



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

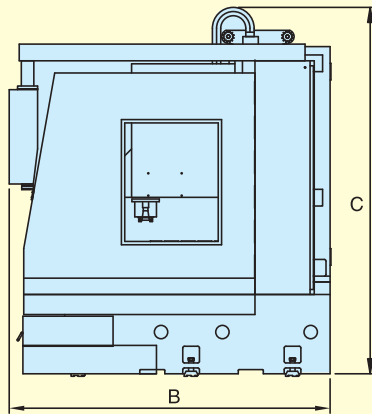
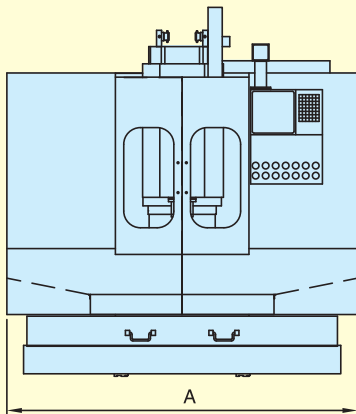
CNC-TAKANG CO., LTD.
MANUFACTURER & EXPORTER

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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 (31.5 x 17.7")	800 x 450 (31.5 x 17.7")
	Table working area (X. Y. Z)	650 / 450 / 400 (25.6 / 17.7 / 15.8)	800 / 450 / 400 (31.5 / 17.7 / 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")	760 mm (29.9")
SPINDLE	Spindle speed	8,000 rpm	8,000 rpm
	Spindle inner diameter	65 mm (2.6")	65 mm (2.6")
	Spindle taper	BT40	BT40
FEED RATE	Rapid feed rate (X / Y / Z)	16 M / min (24 M / min OPT)	16 M / min (24 M / min OPT)
	Feed rate (X / Y / Z)	10 M / min	10 M / min
ATC (Armless)	Tool selection	Bi-Directional	Bi-Directional
	Tool storage capacity (pcs)	16	16
	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 KVA	15 KVA
	Spindle motor (Cont / 30 min)	7.5 kw / 11 kw	7.5 kw / 11 kw
	Servo motor (X. Y. Z)	1 kw	1 kw
	Controller	Fanuc / Simens (OPT)	Fanuc / Simens (OPT)
	Coolant system	1 / 4 HP	1 / 4 HP
	Lubrication system	25 w, 6 kgs / cm2, 4.6 Liter	25 w, 6 kgs / cm2, 4.6 Liter
	Pneumatic supply	6 kgs / cm2	6 kgs / cm2
	Floor space	1930 x 2100 x 2450 mm (76 x 82.7 x 96.5")	1930 x 2200 x 2450 mm (76 x 86.6 x 96.5")
Machine weight	3500 kgs	4500 kgs	

※THE SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

■ STANDARD ACCESSORIES:

1. Spindle air blast
2. Auto lubrication system
3. Coolant system
4. Auto power off
5. RS-232 port
6. Work light
7. Armless type 16 tools ATC
8. Splash guard
9. Tool box and tools
10. Inspection report
11. Operation, Programming and Maintenance Manuals

■ OPTIONS:

1. Spindle speed, 10000rpm
2. Spindle oil cooler
3. Coolant through spindle
4. Arm type 20 tools ATC
5. 4th axis preparation
6. Rotary table and tailstock
7. Chip conveyor
8. CE mark and 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 Teflon. The rapid feedrate of 3 axes is up to 16 M/min.

COUPLINGS

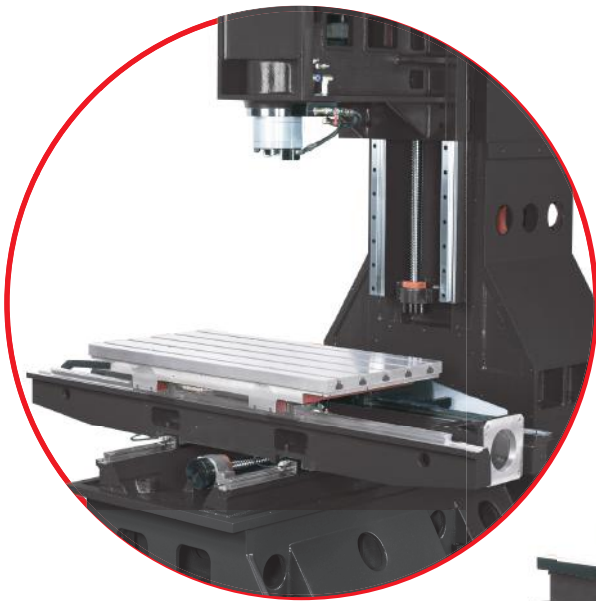
Directly connected with ballscrew and AC servo motors, the high precision coupling offers the best rigidity and keeps the accuracy of axial linear assembly under high speed movement.

BALLSCREW

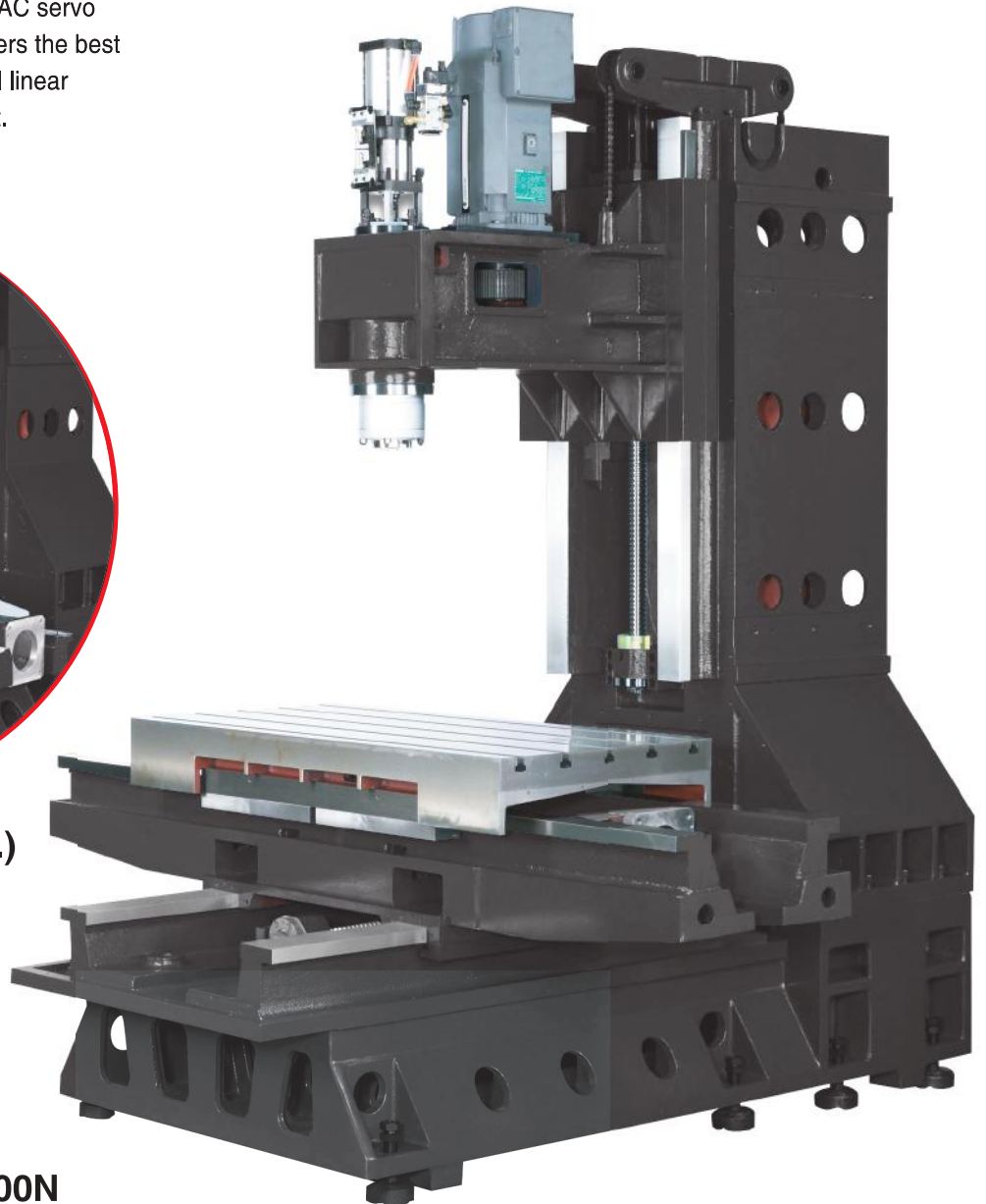
3 axes are equipped with 40mm diameter C3 class high precision ballscrews, mounted with double ballscrew support bearings (P4 class), ensuring high positioning accuracy and durability.

AUTOMATIC LUBRICATION SYSTEM

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



Linear Guide Way (Opt.)

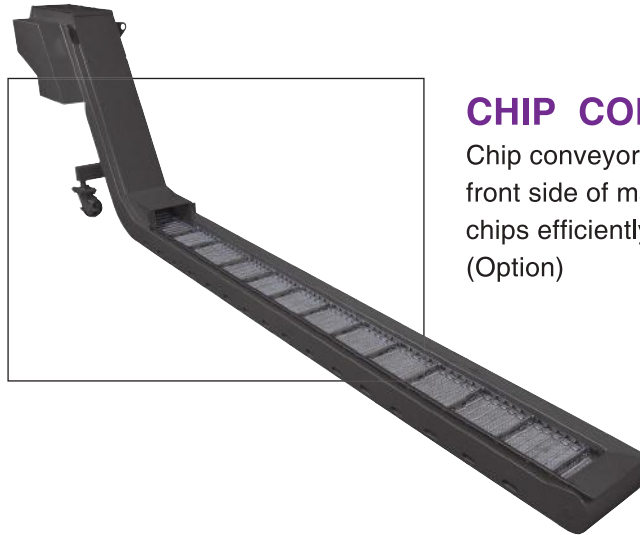


**VMC - 850 / 1000N
1100 / 1300**



GEAR BOX

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



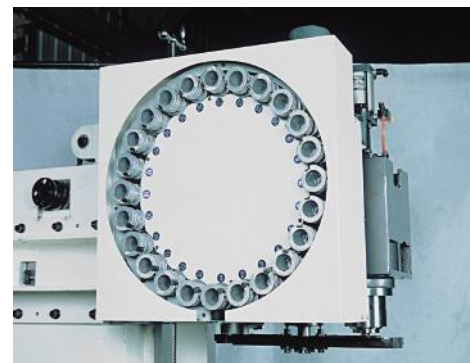
CHIP CONVEYOR

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)

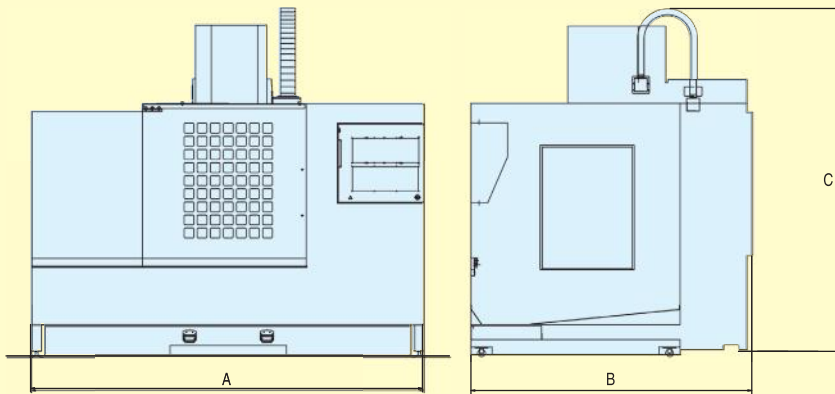


SCREW TYPE CHIP CONVEYOR

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-850	2600 (102.4")	2280 (89.8")	2750 (108.2")
VMC-1000N	2820 (111")	2280 (89.8")	2750 (108.2")
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

VMC-850 / 1000N

SPECIFICATIONS

MODEL	DESCRIPTION	VMC-850	VMC-1000N	
TABLE	Table Size, mm (inch)	1000 x 510 (39.3 x 20)	1200 x 510 (47.2 x 20)	
	Travel Ranges (X / Y / Z), mm (inch)	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 and Pull Stud	BT40		
	Spindle Inner Diameter, mm (inch)	60 (2.36)		
	Spindle Center to Column, mm (inch)	620 (24.4)		
	Spindle Speed, rpm (belt)	60-10000		
	Spindle Speed, rpm (gear box)	L: 40-2000, H2001-10000		
	Draw Bar Force, kgf	700		
FEED RATE	Rapid Feed Rate (X / Y / Z), M / min	20 / 20 / 20 (Option Linear Guide 36 / 36 / 24)		
	Feed Rate (X / Y / Z), M / min	10		
MOTOR	Main Motor (Con. / 30 Min), kw	5.5 / 7.5 (OPT 7.5 / 11)		
	AC servo motor	MITSUBISHI	HF354 3.5 kw	
		SIEMENS	1FK7063 2.9 kw	
		FANUC	βiS22 3 kw or aiF12 3.0 kw	
		FAGOR	FKM64.30A 5.2 kw	
		HEIDENHAIN	QSY155B 2.47 kw	
AUTOMATIC TOOL CHANGER	MAG Type	Armless Type / Arm Type (OPT)		
	Tool Storage Capacity (pcs)	20 / 24		
	Max. Tool Diameter, mm (inch)	100 / 90 (3.9 / 3.5)		
	Max. Tool Length, mm (inch)	250 (9.8)		
	Max. Tool Weight, kgs	8		
MISCELLANEOUS	Air Requirement, kg / cm ²	6		
	Voltage	220 V		
	Coolant Tank Capacity (L)	200		
	Power Requirement	20 KVA	25 KVA	
	Machine Weight, kgs	5600	5800	
	Floor Space (L x W x H), mm (inch)	2600 x 2280 x 2750 (102.3 x 89.7 x 108.3)	2820 x 2280 x 2750 (111 x 89.7 x 108.3)	

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STANDARD ACCESSORIES:

- Mitsubishi M70 controller
- Spindle speed, 10000rpm
- Spindle oil cooler
- Spindle air blower
- Coolant and auto 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 and program manuals

OPTIONS:

- Other controller selection
- Coolant through spindle
- Coolant through tool holder
- Auto tool-length measurement
- Chip conveyor
- CNC rotary table
- Transformer
- Linear guide for X. Y. Z axes

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)	

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STANDARD ACCESSORIES:

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- Work light
- Full splash guard
- 3 axes telescope steel cover
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- Coolant through spindle
- Coolant through tool holder
- Auto tool-length measurement
- Chip conveyor
- CNC rotary table
- Transformer
- Linear guide for X. Y. Z axes

CNC-TAKANG CO., LTD.

No. 72, Alley 7, Lane 98, 1st Road, Taichung Industry Park,
Taichung 40767, TAIWAN
FAX: +886-4-2359 6064 E-mail: takang@ms17.hinet.net
TEL: (04)2359 6056 Web site: www.cnctakang.com.tw