

## ***VERTICAL MACHINING CENTER***

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VMC-1100S / 1270S / 1400S  
VMC-1500S / 1700S / 2000S

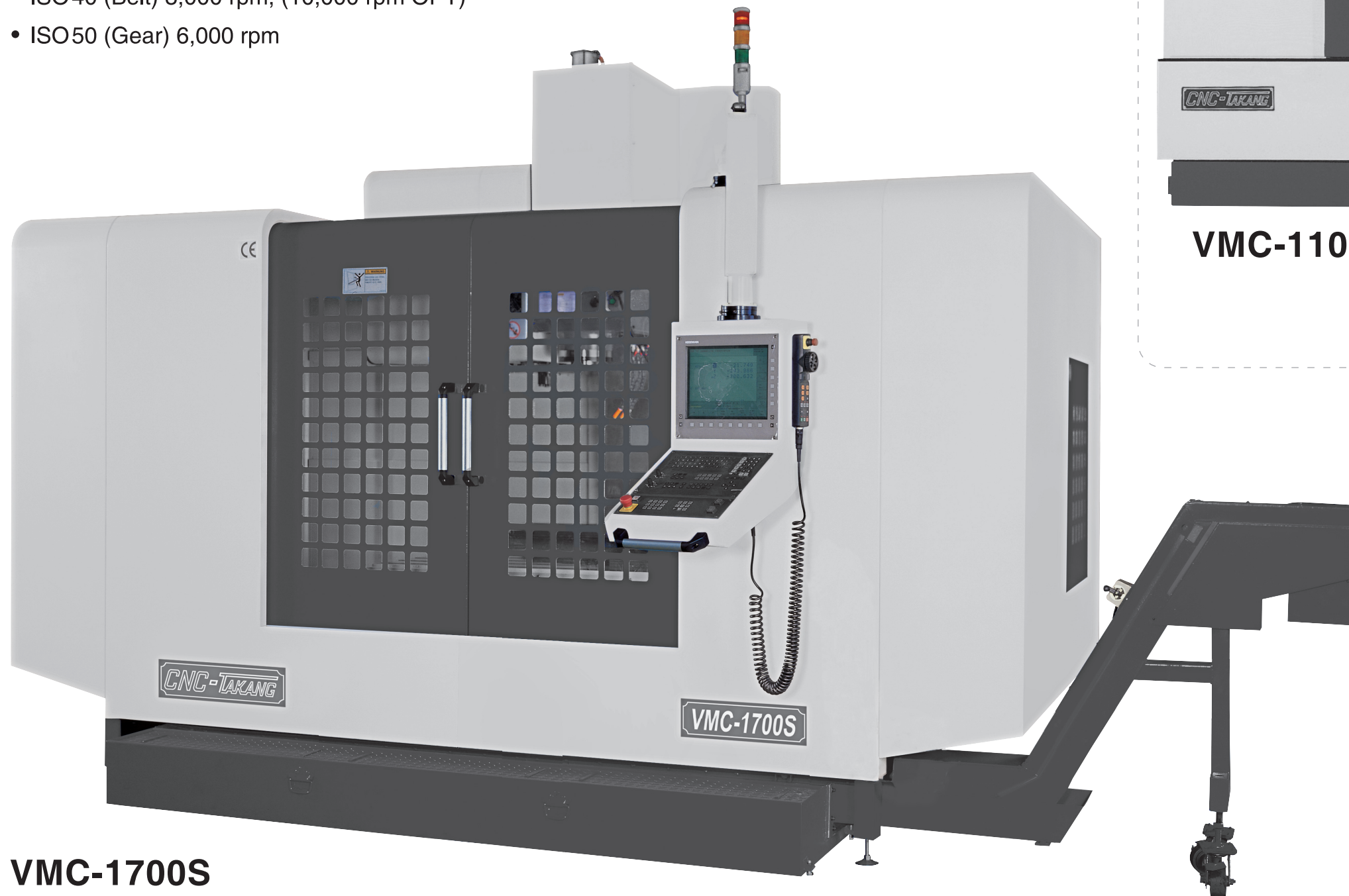
***CNC-TAKANG***

**CNC-TAKANG CO., LTD.**  
MANUFACTURER & EXPORTER

**VMC-1700S**

**FEATURE**

- Travel : 1500 / 1700 / 2000 x 900 x 850 mm
- Box slide way on X, Y & Z axis
- Rapid feed rate : 16 / 16 / 12 M/min.
- Spindle Motor 1500S : 20HP / 1700S & 2000S : 25HP
- ISO40 (Belt) 8,000 rpm, (10,000 rpm OPT)
- ISO50 (Gear) 6,000 rpm



**VMC-1700S**

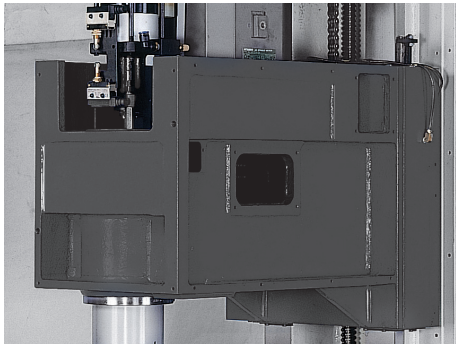


**VMC-1100S**

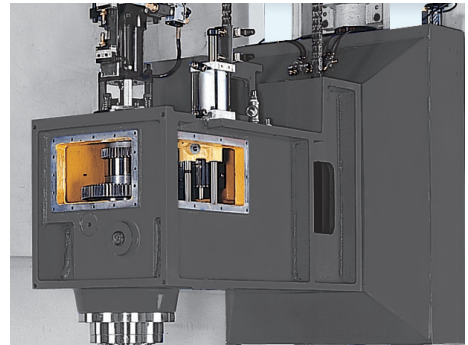
**FEATURE**

- Travel : 1140 / 1300 / 1400 x 710 x 610 mm
- Box slide way on X, Y & Z axis (linear guide way OPT)
- Four slide ways on Y axis
- Rapid feed rate : 20 / 20 / 16 M/min.(24 / 24 / 24 OPT)
- Spindle Motor 1100S : 15HP / 1270S & 1400S : 20HP
- ISO40 (Belt) 8,000 rpm, (10,000 rpm OPT)
- ISO50 (Gear) 6,000 rpm

# VMC-1100S/1270S/1400S/1500S/1700S/2000S



▲ ISO 40 BELT TYPE



▲ ISO 50 GEAR TYPE

## STRUCTURE

The major parts on this series are constructed of high-quality robust FC30 Meehanite castings, hardened to over HRB190 and tempered to relieve stress.

## SPINDLE HEAD

A box-shape construction design on spindle head, providing high rigidity to increase cutting ability.

## BALLSCREW

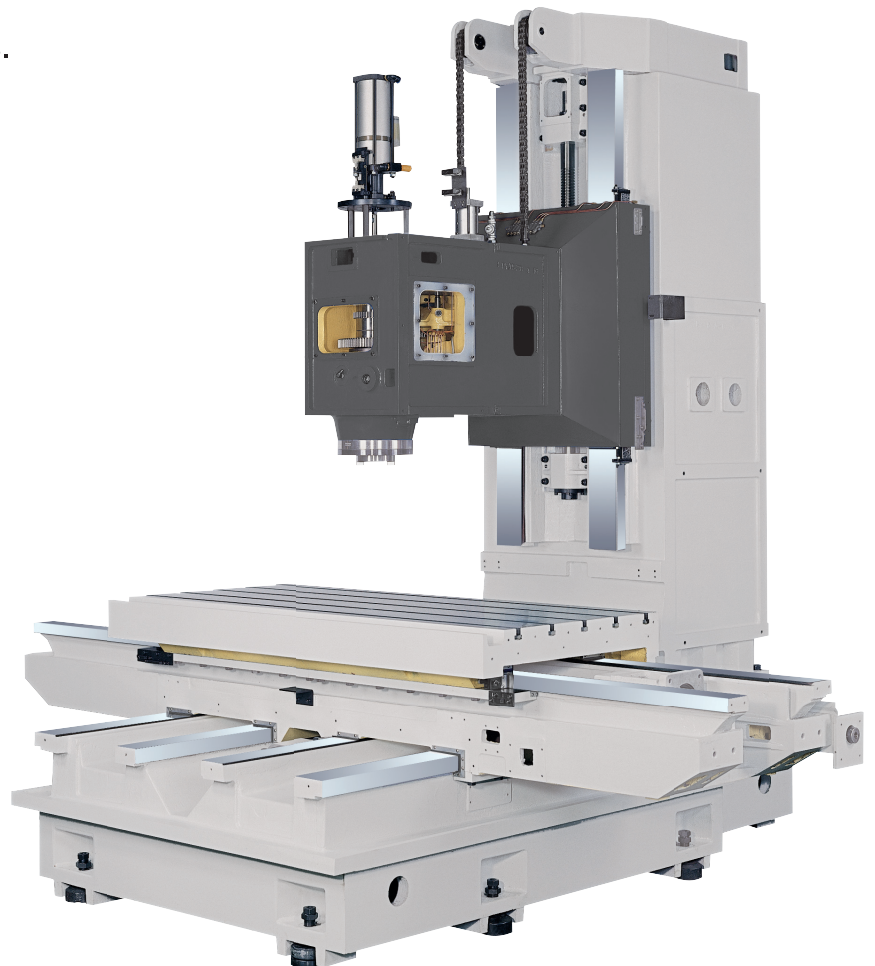
3 axes are equipped with 50mm diameter C3 class high precision ballscrews, mounted with double ballscrew support bearings (P4 class), ensuring high positioning accuracy and durability.

## SOLID SLIDEWAYS

Slideways are hardened with high-frequency heat treatment to reach hardness HRC55 with 2mm depth. Slideway surfaces are coated with Teflon combined with precision scraping. Scraped points and areas meet rigorous standard to assure high operational performance.

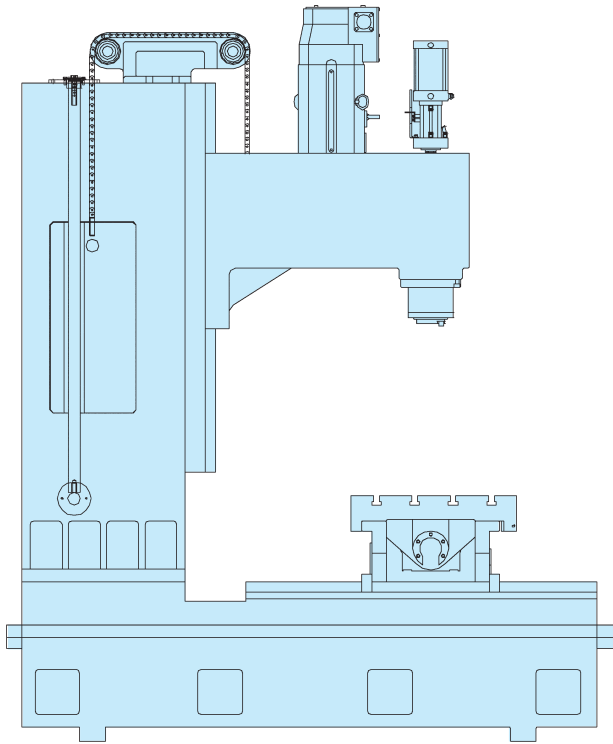
## 3 AXES ASSEMBLY

The 3 axes are equipped with class C3 precision ball screws. All parts are modular design. Each step during assembly is rigorously controlled to ensure perfect quality. The 3 axes ball screws are pre-tensioned before assembly to avoid deformation that may affect machining accuracy. Cutting feed rate is up to 10 meters per minute.





# VMC-1100S/1270S/1400S/1500S/1700S/2000S



## ▲ COUNTER WEIGHT BALANCE SYSTEM

Exclusively designed counter weight balance system. The counter-balance weight moves on a guide shaft to assure movement straightness accuracy.

There is no vibration in the forward / backwards and in the right / left directions. This creates superior workpiece surface accuracy to meet various mold machining requirements.

## SPLASH GUARD

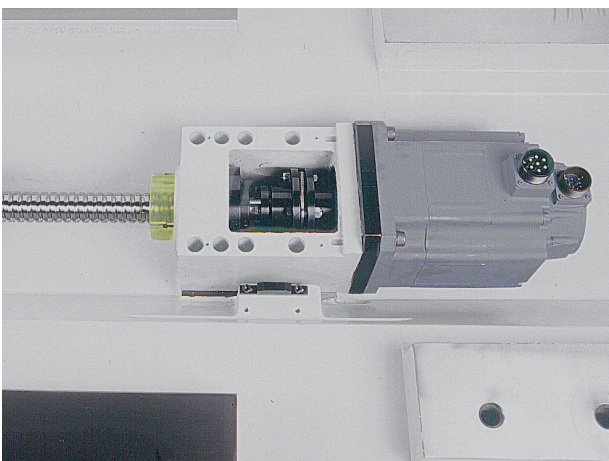
The full splash guard meets environmental protection and CE requirements. It offers user a comfortable working environment.

## AUTOMATIC LUBRICATION SYSTEM

The Lubrication System automatically measures and accurately distributes the oil to the slide ways, ballscrews and bearings.

## CONTROL SYSTEM

The centralized control panel employs a touch sensing screen for user-friendly operation. The humanized design control panel has an elegant appearance. Various controllers can be chosen : Mitsubishi, Heidenhain, Fanuc, Siemens, Selca, ECS and PC-based controllers.



## ▲ COUPLINGS

Directly connected with ball screw and AC servo motors, the high precision coupling offers the best rigidity and keeps the accuracy of axial linear assembly under high speed movement.



## ▲ CHIPS FLUSHING NOZZLES

Coolant flushing nozzles on rear inner wall of guard prevent jam of chips during operation.



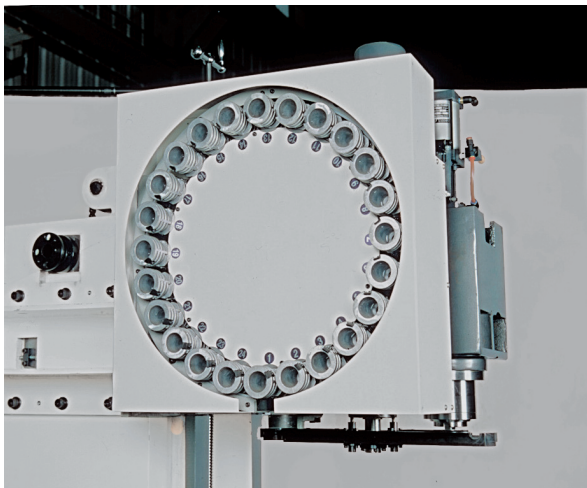
# VMC-1100S/1270S/1400S/1500S/1700S/2000S



## ◀ SPINDLE

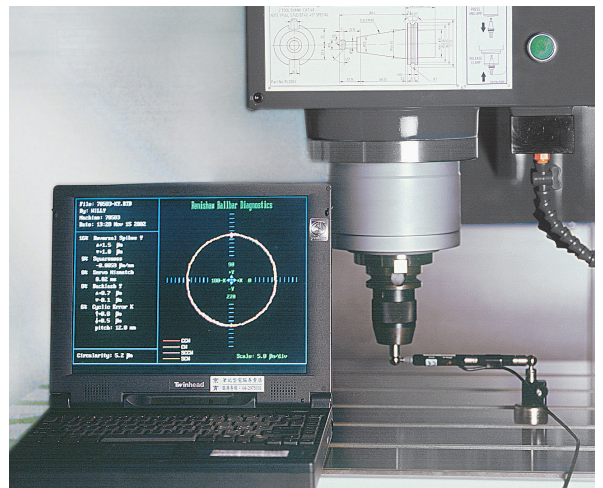
Supported by superior precision P4 class bearings, the spindle provides extra wide range machining capacity and high speed. Floating unclamping system assures tool unclamping force will not transmit to the spindle bearings.

It provides stable tool clamping and unclamping with spindle and extends the spindle bearings life. (standard)



## ▲ 24 TOOLS ARM TYPE ATC

The 24 tools arm type ATC is activated by electric motor transmitted by U-cam mechanism, featured with the fastest tool change speed. (standard)

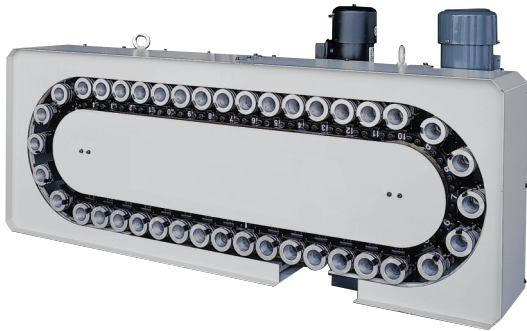


## ▲ BALL BAR CIRCLE INSPECTION

The reference data of ball bar circle testing identifies geometric errors of circular path.

# VMC-1100S/1270S/1400S/1500S/1700S/2000S

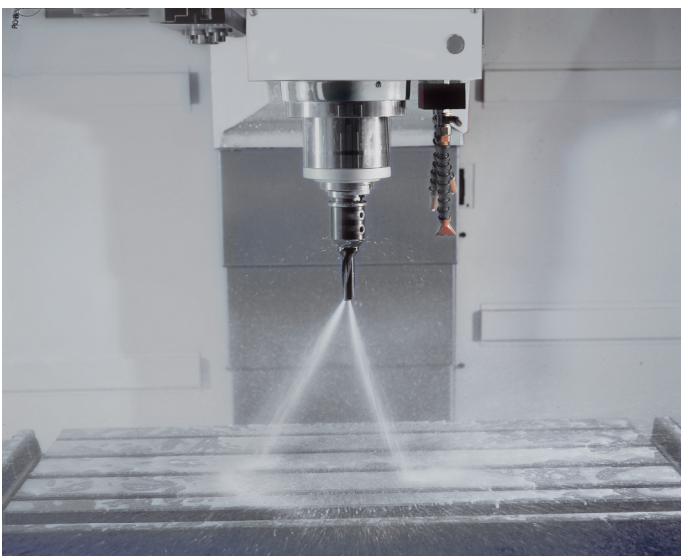
## OPTIONS



**▲ 32 TOOLS CHAIN TYPE ATC**  
Chain type magazine is driver by cam system and featuring rapid and precise locating, quick tool changing and stability during-time application.



**▲ GEAR BOX**  
The Gear Box offers high torque and provides heavy cutting capability.



**▲ COOLANT THROUGH SPINDLE**  
Coolant circulates through spindle offer a direct cooling effect on tools, removing heat occurred during machining.



**▲ CHIP CONVEYOR**  
Chip conveyor device in the front side of machine removes chips efficiently.

## SPECIFICATIONS

MODEL	VMC-1100S	VMC-1270S	VMC-1400S	VMC-1500S	VMC-1700S	VMC-2000S
<b>Table</b>						
Table Size	1300 x 700	1500 x 700	1600 x 700	1700 x 850	2000 x 850	2200 x 850
Travel Ranges (X / Y / Z mm)	1100 / 710 / 610	1300 / 710 / 610	1400 / 710 / 610	1500 / 900 / 850	1700 / 900 / 850	2000 / 900 / 850
Max. Table Load (kgs)	1000	1200	1500	2000	2500	3000
Spindle Nose to Table Surface (mm)	110 ~ 710			150 ~ 1000		
T-Slots (Width x Distance x Number mm)	18 x 125 x 5			18 x 150 x 5		
<b>Spindle</b>						
Tool Shank & Pull Stud	ISO 40		ISO 50 (OPT)		ISO 50	
Spindle Inner Diameter (mm)	Ø 70		Ø 100		Ø 100	
Spindle Center to Column (mm)	760		760		950	
Spindle speed (rpm) Belt	40 ~ 8000		40 ~ 6000 (8000)		40 ~ 6000 (8000)	
Spindle speed (rpm) Gear box	L40 ~ 1750, H1751 ~ 8000		L40 ~ 1500, H1501 ~ 6000		L40 ~ 1500, H1501 ~ 6000	
Draw Bar Force (kgf)	950		2000		2000	
Main Motor (Con / 30min kw)	7.5 / 11		11 / 15		15 / 18.5	
<b>Feed Rate</b>						
Rapid Feed Rate (X / Y / Z m/min)	20 / 20 / 16			16 / 16 / 12		
Feed rate (X / Y / Z m/min)	10000			8000		
<b>AC Servo Motor</b>						
mitsubishi (kw)	HF353 (3.5)			HA300 (4.5)		HA700 (7.0)
FANUC (kw)	βiS 22 (2.5) or αiF 22 (4.0)			αiF 22 (4.0)		αiF 30 (7.0)
SIEMENS (kw)	1FK7083 (4.17)			1FK7101 (7.03)		
FAGOR (kw)	FKM64.3 (5.2)			FXM75.2 (7.04)		
HEIDENHAIN (kw)	QSY155D (5.68)			QSY155F (6.0)		QSY190D (9.6)
Auto Tool Changer	ISO 40		ISO 50 (OPT)		ISO 50	
Mag Type	PLATE / DISK		DISK / CHAIN		DISK / CHAIN	
Cam Type	GENOVA / DAULARM		DAULARM		DAULARM	
Tool Selection (Bi-direction)	ABSOLUTE / RANDOM		RANDOM		RANDOM	
Tool Storage Capacity (pcs)	20 / 24		24 / 32		24 / 32	
Max. Tool Diameter (mm)	Ø 90 / Ø 100		Ø 115 / Ø 127		Ø 115 / Ø 127	
Max. Tool Length, Weight	250 mm, 8 kgs		350 mm, 15 kgs		350 mm, 20 kgs	
<b>Miscellaneous</b>						
Air Requirement (kg / cm <sup>2</sup> )	6			6		
Voltage	220V, 3PH, 50 / 60Hz			220V, 3PH, 50 / 60Hz		
Power Requirement (KVA)	30			40		
Coolant Tank Capacity (L)	350			700		
Machine Weight (kgs)	9000	10000	11000	14000	15000	16000
Machine Height (mm)	3000			3200		
Floor Space (L x W mm)	3250 x 3080	3490 x 3080	3890 x 3080	3950 x 2900	4450 x 2900	5000 x 2900

※THE DESIGN & SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

### ■ STANDARD ACCESSORIES:

- Mitsubishi M70 controller
- 24 tools arm type ATC
- Spindle oil chiller
- Cutting air blower
- Coolant & auto lubrication system
- Full splash guard
- Telescope steel cover
- Heat exchanger for electrical cabinet
- Rigid tapping
- Remote MPG
- RS-232C
- Operation status light
- Work light
- Tool box & tools
- Leveling bolts & pads
- Operation & program manuals

### ■ OPTIONS:

- Higher spindle speed with oil chiller
- Higher coolant pressure
- Coolant through spindle
- Coolant through tool holder
- 32 tools ATC, chain type
- Auto tool length measurement
- Chip conveyor
- Ball screw oil cooling system
- 4<sup>th</sup> axis CNC rotary table
- Other controller selection
- Transformer
- CE Mark

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