# Ultra-met®

carbide technologies

# **SOLID CARBIDE ROD**

**2023 CATALOG** 

CUSTOMERSERVICE@ULTRA-MET.COM PH (800) 543-9952 | FAX (937) 653-4754

PREMIUM CARBIDE MANUFACTURER SINCE 1965

# Ultra-met®

carbide technologies

www.ultra-met.com



# NOW OFFERING ROUND PREFORMS

Call today! 1-800-543-9952



•Single and multiple diameters:

Multiple hole configurations available. Lead time/capability

Multiple hole configurations available. Lead time/capability is based on drill inventory and Ultra-met review.

- •Female Centers, Male Centers, Lapped centers available.
  - •OD grinding is offered for shanks and diameters.

Will add 5-10 working days to delivery.

- •Minimum Grind stock: 0.030" on diameters and 0.060' on OAL
  - •Max T.I.R.: 0.008"-0.010"

**CUSTOMER SERVICE** 

PH (800) 543-9952

FAX (937) 653-4754

customerservice@ultra-met.com

720 North Main Street Urbana, Ohio 43078 \*Items that are not covered in this outline will need to be reviewed by Ultra-met

MANUFACTURED IN THE USA

## **ABOUT ULTRA-MET**





Founded in 1965, Ultra-Met Carbide Technologies is the leading independent manufacturer of high performance custom-molded carbide products for the most challenging applications. With custom grade development, 35 standard grades, and the latest CNC split-cavity pressing capability, Ultra-met is committed to providing our customers with the highest quality products and exceptional customer service.

Ultra-met is pleased to offer our full line of high quality solid and coolant-through carbide rods highlighted by our American made preform tool blanks made from powder to completed blank in Urbana, Ohio.

Ultra-met strives to make a positive impact on the environment for the benefit of our employees and community. No VOCs are used in our advanced powder manufacturing process, which promotes employee safety and environmental responsibility. If you are looking for a carbide supplier that manufactures in America with state-of-the-art processes and equipment, provides a high-quality product with outstanding service, and cares about the environment, then Ultra-met should be your choice.

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### **FINISH**

- P | Polished: Precision Ground h6, Polished
- S | Satin: Precision Ground h6, Satin finish
- U | Unground: With Ground Stock on Diameter and Length

# **METALLURGICAL CAPABILITIES**

# ULTRA-MET IS FULLY EQUIPPED TO PROVIDE COMPLETE CARBIDE GRADE ANALYSIS, CROSS REFERENCE, AND NEW GRADE DEVELOPMENT.

- \*X-Ray Fluorescence Spectrometer (XRF)
  Chemical analysis / composition of material samples
- HRA Rockwell Hardness Tester
- •Density, g/cc
- Magnetic Saturation, emu
- Coercive Force, Hc, measured in kA/m
- Cross Sectioning, Mount, and Polish for Metallographic Analysis
- Metallurgical Microscope with digital image capability (1500x magnification)
- Keyence Digital Microscope
- Keyence Optical Measurement



## **APPLICATION RECOMMENDATIONS**



#### D: DIAMOND COATING REQUIRED

	Cutting Style	UM10	UM12	UM6	UM3D
	Drilling	•	•		• + D
Milling	Roughing	•			• + D
ivilling	Finishing	•	•	•	• + D
	Reaming	•		•	• + D
	Hobbing	•	•		

	ISO Workpiece Material	UM10	UM12	UM6	UM3D
	Carbon Steel	•	0		
Р	Common Alloy Steel	•	0		
	High Alloy Steel HRC<45	•	•		
	Ferritic Stainless Steel	•	•		
M	Austenitic Stainless Steel		•		
	Martensitic Stainless Steel	0	•		
	Cast Iron	•	0		
K	Nodular Cast Iron	•	0		
	CGI, Malleable, Austempered Cast Iron	•	0		
S	Titanium Alloy	0	•		
3	Nickel Base Alloy	0	•		
Н	Hardened Steel 05-60 HRC		0		
П	Hardened Steel >60HRC				
	Aluminum Alloys	•			
	Copper and Copper Alloys	•		•	
N	Graphite			•	•
	Carbon Fiber			•	•
	Acrylic				•
	Diamond Coating			0	•

<sup>\*</sup>TOOL GEOMETRY, COATING, AND CUTTING STYLE CAN HAVE INFLUENCE ON THE CUTTING PERFORMANCE \*GRADE RECOMMENDATION IS FOR REFERENCE ONLY

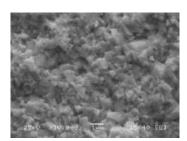
<sup>•</sup> BEST CHOICE
• SUITABLE

# **CARBIDE GRADE CHART**

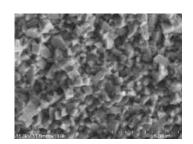


		Hardness	T.R.S.	Density				
Grades	Binder %	HRA	PSI	g/cc	Grain Size	ISO Code		
	10.0	91.8	551,000	14.45	Submicron			
UM10		An excellent high performance grade to cover most of the cutting applications for materials of ISO P, M, K, N. Suitable for drilling, milling, and reaming applications.						
	12.0	92.2	580,000	14.15	Ultrafine			
UM12	Gives high impact strength while maintaining excellent wear resistance							
	6.0	93.1	406,000	14.85	Submicron			
UM6								
	3.0	93.2	261,000	15.25	Fine			
UM3D	A special composition and process control resulting in an excellent adhesion strength and wear resistance in diamond coating applications.							

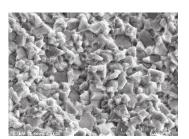
<sup>\*</sup>ABOVE DATA ARE TYPICAL PARAMETERS



ULTRAFINE 0.4~0.6 MICRON



SUBMICRON 0.6~0.8 MICRON



FINE 0.8~1.0 MICRON

# YOUR PARTNER FOR HIGH PERFORMANCE CARBIDE











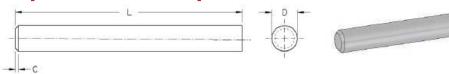


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## PRECISION GROUND | FIXED LENGTH | WITH CHAMFER

IN h6 | FINISH: SATIN



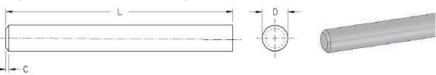
Diameter	Length 0/+.02" to +1%	Chamfer C = ±.004"	Description	Part Number	UM10	UM12	OM6	ОМЗБ
1/8	1.00	45°x.015	0.125h6X1	RGIC.125-1.00S		0	0	0
1/8	1.50	45°x.015	0.125h6X1.5	RGIC.125-1.50S		0	0	0
1/8	1.75	45°x.015	0.125h6X1.75	RGIC.125-1.75S		0	0	0
1/8	2.00	45°x.015	0.125h6X2	RGIC.125-2.00S		0	0	0
1/8	2.25	45°x.015	0.125h6X2.25	RGIC.125-2.25S		0	0	0
1/8	2.50	45°x.015	0.125h6X2.5	RGIC.125-2.50S		0	0	0
1/8	3.00	45°x.015	0.125h6X3	RGIC.125-3.00S		0	0	0
1/8	3.50	45°x.015	0.125h6X3.5	RGIC.125-3.50S		0	0	0
1/8	4.00	45°x.015	0.125h6X4	RGIC.125-4.00S		0	0	0
1/8	6.00	45°x.015	0.125h6X6	RGIC.125-6.00S		0	0	0
3/16	1.50	45°x.015	0.1875h6X1.5	RGIC.1875-1.50S		0	0	0
3/16	2.00	45°x.015	0.1875h6X2	RGIC.1875-2.00S		0	0	0
3/16	2.50	45°x.015	0.1875h6X2.5	RGIC.1875-2.50S		0	0	0
3/16	2.75	45°x.015	0.1875h6X2.75	RGIC.1875-2.75S		0	0	0
3/16	3.00	45°x.015	0.1875h6X3	RGIC.1875-3.00S		0	0	0
3/16	3.50	45°x.015	0.1875h6X3.5	RGIC.1875-3.50S		0	0	0
3/16	4.00	45°x.015	0.1875h6X4	RGIC.1875-4.00S		0	0	0
3/16	5.00	45°x.015	0.1875h6X5	RGIC.1875-5.00S		0	0	0
3/16	6.00	45°x.015	0.1875h6X6	RGIC.1875-6.00S		0	0	0
1/4	1.50	45°x.015	0.25h6X1.5	RGIC.250-1.50S		0	0	0
1/4	2.00	45°x.015	0.25h6X2	RGIC.250-2.00S		0	0	0
1/4	2.50	45°x.015	0.25h6X2.5	RGIC.250-2.50S		0	0	0
1/4	3.00	45°x.015	0.25h6X3	RGIC.250-3.00S		0	0	0
1/4	3.25	45°x.015	0.25h6X3.25	RGIC.250-3.25S		0	0	0
1/4	3.50	45°x.015	0.25h6X3.5	RGIC.250-3.50S		0	0	0
1/4	4.00	45°x.015	0.25h6X4	RGIC.250-4.00S		0	0	0
1/4	5.00	45°x.015	0.25h6X5	RGIC.250-5.00S	•	0	0	0
1/4	6.00	45°x.015	0.25h6X6	RGIC.250-6.00S		0	0	0

<sup>■</sup> PRIMARY STOCK O UPON REQUEST



## PRECISION GROUND | FIXED LENGTH | WITH CHAMFER

INCH h6 | FINISH: SATIN

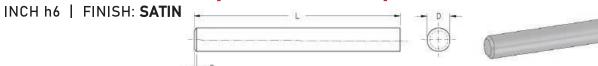


Diameter	Length 0/+.02" to +1%	Chamfer C = ±.004"	Description	Part Number	UM10	UM12	UM6	UM3D
5/16	2.00	45°x.015	0.3125h6X2	RGIC.3125-2.00S		0	0	0
5/16	2.50	45°x.015	0.3125h6X2.5	RGIC.3125-2.50S		0	0	0
5/16	3.00	45°x.015	0.3125h6X3	RGIC.3125-3.00S		0	0	0
5/16	3.50	45°x.015	0.3125h6X3.5	RGIC.3125-3.50S		0	0	0
5/16	3.75	45°x.015	0.3125h6X3.75	RGIC.3125-3.75S		0	0	0
5/16	4.00	45°x.015	0.3125h6X4	RGIC.3125-4.00S		0	0	0
5/16	5.00	45°x.015	0.3125h6X5	RGIC.3125-5.00S		0	0	0
5/16	6.00	45°x.015	0.3125h6X6	RGIC.3125-6.00S		0	0	0
3/8	2.00	45°x.015	0.375h6X2	RGIC.375-2.00S		0	0	0
3/8	2.50	45°x.015	0.375h6X2.5	RGIC.375-2.50S	•	0	0	0
3/8	3.00	45°x.015	0.375h6X3	RGIC.375-3.00S	•	0	0	0
3/8	3.50	45°x.015	0.375h6X3.5	RGIC.375-35.0S		0	0	0
3/8	4.00	45°x.015	0.375h6X4	RGIC.375-4.00S	•	0	0	0
3/8	4.50	45°x.015	0.375h6X4.5	RGIC.375-4.50S	•	0	0	0
3/8	5.00	45°x.015	0.375h6X5	RGIC.375-5.00S	•	0	0	0
3/8	6.00	45°x.031	0.375h6X6	RGIC.375-6.00S		0	0	0
7/16	2.50	45°x.031	0.4375h6X2.5	RGIC.4375-2.50S		0	0	0
7/16	2.75	45°x.031	0.4375h6X2.75	RGIC.4375-2.75S	•	0	0	0
7/16	3.00	45°x.031	0.4375h6X3	RGIC.4375-3.00S	•	0	0	0
7/16	3.50	45°x.031	0.4375h6X3.5	RGIC.4375-3.50S	•	0	0	0
7/16	4.00	45°x.031	0.4375h6X4	RGIC.4375-4.00S	•	0	0	0
7/16	4.50	45°x.031	0.4375h6X4.5	RGIC.4375-4.50S	•	0	0	0
7/16	5.00	45°x.031	0.4375h6X5	RGIC.4375-5.00S	•	0	0	0
7/16	6.00	45°x.031	0.4375h6X6	RGIC.4375-6.00S		0	0	0
1/2	2.50	45°x.031	0.5h6X2.5	RGIC.500-2.50S	•	0	0	0
1/2	3.00	45°x.031	0.5h6X3	RGIC.500-3.00S	•	0	0	0
1/2	3.50	45°x.031	0.5h6X3.5	RGIC.500-3.50S	•	0	0	0
1/2	4.00	45°x.031	0.5h6X4	RGIC.500-4.00S	•	0	0	0
1/2	4.50	45°x.031	0.5h6X4.5	RGIC.500-4.50S		0	0	0
1/2	5.00	45°x.031	0.5h6X5	RGIC.500-5.00S	•	0	0	0
1/2	6.00	45°x.031	0.5h6X6	RGIC.500-6.00S		0	0	0

<sup>■</sup> PRIMARY STOCK O UPON REQUEST



## PRECISION GROUND | FIXED LENGTH | WITH CHAMFER



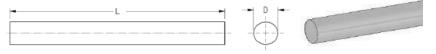
Diameter	Length	Chamfer	Description	Dout Normals or	2	12	(0)	۵
Diameter	0/+.02" to +1%	C = ±.004"	Description	Part Number	UM10	UM12	OM6	UM3D
9/16	3.50	45°x.031	0.5625h6X3.5	RGIC.5625-3.50S		0	0	0
9/16	4.00	45°x.031	0.5625h6X4	RGIC.5625-4.00S		0	0	0
9/16	6.00	45°x.031	0.5625h6X6	RGIC.5625-6.00S		0	0	0
5/8	3.00	45°x.031	0.625h6X3	RGIC.625-3.00S		0	0	0
5/8	3.50	45°x.031	0.625h6X3.5	RGIC.625-3.50S		0	0	0
5/8	4.00	45°x.031	0.625h6X4	RGIC.625-4.00S		0	0	0
5/8	5.00	45°x.031	0.625h6X5	RGIC.625-5.00S		0	0	0
5/8	6.00	45°x.031	0.625h6X6	RGIC.625-6.00S		0	0	0
3/4	3.00	45°x.031	0.75h6X3	RGIC.750-3.00S		0	0	0
3/4	3.50	45°x.031	0.75h6X3.5	RGIC.750-3.50S		0	0	0
3/4	4.00	45°x.031	0.75h6X4	RGIC.750-4.00S		0	0	0
3/4	5.00	45°x.031	0.75h6X5	RGIC.750-5.00S		0	0	0
3/4	6.00	45°x.031	0.75h6X6	RGIC.750-6.00S		0	0	0
3/4	7.00	45°x.031	0.75h6X7	RGIC.750-7.00S		0	0	0
3/4	8.00	45°x.031	0.75h6X8	RGIC.750-8.00S		0	0	0
7/8	3.00	45°x.031	0.875h6X3	RGIC.875-3.00S		0	0	0
7/8	3.50	45°x.031	0.875h6X3.5	RGIC.875-3.50S	-	0	0	0
7/8	4.00	45°x.031	0.875h6X4	RGIC.875-4.00S		0	0	0
7/8	6.00	45°x.031	0.875h6X6	RGIC.875-6.00S		0	0	0
1	3.00	45°x.031	1h6X3	RGIC1.00-3.00S		0	0	0
1	3.50	45°x.031	1h6X3.5	RGIC1.00-3.50S		0	0	0
1	4.00	45°x.031	1h6X4	RGIC1.00-4.00S		0	0	0
1	4.50	45°x.031	1h6X4.5	RGIC1.00-4.50S		0	0	0
1	5.00	45°x.031	1h6X5	RGIC1.00-5.00S		0	0	0
1	6.00	45°x.031	1h6X6	RGIC1.00-6.00S		0	0	0
1	7.00	45°x.031	1h6X7	RGIC1.00-7.00S	•	0	0	0
1	8.00	45°x.031	1h6X8	RGIC1.00-8.00S		0	0	0
1-1/4	4.50	45°x.031	1.25h6X4.5	RGIC1.250-4.50S		0	0	0
1-1/4	5.00	45°x.031	1.25h6X5	RGIC1.250-5.00S		0	0	0
1-1/4	6.00	45°x.031	1.25h6X6	RGIC1.250-6.00S		0	0	0
1-1/4	8.00	45°x.031	1.25h6X8	RGIC1.250-8.00S		0	0	0
1-1/2	6.00	45°x.031	1.5h6X6	RGIC1.500-6.00S		0	0	0

<sup>■</sup> PRIMARY STOCK O UPON REQUEST



## PRECISION GROUND | RANDOM LENGTH

INCH h6 | FINISH: SATIN



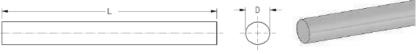
Diameter	Length 0/ +1/4"	Description	Part Number	UM10	UM12	OM6
1/8	13.00	.1250h6 x 13	RGI.125-13.00S		0	0
9/64	13.00	.1406h6 x 13	RGI.1406-13.00S		0	0
5/32	13.00	.1562h6 x 13	RGI.1563-13.00S		0	0
11/64	13.00	.1718h6 x 13	RGI.1719-13.00S		0	0
3/16	13.00	.1875h6 x 13	RGI.1875-13.00S		0	0
13/64	13.00	.2031h6 x 13	RGI.2031-13.00S		0	0
7/32	13.00	.2187h6x 13	RGI.2188-13.00S		0	0
1/4	13.00	.2500h6 x 13	RGI.250-13.00S		0	0
5/16	13.00	.3125h6 x 13	RGI.3125-13.00S		0	0
3/8	13.00	.3750h6 x 13	RGI.3750-13.00S		0	0
7/16	13.00	.4375h6 x 13	RGI.4375-13.00S		0	0
15/32	13.00	.4687h6 x 13	RGI.4688-13.00S		0	0
1/2	13.00	.5000h6 x 13	RGI.500-13.00S		0	0
9/16	13.00	.5625h6 x 13	RGI.5625-13.00S		0	0
5/8	13.00	.6250h6 x 13	RGI.6250-13.00S		0	0
3/4	13.00	.7500h6 x 13	RGI.750-13.00S		0	0
7/8	13.00	.8750h6 x 13	RGI.875-13.00S		0	0
1	13.00	1.000h6 x 13	RGI1.000-13.00S		0	0
1 1/8	13.00	1.125h6 x 13	RGI1.125-13.00S		0	0
1 1/4	13.00	1.250h6 x 13	RGI1.250-13.00S		0	0

<sup>■</sup> PRIMARY STOCK O UPON REQUEST



## **UNGROUND | RANDOM LENGTH**

INCH | FINISH: UNGROUND



<b>Diameter</b> Tol. +.010"/.012"	Length 0/ +1/4"	Description	Part Number	UM10	UM12	UM6
1/16	13.00	1/16 x 13	RR.0625-13.00U		0	0
5/64	13.00	5/64 x 13	RR.0781-13.00U		0	0
3/32	13.00	3/32 x 13	RR.0938-13.00U		0	0
7/64	13.00	7/64 x 13	RR.1094-13.00U		0	0
1/8	13.00	1/8 x 13	RR.1250-13.00U		0	0
9/64	13.00	9/64 x 13	RR.1406-13.00U		0	0
5/32	13.00	5/32 x 13	RR.1563-13.00U		0	0
11/64	13.00	11/64 x 13	RR.1719-13.00U		0	0
3/16	13.00	3/16 x 13	RR.1875-13.00U		0	0
13/64	13.00	13/64 x 13	RR.2031-13.00U		0	0
7/32	13.00	7/32 x 13	RR.2188-13.00U		0	0
15/64	13.00	15/64 x 13	RR.2344-13.00U		0	0
1/4	13.00	1/4 x 13	RR.2500-13.00U		0	0
17/64	13.00	17/64 x 13	RR.2656-13.00U		0	0
9/32	13.00	9/32 x 13	RR.2813-13.00U		0	0
19/64	13.00	19/64 x 13	RR.2969-13.00U		0	0
5/16	13.00	5/16 x 13	RR.3125-13.00U		0	0
21/64	13.00	21/64 x 13	RR.3281-13.00U		0	0
11/32	13.00	11/32 x 13	RR.3438-13.00U		0	0
23/64	13.00	23/64 x 13	RR.3594-13.00U		0	0
3/8	13.00	3/8 x 13	RR.3750-13.00U		0	0
25/64	13.00	25/64 x 13	RR.3906-13.00U		0	0
13/32	13.00	13/32 x 13	RR.4063-13.00U		0	0
27/64	13.00	27/64 x 13	RR.4219-13.00U		0	0
7/16	13.00	7/16 x 13	RR.4375-13.00U		0	0
29/64	13.00	29/64 x 13	RR.4531-13.00U		0	0
15/32	13.00	15/32 x 13	RR.4688-13.00U	▮■	0	0
31/64	13.00	31/64 x 13	RR.4844-13.00U		0	0

<sup>■</sup> PRIMARY STOCK O UPON REQUEST



## **UNGROUND | RANDOM LENGTH**

INCH | FINISH: UNGROUND



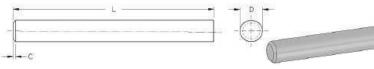
<b>Diameter</b> Tol. +.010"/.012"	Length 0/ +1/4"	Description	Part Number	UM10	UM12	OM6
1/2	13.00	1/2 x 13	RR.5000-1300U		0	0
17/32	13.00	17/32 x 13	RR.5313-1300U		0	0
9/16	13.00	9/16 x 13	RR.5625-1300U		0	0
5/8	13.00	5/8 x 13	RR.6250-1300U		0	0
11/16	13.00	11/16 x 13	RR.6875-1300U		0	0
3/4	13.00	3/4 x 13	RR.7500-1300U		0	0
13/16	13.00	13/16 x 13	RR.8125-1300U		0	0
7/8	13.00	7/8 x 13	RR.8750-1300U		0	0
1	13.00	1 x 13	RR1.000-1300U		0	0

<sup>■</sup> PRIMARY STOCK O UPON REQUEST



## PRECISION GROUND | FIXED LENGTH | WITH CHAMFER

METRIC h6 | FINISH: POLISHED



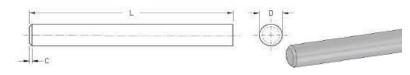
III UF MEASUR	MENT: MILLIME						
Diameter	Length L+1% (+0,5 Min)	Chamfer C = ±0,1	Description	Part Number	UM10	UM12	IIMG
3.00	39.0	45°x0,3	3.0h6X39	RGMC3.0-39P		0	
3.00	40.0	45°x0,3	3.0h6X50	RGMC3.0-40P		0	
3.00	50.0	45°x0,3	3.0h6X50	RGMC3.0-50P		0	(
4.00	50.0	45°x0,3	4.0h6X50	RGMC4.0-50P		0	(
4.00	51.0	45°x0,3	4.0h6X51	RGMC4.0-51P		0	ŀ
4.00	75.0	45°x0,3	4.0h6X75	RGMC4.0-75P		0	
5.00	51.0	45°x0,3	5.0h6X51	RGMC5.0-51P		0	
5.00	55.0	45°x0,3	5.0h6X55	RGMC5.0-55P		0	
6.00	51.0	45°x0,4	6.0h6X51	RGMC6.0-51P		0	
6.00	55.0	45°x0,4	6.0h6X55	RGMC6.0-55P		0	
6.00	57.0	45°x0,4	6.0h6X57	RGMC6.0-57P		0	
6.00	58.0	45°x0,4	6.0h6X58	RGMC6.0-58P		0	Γ
6.00	60.0	45°x0,4	6.0h6X60	RGMC6.0-60P		0	Ī
6.00	63.0	45°x0,4	6.0h6X63	RGMC6.0-63P	1	0	
6.00	70.0	45°x0,4	6.0h6X70	RGMC6.0-70P		0	Ī
6.00	75.0	45°x0,4	6.0h6X75	RGMC6.0-75P		0	
6.00	80.0	45°x0,4	6.0h6X80	RGMC6.0-80P	1	0	
6.00	100.0	45°x0,4	6.0h6X100	RGMC6.0-100P	1	0	
8.00	59.0	45°x0,6	8.0h6X59	RGMC8.0-59P		0	Ī
8.00	64.0	45°x0,6	8.0h6X64	RGMC8.0-64P		0	Ī
8.00	75.0	45°x0,6	8.0h6X75	RGMC8.0-75P		0	Ī
8.00	80.0	45°x0,6	8.0h6X80	RGMC8.0-80P	▮	0	Ī
8.00	90.0	45°x0,6	8.0h6X90	RGMC8.0-90P		0	Ī
8.00	100.0	45°x0,6	8.0h6X100	RGMC8.0-100P	▮	0	Ī
10.00	67.0	45°x0,6	10.0h6X67	RGMC10.0-67P		0	
10.00	70.0	45°x0,6	10.0h6X70	RGMC10.0-70P		0	Ī
10.00	72.0	45°x0,6	10.0h6X72	RGMC10.0-72P		0	l
10.00	73.0	45°x0,6	10.0h6X73	RGMC10.0-73P	1	0	Ī
10.00	75.0	45°x0,6	10.0h6X75	RGMC10.0-75P	1	0	Ī
10.00	90.0	45°x0,6	10.0h6X090	RGMC10.0-90P	1	0	İ
10.00	100.0	45°x0,6	10.0h6X100	RGMC10.0-100P		0	İ

<sup>■</sup> PRIMARY STOCK O UPON REQUEST



## PRECISION GROUND | FIXED LENGTH | WITH CHAMFER

METRIC h6 | FINISH: POLISHED



#### UNIT OF MEASURMENT: MILLIMETERS

Diameter	Length L+1% (+0,5 Min)	Chamfer C = ±0,1	Description	Part Number	UM10	UM12	OM6	UM3D
12.00	74.0	45°x0,8	12.0h6X74	RGMC12.0-74P		0	0	0
12.00	75.0	45°x0,8	12.0h6X75	RGMC12.0-75P		0	0	0
12.00	84.0	45°x0,8	12.0h6X84	RGMC12.0-84P		0	0	0
12.00	100.0	45°x0,8	12.0h6X100	RGMC12.0-100P		0	0	0
12.00	120.0	45°x0,8	12.0h6X120	RGMC12.0-120P		0	0	0
14.00	76.0	45°x0,8	14.0h6X76	RGMC14.0-76P		0	0	0
14.00	83.0	45°x0,8	14.0h6X83	RGMC14.0-83P		0	0	0
14.00	84.0	45°x0,8	14.0h6X84	RGMC14.0-84P		0	0	0
16.00	83.0	45°x0,8	16.0h6X83	RGMC16.0-83P		0	0	0
16.00	93.0	45°x0,8	16.0h6X93	RGMC16.0-93P		0	0	0
16.00	100.0	45°x0,8	16.0h6X100	RGMC16.0-100P		0	0	0
16.00	130.0	45°x0,8	16.0h6X130	RGMC16.0-130P		0	0	0
18.00	85.0	45°x1,0	18.0h6X85	RGMC18.0-85P		0	0	0
18.00	93.0	45°x1,0	18.0h6X93	RGMC18.0-93P		0	0	0
20.00	93.0	45°x1,0	20.0h6X93	RGMC20.0-93P		0	0	0
20.00	100.0	45°x1,0	20.0h6X100	RGMC20.0-100P		0	0	0
20.00	105.0	45°x1,0	20.0h6X105	RGMC20.0-105P		0	0	0
20.00	125.0	45°x1,0	20.0h6X125	RGMC20.0-125P		0	0	0
20.00	150.0	45°x1,0	20.0h6X150	RGMC20.0-150P		0	0	0
25.00	150.0	45°x2,0	25.0h6X150	RGMC25.0-150P		0	0	0

<sup>■</sup> PRIMARY STOCK O UPON REQUEST



## PRECISION GROUND | RANDOM LENGTH

METRIC h6 | FINISH: POLISHED



UNIT OF MEASURMENT: MILLIMETERS

Diameter	Length L 0/+5mm	Description	Part Number	UM10	UM12	UM6
2.0	330	2.0h6X330	RGM2.0-330P		0	0
3.0	330	3.0h6X330	RGM3.0-330P		0	0
4.0	330	4.0h6X330	RGM4.0-330P		0	0
5.0	330	5.0h6X330	RGM5.0-330P		0	0
6.0	330	6.0h6X330	RGM6.0-330P		0	0
7.0	330	7.0h6X330	RGM7.0-330P		0	0
8.0	330	8.0h6X330	RGM8.0-330P		0	0
9.0	330	9.0h6X330	RGM9.0-330P		0	0
10.0	330	10.0h6X330	RGM10.0-330P		0	0
11.0	330	11.0h6X330	RGM11.0-330P		0	0
12.0	330	12.0h6X330	RGM12.0-330P		0	0
13.0	330	13.0h6X330	RGM13.0-330P		0	0
14.0	330	14.0h6X330	RGM14.0-330P		0	0
15.0	330	15.0h6X330	RGM15.0-330P		0	0
16.0	330	16.0h6X330	RGM16.0-330P		0	0
17.0	330	17.0h6X330	RGM17.0-330P		0	0
18.0	330	18.0h6X330	RGM18.0-330P		0	0
19.0	330	19.0h6X330	RGM19.0-330P		0	0
20.0	330	20.0h6X330	RGM20.0-330P		0	0
21.0	330	21.0h6X330	RGM21.0-330P		0	0
22.0	330	22.0h6X330	RGM22.0-330P		0	0
23.0	330	23.0h6X330	RGM23.0-330P		0	0
24.0	330	24.0h6X330	RGM24.0-330P		0	0
25.0	330	25.0h6X330	RGM25.0-330P		0	0
26.0	330	26.0h6X330	RGM26.0-330P	•	0	0
27.0	330	27.0h6X330	RGM27.0-330P	•	0	0
28.0	330	28.0h6X330	RGM28.0-330P	•	0	0
29.0	330	29.0h6X330	RGM29.0-330P		0	0
30.0	330	30.0h6X330	RGM30.0-330P		0	0

<sup>■</sup> PRIMARY STOCK O UPON REQUEST



## **UNGROUND | RANDOM LENGTH**

METRIC | FINISH: UNGROUND



#### UNIT OF MEASURMENT: MILLIMETERS

<b>Diameter</b> Tol. +0,05/0,4	Length L 0/+5mm	Description	Part Number	UM10	UM12	UM6
2.2	13.00	2.2X330	RRM2.2-330U		0	0
3.2	13.00	3.2X330	RRM3.2-330U		0	0
4.2	13.00	4.2X330	RRM4.2-330U		0	0
5.2	13.00	5.2X330	RRM5.2-330U		0	0
6.2	13.00	6.2X330	RRM6.2-330U		0	0
7.2	13.00	7.2X330	RRM7.2-330U		0	0
8.2	13.00	8.2X330	RRM8.2-330U		0	0
9.2	13.00	9.2X330	RRM9.2-330U		0	0
10.2	13.00	10.2X330	RRM10.2-330U		0	0
11.2	13.00	11.2X330	RRM11.2-330U		0	0
12.2	13.00	12.2X330	RRM12.2-330U		0	0
13.2	13.00	13.2X330	RRM13.2-330U		0	0
14.2	13.00	14.2X330	RRM14.2-330U		0	0
15.2	13.00	15.2X330	RRM15.2-330U		0	0
16.2	13.00	16.2X330	RRM16.2-330U		0	0
17.2	13.00	17.2X330	RRM17.2-330U		0	0
18.2	13.00	18.2X330	RRM18.2-330U		0	0
19.2	13.00	19.2X330	RRM19.2-330U		0	0
20.2	13.00	20.2X330	RRM20.2-330U		0	0
21.2	13.00	21.2X330	RRM21.2-330U		0	0
22.2	13.00	22.2X330	RRM22.2-330U		0	0
23.2	13.00	23.2X330	RRM23.2-330U		0	0
24.2	13.00	24.2X330	RRM24.2-330U		0	0
25.2	13.00	25.2X330	RRM25.2-330U		0	0
26.2	13.00	26.2X330	RRM26.2-330U		0	0
27.2	13.00	27.2X330	RRM27.2-330U		0	0
28.2	13.00	28.2X330	RRM28.2-330U		0	0
29.2	13.00	29.2X330	RRM29.2-330U	•	0	0
30.2	13.00	30.2X330	RRM30.2-330U		0	0

<sup>■</sup> PRIMARY STOCK O UPON REQUEST

# **ONE HOLE CENTRAL RODS**



### PRECISION GROUND | RANDOM LENGTH

METRIC h6 | FINISH: POLISHED



UNIT OF MEASURMENT: MILLIMETERS

Diameter	Length L 0/+5	Hole d	0	Description	Part Number	UM10	UM12	UM6
4	330	0.60	0.15	4.0h6X330	R1SHC4.0-330P		0	0
6	330	1.00	0.15	6.0h6X330	R1SHC6.0-330P		0	0
8	330	1.30	0.25	8.0h6X330	R1SHC8.0-330P		0	0
10	330	2.00	0.3	10.0h6X330	R1SHC10.0-330P		0	0
12	330	2.00	0.3	12.0h6X330	R1SHC12.0-330P		0	0
14	330	2.00	0.3	14.0h6X330	R1SHC14.0-330P		0	0
16	330	2.00	0.3	16.0h6X330	R1SHC16.0-330P		0	0
18	330	3.00	0.3	18.0h6X330	R1SHC18.0-330P		0	0
20	330	3.00	0.4	20.0h6X330	R1SHC20.0-330P		0	0
22	330	3.00	0.5	22.0h6X330	R1SHC22.0-330P		0	0
24	330	4.00	0.5	24.0h6X330	R1SHC24.0-330P		0	0
25	330	4.00	0.5	25.0h6X330	R1SHC25.0-330P		0	0

## **UNGROUND | RANDOM LENGTH**



Diameter	Length L 0/+5	Hole d	<b>©</b>	Description	Part Number	UM10	UH12	OM6
4.3	330	0.6	0.15	4.3X330	R1SHC4.3-330U		0	0
6.3	330	1.00	0.15	6.3X330	R1SHC6.3-330U		0	0
8.3	330	1.3	0.25	8.3X330	R1SHC8.3-330U		0	0
10.3	330	2.00	0.3	10.3X330	R1SHC10.3-330U		0	0
12.3	330	2.0	0.3	12.3X330	R1SHC12.3-330U		0	0
14.3	330	2.00	0.3	14.3X330	R1SHC14.3-330U		0	0
16.3	330	2.0	0.3	16.3X330	R1SHC16.3-330U		0	0
18.3	330	3.00	0.3	18.3X330	R1SHC18.3-330U		0	0
20.3	330	3.0	0.4	20.3X330	R1SHC20.3-330U		0	0
22.3	330	3.00	0.5	22.3X330	R1SHC22.3-330U		0	0
24.3	330	4.0	0.5	24.3X330	R1SHC24.3-330U		0	0
25.3	330	4.00	0.5	25.3X330	R1SHC25.3-330U		0	0

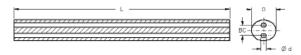
<sup>■</sup> PRIMARY STOCK O UPON REQUEST

# 2 STRAIGHT COOLANT HOLE



## PRECISION GROUND | STANDARD BC | RANDOM LENGTH

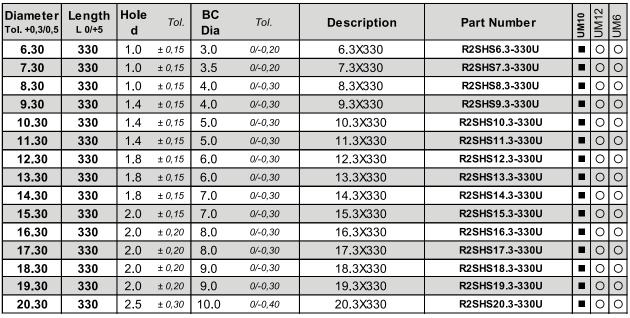
METRIC h6 | FINISH: POLISHED



UNIT OF MEASURMENT: MILLIMETERS

Diameter	Length L 0/+5	Hole d	Tol.	BC Dia	Tol.	Description	Part Number	UM10	UM12	ОМ6
6.00	330	1.0	± 0,15	3.0	0/-0,20	6.0h6X330	R2SHS6.0-330P		0	0
7.00	330	1.0	± 0,15	3.5	0/-0,20	7.0h6X330	R2SHS7.0-330P		0	0
8.00	330	1.0	± 0,15	4.0	0/-0,30	8.0h6X330	R2SHS8.0-330P		0	0
9.00	330	1.4	± 0,15	4.0	0/-0,30	9.0h6X330	R2SHS9.0-330P		0	0
10.00	330	1.4	± 0,15	5.0	0/-0,30	10.0h6X330	R2SHS10.0-330P	•	0	0
11.00	330	1.4	± 0,15	5.0	0/-0,30	11.0h6X330	R2SHS11.0-330P		0	0
12.00	330	1.8	± 0,15	6.0	0/-0,30	12.0h6X330	R2SHS12.0-330P	•	0	0
13.00	330	1.8	± 0,15	6.0	0/-0,30	13.0h6X330	R2SHS13.0-330P		0	0
14.00	330	1.8	± 0,15	7.0	0/-0,30	14.0h6X330	R2SHS14.0-330P	•	0	0
15.00	330	2.0	± 0,15	7.0	0/-0,30	15.0h6X330	R2SHS15.0 -330P		0	0
16.00	330	2.0	± 0,20	8.0	0/-0,30	16.0h6X330	R2SHS16.0-330P	•	0	0
17.00	330	2.0	± 0,20	8.0	0/-0,30	17.0h6X330	R2SHS17.0-330P		0	0
18.00	330	2.0	± 0,20	9.0	0/-0,30	18.0h6X330	R2SHS18.0-330P	•	0	0
19.00	330	2.0	± 0,20	9.0	0/-0,30	19.0h6X330	R2SHS19.0-330P		0	0
20.00	330	2.5	± 0,30	10.0	0/-0,40	20.0h6X330	R2SHS20.0-330P		0	0

## **UNGROUND | STANDARD BC | RANDOM LENGTH**



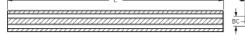
<sup>■</sup> PRIMARY STOCK O UPON REQUEST

# 2 STRAIGHT COOLANT HOLE



## PRECISION GROUND | REDUCED BC | RANDOM LENGTH

METRIC h6 | FINISH: POLISHED





UNIT OF MEASURMENT: MILLIMETERS

Diameter	Length L 0/+5	Hole d	Tol.	BC Dia	Tol.	Description	Part Number	UM10	UM12	OM6
6.00	330	0.80	± 0,15	1.5	0/-0,20	6.0h6X330	R2SHR6.0-330P		0	0
7.00	330	0.80	± 0,15	1.5	0/-0,20	7.0h6X330	R2SHR7.0-330P		0	0
8.00	330	1.00	± 0,15	2.6	0/-0,30	8.0h6X330	R2SHR8.0-330P	•	0	0
9.00	330	1.00	± 0,15	2.6	0/-0,30	9.0h6X330	R2SHR9.0-330P		0	0
10.00	330	1.00	± 0,15	2.6	0/-0,30	10.0h6X330	R2SHR10.0-330P		0	0
11.00	330	1.20	± 0,15	3.5	0/-0,30	11.0h6X330	R2SHR11.0-330P		0	0
12.00	330	1.20	± 0,15	3.5	0/-0,30	12.0h6X330	R2SHR12.0-330P		0	0
13.00	330	1.20	± 0,15	3.5	0/-0,30	13.0h6X330	R2SHR13.0-330P		0	0
14.00	330	1.50	± 0,15	5	0/-0,30	14.0h6X330	R2SHR14.0-330P	•	0	0
15.00	330	1.50	± 0,15	5	0/-0,30	15.0h6X330	R2SHR15.0-330P		0	0
16.00	330	1.50	± 0,20	5	0/-0,30	16.0h6X330	R2SHR16.0-330P		0	0
17.00	330	2.00	± 0,20	6.2	0/-0,30	17.0h6X330	R2SHR17.0-330P		0	0
18.00	330	2.00	± 0,20	6.2	0/-0,30	18.0h6X330	R2SHR18.0-330P		0	0
19.00	330	2.00	± 0,20	6.2	0/-0,30	19.0h6X330	R2SHR19.0-330P		0	0
20.00	330	2.00	± 0,30	6.2	0/-0,40	20.0h6X330	R2SHR20.0-330P		0	0

## **UNGROUND | REDUCED BC | RANDOM LENGTH**



Diameter Tol. +0,3/0,5	Length L 0/+5	Hole d	Tol.	BC Dia	Tol.	Description	Part Number	UM10	UM12	UM6
6.30	330	0.80	± 0,15	1.5	0/-0,20	6.3X330	R2SHR6.3-330U		0	0
7.30	330	0.80	± 0,15	1.5	0/-0,20	7.3X330	R2SHR7.3-330U		0	0
8.30	330	1.00	± 0,15	2.6	0/-0,30	8.3X330	R2SHR8.3-330U		0	0
9.30	330	1.00	± 0,15	2.6	0/-0,30	9.3X330	R2SHR9.3-330U		0	0
10.30	330	1.00	± 0,15	2.6	0/-0,30	10.3X330	R2SHR10.3-330U		0	0
11.30	330	1.20	± 0,15	3.5	0/-0,30	11.3X330	R2SHR11.3-330U		0	0
12.30	330	1.20	± 0,15	3.5	0/-0,30	12.3X330	R2SHR12.3-330U		0	0
13.30	330	1.20	± 0,15	3.5	0/-0,30	13.3X330	R2SHR13.3-330U		0	0
14.30	330	1.50	± 0,15	5	0/-0,30	14.3X330	R2SHR14.3-330U		0	0
15.30	330	1.50	± 0,15	5	0/-0,30	15.3X330	R2SHR15.3-330U	-	0	0
16.30	330	1.50	± 0,20	5	0/-0,30	16.3X330	R2SHR16.3-330U		0	0
17.30	330	2.00	± 0,20	6.2	0/-0,30	17.3X330	R2SHR17.3-330U	-	0	0
18.30	330	2.00	± 0,20	6.2	0/-0,30	18.3X330	R2SHR18.3-330U		0	0
19.30	330	2.00	± 0,20	6.2	0/-0,30	19.3X330	R2SHR19.3-330U		0	0
20.30	330	2.00	± 0,30	6.2	0/-0,40	20.3X330	R2SHR20.3-330U		0	0

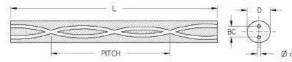
<sup>■</sup> PRIMARY STOCK O UPON REQUEST

# 2 HOLE 30 DEGREE



### PRECISION GROUND | REDUCED HOLE | RANDOM LENGTH

METRIC h6 | FINISH: POLISHED



UNIT OF MEASURMENT: MILLIMETERS

Diameter	Length L 0/+5	Hole d	Tol.	BC Dia	Tol.	Pitch	Description	Part Number	UM10	UM12	UM6
6.00	330	0.70	± 0,10	2.4	0/-0,20	32.65	6.0h6X330	R2H30R6.0-330P		0	0
7.00	330	1.0	± 0,15	3.5	0/-0,20	38.09	7.0h6X330	R2H30R7.0-330P		0	0
8.00	330	1.0	± 0,15	3.8	0/-0,30	43.53	8.0h6X330	R2H30R8.0-330P		0	0
9.00	330	1.4	± 0,15	4.5	0/-0,30	48.97	9.0h6X330	R2H30R9.0-330P		0	0
10.00	330	1.4	± 0,15	4.5	0/-0,30	54.41	10.0h6X330	R2H30R10.0-330P		0	0
11.00	330	1.4	± 0,15	4.9	0/-0,40	59.86	11.0h6X330	R2H30R11.0-330P		0	0
12.00	330	1.40	± 0,15	5.85	0/-0,40	65.30	12.0h6X330	R2H30R12.0-330P		0	0
13.00	330	1.75	± 0,2	6.1	0/-0,40	70.74	13.0h6X330	R2H30R13.0-330P		0	0
14.00	330	1.75	± 0,2	6.7	0/-0,40	76.18	14.0h6X330	R2H30R14.0-330P	•	0	0
15.00	330	1.75	± 0,2	7.3	0/-0,40	81.62	15.0h6X330	R2H30R15.0-330P		0	0
16.00	330	1.75	± 0,2	7.9	0/-0,40	87.06	16.0h6X330	R2H30R16.0-330P		0	0
17.00	330	1.75	± 0,2	8.5	0/-0,40	92.50	17.0h6X330	R2H30R17.0-330P	-	0	0
18.00	330	2.0	± 0,25	9.15	0/-0,40	97.95	18.0h6X330	R2H30R18.0-330P		0	0
19.00	330	2.0	± 0,25	9.7	0/-0,40	103.39	19.0h6X330	R2H30R19.0-330P		0	0
20.00	330	2.0	± 0,25	9.9	0/-0,50	108.83	20.0h6X330	R2H30R20.0-330P		0	0

## UNGROUND | REDUCED HOLE | RANDOM LENGTH

Diameter	_	_	Tol.	ВС	Tol.	Pitch	Description	Part Number	0	2	
Tol. +0,3/1,0	L 0/+5	d		Dia			·		<b>UM10</b>	UM12	OM6
6.30	330	0.70	± 0,10	2.4	0/-0,20	32.65	6.3X330	R2H30R6.3-330U		0	0
7.30	330	1.0	± 0,15	3.5	0/-0,20	38.09	7.3X330	R2H30R7.3-330U		0	0
8.30	330	1.0	± 0,15	3.8	0/-0,30	43.53	8.3X330	R2H30R8.3-330U		0	0
9.30	330	1.4	± 0,15	4.5	0/-0,30	48.97	9.3X330	R2H30R9.3-330U		0	0
10.30	330	1.40	± 0,15	4.5	0/-0,30	54.41	10.3X330	R2H30R10.3-330U		0	0
11.30	330	1.4	± 0,15	4.9	0/-0,40	59.86	11.3X330	R2H30R11.3-330U		0	0
12.30	330	1.40	± 0,15	5.85	0/-0,40	65.30	12.3X330	R2H30R12.3-330U		0	0
13.30	330	1.75	± 0,2	6.1	0/-0,40	70.74	13.3X330	R2H30R13.3-330U		0	0
14.30	330	1.75	± 0,2	6.7	0/-0,40	76.18	14.3X330	R2H30R14.3-330U		0	0
15.30	330	1.75	± 0,2	7.3	0/-0,40	81.62	15.3X330	R2H30R15.3-330U		0	0
16.30	330	1.75	± 0,2	7.9	0/-0,40	87.06	16.3X330	R2H30R16.3-330U		0	0
17.30	330	1.75	± 0,2	8.5	0/-0,40	92.50	17.3X330	R2H30R17.3-330U		0	0
18.30	330	2.00	± 0,25	9.15	0/-0,40	97.95	18.3X330	R2H30R18.3-330U		0	0
19.30	330	2.00	± 0,25	9.7	0/-0,40	103.39	19.3X330	R2H30R19.3-330U		0	0
20.30	330	2.00	± 0,25	9.9	0/-0,50	108.83	20.3X330	R2H30R20.3-330U		0	0

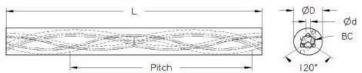
<sup>■</sup> PRIMARY STOCK O UPON REQUEST

# 3 HOLE 30 DEGREE



## PRECISION GROUND | RANDOM LENGTH

METRIC h6 | FINISH: POLISHED



UNIT OF	MFASURMENT:	MILL	IMETERS

Diameter	Length L 0/+5	Hole d	Tol.	BC Dia	Tol.	Pitch	Description	Part Number	UM10	UM12	OM6
6	330	0.5	± 0,15	2.75	±0,20	32.65	6.0h6X330	R3H306.0-330P		0	0
8	330	0.7	± 0,15	3.85	±0,20	43.53	8.0h6X330	R3H308.0-330P		0	0
10	330	0.85	± 0,20	4.95	±0,30	54.41	10.0h6X330	R3H3010.0-330P		0	0
12	330	1.1	± 0,20	6.05	±0,40	65.30	12.0h6X330	R3H3012.0-330P		0	0
14	330	1.4	± 0,20	7.05	±0,40	76.18	14.0h6X330	R3H3014.0-330P		0	0
16	330	1.6	± 0,20	8.05	±0,40	87.06	16.0h6X330	R3H3016.0-330P		0	0
18	330	1.7	± 0,25	9.25	±0,50	97.95	18.0h6X330	R3H3018.0-330P		0	0
20	330	1.9	± 0,25	9.85	±0,50	108.83	20.0h6X330	R3H3020.0-330P		0	0

### **UNGROUND | RANDOM LENGTH**



Diameter	Length L 0/+5	Hole d	Tol.	BC Dia	Tol.	Pitch	Description	Part Number	UM10	UM12	ОМ6
6.30	330	0.5	± 0,15	2.75	±0,20	32.65	6.3X330	R3H306.3-330U		0	0
8.30	330	0.7	± 0,15	3.85	±0,20	43.53	8.3X330	R3H308.3-330U		0	0
10.30	330	0.85	± 0,20	4.95	±0,30	54.41	10.3X330	R3H3010.3-330U		0	0
12.30	330	1.10	± 0,20	6.05	±0,40	65.30	12.3X330	R3H3012.3-330U		0	0
14.30	330	1.40	± 0,20	7.05	±0,40	76.18	14.3X330	R3H3014.3-330U		0	0
16.30	330	1.60	± 0,20	8.05	±0,40	87.06	16.3X330	R3H3016.3-330U		0	0
18.30	330	1.70	± 0,25	9.25	±0,50	97.95	18.3X330	R3H3018.3-330U		0	0
20.30	330	1.90	± 0,25	9.85	±0,50	108.83	20.3X330	R3H3020.3-330U		0	0

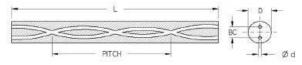
<sup>■</sup> PRIMARY STOCK O UPON REQUEST

# 2 HOLE 40 DEGREE



### PRECISION GROUND | RANDOM LENGTH

METRIC h6 | FINISH: POLISHED



UNIT OF MEASURMENT: MILLIMETERS

Diameter	Length L 0/+5	Hole d	Tol.	BC Dia	Tol.	Pitch	Description	Part Number	UM10	UM12	UM6
6	330	0.50	± 0,10	2.0	±0,15	22.46	6.0h6X330	R2H406.0-330P		0	0
8	330	0.65	± 0,15	2.4	±0,30	29.95	8.0h6X330	R2H408.0-330P		0	0
10	330	0.80	± 0,15	3.1	±0,40	37.44	10.0h6X330	R2H4010.0-330P		0	0
12	330	0.90	± 0,15	3.8	±0,40	44.93	12.0h6X330	R2H4012.0-330P		0	0
14	330	1.00	± 0,20	4.3	±0,40	52.42	14.0h6X330	R2H4014.0-330P		0	0
16	330	1.20	± 0,20	5.1	±0,40	59.90	16.0h6X330	R2H4016.0-330P		0	0
18	330	1.40	± 0,25	5.9	±0,40	67.39	18.0h6X330	R2H4018.0-330P		0	0
20	330	1.50	± 0,25	6.6	±0,50	74.88	20.0h6X330	R2H4020.0-330P		0	0

## **UNGROUND | RANDOM LENGTH**



Diameter Tol. +0,3/1,0	•	Hole d	Tol.	BC Dia	Tol.	Pitch	Description	Part Number	UM10	UM12	UM6
6.30	330	0.5	± 0,10	2.0	±0,15	22.46	6.3X330	R2H406.3-330U		0	0
8.30	330	0.7	± 0,15	2.4	±0,30	29.95	8.3X330	R2H408.3-330U		0	0
10.30	330	1.00	± 0,15	3.2	±0,40	37.44	10.3X330	R2H4010.3-330U		0	0
12.30	330	1.2	± 0,15	3.8	±0,40	44.93	12.3X330	R2H4012.3-330U		0	0
14.30	330	1.2	± 0,20	4.3	±0,40	52.42	14.3X330	R2H4014.3-330U		0	0
16.30	330	1.3	± 0,20	5.1	±0,40	59.90	16.3X330	R2H4016.3-330U		0	0
18.30	330	1.4	± 0,20	5.9	±0,40	67.39	18.3X330	R2H4018.3-330U		0	0
20.30	330	1.5	± 0,20	6.6	±0,50	74.88	20.3X330	R2H4020.3-330U		0	0

<sup>■</sup> PRIMARY STOCK O UPON REQUEST



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