

**EXPANDED
CAPACITY**
UNMATCHED ACCURACY

**TERA
50V/50**



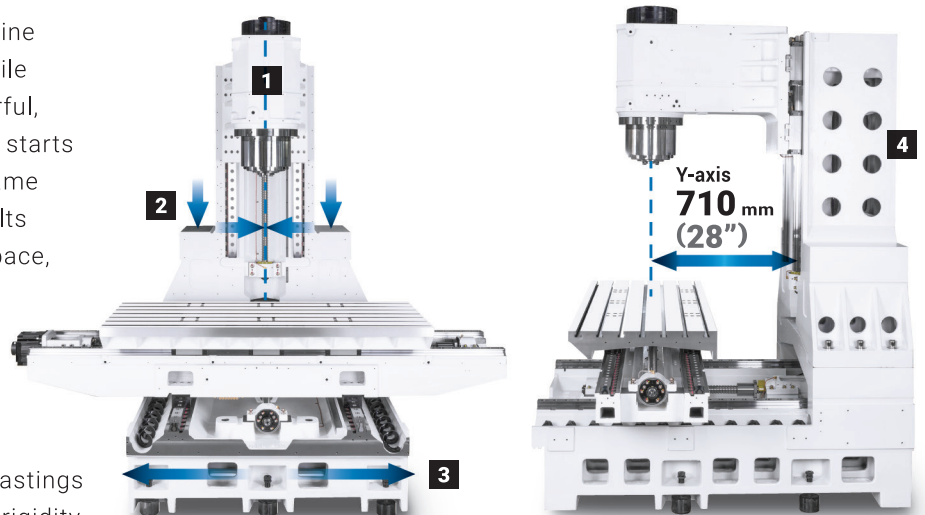
50
Taper

3
Axis

32
Tools

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 starts 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.

The heavily ribbed structure is made of FC300 Meehanite® casting that has been FEA analyzed for strength and stability. All castings are designed to reach the maximum level of rigidity for the best machining performance.



1. Symmetric Design
2. Supporting Shoulders

3. Wide Base
4. Honeycomb Ribbed

MEGA SERIES STANDARD EQUIPMENT

BUILT-IN SPINDLE

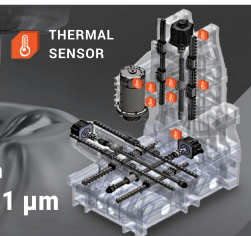
Taper	50 Taper Dual Contact (BBT / CAT / DIN / HSK-100A)
Speed	12,000 rpm
Power	34 kW (45 HP)
Torque	570 Nm (420 ft-lb)



DYPEC® DYNAMIC PREDICTIVE ERROR COMPENSATION



Thermal
Compensation
Resolution 0.1 µm



MICRO DYNAMICS HMI

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

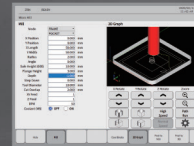
- 5,400 block look ahead.
- 60 GB data server.
- Tilted work planes (G68.2)
- TCP control.



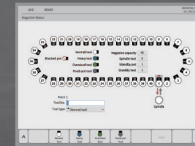
PART SETUP



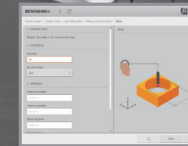
TOOL SETUP



MICRO MILL®



MAGAZINE MONITOR

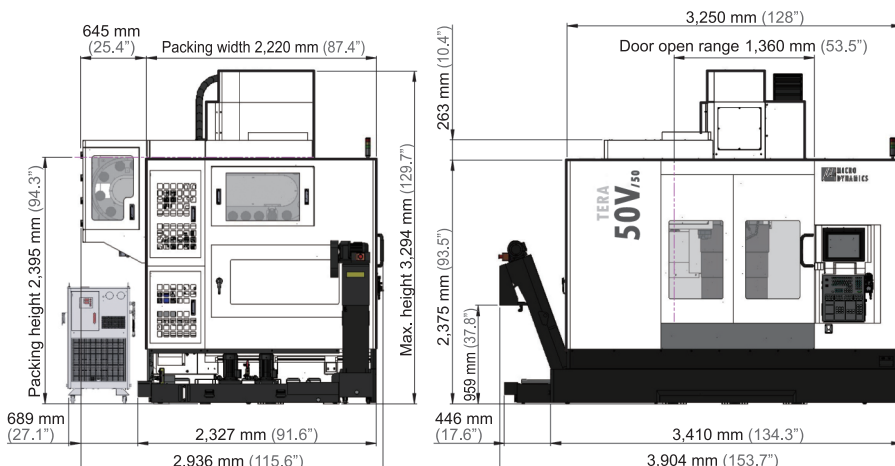


RENISHAW SET & INSPECT

SPECIFICATIONS

MODEL	TERA 50V ⁵⁰
TRAVEL	
X Axis	1,270 mm (50")
Y Axis	710 mm (28")
Z Axis	635 mm (25")
Spindle Nose to Table Surface	150 ~ 785 mm (5.9" ~ 30.9")
Spindle Center to Column Front	733.5 mm (28.9")
TABLE	
Table Size	1,420 x 700 mm (55.9" x 27.6")
Max. Table Load	1,500 kg (3,307 lb)
Table Height (from the Ground)	900 mm (35.4")
SPINDLE	
Spindle Taper	50 Taper Dual Contact (BBT / CAT / DIN / HSK-100A)
I.D. of Spindle Bearing	Ø100 mm (Ø3.93")
Spindle Speed	50 ~ 12,000 rpm
Max. Power	34 kW (45 HP)
Max. Cutting Torque	570 Nm (420 ft-lb)
Clamping Force	2,100 kgf (4,630 lbf)
Max. Speed for Rigid Tapping	3,000 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	32,000 mm/min (1,260 ipm)
Cutting Feedrate	20,000 mm/min (787 ipm)
ATC	
Magazine Capacity	32T
Tool Selection	Bi-Direction / Random
Tool Shank Type	JIS6339 (BT50) / DIN69871 (DIN50) / ANSI B5.50 (CAT50)
Pull Stud Type	JIS6339 / DIN69872 / CAT50DIN
Max. Tool Diameter x Length	Ø125 x 350 mm (Ø5" x 13.8")
Without Adjacent Tool	Ø229 mm (Ø9")
Max. Tool Weight	15 kg (33.1 lb)
PERIPHERAL	
Power Consumption (220V/3PH)	55 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	350 L (92 gal)
Foot Print Size (W x D)	3,904 x 2,936 mm (153.7" x 115.6")
Machine Height (H)	3,294 mm (129.7")
Packing Size (W x D x H)	4,100 x 2,310 x 2,550 mm (161.4" x 90.9" x 100.4")
Machine Net Weight	9,600 kg (21,164 lb)
Machine Gross Weight	9,890 kg (21,803 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

- 12,000 rpm Built-In Spindle (50 Taper)
- DYPEC® Thermal Compensation
- Mitsubishi CNC 830VW
- 15" Touchscreen Display
- Micro Dynamics® HMI
- 8 M-Codes (M20 ~ M27)
- Automatic Power Off
- 32 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

- X / Y / Z Axis Linear Scale (Renishaw)
- Mitsubishi CNC 850VW
- 19" Touchscreen Display
- Tool / Workpiece Measurement
- Additional 8 M-Codes (M130 ~ M137)
- 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
- CE-Conformity Package
- Transformer
- Automatic Door (Pneumatic / Servo)

(*) Factory order

MICRO DYNAMICS
Precision Performance

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Website



Youtube



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