

# NXT

NXT Tool Grinder

# The NXT generation of tool grinding has arrived



With the introduction of the Star NXT CNC tool and cutter grinder, manufacturers now have what the market has been asking for: a small footprint machine, with a large grind zone, that provides the ability to run small and large diameter wheels. The NXT combines the best aspects of our previous machines, with a modular design that offers easily configurable options and a competitive price point. With industry leading NUMROTO software on a machine manufactured and supported in the USA, the NXT is the smallest and most capable CNC tool and cutter grinder on the market.

## A Common Platform

- Focused design to deliver a maximized grind zone with a minimal footprint
- Travels: X: 500mm [19.7"], Y: 650mm [25.6"], Z: 750mm [29.5"]
- Capable of 15" end work, 10" diameter parts, utilizing up to 8" wheels
- Machine centered wheel changing capability with up to (5) storage locations
- Auto-lube grease system for worry free maintenance
- High resolution linear glass scales
- Linear motors instead of ball screws to eliminate backlash, friction effects, and drive vibration
- 24 hour service response time
- Manufactured in the USA
- Grinding spindle options



## Features & Benefits

### Modular Design

With a standardized design, the NXT was launched to decrease lead times, while being able to provide options to customers.

### Wheel and Coolant Manifold Changing

The ideal wheel pack and coolant manifold is different for each process. We offer configurations up to five stations, and flexibility built in to handle anything from a high mix, low volume application right on through to the low mix, high volume producers.

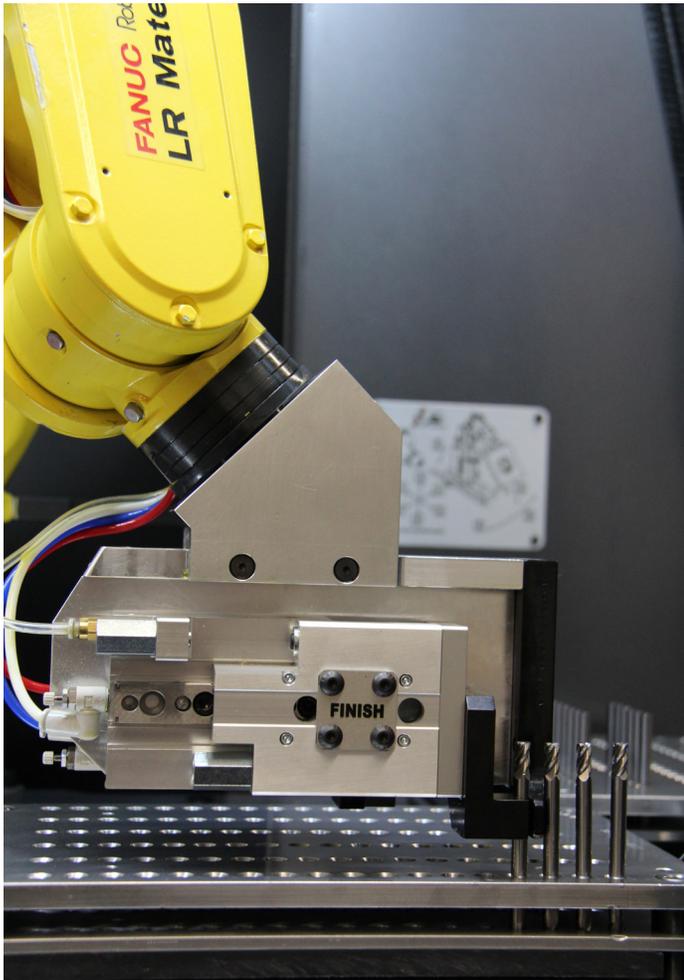
### Spindle Offerings

The two available spindle options support all needs ranging from light duty manufacturing to heaving fluting and all-purpose manufacturing.

### Tooling Rail and Support Options

The NXT offers both standard and extended length tooling rails, which allows for the use of rail mounted steady rests and tailstocks at various tool lengths. A traveling W-axis option is available for more complex applications. Our engineers are ready to work with customers on custom work holding and support solutions to meet the growing demands of the modern tooling industry.

kW	RPM	Spindle Type	Purpose
15 kW	24,000 rpm	Auto HSK	Manufacturing, regrinding, and high RPM applications
28 kW	20,000 rpm	Auto HSK	All purpose manufacturing



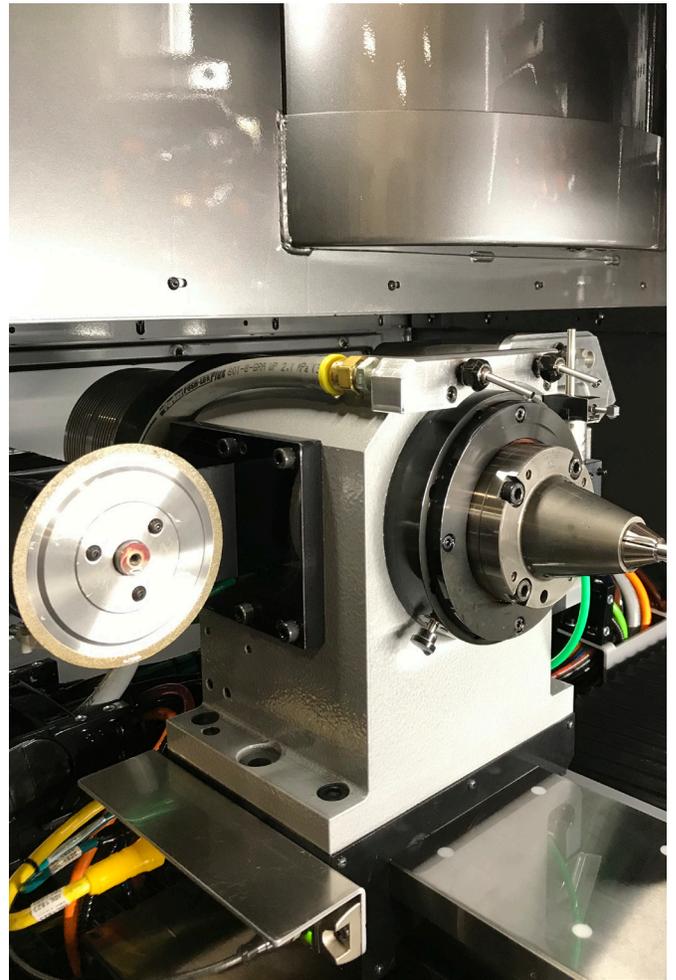
*Robot gripper: capable of holding tools from 5 to 32mm in diameter. Optional gripper fingers available for gripping sizes below 5 mm and above 32 mm.*

### **Automation**

The NXT has a fully integrated Fanuc 200iD to serve round and flat blank applications. With on machine in-process measurement the NXT features the ability to ensure critical tolerances are maintained no matter what shift the job is running. The NXT has diameter capability from 5 to 32 mm without changing grippers.

### **Technology**

As with our previous machine offerings, the NXT is free of ball screws, belts, and gears for power transmission. The machine axes are driven by linear motors and direct drive torque motors for years of worry-free use. Coupled with high resolution glass scales, the NXT is capable of delivering any tool tolerance. Our mineral cast base provides a critically damped machine, keeping natural frequencies low and resonances away from the cutting feeds and speeds. A closed loop chilling system maintains a thermally stable NXT on every tool processed.



*Optional 12,000 RPM wheel dresser: for manufacturers who intend to produce and maintain precision contours in grinding wheels*

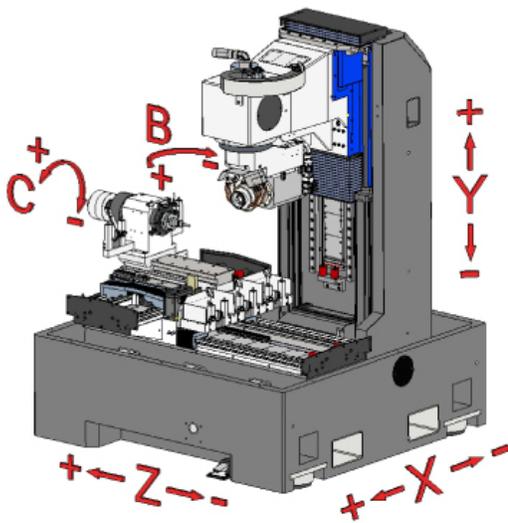
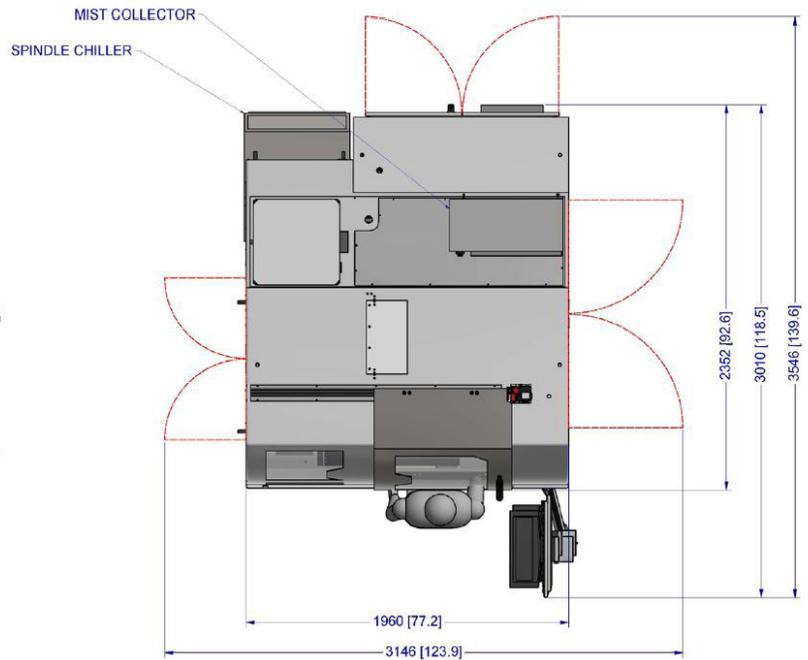
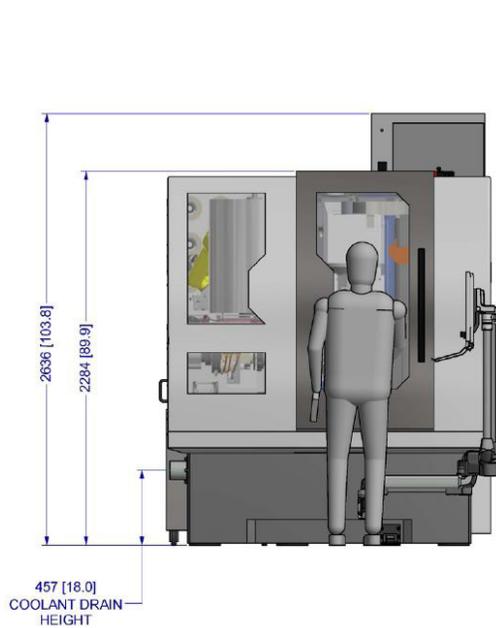
### **The Best Grinding Software Worldwide: NUMROTO plus**

NUMROTO is a comprehensive software package for producing and re-sharpening a wide range of tools. It has never been easier to manufacture and re-sharpen high-quality tools.

- Full library of available software to tackle the most demanding cutting tool designs
- Free software version updates for the life of your NXT
- USA based application support team for training and trouble shooting

**numroto®**

# Machine Specifications



NXT Tool and Cutter Grinder Kinematic Layout

	Metric	Inch
Base Machine Dimensions (L x W x H)	2300 x 2032 x 2284 mm	7' 6" x 6' 6" x 7' 5"
Total Weight: Base Machine	5,964 kg	13,150 lbs
Maximum Workpiece Diameter *	254 mm	10 inches
Maximum Grind Length, End Work	381mm	15 inches
Maximum Grind Length, Fluting	406 mm	16 in
C - 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	506 mm	19.9 inches
X - Axis Travel Speed	50 m/min	1968.5 inches/min
Y - Axis Vertical Travel	650 mm	25.6 inches
Y - Axis Travel Speed	50 m/min	1968.5 inches/min
Z - Axis Horizontal Travel	768 mm	30.2 inches
Z - Axis Travel Speed	50 m/min	1968.5 inches/min
Grinding Spindle Max. Speed	20,000 rpm	20,000 rpm
Peak Spindle Power	28 kw	38 hp
Grinding Wheel Diameter (Wheel Changing) **	203.2 mm	8 inches
Smallest Programmable Movement - Linear	0.001 mm	0.00039 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: C-axis	0.000068 deg	0.000068 deg
Rotary Axis Feedback Resolution: B-axis	0.00000006 deg	0.00000006 deg

\* Maximum Work Piece Diameter: Up to 12" with smaller grind wheel selection

\*\* Grinding Wheel Max. Diameter with no wheel changing, manifold & probing: 12"



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