



SECO NEWS 2017.2



SOLUTIONS & SUPPORT

By choosing Seco, you get more than just a comprehensive portfolio of advanced metal-cutting solutions and expert services. You get a partnership based on trust, respect and communication and a team that is always ready to help you gain the competitive advantage.

Globally headquartered in Fagersta, Sweden and present in more than 50 countries, Seco develops cutting tools, processes and services for high productivity and profitability. Our team of over 4,000 dedicated employees maintains partnerships around the world to identify and overcome the challenges faced by today's manufacturers.

Our broad selection of milling, turning, holmaking and toolholding solutions include over 30,000 standard products, custom items for special applications and a team of metal-cutting experts who help customers identify and implement cost-effective solutions.

WELCOME TO SECO NEWS 2017.2

Gain increased productivity and profitability when Seco engineers, technical experts and sales teams work closely with you to determine the best processes and tooling solutions that fit your specific needs. They will show you how the latest Seco innovations, many of which are featured in this brochure, can give you the competitive advantage needed to succeed in today's manufacturing world.

Within this Seco News, you will discover several tooling advancements, including re-engineered drills with new anti-friction flute surfaces for fast and effective chip evacuation and reamers that compensate for tool wear. There are also ceramic inserts for machining superalloys, end mills optimized for knee implant machining and new applications of the latest coolant technology. Learn all about these products and many more featured in this Seco News 2017.2.

COMPETENCE- DRIVEN SOLUTIONS

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DRILL MORE HOLES FASTER WITH BETTER CHIP MANAGEMENT

SECO RE-ENGINEERS PERFOMAX® AND MAKES AN EXCELLENT DRILL EVEN BETTER



Increase your drilling parameters and boost tool life with Seco's new Perfomax indexable insert drill with optimized chip flutes for optimum chip control and evacuation. The flutes on the bodies of the new drills feature recently developed "anti-friction surfaces." The special wave patterns of these surfaces minimize the contact between chips and the flutes for higher application security. Seco also laser hardens the fronts of the flutes to a high surface hardness of HRC 60, which provides longer tool body life.

The Perfomax DS2050 and DS4050 insert grades are especially well suited for heat resistant materials like titanium and titanium alloys. The grades enhance productivity and extend tool life thanks to newly developed free-cutting MP and MC chip breakers launched together with the new grades themselves.



The new insert grades have niobium nitride (NbN) top layers that do not chemically react with titanium. The prevention of that reaction – the most common wear factor with titanium – significantly extends tool life. The combination of both heat and wear resistance with the DS2050 and DS4050 coatings also makes the inserts a first choice for drilling HRSA S and difficult stainless steel materials as well as titanium and titanium alloys.

RANGE OVERVIEW

Perfomax drill bodies:

- Diameter range 15 – 59 mm (metric) .594”- 2.375” (inch)
- Length to diameter ratios of 2xD, 3xD, 4xD and 5xD
- Intermediate diameters and lengths available at launch
- All standard spindle interfaces

Insert grades:

- DS2050 - Periphery insert
- DS4050 - Center insert



HOLEMAKING

KEY BENEFITS

- Effective chip control for long chipping ductile materials
- Fast and efficient chip evacuation
- Higher cutting parameters for increased drilling output
- Longer tool life gives reduced tool cost
- Exceptional process predictability and reliability
- Better hole tolerance

ADDITIONAL DETAILS

- For more information, see pages 178-225



UNSURPASSED, EXCEPTIONAL DRILLING PERFORMANCE

NEW FEEDMAX™ -P DRILLS GO ABOVE AND BEYOND EXISTING TECHNOLOGY

Boost holemaking performance in ISO P materials when you switch to Seco's new solid carbide Feedmax -P drill and experience increased productivity up to 35 percent as well as longer tool life, all thanks to the combination of a new geometry and an advanced coating.

Enhanced chip evacuation ensures application security, while also maintaining high productivity. Drill more holes in a shorter amount of time and use fewer drills to do so with Feedmax-P drills. The drills feature strong straight cutting edges with coolant holes close by for pinpointed cutting edge cooling, and narrow land margins also help minimize the effects of heat on the drills.

New Feedmax -P flute designs protect drill point corners and provide exceptional chip control and evacuation. The combined design features of the Feedmax -P drills optimize them for steel and cast iron workpiece applications.



With a new dark-colored TiAlN coating, the Feedmax -P allows you to use your machine tools to their full drilling potential. Thanks to the drill's strong point geometry and its modern coating, cutting speeds of up to 190 m/min in SMG P5 are possible without sacrificing tool life.

RANGE OVERVIEW

- Diameter range 2 mm to 20 mm (metric) .078" - .787" (inch)
- Length to diameter ratios of 3xD, 5xD and 7xD
- Internal coolant supply standard
- MQL compatible shanks
- Intermediate sizes available at launch

HOLEMAKING

KEY BENEFITS

- Increased drilling productivity through higher cutting speeds
- Longer tool life and reduced part costs
- Efficient chip evacuation
- Higher per-drill output
- Process predictability and reliability
- Good hole tolerance (IT8) and excellent surface finishes

ADDITIONAL DETAILS

- For more information, see pages 143-177



CONQUER HIGH STRENGTH, HEAT RESISTANT MATERIALS

LAUNCH A WELL-BALANCED MILLING ATTACK WITH THE NEW MP2050 INSERT GRADE

Effectively machine high strength, heat resistant materials with an optimized balance of toughness and wear resistance from Seco's new MP2050 insert grade. Originally developed specifically for turbine blade machining in the power generation industry segment, the grade also excels in aerospace applications and makes easy work of milling materials such as austenitic and martensitic stainless steels, as well as titanium.

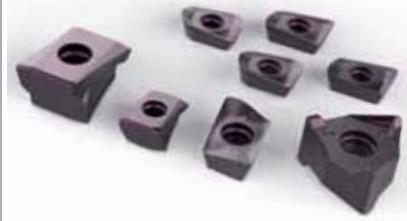
Overcome unstable machining conditions such as those involving interrupted cuts, long tool overhangs and weak fixturing with MP2050 inserts. Also, eliminate cutting edge build up thanks to the MP2050's completely new substrate and a post treatment applied to its coating that effectively prevents chip adhesion. The grade also allows cutting parameters to be increased, especially in dry machining conditions, while maintaining high reliability.

Wear predictability is another benefit of the insert's very reliable substrate. Even if the insert coating wears off, the substrate prevents the immediate, unexpected failure of the entire insert.



RANGE OVERVIEW

- Round inserts in sizes 10, 12, 16 and 20
- High feed inserts
- Square shoulder inserts for Turbo, Square 6 and Square T4
- Face milling inserts for Double Octomill



MILLING

KEY BENEFITS

- High process stability and predictability
- Reduced tool costs through longer tool life
- Improved reliability at high cutting speeds
- Effective chip control

ADDITIONAL DETAILS

- For more information, see pages 70-79



PUT SOME FORWARD THRUST IN YOUR MILLING PERFORMANCE

MORE INSERTS DELIVER HIGHER FEED RATES WITH SECO'S NEW CERAMIC GRADE AND CUTTER BODIES

Shorten cycle times and produce more parts by incorporating new ceramic grades and cutter bodies that put more inserts in the cut. You will gain immediate and significant cutting data increases over standard carbide milling tools when you incorporate Seco's new CS300 ceramic inserts and RN/RP cutter bodies developed specifically for nickel-based superalloy materials such as those typically used in the aerospace and power generation industries.





Designed to run only ceramic inserts, the new cutter bodies use Seco's compact Wedge locks instead of conventional insert clamps. As a result, you get more inserts per cutter body diameter and higher feed rate capability. Plus, to ensure optimum chip evacuation and heat control, each Wedge lock features internal coolant channels that pinpoint jet streams of air precisely into the cutting zone.

Get the toughness, strength and process stability necessary for aggressive milling of tough-to-machine superalloy materials when you pair Seco's new CS300 ceramic milling inserts with the new cutter bodies. The flat, solid round inserts are custom designed and feature protection chamfer edges.

RANGE OVERVIEW

Cutter bodies:

- RP..1204 Pocketing
 - 32 mm – 50 mm diameters/ $a_{pmax}=6$ mm
 - Positive insert orientation
 - Ramping capability
- RN..1207 Facing
 - 50 mm – 125 mm diameters/ $a_{pmax}=6$ mm
- RN..1204 Facing
 - 32 mm – 50 mm

Inserts:

- SiAlon grade
- 3 insert types
- Edges per insert (up to 8 on RN..1207 and RN..1204, up to 4 on RP..1204)
- T-prep chamfers
- Clearance angles (RN - negative, RP - positive)

MILLING

KEY BENEFITS

- Shorter cycle times through higher milling feed rates
- Fast and efficient chip evacuation
- Higher part quality and process stability
- Reduced part costs due to longer tool life
- Increased productivity per insert cutting edge

ADDITIONAL DETAILS

- For more information, see pages 62-66

EXPAND YOUR REAMING POTENTIAL

NEW PRECIMASTER™ PLUS REAMING HEADS COMPENSATE FOR TOOL WEAR

Get more holes per tool with new expandable Precimaster Plus reaming heads from Seco. Extend reamer life and thus use fewer tools to help reduce your overall production costs with the simple turn of a screw that compensates for tool OD wear.

Avoid having to replace reamers the instant they show the slightest amount of wear. Each Precimaster Plus reaming head lets you adjust for wear as many as five times and up to 30 µm to continue reaming while maintaining precise finished hole size. Quickly, easily and precisely expand the new heads with their conical fine-pitch tapered screws that apply soft expansion forces.



RANGE OVERVIEW

- Compatible with all existing Precimaster Plus toolholders
- Multiple flutes with brazed carbide or cermet tips on steel body
- Available in 10 mm to 32.5 mm diameters
- Up to 30- μ m expandability
- Applicable for all material types



HOLEMAKING

KEY BENEFITS

- Longer tool life
- Reduced cost per hole
- Less required tool inventory
- Precision hole tolerances and superior surface finishes

ADDITIONAL DETAILS

- For more information, see pages 226-236

PUSH YOUR CFRP MACHINING OPERATIONS

MAXIMIZE STABILITY, PREVENT DELAMINATION AND ELIMINATE PART DISTORTION WITH NEW JABRO[®] CUTTERS

Overcome the challenges of machining CFRP (carbon fiber reinforced plastic) materials with Seco's new Jabro JC876 and JC877 cutters designed to push rather than pull when slot and side milling (routing) large, thick panel forms. Because the pushing action directs cutting forces downward into the workpiece, the cutters prevent parts from being pulled loose from their fixturing, while also minimizing chatter and material delamination.

Achieve the highest possible CFRP material machining process reliability – even when using gantry machines and vacuum clamping – thanks to the innovative designs of the JC876 and JC877 cutters. In addition to their left-hand helix/right-hand cut geometry that directs cutting forces downward, the cutters feature edge serrations, an optimized coating and a compact design that minimizes overall tool length. This combination of features minimizes tool overhang and maximizes stability to ensure quality surface finishes and long tool life.





RANGE OVERVIEW

- Part size range of 6 mm – 18 mm-thick CFRP panels/plates
- Workpiece material group – TS2/TP2
- JC876 – mill front teeth, 2 flutes (FCEDC) ramping capabilities & 2 (+2 mm)*DC APMX
- JC877 – burr end, 3 to 7 flutes (FCEDC) no ramping capabilities & 3~ *DC APMX
- Metric (3 mm – 12 mm) and inch (0.250”-0.500”) diameters
- 10° left-hand helix
- 6° rake
- 70% core thickness

MILLING

KEY BENEFITS

- Fast and efficient cutting
- Prevention of delamination and part distortion
- Reduced part costs through longer tool life
- High process predictability and reliability
- Reduced chatter
- Maximum stability
- High quality surface finishes
- Less scrap

ADDITIONAL DETAILS

- For more information, see pages 104-110

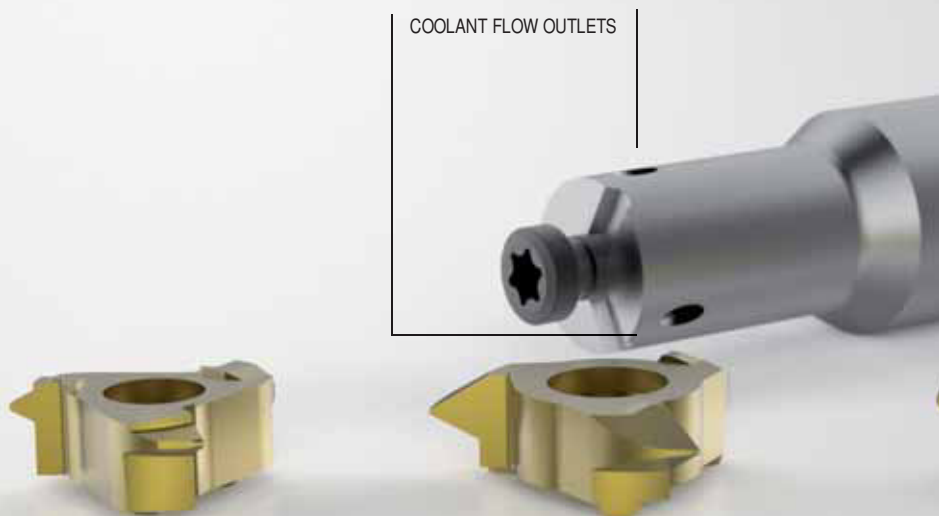
THREAD BEYOND STANDARD TOOLING

NEW INTERCHANGEABLE DISC MILL TOOLS BOOST VERSATILITY AND PRECISION

Generate precision threads in holes as deep as 106 mm with Seco's new single row Disc Mill 335.14 interchangeable threading heads and matching holder shanks. You will also be able to boost processing speed and versatility, as each head performs both chamfering and threading operations. Additionally, performing two operations with the same tool helps reduce required tooling inventories.

Other threading tools are limited in terms of either thread size and/or maximum hole depths they can thread. The new heads, unlike standard thread mills, are single row disc mills that circularly interpolate an entire hole depth and create threads pitch by pitch, which allows for greater achievable depths. The cutting action of the new heads also keeps chip sizes to a minimum and ensures taper-free deep-hole threading.

Smaller, less powerful machine tools can now easily generate big threads because the new heads cut with a single point. The heads thus require less machine power and torque.



RANGE OVERVIEW

- Both carbide and steel shank types
- Internal coolant capability
- Over 31 different carbide-coated heads
- Applicable for all workpiece materials
- Head threads and diameters
 - Metric from 11.7 mm to 21.7 mm and with partial profile from pitch 1 mm – 6 mm (14 pcs)
 - Whitworth full profile heads from 11.7 mm to 17.7 mm and pitch 11, 14 and 19 tpi (G3/8-1") (7 pcs)
 - UN at 17.7 mm with pitch 24 to 6 tpi (10 pcs)



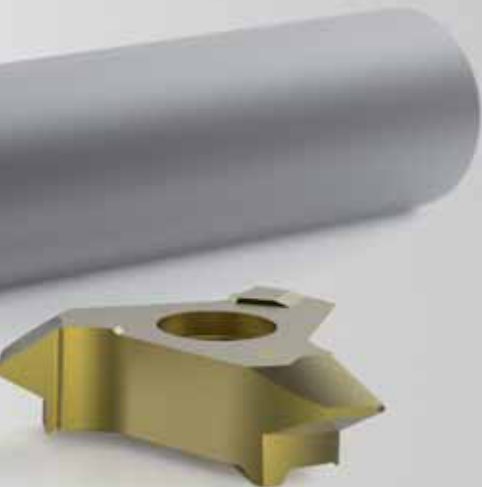
THREADING

KEY BENEFITS

- Capability to produce deeper and more accurate threads
- High process stability and reliability
- Increased versatility and reduced overall tool costs through interchangeability of heads
- Effective chip control

ADDITIONAL DETAILS

- For more information, see pages 132-141



COOL, CLEAN PART-OFFS

MORE MACHINES CAN NOW BENEFIT FROM SECO JETI HIGH-PRESSURE COOLANT TOOLING

Your machines with Seco-Capto™ lathe turrets and HSK-T multi-tasking machine spindles can now boost cutting speeds and extend tool life with Seco's expanded family of 150.10-JETI integrated high-pressure coolant parting-off blade adapters.

Ensure fast, precise pinpoint cooling within the cutting zone at both the top and bottom of the cutting tool edge thanks to the advanced Jetstream Tooling® technology in Seco's new blade adapters with the stability of high speed steel. The technology provides exceptional heat control, as well as fast and efficient chip evacuation – both of which contribute to extended tool life.

Additionally, the internal coolant delivery channels of the blade adapters eliminate the need for any external coolant hoses, tubing or other spare parts. Thus, the system requires less maintenance for an overall cost savings.





RANGE OVERVIEW

- Face mount adapters for Seco-Capto™ C5, C6 and C8 turrets
- Star mount adapters for Seco-Capto™ C5, C6, C8 turrets and HSK-T 63 spindles
- Holds HSS parting-off blades in 20 mm and 25 mm sizes
- Compatible with MDT reinforced blades with internal coolant

TOOLING SYSTEMS

KEY BENEFITS

- Sleek design
- Better workpiece accessibility
- No unnecessary accessories
- Reduced maintenance
- Optimized heat removal
- Effective chip control
- Long tool life
- Superior part quality

ADDITIONAL DETAILS

- For more information, see page 125-130



FEWER TOOLS, MORE VERSATILITY

MINIMASTER PLUS TOOLING SYSTEM ADDS NEW CHAMFERING HEADS

Increase your versatility and optimize cost performance by performing center drilling, chamfering and deburring with a single tool. Seco's Minimaster Plus replaceable tip milling system now includes, in addition to the existing B90 heads, C90 chamfering heads with internal coolant channels that provide tool life advantages, especially in ISO M and ISO S materials.

Tackle a broad range of applications and materials – and do so with less tooling – through a wide variety of exchangeable Minimaster Plus heads and shanks. Easily maintain a run-out well within 10 microns thanks to the high-precision interface between the system's replaceable carbide inserts and shanks.



RANGE OVERVIEW

- F40M grade
- MP10, MP12 and MP16 sizes
- 2-flute head for center drilling and chamfering
- 6-flute head is first choice for deburring
- Internal coolant on 2-flute type extends tool life
- 4-flute ballnose heads, especially for semi-finishing and finishing
- Available in F40M and MP3000 in MP10, MP12, MP16



MILLING

KEY BENEFITS

- High levels of application versatility
- High precision
- Cost effectiveness
- Low maintenance
- High process reliability

ADDITIONAL DETAILS

- For more information, see pages 67-69

COOL AND STEADY TURNING

JET GL-TURNING HEADS REDUCE WEAR AND CONTROL CHIPS

Increase your productivity with the exceptional vibration damping, heat reduction and chip control capabilities of Seco's new JET GL-Turning Heads integrated with Jetstream Tooling® capability for use with the well-established Seco Steadyline® product range.

Apply high-pressure coolant straight to the cutting edge and eliminate issues with heat and chips – especially for the internal turning operations involving long tool overhangs and long time-in-cut operations – thanks to the unique 3D printed coolant clamps of the JET GL-Turning Heads. The coolant clamps' optimized internal coolant channels ensure maximized coolant flow.

Confidently operate at the high coolant pressures of up to 200 bar thanks to added safety features such as secured coolant seals on the back end and double O-rings where the clamp connects to the head.

Index inserts and change heads quickly and easily to reduce down time with the quick and easy insert clamping ability of the spring-loaded coolant clamps and the grab-and-lock ability of Seco's GL-Connection.



Consistently turn exceptionally accurate part IDs with the vibration damping strengths of Steadyline technology, which remains uncompromised even after the integration of the Jetstream Tooling features. The GL-Head connection gives a repeatability and indexing accuracy equal to that of Seco-Capto.

RANGE OVERVIEW

- 40 new JET GL-Turning Heads
- GL-connection sizes: GL32, GL40, GL50
- Negative inserts
 - 22 heads
 - 4 inserts CN12, DN11, DN15 and WN06
 - 3 head styles DCLNR/L, DDUNR/L and DWLNR/L
- Positive inserts
 - 18 heads
 - 3 inserts CC09, DC11 and VB16
 - 3 head styles DCLCR/L, DDUCL/L and DVUBR/L
- Coolant clamps
 - 7 types
 - Optimized for different styles of heads and inserts



TURNING

KEY BENEFITS

- Improved tool life and chip control
- Increased productivity
- Fast and easy insert indexing and head changing
- High accuracy and repeatability
- Safe high pressure operation
- Increased versatility for less required tooling inventory
- Reduced handling damages with improved packaging

ADDITIONAL DETAILS

- For more information, see pages 114-123



PLUNGE INTO MORE COST-EFFECTIVE MILLING

REMOVE GREATER AMOUNTS OF MATERIAL AT LOWER COST PER EDGE

Increase value with Seco's new Square 6 plunge mill that features left-hand inserts with six cutting edges and a right-hand cutter body. Due to the raised edges of inserts, the effective rake angle position is positive. This offers smoother cuts, better surface finishes, reliable performance and long tool life.

Seco developed the new left-hand Square 6 inserts specifically for straight and angular plunging operations such as those used to machine mold cavities. Additionally, Square 6 plunge mill cutter bodies are now made from new IDUN Uddeholm tool steel that is highly corrosion resistant and environmentally friendly.



RANGE OVERVIEW

Cutter bodies:

- Metric and inch shank diameters – 40 mm and 1.5 inches
- Combimaster metric and inch – M20 connection/40 mm diameter and M20 connection/1.5-inch diameter
- Arbors metric and inch diameters – 50, 63, 80, 100 mm and 2.00, 2.50, 3.00, 4.00 inch

Inserts:

- XNEX080608TL-M13 in MP2500, F40M, MS2050, T350M grades
- XNEX080616TL-M13 in MP2500, F40M grades



MILLING

KEY BENEFITS

- Lower cost per cutting edge
- Process stability and reliability
- Smoother cutting and better surface finishes
- Smooth cutting and less required machine force due to 22-degree positive cutting rake angle of the inserts.

ADDITIONAL DETAILS

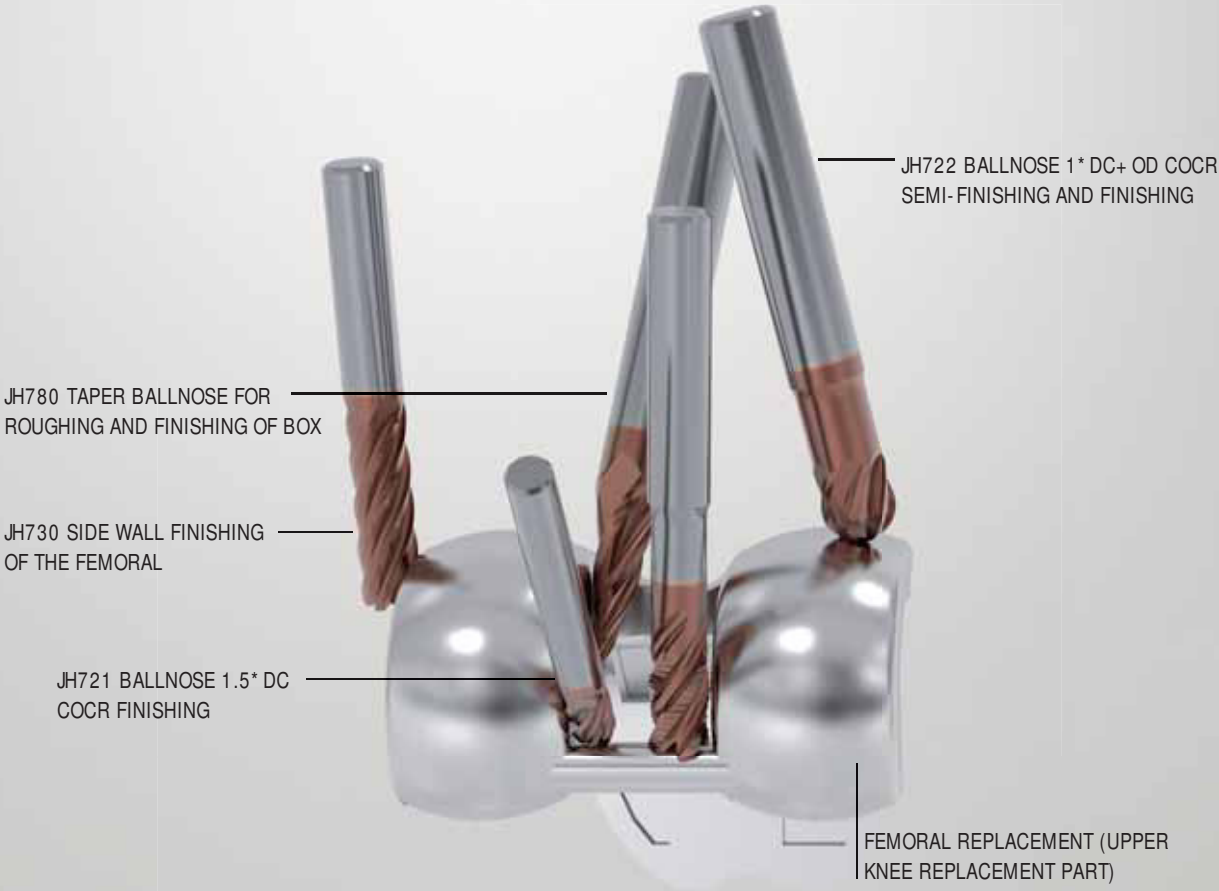
- For more information, see pages 38-43



STANDARDIZE TO OPTIMIZE KNEE IMPLANT MILLING

SLASH MACHINING CYCLE TIMES WITH A NEW FULL RANGE OF TOOLS SPECIFICALLY FOR KNEE COMPONENTS

Significantly boost knee implant machining speeds to shorten part cycle times by as much as 50% with Seco's new Jabro® CoCr (cobalt chrome) range of solid-carbide cutting tools. The industry's first dedicated product line for knee implant machining, this new range includes 9 new advanced geometries and 39 tools, most of which are positioned in the JH Tornado high speed cutting family. These tools combine high speed and high-feed machining strategies and are all designed for tibial tray and femoral knee implant parts. The range reduces, if not eliminates, your need for secondary grinding operations, also known as polishing or fine finishing.





Exceptional part surface finishes and long tool life result from the tools' continuous grades and optimized coatings. You can also maximize machining performance for other medical implant components such as those for hip replacements, bone plates and many others because the new dedicated tooling can be used for machining Ti6Al4V ISO-S12 (3D printed) parts as well.

RANGE OVERVIEW

Tibial Tray:

- JH770 – base rougher
- JH740 – base finisher w/wiper
- JH710 – wall finisher
- JH790 – T slot cutter
- JS506/509 – standard chamfers

Femoral:

- JH730 – box periphery cutter
- JHP994 – box rougher
- JH780 – box wall finisher
- JH721- box surface finisher
- JH722 – condyle mill



MILLING

KEY BENEFITS

- Shorter part cycle times
- Superior surface finishes
- Application versatility
- Process stability and consistency
- Longer tool life

ADDITIONAL DETAILS

- For more information, see pages 82-103

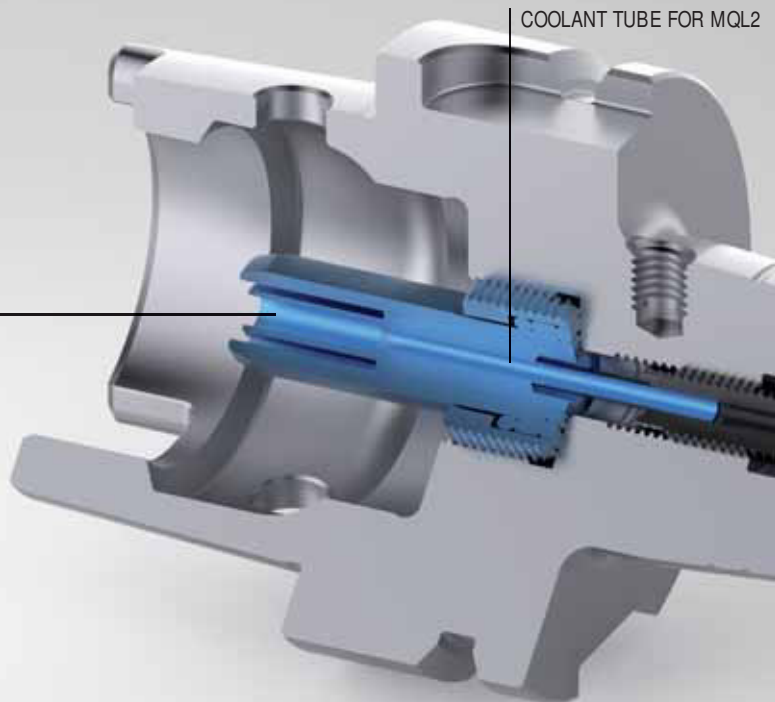
MAXIMUM RESULTS WITH MINIMUM COOLANT

CUT COSTS AND SAVE THE ENVIRONMENT WITH MQL SHRINKFIT TOOLHOLDERS

A cleaner coolant option that requires less maintenance, MQL (minimum quantity lubrication) uses a mixture of air and oil that coats cutting tool edges and workpieces. As compared with flood coolant, the MQL solutions significantly reduce the volume of coolant needed to prevent heat buildup and sufficiently lubricate machining operations. This approach reduces costs related to part cleaning and coolant reconditioning, as well as health hazards caused by fluid emissions in the air and on the skin of operators.

Seco's range of MQL Shrinkfit toolholders includes options for two different MQL solutions. EPB 5403M1 holders are designed for MQL1 solutions, where the air and oil are mixed before they pass into the machine tool spindle, then through the toolholder and into the cutting tool. EPB 5403M2 toolholders, are designed for MQL2 solutions, where the air and the oil are delivered through two distinct channels and mix in the toolholders' coolant tube chamber. These M1 and M2 Shrinkfit holders feature MQL coolant tubes and stop end screws and have coolant channels specifically for MQL.

MQL2: THE AIR AND THE OIL ARE DELIVERED SEPARATELY TO THE TOOLHOLDER AND ARE MIXED IN THIS CHAMBER.





In addition to the varied benefits of MQL, these shrinkfit holders provide you with the combination of extremely low run-out (max. 3µm at 3xD), exceptional holding strength, rigidity and fine balancing. They improve overall high speed machining performance and reliability for all types of applications from milling, drilling and reaming.

RANGE OVERVIEW

- HSK-A63 and HSK-A100 machine side connections
- Holder cutting tool diameters from 6 mm to 32 mm in various lengths
- EPB 5403M: for MQL1 and MQL2, delivered without accessories
- EPB 5403M1: for MQL1, delivered with MQL1 accessories mounted
- EPB 5403M2: for MQL2, delivered with MQL2 accessories mounted

STOP SCREW FOR MQL2, WITH TAPERED FRONT
END FOR MQL TOOLS

EPB 5403M SHRINKFIT HOLDER
(DESIGNED FOR MQL1 AND MQL2)



TOOLING SYSTEMS

KEY BENEFITS

- Reduced overall coolant costs
- Increased operator safety and eco friendliness
- Reduced tool costs through longer cutting tool life
- High process predictability and reliability

ADDITIONAL DETAILS

- For more information, see pages 239-241, 250-279



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Milling

Solid end mills

Turning

Threading

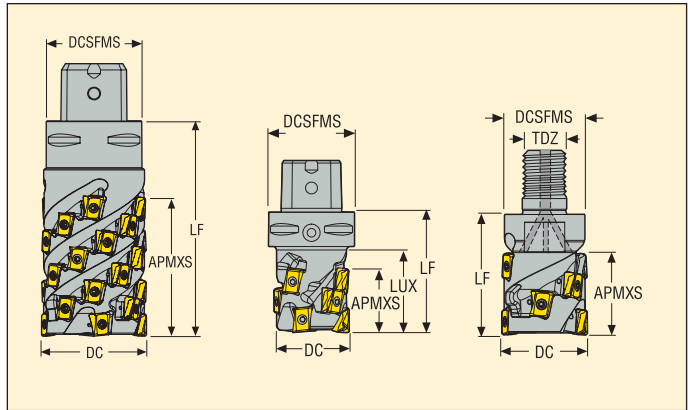
Holemaking

Tooling

R217.94-12



- For insert selection and cutting data recommendations, see page(s) 33-34
- For complete insert programme, see page(s) 70



Ordering and Product No.	Designation	Type of mounting	Dimensions in mm						ZEFP	[Clock icon]	[Kg icon]	[Cutter icon]	Insert	
			APMXS	DC	DCSFMS	TDZ	LF	LUX						
03135367	R217.94-2040.RE-035-12.2A	Combimaster	35,0	40	37	M20	50	-	2	6	0,4	11000	LOEX12..	
03134235	C5-R217.94-044-035-12.3A	Seco-Capto	35,0	44	50	-	70	48,0	3	9	0,8	10600	LOEX12..	
03134236	C5-R217.94-044-058-12.3A	Seco-Capto	58,0	44	50	-	95	73,0	3	15	0,9	10600	LOEX12..	
03134237	C5-R217.94-054-069-12.4A	Seco-Capto	69,0	54	50	-	105	-	4	24	1,3	9700	LOEX12..	
03134238	C6-R217.94-066-081-12.5A	Seco-Capto	81,0	66	63	-	115	-	5	35	2,2	8700	LOEX12..	

ZEFP = Effective number of teeth

Spare Parts

For cutter	Key (T-handle)	Insert screw	Insert key	Torque value (Nm)
R217.94-../C5-C6-R217.94-..	DOUBLE-T	C04012-T15P	H4B-T15P	2,0

Please check availability in current price and stock-list
Torque keys, see page 672 MN2015 Milling

R217/220.94-12 – Insert selection

SMG		f_z		
		100%	30%	10%
P1	LOEX120708TR-M12 F40M	0,15	0,16	0,24
P2	LOEX120708TR-M12 F40M	0,15	0,16	0,24
P3	LOEX120708TR-M12 F40M	0,14	0,15	0,24
P4	LOEX120708TR-M12 F40M	0,14	0,15	0,24
P5	LOEX120708TR-M12 MP2500	0,14	0,15	0,22
P6	LOEX120708TR-M12 MP2500	0,13	0,15	0,22
P7	LOEX120708TR-M12 MP2500	0,13	0,15	0,22
P8	LOEX120708TR-M12 MP2500	0,14	0,15	0,24
P11	LOEX120708TR-M12 T350M	0,13	0,15	0,22
P12	LOEX120708TR-M12 MS2050	0,090	0,10	0,15
M1	LOEX120708TR-M12 F40M	0,15	0,16	0,24
M2	LOEX120708TR-M12 F40M	0,14	0,15	0,22
M3	LOEX120708TR-M12 F40M	0,11	0,12	0,18
M4	LOEX120708TR-M12 F40M	0,095	0,10	0,16
M5	LOEX120708TR-M12 F40M	0,095	0,10	0,16
K1	LOEX120708TR-MD13 MK2050	0,16	0,18	0,26
K2	LOEX120708TR-MD13 MK2050	0,15	0,16	0,24
K3	LOEX120708TR-MD13 MK2050	0,15	0,16	0,24
K4	LOEX120708TR-MD13 MK2050	0,15	0,16	0,24
K5	LOEX120708TR-MD13 MK2050	0,13	0,14	0,22
K6	LOEX120708TR-MD13 MK2050	0,15	0,16	0,24
K7	LOEX120708TR-MD13 MK2050	0,13	0,14	0,22
S1	LOEX120708TR-M12 F40M	0,095	0,10	0,16
S2	LOEX120708TR-M12 F40M	0,095	0,10	0,16
S3	LOEX120708TR-M12 F40M	0,090	0,095	0,15
S11	LOEX120708TR-M12 MS2050	0,11	0,12	0,18
S12	LOEX120708TR-M12 MS2050	0,11	0,12	0,18
S13	LOEX120708TR-M12 MS2050	0,095	0,10	0,16

SMG = Seco material group

f_z = mm/tooth

v_c = m/min

a_g/DC = %

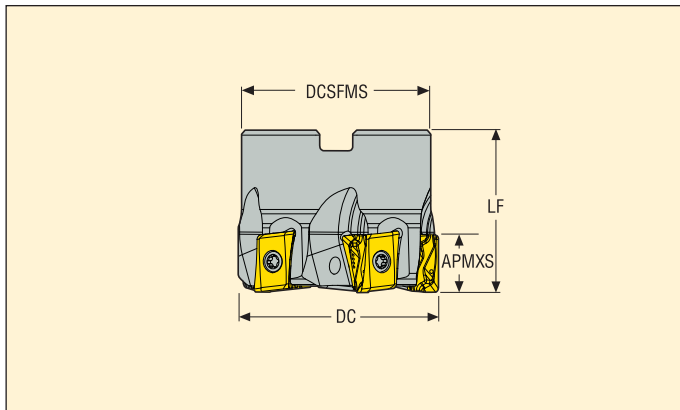
All cutting data are start values

R217/220.94-12 – Cutting data $v_c =$ (m/min)

SMG	MS2050			MP2500			MP3000			T350M			F40M		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	—	—	—	155	175	190	155	175	185	150	165	180	140	160	170
P2	—	—	—	155	175	185	150	170	185	145	165	175	135	155	170
P3	—	—	—	145	165	175	145	160	175	140	155	165	130	145	160
P4	—	—	—	140	155	170	135	155	165	130	150	160	120	140	150
P5	—	—	—	135	155	165	130	150	165	125	145	155	115	135	150
P6	—	—	—	145	160	175	140	160	170	135	155	165	125	145	155
P7	130	145	160	140	160	170	135	155	165	130	150	160	120	140	150
P8	125	140	155	135	155	165	130	150	160	125	145	155	115	135	145
P11	125	145	155	140	155	170	135	150	165	130	145	160	120	140	150
P12	100	115	125	110	130	140	105	125	135	100	120	130	90	110	120
M1	130	150	160	135	155	165	130	150	165	130	150	160	125	140	155
M2	115	135	145	120	140	150	120	140	150	115	135	145	110	130	140
M3	105	120	135	110	125	135	105	125	135	105	120	135	95	115	125
M4	85	105	115	90	110	120	90	110	120	85	105	115	80	100	110
M5	75	95	105	80	100	110	80	95	105	75	95	105	70	85	95
K1	—	—	—	140	160	170	135	155	165	—	—	—	120	140	150
K2	—	—	—	130	150	165	130	145	160	—	—	—	115	130	145
K3	—	—	—	120	140	150	115	135	150	—	—	—	100	120	135
K4	—	—	—	120	135	150	115	135	145	—	—	—	100	120	130
K5	—	—	—	85	105	115	80	100	110	—	—	—	65	85	95
K6	—	—	—	110	130	140	105	125	135	—	—	—	90	110	120
K7	—	—	—	100	120	130	100	115	130	—	—	—	85	105	115
S1	42	55	65	—	—	—	45	60	70	42	55	65	38	50	60
S2	34	45	50	—	—	—	36	47	55	34	45	50	31	41	47
S3	30	39	46	—	—	—	31	41	48	30	39	46	27	36	41
S11	60	75	85	—	—	—	60	80	90	60	75	85	55	70	80
S12	34	44	50	—	—	—	35	47	55	34	44	50	31	40	48
S13	27	36	42	—	—	—	29	38	44	27	36	42	25	33	38

SMG	MK1500			MK2050			MM4500			MS2050		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	—	—	—	150	170	185	125	145	155	—	—	—
P2	—	—	—	150	170	180	125	140	155	—	—	—
P3	—	—	—	140	160	170	115	135	145	—	—	—
P4	—	—	—	135	155	165	105	125	135	—	—	—
P5	—	—	—	130	150	160	105	120	135	—	—	—
P6	—	—	—	140	155	170	110	130	140	—	—	—
P7	—	—	—	135	155	165	110	125	140	130	145	160
P8	—	—	—	130	150	160	105	120	130	125	140	155
P11	—	—	—	135	150	165	105	125	135	125	145	155
P12	—	—	—	105	125	135	80	95	105	100	115	125
M1	—	—	—	—	—	—	115	130	145	130	150	160
M2	—	—	—	—	—	—	100	120	130	115	135	145
M3	—	—	—	—	—	—	85	105	115	105	120	135
M4	—	—	—	—	—	—	70	90	100	85	105	115
M5	—	—	—	—	—	—	60	75	85	75	95	105
K1	160	180	190	155	175	185	—	—	—	—	—	—
K2	150	170	180	150	165	180	—	—	—	—	—	—
K3	140	160	170	135	155	165	—	—	—	—	—	—
K4	135	155	170	135	150	165	—	—	—	—	—	—
K5	105	125	135	100	120	130	—	—	—	—	—	—
K6	130	150	160	125	145	155	—	—	—	—	—	—
K7	120	140	150	120	135	150	—	—	—	—	—	—
S1	—	—	—	—	—	—	22	29	33	42	55	65
S2	—	—	—	—	—	—	18	23	27	34	45	50
S3	—	—	—	—	—	—	15	20	23	30	39	46
S11	—	—	—	—	—	—	30	39	47	60	75	85
S12	—	—	—	—	—	—	23	30	36	34	44	50
S13	—	—	—	—	—	—	19	25	29	27	36	42

R220.94-12 - Inch



- For insert selection and cutting data recommendations, see page(s) 36-37
- For complete insert programme, see page(s) 70

Ordering and Product No.	Designation	Type of mounting	Dimensions in inch					ZEFP				Insert
			APMXS	DC	DCSFMS	DCB	LF					
03137209	R220.94-06.00-12-14	Arbor	0.472	6.00	4.33	2.00	2.48	14	14	10.1	6200	LOEX12..

ZEFP = Effective number of teeth
 Spigot size = DCB

Spare Parts

For cutter	Key (T-handle)	Insert screw	Insert key	Torque value (Nm)
R220.94-..	DOUBLE-T	C04012-T15P	H4B-T15P	2,0

Please check availability in current price and stock-list
 Torque keys, see page 672 MN2015 Milling

R217/220.94-12 – Insert selection

SMG		a_p	f_z		
			100%	30%	10%
P1	LOEX120708TR-M12 F40M	0.24	0.0071	0.0079	0.012
P2	LOEX120708TR-M12 F40M	0.24	0.0075	0.0079	0.013
P3	LOEX120708TR-M12 MP2500	0.24	0.0071	0.0075	0.012
P4	LOEX120708TR-M12 MP2500	0.24	0.0067	0.0075	0.012
P5	LOEX120708TR-M12 MP2500	0.24	0.0067	0.0075	0.011
P6	LOEX120708TR-M12 MP2500	0.24	0.0067	0.0071	0.011
P7	LOEX120708TR-M12 MP2500	0.24	0.0067	0.0071	0.011
P8	LOEX120708TR-M12 MP2050	0.24	0.0071	0.0075	0.012
P11	LOEX120708TR-M12 MP2050	0.24	0.0067	0.0071	0.011
P12	LOEX120708TR-M12 MP2050	0.14	0.0047	0.0051	0.0079
M1	LOEX120708R-M09 MS2050	0.24	0.0055	0.0063	0.0094
M2	LOEX120708R-M09 MS2050	0.24	0.0051	0.0055	0.0087
M3	LOEX120708R-M09 F40M	0.14	0.0043	0.0047	0.0071
M4	LOEX120708R-M09 F40M	0.079	0.0039	0.0043	0.0063
M5	LOEX120708R-M09 F40M	0.079	0.0039	0.0043	0.0063
K1	LOEX120708TR-MD13 MK2050	0.24	0.0079	0.0087	0.013
K2	LOEX120708TR-MD13 MK2050	0.24	0.0071	0.0079	0.012
K3	LOEX120708TR-MD13 MK2050	0.24	0.0071	0.0079	0.012
K4	LOEX120708TR-MD13 MK2050	0.24	0.0071	0.0079	0.012
K5	LOEX120708TR-MD13 MK2050	0.24	0.0067	0.0071	0.011
K6	LOEX120708TR-MD13 MK2050	0.24	0.0071	0.0079	0.012
K7	LOEX120708TR-MD13 MK2050	0.24	0.0067	0.0071	0.011
N1	LOEX120708R-M09 F40M	0.24	0.0071	0.0079	0.012
N2	LOEX120708R-M09 F40M	0.24	0.0071	0.0079	0.012
N3	LOEX120708R-M09 F40M	0.24	0.0071	0.0079	0.012
N11	LOEX120708R-M09 F40M	0.24	0.0071	0.0079	0.012
S1	LOEX120708R-M09 MS2050	0.079	0.0039	0.0043	0.0063
S2	LOEX120708R-M09 MS2050	0.079	0.0039	0.0043	0.0063
S3	LOEX120708TR-M12 MS2050	0.079	0.0047	0.0051	0.0079
S11	LOEX120708R-M09 MS2050	0.12	0.0043	0.0047	0.0071
S12	LOEX120708TR-M12 MS2050	0.12	0.0055	0.0059	0.0094
S13	LOEX120708TR-M12 MS2050	0.079	0.0051	0.0055	0.0087

SMG = Seco material group

f_z = in/tooth

v_c = sf/min

a_p/DC = %

All cutting data are start values

Square shoulder and slot milling cutters



R217/220.94-12 – Cutting data $v_c = (\text{sf/min})$

SMG	MP1500			MP2050			MP2500			MP3000			T350M			MK1500		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	930	1225	1450	870	1150	1375	880	1175	1400	840	1100	1325	770	1025	1200	—	—	—
P2	910	1200	1425	830	1125	1300	850	1125	1325	800	1075	1250	740	990	1150	—	—	—
P3	790	1075	1250	730	970	1150	740	990	1175	700	940	1100	650	860	1025	—	—	—
P4	700	940	1100	650	860	1000	660	870	1025	630	830	970	580	760	890	—	—	—
P5	680	890	1075	620	820	980	630	830	1000	600	790	950	550	730	870	—	—	—
P6	760	1000	1200	700	930	1100	710	950	1125	670	900	1075	620	830	980	—	—	—
P7	720	950	1125	660	880	1050	670	900	1050	640	850	1000	580	780	920	—	—	—
P8	670	890	1050	610	820	960	620	830	980	590	790	930	540	730	850	—	—	—
P11	700	920	1100	640	860	1000	650	870	1025	620	830	970	570	760	900	—	—	—
P12	460	610	730	425	560	660	430	570	680	410	540	640	375	495	590	—	—	—
M1	—	—	—	600	800	930	610	820	960	600	800	940	570	760	890	—	—	—
M2	—	—	—	500	660	790	510	670	800	500	660	790	475	630	750	—	—	—
M3	—	—	—	410	540	640	420	550	660	410	540	640	390	520	610	—	—	—
K1	720	950	1125	660	880	1025	670	900	1050	630	850	1000	—	—	—	900	1200	1400
K2	640	850	1025	590	780	930	600	790	950	570	750	900	—	—	—	810	1075	1275
K3	540	720	860	500	660	790	510	670	800	480	630	760	—	—	—	680	900	1075
K4	520	690	820	475	630	750	485	640	770	460	610	730	—	—	—	650	860	1025
K5	315	420	495	295	385	460	300	395	465	285	375	440	—	—	—	395	530	620
K6	460	600	720	420	550	660	430	560	680	405	530	640	—	—	—	570	760	900
K7	405	540	640	375	495	590	385	500	600	365	475	560	—	—	—	510	680	800
N1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S1	—	—	—	155	210	240	—	—	—	150	200	230	145	190	220	—	—	—
S2	—	—	—	125	170	195	—	—	—	120	160	185	115	155	175	—	—	—
S3	—	—	—	110	145	170	—	—	—	105	140	165	100	135	155	—	—	—
S11	—	—	—	215	285	340	—	—	—	210	275	325	200	260	310	—	—	—
S12	—	—	—	125	165	195	—	—	—	120	160	190	115	150	180	—	—	—
S13	—	—	—	100	135	155	—	—	—	95	130	150	90	125	140	—	—	—

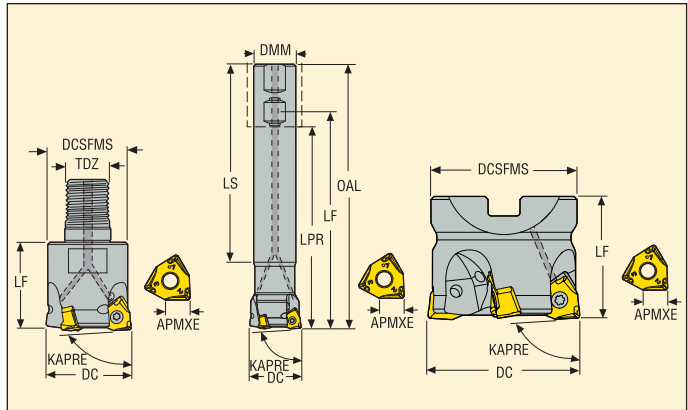
SMG	MK2050			F40M			MM4500			MS2050			T25M		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	870	1150	1375	670	880	1050	540	720	850	—	—	—	740	970	1150
P2	830	1125	1300	640	860	1000	520	700	820	—	—	—	710	950	1100
P3	730	980	1150	560	750	880	455	610	720	—	—	—	620	830	970
P4	650	860	1000	500	660	780	405	540	630	—	—	—	550	730	860
P5	620	820	980	480	630	760	390	510	610	—	—	—	530	700	830
P6	700	940	1100	540	720	850	435	580	690	—	—	—	590	790	940
P7	660	880	1050	510	680	800	410	550	650	560	750	880	560	750	880
P8	610	820	960	470	630	740	380	510	600	520	700	820	520	700	820
P11	640	860	1025	495	660	780	400	540	630	540	730	860	540	730	860
P12	425	560	660	325	430	510	265	350	415	360	475	560	360	475	560
M1	—	—	—	520	690	810	445	600	700	570	760	890	570	760	890
M2	—	—	—	430	570	680	375	490	590	475	630	750	475	630	750
M3	—	—	—	355	470	560	305	405	480	390	520	610	390	520	610
M4	—	—	—	280	370	425	240	320	370	305	405	470	305	405	470
M5	—	—	—	230	310	355	200	265	305	255	340	390	255	340	390
K1	900	1200	1400	510	680	800	—	—	—	—	—	—	560	750	880
K2	810	1050	1275	455	600	720	—	—	—	—	—	—	500	660	790
K3	680	900	1075	385	510	610	—	—	—	—	—	—	425	560	670
K4	650	860	1025	370	485	580	—	—	—	—	—	—	405	530	640
K5	405	530	630	225	300	355	—	—	—	—	—	—	250	330	390
K6	570	760	910	325	425	510	—	—	—	—	—	—	355	470	560
K7	520	680	800	290	380	450	—	—	—	—	—	—	320	420	495
N1	—	—	—	1850	2475	2950	—	—	—	—	—	—	—	—	—
N2	—	—	—	1500	2000	2375	—	—	—	—	—	—	—	—	—
N3	—	—	—	1000	1325	1575	—	—	—	—	—	—	—	—	—
N11	—	—	—	1150	1525	1800	—	—	—	—	—	—	—	—	—
S1	—	—	—	130	170	200	75	100	115	145	190	220	—	—	—
S2	—	—	—	105	140	160	60	80	90	115	155	175	—	—	—
S3	—	—	—	90	120	140	50	70	80	100	135	155	—	—	—
S11	—	—	—	180	240	280	100	135	160	200	260	310	—	—	—
S12	—	—	—	105	135	160	80	105	120	115	150	180	—	—	—
S13	—	—	—	85	110	130	65	85	95	90	125	140	—	—	—

Plunge milling cutters

R217/220.79-08



- For insert selection and cutting data recommendations, see page(s) 39-40
- For complete insert programme, see page(s) 76



Ordering and Product No.	Designation	Type of mounting	Dimensions in mm											KAPRE°				Insert
			APMXE	DC	DCSFMS	DMM	DCB	TDZ	OAL	LPR	LS	LF	KAPRE°					
03058302	R217.79-2040.RE-08-3A	Combimaster	7	40	37	-	-	M20	-	-	-	40	87	3	0,4	11800	XNEX08..L	
03058304	R217.79-3240.3-08-3A	Cyl.-Weldon	7	40	-	32	-	-	200	140	150	164	87	3	1,2	11800	XNEX08..L	
03058315	R220.79-0050-08-4A	Arbor	7	50	48	-	22	-	-	-	-	40	87	4	0,4	10600	XNEX08..L	
03058316	R220.79-0050-08-5A	Arbor	7	50	48	-	22	-	-	-	-	40	87	5	0,4	10600	XNEX08..L	
03058317	R220.79-0063-08-5A	Arbor	7	63	60	-	27	-	-	-	-	50	87	5	0,8	9400	XNEX08..L	
03058318	R220.79-0063-08-6A	Arbor	7	63	60	-	27	-	-	-	-	50	87	6	0,8	9400	XNEX08..L	
03058319	R220.79-0080-08-6A	Arbor	7	80	62	-	27	-	-	-	-	50	87	6	1,1	8400	XNEX08..L	
03058320	R220.79-0080-08-7A	Arbor	7	80	62	-	27	-	-	-	-	50	87	7	1,1	8400	XNEX08..L	
03058321	R220.79-0100-08-7A	Arbor	7	100	78	-	32	-	-	-	-	50	87	7	1,7	7500	XNEX08..L	
03058322	R220.79-0100-08-9A	Arbor	7	100	78	-	32	-	-	-	-	50	87	9	1,8	7500	XNEX08..L	

Spigot size = DCB

Spare Parts

For cutter	Key (T-handle)	Insert screw	Insert key	Arbor screw	Torque value (Nm)
R217/220.79- Ø40	DOUBLE-T	C04011-T15P	H4B-T15P	-	3,5
R217/220.79- Ø50	DOUBLE-T	C04011-T15P	H4B-T15P	220.17-696	3,5
R217/220.79- Ø63	DOUBLE-T	C04011-T15P	H4B-T15P	MC6S12X35	3,5
R220.79- Ø80-100	DOUBLE-T	C04011-T15P	H4B-T15PL	-	3,5

Please check availability in current price and stock-list

Torque keys, see page 672 MN2015 Milling

R217/220.79-08– Insert selection

SMG		f_z	a_{so}			
			100%	70%	50%	30%
P1	XNEX080608TL-M13 F40M	0,18	5,0	5,0	5,0	6,0
P2	XNEX080608TL-M13 F40M	0,19	5,0	5,0	5,0	6,0
P3	XNEX080608TL-M13 MP2500	0,18	5,0	5,0	5,0	6,0
P4	XNEX080608TL-M13 MP2500	0,17	5,0	5,0	5,0	6,0
P5	XNEX080608TL-M13 MP2500	0,17	5,0	5,0	5,0	6,0
P6	XNEX080608TL-M13 MP2500	0,17	5,0	5,0	5,0	6,0
P7	XNEX080608TL-M13 MP2500	0,17	5,0	5,0	5,0	6,0
P8	XNEX080608TL-M13 MP2500	0,18	5,0	5,0	5,0	6,0
P11	XNEX080608TL-M13 T350M	0,17	5,0	5,0	5,0	6,0
P12	XNEX080608TL-M13 T350M	0,11	4,0	4,0	4,0	4,5
M1	XNEX080608TL-M13 F40M	0,19	5,0	5,0	5,0	6,0
M2	XNEX080608TL-M13 F40M	0,17	5,0	5,0	5,0	6,0
M3	XNEX080608TL-M13 F40M	0,14	4,0	4,0	4,0	4,5
M4	XNEX080608TL-M13 T350M	0,12	3,0	3,0	3,0	3,5
M5	XNEX080608TL-M13 T350M	0,12	3,0	3,0	3,0	3,5
K1	XNEX080608TL-M13 MP2500	0,19	5,0	5,0	5,0	6,0
K2	XNEX080608TL-M13 MP2500	0,17	5,0	5,0	5,0	6,0
K3	XNEX080608TL-M13 MP2500	0,17	5,0	5,0	5,0	6,0
K4	XNEX080608TL-M13 MP2500	0,17	5,0	5,0	5,0	6,0
K5	XNEX080608TL-M13 MP2500	0,15	5,0	5,0	5,0	6,0
K6	XNEX080608TL-M13 MP2500	0,17	5,0	5,0	5,0	6,0
K7	XNEX080608TL-M13 MP2500	0,15	5,0	5,0	5,0	6,0
S1	XNEX080608TL-M13 T350M	0,12	3,0	3,0	3,0	3,5
S2	XNEX080608TL-M13 T350M	0,12	3,0	3,0	3,0	3,5
S3	XNEX080608TL-M13 T350M	0,11	3,0	3,0	3,0	3,5
S11	XNEX080608TL-M13 MS2050	0,14	3,5	3,5	3,5	4,0
S12	XNEX080608TL-M13 MS2050	0,14	3,5	3,5	3,5	4,0
S13	XNEX080608TL-M13 MS2050	0,12	3,0	3,0	3,0	3,5
H5	XNEX080608TL-M13 MP2500	0,11	4,0	4,0	4,0	4,5
H8	XNEX080608TL-M13 MP2500	0,090	3,5	3,5	3,5	4,0
H11	XNEX080608TL-M13 MP2500	0,11	4,0	4,0	4,0	4,5
H12	XNEX080608TL-M13 MP2500	0,090	3,5	3,5	3,5	4,0

SMG = Seco material group

f_z = mm/tooth

v_c = m/min

a_e/DC = %

All cutting data are start values

R217/220.79-08 – Cutting data $v_c =$ (m/min)

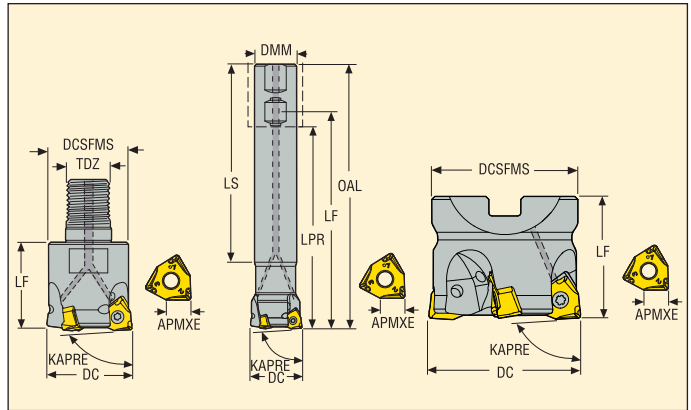
SMG	MP2500				F40M				T350M				MS2050			
	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%
P1	235	265	280	305	180	200	210	230	205	230	245	265	—	—	—	—
P2	225	250	270	290	170	190	205	220	195	220	235	250	—	—	—	—
P3	195	220	235	255	150	165	180	190	170	190	205	220	—	—	—	—
P4	175	200	210	230	135	150	160	170	155	170	185	200	—	—	—	—
P5	170	190	200	215	130	145	150	165	145	165	175	190	—	—	—	—
P6	190	210	225	245	145	160	170	185	165	185	195	215	—	—	—	—
P7	180	200	215	230	135	150	160	175	155	175	185	200	—	—	—	—
P8	165	185	195	215	125	140	150	160	145	160	170	185	—	—	—	—
P11	175	195	205	225	130	145	155	170	150	170	180	195	—	—	—	—
P12	120	135	140	155	90	100	105	115	105	115	125	135	—	—	—	—
M1	160	180	195	210	140	155	165	175	150	170	180	195	150	170	180	195
M2	135	150	160	175	115	130	135	150	125	140	150	165	125	140	150	165
M3	110	125	135	145	95	105	115	120	105	115	125	135	105	115	125	135
M4	90	100	105	115	75	85	90	95	85	95	100	105	85	95	100	105
M5	75	85	90	95	65	70	75	80	70	75	85	90	70	75	85	90
K1	180	200	210	230	135	150	160	175	—	—	—	—	—	—	—	—
K2	160	180	190	205	120	135	145	155	—	—	—	—	—	—	—	—
K3	135	150	160	175	105	115	120	130	—	—	—	—	—	—	—	—
K4	130	145	155	165	100	110	115	125	—	—	—	—	—	—	—	—
K5	80	90	95	105	60	70	70	80	—	—	—	—	—	—	—	—
K6	115	130	135	145	85	95	105	110	—	—	—	—	—	—	—	—
K7	105	115	120	130	80	85	95	100	—	—	—	—	—	—	—	—
S1	—	—	—	—	35	39	42	45	39	43	46	50	39	43	46	50
S2	—	—	—	—	28	32	34	37	31	35	37	40	31	35	37	40
S3	—	—	—	—	25	28	30	32	28	31	33	36	28	31	33	36
S11	—	—	—	—	48	55	55	60	55	60	65	70	55	60	65	70
S12	—	—	—	—	28	31	33	36	31	34	36	39	31	34	36	39
S13	—	—	—	—	23	25	27	29	25	28	30	32	25	28	30	32
H5	36	40	43	46	30	33	36	39	34	38	41	44	—	—	—	—
H8	38	43	46	49	32	36	38	41	37	41	44	47	—	—	—	—
H11	46	50	55	60	38	43	45	49	44	49	50	55	—	—	—	—
H12	75	85	90	100	55	65	70	75	65	75	80	85	—	—	—	—

Plunge milling cutters

R217/220.79-08 - Inch



- For insert selection and cutting data recommendations, see page(s) 42-43
- For complete insert programme, see page(s) 76



Ordering and Product No.	Designation	Type of mounting	Dimensions in inch										KAPRE°				Insert
			APMXE	DC	DCSFMS	DMM	DCB	TDZ	OAL	LPR	LS	LF					
03058337	R217.79-01.50-20RE-08-3A	Combimaster	0.276	1.500	1.378	-	-	M20	-	-	-	1.57	87.0	3	0.9	11800	XNEX08..L
03058336	R217.79-01.50-3-08-3A	Cyl.-Weldon	0.276	1.500	-	1.250	-	-	7.874	5.594	5.91	6.73	87.0	3	2.6	11800	XNEX08..L
03058348	R220.79-02.00-08-4A	Arbor	0.276	2.000	1.850	-	0.750	-	-	-	-	1.57	87.0	4	0.9	10600	XNEX08..L
03058349	R220.79-02.50-08-6A	Arbor	0.276	2.500	2.250	-	1.000	-	-	-	-	1.97	87.0	6	2.0	9400	XNEX08..L
03058350	R220.79-03.00-08-7A	Arbor	0.276	3.000	2.441	-	1.000	-	-	-	-	1.97	87.0	7	2.4	8400	XNEX08..L
03058351	R220.79-04.00-08-9A	Arbor	0.276	4.000	3.500	-	1.500	-	-	-	-	1.97	87.0	9	4.4	7500	XNEX08..L

Spigot size = DCB

Spare Parts

For cutter	Key (T-handle)	Insert screw	Insert key	Arbor screw	Torque value (Nm)
R217.79-01.50	DOUBLE-T	C04011-T15P	H4B-T15P	-	3,5
R217.79-02.00	DOUBLE-T	C04011-T15P	H4B-T15P	220.17-698	3,5
R217.79-02.50-03.00	DOUBLE-T	C04011-T15P	H4B-T15P	UC6S1/2UNFX1-1/4	3,5
R217.79-04.00	DOUBLE-T	C04011-T15P	H4B-T15PL	UC6S3/4UNFX1-1/4	3,5

Please check availability in current price and stock-list
Torque keys, see page 672 MN2015 Milling

R217/220.79-08– Insert selection

SMG		f_z	a_{so}			
			100%	70%	50%	30%
P1	XNEX080608TL-M13 F40M	0.0071	0.20	0.20	0.20	0.24
P2	XNEX080608TL-M13 F40M	0.0075	0.20	0.20	0.20	0.24
P3	XNEX080608TL-M13 MP2500	0.0071	0.20	0.20	0.20	0.24
P4	XNEX080608TL-M13 MP2500	0.0067	0.20	0.20	0.20	0.24
P5	XNEX080608TL-M13 MP2500	0.0067	0.20	0.20	0.20	0.24
P6	XNEX080608TL-M13 MP2500	0.0067	0.20	0.20	0.20	0.24
P7	XNEX080608TL-M13 MP2500	0.0067	0.20	0.20	0.20	0.24
P8	XNEX080608TL-M13 MP2500	0.0071	0.20	0.20	0.20	0.24
P11	XNEX080608TL-M13 T350M	0.0067	0.20	0.20	0.20	0.24
P12	XNEX080608TL-M13 T350M	0.0043	0.16	0.16	0.16	0.18
M1	XNEX080608TL-M13 F40M	0.0075	0.20	0.20	0.20	0.24
M2	XNEX080608TL-M13 F40M	0.0067	0.20	0.20	0.20	0.24
M3	XNEX080608TL-M13 F40M	0.0055	0.16	0.16	0.16	0.18
M4	XNEX080608TL-M13 T350M	0.0047	0.12	0.12	0.12	0.14
M5	XNEX080608TL-M13 T350M	0.0047	0.12	0.12	0.12	0.14
K1	XNEX080608TL-M13 MP2500	0.0075	0.20	0.20	0.20	0.24
K2	XNEX080608TL-M13 MP2500	0.0067	0.20	0.20	0.20	0.24
K3	XNEX080608TL-M13 MP2500	0.0067	0.20	0.20	0.20	0.24
K4	XNEX080608TL-M13 MP2500	0.0067	0.20	0.20	0.20	0.24
K5	XNEX080608TL-M13 MP2500	0.0059	0.20	0.20	0.20	0.24
K6	XNEX080608TL-M13 MP2500	0.0067	0.20	0.20	0.20	0.24
K7	XNEX080608TL-M13 MP2500	0.0059	0.20	0.20	0.20	0.24
S1	XNEX080608TL-M13 T350M	0.0047	0.12	0.12	0.12	0.14
S2	XNEX080608TL-M13 T350M	0.0047	0.12	0.12	0.12	0.14
S3	XNEX080608TL-M13 T350M	0.0043	0.12	0.12	0.12	0.14
S11	XNEX080608TL-M13 MS2050	0.0055	0.14	0.14	0.14	0.16
S12	XNEX080608TL-M13 MS2050	0.0055	0.14	0.14	0.14	0.16
S13	XNEX080608TL-M13 MS2050	0.0047	0.12	0.12	0.12	0.14
H5	XNEX080608TL-M13 MP2500	0.0043	0.16	0.16	0.16	0.18
H8	XNEX080608TL-M13 MP2500	0.0035	0.14	0.14	0.14	0.16
H11	XNEX080608TL-M13 MP2500	0.0043	0.16	0.16	0.16	0.18
H12	XNEX080608TL-M13 MP2500	0.0035	0.14	0.14	0.14	0.16

SMG = Seco material group

f_z = in/tooth

v_c = sf/min

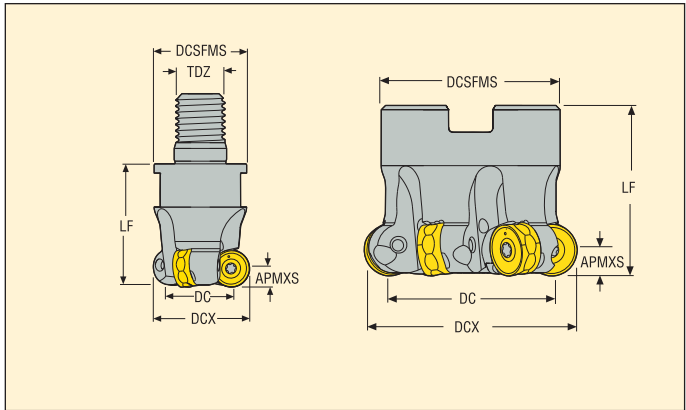
a_e/DC = %

All cutting data are start values

R217/220.79-08 – Cutting data $v_c =$ (sf/min)

SMG	MP2500				F40M				T350M				MS2050			
	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%
P1	770	860	920	990	590	650	700	750	670	750	800	870	—	—	—	—
P2	740	820	880	950	560	620	670	720	640	720	770	830	—	—	—	—
P3	650	720	770	830	490	550	580	630	560	630	670	720	—	—	—	—
P4	580	650	690	750	440	490	520	570	510	570	600	650	—	—	—	—
P5	550	620	660	710	420	470	500	540	485	540	570	620	—	—	—	—
P6	620	700	740	800	470	530	560	610	540	610	650	700	—	—	—	—
P7	590	660	700	760	445	495	530	570	510	570	610	660	—	—	—	—
P8	540	610	650	700	410	460	490	530	475	530	560	610	—	—	—	—
P11	570	640	680	730	435	485	510	560	500	560	590	640	—	—	—	—
P12	390	435	465	500	295	330	350	380	340	380	405	440	—	—	—	—
M1	530	590	630	680	450	500	540	580	495	550	590	640	495	550	590	640
M2	445	500	530	570	380	420	450	485	415	465	495	530	415	465	495	530
M3	365	410	435	475	310	345	370	400	340	380	405	440	340	380	405	440
M4	295	325	350	375	250	275	295	320	275	305	325	350	275	305	325	350
M5	245	270	290	315	205	230	245	265	230	255	270	295	230	255	270	295
K1	590	650	700	750	445	495	530	570	—	—	—	—	—	—	—	—
K2	530	590	630	680	400	445	475	510	—	—	—	—	—	—	—	—
K3	445	500	530	570	340	375	400	435	—	—	—	—	—	—	—	—
K4	425	475	510	550	320	360	385	415	—	—	—	—	—	—	—	—
K5	265	295	315	340	200	225	240	255	—	—	—	—	—	—	—	—
K6	375	420	445	480	285	315	340	365	—	—	—	—	—	—	—	—
K7	340	375	400	435	255	285	305	330	—	—	—	—	—	—	—	—
S1	—	—	—	—	115	130	140	150	130	140	150	165	130	140	150	165
S2	—	—	—	—	95	105	110	120	105	115	120	130	105	115	120	130
S3	—	—	—	—	85	90	100	105	90	100	110	115	90	100	110	115
S11	—	—	—	—	160	175	190	205	175	195	205	225	175	195	205	225
S12	—	—	—	—	90	100	110	120	100	110	120	130	100	110	120	130
S13	—	—	—	—	75	85	90	95	80	90	100	105	80	90	100	105
H5	120	130	140	150	100	110	115	125	115	125	135	145	—	—	—	—
H8	125	140	150	160	105	115	125	135	120	135	145	155	—	—	—	—
H11	150	170	180	195	125	140	150	160	145	160	170	185	—	—	—	—
H12	250	275	295	320	190	210	225	240	215	240	255	280	—	—	—	—

R217/220.28-06



- For insert selection and cutting data recommendations, see page(s) 45-46
- For complete insert programme, see page(s) 73

Ordering and Product No.	Designation	Type of mounting	Dimensions in mm							RMPX°				Insert
			APMXS	DCX	DC	DCSFMS	DCB	TDZ	LF					
03092078	R217.28-1632.RE-06.3A	Combimaster	6	32	20,1	30	-	M16	40	0,4	3	0,2	15600	RNMU12..
03092080	R220.28-0040-06.4A	Arbor	6	40	28,0	35	16	-	40	0,54	4	0,2	14000	RNMU12..
03092079	R217.28-2040.RE-06.4A	Combimaster	6	40	28,0	37	-	M20	45	0,54	4	0,4	14000	RNMU12..
03092081	R220.28-0050-06.5A	Arbor	6	50	38,0	42	22	-	40	0,62	5	0,3	12500	RNMU12..
03092082	R220.28-0050-06.6A	Arbor	6	50	38,0	42	22	-	40	0,62	6	0,3	12500	RNMU12..
03092083	R220.28-0052-06.5A	Arbor	6	52	40,0	47	22	-	40	0,6	5	0,4	12300	RNMU12..
03092084	R220.28-0063-06.6A	Arbor	6	63	51,0	47	22	-	40	0,47	6	0,4	11200	RNMU12..
03092086	R220.28-0063-06.8A	Arbor	6	63	51,0	47	22	-	40	0,47	8	0,5	10000	RNMU12..
03092087	R220.28-0066-06.7A	Arbor	6	66	54,0	62	27	-	50	0,45	7	0,8	10900	RNMU12..
03092088	R220.28-0080-06.8A	Arbor	6	80	67,9	62	27	-	50	0,53	8	1,0	10000	RNMU12..
03137201	R220.28-0100-06.10A	Arbor	6	100	88,0	77	32	-	50	0,11	10	1,6	8800	RNMU12..
03137202	R220.28-0100-06.12A	Arbor	6	100	88,0	77	32	-	50	0,11	12	1,6	8800	RNMU12..

Spigot size = DCB
Ramping angle = RMPX

Spare Parts

For cutter	Key (T-handle)	Insert screw	Insert key	Arbor screw	Torque value (Nm)
R217.28-..	DOUBLE-T	C04009-T15P	H4B-T15P	-	3,5
R220.28-0040-0063	DOUBLE-T	C04009-T15P	H4B-T15P	220.17-692	3,5
R220.28-0066	DOUBLE-T	C04009-T15P	H4B-T15P	MC6S12X40	3,5
R220.28-0080	DOUBLE-T	C04009-T15P	H4B-T15P	MC6S12X40	3,5
R220.28-0100	DOUBLE-T	C04009-T15P	H4B-T15PL	950E1645	3,5

Please check availability in current price and stock-list
Torque keys, see page 672 MN2015 Milling

R217/220.28-06 – Insert selection

SMG		a_p	f_z			
			100%	70%	30%	10%
P1	RNMU1204M0-ME10 T350M	2,5	0,30	0,30	0,34	0,50
P2	RNMU1204M0-ME10 T350M	2,5	0,32	0,32	0,34	0,55
P3	RNMU1204M0-ME10 T350M	2,5	0,30	0,30	0,32	0,50
P4	RNMU1204M0T-M10 MP2500	2,5	0,30	0,30	0,32	0,48
P5	RNMU1204M0T-M10 MP2500	2,5	0,28	0,28	0,32	0,48
P6	RNMU1204M0T-M10 MP2500	2,5	0,28	0,28	0,30	0,48
P7	RNMU1204M0T-M10 MP2500	2,5	0,28	0,28	0,30	0,48
P8	RNMU1204M0T-M10 MP2050	2,5	0,30	0,30	0,32	0,50
P11	RNMU1204M0T-M10 MP2050	2,5	0,28	0,28	0,30	0,48
P12	RNMU1204M0T-M10 MS2500	1,9	0,22	0,22	0,24	0,38
M1	RNMU1204M0-ME10 T350M	2,5	0,32	0,32	0,34	0,55
M2	RNMU1204M0-ME10 T350M	2,5	0,28	0,28	0,32	0,48
M3	RNMU1204M0-ME10 T350M	1,9	0,26	0,26	0,28	0,44
M4	RNMU1204M0T-M10 T350M	1,4	0,26	0,26	0,30	0,44
M5	RNMU1204M0T-M10 T350M	1,4	0,26	0,26	0,30	0,44
K1	RNMU1204M0T-M10 MK2050	2,5	0,32	0,32	0,34	0,55
K2	RNMU1204M0T-M10 MK2050	2,5	0,28	0,28	0,32	0,48
K3	RNMU1204M0T-M10 MK2050	2,5	0,28	0,28	0,32	0,48
K4	RNMU1204M0T-M10 MK2050	2,5	0,28	0,28	0,32	0,48
K5	RNMU1204M0T-M10 MK2050	2,5	0,26	0,26	0,28	0,44
K6	RNMU1204M0T-M10 MK2050	2,5	0,28	0,28	0,32	0,48
K7	RNMU1204M0T-M10 MK2050	2,5	0,26	0,26	0,28	0,44
N1	RNMU1204M0-ME10 F40M	2,5	0,40	0,40	0,44	0,65
N2	RNMU1204M0-ME10 F40M	2,5	0,40	0,40	0,44	0,65
N11	RNMU1204M0-ME10 F40M	2,5	0,40	0,40	0,44	0,65
S1	RNMU1204M0T-M10 MS2500	1,4	0,26	0,26	0,30	0,44
S2	RNMU1204M0T-M10 MS2500	1,4	0,26	0,26	0,30	0,44
S3	RNMU1204M0T-M10 MS2500	1,4	0,24	0,24	0,28	0,42
S11	RNMU1204M0T-M10 MS2050	1,7	0,28	0,28	0,30	0,46
S12	RNMU1204M0T-M10 MS2050	1,7	0,28	0,28	0,30	0,46
S13	RNMU1204M0T-M10 MS2050	1,4	0,26	0,26	0,30	0,44
H5	RNMU1204M0T-M10 MP2500	1,9	0,22	0,22	0,24	0,38
H8	RNMU1204M0T-M10 MP2500	1,7	0,18	0,18	0,20	0,30
H11	RNMU1204M0T-M10 MP2500	1,9	0,22	0,22	0,24	0,38
H12	RNMU1204M0T-M10 MP2500	1,7	0,18	0,18	0,20	0,30
H21	RNMU1204M0T-M10 MP2500	1,7	0,18	0,18	0,20	0,30

SMG = Seco material group

f_z = mm/tooth

v_c = m/min

a_p/DC = %

All cutting data are start values

R217/220.28-06 – Cutting data $v_c =$ (m/min)

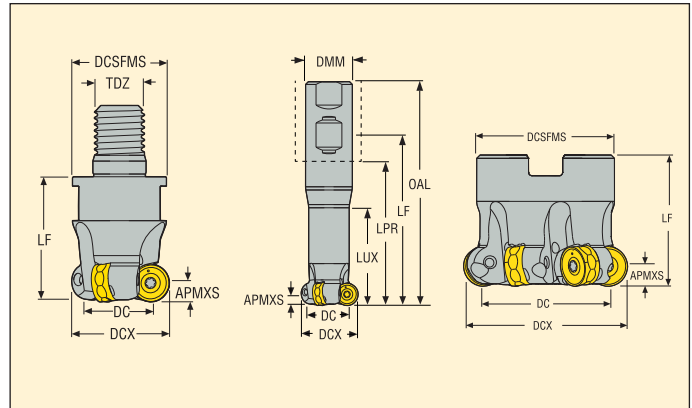
SMG	MP2050				MP2500				T350M				F40M			
	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%
P1	260	290	355	425	290	330	405	480	255	290	350	415	230	265	320	380
P2	245	280	340	405	280	315	385	460	245	275	335	400	220	250	305	365
P3	215	245	300	355	245	275	340	400	215	240	295	350	195	220	270	320
P4	190	215	270	315	215	245	305	360	185	210	265	310	170	195	240	285
P5	185	210	255	300	210	235	290	340	180	205	250	295	165	190	230	270
P6	210	235	285	340	235	265	325	385	205	230	285	335	185	210	260	305
P7	195	220	270	320	220	250	305	360	195	220	265	315	175	200	245	290
P8	180	205	250	300	205	230	285	335	180	205	245	295	165	185	225	270
P11	190	215	265	310	215	245	300	350	190	215	260	305	170	195	235	280
P12	125	140	170	200	140	160	190	225	125	140	165	200	110	125	150	180
M1	175	200	245	290	200	225	280	330	185	210	260	310	180	200	245	295
M2	150	170	205	240	170	190	235	275	155	180	215	255	150	170	205	245
M3	120	135	165	195	135	155	190	220	125	145	175	205	120	135	170	200
M4	95	105	125	150	105	120	145	170	100	110	135	160	95	105	130	155
M5	80	90	105	125	90	100	120	145	85	95	110	135	80	90	105	130
K1	195	220	270	320	220	250	305	365	—	—	—	—	175	200	245	290
K2	175	200	240	285	200	225	275	325	—	—	—	—	160	180	220	260
K3	150	170	205	240	170	190	230	275	—	—	—	—	135	150	185	220
K4	140	160	195	230	160	180	220	260	—	—	—	—	130	145	175	210
K5	85	100	120	140	100	110	135	160	—	—	—	—	80	90	105	125
K6	125	140	175	205	140	160	195	230	—	—	—	—	110	125	155	185
K7	110	125	150	180	125	140	170	205	—	—	—	—	100	115	135	165
N1	720	820	1000	1175	—	—	—	—	—	—	—	—	650	730	900	1075
N2	580	660	810	950	—	—	—	—	—	—	—	—	520	590	730	860
N3	390	440	540	640	—	—	—	—	—	—	—	—	350	395	485	570
N11	445	500	620	730	—	—	—	—	—	—	—	—	400	450	550	650
S1	46	50	60	75	—	—	—	—	46	50	65	75	44	50	60	70
S2	37	41	50	60	—	—	—	—	37	42	50	60	36	40	48	60
S3	32	36	44	50	—	—	—	—	33	37	44	55	31	35	42	50
S11	65	70	85	105	—	—	—	—	65	70	90	105	60	70	85	100
S12	36	41	50	60	—	—	—	—	37	42	50	60	35	40	48	60
S13	29	33	40	48	—	—	—	—	30	34	41	48	28	32	39	46
H5	37	42	50	60	42	48	60	70	41	46	55	65	37	42	50	60
H8	40	45	55	65	45	50	60	75	43	49	60	70	40	45	55	65
H11	47	55	65	75	55	60	75	85	50	60	70	85	47	55	65	75
H12	80	90	110	125	90	100	120	145	80	90	105	125	70	80	95	115
H21	40	45	55	65	45	50	60	75	43	49	60	70	40	45	55	65

SMG	MK2050				MS2050				MS2500			
	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%
P1	285	325	395	470	—	—	—	—	320	360	440	520
P2	275	310	380	455	—	—	—	—	305	345	420	500
P3	240	270	330	395	—	—	—	—	265	300	370	435
P4	210	240	300	350	—	—	—	—	235	265	330	390
P5	205	235	285	335	—	—	—	—	230	260	315	370
P6	230	260	320	375	—	—	—	—	255	290	355	420
P7	220	250	300	355	—	—	—	—	240	275	335	395
P8	200	230	280	330	—	—	—	—	225	255	310	365
P11	210	240	295	345	—	—	—	—	235	265	325	385
P12	140	155	190	225	—	—	—	—	155	175	210	250
M1	—	—	—	—	220	245	275	305	220	245	300	360
M2	—	—	—	—	185	200	220	240	185	205	250	300
M3	—	—	—	—	140	155	160	170	150	165	205	240
M4	—	—	—	—	100	115	115	115	115	130	155	185
M5	—	—	—	—	85	95	95	100	95	110	130	155
K1	295	335	410	490	—	—	—	—	—	—	—	—
K2	265	300	370	435	—	—	—	—	—	—	—	—
K3	225	255	310	370	—	—	—	—	—	—	—	—
K4	215	245	295	350	—	—	—	—	—	—	—	—
K5	130	150	180	215	—	—	—	—	—	—	—	—
K6	190	215	260	310	—	—	—	—	—	—	—	—
K7	165	190	230	275	—	—	—	—	—	—	—	—
N1	—	—	—	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—
S1	—	—	—	—	43	46	60	70	55	65	75	90
S2	—	—	—	—	35	37	47	55	45	50	60	75
S3	—	—	—	—	32	34	42	49	40	45	55	65
S11	—	—	—	—	55	60	80	95	80	90	105	125
S12	—	—	—	—	43	46	60	70	45	50	60	75
S13	—	—	—	—	37	40	50	60	36	41	49	60
H5	—	—	—	—	—	—	—	—	—	—	—	—
H8	—	—	—	—	—	—	—	—	—	—	—	—
H11	—	—	—	—	—	—	—	—	—	—	—	—
H12	—	—	—	—	—	—	—	—	—	—	—	—
H21	—	—	—	—	—	—	—	—	—	—	—	—

R217/220.28-06 - Inch



- For insert selection and cutting data recommendations, see page(s) 48-49
- For complete insert programme, see page(s) 73



Ordering and Product No.	Designation	Type of mounting	Dimensions in inch											RMPX°				Insert
			APMXS	DCX	DC	DCSFMS	DCB	TDZ	LF	OAL	LUX	LPR	DC					
03092089	R217.28-01.25-3-06-3A	Cyl.-Weldon	0.236	1.250	0.780	-	-	-	3.642	4.782	2.578	2.503	0.4	3	.88	15600	RNMU12..	
03092090	R217.28-01.50-20RE-06-4A	Combimaster	0.236	1.500	1.028	1.437	-	M20	1.772	-	-	-	0.5	4	.66	14000	RNMU12..	
03092091	R220.28-01.50-06-4A	Arbor	0.236	1.500	1.028	1.260	0.500	-	1.500	-	-	-	0.5	4	.44	14000	RNMU12..	
03092092	R220.28-02.00-06-5A	Arbor	0.236	2.000	1.528	1.654	0.750	-	1.500	-	-	-	0.61	5	.66	12500	RNMU12..	
03092093	R220.28-02.00-06-6A	Arbor	0.236	2.000	1.528	1.654	0.750	-	1.500	-	-	-	0.61	6	.66	12500	RNMU12..	
03092094	R220.28-02.50-06-7A	Arbor	0.236	2.500	2.028	1.850	0.750	-	1.500	-	-	-	0.47	7	1.10	11200	RNMU12..	
03092095	R220.28-03.00-06-8A	Arbor	0.236	3.000	2.524	2.441	1.000	-	2.000	-	-	-	0.56	8	2.20	10000	RNMU12..	
03137203	R220.28-04.00-06-10A	Arbor	0.236	4.000	3.528	3.543	1.500	-	2.000	-	-	-	0.11	10	3.97	8800	RNMU12..	
03137204	R220.28-04.00-06-12A	Arbor	0.236	4.000	3.528	3.543	1.500	-	2.000	-	-	-	0.11	12	3.97	8800	RNMU12..	

Spigot size = DCB

Ramping angle = RMPX

Spare Parts

For cutter	Key (T-handle)	Insert screw	Insert key	Arbor screw	Torque value (Nm)
R217.28-..	DOUBLE-T	C04009-T15P	H4B-T15P	-	3,5
R220.28-01.50	DOUBLE-T	C04009-T15P	H4B-T15P	UC6S1/4UNFX1	3,5
R220.28-02.00-02.50	DOUBLE-T	C04009-T15P	H4B-T15P	UC6S3/8UNFX1-1/4	3,5
R220.28-03.00	DOUBLE-T	C04009-T15P	H4B-T15P	UC6S1/2UNFX1-1/2	3,5
R220.28-04.00	DOUBLE-T	C04009-T15P	H4B-T15PL	ULC6S3/4UNFX11/2	3,5

Please check availability in current price and stock-list

Torque keys, see page 672 MN2015 Milling

R217/220.28-06 – Insert selection

SMG		a_p	f_z			
			100%	70%	30%	10%
P1	RNMU1204M0-ME10 T350M	0.098	0.012	0.012	0.013	0.020
P2	RNMU1204M0-ME10 T350M	0.098	0.013	0.013	0.013	0.020
P3	RNMU1204M0-ME10 T350M	0.098	0.012	0.012	0.013	0.020
P4	RNMU1204M0T-M10 MP2500	0.098	0.011	0.011	0.013	0.019
P5	RNMU1204M0T-M10 MP2500	0.098	0.011	0.011	0.012	0.019
P6	RNMU1204M0T-M10 MP2500	0.098	0.011	0.011	0.012	0.018
P7	RNMU1204M0T-M10 MP2500	0.098	0.011	0.011	0.012	0.018
P8	RNMU1204M0T-M10 MP2050	0.098	0.012	0.012	0.013	0.020
P11	RNMU1204M0T-M10 MP2050	0.098	0.011	0.011	0.012	0.018
P12	RNMU1204M0T-M10 MS2500	0.059	0.0094	0.0094	0.010	0.017
M1	RNMU1204M0-ME10 T350M	0.098	0.013	0.013	0.013	0.020
M2	RNMU1204M0-ME10 T350M	0.098	0.011	0.011	0.012	0.019
M3	RNMU1204M0-ME10 T350M	0.059	0.012	0.012	0.013	0.019
M4	RNMU1204M0T-M10 T350M	0.031	0.013	0.013	0.015	0.024
M5	RNMU1204M0T-M10 T350M	0.031	0.013	0.013	0.015	0.024
K1	RNMU1204M0T-M10 MK2050	0.098	0.013	0.013	0.013	0.020
K2	RNMU1204M0T-M10 MK2050	0.098	0.011	0.011	0.012	0.019
K3	RNMU1204M0T-M10 MK2050	0.098	0.011	0.011	0.012	0.019
K4	RNMU1204M0T-M10 MK2050	0.098	0.011	0.011	0.012	0.019
K5	RNMU1204M0T-M10 MK2050	0.098	0.010	0.010	0.011	0.017
K6	RNMU1204M0T-M10 MK2050	0.098	0.011	0.011	0.012	0.019
K7	RNMU1204M0T-M10 MK2050	0.098	0.010	0.010	0.011	0.017
S1	RNMU1204M0T-M10 MS2500	0.031	0.013	0.013	0.015	0.024
S2	RNMU1204M0T-M10 MS2500	0.031	0.013	0.013	0.015	0.024
S3	RNMU1204M0T-M10 MS2500	0.031	0.013	0.013	0.014	0.022
S11	RNMU1204M0T-M10 MS2050	0.043	0.013	0.013	0.015	0.022
S12	RNMU1204M0T-M10 MS2050	0.043	0.013	0.013	0.015	0.022
S13	RNMU1204M0T-M10 MS2050	0.031	0.013	0.013	0.015	0.024
H5	RNMU1204M0T-M10 MP2500	0.059	0.0094	0.0094	0.010	0.017
H8	RNMU1204M0T-M10 MP2500	0.043	0.0087	0.0087	0.0094	0.015
H11	RNMU1204M0T-M10 MP2500	0.059	0.0094	0.0094	0.010	0.017
H12	RNMU1204M0T-M10 MP2500	0.043	0.0087	0.0087	0.0094	0.015
H21	RNMU1204M0T-M10 MP2500	0.043	0.0087	0.0087	0.0094	0.015

SMG = Seco material group

f_z = in/tooth

v_c = sf/min

a_e/DC = %

All cutting data are start values

R217/220.28-06 – Cutting data $v_c = (sf/min)$

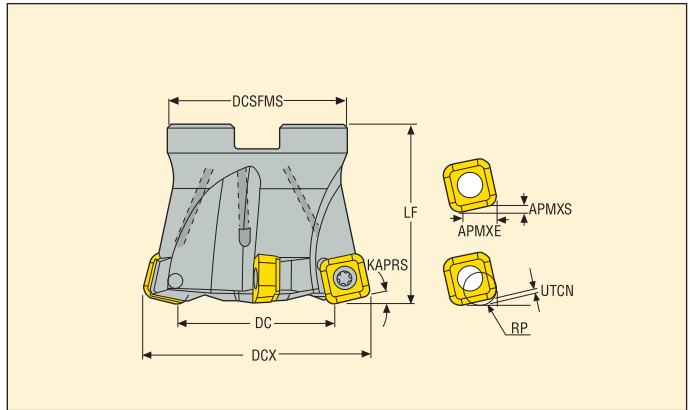
SMG	MP2050				MP2500				T350M				F40M			
	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%
P1	840	960	1175	1375	960	1075	1325	1575	830	940	1150	1375	760	860	1050	1250
P2	810	910	1125	1325	910	1025	1275	1500	800	900	1125	1325	730	820	1025	1200
P3	710	800	980	1175	800	910	1100	1325	700	790	960	1150	640	720	880	1050
P4	640	720	880	1025	720	810	990	1175	630	710	870	1025	570	650	790	930
P5	610	690	840	990	690	780	950	1125	600	680	830	980	550	620	750	890
P6	680	770	940	1100	770	870	1075	1250	670	760	930	1100	610	690	850	1000
P7	640	730	890	1050	730	820	1000	1175	630	720	880	1025	580	660	800	940
P8	590	670	820	990	670	760	930	1125	590	660	810	980	540	610	740	890
P11	620	710	860	1025	710	800	980	1150	620	700	850	1000	560	640	780	920
P12	410	465	550	660	465	520	630	750	405	455	550	650	370	415	500	590
M1	580	650	810	950	660	750	930	1075	610	690	860	1000	590	660	820	970
M2	485	550	670	790	550	630	760	900	510	580	710	840	490	560	680	800
M3	390	440	540	640	445	500	610	730	415	465	570	680	395	445	540	650
M4	310	345	415	495	350	390	470	560	325	365	440	530	310	350	420	500
M5	255	285	345	415	290	325	395	470	270	305	365	440	260	290	350	420
K1	640	720	900	1050	720	820	1025	1200	—	—	—	—	580	650	810	950
K2	580	650	800	940	650	740	900	1075	—	—	—	—	520	590	720	850
K3	485	550	670	790	550	620	760	900	—	—	—	—	440	495	610	720
K4	465	530	640	760	530	600	730	860	—	—	—	—	420	475	580	680
K5	285	320	390	465	320	365	440	530	—	—	—	—	255	290	350	420
K6	410	465	570	670	465	530	640	760	—	—	—	—	370	420	510	600
K7	360	410	500	590	410	465	560	670	—	—	—	—	325	370	450	540
N1	—	—	—	—	—	—	—	—	—	—	—	—	2125	2400	2950	3475
N2	—	—	—	—	—	—	—	—	—	—	—	—	1725	1950	2375	2825
N3	—	—	—	—	—	—	—	—	—	—	—	—	1150	1300	1600	1875
N11	—	—	—	—	—	—	—	—	—	—	—	—	1300	1475	1825	2150
S1	150	170	205	240	—	—	—	—	150	170	205	245	145	165	195	235
S2	120	135	165	195	—	—	—	—	125	140	165	200	115	130	160	190
S3	105	120	145	170	—	—	—	—	105	120	145	175	100	115	140	165
S11	210	235	285	340	—	—	—	—	210	235	290	345	200	225	275	325
S12	120	135	165	195	—	—	—	—	120	135	165	200	115	130	160	190
S13	95	110	130	155	—	—	—	—	100	110	135	160	95	105	125	150
H5	125	140	165	200	140	160	190	225	135	150	180	215	125	140	165	195
H8	130	145	180	210	150	170	205	240	145	160	195	230	130	145	175	210
H11	155	175	210	250	180	200	240	285	170	195	230	275	155	175	210	250
H12	260	290	355	420	295	330	400	475	255	290	350	415	235	265	320	380
H21	130	145	180	210	150	170	205	240	145	160	195	230	130	145	175	210

SMG	MK2050				MS2050				MS2500			
	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%
P1	930	1050	1300	1525	—	—	—	—	1025	1175	1425	1700
P2	890	1000	1250	1475	—	—	—	—	960	1125	1400	1625
P3	780	880	1075	1300	—	—	—	—	860	980	1200	1425
P4	700	790	970	1150	—	—	—	—	780	880	1075	1275
P5	670	760	920	1100	—	—	—	—	740	840	1025	1200
P6	750	850	1025	1225	—	—	—	—	830	940	1150	1350
P7	710	800	980	1150	—	—	—	—	790	890	1075	1275
P8	660	740	910	1100	—	—	—	—	730	820	1000	1200
P11	690	780	950	1125	—	—	—	—	760	860	1050	1250
P12	455	510	610	730	—	—	—	—	500	570	680	800
M1	—	—	—	—	610	690	850	1000	710	800	990	1175
M2	—	—	—	—	510	580	700	830	590	670	820	970
M3	—	—	—	—	410	460	560	670	475	540	650	780
M4	—	—	—	—	325	360	435	520	375	420	510	610
M5	—	—	—	—	270	300	365	435	315	350	420	500
K1	960	1075	1350	1575	—	—	—	—	—	—	—	—
K2	870	980	1200	1400	—	—	—	—	—	—	—	—
K3	730	830	1000	1200	—	—	—	—	—	—	—	—
K4	700	790	960	1150	—	—	—	—	—	—	—	—
K5	425	480	590	700	—	—	—	—	—	—	—	—
K6	620	700	850	1000	—	—	—	—	—	—	—	—
K7	540	620	750	890	—	—	—	—	—	—	—	—
N1	—	—	—	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—
S1	—	—	—	—	150	170	205	245	185	205	245	295
S2	—	—	—	—	120	135	165	195	150	165	200	240
S3	—	—	—	—	105	120	145	170	130	145	175	210
S11	—	—	—	—	210	235	285	340	255	285	345	415
S12	—	—	—	—	120	135	165	195	145	165	200	240
S13	—	—	—	—	95	110	130	155	120	135	160	190
H5	—	—	—	—	—	—	—	—	—	—	—	—
H8	—	—	—	—	—	—	—	—	—	—	—	—
H11	—	—	—	—	—	—	—	—	—	—	—	—
H12	—	—	—	—	—	—	—	—	—	—	—	—
H21	—	—	—	—	—	—	—	—	—	—	—	—

R220.21-SC



- For insert selection and cutting data recommendations, see page(s) 51-52
- For complete insert programme, see page(s) 74



Ordering and Product No.	Designation	Type of mounting	Dimensions in mm										KAPRS°	RMPX°	⌀	KG		Insert
			APMxE	APMxS	DCX	DC	DCSFMS	DCB	LF	UTCN	RP							
03136672	R220.21-0050-SC12.5A	Arbor	9	2	50	31,0	42	22	40	1,1	4,4	12,5	2,1	5	0,4	10700	SCET12..	
03138188	R220.21-0052-SC12.5A	Arbor	9	2	52	33,0	47	22	40	1,1	4,5	12,5	2,0	5	0,4	10500	SCET12..	
03136673	R220.21-0063-SC12.6A	Arbor	9	2	63	44,0	50	27	50	1,1	4,4	12,5	0,6	6	0,7	9600	SCET12..	
03138192	R220.21-0066-SC12.6A	Arbor	9	2	66	47,1	62	27	50	1,2	4,4	12,5	0,7	6	0,9	9400	SCET12..	
03136674	R220.21-0080-SC12.7A	Arbor	9	2	80	61,1	62	27	50	1,2	4,4	12,5	0,8	7	1,0	8500	SCET12..	
03136675	R220.21-0084-SC12.6A	Arbor	9	2	84	65,1	77	32	55	1,2	4,4	12,5	0,8	6	1,4	8300	SCET12..	
03136676	R220.21-0100-SC12.8A	Arbor	9	2	100	81,0	77	32	50	1,2	4,4	12,5	0,6	8	1,5	7600	SCET12..	

Spigot size = DCB
 Ramping angle = RMPX
 UTCN = Uncut thickness, deviation between programmed corner radii (RP) and generated machined profile.

Spare Parts

For cutter	Key (T-handle)	Insert screw	Insert key	Arbor screw	Torque value (Nm)
R220.21-0050-0052	DOUBLE-T	C45011-T20P	H6B-T20P	-	5,0
R220.21-0063-0080	DOUBLE-T	C45011-T20P	H6B-T20P	MC6S12X35	5,0
R220.21-0084	DOUBLE-T	C45011-T20P	H6B-T20P	MC6S16X40	5,0
R220.21-0100	DOUBLE-T	C45011-T20P	H6B-T20P	MLC6S16X35	5,0

Please check availability in current price and stock-list
 Torque keys, see page 672 MN2015 Milling

R220.21-SC12- Insert selection

SMG		a_p	f_z		
			100%	70%	30%
P1	SCET120630T-M14 T350M	0,90	1,0	1,0	1,1
P2	SCET120630T-M14 T350M	0,90	1,0	1,0	1,1
P3	SCET120630T-M14 T350M	0,90	0,95	0,95	1,0
P4	SCET120630T-MD16 MS2500	0,90	1,1	1,1	1,2
P5	SCET120630T-MD16 MS2500	0,90	1,0	1,0	1,1
P6	SCET120630T-MD16 MS2500	0,90	1,0	1,0	1,1
P7	SCET120630T-MD16 MS2500	0,90	1,0	1,0	1,1
P8	SCET120630T-MD16 MP2500	0,90	1,1	1,1	1,2
P11	SCET120630T-MD16 MS2500	0,90	1,0	1,0	1,1
P12	SCET120630T-MD16 MS2500	0,60	0,75	0,75	0,80
M1	SCET120630T-M14 F40M	0,90	1,0	1,0	1,1
M2	SCET120630T-M14 F40M	0,90	0,90	0,90	1,0
M3	SCET120630T-M14 F40M	0,60	0,75	0,75	0,80
M4	SCET120630T-M14 F40M	0,37	0,70	0,70	0,75
M5	SCET120630T-M14 F40M	0,37	0,70	0,70	0,75
K1	SCET120630T-MD16 MP1500	0,90	1,1	1,1	1,2
K2	SCET120630T-MD16 MP1500	0,90	1,0	1,0	1,1
K3	SCET120630T-MD16 MP1500	0,90	1,0	1,0	1,1
K4	SCET120630T-MD16 MP1500	0,90	1,0	1,0	1,1
K5	SCET120630T-MD16 MP1500	0,90	0,95	0,95	1,0
K6	SCET120630T-MD16 MP1500	0,90	1,0	1,0	1,1
K7	SCET120630T-MD16 MP1500	0,90	0,95	0,95	1,0
S1	SCET120630T-M14 MS2500	0,37	0,70	0,70	0,75
S2	SCET120630T-M14 MS2500	0,37	0,70	0,70	0,75
S3	SCET120630T-M14 MS2500	0,37	0,65	0,65	0,70
S11	SCET120630T-M14 MS2500	0,48	0,75	0,75	0,85
S12	SCET120630T-M14 MS2500	0,48	0,75	0,75	0,85
S13	SCET120630T-M14 MS2500	0,37	0,70	0,70	0,75
H5	SCET120630T-MD16 MP1500	0,60	0,75	0,75	0,80
H8	SCET120630T-MD16 MP1500	0,48	0,55	0,55	0,60
H11	SCET120630T-MD16 T350M	0,60	0,75	0,75	0,80
H12	SCET120630T-MD16 T350M	0,48	0,55	0,55	0,60
H21	SCET120630T-MD16 MP1500	0,48	0,55	0,55	0,60

SMG = Seco material group

f_z = mm/tooth

v_c = m/min

a_p/DC = %

All cutting data are start values

R220.21-SC12 – Cutting data $v_c =$ (m/min)

SMG	MP1500			MP2500			MP3000			T350M			F40M			MK2050		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	305	345	425	270	305	380	260	300	365	240	275	340	210	240	295	270	310	380
P2	295	335	415	260	300	370	255	290	360	235	270	330	205	235	285	265	305	370
P3	255	290	355	225	255	315	225	255	315	205	235	290	180	205	255	230	265	330
P4	225	255	315	200	225	280	200	225	280	185	210	255	160	180	225	205	235	290
P5	220	250	310	195	220	275	190	215	265	175	200	245	150	175	215	200	225	275
P6	245	280	345	220	250	305	215	245	300	195	225	275	170	195	240	220	255	310
P7	235	265	325	205	235	290	200	230	280	185	210	260	160	185	225	210	240	295
P8	215	245	300	190	215	265	185	215	265	170	195	245	150	170	215	195	220	275
P11	225	260	315	200	230	280	195	225	275	180	205	250	155	180	220	205	235	285
P12	145	165	200	130	145	180	125	145	175	115	130	160	100	115	140	130	150	180
M1	—	—	—	190	215	265	190	220	270	180	205	255	165	190	230	—	—	—
M2	—	—	—	155	180	220	160	180	220	150	170	210	135	155	190	—	—	—
M3	—	—	—	125	140	175	125	145	175	120	135	170	110	125	155	—	—	—
M4	—	—	—	95	110	130	100	110	135	95	105	125	85	95	115	—	—	—
M5	—	—	—	80	90	110	80	90	110	80	85	105	70	80	95	—	—	—
K1	235	265	330	205	235	290	200	230	285	—	—	—	160	185	225	285	325	400
K2	210	240	295	185	210	260	180	205	250	—	—	—	145	165	200	255	290	360
K3	175	200	250	155	180	220	155	175	215	—	—	—	120	140	170	215	245	305
K4	170	190	235	150	170	210	145	165	205	—	—	—	115	135	165	205	235	290
K5	100	115	145	90	105	130	90	105	125	—	—	—	70	80	100	125	145	175
K6	150	170	210	130	150	185	130	145	180	—	—	—	105	115	145	180	210	255
K7	130	150	185	115	130	165	115	130	160	—	—	—	90	105	130	165	185	225
N1	—	—	—	—	—	—	—	—	—	—	—	—	590	670	830	—	—	—
N2	—	—	—	—	—	—	600	680	840	—	—	—	475	540	670	—	—	—
N3	—	—	—	—	—	—	395	450	560	—	—	—	315	360	450	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—	365	415	510	—	—	—
S1	—	—	—	—	—	—	46	50	60	44	49	60	40	44	55	—	—	—
S2	—	—	—	—	—	—	37	41	50	35	39	48	32	36	43	—	—	—
S3	—	—	—	—	—	—	33	36	44	31	34	42	28	31	38	—	—	—
S11	—	—	—	—	—	—	65	75	90	60	70	85	55	65	75	—	—	—
S12	—	—	—	—	—	—	37	42	50	35	40	49	32	36	44	—	—	—
S13	—	—	—	—	—	—	30	33	40	28	31	38	26	29	35	—	—	—
H5	48	55	65	—	—	—	39	44	55	39	44	55	34	38	46	—	—	—
H8	50	60	70	—	—	—	42	47	55	41	46	55	36	40	49	—	—	—
H11	60	70	85	—	—	—	50	55	70	49	55	70	43	48	60	—	—	—
H12	95	105	130	—	—	—	80	90	110	75	85	100	65	75	90	—	—	—
H21	50	60	70	—	—	—	42	47	55	41	46	55	36	40	49	—	—	—

SMG	MS2500		
	100%	70%	30%
P1	300	345	425
P2	295	335	410
P3	255	295	365
P4	230	260	320
P5	220	250	305
P6	245	280	345
P7	230	265	325
P8	215	245	305
P11	225	260	315
P12	145	165	200
M1	210	240	295
M2	175	200	245
M3	140	160	195
M4	110	120	145
M5	90	100	125
K1	—	—	—
K2	—	—	—
K3	—	—	—
K4	—	—	—
K5	—	—	—
K6	—	—	—
K7	—	—	—
N1	—	—	—
N2	—	—	—
N3	—	—	—
N11	—	—	—
S1	55	60	70
S2	43	48	60
S3	38	42	50
S11	75	85	105
S12	43	48	60
S13	34	38	47
H5	—	—	—
H8	—	—	—
H11	—	—	—
H12	—	—	—
H21	—	—	—

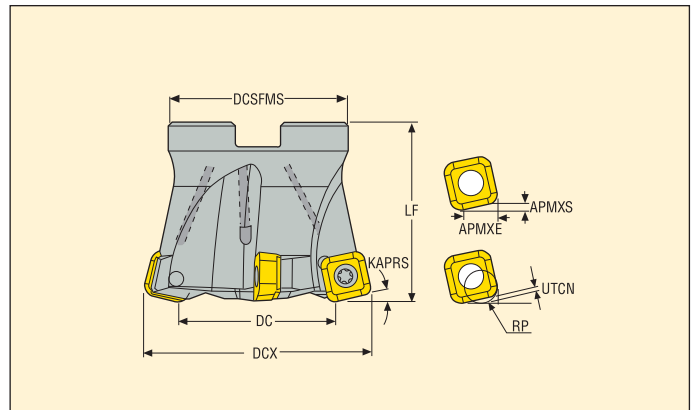
High feed milling cutters



R220.21-SC - Inch



- For insert selection and cutting data recommendations, see page(s) 54-55
- For complete insert programme, see page(s) 74



Ordering and Product No.	Designation	Type of mounting	Dimensions in inch										KAPRS ^o	RMPX ^o	Flute lead	lbs	Weight	Insert
			APMXE	APMXS	DCX	DC	DCSFMS	DCB	LF	UTCN	RP							
03136677	R220.21-02.00-SC12.5A	Arbor	0.354	0.079	2.00	1.25	1.75	0.75	1.60	0.043	0.173	12.5	2.1	5	1.1	10700	SC..12	
03136678	R220.21-02.50-SC12.5A	Arbor	0.354	0.079	2.50	1.75	1.75	0.75	2.00	0.043	0.173	12.5	0.6	5	1.1	9600	SC..12	
03136679	R220.21-02.50-SC12.6A	Arbor	0.354	0.079	2.50	1.75	1.75	0.75	2.00	0.043	0.173	12.5	0.6	6	1.3	9600	SC..12	
03136680	R220.21-03.00-SC12.6A	Arbor	0.354	0.079	3.00	2.26	2.25	1.00	2.00	0.043	0.173	12.5	0.6	6	2.2	8500	SC..12	
03136681	R220.21-04.00-SC12.8A	Arbor	0.354	0.079	4.00	3.25	3.54	1.50	2.00	0.047	0.173	12.5	0.6	8	4.0	7600	SC..12	

Spigot size = DCB
Ramping angle = RMPX

UTCN = Uncut thickness, deviation between programmed corner radii (RP) and generated machined profile.

Spare Parts

For cutter	Key (T-handle)	Insert screw	Insert key	Arbor screw	Torque value (Nm)
R220.21-02.00	DOUBLE-T	C45011-T20P	H6B-T20P	UC6S3/8UNFX1-1/4	5.0
R220.21-02.50	DOUBLE-T	C45011-T20P	H6B-T20P	UC6S3/8UNFX11/2	5.0
R220.21-03.00-04.00	DOUBLE-T	C45011-T20P	H6B-T20P	UC6S1/2UNFX1-1/2	5.0

Please check availability in current price and stock-list
Torque keys, see page 672 MN2015 Milling

R220.21-SC12- Insert selection

SMG		a_p	f_z		
			100%	70%	30%
P1	SCET120630T-M14 T350M	0.035	0.039	0.039	0.043
P2	SCET120630T-M14 T350M	0.035	0.039	0.039	0.043
P3	SCET120630T-M14 T350M	0.035	0.037	0.037	0.039
P4	SCET120630T-MD16 MS2500	0.035	0.043	0.043	0.047
P5	SCET120630T-MD16 MS2500	0.035	0.039	0.039	0.043
P6	SCET120630T-MD16 MS2500	0.035	0.039	0.039	0.043
P7	SCET120630T-MD16 MS2500	0.035	0.039	0.039	0.043
P8	SCET120630T-MD16 MP2500	0.035	0.043	0.043	0.047
P11	SCET120630T-MD16 MS2500	0.035	0.039	0.039	0.043
P12	SCET120630T-MD16 MS2500	0.024	0.030	0.030	0.031
M1	SCET120630T-M14 F40M	0.035	0.039	0.039	0.043
M2	SCET120630T-M14 F40M	0.035	0.035	0.035	0.039
M3	SCET120630T-M14 F40M	0.024	0.030	0.030	0.031
M4	SCET120630T-M14 F40M	0.015	0.028	0.028	0.030
M5	SCET120630T-M14 F40M	0.015	0.028	0.028	0.030
K1	SCET120630T-MD16 MP1500	0.035	0.043	0.043	0.047
K2	SCET120630T-MD16 MP1500	0.035	0.039	0.039	0.043
K3	SCET120630T-MD16 MP1500	0.035	0.039	0.039	0.043
K4	SCET120630T-MD16 MP1500	0.035	0.039	0.039	0.043
K5	SCET120630T-MD16 MP1500	0.035	0.037	0.037	0.039
K6	SCET120630T-MD16 MP1500	0.035	0.039	0.039	0.043
K7	SCET120630T-MD16 MP1500	0.035	0.037	0.037	0.039
S1	SCET120630T-M14 MS2500	0.015	0.028	0.028	0.030
S2	SCET120630T-M14 MS2500	0.015	0.028	0.028	0.030
S3	SCET120630T-M14 MS2500	0.015	0.026	0.026	0.028
S11	SCET120630T-M14 MS2500	0.019	0.030	0.030	0.033
S12	SCET120630T-M14 MS2500	0.019	0.030	0.030	0.033
S13	SCET120630T-M14 MS2500	0.015	0.028	0.028	0.030
H5	SCET120630T-MD16 MP1500	0.024	0.030	0.030	0.031
H8	SCET120630T-MD16 MP1500	0.019	0.022	0.022	0.024
H11	SCET120630T-MD16 T350M	0.024	0.030	0.030	0.031
H12	SCET120630T-MD16 T350M	0.019	0.022	0.022	0.024
H21	SCET120630T-MD16 MP1500	0.019	0.022	0.022	0.024

SMG = Seco material group

f_z = in/tooth

v_c = sf/min

a_e/DC = %

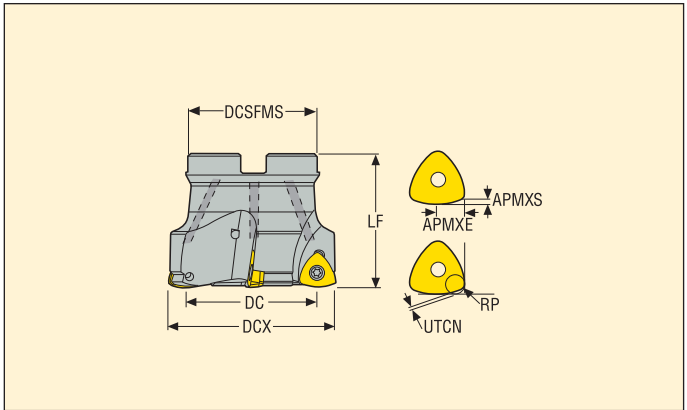
All cutting data are start values

R220.21-SC12 – Cutting data $v_c =$ (sf/min)

SMG	MP1500			MP2500			MP3000			T350M			F40M			MK2050		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	990	1125	1400	880	1000	1250	860	980	1200	790	900	1100	690	780	960	890	1025	1250
P2	970	1100	1375	860	980	1200	840	950	1175	770	880	1075	670	760	940	870	990	1225
P3	830	950	1175	740	840	1050	730	830	1050	670	770	950	580	670	830	760	870	1075
P4	730	840	1025	650	740	910	650	750	910	600	690	840	520	600	730	680	780	950
P5	720	820	1000	640	730	900	620	710	870	570	660	800	500	570	700	650	740	910
P6	810	920	1125	720	820	1000	700	800	980	650	740	900	560	640	780	730	830	1025
P7	760	870	1075	680	770	950	660	760	920	610	690	850	530	600	740	690	790	960
P8	700	800	990	620	710	870	610	700	870	570	650	800	490	560	700	640	730	910
P11	740	850	1050	660	750	920	640	730	900	590	670	830	510	590	720	670	760	930
P12	475	540	660	420	475	590	415	470	570	380	430	530	330	375	460	430	485	600
M1	—	—	—	620	710	870	630	710	880	590	680	830	540	620	760	—	—	—
M2	—	—	—	510	590	720	520	600	730	495	560	690	450	510	630	—	—	—
M3	—	—	—	410	465	570	420	470	580	395	445	550	360	405	500	—	—	—
M4	—	—	—	315	355	430	325	360	440	305	340	415	280	310	380	—	—	—
M5	—	—	—	265	295	360	270	300	365	255	285	345	230	260	315	—	—	—
K1	770	880	1075	680	780	960	660	760	930	—	—	—	530	600	740	940	1075	1325
K2	680	780	960	610	690	850	590	680	830	—	—	—	475	540	660	840	960	1175
K3	580	660	810	510	590	720	500	570	700	—	—	—	400	460	560	710	810	990
K4	550	630	780	490	560	690	480	550	670	—	—	—	385	435	540	680	770	950
K5	335	380	475	295	340	420	295	335	410	—	—	—	235	270	330	420	475	580
K6	485	560	680	430	490	610	420	480	590	—	—	—	335	385	470	600	680	830
K7	430	490	610	380	430	540	380	430	530	—	—	—	300	345	420	530	610	740
N1	—	—	—	—	—	—	—	—	—	—	—	—	1925	2200	2725	—	—	—
N2	—	—	—	—	—	—	1950	2225	2750	—	—	—	1550	1775	2200	—	—	—
N3	—	—	—	—	—	—	1300	1475	1850	—	—	—	1050	1175	1475	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—	1200	1350	1675	—	—	—
S1	—	—	—	—	—	—	150	170	205	145	160	195	130	145	175	—	—	—
S2	—	—	—	—	—	—	120	135	165	115	130	155	105	115	140	—	—	—
S3	—	—	—	—	—	—	105	120	145	100	115	135	90	105	125	—	—	—
S11	—	—	—	—	—	—	210	240	290	200	225	275	185	205	250	—	—	—
S12	—	—	—	—	—	—	120	135	170	115	130	160	105	120	145	—	—	—
S13	—	—	—	—	—	—	95	110	130	90	105	125	85	95	115	—	—	—
H5	160	180	220	—	—	—	130	145	180	125	145	175	110	125	155	—	—	—
H8	170	195	235	—	—	—	140	155	190	135	155	185	120	135	160	—	—	—
H11	200	225	280	—	—	—	165	185	225	160	180	225	140	160	195	—	—	—
H12	310	345	420	—	—	—	265	300	360	245	275	330	210	240	290	—	—	—
H21	170	195	235	—	—	—	140	155	190	135	155	185	120	135	160	—	—	—

SMG	MS2500		
	100%	70%	30%
P1	990	1125	1400
P2	960	1100	1350
P3	840	960	1200
P4	750	860	1050
P5	720	820	1000
P6	810	920	1125
P7	760	870	1075
P8	710	810	1000
P11	740	850	1025
P12	480	540	660
M1	690	790	970
M2	580	660	800
M3	460	520	640
M4	355	400	485
M5	295	330	405
K1	—	—	—
K2	—	—	—
K3	—	—	—
K4	—	—	—
K5	—	—	—
K6	—	—	—
K7	—	—	—
N1	—	—	—
N2	—	—	—
N3	—	—	—
N11	—	—	—
S1	175	195	235
S2	140	155	190
S3	125	140	165
S11	245	275	335
S12	140	160	195
S13	110	125	155
H5	—	—	—
H8	—	—	—
H11	—	—	—
H12	—	—	—
H21	—	—	—

R220.21-R160



- For insert selection and cutting data recommendations, see page(s) 57-58
- For complete insert programme, see page(s) 78

Ordering and Product No.	Designation	Type of mounting	Dimensions in mm										RMPX°	Spigot size	KG	Spigot length	Insert
			APMXS	APMXE	DCX	DC	DCSFMS	DCB	LF	UTCN	RP						
03136664	R220.21-0050-R160.5A	Arbor	1,8	11	50	33,7	47	22	40	1,03	3,01	0,9	5	0,4	12900	218.19-160	
03136665	R220.21-0052-R160.5A	Arbor	1,8	11	52	35,7	47	22	40	1,03	3,03	0,8	5	0,4	12700	218.19-160	
03136666	R220.21-0063-R160.6A	Arbor	1,8	11	63	47,9	50	27	50	0,98	3,0	0,6	6	0,6	11500	218.19-160	
03136667	R220.21-0066-R160.6A	Arbor	1,8	11	66	50,9	62	27	50	1,05	3,0	0,5	6	0,8	11200	218.19-160	
03136668	R220.21-0080-R160.7A	Arbor	1,8	11	80	63,6	62	27	50	1,04	3,0	0,4	7	1,3	10200	218.19-160	
03136669	R220.21-0084-R160.7A	Arbor	1,8	11	84	67,6	77	32	50	1,03	3,0	0,4	7	1,3	10000	218.19-160	
03136670	R220.21-0084-R160.8A	Arbor	1,8	11	84	67,6	77	32	50	1,03	3,0	0,4	8	1,5	10000	218.19-160	
03136671	R220.21-0100-R160.9A	Arbor	1,8	11	100	83,6	77	32	50	1,03	3,0	0,3	9	1,6	9700	218.19-160	

Spigot size = DCB

Ramping angle = RMPX

UTCN = Uncut thickness, deviation between programmed corner radii (RP) and generated machined profile.

Spare Parts

For cutter	Key (T-handle)	Insert screw	Insert key	Arbor screw	Torque value (Nm)
R220.21-0050-0052	DOUBLE-T	C03510-T15P	H4B-T15P	220.17-692	3,5
R220.21-0063-0080	DOUBLE-T	C03510-T15P	H4B-T15P	MC6S12X35	3,5
R220.21-0084-0100	DOUBLE-T	C03510-T15P	H4B-T15P	950E1645	3,5

Please check availability in current price and stock-list

Torque keys, see page 672 MN2015 Milling

R217/220.21-160 – Insert selection

SMG		a_p	f_z		
			100%	70%	30%
P1	218.19-160T-04-M08 T350M	1,6	0,85	0,85	0,95
P2	218.19-160T-04-M08 T350M	1,6	0,85	0,85	0,95
P3	218.19-160T-04-M08 T350M	1,6	0,80	0,80	0,90
P4	218.19-160T-04-MD11 MS2500	1,6	1,1	1,1	1,2
P5	218.19-160T-04-MD11 MS2500	1,6	1,1	1,1	1,2
P6	218.19-160T-04-MD11 MS2500	1,6	1,1	1,1	1,2
P7	218.19-160T-04-MD11 MS2500	1,6	1,1	1,1	1,2
P8	218.19-160T-04-MD11 MP2500	1,6	1,1	1,1	1,2
P11	218.19-160T-04-MD11 MS2500	1,6	1,1	1,1	1,2
P12	218.19-160T-04-MD11 MS2500	1,0	0,95	0,95	1,0
M1	218.19-160T-04-M08 F40M	1,6	0,85	0,85	0,95
M2	218.19-160T-04-M08 F40M	1,6	0,80	0,80	0,85
M3	218.19-160T-04-M08 F40M	1,0	0,80	0,80	0,90
M4	218.19-160T-04-M08 F40M	0,60	0,70	0,70	0,80
M5	218.19-160T-04-M08 F40M	0,60	0,70	0,70	0,80
K1	218.19-160T-04-MD11 MK2050	1,6	1,2	1,2	1,3
K2	218.19-160T-04-MD11 MK2050	1,6	1,1	1,1	1,2
K3	218.19-160T-04-MD11 MK2050	1,6	1,1	1,1	1,2
K4	218.19-160T-04-MD11 MK2050	1,6	1,1	1,1	1,2
K5	218.19-160T-04-MD11 MK2050	1,6	1,0	1,0	1,1
K6	218.19-160T-04-MD11 MK2050	1,6	1,1	1,1	1,2
K7	218.19-160T-04-MD11 MK2050	1,6	1,0	1,0	1,1
N1	218.19-160-04-E07 H25	1,6	0,95	0,95	1,1
N2	218.19-160-04-E07 H25	1,6	0,95	0,95	1,1
N3	218.19-160-04-E07 H25	1,6	0,95	0,95	1,1
N11	218.19-160-04-E07 H25	1,6	0,95	0,95	1,1
S1	218.19-160T-04-M08 MS2500	0,60	0,70	0,70	0,80
S2	218.19-160T-04-M08 MS2500	0,60	0,70	0,70	0,80
S3	218.19-160T-04-M08 MS2500	0,60	0,65	0,65	0,70
S11	218.19-160T-04-M08 MS2050	0,80	0,80	0,80	0,90
S12	218.19-160T-04-M08 MS2050	0,80	0,80	0,80	0,90
S13	218.19-160T-04-M08 MS2050	0,60	0,70	0,70	0,80
H5	218.19-160T-04-MD11 MH1000	1,0	0,80	0,80	0,90
H8	218.19-160T-04-MD11 MH1000	0,75	0,65	0,65	0,70
H11	218.19-160T-04-MD09 MP3000	1,0	0,65	0,65	0,70
H12	218.19-160T-04-M08 T350M	0,75	0,46	0,46	0,50
H21	218.19-160T-04-MD11 MH1000	0,75	0,65	0,65	0,70

SMG = Seco material group

f_z = mm/tooth

v_c = m/min

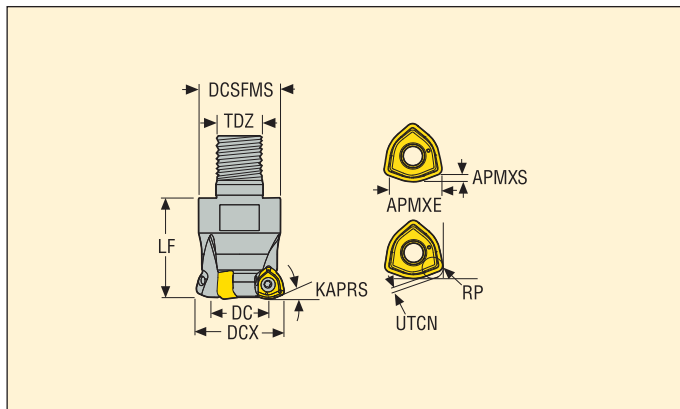
a_g/DC = %

All cutting data are start values

R217.21-R230



- For insert selection and cutting data recommendations, see page(s) 60-61
- For complete insert programme, see page(s) 77



Ordering and Product No.	Designation	Type of mounting	Dimensions in mm									KAPRS°	RMPX°				Insert
			APMXS	APMXE	DCX	DC	DCSFMS	TDZ	LF	UTCN	RP						
03136708	R217.21-2040.RE-R230.3A	Combimaster	1,8	10	40	25,6	36,5	M20	45	0,88	3,32	21,3	1,4	3	0,4	12100	218.21-..
03136709	R217.21-2042.RE-R230.3A	Combimaster	1,8	10	42	27,6	36,5	M20	45	0,88	3,32	21,3	1,3	3	0,4	12100	218.21-..

UTCN = Uncut thickness, deviation between programmed corner radii (RP) and generated machined profile.

Ramping angle = RMPX

Spare Parts

For cutter	Key (T-handle)	Insert screw	Insert key	Torque value (Nm)
R217.21-2040-2042	DOUBLE-T	C04011-T15P	H4B-T15P	3,5

Please check availability in current price and stock-list

Torque keys, see page 672 MN2015 Milling

R217/220.21-R230 – Insert selection

SMG		a_p	f_z		
			100%	70%	30%
P1	218.21-230TR-06-ME13 T350M	1,6	0,85	0,85	0,95
P2	218.21-230TR-06-ME13 T350M	1,6	0,90	0,90	0,95
P3	218.21-230TR-06-ME13 T350M	1,6	0,85	0,85	0,90
P4	218.21-230TR-06-M15 MP2500	1,6	0,95	0,95	1,0
P5	218.21-230TR-06-M15 MP2500	1,6	0,90	0,90	1,0
P6	218.21-230TR-06-M15 MP2500	1,6	0,90	0,90	1,0
P7	218.21-230TR-06-M15 MP2500	1,6	0,90	0,90	1,0
P8	218.21-230TR-06-M15 MP2500	1,6	0,95	0,95	1,0
P11	218.21-230TR-06-ME13 T350M	1,6	0,80	0,80	0,90
P12	218.21-230TR-06-M15 MS2500	1,0	0,80	0,80	0,85
M1	218.21-230TR-06-ME13 T350M	1,6	0,90	0,90	0,95
M2	218.21-230TR-06-ME13 T350M	1,6	0,80	0,80	0,90
M3	218.21-230TR-06-ME13 T350M	1,0	0,80	0,80	0,90
M4	218.21-230TR-06-ME13 MM4500	0,60	0,70	0,70	0,80
M5	218.21-230TR-06-ME13 MM4500	0,60	0,70	0,70	0,80
K1	218.21-230TR-06-MD17 MK2050	1,6	1,2	1,2	1,3
K2	218.21-230TR-06-MD17 MK2050	1,6	1,1	1,1	1,2
K3	218.21-230TR-06-MD17 MK2050	1,6	1,1	1,1	1,2
K4	218.21-230TR-06-MD17 MK2050	1,6	1,1	1,1	1,2
K5	218.21-230TR-06-MD17 MK2050	1,6	1,0	1,0	1,1
K6	218.21-230TR-06-MD17 MK2050	1,6	1,1	1,1	1,2
K7	218.21-230TR-06-MD17 MK2050	1,6	1,0	1,0	1,1
S1	218.21-230TR-06-ME13 MS2500	0,60	0,70	0,70	0,80
S2	218.21-230TR-06-ME13 MS2500	0,60	0,70	0,70	0,80
S3	218.21-230TR-06-M15 F40M	0,60	0,75	0,75	0,80
S11	218.21-230TR-06-ME13 MS2050	0,80	0,80	0,80	0,90
S12	218.21-230TR-06-ME13 MS2050	0,80	0,80	0,80	0,90
S13	218.21-230TR-06-ME13 MS2050	0,60	0,70	0,70	0,80
H5	218.21-230TR-06-MD17 MP3000	1,0	0,80	0,80	0,90
H8	218.21-230TR-06-MD17 MP3000	0,75	0,65	0,65	0,70
H11	218.21-230TR-06-M15 T350M	1,0	0,65	0,65	0,75
H12	218.21-230TR-06-M15 T350M	0,75	0,50	0,50	0,55
H21	218.21-230TR-06-MD17 MP3000	0,75	0,65	0,65	0,70
H31	218.21-230TR-06-MD17 MP3000	—	—	—	—

SMG = Seco material group

f_z = mm/tooth

v_c = m/min

a_e/DC = %

All cutting data are start values

R217/220.21-R230 – Cutting data $v_c =$ (m/min)

SMG	MP1500			MP2500			MP3000			T350M			F40M			MM4500		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	260	300	370	260	300	370	215	250	310	225	265	320	195	230	280	175	200	245
P2	250	290	360	255	295	360	210	245	300	220	255	315	190	225	270	165	190	235
P3	215	250	310	220	255	320	180	210	260	195	225	275	170	195	240	145	170	205
P4	195	225	280	195	225	280	165	190	235	170	195	245	150	170	210	130	150	180
P5	185	215	265	190	220	265	155	180	225	165	190	235	145	165	205	125	145	175
P6	210	245	300	215	245	300	175	205	250	185	215	260	160	185	225	140	160	195
P7	200	230	280	200	235	285	165	190	235	175	205	245	150	175	215	130	150	185
P8	180	210	260	185	215	265	150	175	215	160	190	235	140	165	205	120	140	175
P11	190	225	275	195	225	275	160	185	230	170	195	240	150	170	210	130	150	180
P12	130	150	180	130	150	180	110	125	155	115	130	160	100	115	135	85	100	120
M1	—	—	—	185	210	260	155	180	225	170	200	240	155	180	220	140	165	205
M2	—	—	—	155	175	215	130	150	185	140	165	200	130	150	180	120	140	165
M3	—	—	—	130	145	175	110	125	150	120	135	165	110	125	150	100	115	135
M4	—	—	—	105	120	140	90	105	125	100	110	130	90	100	120	80	95	110
M5	—	—	—	90	100	120	75	85	100	80	95	110	75	85	100	70	80	90
K1	200	230	285	200	235	285	165	195	240	—	—	—	150	175	215	165	195	240
K2	175	205	250	180	210	255	150	170	210	—	—	—	135	160	190	150	175	210
K3	150	175	215	150	175	215	125	145	180	—	—	—	115	135	165	125	145	180
K4	145	165	205	145	170	205	120	140	170	—	—	—	110	130	155	120	140	170
K5	90	100	125	90	105	125	75	85	105	—	—	—	70	80	95	75	85	105
K6	125	145	180	130	150	180	105	125	150	—	—	—	95	110	135	105	125	150
K7	110	130	160	115	135	160	95	110	135	—	—	—	85	100	120	95	110	135
S1	—	—	—	—	—	—	43	48	55	46	50	60	42	48	55	25	29	33
S2	—	—	—	—	—	—	34	39	46	37	42	50	34	38	45	20	23	27
S3	—	—	—	—	—	—	30	35	41	33	37	44	30	34	40	18	20	24
S11	—	—	—	—	—	—	60	65	80	60	70	85	55	65	75	34	39	46
S12	—	—	—	—	—	—	33	38	46	36	41	49	33	37	45	26	30	35
S13	—	—	—	—	—	—	28	31	37	30	34	40	27	31	36	22	25	29
H5	46	50	65	42	48	55	36	41	49	40	46	55	35	40	48	—	—	—
H8	50	55	70	46	50	60	39	44	55	44	50	60	38	44	50	—	—	—
H11	60	65	80	55	60	75	46	50	65	50	60	70	44	50	60	—	—	—
H12	90	100	120	90	105	125	75	85	105	80	90	105	70	80	95	—	—	—
H21	50	55	70	46	50	60	39	44	55	44	50	60	38	44	50	—	—	—

SMG	MK2050			MS2050			MS2500		
	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	225	260	320	235	270	330	305	355	430
P2	220	255	315	225	260	320	295	340	420
P3	190	220	270	195	230	280	255	300	370
P4	170	200	245	175	205	245	230	270	325
P5	165	190	230	170	195	235	220	255	310
P6	185	210	260	190	220	265	245	285	345
P7	175	200	245	180	205	250	235	270	330
P8	160	185	225	165	190	235	215	250	310
P11	170	195	240	175	200	245	225	265	320
P12	115	130	160	115	135	160	150	175	210
M1	—	—	—	180	210	260	210	245	300
M2	—	—	—	150	175	215	175	205	245
M3	—	—	—	125	145	175	145	170	200
M4	—	—	—	105	120	140	120	140	160
M5	—	—	—	85	100	115	100	115	135
K1	235	275	335	—	—	—	—	—	—
K2	210	245	300	—	—	—	—	—	—
K3	180	205	255	—	—	—	—	—	—
K4	170	195	240	—	—	—	—	—	—
K5	105	120	150	—	—	—	—	—	—
K6	150	175	215	—	—	—	—	—	—
K7	135	155	190	—	—	—	—	—	—
S1	—	—	—	49	55	65	60	70	80
S2	—	—	—	39	45	50	48	55	65
S3	—	—	—	35	39	47	42	48	55
S11	—	—	—	65	75	90	80	90	110
S12	—	—	—	38	44	50	46	55	65
S13	—	—	—	32	36	42	39	44	50
H5	—	—	—	—	—	—	—	—	—
H8	—	—	—	—	—	—	—	—	—
H11	—	—	—	—	—	—	—	—	—
H12	—	—	—	—	—	—	—	—	—
H21	—	—	—	—	—	—	—	—	—

Introduction

Secomax ceramics include a range of products developed to meet the manufacturing industries ever increasing demands on productivity and product performance. The inserts are die-pressed and sintered by a HIP process using very fine and pure raw materials with fine microstructure to reach excellent material properties. All surfaces are then ground ensuring a product with superior dimensions and tolerances.

This comes together in a product with outstanding features:

- high thermal shock resistance
- optimised fracture toughness
- excellent wear resistance
- high product quality

Application areas

Heat resistant superalloys (HRSA) include a broad range of nickel, iron and cobalt based alloys developed specifically for applications demanding exceptional mechanical and chemical properties at elevated temperatures.

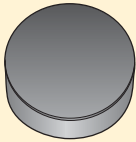
Seco ceramic inserts are intended for rough machining of nickel based heat resistant superalloys. The most common nickel based superalloy is Inconel 718, which is a precipitation hardenable nickel chromium alloy containing significant amounts of iron, niobium and molybdenum along with lesser amounts of aluminium and titanium.

Other common nickel based superalloy names are:

- Hastalloy
- Haynes (Waspaloy)
- MAR
- Nimonic
- Rene
- Udimet

Introduction

CS300



Format:
Solid.

Composition:
Sialon (Si, Al, O, N) ceramic grade.

Coating:
No coating.

Edge preparation

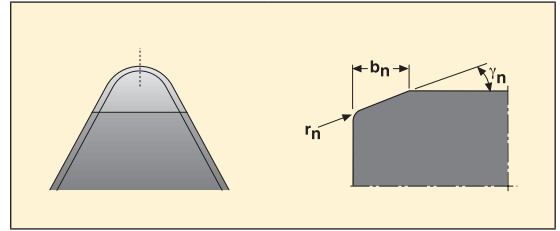
- S = Chamfered and honed
- T = Chamfered, no honing
- E = Honed

Chamfer size and angle

CS100 = 0,10 mm x 20°

CS300 = 0,10 mm x 20°

CW100 = Honed



b_n = Chamfer width
 γ_n = Chamfer angle
 r_n = Hone radius

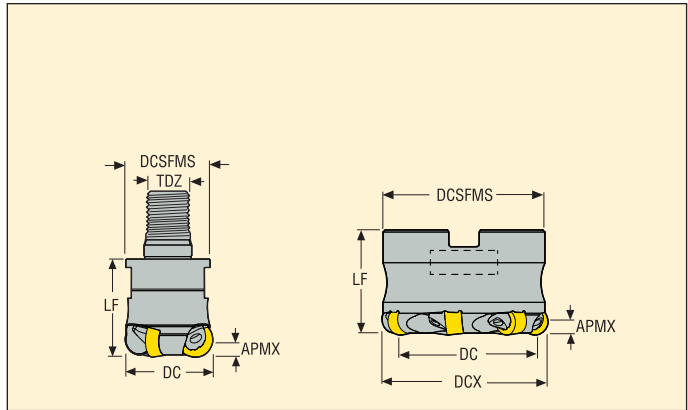
ISO classification

	P					M				K				N			S				H							
	P01	P10	P20	P30	P40	P50	M01	M10	M20	M30	M40	K01	K10	K20	K30	K40	N01	N10	N20	N30	S01	S10	S20	S30	H01	H10	H20	H30
CS100																												
CS300																												
CW100																												

R217/220.26



- For insert selection and cutting data recommendations, see page(s) 66
- For complete insert programme, see page(s) 72



Ordering and Product No.	Designation	Type of mounting	Dimensions in mm							⊘	KG		Insert
			APMX	DCX	DC	DCSFMS	DCB	TDZ	LF				
03115686	R217.26-1632.RE-RN1204.3A	Combimaster	6	32	19	30	27	M16	35	3	0,2	19100	RN1204
03115678	R217.26-1632.RE-RP1204.3	Combimaster	6	32	19	30	27	M16	35	3	0,2	20800	RP1204
03115687	R217.26-2040.RE-RN1204.4A	Combimaster	6	40	27	37	27	M20	40	4	0,4	17100	RN1204
03115679	R217.26-2040.RE-RP1204.4A	Combimaster	6	40	27	37	27	M20	40	4	0,4	18600	RP1204
03115702	R220.26-0050-RN1204.6A	Arbor	6	50	37	47	22	-	45	6	0,4	16700	RN1204
03133188	R220.26-0050-RP1204.6A	Arbor	6	50	37	47	22	-	45	6	0,4	16700	RP1204
03115710	R220.26-0050-RN1207.5A	Arbor	6	50	37	47	22	-	45	5	0,4	11900	RN1207
03115711	R220.26-0063-RN1207.6A	Arbor	6	63	50	60	27	-	50	6	0,8	10600	RN1207
03115712	R220.26-0063-RN1207.7A	Arbor	6	63	50	60	27	-	50	7	0,8	10600	RN1207
03115713	R220.26-0080-RN1207.7A	Arbor	6	80	67	77	32	-	50	7	1,3	9400	RN1207
03115714	R220.26-0080-RN1207.8A	Arbor	6	80	67	77	32	-	50	8	1,3	9400	RN1207
03115715	R220.26-0100-RN1207.8A	Arbor	6	100	87	90	40	-	63	8	2,5	8400	RN1207
03115716	R220.26-0125-RN1207.9	Arbor	6	125	112	90	40	-	63	9	3,6	7500	RN1207

Spigot size = DCB

Spare Parts

For cutter	Wedge screw 	Wedge key 	Wedge clamp 	Key (T-handle) 	Torque value (Nm)
R217/220.26-..	LD5015C	H4B-H2.5	CW0508	DOUBLE-T	2,5

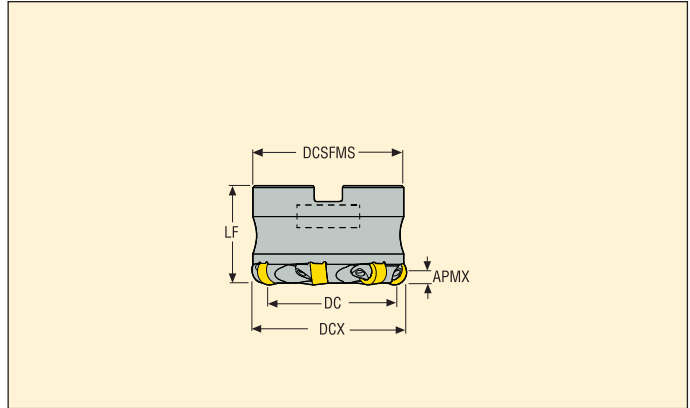
Please check availability in current price and stock-list

Torque keys, see page 672 MN2015 Milling

R217/220.26 - Inch



- For insert selection and cutting data recommendations, see page(s) 66
- For complete insert programme, see page(s) 72



Ordering and Product No.	Designation	Type of mounting	Dimensions in inch						Insert			
			APMX	DCX	DC	DCSFMS	DCB	LF				
03115723	R220.26-02.00-RN1207.5A	Arbor	0.236	2.00	1.50	1.75	0.75	2.00	5	1.1	11900	RN1207
03115724	R220.26-02.50-RN1207.6A	Arbor	0.236	2.50	2.00	2.25	1.00	2.00	6	1.8	10600	RN1207
03115725	R220.26-03.00-RN1207.7A	Arbor	0.236	3.00	2.50	2.75	1.25	2.00	7	2.6	9400	RN1207

Spigot size = DCB

Spare Parts

For cutter	Wedge screw	Wedge key	Wedge clamp	Key (T-handle)	Torque value (Nm)
R220.26-..	LD5015C	H4B-H2.5	CW0508	DOUBLE-T	2.5

Please check availability in current price and stock-list
Torque keys, see page 672 MN2015 Milling

Superalloys and titanium

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
S3	Nickel-based superalloys		Inconel 718	2530	0,21

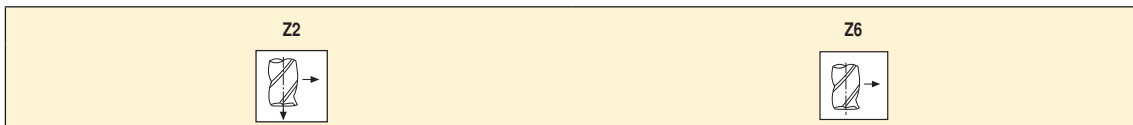
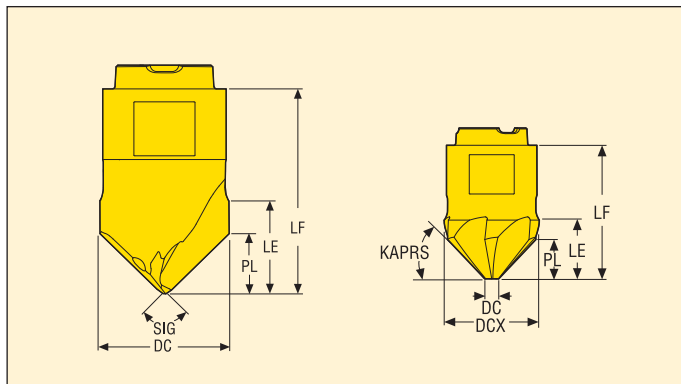
Ceramic, Roughing a_p 0,5 – 3,0 mm

SMG	CS300	
	v_c	f_z
S1	600 — 1200	0,05 — 0,15
S2	600 — 1200	0,05 — 0,15
S3	600 — 1200	0,05 — 0,15

Ceramic, Roughing a_p 0.04 – 0.12 inch

SMG	CS300	
	v_c	f_z
S1	1,960 — 3,930	0.002 — 0.006
S2	1,960 — 3,930	0.002 — 0.006
S3	1,960 — 3,930	0.002 — 0.006

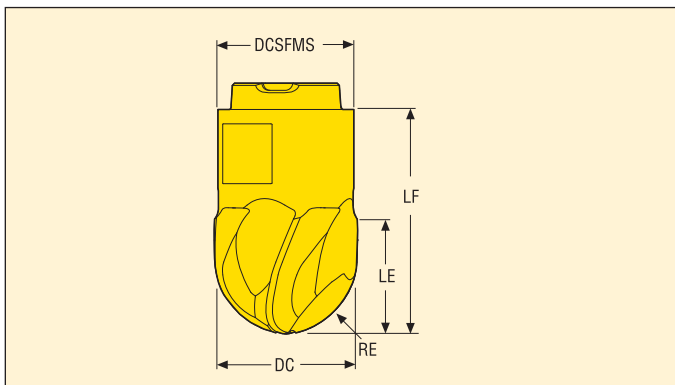
MP10-16 Centre drilling



Ordering and Product No.	Designation	Dimensions in mm								ZNP	Coated	Grades	
		APMX	DCX	DC	PL	LE	LF	SIG°	KAPRS*			MP3000	F-40M
02880957	MP10-10006C90Z2-M03	4,6	-	10,0	4,6	7,1	16,0	90,0	45,0	2	✓	■	
02880959	MP12-12007C90Z2-M04	5,6	-	12,0	5,6	8,7	19,0	90,0	45,0	2	✓	■	
02880961	MP16-16009C90Z2-M05	7,4	-	16,0	7,4	12,0	26,4	90,0	45,0	2	✓	■	
02880958	MP10-10006C90Z6-M03	4,0	10,1	1,95	4,0	4,0	14,5	90,0	45,0	6		■	
02880960	MP12-12007C90Z6-M04	4,4	12,1	2,95	4,4	4,4	18,0	90,0	45,0	6		■	
02880962	MP16-16009C90Z6-M05	6,0	16,4	3,95	6,0	6,0	23,8	90,0	45,0	6		■	

ZNP = Effective number of flutes

MP10-16 Ball nose design



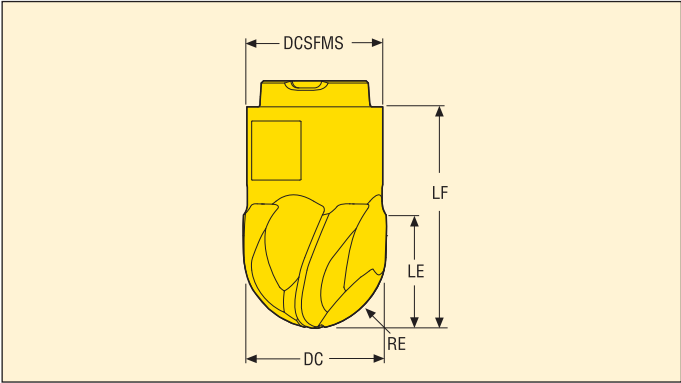
Z4



Ordering and Product No.	Designation	Dimensions in mm					ZNP		Coated			
		DC	RE	LE	DCSFMS	LF			Grades			
									MP3000	F40M		
02880951	MP10-10007B90Z4-E02	10,0	5,0	7,0	9,6	16,0	4					
02880952	MP10-10007B90Z4-M02	10,0	5,0	7,0	9,6	16,0	4	■				
02880953	MP12-12008B90Z4-E03	12,0	6,0	8,0	11,5	18,7	4		■			
02880954	MP12-12008B90Z4-M03	12,0	6,0	8,0	11,5	18,7	4	■				
02880955	MP16-16010B90Z4-E04	16,0	8,0	10,0	15,4	24,6	4			■		
02880956	MP16-16010B90Z4-M04	16,0	8,0	10,0	15,4	24,6	4	■				

ZNP = Effective number of flutes

MP10-16 Ball nose design - Inch

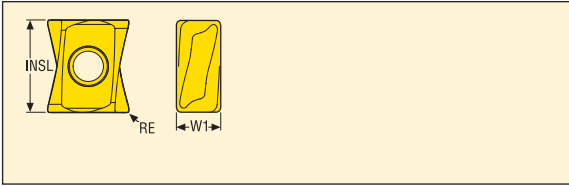


Z4

Ordering and Product No.	Designation	Dimensions in inch					ZNP		Coated			
		DC	RE	LE	DCSFMS	LF			Grades			
									MP3000	F40M		
02880994	MP10-00.375-.28-B90Z4-E02	0.375	0.187	0.276	0.370	0.630	4		■			
02880995	MP10-00.375-.28-B90Z4-M02	0.375	0.187	0.276	0.370	0.630	4	■				
02880996	MP12-0.500-.31-B90Z4-E03	0.500	0.250	0.315	0.453	0.736	4		■			
02880997	MP12-0.500-.31-B90Z4-M03	0.500	0.250	0.315	0.453	0.736	4	■				
02880998	MP16-0.625-.39-B90Z4-E04	0.625	0.312	0.394	0.606	0.969	4		■			
02880999	MP16-0.625-.39-B90Z4-M04	0.625	0.312	0.394	0.606	0.969	4	■				

ZNP = Effective number of flutes

LOEX08/12 Metric/Inch



Size	Dimensions in mm		Dimensions in inch	
	W1	INSL	W1	INSL
LOEX0804..	4,4	9,3	0.173	0.366
LOEX1207..	7,5	14,2	0.295	0.559

M08/MD08



M09/M12/MD13

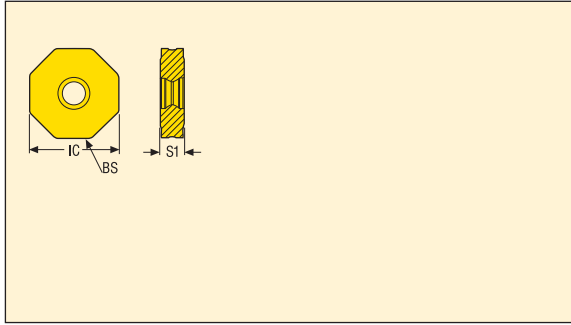


Designation	RE	RE	Cutting rake	Grades																				
				Coated											Uncoated			Cermets						
				MP1500	MP2050	MP2500	MP3000	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F25M	F40M	HX	H15	H25	MP1020		
LOEX080404TR-M08	0,4	0.016	34,3 °	■		■	■			■														
LOEX080408TR-M08	0,8	0.031	34,0 °	■	■	■	■			■	■	■												
LOEX080412TR-M08	1,2	0.047	34,3 °	■	■	■	■			■	■	■												
LOEX080416TR-M08	1,6	0.063	34,3 °	■	■	■	■			■	■	■	■											
LOEX080404TR-MD08	0,4	0.016	29,0 °			■				■														
LOEX080408TR-MD08	0,8	0.031	29,5 °	■		■				■	■													
LOEX080412TR-MD08	1,2	0.047	29,5 °			■				■	■													
LOEX080416TR-MD08	1,6	0.063	29,5 °			■				■	■													
LOEX120708TR-M12	0,8	0.031	35,0 °		■	■	■			■	■	■	■											
LOEX120712TR-M12	1,2	0.047	35,0 °			■				■	■													
LOEX120716TR-M12	1,6	0.063	35,0 °							■	■													
LOEX120720TR-M12	2,0	0.079	35,0 °				■	■																
LOEX120724TR-M12	2,4	0.094	35,0 °				■				■													
LOEX120731TR-M12	3,1	0.122	35,0 °				■	■			■	■												
LOEX120708TR-MD13	0,8	0.031	30,0 °	■		■				■	■													
LOEX120712TR-MD13	1,2	0.047	30,0 °	■		■				■	■													
LOEX120716TR-MD13	1,6	0.063	30,0 °	■		■				■	■													
LOEX120708R-M09	0,8	0.031	36,0 °		■	■	■																	
LOEX120716R-M09	1,6	0.063	36,0 °			■				■	■	■	■											
LOEX120724R-M09	2,4	0.094	36,0 °				■			■	■	■	■											
LOEX120731R-M09	3,1	0.122	36,0 °		■		■			■	■	■	■											
LOEX120740R-M09	4,0	0.157	36,0 °							■	■	■	■											
LOEX120750R-2-M09	5,0	0.197	36,0 °							■														
LOEX120763R-2-M09	6,3	0.248	36,0 °							■														

■ Stock standard
 Subject to change refer to current price- and stock-list

Note: LOEX1207xxR-2-M09 have only 2 edges

ON.U05/09 Metric/Inch



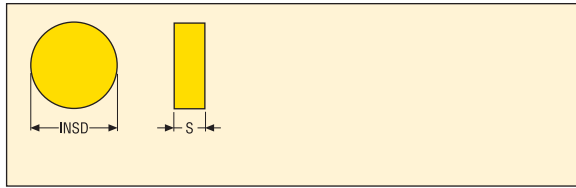
Size	Dimensions in mm			Dimensions in inch		
	IC	S1	BS	IC	S1	BS
..050410..M10/ME10	12,0	4,0	0,3	0.472	0.157	0.012
..050410..M11/ME11	12,0	4,0	1,0	0.472	0.157	0.039
..05..ZZ..M10	12,0	4,5	3,2	0.472	0.177	0.126
..090520..M12/ME12/M14/MD16	22,0	5,8	0,45	0.866	0.228	0.018
..090520..M13/ME13/M15/MD17	22,0	5,8	2,11	0.866	0.228	0.083
..090510..M12	22,0	5,8	0,0	0.866	0.228	-
..09..ZZ..M12	21,406	6,8	6,3	0.843	0.268	0.248
..09..ZZ..M14	21,41	5,8	6,3	0.843	0.228	0.248



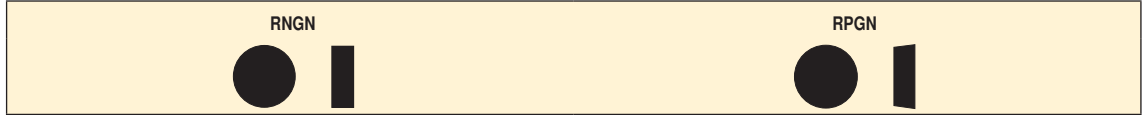
Designation	Cutting rate	Grades																			
		Coated														Uncoated			Cermet		
		MP1500	MP2050	MP2500	MP3000	MH1000	MN4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F25M	F40M	HX	H15	H25	MP1020	
ONMU050410ANTN-ME10	20,0°	■		■	■		■	■	■						■						
ONMU050410ANTN-ME11	20,0°	■		■	■		■	■	■						■						
ONMU050410ANTN-M10	20,0°	■	■	■	■		■	■	■			■			■						
ONMU050410ANTN-M11	20,0°	■	■	■	■		■	■	■			■			■						
ONEU050410ZZTN4-M10	20,0°			■	■		■	■	■			■			■						
ONMU090520ANTN-ME12	20,0°	■		■	■		■	■	■	■		■			■						
ONMU090520ANTN-ME13	20,0°	■		■	■		■	■	■	■		■			■						
ONMU090510ANTN-M12	20,0°		■						■	■	■	■	■	■	■						
ONMU090520ANTN-M12	20,0°	■	■	■			■	■	■	■		■			■						
ONMU090520ANTN-M13	20,0°	■	■	■			■	■	■	■		■			■					■	
ONMU090520ANTN-M14	15,0°	■		■	■		■	■	■			■			■						
ONMU090520ANTN-M15	15,0°	■		■	■		■	■	■			■			■						
ONMU090520ANTN-MD16	0,0°	■		■			■	■	■			■			■						
ONMU090520ANTN-MD17	0,0°	■		■			■	■	■			■			■						
ONEU090520ZZTN4-M12	20,0°	■		■	■		■	■	■			■			■					■	
ONEU090520ZZTN4-M14	15,0°	■		■	■		■	■	■			■			■					■	

■ Stock standard
 Subject to change refer to current price- and stock-list

RNGN12 Metric/Inch



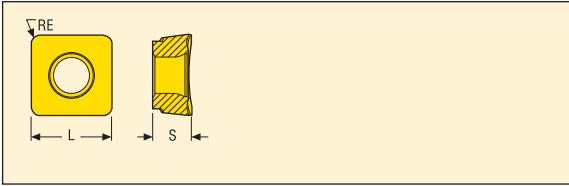
Size	Dimensions in mm		Dimensions in inch	
	INSD	S	INSD	S
12	12,7	4,76	0.500	0.187
12	12,7	7,94	0.500	0.313



Designation	Cutting rake	Grades			
		Uncoated			
		CS300			
RNGN120400T-01020	0,0 °	■			
RNGN120700T-01020	0,0 °	■			
RPGN120400T-01020	0,0 °	■			

■ Stock standard
Subject to change refer to current price- and stock-list

SC..12 Metric/Inch



Size	Dimensions in mm		Dimensions in inch	
	L	S	L	S
SC..1206	12,7	6,35	0.500	0.250
SC..1206	12,673	6,35	0.499	0.250

ME10



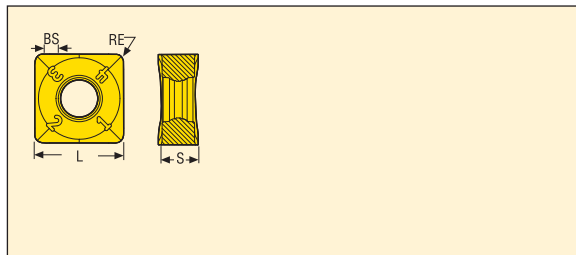
M11/M14/MD15/MD16



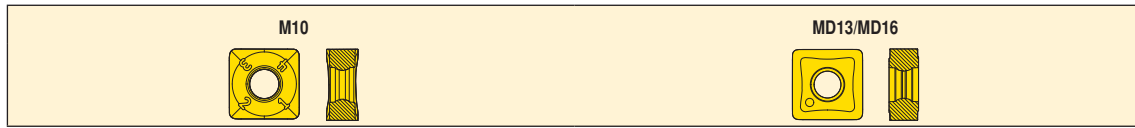
Designation	RE	RE	Cutting rake	Grades																				
				Coated												Uncoated			Cermet					
				MP1500	MP2500	MP3000	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F25M	F40M	HX	H15	H25	MP1020			
SCET120612T-ME10	1,2	0.047	22,0 °									■							■					
SCET120612T-M11	1,2	0.047	14,0 °	■	■				■			■								■				
SCET120612T-M14	1,2	0.047	15,0 °		■				■			■								■	■			
SCET120612T-MD15	1,2	0.047	15,0 °	■								■								■				
SCET120630T-M14	3,0	0.118	15,0 °		■	■					■									■				
SCET120630T-MD16	3,0	0.118	15,0 °	■	■							■								■				
SCET120631T-ME10	3,1	0.122	22,0 °											■										
SCET120631T-M11	3,1	0.122	14,0 °											■										
SCEX120660T-M14	6,0	0.236	15,0 °																					
SCMT120612T-M14	1,2	0.047	15,0 °																					
SCET120612R-M10	1,2	0.047	20,0 °											■										

■ Stock standard
 Subject to change refer to current price- and stock-list

SNMU Metric/Inch



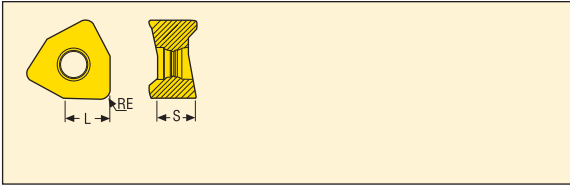
Size	Dimensions in mm			Dimensions in inch		
	L	S	BS	L	S	BS
SNMU120408-M10	12,0	5,3	0,0	0.472	0.209	—
SNMU12-M10	12,0	5,3	1,0	0.472	0.209	0.039
SNMU120408-MD13	12,0	5,0	0,0	0.472	0.197	—
SNMU12-MD13	12,0	5,0	1,0	0.472	0.197	0.039
SNMU160610-M10	16,0	7,4	0,0	0.630	0.291	—
SNMU16-M10	16,0	7,4	1,2	0.630	0.291	0.047
SNMU160610-MD16	16,0	6,6	0,0	0.630	0.260	—
SNMU16-MD16	16,0	6,6	1,2	0.630	0.260	0.047



Designation	RE	RE	Cutting rate	Grades																			
				Coated												Uncoated			Cermet				
				MP1500	MP2050	MP2500	MP3000	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F25M	F40M	HX	H15	H25	MP1020	
SNMU120408TN-M10	0,8	0,031	20,0 °	■	■																		
SNMU120410TN-M10	1,0	0,039	20,0 °	■	■																		
SNMU120408TN-MD13	0,8	0,031	0,0 °	■	■																		
SNMU120410TN-MD13	1,0	0,039	0,0 °	■	■																		
SNMU160610TN-M10	1,0	0,039	20,0 °	■	■																		
SNMU160612TN-M10	1,2	0,047	20,0 °	■	■																		
SNMU160610TN-MD16	1,0	0,039	0,0 °	■	■																		
SNMU160612TN-MD16	1,2	0,047	0,0 °	■	■																		

■ Stock standard
Subject to change refer to current price- and stock-list

XNEX08 Metric/Inch



Size	Dimensions in mm		Dimensions in inch	
	L	S	L	S
XN..08	7,5	6,45	0.295	0.254
XN..08..ZZ	7,5	6,45	0.295	0.254
XN..08..TL	7,5	6,45	0.295	0.254

ME09/M08/M13/MD15



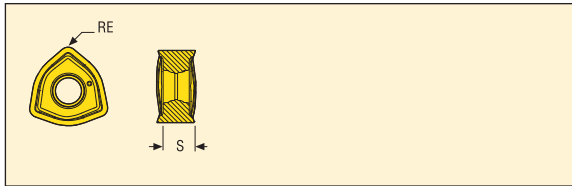
ZZR-M11



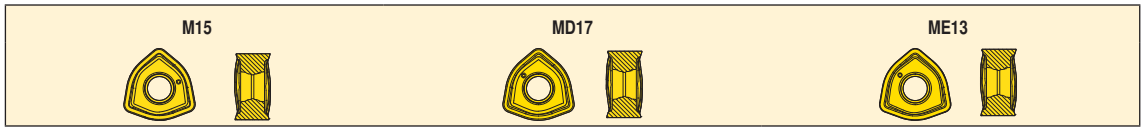
Designation	RE	RE	Cutting rake	Grades																							
				Coated											Uncoated			Cermet									
				MP1500	MP2050	MP2500	MP3000	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F25M	F40M	HX	H15	H25	MP1020					
XNEX080604TR-M13	0,4	0.016	22,0°																								
XNEX080604TR-ME09	0,4	0.016	27,0°				■																				
XNEX080608R-M08	0,8	0.031	24,0°		■		■																				
XNEX080608TR-M13	0,8	0.031	22,0°	■		■	■				■	■															
XNEX080608TR-MD15	0,8	0.031	17,0°	■		■	■				■	■															
XNEX080608TR-ME09	0,8	0.031	27,0°	■		■	■				■	■															
XNEX080612TR-M13	1,2	0.047	22,0°			■					■	■															
XNEX080612TR-MD15	1,2	0.047	17,0°	■		■					■	■														■	
XNEX080612TR-ME09	1,2	0.047	27,0°			■					■	■															
XNEX080616TR-M13	1,6	0.063	22,0°	■		■	■				■	■															
XNEX080616TR-MD15	1,6	0.063	17,0°	■		■	■				■	■															
XNEX080616TR-ME09	1,6	0.063	27,0°			■	■				■	■															
XNEX080608ZZR-M11	0,8	0.031	19,0°					■																			
XNEX080608TL-M13	0,8	0.031	22,0°			■						■															
XNEX080616TL-M13	1,6	0.063	22,0°			■																					

■ Stock standard
Subject to change refer to current price- and stock-list

218.21 Metric/Inch



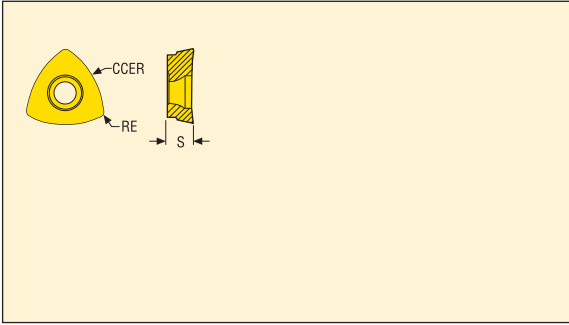
Size	Dimensions in mm		Dimensions in inch	
	S		S	
230T	5,95		0.234	
230T	6,02		0.237	



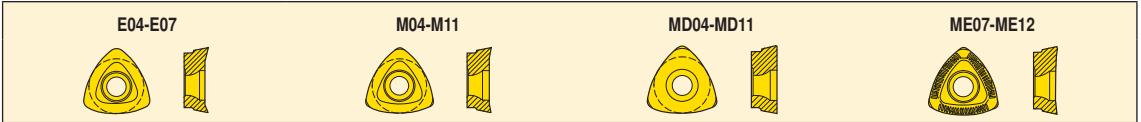
Designation	RE	RE	Cutting rake	Grades														MP1020			
				Coated											Uncoated						Cermat
				MP1500	MP2050	MP2500	MP3000	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F25M				F40M
218.21-230TR-06-ME13	1,6	0,063	21,0 °							■				■	■		■				
218.21-230TR-06-M15	1,6	0,063	17,0 °	■	■	■							■	■		■					
218.21-230TR-06-MD17	1,6	0,063	7,0 °	■		■	■				■			■							

■ Stock standard
Subject to change refer to current price- and stock-list

218.19 Metric/Inch

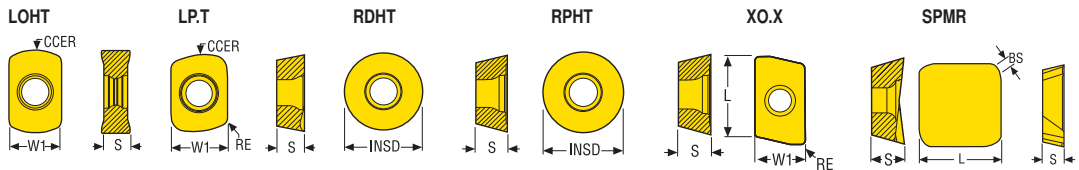


Size	Dimensions in mm		Dimensions in inch	
	CCER	S	CCER	S
100	10,0	2,78	0.394	0.109
125.T3	12,5	3,97	0.492	0.156
160.04	16,0	4,76	0.630	0.187
200.05	20,0	5,5	0.787	0.217
250.06	25,0	6,35	0.984	0.250
080	8,0	2,38	0.315	0.094
150.04	15,0	4,76	0.591	0.187



Designation	RE	RE	Cutting rake	Grades																		
				Coated												Uncoated			Cermet			
				MP1500	MP2050	MP2500	MP3000	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F25M	F40M	HX	H15	H25	MP1020
218.19-100-E06	0,8	0.031	20,0 °																			
218.19-125-T3-E06	0,8	0.031	20,0 °																			■
218.19-160-04-E07	1,2	0.047	20,0 °																			■
218.19-125T-T3-ME07	0,8	0.031	20,0 °														■					
218.19-160T-04-ME08	1,2	0.047	20,0 °														■					
218.19-200T-05-ME10	0,6	0.024	20,0 °														■					
218.19-250T-06-ME12	1,2	0.047	20,0 °											■								
218.19-080T-M04	0,4	0.016	7,0 °			■																
218.19-100T-M06	0,8	0.031	7,0 °			■	■			■							■					
218.19-125T-T3-M07	0,8	0.031	10,0 °			■	■			■							■					
218.19-150T-04-M08	1,2	0.047	10,0 °											■								
218.19-160T-04-M11	1,2	0.047	15,0 °	■		■																
218.19-160T-04-M08	1,2	0.047	10,0 °		■	■	■			■	■			■			■					
218.19-200T-05-M10	0,6	0.024	10,0 °														■	■				
218.19-080T-MD04	0,4	0.016	0,0 °			■																
218.19-100T-MD08	0,8	0.031	0,0 °	■		■				■												
218.19-125T-T3-MD10	0,8	0.031	0,0 °	■		■				■												
218.19-125T-T3-MD08	0,8	0.031	0,0 °																			
218.19-160T-04-MD11	1,2	0.047	0,0 °	■		■	■			■												
218.19-160T-04-MD09	1,2	0.047	0,0 °																			

■ Stock standard
Subject to change refer to current price- and stock-list



Designation	Dimensions in mm					Dimensions in inch					Grades				
	RE	Cutting rake	S	W1	CCER	RE	Cutting rake	S	W1	CCER	Coated				
											MP1500	MP2050	MP2500	MK1500	MK2050
LOHT060310TR-M07	1.0	20.0 °	3.6	6.35	5.5	0.039	20.0 °	0.141	0.250	0.217		■			
LPHT060310TR-M06	1.0	11.0 °	3.2	6.34	8.0	0.039	11.0 °	0.125	0.250	0.315		■			
LPKT05T210TR-M05	1.0	11.0 °	2.5	5.07	6.4	0.039	11.0 °	0.100	0.200	0.252		■			

Designation	Dimensions in mm			Dimensions in inch			Grades					
	Cutting rake	INSD	S	Cutting rake	INSD	S	Coated					
							MP1500	MP2050	MP2500	MK1500	MK2050	
RDHT10T3M0T-M05	16.0	10.0	4.0	16.0 °	0.394	0.156		■				
RPHT1204M0-4-E05	20.0	12.0	4.8	20.0 °	0.472	0.187		■				
RPHT1605M0T-M12	15.0	16.0	5.6	15.0 °	0.630	0.219		■				
RPHT2006M0T-ME12	20.0	20.0	6.4	20.0 °	0.787	0.250		■				

Designation	Dimensions in mm						Dimensions in inch						Grades					
	RE	Cutting rake	LE	S	BS	W1	RE	Cutting rake	LE	S	BS	W1	Coated					
													MP1500	MP2050	MM4500	MP2500	MK1500	MK2050
XOEX10T308R-M06	0.8	15.0 °	9.7	3.8	1.3	6.9	0.031	15.0 °	0.382	0.150	0.051	0.272		■				
XOEX10T331R-M06	3.1	15.0 °	9.7	3.8	0.4	6.9	0.122	15.0 °	0.382	0.150	0.016	0.272		■				
XOEX120408R-M07	0.8	15.0 °	12.0	5.0	1.6	8.2	0.031	15.0 °	0.472	0.198	0.063	0.323		■				
XOEX120431R-M07	3.1	15.0 °	12.0	5.0	-	8.2	0.122	15.0 °	0.472	0.198	-	0.323		■				
XOMX10T308TR-ME07	0.8	20.4 °	9.3	3.8	1.3	6.9	0.031	20.4 °	0.366	0.151	0.051	0.272		■				
XOMX10T331TR-ME07	3.1	20.0 °	9.3	3.8	0.4	6.9	0.122	20.0 °	0.366	0.151	0.016	0.272		■				
SPMR1906ZETR-M17	1.6	17.0 °	-	6.4	1.0	-	0.063	17.0 °	-	0.250	0.039				■			
SPMR1906ZETR-M17	1.6	17.0 °	-	6.4	1.0	-	0.063	17.0 °	-	0.250	0.039					■		

Name		JH770	JH740	JH710	JH790	JH730	JHP994
Page		82-83	84-85	86-87	88-89	90-91	92-93
Family		HSM/TORNADO	HSM/TORNADO	HSM/TORNADO	HSM/TORNADO	HSM/TORNADO	HPM
Type of mill							
Shank	Cylindrical	■	■	■	■	■	■
	Weldon						
	Safelock						
Number of flutes		4-5-6	4-5	5	6	6-7	4
ICC							
Diameter range	Metric	6-10	6-10	6-8	9,5	8-10	6-10
	Inch						
Lengths available, based on length index							
		2	2	2	2-3	2	3
Operation							
SMG							
P1-8							
P11-12							
M1-3							
M4-5							
K1-7							
S1-3		•	•	•	•	•	•
S11-13		•	•	•	•	•	•
H							
N1							
N2-3							
N11							
TS2-3							
TP2-3							
GR							

■ Stock standard □ Weldon available, delivery time is 3 days. □ Safe-Lock available, delivery time is 15 days
 ● Preferred choice, ○ Alternative choice

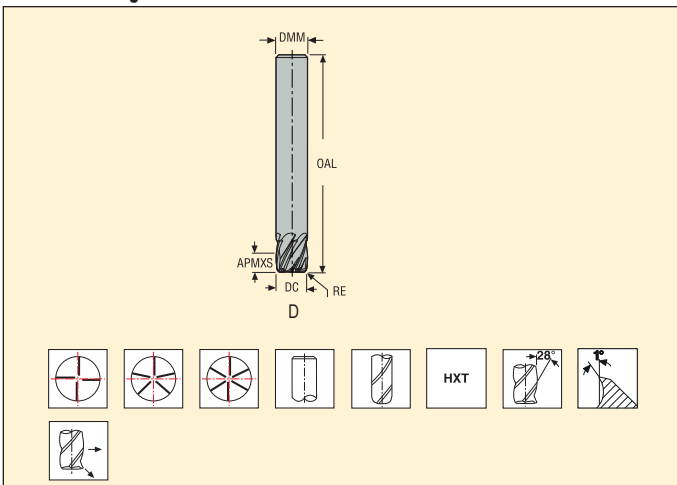
Name		JH780	JH721	JH722	JHP780	JC876	JC877
Page		94-95	96-97	98-99	100-103	104-106	107-109
Family		HSM/TORNADO	HSM/TORNADO	HSM/TORNADO	HPM	Composite	Composite
Type of mill							
Shank	Cylindrical	■	■	■	■	■	■
	Weldon				■		
	Safelock						
Number of flutes		4	6	6	4	6-14	6-14
ICC					■		
Diameter range	Metric	1,83-4,89	6-8	10	6-25	3-12	3-12
	Inch					1/4-1/2	1/4-1/2
Lengths available, based on length index							
Operation							
SMG							
P1-8							
P11-12							
M1-3							
M4-5							
K1-7							
S1-3		●	●	●	●		
S11-13		●	●	●			
H							
N1							
N2-3							
N11							
TS2-3						●	
TP2-3						●	
GR							

■ Stock standard □ Weldon available, delivery time is 3 days. □ Safe-Lock available, delivery time is 15 days
 ● Preferred choice, ○ Alternative choice

JH770 – Solid carbide end mill – cylindrical shank – corner radius – rougher – for CoCr



Tolerances:
 DMM=h5
 DC=e7
 RE=+/-0,02



Ordering and Product No.	Designation	Length index	Tool shape	Dimensions in mm				RE	CEDC	Cylindrical
				DC	DMM	APMXS	OAL			
03127351	JH770060D2R050.0Z4-HXT	2	D	6	6	8	50	0,5	4	■
03127352	JH770080D2R050.0Z4-HXT	2	D	8	8	10	58	0,5	4	■
03127354	JH770080D2R050.0Z5-HXT	2	D	8	8	10	58	0,5	5	■
03127353	JH770080D2R100.0Z4-HXT	2	D	8	8	10	58	1,0	4	■
03127355	JH770080D2R100.0Z5-HXT	2	D	8	8	10	58	1,0	5	■
03127356	JH770080D2R100.0Z6-HXT	2	D	8	8	10	58	1,0	6	■
03127357	JH770100D2R100.0Z5-HXT	2	D	10	10	12	66	1,0	5	■
03127358	JH770100D2R100.0Z6-HXT	2	D	10	10	12	66	1,0	6	■

■ Stock standard. Subject to change refer to current price- and stock-list

Cutting data – JH770 Side milling roughing CEDC 4

SMG		a_e/DC	a_p/DC	f_z		v_c
				6	8	
S2	E	0,75	0,13	0,030	0,040	50 (41 – 60)
S11	E	0,25	0,31	0,015	0,020	65 (55 – 90)
S12	E	0,25	0,31	0,015	0,020	50 (40 – 70)

Cutting data – JH770 Side milling roughing CEDC 5

SMG		a_e/DC	a_p/DC	f_z		v_c
				8	10	
S2	E	0,75	0,13	0,040	0,048	50 (41 – 60)
S11	E	0,25	0,31	0,020	0,024	65 (50 – 90)
S12	E	0,25	0,31	0,020	0,024	50 (40 – 70)

Cutting data – JH770 Side milling roughing CEDC 6

SMG		a_e/DC	a_p/DC	f_z		v_c
				8	10	
S2	E	0,75	0,13	0,050	0,060	55 (43 – 65)
S11	E	0,25	0,31	0,022	0,026	65 (55 – 95)
S12	E	0,25	0,31	0,022	0,026	50 (41 – 70)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v_c = m/min

f_z = mm

a_p (mm)/DC (mm)= factor

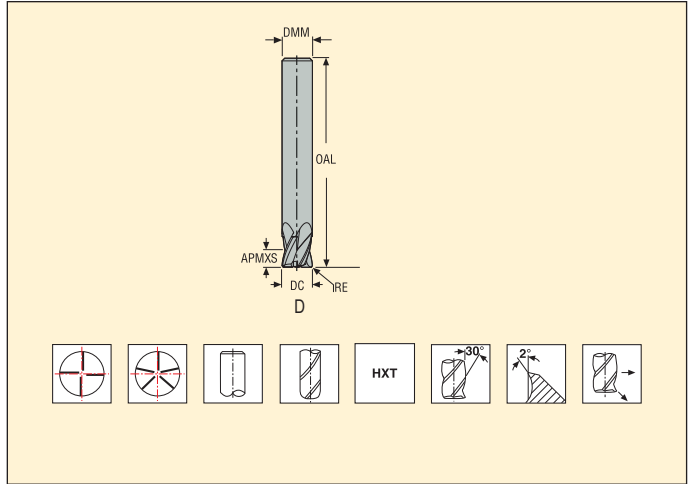
a_e (mm)/DC (mm)= factor

All cutting data are target values

JH740 – Solid carbide end mill – cylindrical shank – corner radius – finisher – for CoCr – with wiper – flat




Tolerances:
DMM=h5
DC=e7
RE=+/-0,02




Ordering and Product No.	Designation	Length index	Tool shape	Dimensions in mm				RE	CEDC	Cylindrical
				DC	DMM	APMXS	OAL			
03127359	JH740060D2R025.0Z4-HXT	2	D	6	6	6	50,0	0,25	4	■
03127360	JH740060D2R050.0Z4-HXT	2	D	6	6	6	50,0	0,5	4	■
03127361	JH740080D2R025.0Z4-HXT	2	D	8	8	8	58,0	0,25	4	■
03127362	JH740080D2R050.0Z4-HXT	2	D	8	8	8	58,0	0,5	4	■
03127363	JH740100D2R025.0Z5-HXT	2	D	10	10	10	66,0	0,25	5	■
03127364	JH740100D2R050.0Z5-HXT	2	D	10	10	10	66,0	0,5	5	■

■ Stock standard. Subject to change refer to current price- and stock-list

Cutting data – JH740 Side finishing and bottom finishing CEDC 4

SMG		a_e/DC	a_p / D_c	f_z		v_c
				6	8	
S2	E	0,50	0,0063	0,044	0,060	50 (40 – 60)
S11	E	0,50	0,0063	0,044	0,060	65 (50 – 80)
S12	E	0,50	0,0063	0,044	0,060	50 (40 – 60)

Cutting data – JH740 Side finishing and bottom finishing CEDC 6

SMG		a_e/DC	a_p / D_c	f_z	v_c
				10	
S2	E	0,50	0,0065	0,046	48 (39 – 60)
S11	E	0,50	0,0065	0,046	65 (50 – 75)
S12	E	0,50	0,0065	0,046	48 (39 – 60)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v_c = m/min

f_z = mm

a_p (mm)/DC (mm)= factor

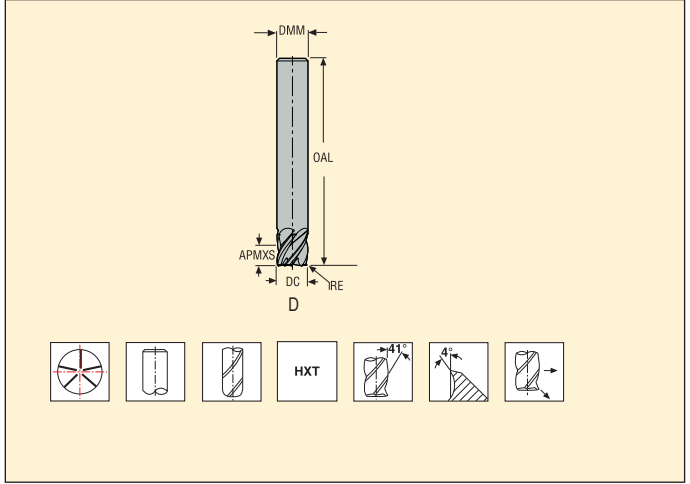
a_e (mm)/DC (mm)= factor

All cutting data are target values

JH710 – Solid carbide end mill – cylindrical shank – corner radius – side finisher – for CoCr




Tolerances:
DMM=h5
DC=e7
RE=+/-0,02



Ordering and Product No.	Designation	Length index	Tool shape	Dimensions in mm					CEDC	Cylindrical
				DC	DMM	APMXS	OAL	RE		
03127365	JH710060D2R025.0Z5-HXT	2	D	6	6	6	57,0	0,25	5	■
03127366	JH710060D2R050.0Z5-HXT	2	D	6	6	6	57,0	0,5	5	■
03127367	JH710080D2R025.0Z5-HXT	2	D	8	8	8	63,0	0,25	5	■
03127368	JH710080D2R050.0Z5-HXT	2	D	8	8	8	63,0	0,5	5	■
03127369	JH710080D2R100.0Z5-HXT	2	D	8	8	8	63,0	1,0	5	■

■ Stock standard. Subject to change refer to current price- and stock-list

Cutting data – JH710 Side milling finishing

SMG		a_e/DC	a_p/DC	f_z		v_c
				6	8	
S2	E	0,0081	0,63	0,034	0,044	100 (80 — 120)
S11	E	0,0081	0,63	0,036	0,046	180 (155 — 205)
S12	E	0,0081	0,63	0,036	0,046	135 (120 — 155)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v_c = m/min

f_z = mm

a_p (mm)/DC (mm)= factor

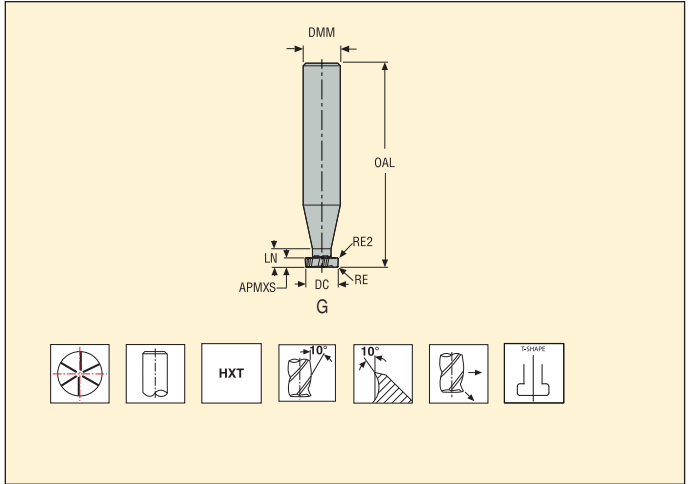
a_e (mm)/DC (mm)= factor

All cutting data are target values

JH790 – Solid carbide end mill – cylindrical shank – corner radius – T-cutter – for CoCr




Tolerances:
 DMM=h5
 DC=+/-0,02 mm
 RE=+/-0,02



Ordering and Product No.	Designation	Length index	Tool shape	Dimensions in mm					RE	RE2	CEDC	Cylindrical
				DC	DMM	APMXS	OAL	LN				
03127370	JH790095G2R025.0Z6-HXT	2	G	9,5	10	2,00	66	5	0,25	0,25	6	■
03127371	JH790095G2R050.0Z6-HXT	2	G	9,5	10	2,00	66	5	0,5	0,5	6	■
03127372	JH790095G3R025.0Z6-HXT	3	G	9,5	10	2,54	66	5	0,25	0,25	6	■
03127373	JH790095G3R050.0Z6-HXT	3	G	9,5	10	2,54	66	5	0,5	0,5	6	■

■ Stock standard. Subject to change refer to current price- and stock-list

Cutting data – JH790 (T) Side milling roughing

SMG		a_e/DC	a_p/DC	f_z	v_c
				9.5	
S2	E	0,19	0,21	0,030	39 (30 – 50)
S11	E	0,19	0,21	0,030	50 (40 – 65)
S12	E	0,19	0,21	0,030	39 (30 – 50)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v_c = m/min

f_z = mm

a_p (mm)/DC (mm)= factor

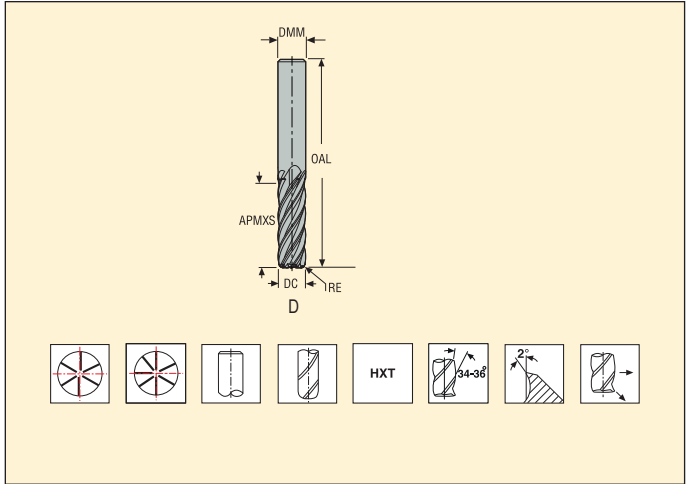
a_e (mm)/DC (mm)= factor

All cutting data are target values

JH730 – Solid carbide end mill – cylindrical shank – corner radius – side wall finisher – for CoCr




Tolerances:
 DMM=h5
 DC=e7
 RE=+/-0,02




Ordering and Product No.	Designation	Length index	Tool shape	Dimensions in mm				RE	CEDC	Cylindrical
				DC	DMM	APMXS	OAL			
03127375	JH730080D2R050.0Z6-HXT	2	D	8	8	25	63	0,5	6	■
03127377	JH730080D2R100.0Z6-HXT	2	D	8	8	25	63	1,0	6	■
03127378	JH730080D2R150.0Z6-HXT	2	D	8	8	25	63	1,5	6	■
03127379	JH730080D2R200.0Z6-HXT	2	D	8	8	25	63	2,0	6	■
03127380	JH730100D2R100.0Z7-HXT	2	D	10	10	31	72	1,0	7	■
03127381	JH730100D2R250.0Z7-HXT	2	D	10	10	31	72	2,5	7	■

■ Stock standard. Subject to change refer to current price- and stock-list

Cutting data – JH730 Side milling finishing CEDC 6

SMG		a_e/DC	a_p/DC	f_z	v_c
				8	
S2	E	0,063	2,5	0,026	75 (60 — 90)
S11	E	0,063	2,5	0,020	130 (105 — 155)
S12	E	0,063	2,5	0,020	100 (80 — 120)

Cutting data – JH730 Side milling finishing CEDC 7

SMG		a_e/DC	a_p/DC	f_z	v_c
				10	
S2	E	0,063	2,5	0,032	75 (60 — 90)
S11	E	0,063	2,5	0,024	130 (105 — 155)
S12	E	0,063	2,5	0,024	100 (80 — 120)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v_c = m/min

f_z = mm

a_p (mm)/DC (mm)= factor

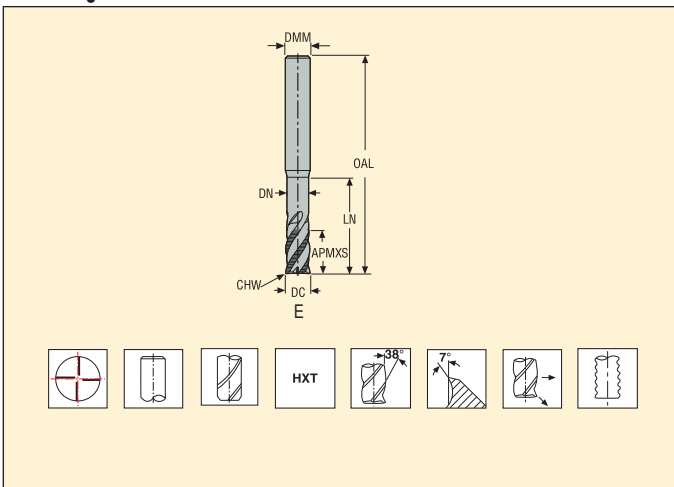
a_e (mm)/DC (mm)= factor

All cutting data are target values

JH994 – Solid carbide end mill – cylindrical shank – chamfer – rougher – for CoCr




Tolerances:
DMM=h5
DC=0,02/-0,1 mm
CHW=0/-0,1



Ordering and Product No.	Designation	Length index	Tool shape	Dimensions in mm						CHW	CEDC	Cylindrical
				DC	DMM	APMXS	OAL	LN	DN			
03127382	JHP994060E3C.0Z4-HXT	3	E	6	6	14	63	24	5,6	0,2	4	■
03127383	JHP994080E3C.0Z4-HXT	3	E	8	8	18	69	32	7,4	0,2	4	■
03127384	JHP994100E3C.0Z4-HXT	3	E	10	10	22	88	40	9,4	0,2	4	■

■ Stock standard. Subject to change refer to current price- and stock-list

Cutting data – JHP994 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z			v_c
				6	8	10	
S2	E	0,048	2,0	0,022	0,030	0,036	55 (40 – 70)
S11	E	0,44	0,63	0,026	0,034	0,042	50 (39 – 80)
S12	E	0,44	0,63	0,026	0,034	0,042	40 (30 – 60)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v_c = m/min


f_z = mm

a_p (mm)/DC (mm)= factor

a_e (mm)/DC (mm)= factor

All cutting data are target values

Cutting data – JH780 Copy milling

SMG		a _e /DC	a _p /DC	f _z				v _c
				1.8	2.8	3.8	4.9	
S2	E	0,049	5	0,0075	0,012	0,016	0,020	65 (50 – 85)
S12	E	0,049	5	0,0055	0,0085	0,012	0,015	90 (70 – 115)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v_c = m/min

f_z = mm

a_p (mm)/DC (mm)= factor

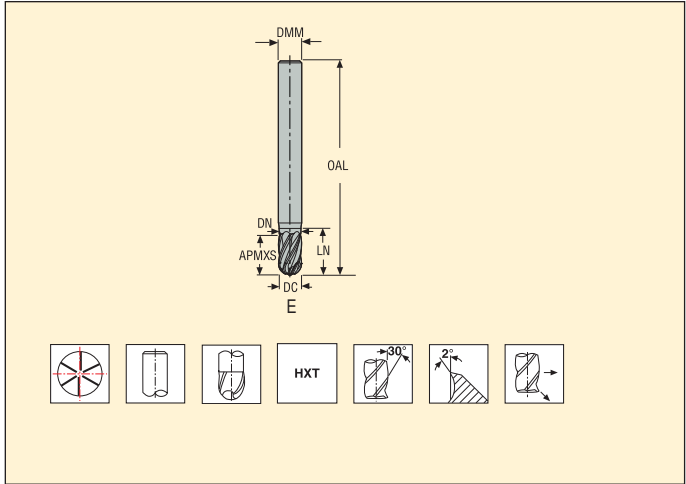
a_e (mm)/DC (mm)= factor

All cutting data are target values

JH721 – Solid carbide end mill – cylindrical shank – ball nose – finisher – for CoCr




Tolerances:
 DMM=h5
 DC=e7
 RE=+/-0,02



Ordering and Product No.	Designation	Length index	Tool shape	Dimensions in mm						CEDC	Cylindrical
				DC	DMM	APMXS	OAL	LN	DN		
03127390	JH721060E2B.0Z6-HXT	2	E	6	6	10	57	12	5,6	6	■
03127391	JH721080E2B.0Z6-HXT	2	E	8	8	13	58	16	7,4	6	■

■ Stock standard. Subject to change refer to current price- and stock-list

Cutting data – JH721 Copy milling finishing

SMG		a_e/DC	a_p/DC	f_z		v_c
				6	8	
S2	E	0,043	0,040	0,053	0,070	120 (100 – 140)
S12	E	0,043	0,040	0,040	0,053	160 (140 – 180)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v_c = m/min

f_z = mm

a_p (mm)/DC (mm)= factor

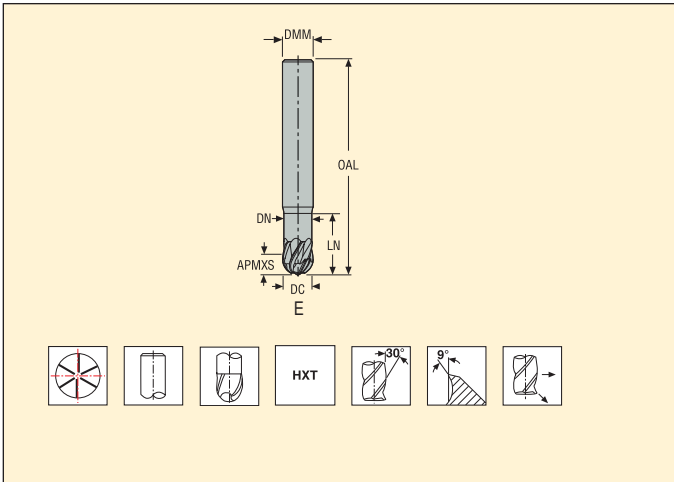
a_e (mm)/DC (mm)= factor

All cutting data are target values

JH722 – Solid carbide end mill – cylindrical shank – ball nose – finisher – for CoCr




Tolerances:
DMM=h5
DC=e7
RE=+/-0,01



Ordering and Product No.	Designation	Length index	Tool shape	Dimensions in mm						CEDC	Cylindrical
				DC	DMM	APMXS	OAL	LN	DN		
03127392	JH722100E2B.0Z6-HXT	2	E	10	10	10	72	20	9,4	6	■

■ Stock standard. Subject to change refer to current price- and stock-list

Cutting data – JH722 Copy milling finishing

SMG		a_e/DC	a_p/DC	f_z	v_c
				10	
S2	E	0,050	0,15	0,080	125 (100 – 150)
S11	E	0,050	0,15	0,060	160 (140 – 180)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v_c = m/min

f_z = mm

a_p (mm)/DC (mm)= factor

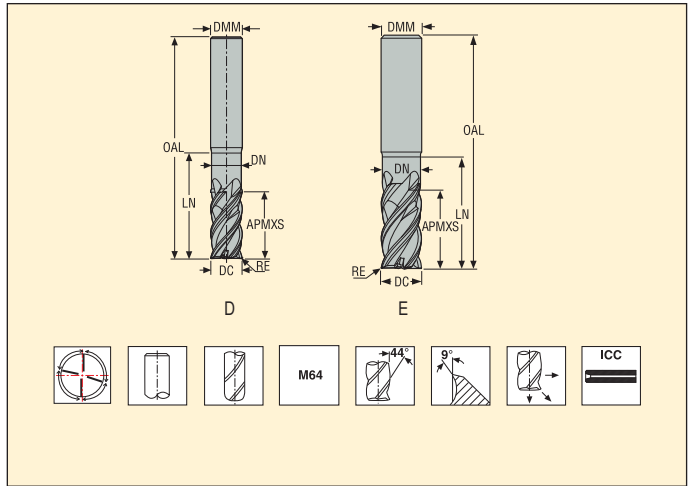
a_e (mm)/DC (mm)= factor

All cutting data are target values

JHP780 – Solid carbide end mill – cylindrical shank – corner radius – polished coating – four flute – internal coolant channel



Tolerances:
DMM=h5
DC=e7
RE=+/-0,02 mm



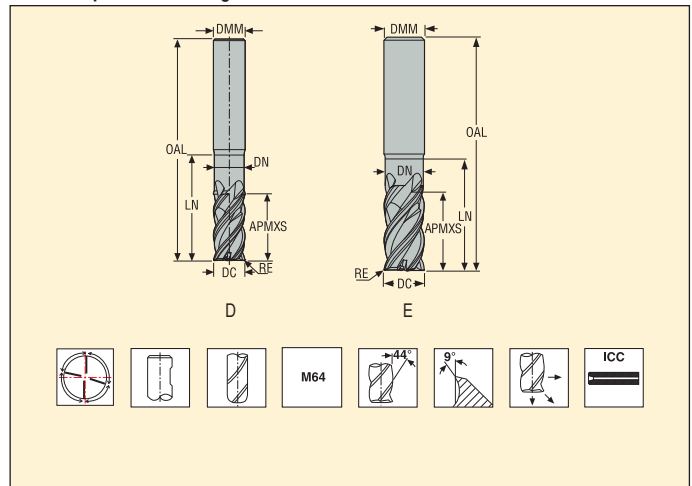
Ordering and Product No.	Designation	Length index	Tool shape	Dimensions in mm			LN	DN	RE	CEDC	ICC	Cylindrical
				DMM	APMXS	OAL						
03134984	JHP780060D1R030.0Z4A-M64	1	D	6	7,5	47	-	-	0,3	4	■	■
03134985	JHP780060D1R080.0Z4A-M64	1	D	6	7,5	47	-	-	0,8	4	■	■
03134986	JHP780080D1R040.0Z4A-M64	1	D	8	10,0	50	-	-	0,4	4	■	■
03134987	JHP780080D1R080.0Z4A-M64	1	D	8	10,0	50	-	-	0,8	4	■	■
03134988	JHP780100D1R040.0Z4A-M64	1	D	10	12,5	57	-	-	0,4	4	■	■
03134989	JHP780100D1R080.0Z4A-M64	1	D	10	12,5	57	-	-	0,8	4	■	■
03134990	JHP780120D1R040.0Z4A-M64	1	D	12	15,0	65	-	-	0,4	4	■	■
03134991	JHP780120D1R080.0Z4A-M64	1	D	12	15,0	65	-	-	0,8	4	■	■
03134992	JHP780060E2R030.0Z4A-M64	2	E	6	12,0	60	18,0	5,6	0,3	4	■	■
02760834	JHP780060E2R030.0Z4-M64	2	E	6	12,0	60	18,0	5,6	0,3	4		■
03134993	JHP780080E2R040.0Z4A-M64	2	E	8	16,0	65	24,0	7,4	0,4	4	■	■
02760842	JHP780080E2R040.0Z4-M64	2	E	8	16,0	65	24,0	7,4	0,4	4		■
03134994	JHP780100E2R040.0Z4A-M64	2	E	10	20,0	75	30,0	9,4	0,4	4	■	■
02760846	JHP780100E2R040.0Z4-M64	2	E	10	20,0	75	30,0	9,4	0,4	4		■
03134995	JHP780100E2R080.0Z4A-M64	2	E	10	20,0	75	30,0	9,4	0,8	4	■	■
02760847	JHP780100E2R080.0Z4-M64	2	E	10	20,0	75	30,0	9,4	0,8	4		■
03134996	JHP780120E2R040.0Z4A-M64	2	E	12	24,0	90	36,0	11,4	0,4	4	■	■
02760848	JHP780120E2R040.0Z4-M64	2	E	12	24,0	90	36,0	11,4	0,4	4		■
03134997	JHP780120E2R080.0Z4A-M64	2	E	12	24,0	90	36,0	11,4	0,8	4	■	■
02760849	JHP780120E2R080.0Z4-M64	2	E	12	24,0	90	36,0	11,4	0,8	4		■
02760850	JHP780120E2R150.0Z4-M64	2	E	12	24,0	90	36,0	11,4	1,5	4		■
02760851	JHP780120E2R250.0Z4-M64	2	E	12	24,0	90	36,0	11,4	2,5	4		■
02760852	JHP780140E2R040.0Z4-M64	2	E	14	28,0	95	42,0	13,4	0,4	4		■
03135000	JHP780160E2R040.0Z4A-M64	2	E	16	32,0	100	45,0	15,4	0,4	4	■	■
02760853	JHP780160E2R040.0Z4-M64	2	E	16	32,0	100	45,0	15,4	0,4	4		■
03135001	JHP780160E2R080.0Z4A-M64	2	E	16	32,0	100	45,0	15,4	0,8	4	■	■
02760861	JHP780160E2R080.0Z4-M64	2	E	16	32,0	100	45,0	15,4	0,8	4		■
02760862	JHP780160E2R310.0Z4-M64	2	E	16	32,0	100	45,0	15,4	3,1	4		■
02760863	JHP780160E2R400.0Z4-M64	2	E	16	32,0	100	45,0	15,4	4,0	4		■
03093704	JHP780160E2R600.0Z4-M64	2	E	16	32,0	100	45,0	15,4	6,0	4		■
02760865	JHP780200E2R040.0Z4-M64	2	E	20	40,0	115	55,0	19,4	0,4	4		■
02760866	JHP780200E2R080.0Z4-M64	2	E	20	40,0	115	55,0	19,4	0,8	4		■
02760867	JHP780200E2R310.0Z4-M64	2	E	20	40,0	115	55,0	19,4	3,1	4		■
02760868	JHP780200E2R400.0Z4-M64	2	E	20	40,0	115	55,0	19,4	4,0	4		■
03093706	JHP780200E2R600.0Z4-M64	2	E	20	40,0	115	55,0	19,4	6,0	4		■
02760870	JHP780250E2R080.0Z4-M64	2	E	25	50,0	130	65,0	24,4	0,8	4		■
02760874	JHP780250E2R400.0Z4-M64	2	E	25	50,0	130	65,0	24,4	4,0	4		■
03093707	JHP780250E2R600.0Z4-M64	2	E	25	50,0	130	65,0	24,4	6,0	4		■

■ Stock standard. Subject to change refer to current price- and stock-list

JHP780 – Solid carbide end mill – weldon shank – corner radius – polished coating – four flute – internal coolant channel



Tolerances:
 DMM=h5
 DC=e7
 RE=+/-0,02



Ordering and Product No.	Designation	Length index	Tool shape	Dimensions in mm			LN	DN	RE	CEDC	ICC	Weldon
				DMM	APMXS	OAL						
03135445	JHP780060D1R030.3Z4A-M64	1	D	6	7,5	47	-	-	0,3	4	■	■
03135446	JHP780060D1R080.3Z4A-M64	1	D	6	7,5	47	-	-	0,8	4	■	■
03135447	JHP780080D1R040.3Z4A-M64	1	D	8	10,0	50	-	-	0,4	4	■	■
03135449	JHP780080D1R080.3Z4A-M64	1	D	8	10,0	50	-	-	0,8	4	■	■
03135450	JHP780100D1R040.3Z4A-M64	1	D	10	12,5	57	-	-	0,4	4	■	■
03135451	JHP780100D1R080.3Z4A-M64	1	D	10	12,5	57	-	-	0,8	4	■	■
03135452	JHP780120D1R040.3Z4A-M64	1	D	12	15,0	65	-	-	0,4	4	■	■
03135453	JHP780120D1R080.3Z4A-M64	1	D	12	15,0	65	-	-	0,8	4	■	■
03135454	JHP780060E2R030.3Z4A-M64	2	E	6	12,0	60	18,0	5,6	0,3	4	■	■
02760878	JHP780060E2R030.3Z4-M64	2	E	6	12,0	60	18,0	5,6	0,3	4		■
03135455	JHP780080E2R040.3Z4A-M64	2	E	8	16,0	65	24,0	7,4	0,4	4	■	■
02760879	JHP780080E2R040.3Z4-M64	2	E	8	16,0	65	24,0	7,4	0,4	4		■
03135456	JHP780100E2R040.3Z4A-M64	2	E	10	20,0	75	30,0	9,4	0,4	4	■	■
02760880	JHP780100E2R040.3Z4-M64	2	E	10	20,0	75	30,0	9,4	0,4	4		■
03135457	JHP780100E2R080.3Z4A-M64	2	E	10	20,0	75	30,0	9,4	0,8	4	■	■
02760881	JHP780100E2R080.3Z4-M64	2	E	10	20,0	75	30,0	9,4	0,8	4		■
03134998	JHP780120E2R040.3Z4A-M64	2	E	12	24,0	90	36,0	11,4	0,4	4	■	■
02760883	JHP780120E2R040.3Z4-M64	2	E	12	24,0	90	36,0	11,4	0,4	4		■
03134999	JHP780120E2R080.3Z4A-M64	2	E	12	24,0	90	36,0	11,4	0,8	4	■	■
02760885	JHP780120E2R080.3Z4-M64	2	E	12	24,0	90	36,0	11,4	0,8	4		■
02760887	JHP780120E2R150.3Z4-M64	2	E	12	24,0	90	36,0	11,4	1,5	4		■
02766989	JHP780120E2R250.3Z4-M64	2	E	12	24,0	90	36,0	11,4	2,5	4		■
02760888	JHP780140E2R040.3Z4-M64	2	E	14	28,0	95	42,0	13,4	0,4	4		■
03135002	JHP780160E2R040.3Z4A-M64	2	E	16	32,0	100	45,0	15,4	0,4	4	■	■
02760889	JHP780160E2R040.3Z4-M64	2	E	16	32,0	100	45,0	15,4	0,4	4		■
03135003	JHP780160E2R080.3Z4A-M64	2	E	16	32,0	100	45,0	15,4	0,8	4	■	■
02760890	JHP780160E2R080.3Z4-M64	2	E	16	32,0	100	45,0	15,4	0,8	4		■
02760893	JHP780160E2R400.3Z4-M64	2	E	16	32,0	100	45,0	15,4	4,0	4		■
03093717	JHP780160E2R600.3Z4-M64	2	E	16	32,0	100	45,0	15,4	6,0	4		■

■ Stock standard. Subject to change refer to current price- and stock-list

Cutting data – JHP780 Slot milling

SMG		a _p /DC	f _z						v _c		
			6	8	10	12	14	16		20	25
S1	E	0.80	0.020	0.028	0.034	0.042	0.048	0.055	0.070	0.085	36 (41 – 31)
S2	E	0.80	0.020	0.028	0.034	0.042	0.048	0.055	0.070	0.085	29 (33 – 25)
S3	E	0.60	0.017	0.022	0.028	0.032	0.036	0.040	0.046	0.055	25 (29 – 20)

Cutting data – JHP780 Side milling roughing

SMG		a _p /DC	f _z						v _c		
			6	8	10	12	14	16		20	25
S1	E	1.0	0.036	0.048	0.060	0.070	0.080	0.090	0.10	0.11	43 (49 – 37)
S2	E	1.0	0.036	0.048	0.060	0.070	0.080	0.090	0.10	0.11	34 (39 – 29)
S3	E	0.80	0.036	0.048	0.060	0.070	0.080	0.090	0.10	0.11	28 (34 – 23)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v_c = m/min

f_z = mm

a_p (mm)/DC (mm)= factor

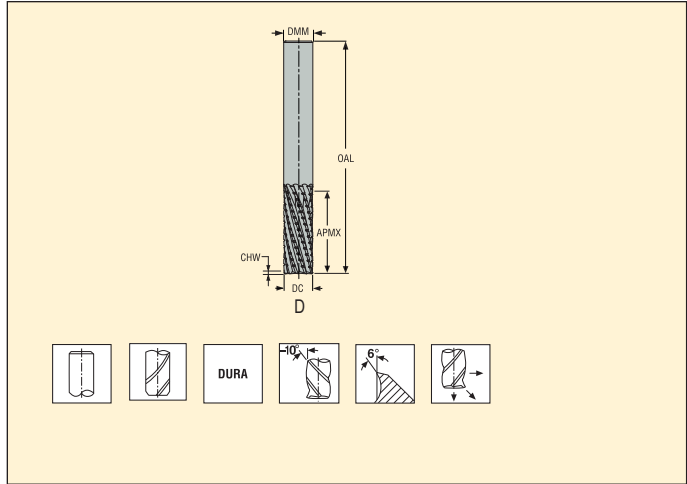
a_e (mm)/DC (mm)= factor

All cutting data are target values

JC876 – Solid carbide end mill – advanced router – left hand helix – downcut



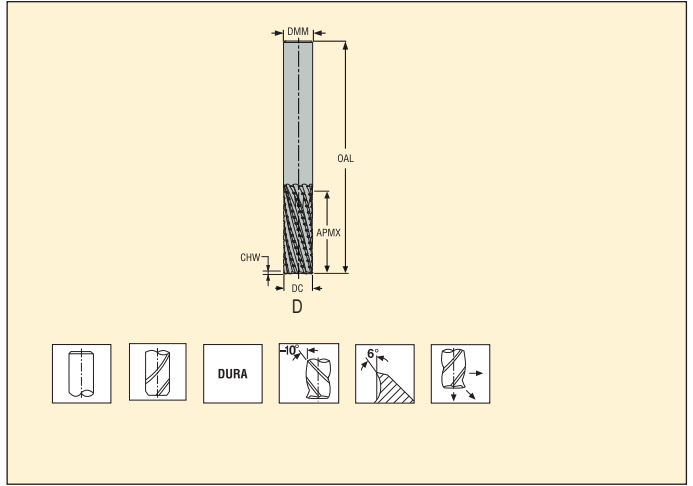
Tolerances:
 DMM=h5
 DC= -0,02, -0,08 mm



Ordering and Product No.	Designation	Length index	Tool shape	Dimensions in mm					CEDC	Cylindrical
				DC	DMM	OAL	APMX	CHW		
03135004	JC876030D2C.0Z6-DURA	2	D	3	3	50	7,5	0,04	6	■
03135005	JC876040D2C.0Z6-DURA	2	D	4	4	54	10,0	0,05	6	■
03135006	JC876060D2C.0Z8-DURA	2	D	6	6	62	15,0	0,08	8	■
03135007	JC876060D2C.0Z10-DURA	2	D	6	6	62	15,0	0,08	10	■
03135008	JC876080D2C.0Z8-DURA	2	D	8	8	70	20,0	0,10	8	■
03135009	JC876080D2C.0Z10-DURA	2	D	8	8	70	20,0	0,10	10	■
03135010	JC876100D2C.0Z10-DURA	2	D	10	10	82	25,0	0,13	10	■
03135011	JC876100D2C.0Z12-DURA	2	D	10	10	82	25,0	0,13	12	■
03135012	JC876120D2C.0Z14-DURA	2	D	12	12	95	30,0	0,15	14	■

■ Stock standard. Subject to change refer to current price- and stock-list

JC876 – Solid carbide end mill – advanced router – left hand helix – downcut – Inch



Tolerances:
 DMM=h5
 DC=-0,02, -0,08 inch

Ordering and Product No.	Designation	Length index	Tool shape	Dimensions in inch					CEDC	Cylindrical
				DC	DMM	OAL	APMX	CHW		
03135125	JC876.250D2C.0Z8-DURA	2	D	0.250	0.250	2.500	0.625	0.003	8	■
03135126	JC876.250D2C.0Z10-DURA	2	D	0.250	0.250	2.500	0.625	0.003	10	■
03135127	JC876.375D2C.0Z12-DURA	2	D	0.375	0.375	3.000	1.000	0.005	12	■
03135128	JC876.500D2C.0Z14-DURA	2	D	0.500	0.500	3.000	1.250	0.006	14	■

■ Stock standard. Subject to change refer to current price- and stock-list

Cutting data – JC876 Slot milling

SMG		a_p/DC	f_z						v_c
			3	4	6	8	10	12	
TS2	E/A/D	1,0	0,0060	0,0080	0,012	0,016	0,020	0,024	175 (145 – 205)
TS3	E/A/D	1,0	0,0060	0,0080	0,012	0,016	0,020	0,024	115 (95 – 140)
TP2	E/A/D	1,0	0,0060	0,0080	0,012	0,016	0,020	0,024	115 (90 – 145)
TP3	E/A/D	1,0	0,0060	0,0080	0,012	0,016	0,020	0,024	60 (35 – 80)

Cutting data – JC876 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z						v_c
				3	4	6	8	10	12	
TS2	E/A/D	0,33	1,7	0,0095	0,013	0,019	0,026	0,032	0,038	220 (185 – 255)
TS3	E/A/D	0,33	1,7	0,0095	0,013	0,019	0,026	0,032	0,038	145 (115 – 175)
TP2	E/A/D	0,33	1,7	0,0095	0,013	0,019	0,026	0,032	0,038	145 (110 – 185)
TP3	E/A/D	0,33	1,7	0,0095	0,013	0,019	0,026	0,032	0,038	75 (44 – 105)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v_c = m/min

f_z = mm

a_p (mm)/DC (mm)= factor

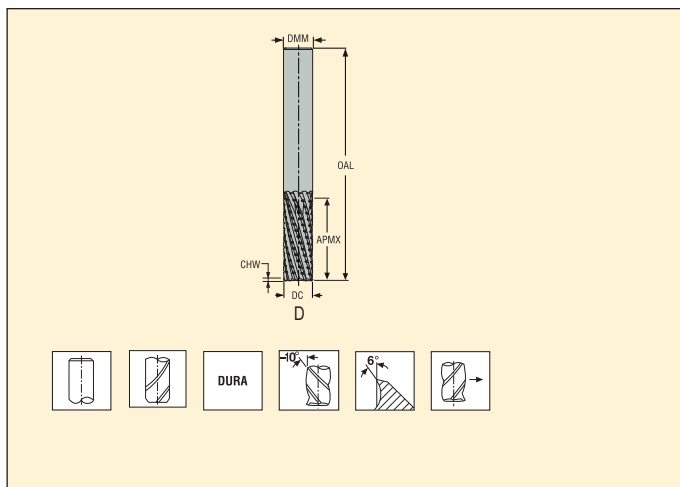
a_e (mm)/DC (mm)= factor

All cutting data are target values

JC877 – Solid carbide end mill – advanced router – left hand helix – downcut



Tolerances:
 DMM=h5
 DC=-0,02, -0,08 mm



Ordering and Product No.	Designation	Length index	Tool shape	Dimensions in mm					CEDC	Cylindrical
				DC	DMM	OAL	APMX	CHW		
03135013	JC877030D2C.0Z6-DURA	2	D	3	3	50	9	0,04	6	■
03135014	JC877040D2C.0Z6-DURA	2	D	4	4	54	12	0,05	6	■
03135015	JC877060D2C.0Z8-DURA	2	D	6	6	62	18	0,08	8	■
03135016	JC877060D2C.0Z10-DURA	2	D	6	6	62	18	0,08	10	■
03135017	JC877080D2C.0Z8-DURA	2	D	8	8	70	24	0,10	8	■
03135018	JC877080D2C.0Z10-DURA	2	D	8	8	70	24	0,10	10	■
03135019	JC877100D2C.0Z10-DURA	2	D	10	10	82	30	0,13	10	■
03135020	JC877100D2C.0Z12-DURA	2	D	10	10	82	30	0,13	12	■
03135021	JC877120D2C.0Z14-DURA	2	D	12	12	95	36	0,15	14	■

■ Stock standard. Subject to change refer to current price- and stock-list

Cutting data – JC877 Slot milling

SMG		a _p /DC	f _z						v _c
			3	4	6	8	10	12	
TS2	E/A/D	1,0	0,0060	0,0080	0,012	0,016	0,020	0,024	170 (145 – 200)
TS3	E/A/D	1,0	0,0060	0,0080	0,012	0,016	0,020	0,024	115 (90 – 140)
TP2	E/A/D	1,0	0,0060	0,0080	0,012	0,016	0,020	0,024	115 (85 – 145)
TP3	E/A/D	1,0	0,0060	0,0080	0,012	0,016	0,020	0,024	55 (34 – 80)

Cutting data – JC877 Side milling roughing

SMG		a _e /DC	a _p /DC	f _z						v _c
				3	4	6	8	10	12	
TS2	E/A/D	0,33	2,0	0,0095	0,013	0,019	0,026	0,032	0,038	215 (180 – 250)
TS3	E/A/D	0,33	2,0	0,0095	0,013	0,019	0,026	0,032	0,038	145 (115 – 170)
TP2	E/A/D	0,33	2,0	0,0095	0,013	0,019	0,026	0,032	0,038	145 (110 – 180)
TP3	E/A/D	0,33	2,0	0,0095	0,013	0,019	0,026	0,032	0,038	70 (43 – 100)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v_c = m/min

f_z = mm

a_p (mm)/DC (mm)= factor

a_e (mm)/DC (mm)= factor

All cutting data are target values

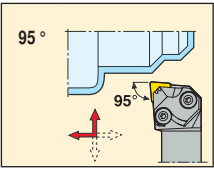
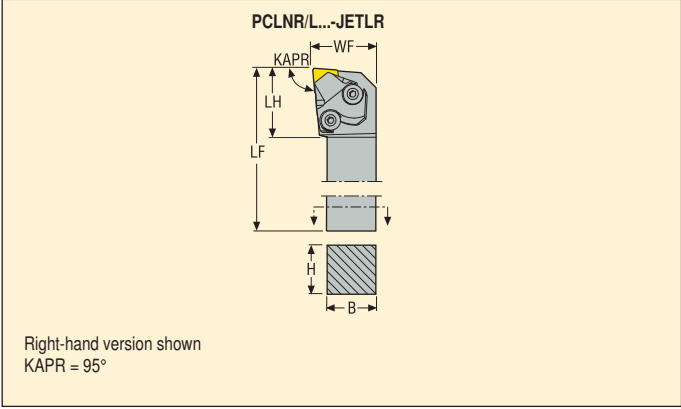
Recalculation (all values are percentages of original (100%) cutting data.)

STRAIGHT	Use original standard version side rough cutting data then recalculation parameters!									Use original standard version slotting cutting data then recalculate parameters!						
	Slotting		Side rough			Side finish				Ramping		Helical		Drilling		
	a_p	f_z	a_e	f_z	a_p	v_c	a_e (% of DC)	f_z	a_p	a_p ($>5^\circ$)	f_z	f_z	$a_p/360^\circ$ (% of DC)	Hole \varnothing (\geq % of DC)	f_z	a_p (% of DC)
JHP780 LV1	100	100	100	100	100	160	2	135	140	100	100	35	3	130	35	50
JHP780 LV2	65	100	100	100	65	160	2	135	65	65	100	35	3	130	35	50

Toolholders for inserts CNGA, CNGG, CNMA, CNMG and CNMM – Inch



- For inserts programme, see MN Turning catalogue
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see MN Turning catalogue



	Ordering and Product No.	Designation	*	Dimensions in inch					GAMO°	LAMS°	lbs	
				H	B	LF	WF	LH				
1/2	03134879	PCLNR-16-4DJETLR	*	1.00	1.00	6.00	1.26	1.38	-6	-6	1.8	CN.43.
	03134878	PCLNL-16-4DJETLR	*	1.00	1.00	6.00	1.26	1.38	-6	-6	1.8	CN.43.

*Jetstream Tooling® Duo, see MN Turning catalogue

Spare Parts, Parts included in delivery

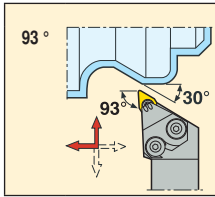
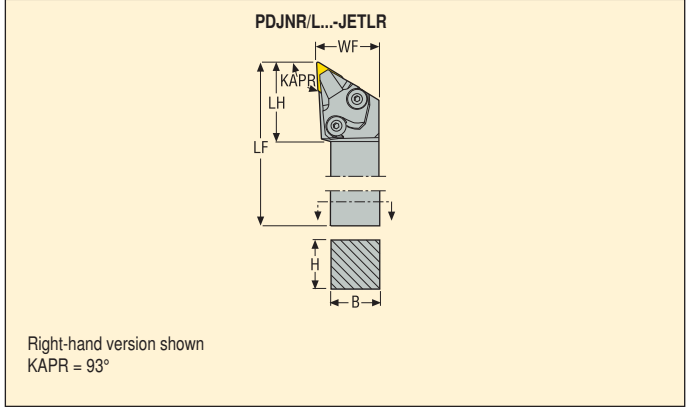
For	Inducer	Inducer screw	Insert lever	Insert shim	Lever/inducer key	Lever screw	O-ring	Punch	Shim pin
PCLNR	CILC12RA-R	117.26-655	PP4713	PCN120308	3SMS795	LS0818	ORING-8X1.5	MP0912	RP6757
PCLNL	CILC12LA-R	117.26-655	PP4713	PCN120308	3SMS795	LS0818	ORING-8X1.5	MP0912	RP6757

Please check availability in current price and stock-list

Toolholders for inserts DNGA, DNGG, DNGM, DNMA, DNMG, DNMM, DNMU and DNMX – Inch



- For inserts programme, see MN Turning catalogue
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see MN Turning catalogue



	Ordering and Product No.	Designation	*	Dimensions in inch					GAMO°	LAMS°	lbs	
				H	B	LF	WF	LH				
1/2	03134875	PDJNR-16-4DJETLR	*	1.00	1.00	6.00	1.26	1.61	-6	-6	1.5	DN..43.
	03134874	PDJNL-16-4DJETLR	*	1.00	1.00	6.00	1.26	1.61	-6	-6	1.5	DN..43.

*Jetstream Tooling® Duo, see MN Turning catalogue

Spare Parts, Parts included in delivery

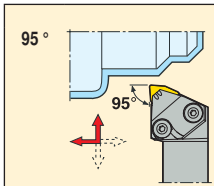
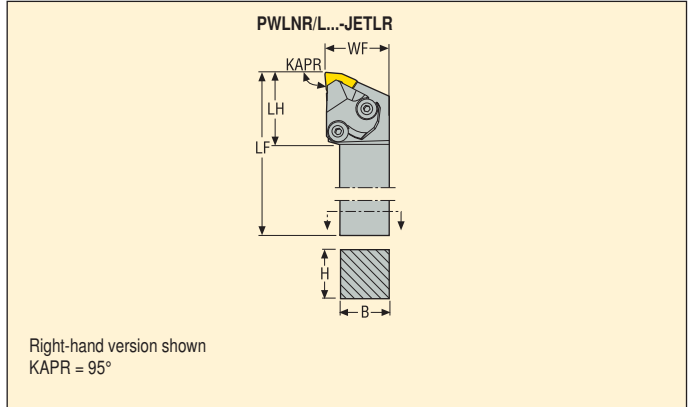
For	Inducer	Inducer screw	Insert lever	Insert shim	Lever/inducer key	Lever screw	O-ring	Punch	Shim pin
PDJNR	CILD15RA-R	117.26-655	PP4716	PDN150408	3SMS795	LS0818	ORING-8X1.5	MP0912	RP6757
PDJNL	CILD15LA-R	117.26-655	PP4716	PDN150408	3SMS795	LS0818	ORING-8X1.5	MP0912	RP6757

Please check availability in current price and stock-list

Toolholders for inserts WNGA, WNMA, WNMG and WNMM – Inch



- For inserts programme, see MN Turning catalogue
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see MN Turning catalogue



	Ordering and Product No.	Designation	*	Dimensions in inch					GAMO°	LAMS°	lbs	
				H	B	LF	WF	LH				
1/2	03134877	PWLN-16-4DJETLR	*	1.00	1.00	6.00	1.26	1.42	-6	-6	1.8	WN..43.
	03134876	PWLNL-16-4DJETLR	*	1.00	1.00	6.00	1.26	1.42	-6	-6	1.8	WN..43.

*Jetstream Tooling® Duo, see MN Turning catalogue

Spare Parts, Parts included in delivery

For	Inducer	Inducer screw	Insert lever	Insert shim	Lever/inducer key	Lever screw	O-ring	Punch	Shim pin
PWLN	CILW08RA-R	117.26-655	PP4713	PWN423	3SMS795	LS0818	ORING-8X1.5	MP0912	RP6757
PWLN	CILW08LA-R	117.26-655	PP4713	PWN423	3SMS795	LS0818	ORING-8X1.5	MP0912	RP6757

Please check availability in current price and stock-list

Jetstream Tooling® – Introduction

Seco Jetstream Tooling is a revolutionary solution to the problem of delivering coolant precisely to the cutting zone.

It works by delivering a concentrated high pressure jet of coolant at high velocity straight to the optimum position close to the cutting edge.

The jet lifts the chips away from rake face, improving chip control and tool life enabling increased cutting data.

It is proven to show improvement in nearly all material groups and with a wide choice of coolant pressures.

Seco Jetstream Tooling Duo holders, yet another innovation introduced to market, feature both a rake face and flank face jet, that may provide even better chip control and significantly longer tool life. Note the addition of roughing inducer option see MN Turning catalogue.

The standard range of Jetstream Tooling is based on ISO toolholders. It can be mounted and used on a large selection of machines.

Coolant can either be supplied to the toolholder externally through a coolant hose which is attached to one of the inlet positions of the toolholder or internally in the case of Seco-Capto holders.

Hoses are available allowing the coolant supply to be connected to almost any position on the turret or tool block.

Seco Jetstream Tooling consists of holders for external turning, both square shanks and Seco-Capto backends.

For internal turning, Jetstream Tooling capability is being integrated to JET GL-Turning heads for Steadyline and some internal turning bars with the help of the unique coolant clamps.

Products are available for turning with positive and negative inserts, as well as MDT.

Maximum coolant pressure recommended for use with standard shank type Jetstream Tooling is 4000 psi (275 bar).

The coolant pressure tested for Steadyline bars with JET GL-Turning heads is 3000 psi (210 bar).

For Seco-Capto toolholders the maximum pressure is 1000 psi (70 bar). Here the limitation is the clamping units.

A modified, thru flange, coolant Seco-Capto Steadyline bar can be operated up to 3000 psi (210 bar) with JET GL-Turning heads.

Note that it is up to the skilled artisan to make sure that all aspects of health and security are fulfilled.

Technical information

Designation of Jetstream Tooling holders follows ISO, see MN Turning catalogue.

Jetstream Tooling for Grooving and Parting-off, see MN Turning catalogue.



Coolant clamps

Coolant clamps

The unique 3D printed coolant clamps.



The coolant clamp executes many functions. It provides a secure and fast clamping of the insert by virtue of the spring loaded design with a single screw. It directs and orients the high pressure coolant jets straight and close to the cutting edge. The manufacturing flexibility of the coolant clamp allows it to have an optimised coolant channel. Selection includes standard, finishing and roughing coolant clamps with orientations neutral, right and left. The horizontal orientation angles 0°, 10° and 20° are also available. A major portion of the ordering code is laser marked on the coolant clamp.

Changing the insert

Simply loosen the spring loaded coolant clamp screw.

Change or index the insert. Ensure the coolant clamp pin well inside the fixing hole before tightening from the top.

Tighten the screw with recommended torque.



Operational safety

JET GL-heads ensure maximum operational safety while handling the high pressure coolant.

The 'coolant seals' between the Steadyline bar and the JET GL-heads and the double O-rings at the coolant entry point of the coolant clamp ensure this.



GL-Turning heads

GL-Turning head is a very compact, flexible and modular tool changing system developed for internal applications, especially for Steadyline boring and turning. GL-connection is a precisely ground 'taper quadrilobe' based centering system firmly locked with a fine pitched nut to the boring bar.

The compact GL-Turning head preserves the damping strengths of the Steadyline bars. A Steadyline bar is one of the most stable solutions in the market for tool overhang challenges for reducing vibrations and increasing productivity.



JET GL-Turning heads

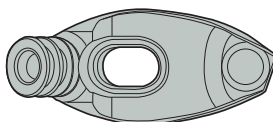
The JET GL-Turning heads further strengthen the solution by integrating the Jetstream Tooling benefits to the GL-Turning head and in turn to the Steadyline bar. JET GL-Turning heads use a multifunction coolant clamp for the successful integration.

Advantages

- **Efficient:** Ensures a quick and firm connection and thus decreases the head changing time drastically and increases productivity.
- **Flexible:** The quadrilobe enables 180 degree orientation of the turning head and hence can be used as left & right hand tools depending on the machining system.
- **Accurate:** The taper quadrilobe coupling produces a strong self centering connection with repeatability within $\pm 0,002$ mm at identical conditions.
- **Modular:** Building different types and styles of Steadyline bars with suitable GL-turning heads reduces the inventory
- **Enhances the damping function:** The compact and short GL-turning heads are close to the Steadyline damping mass.
- **Jetstream Tooling** gives higher tool life, especially for superalloys and enhances chipbreaking.

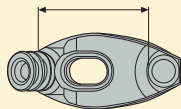


Internal toolholders and modular turning heads

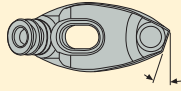


CP	14	U	20	S	-	2	R
1	2	3	4	5		6	7

1. Coolant clamp type
CN = Coolant clamp for negative inserts CP = Coolant clamp for screw clamped inserts

2. Clamping length

14 = 14 mm 17 = 17 mm

3. Hole diameter
U = 1,6 mm L = 2,2 mm X = Custom

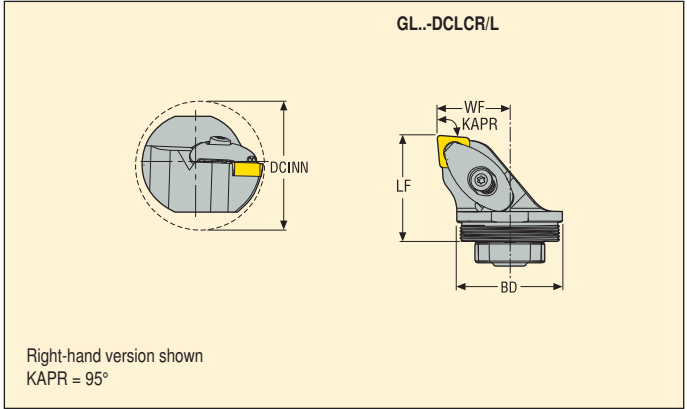
4. Outlet angle

00 = 0° 10 = 10° 20 = 20°

5. Coolant clamp application type
F = Fine R = Roughing S = Standard

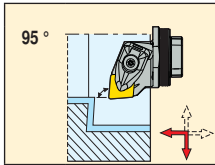
6. Number of holes
0, 1, 2 etc.

7. Orientation of outlet face
L = Left R = Right Otherwise neutral

Toolholders for inserts CCGT, CCGW, CCMT and CCMW – Metric



- For inserts programme, see MN Turning catalogue
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see MN Turning catalogue
- For damping holders programme, see MN Turning catalogue



Size	Ordering and Product No.	Designation	Dimensions in mm				GAMO°	LAMS°	KG	Icon
			DCINN	BD	WF	LF				
GL32	09 02994382	GL32-DCLCR-22032-09JET	40	32	22	32	0	-2	0,2	CC..09T3..
	02994379	GL32-DCLCL-22032-09JET	40	32	22	32	0	-2	0,2	CC..09T3..
GL40	09 02994389	GL40-DCLCR-27032-09JET	50	40	27	32	0	-2	0,2	CC..09T3..
	02994386	GL40-DCLCL-27032-09JET	50	40	27	32	0	-2	0,2	CC..09T3..
GL50	09 02994395	GL50-DCLCR-32032-09JET	60	50	32	32	0	-2	0,3	CC..09T3..
	02994392	GL50-DCLCL-32032-09JET	60	50	32	32	0	-2	0,3	CC..09T3..

Spare Parts, Parts included in delivery

Accessories*

For	Clamp key	Clamp screw	Coolant clamp	Coolant seal	Key (T-handle)	O-ring	Spring	Clamp kit
GL32	H4B-T09P	L84017-T09P	CP14U00S-2	930RD13	DOUBLE-T	O-RING-5.0X1.2	S5608	CP14U00S-2-SET
GL40	H4B-T09P	L84017-T09P	CP14U00S-2	930RD13	DOUBLE-T	O-RING-5.0X1.2	S5608	CP14U00S-2-SET
GL50	H4B-T09P	L84017-T09P	CP14U00S-2	930RD13	DOUBLE-T	O-RING-5.0X1.2	S5608	CP14U00S-2-SET

Please check availability in current price and stock-list

*To be ordered separately

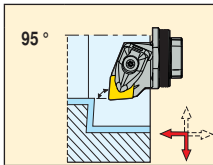
Toolholders for inserts CNGG, CNMA, CNMG and CNMM – Metric



- For inserts programme, see MN Turning catalogue
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see MN Turning catalogue
- For damping holders programme, see MN Turning catalogue

GL..-DCLNR/L

Right-hand version shown
KAPR = 95°



Size		Ordering and Product No.	Designation	Dimensions in mm				GAMO°	LAMS°	KG	
				DCINN	BD	WF	LF				
GL32	12	02994325	GL32-DCLNR-22032-12JET	40	32	22	32	-6	-10	0,2	CN..1204..
		02994324	GL32-DCLNL-22032-12JET	40	32	22	32	-6	-10	0,2	CN..1204..
GL40	12	02994341	GL40-DCLNR-27032-12JET	50	40	27	32	-6	-10	0,2	CN..1204..
		02994340	GL40-DCLNL-27032-12JET	50	40	27	32	-6	-10	0,2	CN..1204..
GL50	12	02994354	GL50-DCLNR-32032-12JET	60	50	32	32	-6	-8	0,3	CN..1204..
		02994351	GL50-DCLNL-32032-12JET	60	50	32	32	-6	-8	0,3	CN..1204..

Spare Parts, Parts included in delivery

Accessories*

For	Clamp screw	Coolant clamp	Coolant seal	Insert shim	Key (T-handle)	O-ring	Shim/clamp key	Shim screw	Spring	Clamp kit
GL32	L85021-T15P	CN17U00S-2	930RD13	DCO120310	DOUBLE-T	O-RING-5.0X1.2	H4B-T15P	C04008-T15P	S6912	CN17U00S-2-SET
GL40	L85021-T15P	CN17U00S-2	930RD13	DCO120310	DOUBLE-T	O-RING-5.0X1.2	H4B-T15P	C04008-T15P	S6912	CN17U00S-2-SET
GL50	L85021-T15P	CN17U00S-2	930RD13	DCO120310	DOUBLE-T	O-RING-5.0X1.2	H4B-T15P	C04008-T15P	S6912	CN17U00S-2-SET

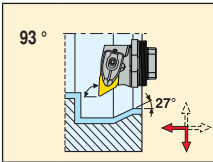
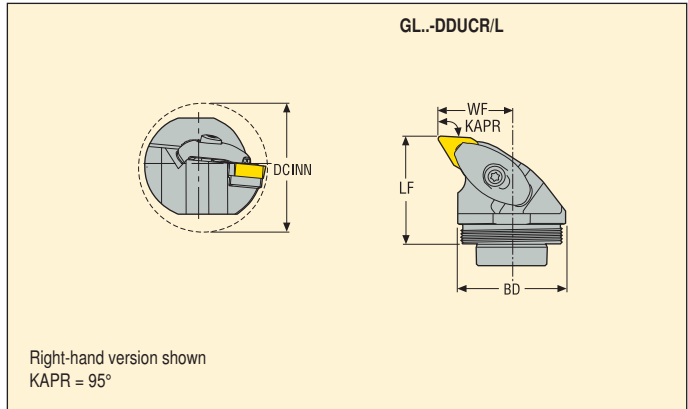
Please check availability in current price and stock-list

*To be ordered separately

Toolholders for inserts DCGT, DCGW, DCMT, DCMW and DCMX – Metric



- For inserts programme, see MN Turning catalogue
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see MN Turning catalogue
- For damping holders programme, see MN Turning catalogue



Size	Ordering and Product No.	Designation	Dimensions in mm				GAMO°	LAMS°	KG	Insert	
			DCINN	BD	WF	LF					
GL32	11	02994499	GL32-DDUCR-22032-11JET	63	32	22	32	0	-5	0,2	DC..11T3...
		02994496	GL32-DDUCL-22032-11JET	63	32	22	32	0	-5	0,2	DC..11T3..
GL40	11	02994556	GL40-DDUCR-27032-11JET	63	40	27	32	0	-5	0,2	DC..11T3..
		02994555	GL40-DDUCL-27032-11JET	63	40	27	32	0	-5	0,2	DC..11T3..
GL50	11	02994558	GL50-DDUCR-32032-11JET	60	50	32	32	0	-5	0,3	DC..11T3..
		02994557	GL50-DDUCL-32032-11JET	60	50	32	32	0	-5	0,3	DC..11T3..

Spare Parts, Parts included in delivery

Accessories*

For	Clamp key	Clamp screw	Coolant clamp	Coolant seal	Insert shim	Key (T-handle)	O-ring	Shim key	Shim screw	Spring	Clamp kit
GL32	H4B-T09P	L84017-T09P	CP14U00S-2	930RD13	126.19-620	DOUBLE-T	O-RING-5.0X1.2	H4B-T15P	C94006-T15P	S5608	CP14U00S-2-SET
GL40	H4B-T09P	L84017-T09P	CP14U00S-2	930RD13	126.19-620	DOUBLE-T	O-RING-5.0X1.2	H4B-T15P	C94006-T15P	S5608	CP14U00S-2-SET
GL50	H4B-T09P	L84017-T09P	CP14U00S-2	930RD13	126.19-620	DOUBLE-T	O-RING-5.0X1.2	H4B-T15P	C94006-T15P	S5608	CP14U00S-2-SET

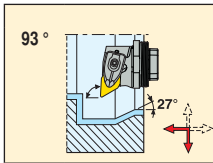
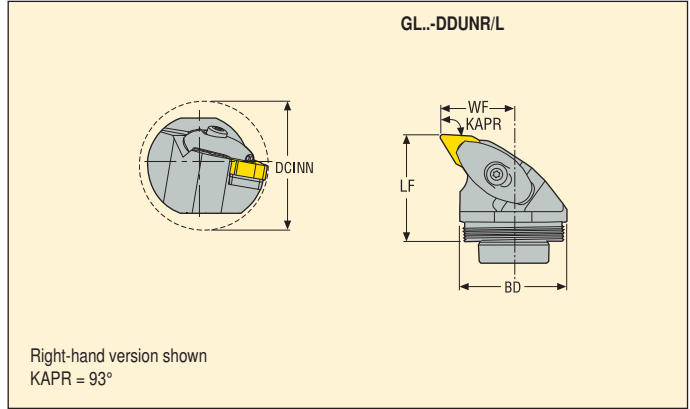
Please check availability in current price and stock-list

*To be ordered separately

Toolholders for inserts DNGG, DNGN, DNMA, DNMG, DNMM, DNMU and DNMX – Metric



- For inserts programme, see MN Turning catalogue
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see MN Turning catalogue
- For damping holders programme, see MN Turning catalogue



Size	Ordering and Product No.	Designation	Dimensions in mm				GAMO°	LAMS°	KG	Key	
			DCINN	BD	WF	LF					
GL32	11	02994328	GL32-DDUNR-22032-11JET	40	32	22	32	-6	-10	0,2	DN..1104..
		02994326	GL32-DDUNL-22032-11JET	40	32	22	32	-6	-10	0,2	DN..1104..
	15	02994329	GL32-DDUNR-22032-15JET	40	32	22	32	-6	-14	0,2	DN..1506..
		02994327	GL32-DDUNL-22032-15JET	40	32	22	32	-6	-14	0,2	DN..1506..
GL40	11	02994345	GL40-DDUNR-27032-11JET	50	32	27	32	-6	-10	0,2	DN..1104..
		02994342	GL40-DDUNL-27032-11JET	50	32	27	32	-6	-10	0,2	DN..1104..
	15	02994346	GL40-DDUNR-27032-15JET	50	40	27	32	-6	-14	0,2	DN..1506..
		02994343	GL40-DDUNL-27032-15JET	50	40	27	32	-6	-14	0,2	DN..1506..
GL50	15	02994358	GL50-DDUNR-32032-15JET	60	50	32	32	-6	-14	0,4	DN..1506..
		02994357	GL50-DDUNL-32032-15JET	60	50	32	32	-6	-14	0,4	DN..1506..

Spare Parts, Parts included in delivery

Accessories*

For	Clamp key	Clamp screw	Coolant clamp	Coolant seal	Insert shim	Key (T-handle)	O-ring	Shim/clamp key	Shim key	Shim screw	Spring	Clamp kit
32-11	–	L84017-T09P	CN14U00S-2	930RD13	DDN110310	DOUBLE-T	O-RING-5.0X1.2	H4B-T09P	–	C03007-T09P	S5608	CN14U00S-2-SET
32R-15	H4B-T09P	L84017-T09P	CN14U10S-2R	930RD13	DDN150416	DOUBLE-T	O-RING-5.0X1.2	–	H4B-T15P	C04008-T15P	S5608	CN14U10S-2R-SET
32L-15	H4B-T09P	L84017-T09P	CN14U10S-2L	930RD13	DDN150416	DOUBLE-T	O-RING-5.0X1.2	–	H4B-T15P	C04008-T15P	S5608	CN14U10S-2L-SET
40-11	–	L84017-T09P	CN14U00S-2	930RD13	DDN110310	DOUBLE-T	O-RING-5.0X1.2	H4B-T09P	–	C03007-T09P	S5608	CN14U00S-2-SET
40-15	–	L85021-T15P	CN17U00S-2	930RD13	DDN150416	DOUBLE-T	O-RING-5.0X1.2	H4B-T15P	–	C04008-T15P	S6912	CN17U00S-2-SET
50-15	–	L85021-T15P	CN17U00S-2	930RD13	DDN150416	DOUBLE-T	O-RING-5.0X1.2	H4B-T15P	–	C04008-T15P	S6912	CN17U00S-2-SET

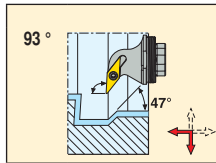
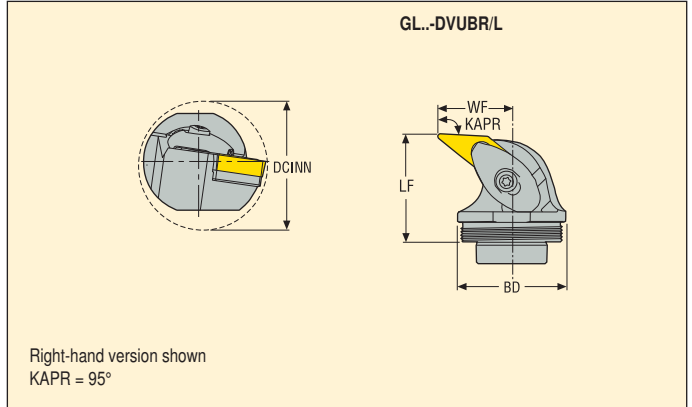
Please check availability in current price and stock-list

*To be ordered separately

Toolholders for inserts VBGT, VBGW, VBMT and VBMW – Metric



- For inserts programme, see MN Turning catalogue
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see MN Turning catalogue
- For damping holders programme, see MN Turning catalogue



Size	Ordering and Product No.	Designation	Dimensions in mm				GAMO°	LAMS°	KG	
			DCINN	BD	WF	LF				
GL32	16 02994507	GL32-DVUBR-22032-16JET	40	32	22	32	0	-8	0,2	VB..1604..
	02994506	GL32-DVUBL-22032-16JET	40	32	22	32	0	-8	0,2	VB..1604..
GL40	16 02994515	GL40-DVUBR-27032-16JET	50	40	27	32	0	-3	0,2	VB..1604..
	02994514	GL40-DVUBL-27032-16JET	50	40	27	32	0	-3	0,2	VB..1604..
GL50	16 02994522	GL50-DVUBR-32032-16JET	63	50	32	32	0	-3	0,3	VB..1604..
	02994521	GL50-DVUBL-32032-16JET	63	50	32	32	0	-3	0,3	VB..1604..

Spare Parts, Parts included in delivery

Accessories*

For	Clamp key	Clamp screw	Coolant clamp	Coolant seal	Insert shim	Key (T-handle)	O-ring	Shim key	Shim screw	Spring	Clamp kit
GL32..R	H4B-T09P	L84017-T09P	CP14U20S-2R	930RD13	171.19-620	DOUBLE-T	O-RING-5.0X1.2	H4B-T15P	C94006-T15P	S5608	CP14U20S-2R-SET
GL32..L	H4B-T09P	L84017-T09P	CP14U20S-2L	930RD13	171.19-620	DOUBLE-T	O-RING-5.0X1.2	H4B-T15P	C94006-T15P	S5608	CP14U20S-2L-SET
GL40..R	H4B-T09P	L84017-T09P	CP14U20S-2R	930RD13	171.19-620	DOUBLE-T	O-RING-5.0X1.2	H4B-T15P	C94006-T15P	S5608	CP14U20S-2R-SET
GL40..L	H4B-T09P	L84017-T09P	CP14U20S-2L	930RD13	171.19-620	DOUBLE-T	O-RING-5.0X1.2	H4B-T15P	C94006-T15P	S5608	CP14U20S-2L-SET
GL50..R	H4B-T09P	L84017-T09P	CP14U20S-2R	930RD13	171.19-620	DOUBLE-T	O-RING-5.0X1.2	H4B-T15P	C94006-T15P	S5608	CP14U20S-2R-SET
GL50..L	H4B-T09P	L84017-T09P	CP14U20S-2L	930RD13	171.19-620	DOUBLE-T	O-RING-5.0X1.2	H4B-T15P	C94006-T15P	S5608	CP14U20S-2L-SET

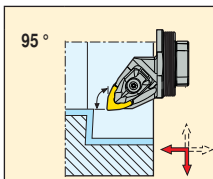
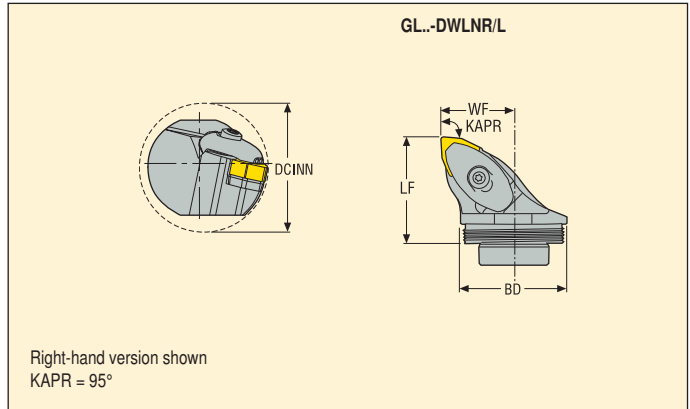
Please check availability in current price and stock-list

*To be ordered separately

Toolholders for inserts WNGG, WNMA, WNMG and WNMM – Metric



- For inserts programme, see MN Turning catalogue
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see MN Turning catalogue
- For damping holders programme, see MN Turning catalogue



Size		Ordering and Product No.	Designation	Dimensions in mm				GAMO°	LAMS°	KG	
				DCINN	BD	WF	LF				
GL32	06	02994332	GL32-DWLNR-22032-06JET	40	32	22	32	-5	-12	0,2	WN..0604..
		02994330	GL32-DWLNL-22032-06JET	40	32	22	32	-5	-12	0,2	WN..0604..
GL40	06	02994349	GL40-DWLNR-27032-06JET	50	40	27	32	-5	-12	0,2	WN..0604..
		02994347	GL40-DWLNL-27032-06JET	50	40	27	32	-5	-12	0,2	WN..0604..
GL50	06	02994361	GL50-DWLNR-32032-06JET	60	50	32	32	-5	-12	0,3	WN..0604..
		02994359	GL50-DWLNL-32032-06JET	60	50	32	32	-5	-12	0,3	WN..0604..

Spare Parts, Parts included in delivery

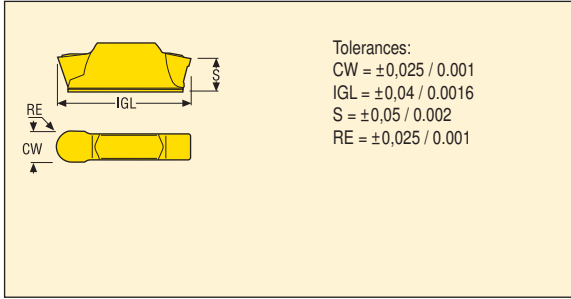
Accessories*

For	Clamp screw	Coolant clamp	Coolant seal	Insert shim	Key (T-handle)	O-ring	Shim/clamp key	Shim screw	Spring	Clamp kit
GL32	L84017-T09P	CN14U00S-2	930RD13	DWN060310	DOUBLE-T	O-RING-5.0X1.2	H4B-T09P	C03007-T09P	S5608	CN14U00S-2-SET
GL40	L84017-T09P	CN14U00S-2	930RD13	DWN060310	DOUBLE-T	O-RING-5.0X1.2	H4B-T09P	C03007-T09P	S5608	CN14U00S-2-SET
GL50	L84017-T09P	CN14U00S-2	930RD13	DWN060310	DOUBLE-T	O-RING-5.0X1.2	H4B-T09P	C03007-T09P	S5608	CN14U00S-2-SET

Please check availability in current price and stock-list

*To be ordered separately

LCGN-LF – Metric / Inch



Size	Dimensions in mm			Dimensions in inch		
	CW	IGL	S	CW	IGL	S
1603	3,000	16,60	4,40	0.118	0.654	0.173
1604	4,000	16,60	4,35	0.157	0.654	0.171
1605	5,000	17,20	4,30	0.197	0.677	0.169
1606	6,000	17,20	4,20	0.236	0.677	0.165



Inserts	Designation	RE mm	RE inch	Grades			
				Coated		Uncoated	
				CBN170C	CBN010	CBN170	CBN200
LCGN...MO-LF	LCGN1603MO-0300E25-LF	1,5	0.059		02916284	02728731	
	LCGN1603MO-0300S-LF	1,5	0.059				02466820
	LCGN1603MO-0300S01025LF	1,5	0.059		02866872		
	LCGN1604MO-0400E25-LF	2,0	0.079		02916287	02728742	
	LCGN1604MO-0400S-LF	2,0	0.079				02466822
	LCGN1604MO-0400S01025LF	2,0	0.079		02866877		
	LCGN1605MO-0500E25-LF	2,5	0.098	02860203	02916288	02728743	
	LCGN1605MO-0500S-LF	2,5	0.098				02466825
	LCGN1605MO-0500S01025LF	2,5	0.098		02866880		
	LCGN1606MO-0600E25-LF	3,0	0.118		02916290		
LCGN1606MO-0600S-LF	3,0	0.118				02466826	
LCGN1606MO-0600S01025LF	3,0	0.118		02866882			

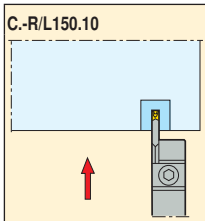
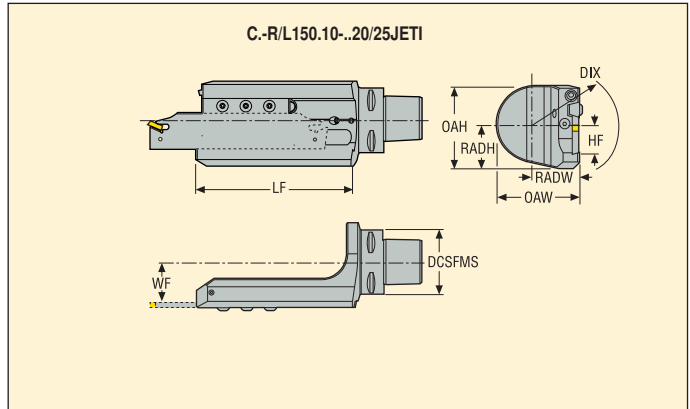
■ Stock standard
 Subject to change refer to current price- and stock-list

Tip sizes, see MN Turning catalogue
 Edge preparation, see MN Turning catalogue

Adapters C.-R/L150.10-..20/25JETI for Parting-off – Metric



• For inserts programme, see MN Turning catalogue



Capto size	Ordering and Product No.	Designation	Dimensions in mm									KG
			DIX	DCSFMS	OAW	RADW	RADH	OAH	LF	HF	WF	
C5	03134584	C5-R150.10-122-20JETI	85	50	56	31,0	32,0	58,5	122	20,0	26,0	1,4
	03134583	C5-L150.10-122-20JETI	85	50	56	31,0	32,0	58,5	122	20,0	26,0	1,4
C6	03134586	C6-R150.10-160-25JETI	100	63	70	37,0	37,0	69,0	160	25,0	32,0	2,5
	03134585	C6-L150.10-160-25JETI	100	63	70	37,0	37,0	69,0	160	25,0	32,0	2,5
C8	03134591	C8-R150.10-160-25JETI	111	80	86	45,5	37,0	69,0	160	25,0	40,5	3,4
	03134590	C8-L150.10-160-25JETI	111	80	86	45,5	37,0	69,0	160	25,0	40,5	3,4

Spare Parts, Parts included in delivery

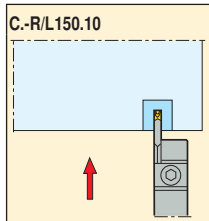
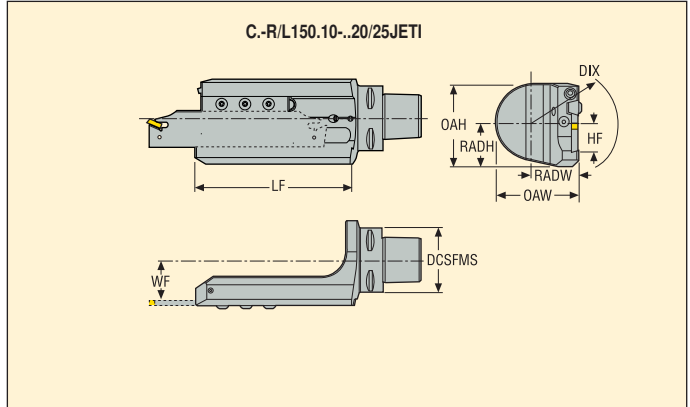
For	O-ring	Wedge clamp	Wedge screw
C5	ORING-20X2	5431080-04	5512031-09
C6	5641005-74	5431080-02	5512031-09
C8	5641005-74	5431080-02	5512031-09

Please check availability in current price and stock-list

Adapters C.-R/L150.10-..20/25JETI for Parting-off – Inch



• For inserts programme, see MN Turning catalogue



Capto size	Ordering and Product No.	Designation	Dimensions in inch										lbs
			DIX	DCSFMS	OAW	RADW/RADH	OAH	LF	HF	WF			
C5	03134584	C5-R150.10-122-20JETI	3.35	1.97	2.20	1.22	1.26	2.30	4.80	0.79	1.02	3.09	
	03134583	C5-L150.10-122-20JETI	3.35	1.97	2.20	1.22	1.26	2.30	4.80	0.79	1.02	3.09	
C6	03134586	C6-R150.10-160-25JETI	3.94	2.48	2.74	1.46	1.46	2.72	6.30	0.98	1.26	5.51	
	03134585	C6-L150.10-160-25JETI	3.94	2.48	2.74	1.46	1.46	2.72	6.30	0.98	1.26	5.51	
C8	03134591	C8-R150.10-160-25JETI	4.37	3.15	3.37	1.79	1.46	2.72	6.30	0.98	1.59	7.50	
	03134590	C8-L150.10-160-25JETI	4.37	3.15	3.37	1.79	1.46	2.72	6.30	0.98	1.59	7.50	

Spare Parts, Parts included in delivery

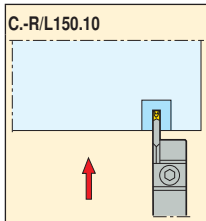
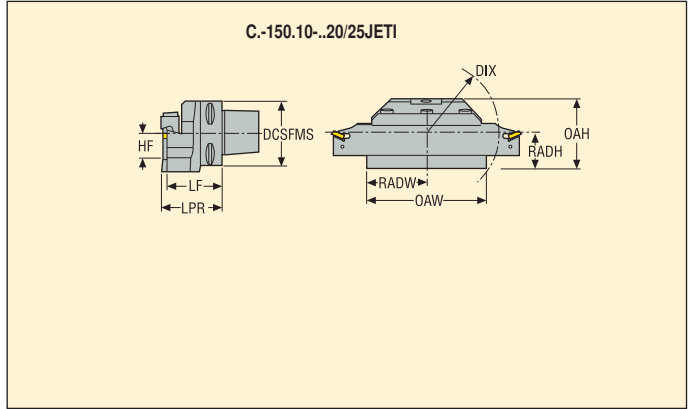
For	O-ring	Wedge clamp	Wedge screw
C5	ORING-20X2	5431080-04	5512031-09
C6	5641005-74	5431080-02	5512031-09
C8	5641005-74	5431080-02	5512031-09

Please check availability in current price and stock-list

Adapters C.-150.10--20/25JETI for Parting-off – Metric



• For inserts programme, see MN Turning catalogue



Capto size	Ordering and Product No.	Designation	Dimensions in mm									KG
			DIX	DCSFMS	OAW	RADW	RADH	OAH	LPR	LF	HF	
C5	03134581	C5-150.10-040-20JETI	96	50	80	40,0	30,0	80,0	40,0	35	20,0	0,9
C6	03134582	C6-150.10-050-25JETI	103	63	82	41,0	37,0	82,0	50,0	45	25,0	1,6
C8	03134589	C8-150.10-050-25JETI	103	80	82	41,0	37,0	82,0	50,0	45	25,0	2,4

Spare Parts, Parts included in delivery

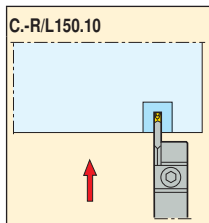
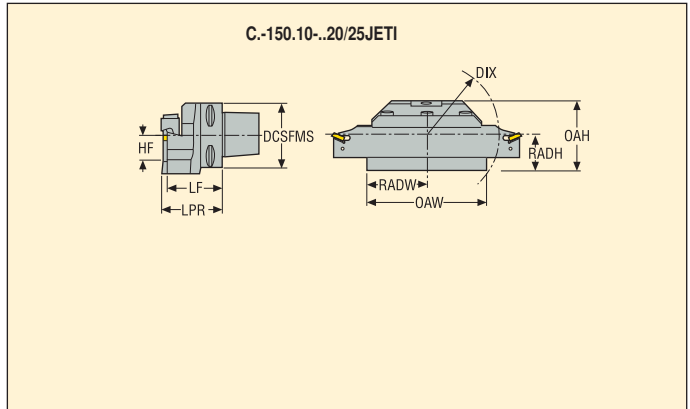
For	O-ring	Wedge clamp	Wedge screw
C5	ORING-20X2	5431080-04	5512031-09
C6	ORING-20X2	5431080-02	5512031-09
C8	ORING-20X2	5431080-02	5512031-09

Please check availability in current price and stock-list

Adapters C.-150.10-..20/25JETI for Parting-off – Inch



• For inserts programme, see MN Turning catalogue



Capto size	Ordering and Product No.	Designation	Dimensions in inch									lbs
			DIX	DCSFMS	OAW	RADW/RADH	OAH	LPR	LF	HF		
C5	03134581	C5-150.10-040-20JETI	3.78	1.97	3.15	1.57	1.18	3.15	1.57	1.38	0.79	1.98
C6	03134582	C6-150.10-050-25JETI	4.06	2.48	3.23	1.61	1.46	3.23	1.97	1.77	0.98	3.53
C8	03134589	C8-150.10-050-25JETI	4.06	3.15	3.23	1.61	1.46	3.23	1.97	1.77	0.98	5.29

Spare Parts, Parts included in delivery

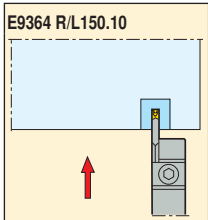
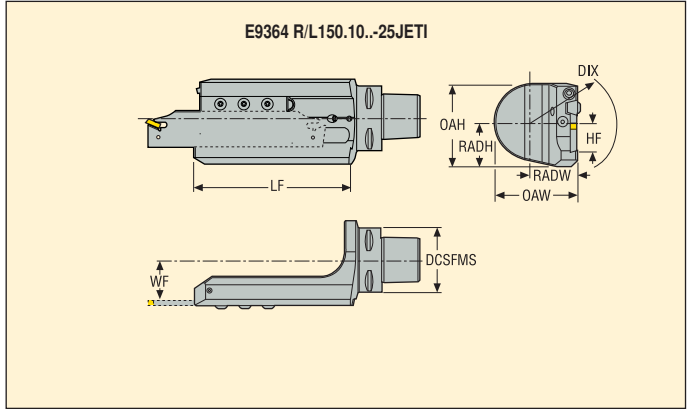
For	O-ring	Wedge clamp	Wedge screw
C5	ORING-20X2	5431080-04	5512031-09
C6	ORING-20X2	5431080-02	5512031-09
C8	ORING-20X2	5431080-02	5512031-09

Please check availability in current price and stock-list

Adapters E9364-R/L150.10..-25JETI for Parting-off – Metric



- For inserts programme, see MN Turning catalogue



Ordering and Product No.	Designation	Dimensions in mm									KG
		DIX	DCSFMS	OAW	RADW	RADH	OAH	LF	HF	WF	
03134588	E9364-R150.10-175-25JETI	100	63	70	37,0	37,0	69,0	175,0	25	32,0	2,5
03134587	E9364-L150.10-175-25JETI	100	63	70	37,0	37,0	69,0	175,0	25	32,0	2,5

Spare Parts, Parts included in delivery

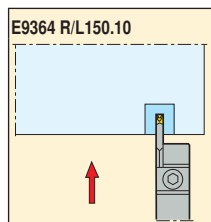
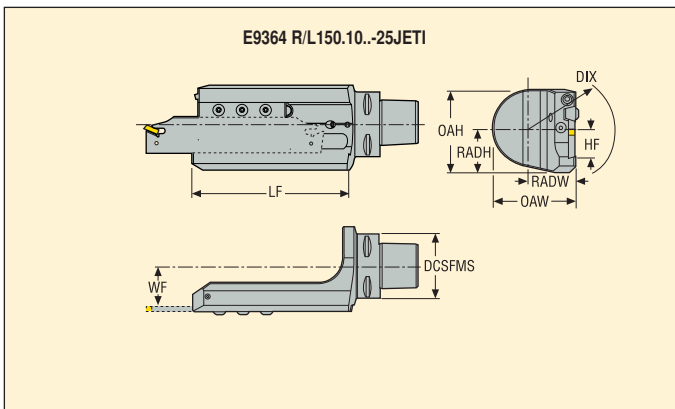
For	O-ring	Wedge clamp	Wedge screw
E9364-R/L	5641005-74	5431080-02	5512031-09

Please check availability in current price and stock-list

Adapters E9364-R/L150.10..-25JETI for Parting-off – Inch



- For inserts programme, see MN Turning catalogue



Ordering and Product No.	Designation	Dimensions in inch										lbs
		DIX	DCSFMS	OAW	RADW	RADH	OAH	LF	HF	WF		
03134588	E9364-R150.10-175-25JETI	3.94	2.48	2.74	1.46	1.46	2.72	6.89	0.98	1.26	5.51	
03134587	E9364-L150.10-175-25JETI	3.94	2.48	2.74	1.46	1.46	2.72	6.89	0.98	1.26	5.51	

Spare Parts, Parts included in delivery

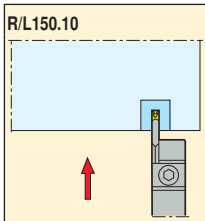
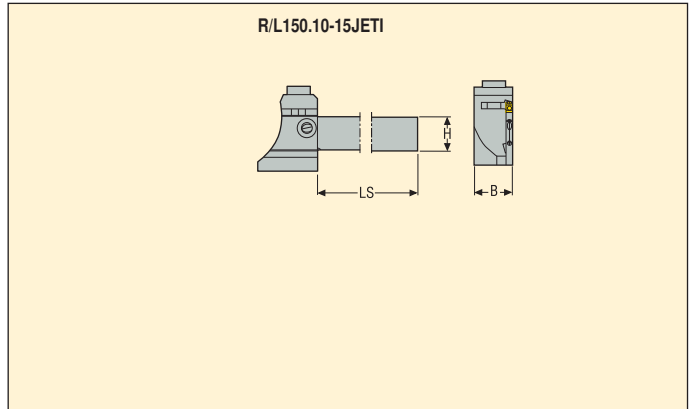
For	O-ring	Wedge clamp	Wedge screw
E9364-R/L	5641005-74	5431080-02	5512031-09

Please check availability in current price and stock-list

Adapters R/L150.10-..15JETI for Parting-off – Inch



• For inserts programme, see MN Turning catalogue



Ordering and Product No.	Designation	Dimensions in inch			lbs
		H	B	LS	
03128625	R150.10-0500-15JETI	0.50	0.50	3.16	0.44
03128627	R150.10-0625-15JETI	0.62	0.62	3.16	0.66
03128629	R150.10-0750-15JETI	0.75	0.75	3.16	0.66
03128631	R150.10-1000-15JETI	1.00	1.00	4.66	1.54
03128626	L150.10-0500-15JETI	0.50	0.50	3.16	0.44
03128628	L150.10-0625-15JETI	0.62	0.62	3.16	0.66
03128630	L150.10-0750-15JETI	0.75	0.75	3.16	0.66
03128632	L150.10-1000-15JETI	1.00	1.00	4.66	1.54

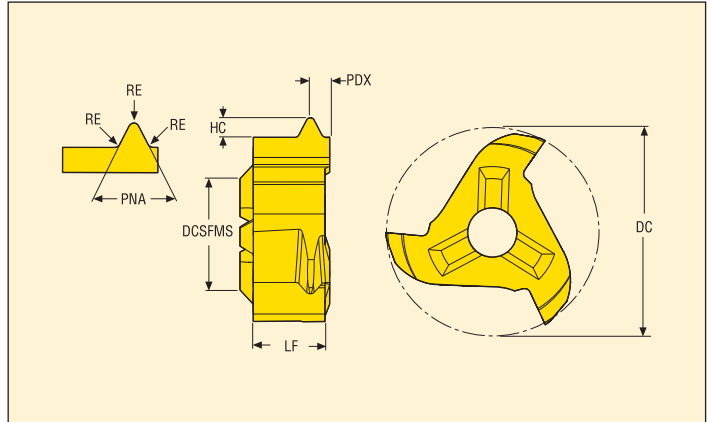
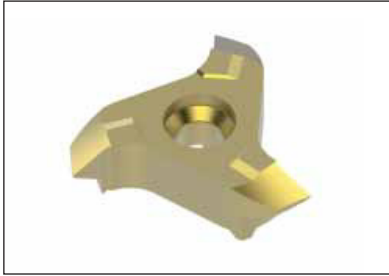
Spare Parts, Parts included in delivery

For	Key	Ring	Screw
R/L150	4SMS795	ORING-4X1.5	MC6S5X18

Please check availability in current price and stock-list

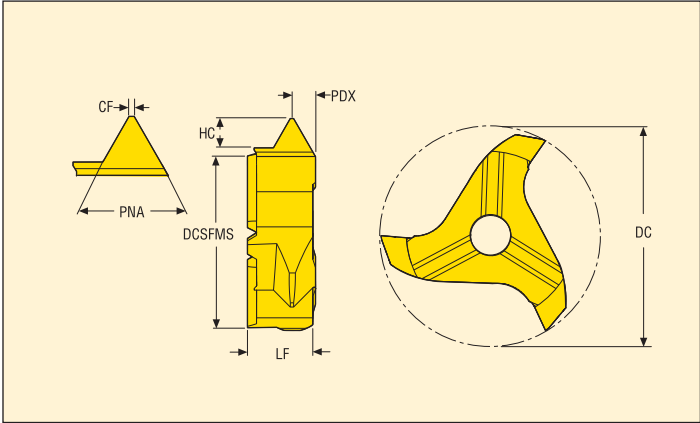
Threading R335.14 Inserts

335.14 Insert: Threading profile Whitworth – Metric



Designation	Dimensions in mm							Grades		
	DC	DCSFMS	HC	LF	PDX	PNA	RE	ZEFP	Coated	
									F32M	
R335.14-117WXF11.06Z3	11,7	6,0	1,48	3,6	1,6	55,0	0,31	3	03137267	
R335.14-117WXF14.06Z3	11,7	6,0	1,16	3,6	1,3	55,0	0,24	3	03137268	
R335.14-117WXF19.06Z3	11,7	6,0	0,86	3,6	1,1	55,0	0,18	3	03137269	
R335.14-157WXF14.08Z3	15,7	8,0	1,17	4,6	1,5	55,0	0,24	3	03137270	
R335.14-177WXF11.09Z3	17,7	9,0	1,48	5,85	1,45	55,0	0,31	3	03137285	
R335.14-177WXF14.09Z3	17,7	9,0	1,16	5,85	1,25	55,0	0,24	3	03137284	
R335.14-177WXF19.09Z3	17,7	9,0	0,856	5,85	0,95	55,0	0,18	3	03137283	

335.14 Insert: Threading Partial profile – Metric

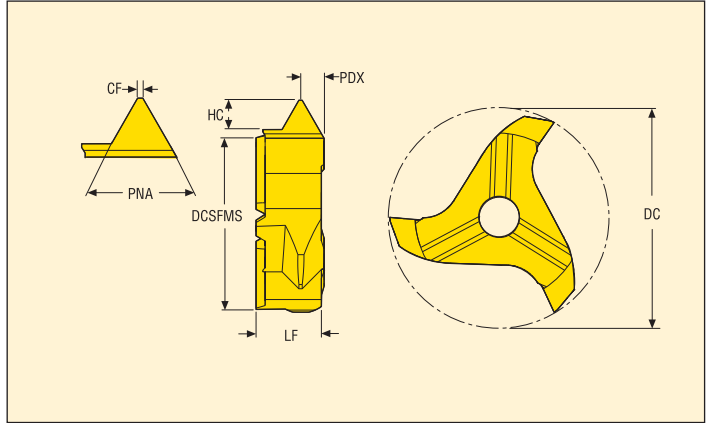


Designation	Pitch		Dimensions in mm							Grades		
	TPN	TPX	DC	DCSFMS	CF	HC	LF	PDX	PNA	ZEFP	Coated	
											F _{32M}	
R335.14-117MNP100200.06Z3	1,0	2,0	11,7	6,0	0,13	1,25	3,6	0,8	60,0	3	03137308	
R335.14-117MNP200300.06Z3	2,0	3,0	11,7	6,0	0,25	1,78	3,6	1,2	60,0	3	03137307	
R335.14-157MNP150275.08Z3	1,5	2,75	15,7	8,0	0,19	1,67	4,6	1,1	60,0	3	03137309	
R335.14-157MNP250300.08Z3	2,5	3,0	15,7	8,0	0,31	1,78	4,6	1,2	60,0	3	03137310	
R335.14-177MNP100200.09Z3	1,0	2,0	17,7	9,0	0,12	1,19	5,85	1,15	60,0	3	03137311	
R335.14-177MNP150275.09Z3	1,5	2,75	17,7	9,0	0,19	1,62	5,85	1,25	60,0	3	03137312	
R335.14-177MNP200375.09Z3	2,0	3,75	17,7	9,0	0,25	2,22	5,85	1,65	60,0	3	03137313	
R335.14-177MNP300550.09Z3	3,0	5,5	17,7	9,0	0,38	3,25	5,85	2,25	60,0	3	03137314	
R335.14-217MNP100200.12Z3	1,0	2,0	21,7	12,0	0,12	1,19	5,85	1,25	60,0	3	03137315	
R335.14-217MNP200375.12Z3	2,0	3,75	21,7	12,0	0,25	2,22	5,85	1,65	60,0	3	03137316	
R335.14-217MNP250450.12Z3	2,5	4,5	21,7	12,0	0,25	2,7	5,85	2,15	60,0	3	03137317	
R335.14-217MNP350600.12Z3	3,5	6,0	21,7	12,0	0,44	3,84	5,85	2,65	60,0	3	03137318	
R335.14-277MNP250500.14Z3	2,5	5,0	27,7	14,0	0,37	2,93	6,6	2,6	60,0	3	03137319	
R335.14-277MNP400600.14Z3	4,0	6,0	27,7	14,0	0,5	4,6	6,6	3,0	60,0	3	03137320	

Threading R335.14 Inserts



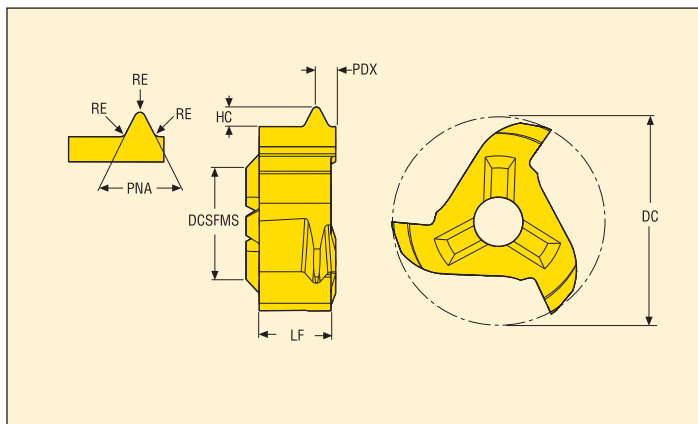
335.14 Insert: Threading profile UN - Metric



Designation	Dimensions in mm							ZEFP	Grades	
	DC	DCSFMS	HC	LF	PDX	PNA	CF		Coated	
									F32M	
R335.14-177UNNF10.09Z3	17,7	9,0	1,375	5,85	1,25	60,0	0,32	3	03137273	
R335.14-177UNNF11.09Z3	17,7	9,0	1,249	5,85	1,05	60,0	0,29	3	03137274	
R335.14-177UNNF12.09Z3	17,7	9,0	1,146	5,85	1,05	60,0	0,27	3	03137276	
R335.14-177UNNF14.09Z3	17,7	9,0	0,982	5,85	0,85	60,0	0,23	3	03137277	
R335.14-177UNNF16.09Z3	17,7	9,0	0,859	5,85	0,85	60,0	0,2	3	03137278	
R335.14-177UNNF18.09Z3	17,7	9,0	0,763	5,85	0,85	60,0	0,18	3	03137279	
R335.14-177UNNF20.09Z3	17,7	9,0	0,687	5,85	0,65	60,0	0,16	3	03137280	
R335.14-177UNNF24.09Z3	17,7	9,0	0,572	5,85	0,65	60,0	0,13	3	03137282	
R335.14-177UNNF6.09Z3	17,7	9,0	2,291	5,85	1,65	60,0	0,53	3	03137271	
R335.14-177UNNF8.09Z3	17,7	9,0	1,718	5,85	1,45	60,0	0,4	3	03137272	

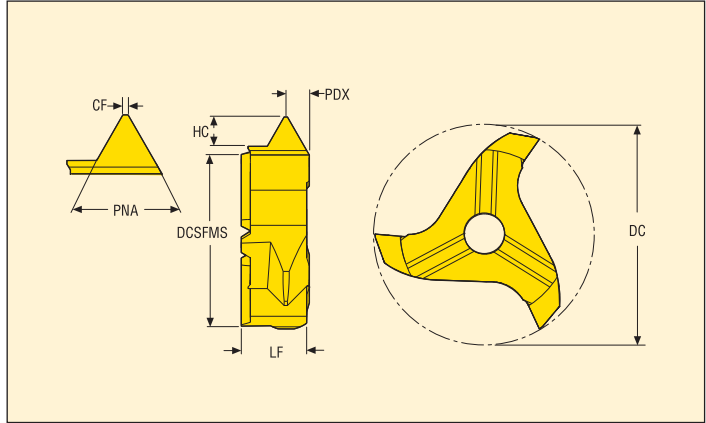
Threading R335.14 Inserts

335.14 Insert: Threading profile Whitworth – Inch



Designation	Dimensions in inch								Grades	
	DC	DCSFMS	HC	LF	PDX	PNA	RE	ZEFP	Coated	
									F32M	
R335.14-117WXF11.06Z3	0.461	6,0	0.058	0.142	0.063	55,0	0.012	3	03137267	
R335.14-117WXF14.06Z3	0.461	6,0	0.046	0.142	0.051	55,0	0.009	3	03137268	
R335.14-117WXF19.06Z3	0.461	6,0	0.034	0.142	0.043	55,0	0.007	3	03137269	
R335.14-157WXF14.08Z3	0.618	8,0	0.046	0.181	0.059	55,0	0.009	3	03137270	
R335.14-177WXF11.09Z3	0.697	9,0	0.058	0.230	0.057	55,0	0.012	3	03137285	
R335.14-177WXF14.09Z3	0.697	9,0	0.046	0.230	0.049	55,0	0.009	3	03137284	
R335.14-177WXF19.09Z3	0.697	9,0	0.034	0.230	0.037	55,0	0.007	3	03137283	

335.14 Insert: Threading Partial profile – Inch



Designation	Pitch		Dimensions in inch							Grades		
	TPN	TPX	DC	DCSFMS	CF	HC	LF	PDX	PNA	ZEFP	Coated	
											F32M	
R335.14-117MNP100200.06Z3	0.039	0.079	0.461	6.0	0.005	0.049	0.142	0.031	60.0	3	03137308	
R335.14-117MNP200300.06Z3	0.079	0.118	0.461	6.0	0.010	0.070	0.142	0.047	60.0	3	03137307	
R335.14-157MNP150275.08Z3	0.059	0.108	0.618	8.0	0.007	0.066	0.181	0.043	60.0	3	03137309	
R335.14-157MNP250300.08Z3	0.098	0.118	0.618	8.0	0.012	0.070	0.181	0.047	60.0	3	03137310	
R335.14-177MNP100200.09Z3	0.039	0.079	0.697	9.0	0.005	0.047	0.230	0.045	60.0	3	03137311	
R335.14-177MNP150275.09Z3	0.059	0.108	0.697	9.0	0.007	0.064	0.230	0.049	60.0	3	03137312	
R335.14-177MNP200375.09Z3	0.079	0.148	0.697	9.0	0.010	0.087	0.230	0.065	60.0	3	03137313	
R335.14-177MNP300550.09Z3	0.118	0.217	0.697	9.0	0.015	0.128	0.230	0.089	60.0	3	03137314	
R335.14-217MNP100200.12Z3	0.039	0.079	0.854	12.0	0.005	0.047	0.230	0.049	60.0	3	03137315	
R335.14-217MNP200375.12Z3	0.079	0.148	0.854	12.0	0.010	0.087	0.230	0.065	60.0	3	03137316	
R335.14-217MNP250450.12Z3	0.098	0.177	0.854	12.0	0.010	0.106	0.230	0.085	60.0	3	03137317	
R335.14-217MNP350600.12Z3	0.138	0.236	0.854	12.0	0.017	0.151	0.230	0.104	60.0	3	03137318	
R335.14-277MNP250500.14Z3	0.098	0.197	1.091	14.0	0.015	0.115	0.260	0.102	60.0	3	03137319	
R335.14-277MNP400600.14Z3	0.157	0.236	1.091	14.0	0.020	0.181	0.260	0.118	60.0	3	03137320	

Cutting speed Thread milling 335.14 – Metric

SMG	R335.14	
	f_z	v_c
P1	0,064	300
P2	0,068	290
P3	0,064	250
P4	0,064	220
P5	0,060	210
P6	0,060	235
P7	0,060	220
P8	0,064	210
P11	0,060	215
P12	0,030	105
M1	0,068	230
M2	0,060	185
M3	0,048	145
M4	0,044	105
M5	0,044	90
K1	0,068	230
K2	0,060	200
K3	0,060	165
K4	0,060	160
K5	0,056	95
K6	0,060	140
K7	0,056	120
N1	0,088	1050
N2	0,088	670
N3	0,088	450
N11	0,088	510
S1	0,044	55
S2	0,044	44
S3	0,040	38
S11	0,048	70
S12	0,048	55
S13	0,044	42
H5	0,040	47
H8	0,032	49
H11	0,040	60
H12	0,040	55
H21	0,032	49

SMG = Seco material group

f_z = mm/tooth (mm/flute)

v_c = m/min

All cutting data are start values

Cutting speed Thread milling 335.14 – Inch

SMG	R335.14	
	f_z	v_c
P1	0.0026	980
P2	0.0024	950
P3	0.0026	820
P4	0.0026	720
P5	0.0027	690
P6	0.0027	770
P7	0.0027	730
P8	0.0026	690
P11	0.0027	710
P12	0.0012	340
M1	0.0024	760
M2	0.0027	610
M3	0.0019	470
M4	0.0019	350
M5	0.0017	295
K1	0.0027	750
K2	0.0024	650
K3	0.0024	550
K4	0.0024	520
K5	0.0022	310
K6	0.0024	460
K7	0.0022	400
N1	0.0035	3425
N2	0.0035	2200
N3	0.0035	1475
N11	0.0035	1675
S1	0.0017	180
S2	0.0017	145
S3	0.0017	125
S11	0.0019	230
S12	0.0019	175
S13	0.0017	135
H5	0.0015	155
H8	0.0013	160
H11	0.0015	205
H12	0.0015	185
H21	0.0013	160

SMG = Seco material group

f_z = in/tooth

v_c = sf/min

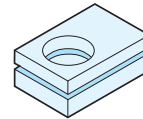
All cutting data are start values

Disc Milling cutter 335.14 – Metric

Disc milling cutter with exchangeable carbide head from diameter 9.7 mm



- A broad range of heads and shanks available for all your disc milling operation by circular interpolation or linear slotting.
- Strong, reliable and precise connection between the head and the cutter body.
- Cover all type of material with universal M geometry and F32M grade.

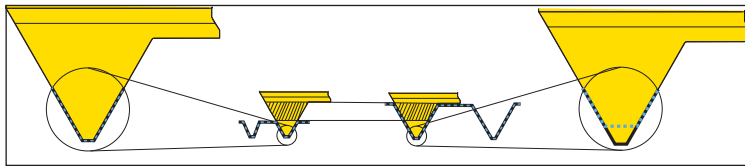


- **Threading:** Head from dia 11,7 to 27,7 mm for partial metric threads with pitch 1-6 mm and full profile whitworth threads with pitch 19 to 11 tpi and UN threads with pitch 24 to 6 tpi.



Image shows exemplary application possibility with similar tool.

Pitch (as of/up to) – Metric



Actual Thread

Standard thread form

Thread milling by circular interpolation can cause thread profile violation when using insert for partial thread. Keep this in mind during the process of selecting tool. The tool diameter need to be small enough compare to the hole diameter. The pitch also needs to be considered.

Insert with partial profile for Metric ISO-Threads are multi tools. That means that each insert could machine different pitches. The insert is designed to meet the minimum pitch size (TPN); Machining this pitch will result in a standard conform thread form.

The given maximum pitch size (TPX) can be machined also with this insert at the expense of standard conformity: The result will be a slightly deeper thread than the standard. The deeper thread is normally accepted, but the application and use needs to be evaluated.

Following table is a recommendation over maximum tool diameter in relation to the thread size and pitch:

ISO-Thread, partial profile											
Pitch	M12	M16	M20	M24	M27	M30	M36	M42	M48	M56	M60
1	10	14	18	22	25	28	34	40	45	53	57
1,5	8	12	16	20	24	26	32	37	43	51	55
2	7	10	14	18	22	24	30	35	40	48	52
2,5	6	8	12	16	20	22	28	32	37	45	48
3		6	10	14	18	20	26	30	36	43	47
3,5				12	16	18	24	29	35	42	46
4							22	27	32	39	43
4,5								24	30	37	40
5								22	27	34	37
5,5								20	25	31	35
6								19	23	29	32

Code Key Thread insert	
R335.14-217MNP250500-12Z3	
R	= Right hand
335	= Disc milling code
14	= System
217	= Head diameter ex 21,7 mm
M	= Thread type (W and UN)
N	= Internal thread (E = external, X = internal/external)
P	= Partial profile (F = Full profile)
250500	= Pitch size (2,50-5,00 mm or ex only a fixed pitch 2,5 mm, 16 tpi...)
12	= Connection size
Z3	= No of teeth

Code key Solid carbide drill

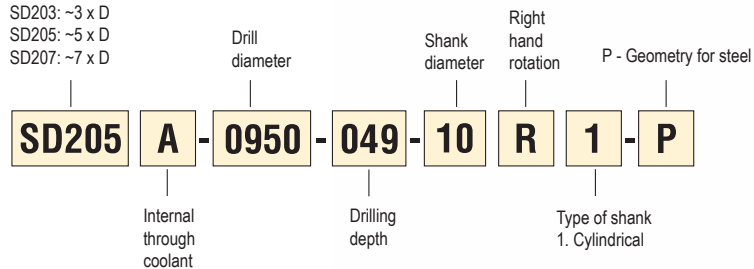
Type of drill

Solid carbide drill:

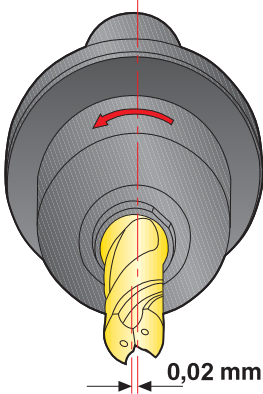
SD203: ~3 x D

SD205: ~5 x D

SD207: ~7 x D



Set up



Holding/run-out

Drills with cylindrical shanks can be used with Shrinkfit holder, hydraulic chucks or collet chucks. Keep the total indicated run-out of the drill within 0,04 mm measured in the spindle.

For best result keep run-out 0,02 mm.

Stability

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

Tool life

Drills should not be used with flank wear exceeding 0,1–0,3 mm measured at the largest point.

Recommended tool holders

For best result use holders:

Type 5603 - Shrinkfit holders, DIN type

Type 5834 - Hydraulic chucks

Type 5672 - D type precision collet chucks

For more information see EPB Tooling systems catalogue.

Shrinkfit holder

(For cylindrical, R1 shanks only)



Hydraulic chuck

(For cylindrical, -R1 shanks only)

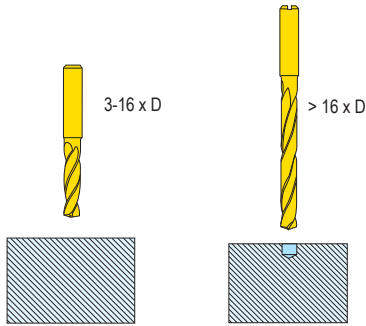


D-type precision collet chucks



Machining methods

Hole entrance on a machined surface

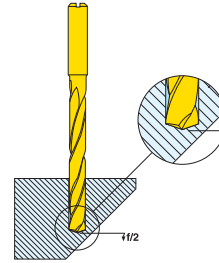


No pre-drilling or entrance feed needed.

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%.

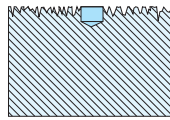


or use SD245A drills.

Irregular/angled hole entrance

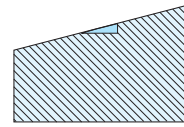
If irregular or angle entrance use pre operations accordingly

Pre drill with a short standard Feedmax



Irregular hole entrance

Pre-machining alternatives



Angled hole entrance

Machine a flat using an end mill from the Seco range

Coolant recommendations

Coolant pressure*

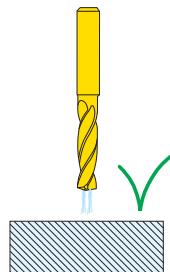
Minimum recommended coolant pressure 10 bar with $\leq 5 \times D$

Minimum recommended coolant pressure 30 bar with $> 5 \times D$

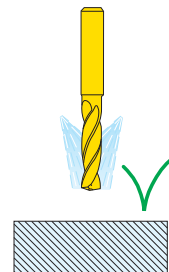
Minimum recommended coolant pressure 40 bar with $> 16 \times D$

Coolant mix

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



First choice

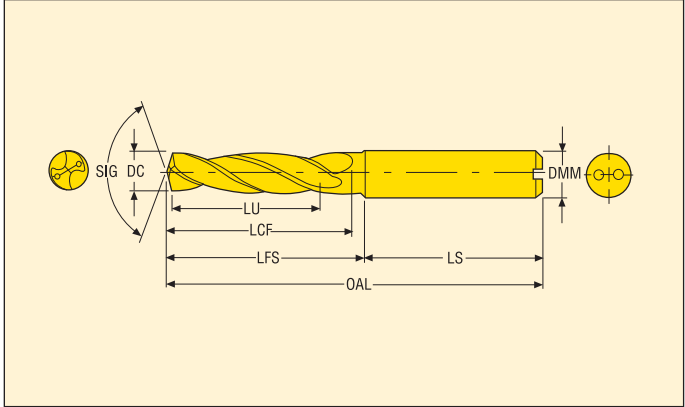


$\leq 5 \times D$

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

Drilling depth ~ 3 x D – Metric

Cylindrical shank DIN 6537A



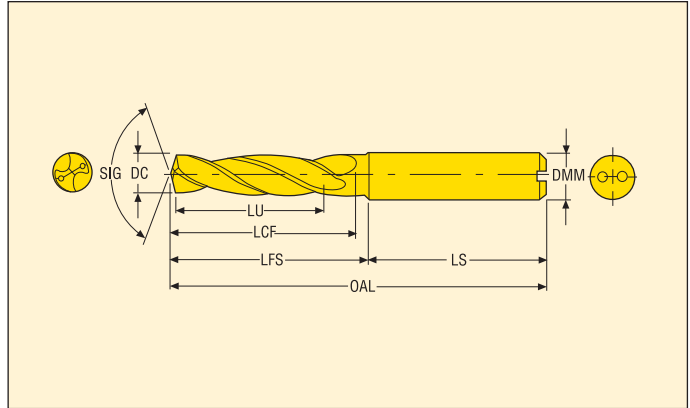
- Internal coolant
- Point angle: 140°
- Coating: TiAlN
- Hole tolerance: IT8-9
- For cutting and machining data see page(s) 172

DC m7 (mm)	LU	Ordering and Product No.	Designation	Dimensions in mm				
				OAL	LFS	LS	LCF	DMM
2.0	7	03045918	SD203A-0200-007-04R1-P	41	14	27	11	4
2.1	7	03045919	SD203A-0210-007-04R1-P	41	14	27	11	4
2.2	7	03045920	SD203A-0220-007-04R1-P	41	14	27	11	4
2.3	8	03045921	SD203A-0230-008-04R1-P	44	17	27	13	4
2,35	8	03138154	SD203A-0235-008-04R1-P	44	17	27	13	4
2,381	8	03120476	SD203A-0238-008-04R1-P	44	17	27	13	4
2.4	8	03045922	SD203A-0240-008-04R1-P	44	17	27	13	4
2.5	8	03045923	SD203A-0250-008-04R1-P	44	17	27	13	4
2.6	8	03045924	SD203A-0260-008-04R1-P	44	17	27	13	4
2.7	9	03045925	SD203A-0270-009-04R1-P	44	17	27	15	4
2,778	9	03120495	SD203A-0278-009-04R1-P	44	17	27	15	4
2.8	9	03045926	SD203A-0280-009-04R1-P	44	17	27	15	4
2.9	9	03045927	SD203A-0290-009-04R1-P	44	17	27	15	4
3.0	14	03045928	SD203A-0300-014-06R1-P	62	26	36	20	6
3.1	14	03045929	SD203A-0310-014-06R1-P	62	26	36	20	6
3,175	14	03046061	SD203A-0318-014-06R1-P	62	26	36	20	6
3.2	14	03045930	SD203A-0320-014-06R1-P	62	26	36	20	6
3,25	14	03045931	SD203A-0325-014-06R1-P	62	26	36	20	6
3.3	14	03045932	SD203A-0330-014-06R1-P	62	26	36	20	6
3.4	14	03045933	SD203A-0340-014-06R1-P	62	26	36	20	6
3.5	14	03045934	SD203A-0350-014-06R1-P	62	26	36	20	6
3,572	14	03046062	SD203A-0357-014-06R1-P	62	26	36	20	6
3.6	14	03045935	SD203A-0360-014-06R1-P	62	26	36	20	6
3,65	14	03045936	SD203A-0365-014-06R1-P	62	26	36	20	6
3.7	14	03045937	SD203A-0370-014-06R1-P	62	26	36	20	6
3.8	17	03045938	SD203A-0380-017-06R1-P	66	30	36	24	6
3.9	17	03045939	SD203A-0390-017-06R1-P	66	30	36	24	6
3,97	17	03046063	SD203A-0397-017-06R1-P	66	30	36	24	6
4.0	17	03045940	SD203A-0400-017-06R1-P	66	30	36	24	6
4.1	17	03045941	SD203A-0410-017-06R1-P	66	30	36	24	6
4.2	17	03045942	SD203A-0420-017-06R1-P	66	30	36	24	6
4.3	17	03045943	SD203A-0430-017-06R1-P	66	30	36	24	6
4,366	17	03046064	SD203A-0437-017-06R1-P	66	30	36	24	6
4.5	17	03045944	SD203A-0450-017-06R1-P	66	30	36	24	6
4.6	17	03045945	SD203A-0460-017-06R1-P	66	30	36	24	6
4,65	17	03045946	SD203A-0465-017-06R1-P	66	30	36	24	6
4.7	17	03045947	SD203A-0470-017-06R1-P	66	30	36	24	6
4,763	20	03046065	SD203A-0476-020-06R1-P	66	30	36	28	6
4.8	20	03045948	SD203A-0480-020-06R1-P	66	30	36	28	6
4.9	20	03045949	SD203A-0490-020-06R1-P	66	30	36	28	6
5.0	20	03045950	SD203A-0500-020-06R1-P	66	30	36	28	6
5.1	20	03045951	SD203A-0510-020-06R1-P	66	30	36	28	6

For intermediate diameters see the My design software.

Drilling depth ~ 3 x D – Metric

Cylindrical shank DIN 6537A



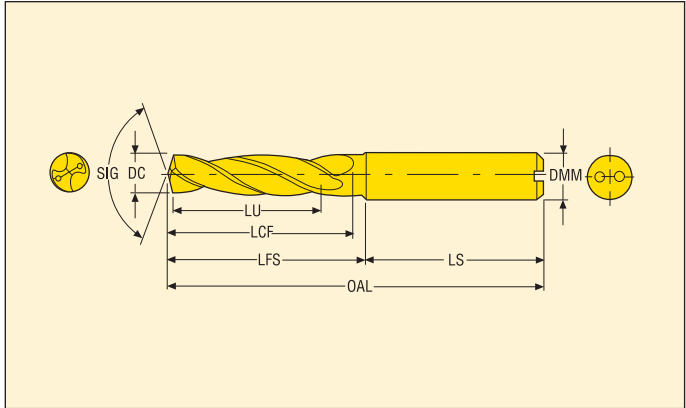
- Internal coolant
- Point angle: 140°
- Coating: TiAlN
- Hole tolerance: IT8-9
- For cutting and machining data see page(s) 172

DC m7 (mm)	LU	Ordering and Product No.	Designation	Dimensions in mm				
				OAL	LFS	LS	LCF	DMM
5,159	20	03046066	SD203A-0516-020-06R1-P	66	30	36	28	6
5,2	20	03045952	SD203A-0520-020-06R1-P	66	30	36	28	6
5,3	20	03045953	SD203A-0530-020-06R1-P	66	30	36	28	6
5,4	20	03045954	SD203A-0540-020-06R1-P	66	30	36	28	6
5,5	20	03045955	SD203A-0550-020-06R1-P	66	30	36	28	6
5,55	20	03045956	SD203A-0555-020-06R1-P	66	30	36	28	6
5,556	20	03046067	SD203A-0556-020-06R1-P	66	30	36	28	6
5,6	20	03045957	SD203A-0560-020-06R1-P	66	30	36	28	6
5,7	20	03045958	SD203A-0570-020-06R1-P	66	30	36	28	6
5,8	20	03045959	SD203A-0580-020-06R1-P	66	30	36	28	6
5,9	20	03045960	SD203A-0590-020-06R1-P	66	30	36	28	6
5,953	20	03046068	SD203A-0595-020-06R1-P	66	30	36	28	6
6,0	20	03045961	SD203A-0600-020-06R1-P	66	30	36	28	6
6,1	24	03045962	SD203A-0610-024-08R1-P	79	43	36	34	8
6,2	24	03045963	SD203A-0620-024-08R1-P	79	43	36	34	8
6,3	24	03045964	SD203A-0630-024-08R1-P	79	43	36	34	8
6,35	24	03046069	SD203A-0635-024-08R1-P	79	43	36	34	8
6,4	24	03045965	SD203A-0640-024-08R1-P	79	43	36	34	8
6,5	24	03045966	SD203A-0650-024-08R1-P	79	43	36	34	8
6,6	24	03045967	SD203A-0660-024-08R1-P	79	43	36	34	8
6,7	24	03045968	SD203A-0670-024-08R1-P	79	43	36	34	8
6,747	24	03046070	SD203A-0675-024-08R1-P	79	43	36	34	8
6,8	24	03045969	SD203A-0680-024-08R1-P	79	43	36	34	8
6,9	24	03045970	SD203A-0690-024-08R1-P	79	43	36	34	8
7,0	24	03045971	SD203A-0700-024-08R1-P	79	43	36	34	8
7,1	29	03045972	SD203A-0710-029-08R1-P	79	43	36	41	8
7,144	29	03046071	SD203A-0714-029-08R1-P	79	43	36	41	8
7,2	29	03045973	SD203A-0720-029-08R1-P	79	43	36	41	8
7,3	29	03045974	SD203A-0730-029-08R1-P	79	43	36	41	8
7,4	29	03045975	SD203A-0740-029-08R1-P	79	43	36	41	8
7,5	29	03045976	SD203A-0750-029-08R1-P	79	43	36	41	8
7,541	29	03046072	SD203A-0754-029-08R1-P	79	43	36	41	8
7,55	29	03045977	SD203A-0755-029-08R1-P	79	43	36	41	8
7,6	29	03045978	SD203A-0760-029-08R1-P	79	43	36	41	8
7,7	29	03045979	SD203A-0770-029-08R1-P	79	43	36	41	8
7,8	29	03045980	SD203A-0780-029-08R1-P	79	43	36	41	8
7,9	29	03045981	SD203A-0790-029-08R1-P	79	43	36	41	8
7,938	29	03046073	SD203A-0794-029-08R1-P	79	43	36	41	8
8,0	29	03045982	SD203A-0800-029-08R1-P	79	43	36	41	8
8,1	35	03045983	SD203A-0810-035-10R1-P	89	49	40	47	10
8,2	35	03045984	SD203A-0820-035-10R1-P	89	49	40	47	10
8,3	35	03045985	SD203A-0830-035-10R1-P	89	49	40	47	10

For intermediate diameters see the My design software.

Drilling depth ~ 3 x D – Metric

Cylindrical shank DIN 6537A



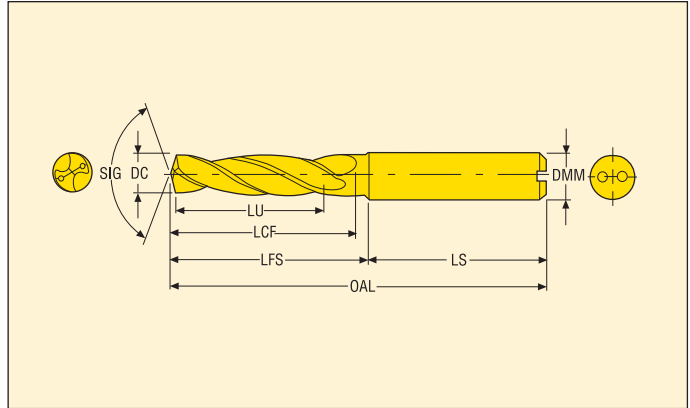
- Internal coolant
- Point angle: 140°
- Coating: TiAlN
- Hole tolerance: IT8-9
- For cutting and machining data see page(s) 172

DC m7 (mm)	LU	Ordering and Product No.	Designation	Dimensions in mm				
				OAL	LFS	LS	LCF	DMM
8,334	35	03046074	SD203A-0833-035-10R1-P	89	49	40	47	10
8,4	35	03045986	SD203A-0840-035-10R1-P	89	49	40	47	10
8,5	35	03045987	SD203A-0850-035-10R1-P	89	49	40	47	10
8,6	35	03045988	SD203A-0860-035-10R1-P	89	49	40	47	10
8,7	35	03045989	SD203A-0870-035-10R1-P	89	49	40	47	10
8,731	35	03046075	SD203A-0873-035-10R1-P	89	49	40	47	10
8,8	35	03045990	SD203A-0880-035-10R1-P	89	49	40	47	10
8,9	35	03045991	SD203A-0890-035-10R1-P	89	49	40	47	10
9,0	35	03045992	SD203A-0900-035-10R1-P	89	49	40	47	10
9,1	35	03045993	SD203A-0910-035-10R1-P	89	49	40	47	10
9,128	35	03046076	SD203A-0913-035-10R1-P	89	49	40	47	10
9,2	35	03045994	SD203A-0920-035-10R1-P	89	49	40	47	10
9,3	35	03045995	SD203A-0930-035-10R1-P	89	49	40	47	10
9,4	35	03045996	SD203A-0940-035-10R1-P	89	49	40	47	10
9,5	35	03045997	SD203A-0950-035-10R1-P	89	49	40	47	10
9,525	35	03046077	SD203A-0953-035-10R1-P	89	49	40	47	10
9,55	35	03045998	SD203A-0955-035-10R1-P	89	49	40	47	10
9,6	35	03045999	SD203A-0960-035-10R1-P	89	49	40	47	10
9,7	35	03046000	SD203A-0970-035-10R1-P	89	49	40	47	10
9,8	35	03046001	SD203A-0980-035-10R1-P	89	49	40	47	10
9,9	35	03046002	SD203A-0990-035-10R1-P	89	49	40	47	10
9,922	35	03046078	SD203A-0992-035-10R1-P	89	49	40	47	10
10,0	35	03046003	SD203A-1000-035-10R1-P	89	49	40	47	10
10,2	40	03046004	SD203A-1020-040-12R1-P	102	57	45	55	12
10,319	40	03046079	SD203A-1032-040-12R1-P	102	57	45	55	12
10,4	40	03046005	SD203A-1040-040-12R1-P	102	57	45	55	12
10,5	40	03046006	SD203A-1050-040-12R1-P	102	57	45	55	12
10,6	40	03046007	SD203A-1060-040-12R1-P	102	57	45	55	12
10,716	40	03046080	SD203A-1072-040-12R1-P	102	57	45	55	12
10,8	40	03046008	SD203A-1080-040-12R1-P	102	57	45	55	12
10,9	40	03046009	SD203A-1090-040-12R1-P	102	57	45	55	12
11,0	40	03046010	SD203A-1100-040-12R1-P	102	57	45	55	12
11,1	40	03046011	SD203A-1110-040-12R1-P	102	57	45	55	12
11,113	40	03046081	SD203A-1111-040-12R1-P	102	57	45	55	12
11,2	40	03046012	SD203A-1120-040-12R1-P	102	57	45	55	12
11,3	40	03046013	SD203A-1130-040-12R1-P	102	57	45	55	12
11,4	40	03046014	SD203A-1140-040-12R1-P	102	57	45	55	12
11,5	40	03046015	SD203A-1150-040-12R1-P	102	57	45	55	12
11,509	40	03046082	SD203A-1151-040-12R1-P	102	57	45	55	12
11,55	40	03046016	SD203A-1155-040-12R1-P	102	57	45	55	12
11,6	40	03046017	SD203A-1160-040-12R1-P	102	57	45	55	12
11,7	40	03046018	SD203A-1170-040-12R1-P	102	57	45	55	12

For intermediate diameters see the My design software.

Drilling depth ~ 3 x D – Metric

Cylindrical shank DIN 6537A



- Internal coolant
- Point angle: 140°
- Coating: TiAlN
- Hole tolerance: IT8-9
- For cutting and machining data see page(s) 172

DC m7 (mm)	LU	Ordering and Product No.	Designation	Dimensions in mm				
				OAL	LFS	LS	LCF	DMM
11,8	40	03046019	SD203A-1180-040-12R1-P	102	57	45	55	12
11,9	40	03046020	SD203A-1190-040-12R1-P	102	57	45	55	12
11,906	40	03046083	SD203A-1191-040-12R1-P	102	57	45	55	12
12,0	40	03046021	SD203A-1200-040-12R1-P	102	57	45	55	12
12,1	43	03046022	SD203A-1210-043-14R1-P	107	62	45	60	14
12,2	43	03046023	SD203A-1220-043-14R1-P	107	62	45	60	14
12,303	43	03046084	SD203A-1230-043-14R1-P	107	62	45	60	14
12,4	43	03046024	SD203A-1240-043-14R1-P	107	62	45	60	14
12,5	43	03046025	SD203A-1250-043-14R1-P	107	62	45	60	14
12,6	43	03046026	SD203A-1260-043-14R1-P	107	62	45	60	14
12,7	43	03046085	SD203A-1270-043-14R1-P	107	62	45	60	14
12,75	43	03046027	SD203A-1275-043-14R1-P	107	62	45	60	14
12,8	43	03046028	SD203A-1280-043-14R1-P	107	62	45	60	14
12,9	43	03046029	SD203A-1290-043-14R1-P	107	62	45	60	14
13,0	43	03046030	SD203A-1300-043-14R1-P	107	62	45	60	14
13,1	43	03046031	SD203A-1310-043-14R1-P	107	62	45	60	14
13,2	43	03046032	SD203A-1320-043-14R1-P	107	62	45	60	14
13,3	43	03046033	SD203A-1330-043-14R1-P	107	62	45	60	14
13,4	43	03046034	SD203A-1340-043-14R1-P	107	62	45	60	14
13,494	43	03046086	SD203A-1349-043-14R1-P	107	62	45	60	14
13,5	43	03046035	SD203A-1350-043-14R1-P	107	62	45	60	14
13,6	43	03046036	SD203A-1360-043-14R1-P	107	62	45	60	14
13,7	43	03046037	SD203A-1370-043-14R1-P	107	62	45	60	14
13,8	43	03046038	SD203A-1380-043-14R1-P	107	62	45	60	14
13,9	43	03046039	SD203A-1390-043-14R1-P	107	62	45	60	14
14,0	43	03046040	SD203A-1400-043-14R1-P	107	62	45	60	14
14,2	45	03046041	SD203A-1420-045-16R1-P	115	67	48	65	16
14,25	45	03138155	SD203A-1425-045-16R1-P	115	67	48	65	16
14,288	45	03046087	SD203A-1429-045-16R1-P	115	67	48	65	16
14,5	45	03046042	SD203A-1450-045-16R1-P	115	67	48	65	16
14,7	45	03046043	SD203A-1470-045-16R1-P	115	67	48	65	16
14,75	45	03046044	SD203A-1475-045-16R1-P	115	67	48	65	16
14,8	45	03046045	SD203A-1480-045-16R1-P	115	67	48	65	16
15,0	45	03046046	SD203A-1500-045-16R1-P	115	67	48	65	16
15,1	45	03046047	SD203A-1510-045-16R1-P	115	67	48	65	16
15,3	45	03046048	SD203A-1530-045-16R1-P	115	67	48	65	16
15,5	45	03046049	SD203A-1550-045-16R1-P	115	67	48	65	16
15,7	45	03046050	SD203A-1570-045-16R1-P	115	67	48	65	16
15,8	45	03046051	SD203A-1580-045-16R1-P	115	67	48	65	16
15,875	45	03046088	SD203A-1588-045-16R1-P	115	67	48	65	16
16,0	45	03046052	SD203A-1600-045-16R1-P	115	67	48	65	16
16,5	51	03046053	SD203A-1650-051-18R1-P	123	75	48	73	18

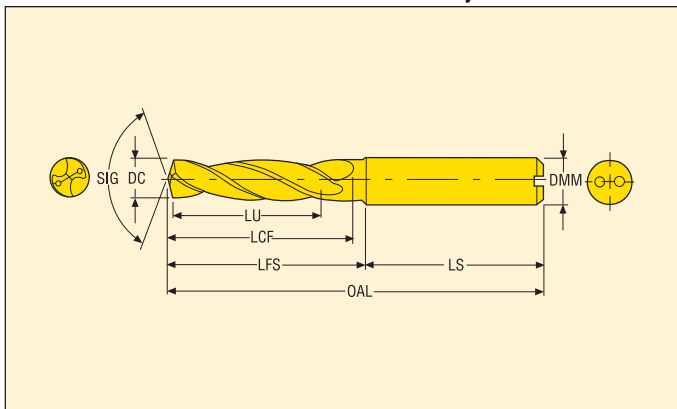
For intermediate diameters see the My design software.

Drilling depth ~ 3 x D – Metric

Cylindrical shank DIN 6537A



- Internal coolant
- Point angle: 140°
- Coating: TiAlN
- Hole tolerance: IT8-9
- For cutting and machining data see page(s) 172

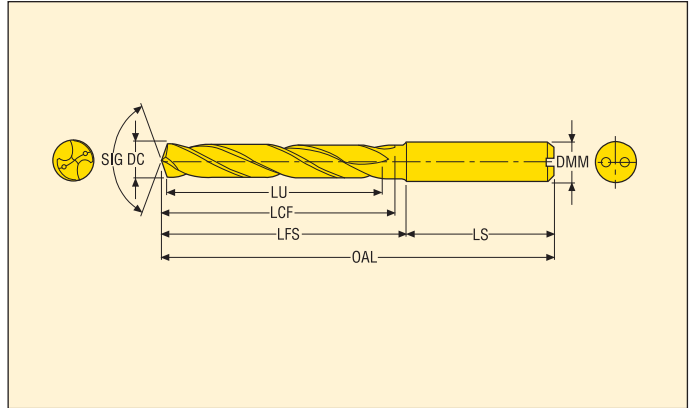


DC m7 (mm)	LU	Ordering and Product No.	Designation	Dimensions in mm				
				OAL	LFS	LS	LCF	DMM
17,0	51	03046054	SD203A-1700-051-18R1-P	123	75	48	73	18
17,5	51	03046055	SD203A-1750-051-18R1-P	123	75	48	73	18
18,0	51	03046056	SD203A-1800-051-18R1-P	123	75	48	73	18
18,5	55	03046057	SD203A-1850-055-20R1-P	131	81	50	79	20
19,0	55	03046058	SD203A-1900-055-20R1-P	131	81	50	79	20
19,05	55	03046089	SD203A-1905-055-20R1-P	131	81	50	79	20
19,5	55	03046059	SD203A-1950-055-20R1-P	131	81	50	79	20
19,8	55	03138156	SD203A-1980-055-20R1-P	131	81	50	79	20
20,0	55	03046060	SD203A-2000-055-20R1-P	131	81	50	79	20

For intermediate diameters see the My design software.

Drilling depth ~ 5 x D – Metric

Cylindrical shank DIN 6537A



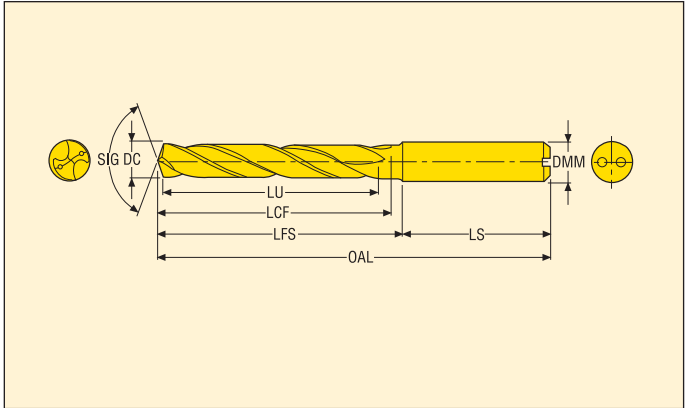
- Internal coolant
- Point angle: 140°
- Coating: TiAlN
- Hole tolerance: IT8-9
- For cutting and machining data see page(s) 173

DC m7 (mm)	LU	Ordering and Product No.	Designation	Dimensions in mm				
				OAL	LFS	LS	LCF	DMM
2,0	12	03046131	SD205A-0200-012-04R1-P	46	19	27	15	4
2,1	12	03046132	SD205A-0210-012-04R1-P	46	19	27	15	4
2,2	12	03046133	SD205A-0220-012-04R1-P	46	19	27	15	4
2,3	12	03046134	SD205A-0230-012-04R1-P	46	19	27	15	4
2,381	13	03120477	SD205A-0238-013-04R1-P	50	23	27	18	4
2,4	13	03046135	SD205A-0240-013-04R1-P	50	23	27	18	4
2,5	13	03046136	SD205A-0250-013-04R1-P	50	23	27	18	4
2,6	13	03046137	SD205A-0260-013-04R1-P	50	23	27	18	4
2,7	15	03046138	SD205A-0270-015-04R1-P	50	23	27	21	4
2,778	15	03120496	SD205A-0278-015-04R1-P	50	23	27	21	4
2,8	15	03046139	SD205A-0280-015-04R1-P	50	23	27	21	4
2,9	15	03046141	SD205A-0290-015-04R1-P	50	23	27	21	4
3,0	23	03046142	SD205A-0300-023-06R1-P	66	30	36	26	6
3,1	23	03046143	SD205A-0310-023-06R1-P	66	30	36	26	6
3,175	23	03046327	SD205A-0318-023-06R1-P	66	30	36	26	6
3,2	23	03046144	SD205A-0320-023-06R1-P	66	30	36	26	6
3,25	23	03046145	SD205A-0325-023-06R1-P	66	30	36	26	6
3,3	23	03046146	SD205A-0330-023-06R1-P	66	30	36	26	6
3,4	23	03046147	SD205A-0340-023-06R1-P	66	30	36	26	6
3,5	23	03046148	SD205A-0350-023-06R1-P	66	30	36	26	6
3,572	23	03046328	SD205A-0357-023-06R1-P	66	30	36	26	6
3,6	23	03046149	SD205A-0360-023-06R1-P	66	30	36	26	6
3,65	23	03046150	SD205A-0365-023-06R1-P	66	30	36	26	6
3,7	23	03046151	SD205A-0370-023-06R1-P	66	30	36	26	6
3,8	29	03046152	SD205A-0380-029-06R1-P	74	38	36	34	6
3,9	29	03046153	SD205A-0390-029-06R1-P	74	38	36	34	6
3,97	29	03046329	SD205A-0397-029-06R1-P	74	38	36	34	6
4,0	29	03046154	SD205A-0400-029-06R1-P	74	38	36	34	6
4,1	29	03046155	SD205A-0410-029-06R1-P	74	38	36	34	6
4,2	29	03046157	SD205A-0420-029-06R1-P	74	38	36	34	6
4,3	29	03046158	SD205A-0430-029-06R1-P	74	38	36	34	6
4,366	29	03046330	SD205A-0437-029-06R1-P	74	38	36	34	6
4,4	29	03046159	SD205A-0440-029-06R1-P	74	38	36	34	6
4,5	29	03046160	SD205A-0450-029-06R1-P	74	38	36	34	6
4,6	29	03046161	SD205A-0460-029-06R1-P	74	38	36	34	6
4,65	29	03046162	SD205A-0465-029-06R1-P	74	38	36	34	6
4,7	29	03046163	SD205A-0470-029-06R1-P	74	38	36	34	6
4,763	35	03046331	SD205A-0476-035-06R1-P	82	46	36	44	6
4,8	35	03046164	SD205A-0480-035-06R1-P	82	46	36	44	6
4,9	35	03046165	SD205A-0490-035-06R1-P	82	46	36	44	6
5,0	35	03046166	SD205A-0500-035-06R1-P	82	46	36	44	6
5,1	35	03046167	SD205A-0510-035-06R1-P	82	46	36	44	6

For intermediate diameters see the My design software.

Drilling depth ~ 5 x D – Metric

Cylindrical shank DIN 6537A



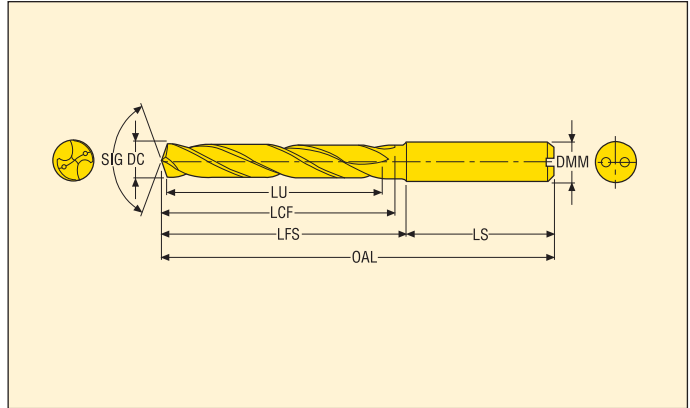
- Internal coolant
- Point angle: 140°
- Coating: TiAlN
- Hole tolerance: IT8-9
- For cutting and machining data see page(s) 173

DC m7 (mm)	LU	Ordering and Product No.	Designation	Dimensions in mm				
				OAL	LFS	LS	LCF	DMM
5,159	35	03046332	SD205A-0516-035-06R1-P	82	46	36	44	6
5,2	35	03046168	SD205A-0520-035-06R1-P	82	46	36	44	6
5,3	35	03046169	SD205A-0530-035-06R1-P	82	46	36	44	6
5,4	35	03046170	SD205A-0540-035-06R1-P	82	46	36	44	6
5,5	35	03046171	SD205A-0550-035-06R1-P	82	46	36	44	6
5,55	35	03046172	SD205A-0555-035-06R1-P	82	46	36	44	6
5,556	35	03046333	SD205A-0556-035-06R1-P	82	46	36	44	6
5,6	35	03046173	SD205A-0560-035-06R1-P	82	46	36	44	6
5,7	35	03046174	SD205A-0570-035-06R1-P	82	46	36	44	6
5,8	35	03046175	SD205A-0580-035-06R1-P	82	46	36	44	6
5,9	35	03046176	SD205A-0590-035-06R1-P	82	46	36	44	6
5,953	35	03046334	SD205A-0595-035-06R1-P	82	46	36	44	6
6,0	35	03046177	SD205A-0600-035-06R1-P	82	46	36	44	6
6,1	43	03046179	SD205A-0610-043-08R1-P	91	55	36	53	8
6,2	43	03046180	SD205A-0620-043-08R1-P	91	55	36	53	8
6,3	43	03046181	SD205A-0630-043-08R1-P	91	55	36	53	8
6,35	43	03046335	SD205A-0635-043-08R1-P	91	55	36	53	8
6,4	43	03046182	SD205A-0640-043-08R1-P	91	55	36	53	8
6,5	43	03046183	SD205A-0650-043-08R1-P	91	55	36	53	8
6,6	43	03046184	SD205A-0660-043-08R1-P	91	55	36	53	8
6,7	43	03046185	SD205A-0670-043-08R1-P	91	55	36	53	8
6,747	43	03046336	SD205A-0675-043-08R1-P	91	55	36	53	8
6,8	43	03046186	SD205A-0680-043-08R1-P	91	55	36	53	8
6,9	43	03046187	SD205A-0690-043-08R1-P	91	55	36	53	8
7,0	43	03046188	SD205A-0700-043-08R1-P	91	55	36	53	8
7,1	43	03046190	SD205A-0710-043-08R1-P	91	55	36	53	8
7,144	43	03046337	SD205A-0714-043-08R1-P	91	55	36	53	8
7,2	43	03046191	SD205A-0720-043-08R1-P	91	55	36	53	8
7,3	43	03046192	SD205A-0730-043-08R1-P	91	55	36	53	8
7,4	43	03046193	SD205A-0740-043-08R1-P	91	55	36	53	8
7,5	43	03046194	SD205A-0750-043-08R1-P	91	55	36	53	8
7,541	43	03046338	SD205A-0754-043-08R1-P	91	55	36	53	8
7,55	43	03046195	SD205A-0755-043-08R1-P	91	55	36	53	8
7,6	43	03046196	SD205A-0760-043-08R1-P	91	55	36	53	8
7,7	43	03046197	SD205A-0770-043-08R1-P	91	55	36	53	8
7,8	43	03046198	SD205A-0780-043-08R1-P	91	55	36	53	8
7,9	43	03046199	SD205A-0790-043-08R1-P	91	55	36	53	8
7,938	43	03046339	SD205A-0794-043-08R1-P	91	55	36	53	8
8,0	43	03046200	SD205A-0800-043-08R1-P	91	55	36	53	8
8,1	49	03046201	SD205A-0810-049-10R1-P	103	63	40	61	10
8,2	49	03046202	SD205A-0820-049-10R1-P	103	63	40	61	10
8,3	49	03046203	SD205A-0830-049-10R1-P	103	63	40	61	10

For intermediate diameters see the My design software.

Drilling depth ~ 5 x D – Metric

Cylindrical shank DIN 6537A



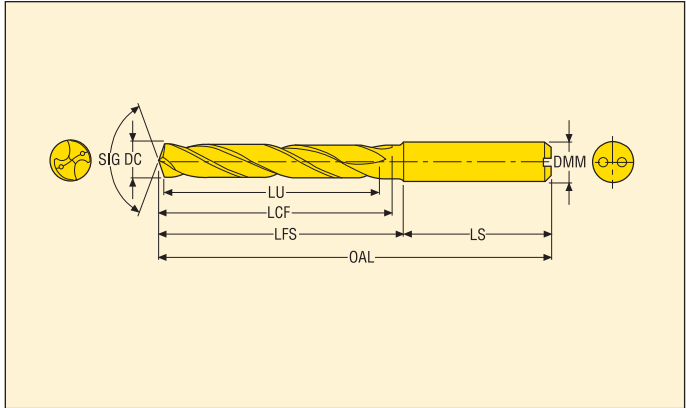
- Internal coolant
- Point angle: 140°
- Coating: TiAlN
- Hole tolerance: IT8-9
- For cutting and machining data see page(s) 173

DC m7 (mm)	LU	Ordering and Product No.	Designation	Dimensions in mm				
				OAL	LFS	LS	LCF	DMM
8,334	49	03046340	SD205A-0833-049-10R1-P	103	63	40	61	10
8,4	49	03046204	SD205A-0840-049-10R1-P	103	63	40	61	10
8,5	49	03046205	SD205A-0850-049-10R1-P	103	63	40	61	10
8,6	49	03046206	SD205A-0860-049-10R1-P	103	63	40	61	10
8,7	49	03046207	SD205A-0870-049-10R1-P	103	63	40	61	10
8,731	49	03046341	SD205A-0873-049-10R1-P	103	63	40	61	10
8,8	49	03046208	SD205A-0880-049-10R1-P	103	63	40	61	10
8,9	49	03046209	SD205A-0890-049-10R1-P	103	63	40	61	10
9,0	49	03046210	SD205A-0900-049-10R1-P	103	63	40	61	10
9,1	49	03046211	SD205A-0910-049-10R1-P	103	63	40	61	10
9,128	49	03046342	SD205A-0913-049-10R1-P	103	63	40	61	10
9,2	49	03046212	SD205A-0920-049-10R1-P	103	63	40	61	10
9,3	49	03046213	SD205A-0930-049-10R1-P	103	63	40	61	10
9,4	49	03046214	SD205A-0940-049-10R1-P	103	63	40	61	10
9,5	49	03046215	SD205A-0950-049-10R1-P	103	63	40	61	10
9,525	49	03046343	SD205A-0953-049-10R1-P	103	63	40	61	10
9,55	49	03046216	SD205A-0955-049-10R1-P	103	63	40	61	10
9,6	49	03046217	SD205A-0960-049-10R1-P	103	63	40	61	10
9,7	49	03046218	SD205A-0970-049-10R1-P	103	63	40	61	10
9,8	49	03046219	SD205A-0980-049-10R1-P	103	63	40	61	10
9,9	49	03046220	SD205A-0990-049-10R1-P	103	63	40	61	10
9,922	49	03046344	SD205A-0992-049-10R1-P	103	63	40	61	10
10,0	49	03046221	SD205A-1000-049-10R1-P	103	63	40	61	10
10,1	56	03046222	SD205A-1010-056-12R1-P	118	73	45	71	12
10,2	56	03046223	SD205A-1020-056-12R1-P	118	73	45	71	12
10,3	56	03046224	SD205A-1030-056-12R1-P	118	73	45	71	12
10,319	56	03046345	SD205A-1032-056-12R1-P	118	73	45	71	12
10,4	56	03046225	SD205A-1040-056-12R1-P	118	73	45	71	12
10,5	56	03046226	SD205A-1050-056-12R1-P	118	73	45	71	12
10,6	56	03046227	SD205A-1060-056-12R1-P	118	73	45	71	12
10,7	56	03046228	SD205A-1070-056-12R1-P	118	73	45	71	12
10,716	56	03046346	SD205A-1072-056-12R1-P	118	73	45	71	12
10,8	56	03046229	SD205A-1080-056-12R1-P	118	73	45	71	12
10,9	56	03046230	SD205A-1090-056-12R1-P	118	73	45	71	12
11,0	56	03046231	SD205A-1100-056-12R1-P	118	73	45	71	12
11,1	56	03046232	SD205A-1110-056-12R1-P	118	73	45	71	12
11,113	56	03046347	SD205A-1111-056-12R1-P	118	73	45	71	12
11,2	56	03046233	SD205A-1120-056-12R1-P	118	73	45	71	12
11,3	56	03046234	SD205A-1130-056-12R1-P	118	73	45	71	12
11,4	56	03046235	SD205A-1140-056-12R1-P	118	73	45	71	12
11,5	56	03046236	SD205A-1150-056-12R1-P	118	73	45	71	12
11,509	56	03046348	SD205A-1151-056-12R1-P	118	73	45	71	12

For intermediate diameters see the My design software.

Drilling depth ~ 5 x D – Metric

Cylindrical shank DIN 6537A



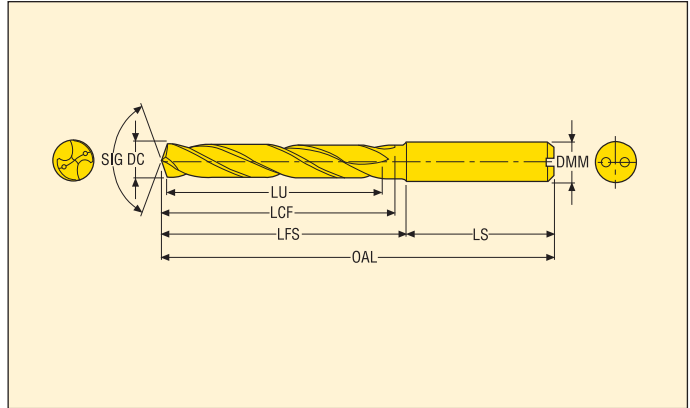
- Internal coolant
- Point angle: 140°
- Coating: TiAlN
- Hole tolerance: IT8-9
- For cutting and machining data see page(s) 173

DC m7 (mm)	LU	Ordering and Product No.	Designation	Dimensions in mm				
				OAL	LFS	LS	LCF	DMM
11,55	56	03046237	SD205A-1155-056-12R1-P	118	73	45	71	12
11,6	56	03046238	SD205A-1160-056-12R1-P	118	73	45	71	12
11,7	56	03046239	SD205A-1170-056-12R1-P	118	73	45	71	12
11,8	56	03046240	SD205A-1180-056-12R1-P	118	73	45	71	12
11,9	56	03046241	SD205A-1190-056-12R1-P	118	73	45	71	12
11,906	56	03046349	SD205A-1191-056-12R1-P	118	73	45	71	12
12,0	56	03046242	SD205A-1200-056-12R1-P	118	73	45	71	12
12,1	60	03046243	SD205A-1210-060-14R1-P	124	79	45	77	14
12,2	60	03046244	SD205A-1220-060-14R1-P	124	79	45	77	14
12,25	60	03046245	SD205A-1225-060-14R1-P	124	79	45	77	14
12,3	60	03138157	SD205A-1230-060-14R1-P	124	79	45	77	14
12,4	60	03046246	SD205A-1240-060-14R1-P	124	79	45	77	14
12,5	60	03046247	SD205A-1250-060-14R1-P	124	79	45	77	14
12,6	60	03046248	SD205A-1260-060-14R1-P	124	79	45	77	14
12,7	60	03120497	SD205A-1270-060-14R1-P	124	79	45	77	14
12,75	60	03046249	SD205A-1275-060-14R1-P	124	79	45	77	14
12,8	60	03046250	SD205A-1280-060-14R1-P	124	79	45	77	14
12,9	60	03046251	SD205A-1290-060-14R1-P	124	79	45	77	14
13,0	60	03046252	SD205A-1300-060-14R1-P	124	79	45	77	14
13,1	60	03046253	SD205A-1310-060-14R1-P	124	79	45	77	14
13,2	60	03046254	SD205A-1320-060-14R1-P	124	79	45	77	14
13,3	60	03046255	SD205A-1330-060-14R1-P	124	79	45	77	14
13,4	60	03046256	SD205A-1340-060-14R1-P	124	79	45	77	14
13,494	60	03046350	SD205A-1349-060-14R1-P	124	79	45	77	14
13,5	60	03046257	SD205A-1350-060-14R1-P	124	79	45	77	14
13,55	60	03138158	SD205A-1355-060-14R1-P	124	79	45	77	14
13,6	60	03046258	SD205A-1360-060-14R1-P	124	79	45	77	14
13,7	60	03046259	SD205A-1370-060-14R1-P	124	79	45	77	14
13,8	60	03046260	SD205A-1380-060-14R1-P	124	79	45	77	14
13,891	60	03120498	SD205A-1389-060-14R1-P	124	79	45	77	14
13,9	60	03046261	SD205A-1390-060-14R1-P	124	79	45	77	14
14,0	60	03046262	SD205A-1400-060-14R1-P	124	79	45	77	14
14,1	63	03046263	SD205A-1410-063-16R1-P	133	85	48	83	16
14,2	63	03046264	SD205A-1420-063-16R1-P	133	85	48	83	16
14,25	63	03138159	SD205A-1425-063-16R1-P	133	85	48	83	16
14,288	63	03046351	SD205A-1429-063-16R1-P	133	85	48	83	16
14,3	63	03046265	SD205A-1430-063-16R1-P	133	85	48	83	16
14,4	63	03046266	SD205A-1440-063-16R1-P	133	85	48	83	16
14,5	63	03046267	SD205A-1450-063-16R1-P	133	85	48	83	16
14,6	63	03046268	SD205A-1460-063-16R1-P	133	85	48	83	16
14,7	63	03046269	SD205A-1470-063-16R1-P	133	85	48	83	16
14,75	63	03046270	SD205A-1475-063-16R1-P	133	85	48	83	16

For intermediate diameters see the My design software.

Drilling depth ~ 5 x D – Metric

Cylindrical shank DIN 6537A



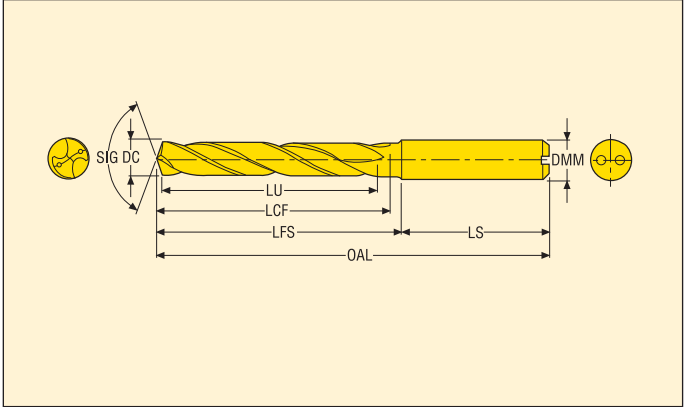
- Internal coolant
- Point angle: 140°
- Coating: TiAlN
- Hole tolerance: IT8-9
- For cutting and machining data see page(s) 173

DC m7 (mm)	LU	Ordering and Product No.	Designation	Dimensions in mm				
				OAL	LFS	LS	LCF	DMM
14,8	63	03046271	SD205A-1480-063-16R1-P	133	85	48	83	16
14,9	63	03046272	SD205A-1490-063-16R1-P	133	85	48	83	16
15,0	63	03046273	SD205A-1500-063-16R1-P	133	85	48	83	16
15,1	63	03046274	SD205A-1510-063-16R1-P	133	85	48	83	16
15,2	63	03046275	SD205A-1520-063-16R1-P	133	85	48	83	16
15,25	63	03138160	SD205A-1525-063-16R1-P	133	85	48	83	16
15,3	63	03046276	SD205A-1530-063-16R1-P	133	85	48	83	16
15,4	63	03046277	SD205A-1540-063-16R1-P	133	85	48	83	16
15,5	63	03046278	SD205A-1550-063-16R1-P	133	85	48	83	16
15,6	63	03046280	SD205A-1560-063-16R1-P	133	85	48	83	16
15,7	63	03046281	SD205A-1570-063-16R1-P	133	85	48	83	16
15,8	63	03046282	SD205A-1580-063-16R1-P	133	85	48	83	16
15,875	63	03046352	SD205A-1588-063-16R1-P	133	85	48	83	16
15,9	63	03046283	SD205A-1590-063-16R1-P	133	85	48	83	16
16,0	63	03046284	SD205A-1600-063-16R1-P	133	85	48	83	16
16,1	71	03046285	SD205A-1610-071-18R1-P	143	95	48	93	18
16,2	71	03046286	SD205A-1620-071-18R1-P	143	95	48	93	18
16,25	71	03138161	SD205A-1625-071-18R1-P	143	95	48	93	18
16,3	71	03046287	SD205A-1630-071-18R1-P	143	95	48	93	18
16,4	71	03046288	SD205A-1640-071-18R1-P	143	95	48	93	18
16,5	71	03046289	SD205A-1650-071-18R1-P	143	95	48	93	18
16,6	71	03046290	SD205A-1660-071-18R1-P	143	95	48	93	18
16,669	71	03120499	SD205A-1667-071-18R1-P	143	95	48	93	18
16,7	71	03046291	SD205A-1670-071-18R1-P	143	95	48	93	18
16,75	71	03046292	SD205A-1675-071-18R1-P	143	95	48	93	18
16,8	71	03046293	SD205A-1680-071-18R1-P	143	95	48	93	18
16,9	71	03046294	SD205A-1690-071-18R1-P	143	95	48	93	18
17,0	71	03046296	SD205A-1700-071-18R1-P	143	95	48	93	18
17,1	71	03046297	SD205A-1710-071-18R1-P	143	95	48	93	18
17,2	71	03046298	SD205A-1720-071-18R1-P	143	95	48	93	18
17,3	71	03046299	SD205A-1730-071-18R1-P	143	95	48	93	18
17,4	71	03046300	SD205A-1740-071-18R1-P	143	95	48	93	18
17,463	71	03120500	SD205A-1746-071-18R1-P	143	95	48	93	18
17,5	71	03046301	SD205A-1750-071-18R1-P	143	95	48	93	18
17,6	71	03046302	SD205A-1760-071-18R1-P	143	95	48	93	18
17,7	71	03046303	SD205A-1770-071-18R1-P	143	95	48	93	18
17,8	71	03046304	SD205A-1780-071-18R1-P	143	95	48	93	18
17,9	71	03046305	SD205A-1790-071-18R1-P	143	95	48	93	18
18,0	71	03046306	SD205A-1800-071-18R1-P	143	95	48	93	18
18,1	77	03046307	SD205A-1810-077-20R1-P	153	103	50	101	20
18,2	77	03046308	SD205A-1820-077-20R1-P	153	103	50	101	20
18,3	77	03046309	SD205A-1830-077-20R1-P	153	103	50	101	20

For intermediate diameters see the My design software.

Drilling depth ~ 5 x D – Metric

Cylindrical shank DIN 6537A



- Internal coolant
- Point angle: 140°
- Coating: TiAlN
- Hole tolerance: IT8-9
- For cutting and machining data see page(s) 173

DC m7 (mm)	LU	Ordering and Product No.	Designation	Dimensions in mm				
				OAL	LFS	LS	LCF	DMM
18,4	77	03046310	SD205A-1840-077-20R1-P	153	103	50	101	20
18,5	77	03046311	SD205A-1850-077-20R1-P	153	103	50	101	20
18,6	77	03046312	SD205A-1860-077-20R1-P	153	103	50	101	20
18,7	77	03046313	SD205A-1870-077-20R1-P	153	103	50	101	20
18,8	77	03046314	SD205A-1880-077-20R1-P	153	103	50	101	20
18,9	77	03046315	SD205A-1890-077-20R1-P	153	103	50	101	20
19,0	77	03046316	SD205A-1900-077-20R1-P	153	103	50	101	20
19,05	77	03046353	SD205A-1905-077-20R1-P	153	103	50	101	20
19,1	77	03046317	SD205A-1910-077-20R1-P	153	103	50	101	20
19,2	77	03046318	SD205A-1920-077-20R1-P	153	103	50	101	20
19,3	77	03046319	SD205A-1930-077-20R1-P	153	103	50	101	20
19,4	77	03046320	SD205A-1940-077-20R1-P	153	103	50	101	20
19,5	77	03046321	SD205A-1950-077-20R1-P	153	103	50	101	20
19,6	77	03046322	SD205A-1960-077-20R1-P	153	103	50	101	20
19,7	77	03046323	SD205A-1970-077-20R1-P	153	103	50	101	20
19,8	77	03046324	SD205A-1980-077-20R1-P	153	103	50	101	20
19,9	77	03046325	SD205A-1990-077-20R1-P	153	103	50	101	20
20,0	77	03046326	SD205A-2000-077-20R1-P	153	103	50	101	20

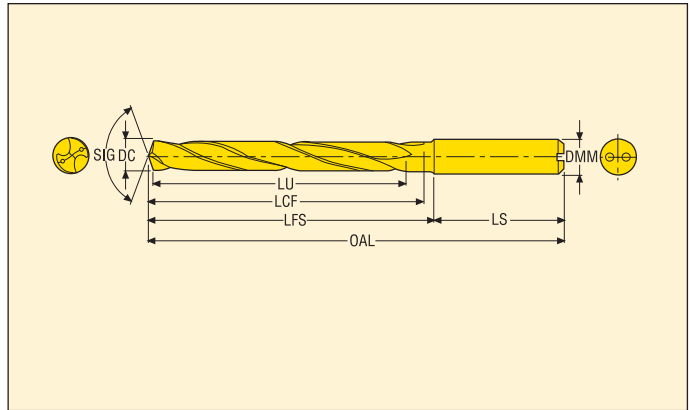
For intermediate diameters see the My design software.

Drilling depth ~ 7 x D – Metric

Cylindrical shank DIN 6537A



- Internal coolant
- Point angle: 140°
- Coating: TiAlN
- Hole tolerance: IT9
- For cutting and machining data see page(s) 174

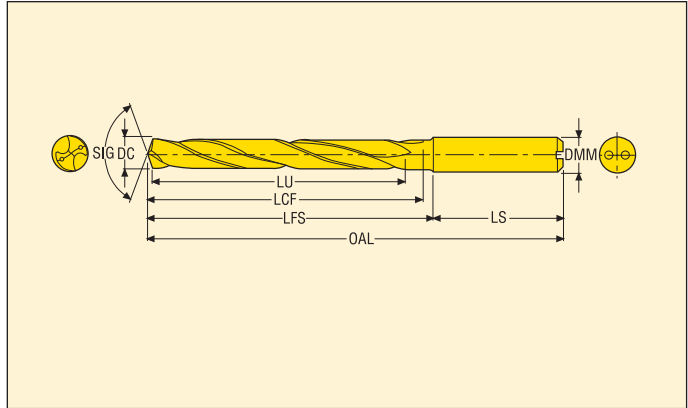


DC m7 (mm)	LU	Ordering and Product No.	Designation	Dimensions in mm				
				OAL	LFS	LS	LCF	DMM
3,0	30	03046358	SD207A-0300-030-06R1-P	74	38	36	36	6
3,3	30	03046359	SD207A-0330-030-06R1-P	74	38	36	36	6
3,5	30	03046360	SD207A-0350-030-06R1-P	74	38	36	36	6
4,0	37	03046361	SD207A-0400-037-06R1-P	82	46	36	43	6
4,5	37	03046412	SD207A-0450-037-06R1-P	82	46	36	43	6
4,8	45	03046413	SD207A-0480-045-06R1-P	94	58	36	56	6
5,0	45	03046414	SD207A-0500-045-06R1-P	94	58	36	56	6
5,2	45	03046362	SD207A-0520-045-06R1-P	94	58	36	56	6
5,5	45	03046363	SD207A-0550-045-06R1-P	94	58	36	56	6
5,8	45	03046407	SD207A-0580-045-06R1-P	94	58	36	56	6
6,0	45	03046364	SD207A-0600-045-06R1-P	94	58	36	56	6
6,35	57	03046365	SD207A-0635-057-08R1-P	110	74	36	67	8
6,5	57	03046366	SD207A-0650-057-08R1-P	110	74	36	67	8
6,8	57	03046367	SD207A-0680-057-08R1-P	110	74	36	67	8
6,9	57	03046368	SD207A-0690-057-08R1-P	110	74	36	67	8
7,0	57	03046369	SD207A-0700-057-08R1-P	110	74	36	67	8
7,5	57	03046370	SD207A-0750-057-08R1-P	110	74	36	72	8
7,8	57	03046371	SD207A-0780-057-08R1-P	110	74	36	72	8
8,0	57	03046372	SD207A-0800-057-08R1-P	110	74	36	72	8
8,5	62	03046373	SD207A-0850-062-10R1-P	122	82	40	80	10
8,6	62	03046374	SD207A-0860-062-10R1-P	122	82	40	80	10
8,7	62	03046411	SD207A-0870-062-10R1-P	122	82	40	80	10
8,8	62	03046408	SD207A-0880-062-10R1-P	122	82	40	80	10
9,0	62	03046375	SD207A-0900-062-10R1-P	122	82	40	80	10
9,5	62	03046376	SD207A-0950-062-10R1-P	122	82	40	80	10
9,525	62	03046377	SD207A-0953-062-10R1-P	122	82	40	80	10
9,75	62	03046402	SD207A-0975-062-10R1-P	122	82	40	80	10
9,8	62	03046403	SD207A-0980-062-10R1-P	122	82	40	80	10
10,0	62	03046378	SD207A-1000-062-10R1-P	122	82	40	80	10
10,2	72	03046379	SD207A-1020-072-12R1-P	141	96	45	94	12
10,4	72	03046401	SD207A-1040-072-12R1-P	141	96	45	94	12
10,5	72	03046380	SD207A-1050-072-12R1-P	141	96	45	94	12
10,8	72	03046404	SD207A-1080-072-12R1-P	141	96	45	94	12
11,0	72	03046381	SD207A-1100-072-12R1-P	141	96	45	94	12
11,5	72	03046382	SD207A-1150-072-12R1-P	141	96	45	94	12
11,8	72	03046405	SD207A-1180-072-12R1-P	141	96	45	94	12
12,0	72	03046383	SD207A-1200-072-12R1-P	141	96	45	94	12
12,25	83	03046415	SD207A-1225-083-14R1-P	155	110	45	108	14
12,5	83	03046384	SD207A-1250-083-14R1-P	155	110	45	108	14
12,7	83	03046385	SD207A-1270-083-14R1-P	155	110	45	108	14
12,8	83	03046416	SD207A-1280-083-14R1-P	155	110	45	108	14
13,0	83	03046386	SD207A-1300-083-14R1-P	155	110	45	108	14

For intermediate diameters see the My design software.

Drilling depth ~ 7 x D – Metric

Cylindrical shank DIN 6537A



- Internal coolant
- Point angle: 140°
- Coating: TiAlN
- Hole tolerance: IT9
- For cutting and machining data see page(s) 174

DC m7 (mm)	LU	Ordering and Product No.	Designation	Dimensions in mm				
				OAL	LFS	LS	LCF	DMM
13,5	83	03046387	SD207A-1350-083-14R1-P	155	110	45	108	14
13,8	83	03046409	SD207A-1380-083-14R1-P	155	110	45	108	14
14,0	83	03046388	SD207A-1400-083-14R1-P	155	110	45	108	14
14,25	92	03046417	SD207A-1425-092-16R1-P	171	123	48	121	16
14,5	92	03046389	SD207A-1450-092-16R1-P	171	123	48	121	16
14,8	92	03046418	SD207A-1480-092-16R1-P	171	123	48	121	16
15,0	92	03046390	SD207A-1500-092-16R1-P	171	123	48	121	16
15,5	92	03046391	SD207A-1550-092-16R1-P	171	123	48	121	16
15,8	92	03046410	SD207A-1580-092-16R1-P	171	123	48	121	16
16,0	92	03046392	SD207A-1600-092-16R1-P	171	123	48	121	16
16,5	103	03046393	SD207A-1650-103-18R1-P	185	137	48	135	18
16,8	103	03046419	SD207A-1680-103-18R1-P	185	137	48	135	18
17,0	103	03046394	SD207A-1700-103-18R1-P	185	137	48	135	18
17,5	103	03046395	SD207A-1750-103-18R1-P	185	137	48	135	18
17,8	103	03046420	SD207A-1780-103-18R1-P	185	137	48	135	18
18,0	103	03046396	SD207A-1800-103-18R1-P	185	137	48	135	18
18,5	112	03046397	SD207A-1850-112-20R1-P	200	150	50	148	20
18,8	112	03046421	SD207A-1880-112-20R1-P	200	150	50	148	20
19,0	112	03046398	SD207A-1900-112-20R1-P	200	150	50	148	20
19,05	112	03046399	SD207A-1905-112-20R1-P	200	150	50	148	20
19,8	112	03046406	SD207A-1980-112-20R1-P	200	150	50	148	20
20,0	112	03046400	SD207A-2000-112-20R1-P	200	150	50	148	20

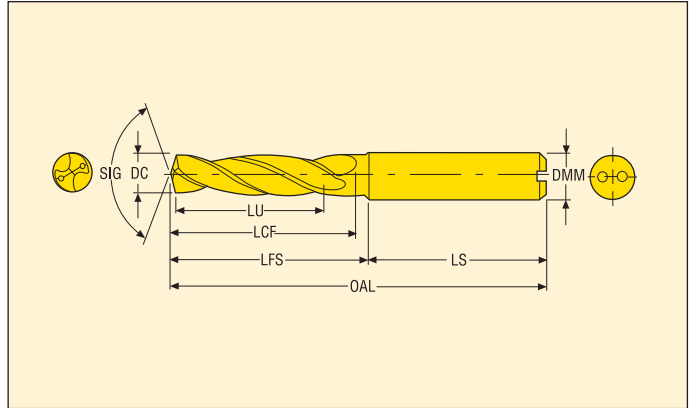
For intermediate diameters see the My design software.

Drilling depth ~ 3 x D – Inch

Cylindrical shank DIN 6537A



- Internal coolant
- Point angle: 140°
- Coating: TiAlN
- Hole tolerance: IT8-9
- For cutting and machining data see page(s) 175

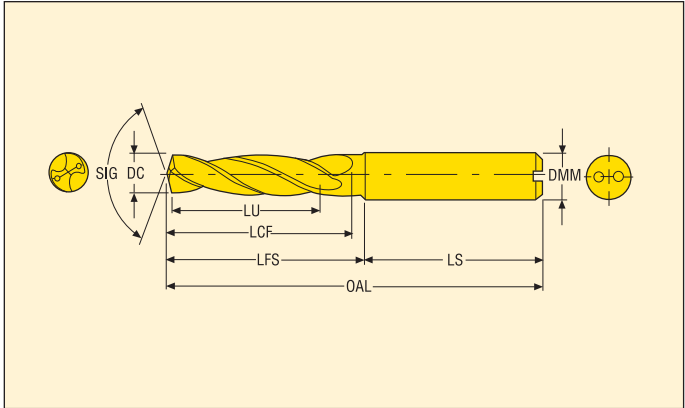


DC m7 (inch)	DC m7 (inch)	LU	Ordering and Product No.	Designation	Dimensions in inch				
					OAL	LFS	LS	LCF	DMM
0.0787	–	0.276	03045918	SD203A-0200-007-04R1-P	1.614	0.551	1.063	0.433	0.157
0.0827	–	0.276	03045919	SD203A-0210-007-04R1-P	1.614	0.551	1.063	0.433	0.157
0.0866	–	0.276	03045920	SD203A-0220-007-04R1-P	1.614	0.551	1.063	0.433	0.157
0.0906	–	0.315	03045921	SD203A-0230-008-04R1-P	1.732	0.669	1.063	0.492	0.157
0.0925	–	0.315	03138154	SD203A-0235-008-04R1-P	1.732	0.669	1.063	0.492	0.157
0.0937	3/32	0.315	03120476	SD203A-00937-031-0157R1-P	1.732	0.669	1.063	0.492	0.157
0.0945	–	0.315	03045922	SD203A-0240-008-04R1-P	1.732	0.669	1.063	0.492	0.157
0.0984	–	0.315	03045923	SD203A-0250-008-04R1-P	1.732	0.669	1.063	0.492	0.157
0.1024	–	0.315	03045924	SD203A-0260-008-04R1-P	1.732	0.669	1.063	0.492	0.157
0.1063	–	0.354	03045925	SD203A-0270-009-04R1-P	1.732	0.669	1.063	0.571	0.157
0.1094	7/64	0.354	03120495	SD203A-01095-035-0157R1-P	1.732	0.669	1.063	0.571	0.157
0.1102	–	0.354	03045926	SD203A-0280-009-04R1-P	1.732	0.669	1.063	0.571	0.157
0.1142	–	0.354	03045927	SD203A-0290-009-04R1-P	1.732	0.669	1.063	0.571	0.157
0.1181	–	0.551	03045928	SD203A-0300-014-06R1-P	2.441	1.024	1.417	0.787	0.236
0.1220	–	0.551	03045929	SD203A-0310-014-06R1-P	2.441	1.024	1.417	0.787	0.236
0.1250	1/8	0.551	03046061	SD203A-01250-055-0236R1-P	2.441	1.024	1.417	0.787	0.236
0.1260	–	0.551	03045930	SD203A-0320-014-06R1-P	2.441	1.024	1.417	0.787	0.236
0.1280	–	0.551	03045931	SD203A-0325-014-06R1-P	2.441	1.024	1.417	0.787	0.236
0.1299	–	0.551	03045932	SD203A-0330-014-06R1-P	2.441	1.024	1.417	0.787	0.236
0.1339	–	0.551	03045933	SD203A-0340-014-06R1-P	2.441	1.024	1.417	0.787	0.236
0.1378	–	0.551	03045934	SD203A-0350-014-06R1-P	2.441	1.024	1.417	0.787	0.236
0.1406	9/64	0.551	03046062	SD203A-01406-055-0236R1-P	2.441	1.024	1.417	0.787	0.236
0.1417	–	0.551	03045935	SD203A-0360-014-06R1-P	2.441	1.024	1.417	0.787	0.236
0.1437	–	0.551	03045936	SD203A-0365-014-06R1-P	2.441	1.024	1.417	0.787	0.236
0.1457	–	0.551	03045937	SD203A-0370-014-06R1-P	2.441	1.024	1.417	0.787	0.236
0.1496	–	0.669	03045938	SD203A-0380-017-06R1-P	2.598	1.181	1.417	0.945	0.236
0.1535	–	0.669	03045939	SD203A-0390-017-06R1-P	2.598	1.181	1.417	0.945	0.236
0.1563	5/32	0.669	03046063	SD203A-01563-067-0236R1-P	2.598	1.181	1.417	0.945	0.236
0.1575	–	0.669	03045940	SD203A-0400-017-06R1-P	2.598	1.181	1.417	0.945	0.236
0.1614	–	0.669	03045941	SD203A-0410-017-06R1-P	2.598	1.181	1.417	0.945	0.236
0.1654	–	0.669	03045942	SD203A-0420-017-06R1-P	2.598	1.181	1.417	0.945	0.236
0.1693	–	0.669	03045943	SD203A-0430-017-06R1-P	2.598	1.181	1.417	0.945	0.236
0.1719	11/64	0.669	03046064	SD203A-01719-067-0236R1-P	2.598	1.181	1.417	0.945	0.236
0.1772	–	0.669	03045944	SD203A-0450-017-06R1-P	2.598	1.181	1.417	0.945	0.236
0.1811	–	0.669	03045945	SD203A-0460-017-06R1-P	2.598	1.181	1.417	0.945	0.236
0.1831	–	0.669	03045946	SD203A-0465-017-06R1-P	2.598	1.181	1.417	0.945	0.236
0.1850	–	0.669	03045947	SD203A-0470-017-06R1-P	2.598	1.181	1.417	0.945	0.236
0.1875	3/16	0.787	03046065	SD203A-01875-079-0236R1-P	2.598	1.181	1.417	1.102	0.236
0.1890	–	0.787	03045948	SD203A-0480-020-06R1-P	2.598	1.181	1.417	1.102	0.236
0.1929	–	0.787	03045949	SD203A-0490-020-06R1-P	2.598	1.181	1.417	1.102	0.236
0.1969	–	0.787	03045950	SD203A-0500-020-06R1-P	2.598	1.181	1.417	1.102	0.236
0.2008	–	0.787	03045951	SD203A-0510-020-06R1-P	2.598	1.181	1.417	1.102	0.236

For intermediate diameters see the My design software.

Drilling depth ~ 3 x D – Inch

Cylindrical shank DIN 6537A



- Internal coolant
- Point angle: 140°
- Coating: TiAlN
- Hole tolerance: IT8-9
- For cutting and machining data see page(s) 175

DC m7 (inch)	DC m7 (inch)	LU	Ordering and Product No.	Designation	Dimensions in inch				
					OAL	LFS	LS	LCF	DMM
0.2031	13/64	0.787	03046066	SD203A-02031-079-0236R1-P	2.598	1.181	1.417	1.102	0.236
0.2047	–	0.787	03045952	SD203A-0520-020-06R1-P	2.598	1.181	1.417	1.102	0.236
0.2087	–	0.787	03045953	SD203A-0530-020-06R1-P	2.598	1.181	1.417	1.102	0.236
0.2126	–	0.787	03045954	SD203A-0540-020-06R1-P	2.598	1.181	1.417	1.102	0.236
0.2165	–	0.787	03045955	SD203A-0550-020-06R1-P	2.598	1.181	1.417	1.102	0.236
0.2185	–	0.787	03045956	SD203A-0555-020-06R1-P	2.598	1.181	1.417	1.102	0.236
0.2187	7/32	0.787	03046067	SD203A-02188-079-0236R1-P	2.598	1.181	1.417	1.102	0.236
0.2205	–	0.787	03045957	SD203A-0560-020-06R1-P	2.598	1.181	1.417	1.102	0.236
0.2244	–	0.787	03045958	SD203A-0570-020-06R1-P	2.598	1.181	1.417	1.102	0.236
0.2283	–	0.787	03045959	SD203A-0580-020-06R1-P	2.598	1.181	1.417	1.102	0.236
0.2323	–	0.787	03045960	SD203A-0590-020-06R1-P	2.598	1.181	1.417	1.102	0.236
0.2344	15/64	0.787	03046068	SD203A-02344-079-0236R1-P	2.598	1.181	1.417	1.102	0.236
0.2362	–	0.787	03045961	SD203A-0600-020-06R1-P	2.598	1.181	1.417	1.102	0.236
0.2402	–	0.945	03045962	SD203A-0610-024-08R1-P	3.110	1.693	1.417	1.339	0.315
0.2441	–	0.945	03045963	SD203A-0620-024-08R1-P	3.110	1.693	1.417	1.339	0.315
0.2480	–	0.945	03045964	SD203A-0630-024-08R1-P	3.110	1.693	1.417	1.339	0.315
0.2500	1/4	0.945	03046069	SD203A-02500-094-0315R1-P	3.110	1.693	1.417	1.339	0.315
0.2520	–	0.945	03045965	SD203A-0640-024-08R1-P	3.110	1.693	1.417	1.339	0.315
0.2559	–	0.945	03045966	SD203A-0650-024-08R1-P	3.110	1.693	1.417	1.339	0.315
0.2598	–	0.945	03045967	SD203A-0660-024-08R1-P	3.110	1.693	1.417	1.339	0.315
0.2638	–	0.945	03045968	SD203A-0670-024-08R1-P	3.110	1.693	1.417	1.339	0.315
0.2656	17/64	0.945	03046070	SD203A-02656-094-0315R1-P	3.110	1.693	1.417	1.339	0.315
0.2677	–	0.945	03045969	SD203A-0680-024-08R1-P	3.110	1.693	1.417	1.339	0.315
0.2717	–	0.945	03045970	SD203A-0690-024-08R1-P	3.110	1.693	1.417	1.339	0.315
0.2756	–	0.945	03045971	SD203A-0700-024-08R1-P	3.110	1.693	1.417	1.339	0.315
0.2795	–	1.142	03045972	SD203A-0710-029-08R1-P	3.110	1.693	1.417	1.614	0.315
0.2813	9/32	1.142	03046071	SD203A-02813-114-0315R1-P	3.110	1.693	1.417	1.614	0.315
0.2835	–	1.142	03045973	SD203A-0720-029-08R1-P	3.110	1.693	1.417	1.614	0.315
0.2874	–	1.142	03045974	SD203A-0730-029-08R1-P	3.110	1.693	1.417	1.614	0.315
0.2913	–	1.142	03045975	SD203A-0740-029-08R1-P	3.110	1.693	1.417	1.614	0.315
0.2953	–	1.142	03045976	SD203A-0750-029-08R1-P	3.110	1.693	1.417	1.614	0.315
0.2969	19/64	1.142	03046072	SD203A-02969-114-0315R1-P	3.110	1.693	1.417	1.614	0.315
0.2972	–	1.142	03045977	SD203A-0755-029-08R1-P	3.110	1.693	1.417	1.614	0.315
0.2992	–	1.142	03045978	SD203A-0760-029-08R1-P	3.110	1.693	1.417	1.614	0.315
0.3031	–	1.142	03045979	SD203A-0770-029-08R1-P	3.110	1.693	1.417	1.614	0.315
0.3071	–	1.142	03045980	SD203A-0780-029-08R1-P	3.110	1.693	1.417	1.614	0.315
0.3110	–	1.142	03045981	SD203A-0790-029-08R1-P	3.110	1.693	1.417	1.614	0.315
0.3125	5/16	1.142	03046073	SD203A-03125-114-0315R1-P	3.110	1.693	1.417	1.614	0.315
0.3150	–	1.142	03045982	SD203A-0800-029-08R1-P	3.110	1.693	1.417	1.614	0.315
0.3189	–	1.378	03045983	SD203A-0810-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3228	–	1.378	03045984	SD203A-0820-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3268	–	1.378	03045985	SD203A-0830-035-10R1-P	3.504	1.929	1.575	1.850	0.394

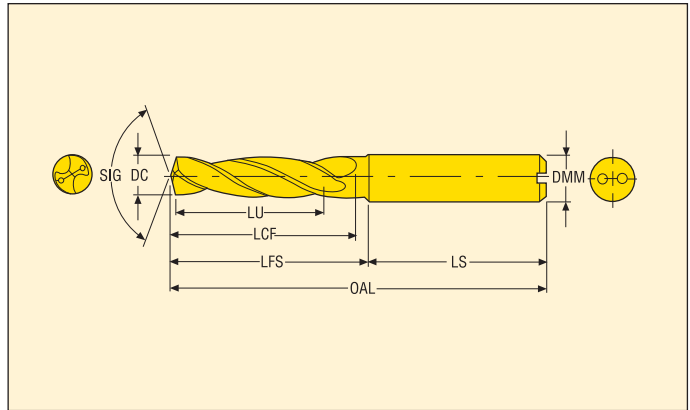
For intermediate diameters see the My design software.

Drilling depth ~ 3 x D – Inch

Cylindrical shank DIN 6537A



- Internal coolant
- Point angle: 140°
- Coating: TiAlN
- Hole tolerance: IT8-9
- For cutting and machining data see page(s) 175

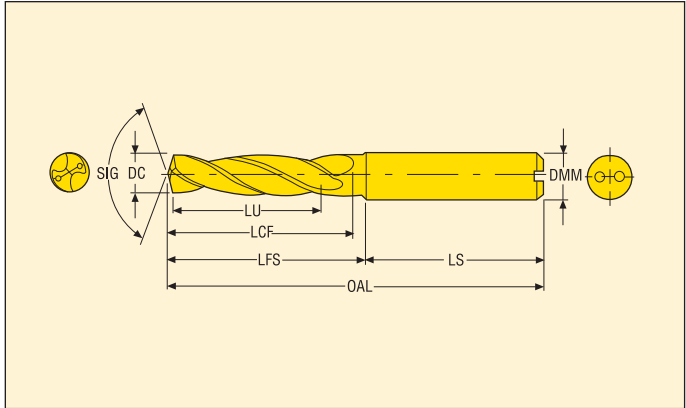


DC m7 (inch)	DC m7 (inch)	LU	Ordering and Product No.	Designation	Dimensions in inch				
					OAL	LFS	LS	LCF	DMM
0.3281	21/64	1.378	03046074	SD203A-03281-138-0394R1-P	3.504	1.929	1.575	1.850	0.394
0.3307	–	1.378	03045986	SD203A-0840-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3346	–	1.378	03045987	SD203A-0850-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3386	–	1.378	03045988	SD203A-0860-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3425	–	1.378	03045989	SD203A-0870-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3437	11/32	1.378	03046075	SD203A-03438-138-0394R1-P	3.504	1.929	1.575	1.850	0.394
0.3465	–	1.378	03045990	SD203A-0880-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3504	–	1.378	03045991	SD203A-0890-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3543	–	1.378	03045992	SD203A-0900-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3583	–	1.378	03045993	SD203A-0910-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3594	23/64	1.378	03046076	SD203A-03594-138-0394R1-P	3.504	1.929	1.575	1.850	0.394
0.3622	–	1.378	03045994	SD203A-0920-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3661	–	1.378	03045995	SD203A-0930-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3701	–	1.378	03045996	SD203A-0940-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3740	–	1.378	03045997	SD203A-0950-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3750	3/8	1.378	03046077	SD203A-03750-138-0394R1-P	3.504	1.929	1.575	1.850	0.394
0.3760	–	1.378	03045998	SD203A-0955-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3780	–	1.378	03045999	SD203A-0960-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3819	–	1.378	03046000	SD203A-0970-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3858	–	1.378	03046001	SD203A-0980-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3898	–	1.378	03046002	SD203A-0990-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3906	25/64	1.378	03046078	SD203A-03906-138-0394R1-P	3.504	1.929	1.575	1.850	0.394
0.3937	–	1.378	03046003	SD203A-1000-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.4016	–	1.575	03046004	SD203A-1020-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4063	12/32	1.575	03046079	SD203A-04063-157-0472R1-P	4.016	2.244	1.772	2.165	0.472
0.4094	–	1.575	03046005	SD203A-1040-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4134	–	1.575	03046006	SD203A-1050-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4173	–	1.575	03046007	SD203A-1060-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4219	27/64	1.575	03046080	SD203A-04219-157-0472R1-P	4.016	2.244	1.772	2.165	0.472
0.4252	–	1.575	03046008	SD203A-1080-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4291	–	1.575	03046009	SD203A-1090-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4331	–	1.575	03046010	SD203A-1100-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4370	–	1.575	03046011	SD203A-1110-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4375	7/16	1.575	03046081	SD203A-04375-157-0472R1-P	4.016	2.244	1.772	2.165	0.472
0.4409	–	1.575	03046012	SD203A-1120-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4449	–	1.575	03046013	SD203A-1130-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4488	–	1.575	03046014	SD203A-1140-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4528	–	1.575	03046015	SD203A-1150-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4531	29/64	1.575	03046082	SD203A-04531-157-0472R1-P	4.016	2.244	1.772	2.165	0.472
0.4547	–	1.575	03046016	SD203A-1155-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4567	–	1.575	03046017	SD203A-1160-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4606	–	1.575	03046018	SD203A-1170-040-12R1-P	4.016	2.244	1.772	2.165	0.472

For intermediate diameters see the My design software.

Drilling depth ~ 3 x D – Inch

Cylindrical shank DIN 6537A



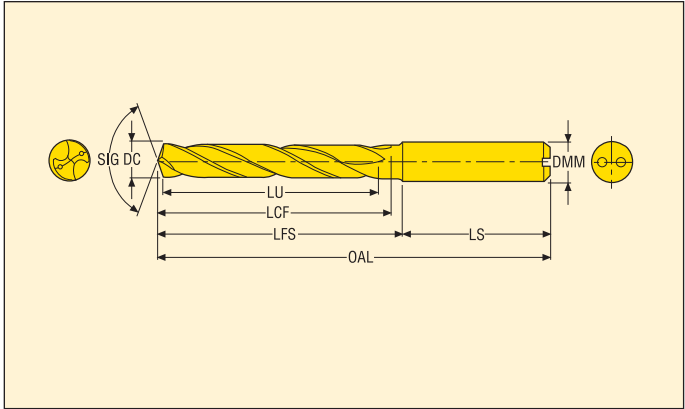
- Internal coolant
- Point angle: 140°
- Coating: TiAlN
- Hole tolerance: IT8-9
- For cutting and machining data see page(s) 175

DC m7 (inch)	DC m7 (inch)	LU	Ordering and Product No.	Designation	Dimensions in inch				
					OAL	LFS	LS	LCF	DMM
0.4646	–	1.575	03046019	SD203A-1180-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4685	–	1.575	03046020	SD203A-1190-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4687	15/32	1.575	03046083	SD203A-04688-157-0472R1-P	4.016	2.244	1.772	2.165	0.472
0.4724	–	1.575	03046021	SD203A-1200-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4764	–	1.693	03046022	SD203A-1210-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.4803	–	1.693	03046023	SD203A-1220-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.4844	31/64	1.693	03046084	SD203A-04844-169-0551R1-P	4.213	2.441	1.772	2.362	0.551
0.4882	–	1.693	03046024	SD203A-1240-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.4921	–	1.693	03046025	SD203A-1250-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.4961	–	1.693	03046026	SD203A-1260-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.5000	1/2	1.693	03046085	SD203A-05000-169-0551R1-P	4.213	2.441	1.772	2.362	0.551
0.5020	–	1.693	03046027	SD203A-1275-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.5039	–	1.693	03046028	SD203A-1280-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.5079	–	1.693	03046029	SD203A-1290-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.5118	–	1.693	03046030	SD203A-1300-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.5157	33/64	1.693	03046031	SD203A-05156-169-0551R1-P	4.213	2.441	1.772	2.362	0.551
0.5197	–	1.693	03046032	SD203A-1320-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.5236	–	1.693	03046033	SD203A-1330-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.5276	–	1.693	03046034	SD203A-1340-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.5313	17/32	1.693	03046086	SD203A-05312-169-0551R1-P	4.213	2.441	1.772	2.362	0.551
0.5315	–	1.693	03046035	SD203A-1350-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.5354	–	1.693	03046036	SD203A-1360-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.5394	–	1.693	03046037	SD203A-1370-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.5433	–	1.693	03046038	SD203A-1380-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.5472	–	1.693	03046039	SD203A-1390-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.5512	–	1.693	03046040	SD203A-1400-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.5591	–	1.772	03046041	SD203A-1420-045-16R1-P	4.528	2.638	1.890	2.559	0.630
0.5610	–	1.772	03138155	SD203A-1425-045-16R1-P	4.528	2.638	1.890	2.559	0.630
0.5625	9/16	1.772	03046087	SD203A-05625-177-0630R1-P	4.528	2.638	1.890	2.559	0.630
0.5709	–	1.772	03046042	SD203A-1450-045-16R1-P	4.528	2.638	1.890	2.559	0.630
0.5787	–	1.772	03046043	SD203A-1470-045-16R1-P	4.528	2.638	1.890	2.559	0.630
0.5807	–	1.772	03046044	SD203A-1475-045-16R1-P	4.528	2.638	1.890	2.559	0.630
0.5827	–	1.772	03046045	SD203A-1480-045-16R1-P	4.528	2.638	1.890	2.559	0.630
0.5906	–	1.772	03046046	SD203A-1500-045-16R1-P	4.528	2.638	1.890	2.559	0.630
0.5945	–	1.772	03046047	SD203A-1510-045-16R1-P	4.528	2.638	1.890	2.559	0.630
0.6024	–	1.772	03046048	SD203A-1530-045-16R1-P	4.528	2.638	1.890	2.559	0.630
0.6102	–	1.772	03046049	SD203A-1550-045-16R1-P	4.528	2.638	1.890	2.559	0.630
0.6181	–	1.772	03046050	SD203A-1570-045-16R1-P	4.528	2.638	1.890	2.559	0.630
0.6220	–	1.772	03046051	SD203A-1580-045-16R1-P	4.528	2.638	1.890	2.559	0.630
0.6250	5/8	1.772	03046088	SD203A-06250-177-0630R1-P	4.528	2.638	1.890	2.559	0.630
0.6299	–	1.772	03046052	SD203A-1600-045-16R1-P	4.528	2.638	1.890	2.559	0.630
0.6496	–	2.008	03046053	SD203A-1650-051-18R1-P	4.843	2.953	1.890	2.874	0.709

For intermediate diameters see the My design software.

Drilling depth ~ 5 x D – Inch

Cylindrical shank DIN 6537A



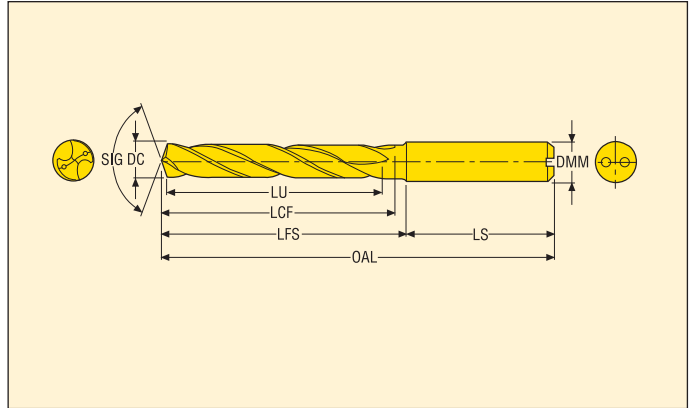
- Internal coolant
- Point angle: 140°
- Coating: TiAlN
- Hole tolerance: IT8-9
- For cutting and machining data see page(s) 176

DC m7 (inch)	DC m7 (inch)	LU	Ordering and Product No.	Designation	Dimensions in inch				
					OAL	LFS	LS	LCF	DMM
0.0787	–	0.472	03046131	SD205A-0200-012-04R1-P	1.811	0.748	1.063	0.591	0.157
0.0827	–	0.472	03046132	SD205A-0210-012-04R1-P	1.811	0.748	1.063	0.591	0.157
0.0866	–	0.472	03046133	SD205A-0220-012-04R1-P	1.811	0.748	1.063	0.591	0.157
0.0906	–	0.472	03046134	SD205A-0230-012-04R1-P	1.811	0.748	1.063	0.591	0.157
0.0937	3/32	0.512	03120477	SD205A-00937-051-0157R1-P	1.969	0.906	1.063	0.689	0.157
0.0945	–	0.512	03046135	SD205A-0240-013-04R1-P	1.969	0.906	1.063	0.689	0.157
0.0984	–	0.512	03046136	SD205A-0250-013-04R1-P	1.969	0.906	1.063	0.689	0.157
0.1024	–	0.512	03046137	SD205A-0260-013-04R1-P	1.969	0.906	1.063	0.689	0.157
0.1063	–	0.591	03046138	SD205A-0270-015-04R1-P	1.969	0.906	1.063	0.807	0.157
0.1094	7/64	0.591	03120496	SD205A-01095-059-0157R1-P	1.969	0.906	1.063	0.807	0.157
0.1102	–	0.591	03046139	SD205A-0280-015-04R1-P	1.969	0.906	1.063	0.807	0.157
0.1142	–	0.591	03046141	SD205A-0290-015-04R1-P	1.969	0.906	1.063	0.807	0.157
0.1181	–	0.906	03046142	SD205A-0300-023-06R1-P	2.598	1.181	1.417	1.024	0.236
0.1220	–	0.906	03046143	SD205A-0310-023-06R1-P	2.598	1.181	1.417	1.024	0.236
0.1250	1/8	0.906	03046327	SD205A-01250-091-0236R1-P	2.598	1.181	1.417	1.024	0.236
0.1260	–	0.906	03046144	SD205A-0320-023-06R1-P	2.598	1.181	1.417	1.024	0.236
0.1280	–	0.906	03046145	SD205A-0325-023-06R1-P	2.598	1.181	1.417	1.024	0.236
0.1299	–	0.906	03046146	SD205A-0330-023-06R1-P	2.598	1.181	1.417	1.024	0.236
0.1339	–	0.906	03046147	SD205A-0340-023-06R1-P	2.598	1.181	1.417	1.024	0.236
0.1378	–	0.906	03046148	SD205A-0350-023-06R1-P	2.598	1.181	1.417	1.024	0.236
0.1406	9/64	0.906	03046328	SD205A-01406-091-0236R1-P	2.598	1.181	1.417	1.024	0.236
0.1417	–	0.906	03046149	SD205A-0360-023-06R1-P	2.598	1.181	1.417	1.024	0.236
0.1437	–	0.906	03046150	SD205A-0365-023-06R1-P	2.598	1.181	1.417	1.024	0.236
0.1457	–	0.906	03046151	SD205A-0370-023-06R1-P	2.598	1.181	1.417	1.024	0.236
0.1496	–	1.142	03046152	SD205A-0380-029-06R1-P	2.913	1.496	1.417	1.339	0.236
0.1535	–	1.142	03046153	SD205A-0390-029-06R1-P	2.913	1.496	1.417	1.339	0.236
0.1563	5/32	1.142	03046329	SD205A-01563-114-0236R1-P	2.913	1.496	1.417	1.339	0.236
0.1575	–	1.142	03046154	SD205A-0400-029-06R1-P	2.913	1.496	1.417	1.339	0.236
0.1614	–	1.142	03046155	SD205A-0410-029-06R1-P	2.913	1.496	1.417	1.339	0.236
0.1654	–	1.142	03046157	SD205A-0420-029-06R1-P	2.913	1.496	1.417	1.339	0.236
0.1693	–	1.142	03046158	SD205A-0430-029-06R1-P	2.913	1.496	1.417	1.339	0.236
0.1719	11/64	1.142	03046330	SD205A-01719-114-0236R1-P	2.913	1.496	1.417	1.339	0.236
0.1732	–	1.142	03046159	SD205A-0440-029-06R1-P	2.913	1.496	1.417	1.339	0.236
0.1772	–	1.142	03046160	SD205A-0450-029-06R1-P	2.913	1.496	1.417	1.339	0.236
0.1811	–	1.142	03046161	SD205A-0460-029-06R1-P	2.913	1.496	1.417	1.339	0.236
0.1831	–	1.142	03046162	SD205A-0465-029-06R1-P	2.913	1.496	1.417	1.339	0.236
0.1850	–	1.142	03046163	SD205A-0470-029-06R1-P	2.913	1.496	1.417	1.339	0.236
0.1875	3/16	1.378	03046331	SD205A-01875-138-0236R1-P	3.228	1.811	1.417	1.732	0.236
0.1890	–	1.378	03046164	SD205A-0480-035-06R1-P	3.228	1.811	1.417	1.732	0.236
0.1929	–	1.378	03046165	SD205A-0490-035-06R1-P	3.228	1.811	1.417	1.732	0.236
0.1969	–	1.378	03046166	SD205A-0500-035-06R1-P	3.228	1.811	1.417	1.732	0.236
0.2008	–	1.378	03046167	SD205A-0510-035-06R1-P	3.228	1.811	1.417	1.732	0.236

For intermediate diameters see the My design software.

Drilling depth ~ 5 x D – Inch

Cylindrical shank DIN 6537A



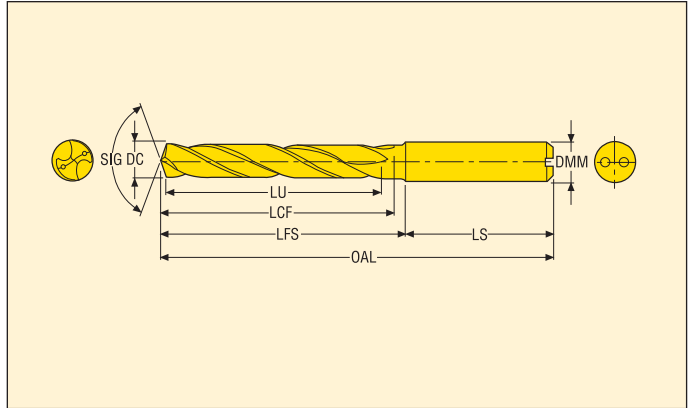
- Internal coolant
- Point angle: 140°
- Coating: TiAlN
- Hole tolerance: IT8-9
- For cutting and machining data see page(s) 176

DC m7 (inch)	DC m7 (inch)	LU	Ordering and Product No.	Designation	Dimensions in inch				
					OAL	LFS	LS	LCF	DMM
0.2031	13/64	1.378	03046332	SD205A-02031-138-0236R1-P	3.228	1.811	1.417	1.732	0.236
0.2047	–	1.378	03046168	SD205A-0520-035-06R1-P	3.228	1.811	1.417	1.732	0.236
0.2087	–	1.378	03046169	SD205A-0530-035-06R1-P	3.228	1.811	1.417	1.732	0.236
0.2126	–	1.378	03046170	SD205A-0540-035-06R1-P	3.228	1.811	1.417	1.732	0.236
0.2165	–	1.378	03046171	SD205A-0550-035-06R1-P	3.228	1.811	1.417	1.732	0.236
0.2185	–	1.378	03046172	SD205A-0555-035-06R1-P	3.228	1.811	1.417	1.732	0.236
0.2187	7/32	1.378	03046333	SD205A-02188-138-0236R1-P	3.228	1.811	1.417	1.732	0.236
0.2205	–	1.378	03046173	SD205A-0560-035-06R1-P	3.228	1.811	1.417	1.732	0.236
0.2244	–	1.378	03046174	SD205A-0570-035-06R1-P	3.228	1.811	1.417	1.732	0.236
0.2283	–	1.378	03046175	SD205A-0580-035-06R1-P	3.228	1.811	1.417	1.732	0.236
0.2323	–	1.378	03046176	SD205A-0590-035-06R1-P	3.228	1.811	1.417	1.732	0.236
0.2344	15/64	1.378	03046334	SD205A-02344-138-0236R1-P	3.228	1.811	1.417	1.732	0.236
0.2362	–	1.378	03046177	SD205A-0600-035-06R1-P	3.228	1.811	1.417	1.732	0.236
0.2402	–	1.693	03046179	SD205A-0610-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2441	–	1.693	03046180	SD205A-0620-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2480	–	1.693	03046181	SD205A-0630-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2500	1/4	1.693	03046335	SD205A-02500-169-0315R1-P	3.583	2.165	1.417	2.087	0.315
0.2520	–	1.693	03046182	SD205A-0640-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2559	–	1.693	03046183	SD205A-0650-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2598	–	1.693	03046184	SD205A-0660-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2638	–	1.693	03046185	SD205A-0670-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2656	17/64	1.693	03046336	SD205A-02656-169-0315R1-P	3.583	2.165	1.417	2.087	0.315
0.2677	–	1.693	03046186	SD205A-0680-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2717	–	1.693	03046187	SD205A-0690-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2756	–	1.693	03046188	SD205A-0700-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2795	–	1.693	03046190	SD205A-0710-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2813	9/32	1.693	03046337	SD205A-02813-169-0315R1-P	3.583	2.165	1.417	2.087	0.315
0.2835	–	1.693	03046191	SD205A-0720-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2874	–	1.693	03046192	SD205A-0730-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2913	–	1.693	03046193	SD205A-0740-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2953	–	1.693	03046194	SD205A-0750-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2969	19/64	1.693	03046338	SD205A-02969-169-0315R1-P	3.583	2.165	1.417	2.087	0.315
0.2972	–	1.693	03046195	SD205A-0755-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2992	–	1.693	03046196	SD205A-0760-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.3031	–	1.693	03046197	SD205A-0770-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.3071	–	1.693	03046198	SD205A-0780-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.3110	–	1.693	03046199	SD205A-0790-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.3125	5/16	1.693	03046339	SD205A-03125-169-0315R1-P	3.583	2.165	1.417	2.087	0.315
0.3150	–	1.693	03046200	SD205A-0800-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.3189	–	1.929	03046201	SD205A-0810-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3228	–	1.929	03046202	SD205A-0820-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3268	–	1.929	03046203	SD205A-0830-049-10R1-P	4.055	2.480	1.575	2.402	0.394

For intermediate diameters see the My design software.

Drilling depth ~ 5 x D – Inch

Cylindrical shank DIN 6537A



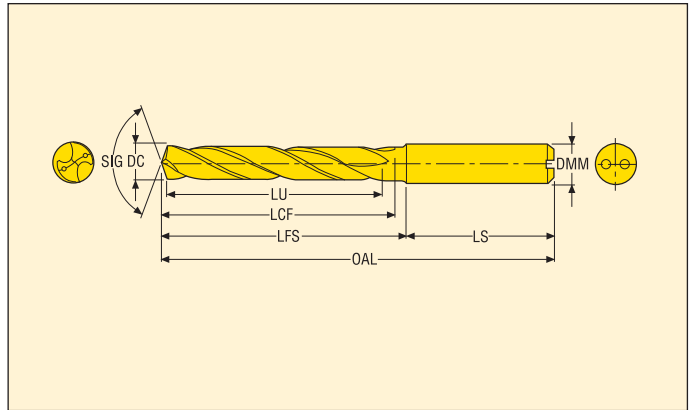
- Internal coolant
- Point angle: 140°
- Coating: TiAlN
- Hole tolerance: IT8-9
- For cutting and machining data see page(s) 176

DC m7 (inch)	DC m7 (inch)	LU	Ordering and Product No.	Designation	Dimensions in inch				
					OAL	LFS	LS	LCF	DMM
0.3281	21/64	1.929	03046340	SD205A-03281-193-0394R1-P	4.055	2.480	1.575	2.402	0.394
0.3307	–	1.929	03046204	SD205A-0840-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3346	–	1.929	03046205	SD205A-0850-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3386	–	1.929	03046206	SD205A-0860-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3425	–	1.929	03046207	SD205A-0870-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3437	11/32	1.929	03046341	SD205A-03438-193-0394R1-P	4.055	2.480	1.575	2.402	0.394
0.3465	–	1.929	03046208	SD205A-0880-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3504	–	1.929	03046209	SD205A-0890-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3543	–	1.929	03046210	SD205A-0900-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3583	–	1.929	03046211	SD205A-0910-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3594	23/64	1.929	03046342	SD205A-03594-193-0394R1-P	4.055	2.480	1.575	2.402	0.394
0.3622	–	1.929	03046212	SD205A-0920-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3661	–	1.929	03046213	SD205A-0930-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3701	–	1.929	03046214	SD205A-0940-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3740	–	1.929	03046215	SD205A-0950-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3750	3/8	1.929	03046343	SD205A-03750-193-0394R1-P	4.055	2.480	1.575	2.402	0.394
0.3760	–	1.929	03046216	SD205A-0955-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3780	–	1.929	03046217	SD205A-0960-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3819	–	1.929	03046218	SD205A-0970-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3858	–	1.929	03046219	SD205A-0980-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3898	–	1.929	03046220	SD205A-0990-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3906	25/64	1.929	03046344	SD205A-03906-193-0394R1-P	4.055	2.480	1.575	2.402	0.394
0.3937	–	1.929	03046221	SD205A-1000-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3976	–	2.205	03046222	SD205A-1010-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4016	–	2.205	03046223	SD205A-1020-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4055	–	2.205	03046224	SD205A-1030-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4063	12/32	2.205	03046345	SD205A-04063-220-0472R1-P	4.646	2.874	1.772	2.795	0.472
0.4094	–	2.205	03046225	SD205A-1040-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4134	–	2.205	03046226	SD205A-1050-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4173	–	2.205	03046227	SD205A-1060-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4213	–	2.205	03046228	SD205A-1070-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4219	27/64	2.205	03046346	SD205A-04219-220-0472R1-P	4.646	2.874	1.772	2.795	0.472
0.4252	–	2.205	03046229	SD205A-1080-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4291	–	2.205	03046230	SD205A-1090-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4331	–	2.205	03046231	SD205A-1100-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4370	–	2.205	03046232	SD205A-1110-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4375	7/16	2.205	03046347	SD205A-04375-220-0472R1-P	4.646	2.874	1.772	2.795	0.472
0.4409	–	2.205	03046233	SD205A-1120-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4449	–	2.205	03046234	SD205A-1130-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4488	–	2.205	03046235	SD205A-1140-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4528	–	2.205	03046236	SD205A-1150-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4531	29/64	2.205	03046348	SD205A-04531-220-0472R1-P	4.646	2.874	1.772	2.795	0.472

For intermediate diameters see the My design software.

Drilling depth ~ 5 x D – Inch

Cylindrical shank DIN 6537A



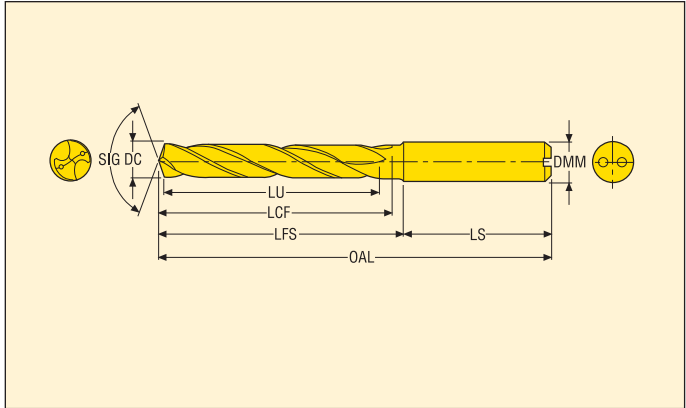
- Internal coolant
- Point angle: 140°
- Coating: TiAlN
- Hole tolerance: IT8-9
- For cutting and machining data see page(s) 176

DC m7 (inch)	DC m7 (inch)	LU	Ordering and Product No.	Designation	Dimensions in inch				
					OAL	LFS	LS	LCF	DMM
0.4547	–	2.205	03046237	SD205A-1155-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4606	–	2.205	03046239	SD205A-1170-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4646	–	2.205	03046240	SD205A-1180-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4685	–	2.205	03046241	SD205A-1190-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4687	15/32	2.205	03046349	SD205A-04688-220-0472R1-P	4.646	2.874	1.772	2.795	0.472
0.4724	–	2.205	03046242	SD205A-1200-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4764	–	2.362	03046243	SD205A-1210-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.4803	–	2.362	03046244	SD205A-1220-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.4823	–	2.362	03046245	SD205A-1225-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.4843	–	2.362	03138157	SD205A-1230-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.4882	–	2.362	03046246	SD205A-1240-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.4921	–	2.362	03046247	SD205A-1250-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.4961	–	2.362	03046248	SD205A-1260-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.5000	1/2	2.362	03120497	SD205A-05000-236-0551R1-P	4.882	3.110	1.772	3.031	0.551
0.5020	–	2.362	03046249	SD205A-1275-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.5039	–	2.362	03046250	SD205A-1280-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.5079	–	2.362	03046251	SD205A-1290-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.5118	–	2.362	03046252	SD205A-1300-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.5157	33/64	2.362	03046253	SD205A-05156-236-0551R1-P	4.882	3.110	1.772	3.031	0.551
0.5197	–	2.362	03046254	SD205A-1320-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.5236	–	2.362	03046255	SD205A-1330-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.5276	–	2.362	03046256	SD205A-1340-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.5313	17/32	2.362	03046350	SD205A-05312-236-0551R1-P	4.882	3.110	1.772	3.031	0.551
0.5315	–	2.362	03046257	SD205A-1350-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.5335	–	2.362	03138158	SD205A-1355-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.5354	–	2.362	03046258	SD205A-1360-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.5394	–	2.362	03046259	SD205A-1370-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.5433	–	2.362	03046260	SD205A-1380-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.5469	35/64	2.362	03120498	SD205A-05469-236-0551R1-P	4.882	3.110	1.772	3.031	0.551
0.5472	–	2.362	03046261	SD205A-1390-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.5512	–	2.362	03046262	SD205A-1400-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.5551	–	2.480	03046263	SD205A-1410-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.5591	–	2.480	03046264	SD205A-1420-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.5610	–	2.480	03138159	SD205A-1425-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.5625	9/16	2.480	03046351	SD205A-05625-248-0630R1-P	5.236	3.346	1.890	3.268	0.630
0.5630	–	2.480	03046265	SD205A-1430-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.5669	–	2.480	03046266	SD205A-1440-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.5709	–	2.480	03046267	SD205A-1450-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.5748	–	2.480	03046268	SD205A-1460-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.5787	–	2.480	03046269	SD205A-1470-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.5807	–	2.480	03046270	SD205A-1475-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.6102	–	2.480	03046278	SD205A-1550-063-16R1-P	5.236	3.346	1.890	3.268	0.630

For intermediate diameters see the My design software.

Drilling depth ~ 5 x D – Inch

Cylindrical shank DIN 6537A



- Internal coolant
- Point angle: 140°
- Coating: TiAlN
- Hole tolerance: IT8-9
- For cutting and machining data see page(s) 176

DC m7 (inch)	DC m7 (inch)	LU	Ordering and Product No.	Designation	Dimensions in inch				
					OAL	LFS	LS	LCF	DMM
0.4567	–	2.205	03046238	SD205A-1160-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.5827	–	2.480	03046271	SD205A-1480-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.5866	–	2.480	03046272	SD205A-1490-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.5906	–	2.480	03046273	SD205A-1500-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.5945	–	2.480	03046274	SD205A-1510-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.5984	–	2.480	03046275	SD205A-1520-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.6004	–	2.480	03138160	SD205A-1525-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.6024	–	2.480	03046276	SD205A-1530-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.6063	–	2.480	03046277	SD205A-1540-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.6142	–	2.480	03046280	SD205A-1560-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.6181	–	2.480	03046281	SD205A-1570-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.6220	–	2.480	03046282	SD205A-1580-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.6250	5/8	2.480	03046352	SD205A-06250-248-0630R1-P	5.236	3.346	1.890	3.268	0.630
0.6260	–	2.480	03046283	SD205A-1590-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.6299	–	2.480	03046284	SD205A-1600-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.6339	–	2.795	03046285	SD205A-1610-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6378	–	2.795	03046286	SD205A-1620-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6398	–	2.795	03138161	SD205A-1625-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6417	–	2.795	03046287	SD205A-1630-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6457	–	2.795	03046288	SD205A-1640-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6496	–	2.795	03046289	SD205A-1650-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6535	–	2.795	03046290	SD205A-1660-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6563	21/32	2.795	03120499	SD205A-06563-280-0709R1-P	5.630	3.740	1.890	3.661	0.709
0.6575	–	2.795	03046291	SD205A-1670-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6594	–	2.795	03046292	SD205A-1675-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6614	–	2.795	03046293	SD205A-1680-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6654	–	2.795	03046294	SD205A-1690-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6693	–	2.795	03046296	SD205A-1700-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6732	–	2.795	03046297	SD205A-1710-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6772	–	2.795	03046298	SD205A-1720-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6811	–	2.795	03046299	SD205A-1730-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6850	–	2.795	03046300	SD205A-1740-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6875	11/16	2.795	03120500	SD205A-06875-280-0709R1-P	5.630	3.740	1.890	3.661	0.709
0.6890	–	2.795	03046301	SD205A-1750-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6929	–	2.795	03046302	SD205A-1760-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6969	–	2.795	03046303	SD205A-1770-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.7008	–	2.795	03046304	SD205A-1780-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.7047	–	2.795	03046305	SD205A-1790-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.7087	–	2.795	03046306	SD205A-1800-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.7126	–	3.031	03046307	SD205A-1810-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7165	–	3.031	03046308	SD205A-1820-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7205	–	3.031	03046309	SD205A-1830-077-20R1-P	6.024	4.055	1.969	3.976	0.787

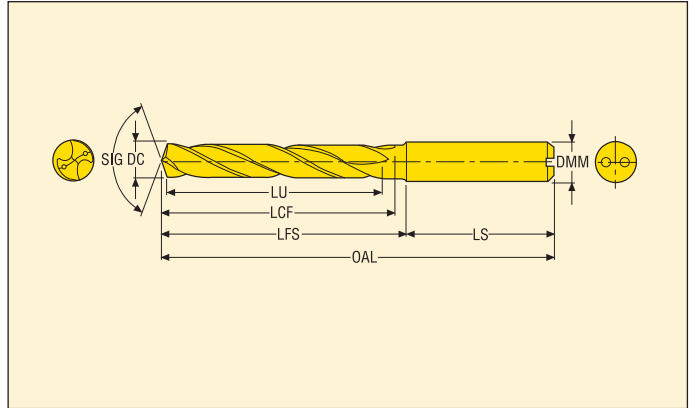
For intermediate diameters see the My design software.

Drilling depth ~ 5 x D – Inch

Cylindrical shank DIN 6537A



- Internal coolant
- Point angle: 140°
- Coating: TiAlN
- Hole tolerance: IT8-9
- For cutting and machining data see page(s) 176

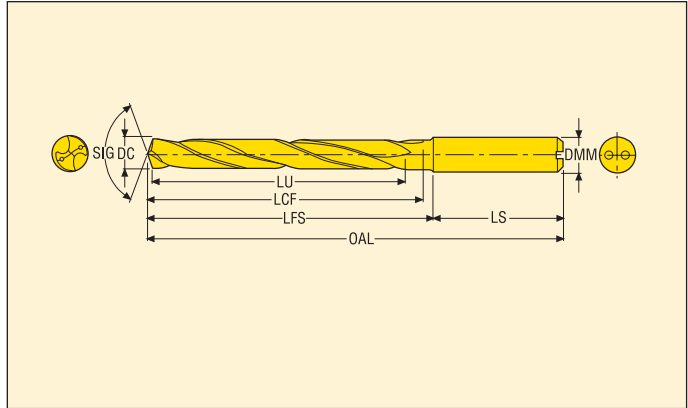


DC m7 (inch)	DC m7 (inch)	LU	Ordering and Product No.	Designation	Dimensions in inch				
					OAL	LFS	LS	LCF	DMM
0.7244	–	3.031	03046310	SD205A-1840-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7283	–	3.031	03046311	SD205A-1850-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7323	–	3.031	03046312	SD205A-1860-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7362	–	3.031	03046313	SD205A-1870-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7402	–	3.031	03046314	SD205A-1880-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7441	–	3.031	03046315	SD205A-1890-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7480	–	3.031	03046316	SD205A-1900-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7500	3/4	3.031	03046353	SD205A-07500-303-0787R1-P	6.024	4.055	1.969	3.976	0.787
0.7520	–	3.031	03046317	SD205A-1910-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7559	–	3.031	03046318	SD205A-1920-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7598	–	3.031	03046319	SD205A-1930-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7638	–	3.031	03046320	SD205A-1940-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7677	–	3.031	03046321	SD205A-1950-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7717	–	3.031	03046322	SD205A-1960-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7756	–	3.031	03046323	SD205A-1970-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7795	–	3.031	03046324	SD205A-1980-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7835	–	3.031	03046325	SD205A-1990-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7874	–	3.031	03046326	SD205A-2000-077-20R1-P	6.024	4.055	1.969	3.976	0.787

For intermediate diameters see the My design software.

Drilling depth ~ 7 x D – Inch

Cylindrical shank DIN 6537A



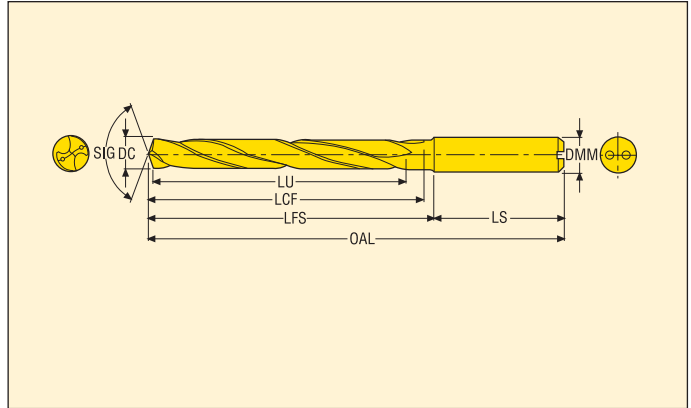
- Internal coolant
- Point angle: 140°
- Coating: TiAlN
- Hole tolerance: IT9
- For cutting and machining data see page(s) 177

DC m7 (inch)	DC m7 (inch)	LU	Ordering and Product No.	Designation	Dimensions in inch				
					OAL	LFS	LS	LCF	DMM
0.1181	–	1.181	03046358	SD207A-0300-030-06R1-P	2.913	1.496	1.417	1.417	0.236
0.1299	–	1.181	03046359	SD207A-0330-030-06R1-P	2.913	1.496	1.417	1.417	0.236
0.1378	–	1.181	03046360	SD207A-0350-030-06R1-P	2.913	1.496	1.417	1.417	0.236
0.1575	–	1.457	03046361	SD207A-0400-037-06R1-P	3.228	1.811	1.417	1.693	0.236
0.1772	–	1.457	03046412	SD207A-0450-037-06R1-P	3.228	1.811	1.417	1.693	0.236
0.1890	–	1.772	03046413	SD207A-0480-045-06R1-P	3.701	2.283	1.417	2.205	0.236
0.1969	–	1.772	03046414	SD207A-0500-045-06R1-P	3.701	2.283	1.417	2.205	0.236
0.2047	–	1.772	03046362	SD207A-0520-045-06R1-P	3.701	2.283	1.417	2.205	0.236
0.2165	–	1.772	03046363	SD207A-0550-045-06R1-P	3.701	2.283	1.417	2.205	0.236
0.2283	–	1.772	03046407	SD207A-0580-045-06R1-P	3.701	2.283	1.417	2.205	0.236
0.2362	–	1.772	03046364	SD207A-0600-045-06R1-P	3.701	2.283	1.417	2.205	0.236
0.2500	1/4	2.244	03046365	SD207A-02500-224-0315R1-P	4.331	2.913	1.417	2.638	0.315
0.2559	–	2.244	03046366	SD207A-0650-057-08R1-P	4.331	2.913	1.417	2.638	0.315
0.2677	–	2.244	03046367	SD207A-0680-057-08R1-P	4.331	2.913	1.417	2.638	0.315
0.2717	–	2.244	03046368	SD207A-0690-057-08R1-P	4.331	2.913	1.417	2.638	0.315
0.2756	–	2.244	03046369	SD207A-0700-057-08R1-P	4.331	2.913	1.417	2.638	0.315
0.2953	–	2.244	03046370	SD207A-0750-057-08R1-P	4.331	2.913	1.417	2.835	0.315
0.3071	–	2.244	03046371	SD207A-0780-057-08R1-P	4.331	2.913	1.417	2.835	0.315
0.3150	–	2.244	03046372	SD207A-0800-057-08R1-P	4.331	2.913	1.417	2.835	0.315
0.3346	–	2.441	03046373	SD207A-0850-062-10R1-P	4.803	3.228	1.575	3.150	0.394
0.3386	–	2.441	03046374	SD207A-0860-062-10R1-P	4.803	3.228	1.575	3.150	0.394
0.3425	–	2.441	03046411	SD207A-0870-062-10R1-P	4.803	3.228	1.575	3.150	0.394
0.3465	–	2.441	03046408	SD207A-0880-062-10R1-P	4.803	3.228	1.575	3.150	0.394
0.3543	–	2.441	03046375	SD207A-0900-062-10R1-P	4.803	3.228	1.575	3.150	0.394
0.3740	–	2.441	03046376	SD207A-0950-062-10R1-P	4.803	3.228	1.575	3.150	0.394
0.3750	3/8	2.441	03046377	SD207A-03750-244-0394R1-P	4.803	3.228	1.575	3.150	0.394
0.3839	–	2.441	03046402	SD207A-0975-062-10R1-P	4.803	3.228	1.575	3.150	0.394
0.3858	–	2.441	03046403	SD207A-0980-062-10R1-P	4.803	3.228	1.575	3.150	0.394
0.3937	–	2.441	03046378	SD207A-1000-062-10R1-P	4.803	3.228	1.575	3.150	0.394
0.4016	–	2.835	03046379	SD207A-1020-072-12R1-P	5.551	3.780	1.772	3.701	0.472
0.4094	–	2.835	03046401	SD207A-1040-072-12R1-P	5.551	3.780	1.772	3.701	0.472
0.4134	–	2.835	03046380	SD207A-1050-072-12R1-P	5.551	3.780	1.772	3.701	0.472
0.4252	–	2.835	03046404	SD207A-1080-072-12R1-P	5.551	3.780	1.772	3.701	0.472
0.4331	–	2.835	03046381	SD207A-1100-072-12R1-P	5.551	3.780	1.772	3.701	0.472
0.4528	–	2.835	03046382	SD207A-1150-072-12R1-P	5.551	3.780	1.772	3.701	0.472
0.4646	–	2.835	03046405	SD207A-1180-072-12R1-P	5.551	3.780	1.772	3.701	0.472
0.4724	–	2.835	03046383	SD207A-1200-072-12R1-P	5.551	3.780	1.772	3.701	0.472
0.4823	–	3.268	03046415	SD207A-1225-083-14R1-P	6.102	4.331	1.772	4.252	0.551
0.4921	–	3.268	03046384	SD207A-1250-083-14R1-P	6.102	4.331	1.772	4.252	0.551
0.5000	1/2	3.268	03046385	SD207A-05000-327-0551R1-P	6.102	4.331	1.772	4.252	0.551
0.5039	–	3.268	03046416	SD207A-1280-083-14R1-P	6.102	4.331	1.772	4.252	0.551
0.5118	–	3.268	03046386	SD207A-1300-083-14R1-P	6.102	4.331	1.772	4.252	0.551

For intermediate diameters see the My design software.

Drilling depth ~ 7 x D – Inch

Cylindrical shank DIN 6537A



- Internal coolant
- Point angle: 140°
- Coating: TiAlN
- Hole tolerance: IT9
- For cutting and machining data see page(s) 177

DC m7 (inch)	DC m7 (inch)	LU	Ordering and Product No.	Designation	Dimensions in inch				
					OAL	LFS	LS	LCF	DMM
0.5315	-	3.268	03046387	SD207A-1350-083-14R1-P	6.102	4.331	1.772	4.252	0.551
0.5433	-	3.268	03046409	SD207A-1380-083-14R1-P	6.102	4.331	1.772	4.252	0.551
0.5512	-	3.268	03046388	SD207A-1400-083-14R1-P	6.102	4.331	1.772	4.252	0.551
0.5610	-	3.622	03046417	SD207A-1425-092-16R1-P	6.732	4.843	1.890	4.764	0.630
0.5709	-	3.622	03046389	SD207A-1450-092-16R1-P	6.732	4.843	1.890	4.764	0.630
0.5827	-	3.622	03046418	SD207A-1480-092-16R1-P	6.732	4.843	1.890	4.764	0.630
0.5906	-	3.622	03046390	SD207A-1500-092-16R1-P	6.732	4.843	1.890	4.764	0.630
0.6102	-	3.622	03046391	SD207A-1550-092-16R1-P	6.732	4.843	1.890	4.764	0.630
0.6220	-	3.622	03046410	SD207A-1580-092-16R1-P	6.732	4.843	1.890	4.764	0.630
0.6299	-	3.622	03046392	SD207A-1600-092-16R1-P	6.732	4.843	1.890	4.764	0.630
0.6496	-	4.055	03046393	SD207A-1650-103-18R1-P	7.283	5.394	1.890	5.315	0.709
0.6614	-	4.055	03046419	SD207A-1680-103-18R1-P	7.283	5.394	1.890	5.315	0.709
0.6693	-	4.055	03046394	SD207A-1700-103-18R1-P	7.283	5.394	1.890	5.315	0.709
0.6890	-	4.055	03046395	SD207A-1750-103-18R1-P	7.283	5.394	1.890	5.315	0.709
0.7008	-	4.055	03046420	SD207A-1780-103-18R1-P	7.283	5.394	1.890	5.315	0.709
0.7087	-	4.055	03046396	SD207A-1800-103-18R1-P	7.283	5.394	1.890	5.315	0.709
0.7283	-	4.409	03046397	SD207A-1850-112-20R1-P	7.874	5.906	1.969	5.827	0.787
0.7402	-	4.409	03046421	SD207A-1880-112-20R1-P	7.874	5.906	1.969	5.827	0.787
0.7480	-	4.409	03046398	SD207A-1900-112-20R1-P	7.874	5.906	1.969	5.827	0.787
0.7500	3/4	4.409	03046399	SD207A-07500-441-0787R1-P	7.874	5.906	1.969	5.827	0.787
0.7795	-	4.409	03046406	SD207A-1980-112-20R1-P	7.874	5.906	1.969	5.827	0.787
0.7874	-	4.409	03046400	SD207A-2000-112-20R1-P	7.874	5.906	1.969	5.827	0.787

For intermediate diameters see the My design software.

Cutting data – SD203A-P – Ø2-8 – Metric

SMG		f						v _c
		Ø2,00	Ø3,00	Ø4,00	Ø5,00	Ø6,00	Ø8,00	
P1	P	0,14	0,17	0,20	0,24	0,26	0,32	185
P2	P	0,14	0,17	0,20	0,24	0,26	0,32	180
P3	P	0,14	0,16	0,19	0,22	0,26	0,32	155
P4	P	0,10	0,13	0,15	0,17	0,19	0,24	215
P5	P	0,10	0,12	0,14	0,17	0,19	0,22	205
P6	P	0,10	0,12	0,14	0,16	0,19	0,22	230
P7	P	0,10	0,12	0,14	0,16	0,19	0,22	215
P8	P	0,11	0,13	0,15	0,17	0,19	0,24	200
P11	P	0,10	0,12	0,14	0,16	0,19	0,22	210
P12	P	0,085	0,10	0,12	0,13	0,15	0,18	130
K1	P	0,15	0,18	0,22	0,26	0,28	0,36	175
K2	P	0,14	0,17	0,20	0,22	0,26	0,32	150
K3	P	0,14	0,17	0,20	0,22	0,26	0,32	125
K4	P	0,14	0,17	0,20	0,22	0,26	0,32	120
K5	P	0,12	0,15	0,18	0,20	0,24	0,28	70
H3	P	0,055	0,070	0,080	0,090	0,10	0,12	30
H5	P	0,085	0,10	0,12	0,13	0,15	0,18	55
H7	P	0,055	0,070	0,080	0,090	0,10	0,12	30
H8	P	0,065	0,080	0,090	0,10	0,12	0,14	55
H11	P	0,085	0,10	0,12	0,13	0,15	0,18	70
H12	P	0,065	0,080	0,090	0,10	0,12	0,14	80
H21	P	0,065	0,080	0,090	0,10	0,12	0,14	55

Cutting data – SD203A-P – Ø10-20 – Metric

SMG		f						v _c
		Ø10,00	Ø12,00	Ø14,00	Ø16,00	Ø18,00	Ø20,00	
P1	P	0,38	0,44	0,48	0,50	0,55	0,55	185
P2	P	0,38	0,44	0,48	0,50	0,55	0,60	180
P3	P	0,36	0,42	0,46	0,50	0,50	0,55	155
P4	P	0,28	0,30	0,34	0,36	0,38	0,40	215
P5	P	0,26	0,30	0,32	0,34	0,36	0,38	205
P6	P	0,26	0,30	0,32	0,34	0,36	0,38	230
P7	P	0,26	0,30	0,32	0,34	0,36	0,38	215
P8	P	0,28	0,32	0,34	0,36	0,38	0,40	200
P11	P	0,26	0,30	0,32	0,34	0,36	0,38	210
P12	P	0,22	0,24	0,26	0,28	0,30	0,32	130
K1	P	0,42	0,48	0,50	0,55	0,60	0,65	175
K2	P	0,38	0,42	0,48	0,50	0,55	0,55	150
K3	P	0,38	0,42	0,48	0,50	0,55	0,55	125
K4	P	0,38	0,42	0,48	0,50	0,55	0,55	120
K5	P	0,34	0,38	0,42	0,46	0,48	0,50	70
H3	P	0,14	0,16	0,18	0,19	0,20	0,20	30
H5	P	0,22	0,24	0,26	0,28	0,30	0,32	55
H7	P	0,14	0,16	0,18	0,19	0,20	0,20	30
H8	P	0,16	0,19	0,20	0,22	0,24	0,24	55
H11	P	0,22	0,24	0,26	0,28	0,30	0,32	70
H12	P	0,16	0,19	0,20	0,22	0,24	0,24	80
H21	P	0,16	0,19	0,20	0,22	0,24	0,24	55

SMG = Seco material group

f = mm/rev

v_c = m/min

All cutting data are start values

Cutting data – SD205A-P – Ø2-8 – Metric

SMG		f						v _c
		Ø2,00	Ø3,00	Ø4,00	Ø5,00	Ø6,00	Ø8,00	
P1	P	0,14	0,17	0,20	0,24	0,26	0,32	170
P2	P	0,14	0,17	0,20	0,24	0,26	0,32	165
P3	P	0,14	0,16	0,19	0,22	0,26	0,32	140
P4	P	0,10	0,13	0,15	0,17	0,19	0,24	195
P5	P	0,10	0,12	0,14	0,17	0,19	0,22	185
P6	P	0,10	0,12	0,14	0,16	0,19	0,22	210
P7	P	0,10	0,12	0,14	0,16	0,19	0,22	200
P8	P	0,11	0,13	0,15	0,17	0,19	0,24	185
P11	P	0,10	0,12	0,14	0,16	0,19	0,22	195
P12	P	0,085	0,10	0,12	0,13	0,15	0,18	120
K1	P	0,15	0,18	0,22	0,26	0,28	0,36	160
K2	P	0,14	0,17	0,20	0,22	0,26	0,32	135
K3	P	0,14	0,17	0,20	0,22	0,26	0,32	115
K4	P	0,14	0,17	0,20	0,22	0,26	0,32	110
K5	P	0,12	0,15	0,18	0,20	0,24	0,28	65
H3	P	0,055	0,070	0,080	0,090	0,10	0,12	27
H5	P	0,085	0,10	0,12	0,13	0,15	0,18	50
H7	P	0,055	0,070	0,080	0,090	0,10	0,12	27
H8	P	0,065	0,080	0,090	0,10	0,12	0,14	50
H11	P	0,085	0,10	0,12	0,13	0,15	0,18	65
H12	P	0,065	0,080	0,090	0,10	0,12	0,14	70
H21	P	0,065	0,080	0,090	0,10	0,12	0,14	50

Cutting data – SD205A-P – Ø10-20 – Metric

SMG		f						v _c
		Ø10,00	Ø12,00	Ø14,00	Ø16,00	Ø18,00	Ø20,00	
P1	P	0,38	0,44	0,48	0,50	0,55	0,55	170
P2	P	0,38	0,44	0,48	0,50	0,55	0,60	165
P3	P	0,36	0,42	0,46	0,50	0,50	0,55	140
P4	P	0,28	0,30	0,34	0,36	0,38	0,40	195
P5	P	0,26	0,30	0,32	0,34	0,36	0,38	185
P6	P	0,26	0,30	0,32	0,34	0,36	0,38	210
P7	P	0,26	0,30	0,32	0,34	0,36	0,38	200
P8	P	0,28	0,32	0,34	0,36	0,38	0,40	185
P11	P	0,26	0,30	0,32	0,34	0,36	0,38	195
P12	P	0,22	0,24	0,26	0,28	0,30	0,32	120
K1	P	0,42	0,48	0,50	0,55	0,60	0,65	160
K2	P	0,38	0,42	0,48	0,50	0,55	0,55	135
K3	P	0,38	0,42	0,48	0,50	0,55	0,55	115
K4	P	0,38	0,42	0,48	0,50	0,55	0,55	110
K5	P	0,34	0,38	0,42	0,46	0,48	0,50	65
H3	P	0,14	0,16	0,18	0,19	0,20	0,20	27
H5	P	0,22	0,24	0,26	0,28	0,30	0,32	50
H7	P	0,14	0,16	0,18	0,19	0,20	0,20	27
H8	P	0,16	0,19	0,20	0,22	0,24	0,24	50
H11	P	0,22	0,24	0,26	0,28	0,30	0,32	65
H12	P	0,16	0,19	0,20	0,22	0,24	0,24	70
H21	P	0,16	0,19	0,20	0,22	0,24	0,24	50

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

Cutting data – SD207A-P – Ø3-20 – Metric

SMG		f										v _c
		Ø3,00	Ø5,00	Ø6,00	Ø8,00	Ø10,00	Ø12,00	Ø14,00	Ø16,00	Ø18,00	Ø20,00	
P1	P	0,17	0,24	0,26	0,32	0,38	0,44	0,48	0,50	0,55	0,55	155
P2	P	0,17	0,24	0,26	0,32	0,38	0,44	0,48	0,50	0,55	0,60	155
P3	P	0,16	0,22	0,26	0,32	0,36	0,42	0,46	0,50	0,50	0,55	130
P4	P	0,13	0,17	0,19	0,24	0,28	0,30	0,34	0,36	0,38	0,40	185
P5	P	0,12	0,17	0,19	0,22	0,26	0,30	0,32	0,34	0,36	0,38	175
P6	P	0,12	0,16	0,19	0,22	0,26	0,30	0,32	0,34	0,36	0,38	195
P7	P	0,12	0,16	0,19	0,22	0,26	0,30	0,32	0,34	0,36	0,38	185
P8	P	0,13	0,17	0,19	0,24	0,28	0,32	0,34	0,36	0,38	0,40	170
P11	P	0,12	0,16	0,19	0,22	0,26	0,30	0,32	0,34	0,36	0,38	180
P12	P	0,10	0,13	0,15	0,18	0,22	0,24	0,26	0,28	0,30	0,32	100
K1	P	0,18	0,26	0,28	0,36	0,42	0,48	0,50	0,55	0,60	0,65	150
K2	P	0,17	0,22	0,26	0,32	0,38	0,42	0,48	0,50	0,55	0,55	130
K3	P	0,17	0,22	0,26	0,32	0,38	0,42	0,48	0,50	0,55	0,55	110
K4	P	0,17	0,22	0,26	0,32	0,38	0,42	0,48	0,50	0,55	0,55	105
K5	P	0,15	0,20	0,24	0,28	0,34	0,38	0,42	0,46	0,48	0,50	60
H3	P	0,070	0,090	0,10	0,12	0,14	0,16	0,18	0,19	0,20	0,20	26
H5	P	0,10	0,13	0,15	0,18	0,22	0,24	0,26	0,28	0,30	0,32	47
H7	P	0,070	0,090	0,10	0,12	0,14	0,16	0,18	0,19	0,20	0,20	26
H8	P	0,080	0,10	0,12	0,14	0,16	0,19	0,20	0,22	0,24	0,24	47
H11	P	0,10	0,13	0,15	0,18	0,22	0,24	0,26	0,28	0,30	0,32	60
H12	P	0,080	0,10	0,12	0,14	0,16	0,19	0,20	0,22	0,24	0,24	65
H21	P	0,080	0,10	0,12	0,14	0,16	0,19	0,20	0,22	0,24	0,24	47

SMG = Seco material group

f = mm/rev

v_c = m/min

All cutting data are start values

Cutting data – SD203A-P – Ø 0.079-0.315 – Inch

SMG		f						v _c
		Ø 0.079	Ø 0.118	Ø 0.157	Ø 0.197	Ø 0.236	Ø 0.315	
P1	P	0.0055	0.0067	0.0079	0.0094	0.010	0.013	600
P2	P	0.0055	0.0067	0.0079	0.0094	0.010	0.013	580
P3	P	0.0055	0.0063	0.0075	0.0087	0.010	0.013	500
P4	P	0.0039	0.0051	0.0059	0.0067	0.0075	0.0094	700
P5	P	0.0039	0.0047	0.0055	0.0067	0.0075	0.0087	670
P6	P	0.0039	0.0047	0.0055	0.0063	0.0075	0.0087	750
P7	P	0.0039	0.0047	0.0055	0.0063	0.0075	0.0087	710
P8	P	0.0043	0.0051	0.0059	0.0067	0.0075	0.0094	650
P11	P	0.0039	0.0047	0.0055	0.0063	0.0075	0.0087	690
P12	P	0.0033	0.0039	0.0047	0.0051	0.0059	0.0071	420
K1	P	0.0059	0.0071	0.0087	0.010	0.011	0.014	570
K2	P	0.0055	0.0067	0.0079	0.0087	0.010	0.013	490
K3	P	0.0055	0.0067	0.0079	0.0087	0.010	0.013	415
K4	P	0.0055	0.0067	0.0079	0.0087	0.010	0.013	395
K5	P	0.0047	0.0059	0.0071	0.0079	0.0094	0.011	235
H3	P	0.0022	0.0028	0.0031	0.0035	0.0039	0.0047	100
H5	P	0.0033	0.0039	0.0047	0.0051	0.0059	0.0071	180
H7	P	0.0022	0.0028	0.0031	0.0035	0.0039	0.0047	100
H8	P	0.0026	0.0031	0.0035	0.0039	0.0047	0.0055	180
H11	P	0.0033	0.0039	0.0047	0.0051	0.0059	0.0071	230
H12	P	0.0026	0.0031	0.0035	0.0039	0.0047	0.0055	255
H21	P	0.0026	0.0031	0.0035	0.0039	0.0047	0.0055	180

Cutting data – SD203A-P – Ø 0.394-0.787 – Inch

SMG		f						v _c
		Ø 0.394	Ø 0.472	Ø 0.551	Ø 0.630	Ø 0.709	Ø 0.787	
P1	P	0.015	0.017	0.019	0.020	0.022	0.022	600
P2	P	0.015	0.017	0.019	0.020	0.022	0.024	580
P3	P	0.014	0.017	0.018	0.020	0.020	0.022	500
P4	P	0.011	0.012	0.013	0.014	0.015	0.016	700
P5	P	0.010	0.012	0.013	0.013	0.014	0.015	670
P6	P	0.010	0.012	0.013	0.013	0.014	0.015	750
P7	P	0.010	0.012	0.013	0.013	0.014	0.015	710
P8	P	0.011	0.013	0.013	0.014	0.015	0.016	650
P11	P	0.010	0.012	0.013	0.013	0.014	0.015	690
P12	P	0.0087	0.0094	0.010	0.011	0.012	0.013	420
K1	P	0.017	0.019	0.020	0.022	0.024	0.026	570
K2	P	0.015	0.017	0.019	0.020	0.022	0.022	490
K3	P	0.015	0.017	0.019	0.020	0.022	0.022	415
K4	P	0.015	0.017	0.019	0.020	0.022	0.022	395
K5	P	0.013	0.015	0.017	0.018	0.019	0.020	235
H3	P	0.0055	0.0063	0.0071	0.0075	0.0079	0.0079	100
H5	P	0.0087	0.0094	0.010	0.011	0.012	0.013	180
H7	P	0.0055	0.0063	0.0071	0.0075	0.0079	0.0079	100
H8	P	0.0063	0.0075	0.0079	0.0087	0.0094	0.0094	180
H11	P	0.0087	0.0094	0.010	0.011	0.012	0.013	230
H12	P	0.0063	0.0075	0.0079	0.0087	0.0094	0.0094	255
H21	P	0.0063	0.0075	0.0079	0.0087	0.0094	0.0094	180

SMG = Seco material group
 f = in/rev
 v_c = sf/min
 All cutting data are start values

Cutting data – SD205A-P – Ø 0.079-0.315 – Inch

SMG		f						v _c
		Ø 0.079	Ø 0.118	Ø 0.157	Ø 0.197	Ø 0.236	Ø 0.315	
P1	P	0.0055	0.0067	0.0079	0.0094	0.010	0.013	550
P2	P	0.0055	0.0067	0.0079	0.0094	0.010	0.013	540
P3	P	0.0055	0.0063	0.0075	0.0087	0.010	0.013	460
P4	P	0.0039	0.0051	0.0059	0.0067	0.0075	0.0094	640
P5	P	0.0039	0.0047	0.0055	0.0067	0.0075	0.0087	610
P6	P	0.0039	0.0047	0.0055	0.0063	0.0075	0.0087	690
P7	P	0.0039	0.0047	0.0055	0.0063	0.0075	0.0087	650
P8	P	0.0043	0.0051	0.0059	0.0067	0.0075	0.0094	600
P11	P	0.0039	0.0047	0.0055	0.0063	0.0075	0.0087	630
P12	P	0.0033	0.0039	0.0047	0.0051	0.0059	0.0071	390
K1	P	0.0059	0.0071	0.0087	0.010	0.011	0.014	520
K2	P	0.0055	0.0067	0.0079	0.0087	0.010	0.013	450
K3	P	0.0055	0.0067	0.0079	0.0087	0.010	0.013	380
K4	P	0.0055	0.0067	0.0079	0.0087	0.010	0.013	365
K5	P	0.0047	0.0059	0.0071	0.0079	0.0094	0.011	215
H3	P	0.0022	0.0028	0.0031	0.0035	0.0039	0.0047	90
H5	P	0.0033	0.0039	0.0047	0.0051	0.0059	0.0071	165
H7	P	0.0022	0.0028	0.0031	0.0035	0.0039	0.0047	90
H8	P	0.0026	0.0031	0.0035	0.0039	0.0047	0.0055	165
H11	P	0.0033	0.0039	0.0047	0.0051	0.0059	0.0071	210
H12	P	0.0026	0.0031	0.0035	0.0039	0.0047	0.0055	235
H21	P	0.0026	0.0031	0.0035	0.0039	0.0047	0.0055	165

Cutting data – SD205A-P – Ø 0.394-0.787 – Inch

SMG		f						v _c
		Ø 0.394	Ø 0.472	Ø 0.551	Ø 0.630	Ø 0.709	Ø 0.787	
P1	P	0.015	0.017	0.019	0.020	0.022	0.022	550
P2	P	0.015	0.017	0.019	0.020	0.022	0.024	540
P3	P	0.014	0.017	0.018	0.020	0.020	0.022	460
P4	P	0.011	0.012	0.013	0.014	0.015	0.016	640
P5	P	0.010	0.012	0.013	0.013	0.014	0.015	610
P6	P	0.010	0.012	0.013	0.013	0.014	0.015	690
P7	P	0.010	0.012	0.013	0.013	0.014	0.015	650
P8	P	0.011	0.013	0.013	0.014	0.015	0.016	600
P11	P	0.010	0.012	0.013	0.013	0.014	0.015	630
P12	P	0.0087	0.0094	0.010	0.011	0.012	0.013	390
K1	P	0.017	0.019	0.020	0.022	0.024	0.026	520
K2	P	0.015	0.017	0.019	0.020	0.022	0.022	450
K3	P	0.015	0.017	0.019	0.020	0.022	0.022	380
K4	P	0.015	0.017	0.019	0.020	0.022	0.022	365
K5	P	0.013	0.015	0.017	0.018	0.019	0.020	215
H3	P	0.0055	0.0063	0.0071	0.0075	0.0079	0.0079	90
H5	P	0.0087	0.0094	0.010	0.011	0.012	0.013	165
H7	P	0.0055	0.0063	0.0071	0.0075	0.0079	0.0079	90
H8	P	0.0063	0.0075	0.0079	0.0087	0.0094	0.0094	165
H11	P	0.0087	0.0094	0.010	0.011	0.012	0.013	210
H12	P	0.0063	0.0075	0.0079	0.0087	0.0094	0.0094	235
H21	P	0.0063	0.0075	0.0079	0.0087	0.0094	0.0094	165

SMG = Seco material group

f = in/rev

v_c = sf/min

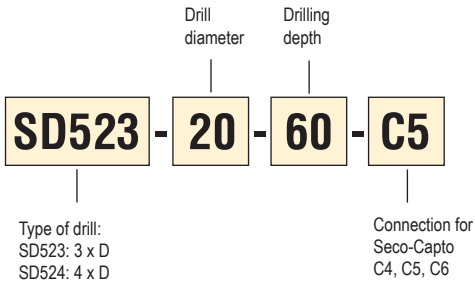
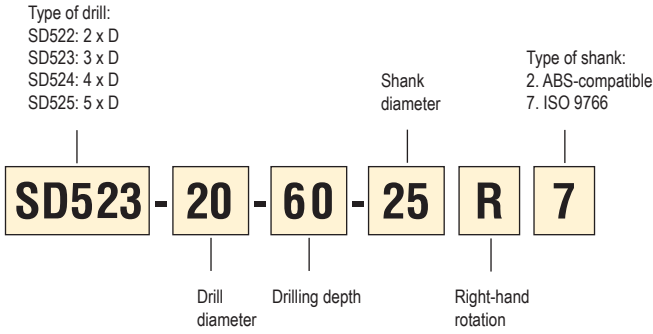
All cutting data are start values

Cutting data – SD207A-P – Ø 0.118-0.787 – Inch

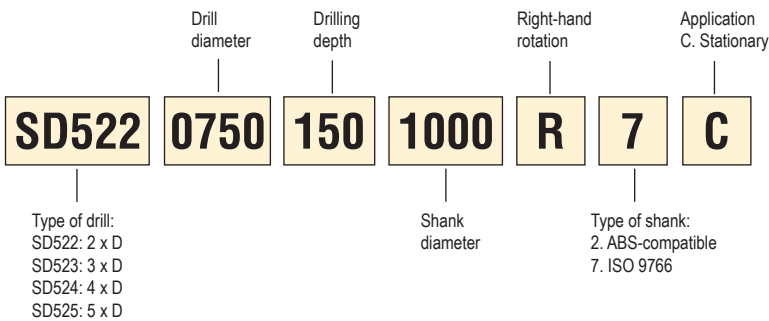
SMG		f										v _c
		Ø 0.118	Ø 0.197	Ø 0.236	Ø 0.315	Ø 0.394	Ø 0.472	Ø 0.551	Ø 0.630	Ø 0.709	Ø 0.787	
P1	P	0.0067	0.0094	0.010	0.013	0.015	0.017	0.019	0.020	0.022	0.022	510
P2	P	0.0067	0.0094	0.010	0.013	0.015	0.017	0.019	0.020	0.022	0.024	500
P3	P	0.0063	0.0087	0.010	0.013	0.014	0.017	0.018	0.020	0.020	0.022	430
P4	P	0.0051	0.0067	0.0075	0.0094	0.011	0.012	0.013	0.014	0.015	0.016	600
P5	P	0.0047	0.0067	0.0075	0.0087	0.010	0.012	0.013	0.013	0.014	0.015	580
P6	P	0.0047	0.0063	0.0075	0.0087	0.010	0.012	0.013	0.013	0.014	0.015	650
P7	P	0.0047	0.0063	0.0075	0.0087	0.010	0.012	0.013	0.013	0.014	0.015	610
P8	P	0.0051	0.0067	0.0075	0.0094	0.011	0.013	0.013	0.014	0.015	0.016	560
P11	P	0.0047	0.0063	0.0075	0.0087	0.010	0.012	0.013	0.013	0.014	0.015	590
P12	P	0.0039	0.0051	0.0059	0.0071	0.0087	0.0094	0.010	0.011	0.012	0.013	350
K1	P	0.0071	0.010	0.011	0.014	0.017	0.019	0.020	0.022	0.024	0.026	485
K2	P	0.0067	0.0087	0.010	0.013	0.015	0.017	0.019	0.020	0.022	0.022	420
K3	P	0.0067	0.0087	0.010	0.013	0.015	0.017	0.019	0.020	0.022	0.022	355
K4	P	0.0067	0.0087	0.010	0.013	0.015	0.017	0.019	0.020	0.022	0.022	340
K5	P	0.0059	0.0079	0.0094	0.011	0.013	0.015	0.017	0.018	0.019	0.020	205
H3	P	0.0028	0.0035	0.0039	0.0047	0.0055	0.0063	0.0071	0.0075	0.0079	0.0079	85
H5	P	0.0039	0.0051	0.0059	0.0071	0.0087	0.0094	0.010	0.011	0.012	0.013	155
H7	P	0.0028	0.0035	0.0039	0.0047	0.0055	0.0063	0.0071	0.0075	0.0079	0.0079	85
H8	P	0.0031	0.0039	0.0047	0.0055	0.0063	0.0075	0.0079	0.0087	0.0094	0.0094	155
H11	P	0.0039	0.0051	0.0059	0.0071	0.0087	0.0094	0.010	0.011	0.012	0.013	200
H12	P	0.0031	0.0039	0.0047	0.0055	0.0063	0.0075	0.0079	0.0087	0.0094	0.0094	220
H21	P	0.0031	0.0039	0.0047	0.0055	0.0063	0.0075	0.0079	0.0087	0.0094	0.0094	155

SMG = Seco material group
 f = in/rev
 v_c = sf/min
 All cutting data are start values

Code key - Indexable insert drill – Metric



Code key - Indexable insert drill – Inch



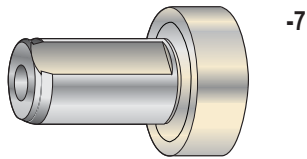
Shanks

ISO 9766

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

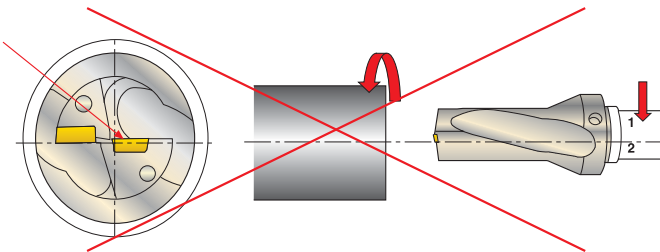
- Weldon 1835B
- ISO 5414
- DIN 69880

Coolant inlet at the back end of the drill.



Shank with two flats

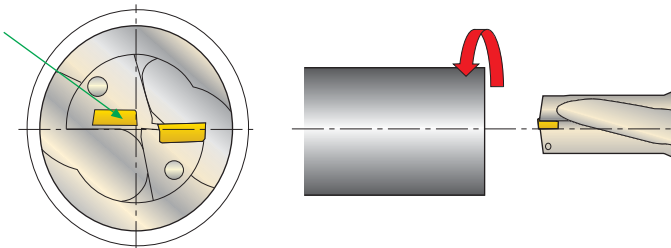
Centre insert
cutting edge
above workpiece
centre line



For non rotating applications:

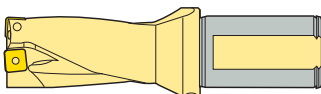
An additional flat is added to the shank for increased flexibility in lathe applications. In such applications the workpiece centre line and the drill centre line must align. If they don't the centre insert could be located above the workpiece centre line resulting in poor performance of the drill.

Centre insert
cutting edge
below workpiece
centre line



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

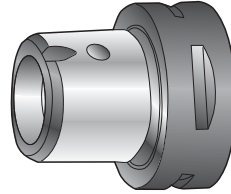
NOTE! If a drill with -7 shank is used in a rotating application together with our adjustable holder, the flat located on the same side as the centre insert must be used. Otherwise the drill diameter will be positioned in the wrong way.



Shanks

Seco-Capto

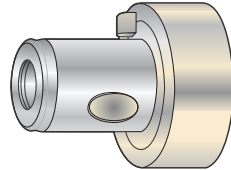
- Flexible - Same tool holder can easily be used in different machines
- Modular - Possibility to build tools with extension adapters
- High torque transmission - Torque load is spread symmetrically
- High rigidity - Tight press fit guarantees that there is no play in the coupling
- Accurate - Tapered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



-C
(4, 5, 6)

Graflex

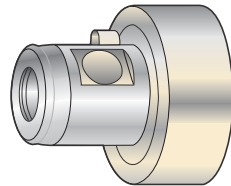
- Fits directly into Graflex holders and locked with two ball headed locking screws placed 120° apart.
- Short overhang - rigidity and productivity
- Cylinder/face connection - great accuracy
- Coolant inlet at the back end of the drill



-G

ABS 50

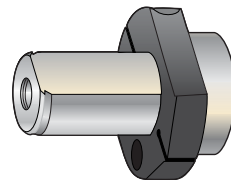
- An ABS 50 Compatible shank
- Fits directly into ABS 50 holder with one locking screw
- Coolant inlet at the back end of the drill



-2

VDI30 and VDI 40

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





-8

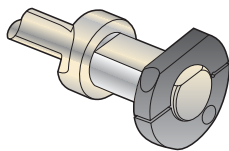
NOTE! The coolant ring must ordered separately

Shanks

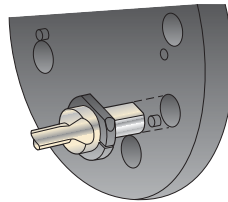
Available in:

VDI 30	VDI 40
	
Accessories Coolant ring	Accessories Coolant ring
SDA5-30R8	SDA5-40R8

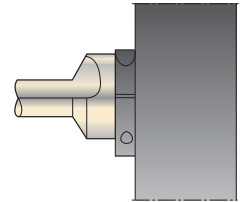
1. Fit the ring around the drill but do not tighten the locking screw



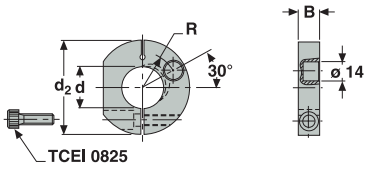
2. Lock the drill in the collet



3. Tighten the locking screw in the coolant ring

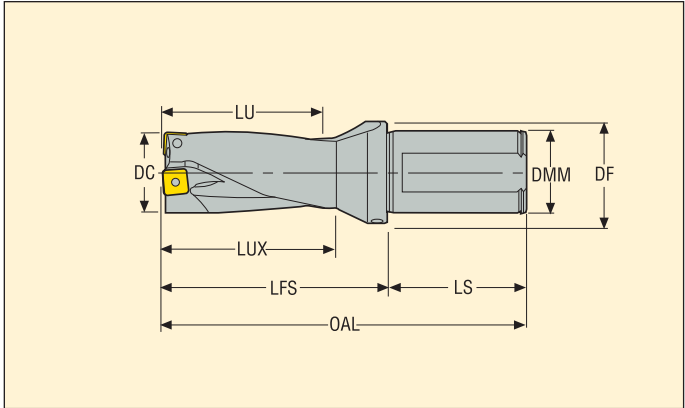


Coolant ring



Drilling depth ~ 2 X D – Metric

ISO 9766 shank, -7

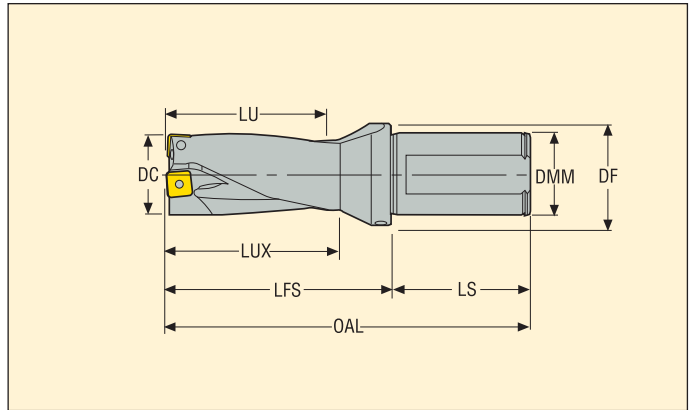


- For insert information see page(s) 207-209
- For cutting and machining data see page(s) 210-211
- Internal coolant
- Spare parts and accessories see page(s) 206

DC (mm)	DC (inch)	LU	Ordering and Product No.	Designation	Dimensions in mm						Insert		Radial adjustment	
					OAL	LFS	LS	LUX	DMM	DF	Centre insert	Periph insert	-	+
15.0	0.5906	30	03080744	SD522-15-30-20R7	110	60	50	35	20	30	SPGX0502	SCGX050204	0.22	0.31
15.0	0.5906	30	03080745	SD522-15-30-25R7	116	60	56	35	25	35	SPGX0502	SCGX050204	0.22	0.31
15.5	0.6102	31	03080740	SD522-15.5-31-20R7	111	61	50	36	20	30	SPGX0502	SCGX050204	0.17	0.36
15.5	0.6102	31	03080741	SD522-15.5-31-25R7	117	61	56	36	25	35	SPGX0502	SCGX050204	0.17	0.36
16.0	0.6299	32	03080749	SD522-16-32-20R7	112	62	50	37	20	30	SPGX0502	SCGX050204	0.12	0.41
16.0	0.6299	32	03080750	SD522-16-32-25R7	118	62	56	37	25	35	SPGX0502	SCGX050204	0.12	0.41
16.5	0.6496	33	03080746	SD522-16.5-33-20R7	113	63	50	38	20	30	SPGX0502	SCGX050204	0.07	0.46
16.5	0.6496	33	03080747	SD522-16.5-33-25R7	119	63	56	38	25	35	SPGX0502	SCGX050204	0.07	0.46
17.0	0.6693	34	03080754	SD522-17-34-20R7	114	64	50	39	20	30	SPGX0502	SCGX050204	0.02	0.5
17.0	0.6693	34	03080755	SD522-17-34-25R7	120	64	56	39	25	35	SPGX0502	SCGX050204	0.02	0.5
17.5	0.6890	35	03080752	SD522-17.5-35-20R7	115	65	50	40	20	30	SPGX0602	SCGX050204	0.43	0.1
17.5	0.6890	35	03080753	SD522-17.5-35-25R7	121	65	56	40	25	35	SPGX0602	SCGX050204	0.43	0.1
18.0	0.7087	36	03080760	SD522-18-36-20R7	116	66	50	41	20	30	SPGX0602	SCGX050204	0.32	0.21
18.0	0.7087	36	03080761	SD522-18-36-25R7	122	66	56	41	25	35	SPGX0602	SCGX050204	0.32	0.21
18.5	0.7283	37	03080758	SD522-18.5-37-20R7	117	67	50	42	20	30	SPGX0602	SCGX050204	0.22	0.31
18.5	0.7283	37	03080759	SD522-18.5-37-25R7	123	67	56	42	25	35	SPGX0602	SCGX050204	0.22	0.31
19.0	0.7480	38	03080765	SD522-19-38-20R7	118	68	50	43	20	30	SPGX0602	SCGX050204	0.11	0.42
19.0	0.7480	38	03080766	SD522-19-38-25R7	124	68	56	43	25	35	SPGX0602	SCGX050204	0.11	0.42
19.5	0.7677	39	03080764	SD522-19.5-39-20R7	119	69	50	44	20	30	SPGX0602	SCGX060204	0.11	0.42
20.0	0.7874	40	03080771	SD522-20-40-25R7	126	70	56	45	25	35	SPGX0602	SCGX060204	0.07	0.46
21.0	0.8268	42	03080775	SD522-21-42-25R7	128	72	56	47	25	35	SPGX0602	SCGX060204	0.01	0.5
22.0	0.8661	44	03080777	SD522-22-44-25R7	130	74	56	49	25	35	SPGX0703	SCGX060204	0.44	0.46
23.0	0.9055	46	03080781	SD522-23-46-25R7	132	76	56	51	25	35	SPGX0703	SCGX070308	0.33	0.5
24.0	0.9449	48	03080785	SD522-24-48-25R7	134	78	56	53	25	35	SPGX0703	SCGX070308	0.11	0.5
25.0	0.9843	50	03080788	SD522-25-50-32R7	140	80	60	55	32	42	SPGX0703	SCGX070308	0.11	0.5
26.0	1.0236	52	03080790	SD522-26-52-32R7	142	82	60	57	32	42	SPGX0903	SCGX070308	0.5	0.11
27.0	1.0630	54	03080792	SD522-27-54-32R7	144	84	60	59	32	42	SPGX0903	SCGX070308	0.5	0.26
28.0	1.1024	56	03080795	SD522-28-56-32R7	146	86	60	61	32	42	SPGX0903	SCGX070308	0.28	0.5
29.0	1.1417	58	03080796	SD522-29-58-32R7	148	88	60	63	32	42	SPGX0903	SCGX09T308	0.18	0.5
30.0	1.1811	60	03080798	SD522-30-60-32R7	150	90	60	65	32	42	SPGX0903	SCGX09T308	0.12	0.5
31.0	1.2205	62	03080801	SD522-31-62-32R7	152	92	60	67	32	42	SPGX0903	SCGX09T308	0.12	0.5
32.0	1.2598	64	03080802	SD522-32-64-32R7	154	94	60	69	32	42	SPGX11T3	SCGX09T308	0.5	0.31
32.0	1.2598	64	03080803	SD522-32-64-40R7	162	94	68	69	40	50	SPGX11T3	SCGX09T308	0.5	0.31
33.0	1.2992	66	03080805	SD522-33-66-32R7	156	96	60	71	32	42	SPGX11T3	SCGX09T308	0.5	0.46
33.0	1.2992	66	03080806	SD522-33-66-40R7	164	96	68	71	40	50	SPGX11T3	SCGX09T308	0.5	0.46
34.0	1.3386	68	03080808	SD522-34-68-32R7	158	98	60	73	32	42	SPGX11T3	SCGX09T308	0.22	0.5
34.0	1.3386	68	03080809	SD522-34-68-40R7	166	98	68	73	40	50	SPGX11T3	SCGX09T308	0.22	0.5
35.0	1.3780	70	03080810	SD522-35-70-32R7	160	100	60	75	32	42	SPGX11T3	SCGX11T308	0.22	0.5
35.0	1.3780	70	03080811	SD522-35-70-40R7	168	100	68	75	40	50	SPGX11T3	SCGX11T308	0.22	0.5
36.0	1.4173	72	03080813	SD522-36-72-32R7	162	102	60	77	32	42	SPGX11T3	SCGX11T308	0.09	0.5
36.0	1.4173	72	03080814	SD522-36-72-40R7	170	102	68	77	40	50	SPGX11T3	SCGX11T308	0.09	0.5

Drilling depth ~ 2 X D – Metric

ISO 9766 shank, -7

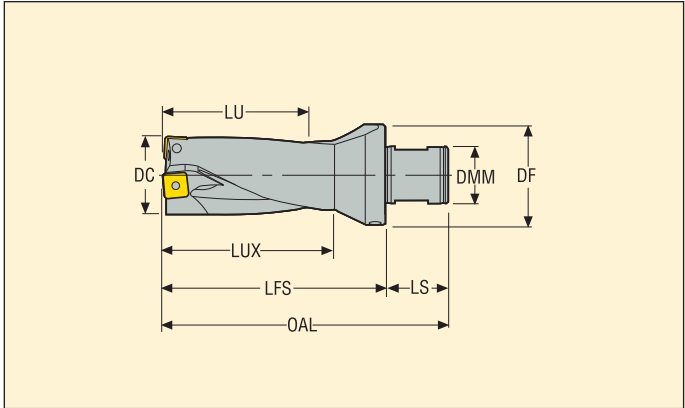


- For insert information see page(s) 207-209
- For cutting and machining data see page(s) 210-211
- Internal coolant
- Spare parts and accessories see page(s) 206

DC (mm)	DC (inch)	LU	Ordering and Product No.	Designation	Dimensions in mm						Insert		Radial adjustment	
					OAL	LFS	LS	LUX	DMM	DF	Centre insert	Periph insert	-	+
37,0	1.4567	74	03080816	SD522-37-74-32R7	164	104	60	79	32	42	SPGX11T3	SCGX11T308	0,09	0,5
37,0	1.4567	74	03080817	SD522-37-74-40R7	172	104	68	79	40	50	SPGX11T3	SCGX11T308	0,09	0,5
38,0	1.4961	76	03080818	SD522-38-76-32R7	166	106	60	81	32	42	SPGX12T3	SCGX11T308	0,5	0,5
38,0	1.4961	76	03080819	SD522-38-76-40R7	174	106	68	81	40	50	SPGX12T3	SCGX11T308	0,5	0,5
39,0	1.5354	78	03080821	SD522-39-78-32R7	168	108	60	83	32	42	SPGX12T3	SCGX11T308	0,39	0,5
39,0	1.5354	78	03080822	SD522-39-78-40R7	176	108	68	83	40	50	SPGX12T3	SCGX11T308	0,39	0,5
40,0	1.5748	80	03080823	SD522-40-80-32R7	170	110	60	85	32	50	SPGX12T3	SCGX11T308	0,19	0,5
40,0	1.5748	80	03080824	SD522-40-80-40R7	178	110	68	85	40	50	SPGX12T3	SCGX11T308	0,19	0,5
41,0	1.6142	82	03080826	SD522-41-82-40R7	180	112	68	87	40	50	SPGX12T3	SCGX120408	0,19	0,5
42,0	1.6535	84	03080828	SD522-42-84-40R7	182	114	68	89	40	50	SPGX12T3	SCGX120408	0,19	0,5
43,0	1.6929	86	03080830	SD522-43-86-40R7	184	116	68	91	40	50	SPGX12T3	SCGX120408	0,05	0,5
44,0	1.7323	88	03080832	SD522-44-88-40R7	186	118	68	93	40	50	SPGX1504	SCGX120408	0,5	0,41
45,0	1.7717	90	03080834	SD522-45-90-40R7	188	120	68	95	40	50	SPGX1504	SCGX150512	0,5	0,41
46,0	1.8110	92	03080835	SD522-46-92-40R7	190	122	68	97	40	50	SPGX1504	SCGX150512	0,5	0,5
47,0	1.8504	94	03080836	SD522-47-94-40R7	192	124	68	99	40	50	SPGX1504	SCGX150512	0,5	0,5
48,0	1.8898	96	03080837	SD522-48-96-40R7	194	126	68	101	40	59	SPGX1504	SCGX150512	0,45	0,5
49,0	1.9291	98	03080838	SD522-49-98-40R7	196	128	68	103	40	59	SPGX1504	SCGX150512	0,2	0,5
50,0	1.9685	100	03080839	SD522-50-100-40R7	198	130	68	105	40	59	SPGX1504	SCGX150512	0,2	0,5
51,0	2.0079	102	03080840	SD522-51-102-40R7	200	132	68	107	40	59	SPGX1504	SCGX150512	0,2	0,5
52,0	2.0472	104	03080841	SD522-52-104-40R7	202	134	68	109	40	59	SPGX1904	SCGX150512	0,5	0,42
53,0	2.0866	106	03080842	SD522-53-106-40R7	204	136	68	111	40	59	SPGX1904	SCGX150512	0,5	0,42
54,0	2.1260	108	03080843	SD522-54-108-40R7	206	138	68	113	40	59	SPGX1904	SCGX150512	0,5	0,5
55,0	2.1654	110	03080844	SD522-55-110-40R7	208	140	68	115	40	59	SPGX1904	SCGX150512	0,5	0,5
56,0	2.2047	112	03080845	SD522-56-112-40R7	210	142	68	117	40	59	SPGX1904	SCGX150512	0,5	0,5
57,0	2.2441	114	03080846	SD522-57-114-40R7	212	144	68	119	40	59	SPGX1904	SCGX150512	0,39	0,5
58,0	2.2835	116	03080847	SD522-58-116-40R7	214	146	68	121	40	63	SPGX1904	SCGX150512	0,09	0,5
59,0	2.3228	118	03080848	SD522-59-118-40R7	216	148	68	123	40	59	SPGX1904	SCGX150512	0,15	0,5

Drilling depth ~ 2 X D – Metric

ABS 50 compatible shank, -2

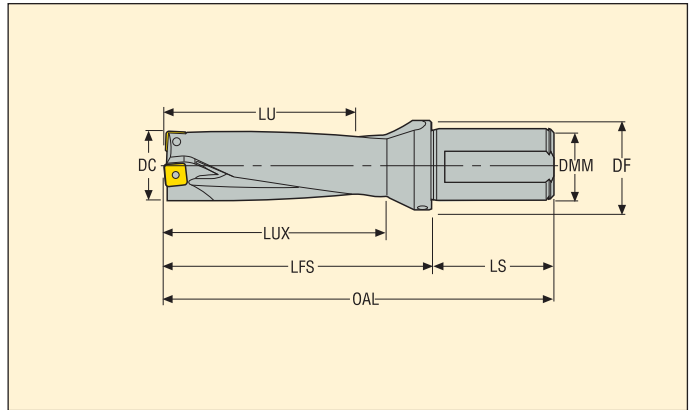


- For insert information see page(s) 207-209
- For cutting and machining data see page(s) 210-211
- Internal coolant
- Spare parts and accessories see page(s) 206

DC (mm)	DC (inch)	LU	Ordering and Product No.	Designation	Dimensions in mm						Insert		Radial adjustment	
					OAL	LFS	LS	LUX	DMM	DF	Centre insert	Periph insert	-	+
15,0	0.5906	30	03081056	SD522-15-30-50R2	91	60	31	35	28	50	SPGX0502	SCGX050204	0,22	0,31
15,5	0.6102	31	03081057	SD522-15.5-31-50R2	92	61	31	36	28	50	SPGX0502	SCGX050204	0,17	0,36
16,0	0.6299	32	03080751	SD522-16-32-50R2	93	62	31	37	28	50	SPGX0502	SCGX050204	0,12	0,41
16,5	0.6496	33	03081058	SD522-16.5-33-50R2	94	63	31	38	28	50	SPGX0502	SCGX050204	0,07	0,46
17,0	0.6693	34	03081059	SD522-17-34-50R2	95	64	31	39	28	50	SPGX0502	SCGX050204	0,02	0,5
17,5	0.6890	35	03081060	SD522-17.5-35-50R2	96	65	31	40	28	50	SPGX0602	SCGX050204	0,43	0,1
18,0	0.7087	36	03080762	SD522-18-36-50R2	97	66	31	41	28	50	SPGX0602	SCGX050204	0,32	0,21
18,5	0.7283	37	03081061	SD522-18.5-37-50R2	98	67	31	42	28	50	SPGX0602	SCGX050204	0,22	0,31
19,0	0.7480	38	03080767	SD522-19-38-50R2	99	68	31	43	28	50	SPGX0602	SCGX050204	0,11	0,42
20,0	0.7874	40	03080772	SD522-20-40-50R2	101	70	31	45	28	50	SPGX0602	SCGX060204	0,07	0,46
20,62	0.8118	42	03080768	SD522-20.62-42-50R2	103	72	31	47	28	50	SPGX0602	SCGX060204	0,03	0,5
21,0	0.8268	42	03081062	SD522-21-42-50R2	103	72	31	47	28	50	SPGX0602	SCGX060204	0,01	0,5
22,0	0.8661	44	03080778	SD522-22-44-50R2	105	74	31	49	28	50	SPGX0703	SCGX060204	0,44	0,46
22,23	0.8752	45	03080776	SD522-22.23-45-50R2	106	75	31	50	28	50	SPGX0703	SCGX060204	0,39	0,5
23,0	0.9055	46	03080782	SD522-23-46-50R2	107	76	31	51	28	50	SPGX0703	SCGX070308	0,33	0,5
24,0	0.9449	48	03080786	SD522-24-48-50R2	109	78	31	53	28	50	SPGX0703	SCGX070308	0,11	0,5
25,0	0.9843	50	03080789	SD522-25-50-50R2	111	80	31	55	28	50	SPGX0703	SCGX070308	0,11	0,5
25,4	1.0000	51	03080787	SD522-25.40-51-50R2	112	81	31	56	28	50	SPGX0703	SCGX070308	0,11	0,5
26,0	1.0236	52	03080791	SD522-26-52-50R2	113	82	31	57	28	50	SPGX0903	SCGX070308	0,5	0,11
27,0	1.0630	54	03080793	SD522-27-54-50R2	115	84	31	59	28	50	SPGX0903	SCGX070308	0,5	0,26
28,0	1.1024	56	03081087	SD522-28-56-50R2	117	86	31	61	28	50	SPGX0903	SCGX070308	0,28	0,5
28,59	1.1256	58	03080794	SD522-28.59-58-50R2	119	88	31	63	28	50	SPGX0903	SCGX09T308	0,21	0,5
29,0	1.1417	58	03080797	SD522-29-58-50R2	119	88	31	63	28	50	SPGX0903	SCGX09T308	0,18	0,5
30,0	1.1811	60	03080799	SD522-30-60-50R2	121	90	31	65	28	50	SPGX0903	SCGX09T308	0,12	0,5
31,0	1.2205	62	03081063	SD522-31-62-50R2	123	92	31	67	28	50	SPGX0903	SCGX09T308	0,12	0,5
31,75	1.2500	64	03080800	SD522-31.75-64-50R2	125	94	31	69	28	50	SPGX11T3	SCGX09T308	0,5	0,28
32,0	1.2598	64	03080804	SD522-32-64-50R2	125	94	31	69	28	50	SPGX11T3	SCGX09T308	0,5	0,31
33,0	1.2992	66	03080807	SD522-33-66-50R2	127	96	31	71	28	50	SPGX11T3	SCGX09T308	0,5	0,46
34,0	1.3386	68	03081064	SD522-34-68-50R2	129	98	31	73	28	50	SPGX11T3	SCGX09T308	0,22	0,5
35,0	1.3780	70	03080812	SD522-35-70-50R2	131	100	31	75	28	50	SPGX11T3	SCGX11T308	0,22	0,5
36,0	1.4173	72	03080815	SD522-36-72-50R2	133	102	31	77	28	50	SPGX11T3	SCGX11T308	0,09	0,5
37,0	1.4567	74	03081065	SD522-37-74-50R2	135	104	31	79	28	50	SPGX11T3	SCGX11T308	0,09	0,5
38,0	1.4961	76	03080820	SD522-38-76-50R2	137	106	31	81	28	50	SPGX12T3	SCGX11T308	0,5	0,5
39,0	1.5354	78	03081066	SD522-39-78-50R2	139	108	31	83	28	50	SPGX12T3	SCGX11T308	0,39	0,5
40,0	1.5748	80	03080825	SD522-40-80-50R2	141	110	31	85	28	50	SPGX12T3	SCGX11T308	0,19	0,5
41,0	1.6142	82	03080827	SD522-41-82-50R2	143	112	31	87	28	50	SPGX12T3	SCGX120408	0,19	0,5
42,0	1.6535	84	03080829	SD522-42-84-50R2	145	114	31	89	28	50	SPGX12T3	SCGX120408	0,19	0,5
43,0	1.6929	86	03081067	SD522-43-86-50R2	147	116	31	91	28	50	SPGX12T3	SCGX120408	0,05	0,5
44,45	1.7500	89	03080831	SD522-44.45-89-50R2	150	119	31	94	28	50	SPGX1504	SCGX120408	0,5	0,5

Drilling depth ~ 3 x D – Metric

ISO 9766 shank, -7

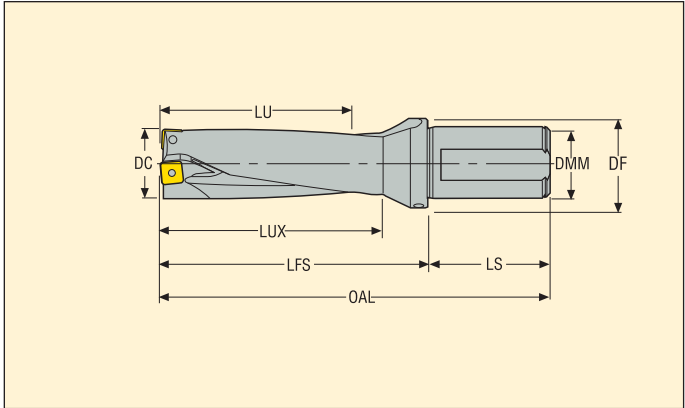


- For insert information see page(s) 207-209
- For cutting and machining data see page(s) 212-213
- Internal coolant
- Spare parts and accessories see page(s) 206

DC (mm)	DC (inch)	LU	Ordering and Product No.	Designation	Dimensions in mm						Insert		Radial adjustment	
					OAL	LFS	LS	LUX	DMM	DF	Centre insert	Periph insert	-	+
15,0	0.5906	45	03080548	SD523-15-45-20R7	125	75	50	50	20	30	SPGX0502	SCGX050204	0,22	0,31
15,0	0.5906	45	03080549	SD523-15-45-25R7	131	75	56	50	25	35	SPGX0502	SCGX050204	0,22	0,31
15,5	0.6102	47	03080544	SD523-15.5-47-20R7	127	77	50	52	20	30	SPGX0502	SCGX050204	0,17	0,36
15,5	0.6102	47	03080545	SD523-15.5-47-25R7	133	77	56	52	25	35	SPGX0502	SCGX050204	0,17	0,36
16,0	0.6299	48	03080557	SD523-16-48-20R7	128	78	50	53	20	30	SPGX0502	SCGX050204	0,12	0,41
16,0	0.6299	48	03080558	SD523-16-48-25R7	134	78	56	53	25	35	SPGX0502	SCGX050204	0,12	0,41
16,5	0.6496	50	03080552	SD523-16.5-50-20R7	130	80	50	55	20	30	SPGX0502	SCGX050204	0,07	0,46
16,5	0.6496	50	03080554	SD523-16.5-50-25R7	136	80	56	55	25	35	SPGX0502	SCGX050204	0,07	0,46
17,0	0.6693	51	03080568	SD523-17-51-20R7	131	81	50	56	20	30	SPGX0502	SCGX050204	0,02	0,5
17,0	0.6693	51	03080569	SD523-17-51-25R7	137	81	56	56	25	35	SPGX0502	SCGX050204	0,02	0,5
17,5	0.6890	53	03080562	SD523-17.5-53-20R7	133	83	50	58	20	30	SPGX0602	SCGX050204	0,43	0,1
17,5	0.6890	53	03080563	SD523-17.5-53-25R7	139	83	56	58	25	35	SPGX0602	SCGX050204	0,43	0,1
18,0	0.7087	54	03080574	SD523-18-54-20R7	134	84	50	59	20	30	SPGX0602	SCGX050204	0,32	0,21
18,0	0.7087	54	03080575	SD523-18-54-25R7	140	84	56	59	25	35	SPGX0602	SCGX050204	0,32	0,21
18,5	0.7283	56	03080570	SD523-18.5-56-20R7	136	86	50	61	20	30	SPGX0602	SCGX050204	0,22	0,31
18,5	0.7283	56	03080571	SD523-18.5-56-25R7	142	86	56	61	25	35	SPGX0602	SCGX050204	0,22	0,31
19,0	0.7480	57	03080583	SD523-19-57-20R7	137	87	50	62	20	30	SPGX0602	SCGX050204	0,11	0,42
19,0	0.7480	57	03080584	SD523-19-57-25R7	143	87	56	62	25	35	SPGX0602	SCGX050204	0,11	0,42
19,5	0.7677	59	03080579	SD523-19.5-59-20R7	139	89	50	64	20	30	SPGX0602	SCGX060204	0,11	0,42
19,5	0.7677	59	03080580	SD523-19.5-59-25R7	145	89	56	64	25	35	SPGX0602	SCGX060204	0,11	0,42
20,0	0.7874	60	03080590	SD523-20-60-25R7	146	90	56	65	25	35	SPGX0602	SCGX060204	0,07	0,46
20,5	0.8071	62	03080586	SD523-20.5-62-25R7	148	92	56	67	25	35	SPGX0602	SCGX060204	0,04	0,49
21,0	0.8268	63	03080599	SD523-21-63-25R7	149	93	56	68	25	35	SPGX0602	SCGX060204	0,01	0,5
21,5	0.8465	65	03080595	SD523-21.5-65-25R7	151	95	56	70	25	35	SPGX0703	SCGX060204	0,5	0,36
22,0	0.8661	66	03080605	SD523-22-66-25R7	152	96	56	71	25	35	SPGX0703	SCGX060204	0,44	0,46
22,5	0.8858	68	03080602	SD523-22.5-68-25R7	154	98	56	73	25	35	SPGX0703	SCGX070308	0,42	0,47
23,0	0.9055	69	03080608	SD523-23-69-25R7	155	99	56	74	25	35	SPGX0703	SCGX070308	0,33	0,5
23,5	0.9252	71	03080607	SD523-23.5-71-25R7	157	101	56	76	25	35	SPGX0703	SCGX070308	0,1	0,5
24,0	0.9449	72	03080612	SD523-24-72-25R7	158	102	56	77	25	35	SPGX0703	SCGX070308	0,11	0,5
24,5	0.9646	74	03080611	SD523-24.5-74-25R7	160	104	56	79	25	35	SPGX0703	SCGX070308	0,11	0,5
25,0	0.9843	75	03080616	SD523-25-75-32R7	165	105	60	80	32	42	SPGX0703	SCGX070308	0,11	0,5
25,5	1.0039	77	03080615	SD523-25.5-77-32R7	167	107	60	82	32	42	SPGX0703	SCGX070308	0,5	0,11
26,0	1.0236	78	03080619	SD523-26-78-32R7	168	108	60	83	32	42	SPGX0903	SCGX070308	0,5	0,11
26,5	1.0433	80	03080618	SD523-26.5-80-32R7	170	110	60	85	32	42	SPGX0903	SCGX070308	0,5	0,19
27,0	1.0630	81	03080622	SD523-27-81-32R7	171	111	60	86	32	42	SPGX0903	SCGX070308	0,5	0,26
27,5	1.0827	83	03080621	SD523-27.5-83-32R7	173	113	60	88	32	42	SPGX0903	SCGX070308	0,46	0,44
28,0	1.1024	84	03080626	SD523-28-84-32R7	174	114	60	89	32	42	SPGX0903	SCGX070308	0,28	0,5
28,5	1.1220	86	03080624	SD523-28.5-86-32R7	176	116	60	91	32	42	SPGX0903	SCGX070308	0,21	0,5
29,0	1.1417	87	03080629	SD523-29-87-32R7	177	117	60	92	32	42	SPGX0903	SCGX09T308	0,18	0,5
29,5	1.1614	89	03080628	SD523-29.5-89-32R7	179	119	60	94	32	42	SPGX0903	SCGX09T308	0,15	0,5
30,0	1.1811	90	03080632	SD523-30-90-32R7	180	120	60	95	32	42	SPGX0903	SCGX09T308	0,12	0,5

Drilling depth ~ 3 x D – Metric

ISO 9766 shank, -7

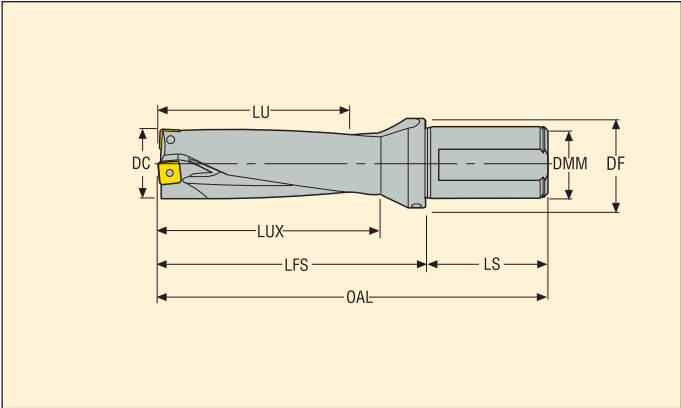


- For insert information see page(s) 207-209
- For cutting and machining data see page(s) 212-213
- Internal coolant
- Spare parts and accessories see page(s) 206

DC (mm)	DC (inch)	LU	Ordering and Product No.	Designation	Dimensions in mm						Insert		Radial adjustment	
					OAL	LFS	LS	LUX	DMM	DF	Centre insert	Periph insert	-	+
30,5	1.2008	92	03080631	SD523-30.5-92-32R7	182	122	60	97	32	42	SPGX0903	SCGX09T308	0,12	0,5
31,0	1.2205	93	03080636	SD523-31-93-32R7	183	123	60	98	32	42	SPGX0903	SCGX09T308	0,12	0,5
31,5	1.2402	95	03080634	SD523-31.5-95-32R7	185	125	60	100	32	42	SPGX11T3	SCGX09T308	0,5	0,24
32,0	1.2598	96	03080638	SD523-32-96-32R7	186	126	60	101	32	42	SPGX11T3	SCGX09T308	0,5	0,31
32,0	1.2598	96	03080639	SD523-32-96-40R7	194	126	68	101	40	50	SPGX11T3	SCGX09T308	0,5	0,31
33,0	1.2992	99	03080641	SD523-33-99-32R7	189	129	60	104	32	42	SPGX11T3	SCGX09T308	0,5	0,46
33,0	1.2992	99	03080642	SD523-33-99-40R7	197	129	68	104	40	50	SPGX11T3	SCGX09T308	0,5	0,46
34,0	1.3386	102	03080644	SD523-34-102-32R7	192	132	60	107	32	42	SPGX11T3	SCGX09T308	0,22	0,5
34,0	1.3386	102	03080645	SD523-34-102-40R7	200	132	68	107	40	50	SPGX11T3	SCGX09T308	0,22	0,5
35,0	1.3780	105	03080648	SD523-35-105-32R7	195	135	60	110	32	42	SPGX11T3	SCGX11T308	0,22	0,5
35,0	1.3780	105	03080649	SD523-35-105-40R7	203	135	68	110	40	50	SPGX11T3	SCGX11T308	0,22	0,5
35,5	1.3976	107	03080647	SD523-35.5-107-40R7	205	137	68	112	40	50	SPGX11T3	SCGX11T308	0,09	0,5
36,0	1.4173	108	03080651	SD523-36-108-32R7	198	138	60	113	32	42	SPGX11T3	SCGX11T308	0,09	0,5
36,0	1.4173	108	03080652	SD523-36-108-40R7	206	138	68	113	40	50	SPGX11T3	SCGX11T308	0,09	0,5
37,0	1.4567	111	03080653	SD523-37-111-32R7	201	141	60	116	32	42	SPGX11T3	SCGX11T308	0,09	0,5
37,0	1.4567	111	03080654	SD523-37-111-40R7	209	141	68	116	40	50	SPGX11T3	SCGX11T308	0,09	0,5
38,0	1.4961	114	03080655	SD523-38-114-32R7	204	144	60	119	32	42	SPGX12T3	SCGX11T308	0,5	0,5
38,0	1.4961	114	03080656	SD523-38-114-40R7	212	144	68	119	40	50	SPGX12T3	SCGX11T308	0,5	0,5
39,0	1.5354	117	03080658	SD523-39-117-32R7	207	147	60	122	32	42	SPGX12T3	SCGX11T308	0,39	0,5
39,0	1.5354	117	03080659	SD523-39-117-40R7	215	147	68	122	40	50	SPGX12T3	SCGX11T308	0,39	0,5
40,0	1.5748	120	03080661	SD523-40-120-32R7	210	150	60	125	32	50	SPGX12T3	SCGX11T308	0,19	0,5
40,0	1.5748	120	03080662	SD523-40-120-40R7	218	150	68	125	40	50	SPGX12T3	SCGX11T308	0,19	0,5
41,0	1.6142	123	03080665	SD523-41-123-40R7	221	153	68	128	40	50	SPGX12T3	SCGX120408	0,19	0,5
41,5	1.6339	125	03080663	SD523-41.5-125-40R7	223	155	68	130	40	50	SPGX12T3	SCGX120408	0,19	0,5
42,0	1.6535	126	03080666	SD523-42-126-40R7	224	156	68	131	40	50	SPGX12T3	SCGX120408	0,19	0,5
43,0	1.6929	129	03080667	SD523-43-129-40R7	227	159	68	134	40	50	SPGX12T3	SCGX120408	0,05	0,5
44,0	1.7323	132	03080670	SD523-44-132-40R7	230	162	68	137	40	50	SPGX1504	SCGX120408	0,5	0,41
44,5	1.7520	134	03080669	SD523-44.5-134-40R7	232	164	68	139	40	50	SPGX1504	SCGX120408	0,5	0,41
45,0	1.7717	135	03080672	SD523-45-135-40R7	233	165	68	140	40	50	SPGX1504	SCGX150512	0,5	0,41
46,0	1.8110	138	03080673	SD523-46-138-40R7	236	168	68	143	40	50	SPGX1504	SCGX150512	0,5	0,5
47,0	1.8504	141	03080675	SD523-47-141-40R7	239	171	68	146	40	50	SPGX1504	SCGX150512	0,5	0,5
47,5	1.8701	143	03080674	SD523-47.5-143-40R7	241	173	68	148	40	50	SPGX1504	SCGX150512	0,5	0,5
48,0	1.8898	144	03080676	SD523-48-144-40R7	242	174	68	149	40	59	SPGX1504	SCGX150512	0,45	0,5
49,0	1.9291	147	03080677	SD523-49-147-40R7	245	177	68	152	40	59	SPGX1504	SCGX150512	0,2	0,5
50,0	1.9685	150	03080678	SD523-50-150-40R7	248	180	68	155	40	59	SPGX1504	SCGX150512	0,2	0,5
51,0	2.0079	153	03080679	SD523-51-153-40R7	251	183	68	158	40	59	SPGX1504	SCGX150512	0,2	0,5
52,0	2.0472	156	03080680	SD523-52-156-40R7	254	186	68	161	40	59	SPGX1904	SCGX150512	0,5	0,42
53,0	2.0866	159	03080681	SD523-53-159-40R7	257	189	68	164	40	59	SPGX1904	SCGX150512	0,5	0,42
54,0	2.1260	162	03080682	SD523-54-162-40R7	260	192	68	167	40	59	SPGX1904	SCGX150512	0,5	0,5
55,0	2.1654	165	03080683	SD523-55-165-40R7	263	195	68	170	40	59	SPGX1904	SCGX150512	0,5	0,5
56,0	2.2047	168	03080684	SD523-56-168-40R7	266	198	68	173	40	59	SPGX1904	SCGX150512	0,5	0,5

Drilling depth ~ 3 x D – Metric

ISO 9766 shank, -7

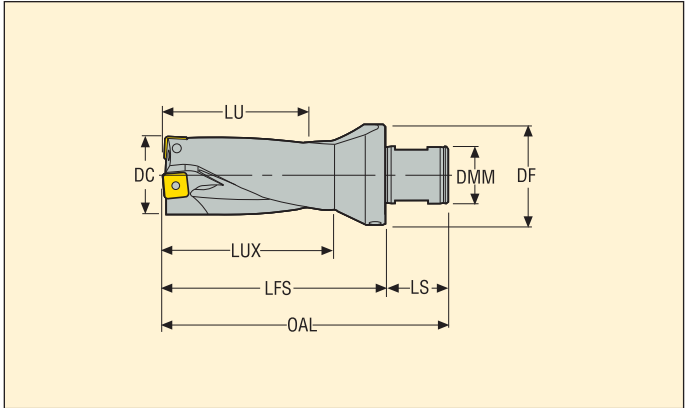


- For insert information see page(s) 207-209
- For cutting and machining data see page(s) 212-213
- Internal coolant
- Spare parts and accessories see page(s) 206

DC (mm)	DC (inch)	LU	Ordering and Product No.	Designation	Dimensions in mm						Insert		Radial adjustment	
					OAL	LFS	LS	LUX	DMM	DF	Centre insert	Periph insert	-	+
57,0	2.2441	171	03080685	SD523-57-171-40R7	269	201	68	176	40	59	SPGX1904	SCGX150512	0,39	0,5
58,0	2.2835	174	03080686	SD523-58-174-40R7	272	204	68	179	40	63	SPGX1904	SCGX150512	0,09	0,5
59,0	2.3228	177	03080687	SD523-59-177-40R7	275	207	68	182	40	63	SPGX1904	SCGX150512	0,09	0,5

Drilling depth ~ 3 x D – Metric

ABS 50 compatible shank, -2

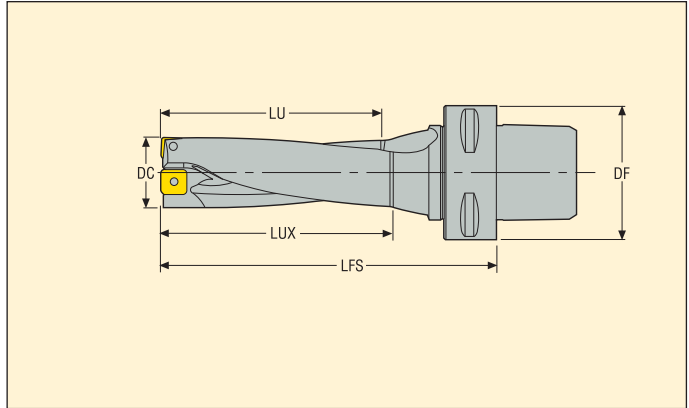


- For insert information see page(s) 207-209
- For cutting and machining data see page(s) 212-213
- Internal coolant
- Spare parts and accessories see page(s) 206

DC (mm)	DC (inch)	LU	Ordering and Product No.	Designation	Dimensions in mm						Insert		Radial adjustment	
					OAL	LFS	LS	LUX	DMM	DF	Centre insert	Periph insert	-	+
15,0	0.5906	45	03080864	SD523-15-45-50R2	106	75	31	50	28	50	SPGX0502	SCGX050204	0,22	0,31
15,5	0.6102	47	03080865	SD523-15.5-47-50R2	108	77	31	52	28	50	SPGX0502	SCGX050204	0,17	0,36
16,0	0.6299	48	03080559	SD523-16-48-50R2	109	78	31	53	28	50	SPGX0502	SCGX050204	0,12	0,41
16,5	0.6496	50	03080866	SD523-16.5-50-50R2	111	80	31	55	28	50	SPGX0502	SCGX050204	0,07	0,46
17,0	0.6693	51	03080867	SD523-17-51-50R2	112	81	31	56	28	50	SPGX0502	SCGX050204	0,02	0,5
17,5	0.6890	53	03080564	SD523-17.5-53-50R2	114	83	31	58	28	50	SPGX0602	SCGX050204	0,43	0,1
18,0	0.7087	54	03080576	SD523-18-54-50R2	115	84	31	59	28	50	SPGX0602	SCGX050204	0,32	0,21
18,5	0.7283	56	03080868	SD523-18.5-56-50R2	116	86	31	61	28	50	SPGX0602	SCGX050204	0,22	0,31
19,0	0.7480	57	03080585	SD523-19-57-50R2	118	87	31	62	28	50	SPGX0602	SCGX050204	0,11	0,42
20,0	0.7874	60	03080591	SD523-20-60-50R2	121	90	31	65	28	50	SPGX0602	SCGX060204	0,07	0,46
20,62	0.8118	62	03080587	SD523-20.62-62-50R2	123	92	31	67	28	50	SPGX0602	SCGX060204	0,03	0,5
21,0	0.8268	63	03080600	SD523-21-63-50R2	124	93	31	68	28	50	SPGX0602	SCGX060204	0,01	0,5
22,0	0.8661	66	03080606	SD523-22-66-50R2	127	96	31	71	28	50	SPGX0703	SCGX060204	0,44	0,46
22,23	0.8752	67	03080601	SD523-22.23-67-50R2	128	97	31	72	28	50	SPGX0703	SCGX060204	0,39	0,5
23,0	0.9055	69	03080869	SD523-23-69-50R2	130	99	31	74	28	50	SPGX0703	SCGX070308	0,33	0,5
24,0	0.9449	72	03080613	SD523-24-72-50R2	133	102	31	77	28	50	SPGX0703	SCGX070308	0,11	0,5
25,0	0.9843	75	03080617	SD523-25-75-50R2	136	105	31	80	28	50	SPGX0703	SCGX070308	0,11	0,5
25,4	1.0000	77	03080614	SD523-25.40-77-50R2	138	107	31	82	28	50	SPGX0703	SCGX070308	0,11	0,5
26,0	1.0236	78	03080620	SD523-26-78-50R2	139	108	31	83	28	50	SPGX0903	SCGX070308	0,5	0,11
27,0	1.0630	81	03080623	SD523-27-81-50R2	142	111	31	86	28	50	SPGX0903	SCGX070308	0,5	0,26
28,0	1.1024	84	03080627	SD523-28-84-50R2	145	114	31	89	28	50	SPGX0903	SCGX070308	0,28	0,5
28,59	1.1256	86	03080625	SD523-28.59-86-50R2	147	116	31	91	28	50	SPGX0903	SCGX09T308	0,21	0,5
29,0	1.1417	87	03080630	SD523-29-87-50R2	148	117	31	92	28	50	SPGX0903	SCGX09T308	0,18	0,5
30,0	1.1811	90	03080633	SD523-30-90-50R2	151	120	31	95	28	50	SPGX0903	SCGX09T308	0,12	0,5
31,0	1.2205	93	03080637	SD523-31-93-50R2	154	123	31	98	28	50	SPGX0903	SCGX09T308	0,12	0,5
31,75	1.2500	96	03080635	SD523-31.75-96-50R2	157	126	31	101	28	50	SPGX11T3	SCGX09T308	0,5	0,28
32,0	1.2598	96	03080640	SD523-32-96-50R2	157	126	31	101	28	50	SPGX11T3	SCGX09T308	0,5	0,31
33,0	1.2992	99	03080643	SD523-33-99-50R2	160	129	31	104	28	50	SPGX11T3	SCGX09T308	0,5	0,46
34,0	1.3386	102	03080646	SD523-34-102-50R2	163	132	31	107	28	50	SPGX11T3	SCGX09T308	0,22	0,5
35,0	1.3780	105	03080650	SD523-35-105-50R2	166	135	31	110	28	50	SPGX11T3	SCGX11T308	0,22	0,5
36,0	1.4173	108	03080870	SD523-36-108-50R2	169	138	31	113	28	50	SPGX11T3	SCGX11T308	0,09	0,5
37,0	1.4567	111	03080871	SD523-37-111-50R2	172	141	31	116	28	50	SPGX11T3	SCGX11T308	0,09	0,5
38,0	1.4961	114	03080657	SD523-38-114-50R2	175	144	31	119	28	50	SPGX12T3	SCGX11T308	0,5	0,5
39,0	1.5354	117	03080660	SD523-39-117-50R2	178	147	31	122	28	50	SPGX12T3	SCGX11T308	0,39	0,5
40,0	1.5748	120	03080872	SD523-40-120-50R2	181	150	31	125	28	50	SPGX12T3	SCGX11T308	0,19	0,5
41,0	1.6142	123	03080873	SD523-41-123-50R2	184	153	31	128	28	50	SPGX12T3	SCGX120408	0,19	0,5
42,0	1.6535	126	03080874	SD523-42-126-50R2	187	156	31	131	28	50	SPGX12T3	SCGX120408	0,19	0,5
43,0	1.6929	129	03080875	SD523-43-129-50R2	190	159	31	134	28	50	SPGX12T3	SCGX120408	0,05	0,5
44,0	1.7323	132	03080671	SD523-44-132-50R2	193	162	31	137	28	50	SPGX1504	SCGX120408	0,5	0,41
44,45	1.7500	134	03080668	SD523-44.45-134-50R2	195	164	31	139	28	50	SPGX1504	SCGX120408	0,5	0,41

Drilling depth ~ 3 x D – Metric

Seco-Capto™ C4 shank

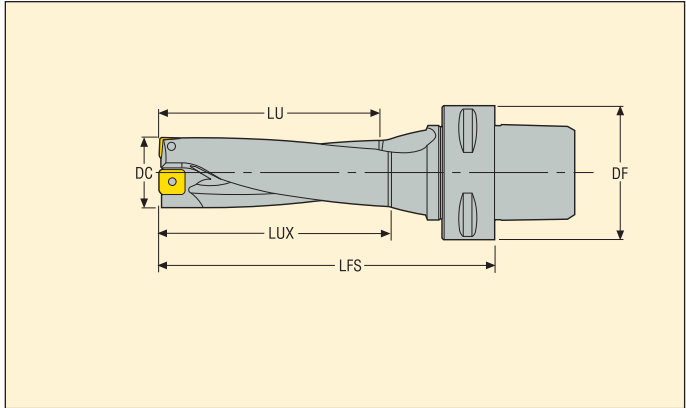


- For insert information see page(s) 207-209
- For cutting and machining data see page(s) 212-213
- Internal coolant
- Spare parts and accessories see page(s) 206

DC (mm)	DC (inch)	LU	Ordering and Product No.	Designation	Dimensions in mm			Insert		Radial adjustment	
					LUX	LFS	DF	Centre insert	Periph insert	-	+
15,0	0.5906	45	03080920	SD523-15-45-C4	50	82	40	SPGX0502	SCGX050204	0,22	0,31
15,5	0.6102	47	03080921	SD523-15.5-47-C4	52	84	40	SPGX0502	SCGX050204	0,22	0,31
16,0	0.6299	48	03080922	SD523-16-48-C4	53	86	40	SPGX0502	SCGX050204	0,12	0,41
16,5	0.6496	50	03080923	SD523-16.5-50-C4	55	88	40	SPGX0502	SCGX050204	0,07	0,46
17,0	0.6693	51	03080925	SD523-17-51-C4	56	89	40	SPGX0502	SCGX050204	0,02	0,5
17,5	0.6890	53	03080926	SD523-17.5-53-C4	58	90	40	SPGX0602	SCGX050204	0,43	0,1
18,0	0.7087	54	03080927	SD523-18-54-C4	59	93	40	SPGX0602	SCGX050204	0,32	0,21
18,5	0.7283	56	03080928	SD523-18.5-56-C4	61	95	40	SPGX0602	SCGX050204	0,22	0,31
19,0	0.7480	57	03080929	SD523-19-57-C4	62	98	40	SPGX0602	SCGX050204	0,11	0,42
20,0	0.7874	60	03080930	SD523-20-60-C4	65	103	40	SPGX0602	SCGX060204	0,07	0,46
20,62	0.8118	62	03081006	SD523-20.62-62-C4	67	107	40	SPGX0602	SCGX060204	0,03	0,5
21,0	0.8268	63	03080931	SD523-21-63-C4	68	104	40	SPGX0602	SCGX060204	0,01	0,5
22,0	0.8661	66	03080932	SD523-22-66-C4	71	107	40	SPGX0703	SCGX060204	0,44	0,46
22,23	0.8752	67	03081008	SD523-22.23-67-C4	72	108	40	SPGX0703	SCGX060204	0,39	0,5
23,0	0.9055	69	03080933	SD523-23-69-C4	74	111	35	SPGX0703	SCGX070308	0,33	0,5
24,0	0.9449	72	03080934	SD523-24-72-C4	77	115	40	SPGX0703	SCGX070308	0,11	0,5
25,0	0.9843	75	03080935	SD523-25-75-C4	80	119	40	SPGX0703	SCGX070308	0,11	0,5
25,4	1.0000	77	03081009	SD523-25.4-77-C4	82	121	40	SPGX0703	SCGX070308	0,11	0,5
26,0	1.0236	78	03080936	SD523-26-78-C4	83	122	40	SPGX0903	SCGX070308	0,5	0,11
27,0	1.0630	81	03080937	SD523-27-81-C4	86	125	40	SPGX0903	SCGX070308	0,5	0,26
28,0	1.1024	84	03080938	SD523-28-84-C4	89	129	40	SPGX0903	SCGX070308	0,28	0,5
28,59	1.1256	86	03081010	SD523-28.59-86-C4	91	131	40	SPGX0903	SCGX09T308	0,21	0,5
29,0	1.1417	87	03080939	SD523-29-87-C4	92	132	40	SPGX0903	SCGX09T308	0,18	0,5
30,0	1.1811	90	03080940	SD523-30-90-C4	95	135	40	SPGX0903	SCGX09T308	0,12	0,5

Drilling depth ~ 3 x D – Metric

Seco-Capto™ C5 shank

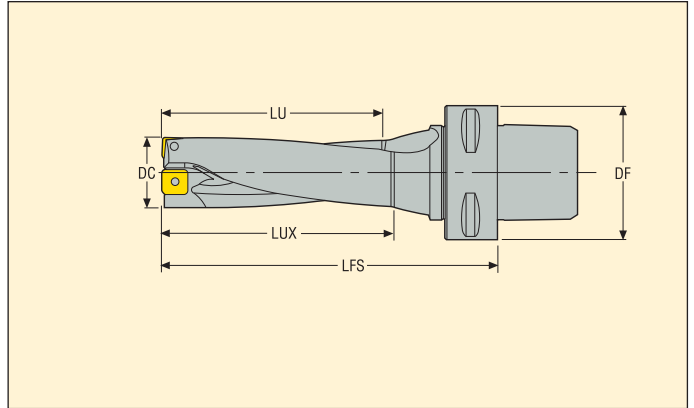


- For insert information see page(s) 207-209
- For cutting and machining data see page(s) 212-213
- Internal coolant
- Spare parts and accessories see page(s) 206

DC (mm)	DC (inch)	LU	Ordering and Product No.	Designation	Dimensions in mm			Insert		Radial adjustment	
					LUX	LFS	DF	Centre insert	Periph insert	-	+
15.0	0.5906	45	03080941	SD523-15-45-C5	50	82	50	SPGX0502	SCGX050204	0,22	0,31
15.5	0.6102	47	03080942	SD523-15.5-47-C5	52	84	50	SPGX0502	SCGX050204	0,22	0,31
16.0	0.6299	48	03080943	SD523-16-48-C5	53	86	50	SPGX0502	SCGX050204	0,12	0,41
16.5	0.6496	50	03080944	SD523-16.5-50-C5	55	88	50	SPGX0502	SCGX050204	0,07	0,46
17.0	0.6693	51	03080945	SD523-17-51-C5	56	89	50	SPGX0502	SCGX050204	0,02	0,5
17.5	0.6890	53	03080946	SD523-17.5-53-C5	58	92	50	SPGX0602	SCGX050204	0,43	0,1
18.0	0.7087	54	03080947	SD523-18-54-C5	59	93	50	SPGX0602	SCGX050204	0,32	0,21
18.5	0.7283	56	03080948	SD523-18.5-56-C5	61	95	50	SPGX0602	SCGX050204	0,22	0,31
19.0	0.7480	57	03080949	SD523-19-57-C5	62	96	50	SPGX0602	SCGX050204	0,11	0,42
20.0	0.7874	60	03080950	SD523-20-60-C5	65	101	50	SPGX0602	SCGX060204	0,07	0,46
20.62	0.8118	62	03081001	SD523-20.62-62-C5	67	103	50	SPGX0602	SCGX060204	0,03	0,5
21.0	0.8268	63	03080951	SD523-21-63-C5	68	104	50	SPGX0602	SCGX060204	0,01	0,5
22.0	0.8661	66	03080952	SD523-22-66-C5	71	107	50	SPGX0703	SCGX060204	0,44	0,46
22.23	0.8752	67	03081002	SD523-22.23-67-C5	72	108	50	SPGX0703	SCGX060204	0,39	0,5
23.0	0.9055	69	03080953	SD523-23-69-C5	74	111	50	SPGX0703	SCGX070308	0,33	0,5
24.0	0.9449	72	03080954	SD523-24-72-C5	77	115	50	SPGX0703	SCGX070308	0,11	0,5
25.0	0.9843	75	03080955	SD523-25-75-C5	80	119	50	SPGX0703	SCGX070308	0,11	0,5
25.4	1.0000	77	03081003	SD523-25.4-77-C5	82	121	50	SPGX0703	SCGX070308	0,11	0,5
26.0	1.0236	78	03080956	SD523-26-78-C5	83	122	50	SPGX0903	SCGX070308	0,5	0,11
27.0	1.0630	81	03080957	SD523-27-81-C5	86	125	50	SPGX0903	SCGX070308	0,5	0,26
28.0	1.1024	84	03080958	SD523-28-84-C5	89	129	50	SPGX0903	SCGX070308	0,28	0,5
28.59	1.1256	86	03081004	SD523-28.59-86-C5	91	131	50	SPGX0903	SCGX09T308	0,21	0,5
29.0	1.1417	87	03080959	SD523-29-87-C5	92	132	50	SPGX0903	SCGX09T308	0,18	0,5
30.0	1.1811	90	03080960	SD523-30-90-C5	95	135	50	SPGX0903	SCGX09T308	0,12	0,5
31.0	1.2205	93	03080961	SD523-31-93-C5	98	138	50	SPGX0903	SCGX09T308	0,12	0,5
31.75	1.2500	96	03081005	SD523-31.75-96-C5	101	142	50	SPGX11T3	SCGX09T308	0,5	0,28
32.0	1.2598	96	03080962	SD523-32-96-C5	101	142	50	SPGX11T3	SCGX09T308	0,5	0,31
33.0	1.2992	99	03080963	SD523-33-99-C5	104	145	50	SPGX11T3	SCGX09T308	0,5	0,46
34.0	1.3386	102	03080964	SD523-34-102-C5	107	148	50	SPGX11T3	SCGX09T308	0,22	0,5
35.0	1.3780	105	03080965	SD523-35-105-C5	110	151	50	SPGX11T3	SCGX11T308	0,22	0,5
36.0	1.4173	108	03080966	SD523-36-108-C5	113	154	50	SPGX11T3	SCGX11T308	0,09	0,5
37.0	1.4567	111	03080967	SD523-37-111-C5	116	157	50	SPGX11T3	SCGX11T308	0,09	0,5
38.0	1.4961	114	03080968	SD523-38-114-C5	119	160	50	SPGX12T3	SCGX11T308	0,5	0,5
39.0	1.5354	117	03080969	SD523-39-117-C5	122	163	50	SPGX12T3	SCGX11T308	0,39	0,5
40.0	1.5748	120	03080970	SD523-40-120-C5	125	166	50	SPGX12T3	SCGX11T308	0,19	0,5

Drilling depth ~ 3 x D – Metric

Seco-Capto™ C6 shank

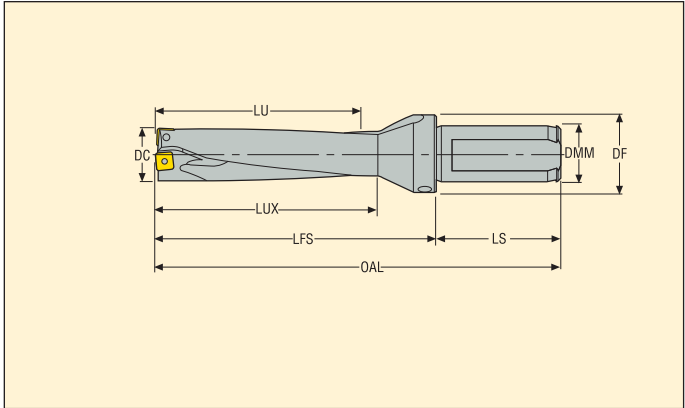


- For insert information see page(s) 207-209
- For cutting and machining data see page(s) 212-213
- Internal coolant
- Spare parts and accessories see page(s) 206

DC (mm)	DC (inch)	LU	Ordering and Product No.	Designation	Dimensions in mm			Insert		Radial adjustment	
					LUX	LFS	DF	Centre insert	Periph insert	-	+
15,0	0.5906	45	03080971	SD523-15-45-C6	50	84	63	SPGX0502	SCGX050204	0,22	0,31
15,5	0.6102	47	03080972	SD523-15.5-47-C6	52	86	63	SPGX0502	SCGX050204	0,22	0,31
16,0	0.6299	48	03080973	SD523-16-48-C6	53	88	63	SPGX0502	SCGX050204	0,12	0,41
16,5	0.6496	50	03080974	SD523-16.5-50-C6	55	90	63	SPGX0502	SCGX050204	0,07	0,46
17,0	0.6693	51	03080975	SD523-17-51-C6	56	91	63	SPGX0502	SCGX050204	0,02	0,5
17,5	0.6890	53	03080976	SD523-17.5-53-C6	58	94	63	SPGX0602	SCGX050204	0,43	0,1
18,0	0.7087	54	03080977	SD523-18-54-C6	59	95	63	SPGX0602	SCGX050204	0,32	0,21
18,5	0.7283	56	03080978	SD523-18.5-56-C6	61	97	63	SPGX0602	SCGX050204	0,22	0,31
19,0	0.7480	57	03080979	SD523-19-57-C6	62	98	63	SPGX0602	SCGX050204	0,11	0,42
20,0	0.7874	60	03080980	SD523-20-60-C6	65	103	63	SPGX0602	SCGX060204	0,07	0,46
20,62	0.8118	62	03081011	SD523-20.62-62-C6	67	105	63	SPGX0602	SCGX060204	0,03	0,5
21,0	0.8268	63	03080981	SD523-21-63-C6	68	106	63	SPGX0602	SCGX060204	0,01	0,5
22,0	0.8661	66	03080982	SD523-22-66-C6	71	109	63	SPGX0703	SCGX060204	0,44	0,46
22,23	0.8752	67	03081012	SD523-22.23-67-C6	72	110	63	SPGX0703	SCGX060204	0,39	0,5
23,0	0.9055	69	03080983	SD523-23-69-C6	74	113	63	SPGX0703	SCGX070308	0,33	0,5
24,0	0.9449	72	03080984	SD523-24-72-C6	77	117	63	SPGX0703	SCGX070308	0,11	0,5
25,0	0.9843	75	03080985	SD523-25-75-C6	80	121	63	SPGX0703	SCGX070308	0,11	0,5
25,4	1.0000	77	03081013	SD523-25.4-77-C6	82	123	63	SPGX0703	SCGX070308	0,11	0,5
26,0	1.0236	78	03080986	SD523-26-78-C6	83	124	63	SPGX0903	SCGX070308	0,5	0,11
27,0	1.0630	81	03080987	SD523-27-81-C6	86	127	63	SPGX0903	SCGX070308	0,5	0,26
28,0	1.1024	84	03080988	SD523-28-84-C6	89	131	63	SPGX0903	SCGX070308	0,28	0,5
28,59	1.1256	86	03081014	SD523-28.59-86-C6	91	133	63	SPGX0903	SCGX09T308	0,21	0,5
29,0	1.1417	87	03080989	SD523-29-87-C6	92	134	63	SPGX0903	SCGX09T308	0,18	0,5
30,0	1.1811	90	03080990	SD523-30-90-C6	95	137	63	SPGX0903	SCGX09T308	0,12	0,5
31,0	1.2205	93	03080991	SD523-31-93-C6	98	140	63	SPGX0903	SCGX09T308	0,12	0,5
31,75	1.2500	96	03081015	SD523-31.75-96-C6	101	144	63	SPGX11T3	SCGX09T308	0,5	0,28
32,0	1.2598	96	03080992	SD523-32-96-C6	101	144	63	SPGX11T3	SCGX09T308	0,5	0,31
33,0	1.2992	99	03080993	SD523-33-99-C6	104	147	63	SPGX11T3	SCGX09T308	0,5	0,46
34,0	1.3386	102	03080994	SD523-34-102-C6	107	150	63	SPGX11T3	SCGX09T308	0,22	0,5
35,0	1.3780	105	03080995	SD523-35-105-C6	110	153	63	SPGX11T3	SCGX11T308	0,22	0,5
36,0	1.4173	108	03080996	SD523-36-108-C6	113	156	63	SPGX11T3	SCGX11T308	0,09	0,5
37,0	1.4567	111	03080997	SD523-37-111-C6	116	159	63	SPGX11T3	SCGX11T308	0,09	0,5
38,0	1.4961	114	03080998	SD523-38-114-C6	119	162	63	SPGX12T3	SCGX11T308	0,5	0,5
39,0	1.5354	117	03080999	SD523-39-117-C6	122	165	63	SPGX12T3	SCGX11T308	0,39	0,5
40,0	1.5748	120	03081000	SD523-40-120-C6	125	168	63	SPGX12T3	SCGX11T308	0,19	0,5

Drilling depth ~ 4 x D – Metric

ISO 9766 shank, -7



- For insert information see page(s) 207-209
- For cutting and machining data see page(s) 214-215
- Internal coolant
- Spare parts and accessories see page(s) 206

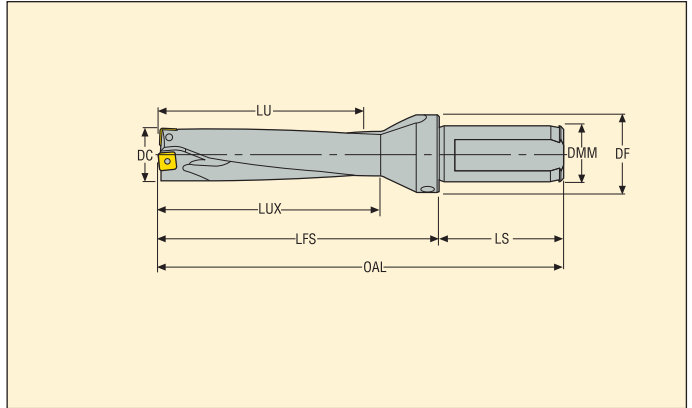
DC (mm)	DC (inch)	LU	Ordering and Product No.	Designation	Dimensions in mm						Insert	
					OAL	LFS	LS	LUX	DMM	DF	Centre insert	Periph insert
17,0	0.6693	68	03080330	SD524-17-68-25R7	154	98	56	73	25	35	SPGX0502	SCGX050204
17,5	0.6890	70	03080326	SD524-17.5-70-25R7	156	100	56	75	25	35	SPGX0602	SCGX050204
18,0	0.7087	72	03080333	SD524-18-72-25R7	158	102	56	77	25	35	SPGX0602	SCGX050204
18,5	0.7283	74	03080331	SD524-18.5-74-25R7	160	104	56	79	25	35	SPGX0602	SCGX050204
19,0	0.7480	76	03080336	SD524-19-76-25R7	162	106	56	81	25	35	SPGX0602	SCGX050204
20,0	0.7874	80	03080340	SD524-20-80-25R7	166	110	56	85	25	35	SPGX0602	SCGX060204
21,0	0.8268	84	03080344	SD524-21-84-25R7	170	114	56	89	25	35	SPGX0602	SCGX060204
22,0	0.8661	88	03080348	SD524-22-88-25R7	174	118	56	93	25	35	SPGX0703	SCGX060204
23,0	0.9055	92	03080351	SD524-23-92-25R7	178	122	56	97	25	35	SPGX0703	SCGX070308
24,0	0.9449	96	03080352	SD524-24-96-25R7	182	126	56	101	25	35	SPGX0703	SCGX070308
25,0	0.9843	100	03080353	SD524-25-100-32R7	190	130	60	105	32	42	SPGX0703	SCGX070308
26,0	1.0236	104	03080354	SD524-26-104-32R7	194	134	60	109	32	42	SPGX0903	SCGX070308
27,0	1.0630	108	03080355	SD524-27-108-32R7	198	138	60	113	32	42	SPGX0903	SCGX070308
28,0	1.1024	112	03080356	SD524-28-112-32R7	202	142	60	117	32	42	SPGX0903	SCGX070308
29,0	1.1417	116	03080357	SD524-29-116-32R7	206	146	60	121	32	42	SPGX0903	SCGX09T308
30,0	1.1811	120	03080358	SD524-30-120-32R7	210	150	60	125	32	42	SPGX0903	SCGX09T308
31,0	1.2205	124	03080360	SD524-31-124-32R7	214	154	60	129	32	42	SPGX0903	SCGX09T308
32,0	1.2598	128	03080361	SD524-32-128-40R7	226	158	68	133	40	50	SPGX11T3	SCGX09T308
33,0	1.2992	132	03080362	SD524-33-132-40R7	230	162	68	137	40	50	SPGX11T3	SCGX09T308
34,0	1.3386	136	03080363	SD524-34-136-40R7	234	166	68	141	40	50	SPGX11T3	SCGX09T308
35,0	1.3780	140	03080364	SD524-35-140-40R7	238	170	68	145	40	50	SPGX11T3	SCGX11T308
36,0	1.4173	144	03080365	SD524-36-144-40R7	242	174	68	149	40	50	SPGX11T3	SCGX11T308
37,0	1.4567	148	03080366	SD524-37-148-40R7	246	178	68	153	40	50	SPGX11T3	SCGX11T308
38,0	1.4961	152	03080367	SD524-38-152-40R7	250	182	68	157	40	50	SPGX12T3	SCGX11T308
39,0	1.5354	156	03080368	SD524-39-156-40R7	254	186	68	161	40	50	SPGX12T3	SCGX11T308
40,0	1.5748	160	03080369	SD524-40-160-40R7	258	190	68	165	40	50	SPGX12T3	SCGX11T308
41,0	1.6142	164	03080370	SD524-41-164-40R7	262	194	68	169	40	50	SPGX12T3	SCGX120408
42,0	1.6535	168	03080371	SD524-42-168-40R7	266	198	68	173	40	50	SPGX12T3	SCGX120408
43,0	1.6929	172	03080372	SD524-43-172-40R7	270	202	68	177	40	50	SPGX12T3	SCGX120408
44,0	1.7323	176	03080373	SD524-44-176-40R7	274	206	68	181	40	50	SPGX1504	SCGX120408
45,0	1.7717	180	03080374	SD524-45-180-40R7	278	210	68	185	40	50	SPGX1504	SCGX150512
46,0	1.8110	184	03080375	SD524-46-184-40R7	282	214	68	189	40	50	SPGX1504	SCGX150512
47,0	1.8504	188	03080376	SD524-47-188-40R7	286	218	68	193	40	50	SPGX1504	SCGX150512
48,0	1.8898	192	03080377	SD524-48-192-40R7	290	222	68	197	40	59	SPGX1504	SCGX150512
49,0	1.9291	196	03080378	SD524-49-196-40R7	294	226	68	201	40	59	SPGX1504	SCGX150512
50,0	1.9685	200	03080379	SD524-50-200-40R7	298	230	68	205	40	59	SPGX1504	SCGX150512
51,0	2.0079	204	03080380	SD524-51-204-40R7	302	234	68	209	40	59	SPGX1504	SCGX150512
52,0	2.0472	208	03080381	SD524-52-208-40R7	306	238	68	213	40	59	SPGX1904	SCGX150512
53,0	2.0866	212	03080382	SD524-53-212-40R7	310	242	68	217	40	59	SPGX1904	SCGX150512
54,0	2.1260	216	03080383	SD524-54-216-40R7	314	246	68	221	40	59	SPGX1904	SCGX150512
55,0	2.1654	220	03080384	SD524-55-220-40R7	318	250	68	225	40	59	SPGX1904	SCGX150512

Drilling depth ~ 4 x D – Metric

ISO 9766 shank, -7



- For insert information see page(s) 207-209
- For cutting and machining data see page(s) 214-215
- Internal coolant
- Spare parts and accessories see page(s) 206



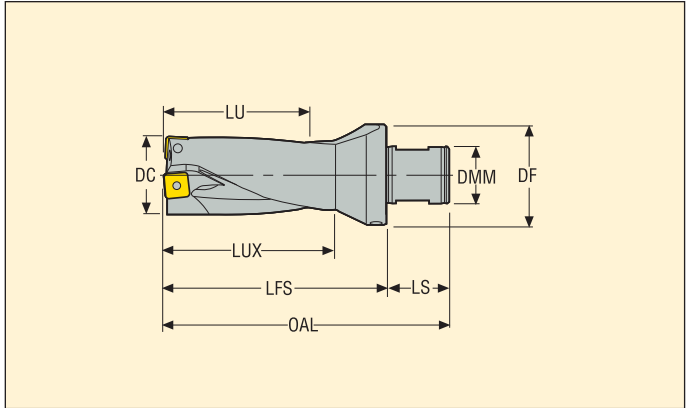
DC (mm)	DC (inch)	LU	Ordering and Product No.	Designation	Dimensions in mm						Insert	
					OAL	LFS	LS	LUX	DMM	DF	Centre insert	Periph insert
56,0	2.2047	224	03080385	SD524-56-224-40R7	322	254	68	229	40	59	SPGX1904	SCGX150512
57,0	2.2441	228	03080386	SD524-57-228-40R7	326	258	68	233	40	59	SPGX1904	SCGX150512
58,0	2.2835	232	03080387	SD524-58-232-40R7	330	262	68	237	40	63	SPGX1904	SCGX150512
59,0	2.3228	236	03080388	SD524-59-236-40R7	334	266	68	241	40	63	SPGX1904	SCGX150512

Drilling depth ~ 4 x D – Metric

ABS 50 compatible shank, -2



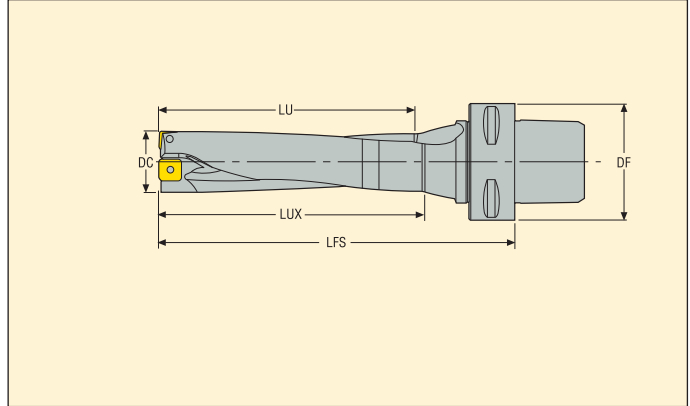
- For insert information see page(s) 207-209
- For cutting and machining data see page(s) 214-215
- Internal coolant
- Spare parts and accessories see page(s) 206



DC (mm)	DC (inch)	LU	Ordering and Product No.	Designation	Dimensions in mm						Insert	
					OAL	LFS	LS	LUX	DMM	DF	Centre insert	Periph insert
17,0	0.6693	68	03080208	SD524-17-68-50R2	129	98	31	73	28	50	SPGX0502	SCGX050204
17,5	0.6890	70	03080327	SD524-17.5-70-50R2	131	100	31	75	28	50	SPGX0602	SCGX050204
18,0	0.7087	72	03080209	SD524-18-72-50R2	133	102	31	77	28	50	SPGX0602	SCGX050204
18,5	0.7283	74	03080210	SD524-18.5-74-50R2	135	104	31	79	28	50	SPGX0602	SCGX050204
19,0	0.7480	76	03080422	SD524-19-76-50R2	137	106	31	81	28	50	SPGX0602	SCGX050204
20,0	0.7874	80	03080341	SD524-20-80-50R2	141	110	31	85	28	50	SPGX0602	SCGX060204
20,62	0.8118	83	03080215	SD524-20.62-83-50R2	144	113	31	88	28	50	SPGX0602	SCGX060204
21,0	0.8268	84	03080345	SD524-21-84-50R2	145	114	31	89	28	50	SPGX0602	SCGX060204
22,0	0.8661	88	03080193	SD524-22-88-50R2	149	118	31	93	28	50	SPGX0703	SCGX060204
22,23	0.8752	89	03080216	SD524-22.23-89-50R2	150	119	31	94	28	50	SPGX0703	SCGX060204
23,0	0.9055	92	03080194	SD524-23-92-50R2	153	122	31	97	28	50	SPGX0703	SCGX070308
24,0	0.9449	96	03080195	SD524-24-96-50R2	157	126	31	101	28	50	SPGX0703	SCGX070308
25,0	0.9843	100	03080196	SD524-25-100-50R2	161	130	31	105	28	50	SPGX0703	SCGX070308
25,4	1.0000	102	03080217	SD524-25.4-102-50R2	163	132	31	107	28	50	SPGX0703	SCGX070308
26,0	1.0236	104	03080423	SD524-26-104-50R2	165	134	31	109	28	50	SPGX0903	SCGX070308
27,0	1.0630	108	03080197	SD524-27-108-50R2	169	138	31	113	28	50	SPGX0903	SCGX070308
28,0	1.1024	112	03080424	SD524-28-112-50R2	173	142	31	117	28	50	SPGX0903	SCGX070308
28,59	1.1256	115	03080218	SD524-28.59-115-50R2	176	145	31	120	28	50	SPGX0903	SCGX070308
29,0	1.1417	116	03080198	SD524-29-116-50R2	177	146	31	121	28	50	SPGX0903	SCGX09T308
30,0	1.1811	120	03080199	SD524-30-120-50R2	181	150	31	125	28	50	SPGX0903	SCGX09T308
31,0	1.2205	124	03080200	SD524-31-124-50R2	185	154	31	129	28	50	SPGX0903	SCGX09T308
31,75	1.2500	127	03080359	SD524-31.75-127-50R2	188	157	31	132	28	50	SPGX11T3	SCGX09T308
32,0	1.2598	128	03080425	SD524-32-128-50R2	189	158	31	133	28	50	SPGX11T3	SCGX09T308
33,0	1.2992	132	03080201	SD524-33-132-50R2	193	162	31	137	28	50	SPGX11T3	SCGX09T308
34,0	1.3386	136	03080207	SD524-34-136-50R2	197	166	31	141	28	50	SPGX11T3	SCGX09T308
35,0	1.3780	140	03080202	SD524-35-140-50R2	201	170	31	145	28	50	SPGX11T3	SCGX11T308
36,0	1.4173	144	03080203	SD524-36-144-50R2	205	174	31	149	28	50	SPGX11T3	SCGX11T308
37,0	1.4567	148	03080204	SD524-37-148-50R2	209	178	31	153	28	50	SPGX11T3	SCGX11T308
38,0	1.4961	152	03080426	SD524-38-152-50R2	213	182	31	157	28	50	SPGX12T3	SCGX11T308
39,0	1.5354	156	03080205	SD524-39-156-50R2	217	186	31	161	28	50	SPGX12T3	SCGX11T308
40,0	1.5748	160	03080206	SD524-40-160-50R2	221	190	31	165	28	50	SPGX12T3	SCGX11T308

Drilling depth ~ 4 x D – Metric

Seco-Capto™ C4 shank

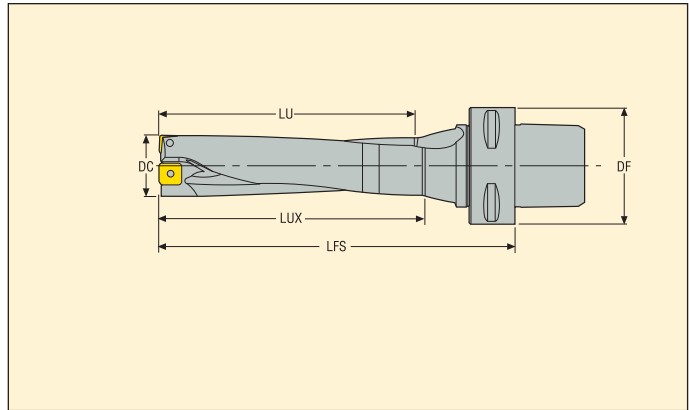


- For insert information see page(s) 207-209
- For cutting and machining data see page(s) 214-215
- Internal coolant
- Spare parts and accessories see page(s) 206

DC (mm)	DC (inch)	LU	Ordering and Product No.	Designation	Dimensions in mm			Insert	
					LUX	LFS	DF	Centre insert	Periph insert
17,0	0.6693	68	03080219	SD524-17-68-C4	73	106	40	SPGX0502	SCGX050204
17,5	0.6890	70	03080220	SD524-17.5-70-C4	75	109	40	SPGX0602	SCGX050204
18,0	0.7087	72	03080221	SD524-18-72-C4	77	111	40	SPGX0602	SCGX050204
18,5	0.7283	74	03080222	SD524-18.5-74-C4	79	113	40	SPGX0602	SCGX050204
19,0	0.7480	76	03080223	SD524-19-76-C4	81	115	40	SPGX0602	SCGX050204
20,0	0.7874	80	03080224	SD524-20-80-C4	85	121	40	SPGX0602	SCGX060204
20,62	0.8118	83	03080413	SD524-20.62-83-C4	88	124	40	SPGX0602	SCGX060204
21,0	0.8268	84	03080225	SD524-21-84-C4	89	125	40	SPGX0602	SCGX060204
22,0	0.8661	88	03080226	SD524-22-88-C4	93	129	40	SPGX0703	SCGX060204
22,23	0.8752	89	03080414	SD524-22.23-89-C4	94	130	40	SPGX0703	SCGX060204
23,0	0.9055	92	03080227	SD524-23-92-C4	97	134	40	SPGX0703	SCGX070308
24,0	0.9449	96	03080228	SD524-24-96-C4	101	139	40	SPGX0703	SCGX070308
25,0	0.9843	100	03080229	SD524-25-100-C4	105	144	40	SPGX0703	SCGX070308
25,4	1.0000	102	03080415	SD524-25.4-102-C4	107	146	40	SPGX0703	SCGX070308
26,0	1.0236	104	03080230	SD524-26-104-C4	109	148	40	SPGX0903	SCGX070308
27,0	1.0630	108	03080231	SD524-27-108-C4	113	152	40	SPGX0903	SCGX070308
28,0	1.1024	112	03080232	SD524-28-112-C4	117	157	40	SPGX0903	SCGX070308
28,59	1.1256	115	03080416	SD524-28.59-115-C4	120	160	40	SPGX0903	SCGX070308
29,0	1.1417	116	03080233	SD524-29-116-C4	121	161	40	SPGX0903	SCGX09T308
30,0	1.1811	120	03080234	SD524-30-120-C4	125	165	40	SPGX0903	SCGX09T308

Drilling depth ~ 4 x D – Metric

Seco-Capto™ C5 shank



- For insert information see page(s) 207-209
- For cutting and machining data see page(s) 214-215
- Internal coolant
- Spare parts and accessories see page(s) 206

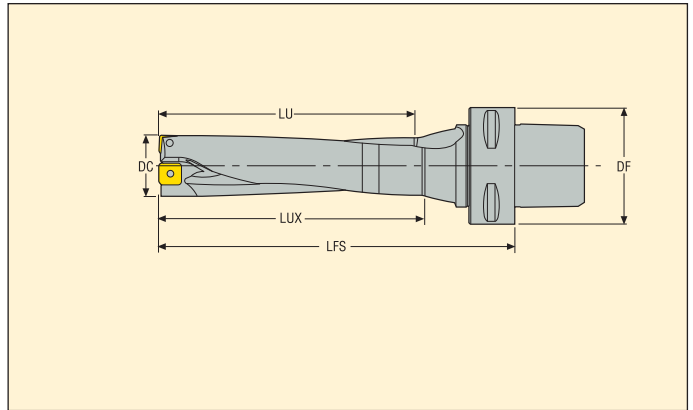
DC (mm)	DC (inch)	LU	Ordering and Product No.	Designation	Dimensions in mm			Insert	
					LUX	LFS	DF	Centre insert	Periph insert
17,0	0.6693	68	03080235	SD524-17-68-C5	73	106	50	SPGX0502	SCGX050204
17,5	0.6890	70	03080237	SD524-17.5-70-C5	75	109	50	SPGX0602	SCGX050204
18,0	0.7087	72	03080238	SD524-18-72-C5	77	111	50	SPGX0602	SCGX050204
18,5	0.7283	74	03080239	SD524-18.5-74-C5	79	113	50	SPGX0602	SCGX050204
19,0	0.7480	76	03080240	SD524-19-76-C5	81	115	50	SPGX0602	SCGX050204
20,0	0.7874	80	03080241	SD524-20-80-C5	85	121	50	SPGX0602	SCGX060204
20,62	0.8118	83	03080408	SD524-20.62-83-C5	88	124	35	SPGX0602	SCGX060204
21,0	0.8268	84	03080242	SD524-21-84-C5	89	125	50	SPGX0602	SCGX060204
22,0	0.8661	88	03080243	SD524-22-88-C5	93	129	50	SPGX0703	SCGX060204
22,23	0.8752	89	03080409	SD524-22.23-89-C5	94	130	50	SPGX0703	SCGX060204
23,0	0.9055	92	03080244	SD524-23-92-C5	97	134	50	SPGX0703	SCGX070308
24,0	0.9449	96	03080245	SD524-24-96-C5	101	139	50	SPGX0703	SCGX070308
25,0	0.9843	100	03080246	SD524-25-100-C5	105	144	50	SPGX0703	SCGX070308
25,4	1.0000	102	03080410	SD524-25.4-102-C5	107	146	50	SPGX0703	SCGX070308
26,0	1.0236	104	03080247	SD524-26-104-C5	109	148	50	SPGX0903	SCGX070308
27,0	1.0630	108	03080248	SD524-27-108-C5	113	152	50	SPGX0903	SCGX070308
28,0	1.1024	112	03080249	SD524-28-112-C5	117	157	50	SPGX0903	SCGX070308
28,59	1.1256	115	03080411	SD524-28.59-115-C5	120	160	50	SPGX0903	SCGX070308
29,0	1.1417	116	03080250	SD524-29-116-C5	121	161	50	SPGX0903	SCGX09T308
30,0	1.1811	120	03080251	SD524-30-120-C5	125	165	50	SPGX0903	SCGX09T308
31,0	1.2205	124	03080252	SD524-31-124-C5	129	169	50	SPGX0903	SCGX09T308
31,75	1.2500	127	03080412	SD524-31.75-127-C5	132	173	50	SPGX11T3	SCGX09T308
32,0	1.2598	128	03080253	SD524-32-128-C5	133	174	50	SPGX11T3	SCGX09T308
33,0	1.2992	132	03080254	SD524-33-132-C5	137	178	50	SPGX11T3	SCGX09T308
34,0	1.3386	136	03080255	SD524-34-136-C5	141	182	50	SPGX11T3	SCGX09T308
35,0	1.3780	140	03080256	SD524-35-140-C5	145	186	50	SPGX11T3	SCGX11T308
36,0	1.4173	144	03080257	SD524-36-144-C5	149	190	50	SPGX11T3	SCGX11T308
37,0	1.4567	148	03080258	SD524-37-148-C5	153	194	50	SPGX11T3	SCGX11T308
38,0	1.4961	152	03080259	SD524-38-152-C5	157	198	50	SPGX12T3	SCGX11T308
39,0	1.5354	156	03080260	SD524-39-156-C5	161	202	50	SPGX12T3	SCGX11T308
40,0	1.5748	160	03080261	SD524-40-160-C5	165	206	50	SPGX12T3	SCGX11T308

Drilling depth ~ 4 x D – Metric

Seco-Capto™ C6 shank



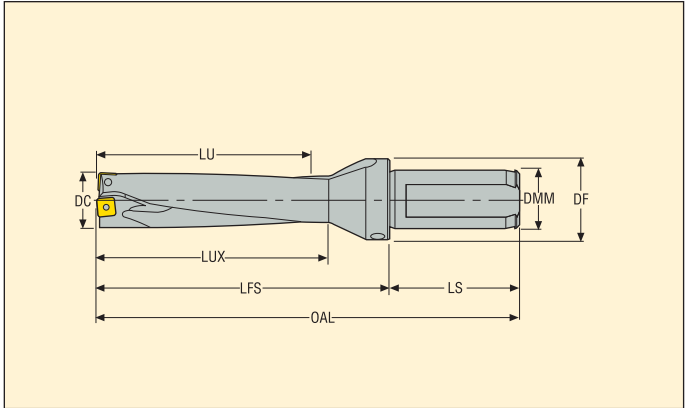
- For insert information see page(s) 207-209
- For cutting and machining data see page(s) 214-215
- Internal coolant
- Spare parts and accessories see page(s) 206



DC (mm)	DC (inch)	LU	Ordering and Product No.	Designation	Dimensions in mm			Insert	
					LUX	LFS	DF	Centre insert	Periph insert
17,0	0.6693	68	03080262	SD524-17-68-C6	73	108	63	SPGX0502	SCGX050204
17,5	0.6890	70	03080263	SD524-17.5-70-C6	75	111	63	SPGX0602	SCGX050204
18,0	0.7087	72	03080265	SD524-18-72-C6	77	113	63	SPGX0602	SCGX050204
18,5	0.7283	74	03080266	SD524-18.5-74-C6	79	115	63	SPGX0602	SCGX050204
19,0	0.7480	76	03080267	SD524-19-76-C6	81	117	63	SPGX0602	SCGX050204
20,0	0.7874	80	03080268	SD524-20-80-C6	85	123	63	SPGX0602	SCGX060204
20,62	0.8118	83	03080417	SD524-20.62-83-C6	88	126	63	SPGX0602	SCGX060204
21,0	0.8268	84	03080269	SD524-21-84-C6	89	127	63	SPGX0602	SCGX060204
22,0	0.8661	88	03080270	SD524-22-88-C6	93	131	63	SPGX0703	SCGX060204
22,23	0.8752	89	03080418	SD524-22.23-89-C6	94	132	63	SPGX0703	SCGX060204
23,0	0.9055	92	03080271	SD524-23-92-C6	97	136	63	SPGX0703	SCGX070308
24,0	0.9449	96	03080272	SD524-24-96-C6	101	141	63	SPGX0703	SCGX070308
25,0	0.9843	100	03080392	SD524-25-100-C6	105	146	63	SPGX0703	SCGX070308
25,4	1.0000	102	03080419	SD524-25.4-102-C6	107	148	63	SPGX0703	SCGX070308
26,0	1.0236	104	03080393	SD524-26-104-C6	109	150	63	SPGX0903	SCGX070308
27,0	1.0630	108	03080394	SD524-27-108-C6	113	154	63	SPGX0903	SCGX070308
28,0	1.1024	112	03080395	SD524-28-112-C6	117	159	63	SPGX0903	SCGX070308
28,59	1.1256	115	03080420	SD524-28.59-115-C6	120	162	63	SPGX0903	SCGX070308
29,0	1.1417	116	03080396	SD524-29-116-C6	121	163	63	SPGX0903	SCGX09T308
30,0	1.1811	120	03080397	SD524-30-120-C6	125	167	63	SPGX0903	SCGX09T308
31,0	1.2205	124	03080398	SD524-31-124-C6	129	171	63	SPGX0903	SCGX09T308
31,75	1.2500	127	03080421	SD524-31.75-127-C6	132	175	63	SPGX0903	SCGX09T308
32,0	1.2598	128	03080399	SD524-32-128-C6	133	176	63	SPGX11T3	SCGX09T308
33,0	1.2992	132	03080400	SD524-33-132-C6	137	180	63	SPGX11T3	SCGX09T308
34,0	1.3386	136	03080401	SD524-34-136-C6	141	184	63	SPGX11T3	SCGX09T308
35,0	1.3780	140	03080402	SD524-35-140-C6	145	188	63	SPGX11T3	SCGX11T308
36,0	1.4173	144	03080403	SD524-36-144-C6	149	192	63	SPGX11T3	SCGX11T308
37,0	1.4567	148	03080404	SD524-37-148-C6	153	196	63	SPGX11T3	SCGX11T308
38,0	1.4961	152	03080405	SD524-38-152-C6	157	200	63	SPGX12T3	SCGX11T308
39,0	1.5354	156	03080406	SD524-39-156-C6	161	204	63	SPGX12T3	SCGX11T308
40,0	1.5748	160	03080407	SD524-40-160-C6	165	208	63	SPGX12T3	SCGX11T308

Drilling depth ~ 5 x D – Metric

ISO 9766 shank, -7

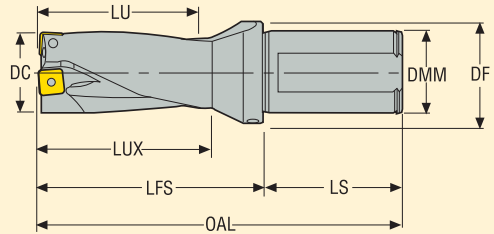


- For insert information see page(s) 207-209
- For cutting and machining data see page(s) 216-217
- Internal coolant
- Spare parts and accessories see page(s) 206

DC (mm)	DC (inch)	LU	Ordering and Product No.	Designation	Dimensions in mm						Insert	
					OAL	LFS	LS	LUX	DMM	DF	Centre insert	Periph insert
19,0	0.7480	95	03079580	SD525-19-95-25R7	181	125	56	100	25	35	SPGX0602	SCGX050204
20,0	0.7874	100	03079582	SD525-20-100-25R7	186	130	56	105	25	35	SPGX0602	SCGX060204
21,0	0.8268	105	03079583	SD525-21-105-25R7	191	135	56	110	25	35	SPGX0602	SCGX060204
22,0	0.8661	110	03079584	SD525-22-110-25R7	196	140	56	115	25	35	SPGX0703	SCGX060204
23,0	0.9055	115	03079585	SD525-23-115-25R7	201	145	56	120	25	35	SPGX0703	SCGX070308
24,0	0.9449	120	03079586	SD525-24-120-25R7	206	150	56	125	25	35	SPGX0703	SCGX070308
25,0	0.9843	125	03079587	SD525-25-125-32R7	215	155	60	130	32	42	SPGX0703	SCGX070308
26,0	1.0236	130	03079588	SD525-26-130-32R7	220	160	60	135	32	42	SPGX0903	SCGX070308
27,0	1.0630	135	03079589	SD525-27-135-32R7	225	165	60	140	32	42	SPGX0903	SCGX070308
28,0	1.1024	140	03079590	SD525-28-140-32R7	230	170	60	145	32	42	SPGX0903	SCGX070308
29,0	1.1417	145	03079591	SD525-29-145-32R7	235	175	60	150	32	42	SPGX0903	SCGX09T308
30,0	1.1811	150	03079592	SD525-30-150-32R7	240	180	60	155	32	42	SPGX0903	SCGX09T308
31,0	1.2205	155	03079593	SD525-31-155-32R7	245	185	60	160	32	42	SPGX0903	SCGX09T308
32,0	1.2598	160	03079595	SD525-32-160-40R7	258	190	68	165	40	50	SPGX11T3	SCGX09T308
33,0	1.2992	165	03079596	SD525-33-165-40R7	263	195	68	170	40	50	SPGX11T3	SCGX09T308
34,0	1.3386	170	03079597	SD525-34-170-40R7	268	200	68	175	40	50	SPGX11T3	SCGX09T308
35,0	1.3780	175	03079598	SD525-35-175-40R7	273	205	68	180	40	50	SPGX11T3	SCGX11T308
36,0	1.4173	180	03079599	SD525-36-180-40R7	278	210	68	185	40	50	SPGX11T3	SCGX11T308
37,0	1.4567	185	03079600	SD525-37-185-40R7	283	215	68	190	40	50	SPGX11T3	SCGX11T308
38,0	1.4961	190	03079601	SD525-38-190-40R7	288	220	68	195	40	50	SPGX12T3	SCGX11T308
39,0	1.5354	195	03079602	SD525-39-195-40R7	293	225	68	200	40	50	SPGX12T3	SCGX11T308
40,0	1.5748	200	03079603	SD525-40-200-40R7	298	230	68	205	40	50	SPGX12T3	SCGX11T308
41,0	1.6142	205	03079604	SD525-41-205-40R7	303	235	68	210	40	50	SPGX12T3	SCGX120408
42,0	1.6535	210	03079605	SD525-42-210-40R7	308	240	68	215	40	50	SPGX12T3	SCGX120408
43,0	1.6929	215	03079606	SD525-43-215-40R7	313	245	68	220	40	50	SPGX12T3	SCGX120408
44,0	1.7323	220	03079607	SD525-44-220-40R7	318	250	68	225	40	50	SPGX1504	SCGX120408
45,0	1.7717	225	03079608	SD525-45-225-40R7	323	255	68	230	40	50	SPGX1504	SCGX150512

Drilling depth ~ 2 X D – inch

ISO 9766 shank, -7

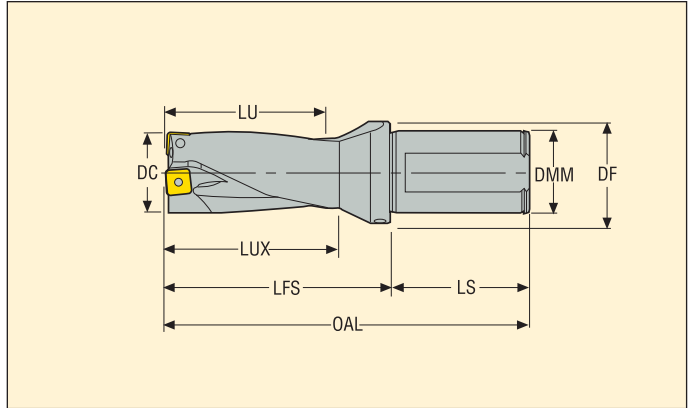


- For insert information see page(s) 207-209
- For cutting and machining data see page(s) 218-219
- Internal coolant
- Spare parts and accessories see page(s) 206

Dimensions in inch		Ordering and Product No.	Designation	Dimensions in inch						Insert		Radial adjustment	
DC	LU			OAL	LFS	LS	LUX	DMM	DF	Centre insert	Periph insert	-	+
0.5940	1.190	03080704	SD522-0594-119-1000R7	4.621	2.371	2.250	1.387	1.000	1.378	SPGX0502	SCGX050204	0.008	0.013
0.6250	1.250	03080705	SD522-0625-125-1000R7	4.681	2.431	2.250	1.447	1.000	1.378	SPGX0502	SCGX050204	0.005	0.015
0.6560	1.310	03080707	SD522-0656-131-1000R7	4.741	2.491	2.250	1.507	1.000	1.378	SPGX0502	SCGX050204	0.002	0.019
0.6870	1.370	03080709	SD522-0687-137-1000R7	4.801	2.551	2.250	1.567	1.000	1.378	SPGX0502	SCGX050204	0.000	0.020
0.7090	1.420	03080710	SD522-0709-142-1000R7	4.851	2.601	2.250	1.617	1.000	1.378	SPGX0602	SCGX050204	0.013	0.008
0.7500	1.500	03080712	SD522-0750-150-1000R7	4.931	2.681	2.250	1.697	1.000	1.378	SPGX0602	SCGX050204	0.004	0.017
0.7660	1.530	03080713	SD522-0766-153-1000R7	4.961	2.711	2.250	1.727	1.000	1.378	SPGX0602	SCGX050204	0.001	0.020
0.7870	1.570	03080714	SD522-0787-157-1000R7	5.001	2.751	2.250	1.767	1.000	1.378	SPGX0602	SCGX060204	0.003	0.018
0.8120	1.620	03080715	SD522-0812-162-1000R7	5.051	2.801	2.250	1.817	1.000	1.378	SPGX0602	SCGX060204	0.001	0.020
0.8270	1.650	03080717	SD522-0827-165-1000R7	5.081	2.831	2.250	1.847	1.000	1.378	SPGX0602	SCGX060204	0.000	0.020
0.8750	1.750	03080718	SD522-0875-175-1000R7	5.181	2.931	2.250	1.947	1.000	1.378	SPGX0703	SCGX060204	0.015	0.020
0.9060	1.810	03080720	SD522-0906-181-1000R7	5.241	2.991	2.250	2.007	1.000	1.378	SPGX0703	SCGX070308	0.013	0.020
0.9220	1.840	03080721	SD522-0922-184-1000R7	5.271	3.021	2.250	2.037	1.000	1.378	SPGX0703	SCGX070308	0.010	0.020
0.9370	1.870	03080722	SD522-0937-187-1000R7	5.301	3.051	2.250	2.067	1.000	1.378	SPGX0703	SCGX070308	0.004	0.020
0.9840	1.970	03080724	SD522-0984-197-1250R7	5.526	3.151	2.375	2.167	1.250	1.654	SPGX0703	SCGX070308	0.004	0.020
1.0000	2.000	03080725	SD522-1000-200-1250R7	5.556	3.181	2.375	2.197	1.250	1.654	SPGX0703	SCGX070308	0.004	0.020
1.0320	2.060	03080727	SD522-1032-206-1250R7	5.616	3.241	2.375	2.257	1.250	1.654	SPGX0903	SCGX070308	0.020	0.004
1.0620	2.120	03080728	SD522-1062-212-1250R7	5.676	3.301	2.375	2.317	1.250	1.654	SPGX0903	SCGX070308	0.020	0.010
1.1250	2.250	03080730	SD522-1125-225-1250R7	5.806	3.431	2.375	2.447	1.250	1.654	SPGX0903	SCGX09T308	0.008	0.020
1.1870	2.370	03080732	SD522-1187-237-1250R7	5.926	3.551	2.375	2.567	1.250	1.654	SPGX0903	SCGX09T308	0.005	0.020
1.2500	2.500	03080735	SD522-1250-250-1500R7	6.306	3.681	2.625	2.697	1.500	1.969	SPGX11T3	SCGX09T308	0.020	0.011
1.3120	2.620	03080736	SD522-1312-262-1500R7	6.426	3.801	2.625	2.817	1.500	1.969	SPGX11T3	SCGX09T308	0.020	0.020
1.3750	2.750	03080737	SD522-1375-275-1500R7	6.556	3.931	2.625	2.947	1.500	1.969	SPGX11T3	SCGX11T308	0.009	0.020
1.4370	2.870	03080739	SD522-1437-287-1500R7	6.676	4.051	2.625	3.067	1.500	1.969	SPGX11T3	SCGX11T308	0.004	0.020
1.5000	3.000	03080743	SD522-1500-300-1500R7	6.806	4.181	2.625	3.197	1.500	1.969	SPGX12T3	SCGX11T308	0.020	0.020
1.6250	3.250	03080748	SD522-1625-325-1500R7	7.056	4.431	2.625	3.447	1.500	1.969	SPGX12T3	SCGX120408	0.007	0.020
1.7500	3.500	03080756	SD522-1750-350-1500R7	7.306	4.681	2.625	3.697	1.500	1.969	SPGX1504	SCGX120408	0.020	0.016
1.8750	3.750	03080763	SD522-1875-375-1500R7	7.556	4.931	2.625	3.947	1.500	1.969	SPGX1504	SCGX150512	0.020	0.020
2.0000	4.000	03080769	SD522-2000-400-1500R7	7.806	5.181	2.625	4.197	1.500	2.337	SPGX1504	SCGX150512	0.008	0.020
2.1250	4.250	03080773	SD522-2125-425-1500R7	8.056	5.431	2.625	4.447	1.500	2.337	SPGX1904	SCGX150512	0.020	0.020
2.2500	4.500	03080779	SD522-2250-450-1500R7	8.306	5.681	2.625	4.697	1.500	2.337	SPGX1904	SCGX150512	0.013	0.020
2.3750	4.750	03080783	SD522-2375-475-1500R7	8.556	5.931	2.625	4.947	1.500	2.480	SPGX1904	SCGX150512	0.004	0.020

Drilling depth ~ 2 X D – Inch – C

ISO 9766 shank, -7



- For insert information see page(s) 207-209
- For cutting and machining data see page(s) 218-219
- Internal coolant
- Spare parts and accessories see page(s) 206

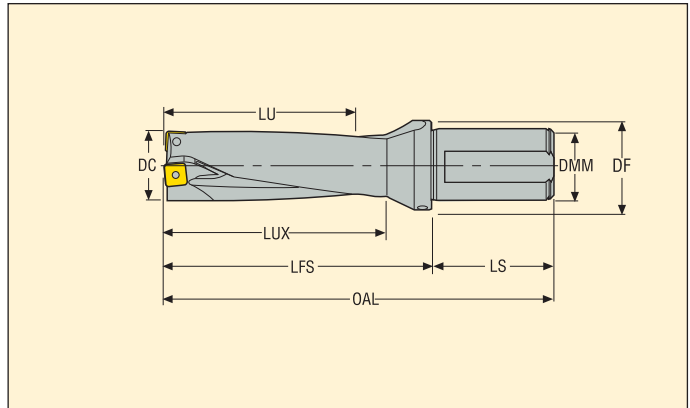
Dimensions in inch			Designation	Dimensions in inch						Insert		Radial adjustment	
DC	LU	Ordering and Product No.		OAL	LFS	LS	LUX	DMM	DF	Centre insert	Periph insert	-	+
0.6250	1.250	03080706	SD522-0625-125-1000R7-C	5.378	2.628	2.750	1.447	1.000	1.378	SPGX0502	SCGX050204	0.005	0.015
0.6870	1.370	03080708	SD522-0687-137-1000R7-C	5.498	2.748	2.750	1.567	1.000	1.378	SPGX0502	SCGX050204	0.000	0.020
0.7500	1.500	03080711	SD522-0750-150-1000R7-C	5.628	2.878	2.750	1.697	1.000	1.378	SPGX0602	SCGX050204	0.004	0.017
0.8120	1.620	03080716	SD522-0812-162-1000R7-C	5.748	2.998	2.750	1.817	1.000	1.378	SPGX0602	SCGX060204	0.001	0.020
0.8750	1.750	03080719	SD522-0875-175-1000R7-C	5.878	3.128	2.750	1.947	1.000	1.378	SPGX0703	SCGX060204	0.015	0.020
0.9370	1.870	03080723	SD522-0937-187-1000R7-C	5.998	3.248	2.750	2.067	1.000	1.378	SPGX0703	SCGX070308	0.004	0.020
1.0000	2.000	03080726	SD522-1000-200-1250R7-C	6.128	3.378	2.750	2.197	1.250	1.654	SPGX0703	SCGX070308	0.004	0.020
1.0620	2.120	03080729	SD522-1062-212-1250R7-C	6.248	3.498	2.750	2.317	1.250	1.654	SPGX0903	SCGX070308	0.020	0.010
1.1250	2.250	03080731	SD522-1125-225-1250R7-C	6.378	3.628	2.750	2.447	1.250	1.654	SPGX0903	SCGX09T308	0.008	0.020
1.1870	2.370	03080733	SD522-1187-237-1250R7-C	6.498	3.748	2.750	2.567	1.250	1.654	SPGX0903	SCGX09T308	0.005	0.020
1.2500	2.500	03080734	SD522-1250-250-1500R7-C	6.628	3.878	2.750	2.697	1.500	1.969	SPGX11T3	SCGX09T308	0.020	0.011
1.3750	2.750	03080738	SD522-1375-275-1500R7-C	6.878	4.128	2.750	2.947	1.500	1.969	SPGX11T3	SCGX11T308	0.009	0.020
1.5000	3.000	03080742	SD522-1500-300-1500R7-C	7.128	4.378	2.750	3.197	1.500	1.969	SPGX12T3	SCGX11T308	0.020	0.020
1.7500	3.500	03080757	SD522-1750-350-1500R7-C	7.628	4.878	2.750	3.697	1.500	1.969	SPGX1504	SCGX120408	0.020	0.016
2.0000	4.000	03080770	SD522-2000-400-1500R7-C	8.128	5.378	2.750	4.197	1.500	2.337	SPGX1504	SCGX150512	0.008	0.020
2.1250	4.250	03080774	SD522-2125-425-1500R7-C	8.378	5.628	2.750	4.447	1.500	2.337	SPGX1904	SCGX150512	0.020	0.020
2.2500	4.500	03080780	SD522-2250-450-1500R7-C	8.628	5.878	2.750	4.697	1.500	2.337	SPGX1904	SCGX150512	0.013	0.020
2.3750	4.750	03080784	SD522-2375-475-1500R7-C	8.878	6.128	2.750	4.947	1.500	2.480	SPGX1904	SCGX150512	0.004	0.020

Drilling depth ~ 3 x D – Inch

ISO 9766 shank, -7



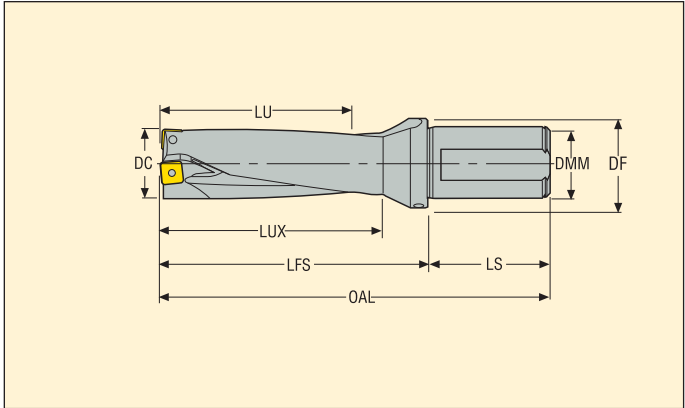
- For insert information see page(s) 207-209
- For cutting and machining data see page(s) 220-221
- Internal coolant
- Spare parts and accessories see page(s) 206



Dimensions in inch			Designation	Dimensions in inch						Insert		Radial adjustment	
DC	LU	Ordering and Product No.		OAL	LFS	LS	LUX	DMM	DF	Centre insert	Periph insert	-	+
0.5940	1.780	03080486	SD523-0594-178-1000R7	5.211	2.961	2.250	1.977	1.000	1.378	SPGX0502	SCGX050204	0.008	0.013
0.6250	1.880	03080488	SD523-0625-188-1000R7	5.311	3.061	2.250	2.077	1.000	1.378	SPGX0502	SCGX050204	0.005	0.015
0.6560	1.970	03080490	SD523-0656-197-1000R7	5.401	3.151	2.250	2.167	1.000	1.378	SPGX0502	SCGX050204	0.002	0.019
0.6870	2.030	03080493	SD523-0687-206-1000R7	5.461	3.211	2.250	2.227	1.000	1.378	SPGX0502	SCGX050204	0.000	0.020
0.7090	2.130	03080494	SD523-0709-213-1000R7	5.561	3.311	2.250	2.327	1.000	1.378	SPGX0602	SCGX050204	0.013	0.008
0.7500	2.250	03080497	SD523-0750-225-1000R7	5.681	3.431	2.250	2.447	1.000	1.378	SPGX0602	SCGX050204	0.004	0.017
0.7660	2.300	03080499	SD523-0766-230-1000R7	5.731	3.481	2.250	2.497	1.000	1.378	SPGX0602	SCGX050204	0.001	0.020
0.7870	2.360	03080501	SD523-0787-236-1000R7	5.791	3.541	2.250	2.557	1.000	1.378	SPGX0602	SCGX060204	0.003	0.018
0.8120	2.440	03080503	SD523-0812-244-1000R7	5.871	3.621	2.250	2.637	1.000	1.378	SPGX0602	SCGX060204	0.001	0.020
0.8270	2.480	03080505	SD523-0827-248-1000R7	5.911	3.661	2.250	2.677	1.000	1.378	SPGX0602	SCGX060204	0.000	0.020
0.8750	2.630	03080507	SD523-0875-263-1000R7	6.061	3.811	2.250	2.827	1.000	1.378	SPGX0703	SCGX060204	0.015	0.020
0.9060	2.720	03080509	SD523-0906-272-1000R7	6.151	3.901	2.250	2.917	1.000	1.378	SPGX0703	SCGX070308	0.013	0.020
0.9220	2.760	03080512	SD523-0922-276-1000R7	6.191	3.941	2.250	2.957	1.000	1.378	SPGX0703	SCGX070308	0.010	0.020
0.9370	2.810	03080514	SD523-0937-281-1000R7	6.241	3.991	2.250	3.007	1.000	1.378	SPGX0703	SCGX070308	0.004	0.020
0.9840	2.950	03080516	SD523-0984-295-1250R7	6.506	4.131	2.375	3.147	1.250	1.654	SPGX0703	SCGX070308	0.004	0.020
1.0000	3.000	03080518	SD523-1000-300-1250R7	6.556	4.181	2.375	3.197	1.250	1.654	SPGX0703	SCGX070308	0.004	0.020
1.0320	3.100	03080521	SD523-1032-310-1250R7	6.656	4.281	2.375	3.297	1.250	1.654	SPGX0903	SCGX070308	0.020	0.004
1.0620	3.190	03080522	SD523-1062-319-1250R7	6.746	4.371	2.375	3.387	1.250	1.654	SPGX0903	SCGX070308	0.020	0.010
1.1090	3.320	03080525	SD523-1109-332-1250R7	6.876	4.501	2.375	3.517	1.250	1.654	SPGX0903	SCGX070308	0.009	0.020
1.1250	3.380	03080526	SD523-1125-338-1250R7	6.936	4.561	2.375	3.577	1.250	1.654	SPGX0903	SCGX09T308	0.008	0.020
1.1720	3.510	03080528	SD523-1172-351-1250R7	7.066	4.691	2.375	3.707	1.250	1.654	SPGX0903	SCGX09T308	0.005	0.020
1.1870	3.560	03080530	SD523-1187-356-1250R7	7.116	4.741	2.375	3.757	1.250	1.654	SPGX0903	SCGX09T308	0.005	0.020
1.2500	3.750	03080533	SD523-1250-375-1500R7	7.556	4.931	2.625	3.947	1.500	1.969	SPGX11T3	SCGX09T308	0.020	0.011
1.3120	3.940	03080535	SD523-1312-394-1500R7	7.746	5.121	2.625	4.137	1.500	1.969	SPGX11T3	SCGX09T308	0.020	0.020
1.3440	4.030	03080537	SD523-1344-403-1500R7	7.836	5.211	2.625	4.227	1.500	1.969	SPGX11T3	SCGX09T308	0.006	0.020
1.3750	4.130	03080539	SD523-1375-413-1500R7	7.936	5.311	2.625	4.327	1.500	1.969	SPGX11T3	SCGX11T308	0.009	0.020
1.4220	4.260	03080541	SD523-1422-426-1500R7	8.066	5.441	2.625	4.457	1.500	1.969	SPGX11T3	SCGX11T308	0.004	0.020
1.4370	4.310	03080542	SD523-1437-431-1500R7	8.116	5.491	2.625	4.507	1.500	1.969	SPGX11T3	SCGX11T308	0.004	0.020
1.5000	4.500	03080547	SD523-1500-450-1500R7	8.306	5.681	2.625	4.697	1.500	1.969	SPGX12T3	SCGX11T308	0.020	0.020
1.5620	4.690	03080550	SD523-1562-469-1500R7	8.496	5.871	2.625	4.887	1.500	1.969	SPGX12T3	SCGX11T308	0.010	0.020
1.6250	4.880	03080555	SD523-1625-488-1500R7	8.686	6.061	2.625	5.077	1.500	1.969	SPGX12T3	SCGX120408	0.007	0.020
1.6870	5.060	03080560	SD523-1687-506-1500R7	8.866	6.241	2.625	5.257	1.500	1.969	SPGX12T3	SCGX120408	0.004	0.020
1.7500	5.250	03080565	SD523-1750-525-1500R7	9.056	6.431	2.625	5.447	1.500	1.969	SPGX1504	SCGX120408	0.020	0.016
1.8120	5.440	03080572	SD523-1812-544-1500R7	9.246	6.621	2.625	5.637	1.500	1.969	SPGX1504	SCGX150512	0.020	0.020
1.8750	5.630	03080577	SD523-1875-563-1500R7	9.436	6.811	2.625	5.827	1.500	1.969	SPGX1504	SCGX150512	0.020	0.020
1.9370	5.810	03080581	SD523-1937-581-1500R7	9.616	6.991	2.625	6.007	1.500	2.337	SPGX1504	SCGX150512	0.008	0.020
2.0000	6.000	03080588	SD523-2000-600-1500R7	9.806	7.181	2.625	6.197	1.500	2.337	SPGX1504	SCGX150512	0.008	0.020
2.0620	6.190	03080593	SD523-2062-619-1500R7	9.996	7.371	2.625	6.387	1.500	2.337	SPGX1904	SCGX150512	0.020	0.017
2.1250	6.380	03080596	SD523-2125-638-1500R7	10.186	7.561	2.625	6.577	1.500	2.337	SPGX1904	SCGX150512	0.020	0.020
2.2500	6.750	03080603	SD523-2250-675-1500R7	10.556	7.931	2.625	6.947	1.500	2.337	SPGX1904	SCGX150512	0.013	0.020
2.3750	7.130	03080609	SD523-2375-713-1500R7	10.936	8.311	2.625	7.327	1.500	2.480	SPGX1904	SCGX150512	0.004	0.020

Drilling depth ~ 3 x D – Inch – C

ISO 9766 shank, -7

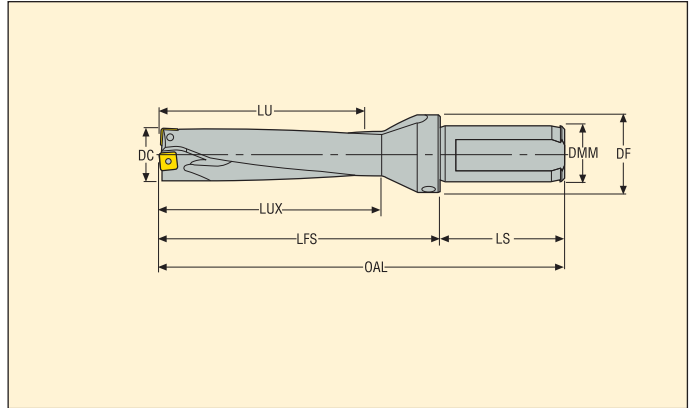


- For insert information see page(s) 207-209
- For cutting and machining data see page(s) 220-221
- Internal coolant
- Spare parts and accessories see page(s) 206

Dimensions in inch			Ordering and Product No.	Designation	Dimensions in inch						Insert		Radial adjustment	
DC	LU	OAL			LFS	LS	LUX	DMM	DF	Centre insert	Periph insert	-	+	
0.5940	1.780	03080487	SD523-0594-178-1000R7-C	5.908	3.158	2.750	1.977	1.000	1.378	SPGX0502	SCGX050204	0.008	0.013	
0.6250	1.880	03080489	SD523-0625-188-1000R7-C	6.008	3.258	2.750	2.077	1.000	1.378	SPGX0502	SCGX050204	0.005	0.015	
0.6560	1.970	03080491	SD523-0656-197-1000R7-C	6.098	3.348	2.750	2.167	1.000	1.378	SPGX0502	SCGX050204	0.002	0.019	
0.6870	2.060	03080492	SD523-0687-206-1000R7-C	6.188	3.438	2.750	2.257	1.000	1.378	SPGX0502	SCGX050204	0.000	0.020	
0.7090	2.130	03080495	SD523-0709-213-1000R7-C	6.258	3.508	2.750	2.327	1.000	1.378	SPGX0602	SCGX050204	0.013	0.008	
0.7500	2.250	03080496	SD523-0750-225-1000R7-C	6.378	3.628	2.750	2.447	1.000	1.378	SPGX0602	SCGX050204	0.004	0.017	
0.7660	2.300	03080500	SD523-0766-230-1000R7-C	6.428	3.678	2.750	2.497	1.000	1.378	SPGX0602	SCGX050204	0.001	0.020	
0.7870	2.360	03080502	SD523-0787-236-1000R7-C	6.488	3.738	2.750	2.557	1.000	1.378	SPGX0602	SCGX060204	0.003	0.018	
0.8120	2.440	03080504	SD523-0812-244-1000R7-C	6.568	3.818	2.750	2.637	1.000	1.378	SPGX0602	SCGX060204	0.001	0.020	
0.8270	2.480	03080506	SD523-0827-248-1000R7-C	6.608	3.858	2.750	2.677	1.000	1.378	SPGX0602	SCGX060204	0.000	0.020	
0.8750	2.630	03080508	SD523-0875-263-1000R7-C	6.758	4.008	2.750	2.827	1.000	1.378	SPGX0703	SCGX060204	0.015	0.020	
0.9060	2.720	03080511	SD523-0906-272-1000R7-C	6.848	4.098	2.750	2.917	1.000	1.378	SPGX0703	SCGX070308	0.013	0.020	
0.9220	2.760	03080513	SD523-0922-276-1000R7-C	6.888	4.138	2.750	2.957	1.000	1.378	SPGX0703	SCGX070308	0.010	0.020	
0.9370	2.810	03080515	SD523-0937-281-1000R7-C	6.938	4.188	2.750	3.007	1.000	1.378	SPGX0703	SCGX070308	0.004	0.020	
0.9840	2.950	03080517	SD523-0984-295-1250R7-C	7.078	4.328	2.750	3.147	1.250	1.654	SPGX0703	SCGX070308	0.004	0.020	
1.0000	3.000	03080519	SD523-1000-300-1250R7-C	7.128	4.378	2.750	3.197	1.250	1.654	SPGX0703	SCGX070308	0.004	0.020	
1.0320	3.100	03080520	SD523-1032-310-1250R7-C	7.228	4.478	2.750	3.297	1.250	1.654	SPGX0903	SCGX070308	0.020	0.004	
1.0620	3.190	03080523	SD523-1062-319-1250R7-C	7.318	4.568	2.750	3.387	1.250	1.654	SPGX0903	SCGX070308	0.020	0.010	
1.1090	3.320	03080524	SD523-1109-332-1250R7-C	7.448	4.698	2.750	3.517	1.250	1.654	SPGX0903	SCGX070308	0.009	0.020	
1.1250	3.380	03080527	SD523-1125-338-1250R7-C	7.508	4.758	2.750	3.577	1.250	1.654	SPGX0903	SCGX09T308	0.008	0.020	
1.1720	3.510	03080529	SD523-1172-351-1250R7-C	7.638	4.888	2.750	3.707	1.250	1.654	SPGX0903	SCGX09T308	0.005	0.020	
1.1870	3.560	03080531	SD523-1187-356-1250R7-C	7.688	4.938	2.750	3.757	1.250	1.654	SPGX0903	SCGX09T308	0.005	0.020	
1.2500	3.750	03080532	SD523-1250-375-1500R7-C	7.878	5.128	2.750	3.947	1.500	1.969	SPGX11T3	SCGX09T308	0.020	0.011	
1.3120	3.940	03080536	SD523-1312-394-1500R7-C	8.068	5.318	2.750	4.137	1.500	1.969	SPGX11T3	SCGX09T308	0.020	0.020	
1.3440	4.030	03080538	SD523-1344-403-1500R7-C	8.158	5.408	2.750	4.227	1.500	1.969	SPGX11T3	SCGX09T308	0.006	0.020	
1.3750	4.130	03080540	SD523-1375-413-1500R7-C	8.258	5.508	2.750	4.327	1.500	1.969	SPGX11T3	SCGX11T308	0.009	0.020	
1.4220	4.260	03080900	SD523-1422-426-1500R7-C	8.388	5.638	2.750	4.457	1.500	1.969	SPGX11T3	SCGX11T308	0.004	0.020	
1.4370	4.310	03080543	SD523-1437-431-1500R7-C	8.438	5.688	2.750	4.507	1.500	1.969	SPGX11T3	SCGX11T308	0.004	0.020	
1.5000	4.500	03080546	SD523-1500-450-1500R7-C	8.628	5.878	2.750	4.697	1.500	1.969	SPGX12T3	SCGX11T308	0.020	0.020	
1.5620	4.690	03080551	SD523-1562-469-1500R7-C	8.818	6.068	2.750	4.887	1.500	1.969	SPGX12T3	SCGX11T308	0.010	0.020	
1.6250	4.880	03080556	SD523-1625-488-1500R7-C	9.008	6.258	2.750	5.077	1.500	1.969	SPGX12T3	SCGX120408	0.007	0.020	
1.6870	5.060	03080561	SD523-1687-506-1500R7-C	9.188	6.438	2.750	5.257	1.500	1.969	SPGX12T3	SCGX120408	0.004	0.020	
1.7500	5.250	03080566	SD523-1750-525-1500R7-C	9.378	6.628	2.750	5.447	1.500	1.969	SPGX1504	SCGX120408	0.020	0.016	
1.8120	5.440	03080573	SD523-1812-544-1500R7-C	9.568	6.818	2.750	5.637	1.500	1.969	SPGX1504	SCGX150512	0.020	0.020	
1.8750	5.630	03080578	SD523-1875-563-1500R7-C	9.758	7.008	2.750	5.827	1.500	1.969	SPGX1504	SCGX150512	0.020	0.020	
1.9370	5.810	03080582	SD523-1937-581-1500R7-C	9.938	7.188	2.750	6.007	1.500	2.337	SPGX1504	SCGX150512	0.008	0.020	
2.0000	6.000	03080589	SD523-2000-600-1500R7-C	10.128	7.378	2.750	6.197	1.500	2.337	SPGX1504	SCGX150512	0.008	0.020	
2.1250	6.380	03080598	SD523-2125-638-1500R7-C	10.508	7.758	2.750	6.577	1.500	2.337	SPGX1904	SCGX150512	0.020	0.020	
2.2500	6.750	03080604	SD523-2250-675-1500R7-C	10.878	8.128	2.750	6.947	1.500	2.337	SPGX1904	SCGX150512	0.013	0.020	
2.3750	7.130	03080610	SD523-2375-713-1500R7-C	11.258	8.508	2.750	7.327	1.500	2.480	SPGX1904	SCGX150512	0.004	0.020	

Drilling depth ~ 4 x D – Inch

ISO 9766 shank, -7

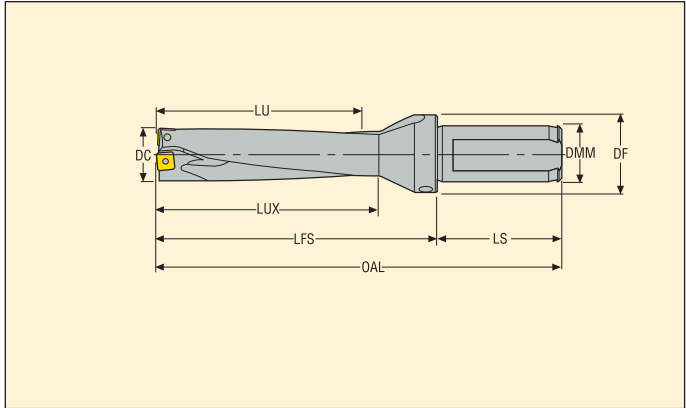


- For insert information see page(s) 207-209
- For cutting and machining data see page(s) 222-223
- Internal coolant
- Spare parts and accessories see page(s) 206

Dimensions in inch			Designation	Dimensions in inch						Insert	
DC	LU	Ordering and Product No.		OAL	LFS	LS	LUX	DMM	DF	Centre insert	Periph insert
0.5940	2.380	03080280	SD524-0594-238-1000R7	5.811	3.561	2.250	2.577	1.000	1.378	SPGX0502	SCGX050204
0.6250	2.500	03080281	SD524-0625-250-1000R7	5.931	3.681	2.250	2.697	1.000	1.378	SPGX0502	SCGX050204
0.6560	2.620	03080283	SD524-0656-262-1000R7	6.051	3.801	2.250	2.817	1.000	1.378	SPGX0502	SCGX050204
0.6870	2.750	03080285	SD524-0687-275-1000R7	6.181	3.931	2.250	2.947	1.000	1.378	SPGX0502	SCGX050204
0.7090	2.840	03080286	SD524-0709-284-1000R7	6.271	4.021	2.250	3.037	1.000	1.378	SPGX0602	SCGX050204
0.7500	3.000	03080288	SD524-0750-300-1000R7	6.431	4.181	2.250	3.197	1.000	1.378	SPGX0602	SCGX050204
0.7660	3.060	03080289	SD524-0766-306-1000R7	6.491	4.241	2.250	3.257	1.000	1.378	SPGX0602	SCGX050204
0.7870	3.150	03080290	SD524-0787-315-1000R7	6.581	4.331	2.250	3.347	1.000	1.378	SPGX0602	SCGX060204
0.8120	3.250	03080292	SD524-0812-325-1000R7	6.681	4.431	2.250	3.447	1.000	1.378	SPGX0602	SCGX060204
0.8270	3.310	03080294	SD524-0827-331-1000R7	6.741	4.491	2.250	3.507	1.000	1.378	SPGX0602	SCGX060204
0.8750	3.500	03080295	SD524-0875-350-1000R7	6.931	4.681	2.250	3.697	1.000	1.378	SPGX0703	SCGX060204
0.9060	3.620	03080297	SD524-0906-362-1000R7	7.051	4.801	2.250	3.817	1.000	1.378	SPGX0703	SCGX070308
0.9220	3.690	03080298	SD524-0922-369-1000R7	7.121	4.871	2.250	3.887	1.000	1.378	SPGX0703	SCGX070308
0.9370	3.750	03080299	SD524-0937-375-1000R7	7.181	4.931	2.250	3.947	1.000	1.378	SPGX0703	SCGX070308
0.9840	3.940	03080301	SD524-0984-394-1250R7	7.496	5.121	2.375	4.137	1.250	1.654	SPGX0703	SCGX070308
1.0000	4.000	03080302	SD524-1000-400-1250R7	7.556	5.181	2.375	4.197	1.250	1.654	SPGX0703	SCGX070308
1.0320	4.130	03080304	SD524-1032-413-1250R7	7.686	5.311	2.375	4.327	1.250	1.654	SPGX0903	SCGX070308
1.0620	4.250	03080305	SD524-1062-425-1250R7	7.806	5.431	2.375	4.447	1.250	1.654	SPGX0903	SCGX070308
1.1090	4.430	03080307	SD524-1109-443-1250R7	7.986	5.611	2.375	4.627	1.250	1.654	SPGX0903	SCGX070308
1.1250	4.500	03080308	SD524-1125-450-1250R7	8.056	5.681	2.375	4.697	1.250	1.654	SPGX0903	SCGX09T308
1.1720	4.690	03080310	SD524-1172-469-1250R7	8.246	5.871	2.375	4.887	1.250	1.654	SPGX0903	SCGX09T308
1.1870	4.750	03080311	SD524-1187-475-1250R7	8.306	5.931	2.375	4.947	1.250	1.654	SPGX0903	SCGX09T308
1.2500	5.000	03080314	SD524-1250-500-1500R7	8.806	6.181	2.625	5.197	1.500	1.969	SPGX11T3	SCGX09T308
1.3120	5.250	03080315	SD524-1312-525-1500R7	9.056	6.431	2.625	5.447	1.500	1.969	SPGX11T3	SCGX09T308
1.3440	5.380	03080317	SD524-1344-538-1500R7	9.186	6.561	2.625	5.577	1.500	1.969	SPGX11T3	SCGX09T308
1.3750	5.500	03080318	SD524-1375-550-1500R7	9.306	6.681	2.625	5.697	1.500	1.969	SPGX11T3	SCGX11T308
1.4370	5.750	03080320	SD524-1437-575-1500R7	9.556	6.931	2.625	5.947	1.500	1.969	SPGX11T3	SCGX11T308
1.5000	6.000	03080322	SD524-1500-600-1500R7	9.806	7.181	2.625	6.197	1.500	1.969	SPGX12T3	SCGX11T308
1.5620	6.250	03080323	SD524-1562-625-1500R7	10.056	7.431	2.625	6.447	1.500	1.969	SPGX12T3	SCGX11T308
1.6250	6.500	03080324	SD524-1625-650-1500R7	10.306	7.681	2.625	6.697	1.500	1.969	SPGX12T3	SCGX120408
1.6870	6.750	03080325	SD524-1687-675-1500R7	10.556	7.931	2.625	6.947	1.500	1.969	SPGX12T3	SCGX120408
1.7500	7.000	03080328	SD524-1750-700-1500R7	10.806	8.181	2.625	7.197	1.500	1.969	SPGX1504	SCGX120408
1.8120	7.250	03080332	SD524-1812-725-1500R7	11.056	8.431	2.625	7.447	1.500	1.969	SPGX1504	SCGX150512
1.8750	7.500	03080334	SD524-1875-750-1500R7	11.306	8.681	2.625	7.697	1.500	1.969	SPGX1504	SCGX150512
1.9370	7.750	03080335	SD524-1937-775-1500R7	11.556	8.931	2.625	7.947	1.500	2.337	SPGX1504	SCGX150512
2.0000	8.000	03080337	SD524-2000-800-1500R7	11.806	9.181	2.625	8.197	1.500	2.337	SPGX1504	SCGX150512
2.0620	8.250	03080339	SD524-2062-825-1500R7	12.056	9.431	2.625	8.447	1.500	2.337	SPGX1904	SCGX150512
2.1250	8.500	03080342	SD524-2125-850-1500R7	12.306	9.681	2.625	8.697	1.500	2.337	SPGX1904	SCGX150512
2.2500	9.000	03080346	SD524-2250-900-1500R7	12.806	10.181	2.625	9.197	1.500	2.337	SPGX1904	SCGX150512
2.3750	9.500	03080349	SD524-2375-950-1500R7	13.306	10.681	2.625	9.697	1.500	2.480	SPGX1904	SCGX150512

Drilling depth ~ 4 x D – Inch – C

ISO 9766 shank, -7

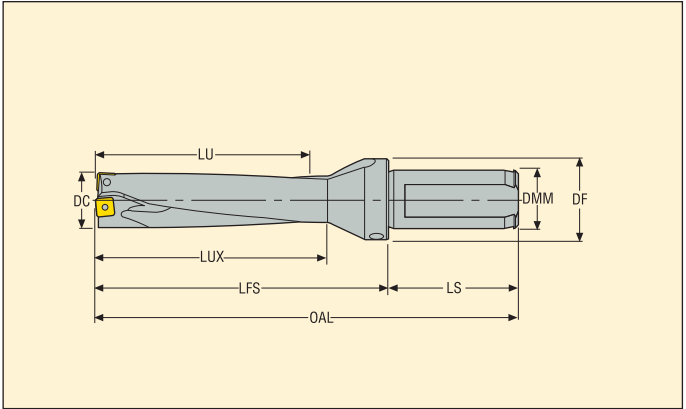


- For insert information see page(s) 207-209
- For cutting and machining data see page(s) 222-223
- Internal coolant
- Spare parts and accessories see page(s) 206

Dimensions in inch			Ordering and Product No.	Designation	Dimensions in inch						Insert	
DC	LU	OAL			LFS	LS	LUX	DMM	DF	Centre insert	Periph insert	
0.6250	2.500	03080282	SD524-0625-250-1000R7-C	6.628	3.878	2.750	2.697	1.000	1.378	SPGX0502	SCGX050204	
0.6870	2.750	03080284	SD524-0687-275-1000R7-C	6.878	4.128	2.750	2.947	1.000	1.378	SCGX0502	SCGX050204	
0.7500	3.000	03080287	SD524-0750-300-1000R7-C	7.128	4.378	2.750	3.197	1.000	1.378	SPGX0602	SCGX050204	
0.8120	3.250	03080293	SD524-0812-325-1000R7-C	7.378	4.628	2.750	3.447	1.000	1.378	SPGX0602	SCGX060204	
0.8750	3.500	03080296	SD524-0875-350-1000R7-C	7.628	4.878	2.750	3.697	1.000	1.378	SPGX0703	SCGX060204	
0.9370	3.750	03080300	SD524-0937-375-1000R7-C	7.878	5.128	2.750	3.947	1.000	1.378	SPGX0703	SCGX070308	
1.0000	4.000	03080303	SD524-1000-400-1250R7-C	8.128	5.378	2.750	4.197	1.250	1.654	SPGX0703	SCGX070308	
1.0620	4.250	03080306	SD524-1062-425-1250R7-C	8.378	5.628	2.750	4.447	1.250	1.654	SPGX0903	SCGX070308	
1.1250	4.500	03080309	SD524-1125-450-1250R7-C	8.628	5.878	2.750	4.697	1.250	1.654	SPGX0903	SCGX09T308	
1.1870	4.750	03080312	SD524-1187-475-1250R7-C	8.878	6.128	2.750	4.947	1.250	1.654	SPGX0903	SCGX09T308	
1.2500	5.000	03080313	SD524-1250-500-1500R7-C	9.128	6.378	2.750	5.197	1.500	1.969	SPGX11T3	SCGX09T308	
1.3120	5.250	03080316	SD524-1312-525-1500R7-C	9.378	6.628	2.750	5.447	1.500	1.969	SPGX11T3	SCGX09T308	
1.3750	5.500	03080319	SD524-1375-550-1500R7-C	9.628	6.878	2.750	5.697	1.500	1.969	SPGX11T3	SCGX11T308	
1.5000	6.000	03080321	SD524-1500-600-1500R7-C	10.128	7.378	2.750	6.197	1.500	1.969	SPGX12T3	SCGX11T308	
1.7500	7.000	03080329	SD524-1750-700-1500R7-C	11.128	8.378	2.750	7.197	1.500	1.969	SPGX1504	SCGX120408	
2.0000	8.000	03080338	SD524-2000-800-1500R7-C	12.128	9.378	2.750	8.197	1.500	2.337	SPGX1504	SCGX150512	
2.1250	8.500	03080343	SD524-2125-850-1500R7-C	12.628	9.878	2.750	8.697	1.500	2.337	SPGX1904	SCGX150512	
2.2500	9.000	03080347	SD524-2250-900-1500R7-C	13.128	10.378	2.750	9.197	1.500	2.337	SPGX1904	SCGX150512	
2.3750	9.500	03080350	SD524-2375-950-1500R7-C	13.628	10.878	2.750	9.697	1.500	2.480	SPGX1904	SCGX150512	

Drilling depth ~ 5 x D – Inch

ISO 9766 shank, -7



- For insert information see page(s) 207-209
- For cutting and machining data see page(s) 224-225
- Internal coolant
- Spare parts and accessories see page(s) 206

Dimensions in inch		Ordering and Product No.	Designation	Dimensions in inch						Insert	
DC	LU			OAL	LFS	LS	LUX	DMM	DF	Centre insert	Periph insert
0.7500	3.750	03079565	SD525-0750-375-1000R7	7.181	4.931	2.250	3.947	1.000	1.378	SPGX0602	SCGX050204
0.8120	4.060	03079566	SD525-0812-406-1000R7	7.491	5.241	2.250	4.257	1.000	1.378	SPGX0602	SCGX060204
0.8750	4.380	03079567	SD525-0875-438-1000R7	7.811	5.561	2.250	4.577	1.000	1.378	SPGX0703	SCGX060204
0.9370	4.690	03079568	SD525-0937-469-1000R7	8.121	5.871	2.250	4.887	1.000	1.378	SPGX0703	SCGX070308
1.0000	5.000	03079569	SD525-1000-500-1250R7	8.556	6.181	2.375	5.197	1.250	1.654	SPGX0703	SCGX070308
1.0620	5.310	03079570	SD525-1062-531-1250R7	8.866	6.491	2.375	5.507	1.250	1.654	SPGX0903	SCGX070308
1.1250	5.630	03079571	SD525-1125-563-1250R7	9.186	6.811	2.375	5.827	1.250	1.654	SPGX0903	SCGX09T308
1.1870	5.940	03079572	SD525-1187-594-1250R7	9.496	7.121	2.375	6.137	1.250	1.654	SPGX0903	SCGX09T308
1.2500	6.250	03079573	SD525-1250-625-1500R7	10.056	7.431	2.625	6.447	1.500	1.969	SPGX11T3	SCGX09T308
1.3750	6.870	03079574	SD525-1375-687-1500R7	10.676	8.051	2.625	7.067	1.500	1.969	SPGX11T3	SCGX11T308
1.5000	7.500	03079575	SD525-1500-750-1500R7	11.306	8.681	2.625	7.697	1.500	1.969	SPGX12T3	SCGX11T308
1.6250	8.120	03079576	SD525-1625-812-1500R7	11.926	9.301	2.625	8.317	1.500	1.969	SPGX12T3	SCGX120408
1.7500	8.750	03079577	SD525-1750-875-1500R7	12.556	9.931	2.625	8.947	1.500	1.969	SPGX1504	SCGX120408
1.8750	9.370	03079578	SD525-1875-937-1500R7	13.176	10.551	2.625	9.567	1.500	1.969	SPGX1504	SCGX150512
1.9370	9.680	03079579	SD525-1937-968-1500R7	13.486	10.861	2.625	9.877	1.500	2.337	SPGX1504	SCGX150512
2.0000	10.000	03079581	SD525-2000-1000-1500R7	13.806	11.181	2.625	10.197	1.500	2.337	SPGX1504	SCGX150512

Spare Parts – metric – SD522, SD523, SD524 & SD525

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

Accessories

Torque wrench*	Replacement blade	Torque value
T00-07P09	T00-07P	0,9 Nm
T00-07P09	T00-07P	0,9 Nm
T00-07P09	T00-07P	0,9 Nm
T00-08P12	T00-08P	1,2 Nm
T00-08P12	T00-08P	1,2 Nm
T00-09P20	T00-09P	2,0 Nm
T00-09P20	T00-09P	2,0 Nm
T00-15P30	T00-15P	3,0 Nm
T00-15P30	T00-15P	3,0 Nm
T00-15P30	T00-15P	3,0 Nm

Accessories, to be ordered separately

*Including blade.

Spare Parts – inch – SD522,SD523,SD524 & SD525 -C

For drill dia. (inch)	Insert screw		Insert key	Plug	Hose adapter
	Centre insert	Periph insert			
0.594-0.687	C02245-T07P	C02245-T07P	T07P	R1/4	1310
0.688-0.767	C02205-T07P	C02245-T07P	T07P	R1/4	1310
0.768-0.836	C02205-T07P	C02205-T07P	T07P	R1/4	1310
0.837-0.885	C02506-T08P	C02506-T08P	T08P	R1/4	1310
0.886-1.003	C02507-T08P	C03007-T08P	T08P	R1/4	1310
1.004-1.121	C03007-T09P	C03007-T09P	T09P	R1/4	1310
1.122-1.239	C03007-T09P	C03009-T09P	T09P	R1/4	1310
1.240-1.593	C03508-T15P	C03508-T15P	T15P	R1/4	1310
1.594-1.702	C03508-T15P	C05012-T15P	T15P	R1/4	1310
1.703-2.375	C04011-T15P	C05012-T15P	T15P	R1/4	1310

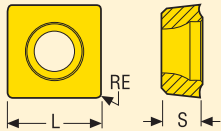
Accessories



Torque wrench*	Replacement blade	Torque value
T00-07P09	T00-07P	0,9 Nm
T00-07P09	T00-07P	0,9 Nm
T00-07P09	T00-07P	0,9 Nm
T00-08P12	T00-08P	1,2 Nm
T00-08P12	T00-08P	1,2 Nm
T00-09P20	T00-09P	2,0 Nm
T00-09P20	T00-09P	2,0 Nm
T00-15P30	T00-15P	3,0 Nm
T00-15P30	T00-15P	3,0 Nm
T00-15P30	T00-15P	3,0 Nm

Accessories, to be ordered separately

*Including blade.

Indexable inserts – Peripheral insert, type P1* for, SD522, SD523, SD524, SD525

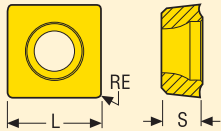
 <p>Tolerances: L = ±0,025 S = ±0,13 RE = ±0,1</p>	Dimensions in mm		
	Size	L	S
06	6,35	2,38	0,40
07	7,94	3,18	0,80
09	9,53	3,97	0,80
11	11,51	3,97	0,80
12	12,70	4,76	0,80
15	15,88	5,56	1,20



SCGX-P1	
	

Inserts	Designation	Grades		
		T250D	DP 2000	DP 3000
SCGX-P1	SCGX060204-P1	00059712	02590849	02807362
	SCGX070308-P1	00059713	02590850	02807363
	SCGX09T308-P1	00059714	02590851	02807364
	SCGX11T308-P1	03136962	03136963	03136964
	SCGX120408-P1	00059715	02590852	02807365
	SCGX150512-P1	00059716	02590853	02807366

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

Indexable inserts – Peripheral insert, type P2** for, SD522, SD523, SD524, SD525

 <p>Tolerances: L = ±0,025 S = ±0,13 RE = ±0,1</p>	Dimensions in mm		
	Size	L	S
05	5,56	2,38	0,40
06	6,35	2,38	0,40
07	7,94	3,18	0,80
09	9,53	3,97	0,80
11	11,51	3,97	0,80
12	12,70	4,76	0,80
15	15,88	5,56	1,20

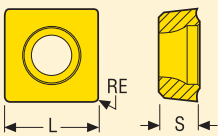
SCGX-P2	
	

Inserts	Designation	Grades		
		T250D	DP2000	DP3000
SCGX-P2	SCGX050204-P2	00059711	02590854	02807356
	SCGX060204-P2	02526803	02590855	02807357
	SCGX070308-P2	02526787	02590856	02807358
	SCGX09T308-P2	02794476	02590857	02807359
	SCGX11T308-P2	03097760	03097761	03097762
	SCGX120408-P2	02794477	02590858	02807360
	SCGX150512-P2	02794478	02590859	02807361

Stock standard. Subject to change refer to current price- and stock-list

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

Indexable inserts – Peripheral insert, type MP for SD522, SD523, SD524, SD525



Tolerances:
 L = $\pm 0,025$
 S = $\pm 0,13$
 RE = $\pm 0,1$

Size	Dimensions in mm		
	L	S	RE
05	5,56	2,38	0,40
06	6,35	6,35	0,40
07	7,94	3,18	0,80
09	9,53	3,97	0,80
11	11,51	3,97	0,80
12	12,70	4,76	0,80
15	15,88	5,56	1,20

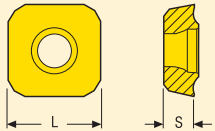
SCGX-MP



Inserts	Designation	Grades	
		DS2050	
SCGX-MP	SCGX050204-MP	03134312	
	SCGX060204-MP	03134313	
	SCGX070308-MP	03134314	
	SCGX09T308-MP	03134315	
	SCGX11T308-MP	03134316	
	SCGX120408-MP	03134317	
	SCGX150512-MP	03134318	

Stock standard. Subject to change refer to current price- and stock-list


Indexable inserts – Centre insert, type C1 for, SD522, SD523, SD524, SD525



Tolerances:
L = ±0,025
S = ±0,13

Size	Dimensions in mm	
	L	S
05	5,56	2,38
06	6,35	2,38
07	7,94	3,18
09	9,53	3,18
11	11,51	3,97
12	12,70	3,97
15	15,88	4,76
19	19,05	4,76

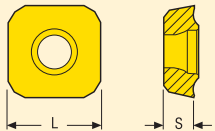
SPGX-C1



Inserts	Designation	Grades	
		T400D	DP3000
SPGX-C1	SPGX0502-C1	74077370	02807367
	SPGX0602-C1	74077371	02807368
	SPGX0703-C1	74077372	02807369
	SPGX0903-C1	74077373	02807370
	SPGX11T3-C1	74077374	02807371
	SPGX12T3-C1	74077375	02807372
	SPGX1504-C1	74077376	02807373
	SPGX1904-C1	74077377	02807374

Stock standard. Subject to change refer to current price- and stock-list


Indexable inserts – Centre insert, type MC for SD522, SD523, SD524, SD525



Tolerances:
L = ±0,025
S = ±0,13

Size	Dimensions in mm	
	L	S
05	5,56	2,38
06	6,35	2,38
07	7,94	3,18
09	9,53	3,18
11	11,51	3,97
12	12,70	3,97
15	15,88	4,76
19	19,05	4,76

SPGX-MC



Inserts	Designation	Grades
		DS4050
SPGX-MC	SPGX0502-MC	03134319
	SPGX0602-MC	03134320
	SPGX0703-MC	03134321
	SPGX0903-MC	03134322
	SPGX11T3-MC	03134323
	SPGX12T3-MC	03134324
	SPGX1504-MC	03134325
	SPGX1904-MC	03134326

Stock standard. Subject to change refer to current price- and stock-list

Cutting data – SD522 Ø15-60 – Metric

SMG		f							v _c
		Ø 15,00-19,49	Ø 19,50-22,49	Ø 22,50-28,49	Ø 28,50-34,49	Ø 34,50-40,49	Ø 40,49-44,49	Ø 44,50-59,99	
P1	P1 DP2000	0,060	0,070	0,085	0,095	0,11	0,12	0,13	460
P2	P1 DP2000	0,060	0,070	0,085	0,10	0,11	0,12	0,13	450
P3	P2 DP3000	0,12	0,14	0,17	0,19	0,22	0,22	0,26	345
P4	P2 DP3000	0,12	0,13	0,16	0,19	0,22	0,22	0,26	220
P5	P2 DP3000	0,11	0,13	0,16	0,18	0,20	0,22	0,24	210
P6	P2 DP3000	0,11	0,13	0,16	0,18	0,20	0,22	0,24	235
P7	P2 DP3000	0,11	0,13	0,16	0,18	0,20	0,22	0,24	225
P8	P2 DP3000	0,12	0,14	0,17	0,19	0,22	0,22	0,26	210
P11	P2 DP3000	0,11	0,13	0,16	0,18	0,20	0,22	0,24	215
P12	P2 DP3000	0,075	0,090	0,11	0,12	0,14	0,15	0,17	130
M1	P2 DP3000	0,085	0,10	0,12	0,14	0,16	0,17	0,19	260
M2	P2 DP3000	0,080	0,090	0,11	0,13	0,14	0,15	0,17	210
M3	MP DS2050	0,065	0,075	0,090	0,10	0,12	0,13	0,14	160
M4	MP DS2050	0,055	0,065	0,080	0,090	0,10	0,11	0,12	140
M5	MP DS2050	0,055	0,065	0,080	0,090	0,10	0,11	0,12	115
K1	P2 DP2000	0,12	0,14	0,17	0,20	0,22	0,24	0,26	250
K2	P2 DP2000	0,11	0,13	0,16	0,18	0,20	0,22	0,24	215
K3	P2 DP2000	0,11	0,13	0,16	0,18	0,20	0,22	0,24	185
K4	P2 DP2000	0,11	0,13	0,16	0,18	0,20	0,22	0,24	175
K5	P2 DP2000	0,10	0,11	0,14	0,16	0,18	0,19	0,22	105
N1	P1 T250D	0,12	0,14	0,17	0,20	0,22	0,24	0,26	365
N2	P1 T250D	0,12	0,14	0,17	0,20	0,22	0,24	0,26	235
N3	P1 T250D	0,12	0,14	0,17	0,20	0,22	0,24	0,26	155
N11	P1 T250D	0,12	0,14	0,17	0,20	0,22	0,24	0,26	310
S1	MP DS2050	0,090	0,11	0,13	0,15	0,17	0,18	0,20	60
S2	MP DS2050	0,090	0,11	0,13	0,15	0,17	0,18	0,20	48
S3	MP DS2050	0,085	0,10	0,12	0,14	0,16	0,17	0,19	41
S11	MP DS2050	0,11	0,12	0,15	0,17	0,19	0,20	0,24	85
S12	MP DS2050	0,11	0,12	0,15	0,17	0,19	0,20	0,24	65
S13	MP DS2050	0,090	0,11	0,13	0,15	0,17	0,18	0,20	50
H3	P1 T250D	0,050	0,060	0,070	0,080	0,095	0,10	0,11	70
H5	P1 T250D	0,075	0,090	0,11	0,12	0,14	0,15	0,17	130
H7	P1 T250D	0,050	0,060	0,070	0,080	0,095	0,10	0,11	70
H8	P1 T250D	0,060	0,070	0,085	0,095	0,11	0,11	0,13	130
H11	P1 T250D	0,075	0,090	0,11	0,12	0,14	0,15	0,17	165
H12	P1 T250D	0,060	0,070	0,085	0,095	0,11	0,11	0,13	150
H21	P1 T250D	0,060	0,070	0,085	0,095	0,11	0,11	0,13	130

SMG = Seco material group

f = mm/rev

v_c = m/min

All cutting data are start values

Cutting data – SD522 Cutting speed – Metric

SMG	V _c			
	DP2000	DP3000	T250D	DS2050
P1	460	415	315	415
P2	450	405	305	405
P3	385	345	265	345
P4	285	220	140	—
P5	270	210	135	—
P6	305	235	150	—
P7	285	225	140	—
P8	270	210	135	—
P11	280	215	140	—
P12	165	130	80	—
M1	—	260	160	—
M2	—	210	130	—
M3	—	160	100	160
M4	—	120	75	140
M5	—	100	60	115
K1	250	235	—	—
K2	215	205	—	—
K3	185	175	—	—
K4	175	165	—	—
K5	105	100	—	—
N1	—	420	365	365
N2	—	270	235	235
N3	—	180	155	155
N11	—	350	310	310
S1	—	—	40	60
S2	—	—	30	48
S3	—	—	30	41
S11	—	—	80	85
S12	—	—	60	65
S13	—	—	46	50
H3	—	70	70	—
H5	—	130	130	—
H7	—	70	70	—
H8	—	130	130	—
H11	—	165	165	—
H12	—	75	150	—
H21	—	130	130	—

SMG = Seco material group
 v_c = m/min
 All cutting data are start values

Cutting data – SD523 Ø15-60 – Metric

SMG		f							v _c
		Ø 15,00-19,49	Ø 19,50-22,49	Ø 22,50-28,49	Ø 28,50-34,49	Ø 34,50-40,49	Ø 40,49-44,49	Ø 44,50-59,99	
P1	P1 DP2000	0,060	0,070	0,085	0,095	0,11	0,12	0,13	415
P2	P1 DP2000	0,060	0,070	0,085	0,10	0,11	0,12	0,13	405
P3	P2 DP3000	0,12	0,14	0,17	0,19	0,22	0,22	0,26	310
P4	P2 DP3000	0,12	0,13	0,16	0,19	0,22	0,22	0,26	190
P5	P2 DP3000	0,11	0,13	0,16	0,18	0,20	0,22	0,24	180
P6	P2 DP3000	0,11	0,13	0,16	0,18	0,20	0,22	0,24	200
P7	P2 DP3000	0,11	0,13	0,16	0,18	0,20	0,22	0,24	190
P8	P2 DP3000	0,12	0,14	0,17	0,19	0,22	0,22	0,26	180
P11	P2 DP3000	0,11	0,13	0,16	0,18	0,20	0,22	0,24	185
P12	P2 DP3000	0,075	0,090	0,11	0,12	0,14	0,15	0,17	110
M1	P2 DP3000	0,085	0,10	0,12	0,14	0,16	0,17	0,19	245
M2	P2 DP3000	0,080	0,090	0,11	0,13	0,14	0,15	0,17	195
M3	MP DS2050	0,065	0,075	0,090	0,10	0,12	0,13	0,14	150
M4	MP DS2050	0,055	0,065	0,080	0,090	0,10	0,11	0,12	120
M5	MP DS2050	0,055	0,065	0,080	0,090	0,10	0,11	0,12	100
K1	P2 DP2000	0,12	0,14	0,17	0,20	0,22	0,24	0,26	225
K2	P2 DP2000	0,11	0,13	0,16	0,18	0,20	0,22	0,24	195
K3	P2 DP2000	0,11	0,13	0,16	0,18	0,20	0,22	0,24	165
K4	P2 DP2000	0,11	0,13	0,16	0,18	0,20	0,22	0,24	160
K5	P2 DP2000	0,10	0,11	0,14	0,16	0,18	0,19	0,22	95
N1	P1 T250D	0,12	0,14	0,17	0,20	0,22	0,24	0,26	310
N2	P1 T250D	0,12	0,14	0,17	0,20	0,22	0,24	0,26	200
N3	P1 T250D	0,12	0,14	0,17	0,20	0,22	0,24	0,26	135
N11	P1 T250D	0,12	0,14	0,17	0,20	0,22	0,24	0,26	260
S1	MP DS2050	0,090	0,11	0,13	0,15	0,17	0,18	0,20	55
S2	MP DS2050	0,090	0,11	0,13	0,15	0,17	0,18	0,20	43
S3	MP DS2050	0,085	0,10	0,12	0,14	0,16	0,17	0,19	37
S11	MP DS2050	0,11	0,12	0,15	0,17	0,19	0,20	0,24	75
S12	MP DS2050	0,11	0,12	0,15	0,17	0,19	0,20	0,24	60
S13	MP DS2050	0,090	0,11	0,13	0,15	0,17	0,18	0,20	45
H3	P1 T250D	0,050	0,060	0,070	0,080	0,095	0,10	0,11	60
H5	P1 T250D	0,075	0,090	0,11	0,12	0,14	0,15	0,17	110
H7	P1 T250D	0,050	0,060	0,070	0,080	0,095	0,10	0,11	60
H8	P1 T250D	0,060	0,070	0,085	0,095	0,11	0,11	0,13	110
H11	P1 T250D	0,075	0,090	0,11	0,12	0,14	0,15	0,17	140
H12	P1 T250D	0,060	0,070	0,085	0,095	0,11	0,11	0,13	130
H21	P1 T250D	0,060	0,070	0,085	0,095	0,11	0,11	0,13	110

SMG = Seco material group

f = mm/rev

v_c = m/min

All cutting data are start values

Cutting data – SD523 Cutting speed – Metric

SMG	V _c			
	DP2000	DP3000	T250D	DS2050
P1	415	370	265	370
P2	405	360	260	360
P3	345	310	225	310
P4	230	190	120	—
P5	220	180	115	—
P6	250	200	130	—
P7	235	190	120	—
P8	220	180	115	—
P11	225	185	115	—
P12	135	110	70	—
M1	—	245	135	—
M2	—	195	110	—
M3	—	150	85	150
M4	—	115	65	120
M5	—	95	55	100
K1	225	215	—	—
K2	195	185	—	—
K3	165	160	—	—
K4	160	150	—	—
K5	95	90	—	—
N1	—	360	310	310
N2	—	230	200	200
N3	—	155	135	135
N11	—	300	260	260
S1	—	—	34	55
S2	—	—	25	43
S3	—	—	25	37
S11	—	—	65	75
S12	—	—	50	60
S13	—	—	39	45
H3	—	60	60	—
H5	—	115	110	—
H7	—	60	60	—
H8	—	115	110	—
H11	—	145	140	—
H12	—	65	130	—
H21	—	115	110	—

SMG = Seco material group
 v_c = m/min
 All cutting data are start values

Cutting data – SD524 Ø17-60 – Metric

SMG		f							v _c
		Ø 17,00-19,49	Ø 19,50-22,49	Ø 22,50-28,49	Ø 28,50-34,49	Ø 34,50-40,49	Ø 40,49-44,49	Ø 44,50-59,99	
P1	P1 DP2000	0,060	0,070	0,085	0,095	0,11	0,12	0,13	380
P2	P1 DP2000	0,060	0,070	0,085	0,10	0,11	0,12	0,13	370
P3	P2 DP3000	0,12	0,14	0,17	0,19	0,22	0,22	0,26	285
P4	P2 DP3000	0,12	0,13	0,16	0,19	0,22	0,22	0,26	165
P5	P2 DP3000	0,11	0,13	0,16	0,18	0,20	0,22	0,24	160
P6	P2 DP3000	0,11	0,13	0,16	0,18	0,20	0,22	0,24	180
P7	P2 DP3000	0,11	0,13	0,16	0,18	0,20	0,22	0,24	170
P8	P2 DP3000	0,12	0,14	0,17	0,19	0,22	0,22	0,26	160
P11	P2 DP3000	0,11	0,13	0,16	0,18	0,20	0,22	0,24	165
P12	P2 DP3000	0,075	0,090	0,11	0,12	0,14	0,15	0,17	95
M1	P2 DP3000	0,085	0,10	0,12	0,14	0,16	0,17	0,19	235
M2	P2 DP3000	0,080	0,090	0,11	0,13	0,14	0,15	0,17	190
M3	MP DS2050	0,065	0,075	0,090	0,10	0,12	0,13	0,14	145
M4	MP DS2050	0,055	0,065	0,080	0,090	0,10	0,11	0,12	105
M5	MP DS2050	0,055	0,065	0,080	0,090	0,10	0,11	0,12	90
K1	P2 DP2000	0,12	0,14	0,17	0,20	0,22	0,24	0,26	210
K2	P2 DP2000	0,11	0,13	0,16	0,18	0,20	0,22	0,24	180
K3	P2 DP2000	0,11	0,13	0,16	0,18	0,20	0,22	0,24	155
K4	P2 DP2000	0,11	0,13	0,16	0,18	0,20	0,22	0,24	145
K5	P2 DP2000	0,10	0,11	0,14	0,16	0,18	0,19	0,22	85
N1	P1 T250D	0,12	0,14	0,17	0,20	0,22	0,24	0,26	270
N2	P1 T250D	0,12	0,14	0,17	0,20	0,22	0,24	0,26	175
N3	P1 T250D	0,12	0,14	0,17	0,20	0,22	0,24	0,26	115
N11	P1 T250D	0,12	0,14	0,17	0,20	0,22	0,24	0,26	230
S1	MP DS2050	0,090	0,11	0,13	0,15	0,17	0,18	0,20	48
S2	MP DS2050	0,090	0,11	0,13	0,15	0,17	0,18	0,20	39
S3	MP DS2050	0,085	0,10	0,12	0,14	0,16	0,17	0,19	33
S11	MP DS2050	0,11	0,12	0,15	0,17	0,19	0,20	0,24	70
S12	MP DS2050	0,11	0,12	0,15	0,17	0,19	0,20	0,24	55
S13	MP DS2050	0,090	0,11	0,13	0,15	0,17	0,18	0,20	41
H3	P1 T250D	0,050	0,060	0,070	0,080	0,095	0,10	0,11	50
H5	P1 T250D	0,075	0,090	0,11	0,12	0,14	0,15	0,17	95
H7	P1 T250D	0,050	0,060	0,070	0,080	0,095	0,10	0,11	50
H8	P1 T250D	0,060	0,070	0,085	0,095	0,11	0,11	0,13	95
H11	P1 T250D	0,075	0,090	0,11	0,12	0,14	0,15	0,17	125
H12	P1 T250D	0,060	0,070	0,085	0,095	0,11	0,11	0,13	110
H21	P1 T250D	0,060	0,070	0,085	0,095	0,11	0,11	0,13	95

SMG = Seco material group

f = mm/rev

v_c = m/min

All cutting data are start values

Cutting data – SD524 Cutting speed – Metric

SMG	V _c			
	DP2000	DP3000	T250D	DS2050
P1	380	340	230	340
P2	370	330	225	330
P3	320	285	195	285
P4	195	165	105	—
P5	185	160	100	—
P6	210	180	110	—
P7	195	170	105	—
P8	185	160	100	—
P11	190	165	100	—
P12	110	95	60	—
M1	—	235	120	—
M2	—	190	95	—
M3	—	145	75	145
M4	—	110	55	105
M5	—	90	46	90
K1	210	200	—	—
K2	180	170	—	—
K3	155	145	—	—
K4	145	140	—	—
K5	85	85	—	—
N1	—	315	270	270
N2	—	205	175	175
N3	—	135	115	115
N11	—	265	230	230
S1	—	—	29	48
S2	—	—	22	39
S3	—	—	22	33
S11	—	—	55	70
S12	—	—	44	55
S13	—	—	34	41
H3	—	55	50	—
H5	—	100	95	—
H7	—	55	50	—
H8	—	100	95	—
H11	—	125	125	—
H12	—	55	110	—
H21	—	100	95	—

SMG = Seco material group
 v_c = m/min
 All cutting data are start values

Cutting data – SD525 Ø19-45 – Metric

SMG		f					v _c
		Ø 19,50-22,49	Ø 22,50-28,49	Ø 28,50-34,49	Ø 34,50-40,49	Ø 40,49-45,00	
P1	P2 DP3000	0,070	0,085	0,095	0,11	0,12	320
P2	P2 DP3000	0,070	0,085	0,10	0,11	0,12	310
P3	P2 DP3000	0,14	0,17	0,19	0,22	0,22	265
P4	P2 DP3000	0,13	0,16	0,19	0,22	0,22	150
P5	P2 DP3000	0,13	0,16	0,18	0,20	0,22	140
P6	P2 DP3000	0,13	0,16	0,18	0,20	0,22	160
P7	P2 DP3000	0,13	0,16	0,18	0,20	0,22	150
P8	P2 DP3000	0,14	0,17	0,19	0,22	0,22	140
P11	P2 DP3000	0,13	0,16	0,18	0,20	0,22	145
P12	P2 DP3000	0,090	0,11	0,12	0,14	0,15	85
M1	P2 DP3000	0,10	0,12	0,14	0,16	0,17	225
M2	P2 DP3000	0,090	0,11	0,13	0,14	0,15	180
M3	MP DS2050	0,075	0,090	0,10	0,12	0,13	140
M4	MP DS2050	0,065	0,080	0,090	0,10	0,11	95
M5	MP DS2050	0,065	0,080	0,090	0,10	0,11	80
K1	P2 DP3000	0,14	0,17	0,20	0,22	0,24	185
K2	P2 DP3000	0,13	0,16	0,18	0,20	0,22	160
K3	P2 DP3000	0,13	0,16	0,18	0,20	0,22	135
K4	P2 DP3000	0,13	0,16	0,18	0,20	0,22	130
K5	P2 DP3000	0,11	0,14	0,16	0,18	0,19	80
N1	P1 T250D	0,14	0,17	0,20	0,22	0,24	240
N2	P1 T250D	0,14	0,17	0,20	0,22	0,24	155
N3	P1 T250D	0,14	0,17	0,20	0,22	0,24	100
N11	P1 T250D	0,14	0,17	0,20	0,22	0,24	200
S1	MP DS2050	0,11	0,13	0,15	0,17	0,18	44
S2	MP DS2050	0,11	0,13	0,15	0,17	0,18	36
S3	MP DS2050	0,10	0,12	0,14	0,16	0,17	31
S11	MP DS2050	0,12	0,15	0,17	0,19	0,20	65
S12	MP DS2050	0,12	0,15	0,17	0,19	0,20	49
S13	MP DS2050	0,11	0,13	0,15	0,17	0,18	38
H3	P1 T250D	0,060	0,070	0,085	0,095	0,10	46
H5	P1 T250D	0,090	0,11	0,12	0,14	0,15	85
H7	P1 T250D	0,060	0,070	0,085	0,095	0,10	46
H8	P1 T250D	0,070	0,085	0,095	0,11	0,11	85
H11	P1 T250D	0,090	0,11	0,12	0,14	0,15	110
H12	P1 T250D	0,070	0,085	0,095	0,11	0,11	100
H21	P1 T250D	0,070	0,085	0,095	0,11	0,11	85

SMG = Seco material group

f = mm/rev

v_c = m/min

All cutting data are start values

Cutting data – SD525 Cutting speed – Metric

SMG	V _c			
	DP2000	DP3000	T250D	DS2050
P1	355	320	205	320
P2	345	310	200	310
P3	295	265	170	265
P4	165	150	90	—
P5	155	140	90	—
P6	175	160	100	—
P7	165	150	95	—
P8	155	140	90	—
P11	160	145	90	—
P12	95	85	55	—
M1	—	225	105	—
M2	—	180	85	—
M3	—	140	65	140
M4	—	105	49	95
M5	—	85	41	80
K1	195	185	—	—
K2	170	160	—	—
K3	145	135	—	—
K4	140	130	—	—
K5	80	80	—	—
N1	—	285	240	240
N2	—	185	155	155
N3	—	120	100	100
N11	—	235	200	200
S1	—	—	26	44
S2	—	—	20	36
S3	—	—	20	31
S11	—	—	50	65
S12	—	—	39	49
S13	—	—	30	38
H3	—	48	46	—
H5	—	90	85	—
H7	—	48	46	—
H8	—	90	85	—
H11	—	115	110	—
H12	—	50	100	—
H21	—	90	85	—

SMG = Seco material group
 v_c = m/min
 All cutting data are start values

Cutting data – SD522 Ø0.590-2.375 – Inch

SMG		f							v _c
		Ø 0.590-0.767	Ø 0.768-0.885	Ø 0.886-1.121	Ø 1.122-1.357	Ø 1.358-1.593	Ø 1.594-1.751	Ø 1.752-2.375	
P1	P1 DP2000	0.0024	0.0028	0.0033	0.0037	0.0043	0.0047	0.0051	1525
P2	P1 DP2000	0.0024	0.0028	0.0033	0.0039	0.0043	0.0047	0.0051	1475
P3	P2 DP3000	0.0047	0.0055	0.0067	0.0075	0.0087	0.0087	0.010	1150
P4	P2 DP3000	0.0047	0.0051	0.0063	0.0075	0.0087	0.0087	0.010	720
P5	P2 DP3000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	690
P6	P2 DP3000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	780
P7	P2 DP3000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	730
P8	P2 DP3000	0.0047	0.0055	0.0067	0.0075	0.0087	0.0087	0.010	690
P11	P2 DP3000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	710
P12	P2 DP3000	0.0030	0.0035	0.0043	0.0047	0.0055	0.0059	0.0067	420
M1	P2 DP3000	0.0033	0.0039	0.0047	0.0055	0.0063	0.0067	0.0075	850
M2	P2 DP3000	0.0031	0.0035	0.0043	0.0051	0.0055	0.0059	0.0067	690
M3	MP DS2050	0.0026	0.0030	0.0035	0.0039	0.0047	0.0051	0.0055	530
M4	MP DS2050	0.0022	0.0026	0.0031	0.0035	0.0039	0.0043	0.0047	460
M5	MP DS2050	0.0022	0.0026	0.0031	0.0035	0.0039	0.0043	0.0047	385
K1	P2 DP2000	0.0047	0.0055	0.0067	0.0079	0.0087	0.0094	0.010	820
K2	P2 DP2000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	710
K3	P2 DP2000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	600
K4	P2 DP2000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	570
K5	P2 DP2000	0.0039	0.0043	0.0055	0.0063	0.0071	0.0075	0.0087	340
N1	P1 T250D	0.0047	0.0055	0.0067	0.0079	0.0087	0.0094	0.010	1200
N2	P1 T250D	0.0047	0.0055	0.0067	0.0079	0.0087	0.0094	0.010	770
N3	P1 T250D	0.0047	0.0055	0.0067	0.0079	0.0087	0.0094	0.010	510
N11	P1 T250D	0.0047	0.0055	0.0067	0.0079	0.0087	0.0094	0.010	1025
S1	MP DS2050	0.0035	0.0043	0.0051	0.0059	0.0067	0.0071	0.0079	195
S2	MP DS2050	0.0035	0.0043	0.0051	0.0059	0.0067	0.0071	0.0079	160
S3	MP DS2050	0.0033	0.0039	0.0047	0.0055	0.0063	0.0067	0.0075	135
S11	MP DS2050	0.0043	0.0047	0.0059	0.0067	0.0075	0.0079	0.0094	285
S12	MP DS2050	0.0043	0.0047	0.0059	0.0067	0.0075	0.0079	0.0094	215
S13	MP DS2050	0.0035	0.0043	0.0051	0.0059	0.0067	0.0071	0.0079	170
H3	P1 T250D	0.0020	0.0024	0.0028	0.0031	0.0037	0.0039	0.0043	230
H5	P1 T250D	0.0030	0.0035	0.0043	0.0047	0.0055	0.0059	0.0067	430
H7	P1 T250D	0.0020	0.0024	0.0028	0.0031	0.0037	0.0039	0.0043	230
H8	P1 T250D	0.0024	0.0028	0.0033	0.0037	0.0043	0.0043	0.0051	430
H11	P1 T250D	0.0030	0.0035	0.0043	0.0047	0.0055	0.0059	0.0067	550
H12	P1 T250D	0.0024	0.0028	0.0033	0.0037	0.0043	0.0043	0.0051	500
H21	P1 T250D	0.0024	0.0028	0.0033	0.0037	0.0043	0.0043	0.0051	430

SMG = Seco material group

f = in/rev

v_c = sf/min

All cutting data are start values

Cutting data – SD522 Cutting speed – Inch

SMG	V _c			
	DP2000	DP3000	T250D	DS2050
P1	1525	1350	1025	1350
P2	1475	1325	1000	1325
P3	1275	1150	870	1150
P4	930	720	460	—
P5	890	690	440	—
P6	1000	780	495	—
P7	940	730	465	—
P8	890	690	440	—
P11	920	710	455	—
P12	540	420	270	—
M1	—	850	530	—
M2	—	690	430	—
M3	—	530	330	530
M4	—	395	245	460
M5	—	330	205	385
K1	820	780	—	—
K2	710	680	—	—
K3	600	570	—	—
K4	570	550	—	—
K5	340	325	—	—
N1	—	1375	1200	1200
N2	—	890	770	770
N3	—	590	510	510
N11	—	1150	1025	1025
S1	—	—	130	195
S2	—	—	100	160
S3	—	—	100	135
S11	—	—	255	285
S12	—	—	195	215
S13	—	—	150	170
H3	—	230	230	—
H5	—	430	430	—
H7	—	230	230	—
H8	—	430	430	—
H11	—	550	550	—
H12	—	250	500	—
H21	—	430	430	—

SMG = Seco material group
 v_c = sf/min
 All cutting data are start values

Cutting data – SD523 Ø0.590-2.375 – Inch

SMG		f							v _c
		Ø 0.590-0.767	Ø 0.768-0.885	Ø 0.886-1.121	Ø 1.122-1.357	Ø1.358-1.593	Ø 1.594-1.751	Ø 1.752-2.375	
P1	P1 DP2000	0.0024	0.0028	0.0033	0.0037	0.0043	0.0047	0.0051	1350
P2	P1 DP2000	0.0024	0.0028	0.0033	0.0039	0.0043	0.0047	0.0051	1325
P3	P2 DP3000	0.0047	0.0055	0.0067	0.0075	0.0087	0.0087	0.010	1025
P4	P2 DP3000	0.0047	0.0051	0.0063	0.0075	0.0087	0.0087	0.010	620
P5	P2 DP3000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	590
P6	P2 DP3000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	660
P7	P2 DP3000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	630
P8	P2 DP3000	0.0047	0.0055	0.0067	0.0075	0.0087	0.0087	0.010	590
P11	P2 DP3000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	610
P12	P2 DP3000	0.0030	0.0035	0.0043	0.0047	0.0055	0.0059	0.0067	360
M1	P2 DP3000	0.0033	0.0039	0.0047	0.0055	0.0063	0.0067	0.0075	800
M2	P2 DP3000	0.0031	0.0035	0.0043	0.0051	0.0055	0.0059	0.0067	650
M3	MP DS2050	0.0026	0.0030	0.0035	0.0039	0.0047	0.0051	0.0055	495
M4	MP DS2050	0.0022	0.0026	0.0031	0.0035	0.0039	0.0043	0.0047	395
M5	MP DS2050	0.0022	0.0026	0.0031	0.0035	0.0039	0.0043	0.0047	330
K1	P2 DP2000	0.0047	0.0055	0.0067	0.0079	0.0087	0.0094	0.010	740
K2	P2 DP2000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	640
K3	P2 DP2000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	550
K4	P2 DP2000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	520
K5	P2 DP2000	0.0039	0.0043	0.0055	0.0063	0.0071	0.0075	0.0087	310
N1	P1 T250D	0.0047	0.0055	0.0067	0.0079	0.0087	0.0094	0.010	1025
N2	P1 T250D	0.0047	0.0055	0.0067	0.0079	0.0087	0.0094	0.010	650
N3	P1 T250D	0.0047	0.0055	0.0067	0.0079	0.0087	0.0094	0.010	435
N11	P1 T250D	0.0047	0.0055	0.0067	0.0079	0.0087	0.0094	0.010	860
S1	MP DS2050	0.0035	0.0043	0.0051	0.0059	0.0067	0.0071	0.0079	175
S2	MP DS2050	0.0035	0.0043	0.0051	0.0059	0.0067	0.0071	0.0079	140
S3	MP DS2050	0.0033	0.0039	0.0047	0.0055	0.0063	0.0067	0.0075	120
S11	MP DS2050	0.0043	0.0047	0.0059	0.0067	0.0075	0.0079	0.0094	250
S12	MP DS2050	0.0043	0.0047	0.0059	0.0067	0.0075	0.0079	0.0094	190
S13	MP DS2050	0.0035	0.0043	0.0051	0.0059	0.0067	0.0071	0.0079	150
H3	P1 T250D	0.0020	0.0024	0.0028	0.0031	0.0037	0.0039	0.0043	195
H5	P1 T250D	0.0030	0.0035	0.0043	0.0047	0.0055	0.0059	0.0067	365
H7	P1 T250D	0.0020	0.0024	0.0028	0.0031	0.0037	0.0039	0.0043	195
H8	P1 T250D	0.0024	0.0028	0.0033	0.0037	0.0043	0.0043	0.0051	365
H11	P1 T250D	0.0030	0.0035	0.0043	0.0047	0.0055	0.0059	0.0067	465
H12	P1 T250D	0.0024	0.0028	0.0033	0.0037	0.0043	0.0043	0.0051	425
H21	P1 T250D	0.0024	0.0028	0.0033	0.0037	0.0043	0.0043	0.0051	365

SMG = Seco material group

f = in/rev

v_c = sf/min

All cutting data are start values

Cutting data – SD523 Cutting speed – Inch

SMG	V _c			
	DP2000	DP3000	T250D	DS2050
P1	1350	1225	880	1225
P2	1325	1175	850	1175
P3	1125	1025	730	1025
P4	760	620	390	—
P5	720	590	375	—
P6	810	660	420	—
P7	770	630	395	—
P8	720	590	375	—
P11	750	610	385	—
P12	440	360	225	—
M1	—	800	450	—
M2	—	650	365	—
M3	—	495	280	495
M4	—	370	210	395
M5	—	310	175	330
K1	740	710	—	—
K2	640	610	—	—
K3	550	520	—	—
K4	520	495	—	—
K5	310	295	—	—
N1	—	1175	1025	1025
N2	—	760	650	650
N3	—	510	435	435
N11	—	990	860	860
S1	—	—	110	175
S2	—	—	85	140
S3	—	—	85	120
S11	—	—	215	250
S12	—	—	165	190
S13	—	—	130	150
H3	—	200	195	—
H5	—	370	365	—
H7	—	200	195	—
H8	—	370	365	—
H11	—	470	465	—
H12	—	215	425	—
H21	—	370	365	—

SMG = Seco material group
 v_c = sf/min
 All cutting data are start values

Cutting data – SD524 Ø0.590-2.375 – Inch

SMG		f							v _c
		Ø 0.590-0.767	Ø 0.768-0.885	Ø 0.886-1.121	Ø 1.122-1.357	Ø1.358-1.593	Ø 1.594-1.751	Ø 1.752-2.375	
P1	P1 DP2000	0.0024	0.0028	0.0033	0.0037	0.0043	0.0047	0.0051	1250
P2	P1 DP2000	0.0024	0.0028	0.0033	0.0039	0.0043	0.0047	0.0051	1225
P3	P2 DP3000	0.0047	0.0055	0.0067	0.0075	0.0087	0.0087	0.010	940
P4	P2 DP3000	0.0047	0.0051	0.0063	0.0075	0.0087	0.0087	0.010	550
P5	P2 DP3000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	520
P6	P2 DP3000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	580
P7	P2 DP3000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	550
P8	P2 DP3000	0.0047	0.0055	0.0067	0.0075	0.0087	0.0087	0.010	520
P11	P2 DP3000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	540
P12	P2 DP3000	0.0030	0.0035	0.0043	0.0047	0.0055	0.0059	0.0067	315
M1	P2 DP3000	0.0033	0.0039	0.0047	0.0055	0.0063	0.0067	0.0075	770
M2	P2 DP3000	0.0031	0.0035	0.0043	0.0051	0.0055	0.0059	0.0067	620
M3	MP DS2050	0.0026	0.0030	0.0035	0.0039	0.0047	0.0051	0.0055	470
M4	MP DS2050	0.0022	0.0026	0.0031	0.0035	0.0039	0.0043	0.0047	345
M5	MP DS2050	0.0022	0.0026	0.0031	0.0035	0.0039	0.0043	0.0047	290
K1	P2 DP2000	0.0047	0.0055	0.0067	0.0079	0.0087	0.0094	0.010	690
K2	P2 DP2000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	600
K3	P2 DP2000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	500
K4	P2 DP2000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	480
K5	P2 DP2000	0.0039	0.0043	0.0055	0.0063	0.0071	0.0075	0.0087	285
N1	P1 T250D	0.0047	0.0055	0.0067	0.0079	0.0087	0.0094	0.010	880
N2	P1 T250D	0.0047	0.0055	0.0067	0.0079	0.0087	0.0094	0.010	570
N3	P1 T250D	0.0047	0.0055	0.0067	0.0079	0.0087	0.0094	0.010	380
N11	P1 T250D	0.0047	0.0055	0.0067	0.0079	0.0087	0.0094	0.010	750
S1	MP DS2050	0.0035	0.0043	0.0051	0.0059	0.0067	0.0071	0.0079	155
S2	MP DS2050	0.0035	0.0043	0.0051	0.0059	0.0067	0.0071	0.0079	125
S3	MP DS2050	0.0033	0.0039	0.0047	0.0055	0.0063	0.0067	0.0075	110
S11	MP DS2050	0.0043	0.0047	0.0059	0.0067	0.0075	0.0079	0.0094	225
S12	MP DS2050	0.0043	0.0047	0.0059	0.0067	0.0075	0.0079	0.0094	175
S13	MP DS2050	0.0035	0.0043	0.0051	0.0059	0.0067	0.0071	0.0079	135
H3	P1 T250D	0.0020	0.0024	0.0028	0.0031	0.0037	0.0039	0.0043	170
H5	P1 T250D	0.0030	0.0035	0.0043	0.0047	0.0055	0.0059	0.0067	315
H7	P1 T250D	0.0020	0.0024	0.0028	0.0031	0.0037	0.0039	0.0043	170
H8	P1 T250D	0.0024	0.0028	0.0033	0.0037	0.0043	0.0043	0.0051	315
H11	P1 T250D	0.0030	0.0035	0.0043	0.0047	0.0055	0.0059	0.0067	405
H12	P1 T250D	0.0024	0.0028	0.0033	0.0037	0.0043	0.0043	0.0051	370
H21	P1 T250D	0.0024	0.0028	0.0033	0.0037	0.0043	0.0043	0.0051	315

SMG = Seco material group

f = in/rev

v_c = sf/min

All cutting data are start values

Cutting data – SD524 Cutting speed – Inch

SMG	V _c			
	DP2000	DP3000	T250D	DS2050
P1	1250	1125	760	1125
P2	1225	1100	740	1100
P3	1050	940	640	940
P4	640	550	340	—
P5	610	520	325	—
P6	680	580	365	—
P7	640	550	345	—
P8	610	520	325	—
P11	620	540	335	—
P12	370	315	195	—
M1	—	770	395	—
M2	—	620	315	—
M3	—	470	240	470
M4	—	355	180	345
M5	—	295	150	290
K1	690	650	—	—
K2	600	570	—	—
K3	500	480	—	—
K4	480	455	—	—
K5	285	270	—	—
N1	—	1050	880	880
N2	—	670	570	570
N3	—	445	380	380
N11	—	870	750	750
S1	—	—	95	155
S2	—	—	75	125
S3	—	—	75	110
S11	—	—	190	225
S12	—	—	145	175
S13	—	—	110	135
H3	—	175	170	—
H5	—	325	315	—
H7	—	175	170	—
H8	—	325	315	—
H11	—	415	405	—
H12	—	190	370	—
H21	—	325	315	—

SMG = Seco material group
 v_c = sf/min
 All cutting data are start values

Cutting data – SD525 Ø0.750-2.000 – Inch

SMG		f					v _c
		Ø 0.768-0.885	Ø 0.886-1.121	Ø 1.122-1.357	Ø1.358-1.593	Ø 1.594-2.000	
P1	P2 DP3000	0.0028	0.0033	0.0037	0.0043	0.0047	1050
P2	P2 DP3000	0.0028	0.0033	0.0039	0.0043	0.0047	1025
P3	P2 DP3000	0.0055	0.0067	0.0075	0.0087	0.0087	870
P4	P2 DP3000	0.0051	0.0063	0.0075	0.0087	0.0087	490
P5	P2 DP3000	0.0051	0.0063	0.0071	0.0079	0.0087	465
P6	P2 DP3000	0.0051	0.0063	0.0071	0.0079	0.0087	520
P7	P2 DP3000	0.0051	0.0063	0.0071	0.0079	0.0087	495
P8	P2 DP3000	0.0055	0.0067	0.0075	0.0087	0.0087	465
P11	P2 DP3000	0.0051	0.0063	0.0071	0.0079	0.0087	480
P12	P2 DP3000	0.0035	0.0043	0.0047	0.0047	0.0059	280
M1	P2 DP3000	0.0039	0.0047	0.0055	0.0063	0.0067	740
M2	P2 DP3000	0.0035	0.0043	0.0051	0.0055	0.0059	600
M3	MP DS2050	0.0030	0.0035	0.0039	0.0047	0.0051	455
M4	MP DS2050	0.0026	0.0031	0.0035	0.0039	0.0043	310
M5	MP DS2050	0.0026	0.0031	0.0035	0.0039	0.0043	260
K1	P2 DP3000	0.0055	0.0067	0.0079	0.0087	0.0094	610
K2	P2 DP3000	0.0051	0.0063	0.0071	0.0079	0.0087	530
K3	P2 DP3000	0.0051	0.0063	0.0071	0.0079	0.0087	450
K4	P2 DP3000	0.0051	0.0063	0.0071	0.0079	0.0087	430
K5	P2 DP3000	0.0043	0.0055	0.0063	0.0071	0.0075	255
N1	P1 T250D	0.0055	0.0067	0.0079	0.0087	0.0094	780
N2	P1 T250D	0.0055	0.0067	0.0079	0.0087	0.0094	500
N3	P1 T250D	0.0055	0.0067	0.0079	0.0087	0.0094	335
N11	P1 T250D	0.0055	0.0067	0.0079	0.0087	0.0094	660
S1	MP DS2050	0.0043	0.0051	0.0059	0.0067	0.0071	145
S2	MP DS2050	0.0043	0.0051	0.0059	0.0067	0.0071	115
S3	MP DS2050	0.0039	0.0047	0.0055	0.0063	0.0067	100
S11	MP DS2050	0.0047	0.0059	0.0067	0.0075	0.0079	210
S12	MP DS2050	0.0047	0.0059	0.0067	0.0075	0.0079	160
S13	MP DS2050	0.0043	0.0051	0.0059	0.0067	0.0071	125
H3	P1 T250D	0.0024	0.0028	0.0033	0.0037	0.0039	150
H5	P1 T250D	0.0035	0.0043	0.0047	0.0055	0.0059	280
H7	P1 T250D	0.0024	0.0028	0.0033	0.0037	0.0039	150
H8	P1 T250D	0.0028	0.0033	0.0037	0.0043	0.0043	280
H11	P1 T250D	0.0035	0.0043	0.0047	0.0055	0.0059	355
H12	P1 T250D	0.0028	0.0033	0.0037	0.0043	0.0043	325
H21	P1 T250D	0.0028	0.0033	0.0037	0.0043	0.0043	280

SMG = Seco material group

f = in/rev

v_c = sf/min

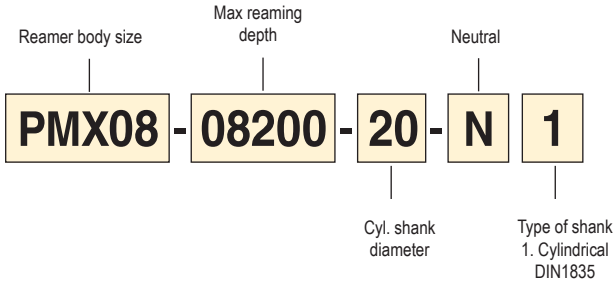
All cutting data are start values

Cutting data – SD525 Cutting speed – Inch

SMG	V _c			
	DP2000	DP3000	T250D	DS2050
P1	1150	1050	680	1050
P2	1125	1025	660	1025
P3	970	870	570	870
P4	540	490	300	—
P5	520	465	290	—
P6	580	520	325	—
P7	550	495	305	—
P8	520	465	290	—
P11	530	480	295	—
P12	315	285	175	—
M1	—	740	350	—
M2	—	600	280	—
M3	—	455	215	455
M4	—	340	160	310
M5	—	285	135	260
K1	650	610	—	—
K2	560	530	—	—
K3	475	450	—	—
K4	450	430	—	—
K5	270	255	—	—
N1	—	930	780	780
N2	—	600	500	500
N3	—	400	335	335
N11	—	780	660	660
S1	—	—	85	145
S2	—	—	65	115
S3	—	—	65	100
S11	—	—	165	210
S12	—	—	130	160
S13	—	—	100	125
H3	—	155	150	—
H5	—	290	280	—
H7	—	155	150	—
H8	—	290	280	—
H11	—	370	355	—
H12	—	170	325	—
H21	—	290	280	—

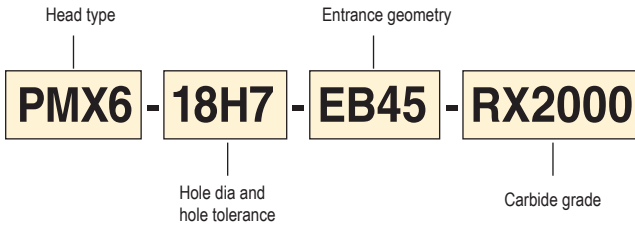
SMG = Seco material group
 v_c = sf/min
 All cutting data are start values

Code key tool shank

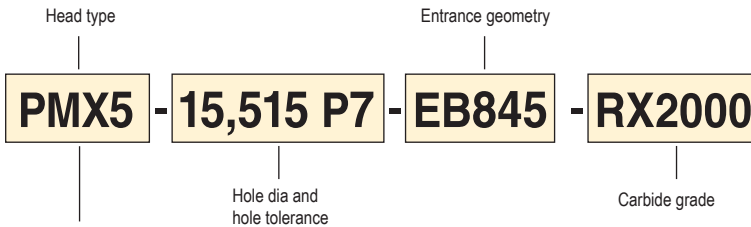


Precimaster Plus toolholders are suitable for both blind and through holes.

Code key head



Code key head intermediate diameter



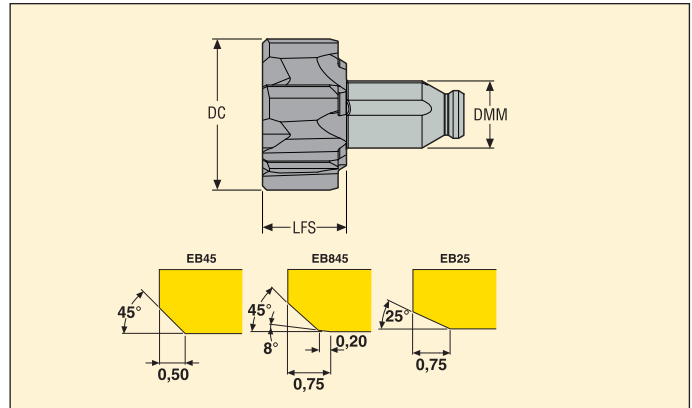
- PMX5 : Straight flutes design, suitable for blind and through bores.
- PMX6 : Helical flutes design, suitable for through bores only.
- PMX8 : Straight flutes expandable, suitable for blind and through bores

The left hand flutes design improves the action of pushing the chips forward..

Heads for through and blind holes \varnothing 8-32 mm



- For cutting data see page(s) 234-235
- For choice of lead geometry EB45, EB845 or EB25 see page(s) 233



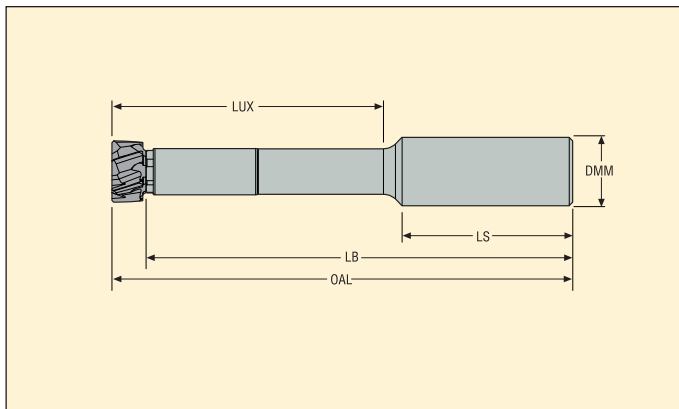
DC	Drill size*	Designation		LFS	DMM	Body size	Geometries			Grades				
							EB45	EB845	EB25	H15	CP20	RX2000	CF	RX1500
8,0	7,8/7,9	PMX5-8H7-EB45	6	6,0	4,5	PMX05-XX	■	□	□	□	□	03123158		
9,0	8,8/8,9	PMX5-9H7-EB45	6	6,0	4,5	PMX05-XX	■	□	□	□	□	03123159		
10,0	9,8/9,9	PMX5-10H7-EB45	6	7,0	6,0	PMX06-xx	■	□	□	□	□	02965840	02965923	□
11,0	10,8/10,9	PMX5-11H7-EB45	6	7,0	6,0	PMX06-xx	■	□	□	□	□	02925754	□	□
12,0	11,8/11,908	PMX5-12H7-EB45	6	7,0	6,0	PMX06-xx	■	□	□	□	□	02925755	02925041	□
13,0	12,8/12,9	PMX5-13H7-EB45	6	7,0	6,0	PMX06-xx	■	□	□	□	□	02925756	02925042	□
14,0	13,8/13,891	PMX5-14H7-EB45	6	7,0	6,0	PMX06-xx	■	□	□	□	□	02925757	02925043	□
15,0	14,8/14,9	PMX5-15H7-EB45	6	10,0	8,0	PMX08-xx	■	□	□	□	□	02925758	02925044	□
16,0	15,8/15,9	PMX5-16H7-EB45	6	10,0	8,0	PMX08-xx	■	□	□	□	□	02925759	02925045	□
17,0	16,8/16,9	PMX5-17H7-EB45	6	10,0	8,0	PMX08-xx	■	□	□	□	□	02925760	02925046	□
18,0	17,8/17,9	PMX5-18H7-EB45	6	10,0	8,0	PMX08-xx	■	□	□	□	□	02925761	02925047	□
19,0	18,8/18,9	PMX5-19H7-EB45	6	10,0	8,0	PMX08-xx	■	□	□	□	□	02925762	□	□
20,0	19,8/19,9	PMX5-20H7-EB45	6	10,0	8,0	PMX08-xx	■	□	□	□	□	02925763	02925048	□
21,0	20,8/20,9	PMX5-21H7-EB45	6	10,0	8,0	PMX08-xx	■	□	□	□	□	02925764	□	□
22,0	21,8/21,9	PMX5-22H7-EB45	8	12,0	12,0	PMX12-xx	■	□	□	□	□	02925765	02925049	□
23,0	22,8/22,9	PMX5-23H7-EB45	8	12,0	12,0	PMX12-xx	■	□	□	□	□	02925766	□	□
24,0	23,813/23,9	PMX5-24H7-EB45	8	12,0	12,0	PMX12-xx	■	□	□	□	□	02925767	02925050	□
25,0	24,8/24,9	PMX5-25H7-EB45	8	12,0	12,0	PMX12-xx	■	□	□	□	□	02925768	02925051	□
26,0	25,8/25,9	PMX5-26H7-EB45	8	12,0	12,0	PMX12-xx	■	□	□	□	□	02925769	02925052	□
27,0	26,8/26,9	PMX5-27H7-EB45	8	12,0	12,0	PMX12-xx	■	□	□	□	□	02925770	□	□
28,0	27,8/27,9	PMX5-28H7-EB45	8	12,0	12,0	PMX12-xx	■	□	□	□	□	02925771	02925053	□
29,0	28,8/28,9	PMX5-29H7-EB45	8	12,0	12,0	PMX12-xx	■	□	□	□	□	02925772	□	□
30,0	29,8/29,9	PMX5-30H7-EB45	8	12,0	12,0	PMX12-xx	■	□	□	□	□	02925773	02925054	□
31,0	30,8/30,9	PMX5-31H7-EB45	8	12,0	12,0	PMX12-xx	■	□	□	□	□	02925774	□	□
32,0	31,8/31,9	PMX5-32H7-EB45	8	12,0	12,0	PMX12-xx	■	□	□	□	□	02925775	02925055	□

■ Stock standard, □ Non stock standard. Subject to change refer to current price- and stock-list.

Shanks for through and blind holes \varnothing 7,75-60,500 mm



- For cutting data see page(s) 234-235
- For choice of lead geometry EB45, EB45 or EB25 see page(s) 233



DC	Tool holder material	Ordering and Product No.	Designation	Dimensions in mm				
				OAL	LB	LS	LUX	DMM
7,75-9,999	Steel	03123012	PMX05-02800-10N1	69	63	40	28	10
	Steel	02929923	PMX05-04100-10N1	84	78	40	41	10
	Steel	03123013	PMX05-10000-10N1	143	137	40	100	10
10,0-14,499	Steel	02925828	PMX06-03700-12N1	84	77	45	37	12
	Steel	02925829	PMX06-05700-12N1	104	97	45	57	12
	Steel	02925830	PMX06-12000-12N1	167	160	45	120	12
	Carbide	02925831	PMX06HM-12000-12N1	167	160	45	120	12
14,5-21,499	Steel	02925832	PMX08-04600-20N1	99	89	50	46	20
	Steel	02925833	PMX08-08200-20N1	135	125	50	82	20
	Steel	02925834	PMX08-14500-20N1	198	188	50	145	20
	Carbide	02925835	PMX08HM-14500-20N1	198	188	50	145	20
21,5-32,499	Steel	02925836	PMX12-06800-25N1	127	115	56	68	25
	Steel	02925837	PMX12-10400-25N1	163	151	56	104	25
	Steel	02925838	PMX12-17000-25N1	229	217	56	170	25
	Carbide	02925839	PMX12HM-17000-25N1	229	217	56	170	25
32,5-60,5	Steel	02925840	PMX16-06300-32N1	124	110	61	63	32
	Steel	02925841	PMX16-12700-32N1	188	174	61	127	32
	Steel	02925842	PMX16-17000-32N1	231	217	61	170	32
	Carbide	02925843	PMX16HM-17000-32N1	231	217	61	170	32

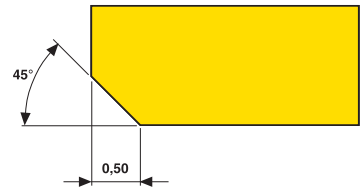
Spare Parts

For shank	For \varnothing (mm)	Key	Plug, through hole	Clamp kit	Coolant kit	Plug, blind hole
PMX05	7,75-9,999	1.5SMS795	ST05	PMX05-CLKI	RT05-KI	SB05
PMX06	10-14,499	2SMS795	ST06	PMX06-CLKI	RT06-KI	SB06
PMX08	14,5-21,499	2.5SMS795	ST08	PMX08-CLKI	RT08-KI	SB08
PMX12	21,5-32,499	4SMS795	ST12	PMX12-CLKI	RT12-KI	SB12
PMX16	32,5-60	5SMS795	ST16	PMX16-CLKI	-	SB16

Geometry choice – Applications

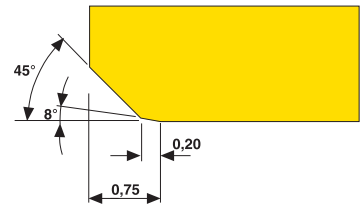
Lead geometry - EB45

Chip control +++
 Surface Finish + (R_a 0,8 - 1,2 μm)
 Versatile



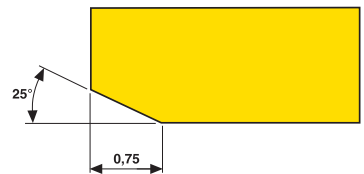
Lead geometry - EB845

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



Lead geometry - EB25

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



Cutting data – PM Plus...-EB845

SMG		a _p (Ø)		f		v _c				
		z=6	z=8	z=6	z=8	H15	CP20	RX2000	CF	RX1500
P3	PMX5/PMX6/PMX8-EB845	0,10-0,20	0,1-0,30	0,20-0,90	0,3-1,20	-	60 (30-100)	80 (30-150)	180 (90-200)	220 (120-300)
P4	PMX5/PMX6/PMX8-EB845	0,10-0,20	0,1-0,30	0,20-0,70	0,30-0,90	-	50 (30-80)	60 (30-120)	120 (80-150)	180 (90-200)
P5	PMX5/PMX6/PMX8-EB845	0,10-0,20	0,1-0,30	0,20-0,70	0,30-0,90	20 (10-25)	50 (30-80)	60 (30-120)	120 (80-150)	180 (90-200)
P6	PMX5/PMX6/PMX8-EB845	0,10-0,20	0,1-0,30	0,20-0,70	0,30-0,90	20 (10-25)	50 (30-80)	60 (30-120)	120 (80-150)	180 (90-200)
P7	PMX5/PMX6/PMX8-EB845	0,10-0,20	0,1-0,30	0,20-0,70	0,30-0,90	20 (10-25)	50 (30-80)	60 (30-120)	120 (80-150)	180 (90-200)
P8	PMX5/PMX6/PMX8-EB845	0,10-0,20	0,1-0,30	0,20-0,70	0,30-0,90	15 (10-20)	35 (20-60)	40 (20-80)	80 (60-120)	120 (80-180)
P11	PMX5/PMX6/PMX8-EB845	0,10-0,20	0,1-0,30	0,20-0,70	0,30-0,90	15 (10-20)	35 (20-60)	40 (20-80)	80 (60-120)	120 (80-180)
M1	PMX5/PMX6/PMX8-EB845	0,08-0,15	0,10-0,20	0,20-0,60	0,30-0,80	12 (9-15)	25 (15-40)	35 (20-70)	-	-
M2	PMX5/PMX6/PMX8-EB845	0,08-0,15	0,10-0,20	0,20-0,60	0,30-0,80	-	25 (15-40)	35 (20-70)	-	-
M3	PMX5/PMX6/PMX8-EB845	0,08-0,15	0,10-0,20	0,20-0,60	0,30-0,80	-	25 (15-40)	35 (20-70)	-	-
M4	PMX5/PMX6/PMX8-EB845	0,08-0,15	0,10-0,20	0,20-0,60	0,30-0,80	-	20 (10-30)	25 (15-50)	-	-
M5	PMX5/PMX6/PMX8-EB845	0,08-0,15	0,10-0,20	0,20-0,60	0,30-0,80	-	20 (10-30)	25 (15-50)	-	-
K1	PMX5/PMX6/PMX8-EB845	0,10-0,20	0,10-0,25	0,30-0,90	0,3-1,20	25 (15-30)	60 (40-100)	80 (30-150)	-	220 (120-300)
K2	PMX5/PMX6/PMX8-EB845	0,10-0,20	0,10-0,25	0,30-0,90	0,3-1,20	-	25 (20-40)	40 (30-70)	-	80 (50-100)
K3	PMX5/PMX6/PMX8-EB845	0,10-0,20	0,10-0,25	0,30-0,90	0,3-1,20	25 (15-30)	60 (40-100)	80 (30-150)	-	220 (120-300)
K4	PMX5/PMX6/PMX8-EB845	0,10-0,20	0,10-0,25	0,30-0,90	0,3-1,20	25 (15-30)	45 (30-70)	70 (40-120)	100 (70-150)	150 (80-200)
K5	PMX5/PMX6/PMX8-EB845	0,10-0,20	0,10-0,25	0,30-0,90	0,3-1,20	25 (15-30)	45 (30-70)	70 (40-120)	100 (70-150)	150 (80-200)
K6	PMX5/PMX6/PMX8-EB845	0,10-0,20	0,10-0,25	0,30-0,90	0,3-1,20	-	60 (40-100)	80 (30-150)	-	220 (120-300)
K7	PMX5/PMX6/PMX8-EB845	0,10-0,20	0,10-0,25	0,30-0,90	0,3-1,20	-	60 (40-100)	80 (30-150)	-	220 (120-300)
S1	PMX5/PMX6/PMX8-EB845	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	-	20 (10-25)	20 (10-25)	-	-
S2	PMX5/PMX6/PMX8-EB845	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	-	20 (10-25)	20 (10-25)	-	-
S3	PMX5/PMX6/PMX8-EB845	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	-	20 (10-25)	20 (10-25)	-	-
S11	PMX5/PMX6/PMX8-EB845	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	20 (15-30)	30 (15-40)	40 (20-50)	-	-
S12	PMX5/PMX6/PMX8-EB845	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	20 (15-30)	30 (15-40)	40 (20-50)	-	-
S13	PMX5/PMX6/PMX8-EB845	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	20 (15-30)	30 (15-40)	40 (20-50)	-	-
H3	PMX5/PMX6/PMX8-EB845	0,08-0,15	0,10-0,15	0,20-0,40	0,30-0,55	-	-	10 (8-15)	-	-
H5	PMX5/PMX6/PMX8-EB845	0,08-0,15	0,10-0,15	0,20-0,40	0,30-0,55	-	-	10 (8-15)	-	-
H7	PMX5/PMX6/PMX8-EB845	0,08-0,15	0,10-0,15	0,20-0,40	0,30-0,55	-	-	10 (8-15)	-	-
H8	PMX5/PMX6/PMX8-EB845	0,08-0,15	0,10-0,15	0,20-0,40	0,30-0,55	-	-	10 (8-15)	-	-
H11	PMX5/PMX6/PMX8-EB845	0,08-0,15	0,10-0,15	0,20-0,40	0,30-0,55	-	-	10 (8-15)	-	-
H12	PMX5/PMX6/PMX8-EB845	0,08-0,15	0,10-0,15	0,20-0,40	0,30-0,55	-	-	10 (8-15)	-	-
H21	PMX5/PMX6/PMX8-EB845	0,08-0,15	0,10-0,15	0,20-0,40	0,30-0,55	-	-	10 (8-15)	-	-
H31	PMX5/PMX6/PMX8-EB845	0,08-0,15	0,10-0,15	0,20-0,40	0,30-0,55	-	-	10 (8-15)	-	-
PM1	PMX5/PMX6/PMX8-EB845	0,10-0,20	0,1-0,30	0,20-0,60	0,30-0,80	-	50 (30-80)	70 (40-100)	-	-
PM2	PMX5/PMX6/PMX8-EB845	0,10-0,20	0,1-0,30	0,20-0,60	0,30-0,80	-	50 (30-80)	70 (40-100)	-	-
PM3	PMX5/PMX6/PMX8-EB845	0,10-0,20	0,1-0,30	0,20-0,60	0,30-0,80	-	50 (30-80)	70 (40-100)	-	-

Cutting data – PM Plus...-EB25

SMG		a _p (Ø)		f		v _c				
		z=6	z=8	z=6	z=8	H15	CP20	RX2000	CF	RX1500
P1	PMX5/PMX6/PMX8-EB25	0,10-0,20	0,1-0,30	0,80-1,80	1-2,40	25 (15-30)	60 (30-100)	80 (30-150)	180 (90-200)	220 (120-300)
P2	PMX5/PMX6/PMX8-EB25	0,10-0,20	0,1-0,30	0,80-1,80	1-2,40	25 (15-30)	60 (30-100)	80 (30-150)	180 (90-200)	220 (120-300)
P3	PMX5/PMX6/PMX8-EB25	0,10-0,20	0,1-0,30	0,80-1,80	1-2,40	25 (15-30)	60 (30-100)	80 (30-150)	180 (90-200)	220 (120-300)
P4	PMX5/PMX6/PMX8-EB25	0,10-0,20	0,1-0,30	0,80-1,80	1-2,40	20 (10-25)	50 (30-80)	60 (30-120)	120 (80-150)	180 (90-200)
P5	PMX5/PMX6/PMX8-EB25	0,10-0,20	0,1-0,30	0,80-1,80	1-2,40	20 (10-25)	50 (30-80)	60 (30-120)	120 (80-150)	180 (90-200)
P6	PMX5/PMX6/PMX8-EB25	0,10-0,20	0,1-0,30	0,80-1,80	1-2,40	20 (10-25)	50 (30-80)	60 (30-120)	120 (80-150)	180 (90-200)
P7	PMX5/PMX6/PMX8-EB25	0,10-0,20	0,1-0,30	0,80-1,80	1-2,40	20 (10-25)	50 (30-80)	60 (30-120)	120 (80-150)	180 (90-200)
M1	PMX5/PMX6/PMX8-EB25	0,08-0,15	0,10-0,20	0,8-1,20	1,0-2,0	-	25 (15-40)	35 (20-70)	-	-
K1	PMX5/PMX6/PMX8-EB25	0,10-0,20	0,10-0,25	0,80-2,20	1-2,8	25 (15-30)	60 (40-100)	80 (30-150)	-	220 (120-300)
K2	PMX5/PMX6/PMX8-EB25	0,10-0,20	0,10-0,25	0,80-1,80	1-2,40	-	25 (20-40)	40 (30-70)	-	80 (50-100)
K3	PMX5/PMX6/PMX8-EB25	0,10-0,20	0,10-0,25	0,80-2,20	1-2,8	25 (15-30)	60 (40-100)	80 (30-150)	-	220 (120-300)
K4	PMX5/PMX6/PMX8-EB25	0,10-0,20	0,10-0,25	0,80-2,20	1-2,8	25 (15-30)	45 (30-70)	70 (40-120)	100 (70-150)	150 (80-200)
K5	PMX5/PMX6/PMX8-EB25	0,10-0,20	0,10-0,25	0,80-2,20	1-2,8	25 (15-30)	45 (30-70)	70 (40-120)	100 (70-150)	150 (80-200)
K6	PMX5/PMX6/PMX8-EB25	0,10-0,20	0,10-0,25	0,80-1,80	1-2,40	-	60 (40-100)	80 (30-150)	-	220 (120-300)
K7	PMX5/PMX6/PMX8-EB25	0,10-0,20	0,10-0,25	0,80-1,80	1-2,40	-	60 (40-100)	80 (30-150)	-	220 (120-300)
N1	PMX5/PMX6/PMX8-EB25	0,10-0,20	0,10-0,30	0,80-2,20	1-2,8	50 (30-100)	-	-	-	-
N2	PMX5/PMX6/PMX8-EB25	0,10-0,20	0,10-0,30	0,80-2,20	1-2,8	50 (30-100)	-	-	-	-
N3	PMX5/PMX6/PMX8-EB25	0,10-0,20	0,10-0,30	0,80-2,20	1-2,8	50 (30-100)	-	-	-	-
N11	PMX5/PMX6/PMX8-EB25	0,10-0,20	0,10-0,30	0,80-2,20	1-2,8	50 (30-100)	-	-	-	-
PM1	PMX5/PMX6/PMX8-EB25	0,10-0,20	0,1-0,30	0,50-1,80	0,80-2	-	50 (30-80)	70 (40-100)	-	-
PM2	PMX5/PMX6/PMX8-EB25	0,10-0,20	0,1-0,30	0,50-1,80	0,80-2	-	50 (30-80)	70 (40-100)	-	-
PM3	PMX5/PMX6/PMX8-EB25	0,10-0,20	0,1-0,30	0,50-1,80	0,80-2	-	50 (30-80)	70 (40-100)	-	-

Cutting data – PM Plus...-EB45

SMG		a _p (Ø)		f		v _c				
		z=6	z=8	z=6	z=8	H15	CP20	RX2000	CF	RX1500
P1	PMX5/PMX6/PMX8-EB45	0,10-0,20	0,1-0,30	0,30-0,90	0,40-1,20	25 (15-30)	60 (30-100)	80 (30-150)	180 (90-200)	220 (120-300)
P2	PMX5/PMX6/PMX8-EB45	0,10-0,20	0,1-0,30	0,30-0,90	0,40-1,20	25 (15-30)	60 (30-100)	80 (30-150)	180 (90-200)	220 (120-300)
P3	PMX5/PMX6/PMX8-EB45	0,10-0,20	0,1-0,30	0,30-0,90	0,40-1,20	25 (15-30)	60 (30-100)	80 (30-150)	180 (90-200)	220 (120-300)
P4	PMX5/PMX6/PMX8-EB45	0,10-0,20	0,1-0,30	0,20-0,70	0,3-1	20 (10-25)	50 (30-80)	60 (30-120)	120 (80-150)	180 (90-200)
P5	PMX5/PMX6/PMX8-EB45	0,10-0,20	0,1-0,30	0,20-0,70	0,3-1	20 (10-25)	50 (30-80)	60 (30-120)	120 (80-150)	180 (90-200)
P6	PMX5/PMX6/PMX8-EB45	0,10-0,20	0,1-0,30	0,20-0,70	0,3-1	20 (10-25)	50 (30-80)	60 (30-120)	120 (80-150)	180 (90-200)
P7	PMX5/PMX6/PMX8-EB45	0,10-0,20	0,1-0,30	0,20-0,70	0,3-1	20 (10-25)	50 (30-80)	60 (30-120)	120 (80-150)	180 (90-200)
P8	PMX5/PMX6/PMX8-EB45	0,10-0,20	0,1-0,30	0,20-0,70	0,3-1	15 (10-20)	35 (20-60)	40 (20-80)	80 (60-120)	120 (80-180)
P11	PMX5/PMX6/PMX8-EB45	0,10-0,20	0,1-0,30	0,20-0,70	0,3-1	15 (10-20)	35 (20-60)	40 (20-80)	80 (60-120)	120 (80-180)
M1	PMX5/PMX6/PMX8-EB45	0,08-0,15	0,10-0,20	0,20-0,60	0,30-0,80	12 (9-15)	25 (15-40)	35 (20-70)	-	-
M2	PMX5/PMX6/PMX8-EB45	0,08-0,15	0,10-0,20	0,20-0,60	0,30-0,80	-	25 (15-40)	35 (20-70)	-	-
M3	PMX5/PMX6/PMX8-EB45	0,08-0,15	0,10-0,20	0,20-0,60	0,30-0,80	-	25 (15-40)	35 (20-70)	-	-
M4	PMX5/PMX6/PMX8-EB45	0,08-0,15	0,10-0,20	0,20-0,60	0,30-0,80	-	20 (10-30)	25 (15-50)	-	-
M5	PMX5/PMX6/PMX8-EB45	0,08-0,15	0,10-0,20	0,20-0,60	0,30-0,80	-	20 (10-30)	25 (15-50)	-	-
K1	PMX5/PMX6/PMX8-EB45	0,10-0,20	0,10-0,25	0,30-0,90	0,40-1,20	25 (15-30)	60 (40-100)	80 (30-150)	-	220 (120-300)
K2	PMX5/PMX6/PMX8-EB45	0,10-0,20	0,10-0,25	0,30-0,90	0,40-1,20	-	25 (20-40)	40 (30-70)	-	80 (50-100)
K3	PMX5/PMX6/PMX8-EB45	0,10-0,20	0,10-0,25	0,30-0,90	0,40-1,20	25 (15-30)	60 (40-100)	80 (30-150)	-	220 (120-300)
K4	PMX5/PMX6/PMX8-EB45	0,10-0,20	0,10-0,25	0,30-0,90	0,40-1,20	25 (15-30)	45 (30-70)	70 (40-120)	100 (70-150)	150 (80-200)
K5	PMX5/PMX6/PMX8-EB45	0,10-0,20	0,10-0,25	0,30-0,90	0,40-1,20	25 (15-30)	45 (30-70)	70 (40-120)	100 (70-150)	150 (80-200)
K6	PMX5/PMX6/PMX8-EB45	0,10-0,20	0,10-0,25	0,30-0,90	0,40-1,20	-	60 (40-100)	80 (30-150)	-	220 (120-300)
K7	PMX5/PMX6/PMX8-EB45	0,10-0,20	0,10-0,25	0,30-0,90	0,40-1,20	-	60 (40-100)	80 (30-150)	-	220 (120-300)
N1	PMX5/PMX6/PMX8-EB45	0,10-0,20	0,10-0,30	0,30-0,90	0,40-1,20	50 (30-100)	-	80 (30-150)	-	-
N2	PMX5/PMX6/PMX8-EB45	0,10-0,20	0,10-0,30	0,30-0,90	0,40-1,20	50 (30-100)	-	80 (30-150)	-	-
N3	PMX5/PMX6/PMX8-EB45	0,10-0,20	0,10-0,30	0,30-0,90	0,40-1,20	50 (30-100)	-	80 (30-150)	-	-
N11	PMX5/PMX6/PMX8-EB45	0,10-0,20	0,10-0,30	0,30-0,90	0,40-1,20	50 (30-100)	-	80 (30-150)	-	-
S1	PMX5/PMX6/PMX8-EB45	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	-	20 (10-25)	20 (10-25)	-	-
S2	PMX5/PMX6/PMX8-EB45	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	-	20 (10-25)	20 (10-25)	-	-
S3	PMX5/PMX6/PMX8-EB45	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	-	20 (10-25)	20 (10-25)	-	-
S11	PMX5/PMX6/PMX8-EB45	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	20 (15-30)	30 (15-40)	40 (20-50)	-	-
S12	PMX5/PMX6/PMX8-EB45	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	20 (15-30)	30 (15-40)	40 (20-50)	-	-
S13	PMX5/PMX6/PMX8-EB45	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	20 (15-30)	30 (15-40)	40 (20-50)	-	-
H3	PMX5/PMX6/PMX8-EB45	0,08-0,15	0,10-0,15	0,20-0,40	0,30-0,60	-	-	10 (8-15)	-	-
H5	PMX5/PMX6/PMX8-EB45	0,08-0,15	0,10-0,15	0,20-0,40	0,30-0,60	-	-	10 (8-15)	-	-
H7	PMX5/PMX6/PMX8-EB45	0,08-0,15	0,10-0,15	0,20-0,40	0,30-0,60	-	-	10 (8-15)	-	-
H8	PMX5/PMX6/PMX8-EB45	0,08-0,15	0,10-0,15	0,20-0,40	0,30-0,60	-	-	10 (8-15)	-	-
H11	PMX5/PMX6/PMX8-EB45	0,08-0,15	0,10-0,15	0,20-0,40	0,30-0,60	-	-	10 (8-15)	-	-
H12	PMX5/PMX6/PMX8-EB45	0,08-0,15	0,10-0,15	0,20-0,40	0,30-0,60	-	-	10 (8-15)	-	-
H21	PMX5/PMX6/PMX8-EB45	0,08-0,15	0,10-0,15	0,20-0,40	0,30-0,60	-	-	10 (8-15)	-	-
H31	PMX5/PMX6/PMX8-EB45	0,08-0,15	0,10-0,15	0,20-0,40	0,30-0,60	-	-	10 (8-15)	-	-
PM1	PMX5/PMX6/PMX8-EB45	0,10-0,20	0,1-0,30	0,30-0,90	0,40-1,20	-	50 (30-80)	70 (40-100)	-	-
PM2	PMX5/PMX6/PMX8-EB45	0,10-0,20	0,1-0,30	0,30-0,90	0,40-1,20	-	50 (30-80)	70 (40-100)	-	-
PM3	PMX5/PMX6/PMX8-EB45	0,10-0,20	0,1-0,30	0,30-0,90	0,40-1,20	-	50 (30-80)	70 (40-100)	-	-
TS1	PMX5/PMX6/PMX8-EB45	0,10-0,15	0,1-0,20	0,30-0,90	0,40-1,20	20 (15-25)	-	40 (20-60)	-	-
TS2	PMX5/PMX6/PMX8-EB45	0,10-0,15	0,1-0,20	0,30-0,90	0,40-1,20	20 (15-25)	-	40 (20-60)	-	-
TS3	PMX5/PMX6/PMX8-EB45	0,10-0,15	0,1-0,20	0,30-0,90	0,40-1,20	20 (15-25)	-	40 (20-60)	-	-
TS4	PMX5/PMX6/PMX8-EB45	0,10-0,15	0,1-0,20	0,30-0,90	0,40-1,20	20 (15-25)	-	40 (20-60)	-	-
TP1	PMX5/PMX6/PMX8-EB45	0,10-0,15	0,1-0,20	0,30-0,90	0,40-1,20	20 (15-25)	-	40 (20-60)	-	-
TP2	PMX5/PMX6/PMX8-EB45	0,10-0,15	0,1-0,20	0,30-0,90	0,40-1,20	20 (15-25)	-	40 (20-60)	-	-
TP3	PMX5/PMX6/PMX8-EB45	0,10-0,15	0,1-0,20	0,30-0,90	0,40-1,20	20 (15-25)	-	40 (20-60)	-	-
TP4	PMX5/PMX6/PMX8-EB45	0,10-0,15	0,1-0,20	0,30-0,90	0,40-1,20	20 (15-25)	-	40 (20-60)	-	-
GR1	PMX5/PMX6/PMX8-EB45	0,10-0,30	0,1-0,40	0,30-0,90	0,40-1,20	40 (80-20)	-	60 (30-120)	-	-

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

Cutting data – PM Plus...-EB45

SMG		a_p (Ø)		f			v_c			
		z=6	z=8 /z=10	z=6	z=8	z=10	RN2010	RM2020	RM2090	RS2090
M1	PMX5/PMX6/PMX8-EB45	0,08-0,15	0,10-0,20	0,20-0,60	0,30-0,80	0,35-1,00	-	25 (15-40)	40 (25-80)	-
M2	PMX5/PMX6/PMX8-EB45	0,08-0,15	0,10-0,20	0,20-0,60	0,30-0,80	0,35-1,00	-	25 (15-40)	40 (25-80)	-
M3	PMX5/PMX6/PMX8-EB45	0,08-0,15	0,10-0,20	0,20-0,60	0,30-0,80	0,35-1,00	-	25 (15-40)	40 (25-80)	-
M4	PMX5/PMX6/PMX8-EB45	0,08-0,15	0,10-0,20	0,20-0,60	0,30-0,80	0,35-1,00	-	20 (10-30)	30 (20-60)	-
M5	PMX5/PMX6/PMX8-EB45	0,08-0,15	0,10-0,20	0,20-0,60	0,30-0,80	0,35-1,00	-	20 (10-30)	30 (20-60)	-
N1	PMX5/PMX6/PMX8-EB45	0,10-0,20	0,10-0,30	0,30-0,90	0,40-1,20	0,50-1,50	50 (30-100)	-	-	-
N2	PMX5/PMX6/PMX8-EB45	0,10-0,20	0,10-0,30	0,30-0,90	0,40-1,20	0,50-1,50	50 (30-100)	-	-	-
N3	PMX5/PMX6/PMX8-EB45	0,10-0,20	0,10-0,30	0,30-0,90	0,40-1,20	0,50-1,50	50 (30-100)	-	-	-
N11	PMX5/PMX6/PMX8-EB45	0,10-0,20	0,10-0,30	0,30-0,90	0,40-1,20	0,50-1,50	50 (30-100)	-	-	-
S1	PMX5/PMX6/PMX8-EB45	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	0,35-1,00	-	-	-	25 (12-30)
S2	PMX5/PMX6/PMX8-EB45	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	0,35-1,00	-	-	-	25 (12-30)
S3	PMX5/PMX6/PMX8-EB45	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	0,35-1,00	-	-	-	25 (12-30)
S11	PMX5/PMX6/PMX8-EB45	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	0,35-1,00	-	-	-	50 (25-65)
S12	PMX5/PMX6/PMX8-EB45	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	0,35-1,00	-	-	-	50 (25-65)
S13	PMX5/PMX6/PMX8-EB45	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	0,35-1,00	-	-	-	50 (25-65)

Cutting data – PM Plus...-EB845

SMG		a_p (Ø)		f			v_c		
		z=6	z=8 /z=10	z=6	z=8	z=10	RM2020	RM2090	RS2090
M1	PMX5/PMX6/PMX8-EB845	0,08-0,15	0,10-0,20	0,20-0,60	0,30-0,80	0,35-1,00	25 (15-40)	35 (20-70)	-
M2	PMX5/PMX6/PMX8-EB845	0,08-0,15	0,10-0,20	0,20-0,60	0,30-0,80	0,35-1,00	25 (15-40)	35 (20-70)	-
M3	PMX5/PMX6/PMX8-EB845	0,08-0,15	0,10-0,20	0,20-0,60	0,30-0,80	0,35-1,00	25 (15-40)	35 (20-70)	-
M4	PMX5/PMX6/PMX8-EB845	0,08-0,15	0,10-0,20	0,20-0,60	0,30-0,80	0,35-1,00	20 (10-30)	25 (15-50)	-
M5	PMX5/PMX6/PMX8-EB845	0,08-0,15	0,10-0,20	0,20-0,60	0,30-0,80	0,35-1,00	20 (10-30)	25 (15-50)	-
S1	PMX5/PMX6/PMX8-EB845	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	0,35-1,00	-	-	25 (12-30)
S2	PMX5/PMX6/PMX8-EB845	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	0,35-1,00	-	-	25 (12-30)
S3	PMX5/PMX6/PMX8-EB845	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	0,35-1,00	-	-	25 (12-30)
S11	PMX5/PMX6/PMX8-EB845	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	0,35-1,00	-	-	50 (25-65)
S12	PMX5/PMX6/PMX8-EB845	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	0,35-1,00	-	-	50 (25-65)
S13	PMX5/PMX6/PMX8-EB845	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	0,35-1,00	-	-	50 (25-65)

SMG = Seco material group

a_p = mm

f = mm/rev

v_c = m/min

All cutting data are start values

Shrinkfit holders, general information

A Shrinkfit tool holder works in conjunction with a specialised heater e.g. EasyShrink®. The bore in which the tool locates is slightly undersized compared to the tool shank. Heating the holder opens up this bore, allowing the tool to be inserted. As the holder cools, the bore shrinks around the tool to create a concentric and rigid clamping. Bore size \varnothing 3 mm to 32 mm (\varnothing 0.11" to 1.25").

Thermal expansion:

Approx. 11 $\mu\text{m}/\text{m}/^\circ$ for steel and HSS

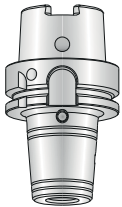
Approx. 6 $\mu\text{m}/\text{m}/^\circ$ for carbide and heavy metal

e.g.: \varnothing 20, heating from 20°C to 270°C, increase of 250°C:

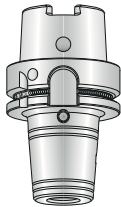
Steel: $0,020 \times 11 \times 250 = + 55 \mu\text{m}$

Carbide: $0,020 \times 6 \times 250 = + 30 \mu\text{m}$

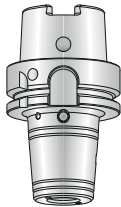
Shrinkfit holders, all available workpiece side types



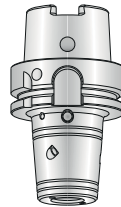
EPB 5603/5403



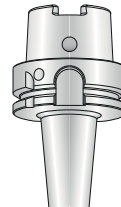
EPB 5403M



EPB 5600



EPB 5600P



EPB 5801



EPB 5801

Suitable tool shank types and tolerances for Shrinkfit holders

Cylindrical DIN 1835-1 Form A/ DIN 6535 Form HA.

Note: Type 5600P requires the Safe-Lock™ shank execution (grooves). Types EPB 5403M, EPB 5403M1 and EPB 5403M2 are designed for MQL (Minimum Quantity Lubrication), tools according to standard DIN 69090-3.

Tool shank tolerance required

\varnothing 3 to 5 mm (\varnothing 0.11" to 0.19") maximum h5, tool shank must be carbide or heavy metal (e.g. Densimet). \varnothing 6 to 32 mm (\varnothing 0.23" to 1.25") maximum h6, tool shank can be steel, HSS, carbide or heavy metal. Using h5 for \varnothing 6 to 32 mm (\varnothing 0.23" to 1.25") provides a safer minimum clamping torque. Make sure the minimum shrinking depth LSC shown in the product pages for each holder is respected when fitting the tool shank into the holder.

Run-out

Maximum run-out when measured at a gauge projection of $3 \times \varnothing\text{DCB}$ (DCB = bore dia. referred to DCBN-DCBX in Product pages) in relation to the external taper or shank is 3 μm .

Direct run-out of the holder bore in relation to the taper or the shank is 3 μm maximum.

Balancing

Shrinkfit holders are fine balanced as standard, except Shrinkfit extensions, being pre-balanced.

Heat resistance

EPB Shrinkfit holders are made from heat resistant steel guaranteeing structure, geometry and dimensional stability after many Shrinkfit heating cycles. The maximum acceptable temperature is 400°C.

DIN type Shrinkfit holders, EPB 5603/5403

See also Guide page 'Shrinkfit holders, general information'.

Designation 'EPB 5603' is used for all DIN type Shrinkfit holders, except HSK-A63 and HSK-A100 being 'EPB 5403'.

EPB 5603/5403 has a 4,5° nose angle, an internal thread for a stop screw (stop screw delivered with the holder) and 4 balancing threaded holes, according to norm DIN 69882-8.

The stop screw has hexagonal back and front ends and a coolant through channel with front groove.

Note: When using the stop rods from Easyshrink® 20 Shrinkfit devices for tool length setting, there is no need for a stop screw.

Norm DIN 69882-8 also defines the overall dimensions of some HSK-A Shrinkfit holder type 5603/5403 sizes (marked with an asterisk in the Product pages): for the other type EPB 5603/5403 holders, this norm only applies to the front end shape, the thread for a stop screw and a stop screw delivered with the holder, and the 4 balancing threaded holes.

Holders type EPB 5603/5403 with diameters 3 to 5 mm (0.12" to 0.19") as well as extra short holders have neither thread for stop screw (no stop screw delivered) nor balancing threaded holes, due to lack of space (see information in Product pages). Holders type EPB 5603 with Combimaster and with Seco-Capto™ machine side connections have no balancing threaded holes.



Transmittable torque to the tool shank (Nm) and Max RPM, Shrinkfit holders EPB 5603/5403

Clamp ∅ (mm)	Minimum static transmittable torque Nm (ft.lbs)	Shrinkfit clamping system Max RPM*
6	18 Nm (13.3 ft/lbs)	45 000
8	35 Nm (25.8 ft/lbs)	45 000
10	65 Nm (48 ft/lbs)	40 000
12	110 Nm (81 ft/lbs)	40 000
14	150 Nm (110.6 ft/lbs)	38 000
16	200 Nm (147.5 ft/lbs)	38 000
18	250 Nm (185.4 ft/lbs)	35 000
20	320 Nm (236 ft/lbs)	35 000
25	500 Nm (368.8 ft/lbs)	32 000
32	550 Nm (405.6 ft/lbs)	30 000

* 1/ The maximum RPM for holders equipped with this clamping system is often restricted by the holder's machine side taper type and size.

2/ MQL Shrinkfit holders: to guaranty a good efficiency of the MQL coolant flow, Max RPM for MQL Shrinkfit holders can be lower.

See page(s) 240.

A kit of balancing screws for Shrinkfit holders EPB 5603/5403 and EPB 5600 is available as Accessories (Part N° 90ZQ01)

The kit contains screws of different masses, to be fitted into holder's balancing threaded holes of Shrinkfit holders type EPB 5603/5403 and EPB 5600.

Balancing screws allow fine tune balancing of Shrinkfit holders and tool assemblies when using a suitable balancing machine. The appropriate balancing screws are meant to be screwed until stop in the threaded holes, with a torque of 1 Nm.



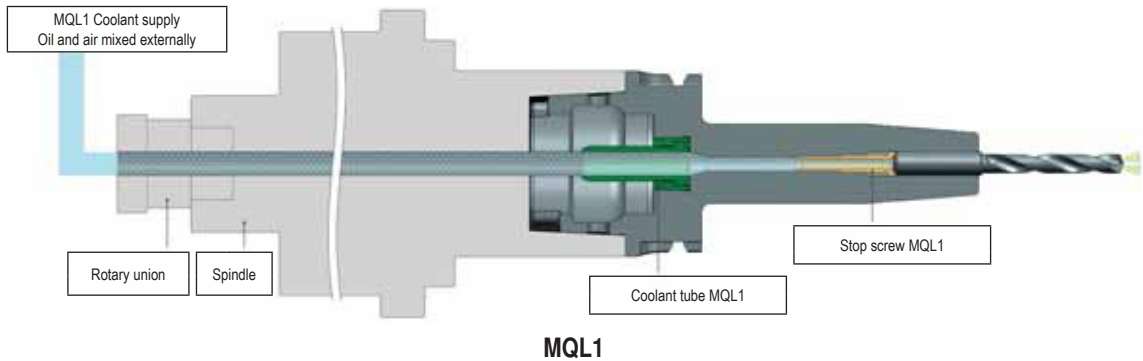
MQL type Shrinkfit holders, EPB 5403M, EPB 5403M1 and EPB 5403M2

MQL technology

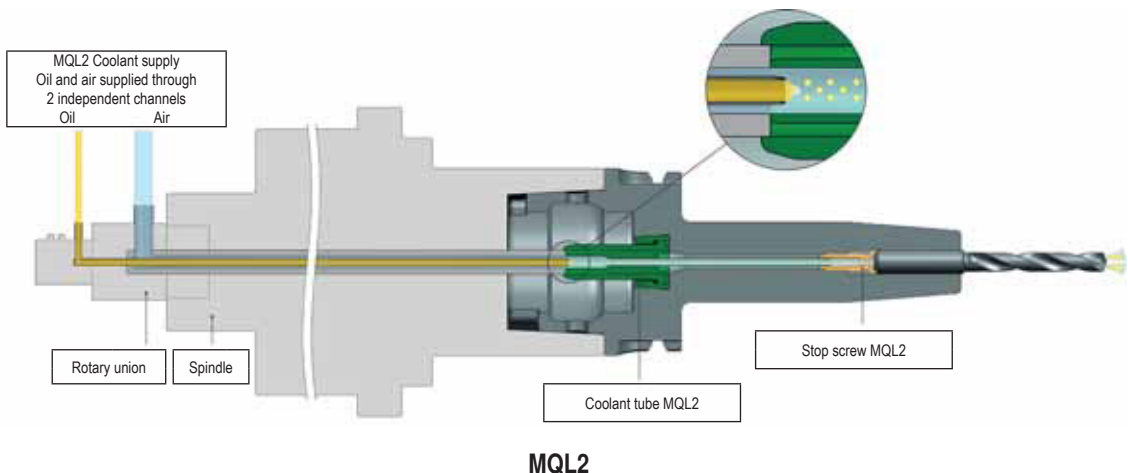
MQL (Minimum Quantity Lubrication) is a ‘near-dry’ coolant solution, consisting in a mix of air and oil. Suitable tool holders for MQL are equipped with specific MQL coolant tubes and MQL stop screws.

Two MQL technologies exist on the market:

- MQL1: the ‘air and oil’ mix is produced before entering the machine spindle and delivered to the tool through one channel (hence “MQL1”) that goes through the machine spindle, the tool holder and the tool.



- MQL2: The air and the oil are delivered through 2 distinct channels (hence “MQL2”) up to the MQL2 coolant, where they are mixed in a chamber. MQL2 coolant tubes, featuring a connecting pipe, and MQL2 stop screws are needed.



MQL holders, delivered without accessory (EPB 5403M) or ready for MQL1 (EPB 5403M1) and MQL2 (EPB 5403M2)

Three HSK-A MQL Shrinkfit tool holder ranges are available:

‘M’ delivered without accessories, ‘M1’ delivered with MQL1 accessories fitted and ‘M2’ delivered with MQL2 accessories fitted. A “MQL” laser marking is added in their HSK-A flange, to differentiate MQL types Shrinkfit holders from DIN type Shrinkfit holders (according to standard DIN69882-8).

All components used in M1 and M2 holders can be ordered separately to equip M holders.

Max RPM, Shrinkfit holders in MQL configuration

Clamp ∅ (mm)	Shrinkfit clamping system Max RPM* MQL1	Shrinkfit clamping system Max RPM* MQL2
6	16 000	40 000
8	16 000	40 000
10	16 000	40 000
12	16 000	40 000
14	16 000	38 000
16	16 000	38 000
18	16 000	35 000
20	16 000	35 000
25	16 000	32 000
32	16 000	30 000

* The maximum RPM for holders equipped with this clamping system is often restricted by the holder's machine side taper type and size.

Minimum transmittable torque are the same as the ones for EPB 5603/5403 (see previous pages).

Type EPB 5403M

Shrinkfit holders, according to standard DIN 69090-3, designed for MQL1 and MQL2. Accessories to be ordered separately.

Type EPB 5403M1

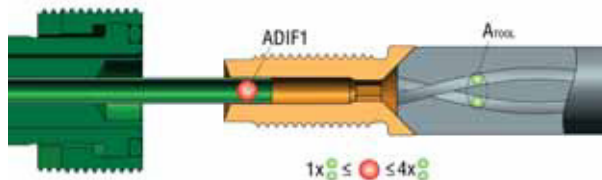
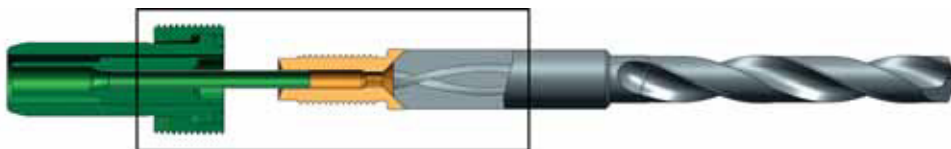
Shrinkfit holders ready for MQL1, delivered with MQL components fitted. MQL1 Shrinkfit holders, coolant tubes and stop screws according to standard DIN 69090-3.

Type EPB 5403M2

Shrinkfit holders ready for MQL2, delivered with MQL components fitted. MQL2 Shrinkfit holders body according to standard DIN 69090-3. MQL2 coolant tubes and stop screws patented by Bielomatik.

Several combinations "tool holder + stop screw + coolant tube" are proposed: the optimal combination is depending on the cutting tool (shank diameter, number and a cross-section of coolant channels).

"4:1 rule": To guaranty an optimal delivery of the MQL2 flow to the cutting edge, a cross-sectional ratio of 1:1 to 4:1 between the section of the coolant tube's pipe (ADIF1) and the sum of the tool coolant channels' sections (A_{TOOL}) is required. If several combinations are possible, it is recommended to privilege the combination with the ratio the closest to 1:1, to optimize the MQL flow.



A_{TOOL} (mm ²)	∅ ADIF1 (mm ²)
0 - 1,6 mm ²	2,01 mm ²
1,4 - 3,0 mm ²	4,15 mm ²
2,5 - 6,5 mm ²	9,08 mm ²
5,5 - 16,6 mm ²	16,62 mm ²

Accessories for MQL1

Accessories for MQL1 according to standard DIN 69090-3.

Please refer to EPB 5403M1 Shrinkfit holders product pages for selection of MQL1 accessories.

MQL1 Coolant tubes

HSK-A63, MQL1 Shrinkfit holders need a conventional coolant tube 20E9304, as available for DIN type Shrinkfit holders.

HSK-A100, MQL1 Shrinkfit holders need a specific coolant tube 20E9306M1: the internal diameters are optimized for MQL flow.



MQL1 Stop screws

Stop screws for MQL1 feature a tapered face, for efficient contact with tapered MQL tool shanks, according to standard DIN 69090-3.



Accessories for MQL2

Please refer to EPB 5403M2 Shrinkfit holders product pages for selection of MQL2 accessories.

MQL2 Coolant tubes

MQL2 coolant tubes feature a connecting pipe that connects and slides in the stop screw to warranty an optimal delivery of the MQL2 mix to the tool shank. A variety of MQL2 coolant tubes is available, with different coolant pipe lengths and diameters (cross-section ADIF1). Selection of the appropriate coolant tube: please refer to "4:1" rule (see above, paragraph "Type EPB 5403M2").

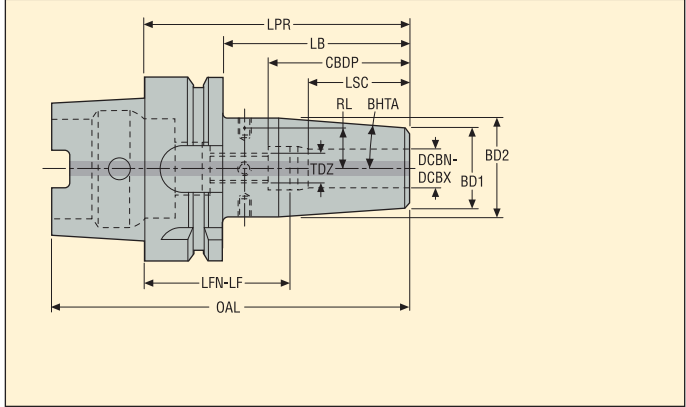


MQL2 Stop screws

Stop screws for MQL2 feature a tapered face, for efficient contact with tapered MQL tool shanks. A variety of stop screws is available, with several coolant channels diameters for each tool diameter.

Beware: make sure to select matching MQL2 coolant tubes and MQL2 stop screws, with identical ADIF1 value.





- Run-out 3 µm maximum at 3 x ∅DCBN-DCBX
- Delivered with one stop screw

Machine side	Workpiece side	Ordering and Product No.	Designation	Dimensions in mm								TDZ mm	BHTA°	RL mm	*	Balancing	KG
				LPR	BD1	BD2	OAL	LB	LSC	CBDP	LFN-LF min-max						
HSK-A40	6,0	02752844	E930256030680	80,0	21,0	27,0	100,0	60,0	22,0	37,5	44,0-58,0	M5x0,8	4,5	10,5	*	1	0,40
	8,0	02752847	E930256030880	80,0	21,0	27,0	100,0	60,0	26,0	37,5	44,0-54,0	M6x1	4,5	10,5	*	1	0,40
	10,0	02752848	E930256031080	80,0	24,0	32,0	100,0	60,0	31,0	42,5	39,0-49,0	M8x1	4,5	13,0	*	1	0,45
	12,0	02752849	E930256031290	90,0	24,0	32,0	110,0	70,0	34,0	47,5	44,0-56,0	M10x1	4,5	13,0	*	1	0,49
	16,0	02752850	E930256031690	90,0	27,0	34,0	110,0	70,0	39,0	50,5	41,0-51,0	M12x1	4,5	14,0	*	1	0,51
HSK-A63	6,0	03098277	E930454030680	80,0	21,0	27,0	112,0	54,0	22,0	37,5	44,0-58,0	M5x0,8	4,5	10,5	*	1	0,90
	6,0	03098278	E9304540306120	120,0	21,0	27,0	152,0	94,0	22,0	37,5	84,0-98,0	M5x0,8	4,5	10,5		1	1,00
	6,0	03098279	E9304540306160	160,0	21,0	27,0	192,0	134,0	22,0	37,5	124,0-138,0	M5x0,8	4,5	10,5		1	1,20
	8,0	03098280	E930454030880	80,0	21,0	27,0	112,0	54,0	26,0	38,0	43,5-54,0	M6x1	4,5	10,5	*	1	0,90
	8,0	03098281	E9304540308120	120,0	21,0	27,0	152,0	94,0	26,0	38,0	83,5-94,0	M6x1	4,5	10,5		1	1,00
	8,0	03098282	E9304540308160	160,0	21,0	27,0	192,0	134,0	26,0	38,0	123,5-134,0	M6x1	4,5	10,5		1	1,20
	10,0	03098283	E930454031085	85,0	24,0	32,0	117,0	59,0	31,0	43,5	43,0-54,0	M8x1	4,5	13,0	*	1	0,90
	10,0	03098284	E9304540310120	120,0	24,0	32,0	152,0	94,0	31,0	43,5	78,0-89,0	M8x1	4,5	13,0		1	1,20
	10,0	03098285	E9304540310160	160,0	24,0	32,0	192,0	134,0	31,0	43,5	118,0-129,0	M8x1	4,5	13,0		1	1,30
	12,0	03098286	E930454031290	90,0	24,0	32,0	122,0	64,0	34,0	48,0	43,5-56,0	M10x1	4,5	13,0	*	1	0,90
	12,0	03098287	E9304540312120	120,0	24,0	32,0	152,0	94,0	34,0	48,0	73,5-86,0	M10x1	4,5	13,0		1	1,10
	12,0	03098288	E9304540312160	160,0	24,0	32,0	192,0	134,0	34,0	48,0	113,5-126,0	M10x1	4,5	13,0		1	1,40
	14,0	03098289	E930454031490	90,0	27,0	34,0	122,0	64,0	34,0	49,0	42,5-56,0	M10x1	4,5	14,0	*	1	1,00
	14,0	03098290	E9304540314120	120,0	27,0	34,0	152,0	94,0	34,0	49,0	72,5-86,0	M10x1	4,5	14,0		1	1,20

For Shrinkfit extensions, see MN Tooling Systems catalogue chapter Additional equipment

* Conform to DIN 69882-8

Accessories

For DCBN-DCBX	Balancing screws
6	90ZQ01
8	90ZQ01
10	90ZQ01
12-14	90ZQ01
16	90ZQ01

Spare Parts

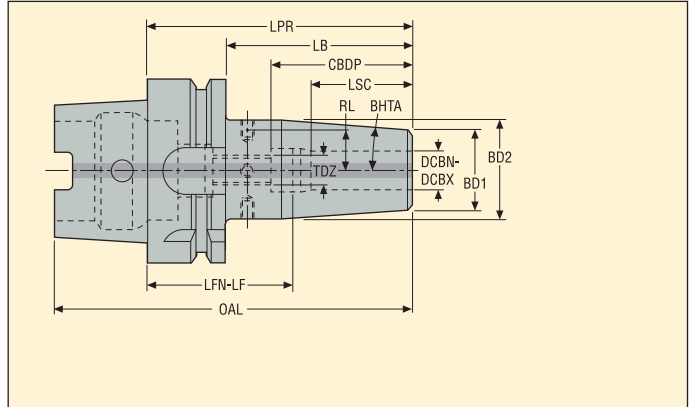
For DCBN-DCBX	Stop screw
6	19BDR05165
8	19BDR06165
10	19BDR08165
12-14	19BDR10165
16	19BDR12165

Please check availability in current price and stock-list

For HSK sealing plugs, coolant tubes and tube spanners, see MN Tooling Systems catalogue chapter Additional equipment



- Run-out 3 µm maximum at 3 x ØDCBN-DCBX
- Delivered with one stop screw



Machine side	Workpiece side	Ordering and Product No.	Designation	Dimensions in mm								TDZ mm	BHTA°	RL mm	*	Balancing	KG
				LPR	BD1	BD2	OAL	LB	LSC	CBDB	LFN-LF min-max						
HSK-A63	16,0	03098291	E930454031695	95,0	27,0	34,0	127,0	69,0	39,0	52,5	45,0-56,0	M12x1	4,5	14,0	*	1	1,00
	16,0	03098292	E9304540316120	120,0	27,0	34,0	152,0	94,0	39,0	52,5	71,0-81,0	M12x1	4,5	14,0		1	1,20
	16,0	03098293	E9304540316160	160,0	27,0	34,0	192,0	134,0	39,0	52,5	111,0-121,0	M12x1	4,5	14,0		1	1,40
	18,0	03098294	E930454031895	95,0	33,0	42,0	127,0	69,0	39,0	53,0	44,5-56,0	M12x1	4,5	18,0	*	1	1,20
	18,0	03098295	E9304540318120	120,0	33,0	42,0	152,0	94,0	39,0	53,0	71,0-81,0	M12x1	4,5	18,0		1	1,40
	20,0	03098296	E9304540320100	100,0	33,0	42,0	132,0	74,0	41,0	55,5	47,5-59,0	M16x1	4,5	18,0	*	1	1,20
	20,0	03098297	E9304540320120	120,0	33,0	42,0	152,0	94,0	41,0	55,5	67,5-79,0	M16x1	4,5	18,0		1	1,40
	20,0	03098298	E9304540320160	160,0	33,0	42,0	192,0	134,0	41,0	55,5	107,5-119,0	M16x1	4,5	18,0		1	1,80
	25,0	03098299	E9304540325115	115,0	44,0	53,0	147,0	89,0	47,0	63,5	58,0-68,0	M16x1	4,5	23,5	*	1	1,80
	25,0	03098300	E9304540325160	160,0	44,0	53,0	192,0	134,0	47,0	63,5	103,0-113,0	M16x1	4,5	23,5		1	2,60
	32,0	03098301	E9304540332120	120,0	44,0	53,0	152,0	94,0	51,0	70,0	56,5-69,0	M16x1	4,5	23,5	*	1	1,70

For Shrinkfit extensions, see MN Tooling Systems catalogue chapter Additional equipment

* Conform to DIN 69882-8

Accessories

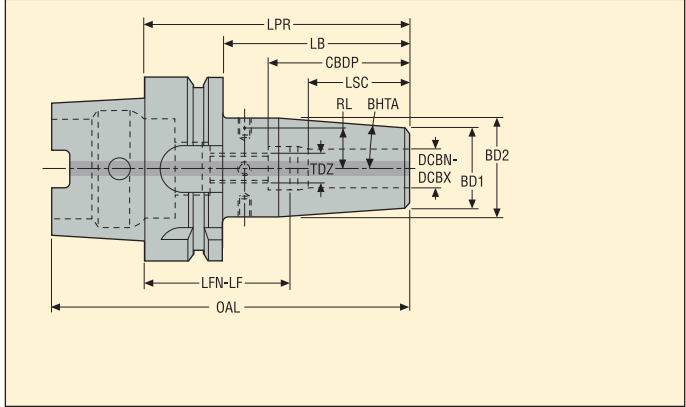
For DCBN-DCBX/ LPR	Balancing screws
16 /95	90ZQ01
16 /120	90ZQ01
16 /160	90ZQ01
18 /95	90ZQ01
18 /120	90ZQ01
20	90ZQ01
25-32	90ZQ01

Spare Parts

For DCBN-DCBX/ LPR	Stop screw
16 /95	19BDR12165
16 /120	19BDR12195
16 /160	19BDR12195
18 /95	19BDR12165
18 /120	19BDR12195
20	19BDR16190
25-32	19BDR16225

Please check availability in current price and stock-list

For HSK sealing plugs, coolant tubes and tube spanners, see MN Tooling Systems catalogue chapter Additional equipment



- Run-out 3 µm maximum at 3 x ∅DCBN-DCBX
- Delivered with one stop screw

Machine side	Workpiece side	Ordering and Product No.	Designation	Dimensions in mm									TDZ mm	BHTA°	RL mm	*	Balancing	KG
				LPR	BD1	BD2	OAL	LB	LSC	CBDP	LFN-LF min-max							
HSK-A100	6.0	03098308	E930654030685	85,0	21,0	27,0	135,0	56,0	22,0	37,5	49,0-63,0	M5x0.8	4,5	10,5	*	1	2,20	
	6.0	03098309	E9306540306120	120,0	21,0	27,0	170,0	91,0	22,0	37,5	84,0-98,0	M5x0.8	4,5	10,5		1	2,40	
	6.0	03098310	E9306540306160	160,0	21,0	27,0	210,0	131,0	22,0	37,5	124,0-138,0	M5x0.8	4,5	10,5		1	2,50	
	8.0	03098311	E930654030885	85,0	21,0	27,0	135,0	56,0	26,0	38,0	48,5-59,0	M6x1	4,5	10,5	*	1	2,20	
	8.0	03098312	E9306540308120	120,0	21,0	27,0	170,0	91,0	26,0	38,0	83,5-94,0	M6x1	4,5	10,5		1	2,30	
	8.0	03098313	E9306540308160	160,0	21,0	27,0	210,0	131,0	26,0	38,0	123,5-134,0	M6x1	4,5	10,5		1	2,50	
	10.0	03098314	E930654031090	90,0	24,0	32,0	140,0	61,0	31,0	43,5	48,0-59,0	M8x1	4,5	13,0	*	1	2,30	
	10.0	03098315	E9306540310120	120,0	24,0	32,0	170,0	91,0	31,0	43,5	78,0-89,0	M8x1	4,5	13,0		1	2,50	
	10.0	03098316	E9306540310160	160,0	24,0	32,0	210,0	131,0	31,0	43,5	118,0-129,0	M8x1	4,5	13,0		1	2,70	
	12.0	03098317	E930654031295	95,0	24,0	32,0	145,0	66,0	34,0	48,0	48,5-61,0	M10x1	4,5	13,0	*	1	2,30	
	12.0	03098318	E9306540312120	120,0	24,0	32,0	170,0	91,0	34,0	48,0	73,5-86,0	M10x1	4,5	13,0		1	2,40	
	12.0	03098319	E9306540312160	160,0	24,0	32,0	210,0	131,0	34,0	48,0	113,5-126,0	M10x1	4,5	13,0		1	2,70	
	14.0	03098320	E930654031495	95,0	27,0	34,0	145,0	66,0	34,0	49,0	47,5-61,0	M10x1	4,5	14,0	*	1	2,30	
	16.0	03098321	E9306540316100	100,0	27,0	34,0	150,0	71,0	39,0	52,5	50,0-61,0	M12x1	4,5	14,0	*	1	2,30	
	16.0	03098322	E9306540316130	130,0	27,0	34,0	180,0	101,0	39,0	52,5	78,0-91,0	M12x1	4,5	14,0		1	2,50	
	16.0	03098323	E9306540316160	160,0	27,0	34,0	210,0	131,0	39,0	52,5	108,0-121,0	M12x1	4,5	14,0		1	2,70	
18.0	03098324	E9306540318100	100,0	33,0	42,0	150,0	71,0	39,0	53,0	52,5-61,0	M12x1	4,5	18,0	*	1	2,50		

For Shrinkfit extensions, see MN Tooling Systems catalogue chapter Additional equipment

* Conform to DIN 69882-8

Accessories

For DCBN-DCBX/ LPR	Balancing screws
6	90ZQ01
8	90ZQ01
10	90ZQ01
12-14	90ZQ01
16/ 100	90ZQ01
16/ 130	90ZQ01
16/ 160	90ZQ01
18	90ZQ01

Spare Parts

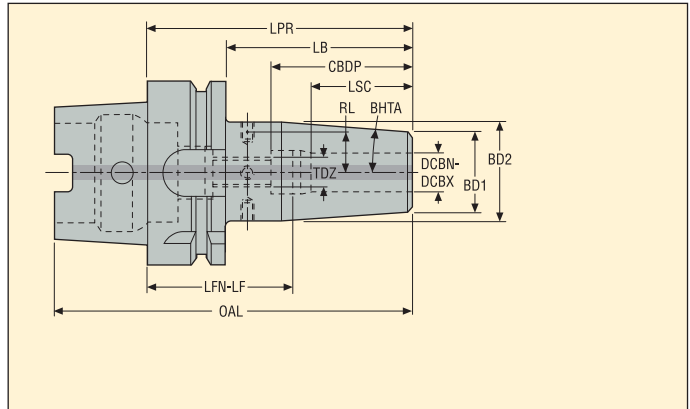
For DCBN-DCBX/ LPR	Stop screw
6	19BDR05165
8	19BDR06165
10	19BDR08165
12-14	19BDR10165
16/ 100	19BDR12165
16/ 130	19BDR12195
16/ 160	19BDR12195
18	19BDR12165

Please check availability in current price and stock-list

For HSK sealing plugs, coolant tubes and tube spanners, see MN Tooling Systems catalogue chapter Additional equipment



- Run-out 3 µm maximum at 3 x ØDCBN-DCBX
- Delivered with one stop screw



Machine side	Workpiece side	Ordering and Product No.	Designation	Dimensions in mm									TDZ mm	BHTA°	RL mm	*	Balancing	KG
				LPR	BD1	BD2	OAL	LB	LSC	CBDP	LFN-LF min-max							
HSK-A100	20,0	03098325	E9306540320105	105,0	33,0	42,0	155,0	76,0	41,0	55,5	53,0-64,0	M16x1	4,5	18,0	*	1	2,50	
	20,0	03098326	E9306540320130	130,0	33,0	42,0	180,0	101,0	41,0	55,5	77,5-89,0	M16x1	4,5	18,0		1	2,80	
	20,0	03098327	E9306540320160	160,0	33,0	42,0	210,0	131,0	41,0	55,5	107,5-119,0	M16x1	4,5	18,0		1	3,10	
	25,0	03098328	E9306540325115	115,0	44,0	53,0	165,0	86,0	47,0	63,5	58,0-68,0	M16x1	4,5	23,5	*	1	3,00	
	25,0	03098329	E9306540325160	160,0	44,0	53,0	210,0	131,0	47,0	63,5	103,0-113,0	M16x1	4,5	23,5		1	3,80	
	32,0	03098330	E9306540332120	120,0	44,0	53,0	170,0	91,0	51,0	70,0	56,5-69,0	M16x1	4,5	23,5	*	1	2,90	

For Shrinkfit extensions, see MN Tooling Systems catalogue chapter Additional equipment

* Conform to DIN 69882-8

Accessories

For DCBN-DCBX	Balancing screws
20	90ZQ01
25-32	90ZQ01

Spare Parts

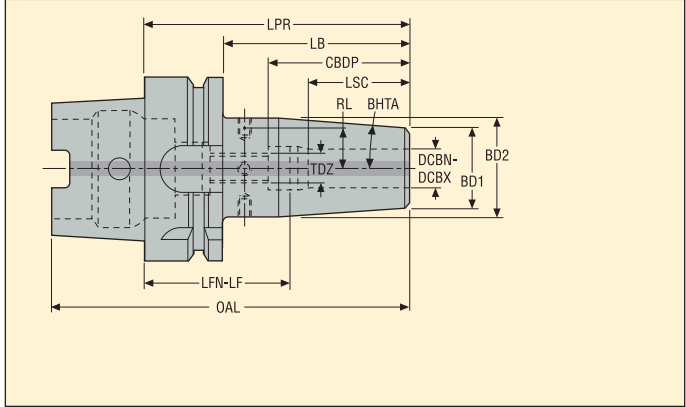
For DCBN-DCBX	Stop screw
20	19BDR16190
25-32	19BDR16225

Please check availability in current price and stock-list

For HSK sealing plugs, coolant tubes and tube spanners, see MN Tooling Systems catalogue chapter Additional equipment

EPB 5603/5403 – Shrinkfit holders, DIN type – DIN 69882-8 – Inch

HSK-A/ ISO 12164-1-A



- Run-out 3 µm maximum at 3 x ∅DCBN-DCBX
- Delivered with one stop screw

Machine side	Workpiece side	Ordering and Product No.	Designation	Dimensions in inch										TDZ mm	BHTA°	RL inch	*	Balancing	lbs
				LPR	BD1	BD2	OAL	LB	LSC	CBDP	LFN-LF min-max								
HSK-A40	0.236	02752844	E930256030680	3.150	0.827	1.063	3.937	2.362	0.866	1.476	1.732-2.283	M5x0.8	4,5	0.413	*	1	0.88		
	0.315	02752847	E930256030880	3.150	0.827	1.063	3.937	2.362	1.024	1.476	1.732-2.126	M6x1	4,5	0.413	*	1	0.88		
	0.394	02752848	E930256031080	3.150	0.945	1.260	3.937	2.362	1.220	1.673	1.535-1.929	M8x1	4,5	0.512	*	1	0.99		
	0.472	02752849	E930256031290	3.543	0.945	1.260	4.331	2.756	1.339	1.870	1.732-2.205	M10x1	4,5	0.512	*	1	1.08		
	0.630	02752850	E930256031690	3.543	1.063	1.339	4.331	2.756	1.535	1.988	1.614-2.008	M12x1	4,5	0.551	*	1	1.12		
HSK-A63	0.236	03098277	E930454030680	3.150	0.827	1.063	4.409	2.126	0.866	1.476	1.732-2.283	M5x0.8	4,5	0.413	*	1	1.98		
	0.236	03098278	E9304540306120	4.724	0.827	1.063	5.984	3.701	0.866	1.476	3.307-3.858	M5x0.8	4,5	0.413	1	2.20			
	0.236	03098279	E9304540306160	6.299	0.827	1.063	7.559	5.276	0.866	1.476	4.882-5.433	M5x0.8	4,5	0.413	1	2.65			
	0.315	03098280	E930454030880	3.150	0.827	1.063	4.409	2.126	1.024	1.496	1.713-2.126	M6x1	4,5	0.413	*	1	1.98		
	0.315	03098281	E9304540308120	4.724	0.827	1.063	5.984	3.701	1.024	1.496	3.287-3.701	M6x1	4,5	0.413	1	2.20			
	0.315	03098282	E9304540308160	6.299	0.827	1.063	7.559	5.276	1.024	1.496	4.862-5.276	M6x1	4,5	0.413	1	2.65			
	0.394	03098283	E930454031085	3.346	0.945	1.260	4.606	3.323	1.220	1.713	1.693-2.126	M8x1	4,5	0.512	*	1	1.98		
	0.394	03098284	E9304540310120	4.724	0.945	1.260	5.984	3.701	1.220	1.713	3.071-3.504	M8x1	4,5	0.512	1	2.65			
	0.394	03098285	E9304540310160	6.299	0.945	1.260	7.559	5.276	1.220	1.713	4.646-5.079	M8x1	4,5	0.512	1	2.87			
	0.472	03098286	E930454031290	3.543	0.945	1.260	4.803	2.520	1.339	1.890	1.713-2.205	M10x1	4,5	0.512	*	1	1.98		
	0.472	03098287	E9304540312120	4.724	0.945	1.260	5.984	3.701	1.339	1.890	2.894-3.386	M10x1	4,5	0.512	1	2.43			
	0.472	03098288	E9304540312160	6.299	0.945	1.260	7.559	5.276	1.339	1.890	4.469-4.961	M10x1	4,5	0.512	1	3.09			
	0.551	03098289	E930454031490	3.543	1.063	1.339	4.803	2.520	1.339	1.929	1.673-2.205	M10x1	4,5	0.551	*	1	2.20		
	0.551	03098290	E9304540314120	4.724	1.063	1.339	5.984	3.701	1.339	1.929	2.854-3.386	M10x1	4,5	0.551	1	2.65			

For Shrinkfit extensions, see MN Tooling Systems catalogue chapter Additional equipment

* Conform to DIN 69882-8

Accessories

For DCBN-DCBX	Balancing screws
0.236	90ZQ01
0.315	90ZQ01
0.394	90ZQ01
0.472-0.551	90ZQ01
0.630	90ZQ01

Spare Parts

For DCBN-DCBX	Stop screw
0.236	19BDR05165
0.315	19BDR06165
0.394	19BDR08165
0.472-0.551	19BDR10165
0.630	19BDR12165

Please check availability in current price and stock-list

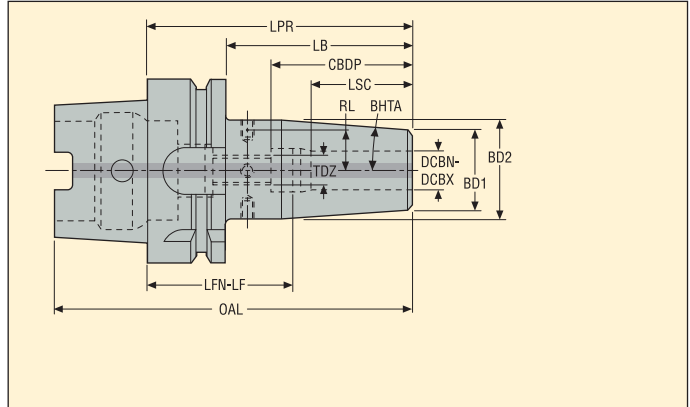
For HSK sealing plugs, coolant tubes and tube spanners, see MN Tooling Systems catalogue chapter Additional equipment

EPB 5603/5403 – Shrinkfit holders, DIN type – DIN 69882-8 – Inch

HSK-A/ ISO 12164-1-A



- Run-out 3 µm maximum at 3 x ØDCBN-DCBX
- Delivered with one stop screw



Machine side	Workpiece side	Ordering and Product No.	Designation	Dimensions in inch								TDZ mm	BHTA°	RL inch	*	Balancing	lbs
				LPR	BD1	BD2	OAL	LB	LSC	CBDP	LFN-LF min-max						
HSK-A63	0.630	03098291	E930454031695	3.740	1.063	1.339	5.000	2.717	1.535	2.067	1.772-2.205	M12x1	4,5	0.551	*	1	2.20
	0.630	03098292	E9304540316120	4.724	1.063	1.339	5.984	3.701	1.535	2.067	2.795-3.189	M12x1	4,5	0.551		1	2.65
	0.630	03098293	E9304540316160	6.299	1.063	1.339	7.559	5.276	1.535	2.067	4.370-4.764	M12x1	4,5	0.551		1	3.09
	0.709	03098294	E930454031895	3.740	1.299	1.654	5.000	2.717	1.535	2.087	1.752-2.205	M12x1	4,5	0.709	*	1	2.65
	0.709	03098295	E9304540318120	4.724	1.299	1.654	5.984	3.701	1.535	2.087	2.795-3.189	M12x1	4,5	0.709		1	3.09
	0.787	03098296	E9304540320100	3.937	1.299	1.654	5.197	2.913	1.614	2.185	1.870-2.323	M16x1	4,5	0.709	*	1	2.65
	0.787	03098297	E9304540320120	4.724	1.299	1.654	5.984	3.701	1.614	2.185	2.657-3.110	M16x1	4,5	0.709		1	3.09
	0.787	03098298	E9304540320160	6.299	1.299	1.654	7.559	5.276	1.614	2.185	4.232-4.685	M16x1	4,5	0.709		1	3.97
	0.984	03098299	E9304540325115	4.528	1.732	2.087	5.787	3.504	1.850	2.500	2.283-2.677	M16x1	4,5	0.925	*	1	3.97
	0.984	03098300	E9304540325160	6.299	1.732	2.087	7.559	5.276	1.850	2.500	4.055-4.449	M16x1	4,5	0.925		1	5.73
	1.260	03098301	E9304540332120	4.724	1.732	2.087	5.984	3.701	2.008	2.756	2.224-2.717	M16x1	4,5	0.925	*	1	3.75

For Shrinkfit extensions, see MN Tooling Systems catalogue chapter Additional equipment

* Conform to DIN 69882-8

Accessories

For DCBN-DCBX/ LPR	Balancing screws
0.630 /3.740	90ZQ01
0.630 /4.724	90ZQ01
0.630 /6.299	90ZQ01
0.709 /3.740	90ZQ01
0.709 /4.724	90ZQ01
0.787	90ZQ01
0.984-1.260	90ZQ01

Spare Parts

For DCBN-DCBX/ LPR	Stop screw
0.630 /3.740	19BDR12165
0.630 /4.724	19BDR12195
0.630 /6.299	19BDR12195
0.709 /3.740	19BDR12165
0.709 /4.724	19BDR12195
0.787	19BDR16190
0.984-1.260	19BDR16225

Please check availability in current price and stock-list

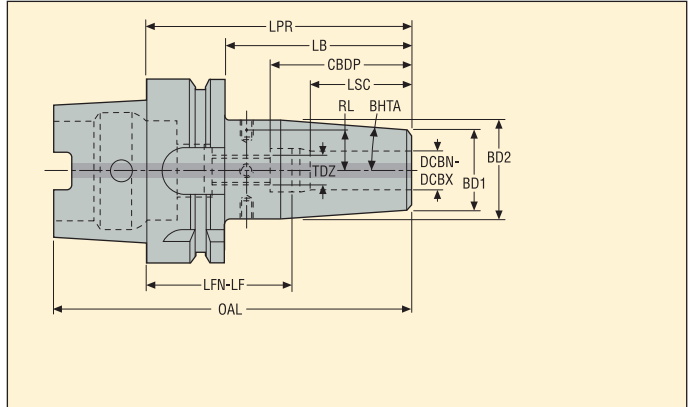
For HSK sealing plugs, coolant tubes and tube spanners, see MN Tooling Systems catalogue chapter Additional equipment

EPB 5603/5403 – Shrinkfit holders, DIN type – DIN 69882-8 – Inch

HSK-A/ ISO 12164-1-A



- Run-out 3 µm maximum at 3 x ∅DCBN-DCBX
- Delivered with one stop screw



Machine side	Workpiece side	Ordering and Product No.	Designation	Dimensions in inch										TDZ mm	BHTA°	RL inch	*	Balancing	lbs
				LPR	BD1	BD2	OAL	LB	LSC	CBDP	LFN-LF min-max								
HSK-A100	0.236	03098308	E930654030685	3.346	0.827	1.063	5.315	2.205	0.866	1.476	1.929-2.480	M5x0.8	4,5	0.413	*	1	4.85		
	0.236	03098309	E9306540306120	4.724	0.827	1.063	6.693	3.583	0.866	1.476	3.307-3.858	M5x0.8	4,5	0.413		1	5.29		
	0.236	03098310	E9306540306160	6.299	0.827	1.063	8.268	5.157	0.866	1.476	4.882-5.433	M5x0.8	4,5	0.413		1	5.51		
	0.315	03098311	E930654030885	3.346	0.827	1.063	5.315	2.205	1.024	1.496	1.909-2.323	M6x1	4,5	0.413	*	1	4.85		
	0.315	03098312	E9306540308120	4.724	0.827	1.063	6.693	3.583	1.024	1.496	3.287-3.701	M6x1	4,5	0.413		1	5.07		
	0.315	03098313	E9306540308160	6.299	0.827	1.063	8.268	5.157	1.024	1.496	4.862-5.276	M6x1	4,5	0.413		1	5.51		
	0.394	03098314	E930654031090	3.543	0.945	1.260	5.512	2.402	1.220	1.713	1.890-2.323	M8x1	4,5	0.512	*	1	5.07		
	0.394	03098315	E9306540310120	4.724	0.945	1.260	6.693	3.583	1.220	1.713	3.071-3.504	M8x1	4,5	0.512		1	5.51		
	0.394	03098316	E9306540310160	6.299	0.945	1.260	8.268	5.157	1.220	1.713	4.646-5.079	M8x1	4,5	0.512		1	5.95		
	0.472	03098317	E930654031295	3.740	0.945	1.260	5.709	2.598	1.339	1.890	1.909-2.402	M10x1	4,5	0.512	*	1	5.07		
	0.472	03098318	E9306540312120	4.724	0.945	1.260	6.693	3.583	1.339	1.890	2.894-3.386	M10x1	4,5	0.512		1	5.29		
	0.472	03098319	E9306540312160	6.299	0.945	1.260	8.268	5.157	1.339	1.890	4.469-4.961	M10x1	4,5	0.512		1	5.95		
	0.551	03098320	E930654031495	3.740	1.063	1.339	5.709	2.598	1.339	1.929	1.870-2.402	M10x1	4,5	0.551	*	1	5.07		
	0.630	03098321	E9306540316100	3.937	1.063	1.339	5.906	2.795	1.535	2.067	1.969-2.402	M12x1	4,5	0.551	*	1	5.07		
	0.630	03098322	E9306540316130	5.118	1.063	1.339	7.087	3.976	1.535	2.067	3.071-3.583	M12x1	4,5	0.551		1	5.51		
	0.630	03098323	E9306540316160	6.299	1.063	1.339	8.268	5.157	1.535	2.067	4.252-4.764	M12x1	4,5	0.551		1	5.95		
0.709	03098324	E9306540318100	3.937	1.299	1.654	5.906	2.795	1.535	2.087	2.067-2.402	M12x1	4,5	0.709	*	1	5.51			

For Shrinkfit extensions, see MN Tooling Systems catalogue chapter Additional equipment

* Conform to DIN 69882-8

Accessories

For DCBN-DCBX/ LPR	Balancing screws
0.236	90ZQ01
0.315	90ZQ01
0.394	90ZQ01
0.472-0.551	90ZQ01
0.630 /3.937	90ZQ01
0.630 /5.118	90ZQ01
0.630 /6.299	90ZQ01
0.709	90ZQ01

Spare Parts

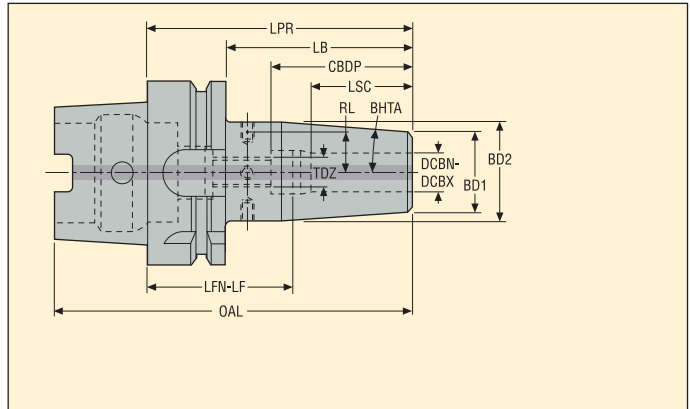
For DCBN-DCBX/ LPR	Stop screw
0.236	19BDR05165
0.315	19BDR06165
0.394	19BDR08165
0.472-0.551	19BDR10165
0.630 /3.937	19BDR12165
0.630 /5.118	19BDR12195
0.630 /6.299	19BDR12195
0.709	19BDR12165

Please check availability in current price and stock-list

For HSK sealing plugs, coolant tubes and tube spanners, see MN Tooling Systems catalogue chapter Additional equipment



- Run-out 3 µm maximum at 3 x ØDCBN-DCBX
- Delivered with one stop screw



Machine side	Workpiece side	Ordering and Product No.	Designation	Dimensions in inch									TDZ mm	BHTA°	RL inch	*	Balancing	lbs
				LPR	BD1	BD2	OAL	LB	LSC	CB DP	LFN-LF min-max							
HSK-A100	0.787	03098325	E9306540320105	4.134	1.299	1.654	6.102	2.992	1.614	2.185	2.087-2.520	M16x1	4,5	0.709	*	1	5.51	
	0.787	03098326	E9306540320130	5.118	1.299	1.654	7.087	3.976	1.614	2.185	3.051-3.504	M16x1	4,5	0.709		1	6.17	
	0.787	03098327	E9306540320160	6.299	1.299	1.654	8.268	5.157	1.614	2.185	4.232-4.685	M16x1	4,5	0.709		1	6.83	
	0.984	03098328	E9306540325115	4.528	1.732	2.087	6.496	3.386	1.850	2.500	2.283-2.677	M16x1	4,5	0.925	*	1	6.61	
	0.984	03098329	E9306540325160	6.299	1.732	2.087	8.268	5.157	1.850	2.500	4.055-4.449	M16x1	4,5	0.925		1	8.38	
	1.260	03098330	E9306540332120	4.724	1.732	2.087	6.693	3.583	2.008	2.756	2.224-2.717	M16x1	4,5	0.925	*	1	6.39	

For Shrinkfit extensions, see MN Tooling Systems catalogue chapter Additional equipment

* Conform to DIN 69882-8

Accessories

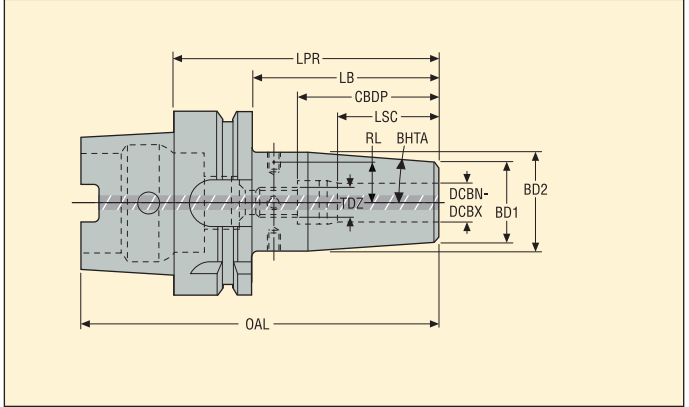
For DCBN-DCBX	Balancing screws
0.787	90ZQ01
0.984-1.260	90ZQ01

Spare Parts

For DCBN-DCBX	Stop screw
0.787	19BDR16190
0.984-1.260	19BDR16225

Please check availability in current price and stock-list

For HSK sealing plugs, coolant tubes and tube spanners, see MN Tooling Systems catalogue chapter Additional equipment



- Run-out 3 µm maximum at 3 x ∅DCBN-DCBX
- Designed for MQL1 and MQL2, accessories to be ordered separately

Machine side	Workpiece side	Ordering and Product No.	Designation	Dimensions in mm								TDZ mm	BHTA°	RL mm	*	Balancing	KG
				LPR	BD1	BD2	OAL	LB	LSC	CDBP							
HSK-A63	6,0	03098401	E930454030680M	80,0	21,0	27,0	112,0	54,0	22,0	37,5	M5x0.8	4,5	10,5	*	1	0,90	
	6,0	03098402	E9304540306120M	120,0	21,0	27,0	152,0	94,0	22,0	37,5	M5x0.8	4,5	10,5	*	1	1,10	
	6,0	03098403	E9304540306160M	160,0	21,0	27,0	192,0	134,0	22,0	37,5	M5x0.8	4,5	10,5	*	1	1,20	
	8,0	03098404	E930454030880M	80,0	21,0	27,0	112,0	54,0	26,0	38,0	M6x1	4,5	10,5	*	1	0,90	
	8,0	03098405	E9304540308120M	120,0	21,0	27,0	152,0	94,0	26,0	38,0	M6x1	4,5	10,5	*	1	1,00	
	8,0	03098406	E9304540308160M	160,0	21,0	27,0	192,0	134,0	26,0	38,0	M6x1	4,5	10,5	*	1	1,20	
	10,0	03098407	E930454031085M	85,0	24,0	32,0	117,0	59,0	31,0	43,5	M8x1	4,5	13,0	*	1	0,90	
	10,0	03098408	E9304540310120M	120,0	24,0	32,0	152,0	94,0	31,0	43,5	M8x1	4,5	13,0	*	1	1,20	
	10,0	03098409	E9304540310160M	160,0	24,0	32,0	192,0	134,0	31,0	43,5	M8x1	4,5	13,0	*	1	1,40	

* Conform to DIN 69090-3

Accessories

For DCBN-DCBX	Balancing screws
6-10	90ZQ01

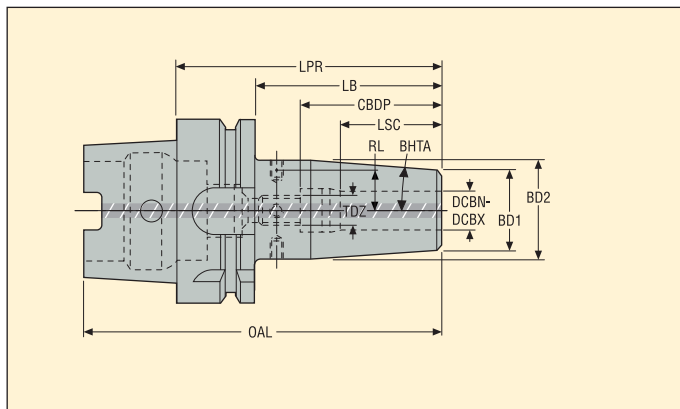
Please check availability in current price and stock-list

For MQL1 coolant tubes and stop screws, see page(s) 262, 264

For MQL2 coolant tubes and stop screws, see page(s) 274-275, 278



- Run-out 3 μm maximum at 3 x ∅DCBN-DCBX
- Designed for MQL1 and MQL2, accessories to be ordered separately



Machine side	Workpiece side	Ordering and Product No.	Designation	Dimensions in mm								TDZ mm	BHTA°	RL mm	*	Balancing	KG
				LPR	BD1	BD2	OAL	LB	LSC	CBBDP							
HSK-A63	12,0	03098410	E930454031290M	90,0	24,0	32,0	122,0	64,0	34,0	48,0	M10x1	4,5	13,0	*	1	1,00	
	12,0	03098411	E9304540312120M	120,0	24,0	32,0	152,0	94,0	34,0	48,0	M10x1	4,5	13,0	*	1	1,10	
	12,0	03098412	E9304540312160M	160,0	24,0	32,0	192,0	134,0	34,0	48,0	M10x1	4,5	13,0	*	1	1,40	
	14,0	03098413	E930454031490M	90,0	27,0	34,0	122,0	64,0	34,0	49,0	M10x1	4,5	14,0	*	1	1,00	
	14,0	03098414	E9304540314120M	120,0	27,0	34,0	152,0	94,0	34,0	49,0	M10x1	4,5	14,0	*	1	1,20	
	16,0	03098415	E930454031695M	95,0	27,0	34,0	127,0	69,0	39,0	52,5	M10x1	4,5	14,0	*	1	1,00	
	16,0	03098416	E9304540316120M	120,0	27,0	34,0	152,0	94,0	39,0	52,5	M10x1	4,5	14,0	*	1	1,20	
	16,0	03098417	E9304540316160M	160,0	27,0	34,0	192,0	134,0	39,0	52,5	M10x1	4,5	14,0	*	1	1,50	
	18,0	03098418	E930454031895M	95,0	33,0	42,0	127,0	69,0	39,0	53,0	M10x1	4,5	18,0	*	1	1,20	
	18,0	03098419	E9304540318120M	120,0	33,0	42,0	152,0	94,0	39,0	53,0	M10x1	4,5	18,0	*	1	1,50	
	20,0	03098420	E9304540320100M	100,0	33,0	42,0	132,0	74,0	41,0	55,5	M10x1	4,5	18,0	*	1	1,20	
	20,0	03098421	E9304540320120M	120,0	33,0	42,0	152,0	94,0	41,0	55,5	M10x1	4,5	18,0	*	1	1,40	
	20,0	03098422	E9304540320160M	160,0	33,0	42,0	192,0	134,0	41,0	55,5	M10x1	4,5	18,0	*	1	1,80	
	25,0	03098423	E9304540325115M	115,0	44,0	53,0	147,0	89,0	47,0	63,5	M10x1	4,5	23,5	*	1	1,80	
	25,0	03098424	E9304540325160M	160,0	44,0	53,0	192,0	134,0	47,0	63,5	M10x1	4,5	23,5	*	1	2,50	
	32,0	03098425	E9304540332120M	120,0	44,0	53,0	152,0	94,0	51,0	70,0	M10x1	4,5	23,5	*	1	1,70	

* Conform to DIN 69090-3

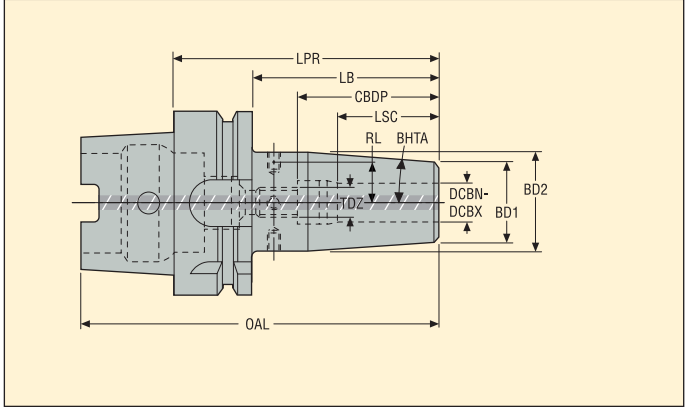
Accessories

For DCBN-DCBX	Balancing screws
12-32	90ZQ01

Please check availability in current price and stock-list

For MQL1 coolant tubes and stop screws, see page(s) 262, 264

For MQL2 coolant tubes and stop screws, see page(s) 274-275, 278



- Run-out 3 µm maximum at 3 x ∅DCBN-DCBX
- Designed for MQL1 and MQL2, accessories to be ordered separately

Machine side	Workpiece side	Ordering and Product No.	Designation	Dimensions in mm								TDZ mm	BHTA°	RL mm	*	Balancing	KG
				LPR	BD1	BD2	OAL	LB	LSC	CDBP	DCBN-DCBX						
HSK-A100	6,0	03098582	E930654030685M	85,0	21,0	27,0	135,0	56,0	22,0	37,5	M5x0,8	4,5	10,5	*	1	2,20	
	6,0	03098583	E9306540306120M	120,0	21,0	27,0	170,0	91,0	22,0	37,5	M5x0,8	4,5	10,5	*	1	2,40	
	6,0	03098584	E9306540306160M	160,0	21,0	27,0	210,0	131,0	22,0	37,5	M5x0,8	4,5	10,5	*	1	2,60	
	8,0	03098585	E930654030885M	85,0	21,0	27,0	135,0	56,0	26,0	38,0	M6x1	4,5	10,5	*	1	2,20	
	8,0	03098586	E9306540308120M	120,0	21,0	27,0	170,0	91,0	26,0	38,0	M6x1	4,5	10,5	*	1	2,40	
	8,0	03098587	E9306540308160M	160,0	21,0	27,0	210,0	131,0	26,0	38,0	M6x1	4,5	10,5	*	1	2,60	
	10,0	03098588	E930654031090M	90,0	24,0	32,0	140,0	61,0	31,0	43,5	M8x1	4,5	13,0	*	1	2,30	
	10,0	03098589	E9306540310120M	120,0	24,0	32,0	170,0	91,0	31,0	43,5	M8x1	4,5	13,0	*	1	2,50	
	10,0	03098590	E9306540310160M	160,0	24,0	32,0	210,0	131,0	31,0	43,5	M8x1	4,5	13,0	*	1	2,70	

* Conform to DIN 69090-3

Accessories

For DCBN-DCBX	Balancing screws
6-10	90ZQ01

Please check availability in current price and stock-list

For MQL1 coolant tubes and stop screws, see page(s) 262, 264

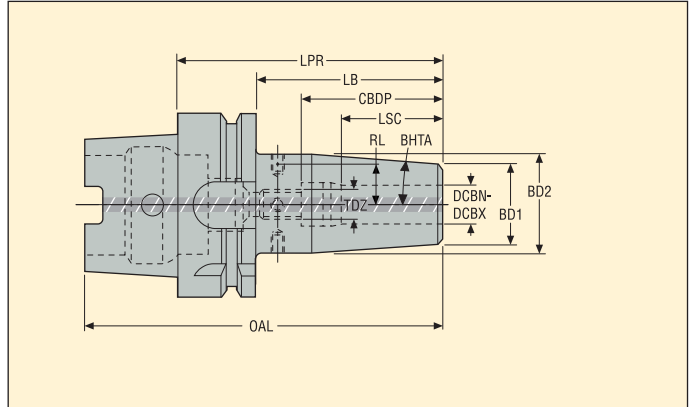
For MQL2 coolant tubes and stop screws, see page(s) 274-275, 278

EPB 5403M – Shrinkfit holders, DIN type – DIN 69090-3 – Metric

HSK-A/ ISO 12164-1-A



- Run-out 3 μm maximum at 3 x ØDCBN-DCBX
- Designed for MQL1 and MQL2, accessories to be ordered separately



Machine side	Workpiece side	Ordering and Product No.	Designation	Dimensions in mm								TDZ mm	BHTA°	RL mm	*	Balancing	KG
				LPR	BD1	BD2	OAL	LB	LSC	CBBDP							
HSK-A100	12,0	03098591	E930654031295M	95,0	24,0	32,0	145,0	66,0	34,0	48,0	M10x1	4,5	13,0	*	1	2,30	
	12,0	03098592	E9306540312120M	120,0	24,0	32,0	170,0	91,0	34,0	48,0	M10x1	4,5	13,0	*	1	2,50	
	12,0	03098593	E9306540312160M	160,0	24,0	32,0	210,0	131,0	34,0	48,0	M10x1	4,5	13,0	*	1	2,70	
	14,0	03098594	E930654031495M	95,0	27,0	34,0	145,0	66,0	34,0	49,0	M10x1	4,5	14,0	*	1	2,40	
	16,0	03098595	E9306540316100M	100,0	27,0	34,0	150,0	71,0	39,0	52,5	M10x1	4,5	14,0	*	1	2,40	
	16,0	03098596	E9306540316130M	130,0	27,0	34,0	180,0	101,0	39,0	52,5	M10x1	4,5	14,0	*	1	2,60	
	16,0	03098597	E9306540316160M	160,0	27,0	34,0	210,0	131,0	39,0	52,5	M10x1	4,5	14,0	*	1	2,80	
	18,0	03098598	E9306540318100M	100,0	33,0	42,0	150,0	71,0	39,0	53,0	M10x1	4,5	18,0	*	1	2,60	
	20,0	03098599	E9306540320105M	105,0	33,0	42,0	155,0	76,0	41,0	55,5	M10x1	4,5	18,0	*	1	2,60	
	20,0	03098600	E9306540320130M	130,0	33,0	42,0	180,0	101,0	41,0	55,5	M10x1	4,5	18,0	*	1	2,80	
	20,0	03098601	E9306540320160M	160,0	33,0	42,0	210,0	131,0	41,0	55,5	M10x1	4,5	18,0	*	1	3,20	
	25,0	03098602	E9306540325115M	115,0	44,0	53,0	165,0	86,0	47,0	63,5	M10x1	4,5	23,5	*	1	3,10	
	25,0	03098603	E9306540325160M	160,0	44,0	53,0	210,0	131,0	47,0	63,5	M10x1	4,5	23,5	*	1	3,90	
	32,0	03098604	E9306540332120M	120,0	44,0	53,0	170,0	91,0	51,0	70,0	M10x1	4,5	23,5	*	1	3,10	

* Conform to DIN 69090-3

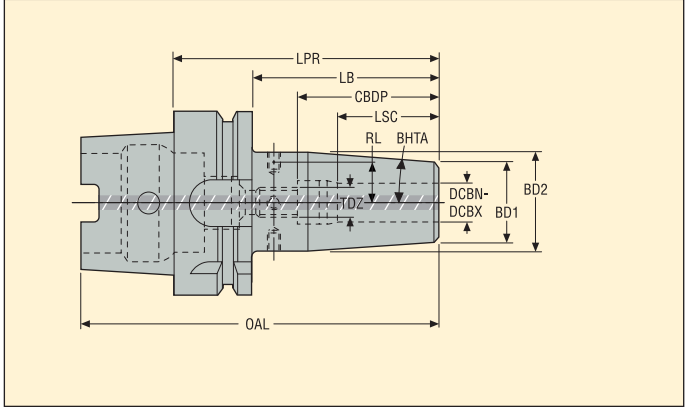
Accessories

For DCBN-DCBX	Balancing screws
12-32	90ZQ01

Please check availability in current price and stock-list

For MQL1 coolant tubes and stop screws, see page(s) 262, 264

For MQL2 coolant tubes and stop screws, see page(s) 274-275, 278



- Run-out 3 µm maximum at 3 x ∅DCBN-DCBX
- Designed for MQL1 and MQL2, accessories to be ordered separately

Machine side	Workpiece side	Ordering and Product No.	Designation	Dimensions in inch								TDZ mm	BHTA°	RL inch	*	Balancing	lbs
				LPR	BD1	BD2	OAL	LB	LSC	CBDP							
HSK-A63	0.236	03098401	E930454030680M	3.150	0.827	1.063	4.409	2.126	0.866	1.476	M5x0.8	4,5	0.413	*	1	1.98	
	0.236	03098402	E9304540306120M	4.724	0.827	1.063	5.984	3.701	0.866	1.476	M5x0.8	4,5	0.413	*	1	2.43	
	0.236	03098403	E9304540306160M	6.299	0.827	1.063	7.559	5.276	0.866	1.476	M5x0.8	4,5	0.413	*	1	2.65	
	0.315	03098404	E930454030880M	3.150	0.827	1.063	4.409	2.126	1.024	1.496	M6x1	4,5	0.413	*	1	1.98	
	0.315	03098405	E9304540308120M	4.724	0.827	1.063	5.984	3.701	1.024	1.496	M6x1	4,5	0.413	*	1	2.20	
	0.315	03098406	E9304540308160M	6.299	0.827	1.063	7.559	5.276	1.024	1.496	M6x1	4,5	0.413	*	1	2.65	
	0.394	03098407	E930454031085M	3.346	0.945	1.260	4.606	2.323	1.220	1.713	M8x1	4,5	0.512	*	1	1.98	
	0.394	03098408	E9304540310120M	4.724	0.945	1.260	5.984	3.701	1.220	1.713	M8x1	4,5	0.512	*	1	2.65	
	0.394	03098409	E9304540310160M	6.299	0.945	1.260	7.559	5.276	1.220	1.713	M8x1	4,5	0.512	*	1	3.09	

* Conform to DIN 69090-3

Accessories

For DCBN-DCBX	Balancing screws
0.236-0.394	90ZQ01

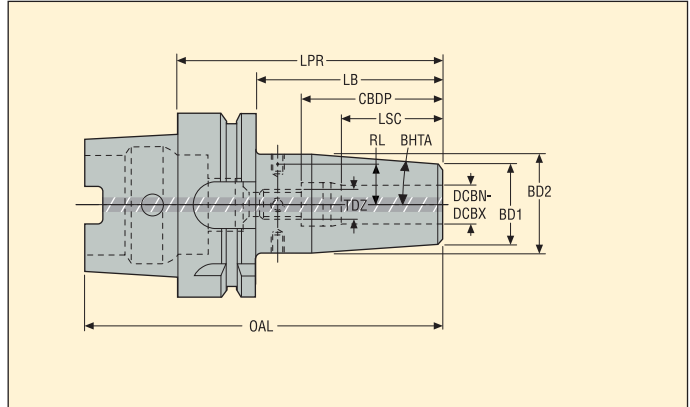
Please check availability in current price and stock-list

For MQL1 coolant tubes and stop screws, see page(s) 263, 265

For MQL2 coolant tubes and stop screws, see page(s) 276-277, 279



- Run-out 3 μm maximum at 3 x ØDCBN-DCBX
- Designed for MQL1 and MQL2, accessories to be ordered separately



Machine side	Workpiece side	Ordering and Product No.	Designation	Dimensions in inch								TDZ mm	BHTA°	RL inch	*	Balancing	lbs
				LPR	BD1	BD2	OAL	LB	LSC	CBDP							
HSK-A63	0.472	03098410	E930454031290M	3.543	0.945	1.260	4.803	2.520	1.339	1.890	M10x1	4,5	0.512	*	1	2.20	
	0.472	03098411	E9304540312120M	4.724	0.945	1.260	5.984	3.701	1.339	1.890	M10x1	4,5	0.512	*	1	2.43	
	0.472	03098412	E9304540312160M	6.299	0.945	1.260	7.559	5.276	1.339	1.890	M10x1	4,5	0.512	*	1	3.09	
	0.551	03098413	E930454031490M	3.543	1.063	1.339	4.803	2.520	1.339	1.929	M10x1	4,5	0.551	*	1	2.20	
	0.551	03098414	E9304540314120M	4.724	1.063	1.339	5.984	3.701	1.339	1.929	M10x1	4,5	0.551	*	1	2.65	
	0.630	03098415	E930454031695M	3.740	1.063	1.339	5.000	2.717	1.535	2.067	M10x1	4,5	0.551	*	1	2.20	
	0.630	03098416	E9304540316120M	4.724	1.063	1.339	5.984	3.701	1.535	2.067	M10x1	4,5	0.551	*	1	2.65	
	0.630	03098417	E9304540316160M	6.299	1.063	1.339	7.559	5.276	1.535	2.067	M10x1	4,5	0.551	*	1	3.31	
	0.709	03098418	E930454031895M	3.740	1.299	1.654	5.000	2.717	1.535	2.087	M10x1	4,5	0.709	*	1	2.65	
	0.709	03098419	E9304540318120M	4.724	1.299	1.654	5.984	3.701	1.535	2.087	M10x1	4,5	0.709	*	1	3.31	
	0.787	03098420	E9304540320100M	3.937	1.299	1.654	5.197	2.913	1.614	2.185	M10x1	4,5	0.709	*	1	2.65	
	0.787	03098421	E9304540320120M	4.724	1.299	1.654	5.984	3.701	1.614	2.185	M10x1	4,5	0.709	*	1	3.09	
	0.787	03098422	E9304540320160M	6.299	1.299	1.654	7.559	5.276	1.614	2.185	M10x1	4,5	0.709	*	1	3.97	
	0.984	03098423	E9304540325115M	4.528	1.732	2.087	5.787	3.504	1.850	2.500	M10x1	4,5	0.925	*	1	3.97	
	0.984	03098424	E9304540325160M	6.299	1.732	2.087	7.559	5.276	1.850	2.500	M10x1	4,5	0.925	*	1	5.51	
1.260	03098425	E9304540332120M	4.724	1.732	2.087	5.984	3.701	2.008	2.756	M10x1	4,5	0.925	*	1	3.75		

* Conform to DIN 69090-3

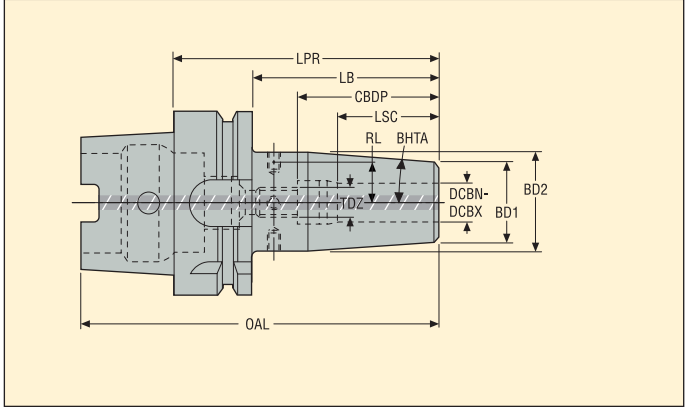
Accessories

For DCBN-DCBX	Balancing screws
0.472-1.260	90ZQ01

Please check availability in current price and stock-list

For MQL1 coolant tubes and stop screws, see page(s) 263, 265

For MQL2 coolant tubes and stop screws, see page(s) 276-277, 279



- Run-out 3 µm maximum at 3 x ∅DCBN-DCBX
- Designed for MQL1 and MQL2, accessories to be ordered separately

Machine side	Workpiece side	Ordering and Product No.	Designation	Dimensions in inch								TDZ mm	BHTA°	RL inch	*	Balancing	lbs
				LPR	BD1	BD2	OAL	LB	LSC	CDBP							
HSK-A100	0.236	03098582	E9306540306885M	3.346	0.827	1.063	5.315	2.205	0.866	1.476	M5x0.8	4,5	0.413	*	1	4.85	
	0.236	03098583	E9306540306120M	4.724	0.827	1.063	6.693	3.583	0.866	1.476	M5x0.8	4,5	0.413	*	1	5.29	
	0.236	03098584	E9306540306160M	6.299	0.827	1.063	8.268	5.157	0.866	1.476	M5x0.8	4,5	0.413	*	1	5.73	
	0.315	03098585	E930654030885M	3.346	0.827	1.063	5.315	2.205	1.024	1.496	M6x1	4,5	0.413	*	1	4.85	
	0.315	03098586	E9306540308120M	4.724	0.827	1.063	6.693	3.583	1.024	1.496	M6x1	4,5	0.413	*	1	5.29	
	0.315	03098587	E9306540308160M	6.299	0.827	1.063	8.268	5.157	1.024	1.496	M6x1	4,5	0.413	*	1	5.73	
	0.394	03098588	E930654031090M	3.543	0.945	1.260	5.512	2.402	1.220	1.713	M8x1	4,5	0.512	*	1	5.07	
	0.394	03098589	E9306540310120M	4.724	0.945	1.260	6.693	3.583	1.220	1.713	M8x1	4,5	0.512	*	1	5.51	
	0.394	03098590	E9306540310160M	6.299	0.945	1.260	8.268	5.157	1.220	1.713	M8x1	4,5	0.512	*	1	5.95	

* Conform to DIN 69090-3

Accessories

For DCBN-DCBX	Balancing screws
0.236-0.394	90ZQ01

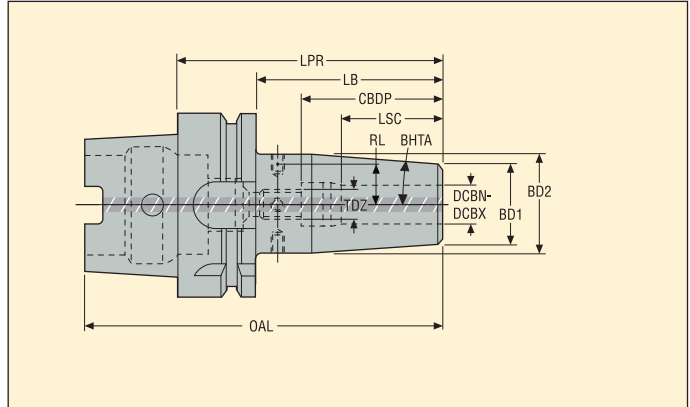
Please check availability in current price and stock-list

For MQL1 coolant tubes and stop screws, see page(s) 263, 265

For MQL2 coolant tubes and stop screws, see page(s) 276-277, 279



- Run-out 3 μm maximum at 3 x ØDCBN-DCBX
- Designed for MQL1 and MQL2, accessories to be ordered separately



Machine side	Workpiece side	Ordering and Product No.	Designation	Dimensions in inch									TDZ mm	BHTA°	RL inch	*	Balancing	lbs
				LPR	BD1	BD2	OAL	LB	LSC	CBDP								
HSK-A100	0.472	03098591	E930654031295M	3.740	0.945	1.260	5.709	2.598	1.339	1.890	M10x1	4,5	0.512	*	1	5.07		
	0.472	03098592	E9306540312120M	4.724	0.945	1.260	6.693	3.583	1.339	1.890	M10x1	4,5	0.512	*	1	5.51		
	0.472	03098593	E9306540312160M	6.299	0.945	1.260	8.268	5.157	1.339	1.890	M10x1	4,5	0.512	*	1	5.95		
	0.551	03098594	E930654031495M	3.740	1.063	1.339	5.709	2.598	1.339	1.929	M10x1	4,5	0.551	*	1	5.29		
	0.630	03098595	E9306540316100M	3.937	1.063	1.339	5.906	2.795	1.535	2.067	M10x1	4,5	0.551	*	1	5.29		
	0.630	03098596	E9306540316130M	5.118	1.063	1.339	7.087	3.976	1.535	2.067	M10x1	4,5	0.551	*	1	5.73		
	0.630	03098597	E9306540316160M	6.299	1.063	1.339	8.268	5.157	1.535	2.067	M10x1	4,5	0.551	*	1	6.17		
	0.709	03098598	E9306540318100M	3.937	1.299	1.654	5.906	2.795	1.535	2.087	M10x1	4,5	0.709	*	1	5.73		
	0.787	03098599	E9306540320105M	4.134	1.299	1.654	6.102	2.992	1.614	2.185	M10x1	4,5	0.709	*	1	5.73		
	0.787	03098600	E9306540320130M	5.118	1.299	1.654	7.087	3.976	1.614	2.185	M10x1	4,5	0.709	*	1	6.17		
	0.787	03098601	E9306540320160M	6.299	1.299	1.654	8.268	5.157	1.614	2.185	M10x1	4,5	0.709	*	1	7.05		
	0.984	03098602	E9306540325115M	4.528	1.732	2.087	6.496	3.386	1.850	2.500	M10x1	4,5	0.925	*	1	6.83		
	0.984	03098603	E9306540325160M	6.299	1.732	2.087	8.268	5.157	1.850	2.500	M10x1	4,5	0.925	*	1	8.60		
	1.260	03098604	E9306540332120M	4.724	1.732	2.087	6.693	3.583	2.008	2.756	M10x1	4,5	0.925	*	1	6.83		

* Conform to DIN 69090-3

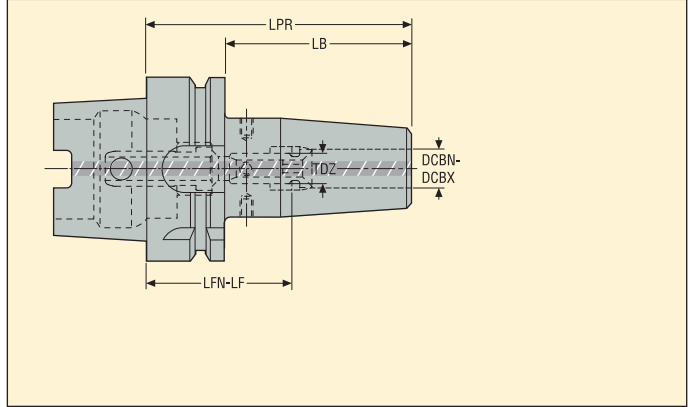
Accessories

For DCBN-DCBX	Balancing screws
0.472-1.260	90ZQ01

Please check availability in current price and stock-list

For MQL1 coolant tubes and stop screws, see page(s) 263, 265

For MQL2 coolant tubes and stop screws, see page(s) 276-277, 279



- Run-out 3 µm maximum at 3 x ∅DCBN-DCBX
- Delivered ready for MQL1 with stop screw and coolant tube fitted

Machine side	Workpiece side	Ordering and Product No.	Designation	Spare Parts			Dimensions in mm			*	TDZ mm	KG
				Tool holders	Coolant tube MQL1	Stop screw MQL1	LPR	LB	LFN-LF			
HSK-A63	6.0	03098623	E930454030680M1	E930454030680M	20E9304	19MQL106S	80,0	54,0	44,0-54,0	*	M5x0.8	0,90
	6.0	03098624	E9304540306120M1	E9304540306120M	20E9304	19MQL106L	120,0	94,0	84,0-94,0	*	M5x0.8	1,10
	6.0	03098625	E9304540306160M1	E9304540306160M	20E9304	19MQL106L	160,0	134,0	124,0-134,0	*	M5x0.8	1,30
	8.0	03098626	E930454030880M1	E930454030880M	20E9304	19MQL108S	80,0	54,0	44,0-54,0	*	M6x1	0,90
	8.0	03098627	E9304540308120M1	E9304540308120M	20E9304	19MQL108L	120,0	94,0	84,0-94,0	*	M6x1	1,10
	8.0	03098628	E9304540308160M1	E9304540308160M	20E9304	19MQL108L	160,0	134,0	124,0-134,0	*	M6x1	1,20
	10.0	03098629	E930454031085M1	E930454031085M	20E9304	19MQL110S	85,0	59,0	44,0-54,0	*	M8x1	1,00
	10.0	03098630	E9304540310120M1	E9304540310120M	20E9304	19MQL110L	120,0	94,0	79,0-89,0	*	M8x1	1,20
	10.0	03098631	E9304540310160M1	E9304540310160M	20E9304	19MQL110L	160,0	134,0	119,0-129,0	*	M8x1	1,40
	12.0	03098632	E930454031290M1	E930454031290M	20E9304	19MQL112S	90,0	64,0	44,0-54,0	*	M10x1	1,00
	12.0	03098633	E9304540312120M1	E9304540312120M	20E9304	19MQL112L	120,0	94,0	74,0-84,0	*	M10x1	1,20
	12.0	03098634	E9304540312160M1	E9304540312160M	20E9304	19MQL112L	160,0	134,0	114,0-124,0	*	M10x1	1,40
	14.0	03098635	E930454031490M1	E930454031490M	20E9304	19MQL114S	90,0	64,0	44,0-54,0	*	M10x1	1,00
	14.0	03098636	E9304540314120M1	E9304540314120M	20E9304	19MQL114L	120,0	94,0	74,0-84,0	*	M10x1	1,20
	16.0	03098637	E930454031695M1	E930454031695M	20E9304	19MQL116S	95,0	69,0	46,0-56,0	*	M10x1	1,10
	16.0	03098638	E9304540316120M1	E9304540316120M	20E9304	19MQL116L	120,0	94,0	71,0-81,0	*	M10x1	1,20
	16.0	03098639	E9304540316160M1	E9304540316160M	20E9304	19MQL116L	160,0	134,0	111,0-121,0	*	M10x1	1,50
	18.0	03098640	E930454031895M1	E930454031895M	20E9304	19MQL118S	95,0	69,0	46,0-56,0	*	M10x1	1,20
	18.0	03098641	E9304540318120M1	E9304540318120M	20E9304	19MQL118L	120,0	94,0	71,0-81,0	*	M10x1	1,50
	20.0	03098642	E9304540320100M1	E9304540320100M	20E9304	19MQL120S	100,0	74,0	49,0-59,0	*	M10x1	1,30
20.0	03098643	E9304540320120M1	E9304540320120M	20E9304	19MQL120L	120,0	94,0	69,0-79,0	*	M10x1	1,50	
20.0	03098644	E9304540320160M1	E9304540320160M	20E9304	19MQL120L	160,0	134,0	109,0-119,0	*	M10x1	1,90	
25.0	03098645	E9304540325115M1	E9304540325115M	20E9304	19MQL125S	115,0	89,0	58,0-68,0	*	M10x1	1,80	
25.0	03098646	E9304540325160M1	E9304540325160M	20E9304	19MQL125L	160,0	134,0	103,0-113,0	*	M10x1	2,60	
32.0	03098647	E9304540332120M1	E9304540332120M	20E9304	19MQL132S	120,0	94,0	59,0-69,0	*	M10x1	1,70	

Please check availability in current price and stock-list
For details about MQL1 accessories, see page(s) 262, 264

* Conform to DIN 69090-3

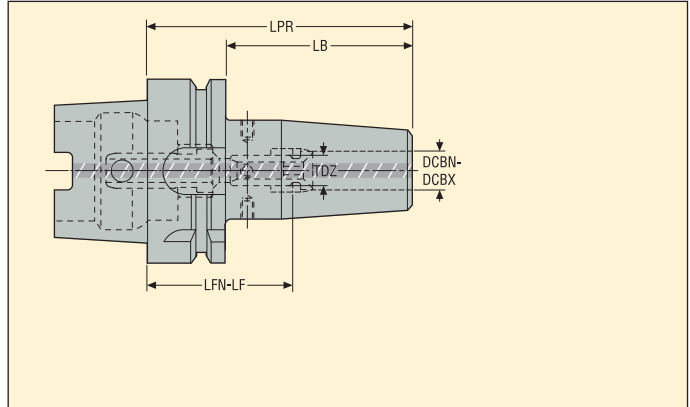
Tooling – Shrinkfit holders, MQL type

EPB 5403M1 – Shrinkfit holders MQL1, DIN type – DIN 69090-3 – Metric

HSK-A/ ISO 12164-1-A



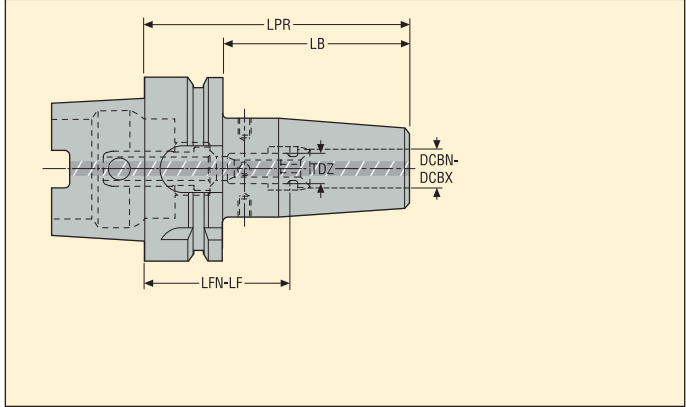
- Run-out 3 µm maximum at 3 x ØDCBN-DCBX
- Delivered ready for MQL1 with stop screw and coolant tube fitted



Machine side	Workpiece side	Ordering and Product No.	Designation	Spare Parts			Dimensions in mm			*	TDZ mm	KG
				Tool holders	Coolant tube MQL1	Stop screw MQL1	LPR	LB	LFN-LF			
HSK-A100	6,0	03099158	E930654030685M1	E930654030685M	20E9306M1	19MQL 106S	85,0	56,0	49,0-59,0	*	M5x0.8	2,30
	6,0	03099159	E9306540306120M1	E9306540306120M	20E9306M1	19MQL 106L	120,0	91,0	84,0-94,0	*	M5x0.8	2,50
	6,0	03099160	E9306540306160M1	E9306540306160M	20E9306M1	19MQL 106L	160,0	131,0	124,0-134,0	*	M5x0.8	2,60
	8,0	03099161	E930654030885M1	E930654030885M	20E9306M1	19MQL 108S	85,0	56,0	49,0-59,0	*	M6x1	2,30
	8,0	03099162	E9306540308120M1	E9306540308120M	20E9306M1	19MQL 108L	120,0	91,0	84,0-94,0	*	M6x1	2,50
	8,0	03099163	E9306540308160M1	E9306540308160M	20E9306M1	19MQL 108L	160,0	131,0	124,0-134,0	*	M6x1	2,60
	10,0	03099164	E930654031090M1	E930654031090M	20E9306M1	19MQL 110S	90,0	61,0	49,0-59,0	*	M8x1	2,40
	10,0	03099165	E9306540310120M1	E9306540310120M	20E9306M1	19MQL 110L	120,0	91,0	79,0-89,0	*	M8x1	2,60
	10,0	03099166	E9306540310160M1	E9306540310160M	20E9306M1	19MQL 110L	160,0	131,0	119,0-129,0	*	M8x1	2,80
	12,0	03099167	E930654031295M1	E930654031295M	20E9306M1	19MQL 112S	95,0	66,0	49,0-59,0	*	M10x1	2,40
	12,0	03099168	E9306540312120M1	E9306540312120M	20E9306M1	19MQL 112L	120,0	91,0	74,0-84,0	*	M10x1	2,50
	12,0	03099169	E9306540312160M1	E9306540312160M	20E9306M1	19MQL 112L	160,0	131,0	114,0-124,0	*	M10x1	2,80
	14,0	03099170	E930654031495M1	E930654031495M	20E9306M1	19MQL 114S	95,0	66,0	49,0-59,0	*	M10x1	2,50
	16,0	03099171	E9306540316100M1	E9306540316100M	20E9306M1	19MQL 116S	100,0	71,0	51,0-61,0	*	M10x1	2,50
	16,0	03099172	E9306540316130M1	E9306540316130M	20E9306M1	19MQL 116L	130,0	101,0	81,0-91,0	*	M10x1	2,70
	16,0	03099173	E9306540316160M1	E9306540316160M	20E9306M1	19MQL 116L	160,0	131,0	111,0-121,0	*	M10x1	2,90
	18,0	03099174	E9306540318100M1	E9306540318100M	20E9306M1	19MQL 118S	100,0	71,0	51,0-61,0	*	M10x1	2,60
	20,0	03099175	E9306540320105M1	E9306540320105M	20E9306M1	19MQL 120S	105,0	76,0	54,0-64,0	*	M10x1	2,70
	20,0	03099176	E9306540320130M1	E9306540320130M	20E9306M1	19MQL 120L	130,0	101,0	79,0-89,0	*	M10x1	2,90
	20,0	03099177	E9306540320160M1	E9306540320160M	20E9306M1	19MQL 120L	160,0	131,0	109,0-119,0	*	M10x1	3,20
	25,0	03099178	E9306540325115M1	E9306540325115M	20E9306M1	19MQL 125S	115,0	86,0	58,0-68,0	*	M10x1	3,20
	25,0	03099179	E9306540325160M1	E9306540325160M	20E9306M1	19MQL 125L	160,0	131,0	103,0-113,0	*	M10x1	4,00
	32,0	03099180	E9306540332120M1	E9306540332120M	20E9306M1	19MQL 132S	120,0	91,0	59,0-69,0	*	M10x1	3,10

Please check availability in current price and stock-list
For details about MQL1 accessories, see page(s) 262, 264

* Conform to DIN 69090-3



- Run-out 3 µm maximum at 3 x \varnothing DCBN-DCBX
- Delivered ready for MQL1 with stop screw and coolant tube fitted

Machine side	Workpiece side	Ordering and Product No.	Designation	Spare Parts			Dimensions in inch			*	TDZ mm	lbs
				Tool holders	Coolant tube MQL1	Stop screw MQL1	LPR	LB	LFN-LF			
HSK-A63	0.236	03098623	E930454030680M1	E930454030680M	20E9304	19MQL106S	3.150	2.126	1.732-2.126	*	M5x0.8	1.98
	0.236	03098624	E9304540306120M1	E9304540306120M	20E9304	19MQL106L	4.724	3.701	3.307-3.701	*	M5x0.8	2.43
	0.236	03098625	E9304540306160M1	E9304540306160M	20E9304	19MQL106L	6.299	5.276	4.882-5.276	*	M5x0.8	2.87
	0.315	03098626	E930454030880M1	E930454030880M	20E9304	19MQL108S	3.150	2.126	1.732-2.126	*	M6x1	1.98
	0.315	03098627	E9304540308120M1	E9304540308120M	20E9304	19MQL108L	4.724	3.701	3.307-3.701	*	M6x1	2.43
	0.315	03098628	E9304540308160M1	E9304540308160M	20E9304	19MQL108L	6.299	5.276	4.882-5.276	*	M6x1	2.65
	0.394	03098629	E930454031085M1	E930454031085M	20E9304	19MQL110S	3.346	2.323	1.732-2.126	*	M8x1	2.20
	0.394	03098630	E9304540310120M1	E9304540310120M	20E9304	19MQL110L	4.724	3.701	3.110-3.504	*	M8x1	2.65
	0.394	03098631	E9304540310160M1	E9304540310160M	20E9304	19MQL110L	6.299	5.276	4.685-5.079	*	M8x1	3.09
	0.472	03098632	E930454031290M1	E930454031290M	20E9304	19MQL112S	3.543	2.520	1.732-2.126	*	M10x1	2.20
	0.472	03098633	E9304540312120M1	E9304540312120M	20E9304	19MQL112L	4.724	3.701	2.913-3.307	*	M10x1	2.65
	0.472	03098634	E9304540312160M1	E9304540312160M	20E9304	19MQL112L	6.299	5.276	4.488-4.882	*	M10x1	3.09
	0.551	03098635	E930454031490M1	E930454031490M	20E9304	19MQL114S	3.543	2.520	1.732-2.126	*	M10x1	2.20
	0.551	03098636	E9304540314120M1	E9304540314120M	20E9304	19MQL114L	4.724	3.701	2.913-3.307	*	M10x1	2.65
	0.630	03098637	E930454031695M1	E930454031695M	20E9304	19MQL116S	3.740	2.717	1.811-2.205	*	M10x1	2.43
	0.630	03098638	E9304540316120M1	E9304540316120M	20E9304	19MQL116L	4.724	3.701	2.795-3.189	*	M10x1	2.65
	0.630	03098639	E9304540316160M1	E9304540316160M	20E9304	19MQL116L	6.299	5.276	4.370-4.764	*	M10x1	3.31
	0.709	03098640	E930454031895M1	E930454031895M	20E9304	19MQL118S	3.740	2.717	1.811-2.205	*	M10x1	2.65
	0.709	03098641	E9304540318120M1	E9304540318120M	20E9304	19MQL118L	4.724	3.701	2.795-3.189	*	M10x1	3.31
	0.787	03098642	E9304540320100M1	E9304540320100M	20E9304	19MQL120S	3.937	2.913	1.929-2.323	*	M10x1	2.87
0.787	03098643	E9304540320120M1	E9304540320120M	20E9304	19MQL120L	4.724	3.701	2.717-3.110	*	M10x1	3.31	
0.787	03098644	E9304540320160M1	E9304540320160M	20E9304	19MQL120L	6.299	5.276	4.291-4.685	*	M10x1	4.19	
0.984	03098645	E9304540325115M1	E9304540325115M	20E9304	19MQL125S	4.528	3.504	2.283-2.677	*	M10x1	3.97	
0.984	03098646	E9304540325160M1	E9304540325160M	20E9304	19MQL125L	6.299	5.276	4.055-4.449	*	M10x1	5.73	
1.260	03098647	E9304540332120M1	E9304540332120M	20E9304	19MQL132S	4.724	3.701	2.323-2.717	*	M10x1	3.75	

Please check availability in current price and stock-list
For details about MQL1 accessories, see page(s) 263, 265

* Conform to DIN 69090-3

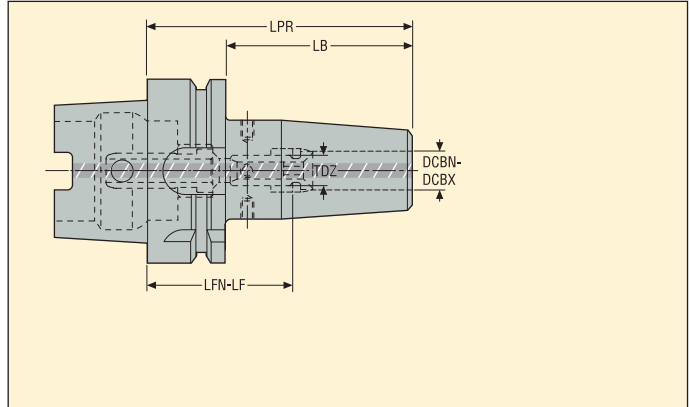
Tooling – Shrinkfit holders, MQL type

EPB 5403M1 – Shrinkfit holders MQL1, DIN type – DIN 69090-3 – Inch

HSK-A/ ISO 12164-1-A



- Run-out 3 µm maximum at 3 x ØDCBN-DCBX
- Delivered ready for MQL1 with stop screw and coolant tube fitted



Machine side	Workpiece side	Ordering and Product No.	Designation	Spare Parts			Dimensions in inch			*	TDZ mm	lbs
				Tool holders	Coolant tube MQL1	Stop screw MQL1	LPR	LB	LFN-LF			
HSK-A100	0.236	03099158	E930654030685M1	E930654030685M	20E9306M1	19MQL 106S	3.346	2.205	1.929-2.323	*	M5x0.8	5.07
	0.236	03099159	E9306540306120M1	E9306540306120M	20E9306M1	19MQL 106L	4.724	3.583	3.307-3.701	*	M5x0.8	5.51
	0.236	03099160	E9306540306160M1	E9306540306160M	20E9306M1	19MQL 106L	6.299	5.157	4.882-5.276	*	M5x0.8	5.73
	0.315	03099161	E930654030885M1	E930654030885M	20E9306M1	19MQL 108S	3.346	2.205	1.929-2.323	*	M6x1	5.07
	0.315	03099162	E9306540308120M1	E9306540308120M	20E9306M1	19MQL 108L	4.724	3.583	3.307-3.701	*	M6x1	5.51
	0.315	03099163	E9306540308160M1	E9306540308160M	20E9306M1	19MQL 108L	6.299	5.157	4.882-5.276	*	M6x1	5.73
	0.394	03099164	E930654031090M1	E930654031090M	20E9306M1	19MQL 110S	3.543	2.402	1.929-2.323	*	M8x1	5.29
	0.394	03099165	E9306540310120M1	E9306540310120M	20E9306M1	19MQL 110L	4.724	3.583	3.110-3.504	*	M8x1	5.73
	0.394	03099166	E9306540310160M1	E9306540310160M	20E9306M1	19MQL 110L	6.299	5.157	4.685-5.079	*	M8x1	6.17
	0.472	03099167	E930654031295M1	E930654031295M	20E9306M1	19MQL 112S	3.740	2.598	1.929-2.323	*	M10x1	5.29
	0.472	03099168	E9306540312120M1	E9306540312120M	20E9306M1	19MQL 112L	4.724	3.583	2.913-3.307	*	M10x1	5.51
	0.472	03099169	E9306540312160M1	E9306540312160M	20E9306M1	19MQL 112L	6.299	5.157	4.488-4.882	*	M10x1	6.17
	0.551	03099170	E930654031495M1	E930654031495M	20E9306M1	19MQL 114S	3.740	2.598	1.929-2.323	*	M10x1	5.51
	0.630	03099171	E9306540316100M1	E9306540316100M	20E9306M1	19MQL 116S	3.937	2.795	2.008-2.402	*	M10x1	5.51
	0.630	03099172	E9306540316130M1	E9306540316130M	20E9306M1	19MQL 116L	5.118	3.976	3.189-3.583	-	M10x1	5.95
	0.630	03099173	E9306540316160M1	E9306540316160M	20E9306M1	19MQL 116L	6.299	5.157	4.370-4.764	*	M10x1	6.39
	0.709	03099174	E9306540318100M1	E9306540318100M	20E9306M1	19MQL 118S	3.937	2.795	2.008-2.402	*	M10x1	5.73
	0.787	03099175	E9306540320105M1	E9306540320105M	20E9306M1	19MQL 120S	4.134	2.992	2.126-2.520	*	M10x1	5.95
	0.787	03099176	E9306540320130M1	E9306540320130M	20E9306M1	19MQL 120L	5.118	3.976	3.110-3.504	-	M10x1	6.39
	0.787	03099177	E9306540320160M1	E9306540320160M	20E9306M1	19MQL 120L	6.299	5.157	4.291-4.685	*	M10x1	7.05
0.984	03099178	E9306540325115M1	E9306540325115M	20E9306M1	19MQL 125S	4.528	3.386	2.283-2.677	*	M10x1	7.05	
0.984	03099179	E9306540325160M1	E9306540325160M	20E9306M1	19MQL 125L	6.299	5.157	4.055-4.449	*	M10x1	8.82	
1.260	03099180	E9306540332120M1	E9306540332120M	20E9306M1	19MQL 132S	4.724	3.583	2.323-2.717	*	M10x1	6.83	

Please check availability in current price and stock-list
For details about MQL1 accessories, see page(s) 263, 265

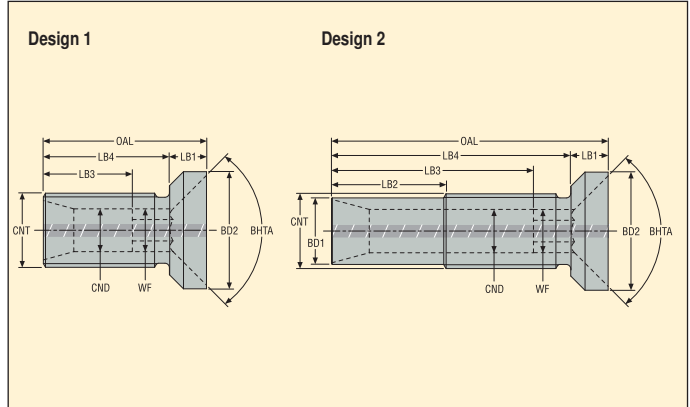
* Conform to DIN 69090-3

Tooling – Shrinkfit holders, MQL type

Accessories, stop screws for MQL1 – DIN 69090-3 – Inch



- With tapered contact surface for MQL tool according to DIN 69090-3



Description	CND Ø inch	Ordering and Product No.	Designation	Dimensions in inch								CNT mm	BHTA°	Design	lbs
				BD1	BD2	OAL	LB1	LB2	LB3	LB4	WF				
Short	0.118	02967758	19MQL106S	–	0.228	0.669	0.059	–	0.472	0.610	0.098	M5	90,0	1	0.22
	0.138	02967759	19MQL108S	–	0.307	0.709	0.098	–	0.472	0.610	0.118	M6	90,0	1	0.22
	0.185	02967760	19MQL110S	–	0.386	0.709	0.118	–	0.472	0.591	0.157	M8x1	90,0	1	0.22
	0.228	02967761	19MQL112S	–	0.465	0.709	0.118	–	0.433	0.591	0.197	M10x1	90,0	1	0.22
	0.228	02967762	19MQL114S	–	0.543	0.768	0.157	–	0.492	0.610	0.197	M10x1	90,0	1	0.22
	0.228	02967763	19MQL116S	–	0.622	0.866	0.197	–	0.472	0.669	0.197	M10x1	90,0	1	0.22
	0.228	02967764	19MQL118S	–	0.701	0.866	0.236	–	0.472	0.630	0.197	M10x1	90,0	1	0.22
	0.228	02967765	19MQL120S	–	0.780	0.925	0.276	–	0.472	0.650	0.197	M10x1	90,0	1	0.22
	0.228	02967766	19MQL125S	–	0.976	1.083	0.374	–	0.512	0.709	0.197	M10x1	90,0	1	0.22
	0.228	02967767	19MQL132S	–	1.252	1.201	0.512	–	0.512	0.689	0.197	M10x1	90,0	1	0.22
Long	0.118	02967768	19MQL106L	0.161	0.228	1.339	0.059	0.591	1.181	1.280	0.098	M5x0.8	90,0	2	0.22
	0.138	02967769	19MQL108L	0.193	0.307	1.339	0.098	0.591	1.142	1.240	0.118	M6x1	90,0	2	0.22
	0.185	02967770	19MQL110L	0.272	0.386	1.378	0.118	0.591	1.102	1.260	0.157	M8x1	90,0	2	0.22
	0.228	02967771	19MQL112L	0.350	0.465	1.378	0.118	0.591	1.063	1.260	0.197	M10x1	90,0	2	0.22
	0.228	02967772	19MQL114L	0.350	0.543	1.398	0.157	0.610	1.024	1.240	0.197	M10x1	90,0	2	0.22
	0.228	02967773	19MQL116L	0.350	0.622	1.457	0.197	0.591	1.063	1.260	0.197	M10x1	90,0	2	0.22
	0.228	02967774	19MQL118L	0.350	0.701	1.476	0.236	0.610	1.024	1.240	0.197	M10x1	90,0	2	0.22
	0.228	02967775	19MQL120L	0.350	0.780	1.575	0.276	0.591	1.102	1.299	0.197	M10x1	90,0	2	0.22
	0.228	02967776	19MQL125L	0.350	0.976	1.732	0.374	0.591	1.142	1.358	0.197	M10x1	90,0	2	0.22
	0.228	02967777	19MQL132L	0.350	1.252	1.772	0.512	0.551	1.063	1.260	0.197	M10x1	90,0	2	0.22

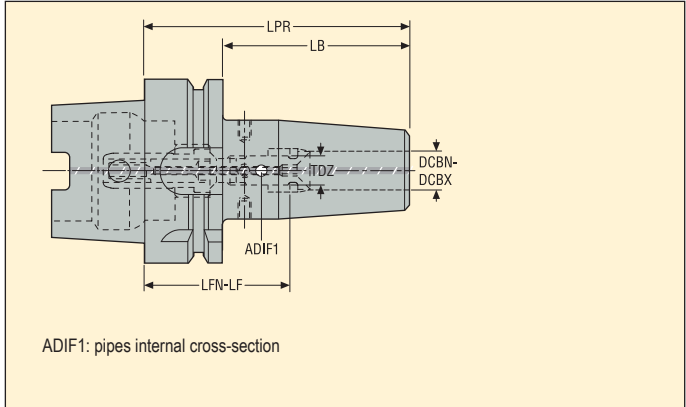
Please check availability in current price and stock-list

EPB 5403M2 – Shrinkfit holders MQL2 – Metric

HSK-A/ ISO 12164-1-A



- Run-out 3 µm maximum at 3 x ∅DCBN-DCBX
- Delivered ready for MQL2 with stop screw and coolant tube fitted



Machine side	Workpiece side	ADIF1 mm ²	Ordering and Product No.	Designation	Spare Parts			Dimensions in mm			TDZ mm	KG
					Tool holders	Coolant tube MQL2	Stop screw MQL2	LPR	LB	LFN-LF		
HSK-A63	6.0	2.01	03099193	E930454030680M2-1.9	E930454030680M	20E9304M2A02	19MQL2A01	80,0	54,0	44,0-54,0	M5x0.8	0,90
	6.0	4.15	03099194	E930454030680M2-2.8	E930454030680M	20E9304M2B02	19MQL2B01	80,0	54,0	44,0-54,0	M5x0.8	0,90
	6.0	2.01	03099195	E9304540306120M2-1.9	E9304540306120M	20E9304M2A06	19MQL2A01	120,0	94,0	84,0-94,0	M5x0.8	1,10
	6.0	4.15	03099196	E9304540306120M2-2.8	E9304540306120M	20E9304M2B09	19MQL2B01	120,0	94,0	84,0-94,0	M5x0.8	1,10
	6.0	2.01	03099197	E9304540306160M2-1.9	E9304540306160M	20E9304M2A10	19MQL2A01	160,0	134,0	124,0-134,0	M5x0.8	1,30
	6.0	4.15	03099198	E9304540306160M2-2.8	E9304540306160M	20E9304M2B16	19MQL2B01	160,0	134,0	124,0-134,0	M5x0.8	1,30
	8.0	2.01	03099206	E930454030880M2-1.9	E930454030880M	20E9304M2A02	19MQL2A02	80,0	54,0	44,0-54,0	M6x1	0,90
	8.0	4.15	03099207	E930454030880M2-2.8	E930454030880M	20E9304M2B02	19MQL2B02	80,0	54,0	44,0-54,0	M6x1	0,90
	8.0	2.01	03099208	E9304540308120M2-1.9	E9304540308120M	20E9304M2A06	19MQL2A02	120,0	94,0	84,0-94,0	M6x1	1,10
	8.0	4.15	03099209	E9304540308120M2-2.8	E9304540308120M	20E9304M2B09	19MQL2B02	120,0	94,0	84,0-94,0	M6x1	1,10
	8.0	2.01	03099210	E9304540308160M2-1.9	E9304540308160M	20E9304M2A10	19MQL2A02	160,0	134,0	124,0-134,0	M6x1	1,30
	8.0	4.15	03099211	E9304540308160M2-2.8	E9304540308160M	20E9304M2B16	19MQL2B02	160,0	134,0	124,0-134,0	M6x1	1,30
	10.0	2.01	03099223	E930454031085M2-1.9	E930454031085M	20E9304M2A02	19MQL2A03	85,0	59,0	44,0-54,0	M8x1	1,00
	10.0	4.15	03099224	E930454031085M2-2.8	E930454031085M	20E9304M2B02	19MQL2B03	85,0	59,0	44,0-54,0	M8x1	1,00
	10.0	2.01	03099225	E9304540310120M2-1.9	E9304540310120M	20E9304M2A05	19MQL2A03	120,0	94,0	79,0-89,0	M8x1	1,20
	10.0	4.15	03099226	E9304540310120M2-2.8	E9304540310120M	20E9304M2B08	19MQL2B03	120,0	94,0	79,0-89,0	M8x1	1,20
	10.0	2.01	03099227	E9304540310160M2-1.9	E9304540310160M	20E9304M2A09	19MQL2A03	160,0	134,0	119,0-129,0	M8x1	1,40
	10.0	4.15	03099228	E9304540310160M2-2.8	E9304540310160M	20E9304M2B15	19MQL2B03	160,0	134,0	119,0-129,0	M8x1	1,40
	12.0	2.01	03099241	E930454031290M2-1.9	E930454031290M	20E9304M2A01	19MQL2A04	90,0	64,0	44,0-54,0	M10x1	1,00
	12.0	4.15	03099242	E930454031290M2-2.8	E930454031290M	20E9304M2B01	19MQL2B04	90,0	64,0	44,0-54,0	M10x1	1,00
	12.0	9.08	03099243	E930454031290M2-4.0	E930454031290M	20E9304M2C01	19MQL2C01	90,0	64,0	44,0-54,0	M10x1	1,00
	12.0	2.01	03099244	E9304540312120M2-1.9	E9304540312120M	20E9304M2A04	19MQL2A04	120,0	94,0	74,0-84,0	M10x1	1,20
	12.0	4.15	03099245	E9304540312120M2-2.8	E9304540312120M	20E9304M2B07	19MQL2B04	120,0	94,0	74,0-84,0	M10x1	1,20
	12.0	9.08	03099246	E9304540312120M2-4.0	E9304540312120M	20E9304M2C06	19MQL2C01	120,0	94,0	74,0-84,0	M10x1	1,20
	12.0	2.01	03099247	E9304540312160M2-1.9	E9304540312160M	20E9304M2A08	19MQL2A04	160,0	134,0	114,0-124,0	M10x1	1,40
	12.0	4.15	03099248	E9304540312160M2-2.8	E9304540312160M	20E9304M2B14	19MQL2B04	160,0	134,0	114,0-124,0	M10x1	1,40
	12.0	9.08	03099249	E9304540312160M2-4.0	E9304540312160M	20E9304M2C11	19MQL2C01	160,0	134,0	114,0-124,0	M10x1	1,40
	14.0	2.01	03099289	E930454031490M2-1.9	E930454031490M	20E9304M2A01	19MQL2A05	90,0	64,0	44,0-54,0	M10x1	1,10
	14.0	4.15	03099290	E930454031490M2-2.8	E930454031490M	20E9304M2B01	19MQL2B05	90,0	64,0	44,0-54,0	M10x1	1,10
	14.0	9.08	03099291	E930454031490M2-4.0	E930454031490M	20E9304M2C01	19MQL2C02	90,0	64,0	44,0-54,0	M10x1	1,10
	14.0	2.01	03099292	E9304540314120M2-1.9	E9304540314120M	20E9304M2A04	19MQL2A05	120,0	94,0	74,0-84,0	M10x1	1,30
	14.0	4.15	03099293	E9304540314120M2-2.8	E9304540314120M	20E9304M2B07	19MQL2B05	120,0	94,0	74,0-84,0	M10x1	1,30
	14.0	9.08	03099294	E9304540314120M2-4.0	E9304540314120M	20E9304M2C06	19MQL2C02	120,0	94,0	74,0-84,0	M10x1	1,30
	16.0	2.01	03099313	E930454031695M2-1.9	E930454031695M	20E9304M2A01	19MQL2A06	95,0	69,0	46,0-56,0	M10x1	1,10
	16.0	4.15	03099314	E930454031695M2-2.8	E930454031695M	20E9304M2B01	19MQL2B06	95,0	69,0	46,0-56,0	M10x1	1,10
	16.0	9.08	03099315	E930454031695M2-4.0	E930454031695M	20E9304M2C01	19MQL2C03	95,0	69,0	46,0-56,0	M10x1	1,10
	16.0	2.01	03099316	E9304540316120M2-1.9	E9304540316120M	20E9304M2A03	19MQL2A06	120,0	94,0	71,0-81,0	M10x1	1,20
	16.0	4.15	03099317	E9304540316120M2-2.8	E9304540316120M	20E9304M2B06	19MQL2B06	120,0	94,0	71,0-81,0	M10x1	1,20
	16.0	9.08	03099318	E9304540316120M2-4.0	E9304540316120M	20E9304M2C05	19MQL2C03	120,0	94,0	71,0-81,0	M10x1	1,20
	16.0	2.01	03099319	E9304540316160M2-1.9	E9304540316160M	20E9304M2A07	19MQL2A06	160,0	134,0	111,0-121,0	M10x1	1,50
16.0	4.15	03099320	E9304540316160M2-2.8	E9304540316160M	20E9304M2B13	19MQL2B06	160,0	134,0	111,0-121,0	M10x1	1,50	
16.0	9.08	03099321	E9304540316160M2-4.0	E9304540316160M	20E9304M2C10	19MQL2C03	160,0	134,0	111,0-121,0	M10x1	1,50	

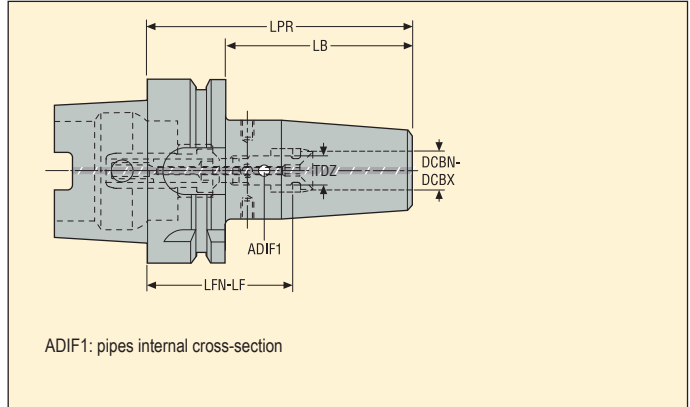
Please check availability in current price and stock-list
For details about MQL2 accessories, see page(s) 274-275, 278

EPB 5403M2 – Shrinkfit holders MQL2 – Metric

HSK-A/ ISO 12164-1-A



- Run-out 3 µm maximum at 3 x ØDCBN-DCBX
- Delivered ready for MQL2 with stop screw and coolant tube fitted



Machine side	Workpiece side	ADIF1 mm ²	Ordering and Product No.	Designation	Spare Parts			Dimensions in mm			TDZ mm	KG
					Tool holders	Coolant tube MQL2	Stop screw MQL2	LPR	LB	LFN-LF		
HSK-A63	18,0	2.01	03099444	E930454031895M2-1.9	E930454031895M	20E9304M2A01	19MQL2A07	95,0	69,0	46,0-56,0	M10x1	1,20
	18,0	4.15	03099445	E930454031895M2-2.8	E930454031895M	20E9304M2B01	19MQL2B07	95,0	69,0	46,0-56,0	M10x1	1,20
	18,0	9.08	03099446	E930454031895M2-4.0	E930454031895M	20E9304M2C01	19MQL2C04	95,0	69,0	46,0-56,0	M10x1	1,20
	18,0	2.01	03099447	E9304540318120M2-1.9	E9304540318120M	20E9304M2A03	19MQL2A07	120,0	94,0	71,0-81,0	M10x1	1,50
	18,0	4.15	03099448	E9304540318120M2-2.8	E9304540318120M	20E9304M2B06	19MQL2B07	120,0	94,0	71,0-81,0	M10x1	1,50
	18,0	9.08	03099449	E9304540318120M2-4.0	E9304540318120M	20E9304M2C05	19MQL2C04	120,0	94,0	71,0-81,0	M10x1	1,50
	20,0	4.15	03099454	E9304540320100M2-2.8	E9304540320100M	20E9304M2B01	19MQL2B08	100,0	74,0	49,0-59,0	M10x1	1,30
	20,0	9.08	03099455	E9304540320100M2-4.0	E9304540320100M	20E9304M2C01	19MQL2C05	100,0	74,0	49,0-59,0	M10x1	1,30
	20,0	16.62	03099456	E9304540320100M2-5.3	E9304540320100M	20E9304M2D01	19MQL2D01	100,0	74,0	49,0-59,0	M10x1	1,30
	20,0	4.15	03099457	E9304540320120M2-2.8	E9304540320120M	20E9304M2B05	19MQL2B08	120,0	94,0	69,0-79,0	M10x1	1,50
	20,0	9.08	03099458	E9304540320120M2-4.0	E9304540320120M	20E9304M2C04	19MQL2C05	120,0	94,0	69,0-79,0	M10x1	1,50
	20,0	16.62	03099459	E9304540320120M2-5.3	E9304540320120M	20E9304M2D04	19MQL2D01	120,0	94,0	69,0-79,0	M10x1	1,50
	20,0	4.15	03099460	E9304540320160M2-2.8	E9304540320160M	20E9304M2B12	19MQL2B08	160,0	134,0	109,0-119,0	M10x1	1,90
	20,0	9.08	03099461	E9304540320160M2-4.0	E9304540320160M	20E9304M2C09	19MQL2C05	160,0	134,0	109,0-119,0	M10x1	1,90
	20,0	16.62	03099462	E9304540320160M2-5.3	E9304540320160M	20E9304M2D07	19MQL2D01	160,0	134,0	109,0-119,0	M10x1	1,90
	25,0	4.15	03099535	E9304540325115M2-2.8	E9304540325115M	20E9304M2B03	19MQL2B09	115,0	89,0	58,0-68,0	M10x1	1,90
	25,0	9.08	03099536	E9304540325115M2-4.0	E9304540325115M	20E9304M2C02	19MQL2C06	115,0	89,0	58,0-68,0	M10x1	1,80
	25,0	16.62	03099537	E9304540325115M2-5.3	E9304540325115M	20E9304M2D02	19MQL2D02	115,0	89,0	58,0-68,0	M10x1	1,80
	25,0	4.15	03099538	E9304540325160M2-2.8	E9304540325160M	20E9304M2B11	19MQL2B09	160,0	134,0	103,0-113,0	M10x1	2,60
	25,0	9.08	03099539	E9304540325160M2-4.0	E9304540325160M	20E9304M2C08	19MQL2C06	160,0	134,0	103,0-113,0	M10x1	2,60
	25,0	16.62	03099540	E9304540325160M2-5.3	E9304540325160M	20E9304M2D06	19MQL2D02	160,0	134,0	103,0-113,0	M10x1	2,60
	32,0	4.15	03099558	E9304540332120M2-2.8	E9304540332120M	20E9304M2B03	19MQL2B10	120,0	94,0	59,0-69,0	M10x1	1,70
	32,0	9.08	03099559	E9304540332120M2-4.0	E9304540332120M	20E9304M2C02	19MQL2C07	120,0	94,0	59,0-69,0	M10x1	1,70
	32,0	16.62	03099560	E9304540332120M2-5.3	E9304540332120M	20E9304M2D02	19MQL2D03	120,0	94,0	59,0-69,0	M10x1	1,70

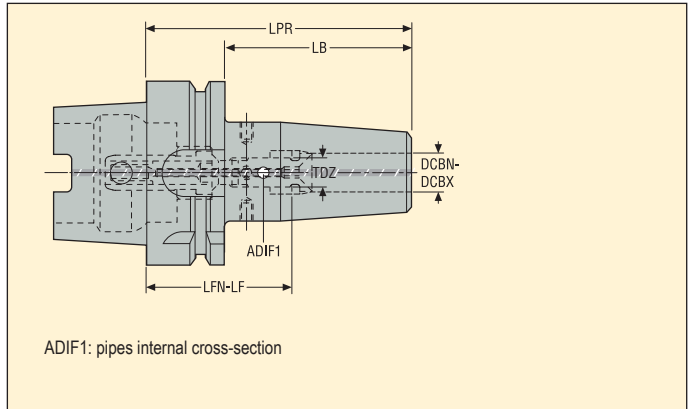
Please check availability in current price and stock-list
For details about MQL2 accessories, see page(s) 274-275, 278

EPB 5403M2 – Shrinkfit holders MQL2 – Metric

HSK-A/ ISO 12164-1-A



- Run-out 3 µm maximum at 3 x ∅DCBN-DCBX
- Delivered ready for MQL2 with stop screw and coolant tube fitted



Machine side	Workpiece side	ADIF1 mm ²	Ordering and Product No.	Designation	Spare Parts			Dimensions in mm			TDZ mm	KG
					Tool holders	Coolant tube MQL2	Stop screw MQL2	LPR	LB	LFN-LF		
HSK-A100	6.0	2.01	03099199	E930654030685M2-1.9	E930654030685M	20E9306M2A02	19MQL2A01	85.0	56.0	49.0-59.0	M5x0.8	2.30
	6.0	4.15	03099200	E930654030685M2-2.8	E930654030685M	20E9306M2B02	19MQL2B01	85.0	56.0	49.0-59.0	M5x0.8	2.30
	6.0	2.01	03099201	E9306540306120M2-1.9	E9306540306120M	20E9306M2A05	19MQL2A01	120.0	91.0	84.0-94.0	M5x0.8	2.50
	6.0	4.15	03099202	E9306540306120M2-2.8	E9306540306120M	20E9306M2B06	19MQL2B01	120.0	91.0	84.0-94.0	M5x0.8	2.50
	6.0	2.01	03099203	E9306540306160M2-1.9	E9306540306160M	20E9306M2A09	19MQL2A01	160.0	131.0	124.0-134.0	M5x0.8	2.70
	6.0	4.15	03099204	E9306540306160M2-2.8	E9306540306160M	20E9306M2B12	19MQL2B01	160.0	131.0	124.0-134.0	M5x0.8	2.70
	8.0	2.01	03099212	E930654030885M2-1.9	E930654030885M	20E9306M2A02	19MQL2A02	85.0	56.0	49.0-59.0	M6x1	2.30
	8.0	4.15	03099213	E930654030885M2-2.8	E930654030885M	20E9306M2B02	19MQL2B02	85.0	56.0	49.0-59.0	M6x1	2.30
	8.0	2.01	03099214	E9306540308120M2-1.9	E9306540308120M	20E9306M2A05	19MQL2A02	120.0	91.0	84.0-94.0	M6x1	2.50
	8.0	4.15	03099215	E9306540308120M2-2.8	E9306540308120M	20E9306M2B06	19MQL2B02	120.0	91.0	84.0-94.0	M6x1	2.50
	8.0	2.01	03099216	E9306540308160M2-1.9	E9306540308160M	20E9306M2A09	19MQL2A02	160.0	131.0	124.0-134.0	M6x1	2.60
	8.0	4.15	03099217	E9306540308160M2-2.8	E9306540308160M	20E9306M2B12	19MQL2B02	160.0	131.0	124.0-134.0	M6x1	2.60
	10.0	2.01	03099229	E930654031090M2-1.9	E930654031090M	20E9306M2A02	19MQL2A03	90.0	61.0	49.0-59.0	M8x1	2.40
	10.0	4.15	03099230	E930654031090M2-2.8	E930654031090M	20E9306M2B02	19MQL2B03	90.0	61.0	49.0-59.0	M8x1	2.40
	10.0	2.01	03099231	E9306540310120M2-1.9	E9306540310120M	20E9306M2A04	19MQL2A03	120.0	91.0	79.0-89.0	M8x1	2.60
	10.0	4.15	03099232	E9306540310120M2-2.8	E9306540310120M	20E9306M2B04	19MQL2B03	120.0	91.0	79.0-89.0	M8x1	2.60
	10.0	2.01	03099233	E9306540310160M2-1.9	E9306540310160M	20E9306M2A08	19MQL2A03	160.0	131.0	119.0-129.0	M8x1	2.80
	10.0	4.15	03099234	E9306540310160M2-2.8	E9306540310160M	20E9306M2B11	19MQL2B03	160.0	131.0	119.0-129.0	M8x1	2.80
	12.0	2.01	03099250	E930654031295M2-1.9	E930654031295M	20E9306M2A01	19MQL2A04	95.0	66.0	49.0-59.0	M10x1	2.40
	12.0	4.15	03099251	E930654031295M2-2.8	E930654031295M	20E9306M2B01	19MQL2B04	95.0	66.0	49.0-59.0	M10x1	2.40
	12.0	9.08	03099252	E930654031295M2-4.0	E930654031295M	20E9306M2C01	19MQL2C01	95.0	66.0	49.0-59.0	M10x1	2.40
	12.0	2.01	03099253	E9306540312120M2-1.9	E9306540312120M	20E9306M2A03	19MQL2A04	120.0	91.0	74.0-84.0	M10x1	2.60
	12.0	4.15	03099254	E9306540312120M2-2.8	E9306540312120M	20E9306M2B03	19MQL2B04	120.0	91.0	74.0-84.0	M10x1	2.60
	12.0	9.08	03099255	E9306540312120M2-4.0	E9306540312120M	20E9306M2C02	19MQL2C01	120.0	91.0	74.0-84.0	M10x1	2.60
	12.0	2.01	03099256	E9306540312160M2-1.9	E9306540312160M	20E9306M2A07	19MQL2A04	160.0	131.0	114.0-124.0	M10x1	2.80
	12.0	4.15	03099257	E9306540312160M2-2.8	E9306540312160M	20E9306M2B10	19MQL2B04	160.0	131.0	114.0-124.0	M10x1	2.80
	12.0	9.08	03099258	E9306540312160M2-4.0	E9306540312160M	20E9306M2C08	19MQL2C01	160.0	131.0	114.0-124.0	M10x1	2.80
	14.0	2.01	03099295	E930654031495M2-1.9	E930654031495M	20E9306M2A01	19MQL2A05	95.0	66.0	49.0-59.0	M10x1	2.50
	14.0	4.15	03099296	E930654031495M2-2.8	E930654031495M	20E9306M2B01	19MQL2B05	95.0	66.0	49.0-59.0	M10x1	2.50
	14.0	9.08	03099297	E930654031495M2-4.0	E930654031495M	20E9306M2C01	19MQL2C02	95.0	66.0	49.0-59.0	M10x1	2.50
16.0	2.01	03099322	E9306540316100M2-1.9	E9306540316100M	20E9306M2A01	19MQL2A06	100.0	71.0	51.0-61.0	M10x1	2.50	
16.0	4.15	03099323	E9306540316100M2-2.8	E9306540316100M	20E9306M2B01	19MQL2B06	100.0	71.0	51.0-61.0	M10x1	2.50	
16.0	9.08	03099324	E9306540316100M2-4.0	E9306540316100M	20E9306M2C01	19MQL2C03	100.0	71.0	51.0-61.0	M10x1	2.50	
16.0	2.01	03099325	E9306540316130M2-1.9	E9306540316130M	20E9306M2A04	19MQL2A06	130.0	101.0	81.0-91.0	M10x1	2.70	
16.0	4.15	03099326	E9306540316130M2-2.8	E9306540316130M	20E9306M2B04	19MQL2B06	130.0	101.0	81.0-91.0	M10x1	2.70	
16.0	9.08	03099327	E9306540316130M2-4.0	E9306540316130M	20E9306M2C03	19MQL2C03	130.0	101.0	81.0-91.0	M10x1	2.70	
16.0	2.01	03099328	E9306540316160M2-1.9	E9306540316160M	20E9306M2A06	19MQL2A06	160.0	131.0	111.0-121.0	M10x1	2.90	
16.0	4.15	03099329	E9306540316160M2-2.8	E9306540316160M	20E9306M2B09	19MQL2B06	160.0	131.0	111.0-121.0	M10x1	2.90	
16.0	9.08	03099330	E9306540316160M2-4.0	E9306540316160M2	20E9306M2C07	19MQL2C03	160.0	131.0	111.0-121.0	M10x1	2.90	

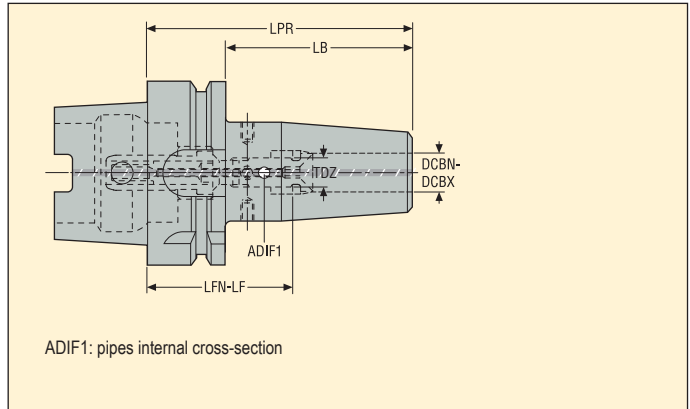
Please check availability in current price and stock-list
For details about MQL2 accessories, see page(s) 274-275, 278

EPB 5403M2 – Shrinkfit holders MQL2 – Metric

HSK-A/ ISO 12164-1-A



- Run-out 3 µm maximum at 3 x ØDCBN-DCBX
- Delivered ready for MQL2 with stop screw and coolant tube fitted



Machine side	Workpiece side	ADIF1 mm ²	Ordering and Product No.	Designation	Spare Parts			Dimensions in mm			TDZ mm	KG
					Tool holders	Coolant tube MQL2	Stop screw MQL2	LPR	LB	LF min-max		
HSK-A100	18,0	2.01	03099450	E9306540318100M2-1.9	E9306540318100M	20E9306M2A01	19MQL2A07	100,0	71,0	51,0-61,0	M10x1	2,60
	18,0	4.15	03099451	E9306540318100M2-2.8	E9306540318100M	20E9306M2B01	19MQL2B07	100,0	71,0	51,0-61,0	M10x1	2,70
	18,0	9.08	03099452	E9306540318100M2-4.0	E9306540318100M	20E9306M2C01	19MQL2C04	100,0	71,0	51,0-61,0	M10x1	2,70
	20,0	4.15	03099463	E9306540320105M2-2.8	E9306540320105M	20E9306M2B01	19MQL2B08	105,0	76,0	54,0-64,0	M10x1	2,70
	20,0	9.08	03099464	E9306540320105M2-4.0	E9306540320105M	20E9306M2C01	19MQL2C05	105,0	76,0	54,0-64,0	M10x1	2,70
	20,0	16.62	03099465	E9306540320105M2-5.3	E9306540320105M	20E9306M2D01	19MQL2D01	105,0	76,0	54,0-64,0	M10x1	2,70
	20,0	4.15	03099466	E9306540320130M2-2.8	E9306540320130M	20E9306M2B03	19MQL2B08	130,0	101,0	79,0-89,0	M10x1	2,90
	20,0	9.08	03099467	E9306540320130M2-4.0	E9306540320130M	20E9306M2C02	19MQL2C05	130,0	101,0	79,0-89,0	M10x1	2,90
	20,0	16.62	03099468	E9306540320130M2-5.3	E9306540320130M	20E9306M2D02	19MQL2D01	130,0	101,0	79,0-89,0	M10x1	2,90
	20,0	4.15	03099469	E9306540320160M2-2.8	E9306540320160M	20E9306M2B08	19MQL2B08	160,0	131,0	109,0-119,0	M10x1	3,30
	20,0	9.08	03099470	E9306540320160M2-4.0	E9306540320160M	20E9306M2C06	19MQL2C05	160,0	131,0	109,0-119,0	M10x1	3,30
	20,0	16.62	03099471	E9306540320160M2-5.3	E9306540320160M	20E9306M2D05	19MQL2D01	160,0	131,0	109,0-119,0	M10x1	3,30
	25,0	4.15	03099541	E9306540325115M2-2.8	E9306540325115M	20E9306M2B01	19MQL2B09	115,0	86,0	58,0-68,0	M10x1	3,20
	25,0	9.08	03099542	E9306540325115M2-4.0	E9306540325115M	20E9306M2C01	19MQL2C06	115,0	86,0	58,0-68,0	M10x1	3,20
	25,0	16.62	03099543	E9306540325115M2-5.3	E9306540325115M	20E9306M2D01	19MQL2D02	115,0	86,0	58,0-68,0	M10x1	3,20
	25,0	4.15	03099544	E9306540325160M2-2.8	E9306540325160M	20E9306M2B07	19MQL2B09	160,0	131,0	103,0-113,0	M10x1	4,00
	25,0	9.08	03099545	E9306540325160M2-4.0	E9306540325160M	20E9306M2C05	19MQL2C06	160,0	131,0	103,0-113,0	M10x1	4,00
	25,0	16.62	03099546	E9306540325160M2-5.3	E9306540325160M	20E9306M2D04	19MQL2D02	160,0	131,0	103,0-113,0	M10x1	4,00
	32,0	4.15	03099561	E9306540332120M2-2.8	E9306540332120M	20E9306M2B01	19MQL2B10	120,0	91,0	59,0-69,0	M10x1	3,10
	32,0	9.08	03099562	E9306540332120M2-4.0	E9306540332120M	20E9306M2C01	19MQL2C07	120,0	91,0	59,0-69,0	M10x1	3,10
32,0	16.62	03099563	E9306540332120M2-5.3	E9306540332120M	20E9306M2D01	19MQL2D03	120,0	91,0	59,0-69,0	M10x1	3,10	

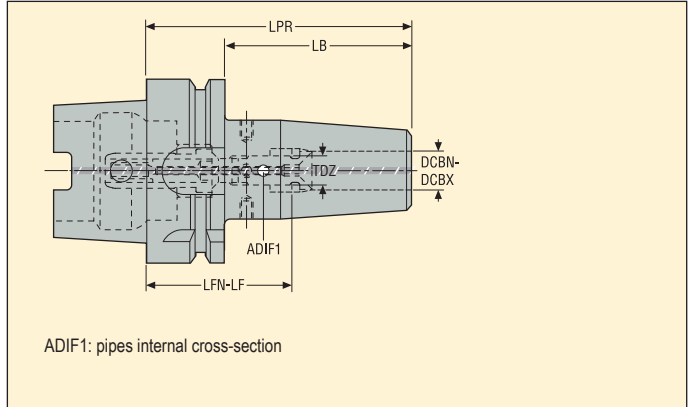
Please check availability in current price and stock-list
For details about MQL2 accessories, see page(s) 274-275, 278

EPB 5403M2 – Shrinkfit holders MQL2 – Inch

HSK-A/ ISO 12164-1-A



- Run-out 3 µm maximum at 3 x ∅DCBN-DCBX
- Delivered ready for MQL2 with stop screw and coolant tube fitted



Machine side	Workpiece side	ADIF1 mm ²	Ordering and Product No.	Designation	Spare Parts			Dimensions in inch			TDZ mm	lbs
					Tool holders	Coolant tube MQL2	Stop screw MQL2	LPR	LB	LFN-LF		
HSK-A63	0.236	2.01	03099193	E930454030680M2-1.9	E930454030680M	20E9304M2A02	19MQL2A01	3.150	2.126	1.732-2.126	M5x0.8	1.98
	0.236	4.15	03099194	E930454030680M2-2.8	E930454030680M	20E9304M2B02	19MQL2B01	3.150	2.126	1.732-2.126	M5x0.8	1.98
	0.236	2.01	03099195	E9304540306120M2-1.9	E9304540306120M	20E9304M2A06	19MQL2A01	4.724	3.701	3.307-3.701	M5x0.8	2.43
	0.236	4.15	03099196	E9304540306120M2-2.8	E9304540306120M	20E9304M2B09	19MQL2B01	4.724	3.701	3.307-3.701	M5x0.8	2.43
	0.236	2.01	03099197	E9304540306160M2-1.9	E9304540306160M	20E9304M2A10	19MQL2A01	6.299	5.276	4.882-5.276	M5x0.8	2.87
	0.236	4.15	03099198	E9304540306160M2-2.8	E9304540306160M	20E9304M2B16	19MQL2B01	6.299	5.276	4.882-5.276	M5x0.8	2.87
	0.315	2.01	03099206	E930454030880M2-1.9	E930454030880M	20E9304M2A02	19MQL2A02	3.150	2.126	1.732-2.126	M6x1	1.98
	0.315	4.15	03099207	E930454030880M2-2.8	E930454030880M	20E9304M2B02	19MQL2B02	3.150	2.126	1.732-2.126	M6x1	1.98
	0.315	2.01	03099208	E9304540308120M2-1.9	E9304540308120M	20E9304M2A06	19MQL2A02	4.724	3.701	3.307-3.701	M6x1	2.43
	0.315	4.15	03099209	E9304540308120M2-2.8	E9304540308120M	20E9304M2B09	19MQL2B02	4.724	3.701	3.307-3.701	M6x1	2.43
	0.315	2.01	03099210	E9304540308160M2-1.9	E9304540308160M	20E9304M2A10	19MQL2A02	6.299	5.276	4.882-5.276	M6x1	2.87
	0.315	4.15	03099211	E9304540308160M2-2.8	E9304540308160M	20E9304M2B16	19MQL2B02	6.299	5.276	4.882-5.276	M6x1	2.87
	0.394	2.01	03099223	E930454031085M2-1.9	E930454031085M	20E9304M2A02	19MQL2A03	3.346	2.323	1.732-2.126	M8x1	2.20
	0.394	4.15	03099224	E930454031085M2-2.8	E930454031085M	20E9304M2B02	19MQL2B03	3.346	2.323	1.732-2.126	M8x1	2.20
	0.394	2.01	03099225	E9304540310120M2-1.9	E9304540310120M	20E9304M2A05	19MQL2A03	4.724	3.701	3.110-3.504	M8x1	2.65
	0.394	4.15	03099226	E9304540310120M2-2.8	E9304540310120M	20E9304M2B08	19MQL2B03	4.724	3.701	3.110-3.504	M8x1	2.65
	0.394	2.01	03099227	E9304540310160M2-1.9	E9304540310160M	20E9304M2A09	19MQL2A03	6.299	5.276	4.685-5.079	M8x1	3.09
	0.394	4.15	03099228	E9304540310160M2-2.8	E9304540310160M	20E9304M2B15	19MQL2B03	6.299	5.276	4.685-5.079	M8x1	3.09
	0.472	2.01	03099241	E930454031290M2-1.9	E930454031290M	20E9304M2A01	19MQL2A04	3.543	2.520	1.732-2.126	M10x1	2.20
	0.472	4.15	03099242	E930454031290M2-2.8	E930454031290M	20E9304M2B01	19MQL2B04	3.543	2.520	1.732-2.126	M10x1	2.20
	0.472	9.08	03099243	E930454031290M2-4.0	E930454031290M	20E9304M2C01	19MQL2C01	3.543	2.520	1.732-2.126	M10x1	2.20
	0.472	2.01	03099244	E9304540312120M2-1.9	E9304540312120M	20E9304M2A04	19MQL2A04	4.724	3.701	2.913-3.307	M10x1	2.65
	0.472	4.15	03099245	E9304540312120M2-2.8	E9304540312120M	20E9304M2B07	19MQL2B04	4.724	3.701	2.913-3.307	M10x1	2.65
	0.472	9.08	03099246	E9304540312120M2-4.0	E9304540312120M	20E9304M2C06	19MQL2C01	4.724	3.701	2.913-3.307	M10x1	2.65
	0.472	2.01	03099247	E9304540312160M2-1.9	E9304540312160M	20E9304M2A08	19MQL2A04	6.299	5.276	4.488-4.882	M10x1	3.09
	0.472	4.15	03099248	E9304540312160M2-2.8	E9304540312160M	20E9304M2B14	19MQL2B04	6.299	5.276	4.488-4.882	M10x1	3.09
	0.472	9.08	03099249	E9304540312160M2-4.0	E9304540312160M	20E9304M2C11	19MQL2C01	6.299	5.276	4.488-4.882	M10x1	3.09
	0.551	2.01	03099289	E930454031490M2-1.9	E930454031490M	20E9304M2A01	19MQL2A05	3.543	2.520	1.732-2.126	M10x1	2.43
	0.551	4.15	03099290	E930454031490M2-2.8	E930454031490M	20E9304M2B01	19MQL2B05	3.543	2.520	1.732-2.126	M10x1	2.43
	0.551	9.08	03099291	E930454031490M2-4.0	E930454031490M	20E9304M2C01	19MQL2C02	3.543	2.520	1.732-2.126	M10x1	2.43
	0.551	2.01	03099292	E9304540314120M2-1.9	E9304540314120M	20E9304M2A04	19MQL2A05	4.724	3.701	2.913-3.307	M10x1	2.87
	0.551	4.15	03099293	E9304540314120M2-2.8	E9304540314120M	20E9304M2B07	19MQL2B05	4.724	3.701	2.913-3.307	M10x1	2.87
	0.551	9.08	03099294	E9304540314120M2-4.0	E9304540314120M	20E9304M2C06	19MQL2C02	4.724	3.701	2.913-3.307	M10x1	2.87
	0.630	2.01	03099313	E930454031695M2-1.9	E930454031695M	20E9304M2A01	19MQL2A06	3.740	2.717	1.811-2.205	M10x1	2.43
	0.630	4.15	03099314	E930454031695M2-2.8	E930454031695M	20E9304M2B01	19MQL2B06	3.740	2.717	1.811-2.205	M10x1	2.43
	0.630	9.08	03099315	E930454031695M2-4.0	E930454031695M	20E9304M2C01	19MQL2C03	3.740	2.717	1.811-2.205	M10x1	2.43
	0.630	2.01	03099316	E9304540316120M2-1.9	E9304540316120M	20E9304M2A03	19MQL2A06	4.724	3.701	2.795-3.189	M10x1	2.65
	0.630	4.15	03099317	E9304540316120M2-2.8	E9304540316120M	20E9304M2B06	19MQL2B06	4.724	3.701	2.795-3.189	M10x1	2.65
	0.630	9.08	03099318	E9304540316120M2-4.0	E9304540316120M	20E9304M2C05	19MQL2C03	4.724	3.701	2.795-3.189	M10x1	2.65
	0.630	2.01	03099319	E9304540316160M2-1.9	E9304540316160M	20E9304M2A07	19MQL2A06	6.299	5.276	4.370-4.764	M10x1	3.31
0.630	4.15	03099320	E9304540316160M2-2.8	E9304540316160M	20E9304M2B13	19MQL2B06	6.299	5.276	4.370-4.764	M10x1	3.31	
0.630	9.08	03099321	E9304540316160M2-4.0	E9304540316160M	20E9304M2C10	19MQL2C03	6.299	5.276	4.370-4.764	M10x1	3.31	

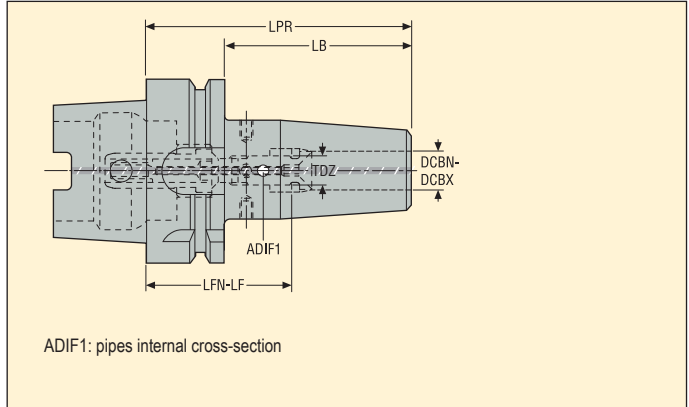
Please check availability in current price and stock-list
 For details about MQL2 accessories, see page(s) 276-277, 279

EPB 5403M2 – Shrinkfit holders MQL2 – Inch

HSK-A/ ISO 12164-1-A



- Run-out 3 μm maximum at 3 x ∅DCBN-DCBX
- Delivered ready for MQL2 with stop screw and coolant tube fitted



Machine side	Workpiece side	ADIF1 mm ²	Ordering and Product No.	Designation	Spare Parts			Dimensions in inch			TDZ mm	lbs
					Tool holders	Coolant tube MQL2	Stop screw MQL2	LPR	LB	LFN-LF		
HSK-A63	0.709	2.01	03099444	E930454031895M2-1.9	E930454031895M	20E9304M2A01	19MQL2A07	3.740	2.717	1.811-2.205	M10x1	2.65
	0.709	4.15	03099445	E930454031895M2-2.8	E930454031895M	20E9304M2B01	19MQL2B07	3.740	2.717	1.811-2.205	M10x1	2.65
	0.709	9.08	03099446	E930454031895M2-4.0	E930454031895M	20E9304M2C01	19MQL2C04	3.740	2.717	1.811-2.205	M10x1	2.65
	0.709	2.01	03099447	E9304540318120M2-1.9	E9304540318120M	20E9304M2A03	19MQL2A07	4.724	3.701	2.795-3.189	M10x1	3.31
	0.709	4.15	03099448	E9304540318120M2-2.8	E9304540318120M	20E9304M2B06	19MQL2B07	4.724	3.701	2.795-3.189	M10x1	3.31
	0.709	9.08	03099449	E9304540318120M2-4.0	E9304540318120M	20E9304M2C05	19MQL2C04	4.724	3.701	2.795-3.189	M10x1	3.31
	0.787	4.15	03099454	E9304540320100M2-2.8	E9304540320100M	20E9304M2B01	19MQL2B08	3.937	2.913	1.929-2.323	M10x1	2.87
	0.787	9.08	03099455	E9304540320100M2-4.0	E9304540320100M	20E9304M2C01	19MQL2C05	3.937	2.913	1.929-2.323	M10x1	2.87
	0.787	16.62	03099456	E9304540320100M2-5.3	E9304540320100M	20E9304M2D01	19MQL2D01	3.937	2.913	1.929-2.323	M10x1	2.87
	0.787	4.15	03099457	E9304540320120M2-2.8	E9304540320120M	20E9304M2B05	19MQL2B08	4.724	3.701	2.717-3.110	M10x1	3.31
	0.787	9.08	03099458	E9304540320120M2-4.0	E9304540320120M	20E9304M2C04	19MQL2C05	4.724	3.701	2.717-3.110	M10x1	3.31
	0.787	16.62	03099459	E9304540320120M2-5.3	E9304540320120M	20E9304M2D04	19MQL2D01	4.724	3.701	2.717-3.110	M10x1	3.31
	0.787	4.15	03099460	E9304540320160M2-2.8	E9304540320160M	20E9304M2B12	19MQL2B08	6.299	5.276	4.291-4.685	M10x1	4.19
	0.787	9.08	03099461	E9304540320160M2-4.0	E9304540320160M	20E9304M2C09	19MQL2C05	6.299	5.276	4.291-4.685	M10x1	4.19
	0.787	16.62	03099462	E9304540320160M2-5.3	E9304540320160M	20E9304M2D07	19MQL2D01	6.299	5.276	4.291-4.685	M10x1	4.19
	0.984	4.15	03099535	E9304540325115M2-2.8	E9304540325115M	20E9304M2B03	19MQL2B09	4.528	3.504	2.283-2.677	M10x1	4.19
	0.984	9.08	03099536	E9304540325115M2-4.0	E9304540325115M	20E9304M2C02	19MQL2C06	4.528	3.504	2.283-2.677	M10x1	3.97
	0.984	16.62	03099537	E9304540325115M2-5.3	E9304540325115M	20E9304M2D02	19MQL2D02	4.528	3.504	2.283-2.677	M10x1	3.97
	0.984	4.15	03099538	E9304540325160M2-2.8	E9304540325160M	20E9304M2B11	19MQL2B09	6.299	5.276	4.055-4.449	M10x1	5.73
	0.984	9.08	03099539	E9304540325160M2-4.0	E9304540325160M	20E9304M2C08	19MQL2C06	6.299	5.276	4.055-4.449	M10x1	5.73
0.984	16.62	03099540	E9304540325160M2-5.3	E9304540325160M	20E9304M2D06	19MQL2D02	6.299	5.276	4.055-4.449	M10x1	5.73	
1.260	4.15	03099558	E9304540332120M2-2.8	E9304540332120M	20E9304M2B03	19MQL2B10	4.724	3.701	2.323-2.717	M10x1	3.75	
1.260	9.08	03099559	E9304540332120M2-4.0	E9304540332120M	20E9304M2C02	19MQL2C07	4.724	3.701	2.323-2.717	M10x1	3.75	
1.260	16.62	03099560	E9304540332120M2-5.3	E9304540332120M	20E9304M2D02	19MQL2D03	4.724	3.701	2.323-2.717	M10x1	3.75	

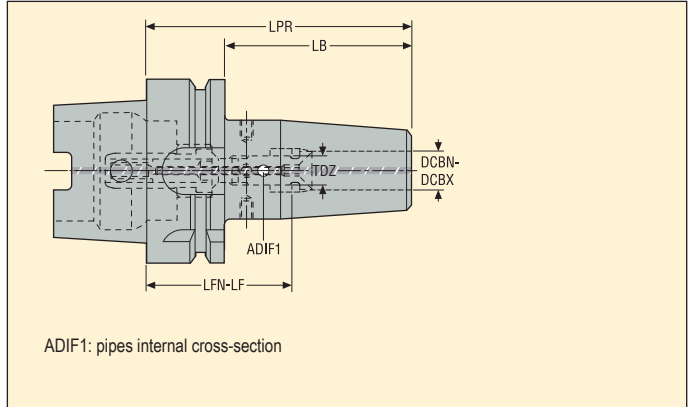
Please check availability in current price and stock-list
For details about MQL2 accessories, see page(s) 276-277, 279

EPB 5403M2 – Shrinkfit holders MQL2 – Inch

HSK-A/ ISO 12164-1-A



- Run-out 3 µm maximum at 3 x ∅DCBN-DCBX
- Delivered ready for MQL2 with stop screw and coolant tube fitted



Machine side	Workpiece side	ADIF1 mm ²	Ordering and Product No.	Designation	Spare Parts			Dimensions in inch			TDZ mm	lbs
					Tool holders	Coolant tube MQL2	Stop screw MQL2	LPR	LB	LFN-LF		
HSK-A100	0.236	2.01	03099199	E930654030685M2-1.9	E930654030685M	20E9306M2A02	19MQL2A01	3.346	2.205	1.929-2.323	M5x0.8	5.07
	0.236	4.15	03099200	E930654030685M2-2.8	E930654030685M	20E9306M2B02	19MQL2B01	3.346	2.205	1.929-2.323	M5x0.8	5.07
	0.236	2.01	03099201	E9306540306120M2-1.9	E9306540306120M	20E9306M2A05	19MQL2A01	4.724	3.583	3.307-3.701	M5x0.8	5.51
	0.236	4.15	03099202	E9306540306120M2-2.8	E9306540306120M	20E9306M2B06	19MQL2B01	4.724	3.583	3.307-3.701	M5x0.8	5.51
	0.236	2.01	03099203	E9306540306160M2-1.9	E9306540306160M	20E9306M2A09	19MQL2A01	6.299	5.157	4.882-5.276	M5x0.8	5.95
	0.236	4.15	03099204	E9306540306160M2-2.8	E9306540306160M	20E9306M2B12	19MQL2B01	6.299	5.157	4.882-5.276	M5x0.8	5.95
	0.315	2.01	03099212	E930654030885M2-1.9	E930654030885M	20E9306M2A02	19MQL2A02	3.346	2.205	1.929-2.323	M6x1	5.07
	0.315	4.15	03099213	E930654030885M2-2.8	E930654030885M	20E9306M2B02	19MQL2B02	3.346	2.205	1.929-2.323	M6x1	5.07
	0.315	2.01	03099214	E9306540308120M2-1.9	E9306540308120M	20E9306M2A05	19MQL2A02	4.724	3.583	3.307-3.701	M6x1	5.51
	0.315	4.15	03099215	E9306540308120M2-2.8	E9306540308120M	20E9306M2B06	19MQL2B02	4.724	3.583	3.307-3.701	M6x1	5.51
	0.315	2.01	03099216	E9306540308160M2-1.9	E9306540308160M	20E9306M2A09	19MQL2A02	6.299	5.157	4.882-5.276	M6x1	5.73
	0.315	4.15	03099217	E9306540308160M2-2.8	E9306540308160M	20E9306M2B12	19MQL2B02	6.299	5.157	4.882-5.276	M6x1	5.73
	0.394	2.01	03099229	E930654031090M2-1.9	E930654031090M	20E9306M2A02	19MQL2A03	3.543	2.402	1.929-2.323	M8x1	5.29
	0.394	4.15	03099230	E930654031090M2-2.8	E930654031090M	20E9306M2B02	19MQL2B03	3.543	2.402	1.929-2.323	M8x1	5.29
	0.394	2.01	03099231	E9306540310120M2-1.9	E9306540310120M	20E9306M2A04	19MQL2A03	4.724	3.583	3.110-3.504	M8x1	5.73
	0.394	4.15	03099232	E9306540310120M2-2.8	E9306540310120M	20E9306M2B04	19MQL2B03	4.724	3.583	3.110-3.504	M8x1	5.73
	0.394	2.01	03099233	E9306540310160M2-1.9	E9306540310160M	20E9306M2A08	19MQL2A03	6.299	5.157	4.685-5.079	M8x1	6.17
	0.394	4.15	03099234	E9306540310160M2-2.8	E9306540310160M	20E9306M2B11	19MQL2B03	6.299	5.157	4.685-5.079	M8x1	6.17
	0.472	2.01	03099250	E930654031295M2-1.9	E930654031295M	20E9306M2A01	19MQL2A04	3.740	2.598	1.929-2.323	M10x1	5.29
	0.472	4.15	03099251	E930654031295M2-2.8	E930654031295M	20E9306M2B01	19MQL2B04	3.740	2.598	1.929-2.323	M10x1	5.29
	0.472	9.08	03099252	E930654031295M2-4.0	E930654031295M	20E9306M2C01	19MQL2C01	3.740	2.598	1.929-2.323	M10x1	5.29
	0.472	2.01	03099253	E9306540312120M2-1.9	E9306540312120M	20E9306M2A03	19MQL2A04	4.724	3.583	2.913-3.307	M10x1	5.73
	0.472	4.15	03099254	E9306540312120M2-2.8	E9306540312120M	20E9306M2B03	19MQL2B04	4.724	3.583	2.913-3.307	M10x1	5.73
	0.472	9.08	03099255	E9306540312120M2-4.0	E9306540312120M	20E9306M2C02	19MQL2C01	4.724	3.583	2.913-3.307	M10x1	5.73
	0.472	2.01	03099256	E9306540312160M2-1.9	E9306540312160M	20E9306M2A07	19MQL2A04	6.299	5.157	4.488-4.882	M10x1	6.17
	0.472	4.15	03099257	E9306540312160M2-2.8	E9306540312160M	20E9306M2B10	19MQL2B04	6.299	5.157	4.488-4.882	M10x1	6.17
	0.472	9.08	03099258	E9306540312160M2-4.0	E9306540312160M	20E9306M2C08	19MQL2C01	6.299	5.157	4.488-4.882	M10x1	6.17
	0.551	2.01	03099295	E930654031495M2-1.9	E930654031495M	20E9306M2A01	19MQL2A05	3.740	2.598	1.929-2.323	M10x1	5.51
	0.551	4.15	03099296	E930654031495M2-2.8	E930654031495M	20E9306M2B01	19MQL2B05	3.740	2.598	1.929-2.323	M10x1	5.51
	0.551	9.08	03099297	E930654031495M2-4.0	E930654031495M	20E9306M2C01	19MQL2C02	3.740	2.598	1.929-2.323	M10x1	5.51
	0.630	2.01	03099322	E9306540316100M2-1.9	E9306540316100M	20E9306M2A01	19MQL2A06	3.937	2.795	2.008-2.402	M10x1	5.51
	0.630	4.15	03099323	E9306540316100M2-2.8	E9306540316100M	20E9306M2B01	19MQL2B06	3.937	2.795	2.008-2.402	M10x1	5.51
0.630	9.08	03099324	E9306540316100M2-4.0	E9306540316100M	20E9306M2C01	19MQL2C03	3.937	2.795	2.008-2.402	M10x1	5.51	
0.630	2.01	03099325	E9306540316130M2-1.9	E9306540316130M	20E9306M2A04	19MQL2A06	5.118	3.976	3.189-3.583	M10x1	5.95	
0.630	4.15	03099326	E9306540316130M2-2.8	E9306540316130M	20E9306M2B04	19MQL2B06	5.118	3.976	3.189-3.583	M10x1	5.95	
0.630	9.08	03099327	E9306540316130M2-4.0	E9306540316130M	20E9306M2C03	19MQL2C03	5.118	3.976	3.189-3.583	M10x1	5.95	
0.630	2.01	03099328	E9306540316160M2-1.9	E9306540316160M	20E9306M2A06	19MQL2A06	6.299	5.157	4.370-4.764	M10x1	6.39	
0.630	4.15	03099329	E9306540316160M2-2.8	E9306540316160M	20E9306M2B09	19MQL2B06	6.299	5.157	4.370-4.764	M10x1	6.39	
0.630	9.08	03099330	E9306540316160M2-4.0	E9306540316160M2	20E9306M2C07	19MQL2C03	6.299	5.157	4.370-4.764	M10x1	6.39	

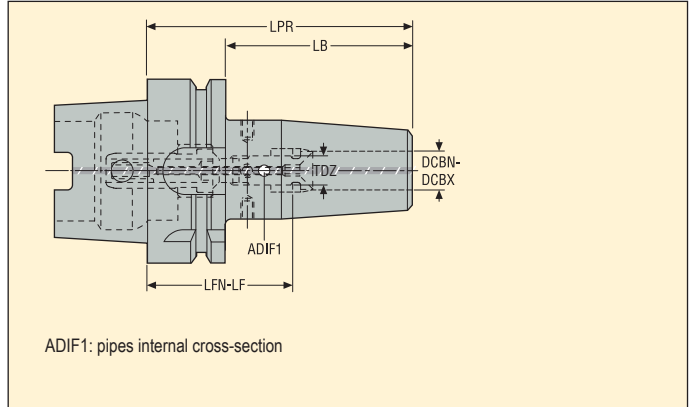
Please check availability in current price and stock-list
For details about MQL2 accessories, see page(s) 276-277, 279

EPB 5403M2 – Shrinkfit holders MQL2 – Inch

HSK-A/ ISO 12164-1-A



- Run-out 3 µm maximum at 3 x ØDCBN-DCBX
- Delivered ready for MQL2 with stop screw and coolant tube fitted



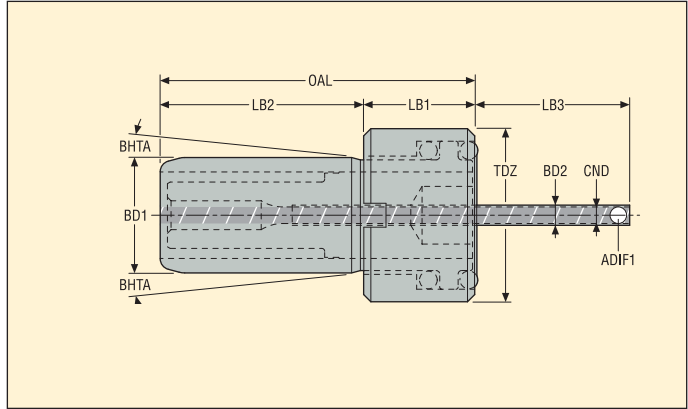
Machine side	Workpiece side	ADIF1 mm ²	Ordering and Product No.	Designation	Spare Parts			Dimensions in inch			TDZ mm	lbs
					Tool holders	Coolant tube MQL2	Stop screw MQL2	LPR	LB	LFN-LF		
HSK-A100	0.709	2.01	03099450	E9306540318100M2-1.9	E9306540318100M	20E9306M2A01	19MQL2A07	3.937	2.795	2.008-2.402	M10x1	5.73
	0.709	4.15	03099451	E9306540318100M2-2.8	E9306540318100M	20E9306M2B01	19MQL2B07	3.937	2.795	2.008-2.402	M10x1	5.95
	0.709	9.08	03099452	E9306540318100M2-4.0	E9306540318100M	20E9306M2C01	19MQL2C04	3.937	2.795	2.008-2.402	M10x1	5.95
	0.787	4.15	03099463	E9306540320105M2-2.8	E9306540320105M	20E9306M2B01	19MQL2B08	4.134	2.992	2.126-2.520	M10x1	5.95
	0.787	9.08	03099464	E9306540320105M2-4.0	E9306540320105M	20E9306M2C01	19MQL2C05	4.134	2.992	2.126-2.520	M10x1	5.95
	0.787	16.62	03099465	E9306540320105M2-5.3	E9306540320105M	20E9306M2D01	19MQL2D01	4.134	2.992	2.126-2.520	M10x1	5.95
	0.787	4.15	03099466	E9306540320130M2-2.8	E9306540320130M	20E9306M2B03	19MQL2B08	5.118	3.976	3.110-3.504	M10x1	6.39
	0.787	9.08	03099467	E9306540320130M2-4.0	E9306540320130M	20E9306M2C02	19MQL2C05	5.118	3.976	3.110-3.504	M10x1	6.39
	0.787	16.62	03099468	E9306540320130M2-5.3	E9306540320130M	20E9306M2D02	19MQL2D01	5.118	3.976	3.110-3.504	M10x1	6.39
	0.787	4.15	03099469	E9306540320160M2-2.8	E9306540320160M	20E9306M2B08	19MQL2B08	6.299	5.157	4.291-4.685	M10x1	7.28
	0.787	9.08	03099470	E9306540320160M2-4.0	E9306540320160M	20E9306M2C06	19MQL2C05	6.299	5.157	4.291-4.685	M10x1	7.28
	0.787	16.62	03099471	E9306540320160M2-5.3	E9306540320160M	20E9306M2D05	19MQL2D01	6.299	5.157	4.291-4.685	M10x1	7.28
	0.984	4.15	03099541	E9306540325115M2-2.8	E9306540325115M	20E9306M2B01	19MQL2B09	4.528	3.386	2.283-2.677	M10x1	7.05
	0.984	9.08	03099542	E9306540325115M2-4.0	E9306540325115M	20E9306M2C01	19MQL2C06	4.528	3.386	2.283-2.677	M10x1	7.05
	0.984	16.62	03099543	E9306540325115M2-5.3	E9306540325115M	20E9306M2D01	19MQL2D02	4.528	3.386	2.283-2.677	M10x1	7.05
	0.984	4.15	03099544	E9306540325160M2-2.8	E9306540325160M	20E9306M2B07	19MQL2B09	6.299	5.157	4.055-4.449	M10x1	8.82
	0.984	9.08	03099545	E9306540325160M2-4.0	E9306540325160M	20E9306M2C05	19MQL2C06	6.299	5.157	4.055-4.449	M10x1	8.82
	0.984	16.62	03099546	E9306540325160M2-5.3	E9306540325160M	20E9306M2D04	19MQL2D02	6.299	5.157	4.055-4.449	M10x1	8.82
	1.260	4.15	03099561	E9306540332120M2-2.8	E9306540332120M	20E9306M2B01	19MQL2B10	4.724	3.583	2.323-2.717	M10x1	6.83
	1.260	9.08	03099562	E9306540332120M2-4.0	E9306540332120M	20E9306M2C01	19MQL2C07	4.724	3.583	2.323-2.717	M10x1	6.83
1.260	16.62	03099563	E9306540332120M2-5.3	E9306540332120M	20E9306M2D01	19MQL2D03	4.724	3.583	2.323-2.717	M10x1	6.83	

Please check availability in current price and stock-list
 For details about MQL2 accessories, see page(s) 276-277, 279

Accessories, coolant tubes for MQL2 – Metric



• With connecting pipe



For holders	CND Ø mm	ADIF1 mm²	Ordering and Product No.	Designation	Dimensions in mm						TDZ mm	BHTA°	KG
					BD1	BD2	OAL	LB1	LB2	LB3			
HSK-A63 & HSK-E63	1,6	2,01	02967805	20E9304M2A01	12,0	1,9	48,8	11,5	24,3	13,0	M18x1	1,0	0,1
	1,6	2,01	02967806	20E9304M2A02	12,0	1,9	50,0	11,5	24,3	14,2	M18x1	1,0	0,1
	1,6	2,01	02967807	20E9304M2A03	12,0	1,9	73,8	11,5	24,3	38,0	M18x1	1,0	0,1
	1,6	2,01	02967808	20E9304M2A04	12,0	1,9	78,8	11,5	24,3	43,0	M18x1	1,0	0,1
	1,6	2,01	02967809	20E9304M2A05	12,0	1,9	85,0	11,5	24,3	49,2	M18x1	1,0	0,1
	1,6	2,01	02967810	20E9304M2A06	12,0	1,9	90,0	11,5	24,3	54,2	M18x1	1,0	0,1
	1,6	2,01	02967811	20E9304M2A07	12,0	1,9	113,8	11,5	24,3	78,0	M18x1	1,0	0,1
	1,6	2,01	02967812	20E9304M2A08	12,0	1,9	118,8	11,5	24,3	83,0	M18x1	1,0	0,1
	1,6	2,01	02967813	20E9304M2A09	12,0	1,9	125,0	11,5	24,3	89,2	M18x1	1,0	0,1
	1,6	2,01	02967814	20E9304M2A10	12,0	1,9	130,0	11,5	24,3	94,2	M18x1	1,0	0,1
	2,3	4,15	02967815	20E9304M2B01	12,0	2,8	48,8	11,5	24,3	13,0	M18x1	1,0	0,1
	2,3	4,15	02967816	20E9304M2B02	12,0	2,8	50,0	11,5	24,3	14,2	M18x1	1,0	0,1
	2,3	4,15	02967817	20E9304M2B03	12,0	2,8	54,1	11,5	24,3	18,3	M18x1	1,0	0,1
	2,3	4,15	02967818	20E9304M2B04	12,0	2,8	60,8	11,5	24,3	25,0	M18x1	1,0	0,1
	2,3	4,15	02967819	20E9304M2B05	12,0	2,8	70,0	11,5	24,3	34,2	M18x1	1,0	0,1
	2,3	4,15	02967820	20E9304M2B06	12,0	2,8	73,8	11,5	24,3	38,0	M18x1	1,0	0,1
	2,3	4,15	02967821	20E9304M2B07	12,0	2,8	78,8	11,5	24,3	43,0	M18x1	1,0	0,1
	2,3	4,15	02967822	20E9304M2B08	12,0	2,8	85,0	11,5	24,3	49,2	M18x1	1,0	0,1
	2,3	4,15	02967823	20E9304M2B09	12,0	2,8	90,0	11,5	24,3	54,2	M18x1	1,0	0,1
	2,3	4,15	02967824	20E9304M2B10	12,0	2,8	94,1	11,5	24,3	58,3	M18x1	1,0	0,1
	2,3	4,15	02967825	20E9304M2B11	12,0	2,8	99,1	11,5	24,3	63,3	M18x1	1,0	0,1
	2,3	4,15	02967826	20E9304M2B12	12,0	2,8	110,0	11,5	24,3	74,2	M18x1	1,0	0,1
	2,3	4,15	02967827	20E9304M2B13	12,0	2,8	113,8	11,5	24,3	78,0	M18x1	1,0	0,1
	2,3	4,15	02967828	20E9304M2B14	12,0	2,8	118,8	11,5	24,3	83,0	M18x1	1,0	0,1
	2,3	4,15	02967829	20E9304M2B15	12,0	2,8	125,0	11,5	24,3	89,2	M18x1	1,0	0,1
	2,3	4,15	03098938	20E9304M2B16	12,0	2,8	130,0	11,5	24,3	94,2	M18x1	1,0	0,1
	3,4	9,08	02967830	20E9304M2C01	12,0	4,0	48,8	11,5	24,3	13,0	M18x1	1,0	0,1
	3,4	9,08	02967831	20E9304M2C02	12,0	4,0	54,1	11,5	24,3	18,3	M18x1	1,0	0,1
	3,4	9,08	02967832	20E9304M2C03	12,0	4,0	60,8	11,5	24,3	25,0	M18x1	1,0	0,1
	3,4	9,08	02967833	20E9304M2C04	12,0	4,0	70,0	11,5	24,3	34,2	M18x1	1,0	0,1
	3,4	9,08	02967834	20E9304M2C05	12,0	4,0	73,8	11,5	24,3	38,0	M18x1	1,0	0,1
	3,4	9,08	02967835	20E9304M2C06	12,0	4,0	78,8	11,5	24,3	43,0	M18x1	1,0	0,1
3,4	9,08	02967836	20E9304M2C07	12,0	4,0	94,1	11,5	24,3	58,3	M18x1	1,0	0,1	
3,4	9,08	02967837	20E9304M2C08	12,0	4,0	99,1	11,5	24,3	63,3	M18x1	1,0	0,1	
3,4	9,08	02967838	20E9304M2C09	12,0	4,0	110,0	11,5	24,3	74,2	M18x1	1,0	0,1	
3,4	9,08	02967839	20E9304M2C10	12,0	4,0	113,8	11,5	24,3	78,0	M18x1	1,0	0,1	
3,4	9,08	03098939	20E9304M2C11	12,0	4,0	118,8	11,5	24,3	83,0	M18x1	1,0	0,1	
4,6	16,62	02967840	20E9304M2D01	12,0	5,3	50,0	11,5	24,3	14,2	M18x1	1,0	0,1	
4,6	16,62	02967841	20E9304M2D02	12,0	5,3	54,1	11,5	24,3	18,3	M18x1	1,0	0,1	
4,6	16,62	02967842	20E9304M2D03	12,0	5,3	60,8	11,5	24,3	25,0	M18x1	1,0	0,1	
4,6	16,62	02967843	20E9304M2D04	12,0	5,3	70,0	11,5	24,3	34,2	M18x1	1,0	0,1	
4,6	16,62	02967844	20E9304M2D05	12,0	5,3	94,1	11,5	24,3	58,3	M18x1	1,0	0,1	

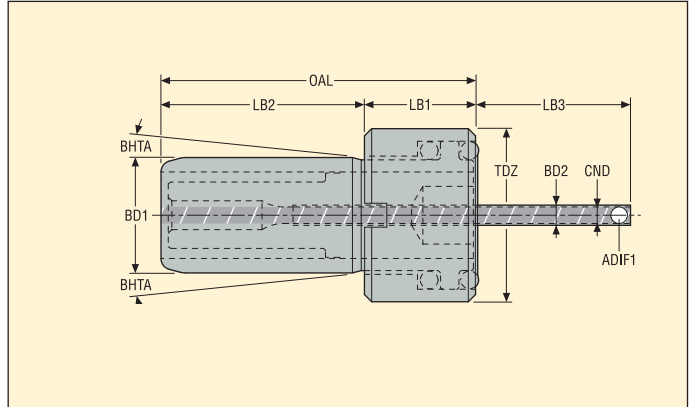
Please check availability in current price and stock-list

For HSK coolant tube spanners, see MN Tooling Systems catalogue chapter Additional equipment

Accessories, coolant tubes for MQL2 – Metric



• With connecting pipe



For holders	CND Ø mm	ADIF1 mm ²	Ordering and Product No.	Designation	Dimensions in mm						TDZ mm	BHTA°	KG
					BD1	BD2	OAL	LB1	LB2	LB3			
HSK-A63 & HSK-E63	4,6	16.62	02967845	20E9304M2D06	12,0	5,3	99,1	11,5	24,3	63,3	M18x1	1,0	0,1
	4,6	16.62	03098940	20E9304M2D07	12,0	5,3	110,0	11,5	24,3	74,2	M18x1	1,0	0,1
HSK-A100 & HSK-E100	1,6	2.01	03098951	20E9306M2A01	12,0	1,9	55,1	15,4	28,2	11,5	M24x1.5	1,0	0,1
	1,6	2.01	03098952	20E9306M2A02	12,0	1,9	56,2	15,4	28,2	12,6	M24x1.5	1,0	0,1
	1,6	2.01	03098953	20E9306M2A03	12,0	1,9	80,6	15,4	28,2	37,0	M24x1.5	1,0	0,1
	1,6	2.01	03098954	20E9306M2A04	12,0	1,9	85,1	15,4	28,2	41,5	M24x1.5	1,0	0,1
	1,6	2.01	03098955	20E9306M2A05	12,0	1,9	91,6	15,4	28,2	48,0	M24x1.5	1,0	0,1
	1,6	2.01	03098956	20E9306M2A06	12,0	1,9	115,1	15,4	28,2	71,5	M24x1.5	1,0	0,1
	1,6	2.01	03098957	20E9306M2A07	12,0	1,9	120,1	15,4	28,2	76,5	M24x1.5	1,0	0,1
	1,6	2.01	03098958	20E9306M2A08	12,0	1,9	126,2	15,4	28,2	82,6	M24x1.5	1,0	0,1
	1,6	2.01	03098959	20E9306M2A09	12,0	1,9	131,2	15,4	28,2	87,6	M24x1.5	1,0	0,1
	2,3	4.15	03098960	20E9306M2B01	12,0	2,8	55,1	15,4	28,2	11,5	M24x1.5	1,0	0,1
	2,3	4.15	03098961	20E9306M2B02	12,0	2,8	56,2	15,4	28,2	12,6	M24x1.5	1,0	0,1
	2,3	4.15	03098962	20E9306M2B03	12,0	2,8	80,6	15,4	28,2	37,0	M24x1.5	1,0	0,1
	2,3	4.15	03098963	20E9306M2B04	12,0	2,8	85,1	15,4	28,2	41,5	M24x1.5	1,0	0,1
	2,3	4.15	03098964	20E9306M2B05	12,0	2,8	91,6	15,4	28,2	48,0	M24x1.5	1,0	0,1
	2,3	4.15	03098965	20E9306M2B06	12,0	2,8	95,6	15,4	28,2	52,0	M24x1.5	1,0	0,1
	2,3	4.15	03098966	20E9306M2B07	12,0	2,8	100,6	15,4	28,2	57,0	M24x1.5	1,0	0,1
	2,3	4.15	03098967	20E9306M2B08	12,0	2,8	110,6	15,4	28,2	67,0	M24x1.5	1,0	0,1
	2,3	4.15	03098968	20E9306M2B09	12,0	2,8	115,1	15,4	28,2	71,5	M24x1.5	1,0	0,1
	2,3	4.15	03098969	20E9306M2B10	12,0	2,8	120,1	15,4	28,2	76,5	M24x1.5	1,0	0,1
	2,3	4.15	03098970	20E9306M2B11	12,0	2,8	126,2	15,4	28,2	82,6	M24x1.5	1,0	0,1
	2,3	4.15	03098971	20E9306M2B12	12,0	2,8	131,2	15,4	28,2	87,6	M24x1.5	1,0	0,1
	3,4	9.08	03098972	20E9306M2C01	12,0	4,0	55,1	15,4	28,2	11,5	M24x1.5	1,0	0,1
	3,4	9.08	03098973	20E9306M2C02	12,0	4,0	80,6	15,4	28,2	37,0	M24x1.5	1,0	0,1
	3,4	9.08	03098974	20E9306M2C03	12,0	4,0	85,1	15,4	28,2	41,5	M24x1.5	1,0	0,1
	3,4	9.08	03098975	20E9306M2C04	12,0	4,0	95,6	15,4	28,2	52,0	M24x1.5	1,0	0,1
	3,4	9.08	03098976	20E9306M2C05	12,0	4,0	100,6	15,4	28,2	57,0	M24x1.5	1,0	0,1
	3,4	9.08	03098977	20E9306M2C06	12,0	4,0	110,6	15,4	28,2	67,0	M24x1.5	1,0	0,1
	3,4	9.08	03098978	20E9306M2C07	12,0	4,0	115,1	15,4	28,2	71,5	M24x1.5	1,0	0,1
	3,4	9.08	03098979	20E9306M2C08	12,0	4,0	120,1	15,4	28,2	76,5	M24x1.5	1,0	0,1
	4,6	16.62	03098980	20E9306M2D01	12,0	5,3	55,6	15,4	28,2	12,0	M24x1.5	1,0	0,1
	4,6	16.62	03098981	20E9306M2D02	12,0	5,3	80,6	15,4	28,2	37,0	M24x1.5	1,0	0,1
	4,6	16.62	03098982	20E9306M2D03	12,0	5,3	95,6	15,4	28,2	52,0	M24x1.5	1,0	0,1
	4,6	16.62	03098983	20E9306M2D04	12,0	5,3	100,6	15,4	28,2	57,0	M24x1.5	1,0	0,1
4,6	16.62	03098984	20E9306M2D05	12,0	5,3	110,6	15,4	28,2	67,0	M24x1.5	1,0	0,1	

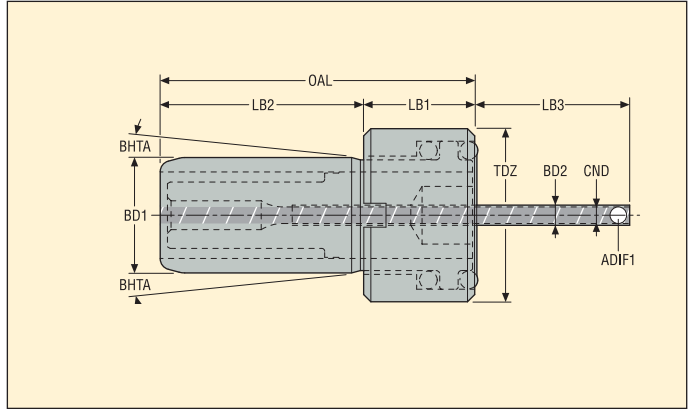
Please check availability in current price and stock-list

For HSK coolant tube spanners, see MN Tooling Systems catalogue chapter Additional equipment

Accessories, coolant tubes for MQL2 – Inch



• With connecting pipe



For holders	CND ∅ inch	ADIF1 mm²	Ordering and Product No.	Designation	Dimensions in inch						TDZ mm	BHTA°	lbs
					BD1	BD2	OAL	LB1	LB2	LB3			
HSK-A63 & HSK-E63	0.063	2.01	02967805	20E9304M2A01	0.472	0.075	1.921	0.453	0.957	0.512	M18x1	1.0	0.22
	0.063	2.01	02967806	20E9304M2A02	0.472	0.075	1.969	0.453	0.957	0.559	M18x1	1.0	0.22
	0.063	2.01	02967807	20E9304M2A03	0.472	0.075	2.906	0.453	0.957	1.496	M18x1	1.0	0.22
	0.063	2.01	02967808	20E9304M2A04	0.472	0.075	3.102	0.453	0.957	1.693	M18x1	1.0	0.22
	0.063	2.01	02967809	20E9304M2A05	0.472	0.075	3.346	0.453	0.957	1.937	M18x1	1.0	0.22
	0.063	2.01	02967810	20E9304M2A06	0.472	0.075	3.543	0.453	0.957	2.134	M18x1	1.0	0.22
	0.063	2.01	02967811	20E9304M2A07	0.472	0.075	4.480	0.453	0.957	3.071	M18x1	1.0	0.22
	0.063	2.01	02967812	20E9304M2A08	0.472	0.075	4.677	0.453	0.957	3.268	M18x1	1.0	0.22
	0.063	2.01	02967813	20E9304M2A09	0.472	0.075	4.921	0.453	0.957	3.512	M18x1	1.0	0.22
	0.063	2.01	02967814	20E9304M2A10	0.472	0.075	5.118	0.453	0.957	3.709	M18x1	1.0	0.22
	0.091	4.15	02967815	20E9304M2B01	0.472	0.110	1.921	0.453	0.957	0.512	M18x1	1.0	0.22
	0.091	4.15	02967816	20E9304M2B02	0.472	0.110	1.969	0.453	0.957	0.559	M18x1	1.0	0.22
	0.091	4.15	02967817	20E9304M2B03	0.472	0.110	2.130	0.453	0.957	0.720	M18x1	1.0	0.22
	0.091	4.15	02967818	20E9304M2B04	0.472	0.110	2.394	0.453	0.957	0.984	M18x1	1.0	0.22
	0.091	4.15	02967819	20E9304M2B05	0.472	0.110	2.756	0.453	0.957	1.346	M18x1	1.0	0.22
	0.091	4.15	02967820	20E9304M2B06	0.472	0.110	2.906	0.453	0.957	1.496	M18x1	1.0	0.22
	0.091	4.15	02967821	20E9304M2B07	0.472	0.110	3.102	0.453	0.957	1.693	M18x1	1.0	0.22
	0.091	4.15	02967822	20E9304M2B08	0.472	0.110	3.346	0.453	0.957	1.937	M18x1	1.0	0.22
	0.091	4.15	02967823	20E9304M2B09	0.472	0.110	3.543	0.453	0.957	2.134	M18x1	1.0	0.22
	0.091	4.15	02967824	20E9304M2B10	0.472	0.110	3.705	0.453	0.957	2.295	M18x1	1.0	0.22
	0.091	4.15	02967825	20E9304M2B11	0.472	0.110	3.902	0.453	0.957	2.492	M18x1	1.0	0.22
	0.091	4.15	02967826	20E9304M2B12	0.472	0.110	4.331	0.453	0.957	2.921	M18x1	1.0	0.22
	0.091	4.15	02967827	20E9304M2B13	0.472	0.110	4.480	0.453	0.957	3.071	M18x1	1.0	0.22
	0.091	4.15	02967828	20E9304M2B14	0.472	0.110	4.677	0.453	0.957	3.268	M18x1	1.0	0.22
	0.091	4.15	02967829	20E9304M2B15	0.472	0.110	4.921	0.453	0.957	3.512	M18x1	1.0	0.22
	0.091	4.15	03098938	20E9304M2B16	0.472	0.110	5.118	0.453	0.957	3.709	M18x1	1.0	0.22
	0.134	9.08	02967830	20E9304M2C01	0.472	0.157	1.921	0.453	0.957	0.512	M18x1	1.0	0.22
	0.134	9.08	02967831	20E9304M2C02	0.472	0.157	2.130	0.453	0.957	0.720	M18x1	1.0	0.22
	0.134	9.08	02967832	20E9304M2C03	0.472	0.157	2.394	0.453	0.957	0.984	M18x1	1.0	0.22
	0.134	9.08	02967833	20E9304M2C04	0.472	0.157	2.756	0.453	0.957	1.346	M18x1	1.0	0.22
	0.134	9.08	02967834	20E9304M2C05	0.472	0.157	2.906	0.453	0.957	1.496	M18x1	1.0	0.22
	0.134	9.08	02967835	20E9304M2C06	0.472	0.157	3.102	0.453	0.957	1.693	M18x1	1.0	0.22
	0.134	9.08	02967836	20E9304M2C07	0.472	0.157	3.705	0.453	0.957	2.295	M18x1	1.0	0.22
	0.134	9.08	02967837	20E9304M2C08	0.472	0.157	3.902	0.453	0.957	2.492	M18x1	1.0	0.22
	0.134	9.08	02967838	20E9304M2C09	0.472	0.157	4.331	0.453	0.957	2.921	M18x1	1.0	0.22
	0.134	9.08	02967839	20E9304M2C10	0.472	0.157	4.480	0.453	0.957	3.071	M18x1	1.0	0.22
	0.134	9.08	03098939	20E9304M2C11	0.472	0.157	4.677	0.453	0.957	3.268	M18x1	1.0	0.22
	0.181	16.62	02967840	20E9304M2D01	0.472	0.209	1.969	0.453	0.957	0.559	M18x1	1.0	0.22
	0.181	16.62	02967841	20E9304M2D02	0.472	0.209	2.130	0.453	0.957	0.720	M18x1	1.0	0.22
	0.181	16.62	02967842	20E9304M2D03	0.472	0.209	2.394	0.453	0.957	0.984	M18x1	1.0	0.22
	0.181	16.62	02967843	20E9304M2D04	0.472	0.209	2.756	0.453	0.957	1.346	M18x1	1.0	0.22
	0.181	16.62	02967844	20E9304M2D05	0.472	0.209	3.705	0.453	0.957	2.295	M18x1	1.0	0.22

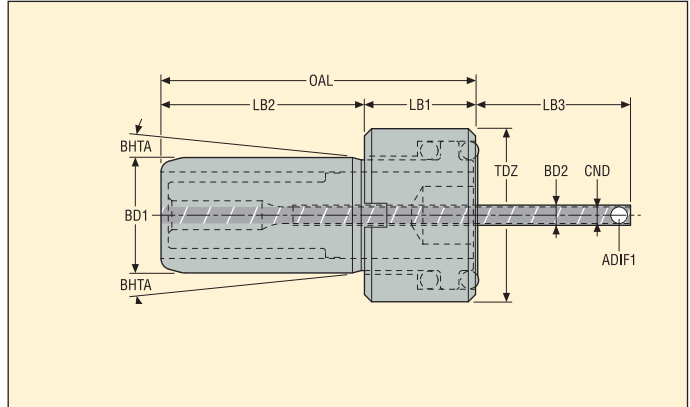
Please check availability in current price and stock-list

For HSK coolant tube spanners, see MN Tooling Systems catalogue chapter Additional equipment

Accessories, coolant tubes for MQL2 – Inch



• With connecting pipe



For holders	CND Ø inch	ADIF1 mm²	Ordering and Product No.	Designation	Dimensions in inch						TDZ mm	BHTA°	lbs
					BD1	BD2	OAL	LB1	LB2	LB3			
HSK-A63 & HSK-E63	0.181	16.62	02967845	20E9304M2D06	0.472	0.209	3.902	0.453	0.957	2.492	M18x1	1,0	0.22
	0.181	16.62	03098940	20E9304M2D07	0.472	0.209	4.331	0.453	0.957	2.921	M18x1	1,0	0.22
HSK-A100 & HSK-E100	0.063	2,01	03098951	20E9306M2A01	0.472	0.075	2.169	0.606	1.110	0.453	M24x1.5	1,0	0.22
	0.063	2,01	03098952	20E9306M2A02	0.472	0.075	2.213	0.606	1.110	0.496	M24x1.5	1,0	0.22
	0.063	2,01	03098953	20E9306M2A03	0.472	0.075	3.173	0.606	1.110	1.457	M24x1.5	1,0	0.22
	0.063	2,01	03098954	20E9306M2A04	0.472	0.075	3.350	0.606	1.110	1.634	M24x1.5	1,0	0.22
	0.063	2,01	03098955	20E9306M2A05	0.472	0.075	3.606	0.606	1.110	1.890	M24x1.5	1,0	0.22
	0.063	2,01	03098956	20E9306M2A06	0.472	0.075	4.531	0.606	1.110	2.815	M24x1.5	1,0	0.22
	0.063	2,01	03098957	20E9306M2A07	0.472	0.075	4.728	0.606	1.110	3.012	M24x1.5	1,0	0.22
	0.063	2,01	03098958	20E9306M2A08	0.472	0.075	4.969	0.606	1.110	3.252	M24x1.5	1,0	0.22
	0.063	2,01	03098959	20E9306M2A09	0.472	0.075	5.165	0.606	1.110	3.449	M24x1.5	1,0	0.22
	0.091	4,15	03098960	20E9306M2B01	0.472	0.110	2.169	0.606	1.110	0.453	M24x1.5	1,0	0.22
	0.091	4,15	03098961	20E9306M2B02	0.472	0.110	2.213	0.606	1.110	0.496	M24x1.5	1,0	0.22
	0.091	4,15	03098962	20E9306M2B03	0.472	0.110	3.173	0.606	1.110	1.457	M24x1.5	1,0	0.22
	0.091	4,15	03098963	20E9306M2B04	0.472	0.110	3.350	0.606	1.110	1.634	M24x1.5	1,0	0.22
	0.091	4,15	03098964	20E9306M2B05	0.472	0.110	3.606	0.606	1.110	1.890	M24x1.5	1,0	0.22
	0.091	4,15	03098965	20E9306M2B06	0.472	0.110	3.764	0.606	1.110	2.047	M24x1.5	1,0	0.22
	0.091	4,15	03098966	20E9306M2B07	0.472	0.110	3.961	0.606	1.110	2.244	M24x1.5	1,0	0.22
	0.091	4,15	03098967	20E9306M2B08	0.472	0.110	4.354	0.606	1.110	2.638	M24x1.5	1,0	0.22
	0.091	4,15	03098968	20E9306M2B09	0.472	0.110	4.531	0.606	1.110	2.815	M24x1.5	1,0	0.22
	0.091	4,15	03098969	20E9306M2B10	0.472	0.110	4.728	0.606	1.110	3.012	M24x1.5	1,0	0.22
	0.091	4,15	03098970	20E9306M2B11	0.472	0.110	4.969	0.606	1.110	3.252	M24x1.5	1,0	0.22
	0.091	4,15	03098971	20E9306M2B12	0.472	0.110	5.165	0.606	1.110	3.449	M24x1.5	1,0	0.22
	0.134	9,08	03098972	20E9306M2C01	0.472	0.157	2.169	0.606	1.110	0.453	M24x1.5	1,0	0.22
	0.134	9,08	03098973	20E9306M2C02	0.472	0.157	3.173	0.606	1.110	1.457	M24x1.5	1,0	0.22
	0.134	9,08	03098974	20E9306M2C03	0.472	0.157	3.350	0.606	1.110	1.634	M24x1.5	1,0	0.22
	0.134	9,08	03098975	20E9306M2C04	0.472	0.157	3.764	0.606	1.110	2.047	M24x1.5	1,0	0.22
	0.134	9,08	03098976	20E9306M2C05	0.472	0.157	3.961	0.606	1.110	2.244	M24x1.5	1,0	0.22
	0.134	9,08	03098977	20E9306M2C06	0.472	0.157	4.354	0.606	1.110	2.638	M24x1.5	1,0	0.22
	0.134	9,08	03098978	20E9306M2C07	0.472	0.157	4.531	0.606	1.110	2.815	M24x1.5	1,0	0.22
	0.134	9,08	03098979	20E9306M2C08	0.472	0.157	4.728	0.606	1.110	3.012	M24x1.5	1,0	0.22
	0.181	16,62	03098980	20E9306M2D01	0.472	0.209	2.189	0.606	1.110	0.472	M24x1.5	1,0	0.22
	0.181	16,62	03098981	20E9306M2D02	0.472	0.209	3.173	0.606	1.110	1.457	M24x1.5	1,0	0.22
	0.181	16,62	03098982	20E9306M2D03	0.472	0.209	3.764	0.606	1.110	2.047	M24x1.5	1,0	0.22
0.181	16,62	03098983	20E9306M2D04	0.472	0.209	3.961	0.606	1.110	2.244	M24x1.5	1,0	0.22	
0.181	16,62	03098984	20E9306M2D05	0.472	0.209	4.354	0.606	1.110	2.638	M24x1.5	1,0	0.22	

Please check availability in current price and stock-list

For HSK coolant tube spanners, see MN Tooling Systems catalogue chapter Additional equipment

Tapping chucks with micro-compensation, for synchronized tapping, EPB 5867

EPB 5867 – Improves tapping performances during synchronized tapping. The inbuilt axial micro flexure (+/- 0,5 mm) prevents from tap stress, which may appear from micro-deviation of the synchronism between the spindle rotation, feed and tap pitch. That micro-compensation mechanism offers longer tap life, protects tap against breakage, increases productivity and improves thread quality.

Suitable ER tapping collets with square drive:

offering precise tap holding and positive torque transmission.

Tool shanks:

Cylindrical tap shanks with a square back-end.

Balancing:

Balanced by design.

Through coolant supply:

Chucks EPB 5867 feature a through coolant design. Maximum coolant pressure 80 bar.

Suitable sealing rings:

The chucks are delivered with collet clamping nuts allowing the fitting of sealing rings, available as Additional equipment (except for ER 08 and ER 11 sizes).

The rings prevents coolant to flow though the collet's grooves, forcing coolant to flow through the tap's coolant channel.

Assembly instructions:

The use of two dedicated wrenches, available as Accessories (see Product Pages) will provide the recommended tightening torque (see table below) and is recommended to eliminate the risk of damaging the micro-compensation system or the tap driver: the locking key (Part No. 56800x2-xx) is used to maintain the micro-compensation mechanism in position while the spanner (Part No. 03B5875xxUM for sizes ER 11 and ER 20, Part No. 03B5875xx for sizes ER 25, 40 and 50) is used to tighten the nut.

Do not tighten the nut without maintaining the micro-compensation mechanism in position, even if the EPB 5867 tapping chuck is maintained in a Tool Boy assembly support.

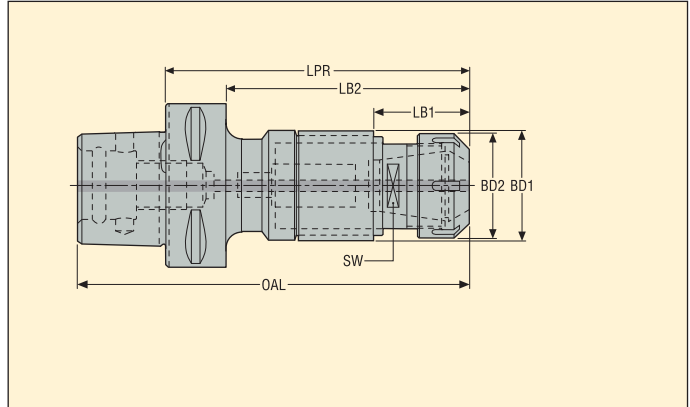


Recommended tightening torque for the ER tapping collet nuts

Tapping chuck size	Max. tightening torque
ER 11	30 Nm
ER 20	100 Nm
ER 25	130 Nm
ER 40	220 Nm
ER 50	260 Nm

EPB 5867 – Tapping chucks for synchronized tapping, with micro-compensation – Metric

Seco-Capto™/ ISO 26623-1



- Inbuilt axial micro flexure ($\pm 0,5$ mm) prevents from tap stress
- Tap fitting based on ER tapping collets with square drive
- Maximum coolant pressure 80 bar

Machine side Seco-Capto™ shank	Workpiece side Tapping range	Size	Ordering and Product No.	Designation	Dimensions in mm							*	Balancing	KG
					LPR	BD1	BD2	OAL	LB1	LB2	SW			
C4	M2-M5	ER 11	02926957	C4-391.5867-11080	80,0	23,5	18,7	104,0	24,1	60,0	12,7		–	0,4
	M4-M12	ER 20	02926958	C4-391.5867-20102	102,2	35,0	33,7	126,2	40,3	82,0	22,0		–	0,7
	M8-M20	ER 25	02926959	C4-391.5867-25122	121,6	44,0	42,0	145,6	42,1	101,6	28,0		–	1,1
C5	M4-M12	ER 20	02926960	C5-391.5867-20103	102,7	35,0	33,7	132,7	40,3	82,7	22,0		–	0,9
	M8-M20	ER 25	02926961	C5-391.5867-25122	122,1	44,0	42,0	152,1	42,1	102,1	28,0		–	1,3
	M16-M30	ER 40	02926962	C5-391.5867-40154	154,0	62,0	62,7	184,0	52,0	134,0	39,7		–	2,8
C6	M4-M12	ER 20	02926963	C6-391.5867-20105	104,7	35,0	33,7	142,7	40,3	82,7	22,0		–	1,2
	M8-M20	ER 25	02926964	C6-391.5867-25124	124,1	44,0	42,0	162,1	42,1	102,1	28,0		–	1,6
	M16-M30	ER 40	02926965	C6-391.5867-40154	153,5	62,0	62,7	191,5	52,0	131,5	39,7		–	2,9
	M20-M48	ER 50	03131173	C6-391.5867-50210	210,0	86,0	78,0	248,0	78,5	136,5	56,2	*	–	5,0
C8	M4-M12	ER 20	02926966	C8-391.5867-20112	111,7	35,0	33,7	159,7	40,3	81,7	22,0		–	2,2
	M8-M20	ER 25	02926967	C8-391.5867-25131	131,1	44,0	42,0	179,1	42,1	101,1	28,0		–	2,6
	M16-M30	ER 40	02926968	C8-391.5867-40161	160,5	62,0	62,7	208,5	52,0	130,5	39,6		–	3,9

* ER 50 Designation C6-391.5867-50210 features a square size 29 mm (KWW) at the bottom of the collet housing
For ER tapping collets with square drive, see page(s) 287

Accessories

For size	Locking key	Socket	Spanner	Spanner 1	Torque key
ER 11	5680092-03	–	03B587511UM	–	–
ER 20	5680092-04	–	03B587520UM	–	–
ER 25	5680092-05	03ER042	03B587525	03BR042	03DYD020200
ER 40	5680092-06	03ER063	03B587540	03BR063	03DYD020200
ER 50	5680092-07	–	03B587550	–	–

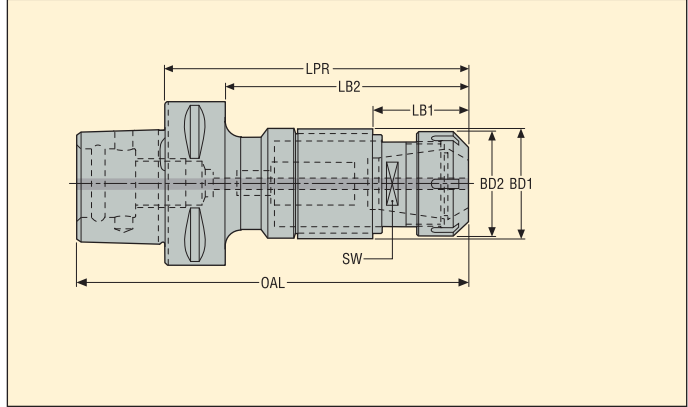
Spare Parts

For size	Nut
ER 11	5533050-07
ER 20	5533051-02
ER 25	5533051-03
ER 40	5533051-05
ER 50	5533051-14

Please check availability in current price and stock-list
For EPB 5867 sealing rings, see page(s) 290

EPB 5867 – Tapping chucks for synchronized tapping, with micro-compensation – Inch

Seco-Capto™/ ISO 26623-1



- Inbuilt axial micro flexure ($\pm 0,5$ mm) prevents from tap stress
- Tap fitting based on ER tapping collets with square drive
- Maximum coolant pressure 80 bar

Machine side Seco-Capto™ shank	Workpiece side Tapping range	Size	Ordering and Product No.	Designation	Dimensions in inch							*	Balancing	
					LPR	BD1	BD2	OAL	LB1	LB2	SW			
C4	M2-M5	ER 11	02926957	C4-391.5867-11080	3.150	0.925	0.736	4.094	0.949	2.362	0.500		–	0.88
	M4-M12	ER 20	02926958	C4-391.5867-20102	4.024	1.378	1.327	4.969	1.587	3.228	0.866		–	1.54
	M8-M20	ER 25	02926959	C4-391.5867-25122	4.787	1.732	1.654	5.732	1.657	4.000	1.102		–	2.43
C5	M4-M12	ER 20	02926960	C5-391.5867-20103	4.043	1.378	1.327	5.224	1.587	3.256	0.866		–	1.98
	M8-M20	ER 25	02926961	C5-391.5867-25122	4.807	1.732	1.654	5.988	1.657	4.020	1.102		–	2.87
	M16-M30	ER 40	02926962	C5-391.5867-40154	6.063	2.441	2.469	7.244	2.047	5.276	1.562		–	6.17
C6	M4-M12	ER 20	02926963	C6-391.5867-20105	4.122	1.378	1.327	5.618	1.587	3.256	0.866		–	2.65
	M8-M20	ER 25	02926964	C6-391.5867-25124	4.886	1.732	1.654	6.382	1.657	4.020	1.102		–	3.53
	M16-M30	ER 40	02926965	C6-391.5867-40154	6.043	2.441	2.469	7.539	2.047	5.177	1.562		–	6.39
	M20-M48	ER 50	03131173	C6-391.5867-50210	8.268	3.386	3.071	9.764	3.091	5.374	2.213	*	–	11.02
C8	M4-M12	ER 20	02926966	C8-391.5867-20112	4.398	1.378	1.327	6.287	1.587	3.217	0.866		–	4.85
	M8-M20	ER 25	02926967	C8-391.5867-25131	5.161	1.732	1.654	7.051	1.657	3.980	1.102		–	5.73
	M16-M30	ER 40	02926968	C8-391.5867-40161	6.319	2.441	2.469	8.209	2.047	5.138	1.559		–	8.60

* ER 50 Designation **C6-391.5867-50210** features a square size 1.141" (KWW) at the bottom of the collet housing
For ER tapping collets with square drive, see page(s) 288-289

Accessories

For size	Locking key	Socket	Spanner	Spanner 1	Torque key
ER 11	5680092-03	–	03B587511UM	–	–
ER 20	5680092-04	–	03B587520UM	–	–
ER 25	5680092-05	03ER042	03B587525	03BR042	03DYD020200
ER 40	5680092-06	03ER063	03B587540	03BR063	03DYD020200
ER 50	5680092-07	–	03B587550	–	–

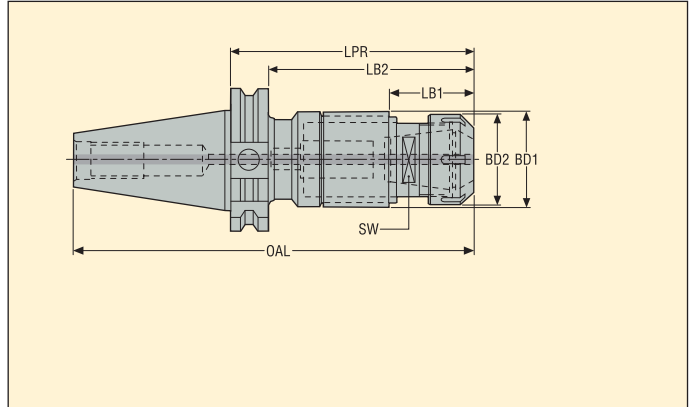
Spare Parts

For size	Nut
ER 11	5533050-07
ER 20	5533051-02
ER 25	5533051-03
ER 40	5533051-05
ER 50	5533051-14

Please check availability in current price and stock-list
For EPB 5867 sealing rings, see page(s) 291

EPB 5867 – Tapping chucks for synchronized tapping, with micro-compensation – Inch

ANSI B5.50-2009



- Inbuilt axial micro flexure ($\pm 0,5$ mm) prevents from tap stress
- Tap fitting based on ER tapping collets with square drive
- Maximum coolant pressure 80 bar

Machine side	Workpiece side	Ordering and Product No.	Designation	Size	Dimensions in inch							Balancing	
					LPR	BD1	BD2	OAL	LB1	LB2	SW		
CAT40 AD	M4-M12	03131168	E2622586720102	ER 20	4.024	1.378	1.339	6.711	1.587	3.276	0.866	–	2.87
	M8-M20	03131169	E2622586725122	ER 25	4.787	1.732	1.654	7.474	1.657	4.035	1.102	–	3.75
CAT50 AD	M4-M12	03131170	E2624586720106	ER 20	4.181	1.378	1.339	8.181	1.587	3.433	0.866	–	6.61
	M8-M20	03131171	E2624586725126	ER 25	4.945	1.732	1.654	5.008	1.657	4.193	1.102	–	7.50
	M16-M30	03131172	E2624586740155	ER 40	6.102	2.441	2.480	10.102	2.047	5.350	1.559	–	10.36

For ER tapping collets with square drive, see page(s) 288-289

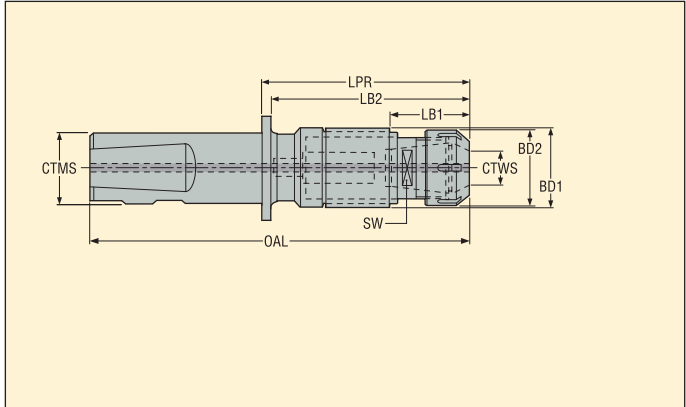
Accessories

Spare Parts

For size	Locking key	Socket	Spanner	Spanner 1	Torque key	For size	Nut
ER 20	5680092-04	–	03B587520UM	–	–	ER 20	5533051-02
ER 25	5680092-05	03ER042	03B587525	03BR042	03DYD020200	ER 25	5533051-03
ER 40	5680092-06	03ER063	03B587540	03BR063	03DYD020200	ER 40	5533051-05

Please check availability in current price and stock-list
 For EPB 5867 sealing rings, see page(s) 291

EPB 5867 – Tapping chucks for synchronized tapping, with micro-compensation – Metric Combined Weldon and Whistle Notch shank



- Inbuilt axial micro flexure ($\pm 0,5$ mm) prevents from tap stress
- Tap fitting based on ER tapping collets with square drive
- Maximum coolant pressure 80 bar

Machine side Shank CTMS mm	Workpiece side Tapping range	Ordering and Product No.	Designation	Size CTWS	Dimensions in mm							Balancing	KG
					LPR	BD1	BD2	OAL	LB1	LB2	SW		
20	M2-M5	02926947	BW22058671151	ER 11	51,9	23,5	18,7	102,7	25,2	49,1	12,7	–	0,20
25	M4-M12	02926948	BW22558672069	ER 20	68,7	34,6	34,0	119,5	40,1	–	22,3	–	0,40
	M8-M20	02926949	BW22558672588	ER 25	88,1	44,0	41,7	138,9	42,0	–	28	–	0,80
	M16-M30	02926950	BW225586740117	ER 40	117,1	62,0	63,0	167,9	50,7	–	39,7	–	2,10
40	M20-M48	03131179	BW240586750164	ER 50	164,3	86,0	78,0	234,3	78,5	134,2	56,2	–	5,30

Accessories

For size	Locking key	Socket	Spanner	Spanner 1	Torque key
ER 11	5680092-03	–	03B587511UM	–	–
ER 20	5680092-04	–	03B587520UM	–	–
ER 25	5680092-05	03ER042	03B587525	03BR042	03DYD020200
ER 40	5680092-06	03ER063	03B587540	03BR063	03DYD020200
ER 50	5680092-07	–	03B587550	–	–

Spare Parts

For size	Nut
ER 11	5533050-07
ER 20	5533051-02
ER 25	5533051-03
ER 40	5533051-05
ER 50	5533051-14

Please check availability in current price and stock-list

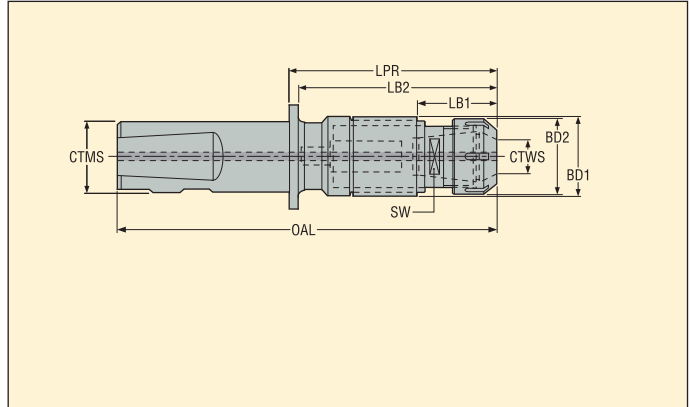
Tooling – Tapping chucks

EPB 5867 – Tapping chucks for synchronized tapping, with micro-compensation – Inch

Combined Weldon and Whistle Notch shank



- Inbuilt axial micro flexure ($\pm 0,5$ mm) prevents from tap stress
- Tap fitting based on ER tapping collets with square drive
- Maximum coolant pressure 80 bar



Machine side Shank CTMS inch	Workpiece side Tapping range	Ordering and Product No.	Designation	Size	Dimensions in inch							Balancing	
					LPR	BD1	BD2	OAL	LB1	LB2	SW		
1.000	M2-M5	03131176	BW925586711052	ER 11	2.043	0.925	0.748	4.043	0.992	–	0.500	–	0.66
	M4-M12	03131177	BW925586720069	ER 20	2.705	1.362	1.339	4.705	1.579	–	0.866	–	1.10
	M8-M20	03131178	BW925586725088	ER 25	3.469	1.732	1.654	5.469	1.720	–	1.102	–	1.98

Accessories

For size	Locking key	Socket	Spanner	Spanner 1	Torque key
ER 11	5680092-03	–	03B587511UM	–	–
ER 20	5680092-04	–	03B587520UM	–	–
ER 25	5680092-05	03ER042	03B587525	03BR042	03DYD020200

Spare Parts

For size	Nut
ER 11	5533050-07
ER 20	5533051-02
ER 25	5533051-03

Please check availability in current price and stock-list

EPB 5867, ER tapping collets with square drive

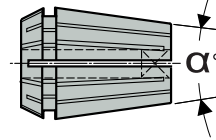
Collet taper angle: $\alpha = 16^\circ$

Specific ER collets featuring a driving square to fit the tap's square. These specific ER collets with square are required to secure the tapping process.

Dedicated clamping size on the nominal diameter.

Range: A selection of ER tapping collets in most current diameters and squares is available as standard, as listed on page(s) 287-289. As shown below, further diameters and squares are available on request, please enquire with diameter and square sizes.

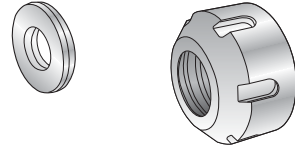
Collet size	From \varnothing (mm)	To \varnothing (mm)	Clamping range
ER 11	2,5	6	0
ER 20	4,0	12	0
ER 25	4,0	16	0
ER 40	12,0	22	0
ER 50	22,0	36	0



Sealing rings for ER sealing nuts

ER chucks are delivered as standard with drilled stop end screws for coolant through plain ended tool shanks.

In order to seal other types of shanks, sealing rings are used in conjunction with sealing nuts, see Accessories in ER collet chucks Product pages.



Sealing range of a ring is nominal to -0,5 mm.

Coolant pressure maximum 100 bar.

Sealing ring assembling advice: Insert sealing ring into the nut from the back, until it "clicks" into the nut's front face. The sealing ring's marked face should be oriented inside the nut to avoid erosion of the diameter information marking.

Release by pressure onto the sealing ring's front face.

Range: A selection of ER sealing rings in most current diameters are available as standard, as listed on page(s) 290-291.

As shown below, further diameters are available on request, please enquire.

Sealing ring size	From \varnothing (mm)	To \varnothing (mm)	\varnothing steps (mm)	Sealing range (mm)
ER 16	3	10	0,5	-0,5
ER 20	3	12	0,5	-0,5
ER 25	3	16	0,5	-0,5
ER 32	3	20	0,5	-0,5
ER 40*	3	26	0,5	-0,5
ER 50*	4	25	0,5	-0,5

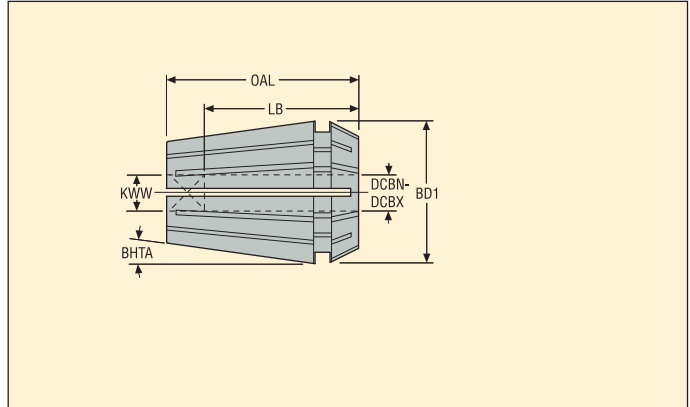
* Sealing rings in size ER 40 and ER 50 are only available on request, please enquire.

Note: Sealing rings and sealing nuts in sizes ER 08 and ER 11 are not available.

EPB 393.14 – ER tapping collets with square drive – Metric



- For EPB 5867 tapping chucks

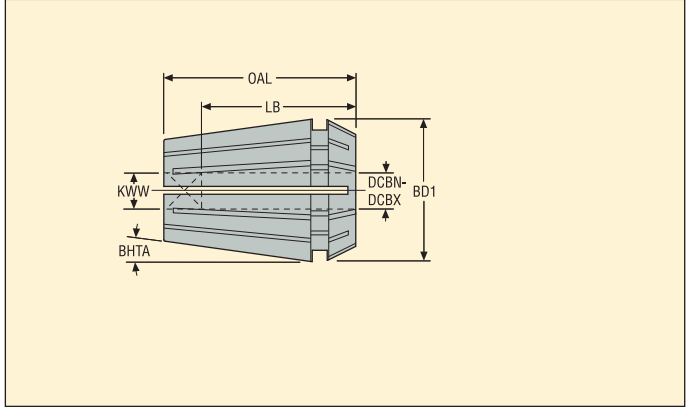


For collet chuck size	Ordering and Product No.	Designation	DCBN-DCBX mm	Dimensions in mm				*	BHTA°
				KWW	BD1	LB	OAL		
ER 11	03131636	393.14-11D025X021	2,5-2,5	2,1	11,3	12,0	18,0		8,0
	03131670	393.14-11D040X0315	4,0-4,0	3,1	11,3	14,0	18,0		8,0
	03131671	393.14-11D050X040	5,0-5,0	4,0	11,3	14,0	18,0		8,0
ER 20	03131672	393.14-20D035X027	3,5-3,5	2,7	20,8	14,0	31,5		8,0
	03131673	393.14-20D040X0315	4,0-4,0	3,2	20,8	15,0	31,5		8,0
	03131674	393.14-20D050X040	5,0-5,0	4,0	20,8	18,0	31,5		8,0
	03131675	393.14-20D055X043	5,5-5,5	4,3	20,8	18,0	31,5		8,0
	03131676	393.14-20D063X050	6,3-6,3	5,0	20,8	18,0	31,5		8,0
	03131677	393.14-20D071X056	7,1-7,1	5,6	20,8	18,0	31,5		8,0
ER 25	03131691	393.14-25D060X049	6,0-6,0	4,9	25,8	18,0	34,0		8,0
	03131692	393.14-25D070X055	7,0-7,0	5,5	25,8	18,0	34,0		8,0
	03131693	393.14-25D112X090	11,2-11,2	9,0	25,8	24,8	34,0		8,0
	03131694	393.14-25D125X100	12,5-12,5	10,0	25,8	24,8	34,0		8,0
ER 40	03131695	393.14-40D125X100	12,5-12,5	10,0	41,0	24,8	46,0		8,0
ER 50	03131696	393.14-50D220X180	22,0-22,0	18,0	50,0	41,0	60,0		8,0
	03131697	393.14-50D250X200	25,0-25,0	20,0	50,0	41,0	60,0		8,0
	03131698	393.14-50D280X220	28,0-28,0	22,0	50,0	41,0	60,0		8,0
	03131699	393.14-50D320X240	32,0-32,0	24,0	50,0	41,0	60,0		8,0
	03131700	393.14-50360	36,0-36,0	–	50,0	41,0	60,0	*	8,0

Please check availability in current price and stock-list

* ER 50 Designation 393.14-50360 is without square like a standard ER collet, For $\varnothing 36$ mm tap shank, the square size 29 mm is into the tapping holder

EPB 393.14 – ER tapping collets with square drive – Inch



- For EPB 5867 tapping chucks

For collet chuck size	Ordering and Product No.	Designation	DCBN-DCBX inch	Dimensions in inch				*	BHTA°
				KWW	BD1	LB	OAL		
ER 11	03131636	393.14-11D025X021	0.098-0.098	0.083	0.445	0.472	0.709		8,0
	03131670	393.14-11D040X0315	0.157-0.157	0.122	0.445	0.551	0.709		8,0
	03131671	393.14-11D050X040	0.197-0.197	0.157	0.445	0.551	0.709		8,0
ER 20	03131672	393.14-20D035X027	0.138-0.138	0.106	0.819	0.551	1.240		8,0
	03131673	393.14-20D040X0315	0.157-0.157	0.124	0.819	0.591	1.240		8,0
	03131674	393.14-20D050X040	0.197-0.197	0.157	0.819	0.709	1.240		8,0
	03131675	393.14-20D055X043	0.217-0.217	0.169	0.819	0.709	1.240		8,0
	03131676	393.14-20D063X050	0.248-0.248	0.197	0.819	0.709	1.240		8,0
	03131677	393.14-20D071X056	0.280-0.280	0.220	0.819	0.709	1.240		8,0
ER 25	03131691	393.14-25D060X049	0.236-0.236	0.193	1.016	0.709	1.339		8,0
	03131692	393.14-25D070X055	0.276-0.276	0.217	1.016	0.709	1.339		8,0
	03131693	393.14-25D112X090	0.441-0.441	0.354	1.016	0.976	1.339		8,0
	03131694	393.14-25D125X100	0.492-0.492	0.394	1.016	0.976	1.339		8,0
ER 40	03131695	393.14-40D125X100	0.492-0.492	0.394	1.614	0.976	1.811		8,0
ER 50	03131696	393.14-50D220X180	0.866-0.866	0.709	1.969	1.614	2.362		8,0
	03131697	393.14-50D250X200	0.984-0.984	0.787	1.969	1.614	2.362		8,0
	03131698	393.14-50D280X220	1.102-1.102	0.866	1.969	1.614	2.362		8,0
	03131699	393.14-50D320X240	1.260-1.260	0.945	1.969	1.614	2.362		8,0
	03131700	393.14-50360	1.417-1.417	–	1.969	1.614	2.362	*	8,0

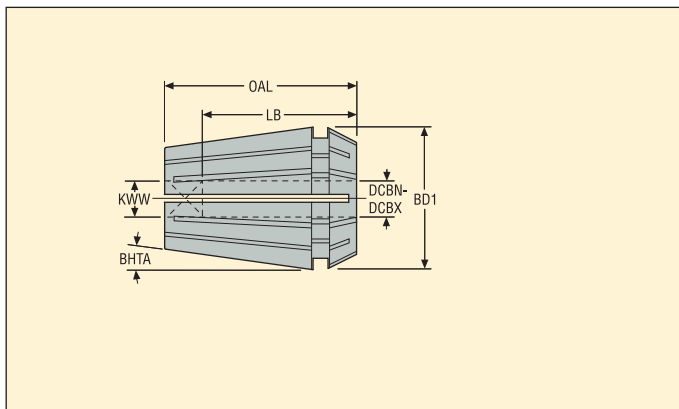
Please check availability in current price and stock-list

* ER 50 Designation 393.14-50360 is without square like a standard ER collet, For $\varnothing 1.417''$ tap shank, the square size 1.414'' is into the tapping holder

EPB A393.14 – ER tapping collets with square drive – Inch



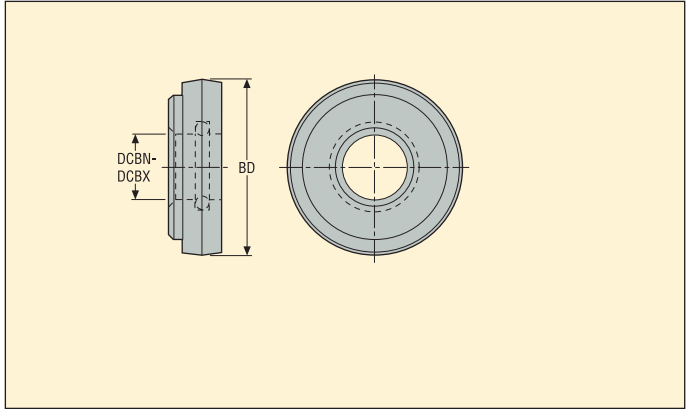
- For EPB 5867 tapping chucks



For collet chuck size	Ordering and Product No.	Designation	DCBN-DCBX inch	Dimensions in inch				BHTA°
				KWW	BD1	LB	OAL	
ER 11	03131719	A393.14-11-0-6NO	0.141-0.141	0.110	0.445	0.551	0.709	8,0
	03131720	A393.14-11-8NO	0.168-0.168	0.131	0.445	0.551	0.709	8,0
	03131721	A393.14-11-10NO	0.194-0.194	0.152	0.445	0.551	0.709	8,0
ER 20	03131722	A393.14-20-8NO	0.168-0.168	0.131	0.819	0.709	1.240	8,0
	03131723	A393.14-20-10NO	0.194-0.194	0.152	0.819	0.701	1.240	8,0
	03131724	A393.14-20-12NO	0.220-0.220	0.165	0.819	0.701	1.240	8,0
	03131725	A393.14-20-1/4	0.255-0.255	0.191	0.819	0.701	1.240	8,0
	03131726	A393.14-20-5/16	0.318-0.318	0.238	0.819	0.858	1.240	8,0
	03131727	A393.14-20-7/16	0.323-0.323	0.242	0.819	0.858	1.240	8,0
	03131728	A393.14-20-1/2	0.367-0.367	0.275	0.819	0.866	1.240	8,0
	03131733	A393.14-20-3/8	0.381-0.381	0.286	0.819	0.858	1.240	8,0
ER 25	03131738	A393.14-25-1/4	0.255-0.255	0.191	1.016	0.701	1.339	8,0
	03131739	A393.14-25-5/16	0.318-0.318	0.238	1.016	0.858	1.339	8,0
	03131741	A393.14-25-7/16	0.323-0.323	0.242	1.016	0.858	1.339	8,0
	03131742	A393.14-25-1/2	0.367-0.367	0.275	1.016	0.858	1.339	8,0
	03131743	A393.14-25-3/8	0.381-0.381	0.286	1.016	0.858	1.339	8,0
	03131744	A393.14-25-9/16	0.429-0.429	0.322	1.016	0.976	1.339	8,0
	03131745	A393.14-25-1/8P	0.437-0.437	0.328	1.016	0.976	1.339	8,0
	03131746	A393.14-25-5/8	0.480-0.480	0.360	1.016	0.976	1.339	8,0
03131747	A393.14-25-3/4	0.590-0.590	0.442	1.016	0.976	1.339	8,0	
ER 40	03131748	A393.14-40-5/8	0.480-0.480	0.360	1.614	0.976	1.811	8,0
	03131749	A393.14-40-1/2P	0.687-0.687	0.515	1.614	0.976	1.811	8,0
	03131750	A393.14-40-M18	0.542-0.542	0.406	1.614	0.976	1.811	8,0
	03131751	A393.14-40-1/8P	0.562-0.562	0.421	1.614	0.976	1.811	8,0
	03131752	A393.14-40-3/4	0.590-0.590	0.442	1.614	0.976	1.811	8,0
	03131753	A393.14-40-M20	0.652-0.652	0.489	1.614	0.976	1.811	8,0
	03131754	A393.14-40-7/8	0.697-0.697	0.523	1.614	0.976	1.811	8,0
	03131755	A393.14-40-3/8P	0.700-0.700	0.531	1.614	0.976	1.811	8,0
	03131756	A393.14-40-M24	0.760-0.760	0.570	1.614	1.094	1.811	8,0
	03131757	A393.14-40-1	0.800-0.800	0.600	1.614	1.094	1.811	8,0

Please check availability in current price and stock-list

EPB 5875 – ER sealing rings – Metric



- For fitting into ER sealing nuts, for EPB 5867 Tapping chucks and EPB 5675 ER Collet chucks

For sealing nut size	Sealing capacity DCBN-DCBX mm	Ordering and Product No.	Designation	BD mm
ER 16	4,5-5,0	00029961	01B58751605	13,0
	5,5-6,0	00030314	01B58751606	13,0
	6,5-7,0	00029963	01B58751607	13,0
	7,5-8,0	00030315	01B58751608	13,0
	8,5-9,0	00029967	01B58751609	13,0
	9,5-10,0	00029968	01B58751610	13,0
ER 20	4,0-4,5	03131184	01B587520045	16,0
	4,5-5,0	03131182	01B58752005	16,0
	5,5-6,0	02427909	01B58752006	16,0
	6,5-7,0	02451138	01B58752007	16,0
	7,0-7,5	03131185	01B587520075	16,0
	7,5-8,0	02465404	01B58752008	16,0
	8,5-9,0	02700032	01B58752009	16,0
	9,5-10,0	02685743	01B58752010	16,0
ER 25	4,5-5,0	00029973	01B58752505	21,0
	5,5-6,0	00029978	01B58752506	21,0
	6,5-7,0	00029981	01B58752507	21,0
	7,5-8,0	00029982	01B58752508	21,0
	8,5-9,0	00029983	01B58752509	21,0
	9,5-10,0	00029992	01B58752510	21,0
	10,5-11,0	00029998	01B58752511	21,0
	11,5-12,0	00030000	01B58752512	21,0
	13,5-14,0	00088809	01B58752514	21,0
	15,5-16,0	00030010	01B58752516	21,0
ER 32	4,5-5,0	00030017	01B58753205	27,0
	5,5-6,0	00030316	01B58753206	27,0
	6,5-7,0	00030020	01B58753207	27,0
	7,5-8,0	00030023	01B58753208	27,0
	8,5-9,0	00030026	01B58753209	27,0
	9,5-10,0	00030028	01B58753210	27,0
	10,5-11,0	00030317	01B58753211	27,0
	11,5-12,0	00003370	01B58753212	27,0
	13,5-14,0	00057876	01B58753214	27,0
	15,5-16,0	00030319	01B58753216	27,0
	17,5-18,0	00030320	01B58753218	27,0
	19,5-20,0	00030321	01B58753220	27,0

Please check availability in current price and stock-list

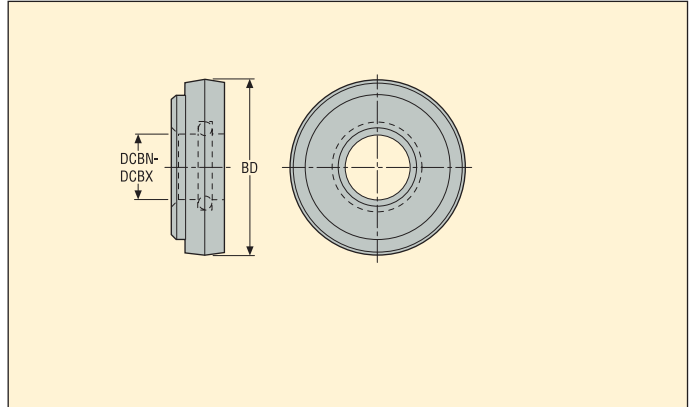
For sealing nuts, see Accessories in ER collet chucks or Tapping chucks pages in MN Tooling Systems catalogue

Note: Sealing rings in size ER 40 and ER 50 are only available on request, please enquire, Not available in size ER 08 and ER 11

EPB 5875 – ER sealing rings – Inch



- For fitting into ER sealing nuts, for EPB 5867 Tapping chucks and EPB 5675 ER Collet chucks



For sealing nut size	Sealing capacity DCBN-DCBX inch	Ordering and Product No.	Designation	BD inch
ER 16	0.177-0.197	00029961	01B58751605	0.512
	0.217-0.236	00030314	01B58751606	0.512
	0.256-0.276	00029963	01B58751607	0.512
	0.295-0.315	00030315	01B58751608	0.512
	0.335-0.354	00029967	01B58751609	0.512
	0.374-0.394	00029968	01B58751610	0.512
ER 20	0.157-0.177	03131184	01B587520045	0.630
	0.177-0.197	03131182	01B58752005	0.630
	0.217-0.236	02427909	01B58752006	0.630
	0.256-0.276	02451138	01B58752007	0.630
	0.276-0.295	03131185	01B587520075	0.630
	0.295-0.315	02465404	01B58752008	0.630
	0.335-0.354	02700032	01B58752009	0.630
	0.374-0.394	02685743	01B58752010	0.630
ER 25	0.177-0.197	00029973	01B58752505	0.827
	0.217-0.236	00029978	01B58752506	0.827
	0.256-0.276	00029981	01B58752507	0.827
	0.295-0.315	00029982	01B58752508	0.827
	0.335-0.354	00029983	01B58752509	0.827
	0.374-0.394	00029992	01B58752510	0.827
	0.413-0.433	00029998	01B58752511	0.827
	0.453-0.472	00030000	01B58752512	0.827
	0.531-0.551	00088809	01B58752514	0.827
	0.610-0.630	00030010	01B58752516	0.827
ER 32	0.177-0.197	00030017	01B58753205	1.063
	0.217-0.236	00030316	01B58753206	1.063
	0.256-0.276	00030020	01B58753207	1.063
	0.295-0.315	00030023	01B58753208	1.063
	0.335-0.354	00030026	01B58753209	1.063
	0.374-0.394	00030028	01B58753210	1.063
	0.413-0.433	00030317	01B58753211	1.063
	0.453-0.472	00003370	01B58753212	1.063
	0.531-0.551	00057876	01B58753214	1.063
	0.610-0.630	00030319	01B58753216	1.063
	0.689-0.709	00030320	01B58753218	1.063
	0.768-0.787	00030321	01B58753220	1.063

Please check availability in current price and stock-list

For sealing nuts, see Accessories in ER collet chucks or Tapping chucks pages in MN Tooling Systems catalogue

Note: Sealing rings in size ER 40 and ER 50 are only available on request, please enquire, Not available in size ER 08 and ER 11

Pull studs

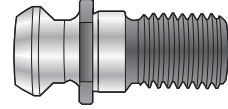
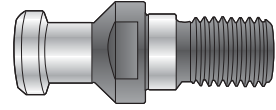
Pull studs (also called retention knobs) are the link between the drawbar of the machine and the holder. The superior material and hardening quality of EPB pull studs is important, as the pulling forces exerted on them can be up to 3000 daN on SA 50 spindles.

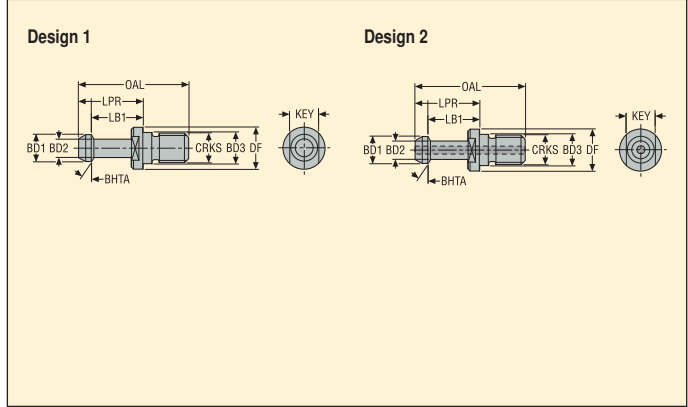
Precision machining of the pull studs guarantees precise positioning and safe locking of the holder in the spindle.

Most machines require a standard pull stud design (DIN, ISO, BT, CAT), but some require a specific design.

Specific pull studs are available on request, please enquire: a sketch or drawing should accompany the enquiry.

Warning: Tighten the small pull studs for SA 30 tapers with moderation, strong tightening may expand the holder's taper back-end.



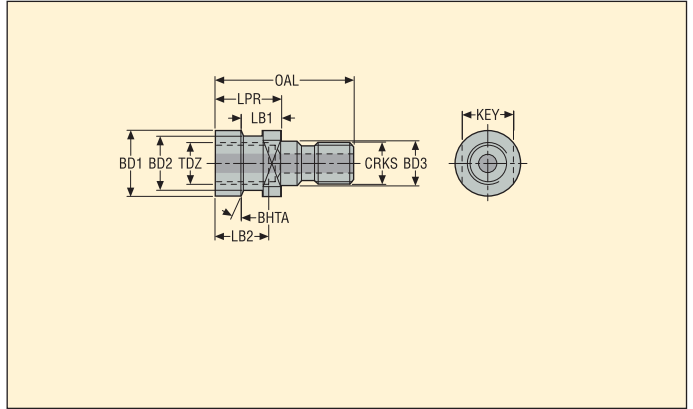


For Taper	Ordering and Product No.	Designation	CRKS	Dimensions in mm								BHTA°	Design	KG	
				BD1	BD2	BD3	DF	OAL	LPR	LB1	KEY				
BT 30	03119886	PS-B30-45-001	M12	11,0	7,0	12,5	16,5	43,0	23,0	18,0	13,0	45,0	1	0,10	
	03119889	PS-B30-60-001	M12	11,0	7,0	12,5	16,5	43,0	23,0	18,0	13,0	30,0	1	0,10	
	03119887	PS-B30C-45-001	M12	11,0	7,0	12,5	16,5	43,0	23,0	18,0	13,0	45,0	2	0,10	
	03119888	PS-B30C-45-002	M12	11,0	7,0	13,0	16,5	43,0	23,0	18,0	13,0	45,0	2	0,10	
	03119939	PS-B30C-45-003	M12	11,0	8,0	12,5	16,5	43,0	23,0	18,0	13,0	45,0	2	0,10	
	03119890	PS-B30C-60-001	M12	11,0	7,0	12,5	16,5	43,0	23,0	18,0	13,0	30,0	2	0,10	
	03119891	PS-B30C-60-002	M12	11,0	7,0	12,5	16,5	43,0	23,0	18,0	13,0	30,0	2	0,10	
BT 40	03119894	PS-B40-45-001	M16	15,0	10,0	17,0	23,0	60,0	35,0	28,0	19,0	45,0	1	0,10	
	03119906	PS-B40-60-001	M16	15,0	10,0	17,0	23,0	60,0	35,0	28,0	19,0	30,0	1	0,10	
	03119884	PS-B40-90-001	M16	15,0	10,0	17,0	23,0	60,0	35,0	28,0	19,0	0,0	1	0,10	
	03119895	PS-B40C-45-001	M16	15,0	10,0	17,0	23,0	60,0	35,0	28,0	19,0	45,0	2	0,10	
	03119930	PS-B40C-60-001	M16	15,0	10,0	17,0	23,0	60,0	35,0	28,0	19,0	30,0	2	0,10	
	03119885	PS-B40C-90-001	M16	15,0	10,0	17,0	23,0	60,0	35,0	28,0	19,0	0,0	1	0,10	
BT 50	03119931	PS-B50-45-001	M24	23,0	17,0	25,0	38,0	85,0	45,0	35,0	30,0	45,0	2	0,30	
	03119937	PS-B50-60-001	M24	23,0	17,0	25,0	38,0	85,0	45,0	35,0	30,0	30,0	1	0,30	
	03119934	PS-B50-90-001	M24	23,0	17,0	25,0	38,0	85,0	45,0	35,0	30,0	0,0	1	0,30	
	03119932	PS-B50C-45-001	M24	23,0	17,0	25,0	38,0	85,0	45,0	35,0	30,0	45,0	2	0,30	
	03119938	PS-B50C-60-001	M24	23,0	17,0	25,0	38,0	85,0	45,0	35,0	30,0	30,0	2	0,30	
	03119933	PS-B50C-90-001	M24	24,0	18,0	25,0	36,0	71,0	31,0	23,0	30,0	0,0	2	0,30	
	03119935	PS-B50C-90-002	M24	23,0	17,0	25,0	38,0	85,0	45,0	35,0	30,0	0,0	2	0,30	

Please check availability in current price and stock-list

Pull studs DIN – Inch

DIN 69871



For Taper	Ordering and Product No.	Designation	CRKS	Dimensions in inch								TDZ mm	BHTA°	lbs
				BD1	BD2	BD3	DF	OAL	LPR	LB1	KEY			
DIN 40	03119987	PS-B40C-75-003	M16	0.748	0.547	0.669	0.906	2.126	1.024	0.787	0.740	–	15,0	0.66

Please check availability in current price and stock-list

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 than 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	■	■	■	■	■					■		■	■	■	■	■		
F15M	■				■	■			■			■	■		■			
F25M	■	■	■	■	■				■			■	■		■			
F30M	■				■	■			■			■	■		■			
F40M	■				■	■			■			■	■		■			
HX	■		■		■				■									
H02	■		■		■				■									
H15	■				■	■			■									
H25	■				■	■			■									
KX	■				■	■			■									
MH1000	■				■	■			■			■	■		■			
MK1500	■		■		■				■			■	■	■	■	■		
MK2050	■		■		■	■			■			■	■		■		■	
MM4500	■				■	■			■			■	■	■	■	■		
MP1020	■	■	■	■	■				■									
MP1500	■		■	■	■				■			■	■	■	■	■		
MP2050	■				■					■	■	■	■	■	■	■	■	
MP2500	■		■	■	■				■			■	■	■	■	■		
MP3000	■				■	■			■			■	■	■	■	■		
MS2500	■		■	■	■				■			■	■	■	■	■		
MS2050	■				■	■			■			■	■	■	■	■		■
RX1500	■		■		■			■	■	■		■	■		■			
RX2000	■		■		■	■			■			■	■		■			
T350M	■				■				■			■	■		■	■		
T25M	■		■	■	■				■			■	■	■	■			
TGH1050	■				■	■			■			■	■		■			■
TGK1500	■		■		■				■			■	■	■	■	■		
TGP25	■	■	■	■	■				■			■	■	■	■	■		
TGP35	■		■	■	■				■			■	■	■	■	■		
TGP45	■		■	■	■				■			■	■	■	■	■		
TH1000	■				■	■			■			■	■		■			■
TH1500	■				■	■			■			■	■	■	■	■		
TK0501	■				■	■			■			■	■	■	■	■		
TK1001	■				■	■			■			■	■	■	■	■		
TK1501	■		■		■	■			■			■	■	■	■	■		
TK2001	■		■		■	■			■			■	■	■	■	■		
TM2000	■	■	■	■	■				■	■		■	■	■	■	■		
TM4000	■				■				■	■		■	■	■	■	■		
TP0501	■	■	■	■	■	■			■			■	■	■	■	■		
TP1020	■	■	■	■	■				■	■								
TP1030	■	■	■	■	■				■	■		■	■		■			■
TP1500	■	■	■	■	■				■	■		■	■	■	■	■		
TP1501	■	■	■	■	■				■	■		■	■	■	■	■		
TP200	■	■	■	■	■				■	■		■	■	■	■	■		
TP2500	■	■	■	■	■				■	■		■	■	■	■	■		
TP2501	■	■	■	■	■	■			■	■		■	■	■	■	■		
TP3500	■	■	■	■	■				■	■		■	■	■	■	■		
TP3501	■	■	■	■	■				■	■		■	■	■	■	■		
TP40	■		■	■	■				■			■		■	■			
TS2000	■				■	■			■			■	■		■			
TS2050	■				■	■			■			■	■		■			■
TS2500	■		■		■				■			■	■		■			
T250D	■				■	■			■			■	■		■			
T400D	■				■	■			■			■	■		■			
T100R	■		■		■	■			■			■	■		■			
T60M	■	■	■	■	■				■			■	■		■			
883	■		■		■				■			■						
890	■				■	■			■			■						

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