

**NC ROTARY TABLE**

**High Performance NC Rotary Table** – Side motor mounted, Vertical or Horizontal Usage –  
**TMX series** TMX160·TMX200·TMX250  
THX160·THX200

**TMX**

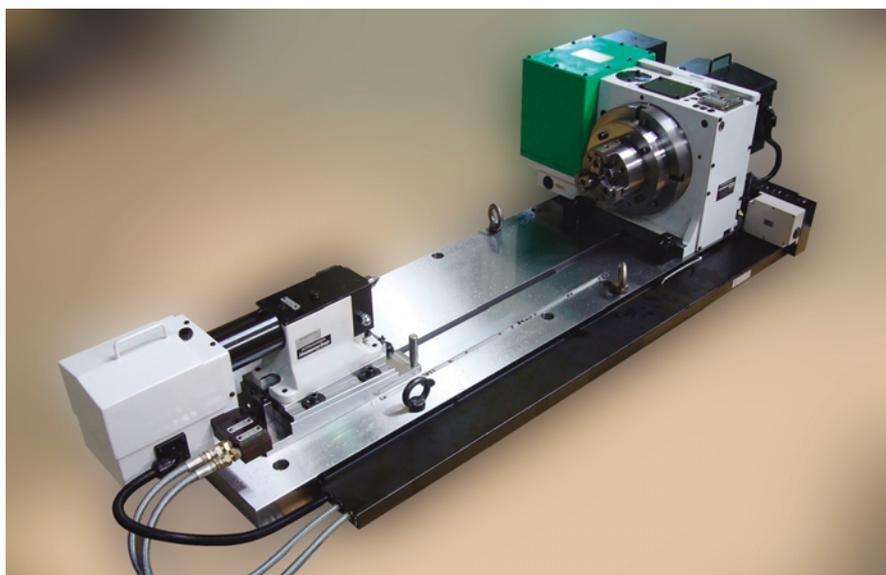
## High performance range with high rigidity for heavy cutting (Green)

- High rigidity for heavy cutting
- High accuracy
- Integrated air booster provides high clamping torque (comparable to hydraulic) from a standard air supply
- Air booster or direct hydraulic clamping options available
- Rotary joint options available
- Can be used vertically and horizontally
- Rotary scale can be fitted to further increase accuracy



TMX160

### Sample Application



▲ Combine with tailstocks on p69 and 70 to suit machining of long work pieces.



▲ Only Kitagawa can offer this combination of NC Rotary Table and chuck

4th axis specifications				M signal specification			
<b>TMX 160</b>		<b>B * * *</b>		<b>TMX 160</b>		<b>B 2 * *</b>	
<b>Type</b> Right hand: TMX Left hand: THX		<b>Table Size</b> TMX: 160·200·250 THX: 160·200		<b>Type</b> Right hand: TMX Left hand: THX		<b>Table Size</b> TMX: 160·200·250 THX: 160·200	
<b>Clamping method</b> B: Air-Hydraulic H: Hydraulic		<b>Design No.</b> <b>Motor type</b>		<b>Clamping method</b> B: Air-Hydraulic H: Hydraulic		<b>Design No.</b> Kitagawa own controller 2: MAC mini i 4: MAC mini iH	

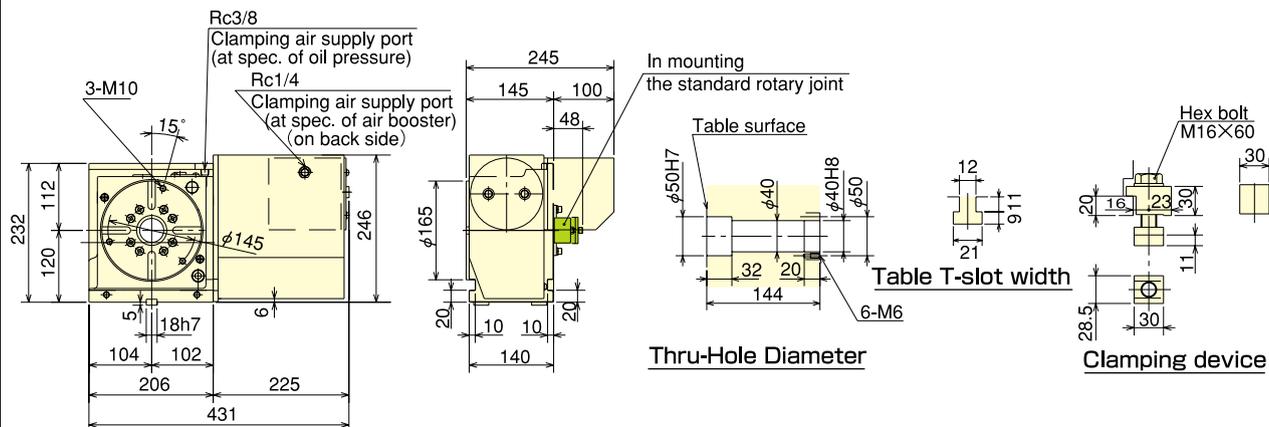
**Specifications**

Model		TMX160	TMX200	TMX250
Right hand		○	○	○
Left hand		○	○	×
Table dia (mm)		φ 165	φ 200	φ 250
Register diameter on Face Plate (mm)		φ 50 H7	φ 75 H7	φ 105 H7
Spindle through hole diameter (mm)		φ 40	φ 52	φ 78
Centre Height (mm)		120	140	180
Clamping method		Air-Hydraulic/Hydraulic	Air-Hydraulic/Hydraulic	Air-Hydraulic/Hydraulic
Clamping torque (N·m) (h pneumatic 0.5MPa/hydraulic 3.5MPa)		450	600	1100
Motor axis reduced inertia (kg·m <sup>2</sup> )		0.00012	0.00032	0.00056
Servomotor (for FANUC specification)		α iF 2/5000	α iF 4/4000	α iF 4/4000
Gear ratio (Decel. Ratio in M signal)		1/72	1/90	1/90 (1/120)
Max. spindle speed	FANUC specification (for min <sup>-1</sup> /motor3000min <sup>-1</sup> )	41.6	33.3	33.3
	M signal specification (for min <sup>-1</sup> /motor3000min <sup>-1</sup> )	41.6	33.3	25
Allowable work inertia (kg·m <sup>2</sup> )		0.51	1.00	1.95
Indexing accuracy (sec)		20	20	20
Repeatability (sec)		4	4	4
Mass of product (kg)		56	60	101
Manual Tailstock (as an option · P69 reference)		TS160RN	TS200RN	TS250RN
Tail Spindle (as an option · P71 reference)		TSR121A	TSR142A	TSR180A
Rotary Joint (as an option · P75 reference)		RJ40H16D01	RJ40H20D03	RJ70H25D05
Allowable Load	Horizontal (kg) 	160	200	250
	Vertical (kg) 	80	100	125
Allowable load	F (kN) 	10	17	21
	F <sub>XL</sub> (N·m) 	600	1100	1600
	F <sub>XL</sub> (N·m) 	450	600	1100
Allowable cutting torque	T (N·m) 	240	310	730

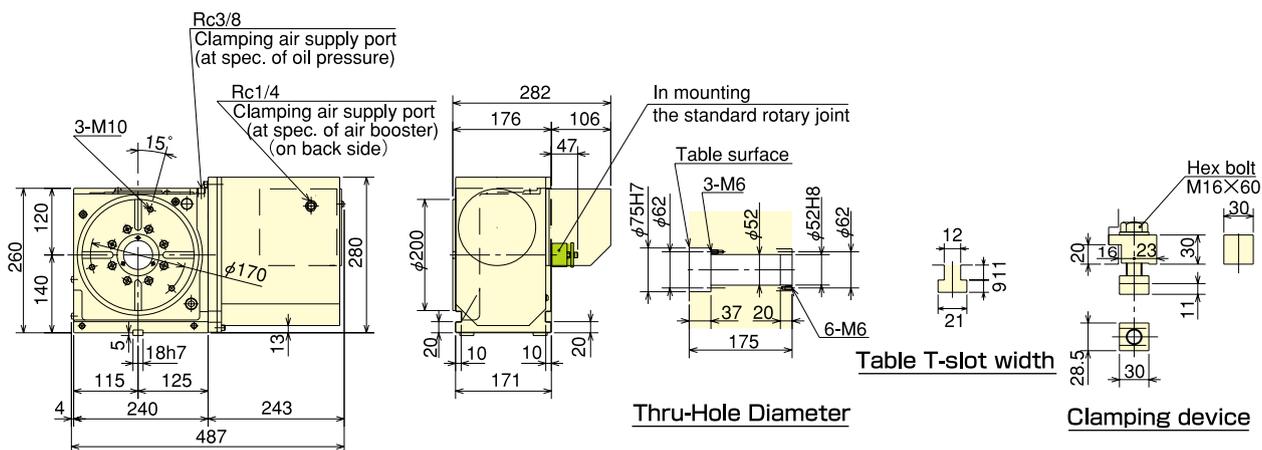
Note) 1. The switch for pressure checking is incorporated to all series except TC/DM of NC tables. 2. In case of air + hyd. clamp specification, the solenoid valve for table clamp is incorporated. 3. Solenoid valve is not incorporated in case of hydraulic clamp spec. Consequently, customer shall prepare it. 4. Neither cable nor hose is fitted between NC rotary table and machine tool... 5. In the port side on a table surface jig side of a rotary joint, TMX200 or 250 is fixed to the rotary table side, and TMX160 to jig side. 6. Because a mounting pitch varies with the machines, refer to the pitch of the table spindle size drawing on P71. 7. Each product mass is determined by a Kitagawa M signal spec.

### ■ Dimensions [4th axis specifications]

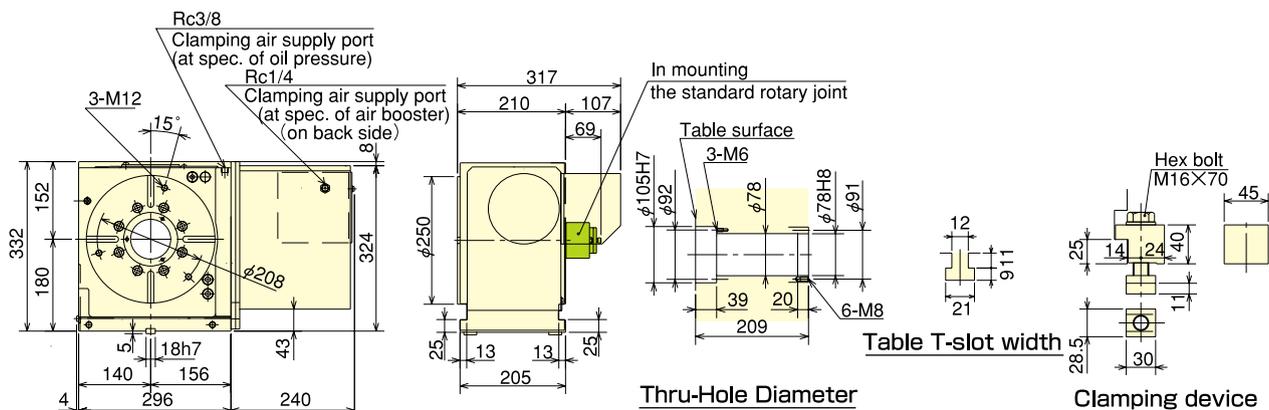
#### TMX160 (THX)



#### TMX200 (THX)



#### TMX250



※ The above outline dimensions are shown with FANUC motor specifications.  
In case of specifications with other makers, the dimensions may differ in length.  
TMX is a right hand spec, and THX is a left hand spec.

