

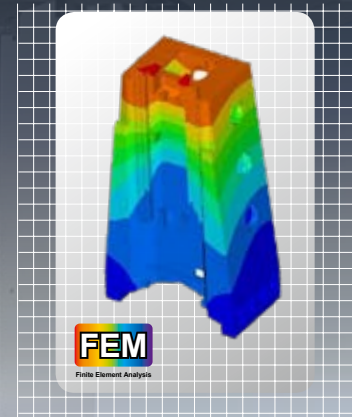
FV50T

HIGH SPEED HIGH PERFORMANCE DRILLING & TAPPING CENTER



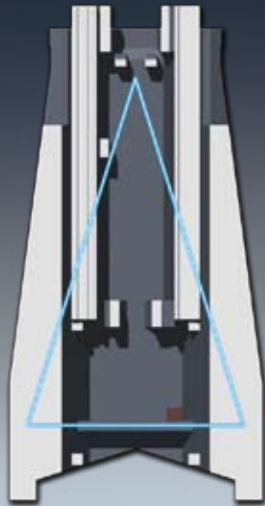
FV50T

YCM FV50T high speed high performance drilling & tapping center is designed with versatility to meet today's diverse requirements, especially in automotive and electronic industry. As a combination of high speed, high precision and ultimate efficiency, FV50T will be exactly the best investment you've ever made.

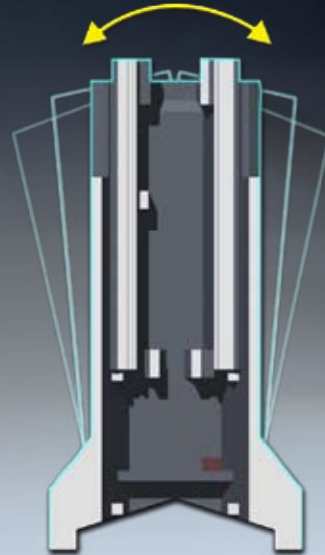


High Rigidity Body Structure

- Delta structure efficiently absorbs the force and elevates machine rigidity and accuracy.



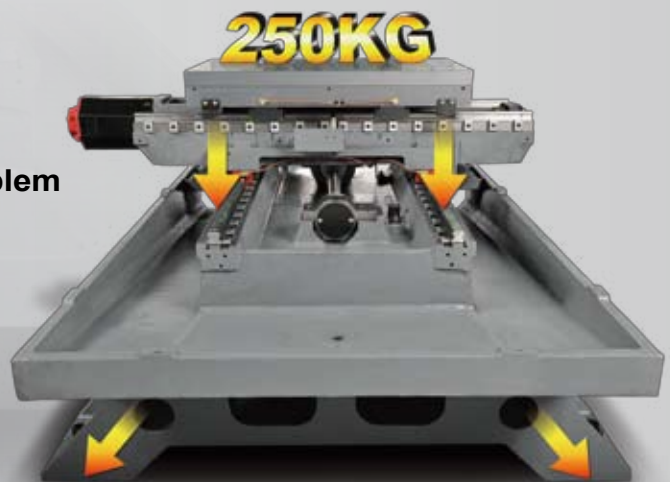
FV50T



Normal Design

Extra Wide Base

- Extra wide base strongly supports the headstock and reduces overhang problem to achieve flawless dynamic accuracy.



FV50T		ACCURACY	
Standard	ISO 10791-4	JIS B 6338	
Tolerances			
Positioning A	0.010mm 0.0004"	0.005/300mm 0.00020"/11.8"	
Repeatability R	0.007mm 0.00027"	±0.002mm ±0.00008"	

VDI/DGQ3441 is equivalent to A of ISO10791-4, and PS is equivalent to R.
All values shown above are measured for the machine in good air-conditioned environments.



Tool to Tool
1.5sec.

Reliable ATC System

- Tool changing time (T-T): 1.5sec.
- Fast and reliable ATC system greatly reduces non-cutting time, leading to high productivity.

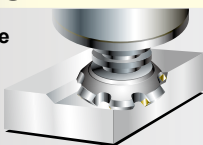


Cutting Tests

FACE MILLING Aluminum

Material Removal Rate

1,000
cc/min.

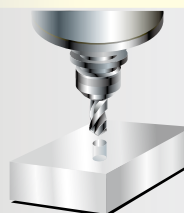


Tool ø50FM
Spindle Speed 1,500rpm
Feedrate 10,000mm/min.
Width of Cut 40mm
Depth of Cut 2.5mm

DRILLING Aluminum

Cutter Diameter

ø32
mm

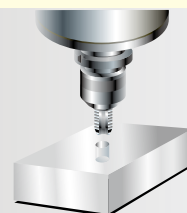


Tool ø32mm (U drill)
Spindle Speed 700rpm
Feedrate 210mm/min.

TAPPING S45C Steel

TAP

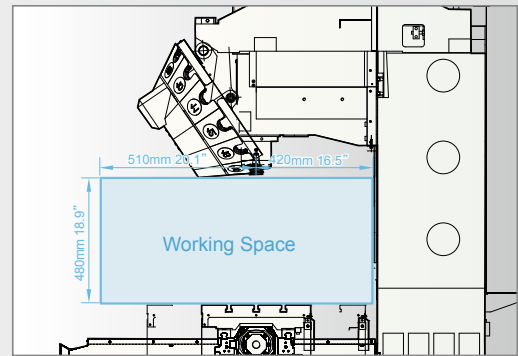
M20



Tool M20
Spindle Speed 240rpm
Feedrate 600mm/min.
Depth of Cut 25mm

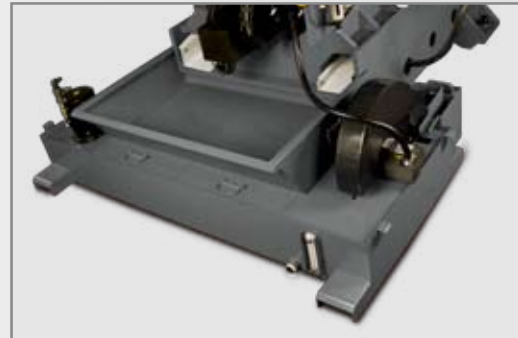
Flexible Working Space

- Extra large working space, capable of fitting 4th axis rotary table or fixture to satisfy different job requirements.



Efficient Chips Removal Design

- Slanted bed structure design with extra wide coolant tank prevents chips from accumulating inside of machine.



Compact Footprint

- FV50T owns the smallest footprint in its class of 1,600mm wide and 2,235mm long (including the coolant tank).

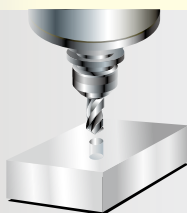


DRILLING

S45C Steel

Cutter Diameter

ø26.5
mm



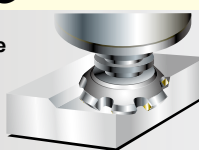
Tool ø26.5mm
Spindle Speed 300rpm
Feedrate 60mm/min.
Depth of Cut 30mm

FACE MILLING

S45C Steel

Material Removal Rate

150
cc/min.



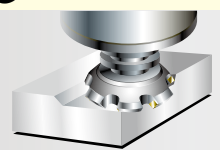
Tool ø50FM
Spindle Speed 1,500rpm
Feedrate 1,875mm/min.
Width of Cut 40mm
Depth of Cut 2mm

FACE MILLING

S45C Steel

Depth of Cut

4
mm



Tool ø50FM
Spindle Speed 1,200rpm
Feedrate 600mm/min.
Width of Cut 40mm
Material Removal Rate 96cc/min.

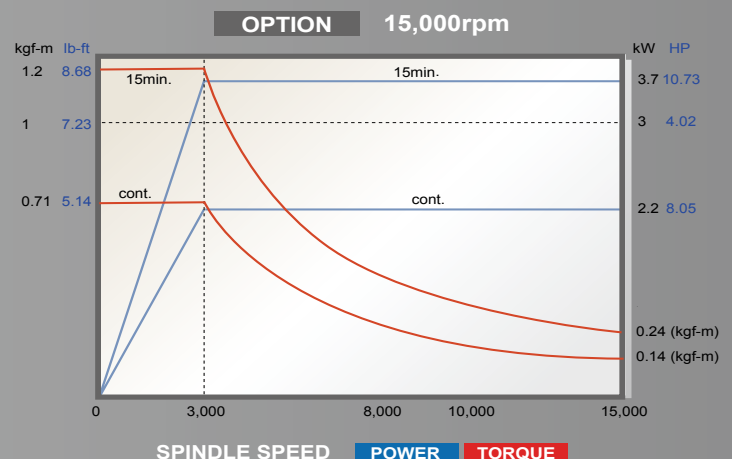
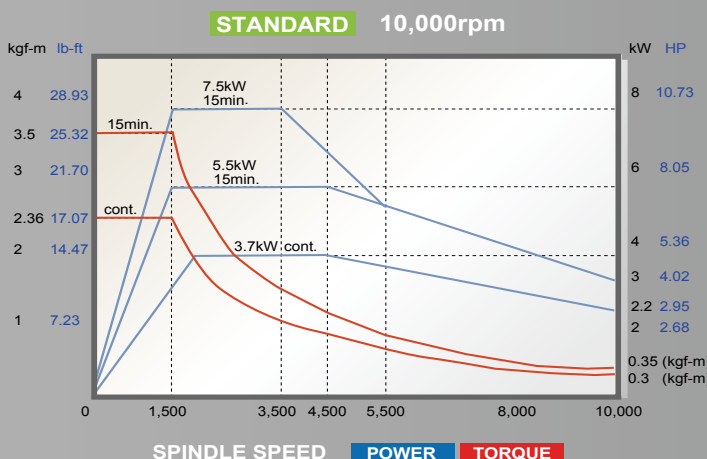
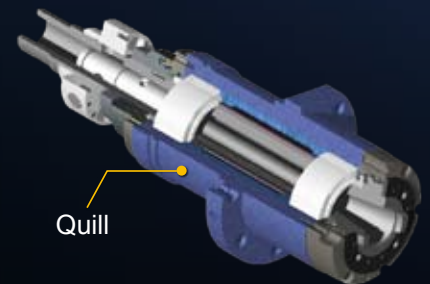


UNIQUE YCM MADE IDD SPINDLE

- 10,000rpm YCM made direct drive spindle deploys high precision ceramic ball bearings with low centrifugal force, low vibration and very little heat growth, to assure the optimal cutting performance under high speed machining.
- Reliable helical disc spring design prolongs the spindle life.

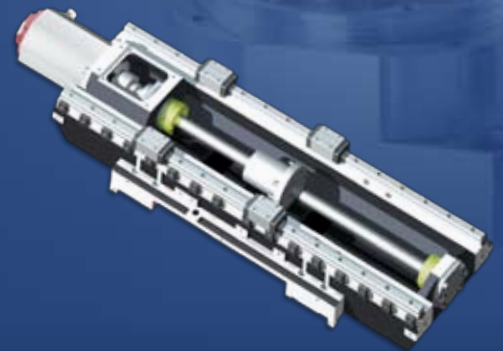
EASY MAINTENANCE DESIGN

- Quill spindle design achieves easy maintenance absolutely saving users' time.
- The tool magazine is designed with easy-to-dismantle feature.



DIRECT DRIVE DESIGN ON 3 AXES

- 3 axes are equipped with direct drive motors with absolute positioning encoders, provides backlash free, best accuracy, and high efficient axial movement.
- All linear guideways are mounted on the very fine surface for maximum contact and exceptional cutting rigidity.
- Rapid feedrate of 3 axes are 48/48/48 m/min.
- 1g acceleration can be achieved to increase working efficiency and productivity.



Oi - MD

YCM CONTROL
by **FANUC**



- 8.4" TFT Color Display
- AI APC with 20 Blocks Look Ahead
- G-code Mirror Image
- Helical Interpolation
- Rigid Tapping
- Large Program Capacity with 1,280 Meters of Memory
- 400 Pairs Tool Offset
- 400 Total Registered Programs
- 48 Pairs of Workpieces Coordinate System
- HRV Control
- Extended Parts Program Editing (Cut, Copy, and Paste)
- Extensive Alarm Description
- Tool Offset

and more....

SPECIFICATIONS

	FV50T
SPINDLE	
Spindle Speed (opt.)	10,000rpm (15,000rpm)
Spindle Power (cont./30min.)	3.7/5.5kW (2.2/3.7kW) 5/7.4HP (3/5HP)
Spindle Taper	BT30
TRAVEL	
X-axis Travel	500mm 19.7"
Y-axis Travel	400mm 15.8"
Z-axis Travel	300mm 11.8"
Distance Between Spindle Nose & Table Top	180~480mm 7.1~18.9" (330~630mm 12.99~24.8")
TABLE	
Table Size	650 x 400mm 25.6" x 15.8"
No. T-Slots x Size x Pitch	3 x 14mm x 100mm 3 x 0.6" x 3.9"
Max. Load on Table	250kg 551 lb
FEEDRATE	
Rapid Feedrate (X/Y/Z)	48/48/48 m/min. 1,890/1,890/1,890ipm
Cutting Feedrate	1~20,000mm/min. 0.04~787ipm
ATC	
Tool Magazine Capacity (opt.)	14T (21T)
Max. Tool Weight	3kg 6.6 lb
Max. Tool Dimensions	ø80 x 250mm ø3.2" x 9.8"
GENERAL	
Pneumatic Supplier	5.5kg/cm ² 78.2psi
Power Consumption	16kVA
Machine Weight	2,400kg 5,291 lb

Note: The manufacturer reserves the right to modify the design, specifications, mechanisms, etc., to improve the performance of the machine without notice. All the specifications shown above are just for reference.

STANDARD ACCESSORIES

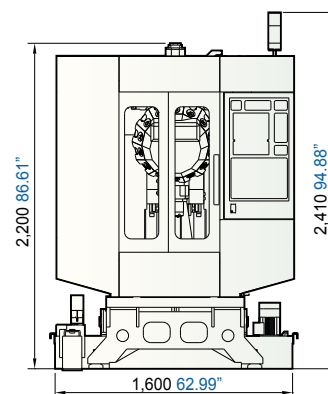
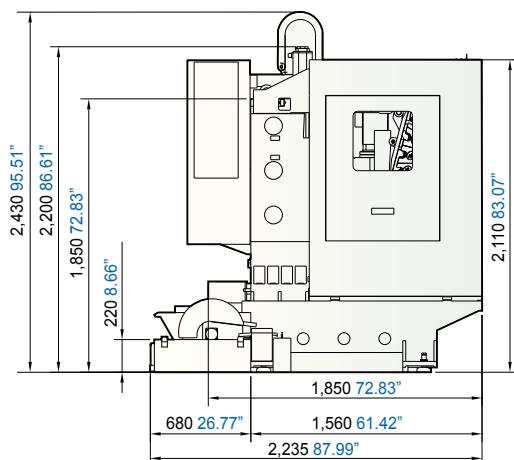
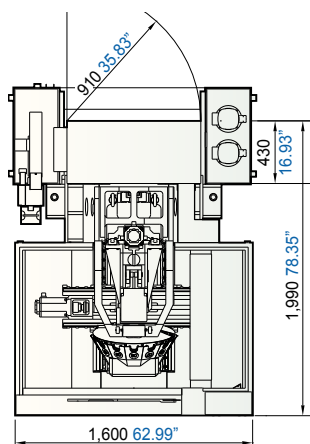
- Tool Kit
- Work Lamp
- Pilot Lamp
- Coolant Gun
- Coolant Equipment System
- Cutting Air Blast
- Spindle Air Blast
- Spindle Air Seal
- Leveling Blocks and Foundation Bolts
- Heat Exchanger for Electrical Cabinet
- Mechanical, Electrical & Operating Manuals
- Rigid Tapping
- Guideway Cover (X,Y,Z)
- Chip Enclosure
- Tool Breakage Detector
- Automatic Tool Change
- CNC Control: FANUC 0i-MD

OPTIONAL ACCESSORIES

- Central Lubrication System
- Oil Skimmer
- Foundation Bolts
- Chips Flush Coolant System
- Workpiece Measurement System
- Automatic Power Off Device
- A/C. Cooler for Electrical Cabinet
- Automatic Door
- Safty Door
- 4th Axis Rotary Table
- Heavy Duty Coolant Pump
- Auto Tool Length Measurement System
- Full Chip Enclosure
- Air Gun
- CE
- Automatic Fire Extinguisher
- Machine Height 150mm More

DIMENSIONS

Unit: mm inch



YEONG CHIN MACHINERY INDUSTRIES CO., LTD.

888 HOMU RD., HSINCHUANG ■ SHENGANG, TAICHUNG, TAIWAN

Web Page: www.YCMCNC.com ■ Email: sales@YCMCNC.com



Tel : +886-4-2562-3211

Fax: +886-4-2562-6479