

EXPANDED CAPACITY

UNMATCHED ACCURACY

TERA 50V/50

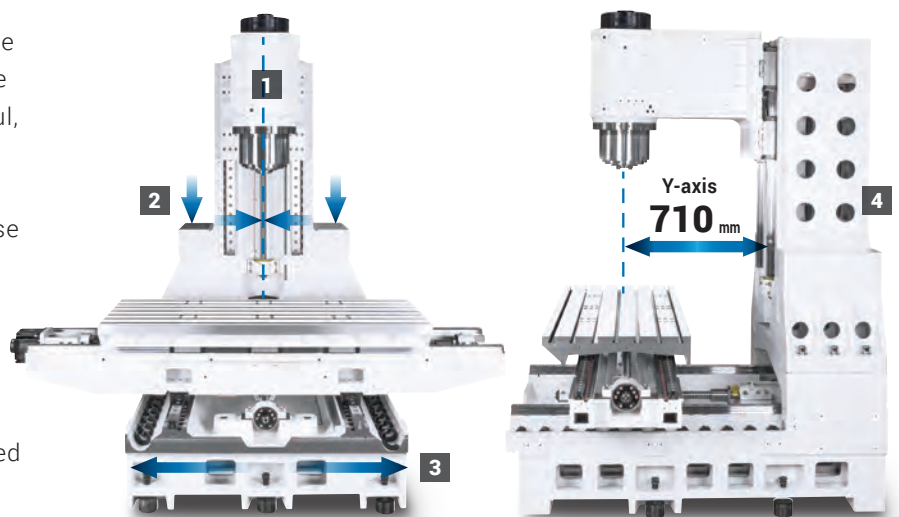
#50

3 AXIS

32T

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

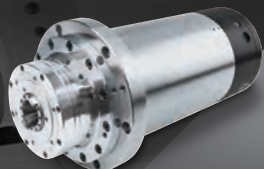
3. Wide Base

4. Honeycomb Ribbed

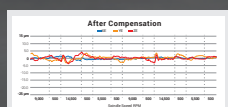
MEGA / TERA SERIES STANDARD EQUIPMENT

BUILT-IN SPINDLE

- Speed: **15,000 rpm**
- Power: **31 kW**
- Torque: **141 Nm**



DYPEC® DYNAMIC PREDICTIVE ERROR COMPENSATION



Thermal
Compensation
±5µm



MICRO DYNAMICS HMI



PART SETUP



TOOL SETUP



MICRO MILL®



MAGAZINE MONITOR



COLLISION DETECTION

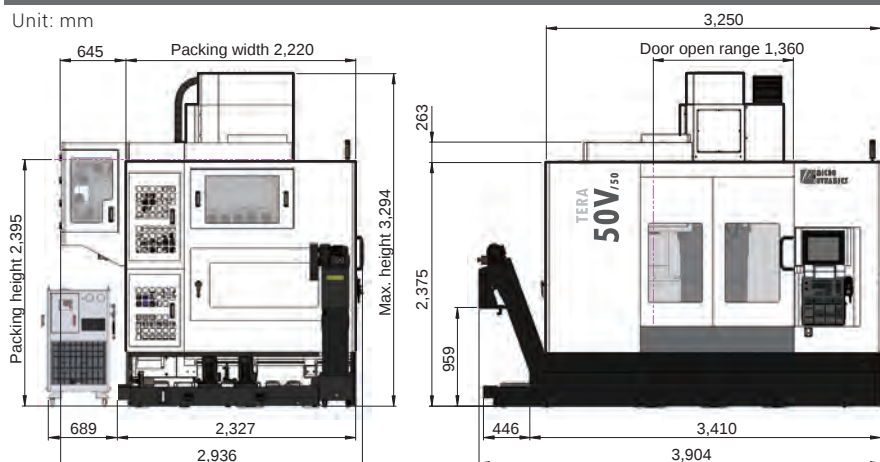
SPECIFICATIONS

MODEL	TERA 50V
TRAVEL	
X Axis	1,270 mm
Y Axis	710 mm
Z Axis	635 mm
Spindle Nose to Table Surface	150 ~ 785 mm
Spindle Center to Column Front	733.5 mm
TABLE	
Table Size	1,420 × 700 mm
Max. Table Load	1,500 kg
Table Height (from the Ground)	900 mm
SPINDLE	
Spindle Taper	50 Taper Dual Contact (BBT / CAT / DIN / HSK-63A)
I.D. of Spindle Bearing	ø100/80 mm
Spindle Speed	50 ~ 12,000 rpm
Max. Power	31 kW
Max. Cutting Torque	4570 Nm
Clamping Force	2,100 kgf
Max. Speed for Rigid Tapping	3,000 rpm
FEEDRATE	
Rapid Feedrate - X Axis	52,000 mm/min
Rapid Feedrate - Y Axis	52,000 mm/min
Rapid Feedrate - Z Axis	32,000 mm/min
Cutting Feedrate	20,000 mm/min
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 × 350 mm
Without Adjacent Tool	ø229 mm
Max. Tool Weight	15 kg
PERIPHERAL	
Power Consumption (220V/3PH)	55 KVA
Pneumatic Supply	300 (0.6 MPa) L/min (ANR)
Cutting Coolant Pump Motor	1.1 kW
Base Wash Pump Motor	1.1 kW
CTS Pump Motor (opt)	3 kW
Coolant Tank Capacity	350 L
Foot Print Size (W x D)	3,904 x 2,936 mm
Machine Height (H)	3,294 mm
Packing Size (W x D x H)	4,100 x 2,310 x 2,550 mm
Machine Net Weight	9,600 kg
Machine Gross Weight	9,890 kg
ACCURACY	
Positioning Accuracy / Full Stroke	0.005 (VDI 3441) mm
Repeatability Accuracy	±0.0025 mm

Note: Specifications subject to change without notice.

MACHINE DIMENSIONS

Unit: mm



EQUIPMENT

STANDARD EQUIPMENT

- 12,000 rpm Built-In Spindle
- 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
- Mitsubishi CNC 850VW
- 19" Touchscreen Display
- Tool Measurement / Workpiece Measurement
- Additional 8 M-Codes (M130 ~ M137)
- Servo Tool Magazine(*)
- ATC Auto Door(*)
- 4th / 5th Axis Pre-wiring
- Metal Coolant Ring
- Spinning Window
- 20-Bar (290 psi) / 40-Bar (580 psi) / 70-Bar (1,000 psi) CTS
- 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

(**) TERA 50V/50 standard is 150 mm.

MICRO DYNAMICS
Precision Performance

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Website

Youtube

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