



MG

DLC
Coating

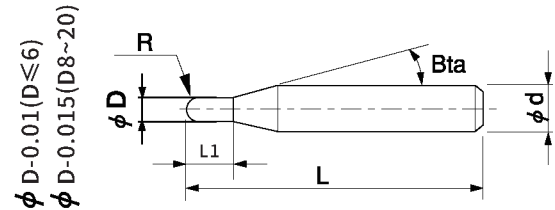
R≤3

R4~10

Highly recommend ★ ○ ○
/Recommend/Suggest

Specialty

- * Ultra-fine micro-particles tungsten steel raw materials developed for tungsten copper;
- * The special flute design and coating achieve high surface finish and ultra-long life of tungsten copper material.



DIE STEEL	Grade
Carbon steels (S45C/S55C)	
Alloy steels (SK/SCM/SUS)	
Prehardened steels (NAK/HPM)	
Hardened steels (~55/~60/~70HRC)	
SPECIAL MATERIAL	
Aluminum alloys	
Graphite	
Copper	
Plastics	
Tungsten copper	★
Carbon fiber	
Titanium alloys	
Heat resistant alloys	
Cemented carbide	
Hard brittle (non-metallic) material	

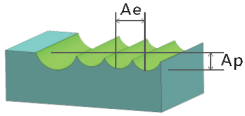
Total 21 models

Unit (mm)

Model Number	D Outside Diameter	L1 Length of Cut	BTa Shank Taper Angle	L Overall Length	T Number of Flutes	d Shank Diameter	In Stock
CGR2-002004	R0.1	0.4	15°	50	2	4	○
CGR2-003006	R0.15	0.6	15°	50	2	4	○
CGR2-004008	R0.2	0.8	15°	50	2	4	○
CGR2-005010	R0.25	1	15°	50	2	4	○
CGR2-006012	R0.3	1.2	15°	50	2	4	○
CGR2-008016	R0.4	1.6	15°	50	2	4	○
CGR2-010020	R0.5	2	15°	50	2	4	○
CGR2-015030	R0.75	3	15°	50	2	4	○
CGR2-020040	R1	4	15°	70	2	4	○
CGR2-030060-3	R1.5	6	15°	60	2	3	○
CGR2-030060	R1.5	6	15°	60	2	4	○
CGR2-040080	R2	8	-	50	2	4	○
CGR2-040080-75	R2	8	-	75	2	4	○
CGR2-040080-100	R2	8	-	100	2	4	○
CGR2-060120	R3	12	-	60	2	6	○
CGR2-060120-75	R3	12	-	75	2	6	○
CGR2-060120-100	R3	12	-	100	2	6	○
CGR2-080180	R4	18	-	75	2	6	○
CGR2-080180-100	R4	18	-	100	2	8	○
CGR2-100200	R5	20	-	100	2	10	○
CGR2-120300	R6	30	-	100	2	12	○

*New size added from this series.

○ Stocked items.



Processing Parameters

Work Material	Tungsten Copper			
Radius of Ball Nose	(min-1) Speed	(mm/min) Feed	Ap (mm)	Ae (mm)
R0.1	30000	150	0.006	0.006
R0.15	26000	200	0.006	0.006
R0.2	26000	300	0.006	0.006
R0.25	22000	400	0.015	0.015
R0.3	20000	600	0.015	0.015
R0.4	20000	800	0.02	0.02
R0.5	18000	1000	0.02	0.03
R0.75	16000	1200	0.02	0.04
R1	14000	1800	0.02	0.05
R1.5	13000	2200	0.03	0.06
R1.5	13000	2200	0.03	0.06
R2	12000	2400	0.03	0.06
R2	12000	2400	0.03	0.06
R3	10000	2600	0.03	0.08
R4	9000	2800	0.03	0.1
R5	8000	2800	0.03	0.12
R6	7000	2800	0.03	0.12

Note:

* Decrease both spindle speed and feed rate proportionally if overhang length exceeds 3xd;

* Decrease both spindle speed and feed rate proportionally when the milling parameters exceed the machine's maximum spindle speed.

2 Flutes

Ball