



## List 7470: DG-CR-EML

### Contouring

Work Material		Graphite			
		Roughing		Finishing	
Cutting Speed		246 SFM		246 SFM	
Depth of Cut					
Mill Dia.		Speed RPM	Feed in/min	Speed RPM	Feed in/min
Inch	CR				
3/64	0.010	20,000	95	20,000	79
1/16	0.010	15,000	71	15,000	50
3/32	0.015	10,000	47	10,000	33
3/32	0.020	10,000	47	10,000	33
1/8	0.015	7,520	35	7,520	25
1/8	0.020	7,520	35	7,520	25
1/8	0.030	7,520	35	7,520	25
3/16	0.030	5,010	24	5,010	17
3/16	0.060	5,010	24	5,010	17
1/4	0.015	3,860	18	3,860	12
1/4	0.020	3,860	18	3,860	12
1/4	0.030	3,860	18	3,860	12
1/4	0.060	3,860	18	3,860	12
3/8	0.015	2,500	12	2,500	8
3/8	0.030	2,500	12	2,500	8
3/8	0.060	2,500	12	2,500	8
1/2	0.015	1,880	9	1,880	6
1/2	0.030	1,880	9	1,880	6
1/2	0.060	1,880	9	1,880	6

Set the ramping angle to be approximately between 0.3° and 0.5°.

1. Adjust the speed, the feed rate, and the depth of cut to suit your operating conditions, such as the milling shape, machine rigidity, tool holder rigidity, and work holding force.
2. If you are unable to reach the speed and feed rate indicated in the table above, lower the speed and feed rate using the same ratio.
3. If the workpiece gets chipped or if the operation requires a higher level of milling precision, lower the feed rate as necessary.
4. Depending on the shape, if the workpiece chatters, lower the speed and feed rate using the same ratio.
5. To mill graphite, use a dedicated milling machine. To prevent inhalation of dust, use a dust collector and a dust mask when working around graphite.
6. During milling, keep the runout at the tip of the end mill to be less than 0.0004 inches (0.01 mm).
7. When making a rough cut with a 3/16" or greater end mill, you can feed as high as triple the recommended feed rate provided the stepdown is less than the corner radius.
8. If a cut involves the shaping of a corner during side milling, use the corner radius process of the program, or adjust the speed so that it will not cause chattering, and reduce the speed at the corner at the same time (approximately 60%).

