

SPECIFICATIONS

Machine Body	MODEL	UNIT	HM43(G)T	HM65(G)T	HM86(G)T
Spindle speed (Max.)		RPM	30000	30000	30000
Spindle taper			HSK E32	HSK E40	HSK E50
Spindle motor (S1/S6)		KW	4/5	10/13	15/17
Working Table Size		mm	500 x 400	540 x 650	850 x 600
T-slot		mm	14 x 4 x 100	16x5x100	16 x 5 x 100
Max .Load of table		kg	200	300	800
Travel (X x Yx Z)		mm	400 x 300 x 200	500x600x300	800 x 600 x 400
Distance from table surface to spindle nose		mm	100-300	150-450	160-560
Work feed		M/min	10	10	10
Rapid Traverse (X, Y, Z)		M/min	15	18	30
X,Y,Z. axis servo motor			AC servo motor	AC servo motor	AC servo motor
Total power consumption (Max.)		KVA	11	24	30
Net weight		Kg	2680	4300	7500

● G means equipped graphite cutting unit ● T means equipped ATC unit

Standard / Optional Accessories

● Standard ○ Option

Built-in Spindle		HM43(G)T	HM65(G)T	HM86(G)T	Cutting Process/ Lubrication	HM43(G)T	HM65(G)T	HM86(G)T
HSK E32 / 30000rpm	4kw	●			Coolant Unit	●	●	●
HSK E40 / 30000rpm	10kw		●	○	Cutting Air Blast	●	●	●
HSK E50 / 30000rpm	15kw		○	●	Graphite Cutting Mode (Oil Shroud)	○	○	○
HSK A63 / 24000rpm	18kw			○	Oil -Mist Blast	○	○	○
Spindle Bearing Lubrication	Grease	●	●	○	Oil-Mist Collector	○	○	○
	Oil Mist		○	●	Disk Oil Skimmer	○	○	○
Spindle Coolant System	Coolant	●	●	●	Operation Support	HM43(G)T	HM65(G)T	HM86(G)T
Spindle Air Blast		●	●	●	Manual Pulse Generator (MPG) hand wheel	●	●	●
Tool Magazine / Tools		HM43(G)T	HM65(G)T	HM86(G)T	Ethernet Card	●	●	●
	10 Tools				X,Y,Z 3-axis linear Scale	○	○	○
	12 Tools	●	●	●	4th&5th Axis Synchronize control		○	○
Tool Magazine Capacity	16 Tools	○	○	○	Other	HM43(G)T	HM65(G)T	HM86(G)T
Automatic Tool Changer Unit		●	●	●	Cabinet Heat Exchanger	●	●	●
Automatic Tool Length Measurement		●	●	●	3 Colors Alarm Indicator	●	●	●
Laser Control NT		○	○	○	Work Lamp (Lightening)	●	●	●
System Controller		HM43(G)T	HM65(G)T	HM86(G)T	Tool Kit	●	●	●
GENTEC M3H (3 axis)		●	●	●	Tool Shank	○	○	○
GENTEC M5H (5 axis)			○	○	Tool Collect	○	○	○
HEIDENHAIN iTNC 530 Series		○	○	○	Pneumatic Freezing Dryer (ATC)	○	○	○
SIEMENS 828D		○	○	○	3 Phase Stabilizer	○	○	○
SIEMENS 840D		○	○	○	DRAM/512M	○	○	○
FANUC 31i		○	○	○	High Capacity CF CARD/2G	○	○	○

※On the specification list, please note the function is compatible with ATC (Automatic Tool Changer) unit, marked (ATC).
※There will no cutting air blast be available if equipped Graphite cutting unit.

Max. Hold Tool Diameter	Spindle Specification			
	HSK E32	HSK E40	HSK E50	HSKA63
13mm	●			
16mm		●		
20mm			●	
25mm				●

- The max spindle speed only can be 24000RPM if SIEMENS is selected.
- Oil mist lubrication for spindle can't be installed together with oil shroud.
- Specifications subject to change based on R&D results without prior notice.



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HM

Gantry High Speed Milling Series

- High Accuracy : Economical Position
- High Productivity: Application Driven
- High Efficiency: Utmost performance integration, Solution & Automation



High Speed Milling Machine



National Award



Rising Star Award

Pursuit of Remarkable Advance
Prudent and Pragmatic Management



▶▶▶▶▶ High Speed • High 3D Contour Accuracy • Competitively Priced



- ▶ Excellent thermal balance with a rigid cast base construction to secure high levels of machining accuracy with long life durability.



▶ Reliable ATC Unit

Various ATC of 12T or 16T modules offer flexible machining requirements. Maximum Tool Diameter 16mm or 20mm is available.



▶ Automatic Tool Length Measurement

Can be applied to cutting tool measurement, either before or within the machining process; in addition, it can automatically offset the cutting profile with the compensation value measured.



▶ For meeting customer satisfaction

Various spindle speeds and horsepower options available to accommodate a wide variety of machining applications.



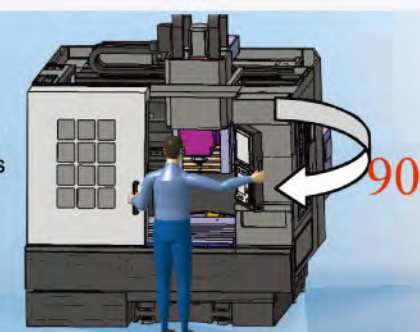
Oil Shroud



No Oil Shroud

▶ Ergonomical Design

(operator swing panel console)
The 90°swivel operator panel is designed at the appropriate height, with clear modular switches for easy recognition.



▶ Disk Oil Skimmer (opt)

- Increase Coolant Life Time Efficiently to reduce Disposal
- Costs Cause It Remove Only Oil
- Preventing the dielectric becomes dirty.



▶ Oil-Mist Lubricator (OPT)

For metal milling, automatic oil-mist lubricator could give the help to enhance the cutting efficiency & roughness, also prolong the tools life.



▶ Oil Shroud (option)

Self-developed Oil Shroud Unit blocks dust from spreading over while cutting graphite.



- ▶ Quality upgraded waterproof PVC film panel for low maintenance.

LED Function keypad with a swing console, 15" LCD monitor for operator convenience .

Unique PC BASED control Developed exclusively for High Speed Milling Machine.

- 1). Using IPC586 CPU board.
- 2). CPU spec's 586 600MHZ
- 3). (DRAM) 512M bytes
- 4). High capacity CF CARD (1Gbytes)
- 5). 15" full color TFT LCD screen
- 6). 1000 Blocks preloaded in memory
- 7). Self-diagnosis for servo drive units
- 8). Ethernet server (o.p.t.)

Being the first in Taiwan, CHMER is the first to completely master the total development and build of the High Speed Controller from start to finish internally..

In this field, CHMER technology is ahead of the industry. CHMER is totally responsible for the complete production procedures including circuit board design, printing board inspection and software R&D. This gives CHMER customers advantage's of getting exclusive developments quickly and economically.



Monitoring during Machine process

Machining activity can be monitored during the machining process. Immediate graphic generation for operator convenience is displayed.



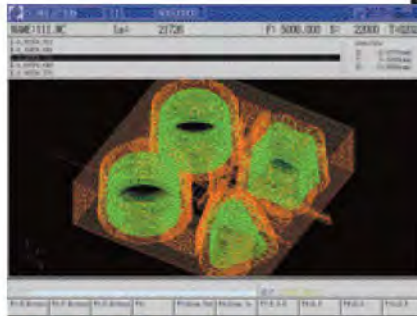
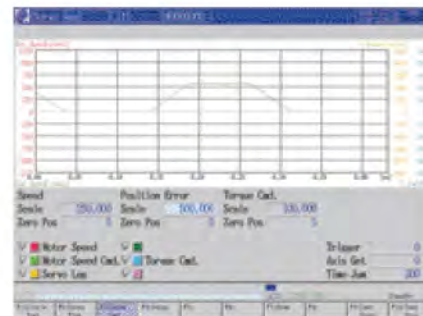
Perfect self-inspection system

Built in self-intelligence system of the controller. Through it, user can understand XY axis movement combined with accuracy and synchronize them to insure good machining stability.



Operator Data Outlook window

All related data i.e. NC program axis coordinates, spindle speed, horse power, and feed rates be showed at this window.



Powerful Graphic Function

Preview and simulate machining route before starting. Controller provides 3D simulation for checking each NC program; which increases success of machining results.

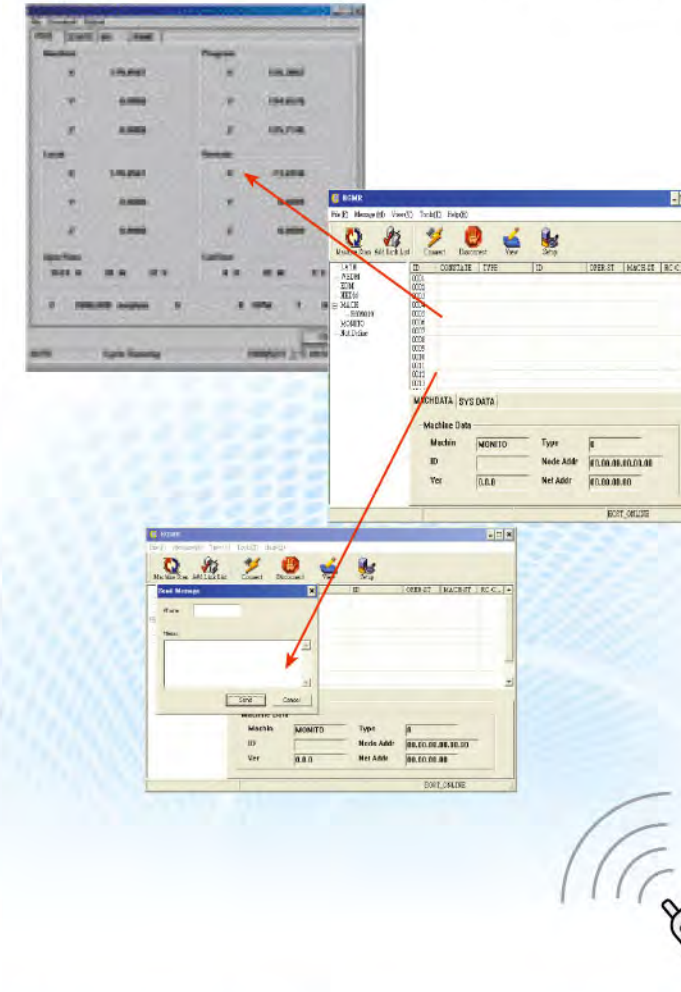


Cutting Edge Remote Monitoring Function

Real Time monitoring of machine operation without attending to the work-shop! You see what the operator sees on the CNC controller from anywhere on your home PC or laptop. It definitely gives you more freedom! Quick, spontaneous technical assistance or trouble-shoot through Remote Monitoring plus telephone conversation with your technical people reduce down time and increase your productivity!

Easy set up! Just install the software on your computer and get immediate access via existing Network.

Programming N.C. file with your CAD/CAM system and up-load it to the CNC controller.



Optional controller series:

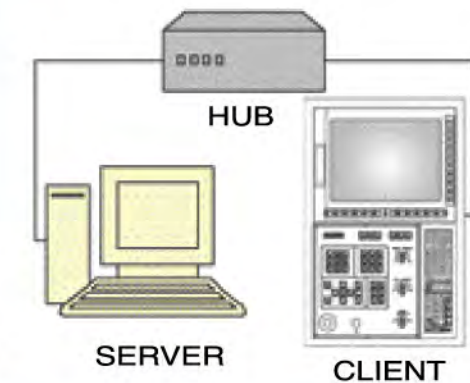
SIEMENS Series



HEIDENHAIN
i TNC 530 Series



FANUC Series



MACHINE FEATURES

Meeting customers satisfaction is our goal. CHMER produces high quality, high accuracy milling machines, undergoing strict Quality Control inspections. CHMER is an ISO certified producer of machinery.



✓ Laser calibration

Laser measurement of X and Y Axis using high quality super precision linear guide ways and ball screws. Either 28mm or 40mm diameter used. (depending on model) assure precise positioning, accuracy and long endurance life.

✓ Spindle Vibration Test

The Spindle must have a test and calibrated on three points (up, middle, bottom) via a high precision rod thoroughly. This to secure the highest stability and accuracy.

✓ Ball bar Calibration

Renishaw ball bar testing used to test and record each machine's X and Y simultaneous movements. This guarantees ideal and accurate table movement and ball screw backlash.

✓ Simplified & Modulated Circuit Design

This makes easy maintenance due to modulated circuit board design, just change the pcb when trouble occurred.



Milling Example

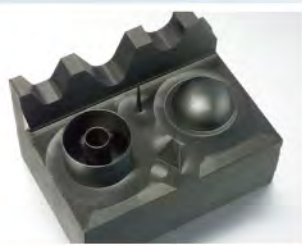


Copper Electrode
Tool: By 5R,3R,2R Round
Milling Cutter,6mm Flat
Milling Cutter
Working Hour: 310 min

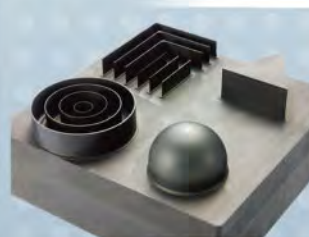


Graphite Electrode
Tool: By 10mm Flat Milling Cutter
Working Hour: 85 min

Graphite Electrode
Tool: By 6mm Flat Milling Cutter,
2R Round Milling Cutter
Working Hour: 180 min



Plastic Injection Mold NAK80
Tool: By 6mm Flat Milling Cutter
D10R1,5R,3R,2R,1R
Round Milling Cutter
Working Hour: 420 min



Machining Example
Machining Of Graphite Electrode
With Ø6mm End Mill And R2 Mill
Cutter.
Machining Time: 320 min



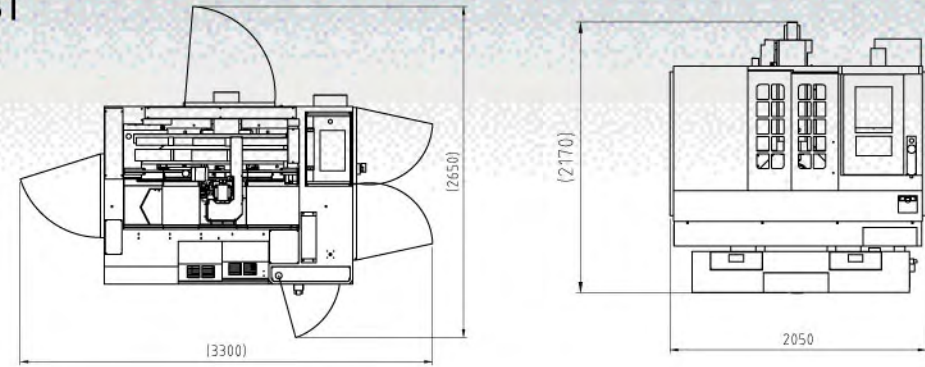
Machining Example
Size: 65 x 70 (mm)
Machining Time: 72 min

Practical Applications

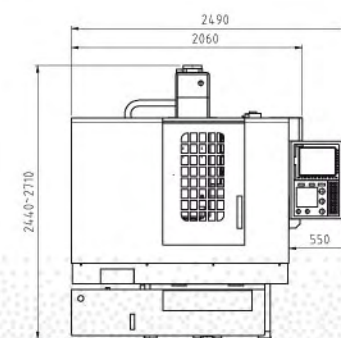
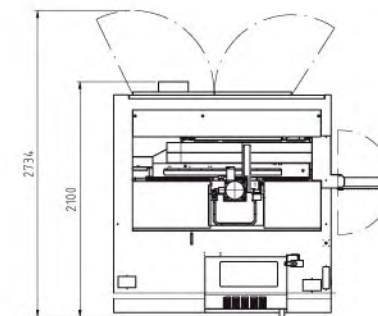


Machine Layout

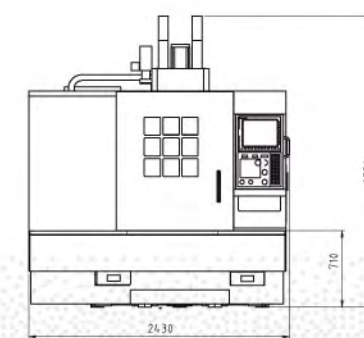
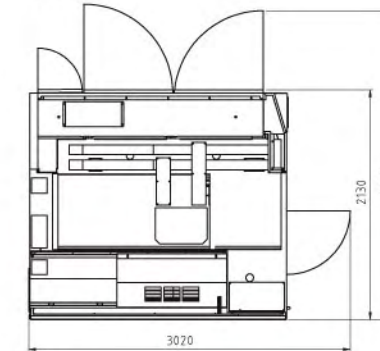
HM43T



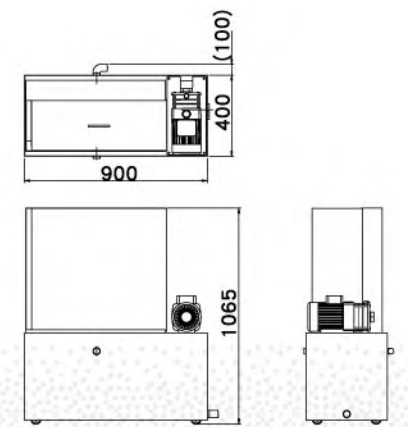
HM65T



HM86T



Filtration unit for Graphite machining
(Only available in HM43T as an option)



Motor Torque Diagram

