

COMPACT SIZE

**MAXIMUM 5-AXIS
PERFORMANCE**

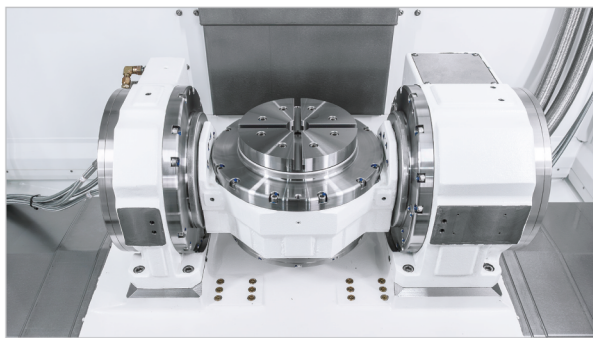
**MEGA
20VT**

40
Taper

4+1 / 5
Axis

40
Tools

1.2 Sec
T to T



- High acceleration and high torque.
- High accuracy and zero backlash torque motor.
- Rigid and symmetrical mechanical design.
- High positioning accuracy, suitable for high-accuracy simultaneous machining.
- Built-in powerful **hydraulic clamping system**.
- **4+1 axis** and **5-axis simultaneous** machining.

ITEM		MEGA 20VT
X Axis		420 mm (16.5")
Y Axis		510 mm (20")
Z Axis		451 mm (17.8")
A Axis (Tilting Axis)		40° ~ -120°
C Axis (Rotary Axis)		360°
Table Size / Max. Load		Ø200 mm / 50 kg (Ø7.9" / 110 lb)
Rapid Feedrate	X / Y / Z Axis	48,000 mm/min (1,889 ipm)
	A / C Axis	150 rpm / 200 rpm
Max. Torque	A / C Axis	188 Nm / 81 Nm (139 ft-lb / 60 ft-lb)
Clamping Torque (20 bar)	A / C Axis	1,400 Nm / 700 Nm (1,033 ft-lb / 516 ft-lb)
	15,000 rpm	31 kW / 141 Nm (41 HP / 104 ft-lb)
Spindle	20,000 rpm ^(*)	35 kW / 119 Nm (47 HP / 88 ft-lb)
	24,000 rpm ^(*)	35 kW / 119 Nm (47 HP / 88 ft-lb)
	30,000 rpm ^(*)	18 kW / 25 Nm (24 HP / 18 ft-lb)
Linear Scales ^(*) / Rotary Encoder		Renishaw FORTiS™ / Renishaw RD23W
Foot Print Size (W x D)		2,479 x 2,293 mm (97.6" x 90.3")
Machine Height (H)		2,975 mm (117.1")
Machine Net Weight		6,350 kg (13,999 lb)

Note: specifications subject to change without notice.

^(*) Optional equipment

MEGA SERIES STANDARD EQUIPMENT

BUILT-IN SPINDLE

(Dual Contact)



ITEM	STANDARD		OPTIONAL	
Taper	BT40 / HSK-63A	BT40 / HSK-63A	HSK-63A	BT30 / HSK-40A
Speed	15,000 rpm	20,000 rpm	24,000 rpm	30,000 rpm
Power	31 kW (41 HP)	35 kW (47 HP)	35 kW (47 HP)	18 kW (24 HP)
Torque	141 Nm (104 ft-lb)	119 Nm (88 ft-lb)	119 Nm (88 ft-lb)	25 Nm (18 ft-lb)

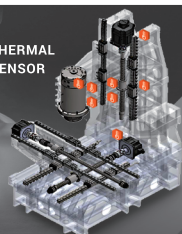
DYPEC®

DYNAMIC PREDICTIVE
ERROR COMPENSATION

THERMAL
SENSOR



Thermal
Compensation
Resolution 0.1 µm



MICRO DYNAMICS HMI

Micro Dynamics Features
Mitsubishi CNC M830VW /
CNC M850VW (opt) Control.

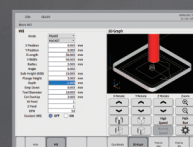
- 5,400 block look ahead.
- 60 GB data server.
- Tilted work planes (G68.2)
- TCP control.



PART SETUP



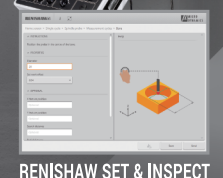
TOOL SETUP



MICRO MILL®



MAGAZINE MONITOR

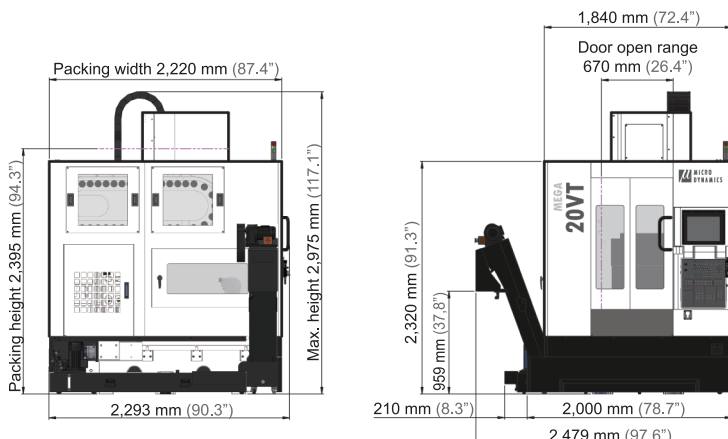


RENISHAW SET & INSPECT

SPECIFICATIONS

MODEL		MEGA 20VT			
TRAVEL					
X Axis	420 mm (16.5")				
Y Axis	510 mm (20")				
Z Axis	451 mm (17.8")				
A Axis (Tilting Axis)	40° ~ -120°				
C Axis (Rotary Axis)	360°				
Spindle Nose to Table Surface	50 ~ 501 mm (1.97" ~ 19.7")				
Spindle Center to Column Front	550 mm (21.7")				
TABLE					
Table Size	Ø200 mm (Ø7.9")				
Min. Table Index Unit	0.001°				
Max. Table Load	50 kg (110 lb)				
Table Height (from the Ground)	1,100 mm (43.3")				
T-slot Width	12 mm H8 (0.47" H8)				
Continuous Torque	Tilting	65 Nm (48 ft-lb)	Rotary	28 Nm (21 ft-lb)	
Max. Torque		188 Nm (139 ft-lb)		81 Nm (60 ft-lb)	
SPINDLE					
Spindle Taper	40 Taper Dual Contact (BBT / CAT / DIN / HSK-63A)				
I.D. of Spindle Bearing	Ø70 mm (Ø2.75")				
Spindle Speed	50 ~ 15,000 rpm				
Max. Power	31 kW (41 HP)				
Max. Cutting Torque	141 Nm (104 ft-lb)				
Clamping Force	1,200 kgf (2,646 lbf)				
Max. Speed for Rigid Tapping	6,000 rpm				
FEEDRATE					
Rapid Feedrate - X / Y / Z Axis	48,000 mm/min (1,889 ipm)				
Rapid Feedrate - A Axis (Tilting Axis)	150 rpm				
Rapid Feedrate - C Axis (Rotary Axis)	200 rpm				
Cutting Feedrate	20,000 mm/min (787 ipm)				
ATC					
Magazine Capacity	40T				
Tool Selection	Bi-Direction / Random				
Tool Shank Type	JIS6339 (BT40) / DIN69871 (DIN40) / ANSI B5.50 (CAT40)				
Pull Stud Type	JIS6339 / DIN69872 / CAT40DIN				
Max. Tool Diameter x Length	Ø75 x 300 mm (Ø3" x 11.8")				
Without Adjacent Tool	Ø150 mm (Ø5.9")				
Max. Tool Weight	7 kg (15.4 lb)				
PERIPHERAL					
Power Consumption (220V/3PH)	30 KVA				
Pneumatic Supply	300 L/min (10.6 cfm) [0.6 MPa, ANR]				
Cutting Coolant Pump Motor	1.1 kW (1.5 HP)				
Base Wash Pump Motor	1.1 kW (1.5 HP)				
CTS Pump Motor (opt)	3 kW (4 HP)				
Coolant Tank Capacity	300 L (79 gal)				
Foot Print Size (W x D)	2,479 x 2,293 mm (97.6" x 90.3")				
Machine Height (H)	2,975 mm (117.1")				
Packing Size (W x D x H)	3,200 x 2,300 x 2,550 mm (126" x 90.6" x 100.4")				
Machine Net Weight	5,780 kg (12,743 lb)				
Machine Gross Weight	6,020 kg (13,272 lb)				
ACCURACY					
Positioning Accuracy / Full Stroke	0.005 mm (0.0002") [VDI 3441]				
Repeatability Accuracy	±0.0025 mm (±0.0001")				

MACHINE DIMENSIONS



Note: specifications subject to change without notice.

EQUIPMENT

STANDARD EQUIPMENT

- 15,000 rpm Built-In Spindle (40 Taper)
- DYPEC® Thermal Compensation
- A / C Axis Rotary Scale (Renishaw)
- Mitsubishi CNC 830VW (4+1 Axis)
- 15" Touchscreen Display
- Micro Dynamics® HMI
- 8 M-Codes (M20 ~ M27)
- Automatic Power Off
- 40 Tools(*)
- ATC Magazine Panel
- Tool Magazine LED
- CTS Preparation (without Rotary Union)
- Coolant Gun & Air Gun
- Scraper Type Chip Conveyor
- Twin Chip Augers
- Full Chip Enclosure
- Safety Door
- Manuals / Tool Kit / Foundation Kit

OPTIONAL EQUIPMENT

- 20,000 rpm Built-In Spindle (40 Taper)
- 24,000 rpm Built-In Spindle (HSK-63A)
- 30,000 rpm Built-In Spindle (30 Taper / HSK-40A)
- X / Y / Z Axis Linear Scale (Renishaw)
- Mitsubishi CNC 850VW (5-Axis)
- 19" Touchscreen Display
- Tool / Workpiece Measurement
- Additional 8 M-Codes (M130 ~ M137)
- 60 / 90 / 120 Tools(**)
- Servo Tool Magazine(*)
- ATC Auto Door(*)
- Metal Coolant Ring
- Spinning Window
- 20-bar / 40-bar / 70-bar CTS (290 psi / 580 psi / 1,000 psi)
- Chain Type Chip Conveyor
- Drum Type Chip Conveyor
- Rear Type Chip Conveyor(*)
- Disc Type Oil Skimmer
- Oil Mist Collector
- 250 mm (9.8") Column Riser(**)
- CE-Conformity Package
- Transformer
- Automatic Door (Pneumatic / Servo)

(*) Factory order (**) Standard is 150 mm (5.9")



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Website



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