

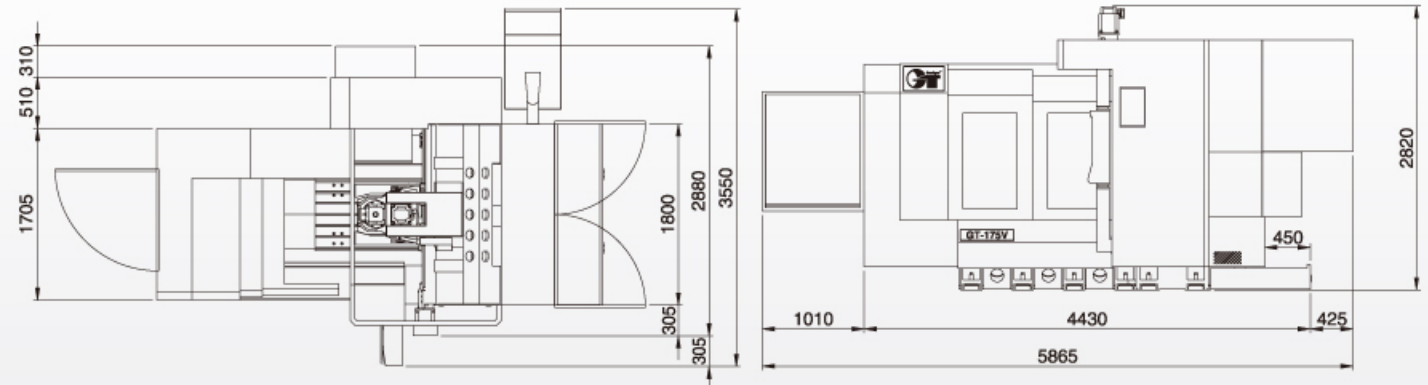
GT-175V Specification

MODEL	T15P		
Travel (X/Y/Z)	1,100 x 720 x 500 mm		
Cutting feedrate	20 m/min		
Rapid feedrate	48 m/min		
Table area	1,200 x 720 mm		
T-slot	18 / 110 x 7 mm		
Height of table from ground	715 mm		
Max. Height of working piece	440 / 500 mm		
Distance from spindle nose to table surface	90 ~ 590 mm		
Max. Load of table (average load)	1,000 kg		
Max. Spindle speed	15,000 rpm		
Type of spindle motor	Direct Drive		
Bearing lubrication	Grease		
Spindle cooling	Oil Cooling		
Spindle taper	BT-40		
Spindle motor	11 / 14.75 kw		
Spindle torque	70 / 94 Nm		
Spindle bearing ins.diameter	Ø70 mm		
ATC capacity	30 tools		
ATC tool system	BT-40		
Max. Tool diameter	Ø75 mm		
Max. Tool length	300 mm		
Max. Tool weight	7 kg		
Motor of tool magazine	375 w		
Motor of CAM BOX	375 w		
Air pressure requirement	7 kgf / cm ²		
Air conditioner	960 / 1,170 w		
Spindle cooler	2,900w (50HZ) / 3,500w (60HZ)		
Automatic lubricator (slideways)	150 w		
Coolant motor	750 w		
Chip flush motor	1,580 w		
Total power consumption (Max.)	40 kw		
Coolant tank capacity	280 Liter		
Controller	SIEMENS	FANUC	HEIDENHAIN
Servo motor for 3 axes	5.37 kw(X)	7 kw(X/Y/Z)	8.6 kw(X)
	4.87 kw (Y,Z)		5.6 kw(Y) 5.1 kw(Z)
Machine dimension	4,430 x 3,550 x 2,820 mm		
Packing dimension	4,950 x 3,300 x 3,600 mm		
Machine net weight	10,300 kg		
Machine gross weight	12,000 kg		

* Other spindle speed also available with this machine.
* All specification, design and characteristics shown in this catalogue are subject to change without prior notice.

Dimensional Drawings of the Machine

Unit: mm



Standard Accessories

- Coolant system
- Work lamp
- Toolbox
- Spindle air blow system
- Chip air blow device
- Air conditioner for electrical cabinet
- MPG
- M30 work end indication light
- Full enclosed splash guard
- Central control lubricator
- Operation and maintenance manual
- Leveling bolts and pads
- Internet function
- Spindle heat compensation system
- Screw chip conveyor and cart
- Coolant inner 3 axes ballscrew
- Two screw chip conveyor equipped at the base

Optional Accessories

- 3 axes optical scale
- Oil skimmer
- Oil-mist cooling system
- Auto tooling measurement
- Coolant through spindle



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No.1 Choice for Precision Mold Machining

High Speed Machining Center

Professional
High-Speed Machine
GT-175V



Gentiger Machinery Industrial Co., Ltd.



CE ISO 9001

Gentiger GT-175V of Advanced Design Concept Exhibiting Extraordinary Performance!

Machine Features

Rigid Structure!

- The Gentiger GT-175V 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 entire 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-175V are manufactured from high quality cast iron, stress relieved and seasoning treated for the deformation-free performance year after year.

Roller Type Linear Guide Ways on Three axes

- Precision roller type linear guide ways on 3 axes achieve high loading resistance, high rigidity and long service life. Another benefit is that the machine provides the best dynamic accuracy at high feedrate.

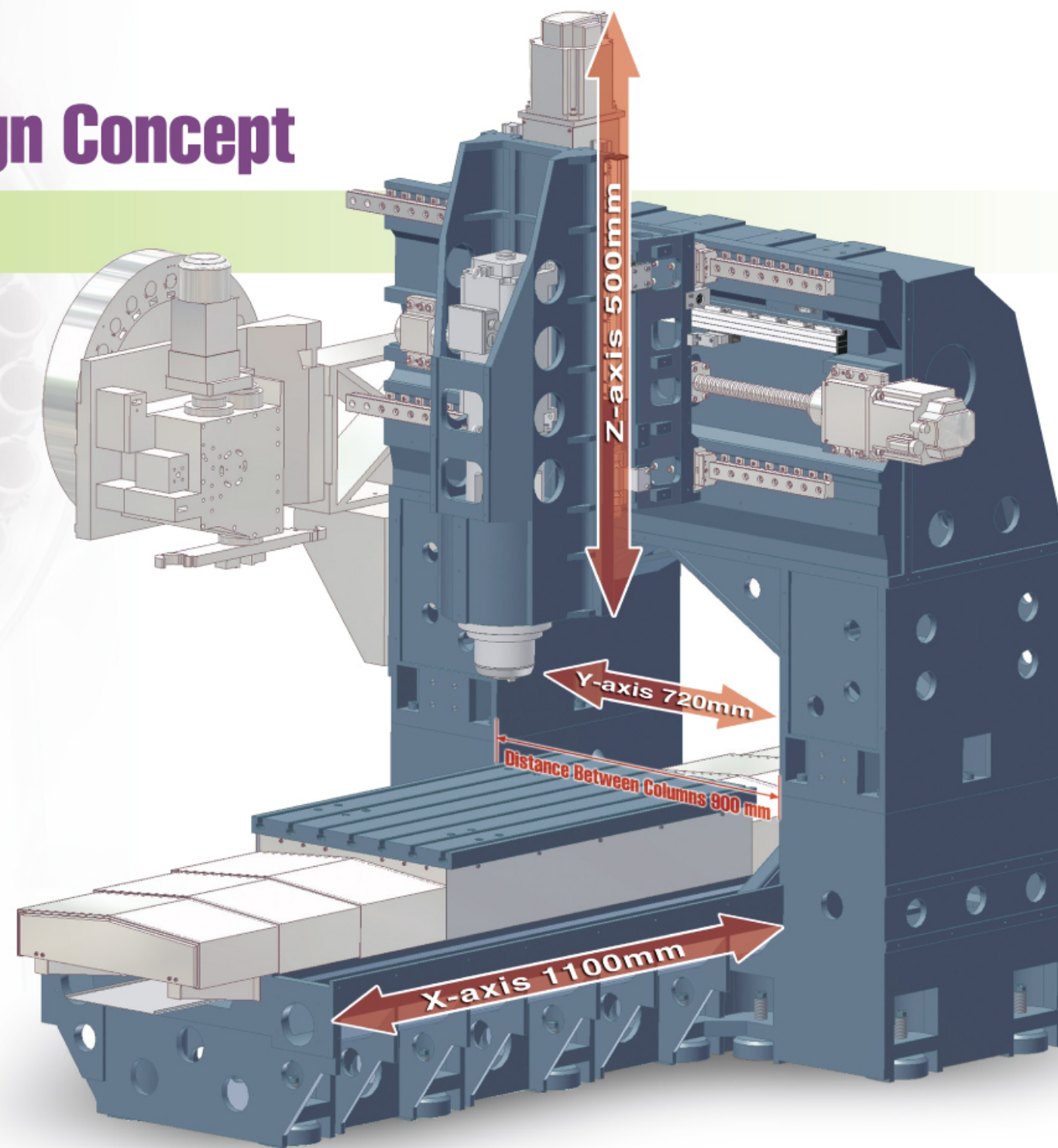
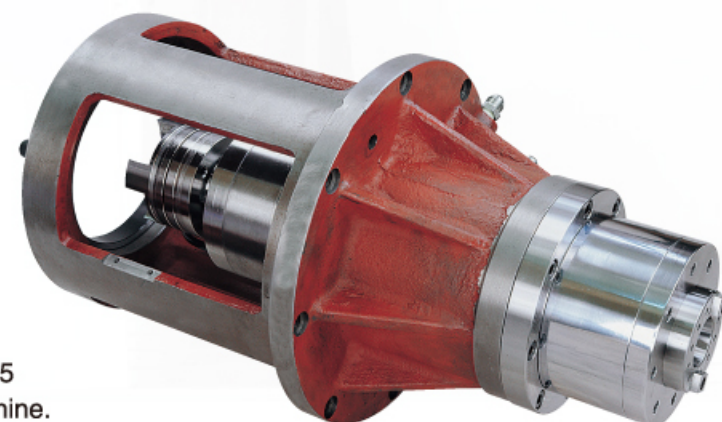
- 3 axes cutting feedrate: 20 m/min.
- 3 axes rapid feedrate: 48 m/min.
- Positioning accuracy: 0.004 / 300 mm (Equipped with optical scale)
- Repeatability: ± 0.003 mm (Equipped with optical scale)

Choice of Various High Precision, High Speed, High Efficiency Spindle

T15P

Direct Drive Spindle BT-40 Oil Circulated Cooling

- Maximum spindle speed: 15,000 rpm
- Bearing lubrication: Grease
- Spindle motor: 11/14.75 kW
- Spindle torque: 70/94 Nm
- Spindle inner diameter: $\varnothing 70$ mm
- High precision ceramic bearings
- ※ Cutter balance should be calibrated to within G2.5
- ※ Other spindle speed also available with this machine.



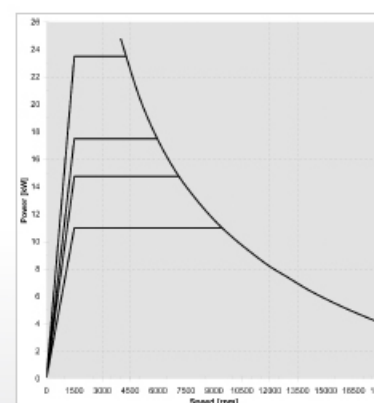
Outstanding Mold Machining Capability



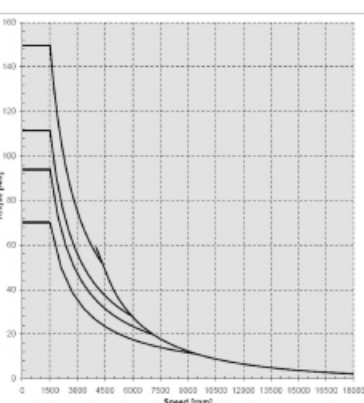
Main Machining Conditions

Application: Mold of Hair Dryer
Control: SIEMENS 840D
Workpiece Sizes: 200 x 125 x 60 mm
Material: AL6061
Tool: R2
Spindle Speed: 13,000 rpm
Cutting Feedrate: 2,000 mm/min
Finishing Time: 3H 12M
Total Machining Time: 5H 13M

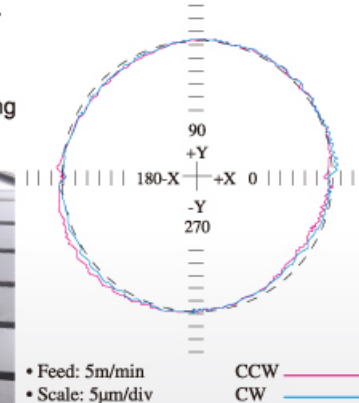
Spindle Speed / Power Diagram



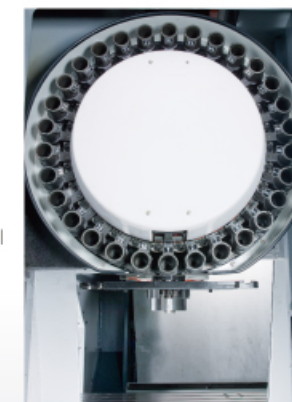
Spindle Speed / Torque Diagram



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



• Feed: 5m/min
• Scale: 5μm/div
CCW
CW



Arm Type Magazine

- Standard loading capacity of magazine is 30 tools.
- Accommodates BT-40 tool shank.
- Fast tool change with smooth and stable tool change motion.
- Precision cam drive achieves ± 0.08 mm positioning accuracy.
- Tool change arm is excellently water-proof to prevent coolant from entering into the arm.



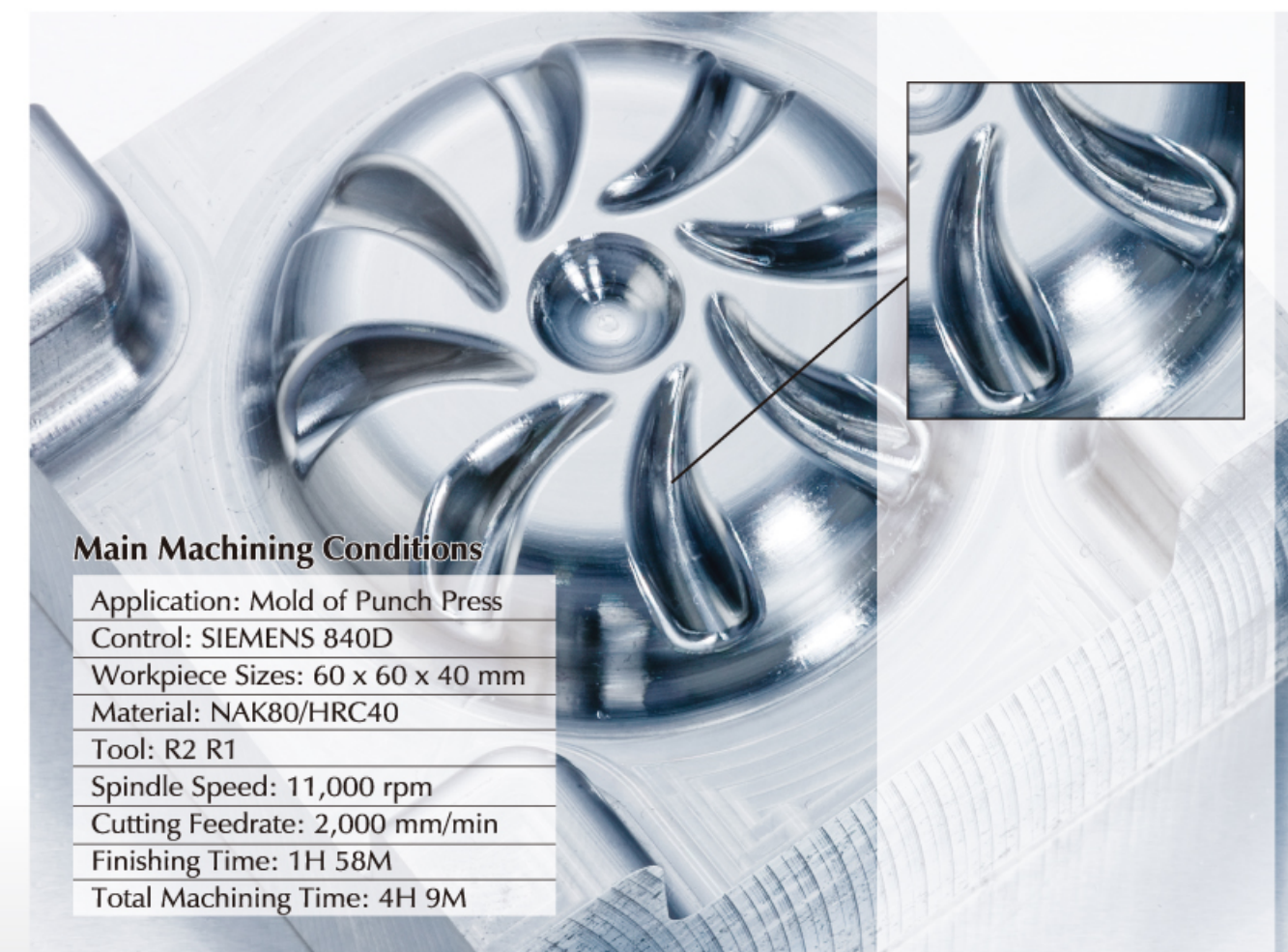
Screw Chip Conveyor

There is one screw chip conveyor each equipped at each side of base, delivering chips to a chip conveyor for exhausting chips out of the machine.



Coolant Inner Ballscrew

Coolant inner ballscrews on 3 axes prevent ballscrew deformation, while assuring smooth feed motions and high positioning accuracy.



Main Machining Conditions

Application: Mold of Punch Press
Control: SIEMENS 840D
Workpiece Sizes: 60 x 60 x 40 mm
Material: NAK80/HRC40
Tool: R2 R1
Spindle Speed: 11,000 rpm
Cutting Feedrate: 2,000 mm/min
Finishing Time: 1H 58M
Total Machining Time: 4H 9M