

VMC - 650L / 850L / 1010
VMC - 1100 / 1300

VERTICAL MACHINING CENTER

FEATURES:

- 650 To 1300 mm
- Spindle Speed 6000 / 8000 / 10000 / 12000 RPM
- X, Y & Z axis Square Way / Linear Guide Ways
- BT 40 / BT 50 Spindle Taper
- Armless / ARM Type ATC

CNC-TAKANG

CNC-TAKANG CO., LTD.
MANUFACTURER & EXPORTER

VMC series

STRUCTURE

Constructed by high quality robust Meehanite castings, and treated by tempering process to increase stability, CNC-TAKANG Machining Centers provide the best stability and the lowest vibration.

SLIDEWAYS

The 3 axes slideways are hardened and precision ground, and sliding cover surfaces are coated with Teflon. The rapid feedrate of 3 axes is up to 16 M/min.

COUPLINGS

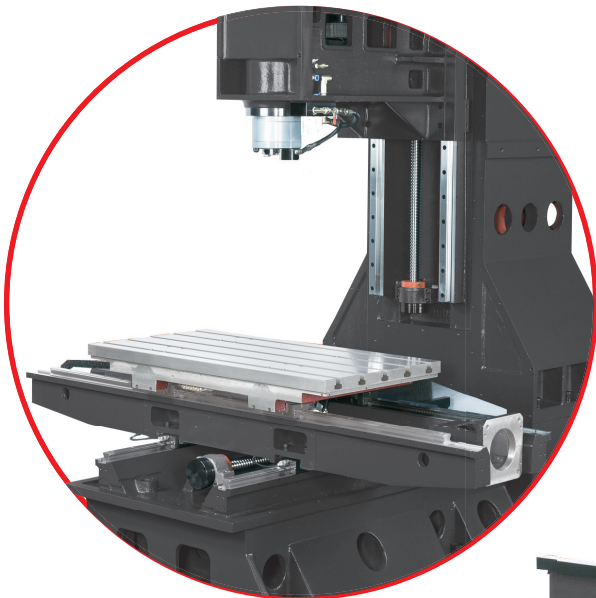
Directly connected with ballscrew and AC servo motors, the high precision coupling offers the best rigidity and keeps the accuracy of axial linear assembly under high speed movement.

BALLSCREW

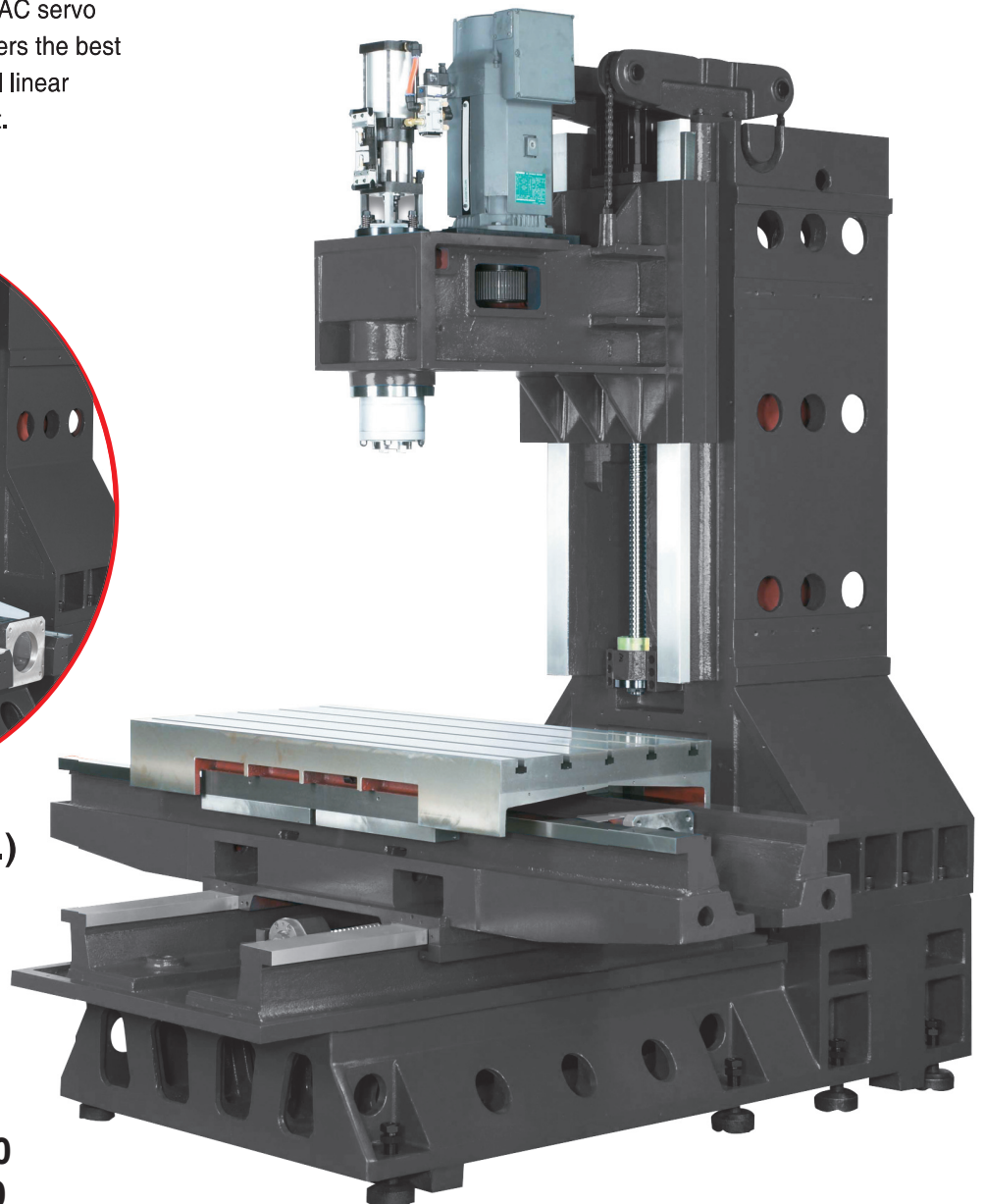
3 axes are equipped with 40mm diameter C3 class high precision ballscrews, mounted with double ballscrew support bearings (P4 class), ensuring high positioning accuracy and durability.

AUTOMATIC LUBRICATION SYSTEM

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



Linear Guide Way (Opt.)

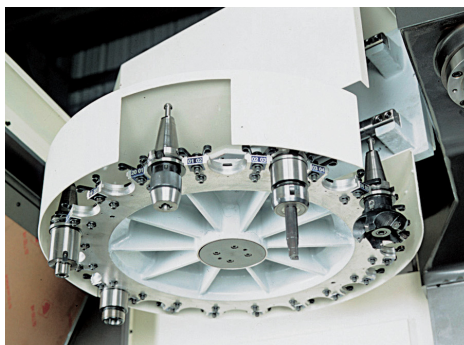


**VMC - 850L / 1010
1100 / 1300**



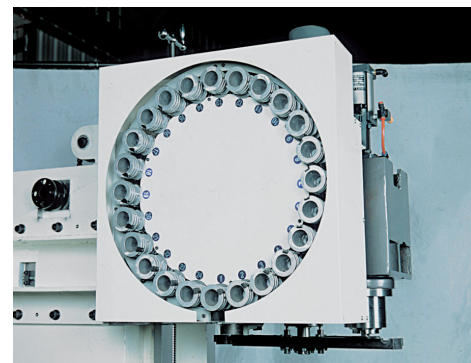
GEAR BOX

The gear box offers high torque and provides heavy cutting capability. (option)



20 Tools Armless Type ATC

The 20-Tool Armless Type ATC simplified magazine construction, safety, easy for maintenance and trouble free operation.



24 Tools Arm Type ATC

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



BALL BAR CIRCLE INSPECTION

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



ADDITIONAL CHIPS FLUSHING NOZZLES

Additional coolant flushing nozzles on rear inner wall of guard prevent jam of chips during operation.(option)

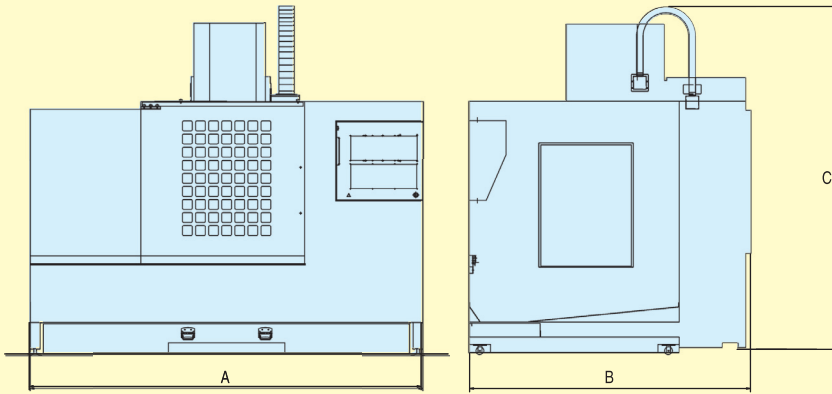


SCREW TYPE CHIP CONVEYOR

The screw type chip conveyor device in the front side of machine removes chips efficiently.(option)

VMC series

DIMENSION (mm)

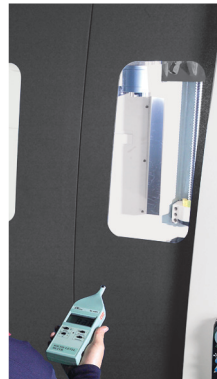


Unit : mm

MODEL	A	B	C
VMC-650L	3650 (144")	2900 (114")	2700 (106")
VMC-850L	4000 (157")	3500 (138")	2700 (106")
VMC-1010	4000 (157")	3500 (138")	2700 (106")
VMC-1100	3100 (122")	2390 (94.1")	3080 (121.2")
VMC-1300	3400 (134")	2390 (94.1")	3080 (121.2")



Dynamic Vibration



Noise Test



Vibration Test



Coolants Jets Around Spindle

Improved cooling efficiency on workpiece.



Right angle test on X and Y axes



Laser Inspection

SPECIFICATIONS

MODEL	DESCRIPTION	VMC-650L	VMC-850L	VMC-1010
TABLE	Table Size, mm	800 x 450	1000 x 450	1200 x 450
	Max. Table Load, kgs	450	500	600
	T-Slot Number	3	3	5
	T-Slot Pitch	125	125	75
	T-Slot Width, mm	18		
SPINDLE	Spindle Speed, rpm	8000		
	Spindle Motor	15 HP (30 min)		
	Spindle Diameter, mm	Dia. 100		
	Spindle Taper	BT40 (OPT. CAT-40 / DIN69871)		
TRAVEL	X Axis, mm	650	850	1010
	Y axis, mm	500		
	Z axis, mm	520		
	Spindle Nose To Table, mm	120 ~ 640		
	Spindle Center To Column Front, mm	540		
	Table Center, mm	290 ~ 790		
FEED RATE	Rapid Feed Rate (X / Y), mm / min	30000 (linear guide way)		20000 (box way)
	Rapid Feed Rate (Z), mm / min	24000 (linear guide way)		20000 (box way)
	Cutting Feed Rate, mm / min	1 - 10000		1 - 8000
AUTOMATIC TOOL CHANGER	MAG Type	Arm Type / Armless Type (OPT)		
	Tool Storage Capacity (pcs)	24		
	Max. Tool Diameter, mm	100 / 90		
	Max. Tool Length, mm	250		
	Max. Tool Weight, kgs	8		
MISCELLANEOUS	Air Requirement, kg / cm ²	5		
	Machine Weight, kgs	5000	5200	5400
	Floor Space (L x W x H), mm	3650 x 2900 x 2700	4000 x 3500 x 2700	4000 x 3500 x 2700

※THE SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

■ STANDARD ACCESSORIES:

1. Mitsubishi M80 controller
2. Arm type 24 tools ATC
3. Spindle air blast
4. Auto coolant and lubrication system
5. Work light
6. Full splash guard
7. Rigid tapping
8. Floating tool clamp / unclamp system
9. Heat exchanger for electrical cabinet
10. RS-232C
11. Leveling bolts and pads
12. Tool box and tools

■ OPTIONS:

1. Spindle speed 10000rpm
2. Spindle speed 12000rpm
3. Spindle speed 15000rpm (Built-in type)
4. Spindle speed 20000rpm (Built-in type)
5. Other controller selection
6. Coolant through spindle
7. Chip conveyor
8. CNC rotary table
9. Flushing system
10. Transformer
11. CE mark

SPECIFICATIONS

MODEL	DESCRIPTION	VMC-1100	VMC-1300	
TABLE	Table Size, mm (inch)	1300 x 610 (51.1 x 24)	1400 x 610 (57 x 24)	
	Travel Ranges (X / Y / Z), mm (inch)	1140 / 610 / 610 (44.8 / 24 / 24)	1270 / 610 / 610 (51.1 / 24 / 24)	
	Max. Table Load, kgs	850		
	Spindle Nose to Table Surface, mm (inch)	110-720 (4.3-28.3)		
	T-Slot (Width x Distance x Number), mm (inch)	18 x 125 x 5 (0.7 x 4.9 x 5)		
SPINDLE	Tool Shank and Pull Stud	BT40	BT50 (OPT)	
	Spindle Inner Diameter, mm (inch)	70 (2.7)	80 (3.1)	
	Spindle Center to Column, mm (inch)	675 (26.5)	675 (26.5)	
	Spindle Speed, rpm (belt)	60-8000	60-8000	
	Spindle Speed, rpm (gear box)	L: 40-2000, H2001-8000	L: 40-2000, H2001-8000	
	Draw Bar Force, kgf	950	2000	
FEED RATE	Rapid Feed Rate (X / Y / Z), M / min	20 / 20 / 20 (Option Linear Guide 30 / 30 / 24)		
	Feed Rate (X / Y / Z), M / min	10		
MOTOR	Main Motor (Con. / 30 Min), kw	7.5 / 11, 11 / 15 (OPT)		
	AC servo motor	MITSUBISHI	HF354 3.5 kw	
		SIEMENS	1FK7063 2.9 kw	
		FANUC	βiS22 3 kw or αiF12 3.0 kw	
		FAGOR	FKM 64.30A 5.2 kw	
		HEIDENHAIN	QSY155B 2.47 kw	
AUTOMATIC TOOL CHANGER	MAG Type	Armless Type / Arm Type (OPT)		
	Tool Storage Capacity (pcs)	BT40: 20 / 24	BT50: 16 / 24 (OPT)	
	Max. Tool Diameter, mm (inch)	100 / 90 (3.9 / 3.5)	146 / 105 (5.7 / 4.1)	
	Max. Tool Length, mm (inch)	250 (9.8)	300 (11.8)	
	Max. Tool Weight, kgs	8	15	
MISCELLANEOUS	Air Requirement, kg / cm ²	6		
	Voltage	220 V		
	Coolant Tank Capacity (L)	300		
	Power Requirement	20 KVA		
	Machine Weight, kgs	6500	6800	
	Floor Space (L x W x H), mm (inch)	3100 x 2390 x 3080 (122 x 94 x 121.2)	3400 x 2390 x 3080 (134 x 94 x 121.2)	

※THE SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

STANDARD ACCESSORIES:

- Mitsubishi M70 controller
- Auto coolant and lubrication system
- Work light
- Full splash guard
- 3 axes telescope steel cover
- Cutting air blower
- Operation status light
- Remote MPG
- RS-232C
- Heat exchanger for electrical cabinet
- Rigid tapping
- Flushing system
- Tool box and tools
- Leveling bolts and pads
- Operation, Programming and Maintenance Manuals

OPTIONS:

- Other controller selection
- Spindle speed, 10000rpm
- Spindle air blower
- Spindle oil cooler
- Coolant through spindle
- Coolant through tool holder
- Auto tool-length measurement
- Chip conveyor
- CNC rotary table
- Transformer
- Linear guide for X, Y, Z axes
- CE mark

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