



UTG 1800 Broach Grinder

The Star UTG Series are CNC driven Universal Tool Grinders and are unsurpassed in versatility and performance. The UTG Series of Star grinders excel at grinding **round and flat broaches, straight and spiral gash hobs, shaper cutters, spiral broaches, slab mills, rack gear cutters, and worm gear hobs** with diameters from 3 mm (1/8 inch) to 305 mm (10 inches) depending on grinding operation being performed. Our machines are built in the USA and are backed with the best warranty, service, and training in the

Features

- FANUC 6-Axis CNC controller with digital servo motors
- Standard and custom software solutions available for a wide range of applications.
- Dual probe system for work piece and grinding wheel setup
- Manual HSK wheel pack mounting
- Movable A-Axis headstock for tools up to 2600 mm
- Glass scales on all linear axes
- On board programmable wheel truing

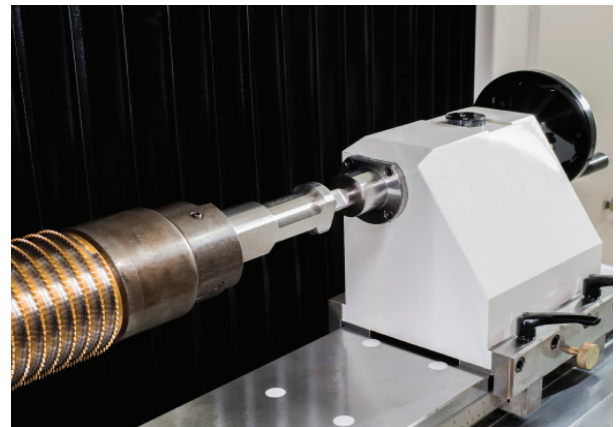


Options

- Engineered tailstocks and steady rests
- Grinding wheel auto-sticking capabilities for unmanned operations
- Various coolant system and mist collecting options



6-Axis design allows for (3) rotary motions and (3) linear motions and are simultaneously controlled allowing for the manufacturing and re-sharpening to today's most demanding designs.



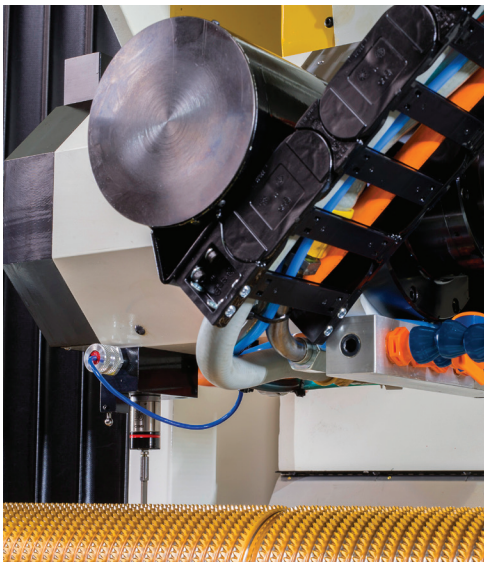
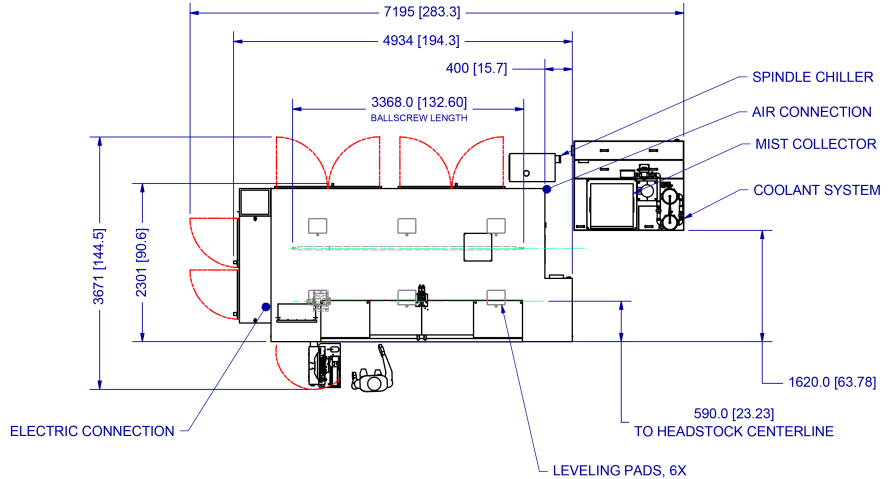
Standard screw actuated tailstock allows for the precise work between centers. Rail mounted, the tailstock can be easily moved to accommodate different setup lengths.

UTG 6-Axis Machine Specifications

Machine Dimensions



The wheel truing cycle is programmed into the machine. Simply enter the amount of stock removal and the machine automates the cycle.



The dual probe system allows for a part probe (shown) to locate the cutting edges of the workpiece and reference it to the machine while the wheel probe locates the grinding wheel relative to the workpiece.

	Metric	Inch
Base Machine Dimensions (L x W x H)	5.0 x 3.8 x 2.8 m	1196" x 7150" x 110"
Total Weight: Base Machine	15,900 kg	35,000 lbs
Maximum Workpiece Diameter*	305 mm	12 inches
Maximum Workpiece Length*	2600 mm	102.36 inches
A - Axis Workhead Spindle 360° Rotation	1000 rpm	1000 rpm
B - Axis Grinding Spindle Swivel 180° Total	75° per sec.	75° per sec.
C - Axis Grinding Spindle Swivel +/- 30°	75° per sec.	75° per sec.
X - Axis Horizontal Travel	450 mm	17.72 inches
X - Axis Travel Speed	10 mpm	400 ipm
Y - Axis Vertical Travel	400 mm	15.75 inches
Y - Axis Travel Speed	10 mpm	400 ipm
Z - Axis Horizontal Travel	2080 mm	81.89"
Z - Axis Travel Speed	10 mpm	400 ipm
Grinding Spindle Speed	10,000 rpm	10,000 rpm
Peak Spindle Horsepower	7.5 kw	10 hp
Maximum Grinding Wheel Diameter	203 mm	8 inches
Smallest Programmable Movement - Linear	0.0001 mm	0.000004 inches
Linear Axis Glass Scale Feedback Resolution	0.00254 mm	0.0001 inches
Smallest Programmable Movement - Rotary	0.0001 deg	0.0001 deg
Optional High Accuracy Encoder	0.000000536 deg	0.00000536 deg
Rotary Axis Feedback Resolution: A-axis	0.000068 deg	0.000068 deg
Rotary Axis Feedback Resolution: B-axis	0.00000006 deg	0.00000006 deg

* Dependent upon grinding operation being performed

* Specifications for UTG 1800 shown

FANUC



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