

# ROTARY CUTTING TOOLS



## STAR SU ROTARY CUTTING TOOLS

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Since 1970, Star SU has designed and manufactured custom carbide drills, reamers and special cutters for use with CNC production systems as well as standard and flexible machining systems.

Star SU products are engineered and manufactured using state-of-the-art equipment. Your production requirements are extremely important to us, and we pride ourselves on meeting your goals utilizing our custom designed and built products.

Star SU offers a wide range of precision solid carbide drills and reamers. Pressure and Non-Pressure coolant styles are available.

- Solid carbide drills and reamers
- Pressure coolant drills and reamers

**“We don’t just stop at being competitive. We focus on our quality.”**



## STAR SU PRESSURE COOLANT VALVE GUIDE REAMERS

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Star SU pressure coolant reamers utilize pressurized coolant to force chips ahead of the tool to produce ultra-smooth, ultra-precise holes. They produce holes to tolerance of 0.0005" and less in steel, cast iron, malleable iron, nodular iron, aluminum, bronze and exotic materials.

Ideally adapted to the sizing and enlarging of previously drilled or cored holes, Star SU reamers provide higher penetration rates and closer size tolerance. Since they have a longer tool life than carbide reamers without pressurized coolant and have no tendency to follow pre-drilled or cored hole surfaces, they can produce precise, straight holes.

Star SU reamers are made in sizes from 3/16" to 4" in diameter. Cutting speeds are the same as those recommended for multiple flute gundrills.

Star SU reamers are made in both multiple flute and multi-diameter types. They can have solid carbide heads brazed to a tubular steel body in sizes up to 2.0" diameter and with brazed inserts in 2.0" to 4.0" diameter ranges.

- Multi-step design
- Straight flute design
- Spiral flute design
- Various shank (holder) designs
- RH and LH spiral designs
- Single and multi-flute designs



STAR SU FORM TOOLS



**CARBIDE FORM TOOLS**

Star SU reamers are available in the following configurations:

- Straight or spiral design
- Right-hand and left-hand helical designs for spiral tools.
- Single or multiple diameters
- Single or multiple-flute design
- Diameter range from .1875" to 3.000" (4.76 to 76mm)
- Overall lengths up to 48" (1200mm).

For deep applications when the overall length of the tool is between 8" and 48" (200 to 1200mm), reamers are made with a solid carbide head brazed onto a steel body. For short holes, especially when using machining centers, Star SU special carbide tools are recommended.



**SOLID AND BRAZED  
CARBIDE FORM TOOLS**

Star SU developed a solid carbide line of drills and reamers to meet the demand from our customers for close tolerance, multiple diameter tooling used in unbushed applications.

We apply the same high standards for engineering and manufacturing that our customers have come to depend on. Our goal is to combine multiple process steps into one single application tool. When it is critical that diameters and step lengths remain concentric and precise, our design and manufacturing team perform. When the job calls for a special tool that you can't get from a modified standard, you can expect a tool designed for your specific application from Star SU.



## SUPER ROUND TOOL

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ROTARY CUTTING TOOLS



### WHERE REAMING JUST GOT THE HOLE A LOT STRAIGHTER.

The SRT's unique, patented design combines two tools into one - multiple straight flutes for consistent location and multiple helical flutes to ensure roundness and finish.

The SRT consistently produces roundness and straightness within microns on a wide variety of applications including: powdered metal, cast iron, graphite iron, steel and aluminum. Reamers range in size from 5 mm up to 60 mm in diameter.

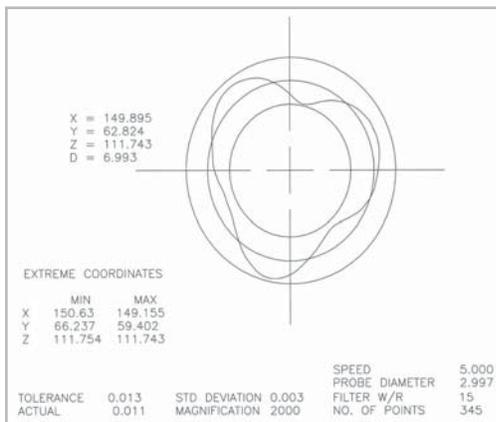
- Roundness and straightness within 5 microns
- Lowest cost per hole
- Increase thru put and reduce cycle times
- Sizes from 5mm and up
- Special design and build



## SUPER ROUND TOOL



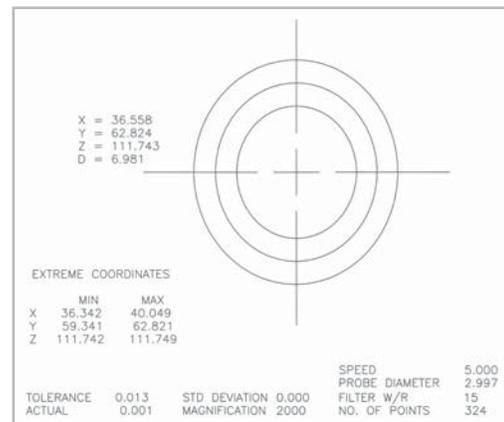
### COMPETITION



Roundness and straightness within 11 microns after 3,500 holes

Material: powdered metal  
Stock removal: .040  
Speed: 2,100 rpm  
Feed: 24 ipm  
SRT: 9,000 holes  
Competition: 3,500 holes

### SUPER ROUND TOOL



Roundness and straightness within 2 microns after 3,500 holes

Other materials, including cast iron, aluminum, compacted graphite iron and steel, can be machined with similar results.



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