Amana Tool®

Solid Carbide Spektra™ Extreme Tool Life Coated 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" / 3mm	40"	.0011"	20"	80"	.0022"	40"	40"	.0011"	20"	40"	.0011"	20"
3/16"	80"	.0022"	40"	160"	.0044"	80"	80"	.0022"	40"	80"	.0022"	40"
1/4" / 6mm	110"	.0031"	55"	220"	.0061"	110"	110"	.0031"	55"	110"	.0031"	55"
5/16" / 8mm	110"	.0031"	55"	220"	.0061"	110"	110"	.0031"	55"	110"	.0031"	55"
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"
1/2" / 12mm	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	170"	.0031"	57"	330"	.0061"	110"	170"	.0031"	57"	170"	.0031"	57"
3/8"	300"	.0056"	100"	400"	.0074"	133"	300"	.0056"	100"	300"	.0056"	100"
1/2" / 12mm	350"	.0065"	117"	450"	.0080"	150"	350"	.0065"	117"	350"	.0065"	117"

*IPM: Inches Per Minute

Tool Reference #'s	
2 Flute	Dia.
46035-K	1/2"
46039-K	5/16"
46170-K	1/4"
46171-K	3/8"
46172-K	3/8"
46174-K	3/8"
46175-K	6mm
46176-K	1/8"
46177-K	1/4"
46179-K	3/8"
46180-K	1/8"
46181-K	3/16"
46182-K	1/2"
46185-K	12mm
46188-K	1/2"
46190-K	1/2"
46193-K	1/2"
46195-K	1/2"
46199-K	1/2"
48302-K	3mm
48304-K	6mm
48306-K	8mm
48308-K	8mm
48310-K	10mm
48312-K	10mm
48314-K	10mm
48316-K	12mm
48318-K	12mm
3 Flute	Dia.
46010-K	3/8"
46011-K	3/8"
46012-K	1/2"
46014-K	1/2"
46015-K	1/8"
46017-K	1/4"
48320-K	6mm
48322-K	6mm
48324-K	12mm
48326-K	12mm

† 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.