

3 & 4 Flute Solid Carbide CNC AlTiN Coated 2D/3D Carving Spiral Router Bits / Tapered Ball Nose For Steel & Stainless Steel

Material	Surface Feet Per Minute (SFM)	Feed Rate: Inches Per Minute (IPM)	
		3 Flute	4 Flute
Steel: Low Carbon	400"	1/32", 1/16", 1/8"	
		12,200 RPM*	
		43"	58"
Steel: Medium Carbon	250"	7,600 RPM*	
		27"	36"
Tool Steel: Hardened	200"	6,100 RPM*	
		6"	8"
Stainless Steel: 301, 303, 410	350"	10,700 RPM*	
		27"	36"
Stainless Steel: 304, 316, 17-4 PH	220"	6,700 RPM*	
		27"	36"
Titanium Alloys	175"	5,300 RPM*	
		27"	36"
Cast Iron: Gray CG	350"	10,700 RPM*	
		27"	36"
Cast Iron: Ductile	250"	7,600 RPM*	
		27"	36"

Tool Reference #'s	
3 Flute	Dia.
59440	1/32"
59444	1/8"
4 Flute	Dia.
59442	1/16"

*RPM: Revolutions Per Minute

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)

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%