

CY CARBIDE MFG. CO., LTD.



CYC[®]

CY CARBIDE MFG. CO., LTD.

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Metalworking Applications

24REV3



▶ South of Kunshan - Hard materials factory

◀ Fuzhou, Jiangxi - RTP factory

▶ Changshu, Jiangsu - Inserts factory

▲ North of Kunshan - Headquarter



ISO9001:2015

About Us

CY CARBIDE MFG. CO., LTD., Established in 2003, is a professional manufacturer and exporter of high performance tungsten carbide products, RTP powders and CERMET materials. CYC delivers globally a high performance standard and special products offering, that meet the most challenging demands from industry sectors including...metalworking, mining, construction, oil & gas, die & mold, and woodworking.

CYC has two production sites which located in Kunshan city, 50km away from Shanghai, together with the Jiangxi raw material production and Changshu inserts production, consist of production, laboratories and R&D facilities. 800+ skilled employees, including tooling and material grade design engineering on site.

CYC High performance products are guaranteed by a strong process management system, resulting in consistent quality for every batch and product. Strict control of our raw material supply chains and 100% traceability for every product batch throughout the entire manufacturing process. A philosophy of continuous improvements within every process is a core principle in our ways of working. CYC is an ISO 9001:2015(TUV), ISO 14001:2015, ISO 50001:2018 and ISO 45001:2018 certified business.

CYC Adheres to responsible and sustainable business practices, including conflict free raw material sourcing, proactive health management for our employees, and continuous concern about the environmental impacts of our business. Our open and transparent business philosophy allows our customers, employees, and external suppliers, to have confidence in our business, ways of working, and our products.

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Manufacturing Process

01 Grade Design



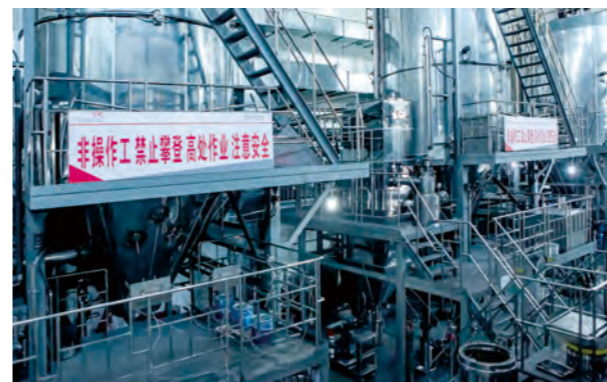
CYC grades are designed upon application. Our process start with powder mixing. Raw materials includes WC, Co and other elements.

02 RTP Ball milling



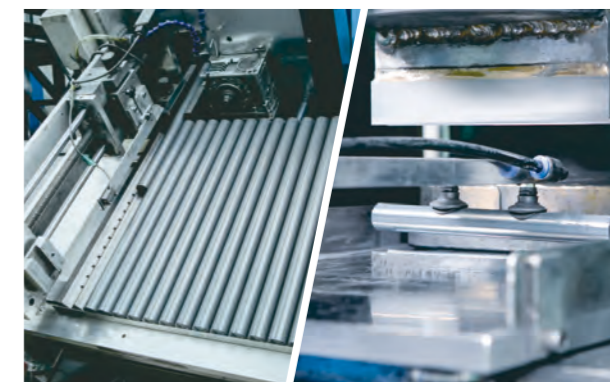
Wide variety of CYC designed grades from superfine to coarse grain size are available. Grades with different grain size are ball-milled, sieved, granulated in separated systems to avoid grain contamination.

03 Spray Drying



Spray drying process makes the powder into superior homogeneous particle sizes with good flowability and as a result, the dimension variation on sintered blank is much smaller.

04 Extrusion / Direct Pressing



The rods with coolant holes, including straight and helical types, are formed by extrusion pressing. Our automatic extrusion systems and technical know-how helps to achieve consistent geometries. For standard fixed length solid rods, it can also be formed by automatic direct pressing, which is with high efficiency.

05.1 Preforming



Turning, milling, drilling, cutting can be applied on green blanks in order to pre-form the part to net shape according to customer's drawing, which can greatly enhance customer's productivity for special and complicated tools.

05.2 Drying Process



This process removes the plasticizer in the rod blanks using a vacuum drying furnace.

06 Sintering



Green blanks are sintered at temperature around 1400 °C (cobalt melting) to become super hard and tough. CY utilizes HIP (hot isostatic pressure) sintering furnace which gives carbide maximum toughness to meet the most critical working applications.

07 Machining



Most of the rod blanks need to be centerless ground, to achieve precision tolerances h6/h5. In addition, length cutting, chamfer, slot, cylindrical grinding service can be offered upon customer request.

08 Inspection



The key properties are monitored from raw material, RTP and raw sintered parts in our laboratory for quality and performance guarantee. Diameter, roundness, run-out, roughness, pitch, TK, concentricity, inspection will be done before the parts are shipped to the customer.

Our Capabilities

Over 20 years of experience doing R&D and manufacturing carbide, CYC has built a dedicated team consisting global experts in technical and commercial areas who always stand behind our customers.



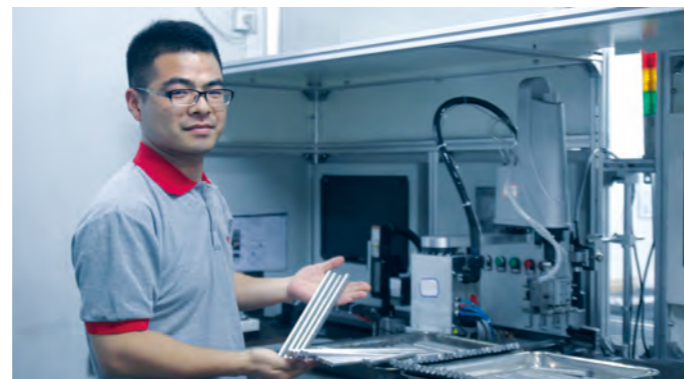
QUALITY

Carbide consistent quality has to be the top priority.



CONSISTENCY

Our manufacturing process is operating fully in compliance with ISO9001:2015 (TUV). Consistency and traceability is the promise we keep to our customers .



EXPERTISE

The mission of meeting and exceeding customer's expectations is ongoing. CYC has a wide range of capabilities to provide more high value services.

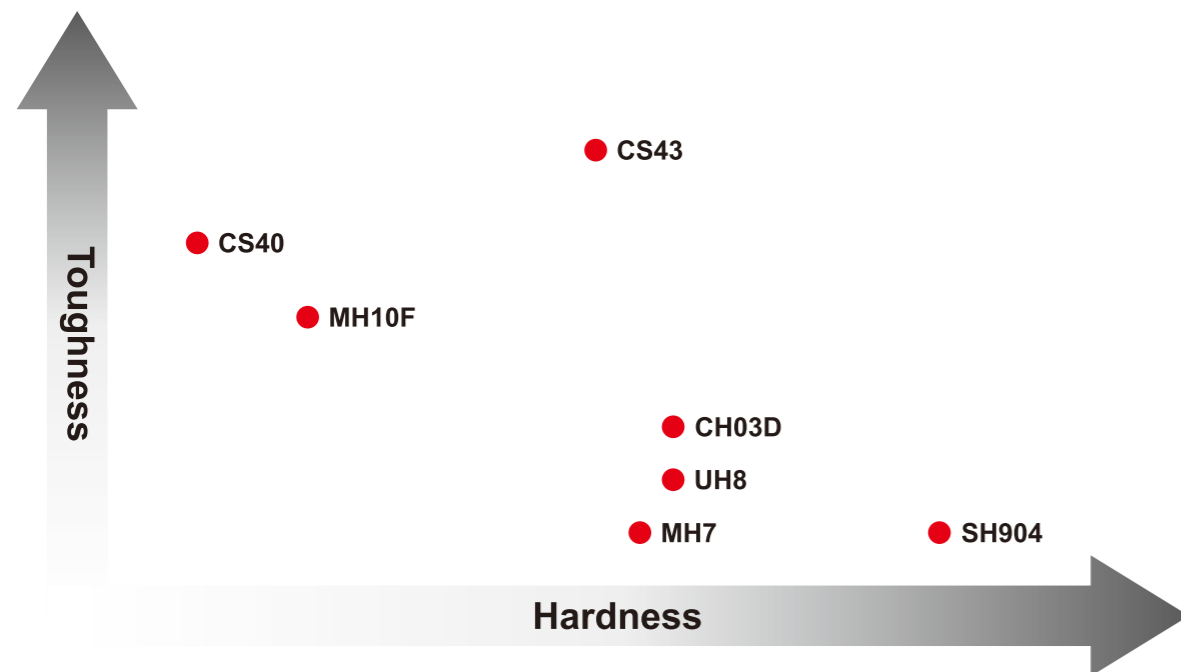
1. Grade design for specific applications
2. Geometry design for specific jobs
3. Issuing of 2D/3D drawings
4. Hard machining service includes
 - Centerless Grinding
 - Length Cutting
 - Chamfer Grinding
 - Internal Grinding
 - CNC Cylindrical Grinding
 - Plain Surface Grinding
 - Wire EDM/ Laser Marking



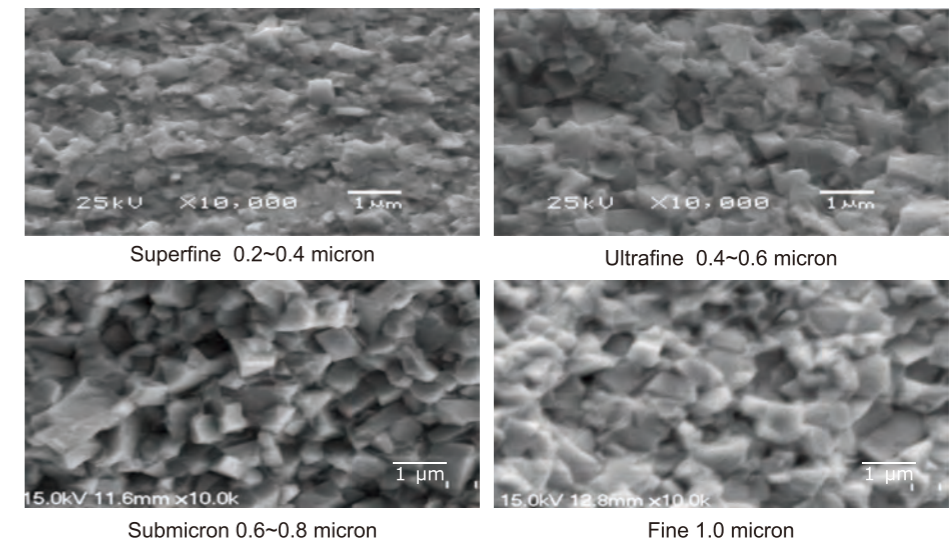
Grade Chart Of Carbide Rods

Grades	Binder %	Hardness		T.R.S	Density	K _{IC}	Grain Size	ISO Code	Application
		HRA	HV10	≥N/mm ²	g/cm ³	MPa*m ^{1/2}			
MH10F	10	91.8	1600	3800	14.45	11.0	Submicron	K30	An excellent universal grade to cover most of the cutting applications for materials of ISO P, M, K, N.
CS43	12	92.5	1720	4500	14.20	11.0	Ultrafine	K40	High toughness, high wear resistance, fit for ISO P, M, S, H. finishing.
CS40	12	91.5	1560	4000	14.15	13.0	Submicron	K40	Fit for roughing and machining under extreme conditions/environments.
SH904	9	94.0	2040	4000	14.45	8.5	Superfine	K30	Made of superfine grain size 0.3~0.4 μm, high wear resistance and impact strength for meeting the most critical cutting challenges in composite materials including CFRP, graphite and hardened steels > 60 HRC.
UH8	8	93.2	1860	3300	14.60	9.0	Ultrafine	K20	Ultrafine carbide grade with high hardness suitable for machining hardened materials (50-60HRC) and high performance machining of non-ferrous metals such as aluminum.
MH7	6	93.1	1850	3600	14.85	8.5	Submicron	K10	A grade with high wear resistance for machining aluminum alloys, graphite, composite materials. Suitable for diamond coating.
CH03D	3	93.2	1860	1800	15.25	9.5	Fine	K05	High performance grade for diamond coated tools, which is used for machining graphite, composite materials, CFRP.

● Above data are typical parameters.



Microstructure SEM 10,000 X



Application Recommendation

D: Diamond coating needed

Cutting Style		MH10F	CS43	CS40*	SH904	UH8	MH7	CH03D
Milling	Drilling	✓						
	Roughing	✓		✓				
	Finishing	✓	✓		✓	✓	✓ _D	✓ _D
Reaming						✓	✓	
Hobbing		✓	✓			✓		

ISO Workpiece Material	Typical Materials	MH10F	CS43	CS40*	SH904	UH8	MH7	CH03D
P	Carbon Steel	★	★	☆				
	Alloy Steel (HRC<45)	★	★	☆				
M	Stainless Steel	★	★					
K	Cast Iron	★				☆	★	
S	Titanium Alloy	☆	★	★				
	Nickel Base Alloy	☆	☆	☆				
H	Tempered steel (HRC50-58)		★		☆	★		
	Hardened Steel (HRC>58)				★	☆		
N	Aluminum Alloys	★				★	☆	
Others	Graphite				★	★	★ _D	★ _D
	Composite Material				★	★	★ _D	★ _D
Diamond Coating							★ _D	★ _D

● CS40* Recommended Grade for Roughing, and machining under Extreme conditions/environments.

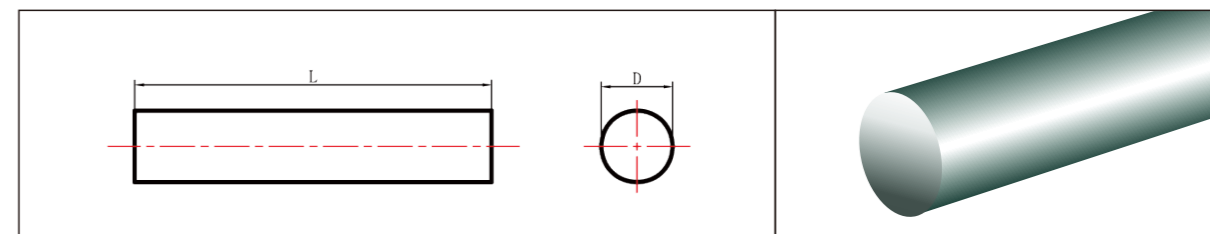
★ First Choice ☆ Second Choice



Engineered Solutions for Demanding Applications



Precision Ground Rod, Random Lengths



Type: RSM
Metric Sizes 1mm to 16mm Diameter
h6 tolerance

Item No.	OD (mm)	Tol. h6 (mm)	L (mm)	Tol. (mm)
RSM-0100-3300PG	1	0/-0.006	330	0/+5
RSM-0150-3300PG	1.5	0/-0.006	330	0/+5
RSM-0200-3300PG	2	0/-0.006	330	0/+5
RSM-0300-3300PG	3	0/-0.006	330	0/+5
RSM-0400-3300PG	4	0/-0.008	330	0/+5
RSM-0500-3300PG	5	0/-0.008	330	0/+5
RSM-0600-3300PG	6	0/-0.008	330	0/+5
RSM-0700-3300PG	7	0/-0.009	330	0/+5
RSM-0800-3300PG	8	0/-0.009	330	0/+5
RSM-0900-3300PG	9	0/-0.009	330	0/+5
RSM-1000-3300PG	10	0/-0.009	330	0/+5
RSM-1100-3300PG	11	0/-0.011	330	0/+5
RSM-1200-3300PG	12	0/-0.011	330	0/+5
RSM-1300-3300PG	13	0/-0.011	330	0/+5
RSM-1400-3300PG	14	0/-0.011	330	0/+5
RSM-1500-3300PG	15	0/-0.011	330	0/+5
RSM-1600-3300PG	16	0/-0.011	330	0/+5

● Above data are typical parameters.

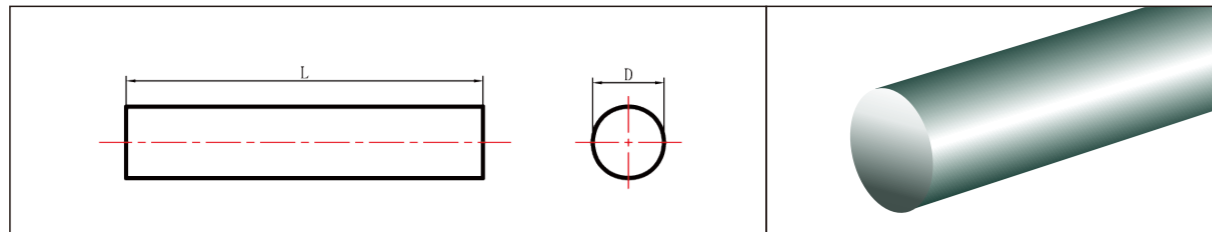
Available Grade

MH10F	UH8	MH7	SH904	CS40	CS43
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

● Please contact with us for more specifications.

■ In Stock □ Check inventory

Precision Ground Rod, Random Lengths



Type: RSM
Metric Sizes 17mm to 40mm Diameter
h6 tolerance

Item No.	OD (mm)	Tol. h6 (mm)	L (mm)	Tol. (mm)
RSM-1700-3300PG	17	0/-0.011	330	0/+5
RSM-1800-3300PG	18	0/-0.011	330	0/+5
RSM-1900-3300PG	19	0/-0.013	330	0/+5
RSM-2000-3300PG	20	0/-0.013	330	0/+5
RSM-2100-3300PG	21	0/-0.013	330	0/+5
RSM-2200-3300PG	22	0/-0.013	330	0/+5
RSM-2300-3300PG	23	0/-0.013	330	0/+5
RSM-2400-3300PG	24	0/-0.013	330	0/+5
RSM-2500-3300PG	25	0/-0.013	330	0/+5
RSM-2600-3300PG	26	0/-0.013	330	0/+5
RSM-2700-3300PG	27	0/-0.013	330	0/+5
RSM-2800-3300PG	28	0/-0.013	330	0/+5
RSM-2900-3300PG	29	0/-0.013	330	0/+5
RSM-3000-3300PG	30	0/-0.013	330	0/+5
RSM-3200-3300PG	32	0/-0.016	330	0/+5
RSM-3400-3300PG	34	0/-0.016	330	0/+5
RSM-3600-3300PG	36	0/-0.016	330	0/+5
RSM-3800-3300PG	38	0/-0.016	330	0/+5
RSM-4000-3300PG	40	0/-0.016	330	0/+5

● Above data are typical parameters.

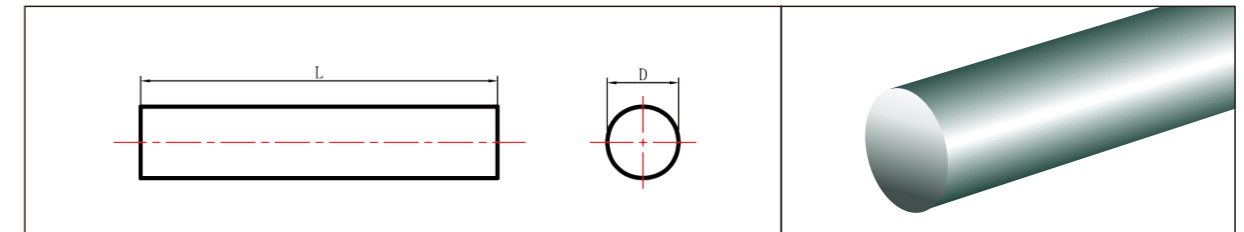
Available Grade

MH10F	UH8	MH7	SH904	CS40	CS43
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

● Please contact with us for more specifications.

■ In Stock □ Check inventory

Unground Rod, Random Lengths



Type: RSM
Metric Sizes 1mm to 16mm Diameter

Item No.	OD (mm)	Tol. (mm)	L (mm)	Tol. (mm)
RSM-0120-3300UG	1.2	+0.05/+0.3	330	0/+5
RSM-0170-3300UG	1.7	+0.05/+0.3	330	0/+5
RSM-0220-3300UG	2.2	+0.05/+0.3	330	0/+5
RSM-0320-3300UG	3.2	+0.05/+0.3	330	0/+5
RSM-0420-3300UG	4.2	+0.05/+0.3	330	0/+5
RSM-0520-3300UG	5.2	+0.05/+0.3	330	0/+5
RSM-0620-3300UG	6.2	+0.05/+0.3	330	0/+5
RSM-0720-3300UG	7.2	+0.05/+0.3	330	0/+5
RSM-0820-3300UG	8.2	+0.05/+0.3	330	0/+5
RSM-0920-3300UG	9.2	+0.05/+0.3	330	0/+5
RSM-1020-3300UG	10.2	+0.05/+0.3	330	0/+5
RSM-1120-3300UG	11.2	+0.05/+0.3	330	0/+5
RSM-1220-3300UG	12.2	+0.05/+0.3	330	0/+5
RSM-1320-3300UG	13.2	+0.05/+0.3	330	0/+5
RSM-1420-3300UG	14.2	+0.05/+0.3	330	0/+5
RSM-1520-3300UG	15.2	+0.05/+0.3	330	0/+5
RSM-1620-3300UG	16.2	+0.05/+0.3	330	0/+5

● Above data are typical parameters.

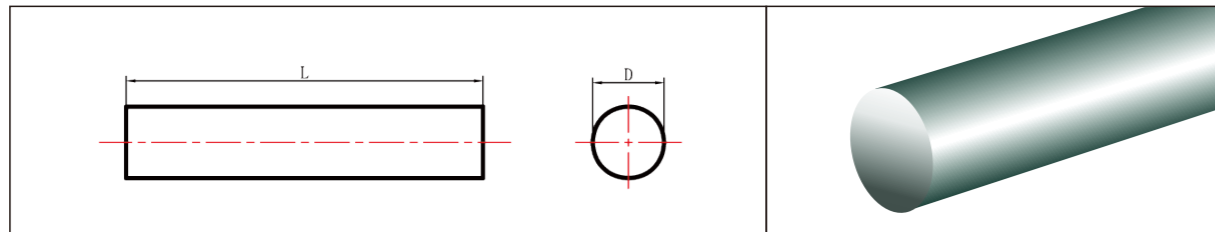
Available Grade

MH10F	UH8	MH7	SH904	CS40	CS43
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

● Please contact with us for more specifications.

■ In Stock □ Check inventory

Unground Rod, Random Lengths



Type: RSM
Metric Sizes 17mm to 40mm Diameter

Item No.	OD (mm)	Tol. (mm)	L (mm)	Tol. (mm)
RSM-1720-3300UG	17.2	+0.05/+0.4	330	0/+5
RSM-1820-3300UG	18.2	+0.05/+0.4	330	0/+5
RSM-1920-3300UG	19.2	+0.05/+0.4	330	0/+5
RSM-2020-3300UG	20.2	+0.05/+0.4	330	0/+5
RSM-2120-3300UG	21.2	+0.05/+0.5	330	0/+5
RSM-2220-3300UG	22.2	+0.05/+0.5	330	0/+5
RSM-2320-3300UG	23.2	+0.05/+0.5	330	0/+5
RSM-2420-3300UG	24.2	+0.05/+0.5	330	0/+5
RSM-2520-3300UG	25.2	+0.05/+0.5	330	0/+5
RSM-2620-3300UG	26.2	+0.05/+0.5	330	0/+5
RSM-2720-3300UG	27.2	+0.05/+0.5	330	0/+5
RSM-2820-3300UG	28.2	+0.05/+0.5	330	0/+5
RSM-2920-3300UG	29.2	+0.05/+0.5	330	0/+5
RSM-3020-3300UG	30.2	+0.05/+0.5	330	0/+5
RSM-3220-3300UG	32.2	+0.05/+0.6	330	0/+5
RSM-3420-3300UG	34.2	+0.05/+0.6	330	0/+5
RSM-3620-3300UG	36.2	+0.05/+0.6	330	0/+5
RSM-3820-3300UG	38.2	+0.05/+0.6	330	0/+5
RSM-4020-3300UG	40.2	+0.05/+0.7	330	0/+5

● Above data are typical parameters.

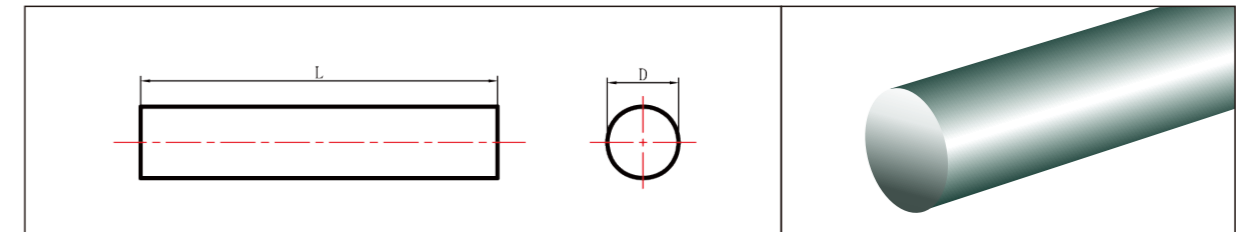
Available Grade

MH10F	UH8	MH7	SH904	CS40	CS43
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

● Please contact with us for more specifications.

In Stock Check inventory

Precision Ground Rod, Random Lengths



Type: RSI
Inch Sizes 1/8" to 1-1/4" Diameter
h6 tolerance

Item No.	OD (inch)	Tol. h6 (inch)	L (inch)	Tol. (inch)	
RSI-01250-1300DG	0.125	1/8	0/-0.00031	13	0/+0.25
RSI-01406-1300DG	0.140625	9/64	0/-0.00031	13	0/+0.25
RSI-01563-1300DG	0.15625	5/32	0/-0.00031	13	0/+0.25
RSI-01719-1300DG	0.171875	11/64	0/-0.00031	13	0/+0.25
RSI-01875-1300DG	0.1875	3/16	0/-0.00031	13	0/+0.25
RSI-02031-1300DG	0.203125	13/64	0/-0.00031	13	0/+0.25
RSI-02188-1300DG	0.21875	7/32	0/-0.00031	13	0/+0.25
RSI-02500-1300DG	0.25	1/4	0/-0.00035	13	0/+0.25
RSI-03125-1300DG	0.3125	5/16	0/-0.00035	13	0/+0.25
RSI-03750-1300DG	0.375	3/8	0/-0.00035	13	0/+0.25
RSI-04375-1300DG	0.4375	7/16	0/-0.00043	13	0/+0.25
RSI-04688-1300DG	0.46875	15/32	0/-0.00043	13	0/+0.25
RSI-05000-1300DG	0.5	1/2	0/-0.00043	13	0/+0.25
RSI-05625-1300DG	0.5625	9/16	0/-0.00043	13	0/+0.25
RSI-06250-1300DG	0.625	5/8	0/-0.00043	13	0/+0.25
RSI-07500-1300DG	0.75	3/4	0/-0.00051	13	0/+0.25
RSI-08750-1300DG	0.875	7/8	0/-0.00051	13	0/+0.25
RSI-10000-1300DG	1	1	0/-0.00051	13	0/+0.25
RSI-11250-1300DG	1.125	1 1/8	0/-0.00051	13	0/+0.25
RSI-12500-1300DG	1.25	1 1/4	0/-0.00063	13	0/+0.25

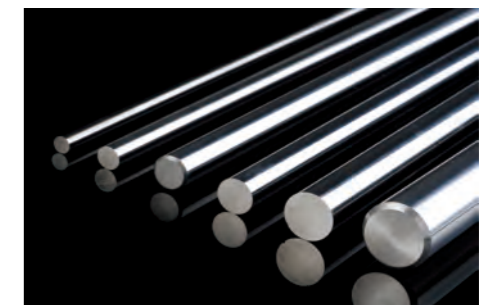
● Above data are typical parameters.

Available Grade

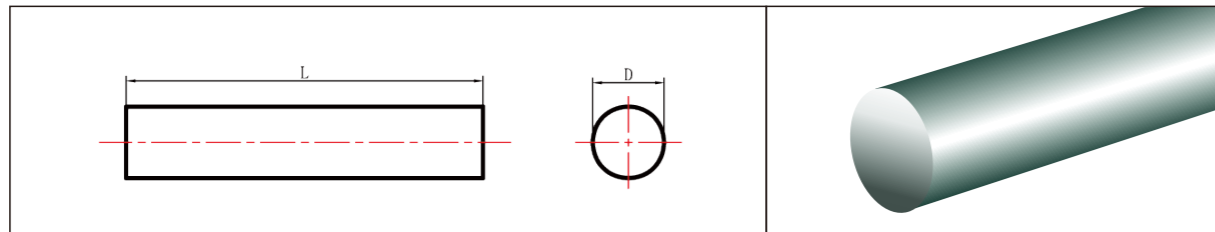
MH10F	UH8	MH7	SH904	CS40	CS43
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

● Please contact with us for more specifications.

In Stock Check inventory



Unground Rod, Random Lengths



Type: RSI
Inch Sizes 1/16" to 11/32" Diameter

Item No.	OD		Tol.	L	Tol.
	(inch)		(inch)		(inch)
RSI-00625-1300UG	0.0625	1/16	+0.012/+0.02	13	0/+0.25
RSI-00781-1300UG	0.078125	5/64	+0.012/+0.02	13	0/+0.25
RSI-00938-1300UG	0.09375	3/32	+0.012/+0.02	13	0/+0.25
RSI-01094-1300UG	0.109375	7/64	+0.012/+0.02	13	0/+0.25
RSI-01250-1300UG	0.125	1/8	+0.012/+0.02	13	0/+0.25
RSI-01406-1300UG	0.140625	9/64	+0.012/+0.02	13	0/+0.25
RSI-01563-1300UG	0.15625	5/32	+0.012/+0.02	13	0/+0.25
RSI-01719-1300UG	0.171875	11/64	+0.012/+0.02	13	0/+0.25
RSI-01875-1300UG	0.1875	3/16	+0.012/+0.02	13	0/+0.25
RSI-02031-1300UG	0.203125	13/64	+0.012/+0.02	13	0/+0.25
RSI-02188-1300UG	0.21875	7/32	+0.012/+0.02	13	0/+0.25
RSI-02344-1300UG	0.234375	15/64	+0.012/+0.02	13	0/+0.25
RSI-02500-1300UG	0.25	1/4	+0.012/+0.02	13	0/+0.25
RSI-02656-1300UG	0.265625	17/64	+0.012/+0.02	13	0/+0.25
RSI-02813-1300UG	0.28125	9/32	+0.012/+0.02	13	0/+0.25
RSI-02969-1300UG	0.296875	19/64	+0.012/+0.02	13	0/+0.25
RSI-03125-1300UG	0.3125	5/16	+0.012/+0.02	13	0/+0.25
RSI-03281-1300UG	0.328125	21/64	+0.012/+0.02	13	0/+0.25
RSI-03438-1300UG	0.34375	11/32	+0.012/+0.02	13	0/+0.25

● Above data are typical parameters.

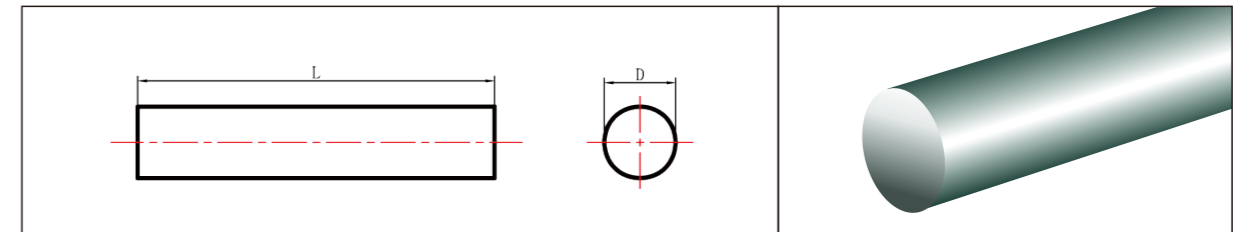
Available Grade

MH10F	UH8	MH7	SH904	CS40	CS43
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

● Please contact with us for more specifications.

■ In Stock □ Check inventory

Unground Rod, Random Lengths



Type: RSI
Inch Sizes 23/64" to 1" Diameter

Item No.	OD		Tol.	L	Tol.
	(inch)		(inch)		(inch)
RSI-03594-1300UG	0.359375	23/64	+0.012/+0.02	13	0/+0.25
RSI-03750-1300UG	0.375	3/8	+0.012/+0.02	13	0/+0.25
RSI-03906-1300UG	0.390625	25/64	+0.012/+0.02	13	0/+0.25
RSI-04063-1300UG	0.40625	13/32	+0.012/+0.02	13	0/+0.25
RSI-04219-1300UG	0.421875	27/64	+0.012/+0.02	13	0/+0.25
RSI-04375-1300UG	0.4375	7/16	+0.012/+0.02	13	0/+0.25
RSI-04531-1300UG	0.453125	29/64	+0.012/+0.02	13	0/+0.25
RSI-04688-1300UG	0.46875	15/32	+0.012/+0.02	13	0/+0.25
RSI-04844-1300UG	0.484375	31/64	+0.012/+0.02	13	0/+0.25
RSI-05000-1300UG	0.5	1/2	+0.012/+0.02	13	0/+0.25
RSI-05313-1300UG	0.53125	17/32	+0.012/+0.02	13	0/+0.25
RSI-05625-1300UG	0.5625	9/16	+0.012/+0.02	13	0/+0.25
RSI-06250-1300UG	0.625	5/8	+0.012/+0.02	13	0/+0.25
RSI-06875-1300UG	0.6875	11/16	+0.012/+0.02	13	0/+0.25
RSI-07500-1300UG	0.75	3/4	+0.012/+0.02	13	0/+0.25
RSI-08125-1300UG	0.8125	13/16	+0.012/+0.02	13	0/+0.25
RSI-08750-1300UG	0.875	7/8	+0.012/+0.02	13	0/+0.25
RSI-10000-1300UG	1	1	+0.012/+0.02	13	0/+0.25

● Above data are typical parameters.

Available Grade

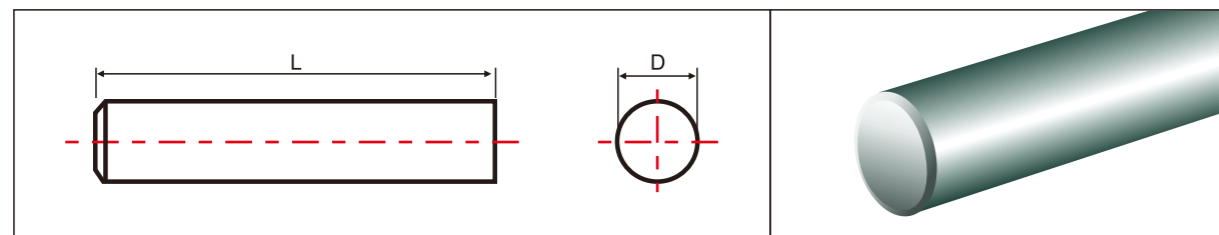
MH10F	UH8	MH7	SH904	CS40	CS43
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

● Please contact with us for more specifications.

■ In Stock □ Check inventory



Precision Ground Rod, Cut to Length, With Chamfer



Type: RSFM
Metric Sizes 3mm to 10mm Diameter
h6 tolerance

Item No.	OD (mm)	Tol. h6 (mm)	L (mm)	Tol. (mm)	c (mm)
RSFM-0300-0390PG	3	0/-0.006	39	0/+0.5	0.3
RSFM-0300-0400PG	3	0/-0.006	40	0/+0.5	0.3
RSFM-0300-0500PG	3	0/-0.006	50	0/+0.5	0.3
RSFM-0400-0500PG	4	0/-0.008	50	0/+0.5	0.4
RSFM-0400-0510PG	4	0/-0.008	51	0/+0.5	0.4
RSFM-0400-0750PG	4	0/-0.008	75	0/+0.8	0.4
RSFM-0500-0510PG	5	0/-0.008	51	0/+0.5	0.4
RSFM-0500-0550PG	5	0/-0.008	55	0/+0.6	0.4
RSFM-0600-0500PG	6	0/-0.008	50	0/+0.5	0.6
RSFM-0600-0510PG	6	0/-0.008	51	0/+0.5	0.6
RSFM-0600-0550PG	6	0/-0.008	55	0/+0.6	0.6
RSFM-0600-0570PG	6	0/-0.008	57	0/+0.6	0.6
RSFM-0600-0580PG	6	0/-0.008	58	0/+0.6	0.6
RSFM-0600-0600PG	6	0/-0.008	60	0/+0.6	0.6
RSFM-0600-0630PG	6	0/-0.008	63	0/+0.6	0.6
RSFM-0600-0700PG	6	0/-0.008	70	0/+0.7	0.6
RSFM-0600-0750PG	6	0/-0.008	75	0/+0.8	0.6
RSFM-0600-0800PG	6	0/-0.008	80	0/+0.8	0.6
RSFM-0600-1000PG	6	0/-0.008	100	0/+1.0	0.6
RSFM-0600-0640PG	6	0/-0.008	64	0/+0.6	0.6
RSFM-0800-0590PG	8	0/-0.009	59	0/+0.6	0.6
RSFM-0800-0630PG	8	0/-0.009	63	0/+0.6	0.6
RSFM-0800-0640PG	8	0/-0.009	64	0/+0.6	0.6
RSFM-0800-0750PG	8	0/-0.009	75	0/+0.8	0.6
RSFM-0800-0800PG	8	0/-0.009	80	0/+0.8	0.6
RSFM-0800-0900PG	8	0/-0.009	90	0/+0.9	0.6
RSFM-0800-1000PG	8	0/-0.009	100	0/+1.0	0.6
RSFM-1000-0670PG	10	0/-0.009	67	0/+0.7	0.6
RSFM-1000-0700PG	10	0/-0.009	70	0/+0.7	0.6

● Above data are typical parameters.

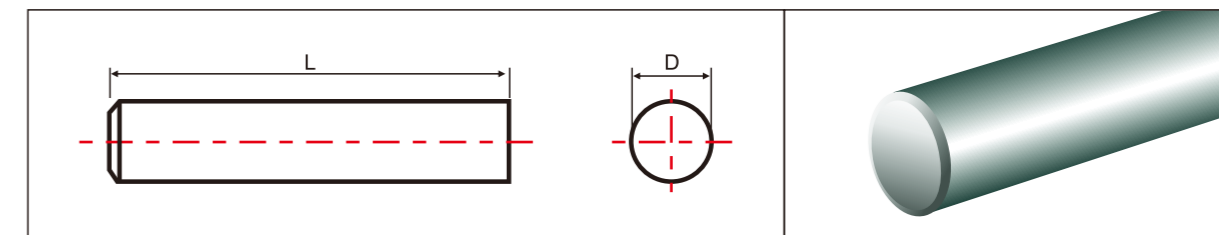
Available Grade

MH10F	UH8	CH03D	MH7	SH904	CS40	CS43
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

● Please contact with us for more specifications.

■ In Stock □ Check inventory

Precision Ground Rod, Cut to Length, With Chamfer



Type: RSFM
Metric Sizes 10mm to 25mm Diameter
h6 tolerance

Item No.	OD (mm)	Tol. h6 (mm)	L (mm)	Tol. (mm)	c (mm)
RSFM-1000-0720PG	10	0/-0.009	72	0/+0.7	0.6
RSFM-1000-0730PG	10	0/-0.009	73	0/+0.7	0.6
RSFM-1000-0750PG	10	0/-0.009	75	0/+0.8	0.6
RSFM-1000-0900PG	10	0/-0.009	90	0/+0.9	0.6
RSFM-1000-1000PG	10	0/-0.009	100	0/+1.0	0.6
RSFM-1200-0740PG	12	0/-0.011	74	0/+0.7	0.8
RSFM-1200-0750PG	12	0/-0.011	75	0/+0.8	0.8
RSFM-1200-0830PG	12	0/-0.011	83	0/+0.8	0.8
RSFM-1200-0840PG	12	0/-0.011	84	0/+0.8	0.8
RSFM-1200-1000PG	12	0/-0.011	100	0/+1.0	0.8
RSFM-1200-1200PG	12	0/-0.011	120	0/+1.2	0.8
RSFM-1400-0760PG	14	0/-0.011	76	0/+0.8	0.8
RSFM-1400-0830PG	14	0/-0.011	83	0/+0.8	0.8
RSFM-1400-0840PG	14	0/-0.011	84	0/+0.8	0.8
RSFM-1400-0890PG	14	0/-0.011	89	0/+0.9	0.8
RSFM-1600-0830PG	16	0/-0.011	83	0/+0.8	0.8
RSFM-1600-0920PG	16	0/-0.011	92	0/+0.9	0.8
RSFM-1600-0930PG	16	0/-0.011	93	0/+0.9	0.8
RSFM-1600-1000PG	16	0/-0.011	100	0/+1.0	0.8
RSFM-1600-1300PG	16	0/-0.011	130	0/+1.3	0.8
RSFM-1800-0850PG	18	0/-0.011	85	0/+0.9	1
RSFM-1800-0930PG	18	0/-0.011	93	0/+0.9	1
RSFM-2000-0930PG	20	0/-0.013	93	0/+0.9	1
RSFM-2000-1000PG	20	0/-0.013	100	0/+1.0	1
RSFM-2000-1050PG	20	0/-0.013	105	0/+1.0	1
RSFM-2000-1250PG	20	0/-0.013	125	0/+1.3	1
RSFM-2000-1500PG	20	0/-0.013	150	0/+1.5	1
RSFM-2500-1030PG	25	0/-0.013	103	0/+1.0	1.5
RSFM-2500-1500PG	25	0/-0.013	150	0/+1.5	1.5

● Above data are typical parameters.

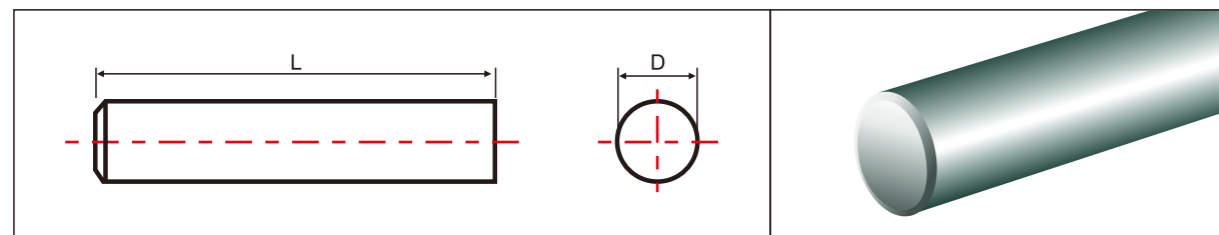
Available Grade

MH10F	UH8	CH03D	MH7	SH904	CS40	CS43
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

● Please contact with us for more specifications.

■ In Stock □ Check inventory

Precision Ground Rod, Cut to Length, With Chamfer



Type: RSFI
Inch Sizes 1/8" to 5/16" Diameter
h6 tolerance

Item No.	OD		Tol. h6	L	Tol.	c
	(inch)		(inch)	(inch)	(inch)	(inch)
RSFI-01250-0150DG	0.125	1/8	0/-0.00031	1 1/2	0/+0.02	0.015
RSFI-01250-0200DG	0.125	1/8	0/-0.00031	2	0/+0.02	0.015
RSFI-01250-0225DG	0.125	1/8	0/-0.00031	2 1/4	0/+0.023	0.015
RSFI-01250-0250DG	0.125	1/8	0/-0.00031	2 1/2	0/+0.025	0.015
RSFI-01250-0300DG	0.125	1/8	0/-0.00031	3	0/+0.03	0.015
RSFI-01250-0400DG	0.125	1/8	0/-0.00031	4	0/+0.04	0.015
RSFI-01875-0150DG	0.1875	3/16	0/-0.00031	1 1/2	0/+0.02	0.015
RSFI-01875-0200DG	0.1875	3/16	0/-0.00031	2	0/+0.02	0.015
RSFI-01875-0250DG	0.1875	3/16	0/-0.00031	2 1/2	0/+0.025	0.015
RSFI-01875-0275DG	0.1875	3/16	0/-0.00031	2 3/4	0/+0.028	0.015
RSFI-01875-0300DG	0.1875	3/16	0/-0.00031	3	0/+0.03	0.015
RSFI-01875-0400DG	0.1875	3/16	0/-0.00031	4	0/+0.04	0.015
RSFI-02500-0150DG	0.25	1/4	0/-0.00035	1 1/2	0/+0.02	0.015
RSFI-02500-0200DG	0.25	1/4	0/-0.00035	2	0/+0.02	0.015
RSFI-02500-0250DG	0.25	1/4	0/-0.00035	2 1/2	0/+0.025	0.015
RSFI-02500-0300DG	0.25	1/4	0/-0.00035	3	0/+0.03	0.015
RSFI-02500-0325DG	0.25	1/4	0/-0.00035	3 1/4	0/+0.033	0.015
RSFI-02500-0350DG	0.25	1/4	0/-0.00035	3 1/2	0/+0.035	0.015
RSFI-02500-0400DG	0.25	1/4	0/-0.00035	4	0/+0.04	0.015
RSFI-02500-0600DG	0.25	1/4	0/-0.00035	6	0/+0.06	0.015
RSFI-03125-0250DG	0.3125	5/16	0/-0.00035	2 1/2	0/+0.025	0.015
RSFI-03125-0200DG	0.3125	5/16	0/-0.00035	2	0/+0.02	0.015
RSFI-03125-0300DG	0.3125	5/16	0/-0.00035	3	0/+0.03	0.015

● Above data are typical parameters.

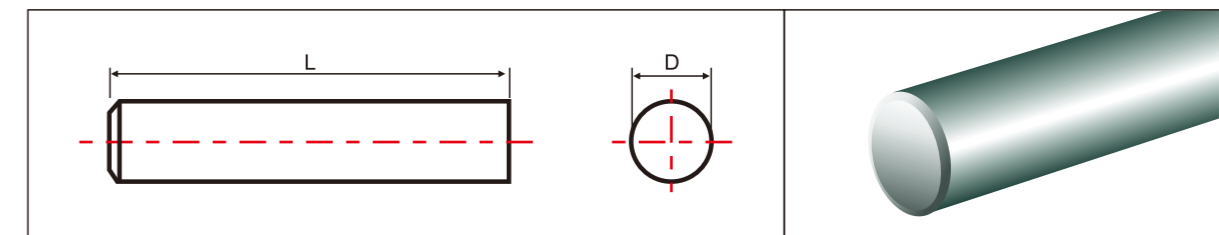
Available Grade

MH10F	UH8	CH03D	MH7	SH904	CS40	CS43
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

● Please contact with us for more specifications.

In Stock Check inventory

Precision Ground Rod, Cut to Length, With Chamfer



Type: RSFI
Inch Sizes 5/16" to 1/2" Diameter
h6 tolerance

Item No.	OD		Tol. h6	L	Tol.	c
	(inch)		(inch)	(inch)	(inch)	(inch)
RSFI-03125-0350DG	0.3125	5/16	0/-0.00035	3 1/2	0/+0.035	0.015
RSFI-03125-0400DG	0.3125	5/16	0/-0.00035	4	0/+0.04	0.015
RSFI-03125-0600DG	0.3125	5/16	0/-0.00035	6	0/+0.06	0.015
RSFI-03750-0200DG	0.375	3/8	0/-0.00035	2	0/+0.02	0.015
RSFI-03750-0250DG	0.375	3/8	0/-0.00035	2 1/2	0/+0.025	0.015
RSFI-03750-0300DG	0.375	3/8	0/-0.00035	3	0/+0.03	0.015
RSFI-03750-0350DG	0.375	3/8	0/-0.00035	3 1/2	0/+0.035	0.015
RSFI-03750-0400DG	0.375	3/8	0/-0.00035	4	0/+0.04	0.015
RSFI-03750-0450DG	0.375	3/8	0/-0.00035	4 1/2	0/+0.045	0.015
RSFI-03750-0500DG	0.375	3/8	0/-0.00035	5	0/+0.05	0.015
RSFI-03750-0600DG	0.375	3/8	0/-0.00035	6	0/+0.06	0.015
RSFI-04375-0250DG	0.4375	7/16	0/-0.00043	2 1/2	0/+0.025	0.031
RSFI-04375-0275DG	0.4375	7/16	0/-0.00043	2 3/4	0/+0.028	0.031
RSFI-04375-0300DG	0.4375	7/16	0/-0.00043	3	0/+0.03	0.031
RSFI-04375-0400DG	0.4375	7/16	0/-0.00043	4	0/+0.04	0.031
RSFI-04375-0450DG	0.4375	7/16	0/-0.00043	4 1/2	0/+0.045	0.031
RSFI-04375-0600DG	0.4375	7/16	0/-0.00043	6	0/+0.06	0.031
RSFI-05000-0250DG	0.5	1/2	0/-0.00043	2 1/2	0/+0.025	0.031
RSFI-05000-0300DG	0.5	1/2	0/-0.00043	3	0/+0.03	0.031
RSFI-05000-0350DG	0.5	1/2	0/-0.00043	3 1/2	0/+0.035	0.031
RSFI-05000-0400DG	0.5	1/2	0/-0.00043	4	0/+0.04	0.031
RSFI-05000-0450DG	0.5	1/2	0/-0.00043	4 1/2	0/+0.045	0.031
RSFI-05000-0500DG	0.5	1/2	0/-0.00043	5	0/+0.05	0.031

● Above data are typical parameters.

Available Grade

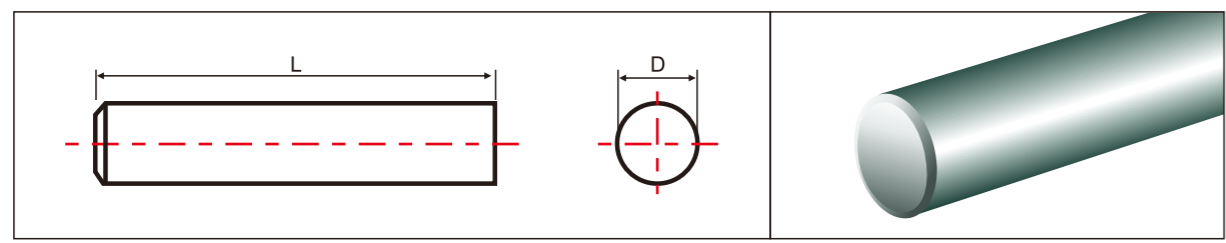
MH10F	UH8	CH03D	MH7	SH904	CS40	CS43
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

● Please contact with us for more specifications.

In Stock Check inventory



Precision Ground Rod, Cut to Length, With Chamfer



Type: RSFI
Inch Sizes 1/2" to 1-1/4" Diameter
h6 tolerance

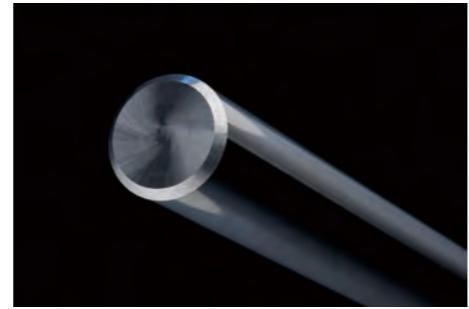
Item No.	OD		Tol. h6	L	Tol.	c
	(inch)		(inch)	(inch)	(inch)	(inch)
RSFI-05000-0600DG	0.5	1/2	0/-0.00043	6	0/+0.06	0.031
RSFI-05625-0350DG	0.5625	9/16	0/-0.00043	3 1/2	0/+0.035	0.031
RSFI-05625-0400DG	0.5625	9/16	0/-0.00043	4	0/+0.04	0.031
RSFI-05625-0600DG	0.5625	9/16	0/-0.00043	6	0/+0.06	0.031
RSFI-06250-0300DG	0.625	5/8	0/-0.00043	3	0/+0.03	0.031
RSFI-06250-0350DG	0.625	5/8	0/-0.00043	3 1/2	0/+0.035	0.031
RSFI-06250-0400DG	0.625	5/8	0/-0.00043	4	0/+0.04	0.031
RSFI-06250-0500DG	0.625	5/8	0/-0.00043	5	0/+0.05	0.031
RSFI-06250-0600DG	0.625	5/8	0/-0.00043	6	0/+0.06	0.031
RSFI-07500-0300DG	0.75	3/4	0/-0.00051	3	0/+0.03	0.031
RSFI-07500-0400DG	0.75	3/4	0/-0.00051	4	0/+0.04	0.031
RSFI-07500-0500DG	0.75	3/4	0/-0.00051	5	0/+0.05	0.031
RSFI-07500-0600DG	0.75	3/4	0/-0.00051	6	0/+0.06	0.031
RSFI-08750-0400DG	0.875	7/8	0/-0.00051	4	0/+0.04	0.031
RSFI-10000-0300DG	1	1	0/-0.00051	3	0/+0.03	0.031
RSFI-10000-0400DG	1	1	0/-0.00051	4	0/+0.04	0.031
RSFI-10000-0450DG	1	1	0/-0.00051	4 1/2	0/+0.045	0.031
RSFI-10000-0500DG	1	1	0/-0.00051	5	0/+0.05	0.031
RSFI-10000-0600DG	1	1	0/-0.00051	6	0/+0.06	0.031
RSFI-12500-0450DG	1.25	1 1/4	0/-0.00063	4 1/2	0/+0.045	0.031
RSFI-12500-0600DG	1.25	1 1/4	0/-0.00063	6	0/+0.06	0.031

● Above data are typical parameters.

Available Grade

MH10F	UH8	CH03D	MH7	SH904	CS40	CS43
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

● Please contact with us for more specifications.
 In Stock Check inventory

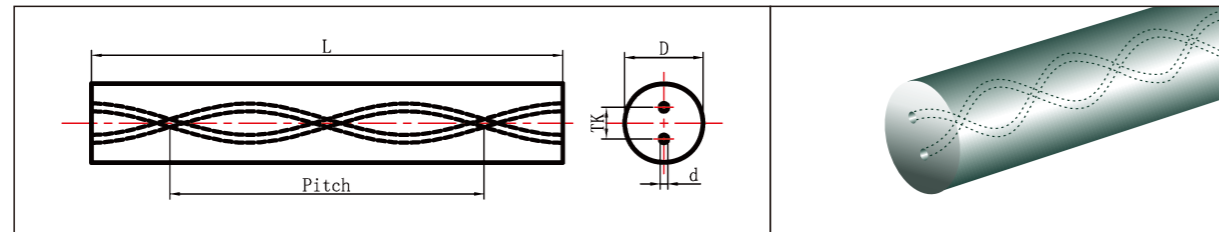


Rods with Helical Coolant Holes



- CYC offers full range of carbide rods with helical coolant holes that are used for making carbide drills with internal coolant supply.
- Thanks to the expertise in extrusion forming process and strict control of Pitch classification, CYC drill blanks can also meet the demand of drills for deep hole drilling.
- In addition to OAL 330MM, OAL 415MM rods are also available for giving flexibility on your material utilization.

Precision Ground Rod 2 Helical Coolant Holes 30 degree



Type: R2H30
Metric Sizes 3mm to 32mm Diameter
h6 tolerance

Item No.	OD (mm)	Tol. h6 (mm)	L (mm)	Tol. (mm)	TK (mm)	Tol. (mm)	d (mm)	Tol. (mm)	Pitch (mm)
R2H30-0300-3300PG	3	0/-0.006	330	0/+5	1.6	±0.1	0.4	±0.10	16.32
R2H30-0400-3300PG	4	0/-0.008	330	0/+5	2.1	±0.1	0.6	±0.10	21.77
R2H30-0500-3300PG	5	0/-0.008	330	0/+5	2.1	±0.2	0.7	±0.10	27.21
R2H30-0600-3300PG	6	0/-0.008	330	0/+5	2.4	±0.2	0.7	±0.10	32.65
R2H30-0700-3300PG	7	0/-0.009	330	0/+5	3.5	±0.2	1.0	±0.15	38.09
R2H30-0800-3300PG	8	0/-0.009	330	0/+5	3.8	±0.2	1.0	±0.15	43.53
R2H30-0900-3300PG	9	0/-0.009	330	0/+5	4.5	±0.3	1.4	±0.15	48.97
R2H30-1000-3300PG	10	0/-0.009	330	0/+5	4.5	±0.3	1.4	±0.15	54.41
R2H30-1100-3300PG	11	0/-0.011	330	0/+5	4.9	±0.4	1.4	±0.15	59.86
R2H30-1200-3300PG	12	0/-0.011	330	0/+5	5.85	±0.4	1.4	±0.15	65.30
R2H30-1300-3300PG	13	0/-0.011	330	0/+5	6.1	±0.4	1.75	±0.2	70.74
R2H30-1400-3300PG	14	0/-0.011	330	0/+5	6.7	±0.4	1.75	±0.2	76.18
R2H30-1500-3300PG	15	0/-0.011	330	0/+5	7.3	±0.4	1.75	±0.2	81.62
R2H30-1600-3300PG	16	0/-0.011	330	0/+5	7.9	±0.4	1.75	±0.2	87.06
R2H30-1700-3300PG	17	0/-0.011	330	0/+5	8.5	±0.4	1.75	±0.2	92.50
R2H30-1800-3300PG	18	0/-0.011	330	0/+5	9.15	±0.4	2.0	±0.25	97.95
R2H30-2000-3300PG	20	0/-0.013	330	0/+5	9.9	±0.5	2.0	±0.25	108.83
R2H30-2200-3300PG	22	0/-0.013	330	0/+5	11.1	±0.5	2.0	±0.25	119.71
R2H30-2500-3300PG	25	0/-0.013	330	0/+5	12.8	±0.5	2.0	±0.25	136.03
R2H30-2600-3300PG	26	0/-0.013	330	0/+5	13.3	±0.5	2.0	±0.25	141.48
R2H30-2800-3300PG	28	0/-0.013	330	0/+5	14.2	±0.5	2.5	±0.25	152.36
R2H30-3200-3300PG	32	0/-0.013	330	0/+5	16.0	±0.5	2.5	±0.25	174.12

● Above data are typical parameters.

Available Grade

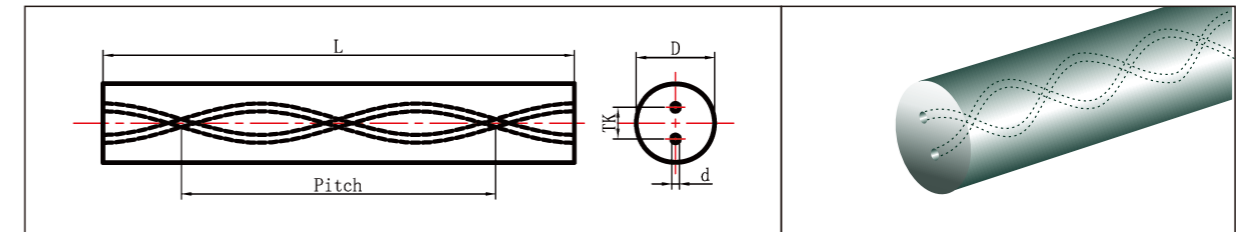
MH10F
 CS43

Kind Reminder

- If special helix rods are required, please contact CYC sales for availability.
- Please specify when your drills are longer than 12XD.

In Stock
 Check inventory

Unground Rod 2 Helical Coolant Holes 30 degree



Type: R2H30
Metric Sizes 3mm to 32mm Diameter

Item No.	OD (mm)	Tol. (mm)	L (mm)	Tol. (mm)	TK (mm)	Tol. (mm)	d (mm)	Tol. (mm)	Pitch (mm)
R2H30-0330-3300UG	3.3	+0.3/+0.7	330	0/+5	1.6	±0.1	0.4	±0.10	16.32
R2H30-0430-3300UG	4.3	+0.3/+0.7	330	0/+5	2.1	±0.1	0.6	±0.10	21.77
R2H30-0530-3300UG	5.3	+0.3/+0.7	330	0/+5	2.1	±0.2	0.7	±0.10	27.21
R2H30-0630-3300UG	6.3	+0.3/+0.7	330	0/+5	2.4	±0.2	0.7	±0.10	32.65
R2H30-0730-3300UG	7.3	+0.3/+0.7	330	0/+5	3.5	±0.2	1.0	±0.15	38.09
R2H30-0830-3300UG	8.3	+0.3/+0.7	330	0/+5	3.8	±0.2	1.0	±0.15	43.53
R2H30-0930-3300UG	9.3	+0.3/+0.7	330	0/+5	4.5	±0.3	1.4	±0.15	48.97
R2H30-1030-3300UG	10.3	+0.3/+0.7	330	0/+5	4.5	±0.3	1.4	±0.15	54.41
R2H30-1130-3300UG	11.3	+0.4/+0.9	330	0/+5	4.9	±0.4	1.4	±0.15	59.86
R2H30-1230-3300UG	12.3	+0.4/+0.9	330	0/+5	5.85	±0.4	1.4	±0.15	65.30
R2H30-1330-3300UG	13.3	+0.4/+0.9	330	0/+5	6.1	±0.4	1.75	±0.2	70.74
R2H30-1430-3300UG	14.3	+0.4/+0.9	330	0/+5	6.7	±0.4	1.75	±0.2	76.18
R2H30-1530-3300UG	15.3	+0.4/+0.9	330	0/+5	7.3	±0.4	1.75	±0.2	81.62
R2H30-1630-3300UG	16.3	+0.4/+0.9	330	0/+5	7.9	±0.4	1.75	±0.2	87.06
R2H30-1730-3300UG	17.3	+0.4/+1.0	330	0/+5	8.5	±0.4	1.75	±0.2	92.50
R2H30-1830-3300UG	18.3	+0.4/+1.0	330	0/+5	9.15	±0.4	2.0	±0.25	97.95
R2H30-2030-3300UG	20.3	+0.4/+1.0	330	0/+5	9.9	±0.5	2.0	±0.25	108.83
R2H30-2230-3300UG	22.3	+0.4/+1.0	330	0/+5	11.1	±0.5	2.0	±0.25	119.71
R2H30-2530-3300UG	25.3	+0.4/+1.0	330	0/+5	12.8	±0.5	2.0	±0.25	136.03
R2H30-2630-3300UG	26.3	+0.4/+1.0	330	0/+5	13.3	±0.5	2.0	±0.25	141.48
R2H30-2830-3300UG	28.3	+0.4/+1.0	330	0/+5	14.2	±0.5	2.5	±0.25	152.36
R2H30-3230-3300UG	32.3	+0.4/+1.0	330	0/+5	16.0	±0.5	2.5	±0.25	174.12

● Above data are typical parameters.

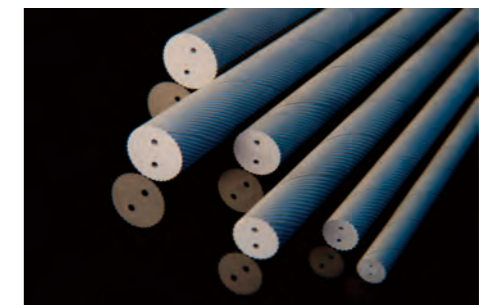
Available Grade

MH10F
 CS43

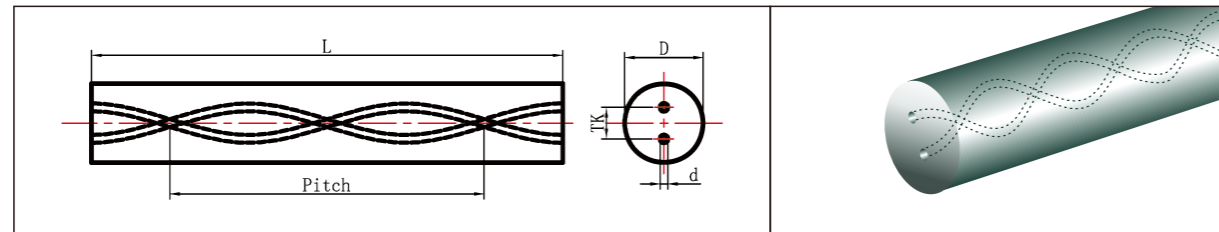
Kind Reminder

- If special helix rods are required, please contact CYC sales for availability.
- Please specify when your drills are longer than 12XD.

In Stock
 Check inventory



Precision Ground Rod 2 Helical Coolant Holes 40 degree



Type: R2H40
Metric Sizes 6mm to 25mm Diameter
h6 tolerance

Item No.	OD (mm)	Tol. h6 (mm)	L (mm)	Tol. (mm)	TK (mm)	Tol. (mm)	d (mm)	Tol. (mm)	Pitch (mm)
R2H40-0600-3300PG	6	0/-0.008	330	0/+5	2.0	±0.15	0.50	±0.10	22.46
R2H40-0800-3300PG	8	0/-0.009	330	0/+5	2.4	±0.30	0.65	±0.15	29.95
R2H40-1000-3300PG	10	0/-0.009	330	0/+5	3.1	±0.40	0.80	±0.15	37.44
R2H40-1200-3300PG	12	0/-0.011	330	0/+5	3.8	±0.40	0.90	±0.15	44.93
R2H40-1400-3300PG	14	0/-0.011	330	0/+5	4.3	±0.40	1.00	±0.20	52.42
R2H40-1600-3300PG	16	0/-0.011	330	0/+5	5.1	±0.40	1.20	±0.20	59.90
R2H40-1800-3300PG	18	0/-0.011	330	0/+5	5.9	±0.40	1.40	±0.25	67.39
R2H40-2000-3300PG	20	0/-0.013	330	0/+5	6.6	±0.50	1.50	±0.25	74.88
R2H40-2200-3300PG	22	0/-0.013	330	0/+5	7.2	±0.50	1.70	±0.25	82.35
R2H40-2500-3300PG	25	0/-0.013	330	0/+5	7.6	±0.50	1.75	±0.25	93.58

● Above data are typical parameters.

Available Grade

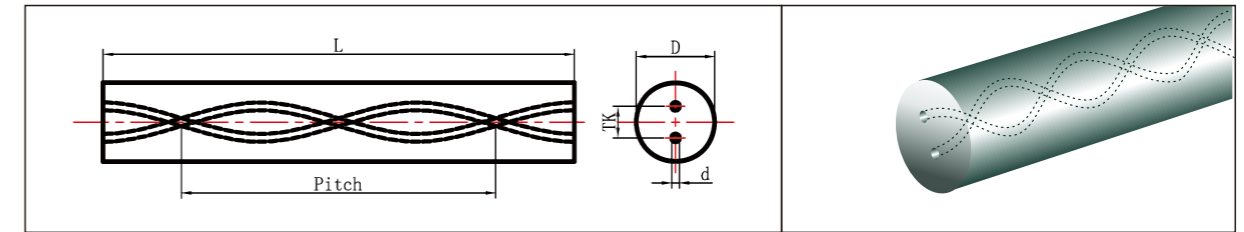
MH10F

Kind Reminder

- If special helix rods are required, please contact CYC sales for availability.
- Please specify when your drills are longer than 12XD.

In Stock Check inventory

Unground Rod 2 Helical Coolant Holes 40 degree



Type: R2H40
Metric Sizes 6mm to 25mm Diameter

Item No.	OD (mm)	Tol. (mm)	L (mm)	Tol. (mm)	TK (mm)	Tol. (mm)	d (mm)	Tol. (mm)	Pitch (mm)
R2H40-0630-3300UG	6.3	+0.3/+0.7	330	0/+5	2.0	±0.15	0.50	±0.10	22.46
R2H40-0830-3300UG	8.3	+0.3/+0.7	330	0/+5	2.4	±0.30	0.65	±0.15	29.95
R2H40-1030-3300UG	10.3	+0.3/+0.7	330	0/+5	3.1	±0.40	0.8	±0.15	37.44
R2H40-1230-3300UG	12.3	+0.4/+0.9	330	0/+5	3.8	±0.40	0.9	±0.15	44.93
R2H40-1430-3300UG	14.3	+0.4/+0.9	330	0/+5	4.3	±0.40	1.00	±0.2	52.42
R2H40-1630-3300UG	16.3	+0.4/+0.9	330	0/+5	5.1	±0.40	1.20	±0.2	59.90
R2H40-1830-3300UG	18.3	+0.4/+1.0	330	0/+5	5.9	±0.40	1.40	±0.25	67.39
R2H40-2030-3300UG	20.3	+0.4/+1.0	330	0/+5	6.6	±0.50	1.50	±0.25	74.88
R2H40-2230-3300UG	22.3	+0.4/+1.0	330	0/+5	7.2	±0.50	1.70	±0.25	82.35
R2H40-2530-3300UG	25.3	+0.4/+1.0	330	0/+5	7.6	±0.50	1.75	±0.25	93.58

● Above data are typical parameters.

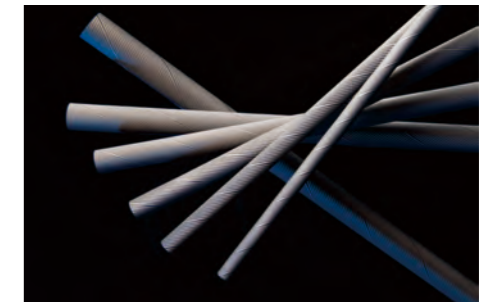
Available Grade

MH10F

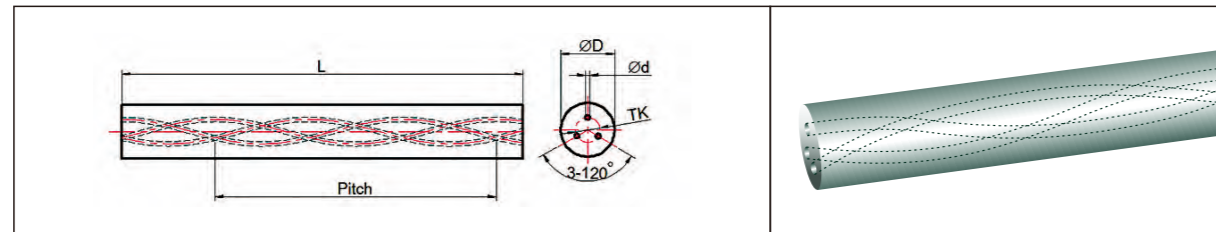
Kind Reminder

- If special helix rods are required, please contact CYC sales for availability.
- Please specify when your drills are longer than 12XD.

In Stock Check inventory



Precision Ground Rod 3 Helical Coolant Holes 30 degree



Type: R3H30
Metric Sizes 6mm to 20mm Diameter
h6 tolerance

Item No.	OD (mm)	Tol. h6 (mm)	L (mm)	Tol. (mm)	TK (mm)	Tol. (mm)	d (mm)	Tol. (mm)	Pitch (mm)
R3H30-0600-3300PG	6	0/-0.008	330	0/+5	2.75	±0.20	0.5	±0.15	32.65
R3H30-0800-3300PG	8	0/-0.009	330	0/+5	3.85	±0.20	0.7	±0.15	43.53
R3H30-1000-3300PG	10	0/-0.009	330	0/+5	4.95	±0.30	0.85	±0.20	54.41
R3H30-1200-3300PG	12	0/-0.011	330	0/+5	6.05	±0.40	1.1	±0.20	65.30
R3H30-1400-3300PG	14	0/-0.011	330	0/+5	7.05	±0.40	1.4	±0.20	76.18
R3H30-1600-3300PG	16	0/-0.011	330	0/+5	8.05	±0.40	1.6	±0.20	87.06
R3H30-1800-3300PG	18	0/-0.011	330	0/+5	9.25	±0.50	1.7	±0.25	97.95
R3H30-2000-3300PG	20	0/-0.013	330	0/+5	9.85	±0.50	1.9	±0.25	108.83

● Above data are typical parameters.

Available Grade

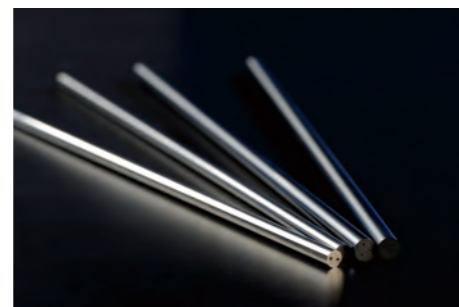
MH10F



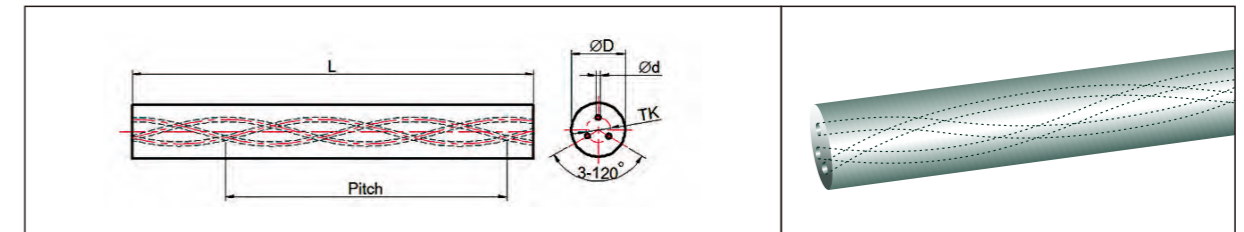
Kind Reminder

● Please specify when your drills are longer than 12XD.

In Stock Check inventory



Unground Rod 3 Helical Coolant Holes 30 degree



Type: R3H30
Metric Sizes 6mm to 25mm Diameter

Item No.	OD (mm)	Tol. (mm)	L (mm)	Tol. (mm)	TK (mm)	Tol. (mm)	d (mm)	Tol. (mm)	Pitch (mm)
R3H30-0630-3300UG	6.3	+0.3/+0.7	330	0/+5	2.75	±0.20	0.5	±0.15	32.65
R3H30-0830-3300UG	8.3	+0.3/+0.7	330	0/+5	3.85	±0.20	0.7	±0.15	43.53
R3H30-1030-3300UG	10.3	+0.3/+0.7	330	0/+5	4.95	±0.30	0.85	±0.20	54.41
R3H30-1230-3300UG	12.3	+0.4/+0.9	330	0/+5	6.05	±0.40	1.1	±0.20	65.30
R3H30-1430-3300UG	14.3	+0.4/+0.9	330	0/+5	7.05	±0.40	1.4	±0.20	76.18
R3H30-1630-3300UG	16.3	+0.4/+0.9	330	0/+5	8.05	±0.40	1.6	±0.20	87.06
R3H30-1830-3300UG	18.3	+0.4/+1.0	330	0/+5	9.25	±0.50	1.7	±0.25	97.95
R3H30-2030-3300UG	20.3	+0.4/+1.0	330	0/+5	9.85	±0.50	1.9	±0.25	108.83

● Above data are typical parameters.

Available Grade

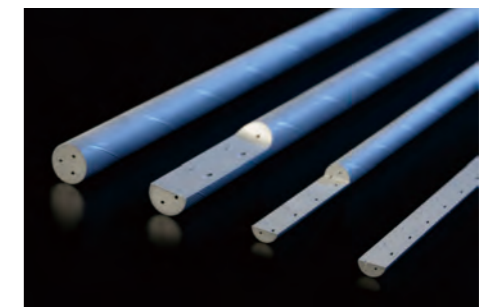
MH10F



Kind Reminder

● Please specify when your drills are longer than 12XD.

In Stock Check inventory

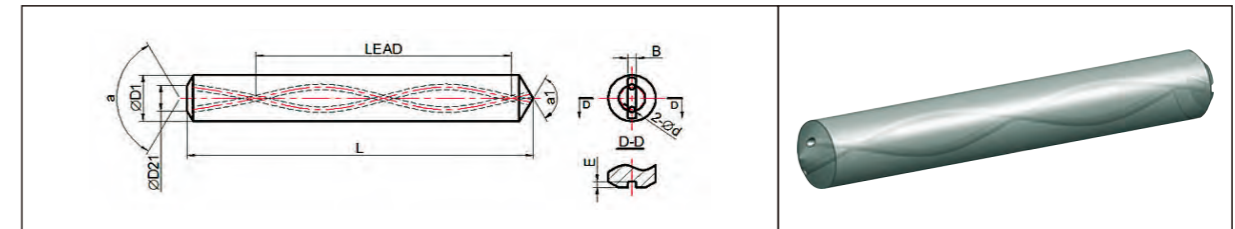


Precision Ground Drill Blanks



- Precision ground drill blanks are available with chamfer, Point and connection slot, saving your process time and increasing your throughput.
- Well equipped grinding center allow us to offer multiple post-process such as step and taper grinding to meet the demand of high precision cutting tools.

Precision Ground Rod, 3xDiameter Drill, 2 Helical Holes, With Point, Chamfer and Connection Slot



Type: R2H03D3(30°)
Metric Sizes 6mm to 20mm Diameter
h6 tolerance

Item No.	OD (mm)	Tol. h6 (mm)	L (mm)	Tol. (mm)	TK (mm)	Tol. (mm)	d (mm)	Tol. (mm)	Pitch (mm)
R2H03D3-0600-0670PG	6	0/-0.008	67	0/+1.5	2.40	±0.2	0.70	±0.05	32.7
R2H03D3-0800-0805PG	8	0/-0.009	80.5	0/+1.5	3.80	±0.2	1.00	±0.05	43.5
R2H03D3-1000-0905PG	10	0/-0.009	90.5	0/+1.5	4.50	±0.2	1.40	±0.05	54.4
R2H03D3-1200-1040PG	12	0/-0.011	104	0/+1.5	5.85	±0.2	1.40	±0.075	65.0
R2H03D3-1400-1090PG	14	0/-0.011	109	0/+1.5	6.70	±0.26	1.75	±0.075	76.2
R2H03D3-1600-1175PG	16	0/-0.011	117.5	0/+1.5	7.90	±0.4	1.75	±0.075	87.1
R2H03D3-1800-1255PG	18	0/-0.011	125.5	0/+1.5	9.15	±0.4	2.00	±0.075	98.0
R2H03D3-2000-1340PG	20	0/-0.013	134	0/+1.5	9.90	±0.50	2.00	±0.075	108.8

• Above data are typical parameters.

Available Grade



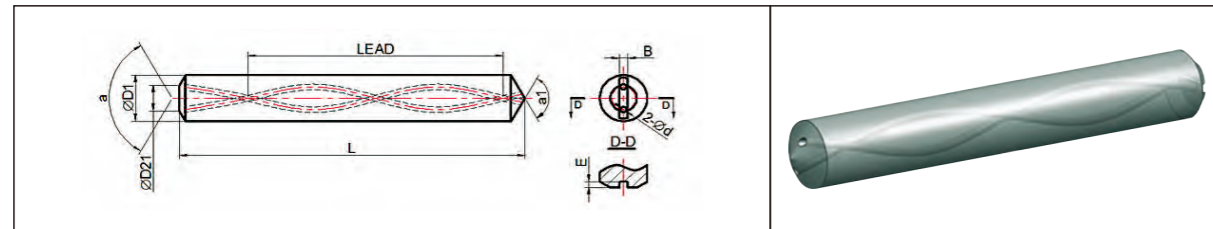
Kind Reminder

- If special helix rods are required, please contact CYC sales for availability.
- Please specify when your drills are longer than 20xD.

In Stock Check inventory



Precision Ground Rod, 5xDiameter Drill, 2 Helical Holes, With Point, Chamfer and Connection Slot



Type: R2H05D3(30°)
Metric Sizes 6mm to 20mm Diameter
h6 tolerance

Item No.	OD (mm)	Tol. h6 (mm)	L (mm)	Tol. (mm)	TK (mm)	Tol. (mm)	d (mm)	Tol. (mm)	Pitch (mm)
R2H05D3-0600-0830PG	6	0/-0.008	83	0/+1.5	2.40	±0.2	0.70	±0.05	32.7
R2H05D3-0800-0925PG	8	0/-0.009	92.5	0/+1.5	3.80	±0.2	1.00	±0.05	43.5
R2H05D3-1000-1045PG	10	0/-0.009	104.5	0/+1.5	4.50	±0.2	1.40	±0.05	54.4
R2H05D3-1200-1200PG	12	0/-0.011	120	0/+1.5	5.85	±0.2	1.40	±0.075	65.0
R2H05D3-1400-1265PG	14	0/-0.011	126.5	0/+1.5	6.70	±0.26	1.75	±0.075	76.2
R2H05D3-1600-1355PG	16	0/-0.011	135.5	0/+1.5	7.90	±0.4	1.75	±0.075	87.1
R2H05D3-1800-1455PG	18	0/-0.011	145.5	0/+1.5	9.15	±0.4	2.00	±0.075	98.0
R2H05D3-2000-1560PG	20	0/-0.013	156	0/+1.5	9.90	±0.50	2.00	±0.075	108.8

● Above data are typical parameters.

Available Grade

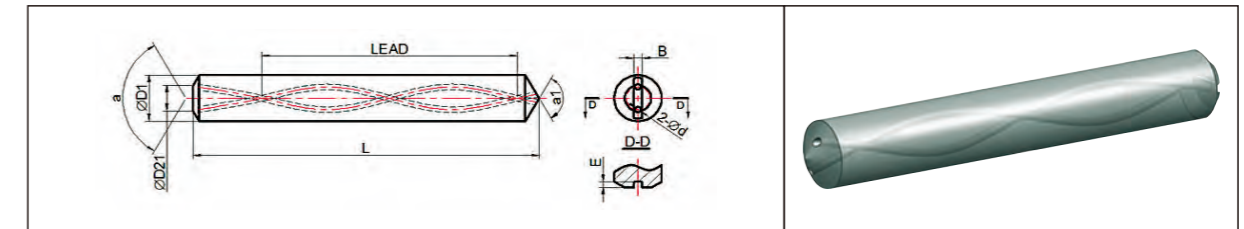
MH10F

Kind Reminder

- If special helix rods are required, please contact CYC sales for availability.
- Please specify when your drills are longer than 20xD.

In Stock Check inventory

Precision Ground Rod, 8xDiameter Drill, 2 Helical Holes, With Point, Chamfer and Connection Slot



Type: R2H08D3(30°)
Metric Sizes 6mm to 20mm Diameter
h6 tolerance

Item No.	OD (mm)	Tol. h6 (mm)	L (mm)	Tol. (mm)	TK (mm)	Tol. (mm)	d (mm)	Tol. (mm)	Pitch (mm)
R2H08D3-0600-0980PG	6	0/-0.008	98	0/+1.5	2.40	±0.2	0.70	±0.05	32.7
R2H08D3-0800-1075PG	8	0/-0.009	107.5	0/+1.5	3.80	±0.2	1.00	±0.05	43.5
R2H08D3-0800-1175PG	8	0/-0.009	117.5	0/+1.5	3.80	±0.2	1.00	±0.05	43.5
R2H08D3-1000-1355PG	10	0/-0.009	135.5	0/+1.5	4.50	±0.2	1.40	±0.05	54.4
R2H08D3-1200-1570PG	12	0/-0.011	157	0/+1.5	5.85	±0.2	1.40	±0.075	65.0
R2H08D3-1400-1845PG	14	0/-0.011	184.5	0/+1.5	6.70	±0.26	1.75	±0.075	76.2
R2H08D3-1600-2065PG	16	0/-0.011	206.5	0/+1.5	7.90	±0.4	1.75	±0.075	87.1
R2H08D3-1800-2255PG	18	0/-0.011	225.5	0/+1.5	9.15	±0.4	2.00	±0.075	98.0
R2H08D3-2000-2470PG	20	0/-0.013	247	0/+1.5	9.90	±0.50	2.00	±0.075	108.8

● Above data are typical parameters.

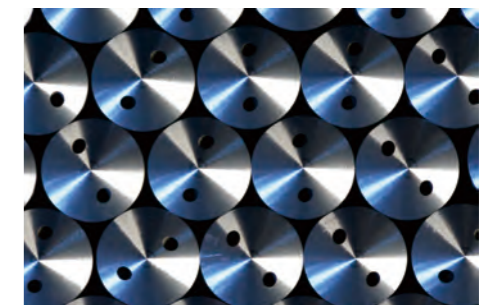
Available Grade

MH10F

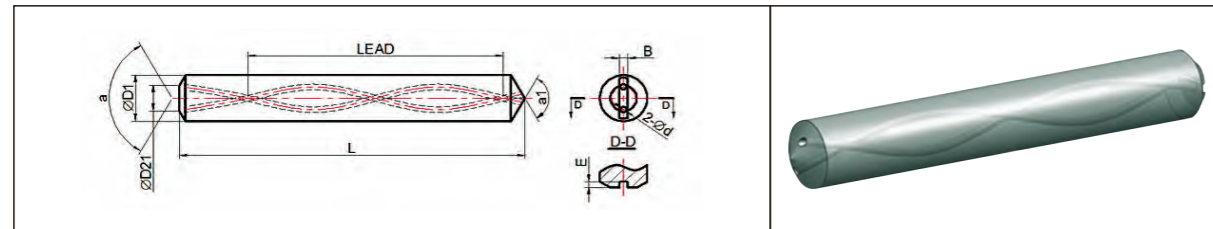
Kind Reminder

- If special helix rods are required, please contact CYC sales for availability.
- Please specify when your drills are longer than 20xD.

In Stock Check inventory



Precision Ground Rod, 12xDiameter Drill, 2 Helical Holes, With Point, Chamfer and Connection Slot



Type: R2H12D3(30°)
Metric Sizes 6mm to 20mm Diameter
h6 tolerance

Item No.	OD (mm)	Tol. h6 (mm)	L (mm)	Tol. (mm)	TK (mm)	Tol. (mm)	d (mm)	Tol. (mm)	Pitch (mm)
R2H12D3-0600-1225PG	6	0/-0.008	122.5	0/+1.5	2.40	±0.2	0.70	±0.05	32.7
R2H12D3-0800-1500PG	8	0/-0.009	150	0/+1.5	3.80	±0.2	1.00	±0.05	43.5
R2H12D3-1000-1830PG	10	0/-0.009	183	0/+1.5	4.50	±0.2	1.40	±0.05	54.4
R2H12D3-1200-2080PG	12	0/-0.011	208	0/+1.5	5.85	±0.2	1.40	±0.075	65.0
R2H12D3-1400-2330PG	14	0/-0.011	233	0/+1.5	6.70	±0.26	1.75	±0.075	76.2
R2H12D3-1600-2630PG	16	0/-0.011	263	0/+1.5	7.90	±0.4	1.75	±0.075	87.1
R2H12D3-1800-2880PG	18	0/-0.011	288	0/+1.5	9.15	±0.4	2.00	±0.075	98.0
R2H12D3-2000-3135PG	20	0/-0.013	313.5	0/+1.5	9.90	±0.50	2.00	±0.075	108.8

● Above data are typical parameters.

Available Grade

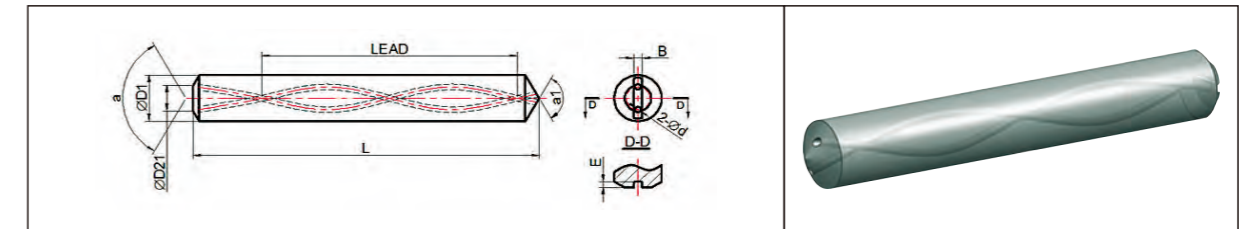
MH10F

Kind Reminder

- If special helix rods are required, please contact CYC sales for availability.
- Please specify when your drills are longer than 20xD.

In Stock Check inventory

Precision Ground Rod, 16xDiameter Drill, 2 Helical Holes, With Point, Chamfer and Connection Slot



Type: R2H16D3(30°)
Metric Sizes 6mm to 16mm Diameter
h6 tolerance

Item No.	OD (mm)	Tol. h6 (mm)	L (mm)	Tol. (mm)	TK (mm)	Tol. (mm)	d (mm)	Tol. (mm)	Pitch (mm)
R2H16D3-0600-1400PG	6	0/-0.008	140	0/+1.5	2.40	±0.2	0.70	±0.05	32.7
R2H16D3-0800-1750PG	8	0/-0.009	175	0/+1.5	3.80	±0.2	1.00	±0.05	43.5
R2H16D3-1000-2060PG	10	0/-0.009	206	0/+1.5	4.50	±0.2	1.40	±0.05	54.4
R2H16D3-1200-2470PG	12	0/-0.011	247	0/+1.5	5.85	±0.2	1.40	±0.075	65.0
R2H16D3-1400-3010PG	14	0/-0.011	301	0/+1.5	6.70	±0.26	1.75	±0.075	78.2
R2H16D3-1600-3400PG	16	0/-0.011	340	0/+1.5	7.90	±0.4	1.75	±0.075	87.1

● Above data are typical parameters.

Available Grade

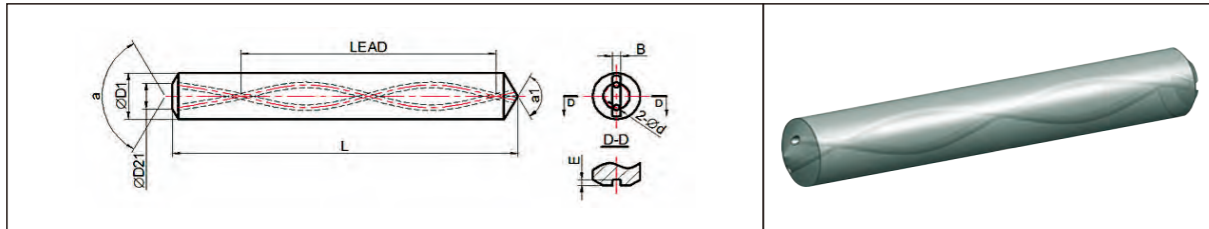
MH10F

Kind Reminder

- If special helix rods are required, please contact CYC sales for availability.
- Please specify when your drills are longer than 20xD.

In Stock Check inventory

Precision Ground Rod, 20xDiameter Drill, 2 Helical Holes, With Point, Chamfer and Connection Slot



Type: R2H20D3(30°)
Metric Sizes 6mm to 16mm Diameter
h6 tolerance

Item No.	OD (mm)	Tol. h6 (mm)	L (mm)	Tol. (mm)	TK (mm)	Tol. (mm)	d (mm)	Tol. (mm)	Pitch (mm)
R2H20D3-0600-1580PG	6	0/-0.008	158	0/+1.5	2.40	±0.2	0.70	±0.05	32.7
R2H20D3-0800-2000PG	8	0/-0.009	200	0/+1.5	3.80	±0.2	1.00	±0.05	43.5
R2H20D3-1000-2400PG	10	0/-0.009	240	0/+1.5	4.50	±0.2	1.40	±0.05	54.4
R2H20D3-1200-2890PG	12	0/-0.011	289	0/+1.5	5.85	±0.2	1.40	±0.075	65.0
R2H20D3-1400-3570PG	14	0/-0.011	357	0/+1.5	6.70	±0.26	1.75	±0.075	78.2
R2H20D3-1600-4040PG	16	0/-0.011	404	0/+1.5	7.90	±0.4	1.75	±0.075	87.1

● Above data are typical parameters.

Available Grade



Kind Reminder

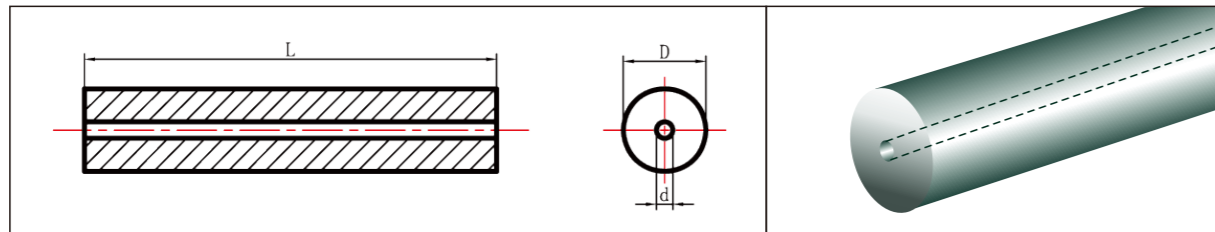
- If special helix rods are required, please contact CYC sales for availability.
- Please specify when your drills are longer than 20xD.

In Stock Check inventory



- Rods with straight Coolant Holes are made to meet the demand of drilling, reaming and threading tools with internal coolant supply.
- Rods with 1 straight hole and 2 straight holes that made in grade MH10F are listed on page 37-42 of our CYC Standard offering catalogue. For designs with more than 2 straight holes, please contact CYC sales for availability.

Precision Ground Rod, 1 Straight Hole Centered



Type: R1SH
Metric Sizes 4mm to 25mm Diameter
h6 tolerance

Item No.	OD (mm)	Tol. h6 (mm)	L (mm)	Tol. (mm)	d (mm)	Tol. (mm)
R1SH-0400-3300PG	4	0/-0.008	330	0/+5	0.6	±0.15
R1SH-0600-3300PG	6	0/-0.008	330	0/+5	1	±0.15
R1SH-0800-3300PG	8	0/-0.009	330	0/+5	1.3	±0.15
R1SH-1000-3300PG	10	0/-0.009	330	0/+5	2	±0.20
R1SH-1200-3300PG	12	0/-0.011	330	0/+5	2	±0.20
R1SH-1400-3300PG	14	0/-0.011	330	0/+5	2	±0.20
R1SH-1600-3300PG	16	0/-0.011	330	0/+5	2	±0.20
R1SH-1800-3300PG	18	0/-0.011	330	0/+5	3	±0.20
R1SH-2000-3300PG	20	0/-0.013	330	0/+5	3	±0.20
R1SH-2200-3300PG	22	0/-0.013	330	0/+5	3	±0.20
R1SH-2400-3300PG	24	0/-0.013	330	0/+5	4	±0.30
R1SH-2500-3300PG	25	0/-0.013	330	0/+5	4	±0.30

● Above data are typical parameters.

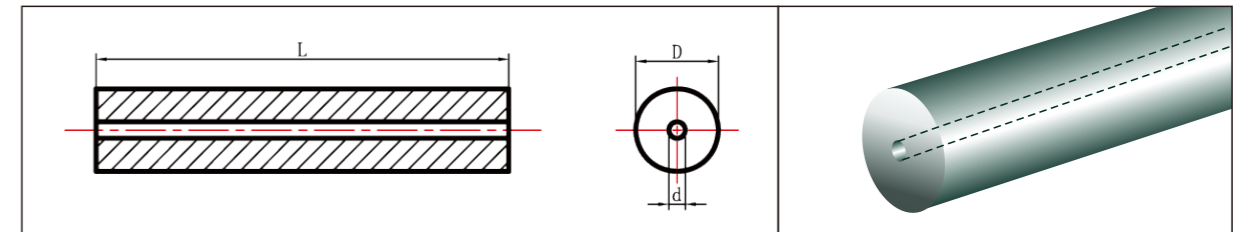
Available Grade

MH10F
 MH7
 CS43

● Please contact with us for more specifications.

In Stock
 Check inventory

Unground Rod, 1 Straight Hole Centered



Type: R1SH
Metric Sizes 4mm to 25mm Diameter

Item No.	OD (mm)	Tol. (mm)	L (mm)	Tol. (mm)	d (mm)	Tol. (mm)
R1SH-0430-3300UG	4.3	0/+0.3	330	0/+5	0.6	±0.15
R1SH-0630-3300UG	6.3	0/+0.3	330	0/+5	1	±0.15
R1SH-0830-3300UG	8.3	0/+0.3	330	0/+5	1.3	±0.15
R1SH-1030-3300UG	10.3	0/+0.3	330	0/+5	2	±0.20
R1SH-1230-3300UG	12.3	0/+0.4	330	0/+5	2	±0.20
R1SH-1430-3300UG	14.3	0/+0.4	330	0/+5	2	±0.20
R1SH-1630-3300UG	16.3	0/+0.4	330	0/+5	2	±0.20
R1SH-1830-3300UG	18.3	0/+0.5	330	0/+5	3	±0.20
R1SH-2030-3300UG	20.3	0/+0.5	330	0/+5	3	±0.20
R1SH-2230-3300UG	22.3	0/+0.5	330	0/+5	3	±0.20
R1SH-2430-3300UG	24.3	0/+0.5	330	0/+5	4	±0.30
R1SH-2530-3300UG	25.3	0/+0.5	330	0/+5	4	±0.30

● Above data are typical parameters.

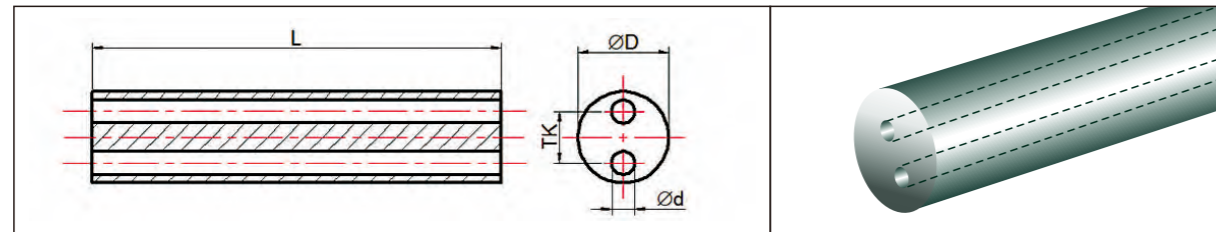
Available Grade

MH10F
 MH7
 CS43

● Please contact with us for more specifications.

In Stock
 Check inventory

Precision Ground Rod, 2 Straight Holes Reduced BC



Type: R2SHR
Metric Sizes 6mm to 20mm Diameter
h6 tolerance

Item No.	OD	Tol. h6	L	Tol.	TK	Tol.	d	Tol.
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
R2SHR-0600-3300PG	6	0/-0.008	330	0/+5	1.5	0/-0.2	0.8	±0.15
R2SHR-0700-3300PG	7	0/-0.009	330	0/+5	1.5	0/-0.2	0.8	±0.15
R2SHR-0800-3300PG	8	0/-0.009	330	0/+5	2.6	0/-0.3	1.0	±0.15
R2SHR-0900-3300PG	9	0/-0.009	330	0/+5	2.6	0/-0.3	1.0	±0.15
R2SHR-1000-3300PG	10	0/-0.009	330	0/+5	2.6	0/-0.3	1.0	±0.15
R2SHR-1100-3300PG	11	0/-0.011	330	0/+5	3.5	0/-0.3	1.2	±0.15
R2SHR-1200-3300PG	12	0/-0.011	330	0/+5	3.5	0/-0.3	1.2	±0.15
R2SHR-1300-3300PG	13	0/-0.011	330	0/+5	3.5	0/-0.3	1.2	±0.15
R2SHR-1400-3300PG	14	0/-0.011	330	0/+5	5.0	0/-0.3	1.5	±0.15
R2SHR-1500-3300PG	15	0/-0.011	330	0/+5	5.0	0/-0.3	1.5	±0.15
R2SHR-1600-3300PG	16	0/-0.011	330	0/+5	5.0	0/-0.3	1.5	±0.20
R2SHR-1700-3300PG	17	0/-0.011	330	0/+5	6.2	0/-0.3	2.0	±0.20
R2SHR-1800-3300PG	18	0/-0.011	330	0/+5	6.2	0/-0.3	2.0	±0.20
R2SHR-1900-3300PG	19	0/-0.013	330	0/+5	6.2	0/-0.3	2.0	±0.20
R2SHR-2000-3300PG	20	0/-0.013	330	0/+5	6.2	0/-0.4	2.0	±0.30

● Above data are typical parameters.

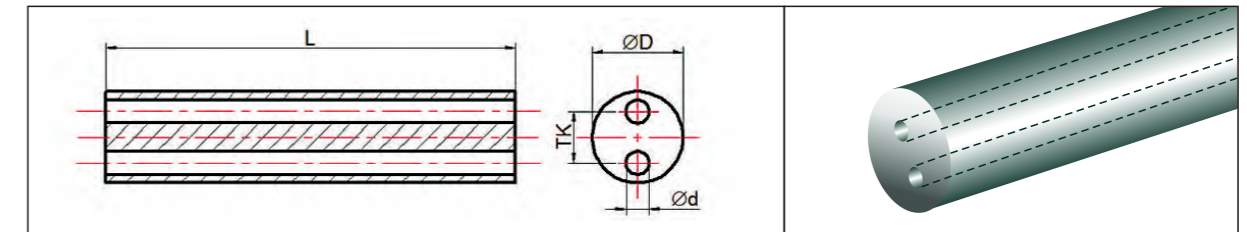
Available Grade

MH10F
 MH7
 CS43

● Please contact with us for more specifications.

In Stock
 Check inventory

Unground Rod, 2 Straight Holes Reduced BC



Type: R2SHR
Metric Sizes 6mm to 20mm Diameter

Item No.	OD	Tol.	L	Tol.	TK	Tol.	d	Tol.
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
R2SHR-0630-3300UG	6.3	0/+0.3	330	0/+5	1.5	0/-0.2	0.8	±0.15
R2SHR-0730-3300UG	7.3	0/+0.3	330	0/+5	1.5	0/-0.2	0.8	±0.15
R2SHR-0830-3300UG	8.3	0/+0.3	330	0/+5	2.6	0/-0.3	1.0	±0.15
R2SHR-0930-3300UG	9.3	0/+0.3	330	0/+5	2.6	0/-0.3	1.0	±0.15
R2SHR-1030-3300UG	10.3	0/+0.3	330	0/+5	2.6	0/-0.3	1.0	±0.15
R2SHR-1130-3300UG	11.3	0/+0.4	330	0/+5	3.5	0/-0.3	1.2	±0.15
R2SHR-1230-3300UG	12.3	0/+0.4	330	0/+5	3.5	0/-0.3	1.2	±0.15
R2SHR-1330-3300UG	13.3	0/+0.4	330	0/+5	3.5	0/-0.3	1.2	±0.15
R2SHR-1430-3300UG	14.3	0/+0.4	330	0/+5	5.0	0/-0.3	1.5	±0.15
R2SHR-1530-3300UG	15.3	0/+0.4	330	0/+5	5.0	0/-0.3	1.5	±0.15
R2SHR-1630-3300UG	16.3	0/+0.4	330	0/+5	5.0	0/-0.3	1.5	±0.20
R2SHR-1730-3300UG	17.3	0/+0.5	330	0/+5	6.2	0/-0.3	2.0	±0.20
R2SHR-1830-3300UG	18.3	0/+0.5	330	0/+5	6.2	0/-0.3	2.0	±0.20
R2SHR-1930-3300UG	19.3	0/+0.5	330	0/+5	6.2	0/-0.3	2.0	±0.20
R2SHR-2030-3300UG	20.3	0/+0.5	330	0/+5	6.2	0/-0.4	2.0	±0.30

● Above data are typical parameters.

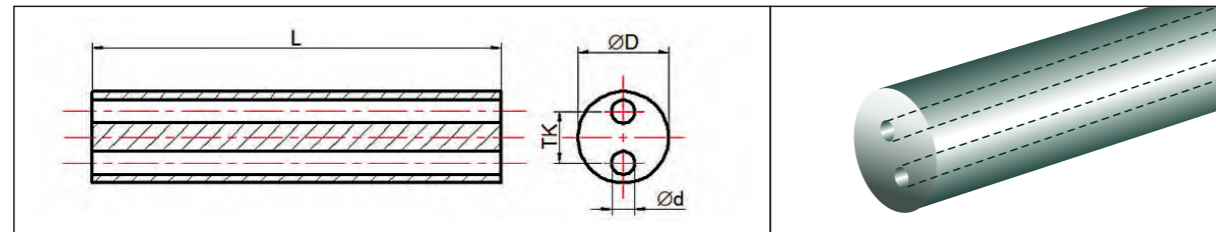
Available Grade

MH10F
 MH7
 CS43

● Please contact with us for more specifications.

In Stock
 Check inventory

Precision Ground Rod, 2 Straight Holes Standard BC



Type: R2SHS
Metric Sizes 6mm to 20mm Diameter
h6 tolerance

Item No.	OD	Tol. h6	L	Tol.	TK	Tol.	d	Tol.
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
R2SHS-0600-3300PG	6	0/-0.008	330	0/+5	3.0	0/-0.2	1.0	±0.15
R2SHS-0700-3300PG	7	0/-0.009	330	0/+5	3.5	0/-0.2	1.0	±0.15
R2SHS-0800-3300PG	8	0/-0.009	330	0/+5	4.0	0/-0.3	1.0	±0.15
R2SHS-0900-3300PG	9	0/-0.009	330	0/+5	4.0	0/-0.3	1.4	±0.15
R2SHS-1000-3300PG	10	0/-0.009	330	0/+5	5.0	0/-0.3	1.4	±0.15
R2SHS-1100-3300PG	11	0/-0.011	330	0/+5	5.0	0/-0.3	1.4	±0.15
R2SHS-1200-3300PG	12	0/-0.011	330	0/+5	6.0	0/-0.3	1.75	±0.15
R2SHS-1300-3300PG	13	0/-0.011	330	0/+5	6.0	0/-0.3	1.75	±0.15
R2SHS-1400-3300PG	14	0/-0.011	330	0/+5	7.0	0/-0.3	1.75	±0.15
R2SHS-1500-3300PG	15	0/-0.011	330	0/+5	7.0	0/-0.3	2.0	±0.20
R2SHS-1600-3300PG	16	0/-0.011	330	0/+5	8.0	0/-0.3	2.0	±0.20
R2SHS-1700-3300PG	17	0/-0.011	330	0/+5	8.0	0/-0.3	2.0	±0.20
R2SHS-1800-3300PG	18	0/-0.011	330	0/+5	9.0	0/-0.3	2.0	±0.20
R2SHS-1900-3300PG	19	0/-0.013	330	0/+5	9.0	0/-0.3	2.0	±0.20
R2SHS-2000-3300PG	20	0/-0.013	330	0/+5	10.0	0/-0.4	2.5	±0.30

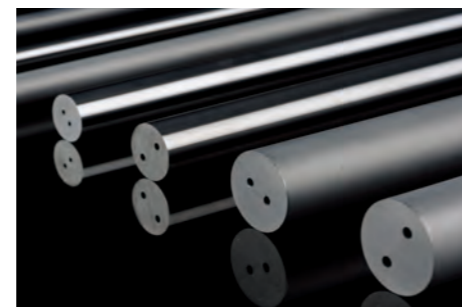
● Above data are typical parameters.

Available Grade

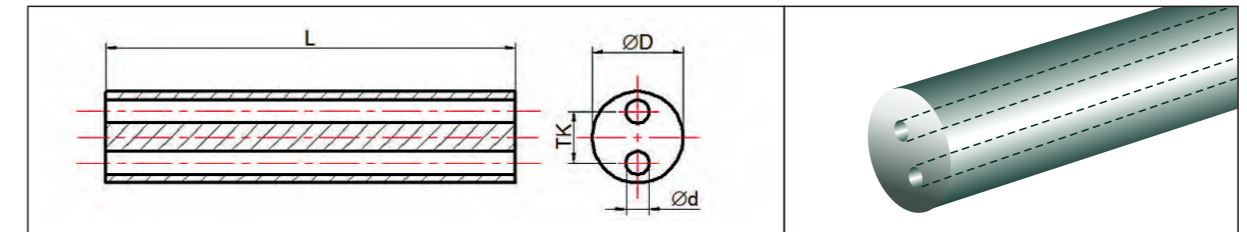
MH10F
 MH7
 CS43

● Please contact with us for more specifications.

In Stock
 Check inventory



Unground Rod, 2 Straight Holes Standard BC



Type: R2SHS
Metric Sizes 6mm to 20mm Diameter

Item No.	OD	Tol.	L	Tol.	TK	Tol.	d	Tol.
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
R2SHS-0630-3300UG	6.3	0/+0.3	330	0/+5	3.0	0/-0.2	1.0	±0.15
R2SHS-0730-3300UG	7.3	0/+0.3	330	0/+5	3.5	0/-0.2	1.0	±0.15
R2SHS-0830-3300UG	8.3	0/+0.3	330	0/+5	4.0	0/-0.3	1.0	±0.15
R2SHS-0930-3300UG	9.3	0/+0.3	330	0/+5	4.0	0/-0.3	1.4	±0.15
R2SHS-1030-3300UG	10.3	0/+0.3	330	0/+5	5.0	0/-0.3	1.4	±0.15
R2SHS-1130-3300UG	11.3	0/+0.4	330	0/+5	5.0	0/-0.3	1.4	±0.15
R2SHS-1230-3300UG	12.3	0/+0.4	330	0/+5	6.0	0/-0.3	1.75	±0.15
R2SHS-1330-3300UG	13.3	0/+0.4	330	0/+5	6.0	0/-0.3	1.75	±0.15
R2SHS-1430-3300UG	14.3	0/+0.4	330	0/+5	7.0	0/-0.3	1.75	±0.15
R2SHS-1530-3300UG	15.3	0/+0.4	330	0/+5	7.0	0/-0.3	2.0	±0.20
R2SHS-1630-3300UG	16.3	0/+0.4	330	0/+5	8.0	0/-0.3	2.0	±0.20
R2SHS-1730-3300UG	17.3	0/+0.5	330	0/+5	8.0	0/-0.3	2.0	±0.20
R2SHS-1830-3300UG	18.3	0/+0.5	330	0/+5	9.0	0/-0.3	2.0	±0.20
R2SHS-1930-3300UG	19.3	0/+0.5	330	0/+5	9.0	0/-0.3	2.0	±0.20
R2SHS-2030-3300UG	20.3	0/+0.5	330	0/+5	10.0	0/-0.4	2.5	±0.30

● Above data are typical parameters.

Available Grade

MH10F
 MH7
 CS43

● Please contact with us for more specifications.

In Stock
 Check inventory

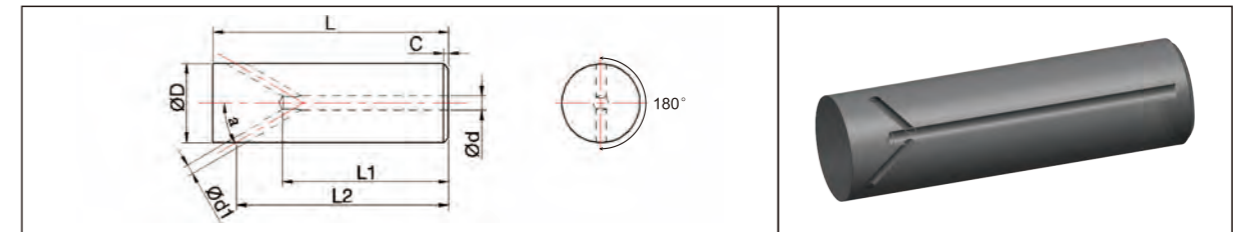
Special Milling Cutter Blanks



- Milling cutter blanks with axial coolant duct and lateral exits/Y exits allows excellent performance on chip removal and cooling of the cutting edge.

Precision ground rods with ballnose and weldon shank are available.

Rods with Axial Coolant Duct and Exit



Type: RFM02
Metric Sizes 6mm to 25mm Diameter
h6 tolerance

Item No.	D h6 (mm)	L (mm)	d (mm)	L2 (mm)	d1 (mm)	C (mm)	L1 (mm)
RFM02-0600-0582-PG-A1.20-E0.80	6.0	58.2	1.20	55.0	0.80	0.6	54.6
RFM02-0800-0642-PG-A1.60-E1.10	8.0	64.2	1.60	60.0	1.10	0.6	59.1
RFM02-1000-0732-PG-A2.00-E1.40	10.0	73.2	2.00	68.0	1.40	0.6	66.6
RFM02-1200-0842-PG-A2.20-E1.60	12.0	84.2	2.20	78.0	1.60	0.8	76.1
RFM02-1400-0842-PG-A2.40-E1.70	14.0	84.2	2.40	77.0	1.70	0.8	74.7
RFM02-1600-0932-PG-A2.60-E1.90	16.0	93.2	2.60	85.0	1.90	0.8	82.2
RFM02-1800-0932-PG-A2.80-E2.00	18.0	93.2	2.80	84.0	2.00	1.0	80.7
RFM02-2000-1052-PG-A3.00-E2.10	20.0	105.2	3.00	95.0	2.10	1.0	91.2
RFM02-2500-1252-PG-A3.20-E2.30	25.0	125.2	3.20	112.5	2.30	1.5	107.5

● Above data are typical parameters.

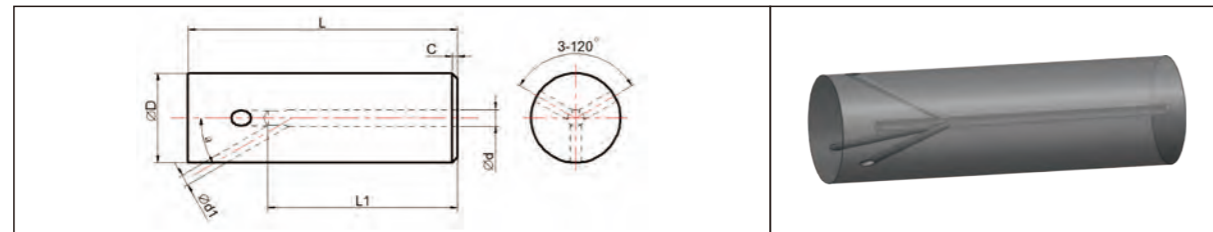
Available Grade

- MH10F
- MH7
-
-

● Please contact with us for more specifications.

Please ask for drawing confirmation or provide your customized drawing at time of inquiry.

Rods with Axial Coolant Duct and Exit



Type: RFM03
Metric Sizes 6mm to 25mm Diameter
h6 tolerance

Item No.	D h6 (mm)	L (mm)	d (mm)	L2 (mm)	d1 (mm)	C (mm)	L1 (mm)
RFM03-0600-0582-PG-A1.20-E0.70	6.0	58.2	1.20	55.0	0.70	0.6	54.6
RFM03-0800-0642-PG-A1.60-E0.90	8.0	64.2	1.60	60.0	0.90	0.6	59.1
RFM03-1000-0732-PG-A2.00-E1.20	10.0	73.2	2.00	68.0	1.20	0.6	66.6
RFM03-1200-0842-PG-A2.20-E1.30	12.0	84.2	2.20	78.0	1.30	0.8	76.1
RFM03-1400-0842-PG-A2.40-E1.40	14.0	84.2	2.40	77.0	1.40	0.8	74.7
RFM03-1600-0932-PG-A2.60-E1.50	16.0	93.2	2.60	85.0	1.50	0.8	82.2
RFM03-1800-0932-PG-A2.80-E1.60	18.0	93.2	2.80	84.0	1.60	1.0	80.7
RFM03-2000-1052-PG-A3.00-E1.70	20.0	105.2	3.00	95.0	1.70	1.0	91.2
RFM03-2500-1252-PG-A3.20-E1.80	25.0	125.2	3.20	112.5	1.80	1.5	107.5

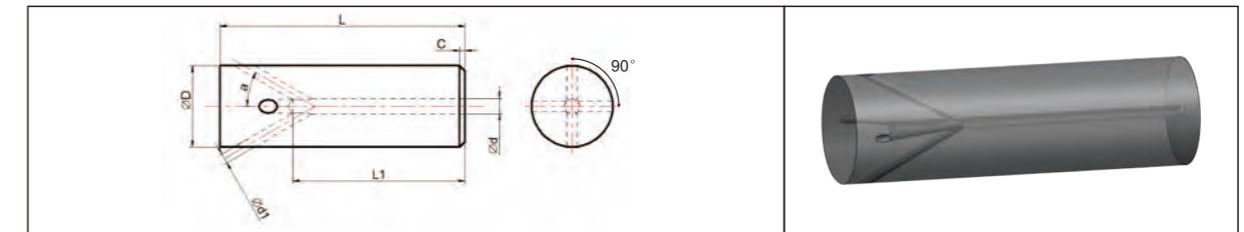
● Above data are typical parameters.

Available Grade

MH10F
 MH7

- Please contact with us for more specifications.
- Please ask for drawing confirmation or provide your customized drawing at time of inquiry.

Rods with Axial Coolant Duct and Exit



Type: RFM04
Metric Sizes 6mm to 25mm Diameter
h6 tolerance

Item No.	D h6 (mm)	L (mm)	d (mm)	L2 (mm)	d1 (mm)	C (mm)	L1 (mm)
RFM04-0600-0582-PG-A1.20-E0.60	6.0	58.2	1.20	55.0	0.60	0.6	54.6
RFM04-0800-0642-PG-A1.60-E0.80	8.0	64.2	1.60	60.0	0.80	0.6	59.1
RFM04-1000-0732-PG-A2.00-E1.00	10.0	73.2	2.00	68.0	1.00	0.6	66.6
RFM04-1200-0842-PG-A2.20-E1.10	12.0	84.2	2.20	78.0	1.10	0.8	76.1
RFM04-1400-0842-PG-A2.40-E1.20	14.0	84.2	2.40	77.0	1.20	0.8	74.7
RFM04-1600-0932-PG-A2.60-E1.30	16.0	93.2	2.60	85.0	1.30	0.8	82.2
RFM04-1800-0932-PG-A2.80-E1.40	18.0	93.2	2.80	84.0	1.40	1.0	80.7
RFM04-2000-1052-PG-A3.00-E1.50	20.0	105.2	3.00	95.0	1.50	1.0	91.2
RFM04-2500-1252-PG-A3.20-E1.60	25.0	125.2	3.20	112.5	1.60	1.5	107.5

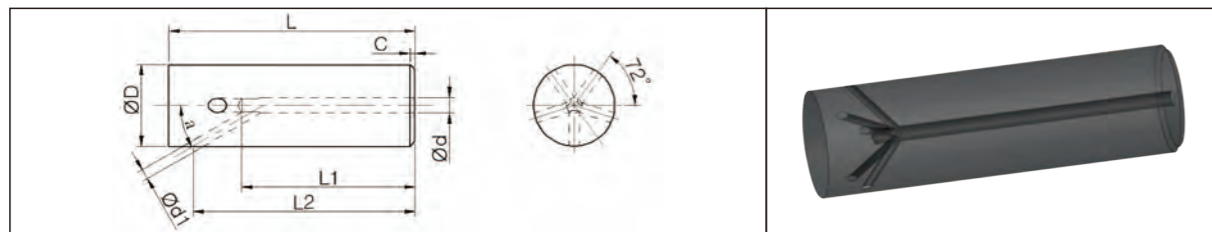
● Above data are typical parameters.

Available Grade

MH10F
 MH7

- Please contact with us for more specifications.
- Please ask for drawing confirmation or provide your customized drawing at time of inquiry.

Rods with Axial Coolant Duct and Exit



Type: RFM05
Metric Sizes 6mm to 25mm Diameter
h6 tolerance

Item No.	D h6 (mm)	L (mm)	d (mm)	L2 (mm)	d1 (mm)	C (mm)	L1 (mm)
RFM05-0600-0582-PG-A1.20-E0.50	6.0	58.2	1.20	55.0	0.50	0.6	54.6
RFM05-0800-0642-PG-A1.60-E0.70	8.0	64.2	1.60	60.0	0.70	0.6	59.1
RFM05-1000-0732-PG-A2.00-E0.90	10.0	73.2	2.00	68.0	0.90	0.6	66.6
RFM05-1200-0842-PG-A2.20-E1.00	12.0	84.2	2.20	78.0	1.00	0.8	76.1
RFM05-1400-0842-PG-A2.40-E1.10	14.0	84.2	2.40	77.0	1.10	0.8	74.7
RFM05-1600-0932-PG-A2.60-E1.20	16.0	93.2	2.60	85.0	1.20	0.8	82.2
RFM05-1800-0932-PG-A2.80-E1.30	18.0	93.2	2.80	84.0	1.30	1.0	80.7
RFM05-2000-1052-PG-A3.00-E1.40	20.0	105.2	3.00	95.0	1.40	1.0	91.2
RFM05-2500-1252-PG-A3.20-E1.50	25.0	125.2	3.20	112.5	1.50	1.5	107.5

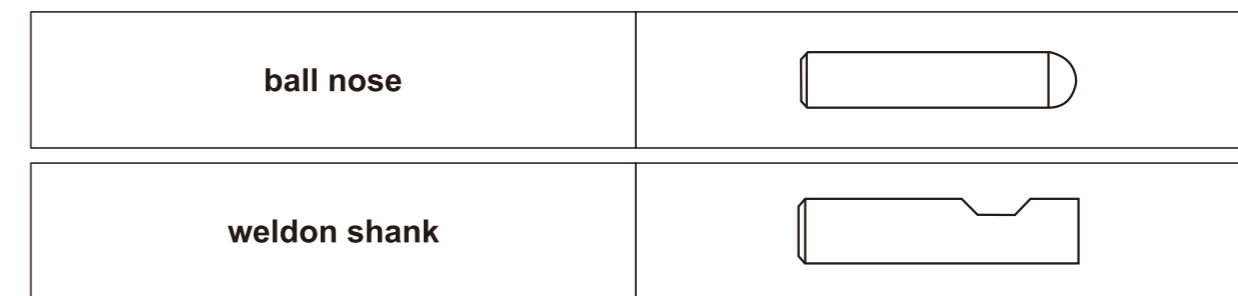
● Above data are typical parameters.

Available Grade

MH10F	MH7
<input type="checkbox"/>	<input type="checkbox"/>

● Please contact with us for more specifications.
□ Please ask for drawing confirmation or provide your customized drawing at time of inquiry.

Special Milling Cutter Blanks (Metric)



Unit: mm

D	Tol.	L	Tol.	Cx45° Tol.±0.004	Ball Nose	Weldon Shank
6.0	h6/h5	51	0/+1% of length, minimum +0.5mm	0.4		
6.0		55		0.4		
6.0		58		0.4	●	●
8.0		59		0.6		
8.0		64		0.6	●	●
10.0		67		0.6		
10.0		73		0.6	●	●
12.0		74		0.8	●	●
12.0		84		0.8	●	●
14.0		76		0.8		
14.0		84		0.8	●	●
16.0		83		0.8		
16.0		93		0.8	●	●
18.0		93		1.0	●	●
20.0		93		1.0		
20.0		105		1.0	●	●
25.0	123	2.0				

● Above data are typical parameters.

Available Grade

MH10F	CS43
<input type="checkbox"/>	<input type="checkbox"/>

● Please contact with us for more specifications.
□ Please ask for drawing confirmation or provide your customized drawing at time of inquiry.

Special Milling Cutter Blanks (Inch)

ball nose	
axial coolant duct and Y-exit	

Unit: mm

D	Tol.	L	Tol.	Cx45° Tol.±0.004	Ball Nose	axial coolant duct and Y-exit/lateral exits
1/4	h6/h5	2	0/+1% of length, minimum +0.02"	0.024	●	●
1/4		2.5		0.024	●	●
5/16		2		0.024	●	●
5/16		2.5		0.024	●	●
3/8		2.5		0.024	●	●
3/8		3		0.024	●	●
3/8		4		0.024	●	●
7/16		2.75		0.031	●	●
1/2		3		0.031	●	●
1/2		4		0.031	●	●
5/8		3.5		0.031	●	●
3/4		4		0.039	●	●
1		4		0.039	●	●

● Above data are typical parameters.

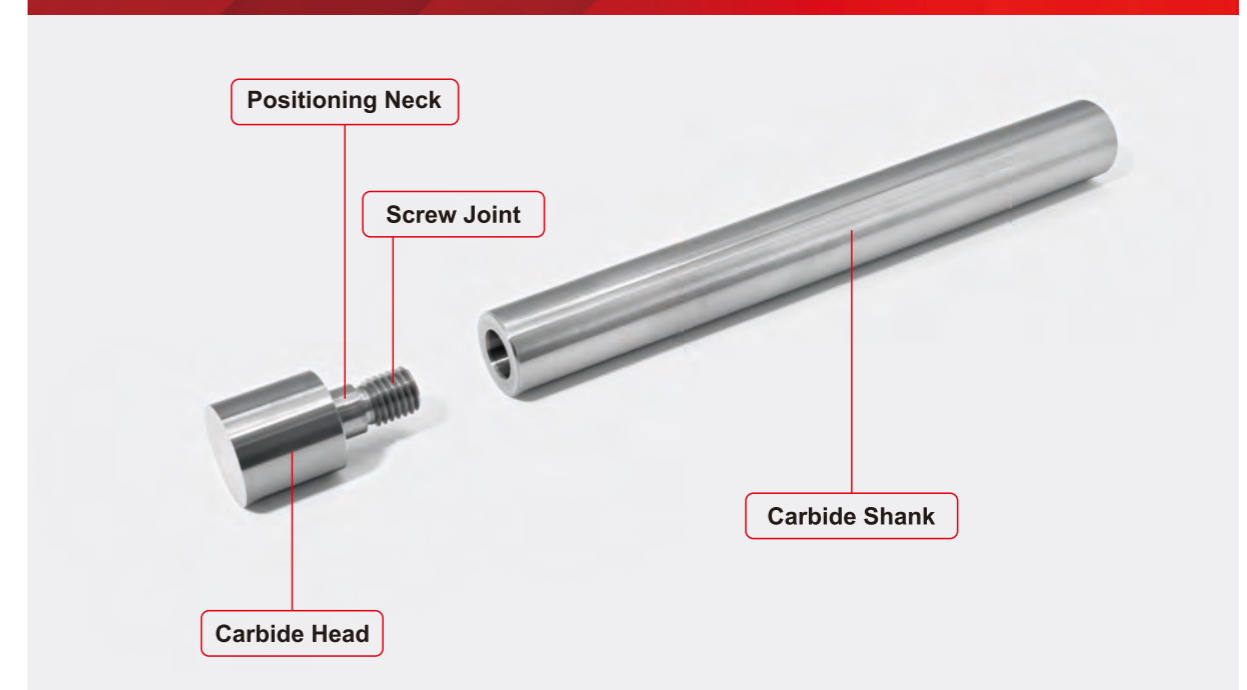
Available Grade

MH10F
 CS43

- Please contact with us for more specifications.
- Please ask for drawing confirmation or provide your customized drawing at time of inquiry.



High Precision Modular Shanks and Heads

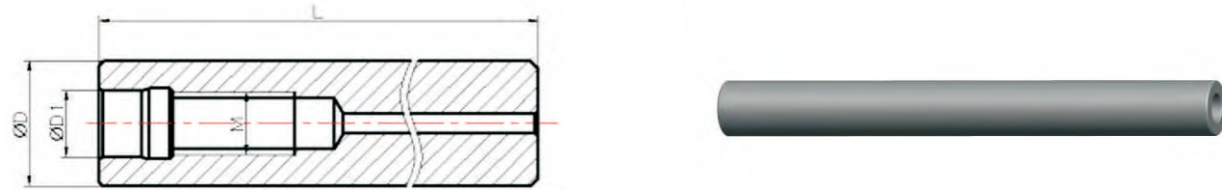


Features

- **High Precision**
Integrated precision (Shank+head)<0.01mm.
- **Screw Connection**
ISO standard screw thread ensures the interchangeability.
- **Application Driving Grades**
Multiple carbide grades are available for head to meet the demanding applications.
- **Interchangeability and Efficiency**
One shank adapts to multiple head that can be interchanged easily, saving time and improving efficiency and productivity.

High Precision Carbide Modular Shanks

Type: CMS
Straight shank



Type: CMSA
Shank with Straight neck



Type: CMSB
Shank with taper neck



Shanks (Metric)

Item No.		D h6	L	D1 h6	M
		(mm)	(mm)	(mm)	
HMS 10L100-M6	CMS 10L100-M6	10	100	6.5	M6
HMS 10L150-M6	CMS 10L150-M6	10	150	6.5	M6
HMS 12L100-M6	CMS 12L100-M6	12	100	6.5	M6
HMS 12L150-M6	CMS 12L150-M6	12	150	6.5	M6
HMS 16L100-M8	CMS 16L100-M8	16	100	8.5	M8
HMS 16L150-M8	CMS 16L150-M8	16	150	8.5	M8
HMS 16L200-M8	CMS 16L200-M8	16	200	8.5	M8
HMS 16L250-M8	CMS 16L250-M8	16	250	8.5	M8
HMS 20L100-M10	CMS 20L100-M10	20	100	10.5	M10
HMS 20L150-M10	CMS 20L150-M10	20	150	10.5	M10
HMS 20L200-M10	CMS 20L200-M10	20	200	10.5	M10
HMS 20L250-M10	CMS 20L250-M10	20	250	10.5	M10
HMS 20L300-M10	CMS 20L300-M10	20	300	10.5	M10
HMS 25L150-M12	CMS 25L150-M12	25	150	12.5	M12
HMS 25L200-M12	CMS 25L200-M12	25	200	12.5	M12
HMS 25L250-M12	CMS 25L250-M12	25	250	12.5	M12
HMS 25L300-M12	CMS 25L300-M12	25	300	12.5	M12
HMS 32L150-M16	CMS 32L150-M16	32	150	16.5	M16
HMS 32L200-M16	CMS 32L200-M16	32	200	16.5	M16
HMS 32L250-M16	CMS 32L250-M16	32	250	16.5	M16
HMS 32L300-M16	CMS 32L300-M16	32	300	16.5	M16
HMS 32L400-M16	CMS 32L400-M16	32	400	16.5	M16

● Above data are typical parameters.

HMS : Heavy Alloy Modular Shanks

Features:
Screw-in, through coolant, Excellent toughness, more fogging with reduced fracture rates. Anti-vibration

Applications:
Ideal for Roughing and Semi-finishing applications, and for use in lower speed machining. Adopted to ISO modular heads.

CMS : Carbide Modular Shanks

Features:
Screw-in, through coolant, Excellent rigidity, and anti-vibration.

Applications:
Ideal for semi-finishing and finishing applications, and High Speed machining. Adopted to ISO modular heads.



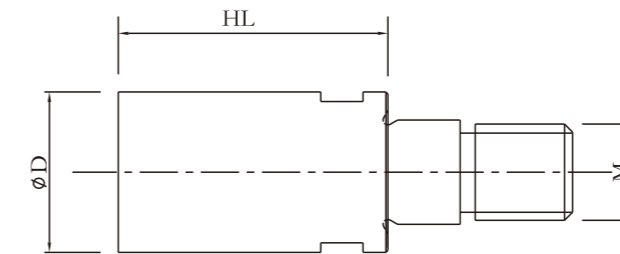
Shanks (Inch)

Item Code	∅ Dh6	L	M
	(inch)	(inch)	
CMS 03750L03937-M6	0.3750	3.937	M6
CMS 03750L05906-M6	0.3750	5.906	M6
CMS 05000L03937-M6	0.5000	3.937	M6
CMS 05000L05906-M6	0.5000	5.906	M6
CMS 06250L03937-M8	0.6250	3.937	M8
CMS 06250L05906-M8	0.6250	5.906	M8
CMS 06250L07874-M8	0.6250	7.874	M8
CMS 06250L09843-M8	0.6250	9.843	M8
CMS 07500L03937-M10	0.7500	3.937	M10
CMS 07500L05906-M10	0.7500	5.906	M10
CMS 07500L07874-M10	0.7500	7.874	M10
CMS 07500L09843-M10	0.7500	9.843	M10
CMS 07500L11811-M10	0.7500	11.811	M10
CMS 10000L05906-M12	1.0000	5.906	M12
CMS 10000L07874-M12	1.0000	7.874	M12
CMS 10000L09843-M12	1.0000	9.843	M12
CMS 10000L11811-M12	1.0000	11.811	M12
CMS 12500L05906-M16	1.2500	5.906	M16
CMS 12500L07874-M16	1.2500	7.874	M16
CMS 12500L09843-M16	1.2500	9.843	M16
CMS 12500L11811-M16	1.2500	11.811	M16
CMS 12500L13780-M16	1.2500	13.780	M16
CMS 12500L15748-M16	1.2500	15.748	M16



High Precision Carbide Modular Heads

Heads (Metric)



Item Code	∅ Dh6	HL+0.5/+0.2	M	Recommended Torsion for Assembly
	(mm)	(mm)		
CEH 10L16-M6	10	16	M6	8~9 N.m
CEH 10L20-M6	10	20	M6	
CEH 10L25-M6	10	25	M6	
CEH 10L35-M6	10	35	M6	
CEH 12L19-M6	12	19	M6	8~9 N.m
CEH 12L24-M6	12	24	M6	
CEH 12L30-M6	12	30	M6	
CEH 12L42-M6	12	42	M6	
CEH 16L24-M8	16	24	M8	10~11 N.m
CEH 16L32-M8	16	32	M8	
CEH 16L40-M8	16	40	M8	
CEH 20L20-M10	20	20	M10	12~16 N.m
CEH 20L30-M10	20	30	M10	
CEH 20L40-M10	20	40	M10	
CEH 20L50-M10	20	50	M10	
CEH 25L25-M12	25	25	M12	15~20 N.m
CEH 25L37.5-M12	25	37.5	M12	
CEH 25L50-M12	25	50	M12	
CEH 32L32-M16	32	32	M16	20~25 N.m
CEH 32L48-M16	32	48	M16	
CEH 32L64-M16	32	64	M16	



Heads (Inch)

Item Code	∅ Dh6	HL+0.5/+0.2	M
	(inch)	(inch)	
CEH 03750L0591-M6	0.375	0.591	M6
CEH 03750L0787-M6	0.375	0.787	M6
CEH 03750L0984-M6	0.375	0.984	M6
CEH 03750L.1378-M6	0.375	1.378	M6
CEH 05000L0709-M6	0.5	0.709	M6
CEH 05000L0945-M6	0.5	0.945	M6
CEH 05000L1181-M6	0.5	1.181	M6
CEH 05000L1654-M6	0.5	1.654	M6
CEH 06250L0945-M8	0.625	0.945	M8
CEH 06250L1260-M8	0.625	1.260	M8
CEH 06250L1575-M8	0.625	1.575	M8
CEH 07500L0787-M10	0.75	0.787	M10
CEH 07500L1181-M10	0.75	1.181	M10
CEH 07500L1575-M10	0.75	1.575	M10
CEH 07500L1969-M10	0.75	1.969	M10
CEH 10000L0984-M12	1	0.984	M12
CEH 10000L1476-M12	1	1.476	M12
CEH 10000L1969-M12	1	1.969	M12
CEH 12500L1260-M16	1.25	1.260	M16
CEH 12500L1890-M16	1.25	1.890	M16
CEH 12500L2520-M16	1.25	2.520	M16

Available Grade

MH10F **CS43**

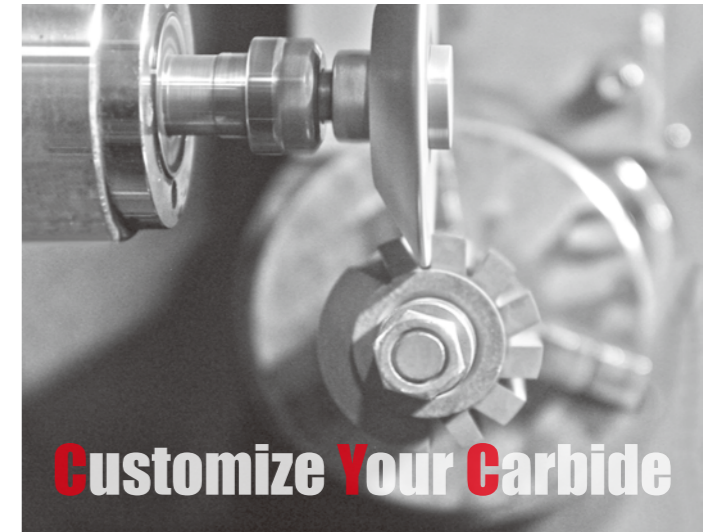


- Please contact with us for more specifications.
- Please ask for drawing confirmation or provide your customized drawing at time of inquiry.

Carbide Preforms

- 1-2 weeks leading time
- No MOQ limit
- Raw sintered or Semi-finished products both are available
- RFQ processed within 24 hours
- Custom solutions to meet your specific requirements

Please allow CYC to help you achieve cost savings by customizing your carbide.



Grade	Binder	Hardness		T.R.S	Density	Grain Size	ISO Code
	%	HRA	HV10	≥N/mm ²	g/cm ³		
MH10F	10	91.8	1600	3800	14.45	Submicron	K30
	An excellent general purpose grade to cover most cutting applications. For materials of ISO P, M, K, N. Suitable for drilling, milling and reaming.						
CS43	12	92.5	1720	4500	14.20	Ultrafine	K40
	Gives high impact strength while maintaining excellent wear resistance. A universal grade for cutting Stainless Steel, Titanium Alloys, Nickel base alloy and other difficult machine materials. Suitable for milling, drilling.						
EH12	12	90.7	1450	3500	14.20	Submicron	K40
	Suitable for tool shank and PCD tool body .						

● Above data are typical parameters.

Standard Tolerance For Preforms

Diameter Tolerance

OD (mm)	Basic allowance (mm)	Sintering Tol. (mm)
>Φ5—Φ14	0.8	±0.2
>Φ14.1—Φ25	1.0	±0.3
>Φ25.1—Φ48	1.2	±0.4
>Φ48.1	1.6	±0.5

● Above data are typical parameters.

Center and Exit hole tolerance

Hole dia (mm)	Tolerance (mm)
>Φ0.8—Φ1.5	±0.1
>Φ1.6—Φ3.0	±0.2
>Φ3.1—Φ8.0	±0.3

● Above data are typical parameters.

Length & Concentricity

Basic allowance (mm)	Sintering Tol. (mm)	Concentricity (mm)
$+(0.4+0.5\%L)$	$\pm 0.5\%L$	≤ 0.3
For example, if L=100mm, then it's basic allowance is $0.4+0.5\%*100=0.9\text{mm}$ Sintering tolerance is $\pm 0.5\%*100=100.9\pm 0.5\text{mm}$.		

● Above data are typical parameters.



Preform Blanks for Cutting Tools

Our Competence

MOQ starts at 1 piece

- As soon as 5 days
- Fully customized according to your drawings
- Provide OD precision grinding service

	<p>Gear hob blanks, raw sintered</p>
	<p>T Type milling Blanks, raw sintered or h5/h6 ground</p>
	<p>Step Drill Blanks Unground or OD h6 ground</p>

Preform Blanks for Cutting Tools

Our Competence

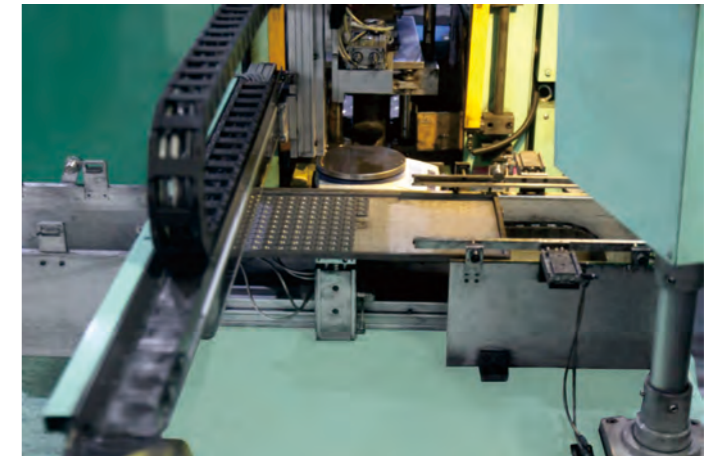
- MOQ starts at 1 piece
- As soon as 5 days
- Fully customized according to your drawings
- Provide OD precision grinding service

	<p>X'mas tree blanks. Raw sintered or h6 shank ground</p>
	<p>Center drill blanks, raw sintered or h6 ground</p>
	<p>Boring bar shanks, raw sintered or h6 ground</p>
	<p>PCD shanks, raw sintered or h6 ground</p>

Other Metal Cutting Tool Blanks

Due to our comprehensive and variable forming solutions, we are able to produce the various type of rods by extrusion pressing, and also the direct pressing of blanks such as rotary bur blanks, disc cutters etc.

Special developed grades upon application, high precision press tools designed built in house, offer tighter tolerance control, which ensures higher performance of products delivered to you.

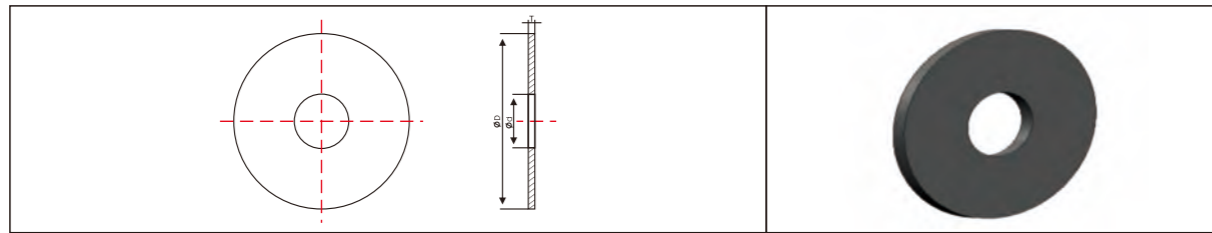


Grade Chart

Grade	Binder	Hardness		T.R.S	Density	Grain Size	ISO Code
	%	HRA	HV10	≥N/mm ²	g/cm ³		
CK10H	6	91.3	1530	2500	14.90	Medium	K10
	Ideal grade for rotary bur blanks.						
MH7	6	93.1	1850	3600	14.85	Submicron	K10-K20
	Standard grade for carbide strips. For cutting non-ferrous metals like Cu, Al.						
MH10F	10	91.8	1600	3800	14.45	Submicron	K30
	Standard grade for carbide strips, disc cutters, for machining most kinds of steel.						
CS43	12	92.5	1720	4500	14.20	Ultrafine	K40
	Standard grade for carbide strips, disc cutters. For machining stainless steel.						

● Above data are typical parameters.

Disc Cutter Blanks



Unit: mm

D	Tol.	d	Tol.	T ToL.+0.2~0.3
11.0		4.0		0.6~2.5
17.2		4.5		
19.0		7.3		
19.0		5.3		
20.0		7.3		
21.5		5.3	-0.3/0	0.6~3.5
30.2		5.5		
31.2		9.5		0.6~4.2
41.2		7.3		
41.2	0/+0.5	12.2		
41.2		14.8		
46.0		15.0		0.7~4.5
51.5		11.5		
51.5		15.0		
51.5		20.8	-0.4/0	
51.5		24.5		
54.5		15.0		
61.5		15.0		
61.5		21.4		
61.5		24.5		

● Above data are typical parameters.

D	Tol.	d	Tol.	T ToL.+0.2~0.3	
62.5		16.0		0.7~4.5	
62.5		14.7			
62.5		15.8			
64.5		14.8			
66.5		14.5			
66.5		15.0			
66.5		21.0			
71.5	0/+0.8	14.5			0.7~5.0
71.5		15.3	-0.4/0		
71.5		24.5			
71.5		20.5			
75.5		20.5			
75.5		15.0			
75.5		24.0			
81.5		20.5			
81.5		24.5			
102.0		20.5		-0.7/0	
102.0	0/+1.0	65.0			
109.0		60.0			
152.0		30.5	-0.5/0		

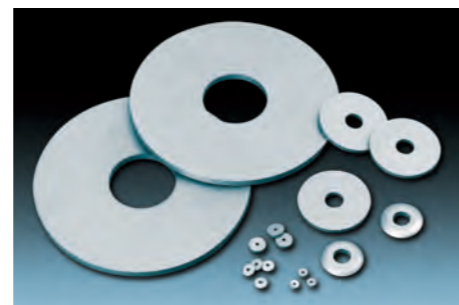
● Above data are typical parameters.

Available Grades

MH10F	CS43
<input type="checkbox"/>	<input type="checkbox"/>

● Please contact with us for more specifications.

■ In Stock Check inventory

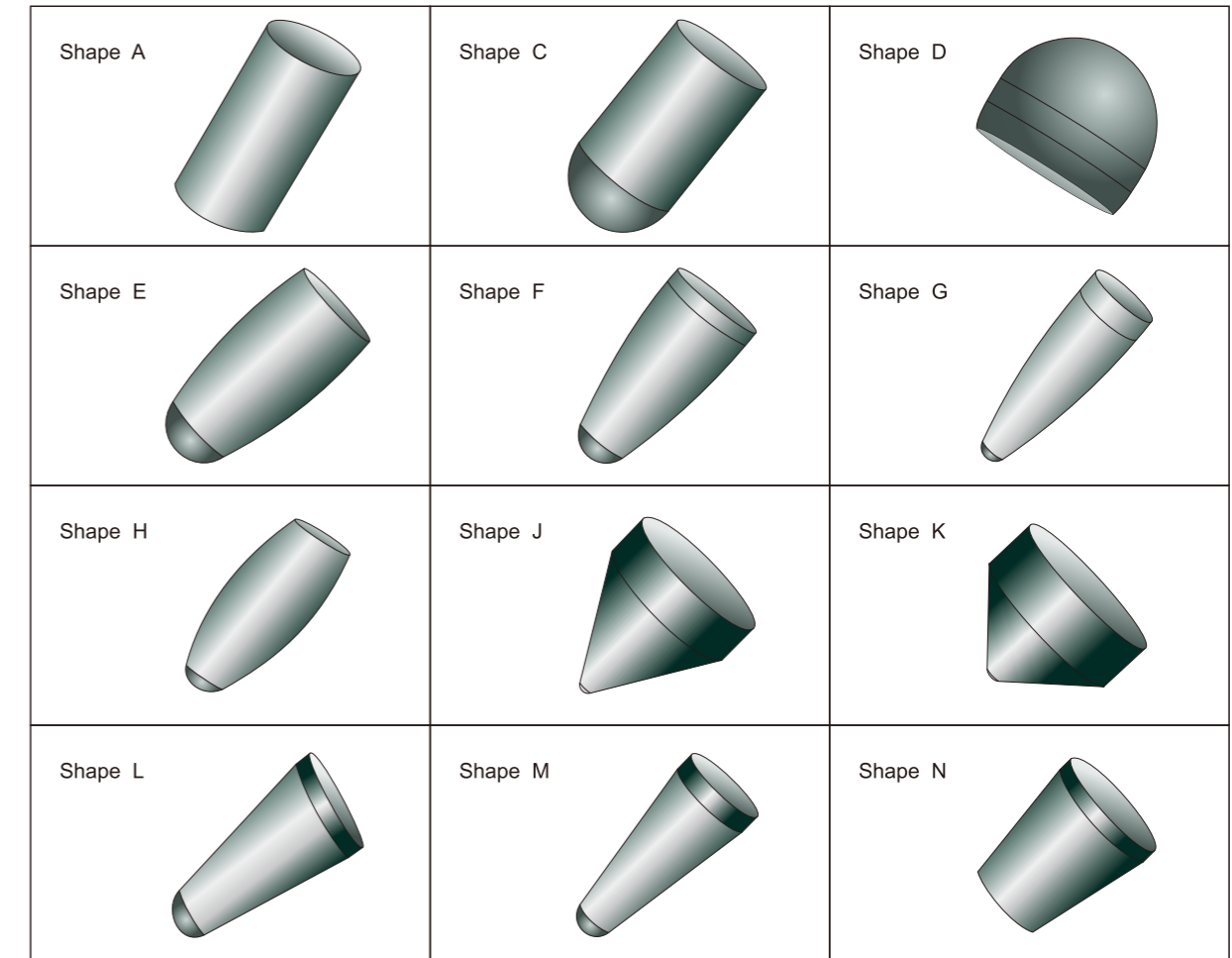


Rotary Bur Head Blanks

- Inch styles - BSA, BSC, BSD, BSE, BSF, BSG, BSH, BSM and BSL
- Metric styles - ZYA, WRD, KUD, TRE, RBF SPG and KSJ

Features: Good wear resistance and longer tool life. Brazing fixture holes available.

Applications: DIN and INCH standards of tungsten carbide rotary bur blanks for fabrication of finished rotary burs.



Available Grades

CK20	CF20	MH10F	CK10H
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

● Please contact with us for more specifications.

■ In Stock Check inventory

