

WIDER Y-AXIS TRAVEL

MORE APPLICATIONS

TERA 40V



40
Taper

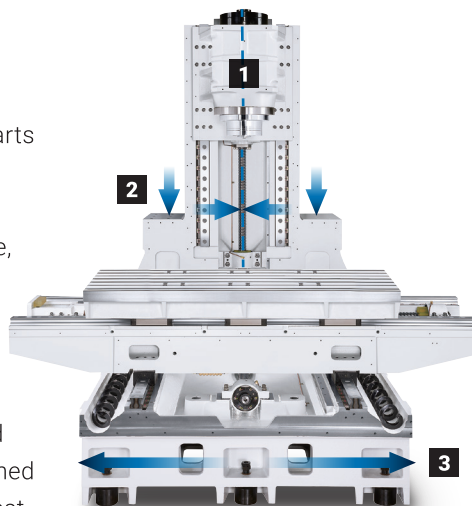
3
Axis

40
Tools

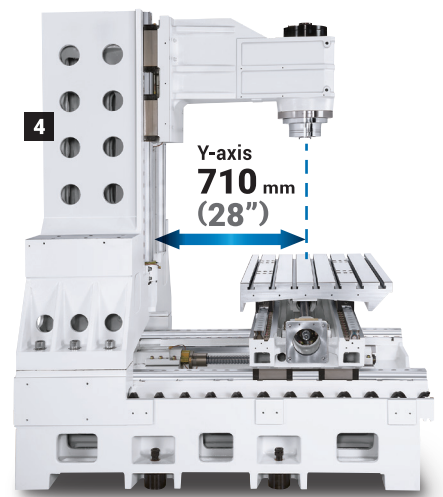
1.2 Sec
T to T

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 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

TERA 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

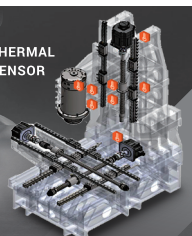
DYPEC® DYNAMIC PREDICTIVE ERROR COMPENSATION



Thermal
Sensor



Thermal
Compensation
Resolution 0.1 μ m



MICRO DYNAMICS HMI

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

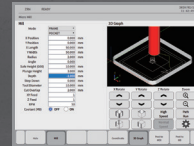
- 5,400 block look ahead.
- 60 GB data server.
- Tilted work planes (G68.2)
- TCP control.



PART SETUP



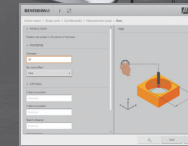
TOOL SETUP



MICRO MILL®



MAGAZINE MONITOR

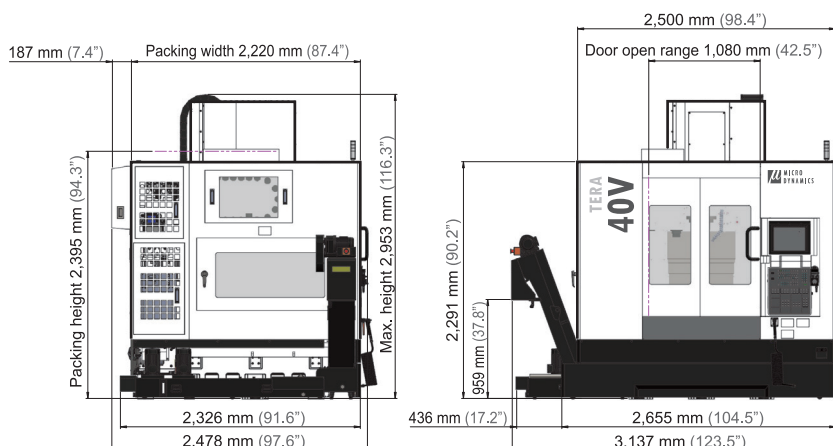


RENISHAW SET & INSPECT

SPECIFICATIONS

MODEL	TERA 40V
TRAVEL	
X Axis	1,020 mm (40")
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	1,120 x 700 mm (44.1" 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 260 mm (Ø3" x 10.2")
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	300 L (79 gal)
Foot Print Size (W x D)	3,137 x 2,478 mm (123.5" x 97.6")
Machine Height (H)	2,953 mm (116.3")
Packing Size (W x D x H)	3,400 x 2,310 x 2,550 mm (133.9" x 90.9" x 100.4")
Machine Net Weight	8,040 kg (17,725 lb)
Machine Gross Weight	8,280 kg (18,254 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)
- 30 / 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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