

Standard type

TWA/TN

TWA-100•130•160•200
TN-320•450

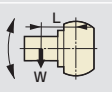
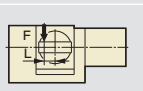
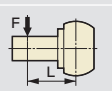
Compact tables for speedy and powerful five-axis machining.
TWA-100 and TWA-130 are the most suitable models for drilling and tapping machines.



TWA-130

Unit: mm

Specifications

		TWA-100	TWA-130	TWA-160	TWA-200	TN-320	TN-450
Tilt range		−17° to +107°	−17° to +107°	−30° to +110°	−30° to +110°	−30° to +110°	−10° to +95°
Spindle diameter		φ86h7	φ90h7	φ100h7	φ120h7	—	—
Table diameter		φ135 (Option)	φ135 (Option)	φ160 or 200 (Option)	φ200 or 250 (Option)	φ320	φ450
Table height at 0° position		180 (205 w/face plate)	210 (235 w/face plate)	235 (260 w/face plate)	270 (300 w/face plate)	355	425
Center height at 90° position		135	150	180	210	255	425
Center bore	Nose diameter	φ55H7 (φ40H7 w/face plate)	φ55H7 (φ40H7 w/face plate)	φ55H7 (φ50H7 w/face plate)	φ65H7 (φ60H7 w/face plate)	φ105H7	φ170H7
	Through-bore	φ35	φ37	φ40	φ45	φ102	φ136
Table T-slot width		12H8 (w/face plate)	12H8 (w/face plate)	12H8 (w/face plate)	12H8 (w/face plate)	14H7	14H7
Guide block width		14 h 7	14 h 7	18 h 7	18 h 7	18 h 7	18 h 7
Servo motors (for FANUC)	Rotary axis	αiS2	αiS2	αiS2	αiS2	αiF4	αiF8
	Tilt axis	αiS2	αiS2	αiS2	αiS2	αiF8	αiF22
Inertia converted into motor shaft	×10 ^{−3} kg·m ²	0.072	0.078	0.074	0.072	0.17	0.18
Speed reduction ratio		1/60	1/120	1/60	1/120	1/72	1/120
Table max. rpm	min ^{−1} (Motor rpm: 2,000min ^{−1})	41.6 (Motor rpm: 2,500min ^{−1})	16.6	41.6 (Motor rpm: 2,500min ^{−1})	16.6	27.7	16.6
Clamp system	Supplied pressure	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic
Clamp torque	—	200	300	500	500	800	800
Clamp torque	/ pneumatic pressure 0.49MPa·hydraulic pressure 3.5MPa N·m	200	300	500	500	800	1,000
Indexing accuracy (the sum)	arc sec	40	—	40	—	30	—
Tilting accuracy Tilt 0° to 90°	arc sec	—	45	—	45	—	45
Net weight	kg	75	85	135	195	440	1,200
Strength of worm gears (Rotary axis)	N·m	152	152	200	450	931	1,940
Allowable work weight	0° (Horizontal)	 kg	35	35	60	120	150
	0° to 90° (Tilting)	 kg	20	20	40	70	100
Allowable work moment	W×L	 N·m	24	24	39.2	53.7	163.3
	F	 N	3,920	3,920	7,840	13,720	19,600
Allowable load (when table is clamped)	F×L	 N·m	200	500	500	800	2,200
	F×L	 N·m	300	500	800	1,000	2,200
Allowable work inertia	$J = \frac{W \cdot D^2}{8}$	 kg·m ²	0.08	0.08	0.19	0.59	1.53

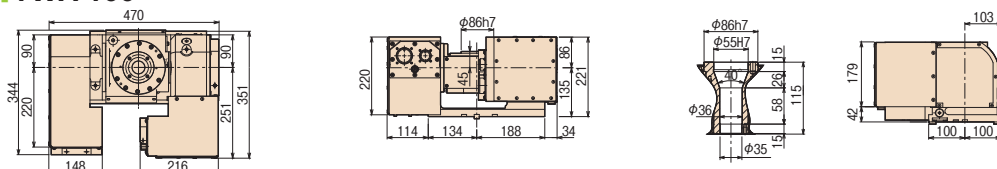
CE correspondence model (excluding TN)

- Tech.Info.** Servo motors of other manufacturers **P.68** When assembling a faceplate or a fixture with the main spindle **P.79**
- Option** High-precision Spec. **P.64** Pull Stud **P.66** Rotary Joint **P.66**

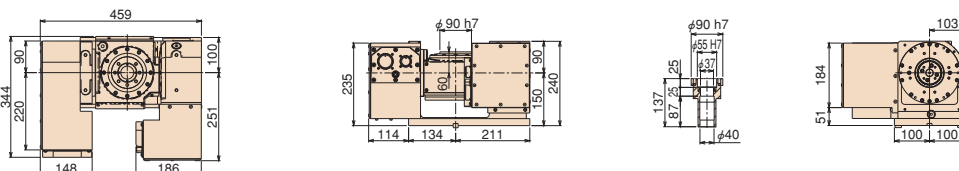
Dimensions

Unit: mm

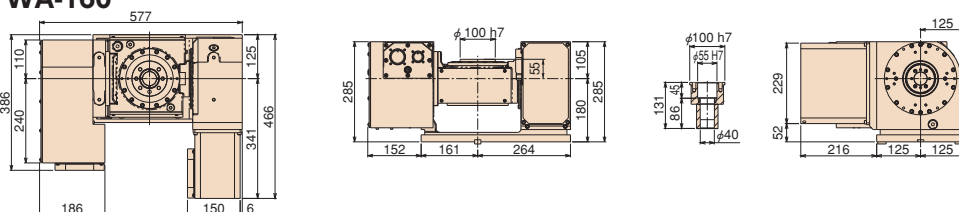
TWA-100



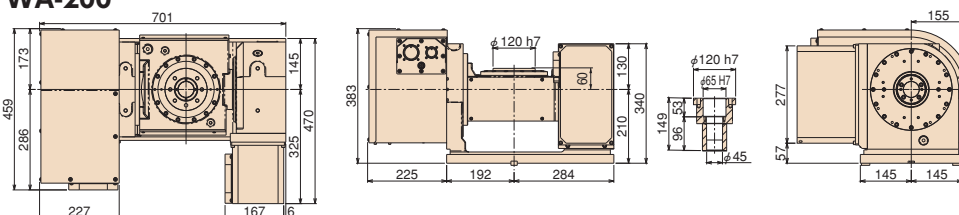
TWA-130



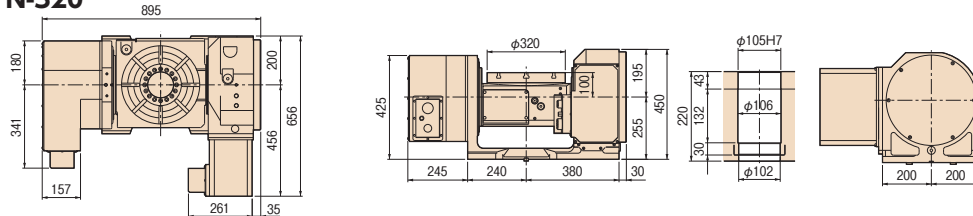
TWA-160



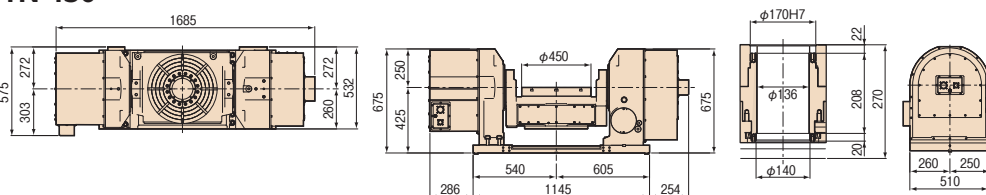
TWA-200



TN-320



TN-450



Note: The above dimensions are for FANUC servo motors. The dimensions of servo motors of other manufacturers may be larger.

Clamping block and bolt

Unit: mm

	Type	Q'ty	Layout	T-slot pitch	T-slot width	A	B	C	D	E	F	G	H	I	J	K	L	M
TWA-100	I	4	a b	40 to 160 *	14	20	12	70	10	35	25	20	12	8	50	35	23	12
TWA-130	I	4	a b	40 to 190 *	14	20	12	70	10	35	25	20	17	8	55	35	23	12
TWA-160	I	4	a b	78 to 150 63 to 117	18	20	12	70	10	35	25	17	15	11	55	35	28	16
TWA-200	I	4	a b	80 to 180 78 to 125	18	25	12	80	12	33	35	22	21	11	65	40	28	16
TN-320	I	4	a b	140 to 190 95 to 180	18	25	12	80	12	33	35	22	21	11	65	40	28	16
TN-450	IV	4	a b	80 to 250 *	18	50	20	74	20	18	36	75	10	11	105	70	28	16

Note 1: * In the case of layout b, contact us for the 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 TSUDAKOMA. (Option)

RBS

RBH

Multi-Spindle
RBM

TBS

RWE/RWA
RN

RWH

RWA-B
RNCV-B

RWB

RWB-K
RNCK

RCB

RCH
RNC

RCV

Multi-Spindle
RWM

TWA/TN

TWB
TTNC

Multi-Spindle
TWM

RDS

RTV
RTT

TDS
TDB

NC Controllers

Accessories

Options

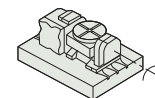
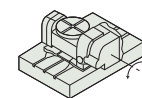
Technical
Information



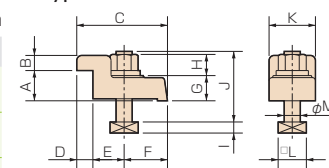
TN-450

Layout a

Layout b



Type I



Type IV

