



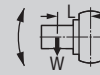



**TND-130, 160, 200**

DROP TRUNNION • PNEUMATIC CLAMPING

The TND-Series tilting rotary tables feature a trunnion configuration at the same level between the tilting axis and spindle top of rotary axis. These tables enable highly accurate and productive machining.



TND-160

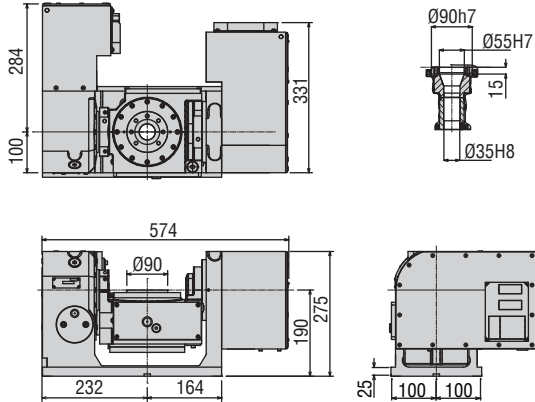
Model		TND-130	TND-160	TND-200			
Tilt Range		-17° ~ +107°	-30° ~ +110°	-30° ~ +110°			
Spindle outer diameter	mm	90h7	100h7	120h7			
Table diameter (optional)	mm	(135)	(160 or 200)	(200 or 250)			
Table height at 0° position	mm	190 (215 w/face plate)	210 (235 w/face plate)	255 (285 w/face plate)			
Center height at 90° position	mm	190	210	255			
Center bore	Nose Diameter (w/ face plate)	mm	55H7 (40H7)	55H7 (50H7)	65H7 (60H7)		
	Thru Diameter	mm	35	40	45		
Table T-slot width		12H8 (w/ face plate)	12H8 (w/ face plate)	12H8 (w/ face plate)			
Guide block width		14h7	18h7	18h7			
Servo motor (Fanuc)*	Rotary	Alpha 2i	Alpha 2i	Alpha 2i	Alpha 2i	Alpha 4i	Alpha 4i
	Tilt	Alpha 2i	Alpha 2i	Alpha 2i	Alpha 2i	Alpha 4i	Alpha 4i
Maximum motor speed	rpm	5,000	5,000	5,000	5,000	4,000	4,000
Speed reduction ratio		1/60	1/120	1/72	1/180	1/45	1/180
Maximum table speed	rpm	83.3	41.7	69.4	27.8	88.9	22.2
Inertia converted into motor shaft	$\times 10^{-3} \text{kg}\cdot\text{m}^2$	.127	.087	.191	.125	.444	.163
Clamp system		Pneumatic Dual Taper	Pneumatic Dual Taper	Pneumatic Dual Taper	Pneumatic Dual Taper	Pneumatic Dual Taper	Pneumatic Dual Taper
Clamp torque @72psi	Nm (ft. lbs.)	500 (369)	500 (369)	500 (369)	800 (590)	800 (590)	1,000 (737)
Indexing accuracy	arc sec.	±20	-	±15	-	±15	-
Indexing repeatability	arc sec.	±2	-	±2	-	±2	-
Tilting accuracy	arc sec.	-	±30	-	±37.5	-	±37.5
Tilting repeatability	arc sec.	-	±4	-	±4	-	±4
Net Weight	kg (lbs.)	98 (215)	140 (308)	215 (473)			
Allowable wheel torque - rotary	Nm (ft. lbs.)	152 (112)	200 (147)	450 (332)			
Allowable work inertia	$\text{kg}\cdot\text{m}^2$	.08	.19	.59			
Allowable work weight	0° tilt angle 	kg (lbs)	35 (77)	60 (132)	120 (264)		
	0° ~ 90° tilt angle 	kg (lbs)	20 (44)	40 (88)	70 (154)		
Allowable work moment	 Nm (ft. lbs.)		41.6 (30.7)	86.3 (63.6)	125.3 (92.3)		
Allowable load when table clamped	 N (lbf)		3,920 (878)	7,840 (1,756)	13,720 (3,073)		
	 Nm (ft. lbs.)		500 (369)	500 (369)	800 (590)		
	 Nm (ft. lbs.)		500 (369)	800 (590)	1,000 (737)		

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

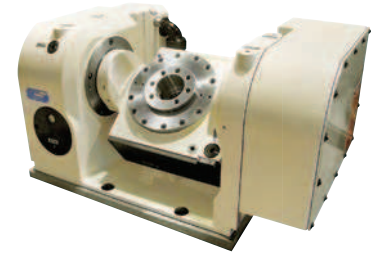
## Dimensions ▶

Drawings not to scale • Dimensions = mm

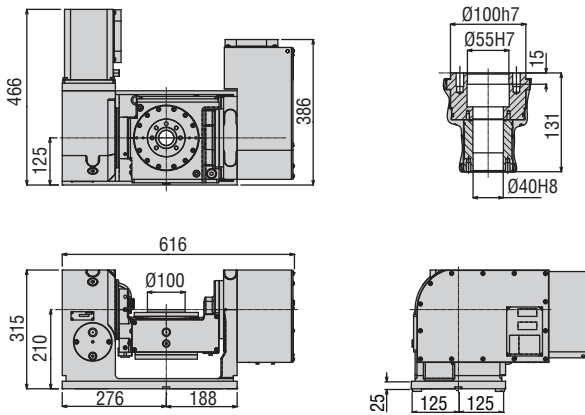
### TND-130



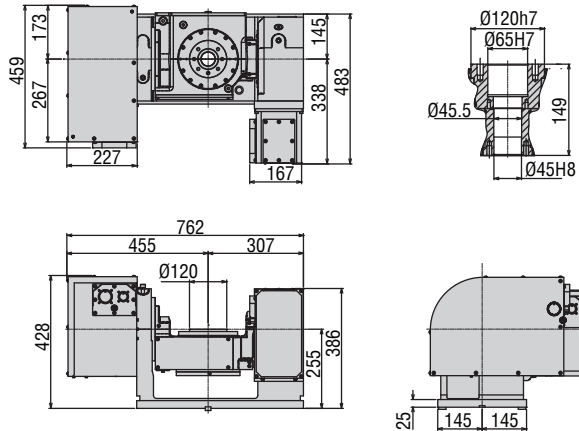
### • TND-130



### TND-160



### TND-200

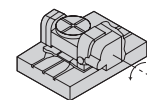


### Options & Accessories

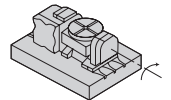
TPC NC Controller	p.66
Chucks	p.77
Tailstock	p.79
Support Spindle	p.79
Face Plate	p.81
Encoder / Scale	p.82
Pull Stud Device	p.83
Rotary Joint	p.83
PVC or Steel Cables	p.84

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

### Layout a



### Layout b



## 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
TND-130	I	4	a b	14	20	12	70	10	35	25	20	17	8	55	35	23	12
TND-160	I	4	a b	18	20	12	70	10	35	25	17	15	11	55	35	28	16
TND-200	I	4	a b	18	25	12	80	12	33	35	22	21	11	65	40	28	16

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.)

### Type I

