# Amana Tool® 

## ZrN Coated Solid Carbide Aluminum Cutting Spiral
## Single '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 |
|---|---|---|---|
| 1/32" (0.03125) | 35" - 70" | 600 - 1,000 | 0.002" - 0.004" |
| 1.5mm | 35" - 70" | 600 - 1,000 | 0.002" - 0.004" |
| 1/16" (0.0625) | 35" - 70" | 600 - 1,000 | 0.002" - 0.004" |
| 3/32" (0.0938) | 35" - 70" | 600 - 1,000 | 0.002" - 0.004" |
| 1/8" (0.125) | 35" - 70" | 600 - 1,000 | 0.002" - 0.004" |
| 3/16" (0.1875) | 55" - 110" | 600 - 1,000 | 0.003" - 0.006" |
| 1/4" (0.250) | 55" - 110" | 600 - 1,000 | 0.003" - 0.006" |
| 5/16" (0.3125) | 55" - 110" | 600 - 1,000 | 0.003" - 0.006" |

| Tool Reference #'s | | |
|---|---|---|
| Up-Cut | Down-Cut | Dia. |
| — | 51380-Z | 1.5mm |
| — | 51488-Z | 1/16" |
| 51372-Z | — | 3/32" |
| 51373-Z | — | 1/4" |
| 51376-Z | — | 1/32" |
| 51377-Z | — | 1/4" |
| 51402-Z | 51502-Z | 1/4" |
| — | 51503-Z | 1/8" |
| 51406-Z | 51506-Z | 1/8" |
| 51408-Z | 51508-Z | 3/16" |
| 51454-Z | — | 1/8" |
| 51456-Z | — | 3/16" |
| 51458-Z | — | 1/4" |
| 51459-Z | — | 1/8" |
| 51470-Z | — | 1/16" |
| 51471-Z | — | 1/8" |
| 51472-Z | — | 3/32" |
| 51474-Z | — | 1/8" |
| 51476-Z | — | 1/4" |
| 51477-Z | — | 3/16" |
| 51478-Z | — | 3/16" |
| 51479-Z | — | 1/4" |
| 51480-Z | — | 1/4" |
| 51481-Z | — | 1/4" |
| 51482-Z | — | 1/8" |
| 51486-Z | — | 1/8" |
| — | 51775-Z | 1/4" |
| — | 51777-Z | 1/8" |
| — | 51778-Z | 1/8" |
| — | 51779-Z | 3/16" |
| — | 51786-Z | 1/4" |
| 51642-Z | — | 5/16" |
| 51810-Z | — | 1/4" |
| — | 51838-Z | 3/16" |

**† 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.