



NC ROTARY  
TABLE

High Performance NC Rotary Table

**TMX** series

Side motor mounted,  
Vertical or Horizontal Usage

TMX160 • TMX200 • TMX250  
THX160 • THX200

## High performance range with high rigidity for heavy cutting

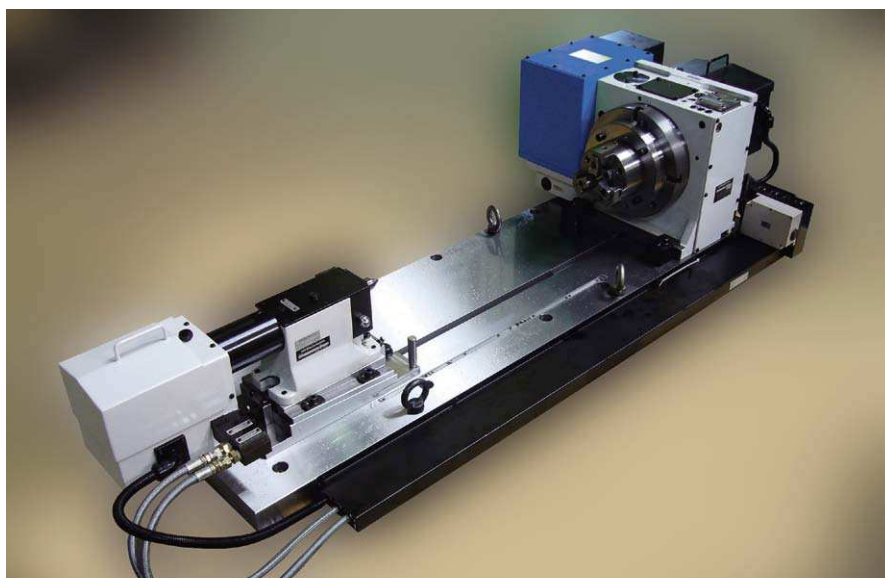
- High rigidity for heavy cutting
- High accuracy
- Integrated air booster provides high clamping torque (comparable to hydraulic) from a standard air supply
- Air booster or direct hydraulic clamping options available
- Rotary joint options available
- Can be used vertically and horizontally
- Rotary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

\*CE correspondence



TMX160

### Sample Application



▲Combine with tailstocks on p75 and 76 to suit machining of long work pieces.



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

### 4th axis specifications

## TMX 160 B \* \* \*

**Table Size**  
TMX: 160·200·250  
THX: 160·200

**Design No.**  
**Motor type**

**Type**  
Right hand: TMX  
Left hand: THX

**Clamping method**  
B: Air-Hydraulic (integrated air hydraulic booster)  
H: Hydraulic

### M signal specification

## TMX 160 B V \* \*

**Table Size**  
TMX: 160·200·250  
THX: 160·200

**Design No.**  
**Quinte specification**

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Right hand: TMX  
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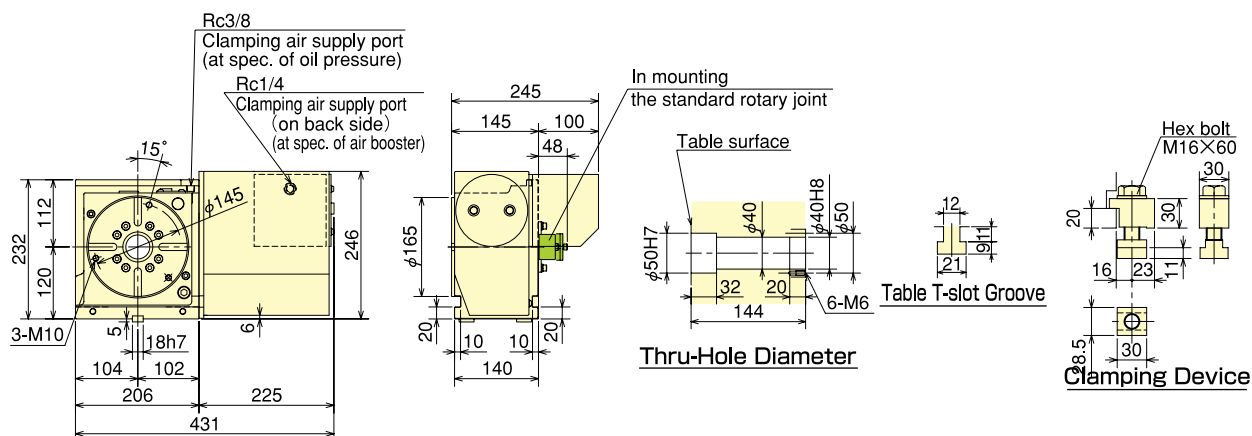
## Specifications

| 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) (In 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 4/5000                             | α iF 4/5000                             |
| Gear ratio                                                   |                                                                             | 1/72                                    | 1/90                                    | 1/90                                    |
| 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                                    | 33.3                                    |
| 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                                      | 71                                      | 101                                     |
| Manual Tailstock (as an option · P89 reference)              |                                                                             | TS160RN                                 | TS200RN                                 | TS250RN                                 |
| Tail Spindle (as an option · P93 reference)                  |                                                                             | TSR121A                                 | TSR142A                                 | TSR181A                                 |
| Rotary Joint (as an option · P97 reference)                  |                                                                             | RJ40H16D01<br>Hydraulic/Pneumatic4-port | RJ40H20D03<br>Hydraulic/Pneumatic4-port | RJ70H25D05<br>Hydraulic/Pneumatic6-port |
| Allowable Load                                               | Horizontal (kg)                                                             | 160                                     | 200                                     | 250                                     |
|                                                              | Vertical (kg)                                                               | 80                                      | 100                                     | 125                                     |
| Allowable load<br>(When clamped to table)                    | F (kN)                                                                      | 10                                      | 17                                      | 21                                      |
|                                                              | F×L (N·m)                                                                   | 600                                     | 1100                                    | 1600                                    |
|                                                              | F×L (N·m)                                                                   | 450                                     | 600                                     | 1100                                    |
| Allowable cutting torque                                     | T (N·m)                                                                     | 240                                     | 310                                     | 730                                     |

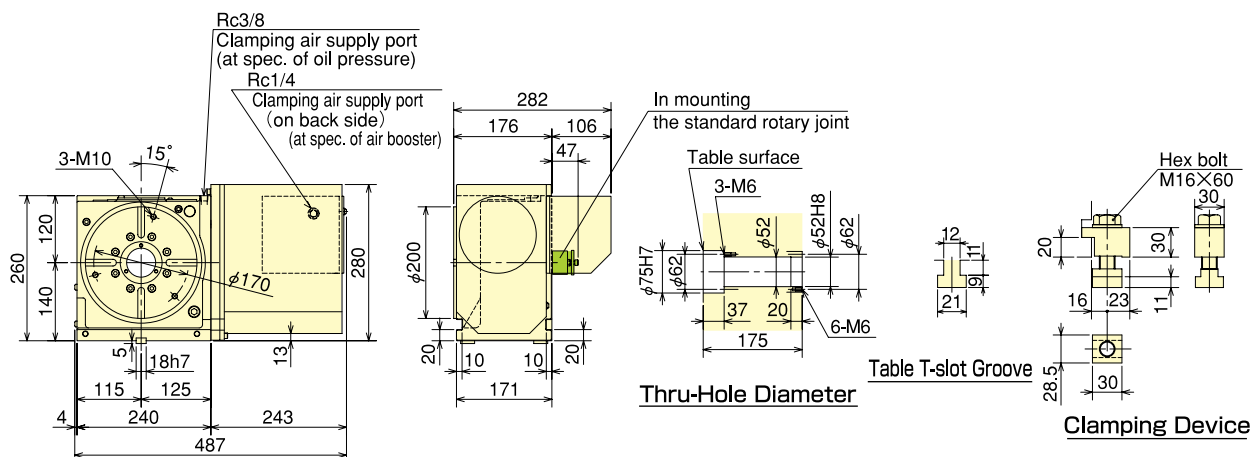
Note) 1. The switch for pressure checking is incorporated to all series except TC/DM of NC tables. 2. In case of air + hyd. clamp specification, the solenoid valve for table clamp is incorporated. 3. Solenoid valve is not incorporated in case of hydraulic clamp spec. Consequently, customer shall prepare 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 P93. 7. Each product mass is determined by a Kitagawa M signal spec.

### ■Dimensions [4th axis specifications]

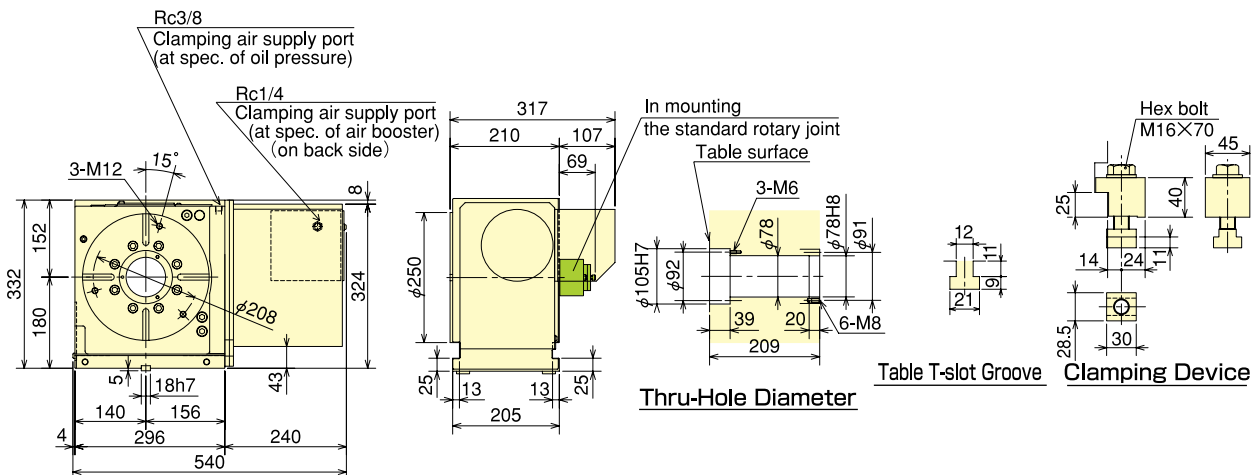
#### TMX160(THX)



#### TMX200(THX)



#### TMX250

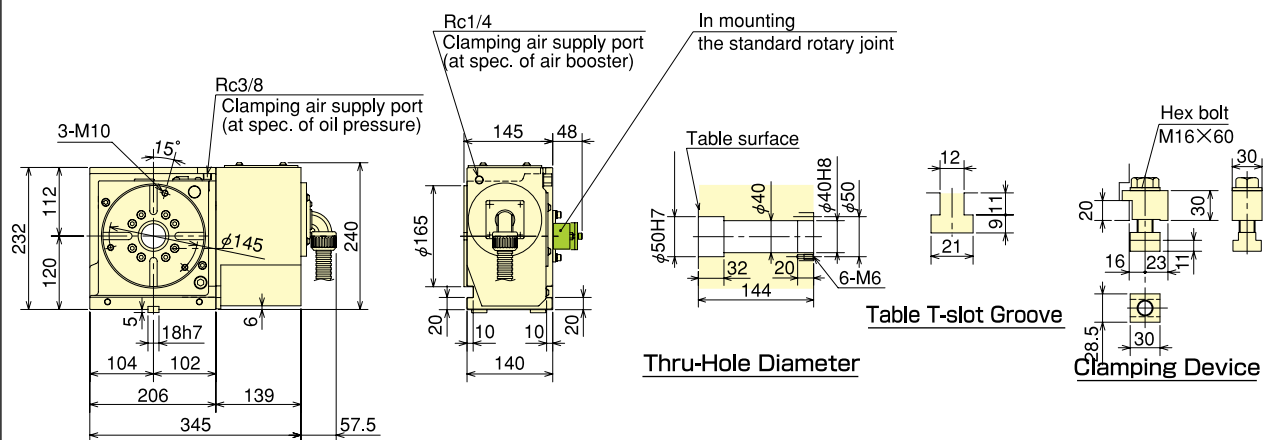


※The above outline dimensions are shown with FANUC motor specifications.  
Those dimensions may vary from motor to motor that is mounted.  
TMX is a right hand spec, and THX is a left hand spec.

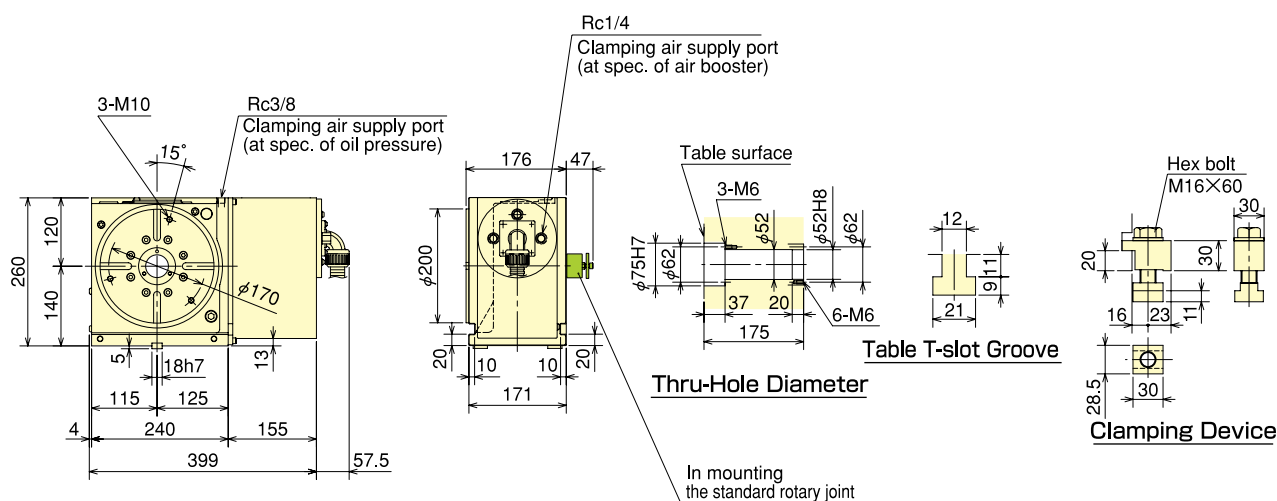
# ■Dimensions [Kitagawa own controller]

\*The dimensions may vary from motor to motor that is mounted.

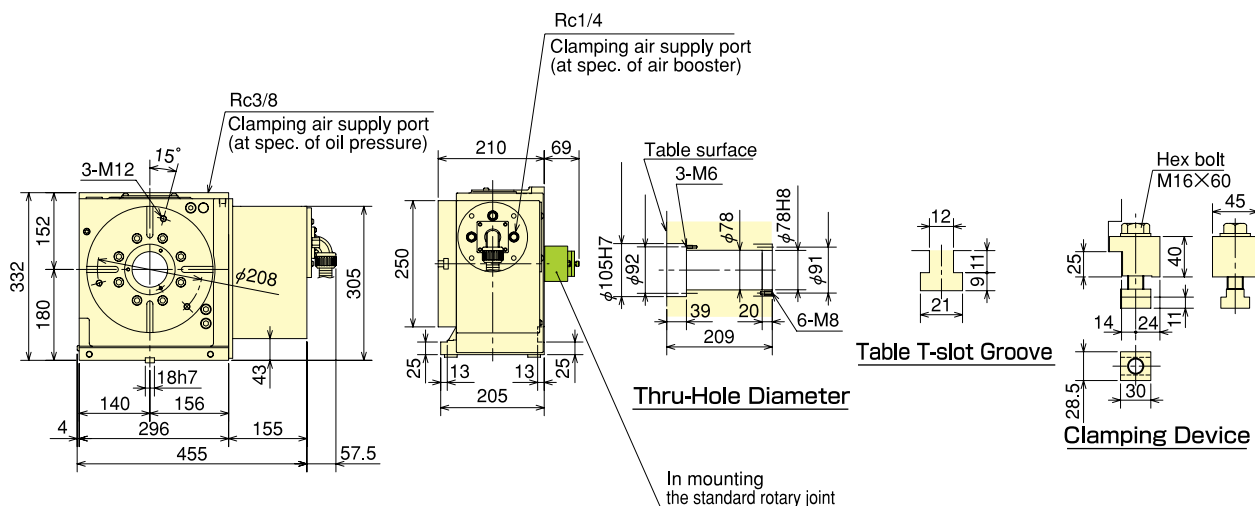
## TMX160 (THX)



## TMX200 (THX)



## TMX250



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