



High Performance Solid Carbide Fiberglass and Composite Cutting Router Bits

Speed and Feed Chart

Operating RPM: 18,000 / Depth of Cut: 1 x Tool Diameter †

Material	Surface Feet Per Minute				Chip Load Per Tooth			
	1/8" (0.125)	1/4" (0.250)	3/8" (0.375)	1/2" (0.500)	1/8" (0.125)	1/4" (0.250)	3/8" (0.375)	1/2" (0.500)
Carbon, Carbon Graphite, Unfilled Plastics	1,600 - 3,200	1,600 - 3,200	1,600 - 3,200	1,600 - 3,200	0.0008" - 0.0025"	0.0025" - 0.0040"	0.0040" - 0.0065"	0.0065" - 0.0080"
Composites	1,200 - 2,800	1,200 - 2,800	1,600 - 3,200	1,600 - 3,200	0.0004" - 0.0008"	0.0008" - 0.0020"	0.0030" - 0.0055"	0.0050" - 0.0070"
Fiberglass Filled Plastics	1,200 - 2,800	1,200 - 2,800	1,600 - 3,200	1,600 - 3,200	0.0004" - 0.0008"	0.0008" - 0.0020"	0.0030" - 0.0055"	0.0050" - 0.0070"
Green Ceramic, Green Carbide	800 - 1,600	800 - 1,600	800 - 1,600	800 - 1,600	0.0004" - 0.0008"	0.0015" - 0.0030"	0.0030" - 0.0055"	0.0050" - 0.0070"

Tool Reference #'s	
48050-B	1/8" Dia.
48050-D	1/8" Dia.
48050-E	1/8" Dia.
48050-N	1/8" Dia.
48052-E	1/4" Dia.
48054-B	1/4" Dia.
48054-D	1/4" Dia.
48054-E	1/4" Dia.
48054-N	1/4" Dia.
48055-B	3/8" Dia.
48055-D	3/8" Dia.
48055-E	3/8" Dia.
48055-N	3/8" Dia.
48058-B	1/2" Dia.
48058-D	1/2" Dia.
48058-E	1/2" Dia.
48058-N	1/2" Dia.

† **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

Disclaimer: It is important to understand that these values are only recommendations.

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