Amana Tool®

INDUSTRIAL

Solid Carbide Plastic Cutting Spiral Ball Nose Single 'O' Flute Router Bits

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)	70 - 110	500 - 1,200	0.004" - 0.006"
1/4" (0.250)	145 - 220	500 - 1,200	0.008" - 0.012"

Tool Reference #'s		
Up-Cut	Down-Cut	Dia.
51814	—	1/8"
51818	—	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.