



**Solid Carbide Spektra™ Extreme Tool Life Coated 15°, 30°, 45° & 120° Degree
Single Flute Engraving Router Bits**

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

Material	(Tip Width) 0.005" 15°		(Tip Width) 0.005" - 0.030" 30°		(Tip Width) 0.042" 45°		0.015" 120°		Tool Reference #'s			
	Feed Rate IPM*	Chip Load Per Tooth IPR**	Feed Rate IPM*	Chip Load Per Tooth IPR**	Feed Rate IPM*	Chip Load Per Tooth IPR**	Feed Rate IPM*	Chip Load Per Tooth IPR**	15°	30°	45°	120°
									—	—	—	45606-K
Soft Wood	50" - 125"	0.003" - 0.007"	50" - 125"	0.003" - 0.007"	50" - 125"	0.003" - 0.007"	40" - 110"	0.002" - 0.006"	45611-K	—	—	—
Hard Wood	50" - 125"	0.003" - 0.007"	50" - 125"	0.003" - 0.007"	50" - 125"	0.003" - 0.007"	40" - 110"	0.002" - 0.006"	45611-K-M	—	—	—
Soft Plastic	50" - 125"	0.003" - 0.007"	50" - 125"	0.003" - 0.007"	50" - 125"	0.003" - 0.007"	40" - 110"	0.002" - 0.006"	—	45620-K	—	—
Hard Plastic	50" - 125"	0.003" - 0.007"	50" - 125"	0.003" - 0.007"	50" - 125"	0.003" - 0.007"	40" - 110"	0.002" - 0.006"	—	—	45622-K	—
Solid Surface	50" - 125"	0.003" - 0.007"	50" - 125"	0.003" - 0.007"	50" - 125"	0.003" - 0.007"	40" - 110"	0.002" - 0.006"	—	45630-K	—	—
									—	45771-K	—	—
									—	45771-MK	—	—
									—	45773-K	—	—
									—	—	45632-K	—
									—	45774-K	—	—

IPM* Inches per minute
IPR** Inches per revolution

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.

© Copyright Amana Tool® All Rights Reserved