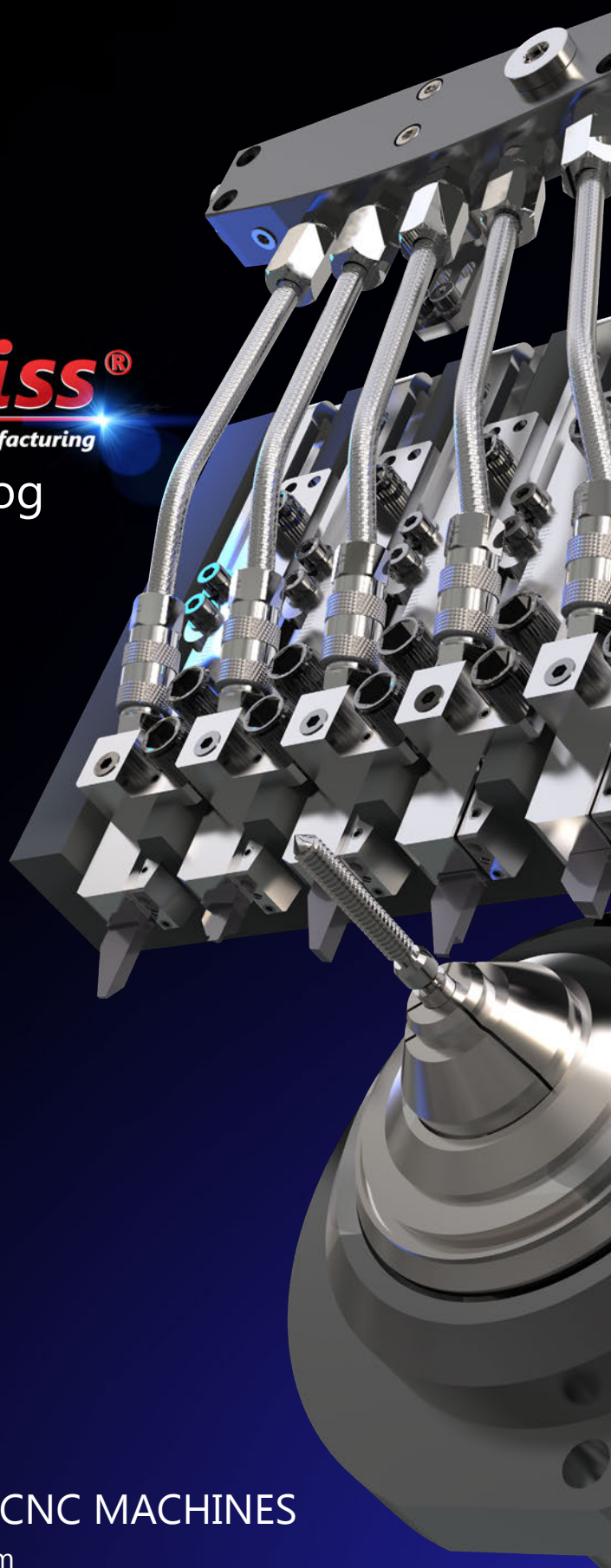
GenSwiss®

Advancing Small Parts Manufacturing

2024 Catalog

Version 10.23



TOOLING FOR SWISS-TYPE CNC MACHINES

www.genswiss.com

GenSwiss®

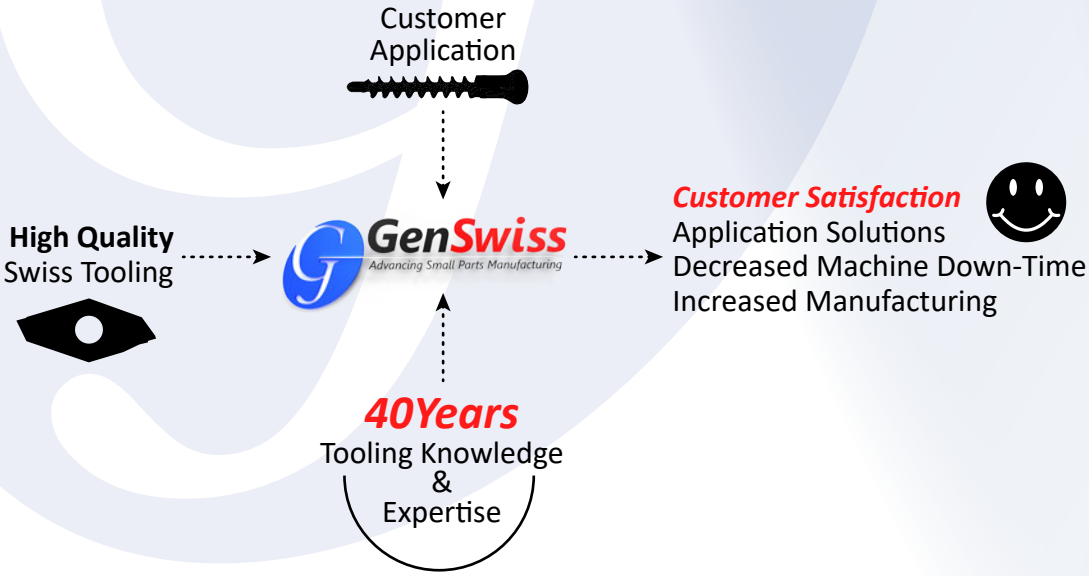
Advancing Small Parts Manufacturing



Westfield, MA, USA

Genevieve Swiss Industries, Inc. brings to market unique high precision tools and accessories, advancing small parts manufacturing and enhancing Swiss-type machine processes. Our high quality product line of cutting tools, machine tool holders, and live spindles are imported from Switzerland's primarily world-class manufacturers UTILIS AG and PCM Willen SA.

With more than 40-years of experience in the industry, GenSwiss aims to improve distribution efficiencies and increase manufacturing productivity. We strive to deliver products which meet or exceeds customer expectations, providing a reliable service with application solutions for YOUR critical small parts manufacturing.



UTILIS® Tooling for High Technology PCM® be driven. REGO-FIX®

Precision Tools

- High quality for extended tool life
- Quick setup times
- Low TIR's and tight tolerances
- Thousands of tools available
- Signature Series made in-house
- Custom tooling available





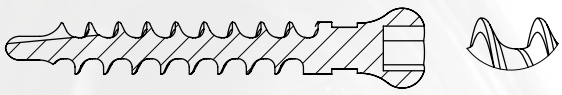


Customer Service & Sales Team

- Our skilled staff is dedicated to providing you with the tooling and assistance you require
- The GenSwiss team visits our distributor network to support our partners and learn how we can better provide or improve the GenSwiss experience
- Instant access to inventory allows our team to provide immediate lead times and pricing

Tooling Application Assistance

- 40 years of industry experience
- Knowledge of the benefits and disadvantages for all available tooling systems
- GenSwiss will find the right combination of tools for your application to optimize the best tool life with cost savings





Live Tooling Repairs & Restoration

- Live swiss machine attachments restored to factory specification
- PCM and major OEM brands: CITIZEN, STAR, TSUGAMI, TORNOS
- $50.00 evaluation & inspection
- Save money by shipping to GenSwiss instead of overseas

GenSwiss E-Commerce

- See product inventory 24/7
- Get instant pricing 24/7
- Track orders
- Place custom tooling orders via online forms

www.GenSwiss.com

ID TOOLING

Signature Series



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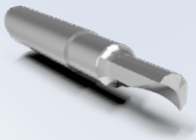

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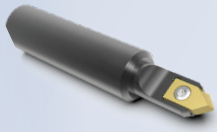

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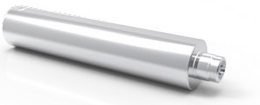

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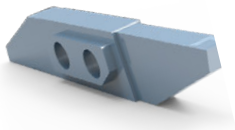

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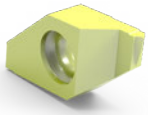

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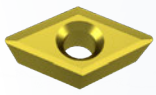

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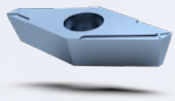

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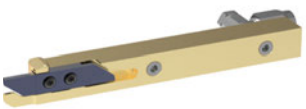

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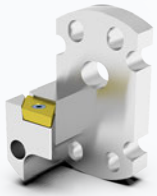

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PCM
be driven.

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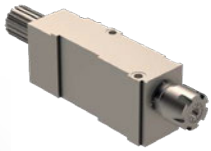

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ROTARY BROACHING
GUIDE



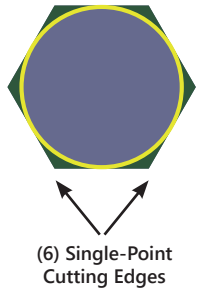
Rotary Broaching is a fast and easy method of producing polygonal drive features in turned parts. Genevieve Swiss offers Premium Rotary Broaching products from PCM, the European industry leader in rotary broaching tools.

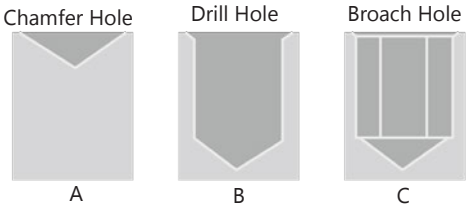
PCM
be driven.

A Guide To Internal Rotary Broaching

During the rotary broach operation, the broach tool approaches the work piece at a small angle. The tool spins synchronously with the part, creating a wobble effect that causes the leading cutting edge to rotate in and out of the cut like a cam. This method shapes internal and external polygonal profiles at a single-point. Compared to punch forming, which shapes the entire profile at once, rotary broaching requires 80% less force, offers increased tool life, and lowers machine maintenence cost over time.

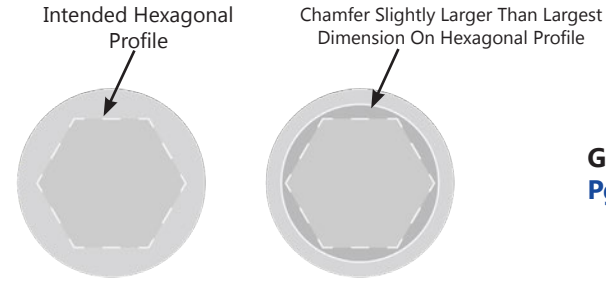
The advantages offered by rotary broaching result from proper preparation prior to the broaching operation. The most important part of this preparation includes drilling a hole which allows for broached material to accumulate, preventing damage to the broach tool and machine. Continue with the guide below for some important tips on rotary broaching.

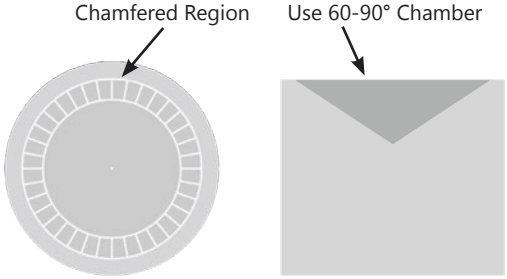




Preparing To Broach A Hole

First, prepare the hole with a 60° - 90° chamfer slightly bigger than the largest dimension of the broach tool. A chamfer provides a guide for the broach tool.





GenSwiss Spot Drills
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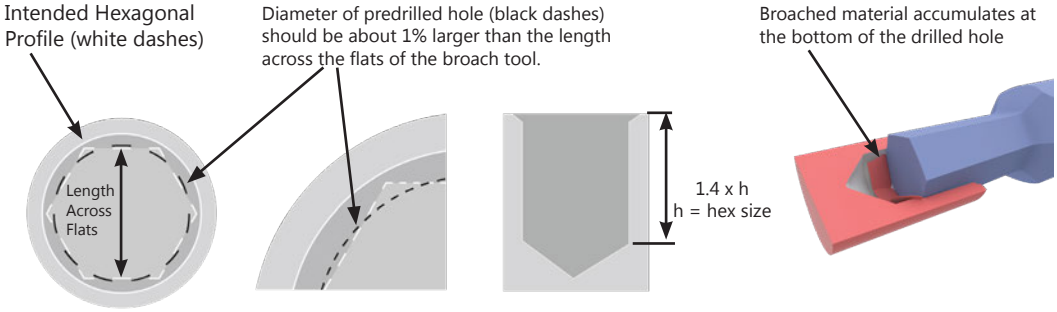
Drilling The Hole

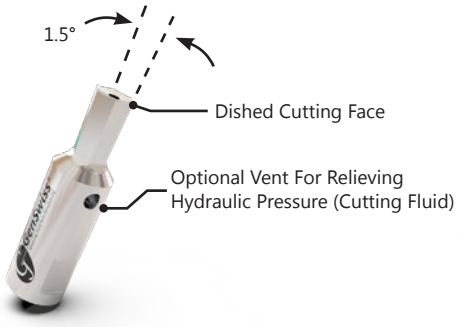
For internal broaching, the diameter of the hole should be 1 percent larger than the diameter across the flats of the broach's hex shape and drilled as deep as possible. A depth of 1.3 to 1.5 times the depth of the broached profile is recommended. Drilling to this depth is vital, leaving room for material accumulation during the broaching process. If material accumulates during the drilling process, re-drill the hole with a smaller drill.



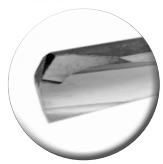
If Drill Radius Is Not Allowed

Many medical and aerospace applications do not allow for a drill radius along the broached walls of the part. When exact concentricity is required, chamfer, drill, and then pre-bore the hole. Using a micro-bore allows for extra control and accuracy. The use of a drill might lead to inaccuracies due to deflection and other conditions.

NOTE: Broaching into a tight hole will not allow air or coolant to escape, resulting in a build up of pressure. This can cause the part or tool to push back, damaging the tool or machine. Use a GenSwiss broach that has a pressure relief vent.







Micro-Bores

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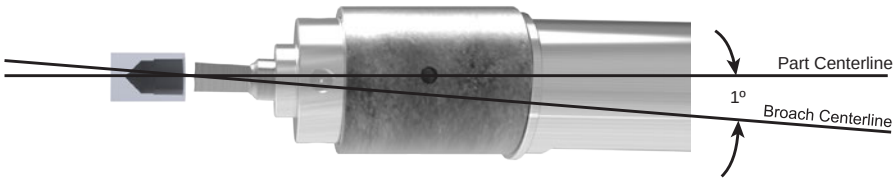
Broaching The Hole

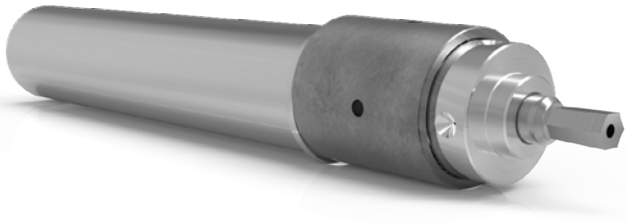
Rotary broach holders hold the broach tool at a 1° angle relative to the centerline of the workpiece. As the broach holder rotates, the broach tool is pushed into the pre-drilled hole. During the beginning of broaching, when the broach is touching the material, the edges could break if the speed is too high.



For best results, start the broach operation at a slow rotation, and then increase the speed when it is in full contact. We recommend for the first 1mm a reduced speed of 500 rpm max.

The feed rate mainly depends on the material characteristics. In mild steel, 0.0012 to 0.0024 inches per revolution is recommended. If the machine thrust force is sufficient, the feed can be doubled as machinability increases. In most cases the maximum feed rate should not exceed 0.03 times the profile diameter. A slower feed rate will produce an improved finish with finer lines along the sidwalls of the broached hole. By increasing the feed rate, the cutting cycle will be faster, but the broaching lines will be more pronounced, leaving a coarse finish.
We do not recommend speeds over 2,000 rpm.

Call us 413-562-4800 for more information on Rotary Broaching



The Original

Swiss-Type Rotary Broach Holder

- Max thrust force: 2250lbs
- Uses 8x28mm broaches
- Recommended profile size .050" to .375"

ASSEMBLED IN USA

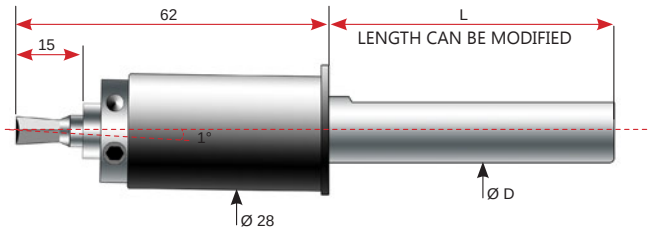
2160 Series Rotary Broach Holder

The ORIGINAL and best choice for Swiss machines and precision lathes! The 2160 series Swiss-type rotary broach holder is the premier choice for performing broaching applications in your Swiss-type CNC machine or gang-style lathe. It eliminates the need to indicate for center location. The recommended profile size range for this holder is .050" to .375"

Key Features

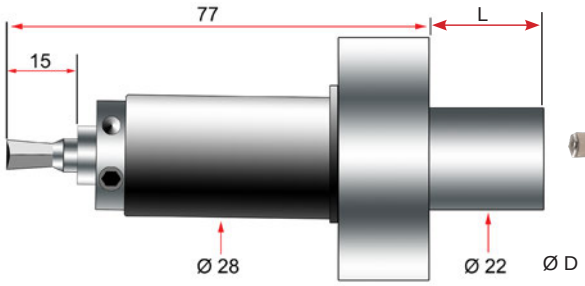
- No center indicating required
- Ideal for medical & aerospace fastener applications
- Low profile; fits machines with minimal interference
- Shank length is customizable, No need for bushings
- Short head length is ideal for sub-spindle applications
- Longer OAL broach tools can be used by adjusting X-axis

Item No.	Description	D	L
3010-000113	RBH-2160-158-038	.625in	1.50in
3010-000115	RBH-2160-190-100	.750in	4.00in
3010-000119	RBH-2160-254-120	1.00in	4.75in
3010-000112	RBH-2160-120-038	12mm	38mm
3010-000147	RBH-2160-140-038	14mm	38mm
3010-000114	RBH-2160-160-038	16mm	38mm
3010-000116	RBH-2160-200-100	20mm	100mm
3010-000117	RBH-2160-220-100	22mm	100mm
3010-000136	RBH-2160-230-100	23mm	100mm
3010-000118	RBH-2160-250-120	25mm	120mm



2160 Series - Flange Mount For STAR Machines

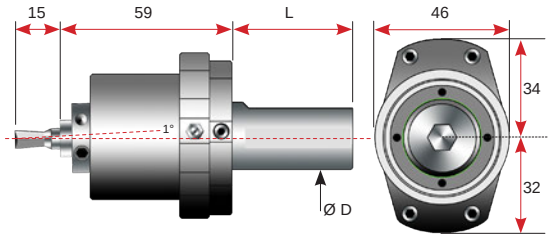
Item No.	Description	D	L	Machine Type
3010-000142	RBH-2160-160-038-MBG-T16	22mm	25mm	SR10, SR20, SR32, ECAS20



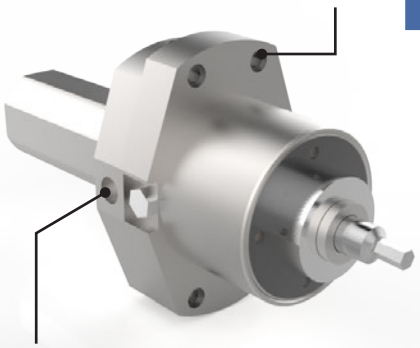


6180 / 6181 Series Holder

- Adjustable broaching holder designed for CNC Lathes & Turning centers
- Can be adapted with a special die to produce external broach forms such as splines
- Max thrust force: 2700lbs
- Uses 8mm shank broaches



Hex cap screws enable easier locking of adjustment settings

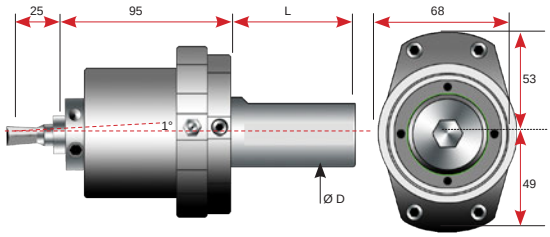


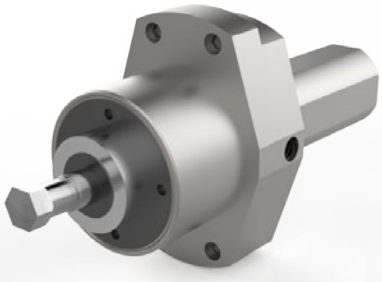
Four quadrant micro adjustability enables easiest center locating for better broach results

Shank Without Flats		Shank With Flats			
Item No.	Description	Item No.	Description	D	L
Call For Details	RBH-6180-158	3010-000123	RBH-6181-158-040	.625in	1.575in
Call For Details	RBH-6180-190	3010-000124	RBH-6181-190-040	.750in	1.575in
3010-000122	RBH-6180-254	3010-000125	RBH-6181-254-050	1.00in	1.970in
3010-000129	RBH-6180-317	3010-000135	RBH-6181-317	1.250in	2.365in
3010-000121	RBH-6180-160	Call For Details	RBH-6181-160	16mm	1.575in
Call For Details	RBH-6180-200	3010-000145	RBH-6181-200	20mm	1.575in
Call For Details	RBH-6180-250	Call For Details	RBH-6181-250	25mm	1.970in
Call For Details	RBH-6180-300	Call For Details	RBH-6181-300	30mm	2.365in
3010-000149	RBH-6180-320	3010-000139	RBH-6181-320-060	32mm	2.365in

6190 / 6191 Series Holder

- Adjustable broaching holder designed for the largest of turning centers and CNC lathes
- This broaching holder features a robust bearing configuration to withstand the high forces required to attain some of the largest of broach profiles
- Max thrust force: 9000lbs
- Uses 12mm shank broaches

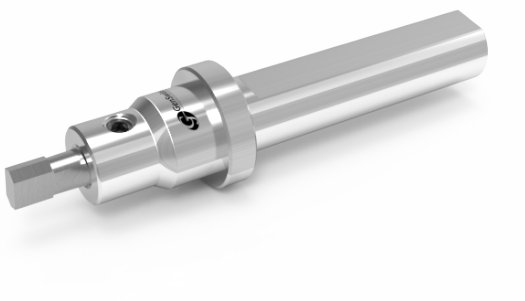


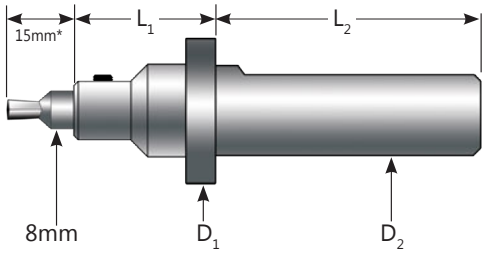


Shank Without Flats		Shank With Flats			
Item No.	Description	Item No.	Description	D	L
3010-000137	RBH-6190-254	3010-000126	RBH-6191-254-055	1.000in	2.165in
3010-000131	RBH-6190-317	Call For Details	RBH-6191-317	1.250in	2.165in
		3010-000141	RBH-6191-381	1.500in	2.165in
		Call For Details	RBH-6191-444	1.750in	2.675in
		3010-000127	RBH-6191-508	2.000in	2.675in
Call For Details	RBH-6190-200	Call For Details	RBH-6191-200	20mm	2.165in
		3010-000130	RBH-6191-220	22mm	2.165in
Call For Details	RBH-6190-250	Call For Details	RBH-6191-250	25mm	2.165in
Call For Details	RBH-6190-300	3010-000143	RBH-6191-300	30mm	2.165in
Call For Details	RBH-6190-320	Call For Details	RBH-6191-320	32mm	2.165in
		Call For Details	RBH-6191-350	35mm	2.165in
		Call For Details	RBH-6191-400	40mm	2.165in
		Call For Details	RBH-6191-450	45mm	2.675in
		3010-000140	RBH-6191-500	50mm	2.675in

Static Punch Holders

When special ID forms are required on your Swiss-style machining jobs, look to our static punch broach holders for ease of use, repeatability and rigidity. Our holders are able to position a broach form tool at a known location for timing or positioning of the broached profile.



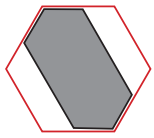


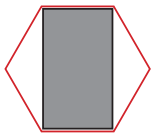
*Only applies when standard 2110 series or 0828 series broaches are used

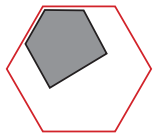
Item No.	Description	D_1	D_2	L_1	L_2
3011-000100	SBH-158250-125-8M	1.00in	.625in	1.25in	2.5in
3011-000101	SBH-190250-125-8M	1.00in	.750in	1.25in	2.5in
3011-000102	SBH-200250-125-8M	1.00in	20mm	1.25in	2.5in
3011-000103	SBH-220250-125-8M	1.00in	22mm	1.25in	2.5in
3011-000104	SBH-254250-125-8M	1.10in	1.00in	1.25in	2.5in

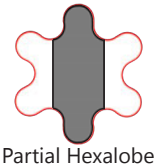
Punch Broach Tools

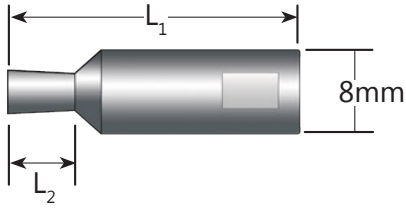
Possible Punch Shapes for Index Broaching:

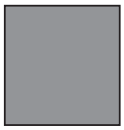

Diamond Punch

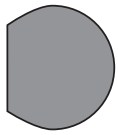

Rectangular Punch

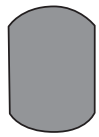

Single Point Punch

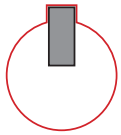

Partial Hexalobe

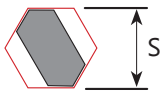


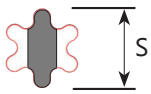

Square Punch

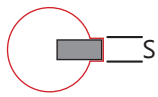

"D" Form Punch


Double "D" Punch


Keyway Shaper







Finished Shape	S	L_1	L_2
Square | Hex | 6-Lobe | Key	See the diagrams for these dimensions		

Partial forms are quoted on request. Call 413-562-4800 to talk live with one of our technical experts about your application. Quick turnaround time on tools made from standard 8x28mm blanks.

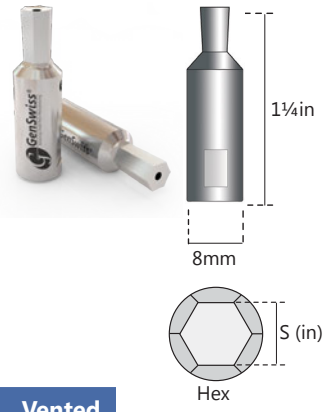
TXC Diamond Punch Broach Tool

Use With: SBH Static Broach Holders

Item No.	Hex Size	L2	Grade
8100-000389	.0581"- .0585"	.070"	GSX-28
8100-000390	.0591"- .0595"	.070"	GSX-28
8100-000516	.0936" - .0940"	.1395"	HiCo8
8100-000402	.0937"- .0952"	.070"	GSX
8100-000405	.0940"- .0953"	.070"	GSX
8100-000411	.0945"- .0958"	. 143"	GSX
8100-000429	.0988"- .0992"	.150"	GSX-28
8100-000444	.0995"- .1015"	.1575"	GSX
8100-000445	.1195"- .1205"	.1807"	GSX
8100-000414	.1248"- .1252"	.350"	GSX-32
8100-000437	.1270"- .1295"	.192"	GSX-28
8100-000522	.1378" - .1397"	.126"	HiCo8
8100-000454	.1382" - .1401"	.209"	GSX
8100-000518	.1391" - .1395"	.209"	GSX
8100-000499	.1404" - .1408"	.211"	HiCo8
8100-000438	.1583"- .1612"	.242"	GSX-28

Item No.	Hex Size	L2	Grade
8100-000479	.1810"- .1830"	.273"	HiCo8
8100-000478	.1810"- .1830"	.273"	HiCo8
8100-000489	.1830"- .1840"	.273"	HiCo8
8100-000488	.1830"- .1840"	.273"	HiCo8
8100-000453	.1870"- .1900"	.283"	GSX
8100-000415	.1873"- .1877"	.350"	GSX-32
8100-000433	.1875"- .1895"	. 284"	HiCo8
8100-000493	.2520"- .2570"	.600"	HiCo8
8100-000495	.3170"- .3220"	.600"	HiCo8

SIGNATURE SERIES ROTARY BROACH TOOLS

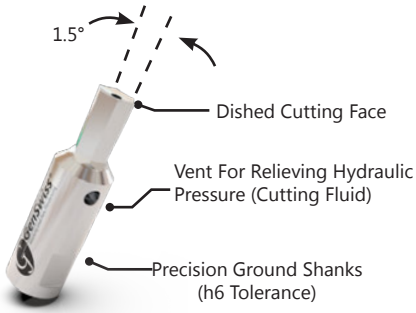


GenSwiss' premium rotary broach tools deliver consistent high-performance cutting for industries requiring the highest degree of standards. Each tool is precision ground to ultra-high standards and features geometries designed specifically for the material type in which each broach will be used. These tools are engineered and manufactured to be utilized in the aerospace industry, medical industry, or any industry requiring the highest standards for inspection.

Signature Series Hexagon Broaches - 1¼ inch OAL

Item No.	Description	S_{min}	S_{max}	Nominal	Material	Vented
3008-000130	RBT-0832-01.280	0.0503	0.0507		GSX	
3008-000178	RBT-0832-01.300	0.0513	0.0529	1.3mm	GSX	•
3008-000131	RBT-0832-01.529	0.0600	0.0604	1.5mm	GSX	
3008-000132	RBT-0832-01.600	0.063	0.0635	1/16	GSX	
3008-000133	RBT-0832-01.983T	0.0781	0.0791	5/64	GSX	•
3008-000134	RBT-0832-02.030T	0.0795	0.0799	2mm	GSX	•
3008-000135	RBT-0832-02.039T	0.0801	0.0805		GSX	•
3008-000136	RBT-0832-02.400T	0.0939	0.0951	3/32	GSX	•
3008-000137	RBT-0832-02.420T	0.0949	0.0953		GSX	•
3008-000138	RBT-0832-02.540T	0.0996	0.1000	2.5mm	GSX	•
3008-000139	RBT-0832-02.555T	0.1004	0.1008		GSX	•
3008-000140	RBT-0832-02.780T	0.1094	0.1111	7/64	GSX	•
3008-000141	RBT-0832-03.020T	0.1189	0.1193	3mm	GSX	•
3008-000142	RBT-0832-03.210T	0.1262	0.1266	1/8	GSX	•
3008-000143	RBT-0832-03.530T	0.139	0.1394		GSX	•
3008-000144	RBT-0832-03.550T	0.1394	0.1398		GSX	•
3008-000145	RBT-0832-03.553T	0.1395	0.1399		GSX	•
3008-000146	RBT-0832-03.580T	0.1402	0.1409		GSX	•
3008-000147	RBT-0832-03.581T	0.1406	0.1410	9/64	GSX	•
3008-000231	RBT-0832-03.606T	0.1418	0.1422		GSX	•
3008-000148	RBT-0832-03.968T	0.1563	0.1586	5/32	GSX	•
3008-000149	RBT-0832-04.049T	0.1594	0.1600	4mm	GSX	•
3008-000340	RBT-0832-04.135T	0.1626	0.1630		GSX	•
3008-000223	RBT-0832-04.150T-NF	0.1642	0.1646		GSX	•
3008-000179	RBT-0832-04.366T	0.1719	0.1743	11/64	GSX	•
3008-000150	RBT-0832-04.560T	0.1795	0.1799	5mm	GSX	•
3008-000341	RBT-0832-04.669T	0.1836	0.1840		GSX	•
3008-000151	RBT-0832-04.790T	0.188	0.1892	3/16	GSX	•
3008-000152	RBT-0832-05.000T	0.1969	0.1976		GSX	•
3008-000153	RBT-0832-05.048T	0.1985	0.1990	5mm	GSX	•
3008-000154	RBT-0832-05.070T	0.1996	0.2000		GSX	•
3008-000180	RBT-0832-05.557T	0.2188	0.2218	7/32	GSX	•
3008-000181	RBT-0832-06.000T	0.237	0.2399	6.0mm	GSX	•
3008-000155	RBT-0832-06.390T	0.2514	0.2518	1/4	GSX	•
3008-000156	RBT-0832-06.420T	0.2525	0.2530		GSX	•
3008-000157	RBT-0832-06.450T	0.2539	0.2545		GSX	•
3008-000336	RBT-0832-07.944T	0.3125	0.3130		GSX	•
3008-000158	RBT-0832-08.020T	0.3155	0.3160	5/16	GSX	•
3008-000159	RBT-0832-09.520T	0.3788	0.3794	3/8	GSX	•
Recommended Depth of Cut = 1.5xS						

Special sizes available upon request. Quick turnaround time.



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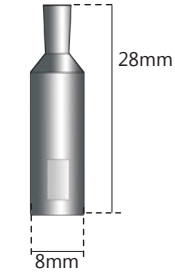
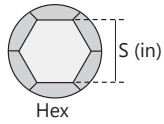


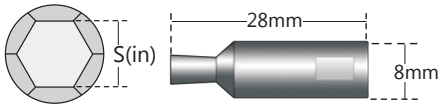


Signature Line Hexagon Broaches - 28mm OAL

Item No.	Description	S_{min}	S_{max}	Nominal	Material	Vented
3008-000335	RBT-0828-00.895	0.035	0.0355		GSX	
3008-000307	RBT-0828-00.9017-Ti	0.0353	0.0357		GSX	
3008-000164	RBT-0828-00.902-Ti	0.035	0.0360		GSX	
3008-000330	RBT-0828-00.914	0.035	0.0370		GSX	
3008-000309	RBT-0828-00.95	0.0374	0.0378		GSX	
3008-000202	RBT-0828-01.270-Ti	0.0498	0.0502		GSX	
3008-000100	RBT-0828-01.280	0.0503	0.0507		GSX	
3008-000174	RBT-0828-01.300	0.0513	0.0529	1.3mm	GSX	
3008-000226	RBT-0828-01.518	0.0595	0.0600		GSX	
3008-000101	RBT-0828-01.529	0.06	0.0604	1.5mm	GSX	
3008-000173	RBT-0828-01.590T	0.0623	0.0628		GSX	•
3008-000102	RBT-0828-01.600	0.063	0.0635	1/16	GSX	
3008-000204	RBT-0828-01.619T-Ti	0.0635	0.0640		GSX	•
3008-000188	RBT-0828-01.621T	0.0636	0.0640		GSX	•
3008-000206	RBT-0828-01.626-NF	0.063	0.0650		GSX	
3008-000199	RBT-0828-01.721T-Ti	0.0675	0.0680		GSX	•
3008-000319	RBT-0828-01.842-Ti	0.072	0.0730		GSX	
3008-000327	RBT-0828-01.842T-Ti	0.072	0.0730		GSX	•
3008-000103	RBT-0828-01.983T	0.0781	0.0791	5/64	GSX	•
3008-000213	RBT-0828-01.996T	0.0785	0.0790		GSX	•
3008-000104	RBT-0828-02.030T	0.0795	0.0799	2mm	GSX	•
3008-000205	RBT-0828-02.030T-NF	0.0795	0.0799		GSX	•
3008-000105	RBT-0828-02.039T	0.0801	0.0805		GSX	•
3008-000248	RBT-0828-02.100T-Ti	0.0823	0.0827		GSX	•
3008-000168	RBT-0828-02.380T	0.0935	0.0939		GSX	•
3008-000249	RBT-0828-02.387T	0.0938	0.0942		GSX	•
3008-000203	RBT-0828-02.393T	0.0937	0.0947		GSX	•
3008-000106	RBT-0828-02.400T	0.0939	0.0951	3/32	GSX	•
3008-000214	RBT-0828-02.401T-Ti	0.0939	0.0952		GSX	•
3008-000208	RBT-0828-02.413T-NF	0.0948	0.0952		GSX	•
3008-000107	RBT-0828-02.420T	0.0949	0.0953		GSX	•
3008-000215	RBT-0828-02.500T-NF	0.0979	0.0989		GSX	•
3008-000189	RBT-0828-02.512T-NF	0.0987	0.0991		GSX	•
3008-000334	RBT-0828-02.518-Ti	0.0989	0.0994		GSX	•
3008-000184	RBT-0828-02.525T-NF	0.0992	0.0996		GSX	•
Recommended Depth of Cut = 1.5x5						

Special sizes available upon request. Quick turnaround time.

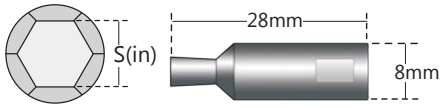
Signature Line Hexagon Broaches - 28mm OAL



Item No.	Description	S_{min}	S_{max}	Nominal	Material	Vented
3008-000187	RBT-0828-02.527T-NF	0.0993	0.0997		GSX	•
3008-000108	RBT-0828-02.540T	0.0996	0.1000		GSX	•
3008-000109	RBT-0828-02.555T	0.1004	0.1008		GSX	•
3008-000185	RBT-0828-02.600T	0.102	0.1028		GSX	•
3008-000216	RBT-0828-02.684T-NF	0.1055	0.1059		GSX	•
3008-000373	RBT-0828-02.7125	0.1065	0.1071		GSX	
3008-000247	RBT-0828-02.715T	0.1067	0.1070		GSX	•
3008-000368	RBT-0828-02.774	0.109	0.1094		GSX	
3008-000171	RBT-0828-02.774T	0.109	0.1094		GSX	•
3008-000110	RBT-0828-02.780T	0.1094	0.1111		GSX	•
3008-000182	RBT-0828-02.837T-NF	0.1115	0.1119		GSX	•
3008-000111	RBT-0828-03.020T	0.1189	0.1193		GSX	•
3008-000333	RBT-0828-03.043T	0.1196	0.1200		GSX	•
3008-000328	RBT-0828-03.200T	0.1255	0.1270		GSX	•
3008-000112	RBT-0828-03.210T	0.1262	0.1266		GSX	•
3008-000163	RBT-0828-03.245T-NF	0.126	0.131		GSX	•
3008-000207	RBT-0828-03.255T-NF	0.1272	0.1291		GSX	•
3008-000160	RBT-0828-03.500T-Ti	0.1386	0.1392		GSX	•
3008-000113	RBT-0828-03.530T	0.139	0.1394		GSX	•
3008-000190	RBT-0828-03.538T	0.1391	0.1395		GSX	•
3008-000196	RBT-0828-03.543T-Ti	0.1393	0.1397		GSX	•
3008-000114	RBT-0828-03.550T	0.1394	0.1398		GSX	•
3008-000115	RBT-0828-03.553T	0.1395	0.1399		GSX	•
3008-000116	RBT-0828-03.580T	0.1402	0.1409		GSX	•
3008-000117	RBT-0828-03.581T	0.1406	0.1410	9/64	GSX	•
3008-000194	RBT-0828-03.595T-Ti	0.1414	0.1417		GSX	•
3008-000183	RBT-0828-03.607T-NF	0.1416	0.1424		GSX	•
3008-000201	RBT-0828-03.615T-NF	0.142	0.1427		GSX	•
3008-000167	RBT-0828-03.962T	0.155	0.1570		GSX	•
3008-000118	RBT-0828-03.968T	0.1563	0.1586	5/32	GSX	•
3008-000186	RBT-0828-04.013T-NF	0.157	0.159		GSX	•
3008-000200	RBT-0828-04.02T-NF	0.158	0.1585		GSX	•
3008-000195	RBT-0828-04.030T-Ti	0.1584	0.1589		GSX	•
3008-000119	RBT-0828-04.049T	0.1594	0.1600	4mm	GSX	•
3008-000162	RBT-0828-04.049T-NF	0.1594	0.1600		GSX	•
3008-000320	RBT-0828-04.079T	0.1586	0.1626		GSX	•
3008-000222	RBT-0828-04.188T	0.1639	0.1659		GSX	•
3008-000175	RBT-0828-04.366T	0.1719	0.1743	11/64	GSX	•
3008-000172	RBT-0828-04.38T	0.179	0.1795		GSX	•
3008-000237	RBT-0828-04.552T	0.1779	0.1804		GSX	•
3008-000120	RBT-0828-04.560T	0.1795	0.1799		GSX	•
3008-000312	RBT-0828-04.580T	0.1783	0.1823		GSX	•
3008-000218	RBT-0828-04.680T	0.184	0.1845		GSX	•
3008-000121	RBT-0828-04.790T	0.188	0.1892		GSX	•
Recommended Depth of Cut = 1.5x5						

Special sizes available upon request. Quick turnaround time.

Signature Series Hexagon Broaches - 28mm OAL

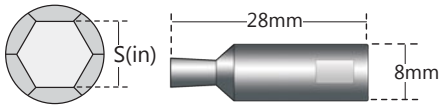


Item No.	Description	S_{min}	S_{max}	Nominal	Material	Vented
3008-000192	RBT-0828-04.790T-NF	0.188	0.1892		GSX	•
3008-000210	RBT-0828-04.790T-Ti	0.188	0.1892		GSX	•
3008-000225	RBT-0828-04.826T-Ti	0.1895	0.19		GSX	•
3008-000321	RBT-0828-04.919T	0.192	0.1953		GSX	•
3008-000342	RBT-0828-04.948T	0.1946	0.1950		GSX	•
3008-000122	RBT-0828-05.000T	0.1969	0.1976		GSX	•
3008-000123	RBT-0828-05.048T	0.1985	0.199		GSX	•
3008-000169	RBT-0828-05.048T-NF	0.1985	0.199		GSX	•
3008-000124	RBT-0828-05.070T	0.1996	0.2		GSX	•
3008-000198	RBT-0828-05.070T-NF	0.1996	0.2		GSX	•
3008-000322	RBT-0828-05.080T	0.198	0.2020		GSX	•
3008-000343	RBT-0828-05.177T	0.2036	0.2040		GSX	•
3008-000329	RBT-0828-05.182T-NF	0.198	0.2040		GSX	•
3008-000371	RBT-0828-05.207T-NF	0.2	0.2100		GSX	•
3008-000238	RBT-0828-05.556T	0.2174	0.2200		GSX	•
3008-000176	RBT-0828-05.557T	0.2188	0.2218		GSX	•
3008-000227	RBT-0828-05.557T-NF	0.2188	0.2218		GSX	•
3008-000313	RBT-0828-05.580T	0.2177	0.2217		GSX	•
3008-000344	RBT-0828-05.685T	0.2236	0.2240		GSX	•
3008-000177	RBT-0828-06.000T	0.237	0.2399		GSX	•
3008-000166	RBT-0828-06.00T-NF	0.236	0.2364		GSX	•
3008-000165	RBT-0828-06.00T-Ti	0.236	0.2364		GSX	•
3008-000197	RBT-0828-06.09T	0.2396	0.24		GSX	•
3008-000324	RBT-0828-06.109T	0.2385	0.2425		GSX	•
3008-000193	RBT-0828-06.12T-Ti	0.24	0.242		GSX	•
3008-000345	RBT-0828-06.167T	0.2426	0.2430		GSX	•
3008-000229	RBT-0828-06.200T-Ti	0.2439	0.2443		GSX	•
3008-000125	RBT-0828-06.390T	0.2514	0.2518		GSX	•
3008-000126	RBT-0828-06.420T	0.2525	0.253		GSX	•
3008-000161	RBT-0828-06.420T-NF	0.2525	0.253		GSX	•
3008-000127	RBT-0828-06.450T	0.2539	0.2545		GSX	•
3008-000323	RBT-0828-06.477T	0.253	0.2570		GSX	•
3008-000211	RBT-0828-06.482T-NF	0.2549	0.2555		GSX	•
3008-000212	RBT-0828-06.507T-NF	0.2559	0.2565		GSX	•
3008-000346	RBT-0828-06.523T	0.2566	0.257		GSX	•
3008-000217	RBT-0828-06.705T-NF	0.263	0.265		GSX	•
3008-000339	RBT-0828-06.99T-Ti	0.2745	0.276		GSX	•
3008-000170	RBT-0828-07.000T	0.2764	0.2793		GSX	•
3008-000314	RBT-0828-07.109T	0.2779	0.2819		GSX	•
3008-000347	RBT-0828-07.183T	0.2826	0.283		GSX	•
3008-000219	RBT-0828-07.220T	0.284	0.2845		GSX	•
3008-000228	RBT-0828-07.239T-NF	0.2848	0.2852		GSX	•
3008-000310	RBT-0828-07.300T	0.2866	0.2874		GSX	•
3008-000348	RBT-0828-07.310T	0.2876	0.288		GSX	•

Recommended Depth of Cut = 1.5xS

Special sizes available upon request. Quick turnaround time.

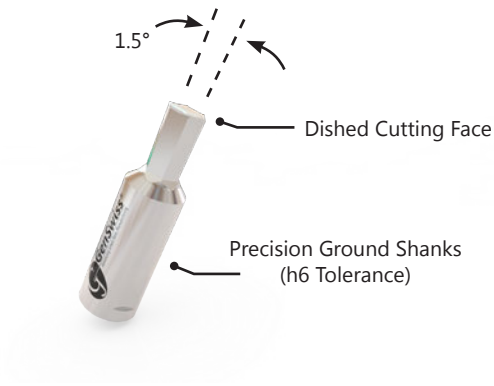
Signature Series Hexagon Broaches - 28mm OAL



Item No.	Description	S_{min}	S_{max}	Nominal	Material	Vented
3008-000224	RBT-0828-08.001T-NF	0.314	0.316		GSX	•
3008-000128	RBT-0828-08.020T	0.3155	0.316		GSX	•
3008-000209	RBT-0828-08.052T	0.316	0.318		GSX	•
3008-000369	RBT-0828-08.053T	0.315	0.3190		GSX	•
3008-000315	RBT-0828-08.098T	0.3163	0.3213		GSX	•
3008-000191	RBT-0828-08.10T-NF	0.3157	0.3224		GSX	•
3008-000325	RBT-0828-08.115T	0.3170	0.3220		GSX	•
3008-000370	RBT-0828-08.153T	0.3190	0.3230		GSX	•
3008-000349	RBT-0828-08.174T	0.3216	0.322		GSX	•
3008-000375	RBT-0828-08.496T	0.3343	0.3347		GSX	•
3008-000239	RBT-0828-08.778T	0.3437	0.3475		GSX	•
3008-000316	RBT-0828-08.920T	0.3490	0.3533		GSX	•
3008-000350	RBT-0828-08.936T	0.3516	0.352		GSX	•
3008-000220	RBT-0828-08.9725T	0.3530	0.3535		GSX	•
3008-000232	RBT-0828-09.073T	0.3553	0.3591		GSX	•
3008-000317	RBT-0828-09.096T	0.3556	0.3606		GSX	•
3008-000351	RBT-0828-09.190T	0.3616	0.362		GSX	•
3008-000221	RBT-0828-09.2265T	0.3630	0.3635		GSX	•
3008-000129	RBT-0828-09.520T	0.3788	0.3794		GSX	•
3008-000332	RBT-0828-09.525T	0.3750	0.379		GSX	•
3008-000326	RBT-0828-09.690T	0.3790	0.3840		GSX	•
3008-000352	RBT-0828-09.723T	0.3826	0.3830		GSX	•
3008-000338	RBT-0828-09.746T	0.3835	0.3839		GSX	•
3008-000230	RBT-0828-10.020T-Ti	0.3943	0.3947		GSX	•
3008-000372	RBT-0828-10.046T-Ti	0.395	0.396		GSX	
3008-000240	RBT-0828-10.076	0.3947	0.3987		GSX	
3008-000308	RBT-0828-10.1000	0.3965	0.3976		GSX	
3008-000318	RBT-0828-10.137	0.3966	0.4016		GSX	
3008-000353	RBT-0828-10.206	0.4016	0.4020		GSX	
3008-000233	RBT-0828-11.083	0.4342	0.4384		GSX	
3008-000366	RBT-0828-11.100-Ti	0.4360	0.4380		GSX	
3008-000374	RBT-0828-11.125	0.4360	0.4400		GSX	
3008-000241	RBT-0828-11.169	0.4375	0.4420		GSX	
3008-000354	RBT-0828-11.222	0.4416	0 .4420		GSX	
3008-000355	RBT-0828-11.298	0.4446	0.4450		GSX	
3008-000337	RBT-0828-11.303	0.4448	0.4452		GSX	
3008-000234	RBT-0828-12.085	0.4737	0.4780		GSX	
3008-000356	RBT-0828-12.238	0.4816	0.4820		GSX	
3008-000236	RBT-0828-12.763	0.5000	0.5050		GSX	
3008-000311	RBT-0828-12.934	0.5088	0.5092		GSX	
3008-000357	RBT-0828-12.949	0.5096	0.5100		GSX	
3008-000235	RBT-0828-13.089	0.5130	0.5175		GSX	
3008-000358	RBT-0828-13.228	0.5206	0.5210		GSX	

Recommended Depth of Cut = 1.5x5

Special sizes available upon request. Quick turnaround time.



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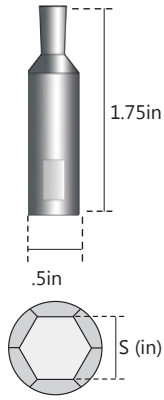
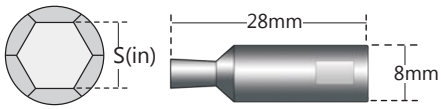


Signature Series Hexagon Broaches - 1.75in OAL

Item No.	Description	S_{min}	S_{max}	Material	Vented
3008-000242	RBT-127445-14.095	0.5524	0.5574	GSX	
3008-000359	RBT-127445-14.244	0.5606	0.5610	GSX	
3008-000243	RBT-127445-14.357	0.5625	0.5680	GSX	
3008-000360	RBT-127445-14.549	0.5726	0.5730	GSX	
3008-000244	RBT-127445-15.133	0.5925	0.5990	GSX	
3008-000361	RBT-127445-15.260	0.6006	0.6010	GSX	
3008-000245	RBT-127445-15.951	0.6250	0.6310	GSX	
3008-000362	RBT-127445-16.124	0.6346	0.6350	GSX	
3008-000246	RBT-127445-16.133	0.6318	0.6351	GSX	
3008-000363	RBT-127445-16.276	0.6406	0.6410	GSX	
Recommended Depth of Cut = 1.5xS					

2110 Series Hexagon Broaches - HiCo8 Grade

Use With: 2100, 2160 & 6180 Series Rotary Broach Holders



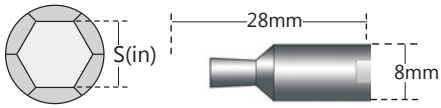
Item No.	Description	S_{min}	S_{max}	Vented	For Titanium	Material
3005-000375	RBT-2110-01.21H	0.0474	0.0480			HiCo8
3005-000100	RBT-2110-01.21H-Ti	0.0474	0.0480		•	HiCo8
3005-000101	RBT-2110-01.27H-1-Ti	0.0498	0.0502		•	HiCo8
3005-000381	RBT-2110-01.28H-NF	0.0503	0.0507			HiCo8
3005-000102	RBT-2110-01.28H-Ti	0.0503	0.0507		•	HiCo8
3005-000388	RBT-2110-01.29H-NF	0.0506	0.0510			HiCo8
3005-000362	RBT-2110-01.35H	0.0512	0.0551			HiCo8
3005-000351	RBT-2110-01.503H	0.0590	0.0594			HiCo8
3005-000104	RBT-2110-01.506H-Ti	0.0590	0.0594		•	HiCo8
3005-000105	RBT-2110-01.524H-1-Ti	0.0598	0.0602		•	HiCo8
3005-000322	RBT-2110-01.529H	0.0600	0.0604			HiCo8
3005-000321	RBT-2110-01.529H-Ti	0.0600	0.0604		•	HiCo8
3005-000313	RBT-2110-01.534H	0.0602	0.0606			HiCo8
3005-000106	RBT-2110-01.539H-2-Ti	0.0604	0.0608		•	HiCo8
3005-000107	RBT-2110-01.60H-1	0.0630	0.0635			HiCo8
3005-000392	RBT-2110-01.616H-1-Ti	0.0635	0.0638			HiCo8
3005-000393	RBT-2110-01.616H-NF	0.0635	0.0638			HiCo8
3005-000383	RBT-2110-01.61H-NF	0.0630	0.0635			HiCo8
3005-000299	RBT-2110-01.72H	0.0675	0.0679			HiCo8
3005-000300	RBT-2110-01.72H-1-Ti	0.0675	0.0679		•	HiCo8
3005-000108	RBT-2110-01.80H-1	0.0688	0.0728			HiCo8
3005-000295	RBT-2110-01.828HT	0.0713	0.0720	•		HiCo8
3005-000395	RBT-2110-01.984HT-NF	0.0777	0.0785	•		HiCo8
3005-000363	RBT-2110-01.98H	0.0793	0.0797			HiCo8
3005-000364	RBT-2110-01.98HT	0.0793	0.0797	•		HiCo8
3005-000360	RBT-2110-01.98HT-1-Ti	0.0793	0.0797	•	•	HiCo8
3005-000109	RBT-2110-01.98H-Ti	0.0793	0.0797		•	HiCo8
3005-000385	RBT-2110-01.98HT-NF	0.0793	0.0797	•		HiCo8
3005-000234	RBT-2110-01.994H	0.0780	0.0790			HiCo8
3005-000328	RBT-2110-02.006HT	0.0786	0.0794	•		HiCo8
3005-000345	RBT-2110-02.034H	0.0799	0.0803			HiCo8
3005-000347	RBT-2110-02.034HT	0.0799	0.0803	•		HiCo8
3005-000346	RBT-2110-02.034H-Ti	0.0799	0.0803		•	HiCo8
3005-000289	RBT-2110-02.039H	0.0801	0.0805			HiCo8
3005-000293	RBT-2110-02.039H-1-Ti	0.0801	0.0805		•	HiCo8
3005-000361	RBT-2110-02.03H	0.0795	0.0799			HiCo8
3005-000110	RBT-2110-02.03HT	0.0795	0.0799	•		HiCo8
3005-000318	RBT-2110-02.042H-Ti	0.0802	0.0806		•	HiCo8
3005-000342	RBT-2110-02.232H	0.0881	0.0877			HiCo8

Recommended Depth of Cut = 1.5xS

Special sizes available upon request. Quick turnaround time.

2110 Series Hexagon Broaches - HiCo8 Grade

Use With: 2100, 2160 & 6180 Series Rotary Broach Holders

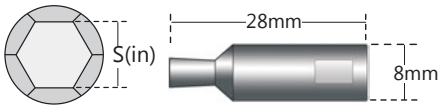


Item No.	Description	S_{min}	S_{max}	Vented	For Titanium	Material
3005-000343	RBT-2110-02.232H-1-Ti	0.0877	0.0881		•	HiCo8
3005-000344	RBT-2110-02.232HT	0.0881	0.0877	•		HiCo8
3005-000334	RBT-2110-02.26H-1-Ti	0.0887	0.0893		•	HiCo8
3005-000340	RBT-2110-02.284H-1-Ti	0.0897	0.0901		•	HiCo8
3005-000330	RBT-2110-02.402HT-1	0.0944	0.0948	•		HiCo8
3005-000331	RBT-2110-02.402H-Ti	0.0944	0.0948		•	HiCo8
3005-000112	RBT-2110-02.40HT	0.0939	0.0951	•		HiCo8
3005-000304	RBT-2110-02.428H	0.0954	0.0958			HiCo8
3005-000113	RBT-2110-02.42H	0.0949	0.0953			HiCo8
3005-000329	RBT-2110-02.42HT	0.0949	0.0953	•		HiCo8
3005-000332	RBT-2110-02.43H-1	0.0952	0.0962			HiCo8
3005-000114	RBT-2110-02.43H-1-Ti	0.0952	0.0962		•	HiCo8
3005-000249	RBT-2110-02.45HT	0.0962	0.0966	•		HiCo8
3005-000352	RBT-2110-02.46H-Ti	0.0970	0.0974		•	HiCo8
3005-000115	RBT-2110-02.505H-1	0.0983	0.0990			HiCo8
3005-000116	RBT-2110-02.505HT-1-Ti	0.0983	0.0990	•	•	HiCo8
3005-000117	RBT-2110-02.53H-1	0.0992	0.0996			HiCo8
3005-000118	RBT-2110-02.53HT	0.0992	0.0996	•		HiCo8
3005-000229	RBT-2110-02.545HT-Ti	0.1000	0.1004	•	•	HiCo8
3005-000120	RBT-2110-02.54H-1-Ti	0.0996	0.1000		•	HiCo8
3005-000121	RBT-2110-02.54HT-1-Ti	0.0996	0.1000	•	•	HiCo8
3005-000122	RBT-2110-02.555H	0.1004	0.1008			HiCo8
3005-000123	RBT-2110-02.555HT	0.1004	0.1008	•		HiCo8
3005-000124	RBT-2110-02.57H	0.1009	0.1013			HiCo8
3005-000125	RBT-2110-02.57HT	0.1004	0.1012			HiCo8
3005-000333	RBT-2110-02.66H-1-Ti	0.1045	0.1051		•	HiCo8
3005-000242	RBT-2110-02.67HT	0.1053	0.1063	•		HiCo8
3005-000341	RBT-2110-02.685H-1-Ti	0.1055	0.1059		•	HiCo8
3005-000382	RBT-2110-02.79HT-NF	0.1090	0.1110	•		HiCo8
3005-000315	RBT-2110-02.813-NF	0.1105	0.1110			HiCo8
3005-000355	RBT-2110-02.81H	0.1104	0.1108			HiCo8
3005-000327	RBT-2110-02.81HT	0.1104	0.1108	•		HiCo8
3005-000126	RBT-2110-02.845GS	0.1070	0.1120			HiCo8
3005-000377	RBT-2110-02.852HT	0.1120	0.1126	•		HiCo8
3005-000127	RBT-2110-02.93H	0.1130	0.1177			HiCo8
3005-000128	RBT-2110-03.012HT-1-Ti	0.1184	0.1188	•	•	HiCo8
3005-000396	RBT-2110-03.012HT-NF	0.1184	0.1188	•		HiCo8
3005-000129	RBT-2110-03.02H-1	0.1185	0.1193			HiCo8
3005-000335	RBT-2110-03.02HT	0.1185	0.1193			HiCo8
Recommended Depth of Cut = 1.5xS						

Special sizes available upon request. Quick turnaround time.

2110 Series Hexagon Broaches - HiCo8 Grade

Use With: 2100, 2160 & 6180 Series Rotary Broach Holders



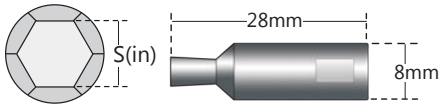
Item No.	Description	S_{min}	S_{max}	Vented	For Titanium	Material
3005-000130	RBT-2110-03.02HT-8S	0.1220	0.1230	•		HiCo8
3005-000131	RBT-2110-03.037HT-1-Ti	0.1194	0.1198	•	•	HiCo8
3005-000240	RBT-2110-03.043HT	0.1196	0.1200	•		HiCo8
3005-000132	RBT-2110-03.045HT	0.1189	0.1209	•		HiCo8
3005-000255	RBT-2110-03.04H	0.1193	0.1200			HiCo8
3005-000231	RBT-2110-03.04HT	0.1189	0.1209	•		HiCo8
3005-000239	RBT-2110-03.063HT	0.1204	0.1208	•		HiCo8
3005-000133	RBT-2110-03.08H	0.1211	0.1216			HiCo8
3005-000134	RBT-2110-03.08HT	0.1211	0.1216	•		HiCo8
3005-000136	RBT-2110-03.17H	0.1280	0.1287			HiCo8
3005-000379	RBT-2110-03.17HT	0.1280	0.1287	•		HiCo8
3005-000370	RBT-2110-03.182HT	0.1250	0.1256	•		HiCo8
3005-000137	RBT-2110-03.212HT	0.1263	0.1265	•		HiCo8
3005-000138	RBT-2110-03.21H	0.1262	0.1266			HiCo8
3005-000139	RBT-2110-03.21HT	0.1262	0.1266	•		HiCo8
3005-000373	RBT-2110-03.22HT-NF	0.1265	0.1270	•		HiCo8
3005-000232	RBT-2110-03.245HT-Ti	0.1275	0.1280	•	•	HiCo8
3005-000391	RBT-2110-03.492HT-1-Ti	0.1370	0.1380	•	•	HiCo8
3005-000339	RBT-2110-03.492H-Ti	0.1370	0.1380		•	HiCo8
3005-000324	RBT-2110-03.536HT	0.1390	0.1394	•		HiCo8
3005-000323	RBT-2110-03.536HT-Ti	0.1390	0.1394	•	•	HiCo8
3005-000140	RBT-2110-03.53H-1	0.1385	0.1394			HiCo8
3005-000141	RBT-2110-03.53HT-1-Ti	0.1385	0.1394	•	•	HiCo8
3005-000384	RBT-2110-03.53HT-NF	0.1385	0.1394	•		HiCo8
3005-000368	RBT-2110-03.546HT-Ti	0.1391	0.1396	•	•	HiCo8
3005-000294	RBT-2110-03.548HT	0.1395	0.1399	•		HiCo8
3005-000301	RBT-2110-03.548HT-1-Ti	0.1395	0.1399	•	•	HiCo8
3005-000292	RBT-2110-03.54HT-1	0.1395	0.1399	•		HiCo8
3005-000350	RBT-2110-03.555HT-1-Ti	0.1398	0.1402	•	•	HiCo8
3005-000394	RBT-2110-03.556HT-NF	0.1390	0.1410	•		HiCo8
3005-000142	RBT-2110-03.55H-1-Ti	0.1394	0.1398		•	HiCo8
3005-000374	RBT-2110-03.55HT	0.1394	0.1398	•		HiCo8
3005-000143	RBT-2110-03.55HT-1-Ti	0.1394	0.1398	•	•	HiCo8
3005-000241	RBT-2110-03.56H	0.1400	0.1405			HiCo8
3005-000366	RBT-2110-03.56HT	0.1400	0.1405	•		HiCo8
3005-000367	RBT-2110-03.56HT-1-Ti	0.1400	0.1405	•	•	HiCo8
3005-000365	RBT-2110-03.56H-Ti	0.1400	0.1405		•	HiCo8
3005-000230	RBT-2110-03.57H	0.1404	0.1409			HiCo8
3005-000233	RBT-2110-03.57HT-R12	0.1404	0.1409	•		HiCo8

Recommended Depth of Cut = 1.5xS

Special sizes available upon request. Quick turnaround time.

2110 Series Hexagon Broaches - HiCo8 Grade

Use With: 2100, 2160 & 6180 Series Rotary Broach Holders



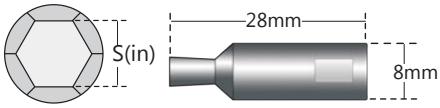
Item No.	Description	S_{min}	S_{max}	Vented	For Titanium	Material
3005-000145	RBT-2110-03.57HT-Ti	0.1404	0.1409	•	•	HiCo8
3005-000144	RBT-2110-03.58H	0.1402	0.1409			HiCo8
3005-000325	RBT-2110-03.58HT	0.1402	0.1409	•		HiCo8
3005-000378	RBT-2110-03.598HT	0.1414	0.1419	•		HiCo8
3005-000356	RBT-2110-03.608HT	0.1416	0.1425	•		HiCo8
3005-000357	RBT-2110-03.608HT-1-Ti	0.1416	0.1425	•	•	HiCo8
3005-000369	RBT-2110-03.608HT-NF	0.1416	0.1425	•		HiCo8
3005-000297	RBT-2110-03.616HT-1	0.1421	0.1426	•		HiCo8
3005-000296	RBT-2110-03.616H-Ti	0.1421	0.1426		•	HiCo8
3005-000298	RBT-2110-03.616HT-Ti	0.1421	0.1426	•	•	HiCo8
3005-000146	RBT-2110-03.62H	0.1417	0.1425			HiCo8
3005-000302	RBT-2110-03.62HT-1-Ti	0.1417	0.1425	•	•	HiCo8
3005-000148	RBT-2110-03.63H	0.1425	0.1429			HiCo8
3005-000254	RBT-2110-03.63H-T	0.1425	0.1437	•		HiCo8
3005-000150	RBT-2110-03.64H	0.1430	0.1435			HiCo8
3005-000316	RBT-2110-03.739HT	0.1470	0.1474	•		HiCo8
3005-000320	RBT-2110-03.749HT	0.1472	0.1476	•		HiCo8
3005-000151	RBT-2110-03.80HT	0.1528	0.1534	•		HiCo8
3005-000152	RBT-2110-03.97H	0.1593	0.1600			HiCo8
3005-000153	RBT-2110-03.97HT	0.1594	0.1600	•		HiCo8
3005-000309	RBT-2110-03.99H	0.1567	0.1575			HiCo8
3005-000310	RBT-2110-03.99HT	0.1567	0.1575	•		HiCo8
3005-000154	RBT-2110-04.00H	0.1606	0.1612			HiCo8
3005-000397	RBT-2110-04.00HT-NF	0.1606	0.1612	•		HiCo8
3005-000286	RBT-2110-04.02HT-Ti	0.1580	0.1585	•	•	HiCo8
3005-000305	RBT-2110-04.089HT	0.1606	0.1614	•		HiCo8
3005-000155	RBT-2110-04.08HT-Ti	0.1604	0.1608	•	•	HiCo8
3005-000386	RBT-2110-04.15HT-NF	0.1615	0.1653	•		HiCo8
3005-000236	RBT-2110-04.42HT-Ti	0.1720	0.1760	•	•	HiCo8
3005-000248	RBT-2110-04.55HT-Ti	0.1792	0.1796	•	•	HiCo8
3005-000288	RBT-2110-04.56HT-Ti	0.1795	0.1799	•	•	HiCo8
3005-000156	RBT-2110-04.76H	0.1905	0.1911			HiCo8
3005-000157	RBT-2110-04.76HT	0.1905	0.1911	•		HiCo8
3005-000158	RBT-2110-04.79H	0.1880	0.1892			HiCo8
3005-000159	RBT-2110-04.79HT	0.1880	0.1892	•		HiCo8
3005-000387	RBT-2110-04.79HT-1-Ti	0.1880	0.1892	•	•	HiCo8
3005-000160	RBT-2110-04.820HT-1-Ti	0.1892	0.1898	•	•	HiCo8
3005-000161	RBT-2110-04.826H	0.1895	0.1900			HiCo8
3005-000162	RBT-2110-04.826HT-Ti	0.1895	0.1900	•	•	HiCo8
3005-000319	RBT-2110-05.011HT-Ti	0.1969	0.1977	•	•	HiCo8
3005-000389	RBT-2110-05.028H-NF	0.1975	0.1985			HiCo8
3005-000163	RBT-2110-05.049HT	0.1986	0.1990	•		HiCo8

Recommended Depth of Cut = 1.5xS

Special sizes available upon request. Quick turnaround time.

2110 Series Hexagon Broaches - HiCo8 Grade

Use With: 2100, 2160 & 6180 Series Rotary Broach Holders

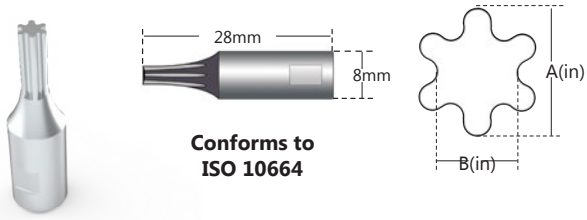


Item No.	Description	S_{min}	S_{max}	Vented	For Titanium	Material
3005-000164	RBT-2110-05.07H-1	0.1996	0.2000			HiCo8
3005-000274	RBT-2110-05.07HT	0.1996	0.2000	•		HiCo8
3005-000372	RBT-2110-05.125HT-1-Ti	0.2013	0.2022	•	•	HiCo8
3005-000311	RBT-2110-05.56H	0.2218	0.2225			HiCo8
3005-000312	RBT-2110-05.56HT	0.2218	0.2225	•		HiCo8
3005-000165	RBT-2110-05.57H	0.2191	0.2195			HiCo8
3005-000390	RBT-2110-05.606H-NF	0.2205	0.2209			HiCo8
3005-000166	RBT-2110-05.635H	0.2217	0.2221			HiCo8
3005-000306	RBT-2110-05.645H	0.2220	0.2224			HiCo8
3005-000307	RBT-2110-05.645HT	0.2220	0.2224	•		HiCo8
3005-000337	RBT-2110-05.994H	0.2356	0.2364			HiCo8
3005-000338	RBT-2110-05.994H-1-Ti	0.2356	0.2364		•	HiCo8
3005-000380	RBT-2110-05.994H-NF	0.2356	0.2364			HiCo8
3005-000336	RBT-2110-05.994HT	0.2356	0.2364	•		HiCo8
3005-000167	RBT-2110-06.05H	0.2374	0.2382			HiCo8
3005-000168	RBT-2110-06.09H	0.2396	0.2400			HiCo8
3005-000169	RBT-2110-06.26H-1	0.2461	0.2468			HiCo8
3005-000170	RBT-2110-06.35H	0.2539	0.2545			HiCo8
3005-000353	RBT-2110-06.38H-Ti	0.2510	0.2514		•	HiCo8
3005-000171	RBT-2110-06.39H	0.2514	0.2518			HiCo8
3005-000354	RBT-2110-06.42H-1-NF	0.2525	0.2530			HiCo8
3005-000172	RBT-2110-06.42H-1-Ti	0.2525	0.2530		•	HiCo8
3005-000326	RBT-2110-06.553H	0.2560	0.2600			HiCo8
3005-000317	RBT-2110-07.086	0.2765	0.2814			HiCo8
3005-000173	RBT-2110-07.17H	0.2820	0.2825			HiCo8
3005-000174	RBT-2110-07.236H	0.2847	0.2851			HiCo8
3005-000348	RBT-2110-07.236H-1-Ti	0.2847	0.2851		•	HiCo8
3005-000349	RBT-2110-07.236HT	0.2847	0.2851	•		HiCo8
3005-000175	RBT-2110-07.24GS	0.2840	0.2850			HiCo8
3005-000176	RBT-2110-07.94H-1	0.3124	0.3128			HiCo8
3005-000308	RBT-2110-07.94H-Ti	0.3124	0.3128		•	HiCo8
3005-000314	RBT-2110-07.965H	0.3134	0.3138			HiCo8
3005-000285	RBT-2110-07.97HT-8S	0.3120	0.3160			HiCo8
3005-000371	RBT-2110-08.02H	0.3155	0.3160			HiCo8
3005-000177	RBT-2110-08.02H-Ti	0.3155	0.3160		•	HiCo8
3005-000358	RBT-2110-08.102H	0.3186	0.3194			HiCo8
3005-000359	RBT-2110-08.102H-1-Ti	0.3186	0.3194		•	HiCo8
3005-000376	RBT-2110-08.255H	0.3250	0.3270			HiCo8
3005-000284	RBT-2110-08.496H	0.3343	0.3347			HiCo8
3005-000178	RBT-2110-09.52H	0.3788	0.3794			HiCo8
3005-000179	RBT-2110-09.76H	0.3840	0.3844			HiCo8
Recommended Depth of Cut = 1.5xS						

Special sizes available upon request. Quick turnaround time.

2122 Series Hexalobular Broach Tools

Use With: 2100, 2160 & 6180 Series Rotary Broach Holders



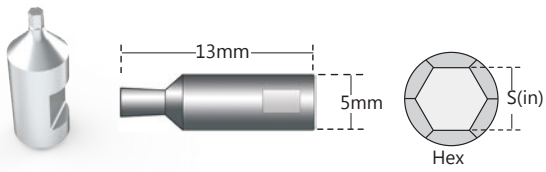
Conforms to ISO 10664

Item No.	Description	Socket	A	B
3005-000192	RBT-2122-T06	T6	.0688″	.0500″
3005-000194	RBT-2122-T08	T8	.0944″	.0688″
3005-000195	RBT-2122-T10	T10	.1102″	.0807″
3005-000196	RBT-2122-T15	T15	.1318″	.0944″
3005-000197	RBT-2122-T20	T20	.1555″	.1122″
3005-000199	RBT-2122-T25	T25	.1771″	.1279″
3005-000200	RBT-2122-T30	T30	.2204″	.1594″
3005-000201	RBT-2122-T40	T40	.2657″	.1909″
3005-000202	RBT-2122-T45	T45	.3122″	.2220″

Recommended Depth of Cut = 1.5xB

2151 Series Broach Tools

Use With: 2150 Series Micro Broach Holder



Item No.	Description	Hex Size	S
3005-000226	RBT-2151-100H	1.0mm	.040″
3005-000303	RBT-2151-150H	1.5mm	.060"
3005-000243	RBT-2151-200H	2.0mm	.078"
3005-000238	RBT-2151-251H	2.5mm	.098"
3005-000228	RBT-2151-300H	3.0mm	.121″

Custom Sizes and Tolerance Available



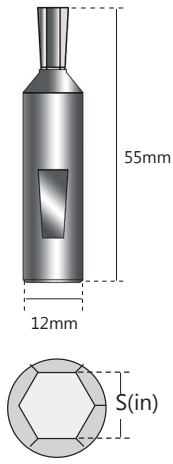
6150 Series Hexagon Broaches - HiCo8 Grade

Item No.	Description	S_{min}	S_{max}
3005-000256	RBT-6150-03H	.1205"	.1212"
3005-000258	RBT-6150-04H	.1605"	.1612"
3005-000260	RBT-6150-05H	.1998"	.2005"
3005-000247	RBT-6150-06H	.2390"	.2398"
Call For Details	RBT-6150-07H	.2792"	.2801"
3005-000259	RBT-6150-08H	.3186"	.3194"
Call For Details	RBT-6150-09H	.3579"	.3588"
3005-000287	RBT-6150-10H	.3972"	.3982"
3005-000282	RBT-6150-11H	.4376"	.4386"
3005-000266	RBT-6150-12H	.4770"	.4780"
Call For Details	RBT-6150-13H	.5163"	.5174"
Call For Details	RBT-6150-14H	.5557"	.5567"
Call For Details	RBT-6150-16H	.6379"	.6389"

Recommended Depth of Cut = 1.5xS

Item No.	Description	S_{min}	S_{max}
Call For Details	RBT-6150-17H	.6773"	.6783"
Call For Details	RBT-6150-18H	.7164"	.7177"
3005-000211	RBT-6150-19H	.7551"	.7571"
3005-000261	RBT-6150-317H	.1280"	.1287"
3005-000262	RBT-6150-397H	.1592"	.1599"
3005-000263	RBT-6150-476H	.1905"	.1912"
Call For Details	RBT-6150-556H	.2217"	.2224"
3005-000244	RBT-6150-635H	.2536"	.2545"
3005-000265	RBT-6150-794H	.3161"	.3170"
Call For Details	RBT-6150-952H	.3786"	.3795"
3005-000210	RBT-6150-127H	.5049"	.5056"
Call For Details	RBT-6150-142H	.5705"	.5715"
3005-000257	RBT-6150-158H	.6330"	.6340"

Recommended Depth of Cut = 1.5xS



Notes:

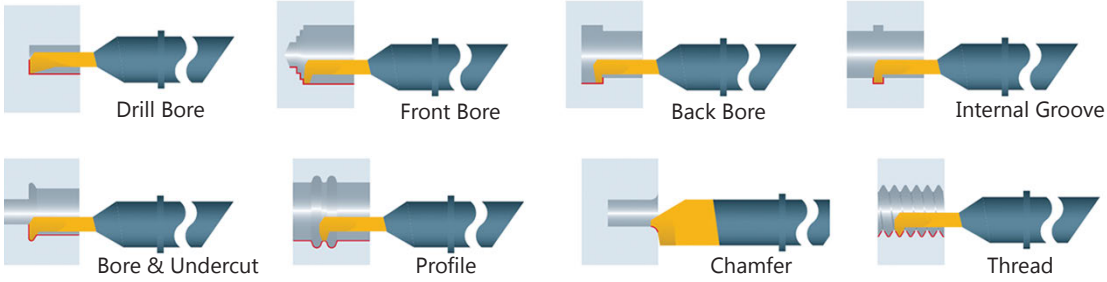
UTILIS
multidec®
swiss type tools
Micro-Bore



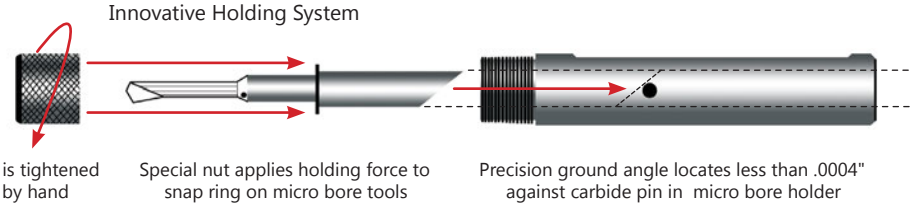


Now Available In UHM 20 TX+

Complete Micro-Boring System

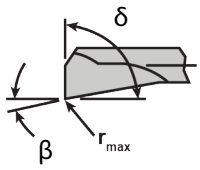


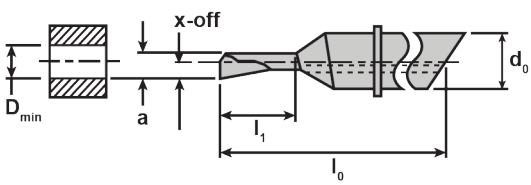
The multidec® micro-bore system is a complete I.D. working system that can perform boring, grooving, profiling, chamfering, threading and more.



SDG - Drilling and Boring



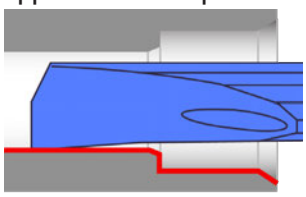




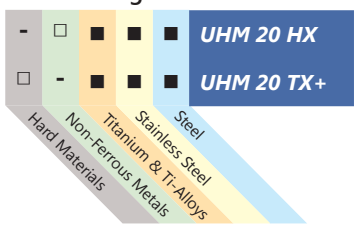
Item No.	Description	Min Hole Ø (D_{min})		Max Depth (l_1)		d_0	a	X-off	l_0	r_{max}	β	δ	Holder
7005-138045	SDG 435 042 R UHM20 HX	.42mm	0.017in	1.50mm	0.059in	4	0.38	0.21	35	.01	2.5°	89.5°	SDA 4...
Call For Details	SDG 435 052 R UHM20 HX	.52mm	0.020in	2.00mm	0.079in	4	0.47	0.26	35	.02	2.5°	89.5°	SDA 4...
Call For Details	SDG 435 072 R UHM20 HX	.72mm	0.028in	2.50mm	0.098in	4	0.65	0.36	35	.03	2.5°	89.5°	SDA 4...
7005-111484	SDG 435 092 R UHM20 HX	.92mm	0.036in	3.00mm	0.118in	4	0.83	0.46	35	.02	2.5°	89.5°	SDA 4...
7005-122208	SDG 440 092 R UHM20 HX	.92mm	0.036in	3.00mm	0.118in	4	0.83	0.46	40	.03	2.5°	89.5°	SDA 4...
7005-122250	SDG 448 092 R UHM20 HX	.92mm	0.036in	5.00mm	0.197in	4	0.83	0.46	48	.03	2.5°	89.5°	SDA 4...
7005-169964	SDG 435 122 R UHM20 HX	1.22mm	0.048in	4.00mm	0.157in	4	1.10	0.61	35	.03	2.5°	89.5°	SDA 4...
7005-111488	SDG 435 142 R UHM20 HX	1.42mm	0.056in	4.50mm	0.177in	4	1.28	0.71	35	.02	2.5°	89.5°	SDA 4...
7005-122214	SDG 440 142 R UHM20 HX	1.42mm	0.056in	4.50mm	0.177in	4	1.28	0.71	40	.04	2.5°	89.5°	SDA 4...
7005-122256	SDG 448 142 R UHM20 HX	1.42mm	0.056in	7.50mm	0.295in	4	1.28	0.71	48	.04	2.5°	89.5°	SDA 4...
7005-111492	SDG 435 192 R UHM20 HX	1.92mm	0.076in	6.00mm	0.236in	4	1.73	0.96	35	.03	2.5°	89.5°	SDA 4...
7005-122220	SDG 440 192 R UHM20 HX	1.92mm	0.076in	6.00mm	0.236in	4	1.73	0.96	40	.04	2.5°	89.5°	SDA 4...
7005-122262	SDG 448 192 R UHM20 HX	1.92mm	0.076in	10.00mm	0.394in	4	1.73	0.96	48	.04	2.5°	89.5°	SDA 4...
7005-111496	SDG 435 242 R UHM20 HX	2.42mm	0.095in	7.50mm	0.295in	4	2.18	1.21	35	.03	2.5°	89.5°	SDA 4...
7005-122226	SDG 440 242 R UHM20 HX	2.42mm	0.095in	7.50mm	0.295in	4	2.18	1.21	40	.05	2.5°	89.5°	SDA 4...
7005-122268	SDG 448 242 R UHM20 HX	2.42mm	0.095in	12.50mm	0.492in	4	2.18	1.21	48	.05	2.5°	89.5°	SDA 4...
7005-122232	SDG 440 292 R UHM20 HX	2.92mm	0.115in	9.00mm	0.354in	4	2.63	1.46	40	.05	2.5°	89.5°	SDA 4...
7005-122274	SDG 448 292 R UHM20 HX	2.92mm	0.115in	15.00mm	0.591in	4	2.63	1.46	48	.05	2.5°	89.5°	SDA 4...
7005-122238	SDG 440 342 R UHM20 HX	3.42mm	0.135in	10.50mm	0.413in	4	3.08	1.71	40	.06	2.5°	89.5°	SDA 4...
7005-122280	SDG 448 342 R UHM20 HX	3.42mm	0.135in	17.50mm	0.689in	4	3.08	1.71	48	.06	2.5°	89.5°	SDA 4...
7005-122244	SDG 440 392 R UHM20 HX	3.92mm	0.154in	12.00mm	0.472in	4	3.53	1.96	40	.06	2.5°	89.5°	SDA 4...
7005-122286	SDG 448 392 R UHM20 HX	3.92mm	0.154in	20.00mm	0.787in	4	3.53	1.96	48	.06	2.5°	89.5°	SDA 4...
7005-124099	SDG 644 442 R UHM20 HX	4.42mm	0.174in	9.00mm	0.354in	6	3.98	2.21	44	.07	2.5°	89.5°	SDA 6...
7005-124123	SDG 656 442 R UHM20 HX	4.42mm	0.174in	18.00mm	0.709in	6	3.98	2.21	56	.07	2.5°	89.5°	SDA 6...
7005-124147	SDG 668 442 R UHM20 HX	4.42mm	0.174in	27.00mm	1.063in	6	3.98	2.21	68	.07	2.5°	89.5°	SDA 6...
7005-124105	SDG 644 492 R UHM20 HX	4.92mm	0.194in	10.00mm	0.394in	6	4.43	2.46	44	.07	2.5°	89.5°	SDA 6...
7005-124129	SDG 656 492 R UHM20 HX	4.92mm	0.194in	20.00mm	0.787in	6	4.43	2.46	56	.07	2.5°	89.5°	SDA 6...
7005-124153	SDG 668 492 R UHM20 HX	4.92mm	0.194in	30.00mm	1.181in	6	4.43	2.46	68	.07	2.5°	89.5°	SDA 6...
7005-124111	SDG 644 542 R UHM20 HX	5.42mm	0.213in	11.00mm	0.433in	6	4.88	2.71	44	.08	2.5°	89.5°	SDA 6...
7005-124135	SDG 656 542 R UHM20 HX	5.42mm	0.213in	22.00mm	0.866in	6	4.88	2.71	56	.08	2.5°	89.5°	SDA 6...
7005-124159	SDG 668 542 R UHM20 HX	5.42mm	0.213in	33.00mm	1.299in	6	4.88	2.71	68	.08	2.5°	89.5°	SDA 6...
7005-124117	SDG 644 592 R UHM20 HX	5.92mm	0.233in	12.00mm	0.472in	6	5.33	2.96	44	.08	2.5°	89.5°	SDA 6...
7005-124141	SDG 656 592 R UHM20 HX	5.92mm	0.233in	24.00mm	0.945in	6	5.33	2.96	56	.08	2.5°	89.5°	SDA 6...
7005-124165	SDG 668 592 R UHM20 HX	5.92mm	0.233in	36.00mm	1.417in	6	5.33	2.96	68	.08	2.5°	89.5°	SDA 6...
7005-124171	SDG 850 692 R UHM20 HX	6.92mm	0.272in	14.00mm	0.551in	8	6.23	3.46	50	.09	2.5°	89.5°	SDA 8...
7005-124183	SDG 866 692 R UHM20 HX	6.92mm	0.272in	28.00mm	1.102in	8	6.23	3.46	66	.09	2.5°	89.5°	SDA 8...
7005-124195	SDG 882 692 R UHM20 HX	6.92mm	0.272in	42.00mm	1.654in	8	6.23	3.46	82	.09	2.5°	89.5°	SDA 8...
7005-124177	SDG 850 792 R UHM20 HX	7.92mm	0.312in	16.00mm	0.630in	8	7.13	3.96	50	.10	2.5°	89.5°	SDA 8...
7005-124189	SDG 866 792 R UHM20 HX	7.92mm	0.312in	32.00mm	1.260in	8	7.13	3.96	66	.10	2.5°	89.5°	SDA 8...
7005-124201	SDG 656 592 R UHM20 HX	7.92mm	0.312in	48.00mm	1.890in	8	7.13	3.96	82	.10	2.5°	89.5°	SDA 8...

Standard Grade Offering: UHM20 HX - Coated Carbide for Most Applications - Other Coatings on Request

Applications Example

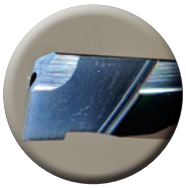


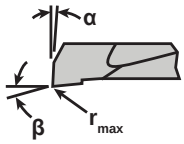
Ideal Cutting Materials

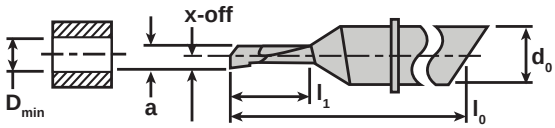


■ Preferred Application
□ Possible Application
- Application Not Recommended

SXG - Drilling and Boring



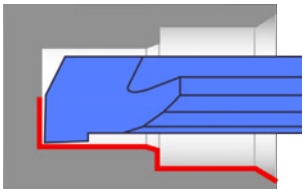




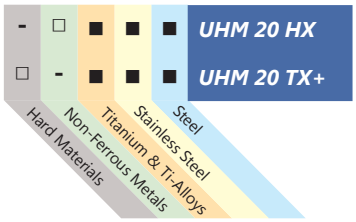
Item No.	Description	Min Hole Ø (D_{min})	Max Depth (l_1)	d_0	a	X-off	l_0	r_{max}	α	β	Holder
7005-111500	SXG 435 042 R UHM20 HX	.42mm 0.017in	1.5mm 0.059in	4	0.38	0.21	35	.02	0.5°	2.5°	SDA 4...
7005-169960	SXG 435 052 R UHM20 HX	.52mm 0.020in	2.0mm 0.079in	4	0.47	0.26	35	.02	0.5°	2.5°	SDA 4...
7005-169956	SXG 435 072 R UHM20 HX	.72mm 0.028in	2.5mm 0.098in	4	0.65	0.36	35	.03	0.5°	2.5°	SDA 4...
7005-111504	SXG 435 092 R UHM20 HX	.92mm 0.036in	3.0mm 0.118in	4	0.83	0.46	35	.02	0.5°	2.5°	SDA 4...
7005-169952	SXG 435 122 R UHM20 HX	1.22mm 0.048in	4.0mm 0.157in	4	1.10	0.61	35	0.03	0.5°	2.5°	SDA 4...
7005-111508	SXG 435 142 R UHM20 HX	1.42mm 0.056in	4.5mm 0.177in	4	1.28	0.71	35	.02	0.5°	2.5°	SDA 4...
7005-111512	SXG 435 192 R UHM20 HX	1.92mm 0.076in	6.0mm 0.236in	4	1.73	0.96	35	.02	0.5°	2.5°	SDA 4...
7005-111516	SXG 435 242 R UHM20 HX	2.42mm 0.095in	7.5mm 0.295in	4	2.18	1.21	35	.02	0.5°	2.5°	SDA 4...
7005-111520	SXG 440 092 R UHM20 HX	.92mm 0.036in	5.0mm 0.197in	4	0.83	1.46	40	.02	0.5°	2.5°	SDA 4...
7005-111524	SXG 440 142 R UHM20 HX	1.42mm 0.056in	7.5mm 0.295in	4	1.28	1.71	40	.02	0.5°	2.5°	SDA 4...
7005-111528	SXG 440 192 R UHM20 HX	1.92mm 0.076in	10.0mm 0.394in	4	1.73	1.98	40	.02	0.5°	2.5°	SDA 4...
7005-111532	SXG 440 242 R UHM20 HX	2.42mm 0.095in	12.5mm 0.492in	4	2.18	0.46	40	.02	0.5°	2.5°	SDA 4...
7005-111536	SXG 440 292 R UHM20 HX	2.92mm 0.115in	9.0mm 0.354in	4	2.63	0.71	40	.02	0.5°	2.5°	SDA 4...
7005-111540	SXG 440 342 R UHM20 HX	3.42mm 0.135in	10.5mm 0.413in	4	3.08	0.96	40	.02	0.5°	2.5°	SDA 4...
7005-111544	SXG 440 392 R UHM20 HX	3.92mm 0.154in	12.0mm 0.472in	4	3.53	1.21	40	.02	0.5°	2.5°	SDA 4...
7005-111548	SXG 448 292 R UHM20 HX	2.92mm 0.115in	15.0mm 0.591in	4	2.63	1.46	48	.02	0.5°	2.5°	SDA 4...
7005-111552	SXG 448 342 R UHM20 HX	3.42mm 0.135in	17.5mm 0.689in	4	3.08	1.71	48	.02	0.5°	2.5°	SDA 4...
7005-111556	SXG 448 392 R UHM20 HX	3.92mm 0.154in	20.0mm 0.787in	4	3.53	1.96	48	.02	0.5°	2.5°	SDA 4...
7005-111560	SXG 644 442 R UHM20 HX	4.42mm 0.174in	9.0mm 0.354in	6	3.98	2.21	44	.02	0.5°	2.5°	SDA 6...
7005-111564	SXG 644 492 R UHM20 HX	4.92mm 0.194in	10.0mm 0.394in	6	4.43	2.46	44	.02	0.5°	2.5°	SDA 6...
7005-111568	SXG 644 542 R UHM20 HX	5.42mm 0.213in	11.0mm 0.433in	6	4.88	2.71	44	.02	0.5°	2.5°	SDA 6...
7005-111572	SXG 644 592 R UHM20 HX	5.92mm 0.233in	12.0mm 0.472in	6	5.33	2.96	44	.02	0.5°	2.5°	SDA 6...
7005-111576	SXG 656 442 R UHM20 HX	4.42mm 0.174in	18.0mm 0.709in	6	3.98	2.21	56	.02	0.5°	2.5°	SDA 6...
7005-111580	SXG 656 492 R UHM20 HX	4.92mm 0.194in	20.0mm 0.787in	6	4.43	2.46	56	.02	0.5°	2.5°	SDA 6...
7005-111584	SXG 656 542 R UHM20 HX	5.42mm 0.213in	22.0mm 0.866in	6	4.88	2.71	56	.02	0.5°	2.5°	SDA 6...
7005-111588	SXG 656 592 R UHM20 HX	5.92mm 0.233in	24.0mm 0.945in	6	5.33	2.96	56	.02	0.5°	2.5°	SDA 6...
7005-111592	SXG 668 442 R UHM20 HX	4.42mm 0.174in	27.0mm 1.063in	6	3.98	2.21	68	.02	0.5°	2.5°	SDA 6...
7005-111596	SXG 668 492 R UHM20 HX	4.92mm 0.194in	30.0mm 1.181in	6	4.43	2.46	68	.02	0.5°	2.5°	SDA 6...
7005-111600	SXG 668 542 R UHM20 HX	5.42mm 0.213in	33.0mm 1.299in	6	4.88	2.71	68	.02	0.5°	2.5°	SDA 6...
7005-111604	SXG 668 592 R UHM20 HX	5.92mm 0.233in	36.0mm 1.417in	6	5.33	2.96	68	.02	0.5°	2.5°	SDA 6...
7005-111608	SXG 850 692 R UHM20 HX	6.92mm 0.272in	14.0mm 0.551in	8	6.23	3.46	50	.02	0.5°	2.5°	SDA 8...
7005-111612	SXG 850 792 R UHM20 HX	7.92mm 0.312in	16.0mm 0.630in	8	7.13	3.96	50	.02	0.5°	2.5°	SDA 8...
7005-111616	SXG 866 692 R UHM20 HX	6.92mm 0.272in	28.0mm 1.102in	8	6.23	3.46	66	.02	0.5°	2.5°	SDA 8...
7005-111620	SXG 866 792 R UHM20 HX	7.92mm 0.312in	32.0mm 1.260in	8	7.13	3.96	66	.02	0.5°	2.5°	SDA 8...
7005-111624	SXG 882 692 R UHM20 HX	6.92mm 0.272in	42.0mm 1.654in	8	6.23	3.46	82	.02	0.5°	2.5°	SDA 8...
7005-111628	SXG 882 792 R UHM20 HX	7.92mm 0.312in	48.0mm 1.890in	8	7.13	3.96	82	.02	0.5°	2.5°	SDA 8...

Standard Grade Offering: UHM20 HX - Coated Carbide for Most Applications - Other Coatings on Request

Applications Example

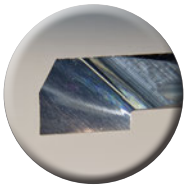


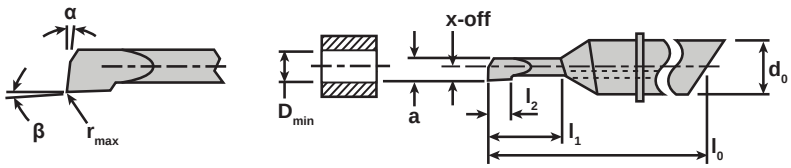
Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

SDI - Turning and Facing

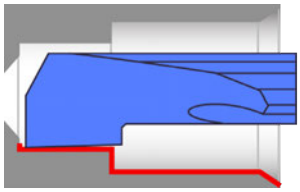




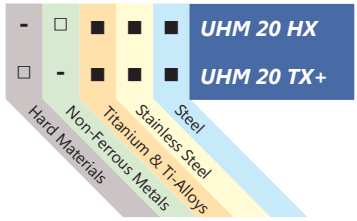
Item No.	Description	Min Hole Ø (D_{min})	Max Depth (l_1)	d_0	a	X-off	l_0	l_2	r_{max}	α	β	Holder
7005-111329	SDI 435 042 R UHM20 HX	.42mm 0.017in	1.5mm 0.059in	4	0.38	0.21	35	0.5	.01	0.5°	2.5°	SDA 4...
7005-169948	SDI 435 052 R UHM20 HX	.52mm 0.020in	2.0mm 0.079in	4	0.47	0.26	35	0.6	.02	0.5°	2.5°	SDA 4...
7005-169944	SDI 435 072 R UHM20 HX	.72mm 0.028in	2.5mm 0.098in	4	0.65	0.36	35	0.8	.02	0.5°	2.5°	SDA 4...
7005-111333	SDI 435 092 R UHM20 HX	.92mm 0.036in	3.0mm 0.118in	4	0.83	0.46	35	1	.02	0.5°	2.5°	SDA 4...
7005-122292	SDI 440 092 R UHM20 HX	.92mm 0.036in	3.0mm 0.118in	4	0.83	0.46	40	1	.02	0.5°	2.5°	SDA 4...
7005-122334	SDI 448 092 R UHM20 HX	.92mm 0.036in	5.0mm 0.197in	4	0.83	0.46	48	1	.02	0.5°	2.5°	SDA 4...
7005-169940	SDI 435 122 R UHM20 HX	1.22mm 0.048in	4.0mm 0.157in	4	1.10	0.61	35	1.3	.02	0.5°	2.5°	SDA 4...
7005-111337	SDI 435 142 R UHM20 HX	1.42mm 0.056in	4.5mm 0.177in	4	1.28	0.71	35	1.5	.02	0.5°	2.5°	SDA 4...
7005-122298	SDI 440 142 R UHM20 HX	1.42mm 0.056in	4.5mm 0.177in	4	1.28	0.71	40	1.5	.02	0.5°	2.5°	SDA 4...
7005-122340	SDI 448 142 R UHM20 HX	1.42mm 0.056in	7.5mm 0.295in	4	1.28	0.71	48	1.5	.02	0.5°	2.5°	SDA 4...
7005-111341	SDI 435 192 R UHM20 HX	1.92mm 0.076in	6.0mm 0.236in	4	1.73	0.96	35	2	.02	0.5°	2.5°	SDA 4...
7005-122304	SDI 440 192 R UHM20 HX	1.92mm 0.076in	6.0mm 0.236in	4	1.73	0.96	40	2	.02	0.5°	2.5°	SDA 4...
7005-122346	SDI 448 192 R UHM20 HX	1.92mm 0.076in	10.0mm 0.394in	4	1.73	0.96	48	2	.02	0.5°	2.5°	SDA 4...
7005-111345	SDI 435 242 R UHM20 HX	2.42mm 0.095in	7.5mm 0.295in	4	2.18	1.21	35	2.5	.02	0.5°	2.5°	SDA 4...
7005-122310	SDI 440 242 R UHM20 HX	2.42mm 0.095in	7.5mm 0.295in	4	2.18	1.21	40	2.5	.02	0.5°	2.5°	SDA 4...
7005-122352	SDI 448 242 R UHM20 HX	2.42mm 0.095in	12.5mm 0.492in	4	2.18	1.21	48	2.5	.02	0.5°	2.5°	SDA 4...
7005-122316	SDI 440 292 R UHM20 HX	2.92mm 0.115in	9.0mm 0.354in	4	2.63	1.46	40	3	.02	0.5°	2.5°	SDA 4...
7005-122358	SDI 448 292 R UHM20 HX	2.92mm 0.115in	15.0mm 0.591in	4	2.63	1.46	48	3	.02	0.5°	2.5°	SDA 4...
7005-122322	SDI 440 342 R UHM20 HX	3.42mm 0.135in	10.5mm 0.413in	4	3.08	1.71	40	3.5	.02	0.5°	2.5°	SDA 4...
7005-122364	SDI 448 342 R UHM20 HX	3.42mm 0.135in	17.5mm 0.689in	4	3.08	1.71	48	3.5	.02	0.5°	2.5°	SDA 4...
7005-122328	SDI 440 392 R UHM20 HX	3.92mm 0.154in	12.0mm 0.472in	4	3.53	1.96	40	4	.02	0.5°	2.5°	SDA 4...
7005-122370	SDI 448 392 R UHM20 HX	3.92mm 0.154in	20.0mm 0.787in	4	3.53	1.96	48	4	.02	0.5°	2.5°	SDA 4...
7005-124207	SDI 644 442 R UHM20 HX	4.42mm 0.174in	9.0mm 0.354in	6	3.98	2.21	44	4.5	.02	0.5°	2.5°	SDA 6...
7005-124262	SDI 656 442 R UHM20 HX	4.42mm 0.174in	18.0mm 0.709in	6	3.98	2.21	56	4.5	.02	0.5°	2.5°	SDA 6...
7005-124278	SDI 668 442 R UHM20 HX	4.42mm 0.174in	27.0mm 1.063in	6	3.98	2.21	68	4.5	.02	0.5°	2.5°	SDA 6...
7005-124213	SDI 644 492 R UHM20 HX	4.92mm 0.194in	10.0mm 0.394in	6	4.43	2.46	44	5	.02	0.5°	2.5°	SDA 6...
7005-124266	SDI 656 492 R UHM20 HX	4.92mm 0.194in	20.0mm 0.787in	6	4.43	2.46	56	5	.02	0.5°	2.5°	SDA 6...
7005-124286	SDI 668 492 R UHM20 HX	4.92mm 0.194in	30.0mm 1.181in	6	4.43	2.46	68	5	.02	0.5°	2.5°	SDA 6...
7005-124219	SDI 644 542 R UHM20 HX	5.42mm 0.213in	11.0mm 0.433in	6	4.88	2.71	44	5.5	.02	0.5°	2.5°	SDA 6...
7005-124270	SDI 656 542 R UHM20 HX	5.42mm 0.213in	22.0mm 0.866in	6	4.88	2.71	56	5.5	.02	0.5°	2.5°	SDA 6...
7005-124290	SDI 668 542 R UHM20 HX	5.42mm 0.213in	33.0mm 1.299in	6	4.88	2.71	68	5.5	.02	0.5°	2.5°	SDA 6...
7005-124225	SDI 644 592 R UHM20 HX	5.92mm 0.233in	12.0mm 0.472in	6	5.33	2.96	44	6	.02	0.5°	2.5°	SDA 6...
7005-124274	SDI 656 592 R UHM20 HX	5.92mm 0.233in	24.0mm 0.945in	6	5.33	2.96	56	6	.02	0.5°	2.5°	SDA 6...
7005-124294	SDI 668 592 R UHM20 HX	5.92mm 0.233in	36.0mm 1.417in	6	5.33	2.96	68	6	.02	0.5°	2.5°	SDA 6...
7005-124298	SDI 850 692 R UHM20 HX	6.92mm 0.272in	14.0mm 0.551in	8	6.23	3.46	50	7	.02	0.5°	2.5°	SDA 8...
7005-124306	SDI 866 692 R UHM20 HX	6.92mm 0.272in	28.0mm 1.102in	8	6.23	3.46	66	7	.02	0.5°	2.5°	SDA 8...
7005-124314	SDI 882 692 R UHM20 HX	6.92mm 0.272in	42.0mm 1.654in	8	6.23	3.46	82	7	.02	0.5°	2.5°	SDA 8...
7005-124302	SDI 850 792 R UHM20 HX	7.92mm 0.312in	16.0mm 0.630in	8	7.13	3.96	50	8	.02	0.5°	2.5°	SDA 8...
7005-124310	SDI 866 792 R UHM20 HX	7.92mm 0.312in	32.0mm 1.260in	8	7.13	3.96	66	8	.02	0.5°	2.5°	SDA 8...
7005-124318	SDI 882 792 R UHM20 HX	7.92mm 0.312in	48.0mm 1.890in	8	7.13	3.96	82	8	.02	0.5°	2.5°	SDA 8...

Standard Grade Offering: UHM20 HX - Coated Carbide for Most Applications - Other Coatings on Request

Applications Example

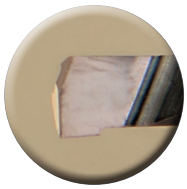


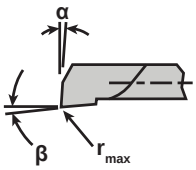
Ideal Cutting Materials

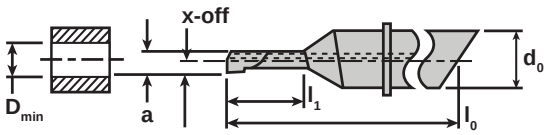


■ Preferred Application
□ Possible Application
- Application Not Recommended

SXI - Turning and Facing



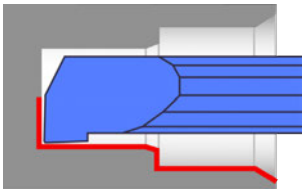




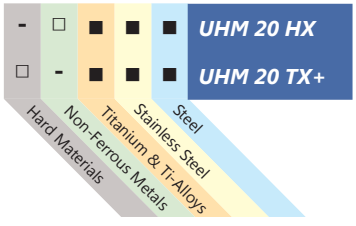
Item No.	Description	Min Hole Ø (D_{min})	Max Depth (l_1)	d_0	a	X-off	l_0	r_{max}	α	β	Holder
7005-111349	SXI 435 042 R UHM20 HX	.42mm 0.017in	1.5mm 0.059in	4	0.38	0.21	35	.02	0.5°	2.5°	SDA 4...
7005-169936	SXI 435 052 R UHM20 HX	.52mm 0.020in	2.0mm 0.079in	4	0.47	0.26	35	.02	0.5°	2.5°	SDA 4...
7005-169933	SXI 435 072 R UHM20 HX	.72mm 0.028in	2.5mm 0.098in	4	0.65	0.36	35	.02	0.5°	2.5°	SDA 4...
7005-111353	SXI 435 092 R UHM20 HX	.92mm 0.036in	3.0mm 0.118in	4	0.83	0.46	35	.02	0.5°	2.5°	SDA 4...
7005-169928	SXI 435 122 R UHM20 HX	1.22mm 0.048in	4.0mm 0.157in	4	1.10	0.61	35	.02	0.5°	2.5°	SDA 4...
7005-111357	SXI 435 142 R UHM20 HX	1.42mm 0.056in	4.5mm 0.177in	4	1.28	0.71	35	.02	0.5°	2.5°	SDA 4...
7005-111361	SXI 435 192 R UHM20 HX	1.92mm 0.076in	6.0mm 0.236in	4	1.73	0.96	35	.02	0.5°	2.5°	SDA 4...
7005-111365	SXI 435 242 R UHM20 HX	2.42mm 0.095in	7.5mm 0.295in	4	2.18	1.21	35	.02	0.5°	2.5°	SDA 4...
7005-111369	SXI 440 092 R UHM20 HX	.92mm 0.036in	5.0mm 0.197in	4	0.83	0.46	40	.02	0.5°	2.5°	SDA 4...
7005-111373	SXI 440 142 R UHM20 HX	1.42mm 0.056in	7.5mm 0.295in	4	1.28	0.71	40	.02	0.5°	2.5°	SDA 4...
7005-111377	SXI 440 192 R UHM20 HX	1.92mm 0.076in	10.0mm 0.394in	4	1.73	0.96	40	.02	0.5°	2.5°	SDA 4...
7005-111381	SXI 440 242 R UHM20 HX	2.42mm 0.095in	12.5mm 0.492in	4	2.18	1.21	40	.02	0.5°	2.5°	SDA 4...
7005-111385	SXI 440 292 R UHM20 HX	2.92mm 0.115in	9.0mm 0.354in	4	1.73	1.46	40	.02	0.5°	2.5°	SDA 4...
7005-111389	SXI 440 342 R UHM20 HX	3.42mm 0.135in	10.5mm 0.413in	4	2.63	1.71	40	.02	0.5°	2.5°	SDA 4...
7005-111393	SXI 440 392 R UHM20 HX	3.92mm 0.154in	12.0mm 0.472in	4	3.53	1.96	40	.02	0.5°	2.5°	SDA 4...
7005-111397	SXI 448 292 R UHM20 HX	2.92mm 0.115in	15.0mm 0.591in	4	2.63	1.46	48	.02	0.5°	2.5°	SDA 4...
7005-111401	SXI 448 342 R UHM20 HX	3.42mm 0.135in	17.5mm 0.689in	4	3.08	1.71	48	.02	0.5°	2.5°	SDA 4...
7005-111405	SXI 448 392 R UHM20 HX	3.92mm 0.154in	20.0mm 0.787in	4	3.53	1.96	48	.02	0.5°	2.5°	SDA 4...
7005-111409	SXI 644 442 R UHM20 HX	4.42mm 0.174in	9.0mm 0.354in	6	3.98	2.21	44	.02	0.5°	2.5°	SDA 6...
7005-111413	SXI 644 492 R UHM20 HX	4.92mm 0.194in	10.0mm 0.394in	6	4.43	2.46	44	.02	0.5°	2.5°	SDA 6...
7005-111417	SXI 644 542 R UHM20 HX	5.42mm 0.213in	11.0mm 0.433in	6	4.88	2.71	44	.02	0.5°	2.5°	SDA 6...
7005-111421	SXI 644 592 R UHM20 HX	5.92mm 0.233in	12.0mm 0.472in	6	5.33	2.96	44	.02	0.5°	2.5°	SDA 6...
7005-111425	SXI 656 442 R UHM20 HX	4.42mm 0.174in	18.0mm 0.709in	6	3.98	2.21	56	.02	0.5°	2.5°	SDA 6...
7005-111429	SXI 656 492 R UHM20 HX	4.92mm 0.194in	20.0mm 0.787in	6	4.43	2.46	56	.02	0.5°	2.5°	SDA 6...
7005-111433	SXI 656 542 R UHM20 HX	5.42mm 0.213in	22.0mm 0.866in	6	4.88	2.71	56	.02	0.5°	2.5°	SDA 6...
7005-111437	SXI 656 592 R UHM20 HX	5.92mm 0.233in	24.0mm 0.945in	6	5.33	2.96	56	.02	0.5°	2.5°	SDA 6...
7005-111441	SXI 668 442 R UHM20 HX	4.42mm 0.174in	27.0mm 1.063in	6	3.98	2.21	68	.02	0.5°	2.5°	SDA 6...
7005-111445	SXI 668 492 R UHM20 HX	4.92mm 0.194in	30.0mm 1.181in	6	4.43	2.46	68	.02	0.5°	2.5°	SDA 6...
7005-111449	SXI 668 542 R UHM20 HX	5.42mm 0.213in	33.0mm 1.299in	6	4.88	2.71	68	.02	0.5°	2.5°	SDA 6...
7005-111453	SXI 668 592 R UHM20 HX	5.92mm 0.233in	36.0mm 1.417in	6	5.33	2.96	68	.02	0.5°	2.5°	SDA 6...
7005-111457	SXI 850 692 R UHM20 HX	6.92mm 0.272in	14.0mm 0.551in	8	6.23	3.46	50	.02	0.5°	2.5°	SDA 8...
7005-111461	SXI 850 792 R UHM20 HX	7.92mm 0.312in	16.0mm 0.630in	8	7.13	3.96	50	.02	0.5°	2.5°	SDA 8...
7005-111465	SXI 866 692 R UHM20 HX	6.92mm 0.272in	28.0mm 1.102in	8	6.23	3.46	66	.02	0.5°	2.5°	SDA 8...
7005-111469	SXI 866 792 R UHM20 HX	7.92mm 0.312in	32.0mm 1.260in	8	7.13	3.96	66	.02	0.5°	2.5°	SDA 8...
7005-111473	SXI 882 692 R UHM20 HX	6.92mm 0.272in	42.0mm 1.654in	8	6.23	3.46	82	.02	0.5°	2.5°	SDA 8...
7005-111477	SXI 882 792 R UHM20 HX	7.92mm 0.312in	48.0mm 1.890in	8	7.13	3.96	82	.02	0.5°	2.5°	SDA 8...

Standard Grade Offering: UHM20 HX - Coated Carbide for Most Applications - Other Coatings on Request

Applications Example

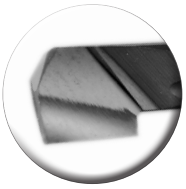


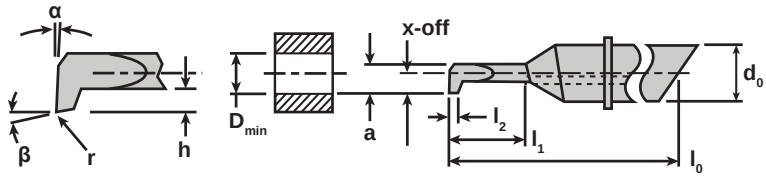
Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

SDF - Turning and Facing

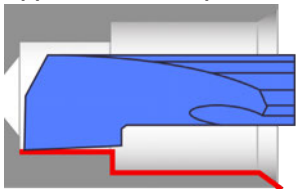




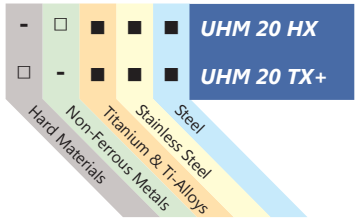
Item No.	Description	Min Hole Ø (D_{min})		Max Depth (l_1)		d_0	a	X-off	h	l_0	l_2	r_{max}	α	β	Holder
7005-150464	SDF 435 042 R UHM20 HX	0.42mm	0.017in	1.5mm	0.059in	4	0.38	0.21	0.21	35	0.5	0.06	0.5°	2.5°	SDA 4...
7005-150468	SDF 435 092 R UHM20 HX	0.92mm	0.036in	3.0mm	0.118in	4	0.83	0.46	0.23	35	1.0	0.06	0.5°	2.5°	SDA 4...
7005-150484	SDF 440 092 R UHM20 HX	0.92mm	0.036in	3.0mm	0.118in	4	0.83	0.46	0.23	40	1.0	0.06	0.5°	2.5°	SDA 4...
7005-150512	SDF 448 092 R UHM20 HX	0.92mm	0.036in	5.0mm	0.197in	4	0.83	0.46	0.23	48	1.0	0.06	0.5°	2.5°	SDA 4...
7005-150472	SDF 435 142 R UHM20 HX	1.42mm	0.056in	4.5mm	0.177in	4	1.28	0.71	0.36	35	1.5	0.06	0.5°	2.5°	SDA 4...
7005-150488	SDF 440 142 R UHM20 HX	1.42mm	0.056in	4.5mm	0.177in	4	1.28	0.71	0.36	40	1.5	0.06	0.5°	2.5°	SDA 4...
7005-150516	SDF 448 142 R UHM20 HX	1.42mm	0.056in	7.5mm	0.295in	4	1.28	0.71	0.36	48	1.5	0.06	0.5°	2.5°	SDA 4...
7005-150476	SDF 435 192 R UHM20 HX	1.92mm	0.076in	6.0mm	0.236in	4	1.73	0.96	0.48	35	2.0	0.06	0.5°	2.5°	SDA 4...
7005-150492	SDF 440 192 R UHM20 HX	1.92mm	0.076in	6.0mm	0.236in	4	1.73	0.96	0.48	40	2.0	0.06	0.5°	2.5°	SDA 4...
7005-150520	SDF 448 192 R UHM20 HX	1.92mm	0.076in	10.0mm	0.394in	4	1.73	0.96	0.48	48	2.0	0.06	0.5°	2.5°	SDA 4...
7005-150480	SDF 435 242 R UHM20 HX	2.42mm	0.095in	7.5mm	0.295in	4	2.18	1.21	0.61	35	2.5	0.06	0.5°	2.5°	SDA 4...
7005-150496	SDF 440 242 R UHM20 HX	2.42mm	0.095in	7.5mm	0.295in	4	2.18	1.21	0.61	40	2.5	0.06	0.5°	2.5°	SDA 4...
7005-150524	SDF 448 242 R UHM20 HX	2.42mm	0.095in	12.5mm	0.492in	4	2.18	1.21	0.61	48	2.5	0.06	0.5°	2.5°	SDA 4...
7005-150500	SDF 440 292 R UHM20 HX	2.92mm	0.115in	9.0mm	0.354in	4	2.63	1.46	0.73	40	3.0	0.06	0.5°	2.5°	SDA 4...
7005-150528	SDF 448 292 R UHM20 HX	2.92mm	0.115in	15.0mm	0.591in	4	2.63	1.46	0.73	48	3.0	0.06	0.5°	2.5°	SDA 4...
7005-150504	SDF 440 342 R UHM20 HX	3.42mm	0.135in	10.5mm	0.413in	4	3.08	1.71	0.86	40	3.5	0.06	0.5°	2.5°	SDA 4...
7005-150532	SDF 448 342 R UHM20 HX	3.42mm	0.135in	17.5mm	0.689in	4	3.08	1.71	0.86	48	3.5	0.06	0.5°	2.5°	SDA 4...
7005-150508	SDF 440 392 R UHM20 HX	3.92mm	0.154in	12.0mm	0.472in	4	3.53	1.96	0.98	40	4.0	0.06	0.5°	2.5°	SDA 4...
7005-150536	SDF 448 392 R UHM20 HX	3.92mm	0.154in	20.0mm	0.787in	4	3.53	1.96	0.98	48	4.0	0.06	0.5°	2.5°	SDA 4...
7005-150540	SDF 644 442 R UHM20 HX	4.42mm	0.174in	9.0mm	0.354in	6	3.98	2.21	1.11	44	4.5	0.08	0.5°	2.5°	SDA 6...
7005-150556	SDF 656 442 R UHM20 HX	4.42mm	0.174in	18.0mm	0.709in	6	3.98	2.21	1.11	56	4.5	0.08	0.5°	2.5°	SDA 6...
7005-150572	SDF 668 442 R UHM20 HX	4.42mm	0.174in	27.0mm	1.063in	6	3.98	2.21	1.11	68	4.5	0.08	0.5°	2.5°	SDA 6...
7005-150544	SDF 644 492 R UHM20 HX	4.92mm	0.194in	10.0mm	0.394in	6	4.43	2.46	1.23	44	5.0	0.08	0.5°	2.5°	SDA 6...
7005-150560	SDF 656 492 R UHM20 HX	4.92mm	0.194in	20.0mm	0.787in	6	4.43	2.46	1.23	56	5.0	0.08	0.5°	2.5°	SDA 6...
7005-150576	SDF 668 492 R UHM20 HX	4.92mm	0.194in	30.0mm	1.181in	6	4.43	2.46	1.23	68	5.0	0.08	0.5°	2.5°	SDA 6...
7005-150548	SDF 644 542 R UHM20 HX	5.42mm	0.213in	11.0mm	0.433in	6	4.88	2.71	1.36	44	5.5	0.08	0.5°	2.5°	SDA 6...
7005-150564	SDF 656 542 R UHM20 HX	5.42mm	0.213in	22.0mm	0.866in	6	4.88	2.71	1.36	56	5.5	0.08	0.5°	2.5°	SDA 6...
7005-150580	SDF 668 542 R UHM20 HX	5.42mm	0.213in	33.0mm	1.299in	6	4.88	2.71	1.36	68	5.5	0.08	0.5°	2.5°	SDA 6...
7005-150552	SDF 644 592 R UHM20 HX	5.92mm	0.233in	12.0mm	0.472in	6	5.33	2.96	1.48	44	6.0	0.08	0.5°	2.5°	SDA 6...
7005-150568	SDF 656 592 R UHM20 HX	5.92mm	0.233in	24.0mm	0.945in	6	5.33	2.96	1.48	56	6.0	0.08	0.5°	2.5°	SDA 6...
7005-150584	SDF 668 592 R UHM20 HX	5.92mm	0.233in	36.0mm	1.417in	6	5.33	2.96	1.48	68	6.0	0.08	0.5°	2.5°	SDA 6...
7005-150588	SDF 850 692 R UHM20 HX	6.92mm	0.272in	14.0mm	0.551in	8	6.23	3.46	1.73	50	7.0	0.08	0.5°	2.5°	SDA 8...
7005-150596	SDF 866 692 R UHM20 HX	6.92mm	0.272in	28.0mm	1.102in	8	6.23	3.46	1.73	66	7.0	0.08	0.5°	2.5°	SDA 8...
7005-150604	SDF 882 692 R UHM20 HX	6.92mm	0.272in	42.0mm	1.654in	8	6.23	3.46	1.73	82	7.0	0.08	0.5°	2.5°	SDA 8...
7005-150592	SDF 850 792 R UHM20 HX	7.92mm	0.312in	16.0mm	0.630in	8	3.96	3.96	1.98	50	8.0	0.08	0.5°	2.5°	SDA 8...
7005-150600	SDF 866 792 R UHM20 HX	7.92mm	0.312in	32.0mm	1.260in	8	3.96	3.96	1.98	66	8.0	0.08	0.5°	2.5°	SDA 8...
7005-150608	SDF 882 792 R UHM20 HX	7.92mm	0.312in	48.0mm	1.890in	8	3.96	3.96	1.98	82	8.0	0.08	0.5°	2.5°	SDA 8...

Standard Grade Offering: UHM20 HX - Coated Carbide for Most Applications - Other Coatings on Request

Applications Example



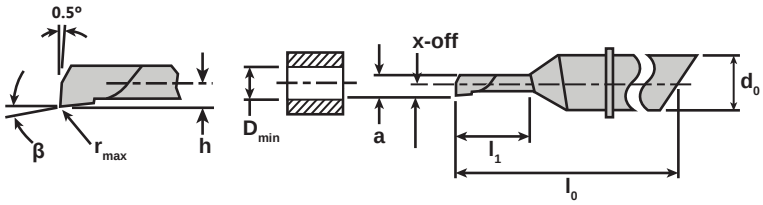
Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

SXF - Turning and Facing

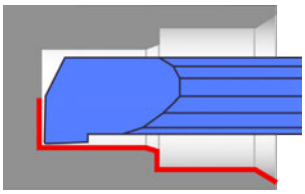




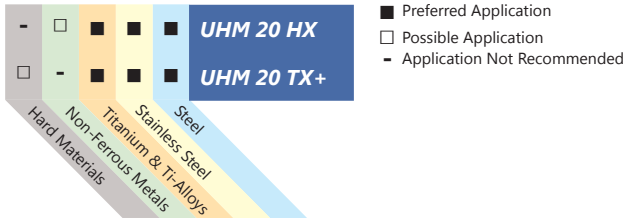
Item No.	Description	Min Hole Ø (D_{min})		Max Depth (l_1)		d_0	a	X-off	h	l_0	l_2	r_{max}	β	Holder
7005-150612	SXF 435 042 R UHM20 HX	0.42mm	0.017in	1.5mm	0.059in	4	0.38	0.21	0.05	35	0.5	0.06	2.5°	SDA 4...
7005-150616	SXF 435 092 R UHM20 HX	0.92mm	0.036in	3.0mm	0.118in	4	0.83	0.46	0.1	35	1.0	0.06	2.5°	SDA 4...
7005-150632	SXF 440 092 R UHM20 HX	0.92mm	0.036in	5.0mm	0.197in	4	0.83	0.46	0.1	40	1.0	0.06	2.5°	SDA 4...
7005-150620	SXF 435 142 R UHM20 HX	1.42mm	0.056in	4.5mm	0.177in	4	1.28	0.71	0.15	35	1.5	0.06	2.5°	SDA 4...
7005-150636	SXF 440 142 R UHM20 HX	1.42mm	0.056in	7.5mm	0.295in	4	1.28	0.71	0.15	40	1.5	0.06	2.5°	SDA 4...
7005-150624	SXF 435 192 R UHM20 HX	1.92mm	0.076in	6.0mm	0.236in	4	1.73	0.96	0.2	35	2.0	0.06	2.5°	SDA 4...
7005-150640	SXF 440 192 R UHM20 HX	1.92mm	0.076in	10.0mm	0.394in	4	1.73	0.96	0.2	40	2.0	0.06	2.5°	SDA 4...
7005-150628	SXF 435 242 R UHM20 HX	2.42mm	0.095in	7.5mm	0.295in	4	2.18	1.21	0.25	35	2.5	0.06	2.5°	SDA 4...
7005-150644	SXF 440 242 R UHM20 HX	2.42mm	0.095in	12.5mm	0.492in	4	2.18	1.21	0.25	40	2.5	0.06	2.5°	SDA 4...
7005-150648	SXF 440 292 R UHM20 HX	2.92mm	0.115in	9.0mm	0.354in	4	2.63	1.46	0.3	40	3.0	0.06	2.5°	SDA 4...
7005-150660	SXF 448 292 R UHM20 HX	2.92mm	0.115in	15.0mm	0.591in	4	2.63	1.46	0.3	48	3.0	0.06	2.5°	SDA 4...
7005-150652	SXF 440 342 R UHM20 HX	3.42mm	0.135in	10.5mm	0.413in	4	3.08	1.71	0.35	40	3.5	0.06	2.5°	SDA 4...
7005-150664	SXF 448 342 R UHM20 HX	3.42mm	0.135in	17.5mm	0.689in	4	3.08	1.71	0.35	48	3.5	0.06	2.5°	SDA 4...
7005-150656	SXF 440 392 R UHM20 HX	3.92mm	0.154in	12.0mm	0.472in	4	3.53	1.96	0.4	40	4.0	0.06	2.5°	SDA 4...
7005-150668	SXF 448 392 R UHM20 HX	3.92mm	0.154in	20.0mm	0.787in	4	3.53	1.96	0.4	48	4.0	0.06	2.5°	SDA 4...
7005-150672	SXF 644 442 R UHM20 HX	4.42mm	0.174in	9.0mm	0.354in	6	3.98	2.21	0.45	44	4.5	0.08	2.5°	SDA 6...
7005-150688	SXF 656 442 R UHM20 HX	4.42mm	0.174in	18.0mm	0.709in	6	3.98	2.21	0.45	56	4.5	0.08	2.5°	SDA 6...
7005-150704	SXF 668 442 R UHM20 HX	4.42mm	0.174in	27.0mm	1.063in	6	3.98	2.21	0.45	68	4.5	0.08	2.5°	SDA 6...
7005-150676	SXF 644 492 R UHM20 HX	4.92mm	0.194in	10.0mm	0.394in	6	4.43	2.46	0.5	44	5.0	0.08	2.5°	SDA 6...
7005-150692	SXF 656 492 R UHM20 HX	4.92mm	0.194in	20.0mm	0.787in	6	4.43	2.46	0.5	56	5.0	0.08	2.5°	SDA 6...
7005-150708	SXF 668 492 R UHM20 HX	4.92mm	0.194in	30.0mm	1.181in	6	4.43	2.46	0.5	68	5.0	0.08	2.5°	SDA 6...
7005-150680	SXF 644 542 R UHM20 HX	5.42mm	0.213in	11.0mm	0.433in	6	4.88	2.71	0.55	44	5.5	0.08	2.5°	SDA 6...
7005-150696	SXF 656 542 R UHM20 HX	5.42mm	0.213in	22.0mm	0.866in	6	4.88	2.71	0.55	56	5.5	0.08	2.5°	SDA 6...
7005-150712	SXF 668 542 R UHM20 HX	5.42mm	0.213in	33.0mm	1.299in	6	4.88	2.71	0.55	68	5.5	0.08	2.5°	SDA 6...
7005-150684	SXF 644 592 R UHM20 HX	5.92mm	0.233in	12.0mm	0.472in	6	5.33	2.96	0.6	44	6.0	0.08	2.5°	SDA 6...
7005-150700	SXF 656 592 R UHM20 HX	5.92mm	0.233in	24.0mm	0.945in	6	5.33	2.96	0.6	56	6.0	0.08	2.5°	SDA 6...
7005-150716	SXF 668 592 R UHM20 HX	5.92mm	0.233in	36.0mm	1.417in	6	5.33	2.96	0.6	68	6.0	0.08	2.5°	SDA 6...
7005-150720	SXF 850 692 R UHM20 HX	6.92mm	0.272in	14.0mm	0.551in	8	6.23	3.46	0.7	50	7.0	0.08	2.5°	SDA 8...
7005-150728	SXF 866 692 R UHM20 HX	6.92mm	0.272in	8.0mm	0.315in	8	6.23	3.46	0.7	66	7.0	0.08	2.5°	SDA 8...
7005-150736	SXF 882 692 R UHM20 HX	6.92mm	0.272in	42.0mm	1.654in	8	6.23	3.46	0.7	82	7.0	0.08	2.5°	SDA 8...
7005-150724	SXF 850 792 R UHM20 HX	7.92mm	0.312in	16.0mm	0.630in	8	3.96	3.96	0.8	50	8.0	0.08	2.5°	SDA 8...
7005-150732	SXF 866 792 R UHM20 HX	7.92mm	0.312in	32.0mm	1.260in	8	3.96	3.96	0.8	66	8.0	0.08	2.5°	SDA 8...
7005-150740	SXF 882 792 R UHM20 HX	7.92mm	0.312in	48.0mm	1.890in	8	3.96	3.96	0.8	82	8.0	0.08	2.5°	SDA 8...

Standard Grade Offering: UHM20 HX - Coated Carbide for Most Applications - Other Coatings on Request

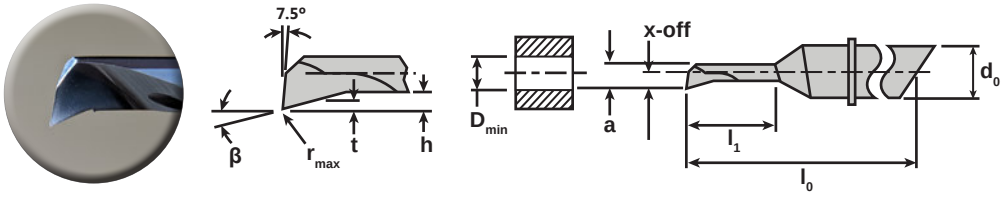
Applications Example



Ideal Cutting Materials



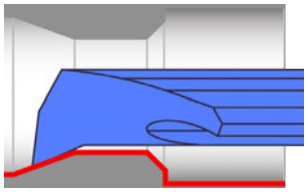
SDH - Front-Turning



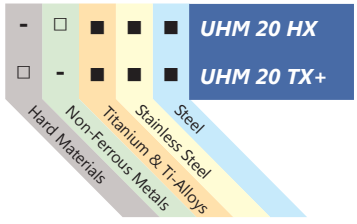
Item No.	Description	Min Hole Ø (D_{min})		Max Depth (l_1)		d_0	a	X-off	h	t	l_0	r_{max}	β	Holder
7005-138641	SDH 435 042 R UHM20 HX	.42mm	0.017in	1.5mm	0.059in	4	0.38	0.21	0.09	0.07	35	.05	22.5°	SDA 4...
7005-111651	SDH 435 092 R UHM20 HX	.92mm	0.036in	3.0mm	0.118in	4	0.83	0.46	0.19	0.15	35	.05	22.5°	SDA 4...
7005-126202	SDH 440 092 R UHM20 HX	.92mm	0.036in	3.0mm	0.118in	4	0.83	0.46	0.21	0.16	40	.05	22.5°	SDA 4...
7005-126247	SDH 448 092 R UHM20 HX	.92mm	0.036in	5.0mm	0.197in	4	0.83	0.46	0.21	0.16	48	.05	22.5°	SDA 4...
7005-111653	SDH 435 142 R UHM20 HX	1.42mm	0.056in	4.5mm	0.177in	4	1.28	0.71	0.30	0.23	35	.05	22.5°	SDA 4...
7005-126211	SDH 440 142 R UHM20 HX	1.42mm	0.056in	4.5mm	0.177in	4	1.28	0.71	0.31	0.23	40	.05	22.5°	SDA 4...
7005-126253	SDH 448 142 R UHM20 HX	1.42mm	0.056in	7.5mm	0.295in	4	1.28	0.71	0.31	0.23	48	.05	22.5°	SDA 4...
7005-111659	SDH 435 192 R UHM20 HX	1.92mm	0.076in	6.0mm	0.236in	4	1.73	0.96	0.40	0.31	35	.05	22.5°	SDA 4...
7005-126217	SDH 440 192 R UHM20 HX	1.92mm	0.076in	6.0mm	0.236in	4	1.73	0.96	0.41	0.31	40	.05	22.5°	SDA 4...
7005-126259	SDH 448 192 R UHM20 HX	1.92mm	0.076in	10.0mm	0.394in	4	1.73	0.96	0.41	0.31	48	.05	22.5°	SDA 4...
7005-111663	SDH 435 242 R UHM20 HX	2.42mm	0.095in	7.5mm	0.295in	4	2.18	1.21	0.51	0.39	35	.05	22.5°	SDA 4...
7005-126223	SDH 440 242 R UHM20 HX	2.42mm	0.095in	7.5mm	0.295in	4	2.18	1.21	0.52	0.39	40	.05	22.5°	SDA 4...
7005-126265	SDH 448 242 R UHM20 HX	2.42mm	0.095in	12.5mm	0.492in	4	2.18	1.21	0.52	0.39	48	.05	22.5°	SDA 4...
7005-126229	SDH 440 292 R UHM20 HX	2.92mm	0.115in	9.0mm	0.354in	4	2.63	1.46	0.62	0.47	40	.05	22.5°	SDA 4...
7005-126271	SDH 448 292 R UHM20 HX	2.92mm	0.115in	15.0mm	0.591in	4	2.63	1.46	0.62	0.47	48	.05	22.5°	SDA 4...
7005-126235	SDH 440 342 R UHM20 HX	3.42mm	0.135in	10.5mm	0.413in	4	3.08	1.71	0.72	0.54	40	.05	22.5°	SDA 4...
7005-126277	SDH 448 342 R UHM20 HX	3.42mm	0.135in	17.5mm	0.689in	4	3.08	1.71	0.72	0.54	48	.05	22.5°	SDA 4...
7005-126241	SDH 440 392 R UHM20 HX	3.92mm	0.154in	12.0mm	0.472in	4	3.53	1.96	0.83	0.62	40	.05	22.5°	SDA 4...
7005-126283	SDH 448 392 R UHM20 HX	3.92mm	0.154in	20.0mm	0.787in	4	3.53	1.96	0.83	0.62	48	.05	22.5°	SDA 4...
7005-126289	SDH 644 442 R UHM20 HX	4.42mm	0.174in	9.0mm	0.354in	6	3.98	2.21	0.93	0.7	44	.05	22.5°	SDA 6...
7005-126313	SDH 656 442 R UHM20 HX	4.42mm	0.174in	18.0mm	0.709in	6	3.98	2.21	0.93	0.7	56	.05	22.5°	SDA 6...
7005-126337	SDH 668 442 R UHM20 HX	4.42mm	0.174in	27.0mm	1.063in	6	3.98	2.21	0.93	0.7	68	.05	22.5°	SDA 6...
7005-126295	SDH 644 492 R UHM20 HX	4.92mm	0.194in	10.0mm	0.394in	6	4.43	2.46	1.04	0.78	44	.05	22.5°	SDA 6...
7005-126319	SDH 656 492 R UHM20 HX	4.92mm	0.194in	20.0mm	0.787in	6	4.43	2.46	1.04	0.78	56	.05	22.5°	SDA 6...
7005-126343	SDH 668 492 R UHM20 HX	4.92mm	0.194in	30.0mm	1.181in	6	4.43	2.46	1.04	0.78	68	.05	22.5°	SDA 6...
7005-126301	SDH 644 542 R UHM20 HX	5.42mm	0.213in	11.0mm	0.433in	6	4.88	2.71	1.14	0.85	44	.05	22.5°	SDA 6...
7005-126325	SDH 656 542 R UHM20 HX	5.42mm	0.213in	22.0mm	0.866in	6	4.88	2.71	1.14	0.85	56	.05	22.5°	SDA 6...
7005-126349	SDH 668 542 R UHM20 HX	5.42mm	0.213in	33.0mm	1.299in	6	4.88	2.71	1.14	0.85	68	.05	22.5°	SDA 6...
7005-126307	SDH 644 592 R UHM20 HX	5.92mm	0.233in	12.0mm	0.472in	6	5.33	2.96	1.24	0.93	44	.05	22.5°	SDA 6...
7005-126331	SDH 656 592 R UHM20 HX	5.92mm	0.233in	24.0mm	0.945in	6	5.33	2.96	1.24	0.93	56	.05	22.5°	SDA 6...
7005-126355	SDH 668 592 R UHM20 HX	5.92mm	0.233in	36.0mm	1.417in	6	5.33	2.96	1.24	0.93	68	.05	22.5°	SDA 6...
7005-126361	SDH 850 692 R UHM20 HX	6.92mm	0.272in	14.0mm	0.551in	8	6.23	3.46	1.45	1.09	50	.05	22.5°	SDA 8...
7005-126373	SDH 866 692 R UHM20 HX	6.92mm	0.272in	28.0mm	1.102in	8	6.23	3.46	1.45	1.09	66	.05	22.5°	SDA 8...
7005-126385	SDH 882 692 R UHM20 HX	6.92mm	0.272in	42.0mm	1.654in	8	6.23	3.46	1.45	1.09	82	.05	22.5°	SDA 8...
7005-126367	SDH 850 792 R UHM20 HX	7.92mm	0.312in	16.0mm	0.630in	8	7.13	3.96	1.66	1.24	50	.05	22.5°	SDA 8...
7005-126379	SDH 866 792 R UHM20 HX	7.92mm	0.312in	32.0mm	1.260in	8	7.13	3.96	1.66	1.24	66	.05	22.5°	SDA 8...
7005-126391	SDH 882 792 R UHM20 HX	7.92mm	0.312in	48.0mm	1.890in	8	7.13	3.96	1.66	1.24	82	.05	22.5°	SDA 8...

Standard Grade Offering: UHM20 HX - Coated Carbide for Most Applications - Other Coatings on Request

Applications Example

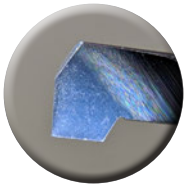


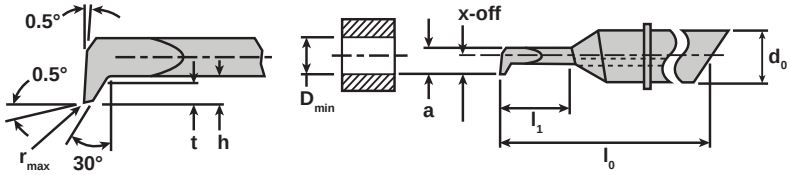
Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

SDK - Front-Turning

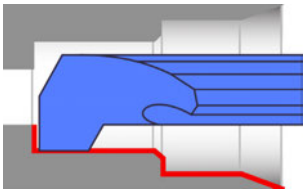




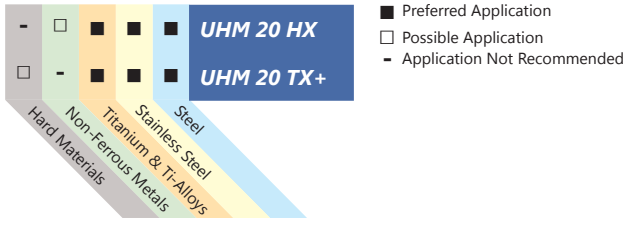
Item No.	Description	Min Hole Ø (D_{min})		Max Depth (l_1)		d_0	a	X-off	h	t	l_0	l_2	r_{max}	Holder
7005-111667	SDK 435 092 R UHM20 HX	.92mm	0.036in	1.5mm	0.059in	4	0.83	0.46	.23	.15	35	0.50	.02	SDA 4...
7005-122376	SDK 440 092 R UHM20 HX	.92mm	0.036in	3.0mm	0.118in	4	0.83	0.46	.23	.10	40	0.50	.02	SDA 4...
7005-122418	SDK 448 092 R UHM20 HX	.92mm	0.036in	5.0mm	0.197in	4	0.83	0.46	.23	.10	48	0.50	.02	SDA 4...
7005-111671	SDK 435 142 R UHM20 HX	1.42mm	0.056in	4.5mm	0.177in	4	1.28	0.71	.36	.23	35	0.75	.02	SDA 4...
7005-122382	SDK 440 142 R UHM20 HX	1.42mm	0.056in	4.5mm	0.177in	4	1.28	0.71	.36	.20	40	0.75	.02	SDA 4...
7005-122424	SDK 448 142 R UHM20 HX	1.42mm	0.056in	7.5mm	0.295in	4	1.28	0.71	.36	.20	48	0.75	.02	SDA 4...
7005-111675	SDK 435 192 R UHM20 HX	1.92mm	0.076in	6.0mm	0.236in	4	1.73	0.96	.48	.32	35	1.00	.03	SDA 4...
7005-122388	SDK 440 192 R UHM20 HX	1.92mm	0.076in	6.0mm	0.236in	4	1.73	0.96	.48	.30	40	1.00	.02	SDA 4...
7005-122430	SDK 448 192 R UHM20 HX	1.92mm	0.076in	10.0mm	0.394in	4	1.73	0.96	.48	.30	48	1.00	.02	SDA 4...
7005-111679	SDK 435 242 R UHM20 HX	2.42mm	0.095in	7.5mm	0.295in	4	2.18	1.21	.61	.40	35	1.25	.03	SDA 4...
7005-122394	SDK 440 242 R UHM20 HX	2.42mm	0.095in	7.5mm	0.295in	4	2.18	1.21	.61	.40	40	1.25	.02	SDA 4...
7005-122436	SDK 448 242 R UHM20 HX	2.42mm	0.095in	12.5mm	0.492in	4	2.18	1.21	.61	.40	48	1.25	.02	SDA 4...
7005-122400	SDK 440 292 R UHM20 HX	2.92mm	0.115in	9.0mm	0.354in	4	2.63	1.46	.73	.50	40	1.50	.02	SDA 4...
7005-122442	SDK 448 292 R UHM20 HX	2.92mm	0.115in	15.0mm	0.591in	4	2.63	1.46	.73	.50	48	1.50	.02	SDA 4...
7005-122406	SDK 440 342 R UHM20 HX	3.42mm	0.135in	10.5mm	0.413in	4	3.08	1.71	.86	.60	40	1.75	.02	SDA 4...
7005-122448	SDK 448 342 R UHM20 HX	3.42mm	0.135in	17.5mm	0.689in	4	3.08	1.71	.86	.60	48	1.75	.02	SDA 4...
7005-122412	SDK 440 392 R UHM20 HX	3.92mm	0.154in	12.0mm	0.472in	4	3.53	1.96	.98	.70	40	2.00	.02	SDA 4...
7005-122454	SDK 448 392 R UHM20 HX	3.92mm	0.154in	20.0mm	0.787in	4	3.53	1.96	.98	.70	48	2.00	.02	SDA 4...
7005-124540	SDK 644 442 R UHM20 HX	4.42mm	0.174in	9.0mm	0.354in	6	3.98	2.21	1.11	.70	44	2.25	.02	SDA 6...
7005-124564	SDK 656 442 R UHM20 HX	4.42mm	0.174in	18.0mm	0.709in	6	3.98	2.21	1.11	.70	56	2.25	.02	SDA 6...
7005-124588	SDK 668 442 R UHM20 HX	4.42mm	0.174in	27.0mm	1.063in	6	3.98	2.21	1.11	.70	68	2.25	.02	SDA 6...
7005-124546	SDK 644 492 R UHM20 HX	4.92mm	0.194in	10.0mm	0.394in	6	4.43	2.46	1.23	.80	44	2.50	.02	SDA 6...
7005-124570	SDK 656 492 R UHM20 HX	4.92mm	0.194in	20.0mm	0.787in	6	4.43	2.46	1.23	.80	56	2.50	.02	SDA 6...
7005-124594	SDK 668 492 R UHM20 HX	4.92mm	0.194in	30.0mm	1.181in	6	4.43	2.46	1.23	.80	68	2.50	.02	SDA 6...
7005-124552	SDK 644 542 R UHM20 HX	5.42mm	0.213in	11.0mm	0.433in	6	4.88	2.71	1.36	.90	44	2.75	.02	SDA 6...
7005-124576	SDK 656 542 R UHM20 HX	5.42mm	0.213in	22.0mm	0.866in	6	4.88	2.71	1.36	.90	56	2.75	.02	SDA 6...
7005-124600	SDK 668 542 R UHM20 HX	5.42mm	0.213in	33.0mm	1.299in	6	4.88	2.71	1.36	.90	68	2.75	.02	SDA 6...
7005-124555	SDK 644 592 R UHM20 HX	5.92mm	0.233in	12.0mm	0.472in	6	5.33	2.96	1.48	1.00	44	3.00	.02	SDA 6...
7005-124582	SDK 656 592 R UHM20 HX	5.92mm	0.233in	24.0mm	0.945in	6	5.33	2.96	1.48	1.00	56	3.00	.02	SDA 6...
7005-124606	SDK 668 592 R UHM20 HX	5.92mm	0.233in	36.0mm	1.417in	6	5.33	2.96	1.48	1.00	68	3.00	.02	SDA 6...
7005-124612	SDK 850 692 R UHM20 HX	6.92mm	0.272in	14.0mm	0.551in	8	6.23	3.46	1.73	1.20	50	3.50	.02	SDA 8...
7005-124624	SDK 866 692 R UHM20 HX	6.92mm	0.272in	28.0mm	1.102in	8	6.23	3.46	1.73	1.20	66	3.50	.02	SDA 8...
7005-124636	SDK 882 692 R UHM20 HX	6.92mm	0.272in	42.0mm	1.654in	8	6.23	3.46	1.73	1.20	82	3.50	.02	SDA 8...
7005-124618	SDK 850 792 R UHM20 HX	7.92mm	0.312in	16.0mm	0.630in	8	7.13	3.96	1.98	1.30	50	4.00	.02	SDA 8...
7005-124630	SDK 866 792 R UHM20 HX	7.92mm	0.312in	32.0mm	1.260in	8	7.13	3.96	1.98	1.30	66	4.00	.02	SDA 8...
7005-124642	SDK 882 792 R UHM20 HX	7.92mm	0.312in	48.0mm	1.890in	8	7.13	3.96	1.98	1.30	82	4.00	.02	SDA 8...

Standard Grade Offering: UHM20 HX - Coated Carbide for Most Applications - Other Coatings on Request

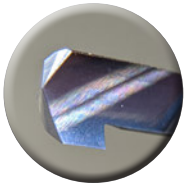
Applications Example

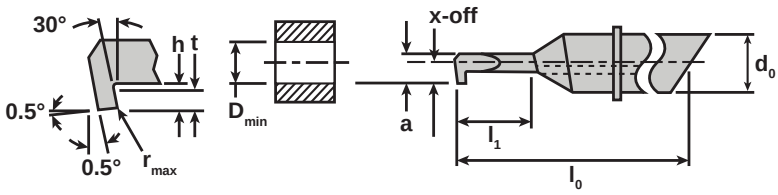


Ideal Cutting Materials



SDM - ID Back-Turning

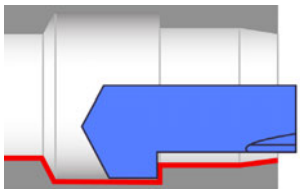




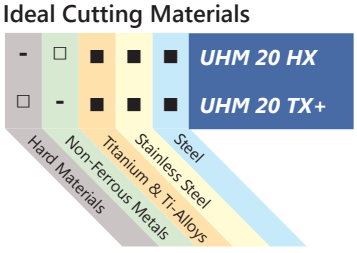
Item No.	Description	Min Hole Ø (D_{min})		Max Depth (l_1)		d_0	a	X-off	h	t	l_0	l_2	r_{max}	Holder
7005-111632	SDM 435 092 R UHM20 HX	.92mm	0.036in	1.5mm	0.059in	4	0.83	0.46	.23	.15	35	0.50	.02	SDA 4...
7005-122460	SDM 440 092 R UHM20 HX	.92mm	0.036in	3.0mm	0.118in	4	0.83	0.46	.23	.10	40	0.50	.02	SDA 4...
7005-122502	SDM 448 092 R UHM20 HX	.92mm	0.036in	5.0mm	0.197in	4	0.83	0.46	.23	.10	48	0.50	.02	SDA 4...
7005-111636	SDM 435 142 R UHM20 HX	1.42mm	0.056in	4.5mm	0.177in	4	1.28	0.71	.36	.23	35	0.75	.02	SDA 4...
7005-122466	SDM 440 142 R UHM20 HX	1.42mm	0.056in	4.5mm	0.177in	4	1.28	0.71	.36	.20	40	0.75	.02	SDA 4...
7005-122508	SDM 448 142 R UHM20 HX	1.42mm	0.056in	7.5mm	0.295in	4	1.28	0.71	.36	.20	48	0.75	.02	SDA 4...
7005-111640	SDM 435 192 R UHM20 HX	1.92mm	0.076in	6.0mm	0.236in	4	1.73	0.96	.48	.32	35	1.00	.03	SDA 4...
7005-122472	SDM 440 192 R UHM20 HX	1.92mm	0.076in	6.0mm	0.236in	4	1.73	0.96	.48	.30	40	1.00	.02	SDA 4...
7005-122514	SDM 448 192 R UHM20 HX	1.92mm	0.076in	10.0mm	0.394in	4	1.73	0.96	.48	.30	48	1.00	.02	SDA 4...
7005-111644	SDM 435 242 R UHM20 HX	2.42mm	0.095in	7.5mm	0.295in	4	2.18	1.21	.61	.40	35	1.25	.03	SDA 4...
7005-122478	SDM 440 242 R UHM20 HX	2.42mm	0.095in	7.5mm	0.295in	4	2.18	1.21	.61	.40	40	1.25	.02	SDA 4...
7005-122520	SDM 448 242 R UHM20 HX	2.42mm	0.095in	12.5mm	0.492in	4	2.18	1.21	.61	.40	48	1.25	.02	SDA 4...
7005-122484	SDM 440 292 R UHM20 HX	2.92mm	0.115in	9.0mm	0.354in	4	2.63	1.46	.73	.50	40	1.50	.02	SDA 4...
7005-122526	SDM 448 292 R UHM20 HX	2.92mm	0.115in	15.0mm	0.591in	4	2.63	1.46	.73	.50	48	1.50	.02	SDA 4...
7005-122490	SDM 440 342 R UHM20 HX	3.42mm	0.135in	10.5mm	0.413in	4	3.08	1.71	.86	.60	40	1.75	.02	SDA 4...
7005-122532	SDM 448 342 R UHM20 HX	3.42mm	0.135in	17.5mm	0.689in	4	3.08	1.71	.86	.60	48	1.75	.02	SDA 4...
7005-122496	SDM 440 392 R UHM20 HX	3.92mm	0.154in	12.0mm	0.472in	4	3.53	1.96	.98	.70	40	2.00	.02	SDA 4...
7005-122538	SDM 448 392 R UHM20 HX	3.92mm	0.154in	20.0mm	0.787in	4	3.53	1.96	.98	.70	48	2.00	.02	SDA 4...
7005-124432	SDM 644 442 R UHM20 HX	4.42mm	0.174in	9.0mm	0.354in	6	3.98	2.21	1.11	.70	44	2.25	.02	SDA 6...
7005-124456	SDM 656 442 R UHM20 HX	4.42mm	0.174in	18.0mm	0.709in	6	3.98	2.21	1.11	.70	56	2.25	.02	SDA 6...
7005-124480	SDM 668 442 R UHM20 HX	4.42mm	0.174in	27.0mm	1.063in	6	3.98	2.21	1.11	.70	68	2.25	.02	SDA 6...
7005-124438	SDM 644 492 R UHM20 HX	4.92mm	0.194in	10.0mm	0.394in	6	4.43	2.46	1.23	.80	44	2.50	.02	SDA 6...
7005-124462	SDM 656 492 R UHM20 HX	4.92mm	0.194in	20.0mm	0.787in	6	4.43	2.46	1.23	.80	56	2.50	.02	SDA 6...
7005-124486	SDM 668 492 R UHM20 HX	4.92mm	0.194in	30.0mm	1.181in	6	4.43	2.46	1.23	.80	68	2.50	.02	SDA 6...
7005-124444	SDM 644 542 R UHM20 HX	5.42mm	0.213in	11.0mm	0.433in	6	4.88	2.71	1.36	.90	44	2.75	.02	SDA 6...
7005-124468	SDM 656 542 R UHM20 HX	5.42mm	0.213in	22.0mm	0.866in	6	4.88	2.71	1.36	.90	56	2.75	.02	SDA 6...
7005-124492	SDM 668 542 R UHM20 HX	5.42mm	0.213in	33.0mm	1.299in	6	4.88	2.71	1.36	.90	68	2.75	.02	SDA 6...
7005-124450	SDM 644 592 R UHM20 HX	5.92mm	0.233in	12.0mm	0.472in	6	5.33	2.96	1.48	1.00	44	3.00	.02	SDA 6...
7005-124474	SDM 656 592 R UHM20 HX	5.92mm	0.233in	24.0mm	0.945in	6	5.33	2.96	1.48	1.00	56	3.00	.02	SDA 6...
7005-124498	SDM 668 592 R UHM20 HX	5.92mm	0.233in	36.0mm	1.417in	6	5.33	2.96	1.48	1.00	68	3.00	.02	SDA 6...
7005-124504	SDM 850 692 R UHM20 HX	6.92mm	0.272in	14.0mm	0.551in	8	6.23	3.46	1.73	1.20	50	3.50	.02	SDA 8...
7005-124516	SDM 866 692 R UHM20 HX	6.92mm	0.272in	28.0mm	1.102in	8	6.23	3.46	1.73	1.20	66	3.50	.02	SDA 8...
7005-124528	SDM 882 692 R UHM20 HX	6.92mm	0.272in	42.0mm	1.654in	8	6.23	3.46	1.73	1.20	82	3.50	.02	SDA 8...
7005-124510	SDM 850 792 R UHM20 HX	7.92mm	0.312in	16.0mm	0.630in	8	7.13	3.96	1.98	1.30	50	4.00	.02	SDA 8...
7005-124522	SDM 866 792 R UHM20 HX	7.92mm	0.312in	32.0mm	1.260in	8	7.13	3.96	1.98	1.30	66	4.00	.02	SDA 8...
7005-124534	SDM 882 792 R UHM20 HX	7.92mm	0.312in	48.0mm	1.890in	8	7.13	3.96	1.98	1.30	82	4.00	.02	SDA 8...

Standard Grade Offering: UHM20 HX - Coated Carbide for Most Applications - Other Coatings on Request

Applications Example

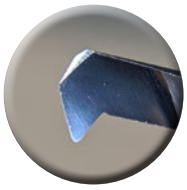


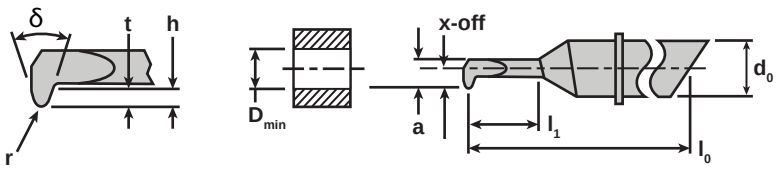
Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

SDO - Profiling

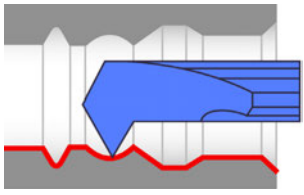




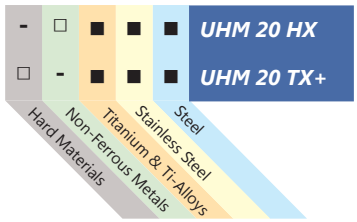
Item No.	Description	Min Hole Ø (D_{min})		Max Depth (l_1)		d_0	a	X-off	h	t	l_0	r	δ	Holder
7005-111786	SDO 435 092 R UHM20 HX	.92mm	0.036in	1.5mm	0.059in	4	0.83	0.46	.31	.23	35	0.05	59°	SDA 4...
7005-122544	SDO 440 092 R UHM20 HX	.92mm	0.036in	3.0mm	0.118in	4	0.83	0.46	.31	.20	40	0.05	59°	SDA 4...
7005-122586	SDO 448 092 R UHM20 HX	.92mm	0.036in	5.0mm	0.197in	4	0.83	0.46	.31	.20	48	0.05	59°	SDA 4...
7005-111790	SDO 435 142 R UHM20 HX	1.42mm	0.056in	4.5mm	0.177in	4	1.28	0.71	.47	.36	35	0.05	59°	SDA 4...
7005-122550	SDO 440 142 R UHM20 HX	1.42mm	0.056in	4.5mm	0.177in	4	1.28	0.71	.47	.40	40	.075	59°	SDA 4...
7005-122592	SDO 448 142 R UHM20 HX	1.42mm	0.056in	7.5mm	0.295in	4	1.28	0.71	.47	.40	48	.075	59°	SDA 4...
7005-111794	SDO 435 192 R UHM20 HX	1.92mm	0.076in	6.0mm	0.236in	4	1.73	0.96	.64	.48	35	0.05	59°	SDA 4...
7005-122556	SDO 440 192 R UHM20 HX	1.92mm	0.076in	6.0mm	0.236in	4	1.73	0.96	.64	.50	40	0.10	59°	SDA 4...
7005-122598	SDO 448 192 R UHM20 HX	1.92mm	0.076in	10.0mm	0.394in	4	1.73	0.96	.64	.50	48	0.10	59°	SDA 4...
7005-111798	SDO 435 242 R UHM20 HX	2.42mm	0.095in	7.5mm	0.295in	4	2.18	1.21	.81	.61	35	0.05	59°	SDA 4...
7005-122562	SDO 440 242 R UHM20 HX	2.42mm	0.095in	7.5mm	0.295in	4	2.18	1.21	.81	.60	40	.125	59°	SDA 4...
7005-122604	SDO 448 242 R UHM20 HX	2.42mm	0.095in	12.5mm	0.492in	4	2.18	1.21	.81	.60	48	.125	59°	SDA 4...
7005-122568	SDO 440 292 R UHM20 HX	2.92mm	0.115in	9.0mm	0.354in	4	2.63	1.46	.97	.70	40	0.15	59°	SDA 4...
7005-122610	SDO 448 292 R UHM20 HX	2.92mm	0.115in	15.0mm	0.591in	4	2.63	1.46	.97	.70	48	0.15	59°	SDA 4...
7005-122574	SDO 440 342 R UHM20 HX	3.42mm	0.135in	10.5mm	0.413in	4	3.08	1.71	1.14	.90	40	.175	59°	SDA 4...
7005-122616	SDO 448 342 R UHM20 HX	3.42mm	0.135in	17.5mm	0.689in	4	3.08	1.71	1.14	.90	48	.175	59°	SDA 4...
7005-122580	SDO 440 392 R UHM20 HX	3.92mm	0.154in	12.0mm	0.472in	4	3.53	1.96	1.31	1.0	40	0.20	59°	SDA 4...
7005-122622	SDO 448 392 R UHM20 HX	3.92mm	0.154in	20.0mm	0.787in	4	3.53	1.96	1.31	1.0	48	0.20	59°	SDA 4...
7005-124646	SDO 644 442 R UHM20 HX	4.42mm	0.174in	9.0mm	0.354in	6	3.98	2.21	1.47	1.1	44	.225	59°	SDA 6...
7005-124670	SDO 656 442 R UHM20 HX	4.42mm	0.174in	18.0mm	0.709in	6	3.98	2.21	1.47	1.1	56	.225	59°	SDA 6...
7005-124694	SDO 668 442 R UHM20 HX	4.42mm	0.174in	27.0mm	1.063in	6	3.98	2.21	1.47	1.1	68	.225	59°	SDA 6...
7005-124652	SDO 644 492 R UHM20 HX	4.92mm	0.194in	10.0mm	0.394in	6	4.43	2.46	1.64	1.2	44	0.25	59°	SDA 6...
7005-124676	SDO 656 492 R UHM20 HX	4.92mm	0.194in	20.0mm	0.787in	6	4.43	2.46	1.64	1.2	56	0.25	59°	SDA 6...
7005-124700	SDO 668 492 R UHM20 HX	4.92mm	0.194in	30.0mm	1.181in	6	4.43	2.46	1.64	1.2	68	0.25	59°	SDA 6...
7005-124658	SDO 644 542 R UHM20 HX	5.42mm	0.213in	11.0mm	0.433in	6	4.88	2.71	1.80	1.4	44	.275	59°	SDA 6...
7005-124682	SDO 656 542 R UHM20 HX	5.42mm	0.213in	22.0mm	0.866in	6	4.88	2.71	1.80	1.4	56	.275	59°	SDA 6...
7005-124706	SDO 668 542 R UHM20 HX	5.42mm	0.213in	33.0mm	1.299in	6	4.88	2.71	1.80	1.4	68	.275	59°	SDA 6...
7005-124664	SDO 644 592 R UHM20 HX	5.92mm	0.233in	12.0mm	0.472in	6	5.33	2.96	1.97	1.5	44	0.30	59°	SDA 6...
7005-124688	SDO 656 592 R UHM20 HX	5.92mm	0.233in	24.0mm	0.945in	6	5.33	2.96	1.97	1.5	56	0.30	59°	SDA 6...
7005-124712	SDO 668 592 R UHM20 HX	5.92mm	0.233in	36.0mm	1.417in	6	5.33	2.96	1.97	1.5	68	0.30	59°	SDA 6...
7005-124718	SDO 850 692 R UHM20 HX	6.92mm	0.272in	14.0mm	0.551in	8	6.23	3.46	2.30	1.7	50	0.35	59°	SDA 8...
7005-124730	SDO 866 692 R UHM20 HX	6.92mm	0.272in	28.0mm	1.102in	8	6.23	3.46	2.30	1.7	66	0.35	59°	SDA 8...
7005-124742	SDO 882 692 R UHM20 HX	6.92mm	0.272in	42.0mm	1.654in	8	6.23	3.46	2.30	1.7	82	0.35	59°	SDA 8...
7005-124724	SDO 850 792 R UHM20 HX	7.92mm	0.312in	16.0mm	0.630in	8	7.13	3.96	2.64	2.0	50	0.40	59°	SDA 8...
7005-124736	SDO 866 792 R UHM20 HX	7.92mm	0.312in	32.0mm	1.260in	8	7.13	3.96	2.64	2.0	66	0.40	59°	SDA 8...
7005-124748	SDO 882 792 R UHM20 HX	7.92mm	0.312in	48.0mm	1.890in	8	7.13	3.96	2.64	2.0	82	0.40	59°	SDA 8...

Standard Grade Offering: UHM20 HX - Coated Carbide for Most Applications - Other Coatings on Request

Applications Example

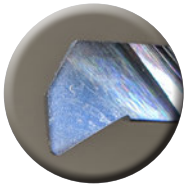


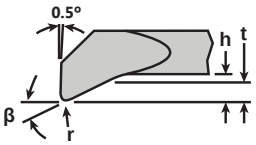
Ideal Cutting Materials

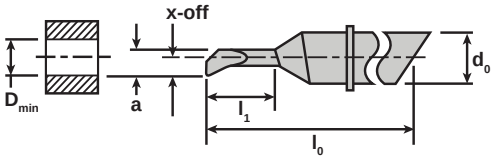


■ Preferred Application
□ Possible Application
- Application Not Recommended

SDQ - Internal Profiling



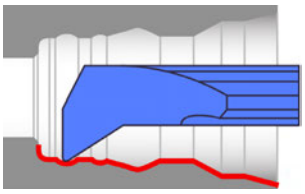




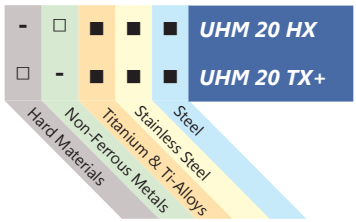
Item No.	Description	Min Hole Ø (D_{min})		Max Depth (l_1)		d_0	a	X-off	h	t	l_0	r_{max}	β	Holder
7005-111802	SDQ 435 092 R UHM20 HX	.92mm	0.036in	1.5mm	0.059in	4	0.83	0.46	.31	.23	35	0.05	30.5°	SDA 4...
7005-122628	SDQ 440 092 R UHM20 HX	.92mm	0.036in	3.0mm	0.118in	4	0.83	0.46	.31	.20	40	0.05	30.5°	SDA 4...
7005-122670	SDQ 448 092 R UHM20 HX	.92mm	0.036in	5.0mm	0.197in	4	0.83	0.46	.31	.20	48	0.05	30.5°	SDA 4...
7005-111806	SDQ 435 142 R UHM20 HX	1.42mm	0.056in	4.5mm	0.177in	4	1.28	0.71	.47	.36	35	0.05	30.5°	SDA 4...
7005-122634	SDQ 440 142 R UHM20 HX	1.42mm	0.056in	4.5mm	0.177in	4	1.28	0.71	.47	.40	40	.075	30.5°	SDA 4...
7005-122676	SDQ 448 142 R UHM20 HX	1.42mm	0.056in	7.5mm	0.295in	4	1.28	0.71	.47	.40	48	.075	30.5°	SDA 4...
7005-111810	SDQ 435 192 R UHM20 HX	1.92mm	0.076in	6.0mm	0.236in	4	1.73	0.96	.64	.48	35	0.05	30.5°	SDA 4...
7005-122640	SDQ 440 192 R UHM20 HX	1.92mm	0.076in	6.0mm	0.236in	4	1.73	0.96	.64	.50	40	0.10	30.5°	SDA 4...
7005-122682	SDQ 448 192 R UHM20 HX	1.92mm	0.076in	10.0mm	0.394in	4	1.73	0.96	.64	.50	48	0.10	30.5°	SDA 4...
7005-111814	SDQ 435 242 R UHM20 HX	2.42mm	0.095in	7.5mm	0.295in	4	2.18	1.21	.81	.61	35	0.05	30.5°	SDA 4...
7005-122646	SDQ 440 242 R UHM20 HX	2.42mm	0.095in	7.5mm	0.295in	4	2.18	1.21	.81	.60	40	.125	30.5°	SDA 4...
7005-122688	SDQ 448 242 R UHM20 HX	2.42mm	0.095in	12.5mm	0.492in	4	2.18	1.21	.81	.60	48	.125	30.5°	SDA 4...
7005-122652	SDQ 440 292 R UHM20 HX	2.92mm	0.115in	9.0mm	0.354in	4	2.63	1.46	.97	.70	40	0.15	30.5°	SDA 4...
7005-122694	SDQ 448 292 R UHM20 HX	2.92mm	0.115in	15.0mm	0.591in	4	2.63	1.46	.97	.70	48	0.15	30.5°	SDA 4...
7005-122658	SDQ 440 342 R UHM20 HX	3.42mm	0.135in	10.5mm	0.413in	4	3.08	1.71	1.14	.90	40	.175	30.5°	SDA 4...
7005-122700	SDQ 448 342 R UHM20 HX	3.42mm	0.135in	17.5mm	0.689in	4	3.08	1.71	1.14	.90	48	.175	30.5°	SDA 4...
7005-122664	SDQ 440 392 R UHM20 HX	3.92mm	0.154in	12.0mm	0.472in	4	3.53	1.96	1.31	1.0	40	0.20	30.5°	SDA 4...
7005-122706	SDQ 448 392 R UHM20 HX	3.92mm	0.154in	20.0mm	0.787in	4	3.53	1.96	1.31	1.0	48	0.20	30.5°	SDA 4...
7005-124754	SDQ 644 442 R UHM20 HX	4.42mm	0.174in	9.0mm	0.354in	6	3.98	2.21	1.47	1.1	44	.225	30.5°	SDA 6...
7005-124778	SDQ 656 442 R UHM20 HX	4.42mm	0.174in	18.0mm	0.709in	6	3.98	2.21	1.47	1.1	56	.225	30.5°	SDA 6...
7005-124802	SDQ 668 442 R UHM20 HX	4.42mm	0.174in	27.0mm	1.063in	6	3.98	2.21	1.47	1.1	68	.225	30.5°	SDA 6...
7005-124760	SDQ 644 492 R UHM20 HX	4.92mm	0.194in	10.0mm	0.394in	6	4.43	2.46	1.64	1.2	44	0.25	30.5°	SDA 6...
7005-124784	SDQ 656 492 R UHM20 HX	4.92mm	0.194in	20.0mm	0.787in	6	4.43	2.46	1.64	1.2	56	0.25	30.5°	SDA 6...
7005-124808	SDQ 668 492 R UHM20 HX	4.92mm	0.194in	30.0mm	1.181in	6	4.43	2.46	1.64	1.2	68	0.25	30.5°	SDA 6...
7005-124766	SDQ 644 542 R UHM20 HX	5.42mm	0.213in	11.0mm	0.433in	6	4.88	2.71	1.80	1.4	44	.275	30.5°	SDA 6...
7005-124790	SDQ 656 542 R UHM20 HX	5.42mm	0.213in	22.0mm	0.866in	6	4.88	2.71	1.80	1.4	56	.275	30.5°	SDA 6...
7005-124814	SDQ 668 542 R UHM20 HX	5.42mm	0.213in	33.0mm	1.299in	6	4.88	2.71	1.80	1.4	68	.275	30.5°	SDA 6...
7005-124772	SDQ 644 592 R UHM20 HX	5.92mm	0.233in	12.0mm	0.472in	6	5.33	2.96	1.97	1.5	44	0.30	30.5°	SDA 6...
7005-124796	SDQ 656 592 R UHM20 HX	5.92mm	0.233in	24.0mm	0.945in	6	5.33	2.96	1.97	1.5	56	0.30	30.5°	SDA 6...
7005-124820	SDQ 668 592 R UHM20 HX	5.92mm	0.233in	36.0mm	1.417in	6	5.33	2.96	1.97	1.5	68	0.30	30.5°	SDA 6...
7005-124826	SDQ 850 692 R UHM20 HX	6.92mm	0.272in	14.0mm	0.551in	8	6.23	3.46	2.30	1.7	50	0.35	30.5°	SDA 8...
7005-124838	SDQ 866 692 R UHM20 HX	6.92mm	0.272in	28.0mm	1.102in	8	6.23	3.46	2.30	1.7	66	0.35	30.5°	SDA 8...
7005-124850	SDQ 882 692 R UHM20 HX	6.92mm	0.272in	42.0mm	1.654in	8	6.23	3.46	2.30	1.7	82	0.35	30.5°	SDA 8...
7005-124832	SDQ 850 792 R UHM20 HX	7.92mm	0.312in	16.0mm	0.630in	8	7.13	3.96	2.64	2.0	50	0.40	30.5°	SDA 8...
7005-124844	SDQ 866 792 R UHM20 HX	7.92mm	0.312in	32.0mm	1.260in	8	7.13	3.96	2.64	2.0	66	0.40	30.5°	SDA 8...
7005-124856	SDQ 882 792 R UHM20 HX	7.92mm	0.312in	48.0mm	1.890in	8	7.13	3.96	2.64	2.0	82	0.40	30.5°	SDA 8...

Standard Grade Offering: UHM20 HX - Coated Carbide for Most Applications - Other Coatings on Request

Applications Example

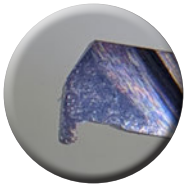


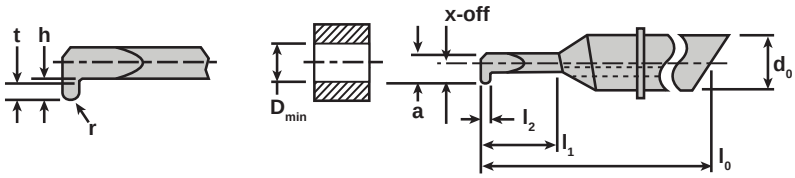
Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

SDR - Full Radius Grooving

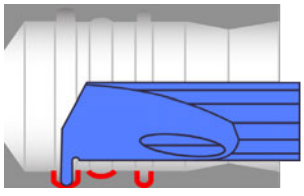




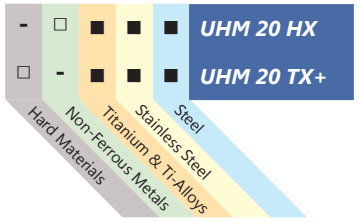
Item No.	Description	Min Hole Ø (D_{min})		Max Depth (l_1)		d_0	a	X-off	h	t	l_0	l_2	r_{max}	Holder
7005-111818	SDR 435 092 R UHM20 HX	.92mm	0.036in	3.0mm	3.0mm	4	0.83	0.46	0.30	0.20	35	0.20	0.10	SDA 4...
7005-111822	SDR 435 142 R UHM20 HX	1.42mm	0.056in	4.5mm	4.5mm	4	1.28	0.71	0.38	0.25	35	0.25	.125	SDA 4...
7005-111826	SDR 435 192 R UHM20 HX	1.92mm	0.076in	6.0mm	6.0mm	4	1.73	0.96	0.45	0.30	35	0.30	0.15	SDA 4...
7005-111830	SDR 435 242 R UHM20 HX	2.42mm	0.095in	7.5mm	7.5mm	4	2.18	1.21	0.53	0.35	35	0.35	.175	SDA 4...
7005-111834	SDR 440 092 R UHM20 HX	.92mm	0.036in	5.0mm	5.0mm	4	0.83	0.46	0.30	0.20	40	0.20	0.10	SDA 4...
7005-111838	SDR 440 142 R UHM20 HX	1.42mm	0.056in	7.5mm	7.5mm	4	1.28	0.71	0.38	0.25	40	0.25	.125	SDA 4...
7005-111842	SDR 440 192 R UHM20 HX	1.92mm	0.076in	10.0mm	10.0mm	4	1.73	0.96	0.45	0.30	40	0.30	0.15	SDA 4...
7005-111846	SDR 440 242 R UHM20 HX	2.42mm	0.095in	12.5mm	12.5mm	4	2.18	1.21	0.53	0.35	40	0.35	.175	SDA 4...
7005-111850	SDR 440 292 R UHM20 HX	2.92mm	0.115in	9.0mm	9.0mm	4	1.73	1.46	0.60	0.40	40	0.40	0.20	SDA 4...
7005-111854	SDR 440 342 R UHM20 HX	3.42mm	0.135in	10.5mm	10.5mm	4	2.63	1.71	0.68	0.45	40	0.45	.225	SDA 4...
7005-111858	SDR 440 392 R UHM20 HX	3.92mm	0.154in	12.0mm	12.0mm	4	3.53	1.96	0.75	0.50	40	0.50	0.25	SDA 4...
7005-111862	SDR 448 292 R UHM20 HX	2.92mm	0.115in	15.0mm	15.0mm	4	2.63	1.46	0.60	0.40	48	0.40	0.20	SDA 4...
7005-111866	SDR 448 342 R UHM20 HX	3.42mm	0.135in	17.5mm	17.5mm	4	3.08	1.71	0.68	0.45	48	0.45	.225	SDA 4...
7005-111870	SDR 448 392 R UHM20 HX	3.92mm	0.154in	20.0mm	20.0mm	4	3.53	1.96	0.75	0.50	48	0.50	0.25	SDA 4...
7005-111874	SDR 644 442 R UHM20 HX	4.42mm	0.174in	9.0mm	9.0mm	6	3.98	2.21	0.83	0.55	44	0.55	.275	SDA 6...
7005-111878	SDR 644 492 R UHM20 HX	4.92mm	0.194in	10.0mm	10.0mm	6	4.43	2.46	0.90	0.60	44	0.60	0.30	SDA 6...
7005-111882	SDR 644 542 R UHM20 HX	5.42mm	0.213in	11.0mm	11.0mm	6	4.88	2.71	0.98	0.65	44	0.65	.325	SDA 6...
7005-111886	SDR 644 592 R UHM20 HX	5.92mm	0.233in	12.0mm	12.0mm	6	5.33	2.96	1.05	0.70	44	0.70	0.35	SDA 6...
7005-111890	SDR 656 442 R UHM20 HX	4.42mm	0.174in	18.0mm	18.0mm	6	3.98	2.21	0.83	0.55	56	0.55	.275	SDA 6...
7005-111894	SDR 656 492 R UHM20 HX	4.92mm	0.194in	20.0mm	20.0mm	6	4.43	2.46	0.90	0.60	56	0.60	0.30	SDA 6...
7005-111898	SDR 656 542 R UHM20 HX	5.42mm	0.213in	22.0mm	22.0mm	6	4.88	2.71	0.98	0.65	56	0.65	.325	SDA 6...
7005-111902	SDR 656 592 R UHM20 HX	5.92mm	0.233in	24.0mm	24.0mm	6	5.33	2.96	1.05	0.70	56	0.70	0.35	SDA 6...
7005-111906	SDR 668 442 R UHM20 HX	4.42mm	0.174in	27.0mm	27.0mm	6	3.98	2.21	0.83	0.55	68	0.55	.275	SDA 6...
7005-111910	SDR 668 492 R UHM20 HX	4.92mm	0.194in	30.0mm	30.0mm	6	4.43	2.46	0.90	0.60	68	0.60	0.30	SDA 6...
7005-111914	SDR 668 542 R UHM20 HX	5.42mm	0.213in	33.0mm	33.0mm	6	4.88	2.71	0.98	0.65	68	0.65	.325	SDA 6...
7005-111918	SDR 668 592 R UHM20 HX	5.92mm	0.233in	36.0mm	36.0mm	6	5.33	2.96	1.05	0.70	68	0.70	0.35	SDA 6...

Standard Grade Offering: UHM20 HX - Coated Carbide for Most Applications - Other Coatings on Request

Applications Example

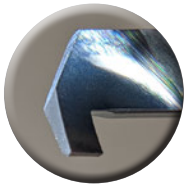


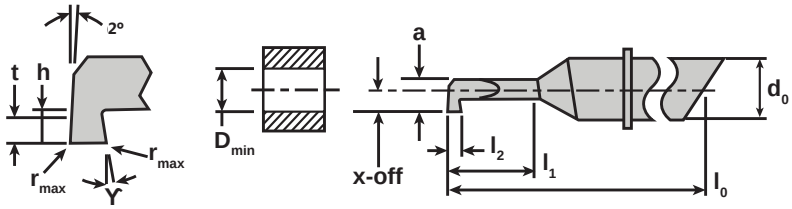
Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

SDS - Micro-Grooving

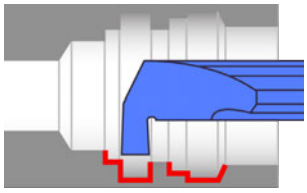




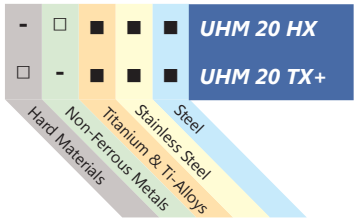
Item No.	Description	Min Hole Ø (D_{min})		Max Depth (l_1)		d_0	a	X-off	h	t	l_0	l_2	r_{max}	Y	Holder
7005-111683	SDS 435 092 R UHM20 HX	.92mm	0.036in	1.5mm	0.059in	4	0.83	0.46	.31	.23	35	0.20	.02	2°	SDA 4...
7005-122712	SDS 440 092 R UHM20 HX	.92mm	0.036in	3.0mm	0.118in	4	0.83	0.46	.31	.20	40	0.20	.02	2°	SDA 4...
7005-122754	SDS 448 092 R UHM20 HX	.92mm	0.036in	5.0mm	0.197in	4	0.83	0.46	.31	.20	48	0.20	.02	2°	SDA 4...
7005-111687	SDS 435 142 R UHM20 HX	1.42mm	0.056in	4.5mm	0.177in	4	1.28	0.71	.47	.36	35	0.25	.02	2°	SDA 4...
7005-122718	SDS 440 142 R UHM20 HX	1.42mm	0.056in	4.5mm	0.177in	4	1.28	0.71	.47	.40	40	0.25	.02	2°	SDA 4...
7005-122760	SDS 448 142 R UHM20 HX	1.42mm	0.056in	7.5mm	0.295in	4	1.28	0.71	.47	.40	48	0.25	.02	2°	SDA 4...
7005-111691	SDS 435 192 R UHM20 HX	1.92mm	0.076in	6.0mm	0.236in	4	1.73	0.96	.64	.48	35	0.30	.02	2°	SDA 4...
7005-122724	SDS 440 192 R UHM20 HX	1.92mm	0.076in	6.0mm	0.236in	4	1.73	0.96	.64	.50	40	0.30	.02	2°	SDA 4...
7005-122766	SDS 448 192 R UHM20 HX	1.92mm	0.076in	10.0mm	0.394in	4	1.73	0.96	.64	.50	48	0.30	.02	2°	SDA 4...
7005-111695	SDS 435 242 R UHM20 HX	2.42mm	0.095in	7.5mm	0.295in	4	2.18	1.21	.81	.61	35	0.35	.02	2°	SDA 4...
7005-122730	SDS 440 242 R UHM20 HX	2.42mm	0.095in	7.5mm	0.295in	4	2.18	1.21	.81	.60	40	0.35	.02	2°	SDA 4...
7005-122772	SDS 448 242 R UHM20 HX	2.42mm	0.095in	12.5mm	0.492in	4	2.18	1.21	.81	.60	48	0.35	.02	2°	SDA 4...
7005-122736	SDS 440 292 R UHM20 HX	2.92mm	0.115in	9.0mm	0.354in	4	2.63	1.46	.97	.70	40	0.40	.02	2°	SDA 4...
7005-122778	SDS 448 292 R UHM20 HX	2.92mm	0.115in	15.0mm	0.591in	4	2.63	1.46	.97	.70	48	0.40	.02	2°	SDA 4...
7005-122742	SDS 440 342 R UHM20 HX	3.42mm	0.135in	10.5mm	0.413in	4	3.08	1.71	1.14	.90	40	0.45	.02	2°	SDA 4...
7005-122784	SDS 448 342 R UHM20 HX	3.42mm	0.135in	17.5mm	0.689in	4	3.08	1.71	1.14	.90	48	0.45	.02	2°	SDA 4...
7005-122748	SDS 440 392 R UHM20 HX	3.92mm	0.154in	12.0mm	0.472in	4	3.53	1.96	1.31	1.0	40	0.50	.02	2°	SDA 4...
7005-122790	SDS 448 392 R UHM20 HX	3.92mm	0.154in	20.0mm	0.787in	4	3.53	1.96	1.31	1.0	48	0.50	.02	2°	SDA 4...
7005-125027	SDS 644 442 R UHM20 HX	4.42mm	0.174in	9.0mm	0.354in	6	3.98	2.21	1.47	1.1	44	1.00	.02	2°	SDA 6...
7005-125051	SDS 656 442 R UHM20 HX	4.42mm	0.174in	18.0mm	0.709in	6	3.98	2.21	1.47	1.1	56	1.00	.02	2°	SDA 6...
7005-125085	SDS 668 442 R UHM20 HX	4.42mm	0.174in	27.0mm	1.063in	6	3.98	2.21	1.47	1.1	68	1.50	.02	2°	SDA 6...
7005-125029	SDS 644 492 R UHM20 HX	4.92mm	0.194in	10.0mm	0.394in	6	4.43	2.46	1.64	1.2	44	1.50	.02	2°	SDA 6...
7005-125057	SDS 656 492 R UHM20 HX	4.92mm	0.194in	20.0mm	0.787in	6	4.43	2.46	1.64	1.2	56	1.50	.02	2°	SDA 6...
7005-125091	SDS 668 492 R UHM20 HX	4.92mm	0.194in	30.0mm	1.181in	6	4.43	2.46	1.64	1.2	68	1.00	.02	2°	SDA 6...
7005-125039	SDS 644 542 R UHM20 HX	5.42mm	0.213in	11.0mm	0.433in	6	4.88	2.71	1.80	1.4	44	1.00	.02	2°	SDA 6...
7005-125063	SDS 656 542 R UHM20 HX	5.42mm	0.213in	22.0mm	0.866in	6	4.88	2.71	1.80	1.4	56	1.00	.02	2°	SDA 6...
7005-125097	SDS 668 542 R UHM20 HX	5.42mm	0.213in	33.0mm	1.299in	6	4.88	2.71	1.80	1.4	68	1.50	.02	2°	SDA 6...
7005-125045	SDS 644 592 R UHM20 HX	5.92mm	0.233in	12.0mm	0.472in	6	5.33	2.96	1.97	1.5	44	1.50	.02	2°	SDA 6...
7005-125079	SDS 656 592 R UHM20 HX	5.92mm	0.233in	24.0mm	0.945in	6	5.33	2.96	1.97	1.5	56	1.50	.02	2°	SDA 6...
7005-125103	SDS 668 592 R UHM20 HX	5.92mm	0.233in	36.0mm	1.417in	6	5.33	2.96	1.97	1.5	68	1.50	.02	2°	SDA 6...
7005-125109	SDS 850 692 R UHM20 HX	6.92mm	0.272in	14.0mm	0.551in	8	6.23	3.46	2.30	1.7	50	1.50	.02	2°	SDA 8...
7005-125121	SDS 866 692 R UHM20 HX	6.92mm	0.272in	28.0mm	1.102in	8	6.23	3.46	2.30	1.7	66	1.50	.02	2°	SDA 8...
7005-125133	SDS 882 692 R UHM20 HX	6.92mm	0.272in	42.0mm	1.654in	8	6.23	3.46	2.30	1.7	82	1.50	.02	2°	SDA 8...
7005-125115	SDS 850 792 R UHM20 HX	7.92mm	0.312in	16.0mm	0.630in	8	7.13	3.96	2.64	2.0	50	2.00	.02	2°	SDA 8...
7005-125127	SDS 866 792 R UHM20 HX	7.92mm	0.312in	32.0mm	1.260in	8	7.13	3.96	2.64	2.0	66	2.00	.02	2°	SDA 8...
7005-125139	SDS 882 792 R UHM20 HX	7.92mm	0.312in	48.0mm	1.890in	8	7.13	3.96	2.64	2.0	82	2.00	.02	2°	SDA 8...

Standard Grade Offering: UHM20 HX - Coated Carbide for Most Applications - Other Coatings on Request

Applications Example

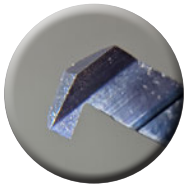


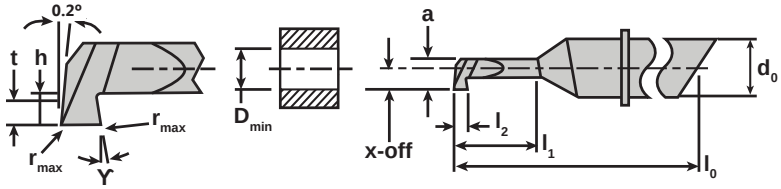
Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

SDT - Groove and Turn

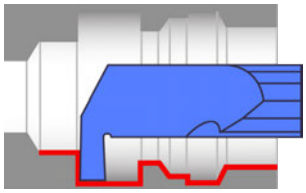




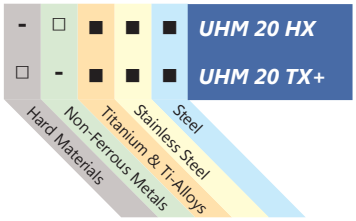
Item No.	Description	Min Hole Ø (D_{min})		Max Depth (l_1)		d_0	a	X-off	h	t	l_0	l_2	r_{max}	Y	Holder
7005-124384	SDT 440 392 R UHM20 HX	3.92mm	0.154in	12.0mm	0.472in	4	3.53	1.96	1.31	1.0	40	1.0	.02	1.5°	SDA 4...
7005-124390	SDT 448 392 R UHM20 HX	3.92mm	0.154in	20.0mm	0.787in	4	3.53	1.96	1.31	1.0	48	1.0	.02	1.5°	SDA 4...
7005-124396	SDT 644 592 R UHM20 HX	5.92mm	0.233in	12.0mm	0.472in	6	5.33	2.96	1.97	1.25	44	1.5	.02	1.5°	SDA 6...
7005-124402	SDT 656 592 R UHM20 HX	5.92mm	0.233in	24.0mm	0.944in	6	5.33	2.96	1.97	1.25	56	1.5	.02	1.5°	SDA 6...
7005-124408	SDT 668 592 R UHM20 HX	5.92mm	0.233in	36.0mm	1.417in	6	5.33	2.96	1.97	1.25	68	1.5	.02	1.5°	SDA 6...
7005-124414	SDT 850 792 R UHM20 HX	7.92mm	0.312in	16.0mm	0.629in	8	7.13	3.96	2.64	1.5	50	2.0	.02	1.5°	SDA 8...
7005-124420	SDT 866 792 R UHM20 HX	7.92mm	0.312in	32.0mm	1.259in	8	7.13	3.96	2.64	1.5	66	2.0	.02	1.5°	SDA 8...
7005-124426	SDT 882 792 R UHM20 HX	7.92mm	0.312in	48.0mm	1.88897in	8	7.13	3.96	2.64	1.5	82	2.0	.02	1.5°	SDA 8...

Standard Grade Offering: UHM20 HX - Coated Carbide for Most Applications - Other Coatings on Request

Applications Example

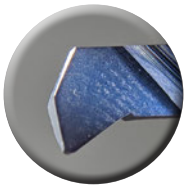


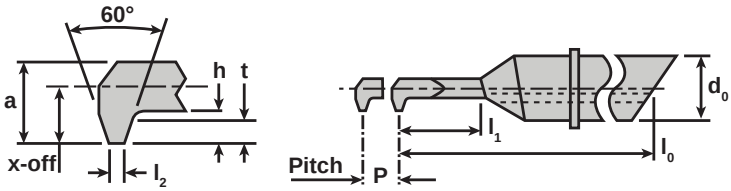
Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

SDU - Threading Partial Profile

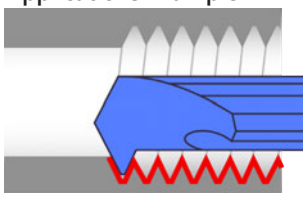




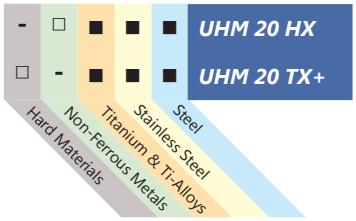
Item No.	Description	Thread	Pitch	Max Depth (l_1)		d_0	a	X-off	h	t	l_0	l_2	Holder
7005-126014	SDU 435 160 R UHM20 HX	M1.6-M2	0.35-0.4	3.0mm	0.118in	4	1.1	0.8	0.5	0.35	35	.02	SDA 4...
7005-126017	SDU 435 200 R UHM20 HX	M1.6-M2	0.4-0.5	4.5mm	0.177in	4	1.3	1.0	0.6	0.45	35	.03	SDA 4...
7005-126020	SDU 435 300 R UHM20 HX	M2-M3	0.5-0.7	6.0mm	0.236in	4	2.0	1.5	0.9	0.60	35	.04	SDA 4...
7005-126023	SDU 435 400 R UHM20 HX	M2-M3	0.7-0.8	7.5mm	0.295in	4	2.7	2.0	1.2	0.80	35	.05	SDA 4...
7005-122796	SDU 440 160 R UHM20 HX	M3-M4	0.35-0.4	4.8mm	0.189in	4	1.1	0.8	0.5	0.35	40	.02	SDA 4...
7005-122802	SDU 440 200 R UHM20 HX	M3-M4	0.4-0.5	6.0mm	0.236in	4	1.3	1.0	0.6	0.45	40	.03	SDA 4...
7005-122808	SDU 440 300 R UHM20 HX	M4-M5	0.5-0.7	9.0mm	0.354in	4	2.0	1.5	0.9	0.60	40	.04	SDA 4...
7005-122814	SDU 440 400 R UHM20 HX	M4-M5	0.7-0.8	12mm	0.472in	4	2.7	2.0	1.2	0.80	40	.05	SDA 4...
7005-136412	SDU 656 500 R UHM20 HX	M5-M6	0.8-1	15mm	0.591in	6	3.8	2.05	1.2	0.90	56	.06	SDA 6...
7005-136418	SDU 656 600 R UHM20 HX	M6-M7	1	18mm	0.709in	6	4.6	2.45	1.2	0.90	56	.07	SDA 6...
7005-136424	SDU 656 700 R UHM20 HX	M7-M8	1-1.25	21mm	0.827in	6	5.6	2.95	1.4	1.10	56	.08	SDA 6...

Standard Grade Offering: UHM20 HX - Coated Carbide for Most Applications - Other Coatings on Request

Applications Example

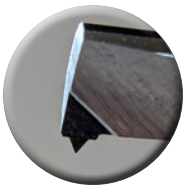


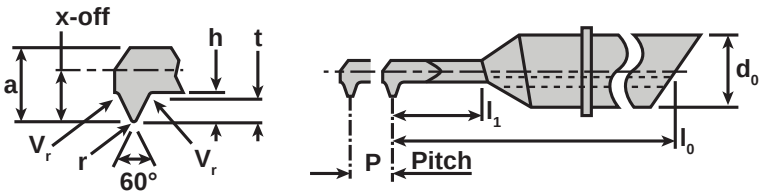
Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

SDV - Threading Full Profile

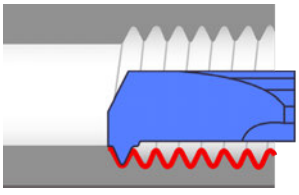




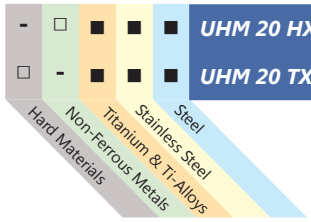
Item No.	Description	Thread	Pitch	Max Depth (l_1)		d_0	a	X-off	h	t	l_0	r_{max}	V_r	Holder
7005-111699	SDV 435 100 R UHM20 HX	M1	0.25	3.00mm	0.118in	4	0.6	0.5	0.2	.162	35	.02	0.04	SDA 4...
7005-111703	SDV 435 120 R UHM20 HX	M1.2	0.25	3.60mm	0.142in	4	0.76	0.6	0.2	.162	35	.02	0.04	SDA 4...
7005-138838	SDV 435 140 R UHM20 HX	M1.4	0.3	4.20mm	0.165in	4	0.92	0.7	0.23	.194	35	.02	0.05	SDA 4...
7005-111710	SDV 435 160 R UHM20 HX	M1.6	0.35	4.80mm	0.189in	4	1.08	0.8	0.26	.227	35	.03	0.05	SDA 4...
7005-111714	SDV 435 180 R UHM20 HX	M1.8	0.35	5.40mm	0.213in	4	1.24	0.9	0.26	.227	35	.03	0.05	SDA 4...
7005-111718	SDV 435 200 R UHM20 HX	M2	0.4	6.00mm	0.236in	4	1.4	1.0	0.3	.258	35	.03	0.05	SDA 4...
7005-111722	SDV 435 220 R UHM20 HX	M2.2	0.45	6.60mm	0.260in	4	1.56	1.1	0.33	.287	35	.03	0.05	SDA 4...
7005-111726	SDV 435 250 R UHM20 HX	M2.5	0.45	7.50mm	0.295in	4	1.8	1.25	0.33	.287	35	.03	0.05	SDA 4...
7005-111730	SDV 440 100 R UHM20 HX	M1	0.25	5.00mm	0.197in	4	0.6	0.5	0.2	.162	40	.02	0.04	SDA 4...
7005-111734	SDV 440 120 R UHM20 HX	M1.2	0.25	6.00mm	0.236in	4	0.76	0.6	0.2	.162	40	.02	0.04	SDA 4...
7005-111738	SDV 440 140 R UHM20 HX	M1.4	0.3	7.00mm	0.276in	4	0.92	0.7	0.23	.194	56	.02	0.05	SDA 4...
7005-111742	SDV 440 160 R UHM20 HX	M1.6	0.35	8.00mm	0.315in	4	1.08	0.8	0.26	.227	40	.03	0.05	SDA 4...
7005-111746	SDV 440 180 R UHM20 HX	M1.8	0.35	9.00mm	0.354in	4	1.24	0.9	0.26	.227	40	.03	0.05	SDA 4...
7005-111750	SDV 440 200 R UHM20 HX	M2	0.4	10.00mm	0.394in	4	1.4	1.0	0.3	.258	40	.03	0.05	SDA 4...
7005-111754	SDV 440 220 R UHM20 HX	M2.2	0.45	11.00mm	0.433in	4	1.56	1.1	0.33	.287	40	.03	0.05	SDA 4...
7005-111758	SDV 440 250 R UHM20 HX	M2.5	0.45	12.50mm	0.492in	4	1.8	1.25	0.33	.287	40	.03	0.05	SDA 4...
7005-111762	SDV 440 300 R UHM20 HX	M3	0.5	9.00mm	0.354in	4	2.2	1.5	0.37	.316	40	.04	0.06	SDA 4...
7005-111766	SDV 440 350 R UHM20 HX	M3.5	0.6	10.50mm	0.413in	4	2.6	1.75	0.43	.374	40	.04	0.06	SDA 4...
7005-111770	SDV 440 400 R UHM20 HX	M4	0.7	12.00mm	0.472in	4	3.0	2.0	0.5	.432	40	.05	0.06	SDA 4...
7005-111774	SDV 448 300 R UHM20 HX	M3	0.5	15.00mm	0.591in	4	2.2	1.5	0.57	.316	48	.04	0.06	SDA 4...
7005-111778	SDV 448 350 R UHM20 HX	M3.5	0.6	17.50mm	0.689in	4	2.6	1.75	0.7	.374	48	.04	0.06	SDA 4...
7005-111782	SDV 448 400 R UHM20 HX	M4	0.7	20.00mm	0.787in	4	3.0	2.0	0.86	.432	48	.05	0.06	SDA 4...
7005-110894	SDV 644 500 R UHM20 HX	M5	0.8	10.00mm	0.394in	6	3.8	2.5	0.57	.5	44	.05	0.07	SDA 6...
7005-110900	SDV 644 600 R UHM20 HX	M6/7	1	12.00mm	0.472in	6	4.6	3.0	0.7	.62	44	.05	0.08	SDA 6...
7005-110906	SDV 644 800 R UHM20 HX	M8	1.25	12.00mm	0.472in	6	5.62	3.0	0.86	.78	44	.05	0.09	SDA 6...
7005-110874	SDV 656 500 R UHM20 HX	M5	0.8	20.00mm	0.787in	6	3.8	2.5	0.57	.5	56	.05	0.07	SDA 6...
7005-110882	SDV 656 600 R UHM20 HX	M6/7	1.0	24.00mm	0.945in	6	4.6	3.0	0.7	.62	56	.05	0.08	SDA 6...
7005-110888	SDV 656 800 R UHM20 HX	M8	1.25	24.00mm	0.945in	6	5.62	3.0	0.86	.78	56	.05	0.09	SDA 6...
7005-110912	SDV 668 500 R UHM20 HX	M5	0.8	30.00mm	1.181in	6	3.8	2.5	0.57	.5	68	.05	0.07	SDA 6...
7005-110918	SDV 668 600 R UHM20 HX	M6/7	1.0	36.00mm	1.417in	6	4.6	3.0	0.7	.62	68	.05	0.08	SDA 6...
7005-110924	SDV 668 800 R UHM20 HX	M8	1.25	36.00mm	1.417in	6	5.62	3.0	0.86	.78	68	.05	0.09	SDA 6...

Standard Grade Offering: UHM20 HX - Coated Carbide for Most Applications - Other Coatings on Request

Applications Example

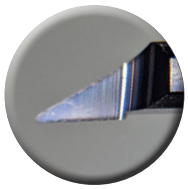


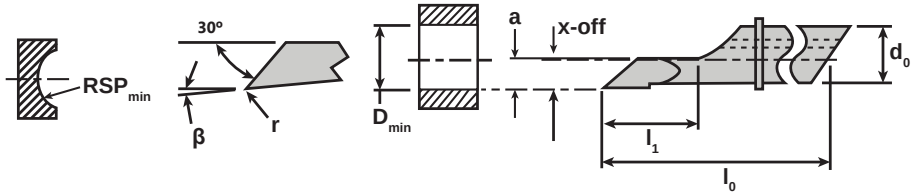
Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

SXJ - Copy Turning (axial)

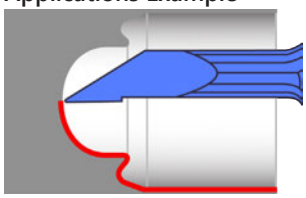




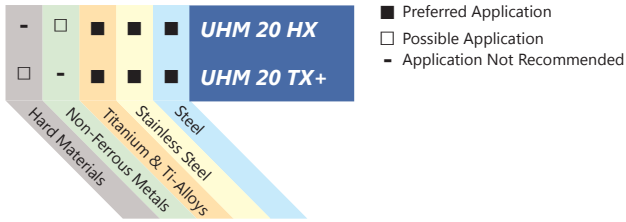
Item No.	Description	Min Hole Ø (D_{min})		Max Depth (l_1)		d_0	a	X-off	RSP_{min}	l_0	r	β	Holder
7005-114601	SXJ 435 042 R UHM20 HX	0.42mm	0.017in	1.5mm	0.059in	4	0.19	0.13	0.45	35	0.08	1.5°	SDA 4...
7005-114603	SXJ 435 092 R UHM20 HX	0.92mm	0.036in	3.0mm	0.118in	4	0.41	0.38	0.95	35	0.08	1.5°	SDA 4...
7005-114605	SXJ 435 142 R UHM20 HX	1.42mm	0.056in	4.5mm	0.177in	4	0.64	0.63	1.45	35	0.08	1.5°	SDA 4...
7005-114607	SXJ 435 192 R UHM20 HX	1.92mm	0.076in	6.0mm	0.236in	4	0.86	0.88	1.95	35	0.08	1.5°	SDA 4...
7005-114609	SXJ 435 242 R UHM20 HX	2.42mm	0.095in	7.5mm	0.295in	4	1.09	1.13	2.45	35	0.08	1.5°	SDA 4...
7005-114617	SXJ 440 092 R UHM20 HX	0.92mm	0.036in	5.0mm	0.197in	4	0.41	0.38	0.95	40	0.08	1.5°	SDA 4...
7005-114619	SXJ 440 142 R UHM20 HX	1.42mm	0.056in	7.5mm	0.295in	4	0.64	0.63	1.45	40	0.08	1.5°	SDA 4...
7005-114621	SXJ 440 192 R UHM20 HX	1.92mm	0.076in	10mm	0.394in	4	0.86	0.88	1.95	40	0.08	1.5°	SDA 4...
7005-114623	SXJ 440 242 R UHM20 HX	2.42mm	0.095in	12.5mm	0.492in	4	1.09	1.13	2.45	40	0.08	1.5°	SDA 4...
7005-114611	SXJ 440 292 R UHM20 HX	2.92mm	0.115in	9.0mm	0.354in	4	1.31	1.38	2.95	40	0.08	1.5°	SDA 4...
7005-114613	SXJ 440 342 R UHM20 HX	3.42mm	0.135in	10.5mm	0.413in	4	1.54	1.63	3.45	40	0.08	1.5°	SDA 4...
7005-114615	SXJ 440 392 R UHM20 HX	3.92mm	0.154in	12.0mm	0.472in	4	1.76	1.88	3.95	40	0.08	1.5°	SDA 4...
7005-114625	SXJ 448 292 R UHM20 HX	2.92mm	0.115in	15.0mm	0.591in	4	1.31	1.38	2.95	48	0.08	1.5°	SDA 4...
7005-114627	SXJ 448 342 R UHM20 HX	3.42mm	0.135in	17.5mm	0.689in	4	1.54	1.63	3.45	48	0.08	1.5°	SDA 4...
7005-114629	SXJ 448 392 R UHM20 HX	3.92mm	0.154in	20.0mm	0.787in	4	1.76	1.88	3.95	48	0.08	1.5°	SDA 4...
7005-114631	SXJ 644 442 R UHM20 HX	4.42mm	0.174in	9.0mm	0.354in	6	1.99	2.09	4.45	44	0.12	1.5°	SDA 6...
7005-114633	SXJ 644 492 R UHM20 HX	4.92mm	0.194in	10.0mm	0.394in	6	2.21	2.34	4.95	44	0.12	1.5°	SDA 6...
7005-114635	SXJ 644 542 R UHM20 HX	5.42mm	0.213in	11.0mm	0.433in	6	2.44	2.59	5.45	44	0.12	1.5°	SDA 6...
7005-114637	SXJ 644 592 R UHM20 HX	5.92mm	0.233in	12.0mm	0.472in	6	2.66	2.84	5.95	44	0.12	1.5°	SDA 6...
7005-114639	SXJ 656 442 R UHM20 HX	4.42mm	0.174in	18.0mm	0.709in	6	1.99	2.09	4.45	56	0.12	1.5°	SDA 6...
7005-114641	SXJ 656 492 R UHM20 HX	4.92mm	0.194in	20.0mm	0.787in	6	2.21	2.34	4.95	56	0.12	1.5°	SDA 6...
7005-114643	SXJ 656 542 R UHM20 HX	5.42mm	0.213in	22.0mm	0.866in	6	2.44	2.59	5.45	56	0.12	1.5°	SDA 6...
7005-114645	SXJ 656 592 R UHM20 HX	5.92mm	0.233in	24.0mm	0.945in	6	2.66	2.84	5.95	56	0.12	1.5°	SDA 6...
7005-114647	SXJ 668 442 R UHM20 HX	4.42mm	0.174in	27.0mm	1.063in	6	1.99	2.09	4.45	68	0.12	1.5°	SDA 6...
7005-114649	SXJ 668 492 R UHM20 HX	4.92mm	0.194in	30.0mm	1.181in	6	2.21	2.34	4.95	68	0.12	1.5°	SDA 6...
7005-114651	SXJ 668 542 R UHM20 HX	5.42mm	0.213in	33.0mm	1.299in	6	2.44	2.59	5.45	68	0.12	1.5°	SDA 6...
7005-114653	SXJ 668 592 R UHM20 HX	5.92mm	0.233in	36.0mm	1.417in	6	2.66	2.84	5.95	68	0.12	1.5°	SDA 6...
7005-114655	SXJ 850 692 R UHM20 HX	6.92mm	0.272in	14.0mm	0.551in	8	3.11	3.3	6.95	50	0.16	1.5°	SDA 8...
7005-114657	SXJ 850 792 R UHM20 HX	7.92mm	0.312in	16.0mm	0.630in	8	3.56	3.8	7.95	50	0.16	1.5°	SDA 8...
7005-114659	SXJ 866 692 R UHM20 HX	6.92mm	0.272in	28.0mm	1.102in	8	3.11	3.3	6.95	66	0.16	1.5°	SDA 8...
7005-114661	SXJ 866 792 R UHM20 HX	7.92mm	0.312in	32.0mm	1.260in	8	3.56	3.8	7.95	66	0.16	1.5°	SDA 8...
7005-114663	SXJ 882 692 R UHM20 HX	6.92mm	0.272in	42.0mm	1.654in	8	3.11	3.3	6.95	82	0.16	1.5°	SDA 8...
7005-114665	SXJ 882 792 R UHM20 HX	7.92mm	0.312in	48.0mm	1.890in	8	3.56	3.8	7.95	82	0.16	1.5°	SDA 8...

Standard Grade Offering: UHM20 HX - Coated Carbide for Most Applications - Other Coatings on Request

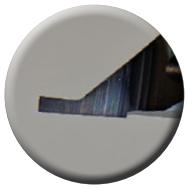
Applications Example

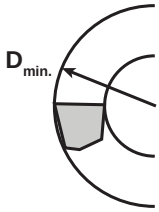


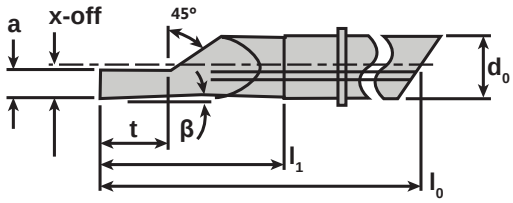
Ideal Cutting Materials



SXP - Grooving (axial)



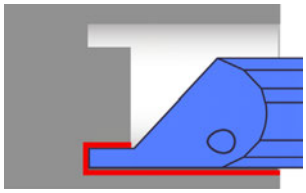




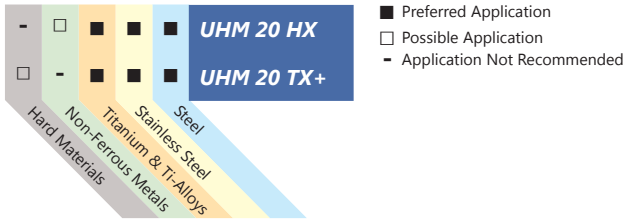
Item No.	Description	Min Hole Ø (D_{min})		max depth (t)		d_0	a	X-off	l_0	l_1	β	Holder
7005-114667	SXP 435 142 R UHM20 HX	1.42mm	0.056in	0.2mm	0.009in	4	0.35	0.71	35	4.5	1.5°	SDA 4...
7005-114669	SXP 435 192 R UHM20 HX	1.92mm	0.076in	0.2mm	0.008in	4	0.35	0.96	35	6.0	1.5°	SDA 4...
7005-114671	SXP 435 242 R UHM20 HX	2.42mm	0.095in	0.2mm	0.008in	4	0.35	1.21	35	7.5	1.5°	SDA 4...
7005-114679	SXP 440 142 R UHM20 HX	1.42mm	0.056in	0.4mm	0.014in	4	0.35	0.71	40	7.5	1.5°	SDA 4...
7005-114681	SXP 440 192 R UHM20 HX	1.92mm	0.076in	0.4mm	0.016in	4	0.35	0.96	40	10.0	1.5°	SDA 4...
7005-114683	SXP 440 242 R UHM20 HX	2.42mm	0.095in	0.4mm	0.016in	4	0.35	1.21	40	12.5	1.5°	SDA 4...
7005-114673	SXP 440 292 R UHM20 HX	2.92mm	0.115in	0.5mm	0.019in	4	0.35	1.46	40	9.0	1.5°	SDA 4...
7005-114675	SXP 440 342 R UHM20 HX	3.42mm	0.135in	0.5mm	0.020in	4	0.35	1.71	40	10.5	1.5°	SDA 4...
7005-114677	SXP 440 392 R UHM20 HX	3.92mm	0.154in	0.5mm	0.020in	4	0.35	1.96	40	12.0	1.5°	SDA 4...
7005-114685	SXP 448 292 R UHM20 HX	2.92mm	0.115in	0.6mm	0.024in	4	0.35	1.46	48	15.0	1.5°	SDA 4...
7005-114687	SXP 448 342 R UHM20 HX	3.42mm	0.135in	0.6mm	0.024in	4	0.35	1.71	48	17.5	1.5°	SDA 4...
7005-114689	SXP 448 392 R UHM20 HX	3.92mm	0.154in	0.6mm	0.024in	4	0.35	1.96	48	20.0	1.5°	SDA 4...
7005-114691	SXP 644 442 R UHM20 HX	4.42mm	0.174in	0.7mm	0.028in	6	0.5	2.21	44	9.0	1.5°	SDA 6...
7005-114693	SXP 644 492 R UHM20 HX	4.92mm	0.194in	0.7mm	0.028in	6	0.5	2.46	44	10.0	1.5°	SDA 6...
7005-114695	SXP 644 542 R UHM20 HX	5.42mm	0.213in	0.9mm	0.035in	6	0.5	2.71	44	11.0	1.5°	SDA 6...
7005-114697	SXP 644 592 R UHM20 HX	5.92mm	0.233in	0.9mm	0.035in	6	0.5	2.96	44	12.0	1.5°	SDA 6...
7005-114699	SXP 656 442 R UHM20 HX	4.42mm	0.174in	1.0mm	0.039in	6	0.5	2.21	56	18.0	1.5°	SDA 6...
7005-114701	SXP 656 492 R UHM20 HX	4.92mm	0.194in	1.0mm	0.039in	6	0.5	2.46	56	20.0	1.5°	SDA 6...
7005-114703	SXP 656 542 R UHM20 HX	5.42mm	0.213in	1.1mm	0.043in	6	0.5	2.71	56	22.0	1.5°	SDA 6...
7005-114705	SXP 656 592 R UHM20 HX	5.92mm	0.233in	1.1mm	0.043in	6	0.5	2.96	56	24.0	1.5°	SDA 6...
7005-114707	SXP 668 442 R UHM20 HX	4.42mm	0.174in	1.1mm	0.043in	6	0.5	2.21	68	27.0	1.5°	SDA 6...
7005-114709	SXP 668 492 R UHM20 HX	4.92mm	0.194in	1.2mm	0.047in	6	0.5	2.46	68	30.0	1.5°	SDA 6...
7005-114711	SXP 668 542 R UHM20 HX	5.42mm	0.213in	1.2mm	0.047in	6	0.5	2.71	68	33.0	1.5°	SDA 6...
7005-114713	SXP 668 592 R UHM20 HX	5.92mm	0.233in	1.2mm	0.047in	6	0.5	2.96	68	36.0	1.5°	SDA 6...
7005-114715	SXP 850 692 R UHM20 HX	6.92mm	0.272in	1.4mm	0.055in	8	0.75	3.46	50	14.0	1.5°	SDA 8...
7005-114717	SXP 850 792 R UHM20 HX	7.92mm	0.312in	1.4mm	0.055in	8	0.75	3.96	50	16.0	1.5°	SDA 8...
7005-114719	SXP 866 692 R UHM20 HX	6.92mm	0.272in	1.4mm	0.055in	8	0.75	3.46	66	28.0	1.5°	SDA 8...
7005-114721	SXP 866 792 R UHM20 HX	7.92mm	0.312in	1.5mm	0.059in	8	0.75	3.96	66	32.0	1.5°	SDA 8...
7005-114723	SXP 882 692 R UHM20 HX	6.92mm	0.272in	1.5mm	0.059in	8	0.75	3.46	82	42.0	1.5°	SDA 8...
7005-114725	SXP 882 792 R UHM20 HX	7.92mm	0.312in	1.5mm	0.059in	8	0.75	3.96	82	48.0	1.5°	SDA 8...

Standard Grade Offering: UHM20 HX - Coated Carbide for Most Applications - Other Coatings on Request

Applications Example



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

Quick Change Micro Bore Tool Holder - Imperial Sizes

Shank Size	Item No.	Description	d_1	g	L_g	L_1	L_2	L_3	L_4	Tool
4mm	7005-137307	SDA 4 060 12.7	1/2"	R 1/8"	60	27	5	-	-	SD/SX...4
	7005-123909	SDA 4 060 19.05	3/4"	R 1/8"	60	27	5	-	-	SD/SX...4
	7005-111002	SDA 4 060 25.4	1.0"	R 1/8"	60	27	5	-	-	SD/SX...4
	7005-111004	SDA 4 120 12.7	1/2"	R 1/8"	120	27	5	27	5	SD/SX...4
	7005-125158	SDA 4 120 19.05	3/4"	R 1/8"	120	27	5	27	5	SD/SX...4
	7005-125163	SDA 4 120 25.4	1.00"	R 1/8"	120	27	5	27	5	SD/SX...4
6mm	7005-137308	SDA 6 065 12.7	1/2"	R 1/8"	65	27	5	-	-	SD/SX...6
	7005-123914	SDA 6 065 19.05	3/4"	R 1/8"	65	27	5	-	-	SD/SX...6
	7005-111007	SDA 6 065 25.4	1.0"	R 1/8"	65	27	5	-	-	SD/SX...6
	7005-111009	SDA 6 120 12.7	1/2"	R 1/8"	120	27	5	27	5	SD/SX...6
	7005-125169	SDA 6 120 19.05	3/4"	R 1/8"	120	27	5	27	5	SD/SX...6
	7005-125174	SDA 6 120 25.4	1.00"	R 1/8"	120	27	5	27	5	SD/SX...6
8mm	7005-123919	SDA 8 070 19.05	3/4"	R 1/8"	70	27	5	-	-	SD/SX...8
	7005-111013	SDA 8 070 25.4	1.00"	R 1/8"	70	27	5	-	-	SD/SX...8
	7005-125180	SDA 8 120 19.05	3/4"	R 1/8"	120	27	5	27	5	SD/SX...8
	7005-125185	SDA 8 120 25.4	1.00"	R 1/8"	120	27	5	27	5	SD/SX...8

For SD/SX... Micro Bore Tools



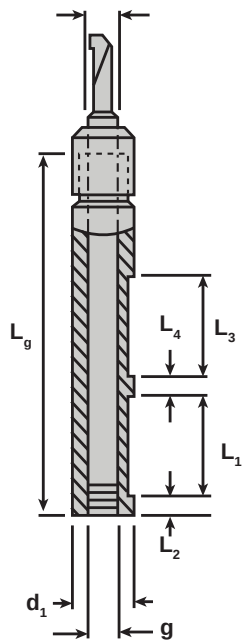
Quick Change Micro Bore Tool Holder - Metric Sizes

Shank Size	Item No.	Description	d_1	g	L_g	L_1	L_2	L_3	L_4	Tool
4mm	7005-127909	SDA 4 060 07	7	M5	60	-	-	-	-	SD/SX...4
	7005-122083	SDA 4 060 08	8	M5	60	27	5	-	-	SD/SX...4
	7005-122030	SDA 4 060 10	10	M5	60	27	5	-	-	SD/SX...4
	7005-123906	SDA 4 060 12	12	R 1/8"	60	27	5	-	-	SD/SX...4
	7005-125154	SDA 4 060 14	14	R 1/8"	60	27	5	-	-	SD/SX...4
	7005-123907	SDA 4 060 16	16	R 1/8"	60	27	5	-	-	SD/SX...4
	7005-123908	SDA 4 060 18	18	R 1/8"	60	27	5	-	-	SD/SX...4
	7005-123910	SDA 4 060 20	20	R 1/8"	60	27	5	-	-	SD/SX...4
	7005-111000	SDA 4 060 22	22	R 1/8"	60	27	5	-	-	SD/SX...4
	7005-111001	SDA 4 060 25	25	R 1/8"	60	27	5	-	-	SD/SX...4
	7005-111003	SDA 4 060 28	28	R 1/8"	60	27	5	-	-	SD/SX...4
	7005-123001	SDA 4 100 08	8	R 1/8"	100	27	5	-	-	SD/SX...4
	7005-122082	SDA 4 100 10	10	R 1/8"	120	27	5	-	-	SD/SX...4
	7005-125153	SDA 4 120 12	12	R 1/8"	120	27	5	27	5	SD/SX...4
	7005-125155	SDA 4 120 14	14	R 1/8"	120	27	5	27	5	SD/SX...4
	7005-125156	SDA 4 120 16	16	R 1/8"	120	27	5	27	5	SD/SX...4
	7005-125158	SDA 4 120 19.05	19.05	R 1/8"	120	27	5	27	5	SD/SX...4
	7005-125159	SDA 4 120 20	20	R 1/8"	120	27	5	27	5	SD/SX...4
	7005-125160	SDA 4 120 22	22	R 1/8"	120	27	5	27	5	SD/SX...4
	7005-125162	SDA 4 120 25	25	R 1/8"	120	27	5	27	5	SD/SX...4
	7005-125163	SDA 4 120 25.4	25.4	R 1/8"	120	27	5	27	5	SD/SX...4
	7005-125164	SDA 4 120 28	28	R 1/8"	120	27	5	27	5	SD/SX...4
6mm	7005-123911	SDA 6 065 12	12	R 1/8"	65	27	5	-	-	SD/SX...6
	7005-125165	SDA 6 065 14	14	R 1/8"	65	27	5	-	-	SD/SX...6
	7005-123912	SDA 6 065 16	16	R 1/8"	65	27	5	-	-	SD/SX...6
	7005-123913	SDA 6 065 18	18	R 1/8"	65	27	5	-	-	SD/SX...6
	7005-123915	SDA 6 065 20	20	R 1/8"	65	27	5	-	-	SD/SX...6
	7005-111005	SDA 6 065 22	22	R 1/8"	65	27	5	-	-	SD/SX...6
	7005-111006	SDA 6 065 25	25	R 1/8"	65	27	5	-	-	SD/SX...6
	7005-111008	SDA 6 065 28	28	R 1/8"	65	27	5	-	-	SD/SX...6
	7005-123916	SDA 6 100 12	12	R 1/8"	100	27	5	-	-	SD/SX...6
	7005-125166	SDA 6 120 14	14	R 1/8"	120	27	5	27	5	SD/SX...6
	7005-125167	SDA 6 120 16	16	R 1/8"	120	27	5	27	5	SD/SX...6
	7005-125168	SDA 6 120 18	18	R 1/8"	120	27	5	27	5	SD/SX...6
	7005-125170	SDA 6 120 20	20	R 1/8"	120	27	5	27	5	SD/SX...6
	7005-125171	SDA 6 120 22	22	R 1/8"	120	27	5	27	5	SD/SX...6
	7005-125173	SDA 6 120 25	25	R 1/8"	120	27	5	27	5	SD/SX...6
	7005-125175	SDA 6 120 28	28	R 1/8"	120	27	5	27	5	SD/SX...6
8mm	7005-125176	SDA 8 070 14	14	R 1/8"	70	27	5	-	-	SD/SX...8
	7005-123917	SDA 8 070 16	16	R 1/8"	70	27	5	-	-	SD/SX...8
	7005-123920	SDA 8 070 20	20	R 1/8"	70	27	5	-	-	SD/SX...8
	7005-111010	SDA 8 070 22	22	R 1/8"	70	27	5	-	-	SD/SX...8
	7005-111012	SDA 8 070 25	25	R 1/8"	70	27	5	-	-	SD/SX...8
	7005-111014	SDA 8 070 28	28	R 1/8"	70	27	5	-	-	SD/SX...8
	7005-125177	SDA 8 100 14	14	R 1/8"	100	27	5	-	-	SD/SX...8
	7005-125178	SDA 8 120 16	16	R 1/8"	120	27	5	27	5	SD/SX...8
	7005-125179	SDA 8 120 18	18	R 1/8"	120	27	5	27	5	SD/SX...8
	7005-125181	SDA 8 120 20	20	R 1/8"	120	27	5	27	5	SD/SX...8
	7005-125182	SDA 8 120 22	22	R 1/8"	120	27	5	27	5	SD/SX...8
	7005-125184	SDA 8 120 25	25	R 1/8"	120	27	5	27	5	SD/SX...8
	7005-125186	SDA 8 120 28	28	R 1/8"	120	27	5	27	5	SD/SX...8

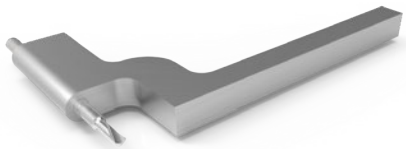
For SD/SX... Micro Bore Tools

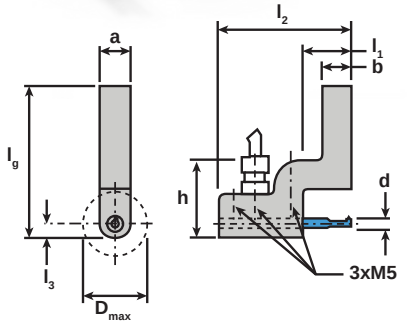
- **All holders are coolant-thru**
- **Extremely rapid tool changes**
- **No special wrenches required**
- **Repeats within .0004"**

4, 6, & 8mm Micro Bore Shank Sizes



AKR Dogleg Micro Bore Holder

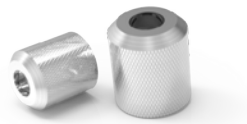




Item No.	Description	a	b	D_{max}	h	d	l_g	l_1	l_2	l_3
7005-113136	AKR M 0808x100 D4-3540	8	8	26	30	4	104	20	55	4
7005-113183	AKR M 0808x100 D4-48	8	8	26	30	4	104	30	65	4
7005-113139	AKR M 1010x100 D4-3540	10	10	26	31	4	105	20	55	5
7005-113185	AKR M 1010x100 D4-48	10	10	26	31	4	105	30	65	5
7005-113140	AKR M 1212x100 D4-3540	12	12	26	32	4	106	20	55	6
7005-113186	AKR M 1212x100 D4-48	12	12	26	32	4	106	30	65	6
7005-113141	AKR M 1/2"x100 D4-3540	.500"	.500"	26	32.5	4	106.5	20	55	6.5
7005-113187	AKR M 1/2"x100 D4-48	.500"	.500"	26	32.5	4	106.5	30	65	6.5
7005-113142	AKR M 1616x125 D4-3540	16	16	26	34	4	133	20	55	8
7005-113188	AKR M 1616x125 D4-48	16	16	26	34	4	133	30	65	8

Also Available for SD...6 / SX...6 Micro Bore Tools

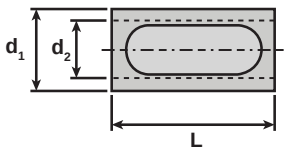
Spare Clamping Nuts - 4, 6, & 8mm



Item No.	Description	Fits Holders	Diameter
7005-122031	MSP SDA 4 M	SDA 4...	M8x.5
7005-123921	MSP SDA 6 M	SDA 6...	M12x.6
7005-123922	MSP SDA 8 M	SDA 8...	M14x.75

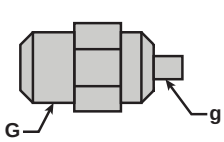
Reduction Sleeves





Item No.	Description	d_1	d_2	L
7005-138046	MRH 1600 1230	16.0mm	12	30
7005-138047	MRH 1905 1240	.750in	12	40
7005-138050	MRH 1905 1640	.750in	16	40
7005-138048	MRH 2200 1240	22.0mm	12	40
7005-138049	MRH 2540 1240	1.00in	12	40
7005-138050	MRH 1905 1640	.750in	16	40
7005-138051	MRH 2200 1640	22.00mm	16	40
7005-138052	MRH 2540 1640	1.00in	16	40
7005-146026	MRH 2500 2040	25.00mm	20	40
7005-150030	MRH 2540 2040	1.00in	20	40

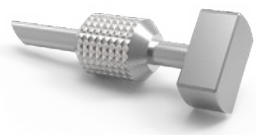
Coolant Fittings





Item No.	Description	g	G
4005-000104	FIT-MICRO-4x2-00	G1/8"	1/4" JIC
4005-000111	FIT-M5x1/4 JIC-SS	M5	1/4" JIC

Setup & Location Tool Alignment Device



Item No.	Description	Holders	G
7005-122387	MSP SDA 4X	SDA 4...	4mm
7005-123923	MSP SDA 6X	SDA 6...	6mm
7005-123924	MSP SDA 8X	SDA 8...	8mm

Retaining Rings



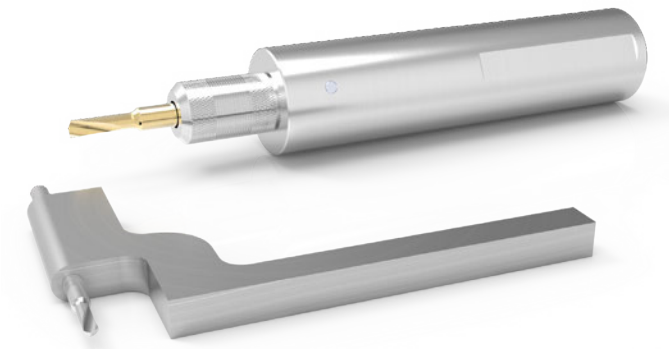
Item No.	Description	Holders
7005-125150	MSP SDA 4S	SDA 4...
7005-125151	MSP SDA 6S	SDA 6...
7005-125152	MSP SDA 8S	SDA 8...

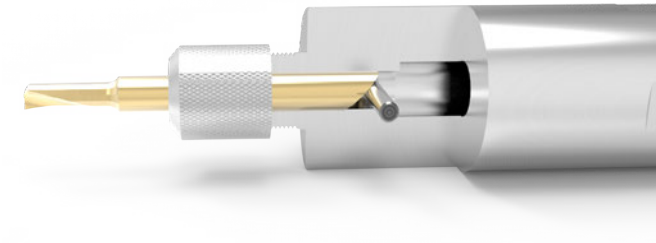
Speeds And Feeds Multidec Micro Bore

MICRO BORE	Unalloyed Steel			Low-Alloy Steel			High-Alloy Steel		
Hardness (HB)-(HRC)	125-300 HB			180-250 HB			200-350 HB		
Category	I			II			III		
Machining Method	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing
Cutting speeds	vc(ft/min)								
Carbide grade									
UHM 20	-	-	70-390	-	-	70-330	-	-	70-300
UHM 20 HX	-	-	100-520	-	-	100-460	-	-	100-430
UHM 20 TX+	-	-	-	-	-	-	-	-	100-330

MICRO BORE	Stainless Steel			Stainless Steel			Titanium		
Hardness (HB)-(HRC)	180-220 HB			220-330 HB			-		
Category	V			VI			IV		
Machining Method	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing
Cutting Speeds	vc(ft/min)								
Carbide Grade									
UHM 20	-	-	70-260	-	-	70-200	-	-	70-230
UHM 20 HX	-	-	100-390	-	-	100-330	-	-	100-330
UHM 20 TX+	-	-	100-330	-	-	100-260	-	-	100-260

MICRO BORE	Aluminum			Brass			Hard Materials		
Hardness (HB)-(HRC)	60-130 HB			-			45-70 HRC		
Category	VII			VIII			X		
Machining Method	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing
Cutting Speeds	vc(ft/min)								
Carbide Grade									
UHM 20	-	-	160-720	-	-	100-360	-	-	-
UHM 20 HX	-	-	200-1150	-	-	160-590	-	-	-
UHM 20 TX+	-	-	-	-	-	-	-	-	50-130





Micro Bore Feed & Depth Of Cut

SDG - SXG - SDH - SDI - SXI - SDY - SDZ

	Unalloyed Steel		Low-Alloy Steel		High-Alloy Steel		Stainless Steel		Titanium		Aluminum/ Brass		Hard Materials	
D(ipm)	f(ipm)	ap(ipm)	f(ipm)	ap(ipm)	f(ipm)	ap(ipm)	f(ipm)	ap(ipm)	f(ipm)	ap(ipm)	f(ipm)	ap(ipm)	f(ipm)	ap(ipm)
≤1	.0004-.0008	.004-.008	.0004-.0007	.004-.007	.0003-.0007	.003-.007	.0003-.0007	.003-.007	.0003-.0005	.003-.005	.0004-.001	.004-.010	0002-.0008	.002-.008
2	.0005-.0009	.005-.009	.0005-.0008	.005-.008	.0003-.0007	.003-.007	.0003-.0007	.003-.007	.0003-.0008	.003-.008	0006-.0011	.006-.011	.0003-.0008	.003-.008
3	.0006-.001	.006-.010	.0006-.0009	.006-.009	.0003-.0007	.003-.007	.0003-.0007	.003-.007	.0004-.0008	.004-.008	.0006-.0014	.006-.014	.0004-.0008	.004-.008
4	.0006-.0011	.006-.011	.0006-.001	.006-.010	.0004-.0008	.004-.008	.0004-.0008	.004-.008	.0004-.0008	.004-.008	.0006-.0014	.006-.014	.0004-.0008	.004-.008
6	.0006-.0012	.006-.012	.0006-.001	.006-.010	.0004-.0008	.004-.008	.0004-.0008	.004-.008	.0004-.001	.004-.010	.0006-.0016	.006-.016	.0004-.001	.004-.010
8	.0006-.0012	.006-.012	.0006-.001	.006-.010	.0004-.0008	.004-.008	.0004-.0008	.004-.008	.0004-.001	.004-.010	.0006-.002	.006-.020	.0004-.001	.004-.010

SDK - SDM - SDO - SDQ - SDW - SDT - SXJ - SXP

	Unalloyed Steel		Low-Alloy Steel		High-Alloy Steel		Stainless Steel		Titanium		Aluminum/ Brass		Hard Materials	
D(ipm)	f(ipm)	ap(ipm)	f(ipm)	ap(ipm)	f(ipm)	ap(ipm)	f(ipm)	ap(ipm)	f(ipm)	ap(ipm)	f(ipm)	ap(ipm)	f(ipm)	ap(ipm)
≤1	0004-.0008	.004-.008	.0004-.0007	.004-.007	.0003-.0006	.003-.006	.0003-.0006	.003-.006	.0002-.0005	.002-.005	.0003-.0005	.003-.005	.0002-.0005	.002-.005
2	.0004-.0009	.004-.009	0004-.0008	.004-.008	.0003-.0007	.003-.007	.0003-.0007	.003-.007	.0003-.0006	.003-.006	.0004-.0006	.004-.006	.0003-.0006	.003-.006
3	.0004-.001	.004-.010	.0004-.0009	.004-.009	.0004-.0008	.004-.008	.0004-.0008	.004-.008	.0003-.0007	.003-.007	.0004-.0008	.004-.008	.0003-.0007	.003-.007
4	.0004-.001	.004-.010	.0004-.001	.004-.010	.0004-.0009	.004-.009	.0004-.0009	.004-.009	.0003-.0008	.003-.008	.0004-.001	.004-.010	.0003-.0008	.003-.008
6	.0004-.001	.004-.010	.0004-.001	.004-.010	.0004-.001	.004-.010	.0004-.001	.004-.010	.0003-.0008	.003-.008	.0004-.0012	.004-.012	.0003-.0008	.003-.008
8	.0004-.001	.004-.010	.0004-.001	.004-.010	.0004-.001	.004-.010	.0004-.001	.004-.010	.0003-.0008	.003-.008	.0004-.0014	.004-.014	.0003-.0008	.003-.008

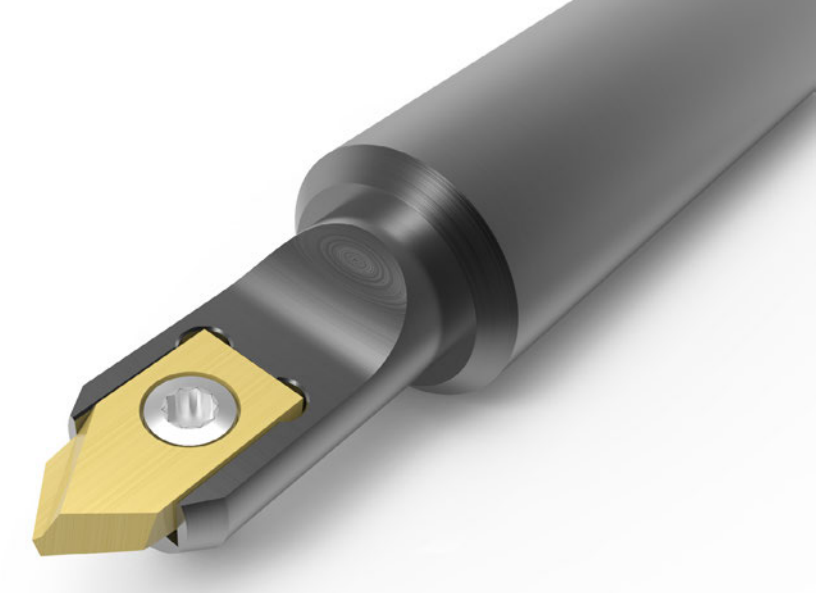
SDR - SDS

	Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Stainless Steel	Titanium	Aluminum/ Brass	Hard Materials
	f(ipm)	f(ipm)	f(ipm)	f(ipm)	f(ipm)	f(ipm)	f(ipm)
	.0003-.0008	.0002-.0006	.0002-.0006	.0002-.0006	.0002-.0006	.0003-.0008	.0002-.0006

Number Of Passes

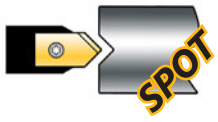
Pitch	(mm)	.06-.09	0.1-0.35	0.4	0.45	0.5	0.75	0.8	1	1.25	1.5	1.75	2.25
	(tpi)	-	80/72	64	56	48/44	40/36	32	28/24	20/19	18/16	14	13/11
Steel		2-4	3-5	5-6	3-7	5-8	5-9	6-9	6-10	7-11	8-12	9-13	12-15
Stainless Steel		2-4	4-6	5-6	5-7	6-9	6-10	6-11	7-12	8-13	9-14	12-15	13-18
Titanium		2-5	4-7	5-6	5-7	6-9	6-10	6-11	7-13	8-14	9-14	12-15	13-19
Non-Ferrous metal		2-4	3-5	3-6	3-7	3-8	4-9	5-10	6-11	7-14	8-16	9-16	11-17
Hard materials		3-6	4-7	5-8	6-9	8-10	9-12	10-15	11-17	13-20	18-22	20-26	25-30

GenCut® Spot Drills



Highly repeatable, carbide ground inserts make old fashioned center drills obsolete for performing spotting operations. Precision ground carbide inserts repeat within +/- .0004", thus eliminating the need to adjust the axial location of the tool, unlike conventional spot tooling held by collets. The system also simplifies tool changing in that it only requires a torx wrench for insert removal. This eliminates the need for collet wrenches, reducing the chance of accidental tool breakage or personal injury.

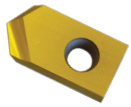
Versatile tools that can:



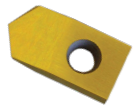




Geometry Styles

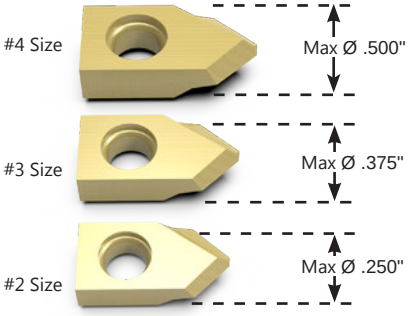


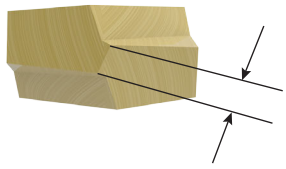
Positive Fluted



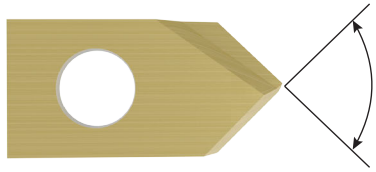
Negative Spade

Insert Sizes:

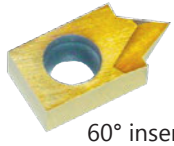




Available Web Thickness
.005" / .015" / .036"



Available Drill Point Angles
60°, 82°, 90°, 120° & 140°

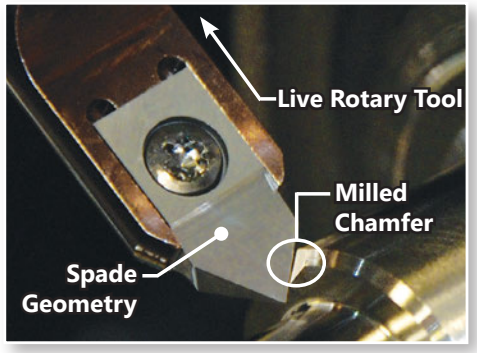


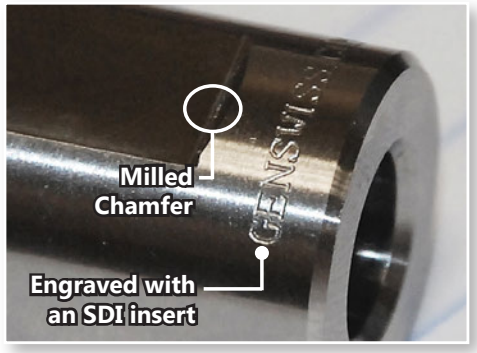
60° insert

All 60° inserts feature a radial relief grind for spotting of small holes starting with an ID of .010". Note: 60° inserts do not conform to the standard insert max Ø and are intended for micro spotting only.

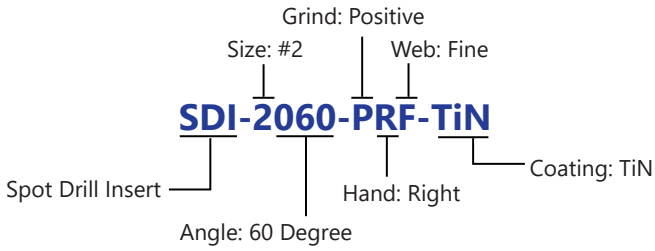
Reduces the Need for Collet Wrenches During Routine Tool Changes







Example Ordering Nomenclature: SDI-2060-PRF-TiN Spot Drill Insert, #2 Size, 60 Degree Point Angle, Positive Geometry, Right Hand, (Fine).005" Web Thickness, TiN coated

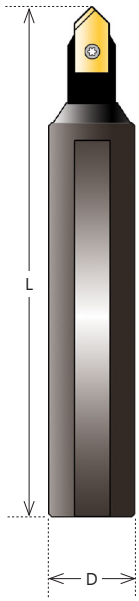


Micro Grain Carbide Spot Inserts

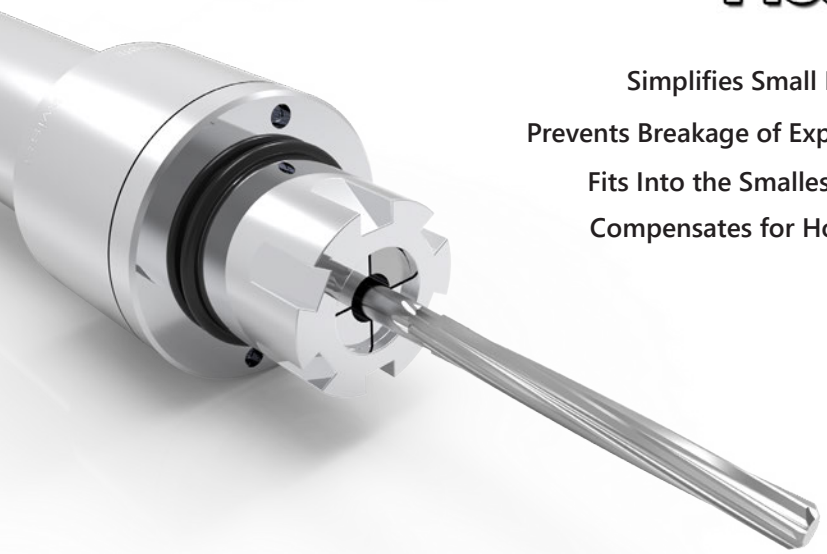
Size	Description	Angle	Geometry Positive/Negative	Hand Right / Left	Web Thickness F-.005" / M-.015" / H-.036"	Grade
#2	SDI-2060-	60°	P	R / L	F	MG-Uncoated TIN TLN- TiAlN ATN- AlTiN
	SDI-2082-	82°	P / N	R / L	F / M / H	
	SDI-2090-	90°	P / N	R / L	F / M / H	
	SDI-2120-	120°	P / N	R / L	F / M / H	
	SDI-2140-	140°	P / N	R / L	M / H	
#3	SDI-3060-	60°	P	R / L	F	
	SDI-3082-	82°	P / N	R / L	F / M / H	
	SDI-3090-	90°	P / N	R / L	F / M / H	
	SDI-3120-	120°	P / N	R / L	F / M / H	
	SDI-3140-	140°	P / N	R / L	M / H	
#4	SDI-4082-	82°	P / N	R / L	F / M / H	
	SDI-4090-	90°	P / N	R / L	F / M / H	
	SDI-4120-	120°	P / N	R / L	F / M / H	
	SDI-4140-	140°	P / N	R / L	M / H	

Spot Drill Holders

Size	Item No.	Description	L	D
#2 Single Ended	6060-000100	SDH-2-0250-2.0	2.0"	1/4"
	6060-000103	SDH-2-0375-2.5	2.5"	3/8"
	6060-000136	SDH-2-0500-2.5	2.5"	1/2"
	6060-000129	SDH-2-0625-3.0	3.0"	5/8"
	6060-000107	SDH-2-0750-5.0	5.0"	3/4"
	Call For Details	SDH-2-0866-5.0	5.0"	22mm
	6060-000149	SDH-2-1000-5.0	5.0"	1"
#3 Single Ended	6060-000113	SDH-3-0375-3.0	3.0"	3/8"
	6060-000114	SDH-3-0500-3.0	3.0"	1/2"
	6060-000139	SDH-3-0625-5.0	5.0"	5/8"
	6060-000117	SDH-3-0750-5.0	5.0"	3/4"
	Call For Details	SDH-3-0866-5.0	5.0"	22mm
	6060-000118	SDH-3-1000-5.0	5.0"	1"
#3 Double Ended	6060-000119	SDH-3D-625-3.0	3.0"	5/8"
	Call For Details	SDH-3D-750-4.0	4.0"	3/4"
#4 Single Ended	6060-000121	SDH-4-0375-3.5	3.5"	3/8"
	6060-000124	SDH-4-0500-3.5	3.5"	1/2"
	6060-000137	SDH-4-0625-5.0	5.0"	5/8"
	6060-000127	SDH-4-0750-5.0	5.0"	3/4"
	Call For Details	SDH-4-0866-5.0	5.0"	22mm
	6060-000128	SDH-4-1000-5.0	5.0"	1"



.009" True Orbital Float

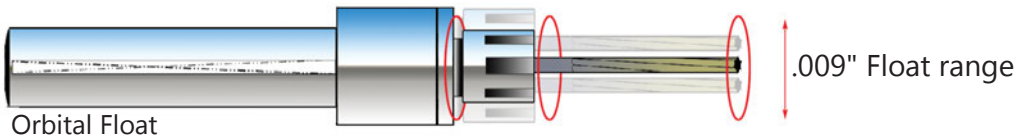


Simplifies Small Hole Reaming

Prevents Breakage of Expensive Micro Reamers

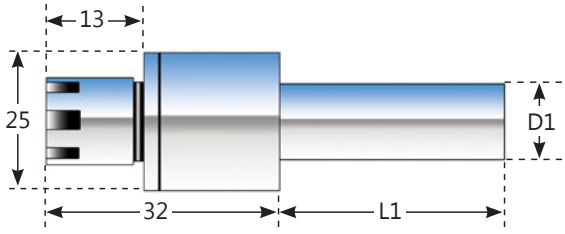
Fits Into the Smallest Swiss Machines

Compensates for Hole Misalignment



Orbital Float

Designed with "True Orbital Float" capability, the micro reamer holder aligns the reamer perfectly to the drilled hole enabling better size control, reduces "bell-mouthing", and increases tool life.

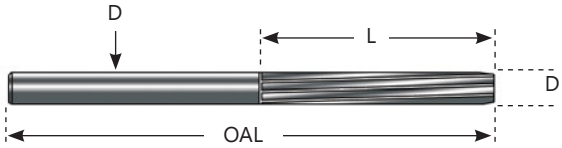


Item No.	Description	Shank (D1)	Length (L1)	Collet Size
3505-000100	RFH-08-008-042	8mm	42mm	ER8
3505-000103	RFH-08-190-070	3/4in	42mm	ER8
3505-000105	RFH-11-010-042	10mm	42mm	ER11
3505-000108	RFH-11-200-042	20mm	42mm	ER11
3505-000107	RFH-11-220-042	22mm	42mm	ER11
3505-000106	RFH-11-190-042	3/4in	42mm	ER11

Holds .5mm to 7mm diameter reamers

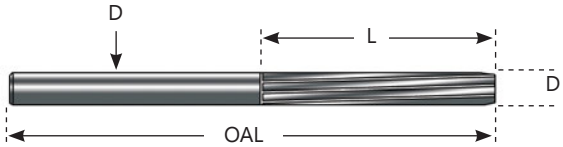
- Precision manufactured from K15 carbide
- Sizes ranging from .023" - .5138"
- Diameter tolerance of +.00012" / - 0.00"
- 10° left hand spiral right hand cut





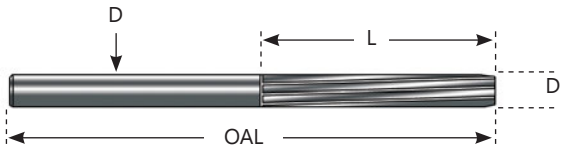
Item No.	Description	D mm	D Inch	L	OAL
3510-000176	TR-8600-0060	0.60	.0236	.275	1.3
3510-000387	TR-8600-0061	0.61	.0240	.275	1.3
3510-000215	TR-8600-0062	0.62	.0244	.275	1.3
3510-000278	TR-8600-0063	0.63	.0248	.275	1.3
3510-000152	TR-8600-0064	0.64	.0252	.275	1.3
3510-000153	TR-8600-0065	0.65	.0256	.275	1.3
3510-000168	TR-8600-0066	0.66	.0260	.275	1.3
3510-000343	TR-8600-0067	0.67	.0264	.275	1.3
3510-000324	TR-8600-0068	0.68	.0268	.275	1.3
3510-000217	TR-8600-0070	0.70	.0276	.275	1.3
3510-000202	TR-8600-0071	0.71	.0280	.280	1.3
3510-000100	TR-8600-0072	0.72	.0283	.275	1.3
3510-000364	TR-8600-0073	0.73	.0287	.275	1.3
3510-000102	TR-8600-0074	0.74	.0291	.275	1.3
3510-000256	TR-8600-0075	0.75	.0295	.275	1.3
Call For Details	TR-8600-0076	0.76	.0299	.275	1.3
3510-000178	TR-8600-0077	0.77	.0305	.275	1.3
3510-000103	TR-8600-0078	0.78	.0307	.275	1.3
3510-000104	TR-8600-0079	0.79	.0311	.275	1.3
3510-000301	TR-8600-0080	0.80	.0314	.275	1.3
Call For Details	TR-8600-0081	0.81	.0319	.275	1.3
3510-000197	TR-8600-0082	0.82	.0323	.275	1.3
3510-000376	TR-8600-0083	0.83	.0327	.275	1.3
3510-000388	TR-8600-0084	0.84	.0333	.275	1.3
3510-000200	TR-8600-0085	0.85	.0334	.275	1.3
3510-000294	TR-8600-0086	0.86	.0339	.275	1.3
Call For Details	TR-8600-0087	0.87	.0343	.275	1.3
3510-000377	TR-8600-0088	0.88	.0346	.275	1.3
3510-000203	TR-8600-0089	0.89	.0350	.275	1.3
3510-000105	TR-8600-0090	0.90	.0354	.275	1.3
3510-000394	TR-8600-0091	0.91	.0358	.275	1.3
3510-000395	TR-8600-0092	0.92	.0362	.275	1.3
3510-000392	TR-8600-0092	0.92	.0362	.275	1.3
3510-000323	TR-8600-0093	0.93	.0366	.275	1.3
3510-000396	TR-8600-0094	0.94	.0370	.275	1.3
Call For Details	TR-8600-0095	0.95	.0374	.275	1.3
3510-000160	TR-8600-0096	0.96	.0378	.275	1.3
Call For Details	TR-8600-0097	0.97	.0382	.275	1.3
3510-000296	TR-8600-0098	0.98	.0386	.275	1.3
3510-000297	TR-8600-0099	0.99	.0389	.275	1.3
3510-000298	TR-8600-0100	1.00	.0394	.275	1.3
3510-000187	TR-8600-0101	1.01	.0398	.281	1.3
3510-000289	TR-8600-0102	1.02	.0402	.275	1.3
3510-000397	TR-8600-0103	1.03	.0406	.275	1.3
3510-000107	TR-8600-0104	1.04	.0409	.275	1.3
3510-000108	TR-8600-0105	1.05	.0413	.275	1.3
3510-000367	TR-8600-0106	1.06	.0417	.433	1.97

Item No.	Description	D mm	D Inch	L	OAL
3510-000368	TR-8600-0107	1.07	.0421	.433	1.97
3510-000109	TR-8600-0108	1.08	.0425	.393	1.58
3510-000110	TR-8600-0109	1.09	.0429	.393	1.58
Call For Details	TR-8600-0110	1.10	.0433	.393	1.58
3510-000254	TR-8600-0111	1.11	.0437	.158	1.58
3510-000111	TR-8600-0112	1.12	.0441	.158	1.58
Call For Details	TR-8600-0113	1.13	.0445	.158	1.58
Call For Details	TR-8600-0114	1.14	.0449	.158	1.58
3510-000192	TR-8600-0115	1.15	.0453	.158	1.58
3510-000253	TR-8600-0116	1.16	.0457	.158	1.58
Call For Details	TR-8600-0117	1.17	.0461	.158	1.58
3510-000207	TR-8600-0118	1.18	.0465	.158	1.58
Call For Details	TR-8600-0119	1.19	.0469	.158	1.58
3510-000310	TR-8600-0120	1.20	.0472	.393	1.58
3510-000275	TR-8600-0121	1.21	.0476	.393	1.58
Call For Details	TR-8600-0122	1.22	.0480	.393	1.58
3510-000401	TR-8600-0123	1.23	.0484	.393	1.58
3510-000169	TR-8600-0124	1.24	.0488	.393	1.58
3510-000170	TR-8600-0125	1.25	.0492	.393	1.58
Call For Details	TR-8600-0126	1.26	.0496	.393	1.58
3510-000112	TR-8600-0127	1.27	.0500	.393	1.58
3510-000113	TR-8600-0128	1.28	.0504	.393	1.58
Call For Details	TR-8600-0129	1.29	.0508	.393	1.58
3510-000163	TR-8600-0130	1.30	.0512	.393	1.58
3510-000195	TR-8600-0131	1.31	.0516	.393	1.58
3510-000114	TR-8600-0132	1.32	.0519	.393	1.58
3510-000346	TR-8600-0133	1.33	.0524	.393	1.97
Call For Details	TR-8600-0134	1.34	.0528	.393	1.58
Call For Details	TR-8600-0135	1.35	.0531	.393	1.58
3510-000335	TR-8600-0136	1.36	.0535	.393	1.58
3510-000193	TR-8600-0137	1.37	.0539	.393	1.58
3510-000194	TR-8600-0138	1.38	.0543	.393	1.58
Call For Details	TR-8600-0139	1.39	.0547	.393	1.58
3510-000141	TR-8600-0140	1.40	.0550	.393	1.58
3510-000300	TR-8600-0141	1.41	.0555	.393	1.58
3510-000276	TR-8600-0142	1.42	.0559	.393	1.58
Call For Details	TR-8600-0143	1.43	.0563	.393	1.58
Call For Details	TR-8600-0144	1.44	.0567	.393	1.58
Call For Details	TR-8600-0145	1.45	.0571	.393	1.58
3510-000279	TR-8600-0146	1.46	.0575	.393	1.58
3510-000264	TR-8600-0147	1.47	.0579	.393	1.58
Call For Details	TR-8600-0148	1.48	.0583	.393	1.58
3510-000373	TR-8600-0149	1.49	.0587	.393	1.58
3510-000175	TR-8600-0150	1.50	.0590	.393	1.58
3510-000183	TR-8600-0151	1.51	.0594	.393	1.58
3510-000184	TR-8600-0152	1.52	.0598	.393	1.58
3510-000185	TR-8600-0153	1.53	.0602	.393	1.58



Item No.	Description	D mm	D Inch	L	OAL
3510-000186	TR-8600-0154	1.54	.0614''	.393	1.58
3510-000257	TR-8600-0155	1.57	.0618''	.393	1.58
3510-000309	TR-8600-0156	1.58	.0622''	.433	1.97
3510-000191	TR-8600-0157	1.59	.0626''	.433	1.97
3510-000190	TR-8600-0158	1.60	.0630''	.433	1.97
3510-000115	TR-8600-0159	1.61	.0634''	.433	1.97
3510-000158	TR-8600-0160	1.62	.0638''	.433	1.97
3510-000116	TR-8600-0161	1.63	.0642''	.433	1.97
3510-000248	TR-8600-0162	1.64	.0645''	.433	1.97
3510-000177	TR-8600-0163	1.65	.0649''	.433	1.97
3510-000180	TR-8600-0164	1.64	.0646	.433	1.97
3510-000117	TR-8600-0165	1.65	.0650	.433	1.97
Call For Details	TR-8600-0166	1.66	.0654	.433	1.97
Call For Details	TR-8600-0167	1.67	.0657	.433	1.97
3510-000344	TR-8600-0168	1.68	.0661''	.433	1.97
3510-000345	TR-8600-0169	1.69	.0665''	.433	1.97
3510-000342	TR-8600-0170	1.70	.0669''	.433	1.97
3510-000118	TR-8600-0171	1.71	.0673''	.433	1.97
3510-000336	TR-8600-0172	1.72	0.0677	.433	1.97
3510-000144	TR-8600-0173	1.73	0.0681	.433	1.97
Call For Details	TR-8600-0174	1.74	.0685	.433	1.97
3510-000150	TR-8600-0175	1.75	.0689	.433	1.97
3510-000361	TR-8600-0176	1.76	.0692	.433	1.97
Call For Details	TR-8600-0177	1.76	.0697	.433	1.97
3510-000363	TR-8600-0178	1.76	.0701	.433	1.97
3510-000378	TR-8600-0179	1.79	.0704	.433	1.97
3510-000277	TR-8600-0180	1.80	.0708	.433	1.97
Call For Details	TR-8600-0181	1.81	.0713	.433	1.97
Call For Details	TR-8600-0182	1.82	.0717	.433	1.97
3510-000208	TR-8600-0183	1.83	.0720	.433	1.97
Call For Details	TR-8600-0184	1.84	.0724	.433	1.97
3510-000370	TR-8600-0185	1.85	.0728	.433	1.97
3510-000381	TR-8600-0186	1.86	.0732	.433	1.97
3510-000382	TR-8600-0187	1.87	.0736	.433	1.97
Call For Details	TR-8600-0188	1.88	.0740	.433	1.97
3510-000155	TR-8600-0189	1.89	.0744	.433	1.97
3510-000360	TR-8600-0190	1.90	.0748	.433	1.97
3510-000156	TR-8600-0191	1.91	.0752	.433	1.97
Call For Details	TR-8600-0192	1.92	.0756	.433	1.97
3510-000157	TR-8600-0193	1.93	.0760	.433	1.97
3510-000119	TR-8600-0194	1.94	.0763	.433	1.97
3510-000230	TR-8600-0195	1.95	.0767	.433	1.97
3510-000120	TR-8600-0196	1.96	.0772	.433	1.97
3510-000121	TR-8600-0197	1.97	.0776	.433	1.97
3510-000322	TR-8600-0198	1.98	.0780	.433	1.97
3510-000122	TR-8600-0199	1.99	.0783	.433	1.97
3510-000339	TR-8600-0200	2.00	.0787	.433	1.97
3510-000356	TR-8600-0201	2.01	.0791	.433	1.97
3510-0352	TR-8600-0202	2.02	.0795	.433	1.97
3510-000204	TR-8600-0203	2.03	.0799	.433	1.97
3510-000123	TR-8600-0204	2.04	.0803	.433	1.97

Item No.	Description	D mm	D Inch	L	OAL
3510-000124	TR-8600-0205	2.05	.0807	.433	1.97
3510-000125	TR-8600-0206	2.06	.0811	.433	1.97
3510-000374	TR-8600-0207	2.07	.0815	.433	1.97
3510-000375	TR-8600-0208	2.08	.0819	.433	1.97
Call For Details	TR-8600-0209	2.09	.0823	.433	1.97
3510-000304	TR-8600-0210	2.10	.0826	.433	1.97
3510-000126	TR-8600-0211	2.11	.0831	.433	1.97
Call For Details	TR-8600-0212	2.12	.0835	.433	1.97
Call For Details	TR-8600-0213	2.13	.0839	.433	1.97
3510-000251	TR-8600-0214	2.14	.0843	.437	1.97
Call For Details	TR-8600-0215	2.15	.0846	.437	1.97
Call For Details	TR-8600-0216	2.16	.0850	.437	1.97
3510-000250	TR-8600-0217	2.17	.0854	.437	1.97
Call For Details	TR-8600-0218	2.18	.0858	.437	1.97
Call For Details	TR-8600-0219	2.19	.0862	.437	1.97
Call For Details	TR-8600-0220	2.20	.0866	.437	1.97
Call For Details	TR-8600-0221	2.21	.0870	.437	1.97
Call For Details	TR-8600-0222	2.22	.0874	.437	1.97
Call For Details	TR-8600-0223	2.23	.0878	.437	1.97
3510-000402	TR-8600-0224	2.24	.0882	.433	1.97
3510-000179	TR-8600-0225	2.25	.0886	.433	1.97
Call For Details	TR-8600-0226	2.26	.0890	.433	1.97
Call For Details	TR-8600-0227	2.27	.0894	.433	1.97
3510-000292	TR-8600-0228	2.28	.0897	.433	1.97
3510-000404	TR-8600-0229	2.29	.0902	.433	1.97
3510-000393	TR-8600-0230	2.30	.0905	.433	1.97
Call For Details	TR-8600-0231	2.31	.0909	.437	1.97
3510-000188	TR-8600-0232	2.32	.0913	.433	1.97
Call For Details	TR-8600-0233	2.33	.0917	.433	1.97
3510-000291	TR-8600-0234	2.34	.0921	.433	1.97
3510-000127	TR-8600-0235	2.35	.0925	.433	1.97
3510-000128	TR-8600-0236	2.36	.0929	.433	1.97
3510-000129	TR-8600-0237	2.37	.0933	.590	2.25
3510-000130	TR-8600-0238	2.38	.0937	.590	2.25
3866-000351	TR-8600-0239	2.39	.0941	.590	2.25
3510-000145	TR-8600-0240	2.4	.0945	.590	2.25
3510-000347	TR-8600-0241	2.41	.0949	.590	2.25
3510-000371	TR-8600-0244	2.44	.0960	.590	1.97
3510-000196	TR-8600-0245	2.45	.0965	.590	2.25
3510-000189	TR-8600-0246	2.46	.0968	.590	2.25
3510-000287	TR-8600-0247	2.47	.0972	.590	2.25
3510-000288	TR-8600-0248	2.48	.0976	.590	2.25
3510-000131	TR-8600-0249	2.49	.0980	.590	2.25
3510-000159	TR-8600-0250	2.5	.0984"	.590	2.25
3510-000365	TR-8600-0251	2.51	.0988"	.590	2.25
3510-000182	TR-8600-0254	2.54	.0100"	.590	2.25
3510-000198	TR-8600-0255	2.55	.1003"	.590	2.25
3510-000398	TR-8600-0256	2.56	.1008"	.590	2.25
3510-000399	TR-8600-0258	2.58	.1016"	.590	2.25
3510-000400	TR-8600-0259	2.59	.1020"	.590	2.25
3510-000341	TR-8600-0261	2.61	.1028''	.590	2.25



Item No.	Description	D mm	D Inch	L	OAL
3510-000340	TR-8600-0262	2.62	.1031''	.590	2.25
3510-000132	TR-8600-0263	2.63	.1035''	.590	2.25
3510-000173	TR-8600-0267	2.67	.1051''	.590	2.25
3510-000174	TR-8600-0268	2.68	.1055''	.590	2.25
3510-000379	TR-8600-0269	2.69	.1059''	.590	2.25
3510-000359	TR-8600-0272	2.72	.1070"	.590	2.25
3510-000143	TR-8600-0277	2.77	.1091"	.590	2.25
3510-000362	TR-8600-0278	2.78	.1094''	.590	2.25
3510-000380	TR-8600-0279	2.79	.1098''	.590	2.25
3510-000372	TR-8600-0280	2.8	.1102"	.590	2.25
3510-000151	TR-8600-0283	2.83	.1114''	.590	2.25
3510-000316	TR-8600-0284	2.84	.1118''	.590	2.25
3510-000263	TR-8600-0288	2.88	.1134"	.590	2.25
3510-000295	TR-8600-0292	2.92	.1150"	.590	2.25
3510-000302	TR-8600-0293	2.93	.1155"	.590	2.25
3510-000233	TR-8600-0295	2.95	.1161"	.590	2.25
3510-000234	TR-8600-0296	2.96	.1165"	.590	2.25
3510-000252	TR-8600-0298	2.98	.1173''	.590	2.25
3510-000210	TR-8600-0299	2.99	.1177''	.590	2.25
3510-000255	TR-8600-0300	3	.1181''	.590	2.25
3510-000231	TR-8600-0301	3.01	.1185''	.590	2.25
3510-000337	TR-8600-0302	3.02	.1189"	.590	2.25
3510-000338	TR-8600-0303	3.03	.1193"	.590	2.25
3510-000134	TR-8600-0305	3.05	.1201''	.590	2.25
3510-000354	TR-8600-0306	3.06	.1204''	.590	2.25
3510-000232	TR-8600-0309	3.09	.1216''	.590	2.25
3510-000315	TR-8600-0310	3.1	.1220''	.590	2.25
3510-000135	TR-8600-0311	3.11	.1224''	.590	2.25
3510-000355	TR-8600-0312	3.12	.12228"	.590	2.25
3510-000235	TR-8600-0313	3.13	.1232"	.590	2.25
3510-000236	TR-8600-0314	3.14	.1236"	.590	2.25
3510-000136	TR-8600-0316	3.16	.1244''	.590	2.25
3510-000357	TR-8600-0317	3.17	.1248''	.590	2.25
3510-000138	TR-8600-0318	3.18	.1252''	.590	2.25
3510-000206	TR-8600-0319	3.19	.1256''	.590	2.25
3510-000161	TR-8600-0320	3.2	.1260''	.590	2.25
3510-000171	TR-8600-0321	3.21	.1264''	.590	2.25
3510-000303	TR-8600-0322	3.22	.1268''	.590	2.25
3510-000172	TR-8600-0323	3.23	.1272''	.590	2.25
3510-000201	TR-8600-0324	3.24	.1275''	.590	2.25
3510-000282	TR-8600-0325	3.25	.1279''	.590	2.25

Additional Sizes Available - Call for Details



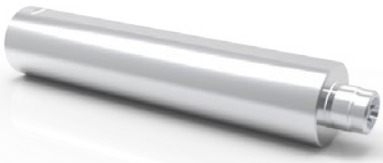
ADVANCED PRECISION MICRO TOOL HOLDERS

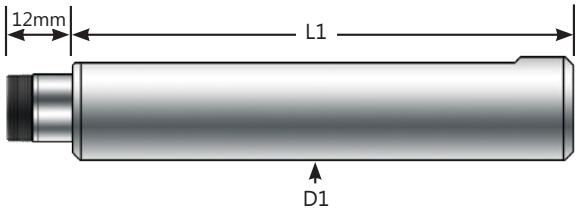
TIR <.0002 inch

Perfect Concentricity For Micro Drills

Look to ***GenSwiss*** **Micro Drill Holders** for a new standard in holding micro drills in CNC Swiss Machines and Precision Lathes.

Take the **NEXT STEP** in precision micro drilling performance to meet today's ever changing demands for high performance, tight tolerance, micro parts production.





Advanced Precision Collet Sleeves

Item No.	Description	Collet	D1	L1	Nut & Wrench Included
1026-000101A	CS-CHK-127-026A	CHK	.500in	26mm	Yes
1026-000100A	CS-CHK-190-076A	CHK	.750in	76mm	Yes
1026-000102A	CS-CHK-254-121A	CHK	1.00in	121mm	Yes



Precision CHK Collets 0.5mm - 5.8mm ID

Item No.	Description	Size
1007-000100	CC-CHK-0.5	0.5mm
1007-000101	CC-CHK-0.6	0.6mm
1007-000102	CC-CHK-0.7	0.7mm
1007-000103	CC-CHK-0.8	0.8mm
1007-000104	CC-CHK-0.9	0.9mm
1007-000105	CC-CHK-1.0	1.0mm
1007-000106	CC-CHK-1.1	1.1mm
1007-000107	CC-CHK-1.2	1.2mm
1007-000108	CC-CHK-1.3	1.3mm
1007-000109	CC-CHK-1.4	1.4mm
1007-000110	CC-CHK-1.5	1.5mm
1007-000111	CC-CHK-1.6	1.6mm
1007-000112	CC-CHK-1.7	1.7mm
1007-000113	CC-CHK-1.8	1.8mm
1007-000114	CC-CHK-1.9	1.9mm
1007-000115	CC-CHK-2.0	2.0mm
1007-000116	CC-CHK-2.1	2.1mm
1007-000117	CC-CHK-2.2	2.2mm
1007-000118	CC-CHK-2.3	2.3mm

Item No.	Description	Size
1007-000119	CC-CHK-2.35	2.35mm
1007-000120	CC-CHK-2.4	2.4mm
1007-000121	CC-CHK-2.5	2.5mm
1007-000122	CC-CHK-2.6	2.6mm
1007-000123	CC-CHK-2.7	2.7mm
1007-000124	CC-CHK-2.8	2.8mm
1007-000125	CC-CHK-2.9	2.9mm
1007-000126	CC-CHK-3.0	3.0mm
1007-000127	CC-CHK-3.1	3.1mm
1007-000128	CC-CHK-3.175	1/8in
1007-000129	CC-CHK-3.2	3.2mm
1007-000130	CC-CHK-3.3	3.3mm
1007-000131	CC-CHK-3.4	3.4mm
1007-000132	CC-CHK-3.5	3.5mm
1007-000133	CC-CHK-3.6	3.6mm
1007-000134	CC-CHK-3.7	3.7mm
1007-000135	CC-CHK-3.8	3.8mm
1007-000136	CC-CHK-3.9	3.9mm
1007-000137	CC-CHK-4.0	4.0mm

Item No.	Description	Size
1007-000138	CC-CHK-4.1	4.1mm
1007-000139	CC-CHK-4.2	4.2mm
1007-000140	CC-CHK-4.3	4.3mm
1007-000141	CC-CHK-4.4	4.4mm
1007-000142	CC-CHK-4.5	4.5mm
1007-000143	CC-CHK-4.6	4.6mm
1007-000144	CC-CHK-4.7	4.7mm
1007-000145	CC-CHK-4.76	3/16in
1007-000146	CC-CHK-4.8	4.8mm
1007-000147	CC-CHK-4.9	4.9mm
1007-000148	CC-CHK-5.0	5.0mm
1007-000149	CC-CHK-5.1	5.1mm
1007-000150	CC-CHK-5.2	5.2mm
1007-000151	CC-CHK-5.3	5.3mm
1007-000152	CC-CHK-5.4	5.4mm
1007-000153	CC-CHK-5.5	5.5mm
1007-000154	CC-CHK-5.6	5.6mm
1007-000155	CC-CHK-5.7	5.7mm
1007-000156	CC-CHK-5.8	5.8mm



Nut

Item No.	Description
1017-000100	CN-CHK



Wrench

Item No.	Description
1035-000114	CW-CHK 14mm

Note: (1) Clamping Nut and Wrench Required*

Notes:

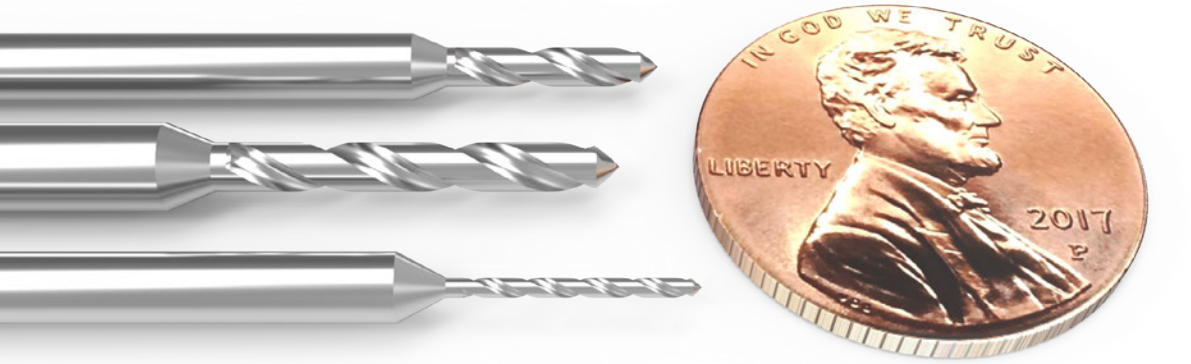
MICRO DRILLS

GenSwiss Micro Drills are a cost-effective solution for hard-to-find small diameter solid carbide micro drills and micro spotting tools. Swiss-style precision ensures maximum reliability, accuracy and finish results. When consistency of hole tolerance control is paramount, look to GenSwiss Micro Drills.

Sizes From .1mm (.004in) Up To 3mm (.1181in)

Precision Ground & Finished

Makes Use Of Readily Available ER Collets



Micro Drill Series Descriptions

Series	Material	Depth	Flute Ø	Flute Length	Drill Point	Helix	# of Flutes	Tolerance	Coolant-Thru
3610	HSS	2-3 x Ø	0.20-3.0mm	0.6-5.3mm	120°	35°	2	h6	No
3620	HSS	5 x Ø	0.10-3.0mm	0.7-18.0mm	120°	24°	2	h6	No
3630	Solid Carbide	2-3 x Ø	0.20-3.0mm	0.9-7.5mm	120°	24°	2	h6	No
3680	Solid Carbide	4-5 x Ø	0.20-1.99mm	1.1-8.4mm	120°	24°	2	h6	No
3640	Solid Carbide	4-5 x Ø	0.20-1.37mm	1.1-6.7mm	120°	35°	2	h6	No
3650	Solid Carbide	5-7 x Ø	0.10-1.99mm	0.5-12.0mm	140°	35°	2	h6	No
3660	Solid Carbide	6-7 x Ø	0.50-3.0mm	3.5-21.0mm	140°	30°	2	h4	No
3670	Solid Carbide	12 x Ø	0.50-2.0mm	6.0-24.0mm	140°	30°	2	h5	No
3690	Solid Carbide	15 x Ø	2.05-3.0mm	34-50mm	140°	30°	2	h5	Yes
3700	Solid Carbide	10 x Ø	0.20-3.0mm	2.0-30.0mm	120°	None	Half Round	h5	No
3710	Solid Carbide	4-6 x Ø	0.50-1.5mm	3.0-5.0mm	140°	30°	3	h5	No
3720	Solid Carbide	4-6 x Ø	0.50-3.0mm	6.0-16.0mm	140°	30°	3	h5	No

See the following pages for part numbers and sizes

Ti-Loc Tool Holder

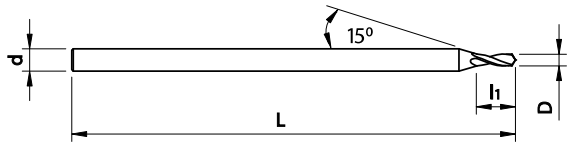
- **Enables micro tools to clear the guide bushing**
- **Maintains exceptional TIR at extended length**
- **Solves deflection and chatter issues**
- **Available in ER8, ER11, ER16, ER20, & ER25 sizes**



See Page 108

3610 Series - HiCo8 Cobalt - Center / Pilot / Spotting

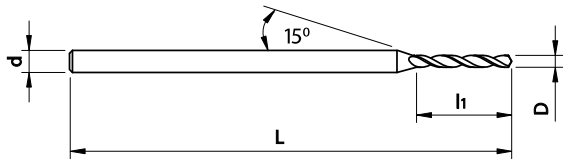
Material	Execution	Drill Point	Flute Helix	Flutes	Tolerance
HiCo8 HSS	Right Hand	120˚	35˚	2	H6



Item No.	Description	D Flute Ø (mm)	D Flute Ø (inch)	d Shank Ø (mm)	L1 Flute Length	OAL (mm)
3610-000100	GD1-020-1.5-060-H	0.20	0.0079	1.5	0.6	25
3610-000101	GD1-025-1.5-080-H	0.25	0.0098	1.5	0.8	25
3610-000102	GD1-030-1.5-090-H	0.30	0.0118	1.5	0.9	25
3610-000103	GD1-035-1.5-100-H	0.35	0.0138	1.5	1.0	25
3610-000104	GD1-040-1.5-100-H	0.40	0.0157	1.5	1.0	25
3610-000105	GD1-045-1.5-120-H	0.45	0.0177	1.5	1.2	25
3610-000106	GD1-050-1.5-120-H	0.50	0.0197	1.5	1.2	25
3610-000107	GD1-055-1.5-140-H	0.55	0.0217	1.5	1.4	25
3610-000108	GD1-060-1.5-140-H	0.60	0.0236	1.5	1.4	25
3610-000109	GD1-065-1.5-170-H	0.65	0.0256	1.5	1.7	25
3610-000110	GD1-070-1.5-170-H	0.70	0.0276	1.5	1.7	25
3610-000111	GD1-075-1.5-180-H	0.75	0.0295	1.5	1.8	25
3610-000112	GD1-080-1.5-180-H	0.80	0.0315	1.5	1.8	25
3610-000113	GD1-085-1.5-180-H	0.85	0.0335	1.5	1.8	25
3610-000114	GD1-090-1.5-180-H	0.90	0.0354	1.5	1.8	25
3610-000115	GD1-095-1.5-200-H	0.95	0.0374	1.5	2.0	25
3610-000116	GD1-100-1.5-200-H	1.00	0.0394	1.5	2.0	25
3610-000117	GD1-105-1.5-230-H	1.05	0.0413	1.5	2.3	25
3610-000118	GD1-110-1.5-230-H	1.10	0.0433	1.5	2.3	25
3610-000119	GD1-115-1.5-230-H	1.15	0.0453	1.5	2.3	25
3610-000120	GD1-120-1.5-230-H	1.20	0.0472	1.5	2.3	25
3610-000121	GD1-125-1.5-270-H	1.25	0.0492	1.5	2.7	25
3610-000122	GD1-130-1.5-270-H	1.30	0.0512	1.5	2.7	25
3610-000123	GD1-135-1.5-270-H	1.35	0.0531	1.5	2.7	25
3610-000124	GD1-140-1.5-270-H	1.40	0.0551	1.5	2.7	25
3610-000125	GD1-145-1.5-270-H	1.45	0.0571	1.5	2.7	25
3610-000126	GD1-150-2.0-300-H	1.50	0.0591	2.0	3.0	25
3610-000127	GD1-160-2.0-300-H	1.60	0.0630	2.0	3.0	25
3610-000128	GD1-170-2.0-330-H	1.70	0.0669	2.0	3.3	25
3610-000129	GD1-180-2.0-330-H	1.80	0.0709	2.0	3.3	25
3610-000130	GD1-190-2.0-300-H	1.90	0.0748	2.0	3.3	25
3610-000131	GD1-200-2.0-400-H	2.00	0.0787	2.0	4.0	25
3610-000132	GD1-210-2.5-400-H	2.10	0.0827	2.5	4.0	25
3610-000133	GD1-220-2.5-400-H	2.20	0.0866	2.5	4.0	25
3610-000134	GD1-230-2.5-460-H	2.30	0.0906	2.5	4.6	25
3610-000135	GD1-240-2.5-460-H	2.40	0.0945	2.5	4.6	25
3610-000136	GD1-250-2.5-460-H	2.50	0.0984	2.5	4.6	25
3610-000137	GD1-260-3.0-460-H	2.60	0.1024	3.0	4.6	25
3610-000138	GD1-270-3.0-530-H	2.70	0.1063	3.0	5.3	25
3610-000139	GD1-280-3.0-530-H	2.80	0.1102	3.0	5.3	25
3610-000140	GD1-290-3.0-530-H	2.90	0.1142	3.0	5.3	25
3610-000141	GD1-300-3.0-530-H	3.00	0.1181	3.0	5.3	25

3620 Series - HiCo8 Cobalt - 5 x D Depth

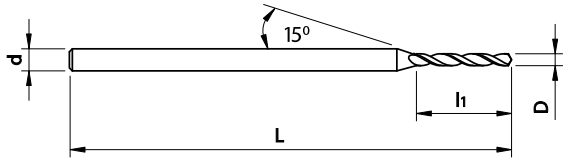
Material	Execution	Drill Point	Flute Helix	Flutes	Tolerance
HiCo8 HSS	Right Hand	120˚	24˚	2	H6



Item No.	Description	D Flute Ø (mm)	D Flute Ø (inch)	d Shank Ø (mm)	L1 Flute Length	OAL (mm)
3620-000100	GD2-010-1.0-070-H	0.10	0.0039	1.0	0.7	25
3620-000101	GD2-011-1.0-070-H	0.11	0.0043	1.0	0.7	25
3620-000102	GD2-012-1.0-070-H	0.12	0.0047	1.0	0.7	25
3620-000103	GD2-013-1.0-100-H	0.13	0.0051	1.0	1.0	25
3620-000104	GD2-014-1.0-100-H	0.14	0.0055	1.0	1.0	25
3620-000105	GD2-015-1.0-100-H	0.15	0.0059	1.0	1.0	25
3620-000106	GD2-016-1.0-140-H	0.16	0.0063	1.0	1.4	25
3620-000107	GD2-017-1.0-140-H	0.17	0.0067	1.0	1.4	25
3620-000108	GD2-018-1.0-140-H	0.18	0.0071	1.0	1.4	25
3620-000109	GD2-019-1.0-140-H	0.19	0.0075	1.0	1.4	25
3620-000110	GD2-020-1.0-180-H	0.20	0.0079	1.0	1.8	25
3620-000111	GD2-021-1.0-180-H	0.21	0.0083	1.0	1.8	25
3620-000112	GD2-022-1.0-180-H	0.22	0.0087	1.0	1.8	25
3620-000113	GD2-023-1.0-180-H	0.23	0.0091	1.0	1.8	25
3620-000114	GD2-024-1.0-180-H	0.24	0.0094	1.0	1.8	25
3620-000115	GD2-025-1.0-220-H	0.25	0.0098	1.0	2.2	25
3620-000116	GD2-026-1.0-220-H	0.26	0.0102	1.0	2.2	25
3620-000117	GD2-027-1.0-220-H	0.27	0.0106	1.0	2.2	25
3620-000118	GD2-028-1.0-220-H	0.28	0.0110	1.0	2.2	25
3620-000119	GD2-029-1.0-220-H	0.29	0.0114	1.0	2.2	25
3620-000120	GD2-030-1.0-220-H	0.30	0.0118	1.0	2.2	25
3620-000121	GD2-031-1.0-280-H	0.31	0.0122	1.0	2.8	25
3620-000122	GD2-032-1.0-280-H	0.32	0.0126	1.0	2.8	25
3620-000123	GD2-033-1.0-280-H	0.33	0.0130	1.0	2.8	25
3620-000124	GD2-034-1.0-280-H	0.34	0.0134	1.0	2.8	25
3620-000125	GD2-035-1.0-280-H	0.35	0.0138	1.0	2.8	25
3620-000126	GD2-036-1.0-280-H	0.36	0.0142	1.0	2.8	25
3620-000127	GD2-037-1.0-280-H	0.37	0.0146	1.0	2.8	25
3620-000128	GD2-038-1.0-280-H	0.38	0.0150	1.0	2.8	25
3620-000129	GD2-039-1.0-280-H	0.39	0.0154	1.0	2.8	25
3620-000130	GD2-040-1.0-320-H	0.40	0.0157	1.0	3.2	25
3620-000131	GD2-041-1.0-320-H	0.41	0.0161	1.0	3.2	25
3620-000132	GD2-042-1.0-320-H	0.42	0.0165	1.0	3.2	25
3620-000133	GD2-043-1.0-320-H	0.43	0.0169	1.0	3.2	25
3620-000134	GD2-044-1.0-320-H	0.44	0.0173	1.0	3.2	25
3620-000135	GD2-045-1.0-320-H	0.45	0.0177	1.0	3.2	25
3620-000136	GD2-046-1.0-360-H	0.46	0.0181	1.0	3.6	25
3620-000137	GD2-047-1.0-360-H	0.47	0.0185	1.0	3.6	25
3620-000138	GD2-048-1.0-360-H	0.48	0.0189	1.0	3.6	25
3620-000139	GD2-049-1.0-360-H	0.49	0.0193	1.0	3.6	25
3620-000140	GD2-050-1.0-360-H	0.50	0.0197	1.0	3.6	25
3620-000141	GD2-051-1.5-400-H	0.51	0.0201	1.5	4.0	25
3620-000142	GD2-052-1.5-400-H	0.52	0.0205	1.5	4.0	25
3620-000143	GD2-053-1.5-400-H	0.53	0.0209	1.5	4.0	25
3620-000144	GD2-054-1.5-400-H	0.54	0.0213	1.5	4.0	25
3620-000145	GD2-055-1.5-400-H	0.55	0.0217	1.5	4.0	25
3620-000146	GD2-056-1.5-450-H	0.56	0.0220	1.5	4.5	25
3620-000147	GD2-057-1.5-450-H	0.57	0.0224	1.5	4.5	25
3620-000148	GD2-058-1.5-450-H	0.58	0.0228	1.5	4.5	25

3620 Series - HiCo8 Cobalt - 5 x D Depth (Continued)

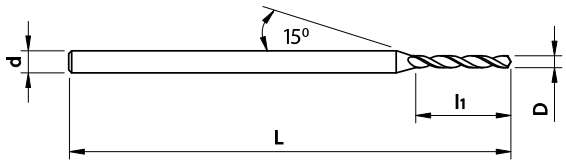
Material	Execution	Drill Point	Flute Helix	Flutes	Tolerance
HiCo8 HSS	Right Hand	120˚	24˚	2	H6



Item No.	Description	D Flute Ø (mm)	D Flute Ø (inch)	d Shank Ø (mm)	L1 Flute Length	OAL (mm)
3620-000149	GD2-059-1.5-450-H	0.59	0.0232	1.5	4.5	25
3620-000150	GD2-060-1.5-450-H	0.60	0.0236	1.5	4.5	25
3620-000151	GD2-061-1.5-470-H	0.61	0.0240	1.5	4.7	25
3620-000152	GD2-062-1.5-470-H	0.62	0.0244	1.5	4.7	25
3620-000153	GD2-063-1.5-470-H	0.63	0.0248	1.5	4.7	25
3620-000154	GD2-064-1.5-470-H	0.64	0.0252	1.5	4.7	25
3620-000155	GD2-065-1.5-470-H	0.65	0.0256	1.5	4.7	25
3620-000156	GD2-066-1.5-470-H	0.66	0.026	1.5	4.7	25
3620-000157	GD2-067-1.5-470-H	0.67	0.0264	1.5	4.7	25
3620-000158	GD2-068-1.5-520-H	0.68	0.0268	1.5	5.2	25
3620-000159	GD2-069-1.5-520-H	0.69	0.0272	1.5	5.2	25
3620-000160	GD2-070-1.5-520-H	0.70	0.0276	1.5	5.2	25
3620-000161	GD2-071-1.5-520-H	0.71	0.0280	1.5	5.2	25
3620-000162	GD2-072-1.5-520-H	0.72	0.0283	1.5	5.2	25
3620-000163	GD2-073-1.5-520-H	0.73	0.0287	1.5	5.2	25
3620-000164	GD2-074-1.5-520-H	0.74	0.0291	1.5	5.2	25
3620-000165	GD2-075-1.5-520-H	0.75	0.0295	1.5	5.2	25
3620-000166	GD2-076-1.5-550-H	0.76	0.0299	1.5	5.5	25
3620-000167	GD2-077-1.5-550-H	0.77	0.0303	1.5	5.5	25
3620-000168	GD2-078-1.5-550-H	0.78	0.0307	1.5	5.5	25
3620-000169	GD2-079-1.5-550-H	0.79	0.0311	1.5	5.5	25
3620-000170	GD2-080-1.5-550-H	0.80	0.0315	1.5	5.5	25
3620-000171	GD2-081-1.5-550-H	0.81	0.0319	1.5	5.5	25
3620-000172	GD2-082-1.5-550-H	0.82	0.0323	1.5	5.5	25
3620-000173	GD2-083-1.5-550-H	0.83	0.0327	1.5	5.5	25
3620-000174	GD2-084-1.5-550-H	0.84	0.0331	1.5	5.5	25
3620-000175	GD2-085-1.5-550-H	0.85	0.0335	1.5	5.5	25
3620-000176	GD2-086-1.5-600-H	0.86	0.0339	1.5	6.0	25
3620-000177	GD2-087-1.5-600-H	0.87	0.0343	1.5	6.0	25
3620-000178	GD2-088-1.5-600-H	0.88	0.0346	1.5	6.0	25
3620-000179	GD2-089-1.5-600-H	0.89	0.0350	1.5	6.0	25
3620-000180	GD2-090-1.5-600-H	0.90	0.0354	1.5	6.0	25
3620-000181	GD2-091-1.5-600-H	0.91	0.0358	1.5	6.0	25
3620-000182	GD2-092-1.5-600-H	0.92	0.0362	1.5	6.0	25
3620-000183	GD2-093-1.5-600-H	0.93	0.0366	1.5	6.0	25
3620-000184	GD2-094-1.5-600-H	0.94	0.0370	1.5	6.0	25
3620-000185	GD2-095-1.5-600-H	0.95	0.0374	1.5	6.0	25
3620-000186	GD2-096-1.5-650-H	0.96	0.0378	1.5	6.5	25
3620-000187	GD2-097-1.5-650-H	0.97	0.0382	1.5	6.5	25
3620-000188	GD2-098-1.5-650-H	0.98	0.0386	1.5	6.5	25
3620-000189	GD2-099-1.5-650-H	0.99	0.0390	1.5	6.5	25
3620-000190	GD2-100-1.5-650-H	1.00	0.0394	1.5	6.5	25
3620-000191	GD2-101-1.5-650-H	1.01	0.0398	1.5	6.5	25
3620-000192	GD2-102-1.5-650-H	1.02	0.0402	1.5	6.5	25
3620-000193	GD2-103-1.5-650-H	1.03	0.0406	1.5	6.5	25
3620-000194	GD2-104-1.5-650-H	1.04	0.0409	1.5	6.5	25
3620-000195	GD2-105-1.5-650-H	1.05	0.0413	1.5	6.5	25
3620-000196	GD2-106-1.5-700-H	1.06	0.0417	1.5	7.0	25
3620-000197	GD2-107-1.5-700-H	1.07	0.0421	1.5	7.0	25
3620-000198	GD2-108-1.5-700-H	1.08	0.0425	1.5	7.0	25

3620 Series - HiCo8 Cobalt - 5 x D Depth (Continued)

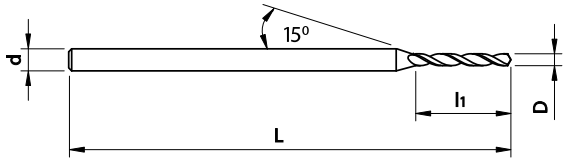
Material	Execution	Drill Point	Flute Helix	Flutes	Tolerance
HiCo8 HSS	Right Hand	120˚	24˚	2	H6



Item No.	Description	D Flute Ø (mm)	D Flute Ø (inch)	d Shank Ø (mm)	L1 Flute Length	OAL (mm)
3620-000199	GD2-109-1.5-700-H	1.09	0.0429	1.5	7.0	25
3620-000200	GD2-110-1.5-700-H	1.10	0.0433	1.5	7.0	25
3620-000201	GD2-111-1.5-700-H	1.11	0.0437	1.5	7.0	25
3620-000202	GD2-112-1.5-700-H	1.12	0.0441	1.5	7.0	25
3620-000203	GD2-113-1.5-700-H	1.13	0.0445	1.5	7.0	25
3620-000204	GD2-114-1.5-700-H	1.14	0.0449	1.5	7.0	25
3620-000205	GD2-115-1.5-700-H	1.15	0.0453	1.5	7.0	25
3620-000206	GD2-116-1.5-750-H	1.16	0.0457	1.5	7.5	25
3620-000207	GD2-117-1.5-750-H	1.17	0.0461	1.5	7.5	25
3620-000208	GD2-118-1.5-750-H	1.18	0.0465	1.5	7.5	25
3620-000209	GD2-119-1.5-750-H	1.19	0.0469	1.5	7.5	25
3620-000210	GD2-120-1.5-750-H	1.20	0.0472	1.5	7.5	25
3620-000211	GD2-121-1.5-750-H	1.21	0.0476	1.5	7.5	25
3620-000212	GD2-122-1.5-750-H	1.22	0.0480	1.5	7.5	25
3620-000213	GD2-123-1.5-750-H	1.23	0.0484	1.5	7.5	25
3620-000214	GD2-124-1.5-750-H	1.24	0.0488	1.5	7.5	25
3620-000215	GD2-125-1.5-750-H	1.25	0.0492	1.5	7.5	25
3620-000216	GD2-126-1.5-750-H	1.26	0.0496	1.5	7.5	25
3620-000217	GD2-127-1.5-750-H	1.27	0.0500	1.5	7.5	25
3620-000218	GD2-128-1.5-750-H	1.28	0.0504	1.5	7.5	25
3620-000219	GD2-129-1.5-750-H	1.29	0.0508	1.5	7.5	25
3620-000220	GD2-130-1.5-750-H	1.30	0.0512	1.5	7.5	25
3620-000221	GD2-131-1.5-850-H	1.31	0.0516	1.5	8.5	25
3620-000222	GD2-132-1.5-850-H	1.32	0.0520	1.5	8.5	25
3620-000223	GD2-133-1.5-850-H	1.33	0.0524	1.5	8.5	25
3620-000224	GD2-134-1.5-850-H	1.34	0.0528	1.5	8.5	25
3620-000225	GD2-135-1.5-850-H	1.35	0.0531	1.5	8.5	25
3620-000226	GD2-136-1.5-850-H	1.36	0.0535	1.5	8.5	25
3620-000227	GD2-137-1.5-850-H	1.37	0.0539	1.5	8.5	25
3620-000228	GD2-138-1.5-850-H	1.38	0.0543	1.5	8.5	25
3620-000229	GD2-139-1.5-850-H	1.39	0.0547	1.5	8.5	25
3620-000230	GD2-140-1.5-850-H	1.40	0.0551	1.5	8.5	25
3620-000231	GD2-141-1.5-850-H	1.41	0.0555	1.5	8.5	25
3620-000232	GD2-142-1.5-850-H	1.42	0.0559	1.5	8.5	25
3620-000233	GD2-143-1.5-850-H	1.43	0.0563	1.5	8.5	25
3620-000234	GD2-144-1.5-850-H	1.44	0.0567	1.5	8.5	25
3620-000235	GD2-145-1.5-850-H	1.45	0.0571	1.5	8.5	25
3620-000236	GD2-146-1.5-850-H	1.46	0.0575	1.5	8.5	25
3620-000237	GD2-147-1.5-850-H	1.47	0.0579	1.5	8.5	25
3620-000238	GD2-148-1.5-850-H	1.48	0.0583	1.5	8.5	25
3620-000239	GD2-149-1.5-850-H	1.49	0.0587	1.5	8.5	25
3620-000240	GD2-150-2.0-1000-H	1.50	0.0591	2.0	10.0	35
3620-000241	GD2-151-2.0-1000-H	1.51	0.0594	2.0	10.0	35
3620-000242	GD2-152-2.0-1000-H	1.52	0.0598	2.0	10.0	35
3620-000243	GD2-153-2.0-1000-H	1.53	0.0602	2.0	10.0	35
3620-000244	GD2-154-2.0-1000-H	1.54	0.0606	2.0	10.0	35
3620-000245	GD2-155-2.0-1000-H	1.55	0.0610	2.0	10.0	35
3620-000246	GD2-156-2.0-1000-H	1.56	0.0614	2.0	10.0	35
3620-000247	GD2-157-2.0-1000-H	1.57	0.0618	2.0	10.0	35

3620 Series - HiCo8 Cobalt - 5 x D Depth (Continued)

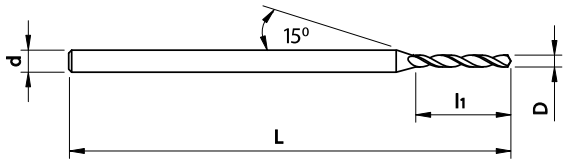
Material	Execution	Drill Point	Flute Helix	Flutes	Tolerance
HiCo8 HSS	Right Hand	120˚	24˚	2	H6



Item No.	Description	D Flute Ø (mm)	D Flute Ø (inch)	d Shank Ø (mm)	L1 Flute Length	OAL (mm)
3620-000248	GD2-158-2.0-1000-H	1.58	0.0622	2.0	10	35
3620-000249	GD2-159-2.0-1000-H	1.59	0.0626	2.0	10	35
3620-000250	GD2-160-2.0-1000-H	1.60	0.0630	2.0	10	35
3620-000251	GD2-161-2.0-1000-H	1.61	0.0634	2.0	10	35
3620-000252	GD2-162-2.0-1000-H	1.62	0.0638	2.0	10	35
3620-000253	GD2-163-2.0-1000-H	1.63	0.0642	2.0	10	35
3620-000254	GD2-164-2.0-1000-H	1.64	0.0646	2.0	10	35
3620-000255	GD2-165-2.0-1000-H	1.65	0.0650	2.0	10	35
3620-000256	GD2-166-2.0-1000-H	1.66	0.0654	2.0	10	35
3620-000257	GD2-167-2.0-1000-H	1.67	0.0657	2.0	10	35
3620-000258	GD2-168-2.0-1000-H	1.68	0.0661	2.0	10	35
3620-000259	GD2-169-2.0-1000-H	1.69	0.0665	2.0	10	35
3620-000260	GD2-170-2.0-1000-H	1.70	0.0669	2.0	10	35
3620-000261	GD2-171-2.0-1000-H	1.71	0.0673	2.0	10	35
3620-000262	GD2-172-2.0-1000-H	1.72	0.0677	2.0	10	35
3620-000263	GD2-173-2.0-1000-H	1.73	0.0681	2.0	10	35
3620-000264	GD2-174-2.0-1000-H	1.74	0.0685	2.0	10	35
3620-000265	GD2-175-2.0-1000-H	1.75	0.0689	2.0	10	35
3620-000266	GD2-176-2.0-1000-H	1.76	0.0693	2.0	10	35
3620-000267	GD2-177-2.0-1100-H	1.77	0.0697	2.0	11	35
3620-000268	GD2-178-2.0-1100-H	1.78	0.0701	2.0	11	35
3620-000269	GD2-179-2.0-1100-H	1.79	0.0705	2.0	11	35
3620-000270	GD2-180-2.0-1100-H	1.80	0.0709	2.0	11	35
3620-000271	GD2-181-2.0-1100-H	1.81	0.0713	2.0	11	35
3620-000272	GD2-182-2.0-1100-H	1.82	0.0717	2.0	11	35
3620-000273	GD2-183-2.0-1100-H	1.83	0.072	2.0	11	35
3620-000274	GD2-184-2.0-1100-H	1.84	0.0724	2.0	11	35
3620-000275	GD2-185-2.0-1100-H	1.85	0.0728	2.0	11	35
3620-000276	GD2-186-2.0-1100-H	1.86	0.0732	2.0	11	35
3620-000277	GD2-187-2.0-1100-H	1.87	0.0736	2.0	11	35
3620-000278	GD2-188-2.0-1100-H	1.88	0.0740	2.0	11	35
3620-000279	GD2-189-2.0-1100-H	1.89	0.0744	2.0	11	35
3620-000280	GD2-190-2.0-1100-H	1.90	0.0748	2.0	11	35
3620-000281	GD2-191-2.0-1100-H	1.91	0.0752	2.0	11	35
3620-000282	GD2-192-2.0-1100-H	1.92	0.0756	2.0	11	35
3620-000283	GD2-193-2.0-1100-H	1.93	0.0760	2.0	11	35
3620-000284	GD2-194-2.0-1100-H	1.94	0.0764	2.0	11	35
3620-000285	GD2-195-2.0-1100-H	1.95	0.0768	2.0	11	35
3620-000286	GD2-196-2.0-1100-H	1.96	0.0772	2.0	11	35
3620-000287	GD2-197-2.0-1100-H	1.97	0.0776	2.0	11	35
3620-000288	GD2-198-2.0-1100-H	1.98	0.0780	2.0	11	35
3620-000289	GD2-199-2.0-1100-H	1.99	0.0783	2.0	11	35
3620-000290	GD2-200-2.0-1100-H	2.00	0.0787	2.0	11	35
3620-000291	GD2-201-2.5-1200-H	2.01	0.0791	2.5	12	35
3620-000292	GD2-202-2.5-1200-H	2.02	0.0795	2.5	12	35
3620-000293	GD2-203-2.5-1200-H	2.03	0.0799	2.5	12	35
3620-000294	GD2-204-2.5-1200-H	2.04	0.0803	2.5	12	35
3620-000295	GD2-205-2.5-1200-H	2.05	0.0807	2.5	12	35
3620-000296	GD2-206-2.5-1200-H	2.06	0.0811	2.5	12	35

3620 Series - HiCo8 Cobalt - 5 x D Depth (Continued)

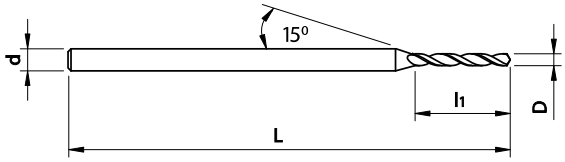
Material	Execution	Drill Point	Flute Helix	Flutes	Tolerance
HiCo8 HSS	Right Hand	120˚	24˚	2	H6



Item No.	Description	D Flute Ø (mm)	D Flute Ø (inch)	d Shank Ø (mm)	L1 Flute Length	OAL (mm)
3620-000297	GD2-207-2.5-1200-H	2.07	0.0815	2.5	12	35
3620-000298	GD2-208-2.5-1200-H	2.08	0.0819	2.5	12	35
3620-000299	GD2-209-2.5-1200-H	2.09	0.0823	2.5	12	35
3620-000300	GD2-210-2.5-1200-H	2.10	0.0827	2.5	12	35
3620-000301	GD2-211-2.5-1200-H	2.11	0.0831	2.5	12	35
3620-000302	GD2-212-2.5-1200-H	2.12	0.0835	2.5	12	35
3620-000303	GD2-213-2.5-1200-H	2.13	0.0839	2.5	12	35
3620-000304	GD2-214-2.5-1200-H	2.14	0.0843	2.5	12	35
3620-000305	GD2-215-2.5-1200-H	2.15	0.0846	2.5	12	35
3620-000306	GD2-216-2.5-1200-H	2.16	0.0850	2.5	12	35
3620-000307	GD2-217-2.5-1200-H	2.17	0.0854	2.5	12	35
3620-000308	GD2-218-2.5-1200-H	2.18	0.0858	2.5	12	35
3620-000309	GD2-219-2.5-1200-H	2.19	0.0862	2.5	12	35
3620-000310	GD2-220-2.5-1200-H	2.20	0.0866	2.5	12	35
3620-000311	GD2-221-2.5-1400-H	2.21	0.0870	2.5	14	35
3620-000312	GD2-222-2.5-1400-H	2.22	0.0874	2.5	14	35
3620-000313	GD2-223-2.5-1400-H	2.23	0.0878	2.5	14	35
3620-000314	GD2-224-2.5-1400-H	2.24	0.0882	2.5	14	35
3620-000315	GD2-225-2.5-1400-H	2.25	0.0886	2.5	14	35
3620-000316	GD2-226-2.5-1400-H	2.26	0.0890	2.5	14	35
3620-000317	GD2-227-2.5-1400-H	2.27	0.0894	2.5	14	35
3620-000318	GD2-228-2.5-1400-H	2.28	0.0898	2.5	14	35
3620-000319	GD2-229-2.5-1400-H	2.29	0.0902	2.5	14	35
3620-000320	GD2-230-2.5-1400-H	2.30	0.0906	2.5	14	35
3620-000321	GD2-231-2.5-1400-H	2.31	0.0909	2.5	14	35
3620-000322	GD2-232-2.5-1400-H	2.32	0.0913	2.5	14	35
3620-000323	GD2-233-2.5-1400-H	2.33	0.0917	2.5	14	35
3620-000324	GD2-234-2.5-1400-H	2.34	0.0921	2.5	14	35
3620-000325	GD2-235-2.5-1400-H	2.35	0.0925	2.5	14	35
3620-000326	GD2-236-2.5-1400-H	2.36	0.0929	2.5	14	35
3620-000327	GD2-237-2.5-1400-H	2.37	0.0933	2.5	14	35
3620-000328	GD2-238-2.5-1400-H	2.38	0.0937	2.5	14	35
3620-000329	GD2-239-2.5-1400-H	2.39	0.0941	2.5	14	35
3620-000330	GD2-240-2.5-1400-H	2.40	0.0945	2.5	14	35
3620-000331	GD2-241-2.5-1400-H	2.41	0.0949	2.5	14	35
3620-000332	GD2-242-2.5-1400-H	2.42	0.0953	2.5	14	35
3620-000333	GD2-243-2.5-1400-H	2.43	0.0957	2.5	14	35
3620-000334	GD2-244-2.5-1400-H	2.44	0.0961	2.5	14	35
3620-000335	GD2-245-2.5-1400-H	2.45	0.0965	2.5	14	35
3620-000336	GD2-246-2.5-1400-H	2.46	0.0969	2.5	14	35
3620-000337	GD2-247-2.5-1400-H	2.47	0.0972	2.5	14	35
3620-000338	GD2-248-2.5-1400-H	2.48	0.0976	2.5	14	35
3620-000339	GD2-249-2.5-1400-H	2.49	0.0980	2.5	14	35
3620-000340	GD2-250-2.5-1400-H	2.50	0.0984	2.5	14	35
3620-000341	GD2-251-300-1600-H	2.51	0.0988	3.0	16	40
3620-000342	GD2-252-300-1600-H	2.52	0.0992	3.0	16	40
3620-000343	GD2-253-300-1600-H	2.53	0.0996	3.0	16	40
3620-000344	GD2-254-300-1600-H	2.54	0.1000	3.0	16	40
3620-000345	GD2-255-300-1600-H	2.55	0.1004	3.0	16	40

3620 Series - HiCo8 Cobalt - 5 x D Depth (Continued)

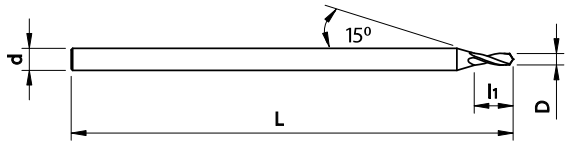
Material	Execution	Drill Point	Flute Helix	Flutes	Tolerance
HiCo8 HSS	Right Hand	120˚	24˚	2	H6



Item No.	Description	D Flute Ø (mm)	D Flute Ø (inch)	d Shank Ø (mm)	L1 Flute Length	OAL (mm)
3620-000346	GD2-256-300-1600-H	2.56	0.1008	3.0	16	40
3620-000347	GD2-257-300-1600-H	2.57	0.1012	3.0	16	40
3620-000348	GD2-258-300-1600-H	2.58	0.1016	3.0	16	40
3620-000349	GD2-259-300-1600-H	2.59	0.1020	3.0	16	40
3620-000350	GD2-260-300-1600-H	2.60	0.1024	3.0	16	40
3620-000351	GD2-261-300-1600-H	2.61	0.1028	3.0	16	40
3620-000352	GD2-262-300-1600-H	2.62	0.1031	3.0	16	40
3620-000353	GD2-263-300-1600-H	2.63	0.1035	3.0	16	40
3620-000354	GD2-264-300-1600-H	2.64	0.1039	3.0	16	40
3620-000355	GD2-265-300-1600-H	2.65	0.1043	3.0	16	40
3620-000356	GD2-266-300-1600-H	2.66	0.1047	3.0	16	40
3620-000357	GD2-267-300-1600-H	2.67	0.1051	3.0	16	40
3620-000358	GD2-268-300-1600-H	2.68	0.1055	3.0	16	40
3620-000359	GD2-269-300-1600-H	2.69	0.1059	3.0	16	40
3620-000360	GD2-270-300-1600-H	2.70	0.1063	3.0	16	40
3620-000361	GD2-271-300-1600-H	2.71	0.1067	3.0	16	40
3620-000362	GD2-272-300-1600-H	2.72	0.1071	3.0	16	40
3620-000363	GD2-273-300-1600-H	2.73	0.1075	3.0	16	40
3620-000364	GD2-274-300-1600-H	2.74	0.1079	3.0	16	40
3620-000365	GD2-275-300-1600-H	2.75	0.1083	3.0	16	40
3620-000366	GD2-276-300-1800-H	2.76	0.1087	3.0	18	40
3620-000367	GD2-277-300-1800-H	2.77	0.1091	3.0	18	40
3620-000368	GD2-278-300-1800-H	2.78	0.1094	3.0	18	40
3620-000369	GD2-279-300-1800-H	2.79	0.1098	3.0	18	40
3620-000370	GD2-280-300-1800-H	2.80	0.1102	3.0	18	40
3620-000371	GD2-281-300-1800-H	2.81	0.1106	3.0	18	40
3620-000372	GD2-282-300-1800-H	2.82	0.1110	3.0	18	40
3620-000373	GD2-283-300-1800-H	2.83	0.1114	3.0	18	40
3620-000374	GD2-284-300-1800-H	2.84	0.1118	3.0	18	40
3620-000375	GD2-285-300-1800-H	2.85	0.1122	3.0	18	40
3620-000376	GD2-286-300-1800-H	2.86	0.1126	3.0	18	40
3620-000377	GD2-287-300-1800-H	2.87	0.1130	3.0	18	40
3620-000378	GD2-288-300-1800-H	2.88	0.1134	3.0	18	40
3620-000379	GD2-289-300-1800-H	2.89	0.1138	3.0	18	40
3620-000380	GD2-290-300-1800-H	2.90	0.1142	3.0	18	40
3620-000381	GD2-291-300-1800-H	2.91	0.1146	3.0	18	40
3620-000382	GD2-292-300-1800-H	2.92	0.1150	3.0	18	40
3620-000383	GD2-293-300-1800-H	2.93	0.1154	3.0	18	40
3620-000384	GD2-294-300-1800-H	2.94	0.1157	3.0	18	40
3620-000385	GD2-295-300-1800-H	2.95	0.1161	3.0	18	40
3620-000386	GD2-296-300-1800-H	2.96	0.1165	3.0	18	40
3620-000387	GD2-297-300-1800-H	2.97	0.1169	3.0	18	40
3620-000388	GD2-298-300-1800-H	2.98	0.1173	3.0	18	40
3620-000389	GD2-299-300-1800-H	2.99	0.1177	3.0	18	40
3620-000390	GD2-300-300-1800-H	3.00	0.1181	3.0	18	40

3630 Series - Solid Carbide - Center / Pilot / Spotting

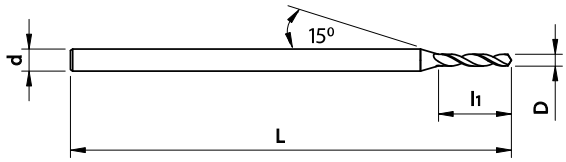
Material	Execution	Drill Point	Flute Helix	Flutes	Tolerance
Micro Grain Carbide	Right Hand	120˚	24˚	2	H6



Item No.	Description	D Flute Ø (mm)	D Flute Ø (inch)	d Shank Ø (mm)	L1 Flute Length	OAL (mm)
3630-000100	GD3-020-1.5-090-C	0.20	0.0079	1.5	0.9	30
3630-000101	GD3-025-1.5-090-C	0.25	0.0098	1.5	0.9	30
3630-000102	GD3-030-1.5-090-C	0.30	0.0118	1.5	0.9	30
3630-000103	GD3-035-1.5-012-C	0.35	0.0138	1.5	1.2	30
3630-000104	GD3-040-1.5-150-C	0.40	0.0157	1.5	1.5	30
3630-000105	GD3-045-1.5-150-C	0.45	0.0177	1.5	1.5	30
3630-000106	GD3-050-1.5-190-C	0.50	0.0197	1.5	1.9	30
3630-000107	GD3-055-1.5-190-C	0.55	0.0217	1.5	1.9	30
3630-000108	GD3-060-1.5-190-C	0.60	0.0236	1.5	1.9	30
3630-000109	GD3-065-1.5-210-C	0.65	0.0256	1.5	2.1	30
3630-000110	GD3-070-1.5-240-C	0.70	0.0276	1.5	2.4	30
3630-000111	GD3-075-1.5-240-C	0.75	0.0295	1.5	2.4	30
3630-000112	GD3-080-1.5-260-C	0.80	0.0315	1.5	2.6	30
3630-000113	GD3-085-1.5-260-C	0.85	0.0335	1.5	2.6	30
3630-000114	GD3-090-1.5-300-C	0.90	0.0354	1.5	3.0	30
3630-000115	GD3-095-1.5-300-C	0.95	0.0374	1.5	3.0	30
3630-000116	GD3-100-1.5-340-C	1.00	0.0394	1.5	3.4	30
3630-000117	GD3-105-1.5-340-C	1.05	0.0413	1.5	3.4	30
3630-000118	GD3-110-1.5-380-C	1.10	0.0433	1.5	3.8	30
3630-000119	GD3-115-1.5-380-C	1.15	0.0453	1.5	3.8	30
3630-000120	GD3-120-1.5-420-C	1.20	0.0472	1.5	4.2	30
3630-000121	GD3-125-1.5-420-C	1.25	0.0492	1.5	4.2	30
3630-000122	GD3-130-1.5-420-C	1.30	0.0512	1.5	4.2	30
3630-000123	GD3-135-1.5-470-C	1.35	0.0531	1.5	4.7	30
3630-000124	GD3-140-1.5-470-C	1.40	0.0551	1.5	4.7	30
3630-000125	GD3-145-1.5-470-C	1.45	0.0571	1.5	4.7	30
3630-000126	GD3-150-2.0-470-C	1.50	0.0591	2.0	4.7	38
3630-000127	GD3-160-2.0-540-C	1.60	0.0630	2.0	5.4	38
3630-000128	GD3-170-2.0-540-C	1.70	0.0669	2.0	5.4	38
3630-000129	GD3-180-2.0-650-C	1.80	0.0709	2.0	6.5	38
3630-000130	GD3-190-2.0-650-C	1.90	0.0748	2.0	6.5	38
3630-000131	GD3-200-3.0-650-C	2.00	0.0787	3.0	6.5	38
3630-000132	GD3-210-3.0-650-C	2.10	0.0827	3.0	6.5	38
3630-000133	GD3-220-3.0-650-C	2.20	0.0866	3.0	6.5	38
3630-000134	GD3-230-3.0-650-C	2.30	0.0906	3.0	6.5	38
3630-000135	GD3-240-3.0-650-C	2.40	0.0945	3.0	6.5	38
3630-000136	GD3-250-3.0-750-C	2.50	0.0984	3.0	7.5	38
3630-000137	GD3-260-3.0-750-C	2.60	0.1024	3.0	7.5	38
3630-000138	GD3-270-3.0-750-C	2.70	0.1063	3.0	7.5	38
3630-000139	GD3-280-3.0-750-C	2.80	0.1102	3.0	7.5	38
3630-000140	GD3-290-3.0-750-C	2.90	0.1142	3.0	7.5	38
3630-000141	GD3-300-3.0-750-C	3.00	0.1181	3.0	7.5	38

3640 Series - Solid Carbide - 4 to 5 x Dia

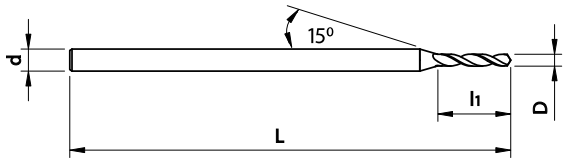
Material	Execution	Drill Point	Flute Helix	Flutes	Tolerance
Micro Grain Carbide	Right Hand	120˚	35˚	2	H6



Item No.	Description	D Flute Ø (mm)	D Flute Ø (inch)	d Shank Ø (mm)	L1 Flute Length	OAL (mm)
3640-000100	GD4-020-1.0-110-C	0.20	0.0079	1.0	1.1	25
3640-000101	GD4-021-1.0-110-C	0.21	0.0083	1.0	1.1	25
3640-000102	GD4-022-1.0-110-C	0.22	0.0087	1.0	1.1	25
3640-000103	GD4-023-1.0-110-C	0.23	0.0091	1.0	1.1	25
3640-000104	GD4-024-1.0-110-C	0.24	0.0094	1.0	1.1	25
3640-000105	GD4-025-1.0-130-C	0.25	0.0098	1.0	1.3	25
3640-000106	GD4-026-1.0-130-C	0.26	0.0102	1.0	1.3	25
3640-000107	GD4-027-1.0-130-C	0.27	0.0106	1.0	1.3	25
3640-000108	GD4-028-1.0-130-C	0.28	0.0110	1.0	1.3	25
3640-000109	GD4-029-1.0-130-C	0.29	0.0114	1.0	1.3	25
3640-000110	GD4-030-1.0-160-C	0.30	0.0118	1.0	1.6	25
3640-000111	GD4-031-1.0-160-C	0.31	0.0122	1.0	1.6	25
3640-000112	GD4-032-1.0-160-C	0.32	0.0126	1.0	1.6	25
3640-000113	GD4-033-1.0-160-C	0.33	0.0130	1.0	1.6	25
3640-000114	GD4-034-1.0-160-C	0.34	0.0134	1.0	1.6	25
3640-000115	GD4-035-1.0-160-C	0.35	0.0138	1.0	1.6	25
3640-000116	GD4-036-1.0-160-C	0.36	0.0142	1.0	1.6	25
3640-000117	GD4-037-1.0-160-C	0.37	0.0146	1.0	1.6	25
3640-000118	GD4-038-1.0-160-C	0.38	0.0150	1.0	1.6	25
3640-000119	GD4-039-1.0-200-C	0.39	0.0154	1.0	2.0	25
3640-000120	GD4-040-1.0-200-C	0.40	0.0157	1.0	2.0	25
3640-000121	GD4-041-1.0-200-C	0.41	0.0161	1.0	2.0	25
3640-000122	GD4-042-1.0-200-C	0.42	0.0165	1.0	2.0	25
3640-000123	GD4-043-1.0-200-C	0.43	0.0169	1.0	2.0	25
3640-000124	GD4-044-1.0-200-C	0.44	0.0173	1.0	2.0	25
3640-000125	GD4-045-1.0-200-C	0.45	0.0177	1.0	2.0	25
3640-000126	GD4-046-1.0-200-C	0.46	0.0181	1.0	2.0	25
3640-000127	GD4-047-1.0-200-C	0.47	0.0185	1.0	2.0	25
3640-000128	GD4-048-1.0-200-C	0.48	0.0189	1.0	2.0	25
3640-000129	GD4-049-1.0-200-C	0.49	0.0193	1.0	2.0	25
3640-000130	GD4-050-1.0-240-C	0.50	0.0197	1.0	2.4	25
3640-000131	GD4-051-1.0-240-C	0.51	0.0201	1.0	2.4	25
3640-000132	GD4-052-1.0-240-C	0.52	0.0205	1.0	2.4	25
3640-000133	GD4-053-1.0-240-C	0.53	0.0209	1.0	2.4	25
3640-000134	GD4-054-1.0-280-C	0.54	0.0213	1.0	2.8	25
3640-000135	GD4-055-1.0-280-C	0.55	0.0217	1.0	2.8	25
3640-000136	GD4-056-1.0-280-C	0.56	0.0220	1.0	2.8	25
3640-000137	GD4-057-1.0-280-C	0.57	0.0224	1.0	2.8	25
3640-000138	GD4-058-1.0-280-C	0.58	0.0228	1.0	2.8	25
3640-000139	GD4-059-1.0-280-C	0.59	0.0232	1.0	2.8	25
3640-000140	GD4-060-1.5-280-C	0.60	0.0236	1.5	2.8	30
3640-000141	GD4-061-1.5-330-C	0.61	0.0240	1.5	3.3	30
3640-000142	GD4-062-1.5-330-C	0.62	0.0244	1.5	3.3	30
3640-000143	GD4-063-1.5-330-C	0.63	0.0248	1.5	3.3	30
3640-000144	GD4-064-1.5-330-C	0.64	0.0252	1.5	3.3	30
3640-000145	GD4-065-1.5-330-C	0.65	0.0256	1.5	3.3	30
3640-000146	GD4-066-1.5-330-C	0.66	0.0260	1.5	3.3	30
3640-000147	GD4-067-1.5-330-C	0.67	0.0264	1.5	3.3	30
3640-000148	GD4-068-1.5-380-C	0.68	0.0268	1.5	3.8	30
3640-000149	GD4-069-1.5-380-C	0.69	0.0272	1.5	3.8	30
3640-000150	GD4-070-1.5-380-C	0.70	0.0276	1.5	3.8	30
3640-000151	GD4-071-1.5-380-C	0.71	0.0280	1.5	3.8	30
3640-000152	GD4-072-1.5-380-C	0.72	0.0283	1.5	3.8	30
3640-000153	GD4-073-1.5-380-C	0.73	0.0287	1.5	3.8	30
3640-000154	GD4-074-1.5-380-C	0.74	0.0291	1.5	3.8	30
3640-000155	GD4-075-1.5-380-C	0.75	0.0295	1.5	3.8	30

3640 Series - Solid Carbide - 4 to 5 x Dia (Continued)

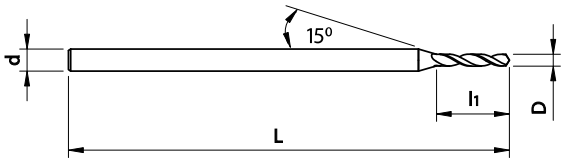
Material	Execution	Drill Point	Flute Helix	Flutes	Tolerance
Micro Grain Carbide	Right Hand	120˚	35˚	2	H6



Item No.	Description	D Flute Ø (mm)	D Flute Ø (inch)	d Shank Ø (mm)	L1 Flute Length	OAL (mm)
3640-000156	GD4-076-1.5-420-C	0.76	0.0299	1.5	4.2	30
3640-000157	GD4-077-1.5-420-C	0.77	0.0303	1.5	4.2	30
3640-000158	GD4-078-1.5-420-C	0.78	0.0307	1.5	4.2	30
3640-000159	GD4-079-1.5-420-C	0.79	0.0311	1.5	4.2	30
3640-000160	GD4-080-1.5-440-C	0.80	0.0315	1.5	4.4	30
3640-000161	GD4-081-1.5-440-C	0.81	0.0319	1.5	4.4	30
3640-000162	GD4-082-1.5-440-C	0.82	0.0323	1.5	4.4	30
3640-000163	GD4-083-1.5-440-C	0.83	0.0327	1.5	4.4	30
3640-000164	GD4-084-1.5-440-C	0.84	0.0331	1.5	4.4	30
3640-000165	GD4-085-1.5-440-C	0.85	0.0335	1.5	4.4	30
3640-000166	GD4-086-1.5-480-C	0.86	0.0339	1.5	4.8	30
3640-000167	GD4-087-1.5-480-C	0.87	0.0343	1.5	4.8	30
3640-000168	GD4-088-1.5-480-C	0.88	0.0346	1.5	4.8	30
3640-000169	GD4-089-1.5-480-C	0.89	0.0350	1.5	4.8	30
3640-000170	GD4-090-1.5-480-C	0.90	0.0354	1.5	4.8	30
3640-000171	GD4-091-1.5-480-C	0.91	0.0358	1.5	4.8	30
3640-000172	GD4-092-1.5-480-C	0.92	0.0362	1.5	4.8	30
3640-000173	GD4-093-1.5-480-C	0.93	0.0366	1.5	4.8	30
3640-000174	GD4-094-1.5-480-C	0.94	0.0370	1.5	4.8	30
3640-000175	GD4-095-1.5-480-C	0.95	0.0374	1.5	4.8	30
3640-000176	GD4-096-1.5-480-C	0.96	0.0378	1.5	4.8	30
3640-000177	GD4-097-1.5-480-C	0.97	0.0382	1.5	4.8	30
3640-000178	GD4-098-1.5-480-C	0.98	0.0386	1.5	4.8	30
3640-000179	GD4-099-1.5-480-C	0.99	0.0390	1.5	4.8	30
3640-000180	GD4-100-1.5-480-C	1.00	0.0394	1.5	4.8	30
3640-000181	GD4-101-1.5-480-C	1.01	0.0398	1.5	4.8	30
3640-000182	GD4-102-1.5-480-C	1.02	0.0402	1.5	4.8	30
3640-000183	GD4-103-1.5-480-C	1.03	0.0406	1.5	4.8	30
3640-000184	GD4-104-1.5-480-C	1.04	0.0409	1.5	4.8	30
3640-000185	GD4-105-1.5-480-C	1.05	0.0413	1.5	4.8	30
3640-000186	GD4-106-1.5-480-C	1.06	0.0417	1.5	4.8	30
3640-000187	GD4-107-1.5-480-C	1.07	0.0421	1.5	4.8	30
3640-000188	GD4-108-1.5-480-C	1.08	0.0425	1.5	4.8	30
3640-000189	GD4-109-1.5-480-C	1.09	0.0429	1.5	4.8	30
3640-000190	GD4-110-1.5-540-C	1.10	0.0433	1.5	5.4	30
3640-000191	GD4-111-1.5-540-C	1.11	0.0437	1.5	5.4	30
3640-000192	GD4-112-1.5-540-C	1.12	0.0441	1.5	5.4	30
3640-000193	GD4-113-1.5-540-C	1.13	0.0445	1.5	5.4	30
3640-000194	GD4-114-1.5-540-C	1.14	0.0449	1.5	5.4	30
3640-000195	GD4-115-1.5-540-C	1.15	0.0453	1.5	5.4	30
3640-000196	GD4-116-1.5-540-C	1.16	0.0457	1.5	5.4	30
3640-000197	GD4-117-1.5-540-C	1.17	0.0461	1.5	5.4	30
3640-000198	GD4-118-1.5-540-C	1.18	0.0465	1.5	5.4	30
3640-000199	GD4-119-1.5-540-C	1.19	0.0469	1.5	5.4	30
3640-000200	GD4-120-1.5-600-C	1.20	0.0472	1.5	6.0	30
3640-000201	GD4-121-1.5-600-C	1.21	0.0476	1.5	6.0	30
3640-000202	GD4-122-1.5-600-C	1.22	0.0480	1.5	6.0	30
3640-000203	GD4-123-1.5-600-C	1.23	0.0484	1.5	6.0	30
3640-000204	GD4-124-1.5-600-C	1.24	0.0488	1.5	6.0	30
3640-000205	GD4-125-1.5-600-C	1.25	0.0492	1.5	6.0	30
3640-000206	GD4-126-1.5-600-C	1.26	0.0496	1.5	6.0	30
3640-000207	GD4-127-1.5-600-C	1.27	0.0500	1.5	6.0	30
3640-000208	GD4-128-1.5-600-C	1.28	0.0504	1.5	6.0	30
3640-000209	GD4-129-1.5-600-C	1.29	0.0508	1.5	6.0	30
3640-000210	GD4-130-1.5-670-C	1.30	0.0512	1.5	6.7	30

3640 Series - Solid Carbide - 4 to 5 x Dia (Continued)

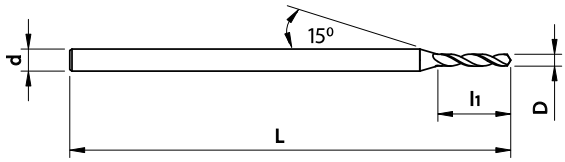
Material	Execution	Drill Point	Flute Helix	Flutes	Tolerance
Micro Grain Carbide	Right Hand	120˚	35˚	2	H6



Item No.	Description	D Flute Ø (mm)	D Flute Ø (inch)	d Shank Ø (mm)	L1 Flute Length	OAL (mm)
3640-000211	GD4-131-1.5-670-C	1.31	0.0516	1.5	6.7	30
3640-000212	GD4-132-1.5-670-C	1.32	0.0520	1.5	6.7	30
3640-000213	GD4-133-1.5-670-C	1.33	0.0524	1.5	6.7	30
3640-000214	GD4-134-1.5-670-C	1.34	0.0528	1.5	6.7	30
3640-000215	GD4-135-1.5-670-C	1.35	0.0531	1.5	6.7	30
3640-000216	GD4-136-1.5-670-C	1.36	0.0535	1.5	6.7	30
3640-000217	GD4-137-1.5-670-C	1.37	0.0539	1.5	6.7	30
3640-000218	GD4-138-1.5-670-C	1.38	0.0542	1.5	6.7	30
3640-000219	GD4-139-1.5-670-C	1.39	0.0547	1.5	6.7	30
3640-000220	GD4-140-1.5-670-C	1.40	0.0551	1.5	6.7	30
3640-000221	GD4-141-1.5-670-C	1.41	0.0555	1.5	6.7	30
3640-000222	GD4-142-1.5-670-C	1.42	0.0559	1.5	6.7	30
3640-000223	GD4-143-1.5-670-C	1.43	0.0563	1.5	6.7	30
3640-000224	GD4-144-1.5-670-C	1.44	0.0567	1.5	6.7	30
3640-000225	GD4-145-1.5-670-C	1.45	0.0571	1.5	6.7	30
3640-000226	GD4-146-1.5-670-C	1.46	0.0575	1.5	6.7	30
3640-000227	GD4-147-1.5-670-C	1.47	0.0579	1.5	6.7	30
3640-000228	GD4-148-1.5-670-C	1.48	0.0583	1.5	6.7	30
3640-000229	GD4-149-1.5-670-C	1.49	0.0587	1.5	6.7	30
3640-000230	GD4-150-2.0-720-C	1.50	0.0591	2.0	7.2	30
3640-000231	GD4-151-2.0-720-C	1.51	0.0594	2.0	7.2	30
3640-000232	GD4-152-2.0-720-C	1.52	0.0598	2.0	7.2	30
3640-000233	GD4-153-2.0-720-C	1.53	0.0602	2.0	7.2	30
3640-000234	GD4-154-2.0-720-C	1.54	0.0606	2.0	7.2	30
3640-000235	GD4-155-2.0-720-C	1.55	0.0610	2.0	7.2	30
3640-000236	GD4-156-2.0-720-C	1.56	0.0614	2.0	7.2	30
3640-000237	GD4-157-2.0-720-C	1.57	0.0618	2.0	7.2	30
3640-000238	GD4-158-2.0-720-C	1.58	0.0622	2.0	7.2	30
3640-000239	GD4-159-2.0-720-C	1.59	0.0626	2.0	7.2	30
3640-000240	GD4-160-2.0-720-C	1.60	0.0630	2.0	7.2	30
3640-000241	GD4-161-2.0-720-C	1.61	0.0634	2.0	7.2	30
3640-000242	GD4-162-2.0-720-C	1.62	0.0637	2.0	7.2	30
3640-000243	GD4-163-2.0-720-C	1.63	0.0642	2.0	7.2	30
3640-000244	GD4-164-2.0-720-C	1.64	0.0646	2.0	7.2	30
3640-000245	GD4-165-2.0-720-C	1.65	0.0650	2.0	7.2	30
3640-000246	GD4-166-2.0-720-C	1.66	0.0654	2.0	7.2	30
3640-000247	GD4-167-2.0-720-C	1.67	0.0657	2.0	7.2	30
3640-000248	GD4-168-2.0-720-C	1.68	0.0661	2.0	7.2	30
3640-000249	GD4-169-2.0-720-C	1.69	0.0664	2.0	7.2	30
3640-000250	GD4-170-2.0-720-C	1.70	0.0669	2.0	7.2	30
3640-000251	GD4-171-2.0-720-C	1.71	0.0673	2.0	7.2	30
3640-000252	GD4-172-2.0-720-C	1.72	0.0677	2.0	7.2	30
3640-000253	GD4-173-2.0-720-C	1.73	0.0681	2.0	7.2	30
3640-000254	GD4-174-2.0-720-C	1.74	0.0685	2.0	7.2	30
3640-000255	GD4-175-2.0-720-C	1.75	0.0689	2.0	7.2	30
3640-000256	GD4-176-2.0-720-C	1.76	0.0693	2.0	7.2	30
3640-000257	GD4-177-2.0-720-C	1.77	0.0697	2.0	7.2	30
3640-000258	GD4-178-2.0-720-C	1.78	0.0701	2.0	7.2	30
3640-000259	GD4-179-2.0-720-C	1.79	0.0705	2.0	7.2	30
3640-000260	GD4-180-2.0-840-C	1.80	0.0709	2.0	8.4	30
3640-000261	GD4-181-2.0-840-C	1.81	0.0713	2.0	8.4	30
3640-000262	GD4-182-2.0-840-C	1.82	0.0717	2.0	8.4	30
3640-000263	GD4-183-2.0-840-C	1.83	0.0720	2.0	8.4	30
3640-000264	GD4-184-2.0-840-C	1.84	0.0724	2.0	8.4	30
3640-000265	GD4-185-2.0-840-C	1.85	0.0728	2.0	8.4	30
3640-000266	GD4-186-2.0-840-C	1.86	0.0732	2.0	8.4	30

3640 Series - Solid Carbide - 4 to 5 x Dia (Continued)

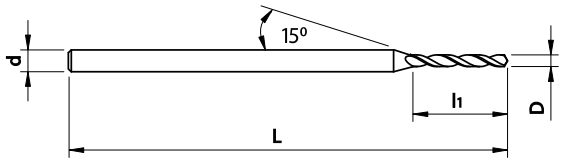
Material	Execution	Drill Point	Flute Helix	Flutes	Tolerance
Micro Grain Carbide	Right Hand	120˚	35˚	2	H6



Item No.	Description	D Flute Ø (mm)	D Flute Ø (inch)	d Shank Ø (mm)	L1 Flute Length	OAL (mm)
3640-000267	GD4-187-2.0-840-C	1.87	0.0736	2.0	8.4	30
3640-000268	GD4-188-2.0-840-C	1.88	0.0740	2.0	8.4	30
3640-000269	GD4-189-2.0-840-C	1.89	0.0744	2.0	8.4	30
3640-000270	GD4-190-2.0-840-C	1.90	0.0748	2.0	8.4	30
3640-000271	GD4-191-2.0-840-C	1.91	0.0752	2.0	8.4	30
3640-000272	GD4-192-2.0-840-C	1.92	0.0756	2.0	8.4	30
3640-000273	GD4-193-2.0-840-C	1.93	0.0760	2.0	8.4	30
3640-000274	GD4-194-2.0-840-C	1.94	0.0764	2.0	8.4	30
3640-000275	GD4-195-2.0-840-C	1.95	0.0768	2.0	8.4	30
3640-000276	GD4-196-2.0-840-C	1.96	0.0772	2.0	8.4	30
3640-000277	GD4-197-2.0-840-C	1.97	0.0776	2.0	8.4	30
3640-000278	GD4-198-2.0-840-C	1.98	0.0780	2.0	8.4	30
3640-000279	GD4-199-2.0-840-C	1.99	0.0783	2.0	8.4	30
3640-000280	GD4-200-3.0-1200-C	2.00	0.0787	3.0	12.0	30
3640-000281	GD4-201-3.0-1200-C	2.01	0.0791	3.0	12.0	30
3640-000282	GD4-202-3.0-1200-C	2.02	0.0795	3.0	12.0	30
3640-000283	GD4-203-3.0-1200-C	2.03	0.0799	3.0	12.0	30
3640-000284	GD4-204-3.0-1200-C	2.04	0.0803	3.0	12.0	30
3640-000285	GD4-205-3.0-1200-C	2.05	0.0807	3.0	12.0	30
3640-000286	GD4-206-3.0-1200-C	2.06	0.0811	3.0	12.0	30
3640-000287	GD4-207-3.0-1200-C	2.07	0.0815	3.0	12.0	30
3640-000288	GD4-208-3.0-1200-C	2.08	0.0819	3.0	12.0	30
3640-000289	GD4-209-3.0-1200-C	2.09	0.0823	3.0	12.0	30
3640-000290	GD4-210-3.0-1200-C	2.10	0.0827	3.0	12.0	30
3640-000291	GD4-211-3.0-1200-C	2.11	0.0831	3.0	12.0	30
3640-000292	GD4-212-3.0-1200-C	2.12	0.0835	3.0	12.0	30
3640-000293	GD4-213-3.0-1200-C	2.13	0.0839	3.0	12.0	30
3640-000294	GD4-214-3.0-1200-C	2.14	0.0843	3.0	12.0	30
3640-000295	GD4-215-3.0-1200-C	2.15	0.0846	3.0	12.0	30
3640-000296	GD4-216-3.0-1200-C	2.16	0.0849	3.0	12.0	30
3640-000297	GD4-217-3.0-1200-C	2.17	0.0854	3.0	12.0	30
3640-000298	GD4-218-3.0-1200-C	2.18	0.0858	3.0	12.0	30
3640-000299	GD4-219-3.0-1200-C	2.19	0.0862	3.0	12.0	30
3640-000300	GD4-220-3.0-1200-C	2.20	0.0866	3.0	12.0	30
3640-000301	GD4-221-3.0-1200-C	2.21	0.0870	3.0	12.0	30
3640-000302	GD4-222-3.0-1200-C	2.22	0.0874	3.0	12.0	30
3640-000303	GD4-223-3.0-1200-C	2.23	0.0878	3.0	12.0	30
3640-000304	GD4-224-3.0-1200-C	2.24	0.0882	3.0	12.0	30
3640-000305	GD4-225-3.0-1200-C	2.25	0.0886	3.0	12.0	30
3640-000306	GD4-226-3.0-1200-C	2.26	0.0890	3.0	12.0	30
3640-000307	GD4-227-3.0-1200-C	2.27	0.0894	3.0	12.0	30
3640-000308	GD4-228-3.0-1200-C	2.28	0.0898	3.0	12.0	30
3640-000309	GD4-229-3.0-1200-C	2.29	0.0902	3.0	12.0	30
3640-000310	GD4-230-3.0-1200-C	2.30	0.0906	3.0	12.0	30
3640-000311	GD4-231-3.0-1200-C	2.31	0.0909	3.0	12.0	30
3640-000312	GD4-232-3.0-1200-C	2.32	0.0913	3.0	12.0	30
3640-000313	GD4-233-3.0-1200-C	2.33	0.0917	3.0	12.0	30
3640-000314	GD4-234-3.0-1200-C	2.34	0.0921	3.0	12.0	30
3640-000315	GD4-235-3.0-1200-C	2.35	0.0925	3.0	12.0	30
3640-000316	GD4-236-3.0-1200-C	2.36	0.0929	3.0	12.0	30
3640-000317	GD4-237-3.0-1200-C	2.37	0.0933	3.0	12.0	30
3640-000318	GD4-238-3.0-1200-C	2.38	0.0937	3.0	12.0	30
3640-000319	GD4-239-3.0-1200-C	2.39	0.0941	3.0	12.0	30
3640-000320	GD4-240-3.0-1200-C	2.40	0.0945	3.0	12.0	30
3640-000321	GD4-241-3.0-1200-C	2.41	0.0949	3.0	12.0	30
3640-000322	GD4-242-3.0-1200-C	2.42	0.0953	3.0	12.0	30

3650 Series - Solid Carbide - 5 to 7 x Dia

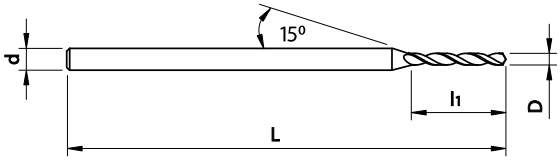
Material	Execution	Drill Point	Flute Helix	Flutes	Tolerance
Micro Grain Carbide	Right Hand	120˚	35˚	2	H6



Item No.	Description	D Flute Ø (mm)	D Flute Ø (inch)	d Shank Ø (mm)	L1 Flute Length	OAL (mm)
3650-000100	GD5-010-1.0-050-C	0.10	0.0039	1.0	0.5	25
3650-000101	GD5-011-1.0-050-C	0.11	0.0043	1.0	0.5	25
3650-000102	GD5-012-1.0-050-C	0.12	0.0047	1.0	0.5	25
3650-000103	GD5-013-1.0-060-C	0.13	0.0051	1.0	0.6	25
3650-000104	GD5-014-1.0-070-C	0.14	0.0055	1.0	0.7	25
3650-000105	GD5-015-1.0-100-C	0.15	0.0059	1.0	1.0	25
3650-000106	GD5-016-1.0-100-C	0.16	0.0063	1.0	1.0	25
3650-000107	GD5-017-1.0-100-C	0.17	0.0067	1.0	1.0	25
3650-000108	GD5-018-1.0-100-C	0.18	0.0071	1.0	1.0	25
3650-000109	GD5-019-1.0-100-C	0.19	0.0075	1.0	1.0	25
3650-000110	GD5-020-1.0-180-C	0.20	0.0079	1.0	1.8	25
3650-000111	GD5-021-1.0-180-C	0.21	0.0083	1.0	1.8	25
3650-000112	GD5-022-1.0-180-C	0.22	0.0087	1.0	1.8	25
3650-000113	GD5-023-1.0-180-C	0.23	0.0091	1.0	1.8	25
3650-000114	GD5-024-1.0-180-C	0.24	0.0094	1.0	1.8	25
3650-000115	GD5-025-1.0-220-C	0.25	0.0098	1.0	2.2	25
3650-000116	GD5-026-1.0-220-C	0.26	0.0102	1.0	2.2	25
3650-000117	GD5-027-1.0-220-C	0.27	0.0106	1.0	2.2	25
3650-000118	GD5-028-1.0-220-C	0.28	0.0110	1.0	2.2	25
3650-000119	GD5-029-1.0-220-C	0.29	0.0114	1.0	2.2	25
3650-000120	GD5-030-1.0-220-C	0.30	0.0118	1.0	2.2	25
3650-000121	GD5-031-1.0-280-C	0.31	0.0122	1.0	2.8	25
3650-000122	GD5-032-1.0-280-C	0.32	0.0126	1.0	2.8	25
3650-000123	GD5-033-1.0-280-C	0.33	0.0130	1.0	2.8	25
3650-000124	GD5-034-1.0-280-C	0.34	0.0134	1.0	2.8	25
3650-000125	GD5-035-1.0-280-C	0.35	0.0138	1.0	2.8	25
3650-000126	GD5-036-1.0-280-C	0.36	0.0142	1.0	2.8	25
3650-000127	GD5-037-1.0-280-C	0.37	0.0146	1.0	2.8	25
3650-000128	GD5-038-1.0-280-C	0.38	0.0150	1.0	2.8	25
3650-000129	GD5-039-1.0-360-C	0.39	0.0154	1.0	3.6	25
3650-000130	GD5-040-1.0-360-C	0.40	0.0157	1.0	3.6	25
3650-000131	GD5-041-1.0-360-C	0.41	0.0161	1.0	3.6	25
3650-000132	GD5-042-1.0-360-C	0.42	0.0165	1.0	3.6	25
3650-000133	GD5-043-1.0-360-C	0.43	0.0169	1.0	3.6	25
3650-000134	GD5-044-1.0-360-C	0.44	0.0173	1.0	3.6	25
3650-000135	GD5-045-1.0-360-C	0.45	0.0177	1.0	3.6	25
3650-000136	GD5-046-1.0-360-C	0.46	0.0181	1.0	3.6	25
3650-000137	GD5-047-1.0-360-C	0.47	0.0185	1.0	3.6	25
3650-000138	GD5-048-1.0-360-C	0.48	0.0189	1.0	3.6	25
3650-000139	GD5-049-1.0-400-C	0.49	0.0193	1.0	4.0	25
3650-000140	GD5-050-1.0-400-C	0.50	0.0197	1.0	4.0	25
3650-000141	GD5-051-1.0-400-C	0.51	0.0201	1.0	4.0	25
3650-000142	GD5-052-1.0-400-C	0.52	0.0205	1.0	4.0	25
3650-000143	GD5-053-1.0-400-C	0.53	0.0209	1.0	4.0	25
3650-000144	GD5-054-1.0-400-C	0.54	0.0213	1.0	4.0	25
3650-000145	GD5-055-1.0-450-C	0.55	0.0217	1.0	4.5	25
3650-000146	GD5-056-1.0-450-C	0.56	0.0220	1.0	4.5	25
3650-000147	GD5-057-1.0-450-C	0.57	0.0224	1.0	4.5	25

3650 Series - Solid Carbide - 5 to 7 x Dia (Continued)

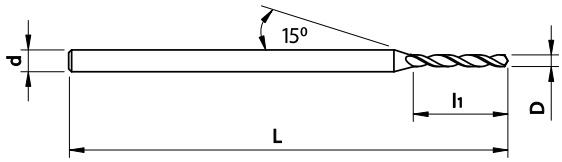
Material	Execution	Drill Point	Flute Helix	Flutes	Tolerance
Micro Grain Carbide	Right Hand	120˚	35˚	2	H6



Item No.	Description	D Flute Ø (mm)	D Flute Ø (inch)	d Shank Ø (mm)	L1 Flute Length	OAL (mm)
3650-000148	GD5-058-1.0-450-C	0.58	0.0228	1.0	4.5	25
3650-000149	GD5-059-1.0-450-C	0.59	0.0232	1.0	4.5	25
3650-000150	GD5-060-1.5-450-C	0.60	0.0236	1.5	4.5	30
3650-000151	GD5-061-1.5-500-C	0.61	0.0240	1.5	5.0	30
3650-000152	GD5-062-1.5-500-C	0.62	0.0244	1.5	5.0	30
3650-000153	GD5-063-1.5-500-C	0.63	0.0248	1.5	5.0	30
3650-000154	GD5-064-1.5-500-C	0.64	0.0252	1.5	5.0	30
3650-000155	GD5-065-1.5-500-C	0.65	0.0256	1.5	5.0	30
3650-000156	GD5-066-1.5-500-C	0.66	0.0260	1.5	5.0	30
3650-000157	GD5-067-1.5-500-C	0.67	0.0264	1.5	5.0	30
3650-000158	GD5-068-1.5-500-C	0.68	0.0268	1.5	5.0	30
3650-000159	GD5-069-1.5-560-C	0.69	0.0272	1.5	5.6	30
3650-000160	GD5-070-1.5-560-C	0.70	0.0276	1.5	5.6	30
3650-000161	GD5-071-1.5-560-C	0.71	0.0280	1.5	5.6	30
3650-000162	GD5-072-1.5-560-C	0.72	0.0283	1.5	5.6	30
3650-000163	GD5-073-1.5-560-C	0.73	0.0287	1.5	5.6	30
3650-000164	GD5-074-1.5-560-C	0.74	0.0291	1.5	5.6	30
3650-000165	GD5-075-1.5-560-C	0.75	0.0295	1.5	5.6	30
3650-000166	GD5-076-1.5-630-C	0.76	0.0299	1.5	6.3	30
3650-000167	GD5-077-1.5-630-C	0.77	0.0303	1.5	6.3	30
3650-000168	GD5-078-1.5-630-C	0.78	0.0307	1.5	6.3	30
3650-000169	GD5-079-1.5-630-C	0.79	0.0311	1.5	6.3	30
3650-000170	GD5-080-1.5-630-C	0.80	0.0315	1.5	6.3	30
3650-000171	GD5-081-1.5-630-C	0.81	0.0319	1.5	6.3	30
3650-000172	GD5-082-1.5-630-C	0.82	0.0323	1.5	6.3	30
3650-000173	GD5-083-1.5-630-C	0.83	0.0327	1.5	6.3	30
3650-000174	GD5-084-1.5-630-C	0.84	0.0331	1.5	6.3	30
3650-000175	GD5-085-1.5-630-C	0.85	0.0335	1.5	6.3	30
3650-000176	GD5-086-1.5-710-C	0.86	0.0339	1.5	7.1	30
3650-000177	GD5-087-1.5-710-C	0.87	0.0343	1.5	7.1	30
3650-000178	GD5-088-1.5-710-C	0.88	0.0346	1.5	7.1	30
3650-000179	GD5-089-1.5-710-C	0.89	0.0350	1.5	7.1	30
3650-000180	GD5-090-1.5-710-C	0.90	0.0354	1.5	7.1	30
3650-000181	GD5-091-1.5-710-C	0.91	0.0358	1.5	7.1	30
3650-000182	GD5-092-1.5-710-C	0.92	0.0362	1.5	7.1	30
3650-000183	GD5-093-1.5-710-C	0.93	0.0366	1.5	7.1	30
3650-000184	GD5-094-1.5-710-C	0.94	0.0370	1.5	7.1	30
3650-000185	GD5-095-1.5-710-C	0.95	0.0374	1.5	7.1	30
3650-000186	GD5-096-1.5-800-C	0.96	0.0378	1.5	8.0	30
3650-000187	GD5-097-1.5-800-C	0.97	0.0382	1.5	8.0	30
3650-000188	GD5-098-1.5-800-C	0.98	0.0386	1.5	8.0	30
3650-000189	GD5-099-1.5-800-C	0.99	0.0390	1.5	8.0	30
3650-000190	GD5-100-1.5-800-C	1.00	0.0394	1.5	8.0	30
3650-000191	GD5-101-1.5-800-C	1.01	0.0398	1.5	8.0	30
3650-000192	GD5-102-1.5-800-C	1.02	0.0402	1.5	8.0	30
3650-000193	GD5-103-1.5-800-C	1.03	0.0406	1.5	8.0	30
3650-000194	GD5-104-1.5-800-C	1.04	0.0409	1.5	8.0	30
3650-000195	GD5-105-1.5-800-C	1.05	0.0413	1.5	8.0	30
3650-000196	GD5-106-1.5-900-C	1.06	0.0417	1.5	9.0	30

3650 Series - Solid Carbide - 5 to 7 x Dia (Continued)

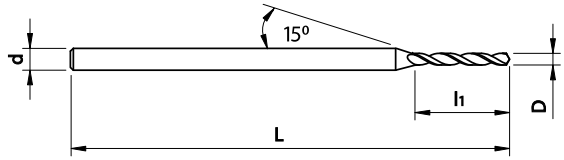
Material	Execution	Drill Point	Flute Helix	Flutes	Tolerance
Micro Grain Carbide	Right Hand	120˚	35˚	2	H6



Item No.	Description	D Flute Ø (mm)	D Flute Ø (inch)	d Shank Ø (mm)	L1 Flute Length	OAL (mm)
3650-000197	GD5-107-1.5-900-C	1.07	0.0421	1.5	9.0	30
3650-000198	GD5-108-1.5-900-C	1.08	0.0425	1.5	9.0	30
3650-000199	GD5-109-1.5-900-C	1.09	0.0429	1.5	9.0	30
3650-000200	GD5-110-1.5-900-C	1.10	0.0433	1.5	9.0	30
3650-000201	GD5-111-1.5-900-C	1.11	0.0437	1.5	9.0	30
3650-000202	GD5-112-1.5-900-C	1.12	0.0441	1.5	9.0	30
3650-000203	GD5-113-1.5-900-C	1.13	0.0445	1.5	9.0	30
3650-000204	GD5-114-1.5-900-C	1.14	0.0449	1.5	9.0	30
3650-000205	GD5-115-1.5-900-C	1.15	0.0453	1.5	9.0	30
3650-000206	GD5-116-1.5-1000-C	1.16	0.0457	1.5	10.0	30
3650-000207	GD5-117-1.5-1000-C	1.17	0.0461	1.5	10.0	30
3650-000208	GD5-118-1.5-1000-C	1.18	0.0465	1.5	10.0	30
3650-000209	GD5-119-1.5-1000-C	1.19	0.0469	1.5	10.0	30
3650-000210	GD5-120-1.5-1000-C	1.20	0.0472	1.5	10.0	30
3650-000211	GD5-121-1.5-1000-C	1.21	0.0476	1.5	10.0	30
3650-000212	GD5-122-1.5-1000-C	1.22	0.0480	1.5	10.0	30
3650-000213	GD5-123-1.5-1000-C	1.23	0.0484	1.5	10.0	30
3650-000215	GD5-125-1.5-1000-C	1.25	0.0492	1.5	10.0	30
3650-000216	GD5-126-1.5-1000-C	1.26	0.0496	1.5	10.0	30
3650-000217	GD5-127-1.5-1000-C	1.27	0.0500	1.5	10.0	30
3650-000218	GD5-128-1.5-1000-C	1.28	0.0504	1.5	10.0	30
3650-000219	GD5-129-1.5-1000-C	1.29	0.0508	1.5	10.0	30
3650-000220	GD5-130-1.5-1000-C	1.30	0.0512	1.5	10.0	30
3650-000221	GD5-131-1.5-1120-C	1.31	0.0516	1.5	11.2	30
3650-000222	GD5-132-1.5-1120-C	1.32	0.0520	1.5	11.2	30
3650-000223	GD5-133-1.5-1120-C	1.33	0.0524	1.5	11.2	30
3650-000224	GD5-134-1.5-1120-C	1.34	0.0528	1.5	11.2	30
3650-000225	GD5-135-1.5-1120-C	1.35	0.0531	1.5	11.2	30
3650-000226	GD5-136-1.5-1120-C	1.36	0.0535	1.5	11.2	30
3650-000227	GD5-137-1.5-1120-C	1.37	0.0539	1.5	11.2	30
3650-000228	GD5-138-1.5-1120-C	1.38	0.0543	1.5	11.2	30
3650-000229	GD5-139-1.5-1120-C	1.39	0.0547	1.5	11.2	30
3650-000230	GD5-140-1.5-1120-C	1.40	0.0551	1.5	11.2	30
3650-000231	GD5-141-1.5-1120-C	1.41	0.0555	1.5	11.2	30
3650-000232	GD5-142-1.5-1120-C	1.42	0.0559	1.5	11.2	30
3650-000233	GD5-143-1.5-1120-C	1.43	0.0563	1.5	11.2	30
3650-000234	GD5-144-1.5-1120-C	1.44	0.0567	1.5	11.2	30
3650-000235	GD5-145-1.5-1120-C	1.45	0.0571	1.5	11.2	30
3650-000236	GD5-146-1.5-1120-C	1.46	0.0575	1.5	11.2	30
3650-000237	GD5-147-1.5-1120-C	1.47	0.0579	1.5	11.2	30
3650-000238	GD5-148-1.5-1120-C	1.48	0.0583	1.5	11.2	30
3650-000239	GD5-149-1.5-1120-C	1.49	0.0587	1.5	11.2	30
3650-000240	GD5-150-200-1200-C	1.50	0.0591	2.0	12.0	38
3650-000241	GD5-151-200-1200-C	1.51	0.0594	2.0	12.0	38
3650-000242	GD5-152-200-1200-C	1.52	0.0598	2.0	12.0	38
3650-000243	GD5-153-200-1200-C	1.53	0.0602	2.0	12.0	38
3650-000244	GD5-154-200-1200-C	1.54	0.0606	2.0	12.0	38
3650-000245	GD5-155-200-1200-C	1.55	0.0610	2.0	12.0	38
3650-000246	GD5-156-200-1200-C	1.56	0.0614	2.0	12.0	38

3650 Series - Solid Carbide - 5 to 7 x Dia (Continued)

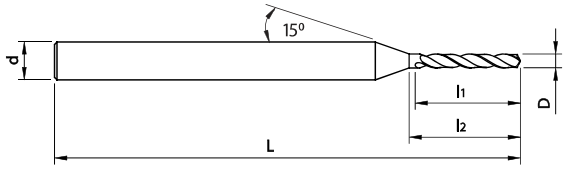
Material	Execution	Drill Point	Flute Helix	Flutes	Tolerance
Micro Grain Carbide	Right Hand	120˚	35˚	2	H6



Item No.	Description	D Flute Ø (mm)	D Flute Ø (inch)	d Shank Ø (mm)	L1 Flute Length	OAL (mm)
3650-000247	GD5-157-200-1200-C	1.57	0.0618	2.0	12	38
3650-000248	GD5-158-200-1200-C	1.58	0.0622	2.0	12	38
3650-000249	GD5-159-200-1200-C	1.59	0.0626	2.0	12	38
3650-000250	GD5-160-200-1200-C	1.60	0.0630	2.0	12	38
3650-000251	GD5-161-200-1200-C	1.61	0.0634	2.0	12	38
3650-000252	GD5-162-200-1200-C	1.62	0.0638	2.0	12	38
3650-000253	GD5-163-200-1200-C	1.63	0.0642	2.0	12	38
3650-000254	GD5-164-200-1200-C	1.64	0.0646	2.0	12	38
3650-000255	GD5-165-200-1200-C	1.65	0.0650	2.0	12	38
3650-000256	GD5-166-200-1200-C	1.66	0.0654	2.0	12	38
3650-000257	GD5-167-200-1200-C	1.67	0.0657	2.0	12	38
3650-000258	GD5-168-200-1200-C	1.68	0.0661	2.0	12	38
3650-000259	GD5-169-200-1200-C	1.69	0.0665	2.0	12	38
3650-000260	GD5-170-200-1200-C	1.70	0.0669	2.0	12	38
3650-000261	GD5-171-200-1200-C	1.71	0.0673	2.0	12	38
3650-000262	GD5-172-200-1200-C	1.72	0.0677	2.0	12	38
3650-000263	GD5-173-200-1200-C	1.73	0.0681	2.0	12	38
3650-000264	GD5-174-200-1200-C	1.74	0.0685	2.0	12	38
3650-000265	GD5-175-200-1200-C	1.75	0.0689	2.0	12	38
3650-000266	GD5-176-200-1200-C	1.76	0.0693	2.0	12	38
3650-000267	GD5-177-200-1200-C	1.77	0.0697	2.0	12	38
3650-000268	GD5-178-200-1200-C	1.78	0.0701	2.0	12	38
3650-000269	GD5-179-200-1200-C	1.79	0.0705	2.0	12	38
3650-000270	GD5-180-200-1200-C	1.80	0.0709	2.0	12	38
3650-000271	GD5-181-200-1200-C	1.81	0.0713	2.0	12	38
3650-000272	GD5-182-200-1200-C	1.82	0.0717	2.0	12	38
3650-000273	GD5-183-200-1200-C	1.83	0.0720	2.0	12	38
3650-000274	GD5-184-200-1200-C	1.84	0.0724	2.0	12	38
3650-000275	GD5-185-200-1200-C	1.85	0.0728	2.0	12	38
3650-000276	GD5-186-200-1200-C	1.86	0.0732	2.0	12	38
3650-000277	GD5-187-200-1200-C	1.87	0.0736	2.0	12	38
3650-000278	GD5-188-200-1200-C	1.88	0.0740	2.0	12	38
3650-000279	GD5-189-200-1200-C	1.89	0.0744	2.0	12	38
3650-000280	GD5-190-200-1200-C	1.90	0.0748	2.0	12	38
3650-000281	GD5-191-200-1200-C	1.91	0.0752	2.0	12	38
3650-000282	GD5-192-200-1200-C	1.92	0.0756	2.0	12	38
3650-000283	GD5-193-200-1200-C	1.93	0.0760	2.0	12	38
3650-000284	GD5-194-200-1200-C	1.94	0.0764	2.0	12	38
3650-000285	GD5-195-200-1200-C	1.95	0.0768	2.0	12	38
3650-000286	GD5-196-200-1200-C	1.96	0.0772	2.0	12	38
3650-000287	GD5-197-200-1200-C	1.97	0.0776	2.0	12	38
3650-000288	GD5-198-200-1200-C	1.98	0.0780	2.0	12	38
3650-000289	GD5-199-200-1200-C	1.99	0.0783	2.0	12	38

3660 Series - Solid Carbide - 6 to 7 x Dia - XP Performance

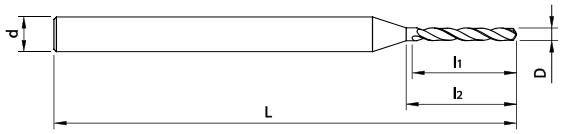
Material	Execution	Drill Point	Flute Helix	Flutes	Tolerance
Micro Grain Carbide	Right Hand	140˚	30˚	2	H4



Item No.	Description	D Flute Ø (mm)	D Flute Ø (inch)	d Shank Ø (mm)	L1 Flute Length	L2 Flute Length	OAL (mm)
3660-000100	GD6-050-3.0-440-C	0.50	0.0197	3.0	3.5	4.4	50
3660-000101	GD6-055-3.0-500-C	0.55	0.0217	3.0	4.0	5.0	50
3660-000102	GD6-060-3.0-560-C	0.60	0.0236	3.0	4.5	5.6	50
3660-000103	GD6-065-3.0-630-C	0.65	0.0256	3.0	5.0	6.3	50
3660-000104	GD6-070-3.0-630-C	0.70	0.0276	3.0	5.0	6.3	50
3660-000105	GD6-075-3.0-690-C	0.75	0.0295	3.0	5.5	6.9	50
3660-000106	GD6-080-3.0-720-C	0.80	0.0315	3.0	5.6	7.2	50
3660-000107	GD6-085-3.0-760-C	0.85	0.0335	3.0	6.0	7.6	50
3660-000108	GD6-090-3.0-810-C	0.90	0.0354	3.0	6.5	8.1	50
3660-000109	GD6-095-3.0-850-C	0.95	0.0374	3.0	6.7	8.5	50
3660-000110	GD6-100-3.0-880-C	1.00	0.0394	3.0	7.0	8.8	50
3660-000111	GD6-105-3.0-940-C	1.05	0.0413	3.0	7.5	9.4	50
3660-000112	GD6-110-3.0-101-C	1.10	0.0433	3.0	8.0	10.1	50
3660-000113	GD6-115-3.0-104-C	1.15	0.0453	3.0	8.1	10.4	50
3660-000114	GD6-120-3.0-110-C	1.20	0.0472	3.0	8.5	11.0	50
3660-000115	GD6-125-3.0-113-C	1.25	0.0492	3.0	8.9	11.3	50
3660-000116	GD6-130-3.0-117-C	1.30	0.0512	3.0	9.2	11.7	50
3660-000117	GD6-135-3.0-122-C	1.35	0.0531	3.0	9.6	12.2	50
3660-000118	GD6-140-3.0-125-C	1.40	0.0551	3.0	10.0	12.5	50
3660-000119	GD6-145-3.0-130-C	1.45	0.0571	3.0	10.5	13.0	50
3660-000120	GD6-150-3.0-130-C	1.50	0.0591	3.0	10.5	13.0	50
3660-000121	GD6-155-3.0-135-C	1.55	0.0610	3.0	11.0	13.5	50
3660-000122	GD6-160-3.0-140-C	1.60	0.0630	3.0	11.5	14.0	50
3660-000123	GD6-165-3.0-150-C	1.65	0.0650	3.0	12.0	15.0	50
3660-000124	GD6-170-3.0-150-C	1.70	0.0669	3.0	12.0	15.0	50
3660-000125	GD6-175-3.0-155-C	1.75	0.0689	3.0	12.5	15.5	50
3660-000126	GD6-180-3.0-160-C	1.80	0.0709	3.0	13.0	16.0	50
3660-000127	GD6-185-3.0-160-C	1.85	0.0728	3.0	13.0	16.0	50
3660-000128	GD6-190-3.0-175-C	1.90	0.0748	3.0	13.5	17.5	50
3660-000129	GD6-195-3.0-180-C	1.95	0.0768	3.0	14.0	18.0	50
3660-000130	GD6-200-3.0-180-C	2.00	0.0787	3.0	14.0	18.0	50
3660-000131	GD6-205-3.0-185-C	2.05	0.0807	3.0	14.5	18.5	50
3660-000132	GD6-210-3.0-190-C	2.10	0.0827	3.0	15.0	19.0	50
3660-000133	GD6-215-3.0-190-C	2.15	0.0846	3.0	15.0	19.0	50
3660-000134	GD6-220-3.0-200-C	2.20	0.0866	3.0	16.0	20.0	50
3660-000135	GD6-225-3.0-200-C	2.25	0.0886	3.0	16.0	20.0	50
3660-000136	GD6-230-3.0-210-C	2.30	0.0906	3.0	16.5	21.0	50
3660-000137	GD6-235-3.0-210-C	2.35	0.0925	3.0	16.5	21.0	50
3660-000138	GD6-240-3.0-220-C	2.40	0.0945	3.0	17.0	22.0	50
3660-000139	GD6-245-3.0-225-C	2.45	0.0965	3.0	17.5	22.5	50
3660-000140	GD6-250-3.0-230-C	2.50	0.0984	3.0	18.0	23.0	50
3660-000141	GD6-255-3.0-230-C	2.55	0.1004	3.0	18.0	23.0	50
3660-000142	GD6-260-3.0-235-C	2.60	0.1024	3.0	18.5	23.5	50
3660-000143	GD6-265-3.0-235-C	2.65	0.1043	3.0	18.5	23.5	50
3660-000144	GD6-270-3.0-240-C	2.70	0.1063	3.0	19.0	24.0	50
3660-000145	GD6-275-3.0-240-C	2.75	0.1083	3.0	19.0	24.0	50
3660-000146	GD6-280-3.0-250-C	2.80	0.1102	3.0	20.0	25.0	50
3660-000147	GD6-285-3.0-250-C	2.85	0.1122	3.0	20.0	25.0	50
3660-000148	GD6-290-3.0-260-C	2.90	0.1142	3.0	21.0	26.0	50
3660-000149	GD6-295-3.0-260-C	2.95	0.1161	3.0	21.0	26.0	50
3660-000150	GD6-300-3.0-260C	3.00	0.1181	3.0	21.0	26.0	50

3670 Series - Solid Carbide - 12 x Dia

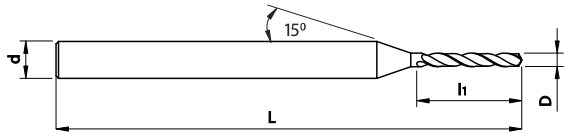
Material	Execution	Drill Point	Flute Helix	Flutes	Tolerance
Micro Grain Carbide	Right Hand	140˚	30˚	2	H5



Item No.	Description	D Flute Ø (mm)	D Flute Ø (inch)	d Shank Ø (mm)	L1 Flute Length	L2 Flute Length	OAL (mm)
Call For Details	GD7-050-3.0-600-C	0.50	0.0197	3.0	6.0	7.20	50
Call For Details	GD7-055-3.0-660-C	0.55	0.0217	3.0	6.6	7.92	50
3670-000101	GD7-060-3.0-720-C	0.60	0.0236	3.0	7.2	8.64	50
Call For Details	GD7-065-3.0-780-C	0.65	0.0256	3.0	7.8	9.36	50
3670-000106	GD7-070-3.0-840-C	0.70	0.0276	3.0	8.4	10.08	50
Call For Details	GD7-075-3.0-900-C	0.75	0.0295	3.0	9.0	10.80	50
Call For Details	GD7-080-3.0-960-C	0.80	0.0315	3.0	9.6	11.52	50
Call For Details	GD7-085-3.0-1020-C	0.85	0.0335	3.0	10.2	12.24	50
Call For Details	GD7-090-3.0-1080-C	0.90	0.0354	3.0	10.8	12.96	50
Call For Details	GD7-095-3.0-1140-C	0.95	0.0374	3.0	11.4	13.68	50
Call For Details	GD7-100-3.0-1200-C	1.00	0.0394	3.0	12.0	14.40	50
Call For Details	GD7-105-3.0-1260-C	1.05	0.0413	3.0	12.6	15.12	50
Call For Details	GD7-110-3.0-1320-C	1.10	0.0433	3.0	13.2	15.84	50
Call For Details	GD7-115-3.0-1380-C	1.15	0.0453	3.0	13.8	16.56	50
Call For Details	GD7-120-3.0-1440-C	1.20	0.0472	3.0	14.4	17.28	50
Call For Details	GD7-125-3.0-1500-C	1.25	0.0492	3.0	15.0	18.00	50
Call For Details	GD7-130-3.0-1560-C	1.30	0.0512	3.0	15.6	18.72	50
Call For Details	GD7-135-3.0-1620-C	1.35	0.0531	3.0	16.2	19.44	50
Call For Details	GD7-140-3.0-1680-C	1.40	0.0551	3.0	16.8	20.16	50
Call For Details	GD7-145-3.0-1740-C	1.45	0.0571	3.0	17.4	20.88	50
Call For Details	GD7-150-3.0-1800-C	1.50	0.0591	3.0	18.0	21.60	50
Call For Details	GD7-155-3.0-1860-C	1.55	0.0610	3.0	18.6	22.32	60
Call For Details	GD7-160-3.0-1920-C	1.60	0.0630	3.0	19.2	23.04	60
Call For Details	GD7-165-3.0-1980-C	1.65	0.0650	3.0	19.8	23.76	60
Call For Details	GD7-170-3.0-2040-C	1.70	0.0669	3.0	20.4	24.48	60
Call For Details	GD7-175-3.0-2100-C	1.75	0.0689	3.0	21.0	25.20	60
Call For Details	GD7-180-3.0-2160-C	1.80	0.0709	3.0	21.6	25.92	60
Call For Details	GD7-185-3.0-2220-C	1.85	0.0728	3.0	22.2	26.64	60
Call For Details	GD7-190-3.0-2280-C	1.90	0.0748	3.0	22.8	27.36	60
Call For Details	GD7-195-3.0-2340-C	1.95	0.0768	3.0	23.4	28.08	60
Call For Details	GD7-200-3.0-2400-C	2.00	0.0787	3.0	24.0	28.80	60

3680 Series - Solid Carbide - 4 to 5 x Dia

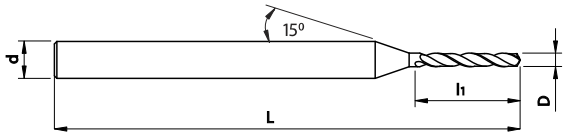
Material	Execution	Drill Point	Flute Helix	Flutes	Tolerance
Micro Grain Carbide	Right Hand	120˚	24˚	2	H6



Item No.	Description	D Flute Ø (mm)	D Flute Ø (inch)	d Shank Ø (mm)	L1 Flute Length	OAL (mm)
Call For Details	GD8-020-3.0-110-C	0.20	0.0079	3.0	1.1	38
Call For Details	GD8-021-3.0-110-C	0.21	0.0083	3.0	1.1	38
Call For Details	GD8-022-3.0-110-C	0.22	0.0087	3.0	1.1	38
Call For Details	GD8-023-3.0-110-C	0.23	0.0091	3.0	1.1	38
Call For Details	GD8-024-3.0-110-C	0.24	0.0094	3.0	1.1	38
Call For Details	GD8-025-3.0-130-C	0.25	0.0098	3.0	1.3	38
Call For Details	GD8-026-3.0-130-C	0.26	0.0102	3.0	1.3	38
Call For Details	GD8-027-3.0-130-C	0.27	0.0106	3.0	1.3	38
Call For Details	GD8-028-3.0-130-C	0.28	0.0110	3.0	1.3	38
Call For Details	GD8-029-3.0-130-C	0.29	0.0114	3.0	1.3	38
Call For Details	GD8-030-3.0-160-C	0.30	0.0118	3.0	1.6	38
Call For Details	GD8-031-3.0-160-C	0.31	0.0122	3.0	1.6	38
Call For Details	GD8-032-3.0-160-C	0.32	0.0126	3.0	1.6	38
Call For Details	GD8-033-3.0-160-C	0.33	0.0130	3.0	1.6	38
Call For Details	GD8-034-3.0-160-C	0.34	0.0134	3.0	1.6	38
Call For Details	GD8-035-3.0-160-C	0.35	0.0138	3.0	1.6	38
Call For Details	GD8-036-3.0-160-C	0.36	0.0142	3.0	1.6	38
Call For Details	GD8-037-3.0-160-C	0.37	0.0146	3.0	1.6	38
Call For Details	GD8-038-3.0-160-C	0.38	0.0150	3.0	1.6	38
Call For Details	GD8-039-3.0-200-C	0.39	0.0154	3.0	2.0	38
3680-000100	GD8-040-3.0-200-C	0.40	0.0157	3.0	2.0	38
Call For Details	GD8-041-3.0-200-C	0.41	0.0161	3.0	2.0	38
Call For Details	GD8-042-3.0-200-C	0.42	0.0165	3.0	2.0	38
Call For Details	GD8-043-3.0-200-C	0.43	0.0169	3.0	2.0	38
Call For Details	GD8-044-3.0-200-C	0.44	0.0173	3.0	2.0	38
Call For Details	GD8-045-3.0-200-C	0.45	0.0177	3.0	2.0	38
Call For Details	GD8-046-3.0-200-C	0.46	0.0181	3.0	2.0	38
Call For Details	GD8-047-3.0-200-C	0.47	0.0185	3.0	2.0	38
Call For Details	GD8-048-3.0-200-C	0.48	0.0189	3.0	2.0	38
Call For Details	GD8-049-3.0-200-C	0.49	0.0193	3.0	2.0	38
Call For Details	GD8-050-3.0-240-C	0.50	0.0197	3.0	2.4	38
Call For Details	GD8-051-3.0-240-C	0.51	0.0201	3.0	2.4	38
Call For Details	GD8-052-3.0-240-C	0.52	0.0205	3.0	2.4	38
Call For Details	GD8-053-3.0-240-C	0.53	0.0209	3.0	2.4	38
Call For Details	GD8-054-3.0-280-C	0.54	0.0213	3.0	2.8	38
Call For Details	GD8-055-3.0-280-C	0.55	0.0217	3.0	2.8	38
Call For Details	GD8-056-3.0-280-C	0.56	0.0220	3.0	2.8	38
Call For Details	GD8-057-3.0-280-C	0.57	0.0224	3.0	2.8	38
Call For Details	GD8-058-3.0-280-C	0.58	0.0228	3.0	2.8	38
Call For Details	GD8-059-3.0-280-C	0.59	0.0232	3.0	2.8	38
Call For Details	GD8-060-3.0-280-C	0.60	0.0236	3.0	2.8	38
Call For Details	GD8-061-3.0-330-C	0.61	0.0240	3.0	3.3	38
Call For Details	GD8-062-3.0-330-C	0.62	0.0244	3.0	3.3	38
Call For Details	GD8-063-3.0-330-C	0.63	0.0248	3.0	3.3	38
Call For Details	GD8-064-3.0-330-C	0.64	0.0252	3.0	3.3	38
Call For Details	GD8-065-3.0-330-C	0.65	0.0256	3.0	3.3	38
Call For Details	GD8-066-3.0-330-C	0.66	0.0260	3.0	3.3	38
Call For Details	GD8-067-3.0-330-C	0.67	0.0264	3.0	3.3	38
Call For Details	GD8-068-3.0-380-C	0.68	0.0268	3.0	3.8	38
Call For Details	GD8-069-3.0-380-C	0.69	0.0272	3.0	3.8	38
Call For Details	GD8-070-3.0-380-C	0.70	0.0276	3.0	3.8	38

3680 Series - Solid Carbide - 4 to 5 x Dia (Continued)

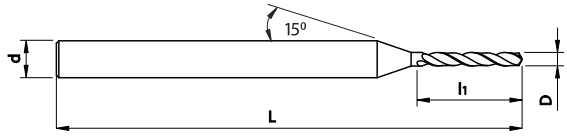
Material	Execution	Drill Point	Flute Helix	Flutes	Tolerance
Micro Grain Carbide	Right Hand	120˚	24˚	2	H6



Item No.	Description	D Flute Ø (mm)	D Flute Ø (inch)	d Shank Ø (mm)	L1 Flute Length	OAL (mm)
Call For Details	GD8-071-3.0-380-C	0.71	0.0280	3	3.8	38
Call For Details	GD8-072-3.0-380-C	0.72	0.0283	3	3.8	38
Call For Details	GD8-073-3.0-380-C	0.73	0.0287	3	3.8	38
Call For Details	GD8-074-3.0-380-C	0.74	0.0291	3	3.8	38
Call For Details	GD8-075-3.0-380-C	0.75	0.0295	3	3.8	38
Call For Details	GD8-076-3.0-420-C	0.76	0.0299	3	4.2	38
Call For Details	GD8-077-3.0-420-C	0.77	0.0303	3	4.2	38
Call For Details	GD8-078-3.0-420-C	0.78	0.0307	3	4.2	38
Call For Details	GD8-079-3.0-420-C	0.79	0.0311	3	4.2	38
Call For Details	GD8-080-3.0-440-C	0.8	0.0315	3	4.4	38
Call For Details	GD8-081-3.0-440-C	0.81	0.0319	3	4.4	38
Call For Details	GD8-082-3.0-440-C	0.82	0.0323	3	4.4	38
Call For Details	GD8-083-3.0-440-C	0.83	0.0327	3	4.4	38
Call For Details	GD8-084-3.0-440-C	0.84	0.0331	3	4.4	38
Call For Details	GD8-085-3.0-440-C	0.85	0.0335	3	4.4	38
Call For Details	GD8-086-3.0-480-C	0.86	0.0339	3	4.8	38
Call For Details	GD8-087-3.0-480-C	0.87	0.0343	3	4.8	38
Call For Details	GD8-088-3.0-480-C	0.88	0.0346	3	4.8	38
Call For Details	GD8-089-3.0-480-C	0.89	0.0350	3	4.8	38
Call For Details	GD8-090-3.0-480-C	0.9	0.0354	3	4.8	38
Call For Details	GD8-091-3.0-480-C	0.91	0.0358	3	4.8	38
Call For Details	GD8-092-3.0-480-C	0.92	0.0362	3	4.8	38
Call For Details	GD8-093-3.0-480-C	0.93	0.0366	3	4.8	38
Call For Details	GD8-094-3.0-480-C	0.94	0.0370	3	4.8	38
Call For Details	GD8-095-3.0-480-C	0.95	0.0374	3	4.8	38
Call For Details	GD8-096-3.0-480-C	0.96	0.0378	3	4.8	38
Call For Details	GD8-097-3.0-480-C	0.97	0.0382	3	4.8	38
Call For Details	GD8-098-3.0-480-C	0.98	0.0386	3	4.8	38
Call For Details	GD8-099-3.0-480-C	0.99	0.0390	3	4.8	38
Call For Details	GD8-100-3.0-480-C	1	0.0394	3	4.8	38
Call For Details	GD8-101-3.0-480-C	1.01	0.0398	3	4.8	38
Call For Details	GD8-102-3.0-480-C	1.02	0.0402	3	4.8	38
Call For Details	GD8-103-3.0-480-C	1.03	0.0406	3	4.8	38
Call For Details	GD8-104-3.0-480-C	1.04	0.0409	3	4.8	38
Call For Details	GD8-105-3.0-480-C	1.05	0.0413	3	4.8	38
Call For Details	GD8-106-3.0-480-C	1.06	0.0417	3	4.8	38
Call For Details	GD8-107-3.0-480-C	1.07	0.0421	3	4.8	38
Call For Details	GD8-108-3.0-480-C	1.08	0.0425	3	4.8	38
Call For Details	GD8-109-3.0-480-C	1.09	0.0429	3	4.8	38
Call For Details	GD8-110-3.0-540-C	1.1	0.0433	3	5.4	38
Call For Details	GD8-111-3.0-540-C	1.11	0.0437	3	5.4	38
Call For Details	GD8-112-3.0-540-C	1.12	0.0441	3	5.4	38
Call For Details	GD8-113-3.0-540-C	1.13	0.0445	3	5.4	38
Call For Details	GD8-114-3.0-540-C	1.14	0.0449	3	5.4	38
Call For Details	GD8-115-3.0-540-C	1.15	0.0453	3	5.4	38
Call For Details	GD8-116-3.0-540-C	1.16	0.0457	3	5.4	38
Call For Details	GD8-117-3.0-540-C	1.17	0.0461	3	5.4	38
Call For Details	GD8-118-3.0-540-C	1.18	0.0465	3	5.4	38
Call For Details	GD8-119-3.0-540-C	1.19	0.0469	3	5.4	38
Call For Details	GD8-120-3.0-600-C	1.2	0.0472	3	6	38
Call For Details	GD8-121-3.0-600-C	1.21	0.0476	3	6	38

3680 Series - Solid Carbide - 4 to 5 x Dia (Continued)

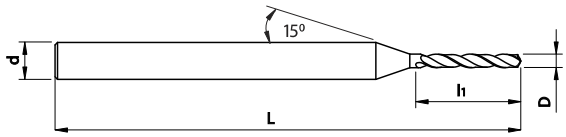
Material	Execution	Drill Point	Flute Helix	Flutes	Tolerance
Micro Grain Carbide	Right Hand	120˚	24˚	2	H6



Item No.	Description	D Flute Ø (mm)	D Flute Ø (inch)	d Shank Ø (mm)	L1 Flute Length	OAL (mm)
Call For Details	GD8-122-3.0-600-C	1.22	0.0480	3	6	38
Call For Details	GD8-123-3.0-600-C	1.23	0.0484	3	6	38
Call For Details	GD8-124-3.0-600-C	1.24	0.0488	3	6	38
Call For Details	GD8-125-3.0-600-C	1.25	0.0492	3	6	38
Call For Details	GD8-126-3.0-600-C	1.26	0.0496	3	6	38
Call For Details	GD8-127-3.0-600-C	1.27	0.0500	3	6	38
Call For Details	GD8-128-3.0-600-C	1.28	0.0504	3	6	38
Call For Details	GD8-129-3.0-600-C	1.29	0.0508	3	6	38
Call For Details	GD8-130-3.0-670-C	1.3	0.0512	3	6.7	38
Call For Details	GD8-131-3.0-670-C	1.31	0.0516	3	6.7	38
Call For Details	GD8-132-3.0-670-C	1.32	0.0520	3	6.7	38
Call For Details	GD8-133-3.0-670-C	1.33	0.0524	3	6.7	38
Call For Details	GD8-134-3.0-670-C	1.34	0.0528	3	6.7	38
Call For Details	GD8-135-3.0-670-C	1.35	0.0531	3	6.7	38
Call For Details	GD8-136-3.0-670-C	1.36	0.0535	3	6.7	38
Call For Details	GD8-137-3.0-670-C	1.37	0.0539	3	6.7	38
Call For Details	GD8-138-3.0-670-C	1.38	0.0543	3	6.7	38
Call For Details	GD8-139-3.0-670-C	1.39	0.0547	3	6.7	38
Call For Details	GD8-140-3.0-670-C	1.4	0.0551	3	6.7	38
Call For Details	GD8-141-3.0-670-C	1.41	0.0555	3	6.7	38
Call For Details	GD8-142-3.0-670-C	1.42	0.0559	3	6.7	38
Call For Details	GD8-143-3.0-670-C	1.43	0.0563	3	6.7	38
Call For Details	GD8-144-3.0-670-C	1.44	0.0567	3	6.7	38
Call For Details	GD8-145-3.0-670-C	1.45	0.0571	3	6.7	38
Call For Details	GD8-146-3.0-670-C	1.46	0.0575	3	6.7	38
Call For Details	GD8-147-3.0-670-C	1.47	0.0579	3	6.7	38
Call For Details	GD8-148-3.0-670-C	1.48	0.0583	3	6.7	38
Call For Details	GD8-149-3.0-670-C	1.49	0.0587	3	6.7	38
Call For Details	GD8-150-3.0-720-C	1.5	0.0591	3	7.2	38
Call For Details	GD8-151-3.0-720-C	1.51	0.0594	3	7.2	38
Call For Details	GD8-152-3.0-720-C	1.52	0.0598	3	7.2	38
Call For Details	GD8-153-3.0-720-C	1.53	0.0602	3	7.2	38
Call For Details	GD8-154-3.0-720-C	1.54	0.0606	3	7.2	38
Call For Details	GD8-155-3.0-720-C	1.55	0.0610	3	7.2	38
Call For Details	GD8-156-3.0-720-C	1.56	0.0614	3	7.2	38
Call For Details	GD8-157-3.0-720-C	1.57	0.0618	3	7.2	38
Call For Details	GD8-158-3.0-720-C	1.58	0.0622	3	7.2	38
Call For Details	GD8-159-3.0-720-C	1.59	0.0626	3	7.2	38
3780-000100	GD8-160-3.0-720-C	1.6	0.0630	3	7.2	38
Call For Details	GD8-161-3.0-720-C	1.61	0.0634	3	7.2	38
Call For Details	GD8-162-3.0-720-C	1.62	0.0638	3	7.2	38
Call For Details	GD8-163-3.0-720-C	1.63	0.0642	3	7.2	38
Call For Details	GD8-164-3.0-720-C	1.64	0.0646	3	7.2	38
Call For Details	GD8-165-3.0-720-C	1.65	0.0650	3	7.2	38
Call For Details	GD8-166-3.0-720-C	1.66	0.0654	3	7.2	38
Call For Details	GD8-167-3.0-720-C	1.67	0.0657	3	7.2	38
Call For Details	GD8-168-3.0-720-C	1.68	0.0661	3	7.2	38
Call For Details	GD8-169-3.0-720-C	1.69	0.0665	3	7.2	38
Call For Details	GD8-170-3.0-720-C	1.7	0.0669	3	7.2	38
Call For Details	GD8-171-3.0-720-C	1.71	0.0673	3	7.2	38
Call For Details	GD8-172-3.0-720-C	1.72	0.0677	3	7.2	38

3680 Series - Solid Carbide - 4 to 5 x Dia (Continued)

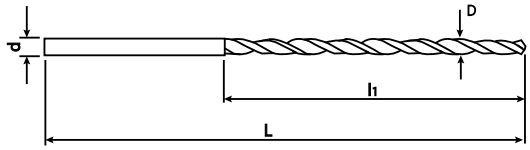
Material	Execution	Drill Point	Flute Helix	Flutes	Tolerance
Micro Grain Carbide	Right Hand	120˚	24˚	2	H6



Item No.	Description	D Flute Ø (mm)	D Flute Ø (inch)	d Shank Ø (mm)	L1 Flute Length	OAL (mm)
Call For Details	GD8-173-3.0-720-C	1.73	0.0681	3	7.2	38
Call For Details	GD8-174-3.0-720-C	1.74	0.0685	3	7.2	38
Call For Details	GD8-175-3.0-720-C	1.75	0.0689	3	7.2	38
Call For Details	GD8-176-3.0-720-C	1.76	0.0693	3	7.2	38
Call For Details	GD8-177-3.0-720-C	1.77	0.0697	3	7.2	38
Call For Details	GD8-178-3.0-720-C	1.78	0.0701	3	7.2	38
Call For Details	GD8-179-3.0-720-C	1.79	0.0705	3	7.2	38
Call For Details	GD8-180-3.0-840-C	1.8	0.0709	3	8.4	38
Call For Details	GD8-181-3.0-840-C	1.81	0.0713	3	8.4	38
Call For Details	GD8-182-3.0-840-C	1.82	0.0717	3	8.4	38
Call For Details	GD8-183-3.0-840-C	1.83	0.0720	3	8.4	38
Call For Details	GD8-184-3.0-840-C	1.84	0.0724	3	8.4	38
Call For Details	GD8-185-3.0-840-C	1.85	0.0728	3	8.4	38
Call For Details	GD8-186-3.0-840-C	1.86	0.0732	3	8.4	38
Call For Details	GD8-187-3.0-840-C	1.87	0.0736	3	8.4	38
Call For Details	GD8-188-3.0-840-C	1.88	0.0740	3	8.4	38
Call For Details	GD8-189-3.0-840-C	1.89	0.0744	3	8.4	38
Call For Details	GD8-190-3.0-840-C	1.9	0.0748	3	8.4	38
Call For Details	GD8-191-3.0-840-C	1.91	0.0752	3	8.4	38
Call For Details	GD8-192-3.0-840-C	1.92	0.0756	3	8.4	38
Call For Details	GD8-193-3.0-840-C	1.93	0.0760	3	8.4	38
Call For Details	GD8-194-3.0-840-C	1.94	0.0764	3	8.4	38
Call For Details	GD8-195-3.0-840-C	1.95	0.0768	3	8.4	38
Call For Details	GD8-196-3.0-840-C	1.96	0.0772	3	8.4	38
Call For Details	GD8-197-3.0-840-C	1.97	0.0776	3	8.4	38
Call For Details	GD8-198-3.0-840-C	1.98	0.0780	3	8.4	38
Call For Details	GD8-199-3.0-840-C	1.99	0.0783	3	8.4	38

3690 Series - Solid Carbide - 15 x Dia - Coolant-Thru

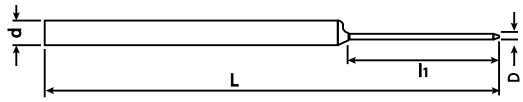
Material	Execution	Drill Point	Flute Helix	Flutes	Tolerance
Micro Grain Carbide	Right Hand	140˚	30˚	2	H5



Item No.	Description	D Flute Ø (mm)	D Flute Ø (inch)	d Shank Ø (mm)	L1 Flute Length	OAL (mm)
3690-000109	GD9-205-3.0-034-C	2.05	0.0807	3	34	70
Call For Details	GD9-210-3.0-034-C	2.1	0.0827	3	34	70
Call For Details	GD9-215-3.0-036-C	2.15	0.0846	3	36	70
Call For Details	GD9-220-3.0-036-C	2.2	0.0866	3	36	70
Call For Details	GD9-225-3.0-038-C	2.25	0.0886	3	38	70
Call For Details	GD9-230-3.0-038-C	2.3	0.0906	3	38	70
Call For Details	GD9-235-3.0-040-C	2.35	0.0925	3	40	70
Call For Details	GD9-240-3.0-040-C	2.4	0.0945	3	40	70
3690-000108	GD9-245-3.0-042-C	2.45	0.0965	3	42	70
Call For Details	GD9-250-3.0-042-C	2.5	0.0984	3	42	70
Call For Details	GD9-255-3.0-044-C	2.55	0.1004	3	44	90
Call For Details	GD9-260-3.0-044-C	2.6	0.1024	3	44	90
Call For Details	GD9-265-3.0-046-C	2.65	0.1043	3	46	90
Call For Details	GD9-270-3.0-046-C	2.7	0.1063	3	46	90
Call For Details	GD9-275-3.0-048-C	2.75	0.1083	3	48	90
Call For Details	GD9-280-3.0-048-C	2.8	0.1102	3	48	90
Call For Details	GD9-285-3.0-050-C	2.85	0.1122	3	50	90
Call For Details	GD9-290-3.0-050-C	2.9	0.1142	3	50	90
Call For Details	GD9-295-3.0-050-C	2.95	0.1161	3	50	90
Call For Details	GD9-300-3.0-050-C	3	0.1181	3	50	90

3700 Series - Solid Carbide - 10 x Dia - Gun Drills

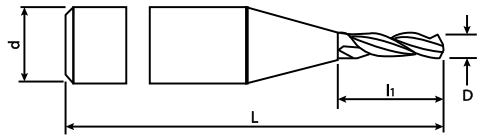
Material	Execution	Drill Point	Flute Helix	Flutes	Tolerance
Micro Grain Carbide	Right Hand	120˚	None	Half Round	H5



Item No.	Description	D Flute Ø (mm)	D Flute Ø (inch)	d Shank Ø (mm)	L1 Flute Length	OAL (mm)
Call For Details	GD10-020-1.5-020-C	0.2	0.0079	1.5	2	30
Call For Details	GD10-025-1.5-025-C	0.25	0.0098	1.5	2.5	30
Call For Details	GD10-030-1.5-030-C	0.3	0.0118	1.5	3	30
Call For Details	GD10-035-1.5-035-C	0.35	0.0138	1.5	3.5	30
Call For Details	GD10-040-1.5-040-C	0.4	0.0157	1.5	4	30
Call For Details	GD10-045-1.5-045-C	0.45	0.0177	1.5	4.5	30
Call For Details	GD10-050-1.5-050-C	0.5	0.0197	1.5	5	30
Call For Details	GD10-055-1.5-055-C	0.55	0.0217	1.5	5.5	30
Call For Details	GD10-060-1.5-060-C	0.6	0.0236	1.5	6	30
Call For Details	GD10-065-1.5-065-C	0.65	0.0256	1.5	6.5	30
Call For Details	GD10-070-1.5-070-C	0.7	0.0276	1.5	7	30
Call For Details	GD10-075-1.5-075-C	0.75	0.0295	1.5	7.5	30
Call For Details	GD10-080-1.5-080-C	0.8	0.0315	1.5	8	30
Call For Details	GD10-085-1.5-085-C	0.85	0.0335	1.5	8.5	30
Call For Details	GD10-090-1.5-090-C	0.9	0.0354	1.5	9	30
Call For Details	GD10-095-1.5-095-C	0.95	0.0374	1.5	9.5	30
Call For Details	GD10-100-1.5-100-C	1	0.0394	1.5	10	30
Call For Details	GD10-105-1.5-105-C	1.05	0.0413	1.5	10.5	30
Call For Details	GD10-110-1.5-110-C	1.1	0.0433	1.5	11	30
Call For Details	GD10-115-1.5-115-C	1.15	0.0453	1.5	11.5	30
Call For Details	GD10-120-1.5-120-C	1.2	0.0472	1.5	12	30
Call For Details	GD10-125-1.5-125-C	1.25	0.0492	1.5	12.5	30
Call For Details	GD10-130-1.5-130-C	1.3	0.0512	1.5	13	30
Call For Details	GD10-135-1.5-135-C	1.35	0.0531	1.5	13.5	30
Call For Details	GD10-140-1.5-140-C	1.4	0.0551	1.5	14	30
Call For Details	GD10-145-1.5-145-C	1.45	0.0571	1.5	14.5	30
Call For Details	GD10-150-2.0-150-C	1.5	0.0591	2	15	38
Call For Details	GD10-155-2.0-155-C	1.55	0.0610	2	15.5	38
Call For Details	GD10-160-2.0-160-C	1.6	0.0630	2	16	38
Call For Details	GD10-165-2.0-165-C	1.65	0.0650	2	16.5	38
Call For Details	GD10-170-2.0-170-C	1.7	0.0669	2	17	38
Call For Details	GD10-175-2.0-175-C	1.75	0.0689	2	17.5	38
Call For Details	GD10-180-2.0-180-C	1.8	0.0709	2	18	38
Call For Details	GD10-185-2.0-185-C	1.85	0.0728	2	18.5	38
Call For Details	GD10-190-2.0-190-C	1.9	0.0748	2	19	38
Call For Details	GD10-195-2.0-195-C	1.95	0.0768	2	19.5	38
Call For Details	GD10-200-3.0-200-C	2	0.0787	3	20	50
Call For Details	GD10-210-3.0-210-C	2.1	0.0827	3	21	50
Call For Details	GD10-220-3.0-220-C	2.2	0.0866	3	22	50
Call For Details	GD10-230-3.0-230-C	2.3	0.0906	3	23	50
Call For Details	GD10-240-3.0-240-C	2.4	0.0945	3	24	50
Call For Details	GD10-250-3.0-250-C	2.5	0.0984	3	25	50
Call For Details	GD10-260-3.0-260-C	2.6	0.1024	3	26	50
Call For Details	GD10-270-3.0-270-C	2.7	0.1063	3	27	50
Call For Details	GD10-280-3.0-280-C	2.8	0.1102	3	28	50
Call For Details	GD10-290-3.0-290-C	2.9	0.1142	3	29	50
Call For Details	GD10-300-3.0-300-C	3	0.1181	3	30	50

3710 Series - Solid Carbide - 4 to 6 x Dia

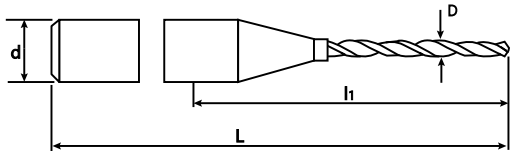
Material	Execution	Drill Point	Flute Helix	Flutes	Tolerance
Micro Grain Carbide	Right Hand	140˚	30˚	3	H5



Item No.	Description	D Flute Ø (mm)	D Flute Ø (inch)	d Shank Ø (mm)	L1 Flute Length	OAL (mm)
Call For Details	GD11-050-3.0-300-C	0.5	0.0197	3	3	30
Call For Details	GD11-055-3.0-300-C	0.55	0.0217	3	3	30
Call For Details	GD11-060-3.0-300-C	0.6	0.0236	3	3	30
Call For Details	GD11-065-3.0-300-C	0.65	0.0256	3	3	30
Call For Details	GD11-070-3.0-300-C	0.7	0.0276	3	3	30
Call For Details	GD11-075-3.0-350-C	0.75	0.0295	3	3.5	30
Call For Details	GD11-080-3.0-350-C	0.8	0.0315	3	3.5	30
Call For Details	GD11-085-3.0-350-C	0.85	0.0335	3	3.5	30
Call For Details	GD11-090-3.0-350-C	0.9	0.0354	3	3.5	30
Call For Details	GD11-095-3.0-350-C	0.95	0.0374	3	3.5	30
Call For Details	GD11-100-3.0-350-C	1	0.0394	3	3.5	30
Call For Details	GD11-105-3.0-400-C	1.05	0.0413	3	4	30
Call For Details	GD11-110-3.0-400-C	1.1	0.0433	3	4	30
Call For Details	GD11-115-3.0-400-C	1.15	0.0453	3	4	30
Call For Details	GD11-120-3.0-400-C	1.2	0.0472	3	4	30
Call For Details	GD11-125-3.0-400-C	1.25	0.0492	3	4	30
Call For Details	GD11-130-3.0-500-C	1.3	0.0512	3	5	30
Call For Details	GD11-135-3.0-500-C	1.35	0.0531	3	5	30
Call For Details	GD11-140-3.0-500-C	1.4	0.0551	3	5	30
Call For Details	GD11-145-3.0-500-C	1.45	0.0571	3	5	30
Call For Details	GD11-150-3.0-500-C	1.5	0.0591	3	5	30

3720 Series - Solid Carbide - 4 to 6 x Dia - 3 Flute

Material	Execution	Drill Point	Flute Helix	Flutes	Tolerance
Micro Grain Carbide	Right Hand	140˚	30˚	3	H5



Item No.	Description	D Flute Ø (mm)	D Flute Ø (inch)	d Shank Ø (mm)	L1 Flute Length	OAL (mm)
Call For Details	GD12-050-3.0-060-C	0.5	0.0197	3	6	38
Call For Details	GD12-055-3.0-070-C	0.55	0.0217	3	7	38
Call For Details	GD12-060-3.0-070-C	0.6	0.0236	3	7	38
Call For Details	GD12-065-3.0-070-C	0.65	0.0256	3	7	38
Call For Details	GD12-070-3.0-095-C	0.7	0.0276	3	9.5	38
Call For Details	GD12-075-3.0-095-C	0.75	0.0295	3	9.5	38
Call For Details	GD12-080-3.0-095-C	0.8	0.0315	3	9.5	38
Call For Details	GD12-085-3.0-095-C	0.85	0.0335	3	9.5	38
Call For Details	GD12-090-3.0-095-C	0.9	0.0354	3	9.5	38
Call For Details	GD12-095-3.0-095-C	0.95	0.0374	3	9.5	38
Call For Details	GD12-100-3.0-095-C	1	0.0394	3	9.5	38
Call For Details	GD12-105-3.0-105-C	1.05	0.0413	3	10.5	38
Call For Details	GD12-110-3.0-105-C	1.1	0.0433	3	10.5	38
Call For Details	GD12-115-3.0-105-C	1.15	0.0453	3	10.5	38
Call For Details	GD12-120-3.0-105-C	1.2	0.0472	3	10.5	38
Call For Details	GD12-125-3.0-105-C	1.25	0.0492	3	10.5	38
Call For Details	GD12-130-3.0-105-C	1.3	0.0512	3	10.5	38
Call For Details	GD12-135-3.0-105-C	1.35	0.0531	3	10.5	38
Call For Details	GD12-140-3.0-105-C	1.4	0.0551	3	10.5	38
Call For Details	GD12-145-3.0-105-C	1.45	0.0571	3	10.5	38
3720-000120	GD12-150-3.0-105-C	1.5	0.0591	3	10.5	38
Call For Details	GD12-160-3.0-120-C	1.6	0.0630	3	12	38
Call For Details	GD12-170-3.0-120-C	1.7	0.0669	3	12	38
Call For Details	GD12-180-3.0-120-C	1.8	0.0709	3	12	38
Call For Details	GD12-190-3.0-120-C	1.9	0.0748	3	12	38
Call For Details	GD12-200-3.0-120-C	2	0.0787	3	12	38
Call For Details	GD12-210-3.0-140-C	2.1	0.0827	3	14	38
Call For Details	GD12-220-3.0-140-C	2.2	0.0866	3	14	38
Call For Details	GD12-230-3.0-140-C	2.3	0.0906	3	14	38
Call For Details	GD12-240-3.0-140-C	2.4	0.0945	3	14	38
Call For Details	GD12-250-3.0-140-C	2.5	0.0984	3	14	38
Call For Details	GD12-260-3.0-160-C	2.6	0.1024	3	16	38
Call For Details	GD12-270-3.0-160-C	2.7	0.1063	3	16	38
Call For Details	GD12-280-3.0-160-C	2.8	0.1102	3	16	38
Call For Details	GD12-290-3.0-160-C	2.9	0.1142	3	16	38
Call For Details	GD12-300-3.0-160-C	3	0.1181	3	16	38

Notes:

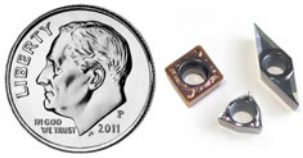
SIGNATURE SERIES
Mini Boring System
with Anti-Vibration Technology





Coolant-Thru

Every insert-style boring holder has coolant-thru capability.



Multiple Insert Types

35 and 80 degree rhombic and trigon inserts available with several coating types.

Adaptable Shank Sizes

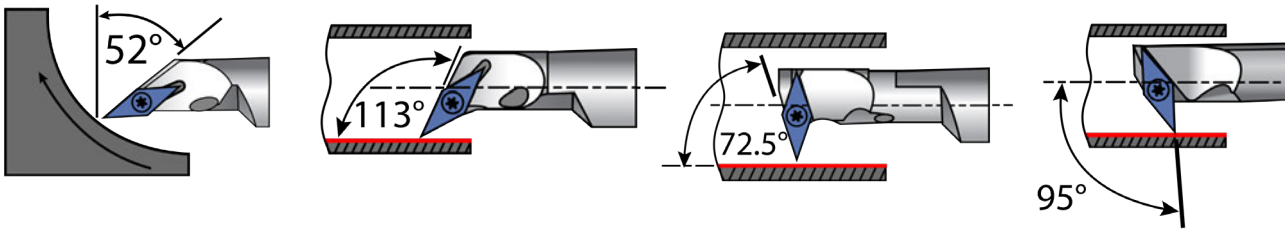
Coolant-thru bushings are available to fit boring holders to almost any static tool holder diameter.

GenSwiss' new mini boring line provides a method of creating ID features that utilize easy to change ISO style turning inserts and round shank holders.

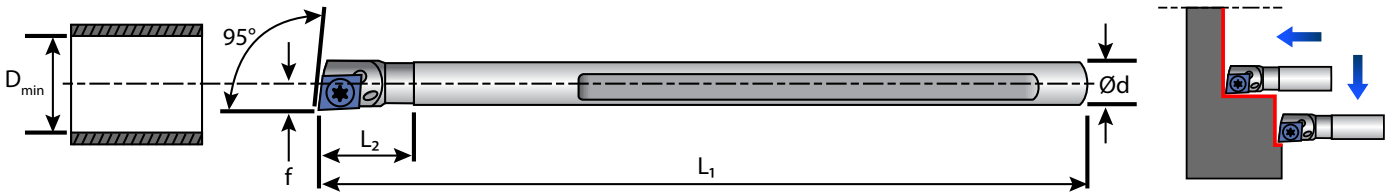
Inserts come in 3 geometries: 35 degree rhombic, 80 degree rhombic, and 80 degree trigon. Several chip breaker geometries and coatings are available, ideal for cutting materials such as carbon alloy steels, stainless steels, cast iron, and aluminum alloys.

Available solid carbide insert holders provide enhanced vibration dampening to ensure tool cutting accuracy. Each holder features coolant-thru outlets and shank diameters down to 4.8mm. Boring holders can be paired with a GenSwiss bushing for easy mounting to static round shank tool holders.

Holders Are Available With Various Cutting Angles



Down to Min bore diameter .189 inch (4.8mm)



SCLDL (95°)

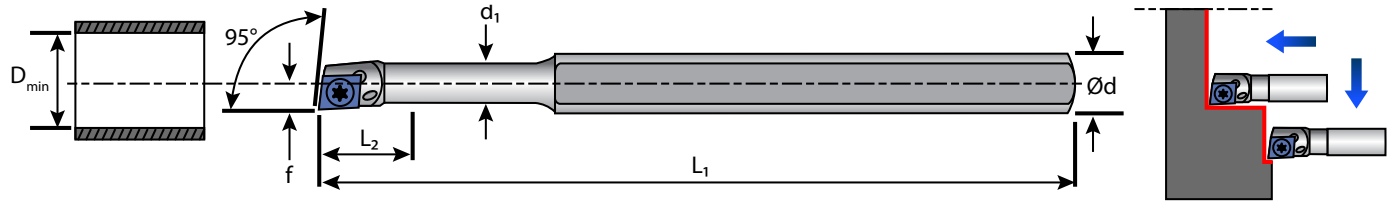
Ø 4-6mm Shanks

Left Hand Item No.	Description	d	L_1	L_2	f	D_{min}	Insert	Screw	Key
Call for details	CB0400F SCLDL 04	4	80	-	2.4	4.8	CDGT 0401	BFTX1804	T6
Call for details	CB0500F SCLDL 04	5	80	-	2.9	5.8	CDGT 0401	BFTX1804	T6
Call for details	CB0600G SCLDL 04	6	95	-	3.4	6.8	CDGT 0401	BFTX1804	T6

SCLDR (95°)

Ø 4-6mm Shanks

Right Hand Item No.	Description	d	L_1	L_2	f	D_{min}	Insert	Screw	Key
1200-000001	CB0400F SCLDR04	4	80	-	2.4	4.8	CDGT 0401	BFTX1804	T6
1200-000002	CB0500F SCLDR04	5	80	-	2.9	5.8	CDGT 0401	BFTX1804	T6
1200-000003	CB0600G SCLDR04	6	95	-	3.4	6.8	CDGT 0401	BFTX1804	T6



SCLDL (95°)

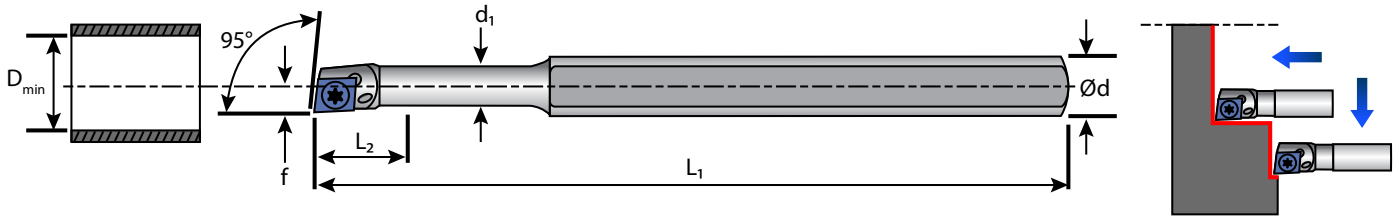
Ø 8mm Shanks

Left Hand Item No.	Description	d	d_1	L_1	L_2	f	D_{min}	Insert	Screw	Key
Call for details	CB0408H SCLDL 04	8	4	100	24	2.4	4.8	CDGT 0401	BFTX1804	T6
Call for details	CB0508H SCLDL 04	8	5	100	30	2.9	5.8	CDGT 0401	BFTX1804	T6
Call for details	CB0608H SCLDL 04	8	6	100	36	3.4	6.8	CDGT 0401	BFTX1804	T6

SCLDR (95°)

Ø 8mm Shanks

Right Hand Item No.	Description	d	d_1	L_1	L_2	f	D_{min}	Insert	Screw	Key
1200-000004	CB0408H SCLDR 04	8	4	100	24	2.4	4.8	CDGT 0401	BFTX1804	T6
1200-000005	CB0508H SCLDR 04	8	5	100	30	2.9	5.8	CDGT 0401	BFTX1804	T6
1200-000006	CB0608H SCLDR 04	8	6	100	36	3.4	6.8	CDGT 0401	BFTX1804	T6



SCUPL (95°)

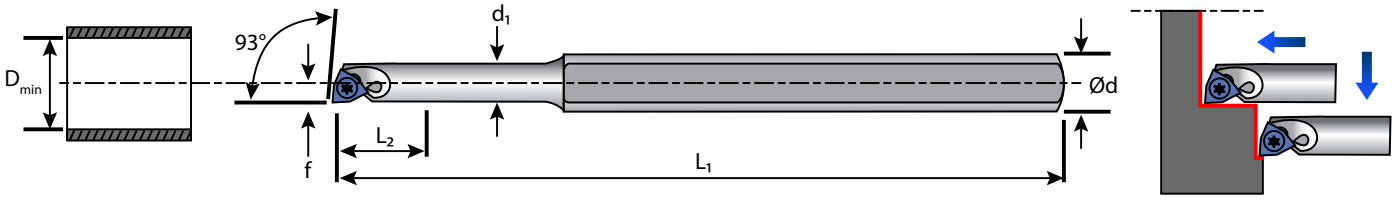
Ø 8-16mm Shanks

Left Hand Item No.	Description	d	d_1	L_1	L_2	f	D_{min}	Insert	Screw	Key
Call for details	CB0608H SCUPL 05	8	6	100	28	4.5	8	CPMT 05T1/ CPGT 05T1	BTFX 02204	T7
Call for details	CB0810J SCUPL 05	10	8	110	36	6	11	CPMT 05T1/CPGT 05T1	BTFX 02204	T7
Call for details	CB1012K SCUPL 05	12	10	125	44	7	13	CPMT 05T1/CPGT 05T1	BTFX 02205	T7
Call for details	CB1216M SCUPL 05	16	12	150	55	9	16	CPMT 05T1/CPGT 05T1	BTFX 02206	T7

SCUPR (95°)

Ø 8-16mm Shanks

Right Hand Item No.	Description	d	d_1	L_1	L_2	f	D_{min}	Insert	Screw	Key
1200-000007	CB0608H SCUPR 05	8	6	100	28	4.5	8	CPMT 05T1/CPGT 05T1	BTFX 02204	T7
1200-000008	CB0810J SCUPR 05	10	8	110	36	6	11	CPMT 05T1/CPGT 05T1	BTFX 02204	T7
1200-000009	CB1012K SCUPR 05	12	10	125	44	7	13	CPMT 05T1/CPGT 05T1	BTFX 02205	T7
Call for details	CB1216M SCUPR05	16	12	150	55	9	16	CPMT 05T1/CPGT 05T1	BTFX 02206	T7



SWUCL (93°)

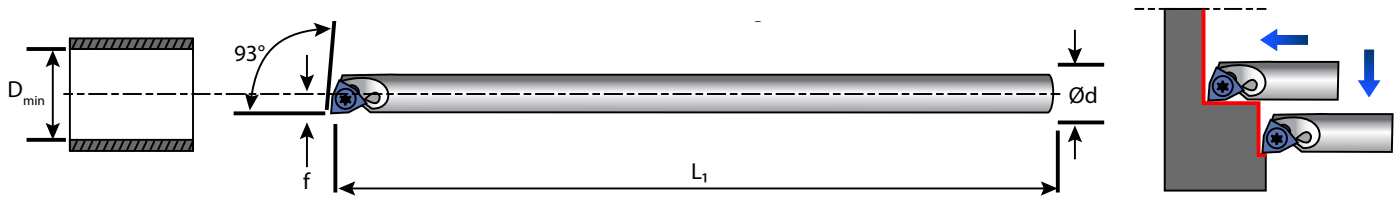
Ø 8mm Shanks

Left Handed Item No.	Description	d	d_1	l_1	l_2	f	D_{min}	Insert	Screw	Key
Call for details	CB0508H SWUCL 02	8	5	100	24	2.9	5.8	WCMT 0201/WCGT 0201	BFTX 02035	T6
Call for details	CB0608H SWUCL 02	8	6	100	32	3.9	7.8	WCMT 0201/WCGT 0201	BFTX 02035	T6

SWUCR (93°)

Ø 8mm Shanks

Right Handed Item No.	Description	d	d_1	l_1	l_2	f	D_{min}	Insert	Screw	Key
Call for details	CB0508H SWUCR 02	8	5	100	24	2.9	5.8	WCMT 0201/WCGT 0201	BFTX 02035	T6
1200-000010	CB0608H SWUCR 02	8	6	100	32	3.9	7.8	WCMT 0201/WCGT 0201	BFTX 02035	T6



SWUCL (93°)

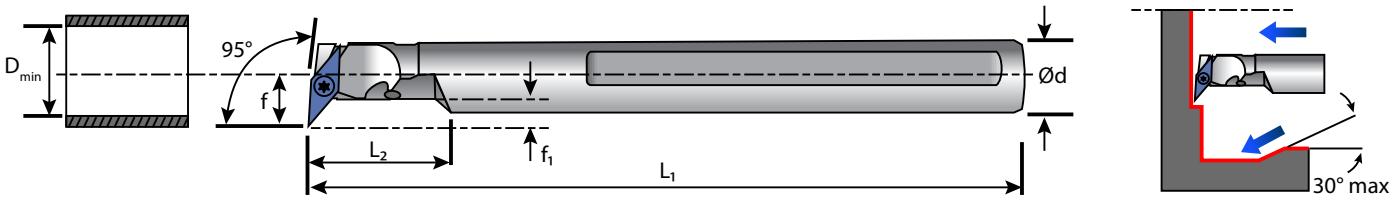
Ø 5-6mm Shanks

Left Handed Item No.	Description	d	L_1	L_2	f	D_{min}	Insert	Screw	Key
Call for details	CB0500F SWUCL 02	5	85	-	2.9	5.8	WCMT 0201/WCGT 0201	BFTX 02035	T6
Call for details	CB0600G SWUCL 02	6	95	-	3.9	5.8	WCMT 0201/WCGT 0201	BFTX 02035	T6

SWUCR (93°)

Ø 5-6mm Shanks

Right Handed Item No.	Description	d	L_1	L_2	f	D_{min}	Insert	Screw	Key
Call for details	CB0500F SWUCR 02	5	85	-	2.9	5.8	WCMT 0201/WCGT 0201	BFTX 02035	T6
Call for details	CB0600G SWUCR 02	6	95	-	3.9	5.8	WCMT 0201/WCGT 0201	BFTX 02035	T6



SVLCL (95°)

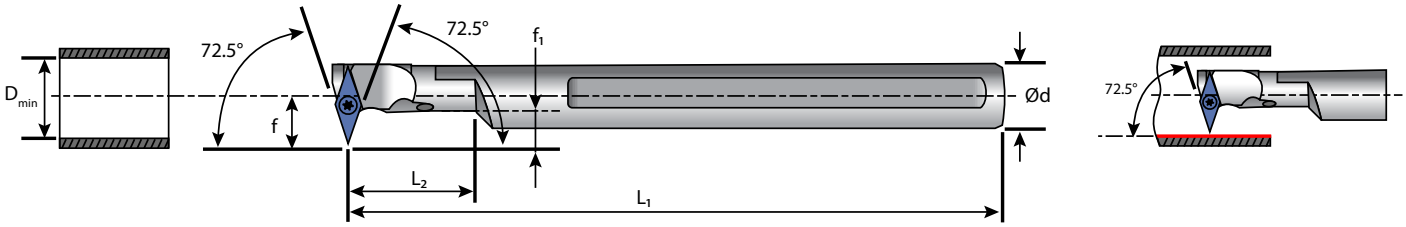
Ø 10-16mm Shanks

Left Handed Item No.	Description	d	L_1	L_2	f	f_1	D_{min}	Insert	Screw	Key
Call for details	CB1000H SVLCL 07	10	100	32	7	5	12.5	VCMT 0702/VCGT 0702	BFTX0205	T6
Call for details	CB1200K SVLCL 07	12	125	40	9	6	15.5	VCMT 0702/VCGT 0702	BFTX0205	T6
Call for details	CB1600M SVLCL 07	16	150	55	11	5	19.5	VCMT 0702/VCGT 0702	BFTX0205	T6

SVLCR (95°)

Ø 10-16mm Shanks

Right Handed Item No.	Description	d	L_1	L_2	f	f_1	D_{min}	Insert	Screw	Key
1200-000011	CB1000H SVLCR 07	10	100	32	7	5	12.5	VCMT 0702/VCGT 0702	BFTX0205	T6
1200-000012	CB1200K SVLCR 07	12	125	40	9	6	15.5	VCMT 0702/VCGT 0702	BFTX0205	T6
Call for details	CB1600M SVLCR 07	16	150	55	11	5	19.5	VCMT 0702/VCGT 0702	BFTX0205	T6



SVVCL (72.5°)

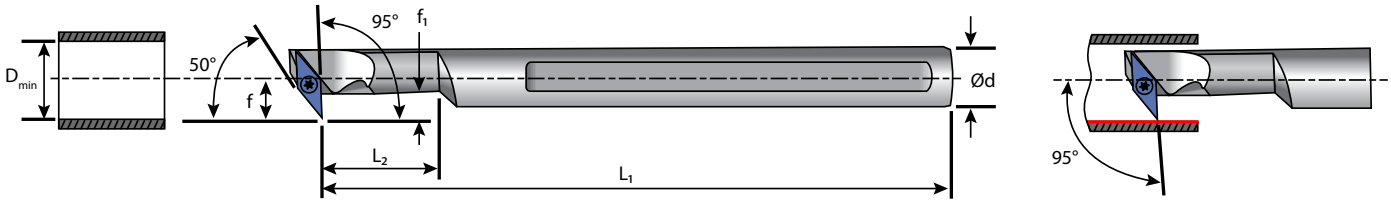
Ø 10-16mm Shanks

Left Handed Item No.	Description	d	L_1	L_2	f	f_1	D_{min}	Insert	Screw	Key
Call for details	CB1000H SVVCL 07	10	100	32	8	6	13.5	VCMT 0702/VCGT 0702	BFTX0205	T6
Call for details	CB1200K SVVCL 07	12	125	40	9	6	15.5	VCMT 0702/VCGT 0702	BFTX0205	T6
Call for details	CB1600M SVVCL 07	16	150	55	11	6	19.5	VCMT 0702/VCGT 0702	BFTX0205	T6

SVVCR (72.5°)

Ø 10-16mm Shanks

Right Handed Item No.	Description	d	L_1	L_2	f	f_1	D_{min}	Insert	Screw	Key
Call for details	CB1000H SVVCR 07	10	100	32	8	6	13.5	VCMT 0702/VCGT 0702	BFTX0205	T6
Call for details	CB1200K SVVCR 07	12	125	40	9	6	15.5	VCMT 0702/VCGT 0702	BFTX0205	T6
Call for details	CB1600M SVVCR 07	16	150	55	11	6	19.5	VCMT 0702/VCGT 0702	BFTX0205	T6



SV95CL (50°)

Ø 10-16mm Shanks

Left Handed Item No.	Description	d	L_1	L_2	f	f_1	D_{min}	Insert	Screw	Key
Call for details	CB1000H SV95CL 07	10	100	32	7	5	12.5	VCMT 0702/VCGT 0702	BFTX0205	T6
Call for details	CB1200K SV95CL 07	12	125	40	9	6	15.5	VCMT 0702/VCGT 0702	BFTX0205	T6
Call for details	CB1600M SV95CL 07	16	150	55	11	8	19.5	VCMT 0702/VCGT 0702	BFTX0205	T6

SV95CR (50°)

Ø 10-16mm Shanks

RightHanded Item No.	Description	d	L_1	L_2	f	f_1	D_{min}	Insert	Screw	Key
Call for details	CB1000H SV95CR 07	10	100	32	7	5	12.5	VCMT 0702/VCGT 0702	BFTX0205	T6
Call for details	CB1200K SV95CR 07	12	125	40	9	6	15.5	VCMT 0702/VCGT 0702	BFTX0205	T6
Call for details	CB1600M SV95CR 07	16	150	55	11	8	19.5	VCMT 0702/VCGT 0702	BFTX0205	T6

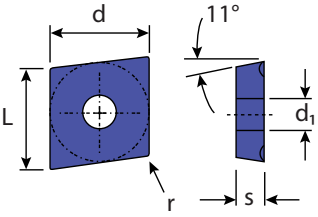
Signature Series Mini Boring System

Turning Inserts

P	CarbonSteel, Alloy Steel
M	Stainless Steel
K	Cast Iron
N	Aluminium alloy, non-ferrous metal



CPMT

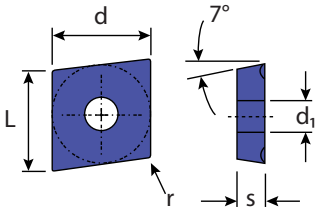


Item No.	Description	L	d	s	d_1	r	P	M	K
1200-000018	CPMT 05T102 EN-PM1	5.6	5.56	1.97	2.5	0.2	■	■	■
1200-000019	CPMT 05T104 EN-PM1	5.6	5.56	1.97	2.5	0.4	■	■	■

Grade K400 with G1 Coating



CDGT

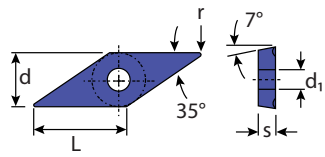


Item No.	Description	L	d	s	d_1	r	P	M	K	N
1200-000020	CDGT 040101 FN-ALU	4.03	3.97	1	2.1	0.1				■
1200-000021	CDGT 040102 FN	4.03	3.97	1	2.1	0.2	■	■	■	
1200-000022	CDGT 040104 FN	4.03	3.97	1	2.1	0.4	■	■		

(Item # 1200-000020) Grade K15 Uncoated
(Item # 1200-000021 & 1200-000022) Grade K400 with G1 Coating



VCGT...ALU

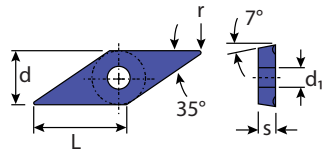


Item No.	Description	L	d	s	d_1	r	N
1200-000025	VCGT 070201 FN-ALU	6.92	3.97	2.38	2.2	0.1	■

Grade K15 Uncoated



VCMT...PM1

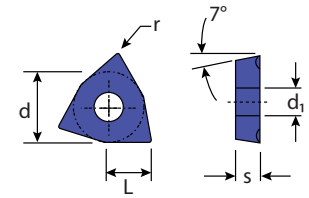


Item No.	Description	L	d	s	d_1	r	P	M	K
1200-000023	VCMT 070202 EN-PM1	6.92	3.97	2.38	2.2	0.2	■	■	■
1200-000024	VCMT 070204 EN-PM1	6.92	3.97	2.38	2.2	0.4	■	■	■

Grade K400 with G1 Coating

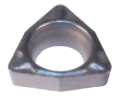


WCGT

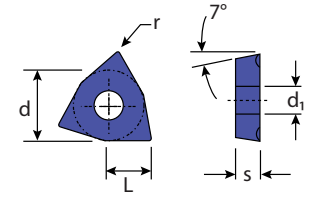


Item No.	Description	L	d	s	d_1	r	N
1200-000028	WCGT 020101 FN-ALU	2.7	3.97	1.59	2.2	0.1	■

Grade K15 Uncoated



WCMT

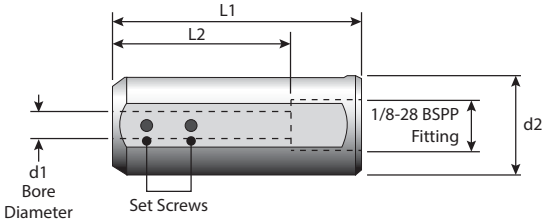


Item No.	Description	L	d	s	d_1	r	M
1200-000026	WCMT 020102	2.7	3.97	1.59	2.2	0.2	■
1200-000027	WCMT 020104	2.7	3.96	1.59	2.2	0.4	■

Grade K400 with G1 Coating

COOLANT THRU BORING BUSHINGS

Material: Steel





Coolant Fittings & Accessories



Item # 4005-000104

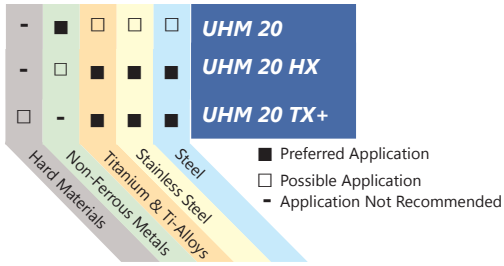
Call 413-562-4800 for more fittings

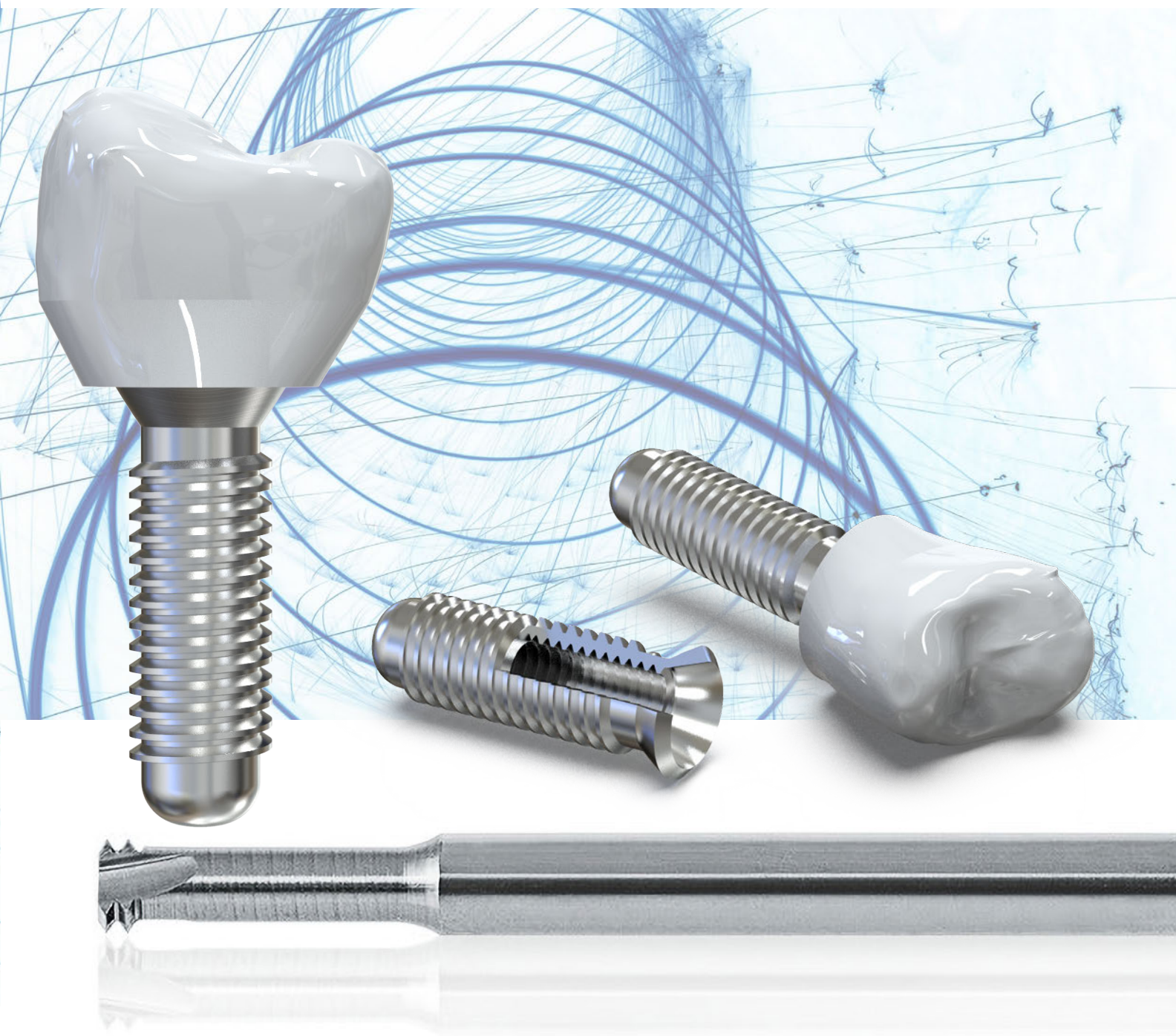
Item No.	Description	d_1	L_1	L_2	d_2
1028-000001A	CTB-4.00-158760	4mm	3 inch	thru	5/8 inch
1028-000002A	CTB-4.00-190760	4mm	3 inch	thru	3/4 inch
1028-000003A	CTB-4.00-200760	4mm	3 inch	thru	20mm
1028-000004A	CTB-4.00-220760	4mm	3 inch	thru	22mm
1028-000005A	CTB-4.00-230760	4mm	3 inch	thru	23mm
1028-000006A	CTB-4.00-250760	4mm	3 inch	thru	25mm
1028-000007A	CTB-4.00-254760	4mm	3 inch	thru	1.0 inch
1028-000008A	CTB-5.00-158760	5mm	3 inch	thru	5/8 inch
1028-000009A	CTB-5.00-190760	5mm	3 inch	thru	3/4 inch
1028-000010A	CTB-5.00-200760	5mm	3 inch	thru	20mm
1028-000011A	CTB-5.00-220760	5mm	3 inch	thru	22mm
1028-000012A	CTB-5.00-230760	5mm	3 inch	thru	23mm
1028-000013A	CTB-5.00-250760	5mm	3 inch	thru	25mm
1028-000014A	CTB-5.00-254760	5mm	3 inch	thru	1.0 inch
1028-000015A	CTB-6.00-158760	6mm	3 inch	thru	5/8 inch
1028-000016A	CTB-6.00-190760	6mm	3 inch	thru	3/4 inch
1028-000017A	CTB-6.00-200760	6mm	3 inch	thru	20mm
1028-000018A	CTB-6.00-220760	6mm	3 inch	thru	22mm
1028-000019A	CTB-6.00-230760	6mm	3 inch	thru	23mm
1028-000020A	CTB-6.00-250760	6mm	3 inch	thru	25mm
1028-000021A	CTB-6.00-254760	6mm	3 inch	thru	1.0 inch
1028-000022A	CTB-8.00-158760	8mm	3 inch	thru	5/8 inch
1028-000023A	CTB-8.00-190760	8mm	3 inch	thru	3/4 inch
1028-000024A	CTB-8.00-200760	8mm	3 inch	thru	20mm
1028-000025A	CTB-8.00-220760	8mm	3 inch	thru	22mm
1028-000026A	CTB-8.00-230760	8mm	3 inch	thru	23mm
1028-000027A	CTB-8.00-250760	8mm	3 inch	thru	25mm
1028-000028A	CTB-8.00-254760	8mm	3 inch	thru	1.0 inch
1028-000029A	CTB-10.0-190760	10mm	3 inch	2 inch min	3/4 inch
1028-000030A	CTB-10.0-200760	10mm	3 inch	2 inch min	20mm
1028-000031A	CTB-10.0-220760	10mm	3 inch	2 inch min	22mm
1028-000032A	CTB-10.0-230760	10mm	3 inch	2 inch min	23mm
1028-000033A	CTB-10.0-250760	10mm	3 inch	2 inch min	25mm
1028-000034A	CTB-10.0-254760	10mm	3 inch	2 inch min	1.0 inch
1028-000035A	CTB-12.0-190760	12mm	3 inch	2 inch min	3/4 inch
1028-000036A	CTB-12.0-200760	12mm	3 inch	2 inch min	20mm
1028-000037A	CTB-12.0-220760	12mm	3 inch	2 inch min	22mm
1028-000038A	CTB-12.0-230760	12mm	3 inch	2 inch min	23mm
1028-000039A	CTB-12.0-250760	12mm	3 inch	2 inch min	25mm
1028-000040A	CTB-12.0-254760	12mm	3 inch	2 inch min	1.0 inch

UTILIS®
Tooling for High Technology

MULTIDEC® - THREAD MILL

multidec® thread mill tools are a versatile way for creating metric or UNC/UNF spec threaded forms. Since thread milling uses helical-interpolation tool paths, the same thread mill can be used to create left or right handed threads. multidec® thread mill tools come standard with 3 flutes and have the options for 1 or 2 teeth with long or short shanks. Strengthened shank mill tools are available for increased rigidity and decreased deflection.

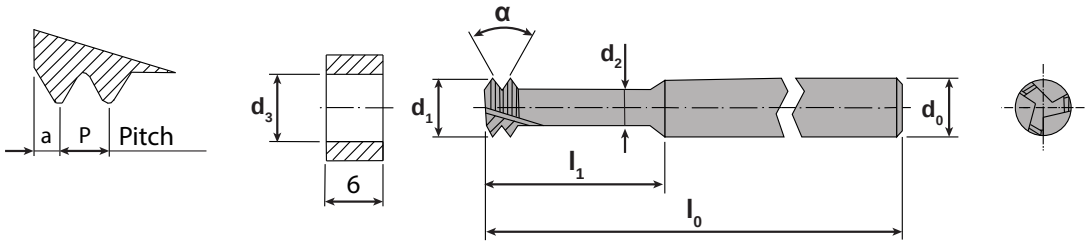






WHS (Short Version) 3 Flutes and 2 Teeth Thread Mill

Item No.	Description	ISO DIN13	P	L_1	D_1	D_2	a	D0	L0	α	D3	
7005-126415	WHS 338 010 025 UHM20 HX	M1	0.25	2.3	0.64	0.24	0.155	3	38	60°	0.75	0/+0.03
7005-126418	WHS 338 012 025 UHM20 HX	M1.2	0.25	2.8	0.84	0.44	0.155	3	38	60°	0.95	0/+0.03
7005-126421	WHS 338 014 030 UHM20 HX	M1.4	0.3	3.2	0.98	0.53	0.18	3	38	60°	1.1	0/+0.04
7005-126424	WHS 338 016 035 UHM20 HX	M1.6	0.35	3.7	1.12	0.61	0.205	3	38	60°	1.25	0/+0.04
7005-126427	WHS 338 018 035 UHM20 HX	M1.8	0.35	4.1	1.32	0.81	0.205	3	38	60°	1.45	0/+0.04
7005-126405	WHS 338 020 040 UHM20 HX	M2	0.4	4.6	1.46	0.9	0.23	3	38	60°	1.6	0/+0.05
7005-126430	WHS 338 022 045 UHM20 HX	M2.2	0.45	5.1	1.6	0.98	0.255	3	38	60°	1.75	0/+0.05
7005-112144	WHS 338 023 040 UHM20 HX	M2.3	0.4	5.2	1.76	1.2	0.23	3	38	60°	1.9	0/+0.05
7005-126433	WHS 338 025 045 UHM20 HX	M2.5	0.45	5.8	1.9	1.28	0.255	3	38	60°	2.05	0/+0.05
7005-126436	WHS 338 030 050 UHM20 HX	M3	0.5	6.9	2.34	1.67	0.28	3	38	60°	2.5	0/+0.05
7005-126439	WHS 338 035 060 UHM20 HX	M3.5	0.6	8.1	2.71	1.93	0.33	3	38	60°	2.9	0/+0.06
7005-126442	WHS 442 040 070 UHM20 HX	M4	0.7	9.2	3.09	2.2	0.38	4	42	60°	3.3	0/+0.06
7005-126527	WHS 442 045 075 UHM20 HX	M4.5	0.75	10.4	3.53	2.56	0.405	4	42	60°	3.75	0/+0.07
7005-126408	WHS 442 050 080 UHM20 HX	M5	0.8	11.5	3.97	2.95	0.43	4	42	60°	4.2	0/+0.07

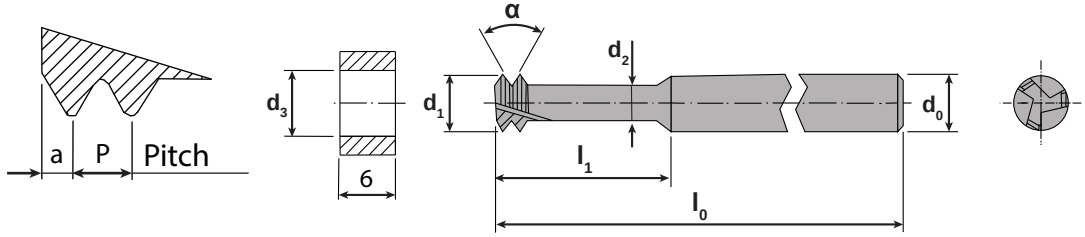




WHA (Short Version) 3 Flutes and 2 Teeth Thread Mill

Strengthened Version

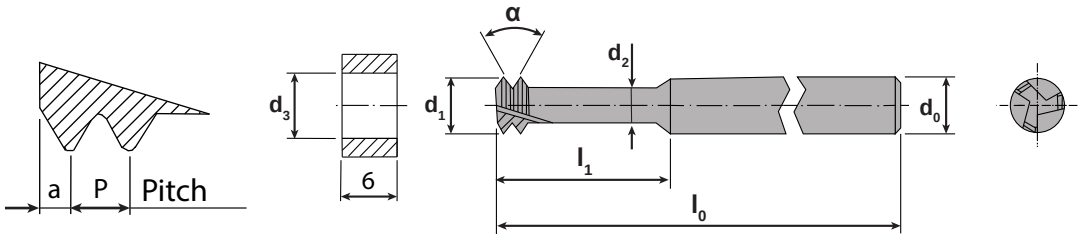
Item No.	Description	ISO DIN13	P	L_1	D_1	D_2	a	D0	L0	α	D3	
7005-112094	WHA 338 010 025 UHM20 HX	M1.0	0.25	2.3	0.83	0.41	0.155	3	38	60°	0.75	0/+0.03
7005-112096	WHA 338 012 025 UHM20 HX	M1.2	0.25	2.8	1.03	0.61	0.155	3	38	60°	0.95	0/+0.03
7005-112098	WHA 338 014 030 UHM20 HX	M1.4	0.3	3.2	1.21	0.74	0.18	3	38	60°	1.1	0/+0.04
7005-112100	WHA 338 016 035 UHM20 HX	M1.6	0.35	3.7	1.39	0.88	0.205	3	38	60°	1.25	0/+0.04
7005-112102	WHA 338 018 035 UHM20 HX	M1.8	0.35	4.1	1.59	1.08	0.205	3	38	60°	1.45	0/+0.04
7005-112104	WHA 338 020 040 UHM20 HX	M2.0	0.4	4.6	1.76	1.19	0.23	3	38	60°	1.6	0/+0.05
7005-112106	WHA 338 022 045 UHM20 HX	M2.2	0.45	5.1	1.94	1.31	0.255	3	38	60°	1.75	0/+0.05
7005-112108	WHA 338 023 040 UHM20 HX	M2.3	0.4	5.2	2.06	1.49	0.23	3	38	60°	1.9	0/+0.05





WHL (Long Version) 3 Flutes and 2 Teeth Thread Mill

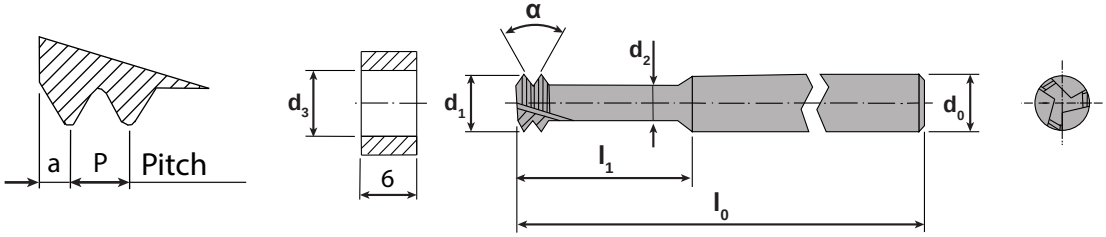
Item No.	Description	ISO DIN13	P	L_1	D_1	D_2	a	D0	L0	α	D3	
7005-126451	WHL 338 010 025 UHM20 HX	M1	0.25	4.6	0.64	0.24	0.155	3	38	60°	0.75	0/+0.03
7005-126454	WHL 338 012 025 UHM20 HX	M1.2	0.25	5.5	0.84	0.44	0.155	3	38	60°	0.95	0/+0.03
7005-126457	WHL 338 014 030 UHM20 HX	M1.4	0.3	6.4	0.98	0.53	0.18	3	38	60°	1.1	0/+0.04
7005-126460	WHL 338 016 035 UHM20 HX	M1.6	0.35	7.4	1.12	0.61	0.205	3	38	60°	1.25	0/+0.04
7005-126463	WHL 338 018 035 UHM20 HX	M1.8	0.35	8.3	1.32	0.81	0.205	3	38	60°	1.45	0/+0.04
7005-126411	WHL 338 020 040 UHM20 HX	M2	0.4	9.2	1.46	0.9	0.23	3	38	60°	1.6	0/+0.05
7005-126466	WHL 338 022 045 UHM20 HX	M2.2	0.45	10.1	1.6	0.98	0.255	3	38	60°	1.75	0/+0.05
7005-112142	WHL 338 023 040 UHM20 HX	M2.3	0.4	10.4	1.76	1.2	0.23	3	38	60°	1.9	0/+0.05
7005-126468	WHL 338 025 045 UHM20 HX	M2.5	0.45	11.5	1.9	1.28	0.255	3	38	60°	2.05	0/+0.05
7005-126471	WHL 338 030 050 UHM20 HX	M3	0.5	13.8	2.34	1.67	0.28	3	38	60°	2.5	0/+0.05
7005-126474	WHL 338 035 060 UHM20 HX	M3.5	0.6	16.1	2.71	1.93	0.33	3	38	60°	2.9	0/+0.06
7005-126477	WHL 442 040 070 UHM20 HX	M4	0.7	18.4	3.09	2.2	0.38	4	42	60°	3.3	0/+0.06
7005-126530	WHL 442 045 075 UHM20 HX	M4.5	0.75	20.7	3.53	2.56	0.405	4	42	60°	3.75	0/+0.07
7005-126480	WHL 442 050 080 UHM20 HX	M5	0.8	23	3.97	2.95	0.43	4	42	60°	4.2	0/+0.07





WHB (Long Version) 3 Flutes and 2 Teeth Thread Mill — Strengthened Version

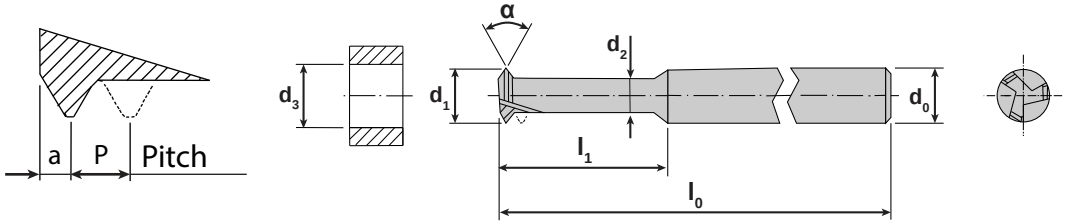
Item No.	Description	ISO DIN13	P	L_1	D_1	D_2	a	D0	L0	α	D3	
7005-112118	WHB 338 010 025 UHM20 HX	M1.0	0.25	4.6	0.83	0.41	0.155	3	38	60°	0.75	0/+0.03
7005-112120	WHB 338 012 025 UHM20 HX	M1.2	0.25	5.6	1.03	0.61	0.155	3	38	60°	0.95	0/+0.03
7005-112122	WHB 338 014 030 UHM20 HX	M1.4	0.3	6.4	1.21	0.74	0.18	3	38	60°	1.1	0/+0.04
7005-112124	WHB 338 016 035 UHM20 HX	M1.6	0.35	7.4	1.39	0.88	0.205	3	38	60°	1.25	0/+0.04
7005-112126	WHB 338 018 035 UHM20 HX	M1.8	0.35	8.2	1.59	1.08	0.205	3	38	60°	1.45	0/+0.04
7005-112128	WHB 338 020 040 UHM20 HX	M2.0	0.4	9.2	1.76	1.19	0.23	3	38	60°	1.6	0/+0.05
7005-112130	WHB 338 022 045 UHM20 HX	M2.2	0.45	10.2	1.94	1.31	0.255	3	38	60°	1.75	0/+0.05
7005-112132	WHB 338 023 040 UHM20 HX	M2.3	0.4	10.4	2.06	1.49	0.23	3	38	60°	1.9	0/+0.05





WHC (Short Version) 3 Flutes and 1 Tooth Thread Mill

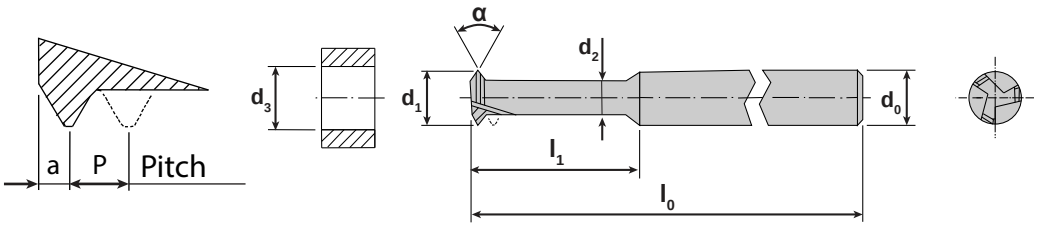
Item No.	Description	ISO DIN13	P	L_1	D_1	D_2	a	D0	L0	α	D3	
7005-114048	WHC 338 010 025 UHM20 HX	M1.0	0.25	2.5	0.68	0.3	0.155	3	38	60°	0.75	0/+0.03
7005-114051	WHC 338 012 025 UHM20 HX	M1.2	0.25	2.7	0.88	0.5	0.155	3	38	60°	0.95	0/+0.03
7005-114054	WHC 338 014 025 UHM20 HX	M1.4	0.25	2.9	1.08	0.7	0.155	3	38	60°	1.15	0/+0.03
7005-114057	WHC 338 016 025 UHM20 HX	M1.6	0.25	3.1	1.28	0.9	0.155	3	38	60°	1.35	0/+0.03
7005-114060	WHC 338 018 025 UHM20 HX	M1.8	0.25	3.3	1.48	1.1	0.155	3	38	60°	1.55	0/+0.03
7005-114063	WHC 338 020 025 UHM20 HX	M2.0	0.25	3.5	1.68	1.3	0.155	3	38	60°	1.75	0/+0.03
7005-114066	WHC 338 014 030 UHM20 HX	M1.4	0.3	3.2	1.02	0.58	0.18	3	38	60°	1.1	0/+0.04
7005-114069	WHC 338 016 030 UHM20 HX	M1.6	0.3	3.4	1.22	0.78	0.18	3	38	60°	1.3	0/+0.04
7005-114072	WHC 338 018 030 UHM20 HX	M1.8	0.3	3.6	1.42	0.98	0.18	3	38	60°	1.5	0/+0.04
7005-114075	WHC 338 020 030 UHM20 HX	M2.0	0.3	3.8	1.62	1.18	0.18	3	38	60°	1.7	0/+0.04
7005-114078	WHC 338 022 030 UHM20 HX	M2.2	0.3	4	1.82	1.38	0.18	3	38	60°	1.9	0/+0.04
7005-114081	WHC 338 016 035 UHM20 HX	M1.6	0.35	3.7	1.16	0.65	0.205	3	38	60°	1.25	0/+0.04
7005-114084	WHC 338 018 035 UHM20 HX	M1.8	0.35	3.9	1.36	0.85	0.205	3	38	60°	1.45	0/+0.04
7005-114087	WHC 338 020 035 UHM20 HX	M2.0	0.35	4.1	1.56	1.05	0.205	3	38	60°	1.65	0/+0.04
7005-114090	WHC 338 022 035 UHM20 HX	M2.2	0.35	4.3	1.76	1.25	0.205	3	38	60°	1.85	0/+0.04
7005-114093	WHC 338 025 035 UHM20 HX	M2.5	0.35	4.6	2.06	1.55	0.205	3	38	60°	2.15	0/+0.04
7005-114096	WHC 338 030 035 UHM20 HX	M3.0	0.35	5.1	2.56	2.05	0.205	3	38	60°	2.65	0/+0.04
7005-114099	WHC 338 035 035 UHM20 HX	M3.5	0.35	5.6	3.06	2.55	0.205	3	38	60°	3.15	0/+0.04
7005-114102	WHC 338 020 040 UHM20 HX	M2.0	0.4	4.4	1.5	0.92	0.23	3	38	60°	1.6	0/+0.05
7005-114105	WHC 338 022 040 UHM20 HX	M2.2	0.4	4.6	1.7	1.12	0.23	3	38	60°	1.8	0/+0.05
7005-114108	WHC 338 025 040 UHM20 HX	M2.5	0.4	4.9	2	1.42	0.23	3	38	60°	2.1	0/+0.05
7005-114111	WHC 338 030 040 UHM20 HX	M3	0.4	5.4	2.5	1.92	0.23	3	38	60°	2.6	0/+0.05
7005-114114	WHC 338 035 040 UHM20 HX	M3.5	0.4	5.9	2.98	2.4	0.23	3	38	60°	3.1	0/+0.05
7005-114117	WHC 338 022 045 UHM20 HX	M2.2	0.45	4.9	1.64	1	0.255	3	38	60°	1.75	0/+0.05
7005-114120	WHC 338 025 045 UHM20 HX	M2.5	0.45	5.2	1.94	1.3	0.255	3	38	60°	2.05	0/+0.05
7005-114123	WHC 338 030 045 UHM20 HX	M3	0.45	5.7	2.44	1.8	0.255	3	38	60°	2.55	0/+0.05
7005-114130	WHC 338 035 045 UHM20 HX	M3.5	0.45	6.2	2.94	2.3	0.255	3	38	60°	3.05	0/+0.05
7005-114133	WHC 442 040 045 UHM20 HX	M4	0.45	6.7	3.44	2.8	0.255	3	38	60°	3.55	0/+0.05
7005-114136	WHC 338 030 050 UHM20 HX	M3	0.5	6	2.38	1.68	0.28	3	38	60°	2.5	0/+0.05
7005-114139	WHC 338 035 050 UHM20 HX	M3.5	0.5	6.5	2.88	2.18	0.28	3	38	60°	3	0/+0.05
7005-114142	WHC 442 040 050 UHM20 HX	M4	0.5	7	3.38	2.68	0.28	4	42	60°	3.5	0/+0.05
7005-114145	WHC 442 045 050 UHM20 HX	M4.5	0.5	7.5	3.88	3.18	0.28	4	42	60°	4	0/+0.05
7005-114148	WHC 442 035 060 UHM20 HX	M3.5	0.6	7.1	2.75	1.95	0.33	4	42	60°	2.9	0/+0.06
7005-114151	WHC 442 040 060 UHM20 HX	M4	0.6	7.6	3.25	2.45	0.33	4	42	60°	3.4	0/+0.06
7005-114154	WHC 442 045 060 UHM20 HX	M4.5	0.6	8.1	3.75	2.95	0.33	4	42	60°	3.9	0/+0.06
7005-114157	WHC 442 040 070 UHM20 HX	M4	0.7	8.2	3.13	2.19	0.38	4	42	60°	3.3	0/+0.06
7005-114160	WHC 442 045 070 UHM20 HX	M4.5	0.7	8.7	3.63	2.71	0.38	4	42	60°	3.8	0/+0.06
7005-114163	WHC 442 045 075 UHM20 HX	M4.5	0.75	9	3.57	2.57	0.405	4	42	60°	3.75	0/+0.07
7005-114166	WHC 442 050 075 UHM20 HX	M5	0.75	9.5	3.98	2.98	0.405	4	42	60°	4.25	0/+0.07
7005-114169	WHC 442 050 080 UHM20 HX	M5	0.8	9.8	3.98	2.92	0.43	4	42	60°	4.2	0/+0.07





WHC UNC INCH (Short Version) 3 Flutes and 1 Tooth Thread Mill

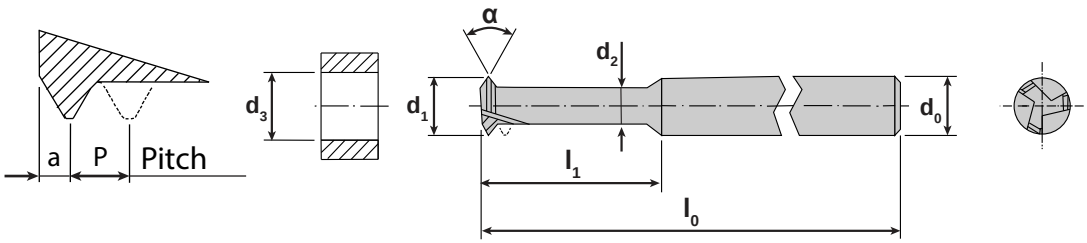
Item No.	Description	ANSI B1.1	P	P	I1	D_1	D2	a	D0	L0	D3	
7005-113364	WHC 338-01-64 UNC UHM20 HX	1-64	64	0.397	4.2	1.36	0.81	0.228	3	38	1.5	0/+0.04
7005-113366	WHC 338-02-56 UNC UHM20 HX	2-56	56	0.454	4.9	1.62	1	0.257	3	38	1.78	0/+0.05
7005-113368	WHC 338-03-48 UNC UHM20 HX	3-48	48	0.529	5.7	1.86	1.15	0.294	3	38	2.05	0/+0.05
7005-113370	WHC 442-04-40 UNC UHM20 HX	4-40	40	0.635	6.7	2.06	1.22	0.347	4	42	2.27	0/+0.06
7005-113372	WHC 442-05-40 UNC UHM20 HX	5-40	40	0.635	7	2.39	1.55	0.347	4	42	2.59	0/+0.06
7005-113374	WHC 442-06-32 UNC UHM20 HX	6-32	32	0.794	8.3	2.52	1.49	0.427	4	42	2.77	0/+0.07
7005-113376	WHC 442-08-32 UNC UHM20 HX	8-32	32	0.794	8.9	3.18	2.16	0.427	4	42	3.42	0/+0.07





WHC UNF INCH (Short Version) 3 Flutes and 1 Tooth Thread Mill

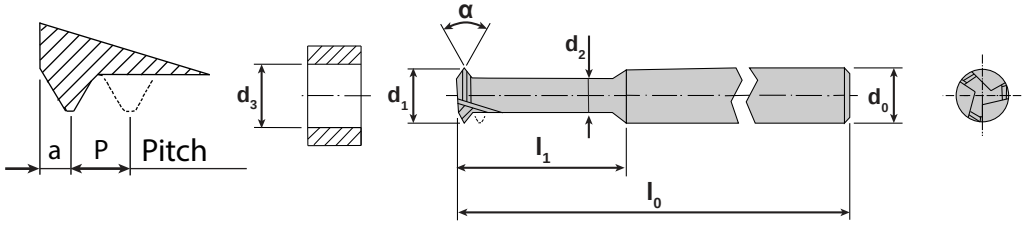
Item No.	Description	ANSI B1.1	P	P	I1	D_1	D2	a	D0	L0	D3	
7005-113378	WHC 338-00-80 UNF UHM20 HX	0-80	80	0.317	3.4	1.12	0.67	0.188	3	38	1.25	0/+0.04
7005-113380	WHC 338-01-72 UNF UHM20 HX	1-72	72	0.353	4	1.41	0.91	0.206	3	38	1.55	0/+0.04
7005-113382	WHC 338-02-64 UNF UHM20 HX	2-64	64	0.396	4.1	1.69	1.14	0.228	3	38	1.9	0/+0.04
7005-113384	WHC 338-03-56 UNF UHM20 HX	3-56	56	0.453	5.2	1.95	1.32	0.257	3	38	2.15	0/+0.05
7005-113386	WHC 338-04-48 UNF UHM20 HX	4-48	48	0.529	6	2.19	1.46	0.294	3	38	2.4	0/+0.05
7005-113388	WHC 338-05-44 UNF UHM20 HX	5-44	44	0.577	6.6	2.46	1.68	0.318	3	38	2.7	0/+0.05
7005-113390	WHC 442-06-40 UNF UHM20 HX	6-40	40	0.635	7.3	2.72	1.87	0.347	4	42	2.95	0/+0.06
7005-113392	WHC 442-08-36 UNF UHM20 HX	8-36	36	0.705	8.4	3.29	2.37	0.382	4	42	3.5	0/+0.06
7005-113394	WHC 442-10-32 UNF UHM20 HX	10-32	32	0.794	9.6	3.84	2.82	0.427	4	42	4.1	0/+0.07





WHD (Long Version) 3 Flutes and 1 Tooth Thread Mill

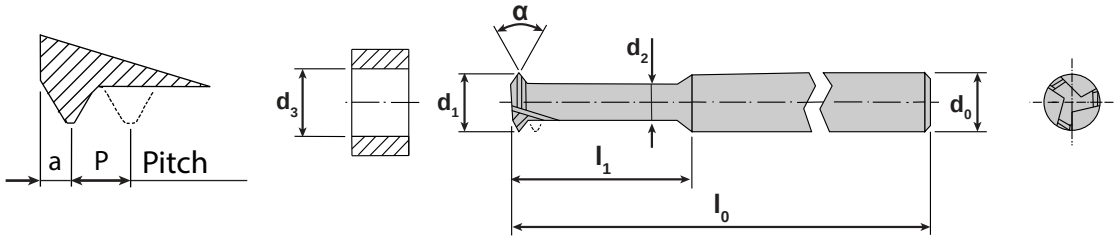
Item No.	Description	ISO DIN13	P	L_1	D_1	D_2	a	D0	L0	α	D3	
7005-114172	WHD 338 010 025 UHM20 HX	M1.0	0.25	3.5	0.68	0.3	0.155	3	38	60°	0.75	0/+0.03
7005-114175	WHD 338 012 025 UHM20 HX	M1.2	0.25	3.9	0.88	0.5	0.155	3	38	60°	0.95	0/+0.03
7005-114178	WHD 338 014 025 UHM20 HX	M1.4	0.25	4.3	1.08	0.7	0.155	3	38	60°	1.15	0/+0.03
7005-114181	WHD 338 016 025 UHM20 HX	M1.6	0.25	4.7	1.28	0.9	0.155	3	38	60°	1.35	0/+0.03
7005-114184	WHD 338 018 025 UHM20 HX	M1.8	0.25	5.1	1.48	1.1	0.155	3	38	60°	1.55	0/+0.03
7005-114187	WHD 338 020 025 UHM20 HX	M2.0	0.25	5.5	1.68	1.3	0.155	3	38	60°	1.75	0/+0.03
7005-114190	WHD 338 014 030 UHM20 HX	M1.4	0.3	4.6	1.02	0.58	0.18	3	38	60°	1.1	0/+0.04
7005-114193	WHD 338 016 030 UHM20 HX	M1.6	0.3	5	1.22	0.78	0.18	3	38	60°	1.3	0/+0.04
7005-114196	WHD 338 018 030 UHM20 HX	M1.8	0.3	5.4	1.42	0.98	0.18	3	38	60°	1.5	0/+0.04
7005-114199	WHD 338 020 030 UHM20 HX	M2.0	0.3	5.8	1.62	1.18	0.18	3	38	60°	1.7	0/+0.04
7005-114429	WHD 338 022 030 UHM20 HX	M2.2	0.3	6.2	1.82	1.38	0.18	3	38	60°	1.9	0/+0.04
7005-114432	WHD 338 016 035 UHM20 HX	M1.6	0.35	5.3	1.16	0.65	0.205	3	38	60°	1.25	0/+0.04
7005-114435	WHD 338 018 035 UHM20 HX	M1.8	0.35	5.7	1.36	0.85	0.205	3	38	60°	1.45	0/+0.04
7005-114438	WHD 338 020 035 UHM20 HX	M2.0	0.35	6.1	1.56	1.05	0.205	3	38	60°	1.65	0/+0.04
7005-114441	WHD 338 022 035 UHM20 HX	M2.2	0.35	6.5	1.76	1.25	0.205	3	38	60°	1.85	0/+0.04
7005-114444	WHD 338 025 035 UHM20 HX	M2.5	0.35	7.1	2.06	1.55	0.205	3	38	60°	2.15	0/+0.04
7005-114447	WHD 338 030 035 UHM20 HX	M3.0	0.35	8.1	2.56	2.05	0.205	3	38	60°	2.65	0/+0.04
7005-114450	WHD 338 035 035 UHM20 HX	M3.5	0.35	9.1	3.06	2.55	0.205	3	38	60°	3.15	0/+0.04
7005-114453	WHD 338 020 040 UHM20 HX	M2.0	0.4	6.4	1.5	0.93	0.23	3	38	60°	1.6	0/+0.05
7005-114456	WHD 338 022 040 UHM20 HX	M2.2	0.4	6.8	1.7	1.13	0.23	3	38	60°	1.8	0/+0.05
7005-114459	WHD 338 025 040 UHM20 HX	M2.5	0.4	7.4	2	1.43	0.23	3	38	60°	2.1	0/+0.05
7005-114462	WHD 338 030 040 UHM20 HX	M3	0.4	8.4	2.5	1.93	0.23	3	38	60°	2.6	0/+0.05
7005-114465	WHD 338 035 040 UHM20 HX	M3.5	0.4	9.4	2.98	2.41	0.23	3	38	60°	3.1	0/+0.05
7005-114468	WHD 338 022 045 UHM20 HX	M2.2	0.45	7.1	1.64	1.01	0.255	3	38	60°	1.75	0/+0.05
7005-114471	WHD 338 025 045 UHM20 HX	M2.5	0.45	7.7	1.94	1.31	0.255	3	38	60°	2.05	0/+0.05
7005-114474	WHD 338 030 045 UHM20 HX	M3	0.45	8.7	2.44	1.81	0.255	3	38	60°	2.55	0/+0.05
7005-114477	WHD 338 035 045 UHM20 HX	M3.5	0.45	9.7	2.94	2.31	0.255	3	38	60°	3.05	0/+0.05
7005-114480	WHD 442 040 045 UHM20 HX	M4	0.45	10.7	3.44	2.81	0.255	3	38	60°	3.55	0/+0.05
7005-114483	WHD 338 030 050 UHM20 HX	M3	0.5	9	2.38	1.69	0.28	3	38	60°	2.5	0/+0.05
7005-114486	WHD 338 035 050 UHM20 HX	M3.5	0.5	10	2.88	2.19	0.28	3	38	60°	3	0/+0.05
7005-114489	WHD 442 040 050 UHM20 HX	M4	0.5	11	3.38	2.69	0.28	4	42	60°	3.5	0/+0.05
7005-114492	WHD 442 045 050 UHM20 HX	M4.5	0.5	12	3.88	3.19	0.28	4	42	60°	4	0/+0.05
7005-114495	WHD 442 035 060 UHM20 HX	M3.5	0.6	10.6	2.75	1.95	0.33	4	42	60°	2.9	0/+0.06
7005-114497	WHD 442 040 060 UHM20 HX	M4	0.6	11.6	3.25	2.45	0.33	4	42	60°	3.4	0/+0.06
7005-114501	WHD 442 045 060 UHM20 HX	M4.5	0.6	12.6	3.75	2.95	0.33	4	42	60°	3.9	0/+0.06
7005-114504	WHD 442 040 070 UHM20 HX	M4	0.7	12.2	3.13	2.21	0.38	4	42	60°	3.3	0/+0.06
7005-114507	WHD 442 045 070 UHM20 HX	M4.5	0.7	13.2	3.63	2.71	0.38	4	42	60°	3.8	0/+0.06
7005-114510	WHD 442 045 075 UHM20 HX	M4.5	0.75	13.5	3.57	2.59	0.405	4	42	60°	3.75	0/+0.07
7005-114513	WHD 442 050 075 UHM20 HX	M5	0.75	14.5	3.98	3	0.405	4	42	60°	4.25	0/+0.07
7005-114516	WHD 442 050 080 UHM20 HX	M5	0.8	14.8	3.98	2.94	0.43	4	42	60°	4.2	0/+0.07





WHD UNC INCH (Long Version) 3 Flutes and 1 Tooth Thread Mill

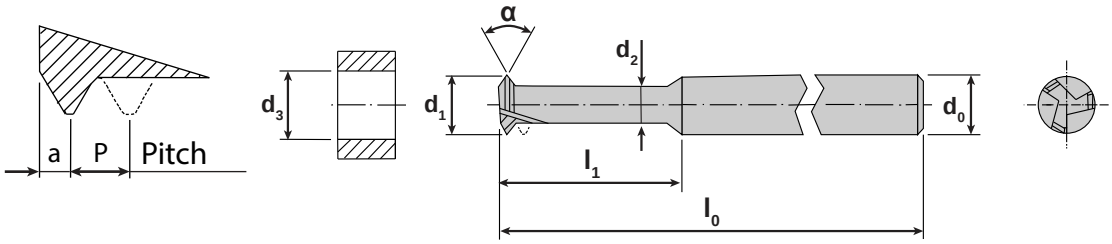
Item No.	Description	ANSI B1.1	P	P	I1	D_1	D2	a	D0	L0	D3	
7005-113413	WHD 338-01-64 UNC UHM20 HX	1-64	64	0.397	6.1	1.36	0.81	0.228	3	38	1.5	0/+0.04
7005-113414	WHD 338-02-56 UNC UHM20 HX	2-56	56	0.454	7.1	1.62	1	0.257	3	38	1.78	0/+0.05
7005-113422	WHD 338-03-48 UNC UHM20 HX	3-48	48	0.529	8.2	1.86	1.15	0.294	3	38	2.05	0/+0.05
7005-113416	WHD 442-04-40 UNC UHM20 HX	4-40	40	0.635	9.5	2.06	1.22	0.347	4	42	2.27	0/+0.06
7005-113417	WHD 442-05-40 UNC UHM20 HX	5-40	40	0.635	10.2	2.39	1.55	0.347	4	42	2.59	0/+0.06
7005-113418	WHD 442-06-32 UNC UHM20 HX	6-32	32	0.794	11.8	2.52	1.49	0.427	4	42	2.77	0/+0.07
7005-113402	WHD 442-08-32 UNC UHM20 HX	8-32	32	0.794	13.1	3.18	2.16	0.427	4	42	3.42	0/+0.07



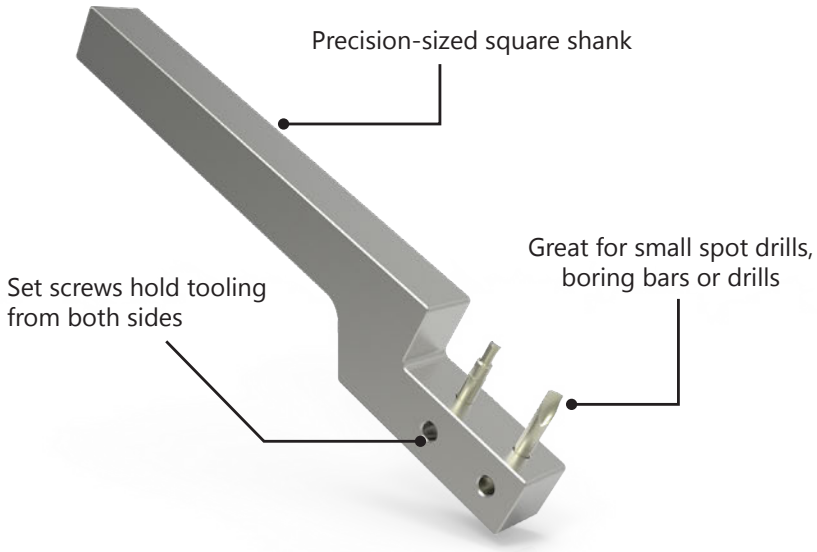


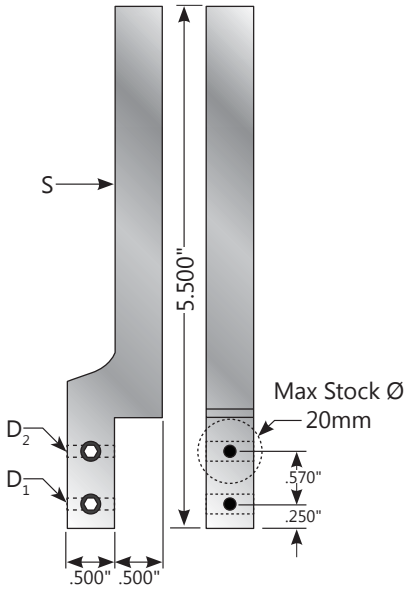
WHD UNF INCH (Long Version) 3 Flutes and 1 Tooth Thread Mill

Item No.	Description	ANSI B1.1	P	P	I1	D_1	D2	a	D0	L0	D3	
7005-113419	WHD 338-00-80 UNF UHM20 HX	0-80	80	0.317	5	1.12	0.67	0.188	3	38	1.25	0/+0.04
7005-113420	WHD 338-01-72 UNF UHM20 HX	1-72	72	0.353	5.8	1.41	0.91	0.206	3	38	1.55	0/+0.04
7005-113421	WHD 338-02-64 UNF UHM20 HX	2-64	64	0.396	6.8	1.69	1.14	0.228	3	38	1.9	0/+0.04
7005-113422	WHD 338-03-56 UNF UHM20 HX	3-56	56	0.453	7.8	1.95	1.32	0.257	3	38	2.15	0/+0.05
7005-113423	WHD 338-04-48 UNF UHM20 HX	4-48	48	0.529	8.9	2.19	1.46	0.294	3	38	2.4	0/+0.05
7005-113424	WHD 338-05-44 UNF UHM20 HX	5-44	44	0.577	9.8	2.46	1.68	0.318	3	38	2.7	0/+0.05
7005-113425	WHD 442-06-40 UNF UHM20 HX	6-40	40	0.635	10.8	2.72	1.87	0.347	4	42	2.95	0/+0.06
7005-113426	WHD 442-08-36 UNF UHM20 HX	8-36	36	0.705	12.6	3.29	2.37	0.382	4	42	3.5	0/+0.06
7005-113427	WHD 442-10-32 UNF UHM20 HX	10-32	32	0.794	14.4	3.84	2.82	0.427	4	42	4.1	0/+0.07



The GenBore®-mini





The GenBore-mini is an excellent solution for when you need to incorporate additional small ID tools into your setup. Low profile and interference-free in most Swiss machines, the GenBore-mini is ideal for small ID spotting, drilling, and boring.

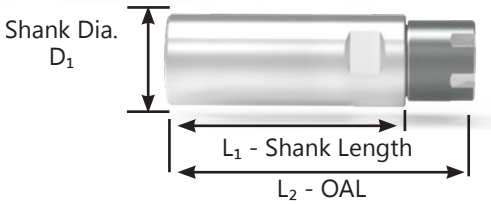
- Effective solution for increasing ID tools capacity
- Interference-free design for smaller machines
- Accurately locates small shank ID tooling
- Custom options available - call for details

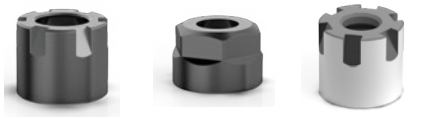
Item No.	Description	S	D_1	D_2
6011-000200	GenBore-mini blank 1/2" shank	.500"	---	---
6011-000201	(2) .125" Tool Bores	.500"	.125"	.125"
6011-000202	(1) .125" Tool Bore (1) .1875" Tool bore	.500"	.125"	.187"

SIGNATURE SERIES
COLLET SLEEVES



ER-style precision collet sleeves provide rigid and accurate holding for ID tooling. Machined from medium carbon alloy steel. These collet sleeves feature ground shanks and tapers. Mini-nuts are used to reduce interference and to make setup and tool changing easier than other collet sleeves with hexagonal clamping nuts.





Precision ER Collet Sleeves - Inch Shanks

Collet	Item No.	Description	Shank Dia. (D_1)	Shank Length (L_1)	OAL (L_2)	With Locking Flat	Stop Screw	Nut Type
ER08	1025-000299	CS-08-064-070	0.25in	70mm	83mm	Yes	No	Nut
	1025-000201	CS-11-127-023	0.500in	23mm	30mm	Yes	Yes	No Mini-Nut
	1025-000107	CS-11-158-050	0.625in	50mm	62mm	Yes	Yes	Mini-Nut
ER11	1025-000108	CS-11-158-100	0.625in	100mm	112mm	Yes	Yes	Mini-Nut
	1025-000110	CS-11-190-070	0.750in	70mm	82mm	Yes	Yes	Mini-Nut
	1025-000298	CS-11-190-050	0.750in	50mm	67mm	Yes	Yes	Mini-Nut
	1025-000131	CS-16-158-075	0.625in	75mm	90mm	Yes	Yes	Mini-Nut
	1025-000132A	CS-16-190-035	0.750in	35mm	50mm	Yes	Yes	Mini-Nut
	1025-000133	CS-16-190-050	0.750in	50mm	65mm	Yes	Yes	Mini-Nut
	1025-000134	CS-16-190-070	0.750in	70mm	85mm	Yes	Yes	Mini-Nut
	1025-000135	CS-16-190-100	0.750in	100mm	115mm	Yes	Yes	Mini-Nut
	1025-000216	CS-16-254-022	1.00in	22mm	37mm	Yes	Yes	Mini-Nut
ER16	1025-000272	CS-16-254-033	1.00in	33mm	49mm	Yes	Yes	Mini-Nut
	1025-000174	CS-16-254-038	1.00in	38mm	53mm	Yes	Yes	Mini-Nut
	1025-000130	CS-16-254-065	1.00in	65mm	80mm	Yes	No	Mini-Nut
	1025-000183	CS-16-254-075	1.00in	75mm	90mm	Yes	Yes	Mini-Nut
	1025-000138	CS-16-254-080	1.00in	80mm	95mm	Yes	Yes	Mini-Nut
	1025-000140	CS-16-254-100	1.00in	100mm	115mm	Yes	Yes	Mini-Nut
	1025-000142	CS-16-254-130	1.00in	130mm	145mm	Yes	Yes	Mini-Nut
	1025-000151	CS-20-254-100	1.00in	100mm	117mm	Yes	No	Mini-Nut
ER20	1025-000152	CS-20-254-140	1.00in	140mm	157mm	Yes	No	Mini-Nut
	1025-000295	CS-20-254-110	1.00in	110mm	125mm	No	No	Mini-Nut

Precision ER Collet Sleeves - Metric Shanks

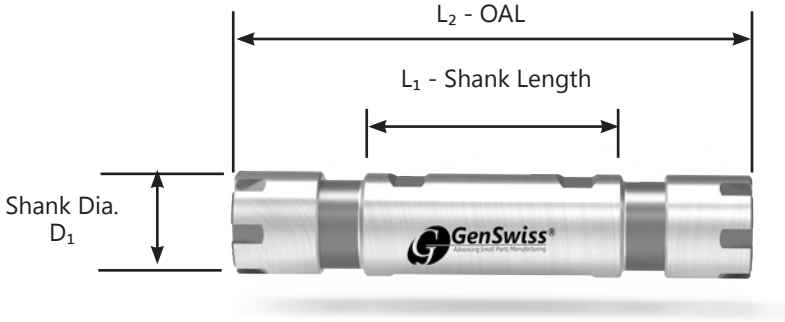
Collet	Item No.	Description	Shank Dia. (D_1)	Shank Length (L_1)	OAL (L_2)	With Locking Flat	Stop Screw	Nut Type
ER11	1025-000164	CS-11-200-070	20mm	70mm	82mm	Yes	Yes	Mini-Nut
	1025-000234	CS-16-200-035	20mm	35mm	50mm	Yes	Yes	Mini-Nut
	1025-000199	CS-16-200-070	20mm	70mm	85mm	Yes	Yes	Mini-Nut
ER16	1025-000184	CS-16-200-100	20mm	100mm	115mm	Yes	Yes	Mini-Nut
	1025-000197	CS-16-250-100	25mm	100mm	115mm	Yes	No	Hex-Nut
	1025-000232	CS-16-250-160	25mm	160mm	175mm	Yes	No	Hex-Nut
ER20	1025-000150	CS-20-220-080	22mm	80mm	97mm	Yes	No	Mini-Nut



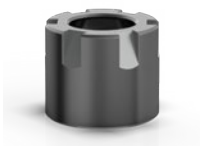
SIGNATURE SERIES
DOUBLE ENDED COLLET SLEEVES

Double Ended Swiss Precision Sleeves Features:

- Adds additional ID tool positions
- Enables simultaneous main and subspindle operations
- Precision ground and thru-hardened to ensure high accuracy



Mini-Nut



Double Ended Precision ER Collet Sleeves - Inch Shanks

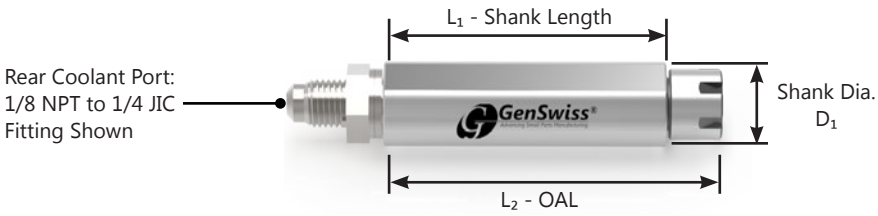
Collet Size	Item No.	Description	Shank Dia. (D_1)	Shank Length (L_1)	OAL (L_2)	With Locking Flat	Stop Screw	Nut Type
ER11	1025-000114	CS-11-190-035D	0.750in	35mm	51mm	Yes	No	Mini-Nut
	1025-000115	CS-11-190-057D	0.750in	57mm	73mm	Yes	No	Mini-Nut
	1025-000116	CS-11-190-069D	0.750in	69mm	85mm	Yes	No	Mini-Nut
	1025-000117	CS-11-190-096D	0.750in	96mm	112mm	Yes	No	Mini-Nut
ER16	1025-000139	CS-16-254-045D	1.00in	45mm	75mm	Yes	No	Mini-Nut
	1025-000141	CS-16-254-075D	1.00in	75mm	105mm	Yes	No	Mini-Nut

Double Ended Precision ER Collet Sleeves - Metric Shanks

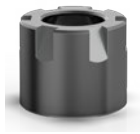
Collet Size	Item No.	Description	Shank Dia. (D_1)	Shank Length (L_1)	OAL (L_2)	With Locking Flat	Stop Screw	Nut Type
ER11	1025-000103	CS-11-160-050D	16mm	50mm	77mm	Yes	No	Mini-Nut
	1025-000300	CS-11-170-066D	17mm	66mm	100mm	Yes	No	Mini-Nut
	1025-000167	CS-11-200-030D	20mm	30mm	57mm	Yes	No	Mini-Nut
ER16	1025-000129	CS-16-250-062D	25mm	62mm	118mm	Yes	No	Mini-Nut

SIGNATURE SERIES
COOLANT-FED COLLET SLEEVES

- Designed for high-pressure coolant delivery systems
- Single and dual coolant port versions available
- Use with sealed coolant-style ER collets or standard collets



Mini-Nut



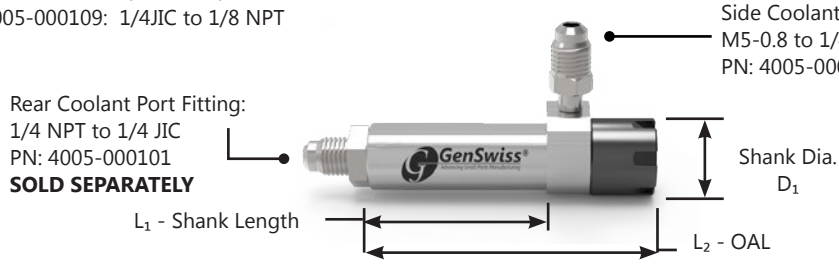
Single Coolant Port

Coolant-Fed ER Collet Sleeves - Inch Shanks

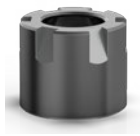
Collet Size	Item No.	Description	Shank Dia. (D_1)	Shank Length (L_1)	OAL (L_2)	With Locking Flat	Stop Screw	Nut Type	Rear Coolant Port	Fitting PN
ER11	1025-000188	CS-11-190-035C	0.75in	35mm	44.5mm	Yes	Yes	Mini-Nut	1/8 NPT	4005-000109
	1025-000190	CS-11-190-062C	0.75in	62mm	71.5mm	Yes	Yes	Mini-Nut	1/8 NPT	4005-000109
ER16	1025-000119	CS-16-190-042C	0.75in	42mm	55mm	Yes	Yes	Mini-Nut	1/4 NPT	4005-000101
	1025-000121	CS-16-190-062C	0.75in	62mm	75mm	Yes	Yes	Mini-Nut	1/4 NPT	4005-000101
	1025-000123	CS-16-190-086C	0.75in	86mm	100mm	Yes	Yes	Mini-Nut	1/4 NPT	4005-000101
	1025-000228	CS-16-254-049C	1in	49mm	65mm	Yes	Yes	Mini-Nut	3/8 NPT	4005-000102
ER20	1025-000147	CS-20-254-050C	1in	50mm	67mm	Yes	Yes	Mini-Nut	3/8 NPT	4005-000102
	1025-000149	CS-20-254-085C	1in	83mm	100mm	Yes	Yes	Mini-Nut	3/8 NPT	4005-000102

NOTE: Fitting is included with all collet sleeves
PN 4005-000101: 1/4JIC to 1/4 NPT
PN 4005-000102: 1/4JIC to 3/8 NPT
PN 4005-000109: 1/4JIC to 1/8 NPT

NOTE: Stop screws included with all shanks



Mini-Nut



Coolant-Fed ER Collet Sleeves - Inch Shanks

Double Coolant Ports

Collet Size	Item No.	Description	Shank Dia. (D_1)	Shank Length (L_1)	OAL (L_2)	With Locking Flat	Stop Screw	Nut Type	Side Coolant Port	Rear Coolant Port
ER16	1025-000245A	CS-16-190-050GC	0.75in	50mm	77mm	Yes	No	Mini-Nut	M5	1/4 NPT
	1025-000251A	CS-16-190-060GC	0.75in	60mm	87mm	Yes	No	Mini-Nut	M5	1/4 NPT
	1025-000252A	CS-16-190-070GC	0.75in	70mm	97mm	Yes	No	Mini-Nut	M5	1/4 NPT
	1025-000258A	CS-16-254-050GC	1.0in	50mm	77mm	Yes	No	Mini-Nut	M5	1/4 NPT

Coolant-Fed ER Collet Sleeves - Metric Shanks

Double Coolant Ports

Collet Size	Item No.	Description	Shank Dia. (D_1)	Shank Length (L_1)	OAL (L_2)	With Locking Flat	Stop Screw	Nut Type	Side Coolant Port	Rear Coolant Port
ER16	1025-000253A	CS-16-200-050GC	20mm	50mm	77mm	Yes	No	Mini-Nut	M5	1/4 NPT
	1025-000254A	CS-16-200-070GC	20mm	70mm	97mm	Yes	No	Mini-Nut	M5	1/4 NPT
	1025-000250A	CS-16-220-050GC	22mm	50mm	77mm	Yes	No	Mini-Nut	M5	1/4 NPT
	1025-000255A	CS-16-220-070GC	22mm	70mm	97mm	Yes	No	Mini-Nut	M5	1/4 NPT
	1025-000256A	CS-16-250-050GC	25mm	50mm	77mm	Yes	No	Mini-Nut	M5	1/4 NPT
	1025-000257A	CS-16-250-070GC	25mm	70mm	97mm	Yes	No	Mini-Nut	M5	1/4 NPT

SIGNATURE SERIES
Sub Spindle Tool Holding

- Holds 3/4 in or 1in shank collet sleeves or boring bar holders
- Protects live tooling drive gear when station is not in use
- Shorter block length provides clearance for deeper hole drilling operations

Collet Size	Item No.	Description	Shank Dia. (D_1)	Shank Length (L_1)	OAL (L_2)	With Locking Flat	Stop Screw
ER16	1025-000284A	CS-16-190-040CX	3/4in	39.878mm	61mm	Yes	Yes
	1025-000285A	CS-16-254-050CX	1.0in	50mm	72mm	Yes	No

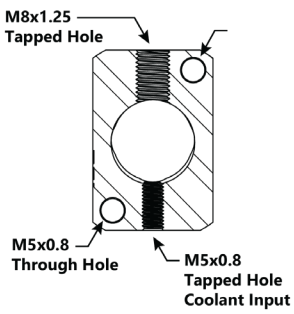
Only Fits L20 & L12 Citizen Machines



Only Fits L32 Citizen Machines



SAU-919



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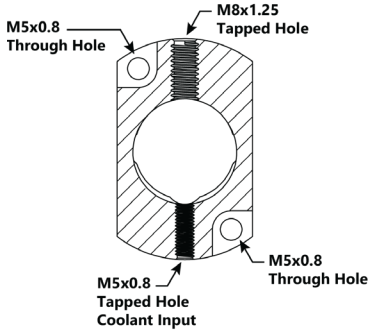
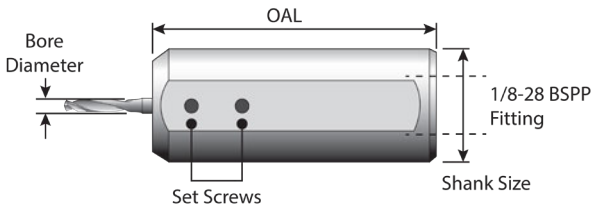


DRILL BUSHINGS

GenSwiss drill sleeves are a new product designed and manufactured by GenSwiss. These sleeves have precision ground inch and metric shanks and are a robust method for holding drills to tight tolerances. Each GenSwiss drill sleeve features coolant-thru holes, enabling coolant delivery to your coolant-thru drills. Standard tool bore sizes range from 3-8mm, but drill sleeves can be made to order.





Item No.	Description	Shank Size	OAL	Set Screw	Bore Diameter
1027-000100	CTS-3.00-158760		3in	M4	3mm
1027-000101	CTS-3.18-158760		3in	M4	1/8in
1027-000102	CTS-4.00-158760		3in	M4	4mm
1027-000103	CTS-4.76-158760	**5/8in**	3in	M4	3/16in
1027-000104	CTS-6.00-158760		3in	M6	6mm
1027-000105	CTS-6.35-158760		3in	M6	1/4in
1027-000106	CTS-7.94-158760		3in	M6	5/16in
1027-000107	CTS-8.00-158760		3in	M6	8mm
1027-000146	CTS-1.50-190760		3in	M4	1.5mm
1027-000108	CTS-3.00-190760		3in	M4	3mm
1027-000109	CTS-3.18-190760		3in	M4	1/8in
1027-000110	CTS-4.00-190760		3in	M4	4mm
1027-000111	CTS-4.76-190760		3in	M4	3/16in
1027-000147	CTS-4.76-190760	**3/4in**	3in	M4	5mm
1027-000112	CTS-6.00-190760		3in	M6	6mm
1027-000113	CTS-6.35-190760		3in	M6	1/4in
1027-000114	CTS-7.94-190760		3in	M6	5/16in
1027-000115	CTS-8.00-190760		3in	M6	8mm
1027-000150	CTS-12.00-190760		3in	M8	12mm
1027-000116	CTS-3.00-200760		3in	M4	3mm
1027-000117	CTS-3.18-200760		3in	M4	1/8in
1027-000118	CTS-4.00-200760		3in	M4	4mm
1027-000119	CTS-4.76-200760		3in	M4	3/16in
1027-000145	CTS-12.70-200760	**20mm**	3in	M8	.5in
1027-000120	CTS-6.00-200760		3in	M6	6mm
1027-000121	CTS-6.35-200760		3in	M6	1/4in
1027-000122	CTS-7.94-200760		3in	M6	5/16in
1027-000123	CTS-8.00-200760		3in	M6	8mm
1027-000124	CTS-3.00-220760		3in	M4	3mm
1027-000125	CTS-3.18-220760		3in	M4	1/8in
1027-000126	CTS-4.00-220760		3in	M4	4mm
1027-000127	CTS-4.76-220760		3in	M4	3/16in
1027-000128	CTS-6.00-220760		3in	M6	6mm
1027-000129	CTS-6.35-220760	**22mm**	3in	M6	1/4in
1027-000130	CTS-7.94-220760		3in	M6	5/16in
1027-000131	CTS-8.00-220760		3in	M6	8mm
1027-000149	CTS-8.00-220760		3in	M6	14mm
1027-000152	CTS-10.00-220760		3in	M8	10mm
1027-000151	CTS-12.00-220760		3in	M8	12mm
1027-000149	CTS-14.00-220760		3in	M6	14mm
1027-000132	CTS-3.00-254760		3in	M4	3mm
1027-000133	CTS-3.18-254760		3in	M4	1/8in
1027-000134	CTS-4.00-254760		3in	M4	4mm
1027-000135	CTS-4.76-254760		3in	M4	3/16in
1027-000136	CTS-6.00-254760		3in	M6	6mm
1027-000137	CTS-6.35-254760		3in	M6	1/4in
1027-000138	CTS-7.94-254760	**1in**	3in	M6	5/16in
1027-000139	CTS-8.00-254760		3in	M6	8mm
1027-000142	CTS-10.00-254760		3in	M8	10mm
1027-000148	CTS-12.00-254760		3in	M8	12mm
1027-000141	CTS-13.00-254760		3in	M8	13mm
1027-000140	CTS-14.00-254760		3in	M8	14mm
1027-000144	CTS-14.26-254760		3in	M8	.5615in
1027-000143	CTS-14.27-254760		3in	M8	.5620in

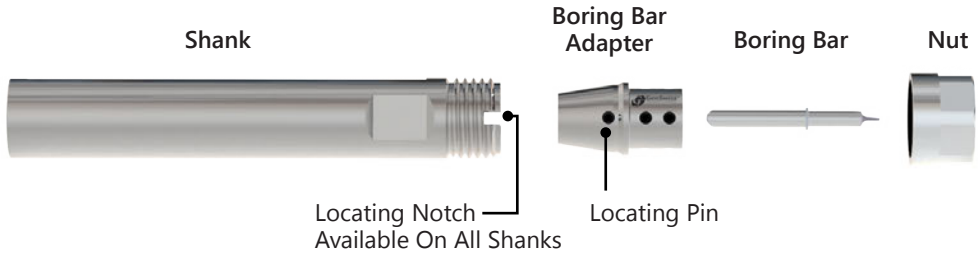
GENQUICK
QUICK-CHANGE TOOL HOLDING SOLUTIONS

The GenQuick tooling system helps new users as well as seasoned veterans achieve faster setups and tool changes through the use of tool holder adaptors and quick-change modules that can be preset and are based on the ER standard tool holding system.

These collet sleeves are cost effective solutions to tool holding and are available in a variety of both inch and metric sized shank diameters, and feature a solid shank for rigidity and a side coolant port for connection to a high-pressure coolant delivery system. Every unit has a notched collet taper for easy tool orientation when combined with quick-change boring bar adapters.



Single Ended Shank Used With The Quick-Change Boring Bar Adapter

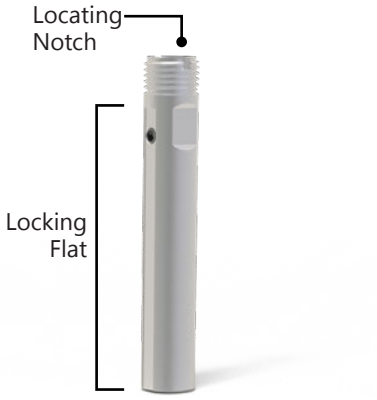


Single Ended Shank Used With The Quick-Change Collet Adapter



SINGLE ENDED SHANKS





Shank w/ Nut - Inch

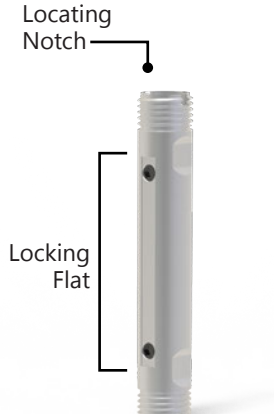
Item No.	Description	Collet	D_1	L_1	OAL
1045-000257	CQS-S16-0500-CSE	ER16	.500″	1.1″	4.5"
1045-000195	CQS-S16-0625-CSE	ER16	.625″	1.1″	4.5"
1045-000129	CQS-S16-0750-CSE	ER16	.750″	1.1″	4.5"
1045-000133	CQS-S16-1000-CSE	ER16	1.00″	1.1″	4.5″
1045-000134	CQS-S20-0750-CSE	ER20	.750″	1.2″	4.5″
1045-000136	CQS-S20-1000-CSE	ER20	1.00″	1.2″	4.5″
1045-000291	CQS-S20-1250-CSE	ER20	1.25″	1.2″	4.5″

Shank w/ Nut - Metric

Item No.	Description	Collet	D_1	L_1	OAL
1045-000126	CQS-S16-0629-CSE	ER16	16mm	22mm	114mm
1045-000190	CQS-S16-0787-CSE-S	ER16	20mm	22mm	71mm
1045-000225	CQS-S16-0787-CSE	ER16	20mm	28mm	114mm
1045-000206	CQS-S16-0866-CSE	ER16	22mm	28mm	118mm
1045-000220	CQS-S16-0984-CSE	ER20	25mm	28mm	95mm
1045-000135	CQS-S20-0866-CSE	ER20	22mm	30mm	114mm
1045-000290A	CQS-S20-0984-CSE	ER20	25mm		95.25m

DOUBLE ENDED SHANKS





Inch

Item No.	Description	Collet	D_1	OAL
1045-000127	CQS-S16-0750-CDE	ER16	.750"	4.5"
1045-000131	CQS-S16-1000-CDE	ER16	1.00"	4.5"
1045-000170	CQS-S20-1000-CDE	ER20	1.00"	4.5"

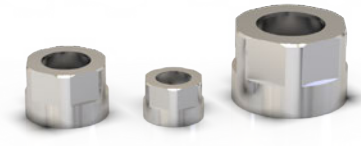
Metric

Item No.	Description	Collet	D_1	OAL
1045-000130	CQS-S16-0866-CDE	ER16	22mm	114mm
1045-000200	CQS-S16-0984-CDE	ER16	25mm	95mm

NOTE: Each double ended shank is sold with two nuts

SPARE CLAMPING NUTS

For holding the collet and bore adapters to the single or double ended shanks.



Item No.	Description	ER Size	Nut Thread
1045-000305	CQS-NT-11A	ER11	M13 x .75
1045-000244	CQS-NT-11B	ER11	M14 x .75
1045-000205	CQS-NT-16A	ER16	M19 x 1.0
1045-000124	CQS-NT-16B	ER16	M22 x 1.5
1045-000197	CQS-NT-20A	ER20	M24 x 1.0
1045-000125	CQS-NT-20B	ER20	M25 x 1.5

QUICK-CHANGE COLLET ADAPTERS

Quick-Change collet adapters make it easier to control quality in your shop. These adapters make it simple to have preset tooling available, eliminating the need to touch off the tool after a routine change. This also enables less experienced machine operators to be more productive.

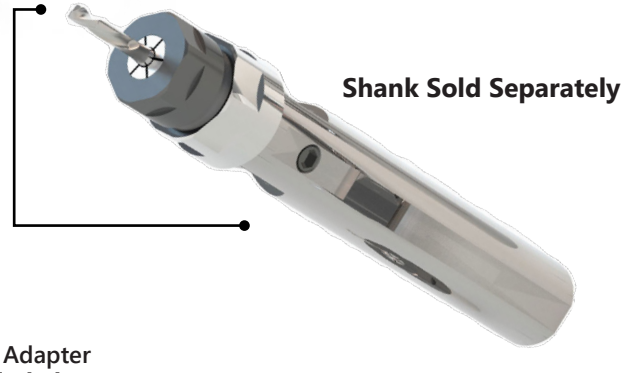


- Simplifies setup
- Decreases downtime

Preset Spare Tooling

Quick-Change

Can Be Used As An Extension



Shank Sold Separately



Shank
ER 16 Collet Size
Sold Separately

Collet Adapter
Included
ER 16 to 11 Shown

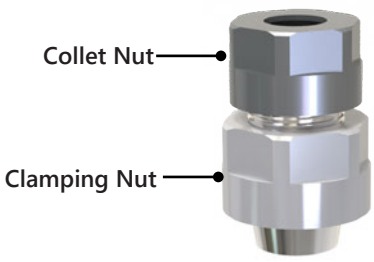
ER11 Collet
Sold Separately

ER11 Nut
Included

Coolant Port
Available On All Shanks

ER16 Clamping Nut
For Adapter
Included

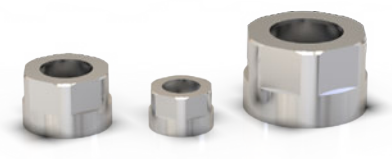
Micro Drill
Sold Separately



Quick-Change Collet Adapter Assembly

Item No.	Description	Adapter	Collet	Clamping Nut Thread	Collet Nut Thread
1045-000242	CQS-AS11-08A	ER11 to ER8	ER8	M13 x .75	M10 x .75
1045-000226	CQS-AS11-08B	ER11 to ER8	ER8	M14 x .75	M10 x .75
1045-000111	CQS-AS16-11A	ER16 to ER11	ER11	M19 x 1	M13 x .75
1045-000112	CQS-AS16-11B	ER16 to ER11	ER11	M22 x 1.5	M13 x .75
1045-000114	CQS-AS20-16A	ER20 to ER16	ER16	M24 x 1	M19 x .1
1045-000115	CQS-AS20-16B	ER20 to ER16	ER16	M25 x 1.5	M19 x .1

NOTE: Shank and collets sold separately



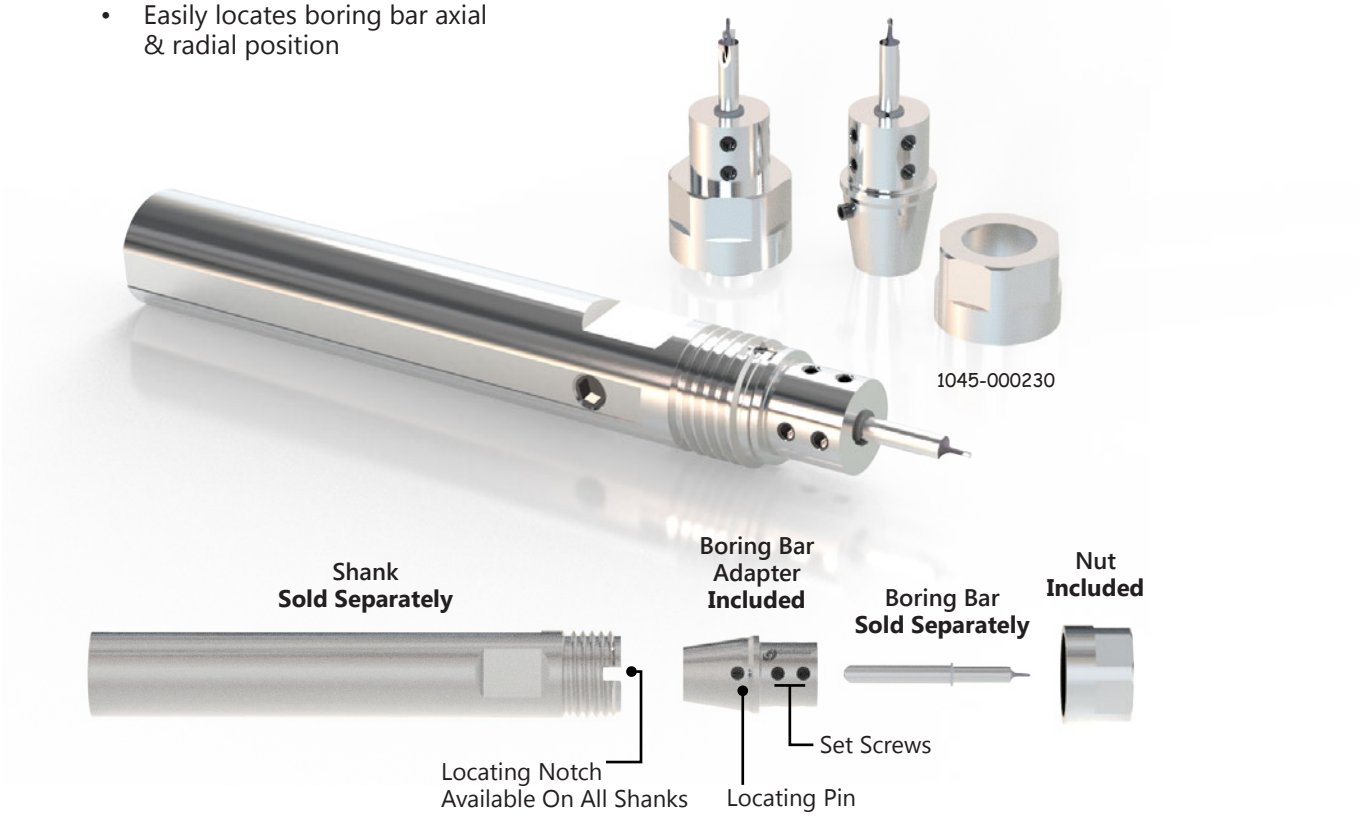
Spare Collet Nuts

Item No.	Description	ER Size	Nut Thread
1045-000242	CN-ER08-MNSH	ER08	M10 x .75
1045-000111	CN-ER11-MNSG	ER11	M13 x .75
1045-000114	CN-ER16-MNSG	ER16	M19 x 1.0

QUICK-CHANGE BORING ADAPTERS

Quick-Change Boring adaptors make it fast and simple to locate center position for boring bars when combined with notched ER holders. A simple locating pin rests within the notched holder ensuring accurate centering. These solid bushings utilize the ER collet system to securely hold a boring bar in a rigid fashion. Axial length can be easily set using any form of presetting device.

- Easily locates boring bar axial & radial position



Inch

Item No.	Description	ER Size	Bore	Nut Thread
1045-000137	CQS-SH16-12501		1/8 in	M19 x 1
1045-000139	CQS-SH16-15601		5/32 in	M19 x 1
1045-000140	CQS-SH16-18701		3/16 in	M19 x 1
1045-000230	CQS-SH16-21801	ER16	7/32 in	M19 x 1
1045-000142	CQS-SH16-25001		1/4 in	M19 x 1
1045-000145	CQS-SH16-31201		5/16 in	M19 x 1
1045-000147	CQS-SH16-37501		3/8 in	M19 x 1
1045-000149	CQS-SH20-12501		1/8 in	M24 x 1
1045-000193	CQS-SH20-18701		3/16 in	M24 x 1
1045-000153	CQS-SH20-25001	ER20	1/4 in	M24 x 1
1045-000280	CQS-SH20-31201		5/16 in	M24 x 1
1045-000156	CQS-SH20-37501		3/8 in	M24 x 1
1045-000157	CQS-SH20-5001		1/2 in	M24 x 1

Metric

Item No.	Description	ER Size	Bore	Nut Thread
1045-000260	CQS-SH16-15701	ER16	4mm	M19 x 1
1045-000201	CQS-SH16-19701		5mm	M19 x 1
1045-000202	CQS-SH16-23601		6mm	M19 x 1
1045-000146	CQS-SH16-31501		8mm	M19 x 1
1045-000306	CQS-SH16-23601	ER20	6mm	M24 x 1

Please call 413-562-4800 for additional sizes.

EZR Swiss Clamp System

Upgrade your current tool holders with "EzR Swiss Clamp" ER Collet clamping nuts from GenSwiss.

- Eliminates wrench slippage
- Prevents accidental tool breakage
- Prevents injury to machine operator
- Eliminates the loss of clamping nuts



Clamping Nut

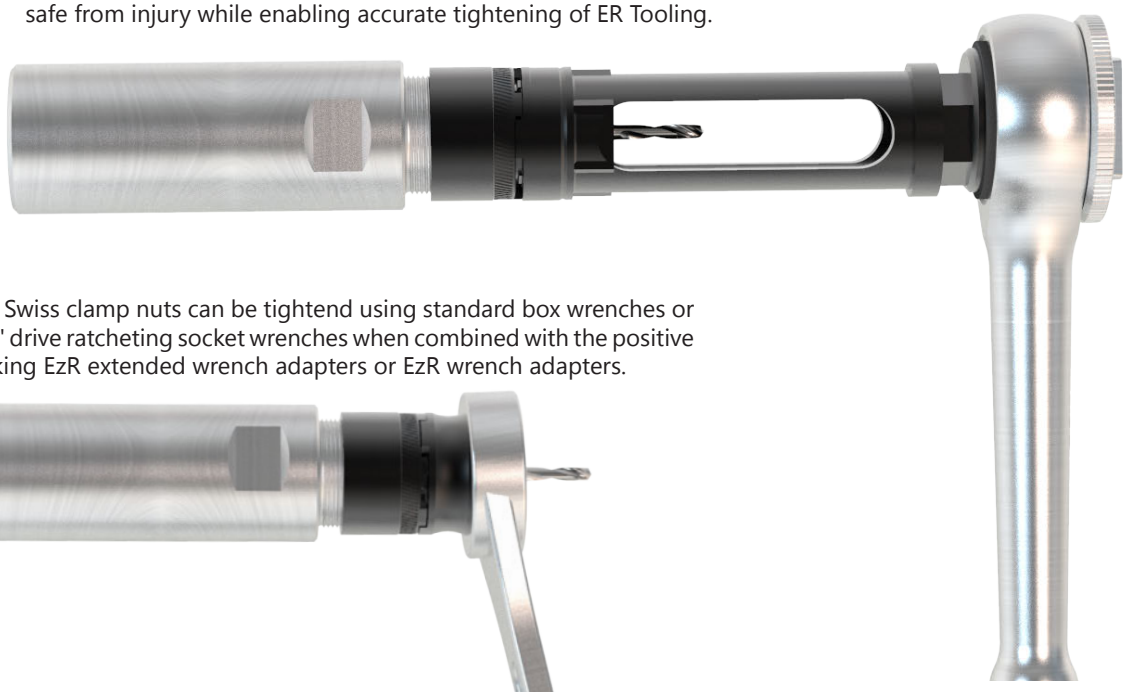
Wrench Adapter
The EzR wrench adapter engages and locks to the EzR clamping nut using a specialized cam system.

Extended Wrench Adapter



Specialized cam system delivers positive torque to the nut while eliminating slipping of the wrench.

EzR extended wrench adapter clears sharp tooling, keeping your hands safe from injury while enabling accurate tightening of ER Tooling.



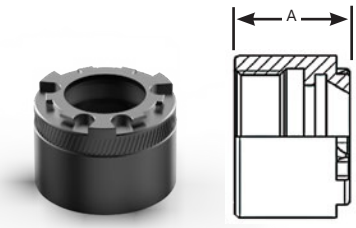
EzR Swiss clamp nuts can be tightend using standard box wrenches or 3/8" drive ratcheting socket wrenches when combined with the positive locking EzR extended wrench adapters or EzR wrench adapters.

NEVER drop an ER clamping nut
in your machine sump again!

EzR Swiss Clamp Nuts

Replaces standard Mini-Nuts.

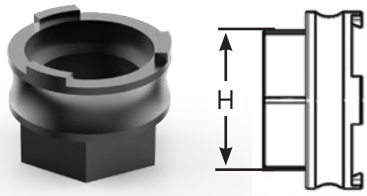
Item No.	Description	Size	A	Thread
1016-000100	EZR08-NUT	ER8	11.3mm	M10 x .75
1016-000101	EZR11-NUT	ER11	11.3mm	M13 x .75
1016-000103	EZR16-NUT	ER16	17mm	M19 x 1.00
1016-000104	EZR20-NUT	ER20	19mm	M24 x 1.00
1016-000105	EZR25-NUT	ER25	20mm	M30 x 1.00
1016-000106	EZR32-NUT	ER32	23mm	M38 x 1.00



EzR Wrench Adapter

Hex-Driver for use with standard box wrenches or sockets.

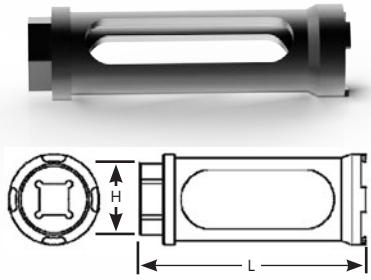
Item No.	Description	Size	H
1016-000123	EZR08-ADP	ER08	10mm
1016-000124	EZR11-ADP	ER11	13mm
1016-000125	EZR16-ADP	ER16	19mm
1016-000126	EZR20-ADP	ER20	22mm
1016-000127	EZR25-ADP	ER25	27mm
1016-000128	EZR32-ADP	ER32	30mm



EzR Extended Wrench Adapter

Driver for clamping EzR nuts using standard box wrenches or 3/8" drive ratchets.

Item No.	Description	Size	L	H
1016-000111	EZR08-TQN	ER08	75mm	12mm
1016-000112	EZR11-TQN	ER11	75mm	13mm
1016-000113	EZR16-TQN	ER16	85mm	17mm
1016-000114	EZR20-TQN	ER20	90mm	19mm
1016-000115	EZR25-TQN	ER25	96mm	22mm
1016-000116	EZR32-TQN	ER32	96mm	27mm



EzR Swiss Clamp Kits

Retro-fit your existing ER collet tool holders with the EzR Swiss clamp system. Kits include (6) EzR nuts, (1) wrench adapter, (1) torque nut and (1) EzR spanner.

Item No.	Description	Size
1016-000136	EZR08-KIT	ER08
1016-000137	EZR11-KIT	ER11
1016-000139	EZR16-KIT	ER16
1016-000140	EZR20-KIT	ER20
1016-000141	EZR25-KIT	ER25
1016-000142	EZR32-KIT	ER32



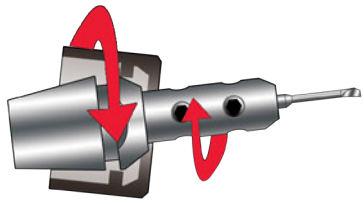


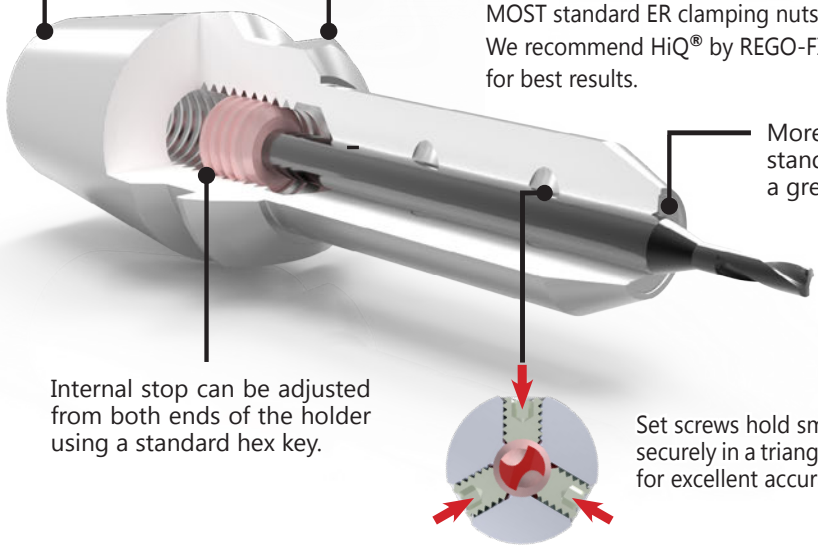
Ti-Loc® Mill Extensions

Patented

The BEST Method For Running Micro End Mills In Your CNC Swiss

- **Enables micro tools to clear the guide bushing**
- **Maintains exceptional TIR at extended length**
- **Solves deflection and chatter issues**
- **Coolant-thru versions for ER16 sizes now available**
- **TIR <.0002 inch**





Precision ground ER taper now in ER8, ER11, ER16, ER20 & ER25 sizes.

Ti-Loc® tools twist and snap into MOST standard ER clamping nuts. We recommend HiQ® by REGO-FIX for best results.

More accurate than standard collets over a greater set length.

Internal stop can be adjusted from both ends of the holder using a standard hex key.

Set screws hold small shank tooling securely in a triangular arrangement for excellent accuracy.

Replacement Stop Screws

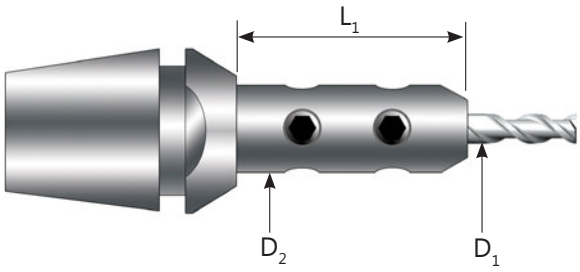
Item No.	Size	Fits
8999-000021	M6	ER11
8999-000206	M8	ER16 & 20
8999-000210	M10	ER25



Replacement Set Screws

Item No.	Size
8999-000011	M3
8999-000007	M4
8999-000214	M5





Ti-Loc® Mill Extensions

Coolant-Thru Versions Available For ER16

ER8

Item No.	Description	L_1	D_1	D_2
4900-110100	CTE-08-1.00-064100	10	1	6.4
4900-110150	CTE-08-1.50-064100		1.5	6.4
4900-110159	CTE-08-1.59-064100		.062in	6.4
4900-110200	CTE-08-2.00-064100		2	6.4
4900-110300	CTE-08-3.00-070100		3	7
4900-110318	CTE-08-3.18-070100		.125in	7
4900-115100	CTE-08-1.00-064150	15	1	6.4
4900-115150	CTE-08-1.50-064150		1.5	6.4
4900-115159	CTE-08-1.59-064150		.062in	6.4
4900-115200	CTE-08-2.00-064150		2	6.4
4900-115300	CTE-08-3.00-070150		3	7
4900-115318	CTE-08-3.18-070150		.125in	7

NOTE: ER8 Holders Include a special M10x.75 clamping nut.

ER16

Item No.	Description	L_1	D_1	D_2
4900-306318	CTE-16-3.18-095060	6mm	1/8in	9.5
4900-316100	CTE-16-1.00-064160	16	1	6.4
4900-316150	CTE-16-1.50-064160		1.5	6.4
4900-316159	CTE-16-1.59-064160		.062in	6.4
4900-316200	CTE-16-2.00-064160		2	6.4
4900-316300	CTE-16-3.00-095160		3	8
4900-316318	CTE-16-3.18-095160		.125in	9.5
4900-316400	CTE-16-4.00-095160		4	9.5
4900-316476	CTE-16-4.76-095160		.187in	9.5
4900-316500	CTE-16-5.00-095160		5	9.5
4900-320300	CTE-16-3.00-095200	20	3	9.5
4900-325300	CTE-16-3.00-095250	25	3	9.5
* 4900-325300C	CTE-16-3.00-095250C		3	9.5
4900-325318	CTE-16-3.18-095250		.125in	9.5
* 4900-325318C	CTE-16-3.18-095250C		.125in	9.5
4900-325400	CTE-16-4.00-095250		4	9.5
4900-325476	CTE-16-4.76-095250		.187in	9.5
4900-325500	CTE-16-5.00-095250		5	9.5
4900-340476	CTE-16-4.76-095400		3/16in	9.5

* Coolant-Thru Version

ER25

Item No.	Description	L_1	D_1	D_2
4900-525300	CTE-25-3.00-100250	25	3	10
4900-525318	CTE-25-3.18-100250		.125in	10
4900-525400	CTE-25-4.00-100250		4	10
4900-525476	CTE-25-4.76-125250		.187in	12.5
4900-525500	CTE-25-5.00-125250		5	12.5
4900-525600	CTE-25-6.00-125250		6	12.5
4900-525635	CTE-25-6.35-125250		.250in	12.5
4900-525700	CTE-25-7.00-160250		7	16
4900-525794	CTE-25-7.94-160250		.312in	16
4900-525800	CTE-25-8.00-160250		8	16

ER11

Item No.	Description	L_1	D_1	D_2
4900-210100	CTE-11-1.00-064100	10	1	6.4
4900-210150	CTE-11-1.50-064100		1.5	6.4
4900-210159	CTE-11-1.59-064100		.062in	6.4
4900-210200	CTE-11-2.00-064100		2	6.4
4900-210300	CTE-11-3.00-080100		3	8
4900-210318	CTE-11-3.18-080100		.125in	8
4900-215300	CTE-11-3.00-080150	15	3	8
4900-215318	CTE-11-3.18-080150		.125in	8
4900-210400	CTE-11-4.00-080100		4	8
4900-215400	CTE-11-4.00-080150		4	8
4900-216400	CTE-11-4.00-080160	16	4	8
4900-220300	CTE-11-3.00-080200	20	3	8
4900-220318	CTE-11-3.18-080200		.125in	8
4900-220400	CTE-11-4.00-080200		4	8

ER20

Item No.	Description	L_1	D_1	D_2
4900-414300	CTE-20-3.00-095140	14	3	9.5
4900-414476	CTE-20-4.76-114140		.187in	11.4
4900-414500	CTE-20-5.00-114140		5	11.4
4900-414600	CTE-20-6.00-125140		6	12.5
4900-414635	CTE-20-6.35-125140		.250in	12.5
4900-416318	CTE-20-3.18-095160	16	.125in	9.5
4900-416400	CTE-20-4.00-095160		4	9.5
4900-416476	CTE-20-4.76-114160		.187in	11.4
4900-425300	CTE-20-3.00-095250	25	3	9.5
4900-425318	CTE-20-3.18-095250		.125in	9.5
4900-425400	CTE-20-4.00-095250		4	9.5
4900-425476	CTE-20-4.76-114250		.187in	11.4
4900-425500	CTE-20-5.00-114250		5	11.4
4900-425600	CTE-20-6.00-125250		6	12.5
4900-425635	CTE-20-6.35-125250		.250in	12.5

Collet Reduction

Item No.	Description	Shank Size	Collet Size	Extension Length
4910-000100	RTE-16-08-100254	ER16	ER8	1.0 in



Extend the reach of your tools with superior TIR

Special sizes available upon request. Quick turnaround time.
Call 413-562-4800 for more information.

REGO-FIX®



Standard ER Collets

- T.I.R < .0004" standard
- T.I.R < .0002" ultra precision
- The best ER collet on the market
- **Add "UP" to part description for ultra precision**

Example:

Standard ER16 Collet: **CC-ER16i-1/16**

Ultra Precision ER16 Collet: **CC-ER16i-1/16UP**

Inch

		ER08		ER11		ER16		ER20	
Size	Range	Item No.	Description	Item No.	Description	Item No.	Description	Item No.	Description
1/16"	.0425" - .0625"	1005-000319	CC-ER08i-1/16	1005-000126	CC-ER11i-1/16	1005-000143	CC-ER16i-1/16		
3/32"	.0738" - .0938"			1005-000132	CC-ER11i-3/32	1005-000153	CC-ER16i-3/32		
1/8"	.1050" - .1250"	1005-000217	CC-ER08i-1/8	1005-000128	CC-ER11i-1/8	1005-000146	CC-ER16i-1/8	1005-000247	CC-ER20i-1/8
5/32"	.1363" - .1563"			1005-000269	CC-ER11i-5/32	1005-000157	CC-ER16i-5/32		
3/16"	.1675" - .1875"	1005-000310	CC-ER08i-3/16	1005-000130	CC-ER11i-3/16	1005-000151	CC-ER16i-3/16	1005-000292	CC-ER20i-3/16
7/32"	.1988" - .2188"			1005-000133	CC-ER11i-7/32	1005-000261	CC-ER16i-7/32		
1/4"	.2300" - .2500"			1005-000127	CC-ER11i-1/4	1005-000144	CC-ER16i-1/4	1005-000248	CC-ER20i-1/4
9/32"	.2413" - .2813"					1005-000276	CC-ER16i-9/32		
5/16"	.2725" - .3125"					1005-000156	CC-ER16i-5/16	1005-000293	CC-ER20i-5/16
11/32"	.3038" - .3438"					1005-000277	CC-ER16i-11/32		
3/8"	.3350" - .3750"					1005-000154	CC-ER16i-3/8	1005-000294	CC-ER20i-3/8
13/32"	.3663" - .4063"					1005-000150	CC-ER16i-13/32		
7/16"	.3975" - .4375"							1005-000295	CC-ER20i-7/16
1/2"	.4600" - .5000"							1005-000236	CC-ER20i-1/2

Metric

		ER08		ER11		ER16		ER20	
Size	Range	Item No.	Description	Item No.	Description	Item No.	Description	Item No.	Description
1.0mm	0.50 - 1.00	1005-000100	CC-ER08-01.0	1005-000110	CC-ER11-01.0	1005-000134	CC-ER16-01.0	1005-000249	CC-ER20-01.0
1.5mm	1.00 - 1.50	1005-000101	CC-ER08-01.5	1005-000112	CC-ER11-01.5	1005-000260	CC-ER16-01.5	1005-000250	CC-ER20-01.5
2.0mm	1.50 - 2.00	1005-000102	CC-ER08-02.0	1005-000114	CC-ER11-02.0	1005-000136	CC-ER16-02.0	1005-000251	CC-ER20-02.0
2.5mm	2.00 - 2.50	1005-000103	CC-ER08-02.5	1005-000116	CC-ER11-02.5	1005-000270	CC-ER16-02.5	1005-000246	CC-ER20-02.5
3.0mm	2.50 - 3.00	1005-000104	CC-ER08-03.0	1005-000117	CC-ER11-03.0	1005-000137	CC-ER16-03.0	1005-000278	CC-ER20-03.0
3.5mm	3.00 - 3.50	1005-000105	CC-ER08-03.5	1005-000118	CC-ER11-03.5	1005-000243	CC-ER16-03.5	1005-000279	CC-ER20-03.5
4.0mm	3.50 - 4.00	1005-000106	CC-ER08-04.0	1005-000119	CC-ER11-04.0	1005-000139	CC-ER16-04.0	1005-000266	CC-ER20-04.0
4.5mm	4.00 - 4.50	1005-000107	CC-ER08-04.5	1005-000120	CC-ER11-04.5	1005-000264	CC-ER16-04.5	1005-000280	CC-ER20-04.5
5.0mm	4.50 - 5.00	1005-000108	CC-ER08-05.0	1005-000121	CC-ER11-05.0	1005-000140	CC-ER16-05.0	1005-000267	CC-ER20-05.0
5.5mm	5.00 - 5.50			1005-000239	CC-ER11-05.5	1005-000258	CC-ER16-05.5	1005-000281	CC-ER20-05.5
6.0mm	5.50 - 6.00			1005-000182	CC-ER11-06.0	1005-000141	CC-ER16-06.0	1005-000162	CC-ER20-06.0
6.5mm	6.00 - 6.50			1005-000123	CC-ER11-06.5	1005-000271	CC-ER16-06.5	1005-000282	CC-ER20-06.5
7.0mm	6.50 - 7.00			1005-000124	CC-ER11-07.0	1005-000142	CC-ER16-07.0	1005-000283	CC-ER20-07.0
7.5mm	7.00 - 7.50					1005-000272	CC-ER16-07.5	1005-000284	CC-ER20-07.5
8.0mm	7.50 - 8.00					1005-000237	CC-ER16-08.0	1005-000268	CC-ER20-08.0
8.5mm	8.00 - 8.50					1005-000273	CC-ER16-08.5	1005-000285	CC-ER20-08.5
9.0mm	8.50 - 9.00					1005-000274	CC-ER16-09.0	1005-000286	CC-ER20-09.0
9.5mm	9.00 - 9.50					1005-000275	CC-ER16-09.5	1005-000287	CC-ER20-09.5
10.0mm	9.50 - 10.00					1005-000148	CC-ER16-10.0	1005-000288	CC-ER20-10.0
10.5mm	10.00 - 10.50							1005-000240	CC-ER20-10.5
11.0mm	10.50 - 11.00							1005-000289	CC-ER20-11.0
11.5mm	11.00 - 11.50							1005-000263	CC-ER20-11.5
12.0mm	11.50 - 12.00							1005-000170	CC-ER20-12.0
12.5mm	12.00 -12.50							1005-000290	CC-ER20-12.5
13.0mm	12.50 - 13.00							1005-000291	CC-ER20-13.0

Coolant-Thru ER Collets

- For high-pressure coolant applications
- No rubber seals to blow out
- Rated to 2000 PSI of pressure
- Ultra precision T.I.R. < .0002"



rego fix | Swiss Precision Tools

Inch

		ER11		ER16		ER20	
Size	Range	Item No.	Description	Item No.	Description	Item No.	Description
1/8"	.1154" - .1250"	Call For Details	CK-ER11i-1/8	1006-000107	CK-ER16i-1/8	Call For Details	CK-ER20i-1/8
3/16"	.1776" - .1875"	Call For Details	CK-ER11i-3/16	1006-000123	CK-ER16i-3/16	1006-000118	CK-ER20i-3/16
1/4"	.2300" - .2500"	Call For Details	CK-ER11i-1/4	1006-000121	CK-ER16i-1/4	Call For Details	CK-ER20i-1/4
5/16"	.2929" - .3125"			1006-000126	CK-ER16i-5/16	Call For Details	CK-ER20i-5/16
3/8"	.3556" - .3750"			1006-000110	CK-ER16i-3/8	Call For Details	CK-ER20i-3/8
7/16"	.4177" - .4375"					Call For Details	CK-ER20i-7/16
1/2"	.4803" - .5000"					Call For Details	CK-ER20i-1/2

Metric

		ER11		ER16		ER20	
Size	Range	Item No.	Description	Item No.	Description	Item No.	Description
3mm	2.75 - 3.00	1005-000308	CK-ER11-03.0	1006-000103	CK-ER16-03.0	1006-000128	CK-ER20-03.0
4mm	3.75 - 4.00	1006-000141	CK-ER11-04.0	1006-000102	CK-ER16-04.0	1006-000129	CK-ER20-04.0
5mm	4.50 - 5.00	Call For Details	CK-ER11-05.0	1006-000116	CK-ER16-05.0	1006-000117	CK-ER20-05.0
6mm	5.50 - 6.00	1006-000142	CK-ER11-06.0	1006-000106	CK-ER16-06.0	1006-000130	CK-ER20-06.0
7mm	6.50 - 7.00	1006-000143	CK-ER11-07.0	1006-000125	CK-ER16-07.0	1006-000131	CK-ER20-07.0
8mm	7.50 - 8.00			1006-000108	CK-ER16-08.0	1006-000120	CK-ER20-08.0
9mm	8.50 - 9.00			1006-000138	CK-ER16-09.0	1006-000132	CK-ER20-09.0
10mm	9.50 - 10.00			1006-000137	CK-ER16-10.0	1006-000111	CK-ER20-10.0
11mm	10.50 - 11.00					1006-000112	CK-ER20-11.0
12mm	11.50 - 12.00					1006-000113	CK-ER20-12.0
13mm	12.50 - 13.00					1006-000114	CK-ER20-13.0

Micro Bore ER Collets

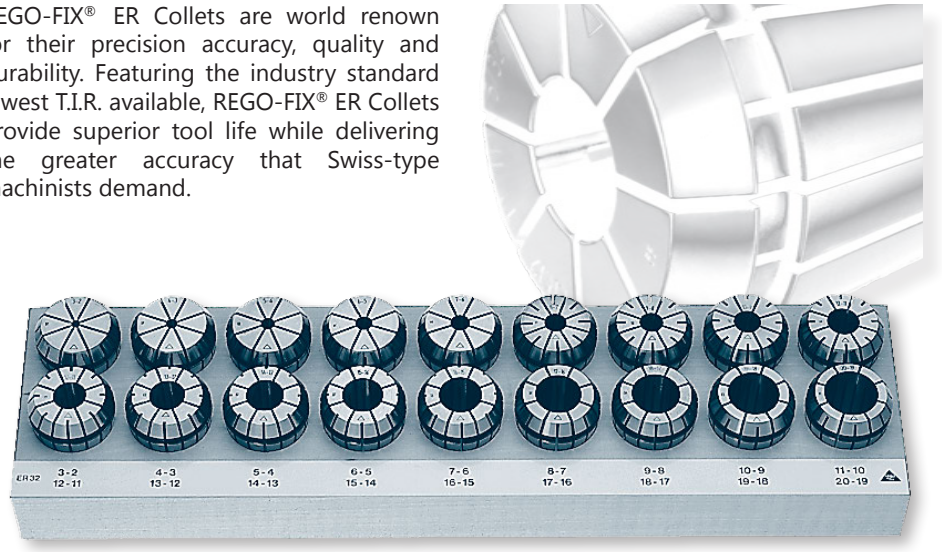
- Special design enables holding of micro tools
- Clamps nominal diameters with h7 tolerances



	ER08		ER11		ER16	
Size	Item No.	Description	Item No.	Description	Item No.	Description
0.2mm	Call For Details	CM-ER08-0.20	Call For Details	CM-ER11-0.20	Call For Details	CM-ER16-0.20
0.3mm	Call For Details	CM-ER08-0.30	1004-000106	CM-ER11-0.30	1004-000104	CM-ER16-0.30
0.4mm	Call For Details	CM-ER08-0.40	1004-000105	CM-ER11-0.40	1004-000101	CM-ER16-0.40
0.5mm	1004-000102	CM-ER08-0.50	1004-000100	CM-ER11-0.50	1004-000112	CM-ER16-0.50
0.6mm	Call For Details	CM-ER08-0.60	Call For Details	CM-ER11-0.60	1004-000103	CM-ER16-0.60
0.7mm	Call For Details	CM-ER08-0.70	Call For Details	CM-ER11-0.70	1004-000111	CM-ER16-0.70
0.8mm	1004-000108	CM-ER08-0.80	1004-000109	CM-ER11-0.80	1004-000110	CM-ER16-0.80
0.9mm	1004-000107	CM-ER08-0.90	Call For Details	CM-ER11-0.90	Call For Details	CM-ER16-0.90

REGO-FIX®

REGO-FIX® ER Collets are world renown for their precision accuracy, quality and durability. Featuring the industry standard lowest T.I.R. available, REGO-FIX® ER Collets provide superior tool life while delivering the greater accuracy that Swiss-type machinists demand.



STANDARD PRECISION Collet Sets - T.I.R. < .0004"

Metric

Item No.	Description	Size	Pieces	Size Range
1005-000199	CC-08R-S09-MSP	ER8	9	.5-5mm
1005-000190	CC-11R-S13-MSP	ER11	13	.5-7mm
1005-000192	CC-16R-S10-MSP	ER16	10	.5-10mm
1005-000245	CC-20R-S12-MSP	ER20	12	1-13mm

Inch

Item No.	Description	Size	Pieces	Size Range
1005-000363	CC-08R-S3-ISP	ER08	3	1/16 - 3/16"
1005-000189	CC-11R-S7-ISP	ER11	7	1/16 - 1/4"
1005-000191	CC-16R-S12-ISP	ER16	12	1/16 - 13/32"
1005-000244	CC-20R-S7-ISP	ER20	7	1/8 - 1/2"

ULTRA PRECISION Collet Sets - T.I.R. < .0002"

Metric

Item No.	Description	Size	Pieces	Size Range
1005-000362	CC-08R-S09-MUP	ER8	9	.5-5mm
1005-000235	CC-11R-S13-MUP	ER11	13	.5-7mm
1005-000301	CC-16R-S10-MUP	ER16	10	.5-10mm
1005-000300	CC-20R-S12-MUP	ER20	12	1-13mm

Inch

Item No.	Description	Size	Pieces	Size Range
1005-000364	CC-08R-S3-IUP	ER08	3	1/16 - 3/16"
1045-000224	CC-11R-S7-IUP	ER11	7	1/8 - 1/4"
1005-000234	CC-16R-S12-IUP	ER16	12	1/16 - 13/32"
1005-000302	CC-20R-S7-IUP	ER20	7	1/8 - 1/2"

COOLANT-THRU Collet Sets - T.I.R. < .0002"

Metric

Item No.	Description	Size	Pieces	Size Range
1006-000127	CK-16R-S08-MSP	ER16	8	3-10mm
1006-000115	CK-20R-S11-MSP	ER20	11	3-13mm

Inch

Item No.	Description	Size	Pieces	Size Range
1006-000122	CK-16R-S05-ISP	ER16	5	1/8" - 3/8"
1006-000109	CK-20R-S07-ISP	ER20	7	1/8" - 1/2"

ER25, ER32, ER40, ER50 are also available. *Call 413-562-4800* for details and part numbers.

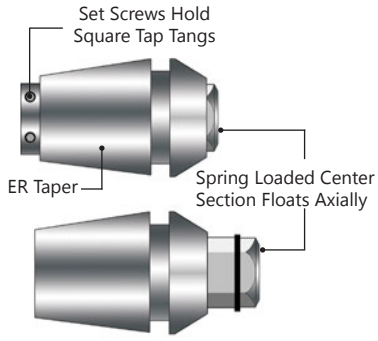
Swiss Made by PCM be driven.



Tapping Collets

PCM floating tapping collets are an economical solution to replace expensive tapping sleeves and eliminate tapping error. Ideal for use on machines that do not have a rigid tapping function.

The ET1 floating tap collets can also be used with rigid tapping function to compensate for pitch error due to the torsional stress that can occur on small taps eliminating the difference between the tap and the CNC.



Tapping Collets - Inch

	ER11		ER16		ER20		ER25		ER32	
Shank	Item No.	Description	Item No.	Description	Item No.	Description	Item No.	Description	Item No.	Description
0.141"	1040-000101	ET1-12141	1040-000106	ET1-16141	1040-000117	ET1-20141	1040-000124	ET1-25141		
0.168"			1040-000107	ET1-16168	1040-000118	ET1-20168	1040-000125	ET1-25168	1040-000174	ET1-32168
0.194"			1040-000108	ET1-16194	1040-000119	ET1-20194	1040-000126	ET1-25194	1040-000165	ET1-32194
0.220"			1040-000110	ET1-16220	1040-000120	ET1-20220	1040-000127	ET1-25220	1040-000164	ET1-32220
0.255"					1040-000121	ET1-20255	1040-000128	ET1-25255	1040-000136	ET1-32255
0.318"							1040-000129	ET1-25318	1040-000137	ET1-32318
0.323"							1040-000130	ET1-25323	1040-000138	ET1-32323
0.367"							1040-000131	ET1-25367	1040-000139	ET1-32367
0.381"							1040-000132	ET1-25381	1040-000140	ET1-32381
0.429"									1040-000169	ET1-32429
0.437"									1040-000141	ET1-32437
0.480"									1040-000151	ET1-32480

Tapping Collets - Metric

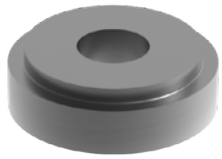
	ER11		ER16		ER20		ER25	
Shank	Item No.	Description	Item No.	Description	Item No.	Description	Item No.	Description
1.00mm	1040-000100	ET1-12100AL	1040-000105	ET1-16100AL				
1.40mm	Call For Details	ET1-12140	Call For Details	ET1-16140				
1.50mm	1040-000102	ET1-12150AL	1040-000184	ET1-16150AL				
1.60mm	Call For Details	ET1-12160	Call For Details	ET1-16160				
1.80mm	Call For Details	ET1-12180	Call For Details	ET1-16180				
2.00mm	1040-000103	ET1-12200	1040-000109	ET1-16200				
2.20mm	Call For Details	ET1-12221	1040-000166	ET1-16221	Call For Details	ET1-20221		
2.24mm	Call For Details	ET1-12224	Call For Details	ET1-16224	Call For Details	ET1-20224		
2.50mm	1040-000145	ET1-12250	1040-000111	ET1-16250	Call For Details	ET1-20250	Call For Details	ET1-25250
2.80mm	1040-000152	ET1-12280	1040-000112	ET1-16280	Call For Details	ET1-20280	Call For Details	ET1-25280
3.00mm	1040-000104	ET1-12300	1040-000113	ET1-16300	Call For Details	ET1-20300	Call For Details	ET1-25300
3.15mm	1040-000187	ET1-12315	1040-000168	ET1-16315	Call For Details	ET1-20315	Call For Details	ET1-25315
3.50mm	1040-000173	ET1-12350	1040-000148	ET1-16350	Call For Details	ET1-20350	Call For Details	ET1-25350
3.55mm	1040-000160	ET1-12355	1040-000114	ET1-16355	Call For Details	ET1-20355	Call For Details	ET1-25355
4.00mm			1040-000115	ET1-16400	Call For Details	ET1-20400	1040-000133	ET1-25400
4.50mm			1040-000149	ET1-16450	1040-000189	ET1-20450	1040-000134	ET1-25450
5.00mm			1040-000159	ET1-16500	1040-000182	ET1-20500	1040-000190	ET1-25500
5.50mm			Call For Details	ET1-16550	Call For Details	ET1-20550	1040-000158	ET1-25550
5.60mm			1040-000180	ET1-16560	Call For Details	ET1-20560	Call For Details	ET1-25560
6.00mm			1040-000116	ET1-16600	1040-000186	ET1-20600	1040-000135	ET1-25600
6.20mm			1040-000146	ET1-16620	1040-000122	ET1-20620	Call For Details	ET1-25620
6.30mm			1040-000147	ET1-16630	Call For Details	ET1-20630	1040-000162	ET1-25630
7.00mm					1040-000155	ET1-20700	1040-000183	ET1-25700
7.10mm							Call For Details	ET1-25710
8.00mm							1040-000167	ET1-25800
8.50mm							Call For Details	ET1-25850
9.00mm							1040-000181	ET1-25900
10.00mm							1040-000123	ET1-25100

Coolant Ring Seals

When combined with coolant mini nuts, coolant ring seals are ideal for use in high-pressure coolant delivery applications.

Rated To ~2000 PSI

Sealing O-Ring Is Resistant To Aggressive Coolant Chemistries



	ER16		ER20		
Tool Shank Ø	Item No.	Description	Item No.	Description	Sealing Capacity
3/32"	1010-000117	CD-ER16-03.0	Call For Details	CD-ER20-03.0	3.0 - 2.5mm
1/8"	1010-000118	CD-ER16-03.5	Call For Details	CD-ER20-03.5	3.5 - 3.0mm
5/32"	1010-000119 Call For Details	CD-ER16-04.0 CD-ER16-04.5	1010-000132 Call For Details	CD-ER20-04.0 CD-ER20-04.5	4.0 - 3.5mm 4.5 - 4.0mm
3/16"	1010-000133	CD-ER16-05.0	Call For Details	CD-ER20-05.0	5.0 - 4.5mm
7/32"	1010-000136 1010-000144	CD-ER16-05.5 CD-ER16-06.0	1010-000148 1010-000121	CD-ER20-05.5 CD-ER20-06.0	5.5 - 5.0mm 6.0 - 5.5mm
1/4"	1010-000135 1010-000149	CD-ER16-06.5 CD-ER16-07.0	1010-000145 1010-000150	CD-ER20-06.5 CD-ER20-07.0	6.5 - 6.0mm 7.0 - 6.5mm
9/32"	1010-000134	CD-ER16-07.5	1010-000151	CD-ER20-07.5	7.5 - 7.0mm
5/16"	1010-000130 1010-000141	CD-ER16-08.0 CD-ER16-08.5	1010-000122 Call For Details	CD-ER20-08.0 CD-ER20-08.5	8.0 - 7.5mm 8.5 - 8.0mm
11/32"	Call For Details	CD-ER16-09.0	Call For Details	CD-ER20-09.0	9.0 - 8.5mm
3/8"	1010-000120 1010-000137	CD-ER16-09.5 CD-ER16-10.0	Call For Details Call For Details	CD-ER20-09.5 CD-ER20-10.0	9.5 - 9.0mm 10.0 - 9.5mm
13/32"			Call For Details Call For Details	CD-ER20-10.5 CD-ER20-11.0	10.5 - 10.0mm 11.0 - 10.5mm
7/16"			1010-000142 Call For Details 1010-000139	CD-ER20-11.5 CD-ER20-12.0 CD-ER20-12.5	11.5 - 11.0mm 12.0 - 11.5mm 12.5- 12.0mm
1/2"			1010-000140	CD-ER20-13.0	13.0 - 12.5mm



Hi-Q® ER Mini Nuts

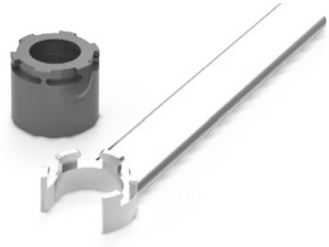
For use with any ER Collet Chuck or Sleeve.

Item No.	Description	Size	Thread
1015-000100	CN-ER08-MNS	ER08	M10 x .75
1015-000101	CN-ER11-MNS	ER11	M13 x .75
1015-000103	CN-ER16-MNS	ER16	M19 x 1.00
1015-000105	CN-ER20-MNS	ER20	M24 x 1.00
1015-000107	CN-ER25-MNS	ER25	M30 x 1.00

Hi-Q® ERMX Non-Slip Mini Nuts

When paired with an ERMX wrench, these mini nuts provide a slip-proof clamping experience.

Item No.	Size	Thread
Call For Details	ER08	M10 x .75
Call For Details	ER11	M13 x .75
Call For Details	ER16	M19 x 1.00
Call For Details	ER20	M24 x 1.00
Call For Details	ER25	M30 x 1.00



Hi-Q® Coolant Mini Nuts



Coolant mini nuts are to be used in conjunction with coolant ring seals. The nut includes an internal grooved seat for insertion of coolant discs, allowing the use of standard ER Collets in thru-coolant applications.



Item No.	Description	Size	Thread
1015-000125	CN-ER11-MNC	ER11	M13 x 0.75
1015-000102	CN-ER16-MNC	ER16	M19 x 1.00
1015-000104	CN-ER20-MNC	ER20	M24 x 1.00
1015-000108	CN-ER25-MNC	ER25	M30 x 1.00

IMPORTANT!

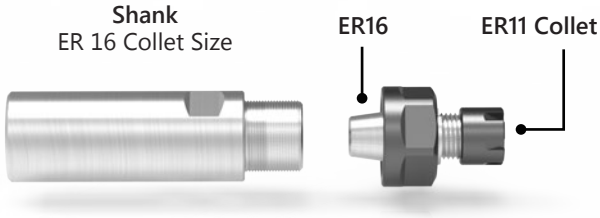
ER11 Hi-Q® Mini nuts feature built-in coolant seal. Specify tool diameter when ordering - Available Size Range: 3mm - 7mm

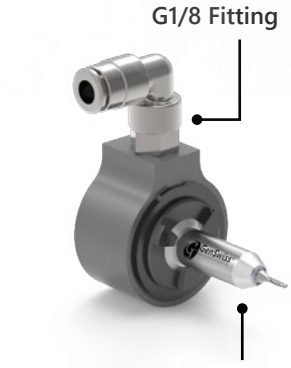


Collet Reductions

Enables reduction of collet sizes while also presetting tools. These collet reductions come with REGO-FIX Mini Nuts.

Item No.	Description	Shank / Live Tooling Size	ER Collet Size	Nut Type
1045-000299	CQS-ER11-8M	ER11	ER8	Mini Nut
1045-000256	CQS-ER16-11M	ER16	ER11	Mini Nut
1045-000301	CQS-ER20-16M	ER20	ER16	Mini Nut
1045-000218	CQS-ER25-16M	ER25	ER16	Mini Nut
1045-000295	CQS-ER25-20M	ER25	ER20	Mini Nut





ReCool Nut

Enables coolant-thru capability for non-coolant-thru holders and live tooling. REGO-FIX's ReCool Nut pairs well with GenSwiss' Ti-Loc® endmill extensions. The coolant input requires a G1/8 fitting.

ER11, ER16, ER20, ER25, & ER32 Sizes Available



Collet Sleeve Bushings

Precision Reduction Sleeves are an inexpensive alternative to purchasing additional collet holders & tooling.

Item No.	Description	OD	ID	OAL
1030-000101	CSB-254-160-040	1in	16mm	40mm
1030-000100	CSB-220-190-050K	22mm	3/4in	55mm
1030-000102	CSB-254-190-050J-M	1in	3/4in	50mm
7005-138046	MRH 1600 1230	16mm	12mm	30mm
7005-138047	MRH 1905 1240	.750in	12mm	40mm
7005-138048	MRH 2200 1240	22mm	12mm	40mm
7005-138049	MRH 2540 1240	1.00in	12mm	40mm
7005-138050	MRH 1905 1640	.750in	16mm	40mm
7005-138051	MRH 2200 1640	22mm	16mm	40mm
7005-138052	MRH 2540 1640	1.00in	16mm	40mm

Mini-Nut Spanner Wrenches

Ideal for use in tight tooling zones commonly found in CNC Swiss-type Machines.

Item No.	Description	Size
1035-000101	CW-04620	ER08
1035-000102	CW-04621	ER11
1035-000103	CW-04622	ER16
1035-000104	CW-04623	ER20
1035-000105	CW-04624	ER25





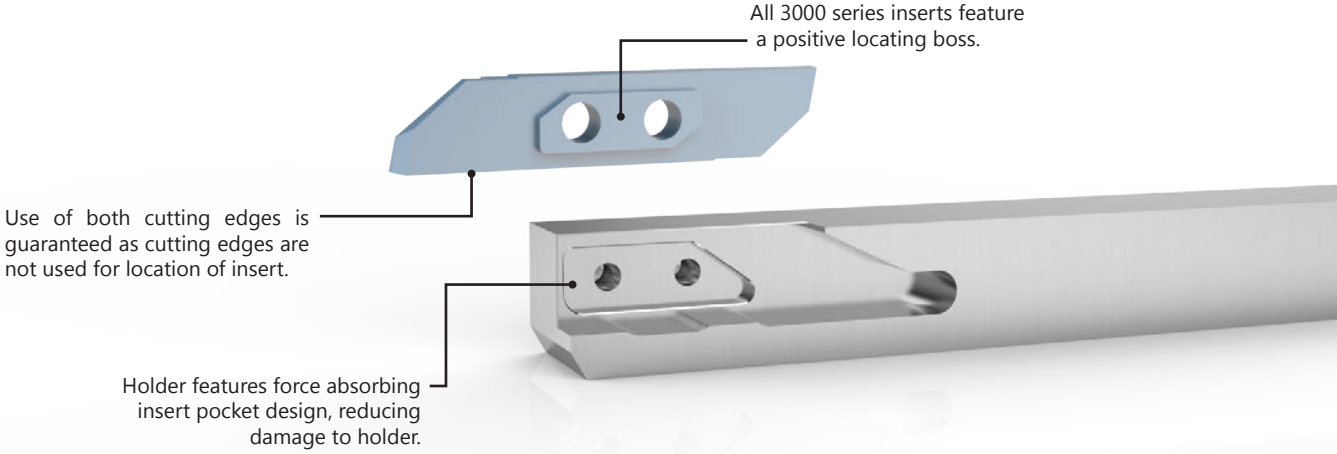
UTILIS®
Tooling for High Technology

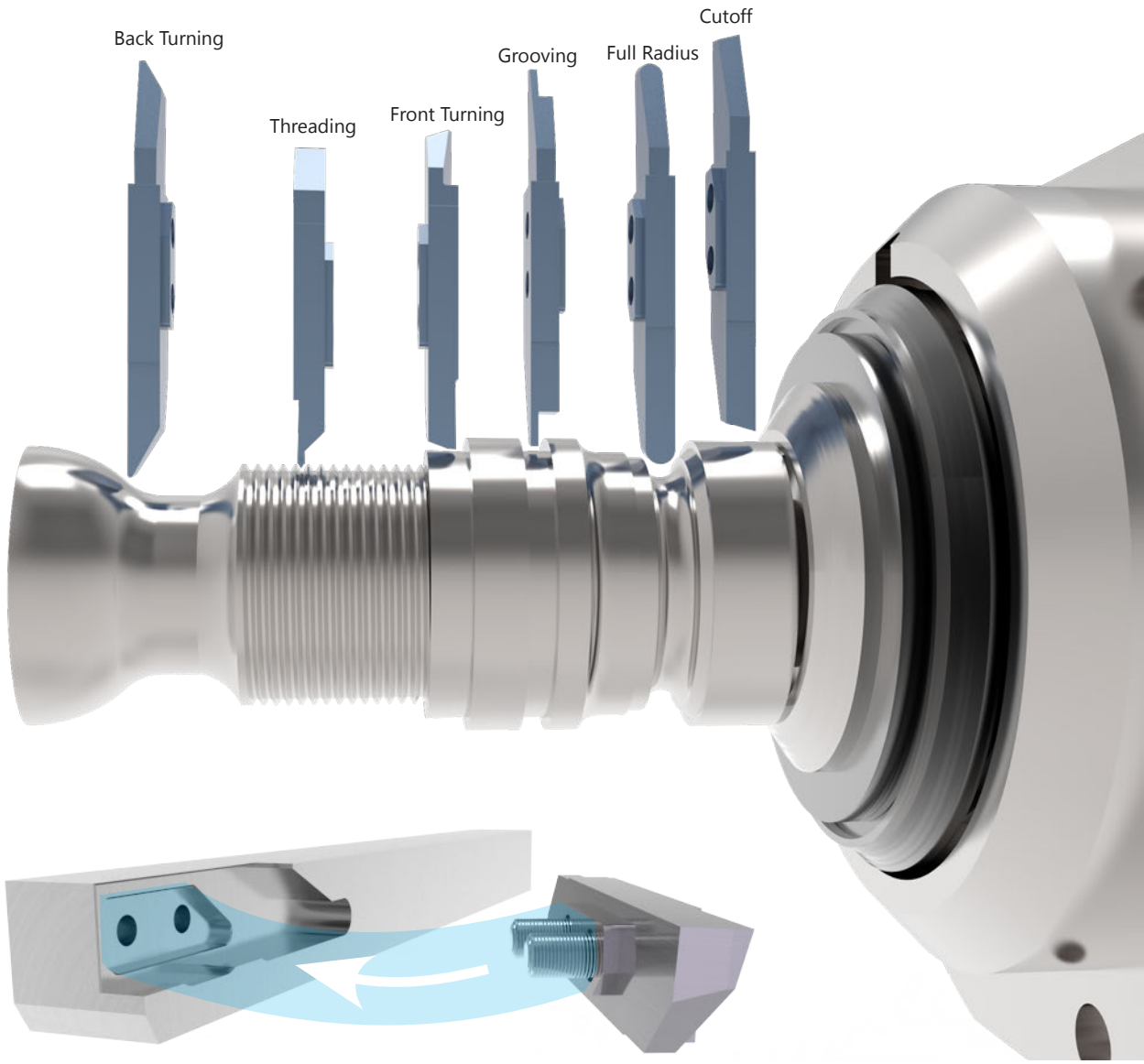
multidec®-Cut 3000 Series

Swiss Made UTILIS World Class tools deliver proven production performance and extended tool life. All 3000 series inserts feature a wide variety of chip breaker geometries and will fit the same holder, reducing tooling costs. The unique insert holding design absorbs machining forces providing one of the most rigid Swiss-turning systems available to the industry.

Series	Operation
3002 Series	Part Cut Off
3003 Series	Front Turning, Facing, Back Turning, Copy Turning
3004 Series	Back Turning
3005 Series	Groove & Turning
3006 Series	Threading
3007 Series	Full Radius Grooving
3012 Series	Chamfering

- Suitable for bar diameters between 10mm and 32 mm
- For all turning application processes
- Repeatable within .0004"
- All insert styles fit the same holder
- Holder design absorbs cutting forces
- Ideal for tough applications





Properties & Application Range of Coatings

Carbide		Uncoated	Standard Coatings				Special Coatings (on request)						
UTILIS-Code			SX	MZ	HX	HPX	HX-A/ HX-A+	TX	HLX	BX	DX-T	DX-HC	DX/DX+
Coating		-	TiN	TiN/ TiAlN	TiAlN/ AlTiN	TiAlN/ AlTiN	AlCrN	AlCrN	TiAlN WC/C	TiCN	DLC	Ta-C	Diamond
Coating Process		-	PVD	CVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	CVD
Materials (Category)													
Unalloyed Steel	(I)	■	■	■	■	■	■	□	-	■	-	-	-
Low-Alloy Steel	(II)	□	■	■	■	■	■	□	-	■	-	-	-
High-Alloy Steel	(III)	□	□	■	■	■	■	□	-	□	-	-	-
Titanium	(IV)	□	-	-	■	□	■	■	■	-	-	-	-
Stainless Steel	>60 HRC (V)	□	□	■	■	■	■	□	■	■	-	-	-
Stainless Steel	(VI)	□	□	■	■	■	■	□	■	□	-	-	-
Aluminum	(VII)	■	□	-	■	-	□	-	■	-	■	■	■
Brass	(VIII)	■	□	-	■	□	□	-	■	-	■	■	-
Synthetics Reinforced/Composits	(IX)	-	-	-	□	-	-	-	-	-	□	■	■
Hard Materials		-	-	-	-	-	□	■	-	-	-	-	-

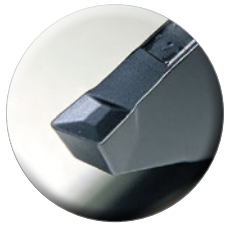
Insert Geometry & Chip Breakers

■ Preferred Application
□ Possible Application
– Application Not Recommended

Series Operation	Chip Breaker	Steel	Stainless Steel	Titanium & Ti-Alloys	Non Ferrous Metals	Hardened	
3002 Series **Cut Off**	3002	■	■	■	–	■	Micro Finishing
		■	■	■	–	■	Finishing
		□	□	□	–	–	Roughing
	3002 GS	–	–	–	–	■	Micro Finishing
		□	□	□	□	□	Finishing
		■	■	■	□	–	Roughing
	3002 GS12	■	■	–	□	□	Micro Finishing
		■	■	–	□	□	Finishing
		■	■	–	□	–	Roughing
	3002 GT20	■	■	–	■	■	Micro Finishing
		■	■	–	■	□	Finishing
		■	■	–	□	–	Roughing
	3002 SC	■	■	■	–	■	Micro Finishing
		■	■	■	–	■	Finishing
		■	■	■	–	■	Roughing
	3002 SPT	□	■	■	■	■	Micro Finishing
		□	■	■	■	□	Finishing
		–	□	□	■	–	Roughing
3003 Series **Front Turning**	3003	■	■	■	–	■	Micro Finishing
		■	■	■	–	■	Finishing
		■	■	□	□	□	Roughing
	3003 GA20	■	■	–	■	■	Micro Finishing
		■	■	–	■	□	Finishing
		□	□	–	■	–	Roughing
	3003 SP TOP	■	■	■	■	■	Micro Finishing
		■	■	■	■	–	Finishing
		–	–	–	–	–	Roughing
3004 Series **Back Turning**	3004	■	□	□	□	■	Micro Finishing
		■	■	■	□	□	Finishing
		■	■	■	□	□	Roughing
	3004 CP	■	■	■	■	■	Micro Finishing
		■	■	■	■	□	Finishing
		□	□	□	□	–	Roughing
	3004 GB20	■	■	–	■	■	Micro Finishing
		■	■	–	■	□	Finishing
		□	□	–	■	–	Roughing
	3004 SP	■	■	■	■	■	Micro Finishing
		■	■	■	■	–	Finishing
		□	□	□	■	–	Roughing
	3004 TOP	■	■	■	■	■	Micro Finishing
		■	■	■	■	□	Finishing
		□	□	□	■	–	Roughing
	3004 SP TOP	■	■	■	■	■	Micro Finishing
		■	■	■	■	□	Finishing
		□	□	□	■	–	Roughing
3005 Series **Groove & Turning**	3005	■	■	□	□	■	Micro Finishing
		■	■	□	□	■	Finishing
		■	■	□	□	□	Roughing
	3005 CP	■	■	■	■	■	Micro Finishing
		■	■	■	■	–	Finishing
		□	□	□	■	–	Roughing
	3005 GC20	■	■	–	■	■	Micro Finishing
		■	■	–	■	□	Finishing
		■	■	–	■	–	Roughing
3006 Series **Threading**	3006	■	■	■	■	■	Micro Finishing
		■	■	■	□	□	Finishing
		–	–	–	–	□	Roughing
	3006 VP	■	■	■	■	□	Micro Finishing
		–	–	–	□	–	Finishing
		–	–	–	–	–	Roughing
3007 Series **Full Radius Grooving**	3007	■	■	■	■	■	Micro Finishing
		■	■	■	■	–	Finishing
		–	–	–	–	–	Roughing
3012 Series **Chamfering**	3012	■	■	■	■	■	Micro Finishing
		■	■	■	■	–	Finishing
		–	–	–	–	–	Roughing

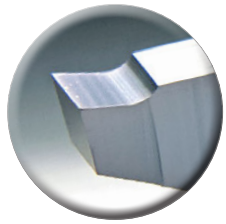
Type-GS Chip Breaker Cut-Off Inserts

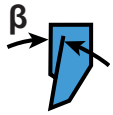
The CUT3000 type-GS chip breaker is an evolution of Swiss-type cut off tooling. By using a new carbide forming technology, these inserts require less grinding to be produced while offering a decrease in overall cost of use. 'Type GS EN' grade offers supreme performance in carbon steels while the Type GS FN grade offers excellent performance in Stainless and Titanium applications.



Type-SPT Chip Breaker Cut-Off Inserts

The multidec® CUT3002 cut off inserts with type-SPT chip breaker feature a positive rake intended for use in soft and stringy materials. The SPT chip breaker comes in three different angles described by the product number suffix below.

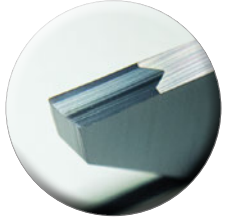




SPT: 20° rake - Plastics Such As Delrin
SPT06: 6° rake - Good For Stainless
SPT12: 12° rake - Aluminum

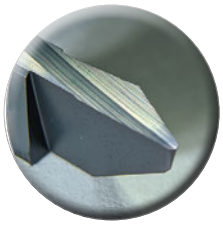
Type-SC Chip Breaker Cut-Off Inserts

Cut-off inserts armed with the type-SC chip breaker are ideal for hard materials. This chip breaker is quite universal, used in roughing, finishing, and micro finishing.



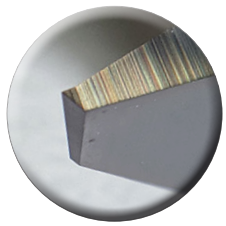
Type-SP Chip Breaker
Front & Back Turning

Front and back turning inserts with the type-SP chip breaker are ideal for finishing and micro finishing on materials such as aluminum, breaking up chips and preventing stringy chips from forming.



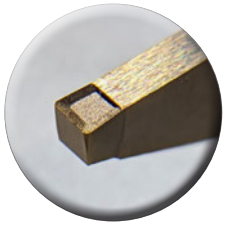
Type-CP Chip Breaker
Front & Back Turning, Grooving

When creating deep features during front turning, back turning, or grooving, the type-CP chip breaker is vital for chip removal. The sharp articulated geometry will peel chips away and keep features clear of material during finishing and micro finishing operations.



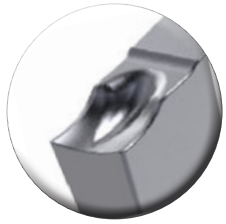
Type-GS12 Chip Breaker
Cut-Off

A neutral chip control geometry offering wear-resistant sharp cutting edges enabling better chip control. Ideal for high cutting speeds.



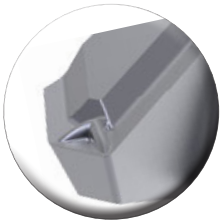
Type-GT20 Chip Breaker
Cut-Off

Compared to the GS12 chip breaker geometry, the GT20 chip breaker has a sharp and slightly rounded cutting edge. It provides excellent chip flow, creating short chips and resulting in a smooth finish. These results can be experienced at higher feed rates also.



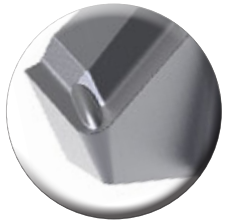
Type-GA20 Chip Breaker
Front Turning, Facing, Back Turning

Based of the multidec TOP insert technology, this optimized version enables turning in three directions. Perfect chip control is maintained during facing, turning, grooving, and back turning. Inhereted from the TOP insert technology, the GA20 enables up to 100% higher feed rate.



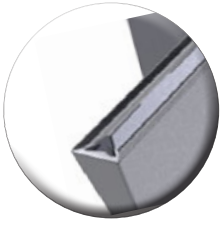
Type-GM20 Chip Breaker
Front Turning, Back Turning, Copy Turning

Chip-breaker similar to the "GA20", but without the "TOP" cutting edge, with the advantage of also being able to carry out copying operations and radial clearance turning.



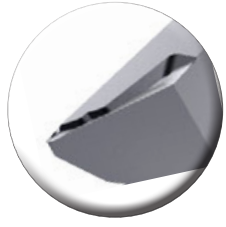
Type-GC20 Chip Breaker
Grooving & Turning

Providing good results in almost any material while facing, grooving, or turning, the GC20 chip breaker can turn in three direction with at extremely low and high cutting depths and across low and high feed rates. Excellent chip control results can also be observed in lead-free brass.



Type-GB20 Chip Breaker
Back Turning

Armed with an extremely sharp cutting edge with multi-stage chip breakers, the GB20 chip breaker enhances the creation of back turned profiles with process-reliable chip formation at low and high cutting depths as well as across low and high feed rates.



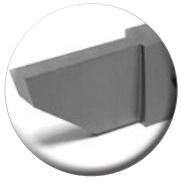


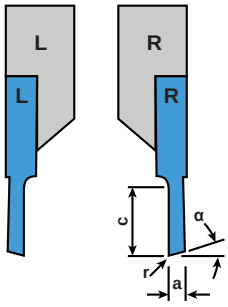
3002 Cutoff

Cut: Standard
Chip Breaker: None

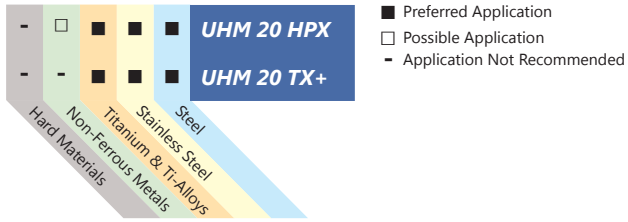
Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	α	r	Coating
7005-148003	3002-0.8-6 L UHM20 HPX	7005-148001	3002-0.8-6 R UHM20 HPX	0.8	6	15°	0	UHM 20 HPX
7005-042081	3002-0.8-6 L UHM20 TX+	7005-042080	3002-0.8-6 R UHM20 TX+	0.8	6	15°	0	UHM 20 TX+
7005-148007	3002-0.8-10 L UHM20 HPX	7005-148005	3002-0.8-10 R UHM20 HPX	0.8	10	15°	0	UHM 20 HPX
7005-042083	3002-0.8-10 L UHM20 TX+	7005-042082	3002-0.8-10 R UHM20 TX+	0.8	10	15°	0	UHM 20 TX+
7005-148011	3002-1.0-6 L UHM20 HPX	7005-148009	3002-1.0-6 R UHM20 HPX	1	6	15°	0	UHM 20 HPX
7005-042108	3002-1.0-6 L UHM20 TX+	7005-169814	3002-1.0-6 R UHM20 TX+	1	6	15°	0	UHM 20 TX+
7005-148015	3002-1.0-13 L UHM20 HPX	7005-148013	3002-1.0-13 R UHM20 HPX	1	13	15°	0	UHM 20 HPX
7005-42110	3002-1.0-13 L UHM20 TX+	7005-042085	3002-1.0-13 R UHM20 TX+	1	13	15°	0	UHM 20 TX+
7005-148019	3002-1.2-6 L UHM20 HPX	7005-148017	3002-1.2-6 R UHM20 HPX	1.2	6	15°	0	UHM 20 HPX
7005-042112	3002-1.2-6 L UHM20 TX+	7005-042087	3002-1.2-6 R UHM20 TX+	1.2	6	15°	0	UHM 20 TX+
7005-148021	3002-1.5-8 L UHM20 HPX	7005-147446	3002-1.5-8 R UHM20 HPX	1.5	8	15°	0	UHM 20 HPX
7005-126884	3002-1.5-8 L UHM20 TX+	7005-192162	3002-1.5-8 R UHM20 TX+	1.5	8	15°	0	UHM 20 TX+
7005-148025	3002-1.5-16 L UHM20 HPX	7005-148023	3002-1.5-16 R UHM20 HPX	1.5	16	15°	0	UHM 20 HPX
7005-042158	3002-1.5-16 L UHM20 TX+	7005-042089	3002-1.5-16 R UHM20 TX+	1.5	16	15°	0	UHM 20 TX+
7005-153028	3002-1.8-8 L UHM20 HPX	7005-153026	3002-1.8-8 R UHM20 HPX	1.8	8	15°	0	UHM 20 HPX
7005-042209	3002-1.8-8 L UHM20 TX+	7005-042091	3002-1.8-8 R UHM20 TX+	1.8	8	15°	0	UHM 20 TX+
7005-148027	3002-2.0-10 L UHM20 HPX	7005-147059	3002-2.0-10 R UHM20 HPX	2	10	15°	0	UHM 20 HPX
7005-042094	3002-2.0-10 L UHM20 TX+	7005-042093	3002-2.0-10 R UHM20 TX+	2	10	15°	0	UHM 20 TX+
7005-148031	3002-2.0-16 L UHM20 HPX	7005-148029	3002-2.0-16 R UHM20 HPX	2	16	15°	0	UHM 20 HPX
7005-042096	3002-2.0-16 L UHM20 TX+	7005-042095	3002-2.0-16 R UHM20 TX+	2	16	15°	0	UHM 20 TX+
7005-148035	3002-2.5-13 L UHM20 HPX	7005-148033	3002-2.5-13 R UHM20 HPX	2.5	13	15°	0	UHM 20 HPX
7005-042098	3002-2.5-13 L UHM20 TX+	7005-042097	3002-2.5-13 R UHM20 TX+	2.5	13	15°	0	UHM 20 TX+
7005-148039	3002-2.5-16 L UHM20 HPX	7005-148037	3002-2.5-16 R UHM20 HPX	2.5	16	15°	0	UHM 20 HPX
7005-042100	3002-2.5-16 L UHM20 TX+	7005-042099	3002-2.5-16 R UHM20 TX+	2.5	16	15°	0	UHM 20 TX+
7005-148043	3002-3.0-16 L UHM20 HPX	7005-148041	3002-3.0-16 R UHM20 HPX	3	16	15°	0	UHM 20 HPX
7005-042102	3002-3.0-16 L UHM20 TX+	7005-042101	3002-3.0-16 R UHM20 TX+	3	16	15°	0	UHM 20 TX+





Ideal Cutting Materials



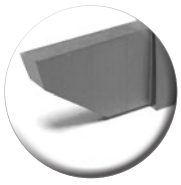


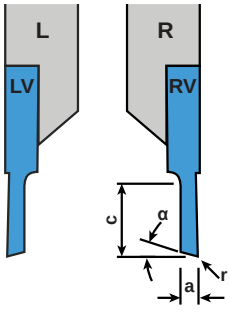
3002 Cutoff

Cut: Inverted
Chip Breaker: None

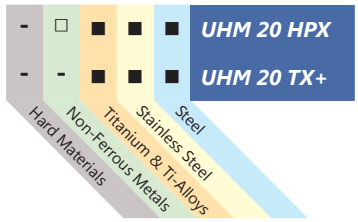
Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	α	r	Coating
7005-148047	3002-0.8-6 LV UHM20 HPX	7005-148045	3002-0.8-6 RV UHM20 HPX	0.8	6	15°	0	UHM 20 HPX
7005-042104	3002-0.8-6 LV UHM20 TX+	7005-042103	3002-0.8-6 RV UHM20 TX+	0.8	6	15°	0	UHM 20 TX+
7005-148051	3002-0.8-10 LV UHM20 HPX	7005-148049	3002-0.8-10 RV UHM20 HPX	0.8	10	15°	0	UHM 20 HPX
7005-042106	3002-0.8-10 LV UHM20 TX+	7005-042105	3002-0.8-10 RV UHM20 TX+	0.8	10	15°	0	UHM 20 TX+
7005-148055	3002-1.0-6 LV UHM20 HPX	7005-148053	3002-1.0-6 RV UHM20 HPX	1	6	15°	0	UHM 20 HPX
7005-042108	3002-1.0-6 LV UHM20 TX+	7005-042107	3002-1.0-6 RV UHM20 TX+	1	6	15°	0	UHM 20 TX+
7005-148059	3002-1.0-13 LV UHM20 HPX	7005-148057	3002-1.0-13 RV UHM20 HPX	1	13	15°	0	UHM 20 HPX
7005-042110	3002-1.0-13 LV UHM20 TX+	7005-042109	3002-1.0-13 RV UHM20 TX+	1	13	15°	0	UHM 20 TX+
7005-148063	3002-1.2-6 LV UHM20 HPX	7005-148061	3002-1.2-6 RV UHM20 HPX	1.2	6	15°	0	UHM 20 HPX
7005-042112	3002-1.2-6 LV UHM20 TX+	7005-042111	3002-1.2-6 RV UHM20 TX+	1.2	6	15°	0	UHM 20 TX+
7005-147444	3002-1.5-8 LV UHM20 HPX	7005-148065	3002-1.5-8 RV UHM20 HPX	1.5	8	15°	0	UHM 20 HPX
7005-042114	3002-1.5-8 LV UHM20 TX+	7005-042113	3002-1.5-8 RV UHM20 TX+	1.5	8	15°	0	UHM 20 TX+
7005-148069	3002-1.5-16 LV UHM20 HPX	7005-148067	3002-1.5-16 RV UHM20 HPX	1.5	16	15°	0	UHM 20 HPX
7005-042158	3002-1.5-16 LV UHM20 TX+	7005-042157	3002-1.5-16 RV UHM20 TX+	1.5	16	15°	0	UHM 20 TX+
7005-148073	3002-1.8-8 LV UHM20 HPX	7005-148071	3002-1.8-8 RV UHM20 HPX	1.8	8	15°	0	UHM 20 HPX
7005-042209	3002-1.8-8 LV UHM20 TX+	7005-042159	3002-1.8-8 RV UHM20 TX+	1.8	8	15°	0	UHM 20 TX+
7005-148077	3002-2.0-10 LV UHM20 HPX	7005-148075	3002-2.0-10 RV UHM20 HPX	2	10	15°	0	UHM 20 HPX
7005-042211	3002-2.0-10 LV UHM20 TX+	7005-042210	3002-2.0-10 RV UHM20 TX+	2	10	15°	0	UHM 20 TX+
7005-148081	3002-2.0-16 LV UHM20 HPX	7005-148079	3002-2.0-16 RV UHM20 HPX	2	16	15°	0	UHM 20 HPX
7005-042213	3002-2.0-16 LV UHM20 TX+	7005-042212	3002-2.0-16 RV UHM20 TX+	2	16	15°	0	UHM 20 TX+
7005-148085	3002-2.5-13 LV UHM20 HPX	7005-148083	3002-2.5-13 RV UHM20 HPX	2.5	13	15°	0	UHM 20 HPX
7005-042215	3002-2.5-13 LV UHM20 TX+	7005-042214	3002-2.5-13 RV UHM20 TX+	2.5	13	15°	0	UHM 20 TX+
7005-148089	3002-2.5-16 LV UHM20 HPX	7005-148087	3002-2.5-16 RV UHM20 HPX	2.5	16	15°	0	UHM 20 HPX
7005-042217	3002-2.5-16 LV UHM20 TX+	7005-042216	3002-2.5-16 RV UHM20 TX+	2.5	16	15°	0	UHM 20 TX+
7005-148093	3002-3.0-16 LV UHM20 HPX	7005-148091	3002-3.0-16 RV UHM20 HPX	3	16	15°	0	UHM 20 HPX
7005-042219	3002-3.0-16 LV UHM20 TX+	7005-042218	3002-3.0-16 RV UHM20 TX+	3	16	15°	0	UHM 20 TX+





Ideal Cutting Materials



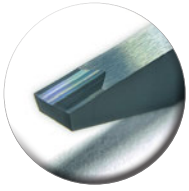
■ Preferred Application
□ Possible Application
- Application Not Recommended



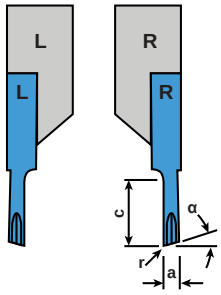
3002 Cutoff
Cut: Standard
Chip Breaker: SC

Repeatability <20µm

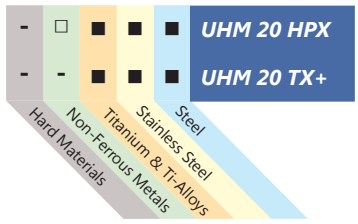
Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	α	r	Coating
7005-148111	3002-1.5-8 L SC UHM20 HPX	7005-146503	3002-1.5-8 R SC UHM20 HPX	1.5	8	15°	0	UHM 20 HPX
7005-042242	3002-1.5-8 L SC UHM20 TX+	7005-042241	3002-1.5-8 R SC UHM20 TX+	1.5	8	15°	0	UHM 20 TX+
7005-148115	3002-1.5-16 L SC UHM20 HPX	7005-148113	3002-1.5-16 R SC UHM20 HPX	1.5	16	15°	0	UHM 20 HPX
7005-042244	3002-1.5-16 L SC UHM20 TX+	7005-042243	3002-1.5-16 R SC UHM20 TX+	1.5	16	15°	0	UHM 20 TX+
7005-148117	3002-2.0-10 L SC UHM20 HPX	7005-116958	3002-2.0-10 R SC UHM20 HPX	2	10	15°	0	UHM 20 HPX
7005-193248	3002-2.0-10 L SC UHM20 TX+	7005-193249	3002-2.0-10 R SC UHM20 TX+	2	10	15°	0	UHM 20 TX+
7005-148121	3002-2.0-16 L SC UHM20 HPX	7005-148119	3002-2.0-16 R SC UHM20 HPX	2	16	15°	0	UHM 20 HPX
7005-042246	3002-2.0-16 L SC UHM20 TX+	7005-042245	3002-2.0-16 R SC UHM20 TX+	2	16	15°	0	UHM 20 TX+
7005-148125	3002-2.5-13 L SC UHM20 HPX	7005-148123	3002-2.5-13 R SC UHM20 HPX	2.5	13	15°	0	UHM 20 HPX
7005-042248	3002-2.5-13 L SC UHM20 TX+	7005-042247	3002-2.5-13 R SC UHM20 TX+	2.5	13	15°	0	UHM 20 TX+
7005-148127	3002-2.5-16 L SC UHM20 HPX	7005-147637	3002-2.5-16 R SC UHM20 HPX	2.5	16	15°	0	UHM 20 HPX
7005-042256	3002-2.5-16 L SC UHM20 TX+	7005-042255	3002-2.5-16 R SC UHM20 TX+	2.5	16	15°	0	UHM 20 TX+
7005-148129	3002-3.0-16 L SC UHM20 HPX	7005-147639	3002-3.0-16 R SC UHM20 HPX	3	16	15°	0	UHM 20 HPX
7005-042258	3002-3.0-16 L SC UHM20 TX+	7005-042257	3002-3.0-16 R SC UHM20 TX+	3	16	15°	0	UHM 20 TX+



Type-SC Chip Breaker



Ideal Cutting Materials



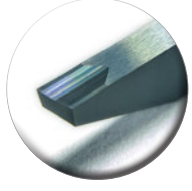
■ Preferred Application
□ Possible Application
- Application Not Recommended



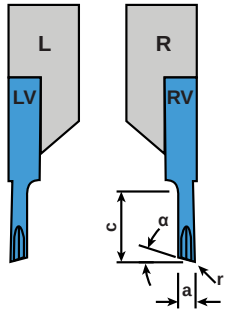
3002 Cutoff
Cut: Inverted
Chip Breaker: SC

Repeatability <20µm

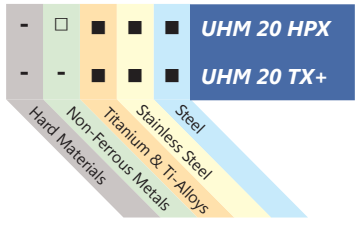
Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	α	r	Coating
7005-147256	3002-1.5-8 LV SC UHM20 HPX	7005-147631	3002-1.5-8 RV SC UHM20 HPX	1.5	8	15°	0	UHM 20 HPX
7005-042411	3002-1.5-8 LV SC UHM20 TX+	7005-042410	3002-1.5-8 RV SC UHM20 TX+	1.5	8	15°	0	UHM 20 TX+
7005-148133	3002-1.5-16 LV SC UHM20 HPX	7005-148131	3002-1.5-16 RV SC UHM20 HPX	1.5	16	15°	0	UHM 20 HPX
7005-042413	3002-1.5-16 LV SC UHM20 TX+	7005-042412	3002-1.5-16 RV SC UHM20 TX+	1.5	16	15°	0	UHM 20 TX+
7005-147258	3002-2.0-10 LV SC UHM20 HPX	7005-147633	3002-2.0-10 RV SC UHM20 HPX	2	10	15°	0	UHM 20 HPX
7005-042415	3002-2.0-10 LV SC UHM20 TX+	7005-042414	3002-2.0-10 RV SC UHM20 TX+	2	10	15°	0	UHM 20 TX+
7005-148137	3002-2.0-16 LV SC UHM20 HPX	7005-148135	3002-2.0-16 RV SC UHM20 HPX	2	16	15°	0	UHM 20 HPX
7005-042417	3002-2.0-16 LV SC UHM20 TX+	7005-042416	3002-2.0-16 RV SC UHM20 TX+	2	16	15°	0	UHM 20 TX+
7005-148141	3002-2.5-13 LV SC UHM20 HPX	7005-148139	3002-2.5-13 RV SC UHM20 HPX	2.5	13	15°	0	UHM 20 HPX
7005-042419	3002-2.5-13 LV SC UHM20 TX+	7005-042418	3002-2.5-13 RV SC UHM20 TX+	2.5	13	15°	0	UHM 20 TX+
7005-148143	3002-2.5-16 LV SC UHM20 HPX	7005-147635	3002-2.5-16 RV SC UHM20 HPX	2.5	16	15°	0	UHM 20 HPX
7005-042421	3002-2.5-16 LV SC UHM20 TX+	7005-042420	3002-2.5-16 RV SC UHM20 TX+	2.5	16	15°	0	UHM 20 TX+
7005-147641	3002-3.0-16 LV SC UHM20 HPX	7005-148145	3002-3.0-16 RV SC UHM20 HPX	3	16	15°	0	UHM 20 HPX
7005-042423	3002-3.0-16 LV SC UHM20 TX+	7005-042422	3002-3.0-16 RV SC UHM20 TX+	3	16	15°	0	UHM 20 TX+



Type-SC Chip Breaker



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended



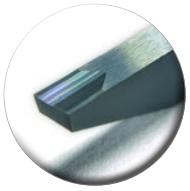
3002 Cutoff

Cut: Neutral

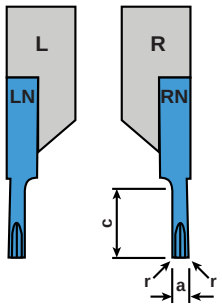
Chip Breaker: SC

Repeatability <20µm

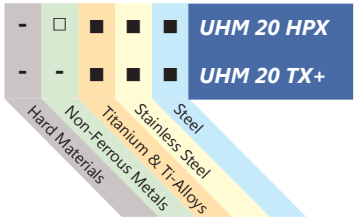
Left Hand		Right Hand		Dimensions & Features			
Item No.	Description	Item No.	Description	a	c	r	Coating
7005-148149	3002-1.5-10 LN SC UHM20 HPX	7005-148147	3002-1.5-10 RN SC UHM20 HPX	1.5	8	0.08	UHM 20 HPX
7005-185305	3002-1.5-10 LN SC UHM20 TX+	7005-042424	3002-1.5-10 RN SC UHM20 TX+	1.5	8	0.08	UHM 20 TX+
7005-148153	3002-1.5-16 LN SC UHM20 HPX	7005-148151	3002-1.5-16 RN SC UHM20 HPX	1.5	16	0.08	UHM 20 HPX
7005-042425	3002-1.5-16 LN SC UHM20 TX+	7005-154880	3002-1.5-16 RN SC UHM20 TX+	1.5	16	0.08	UHM 20 TX+
7005-148157	3002-2.0-10 LN SC UHM20 HPX	7005-148155	3002-2.0-10 RN SC UHM20 HPX	2	10	0.08	UHM 20 HPX
7005-169834	3002-2.0-10 LN SC UHM20 TX+	7005-192792	3002-2.0-10 RN SC UHM20 TX+	2	10	0.08	UHM 20 TX+
7005-148161	3002-2.0-16 LN SC UHM20 HPX	7005-148159	3002-2.0-16 RN SC UHM20 HPX	2	16	0.08	UHM 20 HPX
7005-042426	3002-2.0-16 LN SC UHM20 TX+	7005-192809	3002-2.0-16 RN SC UHM20 TX+	2	16	0.08	UHM 20 TX+
7005-148163	3002-2.5-13 LN SC UHM20 HPX	7005-114993	3002-2.5-13 RN SC UHM20 HPX	2.5	13	0.08	UHM 20 HPX
7005-042428	3002-2.5-13 LN SC UHM20 TX+	7005-042427	3002-2.5-13 RN SC UHM20 TX+	2.5	13	0.08	UHM 20 TX+
7005-148167	3002-2.5-16 LN SC UHM20 HPX	7005-148165	3002-2.5-16 RN SC UHM20 HPX	2.5	16	0.08	UHM 20 HPX
7005-042430	3002-2.5-16 LN SC UHM20 TX+	7005-042429	3002-2.5-16 RN SC UHM20 TX+	2.5	16	0.08	UHM 20 TX+
7005-148171	3002-3.0-16 LN SC UHM20 HPX	7005-148169	3002-3.0-16 RN SC UHM20 HPX	3	16	0.08	UHM 20 HPX
7005-042432	3002-3.0-16 LN SC UHM20 TX+	7005-042431	3002-3.0-16 RN SC UHM20 TX+	3	16	0.08	UHM 20 TX+



Type-SC Chip Breaker



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended



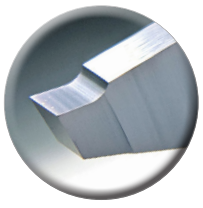
3002 Cutoff

Cut: Standard

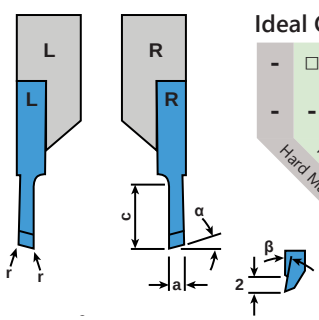
Chip Breaker: SPT

Repeatability <20µm

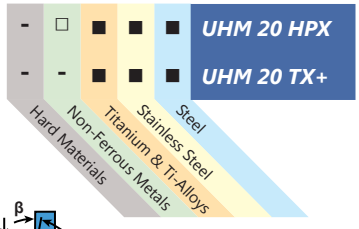
Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	a	c	α	β	r	Coating
7005-192474	3002-0.8-10 L SPT UHM20 HPX	7005-192678	3002-0.8-10 R SPT UHM20 HPX	0.8	10	15°	20°	0.00	UHM 20 HPX
7005-042438	3002-0.8-10 L SPT UHM20 TX+	7005-042435	3002-0.8-10 R SPT UHM20 TX+	0.8	10	15°	20°	0.00	UHM 20 TX+
7005-042441	3002-1.0-13 L SPT UHM20 HPX	7005-154332	3002-1.0-13 R SPT UHM20 HPX	1	13	15°	20°	0.00	UHM 20 HPX
7005-042442	3002-1.0-13 L SPT UHM20 TX+	7005-042439	3002-1.0-13 R SPT UHM20 TX+	1	13	15°	20°	0.00	UHM 20 TX+
7005-192446	3002-1.5-8 L SPT UHM20 HPX	7005-042445	3002-1.5-8 R SPT UHM20 HPX	1.5	8	15°	20°	0.00	UHM 20 TX+
7005-042450	3002-1.5-8 L SPT UHM20 TX+	7005-042446	3002-1.5-8 R SPT UHM20 TX+	1.5	8	15°	20°	0.00	UHM 20 TX+
7005-112803	3002-1.5-8 L SPT06 UHM20 HPX	7005-112799	3002-1.5-8 R SPT06 UHM20 HPX	1.5	8	15°	6°	0.05	UHM 20 HPX
7005-154800	3002-1.5-8 L SPT06 UHM20 TX+	7005-154802	3002-1.5-8 R SPT06 UHM20 TX+	1.5	8	15°	6°	0.05	UHM 20 TX+
7005-112805	3002-1.5-8 L SPT12 UHM20 HPX	7005-112801	3002-1.5-8 R SPT12 UHM20 HPX	1.5	8	15°	12°	0.05	UHM 20 HPX
7005-042447	3002-1.5-8 L SPT12 UHM20 TX+	7005-042443	3002-1.5-8 R SPT12 UHM20 TX+	1.5	8	15°	12°	0.05	UHM 20 TX+
7005-042455	3002-1.5-16 L SPT UHM20 HPX	7005-042452	3002-1.5-16 R SPT UHM20 HPX	1.5	16	15°	20°	0.00	UHM 20 HPX
7005-042456	3002-1.5-16 L SPT UHM20 TX+	7005-042453	3002-1.5-16 R SPT UHM20 TX+	1.5	16	15°	20°	0.00	UHM 20 TX+
7005-042464	3002-2.0-10 L SPT UHM20 HPX	7005-112808	3002-2.0-10 R SPT UHM20 HPX	2	10	15°	20°	0.00	UHM 20 HPX
7005-042465	3002-2.0-10 L SPT UHM20 TX+	7005-042461	3002-2.0-10 R SPT UHM20 TX+	2	10	15°	20°	0.00	UHM 20 TX+
7005-112810	3002-2.0-10 L SPT06 UHM20 HPX	7005-112807	3002-2.0-10 R SPT06 UHM20 HPX	2	10	15°	6°	0.05	UHM 20 HPX
7005-154965	3002-2.0-10 L SPT06 UHM20 TX+	7005-042457	3002-2.0-10 R SPT06 UHM20 TX+	2	10	15°	6°	0.05	UHM 20 TX+
7005-147590	3002-2.0-10 L SPT12 UHM20 HPX	7005-147589	3002-2.0-10 R SPT12 UHM20 HPX	2	10	15°	12°	0.05	UHM 20 HPX
7005-042462	3002-2.0-10 L SPT12 UHM20 TX+	7005-042458	3002-2.0-10 R SPT12 UHM20 TX+	2	10	15°	12°	0.05	UHM 20 TX+
7005-042474	3002-2.0-16 L SPT UHM20 HPX	7005-042469	3002-2.0-16 R SPT UHM20 HPX	2	16	15°	20°	0.00	UHM 20 HPX
7005-042475	3002-2.0-16 L SPT UHM20 TX+	7005-042470	3002-2.0-16 R SPT UHM20 TX+	2	16	15°	20°	0.00	UHM 20 TX+
7005-112816	3002-2.0-16 L SPT06 UHM20 HPX	7005-112812	3002-2.0-16 R SPT06 UHM20 HPX	2	16	15°	6°	0.05	UHM 20 HPX
7005-042471	3002-2.0-16 L SPT06 UHM20 TX+	7005-211301	3002-2.0-16 R SPT06 UHM20 TX+	2	16	15°	6°	0.05	UHM 20 TX+
7005-112818	3002-2.0-16 L SPT12 UHM20 HPX	7005-112814	3002-2.0-16 R SPT12 UHM20 HPX	2	16	15°	12°	0.05	UHM 20 HPX
7005-042472	3002-2.0-16 L SPT12 UHM20 TX+	7005-211302	3002-2.0-16 R SPT12 UHM20 TX+	2	16	15°	12°	0.05	UHM 20 TX+
7005-042484	3002-2.5-13 L SPT UHM20 HPX	7005-042479	3002-2.5-13 R SPT UHM20 HPX	2.5	13	15°	20°	0.00	UHM 20 HPX
7005-042485	3002-2.5-13 L SPT UHM20 TX+	7005-042480	3002-2.5-13 R SPT UHM20 TX+	2.5	13	15°	20°	0.00	UHM 20 TX+
7005-112824	3002-2.5-13 L SPT06 UHM20 HPX	7005-112820	3002-2.5-13 R SPT06 UHM20 HPX	2.5	13	15°	6°	0.05	UHM 20 HPX
7005-042481	3002-2.5-13 L SPT06 UHM20 TX+	7005-042476	3002-2.5-13 R SPT06 UHM20 TX+	2.5	13	15°	6°	0.05	UHM 20 TX+
7005-112826	3002-2.5-13 L SPT12 UHM20 HPX	7005-112822	3002-2.5-13 R SPT12 UHM20 HPX	2.5	13	15°	12°	0.05	UHM 20 HPX
7005-042482	3002-2.5-13 L SPT12 UHM20 TX+	7005-042477	3002-2.5-13 R SPT12 UHM20 TX+	2.5	13	15°	12°	0.05	UHM 20 TX+
7005-042494	3002-2.5-16 L SPT UHM20 HPX	7005-042489	3002-2.5-16 R SPT UHM20 HPX	2.5	16	15°	20°	0.00	UHM 20 HPX
7005-042495	3002-2.5-16 L SPT UHM20 TX+	7005-042490	3002-2.5-16 R SPT UHM20 TX+	2.5	16	15°	20°	0.00	UHM 20 TX+
7005-112832	3002-2.5-16 L SPT06 UHM20 HPX	7005-112828	3002-2.5-16 R SPT06 UHM20 HPX	2.5	16	15°	6°	0.05	UHM 20 HPX
7005-042491	3002-2.5-16 L SPT06 UHM20 TX+	7005-042486	3002-2.5-16 R SPT06 UHM20 TX+	2.5	16	15°	6°	0.05	UHM 20 TX+
7005-112834	3002-2.5-16 L SPT12 UHM20 HPX	7005-112830	3002-2.5-16 R SPT12 UHM20 HPX	2.5	16	15°	12°	0.05	UHM 20 HPX
7005-042492	3002-2.5-16 L SPT12 UHM20 TX+	7005-042487	3002-2.5-16 R SPT12 UHM20 TX+	2.5	16	15°	12°	0.05	UHM 20 TX+
7005-042746	3002-3.0-16 L SPT UHM20 HPX	7005-042683	3002-3.0-16 R SPT UHM20 HPX	3	16	15°	20°	0.05	UHM 20 HPX
7005-042747	3002-3.0-16 L SPT UHM20 TX+	7005-042739	3002-3.0-16 R SPT UHM20 TX+	3	16	15°	20°	0.05	UHM 20 TX+
7005-112840	3002-3.0-16 L SPT06 UHM20 HPX	7005-112836	3002-3.0-16 R SPT06 UHM20 HPX	3	16	15°	6°	0.05	UHM 20 HPX
7005-042740	3002-3.0-16 L SPT06 UHM20 TX+	7005-042506	3002-3.0-16 R SPT06 UHM20 TX+	3	16	15°	6°	0.05	UHM 20 TX+
7005-112842	3002-3.0-16 L SPT12 UHM20 HPX	7005-112838	3002-3.0-16 R SPT12 UHM20 HPX	3	16	15°	12°	0.05	UHM 20 HPX
7005-042742	3002-3.0-16 L SPT12 UHM20 TX+	7005-042507	3002-3.0-16 R SPT12 UHM20 TX+	3	16	15°	12°	0.05	UHM 20 TX+



Type-SPT Chip Breaker



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

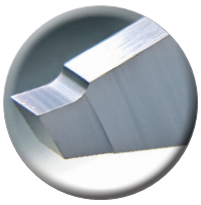


3002 Cutoff

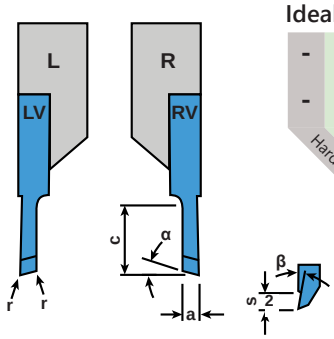
Cut: Inverted
Chip Breaker: SPT

Repeatability <20µm

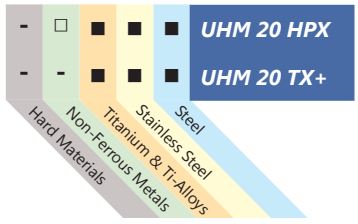
Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	a	c	α	β	r	Coating
7005-042831	3002-0.8-10 LV SPT UHM20 HPX	7005-042828	3002-0.8-10 RV SPT UHM20 HPX	0.8	10	15°	20°	0.00	UHM 20 HPX
7005-042832	3002-0.8-10 LV SPT UHM20 TX+	7005-042829	3002-0.8-10 RV SPT UHM20 TX+	0.8	10	15°	20°	0.00	UHM 20 TX+
7005-042837	3002-1.0-13 LV SPT UHM20 HPX	7005-042834	3002-1.0-13 RV SPT UHM20 HPX	1	13	15°	20°	0.00	UHM 20 HPX
7005-042838	3002-1.0-13 LV SPT UHM20 TX+	7005-042835	3002-1.0-13 RV SPT UHM20 TX+	1	13	15°	20°	0.00	UHM 20 TX+
7005-042970	3002-1.5-8 LV SPT UHM20 HPX	7005-042865	3002-1.5-8 RV SPT UHM20 HPX	1.5	8	15°	20°	0.00	UHM 20 TX+
7005-193239	3002-1.5-8 LV SPT UHM20 TX+	7005-042866	3002-1.5-8 RV SPT UHM20 TX+	1.5	8	15°	20°	0.00	UHM 20 TX+
7005-112848	3002-1.5-8 LV SPT06 UHM20 HPX	7005-112844	3002-1.5-8 RV SPT06 UHM20 HPX	1.5	8	15°	6°	0.05	UHM 20 HPX
7005-154801	3002-1.5-8 LV SPT06 UHM20 TX+	7005-154803	3002-1.5-8 RV SPT06 UHM20 TX+	1.5	8	15°	6°	0.05	UHM 20 TX+
7005-112850	3002-1.5-8 LV SPT12 UHM20 HPX	7005-112846	3002-1.5-8 RV SPT12 UHM20 HPX	1.5	8	15°	12°	0.05	UHM 20 HPX
7005-042968	3002-1.5-8 LV SPT12 UHM20 TX+	7005-042839	3002-1.5-8 RV SPT12 UHM20 TX+	1.5	8	15°	12°	0.05	UHM 20 TX+
7005-042995	3002-1.5-16 LV SPT UHM20 HPX	7005-042973	3002-1.5-16 RV SPT UHM20 HPX	1.5	16	15°	20°	0.00	UHM 20 HPX
7005-043160	3002-1.5-16 LV SPT UHM20 TX+	7005-042974	3002-1.5-16 RV SPT UHM20 TX+	1.5	16	15°	20°	0.00	UHM 20 TX+
7005-043167	3002-2.0-10 LV SPT UHM20 HPX	7005-043163	3002-2.0-10 RV SPT UHM20 HPX	2	10	15°	20°	0.00	UHM 20 HPX
7005-043168	3002-2.0-10 LV SPT UHM20 TX+	7005-043164	3002-2.0-10 RV SPT UHM20 TX+	2	10	15°	20°	0.00	UHM 20 TX+
7005-112856	3002-2.0-10 LV SPT06 UHM20 HPX	7005-112852	3002-2.0-10 RV SPT06 UHM20 HPX	2	10	15°	6°	0.05	UHM 20 HPX
7005-169259	3002-2.0-10 LV SPT06 UHM20 TX+	Call For Details	3002-2.0-10 RV SPT06 UHM20 TX+	2	10	15°	6°	0.05	UHM 20 TX+
7005-112858	3002-2.0-10 LV SPT12 UHM20 HPX	7005-112854	3002-2.0-10 RV SPT12 UHM20 HPX	2	10	15°	12°	0.05	UHM 20 HPX
7005-211300	3002-2.0-10 LV SPT12 UHM20 TX+	7005-043161	3002-2.0-10 RV SPT12 UHM20 TX+	2	10	15°	12°	0.05	UHM 20 TX+
7005-043174	3002-2.0-16 LV SPT UHM20 HPX	7005-211304	3002-2.0-16 RV SPT UHM20 HPX	2	16	15°	20°	0.00	UHM 20 HPX
7005-043175	3002-2.0-16 LV SPT UHM20 TX+	7005-211305	3002-2.0-16 RV SPT UHM20 TX+	2	16	15°	20°	0.00	UHM 20 TX+
7005-112864	3002-2.0-16 LV SPT06 UHM20 HPX	7005-112860	3002-2.0-16 RV SPT06 UHM20 HPX	2	16	15°	6°	0.05	UHM 20 HPX
7005-043171	3002-2.0-16 LV SPT06 UHM20 TX+	7005-043169	3002-2.0-16 RV SPT06 UHM20 TX+	2	16	15°	6°	0.05	UHM 20 TX+
7005-112866	3002-2.0-16 LV SPT12 UHM20 HPX	7005-112862	3002-2.0-16 RV SPT12 UHM20 HPX	2	16	15°	12°	0.05	UHM 20 HPX
7005-043172	3002-2.0-16 LV SPT12 UHM20 TX+	7005-043170	3002-2.0-16 RV SPT12 UHM20 TX+	2	16	15°	12°	0.05	UHM 20 TX+
7005-043656	3002-2.5-13 LV SPT UHM20 HPX	7005-043641	3002-2.5-13 RV SPT UHM20 HPX	2.5	13	15°	20°	0.00	UHM 20 HPX
7005-043657	3002-2.5-13 LV SPT UHM20 TX+	7005-043642	3002-2.5-13 RV SPT UHM20 TX+	2.5	13	15°	20°	0.00	UHM 20 TX+
7005-112872	3002-2.5-13 LV SPT06 UHM20 HPX	7005-112868	3002-2.5-13 RV SPT06 UHM20 HPX	2.5	13	15°	6°	0.05	UHM 20 HPX
7005-043643	3002-2.5-13 LV SPT06 UHM20 TX+	7005-043176	3002-2.5-13 RV SPT06 UHM20 TX+	2.5	13	15°	6°	0.05	UHM 20 TX+
7005-112874	3002-2.5-13 LV SPT12 UHM20 HPX	7005-112870	3002-2.5-13 RV SPT12 UHM20 HPX	2.5	13	15°	12°	0.05	UHM 20 HPX
7005-043654	3002-2.5-13 LV SPT12 UHM20 TX+	7005-043340	3002-2.5-13 RV SPT12 UHM20 TX+	2.5	13	15°	12°	0.05	UHM 20 TX+
7005-043685	3002-2.5-16 LV SPT UHM20 HPX	7005-043661	3002-2.5-16 RV SPT UHM20 HPX	2.5	16	15°	20°	0.00	UHM 20 HPX
7005-043686	3002-2.5-16 LV SPT UHM20 TX+	7005-043680	3002-2.5-16 RV SPT UHM20 TX+	2.5	16	15°	20°	0.00	UHM 20 TX+
7005-112880	3002-2.5-16 LV SPT06 UHM20 HPX	7005-112876	3002-2.5-16 RV SPT06 UHM20 HPX	2.5	16	15°	6°	0.05	UHM 20 HPX
7005-043681	3002-2.5-16 LV SPT06 UHM20 TX+	7005-043658	3002-2.5-16 RV SPT06 UHM20 TX+	2.5	16	15°	6°	0.05	UHM 20 TX+
7005-112882	3002-2.5-16 LV SPT12 UHM20 HPX	7005-112878	3002-2.5-16 RV SPT12 UHM20 HPX	2.5	16	15°	12°	0.05	UHM 20 HPX
7005-043682	3002-2.5-16 LV SPT12 UHM20 TX+	7005-043659	3002-2.5-16 RV SPT12 UHM20 TX+	2.5	16	15°	12°	0.05	UHM 20 TX+
7005-043698	3002-3.0-16 LV SPT UHM20 HPX	7005-043691	3002-3.0-16 RV SPT UHM20 HPX	3	16	15°	20°	0.05	UHM 20 HPX
7005-043699	3002-3.0-16 LV SPT UHM20 TX+	7005-043692	3002-3.0-16 RV SPT UHM20 TX+	3	16	15°	20°	0.05	UHM 20 TX+
7005-112888	3002-3.0-16 LV SPT06 UHM20 HPX	7005-112884	3002-3.0-16 RV SPT06 UHM20 HPX	3	16	15°	6°	0.05	UHM 20 HPX
7005-043695	3002-3.0-16 LV SPT06 UHM20 TX+	7005-043687	3002-3.0-16 RV SPT06 UHM20 TX+	3	16	15°	6°	0.05	UHM 20 TX+
7005-112890	3002-3.0-16 LV SPT12 UHM20 HPX	7005-112886	3002-3.0-16 RV SPT12 UHM20 HPX	3	16	15°	12°	0.05	UHM 20 HPX
7005-043696	3002-3.0-16 LV SPT12 UHM20 TX+	7005-043689	3002-3.0-16 RV SPT12 UHM20 TX+	3	16	15°	12°	0.05	UHM 20 TX+



Type-SPT Chip Breaker



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended



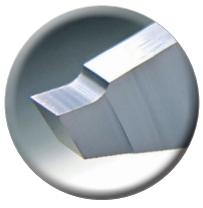
3002 Cutoff

Cut: Neutral

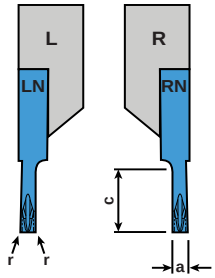
Chip Breaker: SPT

Repeatability <20µm

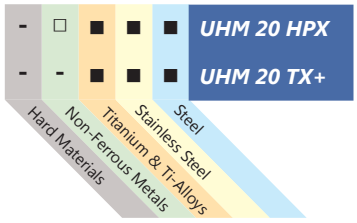
Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	β	r	Coating
7005-169573	3002-1.0-10 LN SPT UHM20 HPX	7005-043701	3002-1.0-10 RN SPT UHM20 HPX	1	10	20°	0.05	UHM 20 HPX
7005-212109	3002-1.0-10 LN SPT UHM20 TX+	7005-043705	3002-1.0-10 RN SPT UHM20 TX+	1	10	20°	0.05	UHM 20 TX+
7005-043721	3002-1.5-10 LN SPT UHM20 HPX	7005-043712	3002-1.5-10 RN SPT UHM20 HPX	1.5	10	20°	0.05	UHM 20 HPX
7005-043722	3002-1.5-10 LN SPT UHM20 TX+	7005-043713	3002-1.5-10 RN SPT UHM20 TX+	1.5	10	20°	0.05	UHM 20 TX+
7005-112896	3002-1.5-10 LN SPT06 UHM20 HPX	7005-112892	3002-1.5-10 RN SPT06 UHM20 HPX	1.5	10	6°	0.05	UHM 20 HPX
7005-211299	3002-1.5-10 LN SPT06 UHM20 TX+	7005-192810	3002-1.5-10 RN SPT06 UHM20 TX+	1.5	10	6°	0.05	UHM 20 TX+
7005-112898	3002-1.5-10 LN SPT12 UHM20 HPX	7005-112894	3002-1.5-10 RN SPT12 UHM20 HPX	1.5	10	12°	0.05	UHM 20 HPX
7005-112898	3002-1.5-10 LN SPT12 UHM20 TX+	7005-043710	3002-1.5-10 RN SPT12 UHM20 TX+	1.5	10	12°	0.05	UHM 20 TX+
7005-043727	3002-1.5-16 LN SPT UHM20 HPX	7005-043724	3002-1.5-16 RN SPT UHM20 HPX	1.5	16	20°	0.05	UHM 20 HPX
7005-043728	3002-1.5-16 LN SPT UHM20 TX+	7005-043725	3002-1.5-16 RN SPT UHM20 TX+	1.5	16	20°	0.05	UHM 20 TX+
7005-043750	3002-2.0-10 LN SPT UHM20 HPX	7005-043745	3002-2.0-10 RN SPT UHM20 HPX	2	10	20°	0.05	UHM 20 HPX
7005-043751	3002-2.0-10 LN SPT UHM20 TX+	7005-043746	3002-2.0-10 RN SPT UHM20 TX+	2	10	20°	0.05	UHM 20 TX+
7005-112904	3002-2.0-10 LN SPT06 UHM20 HPX	7005-112900	3002-2.0-10 RN SPT06 UHM20 HPX	2	10	6°	0.05	UHM 20 HPX
7005-154969	3002-2.0-10 LN SPT06 UHM20 TX+	7005-154967	3002-2.0-10 RN SPT06 UHM20 TX+	2	10	6°	0.05	UHM 20 TX+
7005-112906	3002-2.0-10 LN SPT12 UHM20 HPX	7005-112902	3002-2.0-10 RN SPT12 UHM20 HPX	2	10	12°	0.05	UHM 20 HPX
7005-043747	3002-2.0-10 LN SPT12 UHM20 TX+	7005-043743	3002-2.0-10 RN SPT12 UHM20 TX+	2	10	12°	0.05	UHM 20 TX+
7005-043763	3002-2.0-16 LN SPT UHM20 HPX	7005-043757	3002-2.0-16 RN SPT UHM20 HPX	2	16	20°	0.05	UHM 20 HPX
7005-043764	3002-2.0-16 LN SPT UHM20 TX+	7005-043759	3002-2.0-16 RN SPT UHM20 TX+	2	16	20°	0.05	UHM 20 TX+
7005-112912	3002-2.0-16 LN SPT06 UHM20 HPX	7005-112908	3002-2.0-16 RN SPT06 UHM20 HPX	2	16	6°	0.05	UHM 20 HPX
7005-194069	3002-2.0-16 LN SPT06 UHM20 TX+	7005-043752	3002-2.0-16 RN SPT06 UHM20 TX+	2	16	6°	0.05	UHM 20 TX+
7005-112914	3002-2.0-16 LN SPT12 UHM20 HPX	7005-112910	3002-2.0-16 RN SPT12 UHM20 HPX	2	16	12°	0.05	UHM 20 HPX
7005-043760	3002-2.0-16 LN SPT12 UHM20 TX+	7005-043753	3002-2.0-16 RN SPT12 UHM20 TX+	2	16	12°	0.05	UHM 20 TX+
7005-044066	3002-2.5-13 LN SPT UHM20 HPX	7005-043768	3002-2.5-13 RN SPT UHM20 HPX	2.5	13	20°	0.05	UHM 20 HPX
7005-044067	3002-2.5-13 LN SPT UHM20 TX+	7005-043769	3002-2.5-13 RN SPT UHM20 TX+	2.5	13	20°	0.05	UHM 20 TX+
7005-112918	3002-2.5-13 LN SPT06 UHM20 HPX	7005-114992	3002-2.5-13 RN SPT06 UHM20 HPX	2.5	13	6°	0.05	UHM 20 HPX
7005-043770	3002-2.5-13 LN SPT06 UHM20 TX+	7005-043765	3002-2.5-13 RN SPT06 UHM20 TX+	2.5	13	6°	0.05	UHM 20 TX+
7005-112920	3002-2.5-13 LN SPT12 UHM20 HPX	7005-112916	3002-2.5-13 RN SPT12 UHM20 HPX	2.5	13	12°	0.05	UHM 20 HPX
7005-043771	3002-2.5-13 LN SPT12 UHM20 TX+	7005-043766	3002-2.5-13 RN SPT12 UHM20 TX+	2.5	13	12°	0.05	UHM 20 TX+
7005-044392	3002-2.5-16 LN SPT UHM20 HPX	7005-044337	3002-2.5-16 RN SPT UHM20 HPX	2.5	16	20°	0.05	UHM 20 HPX
7005-044393	3002-2.5-16 LN SPT UHM20 TX+	7005-044388	3002-2.5-16 RN SPT UHM20 TX+	2.5	16	20°	0.05	UHM 20 TX+
7005-112926	3002-2.5-16 LN SPT06 UHM20 HPX	7005-112922	3002-2.5-16 RN SPT06 UHM20 HPX	2.5	16	6°	0.05	UHM 20 HPX
7005-044389	3002-2.5-16 LN SPT06 UHM20 TX+	7005-044068	3002-2.5-16 RN SPT06 UHM20 TX+	2.5	16	6°	0.05	UHM 20 TX+
7005-112928	3002-2.5-16 LN SPT12 UHM20 HPX	7005-112924	3002-2.5-16 RN SPT12 UHM20 HPX	2.5	16	12°	0.05	UHM 20 HPX
7005-044390	3002-2.5-16 LN SPT12 UHM20 TX+	7005-044069	3002-2.5-16 RN SPT12 UHM20 TX+	2.5	16	12°	0.05	UHM 20 TX+
7005-044401	3002-3.0-16 LN SPT UHM20 HPX	7005-044397	3002-3.0-16 RN SPT UHM20 HPX	3	16	20°	0.05	UHM 20 HPX
7005-044402	3002-3.0-16 LN SPT UHM20 TX+	7005-044398	3002-3.0-16 RN SPT UHM20 TX+	3	16	20°	0.05	UHM 20 TX+
7005-112934	3002-3.0-16 LN SPT06 UHM20 HPX	7005-112930	3002-3.0-16 RN SPT06 UHM20 HPX	3	16	6°	0.05	UHM 20 HPX
7055-194068	3002-3.0-16 LN SPT06 UHM20 TX+	7005-044394	3002-3.0-16 RN SPT06 UHM20 TX+	3	16	6°	0.05	UHM 20 TX+
7005-112936	3002-3.0-16 LN SPT12 UHM20 HPX	7005-112932	3002-3.0-16 RN SPT12 UHM20 HPX	3	16	12°	0.05	UHM 20 HPX
7005-044399	3002-3.0-16 LN SPT12 UHM20 TX+	7005-044395	3002-3.0-16 RN SPT12 UHM20 TX+	3	16	12°	0.05	UHM 20 TX+



Type-SPT Chip Breaker



Ideal Cutting Materials



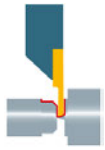
■ Preferred Application
□ Possible Application
- Application Not Recommended



3002 Turn & Cutoff
Cut: Standard
Geometry: TOP Wiper

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	b	r	Coating
7005-148175	3002-2.0-10 L TOP 015 UHM20 HPX	7005-148173	3002-2.0-10 R TOP 015 UHM20 HPX	2	10	.3	.15	UHM 20 HPX
7005-044404	3002-2.0-10 L TOP 015 UHM20 TX+	7005-044403	3002-2.0-10 R TOP 015 UHM20 TX+	2	10	.3	.15	UHM 20 TX+



3002 Turn & Cutoff
Cut: Standard
Geometry: TOP Wiper & SC Chip Breaker

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	b	r	Coating
7005-148183	3002-2.0-10 L SC TOP 015 UHM20 HPX	7005-148181	3002-2.0-10 R SC TOP 015 UHM20 HPX	2	10	.3	.15	UHM 20 HPX
7005-044408	3002-2.0-10 L SC TOP 015 UHM20 TX+	7005-044407	3002-2.0-10 R SC TOP 015 UHM20 TX+	2	10	.3	.15	UHM 20 TX+



3002 Turn & Cutoff
Cut: Inverted
Geometry: TOP Wiper

Repeatability <20µm

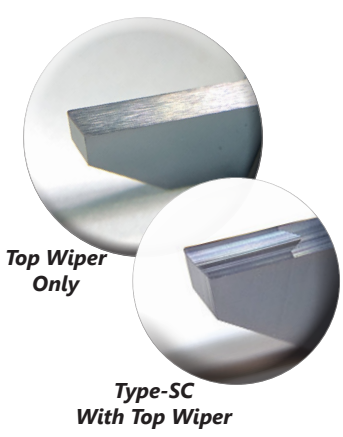
Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	b	r	Coating
7005-148179	3002-2.0-10 LV TOP 015 UHM20 HPX	7005-148177	3002-2.0-10 RV TOP 015 UHM20 HPX	2	10	.3	.15	UHM 20 HPX
7005-044406	3002-2.0-10 LV TOP 015 UHM20 TX+	7005-044405	3002-2.0-10 RV TOP 015 UHM20 TX+	2	10	.3	.15	UHM 20 TX+

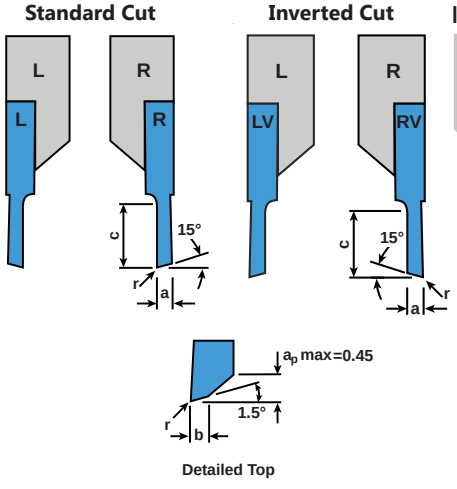


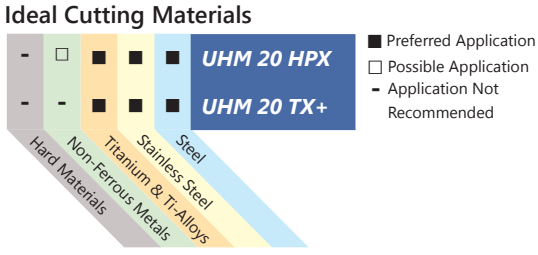
3002 Turn & Cutoff
Cut: Inverted
Geometry: TOP Wiper & SC Chip Breaker

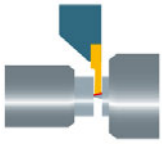
Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	b	r	Coating
7005-148187	3002-2.0-10 LV SC TOP 015 UHM20 HPX	7005-148185	3002-2.0-10 RV SC TOP 015 UHM20 HPX	2	10	.3	.15	UHM 20 HPX
7005-154656	3002-2.0-10 LV SC TOP 015 UHM20 TX+	7005-044409	3002-2.0-10 RV SC TOP 015 UHM20 TX+	2	10	.3	.15	UHM 20 TX+







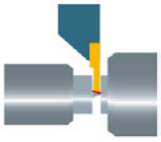


3002 Cutoff
Cut: Standard
Geometry: Slim & Deep

Great for getting super close to the guide bushing to cut off very short parts while reducing deflection.

Repeatability = R : ■<10µm, ■<20µm

Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	R	a	a_1	c	α	r	Coating
7005-042224	3002-0.5-2.5-16 L G20 UHM20 HPX	7005-042221	3002-0.5-2.5-16 R G20 UHM20 HPX	■	0.5	1.9	2.5	20°	0	UHM 20 HPX
7005-042225	3002-0.5-2.5-16 L G20 UHM20 TX+	7005-042222	3002-0.5-2.5-16 R G20 UHM20 TX+	■	0.5	1.9	2.5	20°	0	UHM 20 TX+
7005-148097	3002-0.8-6-16 L UHM20 HPX	7005-148095	3002-0.8-6-16 R UHM20 HPX	■	0.8	2.0	6.0	15°	0	UHM 20 HPX
7005-042227	3002-0.8-6-16 L UHM20 TX+	7005-042226	3002-0.8-6-16 R UHM20 TX+	■	0.8	2.0	6.0	15°	0	UHM 20 TX+
7005-152857	3002-1.0-6-16 L UHM20 HPX	7005-154334	3002-1.0-6-16 R UHM20 HPX	■	1.0	2.2	6.0	15°	0	UHM 20 HPX
7005-152858	3002-1.0-6-16 L UHM20 TX+	7005-042228	3002-1.0-6-16 R UHM20 TX+	■	1.0	2.2	6.0	15°	0	UHM 20 TX+
7005-148101	3002-1.2-6-16 L UHM20 HPX	7005-148099	3002-1.2-6-16 R UHM20 HPX	■	1.2	2.4	6.0	15°	0	UHM 20 HPX
7005-042230	3002-1.2-6-16 L UHM20 TX+	7005-042229	3002-1.2-6-16 R UHM20 TX+	■	1.2	2.4	6.0	15°	0	UHM 20 TX+

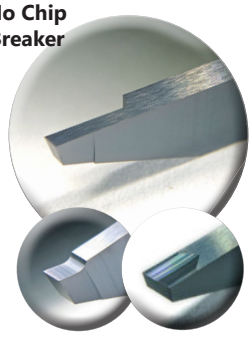


3002 Cutoff
Cut: Inverted
Geometry: Slim & Deep

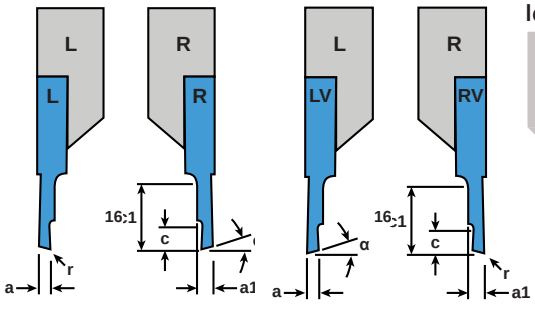
Repeatability = R : ■<10µm, ■<20µm

Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	R	a	a_1	c	α	r	Coating
7005-042235	3002-0.5-2.5-16 LV G20 UHM20 HPX	7005-042232	3002-0.5-2.5-16 RV G20 UHM20 HPX	■	0.5	1.9	2.5	20°	0	UHM 20 HPX
7005-042236	3002-0.5-2.5-16 LV G20 UHM20 TX+	7005-042233	3002-0.5-2.5-16 RV G20 UHM20 TX+	■	0.5	1.9	2.5	20°	0	UHM 20 TX+
7005-148104	3002-0.8-6-16 LV UHM20 HPX	7005-148103	3002-0.8-6-16 RV UHM20 HPX	■	0.8	2.0	6.0	15°	0	UHM 20 HPX
7005-042238	3002-0.8-6-16 LV UHM20 TX+	7005-042237	3002-0.8-6-16 RV UHM20 TX+	■	0.8	2.0	6.0	15°	0	UHM 20 TX+
7005-152863	3002-1.0-6-16 LV UHM20 HPX	7005-152860	3002-1.0-6-16 RV UHM20 HPX	■	1.0	2.2	6.0	15°	0	UHM 20 HPX
7005-152864	3002-1.0-6-16 LV UHM20 TX+	7005-152861	3002-1.0-6-16 RV UHM20 TX+	■	1.0	2.2	6.0	15°	0	UHM 20 TX+
7005-148108	3002-1.2-6-16 LV UHM20 HPX	7005-148107	3002-1.2-6-16 RV UHM20 HPX	■	1.2	2.4	6.0	15°	0	UHM 20 HPX
7005-042240	3002-1.2-6-16 LV UHM20 TX+	7005-042239	3002-1.2-6-16 RV UHM20 TX+	■	1.2	2.4	6.0	15°	0	UHM 20 TX+

No Chip Breaker



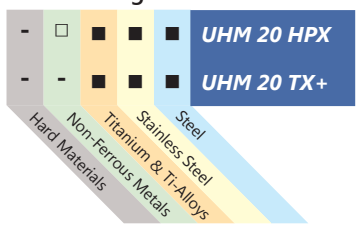
Type-SPT Chip Breaker **Type-SC Chip Breaker**



Standard Cut **Inverted Cut**

Available in Type-SC and Type-SPT geometry as well. Contact us or visit www.genswiss.com for additional details.

Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended



3002 Cutoff
Cut: Standard
Chip Breaker: GS

Repeatability <50µm

Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	a	c	α	r	Edge	Coating
7005-113135	3002-2.0-10 EL GS UHM20 HPX	7005-113132	3002-2.0-10 ER GS UHM20 HPX	2.0	10	15°	0.2	Honed (E)	UHM 20 HPX
7005-044410	3002-2.0-10 EL GS UHM20 TX+	7005-154538	3002-2.0-10 ER GS UHM20 TX+	2.0	10	15°	0.2	Honed (E)	UHM 20 TX+
7005-153047	3002-2.0-10 FL GS UHM20 HPX	7005-153045	3002-2.0-10 FR GS UHM20 HPX	2.0	10	15°	0.2	Sharp (F)	UHM 20 HPX
7005-044413	3002-2.0-10 FL GS UHM20 TX+	7005-192820	3002-2.0-10 FR GS UHM20 TX+	2.0	10	15°	0.2	Sharp (F)	UHM 20 TX+



3002 Cutoff
Cut: Inverted
Chip Breaker: GS

Repeatability <50µm

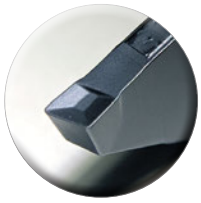
Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	a	c	α	r	Edge	Coating
7005-113904	3002-2.0-10 ELV GS UHM20 HPX	7005-113902	3002-2.0-10 ERV GS UHM20 HPX	2.0	10	15°	0.2	Honed (E)	UHM 20 HPX
7005-044412	3002-2.0-10 ELV GS UHM20 TX+	7005-044415	3002-2.0-10 ERV GS UHM20 TX+	2.0	10	15°	0.2	Honed (E)	UHM 20 TX+
7005-153051	3002-2.0-10 FLV GS UHM20 HPX	7005-153049	3002-2.0-10 FRV GS UHM20 HPX	2.0	10	15°	0.2	Sharp (F)	UHM 20 HPX
7005-044415	3002-2.0-10 FLV GS UHM20 TX+	7005-044414	3002-2.0-10 FRV GS UHM20 TX+	2.0	10	15°	0.2	Sharp (F)	UHM 20 TX+



3002 Cutoff
Cut: Neutral
Chip Breaker: GS

Repeatability <50µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	r	Edge	Coating
7005-116977	3002-2.0-10 ELN GS UHM20 HPX	7005-116978	3002-2.0-10 ERN GS UHM20 HPX	2.0	10	0.2	Honed (E)	UHM 20 HPX
7005-192291	3002-2.0-10 ELN GS UHM20 TX+	7005-192003	3002-2.0-10 ERN GS UHM20 TX+	2.0	10	0.2	Honed (E)	UHM 20 TX+
7005-153057	3002-2.0-10 FLN GS UHM20 HPX	7005-153055	3002-2.0-10 FRN GS UHM20 HPX	2.0	10	0.2	Sharp (F)	UHM 20 HPX
7005-192656	3002-2.0-10 FLN GS UHM20 TX+	7005-192657	3002-2.0-10 FRN GS UHM20 TX+	2.0	10	0.2	Sharp (F)	UHM 20 TX+



Type-GS Chip Breaker

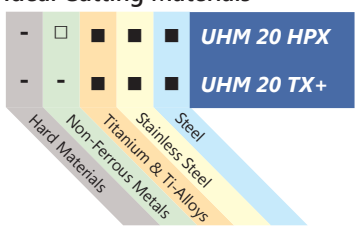


E Edge
Round Cutting Edge



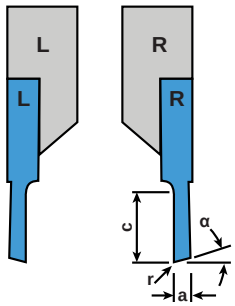
F Edge
Sharp Cutting Edge

Ideal Cutting Materials

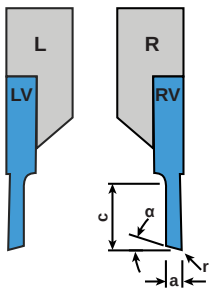


■ Preferred Application
□ Possible Application
- Application Not Recommended

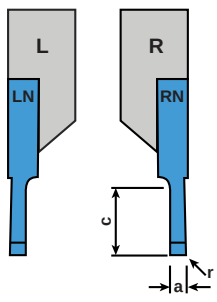
Standard Cut



Inverted Cut



Neutral Cut

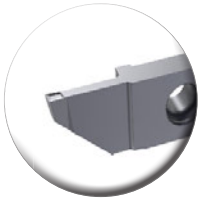




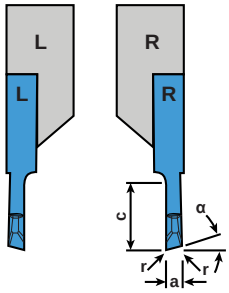
3002 Cutoff
Cut: Standard
Chip Breaker: GS12

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	α	r	Coating
7005-152211	3002-1.5-10 FL GS12 UHM20 HPX	7005-191975	3002-1.5-10 FR GS12 UHM20 HPX	1.5	10	7°	0.15	UHM 20 HPX
7005-152872	3002-1.5-10 FL GS12 UHM20 TX+	7005-152871	3002-1.5-10 FR GS12 UHM20 TX+	1.5	10	7°	0.15	UHM 20 TX+
7005-152217	3002-1.5-16 FL GS12 UHM20 HPX	7005-152214	3002-1.5-16 FR GS12 UHM20 HPX	1.5	16	7°	0.15	UHM 20 HPX
7005-152874	3002-1.5-16 FL GS12 UHM20 TX+	7005-152873	3002-1.5-16 FR GS12 UHM20 TX+	1.5	16	7°	0.15	UHM 20 TX+
7005-152220	3002-2.0-10 FL GS12 UHM20 HPX	7005-191976	3002-2.0-10 FR GS12 UHM20 HPX	2.0	10	7°	0.2	UHM 20 HPX
7005-152876	3002-2.0-10 FL GS12 UHM20 TX+	7005-152875	3002-2.0-10 FR GS12 UHM20 TX+	2.0	10	7°	0.2	UHM 20 TX+
7005-152226	3002-2.0-16 FL GS12 UHM20 HPX	7005-152223	3002-2.0-16 FR GS12 UHM20 HPX	2.0	16	7°	0.2	UHM 20 HPX
7005-152879	3002-2.0-16 FL GS12 UHM20 TX+	7005-152878	3002-2.0-16 FR GS12 UHM20 TX+	2.0	16	7°	0.2	UHM 20 TX+
7005-152229	3002-2.5-13 FL GS12 UHM20 HPX	7005-191977	3002-2.5-13 FR GS12 UHM20 HPX	2.5	13	7°	0.2	UHM 20 HPX
7005-152881	3002-2.5-13 FL GS12 UHM20 TX+	7005-152880	3002-2.5-13 FR GS12 UHM20 TX+	2.5	13	7°	0.2	UHM 20 TX+
7005-152235	3002-2.5-16 FL GS12 UHM20 HPX	7005-152232	3002-2.5-16 FR GS12 UHM20 HPX	2.5	16	7°	0.2	UHM 20 HPX
7005-152883	3002-2.5-16 FL GS12 UHM20 TX+	7005-152882	3002-2.5-16 FR GS12 UHM20 TX+	2.5	16	7°	0.2	UHM 20 TX+
7005-152238	3002-3.0-16 FL GS12 UHM20 HPX	7005-191978	3002-3.0-16 FR GS12 UHM20 HPX	3.0	16	7°	0.2	UHM 20 HPX
7005-152885	3002-3.0-16 FL GS12 UHM20 TX+	7005-152884	3002-3.0-16 FR GS12 UHM20 TX+	3.0	16	7°	0.2	UHM 20 TX+

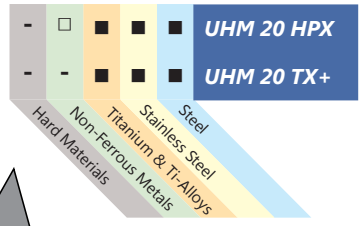


Type-GS12
Chip Breaker



F Edge
Sharp Cutting Edge

Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended



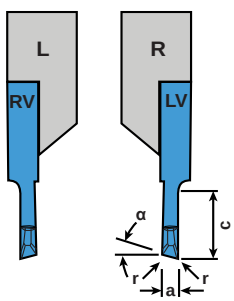
3002 Cutoff
Cut: Inverted
Chip Breaker: GS12

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	α	r	Coating
7005-152241	3002-1.5-10 FLV GS12 UHM20 HPX	7005-191979	3002-1.5-10 FRV GS12 UHM20 HPX	1.5	10	7°	0.15	UHM 20 HPX
7005-152887	3002-1.5-10 FLV GS12 UHM20 TX+	7005-152886	3002-1.5-10 FRV GS12 UHM20 TX+	1.5	10	7°	0.15	UHM 20 TX+
7005-152247	3002-1.5-16 FLV GS12 UHM20 HPX	7005-152244	3002-1.5-16 FRV GS12 UHM20 HPX	1.5	16	7°	0.15	UHM 20 HPX
7005-152889	3002-1.5-16 FLV GS12 UHM20 TX+	7005-152888	3002-1.5-16 FRV GS12 UHM20 TX+	1.5	16	7°	0.15	UHM 20 TX+
7005-152250	3002-2.0-10 FLV GS12 UHM20 HPX	7005-191980	3002-2.0-10 FRV GS12 UHM20 HPX	2.0	10	7°	0.2	UHM 20 HPX
7005-152891	3002-2.0-10 FLV GS12 UHM20 TX+	7005-152890	3002-2.0-10 FRV GS12 UHM20 TX+	2.0	10	7°	0.2	UHM 20 TX+
7005-152256	3002-2.0-16 FLV GS12 UHM20 HPX	7005-152253	3002-2.0-16 FRV GS12 UHM20 HPX	2.0	16	7°	0.2	UHM 20 HPX
7005-152893	3002-2.0-16 FLV GS12 UHM20 TX+	7005-152892	3002-2.0-16 FRV GS12 UHM20 TX+	2.0	16	7°	0.2	UHM 20 TX+
7005-152259	3002-2.5-13 FLV GS12 UHM20 HPX	7005-191981	3002-2.5-13 FRV GS12 UHM20 HPX	2.5	13	7°	0.2	UHM 20 HPX
7005-152895	3002-2.5-13 FLV GS12 UHM20 TX+	7005-152894	3002-2.5-13 FRV GS12 UHM20 TX+	2.5	13	7°	0.2	UHM 20 TX+
7005-152265	3002-2.5-16 FLV GS12 UHM20 HPX	7005-152262	3002-2.5-16 FRV GS12 UHM20 HPX	2.5	16	7°	0.2	UHM 20 HPX
7005-152897	3002-2.5-16 FLV GS12 UHM20 TX+	7005-152896	3002-2.5-16 FRV GS12 UHM20 TX+	2.5	16	7°	0.2	UHM 20 TX+
7005-152268	3002-3.0-16 FLV GS12 UHM20 HPX	7005-191982	3002-3.0-16 FRV GS12 UHM20 HPX	3.0	16	7°	0.2	UHM 20 HPX
7005-152899	3002-3.0-16 FLV GS12 UHM20 TX+	7005-152898	3002-3.0-16 FRV GS12 UHM20 TX+	3.0	16	7°	0.2	UHM 20 TX+

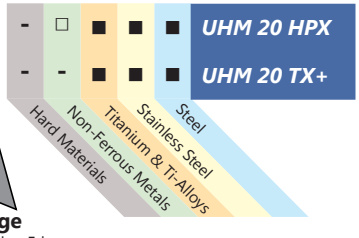


Type-GS12
Chip Breaker



F Edge
Sharp Cutting Edge

Ideal Cutting Materials



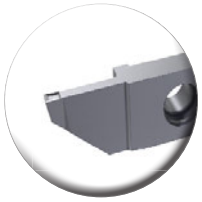
■ Preferred Application
□ Possible Application
- Application Not Recommended



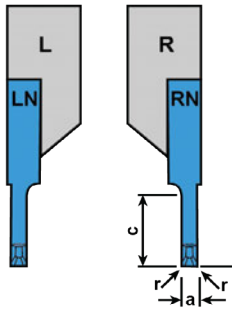
3002 Cutoff
Cut: Neutral
Chip Breaker: GS12

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	r	α	Coating
7005-211207	3002-1.0-10 FLN GS12 UHM20 HPX	7005-211203	3002-1.0-10 FRN GS12 UHM20 HPX	1.0	10	0.05	0.05mm/.0019in	UHM 20 HPX
7005-211208	3002-1.0-10 FLN GS12 UHM20 TX+	7005-211204	3002-1.0-10 FRN GS12 UHM20 TX+	1.0	10	0.05	0.05mm/.0019in	UHM 20 TX+
7005-211236	3002-1.0-16 FLN GS12 UHM20 HPX	7005-211210	3002-1.0-16 FRN GS12 UHM20 HPX	1.0	16	0.05	0.05mm/.0019in	UHM 20 HPX
7005-211237	3002-1.0-16 FLN GS12 UHM20 TX+	7005-211211	3002-1.0-16 FRN GS12 UHM20 TX+	1.0	16	0.05	0.05mm/.0019in	UHM 20 TX+
7005-152807	3002-1.5-10 FLN GS12 UHM20 HPX	7005-152803	3002-1.5-10 FRN GS12 UHM20 HPX	1.5	10	0.15	0.05mm/.0019in	UHM 20 HPX
7005-152808	3002-1.5-10 FLN GS12 UHM20 TX+	7005-152804	3002-1.5-10 FRN GS12 UHM20 TX+	1.5	10	0.15	0.05mm/.0019in	UHM 20 TX+
7005-191992	3002-1.5-16 FLN GS12 UHM20 HPX	7005-191989	3002-1.5-16 FRN GS12 UHM20 HPX	1.5	16	0.15	0.05mm/.0019in	UHM 20 HPX
7005-193326	3002-1.5-16 FLN GS12 UHM20 TX+	7005-193325	3002-1.5-16 FRN GS12 UHM20 TX+	1.5	16	0.15	0.05mm/.0019in	UHM 20 TX+
7005-191995	3002-2.0-10 FLN GS12 UHM20 HPX	7005-191972	3002-2.0-10 FRN GS12 UHM20 HPX	2.0	10	0.2	0.05mm/.0019in	UHM 20 HPX
7005-193303	3002-2.0-10 FLN GS12 UHM20 TX+	7005-193302	3002-2.0-10 FRN GS12 UHM20 TX+	2.0	10	0.2	0.05mm/.0019in	UHM 20 TX+
7005-152196	3002-2.0-16 FLN GS12 UHM20 HPX	7005-152193	3002-2.0-16 FRN GS12 UHM20 HPX	2.0	16	0.2	0.05mm/.0019in	UHM 20 HPX
7005-193328	3002-2.0-16 FLN GS12 UHM20 TX+	7005-193327	3002-2.0-16 FRN GS12 UHM20 TX+	2.0	16	0.2	0.05mm/.0019in	UHM 20 TX+
7005-152199	3002-2.5-13 FLN GS12 UHM20 HPX	7005-191973	3002-2.5-13 FRN GS12 UHM20 HPX	2.5	13	0.2	0.05mm/.0019in	UHM 20 HPX
7005-193330	3002-2.5-13 FLN GS12 UHM20 TX+	7005-193329	3002-2.5-13 FRN GS12 UHM20 TX+	2.5	13	0.2	0.05mm/.0019in	UHM 20 TX+
7005-152205	3002-2.5-16 FLN GS12 UHM20 HPX	7005-152202	3002-2.5-16 FRN GS12 UHM20 HPX	2.5	16	0.2	0.05mm/.0019in	UHM 20 HPX
7005-193332	3002-2.5-16 FLN GS12 UHM20 TX+	7005-193331	3002-2.5-16 FRN GS12 UHM20 TX+	2.5	16	0.2	0.05mm/.0019in	UHM 20 TX+
7005-152208	3002-3.0-16 FLN GS12 UHM20 HPX	7005-191974	3002-3.0-16 FRN GS12 UHM20 HPX	3.0	16	0.2	0.05mm/.0019in	UHM 20 HPX
7005-193334	3002-3.0-16 FLN GS12 UHM20 TX+	7005-193333	3002-3.0-16 FRN GS12 UHM20 TX+	3.0	16	0.2	0.05mm/.0019in	UHM 20 TX+



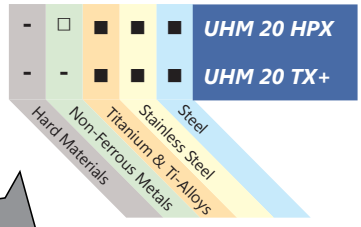
Type-GS12
Chip Breaker





F Edge
Sharp Cutting Edge

Ideal Cutting Materials



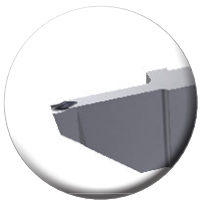
■ Preferred Application
□ Possible Application
- Application Not Recommended



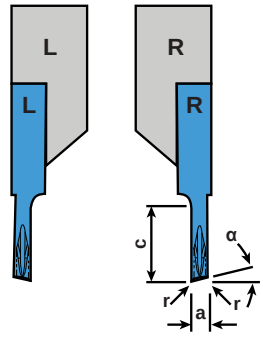
3002 Cutoff
Cut: Standard
Chip Breaker: GT20

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	r	α	Coating
7005-211087	3002-1.5-10 EL GT20 UHM20 HPX	7005-211083	3002-1.5-10 ER GT20 UHM20 HPX	1.5	10	0.15	7°	UHM 20 HPX
7005-211088	3002-1.5-10 EL GT20 UHM20 TX+	7005-211084	3002-1.5-10 ER GT20 UHM20 TX+	1.5	10	0.15	7°	UHM 20 TX+
7005-211095	3002-2.0-16 EL GT20 UHM20 HPX	7005-211091	3002-2.0-16 ER GT20 UHM20 HPX	2.0	16	0.2	7°	UHM 20 HPX
7005-211096	3002-2.0-16 EL GT20 UHM20 TX+	7005-211092	3002-2.0-16 ER GT20 UHM20 TX+	2.0	16	0.2	7°	UHM 20 TX+



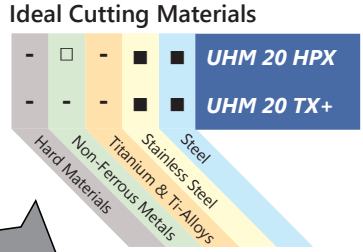
Type-GT20
Chip Breaker





E Edge
Round Cutting Edge

Ideal Cutting Materials



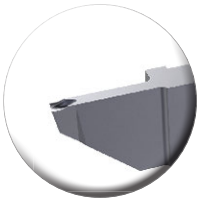
■ Preferred Application
□ Possible Application
- Application Not Recommended



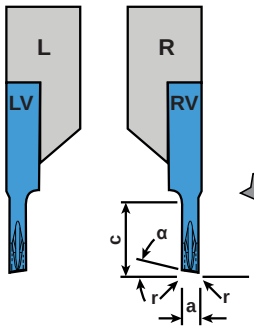
3002 Cutoff
Cut: Inverted
Chip Breaker: GT20

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	r	α	Coating
7005-211103	3002-1.5-10 ELV GT20 UHM20 HPX	7005-211099	3002-1.5-10 ERV GT20 UHM20 HPX	1.5	10	0.15	7°	UHM 20 HPX
7005-211104	3002-1.5-10 ELV GT20 UHM20 TX+	7005-211100	3002-1.5-10 ERV GT20 UHM20 TX+	1.5	10	0.15	7°	UHM 20 TX+
7005-211111	3002-2.0-16 ELV GT20 UHM20 HPX	7005-211107	3002-2.0-16 ERV GT20 UHM20 HPX	2.0	16	0.2	7°	UHM 20 HPX
7005-211112	3002-2.0-16 ELV GT20 UHM20 TX+	7005-211108	3002-2.0-16 ERV GT20 UHM20 TX+	2.0	16	0.2	7°	UHM 20 TX+



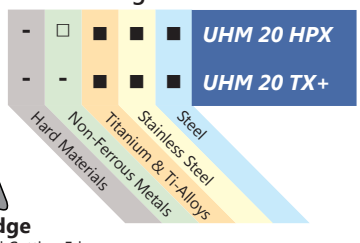
Type-GT20
Chip Breaker





E Edge
Round Cutting Edge

Ideal Cutting Materials



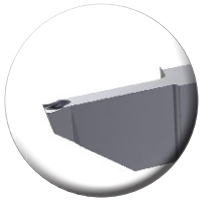
■ Preferred Application
□ Possible Application
- Application Not Recommended



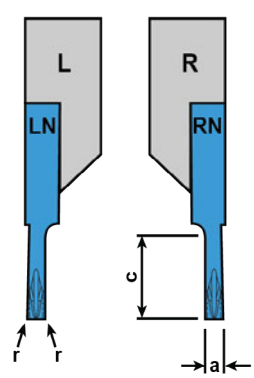
3002 Cutoff
Cut: Neutral
Chip Breaker: GT20

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	r	α	Coating
7005-211242	3002-1.0-10 ELN GT20 UHM20 HPX	7005-211239	3002-1.0-10 ERN GT20 UHM20 HPX	1.0	10	0.05		UHM 20 HPX
7005-211243	3002-1.0-10 ELN GT20 UHM20 TX+	7005-211240	3002-1.0-10 ERN GT20 UHM20 TX+	1.0	10	0.05		UHM 20 TX+
7005-211248	3002-1.0-16 ELN GT20 UHM20 HPX	7005-211245	3002-1.0-16 ERN GT20 UHM20 HPX	1.0	16	0.05		UHM 20 HPX
7005-211249	3002-1.0-16 ELN GT20 UHM20 TX+	7005-211246	3002-1.0-16 ERN GT20 UHM20 TX+	1.0	16	0.05		UHM 20 TX+
7005-152955	3002-1.5-10 ELN GT20 UHM20 HPX	7005-152952	3002-1.5-10 ERN GT20 UHM20 HPX	1.5	10	0.15		UHM 20 HPX
7005-152956	3002-1.5-10 ELN GT20 UHM20 TX+	7005-152953	3002-1.5-10 ERN GT20 UHM20 TX+	1.5	10	0.15		UHM 20 TX+
7005-152961	3002-2.0-16 ELN GT20 UHM20 HPX	7005-152958	3002-2.0-16 ERN GT20 UHM20 HPX	2.0	16	0.2		UHM 20 HPX
7005-152962	3002-2.0-16 ELN GT20 UHM20 TX+	7005-152959	3002-2.0-16 ERN GT20 UHM20 TX+	2.0	16	0.2		UHM 20 TX+



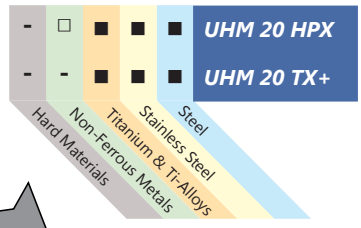
Type-GT20
Chip Breaker





E Edge
Round Cutting Edge

Ideal Cutting Materials

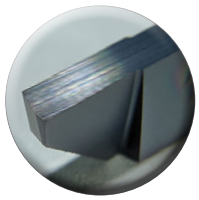


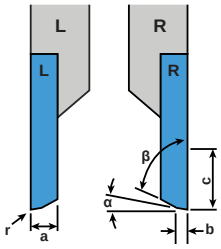
■ Preferred Application
□ Possible Application
- Application Not Recommended

3003 Front Turn
Cut: Standard
Chip Breaker: GM20

Repeatability <20µm

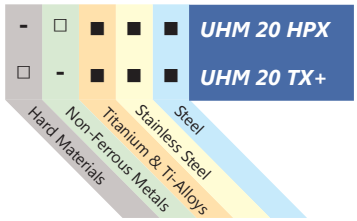
Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	a	b	c	α	β	r	Coating
7005-148191	3003-3.4-8 L UHM20 HPX	7005-148189	3003-3.4-8 R UHM20 HPX	3.4	1.0	8.0	3°	70°	0.00	UHM 20 HPX
7005-044417	3003-3.4-8 L UHM20 TX+	7005-044416	3003-3.4-8 R UHM20 TX+	3.4	1.0	8.0	3°	70°	0.00	UHM 20 TX+





E Edge
Round Cutting Edge

Ideal Cutting Materials

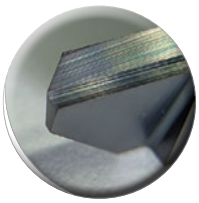


■ Preferred Application
□ Possible Application
- Application Not Recommended

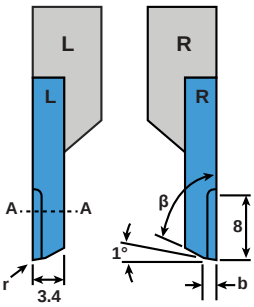
3003 Front Turn
Cut: Standard
Chip Breaker: SP With TOP Wiper

Repeatability <20µm

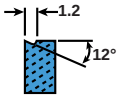
Left Hand		Right Hand		Dimensions & Features			
Item No.	Description	Item No.	Description	b	β	r	Coating
7005-148195	3003-3.4-8 L SP U TOP ZZ UHM20 HPX	7005-148193	3003-3.4-8 R SP U TOP ZZ UHM20 HPX	0.2	82°	0.00	UHM 20 HPX
7005-044419	3003-3.4-8 L SP U TOP ZZ UHM20 TX+	7005-044418	3003-3.4-8 R SP U TOP ZZ UHM20 TX+	0.2	82°	0.00	UHM 20 TX+
7005-148199	3003-3.4-8 L SP U TOP 45008 UHM20 HPX	7005-148197	3003-3.4-8 R SP U TOP 45008 UHM20 HPX	1.2	45°	0.08	UHM 20 HPX
7005-044421	3003-3.4-8 L SP U TOP 45008 UHM20 TX+	7005-044420	3003-3.4-8 R SP U TOP 45008 UHM20 TX+	1.2	45°	0.08	UHM 20 TX+
7005-148203	3003-3.4-8 L SP U TOP 45015 UHM20 HPX	7005-148201	3003-3.4-8 R SP U TOP 45015 UHM20 HPX	1.2	45°	0.15	UHM 20 HPX
7005-044422	3003-3.4-8 L SP U TOP 45015 UHM20 TX+	7005-154212	3003-3.4-8 R SP U TOP 45015 UHM20 TX+	1.2	45°	0.15	UHM 20 TX+



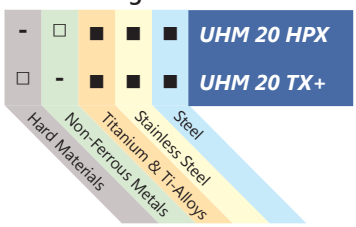
Type-SP Chip Breaker With TOP Wiper



A–A



Ideal Cutting Materials

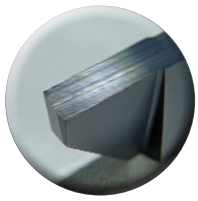


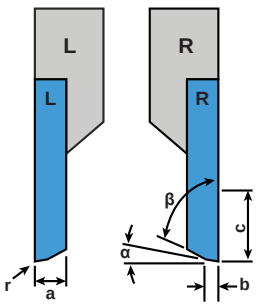
■ Preferred Application
□ Possible Application
- Application Not Recommended

3003 Front Turn
Cut: Standard
Chip Breaker: None

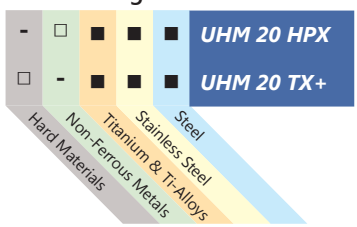
Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	a	b	c	α	β	r	Coating
7005-148191	3003-3.4-8 L UHM20 HPX	7005-148189	3003-3.4-8 R UHM20 HPX	3.4	1.0	8.0	3°	70°	0.00	UHM 20 HPX
7005-044417	3003-3.4-8 L UHM20 TX+	7005-044416	3003-3.4-8 R UHM20 TX+	3.4	1.0	8.0	3°	70°	0.00	UHM 20 TX+





Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

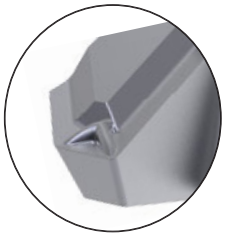


3003 Front Turn, Facing & Back Turning

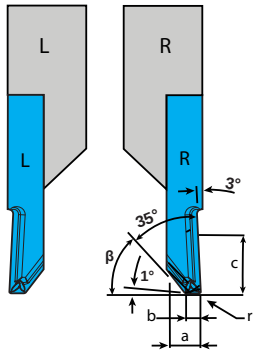
Cut: Standard
Chip Breaker: GA20

Repeatability <20µm

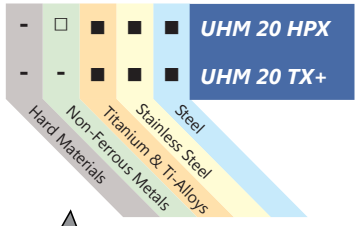
Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	a	b	c	β	r	Coating
7005-211409	3003-3.4-8 EL GA20 Top ZZ UHM20 HPX	7005-211405	3003-3.4-8 ER GA20 Top ZZ UHM20 HPX	3.4	1.6	8	52°	-	UHM 20 HPX
7005-211410	3003-3.4-8 EL GA20 Top ZZ UHM20 TX+	7005-211406	3003-3.4-8 ER GA20 Top ZZ UHM20 TX+	3.4	1.6	8	52°	-	UHM 20 TX+
Call For Details	3003-3.4-8 EL GA20 Top R08 UHM20 HPX	Call For Details	3003-3.4-8 ER GA20 Top R08 UHM20 HPX	3.4	1.6	8	52°	0.08	UHM 20 HPX
Call For Details	3003-3.4-8 EL GA20 Top R08 UHM20 TX+	Call For Details	3003-3.4-8 ER GA20 Top R08 UHM20 TX+	3.4	1.6	8	52°	0.08	UHM 20 TX+
7005-211425	3003-3.4-8 EL GA20 Top R15 UHM20 HPX	7005-211421	3003-3.4-8 ER GA20 Top R15 UHM20 HPX	3.4	1.6	8	52°	0.15	UHM 20 HPX
7005-211426	3003-3.4-8 EL GA20 Top R15 UHM20 TX+	7005-211422	3003-3.4-8 ER GA20 Top R15 UHM20 TX+	3.4	1.6	8	52°	0.15	UHM 20 TX+



Type-GA20 Chip Breaker



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended



E Edge
Round Cutting Edge

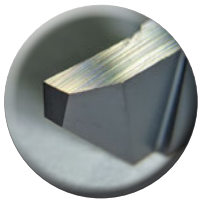


3004 Back Turn

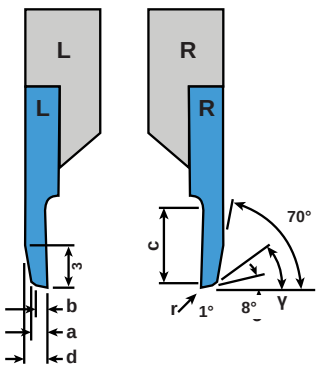
Cut: Standard
Geometry: TOP Wiper

Repeatability <20µm

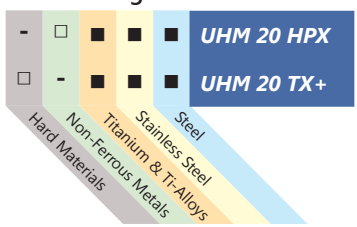
Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	a	b	c	d	r	Coating
7005-148207	3004-0.8-6 L TOP ZZ UHM20 HPX	7005-148205	3004-0.8-6 R TOP ZZ UHM20 HPX	0.8	0.5	6	2	0.00	UHM 20 HPX
7005-044424	3004-0.8-6 L TOP ZZ UHM20 TX+	7005-044423	3004-0.8-6 R TOP ZZ UHM20 TX+	0.8	0.5	6	2	0.00	UHM 20 TX+
7005-148209	3004-1.0-6 L TOP ZZ UHM20 HPX	7005-147061	3004-1.0-6 R TOP ZZ UHM20 HPX	1.0	0.5	6	2.2	0.00	UHM 20 HPX
7005-044426	3004-1.0-6 L TOP ZZ UHM20 TX+	7005-044425	3004-1.0-6 R TOP ZZ UHM20 TX+	1.0	0.5	6	2.2	0.00	UHM 20 TX+
7005-148213	3004-1.2-8 L TOP ZZ UHM20 HPX	7005-148211	3004-1.2-8 R TOP ZZ UHM20 HPX	1.2	0.5	8	2.4	0.00	UHM 20 HPX
7005-044428	3004-1.2-8 L TOP ZZ UHM20 TX+	7005-044427	3004-1.2-8 R TOP ZZ UHM20 TX+	1.2	0.5	8	2.4	0.00	UHM 20 TX+
7005-148217	3004-1.5-8 L TOP ZZ UHM20 HPX	7005-148215	3004-1.5-8 R TOP ZZ UHM20 HPX	1.5	0.5	8	2.7	0.00	UHM 20 HPX
7005-044430	3004-1.5-8 L TOP ZZ UHM20 TX+	7005-044429	3004-1.5-8 R TOP ZZ UHM20 TX+	1.5	0.5	8	2.7	0.00	UHM 20 TX+
7005-148221	3004-1.8-8 L TOP ZZ UHM20 HPX	7005-148219	3004-1.8-8 R TOP ZZ UHM20 HPX	1.8	0.5	8	3	0.00	UHM 20 HPX
7005-044432	3004-1.8-8 L TOP ZZ UHM20 TX+	7005-044431	3004-1.8-8 R TOP ZZ UHM20 TX+	1.8	0.5	8	3	0.00	UHM 20 TX+



TOP Wiper



Ideal Cutting Materials



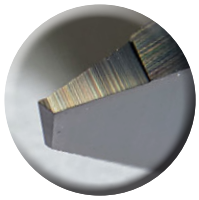
■ Preferred Application
□ Possible Application
- Application Not Recommended



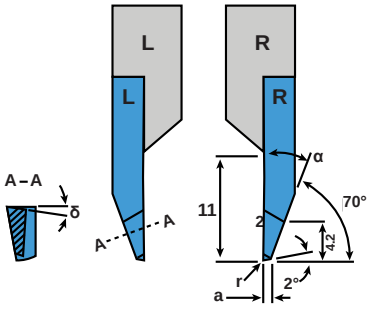
3004 Back Turn
Cut: Standard
Chip Breaker: CP

Repeatability <20µm

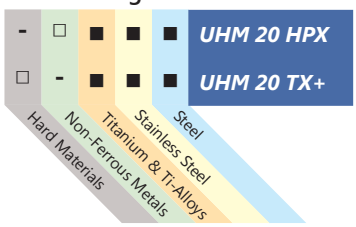
Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	a	c	α	r	δ	Coating
7005-148235	3004-0.8-4 L CP UHM20 HPX	7005-148233	3004-0.8-4 R CP UHM20 HPX	0.8	11	20°	0	8°	UHM 20 HPX
7005-044439	3004-0.8-4 L CP UHM20 TX+	7005-044438	3004-0.8-4 R CP UHM20 TX+	0.8	11	20°	0	8°	UHM 20 TX+



Type-CP
Chip Breaker



Ideal Cutting Materials



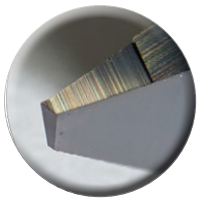
■ Preferred Application
□ Possible Application
- Application Not Recommended



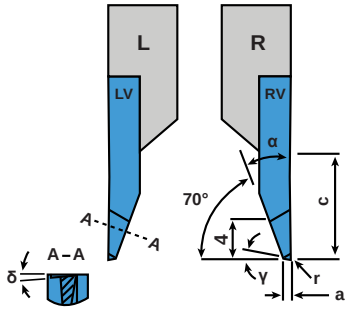
3004 Back Turn
Cut: Inverted
Chip Breaker: CP

Repeatability <20µm

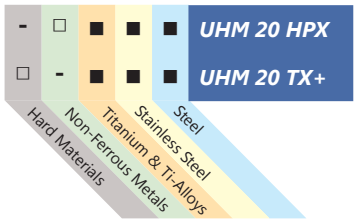
Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	a	c	α	r	δ	Coating
7005-044444	3004-0.8-4 LV CP UHM20 HPX	7005-044441	3004-0.8-4 RV CP UHM20 HPX	0.8	11	20°	0	8°	UHM 20 HPX
7005-129594	3004-0.8-4 LV CP UHM20 TX+	7005-129592	3004-0.8-4 RV CP UHM20 TX+	0.8	11	20°	0	8°	UHM 20 TX+



Type-CP
Chip Breaker



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

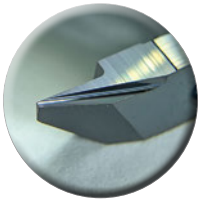


3004 Back Turn

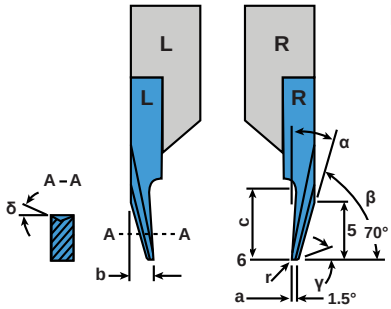
Cut: Standard
Chip Breaker: SP With TOP Wiper

Repeatability <20µm

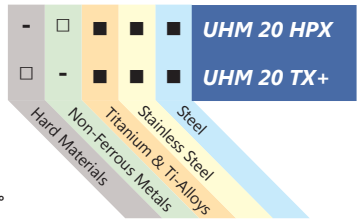
Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	a	b	α	r	δ	Coating
7005-148223	3004-2.4-6 L SP TOP 20ZZ UHM20 HPX	7005-147063	3004-2.4-6 R SP TOP 20ZZ UHM20 HPX	0.5	2.4	20°	0.00	15°	UHM 20 HPX
7005-044434	3004-2.4-6 L SP TOP 20ZZ UHM20 TX+	7005-044433	3004-2.4-6 R SP TOP 20ZZ UHM20 TX+	0.5	2.4	20°	0.00	15°	UHM 20 TX+
7005-148227	3004-2.4-6 L SP TOP 20008 UHM20 HPX	7005-148225	3004-2.4-6 R SP TOP 20008 UHM20 HPX	0.5	2.4	20°	0.08	15°	UHM 20 HPX
7005-044435	3004-2.4-6 L SP TOP 20008 UHM20 TX+	7005-150898	3004-2.4-6 R SP TOP 20008 UHM20 TX+	0.5	2.4	20°	0.08	15°	UHM 20 TX+
7005-148231	3004-2.4-6 L SP TOP 20015 UHM20 HPX	7005-148229	3004-2.4-6 R SP TOP 20015 UHM20 HPX	0.5	2.4	20°	0.15	15°	UHM 20 HPX
7005-044437	3004-2.4-6 L SP TOP 20015 UHM20 TX+	7005-044436	3004-2.4-6 R SP TOP 20015 UHM20 TX+	0.5	2.4	20°	0.15	15°	UHM 20 TX+



SP Chip Breaker
TOP Wiper



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

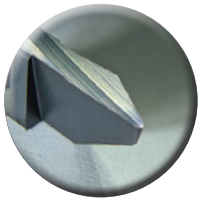


3004 Copy Turn

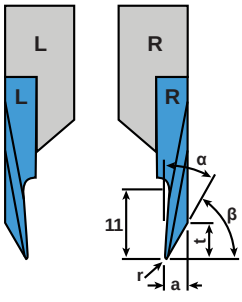
Cut: Standard
Chip Breaker: SP

Repeatability <20µm

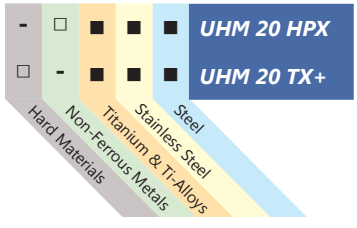
Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	a	α	β	t	r	Coating
7005-147599	3004-3.2-6 L SP29008 UHM20 HPX	7005-147065	3004-3.2-6 R SP29008 UHM20 HPX	3.2	29°	61°	5	0.08	UHM 20 HPX
7005-193304	3004-3.2-6 L SP29008 UHM20 TX+	7005-192808	3004-3.2-6 R SP29008 UHM20 TX+	3.2	29°	61°	5	0.08	UHM 20 TX+
7005-147607	3004-3.2-6 L SP29015 UHM20 HPX	7005-147605	3004-3.2-6 R SP29015 UHM20 HPX	3.2	29°	61°	5	0.15	UHM 20 HPX
7005-044447	3004-3.2-6 L SP29015 UHM20 TX+	7005-154654	3004-3.2-6 R SP29015 UHM20 TX+	3.2	29°	61°	5	0.15	UHM 20 TX+
7005-147615	3004-3.2-6 L SP29035 UHM20 HPX	7005-147613	3004-3.2-6 R SP29035 UHM20 HPX	3.2	29°	61°	5	0.35	UHM 20 HPX
7005-192686	3004-3.2-6 L SP29035 UHM20 TX+	7005-154799	3004-3.2-6 R SP29035 UHM20 TX+	3.2	29°	61°	5	0.35	UHM 20 TX+
7005-148239	3004-3.2-6 L SP29075 UHM20 HPX	7005-148237	3004-3.2-6 R SP29075 UHM20 HPX	3.2	29°	61°	5	0.75	UHM 20 HPX
7005-044450	3004-3.2-6 L SP29075 UHM20 TX+	7005-044449	3004-3.2-6 R SP29075 UHM20 TX+	3.2	29°	61°	5	0.75	UHM 20 TX+
7005-148243	3004-3.2-5 L SP35015 UHM20 HPX	7005-148241	3004-3.2-5 R SP35015 UHM20 HPX	3.2	35°	55°	4	0.15	UHM 20 HPX
7005-044452	3004-3.2-5 L SP35015 UHM20 TX+	7005-044451	3004-3.2-5 R SP35015 UHM20 TX+	3.2	35°	55°	4	0.15	UHM 20 TX+
7005-148247	3004-3.2-5 L SP35035 UHM20 HPX	7005-148245	3004-3.2-5 R SP35035 UHM20 HPX	3.2	35°	55°	4	0.35	UHM 20 HPX
7005-044454	3004-3.2-5 L SP35035 UHM20 TX+	7005-044453	3004-3.2-5 R SP35035 UHM20 TX+	3.2	35°	55°	4	0.35	UHM 20 TX+



Type-SP
Chip Breaker



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

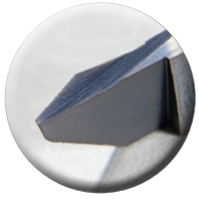


3004 Copy/Profile Turn

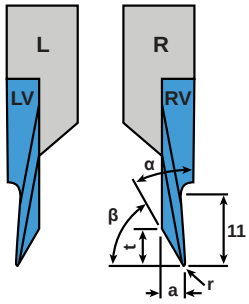
Cut: Inverted
Chip Breaker: SP

Repeatability <20µm

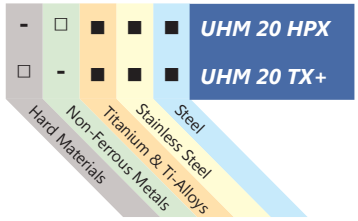
Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	a	α	β	t	r	Coating
7005-147603	3004-3.2-6 LV SP29008 UHM20 HPX	7005-147401	3004-3.2-6 RV SP29008 UHM20 HPX	3.2	29°	61°	5	0.08	UHM 20 HPX
7005-044456	3004-3.2-6 LV SP29008 UHM20 TX+	7005-044455	3004-3.2-6 RV SP29008 UHM20 TX+	3.2	29°	61°	5	0.08	UHM 20 TX+
7005-147611	3004-3.2-6 LV SP29015 UHM20 HPX	7005-147609	3004-3.2-6 RV SP29015 UHM20 HPX	3.2	29°	61°	5	0.15	UHM 20 HPX
7005-044458	3004-3.2-6 LV SP29015 UHM20 TX+	7005-154211	3004-3.2-6 RV SP29015 UHM20 TX+	3.2	29°	61°	5	0.15	UHM 20 TX+
7005-147619	3004-3.2-6 LV SP29035 UHM20 HPX	7005-147617	3004-3.2-6 RV SP29035 UHM20 HPX	3.2	29°	61°	5	0.35	UHM 20 HPX
7005-044459	3004-3.2-6 LV SP29035 UHM20 TX+	7005-192338	3004-3.2-6 RV SP29035 UHM20 TX+	3.2	29°	61°	5	0.35	UHM 20 TX+
7005-148251	3004-3.2-6 LV SP29075 UHM20 HPX	7005-148249	3004-3.2-6 RV SP29075 UHM20 HPX	3.2	29°	61°	5	0.75	UHM 20 HPX
7005-044461	3004-3.2-6 LV SP29075 UHM20 TX+	7005-044460	3004-3.2-6 RV SP29075 UHM20 TX+	3.2	29°	61°	5	0.75	UHM 20 TX+



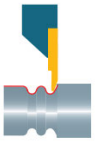
Type-SP
Chip Breaker



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

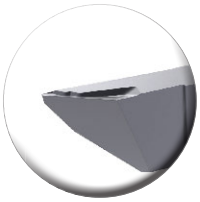


3004 Cutoff

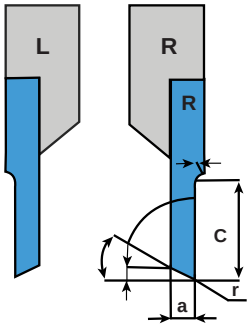
Cut: Standard
Chip Breaker: GB20

Repeatability <10µm

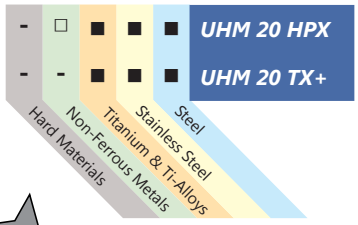
Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	a	c	α	β	t	r	Coating
7005-152904	3004-3.2-6 FL 29015 GB20 UHM20 HPX	7005-152901	3004-3.2-6 FR 29015 GB20 UHM20 HPX	3.2	11	29°	59°	5.3	0.15	UHM 20 HPX
7005-152905	3004-3.2-6 FL 29015 GB20 UHM20 TX+	7005-152902	3004-3.2-6 FR 29015 GB20 UHM20 TX+	3.2	11	29°	59°	5.3	0.15	UHM 20 TX+
7005-152911	3004-3.2-6 FL 29035 GB20 UHM20 HPX	7005-152907	3004-3.2-6 FR 29035 GB20 UHM20 HPX	3.2	11	29°	59°	4.7	0.35	UHM 20 HPX
7005-152912	3004-3.2-6 FL 29035 GB20 UHM20 TX+	7005-152908	3004-3.2-6 FR 29035 GB20 UHM20 TX+	3.2	11	29°	59°	4.7	0.35	UHM 20 TX+



Type-GB20
Chip Breaker



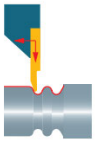
Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended



F Edge
Sharp Cutting Edge

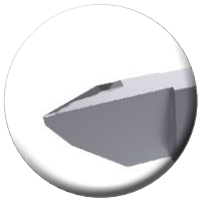


3004 Cutoff

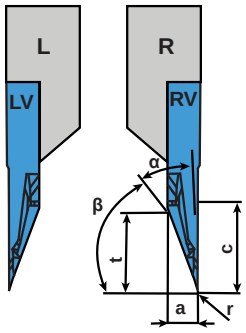
Cut: Inverted
Chip Breaker: GB20

Repeatability <10µm

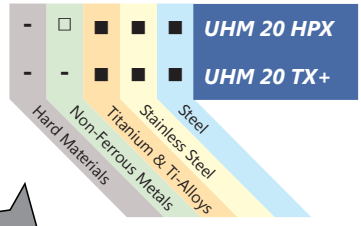
Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	a	c	α	β	t	r	Coating
7005-152919	3004-3.2-6 FLV 29015 GB20 UHM20 HPX	7005-152915	3004-3.2-6 FRV 29015 GB20 UHM20 HPX	3.2	11	29°	59°	5.3	0.15	UHM 20 HPX
7005-152920	3004-3.2-6 FLV 29015 GB20 UHM20 TX+	7005-152916	3004-3.2-6 FRV 29015 GB20 UHM20 TX+	3.2	11	29°	59°	5.3	0.15	UHM 20 TX+
7005-152925	3004-3.2-6 FLV 29035 GB20 UHM20 HPX	7005-152922	3004-3.2-6 FRV 29035 GB20 UHM20 HPX	3.2	11	29°	59°	4.7	0.35	UHM 20 HPX
7005-152926	3004-3.2-6 FLV 29035 GB20 UHM20 TX+	7005-152923	3004-3.2-6 FRV 29035 GB20 UHM20 TX+	3.2	11	29°	59°	4.7	0.35	UHM 20 TX+



Type-GB20
Chip Breaker



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended



F Edge
Sharp Cutting Edge



3005 Groove & Turn

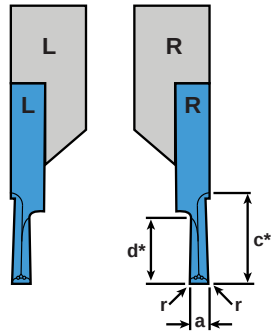
Cut: Standard
Chip Breaker: GC20

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	d	r	Coating
7005-211120	3005-1.0-8 FL GC20 ZZ UHM20 HPX	7005-211115	3005-1.0-8 FR GC20 ZZ UHM20 HPX	1.0	8	3.5	0	UHM 20 HPX
7005-211121	3005-1.0-8 FL GC20 ZZ UHM20 TX+	7005-211116	3005-1.0-8 FR GC20 ZZ UHM20 TX+	1.0	8	3.5	0	UHM 20 TX+
7005-211218	3005-1.0-8 FL GC20 R02 UHM20 HPX	7005-211214	3005-1.0-8 FR GC20 R02 UHM20 HPX	1.0	8	3.5	0.02	UHM 20 HPX
7005-211219	3005-1.0-8 FL GC20 R02 UHM20 TX+	7005-211215	3005-1.0-8 FR GC20 R02 UHM20 TX+	1.0	8	3.5	0.02	UHM 20 TX+
7005-152933	3005-1.0-8 FL GC20 R05 UHM20 HPX	7005-152929	3005-1.0-8 FR GC20 R05 UHM20 HPX	1.0	8	3.5	0.05	UHM 20 HPX
7005-152934	3005-1.0-8 FL GC20 R05 UHM20 TX+	7005-152930	3005-1.0-8 FR GC20 R05 UHM20 TX+	1.0	8	3.5	0.05	UHM 20 TX+
7005-211226	3005-1.5-8 FL GC20 ZZ UHM20 HPX	7005-211222	3005-1.5-8 FR GC20 ZZ UHM20 HPX	1.5	8	4.0	0	UHM 20 HPX
7005-211227	3005-1.5-8 FL GC20 ZZ UHM20 TX+	7005-211223	3005-1.5-8 FR GC20 ZZ UHM20 TX+	1.5	8	4.0	0	UHM 20 TX+
7005-211234	3005-1.5-8 FL GC20 R02 UHM20 HPX	7005-211230	3005-1.5-8 FR GC20 R02 UHM20 HPX	1.5	8	4.0	0.02	UHM 20 HPX
7005-211235	3005-1.5-8 FL GC20 R02 UHM20 TX+	7005-211231	3005-1.5-8 FR GC20 R02 UHM20 TX+	1.5	8	4.0	0.02	UHM 20 TX+
7005-152941	3005-1.5-8 FL GC20 R05 UHM20 HPX	7005-152937	3005-1.5-8 FR GC20 R05 UHM20 HPX	1.5	8	4.0	0.05	UHM 20 HPX
7005-152942	3005-1.5-8 FL GC20 R05 UHM20 TX+	7005-152938	3005-1.5-8 FR GC20 R05 UHM20 TX+	1.5	8	4.0	0.05	UHM 20 TX+
7005-152946	3005-2.0-8 EL GC20 R05 UHM20 HPX	7005-193377	3005-2.0-8 ER GC20 R05 UHM20 HPX	2.0	8	5.0	0.05	UHM 20 HPX
7005-152947	3005-2.0-8 EL GC20 R05 UHM20 TX+	7005-193429	3005-2.0-8 ER GC20 R05 UHM20 TX+	2.0	8	5.0	0.05	UHM 20 TX+
7005-211049	3005-2.0-8 EL GC20 R15 UHM20 HPX	7005-211045	3005-2.0-8 ER GC20 R15 UHM20 HPX	2.0	8	5.0	0.15	UHM 20 HPX
7005-211050	3005-2.0-8 EL GC20 R15 UHM20 TX+	7005-211046	3005-2.0-8 ER GC20 R15 UHM20 TX+	2.0	8	5.0	0.15	UHM 20 TX+

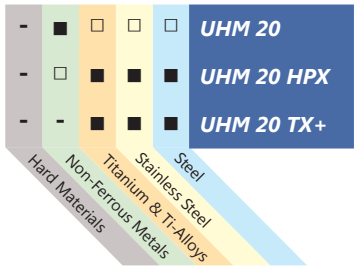


Type-GC20
Chip Breaker



*c: maximal turning capacity
*d: maximal grooving capacity

Ideal Cutting Materials



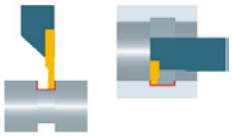
■ Preferred Application
□ Possible Application
- Application Not Recommended



E Edge
Round Cutting Edge



F Edge
Sharp Cutting Edge

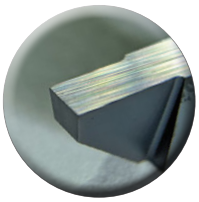


3005 Groove & Turn

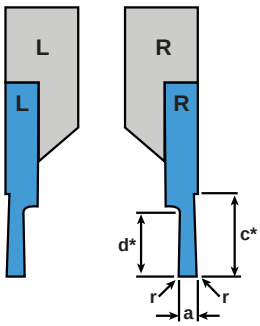
Cut: Standard
Chip Breaker: None

Repeatability <20µm

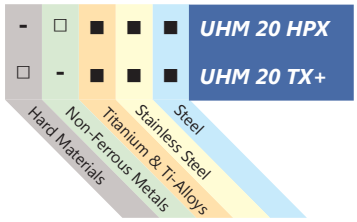
Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	d	r	Coating
7005-148253	3005-1.0-8 L UHM20 HPX	7005-146721	3005-1.0-8 R UHM20 HPX	1	8	2.5	0.05	UHM 20 HPX
7005-044463	3005-1.0-8 L UHM20 TX+	7005-044462	3005-1.0-8 R UHM20 TX+	1	8	2.5	0.05	UHM 20 TX+
7005-148255	3005-1.5-8 L UHM20 HPX	7005-146699	3005-1.5-8 R UHM20 HPX	1.5	8	3	0.05	UHM 20 HPX
7005-044464	3005-1.5-8 L UHM20 TX+	7005-154786	3005-1.5-8 R UHM20 TX+	1.5	8	3	0.05	UHM 20 TX+
7005-148257	3005-2.0-8 L UHM20 HPX	7005-146696	3005-2.0-8 R UHM20 HPX	2	8	4	0.05	UHM 20 HPX
7005-044466	3005-2.0-8 L UHM20 TX+	7005-044465	3005-2.0-8 R UHM20 TX+	2	8	4	0.05	UHM 20 TX+
7005-148261	3005-2.5-8 L UHM20 HPX	7005-148259	3005-2.5-8 R UHM20 HPX	2.5	8	5	0.05	UHM 20 HPX
7005-044468	3005-2.5-8 L UHM20 TX+	7005-044467–	3005-2.5-8 R UHM20 TX+	2.5	8	5	0.05	UHM 20 TX+
7005-148265	3005-3.0-8 L UHM20 HPX	7005-148263	3005-3.0-8 R UHM20 HPX	3	8	6	0.05	UHM 20 HPX
7005-044470	3005-3.0-8 L UHM20 TX+	7005-044469	3005-3.0-8 R UHM20 TX+	3	8	6	0.05	UHM 20 TX+



*c: maximal turning capacity
*d: maximal grooving capacity



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

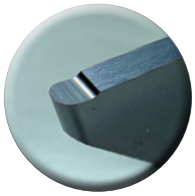


3007 Full Radius Groove

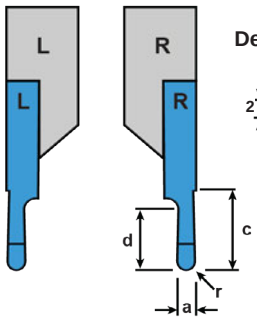
Cut: Standard
Chip Breaker: None

Repeatability = R : ■<10µm, ■<20µm

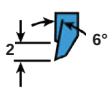
Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	R	a	c	d	r	Coating
7005-148388	3007-R0.25-2-10 L UHM20 HPX	7005-148390	3007-R0.25-2-10 R UHM20 HPX	■	0.5	12	2	0.25	UHM 20 HPX
7005-044715	3007-R0.25-2-10 L UHM20 TX+	7005-044714	3007-R0.25-2-10 R UHM20 TX+	■	0.5	12	2	0.25	UHM 20 TX+
7005-148392	3007-R0.5-2.5-10 L UHM20 HPX	7005-148394	3007-R0.5-2.5-10 R UHM20 HPX	■	1	12	2.5	0.50	UHM 20 HPX
7005-044717	3007-R0.5-2.5-10 L UHM20 TX+	7005-044716	3007-R0.5-2.5-10 R UHM20 TX+	■	1	12	2.5	0.50	UHM 20 TX+
7005-148396	3007-R0.6-2.5-10 L UHM20 HPX	7005-148398	3007-R0.6-2.5-10 R UHM20 HPX	■	1.2	12	2.5	0.60	UHM 20 HPX
7005-044719	3007-R0.6-2.5-10 L UHM20 TX+	7005-044718	3007-R0.6-2.5-10 R UHM20 TX+	■	1.2	12	2.5	0.60	UHM 20 TX+
7005-148400	3007-R0.75-3-10 L UHM20 HPX	7005-148402	3007-R0.75-3-10 R UHM20 HPX	■	1.5	12	3	0.75	UHM 20 HPX
7005-044721	3007-R0.75-3-10 L UHM20 TX+	7005-044720	3007-R0.75-3-10 R UHM20 TX+	■	1.5	12	3	0.75	UHM 20 TX+
7005-148404	3007-R0.8-3-10 L UHM20 HPX	7005-148406	3007-R0.8-3-10 R UHM20 HPX	■	1.6	12	3	0.80	UHM 20 HPX
7005-044723	3007-R0.8-3-10 L UHM20 TX+	7005-044722	3007-R0.8-3-10 R UHM20 TX+	■	1.6	12	3	0.80	UHM 20 TX+
7005-148408	3007-R1.0-10 L UHM20 HPX	7005-148410	3007-R1.0-10 R UHM20 HPX	■	2	12	10	1.00	UHM 20 HPX
7005-044725	3007-R1.0-10 L UHM20 TX+	7005-044724	3007-R1.0-10 R UHM20 TX+	■	2	12	10	1.00	UHM 20 TX+
7005-148412	3007-R1.5-10 L UHM20 HPX	7005-148414	3007-R1.5-10 R UHM20 HPX	■	3	12	10	1.50	UHM 20 HPX
7005-044727	3007-R1.5-10 L UHM20 TX+	7005-044726	3007-R1.5-10 R UHM20 TX+	■	3	12	10	1.50	UHM 20 TX+
7005-148416	3007-R1.5-16 L UHM20 HPX	7005-148418	3007-R1.5-16 R UHM20 HPX	■	3	17	16	1.50	UHM 20 HPX
7005-044729	3007-R1.5-16 L UHM20 TX+	7005-044728	3007-R1.5-16 R UHM20 TX+	■	3	17	16	1.50	UHM 20 TX+



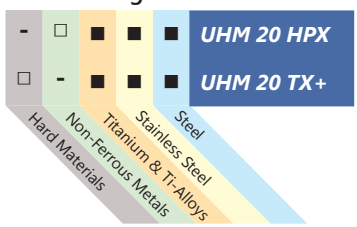
Full Radius



Detailed Tip



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended



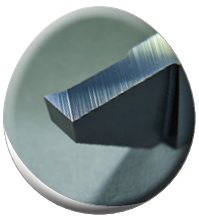
3005 Groove & Turn

Cut: Standard

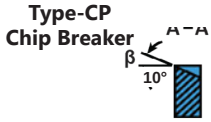
Chip Breaker: CP

Repeatability <20µm

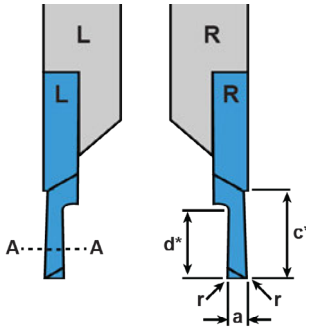
Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	d	r	Coating
7005-148269	3005-0.8-8 L CP UHM20 HPX	7005-148267	3005-0.8-8 R CP UHM20 HPX	0.8	8	2.5	0.00	UHM 20 HPX
7005-044472	3005-0.8-8 L CP UHM20 TX+	7005-044471	3005-0.8-8 R CP UHM20 TX+	0.8	8	2.5	0.00	UHM 20 TX+
7005-148274	3005-1.0-8 L CP UHM20 HPX	7005-148271	3005-1.0-8 R CP UHM20 HPX	1	8	3.5	0.00	UHM 20 HPX
7005-193450	3005-1.0-8 L CP UHM20 TX+	7005-154376	3005-1.0-8 R CP UHM20 TX+	1	8	3.5	0.00	UHM 20 TX+
7005-148278	3005-1.5-8 L CP UHM20 HPX	7005-148276	3005-1.5-8 R CP UHM20 HPX	1.5	8	4	0.00	UHM 20 HPX
7005-044473	3005-1.5-8 L CP UHM20 TX+	7005-192161	3005-1.5-8 R CP UHM20 TX+	1.5	8	4	0.00	UHM 20 TX+
7005-148280	3005-1.5-8 L CP R08 UHM20 HPX	7005-147055	3005-1.5-8 R CP R08 UHM20 HPX	1.5	8	4	0.08	UHM 20 HPX
7005-044474	3005-1.5-8 L CP R08 UHM20 TX+	7005-192682	3005-1.5-8 R CP R08 UHM20 TX+	1.5	8	4	0.08	UHM 20 TX+
7005-148284	3005-2.0-8 L CP UHM20 HPX	7005-148282	3005-2.0-8 R CP UHM20 HPX	2	8	5	0.00	UHM 20 HPX
7005-044476	3005-2.0-8 L CP UHM20 TX+	7005-044475	3005-2.0-8 R CP UHM20 TX+	2	8	5	0.00	UHM 20 TX+
7005-148286	3005-2.0-8 L CP R08 UHM20 HPX	7005-147057	3005-2.0-8 R CP R08 UHM20 HPX	2	8	5	0.08	UHM 20 HPX
7005-044478	3005-2.0-8 L CP R08 UHM20 TX+	7005-044477	3005-2.0-8 R CP R08 UHM20 TX+	2	8	5	0.08	UHM 20 TX+
7005-148288	3005-2.0-8 L CP R15 UHM20 HPX	7005-146955	3005-2.0-8 R CP R15 UHM20 HPX	2	8	5	0.15	UHM 20 HPX
7005-044480	3005-2.0-8 L CP R15 UHM20 TX+	7005-044479	3005-2.0-8 R CP R15 UHM20 TX+	2	8	5	0.15	UHM 20 TX+
7005-148292	3005-2.5-8 L CP UHM20 HPX	7005-148290	3005-2.5-8 R CP UHM20 HPX	2.5	8	6	0.00	UHM 20 HPX
7005-044481	3005-2.5-8 L CP UHM20 TX+	7005-150861	3005-2.5-8 R CP UHM20 TX+	2.5	8	6	0.00	UHM 20 TX+
7005-148296	3005-2.5-8 L CP R08 UHM20 HPX	7005-148294	3005-2.5-8 R CP R08 UHM20 HPX	2.5	8	6	0.08	UHM 20 HPX
7005-044483	3005-2.5-8 L CP R08 UHM20 TX+	7005-044482	3005-2.5-8 R CP R08 UHM20 TX+	2.5	8	6	0.08	UHM 20 TX+
7005-148300	3005-2.5-8 L CP R15 UHM20 HPX	7005-148298	3005-2.5-8 R CP R15 UHM20 HPX	2.5	8	6	0.15	UHM 20 HPX
7005-044485	3005-2.5-8 L CP R15 UHM20 TX+	7005-044484	3005-2.5-8 R CP R15 UHM20 TX+	2.5	8	6	0.15	UHM 20 TX+
7005-148304	3005-3.0-8 L CP UHM20 HPX	7005-148302	3005-3.0-8 R CP UHM20 HPX	3	8	6	0.00	UHM 20 HPX
7005-044487	3005-3.0-8 L CP UHM20 TX+	7005-044486	3005-3.0-8 R CP UHM20 TX+	3	8	6	0.00	UHM 20 TX+
7005-148308	3005-3.0-8 L CP R08 UHM20 HPX	7005-148306	3005-3.0-8 R CP R08 UHM20 HPX	3	8	6	0.08	UHM 20 HPX
7005-044489	3005-3.0-8 L CP R08 UHM20 TX+	7005-044488	3005-3.0-8 R CP R08 UHM20 TX+	3	8	6	0.08	UHM 20 TX+
7005-148312	3005-3.0-8 L CP R15 UHM20 HPX	7005-148310	3005-3.0-8 R CP R15 UHM20 HPX	3	8	6	0.15	UHM 20 HPX
7005-044491	3005-3.0-8 L CP R15 UHM20 TX+	7005-044490	3005-3.0-8 R CP R15 UHM20 TX+	3	8	6	0.15	UHM 20 TX+



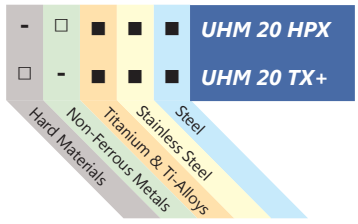
Type-CP Chip Breaker



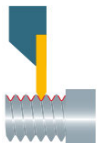
*c: maximal turning capacity
*d: maximal grooving capacity



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

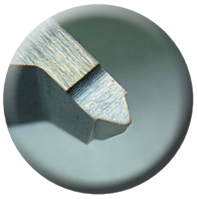


3006 Threading

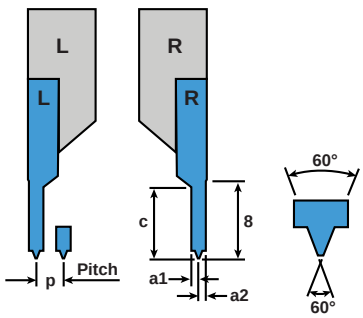
Profile: Full (Metric)

Repeatability <20µm

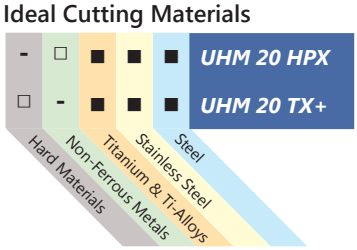
Left Hand		Right Hand		Dimensions & Features							
Item No.	Description	Item No.	Description	ISO DIN13	NIHS 06-03	NIHS 06-02	p	a_1	a_2	c	Coating
7005-044512	3006-0.15-10-60 VP L UHM20 HPX	7005-044509	3006-0.15-10-60 VP R UHM20 HPX	-	-	S 0.6	0.15	0.08	0.08	---	UHM 20 HPX
7005-044513	3006-0.15-10-60 VP L UHM20 TX+	7005-044510	3006-0.15-10-60 VP R UHM20 TX+	-	-	S 0.6	0.15	0.08	0.08	---	UHM 20 TX+
7005-044518	3006-0.175-10-60 VP L UHM20 HPX	7005-044515	3006-0.175-10-60 VP R UHM20 HPX	-	-	S 0.7	0.175	0.10	0.1	---	UHM 20 HPX
7005-044519	3006-0.175-10-60 VP L UHM20 TX+	7005-044516	3006-0.175-10-60 VP R UHM20 TX+	-	-	S 0.7	0.175	0.10	0.1	---	UHM 20 TX+
7005-044524	3006-0.2-10-60 VP L UHM20 HPX	7005-044521	3006-0.2-10-60 VP R UHM20 HPX	-	-	S0.8	0.2	0.11	0.11	---	UHM 20 HPX
7005-044525	3006-0.2-10-60 VP L UHM20 TX+	7005-044522	3006-0.2-10-60 VP R UHM20 TX+	-	-	S0.8	0.2	0.11	0.11	---	UHM 20 TX+
7005-044530	3006-0.225-10-60 VP L UHM20 HPX	7005-044527	3006-0.225-10-60 VP R UHM20 HPX	-	-	S 0.9	0.225	0.13	0.13	---	UHM 20 HPX
7005-044531	3006-0.225-10-60 VP L UHM20 TX+	7005-044528	3006-0.225-10-60 VP R UHM20 TX+	-	-	S 0.9	0.225	0.13	0.13	---	UHM 20 TX+
7005-148324	3006-0.25-10-60 VP L UHM20 HPX	7005-148322	3006-0.25-10-60 VP R UHM20 HPX	M 1/1.2	M 1/1.2	S 1/S1.2	0.25	0.14	0.14	---	UHM 20 HPX
7005-044533	3006-0.25-10-60 VP L UHM20 TX+	7005-044532	3006-0.25-10-60 VP R UHM20 TX+	M 1/1.2	M 1/1.2	S 1/S1.2	0.25	0.14	0.14	---	UHM 20 TX+
7005-148328	3006-0.3-10-60 VP L UHM20 HPX	7005-148326	3006-0.3-10-60 VP R UHM20 HPX	-	M 1.4	S 1.4	0.3	0.17	0.17	---	UHM 20 HPX
7005-044535	3006-0.3-10-60 VP L UHM20 TX+	7005-044534	3006-0.3-10-60 VP R UHM20 TX+	-	M 1.4	S 1.4	0.3	0.17	0.17	---	UHM 20 TX+
7005-148332	3006-0.35-10-60 VP L UHM20 HPX	7005-148330	3006-0.35-10-60 VP R UHM20 HPX	M 1.6	M 1.6/1.8	-	0.35	0.19	0.19	---	UHM 20 HPX
7005-044537	3006-0.35-10-60 VP L UHM20 TX+	7005-044536	3006-0.35-10-60 VP R UHM20 TX+	M 1.6	M 1.6/1.8	-	0.35	0.19	0.19	---	UHM 20 TX+
7005-148336	3006-0.4-10-60 VP L UHM20 HPX	7005-148334	3006-0.4-10-60 VP R UHM20 HPX	M 2	M 2	-	0.4	0.22	0.22	---	UHM 20 HPX
7005-044538	3006-0.4-10-60 VP L UHM20 TX+	7005-212008	3006-0.4-10-60 VP R UHM20 TX+	M 2	M 2	-	0.4	0.22	0.22	---	UHM 20 TX+
7005-148340	3006-0.45-10-60 VP L UHM20 HPX	7005-148338	3006-0.45-10-60 VP R UHM20 HPX	M 2.5	M 2.2/2.5	-	0.45	0.25	0.25	---	UHM 20 HPX
7005-044540	3006-0.45-10-60 VP L UHM20 TX+	7005-044539	3006-0.45-10-60 VP R UHM20 TX+	M 2.5	M 2.2/2.5	-	0.45	0.25	0.25	---	UHM 20 TX+
7005-148344	3006-0.5-10-60 VP L UHM20 HPX	7005-148342	3006-0.5-10-60 VP R UHM20 HPX	M 3	M 3	-	0.5	0.35	0.35	1.4	UHM 20 HPX
7005-044541	3006-0.5-10-60 VP L UHM20 TX+	7005-193257	3006-0.5-10-60 VP R UHM20 TX+	M 3	M 3	-	0.5	0.35	0.35	1.4	UHM 20 TX+
7005-148348	3006-0.6-10-60 VP L UHM20 HPX	7005-148346	3006-0.6-10-60 VP R UHM20 HPX	-	M 3.5	-	0.6	0.40	0.4	1.4	UHM 20 HPX
7005-044543	3006-0.6-10-60 VP L UHM20 TX+	7005-044542	3006-0.6-10-60 VP R UHM20 TX+	-	M 3.5	-	0.6	0.40	0.4	1.4	UHM 20 TX+
7005-148352	3006-0.7-10-60 VP L UHM20 HPX	7005-148350	3006-0.7-10-60 VP R UHM20 HPX	M 4	M 4	-	0.7	0.45	0.45	1.8	UHM 20 HPX
7005-044545	3006-0.7-10-60 VP L UHM20 TX+	7005-044544	3006-0.7-10-60 VP R UHM20 TX+	M 4	M 4	-	0.7	0.45	0.45	1.8	UHM 20 TX+
7005-148356	3006-0.75-10-60 VP L UHM20 HPX	7005-148354	3006-0.75-10-60 VP R UHM20 HPX	-	M 4.5	-	0.75	0.45	0.45	1.9	UHM 20 HPX
7005-044547	3006-0.75-10-60 VP L UHM20 TX+	7005-044546	3006-0.75-10-60 VP R UHM20 TX+	-	M 4.5	-	0.75	0.45	0.45	1.9	UHM 20 TX+
7005-148360	3006-0.8-10-60 VP L UHM20 HPX	7005-148358	3006-0.8-10-60 VP R UHM20 HPX	M 5	M 5	-	0.8	0.50	0.5	2	UHM 20 HPX
7005-044549	3006-0.8-10-60 VP L UHM20 TX+	7005-044548	3006-0.8-10-60 VP R UHM20 TX+	M 5	M 5	-	0.8	0.50	0.5	2	UHM 20 TX+
7005-148364	3006-1.0-10-60 VP L UHM20 HPX	7005-148362	3006-1.0-10-60 VP R UHM20 HPX	M 6/7	-	-	1	0.55	0.55	2.4	UHM 20 HPX
7005-044551	3006-1.0-10-60 VP L UHM20 TX+	7005-044550	3006-1.0-10-60 VP R UHM20 TX+	M 6/7	-	-	1	0.55	0.55	2.4	UHM 20 TX+
7005-148368	3006-1.25-10-60 VP L UHM20 HPX	7005-148366	3006-1.25-10-60 VP R UHM20 HPX	M 8/9	-	-	1.25	0.73	0.73	2.9	UHM 20 HPX
7005-044553	3006-1.25-10-60 VP L UHM20 TX+	7005-044552	3006-1.25-10-60 VP R UHM20 TX+	M 8/9	-	-	1.25	0.73	0.73	2.9	UHM 20 TX+
7005-148372	3006-1.5-10-60 VP L UHM20 HPX	7005-148370	3006-1.5-10-60 VP R UHM20 HPX	M 10/11	-	-	1.5	0.87	0.87	3.4	UHM 20 HPX
7005-044555	3006-1.5-10-60 VP L UHM20 TX+	7005-044554	3006-1.5-10-60 VP R UHM20 TX+	M 10/11	-	-	1.5	0.87	0.87	3.4	UHM 20 TX+
7005-148376	3006-1.75-10-60 VP L UHM20 HPX	7005-148374	3006-1.75-10-60 VP R UHM20 HPX	M 12	-	-	1.75	0.98	0.98	3.9	UHM 20 HPX
7005-044557	3006-1.75-10-60 VP L UHM20 TX+	7005-044556	3006-1.75-10-60 VP R UHM20 TX+	M 12	-	-	1.75	0.98	0.98	3.9	UHM 20 TX+
7005-148380	3006-2.0-10-60 VP L UHM20 HPX	7005-148378	3006-2.0-10-60 VP R UHM20 HPX	M 14/16	-	-	2	1.10	1.1	4	UHM 20 HPX
7005-044559	3006-2.0-10-60 VP L UHM20 TX+	7005-044558	3006-2.0-10-60 VP R UHM20 TX+	M 14/16	-	-	2	1.10	1.1	4	UHM 20 TX+
7005-148382	3006-2.5-10-60 VP L UHM20 HPX	7005-147032	3006-2.5-10-60 VP R UHM20 HPX	M 18/20/22	-	-	2.5	1.40	1.4	5	UHM20 HPX
7005-044561	3006-2.5-10-60 VP L UHM20 TX+	7005-044560	3006-2.5-10-60 VP R UHM20 TX+	M 18/20/22	-	-	2.5	1.40	1.4	5	UHM20 TX+
7005-148386	3006-3.0-10-60 VP L UHM20 HPX	7005-148384	3006-3.0-10-60 VP R UHM20 HPX	M 24/27	-	-	3	1.65	1.65	5	UHM20 HPX
7005-044563	3006-3.0-10-60 VP L UHM20 TX+	7005-044562	3006-3.0-10-60 VP R UHM20 TX+	M 24/27	-	-	3	1.65	1.65	5	UHM20 TX+



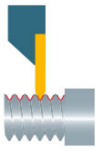
Full Profile



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

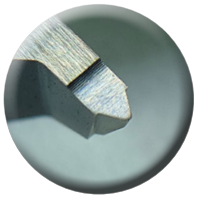


3006 Threading

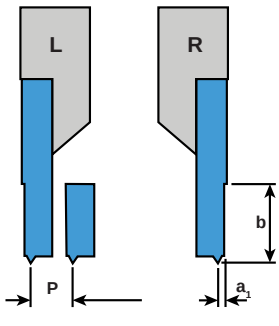
Profile: Full (Metric)
Geometry: Strengthened

Repeatability <20µm

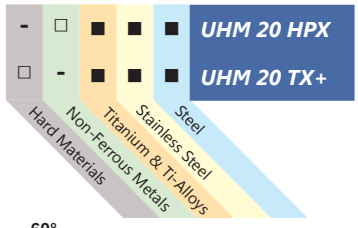
Left Hand		Right Hand		Dimensions & Features							
Item No.	Description	Item No.	Description	ISO DIN13	NIHS 06-03	NIHS 06-02	P	h_{min}	a_1	b	Coating
7005-117192	3006-0.25-60 VP-S L UHM20 HPX	7005-153864	3006-0.25-60 VP-S R UHM20 HPX	M 1/1.2	M 1/1.2	S 1/S1.2	0.25	0.15	0.16	8	UHM 20 HPX
7005-044565	3006-0.25-60 VP-S L UHM20 TX+	7005-044564	3006-0.25-60 VP-S R UHM20 TX+	M 1/1.2	M 1/1.2	S 1/S1.2	0.25	0.15	0.16	8	UHM 20 TX+
7005-153866	3006-0.3-60 VP-S L UHM20 HPX	7005-153865	3006-0.3-60 VP-S R UHM20 HPX	-	M 1.4	S 1.4	0.3	0.18	0.2	8	UHM 20 HPX
7005-044567	3006-0.3-60 VP-S L UHM20 TX+	7005-044566	3006-0.3-60 VP-S R UHM20 TX+	-	M 1.4	S 1.4	0.3	0.18	0.2	8	UHM 20 TX+
7005-169623	3006-0.35-60 VP-S L UHM20 HPX	7005-153303	3006-0.35-60 VP-S R UHM20 HPX	M 1.6	M 1.6/1.8	-	0.35	0.22	0.23	8	UHM 20 HPX
7005-044569	3006-0.35-60 VP-S L UHM20 TX+	7005-044568	3006-0.35-60 VP-S R UHM20 TX+	M 1.6	M 1.6/1.8	-	0.35	0.22	0.23	8	UHM 20 TX+
7005-169625	3006-0.4-60 VP-S L UHM20 HPX	7005-153868	3006-0.4-60 VP-S R UHM20 HPX	M 2	M 2	-	0.4	0.25	0.26	8	UHM 20 HPX
7005-044571	3006-0.4-60 VP-S L UHM20 TX+	7005-044570	3006-0.4-60 VP-S R UHM20 TX+	M 2	M 2	-	0.4	0.25	0.26	8	UHM 20 TX+
7005-169629	3006-0.45-60 VP-S L UHM20 HPX	7005-169627	3006-0.45-60 VP-S R UHM20 HPX	M 2.5	M 2.2/2.5	-	0.45	0.28	0.29	8	UHM 20 HPX
7005-044573	3006-0.45-60 VP-S L UHM20 TX+	7005-044572	3006-0.45-60 VP-S R UHM20 TX+	M 2.5	M 2.2/2.5	-	0.45	0.28	0.29	8	UHM 20 TX+
7005-169633	3006-0.5-60 VP-S L UHM20 HPX	7005-169631	3006-0.5-60 VP-S R UHM20 HPX	M 3	M 3	-	0.5	0.31	0.33	8	UHM 20 HPX
7005-044575	3006-0.5-60 VP-S L UHM20 TX+	7005-044574	3006-0.5-60 VP-S R UHM20 TX+	M 3	M 3	-	0.5	0.31	0.33	8	UHM 20 TX+
7005-169637	3006-0.6-60 VP-S L UHM20 HPX	7005-169635	3006-0.6-60 VP-S R UHM20 HPX	-	M 3.5	-	0.6	0.37	0.39	8	UHM 20 HPX
7005-044577	3006-0.6-60 VP-S L UHM20 TX+	7005-044576	3006-0.6-60 VP-S R UHM20 TX+	-	M 3.5	-	0.6	0.37	0.39	8	UHM 20 TX+
7005-169641	3006-0.7-60 VP-S L UHM20 HPX	7005-169639	3006-0.7-60 VP-S R UHM20 HPX	M 4	M 4	-	0.7	0.43	0.46	8	UHM 20 HPX
7005-044579	3006-0.7-60 VP-S L UHM20 TX+	7005-044578	3006-0.7-60 VP-S R UHM20 TX+	M 4	M 4	-	0.7	0.43	0.46	8	UHM 20 TX+
7005-169645	3006-0.75-60 VP-S L UHM20 HPX	7005-169643	3006-0.75-60 VP-S R UHM20 HPX	-	M 4.5	-	0.75	0.46	0.49	8	UHM 20HPX
7005-044581	3006-0.75-60 VP-S L UHM20 TX+	7005-044580	3006-0.75-60 VP-S R UHM20 TX+	-	M 4.5	-	0.75	0.46	0.49	8	UHM 20 TX+
7005-169649	3006-0.8-60 VP-S L UHM20 HPX	7005-169647	3006-0.8-60 VP-S R UHM20 HPX	M 5	M 5	-	0.8	0.49	0.52	8	UHM 20 HPX
7005-044583	3006-0.8-60 VP-S L UHM20 TX+	7005-044582	3006-0.8-60 VP-S R UHM20 TX+	M 5	M 5	-	0.8	0.49	0.52	8	UHM 20 TX+
7005-169651	3006-1.0-60 VP-S L UHM20 HPX	7005-153305	3006-1.0-60 VP-S R UHM20 HPX	M 6/7	-	-	1	0.61	0.65	8	UHM 20 HPX
7005-044585	3006-1.0-60 VP-S L UHM20 TX+	7005-044584	3006-1.0-60 VP-S R UHM20 TX+	M 6/7	-	-	1	0.61	0.65	8	UHM 20 TX+
7005-169655	3006-1.25-60 VP-S L UHM20 HPX	7005-169653	3006-1.25-60 VP-S R UHM20 HPX	M 8/9	-	-	1.25	0.77	0.81	8	UHM 20 HPX
7005-044587	3006-1.25-60 VP-S L UHM20 TX+	7005-044586	3006-1.25-60 VP-S R UHM20 TX+	M 8/9	-	-	1.25	0.77	0.81	8	UHM 20 TX+
7005-169659	3006-1.5-60 VP-S L UHM20 HPX	7005-169657	3006-1.5-60 VP-S R UHM20 HPX	M 10/11	-	-	1.5	0.92	0.98	8	UHM 20 HPX
7005-044589	3006-1.5-60 VP-S L UHM20 TX+	7005-044588	3006-1.5-60 VP-S R UHM20 TX+	M 10/11	-	-	1.5	0.92	0.98	8	UHM 20 TX+
7005-169663	3006-1.75-60 VP-S L UHM20 HPX	7005-169661	3006-1.75-60 VP-S R UHM20 HPX	M 12	-	-	1.75	1.07	1.14	8	UHM 20 HPX
7005-044591	3006-1.75-60 VP-S L UHM20 TX+	7005-044590	3006-1.75-60 VP-S R UHM20 TX+	M 12	-	-	1.75	1.07	1.14	8	UHM 20 TX+
7005-117222	3006-2.0-60 VP-S L UHM20 HPX	7005-169665	3006-2.0-60 VP-S R UHM20 HPX	M 14/16	-	-	2	1.23	1.3	8	UHM 20 HPX
7005-044593	3006-2.0-60 VP-S L UHM20 TX+	7005-044592	3006-2.0-60 VP-S R UHM20 TX+	M 14/16	-	-	2	1.23	1.3	8	UHM 20 TX+



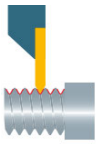
Full Profile Strengthened



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

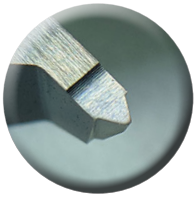


3006 Threading - Pipe Thread

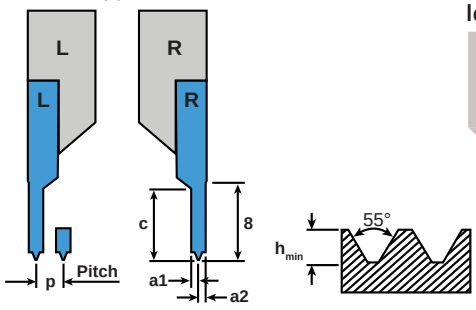
Profile: Full

Repeatability <20µm

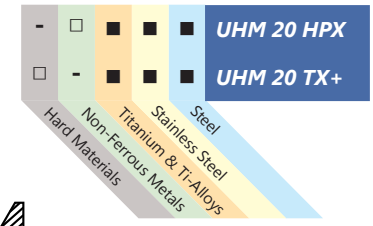
Left Hand		Right Hand		Dimensions & Features							
Item No.	Description	Item No.	Description	TPI	ANSI B1.1	p	h_{min}	a_1	a_2	c	Coating
Call For Details	3006-G 28 10-55 VP L UHM30 HX	Call For Details	3006-G 28 10-55 VP R UHM30 HX	28	1/8-1/16	0.907	.581	.5	.5	2.3	UHM 30 HX
7005-113928	3006-G 19 10-55 VP L UHM30 HX	7005-113906	3006-G 19 10-55 VP R UHM30 HX	19	1/4-3/8	1.337	.856	.74	.74	3.3	UHM 30 HX
Call For Details	3006-G 14 10-55 VP L UHM30 HX	Call For Details	3006-G 14 10-55 VP R UHM30 HX	14	1/2-7/8	1.814	1.162	1	1	4.5	UHM 30 HX
7005-113932	3006-G 11 10-55 VP L UHM30 HX	7005-113911	3006-G 11 10-55 VP R UHM30 HX	11	1-6	2.309	1.479	1.27	1.27	5	UHM 30 HX



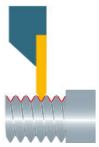
Full Profile Pipe Thread



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

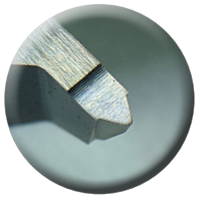


3006 Threading - UNC & UNF

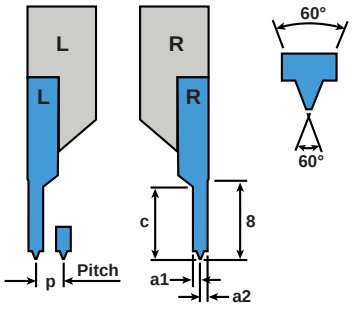
Profile: Full

Repeatability = R : ■<10µm, ■<20µm

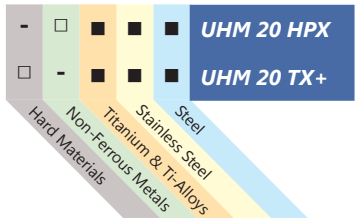
Left Hand		Dimensions & Features												
Item No.	Description	R	TPI	p	a_1	a_2	c	Coating	UN	UNC	UNF	UNEF	UNS	UNR
7005-044599	3006-80 UN 10-60 VP L UHM20 TX+	■	80	0.317	0.19	0.17	-	UHM 20 TX+			■			
7005-044598	3006-80 UN 10-60 VP L UHM20 HPX	■	80	0.317	0.19	0.17	-	UHM 20 HPX			■			
7005-044605	3006-72 UN 10-60 VP L UHM20 TX+	■	72	0.353	0.21	0.19	-	UHM 20 TX+			■			
7005-044604	3006-72 UN 10-60 VP L UHM20 HPX	■	72	0.353	0.21	0.19	-	UHM 20 HPX			■			
7005-044611	3006-64 UN 10-60 VP L UHM20 TX+	■	64	0.397	0.24	0.22	-	UHM 20 TX+		■	■			
7005-044610	3006-64 UN 10-60 VP L UHM20 HPX	■	64	0.397	0.24	0.22	-	UHM 20 HPX		■	■			
7005-044617	3006-56 UN 10-60 VP L UHM20 TX+	■	56	0.453	0.27	0.25	-	UHM 20 TX+		■	■		■	
7005-044616	3006-56 UN 10-60 VP L UHM20 HPX	■	56	0.453	0.27	0.25	-	UHM 20 HPX		■	■		■	
7005-044623	3006-48 UN 10-60 VP L UHM20 TX+	■	48	0.529	0.29	0.29	1.4	UHM 20 TX+		■	■		■	
7005-044622	3006-48 UN 10-60 VP L UHM20 HPX	■	48	0.529	0.29	0.29	1.4	UHM 20 HPX		■	■		■	
7005-044629	3006-44 UN 10-60 VP L UHM20 TX+	■	44	0.577	0.32	0.32	1.4	UHM 20 TX+			■			
7005-044628	3006-44 UN 10-60 VP L UHM20 HPX	■	44	0.577	0.32	0.32	1.4	UHM 20 HPX			■			
7005-044635	3006-40 UN 10-60 VP L UHM20 TX+	■	40	0.635	0.35	0.35	1.8	UHM 20 TX+		■	■		■	
7005-044634	3006-40 UN 10-60 VP L UHM20 HPX	■	40	0.635	0.35	0.35	1.8	UHM 20 HPX		■	■		■	
7005-044641	3006-36 UN 10-60 VP L UHM20 TX+	■	36	0.705	0.39	0.39	1.8	UHM 20 TX+			■		■	
7005-044640	3006-36 UN 10-60 VP L UHM20 HPX	■	36	0.705	0.39	0.39	1.8	UHM 20 TX+			■		■	
7005-044647	3006-32 UN 10-60 VP L UHM20 TX+	■	32	0.794	0.44	0.44	2	UHM 20 HPX		■	■	■		■
7005-044646	3006-32 UN 10-60 VP L UHM20 HPX	■	32	0.794	0.44	0.44	2	UHM 20 TX+		■	■	■		■
7005-044653	3006-28 UN 10-60 VP L UHM20 TX+	■	28	0.907	0.5	0.5	2.2	UHM 20 HPX		■	■		■	■
7005-044652	3006-28 UN 10-60 VP L UHM20 HPX	■	28	0.907	0.5	0.5	2.2	UHM 20 TX+		■	■		■	■
7005-044659	3006-24 UN 10-60 VP L UHM20 TX+	■	24	1.058	0.58	0.58	2.4	UHM 20 HPX		■	■	■	■	
7005-044658	3006-24 UN 10-60 VP L UHM20 HPX	■	24	1.058	0.58	0.58	2.4	UHM 20 TX+		■	■	■	■	
7005-044665	3006-20 UN 10-60 VP L UHM20 TX+	■	20	1.27	0.7	0.7	2.9	UHM 20 TX+	■	■	■	■		■
7005-044664	3006-20 UN 10-60 VP L UHM20 HPX	■	20	1.27	0.7	0.7	2.9	UHM 20 HPX	■	■	■	■		■
7005-044671	3006-18 UN 10-60 VP L UHM20 TX+	■	18	1.411	0.78	0.78	3.4	UHM 20 TX+		■	■	■	■	
7005-044670	3006-18 UN 10-60 VP L UHM20 HPX	■	18	1.411	0.78	0.78	3.4	UHM 20 HPX		■	■	■	■	
7005-044677	3006-16 UN 10-60 VP L UHM20 TX+	■	16	1.588	0.87	0.87	3.6	UHM 20 TX+	■	■	■	■	■	■
7005-044676	3006-16 UN 10-60 VP L UHM20 HPX	■	16	1.588	0.87	0.87	3.6	UHM 20 HPX	■	■	■	■	■	■
7005-044683	3006-14 UN 10-60 VP L UHM20 TX+	■	14	1.814	1	1	3.9	UHM 20 TX+		■	■		■	
7005-044682	3006-14 UN 10-60 VP L UHM20 HPX	■	14	1.814	1	1	3.9	UHM 20 HPX		■	■		■	
7005-044689	3006-13 UN 10-60 VP L UHM20 TX+	■	13	1.954	1.07	1.07	4.2	UHM 20 TX+		■				
7005-044688	3006-13 UN 10-60 VP L UHM20 HPX	■	13	1.954	1.07	1.07	4.2	UHM 20 HPX		■				



Full Profile
UNC UNF



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

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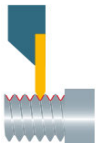
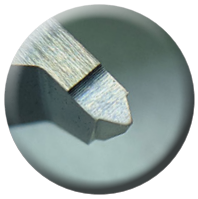


3006 Threading - UNC & UNF

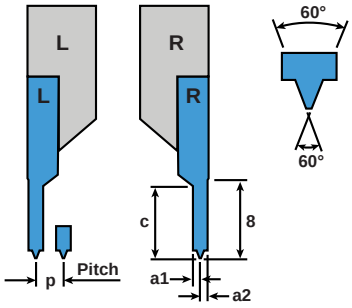
Profile: Full

Repeatability = R : ■ <10µm, ■ <20µm

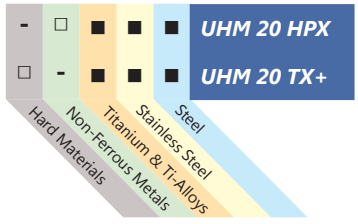
Right Hand		Dimensions & Features												
Item No.	Description	R	TPI	p	a_1	a_2	c	Coating	UN	UNC	UNF	UNEF	UNS	UNR
7005-044596	3006-80 UN 10-60 VP R UHM20 TX+	■	80	0.317	0.19	0.17	-	UHM 20 TX+			■			
7005-044595	3006-80 UN 10-60 VP R UHM20 HPX	■	80	0.317	0.19	0.17	-	UHM 20 HPX			■			
7005-044602	3006-72 UN 10-60 VP R UHM20 TX+	■	72	0.353	0.21	0.19	-	UHM 20 TX+			■			
7005-044601	3006-72 UN 10-60 VP R UHM20 HPX	■	72	0.353	0.21	0.19	-	UHM 20 HPX			■			
7005-044608	3006-64 UN 10-60 VP R UHM20 TX+	■	64	0.397	0.24	0.22	-	UHM 20 TX+		■	■			
7005-044607	3006-64 UN 10-60 VP R UHM20 HPX	■	64	0.397	0.24	0.22	-	UHM 20 HPX		■	■			
7005-044614	3006-56 UN 10-60 VP R UHM20 TX+	■	56	0.453	0.27	0.25	-	UHM 20 TX+		■	■		■	
7005-044613	3006-56 UN 10-60 VP R UHM20 HPX	■	56	0.453	0.27	0.25	-	UHM 20 HPX		■	■		■	
7005-044620	3006-48 UN 10-60 VP R UHM20 TX+	■	48	0.529	0.29	0.29	1.4	UHM 20 TX+		■	■		■	
7005-044619	3006-48 UN 10-60 VP R UHM20 HPX	■	48	0.529	0.29	0.29	1.4	UHM 20 HPX		■	■		■	
7005-044626	3006-44 UN 10-60 VP R UHM20 TX+	■	44	0.577	0.32	0.32	1.4	UHM 20 TX+			■			
7005-044625	3006-44 UN 10-60 VP R UHM20 HPX	■	44	0.577	0.32	0.32	1.4	UHM 20 HPX			■			
7005-044632	3006-40 UN 10-60 VP R UHM20 TX+	■	40	0.635	0.35	0.35	1.8	UHM 20 TX+		■	■		■	
7005-044631	3006-40 UN 10-60 VP R UHM20 HPX	■	40	0.635	0.35	0.35	1.8	UHM 20 HPX		■	■		■	
7005-044638	3006-36 UN 10-60 VP R UHM20 TX+	■	36	0.705	0.39	0.39	1.8	UHM 20 TX+			■		■	
7005-044637	3006-36 UN 10-60 VP R UHM20 HPX	■	36	0.705	0.39	0.39	1.8	UHM 20 TX+			■		■	
7005-044644	3006-32 UN 10-60 VP R UHM20 TX+	■	32	0.794	0.44	0.44	2	UHM 20 HPX		■	■	■		■
7005-044643	3006-32 UN 10-60 VP R UHM20 HPX	■	32	0.794	0.44	0.44	2	UHM 20 TX+		■	■	■		■
7005-044650	3006-28 UN 10-60 VP R UHM20 TX+	■	28	0.907	0.5	0.5	2.2	UHM 20 HPX		■	■		■	■
7005-044649	3006-28 UN 10-60 VP R UHM20 HPX	■	28	0.907	0.5	0.5	2.2	UHM 20 TX+		■	■		■	■
7005-044656	3006-24 UN 10-60 VP R UHM20 TX+	■	24	1.058	0.58	0.58	2.4	UHM 20 HPX		■	■	■	■	
7005-044655	3006-24 UN 10-60 VP R UHM20 HPX	■	24	1.058	0.58	0.58	2.4	UHM 20 TX+		■	■	■	■	
7005-044662	3006-20 UN 10-60 VP R UHM20 TX+	■	20	1.27	0.7	0.7	2.9	UHM 20 TX+	■	■	■	■		■
7005-044661	3006-20 UN 10-60 VP R UHM20 HPX	■	20	1.27	0.7	0.7	2.9	UHM 20 HPX	■	■	■	■		■
7005-044668	3006-18 UN 10-60 VP R UHM20 TX+	■	18	1.411	0.78	0.78	3.4	UHM 20 TX+		■	■	■	■	
7005-044667	3006-18 UN 10-60 VP R UHM20 HPX	■	18	1.411	0.78	0.78	3.4	UHM 20 HPX		■	■	■	■	
7005-044674	3006-16 UN 10-60 VP R UHM20 TX+	■	16	1.588	0.87	0.87	3.6	UHM 20 TX+	■	■	■	■	■	■
7005-044673	3006-16 UN 10-60 VP R UHM20 HPX	■	16	1.588	0.87	0.87	3.6	UHM 20 HPX	■	■	■	■	■	■
7005-044680	3006-14 UN 10-60 VP R UHM20 TX+	■	14	1.814	1	1	3.9	UHM 20 TX+		■	■		■	
7005-044679	3006-14 UN 10-60 VP R UHM20 HPX	■	14	1.814	1	1	3.9	UHM 20 HPX		■	■		■	
7005-044686	3006-13 UN 10-60 VP R UHM20 TX+	■	13	1.954	1.07	1.07	4.2	UHM 20 TX+		■				
7005-044685	3006-13 UN 10-60 VP R UHM20 HPX	■	13	1.954	1.07	1.07	4.2	UHM 20 HPX		■				



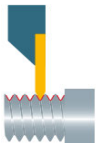
Full Profile
UNC UNF



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

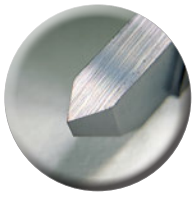


3006 Threading

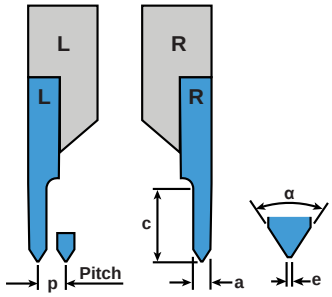
Profile: Partial

Repeatability <20µm

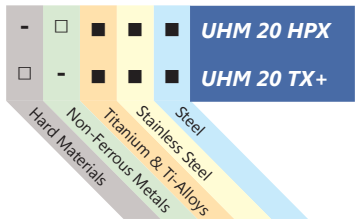
Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	a	c	α	p	e	Coating
7005-148316	3006-2-6-60 L UHM20 HPX	7005-148314	3006-2-6-60 R UHM20 HPX	2	6	60	0.25-2.0	0.04	UHM 20 HPX
7005-044493	3006-2-6-60 L UHM20 TX+	7005-044492	3006-2-6-60 R UHM20 TX+	2	6	60	0.25-2.0	0.04	UHM 20 TX+
7005-044500	3006-2-6-55 L UHM20 HPX	7005-044497	3006-2-6-55 R UHM20 HPX	2	6	55	0.25-2.0	0.04	UHM 20 HPX
7005-044501	3006-2-6-55 L UHM20 TX+	7005-044498	3006-2-6-55 R UHM20 TX+	2	6	55	0.25-2.0	0.04	UHM 20 TX+
7005-148320	3006-3-10-60 L UHM20 HPX	7005-148318	3006-3-10-60 R UHM20 HPX	3	10	60	0.25-2.0	0.04	UHM 20 HPX
7005-044495	3006-3-10-60 L UHM20 TX+	7005-044494	3006-3-10-60 R UHM20 TX+	3	10	60	0.25-2.0	0.04	UHM 20 TX+
7005-044506	3006-3-10-55 L UHM20 HPX	7005-044503	3006-3-10-55 R UHM20 HPX	3	10	55	0.25-2.0	0.04	UHM 20 HPX
7005-044507	3006-3-10-55 L UHM20 TX+	7005-044504	3006-3-10-55 R UHM20 TX+	3	10	55	0.25-2.0	0.04	UHM 20 TX+



Partial Profile



Ideal Cutting Materials



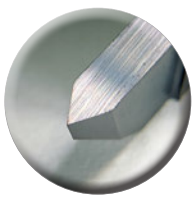
■ Preferred Application
□ Possible Application
- Application Not Recommended

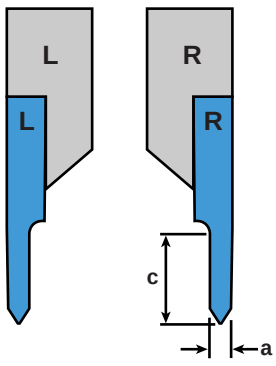


3012 Chamfering

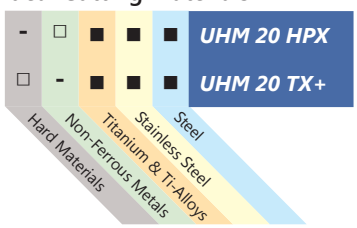
Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	a	c	e	α	β	Coating
7005-152828	3012-2-6-60 L UHM20 HPX	7005-152826	3012-2-6-60 R UHM20 HPX	2	2	0.035	60°	60°	UHM 20 HPX
7005-152829	3012-2-6-60 L UHM20 TX+	7005-152827	3012-2-6-60 R UHM20 TX+	2	2	0.035	60°	60°	UHM 20 TX+
7005-044736	3012-2-10-45 L UHM20 HPX	7005-044733	3012-2-10-45 R UHM20 HPX	2	10	-	45°	90°	UHM 20 HPX
7005-044737	3012-2-10-45 L UHM20 TX+	7005-044734	3012-2-10-45 R UHM20 TX+	2	10	-	45°	90°	UHM 20 TX+

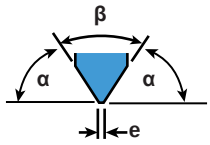


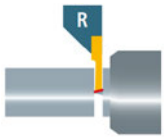


Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended





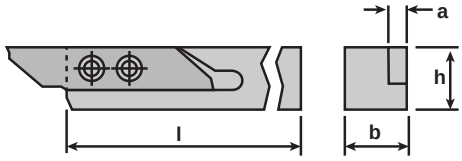
3000 Holder

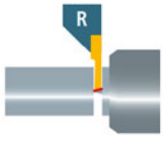
Type: Standard
Coolant-Thru: None

Repeatability = R : ■<20µm, ■<50µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	R	b	h	l	a
7005-112738	3000-08x80 L	7005-112736	3000-08x80 R	■	8	8	80	3.5
7005-126600	3000-08x100 L	7005-125767	3000-08x100 R	■	8	8	100	3.5
7005-112739	3000-10x80 L	7005-112737	3000-10x80 R	■	10	10	80	3.5
7005-126601	3000-10x100 L	7005-125989	3000-10x100 R	■	10	10	100	3.5
7005-126602	3000-12x100 L	7005-125240	3000-12x100 R	■	12	12	100	3.5
7005-126603	3000-16x125 L	7005-125990	3000-16x125 R	■	16	16	125	3.5
7005-126604	3000-20x125 L	7005-125991	3000-20x125 R	■	20	20	125	3.5
7005-137150	3000-20x150 L	7005-137151	3000-20x150 R	■	20	20	150	3.5
7005-112741	3000-3/8"x80 L	7005-112740	3000-3/8"x80 R	■	.375"	.375"	80	3.5
7005-127392	3000-3/8"x100 L	7005-127393	3000-3/8"x100 R	■	.375"	.375"	100	3.5
7005-127390	3000-1/2"x100 L	7005-127391	3000-1/2"x100 R	■	.500"	.500"	100	3.5
7005-139761	3000-5/8"x125 L	7005-139760	3000-5/8"x125 R	■	.625"	.625"	125	3.5
7005-146545	3000-3/4"x125 L	7005-146544	3000-3/4"x125 R	■	.750"	.750"	125	3.5
Call For Details	3000 B-10x100 L	7005-125989	3000 B-10x100 R	■	10	10	100	3
Call For Details	3000 B-12x100 L	7005-125240	3000 B-12x100 R	■	12	12	100	3
Call For Details	3000 B-16x125 L	7005-125990	3000 B-16x125 R	■	16	16	125	3





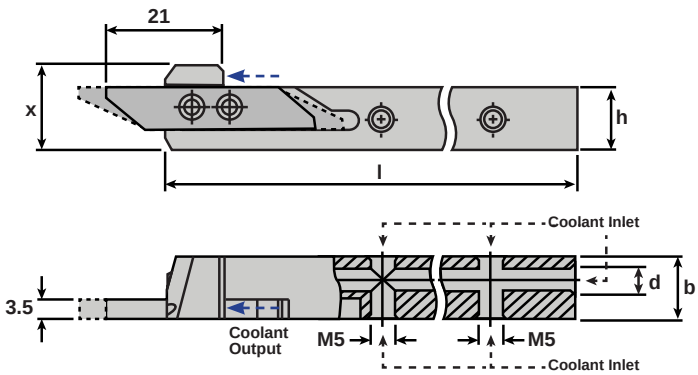


3000 Holder Coolant-Thru

Type: Standard
Coolant-Thru: Rear & Side Ports

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features					Coolant Fittings	
Item No.	Description	Item No.	Description	h	b	l	x	(d)	Side	Rear
7005-146053A	3000-08x100 L IC	7005-146039A	3000-08x100 R IC	8	12	100	12.2	M5	4005-000111	4005-000111
7005-146054A	3000-10x100 L IC	7005-146052A	3000-10x100 R IC	10	12	100	14	M5	4005-000111	4005-000111
7005-146055A	3000-12x100 L IC	7005-129797A	3000-12x100 R IC	12	12	100	16	M5	4005-000111	4005-000111
7005-146056A	3000-16x125 L IC	7005-146046A	3000-16x125 R IC	16	16	125	20	G 1/8"	4005-000111	4005-000104
7005-146058A	3000-20x125 L IC	7005-146057A	3000-20x125 R IC	20	20	125	24	G 1/8"	4005-000111	4005-000104
7005-146060A	3000-25x125 L IC	7005-146059A	3000-25x125 R IC	25	25	125	29	G 1/8"	4005-000111	4005-000104
7005-146061A	3000-3/8"x100 L IC	7005-146062A	3000-3/8"x100 R IC	.375"	.375"	100	13.5	M5	4005-000111	4005-000111
7005-129805A	3000-1/2"x100 L IC	7005-129802A	3000-1/2"x100 R IC	.500"	.500"	100	16.7	M5	4005-000111	4005-000111
7005-129806A	3000-5/8"x125 L IC	7005-129803A	3000-5/8"x125 R IC	.625"	.625"	125	19.9	G 1/8"	4005-000111	4005-000104
7005-129807A	3000-3/4"x125 L IC	7005-129804A	3000-3/4"x125 R IC	.750"	.750"	125	23	G 1/8"	4005-000111	4005-000104





4005-000111
Connects to side ports on ALL shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks

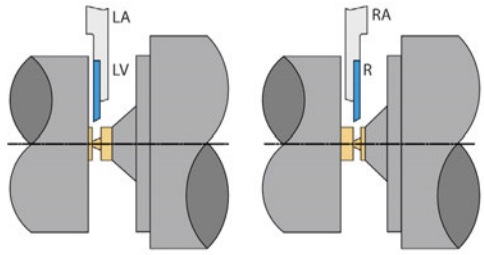


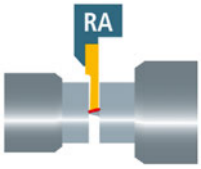
4005-000104
Connects to end port on 5/8" and larger shanks
0° Male Union - 1/8 BSPP to 1/4 JIC Flare Fitting
Fits Position (d) On Tool Holders Sold Separately

Features (5) connection ports for simple connection to your oil delivery system: (4) Side ports and (1) one end port making connection possible on most machine tool positions.

multidec® CUT 3000 Offset Shank & Insert Holders

Shifted holders enable the cutting of short parts by enabling the cutting edge to move closer to the guide bushing thus reducing the chance for deflection.





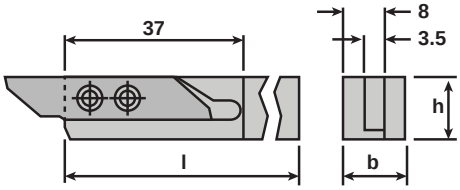
3000 Holder

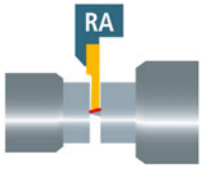
Type: Offset Shank & Insert
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions		
Item No.	Description	Item No.	Description	b	h	l
7005-112743	3000-10x80 LA	7005-112742	3000-10x80 RA	10	10	80
7005-138860	3000-10x100 LA	7005-138858	3000-10x100 RA	10	10	100
7005-127929	3000-12x100 LA	7005-127927	3000-12x100 RA	12	12	100
7005-127930	3000-16x125 LA	7005-127928	3000-16x125 RA	16	16	125
7005-112745	3000-3/8"x80 LA	7005-112744	3000-3/8"x80 RA	.375"	.375"	80
7005-138411	3000-3/8"x100 LA	7005-138410	3000-3/8"x100 RA	.375"	.375"	100
7005-138413	3000-1/2"x100 LA	7005-138412	3000-1/2"x100 RA	.500"	.500"	100
7005-139763	3000-5/8"x125 LA	7005-139762	3000-5/8"x125 RA	.625"	.625"	125





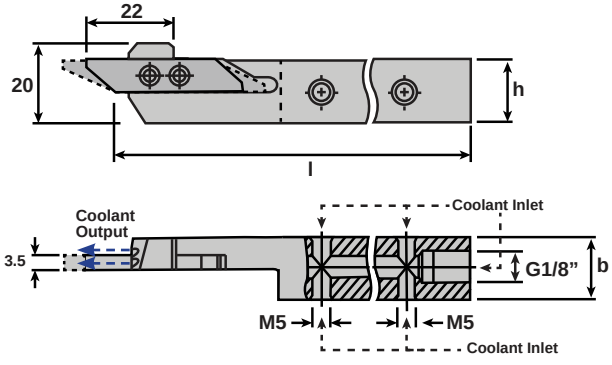


3000 Holder Coolant-Thru

Type: Offset Shank & Insert
Coolant-Thru: Rear & Side Ports

Repeatability <10µm

Left Hand		Right Hand		Dimensions			Rear Port	Side Ports	Included
Item No.	Description	Item No.	Description	b	h	l	G1/8in	M5	Fitting
7005-150276A	3000-16x125 LA IC	7005-150275	3000-16x125 RA IC	16	16	125	4005-000104	4005-000111	
7005-150277A	3000-5/8"x125 LA IC	7005-150278	3000-5/8"x125 RA IC	.625"	.625"	125	4005-000104	4005-000111	
7005-150276	3000-16x125 LA IC	7005-150275	3000-16x125 RA IC	16	16	125	4005-000104		4005-000111
7005-150277	3000-5/8"x125 LA IC	7005-150278	3000-5/8"x125 RA IC	.625"	.625"	125	4005-000104		4005-000111





4005-000111
Connects to side ports on ALL shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With Some Coolant-Thru Shanks

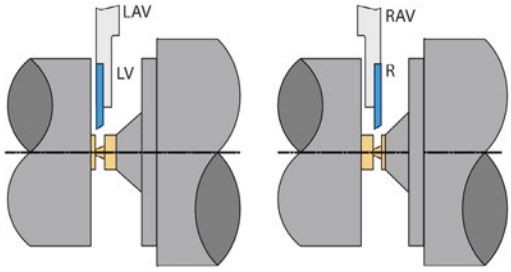


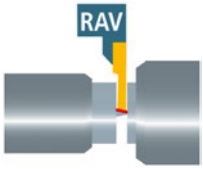
4005-000104
Connects to end port on 5/8" and larger shanks
0° Male Union - 1/8 BSPP to 1/4 JIC Flare Fitting
Fits Position (d) On Tool Holders Sold Separately

Features (5) connection ports for simple connection to your oil delivery system: (4) Side ports and (1) one end port making connection possible on most machine tool positions.

multidec®-CUT 3000 Offset Shank Holders

Offset holders include clearances for extended nose guide bushings or for subspindle/pickoff clearance thus providing an ideal cutoff situation in tough applications.





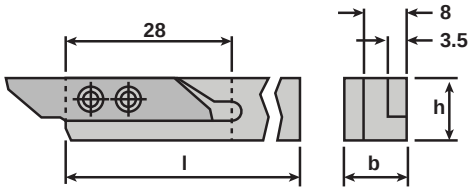
3000 Holder

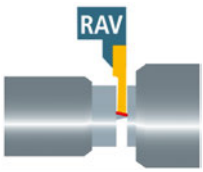
Type: Offset Shank
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions		
Item No.	Description	Item No.	Description	b	h	l
7005-112747	3000-10x80 LAV	7005-112746	3000-10x80 RAV	10	10	80
7005-138842	3000-10x100 LAV	7005-138848	3000-10x100 RAV	10	10	100
7005-138843	3000-12x100 LAV	7005-138849	3000-12x100 RAV	12	12	100
7005-138844	3000-16x125 LAV	7005-138850	3000-16x125 RAV	16	16	125
7005-112749	3000-3/8"x80 LAV	7005-112748	3000-3/8"x80 RAV	.375"	.375"	80
7005-138869	3000-3/8"x100 LAV	7005-138868	3000-3/8"x100 RAV	.375"	.375"	100
7005-138871	3000-1/2"x100 LAV	7005-138870	3000-1/2"x100 RAV	.500"	.500"	100
7005-139768	3000-5/8"x125 LAV	7005-139764	3000-5/8"x125 RAV	.625"	.625"	125





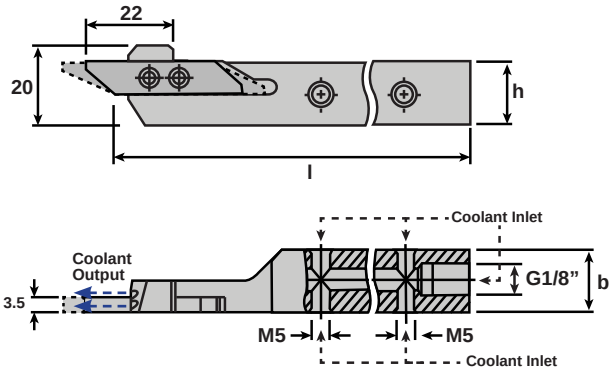


3000 Holder Coolant-Thru

Type: Offset Shank
Coolant-Thru: Rear & Side Ports

Repeatability <10µm

Left Hand		Right Hand		Dimensions			Rear Port	Side Ports
Item No.	Description	Item No.	Description	b	h	l	G1/8in	M5
7005-150279A	3000-16x125 LAV IC	7005-150281A	3000-16x125 RAV IC	16	16	125	4005-000104	4005-000111
7005-150282	3000-5/8"x125 LAV IC	7005-150283	3000-5/8"x125 RAV IC	.625"	.625"	125	4005-000104	4005-000111
7005-150279	3000-16x125 LAV IC	7005-150281	3000-16x125 RAV IC	16	16	125	4005-000104	4005-000111



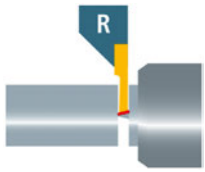


4005-000111
Connects to side ports on ALL Shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks



4005-000104
Connects to end port on 5/8" and larger shanks
0° Male Union - 1/8 BSPP to 1/4 JIC Flare Fitting
Fits Position (d) On Tool Holders
Sold Separately.

Features (5) connection ports for simple connection to your oil delivery system: (4) Side ports and (1) one end port making connection possible on most machine tool positions.



3000 Holder Combi

Type: Standard
Coolant-Thru: None

Repeatability <20µm

Mount Inserts From The Opposite Side

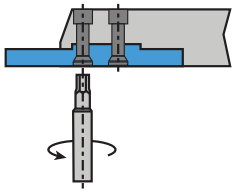


Left Hand		Right Hand		Dimensions			
Item No.	Description	Item No.	Description	b	h	l	a
7005-126605	3000-08x100 L C	7005-126195	3000-08x100 R C	8	8	100	3.5
7005-126606	3000-10x100 L C	7005-126155	3000-10x100 R C	10	10	100	3.5
7005-126607	3000-12x100 L C	7005-126156	3000-12x100 R C	12	12	100	3.5
7005-126608	3000-16x125 L C	7005-126157	3000-16x125 R C	16	16	125	3.5
7005-126609	3000-20x125 L C	7005-126158	3000-20x125 R C	20	20	125	3.5
7005-113088	3000-3/8"x100 L C	7005-113085	3000-3/8"x100 R C	.375"	.375"	100	3.5
7005-113089	3000-1/2"x100 L C	7005-113086	3000-1/2"x100 R C	.500"	.500"	100	3.5
7005-113090	3000-5/8"x125 L C	7005-113087	3000-5/8"x125 R C	.625"	.625"	125	3.5
7005-113892	3000-3/4"x125 L C	7005-113891	3000-3/4"x125 R C	.750"	.750"	125	3.5

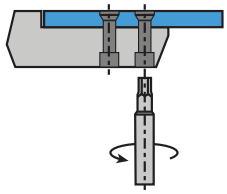
multidec®-CUT 3000...C Combi Holders

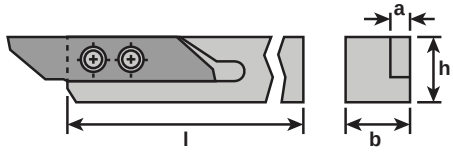
3000 Series Combi holders allow the insert fixing screws to be mounted from the opposite side of the holder using tapped bushings, making it easier to change inserts.

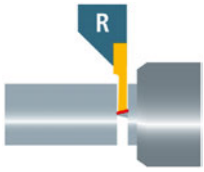
3000 Series Standard



3000 Series Combi







3000 Holder Coolant-Thru

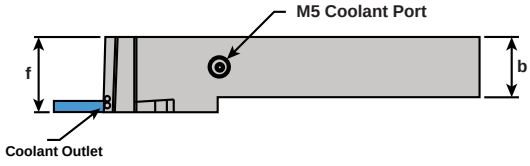
Type: Standard
Coolant-Thru: Sides

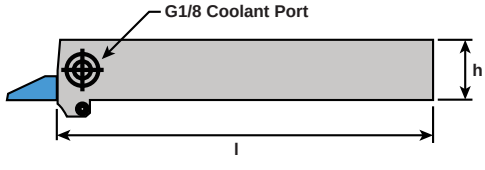


Coolant-Thru For Lathe Tooling

Repeatability <20µm

Left Hand		Right Hand		Dimensions				Coolant Fittings	
Item No.	Description	Item No.	Description	b	h	l	f	G1/8in	M5
7005-153668	3000 AK-16x125 L IC	7005-153605	3000 AK-16x125 R IC	16	16	125	20	4005-000104	4005-000111
7005-153609	3000 AK-20x125 L IC	7005-153606	3000 AK-20x125 R IC	20	20	125	25	4005-000104	4005-000111
7005-153610	3000 AK-25x125 L IC	7005-153607	3000 AK-25x125 R IC	25	25	125	32	4005-000104	4005-000111
7005-153614	3000 AK-5/8"x125 L IC	7005-153611	3000 AK-5/8"x125 R IC	5/8"	5/8"	125	20	4005-000104	4005-000111
7005-153615	3000 AK-3/4"x125 L IC	7005-153612	3000 AK-3/4"x125 R IC	3/4"	3/4"	125	25	4005-000104	4005-000111
7005-153616	3000 AK-1"x125 L IC	7005-153613	3000 AK-1"x125 R IC	1"	1"	125	32	4005-000104	4005-000111

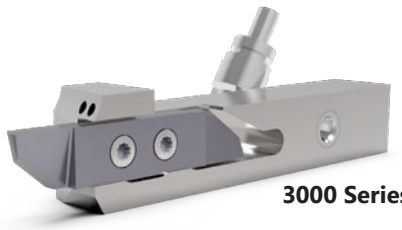




multidec® SHORT

multidec® SHORT coolant-thru holders enable the use of multidec® turning inserts on commonly available quick change tooling systems. **multidec® 1600, 3000, ISO VC, & ISO VP** series inserts are currently available.

See Pg. 304 For Full Details



3000 Series Insert Shown

Notes:

UTILIS®
Tooling for High Technology

multidec®-Cut, Gold Line

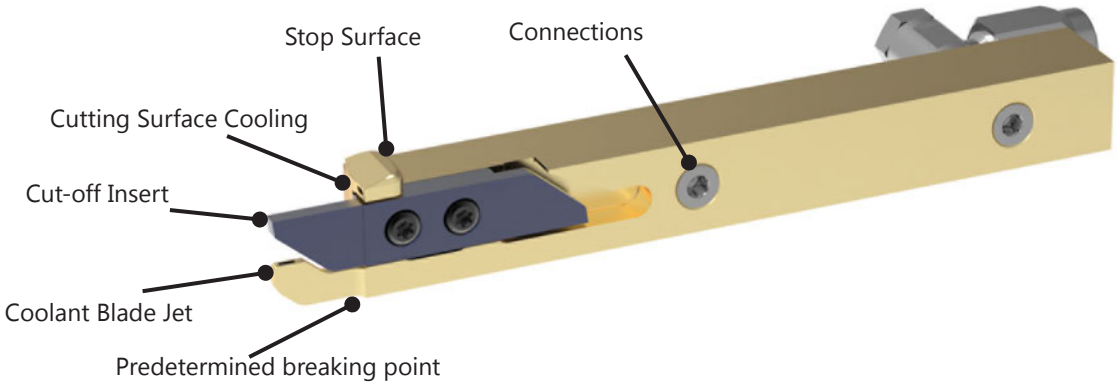
The multidec® Cut, Gold Line tool holder was developed using a special manufacturing process with the goal of enabling even more efficient machining for cutoff and grooving on automatic lathes. The newly designed cooling system makes it possible to double the lifetime of the cutting edges as well as increase the cutting parameters without having to accept higher wear.

Two types are available. One "IC+" (IC-Plus) is equipped with chip breaker and clearance angle cooling. The other type "IC-FK" is a version exclusively equipped with clearance angle cooling, which enables the combination with the innovative multidec®-LUBE coolant-thru wedges.

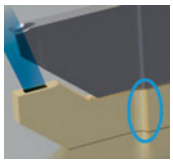
This tool is available for grooving inserts with a minimum width of 2mm.

ADVANTAGES

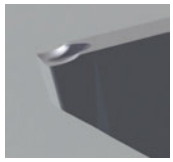
- New Manufacturing Technology allows for never-before-seen Coolant-thru Spray Patterns
- Chip Breaker Cooling to Optimize Chip Control, Reduce Built-Up Edge and Improve Tool Life
- Increases Tool Life Tremendously
- PVD Coating for Highest Wear and Corrosion Protection



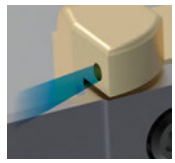
Check out this new series of products from UTILIS!
GenSwiss is the exclusive dealer of the multidec® Cut, Gold Line Tool Holder available for the multidec® CUT 3000 style inserts **(see pgs 118-146).**



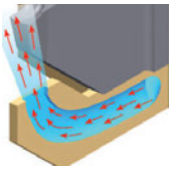
Predetermined breaking point
to avoid damage to the machine tool if the plate brakes



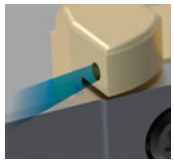
Cut-off Insert
Radial depth of cut up to 10mm with a minimum cut width of 2 mm.



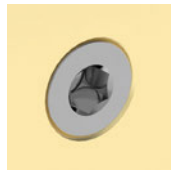
Stop Surface
Stop surface to optimize quick change set-up times



Coolant Blade Jet
Optimized open-surface cooling to increase service life by up to 185%.



Cutting Surface Cooling
Cutting face cooling to optimize chip control, reduce built-up edge and improve tool life.



Connections
5X coolant connections to increase flexibility of connection to coolant system and tool holder.

Enhanced coolant pathways appear in blue.
Pictured below are the 3D print prototype examples (for catalog view only).









Gold Line holders feature additional coolant jets from below the cutting edge, further extending the life of your cutting tools.

Contact sales@genswiss.com or call 413-562-4800 for more information.

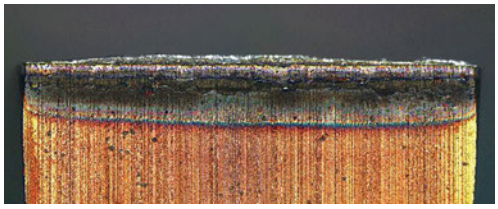
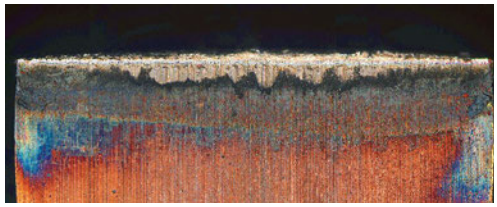
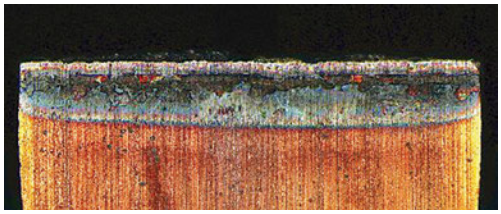
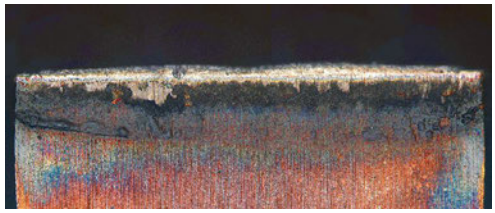
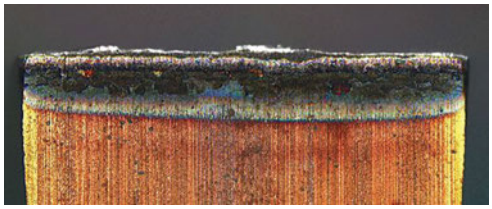
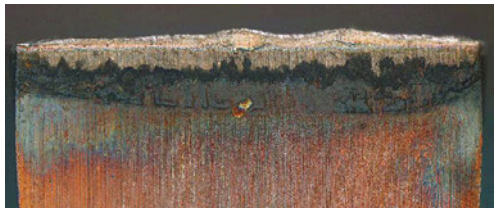
SUCCESS STORY

Starting situation – Tool life test

Two different tool holders were tested:

– Reference product / conventional, but with cooling from the multidec® LUBE wedge on chip breaker.
– 3000- 12-100 (GOLD LINE IC+) with cooling from holder to chip breaker and clearance angle.
A 3002-2.0-10 LN SPT06 UHM20 TX+ was used for parting off.
Testing took place in accordance with the "Standardized testing process" R&D (research & development).

Type of machine	**Star SR20**
Material No.	**1.4435 (316L), stainless steel**
Diameter	**12 mm**
Operation	**Parting off**
Coolant	**Oil**
Cutting speed (Vc)	**120m/min**
Feed (f)	**0.04mm /U**

Number of parts	multidec® - CUT, GOLD-LINE	Reference product/conventional
525		
1080		
1600		

Performance Comparison

The line diagram shows the development of the free face wear on the basis of the test result. The quantity (parts) was shown for illustration purposes.



Execution of holder/insert

The side on which the insert is located determines whether it is a "left" or "right-hand" holder. For this purpose, the holder is viewed with the insert pointing towards the observer.

The right-hand version of the tools is usually shown. (Exceptions are possible).



Left hand holder



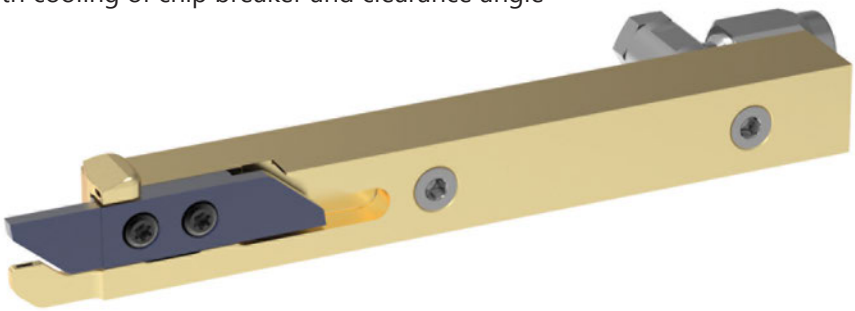
Neutral holder

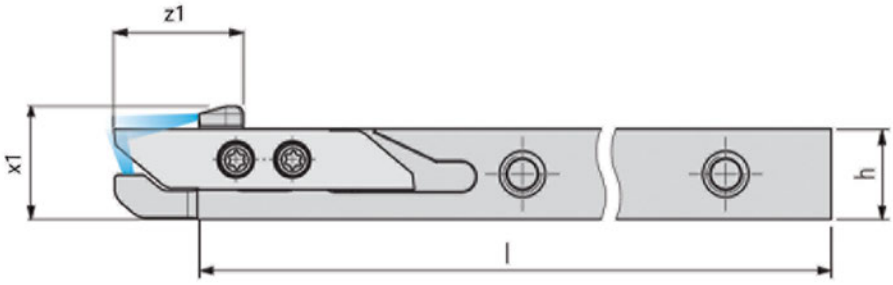


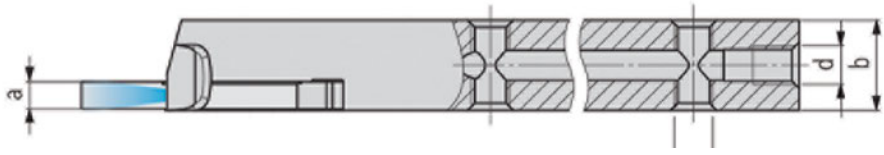
Right hand holder

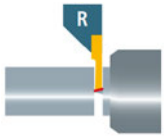
multidec®-CUT, GOLD LINE

With internal cooling "IC+" (IC-Plus)
with cooling of chip breaker and clearance angle







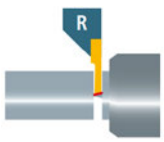


3000 Gold Line IC+

Type: Standard
Coolant-Thru: Rear & Side Ports

Repeatability <10µm

Left Hand		Right Hand		Dimensions							
Item No.	Description	Item No.	Description	h	b	l	a	z_1	x_1	c	d
7005-215076	3000-12x100 L GL IC+	7005-215075	3000-12x100 R GL IC+	12	12	100	3.5	17.2	15	M5	M5
7005-215190	3000-16x125 L GL IC+	7005-215187	3000-16x125 R GL IC+	16	16	125	3.5	17.2	19	M5	G1⁄8"
7005-215191	3000-20x125 L GL IC+	7005-215188	3000-20x125 R GL IC+	20	20	125	3.5	17.2	23	M5	G1⁄8"



3000... Gold Line IC+ INCH

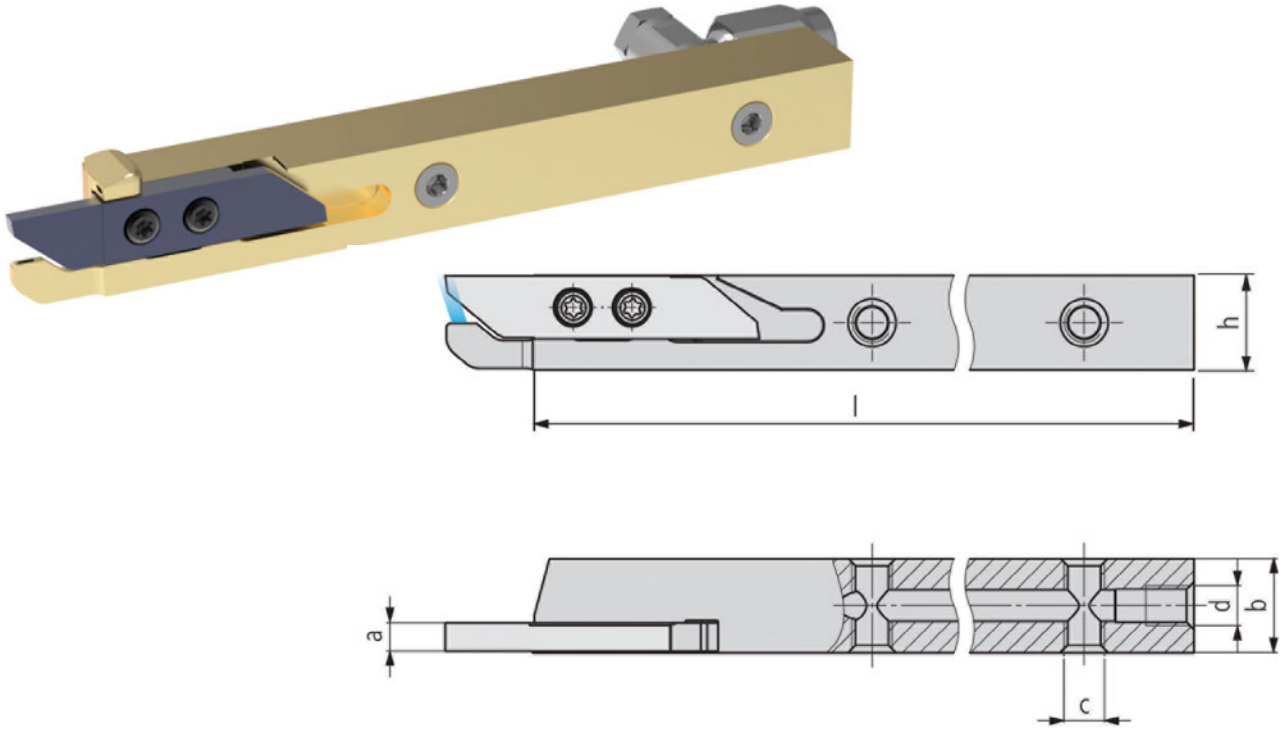
Type: Standard
Coolant-Thru: Rear & Side Ports

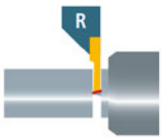
Repeatability <10µm

Left Hand		Right Hand		Dimensions							
Item No.	Description	Item No.	Description	h	b	l	a	z_1	x_1	c	d
7005-215204	3000-1/2"x100 L GL IC+	7005-215200	3000-1/2"x100 R GL IC+	12.7	12.7	100	3.5	17.2	15.7	M5	M5
7005-215205	3000-5/8"x125 L GL IC+	7005-215201	3000-5/8"x125 R GL IC+	15.875	15.875	125	3.5	17.2	18.875	M5	G1⁄8"
7005-215206	3000-3/4"x125 L GL IC+	7005-215202	3000-3/4"x125 R GL IC+	19.05	19.05	125	3.5	17.2	22.05	M5	G1⁄8"

multidec®-CUT, GOLD LINE

For use with multidec LUBE Coolant-Thru Wedges **(see pgs 308-324)**



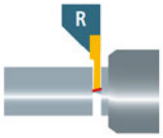


3000 Gold Line IC-FK

Type: Standard
Coolant-Thru: Rear & Side Ports

Repeatability <10µm

Left Hand		Right Hand		Dimensions					
Item No.	Description	Item No.	Description	h	b	l	a	c	d
7005-215078	3000-12x100 L GL IC-FK	7005-215077	3000-12x100 R GL IC-FK	12	12	100	3.5	M5	M5
7005-215196	3000-16x125 L GL IC-FK	7005-215193	3000-16x125 R GL IC-FK	16	16	125	3.5	M5	G1⁄8"
7005-215197	3000-20x125 L GL IC-FK	7005-215194	3000-20x125 R GL IC-FK	20	20	125	3.5	M5	G1⁄8"



3000 Gold Line IC-FK INCH

Type: Standard
Coolant-Thru: Rear & Side Ports

Repeatability <10µm

Left Hand		Right Hand		Dimensions					
Item No.	Description	Item No.	Description	h	b	l	a	c	d
7005-215212	3000-1/2"x100 L GL IC-FK	7005-215208	3000-1/2"x100 R GL IC-FK	12.7	12.7	100	3.5	M5	M5
7005-215213	3000-5/8"x125 L GL IC-FK	7005-215209	3000-5/8"x125 R GL IC-FK	15.875	15.875	125	3.5	M5	G1⁄8"
7005-215214	3000-3/4"x125 L GL IC-FK	7005-215210	3000-3/4"x125 R GL IC-FK	19.05	19.05	125	3.5	M5	G1⁄8"

Replacement & Spare Parts



TORX Screw

Item No.	Description	Dimensions
7005-043902	MSP 30090 T08	M3 × 9 T08



Screw Plug

Item No.	Description	Dimensions
7005-150262	MSP VSR M5 IB2.5	M5
Call for Details	MSP VSR G1/8 IB5	G1⁄8

multidec® CUT 1600 Series

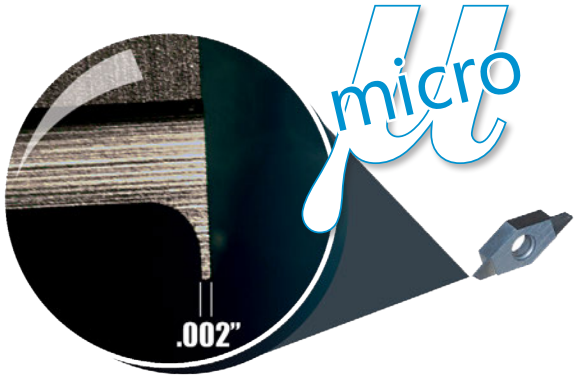
UTILIS®

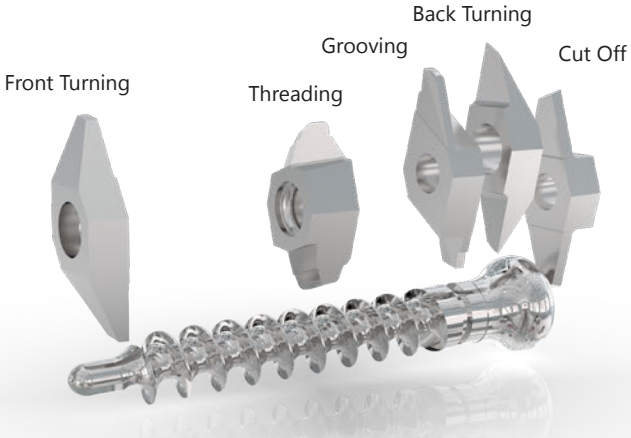
Tooling for High Technology



UTILIS multidec® 1600 Series Swiss Tools are designed for micro turning and grooving operations in Swiss-type CNC machines. Perfectly designed for the smallest of Swiss machines the 1600 series excels at work under .125" in diameter. Tough UHM30 grade carbide combined with a variety of coatings enhances tool life in tough materials typically machined in Swiss-type applications.

- Highly repeatable cutting edge
- .05mm to 2.75mm (.0019" - .1082") insert widths
- Micro grooving, front turning, back turning, micro threading, & cut off operations





Series	Operation
1602	Part Cut Off
1603	Front Turning
1604	Back Turning
1605	Groove & Turning
1606	Threading
1607	Full Radius Grooving
1610	Micro Grooving
1611	Axial Grooving
1612	Chamfering

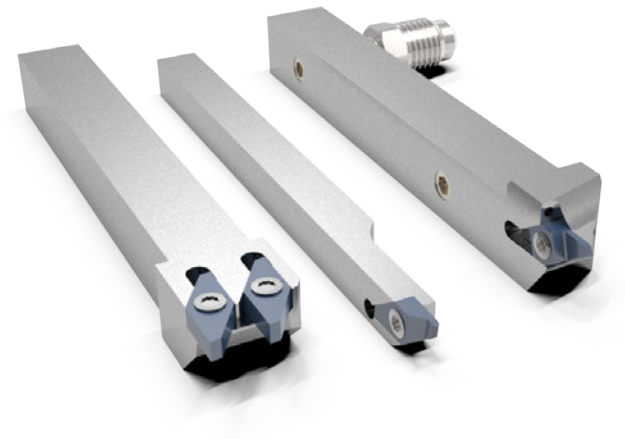
Properties & Application Range of Coatings

Carbide		Uncoated	Standard Coatings				Special Coatings (on request)						
UTILIS-Code			SX	MZ	HX	HPX	HX-A/ HX-A+	TX	HLX	BX	DX-T	DX-HC	DX/DX+
Coating		-	TiN	TiN/ TiAlN	TiAlN/ AlTiN	TiAlN/ AlTiN	AlCrN	AlCrN	TiAlN WC/C	TiCN	DLC	Ta-C	Diamond
Coating Process		-	PVD	CVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	CVD
Materials (Category)													
Unalloyed Steel	(I)	■	■	■	■	■	■	□	-	■	-	-	-
Low-Alloy Steel	(II)	□	■	■	■	■	■	□	-	■	-	-	-
High-Alloy Steel	(III)	□	□	■	■	■	■	□	-	□	-	-	-
Titanium	(IV)	□	-	-	■	□	■	■	■	-	-	-	-
Stainless Steel	(V)	□	□	■	■	■	■	□	■	■	-	-	-
Stainless Steel	(VI)	□	□	■	■	■	■	□	■	□	-	-	-
Aluminum	(VII)	■	□	-	■	-	□	-	■	-	■	■	■
Brass	(VIII)	■	□	-	■	□	□	-	■	-	■	■	-
Synthetics Reinforced/Composits	(IX)	-	-	-	□	-	-	-	-	-	□	■	■
Hard Materials	>60 HRC	-	-	-	-	-	□	■	-	-	-	-	-

Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	**Steel**
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	

■ Preferred Application
□ Possible Application
- Application Not Recommended



■ Preferred Application
☐ Possible Application
– Application Not Recommended

Series Operation	Chip Breaker	Steel	Stainless Steel	Titanium & Ti-Alloys	Non Ferrous Metals	Hardened	
1602 Series **Cut Off**	1602	■	■	■	–	■	Micro Finishing
		■	■	■	–	■	Finishing
		☐	☐	☐	■	☐	Roughing
	1602 GT20	■	■	■	☐	–	Micro Finishing
		■	■	■	■	☐	Finishing
		■	■	■	■	■	Roughing
	1602 SC	■	■	■	–	■	Micro Finishing
		■	■	■	–	■	Finishing
		■	■	■	–	■	Roughing
	1602 SPT	–	■	■	■	■	Micro Finishing
		–	■	■	■	☐	Finishing
		–	☐	☐	■	–	Roughing
	1602 TOP	■	■	■	■	■	Micro Finishing
		■	■	■	■	☐	Finishing
		☐	☐	☐	■	–	Roughing
	1602 SC TOP	■	■	■	–	■	Micro Finishing
		■	■	■	☐	☐	Finishing
		■	■	■	■	–	Roughing
1603 Series **Front Turning**	1603	■	■	■	–	■	Micro Finishing
		■	■	■	–	■	Finishing
		■	■	☐	■	☐	Roughing
	1603 GA20	☐	☐	☐	■	–	Micro Finishing
		■	■	■	■	☐	Finishing
		■	■	■	■	■	Roughing
	1603 SP	■	■	■	■	■	Micro Finishing
		■	■	■	■	☐	Finishing
		☐	☐	☐	■	–	Roughing
	1603 CP TOP	■	■	■	■	■	Micro Finishing
		■	■	■	■	☐	Finishing
		☐	☐	☐	■	–	Roughing
1604 Series **Back Turning**	1604 GB20	☐	☐	☐	■	–	Micro Finishing
		■	■	■	■	☐	Finishing
		■	■	■	■	■	Roughing
	1604 SP	■	■	■	■	■	Micro Finishing
		■	■	■	■	☐	Finishing
		☐	☐	☐	■	–	Roughing
	1604 TOP	■	■	■	■	■	Micro Finishing
		■	■	■	■	☐	Finishing
		☐	☐	☐	■	–	Roughing
	1604 SP TOP	■	■	■	■	■	Micro Finishing
		■	■	■	■	☐	Finishing
		☐	☐	☐	■	–	Roughing
1605 Series **Groove & Turning**	1605	■	■	☐	–	■	Micro Finishing
		■	■	■	☐	■	Finishing
		■	■	☐	■	☐	Roughing
	1605 CP	■	■	■	■	■	Micro Finishing
		■	■	■	■	–	Finishing
		☐	☐	☐	■	–	Roughing
	1605 GC20	■	■	■	■	–	Micro Finishing
		■	■	■	■	☐	Finishing
		■	■	■	■	■	Roughing
1606 Series **Threading**	1606	■	■	■	■	■	Micro Finishing
		–	–	–	☐	☐	Finishing
		–	–	–	–	☐	Roughing
	1606 VP	■	■	■	■	■	Micro Finishing
		–	–	–	☐	–	Finishing
		–	–	–	–	–	Roughing
1607 Series **Full Radius Grooving**	1607	■	■	■	■	■	Micro Finishing
		■	■	■	■	☐	Finishing
		–	–	–	–	–	Roughing

■ Preferred Application
☐ Possible Application
– Application Not Recommended

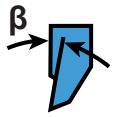
Series Operation	Chip Breaker	Steel	Stainless Steel	Titanium & Ti-Alloys	Non Ferrous Metals	Hardened	
1610 Series	1610	■	■	■	■	■	Micro Finishing
		■	■	■	■	☐	Finishing
		–	–	–	–	–	Roughing
1611 Series	1611	■	■	■	■	■	Micro Finishing
		■	■	■	■	☐	Finishing
		–	–	–	–	–	Roughing
1612 Series	1612	■	■	■	■	■	Micro Finishing
		■	■	■	■	–	Finishing
		–	–	–	–	–	Roughing

Classic multidec®
Precision Ground Chip Breakers



Type-SPT Chip Breaker
Cut-Off Inserts

The multidec® CUT1602 cut off inserts with type-SPT chip breaker feature a positive rake intended for use in soft and stringy materials. The SPT chip breaker comes in three different angles described by the product number suffix below.

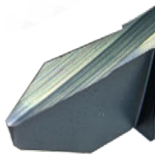


SPT: 20° rake - Plastics Such As Delrin
SPT06: 6° rake - Good For Stainless
SPT12: 12° rake - Aluminum



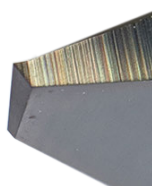
Type-SC Chip Breaker
Cut-Off Inserts

Cut-off inserts armed with the type-SC chip breaker are ideal for hard materials. This chip breaker is quite universal, used in roughing, finishing, and micro finishing.



Type-SP Chip Breaker
Front & Back Turning Inserts

Front and back turning inserts with the type-SP chip breaker are ideal for finishing and micro finishing on many material types, breaking up chips and preventing stringy chips from forming.



Type-CP Chip Breaker
Front & Back Turning, Grooving Inserts

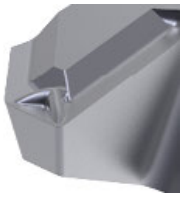
When creating deep features during front turning, back turning, or grooving, the type-CP chip breaker is vital for chip removal. The sharp articulated geometry will peel chips away and keep features clear of material during finishing and micro finishing operations.

UTILIS®
Tooling for High Technology

G-Line multidec®

Free Form Chip Breakers

- Improved Chip Control
- Longer Tool Life
- Better Cutting Values
- Better Process Relability



Type-GA20 Chip Breaker
Front Turning Inserts

Based on the multidec TOP insert technology, this optimised version enables turning in three directions. Perfect chip control is maintained during facing, turning, grooving, and back turning. Inhereted from the TOP insert technology, the GA20 enables up to 100% higher feed rate.

See page 172 for sizes



Type-GB20 Chip Breaker
Back Turning Inserts

Geometry provides optimum and process-reliable chip formation with both low and higher cutting depths and feed rates with an extremely sharp cutting edge in combination with multi-stage chip breakers.

See page 174-175 for sizes



Type-GC20 Chip Breaker
Grooving & Turning Insert

Providing good results in almost any material while facing, grooving, or turning, the GC20 chip breaker can turn in three direction with at extremely low and high cutting depths and across low and high feed rates. Excellent chip control results can also be observed in lead-free brass.

See page 176 for sizes



Type-GM20 Chip Breaker
Front Turning, Back Turning, Copy Turning

Chip-breaker similar to the "GA20", but without the "TOP" cutting edge, with the advantage of also being able to carry out copying operations and radial clearance turning.

See page 172 for sizes



Type-GT20 Chip Breaker
Cut-Off Inserts

Compared to the GS12 chip breaker geometry, the GT20 chip breaker has a sharp and slightly rounded cutting edge. It provides excellent chip flow, creating short chips and resulting in a smooth finish. These results can be experienced at higher feed rates also.

See pages 169-170 for sizes

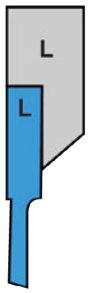


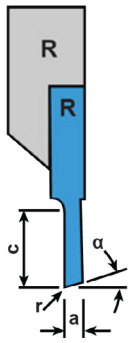
1602 Cutoff
Cut: Standard
Chip Breaker: None

Repeatability = R : ■<10µm, ■<20µm, ■<50µm

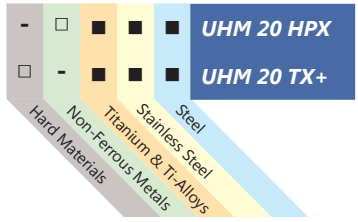
Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	R	a	c	α	r	Coating
7005-148423	1602-0.5-2.5 L G20 UHM20 HPX	7005-148425	1602-0.5-2.5 R G20 UHM20 HPX	■	0.5	2.5	20°	0	UHM 20 HPX
7005-039871	1602-0.5-2.5 L G20 UHM20 TX+	7005-039870	1602-0.5-2.5 R G20 UHM20 TX+	■	0.5	2.5	20°	0	UHM 20 TX+
7005-148427	1602-0.8-5 L UHM20 HPX	7005-148429	1602-0.8-5 R UHM20 HPX	■	0.8	5	15°	0	UHM 20 HPX
7005-039873	1602-0.8-5 L UHM20 TX+	7005-039872	1602-0.8-5 R UHM20 TX+	■	0.8	5	15°	0	UHM 20 TX+
7005-148431	1602-1.0-5 L UHM20 HPX	7005-148433	1602-1.0-5 R UHM20 HPX	■	1	5	15°	0	UHM 20 HPX
7005-039875	1602-1.0-5 L UHM20 TX+	7005-039874	1602-1.0-5 R UHM20 TX+	■	1	5	15°	0	UHM 20 TX+
7005-148435	1602-1.2-5 L UHM20 HPX	7005-148437	1602-1.2-5 R UHM20 HPX	■	1.2	5	15°	0	UHM 20 HPX
7005-039877	1602-1.2-5 L UHM20 TX+	7005-039876	1602-1.2-5 R UHM20 TX+	■	1.2	5	15°	0	UHM 20 TX+
7005-148439	1602-1.5-5 L UHM20 HPX	7005-148441	1602-1.5-5 R UHM20 HPX	■	1.5	5	15°	0	UHM 20 HPX
7005-039879	1602-1.5-5 L UHM20 TX+	7005-039878	1602-1.5-5 R UHM20 TX+	■	1.5	5	15°	0	UHM 20 TX+
Call For Details	1602 B-1.0-5 L UHM20 HPX	Call For Details	1602 B-1.0-5 R UHM20 HPX	■	1	5	15°	0	UHM 20 HPX
7005-153342	1602 B-1.5-5 L UHM20 HPX	7005-153340	1602 B-1.5-5 R UHM20 HPX	■	1.5	5	15°	0	UHM 20 HPX







Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

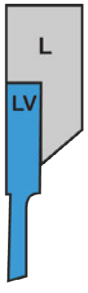


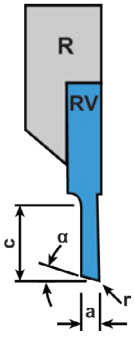
1602 Cutoff
Cut: Inverted
Chip Breaker: None

Repeatability = R : ■<10µm, ■<20µm, ■<50µm

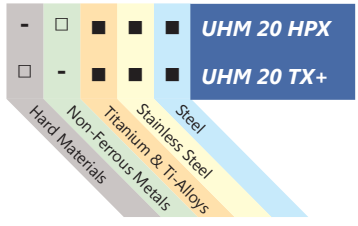
Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	R	a	c	α	r	Coating
7005-148443	1602-0.5-2.5 LV G20 UHM20 HPX	7005-148445	1602-0.5-2.5 RV G20 UHM20 HPX	■	0.5	2.5	20°	0	UHM 20 HPX
7005-039881	1602-0.5-2.5 LV G20 UHM20 TX+	7005-039880	1602-0.5-2.5 RV G20 UHM20 TX+	■	0.5	2.5	20°	0	UHM 20 TX+
7005-148447	1602-0.8-5 LV UHM20 HPX	7005-148449	1602-0.8-5 RV UHM20 HPX	■	0.8	5	15°	0	UHM 20 HPX
7005-039883	1602-0.8-5 LV UHM20 TX+	7005-039882	1602-0.8-5 RV UHM20 TX+	■	0.8	5	15°	0	UHM 20 TX+
7005-148451	1602-1.0-5 LV UHM20 HPX	7005-148453	1602-1.0-5 RV UHM20 HPX	■	1	5	15°	0	UHM 20 HPX
7005-039885	1602-1.0-5 LV UHM20 TX+	7005-039884	1602-1.0-5 RV UHM20 TX+	■	1	5	15°	0	UHM 20 TX+
7005-148455	1602-1.2-5 LV UHM20 HPX	7005-148457	1602-1.2-5 RV UHM20 HPX	■	1.2	5	15°	0	UHM 20 HPX
7005-039887	1602-1.2-5 LV UHM20 TX+	7005-039886	1602-1.2-5 RV UHM20 TX+	■	1.2	5	15°	0	UHM 20 TX+
7005-148459	1602-1.5-5 LV UHM20 HPX	7005-148461	1602-1.5-5 RV UHM20 HPX	■	1.5	5	15°	0	UHM 20 HPX
7005-039889	1602-1.5-5 LV UHM20 TX+	7005-039888	1602-1.5-5 RV UHM20 TX+	■	1.5	5	15°	0	UHM 20 TX+







Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended



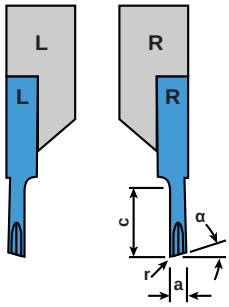
1602 Cutoff
Cut: Standard
Chip Breaker: SC

Repeatability <20µm

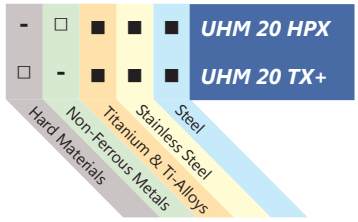
Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	α	r	Coating
7005-148463	1602-1.5-5 L SC UHM20 HPX	7005-116964	1602-1.5-5 R SC UHM20 HPX	1.5	5	15°	0	UHM 20 HPX
7005-039891	1602-1.5-5 L SC UHM20 TX+	7005-039890	1602-1.5-5 R SC UHM20 TX+	1.5	5	15°	0	UHM 20 TX+



Type-SC
Chip Breaker



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended



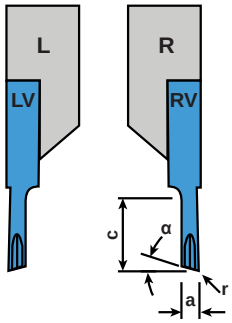
1602 Cutoff
Cut: Inverted
Chip Breaker: SC

Repeatability <20µm

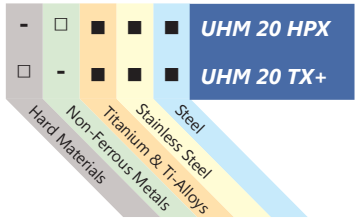
Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	α	r	Coating
7005-148465	1602-1.5-5 LV SC UHM20 HPX	7005-148467	1602-1.5-5 RV SC UHM20 HPX	1.5	5	15°	0	UHM 20 HPX
7005-039893	1602-1.5-5 LV SC UHM20 TX+	7005-039892	1602-1.5-5 RV SC UHM20 TX+	1.5	5	15°	0	UHM 20 TX+



Type-SC
Chip Breaker



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended



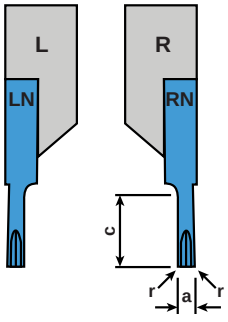
1602 Cutoff
Cut: Neutral
Chip Breaker: SC

Repeatability <20µm

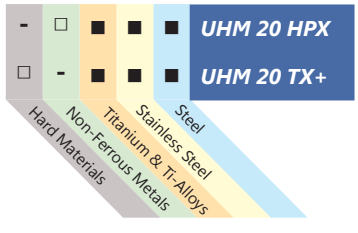
Left Hand		Right Hand		Dimensions & Features			
Item No.	Description	Item No.	Description	a	c	r	Coating
7005-040821	1602-1.5-5 LN SC UHM20 HPX	7005-192359	1602-1.5-5 RN SC UHM20 HPX	1.5	5	0.05mm/.0019in	UHM 20 HPX
7005-040822	1602-1.5-5 LN SC UHM20 TX+	7005-192700	1602-1.5-5 RN SC UHM20 TX+	1.5	5	0.05mm/.0019in	UHM 20 TX+



Type-SC
Chip Breaker



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended



1602 Cutoff

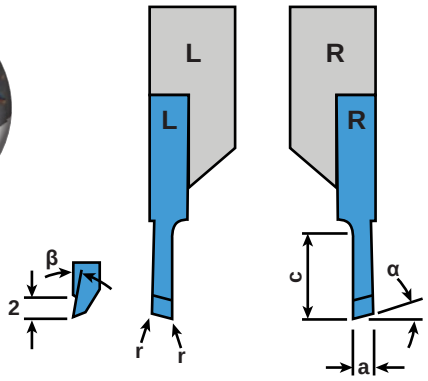
Cut: Standard
Chip Breaker: SPT

Repeatability = R : ■<10µm, ■<20µm, ■<50µm

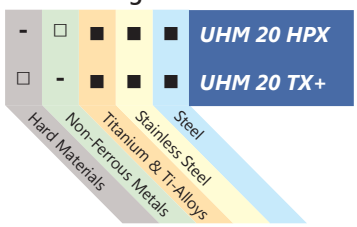
Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	R	a	c	α	β	r	Coating
7005-192680	1602-0.5-2.5 L SPT G20 UHM20 HPX	7005-039895	1602-0.5-2.5 R SPT G20 UHM20 HPX	■	0.5	2.5	20°	20°	0	UHM 20 HPX
7005-039899	1602-0.5-2.5 L SPT G20 UHM20 TX+	7005-039896	1602-0.5-2.5 R SPT G20 UHM20 TX+	■	0.5	2.5	20°	20°	0	UHM 20 TX+
7005-039906	1602-0.8-5 L SPT UHM20 HPX	7005-039903	1602-0.8-5 R SPT UHM20 HPX	■	0.8	5	15°	20°	0	UHM 20 HPX
7005-039907	1602-0.8-5 L SPT UHM20 TX+	7005-039904	1602-0.8-5 R SPT UHM20 TX+	■	0.8	5	15°	20°	0	UHM 20 TX+
7005-039910	1602-1.0-5 L SPT UHM20 HPX	7005-154337	1602-1.0-5 R SPT UHM20 HPX	■	1	5	15°	20°	0	UHM 20 HPX
7005-039911	1602-1.0-5 L SPT UHM20 TX+	7005-039908	1602-1.0-5 R SPT UHM20 TX+	■	1	5	15°	20°	0	UHM 20 TX+
7005-112751	1602-1.0-5 L SPT06 UHM20 HPX	7005-112755	1602-1.0-5 R SPT06 UHM20 HPX	■	1	5	15°	6°	0.05	UHM 20 HPX
7005-039913	1602-1.0-5 L SPT06 UHM20 TX+	7005-039912	1602-1.0-5 R SPT06 UHM20 TX+	■	1	5	15°	6°	0.05	UHM 20 TX+
7005-112753	1602-1.0-5 L SPT12 UHM20 HPX	7005-112757	1602-1.0-5 R SPT12 UHM20 HPX	■	1	5	15°	12°	0.05	UHM 20 HPX
7005-039914	1602-1.0-5 L SPT12 UHM20 TX+	7005-153964	1602-1.0-5 R SPT12 UHM20 TX+	■	1	5	15°	12°	0.05	UHM 20 TX+
7005-152851	1602-1.2-5 L SPT UHM20 HPX	7005-152854	1602-1.2-5 R SPT UHM20 HPX	■	1.2	5	15°	20°	0	UHM 20 HPX
7005-152852	1602-1.2-5 L SPT UHM20 TX+	7005-152855	1602-1.2-5 R SPT UHM20 TX+	■	1.2	5	15°	20°	0	UHM 20 TX+
7005-039923	1602-1.5-5 L SPT UHM20 HPX	7005-039920	1602-1.5-5 R SPT UHM20 HPX	■	1.5	5	15°	20°	0	UHM 20 HPX
7005-039924	1602-1.5-5 L SPT UHM20 TX+	7005-039921	1602-1.5-5 R SPT UHM20 TX+	■	1.5	5	15°	20°	0	UHM 20 TX+
7005-112759	1602-1.5-5 L SPT06 UHM20 HPX	7005-112763	1602-1.5-5 R SPT06 UHM20 HPX	■	1.5	5	15°	6°	0.05	UHM 20 HPX
7005-194011	1602-1.5-5 L SPT06 UHM20 TX+	7005-194012	1602-1.5-5 R SPT06 UHM20 TX+	■	1.5	5	15°	6°	0.05	UHM 20 TX+
7005-112761	1602-1.5-5 L SPT12 UHM20 HPX	7005-112765	1602-1.5-5 R SPT12 UHM20 HPX	■	1.5	5	15°	12°	0.05	UHM 20 HPX
7005-039926	1602-1.5-5 L SPT12 UHM20 TX+	7005-039925	1602-1.5-5 R SPT12 UHM20 TX+	■	1.5	5	15°	12°	0.05	UHM 20 TX+
7005-153145	1602 B-1.0-5 L SPT06 UHM20 HPX	7005-153142	1602 B-1.0-5 R SPT06 UHM20 HPX	■	1	5	15°	6°	0.05	UHM 20 HPX
7005-153205	1602 B-1.5-5 L SPT06 UHM20 HPX	7005-153207	1602 B-1.5-5 R SPT06 UHM20 HPX	■	1.5	5	15°	6°	0.05	UHM 20 HPX



Type-SPT Chip Breaker



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended



1602 Cutoff

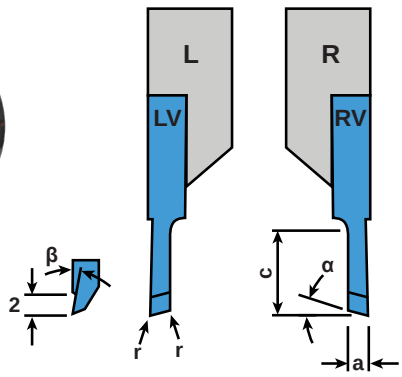
Cut: Inverted
Chip Breaker: SPT

Repeatability = R : ■<10µm, ■<20µm, ■<50µm

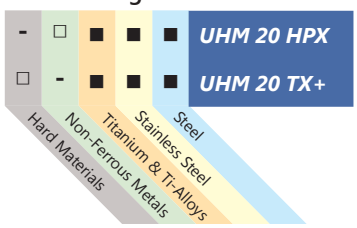
Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	R	a	c	α	β	r	Coating
7005-039931	1602-0.5-2.5 LV SPT G20 UHM20 HPX	7005-039928	1602-0.5-2.5 RV SPT G20 UHM20 HPX	■	0.5	2.5	20°	20°	0	UHM 20 TX+
7005-039932	1602-0.5-2.5 LV SPT G20 UHM20 TX+	7005-039929	1602-0.5-2.5 RV SPT G20 UHM20 TX+	■	0.5	2.5	20°	20°	0	UHM 20 TX+
7005-039937	1602-0.8-5 LV SPT UHM20 HPX	7005-039934	1602-0.8-5 RV SPT UHM20 HPX	■	0.8	5	15°	20°	0	UHM 20 TX+
7005-039938	1602-0.8-5 LV SPT UHM20 TX+	7005-039935	1602-0.8-5 RV SPT UHM20 TX+	■	0.8	5	15°	20°	0	UHM 20 TX+
7005-039943	1602-1.0-5 LV SPT UHM20 HPX	7005-039940	1602-1.0-5 RV SPT UHM20 HPX	■	1	5	15°	20°	0	UHM 20 TX+
7005-039944	1602-1.0-5 LV SPT UHM20 TX+	7005-039941	1602-1.0-5 RV SPT UHM20 TX+	■	1	5	15°	20°	0	UHM 20 TX+
7005-112767	1602-1.0-5 LV SPT06 UHM20 HPX	7005-112771	1602-1.0-5 RV SPT06 UHM20 HPX	■	1	5	15°	6°	0.05	UHM 20 HPX
7005-039946	1602-1.0-5 LV SPT06 UHM20 TX+	7005-039945	1602-1.0-5 RV SPT06 UHM20 TX+	■	1	5	15°	6°	0.05	UHM 20 HPX
7005-112769	1602-1.0-5 LV SPT12 UHM20 HPX	7005-112773	1602-1.0-5 RV SPT12 UHM20 HPX	■	1	5	15°	12°	0.05	UHM 20 HPX
7005-039948	1602-1.0-5 LV SPT12 UHM20 TX+	7005-039947	1602-1.0-5 RV SPT12 UHM20 TX+	■	1	5	15°	12°	0.05	UHM 20 HPX
7005-039953	1602-1.2-5 LV SPT UHM20 HPX	7005-039950	1602-1.2-5 RV SPT UHM20 HPX	■	1.2	5	15°	20°	0	UHM 20 TX+
7005-039954	1602-1.2-5 LV SPT UHM20 TX+	7005-039951	1602-1.2-5 RV SPT UHM20 TX+	■	1.2	5	15°	20°	0	UHM 20 TX+
7005-039959	1602-1.5-5 LV SPT UHM20 HPX	7005-039956	1602-1.5-5 RV SPT UHM20 HPX	■	1.5	5	15°	20°	0	UHM 20 TX+
7005-039960	1602-1.5-5 LV SPT UHM20 TX+	7005-039957	1602-1.5-5 RV SPT UHM20 TX+	■	1.5	5	15°	20°	0	UHM 20 TX+
7005-112775	1602-1.5-5 LV SPT06 UHM20 HPX	7005-112779	1602-1.5-5 RV SPT06 UHM20 HPX	■	1.5	5	15°	6°	0.05	UHM 20 HPX
7005-039962	1602-1.5-5 LV SPT06 UHM20 TX+	7005-039961	1602-1.5-5 RV SPT06 UHM20 TX+	■	1.5	5	15°	6°	0.05	UHM 20 HPX
7005-112777	1602-1.5-5 LV SPT12 UHM20 HPX	7005-112781	1602-1.5-5 RV SPT12 UHM20 HPX	■	1.5	5	15°	12°	0.05	UHM 20 HPX
7005-039964	1602-1.5-5 LV SPT12 UHM20 TX+	7005-039963	1602-1.5-5 RV SPT12 UHM20 TX+	■	1.5	5	15°	12°	0.05	UHM 20 HPX
7005-153197	1602 B-1.0-5 LV SPT06 UHM20 HPX	7005-153199	1602 B-1.0-5 RV SPT06 UHM20 HPX	■	1	5	15°	6°	0.05	UHM 20 HPX
7005-153209	1602 B-1.5-5 LV SPT06 UHM20 HPX	7005-153211	1602 B-1.5-5 RV SPT06 UHM20 HPX	■	1.5	5	15°	6°	0.05	UHM 20 HPX



Type-SPT
Chip Breaker



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended



1602 Cutoff

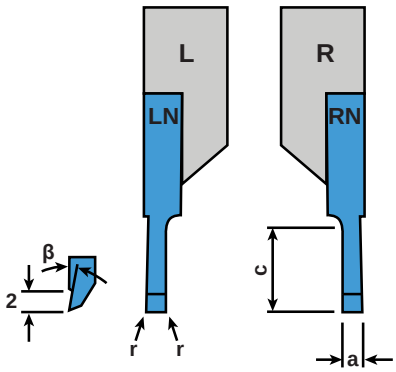
Cut: Neutral
Chip Breaker: SPT

Repeatability = R : ■<10µm, ■<20µm, ■<50µm

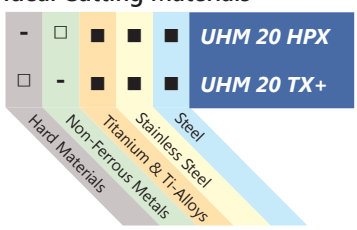
Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	R	a	c	β	r	Coating
7005-040827	1602-0.5-2.5 LN SPT UHM20 HPX	7005-040824	1602-0.5-2.5 RN SPT UHM20 HPX	■	0.5	2.5	20°	0.05	UHM 20 HPX
7005-040828	1602-0.5-2.5 LN SPT UHM20 TX+	7005-040825	1602-0.5-2.5 RN SPT UHM20 TX+	■	0.5	2.5	20°	0.05	UHM 20 TX+
7005-040833	1602-0.8-5 LN SPT UHM20 HPX	7005-040830	1602-0.8-5 RN SPT UHM20 HPX	■	0.8	5	20°	0.05	UHM 20 HPX
7005-040834	1602-0.8-5 LN SPT UHM20 TX+	7005-040831	1602-0.8-5 RN SPT UHM20 TX+	■	0.8	5	20°	0.05	UHM 20 TX+
7005-040843	1602-1.0-5 LN SPT UHM20 HPX	7005-040838	1602-1.0-5 RN SPT UHM20 HPX	■	1	5	20°	0.05	UHM 20 HPX
7005-040844	1602-1.0-5 LN SPT UHM20 TX+	7005-040839	1602-1.0-5 RN SPT UHM20 TX+	■	1	5	20°	0.05	UHM 20 TX+
7005-112783	1602-1.0-5 LN SPT06 UHM20 HPX	7005-112787	1602-1.0-5 RN SPT06 UHM20 HPX	■	1	5	6°	0.05	UHM 20 HPX
7005-040845	1602-1.0-5 LN SPT06 UHM20 TX+	7005-192208	1602-1.0-5 RN SPT06 UHM20 TX+	■	1	5	6°	0.05	UHM 20 TX+
7005-112785	1602-1.0-5 LN SPT12 UHM20 HPX	7005-112789	1602-1.0-5 RN SPT12 UHM20 HPX	■	1	5	12°	0.05	UHM 20 HPX
7005-040847	1602-1.0-5 LN SPT12 UHM20 TX+	7005-040846	1602-1.0-5 RN SPT12 UHM20 TX+	■	1	5	12°	0.05	UHM 20 TX+
7005-040852	1602-1.2-5 LN SPT UHM20 HPX	7005-040850	1602-1.2-5 RN SPT UHM20 TX+	■	1.2	5	20°	0.05	UHM 20 HPX
7005-040853	1602-1.2-5 LN SPT UHM20 TX+	7005-040850	1602-1.2-5 RN SPT UHM20 TX+	■	1.2	5	20°	0.05	UHM 20 TX+
7005-040858	1602-1.5-5 LN SPT UHM20 HPX	7005-040855	1602-1.5-5 RN SPT UHM20 HPX	■	1.5	5	20°	0.05	UHM 20 HPX
7005-040859	1602-1.5-5 LN SPT UHM20 TX+	7005-040856	1602-1.5-5 RN SPT UHM20 TX+	■	1.5	5	20°	0.05	UHM 20 TX+
7005-112791	1602-1.5-5 LN SPT06 UHM20 HPX	7005-112795	1602-1.5-5 RN SPT06 UHM20 HPX	■	1.5	5	6°	0.05	UHM 20 HPX
7005-040860	1602-1.5-5 LN SPT06 UHM20 TX+	7005-154653	1602-1.5-5 RN SPT06 UHM20 TX+	■	1.5	5	6°	0.05	UHM 20 TX+
7005-112793	1602-1.5-5 LN SPT12 UHM20 HPX	7005-112797	1602-1.5-5 RN SPT12 UHM20 HPX	■	1.5	5	12°	0.05	UHM 20 HPX
7005-040862	1602-1.5-5 LN SPT12 UHM20 TX+	7005-040861	1602-1.5-5 RN SPT12 UHM20 TX+	■	1.5	5	12°	0.05	UHM 20 TX+
7005-153201	1602 B-1.0-5 LN SPT06 UHM20 HPX	Call For Details	1602 B-1.0-5 RN SPT06 UHM20 HPX	■	1	5	6°	0.05	UHM 20 HPX
Call For Details	1602 B-1.0-5 LN SPT06 UHM20 TX+	Call For Details	1602 B-1.0-5 RN SPT06 UHM20 TX+	■	1	5	6°	0.05	UHM 20 TX+
7005-153213	1602 B-1.5-5 LN SPT06 UHM20 HPX	7005-153215	1602 B-1.5-5 RN SPT06 UHM20 HPX	■	1.5	5	6°	0.05	UHM 20 HPX
Call For Details	1602 B-1.5-5 LN SPT06 UHM20 TX+	Call For Details	1602 B-1.5-5 RN SPT06 UHM20 TX+	■	1.5	5	6°	0.05	UHM 20 TX+



Type-SPT
Chip Breaker



Ideal Cutting Materials



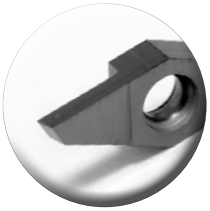
■ Preferred Application
□ Possible Application
- Application Not Recommended



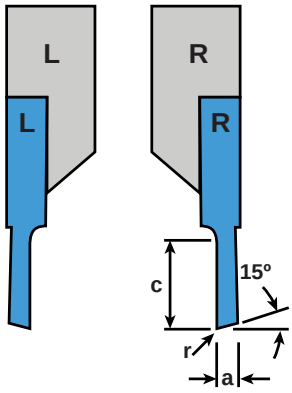
1602 Cutoff
Cut: Standard
Geometry: TOP Wiper

Repeatability <20µm

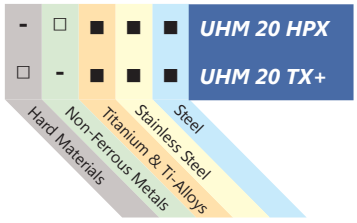
Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	β	r	Coating
7005-040799	1602-1.5-5 L TOP 008 UHM20 HPX	7005-040589	1602-1.5-5 R TOP 008 UHM20 HPX	1.5	5	1.5°	0	UHM 20 HPX
7005-040800	1602-1.5-5 L TOP 008 UHM20 TX+	7005-040797	1602-1.5-5 R TOP 008 UHM20 TX+	1.5	5	1.5°	0	UHM 20 TX+



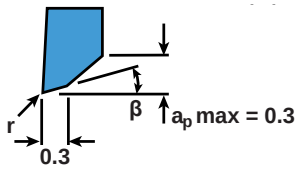
TOP Wiper



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended





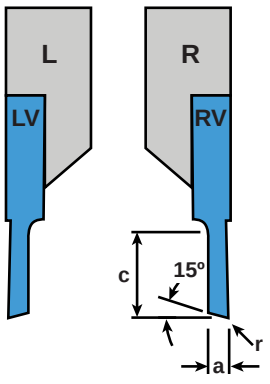
1602 Cutoff
Cut: Inverted
Geometry: TOP Wiper

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	β	r	Coating
7005-040805	1602-1.5-5 LV TOP 008 UHM20 HPX	7005-040802	1602-1.5-5 RV TOP 008 UHM20 HPX	1.5	5	1.5°	.08mm/.0031in	UHM 20 HPX
7005-040806	1602-1.5-5 LV TOP 008 UHM20 TX+	7005-040803	1602-1.5-5 RV TOP 008 UHM20 TX+	1.5	5	1.5°	.08mm/.0031in	UHM 20 TX+



TOP Wiper



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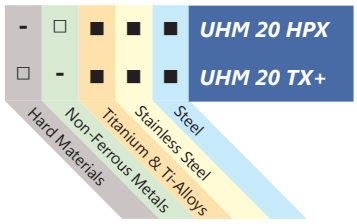
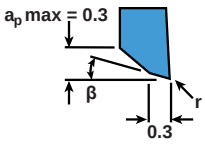


■ Preferred Application
□ Possible Application
- Application Not Recommended



Detailed Top



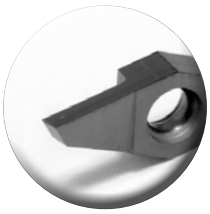
1602 Cutoff

Cut: Standard

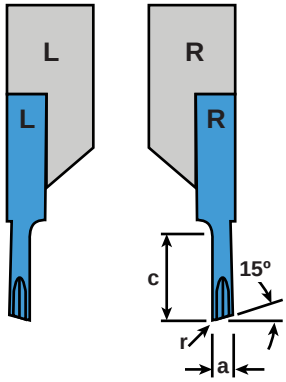
Geometry: TOP Wiper With SC Chip Breaker

Repeatability <20µm

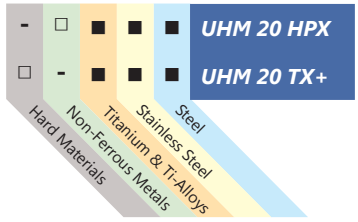
Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	β	r	Coating
7005-040811	1602-1.5-5 L SC TOP 008 UHM20 HPX	7005-040808	1602-1.5-5 R SC TOP 008 UHM20 HPX	1.5	5	1.5°	.08mm/.0031in	UHM 20 HPX
7005-040812	1602-1.5-5 L SC TOP 008 UHM20 TX+	7005-040809	1602-1.5-5 R SC TOP 008 UHM20 TX+	1.5	5	1.5°	.08mm/.0031in	UHM 20 TX+



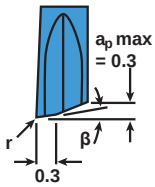
TOP Wiper
Type-SC Chip Breaker



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended





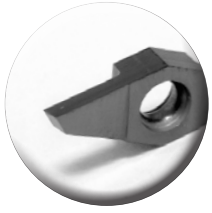
1602 Cutoff

Cut: Inverted

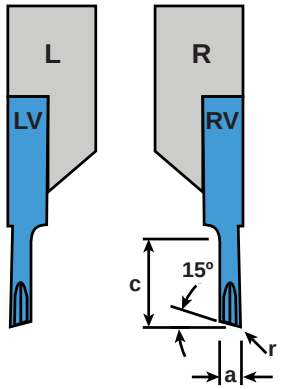
Geometry: TOP Wiper And SC Chip Breaker

Repeatability <20µm

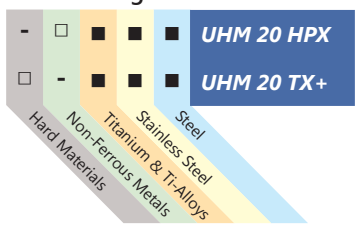
Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	β	r	Coating
7005-040817	1602-1.5-5 LV SC TOP 008 UHM20 HPX	7005-192357	1602-1.5-5 RV SC TOP 008 UHM20 HPX	1.5	5	1.5°	.08mm/.0031in	UHM 20 HPX
7005-040818	1602-1.5-5 LV SC TOP 008 UHM20 TX+	7005-040815	1602-1.5-5 RV SC TOP 008 UHM20 TX+	1.5	5	1.5°	.08mm/.0031in	UHM 20 TX+



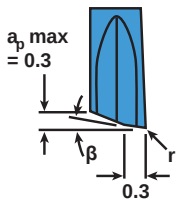
TOP Wiper
Type-SC Chip Breaker



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended





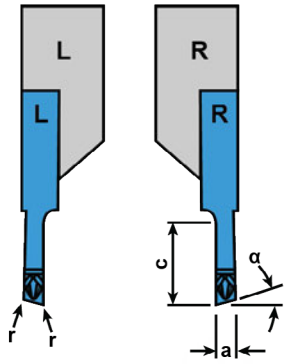
1602 Cutoff
Cut: Standard
Chip Breaker: GT20

Repeatability <10µm

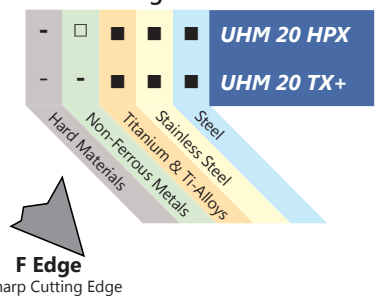
Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	α	r	Coating
7005-211079	1602-0.8-5 FL GT20 UHM20 HPX	7005-211076	1602-0.8-5 FR GT20 UHM20 HPX	0.8	5	7°	0.05mm/.0019in	UHM 20 HPX
7005-211080	1602-0.8-5 FL GT20 UHM20 TX+	7005-211077	1602-0.8-5 FR GT20 UHM20 TX+	0.8	5	7°	0.05mm/.0019in	UHM 20 TX+
7005-211161	1602-1.0-5 FL GT20 UHM20 HPX	7005-211158	1602-1.0-5 FR GT20 UHM20 HPX	1.0	5	7°	0.05mm/.0019in	UHM 20 HPX
7005-211162	1602-1.0-5 FL GT20 UHM20 TX+	7005-211159	1602-1.0-5 FR GT20 UHM20 TX+	1.0	5	7°	0.05mm/.0019in	UHM 20 TX+
7005-211167	1602-1.5-5 FL GT20 UHM20 HPX	7005-211164	1602-1.5-5 FR GT20 UHM20 HPX	1.5	5	7°	0.05mm/.0019in	UHM 20 HPX
7005-211168	1602-1.5-5 FL GT20 UHM20 TX+	7005-211165	1602-1.5-5 FR GT20 UHM20 TX+	1.5	5	7°	0.05mm/.0019in	UHM 20 TX+



Type-GT20
Chip Breaker



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

F Edge
Sharp Cutting Edge



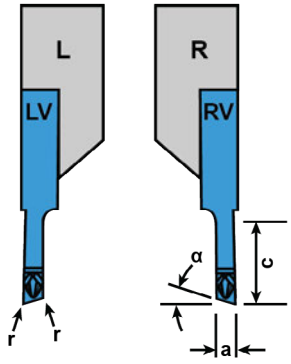
1602 Cutoff
Cut: Inverted
Chip Breaker: GT20

Repeatability <10µm

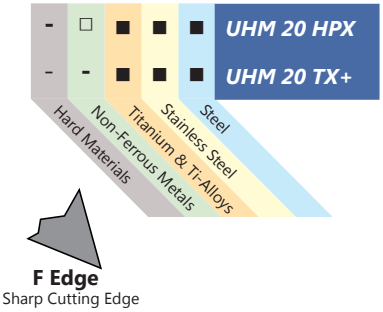
Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	α	r	Coating
7005-211173	1602-0.8-5 FLV GT20 UHM20 HPX	7005-211170	1602-0.8-5 FRV GT20 UHM20 HPX	0.8	5	7°	0.05mm/.0019in	UHM 20 HPX
7005-211174	1602-0.8-5 FLV GT20 UHM20 TX+	7005-211171	1602-0.8-5 FRV GT20 UHM20 TX+	0.8	5	7°	0.05mm/.0019in	UHM 20 TX+
7005-211179	1602-1.0-5 FLV GT20 UHM20 HPX	7005-211176	1602-1.0-5 FRV GT20 UHM20 HPX	1.0	5	7°	0.05mm/.0019in	UHM 20 HPX
7005-211180	1602-1.0-5 FLV GT20 UHM20 TX+	7005-211177	1602-1.0-5 FRV GT20 UHM20 TX+	1.0	5	7°	0.05mm/.0019in	UHM 20 TX+
7005-211185	1602-1.5-5 FLV GT20 UHM20 HPX	7005-211182	1602-1.5-5 FRV GT20 UHM20 HPX	1.5	5	7°	0.05mm/.0019in	UHM 20 HPX
7005-211186	1602-1.5-5 FLV GT20 UHM20 TX+	7005-211183	1602-1.5-5 FRV GT20 UHM20 TX+	1.5	5	7°	0.05mm/.0019in	UHM 20 TX+



Type-GT20
Chip Breaker



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

F Edge
Sharp Cutting Edge

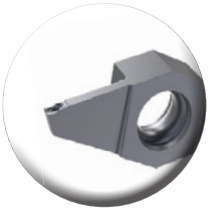


1602 Cutoff

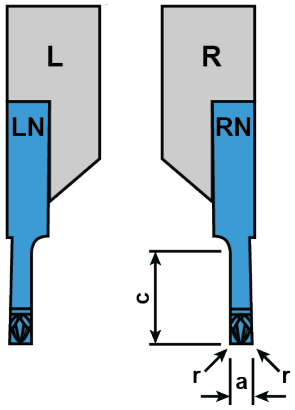
Cut: Neutral
Chip Breaker: GT20

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	α	r	Coating
7005-211037	1602-0.8-5 FLN GT20 UHM20 HPX	7005-211040	1602-0.8-5 FRN GT20 UHM20 HPX	0.8	5	0.05mm/.0019in	0.05mm/.0019in	UHM 20 HPX
7005-211038	1602-0.8-5 FLN GT20 UHM20 TX+	7005-211041	1602-0.8-5 FRN GT20 UHM20 TX+	0.8	5	0.05mm/.0019in	0.05mm/.0019in	UHM 20 TX+
7005-211191	1602-1.0-5 FLN GT20 UHM20 HPX	7005-211188	1602-1.0-5 FRN GT20 UHM20 HPX	1.0	5	0.05mm/.0019in	0.05mm/.0019in	UHM 20 HPX
7005-211192	1602-1.0-5 FLN GT20 UHM20 TX+	7005-211189	1602-1.0-5 FRN GT20 UHM20 TX+	1.0	5	0.05mm/.0019in	0.05mm/.0019in	UHM 20 TX+
7005-211197	1602-1.5-5 FLN GT20 UHM20 HPX	7005-211194	1602-1.5-5 FRN GT20 UHM20 HPX	1.5	5	0.05mm/.0019in	0.05mm/.0019in	UHM 20 HPX
7005-211198	1602-1.5-5 FLN GT20 UHM20 TX+	7005-211195	1602-1.5-5 FRN GT20 UHM20 TX+	1.5	5	0.05mm/.0019in	0.05mm/.0019in	UHM 20 TX+



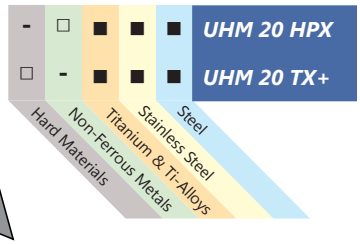
Type-GT20 Chip Breakerr



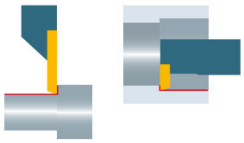


F Edge
Sharp Cutting Edge

Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

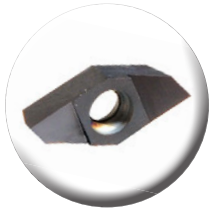


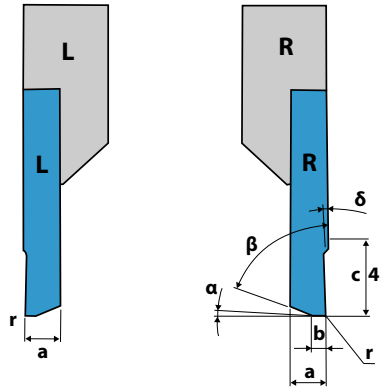
1603 Front Turn

Cut: Standard
Chip Breaker: None

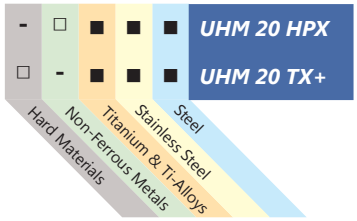
Repeatability = R : ■<20µm, ■<50µm

Left Hand		Right Hand		Dimensions & Features							
Item No.	Description	Item No.	Description	R	a	b	α	β	r	δ	Coating
7005-147984	1603-3.0-4 L UHM20 HPX	7005-148471	1603-3.0-4 R UHM20 HPX	■	3	1	3°	70°	0	-	UHM 20 HPX
7005-040864	1603-3.0-4 L UHM20 TX+	7005-040863	1603-3.0-4 R UHM20 TX+	■	3	1	3°	70°	0	-	UHM 20 TX+
7005-153507	1603-3.0-5 L 55008 UHM20 HPX	7005-153511	1603-3.0-5 R 55008 UHM20 HPX	■	3	-	-	55°	.08	2°	UHM 20 HPX
7005-040881	1603-3.0-5 L 55008 UHM20 TX+	7005-040880	1603-3.0-5 R 55008 UHM20 TX+	■	3	-	-	55°	.08	2°	UHM 20 TX+
7005-153515	1603-3.0-5 L 55015 UHM20 HPX	7005-153519	1603-3.0-5 R 55015 UHM20 HPX	■	3	-	-	55°	.15	2°	UHM 20 HPX
7005-040883	1603-3.0-5 L 55015 UHM20 TX+	7005-040882	1603-3.0-5 R 55015 UHM20 TX+	■	3	-	-	55°	.15	2°	UHM 20 TX+
7005-153475	1603-3.0-5 L 35008 UHM20 HPX	7005-153479	1603-3.0-5 R 35008 UHM20 HPX	■	3	-	-	35°	.08	2°	UHM 20 HPX
7005-040871	1603-3.0-5 L 35008 UHM20 TX+	7005-040865	1603-3.0-5 R 35008 UHM20 TX+	■	3	-	-	35°	.08	2°	UHM 20 TX+
7005-153483	1603-3.0-5 L 35015 UHM20 HPX	7005-153487	1603-3.0-5 R 35015 UHM20 HPX	■	3	-	-	35°	.15	2°	UHM 20 HPX
7005-040879	1603-3.0-5 L 35015 UHM20 TX+	7005-040872	1603-3.0-5 R 35015 UHM20 TX+	■	3	-	-	35°	.15	2°	UHM 20 TX+

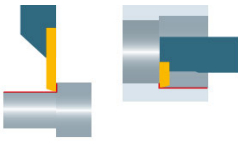




Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended



1603 Front Turn

Cut: Standard

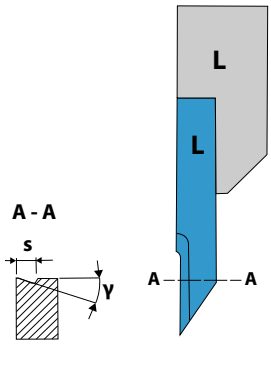
Chip Breaker: SP

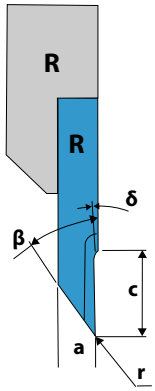
Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	a	β	r	γ	δ	Coating
7005-148473	1603-3.0-4 L SP U55003 UHM20 HPX	7005-148475	1603-3.0-4 R SP U55003 UHM20 HPX	3	55°	0.03	12°	2°	UHM 20 HPX
7005-040889	1603-3.0-4 L SP U55003 UHM20 TX+	7005-154299	1603-3.0-4 R SP U55003 UHM20 TX+	3	55°	0.03	12°	2°	UHM 20 TX+
7005-153559	1603-3.0-4 L SP U55008 UHM20 HPX	7005-153557	1603-3.0-4 R SP U55008 UHM20 HPX	3	55°	0.08	12°	2°	UHM 20 HPX
7005-040891	1603-3.0-4 L SP U55008 UHM20 TX+	7005-040890	1603-3.0-4 R SP U55008 UHM20 TX+	3	55°	0.08	12°	2°	UHM 20 TX+
7005-153567	1603-3.0-4 L SP U55015 UHM20 HPX	7005-153565	1603-3.0-4 R SP U55015 UHM20 HPX	3	55°	0.15	12°	2°	UHM 20 HPX
7005-040893	1603-3.0-4 L SP U55015 UHM20 TX+	7005-040892	1603-3.0-4 R SP U55015 UHM20 TX+	3	55°	0.15	12°	2°	UHM 20 TX+
7005-153533	1603-3.0-4 L SP U35003 UHM20 HPX	7005-153531	1603-3.0-4 R SP U35003 UHM20 HPX	3	35°	0.03	12°	2°	UHM 20 HPX
7005-040885	1603-3.0-4 L SP U35003 UHM20 TX+	7005-040884	1603-3.0-4 R SP U35003 UHM20 TX+	3	35°	0.03	12°	2°	UHM 20 TX+
7005-153541	1603-3.0-4 L SP U35008 UHM20 HPX	7005-153539	1603-3.0-4 R SP U35008 UHM20 HPX	3	35°	0.08	12°	2°	UHM 20 HPX
7005-040886	1603-3.0-4 L SP U35008 UHM20 TX+	7005-194017	1603-3.0-4 R SP U35008 UHM20 TX+	3	35°	0.08	12°	2°	UHM 20 TX+
7005-153549	1603-3.0-4 L SP U35015 UHM20 HPX	7005-153547	1603-3.0-4 R SP U35015 UHM20 HPX	3	35°	0.15	12°	2°	UHM 20 HPX
7005-040888	1603-3.0-4 L SP U35015 UHM20 TX+	7005-040887	1603-3.0-4 R SP U35015 UHM20 TX+	3	35°	0.15	12°	2°	UHM 20 TX+

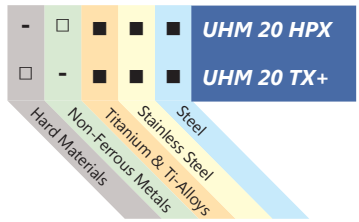


Type-SP
Chip Breaker





Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended



1603 Front Turn

Cut: Standard

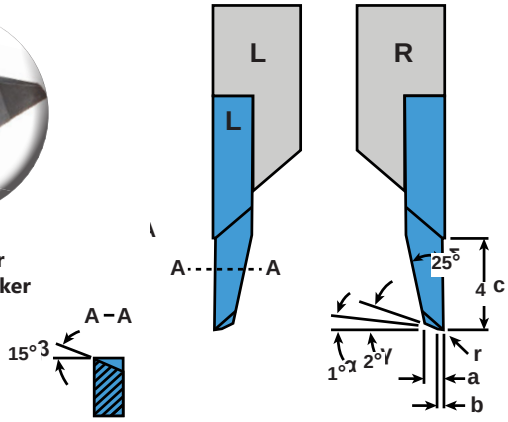
Geometry: TOP Wiper And CP Chip Breaker

Repeatability <20µm

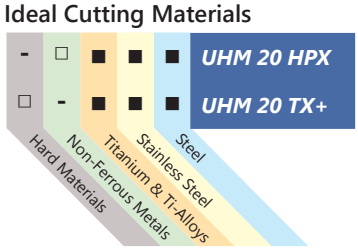
Left Hand		Right Hand		Dimensions & Features			
Item No.	Description	Item No.	Description	a	b	r	Coating
7005-147954	1603-3.0-3.5 L CP TOP ZZ UHM20 HPX	7005-153911	1603-3.0-3.5 R CP TOP ZZ UHM20 HPX	0.8	0.2	-	UHM 20 HPX
7005-040895	1603-3.0-3.5 L CP TOP ZZ UHM20 TX+	7005-040894	1603-3.0-3.5 R CP TOP ZZ UHM20 TX+	0.8	0.2	-	UHM 20 TX+
7005-148477	1603-3.0-3.5 L CP TOP 003 UHM20 HPX	7005-148479	1603-3.0-3.5 R CP TOP 003 UHM20 HPX	0.8	0.2	0.03	UHM 20 HPX
7005-040897	1603-3.0-3.5 L CP TOP 003 UHM20 TX+	7005-040896	1603-3.0-3.5 R CP TOP 003 UHM20 TX+	0.8	0.2	0.03	UHM 20 TX+



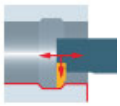
TOP Wiper
CP Chip Breaker



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

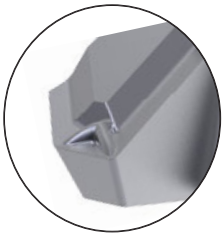
1603 Front Turn, Facing & Back Turning

Cut: Standard

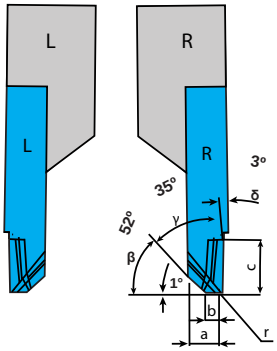
Chip Breaker: GA20

Repeatability <20µm

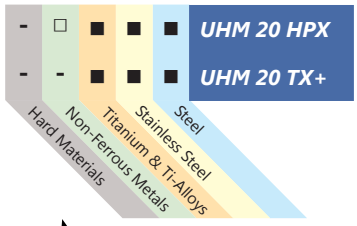
Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	b	c	r	Coating
7005-211359	1603-3.0-5 FL GA20 Top ZZ UHM20 HPX	7005-211356	1603-3.0-5 FR GA20 Top ZZ UHM20 HPX	3	1.6	5	-	UHM 20 HPX
7005-211360	1603-3.0-5 FL GA20 Top ZZ UHM20 TX+	7005-211357	1603-3.0-5 FR GA20 Top ZZ UHM20 TX+	3	1.6	5	-	UHM 20 TX+
7005-211365	1603-3.0-5 FL GA20 Top RO3 UHM20 HPX	7005-211362	1603-3.0-5 FR GA20 Top RO3 UHM20 HPX	3	1.6	5	0.03	UHM 20 HPX
7005-211366	1603-3.0-5 FL GA20 Top RO3 UHM20 TX+	7005-211363	1603-3.0-5 FR GA20 Top RO3 UHM20 TX+	3	1.6	5	0.03	UHM 20 TX+
7005-211371	1603-3.0-5 FL GA20 Top RO5 UHM20 HPX	7005-211368	1603-3.0-5 FR GA20 Top RO5 UHM20 HPX	3	1.6	5	0.05	UHM 20 HPX
7005-211372	1603-3.0-5 FL GA20 Top RO5 UHM20 TX+	7005-211369	1603-3.0-5 FR GA20 Top RO5 UHM20 TX+	3	1.6	5	0.05	UHM 20 TX+
7005-211377	1603-3.0-5 FL GA20 Top R15 UHM20 HPX	7005-211374	1603-3.0-5 FR GA20 Top R15 UHM20 HPX	3	1.6	5	0.15	UHM 20 HPX
7005-211378	1603-3.0-5 FL GA20 Top R15 UHM20 TX+	7005-211375	1603-3.0-5 FR GA20 Top R15 UHM20 TX+	3	1.6	5	0.15	UHM 20 TX+



Type-GA20 Chip Breaker



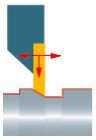
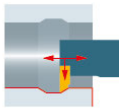
Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended



F Edge
Sharp Cutting Edge

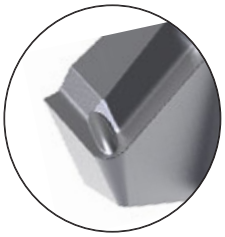
1603 Front Turn, Facing, Back Turning & Copy Turning

Cut: Standard

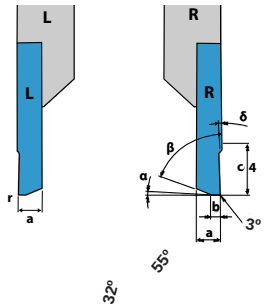
Chip Breaker: GM20

Repeatability <10µm

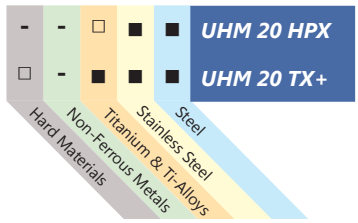
Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	b	c	R	Coating
Call For Details	1603-3.0-5 FL GM20 R40 UHM20 HPX	7005-211356	1603-3.0-5 FR GM20 R40 UHM20 HPX	3	1.6	5	0.4	UHM 20 HPX
Call For Details	1603-3.0-5 FL GM20 R40 UHM20 TX+	7005-211357	1603-3.0-5 FR GM20 R40 UHM20 TX+	3	1.6	5	0.4	UHM 20 TX+



Type-GM20 Chip Breaker



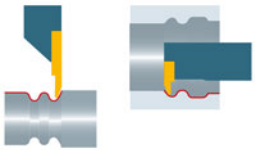
Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended



F Edge
Sharp Cutting Edge



1604 Profile Turning

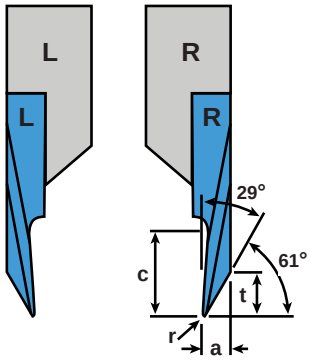
Cut: Standard
Chip Breaker: SP

Repeatability <20µm

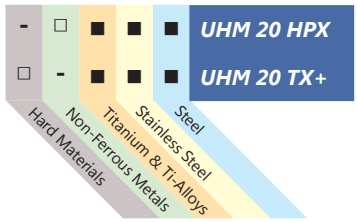
Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	r	t	Coating
7005-148489	1604-1.25-2-3 L SP29005 UHM20 HPX	7005-148491	1604-1.25-2-3 R SP29005 UHM20 HPX	1.25	2.5	0.05	2	UHM 20 HPX
7005-040898	1604-1.25-2-3 L SP29005 UHM20 TX+	7005-154523	1604-1.25-2-3 R SP29005 UHM20 TX+	1.25	2.5	0.05	2	UHM 20 TX+
7005-148493	1604-2.5-4-5 L SP29005 UHM20 HPX	7005-148495	1604-2.5-4-5 R SP29005 UHM20 HPX	2.5	5	0.05	4	UHM 20 HPX
7005-040899	1604-2.5-4-5 L SP29005 UHM20 TX+	7005-192827	1604-2.5-4-5 R SP29005 UHM20 TX+	2.5	5	0.05	4	UHM 20 TX+
7005-148497	1604-2.5-4-5 L SP29015 UHM20 HPX	7005-147067	1604-2.5-4-5 R SP29015 UHM20 HPX	2.5	5	0.15	4	UHM 20 HPX
7005-194048	1604-2.5-4-5 L SP29015 UHM20 TX+	7005-194101	1604-2.5-4-5 R SP29015 UHM20 TX+	2.5	5	0.15	4	UHM 20 TX+



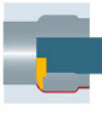
Type-SP
Chip Breaker



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

1604 Back Turning

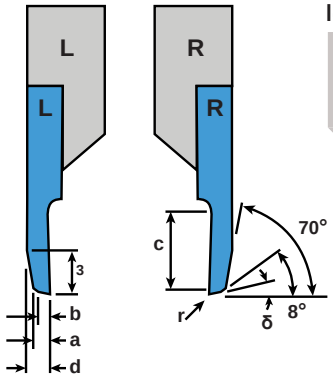
Cut: Standard
Geometry: TOP Wiper

Repeatability = R : ■<20µm, ■<50µm

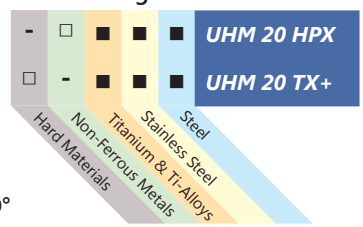
Left Hand		Right Hand								
Item No.	Description	Item No.	Description	R	a	b	c	d	r	δ	Coating
7005-148499	1604-0.15-2 L TOP ZZ UHM20 HPX	7005-148501	1604-0.15-2 R TOP ZZ UHM20 HPX	■	.15	.05	2	1	0	0	UHM 20 HPX
7005-040903	1604-0.15-2 L TOP ZZ UHM20 TX+	7005-040902	1604-0.15-2 R TOP ZZ UHM20 TX+	■	.15	.05	2	1	0	0	UHM 30 HX
7005-148503	1604-0.2-2 L TOP 008 UHM20 HPX	7005-148505	1604-0.2-2 R TOP 008 UHM20 HPX	■	.25	.15	2	1	.08	0	UHM 20 HPX
7005-040905	1604-0.2-2 L TOP 008 UHM20 TX+	7005-040904	1604-0.2-2 R TOP 008 UHM20 TX+	■	.25	.15	2	1	.08	0	UHM 30 HX
7005-148507	1604-0.4-4 L TOP 008 UHM20 HPX	7005-148509	1604-0.4-4 R TOP 008 UHM20 HPX	■	0.4	.15	4	1.6	.08	0	UHM 20 HPX
7005-040907	1604-0.4-4 L TOP 008 UHM20 TX+	7005-040906	1604-0.4-4 R TOP 008 UHM20 TX+	■	0.4	.15	4	1.6	.08	0	UHM 30 HX
7005-148511	1604-0.8-4 L TOP 008 UHM20 HPX	7005-148513	1604-0.8-4 R TOP 008 UHM20 HPX	■	0.8	.15	4	2	.08	0	UHM 20 HPX
7005-040909	1604-0.8-4 L TOP 008 UHM20 TX+	7005-040908	1604-0.8-4 R TOP 008 UHM20 TX+	■	0.8	.15	4	2	.08	0	UHM 30 HX
7005-148515	1604-1.2-4 L TOP ZZ UHM20 HPX	7005-147161	1604-1.2-4 R TOP ZZ UHM20 HPX	■	1.2	.5	4	2.4	0	1°	UHM 20 HPX
7005-040911	1604-1.2-4 L TOP ZZ UHM20 TX+	7005-040910	1604-1.2-4 R TOP ZZ UHM20 TX+	■	1.2	.5	4	2.4	0	1°	UHM 30 HX



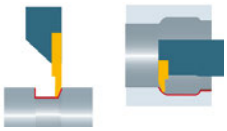
TOP Wiper



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended



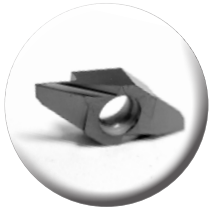
1604 Back Turning

Cut: Standard

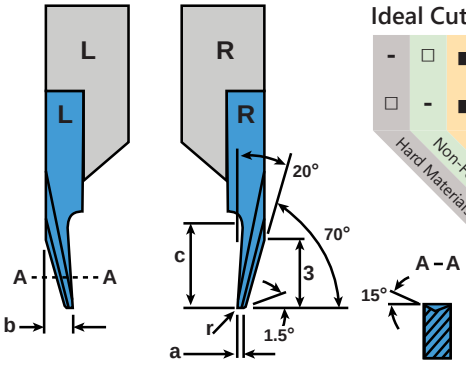
Geometry: TOP Wiper And SP Chip Breaker

Repeatability <20µm

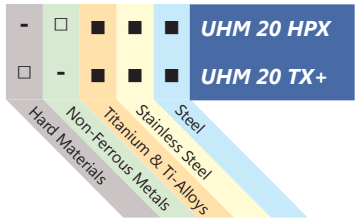
Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	b	c	r	Coating
7005-148517	1604-1.5-3 L SP TOP 20ZZ UHM20 HPX	7005-148519	1604-1.5-3 R SP TOP 20ZZ UHM20 HPX	0.3	1.5	3	0	UHM 20 HPX
7005-040913	1604-1.5-3 L SP TOP 20ZZ UHM20 TX+	7005-040912	1604-1.5-3 R SP TOP 20ZZ UHM20 TX+	0.3	1.5	3	0	UHM 20 TX+
7005-148521	1604-1.5-3 L SP TOP 20005 UHM20 HPX	7005-147163	1604-1.5-3 R SP TOP 20005 UHM20 HPX	0.3	1.5	3	0.05	UHM 20 HPX
7005-040915	1604-1.5-3 L SP TOP 20005 UHM20 TX+	7005-040914	1604-1.5-3 R SP TOP 20005 UHM20 TX+	0.3	1.5	3	0.05	UHM 20 TX+



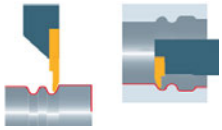
TOP Wiper
SP Chip Breaker



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended



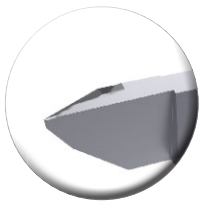
1604 Back Turning

Cut: Standard

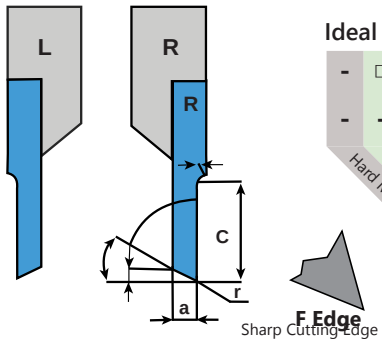
Chip Breaker: GB20

Repeatability <10µm

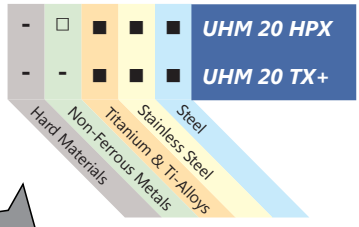
Left Hand		Right Hand		Dimensions & Features			
Item No.	Description	Item No.	Description	a	c	r	Coating
7005-211383	1604-2.5-4-5 FL 29005 GB20 UHM20 HPX	7005-211380	1604-2.5-4-5 FR 29005 GB20 UHM20 HPX	2.5	4.5	0.05	UHM 20 HPX
7005-211384	1604-2.5-4-5 FL 29005 GB20 UHM20 TX+	7005-211381	1604-2.5-4-5 FR 29005 GB20 UHM20 TX+	2.5	4.5	0.05	UHM 20 TX+



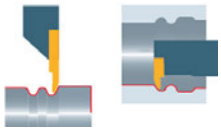
Type-GB20
Chip Breaker



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

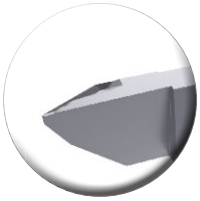


1604 Back Turning

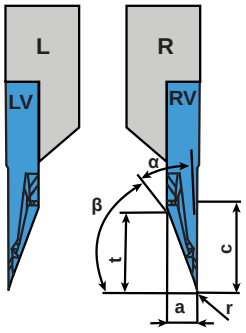
Cut: Inverted
Chip Breaker: GB20

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features			
Item No.	Description	Item No.	Description	a	c	r	Coating
7005-211395	1604-2.5-4-5 FLV 29005 GB20 UHM20 HPX	7005-211392	1604-2.5-4-5 FRV 29005 GB20 UHM20 HPX	2.5	4.5	0.05	UHM 20 HPX
7005-211396	1604-2.5-4-5 FLV 29005 GB20 UHM20 TX+	7005-211393	1604-2.5-4-5 FRV 29005 GB20 UHM20 TX+	2.5	4.5	0.05	UHM 20 TX+



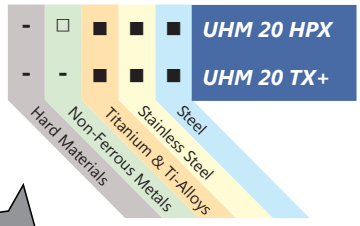
Type-GB20 Chip Breaker



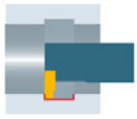


Sharp Cutting Edge

Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

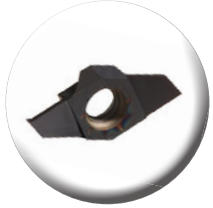



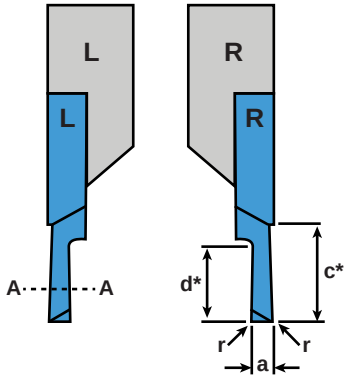
1605 Groove and Turn

Cut: Standard
Geometry: CP Chip Breaker

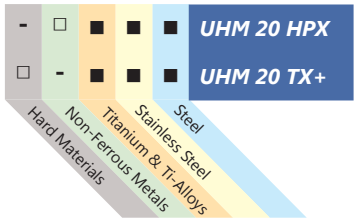
Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	d	r	Coating
7005-148533	1605-0.8-2.5 L CP UHM20 HPX	7005-148535	1605-0.8-2.5 R CP UHM20 HPX	0.8	2.5	2.5	0	UHM 20 HPX
7005-040927	1605-0.8-2.5 L CP UHM20 TX+	7005-040926	1605-0.8-2.5 R CP UHM20 TX+	0.8	2.5	2.5	0	UHM 20 TX+
7005-148537	1605-1.0-3.5 L CP UHM20 HPX	7005-148541	1605-1.0-3.5 R CP UHM20 HPX	1	3.5	3.5	0	UHM 20 HPX
7005-040932	1605-1.0-3.5 L CP UHM20 TX+	7005-040928	1605-1.0-3.5 R CP UHM20 TX+	1	3.5	3.5	0	UHM 20 TX+
7005-148539	1605-1.0-3.5 L CP R05 UHM20 HPX	7005-148543	1605-1.0-3.5 R CP R05 UHM20 HPX	1	3.5	3.5	.05mm/.0019in	UHM 20 HPX
7005-040933	1605-1.0-3.5 L CP R05 UHM20 TX+	7005-154335	1605-1.0-3.5 R CP R05 UHM20 TX+	1	3.5	3.5	.05mm/.0019in	UHM 20 TX+
7005-148545	1605-1.5-3.5 L CP UHM20 HPX	7005-148549	1605-1.5-3.5 R CP UHM20 HPX	1.5	3.5	3.5	0	UHM 20 HPX
7005-040944	1605-1.5-3.5 L CP UHM20 TX+	7005-040936	1605-1.5-3.5 R CP UHM20 TX+	1.5	3.5	3.5	0	UHM 20 TX+
7005-148547	1605-1.5-3.5 L CP R08 UHM20 HPX	7005-148551	1605-1.5-3.5 R CP R08 UHM20 HPX	1.5	3.5	3.5	.08mm/.0031in	UHM 20 HPX
7005-040945	1605-1.5-3.5 L CP R08 UHM20 TX+	7005-040937	1605-1.5-3.5 R CP R08 UHM20 TX+	1.5	3.5	3.5	.08mm/.0031in	UHM 20 TX+
7005-148553	1605-2.0-3.5 L CP UHM20 HPX	7005-148557	1605-2.0-3.5 R CP UHM20 HPX	2	3.5	3.5	0	UHM 20 HPX
7005-040948	1605-2.0-3.5 L CP UHM20 TX+	7005-040946	1605-2.0-3.5 R CP UHM20 TX+	2	3.5	3.5	0	UHM 20 TX+
7005-148555	1605-2.0-3.5 L CP R08 UHM20 HPX	7005-147676	1605-2.0-3.5 R CP R08 UHM20 HPX	2	3.5	3.5	.08mm/.0031in	UHM 20 HPX
7005-040949	1605-2.0-3.5 L CP R08 UHM20 TX+	7005-040947	1605-2.0-3.5 R CP R08 UHM20 TX+	2	3.5	3.5	.08mm/.0031in	UHM 20 TX+

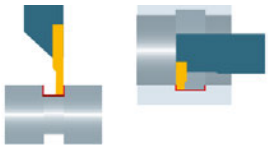




Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended



1605 Cutoff

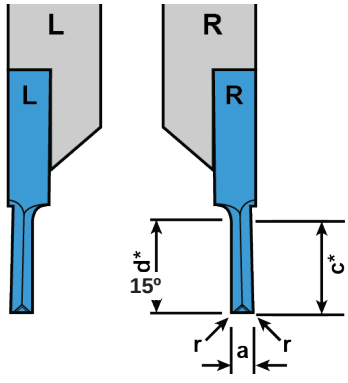
Cut: Grooving and Turning
Chip Breaker: GC20

Repeatability <10µm

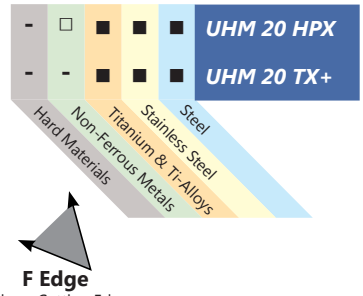
Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	a	c	d	r	Coating
7005-211129	1605-0.8-1.5 FL GC20 ZZ UHM20 HPX	7005-211125	1605-0.8-1.5 FR GC20 ZZ UHM20 HPX	0.8	1.5	1.5	0	UHM 20 HPX
7005-211130	1605-0.8-1.5 FL GC20 ZZ UHM20 TX+	7005-211127	1605-0.8-1.5 FR GC20 ZZ UHM20 TX+	0.8	1.5	1.5	0	UHM 20 TX+
7005-211135	1605-0.8-1.5 FL GC20 R02 UHM20 HPX	7005-211132	1605-0.8-1.5 FR GC20 R02 UHM20 HPX	0.8	1.5	1.5	0.02mm/.0008in	UHM 20 HPX
7005-211136	1605-0.8-1.5 FL GC20 R02 UHM20 TX+	7005-211133	1605-0.8-1.5 FR GC20 R02 UHM20 TX+	0.8	1.5	1.5	0.02mm/.0008in	UHM 20 TX+
7005-211141	1605-0.8-1.5 FL GC20 R05 UHM20 HPX	7005-211138	1605-0.8-1.5 FR GC20 R05 UHM20 HPX	0.8	1.5	1.5	0.05mm/.0019in	UHM 20 HPX
7005-211142	1605-0.8-1.5 FL GC20 R05 UHM20 TX+	7005-211139	1605-0.8-1.5 FR GC20 R05 UHM20 TX+	0.8	1.5	1.5	0.05mm/.0019in	UHM 20 TX+
7005-211147	1605-1.0-1.5 FL GC20 ZZ UHM20 HPX	7005-211144	1605-1.0-1.5 FR GC20 ZZ UHM20 HPX	1.0	1.5	1.5	0	UHM 20 HPX
7005-211148	1605-1.0-1.5 FL GC20 ZZ UHM20 TX+	7005-211145	1605-1.0-1.5 FR GC20 ZZ UHM20 TX+	1.0	1.5	1.5	0	UHM 20 TX+
7005-211153	1605-1.0-1.5 FL GC20 R02 UHM20 HPX	7005-211150	1605-1.0-1.5 FR GC20 R02 UHM20 HPX	1.0	1.5	1.5	0.02mm/.0008in	UHM 20 HPX
7005-211154	1605-1.0-1.5 FL GC20 R02 UHM20 TX+	7005-211151	1605-1.0-1.5 FR GC20 R02 UHM20 TX+	1.0	1.5	1.5	0.02mm/.0008in	UHM 20 TX+
7005-152815	1605-1.0-1.5 FL GC20 R05 UHM20 HPX	7005-211027	1605-1.0-1.5 FR GC20 R05 UHM20 HPX	1.0	1.5	1.5	0.05mm/.0019in	UHM 20 HPX
7005-152966	1605-1.0-1.5 FL GC20 R05 UHM20 TX+	7005-211028	1605-1.0-1.5 FR GC20 R05 UHM20 TX+	1.0	1.5	1.5	0.05mm/.0019in	UHM 20 TX+
7005-211031	1605-1.0-3.5 FL GC20 R05 UHM20 HPX	7005-211029	1605-1.0-3.5 FR GC20 R05 UHM20 HPX	1.0	5	3.5	0.05mm/.0019in	UHM 20 HPX
7005-211032	1605-1.0-3.5 FL GC20 R05 UHM20 TX+	7005-211030	1605-1.0-3.5 FR GC20 R05 UHM20 TX+	1.0	5	3.5	0.05mm/.0019in	UHM 20 TX+
7005-211035	1605-1.5-4.5 FL GC20 R05 UHM20 HPX	7005-211033	1605-1.5-4.5 FR GC20 R05 UHM20 HPX	1.5	5	4.5	0.05mm/.0019in	UHM 20 HPX
7005-211036	1605-1.5-4.5 FL GC20 R05 UHM20 TX+	7005-211034	1605-1.5-4.5 FR GC20 R05 UHM20 TX+	1.5	5	4.5	0.05mm/.0019in	UHM 20 TX+
7005-211057	1605-2.0-5.0 FL GC20 R05 UHM20 HPX	7005-211054	1605-2.0-5.0 FR GC20 R05 UHM20 HPX	2.0	5	5	0.05mm/.0019in	UHM 20 HPX
7005-211058	1605-2.0-5.0 FL GC20 R05 UHM20 TX+	7005-211055	1605-2.0-5.0 FR GC20 R05 UHM20 TX+	2.0	5	5	0.05mm/.0019in	UHM 20 TX+



Type-GC20 Chip Breaker

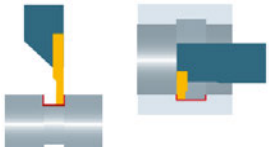


Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

F Edge
Sharp Cutting Edge



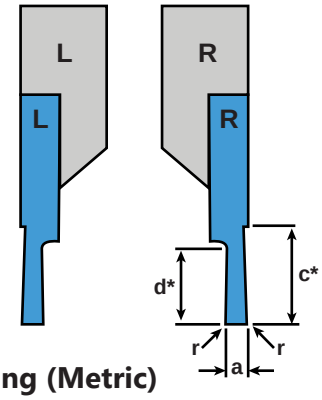
1605 Groove and Turn

Cut: Standard
Geometry: None

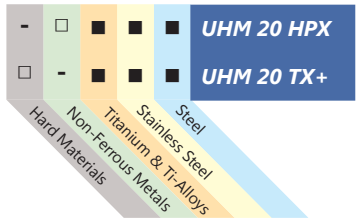
Repeatability = R : ■ <20µm, ■ <50µm

Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	R	a	c	d	r	Coating
7005-148523	1605-0.5-1.5 L UHM20 HPX	7005-148525	1605-0.5-1.5 R UHM20 HPX	■	0.5	1.5	1.5	.05mm/.0019in	UHM 20 HPX
Call For Details	1605-0.5-1.5 L UHM20 TX+	Call For Details	1605-0.5-1.5 R UHM20 TX+	■	0.5	1.5	1.5	.05mm/.0019in	UHM 20 TX+
7005-147597	1605-1.0-2.5 L UHM20 HPX	7005-148527	1605-1.0-2.5 R UHM20 HPX	■	1	2.5	2.5	.05mm/.0019in	UHM 20 HPX
Call For Details	1605-1.0-2.5 L UHM20 TX+	Call For Details	1605-1.0-2.5 R UHM20 TX+	■	1	2.5	2.5	.05mm/.0019in	UHM 20 TX+
7005-148529	1605-1.5-3 L UHM20 HPX	7005-148531	1605-1.5-3 R UHM20 HPX	■	1.5	3	3	.05mm/.0019in	UHM 20 HPX
Call For Details	1605-1.5-3 L UHM20 TX+	Call For Details	1605-1.5-3 R UHM20 TX+	■	1.5	3	3	.05mm/.0019in	UHM 20 TX+
Call For Details	1605 B-1.0-2.5 L UHM20 HPX	Call For Details	1605 B-1.0-2.5 R UHM20 HPX	■	1	2.5	2.5	.05mm/.0019in	UHM 20 HPX
Call For Details	1605 B-1.5-3 L UHM20 HPX	Call For Details	1605 B-1.5-3 R UHM20 HPX	■	1.5	3	3	.05mm/.0019in	UHM 20 HPX



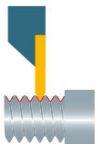


Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

*c: maximal turning capacity
*d: maximal grooving capacity

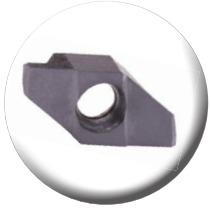


1606 Threading (Metric)

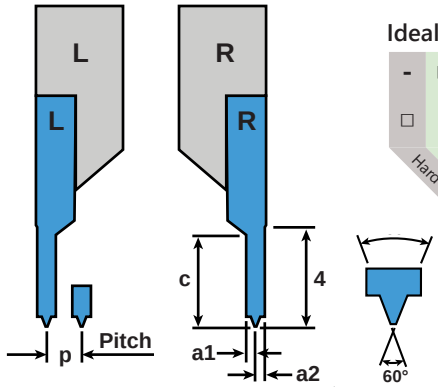
Profile: Full

Repeatability <20µm

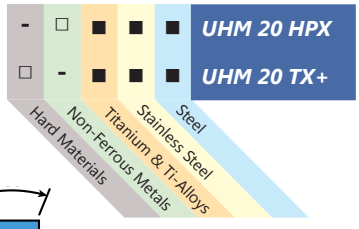
Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	a_1	a_2	c	p	Thread	Coating
Call For Details	1606-0.06-60 VP L UHM20 HPX	Call For Details	1606-0.06-60 VP R UHM20 HPX	0.04	0.04	0	0.06	S 0.2	UHM 20 HPX
Call For Details	1606-0.06-60 VP L UHM20 TX+	Call For Details	1606-0.06-60 VP R UHM20 TX+	0.04	0.04	0	0.06	S 0.2	UHM 20 TX+
Call For Details	1606-0.08-60 VP L UHM20 HPX	Call For Details	1606-0.08-60 VP R UHM20 HPX	0.04	0.04	0	0.08	S 0.3	UHM 20 HPX
Call For Details	1606-0.08-60 VP L UHM20 TX+	Call For Details	1606-0.08-60 VP R UHM20 TX+	0.04	0.04	0	0.08	S 0.3	UHM 20 TX+
Call For Details	1606-0.09-60 VP L UHM20 HPX	Call For Details	1606-0.09-60 VP R UHM20 HPX	0.05	0.05	0	0.09	S 0.35	UHM 20 HPX
Call For Details	1606-0.09-60 VP L UHM20 TX+	Call For Details	1606-0.09-60 VP R UHM20 TX+	0.05	0.05	0	0.09	S 0.35	UHM 20 TX+
Call For Details	1606-0.1-60 VP L UHM20 HPX	Call For Details	1606-0.1-60 VP R UHM20 HPX	0.06	0.06	0	0.10	S 0.4	UHM 20 HPX
Call For Details	1606-0.1-60 VP L UHM20 TX+	Call For Details	1606-0.1-60 VP R UHM20 TX+	0.06	0.06	0	0.10	S 0.4	UHM 20 TX+
Call For Details	1606-0.125-60 VP L UHM20 HPX	Call For Details	1606-0.125-60 VP R UHM20 HPX	0.07	0.07	0	0.13	S 0.5	UHM 20 HPX
Call For Details	1606-0.125-60 VP L UHM20 TX+	Call For Details	1606-0.125-60 VP R UHM20 TX+	0.07	0.07	0	0.13	S 0.5	UHM 20 TX+
Call For Details	1606-.15-60 VP L UHM20 HPX	Call For Details	1606-.15-60 VP R UHM20 HPX	0.08	0.08	0	0.15	S 0.6	UHM 20 HPX
Call For Details	1606-.15-60 VP L UHM20 TX+	Call For Details	1606-.15-60 VP R UHM20 TX+	0.08	0.08	0	0.15	S 0.6	UHM 20 TX+
7005-148561	1606-0.175-60 VP L UHM20 HPX	7005-148559	1606-0.175-60 VP R UHM20 HPX	0.1	0.1	0	0.18	S 0.7	UHM 20 HPX
Call For Details	1606-0.175-60 VP L UHM20 TX+	Call For Details	1606-0.175-60 VP R UHM20 TX+	0.1	0.1	0	0.18	S 0.7	UHM 20 TX+



Full Profile



Ideal Cutting Materials



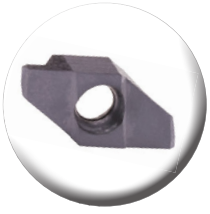
■ Preferred Application
□ Possible Application
- Application Not Recommended

1606 Threading (Metric)

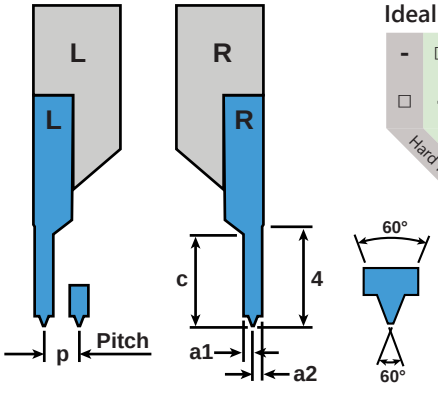
Profile: Full

Repeatability <10µm

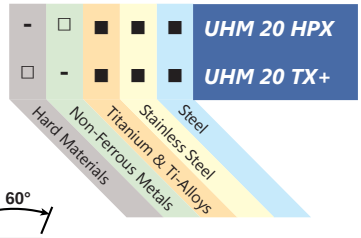
Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	a_1	a_2	c	p	Thread	Coating
7005-148565	1606-0.2-60 VP L UHM20 HPX	7005-148563	1606-0.2-60 VP R UHM20 HPX	0.11	0.11	0	0.23	S 0.8	UHM 20 HPX
7005-041109	1606-0.2-60 VP L UHM20 TX+	7005-041108	1606-0.2-60 VP R UHM20 TX+	0.11	0.11	0	0.23	S 0.8	UHM 20 TX+
7005-148569	1606-0.225-60 VP L UHM20 HPX	7005-148567	1606-0.225-60 VP R UHM20 HPX	0.13	0.13	0	0.20	S 0.9	UHM 20 HPX
7005-041111	1606-0.225-60 VP L UHM20 TX+	7005-041110	1606-0.225-60 VP R UHM20 TX+	0.13	0.13	0	0.20	S 0.9	UHM 20 TX+
7005-148573	1606-0.25-60 VP L UHM20 HPX	7005-148571	1606-0.25-60 VP R UHM20 HPX	0.14	0.14	0	0.25	M1 /1.2	UHM 20 HPX
7005-041113	1606-0.25-60 VP L UHM20 TX+	7005-041112	1606-0.25-60 VP R UHM20 TX+	0.14	0.14	0	0.25	M1 /1.2	UHM 20 TX+
7005-148577	1606-0.3-60 VP L UHM20 HPX	7005-148575	1606-0.3-60 VP R UHM20 HPX	0.17	0.17	0	0.30	M1.4	UHM 20 HPX
7005-041115	1606-0.3-60 VP L UHM20 TX+	7005-041114	1606-0.3-60 VP R UHM20 TX+	0.17	0.17	0	0.30	M1.4	UHM 20 TX+
7005-148581	1606-0.35-60 VP L UHM20 HPX	7005-148579	1606-0.35-60 VP R UHM20 HPX	0.19	0.19	0	0.35	M1.6/1.8	UHM 20 HPX
7005-041117	1606-0.35-60 VP L UHM20 TX+	7005-041116	1606-0.35-60 VP R UHM20 TX+	0.19	0.19	0	0.35	M1.6/1.8	UHM 20 TX+
7005-148585	1606-0.4-60 VP L UHM20 HPX	7005-148583	1606-0.4-60 VP R UHM20 HPX	0.22	0.22	0	0.40	M2	UHM 20 HPX
7005-041119	1606-0.4-60 VP L UHM20 TX+	7005-041118	1606-0.4-60 VP R UHM20 TX+	0.22	0.22	0	0.40	M2	UHM 20 TX+
7005-148589	1606-0.45-60 VP L UHM20 HPX	7005-148587	1606-0.45-60 VP R UHM20 HPX	0.25	0.25	0	0.45	M2.2/2.5	UHM 20 HPX
7005-041121	1606-0.45-60 VP L UHM20 TX+	7005-041120	1606-0.45-60 VP R UHM20 TX+	0.25	0.25	0	0.45	M2.2/2.5	UHM 20 TX+
7005-148593	1606-0.5-60 VP L UHM20 HPX	7005-148591	1606-0.5-60 VP R UHM20 HPX	0.35	0.35	1.4	0.50	M3	UHM 20 HPX
7005-041122	1606-0.5-60 VP L UHM20 TX+	7005-194013	1606-0.5-60 VP R UHM20 TX+	0.35	0.35	1.4	0.50	M3	UHM 20 TX+
7005-191915	1606-0.6-60 VP L UHM20 HPX	7005-191913	1606-0.6-60 VP R UHM20 HPX	0.4	0.4	1.4	0.60	M3.5	UHM 20 HPX
7005-041124	1606-0.6-60 VP L UHM20 TX+	7005-041123	1606-0.6-60 VP R UHM20 TX+	0.4	0.4	1.4	0.60	M3.5	UHM 20 TX+
7005-148597	1606-0.7-60 VP L UHM20 HPX	7005-148595	1606-0.7-60 VP R UHM20 HPX	0.45	0.45	1.8	0.70	M4	UHM 20 HPX
7005-041126	1606-0.7-60 VP L UHM20 TX+	7005-041125	1606-0.7-60 VP R UHM20 TX+	0.45	0.45	1.8	0.70	M4	UHM 20 TX+
7005-191919	1606-0.75-60 VP L UHM20 HPX	7005-191917	1606-0.75-60 VP R UHM20 HPX	0.41	0.41	1.9	0.75	M4.5	UHM 20 HPX
7005-041128	1606-0.75-60 VP L UHM20 TX+	7005-041127	1606-0.75-60 VP R UHM20 TX+	0.41	0.41	1.9	0.75	M4.5	UHM 20 TX+
7005-191921	1606-0.8-60 VP L UHM20 HPX	7005-169539	1606-0.8-60 VP R UHM20 HPX	0.44	0.44	2	0.80	M5	UHM 20 HPX
7005-041130	1606-0.8-60 VP L UHM20 TX+	7005-041129	1606-0.8-60 VP R UHM20 TX+	0.44	0.44	2	0.80	M5	UHM 20 TX+
7005-191923	1606-1.0-60 VP L UHM20 HPX	7005-169552	1606-1.0-60 VP R UHM20 HPX	0.55	0.55	2.4	1.00	M6/7	UHM 20 HPX
7005-041131	1606-1.0-60 VP L UHM20 TX+	7005-154228	1606-1.0-60 VP R UHM20 TX+	0.55	0.55	2.4	1.00	M6/7	UHM 20 TX+
7005-191925	1606-1.25-60 VP L UHM20 HPX	7005-169541	1606-1.25-60 VP R UHM20 HPX	0.69	0.69	2.9	1.25	M8/9	UHM 20 HPX
7005-041133	1606-1.25-60 VP L UHM20 TX+	7005-041132	1606-1.25-60 VP R UHM20 TX+	0.69	0.69	2.9	1.25	M8/9	UHM 20 TX+



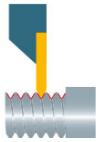
Full Profile



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

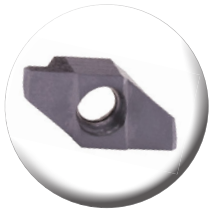


1606 Threading - UNC & UNF

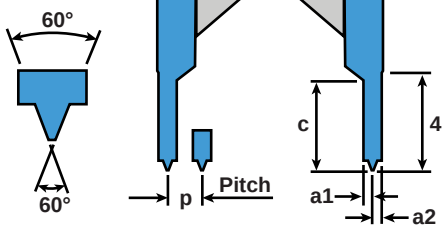
Profile: Full

Repeatability <10µm

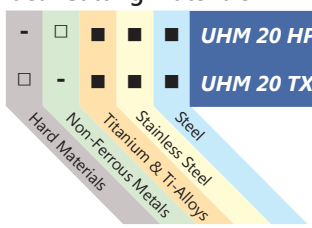
Left Hand		Dimensions & Features											
Item No.	Description	TPI	p	a_1	a_2	c	Coating	UN	UNC	UNF	UNEF	UNS	UNR
7005-041138	1606-80 UN 60 VP L UHM20 HPX	80	0.317	0.22	0.17	-	UHM 20 HPX			■			
7005-041139	1606-80 UN 60 VP L UHM20 TX+	80	0.317	0.22	0.17	-	UHM 20 TX+			■			
7005-041144	1606-72 UN 60 VP L UHM20 HPX	72	0.353	0.25	0.19	-	UHM 20 HPX			■			
7005-041145	1606-72 UN 60 VP L UHM20 TX+	72	0.353	0.25	0.19	-	UHM 20 TX+			■			
7005-041150	1606-64 UN 60 VP L UHM20 HPX	64	0.397	0.3	0.22	-	UHM 20 HPX		■	■			
7005-041151	1606-64 UN 60 VP L UHM20 TX+	64	0.397	0.3	0.22	-	UHM 20 TX+		■	■			
7005-041156	1606-56 UN 60 VP L UHM20 HPX	56	0.453	0.32	0.25	-	UHM 20 HPX		■	■		■	
7005-041157	1606-56 UN 60 VP L UHM20 TX+	56	0.453	0.32	0.25	-	UHM 20 TX+		■	■		■	
7005-041162	1606-48 UN 60 VP L UHM20 HPX	48	0.529	0.29	0.29	1.4	UHM 20 HPX		■	■		■	
7005-041163	1606-48 UN 60 VP L UHM20 TX+	48	0.529	0.29	0.29	1.4	UHM 20 TX+		■	■		■	
7005-041168	1606-44 UN 60 VP L UHM20 HPX	44	0.577	0.32	0.32	1.4	UHM 20 HPX			■			
7005-041169	1606-44 UN 60 VP L UHM20 TX+	44	0.577	0.32	0.32	1.4	UHM 20 TX+			■			
7005-041174	1606-40 UN 60 VP L UHM20 HPX	40	0.635	0.35	0.35	1.8	UHM 20 HPX		■	■		■	
7005-041175	1606-40 UN 60 VP L UHM20 TX+	40	0.635	0.35	0.35	1.8	UHM 20 TX+		■	■		■	
7005-041180	1606-36 UN 60 VP L UHM20 HPX	36	0.705	0.39	0.39	1.8	UHM 20 HPX			■		■	
7005-041181	1606-36 UN 60 VP L UHM20 TX+	36	0.705	0.39	0.39	1.8	UHM 20 TX+			■		■	
7005-041186	1606-32 UN 60 VP L UHM20 HPX	32	0.794	0.44	0.44	2	UHM 20 HPX		■	■	■		■
7005-041187	1606-32 UN 60 VP L UHM20 TX+	32	0.794	0.44	0.44	2	UHM 20 TX+		■	■	■		■
7005-041192	1606-28 UN 60 VP L UHM20 HPX	28	0.907	0.5	0.5	2.2	UHM 20 HPX		■	■		■	■
7005-041193	1606-28 UN 60 VP L UHM20 TX+	28	0.907	0.5	0.5	2.2	UHM 20 TX+		■	■		■	■
7005-041198	1606-24 UN 60 VP L UHM20 HPX	24	1.058	0.58	0.58	2.2	UHM 20 HPX		■	■	■	■	
7005-041199	1606-24 UN 60 VP L UHM20 TX+	24	1.058	0.58	0.58	2.2	UHM 20 TX+		■	■	■	■	
7005-041204	1606-20 UN 60 VP L UHM20 HPX	20	1.27	0.7	0.7	2.9	UHM 20 HPX	■	■	■	■		■
7005-041205	1606-20 UN 60 VP L UHM20 TX+	20	1.27	0.7	0.7	2.9	UHM 20 TX+	■	■	■	■		■



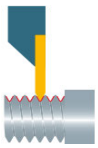
Full Profile
UNC & UNF



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

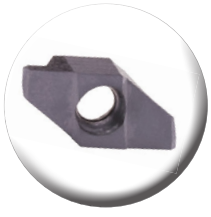


1606 Threading - UNC & UNF

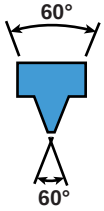
Profile: Full

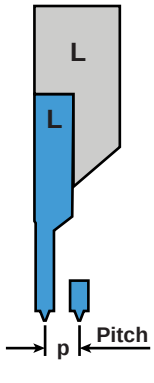
Repeatability <10µm

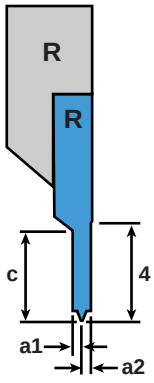
Right Hand		Dimensions & Features											
Item No.	Description	TPI	p	a_1	a_2	c	Coating	UN	UNC	UNF	UNEF	UNS	UNR
7005-041135	1606-80 UN 60 VP R UHM20 HPX	80	0.317	0.22	0.17	-	UHM 20 HPX			■			
7005-041136	1606-80 UN 60 VP R UHM20 TX+	80	0.317	0.22	0.17	-	UHM 20 TX+			■			
7005-041141	1606-72 UN 60 VP R UHM20 HPX	72	0.353	0.25	0.19	-	UHM 20 HPX			■			
7005-041142	1606-72 UN 60 VP R UHM20 TX+	72	0.353	0.25	0.19	-	UHM 20 TX+			■			
7005-041147	1606-64 UN 60 VP R UHM20 HPX	64	0.397	0.3	0.22	-	UHM 20 HPX		■	■			
7005-041148	1606-64 UN 60 VP R UHM20 TX+	64	0.397	0.3	0.22	-	UHM 20 TX+		■	■			
7005-041153	1606-56 UN 60 VP R UHM20 HPX	56	0.453	0.32	0.25	-	UHM 20 HPX		■	■		■	
7005-041154	1606-56 UN 60 VP R UHM20 TX+	56	0.453	0.32	0.25	-	UHM 20 TX+		■	■		■	
7005-041159	1606-48 UN 60 VP R UHM20 HPX	48	0.529	0.29	0.29	1.4	UHM 20 HPX		■	■		■	
7005-041160	1606-48 UN 60 VP R UHM20 TX+	48	0.529	0.29	0.29	1.4	UHM 20 TX+		■	■		■	
7005-041165	1606-44 UN 60 VP R UHM20 HPX	44	0.577	0.32	0.32	1.4	UHM 20 HPX			■			
7005-041166	1606-44 UN 60 VP R UHM20 TX+	44	0.577	0.32	0.32	1.4	UHM 20 TX+			■			
7005-041171	1606-40 UN 60 VP R UHM20 HPX	40	0.635	0.35	0.35	1.8	UHM 20 HPX		■	■		■	
7005-041172	1606-40 UN 60 VP R UHM20 TX+	40	0.635	0.35	0.35	1.8	UHM 20 TX+		■	■		■	
7005-041177	1606-36 UN 60 VP R UHM20 HPX	36	0.705	0.39	0.39	1.8	UHM 20 HPX			■		■	
7005-041178	1606-36 UN 60 VP R UHM20 TX+	36	0.705	0.39	0.39	1.8	UHM 20 TX+			■		■	
7005-041183	1606-32 UN 60 VP R UHM20 HPX	32	0.794	0.44	0.44	2	UHM 20 HPX		■	■	■		■
7005-041184	1606-32 UN 60 VP R UHM20 TX+	32	0.794	0.44	0.44	2	UHM 20 TX+		■	■	■		■
7005-041189	1606-28 UN 60 VP R UHM20 HPX	28	0.907	0.5	0.5	2.2	UHM 20 HPX		■	■		■	■
7005-041190	1606-28 UN 60 VP R UHM20 TX+	28	0.907	0.5	0.5	2.2	UHM 20 TX+		■	■		■	■
7005-041195	1606-24 UN 60 VP R UHM20 HPX	24	1.058	0.58	0.58	2.2	UHM 20 HPX		■	■	■	■	
7005-041196	1606-24 UN 60 VP R UHM20 TX+	24	1.058	0.58	0.58	2.2	UHM 20 TX+		■	■	■	■	
7005-041201	1606-20 UN 60 VP R UHM20 HPX	20	1.27	0.7	0.7	2.9	UHM 20 HPX	■	■	■	■		■
7005-041202	1606-20 UN 60 VP R UHM20 TX+	20	1.27	0.7	0.7	2.9	UHM 20 TX+	■	■	■	■		■



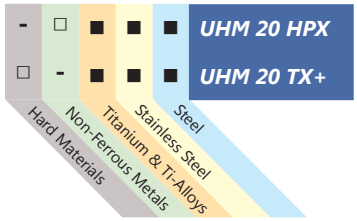
Full Profile
UNC & UNF







Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

1606 Threading - HA Form

Profile: Full

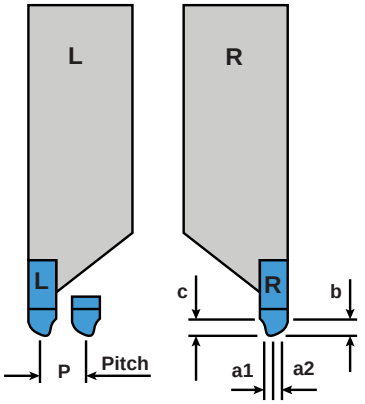
Repeatability = R : <20µm

Left Hand		Dimensions & Features											
Item No.	Description	ISO 5835	P	a1	a2	α	β	d1	ds Tolerance	e	r4	r5	Coating
7005-153939	1606 HA1.5 VP L UHM20 HPX	HA1.5	0.5	0.4	0.4	35°	3°	1.5	1.1 +0/-0.1	0.1	0.3	0.1	UHM 20 HPX
7005-041231	1606 HA1.5 VP L UHM20 TX+	HA1.5	0.5	0.4	0.4	35°	3°	1.5	1.1 +0/-0.1	0.1	0.3	0.1	UHM 20 TX+
7005-153941	1606 HA2.0 VP L UHM20 HPX	HA2.0	0.6	0.45	0.45	35°	3°	2.0	1.3 +0/-0.15	0.1	0.4	0.1	UHM 20 HPX
7005-041233	1606 HA2.0 VP L UHM20 TX+	HA2.0	0.6	0.45	0.45	35°	3°	2.0	1.3 +0/-0.15	0.1	0.4	0.1	UHM 20 TX+
7005-153943	1606 HA2.7 VP L UHM20 HPX	HA2.7	1.0	0.65	0.65	35°	3°	2.7	1.9 +0/-0.15	0.1	0.6	0.2	UHM 20 HPX
7005-041235	1606 HA2.7 VP L UHM20 TX+	HA2.7	1.0	0.65	0.65	35°	3°	2.7	1.9 +0/-0.15	0.1	0.6	0.2	UHM 20 TX+
7005-153945	1606 HA3.5 VP L UHM20 HPX	HA3.5	1.25	0.78	0.78	35°	3°	3.5	12.4 +0/-0.15	0.1	0.8	0.2	UHM 20 HPX
7005-041237	1606 HA3.5 VP L UHM20 TX+	HA3.5	1.25	0.78	0.78	35°	3°	3.5	2.4 +0/-0.15	0.1	0.8	0.2	UHM 20 TX+
7005-153947	1606 HA4.0 VP L UHM20 HPX	HA4.0	1.5	0.9	0.9	35°	3°	4.0	2.9 +0/-0.15	0.1	0.8	0.2	UHM 20 HPX
7005-041239	1606 HA4.0 VP L UHM20 TX+	HA4.0	1.5	0.9	0.9	35°	3°	4.0	2.9 +0/-0.15	0.1	0.8	0.2	UHM 20 TX+
7005-153949	1606 HA4.5 VP L UHM20 HPX	HA4.5	1.75	1.03	1.03	35°	3°	4.5	3.0 +0/-0.15	0.1	1.0	0.3	UHM 20 HPX
7005-041241	1606 HA4.5 VP L UHM20 TX+	HA4.5	1.75	1.03	1.03	35°	3°	4.5	3.0 +0/-0.15	0.1	1.0	0.3	UHM 20 TX+
7005-153951	1606 HA5.0 VP L UHM20 HPX	HA5.0	1.75	1.03	1.03	35°	3°	5.0	3.5 +0/-0.15	0.1	1.0	0.3	UHM 20 HPX
7005-041243	1606 HA5.0 VP L UHM20 TX+	HA5.0	1.75	1.03	1.03	35°	3°	5.0	3.5 +0/-0.15	0.1	1.0	0.3	UHM 20 TX+

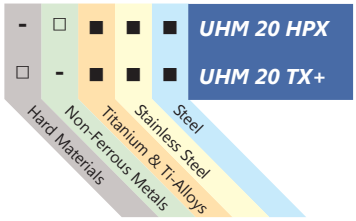
Right Hand		Dimensions & Features											
Item No.	Description	ISO 5835	P	a1	a2	α	β	d1	ds Tolerance	e	r4	r5	Coating
7005-153921	1606 HA1.5 VP R UHM20 HPX	HA1.5	0.5	0.4	0.4	35°	3°	1.5	1.1 +0/-0.1	0.1	0.3	0.1	UHM 20 HPX
7005-041232	1606 HA1.5 VP R UHM20 TX+	HA1.5	0.5	0.4	0.4	35°	3°	1.5	1.1 +0/-0.1	0.1	0.3	0.1	UHM 20 TX+
7005-153923	1606 HA2.0 VP R UHM20 HPX	HA2.0	0.6	0.45	0.45	35°	3°	2.0	1.3 +0/-0.15	0.1	0.4	0.1	UHM 20 HPX
7005-041234	1606 HA2.0 VP R UHM20 TX+	HA2.0	0.6	0.45	0.45	35°	3°	2.0	1.3 +0/-0.15	0.1	0.4	0.1	UHM 20 TX+
7005-192349	1606 HA2.7 VP R UHM20 HPX	HA2.7	1.0	0.65	0.65	35°	3°	2.7	1.9 +0/-0.15	0.1	0.6	0.2	UHM 20 HPX
7005-041236	1606 HA2.7 VP R UHM20 TX+	HA2.7	1.0	0.65	0.65	35°	3°	2.7	1.9 +0/-0.15	0.1	0.6	0.2	UHM 20 TX+
7005-153927	1606 HA3.5 VP R UHM20 HPX	HA3.5	1.25	0.78	0.78	35°	3°	3.5	12.4 +0/-0.15	0.1	0.8	0.2	UHM 20 HPX
7005-041238	1606 HA3.5 VP R UHM20 TX+	HA3.5	1.25	0.78	0.78	35°	3°	3.5	2.4 +0/-0.15	0.1	0.8	0.2	UHM 20 TX+
7005-153929	1606 HA4.0 VP R UHM20 HPX	HA4.0	1.5	0.9	0.9	35°	3°	4.0	2.9 +0/-0.15	0.1	0.8	0.2	UHM 20 HPX
7005-041240	1606 HA4.0 VP R UHM20 TX+	HA4.0	1.5	0.9	0.9	35°	3°	4.0	2.9 +0/-0.15	0.1	0.8	0.2	UHM 20 TX+
7005-153931	1606 HA4.5 VP R UHM20 HPX	HA4.5	1.75	1.03	1.03	35°	3°	4.5	3.0 +0/-0.15	0.1	1.0	0.3	UHM 20 HPX
7005-041242	1606 HA4.5 VP R UHM20 TX+	HA4.5	1.75	1.03	1.03	35°	3°	4.5	3.0 +0/-0.15	0.1	1.0	0.3	UHM 20 TX+
7005-153933	1606 HA5.0 VP R UHM20 HPX	HA5.0	1.75	1.03	1.03	35°	3°	5.0	3.5 +0/-0.15	0.1	1.0	0.3	UHM 20 HPX
7005-041244	1606 HA5.0 VP R UHM20 TX+	HA5.0	1.75	1.03	1.03	35°	3°	5.0	3.5 +0/-0.15	0.1	1.0	0.3	UHM 20 TX+



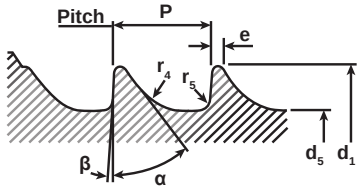
Full Profile Forms HA

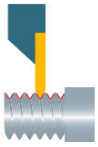


Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended





1606 Threading - HB Form

Profile: Full

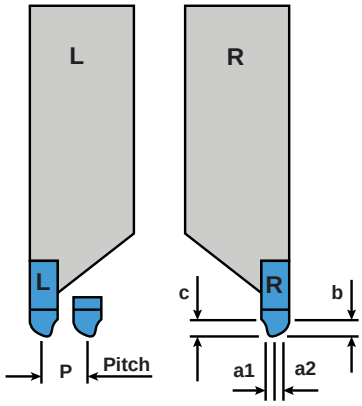
Repeatability = R : <20µm

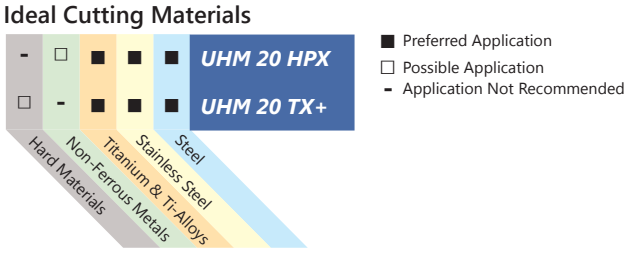
Left Hand		Dimensions & Features											
Item No.	Description	ISO 5835	P	a1	a2	α	β	d1	ds Tolerance	e	r4	r5	Coating
7005-153953	1606 HB4.0 VP L UHM20 HPX	HB4.0	1.75	1.03	1.03	25°	5°	4.0	1.9 +0/-0.15	0.1	0.8	0.3	UHM 20 HPX
7005-041245	1606 HB4.0 VP L UHM20 TX+	HB4.0	1.75	1.03	1.03	25°	5°	4.0	1.9 +0/-0.15	0.1	0.8	0.3	UHM 20 TX+
7005-153955	1606 HB6.5 VP L UHM20 HPX	HB6.5	2.75	1.58	1.58	25°	5°	6.5	3.0 +0/-0.15	0.2	1.2	0.8	UHM 20 HPX
7005-041247	1606 HB6.5 VP L UHM20 TX+	HB6.5	2.75	1.58	1.58	25°	5°	6.5	3.0 +0/-0.15	0.2	1.2	0.8	UHM 20 TX+

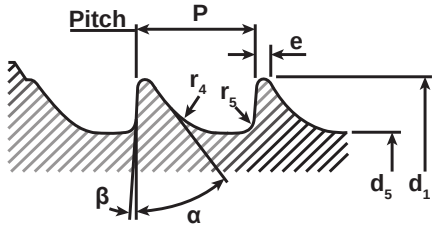
Right Hand		Dimensions & Features											
Item No.	Description	ISO 5835	P	a1	a2	α	β	d1	ds Tolerance	e	r4	r5	Coating
7005-153935	1606 HB4.0 VP R UHM20 HPX	HB4.0	1.75	1.03	1.03	25°	5°	4.0	1.9 +0/-0.15	0.1	0.8	0.3	UHM 20 HPX
7005-041246	1606 HB4.0 VP R UHM20 TX+	HB4.0	1.75	1.03	1.03	25°	5°	4.0	1.9 +0/-0.15	0.1	0.8	0.3	UHM 20 TX+
7005-153937	1606 HB6.5 VP R UHM20 HPX	HB6.5	2.75	1.58	1.58	25°	5°	6.5	3.0 +0/-0.15	0.2	1.2	0.8	UHM 20 HPX
7005-041248	1606 HB6.5 VP R UHM20 TX+	HB6.5	2.75	1.58	1.58	25°	5°	6.5	3.0 +0/-0.15	0.2	1.2	0.8	UHM 20 TX+

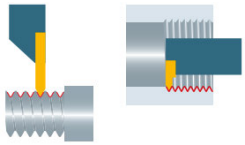


Full Profile Forms HB







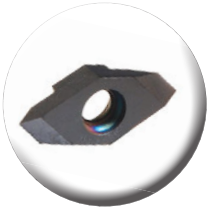


1606 Threading

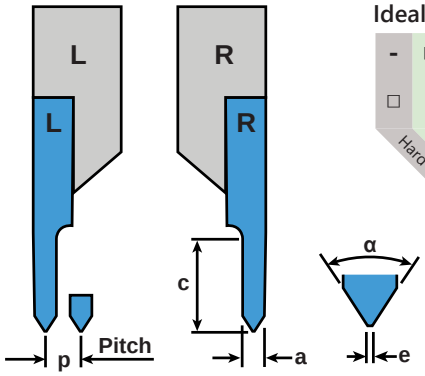
Profile: Partial (55°/60°)

Repeatability = R : ■ <20µm, ■ <50µm

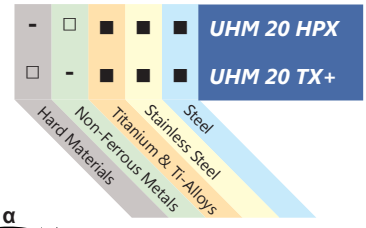
Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	R	p	a	c	α	e	Coating
7005-041228	1606-2-4-55 L UHM20 HPX	7005-192384	1606-2-4-55 R UHM20 HPX	■	.25-2	2	4	55°	.035mm / .001in	UHM 20 HPX
7005-041229	1606-2-4-55 L UHM20 TX+	Call For Details	1606-2-4-55 R UHM20 TX+	■	.25-2	2	4	55°	.035mm / .001in	UHM 20 TX+
7005-148599	1606-2-4-60 L UHM20 HPX	7005-148601	1606-2-4-60 R UHM20 HPX	■	.25-2	2	4	60°	.035mm / .001in	UHM 20 HPX
7005-041230	1606-2-4-60 L UHM20 TX+	7005-154405	1606-2-4-60 R UHM20 TX+	■	.25-2	2	4	60°	.035mm / .001in	UHM 20 TX+
Call For Details	1606 B-2-4-55 L UHM20 HPX	Call For Details	1606 B-2-4-55 R UHM20 HPX	■	.25-2	2	4	55°	.035mm / .001in	UHM 20 HPX
Call For Details	1606 B-2-4-60 L UHM20 HPX	Call For Details	1606 B-2-4-60 R UHM20 HPX	■	.25-2	2	4	60°	.035mm / .001in	UHM 20 HPX



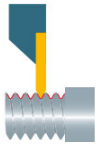
Partial Profile



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

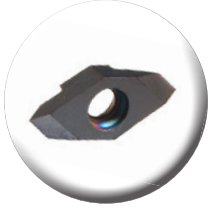


1606 Threading (Pipe Thread)

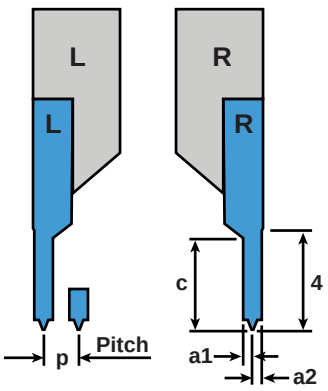
Profile: Full

Repeatability = R : <20µm

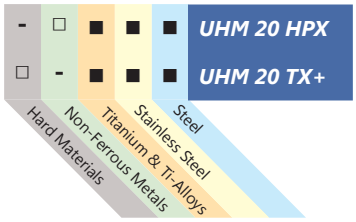
Left Hand		Right Hand		Dimensions & Features							
Item No.	Description	Item No.	Description	ANSI B1.1	P (T/ Inch)	P	h_{min}	a_1	a_2	c	Coating
7005-041210 7005-041211	1606-G 28-55 VP L UHM20 HPX 1606-G 28-55 VP L UHM20 TX+	7005-041207 7005-041208	1606-G 28-55 VP R UHM20 HPX 1606-G 28-55 VP R UHM20 TX+	1/8, 1/6	28	0.907	0.581	0.5	0.5	2.3	UHM 20 HX UHM 20 TX+
7005-041216 7005-041217	1606-G 19-55 VP L UHM20 HPX 1606-G 19-55 VP L UHM20 TX+	7005-041213 7005-041214	1606-G 19-55 VP R UHM20 HPX 1606-G 19-55 VP R UHM20 TX+	1/4, 3/8	19	1.337	0.856	0.74	0.74	3.3	UHM 20 HX UHM 20 TX+
7005-041222 7005-041223	1606-G 14-55 VP L UHM20 HPX 1606-G 14-55 VP L UHM20 TX+	7005-041219 7005-041220	1606-G 14-55 VP R UHM20 HPX 1606-G 14-55 VP R UHM20 TX+	1/2, 5/8, 3/4, 7/8	14	1.814	1.162	1	1	4	UHM 20 HX UHM 20 TX+



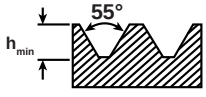
Partial Profile
Pipe Thread

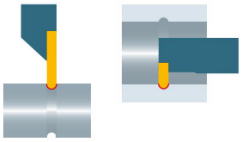


Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended





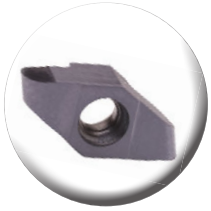
1607 Full Radius Grooving

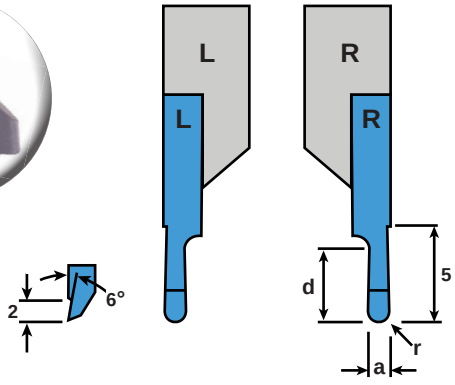
Cut: Standard

Chip Breaker: None

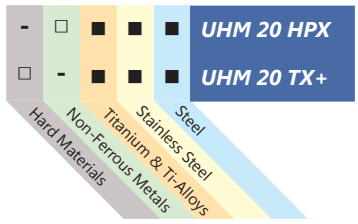
Repeatability = R : ■<10µm, ■<20µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	R	a	d	r	Coating
7005-148603	1607-R0.25-2 L UHM20 HPX	7005-148605	1607-R0.25-2 R UHM20 HPX	■	0.5	2	0.25	UHM 20 HPX
7005-041250	1607-R0.25-2 L UHM20 TX+	Call For Details	1607-R0.25-2 R UHM20 TX+	■	0.5	2	0.25	UHM 20 TX+
7005-191929	1607-R0.4-2.5 L UHM20 HPX	7005-191927	1607-R0.4-2.5 R UHM20 HPX	■	0.8	2.5	0.4	UHM 20 HPX
7005-041252	1607-R0.4-2.5 L UHM20 TX+	7005-041251	1607-R0.4-2.5 R UHM20 TX+	■	0.8	2.5	0.4	UHM 20 TX+
7005-148607	1607-R0.5-2.5 L UHM20 HPX	7005-148609	1607-R0.5-2.5 R UHM20 HPX	■	1	2.5	0.5	UHM 20 HPX
7005-041254	1607-R0.5-2.5 L UHM20 TX+	7005-192074	1607-R0.5-2.5 R UHM20 TX+	■	1	2.5	0.5	UHM 20 TX+
7005-148611	1607-R0.6-2.5 L UHM20 HPX	7005-148613	1607-R0.6-2.5 R UHM20 HPX	■	1.2	2.5	0.6	UHM 20 HPX
7005-041256	1607-R0.6-2.5 L UHM20 TX+	7005-041255	1607-R0.6-2.5 R UHM20 TX+	■	1.2	2.5	0.6	UHM 20 TX+
7005-148615	1607-R0.75-3 L UHM20 HPX	7005-148617	1607-R0.75-3 R UHM20 HPX	■	1.5	3	0.75	UHM 20 HPX
7005-041258	1607-R0.75-3 L UHM20 TX+	7005-041257	1607-R0.75-3 R UHM20 TX+	■	1.5	3	0.75	UHM 20 TX+
7005-148619	1607-R0.8-3 L UHM20 HPX	7005-148621	1607-R0.8-3 R UHM20 HPX	■	1.6	3	0.8	UHM 20 HPX
7005-041260	1607-R0.8-3 L UHM20 TX+	7005-041259	1607-R0.8-3 R UHM20 TX+	■	1.6	3	0.8	UHM 20 TX+
7005-148623	1607-R1.0-4 L UHM20 HPX	7005-148625	1607-R1.0-4 R UHM20 HPX	■	2	4	1	UHM 20 HPX
7005-041262	1607-R1.0-4 L UHM20 TX+	7005-041261	1607-R1.0-4 R UHM20 TX+	■	2	4	1	UHM 20 TX+
7005-148627	1607-R1.5-4 L UHM20 HPX	7005-148629	1607-R1.5-4 R UHM20 HPX	■	3	4	1.5	UHM 20 HPX
7005-041264	1607-R1.5-4 L UHM20 TX+	7005-041263	1607-R1.5-4 R UHM20 TX+	■	3	4	1.5	UHM 20 TX+

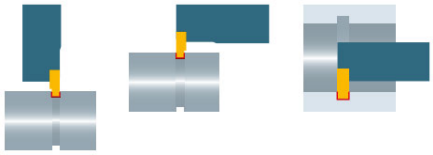




Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended

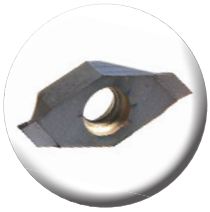


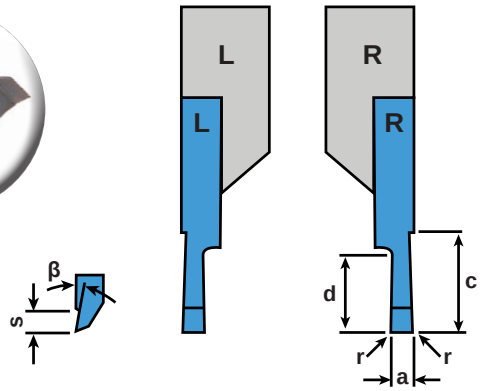
1610 Grooving (Radial)

Cut: Standard
Chip Breaker: None

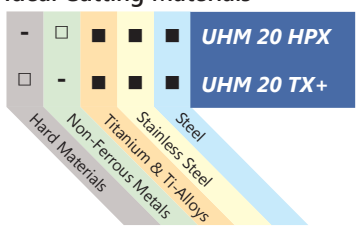
Repeatability = R : ■<10µm, ■<20µm

Left Hand		Right Hand		Dimensions & Features							
Item No.	Description	Item No.	Description	R	a	a tol	c	d	β	s	Coating
7005-041269	1610-0.05-0.1 L UHM20 HPX	Call For Details	1610-0.05-0.1 R UHM20 HPX	■	0.05	±.01	5	0.1	6°	1	UHM 20 HPX
7005-041270	1610-0.05-0.1 L UHM20 TX+	Call For Details	1610-0.05-0.1 R UHM20 TX+	■	0.05	±.01	5	0.1	6°	1	UHM 20 TX+
Call For Details	1610-0.10-0.2 L UHM20 HPX	Call For Details	1610-0.10-0.2 R UHM20 HPX	■	0.1	±.01	5	0.2	6°	1	UHM 20 HPX
Call For Details	1610-0.10-0.2 L UHM20 TX+	Call For Details	1610-0.10-0.2 R UHM20 TX+	■	0.1	±.01	5	0.2	6°	1	UHM 20 TX+
7005-041281	1610-0.15-0.3 L UHM20 HPX	Call For Details	1610-0.15-0.3 R UHM20 HPX	■	0.15	±.01	5	0.3	6°	1	UHM 20 HPX
7005-041282	1610-0.15-0.3 L UHM20 TX+	Call For Details	1610-0.15-0.3 R UHM20 TX+	■	0.15	±.01	5	0.3	6°	1	UHM 20 TX+
7005-148631	1610-0.24-0.5 L UHM20 HPX	7005-148633	1610-0.24-0.5 R UHM20 HPX	■	0.24	±.04/-0	5	0.5	10°	3	UHM 20 HPX
7005-041284	1610-0.24-0.5 L UHM20 TX+	Call For Details	1610-0.24-0.5 R UHM20 TX+	■	0.24	±.04/-0	5	0.5	10°	3	UHM 20 TX+
7005-148635	1610-0.30-0.6 L UHM20 HPX	7005-148637	1610-0.30-0.6 R UHM20 HPX	■	0.3	±.02	5	0.6	6°	1	UHM 20 HPX
Call For Details	1610-0.30-0.6 L UHM20 TX+	Call For Details	1610-0.30-0.6 R UHM20 TX+	■	0.3	±.02	5	0.6	6°	1	UHM 20 TX+
7005-148639	1610-0.34-0.6 L UHM20 HPX	7005-148641	1610-0.34-0.6 R UHM20 HPX	■	0.34	±.04/-0	5	0.6	10°	3	UHM 20 HPX
7005-041288	1610-0.34-0.6 L UHM20 TX+	Call For Details	1610-0.34-0.6 R UHM20 TX+	■	0.34	±.04/-0	5	0.6	10°	3	UHM 20 TX+
7005-148643	1610-0.40-0.8 L UHM20 HPX	7005-148645	1610-0.40-0.8 R UHM20 HPX	■	0.4	±.02	5	0.8	6°	1	UHM 20 HPX
Call For Details	1610-0.40-0.8 L UHM20 TX+	Call For Details	1610-0.40-0.8 R UHM20 TX+	■	0.4	±.02	5	0.8	6°	1	UHM 20 TX+
7005-148647	1610-0.44-0.8 L UHM20 HPX	7005-148649	1610-0.44-0.8 R UHM20 HPX	■	0.44	±.04/-0	5	0.8	10°	3	UHM 20 HPX
7005-041292	1610-0.44-0.8 L UHM20 TX+	Call For Details	1610-0.44-0.8 R UHM20 TX+	■	0.44	±.04/-0	5	0.8	10°	3	UHM 20 TX+
7005-148653	1610-0.45-1.5 L UHM20 HPX	7005-148651	1610-0.45-1.5 R UHM20 HPX	■	0.45	±.02	5	1.5	6°	1	UHM 20 HPX
7005-041294	1610-0.45-1.5 L UHM20 TX+	Call For Details	1610-0.45-1.5 R UHM20 TX+	■	0.45	±.02	5	1.5	6°	1	UHM 20 TX+
7005-148655	1610-0.50-1.0 L UHM20 HPX	7005-148657	1610-0.50-1.0 R UHM20 HPX	■	0.5	±.02	5	1	6°	1	UHM 20 HPX
Call For Details	1610-0.50-1.0 L UHM20 TX+	Call For Details	1610-0.50-1.0 R UHM20 TX+	■	0.5	±.02	5	1	6°	1	UHM 20 TX+
7005-148659	1610-0.54-0.8 L UHM20 HPX	7005-148661	1610-0.54-0.8 R UHM20 HPX	■	0.54	±.05/-0	5	0.8	10°	3	UHM 20 HPX
7005-041298	1610-0.54-0.8 L UHM20 TX+	Call For Details	1610-0.54-0.8 R UHM20 TX+	■	0.54	±.05/-0	5	0.8	10°	3	UHM 20 TX+
7005-148663	1610-0.60-1.2 L UHM20 HPX	7005-148665	1610-0.60-1.2 R UHM20 HPX	■	0.6	±.02	5	1.2	6°	1	UHM 20 HPX
Call For Details	1610-0.60-1.2 L UHM20 TX+	Call For Details	1610-0.60-1.2 R UHM20 TX+	■	0.6	±.02	5	1.2	6°	1	UHM 20 TX+
7005-148667	1610-0.64-1.0 L UHM20 HPX	7005-148669	1610-0.64-1.0 R UHM20 HPX	■	0.64	±.05/-0	5	1	10°	3	UHM 20 HPX
7005-041307	1610-0.64-1.0 L UHM20 TX+	Call For Details	1610-0.64-1.0 R UHM20 TX+	■	0.64	±.05/-0	5	1	10°	3	UHM 20 TX+
7005-148671	1610-0.64-1.2 L UHM20 HPX	7005-148673	1610-0.64-1.2 R UHM20 HPX	■	0.64	±.05/-0	5	1.2	10°	3	UHM 20 HPX
Call For Details	1610-0.64-1.2 L UHM20 TX+	Call For Details	1610-0.64-1.2 R UHM20 TX+	■	0.64	±.05/-0	5	1.2	10°	3	UHM 20 TX+
7005-148675	1610-0.65-0.7 L UHM20 HPX	7005-148677	1610-0.65-0.7 R UHM20 HPX	■	0.65	±.02	5	0.7	10°	3	UHM 20 HPX
7005-041315	1610-0.65-0.7 L UHM20 TX+	Call For Details	1610-0.65-0.7 R UHM20 TX+	■	0.65	±.02	5	0.7	10°	3	UHM 20 TX+
7005-148679	1610-0.70-1.4 L UHM20 HPX	7005-148681	1610-0.70-1.4 R UHM20 HPX	■	0.7	±.02	5	1.4	6°	1	UHM 20 HPX
Call For Details	1610-0.70-1.4 L UHM20 TX+	Call For Details	1610-0.70-1.4 R UHM20 TX+	■	0.7	±.02	5	1.4	6°	1	UHM 20 TX+
7005-148683	1610-0.74-1.8 L UHM20 HPX	7005-148685	1610-0.74-1.8 R UHM20 HPX	■	0.74	±.05/-0	5	1.8	10°	3	UHM 20 HPX
7005-041323	1610-0.74-1.8 L UHM20 TX+	7005-041322	1610-0.74-1.8 R UHM20 TX+	■	0.74	±.05/-0	5	1.8	10°	3	UHM 20 TX+

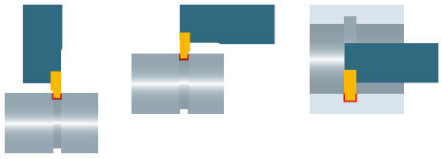




Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended



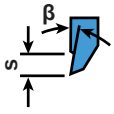
1610 Grooving (Radial)

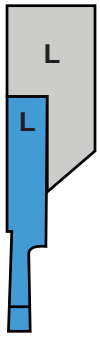
Cut: Standard
Chip Breaker: None

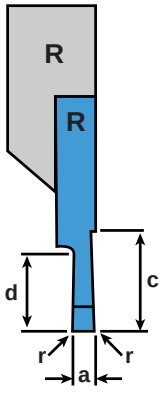
Repeatability = R : ■<10µm, ■<20µm

Left Hand		Right Hand		Dimensions & Features							
Item No.	Description	Item No.	Description	R	a	a tol	c	d	β	s	Coating
7005-148687	1610-0.85-0.9 L UHM20 HPX	7005-148689	1610-0.85-0.9 R UHM20 HPX	■	0.85	±.02	5	0.9	10°	3	UHM 20 HPX
7005-041325	1610-0.85-0.9 L UHM20 TX+	7005-041324	1610-0.85-0.9 R UHM20 TX+	■	0.85	±.02	5	0.9	10°	3	UHM 20 TX+
7005-148691	1610-0.85-1.2 L UHM20 HPX	7005-148693	1610-0.85-1.2 R UHM20 HPX	■	0.85	±.02	5	1.2	10°	3	UHM 20 HPX
7005-041336	1610-0.85-1.2 L UHM20 TX+	7005-041326	1610-0.85-1.2 R UHM20 TX+	■	0.85	±.02	5	1.2	10°	3	UHM 20 TX+
7005-148695	1610-0.94-2.3 L UHM20 HPX	7005-148697	1610-0.94-2.3 R UHM20 HPX	■	0.94	+.05/-0	5	2.3	10°	3	UHM 20 HPX
7005-041338	1610-0.94-2.3 L UHM20 TX+	7005-041337	1610-0.94-2.3 R UHM20 TX+	■	0.94	+.05/-0	5	2.3	10°	3	UHM 20 TX+
7005-148699	1610-0.95-1.0 L UHM20 HPX	7005-148701	1610-0.95-1.0 R UHM20 HPX	■	0.95	±.02	5	1	10°	3	UHM 20 HPX
7005-041340	1610-0.95-1.0 L UHM20 TX+	7005-041339	1610-0.95-1.0 R UHM20 TX+	■	0.95	±.02	5	1	10°	3	UHM 20 TX+
Call For Details	1610-1.00-1.14 L UHM20 HPX	Call For Details	1610-1.00-1.14 R UHM20 HPX	■	1	±.02	5	1.14	10°	3	UHM 20 HPX
Call For Details	1610-1.00-1.14 L UHM20 TX+	Call For Details	1610-1.00-1.14 R UHM20 TX+	■	1	±.02	5	1.14	10°	3	UHM 20 TX+
7005-148707	1610-1.05-2.3 L UHM20 HPX	7005-148709	1610-1.05-2.3 R UHM20 HPX	■	1.05	+.08/-0	5	2.3	10°	3	UHM 20 HPX
7005-041347	1610-1.05-2.3 L UHM20 TX+	7005-041346	1610-1.05-2.3 R UHM20 TX+	■	1.05	+.08/-0	5	2.3	10°	3	UHM 20 TX+
7005-148711	1610-1.15-2.8 L UHM20 HPX	7005-148713	1610-1.15-2.8 R UHM20 HPX	■	1.15	+.08/-0	5	2.8	10°	3	UHM 20 HPX
7005-041349	1610-1.15-2.8 L UHM20 TX+	7005-041348	1610-1.15-2.8 R UHM20 TX+	■	1.15	+.08/-0	5	2.8	10°	3	UHM 20 TX+
7005-148715	1610-1.2-1.34 L UHM20 HPX	7005-148717	1610-1.2-1.34 R UHM20 HPX	■	1.2	±.02	5	1.34	10°	3	UHM 20 HPX
7005-041353	1610-1.2-1.34 L UHM20 TX+	7005-041350	1610-1.2-1.34 R UHM20 TX+	■	1.2	±.02	5	1.34	10°	3	UHM 20 TX+
7005-148719	1610-1.25-2.8 L UHM20 HPX	7005-148721	1610-1.25-2.8 R UHM20 HPX	■	1.25	+.08/-0	5	2.8	10°	3	UHM 20 HPX
7005-041357	1610-1.25-2.8 L UHM20 TX+	7005-041354	1610-1.25-2.8 R UHM20 TX+	■	1.25	+.08/-0	5	2.8	10°	3	UHM 20 TX+
7005-148723	1610-1.35-3.3 L UHM20 HPX	7005-148725	1610-1.35-3.3 R UHM20 HPX	■	1.35	+.08/-0	5	3.3	10°	3	UHM 20 HPX
7005-041361	1610-1.35-3.3 L UHM20 TX+	7005-041358	1610-1.35-3.3 R UHM20 TX+	■	1.35	+.08/-0	5	3.3	10°	3	UHM 20 TX+
7005-148727	1610-1.4-1.53 L UHM20 HPX	7005-148729	1610-1.4-1.53 R UHM20 HPX	■	1.4	±.02	5	1.53	10°	3	UHM 20 HPX
7005-041363	1610-1.4-1.53 L UHM20 TX+	7005-041362	1610-1.4-1.53 R UHM20 TX+	■	1.4	±.02	5	1.53	10°	3	UHM 20 TX+
Call For Details	1610-1.5-3L UHM20 HPX	Call For Details	1610-1.5-3R UHM20 HPX	■	1.5	±.02	5	3	10°	3	UHM 20 HPX
Call For Details	1610-1.5-3L UHM20 TX+	Call For Details	1610-1.5-3R UHM20 TX+	■	1.5	±.02	5	3	10°	3	UHM 20 TX+
7005-148731	1610-1.55-3.8 L UHM20 HPX	7005-148733	1610-1.55-3.8 R UHM20 HPX	■	1.55	+.08/-0	5	3.8	10°	3	UHM 20 HPX
7005-041369	1610-1.55-3.8 L UHM20 TX+	7005-041366	1610-1.55-3.8 R UHM20 TX+	■	1.55	+.08/-0	5	3.8	10°	3	UHM 20 TX+
Call For Details	1610-1.70-1.82 L UHM20 HPX	Call For Details	1610-1.70-1.82 R UHM20 HPX	■	1.7	±.02	5	1.82	10°	3	UHM 20 HPX
Call For Details	1610-1.70-1.82 L UHM20 TX+	Call For Details	1610-1.70-1.82 R UHM20 TX+	■	1.7	±.02	5	1.82	10°	3	UHM 20 TX+
7005-148739	1610-1.95-2.0 L UHM20 HPX	7005-148741	1610-1.95-2.0 R UHM20 HPX	■	1.95	±.02	5	2	10°	3	UHM 20 HPX
7005-041376	1610-1.95-2.0 L UHM20 TX+	7005-041375	1610-1.95-2.0 R UHM20 TX+	■	1.95	±.02	5	2	10°	3	UHM 20 TX+
7005-148743	1610-2.25-2.0 L UHM20 HPX	7005-148745	1610-2.25-2.0 R UHM20 HPX	■	2.25	±.02	5	2	10°	3	UHM 20 HPX
7005-041378	1610-2.25-2.0 L UHM20 TX+	7005-041377	1610-2.25-2.0 R UHM20 TX+	■	2.25	±.02	5	2	10°	3	UHM 20 TX+
7005-148747	1610-2.75-2.0 L UHM20 HPX	7005-148749	1610-2.75-2.0 R UHM20 HPX	■	2.75	±.02	5	2	10°	3	UHM 20 HPX
7005-041380	1610-2.75-2.0 L UHM20 TX+	7005-041379	1610-2.75-2.0 R UHM20 TX+	■	2.75	±.02	5	2	10°	3	UHM 20 TX+

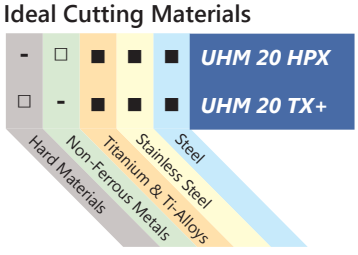




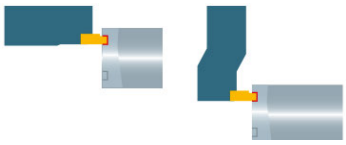




Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended



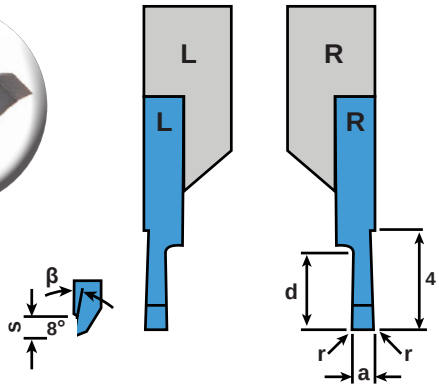
1611 Grooving (Axial)

Cut: Standard
Chip Breaker: None

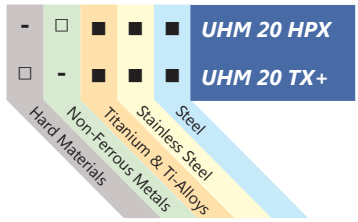
Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	a	d	r	s	Dmin	Coating
7005-148751	1611-0.5-1 L UHM20 HPX	7005-148753	1611-0.5-1 R UHM20 HPX	0.5	1	0.05	1.2	7	UHM 20 HPX
7005-041382	1611-0.5-1 L UHM20 TX+	7005-041381	1611-0.5-1 R UHM20 TX+	0.5	1	0.05	1.2	7	UHM 20 TX+
7005-153915	1611-0.6-1.2 L UHM20 HPX	7005-153913	1611-0.6-1.2 R UHM20 HPX	0.6	1.2	0.05	1.2	8	UHM 20 HPX
7005-041389	1611-0.6-1.2 L UHM20 TX+	7005-041388	1611-0.6-1.2 R UHM20 TX+	0.6	1.2	0.05	1.2	8	UHM 20 TX+
7005-148755	1611-0.8-1.5 L UHM20 HPX	7005-148757	1611-0.8-1.5 R UHM20 HPX	0.8	1.5	0.05	1.2	8	UHM 20 HPX
7005-041394	1611-0.8-1.5 L UHM20 TX+	7005-041390	1611-0.8-1.5 R UHM20 TX+	0.8	1.5	0.05	1.2	8	UHM 20 TX+
7005-148759	1611-1.0-2 L UHM20 HPX	7005-148761	1611-1.0-2 R UHM20 HPX	1	2	0.05	1.2	8	UHM 20 HPX
7005-041398	1611-1.0-2 L UHM20 TX+	7005-041395	1611-1.0-2 R UHM20 TX+	1	2	0.05	1.2	8	UHM 20 TX+
7005-148763	1611-1.5-2.5 L UHM20 HPX	7005-148765	1611-1.5-2.5 R UHM20 HPX	1.5	2.5	0.05	1.2	14	UHM 20 HPX
7005-041400	1611-1.5-2.5 L UHM20 TX+	7005-041399	1611-1.5-2.5 R UHM20 TX+	1.5	2.5	0.05	1.2	14	UHM 20 TX+
7005-148767	1611-2.0-3 L UHM20 HPX	7005-148769	1611-2.0-3 R UHM20 HPX	2	3	0.05	1.2	18	UHM 20 HPX
7005-041402	1611-2.0-3 L UHM20 TX+	7005-041401	1611-2.0-3 R UHM20 TX+	2	3	0.05	1.2	18	UHM 20 TX+
7005-148771	1611-2.5-3.5 L UHM20 HPX	7005-148773	1611-2.5-3.5 R UHM20 HPX	2.5	3.5	0.05	1.2	18	UHM 20 HPX
7005-041404	1611-2.5-3.5 L UHM20 TX+	7005-041403	1611-2.5-3.5 R UHM20 TX+	2.5	3.5	0.05	1.2	18	UHM 20 TX+





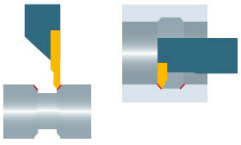
Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended



*Note: The groove must not be made underneath the Dmin position.

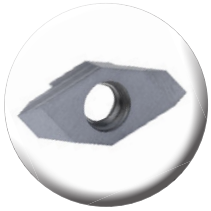


1612 Chamfering

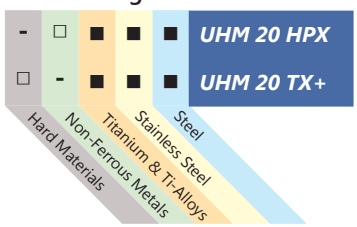
Cut: Standard
Chip Breaker: None

Repeatability <20µm

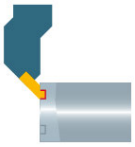
Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	a	c	e	α	β	Coating
7005-041453	1612-1-4-45 L UHM20 HPX	7005-193242	1612-1-4-45 R UHM20 HPX	1	4	-	45°	90°	UHM 20 HPX
7005-041454	1612-1-4-45 L UHM20 TX+	7005-193243	1612-1-4-45 R UHM20 TX+	1	4	-	45°	90°	UHM 20 TX+
7005-041449	1612-2-4-60 L UHM20 HPX	7005-041446	1612-2-4-60 R UHM20 HPX	2	4	.035	0°	60°	UHM 20 HPX
7005-041450	1612-2-4-60 L UHM20 TX+	7005-041447	1612-2-4-60 R UHM20 TX+	2	4	.035	0°	60°	UHM 20 TX+



Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended



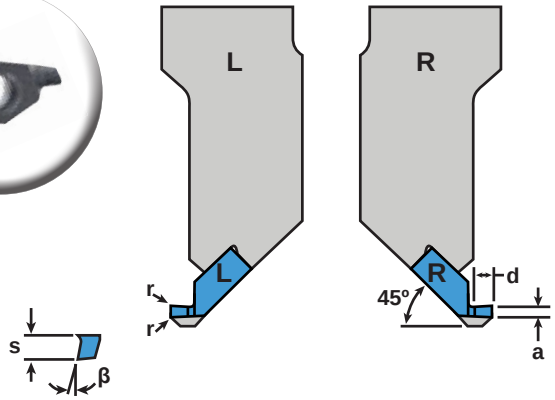
1611-45 Grooving (Axial)

Cut: Standard
Chip Breaker: None

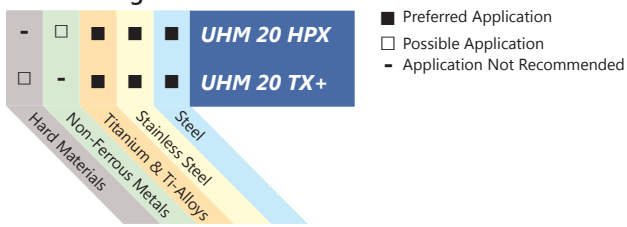
Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	a	d	r	s	Dmin	Holder	Coating
7005-041409	1611-45-0.25-0.5 L UHM20 HPX	7005-041406	1611-45-0.25-0.5 R UHM20 HPX	0.25	0.5	0	0.5	0.8	45 ST A	UHM 20 HPX
7005-041412	1611-45-0.25-0.5 L UHM20 TX+	7005-041407	1611-45-0.25-0.5 R UHM20 TX+	0.25	0.5	0	0.5	0.8	45 ST A	UHM 20 TX+
7005-041419	1611-45-0.5-1.0 L UHM20 HPX	7005-041414	1611-45-0.5-1.0 R UHM20 HPX	0.5	1	0	1	1.6	45 ST A	UHM 20 HPX
7005-041430	1611-45-0.5-1.0 L UHM20 TX+	7005-041415	1611-45-0.5-1.0 R UHM20 TX+	0.5	1	0	1	1.6	45 ST A	UHM 20 TX+
7005-041435	1611-45-0.75-1.5 L UHM20 HPX	7005-041432	1611-45-0.75-1.5 R UHM20 HPX	0.75	1.5	0	1.5	2.4	45 ST A	UHM 20 HPX
7005-041436	1611-45-0.75-1.5 L UHM20 TX+	7005-041433	1611-45-0.75-1.5 R UHM20 TX+	0.75	1.5	0	1.5	2.4	45 ST A	UHM 20 TX+
7005-041443	1611-45-1.0-2.0 L UHM20 HPX	7005-041439	1611-45-1.0-2.0 R UHM20 HPX	1	2	0	2	3.2	45 ST A	UHM 20 HPX
7005-041444	1611-45-1.0-2.0 L UHM20 TX+	7005-041440	1611-45-1.0-2.0 R UHM20 TX+	1	2	0	2	3.2	45 ST A	UHM 20 TX+





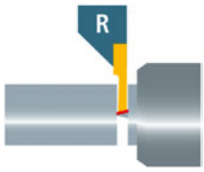
Ideal Cutting Materials



■ Preferred Application
□ Possible Application
- Application Not Recommended



*Note: The groove must be made exactly on the Dmin position.



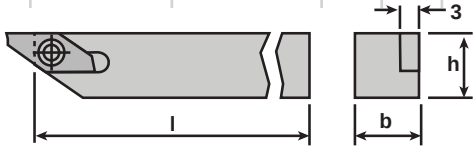
1600 Holder

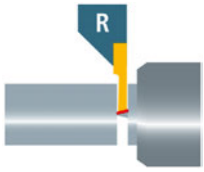
Type: Standard
Coolant-Thru: None

Repeatability = R : ■ <20µm, ■ <50µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	R	h	b	l	Inserts
7005-042975	1600-07x100 L	7005-042976	1600-07x100 R	■	7	7	100	1600 Series
7005-147532	1600-08x80 L	7005-147530	1600-08x80 R	■	8	8	80	1600 Series
7005-042977	1600-08x100 L	7005-042978	1600-08x100 R	■	8	8	100	1600 Series
7005-147533	1600-10x80 L	7005-147531	1600-10x80 R	■	10	10	80	1600 Series
7005-043196	1600-10x100 L	7005-043197	1600-10x100 R	■	10	10	100	1600 Series
7005-043198	1600-12x100 L	7005-043199	1600-12x100 R	■	12	12	100	1600 Series
7005-043202	1600-16x125 L	7005-043203	1600-16x125 R	■	16	16	125	1600 Series
7005-043536	1600-20x125 L	7005-043537	1600-20x125 R	■	20	20	125	1600 Series
7005-138899	1600-25x125 L	7005-138900	1600-25x125 R	■	25	25	125	1600 Series
7005-147537	1600-3/8"x80 L	7005-147536	1600-3/8"x80 R	■	.375"	.375"	80	1600 Series
7005-138425	1600-3/8"x100 L	7005-138424	1600-3/8"x100 R	■	.375"	.375"	100	1600 Series
7005-138427	1600-1/2"x100 L	7005-138426	1600-1/2"x100 R	■	.500"	.500"	100	1600 Series
7005-139770	1600-5/8"x125 L	7005-139769	1600-5/8"x125 R	■	.625"	.625"	125	1600 Series
7005-113702	1600-3/4"x125 L	7005-113703	1600-3/4"x125 R	■	.75"	.75"	125	1600 Series
Call For Details	1600 B-10x100 L	Call For Details	1600 B-10x100 R	■	10	10	100	1600 Series
Call For Details	1600 B-12x100 L	7005-153298	1600 B-12x100 R	■	12	12	100	1600 Series
Call For Details	1600 B-16x125 L	Call For Details	1600 B-16x125 R	■	16	16	125	1600 Series







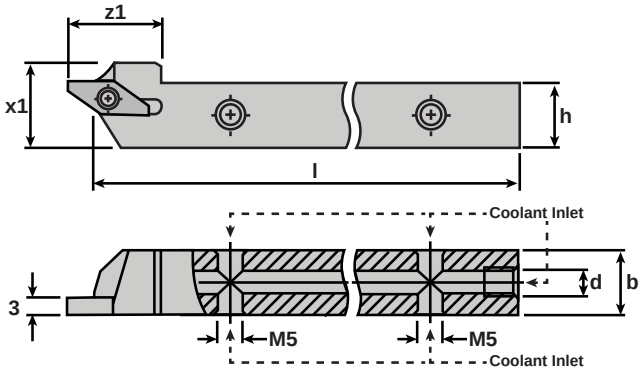
1600 Holder Coolant-Thru

Type: Standard
Coolant-Thru: Rear & Side Ports

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features							Coolant Fittings	
Item No.	Description	Item No.	Description	h	b	l	z^1	x^1	(d)	Inserts	Side	Rear
7005-146079A	1600-08x100 L IC	7005-129894A	1600-08x100 R IC	8	10	100	15	11.5	M5	1600 Series	4005-000111	4005-000111
7005-146080A	1600-10x100 L IC	7005-146077A	1600-10x100 R IC	10	10	100	15	13.5	M5	1600 Series	4005-000111	4005-000111
7005-146081A	1600-12x100 L IC	7005-129790A	1600-12x100 R IC	12	12	100	17	15.5	M5	1600 Series	4005-000111	4005-000111
7005-146082A	1600-16x125 L IC	7005-146065A	1600-16x125 R IC	16	16	125	17	19.5	G 1/8"	1600 Series	4005-000111	4005-000104
7005-146083A	1600-20x125 L IC	7005-146078A	1600-20x125 R IC	20	20	125	20	23.5	G 1/8"	1600 Series	4005-000111	4005-000104
7005-146098A	1600-3/8"x100 L IC	7005-146094A	1600-3/8"x100 R IC	.375"	.375"	100	15	13	M5	1600 Series	4005-000111	4005-000111
7005-146298A	1600-1/2"x100 L IC	7005-146095A	1600-1/2"x100 R IC	.500"	.500"	100	17	16.2	M5	1600 Series	4005-000111	4005-000111
7005-146299A	1600-5/8"x125 L IC	7005-146096A	1600-5/8"x125 R IC	.625"	.625"	125	17	19.4	G 1/8"	1600 Series	4005-000111	4005-000104
7005-146300A	1600-3/4"x125 L IC	7005-146097A	1600-3/4"x125 R IC	.750"	.750"	125	20	22.6	G 1/8"	1600 Series	4005-000111	4005-000104

Features (5) connection ports for simple connection to your oil delivery system. (4) Side ports and (1) one end port making connection possible on most machine tool positions.



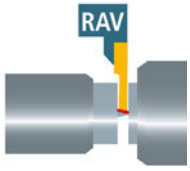




4005-000111
Connects to side ports on ALL shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks



4005-000104
Connects to end port on 5/8" and larger shanks
0° Male Union - 1/8 BSPP to 1/4 JIC Flare Fitting
Fits Position (d) On Tool Holders Sold Separately



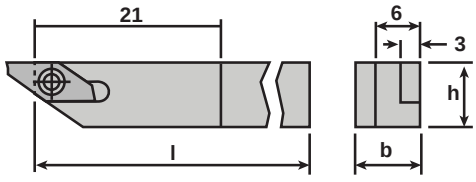
1600 Holder

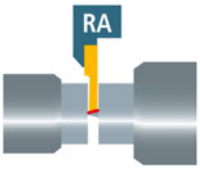
Type: Offset Shank
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features			
Item No.	Description	Item No.	Description	h	b	l	Inserts
7005-147555	1600-08x80 LAV	7005-147553	1600-08x80 RAV	8	8	80	1600 Series
7005-139238	1600-08x100 LAV	7005-139232	1600-08x100 RAV	8	8	100	1600 Series
7005-147556	1600-10x80 LAV	7005-147554	1600-10x80 RAV	10	10	80	1600 Series
7005-139240	1600-10x100 LAV	7005-139234	1600-10x100 RAV	10	10	100	1600 Series
7005-139242	1600-12x100 LAV	7005-139236	1600-12x100 RAV	12	12	100	1600 Series
7005-113706	1600-16x125 LAV	7005-113707	1600-16x125 RAV	16	16	125	1600 Series
7005-147558	1600-3/8"x80 LAV	7005-147557	1600-3/8"x80 RAV	.375"	.375"	80	1600 Series
7005-139253	1600-3/8"x100 LAV	7005-139252	1600-3/8"x100 RAV	.375"	.375"	100	1600 Series
7005-139255	1600-1/2"x100 LAV	7005-139254	1600-1/2"x100 RAV	.500"	.500"	100	1600 Series
7005-139774	1600-5/8"x125 LAV	7005-139773	1600-5/8"x125 RAV	.625"	.625"	125	1600 Series







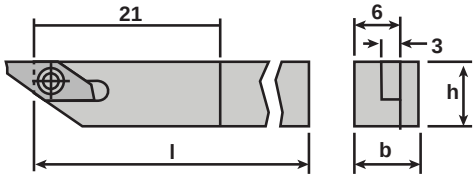
1600 Holder

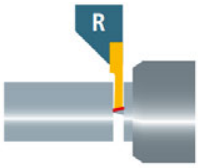
Type: Offset Shank & Insert
Coolant-Thru: None

Repeatability <20µm



Left Hand		Right Hand		Dimensions & Features			
Item No.	Description	Item No.	Description	h	b	l	Inserts
7005-147546	1600-08x80 LA	7005-147544	1600-08x80 RA	8	8	80	1600 Series
7005-139226	1600-08x100 LA	7005-139220	1600-08x100 RA	8	8	100	1600 Series
7005-147547	1600-10x80 LA	7005-147545	1600-10x80 RA	10	10	80	1600 Series
7005-139228	1600-10x100 LA	7005-124007	1600-10x100 RA	10	10	100	1600 Series
7005-139230	1600-12x100 LA	7005-139224	1600-12x100 RA	12	12	100	1600 Series
7005-113704	1600-16x125 LA	7005-113705	1600-16x125 RA	16	16	125	1600 Series
7005-147552	1600-3/8"x80 LA	7005-139248	1600-3/8"x100 RA	.375"	.375"	80	1600 Series
7005-139249	1600-3/8"x100 LA	7005-139248	1600-3/8"x100 RA	.375"	.375"	100	1600 Series
7005-139251	1600-1/2"x100 LA	7005-139250	1600-1/2"x100 RA	.500"	.500"	100	1600 Series
7005-139772	1600-5/8"x125 LA	7005-139771	1600-5/8"x125 RA	.625"	.625"	125	1600 Series





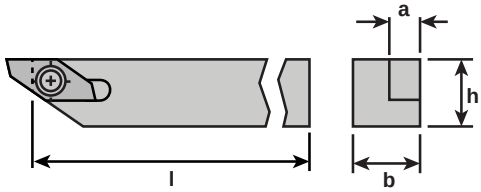
1600 Holder (4, 6, & 8mm Width Inserts)

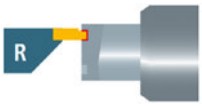
Type: Standard
Coolant-Thru: None

Repeatability <20µm



Insert Width	Left Hand		Right Hand		Dimensions & Features			
	Item No.	Description	Item No.	Description	h	b	l	Inserts
4mm	7005-147540	1600-08x80-4 L	7005-147538	1600-08x80-4 R	8	8	80	1694...
	7005-139699	1600-08x100-4 L	7005-139700	1600-08x100-4 R	8	8	100	1694...
	7005-147541	1600-10x80-4 L	7005-147539	1600-10x80-4 R	10	10	80	1694...
	7005-139701	1600-10x100-4 L	7005-139702	1600-10x100-4 R	10	10	100	1694...
	7005-139703	1600-12x100-4 L	7005-139704	1600-12x100-4 R	12	12	100	1694...
	7005-139705	1600-16x125-4 L	7005-139706	1600-16x125-4 R	16	16	125	1694...
	7005-139707	1600-20x125-4 L	7005-139708	1600-20x125-4 R	20	20	125	1694...
	Call For Details	1600-25x150-4 L	Call For Details	1600-25x150-4 R	25	25	150	1694...
6mm	7005-147543	1600-10x80-6 L	7005-147542	1600-10x80-6 R	10	10	80	1696...
	7005-139711	1600-10x100-6 L	7005-139712	1600-10x100-6 R	10	10	100	1696...
	7005-139713	1600-12x100-6 L	7005-139714	1600-12x100-6 R	12	12	100	1696...
	7005-139715	1600-16x125-6 L	7005-139716	1600-16x125-6 R	16	16	125	1696...
	7005-139717	1600-20x125-6 L	7005-139718	1600-20x125-6 R	20	20	125	1696...
	Call For Details	1600-25x150-6 L	Call For Details	1600-25x150-6 R	25	25	150	1696...
8mm	7005-139721	1600-12x100-8 L	7005-139722	1600-12x100-8 R	12	12	100	1698...
	7005-139723	1600-16x125-8 L	7005-139724	1600-16x125-8 R	16	16	125	1698...
	7005-139725	1600-20x125-8 L	7005-139726	1600-20x125-8 R	20	20	125	1698...
	Call For Details	1600-25x150-8 L	Call For Details	1600-25x150-8 R	25	25	150	1698...





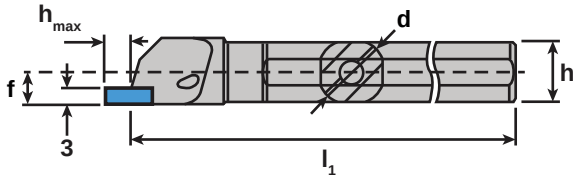
1600 Holder

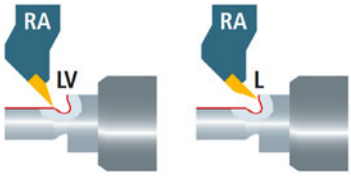
Type: Round Shank
Coolant-Thru: Rear Coolant Port

Repeatability <20µm



Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	d	l_1	h_{max}	h	f	Inserts
7005-193624	1600-12x125 00 RD L IC	7005-193620	1600-12x125 00 RD R IC	12	125	5	11	6	1600 Series
7005-193625	1600-16x125 00 RD L IC	7005-193621	1600-16x125 00 RD R IC	16	125	5	15	8	1600 Series
7005-113887	1600-20x125 00 RD L IC	7005-113883	1600-20x125 00 RD R IC	20	125	5	19	10	1600 Series
7005-193627	1600-22x125 00 RD L IC	7005-193623	1600-22x125 00 RD R IC	22	125	5	21	11	1600 Series
Call For Details	1600-3/4"x125 00 RD L IC	Call For Details	1600-3/4"x125 00 RD R IC	19.05	125	5	18	9.53	1600 Series





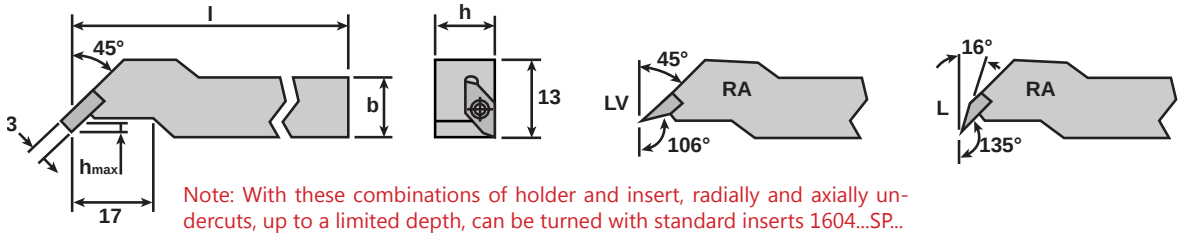
1600 Holder (Angled 45°)

Type: Offset Shank & Insert
Coolant-Thru: Rear Coolant Port

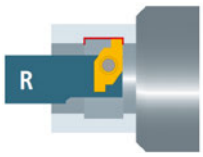
Repeatability <20µm



Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	h	b	l	hmax	Inserts
7005-113113	1600-08x100 45 ST LA	7005-113109	1600-08x100 45 ST RA	8	8	100	2	
7005-147568	1600-10x80 45 ST LA	7005-147566	1600-10x80 45 ST RA	10	10	80	2	
7005-113114	1600-10x100 45 ST LA	7005-113110	1600-10x100 45 ST RA	10	10	100	2	
7005-113115	1600-12x100 45 ST LA	7005-113111	1600-12x100 45 ST RA	12	12	100	2	1604...SP
7005-113116	1600-16x125 45 ST LA	7005-113112	1600-16x125 45 ST RA	16	16	125	2	1611-45
7005-147570	1600-3/8"x80 45 ST LA	7005-147569	1600-3/8"x80 45 ST RA	9.525	9.525	80	2	1699...
7005-113121	1600-3/8"x100 45 ST LA	7005-113117	1600-3/8"x100 45 ST RA	9.525	9.525	100	2	
7005-113122	1600-1/2"x100 45 ST LA	7005-113118	1600-1/2"x100 45 ST RA	12.7	12.7	100	2	
7005-113123	1600-5/8"x125 45 ST LA	7005-113120	1600-5/8"x125 45 ST RA	15.875	15.875	125	2	



Note: With these combinations of holder and insert, radially and axially undercuts, up to a limited depth, can be turned with standard inserts 1604...SP...



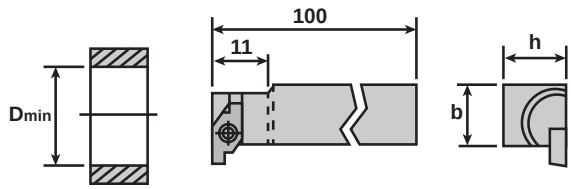
1600 Holder (Angled 90°)

Type: Standard
Coolant-Thru: None

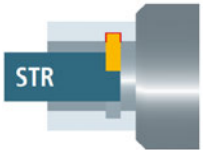
Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	h	b	l	Dmin	Inserts
7005-043220	1600-10x100 90 L	7005-043221	1600-10x100 90 R	10	10	100	17	1699
7005-043222	1600-12x100 90 L	7005-043223	1600-12x100 90 R	12	12	100	17	1699





Note: These holders require an opposite insert (ie: a right-hand holder uses a left-hand insert). These holders require 1699 series inserts - refer to the full multidec® catalog for details.



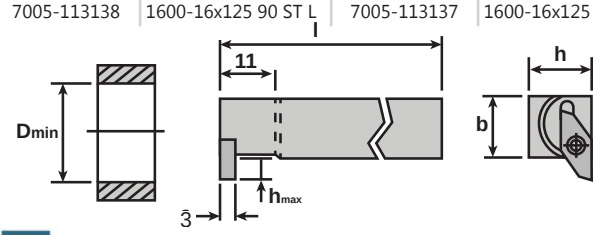
1600 Strengthened Holder (Angled 90°)

Type: Standard
Coolant-Thru: None

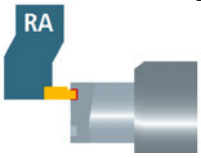
Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	h	b	l	hmax	Dmin	Inserts
7005-043224	1600-10x100 90 ST L	7005-043225	1600-10x100 90 ST R	10	10	100	4	21	1600 Series
7005-043226	1600-12x100 90 ST L	7005-043227	1600-12x100 90 ST R	12	12	100	4	21	1600 Series
7005-113138	1600-16x125 90 ST L	7005-113137	1600-16x125 90 ST R	16	16	125	4	21	1600 Series





Note: These holders require an opposite insert (ie: a right-hand holder uses a left-hand insert).



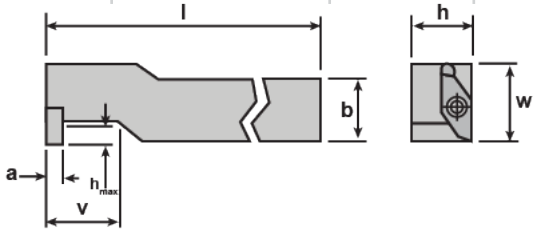
1600 Strengthened Holder (Angled 90°)

Type: Offset Shank & Insert
Coolant-Thru: None

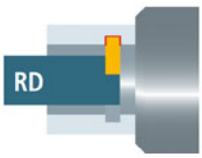
Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	h	b	l	v	w	hmax	Inserts
7005-147561	1600-08x80 90 ST LA	7005-147559	1600-08x80 90 ST RA	8	8	80	17	15	4	1611...
7005-113611	1600-08x100 90 ST LA	7005-113610	1600-08x100 90 ST RA	8	8	100	17	15	4	1611...
7005-147562	1600-10x80 90 ST LA	7005-147560	1600-10x80 90 ST RA	10	10	80	17	15	4	1611...
7005-139244	1600-10x100 90 ST LA	7005-139245	1600-10x100 90 ST RA	10	10	100	17	15	4	1611...
7005-139246	1600-12x100 90 ST LA	7005-139247	1600-12x100 90 ST RA	12	12	100	17	15	4	1611...
7005-113092	1600-16x125 90 ST LA	7005-113091	1600-16x125 90 ST RA	16	16	125	17	16	4	1611...
7005-113613	1600-20x125 90 ST LA	7005-113612	1600-20x125 90 ST RA	20	20	125	17	20	4	1611...
7005-147564	1600-3/8"x80 90 ST LA	7005-147563	1600-3/8"x80 90 ST RA	9.525	9.525	80	17	15	4	1611...
7005-139509	1600-3/8"x100 90 ST LA	7005-139510	1600-3/8"x100 90 ST RA	9.525	9.525	100	17	15	4	1611...
7005-139511	1600-1/2"x100 90 ST LA	7005-139512	1600-1/2"x100 90 ST RA	12.7	12.7	100	17	15	4	1611...
7005-139776	1600-5/8"x125 90 ST LA	7005-139775	1600-5/8"x125 90 ST RA	15.875	15.875	125	17	15.875	4	1611...
7005-113615	1600-3/4"x125 90 ST LA	7005-113614	1600-3/4"x125 90 ST RA	19.05	19.05	125	17	19.05	4	1611...





Note: These holders require an opposite insert (ie: a right-hand holder uses a left-hand insert).



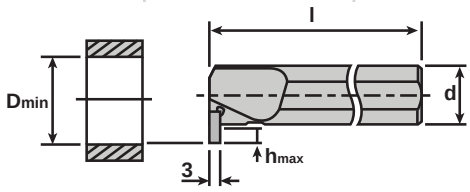
1600 Holder (Angled 90°)

Type: Round Shank
Coolant-Thru: Rear Coolant Port

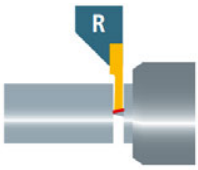
Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	d	l	hmax	Dmin	Inserts
7005-043460	1600-12x125 90 RD L IC	Call For Details	1600-12x125 90 RD R IC	12	125	3	17	1600 Series
7005-043462	1600-16x150 90 RD L IC	7005-043463	1600-16x150 90 RD R IC	16	150	3.5	21	1600 Series
Call For Details	1600-20x180 90 RD L IC	7005-043465	1600-20x180 90 RD R IC	20	180	4	25	1600 Series





Note: These holders require an opposite insert (ie: a right-hand holder uses a left-hand insert).

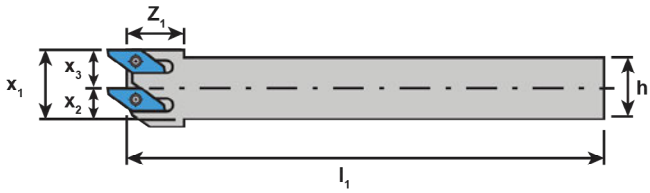


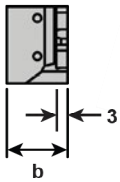
1600 Twin Holder

Type: Two Operations/Inserts
Coolant-Thru: None

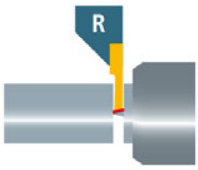
Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features								
Item No.	Description	Item No.	Description	h	b	l	z_1	x_1	x_2	x_3	Inserts	Max Ø
7005-153655	1600L/1600L-0810x100 Twin	7005-153617	1600R/1600R-0810x100 Twin	8	10	100	20	16	4	8	1600 Series	11.5
7005-153620	1600L/1600L-10x100 Twin	7005-150758	1600R/1600R-10x100 Twin	10	10	100	20	16	5	8	1600 Series	11.5
7005-153621	1600L/1600L-12x100 Twin	7005-147155	1600R/1600R-12x100 Twin	12	12	100	20	16	6	8	1600 Series	11.5
7005-153622	1600L/1600L-16x125 Twin	7005-153618	1600R/1600R-16x125 Twin	16	16	125	20	20	8	10	1600 Series	19
7005-153623	1600L/1600L-20x125 Twin	7005-153619	1600R/1600R-20x125 Twin	20	20	125	20	24	8	14	1600 Series	34
7005-153680	1600L/1600L-3/8"x100 Twin	Call For Details	1600R/1600R-3/8"x100 Twin	3/8"	3/8"	100	20	16	5	8	1600 Series	11.5
7005-153681	1600L/1600L-1/2"x100 Twin	7005-153677	1600R/1600R-1/2"x100 Twin	1/2"	1/2"	100	20	16	6	8	1600 Series	11.5
7005-153682	1600L/1600L-5/8"x125 Twin	7005-153678	1600R/1600R-5/8"x125 Twin	5/8"	5/8"	125	20	20	8	10	1600 Series	19
7005-153683	1600L/1600L-3/4"x125 Twin	7005-153679	1600R/1600R-3/4"x125 Twin	3/4"	3/4"	125	20	24	7	14	1600 Series	34









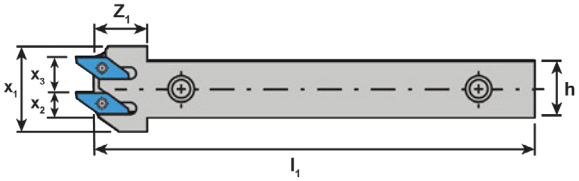
1600 Twin Holder Coolant-Thru

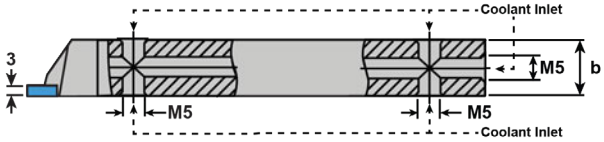
Type: Two Operations/Inserts
Coolant-Thru: Side & Rear Coolant Ports

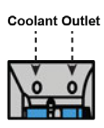
Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features										
Item No.	Description	Item No.	Description	h	b	l	z_1	x_1	x_2	x_3	d	Inserts	Max Ø
7005-153656	1600L/1600L-0812x100 Twin IC	7005-169468	1600R/1600R-0812x100 Twin IC	8	12	100	20	20	3	8	M5	1600 Series	11.5
7005-153626	1600L/1600L-1012x100 Twin IC	7005-153624	1600R/1600R-1012x100 Twin IC	10	12	100	20	20	4	8	M5	1600 Series	11.5
7005-153627	1600L/1600L-12x100 Twin IC	7005-150353	1600R/1600R-12x100 Twin IC	12	12	100	20	20	5	8	M5	1600 Series	11.5
7005-153628	1600L/1600L-16x125 Twin IC	7005-153625	1600R/1600R-16x125 Twin IC	16	16	125	20	24	7	10	G1/8	1600 Series	19
7005-153629	1600L/1600L-20x125 Twin IC	7005-150947	1600R/1600R-20x125 Twin IC	20	20	125	20	28	7	14	G1/8	1600 Series	34
7005-153688	1600L/1600L-3/8"12x100 Twin IC	7005-153684	1600R/1600R-3/8"12x100 Twin IC	3/8"	3/8"	100	20	20	4	8	M5	1600 Series	11.5
7005-153689	1600L/1600L-1/2"x100 Twin IC	7005-153685	1600R/1600R-1/2"x100 Twin IC	1/2"	1/2"	100	20	20	6	8	M5	1600 Series	11.5
7005-153690	1600L/1600L-5/8"x125 Twin IC	7005-153686	1600R/1600R-5/8"x125 Twin IC	5/8"	5/8"	125	20	24	7	10	G1/8	1600 Series	19
7005-153691	1600L/1600L-3/4"x125 Twin IC	7005-153687	1600R/1600R-3/4"x125 Twin IC	3/4"	3/4"	125	20	28	6	14	G1/8	1600 Series	34

Features (5) connection ports for simple connection to your oil delivery system. (4) Side ports and (1) one end port making connection possible on most machine tool positions.







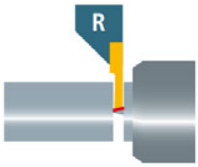


4005-000111
Connects to side ports on ALL shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks



4005-000104
Connects to end port on 5/8" and larger shanks
0° Male Union - 1/8 BSPP to 1/4 JIC Flare Fitting
Fits Position (d) On Tool Holders Sold Separately





1600 Y-Axis Holder

Type: Standard
Coolant-Thru: Side & Rear Coolant Ports

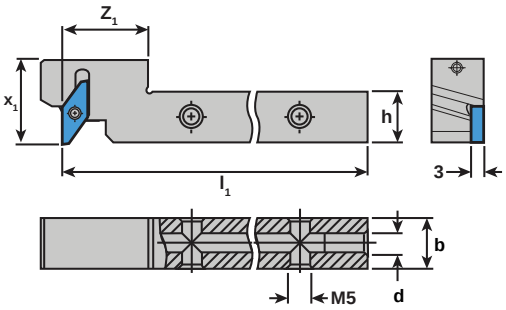
Superb Chip Control On Stringy Materials



Repeatability <10µm

Right Hand		Dimensions & Features							Coolant Fittings	
Item No.	Description	h	b	l	z_1	x_1	d	Inserts	Side	Rear
7005-153791	1600 YA-12x100-20 R IC	12	12	100	20	19.5	M5	1600 Series	4005-000111	4005-000111
7005-153792	1600 YA-12x100-25 R IC	12	12	100	25	19.5	M5	1600 Series	4005-000111	4005-000111
7005-153793	1600 YA-12x100-30 R IC	12	12	100	30	19.5	M5	1600 Series	4005-000111	4005-000111
7005-153794	1600 YA-16x125-20 R IC	16	16	125	20	19.5	G1/8	1600 Series	4005-000111	4005-000104
7005-153795	1600 YA-16x125-25 R IC	16	16	125	25	19.5	G1/8	1600 Series	4005-000111	4005-000104
Call For Details	1600 YA-16x125-30 R IC	16	16	125	30	19.5	G1/8	1600 Series	4005-000111	4005-000104
7005-153798	1600 YA-1/2"x100-20 R IC	1/2"	1/2"	100	20	19.5	M5	1600 Series	4005-000111	4005-000111
Call For Details	1600 YA-1/2"x100-25 R IC	1/2"	1/2"	100	25	19.5	M5	1600 Series	4005-000111	4005-000111
Call For Details	1600 YA-1/2"x100-30 R IC	1/2"	1/2"	100	30	19.5	M5	1600 Series	4005-000111	4005-000111
7005-153800	1600 YA-5/8"x125-20 R IC	5/8"	5/8"	125	20	19.5	G1/8	1600 Series	4005-000111	4005-000104
7005-153801	1600 YA-5/8"x125-25 R IC	5/8"	5/8"	125	25	19.5	G1/8	1600 Series	4005-000111	4005-000104
7005-153802	1600 YA-5/8"x125-30 R IC	5/8"	5/8"	125	30	19.5	G1/8	1600 Series	4005-000111	4005-000104

Features (5) connection ports for simple connection to your oil delivery system: (4) Side ports and (1) one end port making connection possible on most machine tool positions.

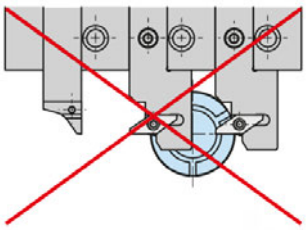




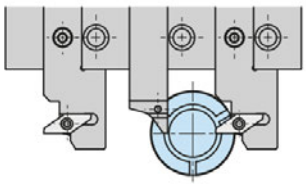
4005-000111
Connects to side ports on ALL shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks



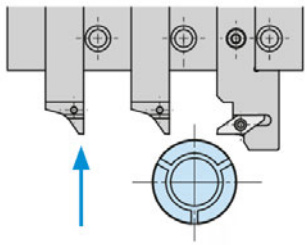
4005-000104
Connects to end port on 5/8" and larger shanks
0° Male Union - 1/8 BSPP to 1/4 JIC Flare Fitting
Fits Position (d) On Tool Holders Sold Separately



To avoid problems, two Y-Axis holders must not be mounted directly next to each other.



Mount a standard tool holder between the Y-Axis holders.

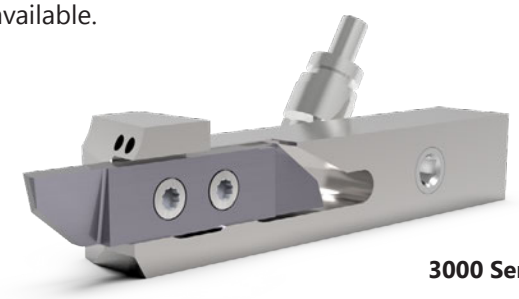


To prevent collisions, move back the holder in accordance with the overhanging length before changing the tool position.

multidec® SHORT

multidec® SHORT coolant-thru holders enable the use of multidec® turning inserts on commonly available quick change tooling systems. **multidec® 1600, 3000, ISO VC, & ISO VP** series inserts are currently available.

See Pg. 304 For Full Details



3000 Series Insert Shown

Notes:

Speeds And Feeds Multidec CUT

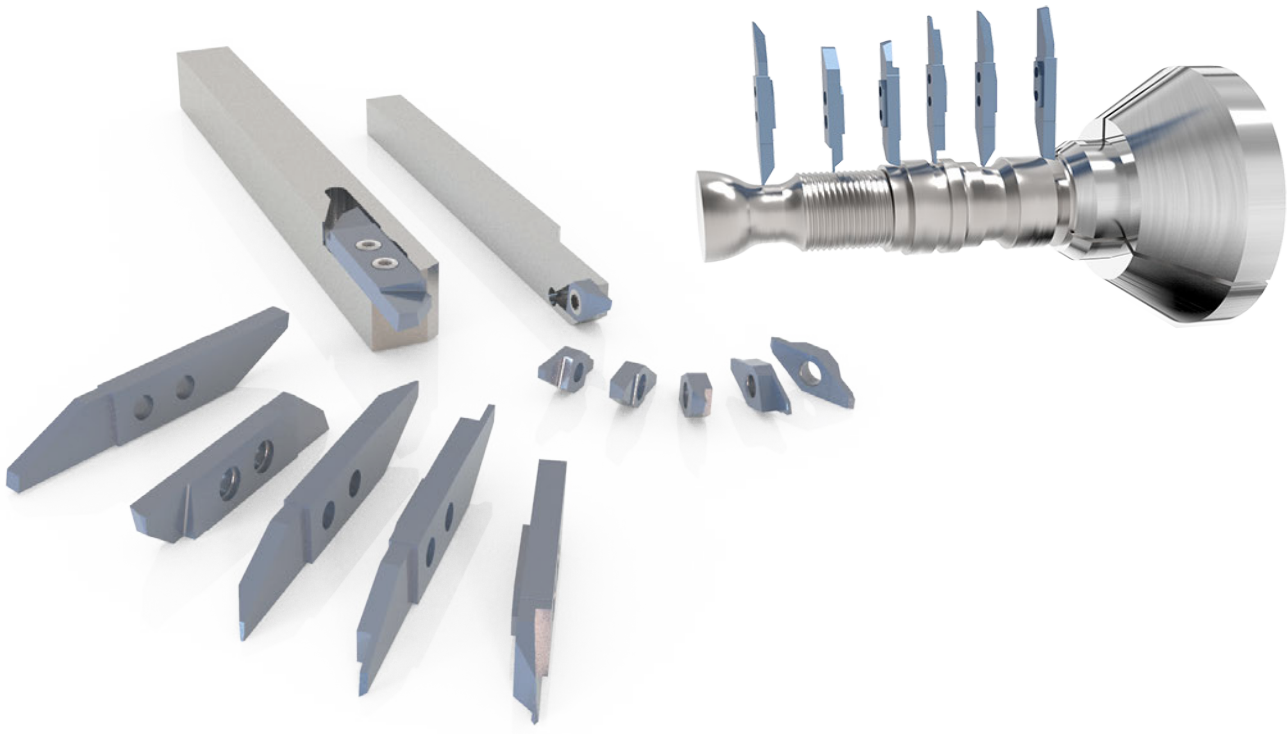
CUT	Unalloyed Steel			Low-Alloy Steel			High-Alloy Steel		
Hardness (HB)-(HRC)	125-300 HB			180-250 HB			200-350 HB		
Category	I			II			III		
Machining Method	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing
Feeds	f(in/rev)								
	.004-.010	.0008-.006	.0002-.003	.004-.010	.0008-.006	.0002-.003	.004-.010	.0008-.006	.0002-.003
Depth of cut	ap(in)								
	<.197	<.118	<.079	<.197	<.118	<.079	<.157	<.098	<.059
Cutting speeds	vc(ft/min)								
Carbide grade									
UHM 20	130-360	190-390	190-460	190-330	190-390	190-430	130-290	190-360	190-390
UHM 20 HPX	490-650	590-720	650-850	260-490	330-590	520-720	230-330	290-490	390-590
UHM 20 TX+	-	-	-	260-430	330-490	520-620	230-290	290-430	390-490
UHM 30	100-230	160-260	160-330	100-200	130-260	130-290	-	100-230	100-60
UHM 30 HX	160-460	160-590	160-720	160-430	160-20	160-650	130-390	160-460	160-590
UHM 30 TX+	-	-	-	-	-	-	-	-	-
High speed steel									
HSS	80-100	80-115	80-130	65-100	65-115	65-115	50-65	50-80	50-100
HSS HX	100-130	115-130	115-160	50-115	50-130	50-150	65-100	65-100	65-115

Speeds And Feeds Multidec CUT

CUT	Stainless Steel			Stainless Steel			Titanium		
Hardness (HB)-(HRC)	180-220 HB			220-330 HB			-		
Category	V			VI			IV		
Machining Method	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing
Feeds	f(in/rev)								
	.004-.008	.0004-.005	.0002-.003	.004-.008	.0004-.05	.0002-.003	.004-.010	.0008-.003	.0002-.002
Depth of cut	ap(in)								
	<.157	<.098	<.059	<.157	<.098	<.059	<.157	<.098	<.059
Cutting speeds	vc(ft/min)								
Carbide grade									
UHM 20	130-330	130-360	130-390	100-230	100-260	100-260	130-190	160-230	190-260
UHM 20 HPX	300-490	360-590	520-650	230-300	300-390	360-490	160-330	190-390	190-460
UHM 20 TX+	300-430	360-520	520-590	230-300	300-390	360-490	160-330	190-390	190-460
UHM 30	-	100-230	100-260	-	65-130	65-130	-	80-190	100-230
UHM 30 HX	130-330	130-460	130-590	100-190	130-230	130-290	100-290	130-330	130-390
UHM 30 TX+	-	-	-	-	-	-	-	-	-
High speed steel									
HSS	50-65	50-80	50-100	30-65	50-65	50-80	30-65	50-65	50-80
HSS HX	65-100	65-100	65-115	65-100	65-100	65-115	65-100	65-100	65-115

Speeds And Feeds Multidec CUT

CUT	Aluminum			Brass			Hard Materials		
Hardness (HB)-(HRC)	60-130 HB			-			45-70 HRC		
Category	VII			VIII			X		
Machining Method	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing
Feeds	f(in/rev)								
	.004-.012	.0008-.010	.0002-.008	.004-.012	.0008-006	.0002-.004	-	-	-
Depth of cut	ap(in)								
	.197	.118	.079	.197	.118	.079	-	-	-
Cutting speeds	vc(ft/min)								
Carbide grade									
UHM 20	330-4920	390-6560	520-8200	260-980	330-1310	390-1640	-	-	-
UHM 20 HPX	-	-	-	-	-	-	-	-	-
UHM 20 TX+	-	-	-	-	-	-	-	-	-
UHM 30	160-3280	190-3940	260-9840	130-330	160-460	160-520	-	-	-
UHM 30 HX	230-4920	260-6560	330-9840	160-490	160-650	160-820	-	-	-
UHM 30 TX+	-	-	-	-	-	-	-	-	-
High speed steel									
HSS	100-260	130-260	160-290	100-160	100-190	130-230	-	-	-
HSS HX	130-290	160-330	160-390	130-190	130-260	160-290	-	-	-



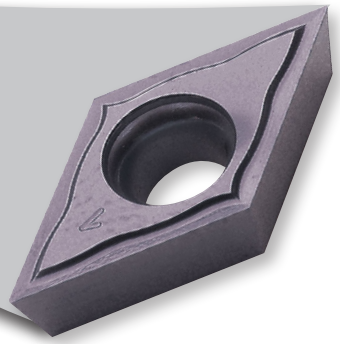
UTILIS

multidec®

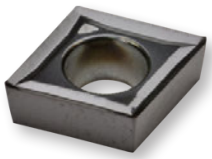
swiss type tools

ISO Series





- Highly focused ISO style insert range collected specifically for Swiss applications
- Holders especially designed for Swiss-type machines
- Large choice of carbide grades cover a wide range of materials
- Vast assortment of chip breaker styles and geometries



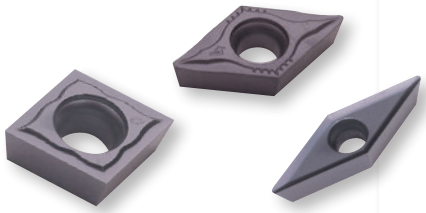
80° ISO
Inserts & Holders



55° ISO
Inserts & Holders

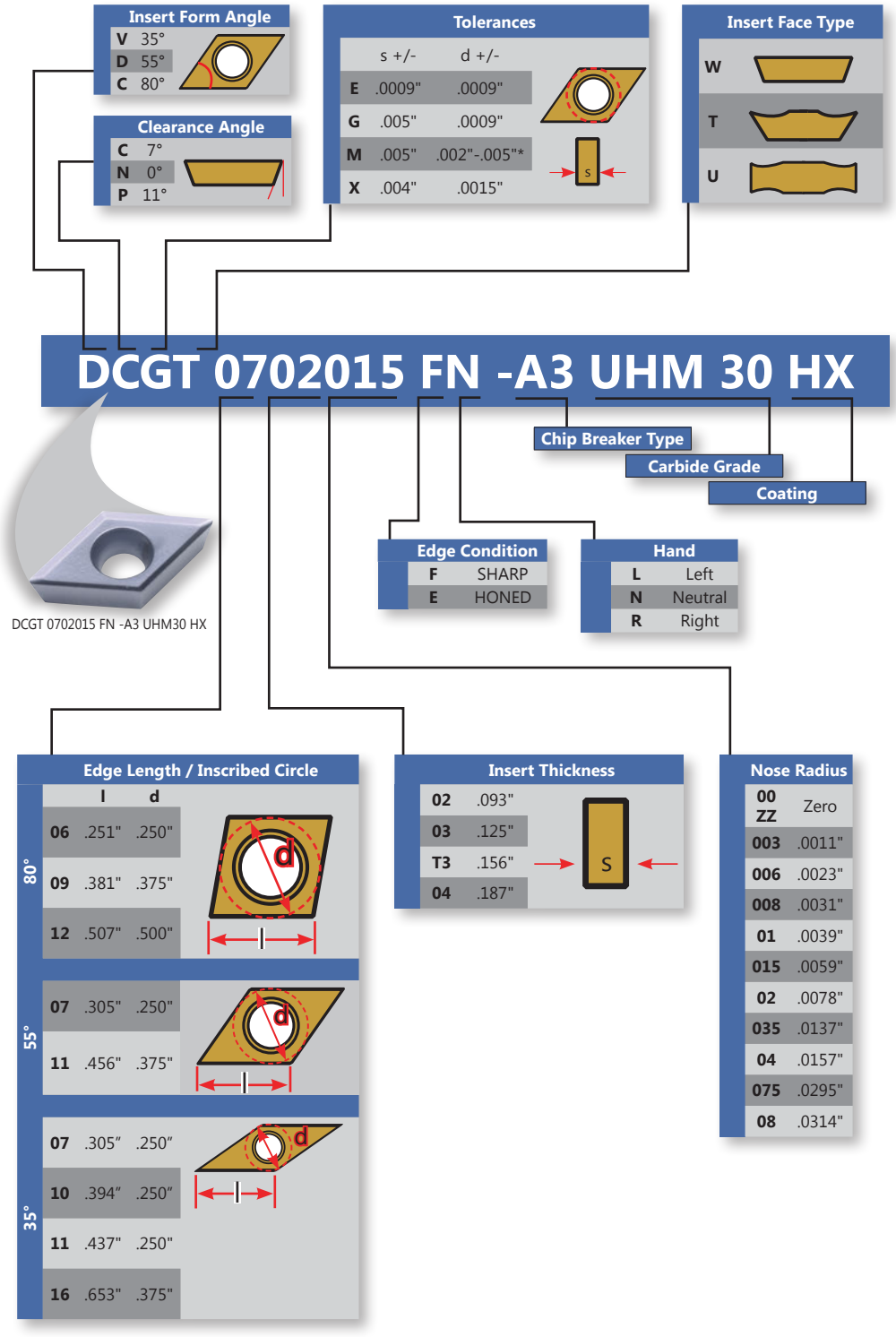


35° ISO
Inserts & Holders





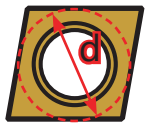
Works Great On Stringy Materials


Insert Form Angle
V 35°
D 55°
C 80°
Clearance Angle
C 7°
N 0°
P 11°
Tolerances
s +/- d +/-
E .0009" .0009"
G .005" .0009"
M .005" .002"-.005"*
X .004" .0015"
s
Insert Face Type
W
T
U
DCGT 0702015 FN -A3 UHM 30 HX
Chip Breaker Type
Carbide Grade
Coating
Edge Condition
F SHARP
E HONED
Hand
L Left
N Neutral
R Right
DCGT 0702015 FN -A3 UHM30 HX
Edge Length / Inscribed Circle
l d
80°
06 .251" .250"
09 .381" .375"
12 .507" .500"
55°
07 .305" .250"
11 .456" .375"
35°
07 .305" .250"
10 .394" .250"
11 .437" .250"
16 .653" .375"
d
Insert Thickness
02 .093"
03 .125"
T3 .156"
04 .187"
S
Nose Radius
00 ZZ Zero
003 .0011"
006 .0023"
008 .0031"
01 .0039"
015 .0059"
02 .0078"
035 .0137"
04 .0157"
075 .0295"
08 .0314"

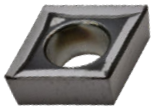
Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	Steel
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits



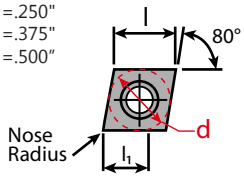
CC...06 inserts: d =.250"
CC...09 inserts: d =.375"
CC...12 inserts: d =.500"



CCGT Carbide PA3

Cut: Neutral

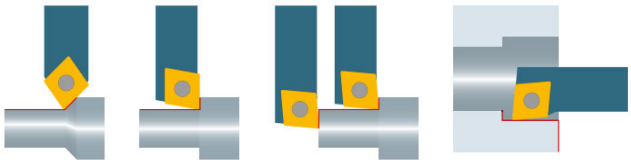
Chip Breaker: PA3, Polished Rake, Sharp Cutting Edge

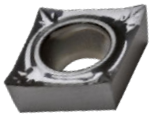


Repeatability <20µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-123554	CCGT 060202 FN PA3 UHM10 HX	Sharp	6.4	4	.20mm/.0079in	SC...06	UHM 10 HX
Call For Details	CCGT 060202 FN PA3 UHM10 TX+	Sharp	6.4	4	.20mm/.0079in	SC...06	UHM 10 TX+
7005-123560	CCGT 060204 FN PA3 UHM10 HX	Sharp	6.4	4	.40mm/.0157in	SC...06	UHM 10 HX
Call For Details	CCGT 060204 FN PA3 UHM10 TX+	Sharp	6.4	4	.40mm/.0157in	SC...06	UHM 10 TX+
7005-123578	CCGT 09T304 FN PA3 UHM10 HX	Sharp	9.7	4	.40mm/.0157in	SC...09	UHM 10 HX
Call For Details	CCGT 09T304 FN PA3 UHM10 TX+	Sharp	9.7	4	.40mm/.0157in	SC...09	UHM 10 TX+
7005-123258	CCGT 09T308 FN PA3 UHM10 HX	Sharp	9.7	4	.80mm/.0315in	SC...09	UHM 10 HX
Call For Details	CCGT 09T308 FN PA3 UHM10 TX+	Sharp	9.7	4	.80mm/.0315in	SC...09	UHM 10 TX+

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	-	□
Finishing	□	□	□	□	□	■	■	-	■
Micro Finishing	■	■	■	■	■	■	■	-	■

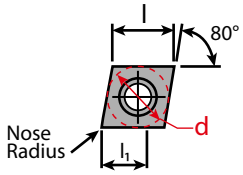




CCGT Carbide PA5

Cut: Neutral

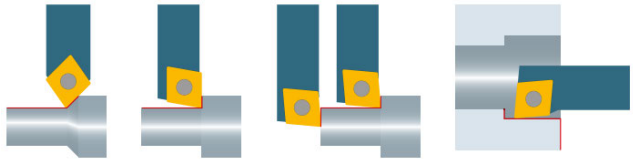
Chip Breaker: PA5, Polished Rake, Sharp Cutting Edge



Repeatability <20µm

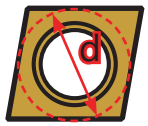
Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-123441	CCGT 060202 FN PA5 UHM10 HX	Sharp	6.4	4	.20mm/.0079in	SC...06	UHM 10 HX
7005-150413	CCGT 060202 FN PA5 UHM10 TX+	Sharp	6.4	4	.20mm/.0079in	SC...06	UHM 10 TX+
7005-123443	CCGT 060204 FN PA5 UHM10 HX	Sharp	6.4	4	.40mm/.0157in	SC...06	UHM 10 HX
7005-150414	CCGT 060204 FN PA5 UHM10 TX+	Sharp	6.4	4	.40mm/.0157in	SC...06	UHM 10 TX+
Call For Details	CCGT 09T302 FN PA5 UHM10 HX	Sharp	9.7	6	.20mm/.0079in	SC...09	UHM 10 HX
7005-192168	CCGT 09T302 FN PA5 UHM10 TX+	Sharp	9.7	6	.20mm/.0079in	SC...09	UHM 10 TX+
7005-123445	CCGT 09T304 FN PA5 UHM10 HX	Sharp	9.7	6	.40mm/.0157in	SC...09	UHM 10 HX
7005-123231	CCGT 09T304 FN PA5 UHM10 TX+	Sharp	9.7	6	.40mm/.0157in	SC...09	UHM 10 TX+
7005-153764	CCGT 09T308 FN PA5 UHM10 HX	Sharp	9.7	6	.80mm/.0315in	SC...09	UHM 10 HX
7005-044777	CCGT 09T308 FN PA5 UHM10 TX+	Sharp	9.7	6	.80mm/.0315in	SC...09	UHM 10 TX+
7005-153766	CCGT 120402 FN PA5 UHM10 HX	Sharp	12.9	8	.20mm/.0079in	SC...12	UHM 10 HX
7005-044778	CCGT 120402 FN PA5 UHM10 TX+	Sharp	12.9	8	.20mm/.0079in	SC...12	UHM 10 TX+
7005-123447	CCGT 120404 FN PA5 UHM10 HX	Sharp	12.9	8	.40mm/.0157in	SC...12	UHM 10 HX
7005-044779	CCGT 120404 FN PA5 UHM10 TX+	Sharp	12.9	8	.40mm/.0157in	SC...12	UHM 10 TX+
7005-123448	CCGT 120408 FN PA5 UHM10 HX	Sharp	12.9	8	.80mm/.0315in	SC...12	UHM 10 HX
7005-154367	CCGT 120408 FN PA5 UHM10 TX+	Sharp	12.9	8	.80mm/.0315in	SC...12	UHM 10 TX+

	Material Class								
Application	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	-	□
Finishing	■	■	■	□	■	■	■	-	■
Micro Finishing	■	■	■	□	■	■	■	-	■

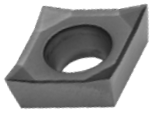


Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	Steel
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials



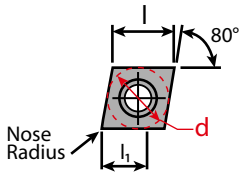
Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits



CCGT Carbide PA7

Cut: Neutral

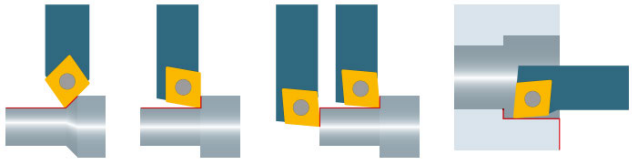
Chip Breaker: PA7, Sharp Cutting Edge

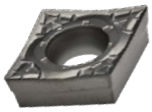


Repeatability <20µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-123442	CCGT 060202 FN PA7 UHM10 HX	Sharp	6.4	4	.20mm/.0079in	SC...06	UHM 10 HX
7005-150415	CCGT 060202 FN PA7 UHM10 TX+	Sharp	6.4	4	.20mm/.0079in	SC...06	UHM 10 TX+
7005-123444	CCGT 060204 FN PA7 UHM10 HX	Sharp	6.4	4	.40mm/.0157in	SC...06	UHM 10 HX
7005-150416	CCGT 060204 FN PA7 UHM10 TX+	Sharp	6.4	4	.40mm/.0157in	SC...06	UHM 10 TX+
Call For Details	CCGT 09T305 FN PA7 UHM10 HX	Sharp	9.7	6	.05mm/.0019in	SC...09	UHM 10 HX
Call For Details	CCGT 09T305 FN PA7 UHM10 TX+	Sharp	9.7	6	.05mm/.0019in	SC...09	UHM 10 TX+
7005-114379	CCGT 09T301 FN PA7 UHM10 HX	Sharp	9.7	6	.10mm/.0039in	SC...09	UHM 10 HX
7005-150386	CCGT 09T301 FN PA7 UHM10 TX+	Sharp	9.7	6	.10mm/.0039in	SC...09	UHM 10 TX+
7005-123572	CCGT 09T302 FN PA7 UHM10 HX	Sharp	9.7	6	.20mm/.0079in	SC...09	UHM 10 HX
7005-150387	CCGT 09T302 FN PA7 UHM10 TX+	Sharp	9.7	6	.20mm/.0079in	SC...09	UHM 10 TX+
7005-123446	CCGT 09T304 FN PA7 UHM10 HX	Sharp	9.7	6	.40mm/.0157in	SC...09	UHM 10 HX
7005-150388	CCGT 09T304 FN PA7 UHM10 TX+	Sharp	9.7	6	.40mm/.0157in	SC...09	UHM 10 TX+
7005-123260	CCGT 09T308 FN PA7 UHM10 HX	Sharp	9.7	6	.80mm/.0315in	SC...09	UHM 10 HX
7005-044780	CCGT 09T308 FN PA7 UHM10 TX+	Sharp	9.7	6	.80mm/.0315in	SC...09	UHM 10 TX+
7005-123579	CCGT 120402 FN PA7 UHM10 HX	Sharp	12.9	8	.20mm/.0079in	SC...12	UHM 10 HX
7005-044781	CCGT 120402 FN PA7 UHM10 TX+	Sharp	12.9	8	.20mm/.0079in	SC...12	UHM 10 TX+
7005-123315	CCGT 120404 FN PA7 UHM10 HX	Sharp	12.9	8	.40mm/.0157in	SC...12	UHM 10 HX
7005-154426	CCGT 120404 FN PA7 UHM10 TX+	Sharp	12.9	8	.40mm/.0157in	SC...12	UHM 10 TX+
7005-123449	CCGT 120408 FN PA7 UHM10 HX	Sharp	12.9	8	.80mm/.0315in	SC...12	UHM 10 HX
7005-044782	CCGT 120408 FN PA7 UHM10 TX+	Sharp	12.9	8	.80mm/.0315in	SC...12	UHM 10 TX+

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	-	□
Finishing	□	□	□	□	□	□	■	-	■
Micro Finishing	■	■	■	□	■	■	■	-	■

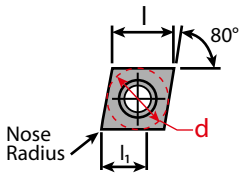




CCXT Carbide PA9

Cut: Neutral

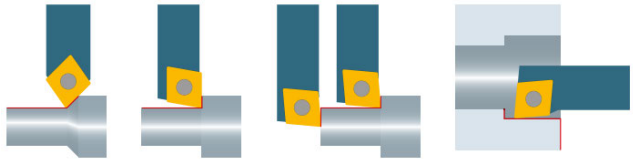
Chip Breaker: PA9, Honed Cutting Edge



Repeatability <50µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-138582	CCXT 060204 EN PA9 UHM10 HX	Round	6.4	4	.40mm/.0157in	SC...06	UHM 10 HX
7005-150417	CCXT 060204 EN PA9 UHM10 TX+	Round	6.4	4	.40mm/.0157in	SC...06	UHM 10 TX+
7005-138584	CCXT 09T304 EN PA9 UHM10 HX	Round	9.7	6	.40mm/.0157in	SC...09	UHM 10 HX
7005-044783	CCXT 09T304 EN PA9 UHM10 TX+	Round	9.7	6	.40mm/.0157in	SC...09	UHM 10 TX+
7005-138586	CCXT 09T308 EN PA9 UHM10 HX	Round	9.7	6	.80mm/.0315in	SC...09	UHM 10 HX
7005-044784	CCXT 09T308 EN PA9 UHM10 TX+	Round	9.7	6	.80mm/.0315in	SC...09	UHM 10 TX+

	Material Class								
Application	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	□	□	□	■	-	-
Finishing	■	■	■	■	■	■	□	-	-
Micro Finishing	□	□	□	-	□	□	-	-	-

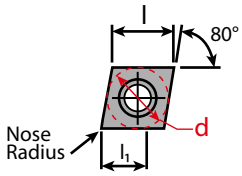




CCGT Carbide PF

Cut: Neutral

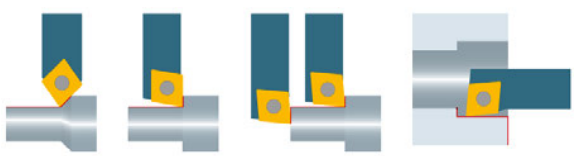
Chip Breaker: PF, Honed Cutting Edge



Repeatability <20µm

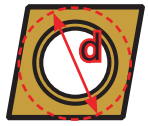
Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-123321	CCGT 060202 EN PF UHM20 MZ	Round	6.4	1.5	.20mm/.0079in	SC...06	UHM 20 MZ
7005-123323	CCGT 060202 EN PF UHM30 MZ	Round	6.4	1.5	.20mm/.0079in	SC...06	UHM 30 MZ
Call For Details	CCGT 060202 EN PF UHM10 HX	Round	6.4	1.5	.20mm/.0079in	SC...06	UHM 10 HX
Call For Details	CCGT 060202 EN PF UHM10 MZ	Round	6.4	1.5	.20mm/.0079in	SC...06	UHM 10 MZ
Call For Details	CCGT 060204 EN PF UHM10 HX	Round	6.4	1.5	.40mm/.0157in	SC...06	UHM 10 HX
Call For Details	CCGT 060204 EN PF UHM10 MZ	Round	6.4	1.5	.40mm/.0157in	SC...06	UHM 10 MZ
Call For Details	CCGT 09T302 EN PF UHM10 HX	Round	9.7	2	.20mm/.0079in	SC...09	UHM 10 HX
Call For Details	CCGT 09T302 EN PF UHM10 MZ	Round	9.7	2	.20mm/.0079in	SC...09	UHM 10 MZ
Call For Details	CCGT 09T304 EN PF UHM10 HX	Round	9.7	2	.40mm/.0157in	SC...09	UHM 10 HX
Call For Details	CCGT 09T304 EN PF UHM10 MZ	Round	9.7	2	.40mm/.0157in	SC...09	UHM 10 MZ
Call For Details	CCGT 09T308 EN PF UHM10 MZ	Round	9.7	2	.80mm/.0315in	SC...09	UHM 10 MZ
Call For Details	CCGT 120404 EN PF UHM10 HX	Round	12.9	3.2	.40mm/.0157in	SC...12	UHM 10 HX

	Material Class								
Application	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	-	□	□	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	■	■	■	-	■	■	-	-	-



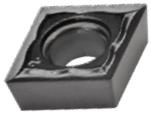
Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	Steel
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials



CC...06 inserts: d =.250"
CC...09 inserts: d =.375"
CC...12 inserts: d =.500"

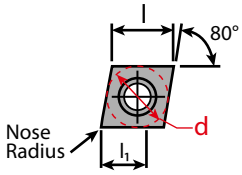
Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits



CCGT Carbide FN PF23

Cut: Neutral

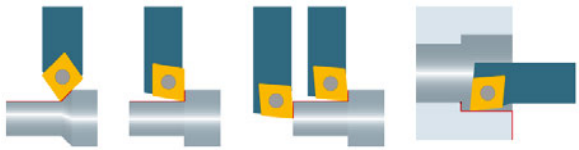
Chip Breaker: PF23, Polished Rake, Sharp Cutting Edge



Repeatability <20µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-044785	CCGT 0602005 FN PF23 UHM20 HPX	Sharp	6.4	2	.05mm/.0019in	SC...06	UHM 20 HPX
Call For Details	CCGT 0602005 FN PF23 UHM 20 TX+	Sharp	6.4	2	.05mm/.0019in	SC...06	UHM 20 TX+
7005-127726	CCGT 0602005 FN PF23 UHM30 HX	Sharp	6.4	2	.05mm/.0019in	SC...06	UHM 30 HX
7005-044787	CCGT 060201 FN PF23 UHM20 HPX	Sharp	6.4	2	.10mm/.0039in	SC...06	UHM 20 HPX
Call For Details	CCGT 060201 FN PF23 UHM 20 TX+	Sharp	6.4	2	.10mm/.0039in	SC...06	UHM 20 TX+
7005-126517	CCGT 060201 FN PF23 UHM30 HX	Sharp	6.4	2	.10mm/.0039in	SC...06	UHM 30 HX
7005-044789	CCGT 060202 FN PF23 UHM20 HPX	Sharp	6.4	2	.20mm/.0079in	SC...06	UHM 20 HPX
Call For Details	CCGT 060202 FN PF23 UHM 20 TX+	Sharp	6.4	2	.20mm/.0079in	SC...06	UHM 20 TX+
7005-127731	CCGT 060202 FN PF23 UHM30 HX	Sharp	6.4	2	.20mm/.0079in	SC...06	UHM 30 HX
7005-044791	CCGT 09T3005 FN PF23 UHM20 HPX	Sharp	9.7	3	.05mm/.0019in	SC...09	UHM 20 HPX
Call For Details	CCGT 09T3005 FN PF23 UHM 20 TX+	Sharp	9.7	3	.05mm/.0019in	SC...09	UHM 20 TX+
7005-127734	CCGT 09T3005 FN PF23 UHM30 HX	Sharp	9.7	3	.05mm/.0019in	SC...09	UHM 30 HX
7005-044793	CCGT 09T301 FN PF23 UHM20 HPX	Sharp	9.7	3	.10mm/.0039in	SC...09	UHM 20 HPX
Call For Details	CCGT 09T301 FN PF23 UHM 20 TX+	Sharp	9.7	3	.10mm/.0039in	SC...09	UHM 20 TX+
7005-126963	CCGT 09T301 FN PF23 UHM30 HX	Sharp	9.7	3	.10mm/.0039in	SC...09	UHM 30 HX
7005-044795	CCGT 09T302 FN PF23 UHM20 HPX	Sharp	9.7	3	.20mm/.0079in	SC...09	UHM 20 HPX
Call For Details	CCGT 09T302 FN PF23 UHM 20 TX+	Sharp	9.7	3	.20mm/.0079in	SC...09	UHM 20 TX+
7005-127739	CCGT 09T302 FN PF23 UHM30 HX	Sharp	9.7	3	.20mm/.0079in	SC...09	UHM 30 HX

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	□	□	□	□	-	-
Micro Finishing	■	■	■	□	■	■	□	-	□

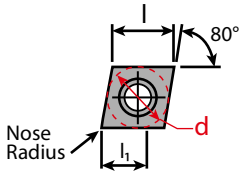




CCGT Carbide EN PF23

Cut: Neutral

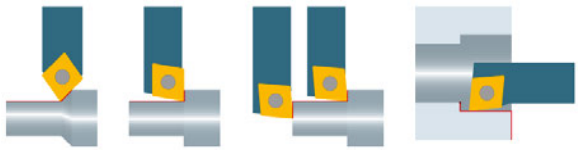
Chip Breaker: PF23, Polished Rake, Honed Cutting Edge



Repeatability <20µm

Item No.	Description	Dimensions & Features					
		Edge	l	l_1	Nose Radius	Holder	Coating
7005-044797	CCGT 0602005 EN PF23 UHM20 HPX	Round	6.4	2	.05mm/.0019in	SC...06	UHM 20 HPX
7005-044798	CCGT 0602005 EN PF23 UHM20 TX+	Round	6.4	2	.05mm/.0019in	SC...06	UHM 20 TX+
7005-044799	CCGT 060201 EN PF23 UHM20 HPX	Round	6.4	2	.10mm/.0039in	SC...06	UHM 20 HPX
7005-044800	CCGT 060201 EN PF23 UHM20 TX+	Round	6.4	2	.10mm/.0039in	SC...06	UHM 20 TX+
7005-044801	CCGT 060202 EN PF23 UHM20 HPX	Round	6.4	2	.20mm/.0079in	SC...06	UHM 20 HPX
7005-044802	CCGT 060202 EN PF23 UHM20 TX+	Round	6.4	2	.20mm/.0079in	SC...06	UHM 20 TX+
7005-044803	CCGT 09T3005 EN PF23 UHM20 HPX	Round	9.7	3	.05mm/.0019in	SC...09	UHM 20 HPX
7005-044804	CCGT 09T3005 EN PF23 UHM20 TX+	Round	9.7	3	.05mm/.0019in	SC...09	UHM 20 TX+
7005-044805	CCGT 09T301 EN PF23 UHM20 HPX	Round	9.7	3	.10mm/.0039in	SC...09	UHM 20 HPX
7005-044806	CCGT 09T301 EN PF23 UHM20 TX+	Round	9.7	3	.10mm/.0039in	SC...09	UHM 20 TX+
7005-044807	CCGT 09T302 EN PF23 UHM20 HPX	Round	9.7	3	.20mm/.0079in	SC...09	UHM 20 HPX
7005-044808	CCGT 09T302 EN PF23 UHM20 TX+	Round	9.7	3	.20mm/.0079in	SC...09	UHM 20 TX+

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	□	□	□	□	-	-
Micro Finishing	■	■	■	□	■	■	□	-	□

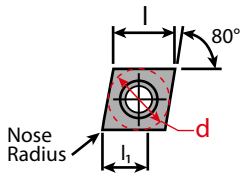




CCMT Carbide PF43

Cut: Neutral

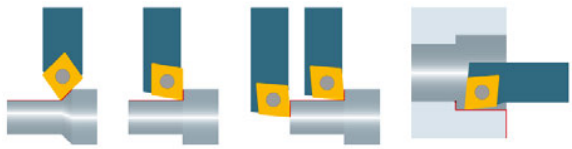
Chip Breaker: PF43, Honed Cutting Edge



Repeatability <50µm

Item No.	Description	Dimensions & Features					
		Edge	l	l_1	Nose Radius	Holder	Coating
7005-127742	CCMT 060202 EN PF43 UHM30 HX	Round	6.4	2.6	.20mm/.0079in	SC...06	UHM 30 HX
7005-127743	CCMT 060204 EN PF43 UHM30 HX	Round	6.4	2.6	.40mm/.0157in	SC...06	UHM 30 HX
7005-127744	CCMT 09T302 EN PF43 UHM30 HX	Round	9.7	4	.20mm/.0079in	SC...09	UHM 30 HX
7005-126995	CCMT 09T304 EN PF43 UHM30 MZ	Round	9.7	4	.40mm/.0157in	SC...09	UHM 30 MZ
7005-126996	CCMT 09T308 EN PF43 UHM30 MZ	Round	9.7	4	.80mm/.0315in	SC...09	UHM 30 MZ

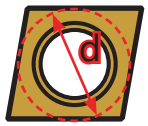
Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-



Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	Steel
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits

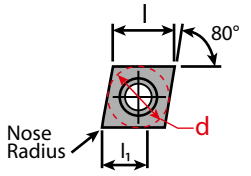


CC...06 inserts: d =.250"
CC...09 inserts: d =.375"
CC...12 inserts: d =.500"



CCMT Carbide PM

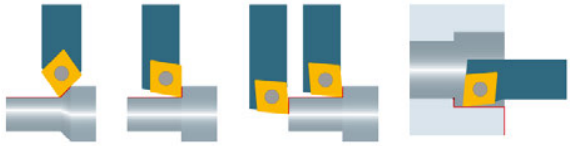
Cut: Neutral
Chip Breaker: PM, Honed Cutting Edge

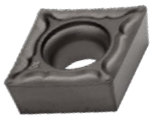


Repeatability <50µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-113683	CCMT 060204 EN PM UHM10 MZ	Round	6.4	2	.40mm/.0157in	SC...06	UHM 10 MZ
7005-123336	CCMT 060204 EN PM UHM20 MZ	Round	6.4	2	.40mm/.0157in	SC...06	UHM 20 MZ
7005-123337	CCMT 060204 EN PM UHM30 MZ	Round	6.4	2	.40mm/.0157in	SC...06	UHM 30 MZ
7005-113684	CCMT 060208 EN PM UHM10 MZ	Round	6.4	2	.80mm/.0315in	SC...06	UHM 10 MZ
7005-123338	CCMT 060208 EN PM UHM30 MZ	Round	6.4	2	.80mm/.0315in	SC...06	UHM 30 MZ
7005-113685	CCMT 09T304 EN PM UHM10 MZ	Round	9.7	3.2	.40mm/.0157in	SC...09	UHM 10 MZ
7005-123341	CCMT 09T304 EN PM UHM20 MZ	Round	9.7	3.2	.40mm/.0157in	SC...09	UHM 20 MZ
7005-123342	CCMT 09T304 EN PM UHM30 MZ	Round	9.7	3.2	.40mm/.0157in	SC...09	UHM 30 MZ
7005-113686	CCMT 09T308 EN PM UHM10 MZ	Round	9.7	3.2	.80mm/.0315in	SC...09	UHM 10 MZ
7005-123344	CCMT 09T308 EN PM UHM20 MZ	Round	9.7	3.2	.80mm/.0315in	SC...09	UHM 20 MZ
7005-123345	CCMT 09T308 EN PM UHM30 MZ	Round	9.7	3.2	.80mm/.0315in	SC...09	UHM 30 MZ
7005-113687	CCMT 120404 EN PM UHM10 MZ	Round	12.9	4.8	.40mm/.0157in	SC...12	UHM 10 MZ
7005-123347	CCMT 120404 EN PM UHM20 MZ	Round	12.9	4.8	.40mm/.0157in	SC...12	UHM 20 MZ
7005-123348	CCMT 120404 EN PM UHM30 MZ	Round	12.9	4.8	.40mm/.0157in	SC...12	UHM 30 MZ
7005-113688	CCMT 120408 EN PM UHM10 MZ	Round	12.9	4.8	.80mm/.0315in	SC...12	UHM 10 MZ
7005-123350	CCMT 120408 EN PM UHM20 MZ	Round	12.9	4.8	.80mm/.0315in	SC...12	UHM 20 MZ
7005-123351	CCMT 120408 EN PM UHM30 MZ	Round	12.9	4.8	.80mm/.0315in	SC...12	UHM 30 MZ

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	□	□	□	-	□	□	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-

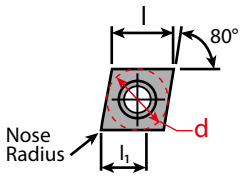




CCMT Cermet PMF

Cut: Neutral

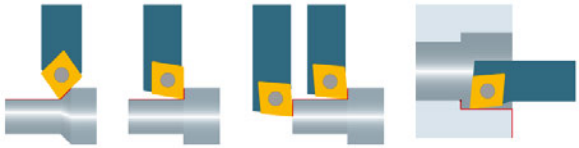
Chip Breaker: PMF, Honed Cutting Edge



Repeatability <50µm

Item No.	Description	Dimensions & Features					
		Edge	l	l_1	Nose Radius	Holder	Coating
Call For Details	CCMT 060204 EN PMF UCM10 MZ	Round	6.4	2	.40mm/.0157in	SC...06	UCM 10 MZ
7005-126986	CCMT 09T304 EN PMF UCM10 MZ	Round	9.7	3.2	.40mm/.0157in	SC...09	UCM 10 MZ
7005-153990	CCMT 09T308 EN PMF UCM10 MZ	Round	9.7	3.2	.80mm/.0315in	SC...09	UCM 10 MZ
7005-126992	CCMT 120404 EN PMF UCM10 MZ	Round	12.9	4.8	.40mm/.0157in	SC...12	UCM 10 MZ

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-

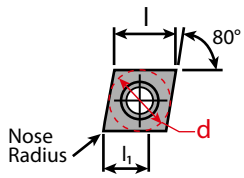




CCMT Carbide PM25

Cut: Neutral

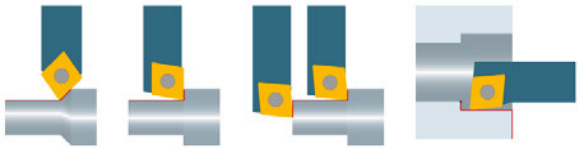
Chip Breaker: PM25, Honed Cutting Edge



Repeatability <50µm

Item No.	Description	Dimensions & Features					
		Edge	l	l_1	Nose Radius	Holder	Coating
7005-112937	CCMT 060204 EN PM25 UHM20 HPX	Round	6.4	2	.40mm/.0157in	SC...06	UHM 20 HPX
7005-112938	CCMT 09T304 EN PM25 UHM20 HPX	Round	9.7	2.2	.40mm/.0157in	SC...09	UHM 20 HPX
7005-112939	CCMT 09T308 EN PM25 UHM20 HPX	Round	9.7	3.2	.80mm/.0315in	SC...09	UHM 20 HPX

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	-	■	■	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-



Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	Steel
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits

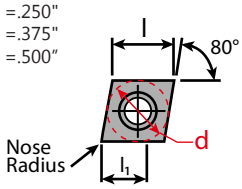


CC...06 inserts: d =.250"
CC...09 inserts: d =.375"
CC...12 inserts: d =.500"



CCMT Carbide PM55

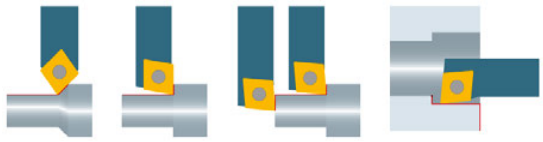
Cut: Neutral
Chip Breaker: PM55, Honed Cutting Edge



Repeatability <50µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-112940	CCMT 060204 EN PM55 UHM20 HPX	Round	6.4	2.6	.40mm/.0157in	SC...06	UHM 20 HPX
7005-112721	CCMT 09T304 EN PM55 UHM20 HPX	Round	9.7	3	.40mm/.0157in	SC...09	UHM 20 HPX
7005-112941	CCMT 09T308 EN PM55 UHM20 HPX	Round	9.7	4	.80mm/.0315in	SC...09	UHM 20 HPX
Call For Details	CCMT 120404 EN PM55 UHM20 HPX	Round	12.9	4	.40mm/.0157in	SC...12	UHM 20 HPX
Call For Details	CCMT 120408 EN PM55 UHM20 HPX	Round	12.9	4.8	.80mm/.0315in	SC...12	UHM 20 HPX

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	-	■	■	-	-	-
Finishing	-	-	-	-	-	-	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-

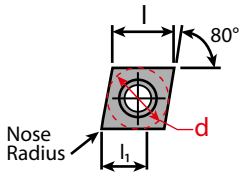




CCET Carbide -U

Cut: Neutral

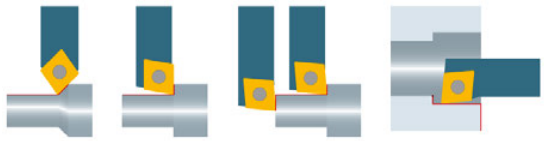
Chip Breaker: -U, Ground Rake, Sharp Cutting Edge



Repeatability <10µm

Item No.	Description	Dimensions & Features					
		Edge	l	l_1	Nose Radius	Holder	Coating
7005-123190	CCET 0602003 FR U UHM10 HX	Sharp	6.4	2.5	.03mm/.0012in	SC...06	UHM 10 HX
7005-044809	CCET 0602003 FR U UHM10 TX+	Sharp	6.4	2.5	.03mm/.0012in	SC...06	UHM 10 TX+
7005-123551	CCET 060201 FR U UHM10 HX	Sharp	6.4	2.5	.10mm/.0039in	SC...06	UHM 10 HX
7005-044810	CCET 060201 FR U UHM10 TX+	Sharp	6.4	2.5	.10mm/.0039in	SC...06	UHM 10 TX+
7005-123556	CCET 060202 FR U UHM10 HX	Sharp	6.4	2.5	.20mm/.0079in	SC...06	UHM 10 HX
7005-044811	CCET 060202 FR U UHM10 TX+	Sharp	6.4	2.5	.20mm/.0079in	SC...06	UHM 10 TX+
7005-123565	CCET 09T3003 FR U UHM10 HX	Sharp	9.7	4	.03mm/.0012in	SC...09	UHM 10 HX
7005-192595	CCET 09T3003 FR U UHM10 TX+	Sharp	9.7	4	.03mm/.0012in	SC...09	UHM 10 TX+
7005-123569	CCET 09T301 FR U UHM10 HX	Sharp	9.7	4	.10mm/.0039in	SC...09	UHM 10 HX
7005-044813	CCET 09T301 FR U UHM10 TX+	Sharp	9.7	4	.10mm/.0039in	SC...09	UHM 10 TX+
7005-123574	CCET 09T302 FR U UHM10 HX	Sharp	9.7	4	.20mm/.0079in	SC...09	UHM 10 HX
7005-044814	CCET 09T302 FR U UHM10 TX+	Sharp	9.7	4	.20mm/.0079in	SC...09	UHM 10 TX+

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	-	□	□	-	-	-
Micro Finishing	■	■	■	□	■	■	□	-	□

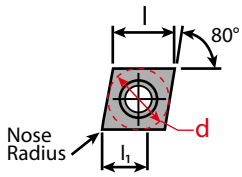




CCGT Diamond

Cut: Neutral

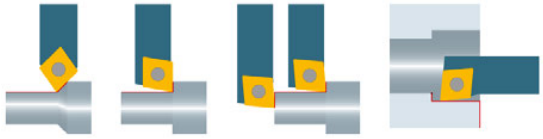
Chip Breaker: Sharp Cutting Edge



Repeatability <20µm

Item No.	Description	Dimensions & Features					
		Edge	l	l_1	Nose Radius	Holder	Coating
7005-129021	CCGT 060201 FN UPCD15	Sharp	6.4	3.5	.10mm/.0039in	SC...06	UPCD 15
7005-116078	CCGT 060201 FN UPCD20	Sharp	6.4	3.5	.10mm/.0039in	SC...06	UPCD 20
7005-137707	CCGT 060202 FN UPCD15	Sharp	6.4	3.5	.20mm/.0079in	SC...06	UPCD 15
7005-116081	CCGT 060202 FN UPCD20	Sharp	6.4	3.5	.20mm/.0079in	SC...06	UPCD 20
7005-137708	CCGT 060204 FN UPCD15	Sharp	6.4	3.5	.40mm/.0157in	SC...06	UPCD 15
7005-137709	CCGT 060208 FN UPCD15	Sharp	6.4	3	.80mm/.0315in	SC...06	UPCD 15
7005-137710	CCGT 09T302 FN UPCD15	Sharp	9.7	4.5	.20mm/.0079in	SC...09	UPCD 15
7005-116091	CCGT 09T302 FN UPCD20	Sharp	9.7	4.5	.20mm/.0079in	SC...09	UPCD 20
7005-137711	CCGT 09T304 FN UPCD15	Sharp	9.7	4.3	.40mm/.0157in	SC...09	UPCD 15
7005-137712	CCGT 09T308 FN UPCD15	Sharp	9.7	4.1	.80mm/.0315in	SC...09	UPCD 15
7005-137713	CCGT 120404 FN UPCD15	Sharp	12.9	4.3	.40mm/.0157in	SC...12	UPCD 15
7005-116101	CCGT 120404 FN UPCD20	Sharp	12.9	4.3	.40mm/.0157in	SC...12	UPCD 20
7005-137714	CCGT 120408 FN UPCD15	Sharp	12.9	4.1	.80mm/.0315in	SC...12	UPCD 15

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	■	■	■



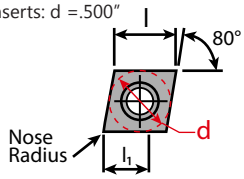
Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	Steel
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits



CC...06 inserts: d =.250"
CC...09 inserts: d =.375"
CC...12 inserts: d =.500"



Repeatability <20µm

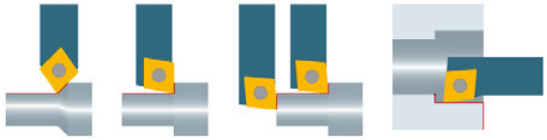


CCGT Diamond -UWS

Cut: Neutral
Chip Breaker: -UWS, Sharp Cutting Edge

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-116449	CCGT 060202 FN UWS UCVD08	Sharp	6.4	3	.20mm/.0079in	SC...06	UCVD 08
7005-116253	CCGT 060202 FN UWS UPCD15	Sharp	6.4	3	.20mm/.0079in	SC...06	UPCD 15
7005-116459	CCGT 060204 FN UWS UCVD08	Sharp	6.4	3	.40mm/.0157in	SC...06	UCVD 08
7005-116263	CCGT 060204 FN UWS UPCD15	Sharp	6.4	3	.40mm/.0157in	SC...06	UPCD 15
7005-116282	CCGT 09T302 FN UWS UPCD15	Sharp	9.7	3	.20mm/.0079in	SC...09	UPCD 15
7005-116489	CCGT 09T304 FN UWS UCVD08	Sharp	9.7	3	.40mm/.0157in	SC...09	UCVD 08
7005-116291	CCGT 09T304 FN UWS UPCD15	Sharp	9.7	3	.40mm/.0157in	SC...09	UPCD 15

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	-	-	-	-	-	-	□	□	□
Micro Finishing	-	-	-	-	-	-	■	■	■

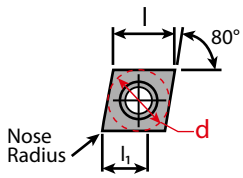




CCGT Diamond -UWN

Cut: Neutral

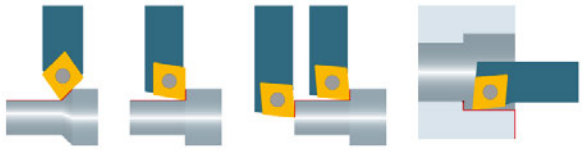
Chip Breaker: -UWN, Sharp Cutting Edge



Repeatability <20µm

Item No.	Description	Dimensions & Features					
		Edge	l	l_1	Nose Radius	Holder	Coating
7005-116448	CCGT 060202 FN UWN UCVD08	Sharp	6.4	3	.20mm/.0079in	SC...06	UCVD 08
7005-116252	CCGT 060202 FN UWN UPCD20	Sharp	6.4	3	.20mm/.0079in	SC...06	UPCD 20
7005-116458	CCGT 060204 FN UWN UCVD08	Sharp	6.4	3	.40mm/.0157in	SC...06	UCVD 08
Call For Details	CCGT 060204 FN UWN UPCD15	Sharp	6.4	3	.40mm/.0157in	SC...06	UPCD 15
7005-116262	CCGT 060204 FN UWN UPCD20	Sharp	6.4	3	.40mm/.0157in	SC...06	UPCD 20
7005-116478	CCGT 09T302 FN UWN UCVD08	Sharp	9.7	3	.20mm/.0079in	SC...09	UCVD 08
7005-116281	CCGT 09T302 FN UWN UPCD20	Sharp	9.7	3	.20mm/.0079in	SC...09	UPCD 20
7005-116488	CCGT 09T304 FN UWN UCVD08	Sharp	9.7	3	.40mm/.0157in	SC...09	UCVD 08
7005-116290	CCGT 09T304 FN UWN UPCD20	Sharp	9.7	3	.40mm/.0157in	SC...09	UPCD 20

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	-	-	-

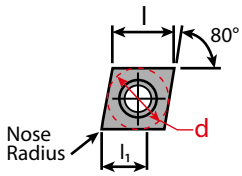




CCGT Diamond -UWN TOP Wiper

Cut: Neutral

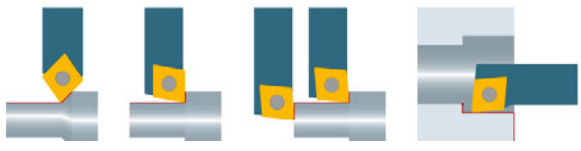
Chip Breaker: -UWN, TOP Wiper, Sharp Cutting Edge

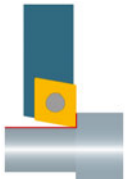


Repeatability <20µm

Item No.	Description	Dimensions & Features					
		Edge	l	l_1	Nose Radius	Holder	Coating
7005-116452	CCGT 060202 FN TOP UWN UCVD08	Sharp	6.4	3	.20mm/.0079in	SC...06	UCVD 08
7005-116256	CCGT 060202 FN TOP UWN UPCD15	Sharp	6.4	3	.20mm/.0079in	SC...06	UPCD 15
7005-169136	CCGT 060202 FN TOP UWN UPCD20	Sharp	6.4	3	.20mm/.0079in	SC...06	UPCD 20
Call For Details	CCGT 060204 FN TOP UWN UCVD08	Sharp	6.4	3	.40mm/.0157in	SC...06	UCVD 08
7005-116266	CCGT 060204 FN TOP UWN UPCD15	Sharp	6.4	3	.40mm/.0157in	SC...06	UPCD 15
7005-169137	CCGT 060204 FN TOP UWN UPCD20	Sharp	6.4	3	.40mm/.0157in	SC...06	UPCD 20
7005-116482	CCGT 09T302 FN TOP UWN UCVD08	Sharp	9.7	3	.20mm/.0079in	SC...09	UCVD 08
7005-116285	CCGT 09T302 FN TOP UWN UPCD15	Sharp	9.7	3	.20mm/.0079in	SC...09	UPCD 15
7005-169139	CCGT 09T302 FN TOP UWN UPCD20	Sharp	9.7	3	.20mm/.0079in	SC...09	UPCD 20
7005-116492	CCGT 09T304 FN TOP UWN UCVD08	Sharp	9.7	3	.40mm/.0157in	SC...09	UCVD 08
7005-116294	CCGT 09T304 FN TOP UWN UPCD15	Sharp	9.7	3	.40mm/.0157in	SC...09	UPCD 15
7005-169138	CCGT 09T304 FN TOP UWN UPCD20	Sharp	9.7	3	.40mm/.0157in	SC...09	UPCD 20

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	-	-	-





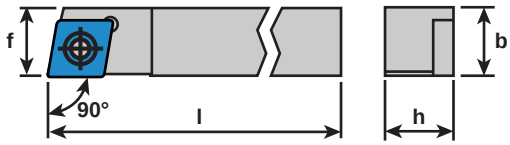
ISO Holder SCAC...U

Type: 90°
Coolant-Thru: None

Repeatability <20µm



Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	h	b	l	f	Inserts
7005-045072	SCACL 0808 K06 U	7005-045078	SCACR 0808 K06 U	8	8	125	8	CC 0602
7005-045073	SCACL 1010 M06 U	7005-045079	SCACR 1010 M06 U	10	10	150	10	CC 0602
7005-045074	SCACL 1212 M09 U	7005-045080	SCACR 1212 M09 U	12	12	150	12	CC 09T3
7005-045076	SCACL 1616 H09 U	7005-045082	SCACR 1616 H09 U	16	16	100	16	CC 09T3
7005-045077	SCACL 2020 K12 U	7005-045083	SCACR 2020 K12 U	20	20	125	20	CC 1204





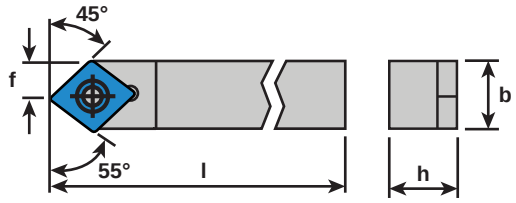
ISO Holder SCDC...U

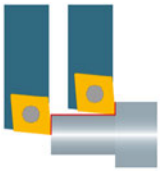
Type: 45°
Coolant-Thru: None

Repeatability <20µm



Left Hand		Dimensions & Features				
Item No.	Description	h	b	l	f	Inserts
7005-045084	SCDCL 0808 K06 U	8	8	125	8	CC 0602
7005-045085	SCDCL 1010 M06 U	10	10	150	10	CC 0602
7005-045086	SCDCL 1212 M09 U	12	12	150	12	CC 09T3





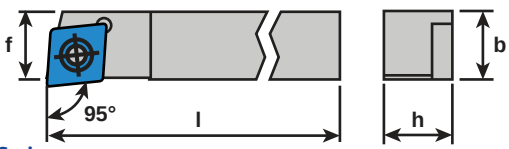
ISO Holder SCLC...U

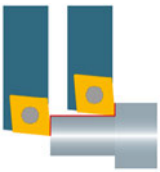
Type: 95°
Coolant-Thru: None

Repeatability <20µm



Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	h	b	l	f	Inserts
7005-148792	SCLCL 0808 F06 U	7005-148790	SCLCR 0808 F06 U	8	8	80	8	CC 0602
7005-045176	SCLCL 0808 H06 U	7005-045179	SCLCR 0808 H06 U	8	8	100	8	CC 0602
7005-148793	SCLCL 1010 F06 U	7005-148791	SCLCR 1010 F06 U	10	10	80	10	CC 0602
7005-045177	SCLCL 1010 H06 U	7005-045182	SCLCR 1010 H06 U	10	10	100	10	CC 0602
7005-045178	SCLCL 1212 H09 U	7005-045180	SCLCR 1212 H09 U	12	12	100	12	CC 09T3
7005-144706	SCLCL 1616 K09 U	Call For Details	SCLCR 1616 K09 U	16	16	125	16	CC 09T3
7005-144707	SCLCL 3/8" H06 U	Call For Details	SCLCR 3/8" H06 U	3/8"	3/8"	100	3/8"	CC 09T3
7005-144704	SCLCL 1/2" H09 U	7005-144711	SCLCR 1/2" H09 U	1/2"	1/2"	100	1/2"	CC 09T3
7005-144709	SCLCL 5/8" K09 U	Call For Details	SCLCR 5/8" K09 U	5/8"	5/8"	125	5/8"	CC 09T3





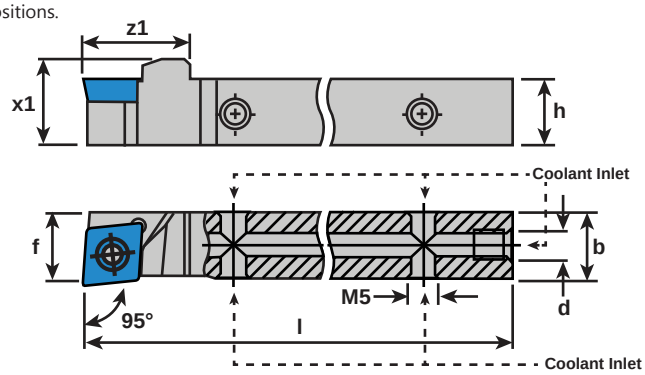
ISO Coolant-Thru Holder SCLC...U

Type: 95°
Coolant-Thru: Rear & Side Ports

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features							Coolant Fittings		
Item No.	Description	Item No.	Description	h	b	l	z^1	x^1	f	(d)	Side	Rear	Inserts
7005-146351	SCLCL 0808 H06 U IC	7005-146348	SCLCR 0808 H06 U IC	8	8	100	16	11.5	8	M5	4005-000111	4005-000111	CC 0602
7005-146352	SCLCL 1010 H06 U IC	7005-146349	SCLCR 1010 H06 U IC	10	10	100	16	13.5	10	M5	4005-000111	4005-000111	CC 0602
7005-146353	SCLCL 1212 H09 U IC	7005-146350	SCLCR 1212 H09 U IC	12	12	100	19	15.5	12	M5	4005-000111	4005-000111	CC 09T3
7005-169189	SCLCL 1616 K09 U IC	7005-169188	SCLCR 1616 K09 U IC	16	16	125	19	19.5	16	G1/8"	4005-000111	4005-000104	CC 09T3
7005-144708	SCLCL 3/8" H06 U IC	7005-144714	SCLCR 3/8" H06 U IC	3/8"	3/8"	100	16	13	3/8"	M5	4005-000111	4005-000111	CC 0602
7005-144705	SCLCL 1/2" H09 U IC	7005-144712	SCLCR 1/2" H09 U IC	1/2"	1/2"	100	19	16.2	1/2"	M5	4005-000111	4005-000111	CC 09T3
7005-144710	SCLCL 5/8" K09 U IC	7005-144716	SCLCR 5/8" K09 U IC	5/8"	5/8"	125	19	19.4	5/8"	G1/8"	4005-000111	4005-000104	CC 09T3

Features (5) connection ports for simple connection to your oil delivery system. (4) Side ports and (1) one end port making connection possible on most machine tool positions.



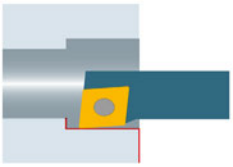




4005-000111
Connects to side ports on ALL shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks



4005-000104
Connects to end port on 5/8" and larger shanks
0° Male Union - 1/8 BSPP to 1/4 JIC Flare Fitting
Fits Position (d) On Tool Holders Sold Separately



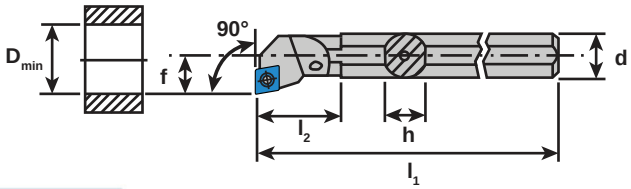
ISO Round Shank Holder SCFC

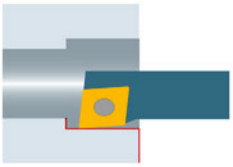
Type: 90°
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	h	d	l_1	l_2	f	D_{min}	Inserts
7005-045209	A08F SCFCL 06	7005-045213	A08F SCFCR 06	7.6	8	80	17	5	11	CC 0602
7005-045211	A10H SCFCL 06	7005-045214	A10H SCFCR 06	9.5	10	100	19	7	13	CC 0602
7005-045212	A12K SCFCL 06	7005-045215	A12K SCFCR 06	11.5	12	125	22	9	16	CC 0602







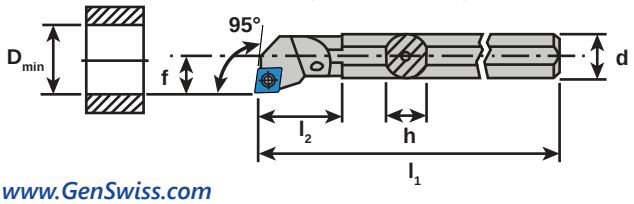
ISO Round Shank Holder SCLC

Type: 95°
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	h	d	l_1	l_2	f	D_{min}	Inserts
7005-045216	A08F SCLCL 06	7005-045217	A08F SCLCR 06	7.6	8	80	17	5	11	CC 0602
7005-045218	A10H SCLCL 06	7005-045219	A10H SCLCR 06	9.5	10	100	19	7	13	CC 0602
7005-045220	A12K SCLCL 06	7005-045221	A12K SCLCR 06	11.5	12	125	22	9	16	CC 0602
7005-045222	A16M SCLCL 09	7005-045223	A16M SCLCR 09	15	16	150	29	11	20	CC 09T3
7005-045224	A20Q SCLCL 09	7005-045225	A20Q SCLCR 09	18.5	20	180	32	13	25	CC 09T3





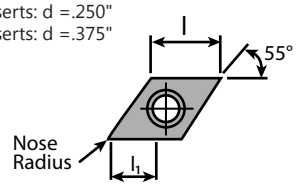
Coatings vs Material Type

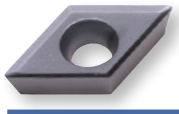
Carbide												Cermet		Diamond			Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	Steel
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits



DC...07 inserts: d =.250"
DC...11 inserts: d =.375"





DCGT Carbide FN A3

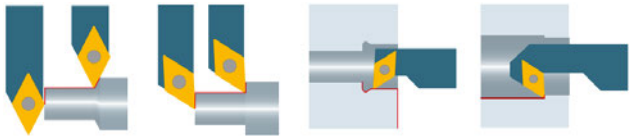
Cut: Neutral

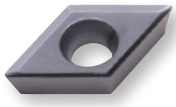
Chip Breaker: A3, Polished Rake, Sharp Cutting Edge

Repeatability <20µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-123090	DCGT 0702006 FN A3 UHM10 HX	Sharp	7.75	4.1	.06mm/.0023in	SD...07	UHM 10 HX
7005-126105	DCGT 0702006 FN A3 UHM10 TX+	Sharp	7.75	4.1	.06mm/.0023in	SD...07	UHM 20 TX+
7005-116981	DCGT 0702006 FN A3 UHM20 HPX	Sharp	7.75	4.1	.06mm/.0023in	SD...07	UHM 20 HPX
7005-185273	DCGT 0702006 FN A3 UHM20 TX+	Sharp	7.75	4.1	.06mm/.0023in	SD...07	UHM 10 TX+
7005-123092	DCGT 0702015 FN A3 UHM10 HX	Sharp	7.75	4.1	.15mm/.0059in	SD...07	UHM 10 HX
7005-126106	DCGT 0702015 FN A3 UHM10 TX+	Sharp	7.75	4.1	.15mm/.0059in	SD...07	UHM 20 TX+
7005-116983	DCGT 0702015 FN A3 UHM20 HPX	Sharp	7.75	4.1	.15mm/.0059in	SD...07	UHM 20 HPX
7005-154071	DCGT 0702015 FN A3 UHM20 TX+	Sharp	7.75	4.1	.15mm/.0059in	SD...07	UHM 10 TX+
7005-137043	DCGT 0702035 FN A3 UHM10 HX	Sharp	7.75	4.1	.35mm/.0137in	SD...07	UHM 10 HX
7005-150408	DCGT 0702035 FN A3 UHM10 TX+	Sharp	7.75	4.1	.35mm/.0137in	SD...07	UHM 20 TX+
7005-116985	DCGT 0702035 FN A3 UHM20 HPX	Sharp	7.75	4.1	.35mm/.0137in	SD...07	UHM 20 HPX
7005-192708	DCGT 0702035 FN A3 UHM20 TX+	Sharp	7.75	4.1	.35mm/.0137in	SD...07	UHM 10 TX+
7005-123094	DCGT 11T3008 FN A3 UHM10 HX	Sharp	11.6	7.2	.08mm/.0031in	SD...11	UHM 10 HX
7005-126107	DCGT 11T3008 FN A3 UHM10 TX+	Sharp	11.6	7.2	.08mm/.0031in	SD...11	UHM 20 TX+
7005-116987	DCGT 11T3008 FN A3 UHM20 HPX	Sharp	11.6	7.2	.08mm/.0031in	SD...11	UHM 20 HPX
7005-044815	DCGT 11T3008 FN A3 UHM20 TX+	Sharp	11.6	7.2	.08mm/.0031in	SD...11	UHM 10 TX+
7005-123096	DCGT 11T3015 FN A3 UHM10 HX	Sharp	11.6	7.2	.15mm/.0059in	SD...11	UHM 10 HX
7005-125197	DCGT 11T3015 FN A3 UHM10 TX+	Sharp	11.6	7.2	.15mm/.0059in	SD...11	UHM 20 TX+
7005-116976	DCGT 11T3015 FN A3 UHM20 HPX	Sharp	11.6	7.2	.15mm/.0059in	SD...11	UHM 20 HPX
7005-169726	DCGT 11T3015 FN A3 UHM20 TX+	Sharp	11.6	7.2	.15mm/.0059in	SD...11	UHM 10 TX+
7005-123947	DCGT 11T3035 FN A3 UHM10 HX	Sharp	11.6	7.2	.35mm/.0137in	SD...11	UHM 10 HX
7005-126108	DCGT 11T3035 FN A3 UHM10 TX+	Sharp	11.6	7.2	.35mm/.0137in	SD...11	UHM 20 TX+
7005-116989	DCGT 11T3035 FN A3 UHM20 HPX	Sharp	11.6	7.2	.35mm/.0137in	SD...11	UHM 20 HPX
7005-169674	DCGT 11T3035 FN A3 UHM20 TX+	Sharp	11.6	7.2	.35mm/.0137in	SD...11	UHM 10 TX+

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	□	□	□	■	-	■
Micro Finishing	■	■	■	■	■	■	■	-	■

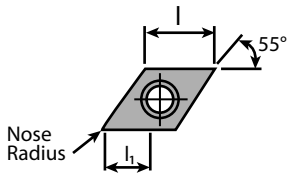




DCGT Carbide EN A3

Cut: Neutral

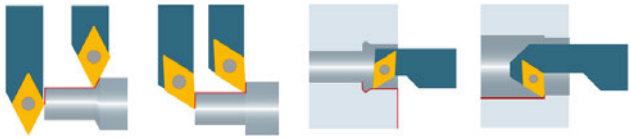
Chip Breaker: A3, Polished Rake, Honed Cutting Edge

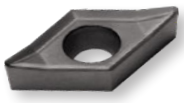


Repeatability <20µm

Item No.	Description	Dimensions & Features					
		Edge	l	l_1	Nose Radius	Holder	Coating
7005-044816	DCGT 0702006 EN A3 UHM20 HPX	Round	7.75	4.1	.06mm/.0023in	SD...07	UHM 20 HPX
7005-044817	DCGT 0702006 EN A3 UHM20 TX+	Round	7.75	4.1	.06mm/.0023in	SD...07	UHM 10 TX+
7005-044818	DCGT 0702015 EN A3 UHM20 HPX	Round	7.75	4.1	.15mm/.0059in	SD...07	UHM 20 HPX
7005-044819	DCGT 0702015 EN A3 UHM20 TX+	Round	7.75	4.1	.15mm/.0059in	SD...07	UHM 10 TX+
7005-044820	DCGT 0702035 EN A3 UHM20 HPX	Round	7.75	4.1	.35mm/.0137in	SD...07	UHM 20 HPX
7005-044821	DCGT 0702035 EN A3 UHM20 TX+	Round	7.75	4.1	.35mm/.0137in	SD...07	UHM 10 TX+
7005-044822	DCGT 11T3008 EN A3 UHM20 HPX	Round	11.6	7.2	.08mm/.0031in	SD...11	UHM 20 HPX
7005-044823	DCGT 11T3008 EN A3 UHM20 TX+	Round	11.6	7.2	.08mm/.0031in	SD...11	UHM 10 TX+
7005-044824	DCGT 11T3015 EN A3 UHM20 HPX	Round	11.6	7.2	.15mm/.0059in	SD...11	UHM 20 HPX
7005-044825	DCGT 11T3015 EN A3 UHM20 TX+	Round	11.6	7.2	.15mm/.0059in	SD...11	UHM 10 TX+
7005-044826	DCGT 11T3035 EN A3 UHM20 HPX	Round	11.6	7.2	.35mm/.0137in	SD...11	UHM 20 HPX
7005-044827	DCGT 11T3035 EN A3 UHM20 TX+	Round	11.6	7.2	.35mm/.0137in	SD...11	UHM 10 TX+

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	□	□	□	■	-	■
Micro Finishing	■	■	■	■	■	■	■	-	■

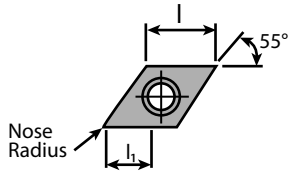




DCGT Carbide PA3

Cut: Neutral

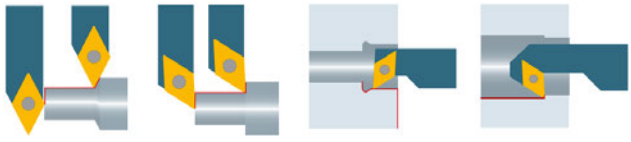
Chip Breaker: PA3, Polished Rake, Sharp Cutting Edge



Repeatability <20µm

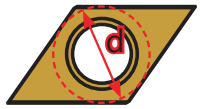
Item No.	Description	Dimensions & Features					
		Edge	l	l_1	Nose Radius	Holder	Coating
7005-123606	DCGT 070204 FN PA3 UHM10 HX	Sharp	7.75	4	0.4mm/.0157in	SD...07	UHM 10 HX
7005-150390	DCGT 070204 FN PA3 UHM10 TX+	Sharp	7.75	4	0.4mm/.0157in	SD...07	UHM 10 TX+
7005-123632	DCGT 11T304 FN PA3 UHM10 HX	Sharp	11.6	6.2	0.4mm/.0157in	SD...11	UHM 10 HX
7005-154384	DCGT 11T304 FN PA3 UHM10 TX+	Sharp	11.6	6.2	0.4mm/.0157in	SD...11	UHM 10 TX+
7005-013474	DCGT 11T308 FN PA3 UHM10 HX	Sharp	11.6	6.2	0.8mm/.0314in	SD...11	UHM 10 HX
7005-044828	DCGT 11T308 FN PA3 UHM10 TX+	Sharp	11.6	6.2	0.8mm/.0314in	SD...11	UHM 10 TX+

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	-	□
Finishing	□	□	□	□	□	□	■	-	■
Micro Finishing	■	■	■	■	■	■	■	-	■



Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	Steel
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials



DC...07 inserts: d =.250"
DC...11 inserts: d =.375"

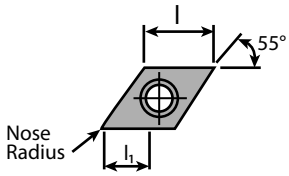
Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits



DCGT Carbide PA5

Cut: Neutral

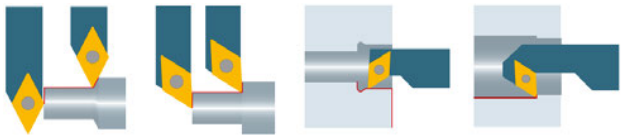
Chip Breaker: PA5, Polished Rake, Sharp Cutting Edge



Repeatability <20µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-123450	DCGT 070202 FN PA5 UHM10 HX	Sharp	7.75	4.1	.2mm/.0078in	SD...07	UHM 10 HX
7005-150389	DCGT 070202 FN PA5 UHM10 TX+	Sharp	7.75	4.1	.2mm/.0078in	SD...07	UHM 10 TX+
7005-123452	DCGT 070204 FN PA5 UHM10 HX	Sharp	7.75	4.1	.4mm/.0157in	SD...07	UHM 10 HX
7005-150409	DCGT 070204 FN PA5 UHM10 TX+	Sharp	7.75	4.1	.4mm/.0157in	SD...07	UHM 10 TX+
7005-125738	DCGT 11T302 FN PA5 UHM10 HX	Sharp	11.6	7.2	.2mm/.0078in	SD...11	UHM 10 HX
7005-147008	DCGT 11T302 FN PA5 UHM10 TX+	Sharp	11.6	7.2	.2mm/.0078in	SD...11	UHM 10 TX+
7005-123453	DCGT 11T304 FN PA5 UHM10 HX	Sharp	11.6	7.2	.4mm/.0157in	SD...11	UHM 10 HX
7005-154089	DCGT 11T304 FN PA5 UHM10 TX+	Sharp	11.6	7.2	.4mm/.0157in	SD...11	UHM 10 TX+
7005-123769	DCGT 11T308 FN PA5 UHM10 HX	Sharp	11.6	7.2	.8mm/.0314in	SD...11	UHM 10 HX
7005-013760	DCGT 11T308 FN PA5 UHM10 TX+	Sharp	11.6	7.2	.8mm/.0314in	SD...11	UHM 10 TX+

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	-	□
Finishing	■	■	■	□	■	■	■	-	■
Micro Finishing	■	■	■	□	■	■	■	-	■

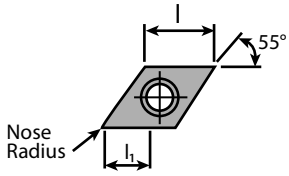




DCGT Carbide TOP5

Cut: Neutral

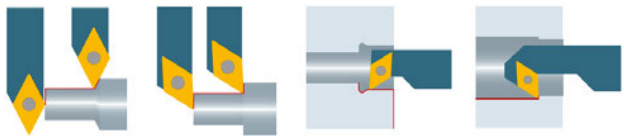
Chip Breaker: TOP5, Polished Rake, Sharp Cutting Edge

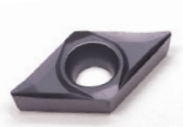


Repeatability <20µm

Dimensions & Features								
Item No.	Description	Hand	Edge	l	l_1	Nose Radius	Holder	Coating
7005-126913	DCGT 11T304 FL TOP5 UHM10 HX	Left	Sharp	11.6	7.2	.4mm/.0157in	SD...11	UHM 10 HX
7005-044829	DCGT 11T304 FL TOP5 UHM10 TX+	Left	Sharp	11.6	7.2	.4mm/.0157in	SD...11	UHM 10 TX+
7005-126917	DCGT 11T308 FL TOP5 UHM10 HX	Left	Sharp	11.6	7.2	.8mm/.0314in	SD...11	UHM 10 HX
7005-044830	DCGT 11T308 FL TOP5 UHM10 TX+	Left	Sharp	11.6	7.2	.8mm/.0314in	SD...11	UHM 10 TX+
7005-126904	DCGT 11T304 FR TOP5 UHM10 HX	Right	Sharp	11.6	7.2	.4mm/.0157in	SD...11	UHM 10 HX
7005-150753	DCGT 11T304 FR TOP5 UHM10 TX+	Right	Sharp	11.6	7.2	.4mm/.0157in	SD...11	UHM 10 TX+
7005-126905	DCGT 11T308 FR TOP5 UHM10 HX	Right	Sharp	11.6	7.2	.8mm/.0314in	SD...11	UHM 10 HX
7005-044831	DCGT 11T308 FR TOP5 UHM10 TX+	Right	Sharp	11.6	7.2	.8mm/.0314in	SD...11	UHM 10 TX+
7005-126924	DCGT 11T304 FN TOP5 UHM10 HX	Neutral	Sharp	11.6	7.2	.4mm/.0157in	SD...11	UHM 10 HX
7005-044832	DCGT 11T304 FN TOP5 UHM10 TX+	Neutral	Sharp	11.6	7.2	.4mm/.0157in	SD...11	UHM 10 TX+
7005-126927	DCGT 11T308 FN TOP5 UHM10 HX	Neutral	Sharp	11.6	7.2	.8mm/.0314in	SD...11	UHM 10 HX
7005-044833	DCGT 11T308 FN TOP5 UHM10 TX+	Neutral	Sharp	11.6	7.2	.8mm/.0314in	SD...11	UHM 10 TX+

Material Class									
Application	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	□	□	□	□	-	□
Finishing	■	■	■	□	■	■	■	-	■
Micro Finishing	□	□	□	□	□	□	□	-	□

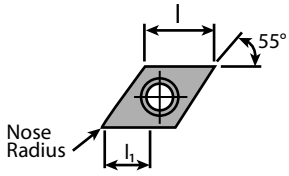




DCGT Carbide PA7

Cut: Neutral

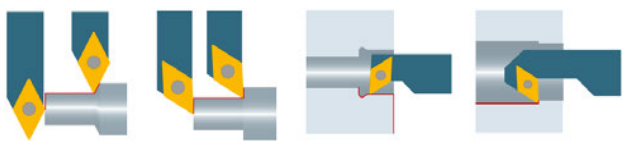
Chip Breaker: PA7, Sharp Cutting Edge



Repeatability <20µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-114381	DCGT 0702005 FN PA7 UHM10 HX	Sharp	7.75	4	.05mm/.0019in	SD...07	UHM 10 HX
7005-044834	DCGT 0702005 FN PA7 UHM10 TX+	Sharp	7.75	4	.05mm/.0019in	SD...07	UHM 10 TX+
7005-113032	DCGT 070201 FN PA7 UHM10 HX	Sharp	7.75	4	.1mm/.0039in	SD...07	UHM 10 HX
7005-147413	DCGT 070201 FN PA7 UHM10 TX+	Sharp	7.75	4	.1mm/.0039in	SD...07	UHM 10 TX+
7005-123451	DCGT 070202 FN PA7 UHM10 HX	Sharp	7.75	4	.2mm/.0078in	SD...07	UHM 10 HX
7005-192743	DCGT 070202 FN PA7 UHM10 TX+	Sharp	7.75	4	.2mm/.0078in	SD...07	UHM 10 TX+
7005-012952	DCGT 070204 FN PA7 UHM10 HX	Sharp	7.75	4	.4mm/.0157in	SD...07	UHM 10 HX
7005-154407	DCGT 070204 FN PA7 UHM10 TX+	Sharp	7.75	4	.4mm/.0157in	SD...07	UHM 10 TX+
7005-114383	DCGT 11T3005 FN PA7 UHM10 HX	Sharp	11.6	7.2	.05mm/.0019in	SD...11	UHM 10 HX
7005-154830	DCGT 11T3005 FN PA7 UHM10 TX+	Sharp	11.6	7.2	.05mm/.0019in	SD...11	UHM 10 TX+
7005-114385	DCGT 11T301 FN PA7 UHM10 HX	Sharp	11.6	7.2	.1mm/.0039in	SD...11	UHM 10 HX
7005-154831	DCGT 11T301 FN PA7 UHM10 TX+	Sharp	11.6	7.2	.1mm/.0039in	SD...11	UHM 10 TX+
7005-013265	DCGT 11T302 FN PA7 UHM10 HX	Sharp	11.6	7.2	.2mm/.0078in	SD...11	UHM 10 HX
7005-150752	DCGT 11T302 FN PA7 UHM10 TX+	Sharp	11.6	7.2	.2mm/.0078in	SD...11	UHM 10 TX+
7005-123454	DCGT 11T304 FN PA7 UHM10 HX	Sharp	11.6	7.2	.4mm/.0157in	SD...11	UHM 10 HX
7005-154961	DCGT 11T304 FN PA7 UHM10 TX+	Sharp	11.6	7.2	.4mm/.0157in	SD...11	UHM 10 TX+
7005-123455	DCGT 11T308 FN PA7 UHM10 HX	Sharp	11.6	7.2	.8mm/.0314in	SD...11	UHM 10 HX
7005-044835	DCGT 11T308 FN PA7 UHM10 TX+	Sharp	11.6	7.2	.8mm/.0314in	SD...11	UHM 10 TX+

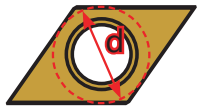
Material Class									
Application	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	-	□
Finishing	□	□	□	□	□	□	■	-	■
Micro Finishing	■	■	■	□	■	■	■	-	■



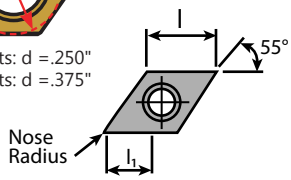
Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	Steel
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits



DC...07 inserts: d =.250"
DC...11 inserts: d =.375"





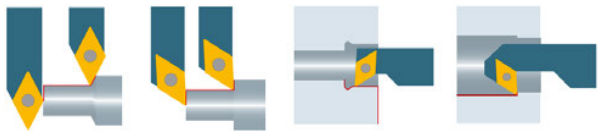
DCXT Carbide PA9

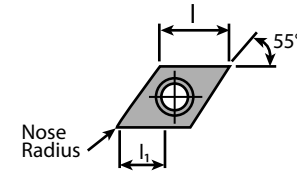
Cut: Neutral
Chip Breaker: PA9, Honed Cutting Edge

Repeatability <50µm

Dimensions & Features						
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-138588	DCXT 070204 EN PA9 UHM10 HX	Round	7.75	4	.4mm/.0157in	SD...11	UHM 10 HX
Call For Details	DCXT 070204 EN PA9 UHM10 TX+	Round	7.75	4	.4mm/.0157in	SD...11	UHM 10 TX+
7005-138590	DCXT 11T304 EN PA9 UHM10 HX	Round	11.6	7.2	.4mm/.0157in	SD...11	UHM 10 HX
7005-147944	DCXT 11T304 EN PA9 UHM10 TX+	Round	11.6	7.2	.4mm/.0157in	SD...11	UHM 10 TX+
7005-138592	DCXT 11T308 EN PA9 UHM10 HX	Round	11.6	7.2	.8mm/.0314in	SD...16	UHM 10 HX
7005-044836	DCXT 11T308 EN PA9 UHM10 TX+	Round	11.6	7.2	.8mm/.0314in	SD...16	UHM 10 TX+

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	□	□	□	■	-	-
Finishing	■	■	■	■	■	■	□	-	-
Micro Finishing	□	□	□	-	□	□	-	-	-







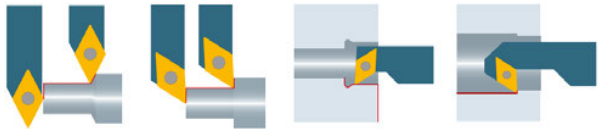
DCGT Carbide/Cermet FN PF

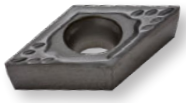
Cut: Neutral
Chip Breaker: PF, Sharp Cutting Edge

Repeatability <20µm

Dimensions & Features						
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-211005	DCGT 070201 FN PF UHM20 HPX	Sharp	7.75	2.8	.1mm/.0039in	SD...07	UHM 20 HPX
7005-211006	DCGT 070201 FN PF UHM20 TX+	Sharp	7.75	2.8	.1mm/.0039in	SD...07	UHM 20 TX+
7005-116969	DCGT 070202 FN PF UHM20 HPX	Sharp	7.75	2.8	.2mm/.0078in	SD...07	UHM 20 HPX
7005-211007	DCGT 070202 FN PF UHM20 TX+	Sharp	7.75	2.8	.2mm/.0078in	SD...07	UHM 20 TX+
7005-211009	DCGT 11T302 FN PF UHM20 HPX	Sharp	11.6	3.9	.2mm/.0078in	SD...11	UHM 20 HPX
7005-211010	DCGT 11T302 FN PF UHM20 TX+	Sharp	11.6	3.9	.2mm/.0078in	SD...11	UHM 20 TX+
7005-211012	DCGT 11T304 FN PF UHM20 HPX	Sharp	11.6	3.9	.4mm/.0157in	SD...11	UHM 20 HPX
7005-211013	DCGT 11T304 FN PF UHM20 TX+	Sharp	11.6	3.9	.4mm/.0157in	SD...11	UHM 20 TX+

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	-	□	□	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	■	■	■	-	■	■	-	-	-

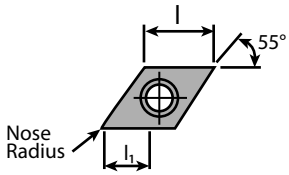




DCGT Carbide/Cermet EN PF

Cut: Neutral

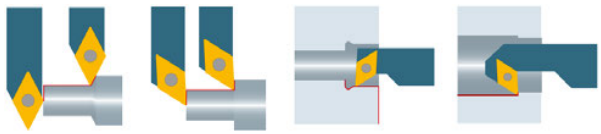
Chip Breaker: PF, Honed Cutting Edge

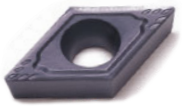


Repeatability <20µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-138962	DCGT 070201 EN PF UCM10 HX	Round	7.75	2.8	.1mm/.0039in	SD...07	UCM 10 HX
7005-123353	DCGT 070202 EN PF UHM20 MZ	Round	7.75	2.8	.2mm/.0078in	SD...07	UHM 20 MZ
7005-123354	DCGT 070202 EN PF UHM30 MZ	Round	7.75	2.8	.2mm/.0078in	SD...07	UHM 30 MZ
7005-123839	DCGT 070202 EN PF UCM10 HX	Round	7.75	2.8	.2mm/.0078in	SD...07	UCM 10 HX
7005-153773	DCGT 070202 EN PF UCM10 MZ	Round	7.75	2.8	.2mm/.0078in	SD...07	UCM 10 MZ
7005-123604	DCGT 070204 EN PF UCM10 HX	Round	7.75	2.8	.4mm/.0157in	SD...07	UCM 10 HX
7005-153774	DCGT 070204 EN PF UCM10 MZ	Round	7.75	2.8	.4mm/.0157in	SD...07	UCM 10 MZ
7005-013460	DCGT 11T302 EN PF UCM10 HX	Round	11.6	3.9	.2mm/.0078in	SD...11	UCM 10 HX
Call For Details	DCGT 11T302 EN PF UCM10 MZ	Round	11.6	3.9	.2mm/.0078in	SD...11	UCM 10 MZ
7005-013274	DCGT 11T304 EN PF UCM10 HX	Round	11.6	3.9	.4mm/.0157in	SD...11	UCM 10 HX
Call For Details	DCGT 11T304 EN PF UCM10 MZ	Round	11.6	3.9	.4mm/.0157in	SD...11	UCM 10 MZ
7005-123635	DCGT 11T308 EN PF UCM10 HX	Round	11.6	3.9	.8mm/.0314in	SD...11	UCM 10 HX
7005-153776	DCGT 11T308 EN PF UCM10 MZ	Round	11.6	3.9	.8mm/.0314in	SD...11	UCM 10 MZ

Material Class									
Application	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	-	□	□	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	■	■	■	-	■	■	-	-	-

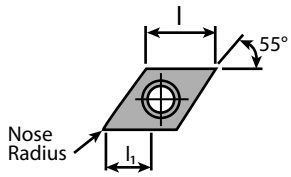




DCMT Carbide PF

Cut: Neutral

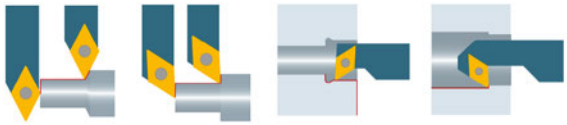
Chip Breaker: PF, Honed Cutting Edge



Repeatability <50µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
Call For Details	DCMT 070204 EN -PF UHM10 HX	Round	7.75	2.9	.4mm/.0157in	SD...07	UHM 10 HX
7005-123361	DCMT 070204 EN -PF UHM20 MZ	Round	7.75	2.9	.4mm/.0157in	SD...07	UHM 20 MZ
7005-123362	DCMT 070204 EN -PF UHM30 MZ	Round	7.75	2.9	.4mm/.0157in	SD...07	UHM 30 MZ
Call For Details	DCMT 11T304 EN -PF UHM10 HX	Round	11.6	4.4	.4mm/.0157in	SD...11	UHM 10 HX
7005-123366	DCMT 11T304 EN -PF UHM20 MZ	Round	11.6	4.4	.4mm/.0157in	SD...11	UHM 20 MZ
7005-123367	DCMT 11T304 EN -PF UHM30 MZ	Round	11.6	4.4	.4mm/.0157in	SD...11	UHM 30 MZ
Call For Details	DCMT 11T308 EN -PF UHM10 HX	Round	11.6	4.4	.8mm/.0314in	SD...11	UHM 10 HX
7005-123370	DCMT 11T308 EN -PF UHM20 MZ	Round	11.6	4.4	.8mm/.0314in	SD...11	UHM 20 MZ
7005-123371	DCMT 11T308 EN -PF UHM30 MZ	Round	11.6	4.4	.8mm/.0314in	SD...11	UHM 30 MZ

Material Class									
Application	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	□	□	□	-	□	□	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-



Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	Steel
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB <220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits



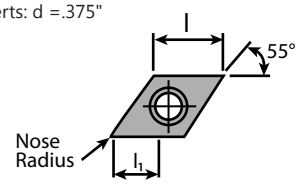
DC...07 inserts: d =.250"
DC...11 inserts: d =.375"



DCET Carbide PF05

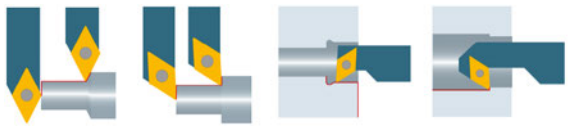
Cut: Neutral

Chip Breaker: PF05, Polished Rake, Sharp Cutting Edge



Repeatability <20µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
Call For Details	DCET 0702005 FN -PF05 UHM10 HX	Sharp	7.75	2	.05mm/.0019in	SD...07	UHM 10 HX
Call For Details	DCET 070201 FN -PF05 UHM10 HX	Sharp	7.75	2	.1mm/.0039in	SD...07	UHM 10 HX
Call For Details	DCET 0702015 FN -PF05 UHM10 HX	Sharp	7.75	2	.15mm/.0059in	SD...07	UHM 10 HX
Call For Details	DCET 070202 FN -PF05 UHM10 HX	Sharp	7.75	2	.2mm/.0078in	SD...07	UHM 10 HX
Call For Details	DCET 11T3005 FN -PF05 UHM10 HX	Sharp	11.6	3	.05mm/.0019in	SD...11	UHM 10 HX
Call For Details	DCET 11T301 FN -PF05 UHM10 HX	Sharp	11.6	3	.1mm/.0039in	SD...11	UHM 10 HX
Call For Details	DCET 11T315 FN -PF05 UHM10 HX	Sharp	11.6	3	.15mm/.0059in	SD...11	UHM 10 HX
Call For Details	DCET 11T302 FN -PF05 UHM10 HX	Sharp	11.6	3	.2mm/.0078in	SD...11	UHM 10 HX
Call For Details	DCET 11T304 FN -PF05 UHM10 HX	Sharp	11.6	3	.4mm/.0157in	SD...11	UHM 10 HX

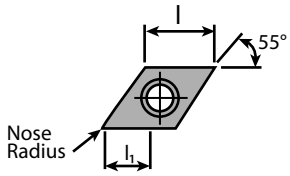




DCGT Carbide FN PF23

Cut: Neutral

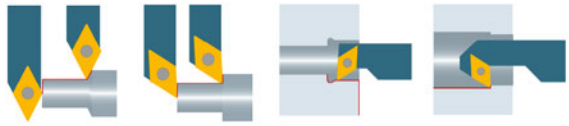
Chip Breaker: PF23, Polished Rake, Sharp Cutting Edge



Repeatability <20µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-044838	DCGT 0702005 FN PF23 UHM20 HPX	Sharp	7.75	3.6	.05mm/.0019in	SD...07	UHM 20 HPX
7005-044839	DCGT 0702005 FN PF23 UHM20 TX+	Sharp	7.75	3.6	.05mm/.0019in	SD...07	UHM 20 TX+
7005-127747	DCGT 0702005 FN PF23 UHM30 HX	Sharp	7.75	3.6	.05mm/.0019in	SD...07	UHM 30 HX
7005-044840	DCGT 070201 FN PF23 UHM20 HPX	Sharp	7.75	3.6	.1mm/.0039in	SD...07	UHM 20 HPX
7005-044841	DCGT 070201 FN PF23 UHM20 TX+	Sharp	7.75	3.6	.1mm/.0039in	SD...07	UHM 20 TX+
7005-126998	DCGT 070201 FN PF23 UHM30 HX	Sharp	7.75	3.6	.1mm/.0039in	SD...07	UHM 30 HX
7005-044842	DCGT 070202 FN PF23 UHM20 HPX	Sharp	7.75	3.6	.2mm/.0078in	SD...07	UHM 20 HPX
7005-044843	DCGT 070202 FN PF23 UHM20 TX+	Sharp	7.75	3.6	.2mm/.0078in	SD...07	UHM 20 TX+
7005-127752	DCGT 070202 FN PF23 UHM30 HX	Sharp	7.75	3.6	.2mm/.0078in	SD...07	UHM 30 HX
7005-044844	DCGT 11T3005 FN PF23 UHM20 HPX	Sharp	11.6	5.2	.05mm/.0019in	SD...11	UHM 20 HPX
7005-044845	DCGT 11T3005 FN PF23 UHM20 TX+	Sharp	11.6	5.2	.05mm/.0019in	SD...11	UHM 20 TX+
7005-127755	DCGT 11T3005 FN PF23 UHM30 HX	Sharp	11.6	5.2	.05mm/.0019in	SD...11	UHM 30 HX
7005-044846	DCGT 11T301 FN PF23 UHM20 HPX	Sharp	11.6	5.2	.1mm/.0039in	SD...11	UHM 20 HPX
7005-044847	DCGT 11T301 FN PF23 UHM20 TX+	Sharp	11.6	5.2	.1mm/.0039in	SD...11	UHM 20 TX+
7005-127006	DCGT 11T301 FN PF23 UHM30 HX	Sharp	11.6	5.2	.1mm/.0039in	SD...11	UHM 30 HX
7005-044848	DCGT 11T302 FN PF23 UHM20 HPX	Sharp	11.6	5.2	.2mm/.0078in	SD...11	UHM 20 HPX
7005-044849	DCGT 11T302 FN PF23 UHM20 TX+	Sharp	11.6	5.2	.2mm/.0078in	SD...11	UHM 20 TX+
7005-127760	DCGT 11T302 FN PF23 UHM30 HX	Sharp	11.6	5.2	.2mm/.0078in	SD...11	UHM 30 HX

	Material Class								
Application	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	□	□	□	□	-	-
Micro Finishing	■	■	■	□	■	■	□	-	□

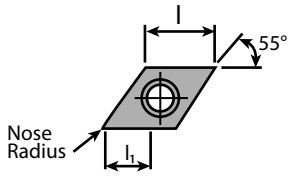




DCGT Carbide EN PF23

Cut: Neutral

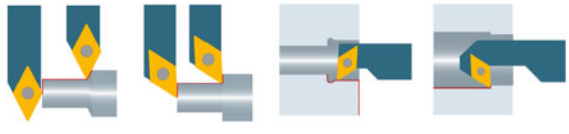
Chip Breaker: PF23, Polished Rake, Honed Cutting Edge



Repeatability <20µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
Call For Details	DCGT 0702003 EN PF23 UHM30 HX	Round	7.75	3.6	.03mm/.0012in	SD...07	UHM 30 HX
7005-044850	DCGT 0702005 EN PF23 UHM20 HPX	Round	7.75	3.6	.05mm/.0019in	SD...07	UHM 20 HPX
7005-044851	DCGT 0702005 EN PF23 UHM20 TX+	Round	7.75	3.6	.05mm/.0019in	SD...07	UHM 20 TX+
7005-044852	DCGT 070201 EN PF23 UHM20 HPX	Round	7.75	3.6	.1mm/.0039in	SD...07	UHM 20 HPX
7005-044853	DCGT 070201 EN PF23 UHM20 TX+	Round	7.75	3.6	.1mm/.0039in	SD...07	UHM 20 TX+
7005-044854	DCGT 070202 EN PF23 UHM20 HPX	Round	7.75	3.6	.2mm/.0078in	SD...07	UHM 20 HPX
7005-044855	DCGT 070202 EN PF23 UHM20 TX+	Round	7.75	3.6	.2mm/.0078in	SD...07	UHM 20 TX+
7005-044856	DCGT 11T3005 EN PF23 UHM20 HPX	Round	11.6	5.2	.05mm/.0019in	SD...11	UHM 20 HPX
7005-044857	DCGT 11T3005 EN PF23 UHM20 TX+	Round	11.6	5.2	.05mm/.0019in	SD...11	UHM 20 TX+
7005-044858	DCGT 11T301 EN PF23 UHM20 HPX	Round	11.6	5.2	.1mm/.0039in	SD...11	UHM 20 HPX
7005-044859	DCGT 11T301 EN PF23 UHM20 TX+	Round	11.6	5.2	.1mm/.0039in	SD...11	UHM 20 TX+
7005-044860	DCGT 11T302 EN PF23 UHM20 HPX	Round	11.6	5.2	.2mm/.0078in	SD...11	UHM 20 HPX
7005-044861	DCGT 11T302 EN PF23 UHM20 TX+	Round	11.6	5.2	.2mm/.0078in	SD...11	UHM 20 TX+

	Material Class								
Application	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	□	□	□	□	-	-
Micro Finishing	■	■	■	□	■	■	□	-	□



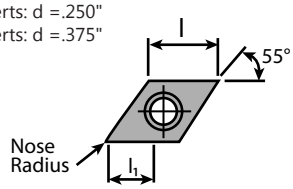
Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	Steel
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits



DC...07 inserts: d =.250"
DC...11 inserts: d =.375"





DCGT Carbide FN PF33

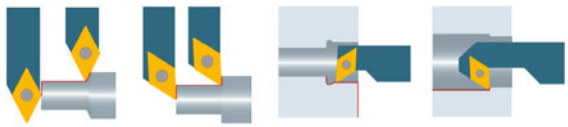
Cut: Neutral

Chip Breaker: PF33, Polished Rake, Sharp Cutting Edge

Repeatability <20µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-044862	DCGT 0702005 FN PF33 UHM20 HPX	Sharp	7.75	3.6	.05mm/.0019in	SD...07	UHM 20 HPX
7005-044863	DCGT 0702005 FN PF33 UHM20 TX+	Sharp	7.75	3.6	.05mm/.0019in	SD...07	UHM 20 TX+
7005-114398	DCGT 0702005 FN PF33 UHM30 HX	Sharp	7.75	3.6	.05mm/.0019in	SD...07	UHM 30 HX
7005-044864	DCGT 070201 FN PF33 UHM20 HPX	Sharp	7.75	3.6	.1mm/.0039in	SD...07	UHM 20 HPX
7005-044865	DCGT 070201 FN PF33 UHM20 TX+	Sharp	7.75	3.6	.1mm/.0039in	SD...07	UHM 20 TX+
7005-114400	DCGT 070201 FN PF33 UHM30 HX	Sharp	7.75	3.6	.1mm/.0039in	SD...07	UHM 30 HX
7005-044866	DCGT 070202 FN PF33 UHM20 HPX	Sharp	7.75	3.6	.2mm/.0078in	SD...07	UHM 20 HPX
7005-044867	DCGT 070202 FN PF33 UHM20 TX+	Sharp	7.75	3.6	.2mm/.0078in	SD...07	UHM 20 TX+
7005-114402	DCGT 070202 FN PF33 UHM30 HX	Sharp	7.75	3.6	.2mm/.0078in	SD...07	UHM 30 HX
7005-044868	DCGT 070204 FN PF33 UHM20 HPX	Sharp	7.75	3.6	.4mm/.0157in	SD...07	UHM 20 HPX
7005-044869	DCGT 070204 FN PF33 UHM20 TX+	Sharp	7.75	3.6	.4mm/.0157in	SD...07	UHM 20 TX+
7005-114404	DCGT 070204 FN PF33 UHM30 HX	Sharp	7.75	3.6	.4mm/.0157in	SD...07	UHM 30 HX
7005-044870	DCGT 11T3005 FN PF33 UHM20 HPX	Sharp	11.6	5.2	.05mm/.0019in	SD...11	UHM 20 HPX
7005-044871	DCGT 11T3005 FN PF33 UHM20 TX+	Sharp	11.6	5.2	.05mm/.0019in	SD...11	UHM 20 TX+
7005-114373	DCGT 11T3005 FN PF33 UHM30 HX	Sharp	11.6	5.2	.05mm/.0019in	SD...11	UHM 30 HX
7005-044872	DCGT 11T301 FN PF33 UHM20 HPX	Sharp	11.6	5.2	.1mm/.0039in	SD...11	UHM 20 HPX
7005-044873	DCGT 11T301 FN PF33 UHM20 TX+	Sharp	11.6	5.2	.1mm/.0039in	SD...11	UHM 20 TX+
7005-114407	DCGT 11T301 FN PF33 UHM30 HX	Sharp	11.6	5.2	.1mm/.0039in	SD...11	UHM 30 HX
7005-044874	DCGT 11T302 FN PF33 UHM20 HPX	Sharp	11.6	5.2	.2mm/.0078in	SD...11	UHM 20 HPX
7005-044875	DCGT 11T302 FN PF33 UHM20 TX+	Sharp	11.6	5.2	.2mm/.0078in	SD...11	UHM 20 TX+
7005-114409	DCGT 11T302 FN PF33 UHM30 HX	Sharp	11.6	5.2	.2mm/.0078in	SD...11	UHM 30 HX
7005-044876	DCGT 11T304 FN PF33 UHM20 HPX	Sharp	11.6	5.2	.4mm/.0157in	SD...11	UHM 20 HPX
7005-044877	DCGT 11T304 FN PF33 UHM20 TX+	Sharp	11.6	5.2	.4mm/.0157in	SD...11	UHM 20 TX+
7005-114411	DCGT 11T304 FN PF33 UHM30 HX	Sharp	11.6	5.2	.4mm/.0157in	SD...11	UHM 30 HX

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	-	□	□	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	■	■	■	-	■	■	-	-	-

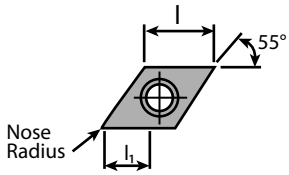




DCGT Carbide EN PF33

Cut: Neutral

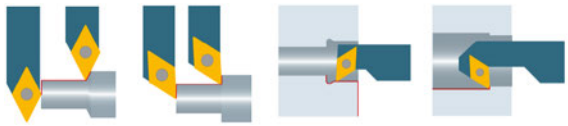
Chip Breaker: PF33, Polished Rake, Honed Cutting Edge

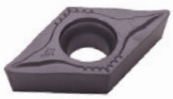


Repeatability <20µm

Item No.	Description	Dimensions & Features					
		Edge	l	l_1	Nose Radius	Holder	Coating
7005-044878	DCGT 0702005 EN PF33 UHM20 HPX	Round	7.75	3.6	.05mm/.0019in	SD...07	UHM 20 HPX
7005-044879	DCGT 0702005 EN PF33 UHM20 TX+	Round	7.75	3.6	.05mm/.0019in	SD...07	UHM 20 TX+
7005-044880	DCGT 070201 EN PF33 UHM20 HPX	Round	7.75	3.6	.1mm/.0039in	SD...07	UHM 20 HPX
7005-044881	DCGT 070201 EN PF33 UHM20 TX+	Round	7.75	3.6	.1mm/.0039in	SD...07	UHM 20 TX+
7005-044882	DCGT 070202 EN PF33 UHM20 HPX	Round	7.75	3.6	.2mm/.0078in	SD...07	UHM 20 HPX
7005-044883	DCGT 070202 EN PF33 UHM20 TX+	Round	7.75	3.6	.2mm/.0078in	SD...07	UHM 20 TX+
7005-044884	DCGT 070204 EN PF33 UHM20 HPX	Round	7.75	3.6	.4mm/.0157in	SD...07	UHM 20 HPX
7005-044885	DCGT 070204 EN PF33 UHM20 TX+	Round	7.75	3.6	.4mm/.0157in	SD...07	UHM 20 TX+
7005-044886	DCGT 11T3005 EN PF33 UHM20 HPX	Round	11.6	5.2	.05mm/.0019in	SD...11	UHM 20 HPX
7005-044887	DCGT 11T3005 EN PF33 UHM20 TX+	Round	11.6	5.2	.05mm/.0019in	SD...11	UHM 20 TX+
7005-044888	DCGT 11T301 EN PF33 UHM20 HPX	Round	11.6	5.2	.1mm/.0039in	SD...11	UHM 20 HPX
7005-044889	DCGT 11T301 EN PF33 UHM20 TX+	Round	11.6	5.2	.1mm/.0039in	SD...11	UHM 20 TX+
7005-044890	DCGT 11T302 EN PF33 UHM20 HPX	Round	11.6	5.2	.2mm/.0078in	SD...11	UHM 20 HPX
7005-044891	DCGT 11T302 EN PF33 UHM20 TX+	Round	11.6	5.2	.2mm/.0078in	SD...11	UHM 20 TX+
7005-044892	DCGT 11T304 EN PF33 UHM20 HPX	Round	11.6	5.2	.4mm/.0157in	SD...11	UHM 20 HPX
7005-044893	DCGT 11T304 EN PF33 UHM20 TX+	Round	11.6	5.2	.4mm/.0157in	SD...11	UHM 20 TX+

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	-	□	□	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	■	■	■	-	■	■	-	-	-

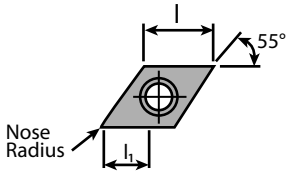




DCMT Carbide PF43

Cut: Neutral

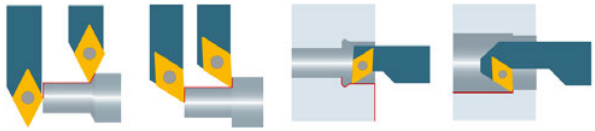
Chip Breaker: PF43, Honed Cutting Edge



Repeatability <50µm

Item No.	Description	Dimensions & Features					
		Edge	l	l_1	Nose Radius	Holder	Coating
7005-114727	DCMT 070202 EN PF43 UHM20 MZ	Round	7.75	3.8	.2mm/.0078in	SD...07	UHM 20 MZ
7005-127209	DCMT 070202 EN PF43 UHM30 MZ	Round	7.75	3.8	.2mm/.0078in	SD...07	UHM 30 MZ
7005-127210	DCMT 070204 EN PF43 UHM30 MZ	Round	7.75	3.8	.4mm/.0157in	SD...07	UHM 30 MZ
7005-127211	DCMT 11T302 EN PF43 UHM30 MZ	Round	11.6	5.5	.2mm/.0078in	SD...11	UHM 30 MZ
7005-127212	DCMT 11T304 EN PF43 UHM30 MZ	Round	11.6	5.5	.4mm/.0157in	SD...11	UHM 30 MZ
7005-127213	DCMT 11T308 EN PF43 UHM30 MZ	Round	11.6	5.5	.8mm/.0314in	SD...11	UHM 30 MZ

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-



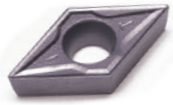
Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	Steel
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits

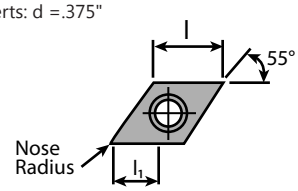


DC...07 inserts: d =.250"
DC...11 inserts: d =.375"



DCMT Carbide PM Roughing

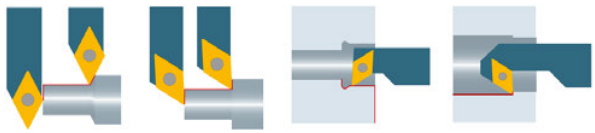
Cut: Neutral
Chip Breaker: PM, Honed Cutting Edge



Repeatability <50µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-113692	DCMT 070204 EN PM UHM10 MZ	Round	7.75	2.6	.4mm/.0157in	SD...07	UHM 10 MZ
7005-123363	DCMT 070204 EN PM UHM20 MZ	Round	7.75	2.6	.4mm/.0157in	SD...07	UHM 20 MZ
7005-123291	DCMT 070204 EN PM UHM30 MZ	Round	7.75	2.6	.4mm/.0157in	SD...07	UHM 30 MZ
7005-123365	DCMT 070208 EN PM UHM30 MZ	Round	7.75	2.6	.8mm/.0314in	SD...07	UHM 30 MZ
7005-113693	DCMT 11T304 EN PM UHM10 MZ	Round	11.6	4.1	.4mm/.0157in	SD...11	UHM 10 MZ
7005-123368	DCMT 11T304 EN PM UHM20 MZ	Round	11.6	4.1	.4mm/.0157in	SD...11	UHM 20 MZ
7005-123369	DCMT 11T304 EN PM UHM30 MZ	Round	11.6	4.1	.4mm/.0157in	SD...11	UHM 30 MZ
7005-113694	DCMT 11T308 EN PM UHM10 MZ	Round	11.6	4.1	.8mm/.0314in	SD...11	UHM 10 MZ
7005-123372	DCMT 11T308 EN PM UHM20 MZ	Round	11.6	4.1	.8mm/.0314in	SD...11	UHM 20 MZ
7005-123373	DCMT 11T308 EN PM UHM30 MZ	Round	11.6	4.1	.8mm/.0314in	SD...11	UHM 30 MZ

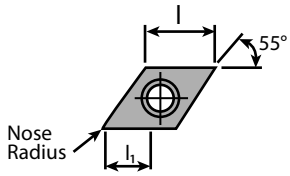
Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	□	□	□	-	□	□	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-





DCMT Cermet PMF

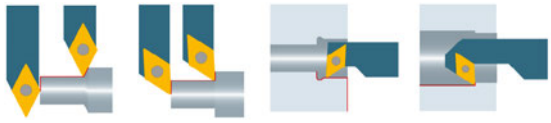
Cut: Neutral
Chip Breaker: PMF, Honed Cutting Edge

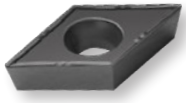


Repeatability <50µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-169819	DCMT 070202 EN PMF UCM10 MZ	Round	7.75	2.6	.2mm/.0078in	SD...07	UCM 10 MZ
7005-169820	DCMT 070204 EN PMF UCM10 MZ	Round	7.75	2.6	.4mm/.0157in	SD...07	UCM 10 MZ
7005-169821	DCMT 11T304 EN PMF UCM10 MZ	Round	11.6	4.1	.4mm/.0157in	SD...11	UCM 10 MZ
7005-169822	DCMT 11T308 EN PMF UCM10 MZ	Round	11.6	4.1	.8mm/.0314in	SD...11	UCM 10 MZ

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-

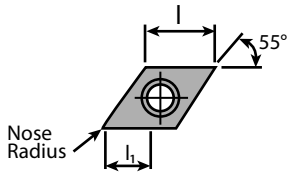




DCMT Carbide PM25

Cut: Neutral

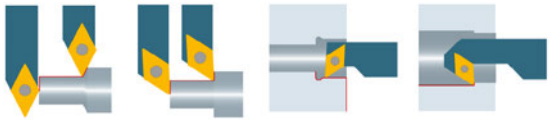
Chip Breaker: PM25, Honed Cutting Edge

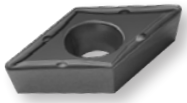


Repeatability <50µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-112944	DCMT 070202 EN PM25 UHM20 HPX	Round	7.75	1.6	.2mm/.0078in	SD...07	UHM 20 HPX
7005-112945	DCMT 070204 EN PM25 UHM20 HPX	Round	7.75	2	.4mm/.0157in	SD...07	UHM 20 HPX
7005-147276	DCMT 11T302 EN PM25 UHM20 HPX	Round	11.6	2	.2mm/.0078in	SD...11	UHM 20 HPX
7005-147277	DCMT 11T304 EN PM25 UHM20 HPX	Round	11.6	2.2	.4mm/.0157in	SD...11	UHM 20 HPX
Call For Details	DCMT 11T308 EN PM25 UHM20 HPX	Round	11.6	3.2	.8mm/.0314in	SD...11	UHM 20 HPX

	Material Class								
Application	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	-	■	■	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-

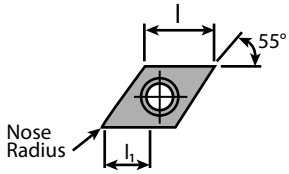




DCMT Carbide PM55

Cut: Neutral

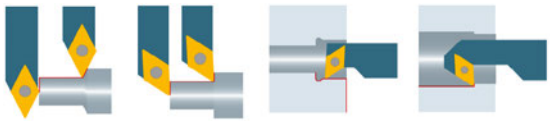
Chip Breaker: PM55, Honed Cutting Edge



Repeatability <50µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-112946	DCMT 070204 EN PM55 UHM20 HPX	Round	7.75	2.2	.4mm/.0157in	SD...07	UHM 20 HPX
7005-112947	DCMT 070208 EN PM55 UHM20 HPX	Round	7.75	2.4	.8mm/.0314in	SD...07	UHM 20 HPX
7005-112948	DCMT 11T304 EN PM55 UHM20 HPX	Round	11.6	3	.4mm/.0157in	SD...11	UHM 20 HPX
7005-112949	DCMT 11T308 EN PM55 UHM20 HPX	Round	11.6	4	.8mm/.0314in	SD...11	UHM 20 HPX

	Material Class								
Application	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	-	■	■	-	-	-
Finishing	-	-	-	-	-	-	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-



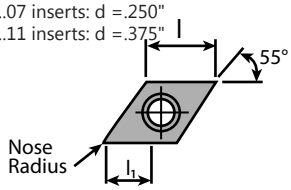
Coatings vs Material Type

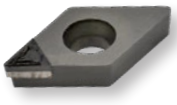
Carbide												Cermet		Diamond			Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	Steel
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB <220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits



DC...07 inserts: d =.250"
DC...11 inserts: d =.375"





DCGT Diamond UWS Micro Finishing

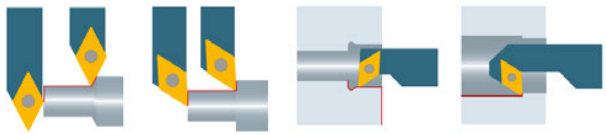
Cut: Neutral

Chip Breaker: UWS, Sharp Cutting Edge

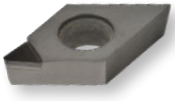
Repeatability <20µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-116334	DCGT 070201 FN UWS UPCD15	Sharp	7.75	3	.1mm/.0039in	SD...07	UPCD 15
7005-147206	DCGT 070201 FN UWS UPCD20	Sharp	7.75	3	.1mm/.0039in	SD...07	UPCD 20
7005-116537	DCGT 070202 FN UWS UCVD08	Sharp	7.75	3	.2mm/.0078in	SD...07	UCVD 08
7005-116341	DCGT 070202 FN UWS UPCD15	Sharp	7.75	3	.2mm/.0078in	SD...07	UPCD 15
7005-169144	DCGT 070202 FN UWS UPCD20	Sharp	7.75	3	.2mm/.0078in	SD...07	UPCD 20
7005-116549	DCGT 070204 FN UWS UCVD08	Sharp	7.75	3	.4mm/.0157in	SD...07	UCVD 08
7005-116352	DCGT 070204 FN UWS UPCD15	Sharp	7.75	3	.4mm/.0157in	SD...07	UPCD 15
Call For Details	DCGT 070204 FN UWS UPCD20	Sharp	7.75	3	.4mm/.0157in	SD...07	UPCD 20
7005-116557	DCGT 070208 FN UWS UCVD08	Sharp	7.75	3	.8mm/.0314in	SD...07	UCVD 08
7005-116358	DCGT 070208 FN UWS UPCD15	Sharp	7.75	3	.8mm/.0314in	SD...07	UPCD 15
7005-116360	DCGT 11T301 FN UWS UPCD15	Sharp	11.6	3	.1mm/.0039in	SD...11	UPCD 15
Call For Details	DCGT 11T301 FN UWS UPCD20	Sharp	11.6	3	.1mm/.0039in	SD...11	UPCD 20
7005-116568	DCGT 11T302 FN UWS UCVD08	Sharp	11.6	3	.2mm/.0078in	SD...11	UCVD 08
7005-116367	DCGT 11T302 FN UWS UPCD15	Sharp	11.6	3	.2mm/.0078in	SD...11	UPCD 15
7005-169148	DCGT 11T302 FN UWS UPCD20	Sharp	11.6	3	.2mm/.0078in	SD...11	UPCD 20
7005-116579	DCGT 11T304 FN UWS UCVD08	Sharp	11.6	3	.4mm/.0157in	SD...11	UCVD 08
7005-116380	DCGT 11T304 FN UWS UPCD15	Sharp	11.6	3	.4mm/.0157in	SD...11	UPCD 15
7005-169149	DCGT 11T304 FN UWS UPCD20	Sharp	11.6	3	.4mm/.0157in	SD...11	UPCD 20
7005-116587	DCGT 11T308 FN UWS UCVD08	Sharp	11.6	3	.8mm/.0314in	SD...11	UCVD 08
7005-116387	DCGT 11T308 FN UWS UPCD15	Sharp	11.6	3	.8mm/.0314in	SD...11	UPCD 15
Call For Details	DCGT 11T308 FN UWS UPCD20	Sharp	11.6	3	.8mm/.0314in	SD...11	UPCD 20
Call For Details	DCGT 11T312 FN UWS UPCD15	Sharp	11.6	3.6	1.2mm/.0472in	SD...11	UPCD 15

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	-	-	-	-	-	-	□	□	□
Micro Finishing	-	-	-	-	-	-	■	■	■



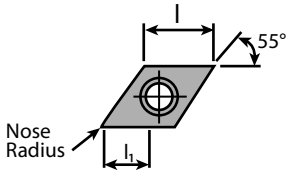
Great For Unstable or Thin-walled Parts



DCGT Diamond

Cut: Neutral

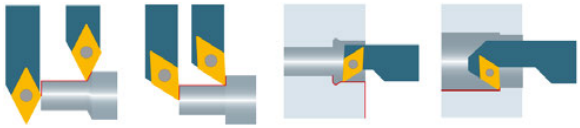
Chip Breaker: Sharp Cutting Edge



Repeatability <20µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-116136	DCGT 070201 FN UPCD20	Sharp	7.75	3.8	.1mm/.0039in	SD...07	UPCD 20
7005-137717	DCGT 070202 FN UPCD15	Sharp	7.75	3.7	.2mm/.0078in	SD...07	UPCD 15
7005-116139	DCGT 070202 FN UPCD20	Sharp	7.75	3.7	.2mm/.0078in	SD...07	UPCD 20
7005-137718	DCGT 070204 FN UPCD15	Sharp	7.75	3.4	.4mm/.0157in	SD...07	UPCD 15
7005-137719	DCGT 070208 FN UPCD15	Sharp	7.75	3	.8mm/.0314in	SD...07	UPCD 15
7005-116152	DCGT 11T301 FN UPCD20	Sharp	11.6	4.8	.1mm/.0039in	SD...11	UPCD 20
7005-129055	DCGT 11T302 FN UPCD15	Sharp	11.6	4.7	.2mm/.0078in	SD...11	UPCD 15
7005-116155	DCGT 11T302 FN UPCD20	Sharp	11.6	4.7	.2mm/.0078in	SD...11	UPCD 20
7005-137720	DCGT 11T304 FN UPCD15	Sharp	11.6	4.3	.4mm/.0157in	SD...11	UPCD 15
7005-137721	DCGT 11T308 FN UPCD15	Sharp	11.6	4	.8mm/.0314in	SD...11	UPCD 15
7005-137722	DCGT 11T312 FN UPCD15	Sharp	11.6	3.5	1.2mm/.0472in	SD...11	UPCD 15

Material Class									
Application	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	■	■	■

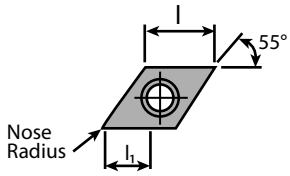




DCET Carbide/Cermet U

Cut: Neutral

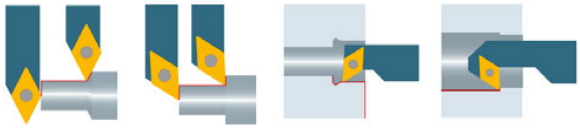
Chip Breaker: U, Ground Rake, Sharp Cutting Edge



Repeatability <10µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-123590	DCET 0702003 FR U UHM10 HX	Sharp	7.75	2.5	.03mm/.0012in	SD...07	UHM 10 HX
7005-044894	DCET 0702003 FR U UHM10 TX+	Sharp	7.75	2.5	.03mm/.0012in	SD...07	UHM 10 TX+
7005-123595	DCET 070201 FR U UHM10 HX	Sharp	7.75	2.5	.1mm/.0039in	SD...07	UHM 10 HX
7005-044895	DCET 070201 FR U UHM10 TX+	Sharp	7.75	2.5	.1mm/.0039in	SD...07	UHM 10 TX+
7005-123594	DCET 070201 FR U UCM10 HX	Sharp	7.75	2.5	.1mm/.0039in	SD...07	UCM 10 HX
7005-121955	DCET 070202 FR U UHM10 HX	Sharp	7.75	2.5	.2mm/.0078in	SD...07	UHM 10 HX
7005-044896	DCET 070202 FR U UHM10 TX+	Sharp	7.75	2.5	.2mm/.0078in	SD...07	UHM 10 TX+
7005-123602	DCET 070202 FR U UCM10 HX	Sharp	7.75	2.5	.2mm/.0078in	SD...07	UCM 10 HX
7005-123622	DCET 11T301 FR U UHM10 HX	Sharp	11.6	4	.1mm/.0039in	SD...11	UHM 10 HX
7005-044897	DCET 11T301 FR U UHM10 TX+	Sharp	11.6	4	.1mm/.0039in	SD...11	UHM 10 TX+
7005-123621	DCET 11T301 FR U UCM10 HX	Sharp	11.6	4	.1mm/.0039in	SD...11	UCM 10 HX
7005-123629	DCET 11T302 FR U UHM10 HX	Sharp	11.6	4	.2mm/.0078in	SD...11	UHM 10 HX
7005-044898	DCET 11T302 FR U UHM10 TX+	Sharp	11.6	4	.2mm/.0078in	SD...11	UHM 10 TX+
7005-123628	DCET 11T302 FR U UCM10 HX	Sharp	11.6	4	.2mm/.0078in	SD...11	UCM 10 HX
7005-123634	DCET 11T304 FR U UHM10 HX	Sharp	11.6	4	.4mm/.0157in	SD...11	UHM 10 HX
7005-044899	DCET 11T304 FR U UHM10 TX+	Sharp	11.6	4	.4mm/.0157in	SD...11	UHM 10 TX+

Material Class									
Application	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	-	□	□	-	-	-
Micro Finishing	■	■	■	□	■	■	□	-	□



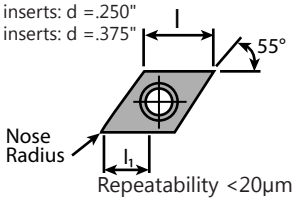
Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	Steel
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	

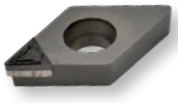
Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits



DC...07 inserts: d =.250"
DC...11 inserts: d =.375"



Repeatability <20µm



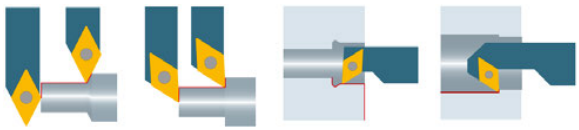
DCGT Diamond UWN Micro Finishing

Cut: Neutral

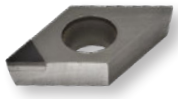
Chip Breaker: UWN, Sharp Cutting Edge

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
Call For Details	DCGT 070201 FN UWN UPCD20	Sharp	7.75	3	.1mm/.0039in	SD...07	UPCD 20
7005-116536	DCGT 070202 FN UWN UCVD08	Sharp	7.75	3	.2mm/.0078in	SD...07	UCVD 08
7005-116340	DCGT 070202 FN UWN UPCD20	Sharp	7.75	3	.2mm/.0078in	SD...07	UPCD 20
7005-116548	DCGT 070204 FN UWN UCVD08	Sharp	7.75	3	.4mm/.0157in	SD...07	UCVD 08
7005-116351	DCGT 070204 FN UWN UPCD20	Sharp	7.75	3	.4mm/.0157in	SD...07	UPCD 20
7005-116556	DCGT 070208 FN UWN UCVD08	Sharp	7.75	3	.8mm/.0314in	SD...07	UCVD 08
7005-116357	DCGT 070208 FN UWN UPCD20	Sharp	7.75	3	.8mm/.0314in	SD...07	UPCD 20
Call For Details	DCGT 11T301 FN UWN UPCD20	Sharp	11.6	3	.1mm/.0039in	SD...11	UPCD 20
7005-116567	DCGT 11T302 FN UWN UCVD08	Sharp	11.6	3	.2mm/.0078in	SD...11	UCVD 08
7005-116366	DCGT 11T302 FN UWN UPCD20	Sharp	11.6	3	.2mm/.0078in	SD...11	UPCD 20
7005-116578	DCGT 11T304 FN UWN UCVD08	Sharp	11.6	3	.4mm/.0157in	SD...11	UCVD 08
7005-116379	DCGT 11T304 FN UWN UPCD20	Sharp	11.6	3	.4mm/.0157in	SD...11	UPCD 20
7005-116586	DCGT 11T308 FN UWN UCVD08	Sharp	11.6	3	.8mm/.0314in	SD...11	UCVD 08
7005-116386	DCGT 11T308 FN UWN UPCD20	Sharp	11.6	3	.8mm/.0314in	SD...11	UPCD 20

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	-	-	-



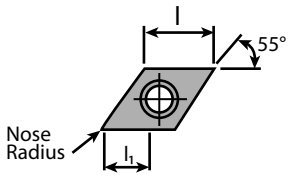
Great For Stable or Solid Parts



DCGW Diamond

Cut: Neutral

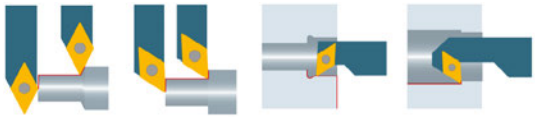
Chip Breaker: Sharp Cutting Edge



Repeatability <20µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-154840	DCGW 0702005 FN UPCD20	Sharp	7.75	3.5	.05mm/.0019in	SD...07	UPCD 20
7005-129023	DCGW 070201 FN UPCD20	Sharp	7.75	3.8	.1mm/.0039in	SD...07	UPCD 20
7005-138610	DCGW 070202 FN UCVD08	Sharp	7.75	3.7	.2mm/.0078in	SD...07	UCVD 08
7005-129022	DCGW 070202 FN UPCD15	Sharp	7.75	3.7	.2mm/.0078in	SD...07	UPCD 15
7005-116173	DCGW 070202 FN UPCD20	Sharp	7.75	3.7	.2mm/.0078in	SD...07	UPCD 20
7005-116888	DCGW 070204 FN UCVD08	Sharp	7.75	3.4	.4mm/.0157in	SD...07	UCVD 08
7005-012747	DCGW 070204 FN UPCD15	Sharp	7.75	3.4	.4mm/.0157in	SD...07	UPCD 15
7005-116176	DCGW 070204 FN UPCD20	Sharp	7.75	3.4	.4mm/.0157in	SD...07	UPCD 20
7005-116889	DCGW 070208 FN UCVD08	Sharp	7.75	3	.8mm/.0314in	SD...07	UCVD 08
7005-137723	DCGW 070208 FN UPCD15	Sharp	7.75	3	.8mm/.0314in	SD...07	UPCD 15
7005-116178	DCGW 070208 FN UPCD20	Sharp	7.75	3	.8mm/.0314in	SD...07	UPCD 20
7005-116183	DCGW 11T301 FN UPCD20	Sharp	11.6	4.8	.1mm/.0039in	SD...11	UPCD 20
7005-116891	DCGW 11T302 FN UCVD08	Sharp	11.6	4.7	.2mm/.0078in	SD...11	UCVD 08
7005-129057	DCGW 11T302 FN UPCD15	Sharp	11.6	4.7	.2mm/.0078in	SD...11	UPCD 15
7005-116186	DCGW 11T302 FN UPCD20	Sharp	11.6	4.7	.2mm/.0078in	SD...11	UPCD 20
7005-116892	DCGW 11T304 FN UCVD08	Sharp	11.6	4.3	.4mm/.0157in	SD...11	UCVD 08
7005-129054	DCGW 11T304 FN UPCD15	Sharp	11.6	4.3	.4mm/.0157in	SD...11	UPCD 15
7005-116188	DCGW 11T304 FN UPCD20	Sharp	11.6	4.3	.4mm/.0157in	SD...11	UPCD 20
7005-116893	DCGW 11T308 FN UCVD08	Sharp	11.6	4	.8mm/.0314in	SD...11	UCVD 08
7005-137724	DCGW 11T308 FN UPCD15	Sharp	11.6	4	.8mm/.0314in	SD...11	UPCD 15
7005-116190	DCGW 11T308 FN UPCD20	Sharp	11.6	4	.8mm/.0314in	SD...11	UPCD 20
7005-116191	DCGW 11T312 FN UPCD15	Sharp	11.6	3.6	1.2mm/.0472in	SD...11	UPCD 15
7005-116192	DCGW 11T312 FN UPCD20	Sharp	11.6	3.6	1.2mm/.0472in	SD...11	UPCD 20

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	■	■	■





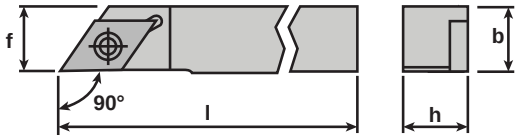
ISO Holder SDAC...U

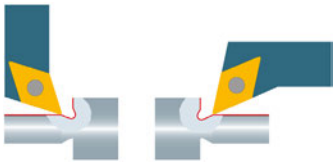
Type: 90°
Coolant-Thru: None

Repeatability <20µm



Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	b	h	l	f	Inserts
7005-045104	SDACL 0808 K07 U	7005-045109	SDACR 0808 K07 U	8	8	125	8	DC...0702
7005-045105	SDACL 1010 M07 U	7005-045110	SDACR 1010 M07 U	10	10	150	10	DC...0702
7005-045106	SDACL 1212 M07 U	7005-045111	SDACR 1212 M07 U	12	12	150	12	DC...0702
7005-045107	SDACL 1212 M11 U	7005-045112	SDACR 1212 M11 U	12	12	150	12	DC...11T3
7005-045181	SDACL 1616 K11 U	7005-043488	SDACR 1616 K11 U	16	16	125	16	DC...11T3





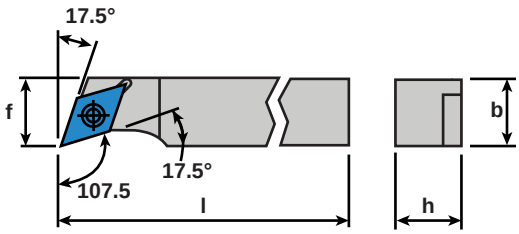
ISO Holder SDHC...U

Type: 107.5°
Coolant-Thru: None

Repeatability <20µm



Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	b	h	l	f	Inserts
7005-144717	SDHCL 0808 H07 U	7005-153821	SDHCR 0808 H07 U	8	8	100	11	DC...0702
7005-154044	SDHCL 1010 H07 U	7005-154043	SDHCR 1010 H07 U	10	10	100	11	DC...0702
7005-114527	SDHCL 1212 H07 U	7005-114529	SDHCR 1212 H07 U	12	12	100	12	DC...0702
7005-114528	SDHCL 1616 K11 U	7005-114530	SDHCR 1616 K11 U	16	16	125	16	DC...11T3
7005-144724	SDHCL 3/8" H07 U	7005-144734	SDHCR 3/8" H07 U	3/8"	3/8"	100	11	DC...0702
7005-144719	SDHCL 1/2" H07 U	7005-144729s	SDHCR 1/2" H07 U	1/2"	1/2"	100	1/2"	DC...0702
7005-144726	SDHCL 5/8" K11 U	7005-144736	SDHCR 5/8" K11 U	5/8"	5/8"	125	5/8"	DC...11T3





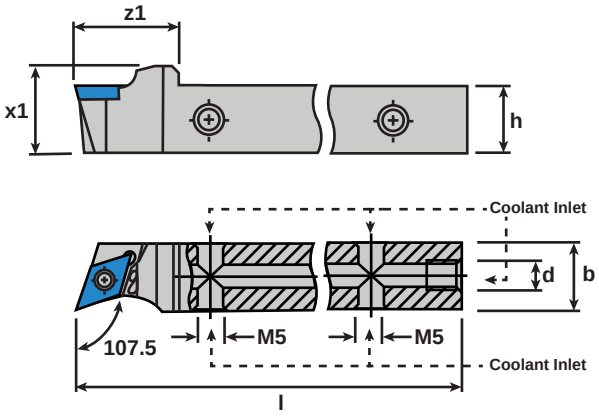
ISO Coolant-Thru Holder SDHC...U IC

Type: 107.5°
Coolant-Thru: Rear & Side Ports

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features								Coolant Fittings	
Item No.	Description	Item No.	Description	b	h	l	z_1	x_1	d	f	Inserts	Side	Rear
Call For Details	7005-144718	Call For Details	7005-144728	8	8	100	18	11.5	M5	11	DC...0702	4005-000111	4005-000111
Call For Details	7005-144721	Call For Details	7005-144731	10	10	100	18	13.5	M5	11	DC...0702	4005-000111	4005-000111
Call For Details	7005-144722	Call For Details	7005-144732	12	12	100	18	15.5	M5	12	DC...0702	4005-000111	4005-000111
Call For Details	7005-144723	Call For Details	7005-144733	16	16	125	21	19.5	G 1/8"	16	DC...11T3	4005-000111	4005-000104
Call For Details	SDHCL 3/8" H07 U IC	Call For Details	SDHCR 3/8" H07 U IC	3/8"	3/8"	100	18	13	M5	11	DC...0702	4005-000111	4005-000111
Call For Details	SDHCL 1/2" H07 U IC	Call For Details	SDHCR 1/2" H07 U IC	1/2"	1/2"	100	18	16.2	M5	1/2"	DC...0702	4005-000111	4005-000111
Call For Details	SDHCL 5/8" K11 U IC	Call For Details	SDHCR 5/8" K11 U IC	5/8"	5/8"	125	22	19.4	G 1/8"	5/8"	DC...11T3	4005-000111	4005-000104

Features (5) connection ports for simple connection to your oil delivery system. (4) Side ports and (1) one end port making connection possible on most machine tool positions.





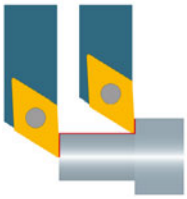


4005-000111
Connects to side ports on ALL shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks



4005-000104
Connects to end port on 5/8" and larger shanks
0° Male Union - 1/8 BSPP to 1/4 JIC Flare Fitting

Fits Position (d) On Tool Holders Sold Separately



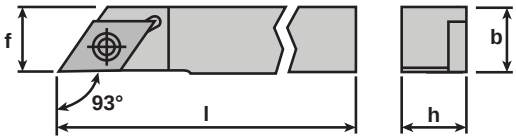
ISO Holder SDJC...U

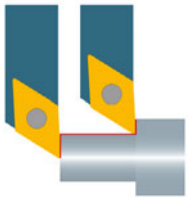
Type: 93°
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	b	h	l	f	Inserts
7005-148796	SDJCL 0808 F07 U	7005-148794	SDJCR 0808 F07 U	8	8	80	8	DC...0702
7005-043320	SDJCL 0808 H07 U	7005-043321	SDJCR 0808 H07 U	8	8	100	8	DC...0702
7005-148797	SDJCL 1010 F07 U	7005-148795	SDJCR 1010 F07 U	10	10	80	10	DC...0702
7005-043322	SDJCL 1010 H07 U	7005-043323	SDJCR 1010 H07 U	10	10	100	10	DC...0702
7005-144736	SDJCL 1010 H11 U	7005-114544	SDJCR 1010 H11 U	10	10	100	10	DC...11T3
7005-043324	SDJCL 1212 H07 U	7005-043325	SDJCR 1212 H07 U	12	12	100	12	DC...0702
7005-044121	SDJCL 1212 H11 U	7005-044110	SDJCR 1212 H11 U	12	12	100	12	DC...11T3
7005-043328	SDJCL 1616 K07 U	7005-043329	SDJCR 1616 K07 U	16	16	125	16	DC...0702
7005-044148	SDJCL 1616 K11 U	7005-044149	SDJCR 1616 K11 U	16	16	125	16	DC...11T3
7005-045198	SDJCL 2020 K11 U	7005-045199	SDJCR 2020 K11 U	20	20	125	20	DC...11T3
7005-148800	SDJCL 3/8" F07 U	7005-148798	SDJCR 3/8" F07 U	9.525	9.525	80	9.525	DC...0702
7005-146379	SDJCL 3/8" H07 U	7005-138658	SDJCR 3/8" H07 U	9.525	9.525	100	9.525	DC...0702
7005-148801	SDJCL 3/8" F11 U	7005-148799	SDJCR 3/8" F11 U	9.525	9.525	80	9.525	DC...11T3
7005-146380	SDJCL 3/8" H11 U	7005-138417	SDJCR 3/8" H11 U	9.525	9.525	100	9.525	DC...11T3
7005-114045	SDJCL 1/2" H07 U	7005-127411	SDJCR 1/2" H07 U	12.7	12.7	100	12.7	DC...0702
7005-153256	SDJCL 1/2" H11 U	7005-138419	SDJCR 1/2" H11 U	12.7	12.7	100	12.7	DC...11T3
7005-113714	SDJCL 5/8" K11 U	7005-113715	SDJCR 5/8" K11 U	15.875	15.875	125	15.875	DC...11T3
7005-113716	SDJCL 3/4" K11 U	7005-113717	SDJCR 3/4" K11 U	19.05	19.05	125	19.05	DC...11T3







ISO Coolant-Thru Holder SDJC...U IC

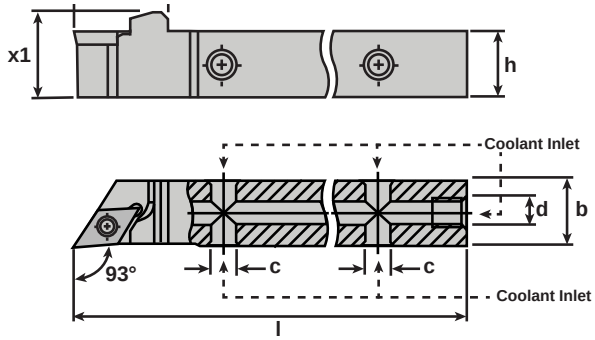
Type: 93°

Coolant-Thru: Side and Rear Ports

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features							Coolant Fittings	
Item No.	Description	Item No.	Description	b	h	l	z_1	x_1	d	Inserts	Side	Rear
7005-146362	SDJCL 0808 H07 U IC	7005-192014	SDJCR 0808 H07 U IC	8	8	100	17	11.5	M5	DC...0702	4005-000111	4005-000111
7005-146363	SDJCL 1010 H07 U IC	7005-146355	SDJCR 1010 H07 U IC	10	10	100	17	13.5	M5	DC...0702	4005-000111	4005-000111
7005-146364	SDJCL 1010 H11 U IC	7005-146356	SDJCR 1010 H11 U IC	10	10	100	22	13.5	M5	DC...11T3	4005-000111	4005-000111
7005-146365	SDJCL 1212 H07 U IC	7005-146357	SDJCR 1212 H07 U IC	12	12	100	17	15.5	M5	DC...0702	4005-000111	4005-000111
7005-146366	SDJCL 1212 H11 U IC	7005-146358	SDJCR 1212 H11 U IC	12	12	100	22	15.5	M5	DC...11T3	4005-000111	4005-000111
7005-146367	SDJCL 1616 K07 U IC	7005-146359A	SDJCR 1616 K07 U IC	16	16	125	17	15.5	G1/8"	DC...0702	4005-000111	4005-000104
7005-146368A	SDJCL 1616 K11 U IC	7005-146360	SDJCR 1616 K11 U IC	16	16	125	22	19.5	G1/8"	DC...11T3	4005-000111	4005-000104
7005-146369	SDJCL 2020 K11 U IC	7005-146361	SDJCR 2020 K11 U IC	20	20	125	22	23.5	G1/8"	DC...11T3	4005-000111	4005-000104
7005-146379	SDJCL 3/8" H07 U IC	7005-146370	SDJCR 3/8" H07 U IC	9.525	9.525	100	17	13	M5	DC...0702	4005-000111	4005-000111
7005-146380	SDJCL 3/8" H11 U IC	7005-146371A	SDJCR 3/8" H11 U IC	9.525	9.525	100	22	13	M5	DC...11T3	4005-000111	4005-000111
7005-146381A	SDJCL 1/2" H07 U IC	7005-146372A	SDJCR 1/2" H07 U IC	12.7	12.7	100	17	16.2	M5	DC...0702	4005-000111	4005-000111
7005-146382A	SDJCL 1/2" H11 U IC	7005-146373A	SDJCR 1/2" H11 U IC	12.7	12.7	100	22	16.2	M5	DC...11T3	4005-000111	4005-000111
7005-146383	SDJCL 5/8" K07 U IC	7005-146374A	SDJCR 5/8" K07 U IC	15.875	15.875	125	17	19.5	G1/8"	DC...0702	4005-000111	4005-000104
7005-146384A	SDJCL 5/8" K11 U IC	7005-146377A	SDJCR 5/8" K11 U IC	15.875	15.875	125	22	19.5	G1/8"	DC...11T3	4005-000111	4005-000104
7005-146385	SDJCL 3/4" K11 U IC	7005-146378	SDJCR 3/4" K11 U IC	19.05	19.05	125	22	22.6	G1/8"	DC...11T3	4005-000111	4005-000104

Features (5) connection ports for simple connection to your oil delivery system. (4) Side ports and (1) one end port making connection possible on most machine tool positions.



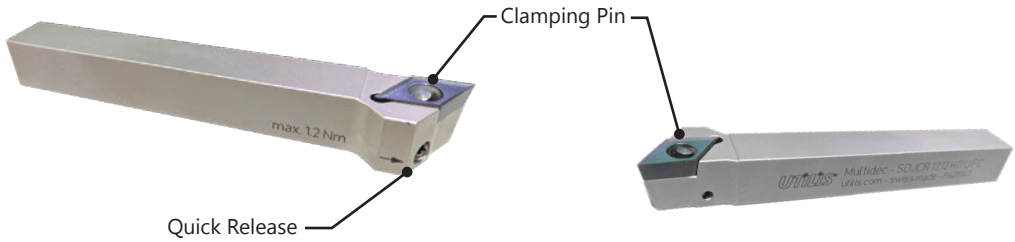


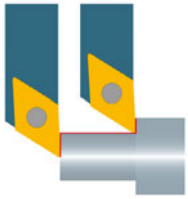
4005-000111

Connects to side ports on ALL shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks

4005-000104

Connects to end port on 5/8" and larger shanks
0° Male Union - 1/8 BSPP to 1/4 JIC Flare Fitting
Fits Position (d) On Tool Holders Sold Separately



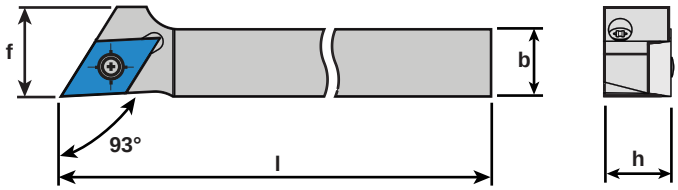


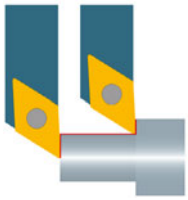
ISO Holder SDJC...Fast Change

Type: 93°
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	b	h	l	f	Inserts
7005-144739	SDJCL 1012 H11 U FC	7005-169618	SDJCR 1012 H11 U FC	12	10	100	16	DC...11T3
7005-153252	SDJCL 1212 H11 U FC	7005-153250	SDJCR 1212 H11 U FC	12	12	100	16	DC...11T3
7005-153253	SDJCL 1616 K11 U FC	7005-153251	SDJCR 1616 K11 U FC	16	16	125	16	DC...11T3
Call For Details	SDJCL 1/2" H11 U FC	Call For Details	SDJCR 1/2" H11 U FC	1/2"	1/2"	100	16	DC...11T3
Call For Details	SDJCL 5/8" K11 U FC	Call For Details	SDJCR 5/8" K11 U FC	5/8"	5/8"	125	15.875	DC...11T3





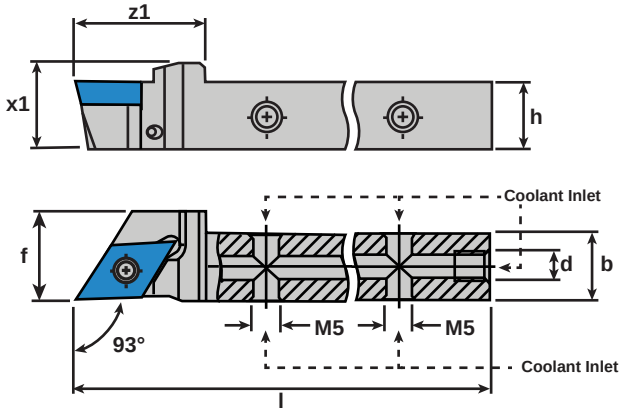
ISO Coolant-Thru Holder SDJC... Fast Change

Type: 93°
Coolant-Thru: Side and Rear Ports

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features								Coolant Fittings	
Item No.	Description	Item No.	Description	b	h	l	z_1	x_1	d	f	Inserts	Side	Rear
7005-144740	SDJCL 1012 H11 U FC IC	7005-144745	SDJCR 1012 H11 U FC IC	12	10	100	23	13.5	M5	16	DC...11T3	4005-000111	4005-000111
7005-144741	SDJCL 1212 H11 U FC IC	7005-144746	SDJCR 1212 H11 U FC IC	12	12	100	23	15.5	M5	16	DC...11T3	4005-000111	4005-000111
7005-144742	SDJCL 1616 K11 U FC IC	7005-144747	SDJCR 1616 K11 U FC IC	16	16	125	23	19.5	G1/8"	16	DC...11T3	4005-000111	4005-000104
Call For Details	SDJCL 1/2" H11 U FC IC	Call For Details	SDJCR 1/2" H11 U FC IC	1/2"	1/2"	100	23	16.2	M5	16	DC...11T3	4005-000111	4005-000111
Call For Details	SDJCL 5/8" K11 U FC IC	Call For Details	SDJCR 5/8" K11 U FC IC	5/8"	5/8"	125	23	19.4	G1/8"	15.875	DC...11T3	4005-000111	4005-000104

Features (5) connection ports for simple connection to your oil delivery system. (4) Side ports and (1) one end port making connection possible on most machine tool positions.

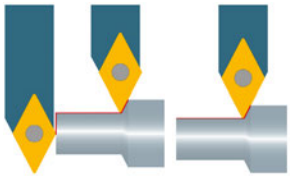




4005-000111
Connects to side ports on ALL shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks



4005-000104
Connects to end port on 5/8" and larger shanks
0° Male Union - 1/8 BSPP to 1/4 JIC Flare Fitting
Fits Position (d) On Tool Holders Sold Separately

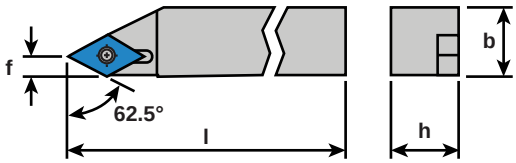


ISO Holder SDNC

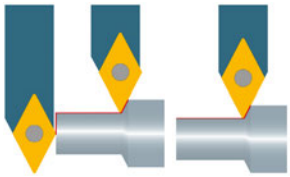
Type: 62.5°
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	b	h	l	f	Inserts
7005-148804	SDNCL 0808 F07 U	7005-148802	SDNCR 0808 F07 U	8	8	80	3.38	DC...0702
7005-113718	SDNCL 0808 H07 U	7005-113719	SDNCR 0808 H07 U	8	8	100	3.38	DC...0702
7005-148805	SDNCL 1010 F07 U	7005-148803	SDNCR 1010 F07 U	10	10	80	3.38	DC...0702
Call For Details	SDNCL 1010 H07 U	7005-045186	SDNCR 1010 H07 U	10	10	100	3.38	DC...0702
Call For Details	SDNCL 1212 H07 U	7005-045187	SDNCR 1212 H07 U	12	12	100	3.38	DC...0702
7005-113720	SDNCL 1212 H11 U	7005-113721	SDNCR 1212 H11 U	12	12	100	5.17	DC...11T3
7005-045203	SDNCL 1616 K11 U	7005-045204	SDNCR 1616 K11 U	16	16	125	5.17	DC...11T3
7005-045205	SDNCL 2020 K11 U	7005-045206	SDNCR 2020 K11 U	20	20	125	5.17	DC...11T3
Call For Details	SDNCL 3/8" H07 U	Call For Details	SDNCR 3/8" H07 U	9.525	9.525	100	3.38	DC...0702
Call For Details	SDNCL 1/2" H07 U	Call For Details	SDNCR 1/2" H07 U	12.7	12.7	100	3.38	DC...0702
Call For Details	SDNCL 1/2" H11 U	Call For Details	SDNCR 1/2" H11 U	12.7	12.7	100	5.17	DC...11T3
Call For Details	SDNCL 5/8" K11 U	Call For Details	SDNCR 5/8" K11 U	15.875	15.875	125	5.17	DC...11T3







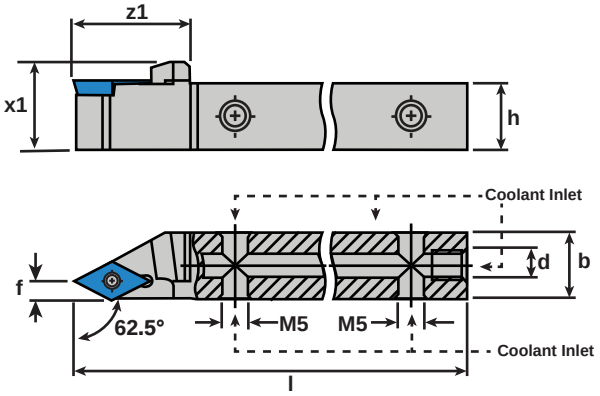
ISO Coolant-Thru Holder SDNC

Type: 62.5°
Coolant-Thru: Side and Rear Ports

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features								Coolant Fittings	
Item No.	Description	Item No.	Description	b	h	l	z_1	x_1	d	f	Inserts	Side	Rear
Call For Details	SDNCL 1010 H07 U IC	Call For Details	SDNCR 1010 H07 U IC	10	10	100	21	13.5	M5	3.38	DC...0702	4005-000111	4005-000111
Call For Details	SDNCL 1212 H07 U IC	Call For Details	SDNCR 1212 H07 U IC	12	12	100	21	13.5	M5	3.38	DC...0702	4005-000111	4005-000111
Call For Details	SDNCL 1212 H11 U IC	Call For Details	SDNCR 1212 H11 U IC	12	12	100	25	15.5	M5	5.17	DC...11T3	4005-000111	4005-000111
Call For Details	SDNCL 1616 K11 U IC	Call For Details	SDNCR 1616 K11 U IC	16	16	125	25	19.5	G1/8"	5.17	DC...11T3	4005-000111	4005-000104
Call For Details	SDNCL 3/8" H07 U IC	Call For Details	SDNCR 3/8" H07 U IC	9.525	9.525	100	21	13	M5	3.38	DC...0702	4005-000111	4005-000111
Call For Details	SDNCL 1/2" H07 U IC	Call For Details	SDNCR 1/2" H07 U IC	12.7	12.7	100	21	16.2	M5	3.38	DC...0702	4005-000111	4005-000111
Call For Details	SDNCL 1/2" H11 U IC	Call For Details	SDNCR 1/2" H11 U IC	12.7	12.7	100	25	16.2	M5	5.17	DC...11T3	4005-000111	4005-000111
Call For Details	SDNCL 5/8" K11 U IC	Call For Details	SDNCR 5/8" K11 U IC	15.875	15.875	125	25	19.5	G1/8"	5.17	DC...11T3	4005-000111	4005-000104

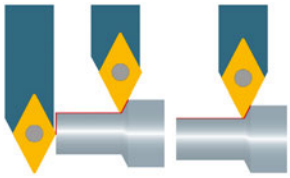
Features (5) connection ports for simple connection to your oil delivery system. (4) Side ports and (1) one end port making connection possible on most machine tool positions.





4005-000111
Connects to side ports on ALL shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks

4005-000104
Connects to end port on 5/8" and larger shanks
0° Male Union - 1/8 BSPP to 1/4 JIC Flare Fitting
Fits Position (d) On Tool Holders Sold Separately

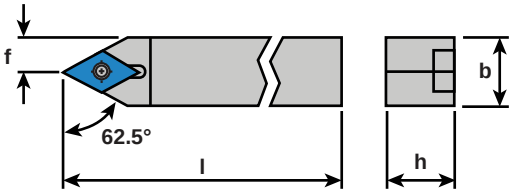


ISO Holder SDNCN

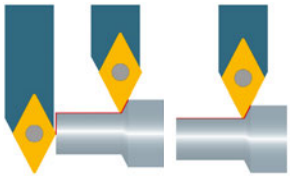
Type: 62.5°
Coolant-Thru: None

Repeatability <20µm

Neutral Hand		Dimensions & Features				
Item No.	Description	b	h	l	f	Inserts
7005-148806	SDNCN 0808 F07 U	8	8	80	3.38	DC...0702
7005-045136	SDNCN 0808 K07 U	8	8	125	3.38	DC...0702
7005-045137	SDNCN 1010 E07 U	10	10	70	3.38	DC...0702
7005-045138	SDNCN 1010 M07 U	10	10	150	3.38	DC...0702
7005-045139	SDNCN 1212 F07 U	12	12	80	3.38	DC...0702
7005-045140	SDNCN 1212 M07 U	12	12	150	3.38	DC...0702
7005-045141	SDNCN 1212 M11 U	12	12	150	5.17	DC...11T3
7005-045143	SDNCN 1616 H11 U	16	16	100	5.17	DC...11T3
7005-045144	SDNCN 2020 K11 U	20	20	125	5.17	DC...11T3
Call For Details	SDNCN 3/8" H07 U	9.525	9.525	100	3.38	DC...0702
Call For Details	SDNCN 1/2" H07 U	12.7	12.7	100	3.38	DC...0702
Call For Details	SDNCN 1/2" H11 U	12.7	12.7	100	5.17	DC...11T3
7005-144771	SDNCN 5/8" K11 U	15.875	15.875	125	5.17	DC...11T3







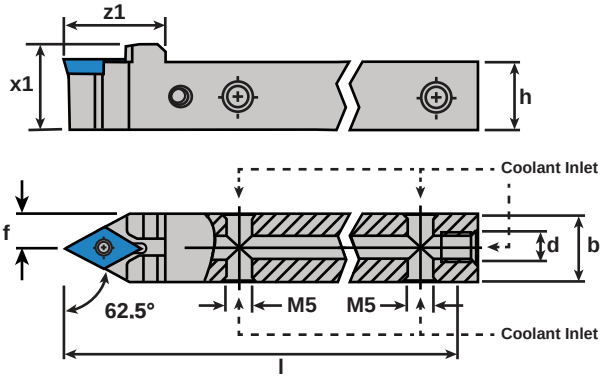
ISO Coolant-Thru Holder SDNCN

Type: 62.5°
Coolant-Thru: Side and Rear Ports

Repeatability <10µm

Neutral		Dimensions & Features								Coolant Fittings	
Item No.	Description	b	h	l	z_1	x_1	d	f	Inserts	Side	Rear
7005-144761	SDNCN 0808 H07 U IC	8	8	80	18	11.5	M5	3.38	DC...0702	4005-000111	4005-000111
7005-144766	SDNCN 1010 H07 U IC	10	10	70	18	13.5	M5	3.38	DC...0702	4005-000111	4005-000111
7005-144767	SDNCN 1212 H07 U IC	12	12	80	18	15.5	M5	3.38	DC...0702	4005-000111	4005-000111
7005-144768	SDNCN 1616 K11 U IC	16	16	100	22	19.5	G1/8"	5.17	DC...11T3	4005-000111	4005-000104
Call For Details	SDNCN 3/8" H07 U IC	9.525	9.525	100	18	13	M5	3.38	DC...0702	4005-000111	4005-000111
Call For Details	SDNCN 1/2" H07 U IC	12.7	12.7	100	18	16.2	M5	3.38	DC...0702	4005-000111	4005-000111
7005-144765A	SDNCN 1/2" H11 U IC	12.7	12.7	100	18	16.2	M5	5.17	DC...11T3	4005-000111	4005-000111
Call For Details	SDNCN 5/8" K11 U IC	15.875	15.875	125	22	19.4	G1/8"	5.17	DC...11T3	4005-000111	4005-000104

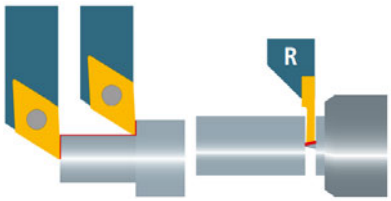
Features (5) connection ports for simple connection to your oil delivery system. (4) Side ports and (1) one end port making connection possible on most machine tool positions.





4005-000111
Connects to side ports on ALL shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks

4005-000104
Connects to end port on 5/8" and larger shanks
0° Male Union - 1/8 BSPP to 1/4 JIC Flare Fitting
Fits Position (d) On Tool Holders
Sold Separately

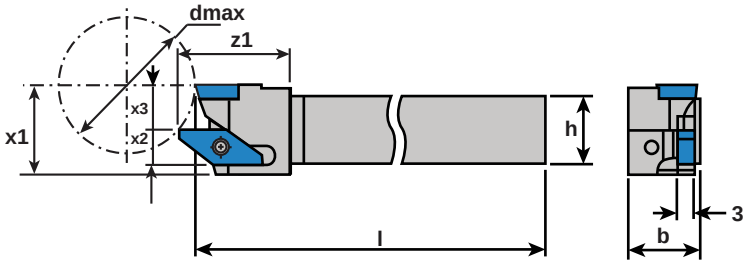


ISO TWIN Holder SDJC

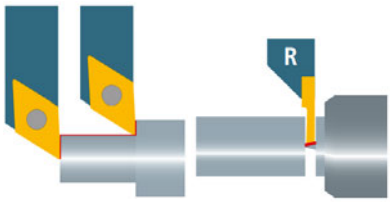
Type: 93°, DC Inserts / 1600 Inserts
Coolant-Thru: None

Repeatability <20µm

Right Hand		Dimensions & Features								
Item No.	Description	b	h	l	z_1	x_1	x_2	x_3	d_{max}	Inserts
7005-153657	SDJCR/1600R-0810 H07 Twin	8	8	80	20	16	4	8	23	DC...0702
7005-153658	SDJCR/1600R-1010 H07 Twin	8	8	100	20	16	5	8	23	DC...0702
7005-153659	SDJCR/1600R-1212 H07 Twin	10	10	80	20	16	6	8	23	DC...0702
7005-153660	SDJCR/1600R-1616 K11 Twin	10	10	100	20	20	8	10	35	DC...11T3
7005-153661	SDJCR/1600R-2020 K11 Twin	12	12	100	20	24	8	14	68	DC...11T3
Call For Details	SDJCR/1600R-3/8" H07 Twin	9.525	9.525	100	20	16	4.76	8	23	DC...0702
Call For Details	SDJCR/1600R-1/2" H07 Twin	12.7	12.7	100	20	16	6.35	8	23	DC...0702
Call For Details	SDJCR/1600R-5/8" K11 Twin	15.875	15.875	125	20	20	7.94	10	35	DC...11T3
Call For Details	SDJCR/1600R-3/4" K11 Twin	19.05	19.05	125	20	24	7.53	14	68	DC...11T3







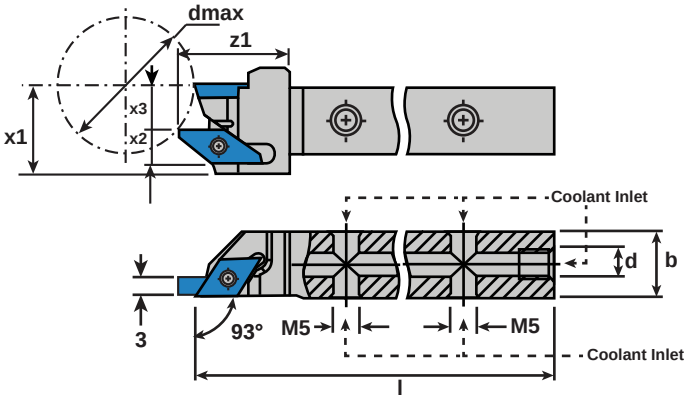
ISO TWIN Coolant-Thru Holder SDJC

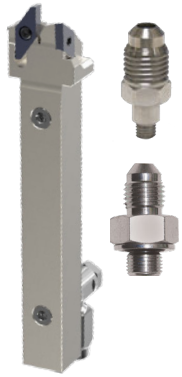
Type: 93°, DC Inserts / 1600 Inserts
Coolant-Thru: Rear & Side Ports

Repeatability <10µm

Right Hand		Dimensions & Features										Coolant Fittings	
Item No.	Description	b	h	l	z_1	x_1	x_2	x_3	d	d_{max}	Inserts	Side	Rear
7005-169493	SDJCR/1600R-0810 H07 Twin IC	8	8	100	20	19	2.5	8	M5	23	DC...0702	4005-000111	4005-000111
7005-153662	SDJCR/1600R-1010 H07 Twin IC	8	8	100	20	19	3.5	8	M5	23	DC...0702	4005-000111	4005-000111
7005-153663	SDJCR/1600R-1212 H07 Twin IC	10	10	100	20	19	4.5	8	M5	23	DC...0702	4005-000111	4005-000111
7005-153664	SDJCR/1600R-1616 K11 Twin IC	10	10	125	26	23	6.5	10	G1/8"	35	DC...11T3	4005-000111	4005-000104
7005-153665	SDJCR/1600R-2020 K11 Twin IC	12	12	125	26	27	6.5	14	G1/8"	68	DC...11T3	4005-000111	4005-000104
Call For Details	SDJCR/1600R-3/8" H07 Twin IC	9.525	9.525	100	20	19	3.26	8	M5	23	DC...0702	4005-000111	4005-000111
Call For Details	SDJCR/1600R-1/2" H07 Twin IC	12.7	12.7	100	20	19	4.85	8	M5	23	DC...0702	4005-000111	4005-000111
Call For Details	SDJCR/1600R-5/8" K11 Twin IC	15.875	15.875	125	26	23	6.44	10	G1/8"	35	DC...11T3	4005-000111	4005-000104
Call For Details	SDJCR/1600R-3/4" K11 Twin IC	19.05	19.05	125	26	27	5.53	14	G1/8"	68	DC...11T3	4005-000111	4005-000104

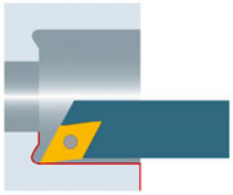
Features (5) connection ports for simple connection to your oil delivery system: (4) Side ports and (1) one end port making connection possible on most machine tool positions.





4005-000111
Connects to side ports on ALL shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks

4005-000104
Connects to end port on 5/8" and larger shanks
0° Male Union - 1/8 BSPP to 1/4 JIC Flare Fitting
Fits Position (d) On Tool Holders
Sold Separately

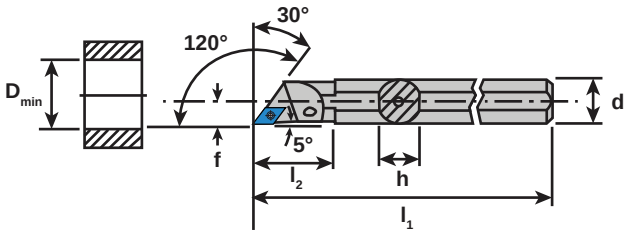


ISO Round Shank Holder SDOC

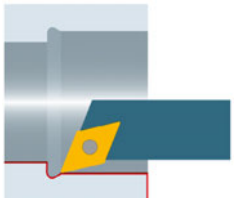
Type: 120°
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	d	h	l	l_2	f	d_{max}	Inserts
7005-114039	A12K SDOCL 07	7005-044339	A12K SDOCR 07	12	11.5	125	21	7	14	DC...0702





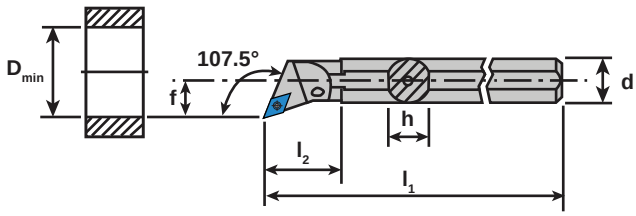


ISO Round Shank Holder SDQC

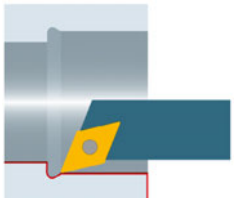
Type: 107.5°
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	d	h	l	l_2	f	d_{max}	Inserts
7005-045240	A12K SDQCL 07	7005-045241	A12K SDQCR 07	12	11.5	125	22	9	16	DC...0702
7005-045242	A16M SDQCL 07	7005-045243	A16M SDQCR 07	16	15	150	29	11	20	DC...0702
7005-045244	A20Q SDQCL 07	7005-045245	A20Q SDQCR 07	20	18.5	180	32	13	25	DC...0702





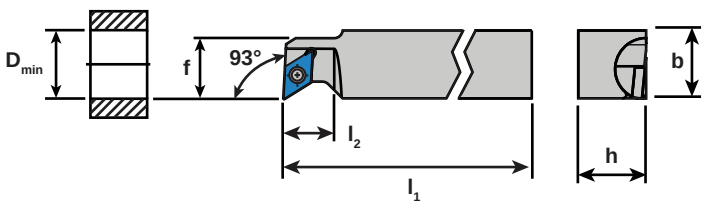


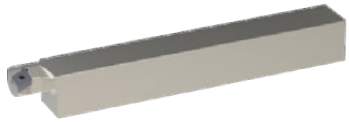
ISO Holder SDUC

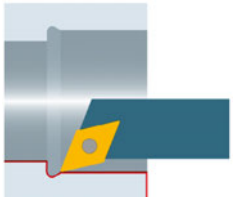
Type: 93°
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	b	h	l	l_2	f	d_{max}	Inserts
Call For Details	SDUCL 0808 XH07	Call For Details	SDUCR 0808 XH07	8	8	100	12	14	16	DC...0702
7005-147856	SDUCL 1010 XH07	7005-147857	SDUCR 1010 XH07	10	10	100	12	14	16	DC...0702
7005-043318	SDUCL 1212 XH07	7005-043319	SDUCR 1212 XH07	12	12	100	12	14	16	DC...0702
7005-044107	SDUCL 1616 XK07	7005-044106	SDUCR 1616 XK07	16	16	125	12	14	16	DC...0702







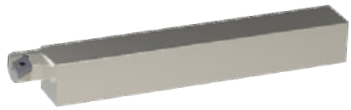
ISO Coolant-Thru Holder SDUC

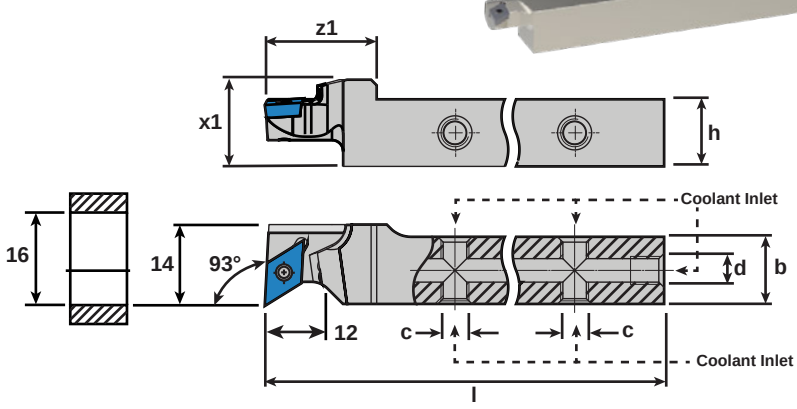
Type: 93°
Coolant-Thru: Rear & Side Ports

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features							Coolant Fittings	
Item No.	Description	Item No.	Description	b	h	l	z_1	x_1	d	Inserts	Side	Rear
Call For Details	SDUCL 0808 XH07 IC	Call For Details	SDUCR 0808 XH07 IC	10	8	100	20	11.5	M5	DC...0702	4005-000111	4005-000111
7005-144802	SDUCL 1010 XH07 IC	7005-144807	SDUCR 1010 XH07 IC	10	10	100	20	13.5	M5	DC...0702	4005-000111	4005-000111
7005-144803	SDUCL 1212 XH07 IC	7005-144808	SDUCR 1212 XH07 IC	12	12	100	20	15.5	M5	DC...0702	4005-000111	4005-000111
7005-144804	SDUCL 1616 XH07 IC	7005-169514	SDUCR 1616 XH07 IC	16	16	100	20	19.5	G1/8"	DC...0702	4005-000111	4005-000104
7005-144805	SDUCL 1616 XK07 IC	7005-144809	SDUCR 1616 XK07 IC	16	16	125	20	19.5	G1/8"	DC...0702	4005-000111	4005-000104

Features (5) connection ports for simple connection to your oil delivery system. (4) Side ports and (1) one end port making connection possible on most machine tool positions.



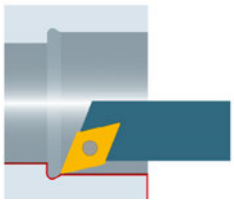




4005-000111
Connects to side ports on ALL shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks



4005-000104
Connects to end port on 5/8" and larger shanks
0° Male Union - 1/8 BSPP to 1/4 JIC Flare Fitting
Fits Position (d) On Tool Holders
Sold Separately

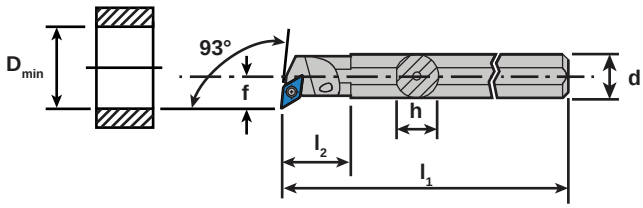


ISO Round Shank Holder SDUC

Type: 93°
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	d	h	l	l_2	f	d_{max}	Inserts
7005-045293	A10H SDUCL 07	7005-045292	A10H SDUCR 07	10	9	100	-	7	14	DC...0702
7005-045248	A12K SDUCL 07	7005-045249	A12K SDUCR 07	12	11.5	125	22	9	16	DC...0702
7005-045250	A16M SDUCL 07	7005-045251	A16M SDUCR 07	16	15	150	29	11	20	DC...0702
7005-045252	A20Q SDUCL 07	7005-045253	A20Q SDUCR 07	20	18.5	180	32	13	25	DC...0702
7005-045254	A20Q SDUCL 11	7005-045255	A20Q SDUCR 11	20	18.5	180	32	13	25	DC...11T3

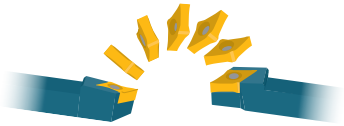




DNGU carbide inserts are ideal for applications where chip control becomes an issue. The high positive geometry insert with negative tool holder creates an ideal situation for rolling chips in a controlled manner.

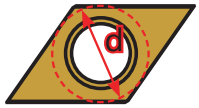


- Features 4 cutting edges per insert
- Ideal for stainless steels and materials that produce stringy chips
- Sharp tool nose radius intended to benefit Swiss-style applications



Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	**Steel**
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	



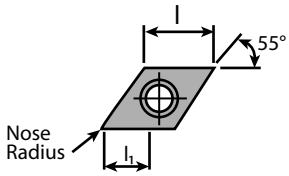
DC...07 inserts: d =.250"
DC...11 inserts: d =.375"

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits



DNGU Carbide A4

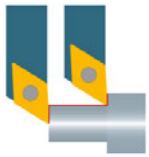
Cut: Neutral
Chip Breaker: A4, Polished Rake, Sharp Cutting Edge



Repeatability <20µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-191910	DNGU 1104008 FN A4 UHM20 HPX	Sharp	11.6	2.9	.08mm/.0031in	SDJN...11	UHM 20 HPX
7005-192487	DNGU 1104008 FN A4 UHM20 TX+	Sharp	11.6	2.9	.08mm/.0031in	SDJN...11	UHM 20 TX+
7005-191049	DNGU 1104015 FN A4 UHM20 HPX	Sharp	11.6	2.9	.15mm/.0059in	SDJN...11	UHM 20 HPX
7005-185274	DNGU 1104015 FN A4 UHM20 TX+	Sharp	11.6	2.9	.15mm/.0059in	SDJN...11	UHM 20 TX+
Call For Details	DNGU 1104035 FN -A4 UHM20 HPX	Sharp	11.6	2.9	.35mm/.0138in	SDJN...11	UHM 20 HPX
Call For Details	DNGU 1104035 FN -A4 UHM20 TX+	Sharp	11.6	2.9	.35mm/.0138in	SDJN...11	UHM 20 TX+

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	-	-	-	-	-	-	-	-	-
Micro Finishing	■	■	■	□	■	■	-	-	-





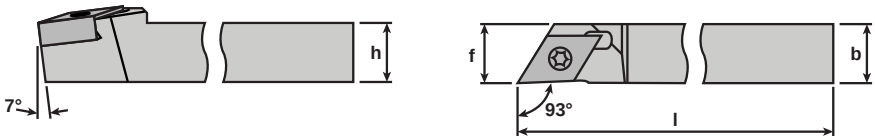
ISO Holder SDJN

Type: 93°, DNGU A4 Inserts
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	b	h	l	f	Inserts
7005-148808	SDJNL 1012 F11	7005-148807	SDJNR 1012 F11	12	10	80	12	DN...11
7005-127479	SDJNL 1012 H11	7005-127476	SDJNR 1012 H11	12	10	100	12	DN...11
7005-127418	SDJNL 1212 H11	7005-126959	SDJNR 1212 H11	12	12	100	12	DN...11
7005-127419	SDJNL 1616 K11	7005-126960	SDJNR 1616 K11	16	16	125	16	DN...11
7005-127480	SDJNL 2020 K11	7005-127477	SDJNR 2020 K11	20	20	125	20	DN...11
7005-138578	SDJNL 2525 M11	7005-138580	SDJNR 2525 M11	25	25	150	25	DN...11
7005-148810	SDJNL 3/8" F11	7005-148809	SDJNR 3/8" F11	9.525	9.525	80	9.525	DN...11
7005-113722	SDJNL 3/8" H11	7005-113723	SDJNR 3/8" H11	9.525	9.525	100	9.525	DN...11
7005-113724	SDJNL 1/2" H11	7005-113725	SDJNR 1/2" H11	12.7	12.7	100	12.7	DN...11
7005-113726	SDJNL 5/8" K11	7005-113727	SDJNR 5/8" K11	15.875	15.875	125	15.875	DN...11
7005-113728	SDJNL 3/4" K11	7005-113729	SDJNR 3/4" K11	19.05	19.05	125	19.05	DN...11







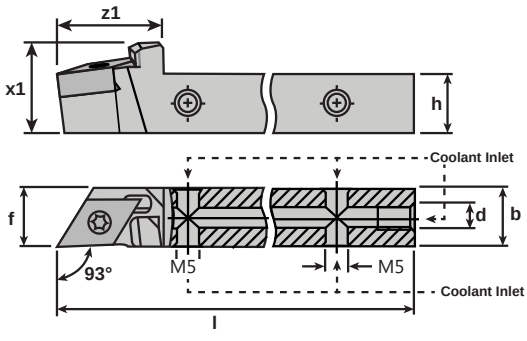
ISO Coolant-Thru Holder SDJN

Type: 93°, DNGU A4 Inserts
Coolant-Thru: Rear & Side Ports

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features								Coolant Fittings	
Item No.	Description	Item No.	Description	b	h	l	z_1	x_1	d	f	Inserts	Side	Rear
Call For Details	SDJNL 1012 F11 IC	Call For Details	SDJNR 1012 F11 IC	12	10	80	22	16.5	M5	8	DN...11	4005-000111	4005-000111
7005-146389	SDJNL 1012 H11 IC	7005-146386	SDJNR 1012 H11 IC	12	10	100	22	16.5	M5	12	DN...11	4005-000111	4005-000111
7005-146390	SDJNL 1212 H11 IC	7005-146038	SDJNR 1212 H11 IC	12	12	100	22	18.5	M5	12	DN...11	4005-000111	4005-000111
7005-146391	SDJNL 1616 K11 IC	7005-146064A	SDJNR 1616 K11 IC	16	16	125	22	22.5	G1/8"	16	DN...11	4005-000111	4005-000104
7005-146392	SDJNL 2020 K11 IC	7005-146387	SDJNR 2020 K11 IC	20	20	125	22	26.5	G1/8"	20	DN...11	4005-000111	4005-000104
Call For Details	SDJNL 2525 M11 IC	Call For Details	SDJNR 2525 M11 IC	25	25	125	22	31.5	G1/8"	25	DN...11	4005-000111	4005-000104
Call For Details	SDJNL 3/8" H11 IC	Call For Details	SDJNR 3/8" H11 IC	12	9.525	100	22	16	M5	12	DN...11	4005-000111	4005-000111
Call For Details	SDJNL 1/2" H11 IC	Call For Details	SDJNR 1/2" H11 IC	12.7	12.7	100	22	19.2	M5	12.7	DN...11	4005-000111	4005-000111
Call For Details	SDJNL 5/8" K11 IC	Call For Details	SDJNR 5/8" K11 IC	15.875	15.875	125	22	22.4	G1/8"	15.875	DN...11	4005-000111	4005-000104
Call For Details	SDJNL 3/4" K11 IC	Call For Details	SDJNR 3/4" K11 IC	19.05	19.05	125	22	25.5	G1/8"	19.05	DN...11	4005-000111	4005-000104

Features (5) connection ports for simple connection to your oil delivery system. (4) Side ports and (1) one end port making connection possible on most machine tool positions.



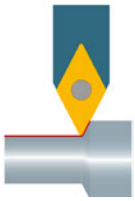




4005-000111
Connects to side ports on ALL shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks



4005-000104
Connects to end port on 5/8" and larger shanks
0° Male Union - 1/8 BSPP to 1/4 JIC Flare Fitting
Fits Position (d) On Tool Holders Sold Separately

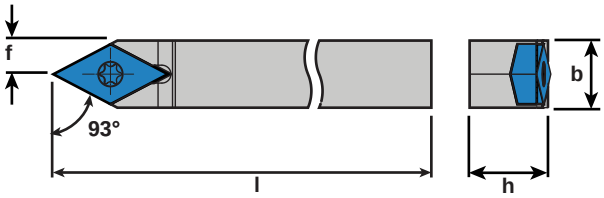


ISO Holder SDNNN

Type: 62.5°, DNGU A4 Inserts
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	b	h	l	f	Inserts
7005-144787	SDNNN 1012 H11	Call For Details	SDNNN 1012 H11	12	10	100	12	DN...11
7005-144789	SDNNN 1212 H11	Call For Details	SDNNN 1212 H11	12	12	100	12	DN...11
7005-144790	SDNNN 1616 K11	Call For Details	SDNNN 1616 K11	16	16	125	16	DN...11
7005-144791	SDNNN 2020 K11	Call For Details	SDNNN 2020 K11	20	20	125	20	DN...11
7005-144793	SDNNN 2525 K11	Call For Details	SDNNN 2525 K11	25	25	150	25	DN...11
Call For Details	SDNNN 3/8" H11	Call For Details	SDNNN 3/8" H11	9.525	9.525	100	9.525	DN...11
Call For Details	SDNNN 1/2" H11	Call For Details	SDNNN 1/2" H11	12.7	12.7	100	12.7	DN...11
Call For Details	SDNNN 5/8" K11	Call For Details	SDNNN 5/8" K11	15.875	15.875	125	15.875	DN...11
Call For Details	SDNNN 3/4" K11	Call For Details	SDNNN 3/4" K11	19.05	19.05	125	19.05	DN...11







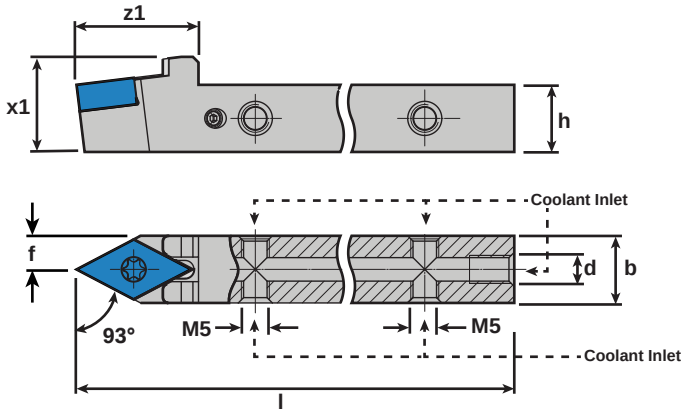
ISO Coolant-Thru Holder SDNNN

Type: 62.5°, DNGU A4 Inserts
Coolant-Thru: Rear & Side Ports

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features								Coolant Fittings	
Item No.	Description	Item No.	Description	b	h	l	z_1	x_1	d	f	Inserts	Side	Rear
Call For Details	SDNNN 1012 H11 IC	Call For Details	SDNNN 1012 H11 IC	12	10	100	22	15	M5	6	DN...11	4005-000111	4005-000111
Call For Details	SDNNN 1212 H11 IC	Call For Details	SDNNN 1212 H11 IC	12	12	100	22	17	M5	6	DN...11	4005-000111	4005-000111
Call For Details	SDNNN 1616 K11 IC	Call For Details	SDNNN 1616 K11 IC	16	16	125	22	21	G1/8"	8	DN...11	4005-000111	4005-000104
Call For Details	SDNNN 2020 K11 IC	Call For Details	SDNNN 2020 K11 IC	20	20	125	22	25	G1/8"	10	DN...11	4005-000111	4005-000104
Call For Details	SDNNN 2525 K11 IC	Call For Details	SDNNN 2525 K11 IC	25	25	125	25	30.5	G1/8"	12.5	DN...11	4005-000111	4005-000104
Call For Details	SDNNN 3/8" H11 IC	Call For Details	SDNNN 3/8" H11 IC	9.525	9.525	100	22	14.525	M5	4.76	DN...11	4005-000111	4005-000111
Call For Details	SDNNN 1/2" H11 IC	Call For Details	SDNNN 1/2" H11 IC	12.7	12.7	100	22	17.7	M5	6.35	DN...11	4005-000111	4005-000111
Call For Details	SDNNN 5/8" K11 IC	Call For Details	SDNNN 5/8" K11 IC	15.875	15.875	125	22	20.875	G1/8"	7.94	DN...11	4005-000111	4005-000104
Call For Details	SDNNN 3/4" K11 IC	Call For Details	SDNNN 3/4" K11 IC	19.05	19.05	125	22	24.05	G1/8"	9.525	DN...11	4005-000111	4005-000104

Features (5) connection ports for simple connection to your oil delivery system. (4) Side ports and (1) one end port making connection possible on most machine tool positions.







4005-000111
Connects to side ports on ALL shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks



4005-000104
Connects to end port on 5/8" and larger shanks
0° Male Union - 1/8 BSPP to 1/4 JIC Flare Fitting
Fits Position (d) On Tool Holders Sold Separately

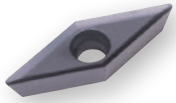
Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	**Steel**
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits



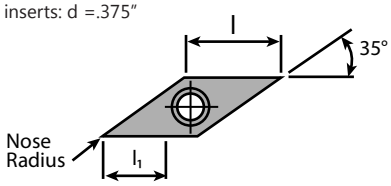
VC...07 inserts: d =.250"
VC...10 inserts: d =.250"
VC...11 inserts: d =.250"
VC...16 inserts: d =.375"



VCGT Carbide FN A3

Cut: Neutral

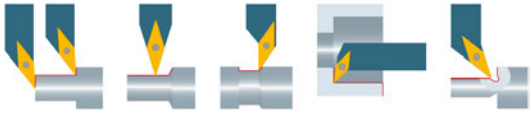
Chip Breaker: A3, Polished Rake, Sharp Cutting Edge

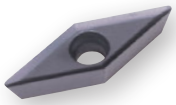


Repeatability <20µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-153760	VCGT 0702006 FN A3 UHM10 HX	Sharp	6.8	3	.06mm/.0024in	SD...07	UHM 10 HX
Call For Details	VCGT 0702006 FN A3 UHM20 HPX	Sharp	6.8	3	.06mm/.0024in	SD...07	UHM 20 HPX
7005-152810	VCGT 070201 FN A3 UHM10 HX	Sharp	6.8	3	.1mm/.0039in	SD...07	UHM 10 HX
Call For Details	VCGT 070201 FN A3 UHM10 TX+	Sharp	6.8	3	.1mm/.0039in	SD...07	UHM 10 TX+
Call For Details	VCGT 0702015 FN A3 UHM10 HX	Sharp	6.8	3	.15mm/.0059in	SD...07	UHM 10 HX
Call For Details	VCGT 0702015 FN A3 UHM10 TX+	Sharp	6.8	3	.15mm/.0059in	SD...07	UHM 10 TX+
7005-123088	VCGT 1103008 FN A3 UHM10 HX	Sharp	11.1	6	.08mm/.0031in	SD...11	UHM 10 HX
7005-126102	VCGT 1103008 FN A3 UHM10 TX+	Sharp	11.1	6	.08mm/.0031in	SD...11	UHM 10 TX+
7005-116991	VCGT 1103008 FN A3 UHM20 HPX	Sharp	11.1	6	.08mm/.0031in	SD...11	UHM 20 HPX
7005-192034	VCGT 1103008 FN A3 UHM20 TX+	Sharp	11.1	6	.08mm/.0031in	SD...11	UHM 20 TX+
7005-121880	VCGT 1103015 FN A3 UHM10 HX	Sharp	11.1	6	.15mm/.0059in	SD...11	UHM 10 HX
7005-126103	VCGT 1103015 FN A3 UHM10 TX+	Sharp	11.1	6	.15mm/.0059in	SD...11	UHM 10 TX+
7005-116993	VCGT 1103015 FN A3 UHM20 HPX	Sharp	11.1	6	.15mm/.0059in	SD...11	UHM 20 HPX
7005-117191	VCGT 1103015 FN A3 UHM20 TX+	Sharp	11.1	6	.15mm/.0059in	SD...11	UHM 20 TX+
7005-121881	VCGT 1103035 FN A3 UHM10 HX	Sharp	11.1	6	.35mm/.0137in	SD...11	UHM 10 HX
7005-126104	VCGT 1103035 FN A3 UHM10 TX+	Sharp	11.1	6	.35mm/.0137in	SD...11	UHM 10 TX+
7005-116995	VCGT 1103035 FN A3 UHM20 HPX	Sharp	11.1	6	.35mm/.0137in	SD...11	UHM 20 HPX
7005-044900	VCGT 1103035 FN A3 UHM20 TX+	Sharp	11.1	6	.35mm/.0137in	SD...11	UHM 20 TX+

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	□	□	□	■	-	■
Micro Finishing	■	■	■	■	■	■	■	-	■

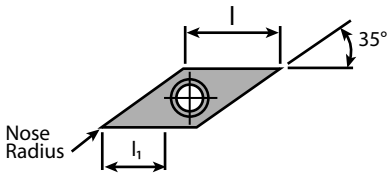




VCGT Carbide EN A3

Cut: Neutral

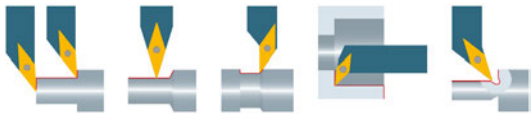
Chip Breaker: A3, Polished Rake, Honed Cutting Edge

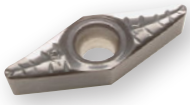


Repeatability <20µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-044901	VCGT 1103008 EN A3 UHM20 HPX	Round	11.1	6	.08mm/.0031in	SD...11	UHM 20 HPX
7005-044902	VCGT 1103008 EN A3 UHM20 TX+	Round	11.1	6	.08mm/.0031in	SD...11	UHM 20 TX+
7005-044903	VCGT 1103015 EN A3 UHM20 HPX	Round	11.1	6	.15mm/.0059in	SD...11	UHM 20 HPX
7005-044904	VCGT 1103015 EN A3 UHM20 TX+	Round	11.1	6	.15mm/.0059in	SD...11	UHM 20 TX+
7005-044905	VCGT 1103035 EN A3 UHM20 HPX	Round	11.1	6	.35mm/.0137in	SD...11	UHM 20 HPX
7005-044906	VCGT 1103035 EN A3 UHM20 TX+	Round	11.1	6	.35mm/.0137in	SD...11	UHM 20 TX+

	Material Class								
Application	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	□	□	□	■	-	■
Micro Finishing	■	■	■	■	■	■	■	-	■

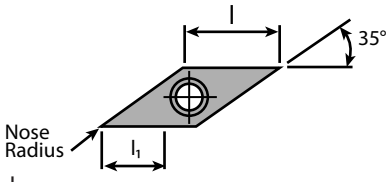




VCGT Carbide PA5

Cut: Neutral

Chip Breaker: PA5, Polished Rake, Sharp Cutting Edge



Repeatability <20µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-126563	VCGT 110302 FN PA5 UHM10 HX	Sharp	11.1	6.8	.2mm/.0078in	SV...11	UHM 10 HX
7005-192140	VCGT 110302 FN PA5 UHM10 TX+	Sharp	11.1	6.8	.2mm/.0078in	SV...11	UHM 10 TX+
7005-126562	VCGT 110304 FN PA5 UHM10 HX	Sharp	11.1	6.8	.4mm/.0157in	SV...11	UHM 10 HX
7005-192709	VCGT 110304 FN PA5 UHM10 TX+	Sharp	11.1	6.8	.4mm/.0157in	SV...11	UHM 10 TX+
7005-123456	VCGT 160404 FN PA5 UHM10 HX	Sharp	16.6	8.9	.4mm/.0157in	SV...16	UHM 10 HX
7005-192073	VCGT 160404 FN PA5 UHM10 TX+	Sharp	16.6	8.9	.4mm/.0157in	SV...16	UHM 10 TX+
7005-123457	VCGT 160408 FN PA5 UHM10 HX	Sharp	16.6	8.9	.8mm/.0314in	SV...16	UHM 10 HX
7005-044907	VCGT 160408 FN PA5 UHM10 TX+	Sharp	16.6	8.9	.8mm/.0314in	SV...16	UHM 10 TX+

	Material Class								
Application	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	-	□
Finishing	■	■	■	□	■	■	■	-	■
Micro Finishing	■	■	■	□	■	■	■	-	■



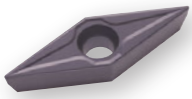
Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	**Steel**
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials



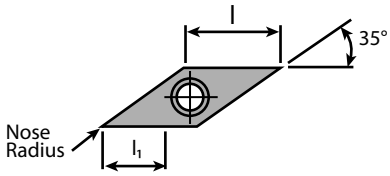
VC...07 inserts: d =.250"
VC...10 inserts: d =.250"
VC...11 inserts: d =.250"
VC...16 inserts: d =.375"

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits



VCGT Carbide TOP5 Wiper

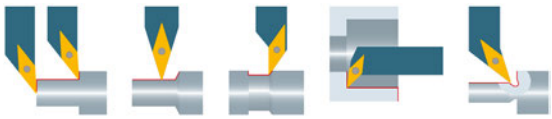
Cut: Right Hand, Left Hand
Chip Breaker: TOP5, Polished Rake, Sharp Cutting Edge

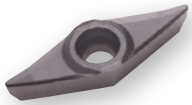


Repeatability <20µm

Dimensions & Features								
Item No.	Description	Hand	Edge	l	l_1	Nose Radius	Holder	Coating
7005-126920	VCGT 110304 FL TOP5 UHM10 HX	Left	Sharp	11.1	7	.4mm/.0157in	SV...11	UHM 10 HX
7005-044908	VCGT 110304 FL TOP5 UHM10 TX+	Left	Sharp	11.1	7	.4mm/.0157in	SV...11	UHM 10 TX+
7005-126906	VCGT 110304 FR TOP5 UHM10 HX	Right	Sharp	11.1	7	.4mm/.0157in	SV...11	UHM 10 HX
7005-044909	VCGT 110304 FR TOP5 UHM10 TX+	Right	Sharp	11.1	7	.4mm/.0157in	SV...11	UHM 10 TX+

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	□	□	□	□	-	□
Finishing	■	■	■	□	■	■	■	-	■
Micro Finishing	□	□	□	□	□	□	□	-	□

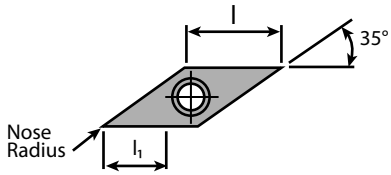




VCGT Carbide PA7

Cut: Neutral

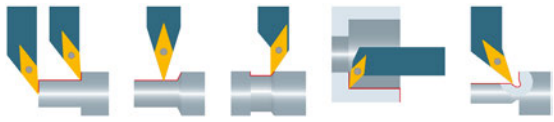
Chip Breaker: PA7, Sharp Cutting Edge



Repeatability <20µm

Item No.	Description	Dimensions & Features					
		Edge	l	l_1	Nose Radius	Holder	Coating
7005-114387	VCGT 1103005 FN PA7 UHM10 HX	Sharp	11.1	5.5	.05mm/.0019in	SV...11	UHM 10 HX
Call For Details	VCGT 1103005 FN PA7 UHM 10 TX+	Sharp	11.1	5.5	.05mm/.0019in	SV...11	UHM 10 TX+
7005-114390	VCGT 110301 FN PA7 UHM10 HX	Sharp	11.1	5.5	.1mm/.0039in	SV...11	UHM 10 HX
7005-114979	VCGT 110301 FN PA7 UHM10 TX+	Sharp	11.1	5.5	.1mm/.0039in	SV...11	UHM 10 TX+
7005-123648	VCGT 110302 FN PA7 UHM10 HX	Sharp	11.1	5.5	.2mm/.0078in	SV...11	UHM 10 HX
7005-147826	VCGT 110302 FN PA7 UHM10 TX+	Sharp	11.1	5.5	.2mm/.0078in	SV...11	UHM 10 TX+
7005-012984	VCGT 110304 FN PA7 UHM10 HX	Sharp	11.1	5.5	.4mm/.0157in	SV...11	UHM 10 HX
7005-123796	VCGT 110304 FN PA7 UHM10 TX+	Sharp	11.1	5.5	.4mm/.0157in	SV...11	UHM 10 TX+
7005-123649	VCGT 110308 FN PA7 UHM10 HX	Sharp	11.1	5.5	.8mm/.0314in	SV...11	UHM 10 HX
7005-044910	VCGT 110308 FN PA7 UHM10 TX+	Sharp	11.1	5.5	.8mm/.0314in	SV...11	UHM 10 TX+
7005-114396	VCGT 160402 FN PA7 UHM10 HX	Sharp	16.6	8.9	.2mm/.0078in	SV...16	UHM 10 HX
7005-154406	VCGT 160402 FN PA7 UHM10 TX+	Sharp	16.6	8.9	.2mm/.0078in	SV...16	UHM 10 TX+
7005-123316	VCGT 160404 FN PA7 UHM10 HX	Sharp	16.6	8.9	.4mm/.0157in	SV...16	UHM 10 HX
7005-123797	VCGT 160404 FN PA7 UHM10 TX+	Sharp	16.6	8.9	.4mm/.0157in	SV...16	UHM 10 TX+
7005-123458	VCGT 160408 FN PA7 UHM10 HX	Sharp	16.6	8.9	.8mm/.0314in	SV...16	UHM 10 HX
7005-044911	VCGT 160408 FN PA7 UHM10 TX+	Sharp	16.6	8.9	.8mm/.0314in	SV...16	UHM 10 TX+

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	-	□
Finishing	□	□	□	□	□	□	■	-	■
Micro Finishing	■	■	■	□	■	■	■	-	■

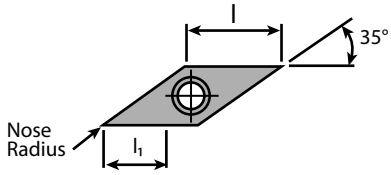




VCXT Carbide PA9

Cut: Neutral

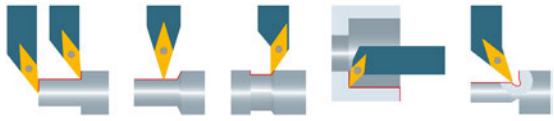
Chip Breaker: PA9, Sharp Cutting Edge



Repeatability <50µm

Item No.	Description	Dimensions & Features					
		Edge	l	l_1	Nose Radius	Holder	Coating
7005-138594	VCXT 160404 EN PA9 UHM10 HX	Sharp	16.6	8.9	.4mm/.0157in	SV...16	UHM 10 HX
7005-044912	VCXT 160404 EN PA9 UHM10 TX+	Sharp	16.6	8.9	.4mm/.0157in	SV...16	UHM 10 TX+
7005-138596	VCXT 160408 EN PA9 UHM10 HX	Sharp	16.6	8.9	.8mm/.0314in	SV...16	UHM 10 HX
7005-044913	VCXT 160408 EN PA9 UHM10 TX+	Sharp	16.6	8.9	.8mm/.0314in	SV...16	UHM 10 TX+

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	□	□	□	■	-	-
Finishing	■	■	■	■	■	■	□	-	-
Micro Finishing	□	□	□	-	□	□	-	-	-



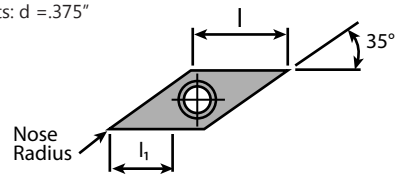
Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	**Steel**
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	

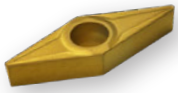
Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits



VC...07 inserts: d =.250"
VC...10 inserts: d =.250"
VC...11 inserts: d =.250"
VC...16 inserts: d =.375"



Repeatability <20µm



VCGT Carbide/Cermet PF

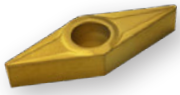
Cut: Neutral

Chip Breaker: PF, Polished Rake, Honed Cutting Edge

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-113695	VCGT 110302 EN PF UHM10 MZ	Round	11.1	4.8	.2mm/.0078in	SD...11	UHM 10 MZ
7005-123394	VCGT 110302 EN PF UHM20 MZ	Round	11.1	4.8	.2mm/.0078in	SD...11	UHM 20 MZ
7005-123395	VCGT 110302 EN PF UHM30 MZ	Round	11.1	4.8	.2mm/.0078in	SD...11	UHM 30 MZ
7005-123647	VCGT 110302 EN PF UCM10 HX	Round	11.1	4.8	.2mm/.0078in	SD...11	UCM 10 HX
7005-153779	VCGT 110302 EN PF UCM10 MZ	Round	11.1	4.8	.2mm/.0078in	SD...11	UCM 10 MZ
7005-113696	VCGT 110304 EN PF UHM10 MZ	Round	11.1	4.8	.4mm/.0157in	SD...11	UHM 10 MZ
7005-123396	VCGT 110304 EN PF UHM20 MZ	Round	11.1	4.8	.4mm/.0157in	SD...11	UHM 20 MZ
7005-123397	VCGT 110304 EN PF UHM30 MZ	Round	11.1	4.8	.4mm/.0157in	SD...11	UHM 30 MZ
7005-013273	VCGT 110304 EN PF UCM10 HX	Round	11.1	4.8	.4mm/.0157in	SD...11	UCM 10 HX
7005-153780	VCGT 110304 EN PF UCM10 MZ	Round	11.1	4.8	.4mm/.0157in	SD...11	UCM 10 MZ
7005-113697	VCGT 110308 EN PF UHM10 MZ	Round	11.1	4.8	.8mm/.0314in	SD...11	UHM 10 MZ
7005-127966	VCGT 110308 EN PF UHM20 MZ	Round	11.1	4.8	.8mm/.0314in	SD...11	UHM 20 MZ
7005-123399	VCGT 110308 EN PF UHM30 MZ	Round	11.1	4.8	.8mm/.0314in	SD...11	UHM 30 MZ
7005-123650	VCGT 160404 EN PF UCM10 HX	Round	16.6	6	.4mm/.0157in	SD...16	UCM 10 HX
7005-153781	VCGT 160404 EN PF UCM10 MZ	Round	16.6	6	.4mm/.0157in	SD...16	UCM 10 MZ
7005-123651	VCGT 160408 EN PF UCM10 HX	Round	16.6	6	.8mm/.0314in	SD...16	UCM 10 HX
7005-153782	VCGT 160408 EN PF UCM10 MZ	Round	16.6	6	.8mm/.0314in	SD...16	UCM 10 MZ

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	-	□	□	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	■	■	■	-	■	■	-	-	-

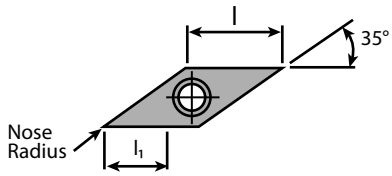




VCMT Carbide PF

Cut: Neutral

Chip Breaker: PF, Honed Cutting Edge

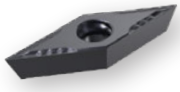


Repeatability <50µm

Item No.	Description	Dimensions & Features					
		Edge	l	l_1	Nose Radius	Holder	Coating
7005-113698	VCMT 160404 EN PF UHM10 MZ	Round	16.6	6	.2mm/.0078in	SV...16	UHM 10 MZ
7005-123401	VCMT 160404 EN PF UHM20 MZ	Round	16.6	6	.2mm/.0078in	SV...16	UHM 20 MZ
7005-123402	VCMT 160404 EN PF UHM30 MZ	Round	16.6	6	.2mm/.0078in	SV...16	UHM 30 MZ
7005-113699	VCMT 160408 EN PF UHM10 MZ	Round	16.6	6	.4mm/.0157in	SV...16	UHM 10 MZ
7005-123405	VCMT 160408 EN PF UHM20 MZ	Round	16.6	6	.4mm/.0157in	SV...16	UHM 20 MZ

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	□	□	□	-	□	□	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-

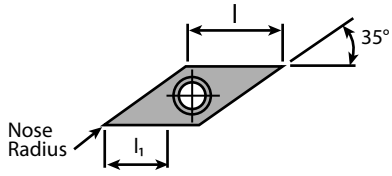




VCET Carbide PF05

Cut: Neutral

Chip Breaker: PF, Polished Rake, Honed Cutting Edge



Repeatability <50µm

Item No.	Description	Dimensions & Features					
		Edge	l	l_1	Nose Radius	Holder	Coating
7005-113698	VCMT 160404 EN PF UHM10 MZ	Round	16.6	6	.2mm/.0078in	SV...16	UHM 10 MZ
7005-123401	VCMT 160404 EN PF UHM20 MZ	Round	16.6	6	.2mm/.0078in	SV...16	UHM 20 MZ
7005-123402	VCMT 160404 EN PF UHM30 MZ	Round	16.6	6	.2mm/.0078in	SV...16	UHM 30 MZ
7005-113699	VCMT 160408 EN PF UHM10 MZ	Round	16.6	6	.4mm/.0157in	SV...16	UHM 10 MZ
7005-123405	VCMT 160408 EN PF UHM20 MZ	Round	16.6	6	.4mm/.0157in	SV...16	UHM 20 MZ



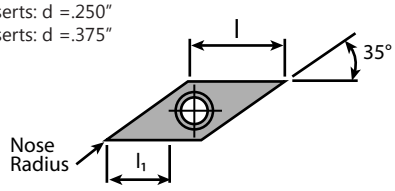
Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	**Steel**
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits



VC...07 inserts: d =.250"
VC...10 inserts: d =.250"
VC...11 inserts: d =.250"
VC...16 inserts: d =.375"



Repeatability <20µm



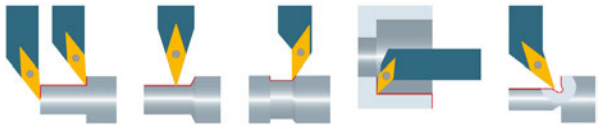
VCGT Carbide FN PF23

Cut: Neutral

Chip Breaker: PF23, Polished Rake, Sharp Cutting Edge

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-044914	VCGT 1103005 FN PF23 UHM20 HPX	Sharp	11.1	4.8	.05mm/.0019in	SV...11	UHM 20 HPX
7005-044915	VCGT 1103005 FN PF23 UHM20 TX+	Sharp	11.1	4.8	.05mm/.0019in	SV...11	UHM 20 TX+
7005-127763	VCGT 1103005 FN PF23 UHM30 HX	Sharp	11.1	4.8	.05mm/.0019in	SV...11	UHM 30 HX
7005-044916	VCGT 110301 FN PF23 UHM20 HPX	Sharp	11.1	4.8	.1mm/.0039in	SV...11	UHM 20 HPX
Call For Details	VCGT 110301 FN PF23 UHM20 TX+	Sharp	11.1	4.8	.1mm/.0039in	SV...11	UHM 20 TX+
7005-127215	VCGT 110301 FN PF23 UHM30 HX	Sharp	11.1	4.8	.1mm/.0039in	SV...11	UHM 30 HX
7005-044918	VCGT 110302 FN PF23 UHM20 HPX	Sharp	11.1	4.8	.2mm/.0078in	SV...11	UHM 20 HPX
7005-044919	VCGT 110302 FN PF23 UHM20 TX+	Sharp	11.1	4.8	.2mm/.0078in	SV...11	UHM 20 TX+
7005-137705	VCGT 110302 FN PF23 UHM30 HX	Sharp	11.1	4.8	.2mm/.0078in	SV...11	UHM 30 HX
7005-044920	VCGT 160401 FN PF23 UHM20 HPX	Sharp	16.6	8.4	.1mm/.0039in	SV...16	UHM 20 HPX
7005-044921	VCGT 160401 FN PF23 UHM20 TX+	Sharp	16.6	8.4	.1mm/.0039in	SV...16	UHM 20 TX+
7005-127217	VCGT 160401 FN PF23 UHM30 HX	Sharp	16.6	8.4	.1mm/.0039in	SV...16	UHM 30 HX
7005-044922	VCGT 160402 FN PF23 UHM20 HPX	Sharp	16.6	8.4	.2mm/.0078in	SV...16	UHM 20 HPX
7005-044923	VCGT 160402 FN PF23 UHM20 TX+	Sharp	16.6	8.4	.2mm/.0078in	SV...16	UHM 20 TX+
7005-137998	VCGT 160402 FN PF23 UHM30 HX	Sharp	16.6	8.4	.2mm/.0078in	SV...16	UHM 30 HX

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	□	□	□	□	-	-
Micro Finishing	■	■	■	□	■	■	□	-	□

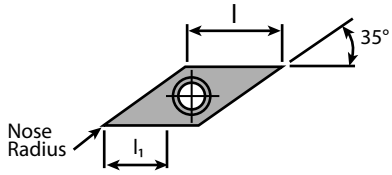




VCGT Carbide EN PF23

Cut: Neutral

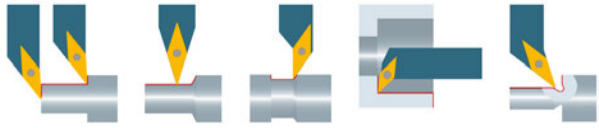
Chip Breaker: PF23, Polished Rake, Honed Cutting Edge



Repeatability <20µm

Item No.	Description	Dimensions & Features					
		Edge	l	l_1	Nose Radius	Holder	Coating
7005-044924	VCGT 1103005 EN PF23 UHM20 HPX	Round	11.1	4.8	.05mm/.0019in	SV...11	UHM 20 HPX
7005-044925	VCGT 1103005 EN PF23 UHM20 TX+	Round	11.1	4.8	.05mm/.0019in	SV...11	UHM 20 TX+
7005-044926	VCGT 110301 EN PF23 UHM20 HPX	Round	11.1	4.8	.1mm/.0039in	SV...11	UHM 20 HPX
7005-044927	VCGT 110301 EN PF23 UHM20 TX+	Round	11.1	4.8	.1mm/.0039in	SV...11	UHM 20 TX+
7005-044928	VCGT 110302 EN PF23 UHM20 HPX	Round	11.1	4.8	.2mm/.0078in	SV...11	UHM 20 HPX
7005-044929	VCGT 110302 EN PF23 UHM20 TX+	Round	11.1	4.8	.2mm/.0078in	SV...11	UHM 20 TX+
7005-044930	VCGT 160401 EN PF23 UHM20 HPX	Round	16.6	8.4	.1mm/.0039in	SV...16	UHM 20 HPX
7005-044931	VCGT 160401 EN PF23 UHM20 TX+	Round	16.6	8.4	.1mm/.0039in	SV...16	UHM 20 TX+
7005-044932	VCGT 160402 EN PF23 UHM20 HPX	Round	16.6	8.4	.2mm/.0078in	SV...16	UHM 20 HPX
7005-044933	VCGT 160402 EN PF23 UHM20 TX+	Round	16.6	8.4	.2mm/.0078in	SV...16	UHM 20 TX+

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	□	□	□	□	-	-
Micro Finishing	■	■	■	□	■	■	□	-	□

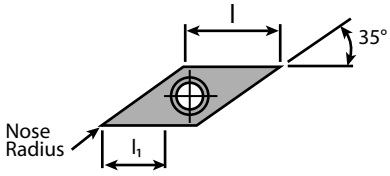




VCGT Carbide EN PF33

Cut: Neutral

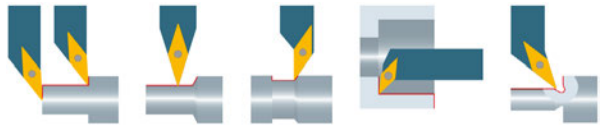
Chip Breaker: PF33, Polished Rake, Honed Cutting Edge



Repeatability <20µm

Item No.	Description	Dimensions & Features					
		Edge	l	l_1	Nose Radius	Holder	Coating
7005-044948	VCGT 1103005 EN PF33 UHM20 HPX	Round	11.1	4.8	.05mm/.0019in	SV...11	UHM 20 HPX
7005-044949	VCGT 1103005 EN PF33 UHM20 TX+	Round	11.1	4.8	.05mm/.0019in	SV...11	UHM 20 TX+
7005-044950	VCGT 110301 EN PF33 UHM20 HPX	Round	11.1	4.8	.1mm/.0039in	SV...11	UHM 20 HPX
7005-044951	VCGT 110301 EN PF33 UHM20 TX+	Round	11.1	4.8	.1mm/.0039in	SV...11	UHM 20 TX+
7005-044952	VCGT 110302 EN PF33 UHM20 HPX	Round	11.1	4.8	.2mm/.0078in	SV...11	UHM 20 HPX
7005-044953	VCGT 110302 EN PF33 UHM20 TX+	Honed	11.1	4.8	.2mm/.0078in	SV...11	UHM 20 TX+
7005-044954	VCGT 110304 EN PF33 UHM20 HPX	Round	11.1	4.8	.4mm/.0157in	SV...11	UHM 20 HPX
7005-044955	VCGT 110304 EN PF33 UHM20 TX+	Round	11.1	4.8	.4mm/.0157in	SV...11	UHM 20 TX+
7005-044956	VCGT 160401 EN PF33 UHM20 HPX	Round	16.6	8.4	.1mm/.0039in	SV...16	UHM 20 HPX
7005-044957	VCGT 160401 EN PF33 UHM20 TX+	Round	16.6	8.4	.1mm/.0039in	SV...16	UHM 20 TX+
7005-044958	VCGT 160402 EN PF33 UHM20 HPX	Round	16.6	8.4	.2mm/.0078in	SV...16	UHM 20 HPX
7005-044959	VCGT 160402 EN PF33 UHM20 TX+	Round	16.6	8.4	.2mm/.0078in	SV...16	UHM 20 TX+
7005-044960	VCGT 160404 EN PF33 UHM20 HPX	Round	16.6	8.4	.4mm/.0157in	SV...16	UHM 20 HPX
7005-044961	VCGT 160404 EN PF33 UHM20 TX+	Round	16.6	8.4	.4mm/.0157in	SV...16	UHM 20 TX+

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	-	□	□	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	■	■	■	-	■	■	-	-	-



Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	**Steel**
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits



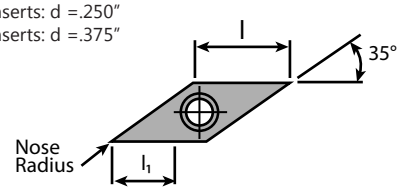
VC...07 inserts: d =.250"
VC...10 inserts: d =.250"
VC...11 inserts: d =.250"
VC...16 inserts: d =.375"



VCGT Carbide FN PF33

Cut: Neutral

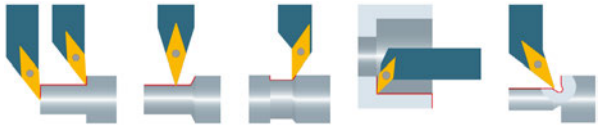
Chip Breaker: PF33, Polished Rake, Sharp Cutting Edge

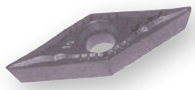


Repeatability <20µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-044934	VCGT 1103005 FN PF33 UHM20 HPX	Sharp	11.1	4.8	.05mm/.0019in	SV...11	UHM 20 HPX
7005-044935	VCGT 1103005 FN PF33 UHM20 TX+	Sharp	11.1	4.8	.05mm/.0019in	SV...11	UHM 20 TX+
7005-114374	VCGT 1103005 FN PF33 UHM30 HX	Sharp	11.1	4.8	.05mm/.0019in	SV...11	UHM 30 HX
7005-044936	VCGT 110301 FN PF33 UHM20 HPX	Sharp	11.1	4.8	.1mm/.0039in	SV...11	UHM 20 HPX
Call For Details	VCGT 110301 FN PF33 UHM20 TX+	Sharp	11.1	4.8	.1mm/.0039in	SV...11	UHM 20 TX+
7005-114414	VCGT 110301 FN PF33 UHM30 HX	Sharp	11.1	4.8	.1mm/.0039in	SV...11	UHM 30 HX
7005-044938	VCGT 110302 FN PF33 UHM20 HPX	Sharp	11.1	4.8	.2mm/.0078in	SV...11	UHM 20 HPX
7005-044939	VCGT 110302 FN PF33 UHM20 TX+	Sharp	11.1	4.8	.2mm/.0078in	SV...11	UHM 20 TX+
7005-114416	VCGT 110302 FN PF33 UHM30 HX	Sharp	11.1	4.8	.2mm/.0078in	SV...11	UHM 30 HX
7005-044940	VCGT 110304 FN PF33 UHM20 HPX	Sharp	11.1	4.8	.4mm/.0157in	SV...11	UHM 20 HPX
Call For Details	VCGT 110304 FN PF33 UHM20 TX+	Sharp	11.1	4.8	.4mm/.0157in	SV...11	UHM 20 TX+
7005-114418	VCGT 110304 FN PF33 UHM30 HX	Sharp	11.1	4.8	.4mm/.0157in	SV...11	UHM 30 HX
7005-044942	VCGT 160401 FN PF33 UHM20 HPX	Sharp	16.6	8.4	.1mm/.0039in	SV...16	UHM 20 HPX
7005-044943	VCGT 160401 FN PF33 UHM20 TX+	Sharp	16.6	8.4	.1mm/.0039in	SV...16	UHM 20 TX+
7005-114422	VCGT 160401 FN PF33 UHM30 HX	Sharp	16.6	8.4	.1mm/.0039in	SV...16	UHM 30 HX
7005-044944	VCGT 160402 FN PF33 UHM20 HPX	Sharp	16.6	8.4	.2mm/.0078in	SV...16	UHM 20 HPX
Call For Details	VCGT 160402 FN PF33 UHM20 TX+	Sharp	16.6	8.4	.2mm/.0078in	SV...16	UHM 20 TX+
7005-114424	VCGT 160402 FN PF33 UHM30 HX	Sharp	16.6	8.4	.2mm/.0078in	SV...16	UHM 30 HX
7005-044946	VCGT 160404 FN PF33 UHM20 HPX	Sharp	16.6	8.4	.4mm/.0157in	SV...16	UHM 20 HPX
7005-044947	VCGT 160404 FN PF33 UHM20 TX+	Sharp	16.6	8.4	.4mm/.0157in	SV...16	UHM 20 TX+
7005-114426	VCGT 160404 FN PF33 UHM30 HX	Sharp	16.6	8.4	.4mm/.0157in	SV...16	UHM 30 HX

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	-	□	□	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	■	■	■	-	■	■	-	-	-

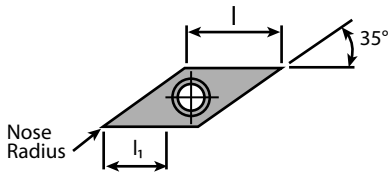




VCMT Carbide PF43

Cut: Neutral

Chip Breaker: PF43, Honed Cutting Edge

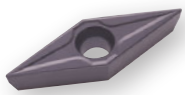


Repeatability <50µm

Item No.	Description	Dimensions & Features					
		Edge	l	l_1	Nose Radius	Holder	Coating
7005-127771	VCMT 110302 EN PF43 UHM30 HX	Round	11.1	4.8	.2mm/.0078in	SV...11	UHM 30 HX
7005-127772	VCMT 110304 EN PF43 UHM30 HX	Round	11.1	4.8	.4mm/.0157in	SV...11	UHM 30 HX
7005-127773	VCMT 160404 EN PF43 UHM30 HX	Round	16.6	7	.4mm/.0157in	SV...16	UHM 30 HX

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-

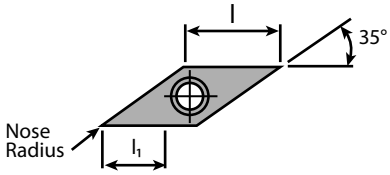




VCMT Carbide PM

Cut: Neutral

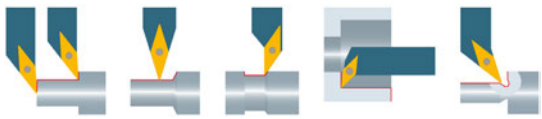
Chip Breaker: PM, Honed Cutting Edge



Repeatability <50µm

Item No.	Description	Dimensions & Features					
		Edge	l	l_1	Nose Radius	Holder	Coating
7005-113700	VCMT 160404 EN PM UHM10 MZ	Round	16.6	6	.4mm/.0157in	SV...16	UHM 10 MZ
7005-123403	VCMT 160404 EN PM UHM20 MZ	Round	16.6	6	.4mm/.0157in	SV...16	UHM 20 MZ
7005-123404	VCMT 160404 EN PM UHM30 MZ	Round	16.6	6	.4mm/.0157in	SV...16	UHM 30 MZ
7005-113701	VCMT 160408 EN PM UHM10 MZ	Round	16.6	6	.8mm/.0314in	SV...16	UHM 10 MZ
7005-123406	VCMT 160408 EN PM UHM20 MZ	Round	16.6	6	.8mm/.0314in	SV...16	UHM 20 MZ
7005-123407	VCMT 160408 EN PM UHM30 MZ	Round	16.6	6	.8mm/.0314in	SV...16	UHM 30 MZ

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	□	□	□	-	□	□	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-

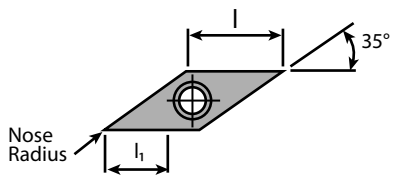




VCMT Cermet PMF

Cut: Neutral

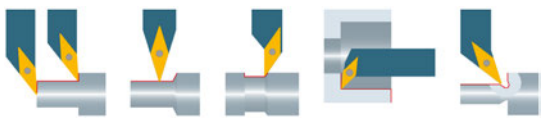
Chip Breaker: PMF, Honed Cutting Edge



Repeatability <50µm

Item No.	Description	Dimensions & Features					
		Edge	l	l_1	Nose Radius	Holder	Coating
Call For Details	VCMT 110304 EN PMF UCM10 MZ	Round	11.1	4.1	.4mm/.0157in	SV...11	UCM 10 MZ
Call For Details	VCMT 160404 EN PMF UCM10 MZ	Round	16.6	6	.4mm/.0157in	SV...16	UCM 10 MZ
Call For Details	VCMT 160408 EN PMF UCM10 MZ	Round	16.6	6	.8mm/.0314in	SV...16	UCM 10 MZ

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-



Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	**Steel**
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials



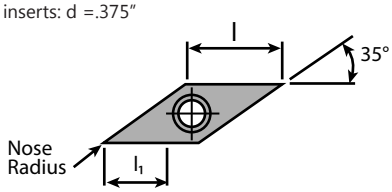
VC...07 inserts: d =.250"
VC...10 inserts: d =.250"
VC...11 inserts: d =.250"
VC...16 inserts: d =.375"

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits



VCMT Carbide PM25

Cut: Neutral
Chip Breaker: PM25, Honed Cutting Edge

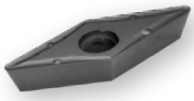


Repeatability <50µm

Item No.	Description	Dimensions & Features: Edge	l	l_1	Nose Radius	Holder	Coating
7005-112950	VCMT 160404 EN PM25 UHM20 HPX	Round	16.6	2.2	.4mm/.0157in	SV...16	UHM 20 HPX

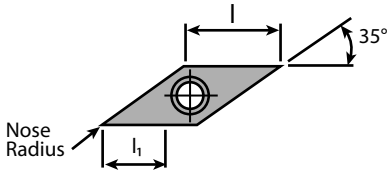
Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	-	■	■	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-





VCMT Carbide PM55

Cut: Neutral
Chip Breaker: PM55, Honed Cutting Edge

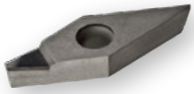


Repeatability <50µm

Item No.	Description	Dimensions & Features: Edge	l	l_1	Nose Radius	Holder	Coating
7005-112951	VCMT 160404 EN PM55 UHM20 HPX	Round	16.6	3	.4mm/.0157in	SV...16	UHM 20 HPX
7005-112952	VCMT 160408 EN PM55 UHM20 HPX	Round	16.6	3.4	.8mm/.0314in	SV...16	UHM 20 HPX

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	-	■	■	-	-	-
Finishing	-	-	-	-	-	-	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-

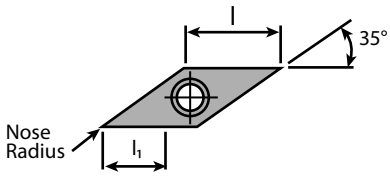




VCGT Diamond

Cut: Neutral

Chip Breaker: Sharp Cutting Edge



Repeatability <20µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-116198	VCGT 110301 FN UPCD15	Sharp	11.1	5.4	.1mm/.0039in	SV...11	UPCD 15
7005-116199	VCGT 110301 FN UPCD20	Sharp	11.1	5.4	.1mm/.0039in	SV...11	UPCD 20
7005-137727	VCGT 110302 FN UPCD15	Sharp	11.1	4.6	.2mm/.0078in	SV...11	UPCD 15
7005-116201	VCGT 110302 FN UPCD20	Sharp	11.1	4.6	.2mm/.0078in	SV...11	UPCD 20
7005-129040	VCGT 110304 FN UPCD15	Sharp	11.1	3.9	.4mm/.0157in	SV...11	UPCD 15
7005-116206	VCGT 110304 FN UPCD20	Sharp	11.1	3.9	.4mm/.0157in	SV...11	UPCD 20
7005-137728	VCGT 110308 FN UPCD15	Sharp	11.1	3.3	.8mm/.0314in	SV...11	UPCD 15
7005-116216	VCGT 160401 FN UPCD15	Sharp	16.6	6	.1mm/.0039in	SV...16	UPCD 15
7005-116217	VCGT 160401 FN UPCD20	Sharp	16.6	6	.1mm/.0039in	SV...16	UPCD 20
7005-137729	VCGT 160402 FN UPCD15	Sharp	16.6	5.9	.2mm/.0078in	SV...16	UPCD 15
7005-116218	VCGT 160402 FN UPCD20	Sharp	16.6	5.9	.2mm/.0078in	SV...16	UPCD 20
7005-129039	VCGT 160404 FN UPCD15	Sharp	16.6	5.5	.4mm/.0157in	SV...16	UPCD 15
7005-116221	VCGT 160404 FN UPCD20	Sharp	16.6	5.5	.4mm/.0157in	SV...16	UPCD 20
7005-137730	VCGT 160408 FN UPCD15	Sharp	16.6	5	.8mm/.0314in	SV...16	UPCD 15
7005-137731	VCGT 160412 FN UPCD15	Sharp	16.6	4.5	1.2mm/.0472in	SV...16	UPCD 15

Material Class									
Application	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	■	■	■

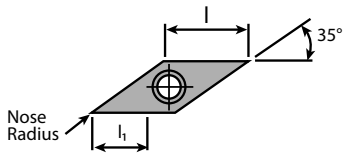




VCGT Diamond UWN

Cut: Neutral

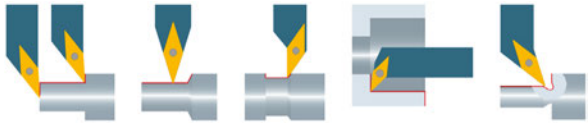
Chip Breaker: UWN, Sharp Cutting Edge



Repeatability <20µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-116675	VCGT 110302 FN UWN UCVD08	Sharp	11.1	4.6	.2mm/.0078in	SV...11	UCVD 08
7005-116410	VCGT 110302 FN UWN UPCD20	Sharp	11.1	4.6	.2mm/.0078in	SV...11	UPCD 20
7005-116679	VCGT 110304 FN UWN UCVD08	Sharp	11.1	3.9	.4mm/.0157in	SV...11	UCVD 08
7005-116416	VCGT 110304 FN UWN UPCD20	Sharp	11.1	3.9	.4mm/.0157in	SV...11	UPCD 20
7005-116683	VCGT 110308 FN UWN UCVD08	Sharp	11.1	3.3	.8mm/.0314in	SV...11	UCVD 08
Call For Details	VCGT 110308 FN UWN UPCD20	Sharp	11.1	3.3	.8mm/.0314in	SV...11	UPCD 20
7005-116691	VCGT 160402 FN UWN UCVD08	Sharp	16.6	5.9	.2mm/.0078in	SV...16	UCVD 08
Call For Details	VCGT 160402 FN UWN UPCD20	Sharp	16.6	5.9	.2mm/.0078in	SV...16	UPCD 20
7005-116695	VCGT 160404 FN UWN UCVD08	Sharp	16.6	5.5	.4mm/.0157in	SV...16	UCVD 08
7005-169153	VCGT 160404 FN UWN UPCD20	Sharp	16.6	5.5	.4mm/.0157in	SV...16	UPCD 20
7005-116699	VCGT 160408 FN UWN UCVD08	Sharp	16.6	5	.8mm/.0314in	SV...16	UCVD 08
Call For Details	VCGT 160408 FN UWN UPCD20	Sharp	16.6	5	.8mm/.0314in	SV...16	UPCD 20
7005-116703	VCGT 160412 FN UWN UCVD08	Sharp	16.6	4.5	1.2mm/.0472in	SV...16	UCVD 08
Call For Details	VCGT 160412 FN UWN UPCD20	Sharp	16.6	4.5	1.2mm/.0472in	SV...16	UPCD 20

Material Class									
Application	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	-	-	-



Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	**Steel**
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials



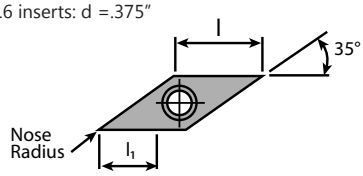
VC...07 inserts: d =.250"
VC...10 inserts: d =.250"
VC...11 inserts: d =.250"
VC...16 inserts: d =.375"

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits



VCGT Diamond UWS

Cut: Neutral
Chip Breaker: UWS, Sharp Cutting Edge



Repeatability <20µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
Call For Details	VCGT 110301 FN -UWS UCVD08	Sharp	11.1	4.6	.1mm/.0039in	SV...11	UCVD 08
Call For Details	VCGT 110301 FN -UWS UPCD15	Sharp	11.1	4.6	.1mm/.0039in	SV...11	UPCD 15
7005-116676	VCGT 110302 FN UWS UCVD08	Sharp	11.1	4.6	.2mm/.0078in	SV...11	UCVD 08
7005-116411	VCGT 110302 FN UWS UPCD15	Sharp	11.1	4.6	.2mm/.0078in	SV...11	UPCD 15
7005-116412	VCGT 110302 FN UWS UPCD20	Sharp	11.1	4.6	.2mm/.0078in	SV...11	UPCD 20
7005-116677	VCGT 110304 FN UWS UCVD08	Sharp	11.1	3.9	.4mm/.0157in	SV...11	UCVD 08
7005-116417	VCGT 110304 FN UWS UPCD15	Sharp	11.1	3.9	.4mm/.0157in	SV...11	UPCD 15
7005-116418	VCGT 110304 FN UWS UPCD20	Sharp	11.1	3.9	.4mm/.0157in	SV...11	UPCD 20
7005-116692	VCGT 160402 FN UWS UCVD08	Sharp	16.6	5.9	.2mm/.0078in	SV...16	UCVD 08
7005-116429	VCGT 160402 FN UWS UPCD15	Sharp	16.6	5.9	.2mm/.0078in	SV...16	UPCD 15
7005-116696	VCGT 160404 FN UWS UCVD08	Sharp	16.6	5.5	.4mm/.0157in	SV...16	UCVD 08
7005-116433	VCGT 160404 FN UWS UPCD15	Sharp	16.6	5.5	.4mm/.0157in	SV...16	UPCD 15
7005-116434	VCGT 160404 FN UWS UPCD20	Sharp	16.6	5.5	.4mm/.0157in	SV...16	UPCD 20
7005-116700	VCGT 160408 FN UWS UCVD08	Sharp	16.6	5	.8mm/.0314in	SV...16	UCVD 08
7005-116437	VCGT 160408 FN UWS UPCD15	Sharp	16.6	5	.8mm/.0314in	SV...16	UPCD 15
7005-116438	VCGT 160408 FN UWS UPCD20	Sharp	16.6	5	.8mm/.0314in	SV...16	UPCD 20

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	-	-	-	-	-	-	□	□	□
Micro Finishing	-	-	-	-	-	-	■	■	■



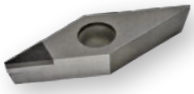
Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	**Steel**
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits



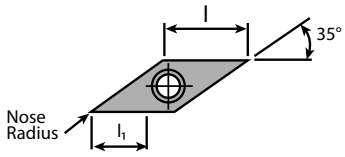
VC...07 inserts: d =.250"
VC...10 inserts: d =.250"
VC...11 inserts: d =.250"
VC...16 inserts: d =.375"



VCGW Diamond

Cut: Neutral

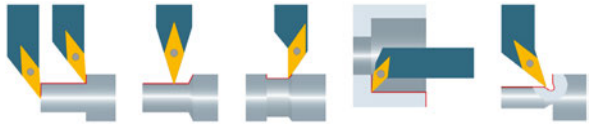
Chip Breaker: Sharp Cutting Edge



Repeatability <20µm

Dimensions & Features							
Item No.	Description	Edge	l	l_1	Nose Radius	Holder	Coating
7005-116235	VCGW 110301 FN UPCD20	Sharp	11.1	4.6	.1mm/.0039in	SV...11	UPCD 20
7005-116910	VCGW 110302 FN UCVD08	Sharp	11.1	4.6	.2mm/.0078in	SV...11	UCVD 08
7005-129036	VCGW 110302 FN UPCD15	Sharp	11.1	4.6	.2mm/.0078in	SV...11	UPCD 15
7005-116236	VCGW 110302 FN UPCD20	Sharp	11.1	4.6	.2mm/.0078in	SV...11	UPCD 20
7005-116911	VCGW 110304 FN UCVD08	Sharp	11.1	3.9	.4mm/.0157in	SV...11	UCVD 08
7005-129041	VCGW 110304 FN UPCD15	Sharp	11.1	3.9	.4mm/.0157in	SV...11	UPCD 15
7005-116237	VCGW 110304 FN UPCD20	Sharp	11.1	3.9	.4mm/.0157in	SV...11	UPCD 20
7005-116238	VCGW 110308 FN UPCD15	Sharp	11.1	3.3	.8mm/.0314in	SV...11	UPCD 15
7005-116242	VCGW 160401 FN UPCD20	Sharp	16.6	6	.1mm/.0039in	SV...16	UPCD 20
7005-116913	VCGW 160402 FN UCVD08	Sharp	16.6	5.9	.2mm/.0078in	SV...16	UCVD 08
7005-129026	VCGW 160402 FN UPCD15	Sharp	16.6	5.9	.2mm/.0078in	SV...16	UPCD 15
7005-116243	VCGW 160402 FN UPCD20	Sharp	16.6	5.9	.2mm/.0078in	SV...16	UPCD 20
7005-116914	VCGW 160404 FN UCVD08	Sharp	16.6	5.5	.4mm/.0157in	SV...16	UCVD 08
7005-137734	VCGW 160404 FN UPCD15	Sharp	16.6	5.5	.4mm/.0157in	SV...16	UPCD 15
7005-116244	VCGW 160404 FN UPCD20	Sharp	16.6	5.5	.4mm/.0157in	SV...16	UPCD 20
7005-116915	VCGW 160408 FN UCVD08	Sharp	16.6	5	.8mm/.0314in	SV...16	UCVD 08
7005-137735	VCGW 160408 FN UPCD15	Sharp	16.6	5	.8mm/.0314in	SV...16	UPCD 15
7005-116245	VCGW 160408 FN UPCD20	Sharp	16.6	5	.8mm/.0314in	SV...16	UPCD 20
7005-137736	VCGW 160412 FN UPCD15	Sharp	16.6	4.5	1.2mm/.0472in	SV...16	UPCD 15
7005-116246	VCGW 160412 FN UPCD20	Sharp	16.6	4.5	1.2mm/.0472in	SV...16	UPCD 20

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	■	■	■



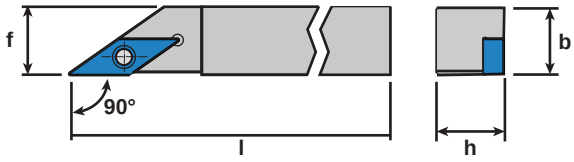


ISO Holder SVAC

Type: 90°
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	b	h	l	f	Inserts
7005-148813	SVACL 0808 F11 U	7005-148811	SVACR 0808 F11 U	8	8	80	7.85	VC...1103
7005-144810	SVACL 0808 H07 U	7005-144813	SVACR 0808 H07 U	8	8	100	7.85	VC...0702
7005-044039	SVACL 0808 H11 U	7005-044040	SVACR 0808 H11 U	8	8	100	7.85	VC...1103
7005-148814	SVACL 1010 F11 U	7005-148812	SVACR 1010 F11 U	10	10	80	9.85	VC...1103
7005-144811	SVACL 1010 H07 U	7005-144814	SVACR 1010 H07 U	10	10	100	9.85	VC...0702
7005-044041	SVACL 1010 H11 U	7005-044042	SVACR 1010 H11 U	10	10	100	9.85	VC...1103
7005-144812	SVACL 1212 H07 U	7005-144815	SVACR 1212 H07 U	12	12	100	11.85	VC...0702
7005-044043	SVACL 1212 H11 U	7005-044044	SVACR 1212 H11 U	12	12	100	11.85	VC...1103





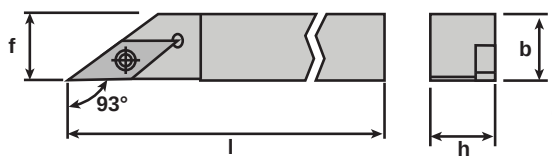


ISO Holder SVJC

Type: 93°
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	b	h	l	f	Inserts
7005-148817	SVJCL 0808 F11 U	7005-148815	SVJCR 0808 F11 U	8	8	80	7.95	VC...1103
7005-144850	SVJCL 0808 H07 U	7005-144860	SVJCR 0808 H07 U	8	8	100	7.95	VC...0702
7005-044031	SVJCL 0808 H11 U	7005-044032	SVJCR 0808 H11 U	8	8	100	7.95	VC...1103
7005-148818	SVJCL 1010 F11 U	7005-148816	SVJCR 1010 F11 U	10	10	80	9.95	VC...1103
7005-144854	SVJCL 1010 H07 U	7005-144864	SVJCR 1010 H07 U	10	10	100	9.95	VC...0702
7005-044033	SVJCL 1010 H11 U	7005-044034	SVJCR 1010 H11 U	10	10	100	9.95	VC...1103
7005-144856	SVJCL 1212 H07 U	7005-144866	SVJCR 1212 H07 U	12	12	100	11.95	VC...0702
7005-044035	SVJCL 1212 H11 U	7005-044036	SVJCR 1212 H11 U	12	12	100	11.95	VC...1103
Call For Details	SVJCL 1212 H16 U	Call For Details	SVJCR 1212 H16 U	16	12	100	15.95	VC...1604
7005-044087	SVJCL 1616 K11 U	7005-044088	SVJCR 1616 K11 U	16	16	125	15.95	VC...1103
7005-044234	SVJCL 1616 K16 U	7005-044233	SVJCR 1616 K16 U	16	16	125	15.95	VC...1604
7005-044089	SVJCL 2020 K11 U	7005-044090	SVJCR 2020 K11 U	20	20	125	19.95	VC...1103
7005-044093	SVJCL 2020 K16 U	7005-044094	SVJCR 2020 K16 U	20	20	125	19.95	VC...1604
7005-148820	SVJCL 3/8" F11 U	7005-148819	SVJCR 3/8" F11 U	9.525	9.525	80	9.475	VC...1103
7005-144858	SVJCL 3/8" H07 U	7005-144868	SVJCR 3/8" H07 U	9.525	9.525	100	9.475	VC...0702
7005-114040	SVJCL 3/8" H11 U	7005-138418	SVJCR 3/8" H11 U	9.525	9.525	100	9.475	VC...1103
7005-144852	SVJCL 1/2" H07 U	7005-144862	SVJCR 1/2" H07 U	12.7	12.7	100	12.65	VC...0702
7005-114041	SVJCL 1/2" H11 U	7005-138420	SVJCR 1/2" H11 U	12.7	12.7	100	12.65	VC...1103
7005-113730	SVJCL 3/4" K11 U	7005-113731	SVJCR 3/4" K11 U	19.05	19.05	125	19	VC...1103
7005-114042	SVJCL 3/4" K16 U	7005-138421	SVJCR 3/4" K16 U	19.05	19.05	125	19	VC...1604







ISO Coolant-Thru Holder SVJC

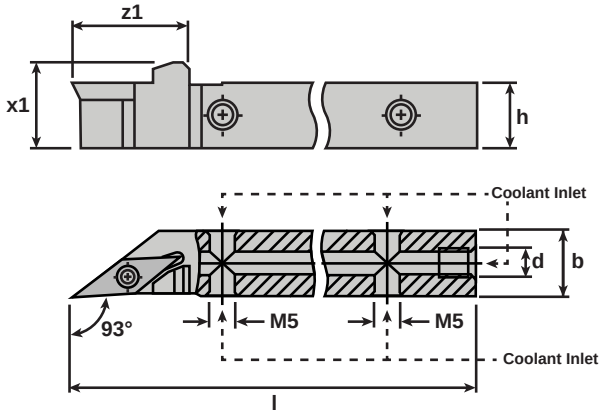
Type: 93°

Coolant-Thru: Rear & Side Ports

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features							Coolant Fittings	
Item No.	Description	Item No.	Description	b	h	l	z_1	x_1	d	Inserts	Side	Rear
7005-144851	SVJCL 0808 H07 U IC	Call For Details	SVJCR 0808 H07 U IC	8	8	100	20	11.5	M5	VC...0702	4005-000111	4005-000111
Call For Details	SVJCL 0810 H11 U IC	Call For Details	SVJCR 0810 H11 U IC	8	10	100	21	11.5	M5	VC...1103	4005-000111	4005-000111
7005-144855	SVJCL 1010 H07 U IC	Call For Details	SVJCR 1010 H07 U IC	10	10	100	21	13.5	M5	VC...0702	4005-000111	4005-000111
7005-146419	SVJCL 1010 H11 U IC	Call For Details	SVJCR 1010 H11 U IC	10	10	100	21	13.5	M5	VC...1103	4005-000111	4005-000111
7005-144857	SVJCL 1212 H07 U IC	Call For Details	SVJCR 1212 H07 U IC	12	12	100	20	15.5	M5	VC...0702	4005-000111	4005-000111
7005-146420	SVJCL 1212 H11 U IC	Call For Details	SVJCR 1212 H11 U IC	12	12	100	21	15.5	M5	VC...1103	4005-000111	4005-000111
7005-192541	SVJCL 1216 H16 U IC	Call For Details	SVJCR 1216 H16 U IC	16	12	100	27	15.5	M5	VC...1604	4005-000111	4005-000104
7005-146421A	SVJCL 1616 K11 U IC	7005-146414A	SVJCR 1616 K11 U IC	16	16	125	21	19.5	G1/8"	VC...1103	4005-000111	4005-000104
7005-146422A	SVJCL 1616 K16 U IC	7005-146415A	SVJCR 1616 K16 U IC	16	16	125	27	19.5	G1/8"	VC...1604	4005-000111	4005-000104
7005-146423	SVJCL 2020 K11 U IC	Call For Details	SVJCR 2020 K11 U IC	20	20	125	21	23.5	G1/8"	VC...1103	4005-000111	4005-000104
7005-146424	SVJCL 2020 K16 U IC	Call For Details	SVJCR 2020 K16 U IC	20	20	125	27	23.5	G1/8"	VC...1604	4005-000111	4005-000104
7005-144859	SVJCL 3/8" H07 U IC	Call For Details	SVJCR 3/8" H07 U IC	9.525	9.525	100	20	13	M5	VC...0702	4005-000111	4005-000111
7005-146431	SVJCL 3/8" H11 U IC	7005-146425A	SVJCR 3/8" H11 U IC	9.525	9.525	100	21	13	M5	VC...1103	4005-000111	4005-000111
7005-144853	SVJCL 1/2" H07 U IC	Call For Details	SVJCR 1/2" H07 U IC	12.7	12.7	100	20	16.2	M5	VC...0702	4005-000111	4005-000111
7005-146432A	SVJCL 1/2" H11 U IC	7005-146426A	SVJCR 1/2" H11 U IC	12.7	12.7	100	21	16.2	M5	VC...1103	4005-000111	4005-000111
7005-146433	SVJCL 5/8" K11 U IC	7005-146427A	SVJCR 5/8" K11 U IC	15.875	15.875	125	21	19.5	G1/8"	VC...1103	4005-000111	4005-000104
7005-146434	SVJCL 5/8" K16 U IC	7005-146428A	SVJCR 5/8" K16 U IC	15.875	15.875	125	27	19.5	G1/8"	VC...1604	4005-000111	4005-000104
7005-146435	SVJCL 3/4" K11 U IC	Call For Details	SVJCR 3/4" K11 U IC	19.05	19.05	125	21	22.6	G1/8"	VC...1103	4005-000111	4005-000104
7005-146436	SVJCL 3/4" K16 U IC	7005-146430	SVJCR 3/4" K16 U IC	19.05	19.05	125	27	22.6	G1/8"	VC...1604	4005-000111	4005-000104

Features (5) connection ports for simple connection to your oil delivery system. (4) Side ports and (1) one end port making connection possible on most machine tool positions.







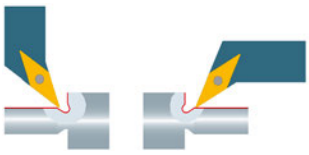
4005-000111

Connects to side ports on ALL shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks



4005-000104

Connects to end port on 5/8" and larger shanks
0° Male Union - 1/8 BSPP to 1/4 JIC Flare Fitting
Fits Position (d) On Tool Holders Sold Separately

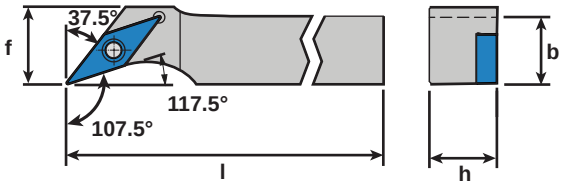


ISO Holder SVHC

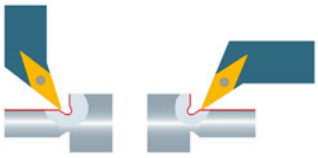
Type: 107.5°
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	b	h	l	f	Inserts
7005-144816	SVHCL 0808 H07 U	7005-144833	SVHCR 0808 H07 U	8	8	100	8	VC...0702
7005-144822	SVHCL 1010 H07 U	7005-144839	SVHCR 1010 H07 U	10	10	100	10	VC...0702
7005-154046	SVHCL 1010 H11 U	7005-154045	SVHCR 1010 H11 U	10	10	100	13	VC...1103
7005-144824	SVHCL 1212 H07 U	7005-144842	SVHCR 1212 H07 U	12	12	100	12	VC...0702
7005-114531	SVHCL 1212 H11 U	7005-114533	SVHCR 1212 H11 U	12	12	100	13	VC...1103
7005-114532	SVHCL 1616 K11 U	7005-114534	SVHCR 1616 K11 U	16	16	125	16	VC...1103
7005-144828	SVHCL 3/8" H07 U	7005-144845	SVHCR 3/8" H07 U	9.525	9.525	100	9.525	VC...0702
7005-144830	SVHCL 3/8" H11 U	7005-144847	SVHCR 3/8" H11 U	9.525	9.525	100	13	VC...1103
7005-144818	SVHCL 1/2" H07 U	7005-144835	SVHCR 1/2" H07 U	12.7	12.7	100	12.7	VC...0702
7005-144820	SVHCL 1/2" H11 U	7005-144837	SVHCR 1/2" H11 U	12.7	12.7	100	13	VC...1103
7005-144831	SVHCL 5/8" K11 U	7005-144848	SVHCR 5/8" K11 U	15.875	15.875	125	16	VC...1103







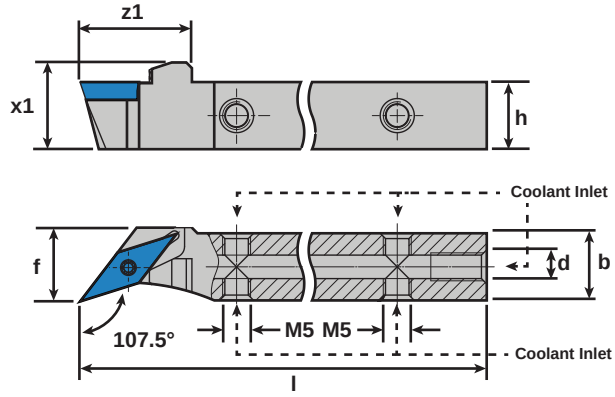
ISO Coolant-Thru Holder SVHC

Type: 107.5°
Coolant-Thru: Rear & Side Ports

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features								Coolant Fittings	
Item No.	Description	Item No.	Description	b	h	l	z_1	x_1	d	f	Inserts	Side	Rear
7005-144817	SVHCL 0808 H07 U IC	7005-144834	SVHCR 0808 H07 U IC	8	8	100	18	11.5	M5	8	VC...0702	4005-000111	4005-000111
7005-144823	SVHCL 1010 H07 U IC	7005-144840	SVHCR 1010 H07 U IC	10	10	100	18	13.5	M5	10	VC...0702	4005-000111	4005-000111
7005-144825	SVHCL 1212 H07 U IC	7005-144843	SVHCR 1212 H07 U IC	12	12	100	18	15.5	M5	12	VC...0702	4005-000111	4005-000111
7005-144826	SVHCL 1212 H11 U IC	7005-212925	SVHCR 1212 H11 U IC	12	12	100	22	15.5	M5	13	VC...1103	4005-000111	4005-000111
7005-144827	SVHCL 1616 K11 U IC	7005-144844	SVHCR 1616 K11 U IC	16	16	125	22	19.5	G1/8"	16	VC...1103	4005-000111	4005-000104
Call For Details	SVHCL 3/8" H07 U IC	Call For Details	SVHCR 3/8" H07 U IC	9.525	9.525	100	18	13	M5	9.525	VC...0702	4005-000111	4005-000111
Call For Details	SVHCL 1/2" H07 U IC	Call For Details	SVHCR 1/2" H07 U IC	12.7	12.7	100	18	16.2	M5	12.7	VC...0702	4005-000111	4005-000111
Call For Details	SVHCL 1/2" H11 U IC	Call For Details	SVHCR 1/2" H11 U IC	12.7	12.7	100	22	16.2	M5	12.7	VC...1103	4005-000111	4005-000111
Call For Details	SVHCL 5/8" K11 U IC	Call For Details	SVHCR 5/8" K11 U IC	15.875	15.875	125	22	19.4	G1/8"	15.875	VC...1103	4005-000111	4005-000104

Features (5) connection ports for simple connection to your oil delivery system. (4) Side ports and (1) one end port making connection possible on most machine tool positions.



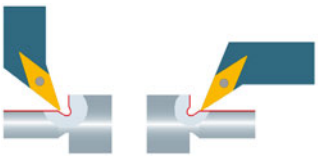




4005-000111
Connects to side ports on ALL shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks



4005-000104
Connects to end port on 5/8" and larger shanks
0° Male Union - 1/8 BSPP to 1/4 JIC Flare Fitting
Fits Position (d) On Tool Holders Sold Separately

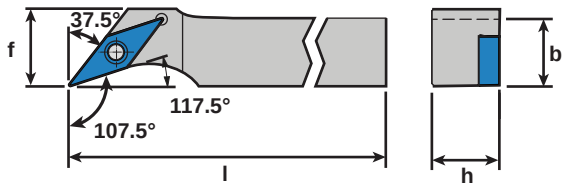


ISO Holder SVPC

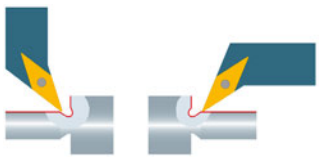
Type: 117.5°
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	b	h	l	f	Inserts
7005-144880	SVPCL 0808 H07 U	7005-144899	SVPCR 0808 H07 U	8	8	100	10	VC...0702
7005-144886	SVPCL 1010 H07 U	7005-144906	SVPCR 1010 H07 U	10	10	100	10	VC...0702
7005-154048	SVPCL 1010 H11 U	7005-154047	SVPCR 1010 H11 U	10	10	100	16	VC...1103
7005-144889	SVPCL 1212 H07 U	7005-144908	SVPCR 1212 H07 U	12	12	100	12	VC...0702
7005-114535	SVPCL 1212 H11 U	7005-114537	SVPCR 1212 H11 U	12	12	100	16	VC...1103
7005-114536	SVPCL 1616 K11 U	7005-114538	SVPCR 1616 K11 U	16	16	125	16	VC...1103
7005-144893	SVPCL 3/8" H07 U	7005-144912	SVPCR 3/8" H07 U	9.525	9.525	100	10	VC...0702
7005-144895	SVPCL 3/8" H11 U	7005-144914	SVPCR 3/8" H11 U	9.525	9.525	100	16	VC...1103
7005-144882	SVPCL 1/2" H07 U	7005-144901	SVPCR 1/2" H07 U	12.7	12.7	100	12.7	VC...0702
7005-144884	SVPCL 1/2" H11 U	7005-144903	SVPCR 1/2" H11 U	12.7	12.7	100	16	VC...1103
7005-144897	SVPCL 5/8" K11 U	7005-144916	SVPCR 5/8" K11 U	15.875	15.875	125	16	VC...1103







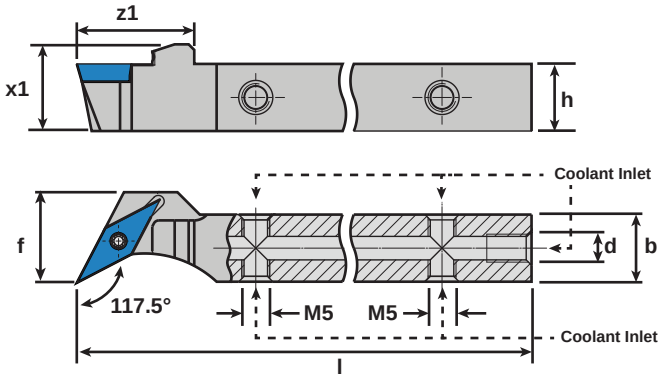
ISO Coolant-Thru Holder SVPC

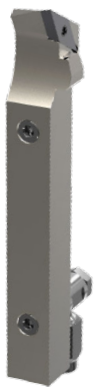
Type: 117.5°
Coolant-Thru: Rear & Side Ports

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features								Coolant Fittings	
Item No.	Description	Item No.	Description	b	h	l	z_1	x_1	d	f	Inserts	Side	Rear
7005-144881	SVPCL 0808 H07 U IC	7005-144900	SVPCR 0808 H07 U IC	8	8	100	18	11.5	M5	10	VC...0702	4005-000111	4005-000111
7005-144887	SVPCL 1010 H07 U IC	7005-144907	SVPCR 1010 H07 U IC	10	10	100	18	13.5	M5	10	VC...0702	4005-000111	4005-000111
7005-144888	SVPCL 1010 H11 U IC	7005-144905	SVPCR 1010 H11 U IC	10	10	100	22	13.5	M5	16	VC...1103	4005-000111	4005-000111
7005-144890	SVPCL 1212 H07 U IC	7005-144909	SVPCR 1212 H07 U IC	12	12	100	18	15.5	M5	12	VC...0702	4005-000111	4005-000111
7005-144891	SVPCL 1212 H11 U IC	7005-144910	SVPCR 1212 H11 U IC	12	12	100	22	15.5	M5	16	VC...1103	4005-000111	4005-000111
7005-144892	SVPCL 1616 K11 U IC	7005-144911	SVPCR 1616 K11 U IC	16	16	125	22	19.5	G1/8"	16	VC...1103	4005-000111	4005-000104
7005-144894	SVPCL 3/8" H07 U IC	7005-144913	SVPCR 3/8" H07 U IC	9.525	9.525	100	18	13	M5	10	VC...0702	4005-000111	4005-000111
7005-144896	SVPCL 3/8" H11 U IC	7005-144915	SVPCR 3/8" H11 U IC	9.525	9.525	100	22	13	M5	16	VC...1103	4005-000111	4005-000111
7005-144883	SVPCL 1/2" H07 U IC	7005-144902	SVPCR 1/2" H07 U IC	12.7	12.7	100	18	16.2	M5	12.9	VC...0702	4005-000111	4005-000111
7005-144885	SVPCL 1/2" H11 U IC	7005-144904	SVPCR 1/2" H11 U IC	12.7	12.7	100	22	16.2	M5	16	VC...1103	4005-000111	4005-000111
7005-144898	SVPCL 5/8" K11 U IC	7005-144917	SVPCR 5/8" K11 U IC	15.875	15.875	125	22	19.4	G1/8"	15.875	VC...1103	4005-000111	4005-000104

Features (5) connection ports for simple connection to your oil delivery system. (4) Side ports and (1) one end port making connection possible on most machine tool positions.





4005-000111
Connects to side ports on ALL shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks



4005-000104
Connects to end port on 5/8" and larger shanks
0° Male Union - 1/8 BSPP to 1/4 JIC Flare Fitting
Fits Position (d) On Tool Holders Sold Separately

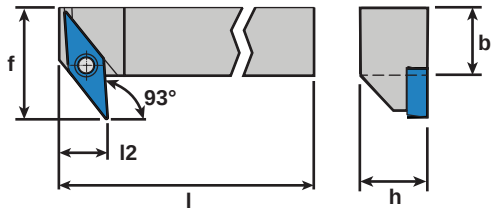


ISO Holder SVQC

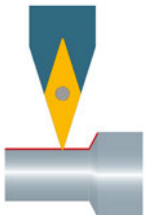
Type: 93°
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	b	h	l	l_2	f	Inserts
Call For Details	SVQCL 0808 H07	Call For Details	SVQCR 0808 H07	8	8	100	6	13.5	VC...0702
Call For Details	SVQCL 1010 H07	Call For Details	SVQCR 1010 H07	10	10	100	6	15.5	VC...0702
Call For Details	SVQCL 1212 H07	Call For Details	SVQCR 1212 H07	12	12	100	6	17.5	VC...0702
7005-043538	SVQCL 1212 H11	7005-043540	SVQCR 1212 H11	12	12	100	8.5	20	VC...1103
7005-043539	SVQCL 1616 K11	7005-043541	SVQCR 1616 K11	16	16	125	8.5	24	VC...1103





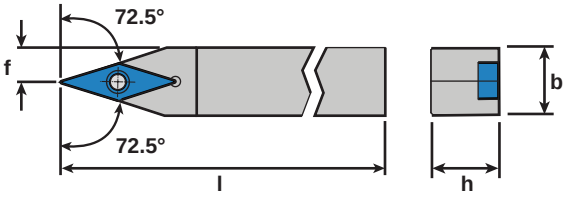


ISO Holder SVVCN

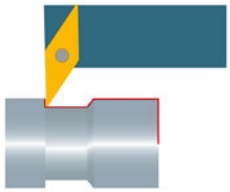
Type: 72.5°
Coolant-Thru: None

Repeatability <20µm

		Dimensions & Features					
Item No.	Description	Hand	b	h	l	f	Inserts
7005-148821	SVVCN 0808 F11 U	Neutral	8	8	80	4	VC...1103
7005-144930	SVVCN 0808 H07 U	Neutral	8	8	100	4	VC...0702
7005-044027	SVVCN 0808 H11 U	Neutral	8	8	100	4	VC...1103
7005-148822	SVVCN 1010 F11 U	Neutral	10	10	80	5	VC...1103
7005-144937	SVVCN 1010 H07 U	Neutral	10	10	100	5	VC...0702
7005-044028	SVVCN 1010 H11 U	Neutral	10	10	100	5	VC...1103
7005-045170	SVVCN 1212 F11 U	Neutral	12	12	100	6	VC...1103
7005-144940	SVVCN 1212 H07 U	Neutral	12	12	100	6	VC...0702
7005-044029	SVVCN 1212 H11 U	Neutral	12	12	100	6	VC...1103
7005-045171	SVVCN 1616 H11 U	Neutral	16	16	125	8	VC...1103
7005-045172	SVVCN 2020 K11 U	Neutral	20	20	125	10	VC...1103
7005-045173	SVVCN 2020 K16 U	Neutral	20	20	125	10	VC...1604
7005-144949	SVVCN 3/8" H07 U	Left	9.525	9.525	100	4.76	VC...0702
7005-144951	SVVCN 3/8" H11 U	Left	9.525	9.525	100	4.76	VC...1103
7005-144933	SVVCN 1/2" H07 U	Left	12.7	12.7	100	6.35	VC...0702
7005-144935	SVVCN 1/2" H11 U	Left	12.7	12.7	100	6.35	VC...1103
Call For Details	SVVCN 5/8" K11 U	Left	15.875	15.875	125	7.93	VC...1103
7005-144945	SVVCN 3/4" K11 U	Left	19.05	19.05	125	9.525	VC...1103
7005-144947	SVVCN 3/4" K16 U	Left	19.05	19.05	125	9.525	VC...1604





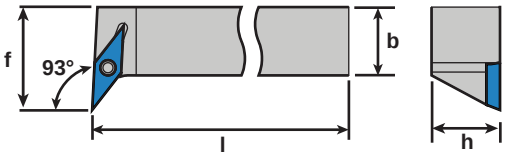


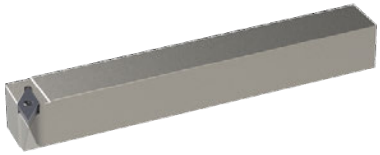
ISO Holder SVUC

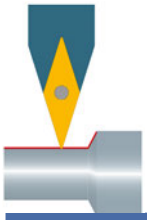
Type: 93°
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	b	h	l	f	Inserts
7005-144924	SVUCL 0808 H07	7005-144927	SVUCR 0808 H07	8	8	100	13.5	VC...0702
7005-144925	SVUCL 1010 H07	7005-144928	SVUCR 1010 H07	10	10	100	15.5	VC...0702
7005-144926	SVUCL 1212 H07	7005-144929	SVUCR 1212 H07	12	12	100	17.5	VC...0702
7005-043542	SVUCL 1212 H11	7005-043544	SVUCR 1212 H11	12	12	100	20	VC...1103
7005-043543	SVUCL 1616 K11	7005-043545	SVUCR 1616 K11	16	16	125	24	VC...1103
7005-153231	SVUCL 2020 K11	7005-150911	SVUCR 2020 K11	20	20	125	28	VC...1103







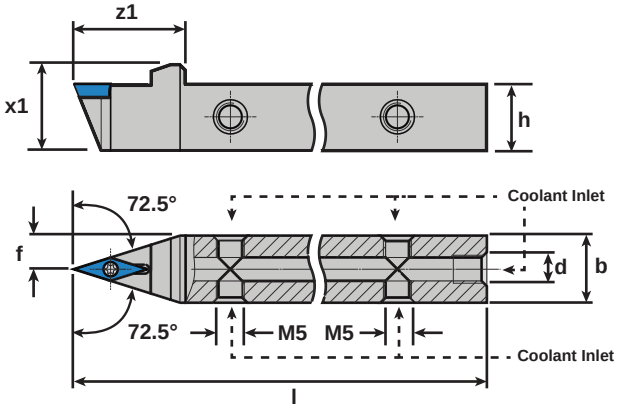
ISO Coolant-Thru Holder SVVCN

Type: 72.5°
Coolant-Thru: Rear & Side Ports

Repeatability <10µm

Left Hand		Dimensions & Features								Coolant Fittings	
Item No.	Description	b	h	l	z_1	x_1	d	f	Inserts	Side	Rear
7005-144931	SVVCN 0808 H07 U IC	8	8	100	20	11.5	M5	4	VC...0702	4005-000111	4005-000111
7005-144932	SVVCN 0810 H11 U IC	10	8	100	21	11.5	M5	5	VC...1103	4005-000111	4005-000111
7005-144938	SVVCN 1010 H07 U IC	10	10	100	20	13.5	M5	5	VC...0702	4005-000111	4005-000111
7005-144939	SVVCN 1010 H11 U IC	10	10	100	21	13.5	M5	5	VC...1103	4005-000111	4005-000111
7005-144941	SVVCN 1212 H07 U IC	12	12	100	20	15.5	M5	6	VC...0702	4005-000111	4005-000111
7005-150927	SVVCN 1212 H11 U IC	12	12	100	21	15.5	M5	6	VC...1103	4005-000111	4005-000111
7005-144942	SVVCN 1616 K11 U IC	16	16	125	21	19.5	G1/8"	8	VC...1103	4005-000111	4005-000104
7005-144943	SVVCN 2020 K11 U IC	20	20	125	21	23.5	G1/8"	10	VC...1103	4005-000111	4005-000104
7005-144944	SVVCN 2020 K16 U IC	20	20	125	27	23.5	G1/8"	10	VC...1604	4005-000111	4005-000104
7005-144950	SVVCN 3/8" H07 U IC	9.525	9.525	100	20	13	M5	4.76	VC...0702	4005-000111	4005-000111
7005-144952	SVVCN 3/8" H11 U IC	9.525	9.525	100	20	13	M5	4.76	VC...1103	4005-000111	4005-000111
7005-144934	SVVCN 1/2" H07 U IC	12.7	12.7	100	21	15.4	M5	6.35	VC...0702	4005-000111	4005-000111
7005-144936	SVVCN 1/2" H11 U IC	12.7	12.7	100	21	15.4	M5	6.35	VC...1103	4005-000111	4005-000111
7005-144954	SVVCN 5/8" K11 U IC	15.875	15.875	125	21	18.6	G1/8"	7.94	VC...1103	4005-000111	4005-000104
7005-144946	SVVCN 3/4" K11 U IC	19.05	19.05	125	21	22.6	G1/8"	9.52	VC...1103	4005-000111	4005-000104
7005-144948	SVVCN 3/4" K16 U IC	19.05	19.05	125	27	22.6	G1/8"	9.52	VC...1604	4005-000111	4005-000104

Features (5) connection ports for simple connection to your oil delivery system. (4) Side ports and (1) one end port making connection possible on most machine tool positions.



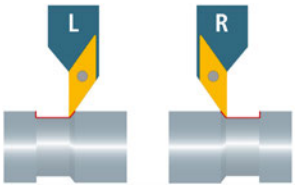




4005-000111
Connects to side ports on ALL shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks



4005-000104
Connects to end port on 5/8" and larger shanks
0° Male Union - 1/8 BSPP to 1/4 JIC Flare Fitting
Fits Position (d) On Tool Holders Sold Separately

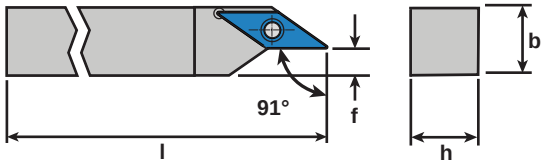


ISO Holder SVXC

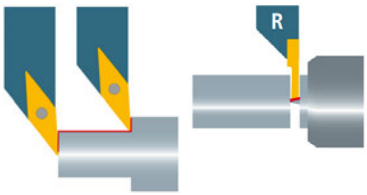
Type: 91°
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	b	h	l	f	Inserts
7005-144955	SVXCL 0808 H07 U	7005-144965	SVXCR 0808 H07 U	8	8	100	2.5	VC...0702
7005-148824	SVXCL 1010 F11 U	7005-148823	SVXCR 1010 F11 U	10	10	80	3	VC...1103
7005-144959	SVXCL 1010 H07 U	7005-144969	SVXCR 1010 H07 U	10	10	100	4.5	VC...0702
7005-044049	SVXCL 1010 H11 U	7005-044050	SVXCR 1010 H11 U	10	10	100	3	VC...1103
7005-144961	SVXCL 1212 H07 U	7005-144971	SVXCR 1212 H07 U	12	12	100	6.5	VC...0702
7005-044051	SVXCL 1212 H11 U	7005-044052	SVXCR 1212 H11 U	12	12	100	5	VC...1103
7005-043075	SVXCL 1616 K11 U	7005-043076	SVXCR 1616 K11 U	16	16	125	9	VC...1103
7005-044055	SVXCL 2020 K16 U	7005-044056	SVXCR 2020 K16 U	20	20	125	9	VC...1604
7005-153737	SVXCL 3/8" F11 U	7005-153732	SVXCR 3/8" F11 U	9.525	9.525	80	2	VC...1103
7005-144963	SVXCL 3/8" H07 U	7005-144973	SVXCR 3/8" H07 U	9.525	9.525	100	4	VC...0702
7005-153738	SVXCL 3/8" H11 U	7005-153733	SVXCR 3/8" H11 U	9.525	9.525	100	2	VC...1103
7005-144957	SVXCL 1/2" H07 U	7005-144967	SVXCR 1/2" H07 U	12.7	12.7	100	7.2	VC...0702
7005-153739	SVXCL 1/2" H11 U	7005-153734	SVXCR 1/2" H11 U	12.7	12.7	100	5	VC...1103
7005-153740	SVXCL 5/8" K11 U	7005-153735	SVXCR 5/8" K11 U	15.875	15.875	125	8	VC...1103
7005-153741	SVXCL 3/4" K16 U	7005-153736	SVXCR 3/4" K16 U	19.05	19.05	125	8	VC...1604





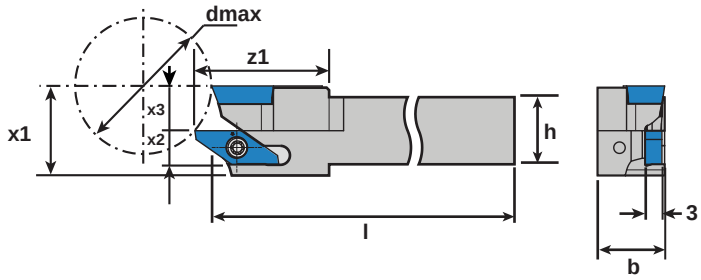


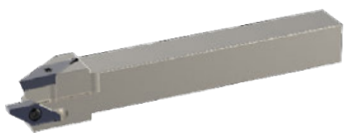
TWIN Insert Holder SVJC

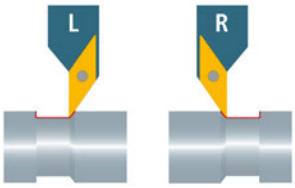
Type: 93° ISO / 1600 Series Inserts
Coolant-Thru: None

Repeatability <20µm

Right Hand		Dimensions & Features							
Item No.	Description	b	h	l	z_1	x_1	x_2	x_3	d_{max}	Inserts
7005-144870	SVJCR/1600R-0810 H07 Twin	10	8	100	24	16	4	8	24	VC...0702
7005-144874	SVJCR/1600R-1010 H07 Twin	10	10	100	24	16	5	8	24	VC...0702
7005-144876	SVJCR/1600R-1212 H07 Twin	12	12	100	24	16	6	8	24	VC...0702
7005-153869	SVJCR/1600R-0810 H11 Twin	10	8	100	24	16	4	8	24	VC...1103
7005-153666	SVJCR/1600R-1010 H11 Twin	10	10	100	24	16	5	8	24	VC...1103
7005-153667	SVJCR/1600R-1212 H11 Twin	12	12	100	24	16	6	8	24	VC...1103
7005-153668	SVJCR/1600R-1616 K11 Twin	16	16	125	24	23	8	10	36	VC...1103
7005-153669	SVJCR/1600R-2020 K11 Twin	20	20	125	24	27	8	14	68	VC...1103
7005-144878	SVJCR/1600R-3/8" H07 Twin	9.525	9.525	100	24	16	4.76	8	24	VC...0702
7005-144872	SVJCR/1600R-1/2" H07 Twin	12.7	12.7	100	24	16	6.35	8	24	VC...0702
7005-153716	SVJCR/1600R-3/8" H11 Twin	9.525	9.525	100	24	16	4.76	8	24	VC...1103
7005-153717	SVJCR/1600R-1/2" H11 Twin	12.7	12.7	100	24	16	6.35	8	24	VC...1103
Call For Details	SVJCR/1600R-5/8" K11 Twin	15.875	15.875	125	24	23	7.94	10	36	VC...1103
7005-153719	SVJCR/1600R-3/4" K11 Twin	19.05	19.05	125	24	27	7.53	14	68	VC...1103







ISO Coolant-Thru Holder SVXC

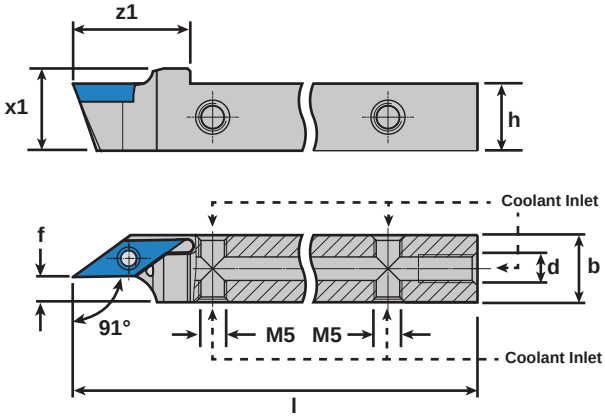
Type: 91°

Coolant-Thru: Rear & Side Ports

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features								Coolant Fittings	
Item No.	Description	Item No.	Description	b	h	l	z_1	x_1	d	f	Inserts	Side	Rear
7005-144956	SVXCL 0808 H07 U IC	7005-144966	SVXCR 0808 H07 U IC	8	8	100	18	11.5	M5	2.5	VC...0702	4005-000111	4005-000111
7005-153745	SVXCL 1010 F11 U IC	7005-169545	SVXCR 1010 F11 U IC	10	10	80	21	12.7	M5	3	VC...1103	4005-000111	4005-000111
7005-144960	SVXCL 1010 H07 U IC	7005-144970	SVXCR 1010 H07 U IC	10	10	100	18	13.5	M5	4.5	VC...0702	4005-000111	4005-000111
7005-153746	SVXCL 1010 H11 U IC	7005-169546	SVXCR 1010 H11 U IC	10	10	100	21	12.7	M5	3	VC...1103	4005-000111	4005-000111
7005-144962	SVXCL 1212 H07 U IC	7005-144972	SVXCR 1212 H07 U IC	12	12	100	18	15.5	M5	6.5	VC...0702	4005-000111	4005-000111
7005-169004	SVXCL 1212 H11 U IC	7005-153742	SVXCR 1212 H11 U IC	12	12	100	21	14.7	M5	5	VC...1103	4005-000111	4005-000111
7005-150765	SVXCL 1616 K11 U IC	7005-153743	SVXCR 1616 K11 U IC	16	16	125	21	18.7	G1/8"	9	VC...1103	4005-000111	4005-000104
7005-153747	SVXCL 2020 K16 U IC	7005-153744	SVXCR 2020 K16 U IC	20	20	125	27	22	G1/8"	9	VC...1604	4005-000111	4005-000104
7005-153753	SVXCL 3/8" F11 U IC	7005-153748	SVXCR 3/8" F11 U IC	9.525	9.525	80	21	12.2	M5	2	VC...1103	4005-000111	4005-000111
7005-144964	SVXCL 3/8" H07 U IC	7005-144974	SVXCR 3/8" H07 U IC	9.525	9.525	100	18	13	M5	4.02	VC...0702	4005-000111	4005-000111
7005-153754	SVXCL 3/8" H11 U IC	7005-153749	SVXCR 3/8" H11 U IC	9.525	9.525	100	21	12.2	M5	2	VC...1103	4005-000111	4005-000111
7005-144958	SVXCL 1/2" H07 U IC	7005-144968	SVXCR 1/2" H07 U IC	12.7	12.7	100	18	16.2	M5	7.19	VC...0702	4005-000111	4005-000111
7005-153755	SVXCL 1/2" H11 U IC	7005-153750	SVXCR 1/2" H11 U IC	12.7	12.7	100	21	15.4	M5	5	VC...1103	4005-000111	4005-000111
7005-153756	SVXCL 5/8" K11 U IC	7005-153751	SVXCR 5/8" K11 U IC	15.875	15.875	125	21	18.6	G1/8"	8	VC...1103	4005-000111	4005-000104
7005-153757	SVXCL 3/4" K16 U IC	7005-153752	SVXCR 3/4" K16 U IC	19.05	19.05	125	27	22	G1/8"	8	VC...1604	4005-000111	4005-000104

Features (5) connection ports for simple connection to your oil delivery system. (4) Side ports and (1) one end port making connection possible on most machine tool positions.







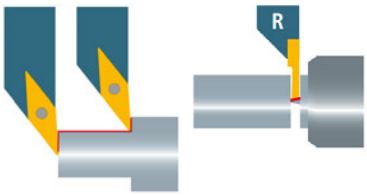
4005-000111

Connects to side ports on ALL shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks



4005-000104

Connects to end port on 5/8" and larger shanks
0° Male Union - 1/8 BSPP to 1/4 JIC Flare Fitting
Fits Position (d) On Tool Holders Sold Separately



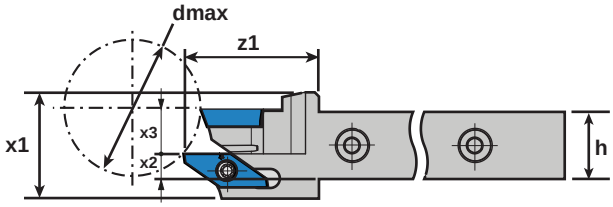
TWIN Insert Coolant-Thru Holder SVJC

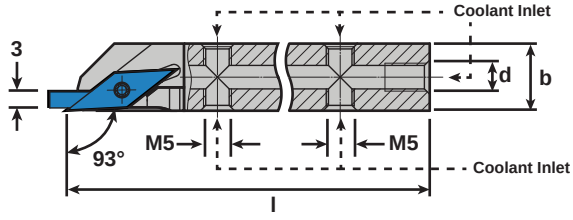
Type: 93° ISO / 1600 Series Inserts
Coolant-Thru: Rear & Side Ports

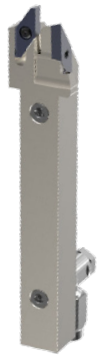
Repeatability <10µm

Right Hand		Dimensions & Features										Coolant Fittings	
Item No.	Description	b	h	l	z_1	x_1	x_2	x_3	d	d_{max}	Inserts	Side	Rear
7005-144871	SVJCR/1600R-0810 H07 Twin IC	10	8	100	24	16	4	8	M5	24	VC...0702	4005-000111	4005-000111
7005-144875	SVJCR/1600R-1010 H07 Twin IC	10	10	100	24	16	5	8	M5	24	VC...0702	4005-000111	4005-000111
7005-144877	SVJCR/1600R-1212 H07 Twin IC	12	12	100	24	16	6	8	M5	24	VC...0702	4005-000111	4005-000111
7005-153870	SVJCR/1600R-0810 H11 Twin IC	10	8	100	24	16	4	8	M5	24	VC...1103	4005-000111	4005-000111
7005-153670	SVJCR/1600R-1010 H11 Twin IC	10	10	100	24	16	5	8	M5	24	VC...1103	4005-000111	4005-000111
7005-153671	SVJCR/1600R-1212 H11 Twin IC	12	12	100	24	16	6	8	M5	24	VC...1103	4005-000111	4005-000111
7005-153672	SVJCR/1600R-1616 K11 Twin IC	16	16	125	24	20	8	10	G1/8"	36	VC...1103	4005-000111	4005-000104
7005-153673	SVJCR/1600R-2020 K11 Twin IC	20	20	125	24	24	8	14	G1/8"	68	VC...1103	4005-000111	4005-000104
7005-144879	SVJCR/1600R-3/8" H07 Twin IC	9.525	9.525	100	24	16	4.76	8	M5	24	VC...0702	4005-000111	4005-000111
7005-144873	SVJCR/1600R-1/2" H07 Twin IC	12.7	12.7	100	24	16	6.35	8	M5	24	VC...0702	4005-000111	4005-000111
7005-144879	SVJCR/1600R-3/8" H07 Twin IC	9.525	9.525	100	24	16	4.76	8	M5	24	VC...0702	4005-000111	4005-000111
7005-144873	SVJCR/1600R-1/2" H07 Twin IC	12.7	12.7	100	24	16	6.35	8	M5	24	VC...0702	4005-000111	4005-000111
7005-153722	SVJCR/1600R-5/8" K11 Twin IC	15.875	15.875	125	24	20	7.94	10	G1/8"	36	VC...1103	4005-000111	4005-000104
7005-153723	SVJCR/1600R-3/4" K11 Twin IC	19.05	19.05	125	24	24	7.53	14	G1/8"	68	VC...1103	4005-000111	4005-000104

Features (5) connection ports for simple connection to your oil delivery system. (4) Side ports and (1) one end port making connection possible on most machine tool positions.









4005-000111
Connects to side ports on ALL shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks

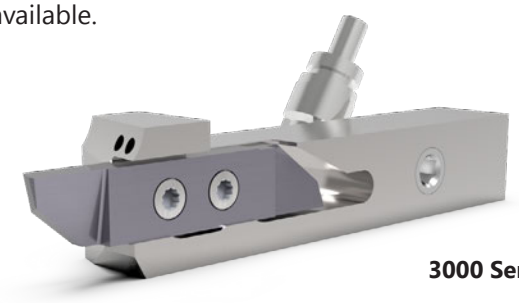


4005-000104
Connects to end port on 5/8" and larger shanks
0° Male Union - 1/8 BSPP to 1/4 JIC Flare Fitting
Fits Position (d) On Tool Holders Sold Separately

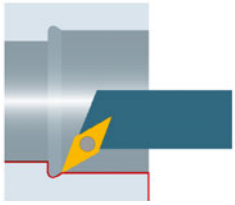
multidec® SHORT

multidec® SHORT coolant-thru holders enable the use of multidec® turning inserts on commonly available quick change tooling systems. **multidec® 1600, 3000, ISO VC, & ISO VP** series inserts are currently available.

See Pg. 304
For Full Details



3000 Series Insert Shown

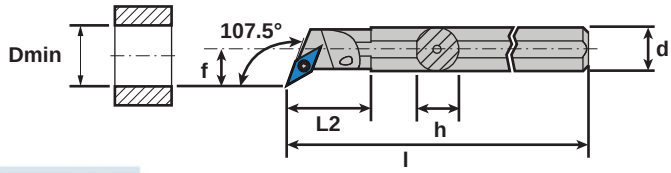


ISO Round Shank Holder SVQC

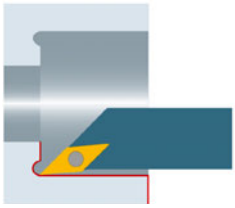
Type: 107.5°
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	d	h	l	l_2	f	d_{min}	Inserts
7005-144688	A10 H SVQCL 07	7005-144689	A10 H SVQCR 07	10	9.5	100	23	8	16	VC...0702
7005-144694	A12 K SVQCL 07	7005-144695	A12 K SVQCR 07	12	11.5	125	25	9	17	VC...0702
7005-144700	A16 M SVQCL 07	Call For Details	A16 M SVQCR 07	16	15	150	29	11	20	VC...0702
7005-045274	A16 M SVQCL 11	7005-045275	A16 M SVQCR 11	16	15	150	29	11	20	VC...1103
7005-045276	A20 Q SVQCL 11	7005-045277	A20 Q SVQCR 11	20	18.5	180	32	13	25	VC...1103





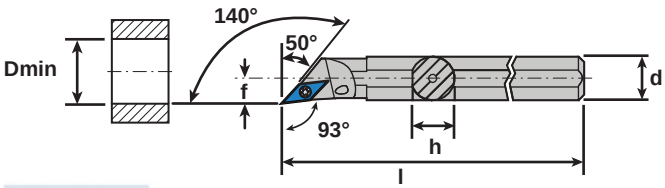


ISO Round Shank Holder SVOC

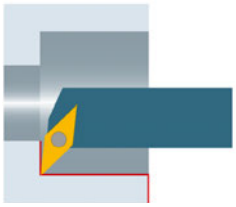
Type: 140°
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	d	h	l	f	d_{min}	Inserts
7005-144686	A10 H SVOCL 07	7005-144687	A10 H SVOCR 07	10	9.5	100	6	16	VC...0702
7005-144692	A12 K SVOCL 07	7005-144693	A12 K SVOCR 07	12	11.5	125	7	17	VC...0702
7005-114037	A12 K SVOCL 11	7005-044340	A12 K SVOCR 11	12	11.5	125	7	17	VC...1103
7005-144698	A16 M SVOCL 07	7005-144699	A16 M SVOCR 07	16	15.5	150	9	20	VC...0702
7005-114038	A16 M SVOCL 11	7005-044347	A16 M SVOCR 11	16	15.5	150	9	20	VC...1103





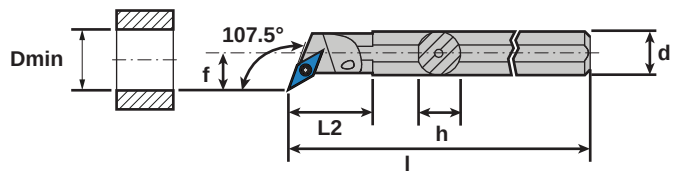


ISO Round Shank Holder SVUC

Type: 93°
Coolant-Thru: None

Repeatability <20µm

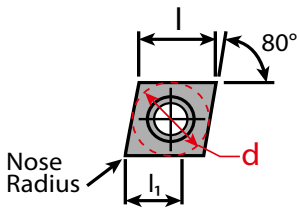
Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	d	h	l	l_2	f	d_{min}	Inserts
Call For Details	A10 K SVUCL 07	Call For Details	A10 K SVUCR 07	10	9.5	100	23	8	16	VC...0702
7005-144696	A12 K SVUCL 07	7005-144697	A12 K SVUCR 07	12	11.5	125	25	9	17	VC...0702
7005-144702	A16 M SVUCL 07	7005-144703	A16 M SVUCR 07	16	15.5	150	29	11	20	VC...0702
7005-045280	A16 M SVUCL 11	7005-045281	A16 M SVUCR 11	16	15	150	29	11	20	VC...1103
7005-045282	A20 Q SVUCL 11	7005-045283	A20 Q SVUCR 11	20	18.5	180	32	13	25	VC...1103

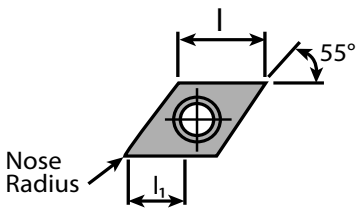


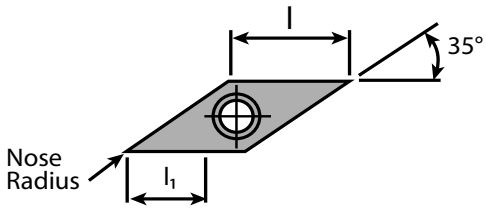


Speeds And Feeds Multidec ISO

ISO	Unalloyed Steel			Low-Alloy Steel			High-Alloy Steel		
Hardness (HB)-(HRC)	125-300 HB			180-250 HB			200-350 HB		
Category	I			II			III		
Machining Method	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing
Cutting Speeds	vc(ft/min)								
Carbide Grade									
UHM 10	130-360	200-390	200-460	200-320	200-390	200-420	130-290	190-780	190-390
UHM 10 HX	200-590	200-720	200-850	200-560	200-660	200-790	160-520	190-590	190-720
UHM 10 TX+	-	-	-	260-490	330-590	520-720	230-330	290-490	390-590
UHM 10 MZ	590-980	720-1310	820-1640	490-920	650-1050	160-1310	390-920	590-1050	590-1050
UHM 20 HPX	490-660	590-720	650-850	260-490	330-590	520-720	230-330	290-490	390-590
UHM 20 TX+	-	-	-	260-430	330-490	520-620	230-290	290-430	430-490
UHM 20 MZ	430-590	520-720	590-850	330-520	360-590	420-720	230-490	360-520	430-620
UHM 30	100-230	160-260	160-320	100-200	130-260	130-330	100-160	100-230	100-260
UHM 30 HX	160-460	160-590	160-720	160-430	160-520	160-650	130-390	160-490	160-590
UHM 30 TX+	160-390	160-460	160-490	160-330	160-390	160-460	130-260	160-330	160-360
UHM 30 MZ	390-520	490-660	550-780	290-460	330-520	390-660	190-430	290-460	360-520
UHM 30 SX	160-390	160-590	160-650	160-330	330-460	160-190	130-290	160-390	160-520
Cermet Grade									
UCM 10	-	590-980	720-1150	-	460-820	190-980	-	460-590	520-650
UCM 10 HX	-	820-1150	980-1470	-	660-980	720-1240	-	780-980	850-
Diamond Grade									
UCVD 08	-	-	-	-	-	-	-	-	-
UPCD 15	-	-	-	-	-	-	-	-	-
UPCD 20	-	-	-	-	-	-	-	-	-

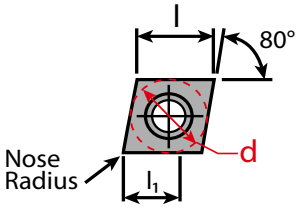


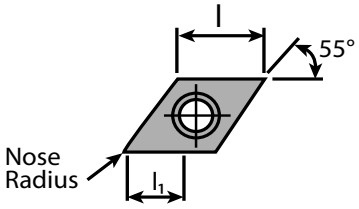


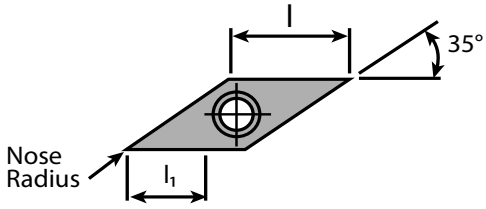


Speeds And Feeds Multidec ISO

ISO	Stainless Steel			Stainless Steel			Titanium		
Hardness (HB)-(HRC)	180-220 HB			220-330 HB			-		
Category	V			VI			IV		
Machining Method	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing
Cutting Speeds	vc(ft/min)								
Carbide Grade									
UHM 10	130-330	130-360	130-390	100-230	100-260	100-260	130-200	160-230	200-260
UHM 10 HX	160-460	160-590	160-720	130-330	160-360	160-430	130-390	130-430	130-490
UHM 10 TX+	300-490	360-590	520-650	230-300	300-390	360-490	160-330	200-390	200-460
UHM 10 MZ	330-590	590-820	720-980	-	-	-	-	-	-
UHM 20 HPX	290-490	360-590	520-650	230-290	290-390	360-490	160-330	200-390	200-460
UHM 20 TX+	290-430	360-520	520-590	230-290	290-390	360-490	160-330	200-390	200-460
UHM 20 MZ	290-490	360-520	420-590	160-260	100-160	130-230	-	-	-
UHM 30	100-200	100-230	100-260	60-100	60-130	60-130	130-160	80-200	100-230
UHM 30 HX	130-330	130-460	130-520	100-190	130-230	130-290	100-290	130-330	130-390
UHM 30 TX+	-	-	-	-	-	-	-	-	-
UHM 30 MZ	260-430	330-460	360-520	130-260	160-300	300-360	-	-	-
UHM 30 SX	100-300	130-390	130-520	60-160	100-200	100-260	-	-	-
Cermet Grade									
UCM 10	-	460-590	490-720	-	230-300	230-360	-	-	-
UCM 10 HX	-	560-750	750-920	-	260-360	360-460	-	-	-
Diamond Grade									
UCVD 08	-	-	-	-	-	-	-	-	-
UPCD 15	-	-	-	-	-	-	-	-	-
UPCD 20	-	-	-	-	-	-	-	-	-

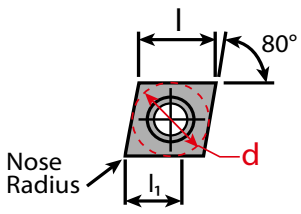


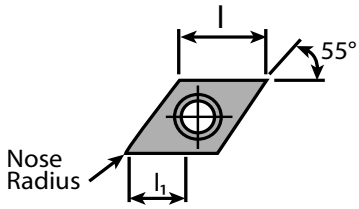


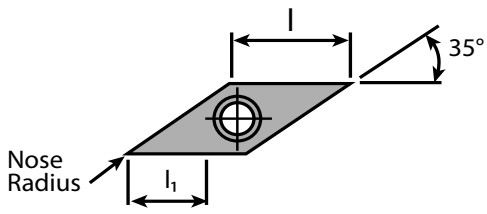


Speeds And Feeds Multidec ISO

ISO	Aluminum			Brass			Hard Materials		
Hardness (HB)-(HRC)	60-130 HB			-			45-70 HRC		
Category	VII			VIII			X		
Machining Method	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing
Cutting Speeds	vc(ft/min)								
Carbide Grade									
UHM 10	330-4920	390-6560	520-8200	260-980	330-1300	390-1640	-	-	-
UHM 10 HX	460-8200	520-9840	650-9840	330-1470	330-1970	330-2460	-	-	-
UHM 10 TX+	-	-	-	-	-	-	50-100	50-130	60-190
UHM 10 MZ	-	-	-	-	-	-	-	-	-
UHM 20 HPX	-	-	-	-	-	-	-	-	-
UHM 20 TX+	-	-	-	-	-	-	-	-	-
UHM 20 MZ	-	-	-	-	-	-	-	-	-
UHM 30	160-3280	190-3940	260-4920	130-330	160-460	160-520	-	-	-
UHM 30 HX	230-4920	260-6560	330-9840	160-490	160-660	160-820	-	-	-
UHM 30 TX+	-	-	-	-	-	-	-	-	-
UHM 30 MZ	-	-	-	-	-	-	-	-	-
UHM 30 SX	200-3940	260-6560	330-9840	160-390	160-590	160-660	-	-	-
Cermet Grade									
UCM 10	-	-	-	-	-	-	-	-	-
UCM 10 HX	-	-	-	-	-	-	-	-	-
Diamond Grade									
UCVD 08	-	980-6560	980-9840	-	820-3280	980-4920	-	-	-
UPCD 15	-	980-6560	980-9840	-	820-3280	980-4920	-	-	-
UPCD 20	-	980-6560	980-9840	-	820-3280	980-4920	-	-	-







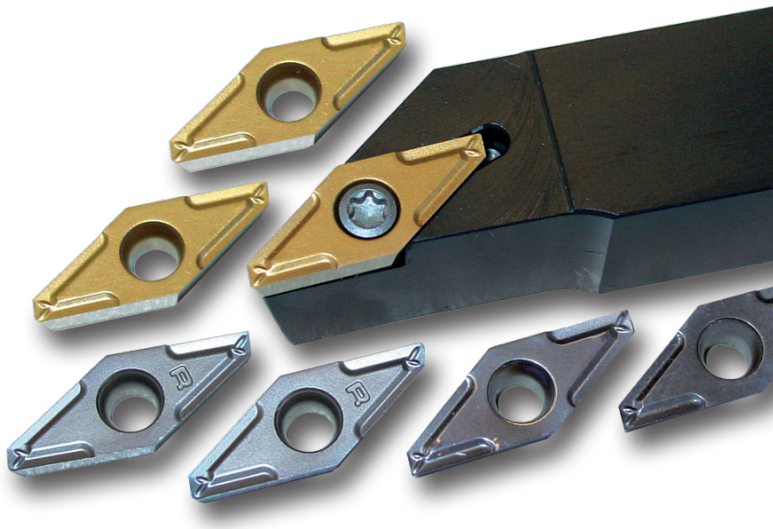
UTILIS

multidec®

swiss type tools

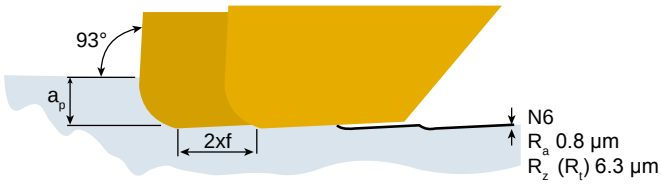
TOP Series

- Wiper geometry enables faster feeds while maintaining good surface finish
- Holders especially designed for front turning and back turning in Swiss-type machines
- Versatile cutting geometry and chip breaker enables turning in three directions
- Decreases cycle time by enabling up to 2X feed rate while maintaining surface quality



multidec® TOP series inserts feature a trailing wiper geometry which produces a stronger cutting edge. This allows for faster feeds while simultaneously increasing surface finish by burnishing the high-points of the turn pattern.

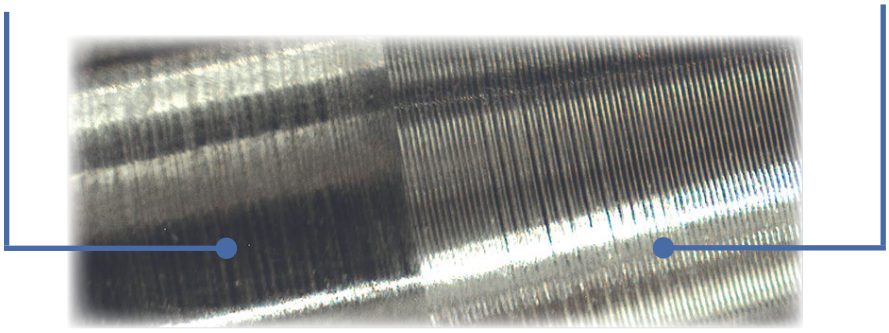
The multidec® TOP series line features a sharp tool nose radius of 0mm .08mm and .15mm with chip control geometry and is ideal for precision small parts turning in tough materials.



Holder 93°
Corner Radius 0.8mm
multidec® -TOP insert

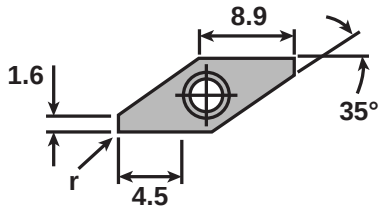
Turned With A multidec® TOP Wiper Insert

Turned With A Standard VCGT Insert

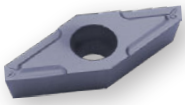


Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	**Steel**
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	



β: 12°
C: <0.002
s: ±0.025 (VPET)
±0.13 (VPGT)
±0.1 (VPXT)

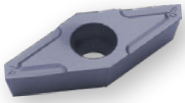


VPET Carbide TOP Wiper (S: ±0.025)

Cut: Standard
Chip Breaker: TOP Wiper, Polished Rake, Sharp Cutting Edge

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features			
Item No.	Description	Item No.	Description	Edge	Nose Radius	Holder	Coating
7005-044766	VPET 1003ZZ FL TOP UHM10 TX+	7005-192089	VPET 1003ZZ FR TOP UHM10 TX+	Sharp	0	SV...	UHM 10 TX+
7005-129857	VPET 1003ZZ FL TOP UHM20 HPX	7005-129863	VPET 1003ZZ FR TOP UHM20 HPX	Sharp	0	SV...	UHM 20 HPX
7005-212499	VPET 1003ZZ FL TOP UHM20 TX+	7005-044758	VPET 1003ZZ FR TOP UHM20 TX+	Sharp	0	SV...	UHM 20 TX+
7005-044768	VPET 1003008 FL TOP UHM10 TX+	7005-044761	VPET 1003008 FR TOP UHM10 TX+	Sharp	.08mm/.0031in	SV...	UHM 10 TX+
7005-129859	VPET 1003008 FL TOP UHM20 HPX	7005-129865	VPET 1003008 FR TOP UHM20 HPX	Sharp	.08mm/.0031in	SV...	UHM 20 HPX
7005-044769	VPET 1003008 FL TOP UHM20 TX+	7005-044762	VPET 1003008 FR TOP UHM20 TX+	Sharp	.08mm/.0031in	SV...	UHM 20 TX+
7005-044771	VPET 1003015 FL TOP UHM10 TX+	7005-212162	VPET 1003015 FR TOP UHM10 TX+	Sharp	.15mm/.0059in	SV...	UHM 10 TX+
7005-129861	VPET 1003015 FL TOP UHM20 HPX	7005-129867	VPET 1003015 FR TOP UHM20 HPX	Sharp	.15mm/.0059in	SV...	UHM 20 HPX
7005-044772	VPET 1003015 FL TOP UHM20 TX+	7005-044764	VPET 1003015 FR TOP UHM20 TX+	Sharp	.15mm/.0059in	SV...	UHM 20 TX+
7005-114892	VPET 1003015 FL TOP UHM30 SX	7005-114895	VPET 1003015 FR TOP UHM30 SX	Sharp	.15mm/.0059in	SV...	UHM 30 SX

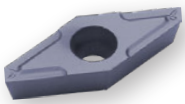


VPGT Carbide TOP Wiper (S: ±0.13)

Cut: Standard
Chip Breaker: TOP Wiper, Polished Rake, Sharp Cutting Edge

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features			
Item No.	Description	Item No.	Description	Edge	Nose Radius	Holder	Coating
7005-117094	VPGT 1003ZZ FL TOP UHM10 HX	7005-117088	VPGT 1003ZZ FR TOP UHM10 HX	Sharp	0	SV...	UHM 10 HX
7005-150871	VPGT 1003ZZ FL TOP UHM10 TX+	7005-192462	VPGT 1003ZZ FR TOP UHM10 TX+	Sharp	0	SV...	UHM 10 TX+
7005-113207	VPGT 1003ZZ FL TOP UHM20 HPX	7005-113203	VPGT 1003ZZ FR TOP UHM20 HPX	Sharp	0	SV...	UHM 20 HPX
7005-044774	VPGT 1003ZZ FL TOP UHM20 TX+	7005-169816	VPGT 1003ZZ FR TOP UHM20 TX+	Sharp	0	SV...	UHM 20 TX+
7005-117096	VPGT 1003008 FL TOP UHM10 HX	7005-117090	VPGT 1003008 FR TOP UHM10 HX	Sharp	.08mm/.0031in	SV...	UHM 10 HX
7005-192815	VPGT 1003008 FL TOP UHM10 TX+	7005-154795	VPGT 1003008 FR TOP UHM10 TX+	Sharp	.08mm/.0031in	SV...	UHM 10 TX+
7005-113209	VPGT 1003008 FL TOP UHM20 HPX	7005-113205	VPGT 1003008 FR TOP UHM20 HPX	Sharp	.08mm/.0031in	SV...	UHM 20 HPX
7005-044775	VPGT 1003008 FL TOP UHM20 TX+	7005-154431	VPGT 1003008 FR TOP UHM20 TX+	Sharp	.08mm/.0031in	SV...	UHM 20 TX+
7005-117098	VPGT 1003015 FL TOP UHM10 HX	7005-117092	VPGT 1003015 FR TOP UHM10 HX	Sharp	.15mm/.0059in	SV...	UHM 10 HX
7005-154260	VPGT 1003015 FL TOP UHM10 TX+	7005-147792	VPGT 1003015 FR TOP UHM10 TX+	Sharp	.15mm/.0059in	SV...	UHM 10 TX+
7005-113128	VPGT 1003015 FL TOP UHM20 HPX	7005-113130	VPGT 1003015 FR TOP UHM20 HPX	Sharp	.15mm/.0059in	SV...	UHM 20 HPX
7005-044776	VPGT 1003015 FL TOP UHM20 TX+	7005-154719	VPGT 1003015 FR TOP UHM20 TX+	Sharp	.15mm/.0059in	SV...	UHM 20 TX+



VPXT Carbide TOP Wiper (S: ±0.1)

Cut: Standard
Chip Breaker: TOP Wiper, Honed Cutting Edge

Repeatability <50µm

Left Hand		Right Hand		Dimensions & Features			
Item No.	Description	Item No.	Description	Edge	Nose Radius	Holder	Coating
7005-138456	VPXT 1003015 EL TOP UHM20 HPX	7005-138457	VPXT 1003015 ER TOP UHM20 HPX	Honed	.15mm/.0059in	SV...	UHM 20 HPX
7005-138462	VPXT 1003035 EL TOP UHM20 HPX	7005-138463	VPXT 1003035 ER TOP UHM20 HPX	Honed	.35mm/.0137in	SV...	UHM 20 HPX

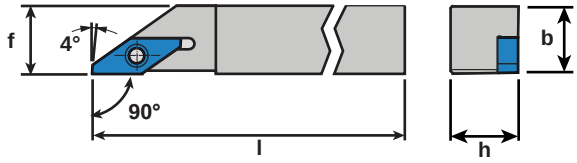


ISO Holder SVAP

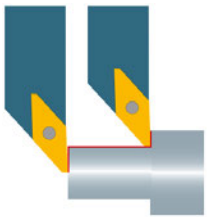
Type: 90°
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	h	b	l	f	Inserts
7005-044335	SVAPL 0707 H10	7005-044334	SVAPR 0707 H10	7	7	100	7	VP.. 1003
Call For Details	SVAPL 0708 H10	Call For Details	SVAPR 0708 H10	7	8	100	8	VP.. 1003
7005-148827	SVAPL 0808 F10	7005-148825	SVAPR 0808 F10	8	8	80	8	VP.. 1003
7005-044071	SVAPL 0808 H10	7005-044072	SVAPR 0808 H10	8	8	100	8	VP.. 1003
7005-148828	SVAPL 1010 F10	7005-148826	SVAPR 1010 F10	10	10	80	10	VP.. 1003
7005-044073	SVAPL 1010 H10	7005-044074	SVAPR 1010 H10	10	10	100	10	VP.. 1003
7005-044075	SVAPL 1212 H10	7005-044076	SVAPR 1212 H10	12	12	100	12	VP.. 1003
7005-148830	SVAPL 3/8" F10	7005-148829	SVAPR 3/8" F10	9.525	9.525	80	9.525	VP.. 1003
7005-114029	SVAPL 3/8" H10	7005-138415	SVAPR 3/8" H10	9.525	9.525	100	9.525	VP.. 1003
7005-114030	SVAPL 1/2" H10	7005-138416	SVAPR 1/2" H10	12.7	12.7	100	12.7	VP.. 1003





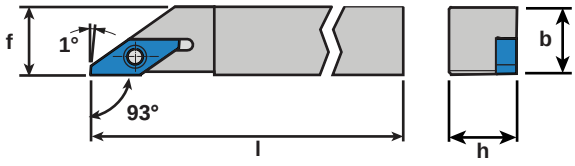


ISO Holder SVJP

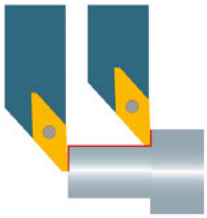
Type: 93°
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	h	b	l	f	Inserts
7005-043093	SVJPL 0808 H10	7005-043207	SVJPR 0708 H10	7	8	100	8	VP.. 1003
Call For Details	SVJPL 0808 F10	7005-148831	SVJPR 0808 F10	8	8	80	8	VP.. 1003
7005-043002	SVJPL 0808 H10	7005-043009	SVJPR 0808 H10	8	8	100	8	VP.. 1003
7005-148834	SVJPL 1010 F10	7005-148832	SVJPR 1010 F10	10	10	80	10	VP.. 1003
7005-043003	SVJPL 1010 H10	7005-043010	SVJPR 1010 H10	10	10	100	10	VP.. 1003
7005-043004	SVJPL 1212 H10	7005-043011	SVJPR 1212 H10	12	12	100	12	VP.. 1003
7005-043006	SVJPL 1616 K10	7005-043013	SVJPR 1616 K10	16	16	125	16	VP.. 1003
7005-043007	SVJPL 2020 K10	7005-043014	SVJPR 2020 K10	20	20	125	20	VP.. 1003
7005-148836	SVJPL 3/8" F10	7005-148835	SVJPR 3/8" F10	9.525	9.525	80	9.525	VP.. 1003
7005-114031	SVJPL 3/8" H10	7005-138414	SVJPR 3/8" H10	9.525	9.525	100	9.525	VP.. 1003
7005-114032	SVJPL 1/2" H10	7005-127412	SVJPR 1/2" H10	12.7	12.7	100	12.7	VP.. 1003
7005-113733	SVJPL 5/8" K10	7005-113732	SVJPR 5/8" K10	15.875	15.875	125	15.875	VP.. 1003
7005-113735	SVJPL 3/4" K10	7005-113734	SVJPR 3/4" K10	19.05	19.05	125	19.05	VP.. 1003







ISO Coolant-Thru Holder SVJP

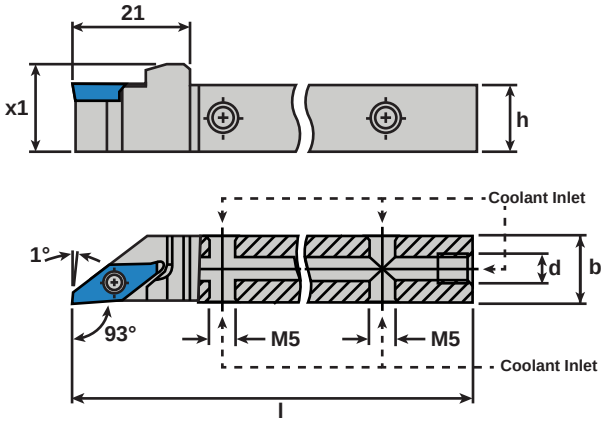
Type: 93°

Coolant-Thru: Rear & Side Ports

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features							Coolant Fittings	
Item No.	Description	Item No.	Description	h	b	l	x_1	d	f	Inserts	Side	Rear
7005-146309	SVJPL 0810 H10 IC	7005-146037	SVJPR 0810 H10 IC	8	10	100	11.5	M5	10	VP.. 1003	4005-000111	4005-000111
7005-146310	SVJPL 1010 H10 IC	7005-146042	SVJPR 1010 H10 IC	10	10	100	13.5	M5	10	VP.. 1003	4005-000111	4005-000111
7005-146311	SVJPL 1212 H10 IC	7005-146036	SVJPR 1212 H10 IC	12	12	100	15.5	M5	12	VP.. 1003	4005-000111	4005-000111
7005-146312	SVJPL 1616 K10 IC	7005-146047	SVJPR 1616 K10 IC	16	16	125	19.5	G1/8"	16	VP.. 1003	4005-000111	4005-000104
7005-146313	SVJPL 2020 K10 IC	7005-146048	SVJPR 2020 K10 IC	20	20	125	23.5	G1/8"	20	VP.. 1003	4005-000111	4005-000104
7005-146335	SVJPL 3/8" H10 IC	7005-146049	SVJPR 3/8" H10 IC	9.525	9.525	100	13	M5	9.525	VP.. 1003	4005-000111	4005-000111
7005-146336	SVJPL 1/2" H10 IC	7005-146050	SVJPR 1/2" H10 IC	12.7	12.7	100	16.2	M5	12.7	VP.. 1003	4005-000111	4005-000111
7005-146337	SVJPL 5/8" K10 IC	7005-146051	SVJPR 5/8" K10 IC	15.875	15.875	125	19.4	G1/8"	15.875	VP.. 1003	4005-000111	4005-000104
7005-146338	SVJPL 3/4" K10 IC	7005-146334	SVJPR 3/4" K10 IC	19.05	19.05	125	22.6	G1/8"	19.05	VP.. 1003	4005-000111	4005-000104

Features (5) connection ports for simple connection to your oil delivery system. (4) Side ports and (1) one end port making connection possible on most machine tool positions.







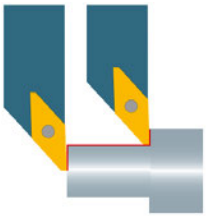
4005-000111

Connects to side ports on ALL shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks



4005-000104

Connects to end port on 5/8" and larger shanks
0° Male Union - 1/8 BSPP to 1/4 JIC Flare Fitting
Fits Position (d) On Tool Holders Sold Separately

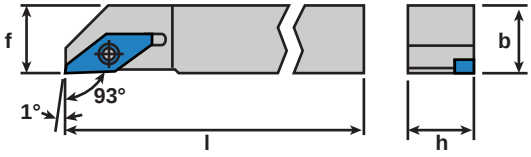


ISO Holder SVJP Reinforced

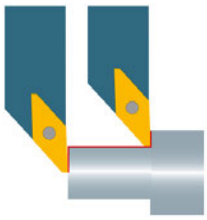
Type: 93°
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	h	b	l	f	Inserts
7005-148839	SVJPL 0810 F10 V	7005-148837	SVJPR 0810 F10 V	8	10	80	10	VP.. 1003
7005-114945	SVJPL 0810 H10 V	7005-114944	SVJPR 0810 H10 V	8	10	100	10	VP.. 1003
7005-148840	SVJPL 1010 F10 V	7005-148838	SVJPR 1010 F10 V	10	10	80	10	VP.. 1003
7005-114019	SVJPL 1010 H10 V	7005-114022	SVJPR 1010 H10 V	10	10	100	10	VP.. 1003
7005-045208	SVJPL 1212 H10 V	7005-045207	SVJPR 1212 H10 V	12	12	100	12	VP.. 1003
7005-114020	SVJPL 1616 K10 V	7005-114023	SVJPR 1616 K10 V	16	16	125	16	VP.. 1003
7005-114021	SVJPL 2020 K10 V	7005-114024	SVJPR 2020 K10 V	20	20	125	20	VP.. 1003
7005-148842	SVJPL 3/8" F10 V	7005-148841	SVJPR 3/8" F10 V	9.525	9.525	80	9.525	VP.. 1003
7005-114027	SVJPL 3/8" H10 V	7005-114025	SVJPR 3/8" H10 V	9.525	9.525	100	9.525	VP.. 1003
7005-114028	SVJPL 1/2" H10 V	7005-114026	SVJPR 1/2" H10 V	12.7	12.7	100	12.7	VP.. 1003
7005-113737	SVJPL 5/8" K10 V	7005-113736	SVJPR 5/8" K10 V	15.875	15.875	125	15.875	VP.. 1003
7005-113739	SVJPL 3/4" K10 V	7005-113738	SVJPR 3/4" K10 V	19.05	19.05	125	19.05	VP.. 1003







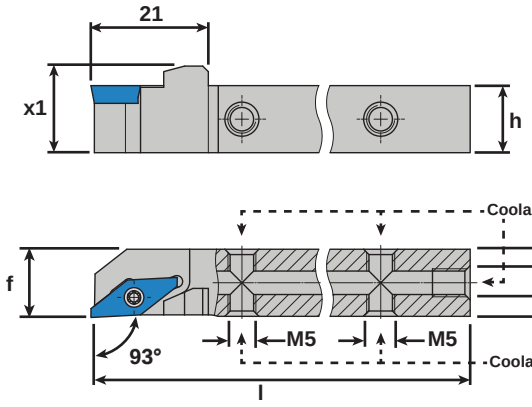
ISO Coolant-Thru Holder SVJP Reinforced

Type: 93°
Coolant-Thru: Rear & Side Ports

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features							Coolant Fittings	
Item No.	Description	Item No.	Description	h	b	l	x_1	d	f	Inserts	Side	Rear
7005-146456	SVJPL 0810 H10 V IC	7005-146451	SVJPR 0810 H10 V IC	8	10	100	11.5	M5	10	VP.. 1003	4005-000111	4005-000111
7005-146457	SVJPL 1010 H10 V IC	7005-146452	SVJPR 1010 H10 V IC	10	10	100	13.5	M5	10	VP.. 1003	4005-000111	4005-000111
7005-146458	SVJPL 1212 H10 V IC	7005-146453	SVJPR 1212 H10 V IC	12	12	100	15.5	M5	12	VP.. 1003	4005-000111	4005-000111
7005-146459	SVJPL 1616 K10 V IC	7005-146454	SVJPR 1616 K10 V IC	16	16	125	19.5	G1/8"	16	VP.. 1003	4005-000111	4005-000104
7005-146460	SVJPL 2020 K10 V IC	7005-146455	SVJPR 2020 K10 V IC	20	20	125	23.5	G1/8"	20	VP.. 1003	4005-000111	4005-000104
7005-146465	SVJPL 3/8" H10 V IC	7005-146461	SVJPR 3/8" H10 V IC	9.525	9.525	100	13	M5	9.525	VP.. 1003	4005-000111	4005-000111
7005-146466	SVJPL 1/2" H10 V IC	7005-146462	SVJPR 1/2" H10 V IC	12.7	12.7	100	16.2	M5	12.7	VP.. 1003	4005-000111	4005-000111
7005-146467	SVJPL 5/8" K10 V IC	7005-146463	SVJPR 5/8" K10 V IC	15.875	15.875	125	19.4	G1/8"	15.875	VP.. 1003	4005-000111	4005-000104
7005-146468	SVJPL 3/4" K10 V IC	7005-146464	SVJPR 3/4" K10 V IC	19.05	19.05	125	22.6	G1/8"	19.05	VP.. 1003	4005-000111	4005-000104

Features (5) connection ports for simple connection to your oil delivery system. (4) Side ports and (1) one end port making connection possible on most machine tool positions.



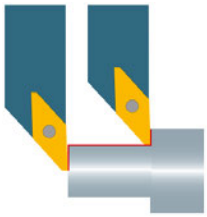




4005-000111
Connects to side ports on ALL shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks



4005-000104
Connects to end port on 5/8" and larger shanks
0° Male Union - 1/8 BSPP to 1/4 JIC Flare Fitting
Fits Position (d) On Tool Holders Sold Separately

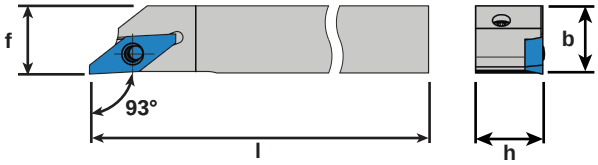


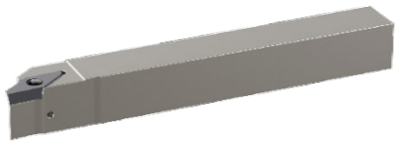
ISO Holder SVJP Fast Change

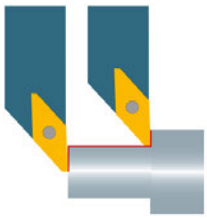
Type: 93°
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	h	b	l	f	Inserts
7005-143484	SVJPL 1212 H10 FC	7005-153827	SVJPR 1212 H10 FC	12	12	100	12	VP.. 1003
7005-143485	SVJPL 1616 K10 FC	7005-143483	SVJPR 1616 K10 FC	16	16	125	16	VP.. 1003
7005-143488	SVJPL 1/2" H10 FC	7005-143486	SVJPR 1/2" H10 FC	12.7	12.7	100	12.7	VP.. 1003
7005-143489	SVJPL 5/8" K10 FC	7005-143487	SVJPR 5/8" K10 FC	15.875	15.875	125	15.875	VP.. 1003







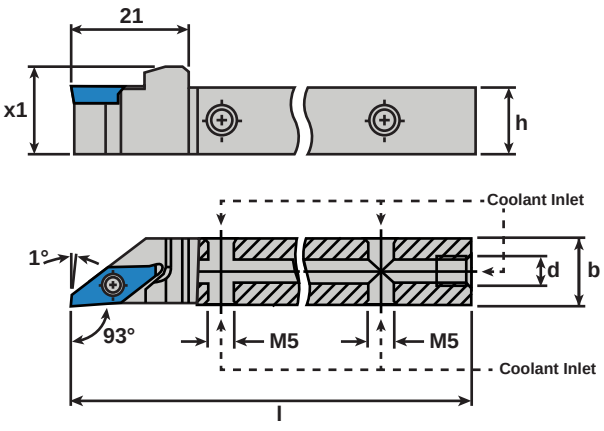
ISO Coolant-Thru Holder SVJP Fast Change

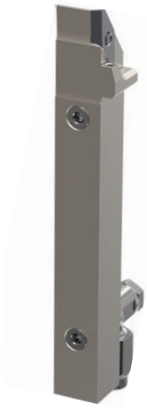
Type: 93°
Coolant-Thru: Rear & Side Ports

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features							Coolant Fittings	
Item No.	Description	Item No.	Description	h	b	l	x_1	d	f	Inserts	Side	Rear
7005-143492	SVJPL 1212 H10 FC IC	7005-143490	SVJPR 1212 H10 FC IC	12	12	100	15.5	M5	12	VP.. 1003	4005-000111	4005-000111
7005-143493	SVJPL 1616 K10 FC IC	7005-143491	SVJPR 1616 K10 FC IC	16	16	125	19.5	G1/8"	16	VP.. 1003	4005-000111	4005-000104
7005-143496	SVJPL 1/2" H10 FC IC	7005-143494	SVJPR 1/2" H10 FC IC	12.7	12.7	100	16.2	M5	12.7	VP.. 1003	4005-000111	4005-000111
7005-143497	SVJPL 5/8" K10 FC IC	7005-143495	SVJPR 5/8" K10 FC IC	15.875	15.875	125	19.4	G1/8"	15.875	VP.. 1003	4005-000111	4005-000104

Features (5) connection ports for simple connection to your oil delivery system. (4) Side ports and (1) one end port making connection possible on most machine tool positions.



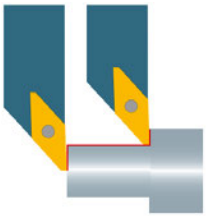




4005-000111
Connects to side ports on ALL shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks



4005-000104
Connects to end port on 5/8" and larger shanks
0° Male Union - 1/8 BSPP to 1/4 JIC Flare Fitting
Fits Position (d) On Tool Holders Sold Separately

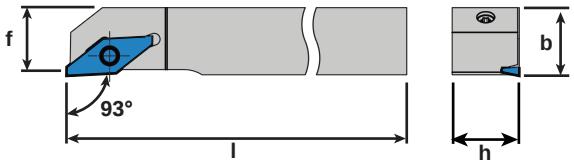


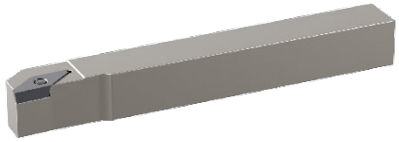
ISO Holder SVJP Reinforced Fast Change

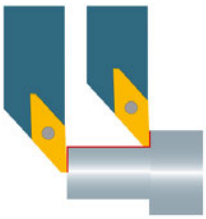
Type: 93°
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	h	b	l	f	Inserts
7005-143500	SVJPL 1212 H10 V FC	7005-143498	SVJPR 1212 H10 V FC	12	12	100	12	VP.. 1003
7005-143501	SVJPL 1616 K10 V FC	7005-143499	SVJPR 1616 K10 V FC	16	16	125	16	VP.. 1003
7005-143504	SVJPL 1/2" H10 V FC	7005-143502	SVJPR 1/2" H10 V FC	12.7	12.7	100	12.7	VP.. 1003
7005-143505	SVJPL 5/8" K10 V FC	7005-143503	SVJPR 5/8" K10 V FC	15.875	15.875	125	15.875	VP.. 1003







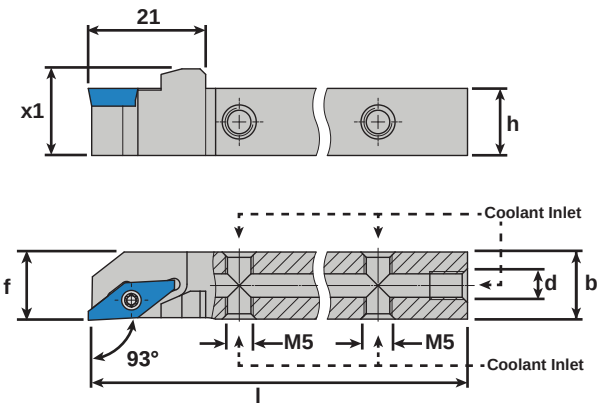
ISO Coolant-Thru Holder SVJP Reinforced Fast Change

Type: 93°
Coolant-Thru: Rear & Side Ports

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features							Coolant Fittings	
Item No.	Description	Item No.	Description	h	b	l	x_1	d	f	Inserts	Side	Rear
7005-143508	SVJPL 1212 H10 V FC IC	7005-143506	SVJPR 1212 H10 V FC IC	12	12	100	15.5	M5	12	VP.. 1003	4005-000111	4005-000111
7005-143509	SVJPL 1616 K10 V FC IC	7005-143507	SVJPR 1616 K10 V FC IC	16	16	125	19.5	G1/8"	16	VP.. 1003	4005-000111	4005-000104
7005-143512	SVJPL 1/2" H10 V FC IC	7005-143510	SVJPR 1/2" H10 V FC IC	12.7	12.7	100	16.2	M5	12.7	VP.. 1003	4005-000111	4005-000111
7005-143513	SVJPL 5/8" K10 V FC IC	7005-143511	SVJPR 5/8" K10 V FC IC	15.875	15.875	125	19.4	G1/8"	15.875	VP.. 1003	4005-000111	4005-000104

Features (5) connection ports for simple connection to your oil delivery system: (4) Side ports and (1) one end port making connection possible on most machine tool positions.



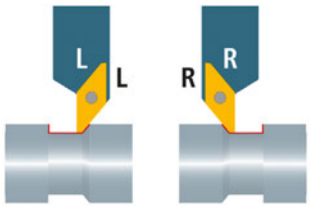




4005-000111
Connects to side ports on ALL shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks



4005-000104
Connects to end port on 5/8" and larger shanks
0° Male Union - 1/8 BSPP to 1/4 JIC Flare Fitting
Fits Position (d) On Tool Holders Sold Separately

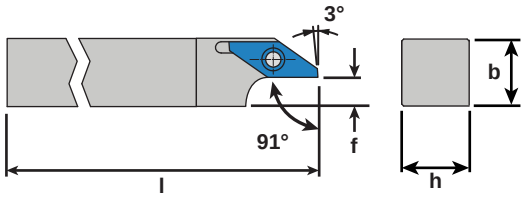


ISO Holder SVXP

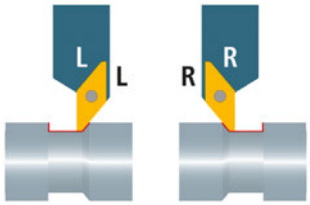
Type: 91°
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	h	b	l	f	Inserts
Call For Details	SVXPL 0810 F10	Call For Details	SVXPR 0810 F10	8	10	80	1	VP.. 1003
Call For Details	SVXPL 0810 H10	Call For Details	SVXPR 0810 H10	8	10	100	1	VP.. 1003
7005-148846	SVXPL 1010 F10	7005-148844	SVXPR 1010 F10	10	10	80	3	VP.. 1003
7005-044081	SVXPL 1010 H10	7005-044082	SVXPR 1010 H10	10	10	100	3	VP.. 1003
7005-044083	SVXPL 1212 H10	7005-044084	SVXPR 1212 H10	12	12	100	5	VP.. 1003
7005-044097	SVXPL 1616 K10	7005-044098	SVXPR 1616 K10	16	16	125	9	VP.. 1003
7005-044099	SVXPL 2020 K10	7005-146328	SVXPR 2020 K10	20	20	125	13	VP.. 1003
7005-148848	SVXPL 3/8" F10	7005-148847	SVXPR 3/8" F10	9.525	9.525	80	2.5	VP.. 1003
7005-114033	SVXPL 3/8" H10	7005-114035	SVXPR 3/8" H10	9.525	9.525	100	2.5	VP.. 1003
7005-114034	SVXPL 1/2" H10	7005-114036	SVXPR 1/2" H10	12.7	12.7	100	5.7	VP.. 1003
7005-113741	SVXPL 5/8" K10	7005-113740	SVXPR 5/8" K10	15.875	15.875	125	8.8	VP.. 1003
7005-113743	SVXPL 3/4" K10	7005-113742	SVXPR 3/4" K10	19.05	19.05	125	12	VP.. 1003







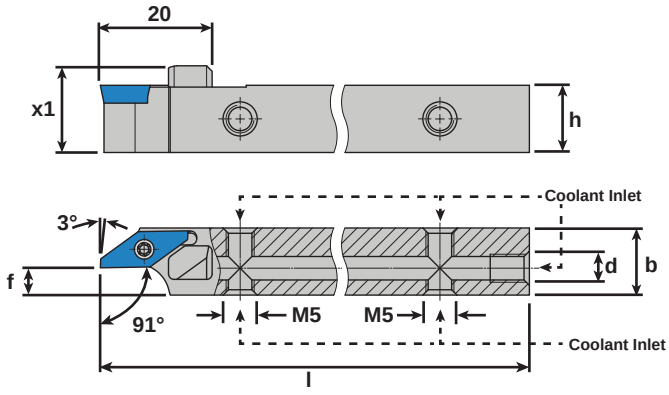
ISO Coolant-Thru Holder SVXP

Type: 93°
Coolant-Thru: Rear & Side Ports

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features							Coolant Fittings	
Item No.	Description	Item No.	Description	h	b	l	x_1	d	f	Inserts	Side	Rear
7005-146329	SVXPL 0808 H10 IC	7005-146324	SVXPR 0808 H10 IC	8	8	100	11.5	M5	1	VP.. 1003	4005-000111	4005-000111
7005-146330	SVXPL 1010 H10 IC	7005-146325	SVXPR 1010 H10 IC	10	10	100	13.5	M5	3	VP.. 1003	4005-000111	4005-000111
7005-146331A	SVXPL 1212 H10 IC	7005-146326	SVXPR 1212 H10 IC	12	12	100	15.5	M5	5	VP.. 1003	4005-000111	4005-000111
7005-146332	SVXPL 1616 K10 IC	7005-146327	SVXPR 1616 K10 IC	16	16	125	19.5	G1/8"	9	VP.. 1003	4005-000111	4005-000104
7005-146333	SVXPL 2020 K10 IC	7005-146328	SVXPR 2020 K10 IC	20	20	125	23.5	G1/8"	13	VP.. 1003	4005-000111	4005-000104
7005-146404	SVXPL 3/8" H10 IC	7005-146400	SVXPR 3/8" H10 IC	9.525	9.525	100	13	M5	2.5	VP.. 1003	4005-000111	4005-000111
7005-146405A	SVXPL 1/2" H10 IC	7005-146401	SVXPR 1/2" H10 IC	12.7	12.7	100	16.2	M5	5.7	VP.. 1003	4005-000111	4005-000111
7005-146408A	SVXPL 5/8" K10 IC	7005-146402	SVXPR 5/8" K10 IC	15.875	15.875	125	19.4	G1/8"	8.8	VP.. 1003	4005-000111	4005-000104
7005-146406	SVXPL 3/4" K10 IC	7005-146403	SVXPR 3/4" K10 IC	19.05	19.05	125	22.6	G1/8"	12	VP.. 1003	4005-000111	4005-000104

Features (5) connection ports for simple connection to your oil delivery system: (4) Side ports and (1) one end port making connection possible on most machine tool positions.







4005-000111
Connects to side ports on ALL shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks



4005-000104
Connects to end port on 5/8" and larger shanks
0° Male Union - 1/8 BSPP to 1/4 JIC Flare Fitting
Fits Position (d) On Tool Holders Sold Separately

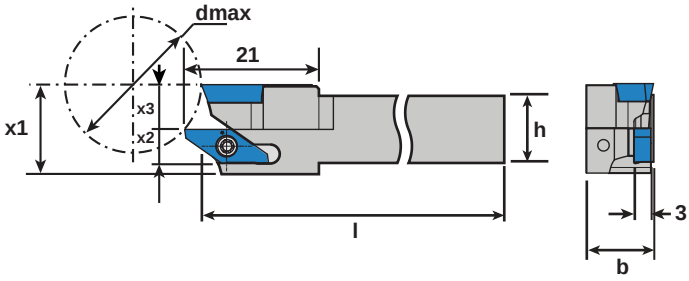


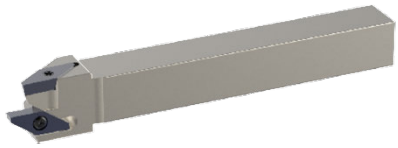
ISO TWIN Holder SVJP

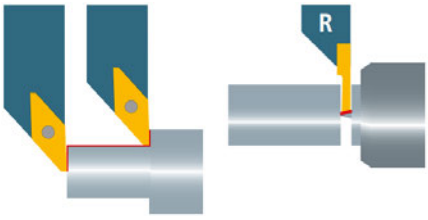
Type: 93°, VP ISO / 1600 Inserts (R-R)
Coolant-Thru: None

Repeatability <20µm

Right - Right		Dimensions & Features								
Item No.	Description	h	b	l	x_1	x_2	x_3	d_{max}	Inserts	
7005-153638	SVJPR/1600R-0810 H10 Twin	8	10	100	16	4	8	23	VP.. 1003	16...R
7005-153639	SVJPR/1600R-1010 H10 Twin	10	10	100	16	5	8	23	VP.. 1003	16...R
Call For Details	SVJPR/1600R-1212 H10 Twin	12	12	100	16	6	8	23	VP.. 1003	16...R
7005-153640	SVJPR/1600R-1616 K10 Twin	16	16	125	20	8	10	34	VP.. 1003	16...R
7005-153641	SVJPR/1600R-2020 K10 Twin	20	20	125	24	8	14	63	VP.. 1003	16...R
Call For Details	SVJPR/1600R-3/8" H10 Twin	9.525	9.525	100	16	4.76	8	23	VP.. 1003	16...R
Call For Details	SVJPR/1600R-1/2" H10 Twin	12.7	12.7	100	16	6.35	8	23	VP.. 1003	16...R
Call For Details	SVJPR/1600R-5/8" K10 Twin	15.875	15.875	125	20	7.94	10	34	VP.. 1003	16...R
Call For Details	SVJPR/1600R-3/4" K10 Twin	19.05	19.05	125	24	7.53	14	63	VP.. 1003	16...R







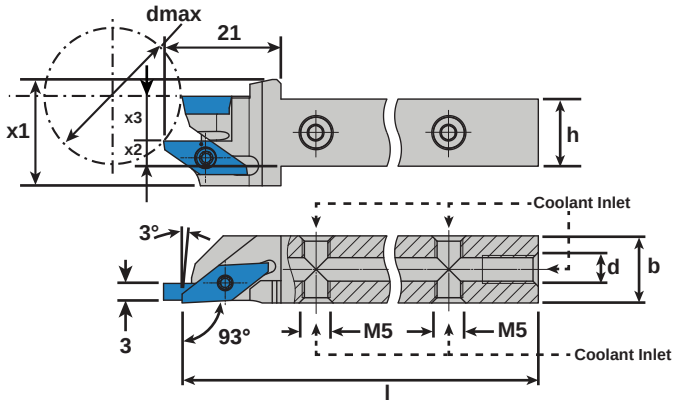
Coolant-Thru ISO TWIN Holder SVJP

Type: 93°, VP ISO / 1600 Inserts (R-R)
Coolant-Thru: Rear & Side Ports

Repeatability <10µm

Right - Right		Dimensions & Features									Coolant Fittings	
Item No.	Description	h	b	l	x_1	x_2	x_3	d	d_{max}	Inserts	Side	Rear
7005-169830	SVJPR/1600R-0810 H10 Twin IC	8	10	100	16	4	8	M5	23	VP.. 1003 16...R	4005-000111	4005-000111
7005-153630	SVJPR/1600R-1010 H10 Twin IC	10	10	100	16	5	8	M5	23	VP.. 1003 16...R	4005-000111	4005-000111
7005-169872	SVJPR/1600R-1212 H10 Twin IC	12	12	100	16	6	8	M5	23	VP.. 1003 16...R	4005-000111	4005-000111
7005-153631	SVJPR/1600R-1616 K10 Twin IC	16	16	125	20	8	10	G1/8"	34	VP.. 1003 16...R	4005-000111	4005-000104
7005-153632	SVJPR/1600R-2020 K10 Twin IC	20	20	125	24	8	14	G1/8"	63	VP.. 1003 16...R	4005-000111	4005-000104
Call For Details	SVJPR/1600R-3/8" H10 Twin IC	9.525	9.525	100	16	4.76	8	M5	23	VP.. 1003 16...R	4005-000111	4005-000111
Call For Details	SVJPR/1600R-1/2" H10 Twin IC	12.7	12.7	100	16	6.35	8	M5	23	VP.. 1003 16...R	4005-000111	4005-000111
Call For Details	SVJPR/1600R-5/8" K10 Twin IC	15.875	15.875	125	20	7.94	10	G1/8"	34	VP.. 1003 16...R	4005-000111	4005-000104
Call For Details	SVJPR/1600R-3/4" K10 Twin IC	19.05	19.05	125	24	7.53	14	G1/8"	63	VP.. 1003 16...R	4005-000111	4005-000104

Features (5) connection ports for simple connection to your oil delivery system: (4) Side ports and (1) one end port making connection possible on most machine tool positions.



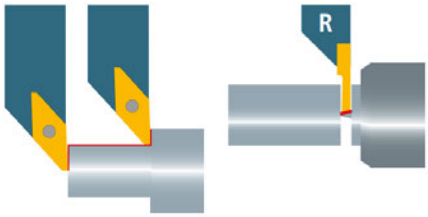




4005-000111
Connects to side ports on ALL shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks



4005-000104
Connects to end port on 5/8" and larger shanks
0° Male Union - 1/8 BSPP to 1/4 JIC Flare Fitting
Fits Position (d) On Tool Holders Sold Separately

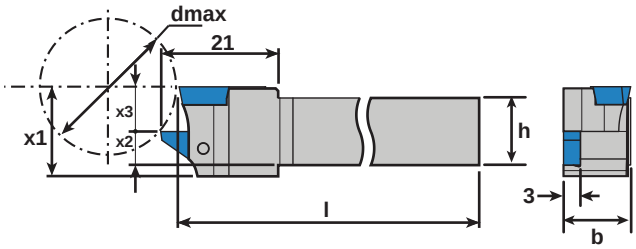


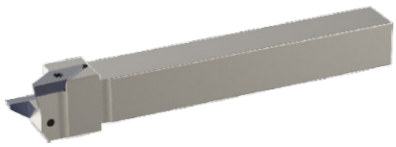
ISO TWIN Holder SVJP

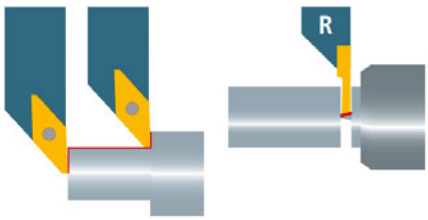
Type: 93°, VP ISO / 1600 Inserts (R-L)
Coolant-Thru: None

Repeatability <20µm

Right - Left		Dimensions & Features								
Item No.	Description	h	b	l	x_1	x_2	x_3	d_{max}	Inserts	
7005-153642	SVJPR/1600L-0810 H10 Twin	8	10	100	16	4	8	23	VP.. 1003	16...L
7005-153643	SVJPR/1600L-1010 H10 Twin	10	10	100	16	5	8	23	VP.. 1003	16...L
7005-153644	SVJPR/1600L-1212 H10 Twin	12	12	100	16	6	8	23	VP.. 1003	16...L
7005-153645	SVJPR/1600L-1616 K10 Twin	16	16	125	20	8	12	33	VP.. 1003	16...L
7005-153646	SVJPR/1600L-2020 K10 Twin	20	20	125	24	8	14	63	VP.. 1003	16...L
Call For Details	SVJPR/1600L-3/8" H10 Twin	9.525	9.525	100	16	4.76	8	23	VP.. 1003	16...L
Call For Details	SVJPR/1600L-1/2" H10 Twin	12.7	12.7	100	16	6.35	8	23	VP.. 1003	16...L
Call For Details	SVJPR/1600L-5/8" K10 Twin	15.875	15.875	125	20	7.94	10	33	VP.. 1003	16...L
Call For Details	SVJPR/1600L-3/4" K10 Twin	19.05	19.05	125	24	7.53	14	63	VP.. 1003	16...L







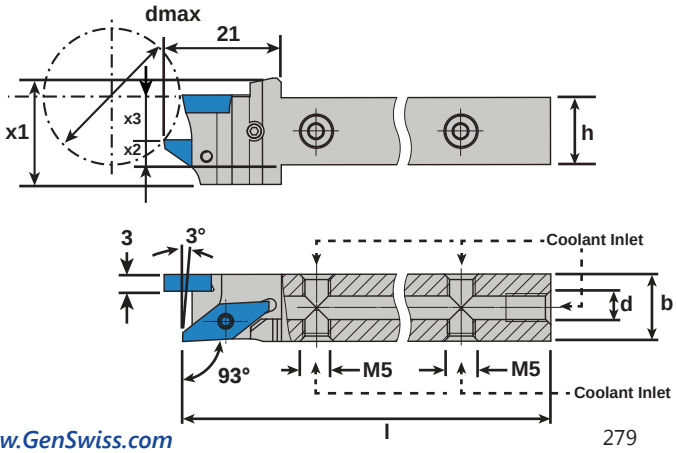
Coolant-Thru ISO TWIN Holder SVJP

Type: 93°, VP ISO / 1600 Inserts (R-L)
Coolant-Thru: Rear & Side Ports

Repeatability <10µm

Right - Left		Dimensions & Features									Coolant Fittings	
Item No.	Description	h	b	l	x_1	x_2	x_3	d	d_{max}	Inserts	Side	Rear
7005-153633	SVJPR/1600L-0810 H10 Twin IC	8	10	100	19	2.5	8	M5	23	VP.. 1003 16...L	4005-000111	4005-000111
7005-153634	SVJPR/1600L-1010 H10 Twin IC	10	10	100	19	3.5	8	M5	23	VP.. 1003 16...L	4005-000111	4005-000111
7005-153635	SVJPR/1600L-1212 H10 Twin IC	12	12	100	19	4.5	8	M5	23	VP.. 1003 16...L	4005-000111	4005-000111
7005-153636	SVJPR/1600L-1616 K10 Twin IC	16	16	125	23	6.5	10	G1/8"	34	VP.. 1003 16...L	4005-000111	4005-000104
7005-153637	SVJPR/1600L-2020 K10 Twin IC	20	20	125	27	6.5	14	G1/8"	63	VP.. 1003 16...L	4005-000111	4005-000104
Call For Details	SVJPR/1600L-3/8" H10 Twin IC	9.525	9.525	100	19	3.26	8	M5	23	VP.. 1003 16...L	4005-000111	4005-000111
Call For Details	SVJPR/1600L-1/2" H10 Twin IC	12.7	12.7	100	19	4.85	8	M5	23	VP.. 1003 16...L	4005-000111	4005-000111
Call For Details	SVJPR/1600L-5/8" K10 Twin IC	15.875	15.875	125	23	6.44	10	G1/8"	34	VP.. 1003 16...L	4005-000111	4005-000104
Call For Details	SVJPR/1600L-3/4" K10 Twin IC	19.05	19.05	125	27	6.03	14	G1/8"	63	VP.. 1003 16...L	4005-000111	4005-000104

Features (5) connection ports for simple connection to your oil delivery system: (4) Side ports and (1) one end port making connection possible on most machine tool positions.



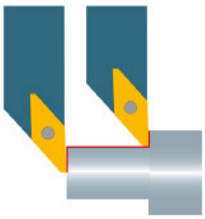




4005-000111
Connects to side ports on ALL shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks



4005-000104
Connects to end port on 5/8" and larger shanks
0° Male Union - 1/8 BSPP to 1/4 JIC Flare Fitting
Fits Position (d) On Tool Holders Sold Separately



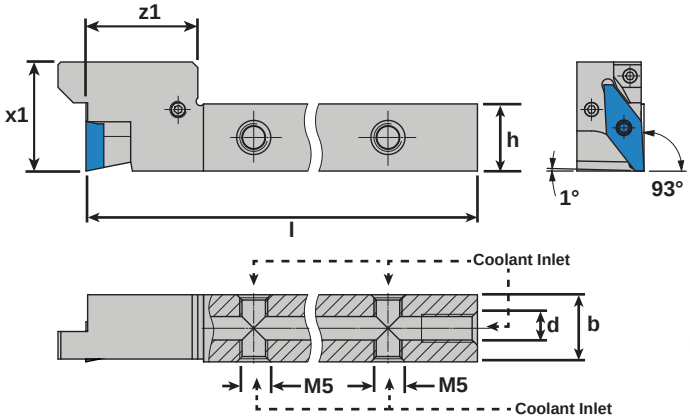
Coolant-Thru ISO Y-Axis Holder

Type: 93°, VP ISO Inserts
Coolant-Thru: Rear & Side Ports

Repeatability <10µm

Right Hand		Dimensions & Features							Coolant Fittings	
Item No.	Description	h	b	l	z_1	x_1	d	Inserts	Side	Rear
7005-153804	SVJPR YA-1212 H10-20 IC	12	12	100	20	19.5	M5	VP.. 1003	4005-000111	4005-000111
7005-153805	SVJPR YA-1212 H10-25 IC	12	12	100	25	19.5	M5	VP.. 1003	4005-000111	4005-000111
7005-153806	SVJPR YA-1212 H10-30 IC	12	12	100	30	19.5	M5	VP.. 1003	4005-000111	4005-000111
7005-153807	SVJPR YA-1616 K10-20 IC	16	16	125	20	19.5	G1/8	VP.. 1003	4005-000111	4005-000104
7005-153808	SVJPR YA-1616 K10-25 IC	16	16	125	25	19.5	G1/8	VP.. 1003	4005-000111	4005-000104
7005-153809	SVJPR YA-1616 K10-30 IC	16	16	125	30	19.5	G1/8	VP.. 1003	4005-000111	4005-000104
Call For Details	SVJPR YA-1/2" H10-20 IC	1/2"	1/2"	100	20	19.5	M5	VP.. 1003	4005-000111	4005-000111
Call For Details	SVJPR YA-1/2" H10-25 IC	1/2"	1/2"	100	25	19.5	M5	VP.. 1003	4005-000111	4005-000111
Call For Details	SVJPR YA-1/2" H10-30 IC	1/2"	1/2"	100	30	19.5	M5	VP.. 1003	4005-000111	4005-000111
Call For Details	SVJPR YA-5/8" K10-20 IC	5/8"	5/8"	125	20	19.5	G1/8	VP.. 1003	4005-000111	4005-000104
Call For Details	SVJPR YA-5/8" K10-25 IC	5/8"	5/8"	125	25	19.5	G1/8	VP.. 1003	4005-000111	4005-000104
Call For Details	SVJPR YA-5/8" K10-30 IC	5/8"	5/8"	125	30	19.5	G1/8	VP.. 1003	4005-000111	4005-000104

Features (5) connection ports for simple connection to your oil delivery system. (4) Side ports and (1) one end port making connection possible on most machine tool positions.





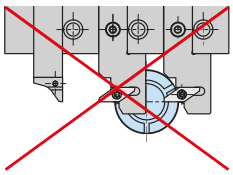


4005-000111
Connects to side ports on ALL shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks

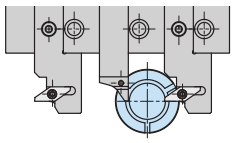


4005-000104
Connects to end port on 5/8" and larger shanks
0° Male Union - 1/8 BSPP to 1/4 JIC Flare Fitting
Fits Position (d) On Tool Holders Sold Separately

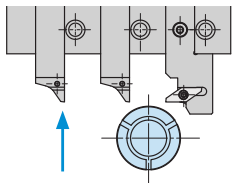
Usage notes:



To avoid problems, two Y-AXIS holders must not be mounted directly next to each other.



Mount a standard tool holder between the Y-AXIS holders.

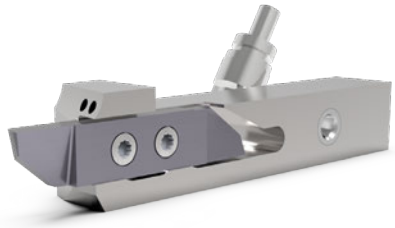


To prevent collisions, move back the holder in accordance with the overhanging length before changing the tool position.

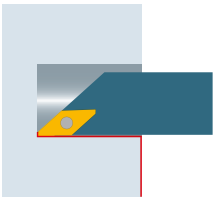
multidec® SHORT

multidec® SHORT coolant-thru holders enable the use of multidec® turning inserts on commonly available quick change tooling systems. **multidec® 1600, 3000, ISO VC, & ISO VP** series inserts are currently available.

See Pg. 304 For Full Details



3000 Series Insert Shown

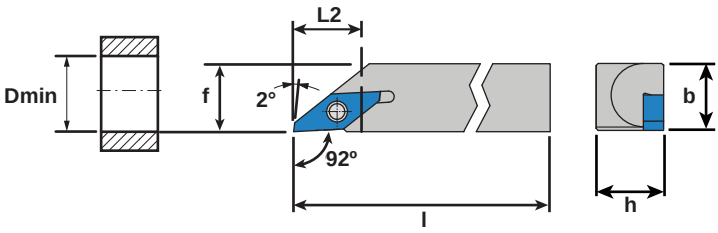


ISO Holder SVJP

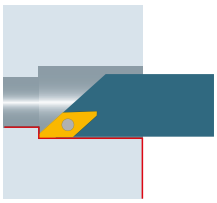
Type: 92°
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	h	b	l	l_2	f	D_{min}	Inserts
7005-043108	SVJPL 1212 XH10	7005-043109	SVJPR 1212 XH10	12	12	100	12	12.2	16	VP.. 1003
7005-043210	SVJPL 1616 XK10	7005-043211	SVJPR 1616 XK10	16	16	125	12	16.2	16	VP.. 1003





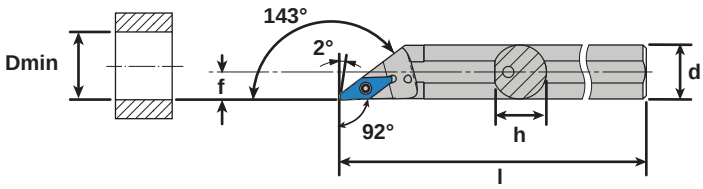


ISO Round Shank Holder SVOP

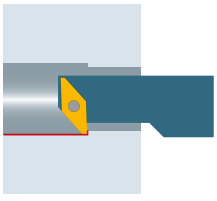
Type: 92°
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	d	h	l	f	D_{min}	Inserts
7005-044348	A16M SVOPL 10	7005-044349	A16M SVOPR 10	16	15.3	150	8.3	16	VP.. 1003





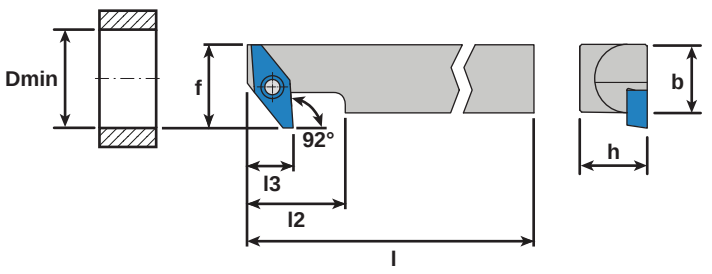


ISO Holder SVQP

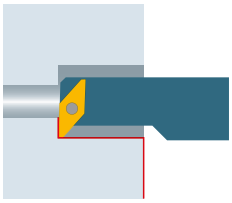
Type: 92°
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features							
Item No.	Description	Item No.	Description	h	b	l	l_2	l_3	f	D_{min}	Inserts
7005-044061	SVQPL 1212 XH10	7005-044062	SVQPR 1212 XH10	12	12	100	12	7.7	15.7	16	VP.. 1003
7005-044063	SVQPL 1616 XK10	7005-044064	SVQPR 1616 XK10	16	16	125	12	7.7	15.7	16	VP.. 1003





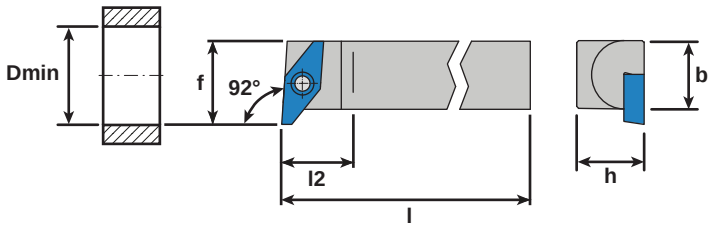


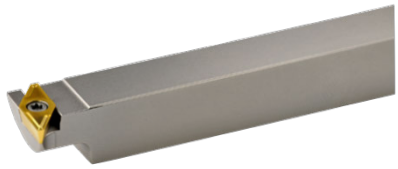
ISO Holder SVUP

Type: 92°
Coolant-Thru: None

Repeatability <20µm

Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	h	b	l	l_2	f	D_{min}	Inserts
7005-044057	SVUPL 1212 XH10	7005-044058	SVUPR 1212 XH10	12	12	100	12	15.7	17	VP.. 1003
7005-044059	SVUPL 1616 XK10	7005-044060	SVUPR 1616 XK10	16	16	125	12	15.7	17	VP.. 1003





ISO Series - Spare Parts

Spare Part	Item No.	Despcription	Type	Dimension	Fits Holders...
SCREWS	7005-127518	MSP 25060 T08	Torx T8 Screw	M2x6 T08	SC...06 / SD...07 / SV...11
	7005-127527	MSP 35110 T15	Torx T15 Screw	M3.5x11 T15	SC...09 / SD...11 / SV...16
	7005-127481	MSP 40110 TP15	TorxPLUS 15 Screw	M4x11 TP15	SDJN...11
	7005-127528	MSP 45120 T15	Torx T15 Screw	M4.5x12 T15	SC...12
TORX SCREW DRIVERS	7510-000100	WTF-T08-S	T8 Torx Driver	T8	SC...06 / SD...07 / SV...11
	7510-000101	WTF-T15-S	T15 Torx Driver	T15	SC...09 / SC...12 / SD...11 / SV...16
	7005-127904	MSP TXP15	TorxPLUS Driver	TP15	SDJN...11
PRECISION CALIBRATED TORQUE DRIVERS	7510-000109	WTD-T08-D	(1.3nm) .95 ft lb. Torque Driver	T8	SC...06 / SD...07 / SV...11
	7510-000112	WTD-T15-D	(3nm) 2.2 ft lb. Torque Driver	T15	SC...09 / SC...12 /SD...11 / SV...16
FITTINGS FOR COOLANT-THRU HOLDERS	4005-000111	M5 Fitting	Side & End Ports	M5 Male to 1/4" JIC Male	All M5 Coolant Ports
	4005-000104	G1/8 Fitting	End Ports	G1/8 to 1/4" JIC Male	All G1/8" Coolant Ports



SCREWS



TORX SCREW DRIVERS



PRECISION CALIBRATED TORQUE DRIVERS



FITTINGS

Speeds And Feeds Multidec TOP

TOP	Unalloyed Steel			Low-Alloy Steel			High-Alloy Steel		
Hardness (HB)-(HRC)	125-300 HB			180-250 HB			200-350 HB		
Category	I			II			III		
Machining Method	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing
Cutting speeds	vc(ft/min)								
Carbide grade									
UHM 10	130-360	200-390	200-460	200-330	200-390	200-430	40-300	200-360	200-390
UHM 10 HX	200-590	200-720	200-850	200-560	200-660	200-790	160-520	200-590	200-720
UHM 10 TX+	-	-	-	260-490	330-590	520-720	230-330	300-490	390-590
UHM 10 MZ	590-980	720-1310	820-1640	490-920	660-1050	820-1310	390-920	590-1050	590-1050
UHM 20 HPX	490-660	590-720	660-850	260-490	330-590	520-720	230-330	300-490	390-590
UHM 20 TX +	-	-	-	260-430	330-490	520-620	230-300	300-430	390-490
UHM 20 MZ	430-590	520-720	590-850	330-520	360-590	430-720	230-490	160-520	430-620
UHM 30	100-230	160-260	160-330	100-200	130-260	130-300	100-160	100-230	100-260
UHM 30 HX	160-460	160-590	160-720	160-430	160-520	160-660	130-390	160-460	160-590
UHM 30 TX+	160-390	160-460	160-490	160-330	160-390	160-460	130-260	160-330	160-360
UHM 30 MZ	390-520	490-660	560-790	300-460	330-520	390-660	200-430	300-460	360-520
UHM 30 SX	160-390	160-590	50-660	160-330	160-460	160-590	130-300	160-390	160-520

Speeds And Feeds Multidec TOP

TOP	Stainless Steel			Stainless Steel			Titanium		
Hardness (HB)-(HRC)	180-220 HB			220-330 HB			-		
Category	V			VI			IV		
Machining Method	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing
Cutting Speeds	vc(ft/min)								
Carbide Grade									
UHM 10	130-330	130-360	130-390	100-230	100-260	100-260	130-200	160-230	200-260
UHM 10 HX	160-460	160-590	160-720	130-330	160-360	160-430	130-390	160-430	160-490
UHM 10 TX+	300-490	130-590	520-660	230-300	300-390	360-490	160-330	200-390	200-460
UHM 10 MZ	330-590	590-820	720-980	-	-	-	-	-	-
UHM 20 HPX	300-490	360-590	520-660	230-300	300-390	360-490	160-330	200-390	200-460
UHM 20 TX +	300-430	360-520	520-590	230-300	300-390	360-490	160-330	200-390	200-460
UHM 20 MZ	300-490	360-520	430-590	160-260	100-160	130-230	-	-	-
UHM 30	100-200	100-230	100-260	70-100	70-130	70-130	130-160	80-200	100-230
UHM 30 HX	130-330	130-460	130-590	100-200	130-230	130-300	100-300	130-330	130-390
UHM 30 TX+	-	-	-	-	-	-	-	-	-
UHM 30 MZ	260-430	330-460	360-520	130-260	160-300	300-360	-	-	-
UHM 30 SX	100-300	130-390	130-520	70-160	100-200	100-260	-	-	-

Speeds And Feeds Multidec TOP

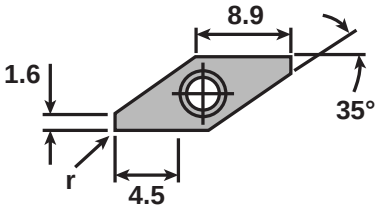
TOP	Aluminum			Brass			Hard Materials		
Hardness (HB)-(HRC)	60-130 HB			-			45-70 HRC		
Category	VII			VIII			X		
Machining Method	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing
Cutting Speeds	vc(ft/min)								
Carbide Grade									
UHM 10	330-4920	390-6560	520-8200	260-980	330-1310	390-1640	-	-	-
UHM 10 HX	460-8200	520-9840	660-9840	330-1480	330-1970	330-2460	-	-	-
UHM 10 TX+	-	-	-	-	-	-	50-100	50-130	50-260
UHM 10 MZ	-	-	-	-	-	-	-	-	-
UHM 20 HPX	-	-	-	-	-	-	-	-	-
UHM 20 TX +	-	-	-	-	-	-	-	-	-
UHM 20 MZ	-	-	-	-	-	-	-	-	-
UHM 30	160-3280	200-3940	260-4920	130-330	160-460	160-50	-	-	-
UHM 30 HX	230-4920	260-6560	330-9840	160-490	160-660	160-820	-	-	-
UHM 30 TX+	-	-	-	-	-	-	-	-	-
UHM 30 MZ	-	-	-	-	-	-	-	-	-
UHM 30 SX	200-3940	260-6560	330-9840	160-390	160-590	160-660	-	-	-

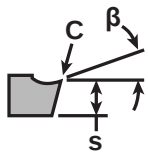


Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	**Steel**
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits



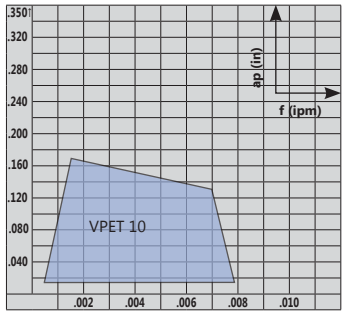


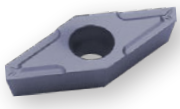
β: 12°
C: <0.002
s: ±0.025 (VPET)
±0.13 (VPGT)
±0.1 (VPXT)



VPET Carbide TOP Wiper (S: ±0.025)

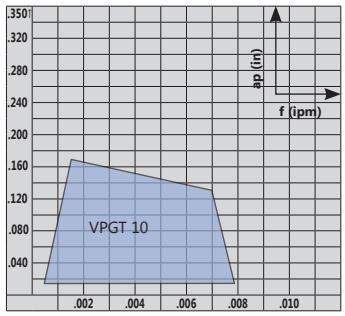
Cut: Standard
Chip Breaker: TOP Wiper, Polished Rake, Sharp Cutting Edge

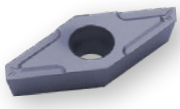




VPGT Carbide TOP Wiper (S: ±0.13)

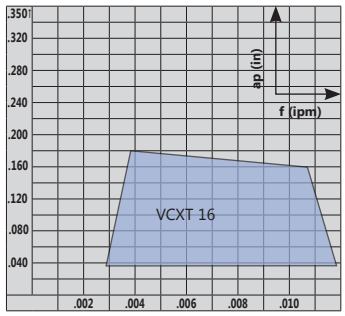
Cut: Standard
Chip Breaker: TOP Wiper, Polished Rake, Sharp Cutting Edge





VPXT Carbide TOP Wiper (S: ±0.1)

Cut: Standard
Chip Breaker: TOP Wiper, Honed Cutting Edge



Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	**Steel**
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials



VC...07 inserts: d =.250"
VC...10 inserts: d =.250"
VC...11 inserts: d =.250"
VC...16 inserts: d =.375"

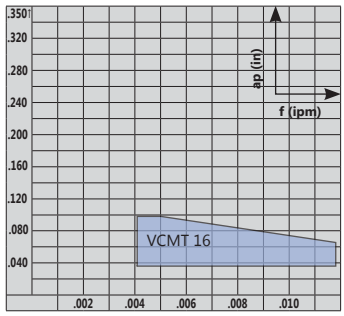
Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits

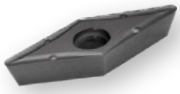


VCMT Carbide PM25

Cut: Neutral
Chip Breaker: PM25, Honed Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	-	■	■	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-

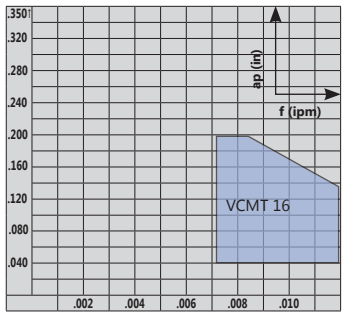


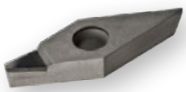


VCMT Carbide PM55

Cut: Neutral
Chip Breaker: PM55, Honed Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	-	■	■	-	-	-
Finishing	-	-	-	-	-	-	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-

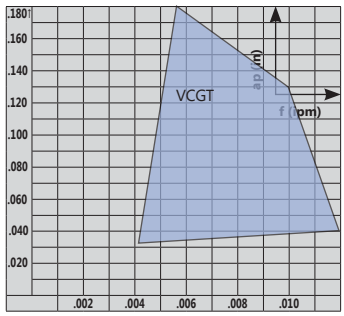




VCGT Diamond

Cut: Neutral
Chip Breaker: Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	■	■	■

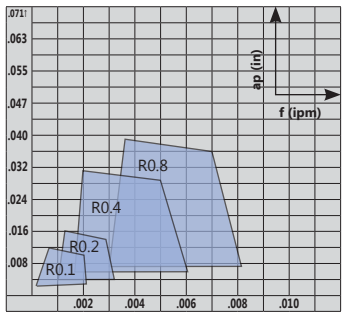




VCGT Diamond UWS

Cut: Neutral
Chip Breaker: UWS, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	-	-	-	-	-	-	□	□	□
Micro Finishing	-	-	-	-	-	-	■	■	■



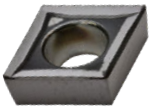
Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	**Steel**
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials



CC...06 inserts: d =.250"
CC...09 inserts: d =.375"
CC...12 inserts: d =.500"

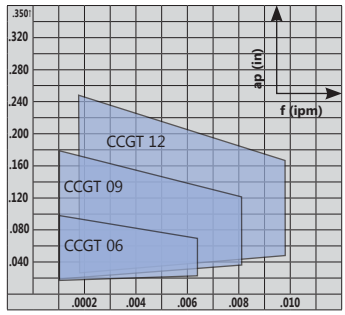
Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits

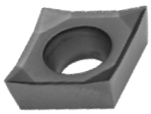


CCGT Carbide PA3

Cut: Neutral
Chip Breaker: PA3, Polished Rake, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	-	□
Finishing	□	□	□	□	□	■	■	-	■
Micro Finishing	■	■	■	■	■	■	■	-	■

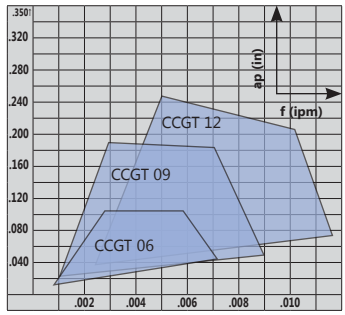


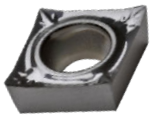


CCGT Carbide PA7

Cut: Neutral
Chip Breaker: PA7, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	-	□
Finishing	□	□	□	□	□	□	■	-	■
Micro Finishing	■	■	■	□	■	■	■	-	■

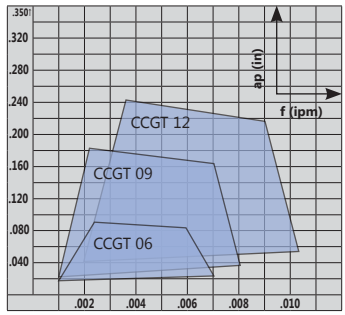


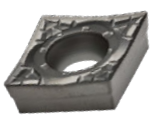


CCGT Carbide PA5

Cut: Neutral
Chip Breaker: PA5, Polished Rake, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	-	□
Finishing	■	■	■	□	■	■	■	-	■
Micro Finishing	■	■	■	□	■	■	■	-	■

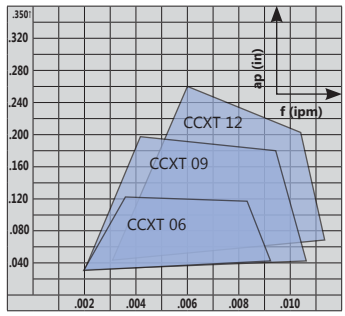




CCXT Carbide PA9

Cut: Neutral
Chip Breaker: PA9, Honed Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	□	□	□	■	-	-
Finishing	■	■	■	■	■	■	□	-	-
Micro Finishing	□	□	□	-	□	□	-	-	-



Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	**Steel**
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	



CC...06 inserts: d =.250"
CC...09 inserts: d =.375"
CC...12 inserts: d =.500"

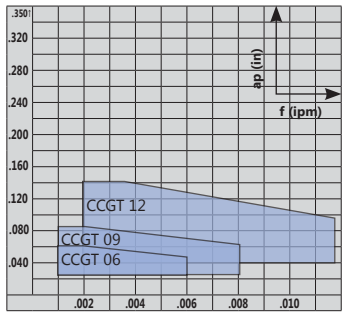
Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits



CCGT Carbide PF

Cut: Neutral
Chip Breaker: PF, Honed Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	-	□	□	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	■	■	■	-	■	■	-	-	-

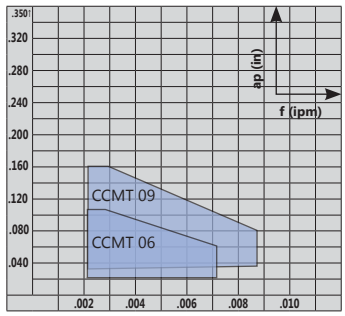




CCMT Carbide PF43

Cut: Neutral
Chip Breaker: PF43, Honed Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-

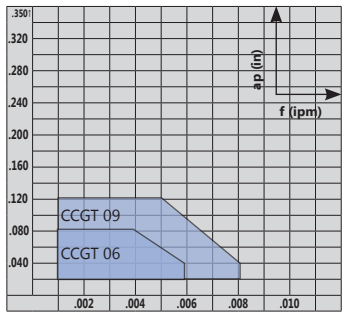


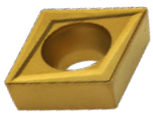


CCGT Carbide PF23

Cut: Neutral
Chip Breaker: PF23, Polished Rake, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	□	□	□	□	-	-
Micro Finishing	■	■	■	□	■	■	□	-	□

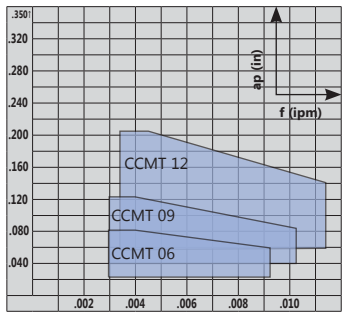




CCMT Carbide PM

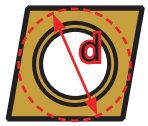
Cut: Neutral
Chip Breaker: PM, Honed Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	□	□	□	-	□	□	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-



Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	**Steel**
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	



CC...06 inserts: d =.250"
CC...09 inserts: d =.375"
CC...12 inserts: d =.500"

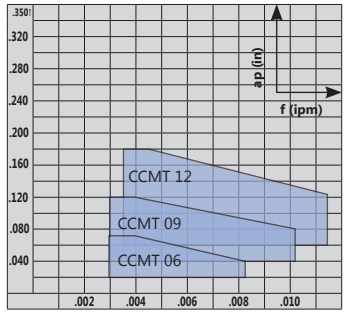
Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits

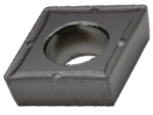


CCMT Cermet PMF

Cut: Neutral
Chip Breaker: PMF, Honed Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-

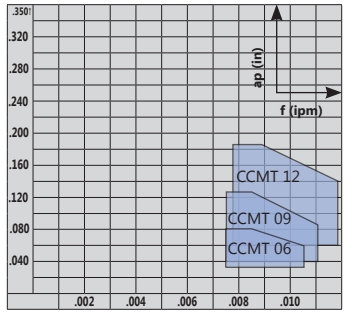




CCMT Carbide PM55

Cut: Neutral
Chip Breaker: PM55, Honed Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	-	■	■	-	-	-
Finishing	-	-	-	-	-	-	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-

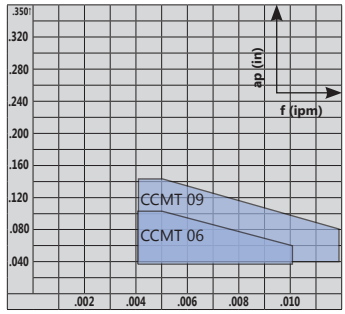


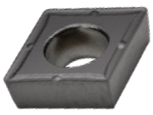


CCMT Carbide PM25

Cut: Neutral
Chip Breaker: PM25, Honed Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	-	■	■	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-

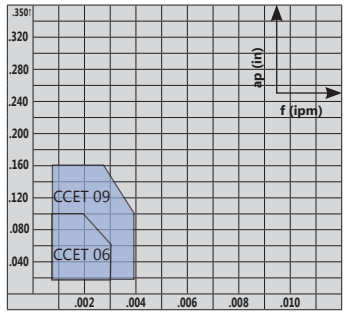




CCET Carbide -U

Cut: Neutral
Chip Breaker: -U, Ground Rake, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	-	□	□	-	-	-
Micro Finishing	■	■	■	□	■	■	□	-	□



Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	**Steel**
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials



CC...06 inserts: d =.250"
CC...09 inserts: d =.375"
CC...12 inserts: d =.500"

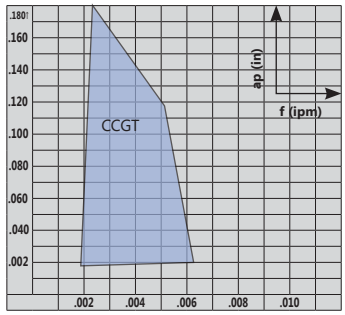
Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits



CCGT Diamond

Cut: Neutral
Chip Breaker: Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	■	■	■

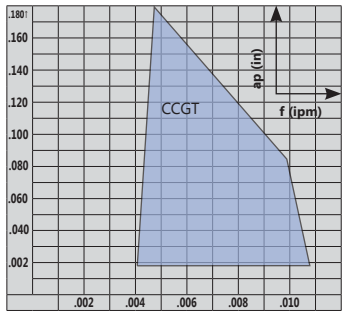




CCGT Diamond TOP Wiper

Cut: Neutral
Chip Breaker: TOP Wiper, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	■	■	■

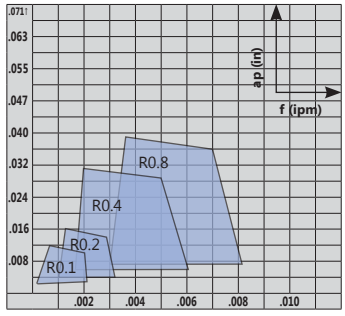




CCGT Diamond -UWS

Cut: Neutral
Chip Breaker: -UWS, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	-	-	-	-	-	-	□	□	□
Micro Finishing	-	-	-	-	-	-	■	■	■

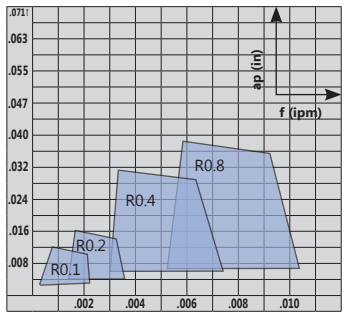




CCGT Diamond -UWS TOP Wiper

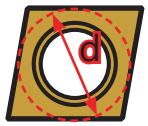
Cut: Neutral
Chip Breaker: -UWS, TOP Wiper, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	-	-	-	-	-	-	□	□	□
Micro Finishing	-	-	-	-	-	-	■	■	■



Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	**Steel**
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials



CC...06 inserts: d =.250"
CC...09 inserts: d =.375"
CC...12 inserts: d =.500"

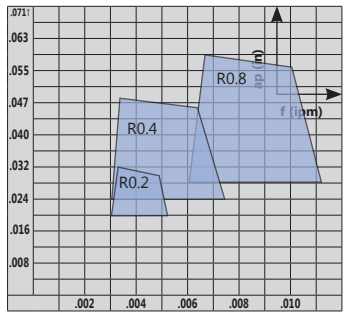
Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits



CCGT Diamond -UWN

Cut: Neutral
Chip Breaker: -UWN, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	-	-	-

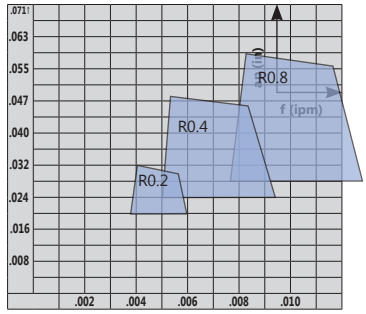


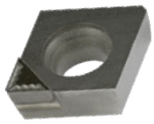


CCGT Diamond -UWN TOP Wiper

Cut: Neutral
Chip Breaker: -UWN, TOP Wiper, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	-	-	-

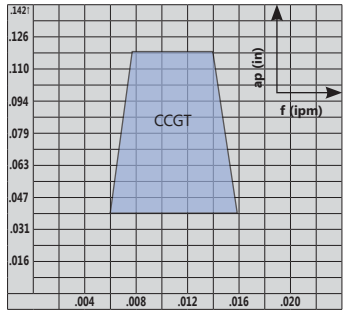


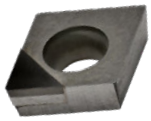


CCGT Diamond -UWR

Cut: Neutral
Chip Breaker: -UWR, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	-	-	-

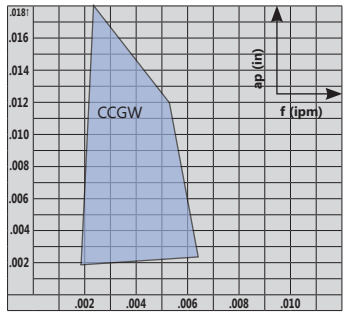




CCGW Diamond

Cut: Neutral
Chip Breaker: Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	-	-	-



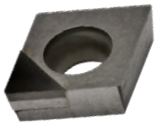
Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	**Steel**
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	



CC...06 inserts: d =.250"
CC...09 inserts: d =.375"
CC...12 inserts: d =.500"

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits

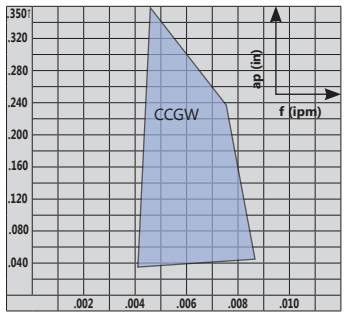


CCGW Diamond TOP Wiper

Cut: Neutral

Chip Breaker: TOP Wiper, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	■	■	■



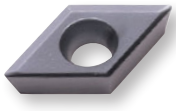
Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	**Steel**
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials



DC...07 inserts: d =.250"
DC...11 inserts: d =.375"

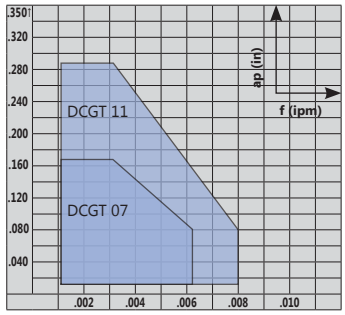
Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits

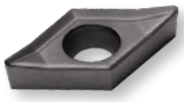


DCGT Carbide A3

Cut: Neutral
Chip Breaker: A3, Polished Rake, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	□	□	□	■	-	■
Micro Finishing	■	■	■	■	■	■	■	-	■

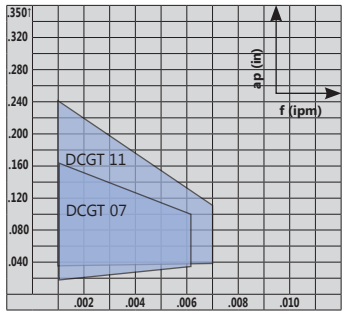


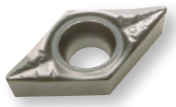


DCGT Carbide PA3

Cut: Neutral
Chip Breaker: PA3, Polished Rake, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	-	□
Finishing	□	□	□	□	□	□	■	-	■
Micro Finishing	■	■	■	■	■	■	■	-	■

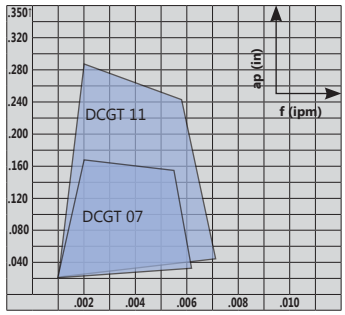




DCGT Carbide PA5

Cut: Neutral
Chip Breaker: PA5, Polished Rake, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	-	□
Finishing	■	■	■	□	■	■	■	-	■
Micro Finishing	■	■	■	□	■	■	■	-	■

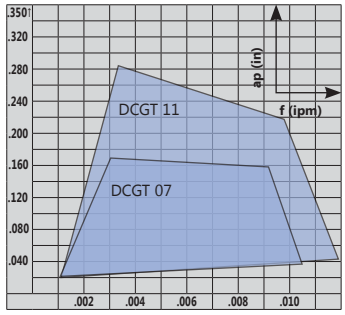




DCGT Carbide TOP5

Cut: Neutral
Chip Breaker: TOP5, Polished Rake, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	□	□	□	□	-	□
Finishing	■	■	■	□	■	■	■	-	■
Micro Finishing	□	□	□	□	□	□	□	-	□



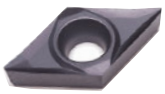
Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	**Steel**
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	



DC...07 inserts: d =.250"
DC...11 inserts: d =.375"

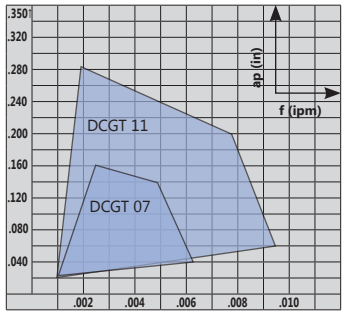
Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits



DCGT Carbide PA7

Cut: Neutral
Chip Breaker: PA7, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	-	□
Finishing	□	□	□	□	□	□	■	-	■
Micro Finishing	■	■	■	□	■	■	■	-	■

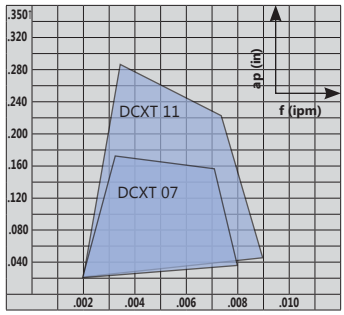




DCXT Carbide PA9

Cut: Neutral
Chip Breaker: PA9, Honed Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	□	□	□	■	-	-
Finishing	■	■	■	■	■	■	□	-	-
Micro Finishing	□	□	□	-	□	□	-	-	-

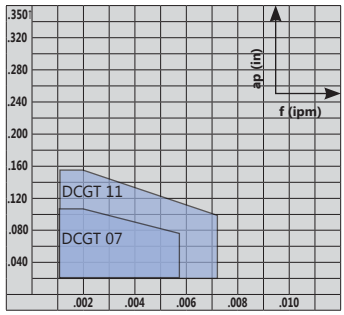




DCGT Carbide/Cermet PF

Cut: Neutral
Chip Breaker: PF, Sharp Or Honed Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	-	□	□	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	■	■	■	-	■	■	-	-	-

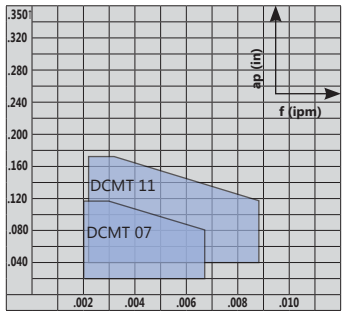




DCMT Carbide PF

Cut: Neutral
Chip Breaker: PF, Honed Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	□	□	□	-	□	□	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-



Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	**Steel**
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials



DC...07 inserts: d =.250"
DC...11 inserts: d =.375"

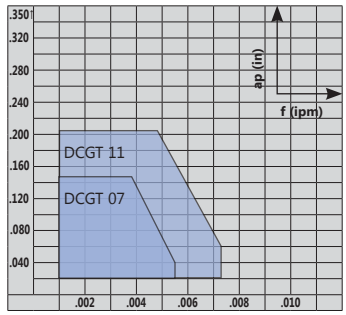
Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits



DCGT Carbide PF23

Cut: Neutral
Chip Breaker: PF23, Polished Rake, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	□	□	□	□	-	-
Micro Finishing	■	■	■	□	■	■	□	-	□

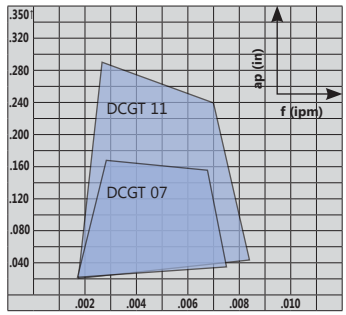


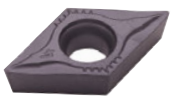


DCGT Carbide PF33

Cut: Neutral
Chip Breaker: PF33, Polished Rake, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	-	□	□	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	■	■	■	-	■	■	-	-	-

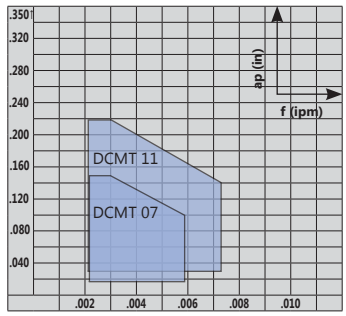


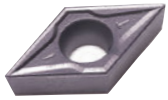


DCMT Carbide PF43

Cut: Neutral
Chip Breaker: PF43, Honed Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-

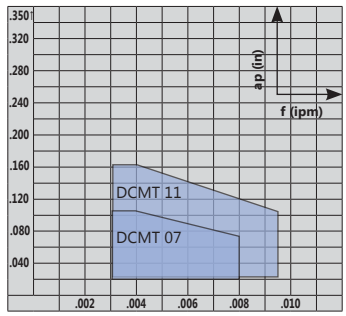




DCMT Carbide PM Roughing

Cut: Neutral
Chip Breaker: PM, Honed Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	□	□	□	-	□	□	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-



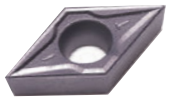
Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	**Steel**
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	



DC...07 inserts: d =.250"
DC...11 inserts: d =.375"

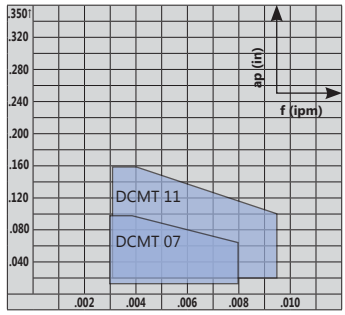
Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits

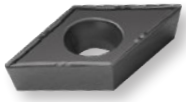


DCMT Cermet PMF

Cut: Neutral
Chip Breaker: PMF, Honed Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-

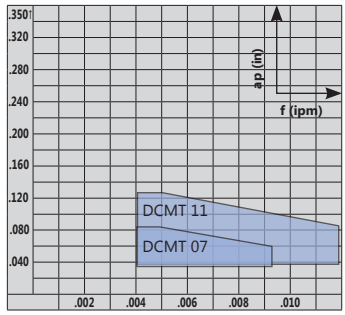


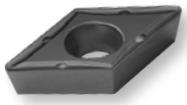


DCMT Carbide PM25

Cut: Neutral
Chip Breaker: PM25, Honed Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	-	■	■	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-

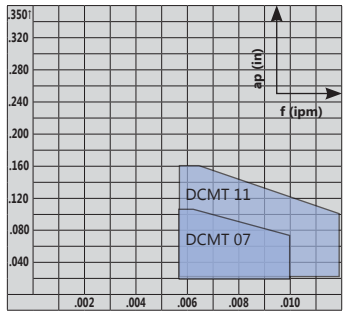




DCMT Carbide PM55

Cut: Neutral
Chip Breaker: PM55, Honed Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	-	■	■	-	-	-
Finishing	-	-	-	-	-	-	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-

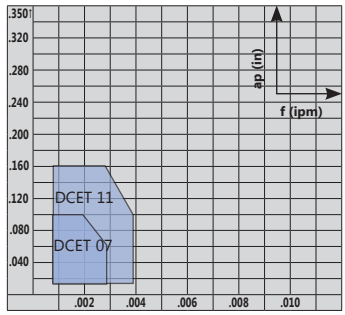




DCET Carbide/Cermet U

Cut: Neutral
Chip Breaker: U, Ground Rake, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	-	□	□	-	-	-
Micro Finishing	■	■	■	□	■	■	□	-	□



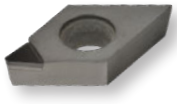
Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	**Steel**
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	



DC...07 inserts: d =.250"
DC...11 inserts: d =.375"

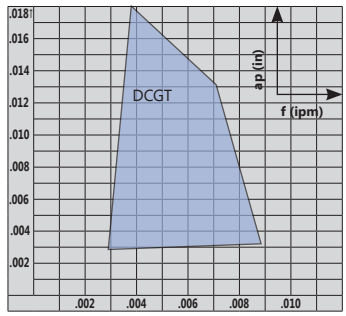
Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits

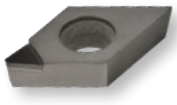


DCGT Diamond

Cut: Neutral
Chip Breaker: Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	■	■	■

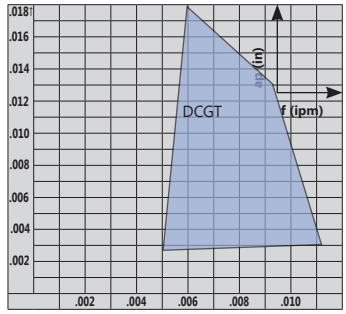


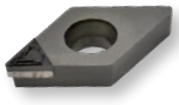


DCGT Diamond TOP

Cut: Neutral
Chip Breaker: TOP, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	■	■	■

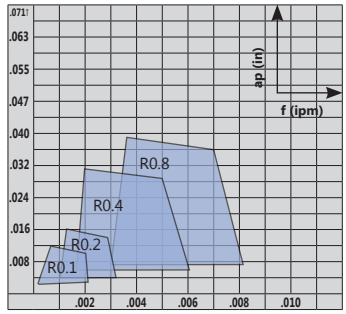


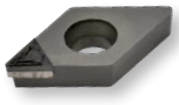


DCGT Diamond UWS Micro Finishing

Cut: Neutral
Chip Breaker: UWS, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	-	-	-	-	-	-	□	□	□
Micro Finishing	-	-	-	-	-	-	■	■	■

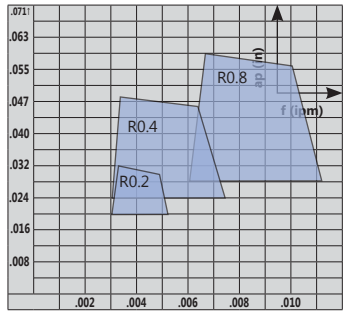




DCGT Diamond UWN Micro Finishing

Cut: Neutral
Chip Breaker: UWN, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	-	-	-



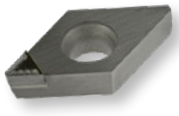
Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	**Steel**
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	



DC...07 inserts: d =.250"
DC...11 inserts: d =.375"

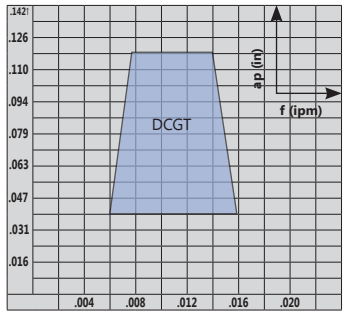
Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits

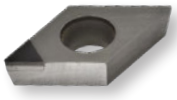


DCGT Diamond UWR

Cut: Neutral
Chip Breaker: UWR, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	-	-	-

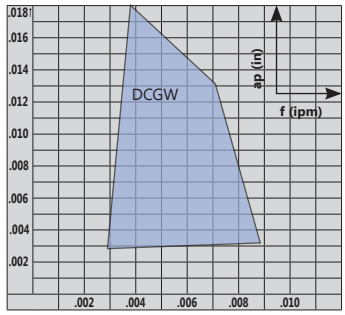


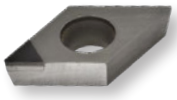


DCGW Diamond

Cut: Neutral
Chip Breaker: Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	■	■	■

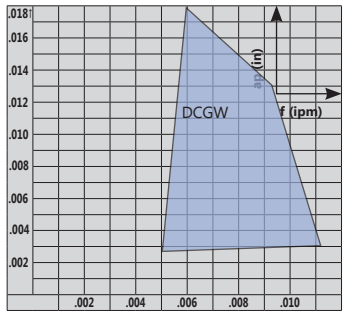




DCGW Diamond TOP Wiper

Cut: Neutral
Chip Breaker: TOP Wiper, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	■	■	■



Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	**Steel**
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits



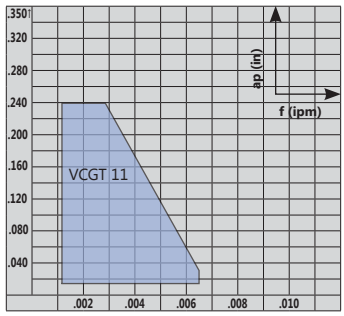
VC...07 inserts: d =.1562"
VC...10 inserts: d =.250"
VC...11 inserts: d =.250"
VC...16 inserts: d =.375"



VCGT Carbide A3

Cut: Neutral
Chip Breaker: A3, Polished Rake, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	□	□	□	■	-	■
Micro Finishing	■	■	■	■	■	■	■	-	■

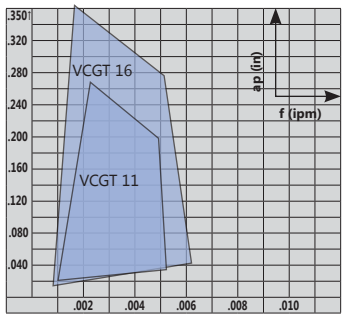




VCGT Carbide PA5

Cut: Neutral
Chip Breaker: PA5, Polished Rake, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	-	□
Finishing	■	■	■	□	■	■	■	-	■
Micro Finishing	■	■	■	□	■	■	■	-	■

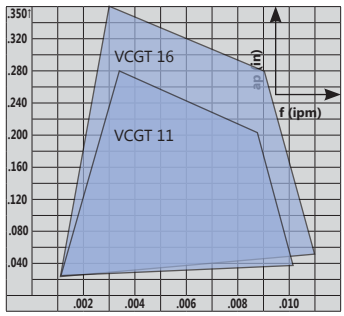


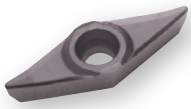


VCGT Carbide TOP5 Wiper

Cut: Right Hand, Left Hand
Chip Breaker: TOP5, Polished Rake, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	□	□	□	□	-	□
Finishing	■	■	■	□	■	■	■	-	■
Micro Finishing	□	□	□	□	□	□	□	-	□

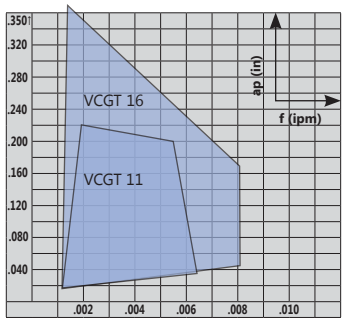




VCGT Carbide PA7

Cut: Neutral
Chip Breaker: PA7, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	-	□
Finishing	□	□	□	□	□	□	■	-	■
Micro Finishing	■	■	■	□	■	■	■	-	■



Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	**Steel**
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials



VC...07 inserts: d =.250"
VC...10 inserts: d =.250"
VC...11 inserts: d =.250"
VC...16 inserts: d =.375"

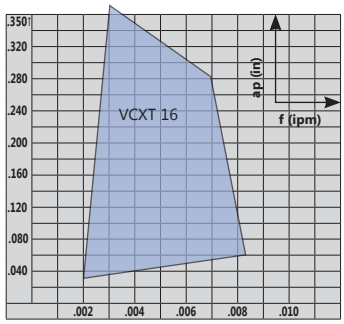
Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits

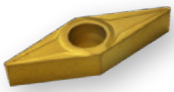


VCXT Carbide PA9

Cut: Neutral
Chip Breaker: PA9, Honed Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	□	□	□	■	-	-
Finishing	■	■	■	■	■	■	□	-	-
Micro Finishing	□	□	□	-	□	□	-	-	-

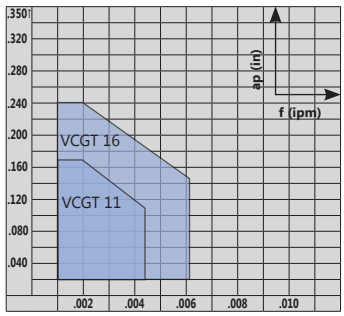


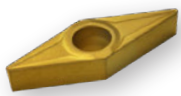


VCGT Carbide/Cermet PF

Cut: Neutral
Chip Breaker: PF, Polished Rake, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	-	□	□	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	■	■	■	-	■	■	-	-	-

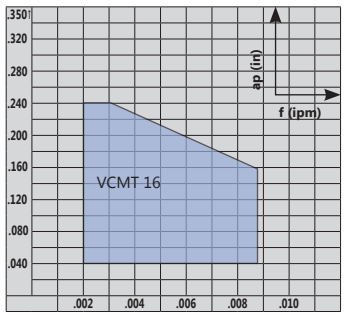




VCMT Carbide PF

Cut: Neutral
Chip Breaker: PF, Honed Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	□	□	□	-	□	□	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-

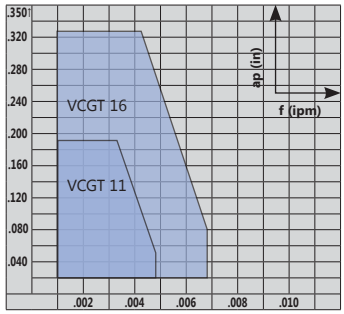




VCMT Carbide PF23

Cut: Neutral
Chip Breaker: PF23, Polished Rake, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	□	□	□	□	-	-
Micro Finishing	■	■	■	□	■	■	□	-	□



Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	**Steel**
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	



VC...07 inserts: d =.1562"
VC...10 inserts: d =.250"
VC...11 inserts: d =.250"
VC...16 inserts: d =.375"

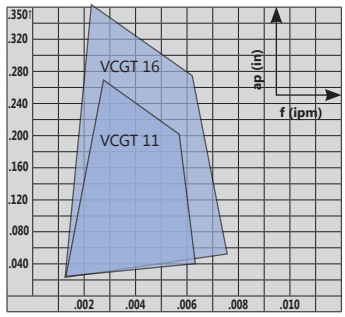
Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits

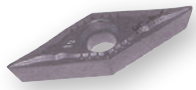


VCGT Carbide PF33

Cut: Neutral
Chip Breaker: PF33, Polished Rake, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	-	□	□	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	■	■	■	-	■	■	-	-	-

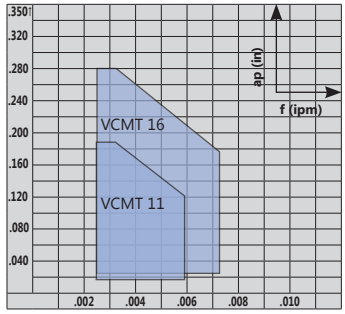


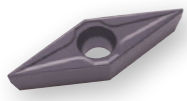


VCMT Carbide PF43

Cut: Neutral
Chip Breaker: PF43, Honed Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-

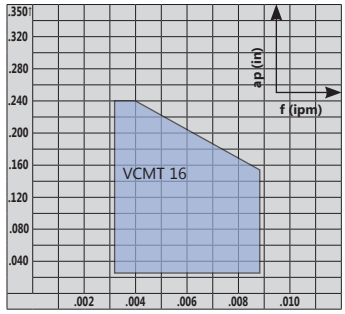




VCMT Carbide PM

Cut: Neutral
Chip Breaker: PM, Honed Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	□	□	□	-	□	□	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-

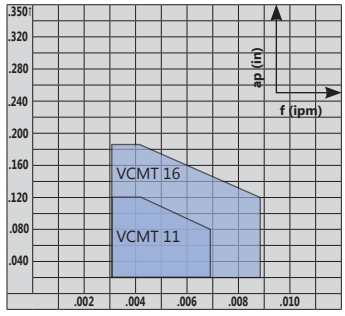




VCMT Cermet PMF

Cut: Neutral
Chip Breaker: PMF, Honed Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-



Coatings vs Material Type

Carbide												Cermet		Diamond			Materials
UHM 10	UHM 10 HX	UHM 10 TX+	UHM 10 MZ	UHM 20 HPX	UHM 20 TX+	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 TX+	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	
-	-	■	■	■	■	■	□	□	■	■	□	■	■	-	-	-	**Steel**
-	■	■	-	■	■	□	□	■	■	■	■	□	■	-	-	-	Stainless Steel
□	■	■	-	□	■	-	□	■	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	-	-	□	□	-	-	□	-	-	■	■	■	Non-Ferrous Metals
-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Mard Materials



VC...07 inserts: d =.250"
VC...10 inserts: d =.250"
VC...11 inserts: d =.250"
VC...16 inserts: d =.375"

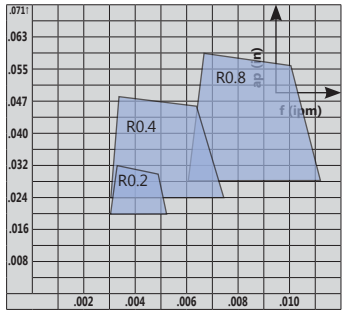
Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Unalloyed Steel	Low-Alloy Steel	High-Alloy Steel	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composits



VCGT Diamond UWR

Cut: Neutral
Chip Breaker: UWR, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	-	-	-

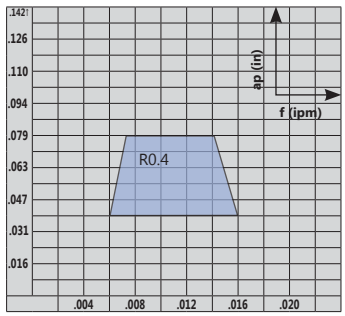


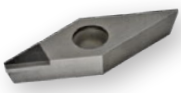


VCGT Diamond UWN

Cut: Neutral
Chip Breaker: UWN, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	-	-	-

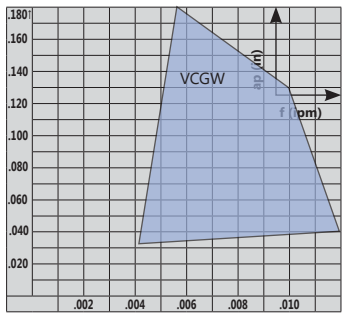




VCGW Diamond

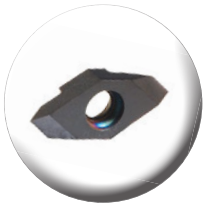
Cut: Neutral
Chip Breaker: UWN, Sharp Cutting Edge

Application	Material Class I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	■	■	■

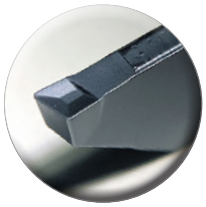


multidec® SHORT

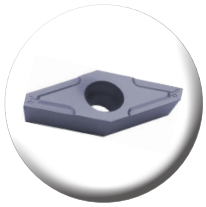
multidec® SHORT coolant-thru holders enable the use of multidec® turning inserts on commonly available quick change tooling systems. multidec® 1600, 3000, ISO VC, & ISO VP series inserts are currently available.



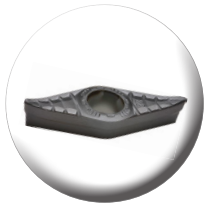
1600 Series



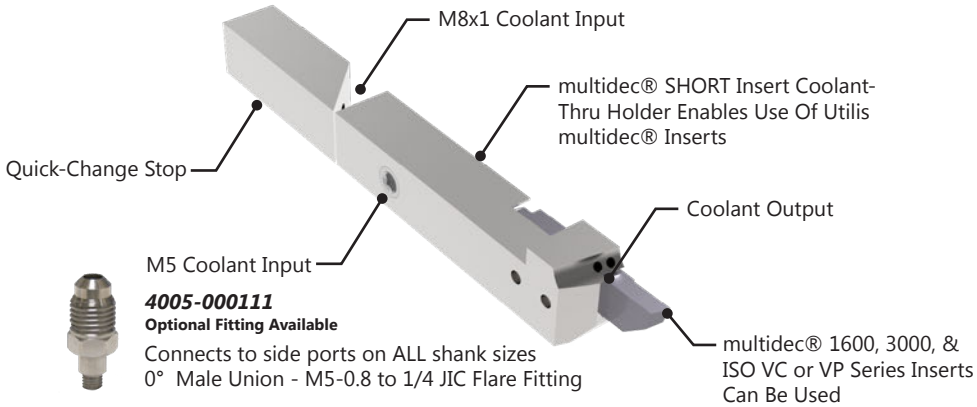
3000 Series



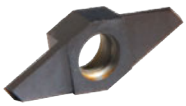
ISO VP Series



ISO VC Series



4005-000111
Optional Fitting Available
Connects to side ports on ALL shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting



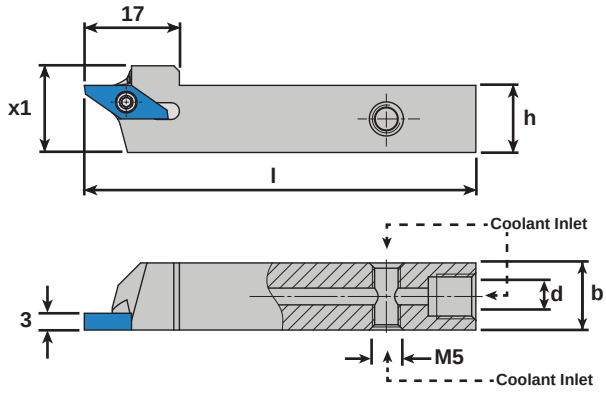
Coolant-Thru SHORT Holder 1600

Insert Type: 1600 Series Inserts
Coolant-Thru: Rear & Side Ports

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features						Coolant Fittings
Item No.	Description	Item No.	Description	h	b	l	x_1	d	Inserts	Side
7005-143570	1600-12x70 L IC-S	7005-143569	1600-12x70 R IC-S	12	12	70	15.5	M8x1	16...	4005-000111
7005-143573	1600-16x70 L IC-S	7005-143572	1600-16x70 R IC-S	16	16	70	19.5	M8x1	16...	4005-000111
7005-143571	1600-1/2"x70 L IC-S	7005-153823	1600-1/2"x70 R IC-S	12.7	12.7	70	16.2	M8x1	16...	4005-000111
7005-143575	1600-5/8"x70 L IC-S	7005-143574	1600-5/8"x70 R IC-S	15.875	15.875	70	19.375	M8x1	16...	4005-000111

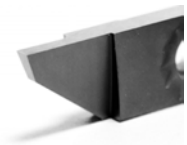
Features (3) connection ports for simple connection to your oil delivery system: (2) Side ports and (1) one end port making connection possible on most machine tool positions.







4005-000111
Connects to side ports on ALL Shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks



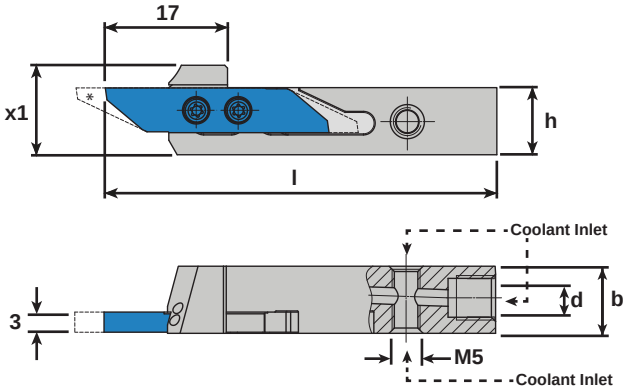
Coolant-Thru SHORT Holder 3000

Insert Type: 3000 Series Inserts
Coolant-Thru: Rear & Side Ports

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features						Coolant Fittings
Item No.	Description	Item No.	Description	h	b	l	x_1	d	Inserts	Side
7005-143564	3000-12x70 L IC-S	7005-143563	3000-12x70 R IC-S	12	12	70	16	M8x1	30...	4005-000111
7005-143566	3000-16x70 L IC-S	7005-143565	3000-16x70 R IC-S	16	16	70	20	M8x1	30...	4005-000111
7005-154819	3000-1/2"x70 L IC-S	7005-153822	3000-1/2"x70 R IC-S	12.7	12.7	70	16.7	M8x1	30...	4005-000111
7005-143568	3000-5/8"x70 L IC-S	7005-143567	3000-5/8"x70 R IC-S	15.875	15.875	70	19.875	M8x1	30...	4005-000111

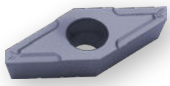
Features (3) connection ports for simple connection to your oil delivery system: (2) Side ports and (1) one end port making connection possible on most machine tool positions.







4005-000111
Connects to side ports on ALL Shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks



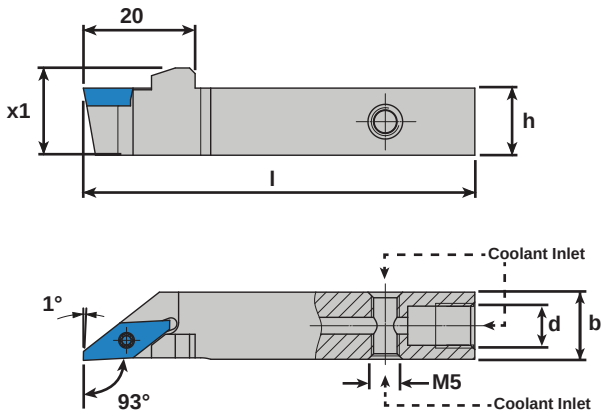
Coolant-Thru SHORT Holder SVJP

Insert Type: ISO VP Series Inserts
Coolant-Thru: Rear & Side Ports

Repeatability <10µm

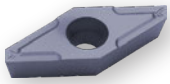
Left Hand		Right Hand		Dimensions & Features						Coolant Fittings
Item No.	Description	Item No.	Description	h	b	l	x_1	d	Inserts	Side
7005-143577	SVJPL 12 E10 IC-S	7005-143576	SVJPR 12 E10 IC-S	12	12	70	15.5	M8x1	VP..1003	4005-000111
7005-143580	SVJPL 16 E10 IC-S	7005-143579	SVJPR 16 E10 IC-S	16	16	70	19.5	M8x1	VP..1003	4005-000111
Call For Details	SVJPL 1/2" E10 IC-S	Call For Details	SVJPR 1/2" E10 IC-S	12.7	12.7	70	16.2	M8x1	VP...1003	4005-000111
Call For Details	SVJPL 5/8" E10 IC-S	Call For Details	SVJPR 5/8" E10 IC-S	15.875	15.875	70	19.375	M8x1	VP...1003	4005-000111

Features (3) connection ports for simple connection to your oil delivery system: (2) Side ports and (1) one end port making connection possible on most machine tool positions.





4005-000111
Connects to side ports on ALL Shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks



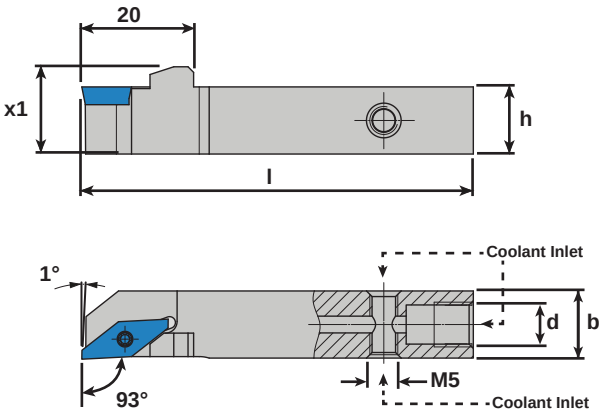
Coolant-Thru SHORT Holder SVJP Reinforced

Insert Type: ISO VP Series Inserts
Coolant-Thru: Rear & Side Ports

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features						Coolant Fittings
Item No.	Description	Item No.	Description	h	b	l	x_1	d	Inserts	Side
Call For Details	SVJPL 12 E10 V IC-S	Call For Details	SVJPR 12 E10 V IC-S	12	12	70	15.6	M8x1	VP...1003	4005-000111
Call For Details	SVJPL 16 E10 V IC-S	Call For Details	SVJPR 16 E10 V IC-S	16	16	70	19.6	M8x1	VP...1003	4005-000111
Call For Details	SVJPL 1/2" E10 V IC-S	7005-153841	SVJPR 1/2" E10 V IC-S	12.7	12.7	70	16.3	M8x1	VP...1003	4005-000111
Call For Details	SVJPL 5/8" E10 V IC-S	Call For Details	SVJPR 5/8" E10 V IC-S	15.875	15.875	70	19.475	M8x1	VP...1003	4005-000111

Features (3) connection ports for simple connection to your oil delivery system: (2) Side ports and (1) one end port making connection possible on most machine tool positions.







4005-000111
Connects to side ports on ALL Shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks



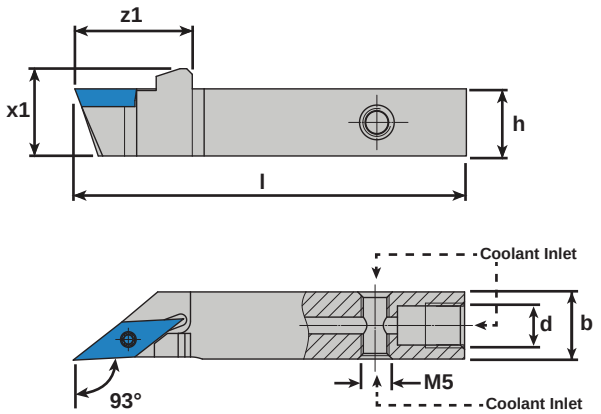
Coolant-Thru SHORT Holder SVJC

Insert Type: ISO VC Series Inserts
Coolant-Thru: Rear & Side Ports

Repeatability <10µm

Left Hand		Right Hand		Dimensions & Features						Coolant Fittings
Item No.	Description	Item No.	Description	h	b	l	x_1	d	Inserts	Side
7005-143591	SVJCL 12 E07 IC-S	7005-143590	SVJCR 12 E07 IC-S	12	12	70	15.6	M8x1	VC...0702	4005-000111
7005-143593	SVJCL 12 E11 IC-S	7005-143592	SVJCR 12 E11 IC-S	12	12	70	15.6	M8x1	VC...1103	4005-000111
7005-143597	SVJCL 16 E11 IC-S	7005-143596	SVJCR 16 E11 IC-S	16	16	70	19.6	M8x1	VC...1103	4005-000111
Call For Details	SVJCL 1/2" E07 IC-S	Call For Details	SVJCR 1/2" E07 IC-S	12.7	12.7	70	16.3	M8x1	VC...0702	4005-000111
Call For Details	SVJCL 1/2" E11 IC-S	Call For Details	SVJCR 1/2" E11 IC-S	12.7	12.7	70	16.3	M8x1	VC...1103	4005-000111
Call For Details	SVJCL 5/8" E11 IC-S	Call For Details	SVJCR 5/8" E11 IC-S	15.875	15.875	70	19.475	M8x1	VC...1103	4005-000111

Features (3) connection ports for simple connection to your oil delivery system: (2) Side ports and (1) one end port making connection possible on most machine tool positions.







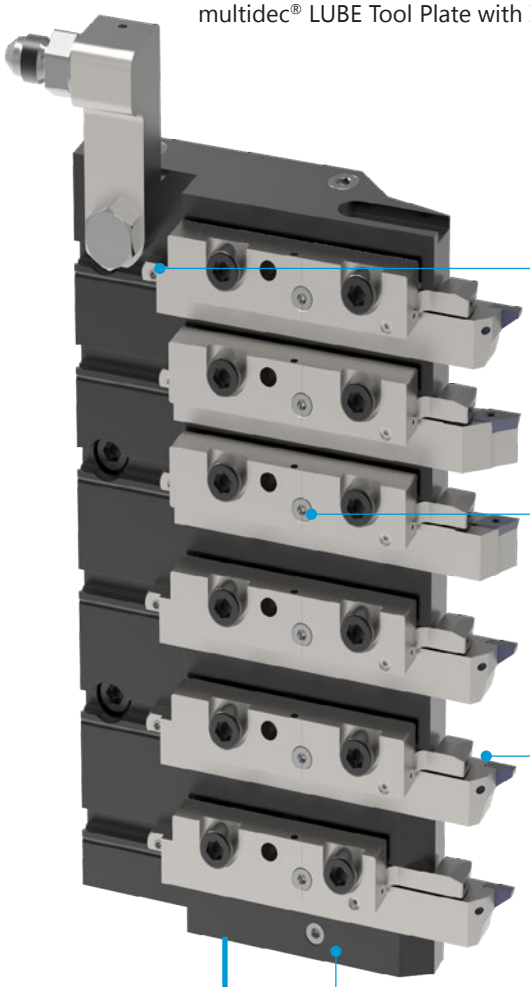
4005-000111
Connects to side ports on ALL Shank sizes
0° Male Union - M5-0.8 to 1/4 JIC Flare Fitting
Included With All Coolant-Thru Shanks

Notes:

multidec® LUBE Tool Plates & Wedges

UTILIS®
Tooling for High Technology

multidec® LUBE Tool Plate with Integrated Coolant System



Quick Change System



Quick and accurate tool change due to adjustable stops in the tool plate.

Flow Regulator on Coolant-thru Wedge



Targeted regulation of mould cooling with on/off function.

Tool Coolant Outlets on Clamping Wedge

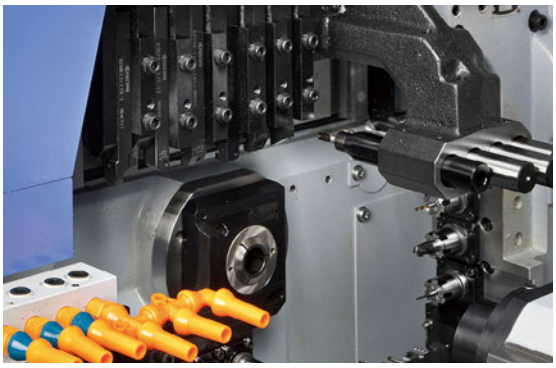


Reduced tool wear due to focused cooling directly at the cutting edge. Integrated coolant system does not require external coolant connections.

Coolant Connections on Panel



A wide range of connection options ensures direct connection to the coolant unit.



Advantages

- Simple installation by replacing the original plate with the complete multidec® LUBE tool plate
- Increased process reliability
- Quick and safe replacement of the insert with integrated stop
- Tool holders without internal cooling (IC) can continue to be used
- No more coolant distributors and tubes required

Designation System for Tool Plates

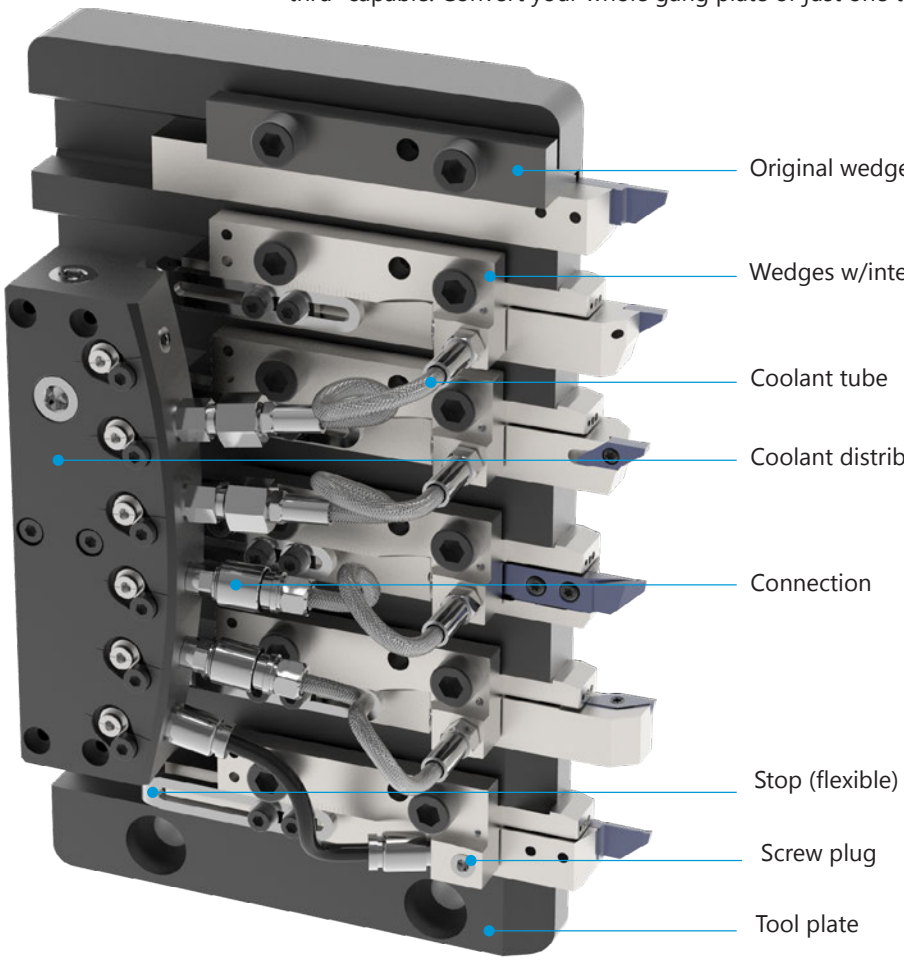
MLU ST -01 - TPC-IC-6T

- MLU — Product line
- ST — Machine
- -01 — Code (in accordance with machine type)
- TPC — Version
- IC — with internal cooling
- 6T — Number of tool positions

multidec® LUBE

Coolant-Thru Wedges for existing original tool plates

multidec® LUBE Integrated Coolant-Thru Wedge from UTILIS® are specifically engineered to work with standard square shank stick tooling thereby effectively making your entire tooling inventory "coolant-thru" capable. Convert your whole gang plate or just one tool station, the choice is yours.



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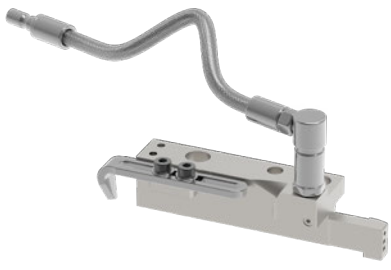
Advantages

- Simple installation through replacement of the original wedge with the multidec® LUBE coolant-thru wedge
- Increased process reliability
- Quick and reliable tool change with integrated stop
- Tool holders without internal cooling (IC) can continue to be used
- Different coolant distributors, tubes and push-in fittings for high and low pressure

Designation system for Coolant-Thru Wedges

MLU CI -12 - R-R IC -F

- MLU — Product line
- CI — Machine
- -12 — Code (in accordance with machine type)
- R-R — Version for right-hand or left-hand holder
- IC — with internal cooling
- -F — fixed outlet of the coolant



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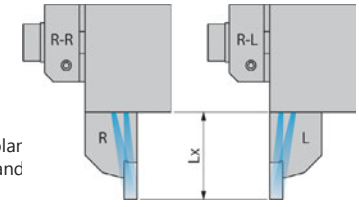
Citizen - Coolant Integrated Tool Plates

Machine Model	Pos.	Holder	Holder for Other Tool Positions	Cooling Circuits	Item No.	Description
L12 VII	6	10x10mm	10x10mm	1 2	7005-194302 7005-194900	MLU CI-03-TPC-IC-6T MLU CI-03-TPC-IC-6T-2K
L12X	6	12 x 12mm	12x12mm	2	7005-280250	MLU CI-05-TPC-IC-6T-2K
	7	12 x 12mm	10x10mm	1 2 3*	7005-216140 7005-194907 7005-194316	MLU CI-21-TPC-IC-7T MLU CI-21-TPC-IC-7T-2K MLU CI-21-TPC-IC-7T-3K
L20	6	16x16mm	12x12mm	1	7005-213975	MLU CI-06-TPC-IC-6T
L20 E	5	16x16mm	12x12mm	1	7005-280095	MLU CI-04-TPC-IC-5T
L20 X	5	16x16mm	12x12mm	2	7005-215670	MLU CI-07-TPC-IC-5T-2K
M16	5	10x10mm	10x10mm	1 2	7005-194289 7005-194904	MLU CI-01-TPC-IC-5T MLU CI-01-TPC-IC-5T-2K

Includes: Tool plate, coolant-thru wedges with coolant control screw, tool stops, torque screwdriver and mounting screws





Right Hand Coolar Jets w/ Right Hand Tool Shank

Left Hand Coolant Jets w/ Left Hand Tool Shank

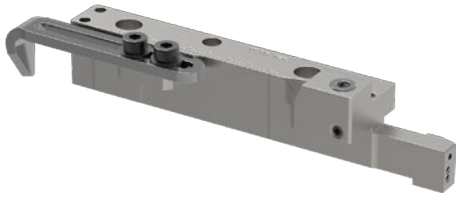
Citizen - Coolant-Thru Wedges

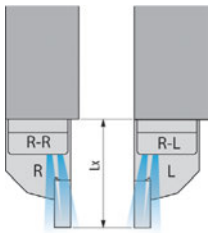
For Use with multidec LUBE Coolant Integrated Tool Plates or Replacing Original Coolant-thru Wedges

Tool Plate	Holder	Pos.	Lx*	Left Hand Item No.	Description	Right Hand Item No.	Description
L12 VII-6T	10x10mm	T1 -T6	20	7005-194305	MLU 03 R-L IC-F-02	7005-194304	MLU 03 R-R IC-F-02
L12 VII-6T-2K	10x10mm	T1-T6	20	7005-194305	MLU 03 R-L IC-F-02	7005-194304	MLU 03 R-R IC-F-02
L12 X-6T-2K	12x12mm	T1-T6	20	7005-194305	MLU 03 R-L IC-F-02	7005-194304	MLU 03 R-R IC-F-02
L12 X-7T	10x10mm 12x12mm	T2 - T7 T1 (cut-off)	20	7005-194305 7005-194909	MLU 03 R-L IC-F-02 MLU 03 R-L IC-F-03	7005-194323 7005-194323	MLU 03 R-R IC-F-02 MLU 03 R-R IC-F-03
L12 X-7T-2K	10x10mm 12x12mm	T2 - T7 T1 (cut-off)	20	7005-194305 7005-194909	MLU 03 R-L IC-F-02 MLU 03 R-L IC-F-03	7005-194304 7005-194323	MLU 03 R-R IC-F-02 MLU 03 R-R IC-F-03
L12 X-7T-3K	10x10mm 12x12mm	T2 - T7 T1 (cut-off)	20	7005-194305 7005-194909	MLU 03 R-L IC-F-02 MLU 03 R-L IC-F-03	7005-194304 7005-194323	MLU 03 R-R IC-F-02 MLU 03 R-R IC-F-03
L20-6T	12x12mm 16x16mm	T2 - T5 T1 (cut-off)	20 30	Call for Details	MLU 03 R-L IC-F-04 MLU 03 R-L IC-F-05	Call for Details	MLU 03 R-R IC-F-04 MLU 03 R-R IC-F-05
L20 E-5T	12x12mm 16x16mm	T2 - T5 T1 (cut-off)	20 30	Call for Details	MLU 03 R-L IC-F-04 MLU 03 R-L IC-F-05	Call for Details	MLU 03 R-R IC-F-04 MLU 03 R-R IC-F-05
L20 X-5T	12x12mm 16x16mm	T2 - T5 T1 (cut-off)	20 30	Call for Details	MLU 03 R-L IC-F-04 MLU 03 R-L IC-F-05	Call for Details	MLU 03 R-R IC-F-04 MLU 03 R-R IC-F-05
M16-5T	10x10mm	T1-T5	20	Call for Details	MLU 03 R-L IC-F-01	7005-194291	MLU 03 R-R IC-F-01
M16-5T-2K	10x10mm	T1-T5	20	7005-194906	MLU 03 R-L IC-F-01	7005-194291	MLU 03 R-R IC-F-01

** Lx: Recommended overhanging length of the tool for optimum impacting of the coolant on the cutting edge.*

Attention: Tighten the multidec LUBE coolant-thru wedge using the torque screwdriver according to the marking on the shim.





Right Hand Coolant Jets w/ Right Hand Tool Shank

Left Hand Coolant Jets w/ Left Hand Tool Shank

Citizen - Coolant-Thru Wedges

For use with current Citizen Tool Plates or replacing original coolant-thru wedges

Machine Model	Tool Plates	Holders	Pos.	Lx*	Left Hand Item No.	Description	Right Hand Item No.	Description
A20	BTF1012	12x12mm	T1–T6	20	7005-117047	MLU CI-01 R-L IC-F	7005-117037	MLU CI-01 R-R IC-F
	BTF2413	12x12mm 1⁄2" (12.7)	T1–T6 T2–T5	30	7005-117121 7005-117082	MLU CI-05 R-L IC-F MLU CI-03 R-L IC-F	7005-117121 7005-117081	MLU CI-05 R-R IC-F MLU CI-03 R-R IC-F
	GTF3612	12x12mm 16x16mm 5⁄8"	T2–T5 T1 (cut-off)	20 25	7005-117047 7005-117135	MLU CI-01 R-L IC-F MLU CI-08 R-L IC-F	7005-117037 7005-117137	MLU CI-01 R-R IC-F MLU CI-08 R-R IC-F
A20L	BTF2212 BTF2213 BTF2412	12x12mm 1⁄2" (12.7) 12x12mm	T2–T5	20	7005-117047 7005-117082 7005-117047	MLU CI-01 R-L IC-F MLU CI-03 R-L IC-F MLU CI-01 R-L IC-F	7005-117037 7005-117081 7005-117037	MLU CI-01 R-R IC-F MLU CI-03 R-R IC-F MLU CI-01 R-R IC-F
A32		16x16mm 5⁄8"	T1–T6	25	7005-117135	MLU CI-08 R-L IC-F	7005-117137	MLU CI-08 R-R IC-F
C16	GTF6010	10x10mm	T1–T6	20	7005-117049	MLU CI-02 R-L IC-F	7005-117048	MLU CI-02 R-R IC-F
K12	BTF1012 GTF7010	12x12mm 10x10mm	T1–T6	20 17.5	7005-117049 7005-117157	MLU CI-02 R-L IC-F MLU CI-09 R-L IC-F	7005-117048 7005-117156	MLU CI-02 R-R IC-F MLU CI-09 R-R IC-F
K12 E	BTF1010	10x10mm	T1–T7	20	7005-117049	MLU CI-02 R-L IC-F	7005-117048	MLU CI-02 R-R IC-F
K16	BTF1010 BTF1012 GTF5110	10x10mm 12x12mm 10x10mm	T1–T7 T1–T6 T1–T5	20	7005-117049 7005-117047 7005-117049	MLU CI-02 R-L IC-F MLU CI-01 R-L IC-F MLU CI-02 R-L IC-F	7005-117048 7005-117037 7005-117048	MLU CI-02 R-R IC-F MLU CI-01 R-R IC-F MLU CI-02 R-R IC-F
K16 E	BTF1012	12x12mm	T1–T6	20	7005-117047	MLU CI-01 R-L IC-F	7005-117037	MLU CI-01 R-R IC-F
L12	GTF7010 GTF7010 L GTF7020	10x10mm 3⁄8" (9.525) 8×8mm	T1 – T6	17.5	7005-117157	MLU CI-09 R-L IC-F	7005-117156	MLU CI-09 R-R IC-F
					7005-117158	MLU CI-07 R-L IC-F	7005-117136	MLU CI-07 R-R IC-F
				13	7005-169570	MLU CI-10 R-L IC-F	Call for Details	MLU CI-10 R-R IC-F
L16	GTF3100	10x10mm	T1 – T4	20	7005-117177	MLU CI-14 R-L IC-F	7005-117179	MLU CI-14 R-R IC-F
L20	BTF2413	1⁄2" (12.7)	T2 – T5	20	7005-117082	MLU CI-03 R-L IC-F	7005-117081	MLU CI-03 R-R IC-F
	GTF3113		T2 – T6		7005-117082	MLU CI-03 R-L IC-F	7005-117081	MLU CI-03 R-R IC-F
	GTF3612	12x12mm 16x16mm 5⁄8"	T2 – T5 T1 (cut-off)	20	7005-117047	MLU CI-01 R-L IC-F	7005-117037	MLU CI-01 R-R IC-F
			T1 (cut-off)	25	7005-117135	MLU CI-08 R-L IC-F	7005-117137	MLU CI-08 R-R IC-F
	GTF3812	12x12mm	T1 – T6	20	7005-117047	MLU CI-01 R-L IC-F	7005-117037	MLU CI-01 R-R IC-F
L20E	GTF3612	12x12mm 16x16mm 5⁄8"	T2 – T5 T1 (cut-off)	20 25	7005-117047 7005-117135	MLU CI-01 R-L IC-F MLU CI-08 R-L IC-F	7005-117037 7005-117137	MLU CI-01 R-R IC-F MLU CI-08 R-R IC-F
	GTF3613	16x16mm 5⁄8"	T1 – T5	22	7005-194052	MLU CI-11 R-L IC-F	7005-194051	MLU CI-11 R-R IC-F
L20 X	BTF2413	1⁄2" (12.7) 16x16mm 5⁄8"	T2 – T5 T1 (cut-off)	20 25	7005-117082 7005-117135	MLU CI-03 R-L IC-F MLU CI-08 R-L IC-F	7005-117081 7005-117137	MLU CI-03 R-R IC-F MLU CI-08 R-R IC-F
	GTF3612	12x12mm 16x16mm 5⁄8 "	T2 – T5 T1 (cut-off)	20 25	7005-117047 7005-117135	MLU CI-01 R-L IC-F MLU CI-08 R-L IC-F	7005-117037 7005-117137	MLU CI-01 R-R IC-F MLU CI-08 R-R IC-F
L25	GTF4016	16x16mm 5⁄8"	T11 – T15	25	7005-117135	MLU CI-08 R-L IC-F	7005-117137	MLU CI-08 R-R IC-F
L32	GTF4016	16x16mm 5⁄8"	T11 – T15	25	7005-117135	MLU CI-08 R-L IC-F	7005-117137	MLU CI-08 R-R IC-F
L4-25	GTF4516	16x16mm 5⁄8"	T11 – T15	25	7005-117135	MLU CI-08 R-L IC-F	7005-117137	MLU CI-08 R-R IC-F
M16	BTF1012 GTF5110	12x12mm 10x10mm	T1 – T6 T1 – T5	20 20	7005-117047 7005-117049	MLU CI-01 R-L IC-F MLU CI-02 R-L IC-F	7005-117037 7005-117048	MLU CI-01 R-R IC-F MLU CI-02 R-R IC-F
M20	GTF2513	12x12mm	T1 – T5	30	7005-117121	MLU CI-05 R-L IC-F	7005-117121	MLU CI-05 R-R IC-F
M32	GTF5216 GFT5816	16x16mm 5⁄8"	T1–T5	25	7005-117135	MLU CI-08 R-L IC-F	7005-117137	MLU CI-08 R-R IC-F
M32 V	GTF5216L	16x16mm 5⁄8"	T1–T5	25	7005-117135	MLU CI-08 R-L IC-F	7005-117137	MLU CI-08 R-R IC-F
M416-V	GFT5210	10x10mm	T1–T5	25	7005-117049	MLU CI-02 R-L IC-F	7005-117048	MLU CI-02 R-R IC-F
M416-VII	GFT5210	10x10mm	T1–T5	20	7005-117049	MLU CI-02 R-L IC-F	7005-117048	MLU CI-02 R-R IC-F
M432-V	GTF5816	16x16mm 5⁄8"	T1–T5	25	7005-117135	MLU CI-08 R-L IC-F	7005-117137	MLU CI-08 R-R IC-F
M432-VII	GTF5816	16x16mm 5⁄8"	T1–T5	25	7005-117135	MLU CI-08 R-L IC-F	7005-117137	MLU CI-08 R-R IC-F
M432-VIII	GTF5816	16x16mm 5⁄8"	T1–T5	25	7005-117135	MLU CI-08 R-L IC-F	7005-117137	MLU CI-08 R-R IC-F
R07	QTF4308	8×8mm	T11–T12	13	7005-117197	MLU CI-12 R-L IC-F	7005-117196	MLU CI-12 R-R IC-F

** Lx: Recommended overhanging length of the tool for optimum impacting of the coolant on the cutting edge.*

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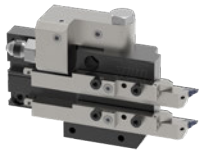
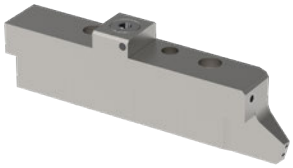


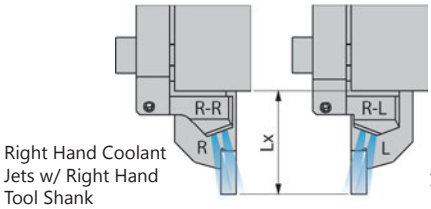


Star - Coolant Integrated Tool Plates

Machine Model	Tool Postions	Cut-off Position Holder	Holder for other Tool Positions	Number of Cooling Circuits	Item No.	Description
SB-12 R/SB20 R G	6	12×12mm	12x12mm	1 2	7005-194700 Call for Details	MLU ST-03-TPC-IC-6T MLU ST-03-TPC-IC-6T-2K
SR20 J	6	12×12mm	12×12mm	1	7005-194276	MLU ST-01-TPC-IC-6T
SR20 J II B	6	12x12mm	12x12mm	1 3	Call for Details	MLU ST-05-TPC-IC-6T MLU ST-05-TPC-IC-6T-3K
SR32 J III B	6	16x16mm 5⁄8"	16x16mm 5⁄8"	1 2	Call for Details	MLU ST-04-TPC-IC-6T MLU ST-04-TPC-IC-6T-2K
SW12 RII	5 2	10x10mm	10x10mm	1	7005-194310 7005-194312	MLU ST-02-TPC-IC-5T MLU ST-02-TPC-IC-2T
	5 2	12x12mm	12x12mm	2 1	7005-280272 Call for Details	MLU ST-02-TPC-IC-5T-2K-5x12 MLUST-02-TPC-IC-2T-2x12
SV12	5	12x12mm	12x12mm	1	Call for Details	MLU ST-06-TPC-IC-5T

Includes: Tool plate, coolant-thru wedges with coolant control screw, tool stops, torque screwdriver and mounting screws





Right Hand Coolant Jets w/ Right Hand Tool Shank

Left Hand Coolant Jets w/ Left Hand Tool Shank

Star - Coolant-Thru Wedges

For Use with multidec LUBE Coolant Integrated Tool Plates or Replacing Original Coolant-thru Wedges

Machine Model	Holders	Pos.	Lx*	Left Hand Item No.	Description	Right Hand Item No.	Description
SB12 R G-6T	12x12mm	T2-T6 T1 (cut-off)	22	7005-194308 7005-194309	MLU 02 R-L IC-F-01 MLU 02 R-L IC-F-02	7005-194277 7005-194278	MLU 02 R-R IC-F-01 MLU 02 R-R IC-F-02
SB12 R G-6T-2K	12x12mm	T2-T6 T1 (cut-off)	22	7005-194308 7005-194309	MLU 02 R-L IC-F-01 MLU 02 R-L IC-F-02	7005-194277 7005-194278	MLU 02 R-R IC-F-01 MLU 02 R-R IC-F-02
SB20 R G-6T	12x12mm	T2-T6 T1 (cut-off)	22	7005-194308 7005-194309	MLU 02 R-L IC-F-01 MLU 02 R-L IC-F-02	7005-194277 7005-194278	MLU 02 R-R IC-F-01 MLU 02 R-R IC-F-02
SB20 R G-6T-2K	12x12mm	T2 – T6 T1 (cut-off)	22	7005-194308 7005-194309	MLU 02 R-L IC-F-01 MLU 02 R-L IC-F-02	7005-194277 7005-194278	MLU 02 R-R IC-F-01 MLU 02 R-R IC-F-02
SR20 J-6T	12x12mm	T2 – T6 T1 (cut-off)	22	7005-194308 7005-194309	MLU 02 R-L IC-F-01 MLU 02 R-L IC-F-02	7005-194277 7005-194278	MLU 02 R-R IC-F-01 MLU 02 R-R IC-F-02
SR20 J II B-6T	12x12mm	T2 – T6 T1 (cut-off)	25	7005-194308 7005-194309	MLU 02 R-L IC-F-01 MLU 02 R-L IC-F-02	7005-194277 7005-194278	MLU 02 R-R IC-F-01 MLU 02 R-R IC-F-02
SR20 J II B-6T-3K	12x12mm	T2 - T6 T1 (cut-off)	25	7005-194308 7005-194309	MLU 02 R-L IC-F-01 MLU 02 R-L IC-F-02	7005-194277 7005-194278	MLU 02 R-R IC-F-01 MLU 02 R-R IC-F-02
SR32 J III B-6T	16x16mm	T2 – T6 T1 (cut-off)	25	Call for Details Call for Details	MLU 02 R-L IC-F-03 MLU 02 R-L IC-F-04	Call for Details Call for Details	MLU 02 R-R IC-F-03 MLU 02 R-R IC-F-04
SR32 J III B-6T-2K	16x16mm	T2 - T6 T1 (cut-off)	25	Call for Details Call for Details	MLU 02 R-L IC-F-03 MLU 02 R-L IC-F-04	Call for Details Call for Details	MLU 02 R-R IC-F-03 MLU 02 R-R IC-F-04
SV12-5T	12x12mm	T3–T5	22	7005-194308	MLU 06 R-L IC-F-01	7005-194277	MLU 06 R-R IC-F-01
		T1–T2		7005-280284	MLU 06 R-L IC-F-02	7005-194278	MLU 06 R-R IC-F-02
SW12 RII-2T	10x10mm	T1–T2	20	Call for Details	MLU 01 R-L IC-F-05	7005-194285	MLU 01 R-R IC-F-05
SW12 RII-5T	10x10mm	T1–T5	20	Call for Details	MLU 01 R-L IC-F-05	7005-194285	MLU 01 R-R IC-F-05
SW12 RII-2T	12x12mm	T1–T2	20	Call for Details	MLU 02 R-L IC-F-06	Call for Details	MLU 02 R-R IC-F-06
SW12 RII-5T	12x12mm	T1–T5	20	Call for Details	MLU 02 R-L IC-F-06	Call for Details	MLU 02 R-R IC-F-06

** Lx: Recommended overhanging length of the tool for optimum impacting of the coolant on the cutting edge.*

Star - Coolant-Thru Wedges

For use with current Star Tool Plates or replacing original coolant-thru wedges



Machine Model	Tool Plates	Holders	Pos.	Lx*	Left Hand Item No.	Description	Right Hand Item No.	Description
SB-12 R	0M103-00	12x12mm	T1–T6	22	7005-117135	MLU ST-16 R-L IC-F	7005-117137	MLU ST-16 R-R IC-F
SB-12 R Type G	0M104.010	10x10mm	T2-T6 T1 (cut-off)	20	7005-154131 7005-216106	MLU ST-14 R-L IC-F MLU ST-21 R-L IC-F	7005-154130 7005-194484	MLU ST-14 R-R IC-F MLU ST-21 R-R IC-F
SB-16	481-02	12x12mm	T2 – T6 T1 (cut-off)	20	7005-150451 7005-150452	MLU ST-07 R-L IC-F MLU ST-08 R-L IC-F	7005-150448 7005-150449	MLU ST-07 R-R IC-F MLU ST-08 R-R IC-F
SB-20 R	0M101	12x12mm	T2-T6 T1 (cut-off)	20	7005-150451 7005-150452	MLU ST-07 R-L IC-F MLU ST-08 R-L IC-F	7005-150448 7005-150449	MLU ST-07 R-R IC-F MLU ST-08 R-R IC-F
SR-10 J	22-0100629-00 691-01	8×8mm	T1 – T6	20	7005-117056	MLU ST-01 R-L IC-F	7005-117055	MLU ST-01 R-R IC-F
SR-16 R	541-01	12x12mm	T1–T6	20	7005-150451	MLU ST-07 R-L IC-F	7005-150448	MLU ST-07 R-R IC-F
SR-20 J	0E0-62	12x12mm	T2 – T6 T1 (cut-off)	20	7005-150451 7005-150451	MLU ST-07 R-L IC-F MLU ST-07 R-L IC-F	7005-150448 7005-150449	MLU ST-07 R-R IC-F MLU ST-08 R-R IC-F
	22-0100679-00		T2 – T6 T1 (cut-off)		7005-150451 7005-150452	MLU ST-07 R-L IC-F MLU ST-08 R-L IC-F	7005-150448 7005-150449	MLU ST-07 R-R IC-F MLU ST-08 R-R IC-F
	22-0100712-00		T2 – T6 T1 (cut-off)		7005-150451 7005-150452	MLU ST-07 R-L IC-F MLU ST-08 R-L IC-F	7005-150448 7005-150449	MLU ST-07 R-R IC-F MLU ST-08 R-R IC-F
SR-20 J Type C	22-0100679-00 22-0100712-00	12x12mm	T2 – T6	20	7005-150451	MLU ST-07 R-L IC-F	7005-150448	MLU ST-07 R-R IC-F
SR-20 RII	541-01	12x12mm	T1–T6	20	7005-150451	MLU ST-07 R-L IC-F	7005-150448	MLU ST-07 R-R IC-F
SR-20 RIII	680-62	12x12mm	T2–T6	20	7005-150451	MLU ST-07 R-L IC-F	7005-150448	MLU ST-07 R-R IC-F
SR-20 RIV	0W0-62	12x12mm	T2 – T5, T11 – T12 T1 (cut-off)	20	7005-150451 7005-150450	MLU ST-07 R-L IC-F MLU ST-09 R-L IC-F	7005-150448 7005-150447	MLU ST-07 R-R IC-F MLU ST-09 R-R IC-F
	22-0101068-00		T2 – T5, T11 – T12 T1 (cut-off)		7005-150451 7005-150450	MLU ST-07 R-L IC-F MLU ST-09 R-L IC-F	7005-150448 7005-150447	MLU ST-07 R-R IC-F MLU ST-09 R-R IC-F
SR-32 J	670-62	16x16mm	T2 – T6 T1 cut-off)	25	7005-150287 7005-117172	MLU ST-03 R-L IC-F MLU ST-02 R-L IC-F	7005-150286 7005-117171	MLU ST-03 R-R IC-F MLU ST-02 R-R IC-F
SV-12	22-0100181-01	12x12mm	T3 – T5 T1 – T2 (cut-off)	20	7005-150271 7005-150272	MLU ST-10 R-L IC-F MLU ST-11 R-L IC-F	7005-150268 7005-150269	MLU ST-10 R-R IC-F MLU ST-11 R-R IC-F
		1⁄2" (12.7)	T3 – T5 T1 – T2 (cut-off)		7005-150271 7005-150272	MLU ST-10 R-L IC-F MLU ST-11 R-L IC-F	7005-150268 7005-150269	MLU ST-10 R-R IC-F MLU ST-11 R-R IC-F
	24-0002928-03	12×12mm	T3 – T5 T1 – T2 (cut-off)		7005-150271 7005-150272	MLU ST-10 R-L IC-F MLU ST-11 R-L IC-F	7005-150268 7005-150269	MLU ST-10 R-R IC-F MLU ST-11 R-R IC-F
		1⁄2" (12.7)	T3 – T5 T1 – T2 (cut-off)		7005-150271 7005-150272	MLU ST-10 R-L IC-F MLU ST-11 R-L IC-F	7005-150268 7005-150269	MLU ST-10 R-R IC-F MLU ST-11 R-R IC-F
	421-01	12×12mm	T3 – T5 T1 – T2 (cut-off)		7005-150271 7005-150272	MLU ST-10 R-L IC-F MLU ST-11 R-L IC-F	7005-150268 7005-150269	MLU ST-10 R-R IC-F MLU ST-11 R-R IC-F
		1⁄2" (12.7)	T3 – T5 T1 – T2 (cut-off)		7005-150271 7005-150272	MLU ST-10 R-L IC-F MLU ST-11 R-L IC-F	7005-150268 7005-150269	MLU ST-10 R-R IC-F MLU ST-11 R-R IC-F
SV-20	22-0100181-01	12x12mm	T3 – T5 T1 – T2 (cut-off)	22	7005-150271 7005-150272	MLU ST-10 R-L IC-F MLU ST-11 R-L IC-F	7005-150268 7005-150269	MLU ST-10 R-R IC-F MLU ST-11 R-R IC-F
		1⁄2" (12.7)	T3 – T5 T1 – T2 (cut-off)		7005-150271 7005-150272	MLU ST-10 R-L IC-F MLU ST-11 R-L IC-F	7005-150268 7005-150269	MLU ST-10 R-R IC-F MLU ST-11 R-R IC-F
	24-0002928-03	12x12mm	T3-T5 T1 – T2 (cut-off)		7005-150271 7005-150272	MLU ST-10 R-L IC-F MLU ST-11 R-L IC-F	7005-150268 7005-150269	MLU ST-10 R-R IC-F MLU ST-11 R-R IC-F
		1⁄2" (12.7)	T3-T5 T1 – T2 (cut-off)		7005-150271 7005-150272	MLU ST-10 R-L IC-F MLU ST-11 R-L IC-F	7005-150268 7005-150269	MLU ST-10 R-R IC-F MLU ST-11 R-R IC-F
	421-01	12 × 12	T3-T5 T1 – T2 (cut-off)		7005-150271 7005-150272	MLU ST-10 R-L IC-F MLU ST-10 R-L IC-F	7005-150268 7005-150269	MLU ST-10 R-R IC-F MLU ST-11 R-R IC-F
		1⁄2" (12.7)	T3 – T5 T1 – T2 (cut-off)		7005-150271 7005-150272	MLU ST-10 R-L IC-F MLU ST-11 R-L IC-F	7005-150268 7005-150269	MLU ST-10 R-R IC-F MLU ST-11 R-R IC-F
SV-20 R	T100	12x12mm	T1 – T7	22	7005-154240	MLU ST-15 R-L IC-F	7005-154239	MLU ST-15 R-R IC-F
SV-32	421-04.010	16x16mm	T2 – T4 T1 (cut-off)	25	7005-150293 7005-150289	MLU ST-13 R-L IC-F MLU ST-12 R-L IC-F	7005-150292 7005-150288	MLU ST-13 R-R IC-F MLU ST-12 R-R IC-F
SV-32 J	421-04.010	16 × 16	T2 – T4		7005-150293	MLU ST-13 R-L IC-F	7005-150292	MLU ST-13 R-R IC-F
			T1 (cut-off)		7005-150289	MLU ST-12 R-L IC-F	7005-150288	MLU ST-12 R-R IC-F
SW-12 RII	0M104.010	10x10mm	T2 – T6 T1 (cut-off)	20	7005-154131 7005-216106	MLU ST-14 R-L IC-F MLU ST-21 R-L IC-F	7005-154130 7005-194484	MLU ST-14 R-R IC-F MLU ST-21 R-R IC-F
SW-20	571-01	12x12mm	T11-T12	20	7005-150451	MLU ST-07 R-L IC-F	7005-150448	MLU ST-07 R-R IC-F
	571-03		T2-T4					
			T1 (cut-off)					

** Lx: Recommended overhanging length of the tool for optimum impacting of the coolant on the cutting edge.*

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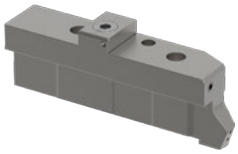
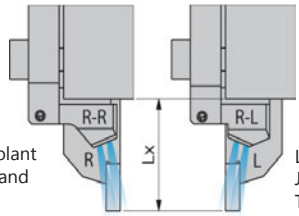
Tornos - Coolant Integrated Tool Plates

Machine Model	Tool Postions	Cut-off Position Holder	Holder for other Tool Positions	Number of Cooling Circuits	Item No.	Description
GT13	3 5	12x12mm	12x12mm	1	7005-213970 7005-215435	MLU TO-03-TPC-IC-3T MLU TO-03-TPC-IC-5T
GT26	4 5	16x16mm	16x16mm	1	7005-194319 7005-194317	MLU TO-01-TPC-IC-4T MLU TO-01-TPC-IC-5T
SN7	5* 6	12x12mm	10x10mm	1	7005-194300 7005-194019 7005-215752	MLU TO-SN-TPC-IC-5T* MLU TO-SN-TPC-IC-6T MLU TO-SN7-10-TPC-IC-7T
	7	8x8mm	8x8mm	2		
SN10	7 9	8x8mm	8x8mm	2	Call for Details 7005-194327	MLUTO-SN-TPC-IC-7T-7x8-2K MLU TO-SN-TPC-IC-9T-9x8-2K
SN4	3	8x8mm	8x8mm	1	7005-152764	MLU TO-SN-TPC-IC-3T
	4	12x12mm 8x8mm			7005-152763 Call for Details	MLU TO-SN-TPC-IC-4T MLUTO-SN-TPC-IC-4T-4x8

Includes: Tool plate, coolant-thru wedges with coolant control screw, tool stops, torque screwdriver and mounting screws



Right Hand Coolant Jets w/ Right Hand Tool Shank

Left Hand Coolant Jets w/ Left Hand Tool Shank

Tornos- Coolant-Thru Wedges

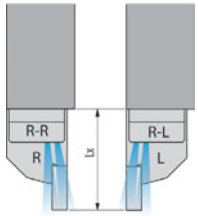
For Use with multidec LUBE Coolant Integrated Tool Plates or Replacing Original Coolant-thru Wedges

Tool Plates	Holders	Positions	Lx*	Left Hand Item No.	Description	Right Hand Item No.	Description
GT13-3T	12x12mm	T211-T212 T210	20	Call for Details 7005-215446	MLU 01 R-L IC-F-12 MLU 01 R-L IC-F-13	7005-215433 7005-215447	MLU 01 R-R IC-F-12 MLU 01 R-R IC-F-13
GT13-5T	12x12mm	T120-T124	20	Call for Details	MLU 01 R-L IC-F-12	7005-215433	MLU 01 R-R IC-F-12
GT26-4T	16x16mm	T1-T4	25	Call for Details	MLU 01 R-L IC-F-10	7005-194321	MLU 01 R-R IC-F-10
GT26-5T	16x16mm	T1-T5	25	Call for Details	MLU 01 R-L IC-F-10	7005-194321	MLU 01 R-R IC-F-10
SN7-5T SN10-5T	10x10mm	T2-T5	15	7005-194286	MLU 01 R-L IC-F-02	7005-152586	MLU 01 R-R IC-F-02
			20			7005-194285	MLU 01 R-R IC-F-05
			25			7005-194161	MLU 01 R-R IC-F-08
			30			7005-194288	MLU 01 R-R IC-F-09
	12x12mm	T1 (cut-off)	15	7005-194287	MLU 01 R-L IC-F-01	7005-152587	MLU 01 R-R IC-F-01
			25			7005-194284	MLU 01 R-R IC-F-04
SN7-6T SN10-6T	10x10mm	T2-T6	15			7005-152586	MLU 01 R-R IC-F-02
			20			7005-194285	MLU 01 R-R IC-F-05
			25			7005-194161	MLU 01 R-R IC-F-08
			30			7005-194288	MLU 01 R-R IC-F-09
	12x12mm	T1 (cut-off)	15	7005-194287	MLU 01 R-L IC-F-01	7005-152587	MLU 01 R-R IC-F-01
			25			7005-194284	MLU 01 R-R IC-F-04
SN7-7T SN10-7T	8x8mm 12x12mm	T2-T7 T1 (cut-off)	15	7005-216127 7005-216128	MLU 01 R-L IC-F-15 MLU 01 R-L IC-F-16	7005-194285 7005-216129	MLU 01 R-R IC-F-15 MLU 01 R-R IC-F-16
SN7-7T-2K / SN10-7T-2K	8x8mm	T1-T7	15			7005-152771	MLU 01 R-R IC-F-03
SN7-9T / SN10-9T	8x8mm	T1-T9	15			7005-152771	MLU 01 R-R IC-F-03
SN4-3T	8x8mm	T1 - T3	15			7005-152771	MLU 01 R-R IC-F-03
SN4-4T	8x8mm	T2 - T4	15			7005-152771	MLU 01 R-R IC-F-03
	12x12mm	T1 (cut-off)	25	7005-194287	MLU 01 R-L IC-F-01	7005-152587	MLU 01 R-R IC-F-01
						7005-194284	MLU 01 R-R IC-F-04

** Lx: Recommended overhanging length of the tool for optimum impacting of the coolant on the cutting edge.*







Right Hand Coolant Jets w/ Right Hand Tool Shank

Left Hand Coolant Jets w/ Left Hand Tool Shank

Tornos- Coolant-Thru Wedges

For use with current Tornos Tool Plates or replacing original coolant-thru wedges

Machine Model	Tool Plates	Holders	Positions	Lx*	Left Hand Item No.	Description	Right Hand Item No.	Description
CT20 / 5	2000118	12x12mm	T1–T6	20	7005-152988	MLU TO-05 R-L IC-F	7005-152987	MLU TO-05 R-R IC-F
DT13	390223 390224	12x12mm	T2–T5 T1 (cut-off)	20	7005-169576 7005-169578	MLU TO-06 R-L IC-F MLU TO-07 R-L IC-F	7005-169575 7005-169577	MLU TO-06 R-R IC-F MLU TO-07 R-R IC-F
Gamma 20/6		16x16mm	T1 (cut-off)	30			7005-199820	MLU TO-10 R-R IC-F
GT13	390223 390224	12x12mm	T2 – T5 T1 (cut-off)	20	7005-169576 7005-169578	MLU TO-06 R-L IC-F MLU TO-07 R-L IC-F	7005-169575 7005-169577	MLU TO-06 R-R IC-F MLU TO-07 R-R IC-F
Swiss GT26	386209 386210	16x16mm	T1 – T5 T2 – T4 T1 (cut-off)	22.5 20	7005-192196 Call for Details Call for Details	MLU TO-04 R-L IC-F MLU TO-03 R-L IC-F MLU TO-02 R-L IC-F	7005-150807 7005-150808 7005-150806	MLU TO-04 R-R IC-F MLU TO-03 R-R IC-F MLU TO-02 R-R IC-F
Swiss GT32		16x16mm	T110 – T114	22.5	7005-192196	MLU TO-04 R-L IC-F	7005-150807	MLU TO-04 R-R IC-F
Swiss ST26	398577	12x12mm	T2 – T5	22	7005-153963	MLU TO-09 R-L IC-F	7005-153962	MLU TO-09 R-R IC-F
			T1		7005-153961	MLU TO-08 R-L IC-F	7005-154253	MLU TO-08 R-R IC-F
	398585		T1 – T3					
	398595		T1 – T2					
BH20		12x12mm	T2 – T4 T1 (cut-off)	20 -	7005-117161	MLU TS-02 R-L IC-F MLU TS-04 R-L IC-F	7005-117130 7005-117167	MLU TS-02 R-R IC-F MLU TS-04 R-R IC-F
BH20Z		12x12mm	T2-T4 T1(cut off)	20 -	7005-117168 7005-117161	MLU TS-02 R-L IC-F MLU TS-04 R-L IC-F	7005-117130 7005-117167	MLU TS-02 R-R IC-F MLU TS-04 R-R IC-F
BO123 E	Plate 1	12x12mm	T 1 – T6	20	7005-117168	MLU TS-02 R-L IC-F	7005-117130	MLU TS-02 R-R IC-F
BO124 E	Plate 1	12x12mm	T1-T6	20	7005-117161	MLU TS-02 R-L IC-F	7005-117130	MLU TS-02 R-R IC-F
BO125 E	Plate 1	12x12mm	T1-T6	20	7005-117161	MLU TS-02 R-L IC-F	7005-117130	MLU TS-02 R-R IC-F
BO126 E II	Plate 1	12 × 12	T1 – T6	20	7005-117161	MLU TS-02 R-L IC-F	7005-117130	MLU TS-02 R-R IC-F
BO203	Plate 1	12x12mm	T1-T6	20	7005-117161	MLU TS-02 R-L IC-F	7005-117130	MLU TS-02 R-R IC-F
BO204 E	Plate 1	12x12mm	T1-T6	20	7005-117161	MLU TS-02 R-L IC-F	7005-117130	MLU TS-02 R-R IC-F
BO205 E	Plate 1	12x12mm	T1-T6	20	7005-117161	MLU TS-02 R-L IC-F	7005-117130	MLU TS-02 R-R IC-F
BO326 E II		16x16mm		20	7005-117161	MLU TS-02 R-L IC-F	7005-117130	MLU TS-02 R-R IC-F
BS20 S-V	Plate 1	12x12mm	T4-T5	20	7005-117161	MLU TS-02 R-L IC-F	7005-117130	MLU TS-02 R-R IC-F
	Plate 2		T11-T16		7005-117161			
BW208 E III				20	7005-117161	MLU TS-02 R-L IC-F	7005-117130	MLU TS-02 R-R IC-F
HS207	Plate 1	12x12mm	T4-T8	20	Call for Details	MLU TS-01 R-L IC-F	7005-117127	MLU TS-01 R-R IC-F
HS267		16x16mm		20	7005-117161	MLU TS-02 R-L IC-F	7005-117130	MLU TS-02 R-R IC-F
HS327		16x16mm	T1-T5	30	7005-117201	MLU TS-06 R-L IC-F	7005-117200	MLU TS-06 R-R IC-F
S205	Plate 1 Plate 2	12x12mm	T4-T8 T18-T20	20	7005-117161	MLU TS-02 R-L IC-F	7005-117130	MLU TS-02 R-R IC-F
S206	Plate 1 Plate 2	12x12mm	T4 – T8 T18 – T20	20	Call for Details	MLU TS-01 R-L IC-F	7005-117127	MLU TS-01 R-R IC-F
S206 E		12x12mm		20	7005-117161	MLU TS-02 R-L IC-F	7005-117130	MLU TS-02 R-R IC-F
SS207	Plate 1 Plate 2	12x12mm	T4 – T8 T18 – T20	20	Call for Details	MLU TS-01 R-L IC-F	7005-117127	MLU TS-01 R-R IC-F
		1/2" (12.7)	T4 – T8		Call for Details	MLUTS-11 R-L IC-F	7005-154832	MLU TS-11 R-R IC-F
SS207-5AX	Plate 1 Plate 2	12x12mm	T4 – T8 T18 – T20	20	Call for Details	MLU TS-01 R-L IC-F	7005-117127	MLU TS-01 R-R IC-F

** Lx: Recommended overhanging length of the tool for optimum impacting of the coolant on the cutting edge.*

Connecting Options - Straight — High Pressure

MLU KV...



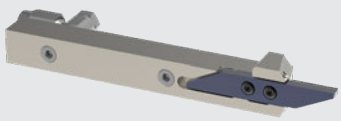
M5	MSP UCF...		NM	MSP UHPT...
M5	MSP EVRA...	MSP UICF... M5	NM	MSP UHPT...

MLU...IC...



M5	MSP UGVR...		4	MSP UHPT...
M5	MSP UNM...	NM MSP UICF...	M5	MSP UHPT...

...IC



M5	MSP UCF...	NM	MSP UNM...	M5	MSP EVRI...	M5 MSP UHPT...

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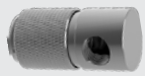
Low Pressure

M5	MSP STVR...	4KS	MSP KSK...

Connecting Options - 90 — High Pressure

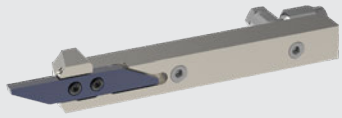


MSP UHPT... | NM | MSP UACF... | M5 | MSP EVRA... | M5



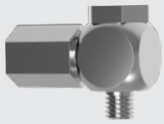


...IC





MSP UHPT... | 4 | MSP USVR... | M5





MSP UHPT... | M5 | MSP RVRW... | M5



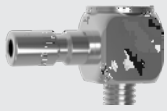
MLU...IC...





MSP UHPT.. | M5 | MSP UICF... | NM | MSP USNM... | M5







MSP UHPT... | M5 | MSP UANM... | NM | MSP UCF... | M5



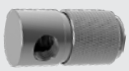


MLU KV...





MSP UHPT... | M5 | MSP UACF... | NM | MSP UNM... | M5





Low Pressure



MSP KSK... | 4KS | MSP EWR... | M5



multidec® LUBE



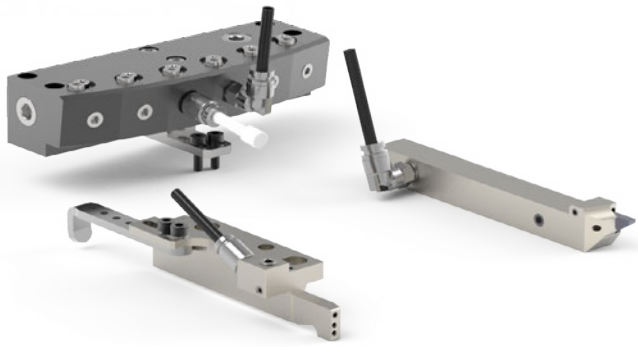
The newly developed high-pressure solution from UTILIS (up to a maximum of 200 bar or 2900 psi) ensures optimal delivery of coolant to the insert.

The highly compact and robust design and the stainless steel finish are the main features of this product.

The product range includes several straight and pivoting unions with connection diameters of 4mm and several quick connections minimizing machine downtime.

The high-pressure hoses are available in a wide variety of lengths with different connections. Reduction unions, extensions, screw connections, spare parts and coolant distributors round off the product range.

Advantages:
- Flexible enough to be used with all multidec® product lines with internal cooling
- Can be used within a temperature range of –60 to +250 °C or –76 to +482 °F
- Up to a Maximum operating pressure of 200 bar or 2,900 psi

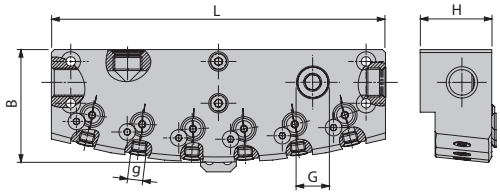


The range associated with the low-pressure solution for operating pressures up to a maximum of 30 bar or 435 psi includes a straight union and a swivel-type union with a connecting diameter of 4 mm when a polyurethane tube is being used.

As with our high-pressure solution, we offer reduction unions, extensions, closingplugs, and sealingrings. A well-balanced range of compact coolant distributors made of light metal completes the offer.

Advantages:
- Flexible enough to be used with all multidec® product lines with internal cooling
- Can be used up to a maximum operating pressure of 30 bar or 435 psi (test pressure of 30 bar or 435 psi)
- Corrosion-resistant and compact design





Manifolds (Large)

Item No.	Description	Inputs	Outputs	Dimensions			Connecting Options	
		G	g	B	L	H	M5	G1/8
7005-194453	MLU KV 2-4 L DFR	4×G1/8	2×M5	37	45	24	Miscellaneous	MSP ...G1/8
7005-194451	MLU KV 4-4 L DFR	4×G1/8	4×M5	38	72	24		
7005-194450	MLU KV 6-4 L DFR	4×G1/8	6×M5	38	112	23		
7005-194448	MLU KV 8-4 L DFR	4×G1/8	8xM5	37	154	24		

UTILIS®
Tooling for High Technology

Manifolds (Small)

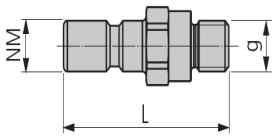
Item No.	Description	Inputs	Outputs	Dimensions			Connecting Options	
		G	g	B	L	H	M5	G1/8
7005-194458	MLU KV 2-4 S DFR	4×G1/8	2×M5	37	33	24	Miscellaneous	MSP ...G1/8
7005-194452	MLU KV 4-4 S DFR	4×G1/8	4×M5	38	50	24		
7005-194457	MLU KV 6-4 S DFR	4×G1/8	6×M5	38	78	24		
7005-194449	MLU KV 8-4 S DFR	4×G1/8	8xM5	37	106	24		

MSP UNM... Quick-Change Connection (Plug-External Thread)

Item No.	Description	g	L	NM
7005-150091	MSP UNM M5	M5	19.5mm	MSP...UICF... MSP...UCF... MSP...UACF...
7005-194020	MSP UNM M6	M6	19.5mm	
7005-194022	MSP UNM M8	M8	27mm	
7005-194021	MSP UNM M8x1	M8 × 1	19.5mm	
7005-154594	MSP UNM G1/8	G1/8	22mm	
7005-194024	MSP UNM PT1/8	PT1/8	20mm	
Call for Details	MSP UNM UNF5/16	UNF5/16	19.5mm	

No sealing ring required

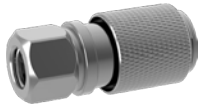


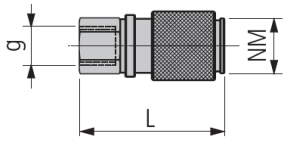


MSP UICF... Quick-Change Connection (Internal Thread - Coupling)

Item No.	Description	g	L	NM
7005-150092	MSP UICF M5	M5	18mm	MSP...UNM MSP...USNM MSP...UANM

No sealing ring required



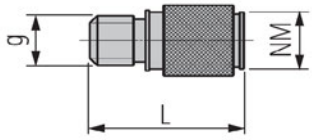


MSP UCF... Quick-Change Connection (External Thread - Coupling)

Item No.	Description	g	L	NM
7005-154595	MSP UCF M5	M5	21mm	MSP...UNM MSP...USNM MSP...UANM
7005-194029	MSP UCF M6	M6	21mm	
7005-194030	MSP UCF M8	M8	27mm	
7005-154596	MSP UCF M8x1	M8×1	19mm	
7005-154597	MSP UCF G1/8	G1/8	19mm	
Call for Details	MSP UCF PT1/8	PT1/8	20mm	

No sealing ring required



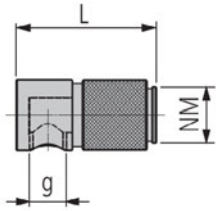


MSP UACF Quick-Change Connection M5 (Internal Thread 90° Coupling)

Item No.	Description	g	L	NM
7005-154487	MSP UACF M5	M5	20mm	MSP...UNM MSP...USNM MSP...UANM

No sealing ring required



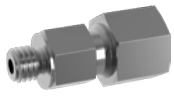


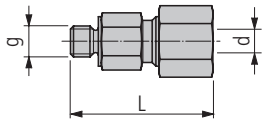
MSP UGVR... (External Thread - External Thread)

High Pressure
maximum 200 bar/2900 psi

Item No.	Description	g	d	L	Connecting Options
7005-150082	MSP UGVR M5-4	M5	4mm	27mm	MSP UHPT ...-4
7005-146214	MSP UGVR G1/8-4	G1/8	4mm	32mm	
7005-154440	MSP UGVR PT1/8	PT1/8	4mm	32mm	

No sealing ring required



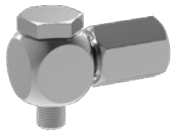


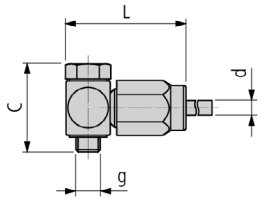
MSP USVR... 90° External Thread Swivel Union

High Pressure
maximum 200 bar/2900 psi

Item No.	Description	g	d	L	C	Connecting Option
7005-150086	MSP USVR M5-4	M5	4mm	28mm	21mm	MSP UHPT ...-4
7005-146218	MSP USVR G1/8-4	G1/8	4mm	37mm	30mm	

No sealing ring required





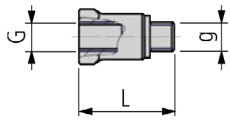
MSP VLR (Internal thread - External thread)

High Pressure
maximum 200 bar/2900 psi

Item No.	Description	G	g	L
Call For Details	MSP VL 100 M5-M5	M5	M5	10mm
Call For Details	MSP VL 200 M5-M5	M5	M5	20mm
Call For Details	MSP VLR 240 G1/8-G1/8	G1⁄8	G1⁄8	24.25mm
Call For Details	MSP VLR 400 M5-M5	M5	M5	40mm

No sealing ring required





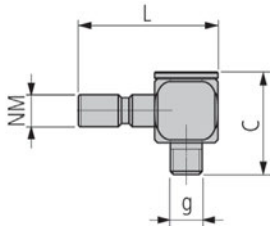
MSP USNM... 90° Swivel (External thread)

High Pressure
maximum 200 bar/2900 psi

Item No.	Description	g	L	C	NM
7005-154484	MSP USNM M5	M5	22mm	16mm	
7005-194025	MSP USNM M6	M6	22mm	17mm	MSP...UICF...
7005-194027	MSP USNM M8	M8	24mm	17.5mm	MSP...UCF...
7005-194026	MSP USNM M8x1	M8×1	24mm	17.5mm	MSP...UACF...
7005-194028	MSP USNM G1/8	G1⁄8	20mm	28mm	

No sealing ring required





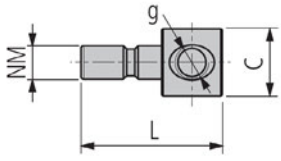
MSP UANM... Quick-Change Connection 90°

High Pressure
maximum 200 bar/2900 psi

Item No.	Description	g	L	C	NM
7005-154485	MSP UANM M5	M5	21mm	10mm	MSP ...UICF ... MSP ...UCF ... MSP ...UACF ...

No sealing ring required





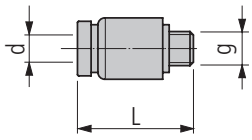
MSP STVR... (KS4 - External thread)

Low Pressure
maximum 30 bar/435 psi

					Connecting Options	
Item No.	Description	d	g	L	KS4	M5
Call for Details	MSP STVR KS4-M5	4	M5	17mm	MSP KSK...	Miscellaneous

Includes sealing ring





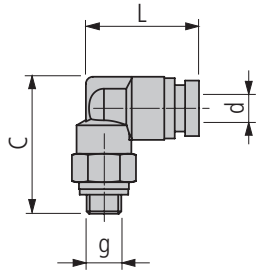
MSP EWR... (External thread 90° – KS4)

Low Pressure
maximum 30 bar/435 psi

					Connecting Options	
Item No.	Description	g	d	L	M5	KS4
Call for Details	MSP EWR M5-KS4	M5	4	18mm	Miscellaneous	MSP KSK...

Includes sealing ring





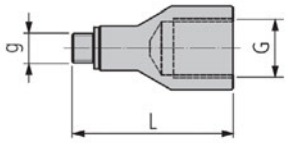
High Pressure
maximum 200 bar/2900 psi

MSP RVRI ... (External Thread - Internal Thread) Reduction Union

Item No.	Description	G	g	L
7005-117065	MSP RVRI 100 M5-M6	M6	M5	15mm
7005-117066	MSP RVRI 185 M5-M8x1	M8x1	M5	23mm
7005-117067	MSP RVRI 225 M5-M10x1	M10x1	M5	27mm
7005-117068	MSP RVRI 225 M5-G1/8"	G1/8"	M5	27mm

Includes sealing ring

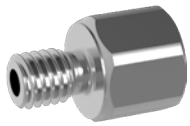


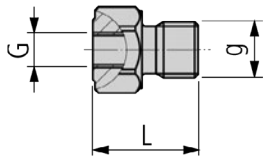


MSP RVRA... (External Thread-Internal Thread) Coolant Fitting Reduction Union

Item No.	Description	G	g	L
7005-117143	MSP RVRA 100 M6-M5	M5	M6	18mm
7005-117144	MSP RVRA 70 M8x1-M5	M5	M8x1	15mm
7005-117145	MSP RVRA 70 M10x1-M5	M5	M10x1	15mm
7005-117146	MSP RVRA 70 G1/8"-M5	M5	G1/8"	15mm

No sealing ring required

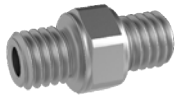


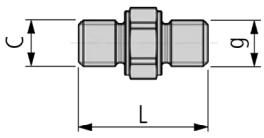


MSP EVRA... (External thread-External thread) Coupling

Item No.	Description	g	L	C
7005-154321	MSP EVRA M5-M5	M5	12mm	M5

No sealing ring required



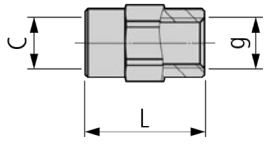


MSP EVRI... (Internal thread - Internal thread) Coupling

Item No.	Description	g	L	C
7005-154322	MSP EVRI M5-M5	M5	14mm	M5

No sealing ring required



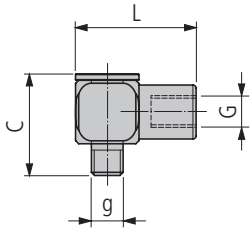


MSP RVRW... (External Thread 90°, Swiveling - Internal Thread)

Item No.	Description	g	G	L	C
7005-154441	MSP RVRW M5-M5	M5	M5	19mm	16mm

No sealing ring required



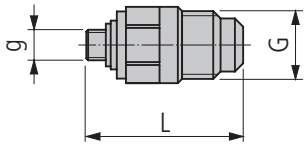


MSP RVR... (External thread - External thread)

Item No.	Description	g	G	L
Call for Details	MSP RVR M5-7/16-20 UNF	M5	7/16-20 UNF	29mm
Call for Details	MSP RVR G1/8-7/16-20 UNF	G1/8	7/16-20 UNF	29mm

Includes sealing ring

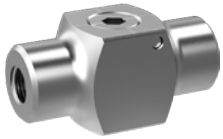


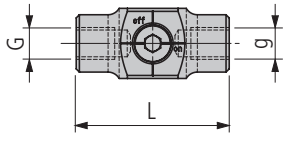


MLU DFR...

Item No.	Description	G	g	L
7005-194421	MLU DFR-1 M5-M5	M5	M5	24mm

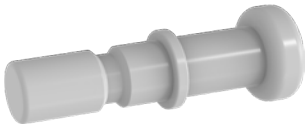
No sealing ring required

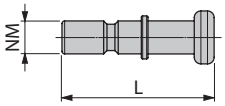




Closing Plug - high pressure

Maximum 200/bar/2900 psi



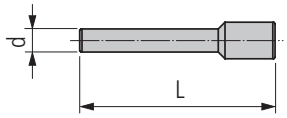


Item No.	Description	L	NM
Call for Details	MSP VNM	23	MSP ...UICF ... MSP ... UCF ... MSP ...UACF ...

Closing Plug - low pressure

Maximum 300/bar/435 psi





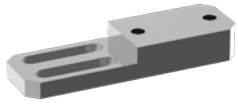
MSP VSK... (4KS)

Item No.	Description	d	L	d
Call for Details	MSP VSK-4KS	4	32	MSP STVR... MSP EWR...

Replacement parts - high/low pressure

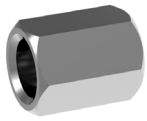
Holder for Coolant Distributor

Item No.	Description	Dimensions	Related to
7005-150082	MLU HKV-10	40x12	MLU KV...



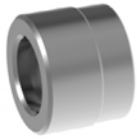
Nut

Item No.	Description	Dimensions	Related to
7005-150987	MSP UCN 4	4	MSP UGVR M5-4 MSP-USVR M5-4
Call for Details	MSP UCN 6	4	MSP UGVR G1/8-4 MSP USVR G1/8-4
7005-194112	MSP UCN PT1/8	4	MSP UGVR PT 1/8



Clamping Ring

Item No.	Description	Dimensions	Related to
Call for Details	MSP UCR 4	4	MSP UCN 4
7005-194098	MSP UCR 6-4	4	MSP UCN 6
Call for Details	MSP UCR PT 1/8	4	MSP UCN PT 1/8



Sealing Ring

Item No.	Description	Dimensions	Related to
7005-117060	MSP USK-M5	5	MSP STVR... MSP EWR... MSP VLR... MSP RVRI... MSP RVR...



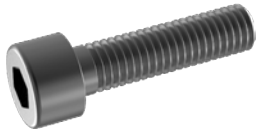
Screw Plug

Item No.	Description	Dimensions	Related to
7005-150262	MSP VSR M5 IB2.5	M5	MLUKV...
7005-153844	MSP VSR M6x0.5 IB3	M6x0.5	MLUKV...
7005-153845	MSP VSR M8x1 IB4	M8x1	MLUKV...
Call for Details	MSP VSR G1/8 IB5	G⅛	MLUKV...



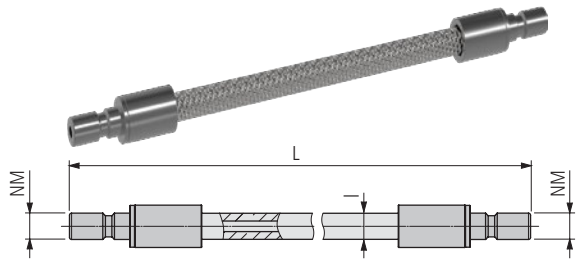
Allen Head Screw

Item No.	Description	Dimensions	Related to
Call for Details	MSP 30250 ZKS IB2.5	M3 x 25 IB2.5	MLU KV...
Call for Details	MSP 30060 ZKS IB2.5	M3 x 6 IB2.5	MLU KV...



High Pressure Steel Braided Hosing

Units of Measurement = mm
NO Sealing Ring Required

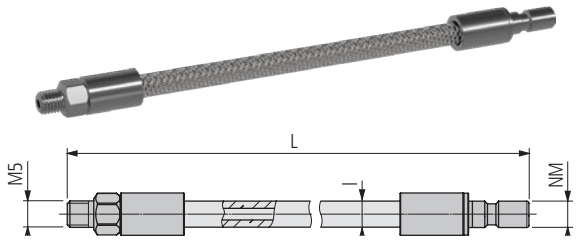


MSP UHPT * ... NM-NM (Plug-Plug)

Item No.	Description	L	I	NM
7005-192230	MSP UHPT 100 NM-NM	100	4.5	
7005-192229	MSP UHPT 150 NM-NM	150	4.5	
7005-192228	MSP UHPT 200 NM-NM	200	4.5	MSP UICF ...
7005-192227	MSP UHPT 250 NM-NM	250	4.5	MSP UCF ...
7005-192226	MSP UHPT 300 NM-NM	300	4.5	MSP UACF ...
7005-192225	MSP UHPT 400 NM-NM	400	4.5	
7005-192224	MSP UHPT 500 NM-NM	500	4.5	

MSP UHPTB** ... NM-NM (Plug-Plug)

Item No.	Description	L	I	NM
7005-192223	MSP UHPTB 100 NM-NM	100	6.2	
7005-192222	MSP UHPTB 150 NM-NM	150	6.2	
7005-192221	MSP UHPTB 200 NM-NM	200	6.2	MSP UICF ...
7005-192220	MSP UHPTB 250 NM-NM	250	6.2	MSP UCF ...
7005-192219	MSP UHPTB 300 NM-NM	300	6.2	MSP UACF ...
7005-192218	MSP UHPTB 400 NM-NM	400	6.2	
7005-192217	MSP UHPTB 500 NM-NM	500	6.2	

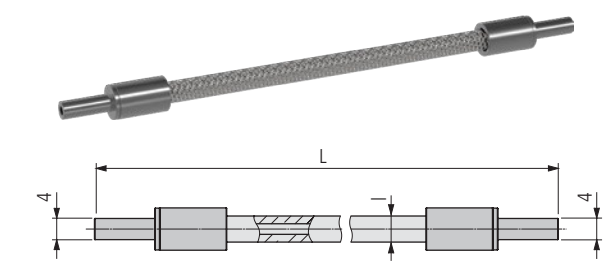


MSP UHPT* ... M5-NM (External thread – Pug)

Item No.	Description	L	I	NM
7005-154456	MSP UHPT 100 M5-NM	100	4.5	
7005-154457	MSP UHPT 150 M5-NM	150	4.5	
7005-154458	MSP UHPT 200 M5-NM	200	4.5	MSP UICF ...
7005-154459	MSP UHPT 250 M5-NM	250	4.5	MSP UCF ...
7005-154460	MSP UHPT 300 M5-NM	300	4.5	MSP UACF ...
7005-154461	MSP UHPT 400 M5-NM	400	4.5	
7005-154462	MSP UHPT 500 M5-NM	500	4.5	

MSP UHPTB** ... M5-NM (External thread – Pug)

Item No.	Description	L	I	NM
7005-154463	MSP UHPTB 100 M5-NM	100	6.2	
7005-154464	MSP UHPTB 150 M5-NM	150	6.2	
7005-154465	MSP UHPTB 200 M5-NM	200	6.2	MSP UICF ...
7005-154466	MSP UHPTB 250 M5-NM	250	6.2	MSP UCF ...
7005-154467	MSP UHPTB 300 M5-NM	300	6.2	MSP UACF ...
7005-154468	MSP UHPTB 400 M5-NM	400	6.2	
7005-154469	MSP UHPTB 500 M5-NM	500	6.2	

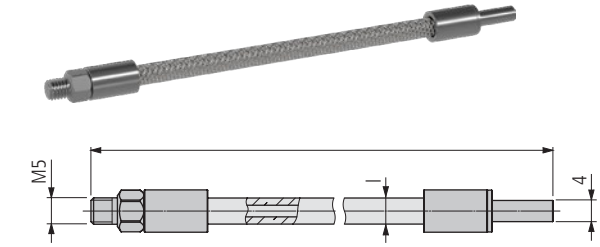


MSP UHPT*...4-4 (Nozzle – Nozzle)

Item No.	Description	L	I	4
7005-192189	MSP UHPT 100 4-4	100	4.5	
7005-150097	MSP UHPT 150 4-4	150	4.5	
7005-150098	MSP UHPT 200 4-4	200	4.5	MSP UGVR...
7005-192188	MSP UHPT 250 4-4	250	4.5	MSP USVR...
7005-150099	MSP UHPT 300 4-4	300	4.5	
7005-192187	MSP UHPT 400 4-4	400	4.5	
7005-150100	MSP UHPT 500 4-4	500	4.5	

MSP UHPTB**...4-4 (Nozzle – Nozzle)

Item No.	Description	L	I	NM
7005-192186	MSP UHPTB 100 4-4	100	6.2	
7005-192185	MSP UHPTB 150 4-4	150	6.2	
7005-192184	MSP UHPTB 200 4-4	200	6.2	MSP UGVR ...
7005-192183	MSP UHPTB 250 4-4	250	6.2	MSP USVR ...
7005-192182	MSP UHPTB 300 4-4	300	6.2	
7005-192181	MSP UHPTB 400 4-4	400	6.2	
7005-192180	MSP UHPTB 500 4-4	500	6.2	



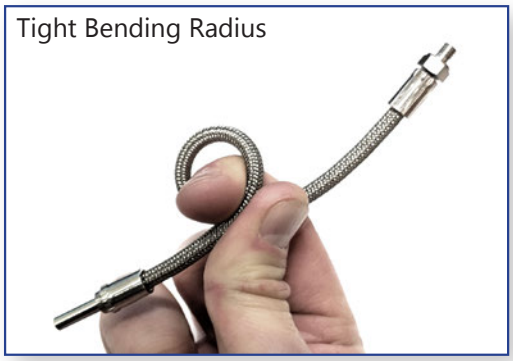
MSP UHPT* ... M5-4 (External Thread Nozzle)

Item No.	Description	L	I	4
7005-154442	MSP UHPT 100 M5-4	100	4.5	
7005-154443	MSP UHPT 150 M5-4	150	4.5	
7005-154444	MSP UHPT 200 M5-4	200	4.5	MSP UGVR...
7005-154445	MSP UHPT 250 M5-4	250	4.5	MSP USVR...
7005-154446	MSP UHPT 300 M5-4	300	4.5	
7005-154447	MSP UHPT 400 M5-4	400	4.5	
7005-154448	MSP UHPT 500 M5-4	500	4.5	

MSP UHPTB** ... M5-4 (External thread – Nozzle)

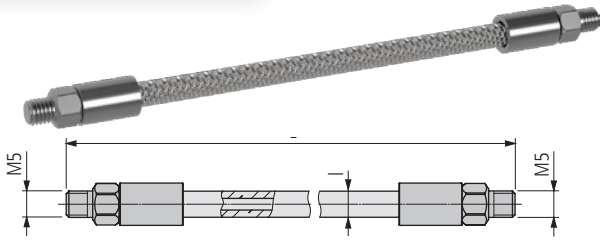
Item No.	Description	L	I	NM
7005-154449	MSP UHPTB 100 M5-4	100	6.2	
7005-154450	MSP UHPTB 150 M5-4	150	6.2	
7005-154451	MSP UHPTB 200 M5-4	200	6.2	MSP UGVR...
7005-154452	MSP UHPTB 250 M5-4	250	6.2	MSP USVR...
7005-154453	MSP UHPTB 300 M5-4	300	6.2	
7005-154454	MSP UHPTB 400 M5-4	400	6.2	
7005-154455	MSP UHPTB 500 M5-4	500	6.2	

*** Standard tube with high flexibility**
**** Reinforced tube with increased bending strength and with 50 % higher flow volume**



Units of Measurement = mm

High Pressure Steel Braided Hosing

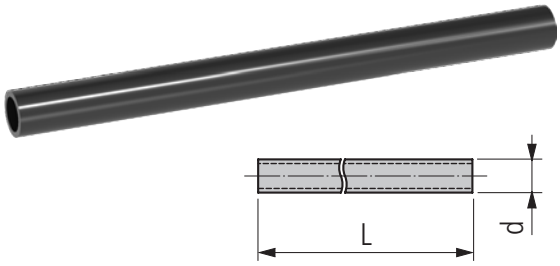


MSP UHPT*...M5-M5 (External thread-External thread)

Item No.	Description	L	I	M5
7005-154470	MSP UHPT 100 M5-M5	100	4.5	Miscellaneous
7005-154471	MSP UHPT 150 M5-M5	150	4.5	
7005-154472	MSP UHPT 200 M5-M5	200	4.5	
7005-154473	MSP UHPT 250 M5-M5	250	4.5	
7005-154474	MSP UHPT 300 M5-M5	300	4.5	
7005-154475	MSP UHPT 400 M5-M5	400	4.5	
7005-154476	MSP UHPT 500 M5-M5	500	4.5	

MSP UHPTB...M5-M5 (External thread - external thread)**

Item No.	Description	L	I	M5
7005-154477	MSP UHPTB 100 M5-M5	100	6.2	Miscellaneous
7005-154478	MSP UHPTB 150 M5-M5	150	6.2	
7005-154479	MSP UHPTB 200 M5-M5	200	6.2	
7005-154480	MSP UHPTB 250 M5-M5	250	6.2	
7005-154481	MSP UHPTB 300 M5-M5	300	6.2	
7005-154482	MSP UHPTB 400 M5-M5	400	6.2	
7005-154483	MSP UHPTB 500 M5-M5	500	6.2	



Coolant tubes - low pressure

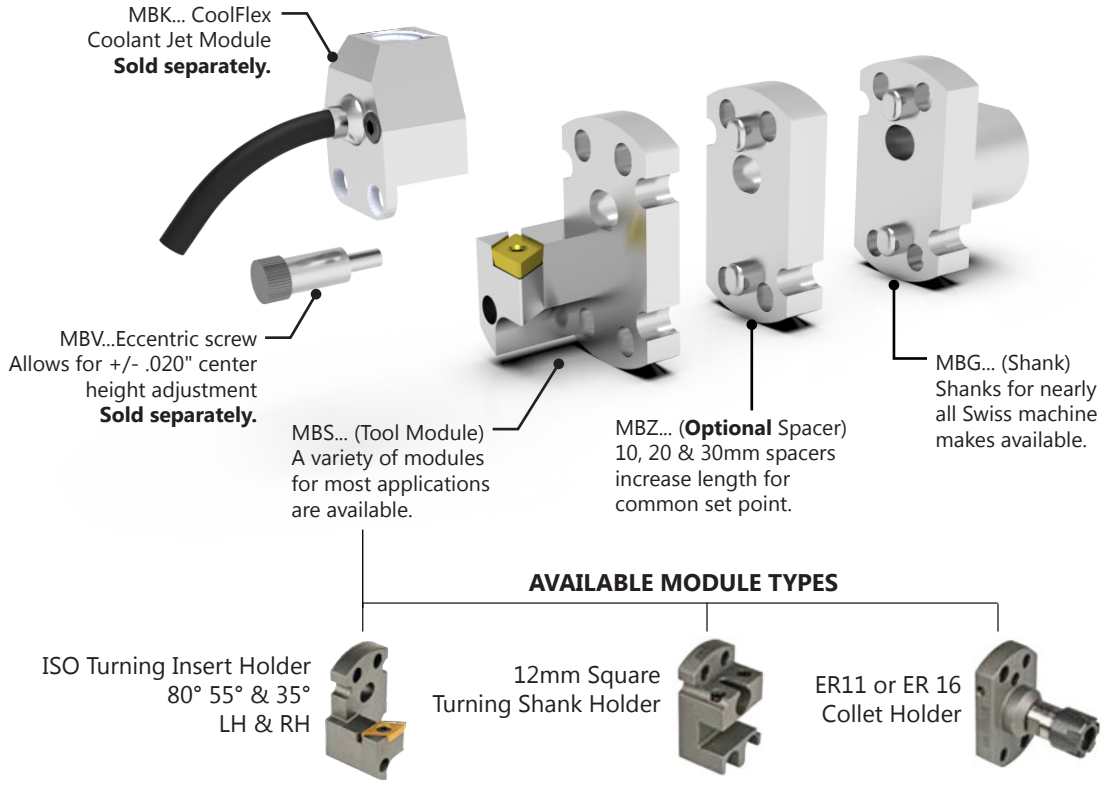
Item No.	Description	d	L	4KS
Call for Details	MSP KSK-4KS	4	1000	MSP STVR... MSP EWR...

*** Standard tube with high flexibility**
**** Reinforcedtubewithincreasedbending strength and with 50 % higher flow volume**

BACKTOOLS UTILIS®

multidec® BACKTOOL holders enable turning operations to be performed from an ID tool position and are ideal for performing turning operations on the sub-spindle of your machine. Each holder is center height adjustable and is modular to allow usage of a variety of 35, 55 & 80 degree ISO turning inserts; as well as multidec® TOP inserts & ALL multidec® CUT inserts.

- Center height adjustable to ensure precision setup
- Modular system uses multidec® ISO, TOP & CUT series inserts
- Perform turning operations on the subspindle
- Rigid design ensures good finish results as well as extended tool life



Available Backtooling for Turn-Mill Machines & Machine-Based Tool Systems...

- Interchangable inserts
- Equipped with internal cooling

Tool System For Turn-Mill Machines



multidec® Multitask

Machine-Based Tool Systems



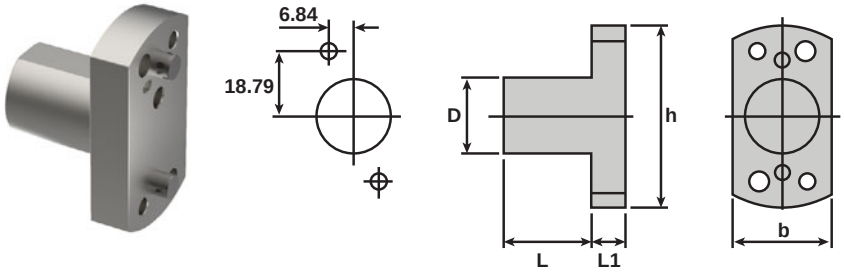
multidec® Escomatic
For ESCOMATIC machines



multidec® Tornos Deco
For Tornos Deco Machines

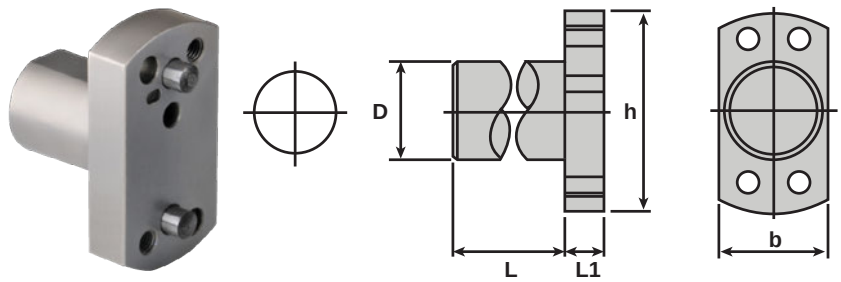
MBG 01...B02 Basic Tool Holder

Machine Make	Machine Model	Item No.	Description	D	L	b	h	L_1	Spacer	Insert Holder
Star	SR10/SR20R, ECAS 12/20, SR32J	7005-137586	MBG 01 2200 025 B02	22	25	28	52	10	MBZ ST 02...	MBS...02
		Call For Details	MBG 01 2200 025 B02 IC	22	25	28	52	10	MBZ ST 02...	MBS...02
Hanwha	XD 12H	Call For Details	MBG 01 2300 019 B02	23	19	28	49	16	MBZ ST 02...	MBS...02
	XD 43	Call For Details	MBG 01 3200 025 B90	32	25	32.5	49	8	MBZ ST 90...	MBS...90



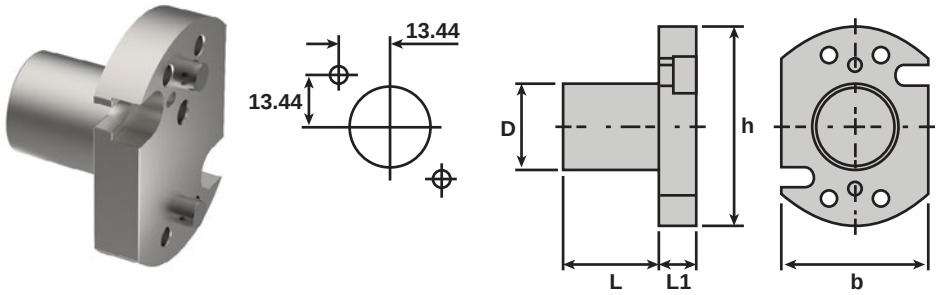
MBG 02...B02 Basic Tool Holder

Machine Make	Machine Model	Item No.	Description	D	L	b	h	L_1	Spacer	Insert Holder
Citizen	R07	7005-129545	MBG 02 1587 040 B02	5/8"	40	28	52	10	MBZ ST 02...	MBS...02
	C16, L20, M16	7005-127597	MBG 02 1905 060 B02	3/4"	60	28	52	10	MBZ ST 02...	MBS...02
	K16	7005-127629	MBG 02 2000 100 B02	20	100	28	52	10	MBZ ST 02...	MBS...02
	L20	7005-137791	MBG 02 2500 060 B02	25	60	28	52	10	MBZ ST 02...	MBS...02
	C32, L32, M32	7005-127596	MBG 02 2540 070 B02	1"	70	28	52	10	MBZ ST 02...	MBS...02
Gildemeister	Sprint20	7005-137790	MBG 02 2000 040 B02	20	40	28	52	10	MBZ ST 02...	MBS...02
Hanwha	SL 12H	7005-137790	MBG 02 2000 040 B02	20	40	28	52	10	MBZ ST 02...	MBS...02
	STL32, STL35H, STL33J, STL35J	7005-137791	MBG 02 2500 060 B02	25	60	28	52	10	MBZ ST 02...	MBS...02
	SL26HPD, SL35HPD	7005-137792	MBG 02 2800 006 B02	28	6	28	52	10	MBZ ST 02...	MBS...02
	XD20H, XD32H, XD20J, XD32J	7005-137793	MBG 02 3300 040 B02	33	40	33	52	10	MBZ ST 02...	MBS...02
	SL20HPII, SL26HPII, SL35HPII	7005-137794	MBG 02 3400 044 B02	34	44	34	52	10	MBZ ST 02...	MBS...02
Manhurin	KMX 4/13	7005-147340	MBG 02 1600 019 B02	16	19	28	52	10	MBZ ST 02...	MBS...02
	KMX 5/20, 5/26, 5/32, Swing 7/20, 7/26	7005-127598	MBG 02 2500 100 B02	25	100	28	52	10	MBZ ST 02...	MBS...02
	Swing 7-13	7005-127629	MBG 02 2000 100 B02	20	100	28	52	10	MBZ ST 02...	MBS...02
	Swing 10-20, 10-26, 10-32	7005-147353	MBG 02 2500 050 B02	25	50	28	52	10	MBZ ST 02...	MBS...02
Star	RNC 16B	7005-147649	MBG 02 1600 020 B02	16	20	28	52	10	MBZ ST 02...	MBS...02
	SA16, SB16	7005-127601	MBG 02 2200 070 B02	22	70	28	52	10	MBZ ST 02...	MBS...02
	SR10J	7005-147648	MBG 02 2200 015 B02	22	15	28	52	10	MBZ ST 02...	MBS...02
Tornos	Deco 7/10, 13, 20	7005-127629	MBG 02 2000 100 B02	20	100	28	52	10	MBZ ST 02...	MBS...02
	Delta 20, Gamma 20	7005-127601	MBG 02 2200 070 B02	22	70	28	52	10	MBZ ST 02...	MBS...02
	Delta 38-5a	7005-147296	MBG 02 3200 070 B02	32	70	32	52	10	MBZ ST 02...	MBS...02
	Gamma 20	Call For Details	MBG 02 2000 070 B02	20	70	28	52	10	MBZ ST 02...	MBS...02
Traub	TNL12	7005-147298	MBG 02 2800 040 B02	28	40	28	52	10	MBZ ST 02...	MBS...02
	TNL/C 12, TNL/C 12K	7005-137844	MBG 02 2800 078 B02	28	78	28	52	10	MBZ ST 02...	MBS...02
Tsugami	B012, B020, S205	7005-137790	MBG 02 2000 040 B02	20	40	28	52	10	MBZ ST 02...	MBS...02
	BS12, BS20	7005-147299	MBG 02 2000 060 B02	20	60	28	52	10	MBZ ST 02...	MBS...02
	BS20B	7005-129545	MBG 02 1587 040 B02	5/8"	40	28	52	10	MBZ ST 02...	MBS...02
	Piastra	7005-147300	MBG 02 2500 035 B02	25	35	28	52	10	MBZ ST 02...	MBS...02
	S205	7005-127999	MBG 02 2000 030 B02	20	30	28	52	10	MBZ ST 02...	MBS...02



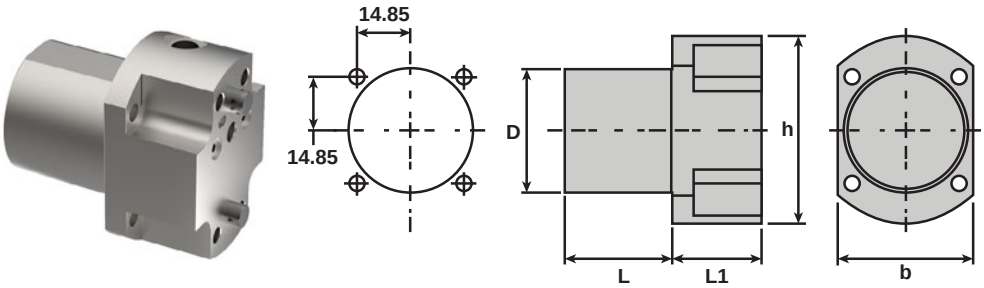
MBG 03...B02 Basic Tool Holder

Machine Make	Machine Model	Item No.	Description	D	L	b	h	L_1	Spacer	Insert Holder
Star	SR32, SR32J	7005-127091	MBG 03 2200 025 B02	22	25	38	52	10	MBZ ST 02...	MBS...02
Citizen	A32-VII	7005-150177	MBG 03 3100 015 B02	31	15	38	52	10	MBZ ST 02...	MBS...02



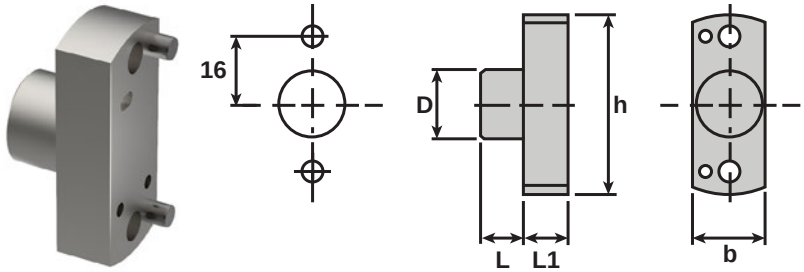
MBG 04...B02 Coolant-Thru Tool Holder

Machine Make	Machine Model	Item No.	Description	D	L	b	h	L_1	Spacer	Insert Holder
Maier	MLK DY36	7005-150072	MBG 04 3400 018 B02 IC	34	18	38	52	25	MBZ ST 02...IC	MBS...02
	ML12C, ML16C, ML16D, ML20/26/32	7005-127631	MBG 04 3400 030 B02 IC	34	30	38	52	25	MBZ ST 02...IC	MBS...02
Star	SV-38R, SR-38A/B	Call For Details	MBG 04 3400 025 B90	34	25	37.5	52	8	MBZ ST 90-	MBS...90



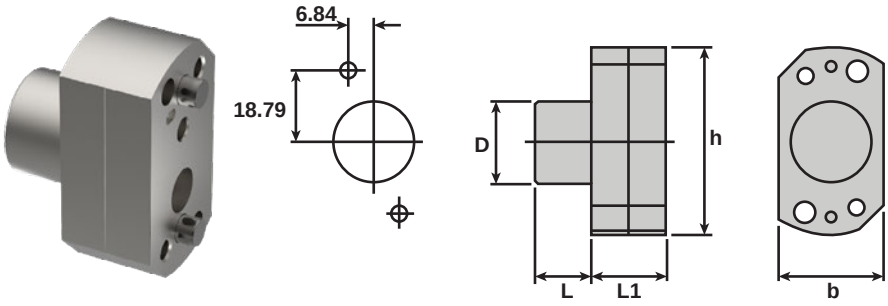
MBG 05...B05 Basic Tool Holder

Machine Make	Machine Model	Item No.	Description	D	L	b	h	L_1	Spacer	Insert Holder
Hanwha	XD12H	Call For Details	MBG 05 1500 010 B05	15	10	17	51	10	MBZ ST 05...	MBS...05
Star	SR10J	7005-137584	MBG 05 1600 010 B05	16	10	17	51	10	MBZ ST 05...	MBS...05



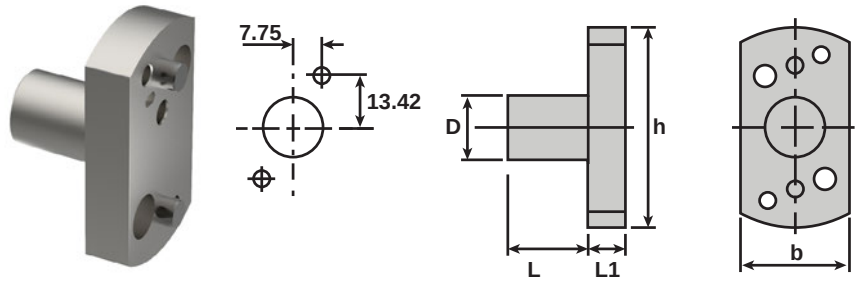
MBG 06...B06 Basic Tool Holder

Machine Make	Machine Model	Item No.	Description	D	L	b	h	L_1	Spacer	Insert Holder
Star	SR10J	Call For Details	MBG 06 2200 015 B06	22	15	28	50	20	MBZ ST 02...	MBS...02



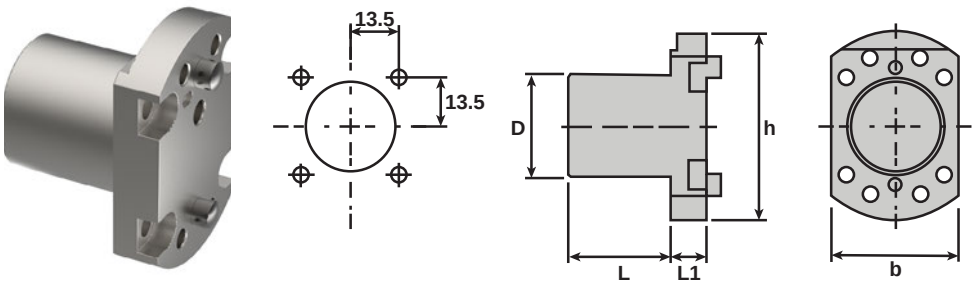
MBG 07...B02 Basic Tool Holder

Machine Make	Machine Model	Item No.	Description	D	L	b	h	L_1	Spacer	Insert Holder
Star	SR16, SR20	7005-127671	MBG 07 1600 021 B02	16	21	28	52	10	MBZ ST 02...	MBS...02



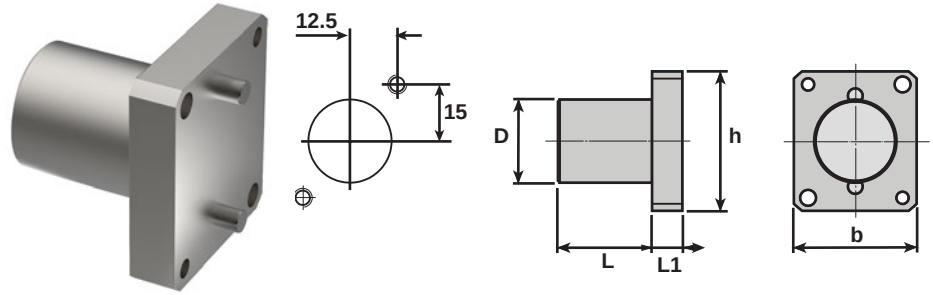
MBG 08...B02 Basic Tool Holder

Machine Make	Machine Model	Item No.	Description	D	L	b	h	L_1	Spacer	Insert Holder
Tornos	CT20	7005-169165	MBG 08 2800 028 B02	28	28	35	52	10	MBZ ST 02...	MBS...02



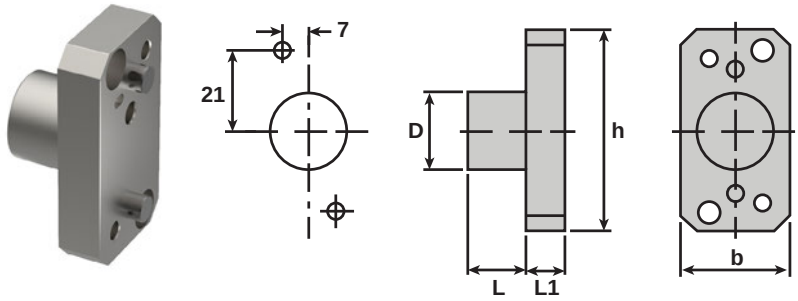
MBG 09...B90 Basic Tool Holder

Machine Make	Machine Model	Item No.	Description	D	L	b	h	L_1	Spacer	Insert Holder
Star	SW-20, SR-20W	Call For Details	MBG 09 2200 025 B90	22	25	32.5	37	8	MBZ ST 90-	MBS...90
Tsugami	BO 326 EII	7005-147786	MBG 09 2500 015 B90	25	15	32.5	37	8	MBZ ST 90-	MBS...90
Hanwha	XDI 20	Call For Details	MBG 09 2500 050 B90	25	50	32.5	37	8	MBZ ST 90-	MBS...90



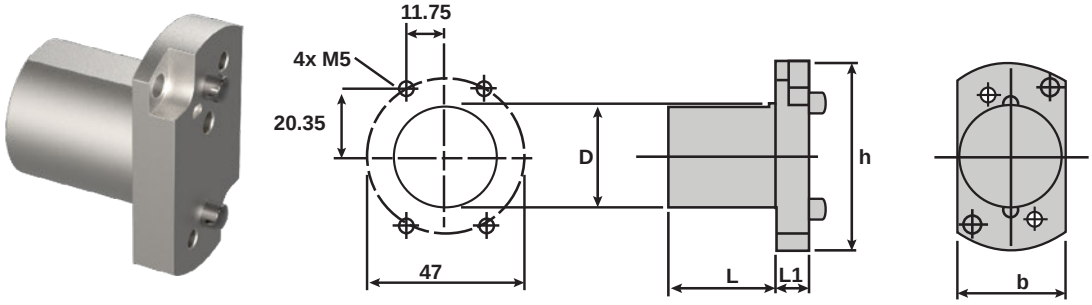
MBG 10...B02 Basic Tool Holder

Machine Make	Machine Model	Item No.	Description	D	L	b	h	L_1	Spacer	Insert Holder
Star	SR10J	Call For Details	MBG 10 2000 015 B02	20	15	28	52	10	MBZ ST 02...	MBS...02



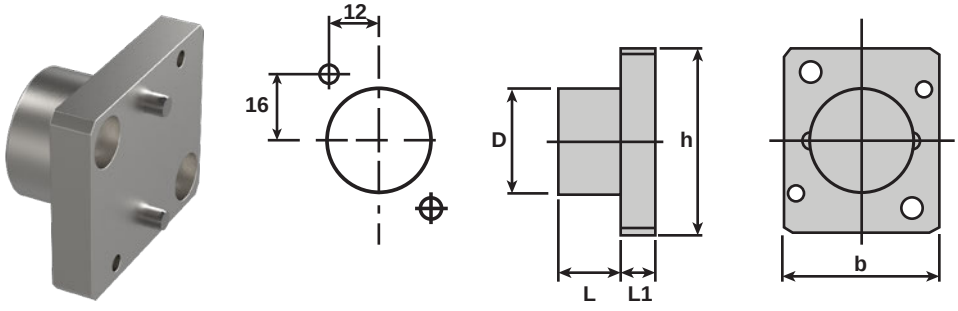
MBG 11...B02 Basic Tool Holder

Machine Make	Machine Model	Item No.	Description	D	L	b	h	L_1	Spacer	Insert Holder
Citizen	L32	Call For Details	MBG 11 3100 032 B02	31	32	32	56	10	MBZ ST 02...	MBS...02



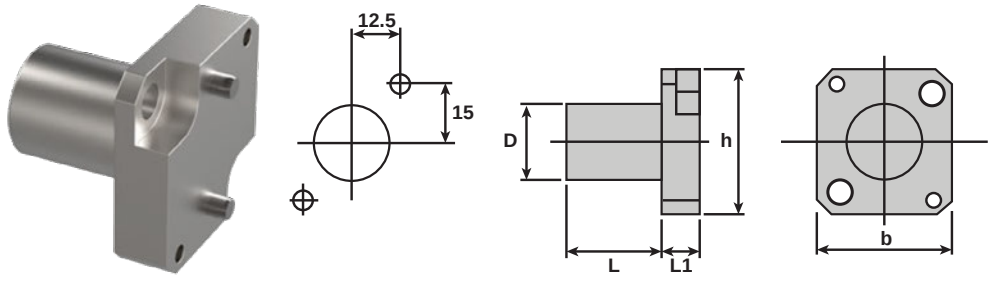
MBG 12...B90 Basic Tool Holder

Machine Make	Machine Model	Item No.	Description	D	L	b	h	L_1	Spacer	Insert Holder
Tsugami	BO 266, BO 326	Call For Details	MBG 12 2500 015 B90	25	15	44	36.9	8	MBZ ST 90...	MBS...90



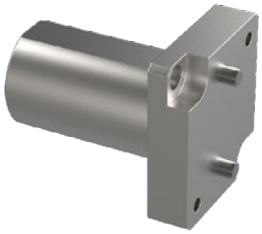
MBG 13...B90 Basic Tool Holder

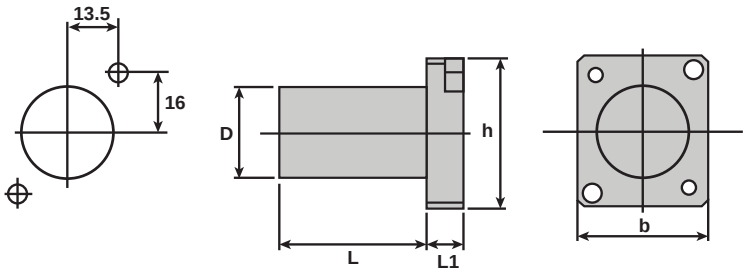
Machine Make	Machine Model	Item No.	Description	D	L	b	h	L_1	Spacer	Insert Holder
Tornos	GT13, GT26	Call For Details	MBG 13 2000 025 B90	20	25	36.9	36.9	20	MBZ ST 90...	MBS..ST 90



MBG 14...B90 Basic Tool Holder

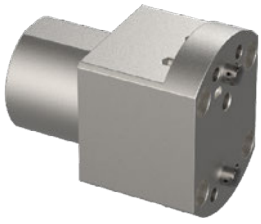
Machine Make	Machine Model	Item No.	Description	D	L	b	h	L_1	Spacer	Insert Holder
Nexturn	SR20XII	Call For Details	MBG 14 2500 040 B90	25	40	35	40	10	MBZ ST 90...	MBS..ST 90
		Call For Details	MBG 14 2500 040 B90-30	25	40	35	40	30	MBZ ST 90...	MBS..ST 90

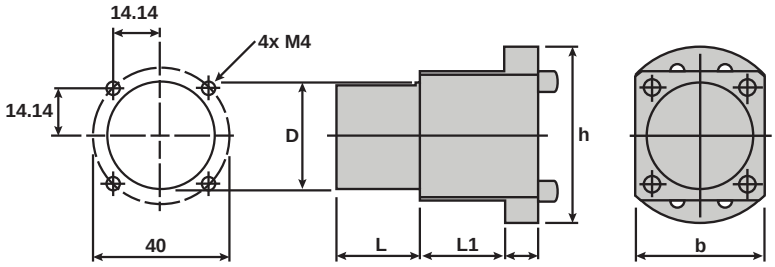




MBG 15...B90 Basic Tool Holder

Machine Make	Machine Model	Item No.	Description	D	L	b	h	L_1	Spacer	Insert Holder
Hanwha	XD 38 H	Call For Details	MBG 15 3200 025 B02	32	25	38	52	35	MBZ ST 02...	MBS..ST 02
	XD 38II Y2	Call For Details	MBG 15 3200 025 B90	32	25	37.5	52	8	MBZ ST 90...	MBS..ST 90

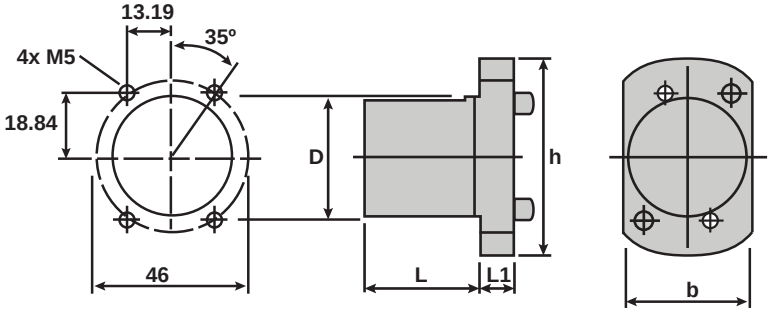




MBG 17...B02 Basic Tool Holder

Machine Make	Machine Model	Item No.	Description	D	L	b	h	L_1	Spacer	Insert Holder
TCM	Series 20s/26s/32s/38s	Call For Details	MBG 17 3600 035 B02	36	35	38	59	10	MBZ ST 02...	MBS..ST 02

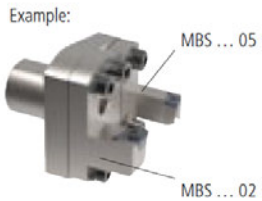




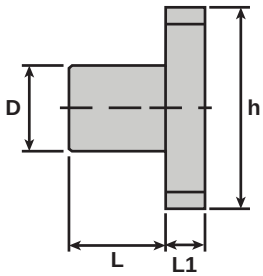
MBG 02...B02 05 Basic Tool Holder

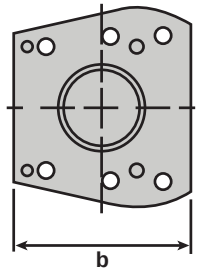
Machine Make	Machine Model	Item No.	Description	D	L	b	h	L_1	Spacer	Insert Holder
Citizen	L720VII	Call For Details	MBG 02 1905 040 B02 05	3/4"	40	46	52	10	MBZ ST 02/05...	MBS...02/05
		Call For Details	MBG 02 2000 040 B02 05	20	40	46	52	10	MBZ ST 02/05...	MBS...02/05
Star	SR20R, SR20 RiV, SR32J	7005-146960	MBG 02 2200 025 B02 05	22	25	46	52	10	MBZ ST 02/05...	MBS...02/05
		Call For Details	MBG 02 2540 025 B02 05	1"	25	46	52	10	MBZ ST 02/05...	MBS...02/05







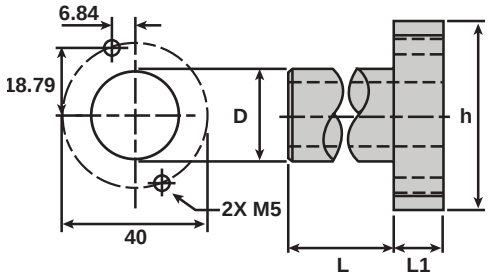


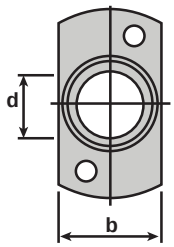


MBG T... Basic Tool Holder

Machine Make	Machine Model	Item No.	Description	D	L	d	b	h	L_1
Star	SA16, SB16, SR10J	Call For Details	MBG-T 10 2200 025 B01	22	25	10	28	52	15
		7005-147337	MBG-T 16 2200 025 B01	22	25	16	28	52	15



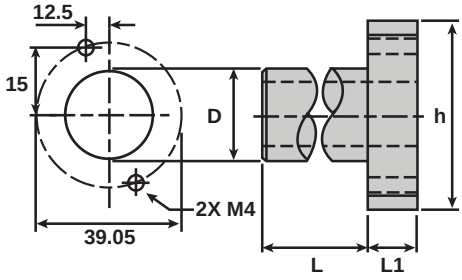


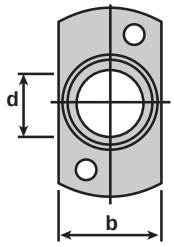


MBG T... Basic Tool Holder

Machine Make	Machine Model	Item No.	Description	D	L	d	b	h	L_1
Star	SA16, SB16, SR10J	7005-147337	MBG-T 16 2200 025 B09	22	25	16	33	52	15

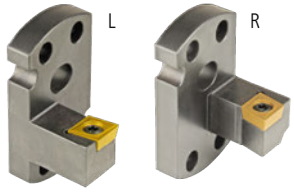


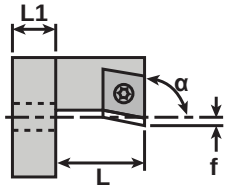


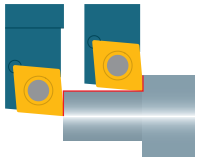


MBS...CC 80° ISO-Insert Modules

Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	α	f	L	L_1	Tool Holder	Spacer	Insert
7005-127667	MBS 090-CC L 06 I02	7005-127666	MBS 090-CC R 06 I02	90°		20	8	MBG...B02	MBZ ST 02...	CC.. 0602...
7005-154932	MBS 093-CC L 06 I02	7005-147916	MBS 093-CC R 06 I02	93°		20	8	MBG...B02	MBZ ST 02...	CC.. 0602...
		7005-185257	MBS 093-CC R 06 I02-30	93°		30	8	MBG...B02	MBZ ST 02...	CC.. 0602...
7005-127669	MBS 090-CC L 09 I02	7005-127668	MBS 090-CC R 09 I02	90°		20	8	MBG...B02	MBZ ST 02...	CC.. 09T3...
		7005-154936	MBS 090-CC R 09 I02 IC	90°		20	8	MBG...B02 IC	MBZ ST 02...IC	CC.. 09T3...
7005-137826	MBS 093-CC L 09 I02	7005-137827	MBS 093-CC R 09 I02	93°		20	8	MBG...B02	MBZ ST 02...	CC.. 09T3...
7005-147327	MBS 093-CC L 09 I02-30	7005-147326	MBS 093-CC R 09 I02-30	93°		30	8	MBG...B02	MBZ ST 02...	CC.. 09T3...
7005-193205	MBS 095-CC L 09 I02	7005-192860	MBS 095-CC R 09 I02	95°		20	8	MBG...B02	MBZ ST 02...	CC.. 09T3...
7005-147329	MBS 093-CC L 06 I05	7005-147328	MBS 093-CC R 06 I05	93°		20	8	MBG...B05	MBZ ST 05...	CC.. 0602...
Call For Details	MBS 095-CC L 09 I05	7005-192854	MBS 095-CC R 09 I05	95°		20	8	MBG...B05	MBZ ST 05...	CC.. 09T3...
		7005-154970	MBS 090-CC R 06 I90	90°	-5	20	7	MBG...B90	MBZ ST 02...	CC.. 0602...
		7005-169225	MBS 090-CC R 09 I90	90°		20	7	MBG...B90	MBZ ST 02...	CC.. 09T3...
		7005-192398	MBS 090-CC R 09 I90-30	90°		30	7	MBG...B90	MBZ ST 02...	CC.. 09T3...

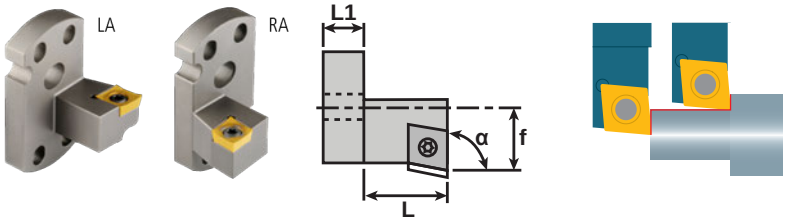






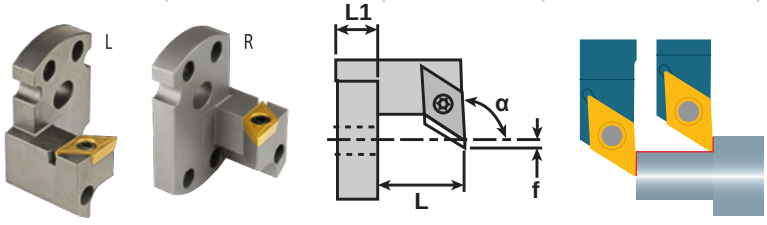
MBS...CC A 80° ISO-Insert Modules

Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	α	f	L	L_1	Tool Holder	Spacer	Insert
7005-154938	MBS 090-CC LA 06 I02	7005-154940	MBS 090-CC RA 06 I02	90°	18	20	8	MBG...B02	MBZ ST 02...	CC.. 0602...
7005-192842	MBS 090-CC LA 09 I02	7005-192852	MBS 090-CC RA 09 I02	90°	18	20	8	MBG...B02	MBZ ST 02...	CC.. 09T3...
7005-192840	MBS 093-CC LA 06 I02	7005-192850	MBS 093-CC RA 06 I02	93°	18	20	8	MBG...B02	MBZ ST 02...	CC.. 0602...
7005-192548	MBS 093-CC LA 09 I02	7005-192550	MBS 093-CC RA 09 I02	93°	18	20	8	MBG...B02	MBZ ST 02...	CC.. 09T3...
7005-192836	MBS 093-CC LA 09 I02-30	7005-192846	MBS 093-CC RA 09 I02-30	93°	18	30	8	MBG...B02	MBZ ST 02...	CC.. 09T3...
7005-127630	MBS 095-CC LA 09 I02	7005-137354	MBS 095-CC RA 09 I02	95°	18	20	8	MBG...B02	MBZ ST 02...	CC.. 09T3...
7005-192838	MBS 093-CC LA 06 I05	7005-192848	MBS 093-CC RA 06 I05	93°	12.5	20	8	MBG...B05	MBZ ST 05...	CC.. 0602...
7005-154942	MBS 095-CC LA 09 I05	7005-154944	MBS 095-CC RA 09 I05	95°	12.5	20	8	MBG...B05	MBZ ST 05...	CC.. 09T3...
		Call For Details	MBS 095-CC RA 09 I90	90°	17	20	7	MBG...B90	MBZ ST 90...	CC.. 09T3...
7005-169765	MBS 095-CC LA 09 I90			95°	16.25	20	7	MBG...B90	MBZ ST 90...	CC.. 09T3...



MBS...DC 55° ISO-Insert Modules

Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	α	f	L	L_1	Tool Holder	Spacer	Insert
7005-127655	MBS 093-DC L 07 I02	7005-127654	MBS 093-DC R 07 I02	93°		20	8	MBG...B02	MBZ ST 02...	DC.. 0702...
7005-193177	MBS 093-DC L 0703 I02	7005-193181	MBS 093-DC R 0703 I02	93°		20	8	MBG...B02	MBZ ST 02...	DC.. 0703...
7005-127606	MBS 093-DC L 11 I02	7005-127605	MBS 093-DC R 11 I02	93°		20	8	MBG...B02	MBZ ST 02...	DC.. 11T3...
		7005-192882	MBS 093-DC R 11 I02 IC	93°		20	8	MBG...B02 IC	MBZ ST 02...IC	DC.. 11T3...
7005-147305	MBS 093-DC L 11 I02 30	7005-147304	MBS 093-DC R 11 I02 30	93°		30	8	MBG...B02	MBZ ST 02...	DC.. 11T3...
7005-154958	MBS 093-DC L 11 I02 40	7005-169850	MBS 093-DC R 11 I02 40	93°		40	8	MBG...B02	MBZ ST 02...	DC.. 11T3...
Call For Details	MBS 093-DC L 07 I05	7005-147306	MBS 093-DC R 07 I05	93°		20	8	MBG...B05	MBZ ST 05...	DC.. 0702...
7005-193217	MBS 093-DC L 11 I06	7005-193219	MBS 093-DC R 11 I06	93°		20	8	MBG...B06	MBZ ST 06...	DC.. 11T3...
7005-154956	MBS 093-DC L 07 I90	7005-147312	MBS 093-DC R 07 I90	93°	-2.25	20	7	MBG...B90	MBZ ST 90...	DC.. 0702...
7005-147314	MBS 093-DC L 11 I90	7005-127693	MBS 093-DC R 11 I90	93°		20	7	MBG...B90	MBZ ST 90...	DC.. 11T3...
7005-154954	MBS 093-DC L 11 I90 30	7005-147313	MBS 093-DC R 11 I90 30	93°		30	7	MBG...B90	MBZ ST 90...	DC.. 0702...
		7005-192448	MBS 093-DC R 11 I90 40	93°		40	7	MBG...B90	MBZ ST 90...	DC.. 0702...

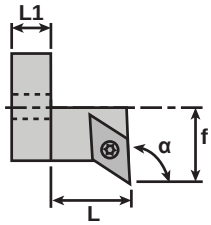


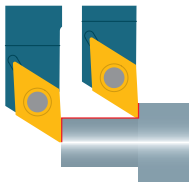
MBS...DC A 55° ISO-Insert Modules

Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	α	f	L	L_1	Tool Holder	Spacer	Insert
Call For Details	MBS 093-DC LA 07 I02	Call For Details	MBS 093-DC RA 07 I02	93°	18	20	8	MBG...B02	MBZ ST 02...	DC.. 0702...
Call For Details	MBS 093-DC LA 0703 I02	Call For Details	MBS 093-DC RA 0703 I02	93°	18	20	8	MBG...B02	MBZ ST 02...	DC.. 0702...
7005-127673	MBS 093-DC LA 11 I02	7005-127672	MBS 093-DC RA 11 I02	93°	18	20	8	MBG...B02	MBZ ST 02...	DC.. 11T3...
Call For Details	MBS 093-DC LA 11 I02-30	Call For Details	MBS 093-DC RA 11 I02-30	93°	18	30	8	MBG...B02	MBZ ST 02...	DC.. 11T3...
Call For Details	MBS 093-DC LA 11 I02-40	Call For Details	MBS 093-DC RA 11 I02-40	93°	18	40	8	MBG...B02	MBZ ST 02...	DC.. 11T3...
Call For Details	MBS 095-DC LA 11 I02			95°	18	20	8	MBG...B02	MBZ ST 02...	DC.. 11T3...
7005-154946	MBS 093-DC LA 07 I05	7005-154950	MBS 093-DC RA 07 I05	93°	8.5	20	8	MBG...B05	MBZ ST 05...	DC.. 0702...
Call For Details	MBS 093-DC LA 11 I06	Call For Details	MBS 093-DC RA 11 I06	93°	18	20	8	MBG...B06	MBZ ST 06...	DC.. 11T3...
Call For Details	MBS 093-DC LA 07 I90	Call For Details	MBS 093-DC RA 07 I90	93°	17	20	7	MBG...B90	MBZ ST 90...	DC.. 0702...
Call For Details	MBS 093-DC LA 07 I90-30	Call For Details	MBS 093-DC RA 07 I90-30	93°	17	30	7	MBG...B90	MBZ ST 90...	DC.. 0702...
Call For Details	MBS 093-DC LA 11 I90	Call For Details	MBS 093-DC RA 11 I90	93°	17	20	7	MBG...B90	MBZ ST 90...	DC.. 11T3...
Call For Details	MBS 093-DC LA 11 I90-30	Call For Details	MBS 093-DC RA 11 I90-30	93°	17	30	7	MBG...B90	MBZ ST 90...	DC.. 11T3...
		Call For Details	MBS 093-DC RA 11 I90-40	93°	17	40	7	MBG...B90	MBZ ST 90...	DC.. 11T3...





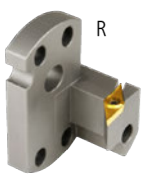


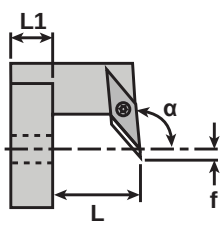


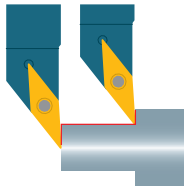
MBS...VC 35° ISO-Insert Modules

Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	α	f	L	L_1	Tool Holder	Spacer	Insert
7005-193155	MBS 110-VB L 11 I02	Call For Details	MBS 110-VB R 11 I02	110°		20	8	MBG...B02	MBZ ST 02...	VC.. 1102...
7005-147318	MBS 0725-VC L 11 I02	7005-147315	MBS 0725-VC R 11 I02	72.5°		20	8	MBG...B02	MBZ ST 02...	VC.. 1103...
7005-192880	MBS 093-VC L 07 I02	7005-192900	MBS 093-VC R 07 I02	93°		20	8	MBG...B02	MBZ ST 02...	VC... 0702
7005-192878	MBS 093-VC L 11 I02	7005-192898	MBS 093-VC R 11 I02	93°		20	8	MBG...B02	MBZ ST 02...	VC.. 1103...
7005-192876	MBS 093-VC L 11 I02-30	7005-192896	MBS 093-VC R 11 I02-30	93°		30	8	MBG...B02	MBZ ST 02...	VC.. 1103...
		7005-192894	MBS 095-VC R 11 I02-40	95°		40	8	MBG...B02	MBZ ST 02...	VC.. 1103...
7005-193185	MBS 093-VC L 12 I02	7005-193189	MBS 093-VC R 12 I02	93°		20	8	MBG...B02	MBZ ST 02...	VC.. 1203...
7005-193193	MBS 093-VC L 13 I02	7005-193197	MBS 093-VC R 13 I02	93°		20	8	MBG...B02	MBZ ST 02...	VC.. 1303...
7005-193981	MBS 095-VC L 07 I02	7005-193977	MBS 095-VC R 07 I02	95°		20	8	MBG...B02	MBZ ST 02...	VC.. 0702...
7005-127609	MBS 095-VC L 11 I02	7005-127608	MBS 095-VC R 11 I02	95°		20	8	MBG...B02	MBZ ST 02...	VC.. 1103...
7005-192874	MBS 095-VC L 11 I02-40	7005-192894	MBS 095-VC R 11 I02-40	95°		40	8	MBG...B02	MBZ ST 02...	VC.. 1103...
7005-127611	MBS 110-VC L 11 I02	7005-127610	MBS 110-VC R 11 I02	110°		20	8	MBG...B02	MBZ ST 02...	VC.. 1103...
7005-192872	MBS 1175-VC L 11 I02	7005-192892	MBS 1175-VC R 11 I02	117.5°		20	8	MBG...B02	MBZ ST 02...	VC.. 1103...
7005-193163	MBS 1175-VC L 12 I02	7005-193167	MBS 1175-VC R 12 I02	117.5°		20	8	MBG...B02	MBZ ST 02...	VC.. 1203...
7005-193298	MBS 1175-VC L 13 I02	7005-193211	MBS 1175-VC R 13 I02	117.5°		23	8	MBG...B02	MBZ ST 02...	VC.. 1303...
7005-154988	MBS 140-VC L 11 I02	7005-154986	MBS 140-VC R 11 I02	140°		23	8	MBG...B02	MBZ ST 02...	VC.. 1103...
		7005-154990	MBS 1625-VC N 11 I02	162.5°		25	8	MBG...B02	MBZ ST 02...	VC.. 1103...
7005-192870	MBS 093-VC L 07 I05	7005-192890	MBS 093-VC R 07 I05	93°		20	8	MBG...B05	MBZ ST 05...	VC... 0702
7005-192868	MBS 093-VC L 07 I90	7005-192888	MBS 093-VC R 07 I90	93°		20	7	MBG...B90	MBZ ST 90...	VC... 0702
7005-154934	MBS 093-VC L 11 I90	7005-154711	MBS 093-VC R 11 I90	93°	2.25	20	8	MBG...B90	MBZ ST 90...	VC.. 1103...
7005-193225	MBS 093-VC L 12 I90	7005-193227	MBS 093-VC R 12 I90	93°	6	20	7	MBG...B90	MBZ ST 90...	VC.. 1203...
7005-147323	MBS 095-VC L 11 I90	7005-147322	MBS 095-VC R 11 I90	95°	2.25	20	7	MBG...B90	MBZ ST 90...	VC.. 1103...
7005-192171	MBS 095-VC L 11 I90-30	7005-192886	MBS 095-VC R 11 I90-30	95°		30	7	MBG...B90	MBZ ST 02...	VC.. 1103...
7005-154994	MBS 095-VC L 11 I90 IC	7005-154992	MBS 095-VC R 11 I90 IC	95°	2.25	20	7	MBG...B90	MBZ ST 90...IC	VC.. 1103...
7005-193231	MBS 095-VC L 12 I90	7005-193233	MBS 095-VC R 12 I90	95°	6	20	7	MBG...B90	MBZ ST 90...	VC.. 1203...
		7005-192884	MBS 110-VC R 11 I90	110°		20	7	MBG...B90	MBZ ST 02...	VC.. 1103...
		7005-147321	MBS 1625-VC N 11 I90	162.5°		24	7	MBG...B90	MBZ ST 90...	VC.. 1103...



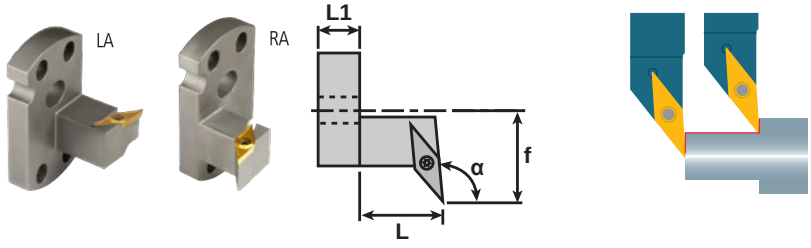






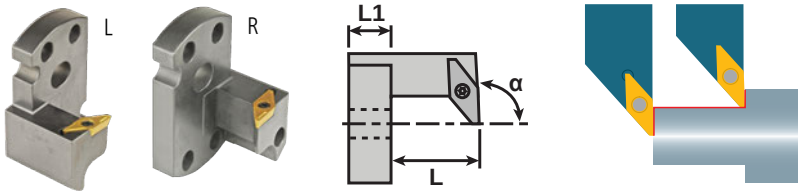
MBS...VC A 35° ISO-Insert Modules

Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	α	f	L	L_1	Tool Holder	Spacer	Insert
7005-193157	MBS 110-VB LA 11 I02	7005-193161	MBS 110-VB RA 11 I02	110°	18	20	8	MBG...B02	MBZ ST 02...	VC.. 1102...
7005-192920	MBS 0725-VC LA 11 I02	7005-192912	MBS 0725-VC RA 11 I02	72.5°	18	25	8	MBG...B02	MBZ ST 02...	VC.. 1103...
7005-147316	MBS 093-VC LA 11 I02	7005-127683	MBS 093-VC RA 11 I02	93°	18	20	8	MBG...B02	MBZ ST 02...	VC.. 1103...
Call For Details	MBS 093-VC LA 11 I02-30	7005-192910	MBS 093-VC RA 11 I02-30	93°	18	30	8	MBG...B02	MBZ ST 02...	VC.. 1103...
7005-193969	MBS 093-VC LA 11 I02-40			93°	18	40	8	MBG...B02	MBZ ST 02...	VC.. 1103...
7005-193187	MBS 093-VC LA 12 I02	7005-193191	MBS 093-VC RA 12 I02	93°	18	20	8	MBG...B02	MBZ ST 02...	VC.. 1203...
7005-193195	MBS 093-VC LA 13 I02	7005-193199	MBS 093-VC RA 13 I02	93°	18	20	8	MBG...B02	MBZ ST 02...	VC.. 1303...
7005-193979	MBS 095-VC LA 07 I02			95°	18	20	8	MBG...B02	MBZ ST 02...	VC.. 0702...
7005-154688	MBS 095-VC LA 11 I02	7005-154664	MBS 095-VC RA 11 I02	95°	18	20	8	MBG...B02	MBZ ST 02...	VC.. 1103...
7005-192970	MBS 095-VC LA 11 I02-40	7005-192908	MBS 095-VC RA 11 I02-40	95°	18	40	8	MBG...B02	MBZ ST 02...	VC.. 1103...
7005-192918	MBS 110-VC LA 11 I02	7005-192906	MBS 110-VC RA 11 I02	110°	18	20	8	MBG...B02	MBZ ST 02...	VC.. 1103...
7005-154998	MBS 1175-VC LA 11 I02	7005-154996	MBS 1175-VC RA 11 I02	117.5°	18	20	8	MBG...B02	MBZ ST 02...	VC.. 1103...
7005-193165	MBS 1175-VC LA 12 I02	7005-193169	MBS 1175-VC RA 12 I02	117.5°	18	20	8	MBG...B02	MBZ ST 02...	VC.. 1203...
7005-193209	MBS 1175-VC LA 13 I02	7005-193213	MBS 1175-VC RA 13 I02	117.5°	18	23	8	MBG...B02	MBZ ST 02...	VC.. 1303...
7005-192916	MBS 140-VC LA 11 I02	7005-192904	MBS 140-VC RA 11 I02	140°	18	23	8	MBG...B02	MBZ ST 02...	VC.. 1103...
7005-193959	MBS 093-VC LA 07 I90	7005-193961	MBS 093-VC RA 07 I90	93°	17	20	7	MBG...B90	MBZ ST 02...	VC.. 0702...
7005-192914	MBS 093-VC LA 11 I90	7005-154928	MBS 093-VC RA 11 I90	93°	17	20	7	MBG...B90	MBZ ST 02...	VC.. 1103...
7005-193229	MBS 093-VC LA 13 I90			93°	17	20	7	MBG...B90	MBZ ST 02...	VC.. 1303...



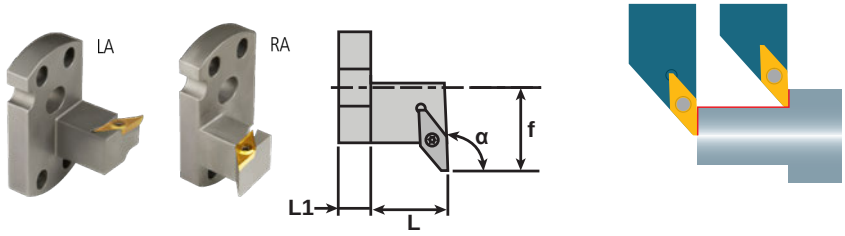
MBS...VP 35° TOP-Insert Modules

Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	α	L	L_1	Tool Holder	Spacer	Insert
7005-127659	MBS 093-VP L 10 I02	7005-127658	MBS 093-VP R 10 I02	93°	20	8	MBG...B02	MBZ ST 02...	VP.. 1003...
7005-147763	MBS 093-VP L 10 I90	7005-147762	MBS 093-VP R 10 I90	93°	20	7	MBG...B90	MBZ ST 90...	VP.. 1003...



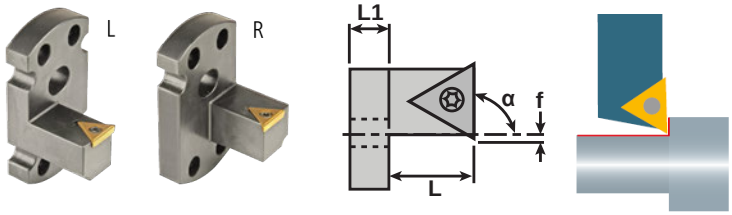
MBS...VP A 35° TOP-Insert Modules

Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	α	f	L	L_1	Tool Holder	Spacer	Insert
7005-185267	MBS 093-VP LA 10 I02	7005-185290	MBS 093-VP RA 10 I02	93°	28	20	8	MBG...B02	MBZ ST 02...	VP.. 1003...
7005-169690	MBS 093-VP LA 10 I90	7005-169692	MBS 093-VP RA 10 I90	93°	17	20	7	MBG...B90	MBZ ST 90...	VP.. 1003...



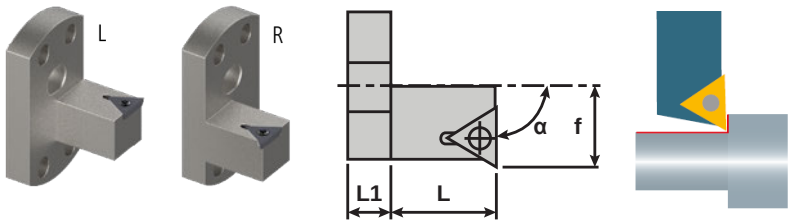
MBS...TC -Insert Modules

Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	α	f	L	L_1	Tool Holder	Spacer	Insert
7005-127613	MBS 090-TC L 11 I02	7005-127612	MBS 090-TC R 11 I02	90°		20	8	MBG...B02	MBZ ST 02...	TC.. 1102...
7005-193999	MBS 090-TP L 11 I02	7005-193997	MBS 090-TP R 11 I02	90°		20	8	MBG...B02	MBZ ST 02...	TP.. 1102...
		7005-193987	MBS 093-TC R 11 I02	93°	15	20	8	MBG...B02	MBZ ST 02...	TC.. 1102...
		7005-193223	MBS 090-TC R 11 I90	90°		20	7	MBG...B90	MBZ ST 90...	TC.. 1102...



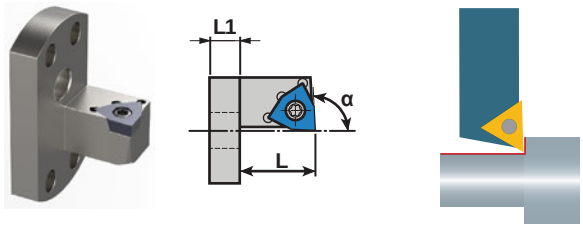
MBS...TC A -Insert Modules

Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	α	f	L	L_1	Tool Holder	Spacer	Insert
7005-193173	MBS 090-TC LA 11 I02	7005-193175	MBS 090-TC RA 11 I02	90°	15	20	8	MBG...B02	MBZ ST 02...	TC.. 1102...
7005-193995	MBS 090-TP LA 11 I02	7005-193993	MBS 090-TP RA 11 I02	90°	15	20	8	MBG...B02	MBZ ST 02...	TP... 1102...



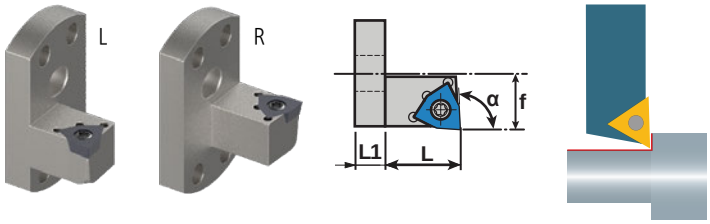
MBS...W0134 -Insert Modules

Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	α	L	L_1	Tool Holder	Spacer	Insert
7005-154662	MBS 093-W0134 L I02	7005-154660	MBS 093-W0134 R I02	93°	20	8	MBG...B02	MBZ ST 02...	W0134
Call For Details	MBS 093-W0134 L I02 IC	7005-193203	MBS 093-W0134 R I02 IC	93°	20	8	MBG...B02	MBZ ST 02...	W0134



MBS...W0134 -Insert Modules

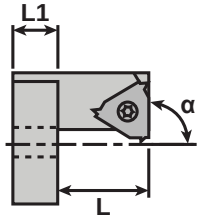
Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	α	f	L	L_1	Tool Holder	Spacer	Insert
Call For Details	MBS 093-W0134 LA I02	Call For Details	MBS 093-W0134 RA I02	93°	18	20	8	MBG...B02	MBZ ST 02...	W0134

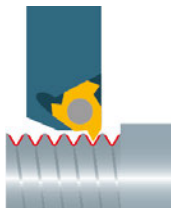


MBS...16 ER -Thread Insert Modules

Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	α	L	L_1	Tool Holder	Spacer	Insert
7005-192934	MBS 090-16 EL L I02			90°	20	8	MBG...B02	MBZ ST 02...	16EL
7005-192932	MBS 090-16 EL L I02-30			90°	30	8	MBG...B02	MBZ ST 02...	16EL
7005-192930	MBS 090-16 EL L I02-40			90°	40	8	MBG...B02	MBZ ST 02...	16EL
		7005-127616	MBS 090-16 ER R I02	90°	20	8	MBG...B02	MBZ ST 02...	16ER
		7005-147330	MBS 090-16 ER R I02-30	90°	30	8	MBG...B02	MBZ ST 02...	16ER
		7005-192564	MBS 090-16 ER R I02-40	90°	40	8	MBG...B02	MBZ ST 02...	16ER
		7005-127691	MBS 090-16 ER R I90	90°	20	7	MBG...B90	MBZ ST 90...	16ER
		7005-117176	MBS 090-16 ER R I90-30	90°	30	7	MBG...B90	MBZ ST 90...	16ER



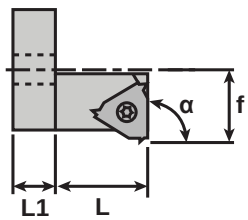


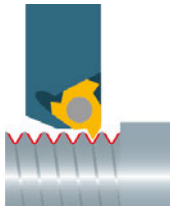


MBS...16 ER A -Thread Insert Modules

Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	α	f	L	L_1	Tool Holder	Spacer	Insert
7005-192928	MBS 090-16 EL LA I02			90°	17.66	20	8	MBG...B02	MBZ ST 02...	16EL
7005-192926	MBS 090-16 EL LA I02-30			90°	17.66	30	8	MBG...B02	MBZ ST 02...	16EL
7005-192922	MBS 090-16 EL LA I02-40			90°	17.66	40	8	MBG...B02	MBZ ST 02...	16EL
		7005-147331	MBS 090-16 ER RA I02	90°	17.66	20	8	MBG...B02	MBZ ST 02...	16ER
		7005-192924	MBS 090-16 ER RA I02-30	90°	17.66	30	8	MBG...B02	MBZ ST 02...	16ER
		7005-169694	MBS 090-16 ER RA I02-40	90°	17.66	40	8	MBG...B02	MBZ ST 02...	16ER
		7005-193282	MBS 090-16 ER RA I90-30	90°	18.75	30	7	MBG...B90	MBZ ST 90...	16ER
		7005-192394	MBS 090-16 ER RA I90-40	90°	18.75	40	7	MBG...B90	MBZ ST 90...	16ER

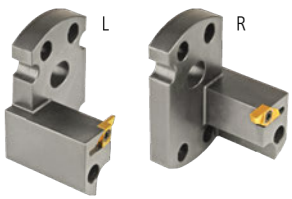


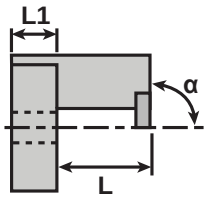




MBS...CUT 90 - 1600 Series Insert Modules

Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	α	L	L_1	Tool Holder	Spacer	Insert
7005-127615	MBS 090-CUT L 16 I02	7005-127614	MBS 090-CUT R 16 I02	90°	23	8	MBG...B02	MBZ ST 02...	16
Call For Details	MBS 135-CUT L 16 I02	7005-185284	MBS 135-CUT R 16 I02	135°	23	8	MBG...B02	MBZ ST 02...	16
7005-147970	MBS 090-CUT L 16 I05	7005-147969	MBS 090-CUT R 16 I05	90°	23	8	MBG...B05	MBZ ST 05...	16
7005-192260	MBS 090-CUT L 16 I90	7005-147974	MBS 090-CUT R 16 I90	90°	23	7	MBG...B90	MBZ ST 90...	16

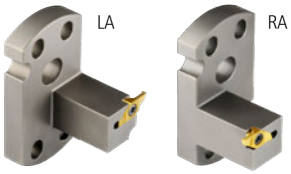


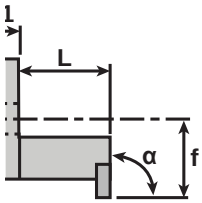


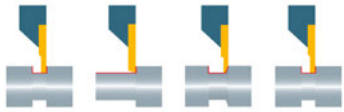


MBS...CUT A - 1600 Series Insert Modules

Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	α	f	L	L_1	Tool Holder	Spacer	Insert
7005-138041	MBS 090-CUT LA 16 I02	7005-138042	MBS 090-CUT RA 16 I02	90°	18.6	23	8	MBG...B02	MBZ ST 02...	16
7005-192938	MBS 135-CUT LA 16 I02	7005-192936	MBS 135-CUT RA 16 I02	135°	18.5	23	8	MBG...B02	MBZ ST 02...	16
7005-147350	MBS 090-CUT LA 16 I05	7005-147349	MBS 090-CUT RA 16 I05	90°	13	23	8	MBG...B05	MBZ ST 05...	16
7005-147976	MBS 090-CUT LA 16 I90	7005-147971	MBS 090-CUT RA 16 I90	90°	20.75	23	7	MBG...B90	MBZ ST 90...	16



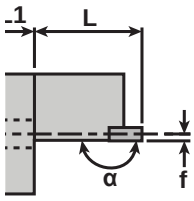


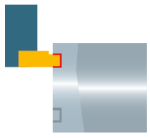


MBS...CUT 180 - 1600 Insert Modules

Right Hand		Dimensions & Features						
Item No.	Description	α	f	L	L_1	Tool Holder	Spacer	Insert
7005-138043	MBS 180-CUT 16 I02	180°	1.5	20	8	MBG...B02	MBZ ST 02...	16
7005-147351	MBS 180-CUT 16 I05	180°	1.5	20	8	MBG...B05	MBZ ST 05...	16
7005-147978	MBS 180-CUT 16 I90	180°	1.5	20	7	MBG...B90	MBZ ST 90...	16



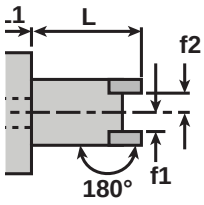




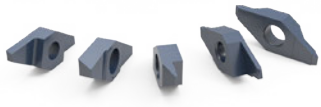
MBS...TWIN CUT 180 - 1600 Insert Modules

Neutral		Dimensions & Features						
Item No.	Description	f_1	f_2	L	L_1	Tool Holder	Spacer	Insert
7005-147275	MBS 180-CUT 16 I02 twin N	-4.5	4.5	20	8	MBG...B02	MBZ ST 02...	16
7005-147764	MBS 180-CUT 16 I02 twin R	3	11	20	8	MBG...B02	MBZ ST 02...	16



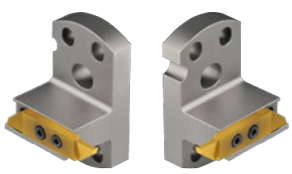


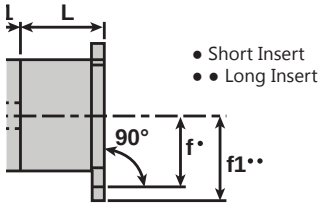
Use One Module For All multidec® 1600 Series Insert Geometries!



MBS...CUT N - 3000 Series Insert Modules

Neutral		Dimensions & Features						
Item No.	Description	f	f_1	L	L_1	Tool Holder	Spacer	Insert
7005-127686	MBS 090-CUT N 30 I02	27	33	20	8	MBG...B02	MBZ ST 02...	30
7005-147979	MBS 090-CUT N 30 I90	29	35	20	7	MBG...B90	MBZ ST 90...	30





• Short Insert
• • Long Insert

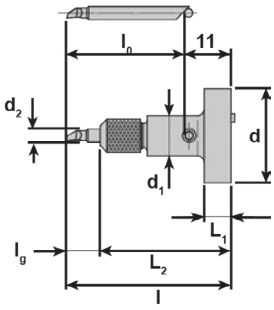
Use One Module For All multidec® 3000 Series Insert Geometries!



MBS...SDA - Boring Bar Tool Holder

Item No.	Description	d_1	d_2	L_1	L_2	Tool Holder	Spacer	Inserts
7005-169565	MBS SDA4 IT02 IC	12	4	35	8	MBG...B02	MBZ ST 02...	SD. 4... / SX. 4...
7005-169567	MBS SDA6 IT02 IC	15	6	38	8	MBG...B02	MBZ ST 02...	SD. 6... / SX. 6...
7005-169667	MBS SDA8 IT02 IC	18	8	40	8	MBG...B02	MBZ ST 02...	SD. 8... / SX. 8...
7005-169669	MBS SDA4 IT05 IC	12	4	35	8	MBG...B05	MBZ ST 05...	SD. 4... / SX. 4...
7005-193953	MBS SDA4 IT90 IC	12	4	35	7	MBG...B90	MBZ ST 90...	SD. 4... /SX. 4...
7005-193235	MBS SDA6 IT90 IC	15	6	38	7	MBG...B90	MBZ ST 90...	SD. 6... / SX. 6...
7005-193951	MBS SDA8 IT90 IC	18	8	40	7	MBG...B90	MBZ ST 90...	SD. 8... / SX. 8...





$l = l_0 + 11$

$l_g = l - L_2$

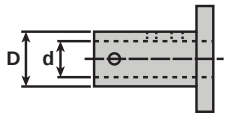
MBS...E - Collet Holders

Item No.	Description	L	L_1	Shank	Spacer	ER Collet
7005-169696	MBS E08 20 C02	20	8	MBG...B02	MBZ ST 02...	ER08
7005-192968	MBS E08 30 C02	30	8	MBG...B02	MBZ ST 02...	ER08
7005-137599	MBS E11 25 C02	25	8	MBG...B02	MBZ ST 02...	ER11
7005-192966	MBS E11 35 C02	35	8	MBG...B02	MBZ ST 02...	ER11
7005-192964	MBS E16 25 C02	25	8	MBG...B02	MBZ ST 02...	ER16
7005-137775	MBS E16 35 C02	35	8	MBG...B02	MBZ ST 02...	ER16
7005-192962	MBS E20 35 C02	35	8	MBG...B02	MBZ ST 02...	ER20
7005-138840	MBS E20 45 C02	45	8	MBG...B02	MBZ ST 02...	ER20
7005-192960	MBS E08 20 C05	20	8	MBG...B05	MBZ ST 05...	ER08
7005-192958	MBS E08 30 C05	30	8	MBG...B05	MBZ ST 05...	ER08
7005-192956	MBS E11 25 C05	25	8	MBG...B05	MBZ ST 05...	ER11
Call For Details	MBS E11 35 C05	35	8	MBG...B05	MBZ ST 05...	ER11
7005-193123	MBS E08 20 C06	20	8	MBG...B06	MBZ ST 06...	ER08
7005-193125	MBS E08 30 C06	30	8	MBG...B06	MBZ ST 06...	ER08
7005-193127	MBS E11 25 C06	25	8	MBG...B06	MBZ ST 06...	ER11
7005-193129	MBS E11 35 C06	35	8	MBG...B06	MBZ ST 06...	ER11
7005-193131	MBS E16 25 C06	25	8	MBG...B06	MBZ ST 06...	ER16
7005-193133	MBS E16 35 C06	35	8	MBG...B06	MBZ ST 06...	ER16
7005-192954	MBS E08 20 C90	20	7	MBG...B90	MBZ ST 90...	ER08
7005-192952	MBS E08 30 C90	30	7	MBG...B90	MBZ ST 90...	ER08
7005-192950	MBS E11 25 C90	25	7	MBG...B90	MBZ ST 90...	ER11
7005-192948	MBS E11 35 C90	35	7	MBG...B90	MBZ ST 90...	ER11
7005-154686	MBS E16 25 C90	25	7	MBG...B90	MBZ ST 90...	ER16
7005-192946	MBS E16 35 C90	35	7	MBG...B90	MBZ ST 90...	ER16
Call For Details	MBS E20 25 C90	25	7	MBG...B90	MBZ ST 90...	ER20
7005-192944	MBS E20 35 C90	35	7	MBG...B90	MBZ ST 90...	ER20

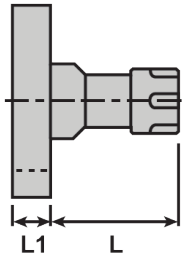
MBR...Reduction Sleeve

Item No.	Description	D	d	L
7005-192554	MBR D10-02	10	2	22
7005-192566	MBR D10-03	10	3	22
7005-147342	MBR D10-04	10	4	22
7005-147343	MBR D10-05	10	5	22
7005-147344	MBR D10-06	10	6	22
7005-147345	MBR D10-07	10	7	22
7005-147346	MBR D10-08	10	8	22
7005-192987	MBR D12-04	12	4	22
7005-192986	MBR D12-05	12	5	22
7005-192984	MBR D12-06	12	6	22
7005-192982	MBR D12-07	12	7	22
7005-192980	MBR D12-08	12	8	22
7005-192568	MBR D12-09	12	9	22
7005-192570	MBR D12-10	12	10	22
7005-192984	MBR D12-06	12	6	30.85
7005-192980	MBR D12-08	12	8	30.85
7005-192570	MBR D12-10	12	10	30.85
Call For Details	MBR D16-10	16	10	30.85
Call For Details	MBR D16-12	16	12	30.85
Call For Details	MBR D16-14	16	14	30.85







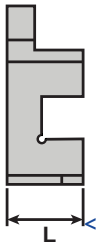


Perfectly center tools on machines without Y-axis adjustability!

MBS... - OD Turning Tool Holders

Item No.	Description	L	Tool Holder	Spacer	Type
7005-137591	MBS 090 1212 T02	35	MBG...B02	MBZ ST 02...	12x12
7005-147336	MBS 090 1212 T90	35	MBG...B90	MBZ ST 90...	12x12

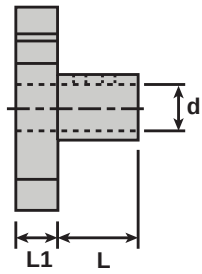




MBS...IT - ID Turning Tool Holders

Item No.	Description	d	L	L_1	Tool Holder	Spacer
7005-147354	MBS 10 IT02	10	13	8	MBG...B02	MBZ ST 02...
7005-150744	MBS 12 IT02	12	13	8	MBG...B02	MBZ ST 02...
7005-192974	MBS 14 IT02	14	13	8	MBG...B02	MBZ ST 02...
Call For Details	MBS 10 IT05	10	13	8	MBG...B05	MBZ ST 05...
7005-147341	MBS 10 IT90	10	14	7	MBG...B90	MBZ ST 90...
7005-192972	MBS 12 IT90	12	14	7	MBG...B90	MBZ ST 90...
7005-193949	MBS 14 IT90	14	14	7	MBG...B90	MBZ ST 90...
7005-193947	MBS 16 IT90	16	14	7	MBG...B90	MBZ ST 90...

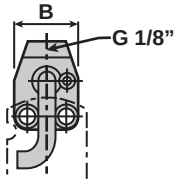




MBK... - CoolFlex Coolant Jet

Item No.	Description	B	Tool Holder	Spacer	Insert Module	Coolant Fittings
7005-129791	MBK Cool Flex	22.3	MBG...B02	MBZ ST 02...	MBS...02	0°: P/N 4005-000104 45°: P/N 4005-000105 90°: P/N 4005-000106

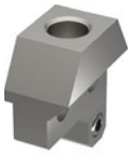


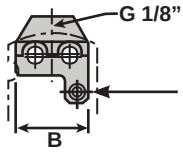




MBK... - CoolFix

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	B	Tool Holder	Spacer	Insert Module	Coolant Fittings
7005-147622	MBK Cool Fix L	7005-147624	MBK Cool Fix R	28	MBG...B02	MBZ ST 02...	MBS...02	0°: P/N 4005-000104 45°: P/N 4005-000105 90°: P/N 4005-000106





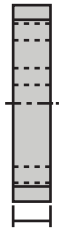
Fixed Coolant Jet
Pair with appropriate L or R tool holder

MBZ... - Spacer Module

Item No.	Description	L_1	Tool Holder	Insert Module
7005-127602	MBZ ST 02-10	10	MBG...B02	MBS...02
7005-127603	MBZ ST 02-20	20	MBG...B02	MBS...02
7005-169702	MBZ ST 02-20 IC	20	MBG...B02	MBS...02 IC
7005-127694	MBZ ST 02-25	25	MBG...B02	MBS...02
7005-154192	MBZ ST 02-25 IC	25	MBG...B02	MBS...02 IC
7005-127604	MBZ ST 02-30	30	MBG...B02	MBS...02
7005-169704	MBZ ST 02-30 IC	30	MBG...B02	MBS...02 IC
7005-137587	MBZ ST 05-10	10	MBG...B05	MBS...05
7005-137588	MBZ ST 05-20	20	MBG...B05	MBS...05
7005-147352	MBZ ST 90-10	10	MBG...B90	MBS...90
7005-147356	MBZ ST 90-20	20	MBG...B90	MBS...90
7005-169706	MBZ ST 90-20 IC	20	MBG...B90	MBS...90 IC
7005-192988	MBZ ST 90-25 IC	25	MBG...B90	MBS...90 IC
7005-147357	MBZ ST 90-30	30	MBG...B90	MBS...90





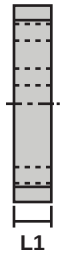


MBA... - Adjuster Sheet

Item No.	Description	L_1	Tool Holder	Insert Module
7005-147302	MBA 02-05	10	MBG...B02	MBS...05
7005-119991	MBA 06-02 *	10	MBG...B06	MBS...02

* Included with basic holders MBG...B06





Torx Screws



Item No.	Description	Fits Holders...	Description	Dimension
7005-127518	MSP 25060 T08	CC06, DC07, TC11, VC11, VP10, 1600	Torx T8 Screw	M2x6 T08
7005-129060	MSP 25070 T08	1600...4	Torx T8 Screw	M2.5x7 T08
7005-126197	MSP 25090 T08	1600...6, 1600...8	Torx T8 Screw	M2.5x9 T08
7005-127530	MSP 30073 T08	3000-08..., 3000...A	Torx T8 Screw	M3x7.3 T08
7005-043902	MSP 30090 T08	3000	Torx T8 Screw	M3x9 T08
7005-127527	MSP 35110 T15	CC09, DC11	Torx T15 Screw	M3.5x11 T15
7005-127592	MSP UNC 540120 T10	16ER	Torx T10 Screw	M3x12 T10

L-Bracket



Item No.	Description	Dimension	Description
7005-147359	MSP A0808 T02	8x8	L-Piece for MBS 090 1212 T02
7005-137592	MSP A1010 T02	10x10	L-Piece for MBS 090 1212 T02

Clamping Screw



Item No.	Description	Dimension	Description
7005-129886	MSP 60100 IB3	M6x10 DIN913	Clamping Screw For MBS 090 1212 T02

Shim Screw



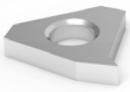
Item No.	Description	Inserts
7005-127593	MSP UNC 540070 T10	16ER

Eccentric Height Adjustment Bolt



Item No.	Description	Description
7005-127509	MBV E04	Eccentric Adjustment Bolt

Anvil



Item No.	Description	Inserts
Call For Details	YE3	16ER/EL

Mini Height Adjustment Bolt



Item No.	Description	Description
7005-147363	MBV E05	Mini Adjustment Bolt

Flat-Head Socket Cap Screw



Item No.	Description	Dimension
7005-147366	MSP M306	M3x6 DIN7991
7005-147759	MSP M308	M3x8 DIN7991

Socket Head Screw



Item No.	Description	Dimension
7005-147364	MSP M412	M4x12 DIN912
7005-147365	MSP M420	M4x20 DIN912
7005-147361	MSP M435	M4x35 DIN912
7005-147360	MSP M440	M4x40 DIN912
7005-147760	MSP M445	M4x45 DIN912
7005-147761	MSP M450	M4x50 DIN912
7005-127513	MSP M516	M5x16 DIN912
7005-127510	MSP M525	M5x25 DIN912
7005-127511	MSP M535	M5x35 DIN912
7005-127512	MSP M545	M5x45 DIN912

Elastic Washer



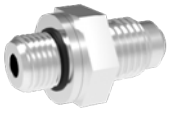
Item No.	Description	Dimension
7005-147362	MSP US-4	M4/4.3/10/0.6
7005-127514	MSP US-5	M5/5.3/9.2/0.45

Cylindrical Pin



Item No.	Description	Dimension	Description
7005-127515	MSP ZS612	$Ø6_{h6}$x12 DIN6325	Cylindrical Pin w/o Spacer
7005-127516	MSP ZS625	$Ø6_{h6}$x25 DIN6325	For Spacer MBZ ST 02-10
7005-127590	MSP ZS635	$Ø6_{h6}$x35 DIN6325	For Spacer MBZ ST 02-20
7005-127591	MSP ZS645	$Ø6_{h6}$x45 DIN6325	For Spacer MBZ ST 02-30

Coolant Fittings - MBK CoolFlex Adaptor



Item No.	Description	Size	Manifold Pos.
4005-000104	FIT-MICRO-4x2-00	Staight 0° 1/4" JIC to 1/8 BSPP	Input
4005-000105	FIT-MICRO-4x2-45	Staight 45° 1/4" JIC to 1/8 BSPP	Input
4005-000106	FIT-MICRO-4x2-90	Staight 90° 1/4" JIC to 1/8 BSPP	Input

UTILIS®
Tooling for High Technology



High Performance Thread Whirling

Thread whirling is a fast & accurate method of producing long threaded parts on a Swiss-type machine. By employing more cutting teeth, the GenSwiss/UTILIS whirling system greatly enhances productivity by allowing increased speeds and feeds while maintaining rigid finish qualities required by the medical implant industry.

- **Whirling Rings**
- **Whirling Inserts**
- **Whirling Attachments**
  - **Available In Live Tooling**





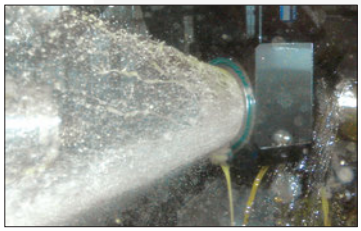
TYPE-A
xModular-System
- Whirling ring reduces setup time
- ±0.005mm guaranteed concentricity
- Interchangeable 2-part system



TYPE-B
Mono-System
- Compact single component Sytem
- ±0.005mm guaranteed concentricity



TYPE-C
Quick-Change System
- Similar to type-A, but ring is rotated to insert or remove
- ±0.005mm guaranteed concentricity

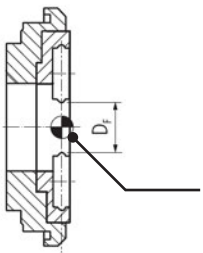


High-pressure coolant required for adequate chip evacuation in 12 insert configuration.



For Whirling Attachments
See Live Tooling Pg. 425

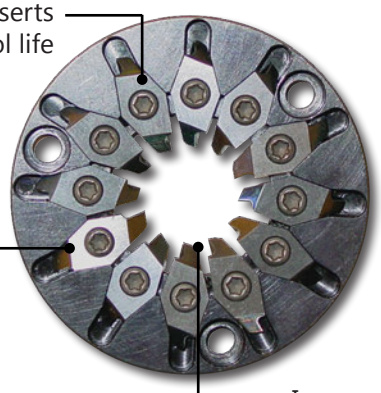




Optional Whirling Rings with advanced or recessed center position are available.
Visit genswiss.com or call us for details.

Double-edge indexable inserts provide excellent tool life

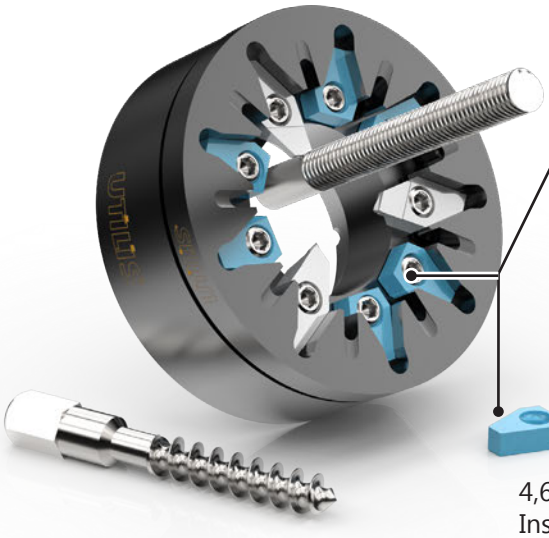
Inserts repeat within .0004"



Custom precision thread forms can be generated in a single pass from barstock diameter

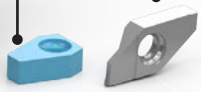
Available in several pocket configurations witht up to 12 inserts

Increased surface finish and improved thread quality can be achieved by minimizing cut interruption and vibration



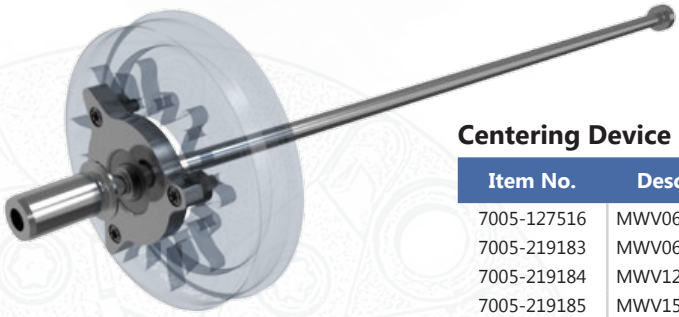
Dummy inserts protect the unused insert slots, keeping them particle free and maintaining accuracy when occupied by a threading insert

Whirling Inserts
Pg. 347-351



4,6, and 8mm
Insert Widths



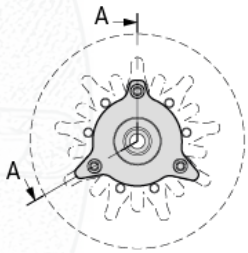


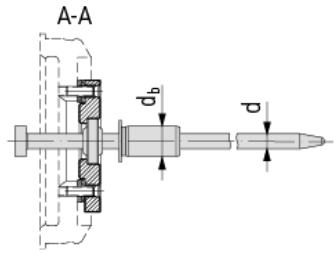
Keep Your Whirling Ring On Center

DF | Flight Circle
d | Needle Diameter
d_b | Guide Bushing Diameter
z | Number Of Whirling Ring Pockets

Centering Device

Item No.	Description	DF	d	d_b	z
7005-127516	MWV06 07 402000	6	4	6,8,10	7
7005-219183	MWV06 00 402000	6	4	6,8,10	9, 12
7005-219184	MWV12 00 402000	12	4	6,8,10	9, 12
7005-219185	MWV15 00 402000	15	4	6,8,10	9, 12
7005-219186	MWV25 00 402000	25	4	6,8,10	9, 12





Type-A Thread Whirling Rings



Cutter Rings for PCM Thread Whirling Attachments

Live Tool Manufacturer	Spindle Model	Machine Make	Flight Circle	# of Insert Pockets	Ring OD	Whirling Rings	Item No.
PCM **All PCM Live Tools Are Available From GenSwiss**	TOR-DE10-W15	TORNOS	6mm	7	42mm	MWT06 164 4242 115 07	6510-119103
			6mm	9	42mm	MWT06 164 4242 115 09	6510-139860
	TOR-DE20-W15-II	TORNOS	6mm	9	57mm	MWT06 164 4057 105 09	6510-149484
			8mm	9	57mm	MWT08 164 4057 105 09	Call For Details
			12mm	9	57mm	MWT12 164 4057 105 09	6510-139454
			15mm	9	57mm	MWT15 164 4057 105 09	6510-139898
			15mm	12	57mm	MWT15 164 4057 105 12	6510-119023
	TOR-DE13-W15 TOR-DE20-W15 TOR-GW-TDM-D13 CIT-LSW-101 CIT-GSW-261-000	TORNOS TORNOS TORNOS CITIZEN CITIZEN	6mm	9	55mm	MWT06 164 4055 103 09	Call For Details
			8mm	9	55mm	MWT08 164 4055 103 09	Call For Details
			12mm	9	55mm	MWT12 164 4055 103 09	6510-139823
			12mm	12	55mm	MWT12 164 4055 103 12	6510-139822
			15mm	9	55mm	MWT15 164 4055 103 09	Call For Details
			15mm	12	55mm	MWT15 164 4055 103 12	Call For Details
	CIT-KSW-101-000 CIT-LSW-101-L20-000 CIT-LSW-215-000 CIT-LSW-424-15 CIT-LSW-424-II CIT-MSW-101-000 CIT-SPW-1220	CITIZEN CITIZEN CITIZEN CITIZEN CITIZEN CITIZEN CITIZEN	12mm	3	46mm	MWT12 164 4046 115 03	Call For Details
			12mm	9	46mm	MWT12 164 4046 115 09	6510-119397
			12mm	12	46mm	MWT12 164 4046 115 12	6510-119398
			15mm	9	46mm	MWT15 164 4046 115 09	Call For Details
	CIT-GSW-251-PR- 1-A SR20J-W20-3D	CITIZEN STAR	6mm	9	40mm	MWT06 164 4040 111 09	Call For Details
			12mm	9	40mm	MWT12 164 4040 111 09	Call For Details
			12mm	12	40mm	MWT12 164 4040 111 12	Call For Details
			15mm	9	40mm	MWT15 164 4040 111 09	Call For Details
	SR20J-W20-3D	STAR	6mm	9	45mm	MWT06 164 4045 120 09	Call For Details
			8mm	9	45mm	MWT08 164 4045 120 09	Call For Details
			12mm	9	45mm	MWT12 164 4045 120 09	6510-138887
			12mm	12	45mm	MWT12 164 4045 120 12	6510-138888
			15mm	9	45mm	MWT15 164 4045 120 09	6510-219892
	CIT-LSW-420	CITIZEN	12mm	3	46mm	MWT12 164 4546 155 03	7005-219435
			12mm	9	46mm	MWT12 164 4546 155 09	Call For Details
			12mm	12	46mm	MWT12 164 4546 155 12	Call For Details
			15mm	9	46mm	MWT15 164 4546 155 09	Call For Details
	CIT-LSW-424-000	CITIZEN	12mm	3	46mm	MWT12 164 3546 169 03	6505-149047
			12mm	9	46mm	MWT12 164 3546 169 09	6510-137876
			12mm	12	46mm	MWT12 164 3546 169 12	6510-137568
			15mm	9	46mm	MWT15 164 3546 169 09	Call For Details
	SV20-W15	STAR	8mm	9	55mm	MWT08 164 4555 130 09	7005-219719
			12mm	9	55mm	MWT12 164 4555 130 09	7005-219720
			12mm	12	55mm	MWT12 164 4555 130 12	7005-219721
			12mm	9	55mm	MWT15 164 4555 130 09	7005-220067
			15mm	12	55mm	MWT15 164 4555 130 12	Call For Details
	CIT-BSW-215 NEX-NESA-32-000	CITIZEN NEXT TURN	6mm	9	46mm	MWT06 164 4046 172 09	Call For Details
			8mm	9	46mm	MWT08 164 4046 172 09	Call For Details
			12mm	9	46mm	MWT12 164 4046 172 09	6510-139491
			12mm	12	46mm	MWT12 164 4046 172 12	6510-139452
			15mm	9	46mm	MWT15 164 4046 172 09	6510-119214
			15mm	12	46mm	MWT15 164 4046 172 12	6510-119215

Type-A Thread Whirling Rings



Cutter Rings for OEM Machine Tool Attachments

Live Tool Manufacturer	Spindle Model	Machine Make	Flight Circle	# of Insert Pockets	Ring OD	Whirling Rings	Item No.
STAR	10159-00	STAR	6mm	9	46mm	MWT06 164 3346 165 09	Call For Details
			8mm	9	46mm	MWT08 164 3346 165 09	Call For Details
			12mm	9	46mm	MWT12 164 3346 165 09	6510-149746
			12mm	12	46mm	MWT12 164 3346 165 12	7005-219431
			15mm	09	46mm	MWT15 164 3346 165 09	Call For Details
			15mm	12	46mm	MWT15 164 3346 165 12	Call For Details
	0M171-00 101-72-00 421-73-00 431-72-00 541-78-00 581-71 591-72-00 661-72-00 681-72-00 7.074.191 7.076.225 7.170.882	STAR	6mm	9	40mm	MWT06 164 4040 111 09	7005-220301
			12mm	9	40mm	MWT12 164 4040 111 09	Call For Details
			12mm	12	40mm	MWT12 164 4040 111 12	Call For Details
			15mm	9	40mm	MWT15 164 4040 111 09	Call For Details
			6mm	9	45mm	MWT06 164 4045 120 09	Call For Details
			8mm	9	45mm	MWT08 164 4045 120 09	Call For Details
			12mm	9	45mm	MWT12 164 4045 120 09	6510-138887
			12mm	12	45mm	MWT12 164 4045 120 12	6510-138888
			15mm	9	45mm	MWT15 164 4045 120 09	6510-219892
	7.073.586 7.073.590 7.073.671 7.073.765	STAR	12mm	9	44mm	MWT12 164 4044 135 09	Call For Details
			12mm	12	44mm	MWT12 164 4044 135 12	6510-139177
			15mm	12	44mm	MWT15 164 4044 135 12	6510-139178
TSUGAMI	3268-Y271 3263-Y480 3234-Y342 UZ 3234-Y342 GUZ	TSUGAMI	6mm	9	65mm	MWT06 164 5265 166 09	Call For Details
			8mm	9	65mm	MWT08 164 5265 166 09	Call For Details
			15mm	9	65mm	MWT15 164 5265 166 09	Call For Details
			15mm	12	65mm	MWT15 164 5265 166 12	Call For Details
	3281-Y451 3268-Y452 3268-Y453 3268-Y454 3268-Y455	TSUGAMI	6mm	9	52mm	MWT06 164 5252 160 09	Call For Details
			8mm	9	52mm	MWT08 164 5252 160 09	Call For Details
			12mm	9	52mm	MWT12 164 5252 160 09	6510-119430
			12mm	12	52mm	MWT12 164 5252 160 12	6510-119431
			15mm	9	52mm	MWT15 164 5252 160 09	7005-219073
			15mm	12	52mm	MWT15 164 5252 160 12	7005-218095
TORNOS	260448	TORNOS	12mm	12	M50	MWT12 164 44M50 120 12	6510-119145
	305217 305218	TORNOS	6mm	7	42mm	MWT06 164 4242 115 07	6510-119103
			6mm	9	42mm	MWT06 164 4242 115 09	6510-139860
	199223, 306101, 306432, 307087, 398541, 418302, 472088, 992381, 1013013, 3281-Y691, 462-2365, 462-2370	TORNOS	6mm	9	57mm	MWT06 164 4057 105 09	6510-149484
			8mm	9	57mm	MTW08 164 4057 105 09	Call For Details
			12mm	9	57mm	MWT12 164 4057 105 09	6510-139454
			15mm	9	57mm	MWT15 164 4057 105 09	6510-139898
			15mm	12	57mm	MWT15 164 4057 105 12	6510-119023
	306279 306281 417627	TORNOS	6mm	9	67mm	MWT06 164 5067 120 09	Call For Details
			8mm	9	67mm	MWT08 164 5067 120 09	Call For Details
			15mm	9	67mm	MWT15 164 5067 120 09	Call For Details
			15mm	12	67mm	MWT15 164 5067 120 12	Call For Details
	462-2360	TORNOS	6mm	9	50mm	MWT06 164 4050 105 09	Call For Details
			8mm	9	50mm	MWT08 164 4050 105 09	Call For Details
			12mm	9	50mm	MWT12 164 4050 105 09	6510-119244
			12mm	12	50mm	MWT12 164 4050 105 12	6510-119245
			15mm	9	50mm	MWT15 164 4050 105 09	6510-119246
			15mm	12	50mm	MWT15 164 4050 105 12	6510-119247

Additional thread whirling rings available.
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Type-A Thread Whirling Rings



Cutter Rings for After Market Machine Tool Attachments

Live Tool Manufacturer	Spindle Model	Machine Make	Flight Circle	# of Insert Pockets	Ring OD	Whirling Rings	Item No.
MADAULA	CZ.035.C16	CITIZEN	12mm	3	46mm	MWT12 164 3546 169 03	6505-149047
			12mm	9	46mm	MWT12 164 3546 169 09	6510-137876
			12mm	12	46mm	MWT12 164 3546 169 12	6510-137568
			15mm	9	46mm	MWT15 164 3546 169 09	Call For Details
	ST.035.34 P.035.00049 1110.00037	STAR	6mm	9	40mm	MWT06 164 4040 111 09	7005-220301
			12mm	9	40mm	MWT12 164 4040 111 09	Call For Details
			12mm	12	40mm	MWT12 164 4040 111 12	Call For Details
			15mm	9	40mm	MWT15 164 4040 111 09	Call For Details
			6mm	9	45mm	MWT06 164 4045 120 09	Call For Details
	1110.00037	STAR	8mm	9	45mm	MWT08 164 4045 120 09	Call For Details
			12mm	9	45mm	MWT12 164 4045 120 09	6510-138887
			12mm	12	45mm	MWT12 164 4045 120 12	6510-138888
			15mm	9	45mm	MWT15 164 4045 120 09	6510-219892
	P.035.00064 1110.00054	STAR	6mm	9	50mm	MWT06 164 4050 135 09	Call For Details
			8mm	9	50mm	MWT08 164 4050 135 09	Call For Details
			12mm	9	50mm	MWT12 164 4050 135 09	Call For Details
			12mm	12	50mm	MWT12 164 4050 135 12	6510-119756
			15mm	9	50mm	MWT15 164 4050 135 09	Call For Details
			15mm	12	50mm	MWT15 164 4050 135 12	Call For Details
	P.035.00022	STAR	6mm	9	67mm	MWT06 164 5067 120 09	Call For Details
			8mm	9	67mm	MWT08 164 5067 120 09	Call For Details
			15mm	9	67mm	MWT15 164 5067 120 09	Call For Details
			15mm	12	67mm	MWT15 164 5067 120 12	Call For Details
	999.00444 CZ.035.L16/L20 CZ.035.L25/L35 DE.035.13/15 P.035.00002 P.035.00004 P.035.00010 P.035.00014 P.035.00023 P.035.00062 P.035.00067 TS.035.S205-15	CITIZEN CITIZEN TORNOS HANWHA HANWHA HANWHA HANWHA HANWHA HANWHA HANWHA TSUGAMI	6mm	9	55mm	MWT06 164 4055 103 09	Call For Details
			8mm	9	55mm	MWT08 164 4055 103 09	Call For Details
			12mm	9	55mm	MWT12 164 4055 103 09	6510-139823
			12mm	12	55mm	MWT12 164 4055 103 12	6510-139822
			15mm	9	55mm	MWT15 164 4055 103 09	Call For Details
			15mm	12	55mm	MWT15 164 4055 103 12	Call For Details
	DE.035.S20 HW.035.STL HW.035.XD2 P.035.00010 P.035.00014	TORNOS HANWHA HANWHA HANWHA HANWHA	12mm	9	48mm	MWT12 164 4548 145 09	6510-119287
			15mm	9	48mm	MWT15 164 4548 145 09	6510-119434
			15mm	12	48mm	MWT15 164 4548 145 12	6510-119435
	CZ.035.M12/M16 CZ.035.M20/M32T P.035.00063 1110.00055	CITIZEN CITIZEN HANWHA	12mm	3	46mm	MWT12 164 4046 130 03	Call For Details
			12mm	9	46mm	MWT12 164 4046 130 09	6510-000116
			12mm	12	46mm	MWT12 164 4046 130 12	6510-000109
			15mm	12	46mm	MWT15 164 4046 130 12	Call For Details

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Type-A Thread Whirling Rings



Cutter Rings for After Market Machine Tool Attachments

Live Tool Manufacturer	*Spindle Model*	*Machine Make*	Flight Circle	# of Insert Pockets	Ring OD	Whirling Rings	Item No.
JARVIS	LTR0128 LTR0132 LTR0139 LTR0168 LTR0183 CHS-1B6	CITIZEN CITIZEN CITIZEN CITIZEN CITIZEN	6mm	9	53mm	MWT06 164 4053 121 09	Call For Details
			8mm	9	53mm	MWT08 164 4053 121 09	Call For Details
			12mm	9	53mm	MWT12 164 4053 121 09	6510-137869
			12mm	12	53mm	MWT12 164 4053 121 12	6510-137868
			15mm	09	53mm	MWT15 164 4053 121 09	7005-220453
			15mm	12	53mm	MWT15 164 4053 121 12	Call For Details
	LTR0131 LTR0169 LTR0170 CHS-2B6	CITIZEN CITIZEN CITIZEN	6mm	9	46mm	MWT06 164 3746 121 09	Call For Details
			8mm	9	46mm	MWT08 164 3746 121 09	Call For Details
			12mm	9	46mm	MWT12 164 3746 121 09	6510-137744
			12mm	12	46mm	MWT12 164 3746 121 12	6510-119191
			15mm	09	46mm	MWT15 164 3746 121 09	Call For Details
			15mm	12	46mm	MWT15 164 3746 121 12	Call For Details
WTO	419900001-44 419900002-44 419900005-44	STAR STAR STAR	12mm	9	44mm	MWT12 164 4044 135 09	Call For Details
			12mm	12	44mm	MWT12 164 4044 135 12	6510-139177
			15mm	12	44mm	MWT15 164 4044 135 12	6510-139178
	419900001-44	STAR	6mm	9	46mm	MWT06 164 4046 240 09	Call For Details
			6mm	9	46mm	MWT06 164 4046 300 09	Call For Details
			12mm	9	46mm	MWT12 164 4046 240 09	6510-139891
			12mm	9	46mm	MWT12 164 4046 300 09	Call For Details
			12mm	12	46mm	MWT12 164 4046 240 12	6510-139890
			12mm	12	46mm	MWT12 164 4046 300 12	Call For Details
			15mm	15	46mm	MWT15 164 4046 240 09	6510-149328
			15mm	15	46mm	MWT15 164 4046 300 09	Call For Details
			15mm	15	46mm	MWT15 164 4046 240 12	6510-149364
			15mm	15	46mm	MWT15 164 4046 300 12	Call For Details

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Type-B Thread Whirling Rings



Cutter Rings for PCM Thread Whirling Attachments

Live Tool Manufacturer	Spindle Model	Machine Make	Flight Circle	# of Insert Pockets	Ring OD	Whirling Rings	Item No.
PCM All PCM Live Tools Are Available From GenSwiss	STA-E20-WI-000	STAR	6mm	7	35	MWT06 164 2035 165 07	6510-119007
	CIT-GSW-101-000 CIT-LSW-515-000	CITIZEN CITIZEN	6mm	9	35	MWT06 164 2035 165 09	6510-138657
	CIT-LSW-515-PR	CITIZEN	12mm	9	45	MWT12 164 4045 100 09	7005-219173

Cutter Rings for OEM Machine Tool Attachments

Live Tool Manufacturer	Spindle Model	Machine Make	Flight Circle	# of Insert Pockets	Ring OD	Whirling Rings	Item No.
Citizen	BTW-1000 BTW-2000 BTW-5000 BTW-6000 BTW-3000 BTW-3100 BTW-4000	CITIZEN	12mm	9	47mm	MWT12 164 3347 145 09	6510-000115
			12mm	12	47mm	MWT12 164 3347 145 12	6510-138034
			12mm	9	47mm	MWT12 166 3347 145 09	6510-219591
			12mm	12	47mm	MWT12 166 3347 145 12	7005-219592
			12mm	9	47mm	MWT12 168 3347 145 09	6510-149537
			12mm	9	46mm	MWT12 164 2546 070 09	6510-119980
			12mm	12	46mm	MTW12 164 2546 070 12	Call For Details
STAR	7.073.590	STAR	12mm	9	44mm	MWT12 164 4044 100 09	6510-119460
			12mm	12	44mm	MWT12 164 4044 100 12	6510-119463
	7.074.260 7.079.555	STAR	12mm	9	53mm	MWT12 164 4253 310 09	6510-119900
			12mm	12	53mm	MWT12 164 4253 310 12	6510-119901
TORNOS	307232 386251 398856 417165 417174	TORNOS	6mm	7	51mm	MWT06 164 3151 200 07	6510-149100
			6mm	9	51mm	MWT06 164 3151 200 09	6510-149101
	418212 570952	TORNOS	12mm	9	41mm	MWT12 164 M1441 440 09	6510-149750
DMG	2123031 2647002 2723028 2858071	DMG	12mm	9	49mm	MWT12 164 4249 120 09	6510-119676

Cutter Rings for After Market Machine Tool Attachments

Live Tool Manufacturer	Spindle Model	Machine Make	Flight Circle	# of Insert Pockets	Ring OD	Whirling Rings	Item No.
Madaula	CZ.035.K12/K16	CITIZEN	6mm	7	35mm	MWT06 164 2035 165 07	6510-119007
			6mm	9	35mm	MWT06 164 2035 165 09	6510-138657
WTO	419900000-00/-25/-32/-35/-39 /-40/-46/-50/-55/ 419900001-00/-32/-35 419900002-30/-32/-34/-55 419900003-30/-32/-50 419900004-30/-32 419900005-30/44 419900006-30 419900007-30/-44 419900008-44 419900009-30		12mm	9	44mm	MWT12 164 4244 105 09	6510-119351
			12mm	12	44mm	MWT12 164 4244 105 12	6510-119012
	419900000-45, 419900001-46 419900002-35, 419900003-34, 419900003-35, 419900005-32, 419900006-32, 419900007-32, 419900010-30, 419900010-44, 419900011-30, 419900011-44, 419900012-30, 419900013-30, TN762006		6mm	7	56mm	MWT06 164 5456 125 07	6510-149501
			6mm	9	56mm	MWT06 164 5456 125 09	6510-149502
			12mm	9	56mm	MWT12 164 5456 125 09	6510-149503
			12mm	12	56mm	MWT12 164 5456 125 12	6510-149504
			15mm	9	56mm	MWT15 164 5456 125 09	6510-149505
			15mm	12	56mm	MWT15 164 5456 125 12	6510-149506
			25mm	9	56mm	MWT25 164 5456 125 09	6510-149507
			25mm	12	56mm	MWT25 164 5456 125 12	6510-149508

Type-C Thread Whirling Rings



Cutter Rings for PCM Thread Whirling Attachments

Live Tool Manufacturer	Spindle Model	Machine Make	Flight Circle	# of Insert Pockets	Ring OD	Whirling Rings	Item No.
PCM All PCM Live Tools Are Available From GenSwiss	LSW-215-000	CITIZEN	12mm	9	60mm	MWT12 164 4060 130 09 QC	7005-219687
			12mm	12	60mm	MWT12 164 4060 130 12 QC	6510-119986
	LSW-424-000	CITIZEN	12mm	3	46mm	MWT12 164 3546 169 03 QC	Call For Details
	GSW-210	CITIZEN	6mm	7	38mm	MWT06 164 252838 120 07	7005-219373
			6mm	9	38mm	MWT06 164 252838 120 09	6510-219374
	SR-10J-GSW-010	STAR	6mm	7	36mm	MWT06 164 2536 126 07	7005-149653
			6mm	9	36mm	MWT06 164 2536 126 09	6510-149654

Cutter Rings for OEM Machine Tool Attachments

Live Tool Manufacturer	Spindle Model	Machine Make	Flight Circle	# of Insert Pockets	Ring OD	Whirling Rings	Item No.
TORNOS	306101	TORNOS	6mm	7	57mm	MWT06 164 4057 105 07 QC	7005-149949
			6mm	9	57mm	MWT06 164 4057 105 09 QC	7005-149952
			8mm	9	57mm	MWT08 164 4057 105 09 QC	Call For Details
			12mm	9	57mm	MWT12 164 4057 105 09 QC	7005-149955
			12mm	12	57mm	MWT12 164 4057 105 12 QC	7005-149958
			15mm	9	57mm	MWT15 164 4057 105 09 QC	7005-149961
			15mm	12	57mm	MWT15 164 4057 105 12 QC	7005-149964

Special Thread Whirling Holders For Non Swiss Machines

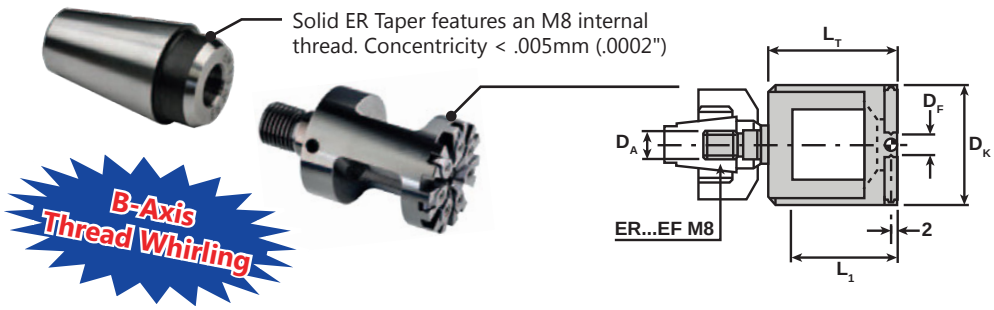
Whirling Tool For ER Style Live Spindles

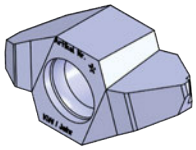
Item No.	Description	D_F	D_A	D_K	z*	L_T	L_1
6510-119512	MWT06 164 0400 07	6	M8	35	7	44	32.5

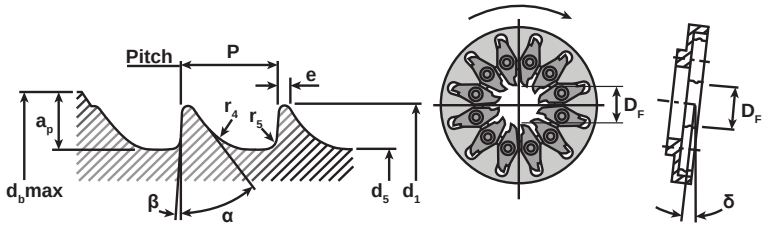
z*: Number of Teeth

Threaded Solid ER Style Collets

Threaded ER Collets	ER	Thread
ER16 EF M8	16	M8
ER20 EF M8	20	M8
ER25 EF M8	25	M8



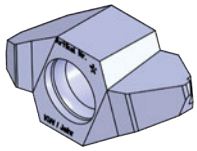


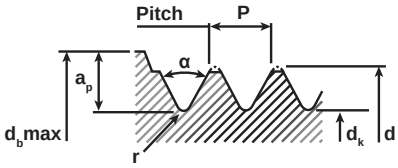


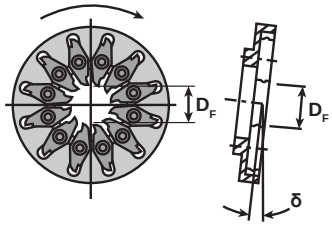
ISO Spec. Buttress Thread Form (MWI... HA/HB... VP)

D_F = Flight Circle

Item No.	Description	ISO 5835	D_F	d_1	d_5	tol	P	δ	e	r_4	r_5	a	β	a_p	d_bMax Stock Ø	Coating
6505-149246	MWI06 164 HA1.5 VP UHM20 HPX	HA1.5	6	1.5	1.1	0/-0.1	0.5	7.3°	0.1	0.3	0.1	35°	3°	3	7	UHM 20 HPX
Call For Details	MWI06 164 HA1.5 VP UHM20 TX+	HA1.5	6	1.5	1.1	0/-0.1	0.5	7.3°	0.1	0.3	0.1	35°	3°	3	7	UHM 20 TX+
6505-219305	MWI06 164 HA2.0 VP UHM20 HPX	HA2.0	6	2	1.3	0/-0.1	0.6	6.9°	0.1	0.4	0.2	35°	3°	3	7	UHM 20 HPX
Call For Details	MWI06 164 HA2.0 VP UHM20 TX+	HA2.0	6	2	1.3	0/-0.1	0.6	6.9°	0.1	0.4	0.2	35°	3°	3	7	UHM 20 TX+
6505-219309	MWI06 164 HA2.7 VP UHM20 HPX	HA2.7	6	2.7	1.9	0/-0.1	1	8.1°	0.1	0.6	0.2	35°	3°	3	7.5	UHM 20 HPX
Call For Details	MWI06 164 HA2.7 VP UHM20 TX+	HA2.7	6	2.7	1.9	0/-0.1	1	8.1°	0.1	0.6	0.2	35°	3°	3	7.5	UHM 20 TX+
6505-219313	MWI12 164 HA1.5 VP UHM20 HPX	HA1.5	12	1.5	1.1	0/-0.1	0.5	7.3°	0.1	0.3	0.1	35°	3°	4	9	UHM 20 HPX
6505-220683	MWI12 164 HA1.5 VP UHM20 TX+	HA1.5	12	1.5	1.1	0/-0.1	0.5	7.3°	0.1	0.3	0.1	35°	3°	4	9	UHM 20 TX+
6505-219317	MWI12 164 HA2.0 VP UHM20 HPX	HA2.0	12	2	1.3	0/-0.1	0.6	6.9°	0.1	0.4	0.1	35°	3°	4	9	UHM 20 HPX
6505-220684	MWI12 164 HA2.0 VP UHM20 TX+	HA2.0	12	2	1.3	0/-0.1	0.6	6.9°	0.1	0.4	0.1	35°	3°	4	9	UHM 20 TX+
6505-219321	MWI12 164 HA2.7 VP UHM20 HPX	HA2.7	12	2.7	1.9	0/-0.15	1	8.1°	0.1	0.6	0.2	35°	3°	4	9.5	UHM 20 HPX
6505-220685	MWI12 164 HA2.7 VP UHM20 TX+	HA2.7	12	2.7	1.9	0/-0.15	1	8.1°	0.1	0.6	0.2	35°	3°	4	9.5	UHM 20 TX+
6505-149150	MWI12 164 HA3.5 VP UHM20 HPX	HA3.5	12	3.5	2.4	0/-0.15	1.25	7.9°	0.1	0.8	0.2	35°	3°	4	10	UHM 20 HPX
6505-220686	MWI12 164 HA3.5 VP UHM20 TX+	HA3.5	12	3.5	2.4	0/-0.15	1.25	7.9°	0.1	0.8	0.2	35°	3°	4	10	UHM 20 TX+
6505-219327	MWI12 164 HA4.0 VP UHM20 HPX	HA4.0	12	4	2.9	0/-0.15	1.5	8.1°	0.1	0.8	0.2	35°	3°	4	10.5	UHM 20 HPX
6505-220687	MWI12 164 HA4.0 VP UHM20 TX+	HA4.0	12	4	2.9	0/-0.15	1.5	8.1°	0.1	0.8	0.2	35°	3°	4	10.5	UHM 20 TX+
6505-219331	MWI12 164 HA4.5 VP UHM20 HPX	HA4.5	12	4.5	3	0/-0.15	1.75	8.6°	0.1	1	0.3	35°	3°	4	11	UHM 20 HPX
6505-220688	MWI12 164 HA4.5 VP UHM20 TX+	HA4.5	12	4.5	3	0/-0.15	1.75	8.6°	0.1	1	0.3	35°	3°	4	11	UHM 20 TX+
6505-219335	MWI12 164 HA5.0 VP UHM20 HPX	HA5.0	12	5	3.5	0/-0.15	1.75	7.6°	0.2	1	0.3	35°	3°	4	11	UHM 20 HPX
6505-220689	MWI12 164 HA5.0 VP UHM20 TX+	HA5.0	12	5	3.5	0/-0.15	1.75	7.6°	0.2	1	0.3	35°	3°	4	11	UHM 20 TX+
6505-219339	MWI12 164 HB4.0 VP UHM20 HPX	HB4.0	12	4	1.9	0/-0.15	1.75	11.0°	0.1	0.8	0.3	25°	5°	4	9.5	UHM 20 HPX
6505-220690	MWI12 164 HB4.0 VP UHM20 TX+	HB4.0	12	4	1.9	0/-0.15	1.75	11.0°	0.1	0.8	0.3	25°	5°	4	9.5	UHM 20 TX+
6505-219343	MWI12 164 HB6.5 VP UHM20 HPX	HB6.5	12	6.5	3	0/-0.15	2.75	10.6°	0.2	1.2	0.8	25°	5°	4	11	UHM 20 HPX
6505-220691	MWI12 164 HB6.5 VP UHM20 TX+	HB6.5	12	6.5	3	0/-0.15	2.75	10.6°	0.2	1.2	0.8	25°	5°	4	11	UHM 20 TX+



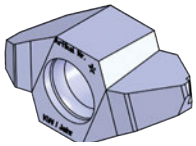


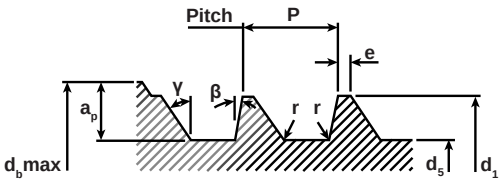


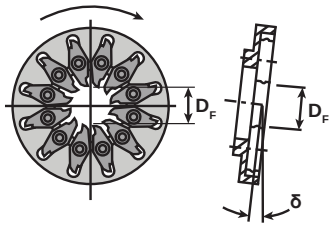
ISO 9268 Profile Spec. Buttress Thread Form (MWI... HC... VP)

D_F = Flight Circle

Item No.	Description	ISO 9268	D_F	d_1 min.	d_1 max.	d_5 min.	d_5 max.	P	δ	C	r	α	a_p	d_bMax Stock Ø	Coating
Call For Details	MWI06 164 HC2.9 VP UHM 20 HPX	HC2.9	6	2.79	2.9	2.03	2.18	1.06	7.76°	0.1	0.05	60°	3	8.5	UHM 20 HPX
Call For Details	MWI06 164 HC2.9 VP UHM 20 TX+	HC2.9	6	2.79	2.9	2.03	2.18	1.06	7.76°	0.1	0.05	60°	3	8.5	UHM 20 TX+
Call For Details	MWI06 164 HC3.5 VP UHM 20 HPX	HC3.5	6	3.43	3.53	2.51	2.64	1.27	7.61°	0.1	0.05	60°	3	9	UHM 20 HPX
Call For Details	MWI06 164 HC3.5 VP UHM 20 TX+	HC3.5	6	3.43	3.53	2.51	2.64	1.27	7.61°	0.1	0.05	60°	3	9	UHM 20 TX+
Call For Details	MWI06 164 HC3.9 VP UHM 20 HPX	HC3.9	6	3.78	3.91	2.77	2.92	1.27	6.89°	0.1	0.05	60°	3	9.5	UHM 20 HPX
Call For Details	MWI06 164 HC3.9 VP UHM 20 TX+	HC3.9	6	3.78	3.91	2.77	2.92	1.27	6.89°	0.1	0.05	60°	3	9.5	UHM 20 TX+
Call For Details	MWI06 164 HC4.2 VP UHM 20 HPX	HC4.2	6	4.09	4.22	2.95	3.25	1.27	6.36°	0.1	0.05	60°	3	10	UHM 20 HPX
Call For Details	MWI06 164 HC4.2 VP UHM 20 TX+	HC4.2	6	4.09	4.22	2.95	3.25	1.27	6.36°	0.1	0.05	60°	3	10	UHM 20 TX+
Call For Details	MWI12 164 HC2.9 VP UHM 20 HPX	HC2.9	12	2.79	2.9	2.03	2.18	1.06	7.76°	0.1	0.05	60°	4	10.5	UHM 20 HPX
Call For Details	MWI12 164 HC2.9 VP UHM 20 TX+	HC2.9	12	2.79	2.9	2.03	2.18	1.06	7.76°	0.1	0.05	60°	4	10.5	UHM 20 TX+
Call For Details	MWI12 164 HC3.5 VP UHM 20 HPX	HC3.5	12	3.43	3.53	2.51	2.64	1.27	7.61°	0.1	0.05	60°	4	11	UHM 20 HPX
Call For Details	MWI12 164 HC3.5 VP UHM 20 TX+	HC3.5	12	3.43	3.53	2.51	2.64	1.27	7.61°	0.1	0.05	60°	4	11	UHM 20 TX+
Call For Details	MWI12 164 HC3.9 VP UHM 20 HPX	HC3.9	12	3.78	3.91	2.77	2.92	1.27	6.89°	0.1	0.05	60°	4	11.5	UHM 20 HPX
Call For Details	MWI12 164 HC3.9 VP UHM 20 TX+	HC3.9	12	3.78	3.91	2.77	2.92	1.27	6.89°	0.1	0.05	60°	4	11.5	UHM 20 TX+
Call For Details	MWI12 164 HC4.2 VP UHM 20 HPX	HC4.2	12	4.09	4.22	2.95	3.25	1.27	6.36°	0.1	0.05	60°	4	12	UHM 20 HPX
Call For Details	MWI12 164 HC4.2 VP UHM 20 TX+	HC4.2	12	4.09	4.22	2.95	3.25	1.27	6.36°	0.1	0.05	60°	4	12	UHM 20 TX+



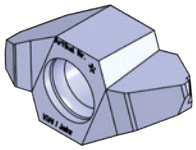


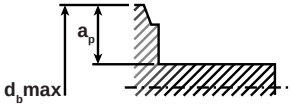


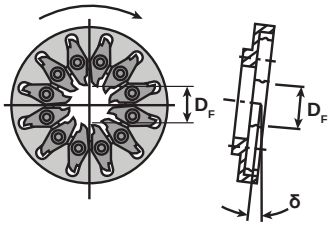
ISO 9268 Profile Spec. Buttress Thread Form (MWI... HD... VP)

D_F = Flight Circle

Item No.	Description	ISO 9268	D_F	d_1	d_5	P	δ	e	r	γ	β	a_p	d_bMax Stock Ø	Coating
Call For Details	MWI06 164 HD4.0 VP UHM 20 HPX	HD4.0	6	4	2.92	1.59	8.36°	0.1	0.01	45°	10°	3	9.5	UHM 20 HPX
Call For Details	MWI06 164 HD4.0 VP UHM 20 TX+	HD4.0	6	4	2.92	1.59	8.36°	0.1	0.01	45°	10°	3	9.5	UHM 20 TX+
Call For Details	MWI06 164 HD4.5 VP UHM 20 HPX	HD4.5	6	4.5	2.92	2.18	10.64°	0.1	0.01	45°	10°	3	10	UHM 20 HPX
Call For Details	MWI06 164 HD4.5 VP UHM 20 TX+	HD4.5	6	4.5	2.92	2.18	10.64°	0.1	0.01	45°	10°	3	10	UHM 20 TX+
Call For Details	MWI12 164 HD4.0 VP UHM 20 HPX	HD4.0	12	4	2.92	1.59	8.36°	0.1	0.01	45°	10°	4	11.5	UHM 20 HPX
Call For Details	MWI12 164 HD4.0 VP UHM 20 TX+	HD4.0	12	4	2.92	1.59	8.36°	0.1	0.01	45°	10°	4	11.5	UHM 20 TX+
Call For Details	MWI12 164 HD4.5 VP UHM 20 HPX	HD4.5	12	4.5	2.92	2.18	10.64°	0.1	0.01	45°	10°	4	12	UHM 20 HPX
Call For Details	MWI12 164 HD4.5 VP UHM 20 TX+	HD4.5	12	4.5	2.92	2.18	10.64°	0.1	0.01	45°	10°	4	12	UHM 20 TX+



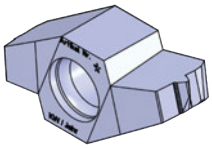


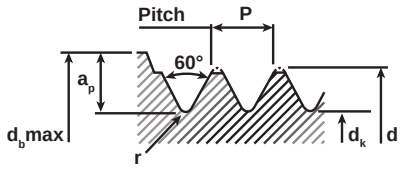


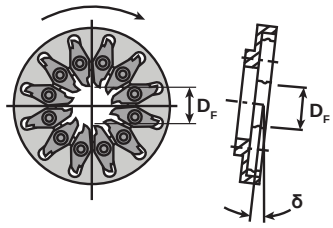
Cylindrical Whirling Threads

D_F = Flight Circle

Item No.	Description	D_{F*}	a	r	a_p	d_bMax Stock Ø	Coating
Call For Details	MWI06 164 HD4.0 VP UHM 20 HPX	12	4	0.05	4	d+(2 × ap)	UHM 20 HPX
Call For Details	MWI06 164 HD4.0 VP UHM 20 TX+	12	4	0.05	4	d+(2 × ap)	UHM 20 TX+
Call For Details	MWI06 164 HD4.5 VP UHM 20 HPX	12	3.5	0.05	4	d+(2 × ap)	UHM 20 HPX
Call For Details	MWI06 164 HD4.5 VP UHM 20 TX+	12	3.5	0.05	4	d+(2 × ap)	UHM 20 TX+



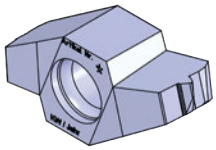


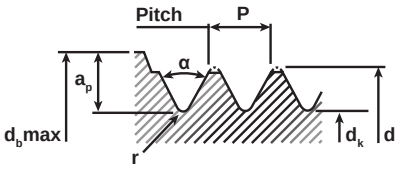


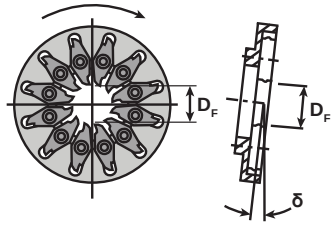
ISO / DIN Spec Metric Threads

D_F = Flight Circle

Item No.	Description	ISO DIN13	D_F	d	d_k	P	δ	r	a_p	d_bMax Stock Ø	Coating
6505-252526	MWI06 164 M1.4 VP UHM20 HPX	M1.4	6	1.4	1.012	0.3	4.53°	0.033	3	6.5	UHM 20 HPX
Call For Details	MWI06 164 M1.4 VP UHM 20 TX+	M1.4	6	1.4	1.012	0.3	4.53°	0.033	3	6.5	UHM 20 TX+
Call For Details	MWI06 164 M1.6 VP UHM20 HPX	M1.6	6	1.6	1.151	0.35	4.63°	0.041	3	7	UHM 20 HPX
Call For Details	MWI06 164 M1.6 VP UHM 20 TX+	M1.6	6	1.6	1.151	0.35	4.63°	0.041	3	7	UHM 20 TX+
Call For Details	MWI06 164 M2x0.25 VP UHM20 HPX	M2x0.25	6	2	1.693	0.25	2.50°	0.036	3	7.5	UHM 20 HPX
Call For Details	MWI06 164 M2x0.25 VP UHM 20 TX+	M2x0.25	6	2	1.693	0.25	2.50°	0.036	3	7.5	UHM 20 TX+
6505-218525	MWI06 164 M2 VP UHM20 HPX	M2	6	2	1.509	0.4	4.17°	0.048	3	7	UHM 20 HPX
Call For Details	MWI06 164 M2 VP UHM 20 TX+	M2	6	2	1.509	0.4	4.17°	0.048	3	7	UHM 20 TX+
Call For Details	MWI06 164 M3x0.35 VP UHM20 HPX	M3x0.35	6	3	2.571	0.35	2.30°	0.051	3	8.5	UHM 20 HPX
Call For Details	MWI06 164 M3x0.35 VP UHM 20 TX+	M3x0.35	6	3	2.571	0.35	2.30°	0.051	3	8.5	UHM 20 TX+
6505-218420	MWI06 164 M3 VP UHM20 HPX	M3	6	3	2.387	0.5	3.39°	0.062	3	8	UHM 20 HPX
Call For Details	MWI06 164 M3 VP UHM 20 TX+	M3	6	3	2.387	0.5	3.39°	0.062	3	8	UHM 20 TX+
Call For Details	MWI12 164 M1.6 VP UHM20 HPX	M1.6	12	1.6	1.151	0.35	4.63°	0.041	4	9	UHM 20 HPX
Call For Details	MWI12 164 M1.6 VP UHM 20 TX+	M1.6	12	1.6	1.151	0.35	4.63°	0.041	4	9	UHM 20 TX+
Call For Details	MWI12 164 M2x0.25 VP UHM20 HPX	M2x0.25	12	2	1.693	0.25	2.50°	0.036	4	9.5	UHM 20 HPX
Call For Details	MWI12 164 M2x0.25 VP UHM 20 TX+	M2x0.25	12	2	1.693	0.25	2.50°	0.036	4	9.5	UHM 20 TX+
6505-218732	MWI12 164 M2 VP UHM20 HPX	M2	12	2	1.509	0.4	4.17°	0.048	4	9	UHM 20 HPX
Call For Details	MWI12 164 M2 VP UHM 20 TX+	M2	12	2	1.509	0.4	4.17°	0.048	4	9	UHM 20 TX+
6505-252253	MWI12 164 M2.5 VP UHM20 HPX	M2.5	12	2.5	1.928	0.45	3.70°	0.055	4	9.5	UHM 20 HPX
Call For Details	MWI12 164 M2.5 VP UHM 20 TX+	M2.5	12	2.5	1.928	0.45	3.70°	0.055	4	9.5	UHM 20 TX+
Call For Details	MWI12 164 M3x0.35 VP UHM20 HPX	M3x0.35	12	3	2.571	0.35	2.30°	0.051	4	10.5	UHM 20 HPX
Call For Details	MWI12 164 M3x0.35 VP UHM 20 TX+	M3x0.35	12	3	2.571	0.35	2.30°	0.051	4	10.5	UHM 20 TX+
6505-218738	MWI12 164 M3 VP UHM20 HPX	M3	12	3	2.387	0.5	3.39°	0.062	4	10	UHM 20 HPX
Call For Details	MWI12 164 M3 VP UHM 20 TX+	M3	12	3	2.387	0.5	3.39°	0.062	4	10	UHM 20 TX+
Call For Details	MWI12 164 M3.5 VP UHM20 HPX	M3.5	12	3.5	2.744	0.6	3.50°	0.077	4	8.5	UHM 20 HPX
Call For Details	MWI12 164 M3.5 VP UHM 20 TX+	M3.5	12	3.5	2.744	0.6	3.50°	0.077	4	8.5	UHM 20 TX+
Call For Details	MWI12 164 M4x0.35 VP UHM20 HPX	M4x0.35	12	4	3.387	0.35	2.50°	0.072	4	11	UHM 20 HPX
Call For Details	MWI12 164 M4x0.35 VP UHM 20 TX+	M4x0.35	12	4	3.387	0.35	2.50°	0.072	4	11	UHM 20 TX+
6505-219672	MWI12 164 M4 VP UHM20 HPX	M4	12	4	3.141	0.7	3.58°	0.091	4	11	UHM 20 HPX
Call For Details	MWI12 164 M4 VP UHM 20 TX+	M4	12	4	3.141	0.7	3.58°	0.091	4	11	UHM 20 TX+
Call For Details	MWI12 164 M5x0.5 VP UHM20 HPX	M5x0.5	12	5	4.387	0.5	1.90°	0.072	4	12	UHM 20 HPX
Call For Details	MWI12 164 M5x0.5 VP UHM 20 TX+	M5x0.5	12	5	4.387	0.5	1.90°	0.072	4	12	UHM 20 TX+
6505-220115	MWI12 164 M5 VP UHM20 HPX	M5	12	5	4.019	0.8	3.24°	0.105	4	11.5	UHM 20 HPX
Call For Details	MWI12 164 M5 VP UHM 20 TX+	M5	12	5	4.019	0.8	3.24°	0.105	4	11.5	UHM 20 TX+
Call For Details	MWI12 164 M6x0.75 VP UHM20 HPX	M6x.075	12	6	5.08	0.75	2.50°	0.108	4	13	UHM 20 HPX
Call For Details	MWI12 164 M6x0.75 VP UHM 20 TX+	M6x.075	12	6	5.08	0.75	2.50°	0.108	4	13	UHM 20 TX+
6505-220274	MWI12 164 M6 VP UHM20 HPX	M6	12	6	4.773	1	3.39°	0.134	4	12.5	UHM 20 HPX
Call For Details	MWI12 164 M6 VP UHM 20 TX+	M6	12	6	4.773	1	3.39°	0.134	4	12.5	UHM 20 TX+
Call For Details	MWI12 164 M7 VP UHM20 HPX	M7	12	7	5.753	1	2.86°	0.134	4	13.5	UHM 20 HPX
Call For Details	MWI12 164 M7 VP UHM 20 TX+	M7	12	7	5.753	1	2.86°	0.134	4	13.5	UHM 20 TX+
Call For Details	MWI12 164 M8x0.75 VP UHM20 HPX	M8x0.75	12	8	7.08	0.75	1.80°	0.108	4	15	UHM 20 HPX
Call For Details	MWI12 164 M8x0.75 VP UHM 20 TX+	M8x0.75	12	8	7.08	0.75	1.80°	0.108	4	15	UHM 20 TX+
Call For Details	MWI12 164 M8 VP UHM20 HPX	M8	12	8	6.466	1.3	3.15°	0.17	4	14	UHM 20 HPX
Call For Details	MWI12 164 M8 VP UHM 20 TX+	M8	12	8	6.466	1.3	3.15°	0.17	4	14	UHM 20 TX+
Call For Details	MWI12 164 M8x1.0 VP UHM20 HPX	M8x1	12	8	6.773	1	2.50°	0.144	4	14.5	UHM 20 HPX
Call For Details	MWI12 164 M8x1.0 VP UHM 20 TX+	M8x1	12	8	6.773	1	2.50°	0.144	4	14.5	UHM 20 TX+
Call For Details	MWI12 164 M10x0.75 VP UHM20 HPX	M10x0.75	12	10	9.08	0.75	1.40°	0.108	4	17	UHM 20 HPX
Call For Details	MWI12 164 M10x0.75 VP UHM 20 TX+	M10x0.75	12	10	9.08	0.75	1.40°	0.108	4	17	UHM 20 TX+
Call For Details	MWI12 164 M10x1.0 VP UHM20 HPX	M10x1.0	12	10	8.773	1	1.90°	0.144	4	16.5	UHM 20 HPX
Call For Details	MWI12 164 M10x1.0 VP UHM 20 TX+	M10x1.0	12	10	8.773	1	1.90°	0.144	4	16.5	UHM 20 TX+
6505-218697	MWI12 164 M10x1.25 VP UHM20 HPX	M10x1.25	12	10	8.466	1.25	2.50°	0.18	4	16	UHM 20 HPX
Call For Details	MWI12 164 M10x1.25 VP UHM 20 TX+	M10x1.25	12	10	8.466	1.25	2.50°	0.18	4	16	UHM 20 TX+
6505-218199	MWI12 164 M10 VP UHM20 HPX	M10	12	10	8.16	1.5	3.01°	0.207	4	16	UHM 20 HPX
Call For Details	MWI12 164 M10 VP UHM 20 TX+	M10	12	10	8.16	1.5	3.01°	0.207	4	16	UHM 20 TX+



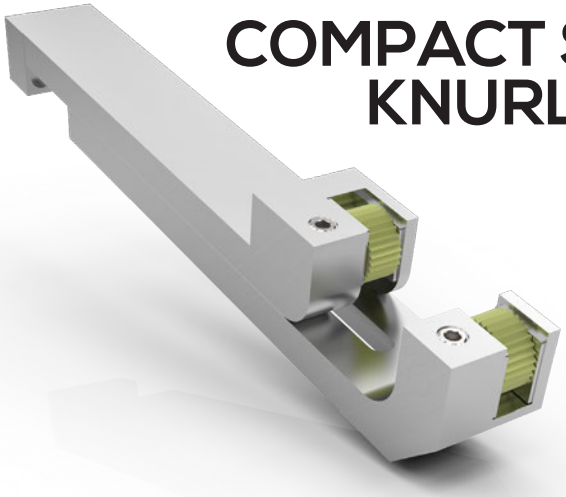




UNC & UNF Threads

D_F = Flight Circle

TPI (P)	Item No.	Description	D_F	d	d_k	δ	r	a	a_p	d_bMax Stock Ø	Coating
16 TPI	Call For Details	MWI12 164 3/8-16UNC VP UHM20 HPX	12	.375in	.298in	3.39°	.0086in	60°	4	17	UHM 20 HPX
16 TPI	Call For Details	MWI12 164 3/8-16UNC VP UHM30 TX+	12	.375in	.298in	3.39°	.0086in	60°	4	17	UHM 20 TX+
18 TPI	6505-218562	MWI12 164 5/16-18UNC VP UHM20 HPX	12	.313in	.244in	3.63°	.0076in	60°	4	15.5	UHM 20 HPX
18 TPI	Call For Details	MWI12 164 5/16-18UNC VP UHM20 TX+	12	.313in	.244in	3.63°	.0076in	60°	4	15.5	UHM 20 TX+
20 TPI	Call For Details	MWI12 164 1/4-20UNC VP UHM20 HPX	12	.250in	.188in	4.16°	.0068in	60°	4	14	UHM 20 HPX
20 TPI	Call For Details	MWI12 164 1/4-20UNC VP UHM20 TX+	12	.250in	.188in	4.16°	.0068in	60°	4	14	UHM 20 TX+
24 TPI	6505-220298	MWI12 164 10-24UNC VP UHM20 HPX	12	.190in	.138in	4.62°	.0056in	60°	4	12.5	UHM 20 HPX
24 TPI	Call For Details	MWI12 164 10-24UNC VP UHM20 TX+	12	.190in	.138in	4.62°	.0056in	60°	4	12.5	UHM 20 TX+
24 TPI	Call For Details	MWI12 164 12-24UNC VP UHM20 HPX	12	.216in	.164in	3.99°	.0056in	60°	4	13	UHM 20 HPX
24 TPI	Call For Details	MWI12 164 12-24UNC VP UHM20 TX+	12	.216in	.164in	3.99°	.0056in	60°	4	13	UHM 20 TX+
24 TPI	6505-252251	MWI12 164 5/16-24UNF VP UHM20 HPX	12	.312in	.261in	2.65°	.0056in	60°	4	15.5	UHM 20 HPX
24 TPI	Call For Details	MWI12 164 5/16-24UNF VP UHM20 TX+	12	.312in	.261in	2.65°	.0056in	60°	4	15.5	UHM 20 TX+
24 TPI	Call For Details	MWI12 164 3/8-24UNF VP UHM20 HPX	12	.375in	.323in	2.18°	.0056in	60°	4	17.5	UHM 20 HPX
24 TPI	Call For Details	MWI12 164 3/8-24UNF VP UHM20 TX+	12	.375in	.323in	2.18°	.0056in	60°	4	17.5	UHM 20 TX+
28 TPI	6505-219242	MWI12 164 1/4-28UNF VP UHM20 HPX	12	.250in	.205in	2.86°	.0047in	60°	4	14	UHM 20 HPX
28 TPI	Call For Details	MWI12 164 1/4-28UNF VP UHM20 TX+	12	.250in	.205in	2.86°	.0047in	60°	4	14	UHM 20 TX+
28 TPI	Call For Details	MWI12 164 12-28UNF VP UHM20 HPX	12	.216in	.171in	3.36°	.0047in	60°	4	11	UHM 20 HPX
28 TPI	Call For Details	MWI12 164 12-28UNF VP UHM20 TX+	12	.216in	.171in	3.36°	.0047in	60°	4	11	UHM 20 TX+
32 TPI	Call For Details	MWI12 164 06-32UNC VP UHM20 HPX	12	.138in	.099in	4.8°	.0041in	60°	4	11	UHM 20 HPX
32 TPI	Call For Details	MWI12 164 06-32UNC VP UHM20 TX+	12	.138in	.099in	4.8°	.0041in	60°	4	11	UHM 20 TX+
32 TPI	6505-252379	MWI12 164 08-32UNC VP UHM20 HPX	12	.164in	.125in	3.94°	.0041in	60°	4	12	UHM 20 HPX
32 TPI	Call For Details	MWI12 164 08-32UNC VP UHM20 TX+	12	.164in	.125in	3.94°	.0041in	60°	4	12	UHM 20 TX+
32 TPI	6505-220300	MWI12 164 10-32UNF VP UHM20 HPX	12	.190in	.151in	3.34°	.0041in	60°	4	10.5	UHM 20 HPX
32 TPI	Call For Details	MWI12 164 10-32UNF VP UHM20 TX+	12	.190in	.151in	3.34°	.0041in	60°	4	10.5	UHM 20 TX+
36 TPI	Call For Details	MWI12 164 08-36UNF VP UHM20 HPX	12	.164in	.129in	3.45°	.0036in	60°	4	12	UHM 20 HPX
36 TPI	Call For Details	MWI12 164 08-36UNF VP UHM20 TX+	12	.164in	.129in	3.45°	.0036in	60°	4	12	UHM 20 TX+
40 TPI	6505-252157	MWI12 164 04-40UNC VP UHM20 HPX	12	.112in	.081in	4.73°	.0032in	60°	4	10.5	UHM 20 HPX
40 TPI	Call For Details	MWI12 164 04-40UNC VP UHM20 TX+	12	.112in	.081in	4.73°	.0032in	60°	4	10.5	UHM 20 TX+
40 TPI	Call For Details	MWI12 164 05-40UNC VP UHM20 HPX	12	.125in	.094in	4.17°	.0032in	60°	4	11	UHM 20 HPX
40 TPI	Call For Details	MWI12 164 05-40UNC VP UHM20 TX+	12	.125in	.094in	4.17°	.0032in	60°	4	11	UHM 20 TX+
40 TPI	Call For Details	MWI12 164 06-40UNF VP UHM20 HPX	12	.138in	.106in	3.72°	.0032in	60°	4	11	UHM 20 HPX
40 TPI	Call For Details	MWI12 164 06-40UNF VP UHM20 TX+	12	.138in	.106in	3.72°	.0032in	60°	4	11	UHM 20 TX+
44 TPI	Call For Details	MWI12 164 05-44UNF VP UHM20 HPX	12	.125in	.096in	3.74°	.0028in	60°	4	11	UHM 20 HPX
44 TPI	Call For Details	MWI12 164 05-44UNF VP UHM20 TX+	12	.125in	.096in	3.74°	.0028in	60°	4	11	UHM 20 TX+
48 TPI	Call For Details	MWI12 164 03-48UNC VP UHM20 HPX	12	.099in	.073in	4.42°	.0026in	60°	4	10	UHM 20 HPX
48 TPI	Call For Details	MWI12 164 03-48UNC VP UHM20 TX+	12	.099in	.073in	4.42°	.0026in	60°	4	10	UHM 20 TX+
48 TPI	Call For Details	MWI12 164 04-48UNF VP UHM20 HPX	12	.112in	.085in	3.84°	.0025in	60°	4	10.5	UHM 20 HPX
48 TPI	Call For Details	MWI12 164 04-48UNF VP UHM20 TX+	12	.112in	.085in	3.84°	.0025in	60°	4	10.5	UHM 20 TX+
56 TPI	6505-252110	MWI12 164 02-56UNC VP UHM20 HPX	12	.086in	.063in	4.35°	.0022in	60°	4	10	UHM 20 HPX
56 TPI	Call For Details	MWI12 164 02-56UNC VP UHM20 TX+	12	.086in	.063in	4.35°	.0022in	60°	4	10	UHM 20 TX+
56 TPI	Call For Details	MWI12 164 03-56UNF VP UHM20 HPX	12	.099in	.076in	3.71°	.0021in	60°	4	10	UHM 20 HPX
56 TPI	Call For Details	MWI12 164 03-56UNF VP UHM20 TX+	12	.099in	.076in	3.71°	.0021in	60°	4	10	UHM 20 TX+
64 TPI	Call For Details	MWI12 164 01-64UNC VP UHM20 HPX	12	.073in	.053in	4.51°	.0019in	60°	4	9.5	UHM 20 HPX
64 TPI	Call For Details	MWI12 164 01-64UNC VP UHM20 TX+	12	.073in	.053in	4.51°	.0019in	60°	4	9.5	UHM 20 TX+
64 TPI	Call For Details	MWI12 164 02-64UNF VP UHM20 HPX	12	.086in	.066in	4.90°	.0018in	60°	4	9.5	UHM 20 HPX
64 TPI	Call For Details	MWI12 164 02-64UNF VP UHM20 TX+	12	.086in	.066in	4.90°	.0018in	60°	4	9.5	UHM 20 TX+
72 TPI	Call For Details	MWI12 164 01-72UNF VP UHM20 HPX	12	.072in	.055in	3.95°	.0016in	60°	4	9.5	UHM 20 HPX
72 TPI	Call For Details	MWI12 164 01-72UNF VP UHM20 TX+	12	.072in	.055in	3.95°	.0016in	60°	4	9.5	UHM 20 TX+
80 TPI	Call For Details	MWI12 164 00-80UNF VP UHM20 HPX	12	.060in	.044in	4.38°	.0014in	60°	4	9	UHM 20 HPX
80 TPI	Call For Details	MWI12 164 00-80UNF VP UHM30 TX+	12	.060in	.044in	4.38°	.0014in	60°	4	9	UHM 20 TX+



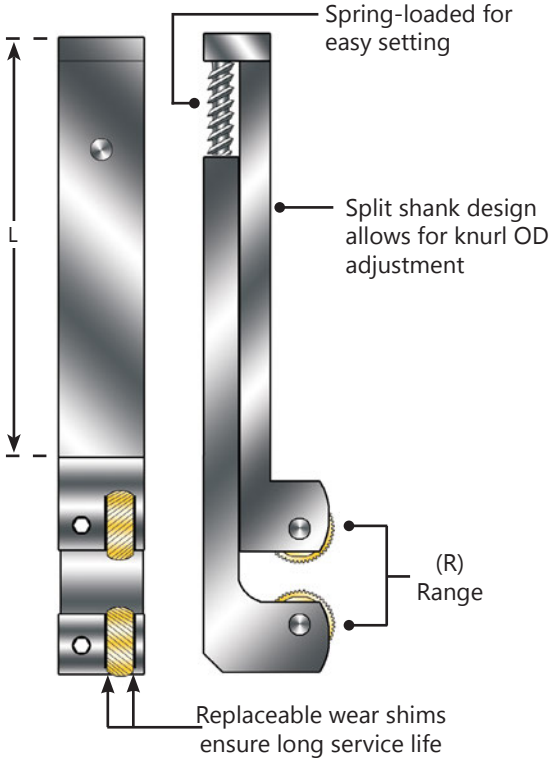
COMPACT STRADDLE KNURL HOLDERS

for small parts

- Create perfect knurls
- Eliminates workpiece deflection
- Low interference

Specifically designed for Swiss-type machines; our low profile straddle knurl holders keep interference to a minimum within the tooling envelope of most machines while ensuring adjacent tool positions are available to maximize tooling capacity.

Item No.	Description	Shank	L	R	Wheel Dimensions
2040-000107	KHS-2BPR-375	.375in	2.7in	.0-.394in	5/16in x 1/8in x 5/32in
2040-000110	KHS-2EPR-500	.500in	3.24in	0-.750in	1/2in x 3/16in x 3/16in
2040-000111	KHS-2EPR-625	.625in	3.24in	0-.750in	1/2in x 3/16in x 3/16in





AXIAL FEED KNURL HOLDERS

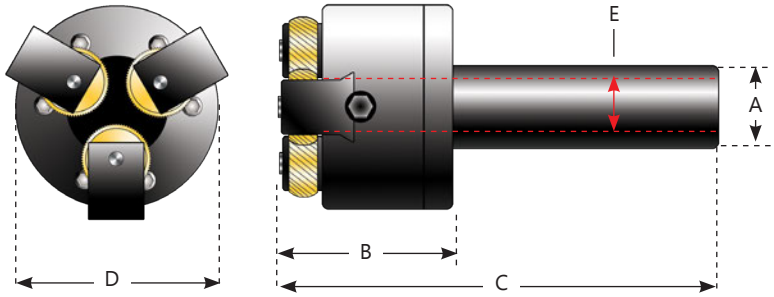
- Ideal for long knurled parts
- Produce straight or diamond patterns
- Adjustable for a range of part diameters





Compact design makes it ideal for use on screw machines and CNC lathes when axial feed knurling from the turret. Parts are self supported and they can extend through the shank for long jobs. We recommend using CONVEX Knurl Dies with this style Knurl Holder. Can also be adapted for burnishing and internal knurling

Item No.	Description	Knurl Series	Knurl Range	A	B	C	D	E
2035-000100	KHE-3DBP-625	BP	.060 - .475	.625	.325	3.875	.103	1.725
2035-000101	KHE-3DBP-750			.750	.325	3.875	.103	1.725
2035-000105	KHE-3DEP-625	EP	.090 - .475	.625	.325	3.875	.154	1.725
2035-000102	KHE-3DEP-750			.750	.325	3.875	.154	1.725
2035-000104	KHE-3DGK-750	GK	.140 - .940	.750	.450	4.90	.215	2.950
2035-000103	KHE-3DGK-1000			1.00	.450	4.90	.215	2.950

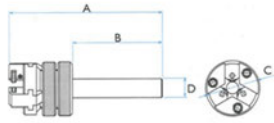


Compact Self-Centering Three Die Holder with Synchronized Adjustment

- Ideal for complex knurling
- Fitted with three jaws arranged at 120°
- Self-centering mechinism



Compact Self-Centering Three Die Holder Diagram



Fitted with three jaws arranged at 120° which can be adjusted simultaneously by means of a synchronizing ring. This tool has a built-in mechanism that compensates any misalignment between the chuck and turret centerlines.

Item No.	Description	Knurl Series	Knurl Range	A	B	C	D
Call for details	KHE-3DMR-1000	MR / MRV	Ø .16-1.20	5.31	2.36	2.76	1.00"
Call for details	KHE-3DMR-750			5.31	2.36	2.76	0.75"
Call for details	KHE-3DMM-500	MM	Ø .08 - .40	2.97	1.00	1.73	0.50"

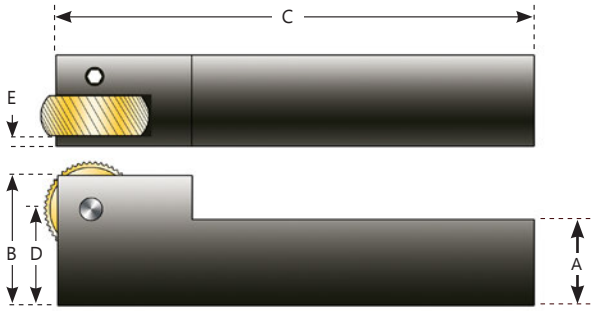
BUMP-STYLE KNURL HOLDERS

Conventional "bump" knurling is a cost effective way to produce knurled features on the outer diameter of parts.

- Carbide axles
- Ground shanks
- Left handed available
- Cost effective



Item No.	Description	Knurl Series	A	B	C	D	E
2025-000100	KHB-1BPR-312	BP	.312	.500	4.0	.125	.050
2025-000101	KHB-1BPR-375		.375	.610	4.0	.125	.050
2025-000103	KHB-1EPR-500	EP	.500	.750	3.5	.180	.093
2025-000105	KHB-1GKR-625	GK	.625	.938	4.0	.200	.125



DOUBLE-DIE BUMP-STYLE KNURL HOLDERS

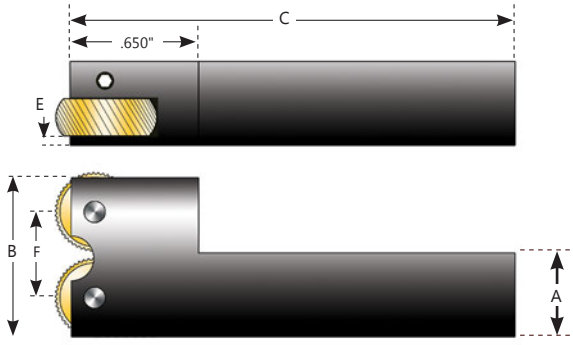
Cost effective solution for producing diamond pattern knurls on Swiss-type machines.

- Carbide axles
- Ground shanks
- Axial feed capability
- Cost effective



Compact Double-Die Bump-Style Knurl Holders

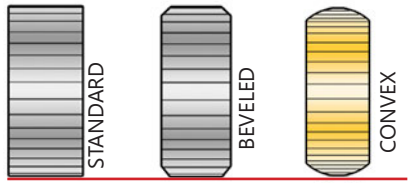
Item No.	Description	Knurl Series	A	B	C	E	F
2025-000106	KHB-2EPR-500	EP	.500	.500	4.0	1.00	.542
2025-000107	KHB-2EPR-625		.625	1.0	4.0	1.125	.542



KNURLING WHEELS

Genevieve Swiss offers a full line of precision knurling tools for Swiss-type applications. Optional wheel geometries are available to suit your specific needs. More options are available in addition to what is listed below.

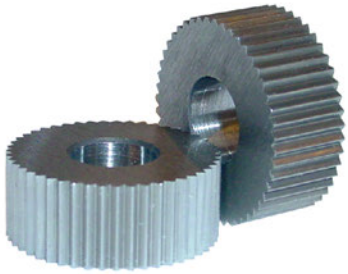
Call 413-562-4800 for details or to discuss applications.



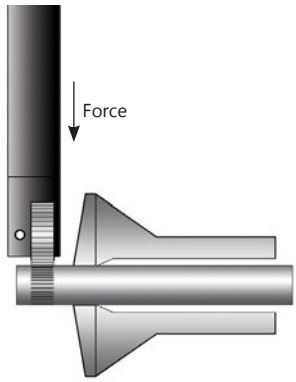
Standard Knurl Dies For Bump Knurling

Knurl Series	Wheel Dimensions	Straight Tooth	30° Right Hand	30° Left Hand	30° Male	30° Female	Available Pitch Teeth Per Inch (TPI)
	OD x ID x Width						
BP	5/16 x 1/8 x 5/32	KDS-BPS0-	KDR-BPR0-	KDL-BPL0-	KDD-BPM0-	KDD-BPF0-	20, 25, 30, 35, 40, 50, 60, 70, 80, 90, 100
EP	1/2 x 3/16 x 3/16	KDS-EPS0-	KDR-EPR0-	KDL-EPL0-	KDD-EPM0-	KDD-EPF0-	16, 20, 25, 30, 32, 35, 40, 50, 80

All Wheels Also Available in DIAMETRAL PITCH Configurations: 64DP, 96DP, 128DP, 160DP



- Precision lapped tooth forms provide superior knurled surfaces
- HSS vacuum hardened to approximately 63 Rockwell C
- Sides and Bore are Finish Ground to Maintain Close Tolerances
- Available Coated on Request



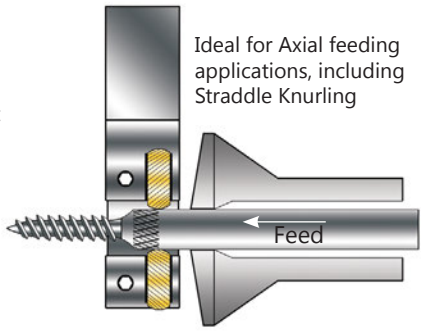
CONVEX Series Knurl Dies For Axial Feeding - Inch

Knurl Series	Wheel Dimensions	Straight Tooth	30° Right Hand	30° Left Hand	Available Pitch Teeth Per Inch (TPI)
	OD x ID x Width				
EPV	1/2 x 3/16 x 3/16	KDS-EPSV-	KDR-EPRV-	KDL-EPLV-	16, 20, 25, 30, 32, 35, 40, 50, 80

All Wheels Also Available in DIAMETRAL PITCH Configurations: 64DP, 96DP, 128DP, 160DP



- Hi-Cobalt HSS treated with ferritic nitrocarburizing is standard on all CONVEX Knurls.
- Full-form convex relief spreads out forces providing smoother finish
- The ULTIMATE knurling die for Swiss-type straddle knurling



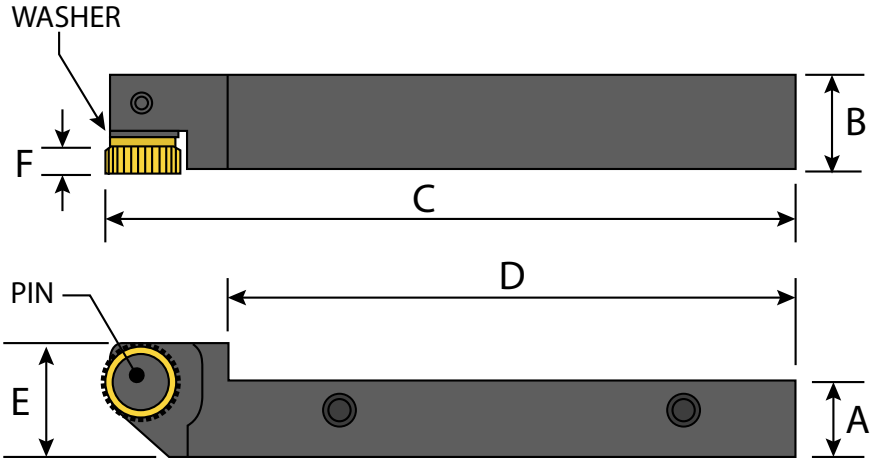
W2 SERIES BUMP-STYLE KNURL HOLDERS (Up To The Shoulder)

The W2 series bump-style knurl tools are manufactured to extremely high standards from premium alloys. Many are available with a lapped tooth form to give longer life and impart a smooth, clean surface to the knurled part. Both sides and the bore of the knurl are finish ground to maintain close tolerance on diameter and side runout. Our standard material is a high-quality grade of high-speed steel which is vacuum hardened, and tempered at least 2 times to a hardness of about 63 Rockwell C.

For severe knurling operations, such as rolling on 303 stainless or semi-hardened steels, we also offer knurls in a premium grade of high-cobalt steel. These knurling tools are slightly harder and, in most applications, deliver a substantial increase in tool life. Multiple coatings such as "TiN" and "Ferritic Nitrocarburizing" are also available if necessary. Our sales representatives will be happy to discuss any aspect of your knurling application and make recommendations on maximizing tool life versus cost for any type of knurling operation.

In addition to the stock knurling die shown above, we can manufacture virtually any size and pitch special knurling tools for standard knurl tooth forms.

Item No.	Description	Knurl Series	A	B	C	D	E	F
2025-000129	KHB-1W2R-500	W2	0.500in	0.625in	4.535in	3.75in	0.875in	0.188in
2025-000130	KHB-1W2R-625	W2	0.625in	0.625in	4.535in	3.75in	0.875in	0.188in

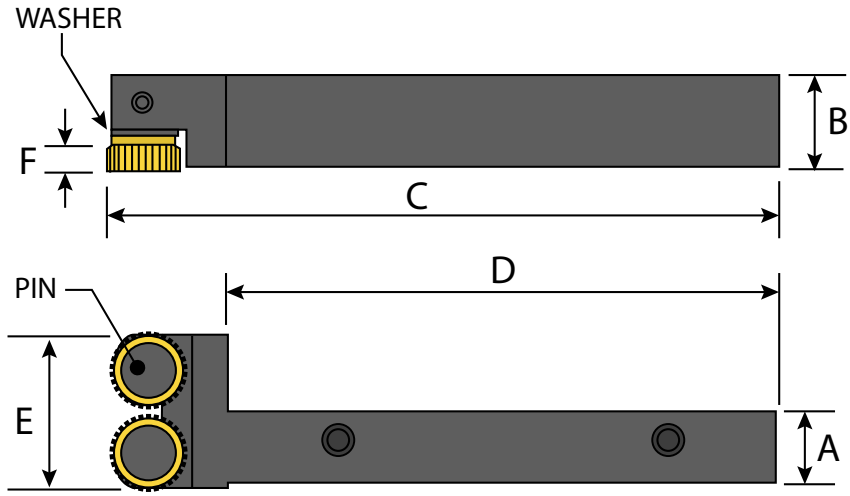


KHB-1W2R-500: Single Bump Knurling Holder for Shoulder
Clearence- .500"x.625"
Shank- .875 Head Height

KHB-1W2R-625: Single Bump Knurling Holder for Shoulder
Clearence- .625"x.625"
Shank- .875 Head Height

DOUBLE-DIE W2 SERIES BUMP-STYLE KNURL HOLDERS (Up To The Shoulder)

Item No.	Description	Vendor	Knurl Series	A	B	C	D	E	F
2025-000131	KHB-2W2R-500	OR 2W2R08	W2	0.500in	0.625in	4.535in	3.75in	1.150in	0.188in
2025-000132	KHB-2W2R-625	OR 2W2R10	W2	0.625in	0.625in	4.535in	3.75in	1.150in	0.188in



KHB-2W2R-500: Single Bump Knurling Holder for Shoulder
Clearence- .500"x.625"
Shank- .875 Head Height

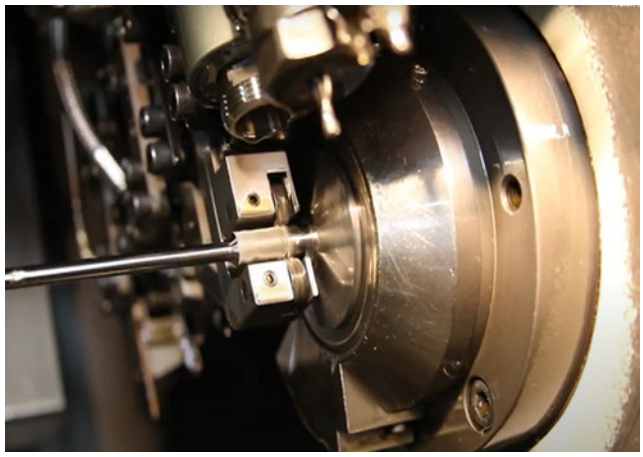
KHB-2W2R-625: Single Bump Knurling Holder for Shoulder
Clearence- .625"x.625"
Shank- .875 Head Height

W2 Series Knurl Die For Axial Feeding - Inch

Knurl Series	Wheel Dimensions	Straight Tooth	30° Right Hand	30° Left Hand	Available Pitch Teeth Per Inch (TPI)
	OD x ID x Width				
W2	1/2 x 1/4 x 1/4	KDS-W2SX	KDR-W2RX	KDL-W2LX	TPI: 16, 20, 25, 30, 35, 40, 50, 80
All Wheels Also Available in DIAMETRAL PITCH Configurations: 64DP, 96DP, 128DP, 160DP					

Knurling Speeds and Feeds

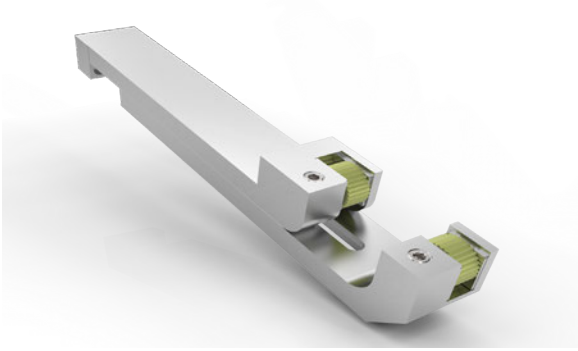
For convenience, knurling is often performed at the same speeds used for turning operations when using high speed steel tool bits. But to prevent seizing of the rolls on the pin, we recommend a maximum surface speed of about 150 SFPM (Feet/Min) or 50 m/min. You may find you get longer knurl life and improved appearance by slowing down the spindle to about 50 SFPM (15 m/min) for harder steels and stainless. CARBIDE knurl pins are strongly recommended for all high speed knurl applications. DOWEL pins with a plus tolerance SHOULD NOT be used because of the possibility of the knurls seizing up and breaking.



For BUMP knurling with a SINGLE TOOL HOLDER from the cross-slide, the infeed would normally be .001-.004"/rev (.025 - .1mm) to roll the part complete 5/20 revolutions. When knurling stainless steels, it is important not to roll any longer than necessary as this material work hardens as it is formed. The total amount the tool penetrates into the workpiece is approximately 50% of the tooth depth of the wheel. You may have to travel more than this amount to allow for the flexing of the part or holder due to rolling pressure. Some trial and error will be required.



If you are using a two die STRADDLE HOLDER, the infeed rate should be 5 or 10 times faster because the wheels are coming in tangentially instead of head on. Before knurling, the holder should be set so that the distance between the two wheels is smaller than the workpiece diameter by approximately the depth of the knurl tooth. Then to knurl, move the holder so that the two wheels are as close to the centerline as possible to minimize the knurling pressure on work spindle and cross slide.





Knurling Speeds and Feeds

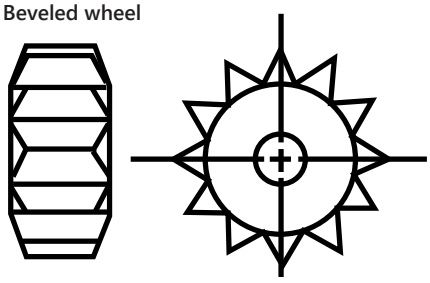
Material	Recommended SFPM [ft/Min]
Acetal (Delrin)	90-130 SFM [27-40] M/MIN
Aluminum and its alloys	90-130 SFM [27-40] M/MIN
Brass (360 high machining)	90-130 SFM [27-40] M/MIN
Bronze (high tensile)	90-130 SFM [27-40] M/MIN
Hastelloy	35-50 SFM [10-15 M/MIN]
Inconel	35-50 SFM [10-15 M/MIN]
Monel	35-50 SFM [10-15 M/MIN]
High nickel steel	35-50 SFM [10-15 M/MIN]
Mild steel (.2-.3 C)	50-70 SFM [15-21 M/MIN]
Steel (.4-.5 C)	50-70 SFM [15-21 M/MIN]
Tool steel	35-50 SFM [10-15 M/MIN]
Steel alloys (300-400 Brinell)	35-50 SFM [10-15 M/MIN]
Stainless steel (free machining)	50-70 SFM [15-21 M/MIN]
Stainless (work hardening)	35-50 SFM [10-15 M/MIN]
Titanium alloys	50-70 SFM [15-21 M/MIN]
Heat Treated Steels	
35-40 Rockwell C	35-50 SFM [10-15 M/MIN]
40-45 Rockwell C	35-50 SFM [10-15 M/MIN]
45-50 Rockwell C	35-50 SFM [10-15 M/MIN]
50-55 Rockwell C	35-50 SFM [10-15 M/MIN]

Material	Recommended Feed per Rev [in/Rev]
Acetal (Delrin)	.008 to .020
Aluminum and its alloys	.008 to .020
Brass (360 high machining)	.008 to .020
Bronze (high tensile)	.008 to .020
Hastelloy	.004 to .009
Inconel	.004 to .009
Monel	.004 to .009
High nickel steel	.004 to .009
Mild steel (.2-.3 C)	.006 to .012
Steel (.4-.5 C)	.006 to .012
Tool steel	.004 to .009
Steel alloys (300-400 Brinell)	.004 to .009
Stainless steel (free machining)	.008 to .020
Stainless steel (work hardening)	.004 to .009
Titanium alloys	.004 to .009
Heat Treated Steels	
35-40 Rockwell C	.004 to .009
40-45 Rockwell C	.004 to .009
45-50 Rockwell C	.004 to .009
50-55 Rockwell C	.004 to .009

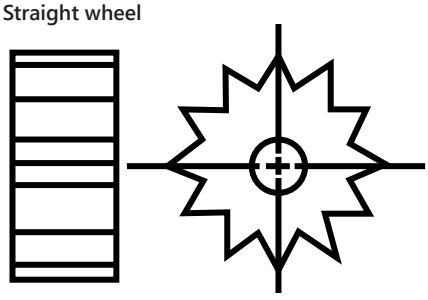
In-Feed approximate Rev			
T.P.I.	ALUMINUM & BRASS	MILD STEEL	ALLOY STEEL
12	12	15	25
16-20	10	13	22
25-35	8	11	20
40-80	6	9	18

End-Feed approximate Feed Per Rev			
T.P.I.	ALUMINUM & BRASS	MILD STEEL	ALLOY STEEL
12	.008	.006	.004
16-20	.010	.008	.005
25-35	.013	.010	.007
40-80	.017	.012	.009

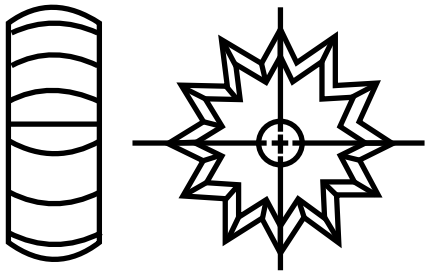
Beveled wheel



Straight wheel



Convex wheel



Thread Rolling Holders & Dies

Create Rapid Thread Forms At Industry Standards

Thread rolling is a quick way to create standard right hand and left hand metric, UNC, and UNF thread forms. This new line of product compliments bar stocks up to 17mm and come in styles supporting both 2 and 3 dies. VDI, HSK, and straight shank types are available and come in several sizes.





Medical • Automotive • Aerospace

Thread Rolling Die Holders

Part No.	Max Bar Stock Ø	Head Ø	Head Length	Thread Type	Tool Type	# Of Thread Dies	Available Shanks
F001	7.0mm	40mm	65.4mm	Right Hand	Static	3	**Straight Shank: 16mm, 20mm, .625in, .75in**
F001L	7.0mm	40mm	65.4mm	Left Hand	Static	3	
F0	11.5mm	50mm	46.0mm	Right Hand	Static	2	**Straight Shank: 20mm, 25mm, .75in, 1.0in, 1.25in** **VDI Shanks: 20mm, 25mm, 30mm** **HSK Shanks: HSK-A63**
F0L C1	11.5mm	50mm	46.0mm	Left Hand	Static	2	
K0 C1	11.5mm	55mm	46.0mm	Right Hand	Static/Rotating	2	
K0L C1	11.5mm	55mm	46.0mm	Left Hand	Static/Rotating	2	
F1 EVO	17.0mm	64mm	61.0mm	Right Hand	Static	3	
F1L EVO	17.0mm	64mm	61.0mm	Left Hand	Static	3	
K1 EVO	17.0mm	64mm	61.0mm	Right Hand	Static/Rotating	3	
K1L EVO	17.0mm	64mm	61.0mm	Left Hand	Static/Rotating	3	



Thread Rolling Dies

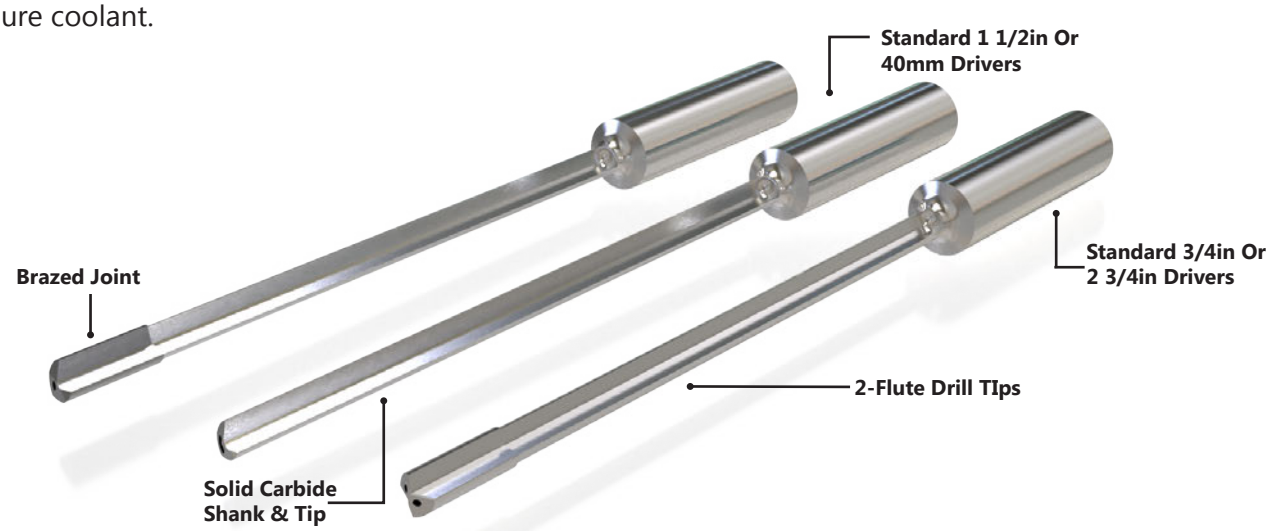
Thread Roll Die Standard	Size Range	# Of Leads
Metric	1.4x0.3 to 10.0x1.5	1 or 2
Metric Fine Pitch	8.0x0.75 to 11.0x1.25	1 or 2
UNC	1-64 to 12-24	1 or 2
UNF	0-80 to 7/16-20	1 or 2

Left & Right Hand Forms Are Available

High Precision Gun Drills

For Applications That Require Holes Of Extreme Length

When your application requires a precision drilled deep hole up to 256x's the diameter, gun drills are the tool for the job. GenSwiss provides both solid carbide and standard steel standard sized drills with diameters down to 5/64in and OAL's as long as 48in. Custom drills can be ordred and designed with the proper material intended for the application. Gun drills are available with coolant-thru holes for high pressure coolant.

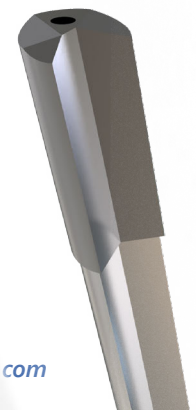


Dental • Defense • Energy

Standard 1-Flute

Diameter (in)	OALs (in)
5/64	6, 10
3/32	6, 10, 16
7/64	6, 10, 16, 28
1/8	10, 16, 22
9/64	10, 16, 22
5/32	10, 16, 22
11/64	10, 16, 22
3/16	10, 16, 22, 28, 36, 48
13/64	10, 16, 22, 28, 36
7/32	10, 16, 22, 28, 36
15/64	10, 16, 22, 28, 36
1/4	10, 16, 22, 28, 36, 48

- **Brazed Joint**



Solid Carbide, Standard 1-Flute

Diameter Range (in)	OAL Range (in)
.0450-.0619	4.0 - 6.5
.0530-.0619	4.0 - 7.8
.0620-.0759	4.0 - 11.5
.0760-.0849	5.0 - 11.5
.0850-.1059	5.0 - 11.5
.1060-.1399	6.0 - 11.5
.1400-.1620	6.0 - 13.5

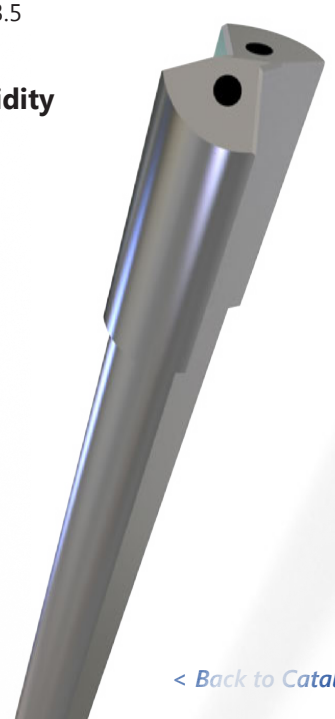
- **No Brazed Joint**
- **Increased Strength & Rigidity**
- **Maximum Feed Rates**
- **Better Tool Life**



Custom TWINMASTER 2-Flute

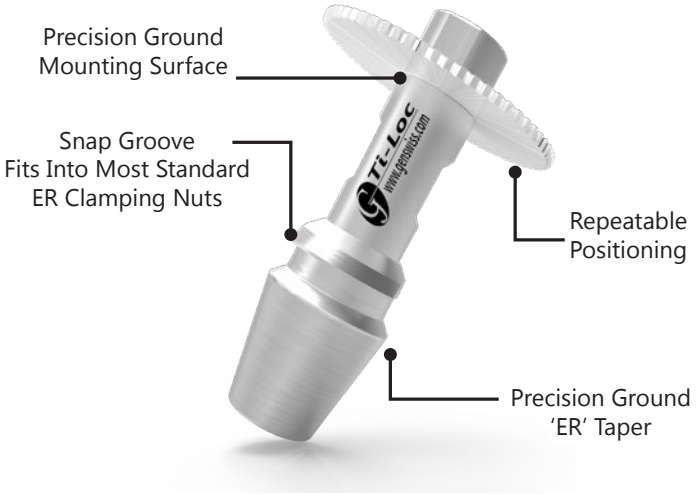
Diameter Range (in)	OAL (in)
.197-.500	To Order
.501-.750	To Order

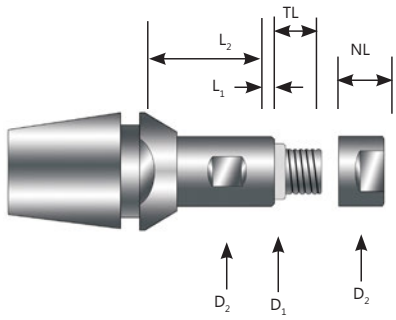
- **Faster Feed Rates**
- **Double the Coolant For Chip Evacuation**



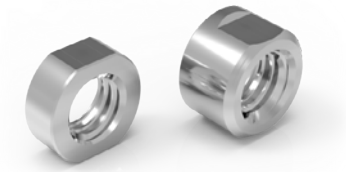
MICRO TOOL HOLDERS FOR SLITTING SAWS

Ti-Loc® Slitting Saw Arbors





All Ti-Loc Saw Arbors Include
(2) Saw Clamping Nuts



Nut w/Smaller Width For Clamping Thicker Saws

Standard Nut For Clamping Standard Saws

The Ti-Loc tool directly mounts into any ER Taper Live or Static Tool Position. Simply insert the Ti-Loc holder into most ER nuts and twist to align the locking cam profile just as you would any ER collet. It comes standard with ER11, ER16 and ER20 taper arbors that serve as their own collet, eliminating the need for a two-piece arbor system.

ER11 Saw Arbors (Inch)		SAW ID	BODY DIAMETER	JOURNAL THICKNESS	EXTENSION LENGTH	NUT LENGTH	THREAD LENGTH
Item No.	Description	D_1	D_2	L_1	L_2	NL	TL
4800-000208	SAT-11-3.18-064100	.1250in	6.40mm	.045mm	10.00mm	5.00mm	5.00mm
4800-000209	SAT-11-3.18-064140	.1250in	6.40mm	.045mm	14.00mm	5.00mm	5.00mm
4800-000210	SAT-11-3.18-064190	.1250in	6.40mm	.045mm	19.00mm	5.00mm	5.00mm
4800-000224	SAT-11-3.18-064250	.1250in	6.40mm	.045mm	25.00mm	5.00mm	5.00mm
4800-000212	SAT-11-4.76-080100	.1875in	8.00mm	.045mm	10.00mm	5.00mm	6.35mm
4800-000213	SAT-11-4.76-080140	.1875in	8.00mm	.045mm	14.00mm	5.00mm	6.35mm
4800-000214	SAT-11-4.76-080190	.1875in	8.00mm	.045mm	19.00mm	5.00mm	6.35mm
4800-000225	SAT-11-4.76-080250	.1875in	8.00mm	.045mm	25.00mm	5.00mm	6.35mm

ER11 Saw Arbors (Metric)		SAW ID	BODY DIAMETER	JOURNAL THICKNESS	EXTENSION LENGTH	NUT LENGTH	THREAD LENGTH
Item No.	Description	D_1	D_2	L_1	L_2	NL	TL
4800-000205	SAT-11-3.00-064100	3.00mm	6.40mm	1.00mm	10.00mm	5.00mm	5.00mm
4800-000206	SAT-11-3.00-064140	3.00mm	6.40mm	1.00mm	14.00mm	5.00mm	5.00mm
4800-000207	SAT-11-3.00-064190	3.00mm	6.40mm	1.00mm	19.00mm	5.00mm	5.00mm
4800-000223	SAT-11-3.00-064250	3.00mm	6.40mm	1.00mm	25.00mm	5.00mm	5.00mm
4800-000216	SAT-11-5.00-080100	5.00mm	8.00mm	1.00mm	10.00mm	5.00mm	6.35mm
4800-000217	SAT-11-5.00-080140	5.00mm	8.00mm	1.00mm	14.00mm	5.00mm	6.35mm
4800-000218	SAT-11-5.00-080190	5.00mm	8.00mm	1.00mm	19.00mm	5.00mm	6.35mm
4800-000226	SAT-11-5.00-080250	5.00mm	8.00mm	1.00mm	25.00mm	5.00mm	6.35mm
4800-000220	SAT-11-6.00-080100	6.00mm	8.00mm	1.00mm	10.00mm	6.35mm	8.00mm
4800-000221	SAT-11-6.00-080140	6.00mm	8.00mm	1.00mm	14.00mm	6.35mm	8.00mm
4800-000222	SAT-11-6.00-080190	6.00mm	8.00mm	1.00mm	19.00mm	6.35mm	8.00mm
4800-000227	SAT-11-6.00-080250	6.00mm	8.00mm	1.00mm	25.00mm	6.35mm	8.00mm

ER16 Saw Arbors (Inch)		SAW ID	BODY DIAMETER	JOURNAL THICKNESS	EXTENSION LENGTH	NUT LENGTH	THREAD LENGTH
Item No.	Description	D_1	D_2	L_1	L_2	NL	TL
4800-000148	SAT-16-3.18-064180	.1250in	.2519in	.0017in	.7086in	0.25in	.2559in
4800-000149	SAT-16-3.18-064240	.1250in	.2519in	.0017in	.9448in	0.25in	.2559in
4800-000151	SAT-16-4.76-095180	.1875in	.3740in	.0017in	.7086in	0.25in	.2559in
4800-000154	SAT-16-4.76-095240	.1875in	.3740in	.0017in	.9448in	0.25in	.2559in
4800-000158	SAT-16-6.35-095180	.2500in	.3740in	.0017in	.7086in	0.25in	.2559in
4800-000162	SAT-16-6.35-095240	.2500in	.3740in	.0017in	.9448in	0.25in	.2559in
4800-000190	SAT-16-7.94-100180	.3125in	.3937in	.0017in	.7086in	0.25in	.2559in
4800-000168	SAT-16-7.94-100240	.3125in	.3937in	.0017in	.9448in	0.25in	.2559in
4800-000294	SAT-16-7.94-100500	.3125in	.3937in	.0017in	1.9685in	0.25in	.2559in

ER16 Saw Arbors (Metric)		SAW ID	BODY DIAMETER	JOURNAL THICKNESS	EXTENSION LENGTH	NUT LENGTH	THREAD LENGTH
Item No.	Description	D_1	D_2	L_1	L_2	NL	TL
4800-000146	SAT-16-3.00-064180	3.00mm	6.40mm	1.00mm	18.00mm	6.35mm	6.50mm
4800-000147	SAT-16-3.00-064240	3.00mm	6.40mm	1.00mm	24.00mm	6.35mm	6.50mm
4800-000152	SAT-16-5.00-095180	5.00mm	9.50mm	1.00mm	18.00mm	6.35mm	6.50mm
4800-000185	SAT-16-5.00-095240	5.00mm	9.50mm	1.00mm	24.00mm	6.35mm	6.50mm
4800-000156	SAT-16-6.00-095180	6.00mm	9.50mm	1.00mm	18.00mm	6.35mm	6.50mm
4800-000159	SAT-16-6.00-095240	6.00mm	9.50mm	1.00mm	24.00mm	6.35mm	6.50mm
4800-000191	SAT-16-8.00-100180	8.00mm	10.00mm	1.00mm	18.00mm	6.35mm	6.50mm
4800-000186	SAT-16-8.00-100240	8.00mm	10.00mm	1.00mm	24.00mm	6.35mm	6.50mm

ER20 Saw Arbors (Inch)		SAW ID	BODY DIAMETER	JOURNAL THICKNESS	EXTENSION LENGTH	NUT LENGTH	THREAD LENGTH
Item No.	Description	D_1	D_2	L_1	L_2	NL	TL
4800-000236	SAT-20-3.18-064180	.125in	.2519in	.0017in	.7086in	.25in	.2559in
4800-000237	SAT-20-3.18-064300	.125in	.2519in	.0017in	1.181in	.25in	.2559in
4800-000242	SAT-20-4.76-095180	.1875in	.2519in	.0017in	.7086in	.25in	.3051in
4800-000243	SAT-20-4.76-095300	.1875in	.2519in	.0017in	1.1811in	.25in	.3051in
4800-000257	SAT-20-6.35-095180	.2500in	.3740in	.0017in	.7086in	.25in	.3051in
4800-000258	SAT-20-6.35-095300	.2500in	.3740in	.0017in	1.1811in	.25in	.3051in
4800-000262	SAT-20-7.94-100180	.3125in	.3937in	.0017in	.7086in	.25in	.3051in
4800-000263	SAT-20-7.94-100300	.3125in	.3937in	.0017in	1.1811in	.25in	.3051in
4800-000270	SAT-20-9.52-125180	.3750in	.4921in	.0017in	.7086in	.27in	.3543in
4800-000271	SAT-20-9.52-125300	.3750in	.4921in	.0017in	1.1811in	.27in	.3543in

ER20 Saw Arbors (Metric)		SAW ID	BODY DIAMETER	JOURNAL THICKNESS	EXTENSION LENGTH	NUT LENGTH	THREAD LENGTH
Item No.	Description	D_1	D_2	L_1	L_2	NL	TL
4800-000232	SAT-20-3.00-064180	3.00mm	6.40mm	1.00mm	18.00mm	6.35mm	6.50mm
4800-000233	SAT-20-3.00-064300	3.00mm	6.40mm	1.00mm	30.00mm	6.35mm	6.50mm
4800-000246	SAT-20-5.00-095180	5.00mm	9.50mm	1.00mm	18.00mm	6.35mm	7.75mm
4800-000247	SAT-20-5.00-095300	5.00mm	9.50mm	1.00mm	30.00mm	6.35mm	7.75mm
4800-000252	SAT-20-6.00-095180	6.00mm	9.50mm	1.00mm	18.00mm	6.35mm	8.50mm
4800-000253	SAT-20-6.00-095300	6.00mm	9.50mm	1.00mm	30.00mm	6.35mm	8.50mm
4800-000266	SAT-20-8.00-100180	8.00mm	10.00mm	1.00mm	18.00mm	6.35mm	7.75mm
4800-000267	SAT-20-8.00-100300	8.00mm	10.00mm	1.00mm	30.00mm	6.35mm	7.75mm
4800-000274	SAT-20-10.0-125180	10.00mm	12.50mm	1.00mm	18.00mm	7.00mm	9.00mm
4800-000275	SAT-20-10.0-125300	10.00mm	12.50mm	1.00mm	30.00mm	7.00mm	9.00mm

Signature Series Saw Arbors

Custom Slitting Saw Arbors

GenSwiss has the capability to assist with the engineering and manufacture of special gang slotting arbors that also feature the option of holding an end mill, spot drill or other small round shank rotary tool.

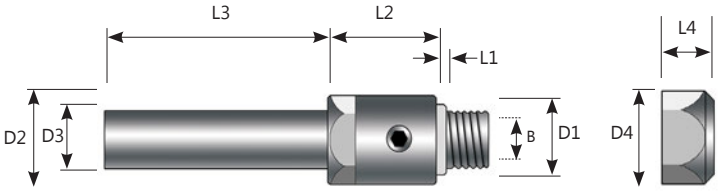
Some features we provide:

- Spacers for gang slotting with multiple blades.
- Custom hub widths (L1 dim.) for oversize blade thicknesses.
- Optional shank sizes for special applications.



Combination Saw Arbors

GenSwiss combination arbors are made from pre-hardened material and exemplify what it means to be called "Swiss Precision". The addition of the combined mill or center drill provides additional tool capacity and setup flexibility.





Combination Saw Arbors - 5015 Series (Inch)

Tool Bore (B)	Hub		Body		Shaft		Nut			
	D1	L1	D2	L2	D3	L3	D4	L4	Item No.	Description
.1181in	.250in	.125in	.375in	.625in	.250in	1.375in	.375in	.375in	5015-000109	SAC-N250-250118
	.312in	.125in	.375in	.625in	.312in	1.375in	.375in	.375in	5015-000111	SAC-N312-312118
	.375in	.125in	.500in	.625in	.375in	1.375in	.500in	.374in	5015-000114	SAC-N375-375118
.1250in	.250in	.125in	.375in	.625in	.250in	1.375in	.375in	.375in	5015-000108	SAC-N250-250125
	.312in	.125in	.375in	.625in	.3125in	1.375in	.375in	.375in	5015-000110	SAC-N312-312125
	.375in	.125in	.500in	.625in	.375in	1.375in	.500in	.375in	5015-000101	SAC-N375-375125
.1875in	.312in	.125in	.375in	.625in	.3125in	1.375in	.375in	.375in	5015-000112	SAC-N312-312187
	.375in	.125in	.500in	.625in	.375in	1.375in	.500in	.375in	5015-000102	SAC-N375-375187

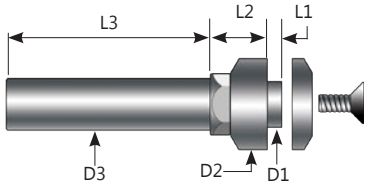
Combination Saw Arbors - 5015 Series (Metric)

Tool Bore (B)	Hub		Body		Shaft		Nut			
	D1	L1	D2	L2	D3	L3	D4	L4	Item No.	Description
3.00mm	8.00mm	3.00mm	8.00mm	16.00mm	8.00mm	35.00mm	9.50mm	9.50mm	5015-000113	SAC-N315-315118
	10.00mm	3.00mm	12.70mm	16.00mm	10.00mm	35.00mm	12.70mm	9.50mm	5015-000115	SAC-N394-394118
.0049mm	8.00mm	3.00mm	9.50mm	16.00mm	8.00mm	35.00mm	9.50mm	9.50mm	5015-000105	SAC-N315-315125
	10.00mm	3.00mm	12.70mm	16.00mm	10.00mm	35.00mm	12.70mm	9.50mm	5015-000106	SAC-N394-394125
.0073mm	8.00mm	3.00mm	9.50mm	16.00mm	8.00mm	35.00mm	9.50mm	9.50mm	5015-000100	SAC-N315-315187
	10.00mm	3.00mm	12.70mm	16.00mm	10.00mm	35.00mm	12.70mm	9.50mm	5015-000103	SAC-N394-394187

Signature Series Saw Arbors

Flange Mount Saw Arbors - 5020 (SAF)

These flanged saw arbors provide maximum saw balance and stability with the flange mount design. The unique design applies pressure to the outward edge of the flange ensuring the greatest gripping power at the outer most edge to prevent slipping. Uses countersunk screw and flange washer to apply holding force. Measured TIR is less than .0002".





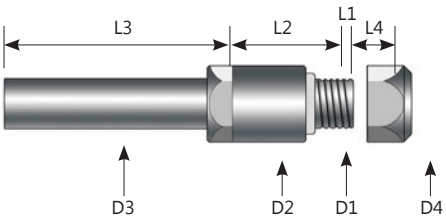
Flange Mount (Inch)		SAW ID	JOURNAL THICKNESS	BODY DIAMETER	EXTENSION LENGTH	SHANK DIAMETER	SHANK LENGTH
Item No.	Description	D1	L1	D2	L2	D3	L3
5021-000006	SAF-047013-473895-M3F	.1874in	.05in	.37in	.47in	.187in	1.50in
5021-000008	SAF-079016-793816-M5F	.3125in	.065in	.625in	.53in	.312in	1.50in
5021-000009	SAF-095025-953816-M6F	.375in	.098in	.625in	.54in	.374in	1.50in
5021-000007	SAF-063013-633811-M4F	.250in	.05in	.448in	.47in	.25in	1.50in
5021-000014	SAF-063028-041611-M4F	.250in	.108in	.448in	.44in	.157in	1.00in
5021-000002	SAF-095011-042511-C11	.3750in	.045in	.450in	.751in	.156in	1.00in

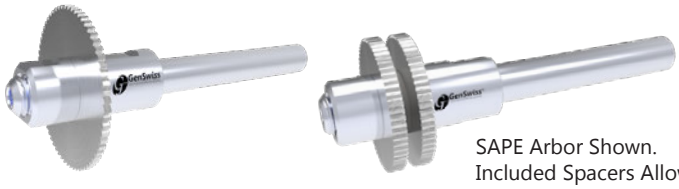
Flange Mount (Metric)		SAW ID	JOURNAL THICKNESS	BODY DIAMETER	EXTENSION LENGTH	SHANK DIAMETER	SHANK LENGTH
Item No.	Description	D1	L1	D2	L2	D3	L3
5020-000100	SAF-050010-503809-M4F	5.00mm	1.00mm	9.00mm	12.00mm	5.00mm	38.0mm
5020-000101	SAF-050010-703812-M4F	5.00mm	1.00mm	12.00mm	12.00mm	7.00mm	38.0mm
5020-000111	SAF-050010-704212-M4F	5.00mm	1.00mm	12.00mm	7.60mm	7.00mm	42.0mm
5020-000103	SAF-080016-703818-M5F	8.00mm	1.60mm	18.00mm	13.00mm	7.00mm	38.00mm
5020-000104	SAF-080016-104514-M5F	8.00mm	1.60mm	14.00mm	14.00mm	10.00mm	45.00mm
5020-000105	SAF-080040-104514-M5F	8.00mm	4.00mm	14.00mm	14.00mm	10.00mm	45.00mm
5021-000010	SAF-095025-071918-M5F	9.52mm	2.50mm	18.00mm	14.00mm	7.00mm	19.00mm
5020-000108	SAF-100025-134520-M6F	10.00mm	2.50mm	20.00mm	16.00mm	13.00mm	45.00mm
5021-000001	SAF-100025-071918-C15	10.00mm	2.50mm	19.00mm	14.00mm	7.00mm	19.00mm
5021-000004	SAF-100025-071918-C18	10.00mm	2.50mm	18.00mm	14.00mm	7.00mm	19.00mm
5020-000106	SAF-130025-134522-M6F	13.00mm	2.50mm	22.00mm	16.00mm	13.00mm	45.00mm
5021-000011	SAF-160025-071919-C19	16.00mm	2.50mm	19.00mm	14.00mm	7.00mm	19.00mm
5020-000107	SAF-160025-134525-M6F	16.00mm	2.50mm	25.00mm	16.00mm	13.00mm	45.00mm

Signature Series Saw Arbors

Precision Saw Arbors - 5025 Series

Our most popular style of slitting saw arbor is available in guaranteed TIR grade SAP (border .0002" TIR) and the extended journal version SAPE. When ULTRA Precision is required the SAP guide is suggested as they are held to stringent quality standards required by discerning Swiss-type machinists.





SAPE Arbor Shown.
Included Spacers Allow For
Double Saw Configuration.

ULTRA Precision (Inch)		SAW ID	JOURNAL THICKNESS	BODY Ø	EXTENSION LENGTH	SHANK DIAMETER	SHANK LENGTH	NUT DIAMETER	NUT LENGTH	
Item No.	**Description**	**D1**	**L1**	**D2**	**L2**	**D3**	**L3**	**D4**	**L4**	**Includes Spacer**
5025-000102	SAP-N1250-1250	.1250in	.025in	.197in	.500in	.125in	1.0in	.197in	.185in	No
5025-000103	SAP-N1875-1875	.1875in	.045in	.315in	.500in	.187in	1.4in	.315in	.305in	No
5025-000104	SAP-N2500-2500	.2500in	.045in	.394in	.500in	.250in	1.4in	.394in	.305in	No
5025-000105	SAP-N3125-3125	.3125in	.045in	.450in	.500in	.312in	1.4in	.450in	.305in	No
5025-000106	SAP-N3750-3750	.3750in	.045in	.500in	.500in	.375in	1.4in	.500in	.305in	No
5025-000107	SAP-N5000-5000	.5000in	.045in	.625in	.500in	.500in	1.4in	.625in	.305in	No
5025-000113	SAPE-N2500-2500-6.0	.2500in	.236in	.453in	.500in	.250in	1.4in	.453in	.349in	Yes

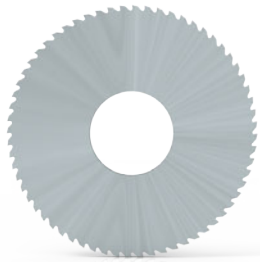
ULTRA Precision (Metric)		SAW ID	JOURNAL THICKNESS	BODY Ø	EXTENSION LENGTH	SHANK DIAMETER	SHANK LENGTH	NUT Ø	NUT LENGTH	
Item No.	**Description**	**D1**	**L1**	**D2**	**L2**	**D3**	**L3**	**D4**	**L4**	**Includes Spacer**
5025-000114	SAP-N0500-0300	5.00mm	1.00mm	8.00mm	11.50mm	3.00mm	38.00mm	8.00mm	6.35mm	No
5025-000100	SAP-N0500-0500	5.00mm	1.00mm	8.0mm	11.50mm	5.00mm	38.00mm	8.00mm	6.35mm	No
5025-000116	SAP-N0507-0738	5.00mm	3.00mm	7.00mm	13.20mm	7.00mm	25.65mm	7.00mm	9.50mm	No
5025-000117	SAP-N1970-1970	5.00mm	3.00mm	7.00mm	16.50mm	5.00mm	30.00mm	7.00mm	9.50mm	No
5025-000101	SAP-N0800-0800	8.00mm	1.00mm	11.50mm	11.30mm	8.00mm	35.00mm	11.50mm	8.00mm	No
5025-000109	SAP-N1000-1000	10.00mm	1.00mm	13.50mm	16.60mm	10.00mm	30.00mm	13.50mm	8.00mm	No
5025-000111	SAPE-N0500-0500-6.0	5.00mm	6.00mm	8.00mm	12.70mm	5.00mm	35.60mm	8.00mm	8.85mm	Yes
5025-000112	SAPE-N0800-0800-6.0	8.00mm	6.00mm	10.00mm	12.70mm	8.00mm	35.60mm	10.00mm	8.85mm	Yes

SOLID CARBIDE SAW BLADES

Genevieve Swiss Industries carries a full line of solid carbide slitting saws directly imported from Switzerland. Available from stock in fine and extra-fine tooth configurations with tooth counts ranging from 40-120 teeth per saw.

Our Solid Carbide Saws Feature:

- **Precision ground accuracy**
- **Superior surface finish**
- **High tooth count for cutting hard metals**
- **Hollow ground side clearance**
- **Full radius, V-cutter, & staggered versions available**
- **Designed and manufactured to the highest quality & standards**



Saw Blade Nomenclature Example:

25mm OD — 1.00mm wide

SSM-2508-100048G

Slitting Saw Metric — 8mm ID — 48 teeth



Width

	Metric Carbide Saws Fine Tooth Configuration						
OD / ID	15mm 5mm	20mm 5mm	25mm 5mm	25mm 8mm	30mm 5mm	30mm 8mm	40mm 10mm
0.10mm (.0039in)	64-80	80-100	80-120	80-120	100-160	100-160	100-160
0.15mm (.0059in)	64-80	80-100	80-120	80-120	100-160	100-160	100-160
0.20mm (.0078in)	64-80	80-100	80-120	80-120	100-160	100-160	100-160
0.25mm (.0098in)	64-80	80-100	80-120	80-120	100-160	100-160	100-160
0.30mm (.0118in)	64-80	80-100	80-120	80-120	100-120	100-120	100-160
0.35mm (.0137in)	64-80	80-100	80-120	80-120	100-120	100-120	100-160
0.40mm (.0157in)	80	80-100	80-120	80-120	100-120	100-120	100-160
0.50mm (.0196in)	80	80-100	80-120	80-120	100-120	100-120	100-160
0.55mm (.0216in)	80	80-100	80-120	80-120	100-120	100-120	100-160
0.60mm (.0236in)	80	80-100	80-120	80-120	100-120	100-120	100-160
0.70mm (.0275in)	80	80-100	80-120	80-120	100-120	100-120	100-160
0.80mm (.0314in)	80	80-100	80-100	80-100	100-120	100-120	100-160
0.85mm (.0334in)	80	80-100	80-100	80-100	100-120	100-120	100-160
0.90mm (.0354in)	80	80-100	80-100	80-100	100-120	100-120	100-160
1.00mm (.0393in)	80	80-100	80-100	80-100	100-120	100-120	100-160
1.05mm (.0413in)	80	80-100	80-100	80-100	100-120	100-120	100-160
1.125mm (.0442in)	80	80-100	80-100	80-100	100-120	100-120	100-160
1.15mm (.0452in)	80	80-100	80-100	80-100	100-120	100-120	100-160
1.20mm (.0472in)	80	80-100	80-100	80-100	100-120	100-120	100-160
1.25mm (.0492in)	80	80-100	80-100	80-100	100-120	100-120	100-160
1.30mm (.0511in)	80	80-100	80-100	80-100	100-120	100-120	100-160
1.40mm (.0551in)	80	80-100	80-100	80-100	100-120	100-120	100-160
1.50mm (.0590in)	80	80-100	80-100	80-100	100-120	100-120	100-160
1.60mm (.0629in)	80	80	80-100	80-100	100-120	100-120	100-160
1.70mm (.0669in)	80	80	80-100	80-100	100-120	100-120	100-160
2.00mm (.0787in)	80	80	80-100	80-100	100-120	100-120	100-160
2.20mm (.0866in)	80	80	80-100	80-100	100-120	100-120	100-160
2.50mm (.0984in)	80	80	80-100	80-100	100-120	100-120	100-160
3.00mm (.1181in)	80	80	80-100	80-100	100-120	100-120	100-160
	NUMBER OF TEETH Typical Width Tolerance: +/- .0002in (.005mm)						

	Metric Carbide Saws Standard Tooth Configuration						
OD / ID	15mm 5mm	20mm 5mm	25mm 5mm	25mm 8mm	30mm 5mm	30mm 8mm	40mm 10mm
	16-48	20-64	20-80	20-80	30-100	30-100	40-100
	16-48	20-64	20-80	20-80	30-100	30-100	40-100
	16-48	20-64	20-80	20-80	30-100	30-100	40-100
	16-48	20-64	20-80	20-80	30-100	30-100	40-100
	16-48	20-64	20-80	20-80	30-100	30-100	40-100
	16-48	20-64	20-80	20-80	30-100	30-100	40-100
	16-48	20-64	20-64	20-64	30-100	30-100	40-80
	16-48	20-60	20-64	20-64	30-100	30-100	40-80
	16-48	20-60	20-64	20-64	30-100	30-100	40-80
	16-48	20-60	20-64	20-64	30-100	30-100	40-80
	16-48	20-60	20-64	20-64	30-100	30-100	40-80
	16-48	20-60	20-48	20-48	30-100	30-100	40-80
	16-40	20-48	20-48	20-48	30-100	30-100	40-80
	16-40	20-48	20-48	20-48	30-100	30-100	32-70
	16-40	20-48	20-48	20-48	30-100	30-100	32-70
	16-40	20-48	20-48	20-48	30-100	30-100	32-70
	16-40	20-48	20-48	20-48	30-100	30-100	32-70
	16-40	20-48	20-48	20-48	30-100	30-100	32-70
	16-40	20-48	20-48	20-48	30-100	30-100	32-64
	16-40	20-48	20-40	20-40	30-100	30-100	32-64
	16-32	20-40	20-48	20-48	30-100	30-100	32-64
	16-32	20-32	20-48	20-48	30-100	30-100	32-64
	16-32	20-32	20-48	20-48	30-100	30-100	32-64
	16-32	20-32	20-40	20-40	30-100	30-100	32-64
	16-32	20-32	20-40	20-40	30-100	30-100	32-64
	16-32	20-32	20-40	20-40	30-100	30-100	24-48
	16-32	20-32	20-40	20-40	30-100	30-100	24-48
	16-32	20-32	20-40	20-40	30-100	30-100	24-48
	16-32	20-32	20-40	20-40	30-100	30-100	24-48
	16-32	20-32	20-40	20-40	24-100	24-100	24-48
	NUMBER OF TEETH Typical Width Tolerance: +/- .0002in (.005mm)						

Inch Sized Carbide Saws Coarse Tooth Configuration						
OD / ID	1/4in 1/8in	1/2in 1/8in, 3/16in	5/8in 1/4in	3/4in 1/4in or 5/16in	1.00in 1/4in or 3/8in	1-1/4in 5/16in or 3/8in
TEETH	12	14	16	18	20	22
Width Range = .010" - .065"						



GenGrip

Drill Bushings & Hydraulic Clamping

GenSwiss® coolant-thru drill bushings and precision hydraulic clamping ID tool holders feature rigid holding at multiple price points. GenSwiss® drill and boring sleeves feature precision ground inch and metric shanks and are a robust method for holding drills and boring bars to tight tolerances.

The GenSwiss® hydraulic clamping system is perfect for micro tools, extending tool life with vibration dampening and exceptional TIRs down to .00004in. An array of coolant-thru reduction sleeves further increases the compatibility of this rigid tool holding system and fits shank sizes down to 3mm.

- **Set Screws For Large Tool Bores & Economy**
- **Easy Clamping Hydraulic System For Micro Tools**
- **Maintains Exceptional TIR Down To (.00004in)**
- **Activate Clamping From Front Or Rear Of Tool Block**
- **Extended Tool Life With Vibration Dampening**
- **High Boring Bar Positioning Accuracy**
- **Coolant-Thru**



GenGrip Keeps Your ID Tool Straight And On Center

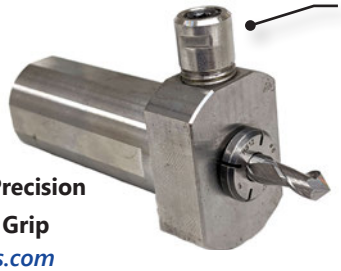


Ultra Precision Hydro Grip

Coolant-Thru Input

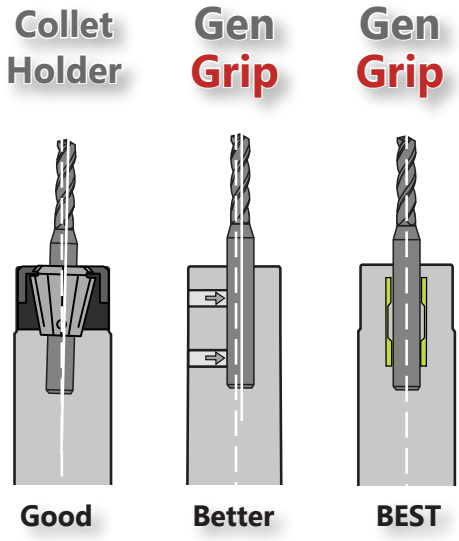
Oil Safety Access

Hydraulic Clamp Adjustment



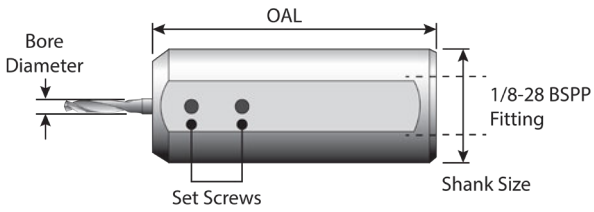
Hydraulic Clamp Adjustment

High Precision Hydro Grip



GenGrip - Drill Bushings

GenSwiss drill sleeves are a new product designed and manufactured by GenSwiss. These sleeves have precision ground inch and metric shanks and are a robust method for holding drills to tight tolerances. Each GenSwiss drill sleeve features coolant-thru holes, enabling coolant delivery to your coolant-thru drills. Standard tool bore sizes range from 3-8mm, but drill sleeves can be made to order.



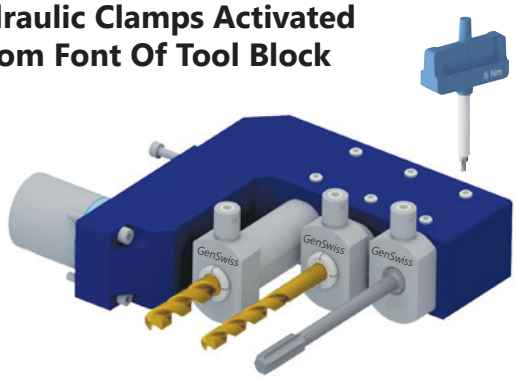


Item No.	Description	Shank Size	OAL	Set Screw	Bore Diameter
1027-000100	CTS-3.00-158760		3in	M4	3mm
1027-000101	CTS-3.18-158760		3in	M4	1/8in
1027-000102	CTS-4.00-158760		3in	M4	4mm
1027-000103	CTS-4.76-158760	**5/8in**	3in	M4	3/16in
1027-000104	CTS-6.00-158760		3in	M6	6mm
1027-000105	CTS-6.35-158760		3in	M6	1/4in
1027-000106	CTS-7.94-158760		3in	M6	5/16in
1027-000107	CTS-8.00-158760		3in	M6	8mm
1027-000146	CTS-1.50-190760		3in	M4	1.5mm
1027-000108	CTS-3.00-190760		3in	M4	3mm
1027-000109	CTS-3.18-190760		3in	M4	1/8in
1027-000110	CTS-4.00-190760		3in	M4	4mm
1027-000111	CTS-4.76-190760		3in	M4	3/16in
1027-000147	CTS-4.76-190760	**3/4in**	3in	M4	5mm
1027-000112	CTS-6.00-190760		3in	M6	6mm
1027-000113	CTS-6.35-190760		3in	M6	1/4in
1027-000114	CTS-7.94-190760		3in	M6	5/16in
1027-000115	CTS-8.00-190760		3in	M6	8mm
1027-000150	CTS-12.00-190760		3in	M8	12mm
1027-000116	CTS-3.00-200760		3in	M4	3mm
1027-000117	CTS-3.18-200760		3in	M4	1/8in
1027-000118	CTS-4.00-200760		3in	M4	4mm
1027-000119	CTS-4.76-200760		3in	M4	3/16in
1027-000145	CTS-12.70-200760	**20mm**	3in	M8	.5in
1027-000120	CTS-6.00-200760		3in	M6	6mm
1027-000121	CTS-6.35-200760		3in	M6	1/4in
1027-000122	CTS-7.94-200760		3in	M6	5/16in
1027-000123	CTS-8.00-200760		3in	M6	8mm
1027-000124	CTS-3.00-220760		3in	M4	3mm
1027-000125	CTS-3.18-220760		3in	M4	1/8in
1027-000126	CTS-4.00-220760		3in	M4	4mm
1027-000127	CTS-4.76-220760		3in	M4	3/16in
1027-000128	CTS-6.00-220760		3in	M6	6mm
1027-000129	CTS-6.35-220760	**22mm**	3in	M6	1/4in
1027-000130	CTS-7.94-220760		3in	M6	5/16in
1027-000131	CTS-8.00-220760		3in	M6	8mm
1027-000149	CTS-8.00-220760		3in	M6	14mm
1027-000152	CTS-10.00-220760		3in	M8	10mm
1027-000151	CTS-12.00-220760		3in	M8	12mm
1027-000149	CTS-14.00-220760		3in	M6	14mm
1027-000132	CTS-3.00-254760		3in	M4	3mm
1027-000133	CTS-3.18-254760		3in	M4	1/8in
1027-000134	CTS-4.00-254760		3in	M4	4mm
1027-000135	CTS-4.76-254760		3in	M4	3/16in
1027-000136	CTS-6.00-254760		3in	M6	6mm
1027-000137	CTS-6.35-254760		3in	M6	1/4in
1027-000138	CTS-7.94-254760		3in	M6	5/16in
1027-000139	CTS-8.00-254760	**1in**	3in	M6	8mm
1027-000142	CTS-10.00-254760		3in	M8	10mm
1027-000148	CTS-12.00-254760		3in	M8	12mm
1027-000141	CTS-13.00-254760		3in	M8	13mm
1027-000140	CTS-14.00-254760		3in	M8	14mm
1027-000144	CTS-14.26-254760		3in	M8	.5615in
1027-000143	CTS-14.27-254760		3in	M8	.5620in

GenGrip - Front Activated (High Precision)

Hydraulic Clamps Activated From Font Of Tool Block







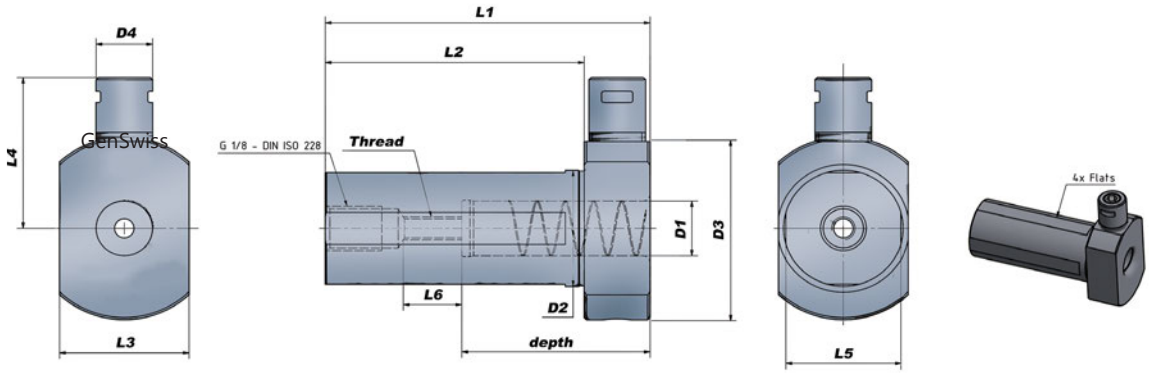
Set screws are used to clamp on the milled flat, after adjusting the length of the assembly.

Hydraulic Clamping - Front Activated

Dimensions (mm)

Item No.	Description	D1	D2	D3	D4	L1	L2	L3	L4	L5	L6	Depth	Thread
1033-000158	HYC-12-1905-064F	12	19.05	40	12	64	50	21.5	33	18.05	7	40	M5x0.8 - 6H
1033-000159	HYC-12-1905-089F	12	19.05	40	12	89	75	21.5	33	18.05	16	40	M5x0.8 - 6H
Call For Details	HYC-12-2000-089F	12	20	40	12	89	75	24.5	33	19	16	40	M5x0.8 - 6H
1033-000109	HYC-12-2500-164F	12	25	40	12	164	150	27.5	33	24	16	40	M5x0.8 - 6H
Call For Details	HYC-12-2504-069F	12	25.4	40	12	69	55	27.5	33	24.4	12	40	M5x0.8 - 6H
Call For Details	HYC-12-2504-114F	12	25.4	40	12	114	100	27.5	33	24.4	16	40	M5x0.8 - 6H

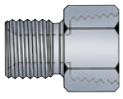
NOTE: Use with torque wrench 1033-000132





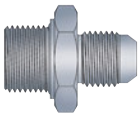
Torque Wrench:

Use preset Torque Wrench to ensure correct mounting of tools.
6 Nm - Part no. **1033-000132**



Adapters:

Male G 1/8" to Female 1/8" NPT
Part no. **1033-000154**



Male G 1/8" to Male 1/4" JIC
Part no. **1033-000153**

Reduction Sleeves

GenGrip (high precision) can be used with reduction sleeves, providing a wide range of tool sizes for hydraulic clamping. GenGrip does not utilize ER collets.

Minimal Flex
High Acuracy
3mm - 10mm Bore Sizes



Item No.	Description	Tool Size	Coolint Type
1033-000133	HYCS-12-3.00	3mm	Internal
1033-000134	HYCS-12-3.00-CF	3mm	External
1033-000135	HYCS-12-3.17	3.17mm	Internal
1033-000136	HYCS-12-4.00	4mm	Internal
1033-000137	HYCS-12-4.00-CF	4mm	External
1033-000138	HYCS-12-4.76	4.76mm	Internal
1033-000139	HYCS-12-5.00	5mm	Internal
1033-000140	HYCS-12-5.00-CF	5mm	External
1033-000141	HYCS-12-6.00	6mm	Internal
1033-000142	HYCS-12-6.00-CF	6mm	External
1033-000143	HYCS-12-6.35	6.35mm	Internal
1033-000144	HYCS-12-7.00	7mm	Internal
1033-000145	HYCS-12-7.94	7.94mm	Internal
1033-000146	HYCS-12-8.00	8mm	Internal
1033-000147	HYCS-12-8.00-CF	8mm	External
1033-000148	HYCS-12-9.00	9mm	Internal
1033-000149	HYCS-12-9.52	9.52mm	Internal
1033-000150	HYCS-12-10.0	10mm	Internal

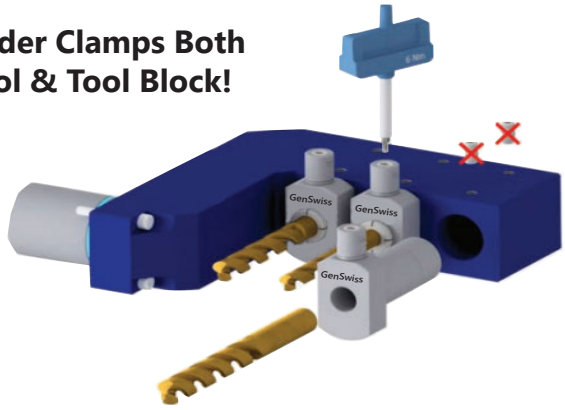
CAUTION

To prevent damage to the holder, round tool shanks without flats and with H6 tolerance MUST be used. Tool MUST be in the holder when clamping. Torque wrench REQUIRED.

GenGrip - Dual Action (High Precision)



Holder Clamps Both Tool & Tool Block!



Hydraulic clamping against tool and block.



Block/holder set screws are NOT used!

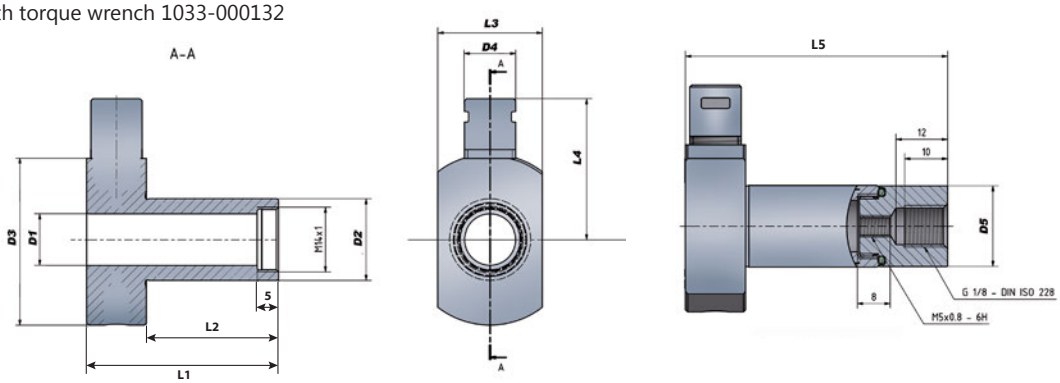
Hydraulic Clamping - Dual Action

Dimensions (mm)

Item No.	Description	D1	D2	D3	D4	L1	L2	L3	L4	Dimensions With Back Stop / Coolant Port L5	D5	Back Stop / Coolant Port Compatible
1033-000100	HYC-12-1905-045D	12	19.05	40	12	45	31	21.5	33	61	18.85	Yes
1033-000101	HYC-12-2000-045D	12	20	40	12	45	31	24.5	33	61	18.85	Yes
1033-000102	HYC-12-2200-045D	12	22	40	12	45	31	24.5	33	61	18.85	Yes
1033-000103	HYC-12-2500-045D	12	25	40	12	45	31	27.5	33	61	18.85	Yes
1033-000104	HYC-12-2504-045D	12	25.4	40	12	45	31	27.5	33	61	18.85	Yes
1033-000105	HYC-20-2500-044D	20	25	44	12	44	30	27.5	35			
1033-000106	HYC-20-2504-044D	20	25.4	44	12	44	30	27.5	35			
1033-000155	HYC-25-3175-048D	25	31.75	50	12	48	34	34.5	38			
1033-000107	HYC-25-3200-048D	25	32	50	12	48	34	34.5	38			



NOTE: Use with torque wrench 1033-000132





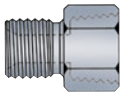
Torque Wrench:

Use preset Torque Wrench to ensure correct mounting of tools. 6 Nm - Part no. **1033-000132**



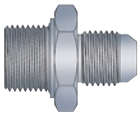
Coolant Port:

Coolant Port G 1/8", Backstop screw M5x0.8-16, Part no. **1033-000151**



Adapters:

Male G 1/8" to Female 1/8" NPT
Part no. **1033-000154**



Male G 1/8" to Male 1/4" JIC
Part no. **1033-000153**

Reduction Sleeves

GenGrip (High Precision) can be used with reduction sleeves, providing a wide range of tool sizes for hydraulic clamping. GenGrip does not utilize ER-Collets.

Minimal Flex
High Acuracy
3mm - 10mm Bore Sizes



Item No.	Description	Tool Size	Coolint Type
1033-000133	HYCS-12-3.00	3mm	Internal
1033-000134	HYCS-12-3.00-CF	3mm	External
1033-000135	HYCS-12-3.17	3.17mm	Internal
1033-000136	HYCS-12-4.00	4mm	Internal
1033-000137	HYCS-12-4.00-CF	4mm	External
1033-000138	HYCS-12-4.76	4.76mm	Internal
1033-000139	HYCS-12-5.00	5mm	Internal
1033-000140	HYCS-12-5.00-CF	5mm	External
1033-000141	HYCS-12-6.00	6mm	Internal
1033-000142	HYCS-12-6.00-CF	6mm	External
1033-000143	HYCS-12-6.35	6.35mm	Internal
1033-000144	HYCS-12-7.00	7mm	Internal
1033-000145	HYCS-12-7.94	7.94mm	Internal
1033-000146	HYCS-12-8.00	8mm	Internal
1033-000147	HYCS-12-8.00-CF	8mm	External
1033-000148	HYCS-12-9.00	9mm	Internal
1033-000149	HYCS-12-9.52	9.52mm	Internal
1033-000150	HYCS-12-10.0	10mm	Internal

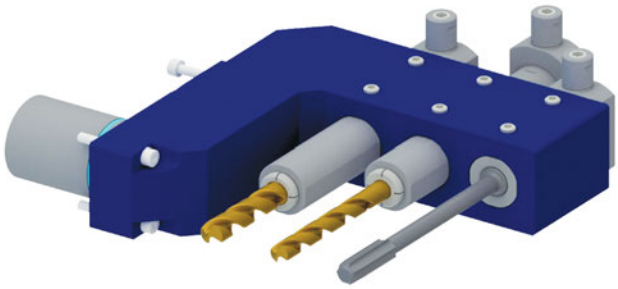
CAUTION

To prevent damage to the holder, round tool shanks without flats and with H6 tolerance MUST be used. Tool MUST be in the holder when clamping. Torque wrench REQUIRED.

GenGrip - Rear Activated (High Precision)

Hydraulic Clamps Activated From Back Of Tool Block









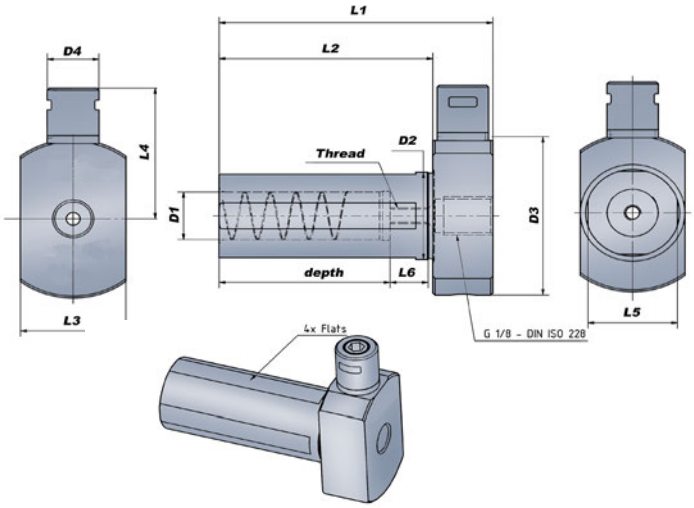
Set screws are used to clamp on the milled flat, after adjusting the length of the assembly.

Hydraulic Clamping - Rear Activated

Dimensions (mm)

Item No.	Description	D1	D2	D3	D4	L1	L2	L3	L4	L5	L6	Depth	Thread
1033-000110	HYC-12-1905-064B	12	19.05	40	12	64	50	21.5	33	21	9	40	M5x0.8 - 6H
1033-000111	HYC-12-1905-089B	12	19.05	40	12	89	75	21.5	33	21	10	40	M5x0.8 - 6H
1033-000112	HYC-12-1905-114B	12	19.05	40	12	114	100	21.5	33	21	10	40	M5x0.8 - 6H
1033-000113	HYC-12-2000-089B	12	20	40	12	89	75	24.5	33	21	10	40	M5x0.8 - 6H
1033-000114	HYC-12-2000-114B	12	20	40	12	114	100	24.5	33	21	10	40	M5x0.8 - 6H
1033-000115	HYC-12-2200-064B	12	22	40	12	64	50	24.5	33	21	9	40	M5x0.8 - 6H
1033-000116	HYC-12-2200-089B	12	22	40	12	89	75	24.5	33	21	10	40	M5x0.8 - 6H
1033-000117	HYC-12-2200-114B	12	22	40	12	114	100	24.5	33	21	10	40	M5x0.8 - 6H
1033-000118	HYC-12-2200-129B	12	22	40	12	129	115	24.5	33	21	10	40	M5x0.8 - 6H
1033-000119	HYC-12-2500-064B	12	25	40	12	64	50	27.5	33	24	9	40	M5x0.8 - 6H
1033-000120	HYC-12-2500-089B	12	25	40	12	89	75	27.5	33	24	10	40	M5x0.8 - 6H
1033-000121	HYC-12-2500-114B	12	25	40	12	114	100	27.5	33	24	10	40	M5x0.8 - 6H
1033-000122	HYC-12-2504-064B	12	25..4	40	12	64	50	27.5	33	24	9	40	M5x0.8 - 6H
1033-000123	HYC-12-2504-089B	12	25.4	40	12	89	75	27.5	33	24	10	40	M5x0.8 - 6H
1033-000124	HYC-12-2504-114B	12	25.4	40	12	114	100	27.5	33	24	10	40	M5x0.8 - 6H
Call For Details	HYC-20-3200-064B	20	32	40	12	64	50	34.5	33	30.8	9	52	M5x0.8 - 6H
Call For Details	HYC-20-3200-089B	20	32	40	12	89	75	34.5	33	30.8	10	52	M5x0.8 - 6H
Call For Details	HYC-20-3200-114B	20	32	40	12	114	100	34.5	33	30.8	10	52	M5x0.8 - 6H

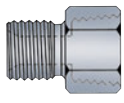
NOTE: Use with torque wrench 1033-000132
HYC-20-3200-064B uses fitting 4005-000111 for coolant-thru capbility





Torque Wrench:

Use preset Torque Wrench to ensure correct mounting of tools.
6 Nm - Part no. **1033-000132**



Adapters:

Male G 1/8" to Female 1/8" NPT
Part no. **1033-000154**



Male G 1/8" to Male 1/4" JIC
Part no. **1033-000153**



Male M5 to Male 1/4" JIC
For HYC-20-3200-064B only
Part no. **4005-000111**



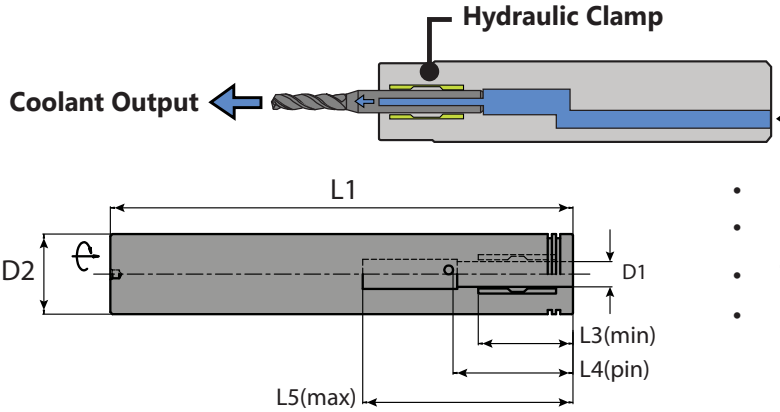
Reduction Sleeves

CAUTION

To prevent damage to the holder, round tool shanks without flats and with H6 tolerance MUST be used. Tool MUST be in the holder when clamping. Torque wrench REQUIRED.

GenGrip - Rear Activated (High Precision)





- **Coolant-Thru Ready**
- **h6 Tool Shanks ONLY**
- **Torque Wrench REQUIRED!**
- **Pair High-Precision Holders With High-Precision Micro Sleeves To Enable The Use Of Smaller Shank Tools**

Citizen

Shank Size (D2)	Bore Size (D1)	L1	L3	L4	L5	Description	Wrench No.
19.05	3	110	17.5	24	40	GRI-3.00-190110	1032-000229
	4	110	21	26	40	GRI-4.00-190110	1032-000229
	6	110	23	29	52	GRI-6.00-190110	1032-000229
	8	110	28	34	55	GRI-8.00-190110	1032-000229
25.4	3	110	17.5	24	40	GRI-3.00-254110	1032-000229
	4	110	21	26	40	GRI-4.00-254110	1032-000229
	6	110	23	29	52	GRI-4.00-254110	1032-000229
	8	110	28	34	55	GRI-8.00-254110	1032-000229
	10	110	29.5	36	55	GRI-10.0-254110	1032-000229
	12	110	31.5	38	58	GRI-12.0-250110	1032-000229

Tornos

Shank Size (D2)	Bore Size (D1)	L1	L3	L4	L5	Description	Wrench No.
16	3	50	17.5	24	28	GRI-3.00-160500	1032-000229
	3.175	50	17.5	24	28	GRI-3.17-160500	1032-000229
	4	50	21	26	28	GRI-4.00-160500	1032-000229
	3	90	17.5	24	40	GRI-3.00-160090	1032-000229
	3.175	90	17.5	24	40	GRI-3.17-160090	1032-000229
	4	90	21	26	40	GRI-4.00-160090	1032-000229
	6	90	23	29	52	GRI-6.00-160090	1032-000229
20	3	110	17.5	24	40	GRI-3.00-200110	1032-000229
	4	110	21	26	40	GRI-4.00-200110	1032-000229
	6	110	23	29	52	GRI-6.00-200110	1032-000229
	8	110	28	34	55	GRI-8.00-200110	1032-000229
22	3	110	17.5	24	40	GRI-3.00-220110	1032-000230
	4	110	21	26	40	GRI-4.00-220110	1032-000230
	6	110	23	29	52	GRI-6.00-220110	1032-000230
	8	110	28	34	55	GRI-8.00-220110	1032-000230
	10	110	29.5	36	55	GRI-10.0-220110	1032-000230
25	3	110	17.5	24	40	GRI-3.00-250110	1032-000230
	4	110	21	26	40	GRI-4.00-250110	1032-000230
	6	110	23	29	52	GRI-6.00-250110	1032-000230
	8	110	28	34	55	GRI-8.00-250110	1032-000230
	10	110	29.5	36	55	GRI-10.0-250110	1032-000230
	12	110	31.5	38	58	GRI-12.0-250110	1032-000230

CAUTION To prevent damage to the holder, round tool shanks without flats and with H6 tolerance MUST be used. Tool MUST be in the holder when clamping. Torque wrench REQUIRED.

Star

Shank Size (D2)	Bore Size (D1)	L1	L3	L4	L5	Description	Wrench No.
16	3	90	17.5	24	40	GRI-3.00-160090	1032-000229
	3.175	90	17.5	24	40	GRI-3.17-160090	1032-000229
	4	90	21	26	40	GRI-4.00-160090	1032-000229
	6	90	23	29	52	GRI-6.00-160090	1032-000229
22	3	110	17.5	24	40	GRI-3.00-220110	1032-000230
	4	110	21	26	40	GRI-4.00-220110	1032-000230
	6	110	23	29	52	GRI-6.00-220110	1032-000230
	8	110	28	34	55	GRI-8.00-220110	1032-000230
	10	110	29.5	36	55	GRI-10.0-220110	1032-000230
32	3	110	17.5	24	40	GRI-3.00-320110	1032-000230
	4	110	21	26	40	GRI-4.00-320110	1032-000230
	6	110	23	29	52	GRI-6.00-320110	1032-000230
	8	110	28	34	55	GRI-8.00-320120	1032-000230
	10	110	29.5	36	55	GRI-10.0-320120	1032-000230
	12	110	31.5	38	58	GRI-12.0-320120	1032-000230

Tsugami

Shank Size (D2)	Bore Size (D1)	L1	L3	L4	L5	Description	Wrench No.
16	3	50	17.5	24	28	GRI-3.00-160500	1032-000229
	3.175	50	17.5	24	28	GRI-3.17-160500	1032-000229
	4	50	21	26	28	GRI-4.00-160500	1032-000229
20	3	110	17.5	24	40	GRI-3.00-200110	1032-000229
	4	110	21	26	40	GRI-4.00-200110	1032-000229
	6	110	23	29	52	GRI-6.00-200110	1032-000229
	8	110	28	34	55	GRI-8.00-200110	1032-000229
25	3	110	17.5	24	40	GRI-3.00-250110	1032-000230
	4	110	21	26	40	GRI-4.00-250110	1032-000230
	6	110	23	29	52	GRI-6.00-250110	1032-000230
	8	110	28	34	55	GRI-8.00-250110	1032-000230
	10	110	29.5	36	55	GRI-10.0-250110	1032-000230
	12	110	31.5	38	58	GRI-12.0-250110	1032-000230

Torque Wrench

Description	Hex Size	Force	Fits Shank Size
WTD-H03-3.0NM	3mm	3NM	16mm, 20mm, 3/4in
WTD-H04-3.0NM	4mm	3NM	22mm, 25mm, 32mm, 1in

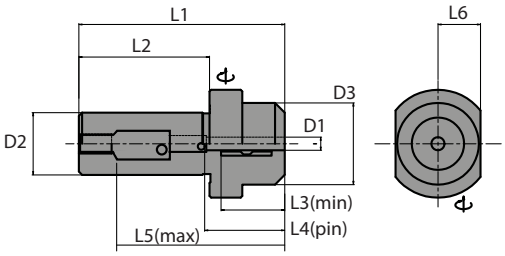


GenGrip - Front Activated (High Precision)





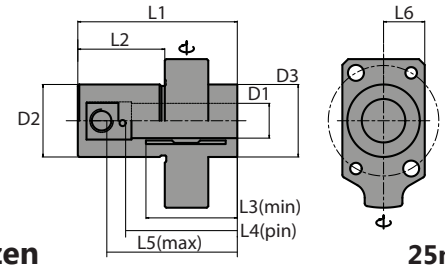
- **Coolant-Thru Ready**
- **h6 Tool Shanks ONLY**
- **Torque Wrench REQUIRED!**
- **Pair High-Precision Holders With High-Precision Micro Sleeves To Enable The Use Of Smaller Shank Tools**



Citizen — 3/4in Shank

Description	D1	D2	D3	L1	L2	L3	L4	L5	L6
GRI-3.00-190-40/63 CIT	3	19.05	20	63	40	17.5	24	53	13.5
GRI-4.00-190-40/63 CIT	4	19.05	22	63	40	21	26	53	14
GRI-6.00-190-40/63 CIT	6	19.05	24	63	40	23	29	53	15
GRI-8.00-190-40/63 CIT	8	19.05	26	63	40	28	34	53	16
GRI-10.0-190-40/63 CIT	10	19.05	28	63	40	29.5	36	53	17

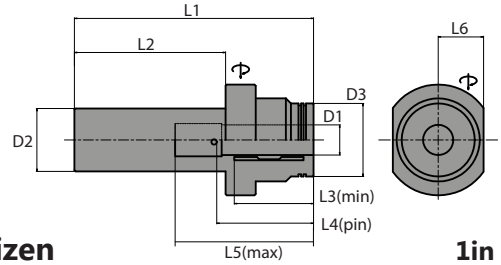
NOTE: Use with torque wrench 1032-000230



Citizen — 25mm Shank

Description	D1	D2	D3	L1	L2	L3	L4	L5	L6
GRI-4.00-250-30/55 CIT	4	25	25	55	30	21	26	45	14.2
GRI-6.00-250-30/55 CIT	6	25	25	55	30	23	29	45	14.2
GRI-8.00-250-30/55 CIT	8	25	25	55	30	28	34	45	14.2
GRI-10.0-250-30/55 CIT	10	25	25	55	30	29.5	36	45	14.2
GRI-12.0-250-30/55 CIT	12	25	25	55	30	31.5	38	45	14.2

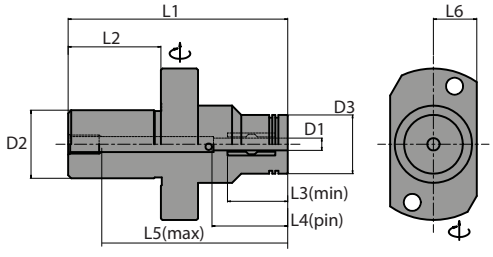
NOTE: Use with torque wrench 1032-000230



Citizen — 1in Shank

Description	D1	D2	D3	L1	L2	L3	L4	L5	L6
GRI-4.00-254-40/75 CIT	4	25.4	19	75	30	21	26	46	14
GRI-6.00-254-40/75 CIT	6	25.4	20	75	30	23	29	51	15
GRI-8.00-254-40/75 CIT	8	25.4	23	75	30	28	36	51	16
GRI-10.0-254-40/75 CIT	10	25.4	27	75	30	29.5	36	56	17
GRI-12.0-254-40/75 CIT	12	25.4	29	75	30	31.5	38	56	18

NOTE: Use with torque wrench 1032-000230



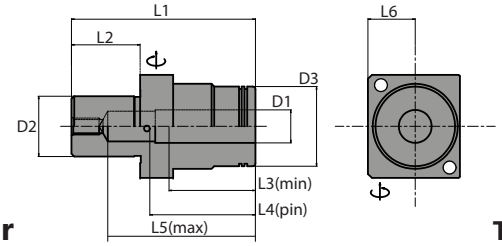
Star — Type-A

Description	D1	D2	D3	L1	L2	L3	L4	L5	L6
GRI-4.00-220-25/66A STA	4	22	19	66	25	21	26	56	14
GRI-6.00-220-25/66A STA	6	22	20	66	25	23	30	56	14
GRI-8.00-220-25/66A STA	8	22	23	66	25	28	34	56	15
GRI-10.0-220-25/66A STA	10	22	27	66	25	29.5	36	56	16
GRI-12.0-220-25/66A STA	12	22	29	66	25	31.5	42	56	17.25

NOTE: Use with torque wrench 1032-000230

CAUTION To prevent damage to the holder, round tool shanks without flats and with H6 tolerance MUST be used. Tool MUST be in the holder when clamping. Torque wrench REQUIRED.

Gen Grip - Sub Spindle (High Precision)

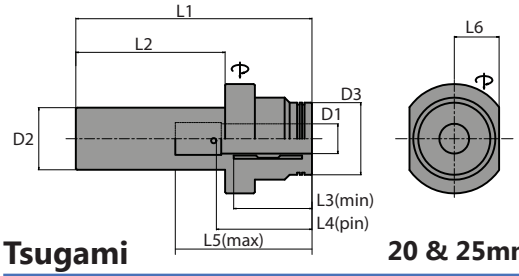


Star

Type-B

Description	D1	D2	D3	L1	L2	L3	L4	L5	L6
GRI-4.00-220-25/66B	4	22	19	66	25	21	26	56	16.25
GRI-6.00-220-25/66B	6	22	20	66	25	23	30	56	16.25
GRI-8.00-220-25/66B	8	22	23	66	25	28	34	56	16.25
GRI-10.0-220-25/66B	10	22	27	66	25	29.5	36	56	16.25
GRI-12.0-220-25/66B	12	22	29	66	25	31.5	42	56	17.25

NOTE: Use with torque wrench 1032-000230

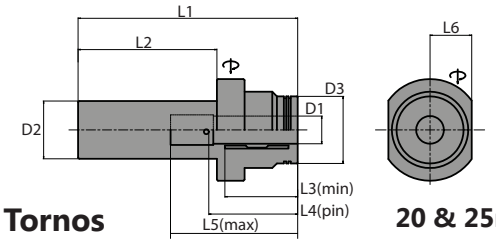


Tsugami

20 & 25mm Shank

Description	D1	D2	D3	L1	L2	L3	L4	L5	L6
GRI-4.00-200-40/75	4	20	19	75	40	21	26	46	14
GRI-6.00-200-40/75	6	20	20	75	40	23	29	51	15
GRI-8.00-200-40/75	8	20	23	75	40	28	36	51	16
GRI-10.0-200-40/75	10	20	27	75	40	29.5	36	56	17
GRI-4.00-250-60/95	4	25	19	95	60	21	26	46	14
GRI-6.00-250-60/95	6	25	20	95	60	23	29	51	15
GRI-8.00-250-60/95	8	25	23	95	60	28	34	51	16
GRI-10.0-250-60/95	10	25	27	95	60	29.5	36	56	17
GRI-12.0-250-60/95	12	25	29	95	60	31.5	38	56	18

NOTE: Use with torque wrench 1032-000230



Tornos

20 & 25mm Shank

Description	D1	D2	D3	L1	L2	L3	L4	L5	L6
GRI-4.00-200-40/75	4	20	19	75	40	21	26	46	14
GRI-6.00-200-40/75	6	20	20	75	40	23	29	51	15
GRI-8.00-200-40/75	8	20	23	75	40	28	36	51	16
GRI-10.0-200-40/75	10	20	27	75	40	29.5	36	56	17
GRI-4.00-250-60/95	4	25	19	95	60	21	26	46	14
GRI-6.00-250-60/95	6	25	20	95	60	23	29	51	15
GRI-8.00-250-60/95	8	25	23	95	60	28	34	51	16
GRI-10.0-250-60/95	10	25	27	95	60	29.5	36	56	17
GRI-12.0-250-60/95	12	25	29	95	60	31.5	38	56	18

NOTE: Use with torque wrench 1032-000230

Torque Wrench

Description	Hex Size	Force	Fits Shank Size
WTD-H03-3.0NM	3mm	3NM	16mm, 20mm, 3/4in
WTD-H04-3.0NM	4mm	3NM	22mm, 25mm, 32mm, 1in



Also Available
Hanwha & Nexturn

CAUTION To prevent damage to the holder, round tool shanks without flats and with H6 tolerance MUST be used. Tool MUST be in the holder when clamping. Torque wrench REQUIRED.

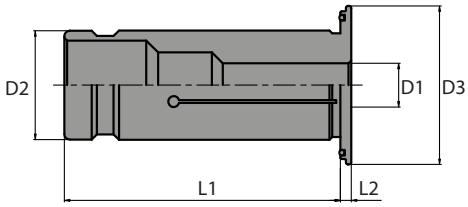
GenGrip High-Precision Micro Sleeve & Pin Positioning Kits

Micro Sleeve Enables Use Of Small Tool Shanks

Use with 8mm & 12mm High Precision GenGrip bore sizes

8mm Shank

Description	D1	D2	D3	L1	L2
GRIS-08-3.00	3	8	12.5	35.5	2
GRIS-08-4.00	4	8	12.5	35.5	2
GRIS-08-5.00	5	8	12.5	35.5	2
GRIS-08-6.00	6	8	12.5	35.5	2
GRIS-08-3.18	1/8in	8	12.5	35.5	2
GRIS-08-4.76	3/16in	8	12.5	35.5	2
GRIS-08-6.35	1/4in	8	12.5	35.5	2



12mm Shank

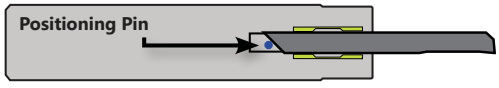
Description	D1	D2	D3	L1	L2
GRIS-12-3.00	3	12	19	45	2
GRIS-12-4.00	4	12	19	45	2
GRIS-12-5.00	5	12	19	45	2
GRIS-12-6.00	6	12	19	45	2
GRIS-12-7.00	7	12	19	45	2
GRIS-12-8.00	8	12	19	45	2
GRIS-12-9.00	9	12	19	45	2
GRIS-12-10.0	10	12	19	45	2
GRIS-12-3.18	1/8in	12	19	45	2
GRIS-12-4.76	3/16in	12	19	45	2
GRIS-12-6.35	6.35mm	12	19	45	2
GRIS-08-6.35	1/4in	12	19	45	1



Positioning Pin Kit

Positioning Pin Kit	Fits GenGrip Dimensions D2	D1
P2.5x8	16mm	All
	19.05mm	3-6mm
	20mm	3-6mm
P2.5x10	20mm	8-10mm
P2.5x12	19.05mm	8-10mm
	22mm	All
P2.5x16	25mm	All
	32mm	All

Kits Include: 4 Set Screws, 2 Pins, & 1 Allen Wrench



CAUTION To prevent damage to the holder, round tool shanks without flats and with H6 tolerance MUST be used. Tool MUST be in the holder when clamping. Torque wrench REQUIRED.

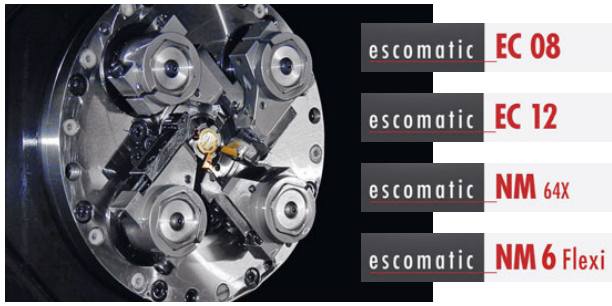
Notes:

multidec® ESCOMATIC

The multidec® ESCOMATIC line of tool holders enables the use of multidec® 1600 & TOP/ISO series inserts with ESCOMATIC machines. These quick-change holders reduce tool changes to a few minutes. The indexable cutting inserts have two cutting edges, extending tool life.



ESCO VP
Insert Holder



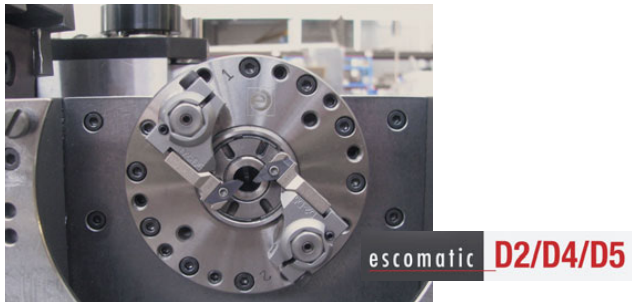


ESCO D6
Insert Holder





ESCO CUT 1600
Insert Holder

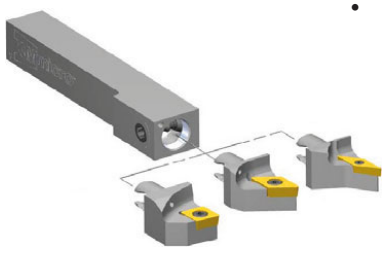


QUICK CHANGE TOOLING SYSTEM

Insert Modules For KM Quick Change Holders

KM™ Micro
QUICK-CHANGE TOOLING

- Compatible with multidec® CUT 3000 & 1600 & ISO/TOP inserts
- Coolant-thru capable



Decreased Setup Times
Increased Tool Capacity

HSK & PSC Tool Holders

Willemin Macodel, Bumotec, & Capto Compatible Machines



- Compatible with multidec® CUT 3000 & 1600, ISO/TOP inserts & micro bore tools
- Monoblock tools with interchangeable inserts
- Coolant-thru capable
- Insert positioned on center line



multidec HSK Pg. 382 - 384
- HSK C32
- HSK T40

multidec PSC Pg. 385 - 387
- PSC 32
- PSC 40

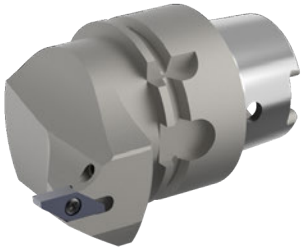
Bumotec Machines Pg. 388 - 390
- HSK T32
- HSK T40
- HSK A40

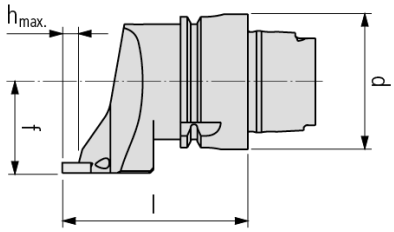
Willemin Macodel Pg. 391 - 393
- HSK E40

Multitask PSC Pg. 394 - 396
- PSC 40

multidec HSK Cut 1600

Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	HSK Form/Size	d	f	l	hmax	Insert
7005-127740	HSK-C32 CUT 1600 L	7005-125291	HSK-C32 CUT 1600 R	C32	32	22	40	5	1600 Series
Call For Details	HSK-T40 CUT 1600 L	7005-148973	HSK-T40 CUT 1600 R	A40/C40	40	27	55	5	1600 Series

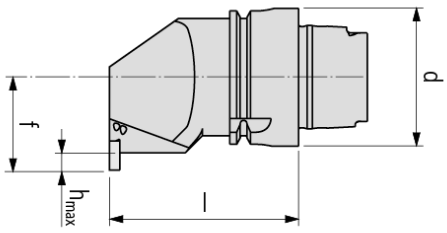




multidec HSK Cut 1600-90

Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	HSK Form/Size	d	f	l	hmax	Insert
7005-129238	HSK-C32 CUT 1600-90 L	Call For Details	HSK-C32 CUT 1600-90 R	C32	32	22	40	5	1600 Series
Call For Details	HSK-T40 CUT 1600-90 L	Call For Details	HSK-T40 CUT 1600-90 R	A40/C40	40	27	55	5	1600 Series



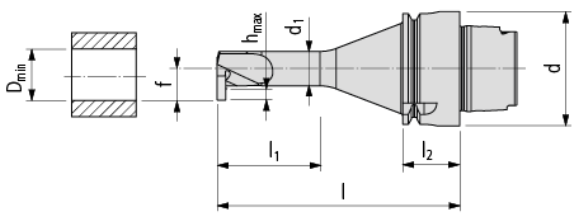


multidec HSK Cut 1600-RD

Left Hand		Dimensions & Features									
Item No.	Description	HSK Form/Size	d	f	l	Dmin	l1	l2	d1	hmax	Insert
Call For Details	HSK-C32 CUT 1600-12 RD L	C32	32	11	75	17.5	36	10	12	3	1600 Series
Call For Details	HSK-C32 CUT 1600-16 RD L	C32	32	13	75	21	48	10	16	4	1600 Series
Call For Details	HSK-C32 CUT 1600-20 RD L	C32	32	15	75	25	60	10	20	4	1600 Series
Call For Details	HSK-T40 CUT 1600-12 RD L	A40/C40	40	11	85	17.5	36	20	12	3	1600 Series
Call For Details	HSK-T40 CUT 1600-16 RD L	A40/C40	40	13	85	21	48	20	16	4	1600 Series
Call For Details	HSK-T40 CUT 1600-20 RD L	A40/C40	40	15	85	25	60	20	20	4	1600 Series

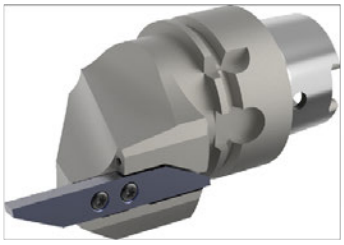
Right Hand		Dimensions & Features									
Item No.	Description	HSK Form/Size	d	f	l	Dmin	l1	l2	d1	hmax	Insert
Call For Details	HSK-C32 CUT 1600-12 RD R	C32	32	11	75	17.5	36	10	12	3	1600 Series
Call For Details	HSK-C32 CUT 1600-16 RD R	C32	32	13	75	21	48	10	16	4	1600 Series
Call For Details	HSK-C32 CUT 1600-20 RD R	C32	32	15	75	25	60	10	20	4	1600 Series
Call For Details	HSK-T40 CUT 1600-12 RD R	A40/C40	40	11	85	17.5	36	20	12	3	1600 Series
Call For Details	HSK-T40 CUT 1600-16 RD R	A40/C40	40	13	85	21	48	20	16	4	1600 Series
Call For Details	HSK-T40 CUT 1600-20 RD R	A40/C40	40	15	85	25	60	20	20	4	1600 Series

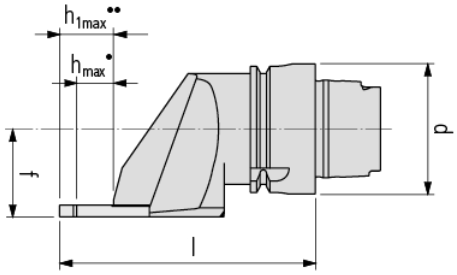




multidec HSK Cut 3000

Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	HSK Form/Size	d	f	l	hmax	h1max	Insert
Call For Details	HSK-C32 CUT 3000 L	Call For Details	HSK-C32 CUT 3000 R	C32	32	22	50	10	16	3000 Series
Call For Details	HSK-T40 CUT 3000 L	Call For Details	HSK-T40 CUT 3000 R	A40/C40	40	27	73	10	16	3000 Series

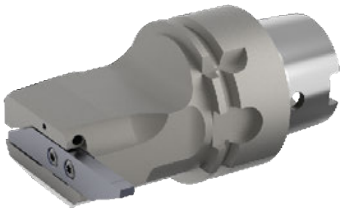


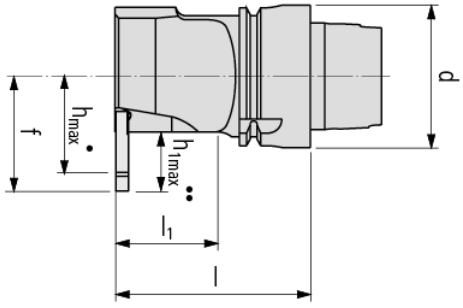


* Short Insert (hmax)
** Large Insert (h1max)

multidec HSK Cut 3000-90

Left Hand		Right Hand		Dimensions & Features							
Item No.	Description	Item No.	Description	HSK Form/Size	d	f	l	l1	hmax	h1max	Insert
Call For Details	HSK-C32 CUT 3000-90 L	Call For Details	HSK-C32 CUT 3000-90 R	C32	32	22	40	24	10	-	3000 Series
Call For Details	HSK-T40 CUT 3000-90 L	Call For Details	HSK-T40 CUT 3000-90 R	A40/C40	40	27	55	30	10	16	3000 Series



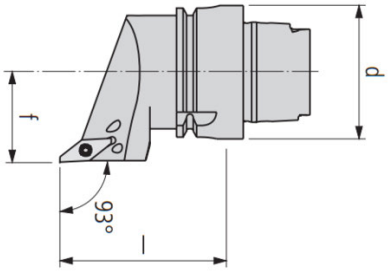


* Short Insert (hmax)
** Large Insert (h1max)

multidec HSK SVJP (93°)

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	HSK Form/Size	d	f	l	Insert
Call For Details	HSK-C32 SVJPL 10	Call For Details	HSK-C32 SVJPR 10	C32	32	22	40	VP 1003
Call For Details	HSK-T40 SVJPL 10	Call For Details	HSK-T40 SVJPR 10	A40/C40	40	27	55	VP 1003

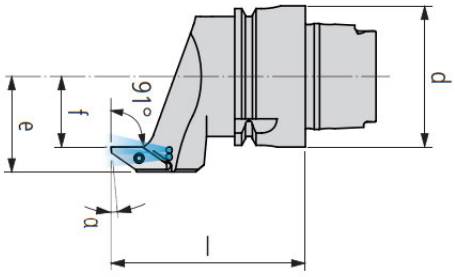




multidec HSK SVXP (91°)

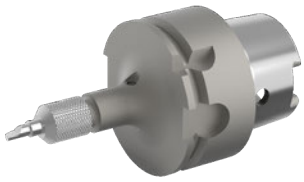
Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	HSK Form/Size	d	f	l	e	a	Insert
Call For Details	HSK-C32 SVXPL 10	Call For Details	HSK-C32 SVXPR 10	C32	32	15	40	22	3	VP 1003
Call For Details	HSK-T40 SVXPL 10	Call For Details	HSK-T40 SVXPR 10	A40/C40	40	20	55	27	3	VP 1003

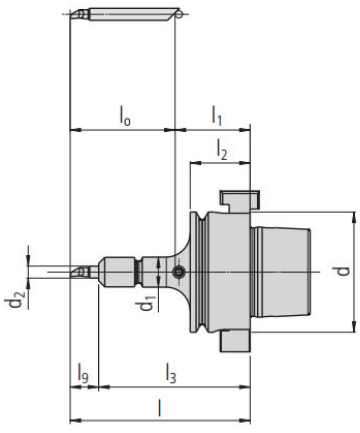




multidec HSK SDA

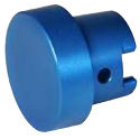
Dimensions & Features											
Item No.	Description	HSK Form/Size	d	l	lg	l1	l2	l3	d1	d2	Insert
Call For Details	HSK-C32 SDA-4	C32	32	l0+l1	l-l3	15	10	40.5	10	4	SD.4/SX.4
Call For Details	HSK-C32 SDA-6	C32	32	l0+l1	l-l3	15	10	44.5	15	6	SD.6/SX.6
Call For Details	HSK-C32 SDA-8	C32	32	l0+l1	l-l3	15	10	46.5	18	8	SD.8/SX.8
7005-148998	HSK-T40 SDA-4	A40/C40	40	l0+l1	l-l3	25	20	50.5	10	4	SD.4/SX.4
7005-153000	HSK-T40 SDA-6	A40/C40	40	l0+l1	l-l3	25	20	54.5	15	6	SD.6/SX.6
7005-153017	HSK-T40 SDA-8	A40/C40	40	l0+l1	l-l3	25	20	56.5	18	8	SD.8/SX.8

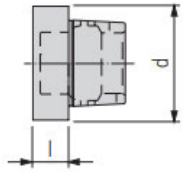




multidec HSK VS

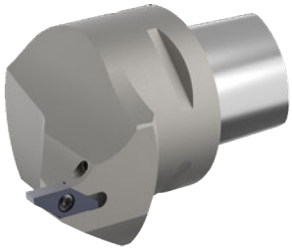
Dimensions & Features				
Item No.	Description	HSK Form/Size	d	l
Call For Details	HSK-C32 VS	C32	32	10
Call For Details	HSK-C40 VS	C40	40	15

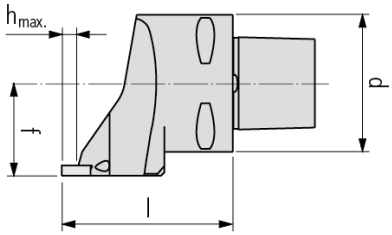




multidec PSC Cut 1600

Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	PSC Size	d	f	l	hmax	Insert
Call For Details	PSC 32 CUT 1600 L	Call For Details	PSC 32 CUT 1600 R	32	32	22	40	5	1600 Series
Call For Details	PSC 40 CUT 1600 L	Call For Details	PSC 40 CUT 1600 R	40	40	27	55	5	1600 Series

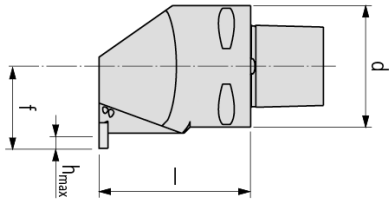




multidec PSC Cut 1600-90

Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	PSC Size	d	f	l	hmax	Insert
Call For Details	PSC 32 CUT 1600-90 L	Call For Details	PSC 32 CUT 1600-90 R	32	32	22	40	5	1600 Series
Call For Details	PSC 40 CUT 1600-90 L	Call For Details	PSC 40 CUT 1600-90 R	40	40	27	55	5	1600 Series



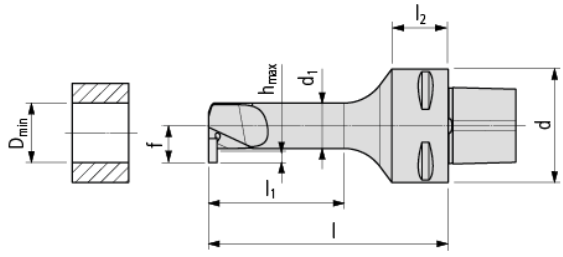


multidec PSC Cut 1600-RD

Left Hand		Dimensions & Features									
Item No.	Description	PSC Size	d	f	l	Dmin	l1	l2	d1	hmax	Insert
Call For Details	PSC 32 CUT 1600-12 RD L	32	32	11	80	17.5	36	15	12	3	1600 Series
Call For Details	PSC 32 CUT 1600-16 RD L	32	32	13	80	21	48	15	16	4	1600 Series
7005-148965	PSC 32 CUT 1600-20 RD L	32	32	15	80	25	60	15	20	4	1600 Series
7005-148962	PSC 40 CUT 1600-12 RD L	40	40	11	85	17.5	36	20	12	3	1600 Series
7005-148964	PSC 40 CUT 1600-16 RD L	40	40	13	85	21	48	20	16	4	1600 Series
7005-148967	PSC 40 CUT 1600-20 RD L	40	40	15	85	25	60	20	20	4	1600 Series

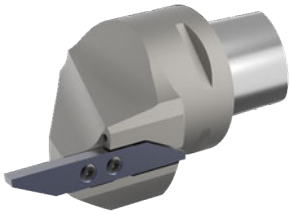
Right Hand		Dimensions & Features									
Item No.	Description	PSC Size	d	f	l	Dmin	l1	l2	d1	hmax	Insert
Call For Details	PSC 32 CUT 1600-12 RD R	32	32	11	80	17.5	36	15	12	3	1600 Series
Call For Details	PSC 32 CUT 1600-16 RD R	32	32	13	80	21	48	15	16	4	1600 Series
7005-113753	PSC 32 CUT 1600-20 RD R	32	32	15	80	25	60	15	20	4	1600 Series
7005-148961	PSC 40 CUT 1600-12 RD R	40	40	11	85	17.5	36	20	12	3	1600 Series
7005-153004	PSC 40 CUT 1600-16 RD R	40	40	13	85	21	48	20	16	4	1600 Series
7005-148966	PSC 40 CUT 1600-20 RD R	40	40	15	85	25	60	20	20	4	1600 Series

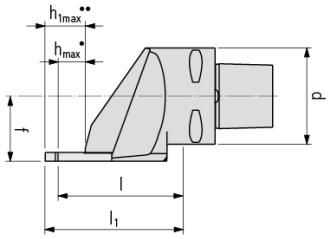




multidec PSC Cut 3000

Left Hand		Right Hand		Dimensions & Features							
Item No.	Description	Item No.	Description	PSC Size	d	f	l	l1	hmax	h1max	Insert
Call For Details	PSC 32 CUT 3000 L	Call For Details	PSC 32 CUT 3000 R	32	32	22	60	66	10	16	3000 Series
Call For Details	PSC 40 CUT 3000 L	Call For Details	PSC 40 CUT 3000 R	40	40	27	65	71	10	16	3000 Series



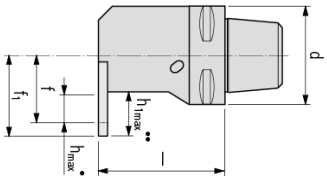


* Short Insert (hmax)
** Large Insert (h1max)

multidec PSC Cut 3000-90

Left Hand		Right Hand		Dimensions & Features								
Item No.	Description	Item No.	Description	PSC Size	d	f	f1	l	l1	hmax	h1max	Insert
Call For Details	PSC 32 CUT 3000-90 L	Call For Details	PSC 32 CUT 3000-90 R	32	32	22	27	40	19	10	16	3000 Series
Call For Details	PSC 40 CUT 3000-90 L	Call For Details	PSC 40 CUT 3000-90 R	40	40	27	32	50	30	10	16	3000 Series

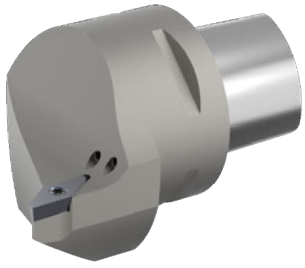


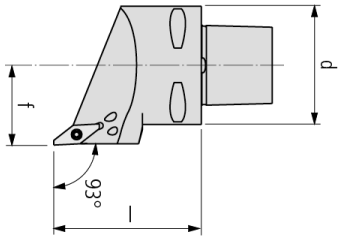


* Short Insert (hmax)
** Large Insert (h1max)

multidec PSC SVJP (93°)

Left Hand		Right Hand		Dimensions & Features				
Item No.	Description	Item No.	Description	PSC Size	d	f	l	Insert
Call For Details	PSC 32 SVJPL 10	Call For Details	PSC 32 SVJPR 10	32	32	22	40	VP 1003
Call For Details	PSC 40 SVJPL 10	Call For Details	PSC 40 SVJPR 10	40	40	27	55	VP 1003

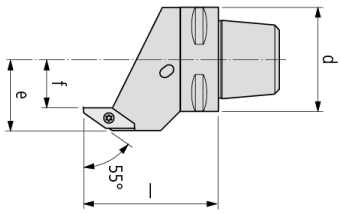




multidec PSC SVXP (91°)

Left Hand		Right Hand		Dimensions & Features						
Item No.	Description	Item No.	Description	PSC Size	d	f	l	e	a	Insert
Call For Details	PSC 32 SVXPL 10	Call For Details	PSC 32 SVXPR 10	32	32	15	40	22	3	VP 1003
Call For Details	PSC 40 SVXPL 10	Call For Details	PSC 40 SVXPR 10	40	40	20	55	27	3	VP 1003

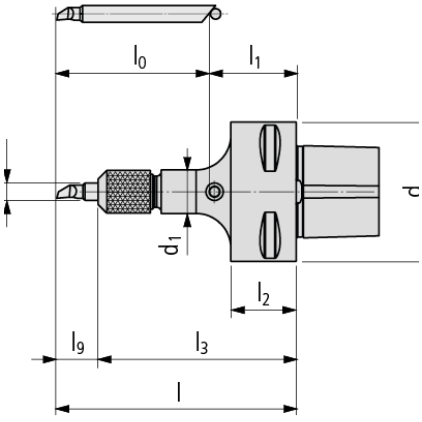




multidec PSC SDA

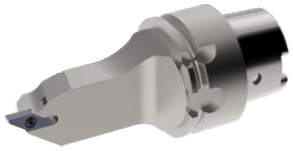
Dimensions & Features											
Item No.	Description	PSC Size	d	l	lg	l1	l2	l3	d1	d2	Insert
Call For Details	PSC 32 SDA-4	32	32	l0+l1	l-l3	20	15	45.5	10	4	SD.4/SX.4
Call For Details	PSC 32 SDA-6	32	32	l0+l1	l-l3	20	15	49.5	15	6	SD.6/SX.6
7005-153018	PSC 32 SDA-8	32	32	l0+l1	l-l3	20	15	51.5	18	8	SD.8/SX.8
7005-148968	PSC 40 SDA-4	40	40	l0+l1	l-l3	25	20	50.5	10	4	SD.4/SX.4
7005-148970	PSC 40 SDA-6	40	40	l0+l1	l-l3	25	20	54.5	15	6	SD.6/SX.6
7005-153019	PSC 40 SDA-8	40	40	l0+l1	l-l3	25	20	56.5	18	8	SD.8/SX.8

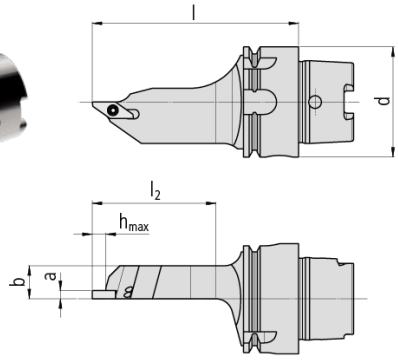




Multitask Bumotec HSK MT Cut 1600

Left Hand		Right Hand		Dimensions & Features							
Item No.	Description	Item No.	Description	HSK Size	d	b	l	l2	a	hmax	Insert
Call For Details	HSK-T32 MT CUT 1600 L	Call For Details	HSK-T32 MT CUT 1600 R	T32	32	12	65	35	3	5	1600 Series
Call For Details	HSK-T40 MT CUT 1600 L	Call For Details	HSK-T40 MT CUT 1600 R	T40	40	12	75	45	3	5	1600 Series
Call For Details	HSK-A40 MT CUT 1600 L	7005-153092	HSK-A40 MT CUT 1600 R	A40	40	12	75	45	3	5	1600 Series

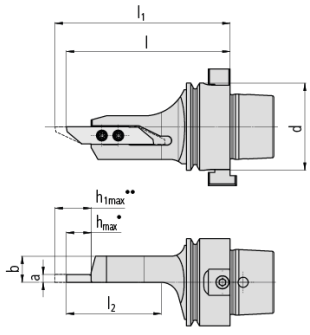




Multitask Bumotec HSK MT Cut 3000

Left Hand		Right Hand		Dimensions & Features								
Item No.	Description	Item No.	Description	HSK Size	d	b	l	l1	l2	a	hmax	h1max	Insert
Call For Details	HSK-T32 MT CUT 3000 L	Call For Details	HSK-T32 MT CUT 3000 R	T32	32	12	65	-	35	3.5	10	-	3000 Series
Call For Details	HSK-T40 MT CUT 3000 L	Call For Details	HSK-T40 MT CUT 3000 R	T40	40	12	75	80	45	3.5	10	16	3000 Series
7005-153090	HSK-A40 MT CUT 3000 L	7005-153089	HSK-A40 MT CUT 3000 R	A40	40	12	75	80	45	3.5	10	16	3000 Series



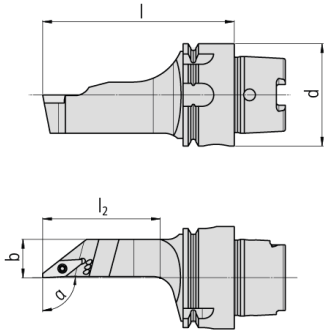


* Short Insert (hmax)
** Large Insert (h1max)

Multitask Bumotec HSK MT SVJP (93°)

Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	HSK Size	d	b	l	l2	Insert
Call For Details	HSK-T32 MT SVJPL 10	Call For Details	HSK-T32 MT SVJPR 10	T32	32	12	65	36	VP.. 1003
Call For Details	HSK-T40 MT SVJPL 10	Call For Details	HSK-T40 MT SVJPR 10	T40	40	15	75	46	VP.. 1003
Call For Details	HSK-A40 MT SVJPL 10	Call For Details	HSK-A40 MT SVJPR 10	A40	40	15	75	46	VP.. 1003

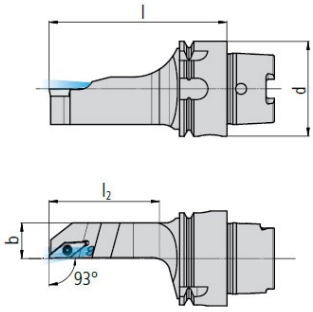




Multitask Bumotec HSK MT SVJP V (93°)

Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	HSK Size	d	b	l	l2	Insert
Call For Details	HSK-T32 MT SVJPL 10 V	Call For Details	HSK-T32 MT SVJPR 10 V	T32	32	12	65	36	VP.. 1003
Call For Details	HSK-T40 MT SVJPL 10 V	Call For Details	HSK-T40 MT SVJPR 10 V	T40	40	15	75	46	VP.. 1003
Call For Details	HSK-A40 MT SVJPL 10 V	Call For Details	HSK-A40 MT SVJPR 10 V	A40	40	15	75	46	VP.. 1003

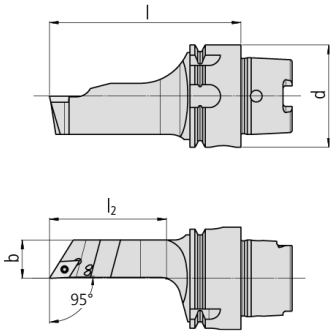




Multitask Bumotec HSK MT SCLC (95°)

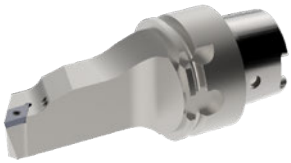
Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	HSK Size	d	b	l	l2	Insert
Call For Details	HSK-T32 MT SCLCL 06	Call For Details	HSK-T32 MT SCLCR 06	T32	32	15	65	35	CC.. 0602
Call For Details	HSK-T32 MT SCLCL 09	Call For Details	HSK-T32 MT SCLCR 09	T32	32	15	65	35	CC.. 09T3
7005-143541	HSK-T40 MT SCLCL 06	7005-143543	HSK-T40 MT SCLCR 06	T40	40	15	75	45	CC.. 0602
7005-143542	HSK-T40 MT SCLCL 09	7005-143544	HSK-T40 MT SCLCR 09	T40	40	15	75	45	CC.. 09T3
7005-153105	HSK-A40 MT SCLCL 06	7005-153104	HSK-A40 MT SCLCR 06	A40	40	15	75	45	CC.. 0602
7005-153107	HSK-A40 MT SCLCL 09	7005-153106	HSK-A40 MT SCLCR 09	A40	40	15	75	45	CC.. 09T3

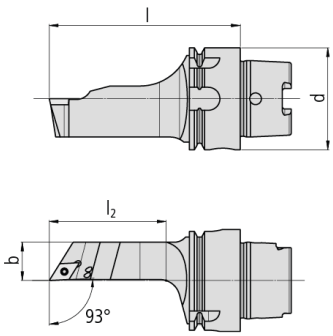




Multitask Bumotec HSK MT SDJC (93°)

Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	HSK Size	d	b	l	l2	Insert
Call For Details	HSK-T32 MT SDJCL 07	Call For Details	HSK-T32 MT SDJCR 07	T32	32	12	65	36	DC.. 0702
Call For Details	HSK-T32 MT SDJCL 11	Call For Details	HSK-T32 MT SDJCR 11	T32	32	12.5	65	37	DC.. 11T3
7005-143545	HSK-T40 MT SDJCL 07	7005-143547	HSK-T40 MT SDJCR 07	T40	40	15	75	46	DC.. 0702
7005-143546	HSK-T40 MT SDJCL 11	7005-143548	HSK-T40 MT SDJCR 11	T40	40	15	75	46	DC.. 11T3
7005-153101	HSK-A40 MT SDJCL 07	7005-153100	HSK-A40 MT SDJCR 07	A40	40	15	75	46	DC.. 0702
7005-153103	HSK-A40 MT SDJCL 11	7005-153102	HSK-A40 MT SDJCR 11	A40	40	15	75	46	DC.. 11T3

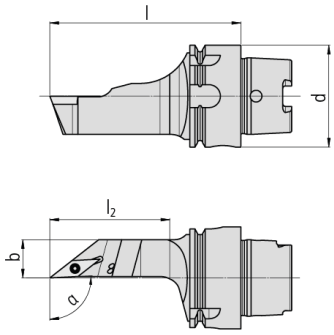




Multitask Bumotec HSK MT SVJC (93°)

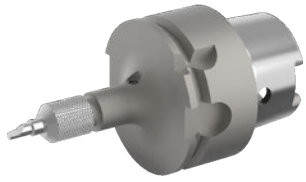
Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	HSK Size	d	b	l	l2	Insert
Call For Details	HSK-T32 MT SVJCL 07	Call For Details	HSK-T32 MT SVJCR 07	T32	32	12	65	36	VC.. 0702
Call For Details	HSK-T32 MT SVJCL 11	Call For Details	HSK-T32 MT SVJCR 11	T32	32	12	65	36	VC.. 1103
7005-143549	HSK-T40 MT SVJCL 07	7005-143552	HSK-T40 MT SVJCR 07	T40	40	15	75	46	VC.. 0702
7005-143550	HSK-T40 MT SVJCL 11	7005-143553	HSK-T40 MT SVJCR 11	T40	40	15	75	46	VC.. 1103
7005-143551	HSK-T40 MT SVJCL 13	7005-143554	HSK-T40 MT SVJCR 13	T40	40	15	75	46	VC.. 1303
7005-143558	HSK-A40 MT SVJCL 07	7005-154199	HSK-A40 MT SVJCR 07	A40	40	15	75	46	VC.. 0702
7005-153099	HSK-A40 MT SVJCL 11	7005-153098	HSK-A40 MT SVJCR 11	A40	40	15	75	46	VC.. 1103
7005-153113	HSK-A40 MT SVJCL 13	7005-153112	HSK-A40 MT SVJCR 13	A40	40	15	75	46	VC.. 1303

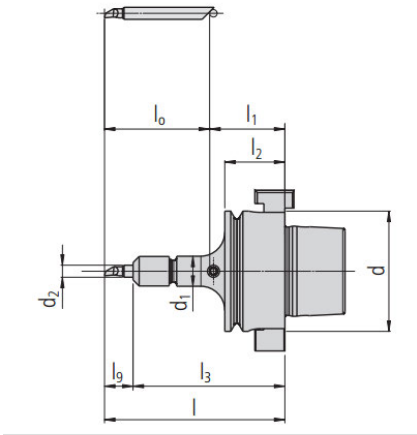




Multitask Bumotec HSK SDA

Dimensions & Features											
Item No.	Description	HSK Size	d	l	lg	l1	l2	l3	d1	d2	Insert
Call For Details	HSK-T32 SDA-4	T32	32	l0+l1	l-l3	25	20	50.5	10	4	SD.4/SX.4
7005-143532	HSK-T32 SDA-6	T32	32	l0+l1	l-l3	25	20	54.5	15	6	SD.6/SX.6
7005-148998	HSK-T32 SDA-8	T32	32	l0+l1	l-l3	25	20	56.5	18	8	SD.8/SX.8
7005-153000	HSK-T40 SDA-4	T40	40	l0+l1	l-l3	25	20	50.5	10	4	SD.4/SX.4
7005-153017	HSK-T40 SDA-6	T40	40	l0+l1	l-l3	25	20	54.5	15	6	SD.6/SX.6
7005-153288	HSK-T40 SDA-8	T40	40	l0+l1	l-l3	25	20	56.5	18	8	SD.8/SX.8
7005-153289	HSK-A40 SDA-4	A40	40	l0+l1	l-l3	25	20	50.5	10	4	SD.4/SX.4
Call For Details	HSK-A40 SDA-6	A40	40	l0+l1	l-l3	25	20	54.5	15	6	SD.6/SX.6
Call For Details	HSK-A40 SDA-8	A40	40	l0+l1	l-l3	25	20	56.5	18	8	SD.8/SX.8

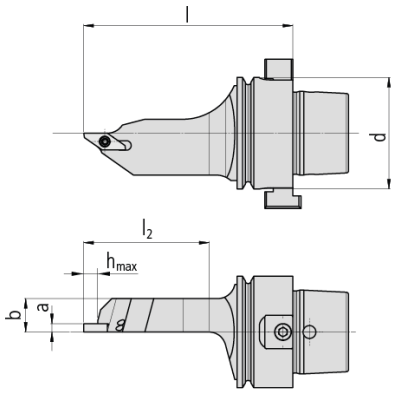




Multitask Willemin Macodel HSK-E40 MT Cut 1600 WM

Left Hand		Right Hand		Dimensions & Features							
Item No.	Description	Item No.	Description	HSK Size	d	b	l	l2	a	hmax	Insert
Call For Details	HSK-E40 MT CUT 1600 L WM	Call For Details	HSK-E40 MT CUT 1600 R WM	E40	40	12	75	45	3	5	1600 Series



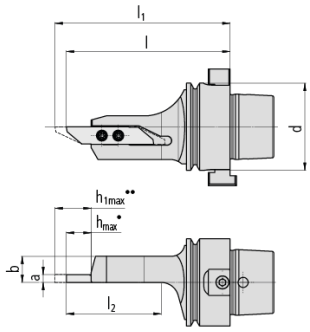


Multitask Willemin Macodel HSK-E40 MT Cut 3000 WM

Left Hand		Dimensions & Features									
Item No.	Description	HSK Size	d	b	l	l1	l2	a	hmax	h1max	Insert
Call For Details	HSK-E40 MT CUT 3000 L WM	E40	40	12	75	80	43	3.5	10	16	3000 Series

Right Hand		Dimensions & Features									
Item No.	Description	HSK Size	d	b	l	l1	l2	a	hmax	h1max	Insert
Call For Details	HSK-E40 MT CUT 3000 R WM	E40	40	12	75	80	43	3.5	10	16	3000 Series



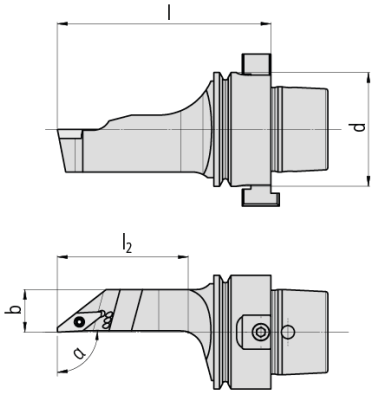


* Short Insert (hmax)
** Large Insert (h1max)

Multitask Willemin Macodel HSK-E40 MT SVJP WM (93°)

Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	HSK Size	d	b	l	l2	Insert
Call For Details	HSK-E40 MT SVJPL 10 WM	Call For Details	HSK-E40 MT SVJPR 10 WM	E40	40	15	75	46	VP.. 1003

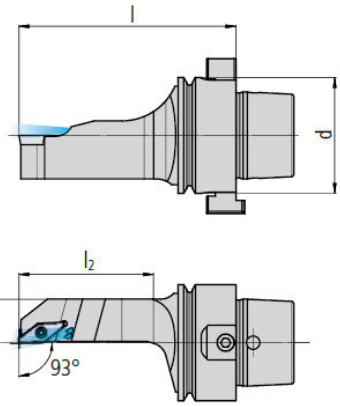




Multitask Willemin Macodel HSK-E40 MT SVJP V WM (93°)

Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	HSK Size	d	b	l	l2	Insert
Call For Details	HSK-E40 MT SVJPL 10 V WM	Call For Details	HSK-E40 MT SVJPR 10 V WM	E40	40	15	75	46	VP.. 1003

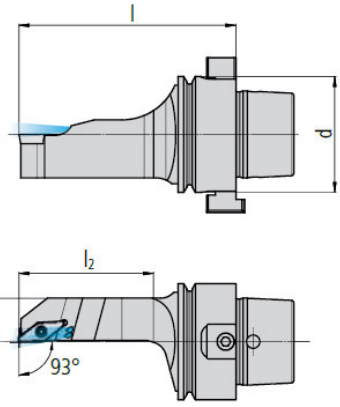




Multitask Willemin Macodel HSK-E40 MT SVJP V WM (93°)

Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	HSK Size	d	b	l	l2	Insert
Call For Details	HSK-E40 MT SVJPL 10 V WM	Call For Details	HSK-E40 MT SVJPR 10 V WM	E40	40	15	75	46	VP.. 1003

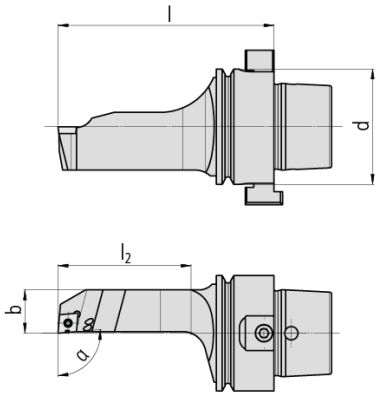




Multitask Willemin Macodel HSK-E40 MT SCLC WM (95°)

Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	HSK Size	d	b	l	l2	Insert
Call For Details	HSK-E40 MT SCLCL 06 WM	Call For Details	HSK-E40 MT SCLCR 06 WM	E40	40	15	75	47	CC.. 0602
Call For Details	HSK-E40 MT SCLCL 09 WM	Call For Details	HSK-E40 MT SCLCR 09 WM	E40	40	15	75	47	CC.. 09T3

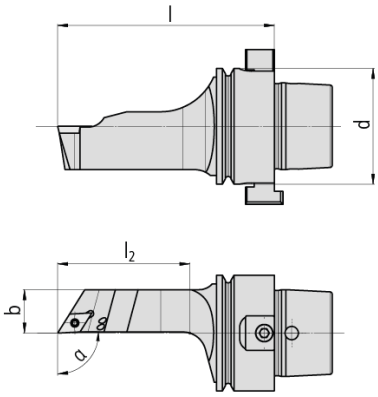




Multitask Willemin Macodel HSK-E40 MT SDJC WM (93°)

Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	HSK Size	d	b	l	l2	Insert
Call For Details	HSK-E40 MT SDJCL 07 WM	Call For Details	HSK-E40 MT SDJCR 07 WM	E40	40	15	75	46	DC.. 0702
Call For Details	HSK-E40 MT SDJCL 11 WM	Call For Details	HSK-E40 MT SDJCR 11 WM	E40	40	15	75	46	DC.. 11T3

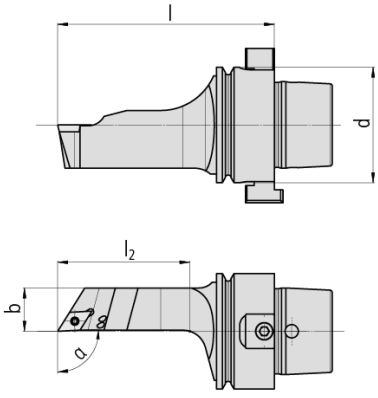




Multitask Willemin Macodel HSK-E40 MT SVJC WM (93°)

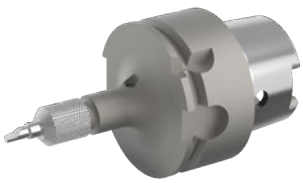
Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	HSK Size	d	b	l	l2	Insert
Call For Details	HSK-E40 MT SVJCL 07 WM	Call For Details	HSK-E40 MT SVJCR 07 WM	E40	40	15	75	45	VC.. 0702
Call For Details	HSK-E40 MT SVJCL 11 WM	Call For Details	HSK-E40 MT SVJCR 11 WM	E40	40	15	75	45	VC.. 1103
7005-153134	HSK-E40 MT SVJCL 13 WM	7005-153133	HSK-E40 MT SVJCR 13 WM	E40	40	15	75	45	VC.. 1303

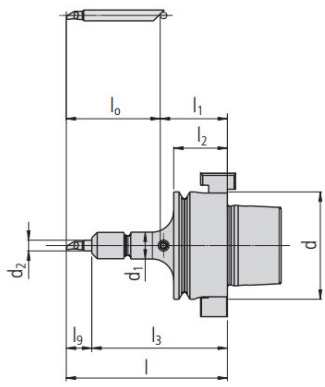




Multitask Willemin Macodel HSK-E40 MT SDA WM

Dimensions & Features											
Item No.	Description	HSK Size	d	l	lg	l1	l2	l3	d1	d2	Insert
Call For Details	HSK-E40 MT SDA-4 WM	E40	40	l0+l1	l-l3	25	20	50.5	10	4	SD.4/SX.4
Call For Details	HSK-E40 MT SDA-6 WM	E40	40	l0+l1	l-l3	25	20	54.5	15	6	SD.6/SX.6
7005-153293	HSK-E40 MT SDA-8 WM	E40	40	l0+l1	l-l3	25	20	56.5	18	8	SD.8/SX.8

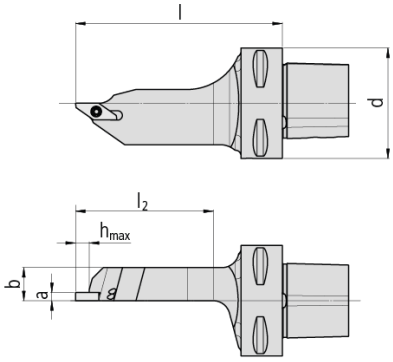




Multitask PSC 40 MT Cut 1600

Left Hand		Right Hand		Dimensions & Features							
Item No.	Description	Item No.	Description	PSC Size	d	b	l	l2	a	hmax	Insert
Call For Details	PSC 40 MT CUT 1600 L	Call For Details	PSC 40 MT CUT 1600 R	40	40	12	75	45	3	5	1600 Series

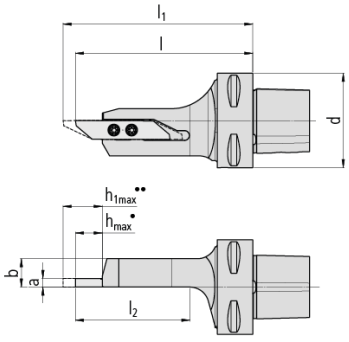




Multitask PSC 40 MT Cut 3000

Left Hand		Right Hand		Dimensions & Features									
Item No.	Description	Item No.	Description	PSC Size	d	b	l	l1	l2	a	hmax	h1max	Insert
Call For Details	PSC 40 MT CUT 3000 L	Call For Details	PSC 40 MT CUT 3000 R	40	40	12	75	80	45	3.5	10	16	3000 Series





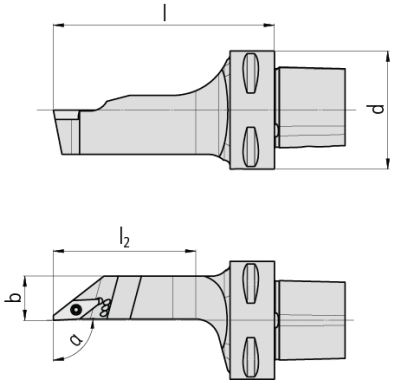
* Short Insert (hmax)
** Large Insert (h1max)

• Kurze Wendeplatte I Plaquette courte I Short insert
•• Lange Wendeplatte I Plaquette longue I Long insert

Multitask PSC 40 MT SVJP (93°)

Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	PSC Size	d	b	l	l2	Insert
Call For Details	PSC 40 MT CUT SVJPL 10	Call For Details	PSC 40 MT CUT SVJPL 10	40	40	15	75	50	VP.. 1003

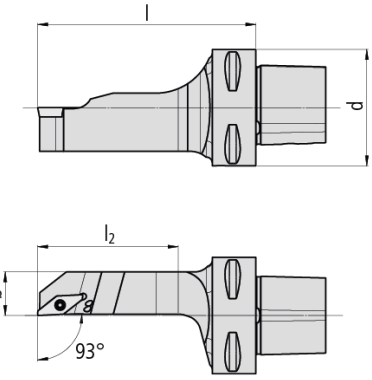




Multitask PSC 40 MT SVJP V (93°)

Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	PSC Size	d	b	l	l2	Insert
Call For Details	PSC 40 MT CUT SVJPL 10 V	Call For Details	PSC 40 MT CUT SVJPL 10 V	40	40	15	75	50	VP.. 1003

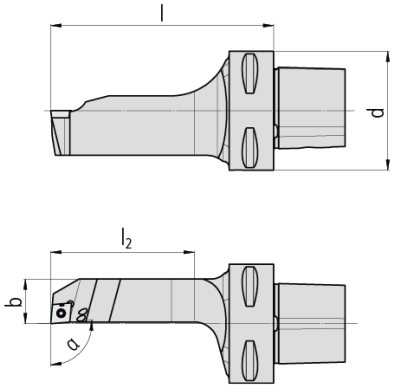




Multitask PSC 40 MT SCLC (95°)

Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	PSC Size	d	b	l	l2	Insert
Call For Details	PSC 40 MT SCLCL 06	Call For Details	PSC 40 MT SCLCR 06	40	40	15	75	43	CC.. 0602..
Call For Details	PSC 40 MT SCLCL 09	Call For Details	PSC 40 MT SCLCR 09	40	40	15	75	43	CC.. 09T3..

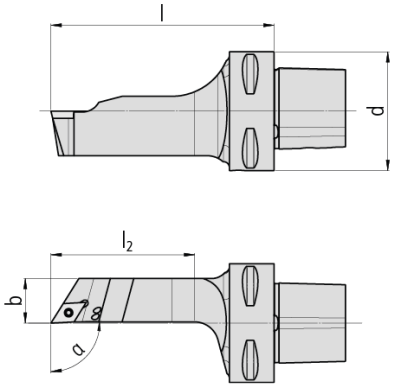




Multitask PSC 40 MT SDJC (93°)

Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	PSC Size	d	b	l	l2	Insert
Call For Details	PSC 40 MT SDJCL 07	Call For Details	PSC 40 MT SDJCR 07	40	40	15	75	43	DC.. 0702..
Call For Details	PSC 40 MT SDJCL 11	Call For Details	PSC 40 MT SDJCR 11	40	40	15	75	43	DC.. 11T3..

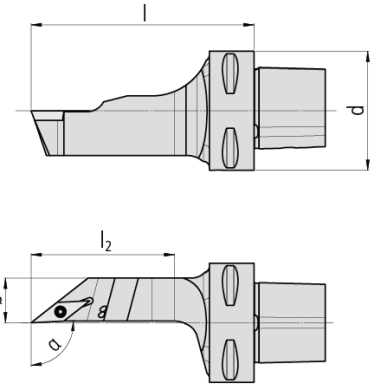




Multitask PSC 40 MT SVJC

Left Hand		Right Hand		Dimensions & Features					
Item No.	Description	Item No.	Description	PSC Size	d	b	l	l2	Insert
Call For Details	PSC 40 MT SVJCL 07	Call For Details	PSC 40 MT SVJCR 07	40	40	15	75	45	VC.. 0702..
Call For Details	PSC 40 MT SVJCL 11	Call For Details	PSC 40 MT SVJCR 11	40	40	15	75	45	VC.. 1103..
7005-153140	PSC 40 MT SVJCL 13	7005-153139	PSC 40 MT SVJCR 13	40	40	15	75	45	VC.. 1303..

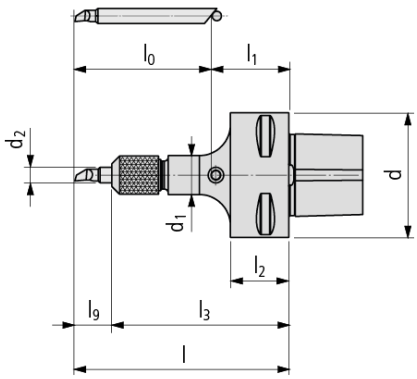




Multitask PSC 40 SDA

Dimensions & Features											
Item No.	Description	HSK Size	d	l	lg	l1	l2	l3	d1	d2	Insert
Call For Details	PSC 40 SDA-4	40	40	l0+l1	l-l3	25	20	50.5	10	4	SD.4/SX.4
Call For Details	PSC 40 SDA-6	40	40	l0+l1	l-l3	25	20	54.5	15	6	SD.6/SX.6
7005-153019	PSC 40 SDA-8	40	40	l0+l1	l-l3	25	20	56.5	18	8	SD.8/SX.8





Notes:

SWISS SILVER

Signature Series Cutting Oil



Formulated For CNC Swiss-Type Machines

Swiss Silver is formulated from a highly refined mineral base oil that is as crystal clear as pure water. Low viscosity makes it perfect for Swiss-type machines and small parts manufacturing as it provides superior penetration on micro parts and better flow to the cutting tool.

- NO STAINING RESINS - Your machine stays cleaner
- HIGH FLASH POINT - Reduces possibility of machine fires
- LOW MIST - Good for high pressure delivery
- LOW VISCOSITY - Reduces air entrapment
- INCREASED VISIBILITY - Easier to see into the machine



TYPE A - Most Metals **TYPE B - Ferrous & Tough Alloys**

Type A is for all metals, including copper and brass. It can also be used on plastics.

Type B contains an additive that increases tool life performance on ferrous. metals and tough alloys, but can tarnish brass or copper unless parts are cleaned immediately.

USES:

Swiss Silver low-viscosity cutting oils are designed for machining operations in a CNC Swiss machine. Our fluids provide exceptional visibility during operation, while allowing optimum operating speeds and stock removal. The lower viscosity allows for excellence in precision micromachining, drilling and milling operations, and more, which results in better heat dissipation, improved chip removal and the ability to dig deeper holes.

QUALITY:

Our oils are perfected to a lower viscosity with minimal reduction in flash point. The low foaming qualities and high performance make this fluid ideal for high-pressure coolant delivery systems. Utilizing state-of-the-art technology, Swiss Silver excels on all workable materials. In long-term usage, it provides high performance on all metals. It also out-performs conventional oils previously recommended by machine manufacturers. Provided in type A (all metals) and type B (ferrous and tough metals).

SAFE:

The flash point of Swiss Silver provides maximum safety. This fluid will not cause operator skin irritations and is non-hazardous. It contains no nitrites or ethanolamines.

PROPERTIES:

Swiss Silver is a clear, low-viscosity oil. The unique formulation of this product results in a low-foam, low-smoke fluid that is cleaner than standard oils used in Swiss-style CNC turning machines. Since it is a clear liquid, it provides optimum visibility for the machine operator.

STORAGE AND HANDLING:

Swiss Silver can easily be handled under ordinary commercial conditions. Storage tanks should be mild steel. Glass-lined or stainless tanks are also acceptable.

APPLICATION:

Swiss Silver is designed for circulating systems associated with Swiss-style CNC turning machines.

PACKAGING:

Swiss Silver is sold in 5-gallon pails, 55-gallon drums, and 275-gallon totes.

	CUTTING OIL						
Properties:	**A**	**AB**	**HM**	**HP**	**PL**	**VX**	**GD**
Specific Gravity @ 60°F	.92	.90	.94	.92	.86	.95	.88
Pounds/Gallon	7.60	7.50	7.60	7.60	7.20	7.98	7.25
Viscosity SUS @ 100°F	85	85	<90	94	62		90
Appearance	Light Amber	Light Amber	Light Amber	Light Amber	Bright Clear	Amber	Bright Clear
Flash Point	> 365°F	>360°F	> 365°F	>380°F	>320°F	>420°F	>420°F
Materials	Ferrous, Non-Ferrous	Aluminum, Brass, Copper	Nickel, Inconel, Hastelloy, Exotic Alloys	Stainless Steel, Tough Alloys, Titanium, Brass, Aluminum	Stainless Steel, Tough Alloys, Titanium, Brass, Aluminum	Aerospace Alloys, Aluminum, Tough Steel/Nickel Alloys	Stainless Steel, Tough Alloys, Titanium, Brass, Aluminum

Swiss Silver Premium - Most Metals

Our standard premium HIGH PERFORMANCE product, ideal for all Swiss-type machines or small parts turning centers. Provides extended tool life in ferrous and non-ferrous applications. Minimal air entrainment reduces misting under medium pressure coolant delivery.

Type	Size	Item No.	Description
A (Most Metals)	55 Gallon	2505-000100	LCO-SS00-A00-MGS
A (Most Metals)	5 Gallon	2505-000107	LCO-SS00-A00-M-5G
B (Ferrous & Tough Alloys)	55 Gallon	2505-000101	LCO-SS00-B00-MGS
B (Ferrous & Tough Alloys)	5 Gallon	2505-000118	LCO-SS00-B00-M-5G

Swiss Silver AB - Aluminum & Brass

Specifically formulated for enhanced surface finish results in aluminum, brass & copper applications. Prevents tarnishing of yellow metals. Features low air entrainment for low mist under medium pressure coolant delivery.

Type	Size	Item No.	Description
Standard	55 Gallon	2505-000102	LCO-SSAB-000-MGS
Standard	5 Gallon	2505-000113	LCO-SSAB-000-M-5G
High Pressure	55 Gallon	2505-000111	LCO-SSHP-AB0-MGS
High Pressure	5 Gallon	2505-000119	LCO-SSHP-AB0-M-5G

Swiss Silver HM - Hard Metals

A special formulation of Swiss Silver designed to enhance the machining of "hard metals" such as high nickel materials, inconel, hastelloy, and other tough-to-machine exotic alloys. Includes the tool life enhancing additives and low misting agents offered in other Swiss Silver variants.

Type	Size	Item No.	Description
B (Ferrous & Tough Alloys)	55 Gallon	2505-000103	LCO-SSHM-B00-MGS
B (Ferrous & Tough Alloys)	5 Gallon	2505-000120	LCO-SSHM-B00-M-5G

Swiss Silver HP - High Pressure Delivery Formula

An enhanced formula of the standard premium cutting oil product that greatly reduces the mist and air entrainment under high pressure pump coolant delivery applications found in many Swiss-type machining operations.

Type	Size	Item No.	Description
A (Most Metals)	55 Gallon	2505-000104	LCO-SSHP-A00-MGS
A (Most Metals)	5 Gallon	2505-000108	LCO-SSHP-A00-M-5G
B (Ferrous & Tough Alloys)	55 Gallon	2505-000105	LCO-SSHP-B00-MGS
B (Ferrous & Tough Alloys)	5 Gallon	2505-000117	LCO-SSHP-B00-M-5G

Swiss Silver PL - Platinum

Provides low viscosity and better heat dispersion for precision micro machining and deep hole drilling. Available in both TYPE A & Type B Grades. Excels on stainless steel, tough alloys, titanium, brass, and aluminum.

Type	Size	Item No.	Description
A (Most Metals)	55 Gallon	2505-000121	LCO-SSPS-HPA-SYN
A (Most Metals)	55 Gallon	2505-000106	LCO-SSVX-101A-VGS
A (Most Metals)	5 Gallon	2505-000114	LCO-SSVX-101A-VGS-5G
B (Ferrous & Tough Alloys)	55 Gallon	2505-000110	LCO-SSVX-101B-VGS
B (Ferrous & Tough Alloys)	5 Gallon	2505-000123	LCO-SSVX-101B-VGS-5G

Swiss Silver VX - Vegetable Based Formula

A high-performance vegetable based cutting oil product that provides pure lubricity and unparalleled surface finish on ferrous and non-ferrous parts. Biodegradable and evironmentally acceptable for fulfilling 'green' manufacturing objectives.

Type	Size	Item No.	Description
A (Most Metals)	55 Gallon	2505-000106	LCO-SSVX-101A-VGS
A (Most Metals)	5 Gallon	2505-000114	LCO-SSVX-101A-VGS-5G
B (Ferrous & Tough Alloys)	55 Gallon	2505-000110	LCO-SSVX-101B-VGS
B (Ferrous & Tough Alloys)	5 Gallon	2505-000123	LCO-SSVX-101B-VGS-5G

Swiss GD - Gold

Low foaming oil with maximum visibility, Swiss Gold is ideal for high pressure systems, providing a mix of low viscosity and a high flash point. Excels on stainless steel, tough alloys, titanium, brass, and aluminum. Long term use provides high performance on all metals.

Type	Size	Item No.	Description
A (Most Metals)	55 Gallon	2505-000129	LCO-SSGA-A00-MGS

Special formulations are also available for custom applications.
Low or no chlorine formulas available on request.
Way Lube also available.

SWISS SILVER

Signature Series Bar Feed Oil

USES:
Swiss Silver Bar Feed Oils are premium rust and oxidation inhibited lubricants that are typically described as circulating, turbine, hydraulic and bearing oil. It can be used as low pressure hydraulic, circulating, gear, and compressor oil. It is specially formulated with high quality base stock and thermally stable additives. This oil offers excellent resistance to rust, oxidation, foam, and sludge formation.

QUALITY:
Our oils are made from high VI Group II paraffinic base stock that provide outstanding thermal and oxidative stability, low copper activity, excellent rust protection, good hydrolytic stability, good demulsifying capability and good antifoam characteristics. These fluids contain no sulfur or zinc-type additives which helps eliminate the formation of biofilms when exposed to water-based metalworking fluids. These oils are suitable for N/C machine tools and other high output equipment where sustained heat is prevalent. These oils exhibit superior hydrolytic stability in the presence of water and will not contribute to either the formation of metal-etching acids or corrosive reactants.

SAFE:
They are inhibited against rusting in both fresh and sea water and pass both A and B Sequences of the ASTM D 665 Turbine Oil Rust Test. These oils are approved against stringent performance requirements including Cincinnati Milacron P-38, P-45, P-54, P-55, P-57, P-62, Parker Hannifin France HF-1, DIN 51524 Part 1, MIL-H-17672C, US Steel 126, and AFNOR E-46-800 HL. ISO 100 Bar Feed Oil resist foaming and will not foster abnormal air entrainment in properly designed hydraulic circuits. The oils also readily and rapidly separate water permitting sump drain-off of the contaminating water.

PROPERTIES:
Swiss Silver is a clear, low-viscosity oil. The unique formulation of this product results in a low-foam, low-smoke fluid that is cleaner than standard oils used in Swiss-style CNC turning machines. Since it is a clear liquid, it provides optimum visibility for the machine operator.

STORAGE AND HANDLING:
Swiss Silver can easily be handled under ordinary commercial conditions. Storage tanks should be mild steel. Glass-lined or stainless tanks are also acceptable.

APPLICATION:
These Oils are recommended for service in vain, piston, and gear pumps when used in accordance with the manufacturer's recommendations. They are designed to provide maximum service life to these pumps as well as to other circuit components such as motors and servos. These oils are also recommended for use as gear and bearing lubricants in industrial applications where rust and oxidation inhibited oils are required.

PACKAGING:
Swiss Silver is sold in 5-gallon pails, 55-gallon drums, and 275-gallon totes.

SWISS SILVER

Signature Series Bar Feed Oil

	BAR FEED OIL			
Properties:	**ISO 100**	**ISO 150**	**ISO 220**	**ISO 320**
Specific Gravity @ 60°F	28.6	28	27.5	26.9
Pounds/Gallon	7.3	7.3	7.4	7.4
Viscosity SUS @ 100°F	532	810	1170	1706
Appearance	Light Amber	Light Amber	Light Amber	Light Amber
Flash Point	> 500°F	>525°F	> 547°F	>565°F
Materials	Ferrous, Non-Ferrous	Aluminum, Brass, Copper	Nickel, Inconel, Hastelloy, Exotic Alloys	Stainless Steel, Tough Alloys, Titanium, Brass, Aluminum

Swiss Silver ISO Bar Feed Oil

A premium rust and oxidation inhibited lubricants that are typically described as circulating, turbine, hydraulic and bearing oil. It can be used as low pressure hydraulic, circulating, gear, and compressor oil. It is specially formulated with high quality base stock and thermally stable additives. This oil offers excellent resistance to rust, oxidation, foam, and sludge formation.

Type	Size	Item No.
General Purpose	55 Gallon	Call For Details
General Purpose	5 Gallon	Call For Details



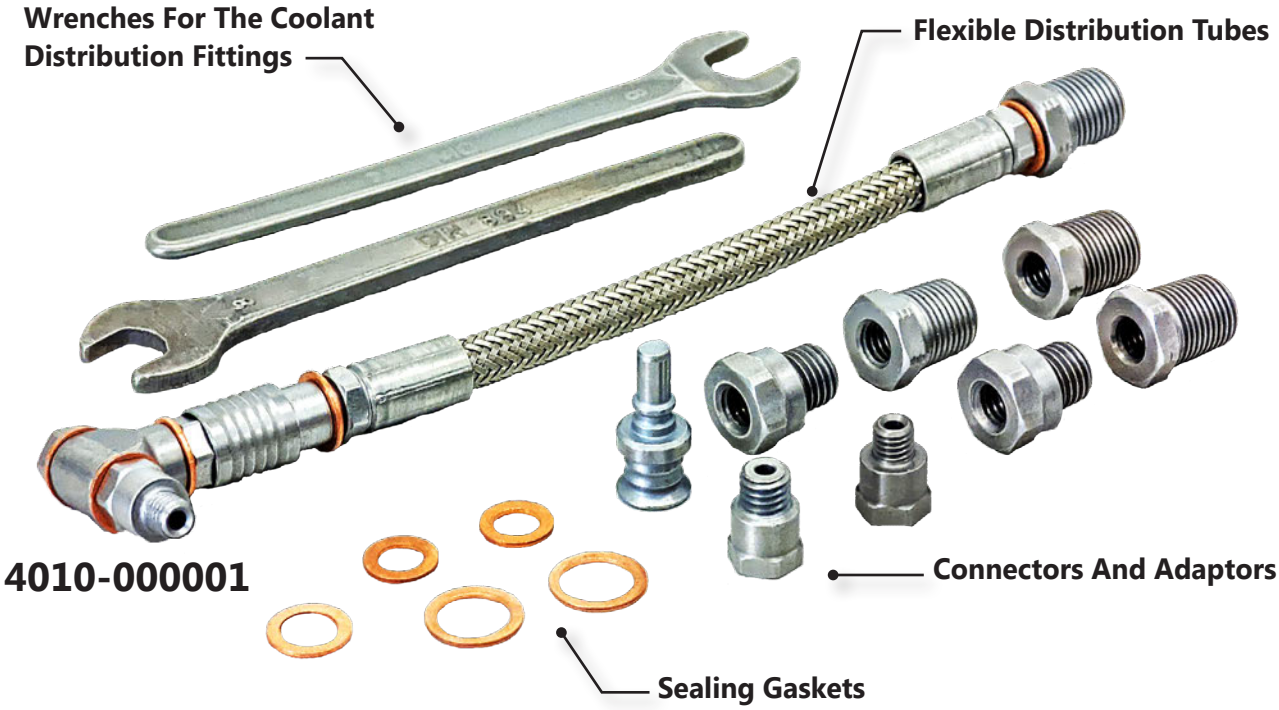






GenSwiss MicroCoolant Kit

- **No more searching for proper fittings!**
- **Everything in one kit with all connections!**
- **Precision Copper sealing gaskets!**
- **High pressure hose with quick disconnect!**
- **Wrenches included for all fittings!**



GenSwiss MicroCoolant Kit

Flexible tube 102mm (Stocked) 152mm / 203mm (Available upon request) with quick connection fittings.

Quick Connection Fittings:
(1) Quick connection fitting MICRO with M8x1(M) on one end.

Flexible Distribution Tubes:
(1) M8x1(M), flexible tube OD: 8 mm, L: 4", 6" or 8" (102, 152 or 203 mm), M8x1(M)

Connectors And Adaptors:
(2) Adaptor M8x1 (H) to BSPP 1/8" (M)
(1) Adaptor M8x1 (H) to M6x1 (M)
(1) Spacer H:10mm M8x1 (M)-M8x1 (F)
(1) Short banjo M8x1 (F)
(1) Banjo bolt M8x1 (M)

Locking And Connecting Plugs:
(1) Quick connection fitting NANO to M8x1(F)
(1) Sealing plug with quick connection fitting MICRO

Sealing Gaskets:
(2) Sealing gasket in copper for M6
(6) Sealing gasket in copper for M8
(1) Sealing gasket in copper for M10 & BSPP 1/8"

Fastening Keys For Coolant Distribution Fittings:
(2) Wrench for assembly on the universal hexagon used in the MICRO program.

Connectors and Adaptors



Adaptor M6x1(H) to NPT 1/8"(M)



Adaptor M6x1(H) to BSPT 1/8"(M)



Adaptor M6x1(H) to M8x1(M)



Adaptor M6x1(H) to M5x0.8(M)



Quick-Change Protector Plug



Adaptor M6x1(H) to BSPT 1/8"(M)



Adaptor M6x1(H) to M8x1(M)



Quick-Change Fitting M6x1(M) on one end(M)

GenSwiss Signature Series MicroCoolant Adaptors



M5 to 1/4JIC
4005-000133

- Easily adapts coolant delivery kits to standard quarter JIC feedlines from high-pressure pumps
- Run a feedline from the pump to the tool
- M5 to 1/4JIC



M6 to 1/4JIC
4005-000134

- Easily adapts coolant delivery kits to standard quarter JIC feedlines from high-pressure pumps
- Run a feedline from the pump to the tool
- M6 to 1/4JIC

Signature Series Ejector Pins
For CITIZEN, STAR, & TSUGAMI Machines

Standard Machining Applications



M10 to M8 Adapter For Using Stand-Alone Ejector Pins With 25 & 32mm Machines

Stand-Alone Ejector Pins

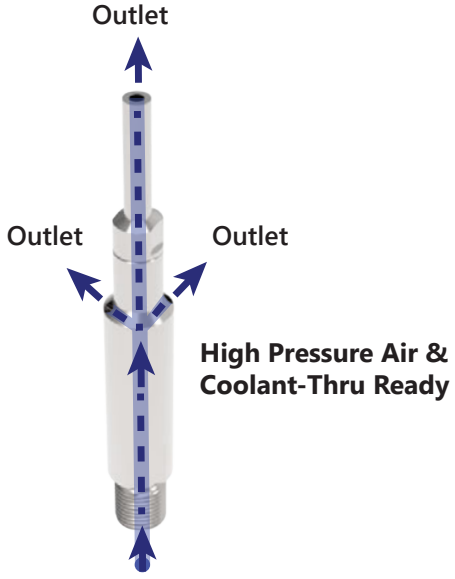
Ejector Pin Bases With High Pressure Air Or Coolant-Thru

*Kit EJK-CIT2532-KIT-A Shown

Interchangeable Tips With High Pressure Air Or Coolant-Thru

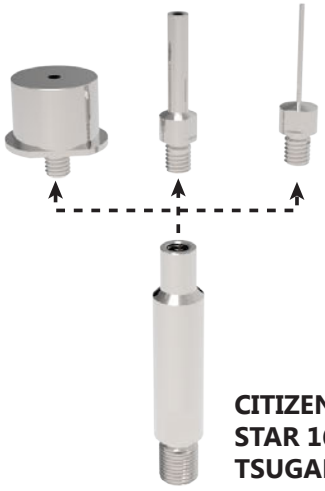
Cut Down On Cost & Reduce Operation Time

Ejector Pins With High Pressure Air or Coolant-Thru



High Pressure Air & Coolant-Thru Ready

Inlet For High Pressure Air or Coolant Inlet



Multiple Tip Sizes For Different Collet Types & Sizes

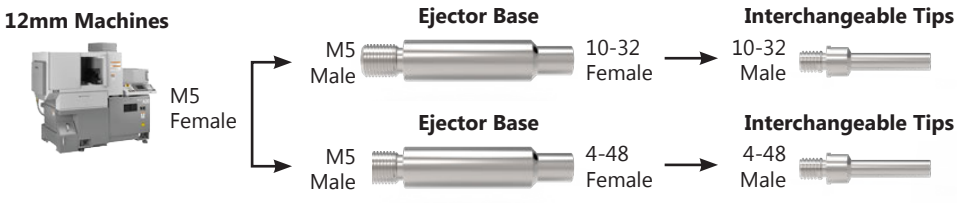
Interchangeable Tips Cut Down On Cost and Reduces Operation Time

CITIZEN 12, 16, 20, 25, & 32mm Machine Kits
STAR 16, 20, 25, & 32mm Machine Kits
TSUGAMI 12, 16, & 20mm Machine Kits



CITIZEN 12mm Machines

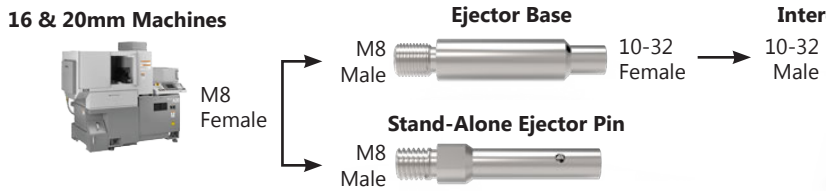
Item No.	Kit	Machines	Component Type	Diameter	Length	Coolant-Thru
7512-000128	EJK-CIT12-KIT-A	Citizen K12, L12	Ejector Base	.160in	1.550in	No
				.310in	1.550in	Yes
			Interchangeable Tips	.040in	0.850in	No
				.060in	0.850in	No
				.090in	0.850in	No
				.120in	0.850in	No
				.040in	1.034in	No
				.093in	1.034in	Yes
				.200in	1.034in	Yes
				.310in	1.034in	Yes





CITIZEN 16 & 20mm Machines

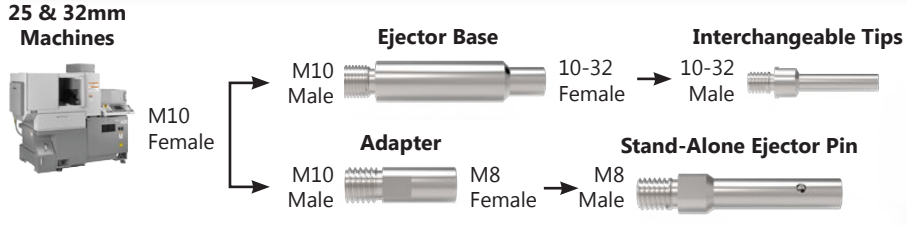
Item No.	Kit	Machines	Component Type	Diameter	Length	Coolant-Thru
7512-000124	EJK-CIT1620-KIT-A	Citizen C16, A20, L20, M20	Ejector Base	.276in	1.600in	Yes
			Interchangeable Tips	.625in	0.500in	Yes
				.040in	1.034in	No
				.070in	1.034in	No
				.093in	1.034in	Yes
				.200in	1.034in	Yes
			Stand-Alone Ejectors	.120in	1.600in	No
				.240in	1.600in	Yes
				.300in	1.600in	Yes
				.394in	1.600in	Yes





CITIZEN 25 & 32mm Machines

Item No.	Kit	Machines	Component Type	Diameter	Length	Coolant-Thru
7512-000125	EJK-CIT2532-KIT-A	Citizen L25, A32, L32, M32	Ejector Base	.276in	1.600in	Yes
			Interchangeable Tips	.625in	0.500in	Yes
				.040in	1.034in	No
				.070in	1.034in	No
				.093in	1.034in	Yes
				.200in	1.034in	Yes
			Stand-Alone Ejectors	.120in	1.600in	No
				.240in	1.600in	Yes
				.300in	1.600in	Yes
				.394in	1.600in	Yes
			Adapter M10-M8	.394in	0.800in	Yes





STAR 16, 20, 25, & 32mm Machines

Item No.	Kit	Machines	Component Type	Diameter	Length	Coolant-Thru
7512-000139	EJK-STA1632-KIT-A	Star	Ejector Base	.275in	1.571in	Yes
			Interchangeable Tips	.093in	1.034in	No
				.093in	1.034in	Yes
				.150in	1.034in	Yes
				.250in	1.034in	Yes
				.310in	1.034in	Yes
				.375in	1.034in	No
				.375in	1.034in	Yes
				.437in	1.034in	No
				.437in	1.034in	Yes

16, 20, 25, & 32mm Machines



M10 Female → **Ejector Base** M10 Male



10-32 Female → **Interchangeable Tips** 10-32 Male





TSUGAMI 12mm Machines

Item No.	Kit	Machines	Component Type	Diameter	Length	Coolant-Thru
7512-000141	EJK-TSU12-KIT-A	Tsugami	Ejector Base	.276in	0.8in	Yes
			Interchangeable Tips	.093in	1.034in	No
				.120in	1.034in	Yes
				.200in	1.034in	Yes
				.310in	1.034in	Yes
				.375in	1.034in	Yes
				.437in	1.034in	No
				.437in	1.034in	Yes

12mm Machines



M8 Female → **Ejector Base** M8 Male



10-32 Female → **Interchangeable Tips** 10-32 Male





TSUGAMI 16 & 20mm Machines

Item No.	Kit	Machines	Component Type	Diameter	Length	Coolant-Thru
7512-000140	EJK-TSU1620-KIT-A	Tsugami	Ejector Base	.276in	0.8in	Yes
			Interchangeable Tips	.093in	1.034in	No
				.093in	1.034in	Yes
				.150in	1.034in	Yes
				.250in	1.034in	Yes
				.310in	1.034in	Yes
				.375in	1.034in	No
				.375in	1.034in	Yes
				.437in	1.034in	No
				.437in	1.034in	Yes

16mm & 20mm Machines



M8 Female → **Ejector Base** M8 Male



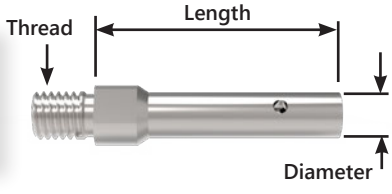
10-32 Female → **Interchangeable Tips** 10-32 Male





Stand-Alone Ejector Pin Kit

Item No.	Kit	Machines	Diameter	Length	Coolant-Thru
7512-000136	EJK-M8-KIT-A	Citizen C16, A20, L20, M20, L25, A32, L32, M32	.120in	1.600in	No
			.240in	1.600in	Yes
			.300in	1.600in	Yes
			.394in	1.600in	Yes



Ejector Base Packs

Machine(s)	Pieces	Coolant-Thru	FIts Ejector TIps	Item No.	Pack No.
TSUGAMI 12, 16, 20mm	4	Yes	10-32	7512-000149	EJK-PACKBASE-M8-1032-080-IC
STAR 12, 16, 20, 32mm	4	Yes	10-32	7512-000150	EJK-PACKBASE-M10-1032-157-IC
CITIZEN 12mm	4	Yes	10-32	7512-000151	EJK-PACKBASE-M5-1032-155-IC
CITIZEN 12mm	4	Yes	4-48	7512-000152	EJK-PACKBASE-M5-448-155-IC*
CITIZEN 16, 20mm	4	Yes	10-32	7512-000153	EJK-PACKBASE-M8-1032-160-IC
CITIZEN 25, 32mm	4	Yes	10-32	7512-000154	EJK-PACKBASE-M10-1032-160-IC

*Requires tips from kit EJK-CIT12-KIT-A or kit EJK-0448-KIT-A

Tip Packs - Includes 5 Pieces Of A Single Size

Pieces	Diameter	Length	Coolant-Thru	Thread	Item No.	Pack No.
5	.040in	1.034in	No	10-32	7512-000163	EJK-PACKTIP-1032-1034-040
5	.070in	1.034in	No	10-32	7512-000162	EJK-PACKTIP-1032-1034-070
5	.093in	1.034in	No	10-32	7512-000161	EJK-PACKTIP-1032-1034-093
5	.093in	1.034in	Yes	10-32	7512-000164	EJK-PACKTIP-1032-1034-093-IC
5	.120in	1.034in	Yes	10-32	7512-000160	EJK-PACKTIP-1032-1034-120-IC
5	.150in	1.034in	Yes	10-32	7512-000159	EJK-PACKTIP-1032-1034-150-IC
5	.200in	1.034in	Yes	10-32	7512-000158	EJK-PACKTIP-1032-1034-200-IC
5	.250in	1.034in	Yes	10-32	7512-000157	EJK-PACKTIP-1032-1034-250-IC
5	.310in	1.034in	Yes	10-32	7512-000155	EJK-PACKTIP-1032-1034-310-IC
5	.375in	1.034in	No	10-32	7512-000167	EJK-PACKTIP-1032-1034-375
5	.375in	1.034in	Yes	10-32	7512-000168	EJK-PACKTIP-1032-1034-375-IC
5	.437in	1.034in	No	10-32	7512-000165	EJK-PACKTIP-1032-1034-437
5	.437in	1.034in	Yes	10-32	7512-000166	EJK-PACKTIP-1032-1034-437-IC
5	.500in	1.034in	Yes	10-32	7512-000169	EJK-PACKTIP-1032-500-500-IC
5	.625in	1.034in	Yes	10-32	7512-000170	EJK-PACKTIP-1032-500-625-IC

Assorted Tip Kits

Machine(s)	Pieces	Diameter	Length	Coolant-Thru	Thread	Item No.	Kit No.
CITIZEN 12mm	4	.040in	.850in	No	4-48	7512-000135	EJK-0448-KIT-A*
		.060in	.850in	No	4-48		
		.090in	.850in	No	4-48		
		.120in	.850in	No	4-48		
CITIZEN 12, 16, 20, 25, 32mm	9	.040in	1.034in	No	10-32	7512-000134	EJK-1032-KIT-A
		.070in	1.034in	No	10-32		
		.093in	1.034in	No	10-32		
		.093in	1.034in	Yes	10-32		
		.120in	1.034in	Yes	10-32		
		.150in	1.034in	Yes	10-32		
		.200in	1.034in	Yes	10-32		
		.250in	1.034in	Yes	10-32		
		.310in	1.034in	Yes	10-32		
STAR 16, 20, 25, & 32mm TSUGAMI 16 & 20mm	13	.040in	1.034in	No	10-32	7512-000142	EJK-STTS1032-KIT-A
		.070in	1.034in	No	10-32		
		.093in	1.034in	No	10-32		
		.375in	1.034in	No	10-32		
		.437in	1.034in	No	10-32		
		.093in	1.034in	Yes	10-32		
		.120in	1.034in	Yes	10-32		
		.150in	1.034in	Yes	10-32		
		.200in	1.034in	Yes	10-32		
		.250in	1.034in	Yes	10-32		
		.310in	1.034in	Yes	10-32		
		.375in	1.034in	Yes	10-32		
		.437in	1.034in	Yes	10-32		

*Requires a base from kit EJK-CIT12-KIT-A or base kit EJK-PACKBASE-M5-448-155-IC for 12mm Citizen machines

Parts Cleaning System

- Easy to install - connects to shop air in minutes
- Keeps the air and floor clean of oil residue
- Captures EXPENSIVE cutting fluids for reuse
- The perfect accessory for Swiss machine shops
- Wash stations are available for washing & drying parts

Item No.	Description
1550-000101	12inch Angle Top MiJET Unit
1550-000102	12inch Flat Top MiJET Unit
1550-000100	8inch Angle Top MiJET Unit
1550-000103	8inch Flat Top MiJET Unit
1550-000131	8inch MiJET Wash Station
1550-000132	12inch MiJET Wash Station



Optional Casters For Ease Of Transport



Flat Top Mi-JET





Wash Stations Include:

- Table with counter top
- Solvent container
- Fluid pump
- MiJet unit

MAGNETIC FINISHING

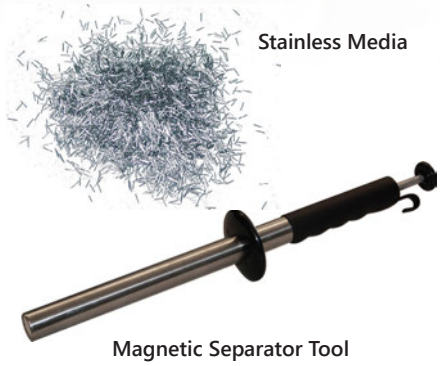
No Feature Is Too Small

- Edge rounding of .002-.003in
- Removes micro burrs
- Improves surface finishes

Contact Us For A FREE Applications Trial







Magnetic Finishers remove micro burrs and improve surface finishes on Non-Ferrous materials and some stainless steels. Small steel pins with diameters ranging from .007in -.050in are spun at a high-speed by a magnetic wheel. The size of the pins enable them to travel through fragile parts to remove microscopic burrs that would normally be removed by hand. The non-aggressive burnishing action enables desirable edge rounding of .002-.003" without part damage to threads, knurls, or other fine edge surfaces.

Complete Sets - Includes Stainless Finishing Media & Supplies

Item No.	Description	Bowl Size	Includes:
1505-000134	FR-CMF-610-S	6in	Includes Base, Turbo Finishing Pins, Burnishing Solution, & Magnetic Separator - 120V or 230V
1505-000130	FR-CMF-900-S	9in	Includes Base, Turbo Finishing Pins, Burnishing Solution, & Magnetic Separator - 120V or 230V

Finisher Units

Item No.	Description	Includes:
1505-000104	FR-23051	6in Finisher Unit
1505-000105	FR-23052	9in Finisher Unit

Stainless Steel Media

Item No.	Description	Includes:
1505-000126	FR-41374R	(1.00kg) .3mm Diameter x 5mm OAL
1505-000128	FR-41378R	(1.00kg) .5mm Diameter x 5mm OAL

Additional sizes available upon request

GenSwiss Signature Series Micro Inspection Vice Blocks

GenSwiss Signatures Series micro inspection vice blocks are a compact solution for holding the round shanks of micro tools and parts during inspection. Each block features precision ground datum surfaces so you can get accurate measurements and no tool or part movement in the block.

- **Special "V" block geometry for excellent hold on round micro parts and tools**
- **Ground datum surfaces for positioning**
- **Can be used on inspection tables and precision surfaces**
- **Holds shanks from 0.5mm to 6.0mm**



GenSwiss Micro Inspection Vice Blocks



5540-000486
V-Block 0.5mm - 1.0mm Micro Inspection Clamp



5540-000487
V-Block 1.0mm - 1.5mm Micro Inspection Clamp



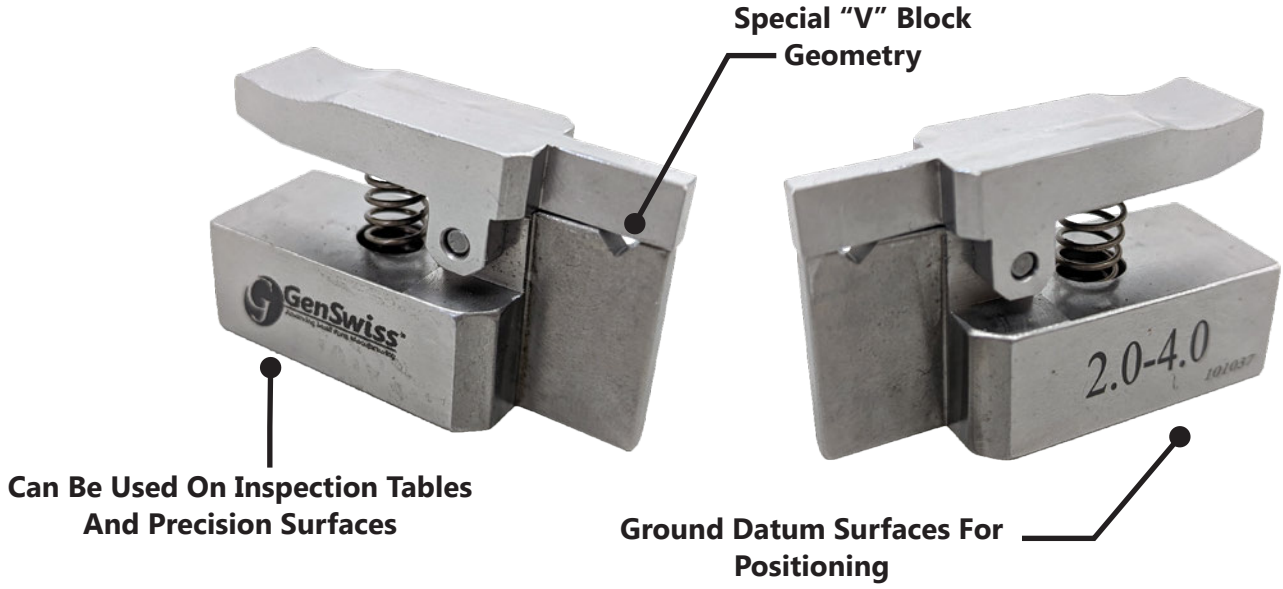
5540-000488
V-Block 1.5mm - 2mm Micro Inspection Clamp



5540-000489
V-Block 2.0mm - 4.0mm Micro Inspection Clamp



5540-000490
V-Block 4.0mm - 6.0mm Micro Inspection Clamp



Item No.	Description	Tool Size Range	Block Size
5540-000486	IMC V-Block 0.5mm - 1.0mm Micro Inspection Clamp	0.5-1.0mm	52x20x31mm
5540-000487	IMC V-Block 1.0mm - 1.5mm Micro Inspection Clamp	1.0-1.5mm	52x20x31mm
5540-000488	IMC V-Block 1.5mm - 2.0mm Micro Inspection Clamp	1.5-2.0mm	52x20x31mm
5540-000489	IMC V-Block 2.0mm - 4.0mm Micro Inspection Clamp	2.0-4.0mm	52x20x31mm
5505-000490	IMC V-Block 4.0mm - 6.0mm Micro Inspection Clamp	4.0-6.0mm	52x20x31mm

GenSwiss Micro Inspection Vice Blocks

IMC V-Block 0.5mm - 1.0mm Micro Inspection Clamp
- GSI Part - 5540-000486
- Tool Size Range - 0.5-1.0mm
- Block Length - 52mm
- Block Width - 20mm
- Block Height - 31mm

IMC V-Block 1.0mm - 1.5mm Micro Inspection Clamp
- GSI Part - 5540-000487
- Tool Size Range - 1.0-1.5mm
- Block Length - 52mm
- Block Width - 20mm
- Block Height - 31mm

IMC V-Block 1.5mm - 2.0mm Micro Inspection Clamp
- GSI Part - 5540-000488
- Tool Size Range - 1.5-2.0mm
- Block Length - 52mm
- Block Width - 20mm
- Block Height - 31mm

IMC V-Block 2.0mm - 4.0mm Micro Inspection Clamp
- GSI Part - 5540-000489
- Tool Size Range - 2.0-4.0mm
- Block Length - 52mm
- Block Width - 20mm
- Block Height - 31mm

IMC V-Block 4.0mm - 6.0mm Micro Inspection Clamp
- GSI Part - 5540-000490
- Tool Size Range - 4.0-6.0mm
- Block Length - 52mm
- Block Width - 20mm
- Block Height - 31mm



SIGNATURE SERIES
Collets & Guide Bushings

GenSwiss®
Advancing Small Parts Manufacturing



Introducing GenSwiss' Signature Series Collets and Guide Bushings. Our collection of precision ground collets and guide bushings provides your stock material with exceptional stability. Get the dependability that you require when rigidity and repeatability are paramount. GenSwiss Signature Series Collets and Guide Bushings have you covered from the moment that your bar stock enters the machine.

- **Barfeed collets, sub-spindle collets, guide bushings**
- **Minimize the risk of error in your runs**
- **Regular & extended nose**
- **Available for all major machine models**

GenSwiss #	Product Type
1100-XXXXXX	Headstock/Sub-Spindle Collets
1110-XXXXXX	Guide Bushings
1120-XXXXXX	Emergency Collets
1130-XXXXXX	Barfeed Collets

Steel Emergency Collet - Standard Nose

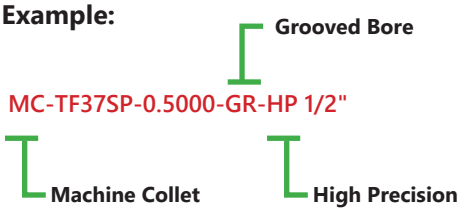
Standard	Item No.	Description
TF15	1120-000100	EMC-TF15 Steel Emergency Collet
TF16	1120-000101	EMC-TF16 Steel Emergency Collet
TF20	1120-000102	EMC-TF20 Steel Emergency Collet
TF25	1120-000103	EMC-TF25 Steel Emergency Collet
TF30	1120-000104	EMC-TF30 Steel Emergency Collet
TF37	1120-000105	EMC-TF37SP Steel Emergency Collet

Call for additional sizes and extended nose emergency collets.

Standard	Bore Size	Item No.	Description	Material
TF15	1/8in	1100-000100	MC-TF15-0.1250-GR-HP: 1/8"	Steel
	1/4in	1100-000101	MC-TF15-0.2500-GR-HP: 1/4"	Steel
	3/8in	1100-000102	MC-TF15-0.3750-GR-HP: 3/8"	Steel
TF16	1/8in	1100-000103	MC-TF16-0.1250-GR-HP: 1/8"	Steel
	5/32in	1100-000220	MC-TF16-0.1563-GR-HP: 5/32"	Steel
	3/16in	1100-000219	MC-TF16-0.1875-GR-HP: 3/16"	Steel
	1/4in	1100-000104	MC-TF16-0.2500-GR-HP: 1/4"	Steel
	7mm	1100-000221	MC-TF16-0.2756-GR-HP: 7mm	Steel
	3/8in	1100-000105	MC-TF16-0.3750-GR-HP: 3/8"	Steel
	1/2in	1100-000106	MC-TF16-0.5000-GR-HP: 1/2"	Steel
TF20	1/8in	1100-000107	MC-TF20-0.1250-GR-HP: 1/8"	Steel
	5/32in	1100-000223	MC-TF20-0.1563-GR-HP: 5/32"	Steel
	3/16in	1100-000224	MC-TF20-0.1875-GR-HP: 3/16"	Steel
	1/4in	1100-000108	MC-TF20-0.2500-GR-HP: 1/4"	Steel
	7mm	1100-000225	MC-TF20-0.2756-GR-HP: 7mm	Steel
	3/8in	1100-000109	MC-TF20-0.3750-GR-HP: 3/8"	Steel
	1/2in	1100-000110	MC-TF20-0.5000-GR-HP: 1/2"	Steel
	5/8in	1100-000111	MC-TF20-0.6250-GR-HP: 5/8"	Steel
TF25	5/32in	1100-000227	MC-TF25-0.1563-GR-HP: 5/32"	Steel
	3/16in	1100-000201	MC-TF25-0.1875-GR-HP: 3/16"	Steel
	1/4in	1100-000112	MC-TF25-0.2500-GR-HP: 1/4"	Steel
	7mm	1100-000206	MC-TF25-0.2756-GR-HP: 7mm	Steel
	3/8in	1100-000113	MC-TF25-0.3750-GR-HP: 3/8"	Steel
	7/16in	1100-000203	MC-TF25-0.4375-GR-HP: 7/16"	Steel
	1/2in	1100-000114	MC-TF25-0.5000-GR-HP: 1/2"	Steel
	9/16in	1100-000204	MC-TF25-0.5625-GR-HP: 9/16"	Steel
	5/8in	1100-000115	MC-TF25-0.6250-GR-HP: 5/8"	Steel
	11/16in	1100-000205	MC-TF25-0.6875-GR-HP: 11/16"	Steel
	3/4in	1100-000116	MC-TF25-0.7500-GR-HP: 3/4"	Steel

Nomenclature	
MB - Machine Bushing	SB - Smooth Bore
MC - Machine Collet	GR - Grooved
HP - High Precision	EN - Extended Nose
	ENT - Extended Nose Taper

Example:



Standard	Bore Size	Item No.	Description	Material
TF30	1/4in	1100-000117	MC-TF30-0.2500-GR-HP: 1/4"	Steel
	3/8in	1100-000118	MC-TF30-0.3750-GR-HP: 3/8"	Steel
	1/2in	1100-000119	MC-TF30-0.5000-GR-HP: 1/2"	Steel
	5/8in	1100-000120	MC-TF30-0.6250-GR-HP: 5/8"	Steel
	3/4in	1100-000121	MC-TF30-0.7500-GR-HP: 3/4"	Steel
	7/8in	1100-000122	MC-TF30-0.8750-GR-HP: 7/8"	Steel
	1.0in	1100-000123	MC-TF30-1.0000-GR-HP: 1.0"	Steel
TF37-SP	1/4in	1100-000124	MC-TF37SP-0.2500-GR-HP: 1/4"	Steel
	7mm	1100-000228	MC-TF37SP-0.2756-GR-HP: 7mm	Steel
	8mm	1100-000229	MC-TF37SP-0.3149-GR-HP: 8mm	Steel
	3/8in	1100-000125	MC-TF37SP-0.3750-GR-HP: 3/8"	Steel
	1/2in	1100-000126	MC-TF37SP-0.5000-GR-HP: 1/2"	Steel
	5/8in	1100-000127	MC-TF37SP-0.6250-GR-HP: 5/8"	Steel
	3/4in	1100-000128	MC-TF37SP-0.7500-GR-HP: 3/4"	Steel
	7/8in	1100-000129	MC-TF37SP-0.8750-GR-HP: 7/8"	Steel
	1.0in	1100-000130	MC-TF37SP-1.0000-GR-HP: 1.0"	Steel
	1-1/8in	1100-000131	MC-TF37SP-1.1250-GR-HP: 1-1/8"	Steel
	1-1/4in	1100-000132	MC-TF37SP-1.2500-GR-HP: 1-1/4"	Steel

Nomenclature	
MB - Machine Bushing	SB - Smooth Bore
MC - Machine Collet	GR - Grooved
HP - High Precision	EN - Extended Nose
	ENT - Extended Nose Taper

Example:

MC-TF37SP-0.5000-GR-HP 3/8"

- MC: Machine Collet
- TF37SP: Grooved Bore
- HP: High Precision

Standard	Bore Size	Item No.	Description	Material
TF15	1/8in	1100-000133	MC-TF15-0.1250-SB-HP: 1/8"	Steel
	1/4in	1100-000134	MC-TF15-0.2500-SB-HP: 1/4"	Steel
	3/8in	1100-000135	MC-TF15-0.3750-SB-HP: 3/8"	Steel
TF16	1/8in	1100-000139	MC-TF16-0.1250-SB-HP: 1/8"	Steel
	1/4in	1100-000140	MC-TF16-0.2500-SB-HP: 1/4"	Steel
	8mm	1100-000222	MC-TF16-0.3149-GR-HP: 8mm	Steel
	3/8in	1100-000141	MC-TF16-0.3750-SB-HP: 3/8"	Steel
	1/2in	1100-000142	MC-TF16-0.5000-SB-HP: 1/2"	Steel
TF20	1/8in	1100-000147	MC-TF20-0.1250-SB-HP: 1/8"	Steel
	1/4in	1100-000148	MC-TF20-0.2500-SB-HP: 1/4"	Steel
	8mm	1100-000226	MC-TF20-0.3149-GR-HP: 8mm	Steel
	3/8in	1100-000149	MC-TF20-0.3750-SB-HP: 3/8"	Steel
	1/2in	1100-000150	MC-TF20-0.5000-SB-HP: 1/2"	Steel
	5/8in	1100-000151	MC-TF20-0.6250-SB-HP: 5/8"	Steel
TF25	3/16in	1100-000208	MC-TF25-0.1875-SB-HP: 3/16"	Steel
	1/4in	1100-000157	MC-TF25-0.2500-SB-HP: 1/4"	Steel
	7mm	1100-000213	MC-TF25-0.2756-SB-HP: 7mm	Steel
	5/16in	1100-000202	MC-TF25-0.3125-GR-HP: 5/16	Steel
	5/16in	1100-000209	MC-TF25-0.3125-SB-HP: 5/16	Steel
	8mm	1100-000207	MC-TF25-0.3149-GR-HP: 8mm	Steel
	8mm	1100-000214	MC-TF25-0.3149-SB-HP: 8mm	Steel
	3/8in	1100-000158	MC-TF25-0.3750-SB-HP: 3/8"	Steel
	7/16in	1100-000210	MC-TF25-0.4375-SB-HP: 7/16	Steel
	1/2in	1100-000159	MC-TF25-0.5000-SB-HP: 1/2"	Steel
	9/16in	1100-000211	MC-TF25-0.5625-SB-HP: 9/16"	Steel
	5/8in	1100-000160	MC-TF25-0.6250-SB-HP: 5/8"	Steel
	11/16in	1100-000212	MC-TF25-0.6875-SB-HP: 11/16"	Steel
	3/4in	1100-000161	MC-TF25-0.7500-SB-HP: 3/4"	Steel
TF30	1/8in	1100-000168	MC-TF30-0.3750-SB-HP: 1/8"	Steel
	1/4in	1100-000167	MC-TF30-0.2500-SB-HP: 1/4"	Steel
	1/2in	1100-000169	MC-TF30-0.5000-SB-HP: 1/2"	Steel
	5/8in	1100-000170	MC-TF30-0.6250-SB-HP: 5/8"	Steel
	3/4in	1100-000171	MC-TF30-0.7500-SB-HP: 3/4"	Steel
	7/8in	1100-000172	MC-TF30-0.8750-SB-HP: 7/8"	Steel
	1.0in	1100-000173	MC-TF30-1.0000-SB-HP: 1.0"	Steel
TF37	1/4in	1100-000181	MC-TF37SP-0.2500-SB-HP: 1/4"	Steel
	3/8in	1100-000182	MC-TF37SP-0.3750-SB-HP: 3/8"	Steel
	0.397in	1100-000190	MC-TF37SP-0.3970-SB-HP: 0.397"	Steel
	1/2in	1100-000183	MC-TF37SP-0.5000-SB-HP: 1/2"	Steel
	5/8in	1100-000184	MC-TF37SP-0.6250-SB-HP: 5/8"	Steel
	18mm	1100-000200	MC-TF37-SP-0.7086-SM-HP: 18mm	Steel
	3/4in	1100-000185	MC-TF37SP-0.7500-SB-HP: 3/4"	Steel
	7/8in	1100-000186	MC-TF37SP-0.8750-SB-HP: 7/8"	Steel
	1.0in	1100-000187	MC-TF37SP-1.0000-SB-HP: 1.0"	Steel
	1-1/8in	1100-000188	MC-TF37SP-1.1250-SB-HP: 1-1/8"	Steel
	1-1/4in	1100-000189	MC-TF37SP-1.2500-SB-HP: 1-1/4"	Steel

Nomenclature	
MB - Machine Bushing	SB - Smooth Bore
MC - Machine Collet	GR - Grooved
HP - High Precision	EN - Extended Nose
	ENT - Extended Nose Taper

Example:

MC-TF16-0.3750-SB-HP 3/8"

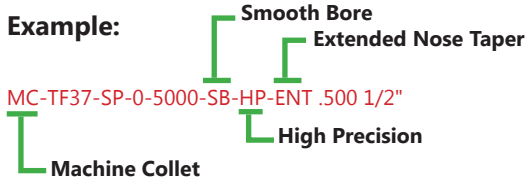
- MC: Machine Collet
- TF16: Machine Collet
- 0.3750: Smooth Bore
- SB: Smooth Bore
- HP: High Precision

Sub-Spindle Collet - Extended Nose — Smooth Bore, High Precision

Standard	Extension Length	Bore Size	Tapered	Item No.	Description	Material
TF15	.250in	1/8in	Yes	1100-000136	MC-TF15-0.1250-SB-HP-ENT: .250 1/8"	Steel
	.250in	1/4in	Yes	1100-000137	MC-TF15-0.2500-SB-HP-ENT: .250 1/4"	Steel
	.250in	3/8in	Yes	1100-000138	MC-TF15-0.3750-SB-HP-ENT: .250 3/8"	Steel
TF16	.250in	.052in	Yes	1100-000215	MC-TF16-0.1250-SB-HP-ENT: .250 .052"	Steel
	.375in	3/16in	Yes	1100-000218	MC-TF16-0.038-SB-HP-ENT .375: 3/16"	Steel
	.375in	1/4in	Yes	1100-000144	MC-TF16-0.2500-SB-HP-ENT: .375 1/4"	Steel
	.375in	3/8in	Yes	1100-000145	MC-TF16-0.3750-SB-HP-ENT: .375 3/8"	Steel
	.375in	1/2in	Yes	1100-000146	MC-TF16-0.5000-SB-HP-ENT: .375 1/2"	Steel
TF20	.250in	1/8in	Yes	1100-000215	MC-TF20-0.1250-SB-HP-ENT: .375 1/8"	Steel
	.375in	1/8in	Yes	1100-000152	MC-TF20-0.1250-SB-HP-ENT: .375 1/8"	Steel
	.375in	1/4in	Yes	1100-000153	MC-TF20-0.2500-SB-HP-ENT: .375 1/4"	Steel
	.375in	3/8in	Yes	1100-000154	MC-TF20-0.3750-SB-HP-ENT: .375 3/8"	Steel
	.375in	1/2in	Yes	1100-000155	MC-TF20-0.5000-SB-HP-ENT: .375 1/2"	Steel
	.375in	5/8in	Yes	1100-000156	MC-TF20-0.6250-SB-HP-ENT: .375 5/8"	Steel
TF25	.375in	1/4in	Yes	1100-000162	MC-TF25-0.2500-SB-HP-ENT: .375 1/4"	Steel
	.375in	3/8in	Yes	1100-000163	MC-TF25-0.3750-SB-HP-ENT: .375 3/8"	Steel
	.375in	1/2in	Yes	1100-000164	MC-TF25-0.5000-SB-HP-ENT: .375 1/2"	Steel
	.375in	5/8in	Yes	1100-000165	MC-TF25-0.6250-SB-HP-ENT: .375 5/8"	Steel
	.375in	3/4in	No	1100-000166	MC-TF25-0.7500-SB-HP-EN: .375 3/4"	Steel
TF30	.500in	1/4in	Yes	1100-000174	MC-TF30-0.2500-SB-HP-ENT: .500 1/4"	Steel
	.500in	3/8in	Yes	1100-000175	MC-TF30-0.3750-SB-HP-ENT: .500 3/8"	Steel
	.500in	1/2in	Yes	1100-000176	MC-TF30-0.5000-SB-HP-ENT: .500 1/2"	Steel
	.500in	5/8in	Yes	1100-000177	MC-TF30-0.6250-SB-HP-ENT: .500 5/8"	Steel
	.500in	3/4in	Yes	1100-000178	MC-TF30-0.7500-SB-HP-ENT: .500 3/4"	Steel
	.500in	7/8in	Yes	1100-000179	MC-TF30-0.8750-SB-HP-ENT: .500 7/8"	Steel
	.500in	1.0in	No	1100-000180	MC-TF30-1.0000-SB-HP-EN: .500 1.0"	Steel
TF37	.500in	1/4in	Yes	1100-000191	MC-TF37SP-0.2500-SB-HP-ENT: .500 1/4"	Steel
	.500in	3/8in	Yes	1100-000192	MC-TF37SP-0.3750-SB-HP-ENT: .500 3/8"	Steel
	.500in	1/2in	Yes	1100-000193	MC-TF37SP-0.5000-SB-HP-ENT: .500 1/2"	Steel
	.500in	5/8in	Yes	1100-000194	MC-TF37SP-0.6250-SB-HP-ENT: .500 5/8"	Steel
	.500in	3/4in	Yes	1100-000195	MC-TF37SP-0.7500-SB-HP-ENT: .500 3/4"	Steel
	.500in	7/8in	Yes	1100-000196	MC-TF37SP-0.8750-SB-HP-ENT: .500 7/8"	Steel
	.500in	1.0in	Yes	1100-000197	MC-TF37SP-1.0000-SB-HP-ENT: .500 1.0"	Steel
	.500in	1-1/8in	Yes	1100-000198	MC-TF37SP-1.1250-SB-HP-EN: .500 1-1/8"	Steel
	.500in	1-1/4in	No	1100-000199	MC-TF37SP-1.2500-SB-HP-EN: .500 1-1/4"	Steel

Nomenclature	
MB - Machine Bushing	SB - Smooth Bore
MC - Machine Collet	GR - Grooved
HP - High Precision	EN - Extended Nose
	ENT - Extended Nose Taper

Example:



Carbide Guide Bushing

High Precision

Standard	Bore Size	Item No.	Description
TD7	1/8in	1110-000133	MB-TD7-0.1250-HP: 1/8" Carbide Guide Bushing
	3/16in	1110-000134	MB-TD7-0.1875-HP: 3/16" Carbide Guide Bushing
	1/4in	1110-000135	MB-TD7-0.2500-HP: 1/4" Carbide Guide Bushing
TD10	1/8in	1110-000100	MB-TD10-0.1250-HP: 1/8" Carbide Guide Bushing
	1/4in	1110-000101	MB-TD10-0.2500-HP: 1/4" Carbide Guide Bushing
	3/8in	1110-000102	MB-TD10-0.3750-HP: 3/8" Carbide Guide Bushing
SD125R	1/8in	1110-000103	MB-SD125R-0.1250-HP: 1/8" Carbide Guide Bushing
	5/32in	1110-000168	MB-SD125R-0.1563-HP: 5/32" Carbide Guide Bushing
	3/16in	1110-000156	MB-SD125R-0.1875-HP 3/16"" Carbide Guide Bushing
	1/4in	1110-000104	MB-SD125R-0.2500-HP: 1/4" Carbide Guide Bushing
	7mm	1110-000155	MB-SD125R-0.2765-HP: 7mm Carbide Guide Bushing
	5/16in	1110-000157	MB-SD125R-0.3125-HP 5/16"" Carbide Guide Bushing
	8mm	1110-000169	MB-SD125R-0.3149-HP: 8mm Carbide Guide Bushing
	3/8in	1110-000105	MB-SD125R-0.3750-HP: 3/8" Carbide Guide Bushing
	7/16in	1110-000158	MB-SD125R-0.4375-HP 7/16"" Carbide Guide Bushing
	1/2in	1110-000106	MB-SD125R-0.5000-HP: 1/2" Carbide Guide Bushing
0201	1/8in	1110-000107	MB-0201-0.1250-HP: 1/8" Carbide Guide Bushing
	1/4in	1110-000108	MB-0201-0.2500-HP: 1/4" Carbide Guide Bushing
	3/8in	1110-000109	MB-0201-0.3750-HP: 3/8" Carbide Guide Bushing
	1/2in	1110-000110	MB-0201-0.5000-HP: 1/2" Carbide Guide Bushing
	5/8in	1110-000111	MB-0201-0.6250-HP: 5/8" Carbide Guide Bushing
TD25	5/32in	1110-000170	MB-TD25NS-0.1563-HP: 5/32" Carbide Guide Bushing
	3/16in	1110-000136	MB-TD25NS-0.1875-HP: 3/16 Carbide Guide Bushing
	.190in	1110-000178	MB-TD25NS-0.1900-HP: .190" Carbide Guide Bushing
	4.9mm	1110-000179	MB-TD25NS-0.1929-HP: 4.9mm Carbide Guide Bushing
	1/4in	1110-000112	MB-TD25NS-0.2500-HP: 1/4" Carbide Guide Bushing
	7mm	1110-000142	MB-TD25NS-0.2756-HP: 7mm Carbide Guide Bushing
	5/16in	1110-000137	MB-TD25NS-0.3125-HP: 5/16 Carbide Guide Bushing
	8mm	1110-000141	MB-TD25NS-0.3149-HP: 8mm Carbide Guide Bushing
	3/8in	1110-000113	MB-TD25NS-0.3750-HP: 3/8" Carbide Guide Bushing
	7/16in	1110-000138	MB-TD25NS-0.4375-HP: 7/16 Carbide Guide Bushing
	1/2in	1110-000114	MB-TD25NS-0.5000-HP: 1/2" Carbide Guide Bushing
	9/16in	1110-000139	MB-TD25NS-0.5625-HP: 9/16 Carbide Guide Bushing
	5/8in	1110-000115	MB-TD25NS-0.6250-HP: 5/8" Carbide Guide Bushing
	11/16in	1110-000140	MB-TD25NS-0.6875-HP: 11/16 Carbide Guide Bushing
	3/4in	1110-000116	MB-TD25NS-0.7500-HP: 3/4" Carbide Guide Bushing

Nomenclature	
MB - Machine Bushing	SB - Smooth Bore
MC - Machine Collet	GR - Grooved
HP - High Precision	EN - Extended Nose
	ENT - Extended Nose Taper

Example:

MB-TD10-0.2500-HP 1/4" Carbide Guide Bushing

Machine Bushing **High Precision**

Carbide Guide Bushing — High Precision

Standard	Bore Size	Item No.	Description
CD25	1/4in	1110-000117	MB-CD25-0.2500-HP: 1/4" Carbide Guide Bushing
	3/8in	1110-000118	MB-CD25-0.3750-HP: 3/8" Carbide Guide Bushing
	1/2in	1110-000119	MB-CD25-0.5000-HP: 1/2" Carbide Guide Bushing
	5/8in	1110-000120	MB-CD25-0.6250-HP: 5/8" Carbide Guide Bushing
	3/4in	1110-000121	MB-CD25-0.7500-HP: 3/4" Carbide Guide Bushing
	7/8in	1110-000122	MB-CD25-0.8750-HP: 7/8" Carbide Guide Bushing
	1.0in	1110-000123	MB-CD25-1.0000-HP: 1.0" Carbide Guide Bushing
TD32	5/32in	1110-000163	MB-TD32-0.1563-HP: 5/32″ Carbide Guide Bushing
	3/16in	1110-000172	MB-TD32-0.1875-HP: 3/16 Carbide Guide Bushing
	1/4in	1110-000124	MB-TD32-0.2500-HP: 1/4″ Carbide Guide Bushing
	7mm	1110-000173	MB-TD32-0.2756-HP: 7mm Carbide Guide Bushing
	8mm	1110-000174	MB-TD32-0.3149-HP: 8mm Carbide Guide Bushing
	3/8in	1110-000125	MB-TD32-0.3750-HP: 3/8" Carbide Guide Bushing
	7/16in	1110-000175	MB-TD32-0.4375-HP: 7/16" Carbide Guide Bushing
	1/2in	1110-000126	MB-TD32-0.5000-HP: 1/2" Carbide Guide Bushing
	9/16in	1110-000176	MB-TD32-0.5625-HP: 9/16″ Carbide Guide Bushing
	5/8in	1110-000127	MB-TD32-0.6250-HP: 5/8" Carbide Guide Bushing
	3/4in	1110-000128	MB-TD32-0.7500-HP: 3/4" Carbide Guide Bushing
	7/8in	1110-000129	MB-TD32-0.8750-HP: 7/8" Carbide Guide Bushing
	1.0in	1110-000130	MB-TD32-1.0000-HP: 1.0" Carbide Guide Bushing
	1-1/8in	1110-000131	MB-TD32-1.1250-HP: 1-1/8" Carbide Guide Bushing
	1-1/4in	1110-000132	MB-TD32-1.2500-HP: 1-1/4" Carbide Guide Bushing

Nomenclature	
MB - Machine Bushing	SB - Smooth Bore
MC - Machine Collet	GR - Grooved
HP - High Precision	EN - Extended Nose
	ENT - Extended Nose Taper

Example:

MB-TD10-0.2500-HP 1/4" Carbide Guide Bushing

Machine Bushing — **High Precision**

Barfeed Collets

Barfeeder Model	Range	Bore Size	Item No.	Description
CAV12M-IS	.078 - .334in	0.125in	1130-000100	MCB CAV FC10DL-IS: .125 Barfeed Collet
		0.222in	1130-000125	MCB CAV FC10DL-IS: .222 Barfeed Collet
		0.250in	1130-000101	MCB CAV FC10DL-IS: .250 Barfeed Collet
	.334 - .413in	.187in	1130-000143	MCB CAV FC12DL .187 Barfeed Collet
		0.25in	1130-000102	MCB CAV FC12DL: .250 Barfeed Collet
		0.276in	1130-000144	MCB CAV FC12DL .276 Barfeed Collet
		8.0mm	1130-000103	MCB CAV FC12DL: 8mm Barfeed Collet
		0.312in	1130-000145	MCB CAV FC12DL .312 Barfeed Collet
		0.375in	1130-000104	MCB CAV FC12DL: .375 Barfeed Collet
CAV16/20L-IS	.118 - .546in	0.125in	1130-000105	MCB CAV CIT15NF: .125 Barfeed Collet
		0.156in	1130-000139	MCB CAV CIT15NF .156 Barfeed Collet
		0.187in	1130-000140	MCB CAV CIT15NF .187 Barfeed Collet
		0.25in	1130-000106	MCB CAV CIT15NF: .250 Barfeed Collet
		0.276in	1130-000141	MCB CAV CIT15NF .276 Barfeed Collet
		0.312in	1130-000142	MCB CAV CIT15NF .312 Barfeed Collet
		8.0mm	1130-000107	MCB CAV CIT15NF: 8mm Barfeed Collet
		0.375in	1130-000108	MCB CAV CIT15NF: .375 Barfeed Collet
		0.5in	1130-000109	MCB CAV CIT15NF: .500 Barfeed Collet
	.546 - .629in	0.5in	1130-000110	MCB CAV CIT17NF: .500 Barfeed Collet
		0.625in	1130-000111	MCB CAV CIT17NF: .625 Barfeed Collet
CAV20L-IS	.629 - .669in	0.3125in	1130-000138	MCB CAV CIT19NF .3125 Barfeed Collet
	.669 - .748in	0.75in	1130-000112	MCB CAV CIT21NF: .750 Barfeed Collet
CAV	.625 - 1.140in	0.625in	1130-000113	MCB CAV FC32NF: .625 Barfeed Collet
		0.75in	1130-000114	MCB CAV FC32NF: .750 Barfeed Collet
		0.875in	1130-000115	MCB CAV FC32NF: .875 Barfeed Collet
		1.0in	1130-000116	MCB CAV FC32NF: 1.00 Barfeed Collet
		1.125in	1130-000117	MCB CAV FC32NF: 1-1/8 Barfeed Collet

Barfeed Collets

Barfeeder Model	Range	Bore Size	Item No.	Description
IEMCA Mini Boss 325, BOS 542, CH112, CH225	4 - 10mm	0.312in	1130-000126	MCB IEM#12: .312 Barfeed Collet
		0.375in	1130-000127	MCB IEM#12: .375. Barfeed Collet
	7 - 18mm	0.25in	1130-000118	MCB IEM#20: .250 Barfeed Collet
		0.276in	1130-000153	MCB IEM#20: .276 Barfeed Collet
		0.375in	1130-000119	MCB IEM#20: .375 Barfeed Collet
		0.437in	1130-000128	MCB IEM#20: .437 Barfeed Collet
		0.5in	1130-000120	MCB IEM#20: .500 Barfeed Collet
		0.562in	1130-000129	MCB IEM#20: .562Barfeed Collet
	8 - 21mm	0.625in	1130-000130	MCB IEM#23: .625 Barfeed Collet
		0 .687in	1130-000131	MCB IEM#23: .687 Barfeed Collet
		0.750in	1130-000132	MCB IEM#23: .750 Barfeed Collet
		0.812in	1130-000133	MCB IEM#23: .812 Barfeed Collet
	8 - 23mm	0.75in	1130-000122	MCB IEM#25: .750 Barfeed Collet
		0.875in	1130-000134	MCB IEM#25: .875 Barfeed Collet
	10 - 30mm	1.0in	1130-000123	MCB IEM#32: 1.000 Barfeed Collet
		1.046in	1130-000135	MCB IEM#32: 1.046 Barfeed Collet
		1.109in	1130-000136	MCB IEM#32: 1.109 Barfeed Collet
		1.181in	1130-000137	MCB IEM#32: 1.181 Barfeed Collet
		1.125in	1130-000124	MCB IEM#32: 1.125 Barfeed Collet

Notes:

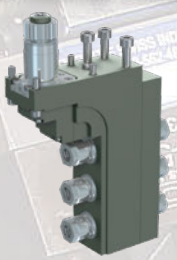
Live Tooling & Static Tool Holders

For Star, Citizen, Tsugami, Tornos, Miyano, Hanwha, & Nomura Swiss Machines

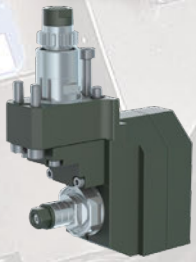
CROSS DRILL/MILL



END DRILL/MILL



SLITTING SAW



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and more..

- **Exceptionally Accurate Spindle Concentricity**
- **Hardened & Ground Gearing For Smooth & Quiet Service Life**
- **Innovative Sealing System Protects Internals From Debris & Oil Contaminiation**
- **Maintenance Friendly Designs Are Serviceable.**

Genevieve Swiss Industries, Inc. was founded on Live Tools more than 20 years ago. We have the largest selection of Live Tools available and we have been selling Live Tools longer than any other company in the Swiss-Machine Industry.

Talk to our U.S. based team of technical experts for more information call 413-562-4800.

Live Tooling
Spindles & Attachments

Swiss Made by PCM be driven.



CITIZEN CINCOM MACHINES

A20	Pg. 427 - 428	
C16	Pg. 429 - 430	
K12 & K16	Pg. 431 - 432	
L12	Pg. 433 - 435	
L20	Pg. 436 - 441	
	L2-20 VIII / X / XII	Pg. 437
	L5-20 / L7-20 / L20-E	Pg. 439
A32, L32	Pg. 442 - 447	
	L4-25 & L4-32	Pg. 442
	A32-VIII & L32-VIII / X / XII	Pg. 443
	L6-32	Pg. 448
M12 & M16	Pg. 448 - 455	
	M2-12/16 & M3-12/16 Gang	Pg. 449
	M4-12/16 Gang	Pg. 451
	M12 & M16 Turret	Pg. 452
M20 & M32	Pg. 457 - 469	
	M4-20 & M4-32 Gang	Pg. 457
	M3-20 & M3-32 Gang	Pg. 459
	M320/M420 & M332/M432M5-32 Gang	Pg. 460
	M5-32 Turret	Pg. 465

TORNOS DECO MACHINES

DECO 13 Pg. 471- 472

DECO 20 Pg. 473 - 474

EvoDECO 16 Pg. 475

TSUGAMI SWISS-TYPE MACHINES

SS20/32, HS20/32 Pg. 476

BW20 Pg. 476

S205/206 Pg. 477

B026-II/032-II Pg. 477

B026/032/038 Pg. 478

B01-III/02-III/07-III Pg. 479

P034H Pg. 480

STAR SWISS-TYPE MACHINES

ALL Pg. 481 - 486

REPAIRS & RESTORATION



One of the benefits of buying live tooling and spindles from GenSwiss, is knowing we will repair them too. We will repair your spindle at a fraction of the cost to purchase a brand new one and have your Swiss-style CNC running again in no time.

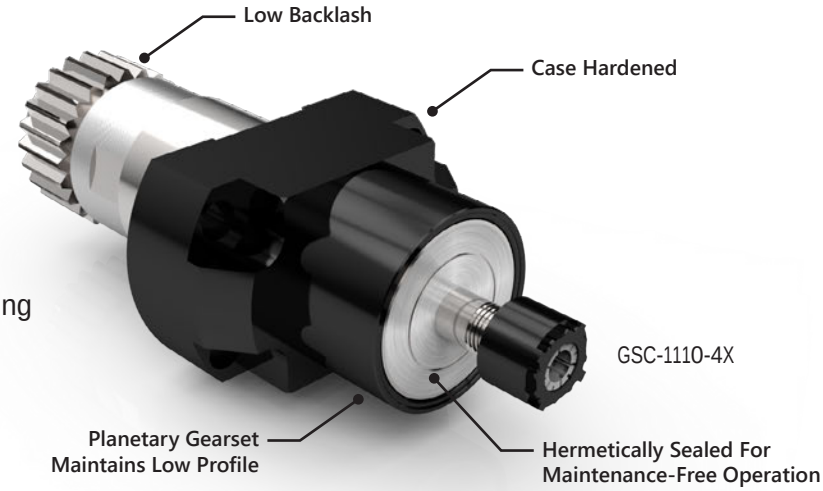
- **Live Swiss machine attachments restored to factory specification**
- **PCM and major OEM brands: CITIZEN, STAR, TSUGAMI, TORNOS**
- **$50 evaluation and inspection**
- **Repaired by factory trained professionals**

Call Us @ 413-562-4800

CITIZEN A20

Swiss Made by PCM be driven.

Up To 30,000 RPM
Optimized For Micro Drilling & Milling



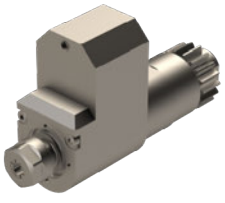
Citizen A20VII

(Machine's Live Tooling 4,500 RPM Rating)

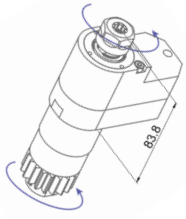
Position	Operation	Item No.	Description	(#Tools)Size	Input:Output	Machine	Other
		5505-000200	BSC-510-3X	(1) ER11	1:3	$A_2$20VII	High speed
		5505-000351	BSC-510-3X-L	(1) ER11	1:3	$A_2$20VII	High speed, added bearing
		5505-000261	GSC-1110	(1) ER16	1:1	$A_3$20VII	
		5505-000285	GSC-1110-4X	(1) ER08	1:3.8	$A_3$20VII	Up to 30,000 RPM
	Angled Drilling / Milling	5505-000226	BSA-107	(1) ER11	1:1	$A_2$20VII, $A_3$20VII	Adjustable 0-180°
		5505-000353	BSA-2010	(6) ER16	1:1	$A_3$20VII	Double ended, adjustable 0-21°
	End Drilling / Milling	5505-000441	BSE-2007-2X	(4) ER11	1:2	$A_2$20VII, $A_3$20VII	Double ended
		5505-000386	BSE-3206	(6) ER11	1:1	$A_2$20VII, $A_3$20VII	Double ended
		5505-000230	BSE-3208-II	(8) ER16	1:1	$A_3$20VII	Double ended, Tools turn in opposite direction
		5505-000222	BSE-3208-III	(8) ER16	1:1	$A_3$20VII	Double ended, Tools turn in same direction
	Polygon Milling	5505-000271	BSP-509	(1) Ø13	1:1	$A_2$20VII	
	Slitting Saw	5505-000362	GSC-1307-DEC	(1) Ø16	1:1	$A_3$20VII	
	Thread Whirling	5505-000220	BSW-215	(1) Utilis	1:1	$A_2$20VII, $A_3$20VII	9 or 12 insert cutter, adjustable ±15°
	Static Tool Holders	5505-000312	GDF-1207-L	(4) Ø19.05		$A_3$20VII	4 position 3/4" Ø sleeves, added bearing
Sub Spindle		5505-000437	BSC-2330	(1) ER11 (1) ER16	1:1	$A_3$20VII	Double ended
	End Drilling / Milling	5505-000512	GSE-3307	(1) ER11	1:1	$A_3$20VII	
		5505-000513	GSE-3307-3X	(1) ER08	1:3	$A_3$20VII	High speed
		5505-000511	GSE-3307-II	(1) ER11	1:1	$A_3$20VII	
		5505-000514	GSE-3307-L-3X	(1) ER08	1:3	$A_3$20VII	High speed, added bearing
		5505-000294	MSC-507-4X *	(1) ER08	1:3.8	$A_3$20VII	High speed, up to 30,000 RPM
		5505-000254	MSC-507-II *	(1) ER11	1:1	$A_3$20VII	
		5505-000292	MSC-507-L *	(1) ER11	1:1	$A_2$20VII, $A_3$20VII	Added bearing

* MSC tools require optional back rotary tool (U153B)

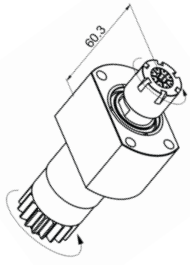
Gang Slide



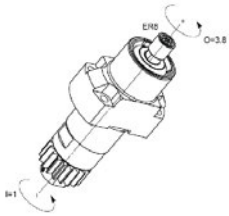
BSC-510-3X
Cross Drill/Mill
Collet Size: ER11
Output: 1:3
$A_2$20VII



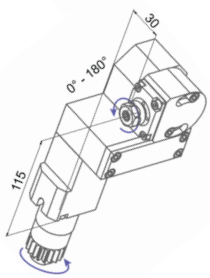
BSC-510-3X-L
Cross Drill/Mill
Collet Size: ER11
Output: 1:3
$A_2$20VII



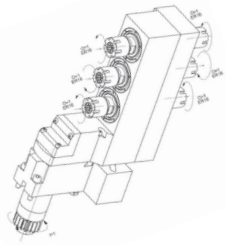
GSC-1110
Cross Drill/Mill
Collet Size: ER16
Output: 1:1
$A_3$20VII



GSC-1110-4X
Cross Drill/Mill
Collet Size: ER08
Output: 1:3.8
High Speed Spindle
$A_3$20VII



BSA-107
Angled Drill/Mill
Collet Size: ER11
Output: 1:1
Adjustable 0-180°
$A_2$20VII
$A_3$20VII

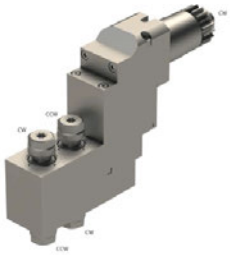


BSA-2010
Angled Drill/Mill
Collet Size: ER16
Output: 1:1
Adjustable 0-180°
Crashes with U150B when working with T11 and T12
$A_3$20VII

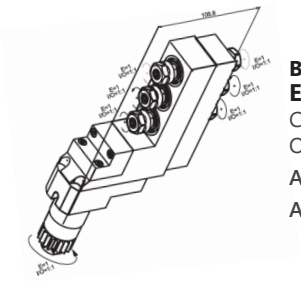
CONTINUED ON NEXT PAGE

Citizen Cincom A20

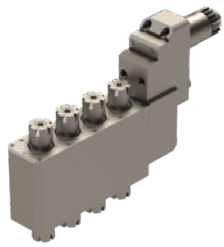
Gang Slide



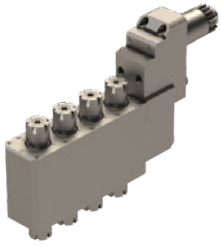
BSE-2007-2X
End Drill/Mill
Collet Size: ER11
Output: 1:2
$A_2$20VII
$A_3$20VII



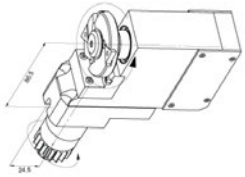
BSE-3206
End Drill/Mill
Collet Size: ER11
Output: 1:1
$A_2$20VII
$A_3$20VII



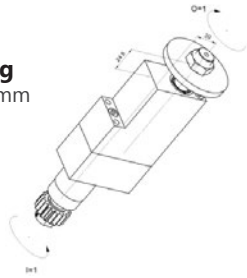
BSE-3208-II
End Drill/Mill
Collet Size: ER16
Output: 1:1
$A_3$20VII



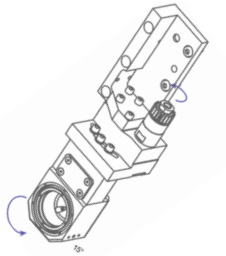
BSE-3208-III
End Drill/Mill
Collet Size: ER16
Output: 1:1
$A_3$20VII



BSP-509
Polygon Milling
Tool ID Size: Ø13mm
Output: 1:1
$A_2$20VII
$A_3$20VII



GSC-1307-DEC
Slitting Saw
Arbor Size: Ø16mm
Output: 1:1
Max Tool Ø: 63mm
Max Tool Width: 6mm
$A_2$20VII

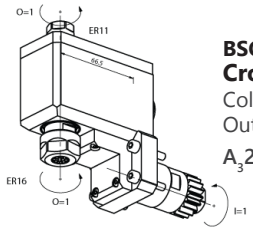


BSW-215
Thread Whirling
Ring: Utilis
Output: 1:1
$A_2$20VII

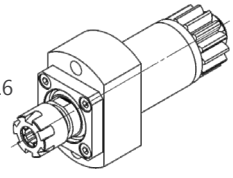


GDF-1207-L
Tool Holder
Tool Size: Ø19.05mm (3/4in)
4 Tool Positions
$A_2$20VII

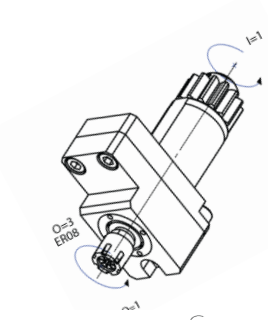
Sub Spindle



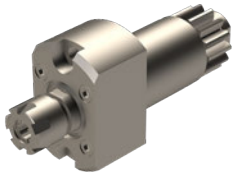
BSC-2330
Cross Drill/Mill
Collet Size: ER11, ER16
Output: 1:1
$A_3$20VII



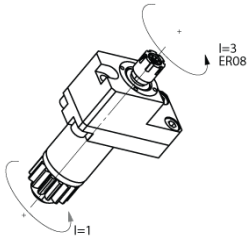
GSE-3307
End Drill/Mill
Collet Size: ER1.
Output: 1:1
$A_3$20VII



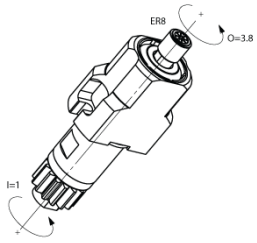
GSE-3307-3X
End Drill/Mill
Collet Size: ER08
Output: 1:3
$A_3$20VII



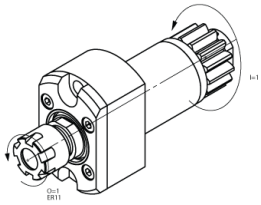
GSE-3307-II
End Drill/Mil
Collet Size: ER1
Output: 1:1
$A_3$20VII



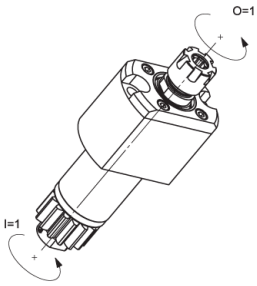
GSE-3307-L-3X
End Drill/Mill
Collet Size: ER08
Output: 1:3
$A_3$20VII



MSC-507-4X
End Drill/Mill
Collet Size: ER08
Output: 1:3.8
*Requires U152B
$A_3$20VII



MSC-507-II
End Drill/Mill
Collet Size: ER11
Output: 1:1
*Requires U152B
$A_3$20VII



MSC-507-L
End Drill/Mill
Collet Size: ER11
Output: 1:1
*Requires U152B
$A_2$20VII
$A_3$20VII

CITIZEN C16

Swiss Made by PCM be driven.



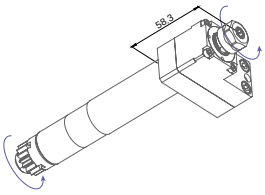
GSC-607-2X

Citizen C16-VII & C16-IX

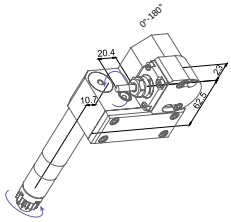
(Machine's Live Tooling 8,000 RPM Rating)

Position	Operation	Item No.	(#Tools)Size	Input:Output	Other
Gang Slide	Cross Drilling / Milling	GSC-607-2X	(1) ER11	1:2	
	Angled Drilling / Milling	GSA-407	(1) ER11	1:2.5	Adjustable 0-180°
	End Drilling / Milling	GSE-507	(1) ER11	1:1	
		GSE-507-2X	(1) ER11	1:2	
		GSE-507-DE	(1) ER11 (1) ER08	1:1	Double ended
		GSE-508	(1) ER11	1:1	
		GSE-707	(1) ER11	1:1	
		GSE-708	(1) ER11	1.65:1	
	Polygon Milling	GSE-509	(1) Ø10	1.6:1	
	Slitting Saw	GSS-250	(1) Ø16	2:1	
		GSS-250-13	(1) Ø13	2:1	
		GSS-250-15	(1) Ø15.875	2:1	
	Static Tool Holders	GDF901	(1) Ø19.05		
		GDF-901-HF	(1) Ø25		Holds Ibag/Meyrat spindles
		GDF-901-S1X6	(1) Ø6		
		GDF-901-S1X4	(1) Ø4		
		GDF-901-S2X4	(2) Ø4		
	Whirling	LSW-424	(1) Utilis	1:1	
Sub Spindle	End Drilling / Milling	GSE-808	(1) ER11	1:1	
		GSE-8-3X	(1) ER08	1:3	
	Static Tool Holders	SAU-319	(1) Ø19.05		

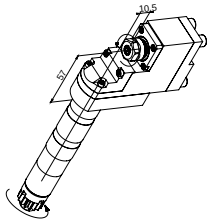
Gang Slide



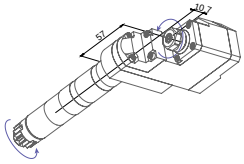
GSC-607-2X
Cross Drill/Mill
Collet Size: ER11
Output: 1:2



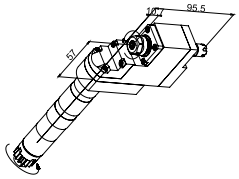
GSA-407
Angled Drill/Mill
Collet Size: ER11
Output: 1:2.5
Adjustable 0-180°
Interferes with adjacent tooling position



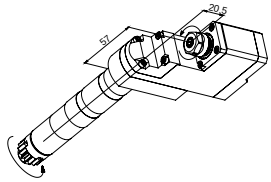
GSE-507
End Drill/Mill
Collet Size: ER11
Output: 1:1



GSE-507-2X
End Drill/Mill
Collet Size: ER11
Output: 1:2
High Speed



GSE-507-DE
End Drill/Mill
Collet Size: ER08, ER11
Output: 1:1
Double Ended



GSE-508
End Drill/Mill
Collet Size: ER11
Output: 1:1

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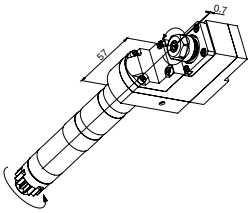
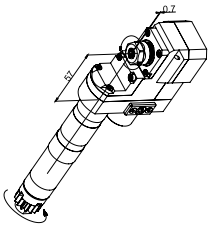
Citizen Cincom C16

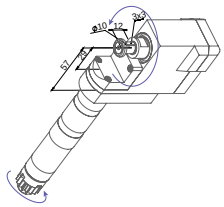
Gang Slide



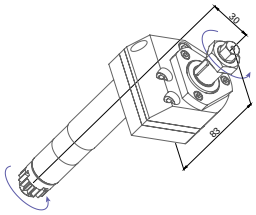
GSE-707
End Drill/Mill
Collet Size: ER11
Output: 1:1



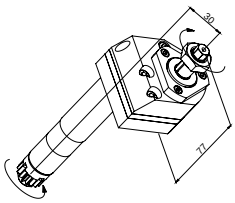
GSE-708
End Drill/Mill
Collet Size: ER11
Output: 1.65:1



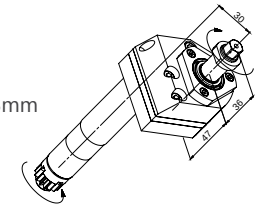
GSE-509
Polygon Milling
Tool ID Size: Ø10mm
Output: 1.6:1



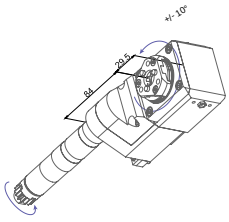
GSS-250
Slitting Saw
Arbor Size: Ø16mm
Output: 2:1



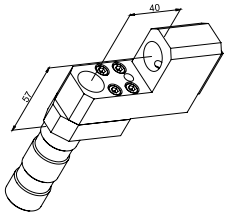
GSS-250-13
Slitting Saw
Arbor Size: Ø13mm
Output: 2:1



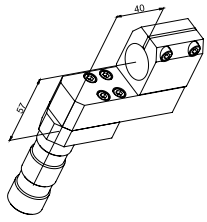
GSS-250-15
Slitting Saw
Arbor Size: Ø15.875mm
Output: 2:1



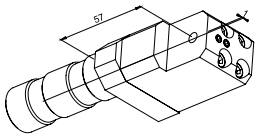
LSW-424
Thread Whirling
Ring: Utilis
Output: 1:1



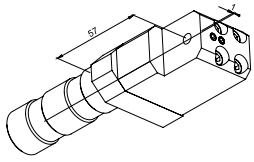
GDF901
Tool Holder
Tool Size: Ø19.05mm



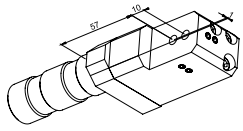
GDF-901-HF
Tool Holder
Tool Size: Ø25mm
Holds Ibag/Meyrat Spindles



GDF-901-S1X6
Tool Holder
Tool Size: Ø6mm

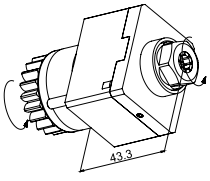


GDF-901-S1X4
Tool Holder
Tool Size: Ø4mm

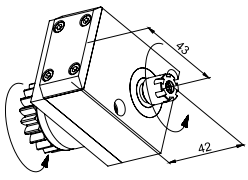


GDF-901-S2X4
Tool Holder
Tool Size: Ø4mm

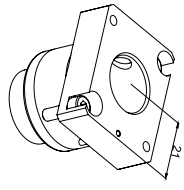
Sub Spindle



GSE-808
End Drill/Mill
Collet Size: ER11
Output: 1:1



GSE-8-3X
End Drill/Mill
Collet Size: ER08
Output: 1:3



SAU-319
Tool Holder
Tool Size: Ø19.05mm

CITIZEN K12 & K16

Swiss Made by PCM be driven.



GSC-850-2X

Citizen K12 & K16

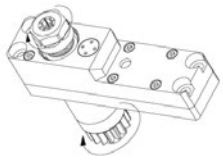
(Machine's Live Tooling 6,000 RPM Rating)

Position	Operation	Item No.	Description	(#Tools)Size	Input:Output	Other
Gang Slide	Cross Drilling / Milling	5505-000375	GSC-807	(1) ER11	1:1	
		5505-000501	GSC-815	(1) ER11	2:3	Up to 9,000 RPM
		5505-000502	GSC-816	(2) ER11	2:3 1:1	Up to 6,000 RPM and 9,000 RPM
		5505-000191	GSC-850-2X	(1) ER11	1:2	High Speed Spindle, Up to 12,000 RPM
		5505-000192	GSC-860	(2) ER11	1:1	
		5505-000334	GSC1107-4X	(1) ER08	1:3.8	High Speed Spindle, Up to 22,800 RPM
		5505-000499	GSC1307-4X	(1) ER11	1:3.8	High Speed Spindle
	End Drilling / Milling	5505-000262	GSE-2107	(1) ER11	1:1	
		5505-000505	GSE-2107-2X	(1) ER11	1:2	High Speed Spindle, Up to 12,000 RPM
		5505-000196	GSE-2207	(1) ER11	1:1	
		5505-000282	GSE-2207-2X	(1) ER11	1:2.086	High Speed Spindle, Up to 12,000 RPM
		5505-000506	GSE-2307	(2) ER11	1:1	
		5505-000278	GSE-2407	(4) ER11	1:1	Double ended, Position T12-14 Right, Offset 37mm
		5505-000387	GSE-2407-2X	(4) ER11	1:2	Double ended, Position T12-14 Right, High speed up to 12,000 RPM
		5505-000365	GSE-2507	(4) ER11	1:1	Double ended, Position T12-14 Left
		5505-000249	GSE-2507-2X	(4) ER11	1:2	Double ended, Position T12-14 Left, High speed up to 12,000 RPM, Offset 37mm
	Slitting Saw	5505-000237	GSS-2145	(1) Ø8	1:1	Max tool Ø58mm, Width 3mm
	Hobbing	5505-000531	GSH-036	(1) Ø3.5	2:3	Hobbing disk Ø8mm, 8mm thick, Requires 1 tool position, Offset 5mm
		5505-000532	GSH-036-L	(1) Ø3.5	2:3	Hobbing disk Ø8mm, 12mm thick, Requires 1 tool positions, Offset 5mm
		5505-000533	GSH-037	(1) Ø3.5	2:3	Hobbing disk Ø16mm, 8mm thick, Requires 1 tool position
		5505-000534	GSH-038	(1) Ø5	2:3	Hobbing disk Ø16mm, 8mm thick, Requires 1 tool position
	Static Tool Holders	5505-000333	BDF-105	(1) Ø19.05		
		5505-000238	BDF-107	(2) Ø19.05		
	Whirling	5505-000135	GSW-101	(1) Utilis	1:1	7 or 9 insert cutter, Adjustable ±15°, Flight circle Ø6mm, Requires 3 tool positions
Sub Spindle	End Drilling / Milling	5505-000495	GSC1107	(1) ER11	1:1	
		5505-000502	GSC-816	(2) ER11	2:3 1:1	Up to 6,000 RPM and 9,000 RPM
		5505-000192	GSC-860	(2) ER11	1:1	

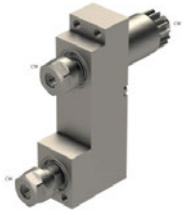
Gang Slide



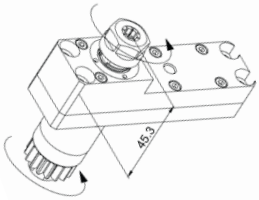
GSC-807
Cross Drill/Mill
Collet Size: ER11
Output: 1:1



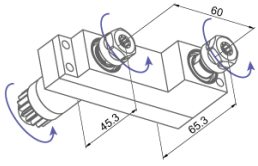
GSC-815
Cross Drill/Mill
Collet Size: ER11
Output: 2:3



GSC-816
Cross Drill/Mill
Collet Size: ER11
Output: 1:0.6, 1:1



GSC-850-2X
Cross Drill/Mill
Collet Size: ER11
Output: 1:2



GSC-860
Cross Drill/Mill
Collet Size: ER11
Output: 1:1



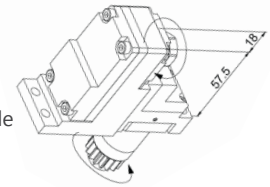
GSC1107-4X
Cross Drill/Mill
Collet Size: ER08
Output: 1:3.8
High Speed Spindle

CONTINUED ON NEXT PAGE

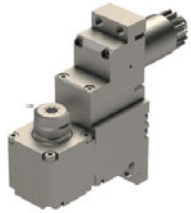
Citizen Cincom K12 & K16

Gang Slide

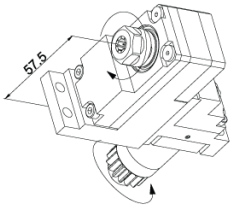
GSC-1307-4X
Cross Drill/Mill
Collet Size: ER11
Output: 1:3.8
High Speed Spindle



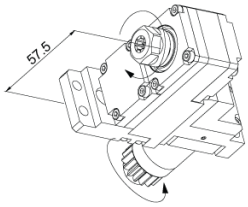
GSE-2107
End Drill/Mill
Collet Size: ER11
Output: 1:1



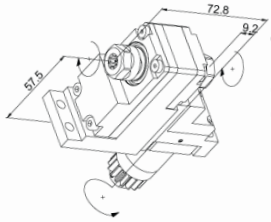
GSE-2107-2X
End Drill/Mill
Collet Size: ER11
Output: 1:2
High Speed Spindle



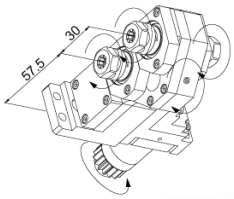
GSE-2207
End Drill/Mill
Collet Size: ER11
Output: 1:1



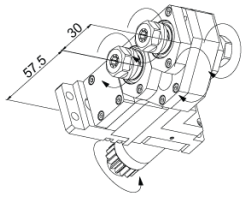
GSE-2207-2X
End Drill/Mill
Collet Size: ER11
Output: 1:2



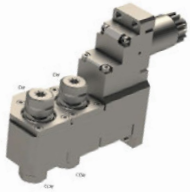
GSE-2307
End Drill/Mill
Collet Size: ER11
Output: 1:1



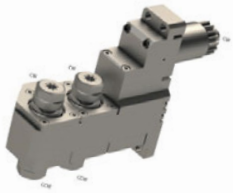
GSE-2407
End Drill/Mill
Collet Size: ER11
Output: 1:1



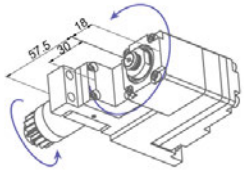
GSE-2407-2X
End Drill/Mill
Collet Size: ER11
Output: 1:2
High Speed Spindle



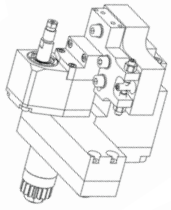
GSE-2507
End Drill/Mill
Collet Size: ER11
Output: 1:1



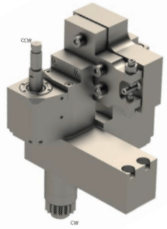
GSE-2507-2X
End Drill/Mill
Collet Size: ER11
Output: 1:2



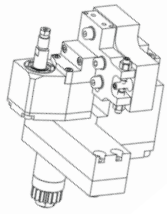
GSS-2145
Slitting Saw
Arbor Size: Ø8mm
Output: 1:1
Max Tool Ø: 58mm
Max Tool Thickness: 3ı



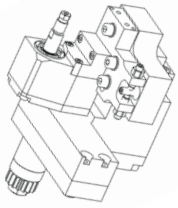
GSH-036
Gear Hobbing
ID Size: Ø3.5mm
Output: 1.5:1
Hobb OD: Ø8mm
Hobb Thickness: 8mm
Requires 1 tool positions



GSH-036-L
Gear Hobbing
ID Size: Ø3.5mm
Output: 2:3
Hobb OD: Ø8mm
Hobb Thickness: 12mm
Requires 1 tool positions



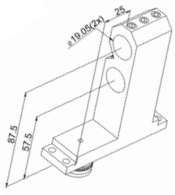
GSH-037
Gear Hobbing
ID Size: Ø3.5mm
Output: 1.5:1
Hobb OD: Ø16mm
Hobb Thickness: 8mm
Requires 1 tool positions



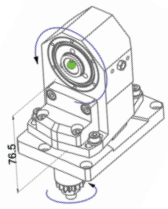
GSH-038
Gear Hobbing
ID Size: Ø5mm
Output: 1.5:1
Hobb OD: Ø16mm
Hobb Thickness: 8mm
Requires 1 tool positions



BDF-105
Tool Holder
Tool Size: Ø19.05mm

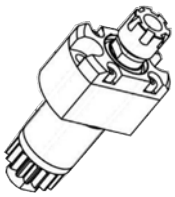


BDF-107
Tool Holder
Tool Size: Ø19.05mm

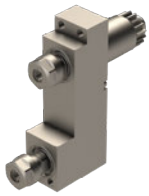


GSW-101
Whirling
Ring: Utilis
Output: 1:1
7 or 9 Insert Cutter
Flight Circle: Ø6

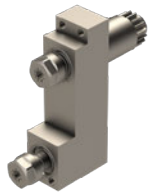
Sub Spindle



GSC-1107
End Drill/Mill
Collet Size: ER11
Output: 1:1



GSC-816
End Drill/Mill
Collet Size: ER11
Output: 1:1 & 2:3
1 position up to 6,000 &
1 position up to 9,000
RPM



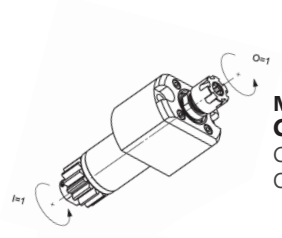
GSC-860
End Drill/Mill
Collet Size: ER11
Output: 1:1

Citizen L12

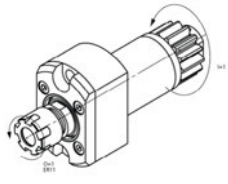
(Machine's Live Tooling 10,000 RPM Rating)

Position	Operation	Item No.	Description	(#Tools)Size	Input:Output	Other
Gang Slide	Cross Drilling / Milling	5505-000292	MSC-507-L	(1) ER11	1:1	Caution: a collsion could occur in the T08-T10 position
		5505-000254	MSC-507-II	(1) ER11	1:1	Up to 8,000 RPM Max
		5505-000608	MSC-507-2X	(1) ER11	1:2	High speed spindle up to 20,000 RPM
		5505-000294	MSC-507-4X	(1) ER08	1:3.8	High speed spindle up to 38,000 RPM
		5505-000610	MSC510-HP	(1) ER16	1:1	Internal coolant-thru Max pressure 150 bar
		5505-000376	MSC-512	(1) ER16	1:1	
		5505-000330	MSC-513	(1) ER20	1:1	
	End Drilling / Milling	5505-000399	GSE-1207-3X	(1) ER11	1:3	High speed spindle up to 30,000 RPM, Adjustable ±30°, Double ended
		5505-000514	GSE-3307-L-3X	(1) ER08	1:3	High speed spindle up to 30,000 RPM, Long version
		5505-000231	GSE-3507-3X	(1) ER11	1:3	High speed spindle up to 30,000 RPM,
		5505-000517	GSE-3607-1B	(1) ER11	1:1	Adjustable ±45°
		5505-000519	GSE-3607-2B	(2) ER11	1:1	Adjustable ±30°
		5505-000522	GSE-3607-3B	(3) ER11	1:1	Adjustable ±30°
		5505-000518	GSE-3607-1D	(2) ER11	1:1	Double ended, Adjustable ±45°
		5505-000520	GSE-3607-2D	(4) ER11	1:1	Double ended, Adjustable ±30°
		5505-000326	GSE-3607-3D	(6) ER11	1:1	Double ended, Adjustable ±30°
		5505-000339	GSE-3607-1M	(1) ER11	1:1	Adjustable ±45°
		5505-000521	GSE-3607-2M	(2) ER11	1:1	Adjustable ±30°
		5505-000373	GSE-3607-3M	(3) ER11	1:1	Adjustable ±30°
		5505-000523	GSE4307	(6) ER11	1:1	Double ended
		5505-000611	MSE-1007	(2) ER11	1:1	Double ended, Up to 9,000 RPM max, Requires 3 positions
	Slitting Saw	5505-000343	GSS610	(1) Ø10 mm	1:1	Max tool Ø40mm, Width 4.5mm
	Polygon Milling	5505-000529	GSF-080	(1) Ø08mm	1:1	Max tool Ø58mm, Width 3mm
		5505-000538	GSP080	(1) Ø08mm	1:1	Max tool Ø30-70mm, Width 3-6mm, Adjustable ±1.5°
	Hobbing	5505-000530	GSH-035-L	(1) Ø3.5mm	1:1	
		5505-000536	GSH235	(1) Ø3.5mm	1:1	Adjustable ±5°
		5505-000537	GSH245	(1) Ø4.5mm	1:1	Adjustable ±5°
		5505-000643	MSH507	(1) Ø4.5mm	1:1	Disk Ø12mm, Width 10mm, Up to 10,000 RPM max
		5505-000644	MSH50735	(1) Ø3.5mm	1:1	Disk Ø10mm, Width 10mm, Up to 10,000 RPM max
	Whirling	5505-000256	LSW-515	(1) Utilis	1:1	Adjustable ±15°, 7 or 9 insert cutter, 6mm flight Ø, Requires 3 positions, 10,000 Max RPM
	Static Tool Holders	5505-000588	LDF-HF09	(2) Ø20mm	1:1	For high speed NSK spindles
		5505-000672	SAU819-HD	(1) .75in		Intern coolant-thru Max adjustable pressure 220 bar
		5505-000484	GDF3607	(3) .75in		Internal coolant-thru Max pressure 220bar
Sub Spindle	Cross Drilling / Milling	5505-000667	RSC507	(1) ER11	1:1	Position T31 on U151B Max output torque 1Nm
	End Drilling / Milling	5505-000292	MSC-507-L	(1) ER11	1:1	Caution: a collsion could occur in the T08-T10 position, Long version
		5505-000254	MSC-507-II	(1) ER11	1:1	Up to 8,000 RPM Max
		5505-000608	MSC-507-2X	(1) ER11	1:2	High speed spindle up to 20,000 RPM
		5505-000294	MSC-507-4X	(1) ER08	1:3.8	High speed spindle up to 38,000 RPM
		5505-000610	MSC510-HP	(1) ER16	1:1	Internal coolant-thru Max pressure 150 bar, 8,000 RPM max,
		5505-000376	MSC-512	(1) ER16	1:1	
		5505-000330	MSC-513	(1) ER20	1:1	
	Slitting Saw	5505-000542	GSS-1510	(1) ER11	1:1	
		5505-000276	GSS-1530	(1) ER11	5:3	Max tool Ø63mm, Width 2mm
		5505-000668	RSH035	(1) Ø3.5mm	1:1	Max tool Ø30mm, Width 3.5mm, Inclination ±5°, Requires 2 positions, Adjustable cutter height ±2°, Max RPM 9,000
		5505-000669	RSH035-II	(1) Ø3.5mm	1:1	Max tool Ø30mm, Width 11mm, Inclination ±5°, Requires 2 positions, Max RPM 9,000
		5505-000670	RSH-045	(1) Ø4.5mm	1:1	Max tool Ø30mm, Width 3.5mm, Inclination ±5°, Requires 2 positions, Adjustable cutter height ±2°, Max RPM 9,000

Gang Slide



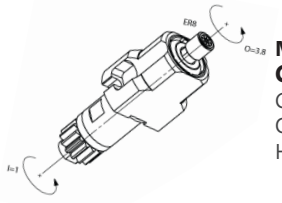
MSC-507-L
Cross Drill/Mill
Collet Size: ER11
Output: 1:1



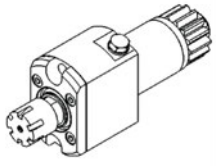
MSC-507-II
Cross Drill/Mill
Collet Size: ER11
Output: 1:1



MSC-507-2X
Cross Drill/Mill
Collet Size: ER11
Output: 1:2
High Speed



MSC-507-4X
Cross Drill/Mill
Collet Size: ER08
Output: 1:3.8
High Speed



MSC510-HP
Cross Drill/Mill
Collet Size: ER16
Output: 1:1
High pressure coolant-thru



MSC-512
Cross Drill/Mill
Collet Size: ER16
Output: 1:1

CONTINUED ON NEXT PAGE

Citizen Cincom L12

Gang Slide



MSC-513
Cross Drill/Mill
Collet Size: ER20
Output: 1:1



GSE-1207-3X
End Drill/Mill
Collet Size: ER11
Output: 1:3
High Speed Spindle,
Adjustable ±30°
Double Ended



GSE-3307-L-3X
End Drill/Mill
Collet Size: ER08
Output: 1:3



GSE-3507-3X
End Drill/Mill
Collet Size: ER11
Output: 1:3
High Speed Spindle,



GSE-3607-1B
End Drill/Mill
Collet Size: ER11
Output: 1:1
Adjustable ±45°



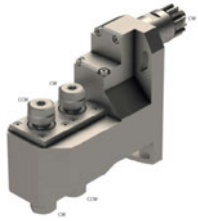
GSE-3607-2B
End Drill/Mill
Collet Size: ER11
Output: 1:1
Adjustable ±30°



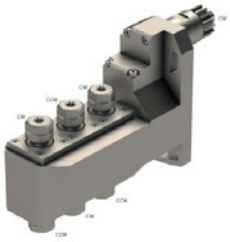
GSE-3607-3B
End Drill/Mill
Collet Size: ER11
Output: 1:1
Adjustable ±30°



GSE-3607-1D
End Drill/Mill
Collet Size: ER11
Output: 1:1
Adjustable ±45°
Double Ended



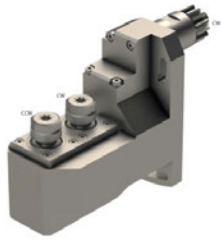
GSE-3607-2D
End Drill/Mill
Collet Size: ER11
Output: 1:1
Adjustable ±30°
Double Ended



GSE-3607-3D
End Drill/Mill
Collet Size: ER11
Output: 1:1
Adjustable ±30°
Double Ended



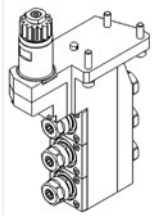
GSE-3607-1M
End Drill/Mill
Collet Size: ER11
Output: 1:1
Adjustable ±45°



GSE-3607-2M
End Drill/Mill
Collet Size: ER11
Output: 1:1
Adjustable ±30°



GSE-3607-3M
End Drill/Mill
Collet Size: ER11
Output: 1:1
Adjustable ±30°



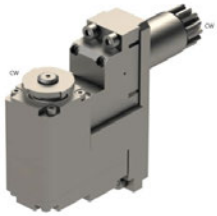
GSE-4307
End Drill/Mill
Collet Size: ER11
Output: 1:1



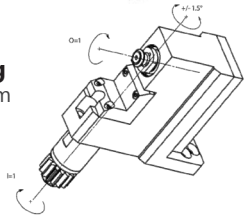
MSE-1007
End Drill/Mill
Collet Size: ER11
Output: 1:1
Requires 3 Positions



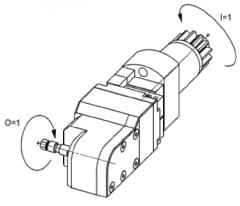
GSS610
Slitting Saw
Saw ID: 10mm
Output: 1:1
Max Tool Ø40mm
Max Width 4.5mm



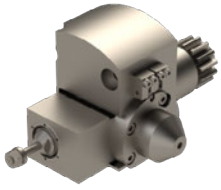
GSF-080
Polygon Milling
Tool ID Size: Ø8mm
Output: 1:1
Max Tool Ø 58mm
Max Width 3mm



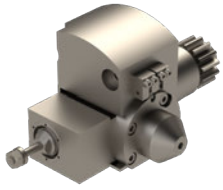
GSP080
Polygon Milling
Tool ID Size: Ø8mm
Output: 1:1
Max Tool Ø 70mm
Max Width 6mm



GSH-035-L
Gear Hobbing
ID Size: Ø3.5mm
Output: 1:1



GSH235
Gear Hobbing
ID Size: Ø3.5mm
Output: 1:1



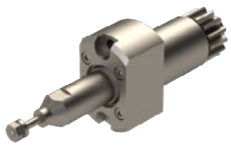
GSH245
Gear Hobbing
ID Size: Ø4.5mm
Output: 1:1

Citizen Cincom L12

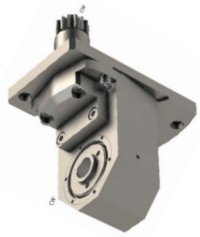
Gang Slide



MSH507
Gear Hobbing
ID Size: Ø4.5mm
Output: 1:1
Hobb OD: Ø12mm
Hobb Thickness: 10mm



MSH50735
Gear Hobbing
ID Size: Ø3.5mm
Output: 1:1
Hobb OD: Ø10mm
Hobb Thickness: 10mm



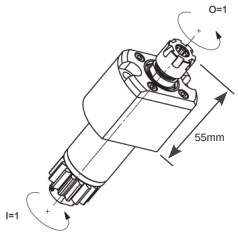
LSW-515
Thread Whirling
Ring: Utilis
Output: 1:1
7 or 9 Insert Cutter
Flight Circle: Ø6mm

Citizen Cincom L12

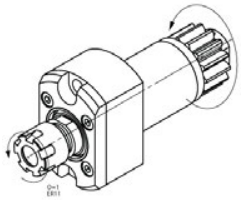
Sub Spindle



RSC507
Cross Drill/Mill
Collet Size: ER11
Output: 1:1
Max Output
Torque 1Nm
Fits T31 On U151B



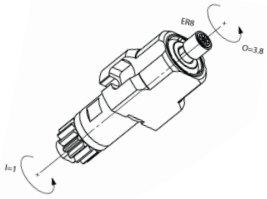
MSC-507-L
End Drill/Mill
Collet Size: ER11
Output: 1:1
Longer Spindle
Body



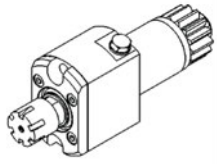
MSC-507-II
End Drill/Mill
Collet Size: ER11
Output: 1:1



MSC-507-2X
Cross Drill/Mill
Collet Size: ER11
Output: 1:2
High Speed



MSC-507-4X
Cross Drill/Mill
Collet Size: ER08
Output: 1:3.8
High Speed



MSC510-HP
Cross Drill/Mill
Collet Size: ER16
Output: 1:1
High pressure
coolant-thru

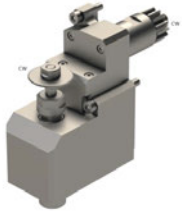


MSC-512
End Drill/Mill
Collet Size: ER16
Output: 1:1

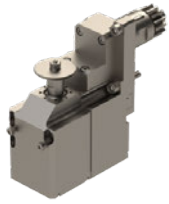


MSC-513
End Drill/Mill
Collet Size: ER20
Output: 1:1

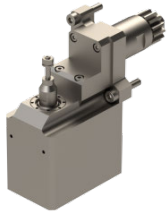
GSS-1510
Slitting Saw
Collet Size: ER11
Output: 1:1



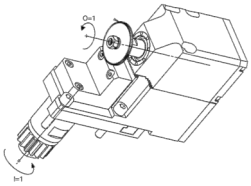
GSS-1530
Slitting Saw
Collet Size: ER11
Output: 5:3
Max Tool Ø63mm
Max Width 2mm



RSH035
Slitting Saw
Saw ID: 3.5mm
Output: 1:1
Max Tool Ø30mm
Max Width 3.5mm



RSH035-II
Slitting Saw
Saw ID: 3.5mm
Output: 1:1
Max Tool Ø30mm
Max Width 11mm



RSH-045
Slitting Saw
Saw ID: 4.5mm
Output: 1:1
Max Tool Ø30mm
Max Width 3.5mm

CITIZEN L20

Swiss Made by PCM be driven.



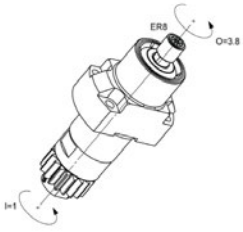
MSC-507-4X

Citizen L2-20 VIII / X / XII

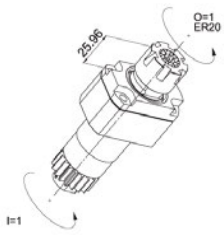
(Machine's Live Tooling 4,500 - 6,000 RPM Rating)

Position	Operation	Item No.	Description	(#Tools)Size	Input:Output	Other
Gang Slide	Cross Drilling / Milling	5505-000285	GSC-1110-4X	(1) ER08	1:3.8	High speed
		5505-000329	GSC-1113	(1) ER20	1:1	
	End Drilling / Milling	5505-000444	BSE-307-3X	(2) ER11	1:3	High speed up to 18,000 RPM, Double ended
		5505-000445	BSE-3106	(3) ER11	1:1	Replaces BSE-607
	Angled Drilling & Milling	5505-000491	GSA1007	(1) ER11	1:1	Adjustable 0-10°
	Slitting Saw	5505-000455	BSS122	(1) Ø22mm	2:1	Tool OD 80-125mm, Tool thickness 5mm
		5505-000539	GSS1007-DEC	(1) Ø22mm	2:1	Tool OD 80mm, Tool thickness 2mm
		5505-000541	GSC-1335-DEC	(1) Ø13mm	1:1	Tool OD 58mm Max, Tool thickness 15mm, Up to 6,000 RPM
	Static Tool Holders	5505-000474	GDF-1207	(3) Ø3/4in		3 Position, Internal Coolant-thru with Max pressure 220 bar is OPTIONAL. For coolant-thru capbility, GDF1207-H100 is required
		5505-000475	GDF-1207-HP	(3) Ø3/4in		3 Position, Internal Coolant-thru with Max pressure 220 bar INCLUDED
		5505-000312	GDF-1207-L	(4) Ø3/4in		4 Position 3/4" Ø sleeves
	Thread Whirling	5505-000550	GSW161	(1) PCM	1:1	Adjustable 0-16°, 6,000 Max RPM, Requires coolant kit Art. 876-613-80 for internal coolant capbility with PCM coolant whirling ring, 6,7,9 or 12 insert Utilis ring
		5505-000552	GSW163	(1) Utilis	1:1	Adjustable 0-28°, 6,000 Max RPM, 9 insert cutter, 12mm flight Ø, Requires 2 positions, Whirling ring not included
Sub Spindle	Cross Drilling / Milling	5505-000369	GSC-1407	(1) ER11	1:1	Requires Block U127B
		5505-000268	GSC-1507	(1) ER11	1:1	Up to 5,000 RPM
		5505-000366	GSC-1507-3X	(1) ER11	1:3	High speed up to 15,000 RPM
		5505-000377	GSE-3407	(1) ER11	1:1	Up to 7,500 RPM Max
		5505-000293	GSE-3407-HP	(1) ER11	1:1	Up to 7,500 RPM Max, Internal high pressure coolant-thru with 150 bar max pressure, 50µm seal is required
		5505-000515	GSE-3407-HP-HIQ-ERAX	(1) ER11	1:1	Up to 7,500 RPM Max, Internal high pressure coolant-thru with 150 bar max pressure, 50µm seal is required, Internal Nut
	End Drilling / Milling	5505-000292	MSC-507-L	(1) ER11	1:1	Up to 10,000 RPM, Long version
		5505-000254	MSC-507-II	(1) ER11	1:1	Up to 8,000
		5505-000608	MSC-507-2x	(1) ER11	1:2	High speed up to 20,000 RPM
		5505-000294	MSC-507-4X	(1) ER08	1:3.8	High Speed up to 38,000 RPM
		5505-000376	MSC-512	(1) ER16	1:1	Up to 10,000 RPM
		5505-000330	MSC-513	(1) ER20	1:1	Up to 10,000 RPM
		5505-000514	GSE-3307-L-3X	(1) ER08	1:3	High speed up to 30,000 RPM, Long version
		5505-000231	GSE-3507-3X	(1) ER11	1:3	High speed up to 27,000 RPM
	Slitting Saw	5505-000276	GSS-1530	(1) ER11	5:3	Max tool Ø63mm, Max tool thickness 2mm , Up to 5,400 RPM
	Static Tool Holders	5505-000310	CIT-SAU919-S-CT	(1) Ø3/4in		Coolant-thru, Uses M5-1/4" JIC fitting, For L20-X

Gang Slide



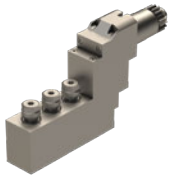
GSC-1110-4X
Cross Drill/Mill
Collet Size: ER08
Output: 1:3.8
High Speed,
Up to 30,000 RPMs
$L_2$20



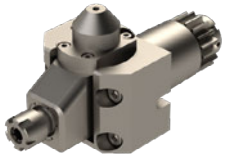
GSC-1113
Cross Drill/Mill
Collet Size: ER20
Output: 1:1
$L_2$20



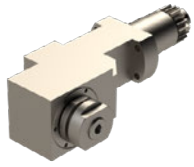
BSE-307-3X
End Drill/Mill
Collet Size: ER11
Output: 1:3
High Speed,
Double Ended
$L_2$20



BSE-3106
End Drill/Mill
Collet Size: ER11
Output: 1:1
Replaces BSE-607



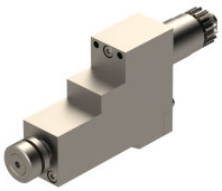
GSA1007
Angled Drill/Mill
Collet Size: ER11
Output: 1:1
Adjustable 0-10°



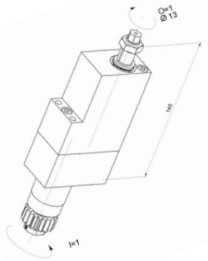
BSS122
Slitting Saw
Arbor Size: Ø22mm
Output: 2:1
Max Tool Ø125mm
Max Width 5mm

Citizen Cincom L2-20 VIII / X / XII

Gang Slide

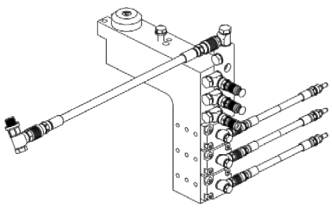


GSS1007-DEC
Slitting Saw
Arbor Size: Ø22mm
Output: 2:1
Max Tool Ø80mm
Max Width 2mm



GSC-1335-DEC
Slitting Saw
Arbor Size: Ø13mm
Output: 1:1
$L_2$20

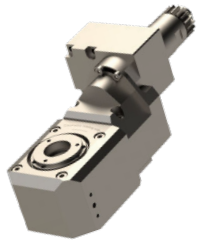
GDF-1207
Tool Holder
Tool Size: Ø3/4in
3 Positions
Coolant-thu Optional
$L_2$20



GDF-1207-HP
Tool Holder
Tool Size: Ø3/4in
3 Positions,
Coolant-thru Included,
Max pressure 220 bar
$L_2$20



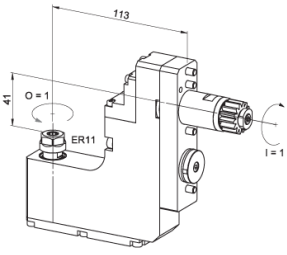
GDF-1207-L
Tool Holder
Tool Size: Ø19.05mm
4 Positions with 3/4" diameter sleeves
$L_2$20



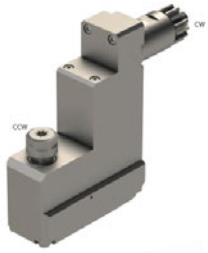
GSW161
Thread Whirling
Ring: PCM
Output: 1:1
Adjustable 0-16°,
Requires coolant kit for use with PCM coolant whirling ring

GSW163
Thread Whirling
Ring: Utilis
Output: 1:1
Adjustable 0-28°
9 Insert cutter
12mm flight circle

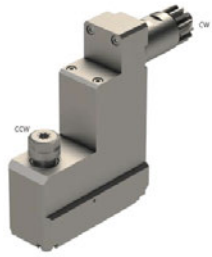
Sub Spindle



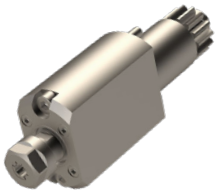
GSC-1407
Cross Drill/Mill
Collet Size: ER11
Output: 1:1



GSC-1507
Cross Drill/M
Collet Size: ER1
Output: 1:1



GSC-1507-3X
Cross Drill/Mill
Collet Size: ER11
Output: 1:3



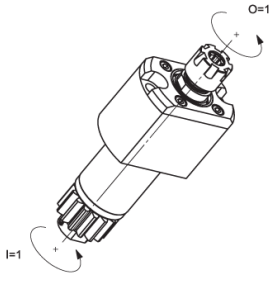
GSE-3407
Cross Drill/Mill
Collet Size: ER11
Output: 1:1



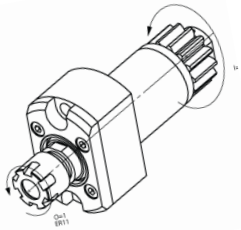
GSE-3407-HP
Cross Drill/Mill
Collet Size: ER11
Output: 1:1
High Pressure
Coolant-Thru



GSE-3407-HP
-HIQ-ERAX
Cross Drill/Mill
Collet Size: ER11
Output: 1:1
High Pressure
Coolant-Thru,
Internal Nut



MSC-507-L
End Drill/Mill
Collet Size: ER11
Output: 1:1



MSC-507-II
End Drill/Mill
Collet Size: ER11
Output: 1:1

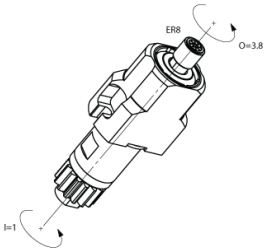


MSC-507-2X
End Drill/Mill
Collet Size: ER11
Output: 1:2
High speed up to 20,000RPM

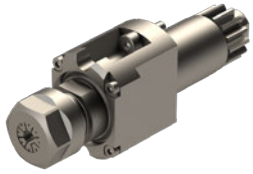
CONTINUED ON NEXT PAGE

Citizen Cincom L2-20 VIII / X / XII

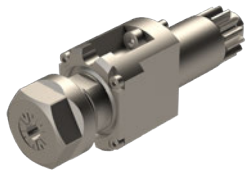
Sub Spindle



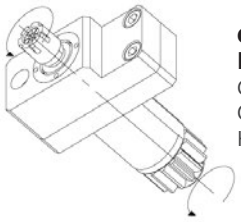
MSC-507-4X
End Drill/Mill
Collet Size: ER08
Output: 1:3.8
High speed up to 38,000RPM



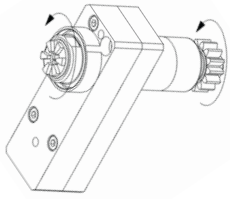
MSC-512
End Drill/Mill
Collet Size: ER16
Output: 1:1



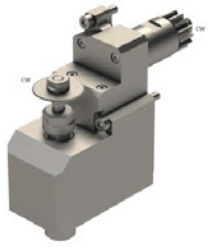
MSC-513
End Drill/Mill
Collet Size: ER20
Output: 1:1



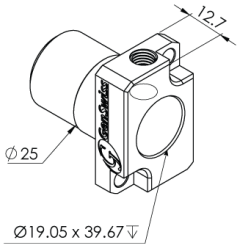
GSE-3307-L-3X
End Drill/Mill
Collet Size: ER08
Output: 1:3
High Speed



GSE-3507-3X
End Drill/Mill
Collet Size: ER11
Output: 1:3
High Speed



GSS-1530
Slitting Saw
Arbor Size: ER11
Output: 5:3



CIT-SAU919-S-CT
Tool Holder
Tool Size: Ø3/4"
Coolant-Thru Version
Uses M5-1/4" JIC Fitting

CITIZEN L$_5$20 / L$_7$20 / L20E-1M

Swiss Made by PCM be driven.

Citizen L5-20 / L7-20 / L20-E

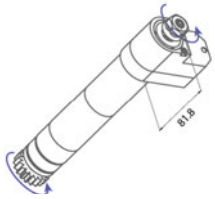
(Machine's Live Tooling 4,500 - 6,000 RPM Rating)

Position	Operation	Item No.	Description	(#Tools)Size	Input:Output	Machine	Other
Gang Slide	Cross Drilling & Milling	5505-000118	GSC-310-3x	(1) ER11	1:3		High speed up to 15,000 RPM
		5505-000291	GSC-510-L-3X	(1) ER11	1:3		High speed up to 18,000 RPM
		5505-000281	GSC-510-4X	(1) ER08	1:3.8		High speed up to 22,800 RPM
		5505-000117	GSC-204-3X	(1) ER11	1:3		High speed up to 15,000 RPM
		5505-000498	GSC-1207-4X	(1) ER11	1:3.8	L20E	High speed up to 22,800 RPM
		5505-000331	GSC-1210	(1) ER16	1:1	L20E	For L20E-1M or newer, Requires GSE3110
		5505-000280	GSC-1210-4X	(1) ER08	1:3.8	L20E	For L20E-1M or newer, Requires GSE3110, High speed up to 19,000 RPM
	Angled Drilling & Milling	5505-000235	GSA107	(1) ER11	1:1		Adjustable 0-180°
	End Drilling & Milling	5505-000444	BSE307-3X	(2) ER11	1:3		High speed up to 18,000 RPM, Double ended
		5505-000493	GSA-1530	(1) ER16	1:1	L20E	Fixed angle at 93°
		5505-000125	GSE-306-SE312	(1) ER11	1:3		High speed up to 18,000 RPM
		5505-000123	GSE-306-DE312	(2) ER11	1:3		High speed up to 18,000 RPM, Double ended
		5505-000124	GSE-306-L-520	(1) ER11	1:1		
		5505-000274	GSE-306-DE011	(2) ER11	1:1		Double ended
		5505-000287	GSE-3107	(4) ER11	1:1		Double ended, Requires GSE3110
		5505-000342	GSE-3207	(6) ER11	1:1	L20E	Double ended, Requires GSE3110 or GSE3010
	Slitting Saw	5505-000134	GSS-510	(1) Ø16mm	2:1		Up to 3,000 RPM
	Static Tool Holders	5505-000250	GDF903	(1) Ø1in			1in sleeve holder
		5505-000424	852-354-OF-010	(1) Ø25mm			High speed Meyrant spindle holder
	Whirling	5505-000155	LSW-101-L20	(1) Utilis	2:1		9 or 12 insert cutter, Adjustable ±10°, 12mm flight cir.
		5505-000158	LSW-215	(1) Utilis	1:1		9 or 12 insert cutter, Adjustable ±15°
Sub Spindle	Cross Drilling & Milling	5505-000268	GSC-1507	(1) ER11	1:1		
		5505-000366	GSC-1507-3X	(1) ER11	1:3		High speed up to 15,000 RPM
		5505-000292	MSC-507-L	(1) ER08	1:1		
		5505-000254	MSC-507-II	(1) ER11	1:1		
		5505-000294	MSC-507-4X	(1) ER08	1:3.8		High speed up to 38,000
	End Drilling & Milling	5505-000330	MSC-513	(1) ER20	1:1		
		5505-000514	GSE-3307-L-3X	(1) ER08	1:3		High speed up to 18,000 RPM
		5505-000516	GSE3407-HP HIQ-ERAX-MAJ	(1) ER11	1:1		Internal coolant-thru with max pressure 150 bar, Internal nut
		5505-000231	GSE-3507-3X	(1) ER11	1:3		High speed, Up to 5,400 RPM
	Slitting Saw	5505-000276	GSS-1530	(1) ER11	5:3		Max tool Ø63mm, Max tool thickness 2mm
		5505-000306	GSS-1331	(1) ER11	1:1		

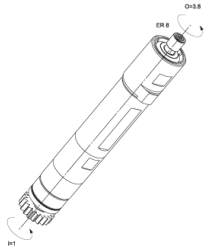
Gang Slide



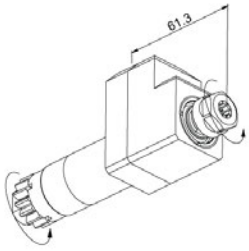
GSC-310-3X
Cross Drill/Mill
Collet Size: ER11
Output: 1:3
High Speed



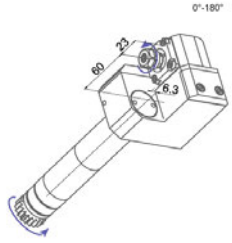
GSC-510-L-3X
Cross Drill/Mill
Collet Size: ER11
Output: 1:3
High Speed



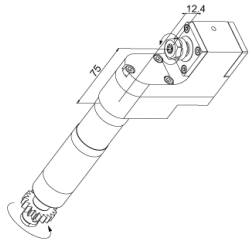
GSC-510-4X
Cross Drill/Mill
Collet Size: ER08
Output: 1:3.8
High Speed



GSC-204-3X
Cross Drill/Mill
Collet Size: ER11
Output: 1:3
High Speed



GSA107
Angled Drill/M
Collet Size: ER11
Output: 1:1
Adjustable 0-180°

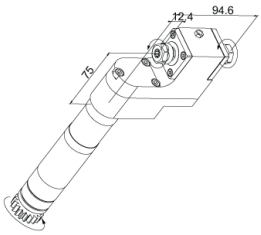


GSE-306-SE312
End Drill/Mill
Collet Size: ER11
Output: 1:3
High Speed

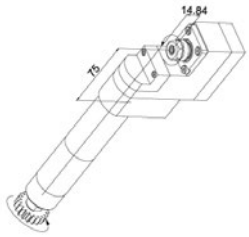
CONTINUED ON NEXT PAGE

Citizen Cincom L5-20 / L7-20 / L20-E

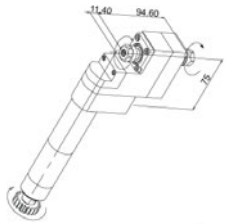
Gang Slide



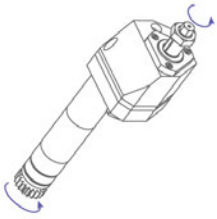
GSE-306-DE312
End Drill/Mill
Collet Size: ER11
Output: 1:3
High Speed
Double Ended



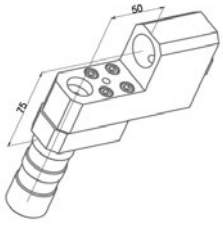
GSE-306-L-520
End Drill/Mill
Collet Size: ER11
Output: 1:1



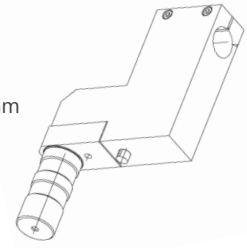
GSE-306-DE011
End Drill/Mill
Collet Size: ER11
Output: 1:1
Double Ended



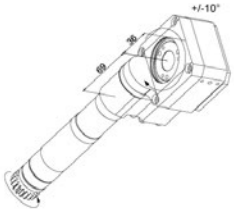
GSS-510
Slitting Saw
Arbor Size: Ø16mm
Output: 2:1



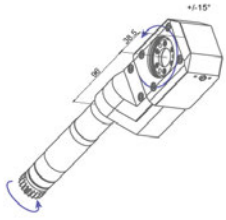
GDF903
Tool Holder
Tool Size: Ø25.4mm
1° Sleeve Holder



852-354-OF-010
Tool Holder
Tool Size: Ø25mm
High Speed
Spindle Holder



LSW-101-L20
Thread Whirling
Ring: Utilis
Output: 1:1
9 or 12 insert cutter,
Flight Ø12mm,
Adjustable ±10°



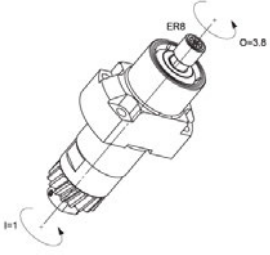
LSW-215
Thread Whirling
Ring: Utilis
Output: 1:1
9 or 12 insert cutter,
Adjustable ±15°

Gang Slide

For Use With GSE3110 or GSE3010 Expansion Block



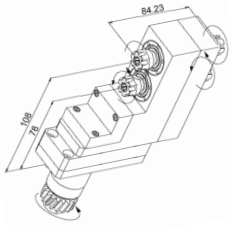
GSC-1207-4X
Cross Drill/Mi
Collet Size: ER11
Output: 1:3.8
High Speed
L20E



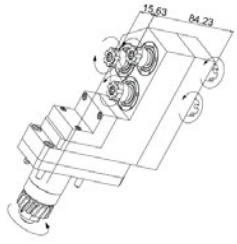
GSC-1210-4X
Cross Drill/Mill
Collet Size: ER08
Output: 1:3.8
High Speed
Requires GSE3110
L20E



GSC-1210
Cross Drill/Mill
Collet Size: ER16
Output: 1:1
Requires GSE3110
L20E



GSE-3107
End Drill/Mill
Collet Size: ER11
Output: 1:1
Double Ended



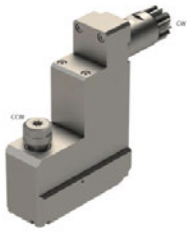
GSE-3207
End Drill/Mill
Collet Size: ER11
Output: 1:1
Double Ended

Not Compatible With GSE 3210

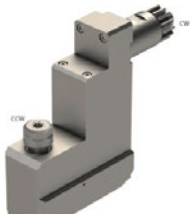
Citizen Cincom L5-20 / L7-20 / L20-E

Sub Spindle

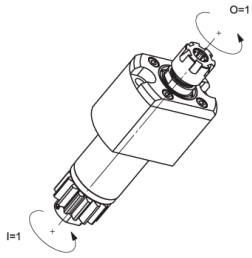
Equipped With U153B or U155B



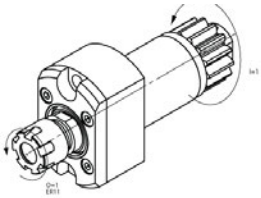
GSC-1507
Cross Drill/Mill
Collet Size: ER11
Output: 1:1



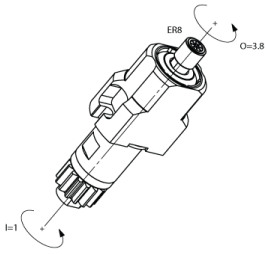
GSC-1507-3X
Cross Drill/Mill
Collet Size: ER11
Output: 1:3



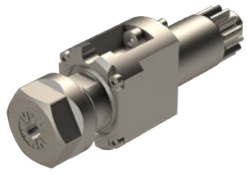
MSC-507-L
Cross Drill/Mill
Collet Size: ER08
Output: 1:1



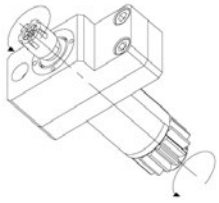
MSC-507-II
Cross Drill/Mill
Collet Size: ER11
Output: 1:1



MSC-507-4X
Cross Drill/Mill
Collet Size: ER08
Output: 1:3.8
High Speed



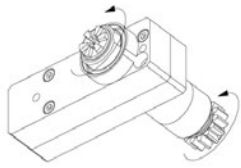
MSC-513
End Drill/Mill
Collet Size: ER20
Output: 1:1



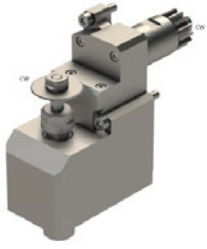
GSE-3307-L-3X
End Drill/Mill
Collet Size: ER08
Output: 1:3
High Speed



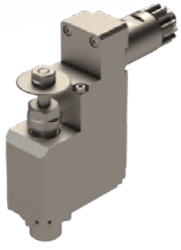
GSE3407-HP
HIQ-ERAX-MAJ
End Drill/Mill
Collet Size: ER11
Output: 1:1
Internal coolant-thru
Max pressure 150 bar
Internal Nut



GSE-3507-3X
End Drill/Mill
Collet Size: ER11
Output: 1:3
High Speed



GSS-1530
Slitting Saw
Arbor Size: ER11
Output: 5:3



GSS-1331
Slitting Saw
Arbor Size: ER11
Output: 1:1

CITIZEN $L_4$25/32

Swiss Made by PCM be driven.

Citizen L_4 25 / L_4 32

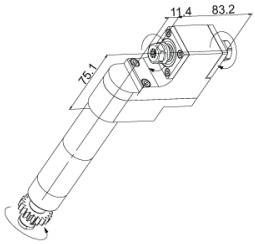
(Machine's Live Tooling 3,000 - 4,500 RPM Rating)

Position	Operation	Item No.	Description	(#Tools)Size	Input:Output	Other
Gang Slide	Cross Drilling & Milling	5505-000118	GSC-310-3X	(1) ER11	1:3	High speed up to 15,000 RPM
	End Drilling & Milling	5505-000274	GSE-306-DE511	(2) ER11	1:1	Double Ended
		5505-000123	GSE-306-DE512	(2) ER11	1:3	Double Ended, High speed spindle
		5505-000507	GSE-306-SE512	(1) ER11	1:3	High speed spindle
		5505-000508	GSE-306-L-525	(1) ER11	1:1	Long version

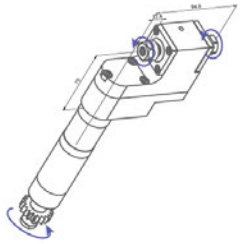
Gang Slide



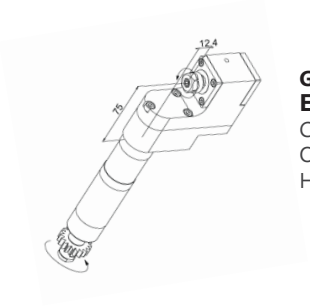
GSC-310-3X
Cross Drill/Mill
Collet Size: ER11
Output: 1:3
High Speed



GSE-306-DE511
End Drill/Mill
Collet Size: ER11
Output: 1:1
Double Ended



GSE-306-DE512
End Drill/Mill
Collet Size: ER11
Output: 1:3
High Speed
Double Ended



GSE-306-SE512
End Drill/Mill
Collet Size: ER11
Output: 1:3
High Speed

GSE-306-L-525
End Drill/Mill
Collet Size: ER11
Output: 1:1
Long version

CITIZEN A32, L32

Swiss Made by PCM be driven.

Citizen A32-VII & L32-VIII, X, XII

(Machine's Live Tooling 4,000 RPM Rating)

Position	Operation	Item No.	Description	(#Tools)Size	Input:Output	Machine	Other
Gang Slide	Cross Drilling & Milling	5505-000261	GSC-1110	(1) ER16	1:1	A32, L32	
		5505-000496	GSC1110-L	(1) ER16	1:1	A32, L32	Length 70mm
		5505-000285	GSC-1110-4X	(1) ER08	1:3.8	A32, L32	High Speed, Up to 30,000 RPM
		5505-000329	GSC-1113	(1) ER20	1:1	A32, L32	
		5505-000436	BSC-210	(1) ER16	1:1	A32, L32	
		5505-000199	BSC-610-3X	(1) ER11	1:3	A32, L32	High speed up to 15,000 RPM
		5505-000355	BSC-610-L-3X	(1) ER11	1:3	A32, L32	High speed up to 15,000, Added bearing for strength, Long version
		5505-000435	BSC1107-4X	(1) ER11	1:3.8	A32, L32	High speed up to 30,000 RPM
		5505-000623	MSC810	(2) ER16	1:1	L32	Double Ended, For L32X, XII
	Angled Drilling & Milling	5505-000263	GSA-1510	(3) ER16	1:1	A32, L32	Adjustable 0-30°, Requires 2 tool positions
		5505-000353	BSA-2010	(6) ER16	1:1	A32, L32	Adjustable 0-21°, Interferes with adjacent tooling station when at angle
		5505-000232	BSA-3107	(1) ER11	1:1	A32	Adjustable 0-180° , interferes with adjacent tooling station when used at angle
	End Drilling & Milling	5505-000439	BSE107	(1) ER11	1:1	A32, L32	
		5505-000442	BSE207-II	(2) ER11	1:1	A32, L32	
		5505-000438	BSE1007-II	(2) ER11	1:1	A32, L32	Double Ended
		5505-000188	BSE2007-II	(4) ER11	1:1	A32, L32	Double Ended
		5505-000443	BSE3007-IK-3X	(3) ER11	1:1 & 1:3	A32, L32	High speed up to 18,000 RPM, Internal cooling with max pressure 120 bar, Position 1 at 1:1 and position 2 & 3 at 1:3
		5505-000445	BSE-3106	(3) ER11	1:1	A32, L32	
		5505-000446	BSE3107-II	(3) ER11	1:1	A32, L32	
		5505-000447	BSE3206-II	(6) ER11	1:1	A32, L32	Double Ended
		5505-000448	BSE-3207	(4) ER16	1:1	A32, L32	Double Ended, Spindles rotate in same direction
		5505-000258	BSE-3207-III	(4) ER16	1:1	A32, L32	Double Ended, Spindles rotate in alternating directions
		5505-000230	BSE-3208-II	(8) ER16	1:1	A32	Double Ended, Spindles rotate in the same direction
		5505-000222	BSE-3208-III	(8) ER16	1:1	A32	Double Ended, Spindles rotate in alternating directions
		5505-000367	BSE-3209	(3) ER16	1:1	A32, L32	Spindles rotate in alternating directions
		5505-000344	BSE-3210	(6) ER16	1:1	A32, L32	Double Ended, Spindles rotate in alternating directions
		5505-000513	GSE-3307-3X	(1) ER08	1:3	A32	High speed up to 30,000 RPM, Max torque of 1500 Nmm
		5505-000511	GSE-3307-II	(1) ER11	1:1	A32	
		5505-000231	GSE-3507-3X	(1) ER11	1:3	L32	High speed up to 27,000 RPM, Internal nut
		5505-000503	GSE-1710	(6) ER16	1:1	A32	Drill depth 40mm
		5505-000316	GSE-1710-2X	(6) ER16	1:2	A32	High Speed up to 10,000 RPM
		5505-000504	GSE1910	(1) ER16	1:1	A32, L32	
	Polygon Milling	5505-000449	BSF-509	(1) Ø13mm	1:1	A32, L32	Max tool Ø 60mm
		5505-000450	BSP-510	(1) Ø13mm	1:1	A32, L32	Max tool Ø 60mm, Width 15mm
		5505-000451	BSP-511	(1) Ø10mm	1:1	A32, L32	Max tool Ø 55mm
		5505-000452	BSP-513	(1) Ø13mm	1.5:1	A32, L32	Max tool Ø 72mm, Width 8.3mm
		5505-000453	BSP516	(1) Ø16mm	1.5:1	A32, L32	Max tool Ø 72mm, Width 8.3mm
		5505-000671	RSP-013	(1) Ø13mm	1:1	A32, L32	Max tool Ø 72mm, Width 8.3mm
	Slotting Saw	5505-000362	GSS-1307-DEC	(1) Ø16mm	1:1	A32, L32	Max tool Ø 63mm, Width 6mm
		5505-000541	GSS1335-DEC	(1) Ø13mm	1:1	A32, L32	Max tool Ø 58mm, Width 15mm
		5505-000543	GSS15835-DEC	(1) Ø15.875mm	1:1	A32, L32	Max tool Ø 63mm, Width 8mm
		5505-000540	GSS1035-DEC	(1) Ø10mm	1:1	A32, L32	Max tool Ø 50mm, Width 15.5mm
	Whirling	5505-000457	BSW-315	(1) Utilis	1:1	A32	9 or 12 Insert Cutter, Adjustable ±15°, Flight Ø12, Requires removal of the 4-position ID Tool Block , Utilis ring #137578
		5505-000458	BSW-315-II	(1) Utilis	1:1	A32	9 or 12 Insert Cutter, Adjustable ±15°, Flight Ø12, T07 Blocked, Postiton T08 can only be used with Ø25x52mm in position , Utilis ring #137578
		5505-000551	GSW162	(1) Utilis or PCM	1:1	L32	Adjustable 0-16°, 6,000 Max RPM, Requires coolant kit Art. 876-613-80 for internal coolant capability with PCM coolant whirling ring, 6,7,9,12 insert Utilis ring, 15mm from Z0
	Static Tool Holders		GDF-1207-L	(4) Ø0.75in		A32	4 Position 3/4" Ø Sleeves
		5505-000346	GDF1501-IK	(3) Ø1.0in		A32	Intern coolant-thru with max pressure 100 bar, External coolant-thru with max pressure 200 bar, Gang tools U30B - T10
		5505-000358	GDF-1501-II	(3) Ø1inch		A32, L32	Holds 3 Ø1inch sleeves, Position T06-T09
		5505-000359	GDF-1601-L	(3) Ø1inch		L32	Holds 3 Ø1inch sleeves, Position T10, U30B, and U32B
Sub Spindle	Cross Drilling & Milling	5505-000261	GSC-1110	(1) ER16	1:1	L32	
		5505-000496	GSC1110-L	(1) ER16	1:1	L32	Length 70mm
		5505-000285	GSC-1110-4X	(1) ER08	1:3.8	L32	High Speed, Up to 30,000 RPM
		5505-000329	GSC-1113	(1) ER20	1:1	L32	
		5505-000400	GSC-1310-HP-II	(1) ER16	1:1	L32	High Pressure Coolant-Thru, Max Pressure 137 Bar, G1/8 Fitting
		5505-000436	BSC-210	(1) ER16	1:1	L32	
		5505-000390	BSC-1330	(1) ER16	1:1	L32	Requires 2 Tool Positions
		5505-000437	BSC-2330	(1) ER11 (1) ER16	1:1	L32	Requires 2 Tool Positions
	Slitting Saw	5505-000385	BSS-1530	(1) ER16	5:3	A32	Max tool Ø 80mm, Width 3mm

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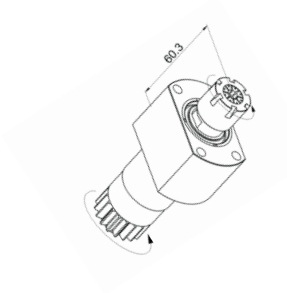
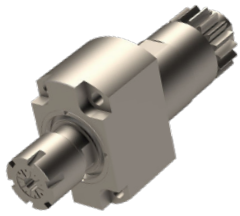
Citizen A32-VII & L32-VIII, X, XII

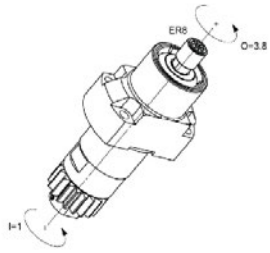
Gang Slide



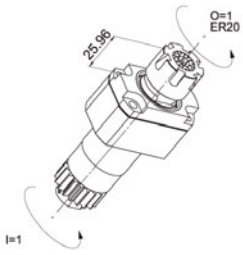
GSC-1110
Cross Drill/Mill
Collet Size: ER16
Output: 1:1
A32
L32



GSC-1110-L
Cross Drill/Mill
Collet Size: ER16
Output: 1:1
Length 70mm
A32
L32



GSC-1110-4X
Cross Drill/Mill
Collet Size: ER08
Output: 1:3.8
High Speed,
Up to 30,000 RPMs
A32
L32



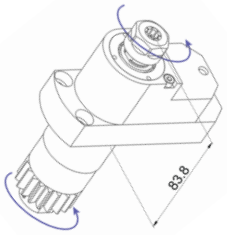
GSC-1113
Cross Drill/Mill
Collet Size: ER20
Output: 1:1
A32
L32



BSC-210
Cross Drill/Mill
Collet Size: ER16
Output: 1:1
A32
L32

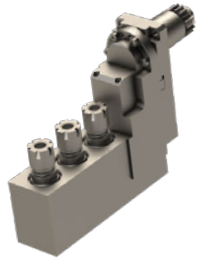


BSC-610-3X
Cross Drill/Mill
Collet Size: ER11
Output: 1:3
High Speed,
A32
L32

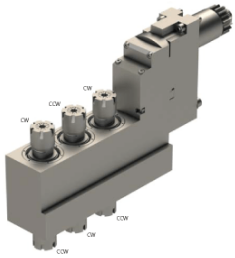


BSC-610-L-3X
Cross Drill/Mill
Collet Size: ER11
Output: 1:3
High Speed,
Long Version
Added bearing
For strength
A32
L32

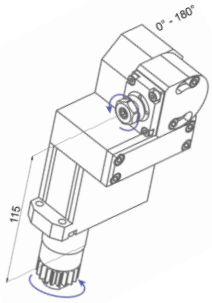
MSC810
Cross Drill/Mill
Collet Size: ER16
Output: 1:1
Double Ended
L32X, XII



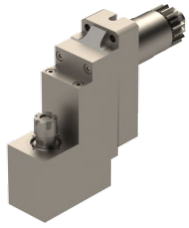
GSA-1510
Angled Drill/Mill
Collet Size: ER16
Output: 1:1
Adjustable 0-30°,
Requires 2 tool positions
A32
L32



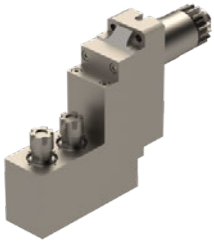
BSA-2010
Angled Drill/Mill
Collet Size: ER16
Output: 1:1
Adjustable 0-21°
Interferes with adjacent tooling position when used at angle
A32
L32



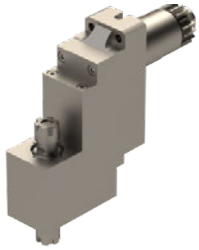
BSA-3107
Angled Drill/Mill
Collet Size: ER11
Output: 1:1
Adjustable 0-180°
Crashes with U150B/U151B when working with tool position T11 and T12
A32



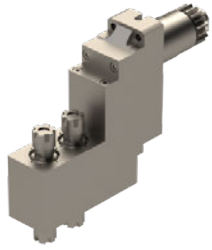
BSE107
End Drill/Mill
Collet Size: ER11
Output: 1:1
A32
L32



BSE207-II
End Drill/Mill
Collet Size: ER11
Output: 1:1
A32
L32



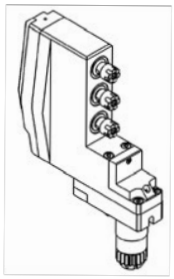
BSE1007-II
End Drill/Mill
Collet Size: ER11
Output: 1:1
Double Ended
Holds 2 tools
A32
L32



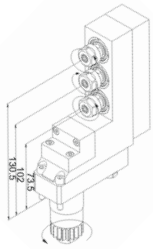
BSE2007-II
End Drill/Mill
Collet Size: ER11
Output: 1:1
Double Ended
Holds 4 tools
A32
L32

Citizen A32-VII & L32-VIII, X, XII

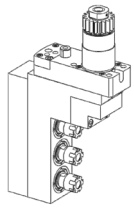
Gang Slide



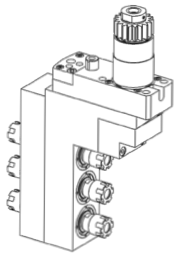
BSE3007-IK-3X
End Drill/Mill
Collet Size: ER11
Output: 1:1 & 1:3
Up to 18,000 RPM
1 tool @ 1:1, 2 tools @ 1:3
Internal coolingat 120 bar
A32
L32



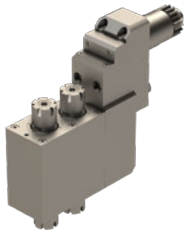
BSE-3106
End Drill/Mill
Collet Size: ER11
Output: 1:1
Spindle positions rotate in alternating directions
A32
L32



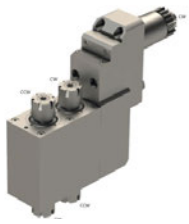
BSE3107-II
End Drill/Mill
Collet Size: ER11
Output: 1:1
A32
L32



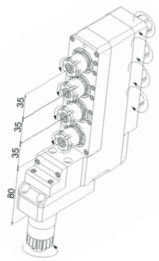
BSE3206-II
End Drill/Mill
Collet Size: ER11
Output: 1:1
Double ended
A32
L32



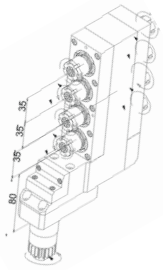
BSE-3207
End Drill/Mill
Collet Size: ER16
Output: 1:1
Double ended
Spindles positions rotate in same direction
A32
L32



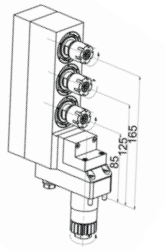
BSE-3207-III
End Drill/Mill
Collet Size: ER16
Output: 1:1
Spindle positions rotate in alternating directions
A32
L32



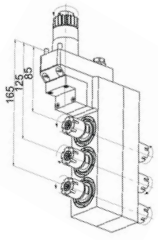
BSE-3208-II
End Drill/Mill
Collet Size: ER16
Output: 1:1
Notice positions on spindle rotate in same direction
A32



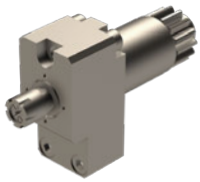
BSE-3208-III
End Drill/Mill
Collet Size: ER16
Output: 1:1
Spindle positions rotate in alternating directions
A32



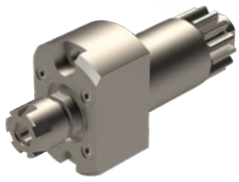
BSE-3209
End Drill/Mill
Collet Size: ER16
Output: 1:1
Notice positions on spindle rotate in alternating directions
A32
L32



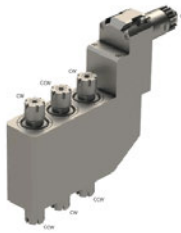
BSE-3210
End Drill/Mill
Collet Size: ER16
Output: 1:1
Notice positions on spindle rotate in alternating directions
A32
L32



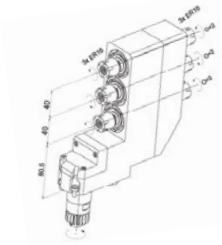
GSE-3307-3X
End Drill/Mill
Collet Size: ER08
Output: 1:3
High speed
A32



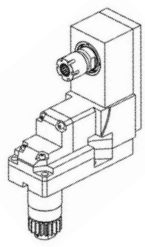
GSE-3307-II
End Drill/Mill
Collet Size: ER11
Output: 1:1
A32



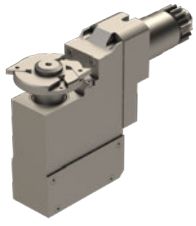
GSE-1710
End Drill/Mill
Collet Size: ER16
Output: 1:1
Notice positions on spindle rotate in alternating directions
A32



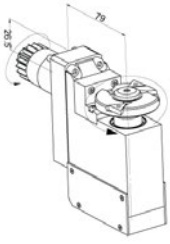
GSE-1710-2X
End Drill/Mill
Collet Size: ER16
Output: 1:2
High Speed
Notice positions on spindle rotate in alternating directions
A32



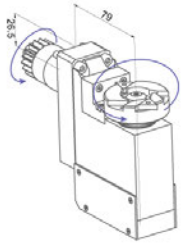
GSE1910
End Drill/Mill
Collet Size: ER16
Output: 1:1
A32
L32



BSP-509
Polygon Milling
Tool ID Size: Ø13mm
Output: 1:1
Max Tool Ø 60mm
A32
L32



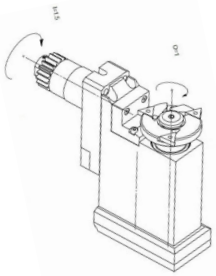
BSP-510
Polygon Milling
Tool ID Size: Ø13mm
Output: 1:1
Max Tool Ø 60mm
Tool Thickness 15mm
A32
L32



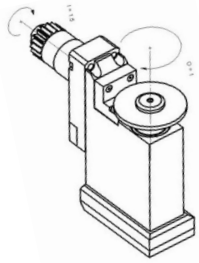
BSP-511
Polygon Milling
Tool ID Size: Ø10mm
Output: 1:1
Max Tool Ø 55mm
A32
L32

CONTINUED ON NEXT PAGE

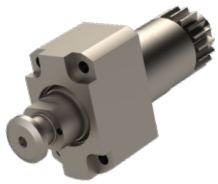
Citizen A32-VII & L32-VIII, X, XII



BSP-513
Polygon Milling
Tool ID Size: Ø13mm
Output: 1.5:1
Max Tool Ø 72mm
Tool Thickness 8.3mm
A32
L32



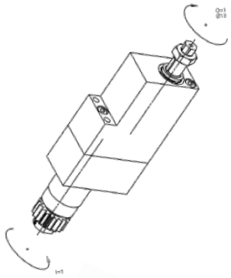
BSP516
Polygon Milling
Tool ID Size: Ø16mm
Output: 1.5:1
Max Tool Ø 72mm
Tool Thickness 8.3mm
A32
L32



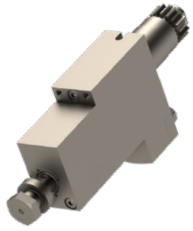
RSP-013
Polygon Milling
Tool ID Size: Ø13mm
Output: 1:1
Max Tool Ø 72mm
Tool Thickness 8.3mm
A32
L32



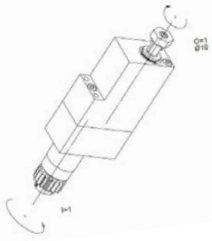
GSS-1307-DEC
Slitting Saw
Arbor Size: Ø16mm
Output: 1:1
Max Tool Ø 63mm
Tool Thickness 6mm
A32
L32



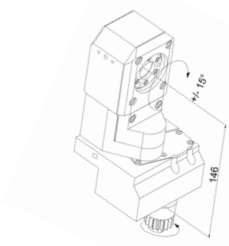
GSS1335-DEC
Slitting Saw
Arbor Size: Ø13mm
Output: 1:1
Max Tool Ø 58mm
Tool Thickness 15mm
A32
L32



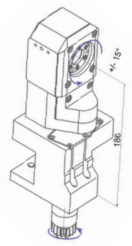
GSS15835-DEC
Slitting Saw
Arbor Size: Ø15.875mm
Output: 1:1
Max Tool Ø 63mm
Tool Thickness 8mm
A32
L32



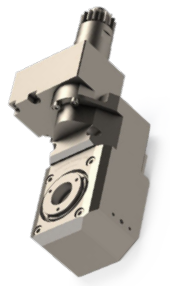
GSS1035-DEC
Slitting Saw
Arbor Size: Ø10mm
Output: 1:1
A32
L32



BSW-315
Thread Whirling
Ring: Utilis
Output: 1:1
9 or 12 insert cutter, Flight Ø12, Requires removal of the 4-position ID tool Block, Utilis ring #137578
A32



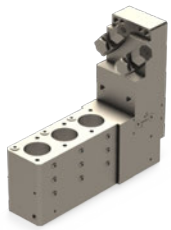
BSW-315-II
Thread Whirling
Ring: Utilis
Output: 1:1
9 or 12 insert cutter, Flight Ø12, T07 blocked, Position T08 can only be used with Ø25x52mm in position, Utilis ring #137578
A32



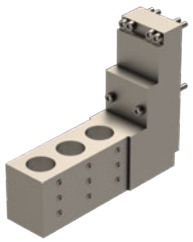
GSW162
Thread Whirling
Ring: PCM
Output: 1:1
Adjustable ±30°, Requires coolant kit internal cooling apa with PCM coolant w ing ring.
A32



GDF-1207-L
Tool Holder
Tool Size: Ø3/4in
4 Position Ø3/4in Sleeves
A32



GDF-1501-IK
Tool Holder
Tool Size: Ø1in
3 Position Ø1in Sleeves, Internal coolant-thru max pressure 150bar, External coolant-thru max pressure 200 bar, Gang tools U30B-T10
A32



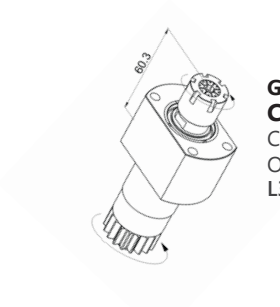
GDF-1501-II
Tool Holder
Tool Size: Ø1in
3 Position Ø1in Sleeves, Position T06-T09
A32
L32



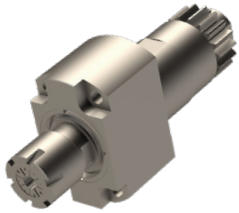
GDF-1601-L
Tool Holder
Tool Size: Ø1in
3 Position Ø1in Sleeves, Position T10, U30B, and U32B
L32

Citizen A32-VII & L32-VIII, X, XII

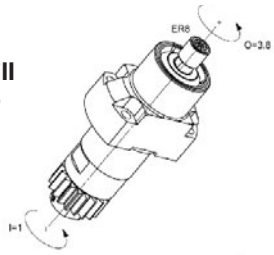
Sub Spindle



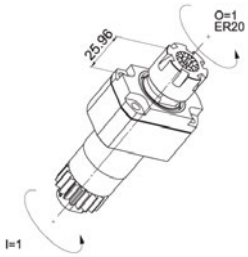
GSC-1110
Cross Drill/Mill
Collet Size: ER16
Output: 1:1
L32



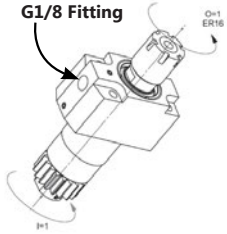
GSC-1110-L
Cross Drill/Mill
Collet Size: ER16
Output: 1:1
Length 70mm
L32



GSC-1110-4X
Cross Drill/Mill
Collet Size: ER08
Output: 1:3.8
High Speed,
Up to 30,000 RPMs
L32



GSC-1113
Cross Drill/Mill
Collet Size: ER20
Output: 1:1
L32



GSC-1310-HP-II
Cross Drill/Mill
Collet Size: ER16
Output: 1:1
High Pressure
Coolant-Thru
Max Pressure
137 Bar
G1/8 Fitting
L32



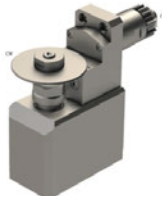
BSC-210
Cross Drill/Mill
Collet Size: ER16
Output: 1:1
L32



BSC-1330
Cross Drill/Mill
Collet Size: ER16
Output: 1:1
Requires 2 Tool Positions
L32



BSC-2330
Cross Drill/Mill
Collet Size: ER11, ER16
Output: 1:1
Requires 2 Tool Positions
L32



BSS-1530
Slitting Saw
Arbor Size: ER16
Output: 5:3
Max Tool Ø: 80mm
Max Tool Thickness: 3mm
A32

CITIZEN $L_6$32

Swiss Made by PCM be driven.

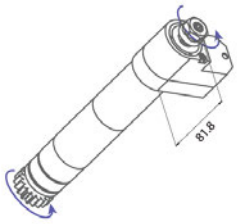
Citizen $L_6$32

(Machine's Live Tooling 3,000 - 4,500 RPM Rating)

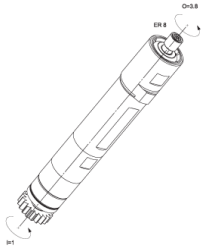
Position	Operation	Item No.	Description	(#Tools)Size	Input:Output	Other
Gang Slide	Cross Drilling / Milling	5505-000291	GSC-510-L-3X	(1) ER11	1:3	3X High speed
		5505-000281	GSC-510-4X	(1) ER08	1:3.8	4X High speed
	Angled Drilling / Milling	5505-000235	GSA107	(1) ER11	1:1	Adjustable 0-180°
	End Drilling / Milling	5505-000125	GSE-306-SE312	(1) ER11	1:3	
		5505-000123	GSE-306-DE312	(2) ER11	1:3	Double ended
		5505-000124	GSE-306-L-520	(1) ER11	1:1	
		5505-000274	GSE-306-DE011	(2) ER11	1:1	Double ended
		5505-000510	GSE-316-GS	(1) ER16	1:1	
	Slitting Saw	5505-000134	GSS-510	(1) Ø16	2:1	
	Tool Holder	5505-000250	GDF903	(1) Ø25.4		1" Sleeve holder
		5505-000424	852-354-OF-010	(1) Ø25		High speed spindle holder

Citizen Cincom $L_6$32

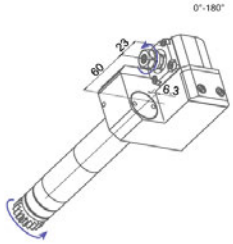
Gang Slide



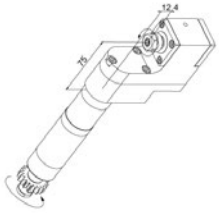
GSC-510-L-3X
Cross Drill/Mill
Collet Size: ER11
Output: 1:3
High Speed
$L_6$32



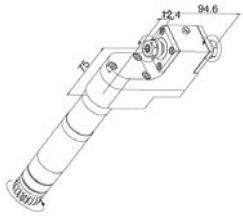
GSC-510-4X
Cross Drill/Mill
Collet Size: ER08
Output: 1:3.8
High Speed
$L_6$32



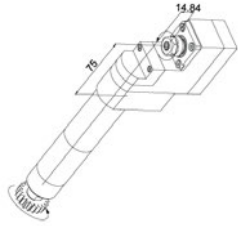
GSA107
Angled Drill/Mill
Collet Size: ER11
Output: 1:1
Adjustable 0-180°
$L_6$32



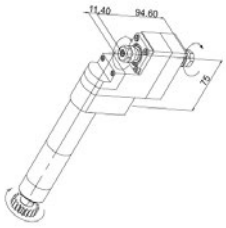
GSE-306-SE312
End Drill/Mill
Collet Size: ER11
Output: 1:3
High Speed
$L_6$32



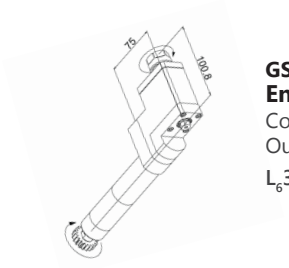
GSE-306-DE312
End Drill/Mill
Collet Size: ER11
Output: 1:3
High Speed
Double Ended
$L_6$32



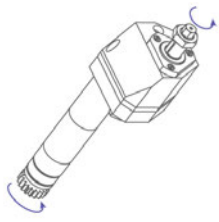
GSE-306-L-520
End Drill/Mill
Collet Size: ER11
Output: 1:1
$L_6$32



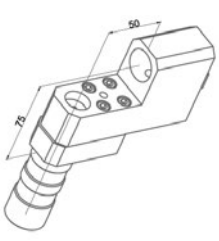
GSE-306-DE011
End Drill/Mill
Collet Size: ER11
Output: 1:1
Double Ended
$L_6$32



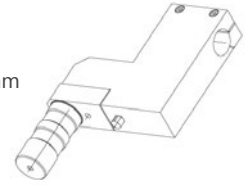
GSE-316-GS
End Drill/Mill
Collet Size: ER16
Output: 1:1
$L_6$32



GSS-510
Slitting Saw
Arbor Size: Ø16mm
Output: 2:1
$L_6$32



GDF903
Tool Holder
Tool Size: Ø25.4mm
Output: 1:3
1in Sleeve Holder
$L_6$32



852-354-OF-010
Tool Holder
Tool Size: Ø25mm
High Speed Spindle
Holder
$L_6$32

CITIZEN $M_2$12/16 & $M_3$12/16

Swiss Made by PCM be driven.

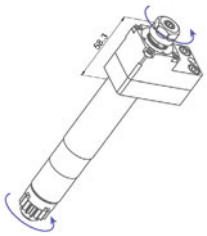
Citizen $M_2$12/16 & $M_3$12/16

Gang Slide Attachments

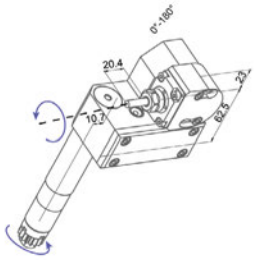
Position	Operation	Item No.	Description	(#Tools)Size	Input:Output	Other
Gang Slide	Cross Drilling / Milling	5505-000120	GSC-607-2X	(1) ER11	1:2	High speed up to 16,928 RPM
	Angled Drilling / Milling	5505-000203	GSA-407	(1) ER11	1:2.5	Adjustable 0-180°, Up to 20,000 RPM
	End Drilling / Milling	5505-000126	GSE-507	(1) ER11	1:1	
		5505-000127	GSE-507-2X	(1) ER11	1:2	2X High Speed
		5505-000128	GSE-507-DE	(1) ER11 (1) ER08	1:1	Double Ended
		5505-000524	GSE-507-DS	(2) ER11	1:1	Double Ended
		5505-000525	GSE-508	(1) ER11	1:1	
		5505-000129	GSE-707	(1) ER11	1:1	
		5505-000527	GSE-708	(1) ER11	1.65:1	
		5505-000620	MSE607	(3) ER11	1:1	
	Polygon Milling	5505-000526	GSE-509	(1) Ø10	1.6:1	
	Slitting Saw	5505-000133	GSS-250	(1) Ø16	2:1	Max tool size: 50mm, Needs 2 positions
		5505-000545	GSS-250-13	(1) Ø13	2:1	Max tool size: 50mm, Needs 2 positions
	Whirling	5505-000205	LSW-424	(1) Utilis	1:1	9, or 12 Insert Cutter, Adjustable ±10°, 12mm flight circle
		5505-000320	LSW-424-II	(1) Utilis	1:1	9, or 12 Insert Cutter, Adjustable ±15°, 12mm flight circle
	Static Tool Holder	5505-000113	GDF901	(1) Ø3/4in		
		5505-000485	GDF901-HF	(1) Ø25		High speed spindle holder
		5505-000486	GDF901-HF19	(1) Ø3/4in		High speed spindle holder
		5505-000487	GDF901-HF20	(1) Ø20mm		High speed spindle holder
		5505-000488	GDF901-HF22	(1) Ø22mm		High speed spindle holder
		5505-000489	GDF902	(2) Ø3/4in		

Citizen Cincom $M_2$12/16 & $M_3$12/16

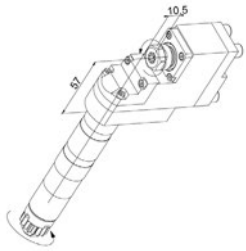
Gang Slide



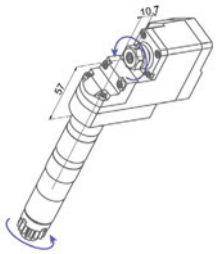
GSC-607-2X
Cross Drill/Mill
Collet Size: ER11
Output: 1:2
High Speed



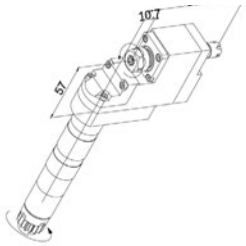
GSA-407
Angled Drill/Mill
Collet Size: ER11
Output: 1:2.5
Adjustable 0-180°



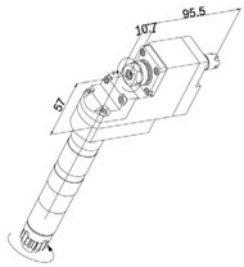
GSE-507
End Drill/Mill
Collet Size: ER11
Output: 1:1



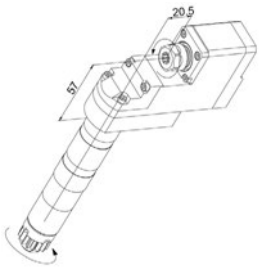
GSE-507-2X
End Drill/Mill
Collet Size: ER11
Output: 1:1
High Speed



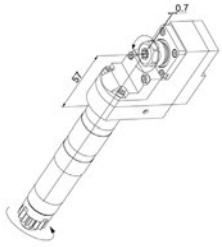
GSE-507-DE
End Drill/Mill
Collet Size: ER08, ER11
Output: 1:1
Double Ended



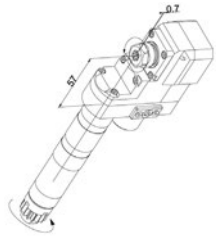
GSE-507-DS
End Drill/Mill
Collet Size: ER11
Output: 1:1
Double Ended



GSE-508
End Drill/Mill
Collet Size: ER11
Output: 1:1



GSE-707
End Drill/Mill
Collet Size: ER11
Output: 1:1



GSE-708
End Drill/Mill
Collet Size: ER11
Output: 1.65:1

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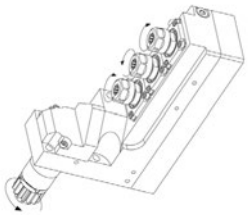
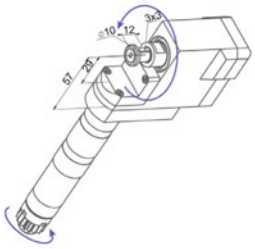
Citizen Cincom $M_2$12/16 & $M_3$12/16

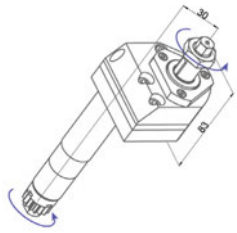
Gang Slide



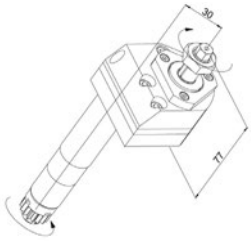
MSE-607
End Drill/Mill
Collet Size: ER11
Output: 1:1



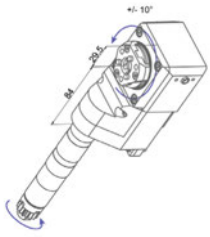
GSE-509
Polygon Milling
ID Size: Ø10mm
Output: 1.6:1



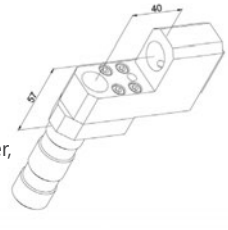
GSS-250
Slitting Saw
Arbor Size: Ø16mm
Output: 2:1



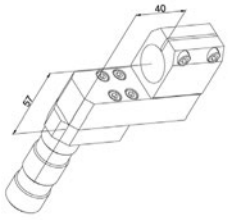
GSS-250-13
Slitting Saw
Arbor Size: Ø13mm
Output: 2:1



LSW-424
Thread Whirling
Ring: Utilis
Output: 1:1
3,9, or 12 insert cutter,
Adjustable ±10°



GDF-901
Tool Holder
Tool Size: Ø19.05mm



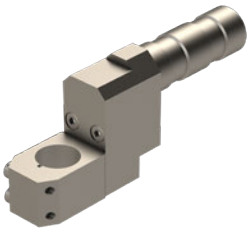
GDF901-HF
Tool Holder
Tool Size: Ø25mm
For Broach Holders



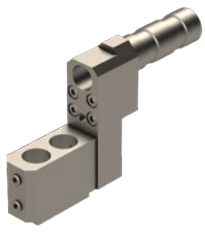
GDF901-HF19
Tool Holder
Tool Size: Ø3/4in
For Broach Holders



GDF901-HF20
Tool Holder
Tool Size: Ø20mm
For Broach Holders



GDF901-HF22
Tool Holder
Tool Size: Ø22mm
For Broach Holders



GDF902
Tool Holder
Tool Size: Ø3/4in

CITIZEN M4 12/16

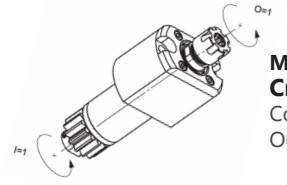
Swiss Made by PCM be driven.

Citizen M4 12/16

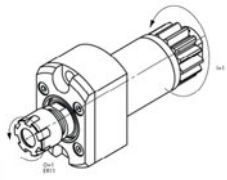
Gang Slide Attachments

Position	Operation	Item No.	Description	(#Tools)Size	Input:Output	Other
Gang Slide	Cross Drilling / Milling	5505-000292	MSC-507-L	(1) ER11	1:1	Long version
		5505-000254	MSC-507-II	(1) ER11	1:1	
		5505-000608	MSC-507-2X	(1) ER11	1:2	High speed up to 20,000 RPM
		5505-000294	MSC-507-4X	(1) ER08	1:3.8	High speed up to 38,000 RPM
		5505-000376	MSC512	(1) ER16	1:1	
		5505-000330	MSC-513	(1) ER20	1:1	
	Angled Drilling / Milling	5505-000494	GSA-607	(3) ER11	1:1	Adjustable ±30°, External cooling, Requires 2 tool positions
	End Drilling / Milling	5505-000620	MSE-607	(3) ER11	1:1	External cooling, requires B-Axis
		5505-000621	MSE-707	(8) ER11	1:1	Exernal cooling, requires B-Axis
	Slitting Saw	5505-000546	GSS507	(1) Ø13mm	1:1	Max tool Ø50mm, Width 6mm
		5505-000547	GSS507-08	(1) Ø8mm	1:1	Max tool Ø50mm, Width 3mm
		5505-000548	GSS507-10	(1) Ø10mm	1:1	Max tool Ø50mm, Width 3mm
		5505-000343	GSS610	(1) Ø10mm	1:1	Max tool Ø40mm, Width 4.5mm
	Polygon Milling	5505-000529	GSF-080	(1) Ø8mm	1:1	Max tool Ø58mm, Width 3mm
	Whirling	5505-000593	LSW-420	(1) Utilis or PCM	1:1	Adjustable 0-16°, 8,000 Max RPM, Requires coolant kit Art. 876-635-80 for internal coolant capability with PCM coolant whirling ring, 6,7,9,or 12 Insert Utilis ring
		5505-000323	GSW-251	(1) Utilis	1:1	9 Insert Cutter, 8mm Flight Ø, Adjustable ±25°
		5505-000554	GSW-261	(1) Utilis	1:1	9 Insert Cutter, 8mm Flight Ø, Adjustable ±25°, Requires B-Axis
	Tool Holders	5505-000490	GDF902-19	(2) Ø3/4in		
		5505-000601	MEU107	(1) Ø10mm H7		Internal cooling with max pressure 80 bar, Requires B-Axis
	Tool Posts	5505-000430	864-615-OF190	(5) Ø3/4in		Internal & external cooling with max pressure 100 bar

Gang Slide



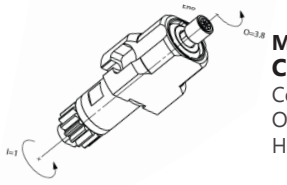
MSC-507-L
Cross Drill/Mill
Collet Size: ER11
Output: 1:1



MSC-507-II
Cross Drill/Mill
Collet Size: ER11
Output: 1:1



MSC-507-2X
Cross Drill/Mill
Collet Size: ER11
Output: 1:2
High Speed



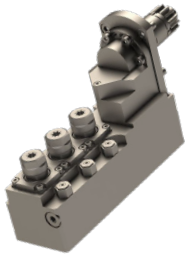
MSC-507-4X
Cross Drill/Mill
Collet Size: ER08
Output: 1:3.8
High Speed



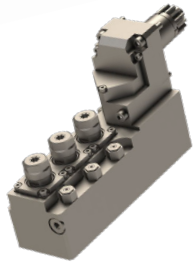
MSC512
Cross Drill/Mill
Collet Size: ER16
Output: 1:1



MSC-513
Cross Drill/Mill
Collet Size: ER20
Output: 1:1



GSA-607
Angled Drill/Mill
Collet Size: ER11
Output: 1:1
Adjustable 30°,
External cooling,
Requires 2 positions



MSE-607
End Drill/Mill
Collet Size: ER11
Output: 1:1
External cooling,
Requires B-Axis



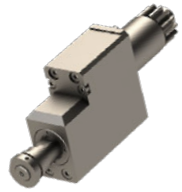
MSE-707
End Drill/Mill
Collet Size: ER11
Output: 1:1
External cooling,
Requires B-Axis



GSS507
Slitting Saw
Arbor Size: Ø13mm
Output: 1:1
Max Tool Ø 50mm
Tool Thickness 6mm



GSS507-08
Slitting Saw
Arbor Size: Ø8mm
Output: 1:1
Max Tool Ø 50mm
Tool Thickness 3mm



GSS507-10
Slitting Saw
Arbor Size: Ø10mm
Output: 1:1
Max Tool Ø 50mm
Tool Thickness 3mm

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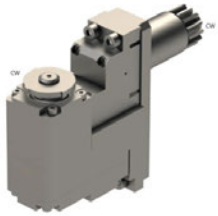
Citizen Cincom $M_4$12/16

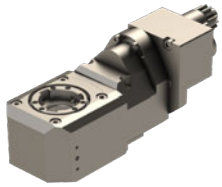
Gang Slide



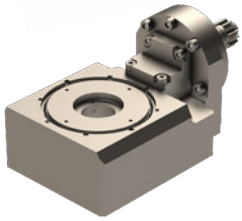
GSS610
Slitting Saw
Saw ID: 10mm
Output: 1:1
Max Tool Ø40mm
Max Width 4.5mm



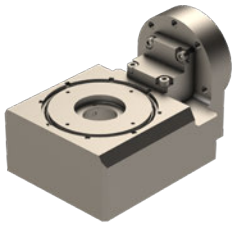
GSF-080
Polygon Milling
Tool ID Size: Ø8mm
Output: 1:1
Max Tool Ø 58mm
Max Width 3mm



LSW-420
Thread Whirling
Ring: Utilis or PCM
Output: 1:1
6,7,9, or 12 insert cutter,
Adjustable 0-16°



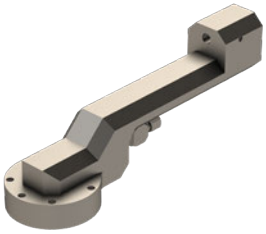
GSW-251
Thread Whirling
Ring: Utilis
Output: 1:1
9 insert cutter,
8mm flight Ø,
Adjustable ±25°



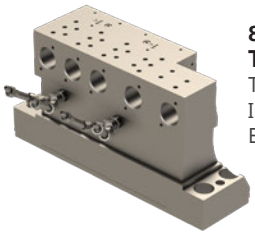
GSW-261
Thread Whirling
Ring: Utilis
Output: 1:1
9 insert cutter,
8mm flight Ø,
Adjustable ±25°,
Requires B-Axis



GDF902-19
Tool Holder
Tool Size: Ø3/4in



MEU107
Tool Holder
Tool Size: Ø10mm H7
Internal cooling,
Requires B-Axis



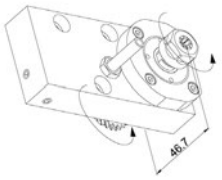
864-615-OF190
Tool Post
Tool Size: Ø3/4in
Internal cooling,
External cooling

Operation	Item No.	Description	(#Tools) Size	Output	Coolant-Thru	Other
Cross Drilling / Milling	5505-000165	MSC-106-K	(1) ER11	1:1	Yes	External cooling, 33mm drill depth
	5505-000166	MSC-106-2X	(1) ER11	1:2	Yes	High speed up to 12,000 RPM
	5505-000605	MSC-110-K	(1) ER16	1:1	Yes	External cooling, Internal nut
	5505-000606	MSC-407	(2) ER11	1:1		Requires Y-axis
	5505-000607	MSC-407-3	(3) ER11	1:1		Requires Y-axis
Angled Drilling / Milling	5505-000163	MSA-103	(1) ER11	1:1		Adjustable 0-30°
	5505-000603	MSA-106	(1) ER16	1:1		Fixed at 6°
	5505-000164	MSA-203	(1) ER11	1:1		Adjustable 30-60°
	5505-000604	MSA-303	(1) ER11	1:1		Adjustable 55-90°
	5505-000625	MSF-130-ER	(1) ER11	1:1		Adjustable ±20°, Requires Y-Axis
End Drilling / Milling	5505-000615	MSE-106-K	(1) ER11	1:1	Yes	External cooling
	5505-000338	MSE106-KM-II	(1) ER11	1:1	Yes	External cooling
	5505-000349	MSE106KM2X-II	(1) ER11	1:2	Yes	High speed up to 12,000 RPM, External cooling, Drill depth 20mm
	5505-000612	MSE-106-2X	(1) ER11	1:2	Yes	High speed up to 12,000 RPM, External cooling
	5505-000613	MSE-106-3X	(1) ER11	1:3	Yes	High speed up to 18,000 RPM, External cooling
	5505-000267	MSE-106-KAI	(1) ER11	1:1	Yes	Internal cooling with max pressure 90 bar
	5505-000614	MSE-106-DS	(2) ER11	1:1	Yes	External cooling, Drill depth 20.45mm
	5505-000616	MSE-107-2X	(1) ER11	1:2	Yes	High speed up to 12,000 RPM, Drill depth 10mm
	5505-000169	MSE-306-K	(1) ER11	1:1	Yes	External cooling
	5505-000617	MSE-306-KBL	(1) ER11	1:1	Yes	External cooling
	5505-000618	MSE-403	(1) ER11	1:1	Yes	External cooling, Drill depth 35mm
	5505-000619	MSE403-II	(1) ER11	1:1	Yes	External cooling, Drill depth 40mm
Polygon Milling	5505-000624	MSF-130	(1) Ø13mm	1:1		Adjustable ±20°, Max tool size: 59mm
	5505-000252	MSP-106	(1) Ø13mm	1:1		Max tool Ø50mm, Width 15mm
	5505-000645	MSP-130	(1) Ø13mm	1:3		High speed up to 18,000 RPM, Max tool size: 58mm
	5505-000646	MSP-160	(1) Ø16mm	1:3		High speed up to 18,000 RPM, Max tool size: 58mm
Hobbing	5505-000626	MSH110-035	(1) Ø3.5mm	1:1	Yes	External cooling, Max tool Ø10mm, Width 4-6mm, Adjustable ±10°
	5505-000627	MSH110-080	(1) Ø8.0mm	1:1	Yes	External cooling, Max tool Ø24mm, Width 16mm, Adjustable ±10°, Offset 9mm
	5505-000628	MSH-132-S-035	(1) Ø3.5mm	3:1		Max tool Ø16mm, Width 10mm, Adjustable ±10°, Offset 15mm
	5505-000629	MSH-132-S-080	(1) Ø8mm	3:1		Max tool Ø16mm, Width 10mm, Adjustable ±10°, Offset 15mm
	5505-000303	MSH-132-08	(1) Ø8mm	3:1		Max tool Ø24mm, Width 16mm, Adjustable ±3°
	5505-000304	MSH-132-10	(1) Ø10mm	3:1		Max tool Ø32mm, Width 30mm, Adjustable ±3°
	5505-000630	MSH-133-035	(1) Ø3.5mm	1:0.762		Max tool Ø10mm, Width 6mm, Adjustable ±10°, Offset 15mm
	5505-000631	MSH-133-050	(1) Ø5mm	1:0.762		Max tool Ø12mm, Width 8mm, Adjustable ±10°, Offset 15mm
	5505-000633	MSH-134-035	(1) Ø3.5mm	1:0.846		Max tool Ø10mm, Width 6mm, Adjustable ±10°, Offset 15mm
	5505-000634	MSH-134-050	(1) Ø5mm	1:0.846		Max tool Ø12mm, Width 8mm, Adjustable ±10°, Offset 15mm
	5505-000635	MSH-134-080	(1) Ø8mm	1:0.846		Max tool Ø24mm, Width 16mm, Adjustable ±10°, Offset 15mm
	5505-000632	MSH-133-080	(1) Ø8mm	1:0.762		Max tool Ø24mm, Width 16mm, Adjustable ±10°, Offset 15mm
	5505-000636	MSH210-035	(1) Ø3.5mm	13:11	Yes	External Cooling, Max tool Ø10mm, Width 6mm, Adjustable 0-10°, Offset 9mm
	5505-000637	MSH210-045	(1) Ø4.5mm	13:11	Yes	External Cooling, Max tool Ø12mm, Width 8mm, Adjustable 0-10°, Offset 9mm
	5505-000638	MSH210-080	(1) Ø8mm	13:11	Yes	External Cooling, Max tool Ø24mm, Width 16mm, Adjustable 0-10°, Offset 9mm
	5505-000639	MSH310-035	(1) Ø3.5mm	13:11	Yes	External Cooling, Max tool Ø10mm, Width 6mm, Adjustable 0-10°, Offset 9mm, Belt driven
	5505-000640	MSH310-045	(1) Ø4.5mm	13:11	Yes	External Cooling, Max tool Ø12mm, Width 8mm, Adjustable 0-10°, Offset 9mm, Belt Driven
	5505-000641	MSH310-080	(1) Ø8mm	13:11	Yes	External Cooling, Max tool Ø24mm, Width 16mm, Adjustable 0-10°, Offset 9mm, Belt Driven
	5505-000642	MSH-432-35	(1) Ø3.5mm	1:1		Max tool Ø10mm, Width 6mm, Adjustable ±3°
Static Tool Holders	5505-000673	VDF-101	(1) Ø3/4in		Yes	Internal cooling with max pressure 150 bar, Max drill depth 20mm
	5505-000174	VDF-101-R-S	(1) Ø3/4in			Adjustable, Max drill depth 20mm
	5505-000266	VDF-201	(1) Ø3/4in		Yes	Internal cooling with max pressure 150 bar, Max drill depth 34mm
	5505-000363	VDF-205-HP	(1) Ø3/4in		Yes	Internal cooling with max pressure 100 bar, Max drill depth 58mm
	5505-000332	VDF-206-HP	(1) Ø3/4in		Yes	Internal & external cooling with max pressure 100 bar, Max drill depth 28mm
	5505-000178	VDF-401	(2) Ø3/4in			
	5505-000674	VDF-401-AR	(2) Ø3/4in		Yes	Internal cooling
	5505-000297	VDF-401-HP	(2) Ø3/4in		Yes	Internal & external cooling with max pressure 150 bar
	5505-000179	VDF-501	(1) Ø3/4in			
	5505-000300	VDF701-AR	(3) Ø3/4in		Yes	Internal cooling, Requires Y-Axis
	5505-000676	VDF701-HP	(3) Ø3/4in		Yes	Internal cooling with max pressure 150 bar, Requires Y-Axis
	5505-000299	VDF701-IK	(3) Ø3/4in		Yes	Internal cooling with max pressure 150 bar, Coolant can be enabled/disabled independently for each tool, Requires Y-axis
	5505-000598	MDF-107	(3) Ø19mm			For high speed spindle
	5505-000599	MDF-107-HFN	(3) Ø22mm			For high speed spindle
	5505-000600	MDF107-IK	(3) Ø19mm			High frequency spindle holder, Internal cooling max pressure 200 bar, External cooling max pressure 100 bar
	5505-000345	VTF110-AR	(1) 12x12mm		Yes	External cooling with max pressure 150 bar, Holds OD turning tools
	5505-000248	VTF1510	(2) 10x10mm		Yes	External cooling with max pressure 150 bar, Holds OD turning tools, Requires Y-Axis
	5505-000677	VTF1510-D	(4) 10x10mm		Yes	External cooling with max pressure 150 bar, Holds OD turning tools, Requires Y-Axis
	5505-000181	792-VTF110-R-HP	(1) 1/2in		Yes	1/2in square shank, External coolant-thru with max pressure 150 bar
Whirling	5505-000206	MSW-101	(1) Utilis	2:1		9, or 12 insert Utilis ring, Adjustable ±10°
	5505-000647	MSW-102	(1) Utilis	1:1		6,7,9, or 12 insert Utilis ring, Adjustable ±16°,

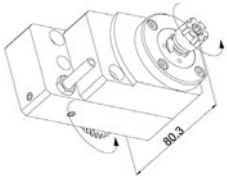
CONTINUED ON NEXT PAGE

Citizen Cincom M12 & M16

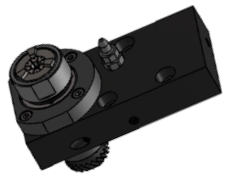
Turret



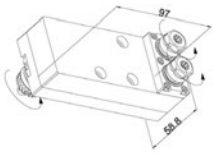
MSC-106-K
Cross Drill/Mill
Collet Size: ER11
Output: 1:1
Coolant-Thru



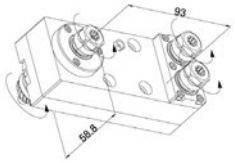
MSC-106-2X
Cross Drill/Mill
Collet Size: ER11
Output: 1:2
Coolant-Thru
High Speed



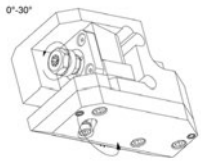
MSC110-K
Cross Drill/Mill
Collet Size: ER16
Output: 1:1
Coolant-Thru,
Internal nut



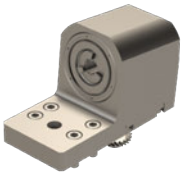
MSC-407
Cross Drill/Mill
Collet Size: ER11
Output: 1:1
Requires Y-Axis



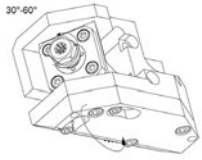
MSC-407-3
Cross Drill/Mill
Collet Size: ER11
Output: 1:1
Requires Y-Axis



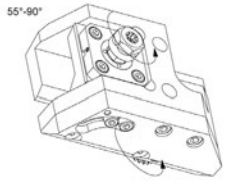
MSA-103
Angled Drill/Mill
Collet Size: ER11
Output: 1:1
Adjustable 0-30°



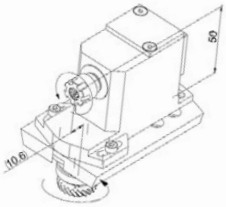
MSA-106
Angled Drill/Mill
Collet Size: ER16
Output: 1:1
Fixed at 6°



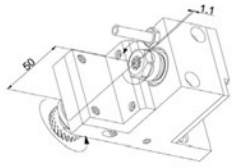
MSA-203
Angled Drill/Mill
Collet Size: ER11
Output: 1:1
Adjustable 30-60°



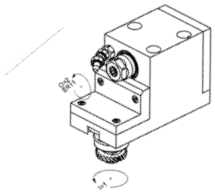
MSA-303
Angled Drill/Mill
Collet Size: ER11
Output: 1:1
Adjustable 55-90°



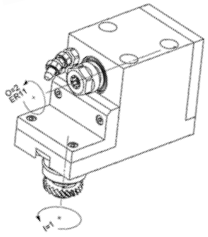
MSF-130-ER
Angled Drill/Mill
Collet Size: ER11
Output: 1:1
Adjustable ±20°,
Requires Y-Axis



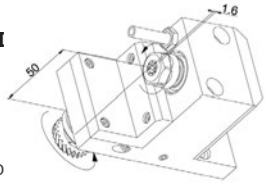
MSE-106-K
End Drill/Mill
Collet Size: ER11
Output: 1:1
Coolant-Thru



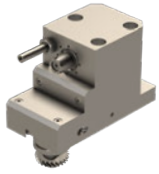
MSE106-KM-II
End Drill/Mill
Collet Size: ER11
Output: 1:1
Coolant-Thru



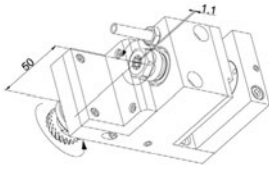
MSE106KM2X-II
End Drill/Mill
Collet Size: ER11
Output: 1:2
Coolant-Thru
High speed up to
12,000 RPM



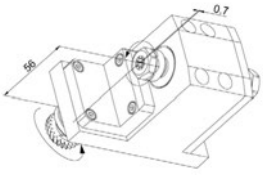
MSE-106-2X
End Drill/Mill
Collet Size: ER11
Output: 1:2
Coolant-Thru
High speed up to
12,000 RPM



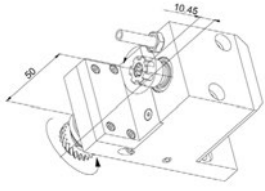
MSE-106-3X
End Drill/Mill
Collet Size: ER11
Output: 1:2
Coolant-Thru
High speed up to
18,000 RPM



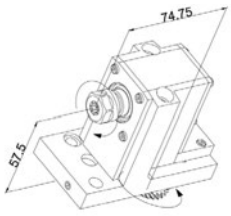
MSE-106-KAI
End Drill/Mill
Collet Size: ER11
Output: 1:1
Coolant-Thru



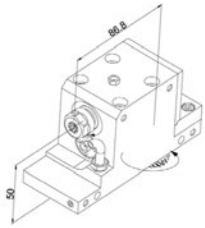
MSE-106-DS
End Drill/Mill
Collet Size: ER11
Output: 1:1



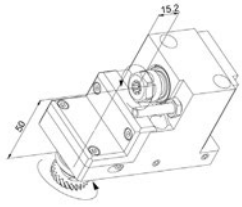
MSE-107-2X
End Drill/Mill
Collet Size: ER11
Output: 1:2
Coolant-Thru
High speed up to
12,000 RPM
Drill depth 10mm



MSE-306-K
End Drill/Mill
Collet Size: ER11
Output: 1:1
Coolant-Thru



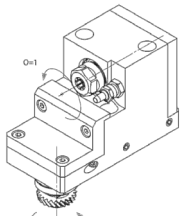
MSE-306-KBL
End Drill/Mill
Collet Size: ER11
Output: 1:1
Coolant-Thru



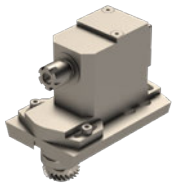
MSE-403
End Drill/Mill
Collet Size: ER11
Output: 1:1
Coolant-Thru
Drill depth 35mm

Citizen Cincom M12 & M16

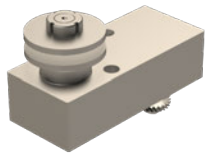
Turret



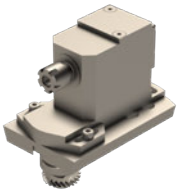
MSE403-II
End Drill/Mill
Collet Size: ER11
Output: 1:1
Coolant-Thru
Drill depth 40mm



MSF-130
Polygon Milling
Tool ID Size: Ø13mm
Output: 1:1
Max Tool Ø 59mm,
Adjustable ±20°



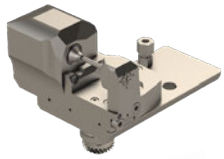
MSP-106
Polygon Milling
Tool ID Size: Ø13mm
Output: 1:1
Max Tool Ø 50mm
Max Width 15mm



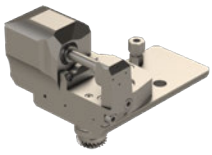
MSP-130
Polygon Milling
Tool ID Size: Ø13mm
Output: 1:3
Max Tool Ø 58mm
High speed up to
18,000 RPM



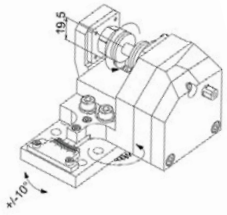
MSP-160
Polygon Milling
ID Size: Ø16mm
Output: 1:3
Max Tool Ø58mm,
High speed up to
18,000 RPM



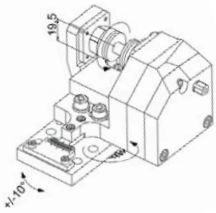
MSH110-035
Gear Hobbing
ID Size: Ø3.5mm
Output: 1:1
Coolant-thru
Hobb OD: Ø10mm
Hobb Width: 6mm
Adjustable ±10°



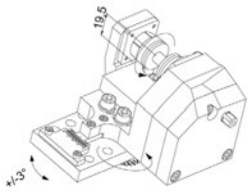
MSH110-080
Gear Hobbing
ID Size: Ø8mm
Output: 1:1
Coolant-thru
Hobb OD: Ø24mm
Hobb Width: 16mm
Adjustable ±10°



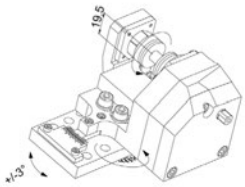
MSH-132-S-035
Gear Hobbing
ID Size: Ø3.5mm
Output: 3:1
Hobb OD: Ø16mm
Hobb Width: 10mm
Adjustable ±10°



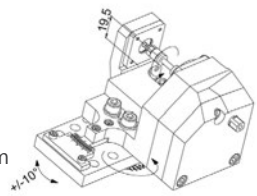
MSH-132-S-080
Gear Hobbing
ID Size: Ø08mm
Output: 3:1
Hobb OD: Ø16mm
Hobb Width: 10mm
Adjustable ±10°



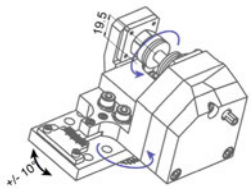
MSH-132-08
Gear Hobbing
ID Size: Ø08mm
Output: 3:1
Hobb OD: Ø24mm
Hobb Width: 16mm
Adjustable ±3°



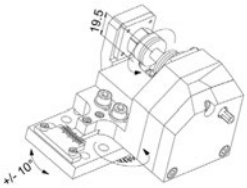
MSH-132-10
Gear Hobbing
ID Size: Ø10mm
Output: 3:1
Hobb OD: Ø32mm
Hobb Width: 30mm
Adjustable ±3°



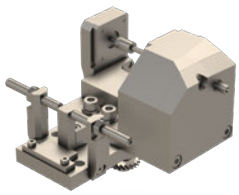
MSH-133-035
Gear Hobbing
ID Size: Ø3.5mm
Output: 1:0.762
Hobb OD: Ø10mm
Hobb Width: 6mm
Adjustable ±10°



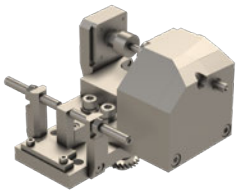
MSH-133-050
Gear Hobbing
ID Size: Ø05mm
Output: 1:0.762
Hobb OD: Ø12mm
Hobb Width: 8mm
Adjustable ±10°



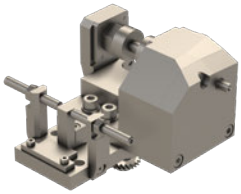
MSH-133-080
Gear Hobbing
ID Size: Ø8mm
Output: 1:0.762
Hobb OD: Ø24mm
Hobb Width: 16mm
Adjustable ±10°



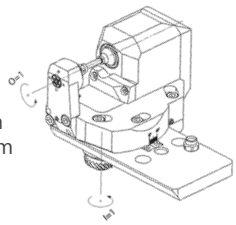
MSH-134-035
Gear Hobbing
ID Size: Ø3.5mm
Output: 1:0.846
Hobb OD: Ø10mm
Hobb Width: 6mm
Adjustable ±10°



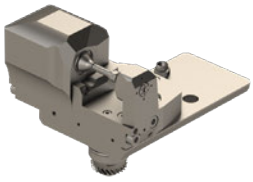
MSH-134-050
Gear Hobbing
ID Size: Ø5mm
Output: 1:0.846
Hobb OD: Ø12mm
Hobb Width: 8mm
Adjustable ±10°



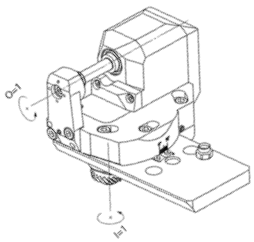
MSH-134-080
Gear Hobbing
ID Size: Ø8mm
Output: 1:0.846
Hobb OD: Ø24mm
Hobb Width: 16mm
Adjustable ±10°



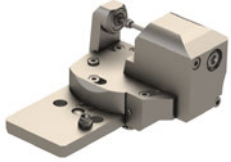
MSH210-035
Gear Hobbing
ID Size: Ø3.5mm
Output: 13:11
Coolant-thru
Hobb OD: Ø10mm
Hobb Width: 6mm
Adjustable 0-10°



MSH210-045
Gear Hobbing
ID Size: Ø4.5mm
Output: 1:0.846
Coolant-thru
Hobb OD: Ø12mm
Hobb Width: 8mm
Adjustable ±10°



MSH210-080
Gear Hobbing
ID Size: Ø8mm
Output: 1:0.846
Coolant-thru
Hobb OD: Ø24mm
Hobb Width: 16mm
Adjustable ±10°

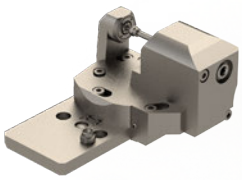


MSH310-035
Gear Hobbing
ID Size: Ø3.5mm
Output: 13:11
Coolant-thru
Hobb OD: Ø10mm
Hobb Width: 6mm
Adjustable 0-10°
Belt Driven

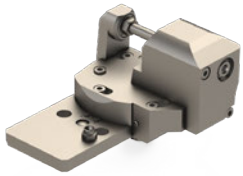
CONTINUED ON NEXT PAGE

Citizen Cincom M12 & M16

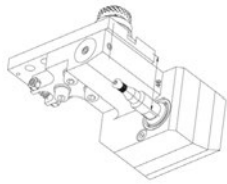
Turret



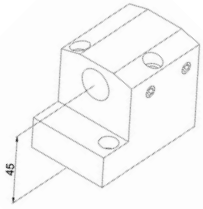
MSH310-045
Gear Hobbing
ID Size: Ø4.5mm
Output: 13:11
Coolant-thru
Hobb OD: Ø12mm
Hobb Width: 8mm
Adjustable 0-10°
Belt Driven



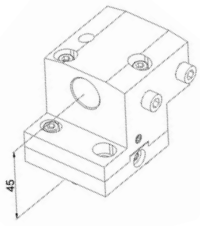
MSH310-080
Gear Hobbing
ID Size: Ø8mm
Output: 13:11
Coolant-thru
Hobb OD: Ø24mm
Hobb Width: 16mm
Adjustable 0-10°
Belt Driven



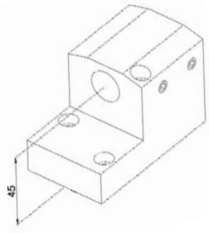
MSH-432-35
Gear Hobbing
ID Size: Ø3.5mm
Output: 1:1
Hobb OD: Ø10mm
Hobb Width: 6mm
Adjustable ±3°



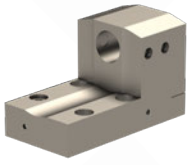
VDF-101
Tool Holder
Tool Size: Ø3/4in
Internal cooling
Max drill depth 20mm



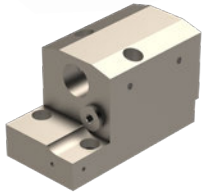
VDF-101-R-S
Tool Holder
Tool Size: Ø3/4in
Adjustable,
Max drill depth 20mm



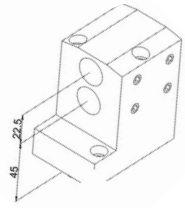
VDF-201
Tool Holder
Tool Size: Ø3/4in
Internal cooling
Max 150 bar,
Max drill depth 34mm



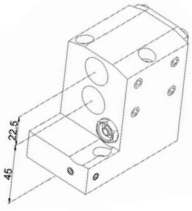
VDF-205-HP
Tool Holder
Tool Size: Ø3/4in
Internal cooling
Max 100 bar,
Max drill depth 58mm



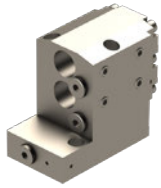
VDF-206-HP
Tool Holder
Tool Size: Ø3/4in
Internal/External cooling,
Max 100 bar,
Max drill depth 58mm



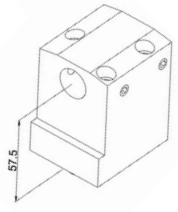
VDF-401
Tool Holder
Tool Size: Ø3/4in



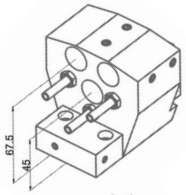
VDF-401-AR
Tool Holder
Tool Size: Ø3/4in
Internal cooling



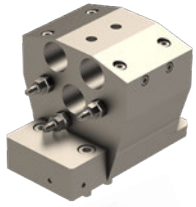
VDF-401-HP
Tool Holder
Tool Size: Ø3/4in
Internal/External cooling,
Max 150 bar



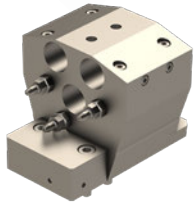
VDF-501
Tool Holder
Tool Size: Ø3/4in



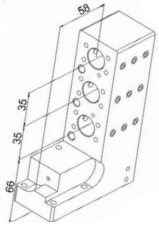
VDF701-AR
Tool Holder
Tool Size: Ø3/4in
Internal cooling,
Requires Y-Axis



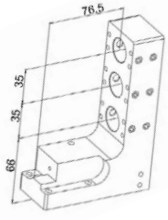
VDF701-HP
Tool Holder
Tool Size: Ø3/4in
Internal cooling,
Max 150 bar,
Requires Y-Axis



VDF701-IK
Tool Holder
Tool Size: Ø3/4in
Internal cooling,
Max 150 bar,
Independent valves,
Requires Y-Axis



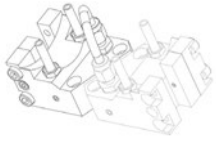
MDF-107
Tool Holder
Tool Size: Ø19mm
For High Speed
Spindles



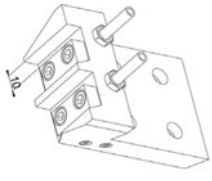
MDF-107-HFN
Tool Holder
Tool Size: Ø22mm
For High Speed
Spindles



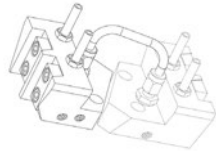
MDF107-IK
Tool Holder
Tool Size: Ø19mm
For High Speed
Spindles,
Int cooling 200 bar
Ext cooling 100 bar



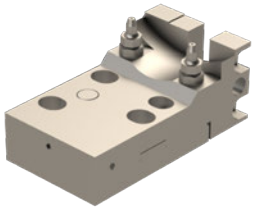
VTF110-AR
Tool Holder
Tool Size: 12x12mm
External cooling,
Max 150 bar,
Holds OD turning



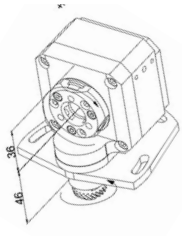
VTF1510
Tool Holder
Tool Size: 10x10mm
External cooling,
Max 150 bar,
Holds OD turning
Requires Y-Axis



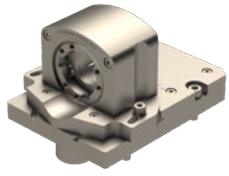
VTF1510-D
Tool Holder
Tool Size: 10x10mm
External cooling,
Max 150 bar,
Holds OD turning
Requires Y-Axis



792-VTF110-R-HP
Tool Holder
Tool Size: Ø1/2in
1/2in Square shank,
External coolant-thru
max pressure 150 bar



MSW-101
Thread Whirling
Ring: Utilis
Output: 2:1
9, or 12 Utilis ring,
Adjustable ±10°



MSW-102
Thread Whirling
Ring: Utilis
Output: 1:1
6,7,9, or 12 Utilis ring,
Adjustable ±16°

CITIZEN M20 & M32

Swiss Made by PCM be driven.

Citizen $M_4$20 & $M_4$32

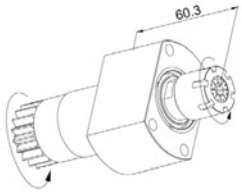
Gang Slide Attachments
(Machine's Live Tooling 8,000 RPM Rating)

Operation	Item No.	Description	(#Tools)Size	Output	Other
Cross Drilling / Milling	5505-000435	BSC1107-4X	(1) ER11	1:3.8	High speed up to 30,000 RPM
	5505-000261	GSC-1110	(1) ER16	1:1	Cross or end work
	5505-000285	GSC-1110-4X	(1) ER08	1:3.8	High speed up to 30,000 RPM, For M432
	5505-000496	GSC1110-L	(1) ER16	1:1	Long version
	5505-000329	GSC-1113	(1) ER20	1:1	
	5505-000400	GSC1310-HP-II	(1) ER16	1:1	Internal cooling with max pressure 150 bar,
Angled Drilling / Milling	5505-000353	BSA-2010	(6) ER16	1:1	Adjustable 0-21°, Interferes with adjacent tooling station, Requires 2 tool positions
	5505-000263	GSA1510	(3) ER16	1:1	Adjustable 0-30°
	5505-000412	GSE1504	(3) Ø31mm	1:1	Holds GSC1110, GSC1110-4X, GSC1310-HP spindles, For M432
End Drilling / Milling	5505-000257	GSE1510	(3) ER16	1:1	For backworking
	5505-000361	GSE1510-IK	(3) ER16	1:1	For backworking, Coolant-thru ready
	5505-000445	BSE-3106	(3) ER11	1:1	
	5505-000258	BSE-3207-III	(4) ER16	1:1	Double ended, Spindles rotate in opposite directions to onoe another
	5505-000367	BSE-3209	(3) ER16	1:1	Spindles rotate in alternating directions
	5505-000344	BSE-3210	(6) ER16	1:1	Double ended, Spindles rotate in alternating directions
Slitting Saw	5505-000362	GSS-1307-DEC	(1) Ø16mm	1:1	Max tool Ø 63mm, Width 6mm
Static Tool Holders	5505-000358	GDF-1501-II	(3) Ø1in		3 Position 1" Ø Sleeves
	5505-000480	GDF1502-IK	(3) Ø3/4in		Int cooling with max pressure 200 bar, Ext cooling with max pressure 100 bar, Independent shutoff valves, For M432
Whirling	5505-000664	R432-OF5xØ25.4-KAI	(5) Ø1in		Internal cooling
	5505-000553	GSW-250	(1) Utilis	3:2	3,9, or 12 insert Utilis ring, Adjustable 0-25°, 6mm flight circle, Fits manual B-Axis
	5505-000370	GSW-255	(1) Utilis	3:2	3,9, or 12 insert Utilis ring, Adjustable 0-25°, 6mm flight circle, Fits programmable B-Axis

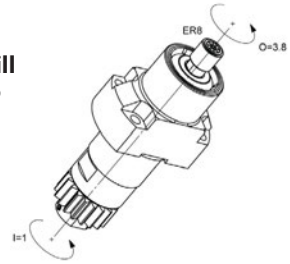
Gang Slide



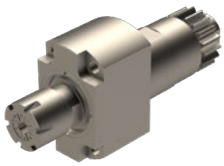
BSC1107-4X
Cross Drill/Mill
Collet Size: ER11
Output: 1:3.8
High speed up to 30,000 RPM



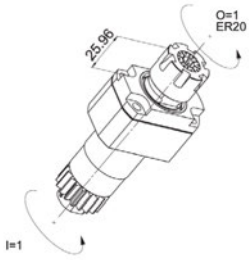
GSC-1110
Cross Drill/Mill
Collet Size: ER16
Output: 1:1



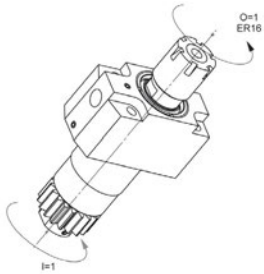
GSC-1110-4X
Cross Drill/Mill
Collet Size: ER08
Output: 1:3.8
High speed up to 30,000 RPM



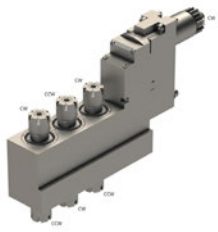
GSC1110-L
Cross Drill/Mill
Collet Size: ER16
Output: 1:1
Long version



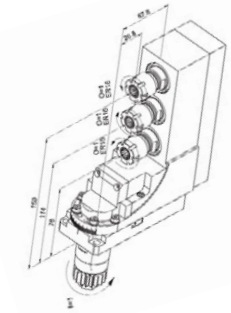
GSC-1113
Cross Drill/Mill
Collet Size: ER20
Output: 1:1



GSC-1310-HP-II
Cross Drill/Mill
Collet Size: ER16
Output: 1:1
Internal cooling up to 150 bar



BSA-2010
Angled Drill/Mill
Collet Size: ER16
Output: 1:1
Adjustable 0-21°
Interferes with adjacent tooling position



GSA1510
Angled Drill/Mill
Collet Size: ER16
Output: 1:1
Adjustable 0-180°



GSE1504
End Drill/Mill
Bore Size: Ø31mm
Output: 1:1
Holds 3 compatible spindles (GSC1110, GSC1110-4X, GSC1310-HP)

CONTINUED ON NEXT PAGE

$M_4$20 & $M_4$32 Gang Slide Spindles & Attachments

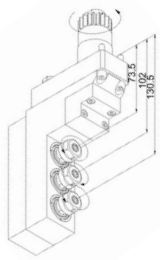
Gang Slide



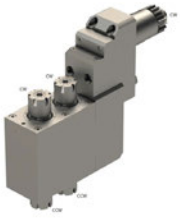
GSE1510
End Drill/Mill
Collet Size: ER16
Output: 1:1
Notice Spindle Rotation



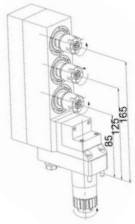
GSE-1510-IK
End Drill/Mill
Collet Size: ER16
Output: 1:1
Notice Spindle Rotation
Coolant-Thru



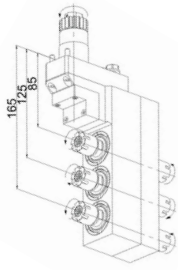
BSE-3106
End Drill/Mill
Collet Size: ER11
Output: 1:1
Notice Spindle Rotation



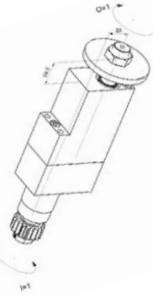
BSE-3207-III
End Drill/Mill
Collet Size: ER16
Output: 1:1
Notice Spindle Rotation



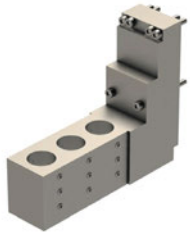
BSE-3209
End Drill/Mill
Collet Size: ER16
Output: 1:1
Notice Spindle Rotation



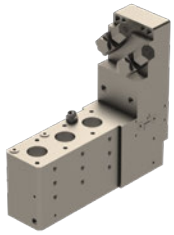
BSE-3210
End Drill/Mill
Collet Size: ER16
Output: 1:1
Notice Spindle Rotation



GSS-1307-DEC
Slitting Saw
Arbor Size: Ø16mm
Output: 1:1
Max Tool Ø: 63mm
Max Tool Thickness: 6mı



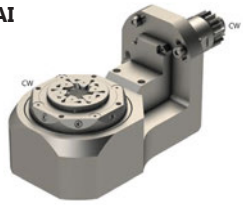
GDF-1501-II
Tool Holder
Tool Size: Ø1in
Coolant-Thru



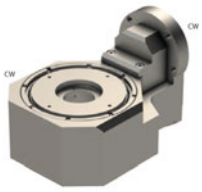
GDF1502-IK
Tool Holder
Tool Size: Ø3/4in
Int cooling 200 bar,
Ext cooling 100 bar,
Independent shutoff valves



R432-OF5xØ25.4-KAI
Tool Holder
Tool Size: Ø1in
Internal cooling



GSW-250
Thread Whirling
Ring: Utilis
Output: 3:2
3,9, or 12 insert cutter,
Adjustable 0 - 25°
6mm Flight Circle
Fits manual B-Axis



GSW-255
Thread Whirling
Ring: Utilis
Output: 3:2
3,9, or 12 insert cutter,
Adjustable 0 - 25°
6mm Flight Circle
For Programmable B-Axis

REPAIRS & RESTORATION



One of the benefits of buying live tooling and spindles from GenSwiss, is knowing we will repair them too. We will repair your spindle at a fraction of the cost to purchase a brand new one and have your Swiss-style CNC running again in no time.

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- **$50 evaluation & inspection (fee waived if repaired or replaced by us)**
- **Repaired by factory trained professionals**

Call Us At: 1-413-562-4800

Operation	Item No.	Description	(#Tools)Size	Output	Other
	5505-000435	BSC1107-4X	(1) ER11	1:3.8	High speed up to 30,000 RPM
	5505-000119	GSC-510-3X	(1) ER11	1:3	High speed up to 18,000 RPM
	5505-000281	GSC-510-4X	(1) ER08	1:3.8	High speed up to 22,800 RPM
	5505-000291	GSC-510-L-3X	(1) ER11	1:3	High speed up to 18,000 RPM, Long version
	5505-000392	GSC-1010	(1) ER16	1:1	
Angled Drilling / Milling	5505-000235	GSA107	(1) ER11	1:1	Adjustable 0-180°
	5505-000125	GSE-306-SE312	(1) ER11	1:3	High speed up to 18,000 RPM
	5505-000123	GSE-306-DE312	(2) ER11	1:3	High speed up to 18,000 RPM, Double ended
End Drilling / Milling	5505-000124	GSE-306-L-520	(1) ER11	1:1	
	5505-000274	GSE-306-DE011	(2) ER11	1:1	Double ended
	5505-000509	GSE310-L-520	(1) ER16	1:1	Long version
	5505-000510	GSE-316-GS	(1) ER16	1:1	
Slitting Saw	5505-000134	GSS-510	(1) Ø16mm	2:1	
Whirling	5505-000155	LSW-101-L20	(1) Utilis	2:1	3,9, or 12 Insert cutter, Adjustable ±10°
	5505-000158	LSW-215	(1) Utilis	1:1	3, 9, or 12 Insert cutter, Adjustable ±15°
	5505-000591	LSW215-II	(1) Utilis	1:1	3, 9, or 12 Insert cutter, Adjustable ±15°, Requires 2 tool positions

Gang Slide



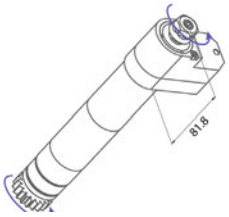
BSC1107-4X
Cross Drill/Mill
Collet Size: ER11
Output: 1:3.8
High speed up to 30,000 RPM



GSC-510-3X
Cross Drill/Mill
Collet Size: ER11
Output: 1:3
High speed up to 18,000 RPM



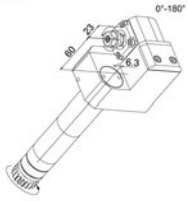
GSC-510-4X
Cross Drill/Mill
Collet Size: ER08
Output: 1:3.8
High speed up to 22,800 RPM



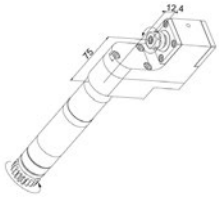
GSC-510-L-3X
Cross Drill/Mill
Collet Size: ER11
Output: 1:3
High speed up to 18,000 RPM



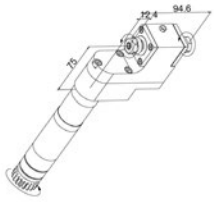
GSC-1010
Cross Drill/Mill
Collet Size: ER16
Output: 1:1



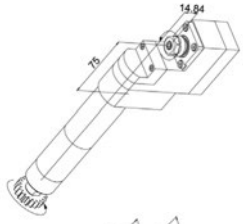
GSA107
Angled Drill/Mill
Collet Size: ER11
Output: 1:1
Adjustable 0-180°



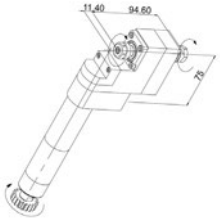
GSE-306-SE312
End Drill/Mill
Collet Size: ER11
Output: 1:3
High Speed



GSE-306-DE312
End Drill/Mill
Collet Size: ER11
Output: 1:3
High Speed
Double Ended



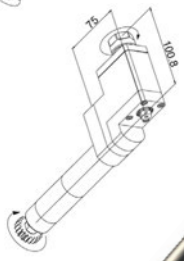
GSE-306-L-520
End Drill/Mill
Collet Size: ER11
Output: 1:1



GSE-306-DE011
End Drill/Mill
Collet Size: ER11
Output: 1:1
Double Ended



GSE310-L-520
End Drill/Mill
Collet Size: ER16
Output: 1:1
Long version



GSE-316-GS
End Drill/Mill
Collet Size: ER16
Output: 1:1



GSS-510
Slitting Saw
Arbor Size: Ø16mm
Output: 2:1



LSW-101-L20
Thread Whirling
Ring: Utilis
Output: 1:1
3,9, or 12 insert cutter,
Adjustable ±10°



LSW-215
Thread Whirling
Ring: Utilis
Output: 1:1
3,9, or 12 insert cutter,
Adjustable ±15°



LSW-215-II
Thread Whirling
Ring: Utilis
Output: 1:1
3,9, or 12 insert cutter,
Adjustable ±15°

CONTINUED ON NEXT PAGE

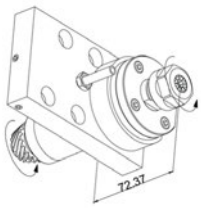
Citizen $M_3$20/$M_4$20 & $M_3$32/$M_4$32

Operation	Item No.	Description	(#Tools) Size	Output	Coolant Thru	Other
Cross Drilling / Milling	5505-000140	KSC110-K	(1) ER16	1:1	Yes	External cooling
	5505-000141	KSC110-K-ER	(1) ER16	1:1	Yes	External cooling, Reduced width to fit 2 on 1 station
	5505-000558	KSC110-K-CR	(1) ER16	1:1	Yes	External cooling, Quick change system ECR
	5505-000264	KSC110-IK	(1) ER16	1:1	Yes	Internal cooling with max pressure 10 bar
	5505-000352	KSC110-HP	(1) ER16	1:1	Yes	Internal cooling with max pressure 70 bar
	5505-000557	KSC110-10000K	(1) ER11	1:2	Yes	External cooling, High speed 2X
	5505-000388	KSC310-II	(3) ER16	1:1.462	Yes	External cooling, 2 Main, 1 Sub
	5505-000560	KSC510	(2) ER16	1:1.462	Yes	External cooling, Y-axis required
	5505-000317	KSC510-10	(2) ER16	1:1.462	Yes	External cooling, Y-axis required, 10mm offset
	5505-000562	KSC-510-DEC-K	(1) ER16	1:1	Yes	External cooling, 10mm offset
	5505-000563	KSC-DEC-10X3	(1) ER11	1:3	Yes	External cooling, High speed up to 15,000 RPM, 10mm offset,
	5505-000296	KSC-DEC-L-10X3	(1) ER11	1:3	Yes	External cooling, High speed up to 15,000 RPM, 10mm offset, Long version for improved milling
Angled Drilling / Milling	5505-000556	KSA115	(1) ER11	1:1		External cooling with max pressure 200 bar, Fixed angle 15º
	5505-000139	KSA-307	(1) ER11	1:1		Adustable 0-30º
	5505-000182	KSA-407	(1) ER11	1:1		Adjustable 30-90º
End Drilling / Milling	5505-000313	KSE105	(1) Ø31	1:1.2		External cooling, Use with GSC-1110, GSC-1110-4X, or GSC1310-HP for extra speed
	5505-000380	KSE110-BKK	(1) ER16	1:1	Yes	Internal cooling with max pressure 120 bar, Max drill depth 29mm
	5505-000565	KSE110-DE	(1) ER11 (1) ER16	1:1	Yes	External cooling, Double ended, Drill depth 25mm on front, 17mm on sub
	5505-000144	KSE110-DE-32	(2) ER16	1:1	Yes	External cooling, Double ended, Drill depth 25mm on front, 17mm on sub,
	5505-000567	KSE110-IK-2X	(1) ER16	1:2	Yes	Internal cooling, High speed up to 10,000 RPM, Max drill depth 25mm
	5505-000217	KSE110-US	(1) ER16	1:1	Yes	External cooling, Max drill depth 22mm
	5505-000570	KSE110-US-2X	(1) ER16	1:2	Yes	External cooling, High speed up to 10,000 RPM, Max drill depth 22mm
	5505-000568	KSE110-K	(1) ER16	1:1	Yes	External cooling, Max drill depth 29.5mm
	5505-000145	KSE110-2X	(1) ER16	1:2	Yes	External cooling, High speed spindle up to 10,000, Max drill depth 28mm
	5505-000146	KSE110-KAI	(1) ER16	1:1	Yes	Internal cooling with max pressure 120 bar, Max drill depth 22mm
	5505-000569	KSE110-KAI-2X	(1) ER16	1:2	Yes	External cooling with max pressure 120 bar, High speed spindle up to 10,000, Max drill depth 22mm
	5505-000308	KSE210-IK	(1) ER16	1:2	Yes	Internal cooling with max pressure 120 bar, Max drill depth 40mm
	5505-000149	KSE250-KAI-2X	(2) ER16	1:2	Yes	Internal cooling for the primary spindle with max pressure 30 bar, High speed up to 10,000 RPM, Max drill depth 22mm, Requires 2 tool positions
	5505-000368	KSE2507-KAI-2x	(2) ER11	1:2	Yes	Internal cooling for the primary spindle with max pressure 30 bar, High speed up to 10,000 RPM, Max drill depth 25mm, Requires 2 tool positions
	5505-000572	KSE307-IK	(1) ER11	1:1	Yes	Internal cooling with max pressure 120 bar, Max drill depth 53mm
	5505-000151	KSE310-K	(1) ER16	1:1	Yes	External cooling, Max drill depth 44.5mm
	5505-000269	KSE310-IK	(1) ER16	1:1	Yes	Internal cooling with max pressure 120 bar, Max drill depth 40mm
	5505-000574	KSE310-IK-Cer	(1) ER16	1:1	Yes	Internal cooling with max pressure 120 bar, Max drill depth 40mm, Ceramic Bearings
	5505-000573	KSE310-2X	(1) ER16	1:2	Yes	External cooling, High speed up to 10,000 RPM, Max drill depth 44mm
	5505-000575	KSE310-UD	(1) ER16	2:1	Yes	External cooling, Reduced speed 2,500 RPM, Max drill depth 44.5mm
	5505-000265	KSE-510-KAI	(2) ER16	1:1	Yes	Internal & External cooling, Max drill depth 35mm, Y-axis required
Polygon Milling	5505-000391	KSF-130	(1) Ø16mm	1:1		Adjustable +-20º
	5505-000576	KSF-130-ER	(1) ER11	1:1		Adjustable +-20º
Hobbing	5505-000314	KSH132-25	(1) Ø13mm	1:1	Yes	External cooling with max pressure 100 bar, Adjustable +-25º, Max tool Ø32mm, Width 40mm
	5505-000315	KSH-132-27-17	(1) Ø10mm	1.588:1		Adjustable 0-20º, Max tool Ø32mm, Width 7mm
	5505-000580	KSH-132-27-17-08	(1) Ø8mm	1.588:1		Adjustable 0-20º, Max tool Ø32mm, Width 7mm
	5505-000578	KSH-132-27-17-II	(1) Ø16mm	1.588:1		Adjustable 0-20º, Max tool Ø32mm, Width 7mm
	5505-000579	KSH-132-27-17-III	(1) Ø10mm	1.588:1		Adjustable 0-20º, Max tool Ø32mm, Width 7mm
	5505-000577	KSH-132-27-17-L	(1) Ø13mm	1.588:1		Adjustable 0-20º, Max tool Ø32mm, Width 7mm
	5505-000581	KSH-133-035	(1) Ø3.5mm	1.588:1		Adjustable +-10º, Max tool Ø10mm, Width 6mm, Requires 2 tool positions

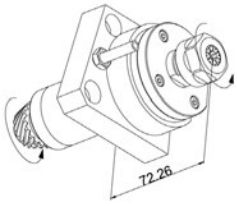
Citizen $M_3$20/$M_4$20 & $M_3$32/$M_4$32

Operation	Item No.	Description	(#Tools) Size	Output	Coolant Thru	Other
Static Tool Holders	5505-000102	CDF101	(1) Ø1in			Max drill depth 73mm
	5505-000459	CDF101-AR-1	(1) Ø1in		Yes	Int & Ext cooling, Max drill depth 73mm
	5505-000336	CDF101-HP	(1) Ø1in		Yes	Internal cooling with max pressure 150 bar, Max drill depth 48mm
	5505-000461	CDF101-HP-10	(1) Ø10mm		Yes	Internal cooling, For gun drilling
	5505-000460	CDF101-SP	(1) Ø1in			Max drill depth 113mm
	5505-000318	CDF-201	(1) Ø1in			Max drill depth 40mm
	5505-000463	CDF201-AR	(1) Ø1in		Yes	External cooling, Max drill depth 40mm
	5505-000374	CDF201-HP	(1) Ø1in		Yes	Int & Ext cooling with max pressure 150 bar, Max drill depth 40mm
	5505-000464	CDF201-Jauge				High precision gauge for centering turret position
	5505-000103	CDF-301	(1) Ø1in			Max drill depth 70mm
	5505-000465	CDF-301-AR	(1) Ø1in		Yes	External cooling, Max drill depth 70mm
	5505-000466	CDF301-HP	(1) Ø1in		Yes	Internal cooling with max pressure 100 bar, Max drill depth 70mm
	5505-000279	CDF-401	(2) Ø1in			Max drill depth 73mm
	5505-000467	CDF-401-AR	(2) Ø1in		Yes	Internal cooling for bottom position, Max drill depth 73mm
	5505-000468	CDF401-AR-II	(2) Ø1in		Yes	Internal cooling on both positions, Max drill depth 73mm
	5505-000246	CDF401-HP	(2) Ø1in		Yes	Internal cooling for bottom position with max pressure 150 bar, External cooling for both positions, Max drill depth 73mm
	5505-000469	CDF901-AR	(3) Ø1in			Max drill depth 75mm, Y-axis required
	5505-000335	CDF901-IK	(3) Ø1in		Yes	Int & Ext cooling with max pressure 100 bar, Max drill depth 75mm, Y-axis required
	5505-000471	CDF901-IK-T	(3) Ø1in		Yes	Delivery base (CDF901-IK) required for external cooling, Y-axis required, This is an interchangable head
	5505-000372	CDF901-IK-T-HP	(3) Ø1in		Yes	Delivery base (CDF901-IK) required for ext & int cooling, Y-axis required, This is an interchangable head, Max pressure 150 bar
	5505-000183	CDF-905-AR	(2) Ø.50in (4) Ø.75in			
	5505-000472	CDF905-HP	(2) Ø.50in (4) Ø.75in		Yes	External cooling with max pressure 100 bar,
	5505-000473	CDF-ER16	(2) ER16		Yes	Internal cooling with max pressure 100 bar, With special ER16 coolant sleeve
	5505-000187	CTF1116	(2) 16x16mm		Yes	External cooling, Holds OD turning tools
	5505-000364	CTF1116-D	(2) 16x16mm		Yes	External cooling, Holds OD turning tools, Short version
	5505-000348	CTF116-HP	(2) 16x16mm			External cooling with max pressure 150 bar, Holds OD turning tools
	5505-000427	778-CTF-116-R-AR-HP	(1) 5/8x5/8in		Yes	External cooling with max pressure 150 bar, Holds OD turning tools, Reversable wedge
Whirling	5505-000152	KSW-101	(1) Utilis	2:1		3,6,9, or 12 insert cutter, Adjustable +-15°

Turret



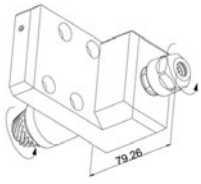
KSC110-K
Cross Drill/Mill
Collet Size: ER16
Output: 1:1
External cooling



KSC110-K-ER
Cross Drill/Mill
Collet Size: ER16
Output: 1:1
External cooling,
Reduced Width



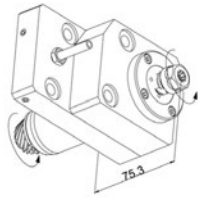
KSC110-K-CR
Cross Drill/Mill
Collet Size: ER16
Output: 1:1
External cooling,
Quick change system ECR



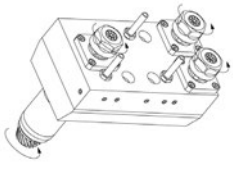
KSC110-IK
Cross Drill/Mill
Collet Size: ER16
Output: 1:1
Internal cooling
10 bar



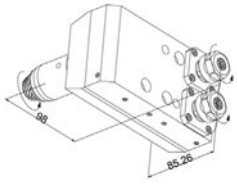
KSC110-HP
Cross Drill/Mill
Collet Size: ER16
Output: 1:1
Internal cooling
70 bar



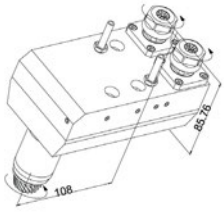
KSC110-10000K
Cross Drill/Mill
Collet Size: ER11
Output: 1:2
External cooling,
High speed



KSC-310-II
Cross Drill/Mill
Collet Size: ER16
Output: 1:1.5
External cooling,
2 Main, 1 Sub



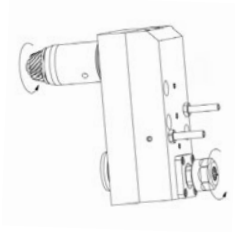
KSC-510
Cross Drill/Mill
Collet Size: ER16
Output: 1:1.5
External cooling,
Y-Axis Required



KSC-510-10
Cross Drill/Mill
Collet Size: ER16
Output: 1:1.5
External cooling,
Y-Axis Required
10mm Offset

CONTINUED ON NEXT PAGE

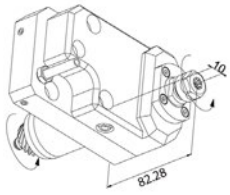
Turret



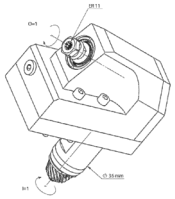
KSC-510-DEC-K
Cross Drill/Mill
Collet Size: ER16
Output: 1:1
External cooling,
10mm Offset



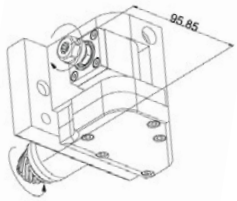
KSC-DEC-10X3
Cross Drill/Mill
Collet Size: ER11
Output: 1:3
External cooling,
High speed up to
15,000 RPM
10mm Offset



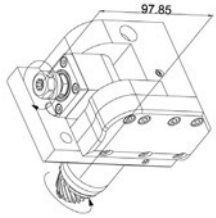
KSC-DEC-L-10X3
Cross Drill/Mill
Collet Size: ER11
Output: 1:3
External cooling,
High speed up
to 15,000 RPM,
10mm Offset,
Long version



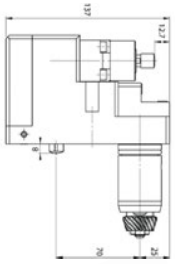
KSA115
Angled Drill/Mill
Collet Size: ER11
Output: 1:1
External cooling
200 bar,
Fixed angle 15°



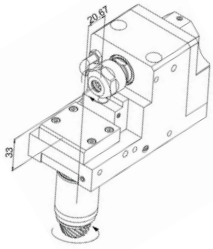
KSA-307
Angled Drill/Mill
Collet Size: ER11
Output: 1:1
Adjustable 0-30°



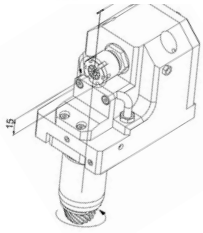
KSA-407
Angled Drill/Mill
Collet Size: ER11
Output: 1:1
Adjustable 30-90°



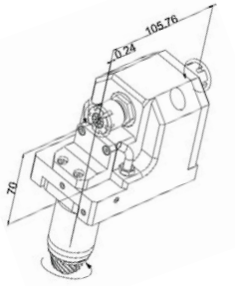
KSE105
End Drill/Mill
Collet Size: Ø31mm
Output: 1:1.2
Must Be Used With
GSC-1110-4X Or GSC-
1110 And Increases The
Output Of Spindle. GSC
Spindle Not Included.



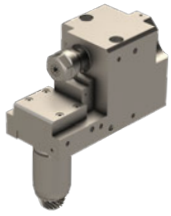
KSE110-BKK
End Drill/Mill
Collet Size: ER16
Output: 1:1
Internal cooling
120 bar,
Drill depth 29mm



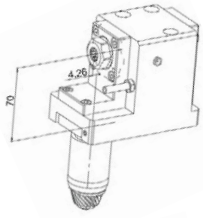
KSE110-DE
End Drill/Mill
Collet Size: ER11, ER16
Output: 1:1
External cooling,
Double Ended
Drill depth 25mm front
17mm sub



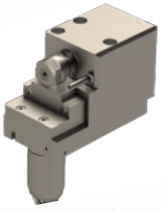
KSE110-DE-32
End Drill/Mill
Collet Size: ER16
Output: 1:1
External cooling,
Double Ended,
Drill depth 25mm front,
17mm back



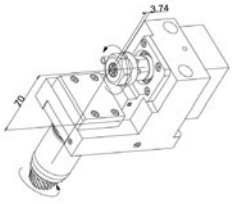
KSE110-IK-2X
End Drill/Mill
Collet Size: ER16
Output: 1:2
Internal cooling,
High speed
up to 10,000 RPM,
Drill depth 25mm



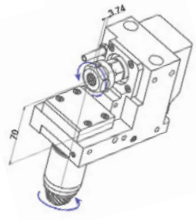
KSE110-US
End Drill/Mill
Collet Size: ER16
Output: 1:1
Coolant-Thru



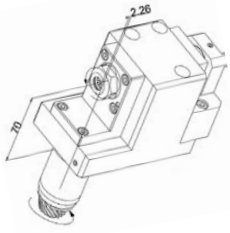
KSE110-US-2X
End Drill/Mill
Collet Size: ER16
Output: 1:2
External cooling,
High speed
up to 10,000 RPM
Drill depth 22mm



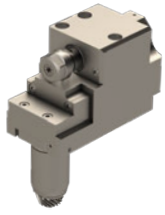
KSE110-K
End Drill/Mill
Collet Size: ER16
Output: 1:1
External cooling,
Drilld depth 29.5mm



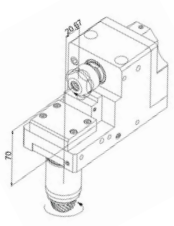
KSE110-2X
End Drill/Mill
Collet Size: ER16
Output: 1:2
External cooling,
High speed up
to 10,000 RPM,
Drill depth 28mm



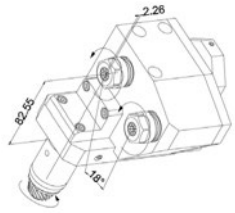
KSE110-KAI
End Drill/Mill
Collet Size: ER16
Output: 1:1
Coolant-Thru



KSE110-KAI-2X
End Drill/Mill
Collet Size: ER16
Output: 1:2
External cooling
120 bar,
High speed
up to 10,000 RPM,
Drill depth 22mm



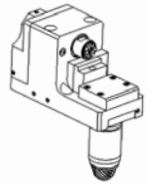
KSE210-IK
End Drill/Mill
Collet Size: ER16
Output: 1:2
Internal cooling
120 bar,
Drill depth 40mm



KSE250-KAI-2X
End Drill/Mill
Collet Size: ER16
Output: 1:2
Internal cooling 30 bar,
High speed up
to 10,000 RPM
*Second Position Is Half Index
Drill depth 22mm

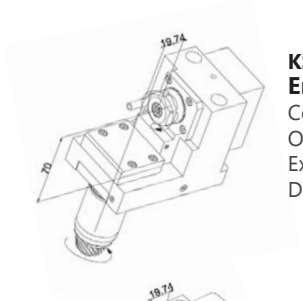


KSE2507-KAI-2X
End Drill/Mill
Collet Size: ER16
Output: 1:2
Internal cooling 30 bar,
High speed up
to 10,000 RPM
*Second Position Is Half Index
Drill depth 25mm

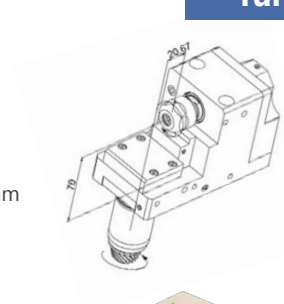


KSE307-IK
End Drill/Mill
Collet Size: ER11
Output: 1:1
Internal cooling
120 bar,
Drill depth 53mm

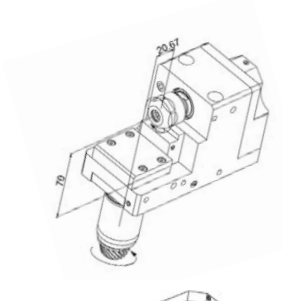
Turret



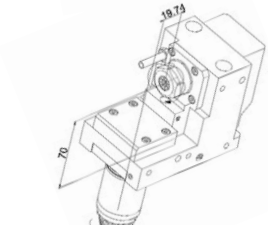
KSE310-K
End Drill/Mill
Collet Size: ER16
Output: 1:1
External cooling,
Drill depth 44.5mm



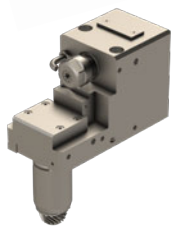
KSE310-IK
End Drill/Mill
Collet Size: ER16
Output: 1:1
Internal cooling
120 bar,
Drill depth 40mm



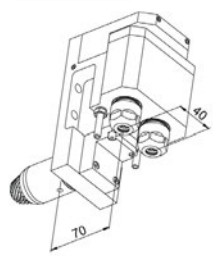
KSE310-IK-Cer
End Drill/Mill
Collet Size: ER16
Output: 1:1
Internal cooling
120 bar,
Drill depth 40mm,
Ceramic bearings



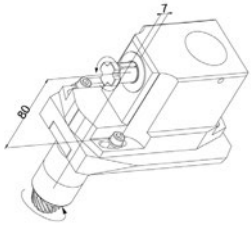
KSE310-2X
End Drill/Mill
Collet Size: ER16
Output: 1:2
External cooling,
High speed up
to 10,000 RPM,
Drill depth 44mm



KSE310-UD
End Drill/Mill
Collet Size: ER16
Output: 2:1
External cooling,
Reduced speed
2,500 RPM,
Drill depth 44.5mm



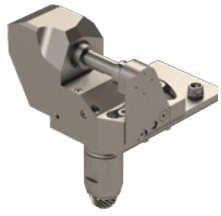
KSE-510-KAI
End Drill/Mill
Collet Size: ER16
Output: 1:1
Int & Ext cooling
Drill depth 35mm
Y-Axis Required



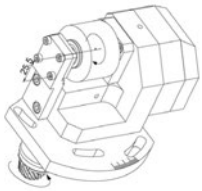
KSF-130
Polygon Milling
Collet Size: Ø16
Output: 1:1
Adjustable ±20°



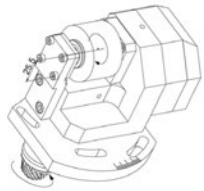
KSF-130-ER
Polygon Milling
Collet Size: ER11
Output: 1:1
Adjustable ±20°



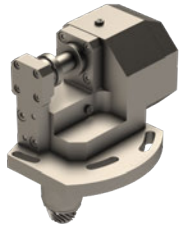
KSH132-25
Gear Hobbing
ID Size: Ø13mm
Output: 1:1
External cooling
100 bar,
Hobb OD: Ø32mm
Hobb Width: 40mm
Adjustable ±25°



KSH-132-27-17
Gear Hobbing
ID Size: Ø10mm
Output: 1.588:1
Hobb OD: Ø32mm
Hobb Width: 7mm
Adjustable 0-20°



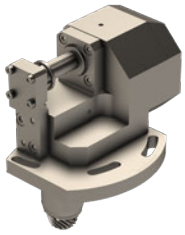
KSH-132-27-17-08
Gear Hobbing
ID Size: Ø8mm
Output: 1.588:1
Hobb OD: Ø32mm
Hobb Width: 7mm
Adjustable 0-20°



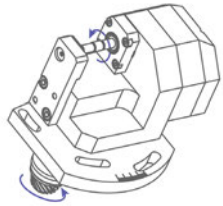
KSH-132-27-17-II
Gear Hobbing
ID Size: Ø16mm
Output: 1.588:1
Hobb OD: Ø32mm
Hobb Width: 7mm
Adjustable 0-20°



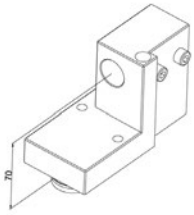
KSH-132-27-17-III
Gear Hobbing
ID Size: Ø10mm
Output: 1.588:1
Hobb OD: Ø32mm
Hobb Width: 7mm
Adjustable 0-20°



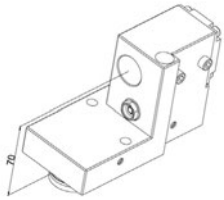
KSH-132-27-17-L
Gear Hobbing
ID Size: Ø13mm
Output: 1.588:1
Hobb OD: Ø32mm
Hobb Width: 7mm
Adjustable 0-20°
Long version



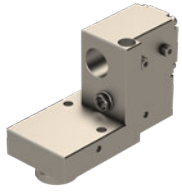
KSH-133-035
Gear Hobbing
ID Size: Ø3.5mm
Output: 1.588:1
Hobb OD: Ø10mm
Hobb Width: 6mm
Adjustable 0-30°
Requires 2 positions



CDF101
Tool Holder
Tool Size: Ø1in
Drill depth 73mm



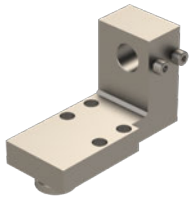
CDF101-AR-1
Tool Holder
Tool Size: Ø1in
Int & Ext cooling
Drill depth 79mm



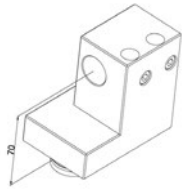
CDF101-HP
Tool Holder
Tool Size: Ø1in
Internal cooling
Max 150 bar,
Drill depth 48mm



CDF101-HP-10
Tool Holder
Tool Size: Ø10mm
Internal cooling,
For gun drilling



CDF101-SP
Tool Holder
Tool Size: Ø1in
Drill depth 113mm



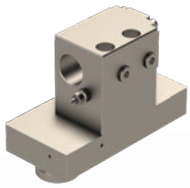
CDF-201
Tool Holder
Tool Size: Ø1in
Drill depth 40mm

CONTINUED ON NEXT PAGE

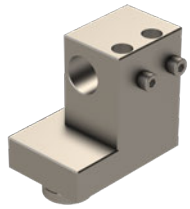
Turret



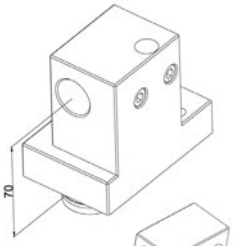
CDF-201-AR
Tool Holder
Tool Size: Ø1in
External cooling,
Drill depth 40mm



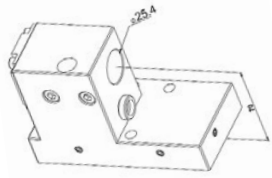
CDF-201-HP
Tool Holder
Tool Size: Ø1in
Int & Ext cooling
Max 150 bar,
Drill depth 40mm



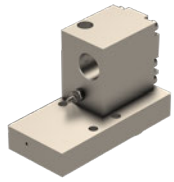
CDF-201-Jauge
Gauge
High precision gauge
for centering turret
position



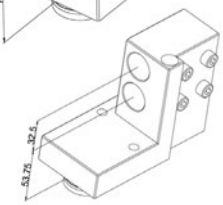
CDF-301
Tool Holder
Tool Size: Ø1in
Drill depth 70mm



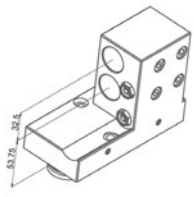
CDF-301-AR
Tool Holder
Tool Size: Ø1in
External cooling,
Drill depth 70mm



CDF-301-HP
Tool Holder
Tool Size: Ø1in
Internal cooling
Max 100 bar,
Drill depth 70mm



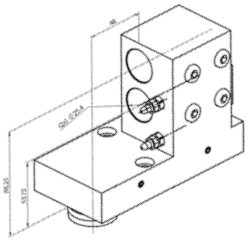
CDF-401
Tool Holder
Tool Size: Ø1in
Drill depth 73mm



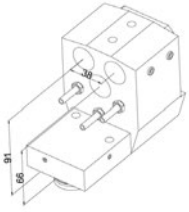
CDF-401-AR
Tool Holder
Tool Size: Ø1in
Internal cooling
on bootom position,
Drill depth 73mm



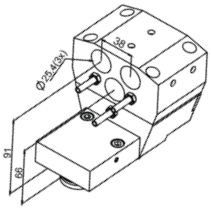
CDF401-AR-II
Tool Holder
Tool Size: Ø1in
Internal cooling
on both positions,
Drill depth 73mm



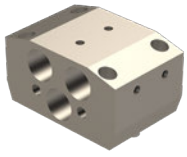
CDF401-HP
Tool Holder
Tool Size: Ø1in
Internal cooling
on bottom position,
External cooling
on both positions
Drill depth 73mm



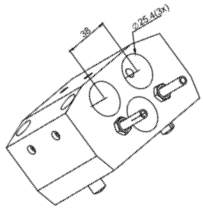
CDF901-AR
Tool Holder
Tool Size: Ø1in
External cooling,
Drill depth 75mm,
Y-Axis Required



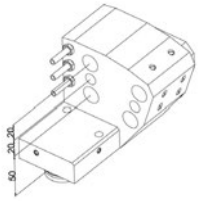
CDF901-IK
Tool Holder
Tool Size: Ø1in
Int & Ext cooling
Max 100 bar,
Drill depth 75mm,
Y-Axis Required



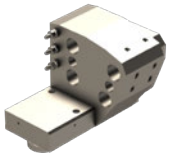
CDF901-IK-T
Tool Holder
Tool Size: Ø1in
External cooling
Attaches to CDF-901-IK,
Y-Axis Required



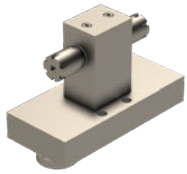
CDF-901-IK-T-HP
Tool Holder
Tool Size: Ø1in
Ext & Int cooling
Attaches to CDF-901-IK
High Pressure 150 Bar
Requires Y-Axis



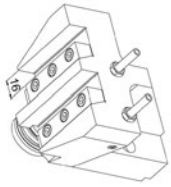
CDF-905-AR
Tool Holder
Tool Size: Ø.50in, Ø.75in
Coolant-Thru
*Second Position
Is Half Index
*Designed For
$M_2$32 Only



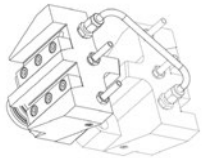
CDF905-HP
Tool Holder
Tool Size: Ø.50in, Ø.75in
External cooling
Max 100 bar



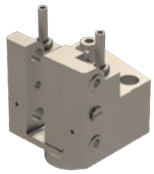
CDF-ER16
Tool Holder
Tool Size: ER16
Internal cooling
Max 100 bar,



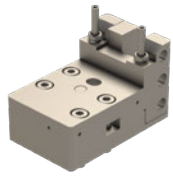
CTF-1116
Tool Holder
Tool Size: 16x16mm
External cooling,
Holds OD turning tools
Y-Axis Required



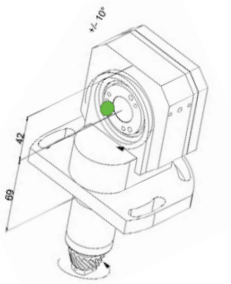
CTF1116-D
Tool Holder
Tool Size: 16x16mm
External cooling,
Holds OD turning tools
Y-Axis Required
Short version



CTF116-HP
Tool Holder
Tool Size: 16x16mm
External cooling
Max 150 bar,
Holds OD turning tools



778-CTF-116-R-AR-HP
Tool Holder
Tool Size: 5/8x5/8in
External cooling
Max 150 bar,
Holds OD turning tools,
Reversable wedge



KSW-101
Thread Whirling
Ring: Utilis
Output: 2:1
3,9, or 12 insert cutter,
Adjustable ±10°

Citizen $M_5$32

Operation	Item No.	Description	(#Tools) Size	Output	Other
Cross Drilling / Milling	5505-000435	BSC1107-4X	(1) ER11	1:3.8	High speed up to 30,000 RPM
	5505-000294	MSC-507-4X	(1) ER08	1:3.8	High speed up to 38,000 RPM
	5505-000609	MSC507-HP	(1) ER11	1:1	Internal cooling with max pressure 150 bar
	5505-000254	MSC-507-II	(1) ER11	1:1	
	5505-000292	MSC-507-L	(1) ER11	1:1	Long version for increased rigidity, Up to 10,000 RPM
	5505-000376	MSC512	(1) ER16	1:1	Up to 10,000 RPM
	5505-000666	RSC1107-4X	(1) ER11	1:3.8	High speed up to 22,800 RPM
End Drilling / Milling	5505-000421	GSE1505	(2) Ø31mm	1:1	For use with GSC-110 and GSC-1110-4X to enable end drilling / milling
	5505-000426	GSE1610	(3) ER16	1:1	Max drill depth 41mm
	5505-000422	GSE1610-IK	(3) ER16	1:1	Internal cooling with max pressure 90 bar, Max drilling depth 37mm
Slitting Saw	5505-000544	GSS15835-DEC-II	(1) Ø5/8in	1:1	Max tool Ø 63mm, Width 8mm
Static Tool Holders	5505-000358	GDF-1501-II	(3) Ø1in		3 Position 1" Ø Sleeves
	5505-000479	GDF1501-L350	(3) Ø16x50mm		Internal cooling with max pressure 200 bar
	5505-000425	GDF1701-IK	(3) Ø1in		External cooling with max pressure 100 bar, Internal cooling with max pressure 200 bar
	5505-000250	GDF903	(1) Ø1in		1" Sleeve holder
	5505-000419	GDF903-25	(1) Ø25mm		
	5505-000420	MEU208-MHF	(4) Ø20mm		Internal cooling max pressure 10 bar, For MDF-20 high frequency
Whirling	5505-000417	GSW016	(1) Utilis	1:1	Use with 6,9, & 12 insert cutting ring, Adjustable +-16º, Internal cooling kit is required for use with internal coolant threading ring, T10 on M532 V & VII, T31 on M532 VII & VIII
	5505-000418	GSW116	(1) Utilis	1:1	Use with 6,9, & 12 insert cutting ring, Adjustable +-16º, Internal cooling kit is required for use with internal coolant threading ring, T10 on M532 VIII only

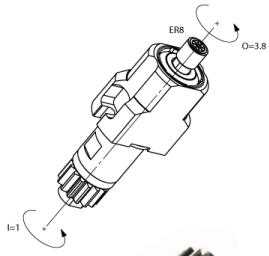
Gang Slide



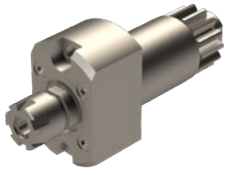
BSC1107-4X
Cross Drill/Mill
Collet Size: ER11
Output: 1:3.8
High speed up to 30,000 RPM



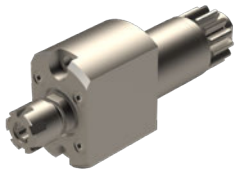
MSC-507-4X
Cross Drill/Mill
Collet Size: ER08
Output: 1:3.8
High speed up to 30,000 RPM



MSC507-HP
Cross Drill/Mill
Collet Size: ER11
Output: 1:1
Internal cooling
Max 150 bar



MSC-507-II
Cross Drill/Mill
Collet Size: ER11
Output: 1:1



MSC-507-L
Cross Drill/Mill
Collet Size: ER11
Output: 1:1
Long version,
Increased rigidity



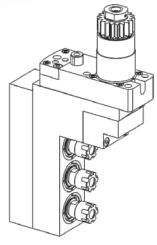
MSC512
Cross Drill/Mill
Collet Size: ER16
Output: 1:1
Up to 10,000 RPM



RSC1107-4X
Cross Drill/Mill
Collet Size: ER11
Output: 1:3.8
High speed up to 22,800 RPM



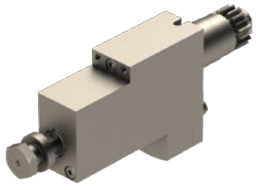
GSE1505
End Drill/Mill
Tool Size: Ø31mm
Output: 1:1
For use with GSC-1110 & GSC-1110-4X



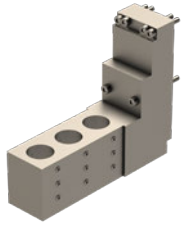
GSE1610
End Drill/Mill
Collet Size: ER16
Output: 1:1
Drill depth 41mm



GSE1610-IK
End Drill/Mill
Collet Size: ER16
Output: 1:1
Inernal cooling
Max 90 bar,
Drill depth 37mm



GSS15835-DEC-II
Slitting Saw
Tool Size: Ø5/8in
Output: 1:1
Max Tool Ø: 63mm
Max Tool Width: 8mm



GDF-1501-II
Tool Holder
Tool Size: Ø1in

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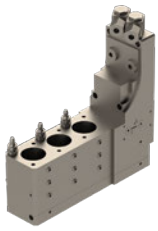
Gang Slide



GDF1501-L350
Tool Holder
Tool Size: Ø16mm
Internal cooling
Max 200 bar



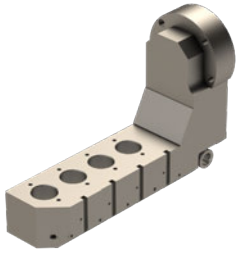
GDF1701-IK
Tool Holder
Tool Size: Ø1in
Int & Ext cooling
Max 150 & 200 bar,



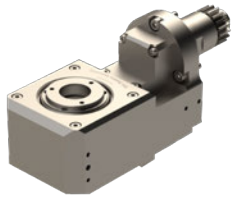
GDF903
Tool Holder
Tool Size: Ø1in



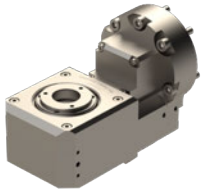
GDF903-25
Tool Holder
Tool Size: Ø25mm



MEU208-MHF
Tool Holder
Tool Size: Ø20mm
Internal cooling
Max 10 bar,
MDF-20 high freq



GSW016
Thread Whirling
Ring: Utilis
Output: 1:1
6,9, or 12 insert cutter,
Adjustable ±16°
T10 on M532 V/VII
T31 on M532 VII/VIII



GSW116
Thread Whirling
Ring: Utilis
Output: 1:1
6,9, or 12 insert cutter,
Adjustable ±16°
T10 on M532 VIII

Citizen $M_5$32

Operation	Item No.	Description	(#Tools) Size	Output	Coolant Thru	Other
Cross Drilling / Milling	5505-000395	KSC107-4X	(1) ER11	1:3.8	Yes	External cooling, High speed up to 22,800 RPM
	5505-000393	KSC113	(1) ER20	1:1	Yes	External cooling with max pressure 150 bar
	5505-000413	KSC113-IK	(1) ER20	1:1	Yes	Internal cooling with max pressure 150 bar
	5505-000414	KSC213	(1) ER20	1:1	Yes	External cooling with max pressure 150 bar
	5505-000381	KSC313	(2) ER20	1:1	Yes	External cooling, Requires Y-Axis
	5505-000564	KSC-DEC-10x3-V	(1) ER11	1:3	Yes	External cooling, High speed up to 15,000 RPM
	5505-000389	KSC-DEC-L-10x3-V	(1) ER11	1:3	Yes	External cooling, 6mm extended spindle
Angled Drilling / Milling	5505-000415	KSA507	(1) ER11	1:1		Adjustable 0-30º
	5505-000416	KSA607	(1) ER11	1:1		Adjustable 30-90º
End Drilling / Milling	5505-000411	KSE110-IC-V	(1) ER16	1:1	Yes	Internal cooling, Max drill depth 23mm
	5505-000410	KSE110-V	(1) ER16	1:1	Yes	External cooling, Max drill depth 22mm
	5505-000409	KSE113	(1) ER20	1:1	Yes	External cooling, Max drill depth 26.5mm
	5505-000408	KSE1410	(1) ER16	1:2	Yes	Internal cooling with max pressure 120 bar, High speed up to 12,000 RPM Drill depth 26mm
	5505-000407	KSE210-IC-V	(1) ER16	1:2	Yes	Internal cooling with max pressure 120 bar, High speed up to 12,000 RPM, Drill depth 22mm
	5505-000406	KSE210-V	(1) ER16	1:2	Yes	External cooling, Drill depth 22mm
	5505-000382	KSE213	(1) ER20	1:1	Yes	External cooling, Drill depth 44.5mm
Slitting Saw	5505-000402	KSS960	(1) Ø5/8in	8:1		Max tool Ø60mm, Width 4mm
	5505-000401	KSS963	(1) Ø5/8in	8:1		Max tool Ø63mm, Width 4mm, Requires 2 tool positions
Polygon Milling	5505-000404	KSP580	(1) Ø5/8in	54:17		Max tool Ø80mm, Width 16mm
	5505-000403	KSP680	(1) Ø5/8in	1:1		Max tool Ø80mm, Width 16mm
Hobbing	5505-000405	KSH332	(1) Ø10mm	54:17		Adjustable +-5º, Max tool Ø32mm, Width 30mm
	5505-000582	KSH432	(1) Ø10mm	1:1		Adjustable +-5º, Max tool Ø32mm, Width 30mm
Static Tool Holders	5505-000427	778-CTF-116-R-AR-HP	(1) 5/8x5/8in		Yes	External cooling with max pressure 150 bar, Holds OD turning tools, Reversable wedge
	5505-000424	852-354-0F010	(1) Ø25mm			Holds Meyrant high frequency spindle
	5505-000429	857-203-OF120	(3) Ø1in (1) Ø10mm			Replaces original back ID block
	5505-000423	866-349-0F030	(5) Ø1in H5		Yes	Int & Ext cooling
	5505-000102	CDF-101	(1) Ø1in			Max drill depth 73mm
	5505-000459	CDF-101-AR-1	(1) Ø1in		Yes	Int & Ext cooling, Max drill depth 73mm
	5505-000336	CDF101-HP	(1) Ø1in		Yes	Internal cooling with max pressure 150 bar, Max drill depth 48mm
	5505-000461	CDF101-HP-10	(1) Ø10mm		Yes	Internal cooling, For gun drilling
	5505-000460	CDF101-SP	(1) Ø1in			Max drill depth 113mm
	5505-000462	CDF1101-HP	(3) Ø1in		Yes	Int & Ext cooling with max pressure 150 bar, Max drill depth 75.5mm
	5505-000383	CDF1301	(1) Ø1in		Yes	External cooling with max pressure 150 bar, Max drill depth 43mm
	5505-000384	CDF1401	(1) Ø1in		Yes	External cooling with max pressure 150 bar, Max drill depth 83mm
	5505-000318	CDF-201	(1) Ø1in			Max drill depth 40mm
	5505-000463	CDF201-AR	(1) Ø1in		Yes	External cooling, Max drill depth 40mm
	5505-000374	CDF201-HP	(1) Ø1in		Yes	Int & Ext cooling with max pressure 150 bar, Max drill depth 40mm
	5505-000464	CDF201-Jauge				High precision gauge for centering turret position
	5505-000103	CDF-301	(1) Ø1in			Max drill depth 70mm
	5505-000465	CDF-301-AR	(1) Ø1in		Yes	External cooling, Max drill depth 70mm
	5505-000466	CDF301-HP	(1) Ø1in		Yes	Internal cooling with max pressure 100 bar, Max drill depth 70mm
	5505-000279	CDF-401	(2) Ø1in			Max drill depth 73mm
	5505-000467	CDF-401-AR	(2) Ø1in		Yes	Internal cooling for bottom position, Max drill depth 73mm
	5505-000468	CDF401-AR-II	(2) Ø1in		Yes	Internal cooling on both positions, Max drill depth 73mm
	5505-000246	CDF401-HP	(2) Ø1in		Yes	Internal cooling for bottom position with max pressure 150 bar, External cooling for both positions, Max drill depth 73mm
	5505-000469	CDF901-AR	(3) Ø1in			Max drill depth 75mm, Y-axis required
	5505-000335	CDF901-IK	(3) Ø1in		Yes	Int & Ext cooling with max pressure 100 bar, Max drill depth 75mm, Y-axis required
	5505-000471	CDF901-IK-T	(3) Ø1in		Yes	Delivery base (CDF901-IK) required for external cooling, Y-axis required, This is an interchangable head
	5505-000372	CDF901-IK-T-HP	(3) Ø1in		Yes	Delivery base (CDF901-IK) required for ext & int cooling, Y-axis required, This is an interchangable head, Max pressure 150 bar
	5505-000183	CDF-905-AR	(2) Ø.50in (4) Ø.75in			
	5505-000472	CDF905-HP	(2) Ø.50in (4) Ø.75in		Yes	External cooling with max pressure 100 bar,
	5505-000473	CDF-ER16	(2) ER16		Yes	Internal cooling with max pressure 100 bar, With special ER16 coolant sleeve

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Turret



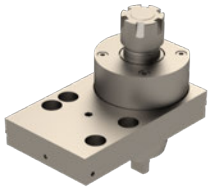
KSC107-4X
Cross Drill/Mill
Collet Size: ER11
Output: 1:3.8
External cooling,
High speed up
to 22,800 RPM



KSC113
Cross Drill/Mill
Collet Size: ER20
Output: 1:1
External cooling
Max 150 bar



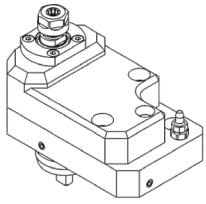
KSC113-IK
Cross Drill/Mill
Collet Size: ER20
Output: 1:1
Internal cooling
Max 150 bar



KSC213
Cross Drill/Mill
Collet Size: ER20
Output: 1:1
External cooling
Max 150 bar



KSC313
Cross Drill/Mill
Collet Size: ER20
Output: 1:1
External cooling,
Requires Y-Axis



KSC-DEC-10x3-V
Cross Drill/Mill
Collet Size: ER11
Output: 1:3
External cooling,
High speed up
to 15,000 RPM



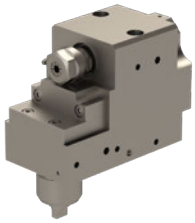
KSC-DEC-L-10x3-V
Cross Drill/Mill
Collet Size: ER11
Output: 1:3
External cooling,
High speed up
to 15,000 RPM,
6mm extended



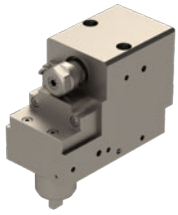
KSA507
Angled Drill/Mill
Collet Size: ER11
Output: 1:1
Adjustable 0-30°



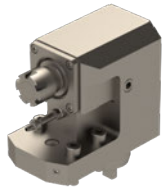
KSA607
Angled Drill/Mill
Collet Size: ER11
Output: 1:1
Adjustable 30-90°



KSE110-IC-V
End Drill/Mill
Collet Size: ER16
Output: 1:1
Internal cooling,
Drill depth 23mm



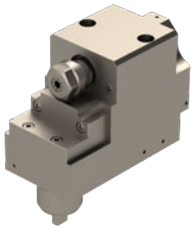
KSE110-V
End Drill/Mill
Collet Size: ER16
Output: 1:1
External cooling,
Drill depth 22mm



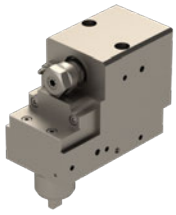
KSE113
End Drill/Mill
Collet Size: ER20
Output: 1:1
External cooling,
Drill depth 26.5mm



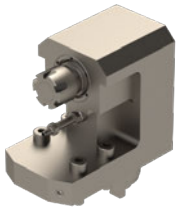
KSE1410
End Drill/Mill
Collet Size: ER16
Output: 1:2
Internal cooling,
Max 120 bar,
Up to 12,000 RPM
Drill depth 26mm



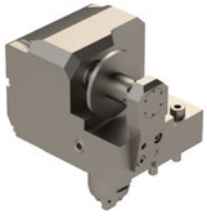
KSE210-IC-V
End Drill/Mill
Collet Size: ER16
Output: 1:2
Internal cooling,
Max 120 bar,
Up to 12,000 RPM
Drill depth 22mm



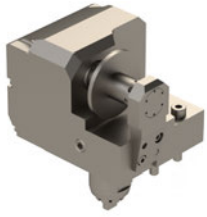
KSE210-V
End Drill/Mill
Collet Size: ER16
Output: 1:2
External cooling,
Drill depth 22mm



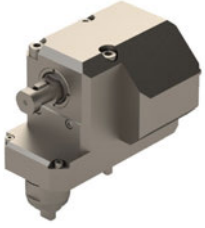
KSE213
End Drill/Mill
Collet Size: ER16
Output: 1:1
External cooling,
Drill depth 44.5mm



KSS960
Slitting Saw
Tool Size: Ø5/8in
Output: 8:1
Max Tool Ø: 60mm
Max Tool Width: 4mm



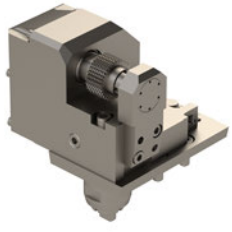
KSS963
Slitting Saw
Tool Size: Ø5/8in
Output: 8:1
Max Tool Ø: 63mm
Max Tool Width: 4mm
Requires 2 tool positions



KSP580
Polygon Milling
Tool ID Size: Ø5/8in
Output: 54:17
Max Tool Ø 80mm,
Max Tool Width: 16mm

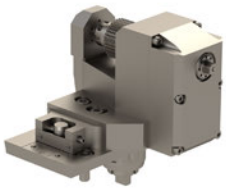


KSP680
Polygon Milling
Tool ID Size: Ø5/8in
Output: 1:1
Max Tool Ø 80mm,
Max Tool Width: 16mm

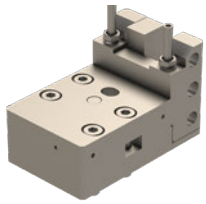


KSH332
Gear Hobbing
ID Size: Ø10mm
Output: 54:17
Coolant-thru
Hobb OD: Ø32mm
Hobb Width: 30mm
Adjustable ±5°

Turret



KSH432
Gear Hobbing
ID Size: Ø10mm
Output: 1:1
Coolant-thru
Hobb OD: Ø32mm
Hobb Width: 30mm
Adjustable ±5°



778-CTF-116-R-AR-HP
Tool Holder
Tool ID Size: Ø5/8x5/8in
External cooling
Max 150 bar,
Holds OD turning tools,
Reversable wedge



852-354-0F010
Tool Holder
ID Size: Ø25mm
Holds Meyrant
high freq spindle



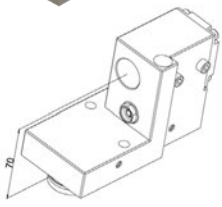
857-203-OF120
Tool Holder
ID Size: Ø1in & 10mm
Replaces original ID
block



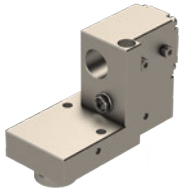
866-349-0F030
Tool Holder
Tool ID Size: Ø1in H5
Int & Ext cooling



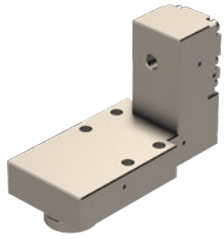
CDF-101
Tool Holder
ID Size: Ø1in
Drill depth 73mm



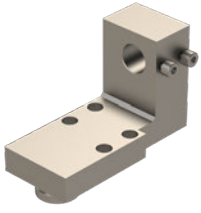
CDF-101-AR-1
Tool Holder
ID Size: Ø1in
Int & Ext cooling
Drill depth 73mm



CDF101-HP
Tool Holder
Tool ID Size: Ø1in
Internal cooling
Max 150 bar,
Drill depth 48mm



CDF101-HP-10
Tool Holder
ID Size: Ø10mm
Internal cooling,
Ideal for gun drilling



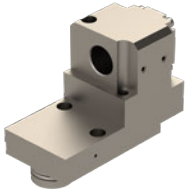
CDF101-SP
Tool Holder
ID Size: Ø1in
Drill depth 113mm



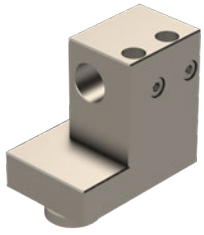
CDF1101-HP
Tool Holder
Tool ID Size: Ø1in
Int & Ext cooling
Max 150 bar,
Drill depth 75.5mm



CDF1301
Tool Holder
ID Size: Ø1in
External cooling
Max 150 bar,
Drill depth 43mm



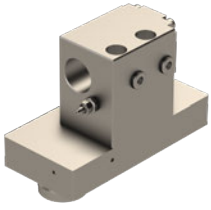
CDF1401
Tool Holder
ID Size: Ø1in
External cooling
Max 150 bar
Drill depth 83mm



CDF-201
Tool Holder
Tool ID Size: Ø1in
Drill depth 40mm



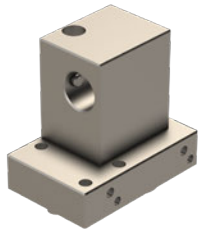
CDF201-AR
Tool Holder
ID Size: Ø1in
External cooling,
Drill depth 40mm



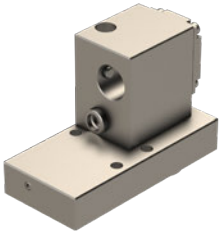
CDF201-HP
Tool Holder
ID Size: Ø1in
Int & Ext cooling
Max 150 bar
Drill depth 40mm



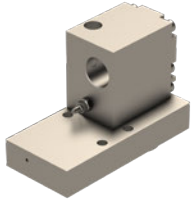
CDF201-Jauge
Tool Holder
High precision gauge for
centering turret position



CDF-301
Tool Holder
ID Size: Ø1in
Drill depth 70mm



CDF-301-AR
Tool Holder
ID Size: Ø1in
External cooling
Drill depth 70mm



CDF301-HP
Tool Holder
Tool ID Size: Ø1in
Internal cooling
Max 150 bar,
Drill depth 70mm



CDF-401
Tool Holder
ID Size: Ø1in
Drill depth 73mm

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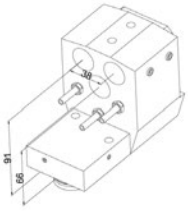
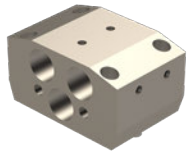
Turret



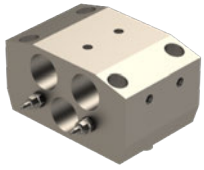
CDF901-AR
Tool Holder
ID Size: Ø1in
Drill depth 75mm,
Y-Zxis required



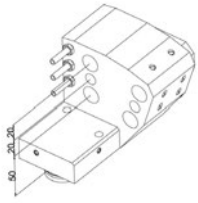
CDF901-IK
Tool Holder
Tool ID Size: Ø1in
Int & Ext cooling
Max 100 bar,
Drill depth 75mm,
Y-Axis required



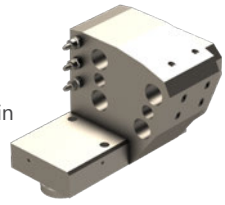
CDF901-IK-T
Tool Holder
ID Size: Ø1in
Delivery base (CDF90-IK)
required for external
cooling, Y-Axis required



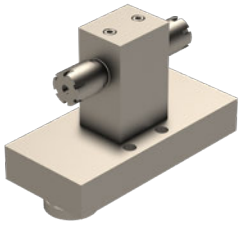
CDF901-IK-T-HP
Tool Holder
ID Size: Ø1in
Delivery base (CDF90-IK)
required for external
cooling, Max 150 bar,
Y-Axis required



CDF-905-AR
Tool Holder
Tool ID Size: Ø.5in, .75in



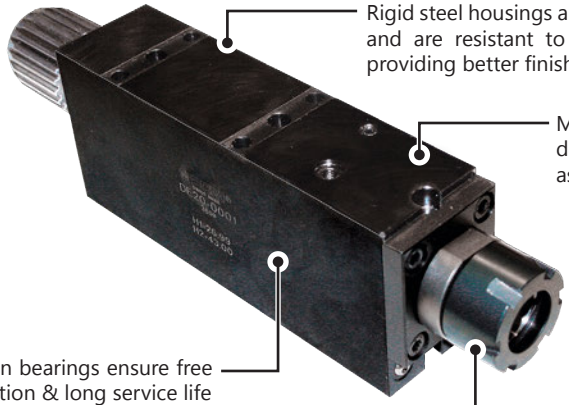
CDF905-HP
Tool Holder
Tool ID Size: Ø.5in, .75in
External cooling (100 bar)



CDF-ER16
Tool Holder
Collet Size: ER16
Internal cooling
Max 100 bar with
special ER16 sleeve

TORNOS DECO 13

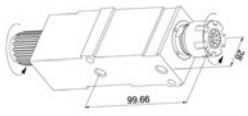
Swiss Made by PCM be driven.



Tornos DECO 13

(Machine's Live Tooling 8,000 RPM Rating)

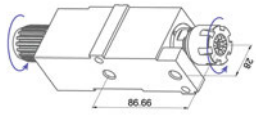
Operation	Item No.	(#Tools)Size	Output	Other
Cross Drilling / Milling	DE13-0001	(1) ER20	1:1	25mm height, 193 Length
	DE13-0001-H	(1) ER20	1:1	28mm height, 193 Length
	DE13-0002	(1) ER20	1:1	25mm height, 180 Length
	DE13-0002-H	(1) ER20	1:1	28mm height, 180 Length
	DE13-0003	(1) ER20	1:1	25mm height, 218 Length
	DE13-0003-H	(1) ER20	1:1	28mm height, 218 Length
	DE13-0010	(3) ER11	1:1	
Angled Drilling / Milling	DE13-0020	(1) ER11	1:1	Adjustable 0-180°
	DE13-0041	(1) ER11	1:1	Adjustable 0-90°
	DE13-0042	(1) ER11	1:1	Adjustable 0-90°
End Drilling / Milling	DE13-0011	(1) ER11	1:1	
	DE13-0012	(1) ER11	1:1	
Polygon Milling	DE13-0015	(1) Ø16	1:1	Max tool Ø80mm
Tool Holder	DE13-0050	(1) Ø25		For high speed broaches
	DE13-0060	(1) Ø25		
	DE13-OF-030	(1) Ø20		
	DE13-GTF-010	(1) 12x12mm		
	DE13-HF-220	(1) Ø22		For high speed broaches
Whirling	DE13-W15	(1) Utilis	1:1	9 or 12 Insert cutter, Adjustable ±15°, Coolant-thru
	DE13-W25	(1) Utilis	1:1	9 or 12 Insert cutter, Adjustable ±25°, Coolant-thru



DE13-0001
Cross Drilling / Milling
Collet Size: ER20
Output: 1:1
Height 25mm



DE13-0001-H
Cross Drilling / Milling
Collet Size: ER20
Output: 1:1
Height 28mm



DE13-0002
Cross Drilling / Milling
Collet Size: ER20
Output: 1:1

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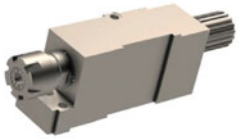
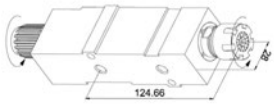
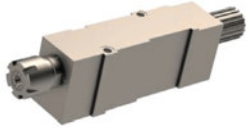
Tornos DECO 13



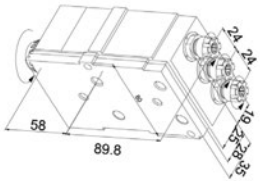
DE13-0002-H
Cross Drilling / Milling
Collet Size: ER20
Output: 1:1



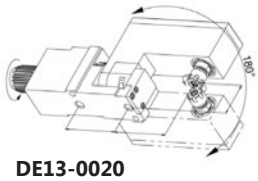
DE13-0003
Cross Drilling / Milling
Collet Size: ER20
Output: 1:1



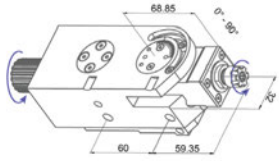
DE13-0003-H
Cross Drilling / Milling
Collet Size: ER20
Output: 1:1



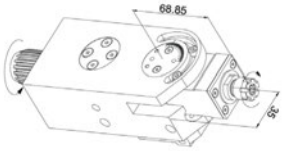
DE13-0010
Cross Drilling / Milling
Collet Size: ER11
Output: 1:1



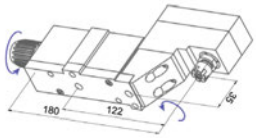
DE13-0020
Angled Drilling / Milling
Collet Size: ER11
Output: 1:1
Adjustable 0-180°



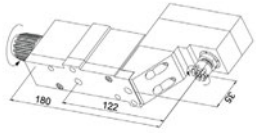
DE13-0041
Angled Drilling / Milling
Collet Size: ER11
Output: 1:1
Adjustable 0-90°



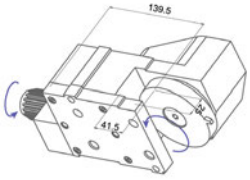
DE13-0042
Angled Drilling / Milling
Collet Size: ER11
Output: 1:1
Adjustable 0-90°



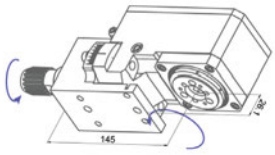
DE13-0011
End Drilling / Milling
Collet Size: ER11
Output: 1:1



DE13-0012
End Drilling / Milling
Collet Size: ER11
Output: 1:1



DE13-0015
Polygon Milling
Tool ID: Ø16mm
Output: 1:1
Max Tool Ø80mm



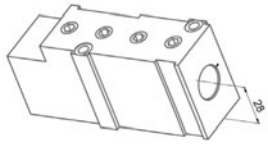
DE13-W15
Thread Whirling
Ring: Utilis
Output: 1:1
9 or 12 insert cutter,
Flight Circle Ø12mm,
Uses 2 Tooling Positions
Adjustable ±15°
Coolant-Thru



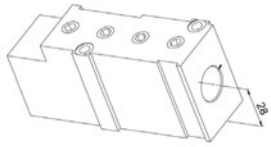
DE13-W25
Thread Whirling
Ring: Utilis
Output: 1:1
7 or 9 insert cutter,
Uses 2 Tooling Positions
Adjustable ±25°
Coolant-Thru



DEC13-0050
Tool Holder
Tool Size: Ø25mm
For High Speed Broaches



DEC13-0060
Tool Holder
Tool Size: Ø25mm



DE13-OF-030
Tool Holder
Tool Size: Ø20mm

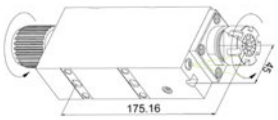
TORNOS DECO 20

Swiss Made by PCM be driven.

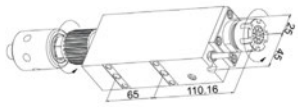
Tornos DECO 20

(Machine's Live Tooling 8,000 RPM Rating)

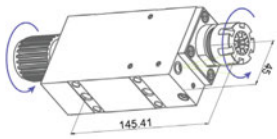
Operation	Item No.	(#Tools)Size	Output	Coolant Thru	Other
Drilling / Milling	DE20-0001	(1) ER25	1:1	External	258mm length
	DE20-0001-HP	(1) ER25	1:1	Int + Ext	258mm length
	DE20-0002	(1) ER25	1:1	External	228mm length
	DE20-0002-HP	(1) ER25	1:1	Int + Ext	228mm length
	DE20-0002-CR	(1) ER11 to ER20	1:1	External	Quick change, 187mm length
	DE20-0003	(1) ER25	1:1	External	292mm length
	DE20-0003-HP	(1) ER25	1:1	Int + Ext	292mm length
	DE20-0003-IK	(1) ER25	1:1	Int + Ext	292mm length
	DE20-0003-CR	(1) ER11 to ER20	1:1	External	Quick change, 277mm length
	DE20-0003-2X	(1) ER11	1:2		High speed, 277mm length
	DE20-0010	(3) ER11	1:1	External	Uses two locations
	DE20-0011	(1) ER16	1:1		
Angled Drilling / Milling	DE20-0004	(1) ER11	1:1	External	Adjustable 0-90°
	DE20-0005	(1) ER11	1:1	External	Adjustable 0-180°
	DE20-0020	(1) ER16	1:1		Adjustable 0-180°
Tool Holder	DE20-2160-L	(1) Ø8mm	1:1	External	Broaching holder, 319mm length
	DE20-OF-010	(1) 16x16mm			20mm height
	DE20-OF-020	(1) 16x16mm			24mm height
	DE20-OF-030	(1) Ø20		External	25mm height
	DE20-OF-040	(1) Ø25		External	25mm height
Whirling	DE20-W15	(1) Utilis	1:1	External	9 or 12 insert cutter, Ø12mm flight circle
	DE20-W15-II	(1) Utilis	1:1	External	9 or 12 insert cutter Ø12mm flight circle



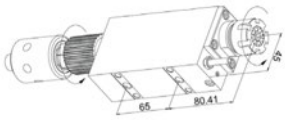
DE20-0001
Drilling / Milling
Collet Size: ER25
Output: 1:1
Length 258mm
Coolant-Thru (Ext)



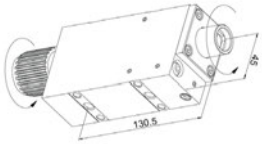
DE20-0001-HP
Drilling / Milling
Collet Size: ER25
Output: 1:1
Length 258mm
Coolant-Thru (Int+Ext)



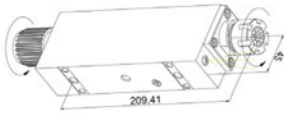
DE20-0002
Drilling / Milling
Collet Size: ER25
Output: 1:1
Length 228mm
Coolant-Thru (Ext)



DE20-0002-HP
Drilling / Milling
Collet Size: ER25
Output: 1:1
Length 228mm
Coolant-Thru (Int+Ext)



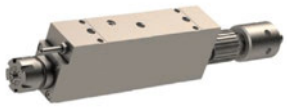
DE20-0002-CR
Drilling / Milling
Collet Size: ER11 to ER20
Output: 1:1
Length 187mm
Coolant-Thru (Ext)
Quick Change



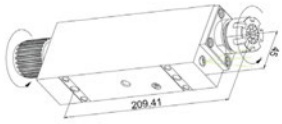
DE20-0003
Drilling / Milling
Collet Size: ER25
Output: 1:1
Length 292mm
Coolant-Thru (Ext)

CONTINUED ON NEXT PAGE

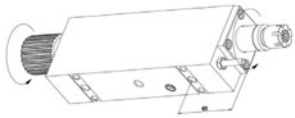
Tornos DECO 20



DE20-0003-HP
Drilling / Milling
Collet Size: ER25
Output: 1:1
Length 292mm
Coolant-Thru (Int+Ext)



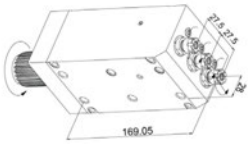
DE20-0003-IK
Drilling / Milling
Collet Size: ER25
Output: 1:1
Length 292mm
Coolant-Thru (Int+Ext)



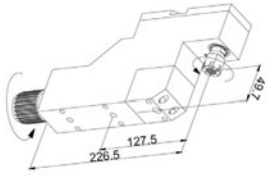
DE20-0003-CR
Drilling / Milling
Collet Size: ER11 to ER20
Output: 1:1
Length 277mm
Coolant-Thru (Ext)



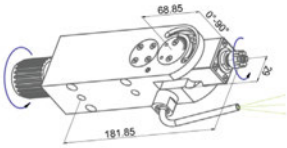
DE20-0003-2X
Drilling / Milling
Collet Size: ER11
Output: 1:2
Length 277mm
High Speed



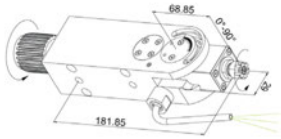
DE20-0010
Drilling / Milling
Collet Size: ER11
Output: 1:1
Coolant-Thru (Ext)
Uses Two Locations



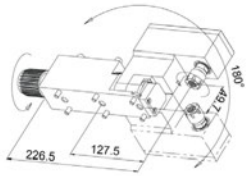
DE20-0011
Drilling / Milling
Collet Size: ER16
Output: 1:1



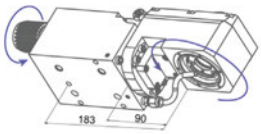
DE20-0004
Angled Drilling / Milling
Collet Size: ER11
Output: 1:1
Coolant-Thru (Ext)
Adjustable 0-90°



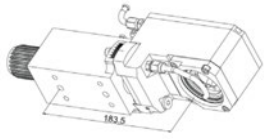
DE20-0005
Angled Drilling / Milling
Collet Size: ER11
Output: 1:1
Coolant-Thru (Ext)
Adjustable 0-180°



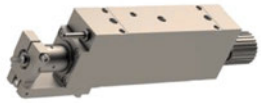
DE20-0020
Angled Drilling / Milling
Collet Size: ER16
Output: 1:1
Adjustable 0-180°



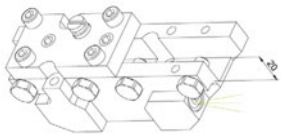
DE20-W15
Thread Whirling
Ring: Utilis
Output: 1:1
9 or 12 Insert Cutter,
Flight Circle Ø12mm
Coolant-Thru (Ext)



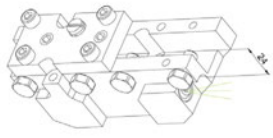
DE20-W15-II
Thread Whirling
Ring: Utilis
Output: 1:1
9 or 12 Insert Cutter,
Flight Circle Ø12mm
Coolant-Thru (Ext)



DE20-2160L
Tool Holder
Tool Size: Ø8mm
Length 319mm
Coolant-Thru (Ext)
Broach Holder



DE20-OF-010
Tool Holder
Tool Size: 16x16mm
Height 20mm



DE20-OF-020
Tool Holder
Tool Size: 16x16mm
Height 24mm



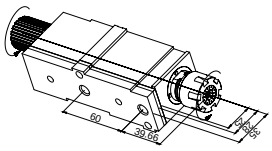
DE20-OF-030
Tool Holder
Tool Size: Ø20mm
Height 25mm
Coolant-Thru (Ext)

TORNOS EvoDECO 16

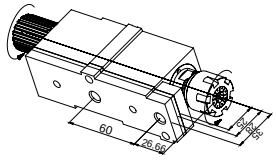
Swiss Made by PCM *be driven.*

(Machine's Live Tooling 8,000 RPM Rating)

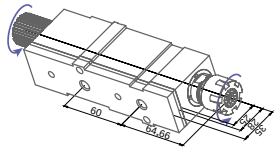
Operation	Item No.	(#Tools)Size	Output	Coolant Thru	Other
Drilling / Milling	DE13-0001-H	(1) ER20	1:1		
	DE13-0002-H	(1) ER20	1:1		
	DE13-0003-H	(1) ER20	1:1		
	DE13-0006	(1) ER16	1:1		
Polygon Milling	DE13-0015	(1) Ø16	1:1		



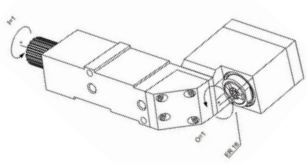
DE13-0001-H
Drilling / Milling
Collet Size: ER20
Output: 1:1



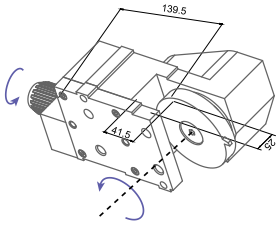
DE13-0002-H
Drilling / Milling
Collet Size: ER20
Output: 1:1



DE13-0003-H
Drilling / Milling
Collet Size: ER20
Output: 1:1



DE13-0006
Drilling / Milling
Collet Size: ER16
Output: 1:1



DE13-0015
Polygon Milling
Tool ID: Ø16mm
Output: 1:1

REPAIRS & RESTORATION



One of the benefits of buying live tooling and spindles from GenSwiss, is knowing we will repair them too. We will repair your spindle at a fraction of the cost to purchase a brand new one and have your Swiss-style CNC running again in no time.

- **Live Swiss machine attachments restored to factory specification**
- **PCM and major OEM brands: CITIZEN, STAR, TSUGAMI, TORNOS**
- **$50 evaluation & inspection (fee waived if repaired or replaced by us)**
- **Repaired by factory trained professionals**

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TSUGAMI SS20/32, HS20/32

Swiss Made by PCM be driven.

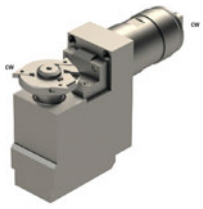
Machine	Operation	Item No.	Size	Output	Notes
SS20 SS32 HS20 HS32	Radial Drilling / Milling	HS20-GSC-107-3X-II	(1) ER11	1:3	High speed spindle up to 15,000 RPM
	Axial Drilling / Milling	HS20-GSE-107-3X-II	(1) ER11	1:3	High speed spindle up to 15,000 RPM
	Polygon Milling	HS20-GSP-613	(1) 13mm	1:1	Max tool Ø72mm, Max tool thickness 8.3mm



HS20-GSC-107-3X-II
Radial Drill/Mill
Collet Size: ER11
Output: 1:3
High Speed
Machine: SS20/32, HS20/32



HS20-GSE-107-3X-II
Radial Drill/Mill
Collet Size: ER11
Output: 1:3
High Speed
Machine: SS20/32, HS20/32



HS20-GSP-613
Polygon Milling
Tool Size:
ID Ø13
OD Ø72
Tool Thickness 8.3mm
Output: 1:1
Machine: SS20/32, HS20/32

TSUGAMI BW20

Swiss Made by PCM be driven.

Machine	Operation	Item No.	Size	Output	Notes
BW207 BW208 BW208Z BW209Z	Radial Drilling / Milling	BW20-GSC-105-4X	(1) ER08	1:3.8	High speed spindle up to 30,400 RPM

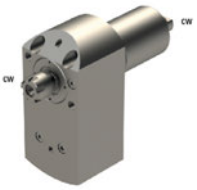


BW20-GSC-105-4X
Radial Drill/Mill
Collet Size: ER08
Output: 1:3.8
High Speed
Machine: BW20

TSUGAMI S205/206

Swiss Made by PCM be driven.

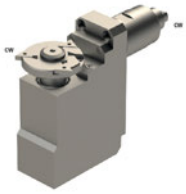
Machine	Operation	Item No.	Size	Output	Notes
S205 S206	**Radial Drilling / Milling**	S20-RSC-107-3X	(1) ER11	1:3	High speed spindle up to 24,000 RPM
	Axial Drilling / Milling	S20-RSE-107-3X	(1) ER11	1:3	High speed spindle up to 24,000 RPM
	Polygon Milling	S20-GSP-613	(1) 13mm	1:1	Max tool Ø72mm Max tool thickness 8.3mm
	Slitting Saw	S20-RSS-110	(1) ER16	1:1	Max tool Ø70mm
	Thread Whirling	TSUGAMI1-GSW-220	(1) Utilis	1:1	Adjustable 0-20°, Utilis ring: 6mm flight circle



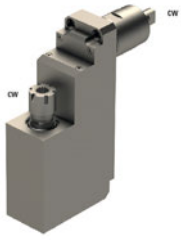
S20-RSC-107-3X
Radial Drilling / Milling
Collet Size: ER11
Output: 1:3
High Speed
Machine: S205/S206



S20-RSE-107-3X
Axial Drilling / Milling
Collet Size: ER11
Output: 1:3
High Speed
Machine: S205/S206



S20-GSP-613
Polygon Milling
Tool Size:
ID Ø13
OD Ø72
Tool Thickness 8.3mm
Output: 1:1
Machine: S205/S206



S20-RSS-110
Slotted Saw
Arbor Size: ER16
Output: 1:1
Max Tool Ø: 70mm
Machine: S205/S206



TSUGAMI1-GSW-220
Thread Whirling
Ring: Utilis Ring
Output: 1:1
Adjustable 0-20°
Flight Circle 6mm
Machine: S205/S206

TSUGAMI B026-II/032-II

Swiss Made by PCM be driven.

Machine	Operation	Item No.	Size	Output	Notes
B0265 II **B0265B II** **B0266 II** **B0325 II** **B0325B II** **B0326 II**	**Radial Drilling / Milling**	B026-GSC-105-4X	(1) ER08	1:3.8	High speed spindle up to 22,800 RPM
		B026-GSC-107-4X	(1) ER11	1:3.8	High speed spindle up to 22,800 RPM
		B026-GSC-107-3X	(1) ER11	1:3	High speed spindle up to 15,000
		B026-BSC-110-HP	(1) ER11	1:1	Internal coolant-thru



B026-GSC-105-4X
Radial Drill/Mill
Collet Size: ER08
Output: 1:3.8
High Speed
Machine: B026-II/B032-II



B026-GSC-107-4X
Radial Drill/Mill
Collet Size: ER11
Output: 1:3.8
High Speed
Machine: B026-II/B032-II



B026-GSC-107-3X
Radial Drill/Mill
Collet Size: ER11
Output: 1:3
High Speed
Machine: B026-II/B032-II

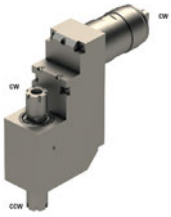


B026-BSC-110-HP
Radial Drill/Mill
Collet Size: ER11
Output: 1:1
Internal Coolant-Thru
Machine: B026-II/B032-II

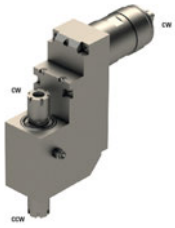
TSUGAMI B026/032/038

Swiss Made by PCM be driven.

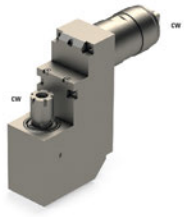
Machine	Operation	Item No.	Size	Output	Notes
B026 B032 B038	Axial Drilling / Milling	B026-RSE-110	(2) ER16	1:1	Double-ended
		B026-RSE-110-IK	(2) ER16	1:1	Double-ended, Internal coolant-thru
		B026-RSE-110M	(1) ER16	1:1	
		B026-RSE-110M-IK	(1) ER16	1:1	Internal coolant-thru
		B026-RSE-210	(4) ER16	1:1	Double-ended
		B026-RSE-210-IK	(4) ER16	1:1	Double-ended, Internal coolant-thru
		B026-RSE-210M	(2) ER16	1:1	
		B026-RSE-310	(6) ER16	1:1	Double-ended
		B026-RSE-310-IK	(6) ER16	1:1	Double-ended, Internal coolant-thru
		B026-RSE-310M	(3) ER16	1:1	
		B026-RSE-310M-IK	(3) ER16	1:1	Internal coolant-thru



B026-RSE-110
Axial Drilling / Milling
Collet Size: ER16
Output: 1:1
Double-Ended
Machine: B026/32/38



B026-RSE-110-IK
Axial Drilling / Milling
Collet Size: ER16
Output: 1:1
Internal Coolant-Thru
Double-Ended
Machine: B026/32/38



B026-RSE-110M
Axial Drilling / Milling
Collet Size: ER16
Output: 1:1
Machine: B026/32/38



B026-RSE-110M-IK
Axial Drilling / Milling
Collet Size: ER16
Output: 1:1
Internal Coolant-Thru
Machine: B026/32/38



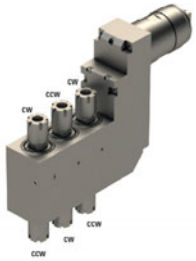
B026-RSE-210
Axial Drilling / Milling
Arbor Size: ER16
Output: 1:1
Double-Ended
Machine: B026/32/38



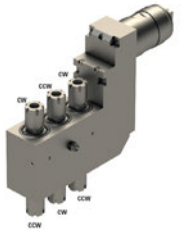
B026-RSE-210-IK
Axial Drilling / Milling
Collet Size: ER16
Output: 1:1
Double-Ended
Internal Coolant-Thru
Machine: B026/32/38



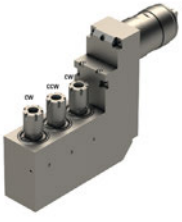
B026-RSE-210M
Axial Drilling / Milling
Collet Size: ER16
Output: 1:1
Machine: B026/32/38



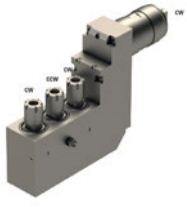
B026-RSE-310
Axial Drilling / Milling
Collet Size: ER16
Output: 1:1
Double-Ended
Machine: B026/32/38



B026-RSE-310-IK
Axial Drilling / Milling
Collet Size: ER16
Output: 1:1
Double-Ended
Internal Coolant-Thru
Machine: B026/32/38



B026-RSE-310M
Axial Drilling / Milling
Collet Size: ER16
Output: 1:1
Machine: B026/32/38



B026-RSE-310M-IK
Axial Drilling / Milling
Collet Size: ER16
Output: 1:1
Internal Coolant-Thru
Machine: B026/32/38

TSUGAMI B01-III/02-III/07-III

Swiss Made by PCM be driven.

Machine	Operation	Item No.	Size	Output	Notes
B073-III B074-III B075-III B0123-III B0124-III B0125-III B0126-III B0203-III B0204-III B0205-III B0206-III	Radial Drilling / Milling	B07-GSC-105-4X	(1) ER08	1:3.8	High speed spindle up to 22,800 RPM
		B07-GSC-107-4X	(1) ER11	1:3.8	High speed spindle up to 22,800 RPM
		B07-GSC-110	(1) ER16	1:1	
	Axial Drilling / Milling	B07-RSE-207	(2) ER11	1:1	
		B07-RSE-207-IK	(2) ER11	1:1	Internal coolant-thru
		B07-RSE-207-2X	(2) ER11	1:2	High speed spindle up to 16,000 RPM
		B07-RSE-207-IK-2X	(2) ER11	1:2	High speed spindle up to 16,000 RPM, Internal coolant-thru
	Angled Drilling / Milling	B07-GSA-207	(2) ER11	1:1	Adjustable 90°
		B07-GSA-207-IK	(2) ER11	1:1	Adjustable 90°, Internal coolant-thru
		B07-GSA-207-2X	(2) ER11	1:2	High speed spindle up to 16,000 RPM, Adjustable 90°
		B07-GSA-207-IK-2X	(2) ER11	1:2	High speed spindle up to 16,000 RPM, Adjustable 90°, Internal coolant-thru
	Slitting Saw	B07-GSS-110	(1) ER16	1:1	Max tool Ø70mm
	Thread Milling	B07-GSF-418	(1) 8mm	1:1	Max tool Ø72mm, Tool width 3-5mm
		B07-GSF-518	(1) 8mm	1:1	Max tool Ø72mm, Tool width 3-5mm, Adjustable 1.5°



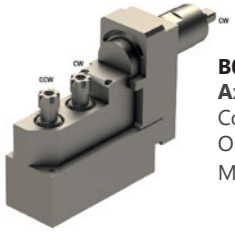
B07-GSC-105-4X
Radial Drilling / Milling
Collet Size: ER08
Output: 1:3.8
High Speed
Machine: B01/02/07



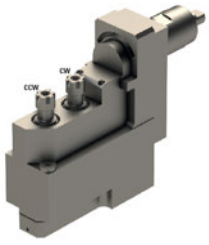
B07-GSC-107-4X
Radial Drilling / Milling
Collet Size: ER11
Output: 1:3.8
High Speed
Machine: B01/02/07



B07-GSC-110
Radial Drilling / Milling
Collet Size: ER16
Output: 1:1
Machine: B01/02/07



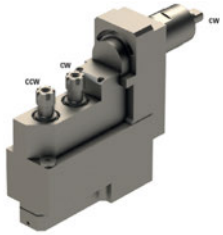
B07-RSE-207
Axial Drilling / Milling
Collet Size: ER11
Output: 1:1
Machine: B01/02/07



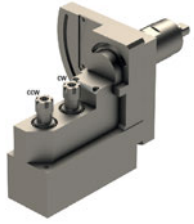
B07-RSE-207-IK
Axial Drilling / Milling
Collet Size: ER11
Output: 1:1
Internal Coolant-Thru
Machine: B01/02/07



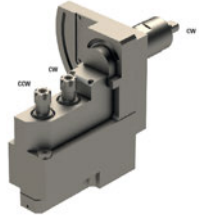
B07-RSE-207-2X
Axial Drilling / Milling
Collet Size: ER11
Output: 1:2
High Speed
Machine: B01/02/07



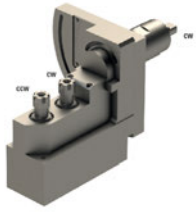
B07-RSE-207-IK-2X
Axial Drilling / Milling
Collet Size: ER11
Output: 1:2
High Speed
Internal Coolant-Thru
Machine: B01/02/07



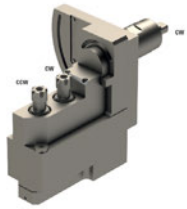
B07-GSA-207
Angled Drilling / Milling
Arbor Size: ER11
Output: 1:1
Adjustable 90°
Machine: B01/02/07



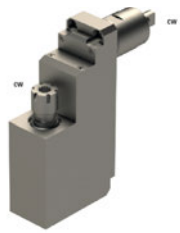
B07-GSA-207-IK
Angled Drilling / Milling
Arbor Size: ER11
Output: 1:1
Adjustable 90°
Internal Coolant-Thru
Machine: B01/02/07



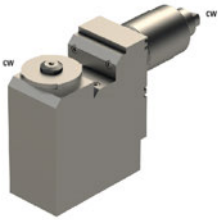
B07-GSA-207-2X
Angled Drilling / Milling
Arbor Size: ER11
Output: 1:2
Adjustable 90°
High Speed
Machine: B01/02/07



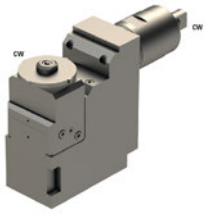
B07-GSA-207-IK-2X
Angled Drilling / Milling
Arbor Size: ER11
Output: 1:2
Adjustable 90°
High Speed,
Internal Coolant-Thru
Machine: B01/02/07



B07-GSS-110
Slotted Saw
Arbor Size: ER16
Output: 1:1
Max Tool Ø: 70mm
Machine: B01/02/07



B07-GSF-418
Thread Milling
Tool Size: 8mm
Output: 1:1
Max Tool Ø: 72mm
Tool Width: 3-5mm
Machine: B01/02/07



B07-GSF-518
Thread Milling
Tool Size: 8mm
Output: 1:1
Max Tool Ø: 72mm
Tool Width: 3-5mm
Adjustable 1.5°
Machine: B01/02/07

TSUGAMI P034H

Swiss Made by PCM be driven.

Machine	Operation	Item No.	Size	Output	Notes
P034H	Axial Drilling / Milling	P03-GSE-207-II	(2) ER11	1:1	
	Radial Drilling / Milling	P03-GSC-015	(1) ER08	1:1	
	Gear Hobbing	P03-GSH-135-L	(1) 3.5mm	1:1	Adjustable ±2.5°
	Polygon Milling	P03-GSP-118	(1) 8mm	1:1	Adjustable ±2.5°, Max tool Ø45mm
		P03-GSP-218	(1) 8mm	1:1	Adjustable ±2.5°, Max tool Ø45mm, Cutter offset
		P03-GSP-318	(1) 8mm	1:1	Adjustable in X ±2.5°, Adjustable in Y ±1.5°, Max tool Ø45mm
	Thread Whirling	P03-GSW-220	(1) Utilis	1:1	Adjustable 0-20°
	Static Holders & Blocks	P03-GDF-416	(3) 16mm		
		P03-GDF-516	(3) 16mm		
		P03-GTF-018	(7) 8x8mm		
	Main Block Tool Holder with Gang Slide and High Speed Spindle	P03-GSC-117-S	See Notes To The Right	1:2	(2) 8x8mm square shank (1) Ø25mm holder for high speed spindle (1) ER11 high speed spindle, Up to 16,000 RPM (1) Modular



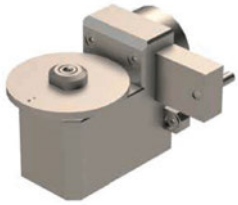
P03-GSE-207-II
End Drilling / Milling
Collet Size: ER11
Output: 1:1
Machine: P034H



P03-GSC-015
Cross Drilling / Milling
Collet Size: ER08
Output: 1:1
Machine: P034H



P03-GSH-135-L
Gear Hobbing
ID Size: Ø3.5mm
Output: 1:1
Adjustable ±2.5°
Machine: P034H



P03-GSP-118
Polygon Milling
Tool Size: Ø8mm
Output: 1:1
Max Tool Ø: 45mm
Adjustable ±2.5°
Machine: P034H



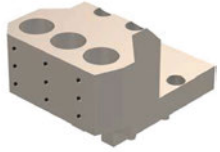
P03-GSP-218
Polygon Milling
Arbor Size: Ø8mm
Output: 1:1
Max Tool Ø: 45mm
Adjustable ±2.5°
Cutter Offset
Machine: P034H



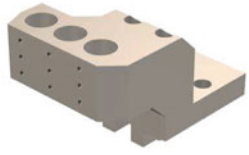
P03-GSP-318
Polygon Milling
Arbor Size: Ø8mm
Output: 1:1
Max Tool Ø: 45mm
Y Adjustable ±1.5°
X Adjustable ±2.5°
Machine: P034H



P03-GSW-220
Thread Whirling
Ring: Utilis
Output: 1:1
9 or 12 Insert Cutter,
Adjustable 0-20°
Machine: P034H



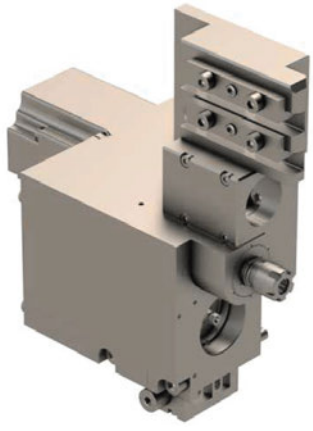
P03-GDF-416
Static Tool Holder
Tool Size: Ø16mm
Machine: P034H



P03-GDF-516
Static Tool Holder
Tool Size: Ø16mm
Machine: P034H



P03-GTF-018
Static Tool Holder
Tool Size: 8mmx8mm
Machine: P034H



P03-GSC-117-S
Main Block Tool Holder
Collet Size: ER11
Output: 1:2
Tool N°01 cutter carrier 8mm x 8mm
Tool N°02 cutter carrier 8mm x 8mm
Tool N°03 hight frequency Ø25
Tool N°04 in ER11 with RPM 16'000.
Tool N°05 is a modular quick change for different operation.
Machine: P034H

STAR
Swiss Made by
PCM
be driven.



SR20J-W20
Thread Whirling

All Machines

Gang Slide Tools

Operation	Item No.	(#Tools)Size	Output	Machine	Other
Cross Drilling / Milling	E20-GSC-3X	(1) ER11	1:2.59	ECAS12/20, SB12-20R, SR20J/JN, SR-20RII/RIII/RIV, SR32J/JN, SV12/20/32, SV32JII, SV38R, SW20	High speed
	E20-GSC-110	(1) ER16	1:1	ECAS12/20, SB12-20R, SR20J/JN, SR-20RII/RIII/RIV, SR32J/JN, SV12/20/32, SV32JII, SV38R, SW20	
	STA-SR20J-GSC-010-HP	(1) ER16	1:1	ECAS12/20, SB12-20R, SR20J/JN/SR-20RIII, SR20RII, SR20 RIV, SR32J/JN, SV12/20/32, SV32JII, SV38R, SW20	2175psi max coolant cressure
	STA-A100-E16	(1) ER16	1:1	ECAS12/20, SB12-20R, SR20J/JN, SR-20RII/RIII/RIV, SR32J/JN, SV12/20/32, SV32JII, SV38R, SW20	
	STA-A106-E11	(1) ER11	1:1	ECAS12/20, SB12-20R, SR20J/JN, SR-20RIII, SR20RII/IV, SR32J/JN, SW20	
	STA-A120-E16	(1) ER16	1:1	ECAS12/20, ECAS-32T, SB12-20R, SR20J/JN/SR-20RIII, SR20RII/IV, SV38R, SW20	
	STA-A121-E08	(1) ER08	1:1	ECAS12/20, SB12-20R, SR20J/JN/SR-20RIII, SR20RII/IV, SV38R, SW20	
End Drilling / Milling	E20-DE-1111	(2) ER11	1:1	ECAS12/20, SB12-20R, SR20J/JN, SR-20RII/RIII/RIV, SR32J/JN, SV12/20/32, SV32JII, SV38R, SW20	Double ended
	E20-GSE-210	(2) ER16	1:1	ECAS12/20, SB12-20R, SR20J/JN, SR-20RII/RIII/RIV, SR32J/JN, SV12/20/32, SV32JII, SV38R, SW20	
	SR20J-GSE-3710	(3) ER11 (3) ER16	1:1	SR20J	
	SR32J-GSE-3710	(3) ER11 (3) ER16	1:1	SR32J	Double ended
	STA-R177-2E16	(2) ER16	1:1	SB-12/20R, SR20J/JN/RIII, SR20RII, SR20RIV	
	STA-R146-E16	(1) ER16	1:1	SB-12/20R, SR20J/JN/RIII, SR20RII/RIV, SW20	
	STA-R208-3E16	(3) ER16	1:1	SB-12/20R, SR20J/JN/RIII, SR20RIV	
	STA-R177-4E11	(4) ER11	1:1	SR20J/JN/RIII, SR-20RIV	Double ended
	STA-R146-E11	(1) ER11	1:1	ECAS12/20, SW20	
	STA-R146-2E11	(2) ER11	1:1	ECAS12/20, SW20	
Hobbing	E20RSH-035 *	(1) Ø3.5	1:1	SR20	Adjustable ±5°
	E20-RSH-080	(1) Ø8	1:1	SR20	Adjustable ±5°
	SW12-GSH-045	(1) Ø4.5		SW12-RII	Adjustable +15°/-3°
	SW12-GSH-080	(1) Ø8	1:1	SW12-RII	Adjustable +10°/-3°
Polygon Milling	SR20RII-GSP-713	(1) Ø13	1:1	SR20RII	Max tool Ø60mm Max thickness 8.3mm
	SB-GSP-218	(1) Ø8	1:1	SB16, SB20	Adjustable ±10°
	SW12-GSP-218	(1) Ø8	1:1	SW12-RII	Adjustable ±10°
Whirling	E20-W20	(1) Utilis	1:1	SR-20, SR-30, SW-20, ECAS-12, ECAS-20	9 or 12 Insert, Adjustable ±20°, Flight circle Ø6mm
	SR20J-W20	(1) Utilis	1:1	SR20J/JN/RIII	9 or 12 Insert, Adjustable ±20°, Flight circle Ø12mm
	STAR2-GSW-210	(1) Utilis	1:1	SR20J, SB-16R	7 or 9 Insert, Adjustable ±10°, Flight circle Ø6mm
Modular	SW12-GSH-045 (Hobbing)	(1) Ø4.5		SW12-RII	Adjustable +15°/-3°
	SW12-GSH-080 (Hobbing)	(1) Ø8	1:1	SW12-RII	Adjustable +10°/-3°
	SB-GSP-218 (Polygon Milling)	(1) Ø8	1:1	SB16, SB20	Adjustable ±10°
	SW12-GSP-218 (Whirling)	(1) Ø8	1:1	SW12-RII	Adjustable ±10°
	STAR2-GSW-210 (Whirling)	(1) Utilis	1:1	SR20J, SB-16R	7 or 9 Insert, Adjustable ±10°, Flight circle Ø6mm

All Machines

Sub Spindle Tools

Operation	Item No.	(#Tools)Size	Output	Machine	Other
Back Working	STA-BW096-E11	(1) ER11	1:1	ECAS12/20, SB12-20R, SR10J, SR20J/JN/SR-20RIII, SR20RII/RIV, SR32J/JN, SW12RII	
	STA-BW096-E16	(1) ER16	1:1	ECAS12/20, SB12-20R, SR20J/JN/SR-20RIII, SR20RII/RIV, SR32J/JN, SW12RII	
	STA-BW098-E16	(1) ER16	1:1	SR20-RIV, SW-12RII, SW20	
	STA-SR20J-GSE-010-HP	(1) ER16	1:1	ECAS12/20, SB12-20R, SR20J/JN/SR-20RIII, SR20RII, SR20 RIV, SR32J/JN, SW12RII	2175psi Max Coolant Pressure
	STA-SR20J-RSC-007	(1) ER11	1:1	ECAS12/20, SB12-20R, SR20J/JN/SR-20RIII, SR20RII, SR20 RIV, SR32J/JN, SW12RII	
End Drilling / Milling	E20-GSE-110	(1) ER16	1:1	ECAS12/20, SB12-20R, SR20J/JN, SR-20RII/RIII/RIV, SR32J/JN, SV12/20/32, SV32JII, SV38R, SW20	

20mm Machines

Turret Tools

Operation	Item No.	(#Tools)Size	Output	Machine	Other
Cross Drilling / Milling	SV20-TSC-210	(4) ER11	1:4	20T, SV20	Double ended
End Drilling / Milling	SV20-T2X2X4	(4) ER11	1:4	SV12, SV20	Double ended, High speed
	SV20-TSE-010	(2) ER16	1:1	20T, SV20	Double ended
	SV20-TSE-207	(4) ER11	1:1	20T, SV20	Double ended

32 & 38mm Machines

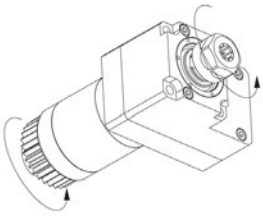
Turret Tools

Operation	Item No.	(#Tools)Size	Output	Machine	Other
Cross Drilling / Milling	E20C-110-IK *	(1) ER16	1:1	20T, SV20	
	E20C-110-K *	(1) ER16	1:1	20T, SV20	
	SV32-TSC-210	(2) ER16	1:1	32T, SV32	
End Drilling / Milling	SV32-TSE-010	(4) ER11	1:1	SV-38R, ECAS-32T	Double ended
	SV32-TSE-207	(4) ER11	1:1	SV-38R, ECAS-32T	Double ended
Whirling	SV32-W20	(1) Utilis	1:1	SV-32	9 or 12 Insert, Adjustable ±20°, Flight circle Ø12mm

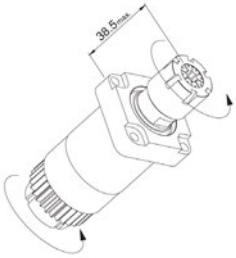
SR10J Machine Specific Tooling

Operation	Item No.	(#Tools)Size	Output	Machine	Other
Cross Drilling / Milling	SR10J-GSC-E11-2X	(2) ER11	1:1	SR10J	
	SR10J-GSC-E11-2X-DEC	(2) ER11	1:1	SR10J	
	SR10J-GSC-E08	(1) ER08	1:1	SR10J	
Hobbing	SR10J-GSH-035	(1) Ø3.5		SR10J	
	SR10J-GSH-035-II	(1) Ø3.5		SR10J	
	SR10J-GSH-050-II	(1) Ø5	1:1	SR10J	
Polygon Milling	SR10J-GSF-080-II	(1) Ø8		SR10J	
	SR10J-GSF-100-II	(1) Ø10		SR10J	
Tool Holder	SR10J-GSC-E11S	(1) ER11	1:1.666	SR10J	Replaces main block with fixed ER11 spindle plus quick change modular spindle.
	SR10J-GSC-E11AZ	(1) ER11	1:1.666	SR10J	Same as SR10J-GSC-E11S but spindle is 8.7mm set back and main block is 10mm longer.
	5510-000-139A	(1) ER11		SR10J	
Whirling	SR10J-GSW-010	(1) Utilis	1:1	SR10J	7 or 9 Insert, Adjustable ±10°, Flight circle Ø6mm

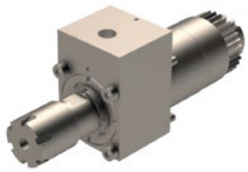
Gang Slide - All Machines



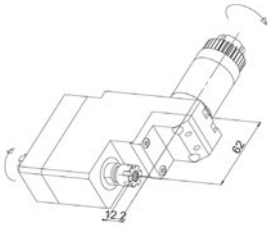
E20-GSC-3X
Cross Drill/Mill
Collet Size: ER11
Output: 1:2.59
High Speed
Double Ended



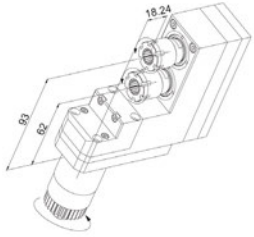
E20-GSC-110
Cross Drill/Mill
Collet Size: ER16
Output: 1:1



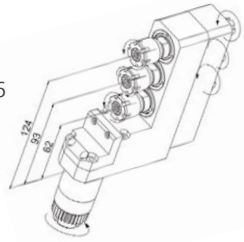
STA-SR20J-GSC-010-HP
Cross Drill/Mill
Collet Size: ER16
Output: 1:1
Coolant-Thru
2175psi Max



E20-DE-1111
End Drill/Mill
Collet Size: ER11
Output: 1:1
Double Ended



E20-GSE-210
End Drill/Mill
Collet Size: ER16
Output: 1:1



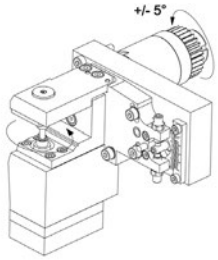
SR20J-GSE-3710
End Drill/Mill
Collet Size: ER11 ER16
Output: 1:1



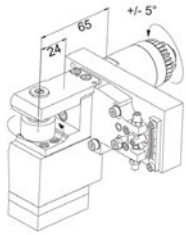
SR32J-GSE-3710
End Drill/Mill
Collet Size: ER11 ER16
Output: 1:1
Double Ended

Star Spindles & Attachments

Gang Slide - All Machines



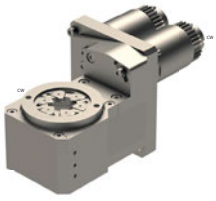
E20-RSH-035
Gear Hobbing
ID Size: Ø3.5mm
Output: 1:1
Adjustable ±5°



E20-RSH-080
Gear Hobbing
ID Size: Ø08mm
Output: 1:1
Adjustable ±5°



SR20RII-GSP-713
Polygon Milling
ID Size: Ø13mm
Output: 1:1
Max Tool Ø60mm
Max Thickness 8.3mm

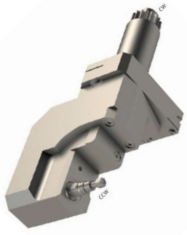


E20-W20
Thread Whirling
Ring: Utilis
Output: 1:1
9 or 12 Insert Cutter,
Flight Circle Ø6mm
Adjustable ±20°



SR20J-W20
Thread Whirling
Ring: Utilis
Output: 1:1
9 or 12 Insert Cutter,
Flight Circle Ø12mm
Adjustable ±20°

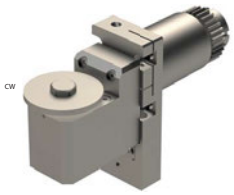
Gang Slide - Modular



SW12-GSH-045
Modular
Gear Hobbing
ID Size: Ø4.5mm
Output: 1:1
Adjustable +15°/-3°



SW12-GSH-080
Modular
Gear Hobbing
ID Size: Ø8mm
Output: 1:1
Adjustable +15°/-3°



SB-GSP-218
Modular
Polygon Milling
ID Size: Ø8mm
Output: 1:1
Adjustable ±10°



SW12-GSP-218
Modular
Polygon Milling
ID Size: Ø8mm
Output: 1:1
Adjustable ±10°



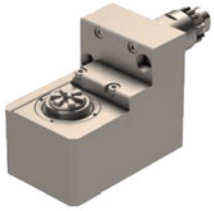
STAR2-GSW-210
Modular
Thread Whirling
Ring: Utilis
Output: 1:1
7 or 9 Insert Cutter,
Flight Circle Ø6mm
Adjustable ±10°

Star Spindles & Attachments

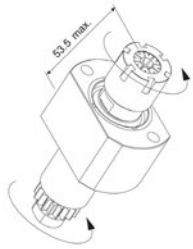
Sub Spindle



STA-SR20J-GSE-010-HP
Back Working
Collet Size: ER16
Output: 1:1
Coolant-Thru 2175psi Max

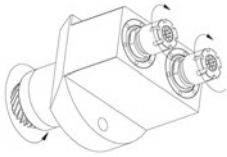


STA-SR20J-RSC-007
Back Working
Collet Size: ER11
Output: 1:1

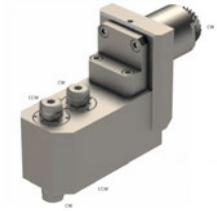


E20-GSE-110
End Drill/Mill
Collet Size: ER16
Output: 1:1

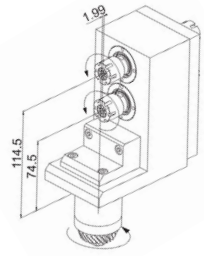
Turret - 20mm Machines



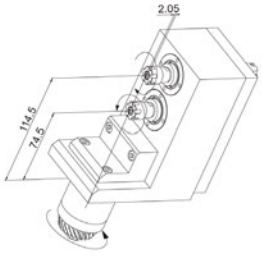
SV20-TSC-210
Cross Drill/Mill
Collet Size: ER11
Output: 1:4
High Speed
Double Ended



SV20-T2X2X4
End Drill/Mill
Collet Size: ER11
Output: 1:4
High Speed
Double Ended

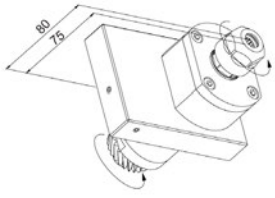


SV20-TSE-010
End Drill/Mill
Collet Size: ER16
Output: 1:1
Double Ended

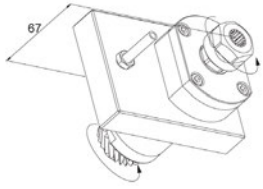


SV20-TSE-207
End Drill/Mill
Collet Size: ER11
Output: 1:1
Double Ended

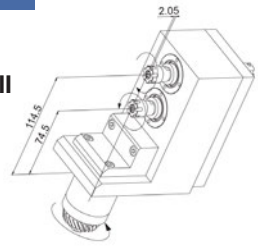
Turret - 32 & 38mm Machines



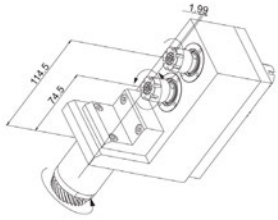
E20C-110-IK
Cross Drill/Mil
Collet Size: ER16
Output: 1:1



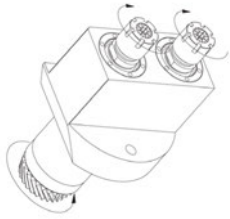
E20C-110-K
Cross Drill/Mill
Collet Size: ER16
Output: 1:1



SV32-TSE-207
End Drill/Mill
Collet Size: ER11
Output: 1:1
Double Ended



SV32-TSE-010
End Drill/Mill
Collet Size: ER11
Output: 1:1

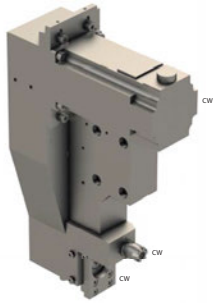


SV32-TSC-210
Cross Drill/Mill
Collet Size: ER16
Output: 1:1

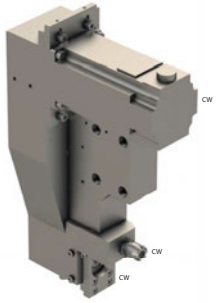


SV32-W20
Thread Whirling
Ring: Utilis
Output: 1:1
9 or 12 Insert Cutter,
Flight Circle Ø12mm
Adjustable ±20°

SR10J Specific Tooling



SR10J-GSC-E11S
Tool Holder
Collet Size: ER11
Output: 1:1.666
Replaces main block with fixed ER11 spindle plus an additional quick-change modular spindle support-ing various operations



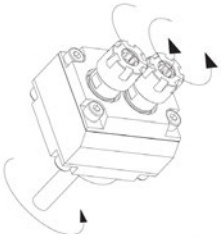
SR10J-GSC-E11AZ
Tool Holder
Collet Size: ER11
Output: 1:1.666
Same as SR10J-GSC-E11S but ER11 spindle is 8.7mm set back and main block 10mm longer



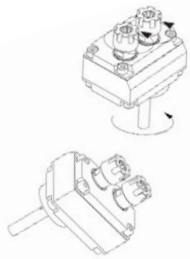
5510-000-139A
Tool Holder
Collet Size: ER11

NOTE: Installation Of SR10J-GSC-E11S or SR10J-GSC-E11AZ Requires A Certified STAR Technician

Modular Spindles Require SR10J-GSC-E11S or E11AZ



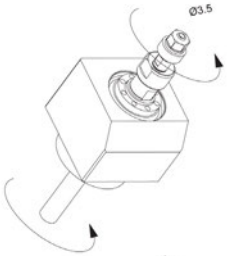
SR10J-GSC-E11-2X
Cross Drill/Mill
Collet Size: ER11
Output: 1:1
MODULAR HEAD



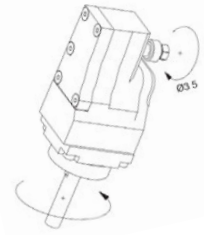
SR10J-GSC-E11-2X-DEC
Cross Drill/Mill
Collet Size: ER11
Output: 1:1
MODULAR HEAD



SR10J-GSC-E08
Cross Drill/Mill
Collet Size: ER08
Output: 1:1
MODULAR HEAD



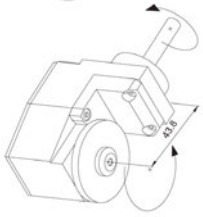
SR10J-GSH-035
Gear Hobbing
ID Size: Ø3.5mm
Output: 1:1
MODULAR HEAD



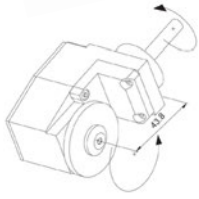
SR10J-GSH-035-II
Gear Hobbing
ID Size: Ø3.5mm
Output: 1:1
MODULAR HEAD



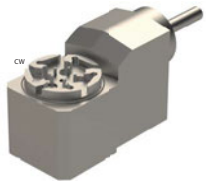
SR10J-GSH-050-II
Gear Hobbing
ID Size: Ø5mm
Output: 1:1
MODULAR HEAD



SR10J-GSF-080-II
Polygon Milling
ID Size: Ø08mm
Output: 1:1
MODULAR HEAD



SR10J-GSF-100-II
Polygon Milling
ID Size: Ø10mm
Output: 1:1
MODULAR HEAD



SR10J-GSW-010
Thread Whirling
Ring: Utilis
Output: 1:1
7 or 9 Insert Cutter,
Flight Circle Ø6mm
Adjustable ±10°
MODULAR HEAD

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Drill Size Chart

FRACT #SIZE	METRIC (mm)	DECIMAL INCHES
80	0.3429	0.0135
79	0.368	0.0145
(1/64)	0.3969	0.0156
78	0.4064	0.016
77	0.4572	0.018
	0.5	0.0197
76	0.508	0.02
75	0.5334	0.021
74	0.5715	0.0225
73	0.6096	0.024
72	0.635	0.025
71	0.6604	0.026
70	0.7712	0.028
69	0.7417	0.0292
	0.75	0.0295
68	0.7874	0.031
(1/32)	0.7938	0.0312
67	0.8128	0.032
66	0.8382	0.033
65	0.889	0.035
64	0.9144	0.036
63	0.9398	0.037
62	0.9652	0.038
61	0.9906	0.039
	1	0.0394
60	1.016	0.04
59	1.0414	0.041
58	1.0668	0.042
57	1.0922	0.043
56	1.1811	0.0465
(3/64)	1.1906	0.0469
	1.25	0.0492
55	1.3208	0.052
54	1.397	0.055
	1.5	0.0591
53	1.5113	0.0595
(1/16)	1.5875	0.0625
52	1.6129	0.0635
51	1.7018	0.067
	1.75	0.0689
50	1.778	0.07
49	1.8542	0.073
48	1.9304	0.076
(5/64)	1.9844	0.0781
47	1.9939	0.0785
	2	0.0787
46	2.0574	0.081
45	2.0828	0.082
44	2.144	0.086
	2.25	0.0886
43	2.2606	0.089
42	2.3749	0.0935
(3/32)	2.3813	0.0938
41	2.4384	0.096
40	2.4892	0.098
	2.5	0.0984
39	2.5273	0.0995
38	2.5781	0.1015
37	2.6416	0.104
36	2.7051	0.1065

LETTER FRACT #SIZE	METRIC (mm)	DECIMAL INCHES
	2.75	0.1083
(7/64)	2.7781	0.1094
35	2.794	0.11
34	2.8194	0.111
33	2.8702	0.113
32	2.9464	0.116
	3	0.1181
31	3.048	0.12
(1/8)	3.175	0.125
	3.25	0.128
30	3.2639	0.1285
29	3.4544	0.136
	3.5	0.1378
28	3.5687	0.1405
(9/64)	3.5719	0.1406
27	3.6576	0.144
26	3.7973	0.147
	3.75	0.1476
25	3.7973	0.1495
24	3.8608	0.152
23	3.9116	0.154
(5/32)	3.9688	0.1562
22	3.9878	0.157
	4	0.1575
21	4.0386	0.159
20	4.0894	0.161
19	4.2164	0.166
	4.25	0.1673
18	4.3053	0.1695
(11/64)	4.3656	0.1719
17	4.3942	0.173
16	4.4958	0.177
	4.5	0.1772
15	4.572	0.18
14	4.6228	0.182
13	4.699	0.185
	4.75	0.187
(3/16)	4.7625	0.1875
12	4.8006	0.189
11	4.8514	0.191
10	4.9149	0.1935
9	4.9874	0.196
	5	0.1969
8	4.0546	0.199
7	5.1054	0.201
(13/64)	5.1594	0.2031
6	5.1816	0.204
5	5.2197	0.2055
	5.25	0.2067
4	5.3086	0.209
3	5.4102	0.213
	5.5	0.2165
(7/32)	5.5563	0.2188
2	5.6134	0.221
	5.75	0.2264
1	5.7912	0.228
A	5.9436	0.234
(15/64)	5.9531	0.2344
	6	0.2362
B	6.0452	0.238

LETTER/ FRACT SIZE	METRIC (mm)	DECI-MAL INCHES
C	6.1468	0.242
D	6.2484	0.246
	6.25	0.2461
E (1/4)	6.35	0.25
	6.5	0.2559
F	6.5278	0.257
G	6.6294	0.261
(17/64)	6.7469	0.2656
	6.75	0.2657
H	6.7564	0.266
I	6.9088	0.272
	7	0.2756
J	7.0358	0.277
K	7.1374	0.281
(9/32)	7.1438	0.2812
	7.25	0.2854
L	7.366	0.29
M	7.493	0.295
	7.5	0.2953
(19/64)	7.5406	0.2969
N	7.6708	0.302
	7.75	0.3051
(5/16)	7.9375	0.3125
	8	0.315
O	8.0264	0.316
P	8.2042	0.323
	8.25	0.3248
(21/64)	8.3344	0.3281
Q	8.4328	0.332
	8.5	0.3346
R	8.6106	0.339
(11/32)	8.7316	0.3438
	8.75	0.3445
S	8.8392	0.348
	9	0.3543
T	9.0932	0.358
(23/64)	9.1281	0.3594
	9.25	0.3642
U	9.3472	0.368
	9.5	0.374
(3/8)	9.525	0.375
V	9.5758	0.377
	9.75	0.3839
W	9.8044	0.386
(25/64)	9.9219	0.3906
	10	0.3937
X	10.0838	0.397
Y	10.2616	0.404
(13/32)	10.3188	0.4063
Z	10.4902	0.413
	10.5	0.4134
(27/64)	10.7156	0.4219
	11	0.4331
(7/16)	11.1125	0.4375
	11.5	0.4528
(29/64)	11.5094	0.4531
(15/32)	11.9063	0.4688
	12	0.4724
(31/64)	12.3031	0.4844
	12.5	0.4921

FRACT SIZE	METRIC (mm)	DECIMAL INCHES
(1/2)	12.7	0.5
	13	0.5118
(33/64)	13.0969	0.5156
(17/32)	13.4938	0.5312
	13.5	0.5315
(35/64)	13.8906	0.5469
	14	0.5512
(9/16)	14.2875	0.5625
	14.5	0.5709
(37/64)	14.6844	0.5781
	15	0.5906
(19/32)	15.0813	0.5938
(39/64)	15.4781	0.6094
	15.5	0.6102
(5/8)	15.875	0.625
	16	0.6299
(41/64)	16.2719	0.6406
	16.5	0.6496
(21/32)	16.6687	0.6562
	17	0.6693
(43/64)	17.0656	0.6719
(11/16)	17.4625	0.6875
	17.5	0.689
(45/64)	17.8594	0.7031
	18	0.7087
(23/32)	18.2563	0.7188
	18.5	0.7283
(47/64)	18.6531	0.7344
	19	0.748
(3/4)	19.05	0.75
(49/64)	19.4469	0.7656
	19.5	0.7677
(25/32)	19.8438	0.7813
	20	0.7874
51/64	20.2406	0.7969
	20.5	0.8071
(13/16)	20.6375	0.8125
	21	0.8268
(53/64)	21.0344	0.8281
(27/32)	21.4313	0.8438
	21.5	0.8465
(55/64)	21.8281	0.8594
	22	0.8661
(7/8)	22.225	0.875
	22.5	0.8858
(57/64)	22.6219	0.8906
	23	0.9055
(29/32)	23.0188	0.9062
(21/23)	23.1913	0.913
(59/64)	23.4156	0.9219
	23.5	0.9252
(15/16)	23.8125	0.9375
	24	0.9449
(61/64)	24.2094	0.9531
	24.5	0.9646
(31/32)	24.6063	0.9688
	25	0.9843
(63/64)	25.0031	0.9844
1	25.4	1

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