

GTFAE-L(S) series

CNC Trunnion Tilting Rotary Table

GTFAE-410XBL 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 Ø410, Ø500.
- 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-410XBL(S)		GTFAE-410HL(S)		GTFAE-500XBL	
Worktable diameter		mm / inch	Ø410 / Ø16.14		Ø410 / Ø16.14		Ø500 / Ø19.69	
Center bore diameter		mm / inch	Ø70H7 / Ø2.76H7		Ø70H7 / Ø2.76H7		Ø70H7 / Ø2.76H7	
Height of table (horizontal)		mm / inch	411 / 16.18		370 / 14.57		460 / 18.11	
Height of center (vertical)		mm / inch	411 / 16.18		370 / 14.57		460 / 18.11	
Width of T-slot		mm / inch	14H7 / 0.55H7		14H7 / 0.55H7		14H7 / 0.55H7	
Clamping method /pressure		MPa / psi	*P:0.6~0.7/87~101.5		*H:5/725		*P:0.6~0.7/87~101.5	
Servo motor spec					refer to page 78			
Transmission ratio			R	T	R	T	R	T
			1 : 120	1 : 150	1 : 120	1 : 120	1 : 120	1 : 180
Max. table speed / at specified servo motor speed		min ⁻¹	16.6 / 2000	11.1 / 1665	16.6 / 2000	11.1 / 1332	16.6 / 2000	11.1 / 2000
Clamping torque		N.m / ft. lbs.	1600/1180	2000/1475	1600/1180	2000/1475	2500/1843.75	3000/2212.5
Allowable loading capacity	In Horizontal	kg / lb	200 / 440		200 / 440		300 / 660	
	In Tilting (0~90°)	kg / lb	150 / 330		150 / 330		250 / 550	
Allowable unbalancing work moment	WxL	N.m / ft. lbs.	200 / 147.40		200 / 147.40		300 / 221.0	
FxL When table clamped	F	N / lbs	20000 / 4488		20000 / 4488		30000 / 6732.0	
	FxL	N.m / ft. lbs.	1600 / 1180		1600 / 1180		2500 / 1843.75	
	FxL	N.m / ft. lbs.	2000 / 1475		2000 / 1475		3000 / 2212.5	
Allowable loading inertia	($\frac{W.D^2}{8}$)	kg.m ²	4.3		4.3		9.6	
Resolution		deg.	0.001		0.001		0.001	
Indexing accuracy		sec	15	60	15	60	15	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	1020 / 2175		850 / 1860		1270 / 2800	
Allowable cutting torque		N.m / ft. lbs.	780 / 569.4		780 / 569.4		1700 / 1241	
Allowable Max. rotary joint quantity		Port	6		6		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.

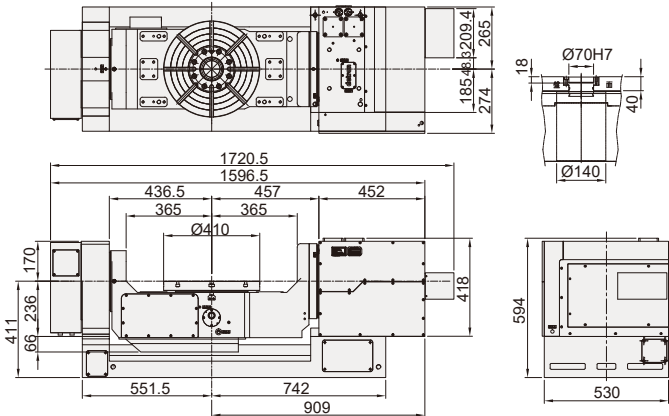
DIMENSIONAL DRAWINGS

Unit : mm

GTFAE-410XBL(S)



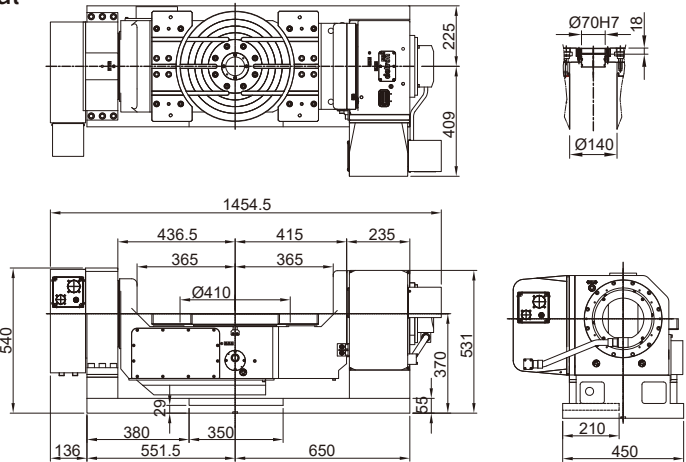
▲ sub table as available option



GTFAE-410HL(S) Swing up to 820mm is optional



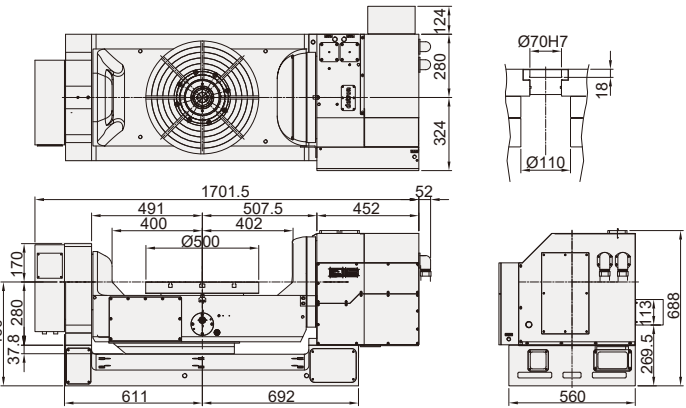
▲ sub table as available option



GTFAE-500XBL



▲ air-oil converter built-in



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.