CINCINNATI MACHINES

Micro

High-Performance
Small Parts
Grinding Center

Precision
Straight or Angular
High-Production
or
Tool-Room
Small Lot Size
Grinding
with
i-Grind

Micro Precision Small Parts High Performance Grinding Center

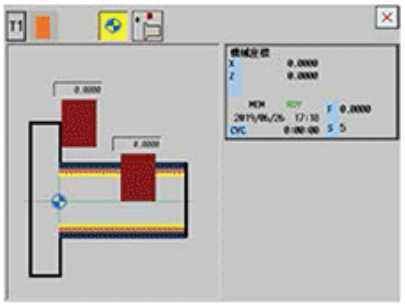
Micro CNC Cylindrical Grinding Centers are designed from the ground up with cutting edge features to provide high precision grinding results whether the machine is set up for tool room or high production grinding.

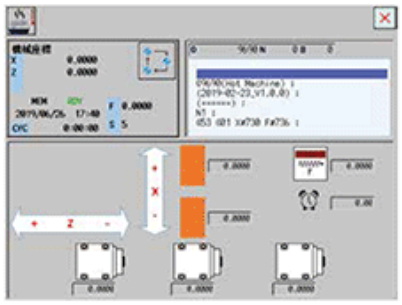
Features

With a footprint of only 7 square feet, Micro Grinding Centers are designed to provide the very best grinding capabilities in the smallest floor space. Micro features a 20" diameter Grinding wheel, a grind envelope of 9" diameter, 8" between center, and 11 lbs. load capacity to provide optimum cycle times, and maximum stock removal. The machine is ready for automation integration in the case of dedicated high production, and for tool room work, *i*-Grind software makes easy work of small lot size jobs.

CNC Controller

Micro features the Fanuc 0i-TF as standard with the available *i*-Grind, easy to learn and program conversational software. *i*-Grind is also available on the optional Mitsubishi CNC, to easily grind many different small part shapes from small up to 11" OD and 8" between centers

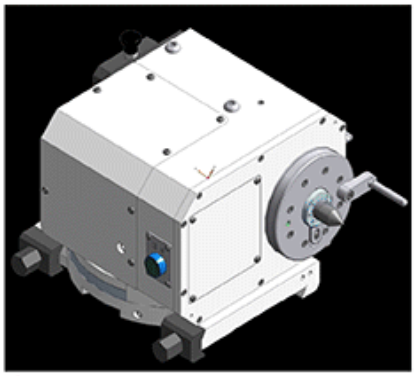




- OD Grinding / End Face Grinding / Form Grinding
- Form Dressing w/Auto compensation
- Multiple Section Grinding Sequences
- Setup Parameter Storage
- Graphic Parameter Instruction

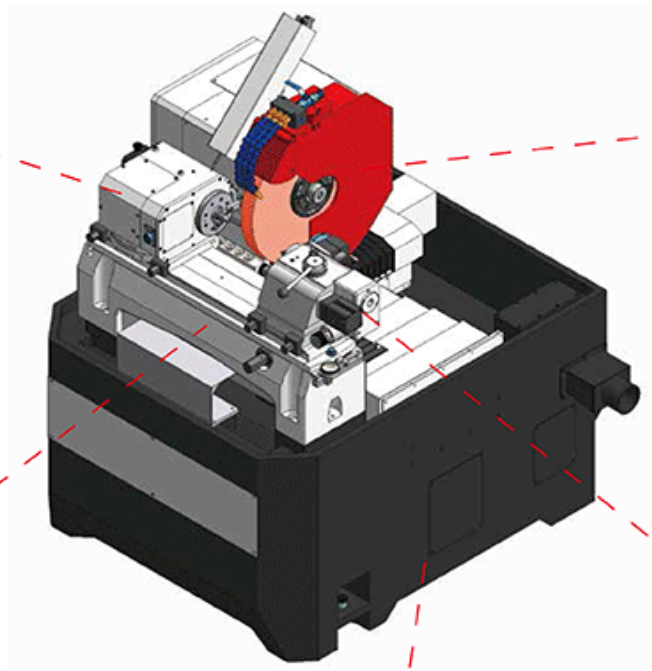
Micro

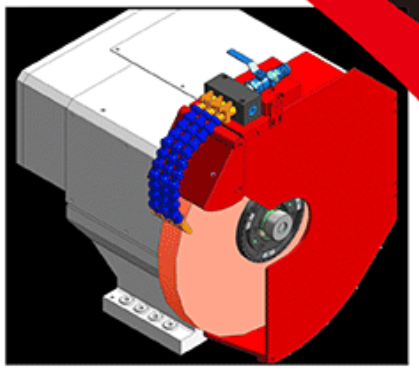
CUTTING EDGE DESIGN FEATURES



Work Head

The servo-motor driven work head features precision "NN" spindle bearings to provide heavy work load capacity, accuracy, rigidity and high torque. The positive air purge system insures grinding swarf and coolant stay out of the work head .

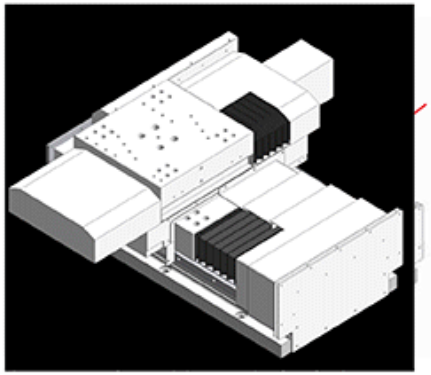




Wheel Head

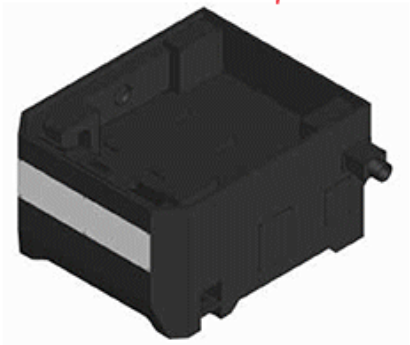
Micro is small, very precise, but also mighty, with 7.5 hp continuous, grinding wheelhead power, and torque to drive the 20" diameter grinding wheel. The wheelhead also features precision "NN" spindle bearings.

Micro is avialble with either the standard straight 0° version, or as a fixed 20° angle-head machine that permits grinding the OD and an adjacent shouder at the same time for maximum accuracy & concentricity.



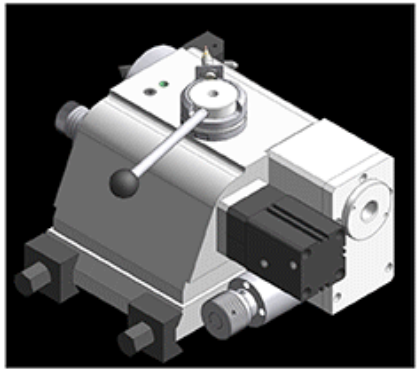
Cross Slide

Micro is a traveling wheelhead design machine. The crosslide structure is **manufactured granite** to provide the upmost rock solid thermal stability in case of temporary temperature change. Combine that with the Heidenhain 0.000002" resolution linear scale, and you can count on maximum accuracy and repeatability.



Machine Base

And yes, *Micro* still features the Cincinnati rock-solid naturally seasoned and double-annealed Meehanite bed casting.



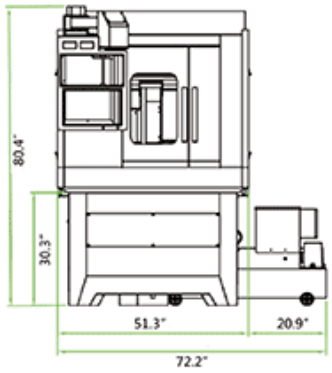
Tail Stock

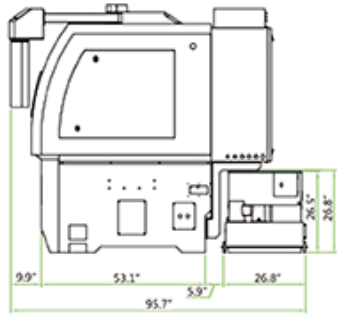
The cutting-edge tailstock is also buiilt on a rock-solid meehanire casting, and feature a built-in taper adjustment. Lubrication is automatic and with an MT3 taper as standard with MT4 as an option, and 1" quill travel

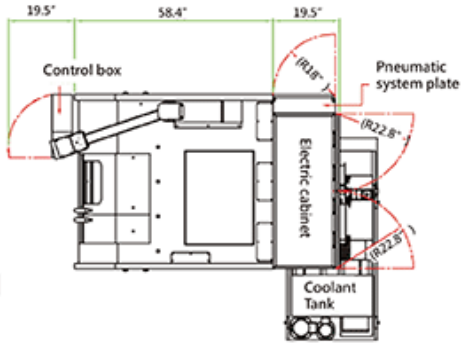
Specification

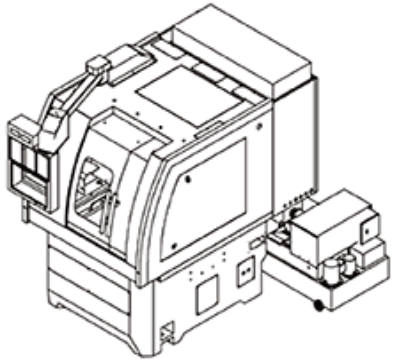
Model			Micro/Micro-A
Grinding Capacity	Swing over table	in	10"
	Distance between centers	in	8"
	Max. grinding daimeter	in	9"
	Max. load held between center	lbs.	44.5
	Center distance between spindle and slide table	in	5"
Grinding Wheel	Diameter x Width x Bore	in	20"×2"×6"
	Motor rated power / max. torque	Kw(HP)/Nm	5.5(7.4)/27.6
	Wheel speed	rpm	1250 (Opt. 1650)
	Spindle type	-	bearing spindle
	Wheel head angle Micro/Micro-A	deg	0 / 20
Work Head	Max. manual swiveling angle	deg	90
	Spindle speed (infinite variable)	rpm	10 – 600
	Motor rated power / max. torque	Kw(HP)	0.75(1)
	Center taper	-	MT3 (Opt. MT4)
	Center working	-	Fixed or Rotary
	Diameter of bore	in	0.8"
Tailstock	Tailstock quill travel	in	1"
	Center taper	-	MT3 (Opt. MT4)
	Micro-taper adjustment	in	0.002"
X Axis	Travel	in	7.9"
	Max. rapid feedrate	in/min	236
	Heidenhain linear scale resolution	in	0.000002
	Min. increment	in	0.00001
	Servo motor rated power	kw(HP)	1.2(1.6HP)(F) / 1.5(2HP)(M)
	Guide way	-	linear way
Z Axis	Travel	in	10.6"
	Swiveling angle	deg	0
	Max. rapid feedrate	in/min	315
	Min. increment	in	0.00001
	Servo motor rated power	Kw(HP)	1.2(1.6HP)(F) / 1.5(2HP)(M)
	Guide way	-	linear way
Motor	Hydraulic pump	Kw(HP)	0.38(0.5)
	Coolant pump	Kw(HP)	0.2(0.3)
Machine	Net Weight	lbs.	5512
	Measurement	in	48" x 79" x 71"

Measurement









Standard Accessories

- Infinite variable workhead w/servo motor
- Fanuc CNC Controller (0i TF) /(Opt.Mitsubishi M80)
- Carbide center tip (MT3/C10)
- Diamond Dresser and Stand
- Automatic wheel speed change (15 steps)
- X Axis Heidenhain linear scale (resolution 0.05 um)
- Levelling bolts and blocks
- Operation manual and part lists
- Grinding Wheel + Wheel Flange
- Full-enclosed splash guard
- Standard coolant tank 140L
- MPG handwheel 2 Axes control Auto lubrication system
- Roller type balancing stand/arbor
- LED working light
- Tools and Tool Box
- Electricity cabinet w/ heat exchanger
- Wheel Extractor
- 4-color indication signal light
- Electrical wiring diagram

Optional Accessories

- FANUC 0i-TF iGrind program
- Mitsubishi controller (M80) iGrind program
- Electrical cabinet air conditioner
- Workhead upgrade to MT4
- Tailstock upgrade to MT4
- Roller type balancing stand/ arbor
- CE standard electrical cabinet
- Automation with robot arm
- Touch probe
- Transformer
- Workpiece carrier
- Workpiece supporting seat, 2pc / set
- 2 Point Steady Rest
- 3-jaw scroll chuck
- BS VM25 Integration system (OD gauging+ crash & gap control + dynamic balance system)
- BS VM15 Integration system (OD gauging+ crash & gap control)
- Hydraulic tailstock (w/ foot pedal)
- Manual grinding wheel balance system (vibrator)
- Grinding wheel dynamic balance system
- Gap & crash control device
- Safety door lock
- Auto gauging device
- Coolant system with magnetic separator & paper filter
- Coolant system with magnetic separator
- Coolant system with paper filter
- Oil & mist collecting system
- Spare grinding wheel flange
- Full-Carbide center tip