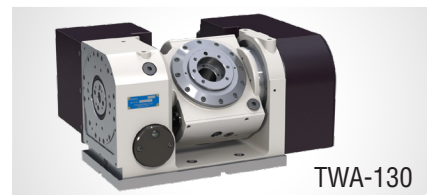








TN-101, 320 / TWA-130, 160, 200

POWERFUL, HIGH SPEED TILTING TABLES

The TWA-Series tables are top of the line, high speed, high power, high accuracy tilting rotary tables. The TN-101 and TWA-130 are ideal for use on drilling and tapping machines.



TWA-130

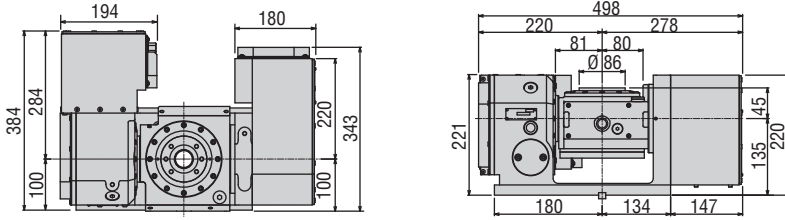
Model	TN-101		TWA-130		TWA-160		TWA-200		TN-320		
Tilt Range	-17° ~ +107°		-17° ~ +107°		-30° ~ +110°		-30° ~ +110°		-30° ~ +110°		
Spindle outer diameter	mm	86h7	90h7		100h7		120h7		-		
Table diameter (optional)	mm	(135)	(135)		(160 or 200)		(200 or 250)		320		
Table height at 0° position	mm	180 (205 w/face plate)	210 (235 w/face plate)		235 (260 w/face plate)		270 (300 w/face plate)		355		
Center height at 90° position	mm	135	150		180		210		255		
Center bore	Nose Diameter (w/ face plate)	mm	55H7 (40H7)		55H7 (50H7)		65H7 (60H7)		105H7		
	Thru Diameter	mm	35		40		45		102		
Table T-slot width	12H8 (w/ face plate)		12H8 (w/ face plate)		12H8 (w/ face plate)		12H8 (w/ face plate)		14H7		
Guide block width	14h7		14h7		18h7		18h7		18h7		
Servo motor (Fanuc)*	Rotary	Tilt	Rotary	Tilt	Rotary	Tilt	Rotary	Tilt	Rotary	Tilt	
	Alpha 2i	Alpha 2i	Alpha 2i	Alpha 2i	Alpha 2i	Alpha 2i	Alpha 4i	Alpha 4i	Alpha 8i	Alpha 8i	
Maximum motor speed	rpm	5,000	5,000		5,000		5,000		4,000		
Speed reduction ratio		1/60	1/120		1/72		1/45		1/240		
Maximum table speed	rpm	83.3	41.7		69.4		111.1		16.7		
Inertia converted into motor shaft	x 10 ⁻³ kg·m ²	.072	.078		.17		.38		.45		
Clamp system		Pneumatic	Pneumatic		Pneumatic Dual Taper		Pneumatic Dual Taper		Hydraulic @500 psi		
Clamp torque @72psi [500 psi]	Nm (ft. lbs.)	200 (147)	300 (221)		500 (369)		800 (590)		[2,200] [(1,621)]		
Indexing accuracy	arc sec.	±20	-		±15		±15		±10		
Indexing repeatability	arc sec.	±2	-		±2		±2		±2		
Tilting accuracy	arc sec.	-	±22.5		-		±22.5		-		
Tilting repeatability	arc sec.	-	±4		-		±2		-		
Net Weight	kg (lbs.)	65 (143)		76 (167)		127 (279)		190 (418)		440 (968)	
Allowable wheel torque - rotary	Nm (ft. lbs.)	152 (112)		152 (112)		200 (147)		450 (332)		931 (686)	
Allowable work inertia	kg·m ²	.08		.08		.19		.59		1.53	
Allowable work weight	0° tilt angle 	kg (lbs)	35 (77)		60 (132)		120 (264)		150 (330)		
	0° ~ 90° tilt angle 	kg (lbs)	20 (44)		40 (88)		70 (154)		100 (220)		
Allowable work moment	 Nm (ft. lbs.)	24 (17.7)		39.2 (28.9)		53.7 (39.6)		163.3 (120.4)			
Allowable load when table clamped	 N (lbf)	3,920 (878)		7,840 (1,756)		13,720 (3,073)		19,600 (4,390)			
	 Nm (ft. lbs.)	200 (147)		500 (369)		800 (590)		2,200 (1,621)			
	 Nm (ft. lbs.)	300 (221)		800 (590)		1,000 (737)		2,200 (1,621)			

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

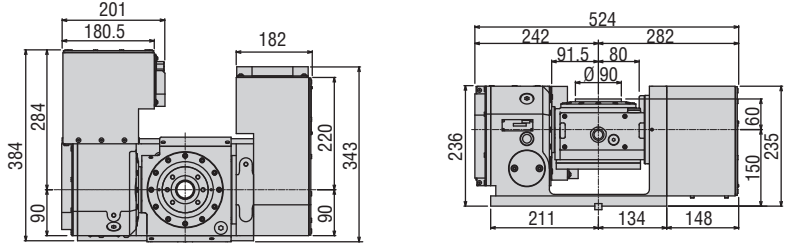
Dimensions ▶

Drawings not to scale • Dimensions = mm

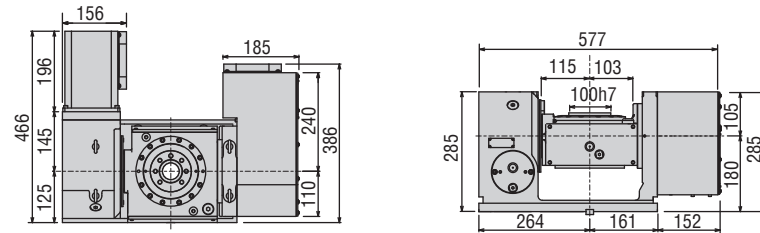
TN-101



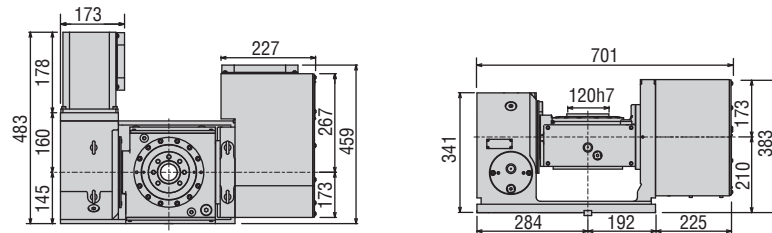
TWA-130



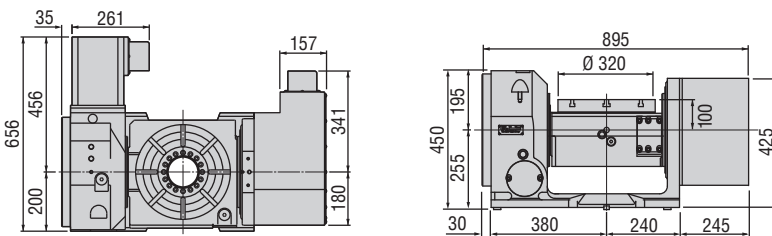
TWA-160



TWA-200



TN-320



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

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
TN-101	I	4	a b	14	20	12	70	10	35	25	20	12	8	50	35	23	12
TWA-130	I	4	a b	14	20	12	70	10	35	25	20	17	8	55	35	23	12
TWA-160	I	4	a b	18	20	12	70	10	35	25	17	15	11	55	35	28	16
TWA-200	I	4	a b	18	25	12	80	12	33	35	22	21	11	65	40	28	16
TN-320	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.)

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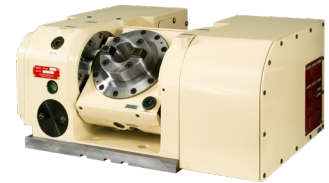
• TWA-Series

Monoblock Construction

All new TWA-Series tilting rotary tables feature Tsudakoma's Monoblock one piece casting construction. Monoblock construction results in tilting tables with superior rigidity and damping characteristics, which translates into parts with smoother surface finishes. Tsudakoma is the only rotary table manufacturer with its own casting foundry.



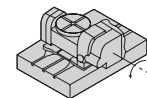
• TWA-130 Pull Stud Option



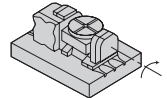
Options & Accessories

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

Layout a



Layout b



Type I

