



Star ETG-4 Tool and Cutter Grinder



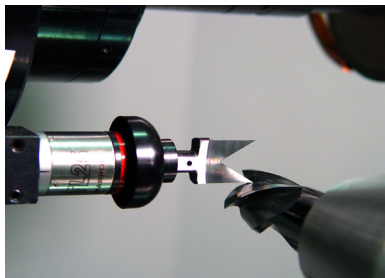
Engineered to be a flexible and accurate machine, the ETG-4 CNC Tool and Cutter Grinder is capable of regrinding and manufacturing precise tooling designs. The ETG-4 also provides the added functionality of a (4) station CNC controlled wheel changer, ball screw driven X, Y and Z axes coupled with a direct drive A-axis headstock and a B-axis grinding spindle pivot designed by Star®.

Features

- 5-Axis machine featuring NUM Control
- NUMROTO Software
- 13 HP HSK direct drive grinding spindle
- Linear glass scales for positioning
- Tool length up to 21 inches
- Precision workholding solutions
- 22" user interface display

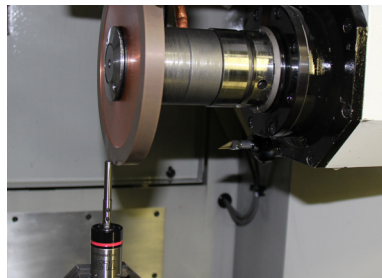
Options

- Integrated auto loading
- Engineered tailstocks and steady rests
- On-board wheel dressing



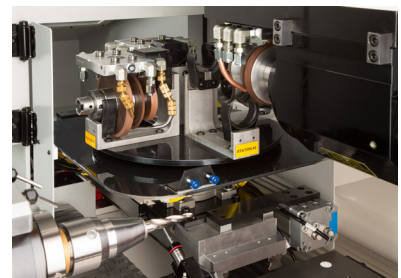
Part Probing

Various probe designs available covering a wide range of geometries and applications.



Wheel Probing

Enables operator to measure wheel diameters and linear positions.



4-Station Wheel Changer

Provides the ability to hold multi-wheel arbors and automatically change wheelpacks and coolant manifolds in one step. Accommodates wheels up to 6 inches.

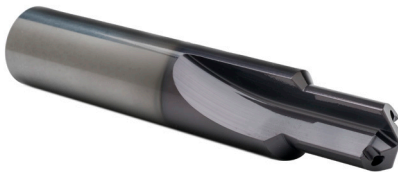
ETG-4 Tooling Applications and Machine Specifications

Tooling Applications

The Star ETG-4 features quick change tooling to accommodate a broad range of tools including:



6 Flute Helical End Mill



2 Flute Single Step Drill

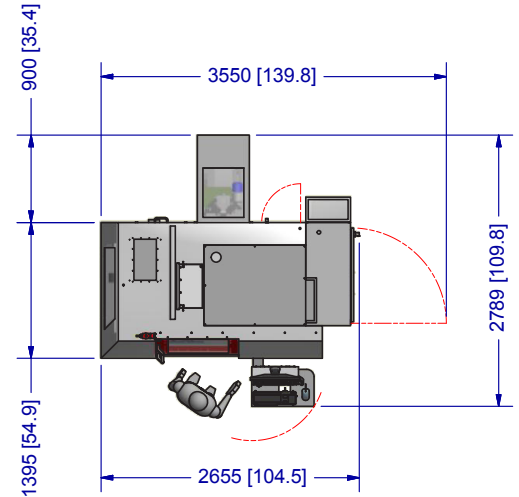
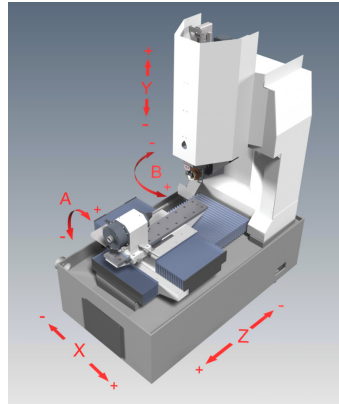


2 Flute ISO Porting Tool



2 Flute Trepaning Tool

Machine Layout, Dimensions and Specifications



	Metric	Inch
Base Machine Dimensions (L x W x H)	2655 x 2295 x 2412 mm	104.5 x 90.4 x 95 in
Total Weight: Base Machine	4,082 kg	9,000 lbs
Maximum Workpiece Diameter	100 mm	3.9 inches
Maximum Workpiece Length	*530 mm	*20.9 inches
A - Axis Headstock Spindle 360° Rotation	1,000 rpm	1,000 rpm
B - Axis Grinding Spindle Swivel +/- 120°	12 rpm	12 rpm
X - Axis Horizontal Travel	280 mm	11.0 inches
X - Axis Travel Speed	10 m/min	400 inches/min
Y - Axis Vertical Travel	220 mm	8.7 inches
Y - Axis Travel Speed	10 m/min	400 inches/min
Z - Axis Horizontal Travel	350 mm	13.8 inches
Z - Axis Travel Speed	10 m/min	400 inches/min
Grinding Spindle Speed	10,000 rpm	10,000 rpm
Continuous Spindle Horsepower	10 kw	13.4 hp
Peak Spindle Horsepower	25 kw	33 hp
Maximum Grinding Wheel Diameter	150 mm	5.9 inches
Smallest Programmable Movement - Linear	0.00254 mm	0.0001 inches
Linear Axis Glass Scale Feedback Resolution	0.00001 mm	0.0000004 inches
Smallest Programmable Movement - Rotary	0.0001 deg	0.0001 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



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