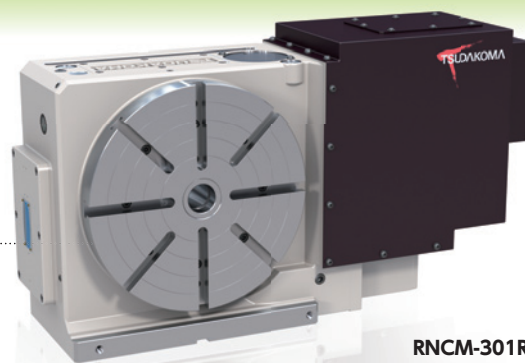


Vertical motor mounting type

# RNCM

## RNCM- 251•301•401•501•631

Basic models with a motor horizontally mounted onto the side of the body.



RNCM-301R

### Specifications

Unit: mm

|                                             |                                                           | RNCM-251                               | RNCM-301                               | RNCM-401                               | RNCM-501                               | RNCM-631                               |
|---------------------------------------------|-----------------------------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|
| Handedness                                  | R                                                         | ○                                      | ○                                      | ○                                      | ○                                      | ○                                      |
|                                             | L                                                         | ○                                      | ○                                      | ○                                      | ○                                      | ○                                      |
| Table diameter                              |                                                           | φ 250                                  | φ 320                                  | φ 400                                  | φ 500                                  | φ 630                                  |
| Center height                               |                                                           | 160                                    | 210                                    | 255                                    | 310                                    | 400                                    |
| Center bore                                 | Nose diameter                                             | φ 40H7                                 | φ 40H7                                 | φ 40H7                                 | φ 50H7                                 | φ 60H6 *2                              |
|                                             | Through-bore                                              | φ 32                                   | φ 40                                   | φ 40                                   | φ 50                                   | φ 60                                   |
| Table T-slot width *1                       |                                                           | 12H7                                   | 14H7                                   | 14H7                                   | 18H7                                   | 18H7                                   |
| Guide block width                           |                                                           | 18h7                                   | 18h7                                   | 18h7                                   | 18h7                                   | 18h7                                   |
| Servo motors (for FANUC)                    |                                                           | α iF4 or α iF8                         | α iF8                                  | α iF12                                 | α iF12                                 | α iF12                                 |
| Inertia converted into motor shaft          | × 10 <sup>-3</sup> kg·m <sup>2</sup>                      | 0.30                                   | 0.34                                   | 1.76                                   | 2.05                                   | 5.55                                   |
| Net weight                                  | kg                                                        | 75                                     | 200                                    | 300                                    | 450                                    | 800                                    |
| Speed reduction ratio                       |                                                           | 1/180                                  | 1/360                                  | 1/180                                  | 1/180                                  | 1/180                                  |
| Table max. rpm                              | min <sup>-1</sup><br>(Motor rpm: 2,000min <sup>-1</sup> ) | 11.1                                   | 5.5                                    | 11.1                                   | 11.1                                   | 11.1                                   |
| Indexing accuracy (the sum)                 | sec                                                       | 15                                     | 15                                     | 15                                     | 15                                     | 15                                     |
| Clamp system                                |                                                           | Hydraulic or<br>air-hydraulic (Option) | Hydraulic or<br>air-hydraulic (Option) | Hydraulic or<br>air-hydraulic (Option) | Hydraulic or<br>air-hydraulic (Option) | Hydraulic or<br>air-hydraulic (Option) |
| Clamp torque<br>/ Hydraulic pressure 3.5Mpa | N·m                                                       | 490                                    | 833                                    | 1,764                                  | 2,450                                  | 4,410                                  |
| Strength of worm gears                      | N·m                                                       | 470                                    | 764                                    | 1,666                                  | 2,450                                  | 4,116                                  |
| Allowable<br>work weight                    | Vertical<br>setting<br>( ) : with tailstock<br>           | kg<br>100<br>(250)                     | 150<br>(350)                           | 200<br>(500)                           | 250<br>(600)                           | 400<br>(1,000)                         |
|                                             | Horizontal<br>setting<br>                                 | kg<br>250                              | 350                                    | 500                                    | 600                                    | 1,000                                  |
|                                             | F<br>                                                     | N<br>19,600                            | 29,400                                 | 39,200                                 | 49,000                                 | 49,000                                 |
| Allowable load<br>(when table is clamped)   | F × L<br>                                                 | N·m<br>490                             | 833                                    | 1,764                                  | 2,450                                  | 4,410                                  |
|                                             | F × L<br>                                                 | N·m<br>931                             | 1,568                                  | 2,450                                  | 3,430                                  | 7,840                                  |
| Allowable<br>work inertia                   | $J = \frac{W \cdot D^2}{8}$<br>                           | kg·m <sup>2</sup><br>1.2               | 3.7                                    | 9.7                                    | 18.2                                   | 49.6                                   |

☞ Servo motors of other manufacturers **P.66**

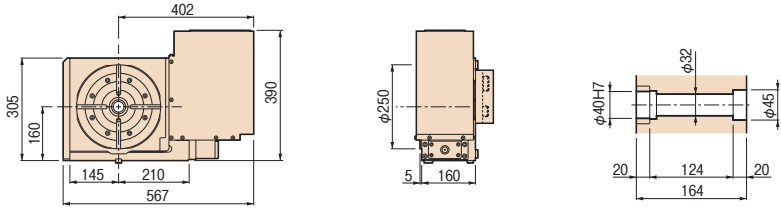
\* 1 The tolerance of the table T-slot width is applicable to four standard slots arranged crosswise.

\* 2 For model RNCM-631, a big bore type is also available. (center bore: φ 180H7)

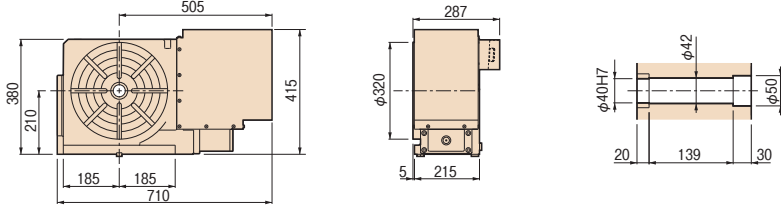
# Dimensions

Unit: mm

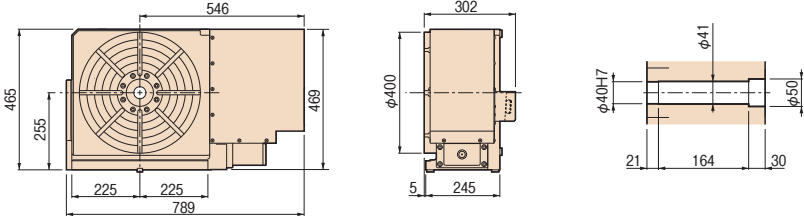
## RNCM-251R



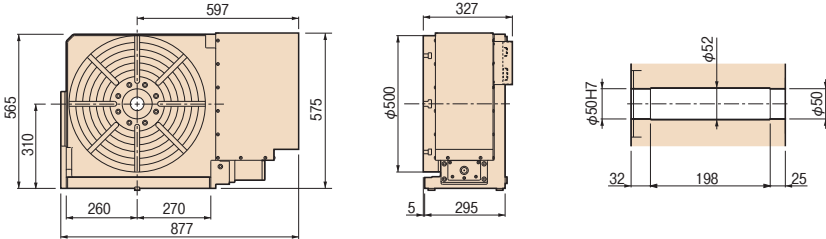
## RNCM-301R



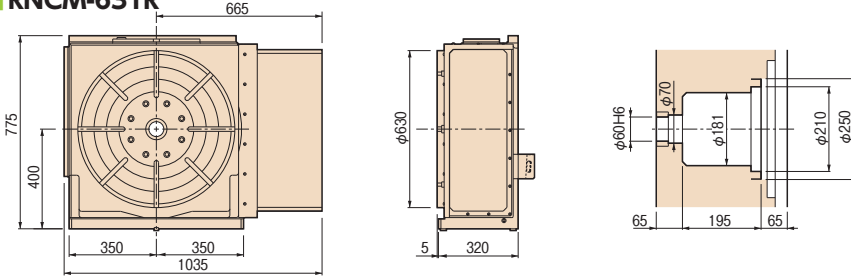
## RNCM-401R



## RNCM-501R



## RNCM-631R



Note: The above dimensions are for FANUC servo motors. The dimensions of servo motors of other manufacturers may be larger.

## Clamping block and bolt

Unit: mm

|          | Type | Q'ty | T-slot pitch | T-slot width | A  | B  | C   | D  | E  | F  | G  | H  | I  | J   | K  | L  | M  |
|----------|------|------|--------------|--------------|----|----|-----|----|----|----|----|----|----|-----|----|----|----|
| RNCM-251 | I    | 4    | 50 to 125    | 18           | 25 | 12 | 80  | 12 | 33 | 35 | 22 | 21 | 11 | 65  | 40 | 28 | 16 |
| RNCM-301 | I    | 4    | 55 to 127    | 18           | 30 | 15 | 90  | 16 | 31 | 43 | 25 | 21 | 11 | 70  | 46 | 28 | 16 |
| RNCM-401 | I    | 4    | 55 to 155    | 18           | 30 | 15 | 90  | 16 | 31 | 43 | 25 | 21 | 11 | 70  | 46 | 28 | 16 |
| RNCM-501 | I    | 4    | 60 to 194    | 18           | 40 | 20 | 110 | 18 | 42 | 50 | 25 | 21 | 11 | 70  | 46 | 28 | 16 |
| RNCM-631 | II   | 4    | 90 to 255    | 18           | 40 | 18 | 63  | 18 | 15 | 30 | 58 | 21 | 11 | 105 | 60 | 28 | 16 |

Note: When using a machine with a T-slot pitch other than the above, use suitable clamping blocks and bolts that are available on the market, or order custom-made ones from TSUDAKOMA. (Option)

With Hydraulic Power Chuck

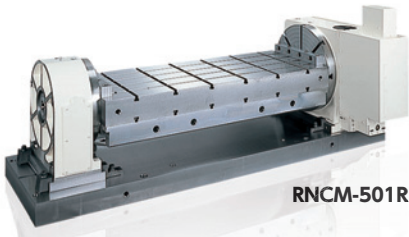
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RNCM-301R

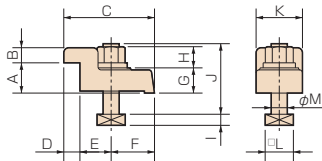
With Support Spindle and Fixture Plate

P.59

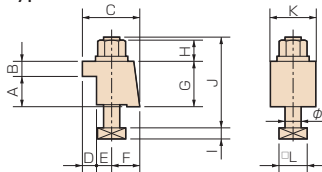


RNCM-501R

Type I



Type II



RBS

TBS

RWE/RWA  
RN

RWA-B  
RNCV-B

RNCM

RWB

RWB-K  
RNCK

RCH  
RNC

RCV

Multi-Spindle  
RWM

TWA/TN

TWB  
TTNC

THNC

Multi-Spindle  
TWM

RDS

RTV  
RTT

RCB

NC Controllers

Accessories

Options

Technical  
Information