

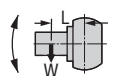

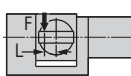



**TBS-130,H / 160,H / 250**

TILTING BALL DRIVE SYSTEM ROTARY TABLES

High accuracy, high rigidity, energy saving and zero maintenance rotary tables. TBS Series tilt rotary tables are built using the ball drive system featuring advantages like zero backlash, improved cycle times, energy conservation and a lifetime adjustment-free transmission system.



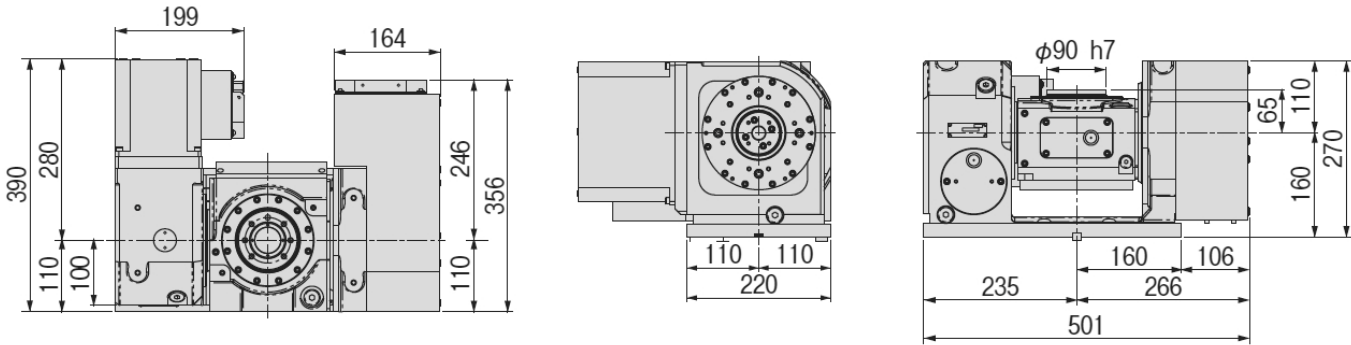
Model		TBS-130,H	TBS-160,H	TBS-250
Tilt Range		-30° ~ +110°	-30° ~ +110°	-30° ~ +110°
Spindle outer diameter		90h7	100h7	140H7
Table diameter (optional)		(135)	(160 or 200)	(250)
Table height at 0° position		225 (250 w/ faceplate)	270 (300 w/ faceplate)	290 (320 w/ faceplate)
Center height at 90° position		160	200	235
Center bore	Nose Diameter (w/faceplate)	55H7 (40H7)	55H7 (50H7)	80H7 (75H7)
	Thru Diameter	40	40	50
Servo motor*		Rotary Alpha 2i	Tilt Alpha 2i	Rotary Alpha 2i
				Tilt Alpha 4i
				Rotary Alpha 8i
Maximum motor speed	rpm	5,000	5,000	5,000
Speed reduction ratio		1/48	1/60	1/60
Maximum table speed	rpm	104.2	83.3	83.3
Inertia converted into motor shaft	$\times 10^{-3}\text{kg}\cdot\text{m}^2$	.074	.072	.17
Clamp system		Pneumatic		
Holding torque @72psi	Nm (ft. lbs.)	700 (516)		1,000 (737)
Indexing accuracy	arc sec.	±10		
Tilting accuracy	arc sec.	±17.5		±20
Net Weight	kg (lbs.)	125 (276)	160 (353)	280 (617)
Allowable work inertia	kg·m <sup>2</sup>	.08	.19	1.05
Allowable work weight kg (lbs)	 0° tilt angle	35 (77)	60 (132)	135 (298)
	 0° ~ 90° tilt angle	20 (44)	40 (88)	85 (187)
Allowable work moment	 Nm (ft. lbs.)	61.1	59.6	186.7 (137)
Allowable load when table clamped	 N (lbf)	3,920 (878)	10,800	14,400 (64,054)
	 Nm (ft. lbs.)	700 (516)	700 (516)	1,000 (737)
	 Nm (ft. lbs.)	700 (516)	700 (516)	1,000 (737)

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

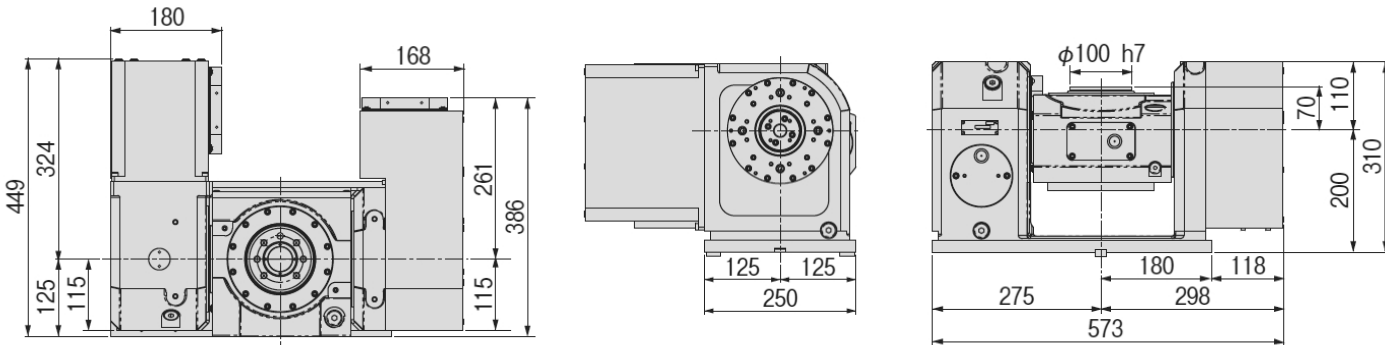
## Dimensions

Drawings not to scale • Dimensions = mm

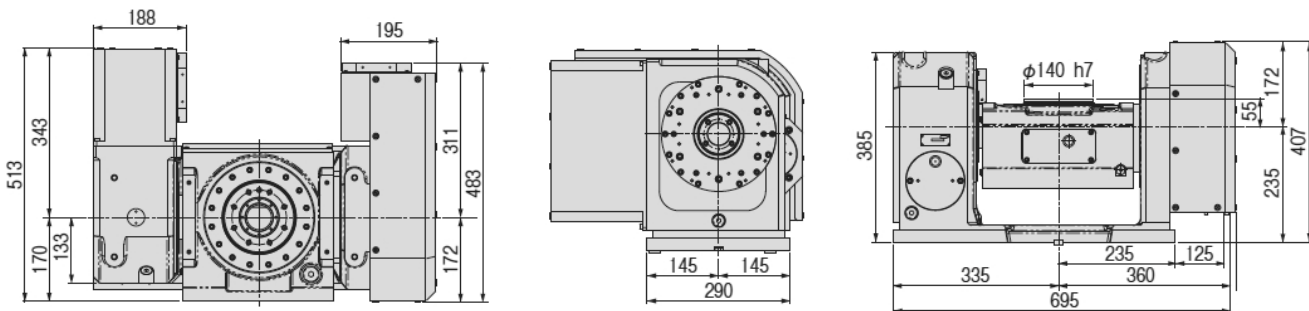
### TBS-130,H



### TBS-160,H



### TBS-250



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

### 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