







**TN-450 / TWB-630 / TTNC- 631, 1001, 1500**

**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.



TTNC-1500

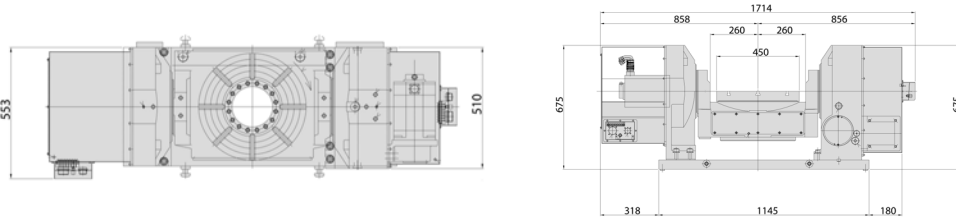
Table Model		TN-450	TWB-630	TTNC-1001	TTNC-1500				
Tilt Range		-10° ~ +95°	-10° ~ +95°	-20° ~ +110°	-30° ~ +95°				
Table diameter	mm	450	630	1,000	1,500				
Table height at 0° position	mm	425	585	900	1,155				
Center height at 90° position	mm	325	450	700	1,055				
Center bore	Nose Diameter	mm	140H7	180H6	75H7	75H7			
	Thru Diameter	mm	140	180	-	-			
Table T-slot width		14H7	18H7	22H7	28H7				
Guide block width		18h7	18h7	-	-				
Servo motor (Fanuc)*	Rotary	Alpha 22i	Alpha 12i	Alpha 22i	Alpha 30i	Alpha 30i	Alpha 30i		
	Tilt	Alpha 22i	Alpha 12i	Alpha 30i	Alpha 30i	Alpha 30i	Alpha 30i		
Maximum motor speed	rpm	4,000	4,000	4,000	4,000	3,000	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	rpm	22.2	11.1	22.2	11.1	8.3	1.4	2.7	1.4
Inertia converted into motor shaft	x 10 <sup>-3</sup> kg·m <sup>2</sup>	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	Nm (ft. lbs.)	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	arc sec.	±7.5	-	±7.5	-	±7.5	-	±10	-
Tilting accuracy	arc sec.	-	±30	-	±30	-	±30	-	±22.5 (scale)
Net Weight		kg (lbs.)	780 (1,716)	1,700 (3,740)	4,600 (10,120)	12,000 (26,400)			
Allowable wheel torque - rotary		Nm (ft. lbs.)	1,666 (1,228)	3,284 (4,420)	13,230 (9,751)	21,560 (15,890)			
Allowable work inertia		kg·m <sup>2</sup>	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

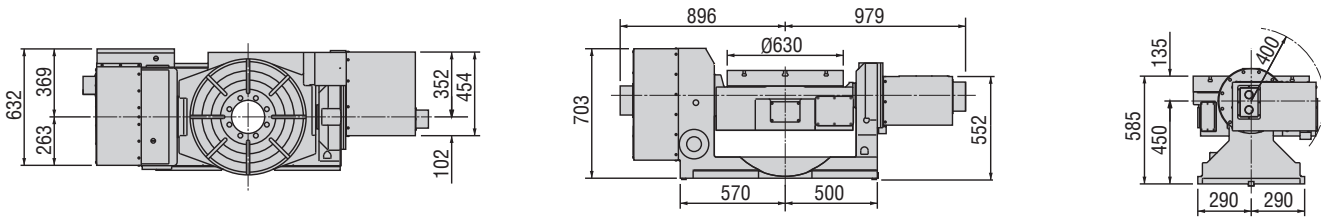
## Dimensions

Drawings not to scale • Dimensions = mm

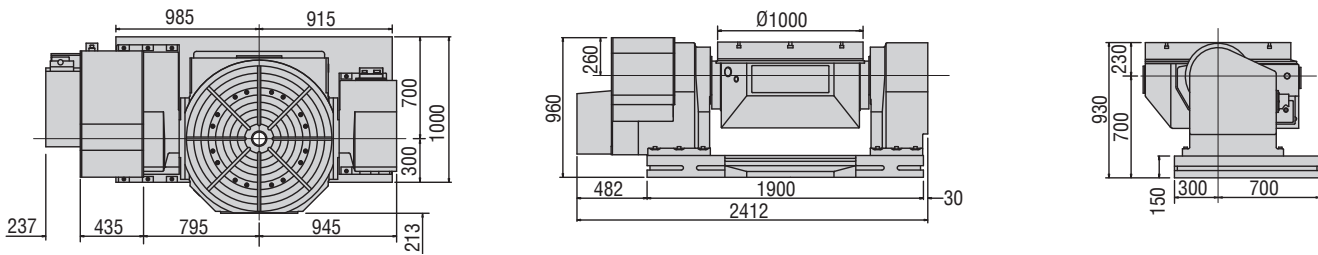
### TN-450



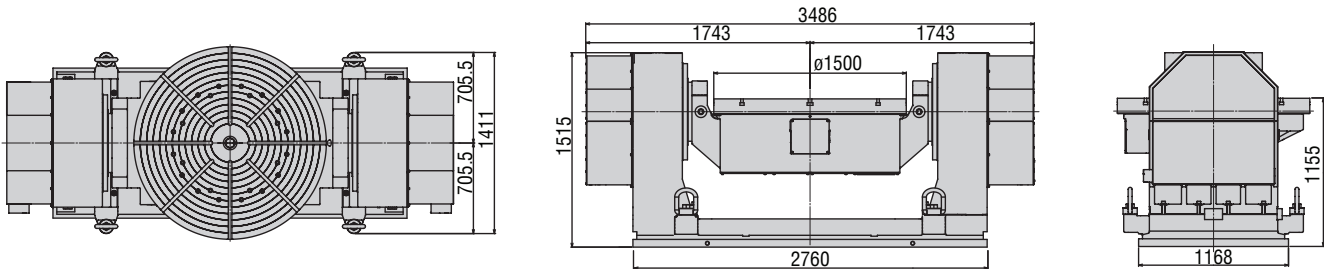
### TWB-630



### TTNC-1001

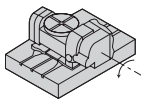


### TTNC-1500

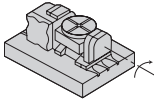


The dimensions above are for tables with a FANUC servo motor. Other motors available (dimensions may increase).

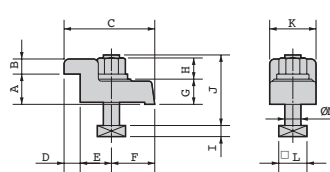
#### Layout a



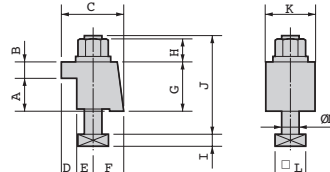
#### Layout b



#### Type I



#### Type II



#### Options & Accessories

TPC NC Controller	p.62
Chucks	p.74
Tailstock	p.75
Support Spindle	p.77
Face Plate	p.77
Encoder / Scale	p.78
Pull Stud Device	p.79
Rotary Joint	p.79
Booster	p.80
PVC or Steel Cables	p.81

### 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
TWB-630	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.)