



# VMC-95/115

VERTICAL MACHINING CENTER

 **Agma**



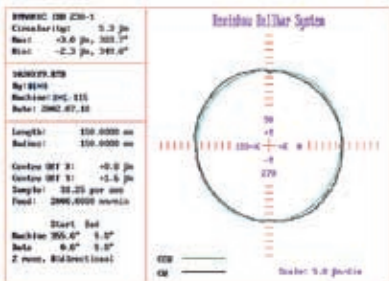
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Certificate Number: 091510

# VMC-95/115

## VERTICAL MACHINING CENTER

- All three axes have a hardened box-way design. In addition, the spindle headstock, column, saddle, base, and table are all made of high-quality Meehanite cast iron.
- All slide-ways are heat-treated and precision ground to maintain high precision.
- Double guide-ways and a counter-balanced design prevent unexpected vibration from the Z-axis drive, which helps achieve a quality surface finish.
- Strategically placed ribs help enhance the spindle headstock structure. The spindle headstock also has the proper proportion of contact with the column, which creates strong spindle support.



**VMC- 95:X/Y/Z 900/550/580mm (35.43"/21.65"/22.83")**

**VMC-115:X/Y/Z 1100/550/580mm (43.31"/21.65"/22.83")**

**24 Tools Arm Type (STD.)**

**16 Tools Armless Type (OPT.)**

**8,000RPM/6,000RPM (Belt Driven)**

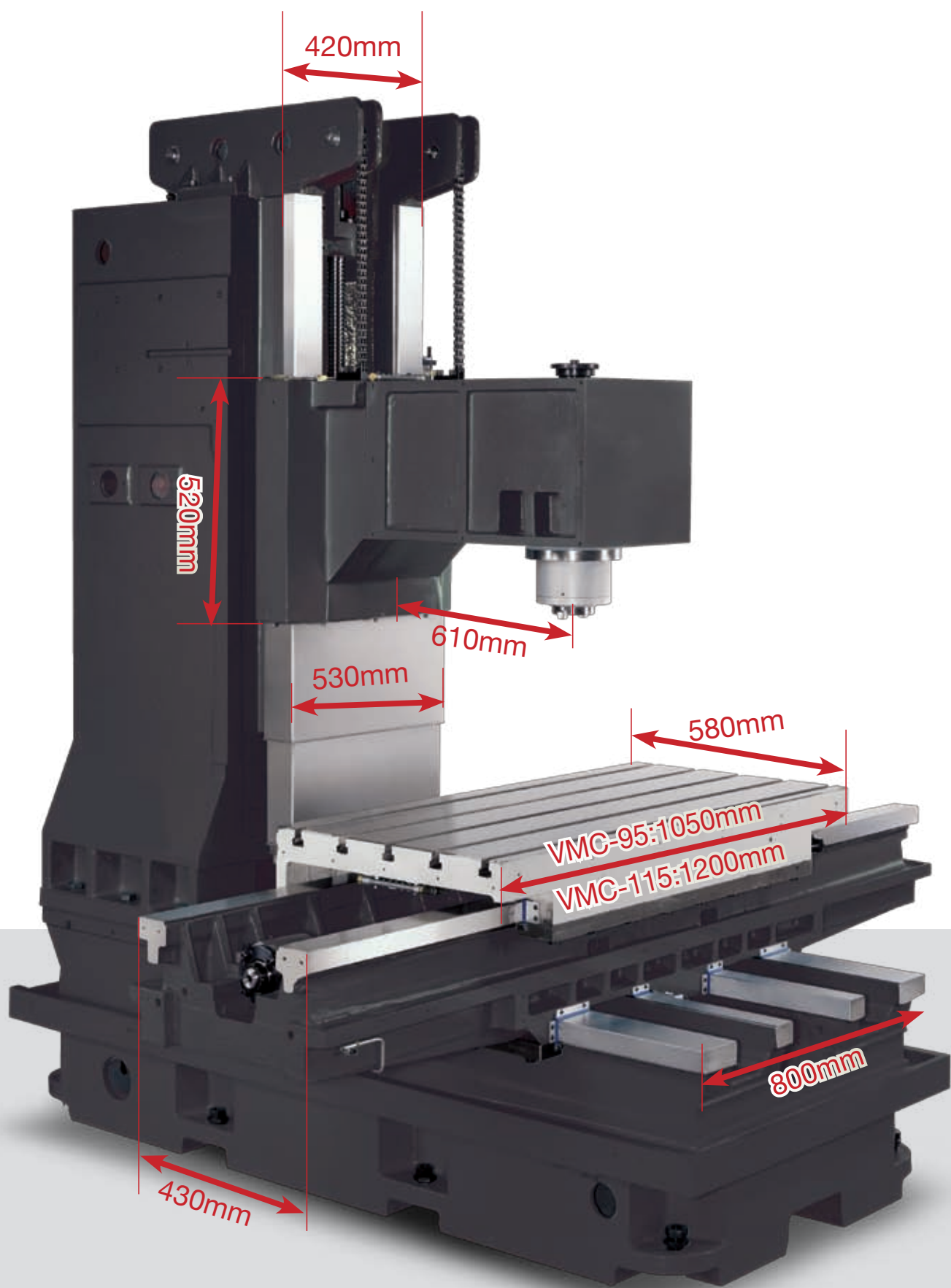
**10,000RPM/12,000RPM (Direct Driven)**



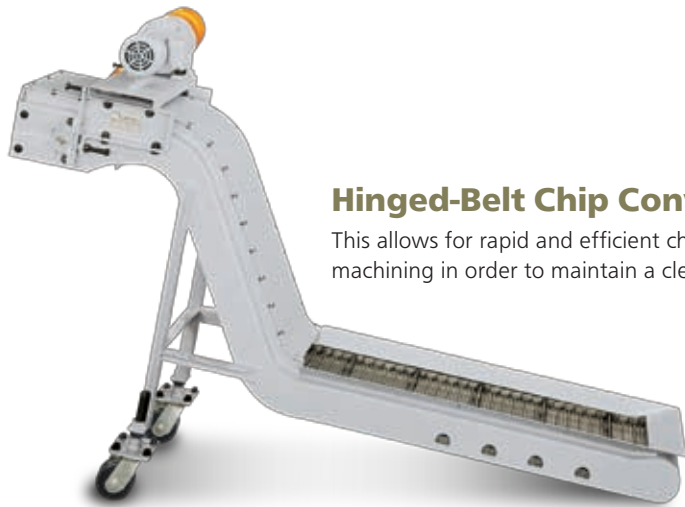


**With Optional Accessories**

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### Hinged-Belt Chip Conveyor(Option)

This allows for rapid and efficient chip removal during machining in order to maintain a clean machine.



### Oil Circulating Cooling System for Spindle

A high efficiency spindle cooling system dissipates running induced heat generation in order to maintain spindle accuracy and prolong spindle life.



### Coolant Thru Spindle (C.T.S.)(Option)

THE C.T.S. (COOLANT THROUGH SPINDLE) (A TYPE) system provides 20 bar (280 PSI) of hi-pressure coolant delivery that effectively reduces tool wear because of heat and the slow evacuation of metal chips.

### Calibration with laser interferometer is Performed and Certified by PMC

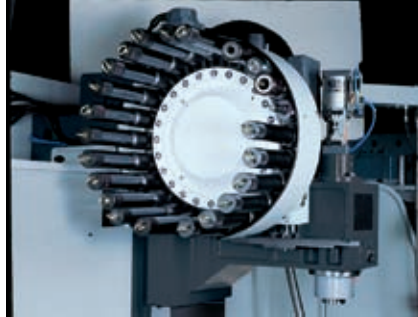
All of our machines are calibrated according to the "VDI 3441 3" standard. Calibration is performed for the full travel length of each axis. Each measurement is taken six times to ensure the most consistent and accurate readings.

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## Enhanced Base Design

The base of the VMC-95/115 has 4-hardened ways that allow for greater stability and accuracy even with heavy loading. In essence, the design fully supports the saddle and table along the entire travel lengths of the X and Y-axes.



## 24 Tools Magazine

A rapid arm-type tool changer is driven with a precision cam, maintaining tool-changing accuracy of 0.01mm, which in turn will help maintain long-term spindle-clamping accuracy.



## Automatic Lubrication System

All AGMA machines use a pressurized central lubricating system. The PLC controlled system allows all three axes to be lubricated evenly to maintain accuracy and prolong machine life.



## Double Stoppers Design

To prevent any deviation between the servomotor housing and ball screw bearing housing, each axis is equipped with two stoppers to guarantee absolute axial alignment.



## Volumetric Oil Distributor

Lubricating oil is evenly distributed to all the sliding surfaces of the machine via volumetric oil distributors. All stationary lines are made of rigid alloy pipe and hard-plumbed for low maintenance operation over the life of the machine.



## Forceful Cleaning Spray-Gun

Equipped on the right front side of base this unit along with the assistance of a high-pressure coolant and air mixture helps increase table cleaning speed.

ITEM	MODEL	VMC-95	VMC-115
<b>Spindle</b>			
Spindle Taper		No. 40	
Transmission		Belt	
Spindle Speed		8,000 r.p.m.	
<b>Table</b>			
Table Size		1,050 x 580 mm (41.34" x 22.83")	1,200 x 580 mm (47.24" x 22.83")
T-Slot Size		18 x 5 x120 mm (0.71" x 5 x 4.72")	
Work Area		900 x 550 mm (35.43" x 21.65")	1,100 x 550 mm (43.31" x 21.65")
Max. Table Load		800 kgs (1,760 lbs)	
<b>Travel &amp; Feedrate</b>			
X Axis		900 mm (35.43")	1,100 mm (43.31")
Y Axis		550 mm (21.65")	
Z Axis		580 mm (22.83")	
Distance from Spindle Nose to Table		170~750 mm (6.69"~29.53")	
Distance from Spindle Center to Column Ways		610 mm (24.02")	
Rapid Traverse		X, Y : 20 m/min (787 IPM) Z : 15 m/min (590 IPM)	
Cutting Feedrate		X, Y, Z : 1~10,000 mm/min (393 IPM)	
<b>ATC</b>			
Tool Shank		BT/CAT 40	
Pull Stud		MAS P40T-1 (45°)	
Magazine Capacity		24 Tool (standard) / 16 tool (option)	
Max. Tool Diameter (with adjacent pocket empty)		Ø130 mm (5.12")	
Max. Tool Diameter (full storage)		Armless=Ø100 mm (3.94") Arm=Ø80 mm (3.15") (option)	
Max. Tool Length		300 mm (11.81")	
Max. Tool Weight		7 kgs (15.4 lbs)	
ATC Type		Arm Type (std.) /Armless Type (opt.)	
<b>Motor</b>			
Spindle(Cont./30min.)		7.5/11 kw(10/15 HP)	
X/Y/Z Axes (Fanuc)		3 kw (4.02 HP)	
Lubrication Pump		0.025 kw (0.033 HP)	
Coolant Pump		0.49 kw (0.66 HP)	
<b>Misc.</b>			
Machine Height		2,640 mm (103.94")	
Floor Space		3,000 x 2,720 mm (118.11" x 107.09")	
Machine Weight		6,700 kgs (14,740 lbs)	7,000 kgs (15,400 lbs)
Control		FANUC OiMD	
Positioning Accuracy (Full Travel)		± 0.005 mm (± 0.0002")	
Repeatability		± 0.003 mm (± 0.00012")	

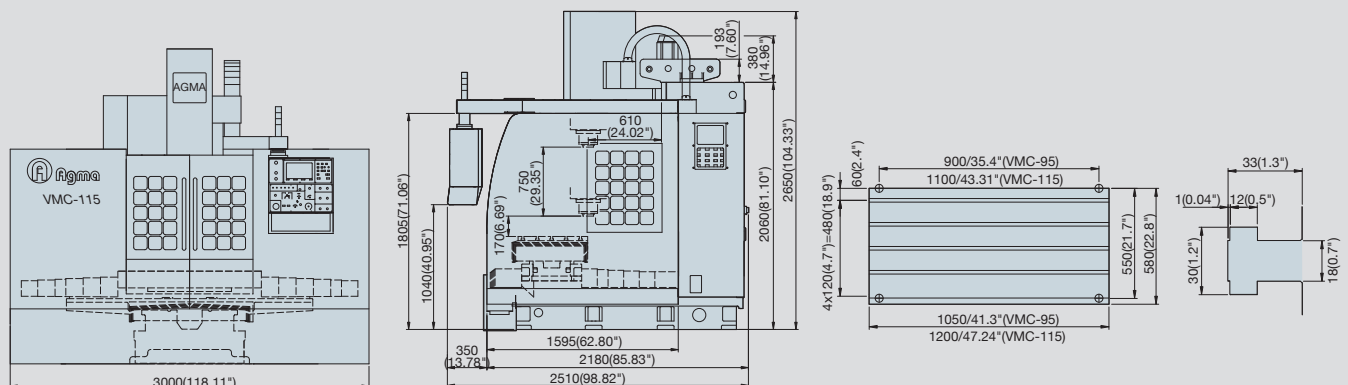
\*SPECIFICATION IS SUBJECT TO CHANGE WITHOUT FURTHER NOTICE.

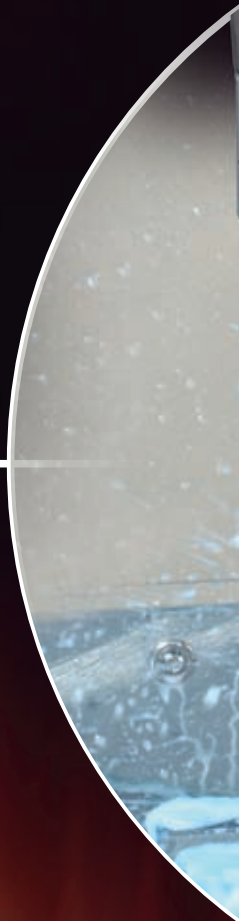
## Standard Accessories:

1. Fanuc OiMD Controller
2. Heat Exchanger for Electrical Cabinet
3. Three-Color Indicator Light
4. Quartz Work Lamp /Fluorescent Light
5. RS-232 Interface
6. 24 Tools Arm Type (ATC)
7. Oil Circulating Cooling System for Spindle
8. Spindle Air Blast
9. Automatic Lubrication System
10. Full Enclosed Splash Guard
11. Rigid Tapping
12. Automatic Power Off
13. Tool Box W/ Leveling Bolts & Pads
14. Screw Type Chip Auger 1 pc in Front
15. Operation Manual & Maintenance Manual
16. Forceful Cleaning Spray-Gun
17. Transformer (Exclude India, USA and Canada)

## Optional Accessories:

1. Fanuc 31iMB
2. Spindle Motor 11/15KW (15/20HP)
3. 16 Tools Armless Type (ATC)
4. 10,000 RPM Belt Driven Spindle
5. 10,000/12,000/15,000 RPM Direct Driven Spindle
6. Chip Conveyor
7. Coolant Thru Tool
8. Heidenhein Optical Linear Scale
9. Coolant Through Spindle A Type 20 Bars or 70 Bars
10. Automatic Tool Length Measurement System
11. Rotary Table (4th Axis)
12. Refrigeration Unit for Electrical Cabinet
13. Data Server
14. AI contour Control
15. High Speed Processing (31iMB only)





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