



Solid Carbide Fiberglass Abrasive Type Plunge Diamond Pattern Router Bits Depth of Cut: 1 x Tool Diameter †

	Spindle Speed SFM*			Chip Load Per Revolution IPR**			
Material				#46087/46088	#46099/46110/	#46112	#46123
	1/8" (0.250)	1/4" (0.250) / 6mm	1/2" (0.500)	1/8"(0.125)	46110-M/ 46089 1/4" (0.250) / 6mm	1/4" (0.250)	1/2" (0.500)
Carbon, Carbon Graphite, Unfilled Plastics	1,600 - 3,200	1,600 - 3,200	1,600 - 3,200	0.0020" - 0.0027"	0.0025 " - 0.0040"	0.0035" - 0.0050"	0.0075" - 0.0090"
Composites	1,200 - 2,800	1,200 - 2,800	1,600 - 3,200	0.0006" - 0.0014"	0.0008 " - 0.0020"	0.0018" - 0.0030"	0.0060" - 0.0080"
Fiberglass Filled Plastics	1,200 - 2,800	1,200 - 2,800	1,600 - 3,200	0.0006" - 0.0014"	0.0008 " - 0.0020"	0.0018" - 0.0030"	0.0060" - 0.0080"
Green Ceramic, Green Carbide	800 - 1,600	800 - 1,600	800 - 1,600	0.0011" - 0.0023"	0.0015 " - 0.0030"	0.0025" - 0.0040"	0.0060" - 0.0080"

SFM* Surface feet per minute **IPR**** Inches per revolution

† Depth of Cut: 1 x D Use recommended feed rate

2 x D Reduce feed rate by 25%

3 x D Reduce feed rate by 50%

Simple Machining Calculations:

To find **RPM:** (SFM x 3.82) / diameter of tool To find **SFM:** 0.262 x diameter of tool x RPM

To find Feed Rate IPM: RPM x # of flutes x chip load

To find Chip Load: Feed Rate IPM / (RPM x # of flutes)

To find Ramp Down: Feed Rate IPM / # of flutes