

**Solid Carbide Spektra™ Extreme Tool Life Coated Mortise Compression Spiral Router Bits**  
 CNC Operating Spindle Speed: 18,000 RPM / Depth of Cut: 1 x Tool Diameter †

**2 Flute**

Diameter	Wood			MDF/Laminate			Plywood			Plastic		
	Feed Rate IPM *	Chip Load Per Tooth	Ramp Down	Feed Rate IPM *	Chip Load Per Tooth	Ramp Down	Feed Rate IPM *	Chip Load Per Tooth	Ramp Down	Feed Rate IPM *	Chip Load Per Tooth	Ramp Down
1/8"	80"	.0022"	40"	160"	.0044"	80"	80"	.0022"	40"	80"	.0022"	40"
3/16"	80"	.0022"	40"	160"	.0044"	80"	80"	.0022"	40"	80"	.0022"	40"
5mm	110"	.0031"	55"	220"	.0061"	110"	110"	.0031"	55"	110"	.0031"	55"
6mm	110"	.0031"	55"	220"	.0061"	110"	110"	.0031"	55"	110"	.0031"	55"
1/4"	110"	.0031"	55"	220"	.0061"	110"	110"	.0031"	55"	110"	.0031"	55"
8mm	200"	.0056"	100"	400"	.0111"	200"	200"	.0056"	100"	200"	.0056"	100"
10mm	200"	.0056"	100"	400"	.0111"	200"	200"	.0056"	100"	200"	.0056"	100"
3/8"	200"	.0056"	100"	400"	.0111"	200"	200"	.0056"	100"	200"	.0056"	100"
12mm	280"	.0077"	140"	400"	.0111"	200"	280"	.0077"	140"	280"	.0077"	140"
1/2"	280"	.0077"	140"	400"	.0111"	200"	280"	.0077"	140"	280"	.0077"	140"

**3 Flute**

Diameter	Wood			MDF/Laminate			Plywood			Plastic		
	Feed Rate IPM *	Chip Load Per Tooth	Ramp Down	Feed Rate IPM *	Chip Load Per Tooth	Ramp Down	Feed Rate IPM *	Chip Load Per Tooth	Ramp Down	Feed Rate IPM *	Chip Load Per Tooth	Ramp Down
1/8"	80"	.0014"	27"	160"	.0030"	54"	80"	.0014"	27"	80"	.0014"	27"
1/4" / 6mm	165"	.0031"	55"	330"	.0061"	110"	165"	.0031"	55"	165"	.0031"	55"
3/8"	300"	.0056"	100"	400"	.0074"	133"	300"	.0056"	100"	300"	.0056"	100"

\* **IPM:** 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.

Tool Reference #'s	
2 Flute	Dia.
46019-K	1/2"
46021-K	3/8"
46023-K	1/2"
46025-K	6mm
46027-K	12mm
46029-K	1/4"
46033-K	1/4"
46034-K	1/2"
46187-K	3/16"
46350-K	1/4"
46352-K	3/8"
46354-K	1/2"
46367-K	3/8"
46395-K	3/8"
48301-K	1/8"
48309-K	1/2"
48351-K	5mm
48352-K	8mm
48353-K	3/16"
48354-K	10mm
48359-K	3/8"
3 Flute	Dia.
46016-K	1/4"
46018-K	1/4"
46020-K	3/8"
46398-K	1/8"
48358-K	6mm