The highly automated GT-610 Infeed/Thrufeed Grinding System was originally designed to grind the hardest material on Earth -- diamond -- but it now also excels at grinding metal (steel, carbide, titanium etc.) and composite materials for the automotive, aerospace, medical, metal and mining industries.

The machine has been field tested in some of the harshest industrial environments, proving again and again its reliability and its ability to offer large capabilities, all in a small package. Enclosed on a granite bed (standard platform) for reduced vibration and thermal stability. An enclosure with mist collection protecting the operator from debris and misting offering a clean and safe work environment also comes standard. As with our GT-610 CNC, the GT-610 can also be put on a 5,000-pound mineral cast base designed for superior vibration dampening, rigidity and thermal properties.

Three Different Platform Options
1. Cast Iron Bed (no enclosure)
2. Granite Bed with Safety Enclosure (standard platform for this model)
3. 5,000 lbs. Mineral Cast Base with Enclosure

Independent Slides for Easy Setup
The GT-610’s two independent slides (upper and lower), which control the regulating wheel and the work rest blade position, holding the part being ground in place, provide significantly easier and quicker set up than competing systems. The multi-axis controller can position both grinding wheel slides to a resolution of 0.1 micron (0.000004”).

Workhead Assembly
A 15HP motor drives the 10” (254 mm) diameter x 8-5/8” (219 mm) wide grinding wheel mounted on a twin-grip super precision spindle. With a variable speed vector drive, the machine maintains constant surface speed as the work wheel wears, ensuring repeatable and efficient grinding performance. The workhead assembly design allows a single operator to replace the grinding wheel in under 15 minutes.

Controls and Custom Software
The control software is entirely developed at Glebar and is fully customizable to address your application and process. The intuitive touch screen interface allows for ease of use and flexibility. The machine software interface was developed to allow an unskilled operator to run many high precision machines simultaneously.

Work Wheel and Regulating Wheel Dressers
The template tracing work wheel dresser incorporates single point dressing. The template tracing regulating wheel dresser allows for the dressing of shallow profiles to achieve optimal diameter and roundness accuracy. An available variable frequency drive on the work wheel spindle for increased wheel surface feet when running super abrasives such as vitrified CBN. Spindle RPM can be varied depending on the wheel type and wheel dressing parameters.

Automation and Glebar Advanced Analytics
As with other high-performance Glebar machines, the GT-610 can be fitted with robots, pick-and-place gantries, cleaning and drying stations, laser inspection systems and more to provide a truly hands-off turnkey solution for high production grinding applications that demand ultimate precision. Glebar Advanced Analytics that interfaces to supervisory plant controls, is also available to gather production data and track maintenance and critical operational statistics.

Remote Connectivity & Available Metrology Device (P4K)
Remote connectivity is available via EtherCAT, by and large the fastest industrial Ethernet technology. The P4K serves as a closed-loop quality control device that feeds back diameter to the control system for automatic size compensation.

THE GLEBAR ADVANTAGE: Competing designs require a much larger footprint, with wheels so large and heavy, a crane is required to change them. The compact GT-610 series offer high horsepower, high rigidity and superior slide positioning. Through intelligent control and design, the G-ratios can exceed machines twice its size, all while maintaining better roundness, diameter, and taper tolerances.
KEY FEATURES

- 6" diameter Regulating Wheel (152mm)
- 10" x 8-5/8" Work Wheel (254 x 219mm)
- Twin Grip is Standard
- Available ABEC 7 bearings and super high precision regulating wheel housing to maintain extremely tight tolerances
- Proven technology for grinding multiple parts per cycle
- Super precision regulating wheel housing
- Intuitive HMI touch screen controls
- Remote Connectivity via EtherCAT®
- Variable speed AC spindle drive
- 0.1 Micron feedback glass scale on upper and lower ball screw driven slides
- Interface with gauging device for auto size compensation
- Multiple programmable grind zones
- Stationary and removable template tracing dressers for both wheels
- Built-in infeed and thrufeed cycles with programmable inputs and positioning
- Available automatic wheel balancing for ease of setup
- Available 80/20 Safety Enclosure with Mist Collector
- Available metrology device (P4K) which scans and provides feedback of the entire component geometry for all parts in a cycle to automatically correct the grinding wheel dress shape (correcting the wheel dress shape from any measurement device is patent-pending)

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Work Wheel Size: 10&quot; x 8.625&quot; (254 x 219mm)</th>
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<tbody>
<tr>
<td>Work Wheel RPM: 2500</td>
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<tr>
<td>Work Wheel Spindle Power: 15HP (11kW)</td>
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<tr>
<td>Regulating Wheel Diameter: 6&quot; (152 mm)</td>
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<tr>
<td>Regulating Wheel Power: 2HP (1.5kW)</td>
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<tr>
<td>Regulating Wheel RPM: 10 - 200</td>
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<tr>
<td>Grinding Diameter: MAX 2&quot; (50.8mm) - MIN 0.002&quot; (0.05mm)</td>
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<tr>
<td>Roundness: better than 0.00005&quot; (1.27 microns)</td>
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<tr>
<td>Diameter accuracy: better than 0.001&quot; (2.5 microns)</td>
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<tr>
<td>Upper Slide resolution: 0.1µm (0.000004&quot;)</td>
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<tr>
<td>Lower Slide resolution: 0.1µm (0.000004&quot;)</td>
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GLEBAR

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Glebar is an ISO 9001 certified company

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