Amana Tool®

SPEKTRA™ EXTREME TOOL LIFE COATING INDUSTRIAL

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"	35"	.0010"	17.5"	70"	.0020"	35"
—	46242-K **	1/32"	35"	.0010"	17.5"	70"	.0020"	35"
—	48210-K	1.5mm	35"	.0010"	17.5"	70"	.0020"	35"
—	48212-K	1.5mm	35"	.0010"	17.5"	70"	.0020"	35"
—	46237-K **	1/16"	70"	.0020"	35"	105"	.0030"	52.5"
—	46213-K **	1/16"	70"	.0020"	35"	105"	.0030"	52.5"
—	46233-K **	1/16"	70"	.0020"	35"	105"	.0030"	52.5"
46521-K	46448-K **	1/16"	70"	.0020"	35"	105"	.0030"	52.5"
46009-K	46403-K **	1/16"	70"	.0020"	35"	105"	.0030"	52.5"
—	48214-K	3mm	70"	.0020"	35"	105"	.0030"	52.5"
—	48216-K	3mm	70"	.0020"	35"	105"	.0030"	52.5"
—	46239-K **	3/32"	80"	.0023"	40"	160"	.0046"	80"
—	46244-K **	3/32"	80"	.0023"	40"	160"	.0046"	80"
46127-K	46227-K	1/8"	145"	.0040"	72.5"	180"	.0050"	90"
46100-K	46200-K	1/8"	145"	.0040"	72.5"	180"	.0050"	90"
46125-K	46225-K	1/8"	145"	.0040"	72.5"	180"	.0050"	90"
48331-K	48341-K	1/8"	145"	.0040"	72.5"	180"	.0050"	90"
—	48211-K	4mm	70"	.0019"	35"	140"	.0039"	70"
46101-K	46201-K	3/16"	180"	.0050"	90"	215"	.0060"	107.5"
—	48340-K	3/16"	180"	.0050"	90"	215"	.0060"	107.5"
—	46211-K	5mm	180"	.0050"	90"	215"	.0060"	107.5"
—	46211-L-K	5mm	180"	.0050"	90"	215"	.0060"	107.5"
—	48218-K	6mm	180"	.0050"	90"	215"	.0060"	107.5"
—	48220-K	6mm	180"	.0050"	90"	215"	.0060"	107.5"
46102-K	46202-K	1/4"	180"	.0050"	90"	215"	.0060"	107.5"
—	46202-K-LH	1/4"	180"	.0050"	90"	215"	.0060"	107.5"
46315-K	46415-K	1/4"	180"	.0050"	90"	215"	.0060"	107.5"
46316-K	46416-K	1/4"	180"	.0050"	90"	215"	.0060"	107.5"
46321-K	46421-K	1/4"	180"	.0050"	90"	215"	.0060"	107.5"
—	46502-K	1/4"	180"	.0050"	90"	215"	.0060"	107.5"
46399-K	46503-K	1/4"	180"	.0050"	90"	215"	.0060"	107.5"
—	46244-K	1/4"	180"	.0050"	90"	215"	.0060"	107.5"
48332-K	48342-K	1/4"	180"	.0050"	90"	215"	.0060"	107.5"
—	59302-K	1/4"	180"	.0050"	90"	215"	.0060"	107.5"
—	48219-K	8mm	180"	.0050"	90"	215"	.0060"	107.5"
46103-K	46203-K	3/8"	230"	.0064"	115"	390"	.0108"	195"
46320-K	46420-K	3/8"	230"	.0064"	115"	390"	.0108"	195"
46529-K	46449-K	3/8"	230"	.0064"	115"	390"	.0108"	195"
—	48224-K	10mm	230"	.0064"	115"	390"	.0108"	195"
—	48228-K	12mm	200"	.0057"	100"	350"	.0096"	175"
46106-K	46206-K	1/2"	200"	.0057"	100"	350"	.0096"	175"
46210-K	46447-K	1/2"	200"	.0057"	100"	350"	.0096"	175"

3 Flute

51629-K **	—	0.023"	55"	.0010"	27.5"	110"	.0020"	55"
46001-K	46051-K	1/8"	215"	.0040"	72"	270"	.0050"	90"
—	46053-K	1/8"	215"	.0040"	72"	270"	.0050"	90"
—	48502-K	6mm	270	.0050	90	325	.0060	109
46002-K	46052-K	1/4"	270"	.0050"	90"	325"	.0060"	109"
—	46054-K	1/4"	270"	.0050"	90"	325"	.0060"	109"
46116-K	46216-K	1/2"	300"	.0057"	100"	500"	.0096"	167"
—	46055-K	3/8"	345"	.0064"	115"	580"	.0108"	195"
—	46214-K	3/8"	230"	.0064"	115"	390"	.0108"	195"
—	46500-K	3/4"	330"	.009"	110"	360"	.010"	120"

4 Flute

—	59706-K	1/4"	55"	.0010"	27.5"	110"	.0020"	55"
—	46057-K	3/8"	400"	.0056"	100"	600"	.0083"	150"

*** IPM:** Inches Per Minute

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

† 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%

** ⚠ **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.

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

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