

HIGH ACCURACY  
HIGH SPEED  
HIGH RIGIDITY

PRECISION TSUGAMI



*Combination of Turret and Tool Spindle  
Fixed-headstock turning center for realizing high productivity*

CNC Precision Turning Center

# TMB2

Applicable to complete machining for complicated parts in one machine

- **Powerful Spindle**  
High motor output (117.5kW) shortens cycle time.
- **High flexibility for various machining**  
Tool spindle can machine from various directions using Y- and B-axis control.  
Complete machining from a bar stock by equipping the back spindle as standard .
- **ATC, tool magazine as standard**  
Correspond to small production of a large variety workpieces by ATC and Tool magazine.
- **Shortened cycle time by simultaneous marching of both turret and tool spindle**  
Enabling simultaneous machining of the both end faces of front and back and 2-point external turning.
- **Minimal thermal displacement of X axis (diametrical axis)**  
The diametral axis (X axis) of the turret and the tool spindle is arranged in parallel to the ground, and the influence on machining accuracy by thermal displacement becomes minimal.
- **Machining-center-level powerful milling capability**  
The 5.5kW high-power built-in motor enables machining-center-level heavy-duty milling.



Standard Accessories

Standard tool set
Transit clamps
Main spindle chuck(SAD50)
Back spindle chuck(SAD50)
Tool clamper
B axis indexing angle 0.001°
Front door interlock
Tool magazine door interlock
Back cover interlock
Coolant oil flow switch
Reinforced safety window glass

NC Standard Specifications

NC unit	FANUC 18i-TB
LCD/MDI	10.4" color LCD
Manual pulse generator	1
I/O interface	Modem card, memory card can connect
Parts program storage length	80m
Number of registered program	63
Back ground editing	
Tool radius compensation R	
Programable data input	
Work coordinate system setting	
Conversion to 3D coordinates	
Cs contour control	Main, Back spindle
Canned cycle	
Multiple repetitive cycle	
Canned cycle for drilling	64(30T) 99(60T)
Number of tool offsets	
Tool geometry wear offset	
Rigid tapping	
Reference position return	
Single block	
Optional block skip	
Dry run	

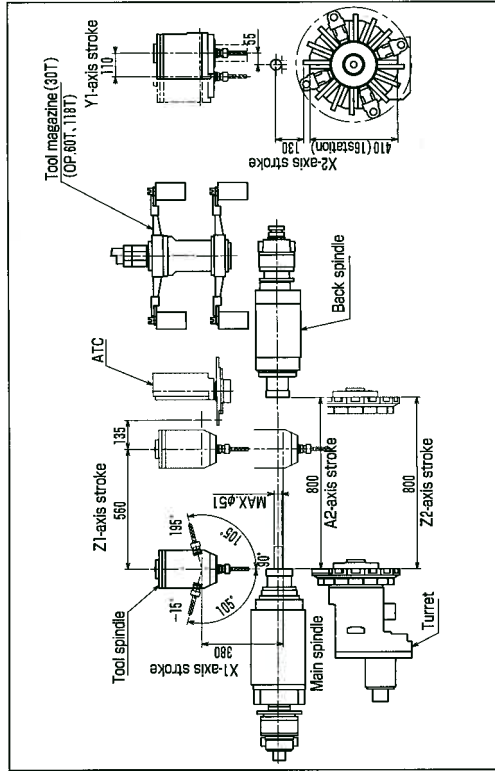
NC Option

Parts program storage length	160, 320, 640, 1280m
Registered number of program	200, 400, 1000
Extended parts program editing function	
Number of tool offsets	400, 999 pairs
3D rigid tapping	for inclined plane
Herical interpolation	for large dis,screw and solid cam
Polar coordinate interpolation	

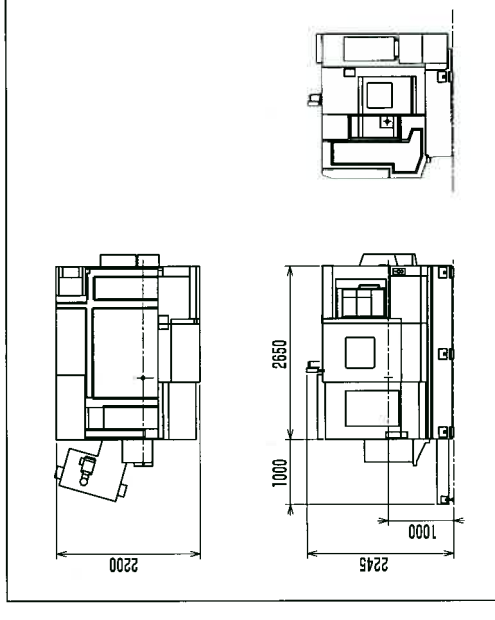
Machine Standard Specifications

Item	TMB2
Machining range	Max.machinable dia. $\phi$ 51mm
Max.main spindle speed	6,000min <sup>-1</sup>
Output (built-in)	11/7.5kW
Main spindle indexing angle	0.001°
Type	1 spindle with ATC
B axis indexing angle/Minimum indexing angle	-15°to195°/0.001°
Tool spindle indexing angle/position	90°/4 pos.
Max.spindle speed	10,000min <sup>-1</sup>
Motor output (built in)	5.5/2.2kW
Number of Turret	16 position
Tool size	20mmX125mm
Sleeve size for drill holder	$\phi$ 32mm
Index drive	Servo motor
Spindle speed	6,000min <sup>-1</sup>
Motor output (built in)	11/7.5kW
Main spindle indexing angle	0.001°
X1 axis	380mm
Y1 axis	110mm(±55mm)
Z1 axis	560mm+135mm
X2 axis	130mm
Z2 axis	800mm
A2 axis	800mm
A2,Z1,Z2 axes	40m/min
X1,Y1,X2 axes	24m/min
Tool shank shape	Sandvik Coromant C4
Max.tool size	$\phi$ 80mm X 150mm(4kg)
Number of tool storage	30 (Option 60,118)
ATC time (tool to tool)	0.8sec
Net weight	8,000kg
Electric power requirement	40KVA
Compressed air requirement	0.5MPa
Air discharge rate	300NL/min
WidthxDepthxHeight	3,650x2,200x2,245mm

Tooling Zone



Appearance



The export of this product is subject to an authorization from the government of the exporting country and/or Japan. Check with the government agency for authorization.

The specifications of this catalogue are subject to change without prior notice.

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