

10 Flute Solid Carbide Spektra™ Extreme Tool Life Coated Carbon Graphite and Carbon Fiber Panel CNC Cutting Router Bits

Depth of Cut: 1 x Tool Diameter †

Material	Type of Cut	Spindle Speed SFM*	#46008-K / #48450-K 1/8" (0.125) / 3mm		#46264-K / #48452-K 1/4" (0.250) / 6mm	
			Feed Rate IPM** / RPM	Chip Load Per Revolution	Feed Rate IPM** / RPM	Chip Load Per Revolution
Aramid Fiber, Carbon Fiber (AFRP, CFRP)	Slot	400	245" / 12,200	0.002"	185" / 6,100	0.003"
	Profile	500	300" / 15,200	0.002"	230" / 7,600	0.003"
	Finishing	600	365" / 18,300	0.002"	275" / 9,100	0.003"
Fiberglass (GFRP)	Slot	300	275" / 9,100	0.003"	225" / 4,500	0.005"
	Profile	400	365" / 12,200	0.003"	305" / 6,100	0.005"
	Finishing	600	550" / 18,300	0.003"	455" / 9,100	0.005"
Carbon, Graphite	Slot	500	455" / 15,200	0.003"	380" / 7,600	0.005"
	Profile	600	550" / 18,300	0.003"	455" / 9,100	0.005"
	Finishing	800	730" / 24,400	0.003"	610" / 12,200	0.005"
Plastic	Slot	600	550" / 18,300	0.003"	455" / 9,100	0.005"
	Profile	800	730" / 24,400	0.003"	610" / 12,200	0.005"
	Finishing	1200	1,100" / 36,600	0.003"	915" / 18,300	0.005"
Machineable Ceramic	Slot	40	25" / 1,200	0.002"	20" / 600	0.003"
Machineable Glass MACOR®	Profile	50	30" / 1,500	0.002"	25" / 760	0.003"
	Finishing	85	50" / 2,500	0.002"	35" / 1,200	0.003"

* SFM Surface feet per minute

** IPR Inches per minute

† 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.