

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

2 Flute

Tool No.		Diameter	Wood/Plywood			MDF/Laminate		
Up-Cut	Down-Cut		Feed Rate IPM *	Chip Load Per Tooth	Ramp Down	Feed Rate IPM *	Chip Load Per Tooth	Ramp Down
—	46229-K **	1/32"	30"	.0008"	15"	60"	.0015"	30"
—	46237-K **	1/16"	50"	.0016"	25"	100"	.0031"	50"
—	46213-K **	1/16"	50"	.0016"	25"	100"	.0031"	50"
—	46233-K **	1/16"	50"	.0016"	25"	100"	.0031"	50"
46127-K	46227-K	1/8"	60"	.0016"	30"	110"	.0031"	55"
46100-K	46200-K	1/8"	60"	.0016"	30"	110"	.0031"	55"
46125-K	46225-K	1/8"	60"	.0016"	30"	110"	.0031"	55"
46101-K	46201-K	3/16"	80"	.0024"	40"	160"	.0047"	80"
—	46211-K	5mm	80"	.0024"	40"	160"	.0047"	80"
46102-K	46202-K	1/4"	60"	.0016"	30"	110"	.0031"	55"
46315-K	46415-K	1/4"	60"	.0016"	30"	110"	.0031"	55"
46316-K	46416-K	1/4"	60"	.0016"	30"	110"	.0031"	55"
46321-K	46421-K	1/4"	60"	.0016"	30"	110"	.0031"	55"
46399-K	—	1/4"	60"	.0016"	30"	110"	.0031"	55"
—	46203-K	3/8"	230"	.0064"	115"	390"	.0108"	195"
46320-K	46420-K	3/8"	230"	.0064"	115"	390"	.0108"	195"
46106-K	46206-K	1/2"	200"	.0057"	100"	350"	.0096"	175"

3 Flute

46001-K	46051-K	1/8"	90"	.0016"	30"	160"	.0031"	27"
46002-K	46052-K	1/4"	90"	.0016"	30"	160"	.0031"	27"
46116-K	46216-K	1/2"	300"	.0057"	100"	500"	.0096"	167"

* IPM: Inches Per Minute

** **▲ WARNING:** Due to the extremely small diameters involved, bits are not guaranteed against breakage. Please exercise caution to the accurate calculations of all feed and speed rates.

† **Depth of Cut:**

- 1 x D Use recommended chip load
- 2 x D Reduce chip load by 25%
- 3 x D Reduce chip load 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