Amana Tool®

INDUSTRIAL

Solid Carbide ZrN Coated 30° & 45° Degree Single Flute Engraving Router Bits

ZrN COATED

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

Material	(Tip Width) 0.005" - 0.090" 30°		(Tip Width) 0.025" - 0.042" 45°	
	Feed Rate IPM*	Chip Load Per Tooth IPR**	Feed Rate IPM*	Chip Load Per Tooth IPR**
Soft Wood	50" - 125"	0.003" - 0.007"	50" - 125"	0.003" - 0.007"
Hard Wood	50" - 125"	0.003" - 0.007"	50" - 125"	0.003" - 0.007"
Soft Plastic	50" - 125"	0.003" - 0.007"	50" - 125"	0.003" - 0.007"
Hard Plastic	50" - 125"	0.003" - 0.007"	50" - 125"	0.003" - 0.007"
Aluminum	50" - 125"	0.003" - 0.007"	50" - 125"	0.003" - 0.007"
Solid Surface	50" - 125"	0.003" - 0.007"	50" - 125"	0.003" - 0.007"

Tool Reference #'s	
30°	45°
—	45622-Z
45771-Z	—

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.

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