

**Solid Carbide Slow Spiral Single and Double 'O' Flute Acrylic Cutting Router Bits**

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

**Diameter**                      **Feed Rate**                      **Chip Load**                      **Ramp**  
    **IPM\***                              **Per Tooth**                      **Down**

**Single Flute**

<b>1/4" (0.250)</b>	145" - 180"	0.008" - 0.010"	145" - 180"
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**2 Flute**

<b>1/4" (0.250)</b>	290" - 360"	0.008" - 0.010"	145" - 180"
<b>1/2" (0.500)</b>	430" - 500"	0.012" - 0.014"	215" - 250"

**3 Flute**

<b>3/8" (0.375)</b>	210" - 320"	0.004" - 0.006"	70" - 107"
<b>1/2" (0.500)</b>	320" - 430"	0.006" - 0.008"	107" - 143"

Tool Reference #'s			
Tool No.		Flutes	Dia.
Up-Cut	Down-Cut		
46327	46427	1	1/4"
46313	46413	2	1/4"
46311	46411	2	1/4"
51892	–	2	1/4"
46391	46492	2	1/2"
–	46430	3	3/8"
46330	46431	3	3/8"
46332	46432	3	1/2"
46334	46434	3	1/2"

\*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.