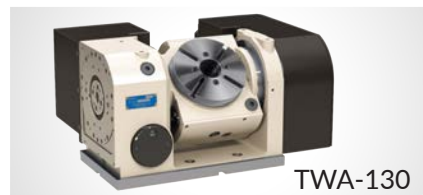


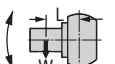
TWA-100, 130, 160, 200/ TN-320

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

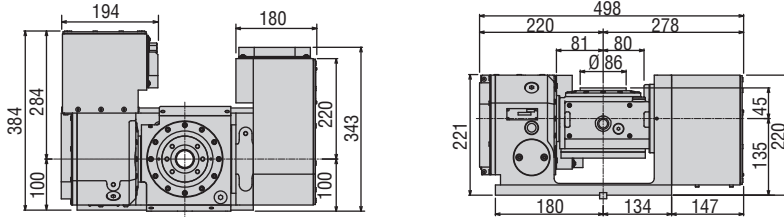
Table Model			TWA-100		TWA-130		TWA-160		TWA-200		TN-320	
Tilt Range			-17° ~ +107°		-17° ~ +107°		-30° ~ +110°		-30° ~ +110°		-30° ~ +110°	
Spindle outer diameter		mm	86h7		90h7		100h7		120h7		-	
Table diameter (optional)		mm	(135)		(135)		(160 or 200)		(200 or 250)		320	
Table height at 0° position		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 (40H7)		55H7 (50H7)		65H7 (60H7)		105H7	
	Thru Diameter	mm	35		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 2i	Alpha 4i	Alpha 4i	Alpha 8i
Maximum motor speed		rpm	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	4,000	4,000
Speed reduction ratio			1/60	1/120	1/60	1/120	1/72	1/120	1/45	1/90	1/120	1/240
Maximum table speed		rpm	83.3	41.7	83.3	41.7	69.4	41.7	111.1	55.5	33.3	16.7
Inertia converted into motor shaft		x 10 ⁻³ kg·m ²	.072	.078	.074	.072	.17	.18	.38	.45	.82	.45
Clamp system			Pneumatic	Pneumatic	Pneumatic Dual Taper	Pneumatic Dual Taper	Pneumatic Dual Taper	Pneumatic Dual Taper	Pneumatic Dual Taper	Pneumatic Dual Taper	Hydraulic @500 psi**	Hydraulic @500 psi**
Clamp torque @72psi [500 psi]		Nm (ft. lbs.)	200 (147)	300 (221)	500 (369)	500 (369)	500 (369)	800 (590)	800 (590)	1,000 (737)	[2,200] [(1,621)]	[2,200] [(1,621)]
Indexing accuracy		arc sec.	±20	-	±20	-	±15	-	±15	-	±10	-
Tilting accuracy		arc sec.	-	±22.5	-	±22.5	-	±22.5	-	±22.5	-	±22.5
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)		35 (77)		60 (132)		120 (264)		150 (330)	
	0° ~ 90° tilt angle	 kg (lbs)	20 (44)		20 (44)		40 (88)		70 (154)		100 (220)	
Allowable work moment	 Nm (ft. lbs.)	24 (17.7)		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)		3,920 (878)		7,840 (1,756)		13,720 (3,073)		19,600 (4,390)		
	 Nm (ft. lbs.)	200 (147)		500 (369)		500 (369)		800 (590)		2,200 (1,621)		
	 Nm (ft. lbs.)	300 (221)		500 (369)		800 (590)		1,000 (737)		2,200 (1,621)		

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

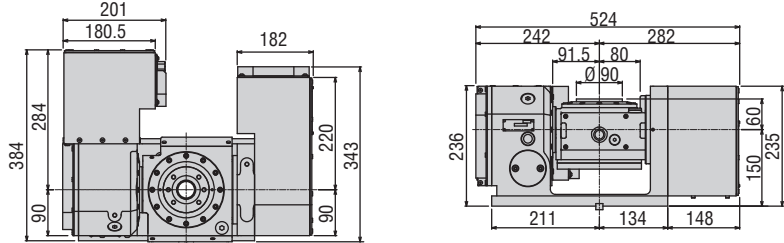
Dimensions

Drawings not to scale • Dimensions = mm

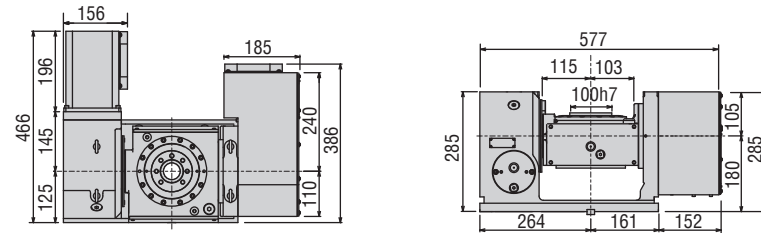
TWA-100



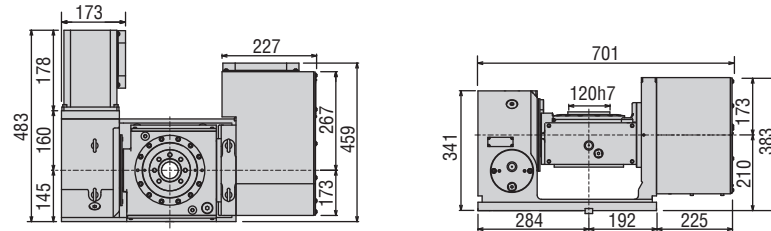
TWA-130



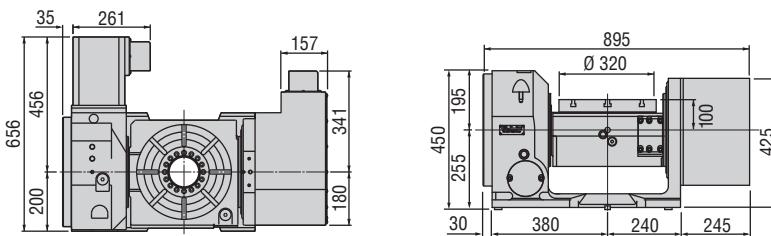
TWA-160



TWA-200



TN-320



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

WORKPIECE MOUNTING SPACE FOR TILTING ROTARY TABLES

	0 ~ +90°	0 ~ +107°	-17° ~ 0
TWA-100			
TWA-130			
TWA-160			
TWA-200			
TN-320			

Note: To ensure workpiece, rotary table, and machine tool integration, contact KOMA for 3D CAD support.

TN-130 Pull Stud Option



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

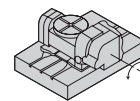
Dimensions = mm

	Type	Q'ty	Layout	T-Slot Width	A	B	C	D	E	F	G	H	I	J	K	L	M
TWA-100	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

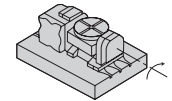
Note 1: In the case of layout B, contact us for details about mounting.

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.)

Layout a



Layout b



Type I

