

2 Flute Double Edge V-Grooving Carbide Tipped Router Bits with Flat Bottom for ACM Materials

CNC Operating Spindle Speed: 18,000 RPM

Material	Spindle Speed SFM*	< 1/8" (< 3mm)		1/8" - 3/16" (3mm - 5mm)		3/16" - 5/16" (5mm - 8mm)		5/16" - 9/16" (8mm - 14mm)		9/16" - 23/32" (14mm - 18mm)	
		Feed Rate IPM**	Chip Load Per Tooth Based on Depth of Cut	Feed Rate IPM**	Chip Load Per Tooth Based on Depth of Cut	Feed Rate IPM**	Chip Load Per Tooth Based on Depth of Cut	Feed Rate IPM**	Chip Load Per Tooth Based on Depth of Cut	Feed Rate IPM**	Chip Load Per Tooth Based on Depth of Cut
Aluminum	656 - 1,312	15" - 35"	0.0004" - 0.001"	35" - 70"	0.001" - 0.002"	70" - 110"	0.002" - 0.003"	100" - 180"	0.003" - 0.005"	180" - 210"	0.005" - 0.006"
Brass	492 - 984	10" - 30"	0.0003" - 0.0008"	30" - 60"	0.0008" - 0.0016"	35" - 70"	0.001" - 0.002"	70" - 110"	0.002" - 0.003"	100" - 140"	0.003" - 0.004"
Bronze	328 - 492	10" - 30"	0.0003" - 0.0008"	30" - 60"	0.0008" - 0.0016"	35" - 70"	0.001" - 0.002"	70" - 110"	0.002" - 0.003"	100" - 140"	0.003" - 0.004"
Plastics-Bakelite	164 - 328	35" - 60"	0.001" - 0.0016"	70" - 110"	0.002" - 0.003"	100" - 180"	0.003" - 0.005"	180" - 290"	0.005" - 0.008"	290" - 360"	0.008" - 0.010"
Plastics-PVC	328 - 656	35" - 70"	0.001" - 0.002"	70" - 140"	0.002" - 0.004"	140" - 250"	0.004" - 0.007"	210" - 290"	0.006" - 0.008"	290" - 400"	0.008" - 0.011"
Thermoplastics, Acetate, Plexiglass, Nylon	984 - 1,640	15" - 50"	0.0004" - 0.0014"	35" - 70"	0.001" - 0.002"	70" - 110"	0.002" - 0.003"	100" - 210"	0.003" - 0.006"	210" - 250"	0.006" - 0.007"
Wood	984 - 1,312	15" - 50"	0.0005" - 0.0014"	35" - 70"	0.001" - 0.002"	70" - 110"	0.002" - 0.003"	100" - 180"	0.003" - 0.005"	180" - 210"	0.005" - 0.006"
Titanium Composite Material (TCM)	164 - 295	10" - 15"	0.0003" - 0.0005"	15" - 35"	0.0004" - 0.001"	35" - 70"	0.001" - 0.002"	70" - 110"	0.002" - 0.003"	100" - 140"	0.003" - 0.004"

* SFM Surface feet per minute

** IPM Inches per minute

Tool Reference #'s	Angle
45735	108°
45737	155°
45791	135°
45792	90°
45792-M	90°
45793	90°
45794	90°
45795	108°
45797	108°
45798	135°
45799	—

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 (diameter of flat bottom of tool D1)

To find **SFM:** 0.262 x diameter of tool x RPM

To find **Feed Rate:** RPM x # of flutes x chip load

To find **Chip Load:** 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