



ZrN Coated Solid Carbide Aluminum Cutting Spiral Double 'O' Flute Router Bits

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

Diameter	IPM at 18,000 RPM (Inches Per Minute)	Spindle Speed SFM (Surface Feet Per Minute)	Chip Load Per Tooth
1/8" (0.125)	35" - 70"	600 - 1,000	0.002" - 0.004"
3/16" (0.1875)	55" - 110"	600 - 1,000	0.002" - 0.004"
1/4" (0.250)	55" - 110"	600 - 1,000	0.002" - 0.004"

Tool Reference #'s			
Up-Cut	Down-Cut	Dia.	
51850-Z	_	1/8"	
51852-Z	—	1/8"	
51854-Z	—	3/16"	
51856-Z	—	1/4"	

† 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.