



Simultaneous

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5 Axes Moving Column
Ram Type Machining Center



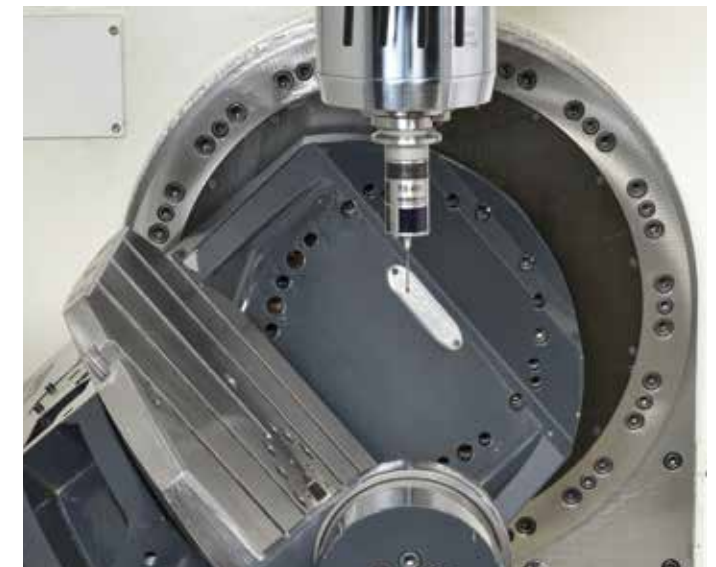
5 AXES Simultaneous Machining Center

Europe Design High Speed Machining

The Focaseiki FUV Series 5 Axes Machine is an advanced, multi-tasking Europe designed and technology for producing complicated parts at high speed, With 5-axis configuration , complex machining can be accomplished in one step.



The dramatically reduces machining time, while helping you stronger competitive



Assuring high accuracy in simultaneous machining of 5 axes and positioning at any angle . As a good result.

Rotating/Tilting Axis (B/C-axis)

The high rigidity NC controlled rotating/tilting rotary table is equipped with linear encoders, you get excellent accuracy when performing complicated machining.



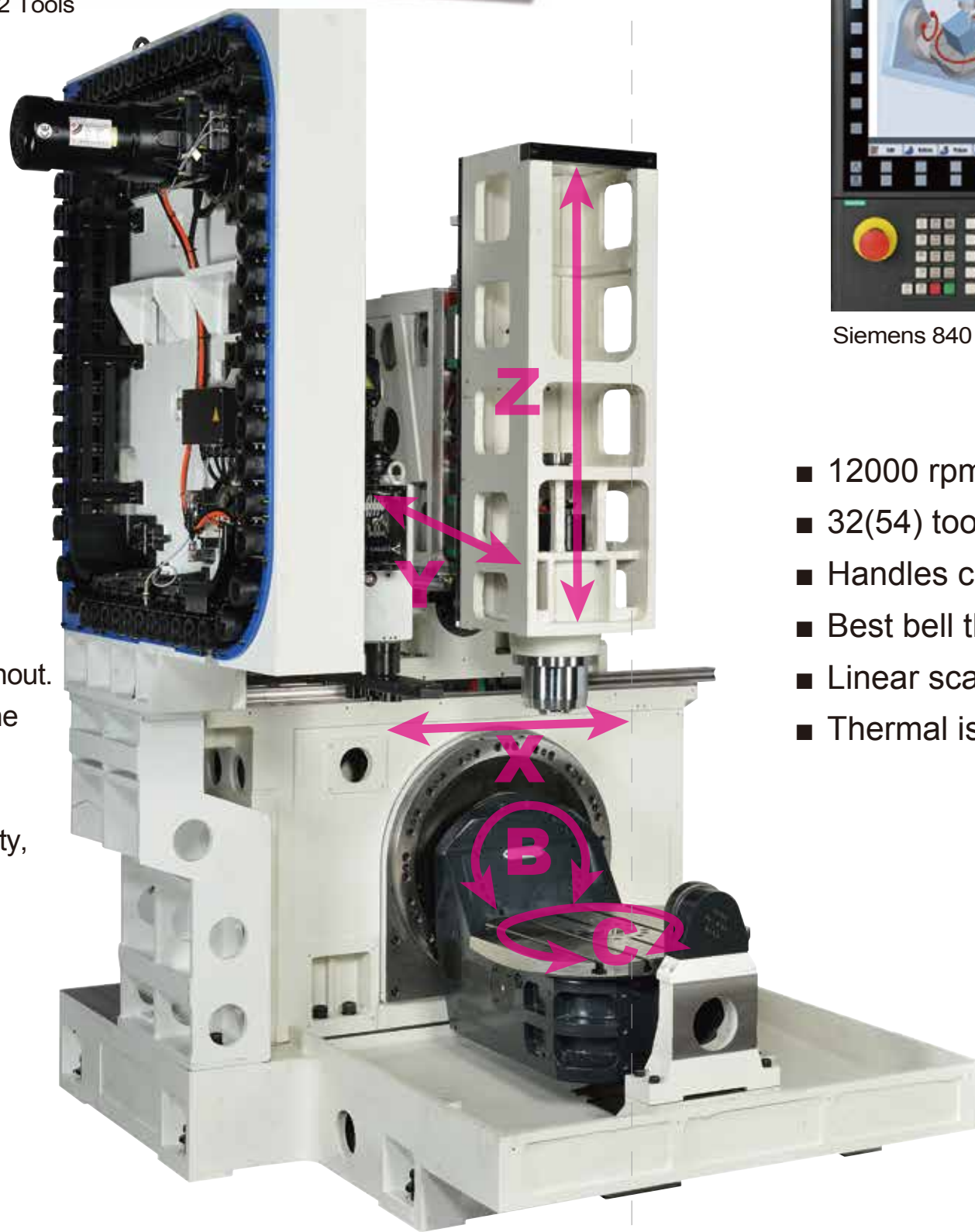
Europe style ergonomic state of the art design operating box, 360° rotation and any angle can be fixed. Convenient, modern.



54 Tools



32 Tools



The FUV-650 is rigidly constructed throughout. The rigid base provides solid support for the rotating / tilting rotary table (B/C-Axis). This combined with a cross slide design and ensures machine structure high stability, reliability accuracy you've come to expect.

- 5 axes simultaneous control
- The advanced control will dramatically upgrade machining accuracy , efficiency and safety daring machining

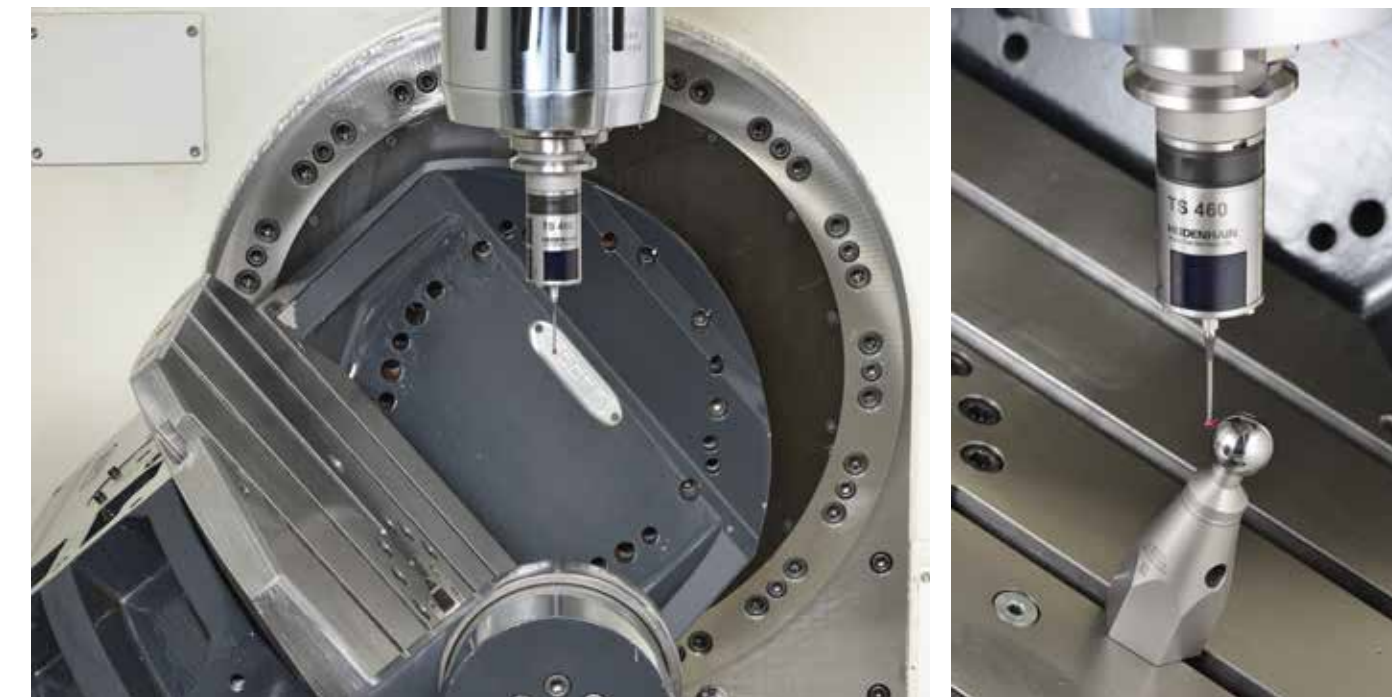


Siemens 840 D SL



Heidenhain iTNC-640

- 12000 rpm direct-drive spindle
- 32(54) tool magazine
- Handles complicated machining with ease
- Best bell theorem structural design
- Linear scales / encoders on 5 axes
- Thermal isolation design compensation kit.



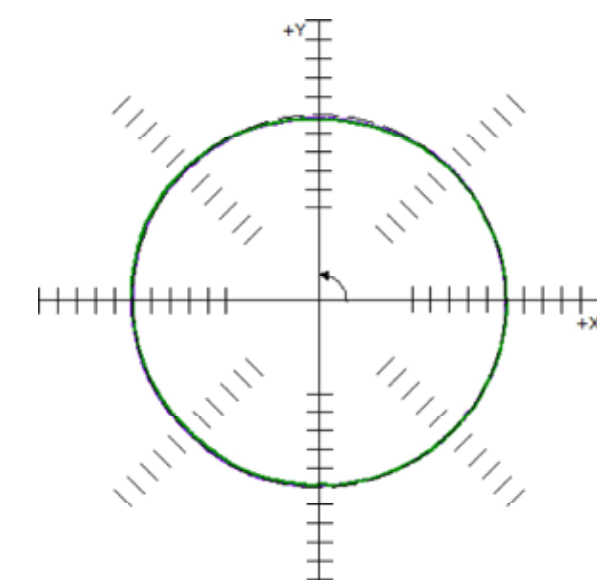
(Optional)

Kinematics Calibrating Device

The device employs a Heidenhain TS-460 high precision probe. Standard measuring ball and measuring software for accurately inspecting the table center. The measured values is then input into the control system to ensure the accuracy of the table center.

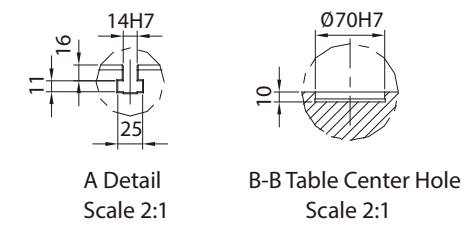
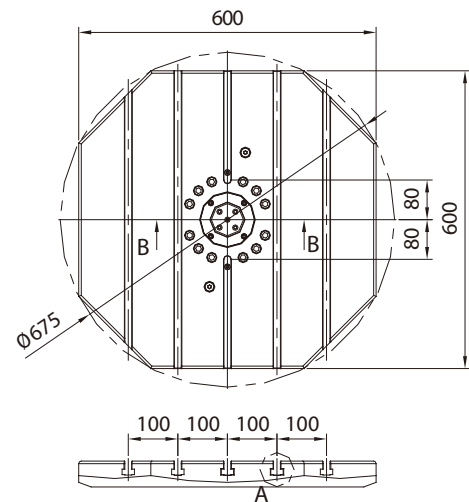
Dynamic ASME B5.54		
Non roundness	4.2μm	
Maximum deviation	2.1μm	155.47651°
Minimum deviation	-2.1μm	90.72483°
Test parameters		
Radius	150.0000mm	
Sample rate	52.632Hz	
Feedrate	2000.0mm/min	
Run sequence	CW CCW	
Plane under test	XY	
Test position		
Start angle	0°	
End angle	360°	
Overshoot angle	180°	
Centre offset X	0.6μm	
Centre offset Y	-2.3μm	
Calculated feedrate	1996.8mm/min	

Run 1
Run 2

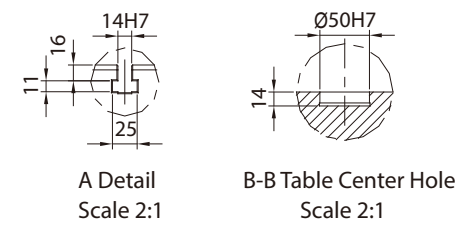
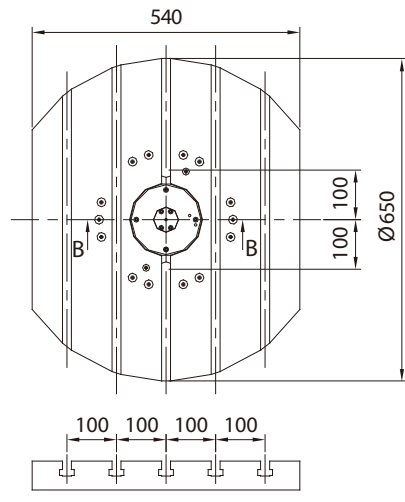


10.0μm/div

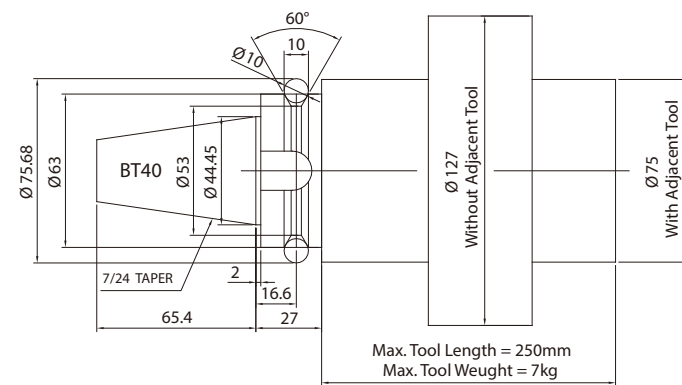
Tilting Rotary Table (For FUV-650) (Worm Gear Transmission)



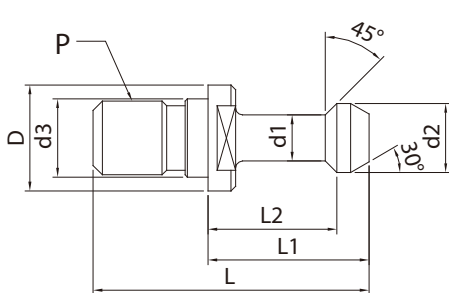
Tilting Rotary Table (For FUV-650) (DDM)



Tool Shank

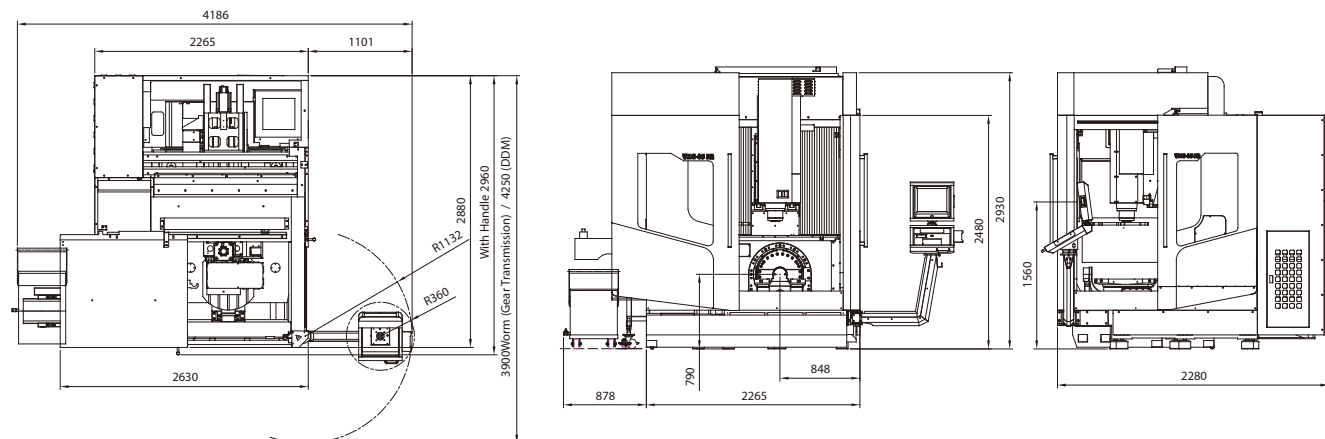


Pull Stud



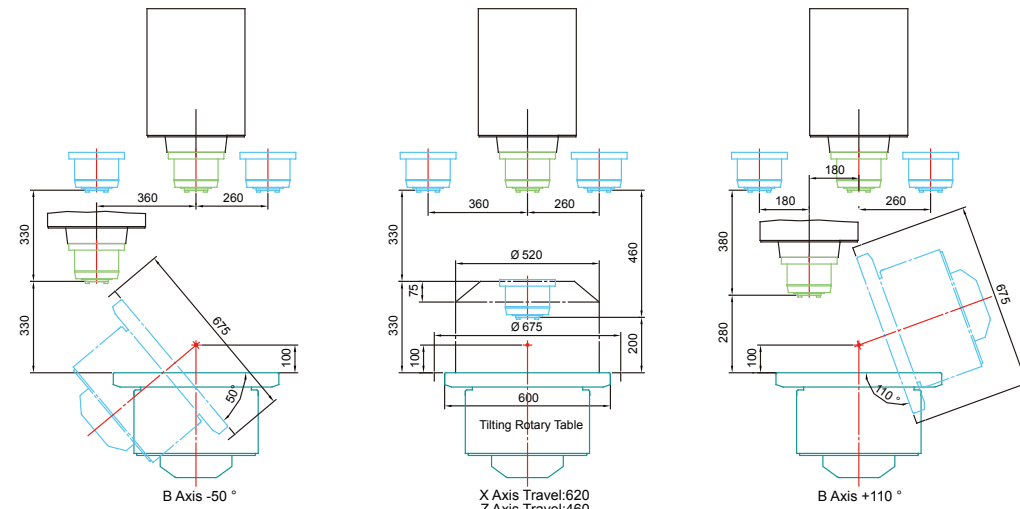
MODEL	D	d1	d2	d3	L	L1	L2	P
BT40	23	10	15	17	60	35	28	M16*2.0

Dimensions

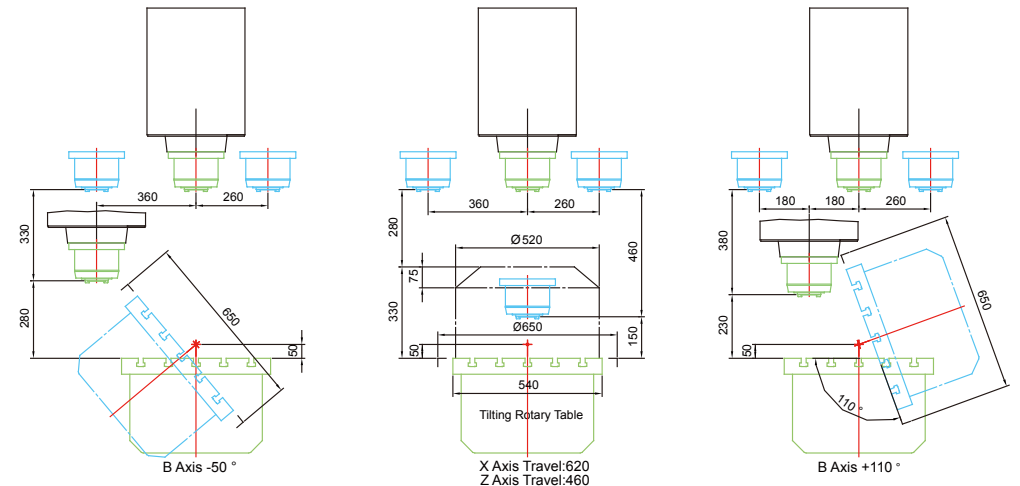


Working Area (For FUV-650)

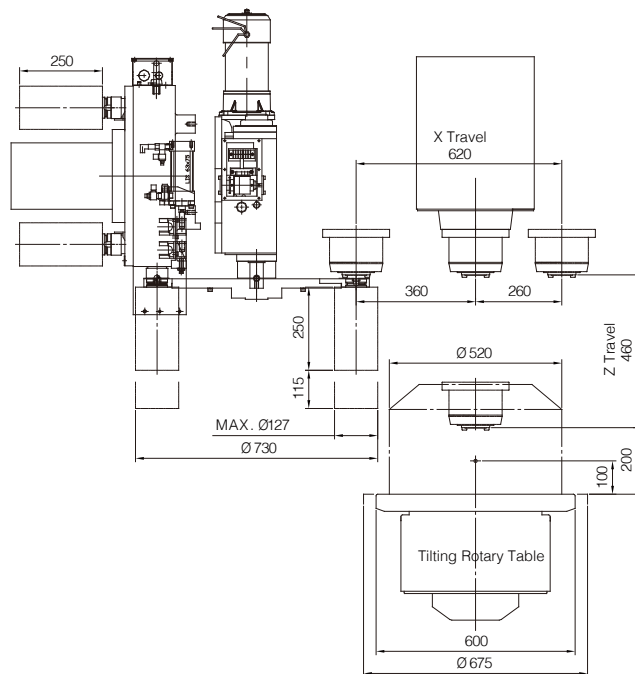
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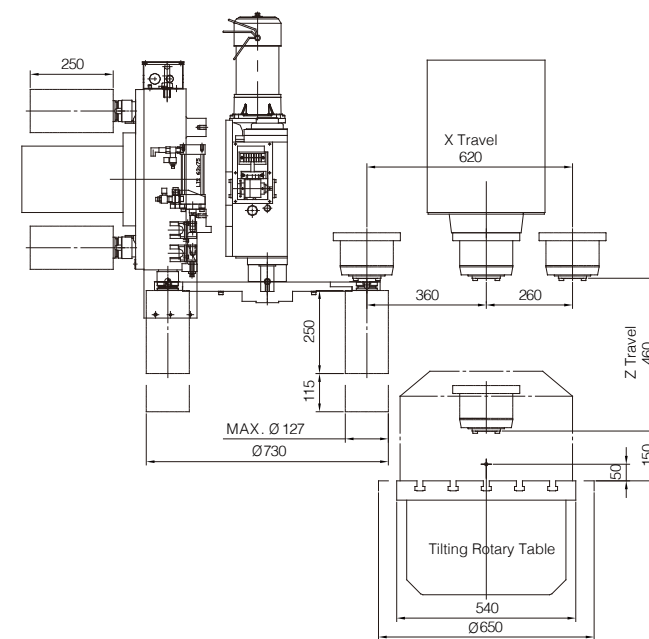
Tilting Rotary Table(DDM)



Tilting Rotary Table(Worm Gear Transmission)(For FUV-650)



Tilting Rotary Table(DDM) (For FUV-650)



Machine Specification

	650	720
Spindle		
Spindle transmission	Direct	Direct
Spindle taper	ISO 40	ISO 40
Spindle r.p.m	12000	12000
Travel		
X/Y/Z (mm)	620/520/460	720/600/520
B Axis tilting range	-50°~+110°	-50°~+110°
C Axis rotating range	360°	360°
Spindle nose to table surface (mm)	200-660 (150-610)	150-670
ATC		
Tool magazine capacity(T)	32(54)	32(54)
Tool Shank	ISO 40	ISO 40
Max . tool length (mm)	250	250
Max. tool diameter (mm)	Ø 75/ 127 (32 tools)	Ø 75 / 127 (32 tools)
Rapid Speed		
X/Y/Z axis (mm/min)	48	48
B/C axis (rpm)	12.5/25(110/170)	110/170
Cutting federate M/min	20	20
B/C AXIS		
Table size (0.D/1.D)mm	Ø650	Ø720
Center hole size (mm)	Ø70H7x10 (Φ50H7x14)	Ø50H7x14
T-Slot number/pitch (mm)	5x100x14	5x100x14
Max. table load (kgs)	300	300
Others		
Machine Dimension (mm)	4200mm x 4250mm x 3000mm	4300mm x 4250mm x 3060mm
Machine Weight	10360 kgs	10660 kgs
Coolant tank capacity (L)	210	210
Pneumatic supply(kg/cm2)	6	6

- We reserve the right to modify the design and specification without notice in advance. Above specifications are for reference only. Correct specifications are based on actual machine.
- Description in () are optional accessories.

Accessories

Standard :

- Spindle speed 12000rpm
- Oil chiller
- Chip conveyor
- A.T.C 32T
- Heat exchanger
- 3 Axes linear scales
- B/C axis encoder
- Heidenhain iTNC 640
- M30
- Coolant Gun
- Air Gun
- Chip conveyor

Optional :

- C.T.S
- Laser tool length measurement
- Work piece measurement
- CE
- Transformer
- Air conditioner
- Spin window
- Kinematics calibrator device
- Oil mist collector