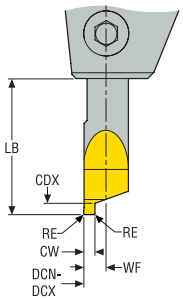
* +0,2 mm *(0.008")* complementary capacity achievable. ** Recommended values in **bold**.

Detailed description of the grooving tools, see page(s) 523

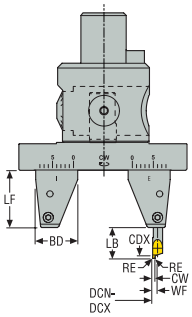
Inch Selection chart:
Grooving tool -against spigot- for grooving with MPA, for FB 760 heads

Assembly case 1

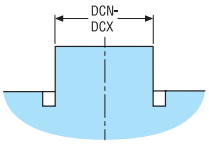




Assembly case 2



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:

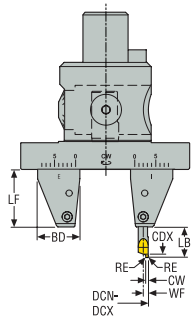
- an - Axiabore™ Plus - head (A760 03)
- a MPA (BDA16BS25100)
- an I (internal position) and an E (external position) grooving tool holder (BAS25FGI35 and BAS25FGE35) to either hold a grooving tool or act as a counterweight (see setting position in the chart)
- an -against spigot- grooving tool (AFG...82) to be selected from the chart, related to groove width and diameter.

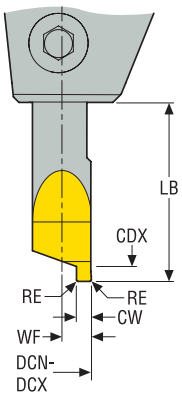
Capacity DCN-DCX ∅ inch*	Against spigot grooving tool Designation	Grooving toolholder position**	Design	Dimensions in inch BD	CW	LF	LB	WF	RE	Groove max. depth CDX
0.748-0.945	AFG0629 25 1582	0-I	1	*0.984*	*0.0984*	*1.339*	*0.709*	*0.116*	*0.006*	0.197
0.945-1.142		1-I	1	*0.984*	*0.0984*	*1.339*	*0.709*	*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
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) 523

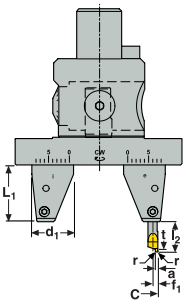
Metric Selection chart:
Grooving tool -against bore- for grooving with MPA, for FB 760 heads

Assembly case 3

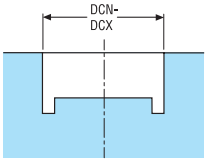




Assembly case 4



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:

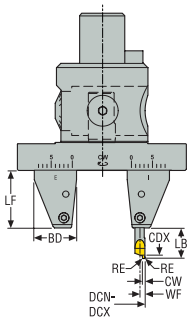
- an - Axiabore™ Plus - head (A760 03)
- a MPA (BDA16BS25100)
- an I (internal position) and an E (external position) grooving tool holder (BAS25FGI35 and BAS25FGE35) to either hold a grooving tool or act as a counterweight (see setting position in the chart)
- an -against bore- grooving tool (AFG...81) to be selected from the chart, related to groove width and diameter.

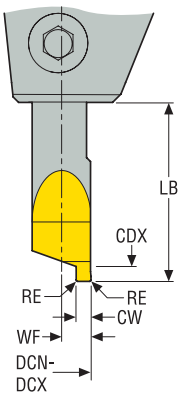
Capacity DCN-DCX ∅ mm*	Against bore grooving tool Designation	Grooving toolholder position**	Design	Dimensions in mm BD	CW	LF	LB	WF	RE	Groove max. depth CDX
31-36	AFG0629 10 1581	0-I	3	25	1	34	18	2,95	0,15	2,0
36-41		1-I	3	25	1	34	18	2,95	0,15	2,0
41-46		2-I	3	25	1	34	18	2,95	0,15	2,0
46-51		3-I	3	25	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) 523

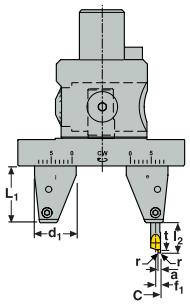
Metric Selection chart:
Grooving tool -against bore- for grooving with MPA, for FB 760 heads

Assembly case 3

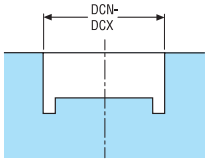




Assembly case 4



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:

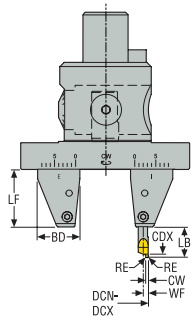
- an - Axiabore™ Plus - head (A760 03)
- a MPA (BDA16BS25100)
- an I (internal position) and an E (external position) grooving tool holder (BAS25FGI35 and BAS25FGE35) to either hold a grooving tool or act as a counterweight (see setting position in the chart)
- an -against bore- grooving tool (AFG...81) to be selected from the chart, related to groove width and diameter.

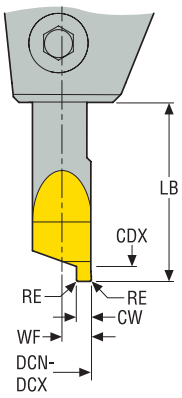
Capacity DCN-DCX ∅ mm*	Against bore grooving tool Designation	Grooving toolholder position**	Design	Dimensions in mm BD	CW	LF	LB	WF	RE	Groove max. depth CDX
31-36	AFG0629 25 1581	0-I	3	25	2,5	34	18	2,95	0,15	5,0
36-41		1-I	3	25	2,5	34	18	2,95	0,15	5,0
41-46		2-I	3	25	2,5	34	18	2,95	0,15	5,0
46-51		3-I	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
31-36	AFG0629 30 1581	0-I	3	25	3	34	18	2,95	0,15	6,0
39-41		1-I	3	25	3	34	18	2,95	0,15	6,0
41-46		2-I	3	25	3	34	18	2,95	0,15	6,0
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
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) 523

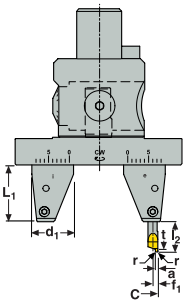
Inch Selection chart:
Grooving tool -against bore- for grooving with MPA, for FB 760 heads

Assembly case 3

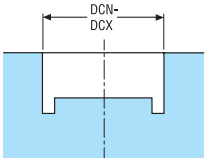




Assembly case 4



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:

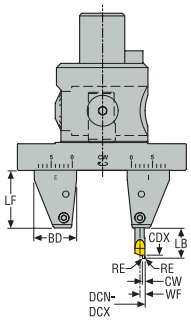
- an - Axiabore™ Plus - head (A760 03)
- a MPA (BDA16BS25100)
- an I (internal position) and an E (external position) grooving tool holder (BAS25FGI35 and BAS25FGE35) to either hold a grooving tool or act as a counterweight (see setting position in the chart)
- an -against bore- grooving tool (AFG...81) to be selected from the chart, related to groove width and diameter.

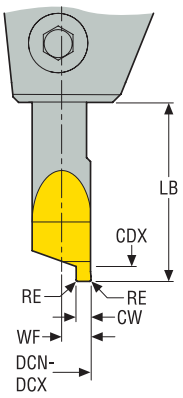
Capacity DCN-DCX ∅ inch*	Against bore grooving tool Designation	Grooving toolholder position**	Design	Dimensions in inch						Groove max. depth CDX
				BD	CW	LF	LB	WF	RE	
1.220-1.417	AFG0629 10 1581	0-I	3	*0.984*	*0.0394*	*1.339*	*0.709*	*0.116*	*0.006*	0.079
1.417-1.614		1-I	3	*0.984*	*0.0394*	*1.339*	*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) 523

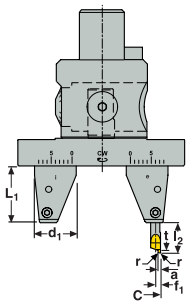
Inch Selection chart:
Grooving tool -against bore- for grooving with MPA, for FB 760 heads

Assembly case 3

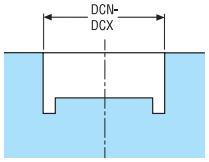




Assembly case 4



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 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
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) 523

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.

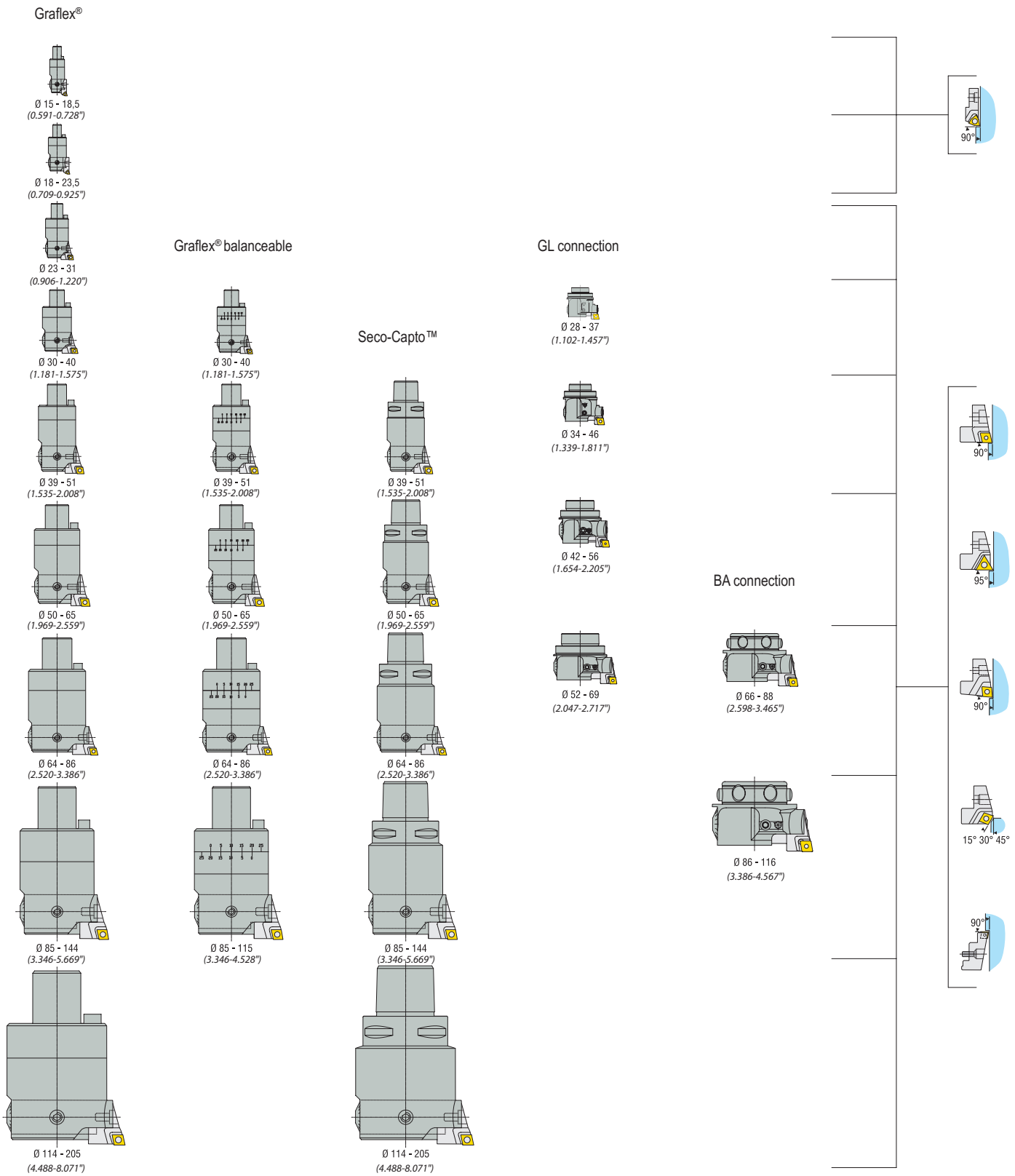
** Not reachable with all tools, see ***.

*** 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")*

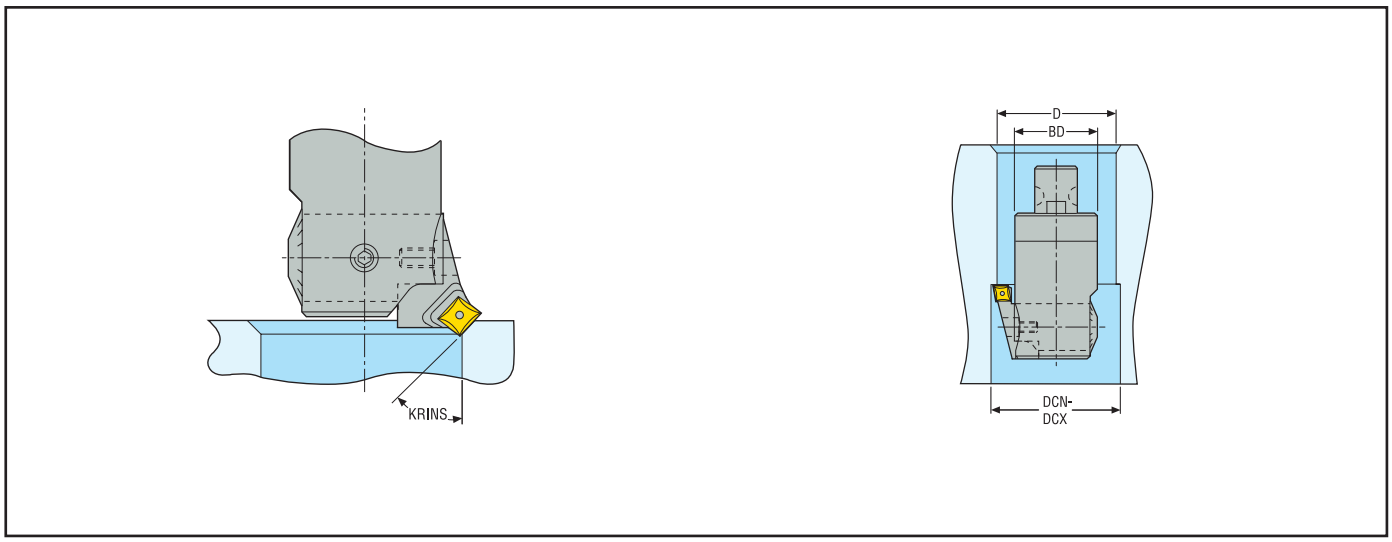
FBIH 729: available with a 15°, 30° or 45° lead angle for CC inserts.

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")*

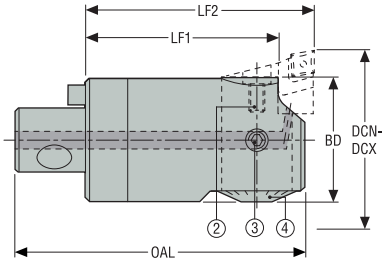
FBIH A789: lead angle 90° for WB and CC inserts.

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®



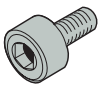
—With micrometric adjusting (increment 0,01 mm and vernier 2,5 µm, on the diameter)

2. Assembly screw
3. Locking screw
4. Micrometric adjusting screw

Designation	Item number	Machine side Graflex size	Workpiece side Capacity DCN-DCX Ø		OAL	LF1	LF2	BD	Weight	Insert holder size
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
A78008	00056632	G0	15,0 *0.591*	18,5 *0.728*	44,0 *1.732*	27,5 *1.083*	35,0 *1.378*	14,0 *0.551*	0,1 *0.2*	09
A78009	00056633	G0	18,0 *0.709*	23,5 *0.925*	44,0 *1.732*	27,5 *1.083*	35,0 *1.378*	17,0 *0.669*	0,1 *0.2*	09
A78010	00072991	G1	23,0 *0.906*	31,0 *1.220*	51,5 *2.028*	32,5 *1.280*	40,0 *1.575*	21,5 *0.846*	0,2 *0.4*	10
A78020	00072992	G2	30,0 *1.181*	40,0 *1.575*	59,5 *2.343*	37,5 *1.476*	45,0 *1.772*	27,0 *1.063*	0,3 *0.7*	20
A78030	00072993	G3	39,0 *1.535*	51,0 *2.008*	82,0 *3.228*	54,5 *2.146*	65,0 *2.559*	35,0 *1.378*	0,6 *1.3*	30
A78040	00072995	G4	50,0 *1.969*	65,0 *2.559*	93,0 *3.661*	61,5 *2.421*	72,0 *2.835*	43,0 *1.693*	0,9 *2.0*	40
A78050	00072996	G5	64,0 *2.520*	86,0 *3.386*	109,0 *4.291*	71,5 *2.815*	82,0 *3.228*	54,0 *2.126*	1,6 *3.5*	50
A78060	00056551	G6	85,0 *3.346*	144,0 *5.669*	140,0 *5.512*	88,5 *3.484*	105,0 *4.134*	70,0 *2.756*	3,2 *7.1*	*60/65*
A78070	00056552	G7	114,0 *4.488*	205,0 *8.071*	160,0 *6.299*	98,5 *3.878*	115,0 *4.528*	95,0 *3.740*	6,4 *14.1*	*70/75*

Insert holders have to be ordered separately, see page(s) 547, 548–550
Note, weight is without insert holder

Spare Parts, included in delivery

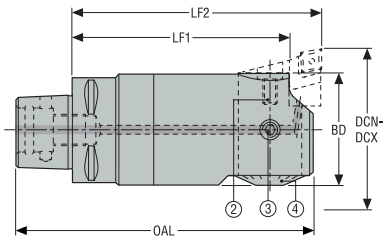
For	Assembly screw	Key	Key (T-handle)	Locking screw	Tenon
					
A78008	960D30050S	H4B-H2.0	DOUBLE-T	19A7100403	–
A78009	LBHF0306R	H4B-H2.0	DOUBLE-T	19A71000	90M0
A78010	19TB0305	H4B-H2.0	DOUBLE-T	19A71000	90M1
A78020	19TB0305	–	H4B-H2.0	950L0406	90M2
A78030	19TB04075	03M03C	–	950L0608	90M3
A78040	19TB04075	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

Torque key for locking and assembly screws
H00-2009
H00-2009
H00-2009
H00-2009
H00-3030
H00-3030
H00-3030
H00T-50100
H00T-50100

FB780

Seco-Capto™



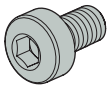
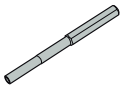
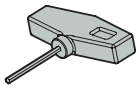
—With micrometric adjusting (increment 0,01 mm and vernier 2,5 µm, on the diameter)

2. Assembly screw
3. Locking screw
4. Micrometric adjusting screw

Designation	Item number	Machine side Capto size	Workpiece side Capacity DCN-DCX Ø		OAL	LF1	LF2	BD	Weight	Insert holder size
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
C3-391.0780-30	02809740	C3	39,0 *1.535*	51,0 *2.008*	86,0 *3.386*	59,5 *2.343*	70,0 *2.756*	35,0 *1.378*	0,6 *1.3*	30
C4-391.0780-40	02809742	C4	50,0 *1.969*	65,0 *2.559*	103,0 *4.055*	71,5 *2.815*	82,0 *3.228*	43,0 *1.693*	1,0 *2.2*	40
C5-391.0780-50	02809744	C5	64,0 *2.520*	86,0 *3.386*	119,0 *4.685*	81,5 *3.209*	92,0 *3.622*	54,0 *2.126*	1,7 *3.8*	50
C6-391.0780-60	02809745	C6	85,0 *3.346*	144,0 *5.669*	150,0 *5.906*	100,5 *3.957*	117,0 *4.606*	70,0 *2.756*	3,3 *7.3*	60
C8-391.0780-70	02809747	C8	114,0 *4.488*	205,0 *8.071*	181,0 *7.126*	121,5 *4.783*	138,0 *5.433*	95,0 *3.740*	7,1 *15.7*	70

Insert holders have to be ordered separately, see page(s) 547, 548-550
Note, weight is without insert holder

Spare Parts, included in delivery

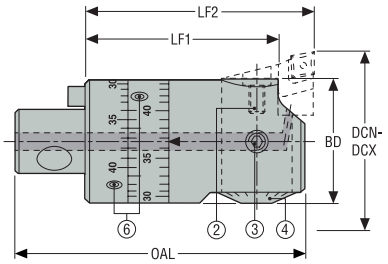
For	Assembly screw	Key	Key (Flag)	Key (T-handle)	Locking screw
					
C3-391.0780-30	19TB04075	–	03M03C	–	950L0608
C4-391.0780-40	19TB04075	–	03M03C	–	950L0612
C5-391.0780-50	950D0410	–	03M03C	–	950L0616
C6-391.0780-60	950D0612	H6B-H5.0L	–	DOUBLE-T	950L0616
C8-391.0780-70	950D0616	H6B-H5.0L	–	DOUBLE-T	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®



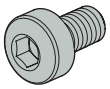
- With micrometric adjusting (increment 0,01 mm and vernier 2,5 µm, on the diameter)
- Balancing by setting both rings in accordance with the diameter to be bored
- For speeds v_c up to 1 495 m/min and more, see page(s) 551

6. Locking screw 2
2. Assembly screw
3. Locking screw 1
4. Micrometric adjusting screw

Designation	Item number	Machine side Graflex size	Workpiece side Capacity DCN-DCX Ø		OAL	LF1	LF2	BD	Weight	Insert holder size
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
A79020	00055932	G2	30,0 *1.181*	40,0 *1.575*	59,5 *2.343*	37,5 *1.476*	45,0 *1.772*	27,0 *1.063*	0,3 *0.7*	20
A79030	00056005	G3	39,0 *1.535*	51,0 *2.008*	82,0 *3.228*	54,5 *2.146*	65,0 *2.559*	35,0 *1.378*	0,6 *1.3*	30
A79040	00056006	G4	50,0 *1.969*	65,0 *2.559*	93,0 *3.661*	61,5 *2.421*	72,0 *2.835*	43,0 *1.693*	0,9 *2.0*	40
A79050	00056007	G5	64,0 *2.520*	86,0 *3.386*	109,0 *4.291*	71,5 *2.815*	82,0 *3.228*	54,0 *2.126*	1,5 *3.3*	50
A79060	00001451	G6	85,0 *3.346*	115,0 *4.528*	140,0 *5.512*	88,5 *3.484*	105,0 *4.134*	70,0 *2.756*	3,0 *6.6*	60

Insert holders have to be ordered separately, see page(s) 547, 548–550
Note, weight is without insert holder

Spare Parts, included in delivery

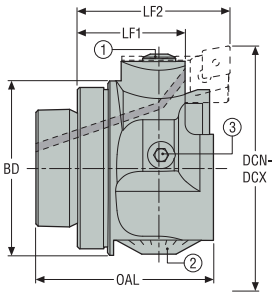
For head	Assembly screw	Key	Key (T-handle)	Locking screw 1	Locking screw 2	Tenon
						
A79020	19TB0305	H4B-H2.0	DOUBLE-T	950L0406	960D30045S	90M2
A79030	19TB04075	03M03C	–	950L0608	AU7901030	90M3
A79040	19TB04075	03M03C	–	950L0612	AU7901040	90M4R
A79050	950D0410	03M03C	–	950L0616	AU7901050	90M51
A79060	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



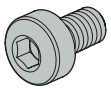
—Designed for GL25, GL32, GL40 and GL50 Steadyline® turning and boring bars
—Internal coolant supply towards cutting edge
—With micrometric adjusting (increment 0,01 mm and vernier 2,5 µm, on the diameter)

1. Assembly screw
2. Micrometric adjusting screw
3. Locking screw

Designation	Item number	Machine side GL size	Workpiece side Capacity DCN-DCX Ø		OAL	LF1	LF2	BD	Weight	Max. RPM**
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
GL32-0620-20	02904469	GL32	34,0 *1.339*	46,0 *1.811*	35,2 *1.386*	23,7 *0.933*	32,0 *1.260*	32,0 *1.260*	0,2 *0.4*	7000
GL40-0620-30	02904470	GL40	42,0 *1.654*	56,0 *2.205*	40,7 *1.602*	24,7 *0.972*	35,0 *1.378*	40,0 *1.575*	0,3 *0.7*	5600
GL50-0620-40	02904471	GL50	52,0 *2.047*	69,0 *2.717*	43,7 *1.720*	25,7 *1.012*	36,0 *1.417*	50,0 *1.969*	0,4 *0.9*	4800

Insert holders have to be ordered separately, see page(s) 547, 548–550
** Additional information about max RPM, see Instruction pages.
Note, weight is without insert holder

Spare Parts, included in delivery

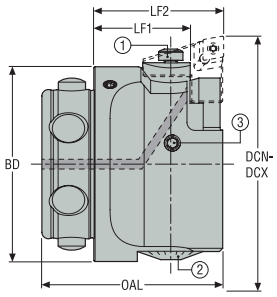
For head	Assembly screw	Clamp key	Key (T-handle)	Locking screw
				
GL32-0620-20	19TB0305	H4B-H2.0	DOUBLE-T	950L0406
GL40-0620-30	19TB04075	03M03C	–	950L0608
GL50-0620-40	19TB04075	03M03C	–	950L0608

Accessories

For head	Torque key for locking and assembly screws
GL32-0620-20	H00-2009
GL40-0620-30	H00-3030
GL50-0620-40	H00-3030

FB 620 BA – Fine boring heads

with BA connection



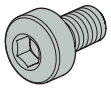
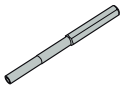
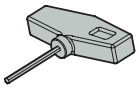
—Designed for BA60 and BA80 Steadyline® turning and boring bars
—Internal coolant supply towards cutting edge
—With micrometric adjusting (increment 0,01 mm and vernier 2,5 µm, on the diameter)

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 *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
BA060-FB620-50	03204094	BA060	65,0 *2.559*	87,0 *3.425*	55,7 *2.193*	29,7 *1.169*	40,0 *1.575*	60,0 *2.362*	0,7 *1.5*	4000
BA080-FB620-60	03204095	BA080	85,0 *3.346*	115,0 *4.528*	58,2 *2.291*	26,7 *1.051*	41,2 *1.622*	80,0 *3.150*	1,2 *2.7*	3000

Insert holders have to be ordered separately, see page(s) 500
** Additional information about max RPM, see Instruction pages.
Note, weight is without insert holder

Spare Parts, included in delivery

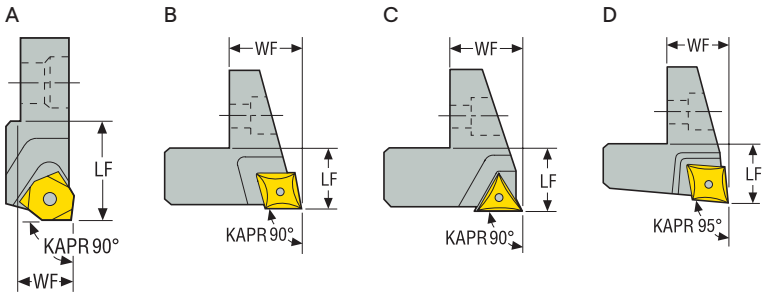
For head	Assembly screw	Key	Key (Flag)	Key (T-handle)	Locking screw
					
BA060-FB620-50	19TB04075	–	03M03C	–	950L0608
BA080-FB620-60	950D0514	H6B-H5.0L	–	DOUBLE-T	950L0608

Accessories

For head	Torque key for locking and assembly screws
BA060-FB620-50	H00-3030
BA080-FB620-60	H00T-50100

Insert holder

for fine boring heads FB 620 / 780 / 790



—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.

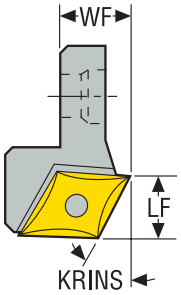
Designation	Item number	Insert holders type	Capacity DCN-DCX ∅ mm Inch		LF mm Inch	WF mm Inch	Weight kg lbs	For boring head	KRINS°	**	Insert holder size	Suitable insert size	Design
A78209	00056634	90° for WB inserts	15,0 0.591	23,5 0.925	7,2 0.283	4,0 0.157	0,1 0.220	FB 78008 / FB 78009	90		09	WB...0301...	A
A72510	00056580	90° for CC inserts	23,0 0.906	31,0 1.220	10,3 0.406	4,5 0.177	0,1 0.220	FB 78010 / FB62010	90		10	CC...0602...	B
A72520	00056581	90° for CC inserts	30,0 1.181	46,0 1.811	8,3 0.327	5,0 0.197	0,1 0.220	FB 78020 / FB 79020 / FB 62020	90		20	CC...0602...	B
A72530	00056582	90° for CC inserts	39,0 1.535	56,0 2.205	10,3 0.406	8,0 0.315	0,1 0.220	FB 78030 / FB 79030 / FB 62030	90		30	CC...0602...	B
A72540	00056583	90° for CC inserts	50,0 1.969	69,0 2.717	10,3 0.406	9,5 0.374	0,1 0.220	FB 78040 / FB 79040 / FB 62040	90		40	CC...0602...	B
A72550	00056584	90° for CC inserts	64,0 2.520	86,0 3.386	10,3 0.406	12,5 0.492	0,1 0.220	FB 78050 / FB 79050 / FB 62050	90		50	CC...0602...	B
A7256A	02689978	90° for CC inserts	85,0 3.346	115,0 4.528	14,5 0.571	18,5 0.728	0,1 0.220	BA080-FB620-60	90		6A	CC...09T3...	B
A72560	00056585	90° for CC inserts	85,0 3.346	115,0 4.528	16,5 0.650	18,9 0.744	0,2 0.440	FB 78060 / FB 79060 / FB 731S500	90		60	CC...09T3...	B
A72565	00056587	90° for CC inserts	114,0 4.488	144,0 5.669	16,5 0.650	33,7 1.327	0,2 0.440	FB 78060 / FB 79060 / FB 731S500	90	**	65	CC...09T3...	B
A72570	00056588	90° for CC inserts	114,0 4.488	160,0 6.299	16,5 0.650	18,9 0.744	0,2 0.440	FB 78070	90		70	CC...09T3...	B
A72575	00056589	90° for CC inserts	159,0 6.260	205,0 8.071	16,5 0.650	41,7 1.642	0,2 0.440	FB 78070	90		75	CC...09T3...	B
A72430	00056572	90° for TC inserts	39,0 1.535	56,0 2.205	10,3 0.406	7,9 0.311	0,1 0.220	FB 78030 / FB 79030 / FB 62030	90		30	TC...1102...	C
A72440	00056573	90° for TC inserts	50,0 1.969	69,0 2.717	10,3 0.406	9,4 0.370	0,1 0.220	FB 78040 / FB 79040 / FB 62040	90		40	TC...1102...	C
A72450	00056574	90° for TC inserts	64,0 2.520	86,0 3.386	10,3 0.406	12,4 0.488	0,1 0.220	FB 78050 / FB 79050 / FB 62050	90		50	TC...1102...	C
A72460	00056575	90° for TC inserts	85,0 3.346	115,0 4.528	16,3 0.642	18,9 0.744	0,1 0.220	FB 78060 / FB 79060 / FB 731S500	90		60	TC...1102...	C
A72465	00056577	90° for TC inserts	114,0 4.488	144,0 5.669	16,5 0.650	33,7 1.327	0,2 0.440	FB 78060 / FB 79060 / FB 731S500	90	**	65	TC...1102...	C
A72470	00056578	90° for TC inserts	114,0 4.488	160,0 6.299	16,3 0.642	18,9 0.744	0,2 0.440	FB 78070	90		70	TC...1102...	C
A72475	00056579	90° for TC inserts	159,0 6.260	205,0 8.071	16,5 0.650	41,7 1.642	0,2 0.440	FB 78070	90		75	TC...1102...	C
A72610	00056590	95° for CC inserts	23,0 0.906	31,0 1.220	10,3 0.406	4,5 0.177	0,1 0.220	FB 78010	95		10	CC...0602...	D
A72620	00056591	95° for CC inserts	30,0 1.181	46,0 1.811	8,3 0.327	5,0 0.197	0,1 0.220	FB 78020 / FB 79020 / FB 62020	95		20	CC...0602...	D
A72630	00056592	95° for CC inserts	39,0 1.535	56,0 2.205	10,3 0.406	8,0 0.315	0,1 0.220	FB 78030 / FB 79030 / FB 62030	95		30	CC...0602...	D
A72640	00056593	95° for CC inserts	50,0 1.969	69,0 2.717	10,3 0.406	9,5 0.374	0,1 0.220	FB 78040 / FB 79040/ FB 62040	95		40	CC...0602...	D
A72650	00056594	95° for CC inserts	64,0 2.520	86,0 3.386	10,3 0.406	12,5 0.492	0,1 0.220	FB 78050 / FB 79050 / FB 62050	95		50	CC...0602...	D
A72660	00056595	95° for CC inserts	85,0 3.346	115,0 4.528	16,5 0.650	18,9 0.744	0,2 0.440	FB 78060 / FB 79060 / FB 731S500	95		60	CC...09T3...	D
A72665	00056597	95° for CC inserts	114,0 4.488	144,0 5.669	16,5 0.650	33,7 1.327	0,2 0.440	FB 78060 / FB 79060 / FB 731S500	95	**	65	CC...09T3...	D

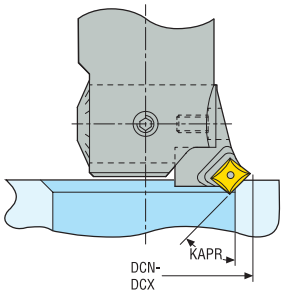
Designation	Item number	Insert holders type	Capacity DCN-DCX ∅		LF	WF	Weight	For boring head	KRINS°	**	Insert holder size	Suitable insert size	Design
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*						
A72670	00056598	95° for CC inserts	114,0 *4.488*	160,0 *6.299*	16,5 *0.650*	18,9 *0.744*	0,2 *0.440*	FB 78070	95		70	CC...09T3...	D
A72675	00056599	95° for CC inserts	159,0 *6.260*	205,0 *8.071*	16,5 *0.650*	41,7 *1.642*	0,2 *0.440*	FB 78070	95		75	CC...09T3...	D

Spare Parts, included in delivery

For insert size	Insert key	Insert screw	Key (T-handle)
WB...0301...	H4B-T06P	C02035-T06P	DOUBLE-T
CC...0602...	H4B-T07P	C02504-T07P	DOUBLE-T
CC...09T3...	H4B-T15P	C04008-T15P	DOUBLE-T
TC...1102...	H4B-T07P	C02504-T07P	DOUBLE-T

Chamfering insert holders
for fine boring heads FB 620 / 780 / 790





—Suitable for radial boring heads FB 620/ 780/ 790

Designation	Item number	For boring head	Insert holder size	Capacity DCN-DCX ∅		LF	WF	Weight	KRINS°	KAPR°	Suitable insert size
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*			
A72910CC0630	00086885	FB 78010	10	23,0 *0.906*	31,0 *1.220*	10,8 *0.425*	4,5 *0.177*	0,1 *0.220*	30	30	CC...0602...
A72920CC0630	00086888	FB 78020 / FB 79020/ GL32-0620-20	20	30,0 *1.181*	46,0 *1.811*	10,0 *0.394*	4,9 *0.193*	0,1 *0.220*	30	30	CC...0602...
A72930CC0630	00086891	FB 78030 / FB 79030 / FB 62030	30	39,0 *1.535*	56,0 *2.205*	10,5 *0.413*	8,1 *0.319*	0,1 *0.220*	30	30	CC...0602...
A72940CC0630	00086894	FB 78040 / FB 79040 / FB 62040	40	50,0 *1.969*	69,0 *2.717*	10,5 *0.413*	9,5 *0.374*	0,1 *0.220*	30	30	CC...0602...
A72950CC0630	00086897	FB 78050 / FB 79050	50	64,0 *2.520*	86,0 *3.386*	10,5 *0.413*	12,5 *0.492*	0,1 *0.220*	30	30	CC...0602...
A72960CC0930	00086900	FB 78060 / FB 79060 / A731S500	60	85,0 *3.346*	115,0 *4.528*	16,5 *0.650*	19,1 *0.752*	0,08 *0.180*	30	30	CC...09T3...
A72970CC0930	00086903	FB 78070	70	114,0 *4.488*	160,0 *6.299*	16,4 *0.646*	18,8 *0.740*	0,09 *0.200*	30	30	CC...09T3...
A72910CC0645	00086886	FB 78010	10	23,0 *0.906*	31,0 *1.220*	11,5 *0.453*	4,5 *0.177*	0,01 *0.020*	45	45	CC...0602...
A72920CC0645	00086889	FB 78020 / FB 79020 / FB 62020	20	30,0 *1.181*	46,0 *1.811*	10,0 *0.394*	5,0 *0.197*	0,1 *0.220*	45	45	CC...0602...
A72930CC0645	00086892	FB 78030 / FB 79030 / FB 62030	30	39,0 *1.535*	56,0 *2.205*	10,5 *0.413*	8,1 *0.319*	0,1 *0.220*	45	45	CC...0602...
A72940CC0645	00086895	FB 78040 / FB 79040 / FB 62040	40	50,0 *1.969*	69,0 *2.717*	10,5 *0.413*	9,5 *0.374*	0,1 *0.220*	45	45	CC...0602...
A72950CC0645	00086898	FB 78050 / FB 79050	50	64,0 *2.520*	86,0 *3.386*	10,3 *0.406*	12,4 *0.488*	0,02 *0.040*	45	45	CC...0602...
A72960CC0945	00086901	FB 78060 / FB 79060 / A731S500	60	85,0 *3.346*	115,0 *4.528*	16,5 *0.650*	19,1 *0.752*	0,2 *0.440*	45	45	CC...09T3...
A72970CC0945	00086904	FB 78070	70	114,0 *4.488*	160,0 *6.299*	16,4 *0.646*	18,8 *0.740*	0,09 *0.200*	45	45	CC...09T3...

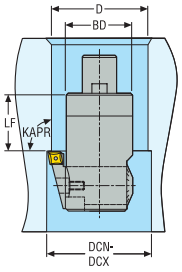
For spare insert screws and spare insert keys, see page(s) 583
**For capacity DC with Bridge bars and Jumbo Bridge bars, see page 559

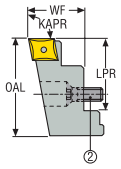
Spare Parts, included in delivery

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 A78020 & A79020 GL32-0620-20	39,5-47,5 46-56 49,7-61,7	*(1.555-1.870)* *(1.811-2.205)* *(1.957-2.429)*	16,5 *(0.650)* 21,5 *(0.846)* 7,75 *(0.305)*	21,5 *(0.846)* 27 *(1.063)* 32 *(1.260)*	30,5 *(1.201)*	16,0 *(0.630)*	12,8 *(0.504)*	0,01 *(0.020)*
A789X30CC0690	00086910	A78030 & A79030 A78040 & A79040 A78050 & A79050 GL40-0620-30 GL50-0620-40	53-65 61-76 69-91 57,6-70,2 67,6-80,2	*(2.087-2.559)* *(2.402-2.992)* *(2.717-3.583)* *(2.268-2.764)* *(2.661-3.157)*	32 *(1.260)* 39 *(1.535)* 49 *(1.929)* 1,75 *(0.069)* 2,75 *(0.108)*	35 *(1.378)* 43 *(1.693)* 54 *(2.126)* 40 *(1.575)* 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 563
For spare insert screws and spare insert keys, see page(s) 583
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)*

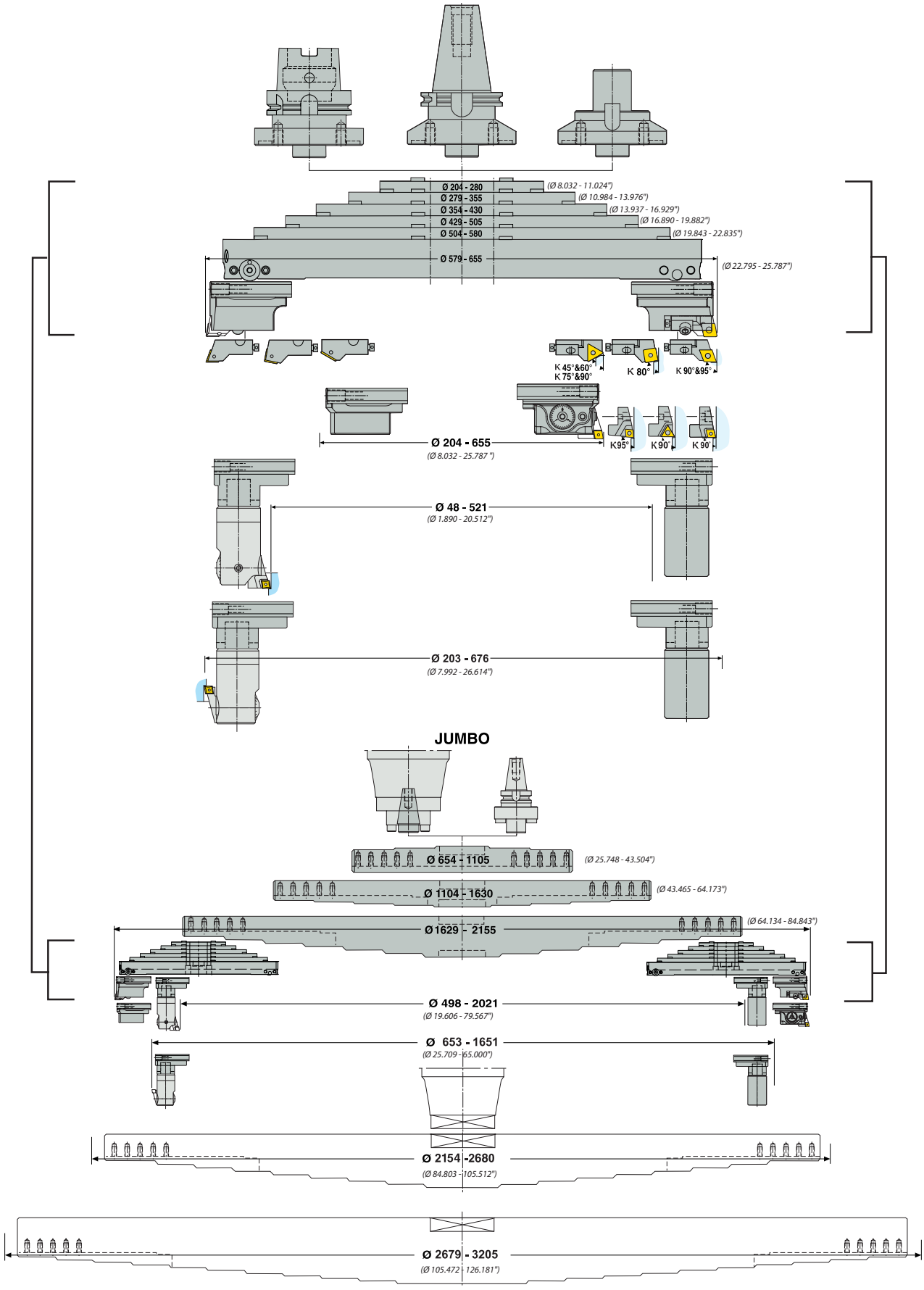
Note: The maximum speeds are related to the boring head's mechanical design and balancing quality. Speeds inside these limits have to be chosen in regard to the other machining conditions, e.g. workpiece material, cutting edge (insert), tooling length, machine spindle. At speeds from approx. 8000 RPM and above, the basic holders and the extensions/reducers should be fine balanced.

Bridge bars

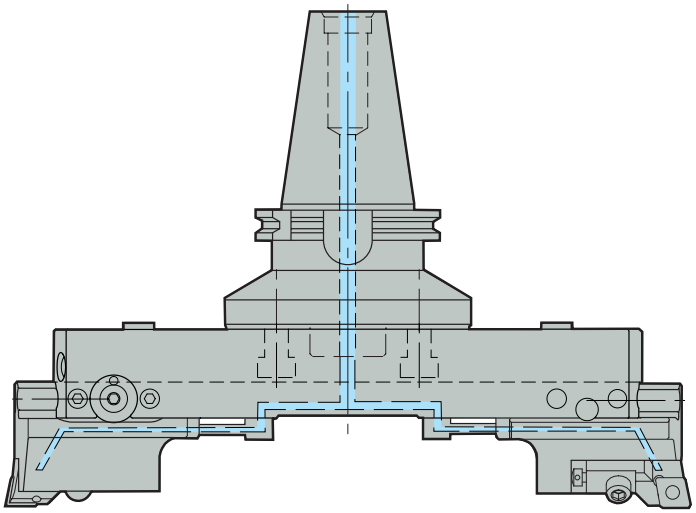
Seco offers a complete range of Bridge Bars and Jumbo Bridge Bars for large diameter boring and overturning operations.

- 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 279 - 355
Ø 354 - 430
Ø 429 - 505
Ø 504 - 580
(Ø 8.032 - 11.024")
(Ø 10.984 - 13.976")
(Ø 13.937 - 16.929")
(Ø 16.890 - 19.882")
(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")
Ø1629 - 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: BB731 Series



Application

— Boring (Rough & Fine) Ø 204 – 655 mm (8.032 – 25.787").

— OD overturning Ø 48 – 521 mm (1.890 – 20.512").

— Back Boring Ø 203 mm – 676 mm (7.992 – 26.614").

Benefits and Features

— 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.

— Bridge bars can hold rough, fine, counterweight or Graflex® boring blocks.

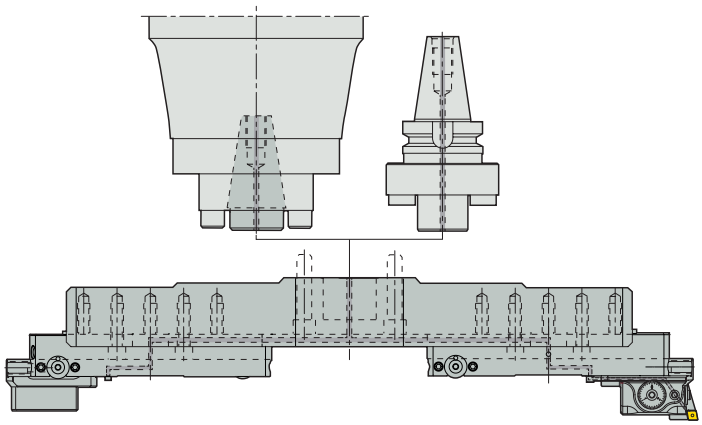
— The boring blocks are locked onto the Bridge bar by means of two cylinders actuated by three clamping screws: One of the clamping screws has a stop disc, which limits the block's sliding stroke inside its setting capacity and stops the block from sliding out of the Bridge bar. Precise and step free 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.

— 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.

— Coolant through the Bridge bars and the boring blocks, towards the cutting edges.

Features: JBB731 Series



Application

— Boring (Rough & Fine) Ø 654 – 3078 mm (25.748" – 121.181").

— OD overturning Ø 498 – 3071 mm (19.606–120.906").

— Back Boring Ø 653 – 3226 mm (25.709 – 127.008").

Benefits and Features

— Jumbo Bridge bars are made of high tensile aluminium with spindle steel interfaces.

— Designed to hold two classic Bridge bars from BB731 series in several positions.

— Jumbo Bridge bars are delivered with two lifting rings.

— Sizes A731S001, 002, 003 are delivered with 4 locking screws.

— Can 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.

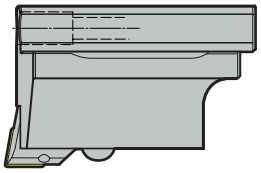
Sizes A731S004-...* and A731S005-...* are available on request, with standard or specific spindle fitting possibilities, according to the machine:

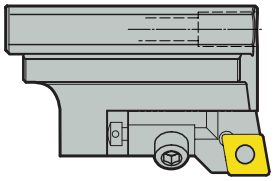
Capacity ∅ mm *(inch)*	Designation	Dimensions in mm (*inch*), see drawing on Product page							
		DCB	LF	HTB	LB	CBDP	WB	DCON	Weight
2154-2680 *(84.803-105.512")*	A731S004-...*	*	70 *(2.75591")*	300 *(11.811")*	160 *(6.29921")*	*	2140 *(84.25197")*	*	*
2679-3205 *(105.472-126.181")*	A731S005-...*	*	110 *(4.33071")*	400 *(15.748")*	200 *(7.87402")*	*	2665 *(104.9213")*	*	*

* Designation code and dimensions will be completed related to the spindle fitting type.

Features: Boring Blocks for BB731 and JBB731 series

Rough Boring block





Application

— Cartridges available with 90° and 80° lead angle.

— Cartridges with ISO5611/h1 = 16 mm (0.629") fitting interface are suitable.

Benefits and Features

— A large twin rough boring head requires two rough boring blocks, each equipped with a cartridge.

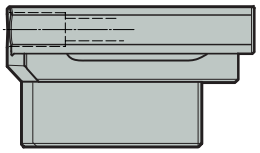
— A large range of cartridges available.

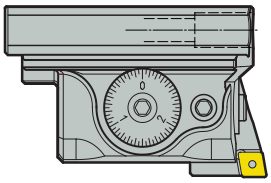
— Cartridges with a 90° lead angle, are recommended in most of boring applications for lower power consumption.

— Cartridges with 80° lead angle, are recommended for through hole boring (and chamfering), particularly in cast iron to avoid exit failure. The power consumption is higher.
— The two diameters 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) 558-563.

Fine Boring block





Application

— Wide range of insert holder available in 90° and 95° KAPR.

— Suitable fine boring insert holders A72460, A72560, A72660.

Benefits and Features

— A large fine boring head requires one fine boring block equipped with an insert holder and one counterweight block.

— Fine boring blocks with through coolant towards the cutting edge.

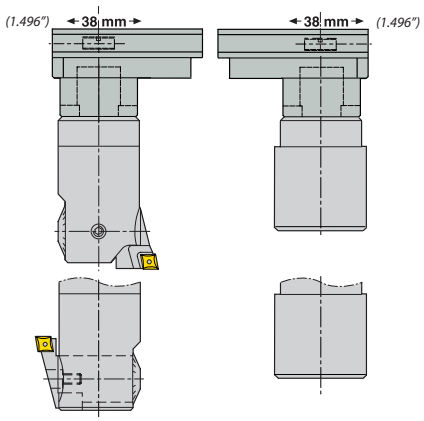
— Insert blocks engineered with safety features that ensure the blocks will not have a centrifugal effect on the higher rpms (the blocks will not come out of the bars)

Features: Graflex® boring blocks, for OD-overturning or back-boring

Topic 1

Application

- This block has a female Graflex® front connection size G5.
- Possible to use for OD-overturning or back-boring.
- Assembling and setting procedures see page(s) 558-563.
- **NOTE!** These new boring blocks can also be fitted onto the previous type of Bridge bar.



Benefits and Features

- Any Graflex® boring head, special tool or standard tool or standard Graflex® module size G5 can be mounted onto the bridge bar.
- 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-turning 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.
- 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

Topic 2

Advice for 'through coolant' accessories selection

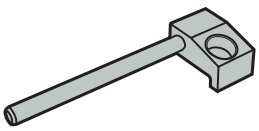
Roughing (Bridge bar with 2 rough boring blocks):

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.

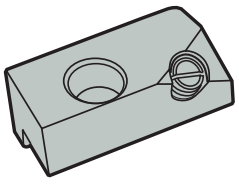
Fine boring (Bridge bar with 1 fine boring block & 1 counterweight):

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*.**

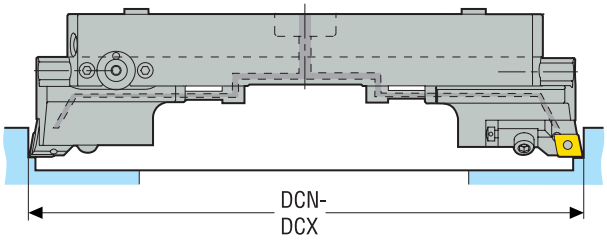


Fig. 1

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).**

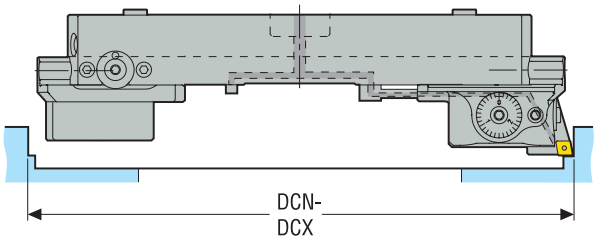


Fig. 2

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*.**

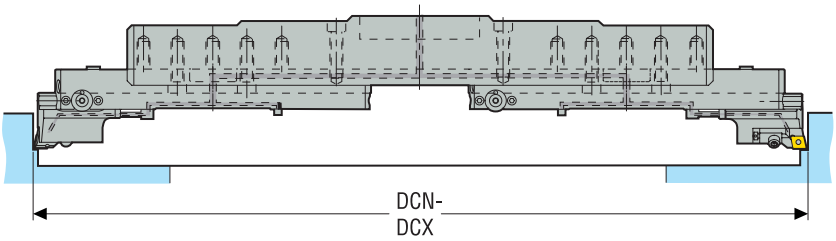


Fig. 3

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).**

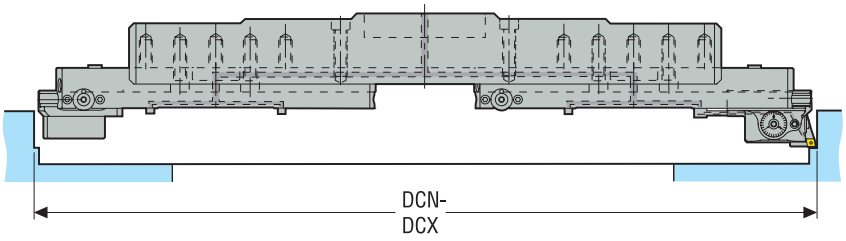


Fig. 4

* 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).

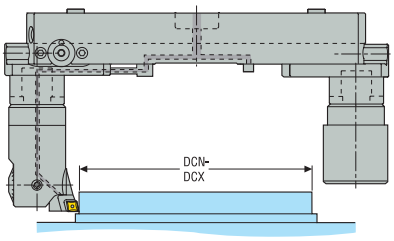


Fig. 1

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*.

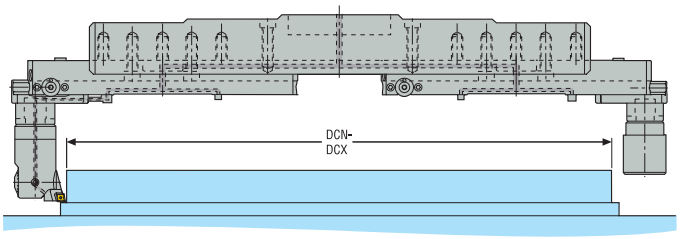


Fig. 2

* 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).

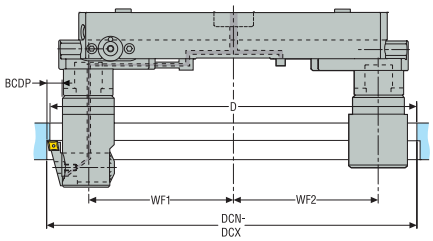


Fig. 1

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).

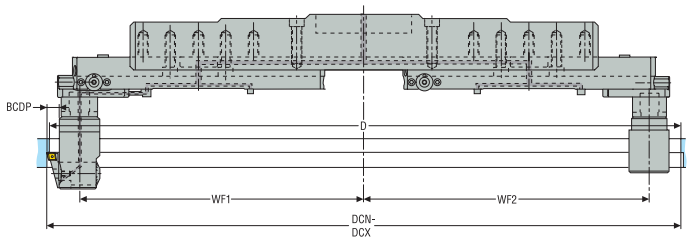


Fig. 2

* 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).

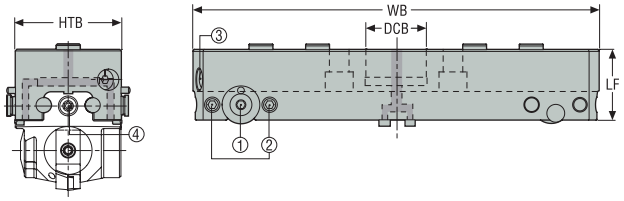
The two extreme cases:

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		

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

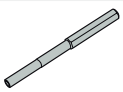
Designation	Item number	Workpiece side Capacity DCN-DCX Ø		HTB	WB	DCB	LF	Weight
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*
A731S010	02753664	204,0 *8.031*	280,0 *11.024*	70,0 *2.756*	195,0 *7.677*	40,0 *1.575*	47,0 *1.850*	3,6 *7.9*
A731S020	02753668	279,0 *10.984*	355,0 *13.976*	70,0 *2.756*	269,0 *10.591*	40,0 *1.575*	47,0 *1.850*	5,0 *11.0*
A731S030	02753670	354,0 *13.937*	430,0 *16.929*	70,0 *2.756*	344,0 *13.543*	40,0 *1.575*	47,0 *1.850*	6,5 *14.3*
A731S040	02753673	429,0 *16.890*	505,0 *19.882*	70,0 *2.756*	419,0 *16.496*	40,0 *1.575*	47,0 *1.850*	7,9 *17.4*
A731S050	02753675	504,0 *19.843*	580,0 *22.835*	70,0 *2.756*	494,0 *19.449*	40,0 *1.575*	47,0 *1.850*	10,5 *23.2*
A731S060	02753677	579,0 *22.795*	655,0 *25.787*	70,0 *2.756*	569,0 *22.402*	40,0 *1.575*	47,0 *1.850*	12,3 *27.1*

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) 569
For OD-overturning capacities, see Guide page(s) 560–561
For larger diameters, see Jumbo Bridge bars on page(s) 565

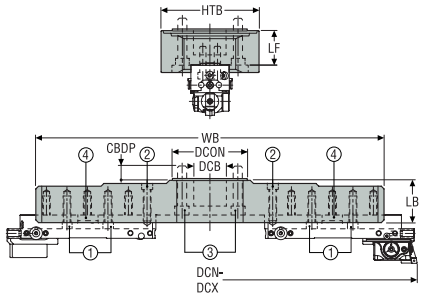
Spare Parts, included in delivery

For	Locking screw
A731S010-60	19A71060

Accessories

For	Key	Key (T-handle)	Locking key
			
A731S010-60	H6B-H5.0L	DOUBLE-T	03HL05

JBB 731S00 – Jumbo Bridge bars



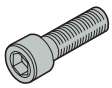
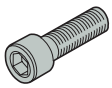
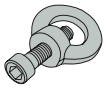
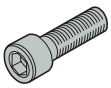
—Jumbo Bridge bars are designed to hold two classic Bridge bars in several positions
—Through coolant Jumbo Bridge bars

1. Assembly screw
2. Locking screw
3. Fixing screw
4. Sealing plug

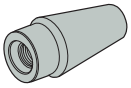
Designation	Item number	Workpiece side Capacity DCN-DCX Ø		HTB	LF	WB	DCON	DCB	CBDP	LB	Weight	**
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
A731S001	02828506	654,0 *25.748*	1105,0 *43.504*	180,0 *7.087*	63,0 *2.480*	640,0 *25.197*	135,0 *5.315*	60,0 *2.362*	24,0 *0.945*	77,0 *3.031*	20,25 *44.6*	
A731S002	02828516	1104,0 *43.465*	1630,0 *64.173*	200,0 *7.874*	50,0 *1.969*	1090,0 *42.913*	135,0 *5.315*	60,0 *2.362*	24,0 *0.945*	80,0 *3.150*	34,5 *76.1*	
A731S003	02904383	1629,0 *64.134*	2155,0 *84.843*	200,0 *7.874*	50,0 *1.969*	1615,0 *63.583*	135,0 *5.315*	60,0 *2.362*	24,0 *0.945*	80,0 *3.150*	67,0 *147.7*	**

Boring, OD-overturning and back-boring capacities for Jumbo and Bridge bars combinations, see Guide page(s) 558-563
**Larger sizes A731S004-... (∅ 2154-2680 mm) and A731S005-... (∅ 2679-3205 mm) available on request, see Guide page(s) 559

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

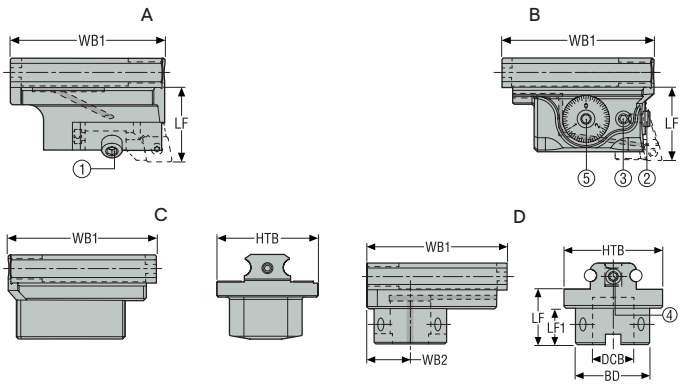
Accessories

For DCN-DCX	Centering spigot
	
654-1105	E447153960
1104-1630	E447153960
1629-2155	E447153960

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.

BBB 731S0xx – for boring blocks and Jumbo bridge bars

–For fitting onto Bridge bars
–Coolant through the rough, fine and Graflex boring blocks



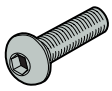
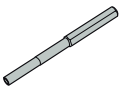
1. Assembly screw
5. Micrometric adjusting screw
3. Locking screw

2. Assembly screw
4. Diameter setting screw

Designation	Item number	Type of boring block	Workpiece side Capacity DCN-DCX Ø		HTB	LF	LF1	WB1	WB2	DCB	BD	Weight	Design
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
A731S400	02753679	Rough boring block*	204,0 *8.031*	2155,0 *84.843*	70,0 *2.756*	47,0 *1.850*	–	97,0 *3.819*	–	–	–	1,4 *3.1*	A
A731S500	02753680	Fine boring block**	204,0 *8.031*	2155,0 *84.843*	70,0 *2.756*	47,0 *1.850*	–	97,0 *3.819*	–	–	–	1,5 *3.3*	B
A731S600	02753682	Counterweight	204,0 *8.031*	2155,0 *84.843*	70,0 *2.756*	–	–	97,0 *3.819*	–	–	–	1,6 *3.5*	C
A731S40128	02753687	Graflex size G5***	48,0 *1.890*	2021,0 *79.567*	70,0 *2.756*	36,0 *1.417*	25,0 *0.984*	97,0 *3.819*	30,0 *1.181*	28,0 *1.102*	50,0 *1.969*	1,0 *2.2*	D

* Cartridges to be ordered separately, see page(s) 568
** Fine boring insert holders size 60 to be ordered separately, see page 547, 548
*** When using boring head A78050, use the counterweight mass BM050W78050, see Accessories below.

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
A731S500	950D0612	950L1016	H6B-H5.0L	DOUBLE-T	–	90JT01
A731S600	–	–	H6B-H5.0L	DOUBLE-T	–	–
A731S40128	90F5	–	H6B-H5.0L	DOUBLE-T	03H05	90JT01

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

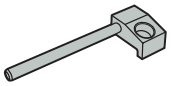
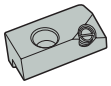
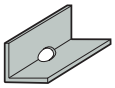
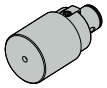
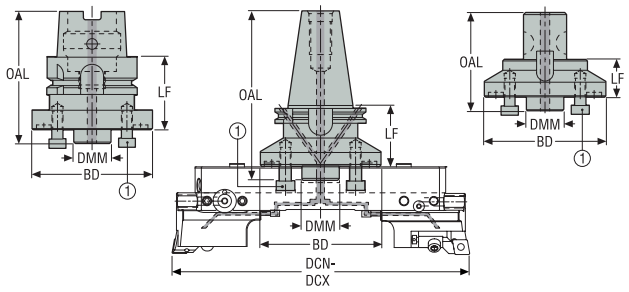
For	Connecting pipe	Coolant kit	Corner shim	Counterweight
				
A731S400	AU731S00700	AU731S40700	18LS0316	–
A731S500	AU731S00700	–	–	–
A731S600	–	–	–	–
A731S40128	AU731S00700	–	–	BM050W78050

ABB 731 200 – Holders and adapter for Bridge bars



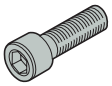
1. Adjusting screw

—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

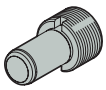
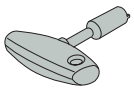
Designation	Item number	Machine side connection	Size	Workpiece side Capacity DCN-DCX Ø		OAL	LF	BD	DMM	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*
E3471731200	02503392	DIN 69871-ADB	DIN50 ADB	204,0 *8.031*	655,0 *25.787*	166,75 *6.565*	65,0 *2.559*	130,0 *5.118*	40,0 *1.575*	5,9 *13.0*
E3416731200	02503393	BT JIS B 6339-ADB	BT50 ADB	204,0 *8.031*	655,0 *25.787*	166,75 *6.565*	65,0 *2.559*	130,0 *5.118*	40,0 *1.575*	5,64 *12.4*
E9306731200	02417268	ISO 12164-1/ DIN69893-A	HSK-A100	204,0 *8.031*	655,0 *25.787*	115,0 *4.528*	65,0 *2.559*	130,0 *5.118*	40,0 *1.575*	5,0 *11.0*
A731200	00056616	GRAFLEX	G7	204,0 *8.031*	655,0 *25.787*	90,0 *3.543*	40,0 *1.575*	130,0 *5.118*	40,0 *1.575*	4,0 *8.8*

Tightening torque 80 Nm. For application details, refer to the operating instructions supplied with the Bridge bars and Boring blocks.

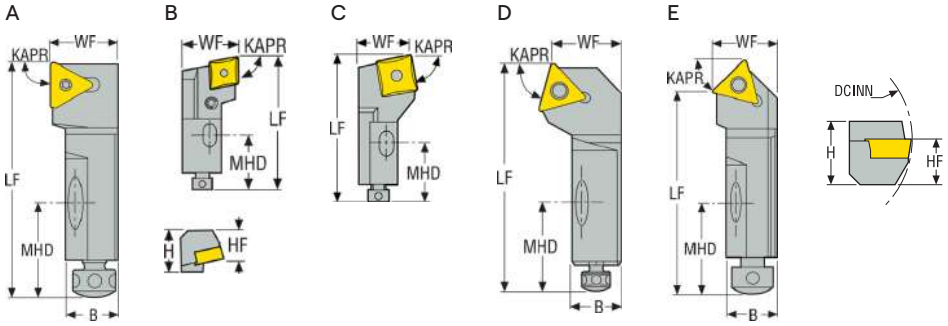
Spare Parts, included in delivery

For	Assembly screw	Key	Sealing Screws	Tenon
				
E3471731200	950D1230	10SMS795	950A0606	–
E3416731200	950D1230	10SMS795	950A0606	–
E9306731200	950D1230	10SMS795	–	–
A731200	950D1230	10SMS795	–	90M7

Accessories

For	Coolant tube	Sealing plugs	Spanner
			
E3471731200	–	–	–
E3416731200	–	–	–
E9306731200	20E9306	02E9306	03E9306
A731200	–	–	–

Cartridges, for Bridge bars rough boring block A731S400



—For fitting onto the rough boring block

Designation	Item number	KAPR°	LF	MHD	WF	B	H	HF	DCINN	Weight	Suitable insert size	Design
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
SCGCL16CA-16	00039871	90,0 °	55,0 *2.165*	25,0 *0.984*	25,0 *0.984*	17,5 *0.689*	20,0 *0.787*	16,0 *0.630*	60,0 *2.362*	0,2 *0.4*	CC..16..	A
STGCL16CA-16	00009197	90,0 °	63,0 *2.480*	25,0 *0.984*	24,96 *0.983*	20,0 *0.787*	25,0 *0.984*	16,0 *0.630*	60,0 *2.362*	0,2 *0.4*	TC..16T3..	A
STGCL16CA-22	02600181	90,0 °	55,0 *2.165*	25,0 *0.984*	25,0 *0.984*	17,5 *0.689*	20,0 *0.787*	16,0 *0.630*	50,0 *1.969*	0,2 *0.4*	TC..2204..	A
PCGNL16CA-12	02484356	90,2 °	63,0 *2.480*	25,0 *0.984*	25,0 *0.984*	20,0 *0.787*	25,0 *0.984*	16,0 *0.630*	36,0 *1.417*	0,2 *0.4*	CN..12..	B
SSRCL16CA-15	00039872	75,0 °	63,0 *2.480*	25,0 *0.984*	25,0 *0.984*	20,0 *0.787*	20,0 *0.787*	16,0 *0.630*	60,0 *2.362*	0,2 *0.4*	SC..15..	C
STRCL16CA-16	00008750	75,0 °	63,0 *2.480*	25,0 *0.984*	24,96 *0.983*	20,0 *0.787*	25,0 *0.984*	16,0 *0.630*	60,0 *2.362*	0,2 *0.4*	TC..16T3..	D
STRCL16CA-22	02585320	75,0 °	63,0 *2.480*	25,0 *0.984*	25,0 *0.984*	17,5 *0.689*	20,0 *0.787*	16,0 *0.630*	60,0 *2.362*	0,2 *0.4*	TC..2204..	D
STTCL16CA-16	00009194	60,0 °	63,0 *2.480*	25,0 *0.984*	14,96 *0.589*	20,0 *0.787*	25,0 *0.984*	16,0 *0.630*	60,0 *2.362*	0,2 *0.4*	TC..16T3..	D
STSCL16CA-16	00009193	45,0 °	53,0 *2.087*	25,0 *0.984*	24,96 *0.983*	20,0 *0.787*	25,0 *0.984*	16,0 *0.630*	60,0 *2.362*	0,2 *0.4*	TC..16T3..	E

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 492, or fine boring chapter page 537.

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.

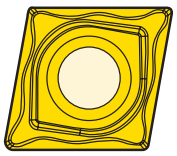
Code keys, examples

CCMT120408	–	M3	–	TP3501
1		2		3

1.
Size (ISO designation)

2.
Geometry

3.
Seco grade



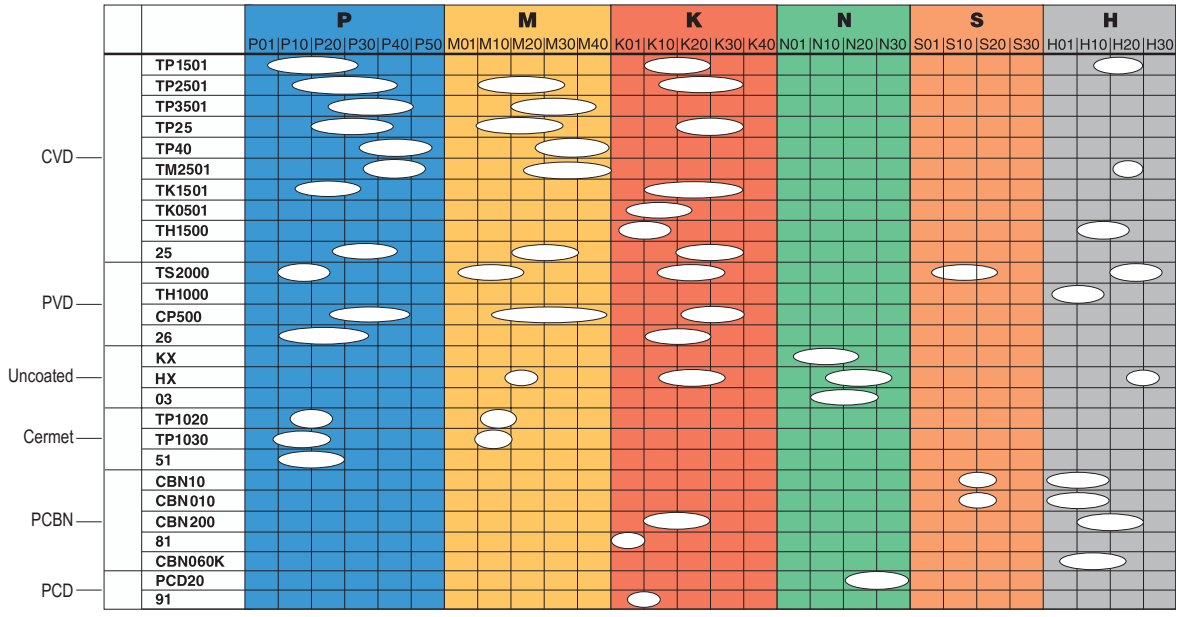
CCGT09T304	–	03	–	G3
1		2		3

1.
Size (ISO designation)

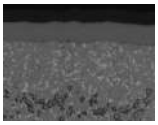
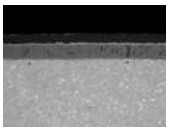
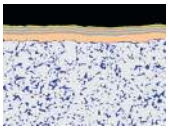
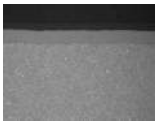
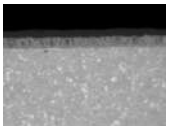
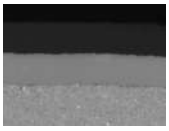
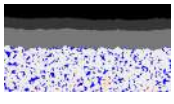
2.
Grade

3.
Tooling systems geometry

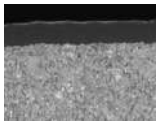
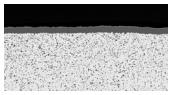
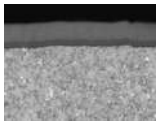
Insert grades for boring – ISO workpiece material classification



CVD coated grades recommended for boring

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. 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. 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. 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. 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. TiC/Ti(C,N) + TiN
TK0501		**Duratomic®** technology coated grade. A extremely wear resistant optimized grade choice for machining of grey cast iron and easier ductile cast irons. 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. 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. Ti(C,N) + Al_2O_3 + Used Edge Detection (Chrome)
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. Ti(C,N) + Al_2O_3
25		Universal grade. The grade is intended for a wide range of boring applications in steel, stainless steel and cast iron. Good combination of wear resistance and toughness. Ti (C, N) + Al2O3.

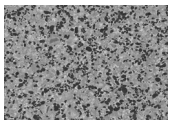
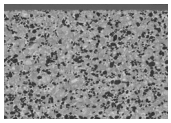
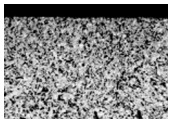
PVD coated grades recommended for boring

TS2000		Hard micrograin principally intended for finishing operations in superalloys and titanium alloys. Also performs well in finishing operations on stainless steel. (Ti,Al)N + TiN
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. (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.

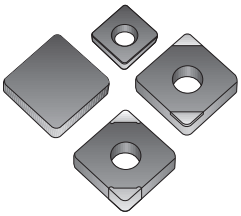
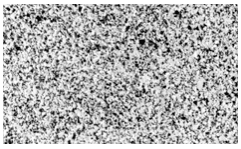
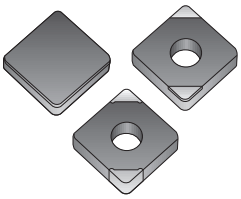
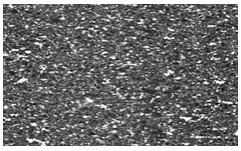
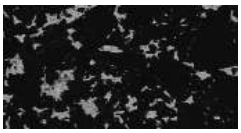
Uncoated grades recommended for boring

KX & 03G3		Micrograin intended for machining aluminum and other non-ferrous materials.
HX		Universal uncoated grade intended for machining of cast iron and hardened steels useful also in non-ferrous materials.

Cermet recommended for boring

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. Ti-Al-Si-N nanolaminate coating.
51G1		Cermet with very high wear resistance. Intended for finishing operations on steels, in which strict demands are made on surface finish.

CBN and PCD grades recommended for boring

CBN010		Format: Solid, full-face brazed layer and brazed tips (single and double sided). Composition: 50% CBN content grade with an average grain size of 2 µm and a TiC ceramic binder. Coating: No coating.
CBN10 & 81B1		CBN, Cubic boron nitride grade, for light continuous to moderate interrupted cuts. Intended for fine boring in hardened steel and in superalloys.
CBN060K		Format: Solid & brazed tips (single & double sided). Composition: 60% cBN content grade with an average grain size of 1-2 µm and a TiCN ceramic binder. Coating: (Ti, Al, Si)N coating.
CBN200		Format: Full-face layer and brazed tips (single sided). Composition: 85% cBN content grade with an average grain size of 2 µm and a Co-W-Al ceramic binder. Coating: No coating.
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		
CPGT050204			02434654							2 *(0.079)*	0,08-0,2 *(0.0031-0.0079)*
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)*
CCGT060204L-UX									02497631	2 *(0.079)*	0,1-0,22 *(0.0039-0.0087)*
CCGT060204F-AL	00015710									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)*
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)*
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)*
CCGT120408L-UX									02610062	4 *(0.157)*	0,15-0,4 *(0.0059-0.0157)*
CCGT120408F-AL	00015790									5 *(0.197)*	0,15-0,4 *(0.0059-0.0157)*
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)*
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)*
TCGT16T308F-AL	00015875									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)*

For recommended cutting speeds, see pages 579-582

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-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-MF1			03275995		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 579-582

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)*
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)*
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)*
CCGW060202S-01020-LF											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)*
CCGW060204E-L1-B											0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
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)*
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)*
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)*
CCGW09T304E-L1-B											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)*
CCGW09T304S-01020-LF											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)*
TCGT110204								00000721			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)*
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)*
TCGW110204E-L1-C											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)*
TCGW110204S-01020-LF											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)*
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 579-582

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)*
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)*
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)*
CCGW060202S-01020-LF			02464698				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)*
CCGW060204E-L1-B	02843086	02776337	02649599				0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
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)*
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)*
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)*
CCGW09T304E-L1-B	02843126	02776338	02649607				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)*
CCGW09T304S-01020-LF	02916282		02464702				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)*
TCGT110204							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)*
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)*
TCGW110204E-L1-C	02848657	02776346					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)*
TCGW110204S-01020-LF			02464742				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)*
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 579-582

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													

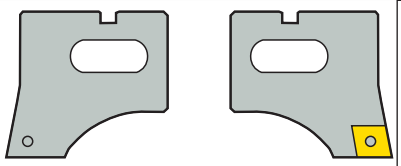
SMG = Seco material group V_c = m/min (sf/min) All cutting data are start values

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													

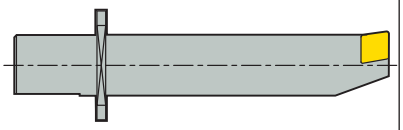
SMG = Seco material group V_c = m/min (sf/min) All cutting data are start values

Insert locking keys and screws of all boring insert holders, tools and cartridges



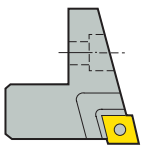
		Accessories		Spare Parts	
		Torx driver for insert locking screw*		Insert locking screw	
	For insert size	Designation	Torx Plus	Designation	Torx Plus
For rough boring insert holders	CP...0502	T07P-3	07	C02245-T07P	07
	CC...0602	T07P-3	07	C02504-T07P	07
	CC...09T3	T15P-3	15	C04008-T15P	15
	CC...1204	T15P-3	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.

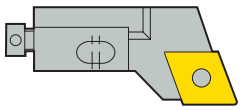


		Accessories		Spare Parts	
		Torx driver for insert locking screw*		Insert locking screw	
	For insert size	Designation	Torx Plus	Designation	Torx Plus
For Axiabore™ type tool	WB...0301...	T06P-3	06	C02035-T06P	06
	CC...0602...	T07P-3	07	C02504-T07P	07
	–	T15P-3	15	C04008-T15P	15

Spare parts for insert holders

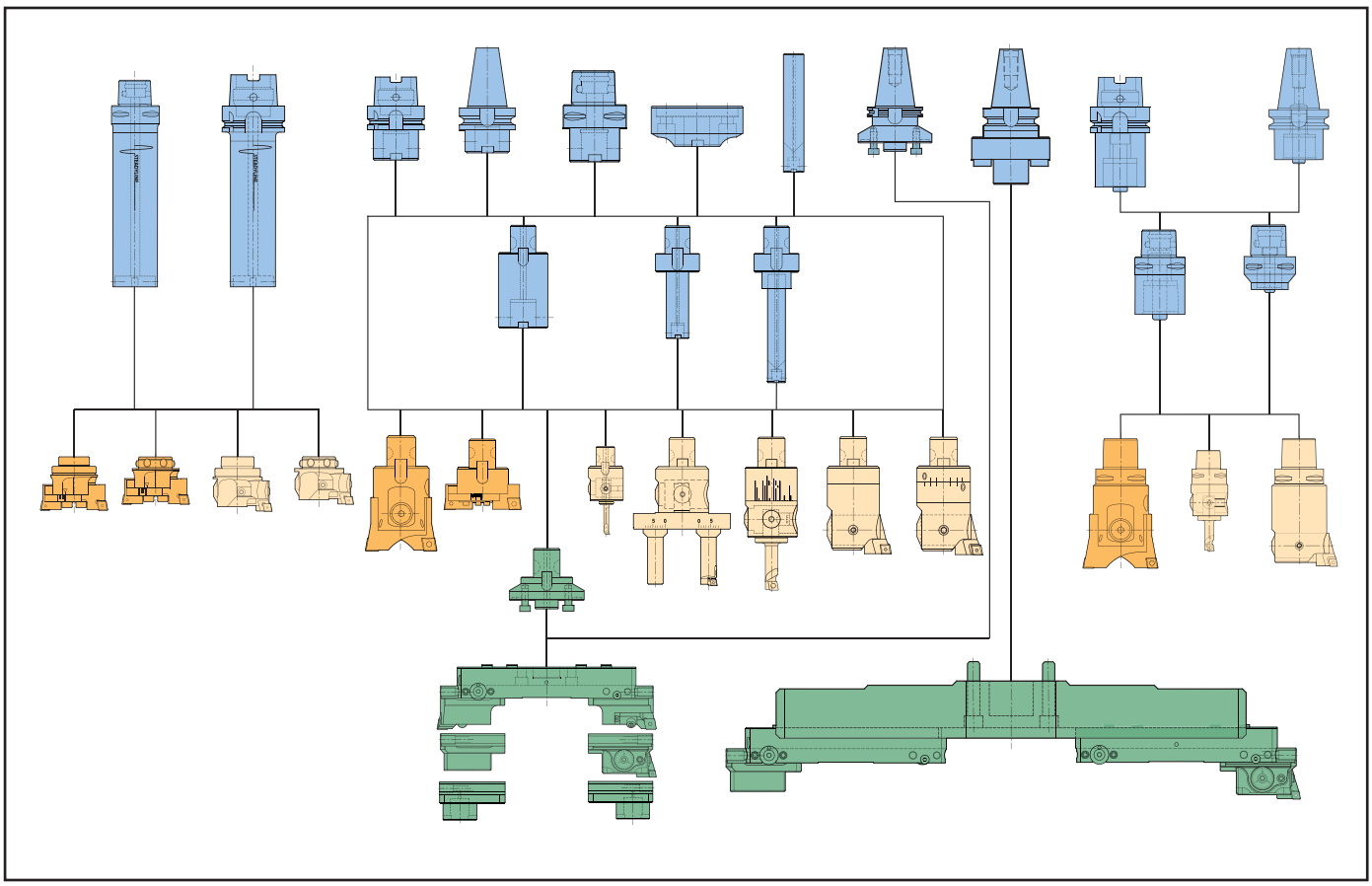


		Spare Parts			
		Insert key		Insert screw	
	For insert size	Designation	Torx Plus	Designation	Torx Plus
For fine boring insert holders, chamfering insert holders and back boring insert holders	WB...0301...	T06P-2	06	C02035-T06P	06
	CC...0602...	T07P-3	07	C02504-T07P	07
	CC...09T3...	T15P-3	15	C04008-T15P	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 567.

Note! Jumbo Bridge bars are designed to be held on milling cutter holders or to be fitted directly on a machine's spindle front.

Graflex®

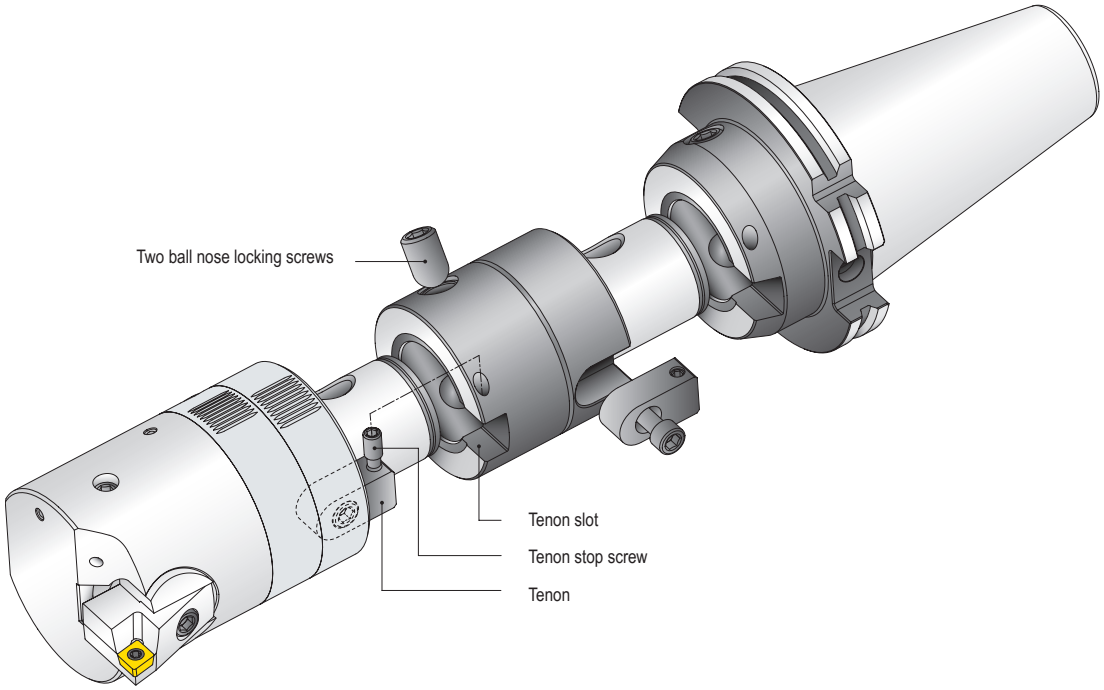
Graflex® assemblies include arbors, intermediates, tool holders and boring heads that can be rapidly built together when they are needed. Suitable for milling, drilling, tapping, reaming and boring, Graflex® modules offer tooling of variable lengths and diameters and can be fitted on all types of machines simply by substituting the Graflex® basic arbor.

- Excellent connection rigidity
- Wide range of modules offer high flexibility
- Through coolant possibilities
- Good repeatability

Locking advice for Graflex® classic connection shanks G. on boring heads (using a tenon with stop screw).

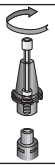
For boring, no need to tighten the tenon's stop screw, as the connection's self locking action is allowed.
For rough boring in heavy duty, we recommend to apply the 'high value' torques for the Graflex® ball nose screws.

See also the detailed 'Graflex® connection assembly procedure' in the Tooling Systems catalog.

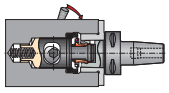


Locking advice for Seco-Capto™ connection shanks C. on boring heads: No specific advice. For boring heads, the general instructions are applicable, see below.

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.)

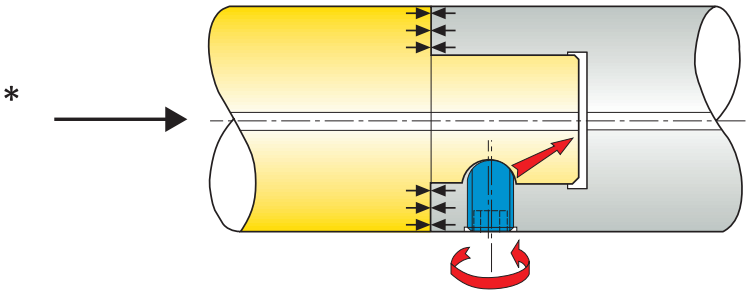
Seco-Capto size	Cam tightening torque (Nm)	Cam tightening torque (ft/lbs)	
C3	35	26	
C4	50	37	
C5	70	52	
C6	90	66	
C8	130	96	

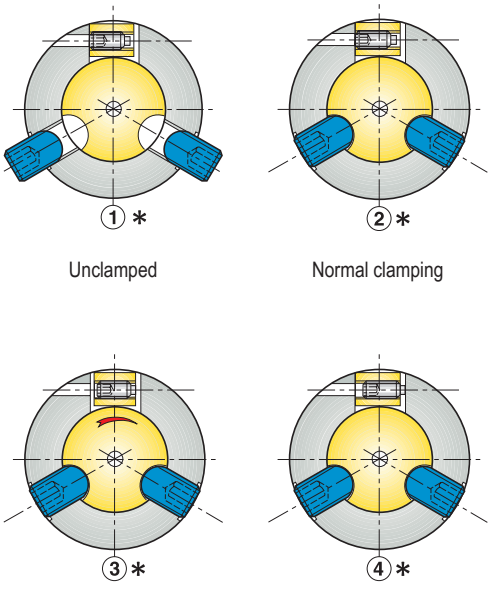
The Seco-Capto™ joint features a self-locking taper. Where the center bolt system is used, unscrew the centre bolt until the bolt head makes contact with the tool holder, causing the bolt to force the taper joint apart. When using the cam shaft side clamping system, over untightening of the cam will force the taper joint apart.

Graflex® modular system – Guide

1. Assemble the Graflex® arbor and module(s) using the tenon(s) for easy orientation. Tighten the ball nose locking screws ensuring that the left face of the tenon contacts the left face of the tenon slot (Drawings 1 and 2).
2. Strong machining torque e.g. during boring may create micro rotational movement of the spigot in relation to the bore, causing micro displacement of the ball nose screw's contact surfaces. This results in complementary self-locking of the connection, enhancing the system's rigidity (Drawing 3).
3. For operations involving intermittent cutting e.g. heavy milling, the blocking screw provided in the tenon can be tightened so as to avoid micro rotational movement and prevent self locking (Drawing 4).

Graflex® assembly procedure



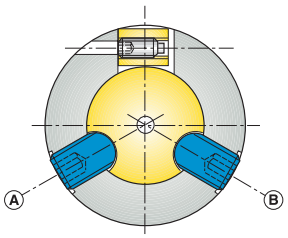


Unclamped | Normal clamping | Self locking | Clamping for intermittent cut

*Drawings 1, 2, 3 and 4 are viewed from the front as when normally assembled e.g. when using the Tool Boy assembly support.

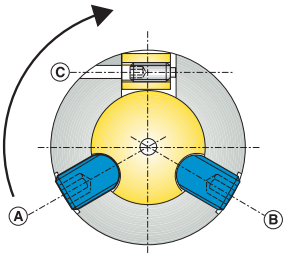
Optimised Graflex® assembly procedure

Left face



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
4. Lightly tighten screw B

Left face



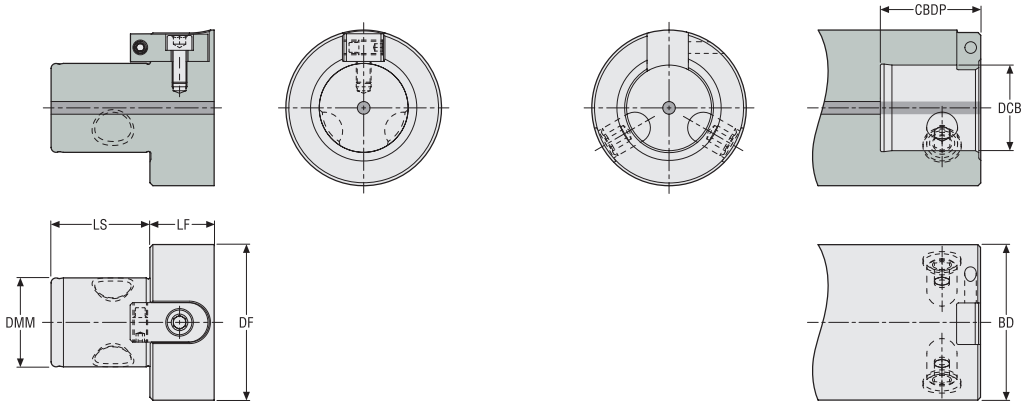
Normal clamping for continuous cut, e.g. boring, light duty milling

5. Torque screw A (low values).
6. Torque screw B (low values).

Clamping for intermittent cut, e.g. interrupted boring, heavy duty milling

5. Torque the blocking screw C.
6. Torque screw A (high values).
7. Torque screw B (high values).
8. Double check the blocking screw tightening

Graflex®, norm dimensions

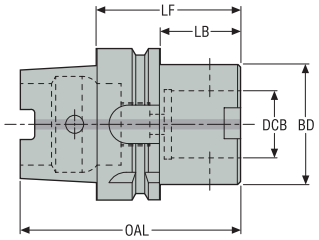


Machine side catalogue designation	Hole for RFID carrier*	DF	DMM	LS	LF
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*
G0	No	16 *0.630*	8 *0.315*	12 *0.472*	8 *0.315*
G1	No	20 *0.787*	11 *0.433*	13 *0.512*	9,5 *0.374*
G2	No	25 *0.984*	14 *0.551*	16 *0.630*	11 *0.433*
G3	No	32 *1.260*	18 *0.709*	20 *0.787*	14 *0.551*
G4	No	40 *1.575*	22 *0.866*	24 *0.945*	17 *0.669*
G5	No	50 *1.969*	28 *1.102*	30 *1.181*	20 *0.787*
G6	No	63 *2.480*	36 *1.417*	40 *1.575*	26 *1.024*
G7	No	90 *3.543*	46 *1.811*	50 *1.969*	26 *1.024*

Workpiece side catalogue designation	Hole for RFID carrier*	CBDP	DCB	BD
		mm *Inch*	mm *Inch*	mm *Inch*
G0	No	16 *0.630*	8 *0.315*	12 *0.472*
G1	No	20 *0.787*	11 *0.433*	13 *0.512*
G2	No	25 *0.984*	14 *0.551*	16 *0.630*
G3	No	32 *1.260*	18 *0.709*	20 *0.787*
G4	No	40 *1.575*	22 *0.866*	24 *0.945*
G5	No	50 *1.969*	28 *1.102*	30 *1.181*
G6	No	63 *2.480*	36 *1.417*	40 *1.575*
G7	No	90 *3.543*	46 *1.811*	50 *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

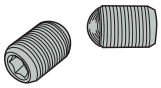
G 401 – Graflex® arbors
HSK-A/ ISO12164-1-HSK-A



—For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 612

Designation	Item number	CTMS	CTWS	DCB mm Inch	LF mm Inch	LB mm Inch	BD mm Inch	OAL mm Inch	RFID hole	Balancing	Weight kg lbs
EM93034012870	00086917	HSK-A50	G5	28,0 1.102	70,0 2.756	44,0 1.732	50,0 1.969	95,0 3.740	1	PB	0,9 1.980
EM93044011445	02469722	HSK-A63	G2	14,0 0.551	45,0 1.772	19,0 0.748	25,0 0.984	77,0 3.031	1	G6.3	0,7 1.540
EM93044011850	00086918	HSK-A63	G3	18,0 0.709	50,0 1.969	24,0 0.945	32,0 1.260	82,0 3.228	1	G6.3	0,8 1.760
EM93044012255	00088217	HSK-A63	G4	22,0 0.866	55,0 2.165	29,0 1.142	40,0 1.575	87,0 3.425	1	G6.3	0,9 1.980
EM93044012860	00086920	HSK-A63	G5	28,0 1.102	60,0 2.362	34,0 1.339	50,0 1.969	92,0 3.622	1	PB	1,0 2.200
EM930440128100	00086921	HSK-A63	G5	28,0 1.102	100,0 3.937	74,0 2.913	50,0 1.969	132,0 5.197	1	PB	1,6 3.530
EM930440128140	00086922	HSK-A63	G5	28,0 1.102	140,0 5.512	114,0 4.488	50,0 1.969	172,0 6.772	1	PB	2,18 4.810
EM93044013670	00086923	HSK-A63	G6	36,0 1.417	70,0 2.756	44,0 1.732	63,0 2.480	102,0 4.016	1	PB	1,3 2.870
EM930440136120	00086924	HSK-A63	G6	36,0 1.417	120,0 4.724	94,0 3.701	63,0 2.480	152,0 5.984	1	PB	2,38 5.250
EM93064011855	00086925	HSK-A100	G3	18,0 0.709	55,0 2.165	26,0 1.024	32,0 1.260	105,0 4.134	1	G6.3	2,2 4.850
EM93064012260	00086926	HSK-A100	G4	22,0 0.866	60,0 2.362	31,0 1.220	40,0 1.575	110,0 4.331	1	G6.3	2,3 5.070
EM93064012865	00086927	HSK-A100	G5	28,0 1.102	65,0 2.559	36,0 1.417	50,0 1.969	115,0 4.528	1	PB	2,4 5.290
EM930640128110	00086928	HSK-A100	G5	28,0 1.102	110,0 4.331	81,0 3.189	50,0 1.969	160,0 6.299	1	PB	3,1 6.830
EM930640128150	00086929	HSK-A100	G5	28,0 1.102	150,0 5.906	121,0 4.764	50,0 1.969	200,0 7.874	1	PB	3,7 8.160
EM93064013675	00083432	HSK-A100	G6	36,0 1.417	75,0 2.953	46,0 1.811	63,0 2.480	125,0 4.921	1	PB	2,8 6.170
EM930640136120	00086931	HSK-A100	G6	36,0 1.417	120,0 4.724	91,0 3.583	63,0 2.480	170,0 6.693	1	PB	3,9 8.600
EM930640136160	00086932	HSK-A100	G6	36,0 1.417	160,0 6.299	131,0 5.157	63,0 2.480	210,0 8.268	1	PB	4,8 10.580
EM93064014685	00074385	HSK-A100	G7	46,0 1.811	85,0 3.346	56,0 2.205	90,0 3.543	135,0 5.315	1	PB	4,0 8.820
EM930640146160	00086933	HSK-A100	G7	46,0 1.811	160,0 6.299	131,0 5.157	90,0 3.543	210,0 8.268	1	PB	7,67 16.910
HSKA125-G6-120	03229653	HSK-A125	G6	36,0 1.417	120,0 4.724	91,0 3.583	63,0 2.480	183,0 7.205	1	PB	5,1 11.240
HSKA125-G7-120	03229654	HSK-A125	G7	46,0 1.811	120,0 4.724	91,0 3.583	90,0 3.543	183,0 7.205	1	PB	7,1 15.650

Spare Parts, included in delivery

For size	Assembly screw
	
G2	90F2
G3	90F3
G4	90F4
G5	90F5
G6	90F6
G7	90F7

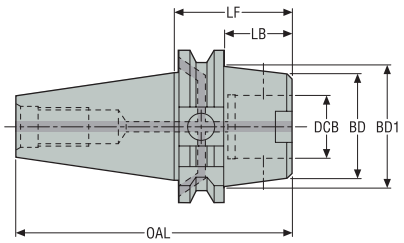
Accessories

For size	Locking key
G2	03H025
G3	03H03
G4	03H04
G5	03H05
G6	03H06
G7	03H10

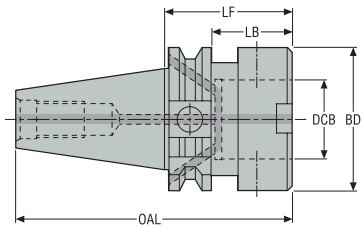
G 401 – Graflex® arbors

SA/SK/DIN 69871-ADB

Design 1

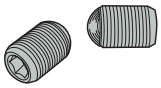


Design 2



Designation	Item number	CTMS	CTWS	DCB	LF	LB	BD	BD1	OAL	Design	RFID hole	Balancing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				kg *lbs*
EM34694011190	02503292	DIN40 ADB	G1	11,0 *0.433*	90,0 *3.543*	70,9 *2.791*	20,0 *0.787*	–	158,4 *6.236*	2	1	G6.3	1,0 *2.200*
EM34694011435	02469729	DIN40 ADB	G2	14,0 *0.551*	35,0 *1.378*	15,9 *0.626*	25,0 *0.984*	–	103,4 *4.071*	2	1	G6.3	0,83 *1.830*
EM34694011490	02503293	DIN40 ADB	G2	14,0 *0.551*	90,0 *3.543*	70,9 *2.791*	25,0 *0.984*	–	158,4 *6.236*	2	1	G6.3	1,1 *2.430*
EM34694011835	02420097	DIN40 ADB	G3	18,0 *0.709*	35,0 *1.378*	15,9 *0.626*	32,0 *1.260*	50,0 *1.969*	103,4 *4.071*	1	1	G6.3	1,0 *2.200*
EM346940118100	02503298	DIN40 ADB	G3	18,0 *0.709*	100,0 *3.937*	80,9 *3.185*	32,0 *1.260*	–	168,4 *6.630*	2	1	G6.3	1,3 *2.870*
EM34694012235	02503299	DIN40 ADB	G4	22,0 *0.866*	35,0 *1.378*	15,9 *0.626*	40,0 *1.575*	50,0 *1.969*	103,4 *4.071*	1	1	G6.3	0,92 *2.030*
EM346940122100	02503300	DIN40 ADB	G4	22,0 *0.866*	100,0 *3.937*	80,9 *3.185*	40,0 *1.575*	–	168,4 *6.630*	2	1	G6.3	1,5 *3.310*
EM34694012840	02458421	DIN40 ADB	G5	28,0 *1.102*	40,0 *1.575*	20,9 *0.823*	50,0 *1.969*	–	108,4 *4.268*	2	1	PB	1,0 *2.200*
EM34694012880	02503301	DIN40 ADB	G5	28,0 *1.102*	80,0 *3.150*	60,9 *2.398*	50,0 *1.969*	–	148,4 *5.843*	2	1	PB	1,5 *3.310*
EM346940128120	02503302	DIN40 ADB	G5	28,0 *1.102*	120,0 *4.724*	100,9 *3.972*	50,0 *1.969*	–	188,4 *7.417*	2	1	PB	2,1 *4.630*
EM34694013660	02503303	DIN40 ADB	G6	36,0 *1.417*	60,0 *2.362*	40,9 *1.610*	63,0 *2.480*	–	128,4 *5.055*	2	1	PB	1,3 *2.870*
EM346940136120	02503304	DIN40 ADB	G6	36,0 *1.417*	120,0 *4.724*	100,9 *3.972*	63,0 *2.480*	–	188,4 *7.417*	2	1	PB	2,7 *5.950*
EM347140114100	02503306	DIN50 ADB	G2	14,0 *0.551*	100,0 *3.937*	80,9 *3.185*	25,0 *0.984*	–	201,7 *7.941*	2	1	G6.3	2,9 *6.390*
EM34714011835	02503307	DIN50 ADB	G3	18,0 *0.709*	35,0 *1.378*	15,9 *0.626*	32,0 *1.260*	–	136,7 *5.382*	2	1	G6.3	2,67 *5.890*
EM347140118110	02503308	DIN50 ADB	G3	18,0 *0.709*	110,0 *4.331*	90,9 *3.579*	32,0 *1.260*	–	211,7 *8.335*	2	1	G6.3	3,1 *6.830*
EM34714012235	02503309	DIN50 ADB	G4	22,0 *0.866*	35,0 *1.378*	15,9 *0.626*	40,0 *1.575*	80,0 *3.150*	136,7 *5.382*	1	1	G6.3	2,88 *6.350*
EM347140122120	02503311	DIN50 ADB	G4	22,0 *0.866*	120,0 *4.724*	100,9 *3.972*	40,0 *1.575*	–	221,7 *8.728*	2	1	G6.3	3,4 *7.500*
EM34714012840	02503312	DIN50 ADB	G5	28,0 *1.102*	40,0 *1.575*	20,9 *0.823*	50,0 *1.969*	–	141,7 *5.579*	2	1	PB	2,75 *6.060*
EM347140128100	02503315	DIN50 ADB	G5	28,0 *1.102*	100,0 *3.937*	80,9 *3.185*	50,0 *1.969*	–	201,7 *7.941*	2	1	PB	3,56 *7.850*
EM347140128140	02503316	DIN50 ADB	G5	28,0 *1.102*	140,0 *5.512*	120,9 *4.760*	50,0 *1.969*	–	241,7 *9.516*	2	1	PB	4,08 *8.990*
EM34714013645	02503317	DIN50 ADB	G6	36,0 *1.417*	45,0 *1.772*	25,9 *1.020*	63,0 *2.480*	–	146,7 *5.776*	2	1	PB	2,9 *6.390*
EM347140136100	02503318	DIN50 ADB	G6	36,0 *1.417*	100,0 *3.937*	80,9 *3.185*	63,0 *2.480*	–	201,7 *7.941*	2	1	PB	4,1 *9.040*
EM347140136140	02503319	DIN50 ADB	G6	36,0 *1.417*	140,0 *5.512*	120,9 *4.760*	63,0 *2.480*	–	241,7 *9.516*	2	1	PB	5,1 *11.240*
EM34714014650	02503320	DIN50 ADB	G7	46,0 *1.811*	50,0 *1.969*	30,9 *1.217*	90,0 *3.543*	–	151,7 *5.972*	2	1	PB	3,3 *7.280*
EM347140146120	02503321	DIN50 ADB	G7	46,0 *1.811*	120,0 *4.724*	100,9 *3.972*	90,0 *3.543*	–	221,7 *8.728*	2	1	PB	6,5 *14.330*
EM347140146200	02503324	DIN50 ADB	G7	46,0 *1.811*	200,0 *7.874*	180,9 *7.122*	90,0 *3.543*	–	301,7 *11.878*	2	1	PB	10,4 *22.930*

Spare Parts, included in delivery

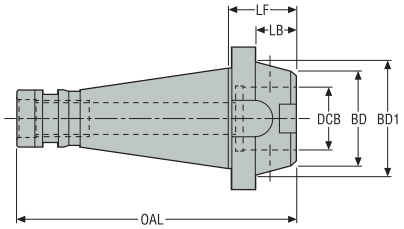
For size	Assembly screw 	Sealing Screws
DIN40/ G1	90F1	950A0406
DIN40/ G2	90F2	950A0406
DIN40/ G3	90F3	950A0406
DIN40/ G4	90F4	950A0406
DIN40/ G5	90F5	950A0406
DIN40/ G6	90F6	950A0406
DIN50/ G2	90F2	950A0606
DIN50/ G3	90F3	950A0606
DIN50/ G4	90F4	950A0606
DIN50/ G5	90F5	950A0606
DIN50/ G6	90F6	950A0606
DIN50/ G7	90F7	950A0606
EM34714014650	90F71	950A0606

Accessories

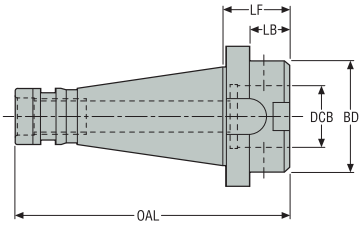
For size	Locking key
DIN40/ G1	03H02
DIN40/ G2	03H025
DIN40/ G3	03H03
DIN40/ G4	03H04
DIN40/ G5	03H05
DIN40/ G6	03H06
DIN50/ G2	03H025
DIN50/ G3	03H03
DIN50/ G4	03H04
DIN50/ G5	03H05
DIN50/ G6	03H06
DIN50/ G7	03H10
EM34714014650	03H10

G 401 – Graflex® arbors
DIN 2080

Design 1

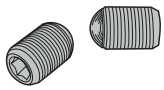


Design 2



Designation	Item number	CTMS	CTWS	DCB	LF	LB	BD	BD1	OAL	Design	RFID hole	Balancing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				kg *lbs*
EM00404013650	00076707	DIN(2080)40	G6	36,0 *1.417*	50,0 *1.969*	0,0 –	63,0 *2.480*	–	143,4 *5.646*	2	0	PB	1,3 *2.870*
EM00504012835	00076710	DIN(2080)50	G5	28,0 *1.102*	35,0 *1.378*	19,8 *0.780*	50,0 *1.969*	78,0 *3.071*	161,8 *6.370*	1	0	PB	2,94 *6.480*
EM00504013640	00076714	DIN(2080)50	G6	36,0 *1.417*	40,0 *1.575*	24,8 *0.976*	63,0 *2.480*	–	166,8 *6.567*	2	0	PB	2,9 *6.390*
EM00504014645	00076718	DIN(2080)50	G7	46,0 *1.811*	45,0 *1.772*	29,8 *1.173*	90,0 *3.543*	–	171,8 *6.764*	2	0	PB	3,34 *7.360*

Spare Parts, included in delivery

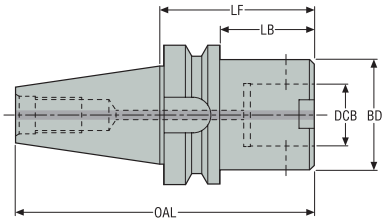
For size	Assembly screw
	
G5	90F5
G6	90F6
G7	90F7

Accessories

For size	Locking key
G5	03H05
G6	03H06
G7	03H10

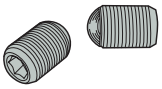
G 401 – Graflex® arbors

BT JIS B 6339-AD



Designation	Item number	CTMS	CTWS	DCB	LF	LB	BD	OAL	RFID hole	Balancing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
EM40404011835	00056699	BT30 AD	G3	18,0 *0.709*	35,0 *1.378*	13,0 *0.512*	32,0 *1.260*	83,4 *3.283*	0	G6.3	0,5 *1.100*
EM40404012850	00056705	BT30 AD	G5	28,0 *1.102*	50,0 *1.969*	25,0 *0.984*	50,0 *1.969*	98,4 *3.874*	0	PB	0,7 *1.540*

Spare Parts, included in delivery

For size	Assembly screw
	
EM40404011835	90F3
EM40404012850	90F5

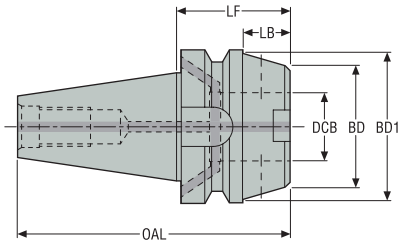
Accessories

For size	Locking key
EM40404011835	03H03
EM40404012850	03H05

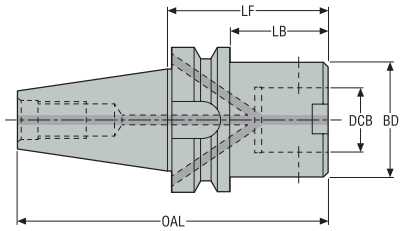
G 401 – Graflex® arbors

BT JIS B 6339-ADB

Design 1

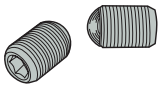


Design 2



Designation	Item number	CTMS	CTWS	DCB	LF	LB	BD	BD1	OAL	Design	RFID hole	Balancing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				kg *lbs*
EM34144011190	02503364	BT40 ADB	G1	11,0 *0.433*	90,0 *3.543*	63,0 *2.480*	20,0 *0.787*	–	155,4 *6.118*	2	1	G6.3	1,1 *2.430*
EM34144011440	02469725	BT40 ADB	G2	14,0 *0.551*	40,0 *1.575*	13,0 *0.512*	25,0 *0.984*	–	105,4 *4.150*	2	1	G6.3	0,98 *2.160*
EM34144011490	02503365	BT40 ADB	G2	14,0 *0.551*	90,0 *3.543*	63,0 *2.480*	25,0 *0.984*	–	155,4 *6.118*	2	1	G6.3	1,2 *2.650*
EM34144011840	02503366	BT40 ADB	G3	18,0 *0.709*	40,0 *1.575*	13,0 *0.512*	32,0 *1.260*	62,0 *2.441*	105,4 *4.150*	1	1	G6.3	1,07 *2.360*
EM341440118100	02503367	BT40 ADB	G3	18,0 *0.709*	100,0 *3.937*	73,0 *2.874*	32,0 *1.260*	–	165,4 *6.512*	2	1	G6.3	1,31 *2.890*
EM34144012245	02503368	BT40 ADB	G4	22,0 *0.866*	45,0 *1.772*	18,0 *0.709*	40,0 *1.575*	62,0 *2.441*	110,4 *4.346*	1	1	G6.3	1,2 *2.650*
EM341440122100	02503370	BT40 ADB	G4	22,0 *0.866*	100,0 *3.937*	73,0 *2.874*	40,0 *1.575*	–	165,4 *6.512*	2	1	G6.3	1,6 *3.530*
EM34144012845	02457989	BT40 ADB	G5	28,0 *1.102*	45,0 *1.772*	18,0 *0.709*	50,0 *1.969*	62,0 *2.441*	110,4 *4.346*	1	1	PB	1,2 *2.650*
EM34144012880	02503371	BT40 ADB	G5	28,0 *1.102*	80,0 *3.150*	53,0 *2.087*	50,0 *1.969*	–	145,4 *5.724*	2	1	PB	1,6 *3.530*
EM341440128120	02503372	BT40 ADB	G5	28,0 *1.102*	120,0 *4.724*	93,0 *3.661*	50,0 *1.969*	–	185,4 *7.299*	2	1	PB	2,2 *4.850*
EM34144013650	02503373	BT40 ADB	G6	36,0 *1.417*	50,0 *1.969*	0,0 –	63,0 *2.480*	–	115,4 *4.543*	2	0	PB	1,2 *2.650*
EM341440136120	02503374	BT40 ADB	G6	36,0 *1.417*	120,0 *4.724*	0,0 –	63,0 *2.480*	–	185,4 *7.299*	2	1	PB	2,8 *6.170*
EM341640114110	02503375	BT50 ADB	G2	14,0 *0.551*	110,0 *4.331*	72,0 *2.835*	25,0 *0.984*	–	211,8 *8.339*	2	1	G6.3	3,8 *8.380*
EM34164011845	02503376	BT50 ADB	G3	18,0 *0.709*	45,0 *1.772*	7,0 *0.276*	32,0 *1.260*	70,0 *2.756*	146,8 *5.780*	1	1	G6.3	3,6 *7.940*
EM341640118120	02503377	BT50 ADB	G3	18,0 *0.709*	120,0 *4.724*	82,0 *3.228*	32,0 *1.260*	–	221,8 *8.732*	2	1	G6.3	4,0 *8.820*
EM34164012250	02503378	BT50 ADB	G4	22,0 *0.866*	50,0 *1.969*	12,0 *0.472*	40,0 *1.575*	70,0 *2.756*	151,8 *5.976*	1	1	G6.3	3,7 *8.160*
EM341640122140	02503379	BT50 ADB	G4	22,0 *0.866*	140,0 *5.512*	102,0 *4.016*	40,0 *1.575*	–	241,8 *9.520*	2	1	G6.3	4,4 *9.700*
EM34164012855	02503380	BT50 ADB	G5	28,0 *1.102*	55,0 *2.165*	17,0 *0.669*	50,0 *1.969*	98,0 *3.858*	156,8 *6.173*	1	1	PB	4,0 *8.820*
EM341640128100	02503381	BT50 ADB	G5	28,0 *1.102*	100,0 *3.937*	62,0 *2.441*	50,0 *1.969*	–	201,8 *7.945*	2	1	PB	4,3 *9.480*
EM341640128140	02503382	BT50 ADB	G5	28,0 *1.102*	140,0 *5.512*	102,0 *4.016*	50,0 *1.969*	–	241,8 *9.520*	2	1	PB	4,9 *10.800*
EM34164013663	02503383	BT50 ADB	G6	36,0 *1.417*	63,0 *2.480*	25,0 *0.984*	63,0 *2.480*	98,0 *3.858*	164,8 *6.488*	1	1	PB	4,3 *9.480*
EM341640136100	02503384	BT50 ADB	G6	36,0 *1.417*	100,0 *3.937*	62,0 *2.441*	63,0 *2.480*	–	201,8 *7.945*	2	1	PB	4,7 *10.360*
EM341640136140	02503385	BT50 ADB	G6	36,0 *1.417*	140,0 *5.512*	102,0 *4.016*	63,0 *2.480*	–	241,8 *9.520*	2	1	PB	5,6 *12.350*
EM34164014665	02503386	BT50 ADB	G7	46,0 *1.811*	65,0 *2.559*	27,0 *1.063*	90,0 *3.543*	98,0 *3.858*	166,8 *6.567*	1	1	PB	4,4 *9.700*
EM341640146120	02503387	BT50 ADB	G7	46,0 *1.811*	120,0 *4.724*	82,0 *3.228*	90,0 *3.543*	–	221,8 *8.732*	2	1	PB	6,9 *15.210*
EM341640146200	02503388	BT50 ADB	G7	46,0 *1.811*	200,0 *7.874*	162,0 *6.378*	90,0 *3.543*	–	301,8 *11.882*	2	1	PB	10,7 *23.590*

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

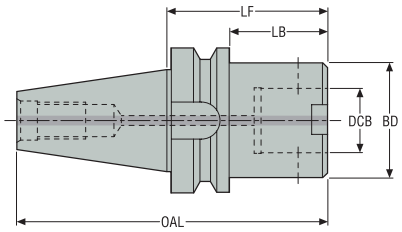
Accessories

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

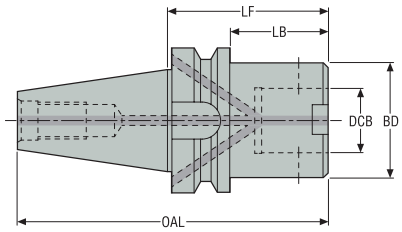
G 401 – Graflex® arbors

BT Taper-Face-AD/ADB

Design 1

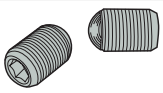


Design 2



Designation	Item number	CTMS	CTWS	DCB	LF	LB	BD	OAL	Design	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				kg *lbs*
EM40024011850	02998757	BT30 TF AD	G3	18,0 *0.709*	50,0 *1.969*	28,0 *1.102*	32,0 *1.260*	98,4 *3.874*	1	0	G6.3	0,6 *1.320*
EM40024012250	02998758	BT30 TF AD	G4	22,0 *0.866*	50,0 *1.969*	28,0 *1.102*	40,0 *1.575*	98,4 *3.874*	1	0	G6.3	0,6 *1.320*
EM321440122100	02998754	BT40 TF ADB	G4	22,0 *0.866*	100,0 *3.937*	73,0 *2.874*	40,0 *1.575*	165,4 *6.512*	2	1	G6.3	1,6 *3.530*
EM321440128120	02926006	BT40 TF ADB	G5	28,0 *1.102*	120,0 *4.724*	93,0 *3.661*	50,0 *1.969*	185,4 *7.299*	2	1	PB	2,2 *4.850*
EM321440136120	02998755	BT40 TF ADB	G6	36,0 *1.417*	120,0 *4.724*	93,0 *3.661*	63,0 *2.480*	185,4 *7.299*	2	1	PB	2,8 *6.170*
EM321640128140	02998756	BT50 TF ADB	G5	28,0 *1.102*	140,0 *5.512*	102,0 *4.016*	50,0 *1.969*	241,8 *9.520*	2	1	PB	4,9 *10.800*
EM321640136140	02926009	BT50 TF ADB	G6	36,0 *1.417*	140,0 *5.512*	102,0 *4.016*	63,0 *2.480*	241,8 *9.520*	2	1	PB	5,6 *12.350*
EM321640146200	02926010	BT50 TF ADB	G7	46,0 *1.811*	200,0 *7.874*	162,0 *6.378*	90,0 *3.543*	301,8 *11.882*	2	1	PB	10,8 *23.810*

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	–

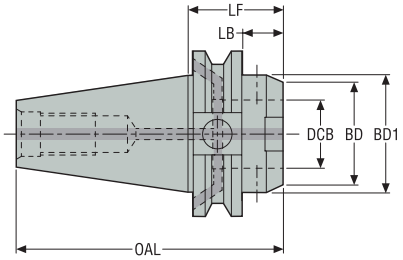
Accessories

Locking key
03H03
03H04
03H04
03H05
03H06
03H05
03H06
03H10

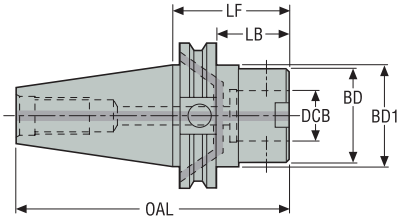
G 401 – Graflex® arbors

CAT / ASME B5.50-1994-ADB

Design 1



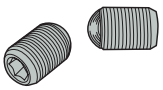
Design 2



Designation	Item number	CTMS	CTWS	DCB	LF	LB	BD	BD1	OAL	Design	RFID hole	Balancing	Weight
				Inch	Inch	Inch	Inch	Inch	Inch				lbs
EM25024011435	02469734	CAT40 ADB	G2	0.551	1.380	0.630	0.984	1.750	4.070	1	1	G6.3	2.120
EM25024011835	00056660	CAT40 ADB	G3	0.709	1.380	0.630	1.260	1.750	4.070	1	1	G6.3	2.200
EM25024012235	00056661	CAT40 ADB	G4	0.866	1.380	0.630	1.575	1.750	4.070	1	1	G6.3	1.980
EM25024012840	00056663	CAT40 ADB	G5	1.102	1.570	0.820	1.969	1.750	4.270	2	1	PB	1.980
EM250240128100	00056662	CAT40 ADB	G5	1.102	3.940	3.190	1.969	1.750	7.420	2	1	PB	3.970
EM25024013660	00056665	CAT40 ADB	G6	1.417	2.360	1.610	2.480	1.750	5.060	2	1	PB	2.870
EM25044011835	00056666	CAT50 ADB	G3	0.709	1.380	0.630	1.260	2.750	5.380	1	1	G6.3	6.830
EM25044012235	00056667	CAT50 ADB	G4	0.866	1.380	0.630	1.575	2.750	5.380	1	1	G6.3	6.610
EM25044012840	00056669	CAT50 ADB	G5	1.102	1.570	0.820	1.969	2.750	5.580	2	1	PB	6.610
EM250440128100	00056668	CAT50 ADB	G5	1.102	3.940	3.190	1.969	2.750	7.940	2	1	PB	8.380
EM25044013645	00056671	CAT50 ADB	G6	1.417	1.770	1.020	2.480	2.750	5.780	1	1	PB	6.610
EM250440136120	00056670	CAT50 ADB	G6	1.417	4.720	3.970	2.480	2.750	9.520	1	1	PB	10.360
EM25044014665	00056675	CAT50 ADB	G7	1.811	2.560	1.810	3.543	2.750	5.970	2	1	PB	8.380
EM250440146120	00056673	CAT50 ADB	G7	1.811	4.720	3.970	3.543	2.750	8.730	2	1	PB	13.890
EM250440146200	00056674	CAT50 ADB	G7	1.811	7.870	7.120	3.543	2.750	11.880	2	1	PB	22.270

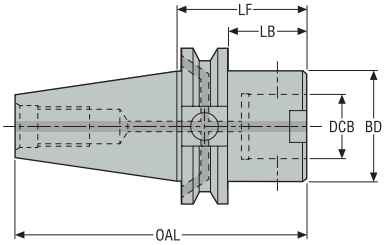
Spare Parts, included in delivery

Accessories

For size	Assembly screw	Sealing Screws	Locking key
			
CAT40/ G2	90F2	950A0406	03H025
CAT40/ G3	90F3	950A0406	03H03
CAT40/ G4	90F4	950A0406	03H04
CAT40/ G5	90F5	950A0406	03H05
CAT40/ G6	90F6	950A0406	03H06
CAT50/ G3	90F3	950A0606	03H03
CAT50/ G4	90F4	950A0606	03H04
CAT50/ G5	90F5	950A0606	03H05
CAT50/ G6	90F6	950A0606	03H06
CAT50/ G7	90F7	950A0606	03H10

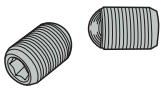
G 401 – Graflex® arbors

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	5.290
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

Spare Parts, included in delivery

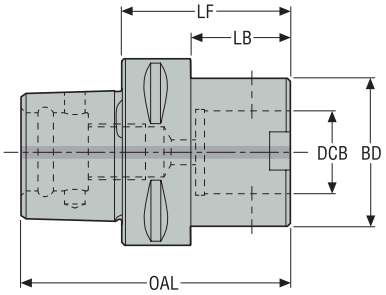
For size	Assembly screw	Sealing Screws
		
EM26424011880	90F3	950A0406
EM26424012280	90F4	950A0406
EM264240128100	90F5	950A0406
EM264240136100	90F6	950A0406
EM264440122100	90F4	950A0606
EM264440128100	90F5	950A0606
EM264440136120	90F6	950A0606
EM264440146200	90F7	950A0606

Accessories

Locking key
03H03
03H04
03H05
03H06
03H04
03H05
03H06
03H10

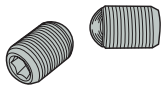
G 401 – Graflex® adapters

Seco-Capto™



Designation	Item number	CTMS	CTWS	DCB	LF	LB	BD	OAL	RFID hole	Balancing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
C3-391.0401-08025	02532939	C3	G0	8,0 *0.315*	25,0 *0.984*	7,0 *0.276*	16,0 *0.630*	44,0 *1.732*	0	G6.3	0,2 *0.440*
C3-391.0401-11025	02532940	C3	G1	11,0 *0.433*	25,0 *0.984*	7,0 *0.276*	20,0 *0.787*	44,0 *1.732*	0	G6.3	0,14 *0.310*
C3-391.0401-14025	02532941	C3	G2	14,0 *0.551*	25,0 *0.984*	7,0 *0.276*	25,0 *0.984*	44,0 *1.732*	0	G6.3	0,2 *0.440*
C3-391.0401-18030	02532942	C3	G3	18,0 *0.709*	30,0 *1.181*	0,0 –	32,0 *1.260*	49,0 *1.929*	0	G6.3	0,16 *0.350*
C4-391.0401-18035	02532943	C4	G3	18,0 *0.709*	35,0 *1.378*	12,0 *0.472*	32,0 *1.260*	59,0 *2.323*	0	G6.3	0,4 *0.880*
C4-391.0401-22035	02532944	C4	G4	22,0 *0.866*	35,0 *1.378*	0,0 –	40,0 *1.575*	59,0 *2.323*	0	G6.3	0,31 *0.680*
C5-391.0401-14030	02532945	C5	G2	14,0 *0.551*	30,0 *1.181*	7,0 *0.276*	25,0 *0.984*	60,0 *2.362*	1	G6.3	0,47 *1.040*
C5-391.0401-18035	02532947	C5	G3	18,0 *0.709*	35,0 *1.378*	12,0 *0.472*	32,0 *1.260*	65,0 *2.559*	1	G6.3	0,5 *1.100*
C5-391.0401-22035	02532948	C5	G4	22,0 *0.866*	35,0 *1.378*	12,0 *0.472*	40,0 *1.575*	65,0 *2.559*	1	G6.3	0,5 *1.100*
C5-391.0401-28045	02532949	C5	G5	28,0 *1.102*	45,0 *1.772*	22,0 *0.866*	50,0 *1.969*	75,0 *2.953*	1	PB	0,7 *1.540*
C6-391.0401-18035	02532950	C6	G3	18,0 *0.709*	35,0 *1.378*	10,0 *0.394*	32,0 *1.260*	73,0 *2.874*	1	G6.3	0,9 *1.980*
C6-391.0401-22040	02532951	C6	G4	22,0 *0.866*	40,0 *1.575*	15,0 *0.591*	40,0 *1.575*	78,0 *3.071*	1	G6.3	0,9 *1.980*
C6-391.0401-28050	02532952	C6	G5	28,0 *1.102*	50,0 *1.969*	25,0 *0.984*	50,0 *1.969*	88,0 *3.465*	1	PB	1,1 *2.430*
C6-391.0401-36055	02532953	C6	G6	36,0 *1.417*	55,0 *2.165*	0,0 –	63,0 *2.480*	93,0 *3.661*	1	PB	1,2 *2.650*
C8-391.0401-28050	02532954	C8	G5	28,0 *1.102*	50,0 *1.969*	17,0 *0.669*	50,0 *1.969*	98,0 *3.858*	1	PB	2,0 *4.410*
C8-391.0401-36055	02532955	C8	G6	36,0 *1.417*	55,0 *2.165*	22,0 *0.866*	63,0 *2.480*	103,0 *4.055*	1	PB	2,1 *4.630*
C8-391.0401-46065	02532956	C8	G7	46,0 *1.811*	65,0 *2.559*	35,0 *1.378*	90,0 *3.543*	113,0 *4.449*	1	PB	2,8 *6.170*

Spare Parts, included in delivery

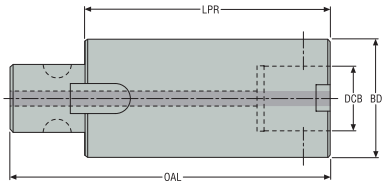
For	Assembly screw
	
G0	90F0
G1	90F1
G2	90F2
G3	90F3
G4	90F4
G5	90F5
G6	90F6
G7	90F7

Accessories

For size	Locking key
G0	03H02
G1	03H02
G2	03H025
G3	03H03
G4	03H04
G5	03H05
G6	03H06
G7	03H10

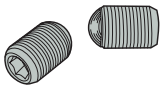
G 402 – Graflex® extensions

Graflex®



Designation	Item number	CTMS	CTWS	DCB	LPR	BD	OAL	RFID hole	Balancing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
M402000	00056752	G0	G0	8,0 *0.315*	30,0 *1.181*	16,0 *0.630*	42,0 *1.654*	0	PB	0,1 *0.220*
M402001	00056753	G0	G0	8,0 *0.315*	50,0 *1.969*	16,0 *0.630*	62,0 *2.441*	0	PB	0,1 *0.220*
M402110	00056754	G1	G1	11,0 *0.433*	30,0 *1.181*	20,0 *0.787*	43,0 *1.693*	0	PB	0,1 *0.220*
M402111	00056755	G1	G1	11,0 *0.433*	50,0 *1.969*	20,0 *0.787*	63,0 *2.480*	0	PB	0,2 *0.440*
M402220	00056756	G2	G2	14,0 *0.551*	30,0 *1.181*	25,0 *0.984*	46,0 *1.811*	0	PB	0,2 *0.440*
M402221	00056757	G2	G2	14,0 *0.551*	50,0 *1.969*	25,0 *0.984*	66,0 *2.598*	0	PB	0,2 *0.440*
M402330	00056758	G3	G3	18,0 *0.709*	40,0 *1.575*	32,0 *1.260*	60,0 *2.362*	0	PB	0,3 *0.660*
M402331	75056759	G3	G3	18,0 *0.709*	60,0 *2.362*	32,0 *1.260*	80,0 *3.150*	0	PB	0,4 *0.880*
M402440	00056760	G4	G4	22,0 *0.866*	40,0 *1.575*	40,0 *1.575*	64,0 *2.520*	0	PB	0,4 *0.880*
M402441	00056761	G4	G4	22,0 *0.866*	60,0 *2.362*	40,0 *1.575*	84,0 *3.307*	0	PB	0,6 *1.320*
M402444	02786252	G4	G4	22,0 *0.866*	200,0 *7.874*	40,0 *1.575*	224,0 *8.819*	0	PB	1,95 *4.300*
M402550	00056762	G5	G5	28,0 *1.102*	50,0 *1.969*	50,0 *1.969*	80,0 *3.150*	0	PB	0,8 *1.760*
M402551	00056763	G5	G5	28,0 *1.102*	75,0 *2.953*	50,0 *1.969*	105,0 *4.134*	0	PB	1,2 *2.650*
M402552	00056764	G5	G5	28,0 *1.102*	100,0 *3.937*	50,0 *1.969*	130,0 *5.118*	0	PB	1,5 *3.310*
M402554	02786254	G5	G5	28,0 *1.102*	250,0 *9.843*	50,0 *1.969*	280,0 *11.024*	0	PB	3,8 *8.380*
M402660	00056765	G6	G6	36,0 *1.417*	60,0 *2.362*	63,0 *2.480*	100,0 *3.937*	0	PB	1,4 *3.090*
M402661	00056766	G6	G6	36,0 *1.417*	90,0 *3.543*	63,0 *2.480*	130,0 *5.118*	0	PB	2,2 *4.850*
M402662	00056767	G6	G6	36,0 *1.417*	120,0 *4.724*	63,0 *2.480*	160,0 *6.299*	0	PB	2,9 *6.390*
M402664	02786255	G6	G6	36,0 *1.417*	300,0 *11.811*	63,0 *2.480*	340,0 *13.386*	0	PB	7,2 *15.870*
M402770	00056768	G7	G7	46,0 *1.811*	60,0 *2.362*	90,0 *3.543*	110,0 *4.331*	0	-	2,9 *6.390*
M402771	00056769	G7	G7	46,0 *1.811*	90,0 *3.543*	90,0 *3.543*	140,0 *5.512*	0	-	4,4 *9.700*
M402772	00056770	G7	G7	46,0 *1.811*	120,0 *4.724*	90,0 *3.543*	170,0 *6.693*	0	-	5,8 *12.790*
M402774	02786257	G7	G7	46,0 *1.811*	300,0 *11.811*	90,0 *3.543*	350,0 *13.780*	0	-	14,6 *32.190*

Spare Parts, included in delivery

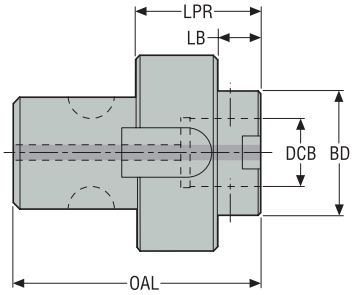
For size	Assembly screw	Tenon
		
G0	90F0	90M0
G1	90F1	90M1
G2	90F2	90M2
G3	90F3	90M3
G4	90F4	90M4
G5	90F5	90M5
G6	90F6	90M6
G7	90F7	90M7

Accessories

For size	Locking key
G0	03H02
G1	03H02
G2	03H025
G3	03H03
G4	03H04
G5	03H05
G6	03H06
G7	03H10

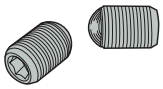
G 403 – Graflex® reducers

Graflex®



Designation	Item number	CTMS	CTWS	DCB	LPR	LB	BD	OAL	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
M40310	00056771	G1	G0	8,0 *0.315*	30,0 *1.181*	22,0 *0.866*	16,0 *0.630*	43,0 *1.693*	0	PB	0,1 *0.220*
M40320	00056772	G2	G0	8,0 *0.315*	30,0 *1.181*	19,0 *0.748*	16,0 *0.630*	46,0 *1.811*	0	PB	0,1 *0.220*
M40321	00056773	G2	G1	11,0 *0.433*	30,0 *1.181*	19,0 *0.748*	20,0 *0.787*	46,0 *1.811*	0	PB	0,1 *0.220*
M40330	00056774	G3	G0	8,0 *0.315*	30,0 *1.181*	16,0 *0.630*	16,0 *0.630*	50,0 *1.969*	0	PB	0,2 *0.440*
M40331	00056775	G3	G1	11,0 *0.433*	30,0 *1.181*	16,0 *0.630*	20,0 *0.787*	50,0 *1.969*	0	PB	0,15 *0.330*
M40332	00056776	G3	G2	14,0 *0.551*	30,0 *1.181*	16,0 *0.630*	25,0 *0.984*	50,0 *1.969*	0	PB	0,2 *0.440*
M40341	00056778	G4	G1	11,0 *0.433*	30,0 *1.181*	13,0 *0.512*	20,0 *0.787*	54,0 *2.126*	0	PB	0,25 *0.550*
M40342	00056779	G4	G2	14,0 *0.551*	30,0 *1.181*	13,0 *0.512*	25,0 *0.984*	54,0 *2.126*	0	PB	0,3 *0.660*
M40343	00056780	G4	G3	18,0 *0.709*	30,0 *1.181*	13,0 *0.512*	32,0 *1.260*	54,0 *2.126*	0	PB	0,3 *0.660*
M40350	00056781	G5	G0	8,0 *0.315*	40,0 *1.575*	20,0 *0.787*	16,0 *0.630*	70,0 *2.756*	0	PB	0,47 *1.040*
M40351	00056783	G5	G1	11,0 *0.433*	40,0 *1.575*	20,0 *0.787*	20,0 *0.787*	70,0 *2.756*	0	PB	0,5 *1.100*
M40352	00056785	G5	G2	14,0 *0.551*	40,0 *1.575*	20,0 *0.787*	25,0 *0.984*	70,0 *2.756*	0	PB	0,5 *1.100*
M40353	00056787	G5	G3	18,0 *0.709*	40,0 *1.575*	20,0 *0.787*	32,0 *1.260*	70,0 *2.756*	0	PB	0,6 *1.320*
M40354	00056789	G5	G4	22,0 *0.866*	40,0 *1.575*	20,0 *0.787*	40,0 *1.575*	70,0 *2.756*	0	PB	0,6 *1.320*
M40363	00056797	G6	G3	18,0 *0.709*	40,0 *1.575*	14,0 *0.551*	32,0 *1.260*	80,0 *3.150*	0	PB	1,0 *2.200*
M40364	00056799	G6	G4	22,0 *0.866*	40,0 *1.575*	14,0 *0.551*	40,0 *1.575*	80,0 *3.150*	0	PB	1,0 *2.200*
M40365	00056807	G6	G5	28,0 *1.102*	45,0 *1.772*	19,0 *0.748*	50,0 *1.969*	85,0 *3.346*	0	PB	1,1 *2.430*
M40375	00056811	G7	G5	28,0 *1.102*	50,0 *1.969*	24,0 *0.945*	50,0 *1.969*	100,0 *3.937*	0	-	2,1 *4.630*
M40376	00056812	G7	G6	36,0 *1.417*	55,0 *2.165*	29,0 *1.142*	63,0 *2.480*	105,0 *4.134*	0	-	2,3 *5.070*

Spare Parts, included in delivery

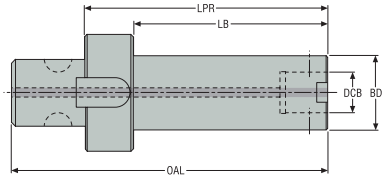
For size	Assembly screw	Tenon
		
M40310	90F0	90M1
M40320	90F0	90M2
M40321	90F1	90M2
M40330	90F0	90M3
M40331	90F1	90M3
M40332	90F2	90M3
M40341	90F1	90M4
M40342	90F2	90M4
M40343	90F3	90M4
M40350	90F0	90M5
M40351	90F1	90M5
M40352	90F2	90M5
M40353	90F3	90M5
M40354	90F4	90M5
M40363	90F3	90M6
M40364	90F4	90M6
M40365	90F5	90M6
M40375	90F5	90M7
M40376	90F6	90M7

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

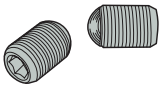
G 403 – Graflex® long reducers

Graflex®



Designation	Item number	CTMS	CTWS	DCB	LPR	LB	BD	OAL	RFID hole	Balancing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
M40350070	00056782	G5	G0	8,0 *0.315*	70,0 *2.756*	50,0 *1.969*	16,0 *0.630*	100,0 *3.937*	0	PB	0,6 *1.320*
M40351080	00056784	G5	G1	11,0 *0.433*	80,0 *3.150*	60,0 *2.362*	20,0 *0.787*	110,0 *4.331*	0	PB	0,6 *1.320*
M40352100	00056786	G5	G2	14,0 *0.551*	100,0 *3.937*	80,0 *3.150*	25,0 *0.984*	130,0 *5.118*	0	PB	0,8 *1.760*
M40353120	00056788	G5	G3	18,0 *0.709*	120,0 *4.724*	100,0 *3.937*	32,0 *1.260*	150,0 *5.906*	0	PB	1,02 *2.250*
M40354150	00056790	G5	G4	22,0 *0.866*	150,0 *5.906*	130,0 *5.118*	40,0 *1.575*	180,0 *7.087*	0	PB	1,7 *3.750*
M40361090	00056794	G6	G1	11,0 *0.433*	90,0 *3.543*	64,0 *2.520*	20,0 *0.787*	130,0 *5.118*	0	PB	1,08 *2.380*
M40362110	00056796	G6	G2	14,0 *0.551*	110,0 *4.331*	84,0 *3.307*	25,0 *0.984*	150,0 *5.906*	0	PB	1,3 *2.870*
M40363120	00056798	G6	G3	18,0 *0.709*	120,0 *4.724*	94,0 *3.701*	32,0 *1.260*	160,0 *6.299*	0	PB	1,5 *3.310*
M40364150	00056800	G6	G4	22,0 *0.866*	150,0 *5.906*	124,0 *4.882*	40,0 *1.575*	190,0 *7.480*	0	PB	2,1 *4.630*
M40365190	00056808	G6	G5	28,0 *1.102*	190,0 *7.480*	164,0 *6.457*	50,0 *1.969*	230,0 *9.055*	0	PB	3,3 *7.280*

Spare Parts, included in delivery

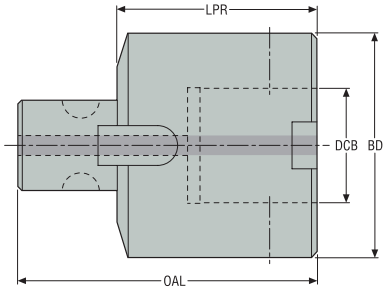
For size	Assembly screw	Tenon
		
M40350070	90F0	90M5
M40351080	90F1	90M5
M40352100	90F2	90M5
M40353120	90F3	90M5
M40354150	90F4	90M5
M40361090	90F1	90M6
M40362110	90F2	90M6
M40363120	90F3	90M6
M40364150	90F4	90M6
M40365190	90F5	90M6

Accessories

Locking key
03H02
03H02
03H025
03H03
03H04
03H02
03H025
03H03
03H04
03H05

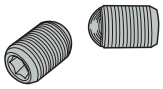
G 403 – Graflex® enlargers

Graflex®



Designation	Item number	CTMS	CTWS	DCB	LPR	BD	OAL	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
M40356	00056791	G5	G6	36,0 *1.417*	55,0 *2.165*	63,0 *2.480*	85,0 *3.346*	0	PB	1,1 *2.430*
M40367	00056810	G6	G7	46,0 *1.811*	80,0 *3.150*	90,0 *3.543*	120,0 *4.724*	0	PB	3,4 *7.500*

Spare Parts, included in delivery

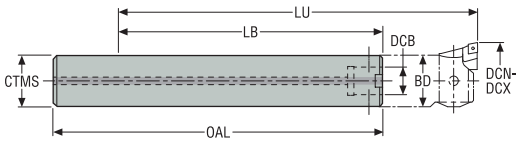
For	Assembly screw	Tenon
		
M40356	90F6	90M5
M40367	90F7	90M6

Accessories

For	Locking key
M40356	03H06
M40367	03H10

G 401 – Graflex® arbors, steel

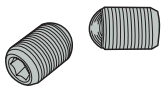
Cylindrical



—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 *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
M4011408	00086938	14	G0	8,0 *0.315*	15,0 *0.591*	18,5 *0.728*	120,0 *4.724*	14,0 *0.551*	110,0 *4.331*	75,0 *2.953*	0	G6.3	0,2 *0.440*
M4011608	00086935	16	G0	8,0 *0.315*	18,0 *0.709*	23,5 *0.925*	150,0 *5.906*	16,0 *0.630*	137,0 *5.394*	102,0 *4.016*	0	G6.3	0,3 *0.660*
M4012011	00086936	20	G1	11,0 *0.433*	23,0 *0.906*	31,0 *1.220*	150,0 *5.906*	20,0 *0.787*	140,0 *5.512*	100,0 *3.937*	0	G6.3	0,33 *0.730*
M4012514	00086937	25	G2	14,0 *0.551*	30,0 *1.181*	40,0 *1.575*	150,0 *5.906*	25,0 *0.984*	139,0 *5.472*	93,0 *3.661*	0	G6.3	0,6 *1.320*
M4013218	00086939	32	G3	18,0 *0.709*	39,0 *1.535*	51,0 *2.008*	150,0 *5.906*	32,0 *1.260*	155,0 *6.102*	90,0 *3.543*	0	G6.3	0,9 *1.980*

Spare Parts, included in delivery

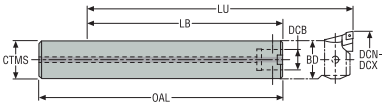
For	Assembly screw
	
M4011408	90F01
M4011608	90F0
M4012011	90F1
M4012514	90F2
M4013218	90F3

Accessories

For	Locking key
M4011408	03H025
M4011608	03H02
M4012011	03H02
M4012514	03H025
M4013218	03H03

G 401 – Graflex® arbors, steel

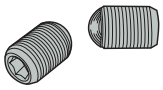
Cylindrical



—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

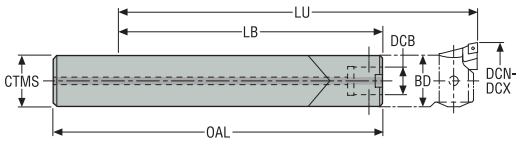
Designation	Item number	CTMS	CTWS	DCB	DCN	DCX	OAL	BD	LU	LB	RFID hole	Balan-cing	Weight
				Inch	Inch	Inch	Inch	Inch	Inch	Inch			lbs
M40107511	00056741	0,750 in	G1	0.433	0.906	1.220	5.906	0.827	5.510	3.906	0	G6.3	0.660

Spare Parts, included in delivery

For size	Assembly screw	Locking key
		
M40107511	90F1	03H02

G 401 – Graflex® arbors, carbide

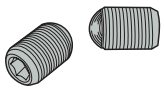
Cylindrical



—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 *Weight*
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
M4011408C	00073004	14	G0	8,0 *0.315*	15,0 *0.591*	18,5 *0.728*	152,0 *5.984*	14,0 *0.551*	140,0 *5.512*	105,0 *4.134*	0	G6.3	0,3 *0.660*
M4011608C	00056747	16	G0	8,0 *0.315*	18,0 *0.709*	23,5 *0.925*	175,0 *6.890*	16,0 *0.630*	160,0 *6.299*	125,0 *4.921*	0	G6.3	0,5 *1.100*
M4012011C	00056749	20	G1	11,0 *0.433*	23,0 *0.906*	31,0 *1.220*	212,0 *8.346*	20,0 *0.787*	200,0 *7.874*	160,0 *6.299*	0	G6.3	0,9 *1.980*
M4012514C	00056750	25	G2	14,0 *0.551*	30,0 *1.181*	40,0 *1.575*	262,0 *10.315*	25,0 *0.984*	250,0 *9.843*	204,0 *8.031*	0	G6.3	1,71 *3.770*
M4013218C	00056751	32	G3	18,0 *0.709*	39,0 *1.535*	51,0 *2.008*	317,0 *12.480*	32,0 *1.260*	320,0 *12.598*	255,0 *10.039*	0	G6.3	3,44 *7.580*

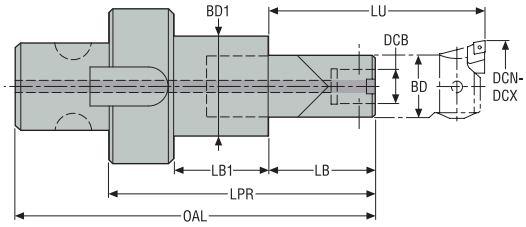
Spare Parts, included in delivery

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

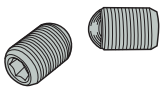
G 403 – Graflex® extra long reducers, carbide



—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	OAL	LPR	BD	BD1	LU	LB	LB1	RFID hole	Balancing	Weight *Weight*
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
M40350C150	00057604	G5	G0	8,0 *0.315*	18,0 *0.709*	23,5 *0.925*	180,0 *7.087*	150,0 *5.906*	16,0 *0.630*	32,0 *1.260*	130,0 *5.118*	95,0 *3.740*	35,0 *1.378*	0	PB	1,0 *2.200*
M40351C180	00056943	G5	G1	11,0 *0.433*	23,0 *0.906*	31,0 *1.220*	210,0 *8.268*	180,0 *7.087*	20,0 *0.787*	36,0 *1.417*	160,0 *6.299*	120,0 *4.724*	40,0 *1.575*	0	PB	1,3 *2.870*
M40352C220	00057605	G5	G2	14,0 *0.551*	30,0 *1.181*	40,0 *1.575*	250,0 *9.843*	220,0 *8.661*	25,0 *0.984*	41,0 *1.614*	200,0 *7.874*	155,0 *6.102*	45,0 *1.772*	0	PB	2,01 *4.430*

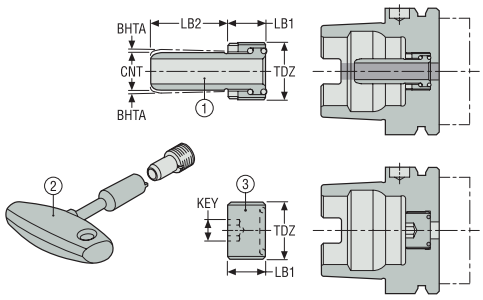
Spare Parts, included in delivery

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) 619, 620–621

Description	Designation	Item number	For holders HSK A and E	LB1	LB2	KEY	CNT	TDZ	BHTA°
				mm *Inch*	mm *Inch*	mm *Inch*	mm		
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)	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	–	–	–	–	–	–
	5680094-07	03248614	HSK-A125	–	–	–	–	–	–
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	–

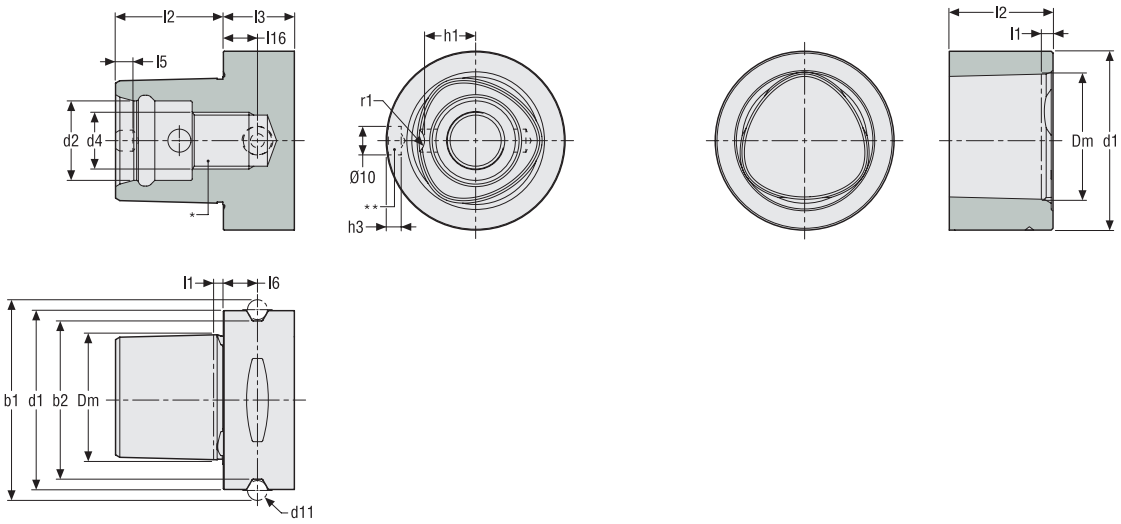
Seco-Capto™

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



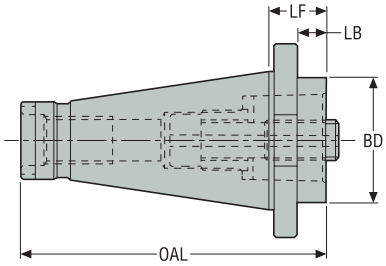
Machine side catalogue designation	Hole for RFID carrier**	d_1	d_2	d_4	d_{11}	Dm	b_1	b_2	l_1	l_2	$l_{3\,min}$	l_5	l_6	l_{16}	h_1	h_3	r_1
		mm *Inch*	mm *Inch*		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*
C3	No**	32 *1.260*	15 *0.591*	M12	5 *0.197*	22 *0.866*	39 *1.535*	28,3 *1.114*	2,5 *0.098*	19 *0.748*	15 *0.591*	3,2 *0.126*	6 *0.236*	9 *0.354*	9 *0.354*	5,4 *0.213*	3 *0.118*
C4	No**	40 *1.575*	18 *0.709*	M14	5 *0.197*	28 *1.102*	46 *1.811*	35,3 *1.390*	2,5 *0.098*	24 *0.945*	20 *0.787*	4 *0.157*	8 *0.315*	12 *0.472*	11 *0.433*	5,2 *0.205*	3 *0.118*
C5	**	50 *1.969*	21 *0.827*	M16	7 *0.276*	35 *1.378*	59,3 *2.335*	44,4 *1.748*	3 *0.118*	30 *1.181*	20 *0.787*	5,3 *0.209*	10 *0.394*	12 *0.472*	14 *0.551*	5,1 *0.201*	4 *0.157*
C6	**	63 *2.480*	28 *1.102*	M20	7 *0.276*	44 *1.732*	70,7 *2.783*	55,8 *2.197*	3 *0.118*	38 *1.496*	22 *0.866*	6,2 *0.244*	12 *0.472*	12 *0.472*	18 *0.709*	5 *0.197*	5 *0.197*
C8	**	80 *3.150*	32 *1.260*	M20	7 *0.276*	55 *2.165*	86 *3.386*	71,1 *2.799*	3 *0.118*	48 *1.890*	30 *1.181*	8 *0.315*	12 *0.472*	12 *0.472*	22,2 *0.874*	4,9 *0.193*	6 *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 *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*
C3	No	32 *1.260*	2 *0.079*	22 *0.866*	2,3 *0.091*	18,4 *0.724*	16,5 *0.650*	9,4 *0.370*
C4	No	40 *1.575*	2,5 *0.098*	28 *1.102*	2,3 *0.091*	23,4 *0.921*	21 *0.827*	11,5 *0.453*
C5	No	50 *1.969*	3 *0.118*	35 *1.378*	2,8 *0.110*	29,4 *1.157*	26 *1.024*	14,5 *0.571*
C6	**	63 *2.480*	4 *0.157*	44 *1.732*	2,8 *0.110*	37,4 *1.472*	33,5 *1.319*	18,5 *0.728*
C8	**	80 *3.150*	5 *0.197*	55 *2.165*	2,8 *0.110*	47,4 *1.866*	43 *1.693*	22,8 *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

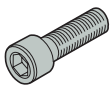
DIN 2080



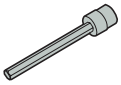
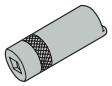
Accessories:
3 = Extension key
4 = Spanner

Designation	Item number	CTMS	CTWS	LF	LB	BD	OAL	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
C3-390.00-40030	75039844	DIN(2080)40	C3	30,0 *1.181*	18,4 *0.724*	32,0 *1.260*	123,4 *4.858*	0	–	0,9 *1.980*
C4-390.00-40030	75039848	DIN(2080)40	C4	30,0 *1.181*	18,4 *0.724*	40,0 *1.575*	123,4 *4.858*	0	–	1,0 *2.200*
C4-390.00-40060	75039849	DIN(2080)40	C4	60,0 *2.362*	48,4 *1.906*	40,0 *1.575*	153,4 *6.039*	0	–	1,08 *2.380*
C5-390.00-40030	75039852	DIN(2080)40	C5	30,0 *1.181*	18,4 *0.724*	50,0 *1.969*	123,4 *4.858*	0	–	0,81 *1.790*
C6-390.00-40075	00048158	DIN(2080)40	C6	75,0 *2.953*	0,0 –	63,0 *2.480*	168,4 *6.630*	0	–	1,82 *4.010*
C3-390.00-50030	75039846	DIN(2080)50	C3	30,0 *1.181*	14,8 *0.583*	32,0 *1.260*	156,8 *6.173*	0	–	2,5 *5.510*
C3-390.00-50060	75039847	DIN(2080)50	C3	60,0 *2.362*	44,8 *1.764*	32,0 *1.260*	186,8 *7.354*	0	–	2,5 *5.510*
C4-390.00-50030	75039850	DIN(2080)50	C4	30,0 *1.181*	14,8 *0.583*	40,0 *1.575*	156,8 *6.173*	0	–	2,5 *5.510*
C4-390.00-50060	75039851	DIN(2080)50	C4	60,0 *2.362*	44,8 *1.764*	40,0 *1.575*	186,8 *7.354*	0	–	2,5 *5.510*
C5-390.00-50030	75039854	DIN(2080)50	C5	30,0 *1.181*	14,8 *0.583*	50,0 *1.969*	156,8 *6.173*	0	–	2,62 *5.780*
C5-390.00-50070	75039855	DIN(2080)50	C5	70,0 *2.756*	54,8 *2.157*	50,0 *1.969*	196,8 *7.748*	0	–	3,29 *7.250*
C6-390.00-50030	75039856	DIN(2080)50	C6	30,0 *1.181*	14,8 *0.583*	63,0 *2.480*	156,8 *6.173*	0	–	2,56 *5.640*
C6-390.00-50080	75039857	DIN(2080)50	C6	80,0 *3.150*	64,8 *2.551*	63,0 *2.480*	206,8 *8.142*	0	–	3,27 *7.210*
C8-390.00-50070	75039858	DIN(2080)50	C8	70,0 *2.756*	54,8 *2.157*	80,0 *3.150*	196,8 *7.748*	0	–	3,8 *8.380*
C8-390.00-50120	75039859	DIN(2080)50	C8	120,0 *4.724*	104,8 *4.126*	80,0 *3.150*	246,8 *9.717*	0	–	5,6 *12.350*

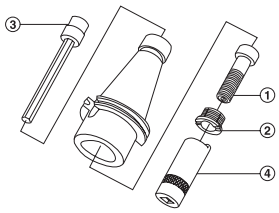
Spare Parts, included in delivery

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

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

Accessories / Spare Parts

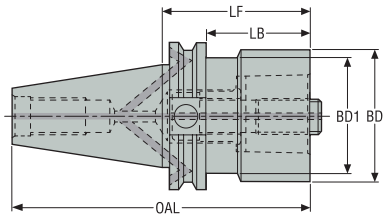


Accessories:
3 = Extension key
4 = Spanner

Spare parts:
1 = Center screw
2 = Retaining nut

C 55/58 – CAT to Seco-Capto™ holders

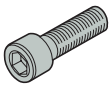
CAT / ASME B5.50-2009-ADB



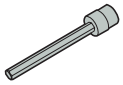
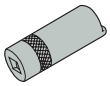
Accessories:
4 = Extension key
5 = Spanner

Designation	Item number	CTMS	CTWS	LF	LB	BD	OAL	Design	RFID hole	Balan-cing	Weight
				Inch	Inch	Inch	Inch				lbs
C3-A390B.45-40060	02925929	CAT40 ADB	C3	2.362	1.610	1.260	5.055	2	0	PB	2.200
C4-A390B.45-40030	02925932	CAT40 ADB	C4	1.181	0.429	1.575	3.874	2	0	PB	1.980
C4-A390B.45-40060	02925933	CAT40 ADB	C4	2.362	1.610	1.575	5.055	2	0	PB	2.430
C5-A390B.45-40040	02925935	CAT40 ADB	C5	1.575	0.823	1.969	4.268	2	0	PB	2.200
C5-A390B.45-40080	02925936	CAT40 ADB	C5	3.150	2.398	1.969	5.843	2	0	PB	3.310
C6-A390B.45-40085	02925939	CAT40 ADB	C6	3.346	1.378	2.480	6.039	2	0	PB	4.190
C3-A390B.45-50030	02925930	CAT50 ADB	C3	1.181	0.429	1.260	5.185	2	0	PB	6.390
C3-A390B.45-50060	02925931	CAT50 ADB	C3	2.362	1.610	1.260	6.366	2	0	PB	5.970
C4-A390B.45-50030	02925948	CAT50 ADB	C4	1.181	0.429	1.575	5.185	2	0	PB	5.780
C4-A390B.45-50060	02925934	CAT50 ADB	C4	2.362	1.610	1.969	6.366	2	0	PB	6.610
C5-A390B.45-50030	02925937	CAT50 ADB	C5	1.181	0.429	1.969	5.185	2	0	PB	5.510
C5-A390B.45-50070	02925938	CAT50 ADB	C5	2.756	2.004	1.969	6.760	2	0	PB	6.610
C6-A390B.45-50030	02925940	CAT50 ADB	C6	1.181	0.429	2.480	5.185	2	0	PB	5.510
C6-A390B.45-50080	02925941	CAT50 ADB	C6	3.150	2.398	2.480	7.154	2	0	PB	7.940
C8-A390B.45-50070	02925942	CAT50 ADB	C8	2.756	2.004	3.150	6.760	2	0	PB	7.940
C8-A390B.45-50120	02925943	CAT50 ADB	C8	4.724	3.972	3.150	8.728	2	0	PB	12.350

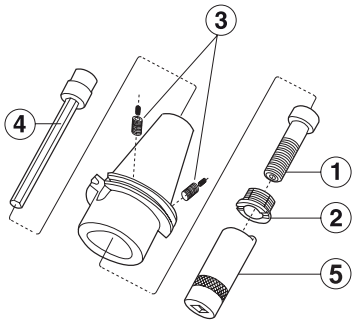
Spare Parts, included in delivery

For	Centre screw	Plug	Retaining nut	Sealing plugs
		1x		1x
CAT40/ C3	5512063-10	564301701	5512091-04	–
CAT40/ C4	5512063-07	564301701	5512091-03	–
CAT40/ C5	5512063-08	564301701	5512091-01	–
CAT40/ C6	5512063-13	564301701	5512091-02	–
CAT50/ C3	5512063-10	564301702	5512091-04	–
CAT50/ C4-50030	5512063-07	564301701	5512091-03	564301702
CAT50/ C4-50060	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

For	Extension key	Spanner
		
CAT40/ C3	5680015-05	5680065-13
CAT40/ C4	5680015-05	5680065-10
CAT40/ C5	5680015-01	5680065-11
CAT40/ C6	5680015-01	5680065-12
CAT50/ C3	5680015-05	5680065-13
CAT50/ C4-50030	5680015-05	5680065-10
CAT50/ C4-50060	5680015-05	5680065-10
CAT50/ C5	5680015-01	5680065-11
CAT50/ C6	5680015-02	5680065-12
CAT50/ C8	5680015-02	5680065-12

Accessories / Spare Parts



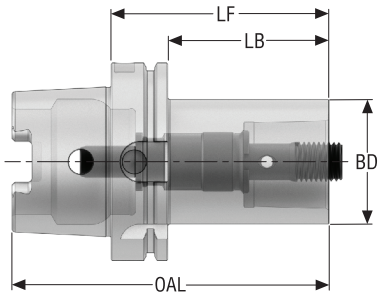
Accessories:
4 = Extension key
5 = Spanner

Spare parts:
1 = Center screw
2 = Retaining nut
3 = Plugs (dowels)

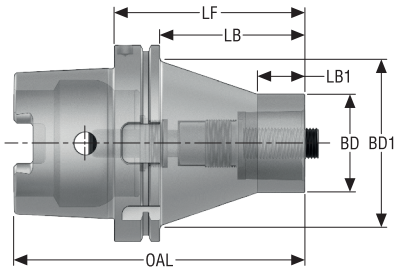
C 410 – HSK-A to Seco-Capto™ holders – ISO 26623-2

HSK-A/ ISO12164-1-HSK-A

Design 1



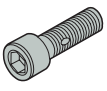
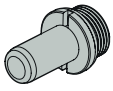
Design 2



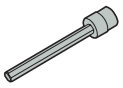
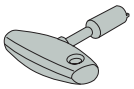
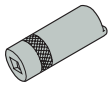
Accessories:
2 = Extension key
4 = Spanner
6 = Key for coolant tube

Designation	Item number	CTMS	CTWS	LF	LB	LB1	BD	BD1	OAL	Design	RFID hole	Balancing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				kg *lbs*
HA10-C3-032-080	10197961	HSK-A100	C3	80,0 *3.150*	51,0 *2.008*	–	32,0 *1.260*	–	130,0 *5.118*	1	1	PB	2,5 *5.510*
HA06-C3-032-075	10197962	HSK-A63	C3	75,0 *2.953*	49,0 *1.929*	–	32,0 *1.260*	–	107,0 *4.213*	1	1	PB	0,9 *1.980*
HA10-C4-040-090	10197963	HSK-A100	C4	90,0 *3.543*	61,0 *2.402*	–	40,0 *1.575*	–	140,0 *5.512*	1	1	PB	2,5 *5.510*
HA06-C4-040-080	10197964	HSK-A63	C4	80,0 *3.150*	54,0 *2.126*	–	40,0 *1.575*	–	112,0 *4.409*	1	1	PB	1,1 *2.430*
HA10-C5-050-100	10197965	HSK-A100	C5	100,0 *3.937*	71,0 *2.795*	–	50,0 *1.969*	–	150,0 *5.906*	1	1	PB	2,9 *6.390*
HA06-C5-050-090	10197966	HSK-A63	C5	90,0 *3.543*	64,0 *2.520*	–	50,0 *1.969*	–	122,0 *4.803*	1	1	PB	1,3 *2.870*
HA10-C6-063-110	10197967	HSK-A100	C6	110,0 *4.331*	81,0 *3.189*	–	63,0 *2.480*	–	160,0 *6.299*	1	1	PB	3,6 *7.940*
HA10-C8-080-120	10197968	HSK-A100	C8	120,0 *4.724*	91,0 *3.583*	–	80,0 *3.150*	–	170,0 *6.693*	1	1	PB	4,8 *10.580*
HSKA125-C6-120	03229625	HSK-A125	C6	120,0 *4.724*	91,0 *3.583*	–	63,0 *2.480*	–	183,0 *7.205*	1	1	PB	5,2 *11.460*
HSKA125-C6-120-V	03229626	HSK-A125	C6	120,0 *4.724*	91,0 *3.583*	30,0 *1.181*	63,0 *2.480*	108,0 *4.252*	183,0 *7.205*	2	1	PB	6,4 *14.110*
HSKA125-C8-130	03229627	HSK-A125	C8	130,0 *5.118*	101,0 *3.976*	–	80,0 *3.150*	–	193,0 *7.598*	1	1	PB	6,5 *14.330*
HSKA125-C8-130-V	03229628	HSK-A125	C8	130,0 *5.118*	101,0 *3.976*	30,0 *1.181*	80,0 *3.150*	105,0 *4.134*	193,0 *7.598*	2	1	PB	7,8 *17.200*

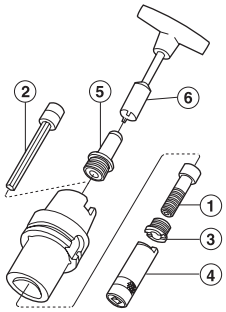
Spare Parts, included in delivery

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

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

Accessories / Spare Parts



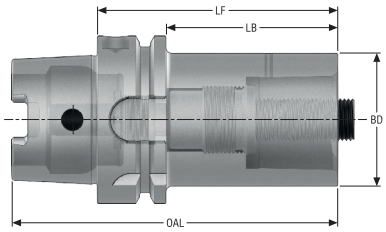
Accessories:
2 = Extension key
4 = Spanner
6 = Key for coolant tube

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

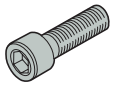
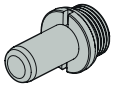
HSK-T/ ISO12164-3-HSK-T



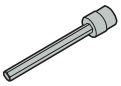
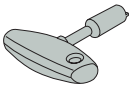
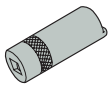
Accessories:
2 = Extension key
4 = Spanner
6 = Key for coolant tube

Designation	Item number	CTMS	CTWS	LF	LB	BD	OAL	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
C4-390.411-63080	02786511	HSK-T63	C4	80,0 *3.150*	54,0 *2.126*	40,0 *1.575*	112,0 *4.409*	1	–	1,1 *2.430*
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	–	1,5 *3.310*
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	–	2,6 *5.730*
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	–	3,0 *6.610*
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	–	3,6 *7.940*
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	–	4,8 *10.580*

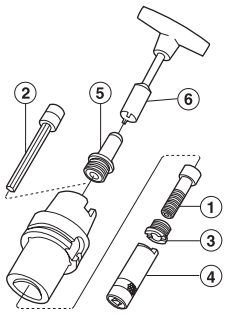
Spare Parts, included in delivery

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

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

Accessories / Spare Parts



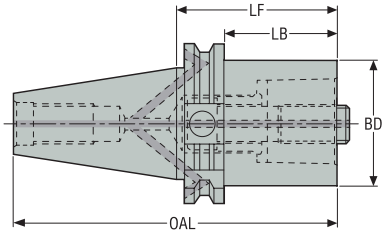
Accessories:
2 = Extension key
4 = Spanner
6 = Key for coolant tube

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

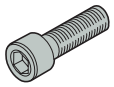
DIN 69871-ADB



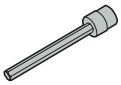
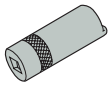
Accessories:
4 = Extension key
5 = Spanner

Designation	Item number	CTMS	CTWS	LF	LB	BD	OAL	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
C3-390B.140-40030	02924104	DIN40 ADB	C3	30,0 *1.181*	10,9 *0.429*	32,0 *1.260*	98,4 *3.874*	0	PB	0,8 *1.760*
C3-390B.140-40060	02924105	DIN40 ADB	C3	60,0 *2.362*	40,9 *1.610*	32,0 *1.260*	128,4 *5.055*	0	PB	0,9 *1.980*
C4-390B.140-40030	02924108	DIN40 ADB	C4	30,0 *1.181*	10,9 *0.429*	40,0 *1.575*	98,4 *3.874*	0	PB	0,8 *1.760*
C4-390B.140-40060	02924109	DIN40 ADB	C4	60,0 *2.362*	40,9 *1.610*	40,0 *1.575*	128,4 *5.055*	0	PB	1,1 *2.430*
C5-390B.140-40040	02924112	DIN40 ADB	C5	40,0 *1.575*	20,9 *0.823*	50,0 *1.969*	108,4 *4.268*	0	PB	0,9 *1.980*
C5-390B.140-40080	02924113	DIN40 ADB	C5	80,0 *3.150*	60,9 *2.398*	50,0 *1.969*	148,4 *5.843*	0	PB	1,5 *3.310*
C6-390B.140-40085	02924116	DIN40 ADB	C6	85,0 *3.346*	65,9 *2.594*	63,0 *2.480*	153,4 *6.039*	0	PB	1,8 *3.970*
C3-390B.140-50030	02924106	DIN50 ADB	C3	30,0 *1.181*	10,9 *0.429*	32,0 *1.260*	131,7 *5.185*	0	PB	2,6 *5.730*
C3-390B.140-50060	02924107	DIN50 ADB	C3	60,0 *2.362*	40,9 *1.610*	32,0 *1.260*	161,7 *6.366*	0	PB	2,7 *5.950*
C4-390B.140-50030	02924110	DIN50 ADB	C4	30,0 *1.181*	10,9 *0.429*	40,0 *1.575*	131,7 *5.185*	0	PB	2,6 *5.730*
C4-390B.140-50060	02924111	DIN50 ADB	C4	60,0 *2.362*	40,9 *1.610*	40,0 *1.575*	161,7 *6.366*	0	PB	2,8 *6.170*
C5-390B.140-50030	02924114	DIN50 ADB	C5	30,0 *1.181*	10,9 *0.429*	50,0 *1.969*	131,7 *5.185*	0	PB	2,6 *5.730*
C5-390B.140-50070	02924115	DIN50 ADB	C5	70,0 *2.756*	50,9 *2.004*	50,0 *1.969*	171,7 *6.760*	0	PB	3,1 *6.830*
C6-390B.140-50030	02924117	DIN50 ADB	C6	30,0 *1.181*	10,9 *0.429*	63,0 *2.480*	131,7 *5.185*	0	PB	2,4 *5.290*
C6-390B.140-50080	02924118	DIN50 ADB	C6	80,0 *3.150*	60,9 *2.398*	63,0 *2.480*	181,7 *7.154*	0	PB	3,6 *7.940*
C8-390B.140-50070	02924119	DIN50 ADB	C8	70,0 *2.756*	50,9 *2.004*	80,0 *3.150*	171,7 *6.760*	0	PB	3,7 *8.160*
C8-390B.140-50120	02924120	DIN50 ADB	C8	120,0 *4.724*	100,9 *3.972*	80,0 *3.150*	221,7 *8.728*	0	PB	5,5 *12.130*

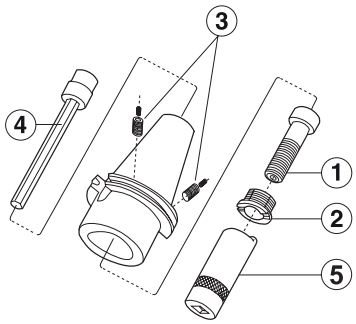
Spare Parts, included in delivery

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

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

Accessories / Spare Parts



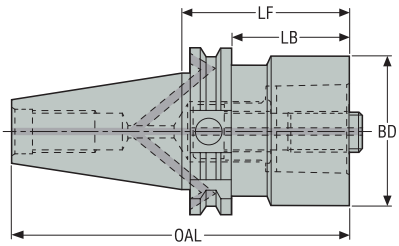
Accessories:
4 = Extension key
5 = Spanner

Spare parts:
1 = Center screw
2 = Retaining nut
3 = Plugs (dowels)

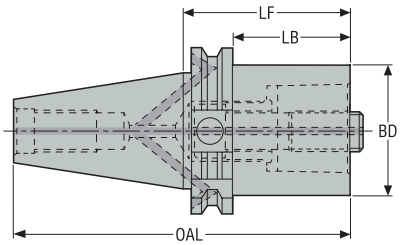
C 5191 – Seco-Capto™, basic holders – ISO 26623-2

DIN Taper-Face-ADB

Design 1



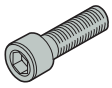
Design 2



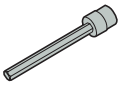
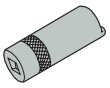
Accessories:
4 = Extension key
5 = Spanner

Designation	Item number	CTMS	CTWS	LF mm Inch	LB mm Inch	BD mm Inch	OAL mm Inch	RFID hole	Balan-cing	Weight kg lbs
E316951915050	03030258	DIN40 TF ADB	C5	50,0 1.969	30,9 1.217	50,0 1.969	118,4 4.661	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	1	PB	3,1 6.830
E317151916350	03030262	DIN50 TF ADB	C6	50,0 1.969	30,9 1.217	63,0 2.480	151,7 5.972	0	–	2,9 6.390
E3171519163100	03030265	DIN50 TF ADB	C6	100,0 3.937	80,9 3.185	63,0 2.480	201,7 7.941	1	PB	4,0 8.820
E317151918070	03030263	DIN50 TF ADB	C8	70,0 2.756	50,9 2.004	80,0 3.150	171,7 6.760	0	–	3,9 8.600
E3171519180120	03030266	DIN50 TF ADB	C8	120,0 4.724	100,9 3.972	80,0 3.150	221,7 8.728	0	–	5,6 12.350

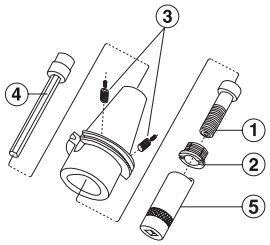
Spare Parts, included in delivery

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

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

Accessories / Spare Parts



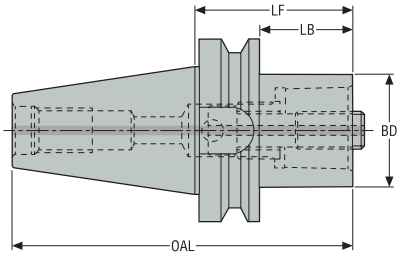
Accessories:
4 = Extension key
5 = Spanner

Spare parts:
1 = Center screw
2 = Retaining nut
3 = Plugs (dowels)

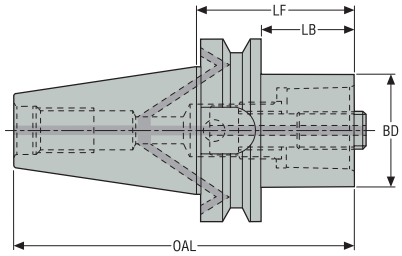
C 55/58 – BT to Seco-Capto™ holders – ISO 26623-2

BT

Design 1



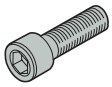
Design 2



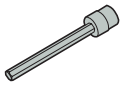
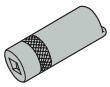
Accessories:
4 = Extension key
5 = Spanner

Designation	Item number	CTMS	CTWS	LF mm Inch	LB mm Inch	BD mm Inch	OAL mm Inch	RFID hole	Balan-cing	Weight 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	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	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	0	PB	1,0 2.200
C3-390B.55-40060	02925960	BT40 ADB	C3	60,0 2.362	33,0 1.299	32,0 1.260	125,4 4.937	0	PB	1,1 2.430
C4-390B.55-40030	02925963	BT40 ADB	C4	30,0 1.181	3,0 0.118	40,0 1.575	95,4 3.756	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	0	PB	1,2 2.650
C5-390B.55-40050	02925967	BT40 ADB	C5	50,0 1.969	23,0 0.906	50,0 1.969	115,4 4.543	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	0	PB	1,7 3.750
C6-390B.55-40075	02925971	BT40 ADB	C6	75,0 2.953	54,6 2.150	63,0 2.480	140,4 5.528	0	PB	1,7 3.750
C3-390B.58-50040	02925961	BT50 ADB	C3	40,0 1.575	2,0 0.079	32,0 1.260	141,8 5.583	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	0	PB	3,7 8.160
C4-390B.58-50040	02925965	BT50 ADB	C4	40,0 1.575	2,0 0.079	40,0 1.575	141,8 5.583	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	0	PB	3,8 8.380
C5-390B.58-50040	02925969	BT50 ADB	C5	40,0 1.575	2,0 0.079	50,0 1.969	141,8 5.583	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	0	PB	4,0 8.820
C6-390B.58-50050	02925972	BT50 ADB	C6	50,0 1.969	12,0 0.472	63,0 2.480	151,8 5.976	0	PB	3,4 7.500
C6-390B.58-50100	02925973	BT50 ADB	C6	100,0 3.937	62,0 2.441	63,0 2.480	201,8 7.945	0	PB	4,5 9.920
C8-390B.58-50070	02925974	BT50 ADB	C8	70,0 2.756	32,0 1.260	80,0 3.150	171,8 6.764	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	0	PB	5,9 13.010

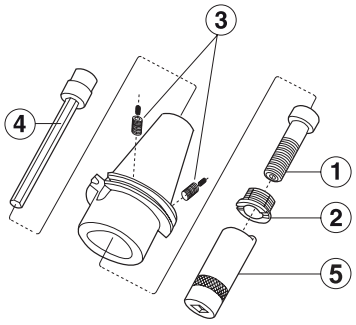
Spare Parts, included in delivery

For	Centre screw	Plug	Retaining nut
		1x	
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

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

Accessories / Spare Parts

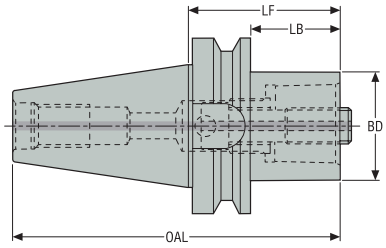


Accessories:
4 = Extension key
5 = Spanner

Spare parts:
1 = Center screw
2 = Retaining nut
3 = Plugs (dowels)

C 605 – BT Mazak to Seco-Capto™ holders – ISO 26623-2

BT Mazak

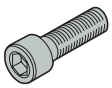


– Mazak design means 90° rotated Seco-Capto™ polygon compared to classic BT basic holders
– For Mazak e-machines

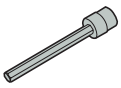
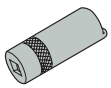
Accessories:
3 = Extension key
4 = Spanner

Designation	Item number	CTMS	CTWS	LF	LB	BD	OAL	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
C5-390.605-40030	02606358	BT40 AD Mazak	C5	30,0 *1.181*	3,0 *0.118*	50,0 *1.969*	95,4 *3.756*	0	–	1,1 *2.430*
C6-390.605-50040	02606354	BT50 AD Mazak	C6	40,0 *1.575*	2,0 *0.079*	63,0 *2.480*	141,8 *5.583*	0	–	3,3 *7.280*
C8-390.605-50070	02646032	BT50 AD Mazak	C8	70,0 *2.756*	70,0 *2.756*	80,0 *3.150*	171,8 *6.764*	0	–	4,0 *8.820*

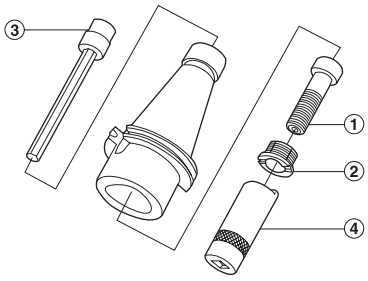
Spare Parts, included in delivery

For	Centre screw	Retaining nut
		
C5	5512063-08	5512091-01
C6	5512063-09	5512091-02
C8	5512063-09	5512091-02

Accessories

For	Extension key	Spanner
		
C5	5680015-01	5680065-11
C6	5680015-02	5680065-12
C8	5680015-02	5680065-12

Accessories / Spare Parts



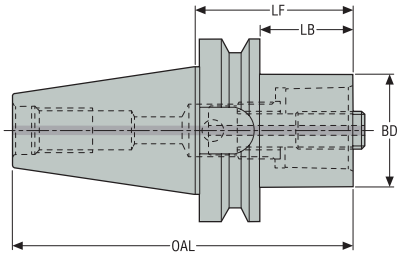
Accessories:
3 = Extension key
4 = Spanner

Spare parts:
1 = Center screw
2 = Retaining nut

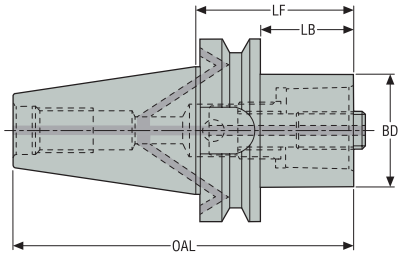
C 5191 – Seco-Capto™, basic holders – ISO 26623-2

BT Taper-Face-AD/ADB

Design 1



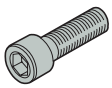
Design 2



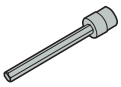
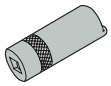
Accessories:
4 = Extension key
5 = Spanner

Designation	Item number	CTMS	CTWS	LF	LB	BD	OAL	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
E400251913240	03030234	BT30 TF AD	C3	40,0 *1.575*	22,0 *0.866*	32,0 *1.260*	88,4 *3.480*	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	PB	0,7 *1.540*
E311451914040	03030236	BT40 TF ADB	C4	40,0 *1.575*	13,0 *0.512*	40,0 *1.575*	105,4 *4.150*	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*	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*	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*	1	PB	3,5 *7.720*
E311651915040	03030240	BT50 TF ADB	C5	40,0 *1.575*	2,0 *0.079*	50,0 *1.969*	141,8 *5.583*	0	PB	3,4 *7.500*
E311651916350	03030241	BT50 TF ADB	C6	50,0 *1.969*	12,0 *0.472*	63,0 *2.480*	151,8 *5.976*	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*	0	PB	4,8 *10.580*
E311651918070	03030243	BT50 TF ADB	C8	70,0 *2.756*	32,0 *1.260*	80,0 *3.150*	171,8 *6.764*	0	PB	4,2 *9.260*
E3116519180120	03030244	BT50 TF ADB	C8	120,0 *4.724*	82,0 *3.228*	80,0 *3.150*	121,8 *4.795*	1	PB	5,9 *13.010*

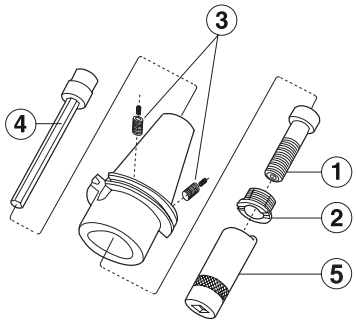
Spare Parts, included in delivery

For	Centre screw	Plug	Retaining nut
			
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

For	Extension key	Spanner
		
BT30 TF/ C3	5680015-05	5680065-13
BT30 TF/ C4	5680015-05	5680065-10
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

Accessories / Spare Parts



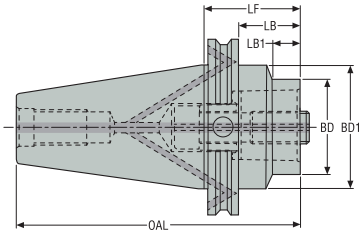
Accessories:
4 = Extension key
5 = Spanner

Spare parts:
1 = Center screw
2 = Retaining nut
3 = Plugs (dowels)

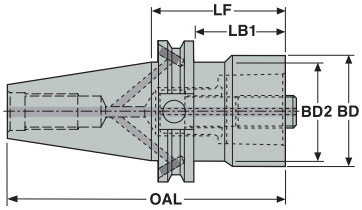
C 5191 – Seco-Capto™, basic holders

CAT TF / ASME B5.50-1994-ADB

Design 1



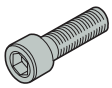
Design 2



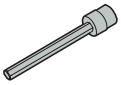
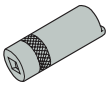
Accessories:
4 = Extension key
5 = Spanner

Designation	Item number	CTMS	CTWS	LF	LB	LB1	BD	BD1	OAL	Design	RFID hole	Balancing	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	-	6.610
E234451916340	03030251	CAT50 TF ADB	C6	1.575	0.120	0.120	2.480	2.750	5.580	1	0	-	6.170
E234451916390	03030252	CAT50 TF ADB	C6	3.543	2.085	2.085	2.480	2.750	7.543	1	0	-	8.600
E2344519180100	03030253	CAT50 TF ADB	C8	3.937	3.185	3.185	3.150	2.750	7.937	2	1	PB	10.140

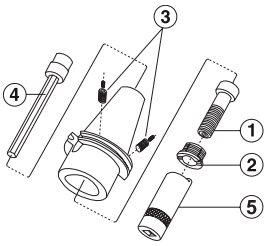
Spare Parts, included in delivery

For	Centre screw	Plug	Retaining nut
		1x	
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

For	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

Accessories / Spare Parts

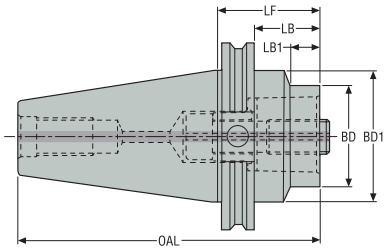


Accessories:
4 = Extension key
5 = Spanner

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

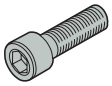


–90° rotated polygon for precision tool tip control

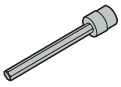
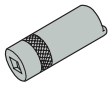
Accessories:
4 = Extension key
5 = Spanner

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

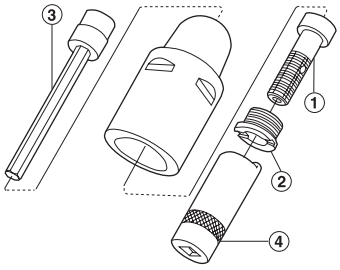
Spare Parts, included in delivery

For	Centre screw	Retaining nut
		
E947451916350	5512063-09	5512091-02

Accessories

For	Extension key	Spanner
		
E947451916350	5680015-02	5680065-12

Accessories / Spare Parts

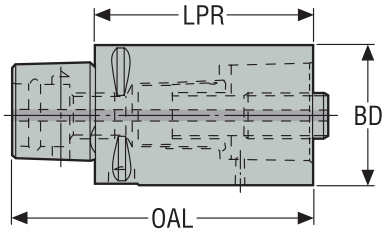


Accessories:
3 = Extension key
4 = Retaining nut spanner

Spare parts:
1 = Center screw
2 = Retaining nut

C 01 – Seco-Capto™, extensions

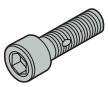
ISO 26623-1



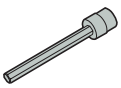
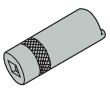
Accessories:
3 = Extension key
4 = Retaining nut spanner

Designation	Item number	CTMS	CTWS	LPR	BD	OAL	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
C3-391.01-32060A	75039884	C3	C3	60,0 *2.362*	32,0 *1.260*	79,0 *3.110*	0	-	0,4 *0.880*
C3-391.01-32080A	00090847	C3	C3	80,0 *3.150*	32,0 *1.260*	99,0 *3.898*	0	-	0,5 *1.100*
C4-391.01-40060A	75039885	C4	C4	60,0 *2.362*	40,0 *1.575*	84,0 *3.307*	0	-	0,6 *1.320*
C4-391.01-40080A	02207391	C4	C4	80,0 *3.150*	40,0 *1.575*	104,0 *4.094*	0	-	0,8 *1.760*
C5-391.01-50080A	75039886	C5	C5	80,0 *3.150*	50,0 *1.969*	110,0 *4.331*	0	-	1,1 *2.430*
C5-391.01-50100A	00004773	C5	C5	100,0 *3.937*	50,0 *1.969*	130,0 *5.118*	0	-	1,4 *3.090*
C6-391.01-63100A	75039887	C6	C6	100,0 *3.937*	63,0 *2.480*	138,0 *5.433*	0	-	2,2 *4.850*
C6-391.01-63140A	00004840	C6	C6	140,0 *5.512*	63,0 *2.480*	178,0 *7.008*	0	-	3,1 *6.830*
C8-391.01-80100A	75039888	C8	C8	100,0 *3.937*	80,0 *3.150*	148,0 *5.827*	0	-	3,7 *8.160*
C8-391.01-80125A	00004841	C8	C8	125,0 *4.921*	80,0 *3.150*	173,0 *6.811*	0	-	4,7 *10.360*

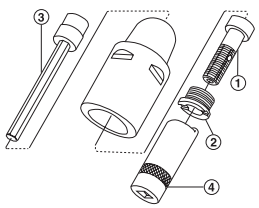
Spare Parts, included in delivery

For	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

For	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

Accessories / Spare Parts

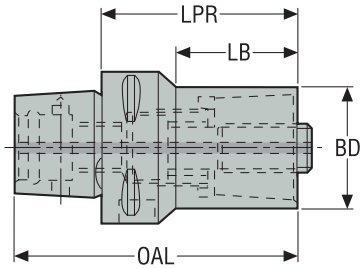


Accessories:
3 = Extension key
4 = Retaining nut spanner

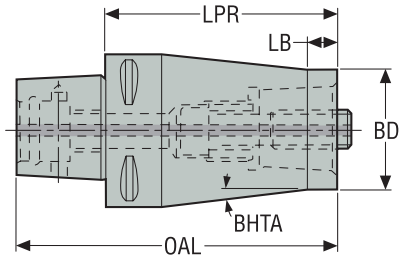
Spare parts:
1 = Center screw
2 = Retaining nut

C 02 – Seco-Capto™, reducers
ISO 26623-1

Design 1



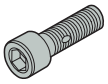
Design 2



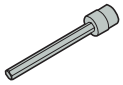
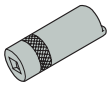
Accessories:
3 = Extension key
4 = Retaining nut spanner

Designation	Item number	CTMS	CTWS	LPR mm Inch	LB mm Inch	BD mm Inch	OAL mm Inch	Design	RFID hole	Balan-cing	Weight 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	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	-	0,7 1.540
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	-	0,8 1.760
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	-	1,1 2.430
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	-	1,2 2.650
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	-	1,5 3.310
C6-391.02-50110A	02207400	C6	C5	110,0 4.331	12,0 0.472	50,0 1.969	148,0 5.827	2	0	-	2,2 4.850
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	-	2,7 5.950
C8-391.02-63120A	02207176	C8	C6	120,0 4.724	12,0 0.472	63,0 2.480	168,0 6.614	2	0	-	4,1 9.040

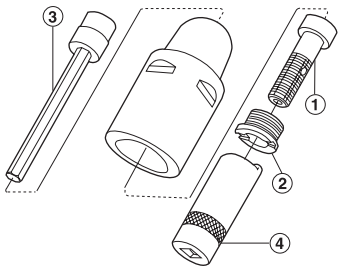
Spare Parts, included in delivery

For	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

For	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

Accessories / Spare Parts

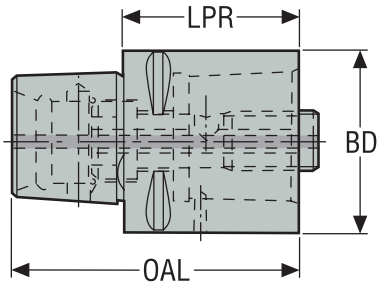


Accessories:
3 = Extension key
4 = Retaining nut spanner

Spare parts:
1 = Center screw
2 = Retaining nut

C01 Seco-Capto ™ extensions, short version, for segment clamping only

ISO 26623-1

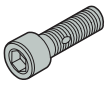


—The Seco-Capto™ machine side of short extensions can only be hold by spindles with segment clamping (not with center bolt clamping)

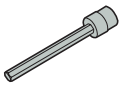
Accessories:
3 = Extension key

Designation	Item number	CTMS	CTWS	LPR	BD	OAL	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
C3-391.01-32035	02535685	C3	C3	35,0 *1.378*	32,0 *1.260*	54,0 *2.126*	0	–	0,3 *0.660*
C4-391.01-40040	02535686	C4	C4	40,0 *1.575*	40,0 *1.575*	64,0 *2.520*	0	–	0,4 *0.880*
C5-391.01-50050	02484934	C5	C5	50,0 *1.969*	50,0 *1.969*	80,0 *3.150*	0	–	0,7 *1.540*
C6-391.01-63060	02300834	C6	C6	60,0 *2.362*	63,0 *2.480*	98,0 *3.858*	0	–	1,3 *2.870*
C8-391.01-80065	02417041	C8	C8	65,0 *2.559*	80,0 *3.150*	113,0 *4.449*	0	–	2,4 *5.290*

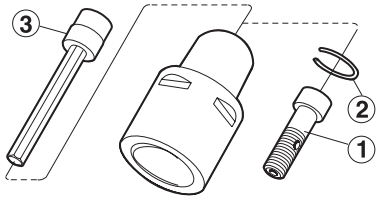
Spare Parts, included in delivery

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

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

Accessories / Spare Parts

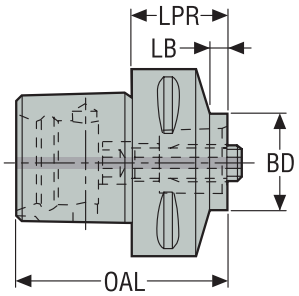


Accessories:
3 = Extension key

Spare parts:
1 = Center screw
2 = Circlip

C02 Seco-Capto™ reducers, short version, for segment clamping only

ISO 26623-1

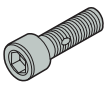


—The Seco-Capto™ machine side of short reducers can only be hold by spindles with segment clamping (not with center bolt clamping)
—* With 180° offset Machine side vs Workpiece side

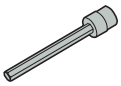
Accessories:
3 = Extension key

Designation	Item number	CTMS	CTWS	LPR mm *Inch*	LB mm *Inch*	BD mm *Inch*	OAL mm *Inch*	*	RFID hole	Balan-cing	Weight kg *lbs*
C5-391.02-32033A	03080025	C5	C3	33,0 *1.299*	5,0 *0.197*	32,0 *1.260*	63,0 *2.480*		0	PB	0,6 *1.320*
C5-391.02-40040A	03079983	C5	C4	40,0 *1.575*	15,0 *0.591*	40,0 *1.575*	70,0 *2.756*		0	–	0,6 *1.320*
C6-391.02-32032	02535690	C6	C3	32,0 *1.260*	6,0 *0.236*	32,0 *1.260*	70,0 *2.756*		0	–	0,85 *1.870*
C6-391.02-40040	02459467	C6	C4	40,0 *1.575*	11,0 *0.433*	40,0 *1.575*	78,0 *3.071*		0	–	0,9 *1.980*
C6-391.02-50050A	03080019	C6	C5	50,0 *1.969*	20,0 *0.787*	50,0 *1.969*	88,0 *3.465*		0	–	1,1 *2.430*
C8-391.02-50045A	03080010	C8	C5	45,0 *1.772*	5,0 *0.197*	50,0 *1.969*	93,0 *3.661*		0	–	1,9 *4.190*
C8-391.02-63055A	03080012	C8	C6	55,0 *2.165*	15,0 *0.591*	63,0 *2.480*	103,0 *4.055*		0	–	2,1 *4.630*
C8-391.02R-63055A	03080030	C8	C6	55,0 *2.165*	15,0 *0.591*	63,0 *2.480*	103,0 *4.055*	*	0	–	1,9 *4.190*

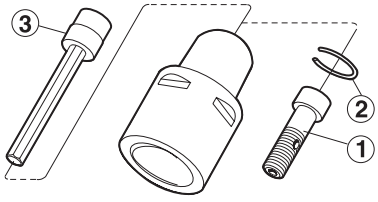
Spare Parts, included in delivery

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

Extension key

5680015-05
5680015-05
5680015-05
5680015-05
5680015-01
5680015-01
5680015-02
5680015-02

Accessories / Spare Parts

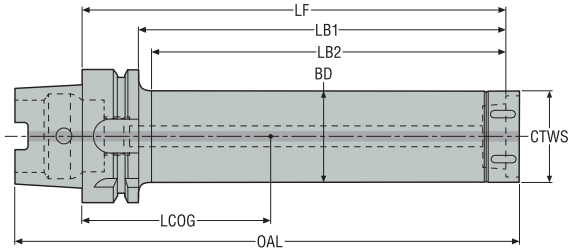


Accessories:
3 = Extension key

Spare parts:
1 = Center screw
2 = Circlip

GL – Steadyline®, HSK-T/A GL holders

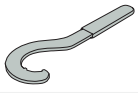
Body diameters 25, 32, 40 and 50 mm / *0.984, 1.260, 1.575 and 1.969 inch*



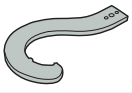
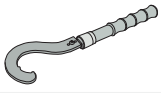
—With dynamic damping, ready to use
—With through coolant
—* Max. RPM only when used in rotating boring

Designation	Item number	CTMS HSK-T/A	CTWS GL size	BD	LF	LB1	LB2	OAL	LCOG	Max. RPM*	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
HSKTA63-GL25-130-K	03214283	HSK-T/A63	GL25	25,0 *0.984*	130,0 *5.118*	104,0 *4.094*	101,0 *3.976*	166,5 *6.555*	37,0 *1.457*	10000	1	–	1,4 *3.1*
HSKTA63-GL25-180-K	03214284	HSK-T/A63	GL25	25,0 *0.984*	180,0 *7.087*	154,0 *6.063*	151,0 *5.945*	216,5 *8.524*	57,7 *2.272*	8000	1	–	1,5 *3.3*
HSKTA63-GL25-230-K	03214285	HSK-T/A63	GL25	25,0 *0.984*	230,0 *9.055*	204,0 *8.031*	201,0 *7.913*	266,5 *10.492*	80,3 *3.161*	6000	1	–	1,5 *3.3*
E9374-D32-160-GL32	03029521	HSK-T/A63	GL32	32,0 *1.260*	160,0 *6.299*	134,0 *5.276*	128,0 *5.039*	197,4 *7.772*	58,92 *2.320*	10000	1	–	1,6 *3.5*
E9374-D32-224-GL32	03029522	HSK-T/A63	GL32	32,0 *1.260*	224,0 *8.819*	198,0 *7.795*	192,0 *7.559*	261,4 *10.291*	90,22 *3.552*	8000	1	–	2,0 *4.4*
E9374-D40-208-GL40	03029523	HSK-T/A63	GL40	40,0 *1.575*	208,0 *8.189*	182,0 *7.165*	176,0 *6.929*	246,4 *9.701*	92,78 *3.653*	8000	1	–	2,7 *6.0*
E9374-D40-288-GL40	03029524	HSK-T/A63	GL40	40,0 *1.575*	288,0 *11.339*	262,0 *10.315*	256,0 *10.079*	326,4 *12.850*	134,37 *5.290*	6000	1	–	3,5 *7.7*
E9374-D50-268-GL50	03029525	HSK-T/A63	GL50	50,0 *1.969*	268,0 *10.551*	242,0 *9.528*	240,5 *9.469*	307,4 *12.102*	131,8 *5.189*	6000	1	–	4,8 *10.6*
E9374-D50-368-GL50	03029526	HSK-T/A63	GL50	50,0 *1.969*	368,0 *14.488*	342,0 *13.465*	340,5 *13.406*	407,4 *16.039*	184,79 *7.275*	4000	1	–	6,4 *14.1*
E9376-D32-160-GL32	03029527	HSK-T/A100	GL32	32,0 *1.260*	160,0 *6.299*	131,0 *5.157*	125,0 *4.921*	215,4 *8.480*	32,87 *1.294*	10000	1	–	3,0 *6.6*
E9376-D32-224-GL32	03029528	HSK-T/A100	GL32	32,0 *1.260*	224,0 *8.819*	195,0 *7.677*	189,0 *7.441*	279,4 *11.000*	54,97 *2.164*	8000	1	–	3,4 *7.5*
E9376-D32-288-GL32	03029529	HSK-T/A100	GL32	32,0 *1.260*	288,0 *11.339*	259,0 *10.197*	253,0 *9.961*	343,4 *13.520*	80,51 *3.170*	6000	1	–	3,8 *8.4*
E9376-D40-208-GL40	03029530	HSK-T/A100	GL40	40,0 *1.575*	208,0 *8.189*	179,0 *7.047*	173,0 *6.811*	264,4 *10.409*	62,83 *2.474*	8000	1	–	4,1 *9.0*
E9376-D40-288-GL40	03029531	HSK-T/A100	GL40	40,0 *1.575*	288,0 *11.339*	259,0 *10.197*	253,0 *9.961*	344,4 *13.559*	98,31 *3.870*	6000	1	–	4,9 *10.8*
E9376-D40-368-GL40	03029532	HSK-T/A100	GL40	40,0 *1.575*	368,0 *14.488*	339,0 *13.346*	333,0 *13.110*	424,4 *16.709*	139,77 *5.503*	5000	1	–	5,8 *12.8*
E9376-D50-268-GL50	03029533	HSK-T/A100	GL50	50,0 *1.969*	268,0 *10.551*	239,0 *9.409*	234,0 *9.213*	325,4 *12.811*	104,26 *4.105*	6000	1	–	6,2 *13.7*
E9376-D50-368-GL50	03029534	HSK-T/A100	GL50	50,0 *1.969*	368,0 *14.488*	339,0 *13.346*	334,0 *13.150*	425,4 *16.748*	154,26 *6.073*	4000	1	–	7,8 *17.2*
E9376-D50-468-GL50	03029535	HSK-T/A100	GL50	50,0 *1.969*	468,0 *18.425*	439,0 *17.283*	434,0 *17.087*	525,4 *20.685*	211,61 *8.331*	2500	1	–	9,7 *21.4*

Spare Parts, included in delivery

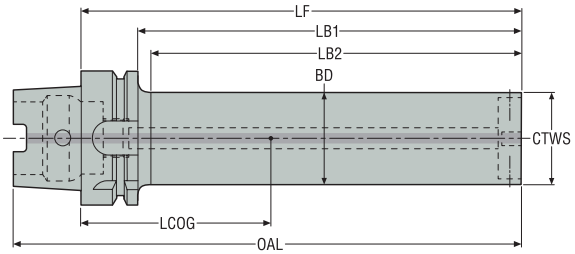
For size	Locking key
	
GL25	SL25
GL32	SL32
GL40	SL40
GL50	SL50

Accessories

Replaceable end	Torque key
	
SL00-25	SL00-25.250
SL00-32	SL00-32.250
SL00-40	SL00-40.350
SL00-50	SL00-50.550

BA – Steadyline®, HSK T/A-BA holders

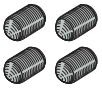
Body diameters 60 and 80 mm / *2.362 and 3.150 inch*



—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 *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
E9376-D60-301-BA060	03062828	HSK-T/A100	BA060	60,0 *2.362*	301,0 *11.850*	272,0 *10.709*	267,0 *10.512*	351,0 *13.819*	133,05 *5.238*	4000	1	PB	8,9 *19.6*
E9376-D60-421-BA060	03062829	HSK-T/A100	BA060	60,0 *2.362*	421,0 *16.575*	392,0 *15.433*	387,0 *15.236*	471,0 *18.543*	197,17 *7.763*	3000	1	PB	11,8 *26.0*
E9376-D60-541-BA060	03062830	HSK-T/A100	BA060	60,0 *2.362*	541,0 *21.299*	512,0 *20.157*	507,0 *19.961*	591,0 *23.268*	260,56 *10.258*	2000	1	PB	14,5 *32.0*
E9376-D80-421-BA080	03064109	HSK-T/A100	BA080	80,0 *3.150*	421,0 *16.575*	392,0 *15.433*	387,0 *15.236*	471,0 *18.543*	209,68 *8.255*	3000	1	PB	19,4 *42.8*
E9376-D80-581-BA080	03064111	HSK-T/A100	BA080	80,0 *3.150*	581,0 *22.874*	552,0 *21.732*	547,0 *21.535*	631,0 *24.843*	295,45 *11.632*	2000	1	PB	25,6 *56.4*

Spare Parts, included in delivery

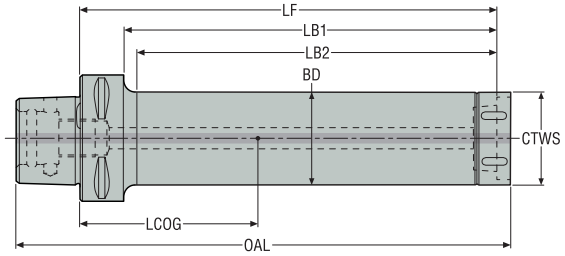
For size	Locking screw
	
BA060	90FQ4
BA080	90FQ52

Accessories

For size	Locking key
BA060	03H04
BA080	03H05

GL – Steadyline®, GL holders

Body diameters 25, 32, 40 and 50 mm / *0.984, 1.260, 1.575 and 1.969 inch*

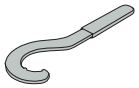


—With dynamic damping, ready to use
—With through coolant
—* Max. RPM only when used in rotating boring

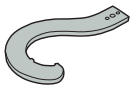
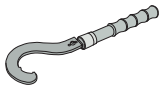
Designation	Item number	CTMS Seco-Capto™ size	CTWS GL size	BD mm *inch*	LF mm *inch*	LB1 mm *inch*	LB2 mm *inch*	OAL mm *inch*	LCOG mm *inch*	Max. RPM*	RFID hole	Balancing	Weight kg *lbs*
C4-D25-130-GL25	03214272	C4	GL25	25,0 *0.984*	130,0 *5.118*	110,0 *4.331*	107,0 *4.213*	158,5 *6.240*	51,8 *2.039*	10000	0	PB	0,9 *2.0*
C4-D25-180-GL25	03214273	C4	GL25	25,0 *0.984*	180,0 *7.087*	160,0 *6.299*	157,0 *6.181*	208,5 *8.209*	77,2 *3.039*	8000	0	PB	1,2 *2.7*
C4-D32-160-GL32	02807837	C4	GL32	32,0 *1.260*	160,0 *6.299*	140,0 *5.512*	137,0 *5.394*	189,4 *7.457*	74,73 *2.942*	10000	0	PB	1,4 *3.1*
C4-D32-224-GL32	02807838	C4	GL32	32,0 *1.260*	224,0 *8.819*	204,0 *8.031*	201,0 *7.913*	253,4 *9.976*	109,16 *4.298*	8000	0	PB	1,7 *3.8*
C5-D25-130-GL25	03214274	C5	GL25	25,0 *0.984*	130,0 *5.118*	110,0 *4.331*	107,0 *4.213*	164,5 *6.476*	41,8 *1.646*	10000	1	PB	1,1 *2.4*
C5-D25-180-GL25	03214275	C5	GL25	25,0 *0.984*	180,0 *7.087*	160,0 *6.299*	157,0 *6.181*	214,5 *8.445*	65,1 *2.563*	8000	1	PB	1,3 *2.9*
C5-D25-230-GL25	03214276	C5	GL25	25,0 *0.984*	230,0 *9.055*	210,0 *8.268*	207,0 *8.150*	264,5 *10.413*	89,8 *3.535*	6000	1	PB	1,5 *3.3*
C5-D32-160-GL32	02807840	C5	GL32	32,0 *1.260*	160,0 *6.299*	140,0 *5.512*	136,0 *5.354*	195,4 *7.693*	65,15 *2.565*	10000	1	PB	1,6 *3.5*
C5-D32-224-GL32	02807841	C5	GL32	32,0 *1.260*	224,0 *8.819*	204,0 *8.031*	200,0 *7.874*	259,4 *10.213*	98,47 *3.877*	8000	1	PB	2,0 *4.4*
C5-D32-288-GL32	02807842	C5	GL32	32,0 *1.260*	288,0 *11.339*	268,0 *10.551*	264,0 *10.394*	323,4 *12.732*	133,61 *5.260*	6000	1	PB	2,2 *4.9*
C5-D40-208-GL40	02807843	C5	GL40	40,0 *1.575*	208,0 *8.189*	188,0 *7.402*	184,0 *7.244*	244,4 *9.622*	98,32 *3.871*	8000	1	PB	2,8 *6.2*
C5-D40-288-GL40	02807844	C5	GL40	40,0 *1.575*	288,0 *11.339*	268,0 *10.551*	264,0 *10.394*	324,4 *12.772*	140,88 *5.546*	6000	1	PB	3,3 *7.3*
C6-D25-130-GL25	03214277	C6	GL25	25,0 *0.984*	130,0 *5.118*	105,0 *4.134*	102,0 *4.016*	172,5 *6.791*	30,4 *1.197*	10000	1	PB	1,6 *3.5*
C6-D25-180-GL25	03214278	C6	GL25	25,0 *0.984*	180,0 *7.087*	155,0 *6.102*	152,0 *5.984*	222,5 *8.760*	49,3 *1.941*	8000	1	PB	1,5 *3.3*
C6-D25-230-GL25	03214279	C6	GL25	25,0 *0.984*	230,0 *9.055*	205,0 *8.071*	202,0 *7.953*	272,5 *10.728*	70,2 *2.764*	6000	1	PB	1,7 *3.8*
C6-D32-160-GL32	02807846	C6	GL32	32,0 *1.260*	160,0 *6.299*	135,0 *5.315*	129,0 *5.079*	203,4 *8.008*	52,06 *2.050*	10000	1	PB	1,8 *4.0*
C6-D32-224-GL32	02807847	C6	GL32	32,0 *1.260*	224,0 *8.819*	199,0 *7.835*	193,0 *7.598*	267,4 *10.528*	82,17 *3.235*	8000	1	PB	2,2 *4.9*
C6-D32-288-GL32	02807848	C6	GL32	32,0 *1.260*	288,0 *11.339*	263,0 *10.354*	257,0 *10.118*	331,4 *13.047*	114,87 *4.522*	6000	1	PB	2,6 *5.7*
C6-D40-208-GL40	02807849	C6	GL40	40,0 *1.575*	208,0 *8.189*	183,0 *7.205*	177,0 *6.969*	252,4 *9.937*	86,42 *3.402*	8000	1	PB	2,9 *6.4*
C6-D40-288-GL40	02807850	C6	GL40	40,0 *1.575*	288,0 *11.339*	263,0 *10.354*	257,0 *10.118*	332,4 *13.087*	127,5 *5.020*	6000	1	PB	3,7 *8.2*
C6-D40-368-GL40	02807851	C6	GL40	40,0 *1.575*	368,0 *14.488*	343,0 *13.504*	337,0 *13.268*	412,4 *16.236*	173,14 *6.817*	5000	1	PB	4,6 *10.1*
C6-D50-268-GL50	02807852	C6	GL50	50,0 *1.969*	268,0 *10.551*	243,0 *9.567*	238,0 *9.370*	313,4 *12.339*	126,6 *4.984*	6000	1	PB	5,4 *11.9*
C6-D50-368-GL50	02807853	C6	GL50	50,0 *1.969*	368,0 *14.488*	343,0 *13.504*	338,0 *13.307*	413,4 *16.276*	179,44 *7.065*	4000	1	PB	6,6 *14.6*
C6-D50-468-GL50	02807854	C6	GL50	50,0 *1.969*	468,0 *18.425*	443,0 *17.441*	438,0 *17.244*	513,4 *20.213*	238,49 *9.389*	2500	1	PB	8,5 *18.7*

Designation	Item number	CTMS Seco-Capto™ size	CTWS GL size	BD	LF	LB1	LB2	OAL	LCOG	Max. RPM*	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
C8-D32-224-GL32	03029356	C8	GL32	32,0 *1.260*	224,0 *8.819*	191,0 *7.520*	181,0 *7.126*	277,4 *10.921*	58,17 *2.290*	8000	1	PB	3,2 *7.1*
C8-D32-288-GL32	03029357	C8	GL32	32,0 *1.260*	288,0 *11.339*	255,0 *10.039*	245,0 *9.646*	341,4 *13.441*	84,7 *3.335*	6000	1	PB	3,6 *7.9*
C8-D40-288-GL40	03029358	C8	GL40	40,0 *1.575*	288,0 *11.339*	255,0 *10.039*	245,0 *9.646*	342,4 *13.480*	102,14 *4.021*	6000	1	PB	4,7 *10.4*
C8-D40-368-GL40	03029359	C8	GL40	40,0 *1.575*	368,0 *14.488*	335,0 *13.189*	325,0 *12.795*	422,4 *16.630*	144,04 *5.671*	5000	1	PB	5,6 *12.4*
C8-D50-268-GL50	03029360	C8	GL50	50,0 *1.969*	268,0 *10.551*	235,0 *9.252*	225,0 *8.858*	323,4 *12.732*	107,59 *4.236*	6000	1	PB	5,9 *13.0*
C8-D50-368-GL50	03029361	C8	GL50	50,0 *1.969*	368,0 *14.488*	335,0 *13.189*	325,0 *12.795*	423,4 *16.669*	158,08 *6.224*	4000	1	PB	7,5 *16.5*
C8-D50-468-GL50	03029362	C8	GL50	50,0 *1.969*	468,0 *18.425*	435,0 *17.126*	425,0 *16.732*	523,4 *20.606*	215,6 *8.488*	2500	1	PB	9,4 *20.7*

Spare Parts, included in delivery

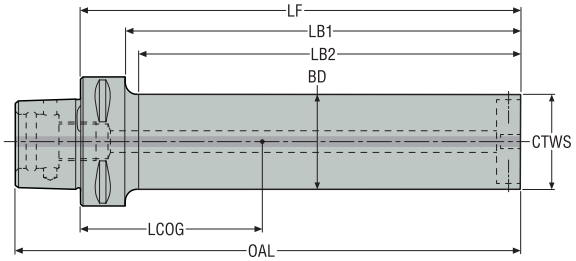
For size	Locking key
	
GL25	SL25
GL32	SL32
GL40	SL40
GL50	SL50

Accessories

For size	Replaceable end	Torque key
		
GL25	SL00-25	SL00-25.250
GL32	SL00-32	SL00-32.250
GL40	SL00-40	SL00-40.350
GL50	SL00-50	SL00-50.550

BA – Steadyline®, BA holders

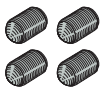
Body diameters 60 and 80 mm / *2.362 and 3.150 inch*



—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 *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
C6-D60-301-BA060	03062831	C6	BA060	60,0 *2.362*	301,0 *11.850*	276,0 *10.866*	273,0 *10.748*	339,0 *13.346*	151,74 *5.974*	4000	1	PB	7,8 *17.2*
C6-D60-421-BA060	03062832	C6	BA060	60,0 *2.362*	421,0 *16.575*	396,0 *15.591*	393,0 *15.472*	459,0 *18.071*	218,63 *8.607*	3000	1	PB	10,6 *23.4*
C8-D60-301-BA060	03062833	C8	BA060	60,0 *2.362*	301,0 *11.850*	268,0 *10.551*	263,0 *10.354*	349,0 *13.740*	137,04 *5.395*	4000	1	PB	8,6 *19.0*
C8-D60-421-BA060	03062834	C8	BA060	60,0 *2.362*	421,0 *16.575*	388,0 *15.276*	383,0 *15.079*	469,0 *18.465*	202,5 *7.972*	3000	1	PB	11,4 *25.1*
C8-D60-541-BA060	03062835	C8	BA060	60,0 *2.362*	541,0 *21.299*	508,0 *20.000*	503,0 *19.803*	589,0 *23.189*	266,78 *10.503*	2000	1	PB	14,0 *30.9*
C8-D80-421-BA080	03065829	C8	BA080	80,0 *3.150*	421,0 *16.575*	388,0 *15.276*	383,0 *15.079*	469,0 *18.465*	213,89 *8.421*	3000	1	PB	18,8 *41.5*
C8-D80-581-BA080	03065830	C8	BA080	80,0 *3.150*	581,0 *22.874*	548,0 *21.575*	543,0 *21.378*	629,0 *24.764*	300,38 *11.826*	2000	1	PB	25,1 *55.3*

Spare Parts, included in delivery

For size	Locking screw
	
BA060	90FQ4
BA080	90FQ52

Accessories

For size	Locking key
BA060	03H04
BA080	03H05

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 +20	+39 +14	+16 +6	+20 +6	+12 +2	+27 +2	+6 0	+10 0	+14 0	+25 0	+40 0	+60 0	+100 0
3 ≥ 6 *(0.236")*	+78 +30	+50 +20	+22 +10	+28 +10	+16 +4	+34 +4	+8 0	+12 0	+18 0	+30 0	+48 0	+75 0	+120 0
6 ≥ 10 *(0.394")*	+98 +40	+61 +25	+28 +13	+35 +13	+20 +5	+41 +5	+9 0	+15 0	+22 0	+36 0	+58 0	+90 0	+150 0
10 ≥ 18 *(0.708")*	+120 +50	+75 +32	+34 +16	+43 +16	+24 +6	+49 +6	+11 0	+18 0	+27 0	+43 0	+70 0	+110 0	+180 0
18 ≥ 30 *(1.181")*	+149 +65	+92 +40	+41 +20	+53 +20	+28 +7	+59 +7	+13 0	+21 0	+33 0	+52 0	+84 0	+130 0	+210 0
30 ≥ 50 *(1.969")*	+180 +80	+112 +50	+50 +25	+64 +25	+34 +9	+71 +9	+16 0	+25 0	+39 0	+62 0	+100 0	+160 0	+250 0
50 ≥ 65 *(2.559")*	+220 +100	+134 +60	+60 +30	+76 +30	+40 +10	–	+19 0	+30 0	+46 0	+74 0	+120 0	+190 0	+300 0
65 ≥ 80 *(3.150")*													
80 ≥ 100 *(3.937")*	+260 +120	+159 +72	+71 +36	+90 +36	+47 +12	–	+22 0	+35 0	+54 0	+87 0	+140 0	+220 0	+350 0
100 ≥ 120 *(4.724")*													
120 ≥ 140 *(5.512")*	+305 +145	+185 +85	+83 +43	+106 +43	+54 +14	–	+25 0	+40 0	+63 0	+100 0	+160 0	+250 0	+400 0
140 ≥ 160 *(6.299")*													
160 ≥ 180 *(7.087")*													
180 ≥ 200 *(7.874")*	+355 +170	+215 +110	+96 +50	+122 +50	+61 +15	–	+29 0	+46 0	+72 0	+115 0	+185 0	+290 0	+460 0
200 ≥ 225 *(8.858")*													
225 ≥ 250 *(9.843")*													
250 ≥ 280 *(11.0236")*	+400 +190	+240 +110	+108 +56	+137 +56	+69 +17	–	+32 0	+52 0	+81 0	+130 0	210 0	+320 0	+520 0
280 ≥ 315 *(12.402")*													
315 ≥ 355 *(13.976")*	+440 +210	+265 +125	+119 +62	+151 +62	+75 +18	–	+36 0	+57 0	+89 0	+140 0	+230 0	+360 0	+570 0
355 ≥ 400 *(15.748")*													

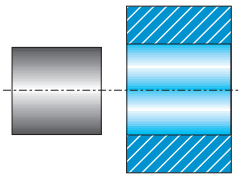
ISO tolerance table

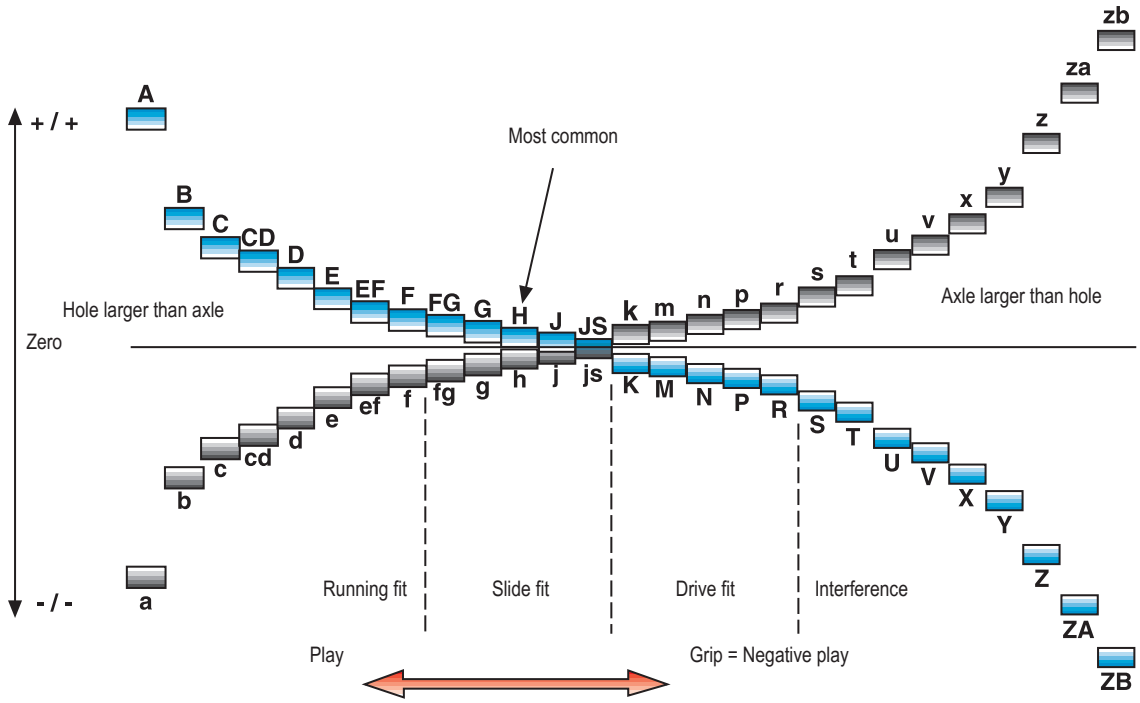
ISO tolerances for holes (µm)												
Hole ∅ mm (inch)	H13	JS7	JS9	K6	K7	M6	M7	N7	N9	P7	P9	R7
≤ 3 *(0.118")*	+140 0	+/-5	+/-12,5	0 -6	0 -10	-2 -8	-2 -12	-4 -14	-4 -29	-6 -16	-6 -31	-10 -20
3 ≥ 6 *(0.236")*	+180 0	+/-6	+/-15	+2 -6	+3 -9	-1 -9	0 -12	-4 -16	0 -30	-8 -20	-12 -42	-11 -23
6 ≥ 10 *(0.394")*	+220 0	+/-7,5	+/-18	+2 -7	+5 -10	-3 -12	0 -15	-4 -19	0 -36	-9 -24	-15 -51	-13 -28
10 ≥ 18 *(0.708")*	+270 0	+/-9	+/-21,5	+2 -9	+6 -12	-4 -15	0 -18	-5 -23	0 -43	-11 -29	-18 -61	-16 -34
18 ≥ 30 *(1.181")*	+330 0	+/-10,5	+/-26	+2 -11	+6 -15	-4 -17	0 -21	-7 -28	0 -52	-14 -35	-22 -74	-20 -41
30 ≥ 50 *(1.969")*	+390 0	+/-12,5	+/-31	+3 -13	+7 -18	-4 -20	0 -25	-8 -33	0 -62	-17 -42	-26 -88	-25 -50
50 ≥ 65 *(2.559")*	+460 0	+/-15	+/-37	+4 -15	+9 -21	-5 -24	0 -30	-9 -39	0 -74	-21 -51	-32 -106	-30 -62
65 ≥ 80 *(3.150")*												
80 ≥ 100 *(3.937")*	+260 +120	+159 +72	+71 +36	+90 +36	+47 +12	–	+22 0	+35 0	+54 0	+87 0	+140 0	+350 0
100 ≥ 120 *(4.724")*												
120 ≥ 140 *(5.512")*	+305 +145	+185 +85	+83 +43	+106 +43	+54 +14	–	+25 0	+40 0	+63 0	+100 0	+160 0	+400 0
140 ≥ 160 *(6.299")*												
160 ≥ 180 *(7.087")*												
180 ≥ 200 *(7.874")*	+355 +170	+215 +110	+96 +50	+122 +50	+61 +15	–	+29 0	+46 0	+72 0	+115 0	+185 0	+460 0
200 ≥ 225 *(8.858")*												
225 ≥ 250 *(9.843")*												
250 ≥ 280 *(11.0236")*	+400 +190	+240 +110	+108 +56	+137 +56	+69 +17	–	+32 0	+52 0	+81 0	+130 0	210 0	+520 0
280 ≥ 315 *(12.402")*												
315 ≥ 355 *(13.976")*	+440 +210	+265 +125	+119 +62	+151 +62	+75 +18	–	+36 0	+57 0	+89 0	+140 0	+230 0	+570 0
355 ≥ 400 *(15.748")*												

ISO Standard tolerance for hole and shaft – Axle tolerances

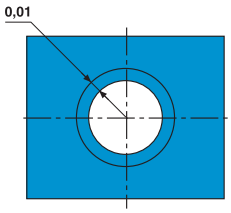
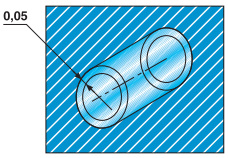
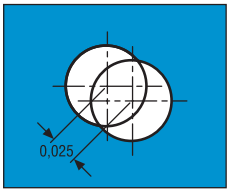
Axle tolerance position is denominated with **small letters**

Bore tolerance position is denominated with **CAPITAL LETTERS**





Geometrical tolerance

	Drawing symbol	Tolerance area
Circularity	0,01 mm *(0.0004″)*	
Cylindricity	0,05 mm *(0.0020″)*	
Positioning localisation	0,05 mm *(0.0020″)*	

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 R_m = 385 N/mm²	1500	0,14
P2	Low-alloy ferritic steels, C < 0.25%wt Low-alloy weldable general structural steels	320 < R_m < 600	S235JRG2 R_m = 420 N/mm²	1600	0,23
P3	Ferritic & ferritic/pearlitic steels, C < 0.25%wt Weldable general structural steels Case-hardening steels	430 < R_m < 610	16 MnCr 5 R_m = 550 N/mm²	1800	0,14
P4	Low-alloy general structural steels, 0.25% < C < 0.67%wt Low-alloy Quench & Temper steels	520 < R_m < 1200	C 45E R_m = 660 N/mm²	2000	0,15
P5	Structural steels, 0.25% < C < 0.67%wt Quench & Temper steels	550 < R_m < 1200	42 CrMo 4 R_m = 700 N/mm²	2020	0,18
P6	Low-alloy through-hardening steels, C > 0.67%wt Low-alloy spring and bearing steels	520 < R_m < 1200	C 100S R_m = 600 N/mm²	2100	0,17
P7	Through-hardening steels, C > 0.67%wt Spring and bearing steels	600 < R_m < 1200	100 Cr 6 R_m = 650 N/mm²	2160	0,17
P8	Tool steels High Speed Steels (HSS)	600 < R_m < 1200	X 40 CrMoV 5 1 R_m = 700 N/mm²	2400	0,20
P11	Ferritic & martensitic stainless steels	415 < R_m < 1200	X 20 Cr 13 R_m = 675 N/mm²	2000	0,15
P12	Maraging and precipitation-hardening stainless steels	500 < R_m < 1200	X 5 CrNiCuNb 16 4 R_m = 1100 N/mm²	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	0	
K6	Austenitic lamellar cast irons		EN-GJLA-XNiCuCr15-6-2	0	
K7	Austenitic nodular cast irons		EN-GJSA-XNiMn23-4	0	

Non-ferrous metals

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
N1	Aluminium alloys, Si < 9%		AW-7075	0	
N2	Aluminium alloys, 9% < Si < 16%		AC-44200 Si = 12%	0	
N3	Aluminium alloys, Si >16%		AlSi17Cu5	0	
N11	Copper alloys		CW614N	740	0,26

Superalloys and titanium

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
S1	Iron-based superalloys		Discalloy	0	
S2	Cobalt-based superalloys		Stellite 21	0	
S3	Nickel-based superalloys		Inconel 718	2530	0,21
S11	Titanium, low alloyed, (α)		Ti	0	
S12	Titanium, medium alloyed, (α+β)		TiAl6V4	1500	0,24
S13	Titanium, high alloyed, (near β and β)		Ti10V2Fe3Al	0	

Hard materials

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
H3	Case-hardened steels	58 < HRC < 62	16 MnCr 5 60 HRC	2070	0,14
H5	Quenched & Tempered steels	38 < HRC < 56	42 CrMo 4 50 HRC	2320	0,18
H7	Quenched & Tempered steels Bearing steels	56 < HRC < 64	100 Cr 6 60 HRC	2480	0,17
H8	Tool steels High Speed Steels (HSS)	38 < HRC < 64	X 40 CrMoV 5 1 50 HRC	2750	0,20
H11	Martensitic stainless steels	38 < HRC < 50	X 20 Cr 13 45 HRC	2300	0,15
H12	Maraged and precipitation-hardened stainless steels	1200 < R_m < 1650	X 5 CrNiCuNb 16 4 R_m = 1450 N/mm^2	2410	0,17
H21	Manganese steels	23 < HRC < 64	X 120 Mn 12 50 HRC	0	
H31	White cast irons	50 < HRC < 64	EN-GJN-HV600(XCr11) 55 HRC	0	

Other difficult materials

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
PM1	Low-alloy PM-materials		F-0008 Fe-0.7C	0	
PM2	Medium-alloy PM-materials		FLC-4608 Fe2Cu1.8Ni 0.5Mo0.2Mn0.8C	0	
PM3	High-alloy PM-materials Exhaust valve seat materials, etc.			0	
HF1	Hardfacing alloys Welded or plasma-deposited iron-based alloys			0	
HF2	Hardfacing alloys Welded or plasma-deposited cobalt- and nickel-based alloys			0	
CC1	Sintered tungsten carbide		G50	0	

Plastics and Composites

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
TS1	Thermosetting polymers		Urea formaldehyde (UF)	0	
TS2	Thermosetting carbon-fibre composites		T300 T700 T800 HTA-S IMA - Epoxy (M21)...	0	
TS3	Thermosetting glass-fibre composites		Epoxy - HX..(42..)/E glass (7781...)...	0	
TS4	Thermosetting aramide-fibre composites		Kevlar 49	0	
TP1	Thermoplastic polymers		Polycarbonate (PC)	0	
TP2	Thermoplastic carbon-fibre composites		PPS/PEEK - T300..	0	
TP3	Thermoplastic glass-fibre composites		PPS/PEEK - E-glass or A-glass...	0	
TP4	Thermoplastic aramide-fibre composites			0	

Graphite

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
GR1	Graphite		R 8500	0	

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
P1	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			
	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
P2	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
			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
P3			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			
	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
P4	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
			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		
P5	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
	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
P6	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
	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		

U.N.E./ I.H.A.	AISI / ASTM	GOST	CSN	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	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

U.N.E./ I.H.A.	AISI / ASTM	GOST	CSN	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	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
K1	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
	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	
K2	EN-GJV-300			GJV-300						
	EN-GJV-350			GJV-350						
	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
K4	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
	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
K5										ADI grade 5
	EN-GJS-1000-5			GJS-1000-5						ADI grade 2
	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
K6	EN-GJLA-XNiCr 20-2	0.6660	0.6660	GGL-NiCr 20 2	FGL Ni20 Cr2	Grade F2			05 23-00	F41002
	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
K7	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
	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
N1	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
	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
N2	AC-43400	AlSi10Mg(Fe)	3.2381	G-AlSi10Mg	A-S10G	LM9			4253	A13600
	AC-44200	AlSi12	3.2382	GD-AlSi12						
	AW-6082	AlMgSi1	3.2315	AlMgSi1	A-SGM0.7/6082	H30			4212	AA6082
N3		AlSi17Cu5						ADC14		
N11	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
			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

U.N.E./ I.H.A.	AISI / ASTM	GOST	CSN	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
	B26					
	A380					
	AZ61A					
	AZ80A					
	AMS 4442					
	B85					
	A413.2					
	B390.0					
	CA952	BrA9ZH3L				
	CA955	BrA10ZH4N4L				
	CA937					
		BrOF6.5-0.15				
		L90				
		LOMsh70-1-0.05				
		LO60-1				
		LAMsh77-2-0.05				

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

U.N.E./ I.H.A.	AISI / ASTM	GOST	CSN	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

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	■				■	■			■			■	■		■			
MP3501	■		■	■	■				■			■	■	■	■	■		
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	■	■	■	■	■				■	■								

Grade	Cemented carbide											Coating						
	W	Ti	Ta	Nb	Co	Cr	Ni	Mo	C	N	Ru	Ti	Al	C	N	O	Si	Nb
TP1030	■	■	■	■	■				■	■		■	■		■		■	
TP1501	■	■	■	■	■				■	■		■	■	■	■	■		
TP25	■	■	■	■	■	■			■	■		■	■	■	■	■		
TP200	■	■	■	■	■				■	■		■	■	■	■	■		
TP2501	■	■	■	■	■	■			■	■		■	■	■	■	■		
TP3501	■	■	■	■	■				■	■		■	■	■	■	■		
TP40	■		■	■	■				■			■		■	■			
TS2000	■				■	■			■			■	■		■			
TS2050	■				■	■			■			■	■		■		■	
TS2500	■		■		■				■			■	■		■			
TTP2050	■				■	■			■			■	■		■		■	
T250D	■				■	■			■			■	■		■			
T400D	■				■	■			■			■	■		■			
T100R	■		■		■	■			■			■	■		■			
T60M	■	■	■	■	■				■			■	■		■			
883	■		■		■				■									
890	■				■	■			■									

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