

OUTSTANDING RIGIDITY PERFECT ACCURACY GT-1612V

OUTSTANDING MACHINE ACCURACY:

- Double column high-speed machine structure features high-speed, high-rigidity and maximum stability.
- Roller-type linear guide ways on X / Y / Z axis resist heavy load.
- X / Y / Z axis are equipped with linear scales, providing closed loop controls.
- 24,000 rpm / HSK-A63 built-in type spindle.
- 30 tools arm type tool magazine.
- The circular-arc shaped safety door features spacious machining space and makes workpiece loading / unloading more convenient.
- Fully enclosed splash guard
- Various advanced controllers to select.
- Cutting feed rates on X / Y / Z axis: 20 M/min.
- Rapid feed rates on X / Y / Z axis: 20 M/min.
- Positioning accuracy: 0.003 mm / 300 mm (International standard ISO-230-2)
- Repeatability accuracy: ± 0.003 mm / Full travel (International standard ISO-230-2)



CIRCULAR-ARC SHAPED SAFETY DOOR

The elegant, circular-arc shaped safety door not only effectively increases the internal machining space, but also allows the operator to load/unload workpiece conveniently.

SUPERB DESIGN CONCEPT CREATING UNMATCHED PERFORMANCE

RIGID STRUCTURE

The Gentiger GT-1612V features T-shape machine structure, exhibiting superior rigidity. The width of column is the same as the base. The table is independently installed on the base and is fully supported through the full stroke. This machine offers high speed, maximum stability and high precision, providing a competitive edge in small type precision mold and die machining.

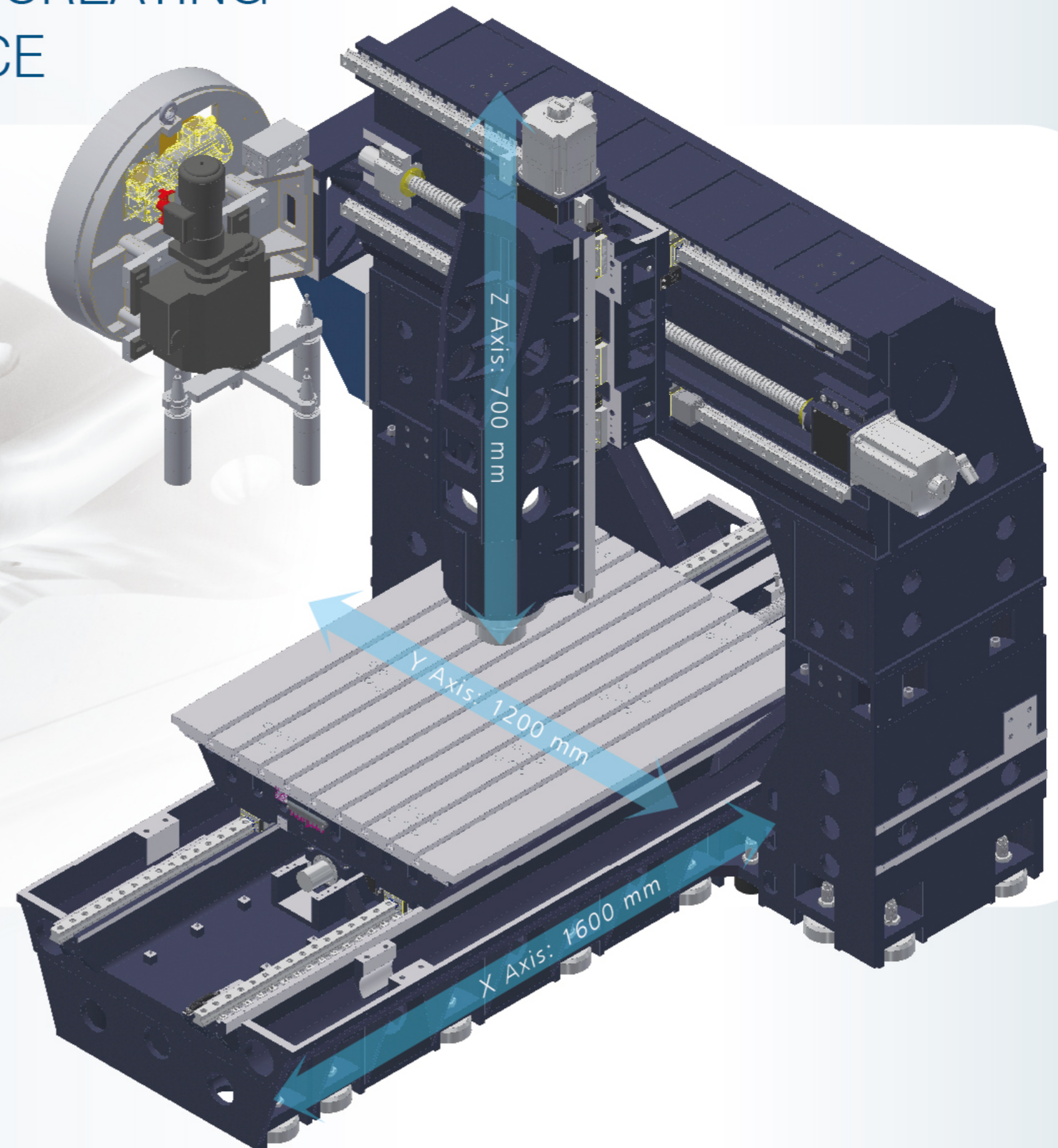
HIGH QUALITY CAST IRON MULTIPLE TREATMENTS

The structural parts of GT-1612V are manufactured from high quality cast iron, stress relieved and seasoning treated for the deformation-free performance year after year.

HIGH SPEED, HIGH PRECISION STRUCTURE

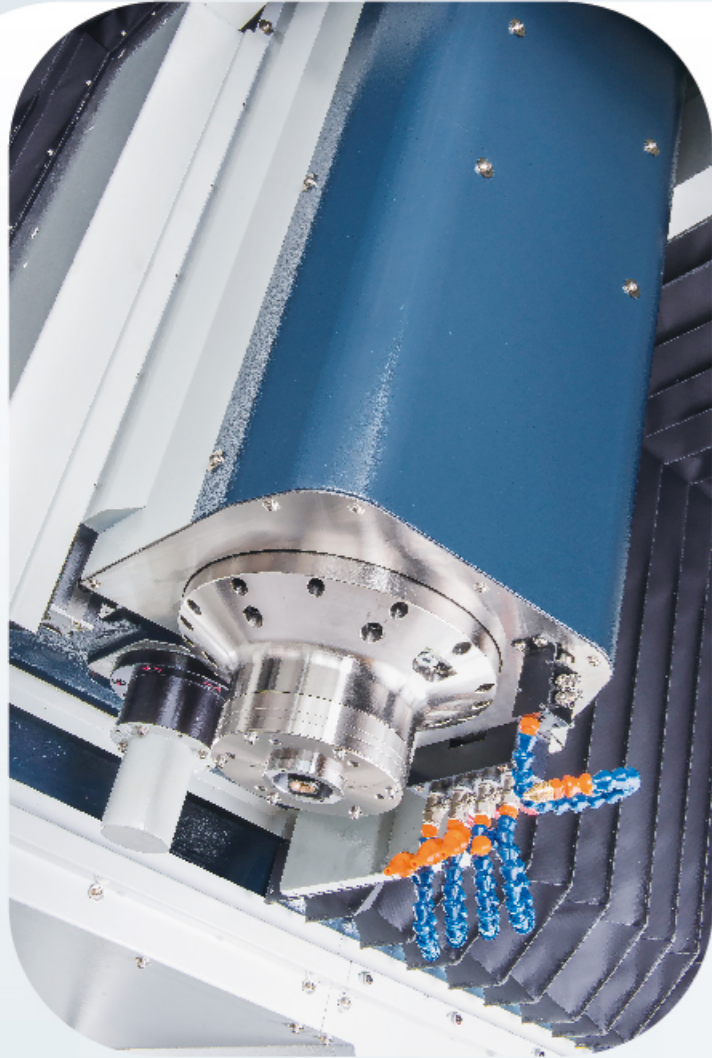
X/Y/Z axis ball screws are supported by preloaded angular contact ball bearings to achieve high positioning accuracy and high speed.

X/Y/Z axis are mounted with roller-type linear guide ways, featuring heavy load resistance, high rigidity and high dynamic accuracy.



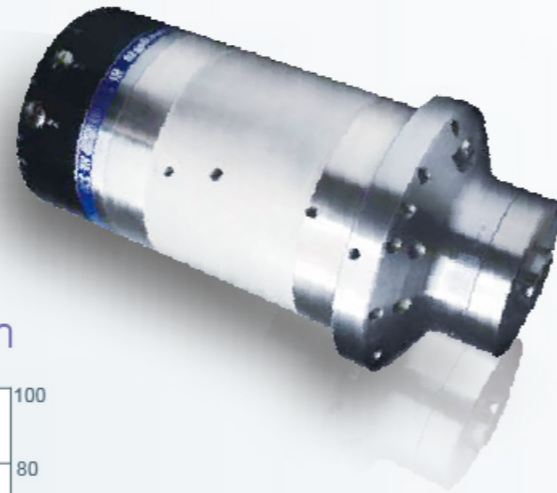
GT-1612V

BUILT-IN SPINDLE 24,000 rpm HSK-A63

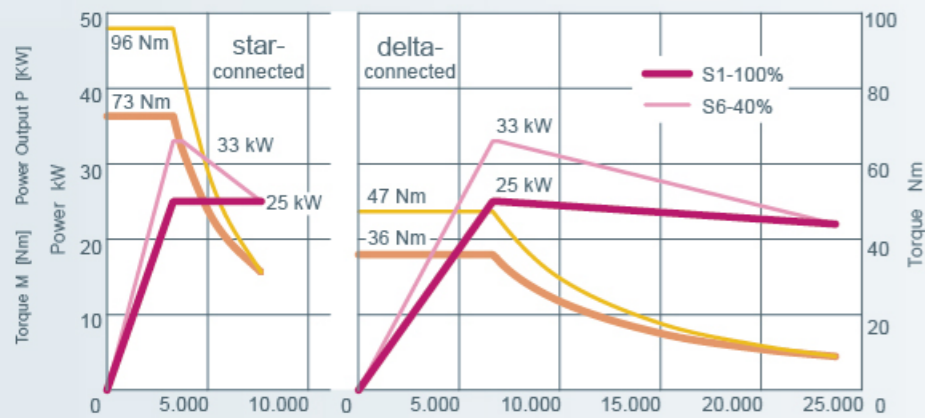


HIGH SPEED, HIGH RIGIDITY,
AMPLE POWER, MINIMUM
VIBRATION, NO NOISE
AND MINIMUM WEAR

- Spindle Speed: 24,000 rpm
- Spindle Motor: 25 / 33 kW
- Spindle Torque: Low speed 72.6 / 95.8 Nm
High speed 35.8 / 47.3 Nm
- Spindle inner diameter: Ø70 mm
- Bearing Lubrication: Oil Air
- High Precision Ceramic Bearings
- Cutting balance is calibrated to within G2.5



S24A Spindle Torque / Power Diagram



ARM TYPE MAGAZINE

- Standard loading capacity of magazine is 30 tools.
- Accommodates HSK-A63 tool shank.
- Fast tool change with smooth and stable tool change motion.
- Precision cam drive achieves.
- Positioning accuracy ± 0.005 mm.
- Tool change arm is excellently water-proof to prevent coolant from entering into the arm.



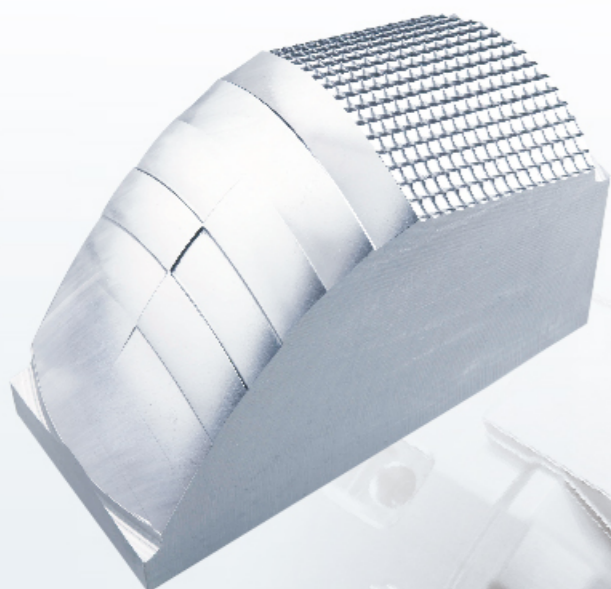
SIEMENS 840D Controller

The GT-1612V is equipped with the advanced Siemens 840D controller. This CNC controller not only permits high-speed milling and NURBS curved surface machining functions, but also is easy to operate.

ENTIRE MACHINE LOADED INTO CONTAINER

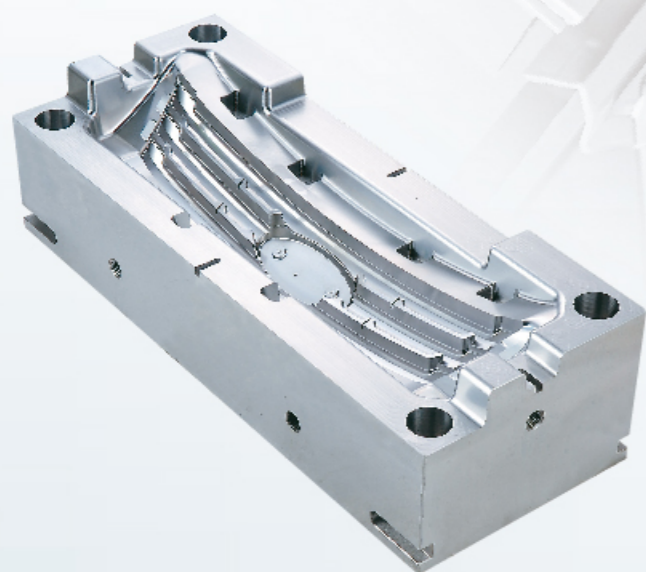
With its compact construction, the entire machine GT-1612V can be directly loaded into a container without dismantling parts. This helps customers save freight costs and eliminate the trouble of reassembly.

PRECISION MOLD MACHINING CAPABILITIES



FINISHING TIME: 5 Hours

- ▶ Workpiece sizes: 76 × 166 × 124 mm
- ▶ Material: AK80 (HRC40)
- ▶ Tool: R1 ball nose cutter
- ▶ Spindle Speed: 18,000 rpm
- ▶ Cutting Feed Rate: 10,000 mm/min



FINISHING TIME: 22 Hours

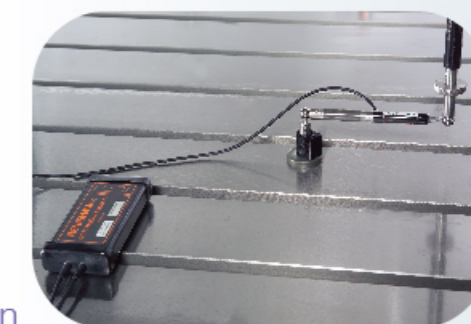
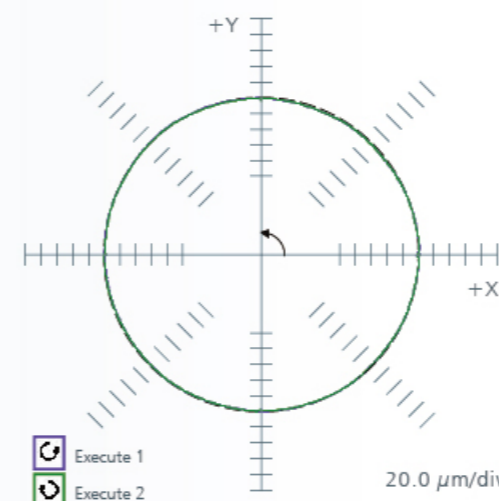
- ▶ Workpiece sizes: 1250 × 500 × 500 mm
- ▶ Material: P5 (HRC32)
- ▶ Tool: R3 (Fine finishing) / R0.75 (Angle cleaning)
- ▶ Spindle Speed: 10,000 rpm (R3)
16,000 rpm (R0.75)
- ▶ Cutting Feed Rate : F1,800 mm/min (R3)
F1,000 mm/min (R0.75)
- ▶ Angle cleaning time: 10 Hours

ETHERNET SUPPORT FUNCTION



With the use of Ethernet transfer function, the machining programs can be managed by a PC with instant editing. The programs are transferred through Ethernet to the machine. This function will help to save preparation time. In addition, by using the automatic power off function and automatic tool length measurement function, etc. automated machining can be achieved.

SUPERIOR QUALITY CONTROL



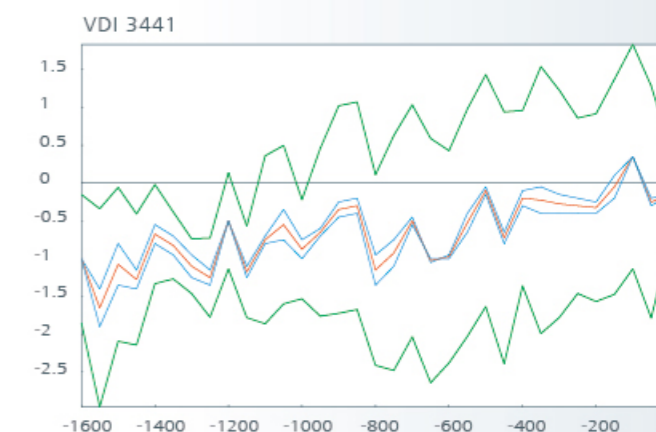
Ball Bar Inspection

To ensure high circularity accuracy of the machine, Gentiger installs a Renishaw ball bar tester to inspect servo accuracy between two axes. This ensures the GT-1612V will exhibit outstanding circularity accuracy.



Accuracy Inspection by Laser

Gentiger also installs a Renishaw laser inspection instrument for inspecting the geometric accuracy of the machine, such as linear positioning accuracy, pitch error and backlash, etc.





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GT-1612V

High Speed Double Column Machining Center

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CE ISO 9001

