

CNC Tilting Rotary Table

G F A - 1 2 5 S

new optimization model
Five axes
Worm gear transmission
Table size
Super pneumatic for multiple clamp force



Worktable diameter Ø100, Ø125, Ø170, Ø200.
Exclusive patented dual pneumatic piston braking system.(P.19)
Enlarged the high precision cross roller bearing.
Transmitted by dual lead worm with high efficiency and full depth gear teeth.(P.20)



Equipped with upgraded high precision cross roller bearing.

SPECIFICATIONS

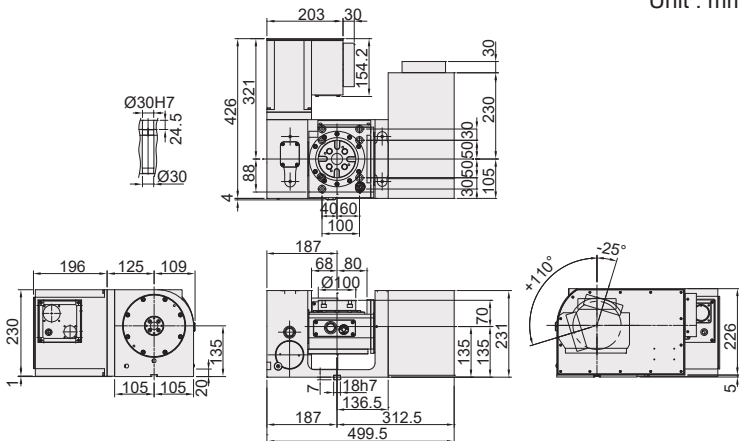
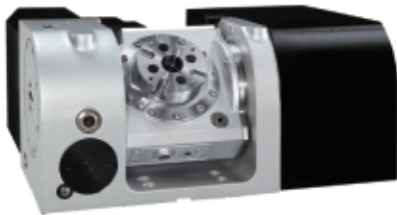
MODEL	Unit	GFA-101S	GFA-125S	GFA-170SII/HII	GFA-200ESII/HII
Worktable diameter	mm / inch	Ø100 / Ø3.94	Ø125 / Ø4.92	Ø170 / Ø6.69	Ø200 / Ø7.87
Center bore diameter	mm / inch	Ø30H7 / Ø1.18H7	Ø30H7 / Ø1.18H7	Ø40H7 / Ø1.57H7	Ø40H7 / Ø1.57H7
Height of table (horizontal)	mm / inch	205 / 8.07	224.5 / 8.84	260 / 10.24	260 / 10.24
Height of center (vertical)	mm / inch	135 / 5.31	160 / 6.30	190 / 7.48	190 / 7.48
Width of T-slot	mm / inch	12H7 / 0.47H7	12H7 / 0.47H7	12H7 / 0.47H7	12H7 / 0.47H7
Width of guide block	mm / inch	18 / 0.71	18 / 0.71	18 / 0.71	18 / 0.71
Clamping method /pressure	MPa / psi	P:0.55~0.7/79.8~101.5	P:0.55~0.7/79.8~101.5	P:0.55~0.7/79.8~101.5 H:2.5/363	P:0.55~0.7/79.8~101.5 H:2.5/363
Servo motor spec	refer to page 74				
Transmission ratio		R 1:75	T 1:120	R 1:90	T 1:90
Max. table speed / at specified servo motor speed	min ⁻¹	33.3 / 2500	16.6 / 2000	44.4 / 4000	44.4 / 4000
Clamping torque	N.m / ft. lbs.	200 / 148	250 / 184	140 / 103	300 / 221
Allowable loading capacity	In Horizontal	kg / lb	35 / 77	50 / 110	75 / 165
	In Tilting (0~90°)	kg / lb	20 / 44	35 / 77	50 / 110
Allowable unbalancing work moment	WxL	N.m / ft. lbs.	24 / 17.69	24 / 17.69	40 / 29.5
FxL When table clamped	F	N / lbs	4000 / 897.60	4000 / 897.60	7000 / 1570.8
	FxL	N.m / ft. lbs.	200 / 147.4	140 / 103.2	300 / 221
	FxL	N.m / ft. lbs.	250 / 184.25	300 / 221.1	400 / 295
Allowable loading inertia	(W.D²/8)	kg.m²	0.044	0.1	0.28
Resolution	deg.	0.001	0.001	0.001	0.001
Indexing accuracy	sec	40" 60"	40" 60"	20" 60"	20" 60"
Repeatability	sec	6" 8"	6" 8"	6" 8"	6" 8"
Tilting angle range	deg.	-25 ~ +110	-30 ~ +120	-30 ~ +120	-30 ~ +120
Net weight (servo motor excluded)	kg / lb	90 / 198	120 / 264	180 / 396	180 / 396
Allowable cutting torque	N.m / ft. lbs.	85 / 62.65	85 / 62.65	200 / 147.4	200 / 147.4
Allowable Max. rotary joint quantity	Port	—	3	4	4

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.

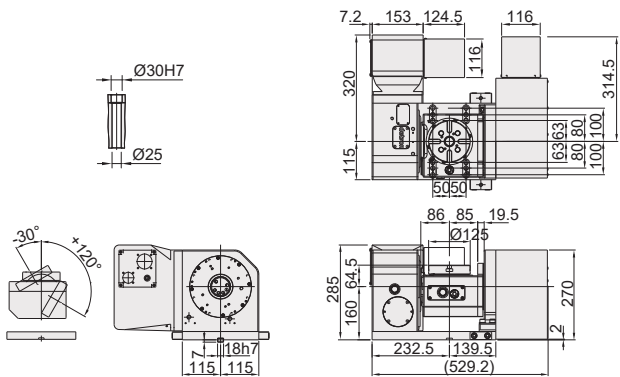
DIMENSIONAL DRAWINGS

Unit : mm

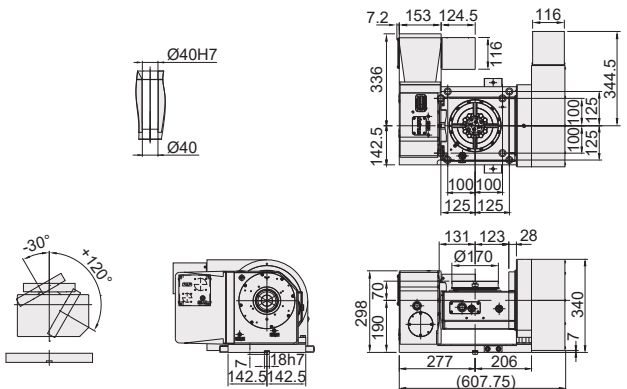
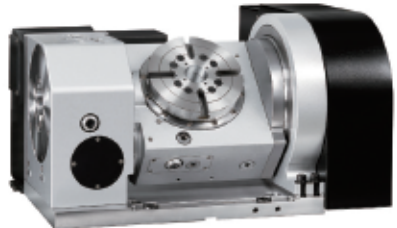
GFA-101S



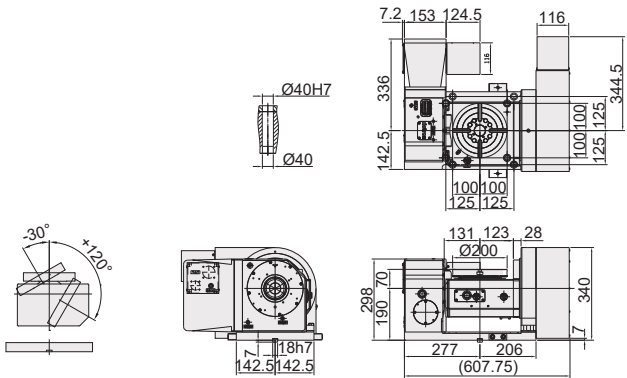
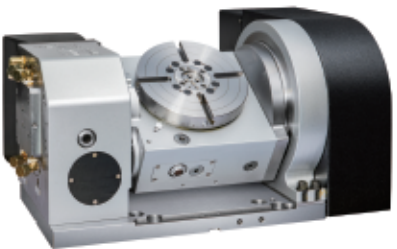
GFA-125S



GFA-170SII/HII



GFA-200ESII/HII



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.