

MULTI-SURFACE MACHINING

MAXIMUM FLEXIBILITY

TERA 50VT

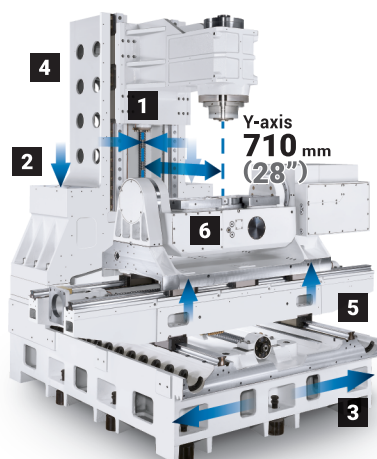


40
Taper

3
Axis

40
Tools

1.2 Sec
T to T



The TERA 50VT is a five-axis trunnion (4+1) table machine with hydraulic brakes. The design allows the user to load three vises or can be used as a 720 x 400 mm (28.3" x 15.7") work table with a 320 mm (12.6") diameter faceplate.

1. Symmetric Design
2. Supporting Shoulders
3. Wide Base
4. Honeycomb Ribbed

5. Full Stroke Support
6. Trunnion Table Faceplate option:
Ø400 mm / Ø500 mm / Ø630 mm
(Ø15.7" / Ø19.7" / Ø24.8")

COMPLETE PROCESS IN 1 CYCLE

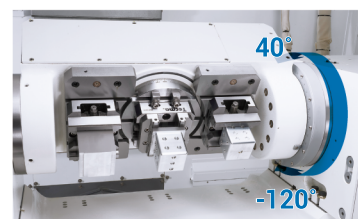


Machine 6 Sides In One Load

- Left vise: cut dove tail.
- Central vise: 5-side machining.
- Right vise: finish dove tail.



Rotary axis motion ranges



Tilting axis motion ranges

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.

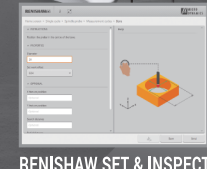
- 5,400 block look ahead.
- 60 GB data server.
- Tilted work planes (G68.2)
- TCP control.



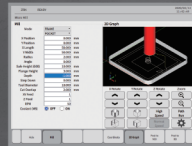
PART SETUP



TOOL SETUP



RENISHAW SET & INSPECT



MICRO MILL®



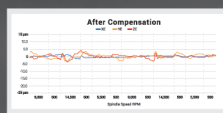
MAGAZINE MONITOR

DYPEC®

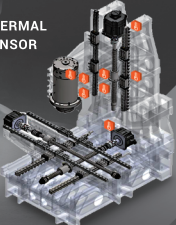
DYNAMIC PREDICTIVE
ERROR COMPENSATION



THERMAL
SENSOR



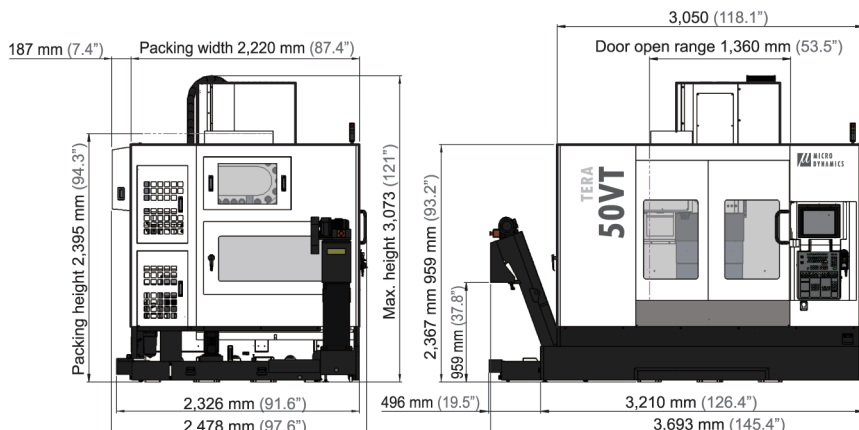
Thermal
Compensation
Resolution 0.1 µm



SPECIFICATIONS

MODEL	TERA 50VT
TRAVEL	
X Axis	970 mm (38")
Y Axis	710 mm (28") / 650 mm (25.4") at 90°
Z Axis	500 mm (19.7")
A Axis (Tilting Axis)	40° ~ -120°
C Axis (Rotary Axis)	360°
Spindle Nose to Table Surface	50 ~ 550 mm (1.97" ~ 21.7")
Spindle Center to Column Front	733.5 mm (28.9")
TABLE	
Table Size	Ø320 mm [720 x 400 mm] (Ø12.6" [28.3" x 15.7"])
Min. Table Index Unit	0.001°
Max. Table Load	300 kg (661 lb)
Table Height (from the Ground)	1,205 mm (47.4")
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	48,000 mm/min (1,889 ipm)
Rapid Feedrate - Y Axis	48,000 mm/min (1,889 ipm)
Rapid Feedrate - Z Axis	48,000 mm/min (1,889 ipm)
Rapid Feedrate - A (Tilting) Axis	33 rpm
Rapid Feedrate - C (Rotary) Axis	66 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)	50 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)	3,693 x 2,478 mm (145.4" x 97.6")
Machine Height (H)	3,073 mm (121")
Packing Size (W x D x H)	3,400 x 2,300 x 2,550 mm (133.9" x 90.6" x 100.4")
Machine Net Weight	9,560 kg (21,076 lb)
Machine Gross Weight	9,910 kg (21,848 lb)
ACCURACY	
Positioning Accuracy / Full Stroke	0.005 mm (0.0002") [VDI 3441]
Repeatability Accuracy	±0.0025 mm (±0.0001")

MACHINE DIMENSIONS



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)
- A / C Axis Rotary 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
- Ø400 mm / Ø500 mm / Ø630 mm Faceplate (Ø15.7" / Ø19.7" / Ø24.8")
- CE-Conformity Package
- Transformer
- Automatic Door (Pneumatic / Servo)

(*) Factory order

MICRO DYNAMICS
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Website

Youtube

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MD202607 Metric / SAE

Note: Specifications subject to change without notice.