

**EXPANDED
CAPACITY**
UNMATCHED ACCURACY

**TERA
50V**

40
Taper

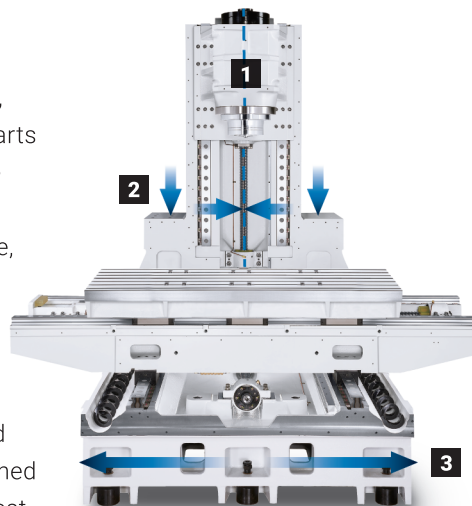
3
Axis

40
Tools

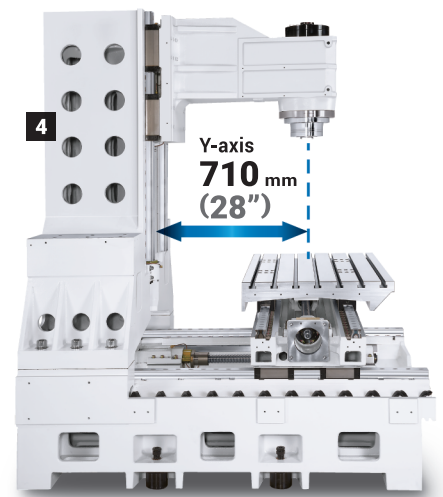
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T to T

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 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



Item	STANDARD	OPTION	
Taper	40 Taper Dual Contact (BBT / CAT / DIN / HSK-63A)		
Speed	15,000 rpm	20,000 rpm	24,000 rpm ^(a)
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

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.

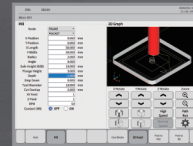
- 5,400 block look ahead.
- 60 GB data server.
- Tilted work planes (G68.2)
- TCP control.



PART SETUP



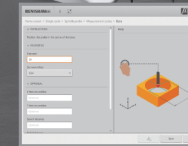
TOOL SETUP



MICRO MILL®



MAGAZINE MONITOR

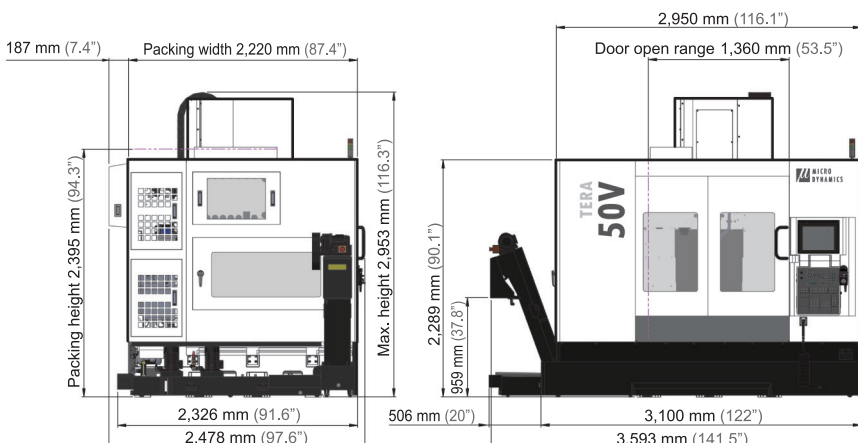


RENISHAW SET & INSPECT

SPECIFICATIONS

MODEL	TERA 50V
TRAVEL	
X Axis	1,270 mm (50")
Y Axis	710 mm (28")
Z Axis	635 mm (25")
Spindle Nose to Table Surface	100 ~ 735 mm (3.9" ~ 29")
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	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 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)	40 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	400 L (106 gal)
Foot Print Size (W x D)	3,606 x 2,478 mm (142" x 97.6")
Machine Height (H)	2,953 mm (116.3")
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	8,600 kg (18,960 lb)
Machine Gross Weight	8,890 kg (19,599 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
- 120 mm (4.7") Column Riser
- CE-Conformity Package
- Transformer
- Automatic Door (Pneumatic / Servo)

(*) Factory order

MICRO DYNAMICS
Precision Performance

sales@microdynamicsfa.com
www.microdynamicsfa.com



Website



Youtube



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