

ROUTER BITS / SHARPENING / ACCESSORIES / CUSTOM TOOLING / INSERTS



WHERE INDUSTRY TURNS FOR INNOVATION<sup>SM</sup>

Chip Load = Feed Rate (inches per minute) / (RPM x number of flutes)

Chip Load Chart

TOOL DIAMETER	HARD WOOD	SOFTWOOD/ PLYWOOD	MDF/PARTICLE BOARD	HIGH PRESSURE LAMINATE	PHENOLIC/ PAPERSTONE
1/8"	.003" - .005"	.004" - .006"	.004" - .007"	.003" - .005"	
1/4"	.009" - .011"	.009" - .013"	.013" - .016"	.009" - .012"	.004" - .006"
3/8"	.015" - .018"	.017" - .020"	.020" - .023"	.015" - .018"	.006" - .008"
1/2" & up	.019" - .021"	.021" - .023"	.025" - .027"	.023" - .025"	.010" - .012"

TOOL DIAMETER	HARD PLASTIC	SOFT PLASTIC	SOLID SURFACE	ACRYLIC	ALUMINUM
1/8"	.002" - .004"	.003" - .006"	.002" - .004"	.003" - .005"	.003" - .004"
1/4"	.006" - .009"	.007" - .010"	.006" - .009"	.008" - .010"	.005" - .007"
3/8"	.008" - .010"	.010" - .012"	.008" - .010"	.010" - .012"	.006" - .008"
1/2" & up	.010" - .012"	.012" - .016"	.010" - .012"	.012" - .015"	.008" - .010"

RPM Formulas

Feed Rate = RPM x number of flutes x chip load

RPM = Feed Rate / (number of flutes x chip load)

Metric Conversion: Divide inches per minute by 39.374  
(ex. 300 inches per minute divided  
by 39.374 = 7.62 meters per minute)

Tooling 3/8" and smaller in Ø use 18,000 RPM

Tooling Larger than 3/8" in Ø use 16,000 RPM



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