

GTFAE-L(S) series

CNC Trunnion Tilting Rotary Table

GTFAE-320XBL(S)

flat supplemental base for standard 3 axis M/C

new optimization model

five axis trunnion type for lower gravity

worm gear transmission

with sub-table enlarged swing scope

tilting motor mounted at the back of table

X

hydraulic clamp by air booster converter built-in

S

superior pneumatic clamp

H

hydraulic clamp

table size



- Worktable diameter Ø170, Ø255, Ø320.
- The hydraulic brake equipped with radial and axial bearings.(P.18)
- Full gear depth transmitted by dual lead worm drive, resulting in higher efficiency and lower backlash.(P.20)
- Enlarged swing to allow more working envelope.
- Sub- table available as "S" model.

SPECIFICATIONS

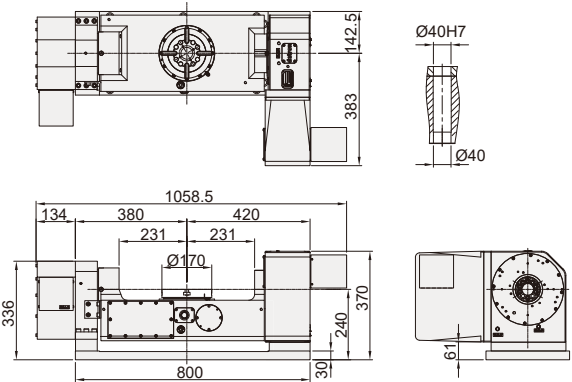
MODEL		Unit	GTFAE-170SL		GTFAE-255SBL(S)		GTFAE-320XBL(S)	
Worktable diameter		mm / inch	Ø170 / Ø6.69		Ø255 / Ø10.455		Ø320 / Ø12.60	
Center bore diameter		mm / inch	Ø40H7 / Ø1.57H7		Ø40H7 / Ø1.57H7		Ø50H7 / Ø1.97H7	
Height of table (horizontal)		mm / inch	240 / 9.45		360 / 14.17		365 / 14.37	
Height of center (vertical)		mm / inch	240 / 9.45		360 / 14.17		365 / 14.37	
Width of T-slot		mm / inch	12H7 / 0.47H7		12H7 / 0.47H7		12H7 / 0.47H7	
Clamping method /pressure		MPa / psi	*P: 0.55~0.7 / 72.5~101.5		*P:0.55~0.7/ 72.5~101.5		*P: 0.6~0.7/ 87~101.5	
Servo motor spec					refer to page 78			
Transmission ratio			R	T	R	T	R	T
			1 : 90	1 : 90	1 : 90	1 : 120	1 : 100	1 : 120
Max. table speed / at specified servo motor speed		min ⁻¹	22.2/2000	22.2/2000	22.2/2000	16.6/2000	25/2500	16.6/2000
Clamping torque		N.m / ft. lbs.	300/221	400/294.7	400/295	600/442.48	750/553.17	1500/1106.25
Allowable loading capacity	In Horizontal 	kg / lb	75 / 165		100 / 220		200 / 440	
	In Tilting (0~90°) 	kg / lb	50 / 110		75 / 165		100 / 220	
Allowable unbalancing work moment	WxL 	N.m / ft. lbs.	40 / 29.5		53 / 39.06		100 / 73.7	
FxL When table clamped	F 	N / lbs	7000 / 1570.8		20000 / 4488		20000 / 4488	
	FxL 	N.m / ft. lbs.	300 / 221		400 / 295		750 / 553.17	
	FxL 	N.m / ft. lbs.	400 / 294.7		600 / 442.48		1500 / 1106.25	
Allowable loading inertia	$(\frac{W.D^2}{8})$ 	kg.m ²	0.28		0.55		2.6	
Resolution		deg.	0.001		0.001		0.001	
Indexing accuracy		sec	20	60	20	60	20	60
Repeatability		sec	6	8	6	8	6	8
Tilting angle range		deg.	-120 ~ +30		-120 ~ +30		-120 ~ +30	
Net weight (servo motor excluded)		kg / lb	275 / 606.3		560 / 1235		750 / 1653	
Allowable cutting torque		N.m / ft. lbs.	200 / 147.4		250 / 182.5		550 / 401.5	
Allowable Max. rotary joint quantity		Port	-		4		6	

Note: 1. P: Pneumatic H:Hydraulic R: Rotary Axis T: Tilt Axis
2. FxL When table clamped is a reference data, the users should consider proper safety factor or contact detron for details.

DIMENSIONAL DRAWINGS

Unit : mm

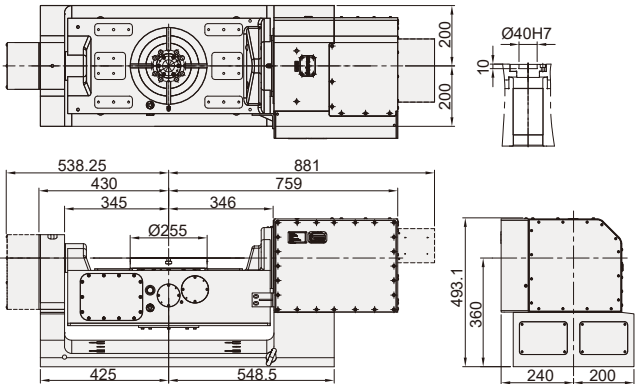
GTFAE-170SL



GTFAE-255SBL(S)



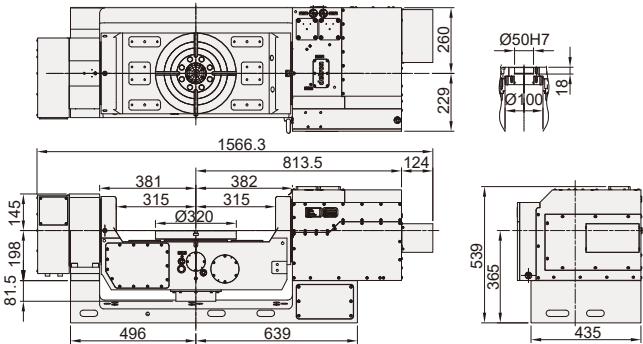
▲ sub table as available option



GTFAE-320XBL(S)



▲ sub table as available option



Note: 1. The length of servo guard may vary with servo motor type. (the metal sheet dimensions shown at above are based on Fanuc motor)
2. Allowable wheel torque at table speed of 1 min⁻¹.
3. According to application engineering, optical encoder is recommended for tilting axis.
4. Customized table Ø630mm and dual drive at tilting axis are available.