

UGC

SMALL CAPACITY ID GRINDER



QUALITY.
Over and over again.

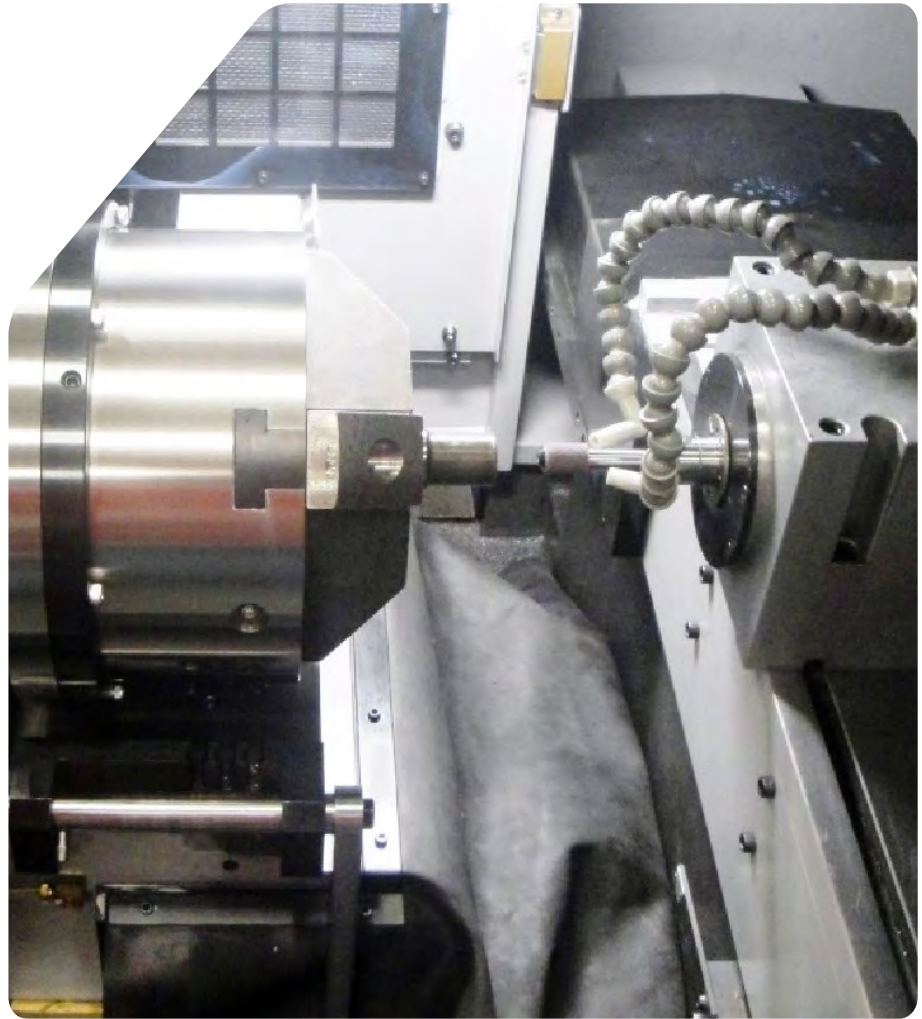
APPLICATIONS

The Weldon model UGC is a compact CNC grinding system ideally suited for internal, external and face grinding in a chucking mode.

Able to utilize either conventional abrasives or diamond or CBN superabrasives, the UGC can be arranged in a variety of configurations.

The UGC can be organized in a dual spindle configuration for grinding multiple features in a single set-up.

Typical applications: small gears, rings, wear plates, bushings, valve components and bearings.

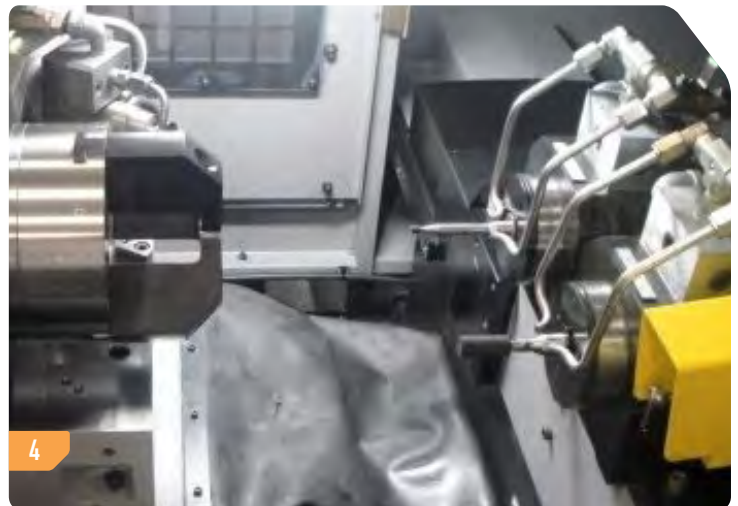
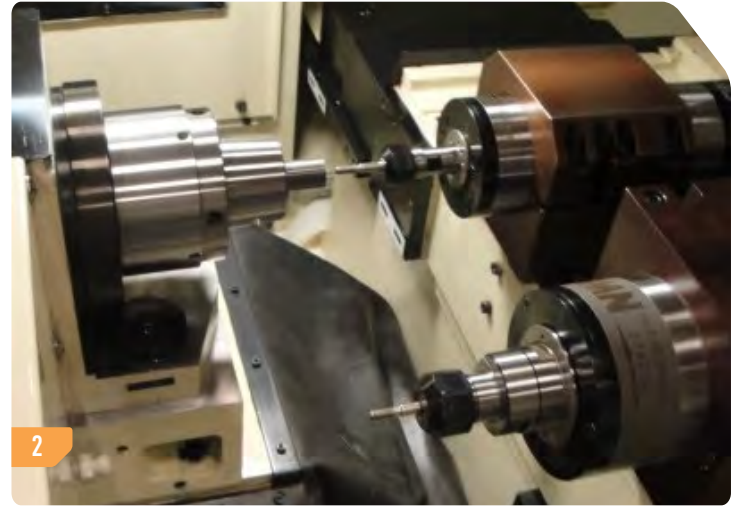
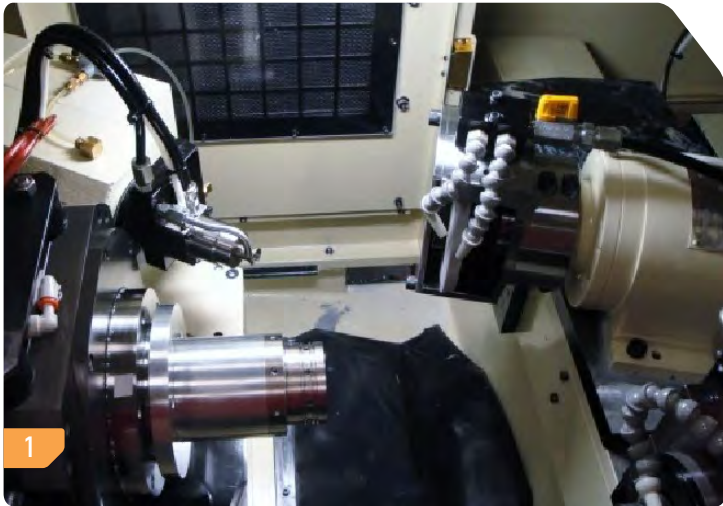


FEATURES: STANDARD

- Fanuc model 0i-TD CNC control with color LCD, and servo drives featuring Fanuc AC digital technology. Includes a battery backup absolute feedback system eliminating the need to reference at each start-up.
 - Cast iron machine base providing stiffness, vibration control, and thermal stability.
 - Pressurized Vee & Flat way system for smooth, controlled linear motion.
 - Dressing diamond holder pneumatically positioned for tooling clearance.
 - Live spindle workhead with straight recess spindle nose and swivel base.
 - 80 mm spindle housing with lubrication system.
 - Full enclosure with manual sliding door and multiple maintenance access panels.
- 1 OD and ID spindles for multiple surface grinding applications.
 - 2 5C collet workholding available for quick change-over. Dual spindle configuration for multiple operations in a single set-up.
 - 3 Automatic machine tending via FANUC LR Mate 6-axis robot.
 - 4 Diamond and CBN superabrasives available for difficult to grind materials.

FEATURES: OPTIONAL

- Programmable workhead with rotary scale for non-round applications.
- OD grinding spindle, straight or angular, with variable speed drive.
- Multiple grinding spindle configurations providing the opportunity for mounting two (2) ID grinding spindles, or (1) ID spindle and (1) OD spindle to perform multiple grinds in a single (1) set-up.
- High frequency grinding spindles with threaded or HSK quill arrangements. Spindles sized to suit the application.
- Electric rotary dressing systems for superabrasive wheels or extended diamond life when processing with standard abrasives.
- Work holding solutions can be addressed with a variety of systems such as manual and powered jaw chucks, collet chucks, magnetic faceplates, vacuum chucks, expanding arbors, pitch-line chucks, and custom fixtures.
- Coolant supply and filtration systems are available to suit any application; magnetic, fabric, cyclonic, pressure, and combination filtration units can be provided.
- Automation via gantry systems, Fanuc 6 axis robots, or custom alternatives can be factory integrated on a turnkey basis.





UGC SPECIFICATIONS

CAPACITY

Chuck diameter..... 4"
 Maximum work swing 7.08" (180mm)

WORKHEAD (Live Spindle)

Speed (infinitely variable)..... 100 to 2000 RPM
 Spindle nose..... Straight recess
 Through-hole..... 0.625
 Swivel Angle..... 0° to 30°
 Motor, Fanuc AC digital servo..... 1 HP

WORKHEAD TABLE (Z axis)

Least input increment000010"
 Max. travel 9" (230mm)

SPINDLE TABLE (X axis)

Spindle housing bore 80 mm
 Least input increment000010"
 Max. travel 27.5" (700mm)

TABLE DRIVES

Fanuc AC digital servo drives 1.9 HP

LUBRICATION

Wheel spindle..... Air / Oil (mist)
 Workhead spindle Permanent grease-packed
 Ballscrews..... Automatic lube oil
 Ways Automatic lube oil

Note: Safety detect interlock to prevent cycling if low air pressure or low oil level is sensed.

ELECTRICAL SPECIFICATION

Standard voltage..... 208 VAC, 3-phase, 60 Hertz
 Note: Any other voltage must be referred to factory for price and delivery.

PNEUMATICS (air moisture: 70° F. dew point maximum)

Air pressure 80 PSI
 Air volume 5 SCFM

Note: System requires a filtered and dry air source.

COOLANT SYSTEM

Machine is set up to pump coolant out to an optional coolant filter or tank system. All necessary piping and solenoids for coolant control from the machine control are provided.

MACHINE DIMENSIONS AND CONSTRUCTION

Width..... 71" (1800mm)
 Depth 70" (1770mm)
 Height..... 71" (1800mm)
 Centerline workpiece,
 height from floor 41" (1050mm)
 Weight..... 3700 lbs. (1700kg)
 Base construction..... Cast Iron
 Foundation.. 6" reinforced concrete recommended

CNC CONTROL SPECIFICATIONS - Fanuc Oi-TD

- Inch / metric programming
- Manual pulse generator
- Full linear and circular contouring and positioning capabilities
- Fanuc AC digital servo system
- Direct rpm programming or constant surface feet
- Built-in diagnostics
- 8.4" high-resolution color LCD
- Automatic recognition of EIA or ISO coding
- RS 232 / Ethernet
- Memory card / USB Interface
- .000010" Command resolution