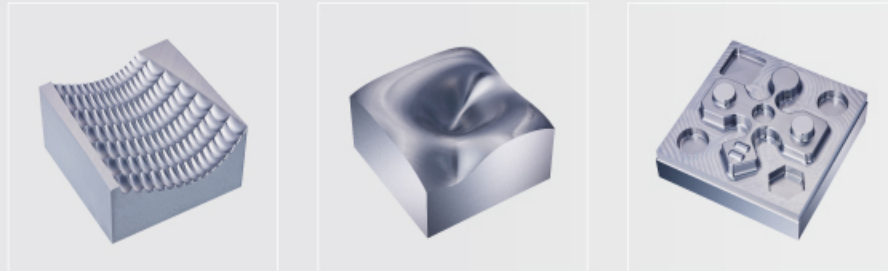


A new generation of high efficiency, high speed, Double Column Machining Center

Gentiger **GT-V72** Means High Speed and High Precision

Built for High Precision Mold Machining

Based on Gentiger's traditional concept of "Dedicated to Excellence", the newly developed GT-V72 Double Column High Speed Machining Center not only has a rigid and stable structure, but also exhibits unmatched performance in high speed, high precision machining. The GT-V72 is equipped with an 18,000 rpm, BBT-40 direct drive spindle. Upon request, a HSK-A63 spindle is available. With 20 M/min. of cutting feed rate and 30 M/min. of rapid feed rate on three axes, high speed machining is easy to achieve. The Gentiger GT-V72 is a high efficiency machine that is specially designed for precise, small mold machining. Choosing the GT-V72 will keep your machining competitive.



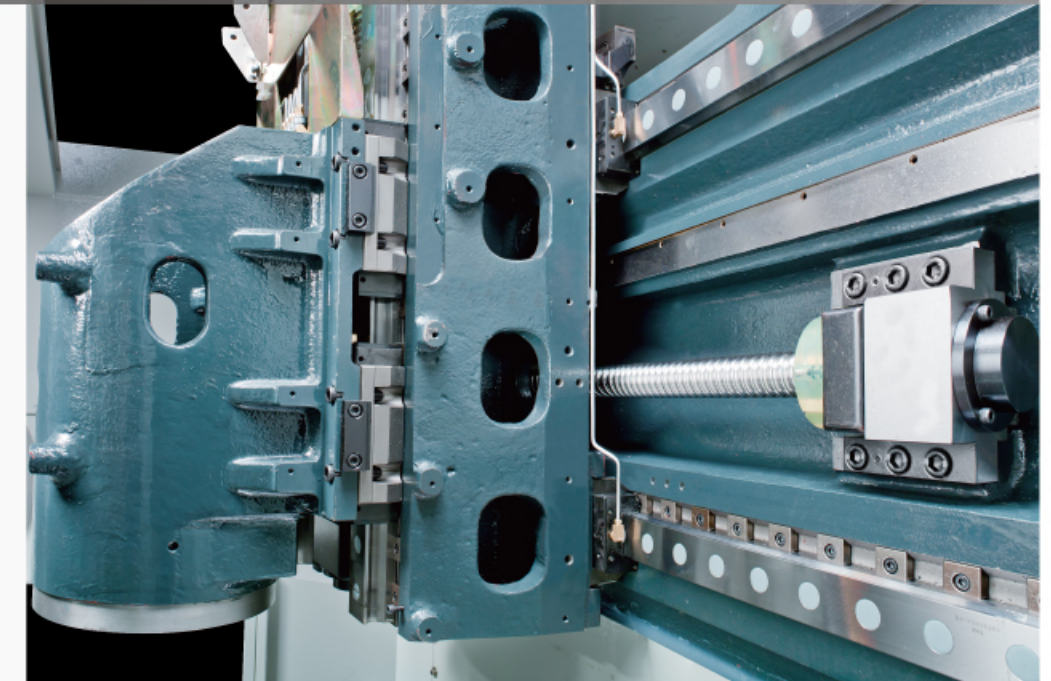
Outstanding Rigidity! Perfect Accuracy!

Regarding to its specially designed structure and optimal accuracy, the Gentiger GT-V72 makes small mold machining easy and effortless.

- ▷ Advanced T-shape construction helps upgrade stability.
- ▷ One-piece constructed column and beam provides higher rigidity.
- ▷ Effortless and smooth motions fully meet high speed machining requirements.
- ▷ X, Y, Z-axes are mounted with roller-type linear ways for high speed traverse, Extra heavy loading capability
- ▷ Rapid feed rates on X, Y, Z-axis: 30 M/min.
- ▷ Cutting feed rate on X, Y, Z-axis: 20 M/min.
- ▷ Positioning accuracy: 0.003 mm / 300 mm (equipped with optical scale)
- ▷ Repeatability accuracy: ± 0.002 mm (equipped with optical scale)
- ▷ Cutter balance is calibrated to within G2.5.



The Gentiger GT-V72 is specially designed with the advanced T-shape construction to maximize rigidity. In addition, the width of the column is the same as the base. The table is independently moved on the base, and fully supported throughout the entire stroke. These features enable the machine to maintain maximum accuracy year after year.



Four Blocks on Z-axis Linear Ways Fully Supported Contact Faces

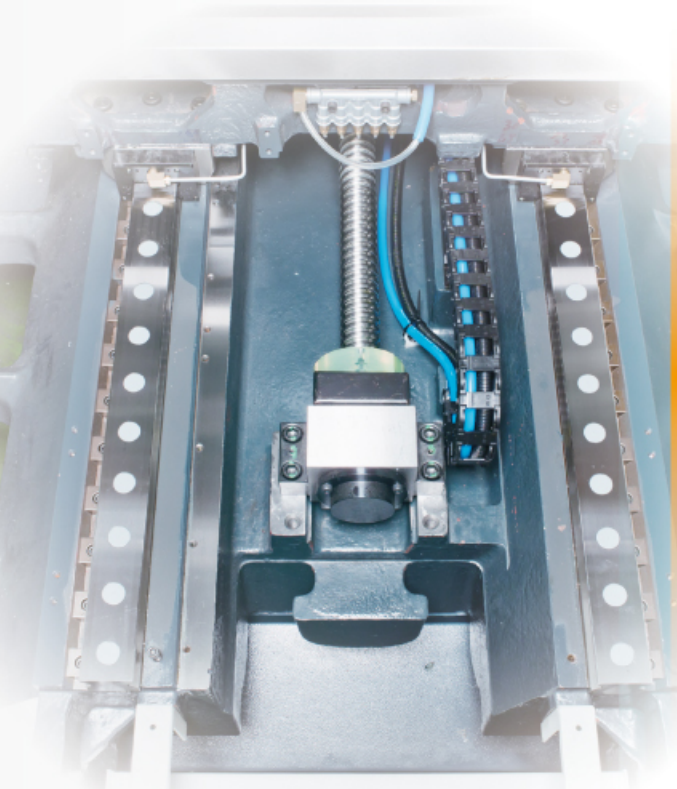
The Z-axis slideways are mounted with two heavy duty roller-type linear ways. Each linear way has two blocks, providing full support of contact surfaces. This offers an increase in Z-axis rigidity and cutting stability.

Structural Parts Season Treated for Minimized Deformation

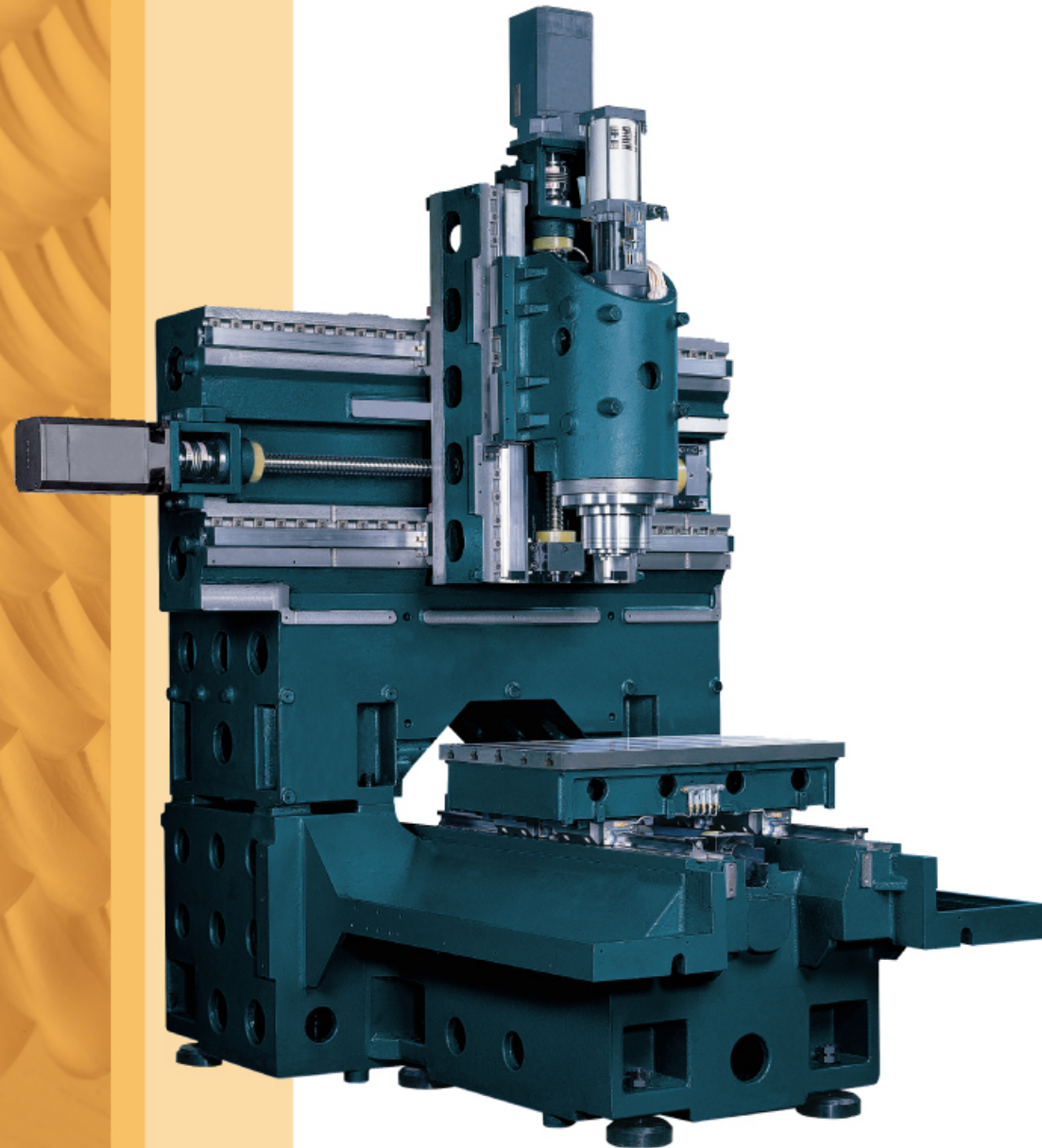
All structural parts of the machine are stress relieved and season treated, ensuring the machine structure remains deformation free, while maintaining its accuracy year after year.

Roller-type Linear Ways on Three Axes

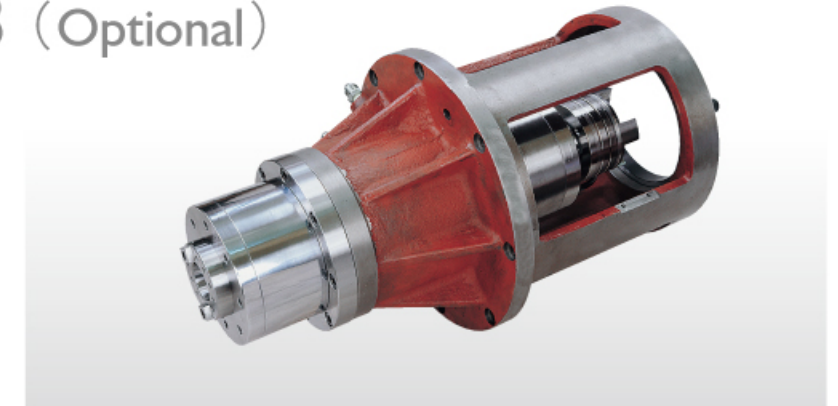
X, Y, Z-axes are mounted with roller-type linear ways in combination with a large span between ways. This outstanding layout exhibits maximum stability in high speed travel and increased loading capacity.



Double Column High Speed Structural Design A Perfect Combination of Speed and Stability



T-18 **18,000** rpm
BBT-40/HSK-A63 (Optional)
Direct Drive
Spindle

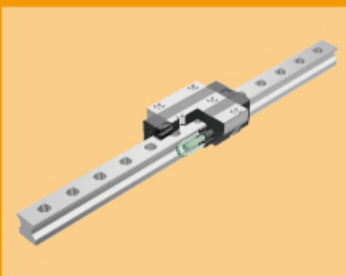
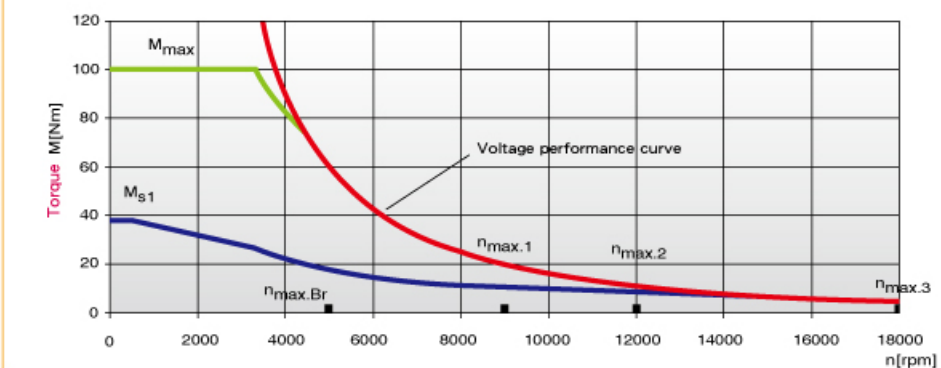
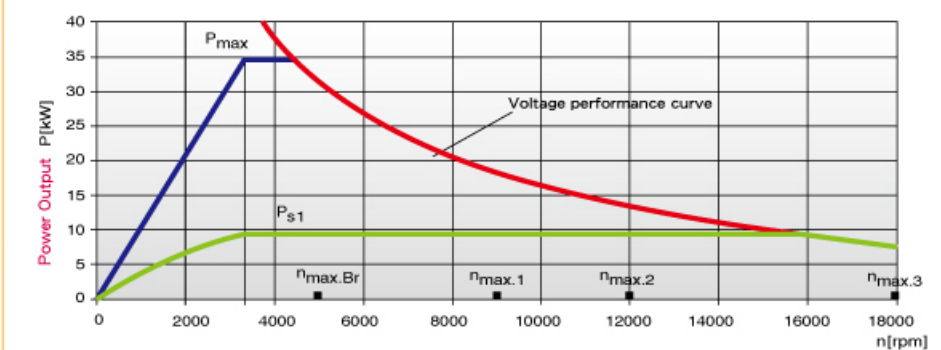


► Siemens 828D Control



The GT-V72 is equipped with the advanced Siemens 828D control. This CNC control not only permits high speed milling and NURBS curved surface machining functions, but also is easy to operate.

T-18 Spindle Torque / Power Diagram



Rigid Roller-type Linear Ways

This machine installs THK highly rigid roller-type linear ways in combination with the use of roller retainers. The top quality linear ways feature an extra low friction coefficient, smooth movement and require no maintenance for long periods of operation.



Tool Magazine

The disk-type magazine is driven by a Geneva intermittent mechanism, allowing for extremely smooth tool change motions.



Dependable Electronic Parts

The control system features outstanding stability and long life of operation.



Lubrication / Pneumatic System

The lubricator automatically delivers oil to the ball screws and linear ways of the three axes. As a result, smoother transmission and longer service life are achieved.



Ball Bar Inspection

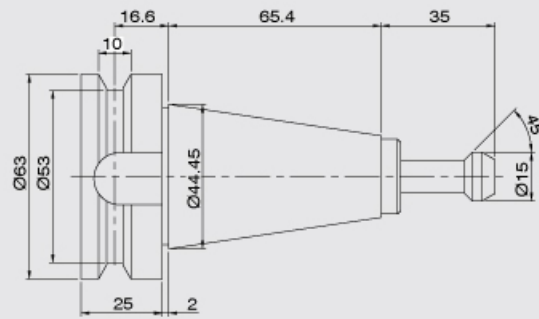
To ensure high circularity accuracy of the machine, Gentiger installs a Renishaw ball bar tester to inspect servo accuracy and geometric error between two axes. This ensures the GT-V72 will exhibit outstanding circularity accuracy.



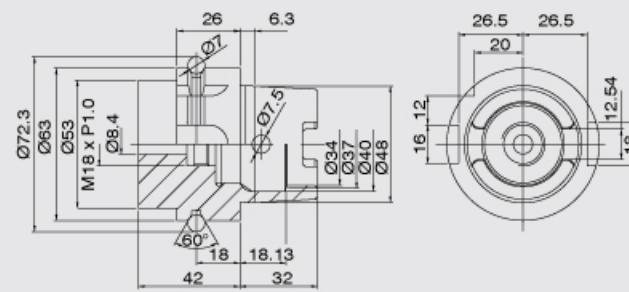
Accuracy Inspection by Laser

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

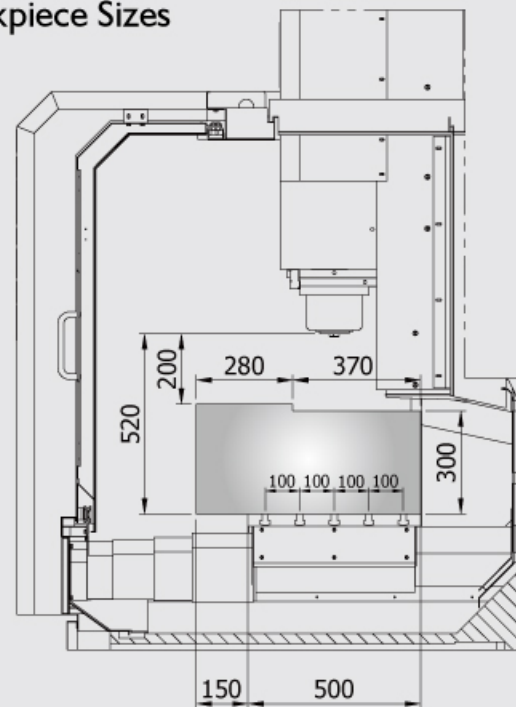
▶ BBT-40 Tool Shank Sizes



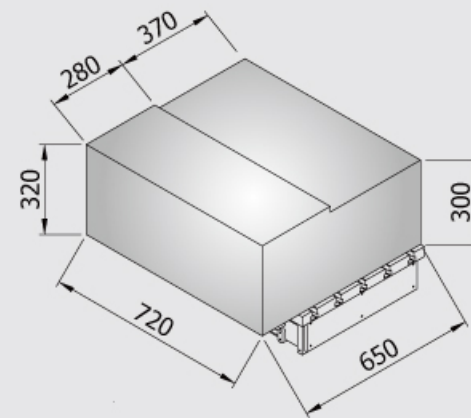
▶ HSK-A63 Tool Shank Sizes Unit: mm



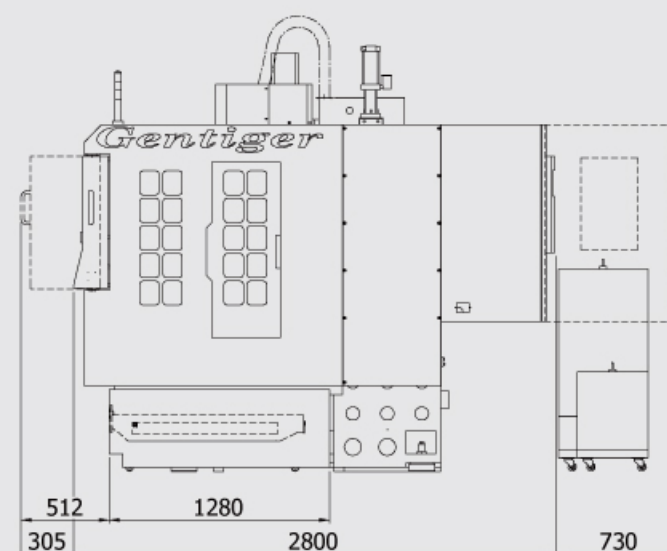
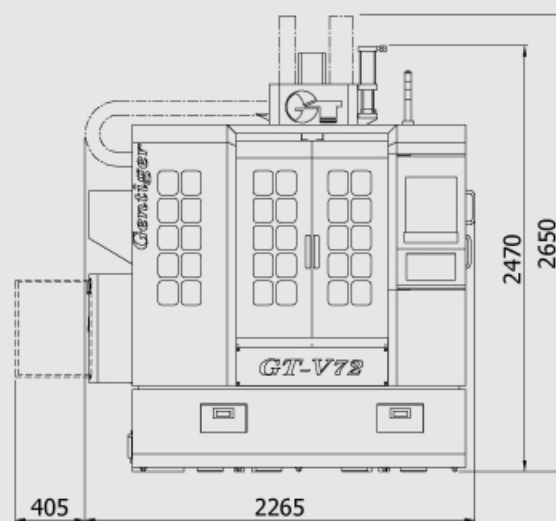
▶ Workpiece Sizes Unit: mm



Workpiece: 720 x 650 x 320
Average load: 400 kg



▶ Dimensional Drawings of Machine



GT-V72

MODEL	T18
3 Axes Travel (X / Y / Z)	720 x 500 x 400 mm
Cutting Feed Rate (X / Y / Z)	20 m/min
Rapid Feed Rate (X / Y / Z)	30 m/min
Table Sizes	750 x 500 mm
T-slot Sizes	18 x 5 x 100 mm
Height of Table from Ground	800 mm
Distance from Table Surface to Spindle Nose	150 ~ 550 mm
Max. Load of Table (Average Load)	400 kg
Max. Spindle Speed	18,000 rpm
Spindle Type	Direct drive
Bearing Lubrication	Oil mist
Spindle Cooling	Oil cooling
Spindle Taper	BBT-40 / HSK-A63 (Opt.)
Spindle Motor Power	8.4 kw
Spindle Motor Torque Output	27 Nm
Inner Diameter of Spindle Bearing	Ø70 mm
Magazine Capacity	16 tools
Tool Type	BBT-40 / HSK-A63 (Opt.)
Max. Tool Diameter	Ø80 mm
Max. Tool Length	250 mm
Max. Tool Weight	5 kg
Motor of Tool Magazine	60 w
CNC Control	SIEMENS
3 Axes Servo Motors (X / Y / Z)	X: 6.3 kw / Y: 5 kw / Z: 5 kw
Air Pressure Required	7 kg / cm ²
Air Conditioner for Elec. Cabinet	550 w
Spindle Cooler	1,950 w
Automatic Lubricator (Slide Ways)	150 w
Cutting Coolant Motor	750 w
Coolant Flushing Motor	1580 w
Total Power Consumption	40 KVA
Coolant Tank Capacity	220 Liter
Machine Dimensions	2,265 x 2,800 x 2,650 mm
Packing Dimensions	2,300 x 3,000 x 2,550 mm
Net Weight	6,000 kg
Gross Weight	6,600 kg

▶ All specifications, design and characteristics shown in this catalogue are subject to change without prior notice.

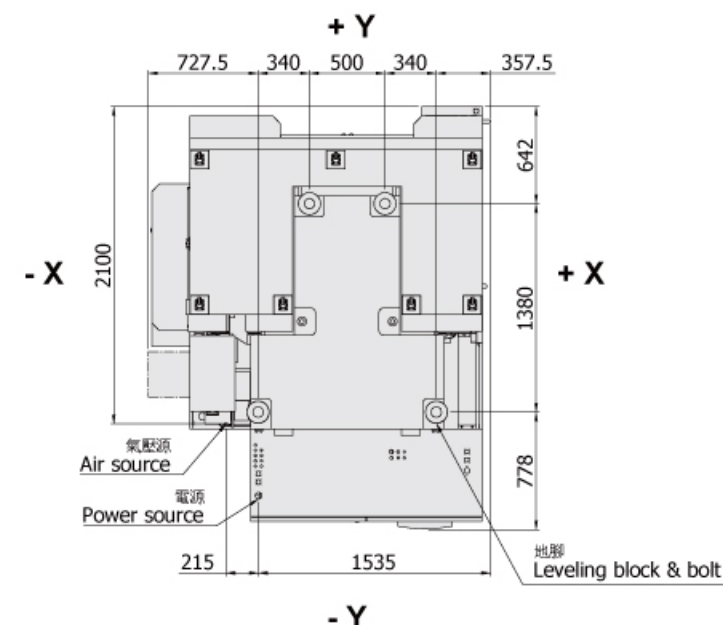
STANDARD ACCESSORIES

- ☐ Coolant tank
- ☐ Work lamp
- ☐ Tool box
- ☐ Spindle air blow system
- ☐ Chip air blow device
- ☐ Air conditioner for electrical cabinet
- ☐ MPG
- ☐ M30 work and inspection light
- ☐ Fully enclosed splash guard
- ☐ Central control lubricator
- ☐ Operation and maintenance manual
- ☐ Leveling bolts and pads
- ☐ Network function
- ☐ Spindle heat compensation system

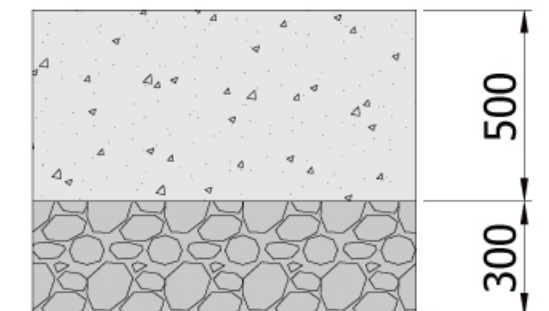
OPTIONAL ACCESSORIES

- ☐ Three axes optical scales
- ☐ Oil and lubricant separator
- ☐ Oil mist cooling system
- ☐ Oil mist collector
- ☐ Auto tooling measurement
- ☐ Auto workpiece measurement
- ☐ Coolant through spindle
- ☐ Coolant gun
- ☐ Transformer
- ☐ Graphite dust collector

▶ Dimensional Drawing for Leveling Blocks and Bolts and Power Source Unit: mm



▶ Foundation Drawing



- 1.) Foundation concrete thickness should be over 500 mm.
- 2.) Fill over 300 mm of pebbles under concrete.
- 3.) Keep foundation surface flatness within 5 mm.
- 4.) Foundation loading capacity should be over 5 tons/m².



Professional High-Speed Machine



Establishment in 1995, GENTIGER has become is the name equal to "High Speed Cutting Expert". Our company spirit, "Perfection, Efficiency, Specialization" is embedded in all GENTIGER machines, as we deliver comprehensive machines and services to our customers worldwide.



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GT-V72

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