

GFA/GTFAE-2W series

Multi Spindle
Tilting Rotary Table

G T F A E - 2 1 0 S - 2 W - 3 2 0

flat supplemental
base for standard
3 axis M/C

new
optimization
model

five axis
trunnion type for
lower gravity
worm gear transmission

rotary axis
pitch

number of rotary axis

superior pneumatic clamp

table size



Worktable diameter Ø125, Ø170, Ø210.
Multiple rotary axis allow high volume
production and automation integration.

SPECIFICATIONS

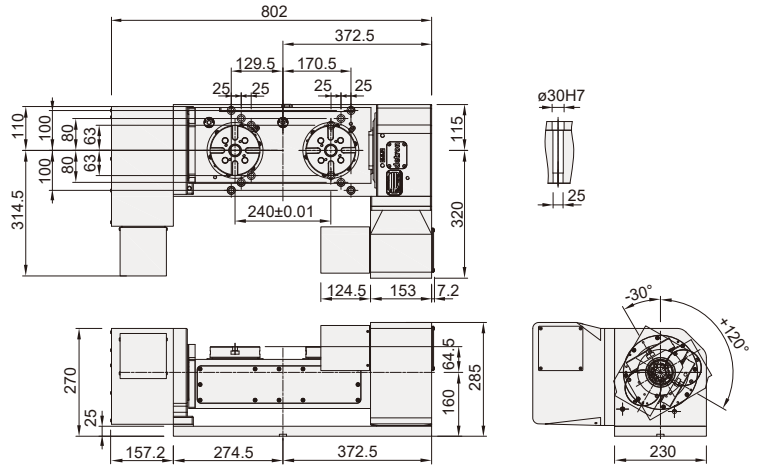
MODEL		Unit	GFA-125S-2W-240		GFA-170S-2W-300		GTFAE-210S-2W-320	
Worktable diameter		mm / inch	Ø125 / Ø4.92		Ø170 / Ø6.69		Ø210 / Ø8.27	
Center bore diameter		mm / inch	Ø30H7 / Ø1.18H7		Ø40H7 / Ø1.57H7		Ø65H7 / Ø1.57H7	
Pitch of rotary axis		mm / inch	240 / 9.45		300 / 11.81		320 / 12.60	
Max. work swing		mm / inch	195 / 7.68		285 / 11.22		310 / 12.20	
Height of table (horizontal)		mm / inch	224.5 / 8.84		250 / 9.84		270 / 10.63	
Height of center (vertical)		mm / inch	160 / 6.30		220 / 8.66		270 / 10.63	
Width of T-slot		mm / inch	12H7 / 0.47H7		12H7 / 0.47H7		12H7 / 0.47H7	
Width of guide block		mm / inch	18 / 0.71		18 / 0.71		18 / 0.71	
Drive pressure / method		MPa / psi	Pneumatic 0.55~0.7 / 79.8~101.5		Pneumatic 0.55~0.7 / 79.8~101.5		Pneumatic 0.55~0.7 / 79.8~101.5	
Servo motor spec			refer to page 78					
Transmission ratio			R	T	R	T	R	T
			1 / 90	1 / 90	1 / 90	1 / 90	1 / 90	1 / 120
Max. table speed / at specified servo motor speed		min ⁻¹	22.2 / 2000	22.2 / 2000	25 / 2250	22.2 / 2000	25 / 2250	22.2 / 2664
Clamping torque		N.m / ft. lbs.	140 / 103.26	300 / 221	300 / 221.26	600 / 442.5	400 / 295	900 / 663.8
Allowable loading capacity	In Horizontal 	kg / lb	35 / 77		40 / 88		50 / 110	
	In Tilting (0~90°) 	kg / lb	20 / 44		30 / 66		40 / 88	
Allowable unbalancing work moment	WxL 	N.m / ft. lbs.	24 / 17.688		62 / 45.728		92 / 68	
FxL When table clamped	F 	N / lbs	2800 / 629.5		4900 / 1102		9800 / 2203	
	FxL 	N.m / ft. lbs.	140 / 103.26		300 / 221.26		400 / 295	
	FxL 	N.m / ft. lbs.	300 / 221		600 / 442.5		900 / 663.8	
Allowable loading inertia	$(\frac{W.D^2}{8})$ 	kg.m ²	0.1		0.15		0.22	
Resolution		deg.	0.001		0.001		0.001	
Indexing accuracy		sec	40	60	20	60	20	60
Repeatability		sec	6	8	6	8	6	8
Tilting angle range		deg.	-30 ~ +120		-30 ~ +120		-30 ~ +120	
Net weight (servo motor excluded)		kg / lbs	172 / 379		355 / 783		469 / 1034	
Allowable cutting torque		N.m / ft. lbs.	85 / 62.645		200 / 147.512		250 / 184	

Note: 1. 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.

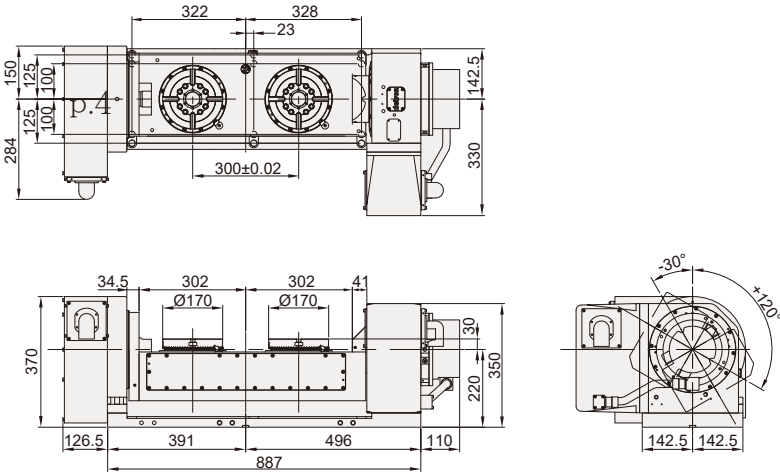
DIMENSIONAL DRAWINGS

Unit : mm

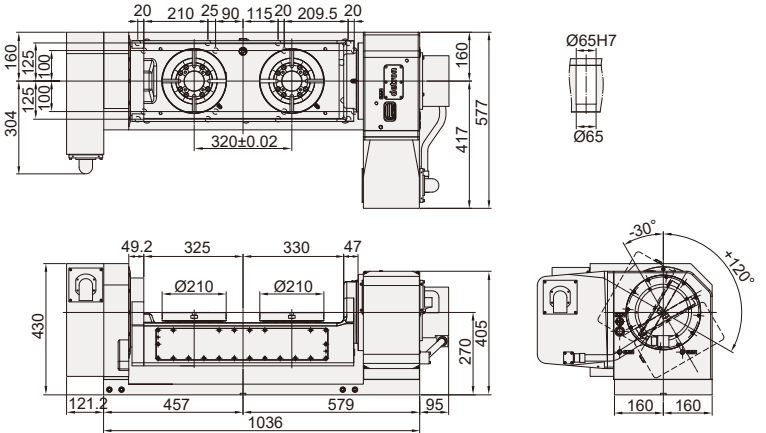
GFA-125S-2W-240



GFA-170S-2W-300



GTFAE-210S-2W-320



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.