

TTNC-451, 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

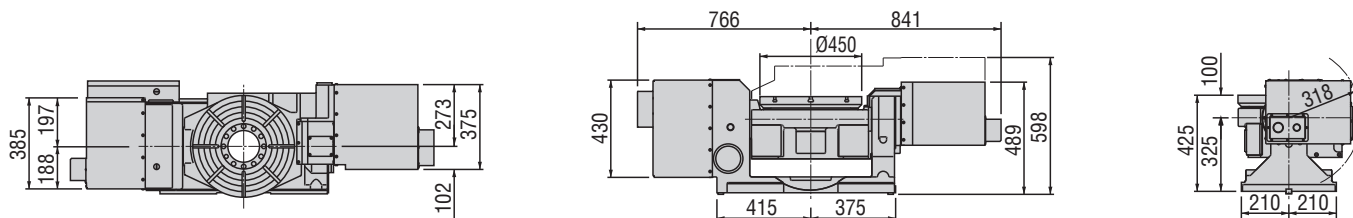
Model		TTNC-451	TTNC-631	TTNC-1001	TTNC-1500
Tilt Range		-10° ~ +95°	-10° ~ +95°	-20° ~ +110°	-30° ~ +95°
Table diameter	mm	450	630	1,000	1,500
Table height at 0° position	mm	425	585	900	1,155
Center height at 90° position	mm	325	450	700	1,055
Center bore	Nose Diameter	mm	140H7	180H6	75H7
	Thru Diameter	mm	140	180	-
Table T-slot width		14H7	18H7	22H7	28H7
Guide block width		18h7	18h7	-	-
Servo motor (Fanuc)*	Rotary	Alpha 12i	Alpha 12i	Alpha 22i	Alpha 30i
	Tilt	Alpha 12i	Alpha 12i	Alpha 30i	Alpha 30i
Maximum motor speed	rpm	4,000	4,000	3,000	2,000
Speed reduction ratio		1/180	1/360	1/360	1/1,440
Maximum table speed	rpm	22.2	11.1	8.3	1.4
Inertia converted into motor shaft	x 10 ⁻³ kg.m ²	1.98	2.7	4.37	4.1
Clamp system**		Hydraulic @500psi	Hydraulic @500psi	Hydraulic @1,000psi	Hydraulic @1,000psi
Clamp torque	Nm (ft. lbs.)	980 (722)	980 (722)	9,800 (7,223)	19,600 (14,445)
Indexing accuracy	arc sec.	±7.5	-	±7.5	-
Tilting accuracy	arc sec.	-	±30	-	±30
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 ²	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)
	0° ~ 90° tilt angle	kg (lbs)	150 (330)	300 (660)	1,500 (3,300)
Allowable work moment		Nm (ft. lbs.)	294 (217)	980 (722)	7,840 (5,778)
Allowable load when table clamped		N (lbf)	19,600 (4,390)	24,500 (5,488)	29,400 (6,587)
		Nm (ft. lbs.)	980 (722)	4,410 (3,250)	9,800 (7,223)
		Nm (ft. lbs.)	980 (722)	2,352 (1,733)	19,600 (14,445)

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

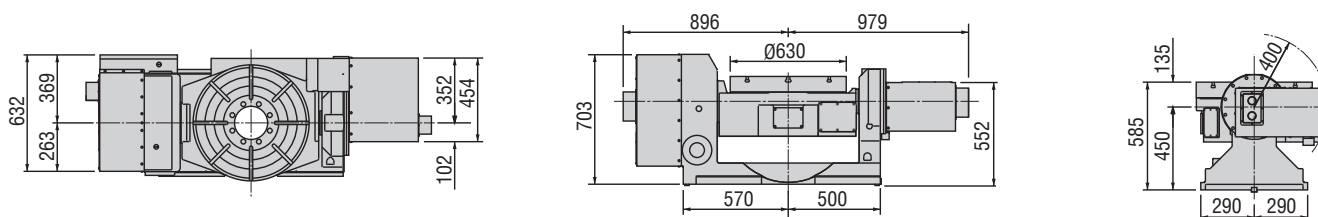
Dimensions

Drawings not to scale • Dimensions = mm

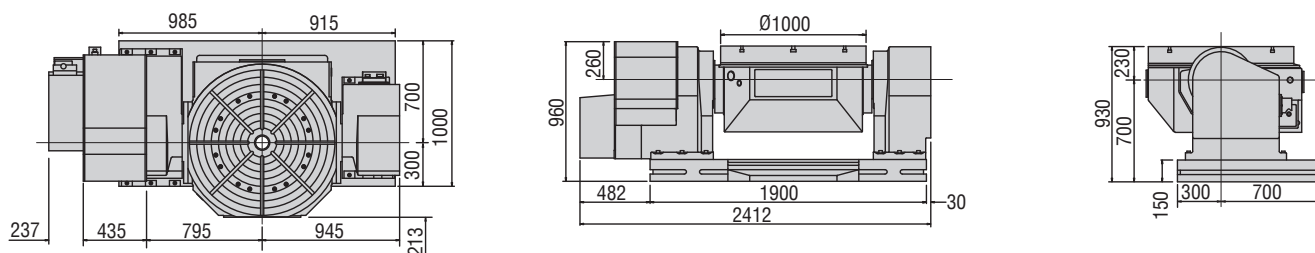
TTNC-451



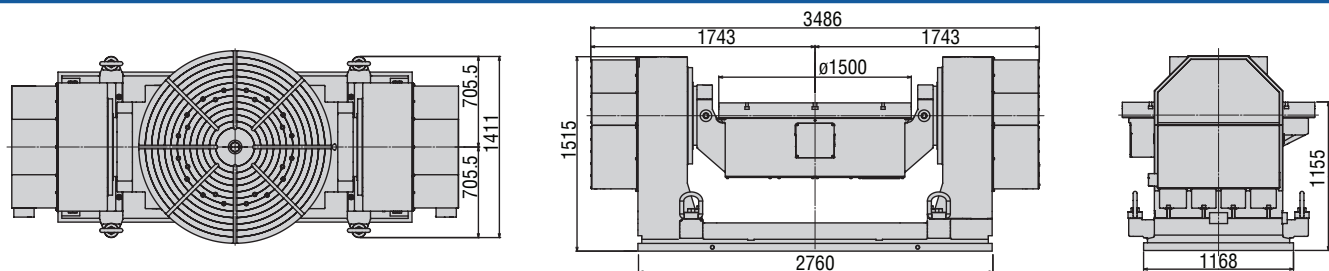
TTNC-631



TTNC-1001

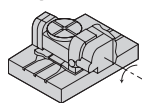


TTNC-1500

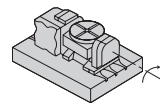


The dimensions above are for tables with a FANUC servo motor. Other motors available (dimensions may increase).

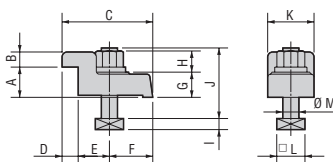
Layout a



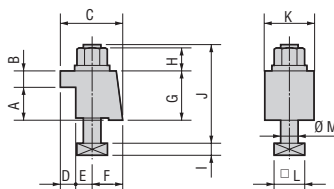
Layout b



Type I



Type II



Dimensions = mm

Clamping Block and Bolt

	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.)

Options & Accessories

TPC NC Controller	p.68
Chucks	p.79
Tailstock	p.81
Support Spindle	p.81
Face Plate	p.83
Encoder / Scale	p.84
Pull Stud Device	p.85
Rotary Joint	p.85
PVC or Steel Cables	p.86