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.

Gentiger Machinery Industrial Co., Ltd.

No.66, Lane 100, Shueitou 1st, Rd., Waipu Dist.,
Taichung City 43856, Taiwan
TEL: 886-4-2683-6919 FAX: 886-4-2683-9900
Http://www.gentiger.com.tw
E-mail:gentiger@ms38.hinet.net

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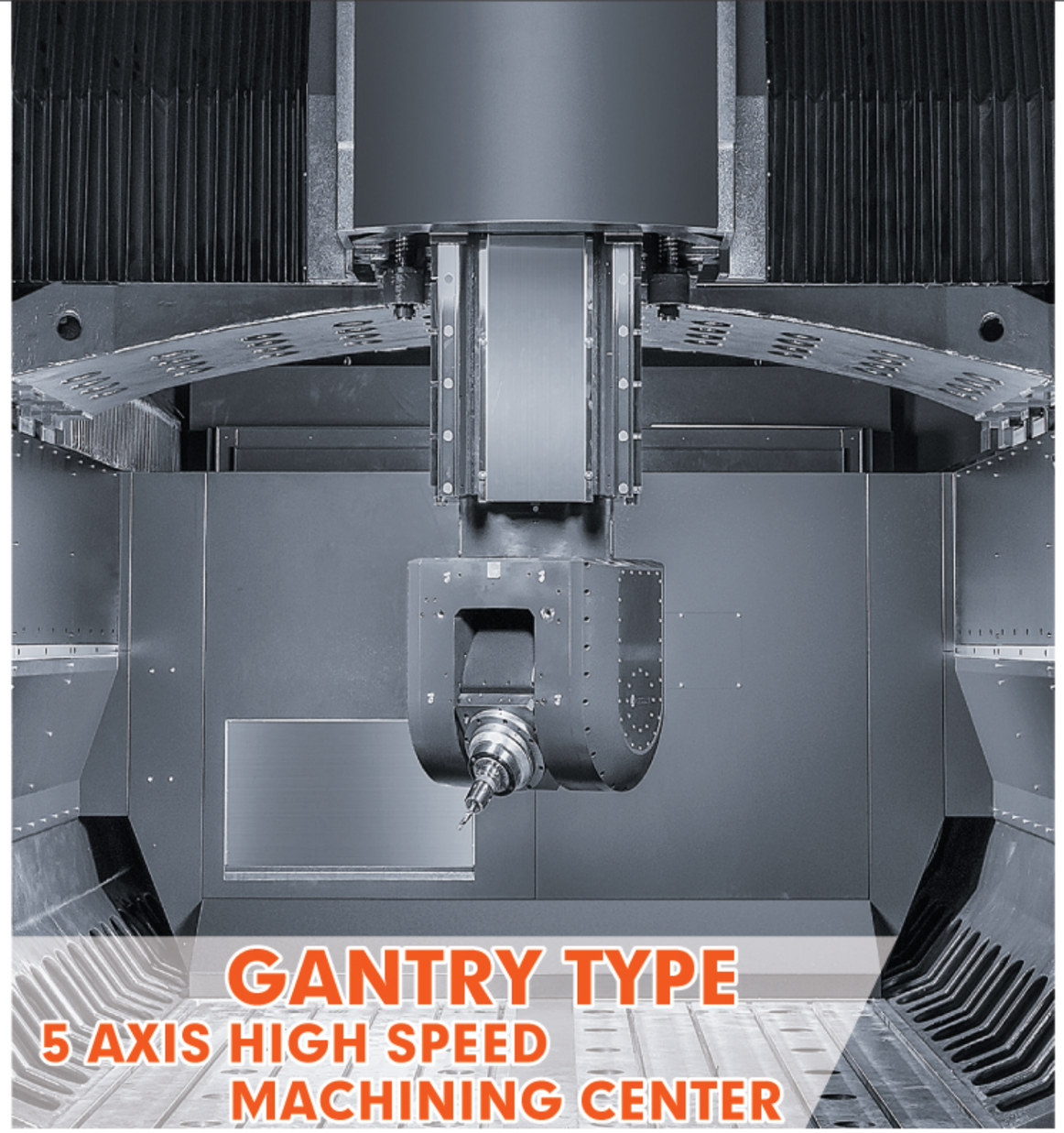


GT-H3025 (3 Axis)
GT-H3025F (5 Axis)

Gentiger Machinery Industrial Co., Ltd.
www.gentiger.com.tw

CE ISO 9001

GENTIGER GANTRY TYPE MACHINING CENTER

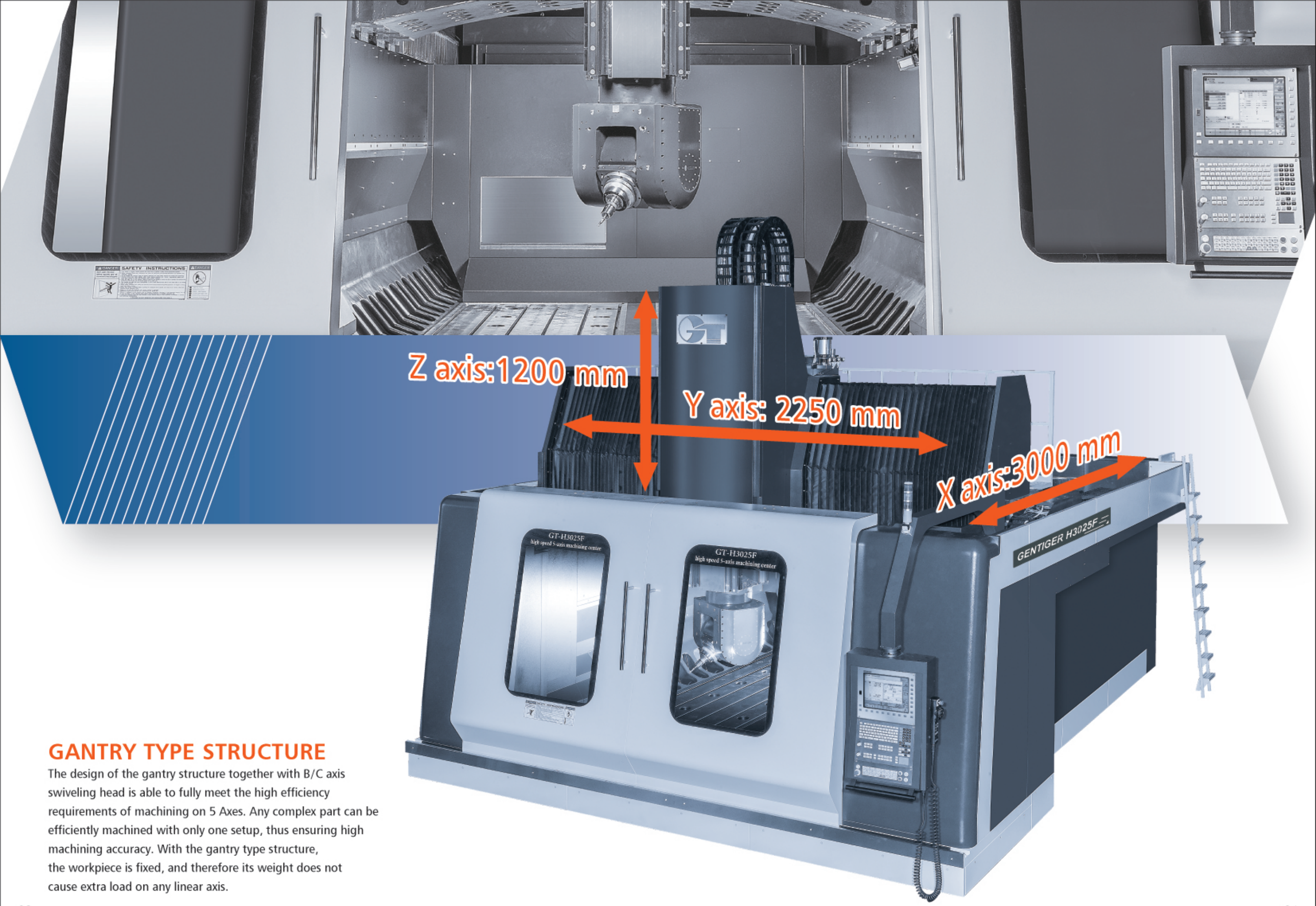
A New Generation of Mold Machining Technology
The Ultimate of Speed And Efficiency

GT-H3025F

Through tears of research and development, the new gantry type Axis High Speed Machining Center from Gentigher will bring the mold and die machining technology to a new level. This machine feature a highly rigid gantry type structure in combination with the use of Germany made 2 axis swiveling head that enable mold machining to achieve unprecedented speed, efficiency and surface finishes.

/// MACHINE FEATURES /

- The gantry type structure is designed specifically for 5 Axis high speed machining.
- With 5 axes simultaneously machining intricately shaped parts can be machined with only setup.
- Trapezoid type cross beam dramatically increases loading capacity.
- Highly rigid " L " shaped double side-wall features optimal force-flow distribution.
- Equipped with Germany made swiveling head to guarantee the highest accuracy.
- 18,000 rpm, HSK-A63 built-in type spindle.
- X, Z axis are driven by twin servo systems.
- Roller type linear guide ways on X, Y, Z axis.
- Positioning accuracy: 0.003 mm / 300 mm (ISO-230-2)
- Repeatability accuracy: ±0.003 mm (ISO-230-2)



GANTRY TYPE STRUCTURE

The design of the gantry structure together with B/C axis swiveling head is able to fully meet the high efficiency requirements of machining on 5 Axes. Any complex part can be efficiently machined with only one setup, thus ensuring high machining accuracy. With the gantry type structure, the workpiece is fixed, and therefore its weight does not cause extra load on any linear axis.

GERMANY
B/C axis
Swiveling Head

UNIQUE POSITIONING ACCURACY
B axis ±5" / C axis ±3"

B / C axis employ pneumatic clamping combined with the use of absolute encodes, allowing extra high positioning accuracy of ±5" on A axis and ±3" on C axis.

TWIN MOTOR / TWIN SCREW

Z axis feed is driven by twin servomotors that directly drive twin ball screw. Compared with a single motor drive, it provides faster response for high machining.

FOUR LINEAR WAYS ON Z AXIS

Z-axis slide ways are mounted with 4 heavy duty roller type linear guideways, providing a solid support for the spindle head. The 4 linear ways are deployed at front and back side of the spindle head enabling the spindle head to exhibit the highest stability during cutting.

ONE-PIECE CONSTRUCTED TWIN ARM ON B-AXIS

The twin arms on B-axis are one-piece constructed to eliminate affection on geometric accuracy even when an accidental collision occurs.

SWIVELING SPEED 600-DEGREE/SEC.

The spindle head is unique design with extra high swiveling speed up to 600-degree per second so as to fully meet high speed machining and high productivity requirement.

CONVENIENT MAINTENANCE

In case B-axis clamping failure or motor malfunction occurs, parts replacement does not affected. Additionally, maintenance job can be accomplished at customer's plant.

Gentiger
GT-H3025F

Gentiger gantry type 5 axis high speed machining center employs the world-famous brand-Germany made swiveling head, allowing 5-axis simultaneously machining. The unique spindle head provides extremely high precision and high efficiency machining, and can prevent affection on machining accuracy due to repetitive clamping/unclamping of workpiece.

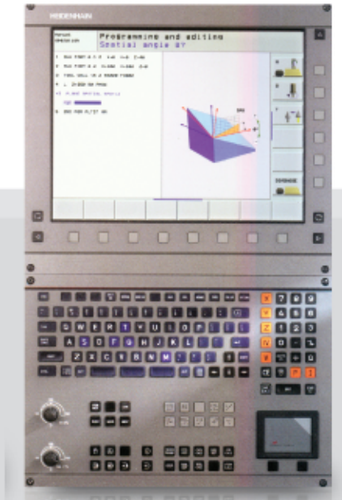
SWIVELING HEAD SPECIFICATIONS

B Axis	SWE 036-648.835
Rated Torque	382 Nm
Maximum Torque	575 Nm
Clamping Torque at P Max	2160 Nm
Clamping Torque at Po	1200 Nm
Clamping Method	Pneumatic
Swiveling Angle	±105°
Positioning Accuracy	±5"

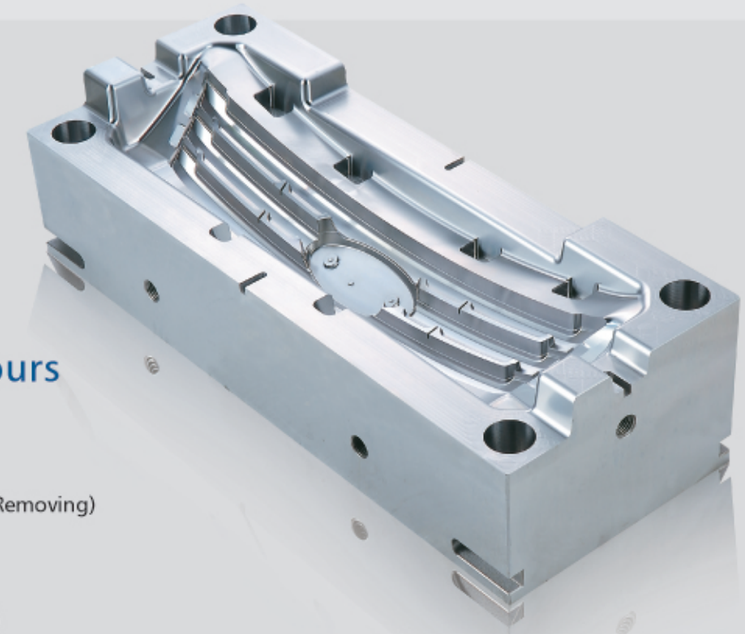
C Axis	SWE 029-648.836
Rated Torque	810 Nm
Maximum Torque	1100 Nm
Clamping Torque at P Max	1680 Nm
Clamping Torque at P O	930 Nm
Clamping Method	Pneumatic
Swiveling Angle	±200°
Positioning Accuracy	±3"

Various Advanced CNC Controls to Choose from

The Gentiger machining center provides a choice of various advanced CNC controls. Each control permits high speed milling and NURBS curved surface machining functions, easy to learn and operate.



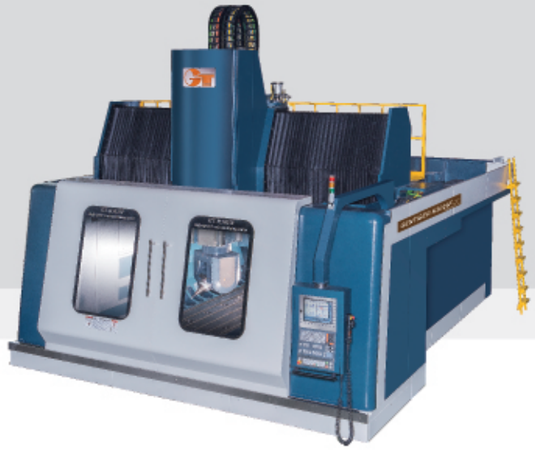
HEIDENHAIN TNC 640 CONTROL



Machining Time: 22 hours

- Workpiece Size: 1250 x 500 x 500 mm
- Material: P5 (HRC32)
- Tool: R3 (Fine finishing) / R0.75 (Angle Removing)
- Spindle Speed: 10,000 rpm (R3)
  16,000 rpm (R0.75)
- Cutting Feedrate: F1,800 mm / min (R3)
  F1,000 mm / min (R0.75)
- Angle Removing Time: 10 hours

Ethernet Support Function

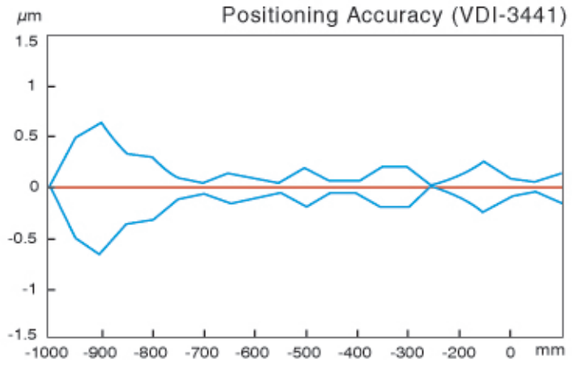


The machining programs can be managed by a PC with instant editing then transferred through Ethernet to the machine. This function will save operation time.

Superior Quality Control

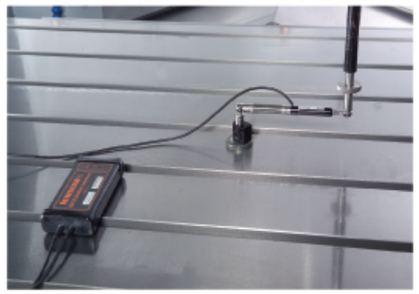
Accuracy Inspection by Laser

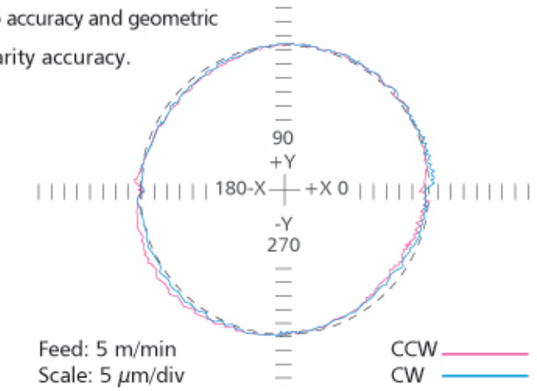
The high-tech Renishaw laser unit is applied for inspecting linear positioning accuracy, pitch error and backlash, etc.



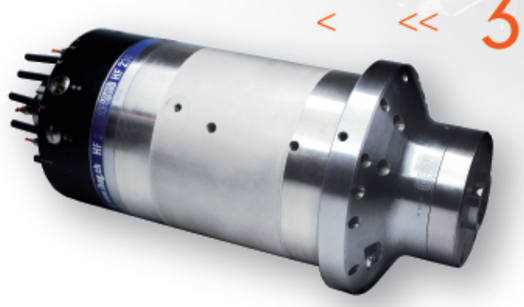
Ball Bar Circulating Accuracy Inspection

A high precision Renishaw ball bar tester is used for inspecting servo accuracy and geometric errors between two axes, thereby ensuring outstanding circularity accuracy.





BUILT-IN Type SPINDLE

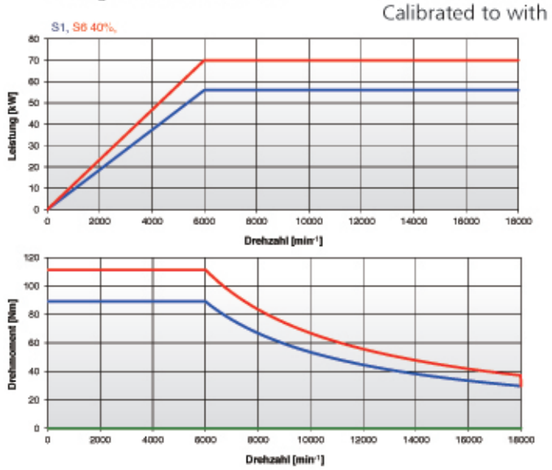


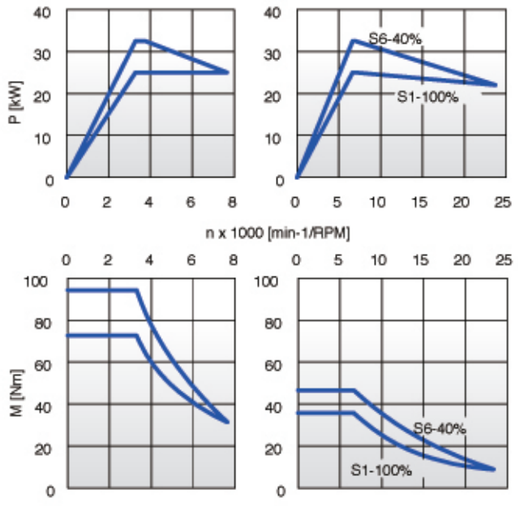
3 axis machine (GT-H3025)

- Max. Spindle Speed: 24,000 rpm
- Spindle Motor: 25 / 33 kw
- Spindle Torque Output:
  Low Speed: 72.6 / 95.8 Nm
  High Speed: 35.8 / 47.3 Nm
- Inside Diameter of Spindle Bearing: Ø70 mm
- Bearing Lubrication: Oil-air
- High Precision Ceramic Bearing
- Cutter Balance Should be Calibrated to with in G2.5

5 axis machine (GT-H3025F)

- Max. Spindle Speed: 18,000 rpm
- Spindle Motor: 56 kw
- Spindle Torque Output: 111 kw
- Bearing Lubrication: Oil-air
- Inside Diameter of Spindle Bearing: Ø70 mm
- High Precision Ceramic Bearing
- Cutter Balance Should be Calibrated to with in G2.5





Machine Specifications

MODEL	GT-H3025F (5 Axis)	GT-H3025 (3 Axis)
3 axes Travel (X / Y / Z)	3000 x 2250 x 1200 mm	
Table Area	2425 x 3000 mm	
T - slot	22 / 210 x 11 mm	
Height of Table from Ground	420 mm	
Distance from Table Surface to Spindle Nose	70 ~ 1270 mm	300 ~ 1500 mm
Max. Load of Table (Average Load)	20,000 kg	
Max. Spindle Speed	18,000 rpm	24,000 rpm
Spindle Type	Built-in type	
Bearing Lubrication	Oil-air	
Spindle Cooling	Water Cooling	
Spindle Taper	HSK-A63	
Spindle Motor Power	56 kw	25 / 33 kw
Spindle Torque	111 Nm	Low Speed: 72.6 / 95.8 Nm High Speed: 35.8 / 47.3 Nm
ATC Capacity	24T / Opt.120T	
ATC Tool System	HSK-A63	
Max. Tool Diameter	Ø100 mm	
Max. Tool Length	300 mm	
Max. Tool Weight	7 kg	
Magazine Drive Motor	60 w	
Controller	HEIDENHAIN	
Air Source Pressure	7 kg/cm²	
Air Conditioner for Electric Cabinet	750 w	
Spindle Cooler	3.45 kw	
Automatic Lubrication on all Slideways	150 w	
Cutting Fluid Motor	2.6 kw	
Chip Flushing Motor	2.05 kw	
Total Power Consumption	294 KVA	
Coolant Tank Capacity	1224 Liters	
Machine Dimensions	7,000 x 6,000 x 5,000 mm	
Machine Net Weight	60,000 kg	

▶ Above specifications are subject to change without prior notice.

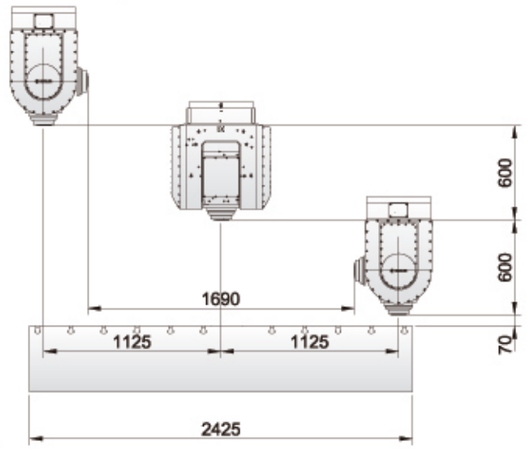
STANDARD ACCESSORIES

- ☐ Coolant system
- ☐ Work lamp
- ☐ Tool box
- ☐ Spindle air blow system
- ☐ Chip air blow device
- ☐ Air conditioner for electric cabinet
- ☐ MPG
- ☐ Work end indication lamp
- ☐ Semi-enclosed splash guard
- ☐ Central control lubricator
- ☐ Operation and maintenance manual
- ☐ Leveling bolts and pads
- ☐ Net work function
- ☐ Spindle thermal growth compensation system
- ☐ 3 axes optical scales
- ☐ Chain type chip conveyor

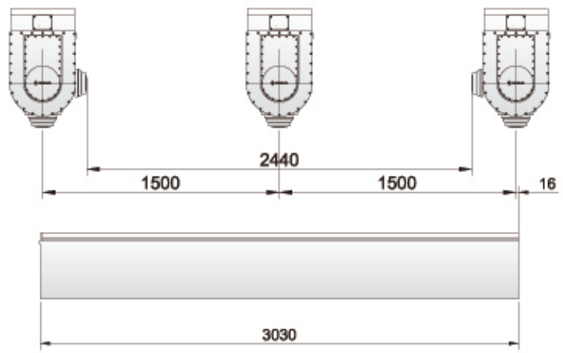
OPTIONAL ACCESSORIES

- ☐ Oil skimmer
- ☐ Automatic tool length measurement system (GT-H3025F 5 axis STD.)
- ☐ Automatic parts measurment device (GT-H3025F 5 axis STD.)
- ☐ Coolant through spindle device
- ☐ Transformer
- ☐ Chain type tool magazine

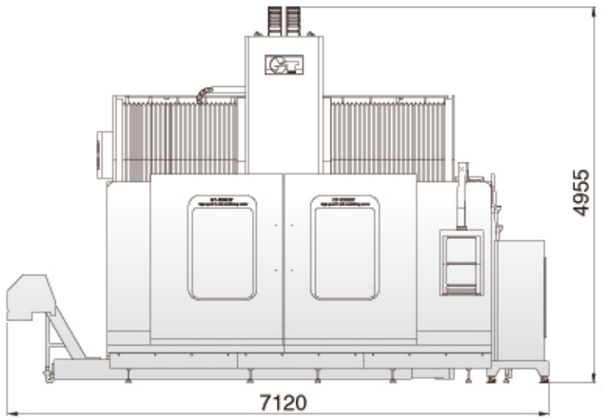
Workpiece Sizes



Unit: mm



Dimensional Drawings of Machine



Unit: mm