UGC
Small Capacity ID Grinder
**APPLICATIONS**

The Weldon model UGC is a small part CNC grinding system ideally suited for internal, external and face grinding in a chucking mode. An optional "C" axis package provides non-round (cam) grinding capability.

Designed for the use of conventional or super abrasives, the UGC can accommodate both diamond and CBN grinding wheels. The UGC can be equipped with up to three (3) grinding spindles for multiple feature grinding (bores, outside diameters, faces, etc., in a single set-up.

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

**FEATURES**

**Standard:**
- GE/Fanuc model 21i-TB CNC control, and servo drives featuring GE Fanuc AC digital technology.
- 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. Features a tandem set of angular contact bearings.
- 80 mm spindle housing and spindle lubrication system.
- Full enclosure with manual sliding door assembly and multiple maintenance access window panels.

**Optional:**
- Programmable workhead with Heidenhain rotary scale for non-round applications.
- GMN high frequency grinding spindles with threaded or HSK quill arrangements. Spindles sized to suit the application.
- OD grinding spindle, straight or angular, with variable speed drive.
- Multiple grinding spindle configurations providing the opportunity for mounting two ID spindles, or one OD and one ID spindle to perform multiple grinds in a single set-up.
- Electric rotary dressing systems for super abrasive dressing 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.

For more information, visit our website at www.weldonsolutions.com.

**QUALITY.** Over and over again.
UGC SPECIFICATIONS

CAPACITY
Chuck Diameter .............................................. 4"
Swing .............................................................. 7"

WORKHEAD (LIVE SPINDLE)
Spindle speed (Variable) .... 100 to 2000 RPM
Swivel Angle ........................................ 0° to 30°
Thru Hole ................................................... .625"

SPINDLE TABLE (X AXIS)
ID spindle housing bore .......................... 80MM
ID grinding spindle speed ...................................
................................. 30,000 to 120,000 RPM (by application)
Rapid Speed ........................................... 400”/Min.
Least input increment ........................................... .000010”
Max. travel .............................................. 13.75"

WORKHEAD TABLE (Z AXIS)
Rapid speed ........................................... 400”/Min.
Least input increment ........................................... .000010”
Max. travel ................................................... 9.0"

ELECTRICAL SPECIFICATIONS
Standard Voltage ..................................................
............... 208/240 volts, 3-phase, 60 Hertz AC
(Any other voltage must be referred to the factory for price and delivery)

PNEUMATICS
Air Pressure .............................................. 80 PSI
Air Volume ............................................. 5 SCFM
NOTE: System requires a filtered and dry air source.

CNC CONTROL SPECIFICATIONS - GE Fanuc 21i-TB
Manual pulse generator
Full linear and circular contouring and positioning
GE Fanuc digital and AC servo systems
Direct RPM programming or constant surface feet per minute
Distributed microprocessor-based
Built-in diagnostics
7.2” LCD display, monochrome
Macro subroutines
Automatic recognition of EIA or ISO coding
Decimal point programming
Absolute/Incremental programming
Background part program editing
Program number search/display
Single block/dry run operational modes
Software overtravel checking
Versatile interface, allowing for easy addition of gaging, machine monitoring, robotics, etc.
RS 232 interface
...000010” command resolution
Automatic update of offsets
Program storage, 160 meters

MACHINE DIMENSIONS AND CONSTRUCTION
Floor space .............................................. 65” x 70”
Weight ..................................................... 3,400 lbs.
Construction ............................................ Cast Iron
Foundation ............................................ 6” Reinforced concrete recommended

OTHER GRINDER PRODUCTS

QUALITY. Over and over again.

Authorized Weldon Distributor

WELDON SOLUTIONS
1800 WEST KING STREET
YORK, PA 17404
VOICE 717.846.4000
FAX 717.846.3624
info@weldonsolutions.com
www.weldonsolutions.com