

**Grand Sea Cemented Carbide long rod** is the raw material of producing the alloy cutting tools such as end milling cutter, drill and reamer. These cutting tools are widely used for metal processing.

**Types available are:**

- ※ Tungsten carbide long rods diameter from 1mm-50mm, common length 300mm, 310mm and 330mm.
- ※ One coolant hole rods diameter from 3mm -30mm, length is 330mm
- ※ Two coolant holes rods diameter from 4mm -20mm, length is 330mm
- ※ Two spiral coolant hole with 30 degree, diameter from 6mm -20mm, length is 330mm

**Length 330mm as example:**

规格/Type	尺寸/Dimension			
	直径	公差	长度	公差
	ØD(mm)	Tol.(mm)	L(mm)	Tol.(mm)
Ø1*330	1.0	+0.30~+0.80	330	+0.3~+1.80
Ø2*330	2.0	+0.30~+0.80	330	+0.3~+1.80
Ø3*330	3.0	+0.30~+0.60	330	+0.3~+1.80
Ø4*330	4.0	+0.30~+0.60	330	+0.3~+1.80
Ø5*330	5.0	+0.30~+0.60	330	+0.3~+1.80
Ø6*330	6.0	+0.30~+0.60	330	+0.3~+1.80
Ø7*330	7.0	+0.30~+0.60	330	+0.3~+1.80
Ø8*330	8.0	+0.30~+0.60	330	+0.3~+1.80
Ø9*330	9.0	+0.30~+0.60	330	+0.3~+1.80
Ø10*330	10.0	+0.30~+0.60	330	+0.3~+1.80
Ø12*330	12.0	+0.30~+0.60	330	+0.3~+1.80
Ø14*330	14.0	+0.30~+0.60	330	+0.3~+1.80
Ø15*330	15.0	+0.30~+0.60	330	+0.3~+1.80
Ø16*330	16.0	+0.30~+0.80	330	+0.5~+2.50
Ø18*330	18.0	+0.30~+0.80	330	+0.5~+2.50
Ø20*330	20.0	+0.30~+0.80	330	+0.5~+2.50
Ø22*330	22.0	+0.30~+0.80	330	+0.5~+2.50
Ø24*330	24.0	+0.30~+0.80	330	+0.5~+2.50
Ø25*330	25.0	+0.60~+1.20	330	+0.5~+2.50
Ø26*330	26.0	+0.60~+1.20	330	+0.5~+2.50
Ø28*330	28.0	+0.60~+1.20	330	+0.5~+2.50
Ø30*330	30.0	+0.60~+1.20	330	+0.5~+2.50
Ø32*330	32.0	+0.60~+1.20	330	+0.5~+2.50
Ø34*330	34.0	+0.60~+1.20	330	+0.5~+2.50
Ø35*330	35.0	+0.60~+1.20	330	+0.5~+2.50
Ø36*330	36.0	+0.60~+1.20	330	+0.5~+2.50
Ø38*330	38.0	+0.60~+1.20	330	+0.5~+2.50
Ø40*330	40.0	+0.60~+1.20	330	+0.5~+2.50
Ø45*330	45.0	+0.60~+1.20	330	+0.5~+2.50
Ø50*330	50.0	+0.60~+1.20	330	+0.5~+2.50

Grade Recommendation:

材质名称 (Grade)	WC ( % )	CO ( % )	晶粒度 Grain size ( um )	比重 Density ( g/cm³ ) ±0.1	硬度 Hardness ( HRA ) ±0.5	断裂韧性 KIC ( MNm-3/2 )	抗折力 TRS ( kgf/mm² )
H09U	91	9	0.3	14.5	93.7	9.2	>350
H12U-T	88	12	0.3	14.2	93.0	9.6	>350
H06U-T	94	6	0.4	14.9	94.5	8.4	>380
H06U	94	6	0.4	14.9	94.0	8.7	>380
H08U	92	8	0.4	14.7	93.6	8.8	>380
H08U-K	92	8	0.4	14.7	93.2	9.0	>380
H12U	88	12	0.4	14.3	92.5	9.4	>350
H10S	90	10	0.6	14.4	92.1	9.9	>350
H10F	90	10	0.8	14.4	91.8	10.9	>350

Application

材质名称Grade	用途推荐 Applications								
Grade/Sort	H06U	H06U-T	H08U	H08U-K	H12U	H10S	H10F	H09U	H12U-T
碳素钢 Carbon steel						●	●		
回火钢 Tempered steel					●				●
淬火钢 Hardened steel	●	●		●				●	
不锈钢 Stainless steels	●	●			●		●		●
奥氏体不锈钢 Austenitic stainless steel						●			
灰口铸铁 Greycast iron						●			
耐热合金 Heat resistant alloys	●	●			●	●			●
钛合金 Titanium alloys			●	●	●			●	●
镍合金 Nickel alloys (Inconel)					●	●	●		●
铝合金 Aluminium alloys			●	●				●	
复合材料 Composite materials	●	●	●	●	●			●	●
碳纤维复合材料 CFRP	●	●	●	●	●			●	●
石墨 Graphite	●	●	●	●				●	
树脂材料 Resin			●						
木材 Wood			●	●				●	