



90° Engraving CNC Router Bits with ZrN Coating for V Grooving Speed and Feed Chart

Chip Load Per Tooth

Material	#45610	#45612	#45614
	3/16" (0.1875)	1/4" (0.250)	3/8" (0.375)
Aluminum, Brass, Bronze, Copper, Gold, Silver, Solid Surface (Corian®, Formica®, etc.), Hard Plastics, Soft Plastics, Hardwood, Softwood, Laminated Chipboard/Plywood, Composites, MDF & Veneer	0.003" - 0.006"	0.003" - 0.006"	0.003" - 0.006"

Operating RPM: 18,000

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:** RPM x # of flutes x chip load

Depth of Cut: 1 x D Use recommended chip load

2 x D Reduce chip load by 25% 3 x D Reduce chip load by 50%