



1 & 2 Flute High Speed Steel (HSS) Single & Double Flute Aluminum Cutting ZrN Coated Router Bits
CNC Operating Spindle Speed: 18,000 RPM / Depth of Cut: 1 x Tool Diameter †

Up-Cut Tool No.	Down-Cut Tool No.	Max RPM	Flutes	Soft Wood		Hard Wood		Aluminum	
				Feed Rate IPM*	Chip Load Per Tooth	Feed Rate IPM*	Chip Load Per Tooth	Feed Rate IPM*	Chip Load Per Tooth
HSS1620-Z	—	18,000	1	150" - 180"	0.008" - 0.010"	110" - 150"	0.006" - 0.008"	70" - 110"	0.004" - 0.006"
HSS1621-Z	—	18,000	1	150" - 180"	0.008" - 0.010"	110" - 150"	0.006" - 0.008"	70" - 110"	0.004" - 0.006"
HSS1622-Z	—	18,000	1	150" - 180"	0.008" - 0.010"	110" - 150"	0.006" - 0.008"	70" - 110"	0.004" - 0.006"
HSS1630-Z	—	18,000	2	220" - 290"	0.006" - 0.008"	180" - 250"	0.005" - 0.007"	70" - 150"	0.002" - 0.004"
HSS1634-Z	HSS1653-Z	18,000	2	220" - 290"	0.006" - 0.008"	180" - 250"	0.005" - 0.007"	70" - 150"	0.002" - 0.004"
HSS1636-Z	HSS1655-Z	18,000	2	220" - 290"	0.006" - 0.008"	180" - 250"	0.005" - 0.007"	70" - 150"	0.002" - 0.004"

* IPM Inches per minute

† **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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