

Standard type

TBS TBS-130•160•250

The latest technology, tilting rotary tables with TSUDAKOMA BallDrive system are joined in our line-up to provide perfect performance in 5-axis machining and to contribute to improve productivity.



TBS-160,H

Unit: mm

Specifications

		TBS-130,H		TBS-160,H		TBS-250,H	
Tilt range		-30° to +110°		-30° to +110°		-30° to +110°	
Spindle diameter		φ 90 h7		φ 100 h7		φ 140 h7	
Table diameter		φ 135 (Option)		φ 160 or 200 (Option)		φ 250 (Option)	
Table height at 0° position		225 (250 w/face plate)		270 (300 w/face plate)		290 (320 w/face plate)	
Center height at 90° position		160		200		235	
Center bore	Nose diameter	φ 55 H7 (φ 40 H7 w/face plate)		φ 55 H7 (φ 50 H7 w/face plate)		φ 80 H7 (φ 75 H7 w/face plate)	
	Through-bore	φ 40		φ 40		φ 50	
Table T-slot width		12H8 (w/face plate)		12H8 (w/face plate)		12H8 (w/face plate)	
Guide block width		14h7		18h7		18h7	
Servo motors (for FANUC)	Rotary axis		Tilt axis		Tilt axis		Tilt axis
	αiS2		αiS2		αiS4		αiS8
Inertia converted into motor shaft	× 10 ⁻³ kg·m ²	0.121	0.140	0.155	0.168	0.586	0.465
Speed reduction ratio		1/48	1/60	1/60	1/60	1/45	1/60
Table max. rpm	min ⁻¹ (Motor rpm: 3,000min ⁻¹)	62.5	50	50	50	66.6	50
Clamp system	Supplied pressure	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic
Clamp torque /pneumatic pressure 0.49MPa	N·m	500	500	500	500	1,000	1,000
Indexing accuracy (the sum)	arc sec	20	—	20	—	20	—
Tilting accuracy Tilt 0° to 90°	arc sec	—	30	—	30	—	40
Net weight	kg	120		160		280	
Allowable work weight	0° (Horizontal) 	35		60		135	
	0° to 90° (Tilting) 	20		40		85	
Allowable work moment	W×L 	61.1		59.6		186.7	
Allowable load (when table is clamped)	F 	3,920		10,800		14,400	
	F×L 	500		500		1,000	
	F×L 	500		500		1,000	
Allowable work inertia	$J = \frac{W \cdot D^2}{8}$ 	0.08		0.19		1.05	

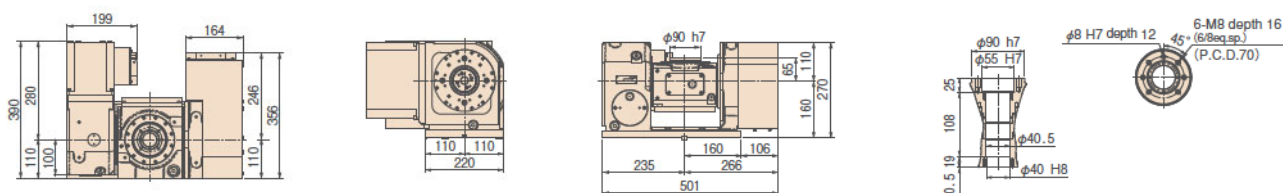
CE correspondence model

- 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** Rotary Joint **P.66** Pull Stud **P.66**

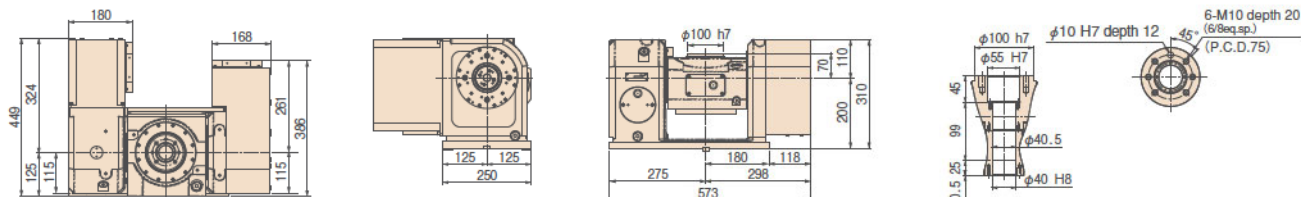
Dimensions

Unit:mm

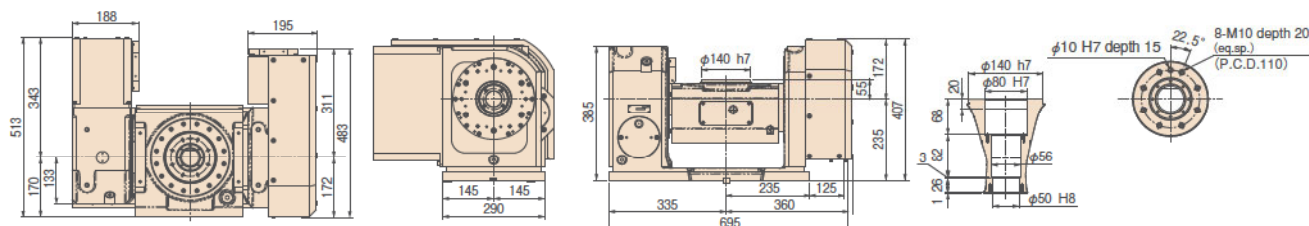
TBS-130



TBS-160



TBS-250



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
TBS-130	I	4	a b	40 to 134 *	14	20	12	70	10	35	25	20	17	8	55	35	23	12
TBS-160	I	4	a b	78 to 152 63 to 107	18	20	12	70	10	35	25	17	15	11	55	35	28	16
TBS-250	I	4	a b	130 to 215 78 to 125	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 the details about mounting.

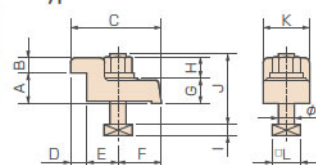
Note 2: When using a machine with a T-slot pitch other than the above, use suitable clamping blocks and bolts that are available on the market, or order custom-made ones from TSUDAKOMA. (Option)

Layout a

Layout b



Type I



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