

### CONTROL

CNC axes 4 - X/Y/Z/V Grinding Stations

CNC axes 3 - A/B/C Auto Loading Stations

|                    |             |
|--------------------|-------------|
| Max.Stroke X-axis  | - 300 mm    |
| Control resolution | - 0.0001 mm |
| Max.Stroke Y-axis  | - 40 mm     |
| Control resolution | - 0.0001 mm |
| Max.Stroke Z-axis  | - 40 mm     |
| Control resolution | - 0.0001 mm |
| Max. Stroke V-axis | -125 mm     |
| Control resolution | - 0.0001 mm |

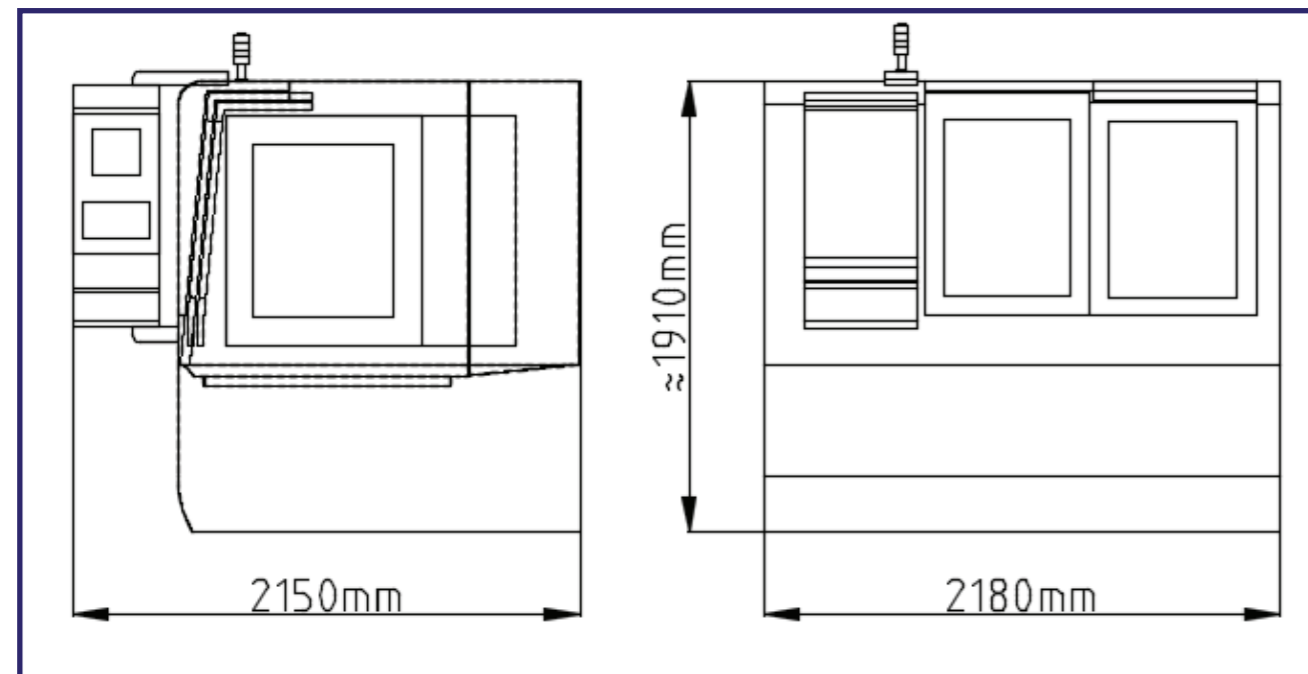
### DIMENSIONS

|                    |                         |
|--------------------|-------------------------|
| L x W x H          | = 2180 x 2150 x 1910 mm |
| Net weight Approx. | = 2800 Kg               |
| Total Power        | = 15 kW, 450V/100A      |

### AUTO-LOADER AXES

|                    |             |
|--------------------|-------------|
| Max. Stroke A-axis | - 730 mm    |
| Control resolution | - 0.0001 mm |
| Max. Stroke B-axis | - 770 mm    |
| Control resolution | - 0.0001 mm |
| Max. Stroke C-axis | - 290 mm    |
| Control resolution | - 0.0001 mm |

\* Specifications are subject to change without notice



## Tool Grinding Technologies Inc. Microma Auto



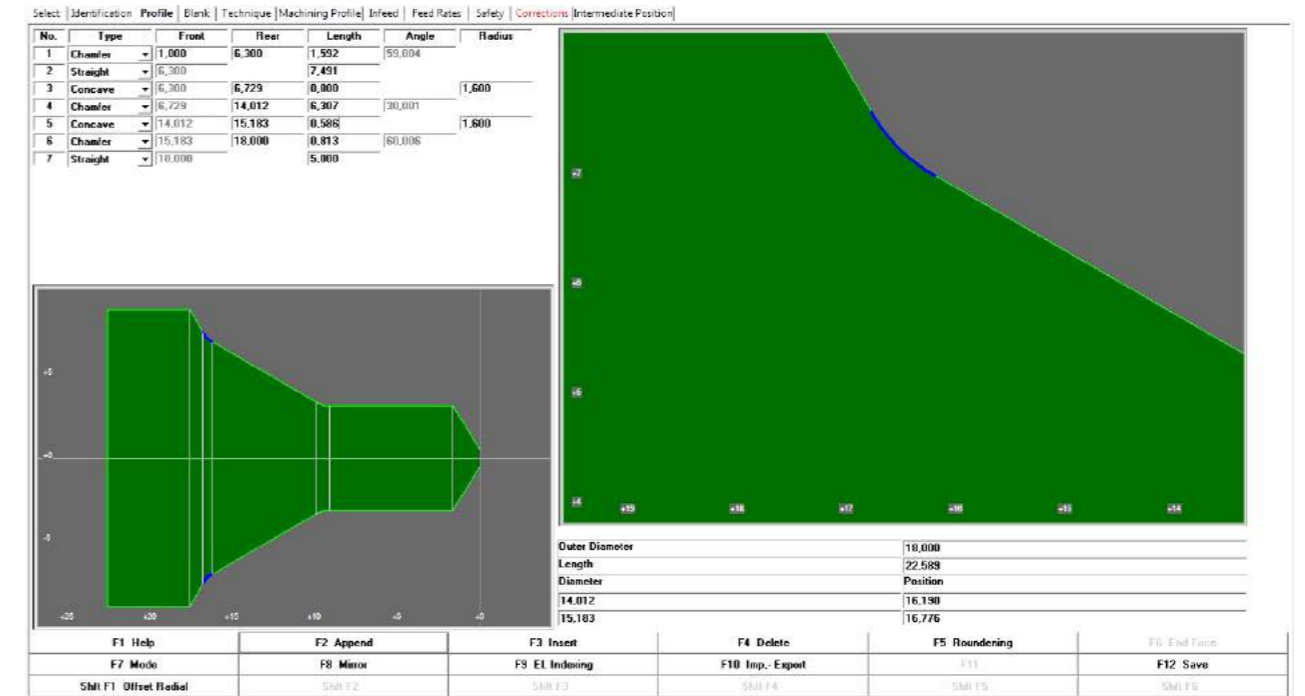
4 Axes CNC Cylindrical Grinding  
from TGT India.



For More Information about this machine, Please feel free to contact us.

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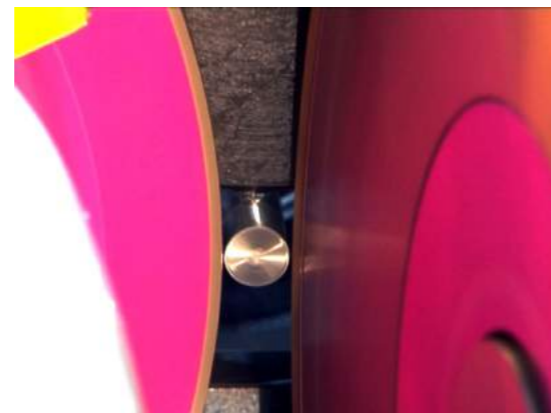
**TGT Microma Auto** is 4 axes CNC Cylindrical Grinding Machine with integrated CNC automatic tool loading system with grinding range from Ø0.5mm – Ø25mm. It is best suited machine for blank preparation of cutting tool, micro drills, punches and more applications which require high complexity of the geometry as well as higher length to diameter ratio.

Precise Diameter control of 0.003 mm along with concentricity of 0.002 mm is achieved by stable machine design, integral water cooled spindles and synchronous Rough/Finish grinding procedure.

- Menu driven MTS software is very user friendly in terms of Blank data, out simulation of the wheels and NC code.
- Optional automatic blank loading and unloading enables efficient unmanned production.
- With the tool alignment and support system, time for tool setup is reduced.
- Roughing and finishing operations are done simultaneously
- For special tools, finishing spindle can be used for roughing operation due to its 7.5 KW power which enables us to grind included angles up to 100 degree

**Auto-Loading features:-**

- 3-axis CNC system with all standard modules (Vertical Slide, Rotary Module, Grippers).
- Tool holding Pallet capacity up to 300 tools.
- Comfortable approach for pallet management. (blank loading on to pallets)
- Pallet Management Software is available to manage details of pallet like No of blanks, pallet size and intermediated machine stop at given Intervals, this helps in monitoring the production.



MTS Software:

MTS Definition of blank profile:

- Blank Profile can be defined by 5 elements Straight Line, Chamfer, Convex & Concave Radius.

## TECHNICAL SPECIFICATIONS

### APPLICATION

Synchronous grinding of round blanks Such as cutting tools, punches, mold Pins and form tools etc.

### AUTO-LOADING & UN-LOADING

|                |                    |
|----------------|--------------------|
| Shank          | - Ø3 mm - Ø16mm    |
| Overall Length | - 50 mm - 150 mm   |
| Pallet         | -300Psc for Ø3.0mm |

### MANUAL LOADING

|                |                  |
|----------------|------------------|
| Shank          | - Ø2 mm - Ø20mm  |
| Overall Length | - 55 mm - 300 mm |

### GRINDING MOTOR & SPINDLE

|                   |   |
|-------------------|---|
| Roughing Motor    | - 7.5 Kw (Direct Driven Internally cooled)  |
| Roughing Spindle  | - HSK50                                     |
| Cutting Speed     | - Adjustable, Frequency Converter.          |
| Roughing Wheel    | - Ø250 mm                                   |
| Finishing Motor   | - 7.5 Kw (Direct Driven Internally, Cooled) |
| Finishing Spindle | - HSK50                                     |
| Finishing Wheel   | - Ø250 mm                                   |
| Workhead Motor    | - 1.5kW Belt Driven,                        |

### GRINDING RANGE

|                                   |                     |
|-----------------------------------|---------------------|
| Grinding Size                     | - Ø0.5 mm to Ø20 mm |
| Clamping Collets                  | - W20               |
| Grinding Length (With Probing)    | - 55 mm – 150 mm    |
| Grinding Length (Without Probing) | - 55 mm – 300mm     |