







GRA-MATE ENDMILL

Graphite, Reinforced Plastics, Non-ferrous materials



Contents

Section		EDP No	Geometry	Type	Diameter(mm)		Page
Type	Flutes				Min	Max	
SQUARE	2F	GE		2 FLUTES NECK SQUARE ENDMILL	D0.5	D12	357
	4F	WGE504		4 FLUTES SQUARE ENDMILL	D2	D20	358
RADIUS	2F	WGR502		2 FLUTES NECK RADIUS ENDMILL	D0.2	D6	359
	4F	WGR504		4 FLUTES RADIUS ENDMILL	D3	D20	360
BALL	2F	G		2 FLUTES NECK BALL ENDMILL	R0.25	R6	361
	4F	WGB504		4 FLUTES BALL ENDMILL	R0.5	R10	363

EDP No. System

*If expressed as an integer, the decimal point is omitted.

WG R 5 0 4 080 10 130

Section	Appearance	Grade	Length, Shank Type	Flutes	Cutting Dia	Corner R	Shank Dia
G : Graphite	E : Square	5 : Grade	0 : Straight, Neck	2 : 2 Flutes	0.2	0.05	40
WG : Winner Graphite	R : Radius			4 : 4 Flutes	~	~	~
					20	1	200

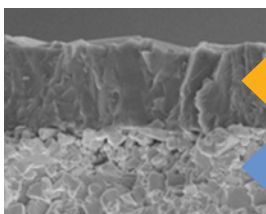
Ex) 4 Flutes / Cutting Dia Ø8 / Corner R 1.0 / Shank Dia 130 / 50 Grade / Corner Radius Endmill For Graphith

General Features

- Suitable for Graphite, Reinforced Plastics, Non-ferrous materials
- High hardness Diamond Coating for better tool life
- Maximizing and Stabilizing Coating Thickness for Improved Wear Resistance
- Various specifications for a variety of machining methods

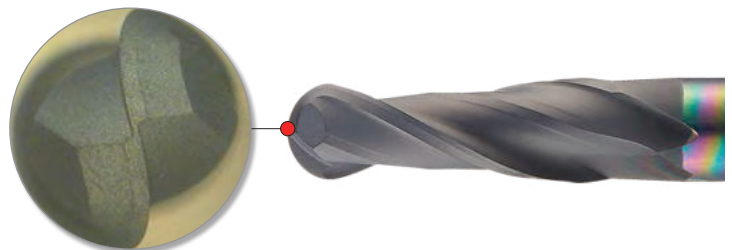
Characteristics

- High surface hardness and tool life with high adhesion diamond coating
- Minimize accidental damage by using dedicated materials with excellent wear resistance



Coating layer

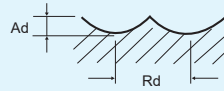
Basic material



[BC502 series]

WORKPIECE		UNALLOYED COPPER			
R(mm)	DIAMETER(mm)	RPM	FEED	Rd	Ad
0.5	1	41,000	1,660	0.040	0.063
0.75	1.5	27,000	1,830	0.068	0.087
1	2	20,000	1,780	0.089	0.112
1.25	2.5	16,000	1,840	0.115	0.090
1.5	3	13,000	2,220	0.171	0.168
2	4	10,000	2,080	0.208	0.200
2.5	5	8,300	1,990	0.240	0.200
3	6	6,900	1,940	0.281	0.250
4	8	5,720	1,000	0.175	0.400
5	10	4,550	700	0.154	0.500
6	12	3,770	600	0.159	0.600

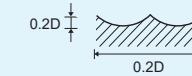
RPM = rev. / min.
FEED = mm / min.



[G series]

WORKPIECE	GRAPHITE	
DIAMETER(mm)	RPM	FEED
0.5	16,000	480
0.75	16,000	640
1	16,000	800
1.5	16,000	1,450
2	16,000	2,100
3	15,000	2,950
4	13,000	3,000
5	11,500	3,050
6	10,500	3,150
8	8,555	2,960

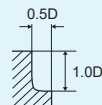
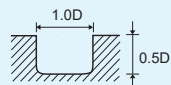
RPM = rev. / min.
FEED = mm / min.



[RC502 series]

WORKPIECE	UNALLOYED COPPER			
DIAMETER(mm)	RPM	FEED	RPM	FEED
3	44,500	2,350	50,000	3,700
4	33,400	2,100	50,000	4,700
6	22,300	2,100	33,400	4,900
8	16,700	2,100	25,000	4,700
10	13,370	2,100	20,000	4,800
12	11,100	2,100	16,700	4,700

RPM = rev. / min.
FEED = mm / min.



[WGB504 series]

WORKPIECE	GRAPHITE	
DIAMETER(mm)	RPM	FEED
1.0	20,000	700
2.0	16,000	1,200
3.0	16,000	2,000
4.0	16,000	3,100
5.0	15,000	3,800
6.0	15,000	4,400
8.0	13,000	4,500
10.0	12,000	4,600
12.0	10,000	4,700
16.0	7,500	3,800
20.0	6,000	3,500

RPM = rev. / min.
FEED = mm / min.

