Amana Tool®

INDUSTRIAL

SPEKTRA™ EXTREME TOOL LIFE COATING

2 Flute Spektra™ Extreme Tool Life Coated CNC Spiral Ball Nose Solid Carbide Router Bits

CNC Operating Spindle Speed: 18,000 RPM / **Depth of Cut:** 1 x Tool Diameter †

	1/16"		1/8"		1/4" / 6mm		3/8"		1/2"	
Material	**Feed Rate IPM***	**Chip Load Per Tooth**	**Feed Rate IPM***	**Chip Load Per Tooth**	**Feed Rate IPM***	**Chip Load Per Tooth**	**Feed Rate IPM***	**Chip Load Per Tooth**	**Feed Rate IPM***	**Chip Load Per Tooth**
Softwood	110" - 190"	0.003" - 0.005"	190" - 260"	0.005" - 0.007"	260" - 330"	0.007" - 0.009"	290" - 360"	0.008" - 0.010"	330" - 400"	0.009" - 0.011"
Hardwood	70" - 150"	0.002" - 0.004"	110" - 190"	0.003" - 0.005"	190" - 260"	0.005" - 0.007"	220" - 290"	0.006" - 0.008"	260" - 330"	0.007" - 0.009"
MDF	110" - 190"	0.003" - 0.005"	190" - 260"	0.005" - 0.007"	220" - 290"	0.006" - 0.008"	260" - 330"	0.007" - 0.009"	290" - 360"	0.008" - 0.010"
Soft Plastic	70" - 150"	0.002" - 0.004"	70" - 150"	0.002" - 0.004"	150" - 220"	0.004" - 0.006"	150" - 220"	0.004" - 0.006"	220" - 290"	0.006" - 0.008"
Hard Plastic	70" - 150"	0.002" - 0.004"	70" - 150"	0.002" - 0.004"	150" - 220"	0.004" - 0.006"	150" - 220"	0.004" - 0.006"	220" - 290"	0.006" - 0.008"
Sign Foam	110" - 190"	0.003" - 0.005"	110" - 190"	0.005" - 0.007"	220" - 290"	0.006" - 0.008"	260" - 330"	0.007" - 0.009"	290" - 360"	0.008" - 0.010"

*** 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

Tool Reference #'s		
Up-Cut	Down-Cut	Dia.
46369-K	—	1/8"
46373-K	—	1/16"
46375-K	—	1/8"
46376-K	46476-K	1/4"
46377-K	—	1/8"
46378-K	46478-K	3/8"
46380-K	—	1/2"
46384-K	—	1/2"
46385-K	—	1/8"
46508-K	—	3/16"
46509-K	—	1/8"
46510-RS	—	1/16"
46511-K	—	1/4"
48403-K	—	6mm

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

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