

## Edge of Arlington Saw & Tool, Inc.

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### **Item #46590, Amana Tool 4" Extra Long CNC 2D & 3D Carving Flat Bottom 0.10° Straight Angle x 1/4" D x 1/4" Shank Solid Carbide ZrN Coated Reduced Shank Router Bit (Industrial)**

**\$92.55**

Thank you for shopping with us!

These Extra Long Reach router bits are made with an extra long reduced shank section for deeper reach and better chip clearance. Amana Tool®'s Modern Materials Finishing Geometry (MMFG) incorporates high shear, multi-flute, and ZrN coating designed for the ultimate combination of finish and tool longevity in aerospace materials. Modern-day materials present challenges to the fabricator; using these special multi-flute edge tools featuring ZrN ceramic coating addresses these challenges with a winning geometry combination. The simultaneous 3 axis motion with the appropriate software allows full 3D capability that provides sign and 3D model makers the ability to work with any material.

Specially designed for 2D and 3D CNC profiling and carving in plastic, aluminum & wood with CNC machines. The high-shear ball nose tips cut smooth 2D and 3D contours with reduced stepping while the proprietary ZrN coating (applied by the physical vapor deposition coating process) provides high resistance to wear, sharper cutting edges, extended tool life, and less friction and heat buildup. Some of Amana Tool carving tools, as you can appreciate, have a very small diameter therefore any material chip loads need to reflect that small size. It can however withstand RPM's up to 60,000 RPMs. A directed air-blast to keep chips away along with cooling the tool and workpiece are always welcome. Tools are manufactured with high balance that allows them to run up to 60,000 RPMs. Adjust your chip load and feed rate accordingly.

#### **Applications:**

- Precision 2D and 3D large scale carving
- Dimensional signage
- 3D millwork
- 2D and 3D contouring, profiling, modeling, and pattern-making for cabinetry, sign-making, furniture-making, and jewelry mold-making
- Compatible with CarveWright™ and CompuCarve woodworking systems
- Perfect for model-makers on large 3D milling profiles in abrasive EPS foam and other materials



#### **Benefits of Zirconium Nitride (ZrN) Coating**

- Creates a harder and tougher cutting edge, allows for a prolonged cutting edge life, and helps to prevent the build-up of material in the flutes while cutting
- Has the tendency to run/spin much faster than an uncoated tool
- Optimized flute geometry and low Total Indicated Runout (TIR) guarantees clean cuts, essentially eliminates sanding and reduces chatter (where the machine or work-piece vibrates) under high chip loads (when used with low TIR spindles)
- High flute volume supports high feed rates and chip loads
- High aspect ratio for single pass deep-reach cutting
- Flute geometry optimized for cutting sign foam, sign board, hardwoods, thermoplastics, and phenolic composites

SPECIFICATIONS	
Manufacturer	Amana Tool
Diameter	1/4 in
Cut Height, Length, or Width	1/2 in
Flute	3
Length	1 1/4 in Shank Length
Overall Length	4 in
Radius	N/A
Shank	1/4 in
Type	Flat Bottom (End Mill)
Angle	0.10 deg