

2 Flute Solid Carbide Spiral Plunge For Solid Wood Router Bits

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

Diameter	Softwood/Hardwood	
	Feed Rate IPM*	Chip Load Per Tooth
2 Flute		
1/8" (0.125)	110" - 180"	0.003" - 0.005"
3/16" (0.1875)	150" - 210"	0.004" - 0.006"
7/32" (0.21875)	150" - 210"	0.004" - 0.006"
1/4" (0.25)	180" - 250"	0.005" - 0.007"
5/16" (0.3125)	180" - 250"	0.005" - 0.007"
3/8" (0.375)	210" - 290"	0.006" - 0.008"
1/2" (0.50)	250" - 320"	0.007" - 0.009"

*IPM Inches per minute

Tool Reference #'s		
Up-Cut	Down-Cut	Dia.
46240	46340	1/8"
46241	46341	1/8"
46245	46345	3/16"
46247	—	7/32"
46248	46348	1/4"
46249	46349	1/4"
46250	—	1/4"
46253	46353	5/16"
46257	46357	3/8"
46259	46359	3/8"
46259S	—	3/8"
46261	46361	1/2"
46263	46363	1/2"
—	46365	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.