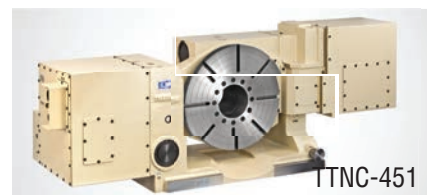


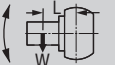

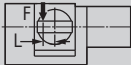



TTNC-451, 631, 1001, 1500 • RT-225

LARGE, HIGH POWER TILTING TABLE

These large tilting tables feature massive hydraulic clamping torque and enable 5-face and slanted-hole machining with single chucking of workpiece. They are suitable for machining of component parts for heavy industries such as aerospace, power generator and construction.



| Model | | TTNC-451 | TTNC-631 | TTNC-1001 | TTNC-1500 | | | | |
|------------------------------------|---|-------------------|-------------------|-------------------|-------------------|----------------------------|---------------------|-------------------|----------------------------|
| Tilt Range | | -10° ~ +95° | -10° ~ +95° | -20° ~ +110° | -30° ~ +95° | | | | |
| Table diameter | | 450 | 630 | 1,000 | 1,500 | | | | |
| Table height at 0° position | | 425 | 585 | 900 | 1,155 | | | | |
| Center height at 90° position | | 325 | 450 | 700 | 1,055 | | | | |
| Center bore | Nose Diameter | 140H7 | 180H6 | 75H7 | 75H7 | | | | |
| | Thru Diameter | 140 | 180 | - | - | | | | |
| Table T-slot width | | 14H7 | 18H7 | 22H7 | 28H7 | | | | |
| Guide block width | | 18h7 | 18h7 | - | - | | | | |
| Servo motor (Fanuc)* | | Rotary | Tilt | Rotary | Tilt | Rotary | Tilt | Rotary | Tilt |
| | | Alpha 12i | Alpha 12i | Alpha 12i | Alpha 12i | Alpha 22i | Alpha 30i | Alpha 30i | Alpha 30i |
| Maximum motor speed | | 3,000 | 3,000 | 3,000 | 3,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| Speed reduction ratio | | 1/180 | 1/360 | 1/180 | 1/360 | 1/360 | 1/1,440 | 1/720 | 1/1,440 |
| Maximum table speed | | 16.7 | 8.3 | 16.7 | 8.3 | 5.6 | 1.4 | 2.7 | 1.4 |
| Inertia converted into motor shaft | | 1.98 | 2.7 | 5.42 | 3.77 | 4.37 | 4.1 | 5.37 | 7.46 |
| Clamp system** | | Hydraulic @500psi | Hydraulic @500psi | Hydraulic @500psi | Hydraulic @500psi | Hydraulic @1,000psi | Hydraulic @1,000psi | Hydraulic @500psi | Hydraulic @500psi |
| Clamp torque | | 980 (722) | 980 (722) | 4,410 (3,250) | 2,352 (1,733) | 9,800 (7,223) | 19,600 (14,445) | 12,000 (8,844) | 12,500 x (2) (9,213) x (2) |
| Indexing accuracy | | ±7.5 | - | ±7.5 | - | ±7.5 | - | ±10 | - |
| Indexing repeatability | | ±2 | - | ±2 | - | ±2 | - | ±2 | - |
| Tilting accuracy | | - | ±30 | - | ±30 | - | ±30 | - | ±22.5 (scale) |
| Tilting repeatability | | - | ±2 | - | ±2 | - | ±2 | - | ±4 |
| Net Weight | | 780 (1,716) | 1,700 (3,740) | 4,600 (10,120) | 12,000 (26,400) | | | | |
| Allowable wheel torque - rotary | | 1,666 (1,228) | 3,284 (4,420) | 13,230 (9,751) | 21,560 (15,890) | | | | |
| Allowable work inertia | | 5.1 | 29.7 | 312.6 | 2,255 | | | | |
| Allowable work weight | 0° tilt angle  | kg (lbs) | 200 (440) | 600 (1,320) | 2,500 (5,500) | 2,500 (5,500) | | | |
| | 0° ~ 90° tilt angle  | kg (lbs) | 150 (330) | 300 (660) | 1,500 (3,300) | 1,500 (3,300) | | | |
| Allowable work moment |  | Nm (ft. lbs.) | 294 (217) | 980 (722) | 7,840 (5,778) | 7,840 (5,778) | | | |
| Allowable load when table clamped |  | N (lbf) | 19,600 (4,390) | 24,500 (5,488) | 29,400 (6,587) | 49,000 (10,976) | | | |
| |  | Nm (ft. lbs.) | 980 (722) | 4,410 (3,250) | 9,800 (7,223) | 12,000 (8,844) | | | |
| |  | Nm (ft. lbs.) | 980 (722) | 2,352 (1,733) | 19,600 (14,445) | 12,500 x (2) (9,213) x (2) | | | |

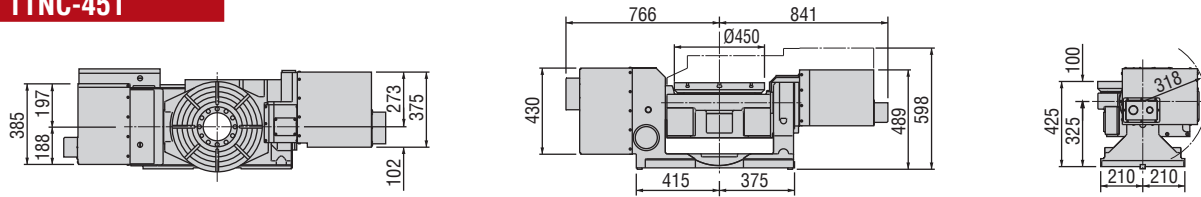
* Other motors & RPM available • ** Booster optional • Specifications subject to change without notice

NC Tilting Rotary Tables ▶ Standard Models

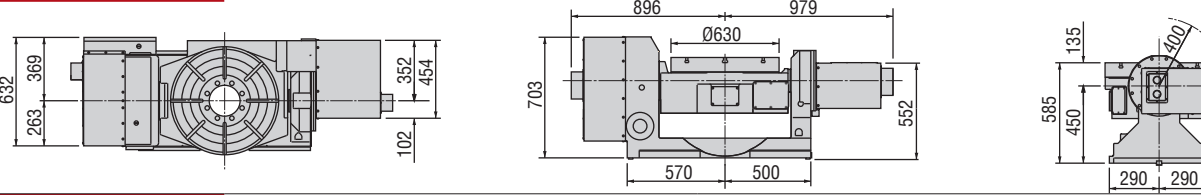
Dimensions ▶

Drawings not to scale • Dimensions = mm

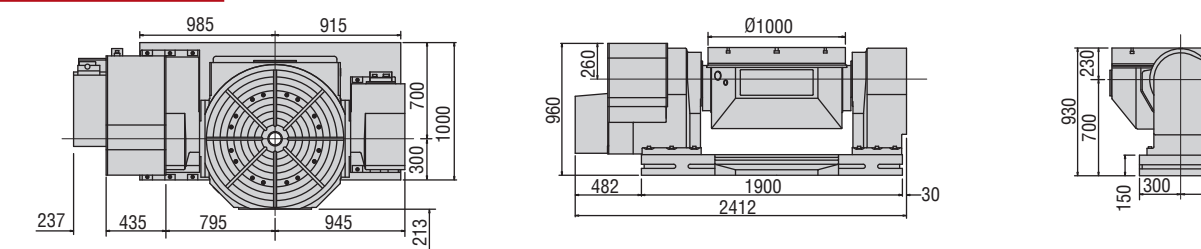
TTNC-451



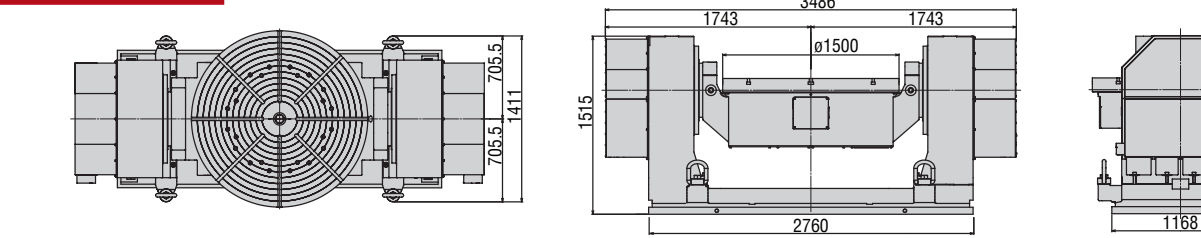
TTNC-631



TTNC-1001



TTNC-1500

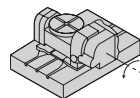


The dimensions above are for tables with a FANUC servo motor. Other motors available (dimensions may increase).

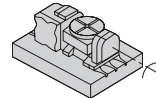
Options & Accessories

| | |
|-----------------------|------|
| TPC NC Controller | p.66 |
| Chucks | p.77 |
| Tailstock | p.79 |
| Support Spindle | p.79 |
| Face Plate | p.81 |
| Encoder / Scale | p.82 |
| Pull Stud Device | p.83 |
| Rotary Joint | p.83 |
| Air/Hydraulic Booster | p.84 |
| PVC or Steel Cables | p.84 |

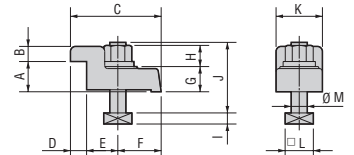
Layout a



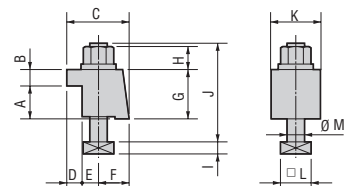
Layout b



Type I



Type II



Clamping Block and Bolt ▶

Dimensions = mm

| | Type | Q'ty | Layout | T-Slot Width | A | B | C | D | E | F | G | H | I | J | K | L | M |
|-----------|------|------|--------|--------------|----|----|-----|----|----|----|----|----|------|-----|-----|------|----|
| TTNC-451 | I | 4 | a b | 18 | 40 | 20 | 109 | 18 | 42 | 50 | 25 | 21 | 11 | 70 | 46 | 28 | 16 |
| TTNC-631 | I | 4 | a b | 18 | 40 | 20 | 110 | 18 | 42 | 50 | 25 | 21 | 11 | 70 | 46 | 28 | 16 |
| TTNC-1001 | II | 8 | - | 24 | 50 | 20 | 74 | 20 | 18 | 36 | 70 | 29 | 16 | 130 | 70 | 40 | 22 |
| TTNC-1500 | II | 10 | - | 28 | 60 | 28 | 95 | 29 | 16 | 50 | 95 | 22 | 17.5 | 146 | 100 | 41.3 | 24 |

Note 1: In the case of layout b, contact us for details about mounting.

Note 2: 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 KOMA (opt.)