



VMC - 650E / 800E
VMC - 650 / 850 / 1000N
VMC - 1000 / 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

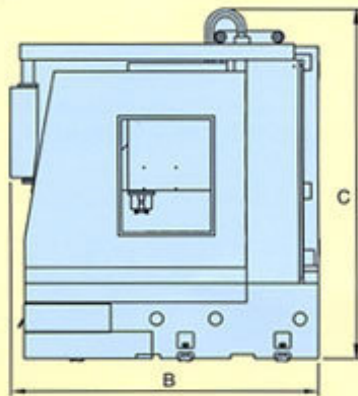
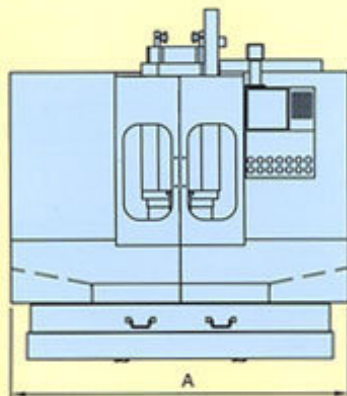
CNC-TAKANG CO., LTD.
MANUFACTURER & EXPORTER

VMC-1000

VMC-650E / 800E



VMC-650E



DIMENSIONS

Unit : mm

MODEL	A	B	C
VMC-650E	2100 (82.7")	1915 (75.4")	2450 (96.5")
VMC-800E	2200 (86.6")	1915 (75.4")	2450 (96.5")

SPECIFICATIONS

MODEL	DESCRIPTION	VMC-650E	VMC-800E
TABLE	Table size	800 x 450 mm (33.5 x 17.7")	800 x 450 mm (33.5 x 17.7")
	Table working area (X.Y.Z)	650 x 450 x 400 mm (25.6 x 17.7 x 15.8")	800 x 450 x 400 mm (31.5 x 17.7 x 15.8")
	Table load capacity	400 kgs	500 kgs
	T-slot	18 mm / 4 slots / 100 mm	18 mm / 4 slots / 100 mm
TRAVEL	Longitudinal travel (X)	650 mm (25.6")	800 mm (31.5")
	Cross travel (Y)	480 mm (18.9")	480 mm (18.9")
	Vertical travel (Z)	510 mm (20.1")	510 mm (20.1")
	Spindle nose to table surface	125 ~ 635 mm (4.9~25")	125 ~ 635 mm (4.9~25")
	Spindle center to column	500 mm (19.7")	500 mm (19.7")
	Table surface to floor	760 mm (29.9") OPT	760 mm (29.9") OPT
SPINDLE	Spindle speed	8,000 rpm	8,000 rpm
	Spindle diameter	65 mm (2.6")	65 mm (2.6")
	Spindle taper	BT40 / CAT40 OPT	BT40 / CAT40 OPT
FEED RATE	X-Y-Z Rapid traverse	16 M / min (24M / min. OPT)	16 M / min (24M / min. OPT)
	Cutting feed	10 M / min.	10 M / min.
ATC (Armless)	Tool selection	Bi-Directional	Bi-Directional
	No. of tools	16 sets	16 sets
	Max. tool weight	6 kgs	6 kgs
	Max. tool diameter	80 mm (3.2")	80 mm (3.2")
	Max. tool length	250 mm (9.8")	250 mm (9.8")
MISCELLANEOUS	Power requirement	15 kw	15 kw
	Spindle motor (Cont / 30 min)	5.5 kw	7.5 kw
	Servo motor (X.Y.Z)	1 kw	1 kw
	Controller	Fagor / Simens	Fagor / Simens
	Coolant system	1 / 4 HP	1 / 4 HP
	Lubrication system	25w, 6kgs / cm ² , 4.6 Liter	25w, 6kgs / cm ² , 4.6 Liter
	Pneumatic supply	6 kgs / cm ²	6 kgs / cm ²
	Floor space	1930 x 2100 x 2450 mm (76x82.7x96.5")	1930 x 2200 x 2450 mm (76x86.6x96.5")
	Machine weight	3500 kgs	4500 kgs

※THE SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

■ STANDARD ACCESSORIES:

- Spindle air blast
- Auto lubrication system
- Coolant system
- Auto power off
- RS-232 port
- Work light
- 16 Tools armless type ATC
- Splash guard
- Tool box & tools
- Inspection report
- Operation, Programming & Maintenance Manuals,

■ OPTIONS:

1. Spindle speed, 10000rpm
2. Spindle oil cooler
3. Coolant through spindle
4. Rigid tapping
5. Heat exchanger for electrical cabinet
6. 20 Tools arm type ATC
7. 4th axis preparation
8. Rotary table & tailstock
9. Chip conveyor
10. CE mark & EMC conformity

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 Turcite-B. The rapid feedrate of 3 axes is up to 16 M/min.

COUPLINGS

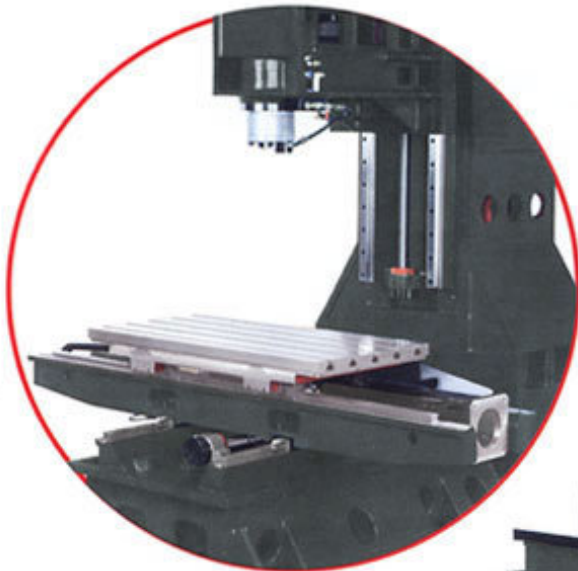
Directly connected with ballscrew and AC servo motors, the high precision coupling offers the best rigidity and keeps the accuracy of axial linear assembly under high speed movement.

BALLSCREW

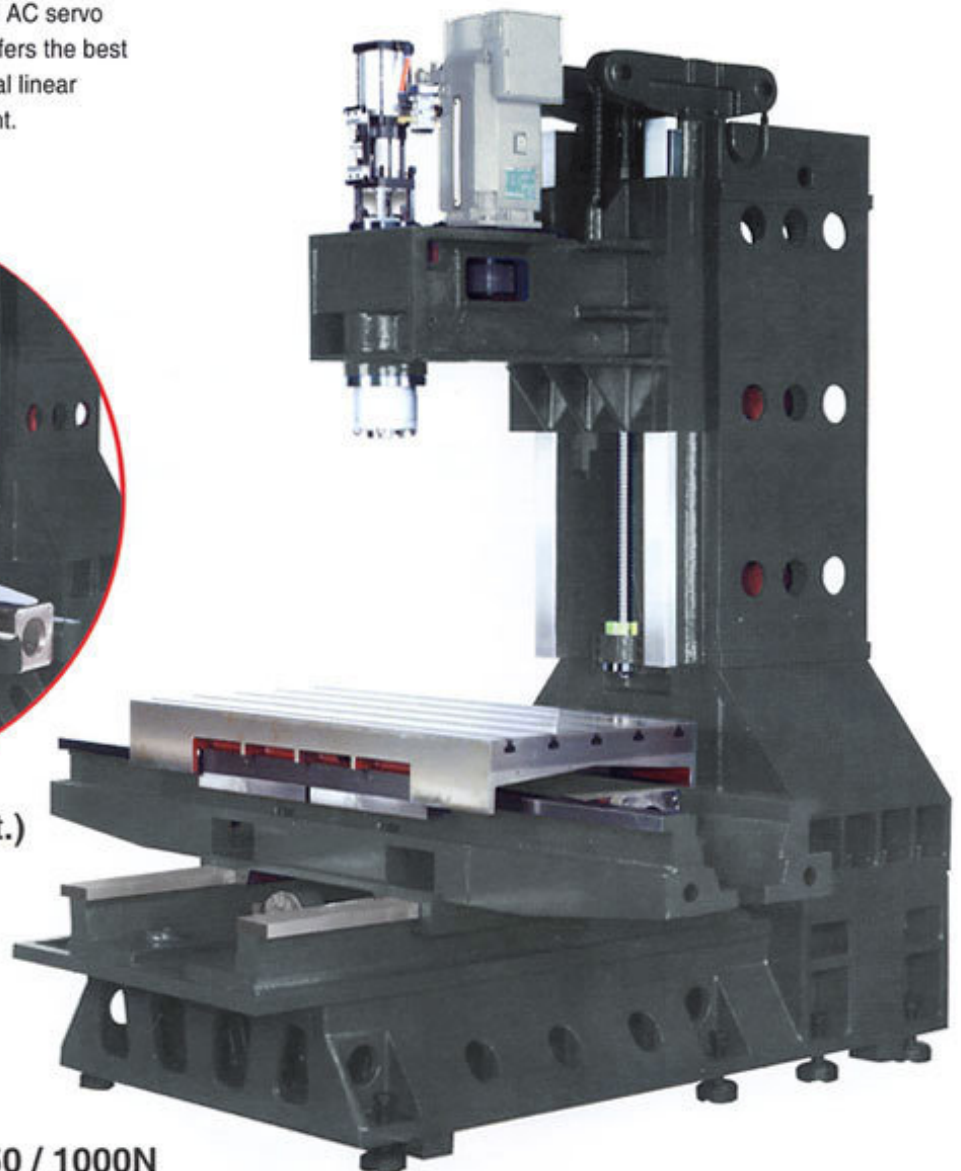
3 axes are equipped with 40mm diameter C3 class high precision ballscrews, mounted with double ballscrew support bearings (P4 class), ensuring high positioning accuracy and durability.

AUTOMATIC LUBRICATION SYSTEM

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



Linear Guide Way (Opt.)

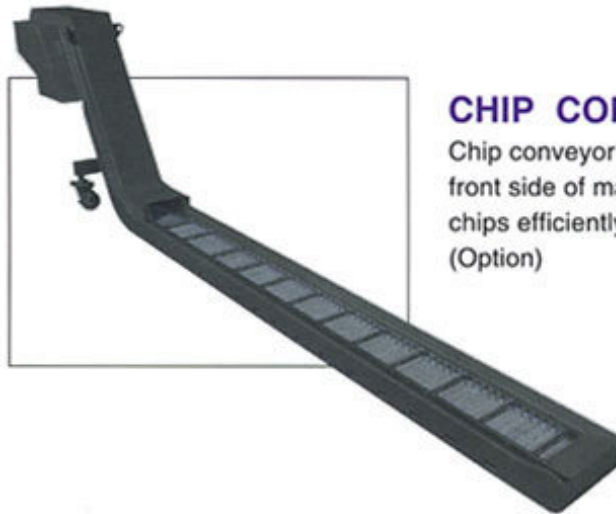


VMC - 650 / 850 / 1000N
1000 / 1100 / 1300



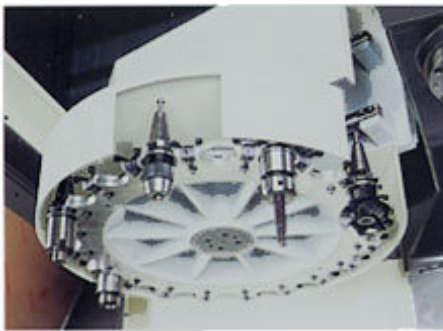
GEAR BOX

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



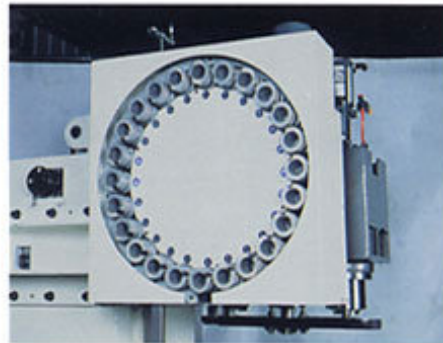
CHIP CONVEYOR

Chip conveyor device in the front side of machine removes chips efficiently. (Option)



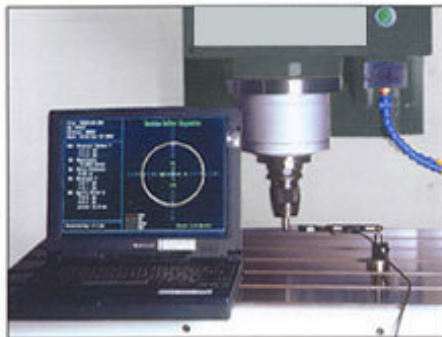
20 Tools Armless Type ATC

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



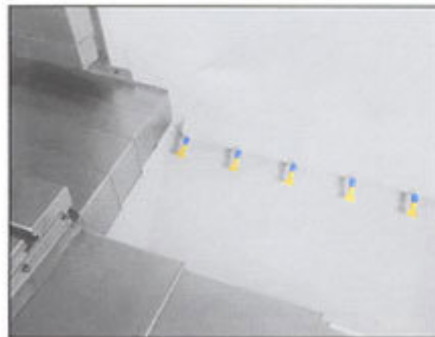
24 Tools Arm Type ATC

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)



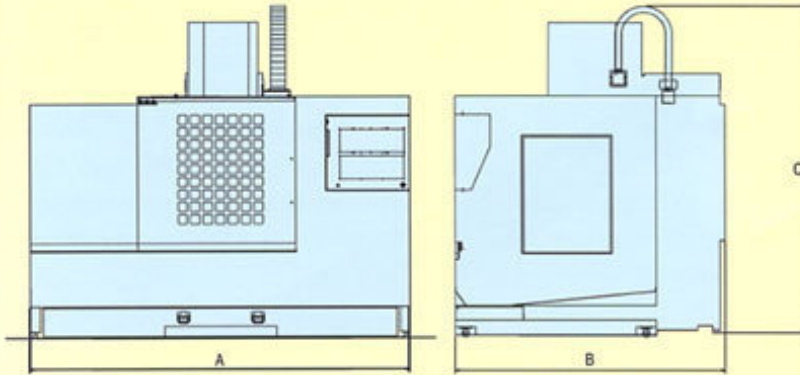
SCREW TYPE CHIP CONVEYOR

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-650	2500 (95.5")	2100 (82.7")	2600 (102.4")
VMC-850	2600 (118.1")	2100 (82.7")	2600 (102.4")
VMC-1000N	3000 (118.1")	2100 (82.7")	2600 (102.4")
VMC-1000	3100 (122")	2100 (82.7")	2600 (102.4")
VMC-1100	3100 (122")	2100 (82.7")	2600 (102.4")
VMC-1300	3400 (134")	2100 (82.7")	2600 (102.4")



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-650	VMC-850	VMC-1000N	
TABLE	Table Size, mm (inch)	850 x 510 (31.4 x 20)	1000 x 510 (39.3 x 20)	1200 x 510 (47.2 x 20)	
	Travel Ranges (X / Y / Z), mm (inch)	650 / 560 / 560 (25.5 / 22 / 22)	850 / 560 / 560 (33.4 / 22 / 22)	1020 / 560 / 560 (40.1 / 22 / 22)	
	Max. Table Load, kgs	600			
	Spindle Nose to Table Surface, mm (inch)	100 - 660 (3.9 - 25.9)			
	T-Slot (Width x Distance x Number), mm (inch)	18 x 100 x 5 (0.7 x 3.9 x 5)			
SPINDLE	Tool Shank & Pull Stud	BT 40			
	Spindle Inner Diameter, mm (inch)	ø 70 (2.7)			
	Spindle Center to Column, mm (inch)	600 (23.6)			
	Spindle speed, rpm	60 - 8000 (OPT. 10000)			
	Draw Bar Force, kgf	950			
FEED RATE	Rapid feed rate (X / Y / Z), M / min	20 / 20 / 20 (OPT. Linear Guide 30 / 30 / 24)			
	Feed rate (X / Y / Z), M / min	10			
MOTOR	Main Motor (Con. / 30 Min), kw	5.5 / 7.5		7.5 / 11	
	AC servo motor	MITSUBISHI	3.5 kw		
		SIEMENS	2.9 kw		
		FANUC	β 22i 2.5 kw or α 12i 3.0 kw		
		FAGOR	FKM 64.30A		
		HEIDENHAIN	2.47 kw		
AUTOMATIC TOOL CHANGER	MAG type	Armless Type / Arm Type (OPT.)			
	Tool Storage Capacity (pcs)	20 / 20 (24)			
	Max. Tool Diameter, mm (inch)	ø 100 / ø 93 (3.9 / 3.6)			
	Max. Tool Length, mm (inch)	250 (9.8)			
	Max. Tool Weight, kgs	8			
MISCELLANEOUS	Air Requirement, kg / cm ²	6			
	Voltage	220 V			
	Power Requirement	15 KVA		20 KVA	
	Machine Weight, kgs	4500	5200	5400	
	Floor Space (L x W x H), mm (inch)	2600 x 2200 x 2650 (102.3 x 86.6 x 104.3)		2820 x 2200 x 2650 (111 x 86.6 x 104.3)	

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■ STANDARD ACCESSORIES:

1. Mitsubishi M64M controller
2. Coolant & Auto lubrication system
3. Work light
4. Full splash guard
5. 3 axes telescope steel cover
6. Cutting air blower
7. Operation status light
8. Remote MPG
9. RS-232C
10. Heat exchanger for electrical cabinet
11. Rigid tapping
12. Tool box & tools
13. Leveling bolts & pads
14. Operation & program manuals

■ OPTIONS:

1. Other controller selection
2. Spindle speed, 10000rpm
3. Spindle air blower
4. Spindle oil cooler
5. Coolant through spindle
6. Coolant through tool holder
7. Auto tool-length measurement
8. Chip conveyor
9. CNC rotary table
10. Transformer
11. Flushing system
12. Linear guide for X, Y, Z axes

SPECIFICATIONS

MODEL	DESCRIPTION	VMC-1000	VMC-1100	VMC-1300
TABLE	Table Size, mm (inch)	1100 x 610 (43.3 x 24)	1300 x 610 (51.1 x 24)	1450 x 610 (57 x 24)
	Travel Ranges (X / Y / Z), mm (inch)	950 / 610 / 610 (37.4 / 24 / 24)	1140 / 610 / 610 (44.8 / 24 / 24)	1300 / 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 & Pull Stud	BT 40		BT 50 (Option)
	Spindle Inner Diameter, mm (inch)	ø 70 (2.7)		ø 80 (3.1)
	Spindle Center to Column, mm (inch)	675 (26.5)		675 (26.5)
	Spindle speed, rpm	60 - 8000		60 - 6000
	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		
	AC servo motor	MITSUBISHI	3.5 kw	
		SIEMENS	2.9 kw	
		FANUC	β 22i 2.5 kw or α 12i 3.0 kw	
		FAGOR	5.2 kw	
		HEIDENHAIN	2.47 kw	
AUTOMATIC TOOL CHANGER	MAG type	Armless Type / Arm Type (Option)		
	Tool Storage Capacity (pcs)	24 / 24		16 / 24
	Max. Tool Diameter, mm (inch)	ø 100 / ø 93 (3.9 / 3.6)		ø 115 / ø 115 (4.5 / 4.5)
	Max. Tool Length, mm (inch)	250		350
	Max. Tool Weight, kgs	8		15
MISCELLANEOUS	Air Requirement, kg / cm ²	6		
	Voltage	220 V		
	Power Requirement	20 KVA		
	Machine Weight, kgs	6000	6500	6800
	Floor Space (L x W x H), mm (inch)	3100 x 2230 x 2950 (122 x 88 x 116)	3100 x 2230 x 2950 (122 x 88 x 116)	3400 x 2230 x 2950 (134 x 88 x 116)

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