

**NONSTOP
PRODUCTION**
WORK SMARTER

**MEGA
20VAPC**

40
Taper

3
Axis

40
Tools

1.2 Sec
T to T

Micro Dynamics Vertical Machining Center Line opens a new era in multi-purpose and versatile machining centers. Compact, durable, powerful, strong and accurate, the MEGA/TERA Series start a revolution in the market: the smallest C-frame machines provide powerful and precise results for manufacturers of dies and molds, aerospace, automotive, semi-conductor, job shops and general machine sectors.

Dual pallet changer MEGA 20VAPC is designed for high production. The servo driven pallet changer switches tables in 8.5 sec. With the APC recovery function in the HMI the operator can easily perform maintenance of the pallet changer.

AUTOMATION AND MULTI-AXIS

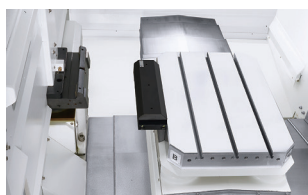
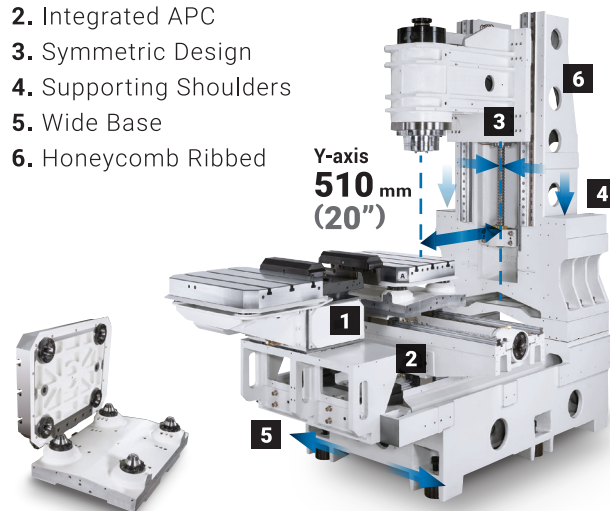


Table Size
560 x 400 mm (22" x 15.7")



Pressurized Cones
Repeatability 0.004 mm
(0.00016")

1. Servo Driven Pallet Changer
2. Integrated APC
3. Symmetric Design
4. Supporting Shoulders
5. Wide Base
6. Honeycomb Ribbed



MEGA SERIES STANDARD EQUIPMENT

BUILT-IN SPINDLE



Item	STANDARD	OPTION	
Taper	40 Taper Dual Contact (BBT / CAT / DIN / HSK-63A)		
Speed	15,000 rpm	20,000 rpm	24,000 rpm ^(*)
Power	31 kW (41 HP)	35 kW (47 HP)	35 kW (47 HP)
Torque	141 Nm (104 ft-lb)	119 Nm (88 ft-lb)	119 Nm (88 ft-lb)

(*) Standard HSK-63A

MICRO DYNAMICS HMI

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

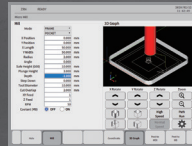
- 5,400 block look ahead.
- 60 GB data server.
- Tilted work planes (G68.2)
- TCP control.



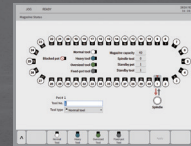
PART SETUP



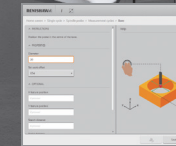
TOOL SETUP



MICRO MILL®

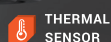


MAGAZINE MONITOR

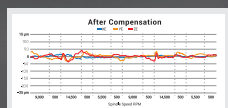


RENISHAW SET & INSPECT

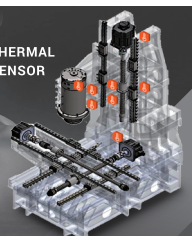
DYPEC® DYNAMIC PREDICTIVE ERROR COMPENSATION



THERMAL
SENSOR



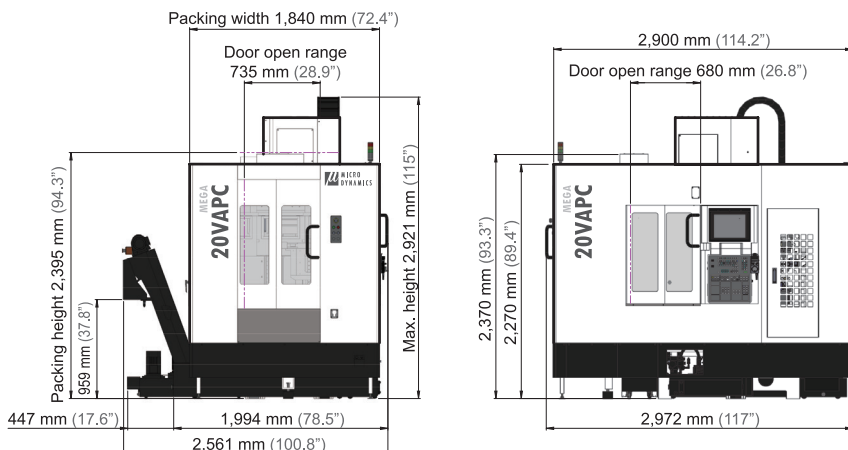
Thermal
Compensation
Resolution 0.1 μm



SPECIFICATIONS

MODEL	MEGA 20VAPC
TRAVEL	
X Axis	600 mm (24")
Y Axis	510 mm (20")
Z Axis	510 mm (20")
Spindle Nose to Table Surface	90 ~ 610 mm (3.5" ~ 23.6")
Spindle Center to Column Front	550 mm (21.7")
TABLE	
Table Size	560 x 400 mm (22" x 15.7")
Max. Table Load	200 kg x 2 (441 lb x 2)
Table Height (from the Ground)	950 mm (37.4")
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 Axis	52,000 mm/min (2,047 ipm)
Rapid Feedrate - Y Axis	52,000 mm/min (2,047 ipm)
Rapid Feedrate - Z Axis	48,000 mm/min (1,889 ipm)
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 240 mm (Ø3" x 9.4")
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)	2,561 x 2,972 mm (100.8" x 117")
Machine Height (H)	2,921 mm (115")
Packing Size (W x D x H)	3,200 x 2,200 x 2,550 mm (126" x 86.6" x 100.4")
Machine Net Weight	6,400 kg (14,109 lb)
Machine Gross Weight	6,710 kg (14,793 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
- Mitsubishi CNC 830VW
- 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)
- X / Y / Z Axis Linear Scale (Renishaw)
- Mitsubishi CNC 850VW
- 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
- 150 mm / 250 mm Column Riser(**)
- CE-Conformity Package
- Transformer
- Automatic Door (Pneumatic / Servo)

(*) Factory order (**) Standard is 100 mm (3.9")

MICRO DYNAMICS
Precision Performance

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Website



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