



for **VERTICAL** Machining Center Series

STANDARD 4th axis 5th axis APC

4th axis

GXA-S series

multiple pneumatic power clamp



GXA-125S
GXA-170S/H
GXA-210S/H
GXA-250S/H

GXA-2W series

multi spindle,
pneumatic power clamp



GXA-170S-2W-250

GXA-H/GX-H series

hydraulic clamp,
ultra large bore through



GXA-255H
GXA-320H
GXA-400H
GXA-500H
GX-630H
GX-800H

GXA-L series

motor at left



GXA-170SL
GXA-210SL
GXA-255HL

5th axis

GFA-S/H/HB series

compact 5th axis



GFA-101S
GFA-125S
GFA-170SII/HII
GFA-210S/H
GFA-255H/HB
GFA-320H

GFA-2W series

5th axis in multi spindle



GFA-125S-2W-240
GFA-170S-2W-300

GTFAE-2W/3W series

trunnion 5th axis in multi spindle



GTFAE-210S-2W-320
GTFAE-255H-2W(S)-400

GTFAE series

trunnion 5th axis



GTFAE-125S
GTFAE-210S
GTFAE-320XB
GTFAE-320H
GTFAE-410XB
GTFAE-500XB

GTFAE-L(S) series

trunnion 5th axis,
ultra large swing



GTFAE-170SL
GTFAE-255SBL(S)

GTFAE-L(S) series

trunnions 5th axis,
ultra large swing



GTFAE-320XBL(S)
GTFAE-410XBL(S)
GTFAE-410HL(S)
GTFAE-500XBL

GXA-S series

CNC Rotary Table

High - Power Pneumatic Clamp

GXA - 170 S



new
optimization
model

table size

superior
pneumatic clamp

Vertical & horizontal application

worm gear transmission

- Worktable diameter Ø125, Ø170, Ø210, Ø255
- Exclusive **patented dual pneumatic piston braking system**.(P19)
- Higher rotation speed.
- Equipped with **high precision cross roller**.
- Full gear depth transmitted by dual lead worm drive, resulting in higher efficiency and lower backlash.(P20)



Equipped with upgraded
high precision cross roller
bearing

SPECIFICATIONS

MODEL	Unit	GXA-125S	GXA-170S/H	GXA-210S/H GXA-250S/H	GXA-170S- 2W-250
Worktable diameter	mm / inch	Ø125 / Ø 4.92	Ø170 / Ø 6.69	Ø210 / Ø 8.27 Ø255 / Ø 10.04	Ø170 / Ø 6.69
Center bore diameter	mm / inch	Ø30H7 / Ø 1.18H7	Ø40H7 / Ø 1.57H7	Ø65H7 / Ø 2.56H7	Ø40H7 / Ø 1.57H7
Through-bore diameter	mm / inch	Ø25 / Ø0.98	Ø40 / Ø 1.57H7	Ø65 / Ø 2.56H7	Ø40 / Ø 1.57H7
Pitch of rotary axis	mm / inch	N/A	N/A	N/A	250 / 9.84
Height of table (horizontal)	mm / inch	155 / 6.10	175 / 6.89	175 / 6.89 190 / 7.48	175 / 6.89
Height of table (vertical)	mm / inch	110 / 4.33	135 / 5.31	160 / 6.3	135 / 5.31
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	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	Pneumatic 0.55 ~ 0.7 / 79.8-101.5
Clamping torque	N.m / ft. lbs.	140 / 103.8	300 / 221 450 / 332	400 / 295 600 / 443	300 / 221.1
Servo motor spec		refer to page 71			
Transmission ratio		1 / 40	1 / 60	1 / 72	1 / 90
Max. table speed / at specified servo motor speed	min ⁻¹	66.6 / 2664	53.3 / 3200	53.3 / 3840	22.2 / 2000
Standard loading inertia* ($\frac{W \cdot D^2}{8}$)	kg.m ²	0.2	0.72	1.38	0.54
Maximum loading inertia* ($\frac{W \cdot D^2}{8}$)	kg.m ²	1	3	5	2.5
Resolution	deg.	0.001	0.001	0.001	0.001
Indexing accuracy	sec.	40	20	20	20
Repeatability	sec.	6	6	6	6
Net weight (servo motor excluded)	kg / lb	32 / 70.40	51.5 / 113.3	60 / 132 66.3 / 145.86	115 / 253.5
Allowable loading capacity	Vertical	kg / lb	50 / 110	100 / 220	125 / 275
	Horizontal	kg / lb	100 / 220	200 / 440	250 / 550
	Rotary Tablestock applied	kg / lb	100 / 220	200 / 440	250 / 550
F _{xL} When table clamped	N / lbs	9700 / 2176.68	14000 / 3141.6	17000 / 3814.8	14000 / 3141.6
	N.m / ft. lbs.	410 / 302.17	1020 / 751.74	1265 / 932	1020 / 751.74
	N.m / ft. lbs.	140 / 103.8	300 / 221 450 / 332	400 / 295 600 / 443	300 / 221.1
Allowable cutting torque	N.m / ft. lbs.	85 / 62.65	200 / 147.41	260 / 191.62	200 / 147.41
Allowable Max. rotary joint quantity		-	4	4	4

Note: 1. Allowable cutting torque at table speed of 1 min⁻¹.

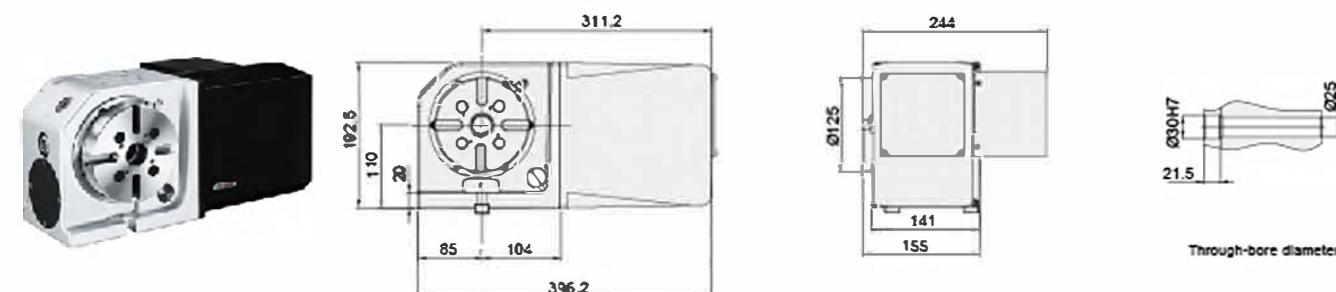
2. Standard loading inertia * is allowed in max table speed. Contact detron for the necessary adjustment of speed and others when maximum loading inertia * is required.

3. F_{xL} When table clamped is a reference data, the users should consider proper safety factor or contact detron for details.

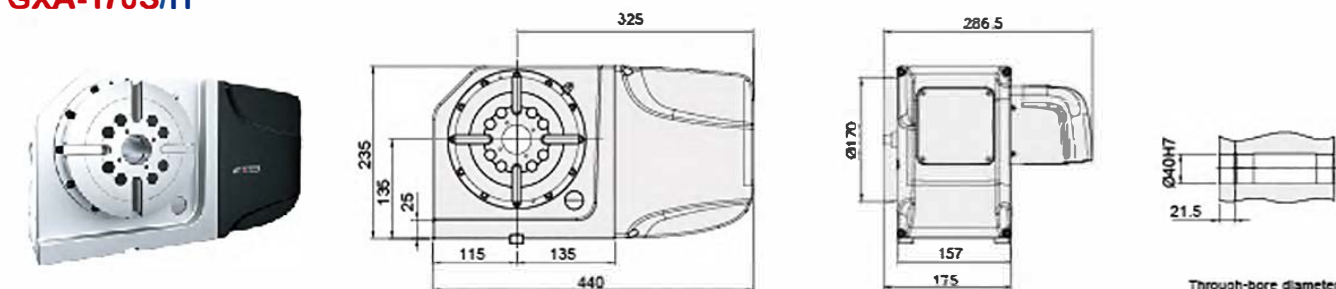
DIMENSIONAL DRAWINGS

Unit : mm

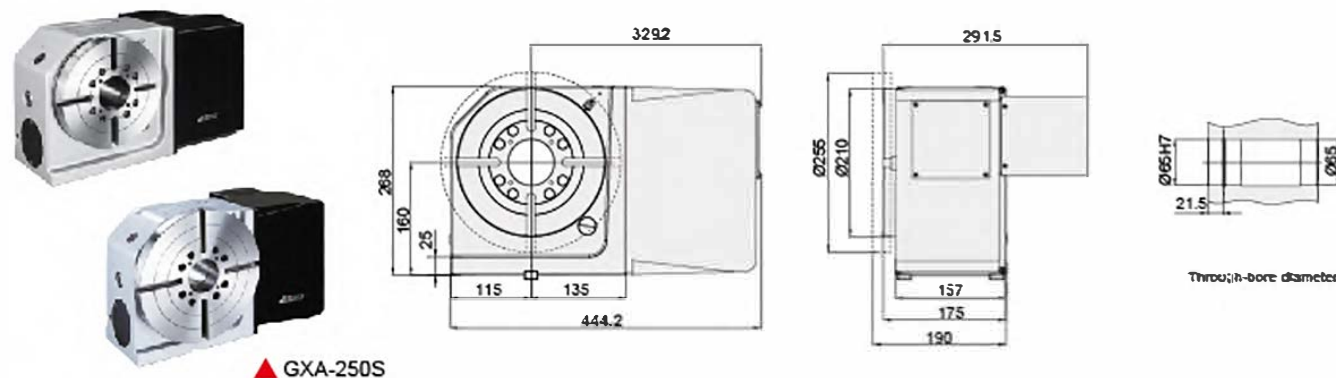
GXA-125S



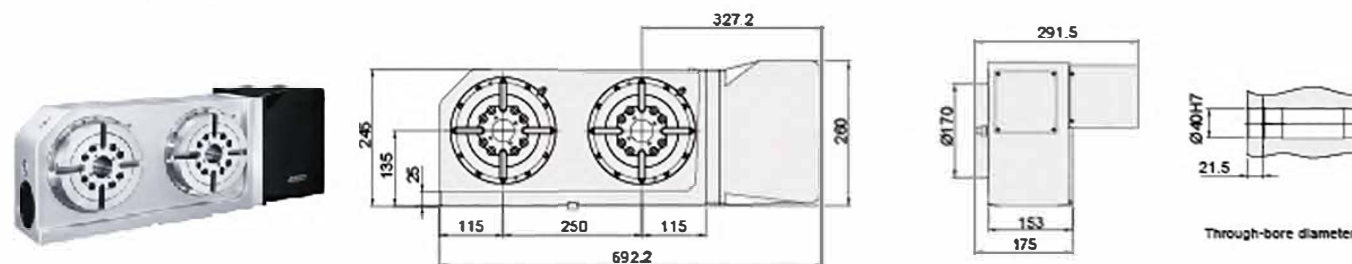
GXA-170S/H



GXA-210S/H / GXA-250S/H



GXA-170S-2W-250



Note: The length of servo guard may vary with servo motor type.
(The metal sheet dimensions shown above are based on Fanuc motor)

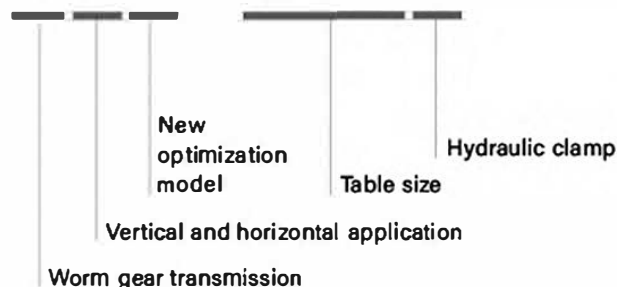
GXA-H series

CNC Rotary Table

Ultra Big Spindle Bore, Hydraulic Clamp



G X A - 2 5 5 H



- Worktable diameter Ø255, Ø320, Ø400.
- Big spindle bore allow the more complex parts clamping and fixture.
- Ultra high clamping force by drum brake system.(P.19)
- Consolidated spindle with radial-Axial bearing built-in. (P.18)
- Full gear depth transmitted by dual lead worm drive, resulting in higher efficiency and lower backlash.(P.20)



Consolidated spindle with radial-Axial bearing built-in.

SPECIFICATIONS

MODEL	Unit	GXA-255H	GXA-320H	GXA-400H
Worktable diameter	mm / inch	Ø255 / Ø 10.04	Ø320 / Ø 12.6	Ø400 / Ø 15.75
Center bore diameter	mm / inch	Ø140H7 / Ø 5.51H7	Ø180H7 / Ø 7.08H7	Ø220H7 / Ø 8.66H7
Through-bore diameter	mm / inch	Ø100 / Ø 3.94	Ø140 / Ø 5.51	Ø180 / Ø 7.09
Height of table (horizontal)	mm / inch	210 / 8.27	235 / 9.25	255 / 10.04
Height of center (vertical)	mm / inch	190 / 7.48	210 / 8.27	255 / 10.04
Width of T-slot	mm / inch	12H7 / 0.47H7	14H7 / 0.55H7	14H7 / 0.55H7
Width of guide block	mm / inch	18 / 0.71	18 / 0.71	18 / 0.71
Clamping method / pressure	MPa / psi	Hydraulic 5 / 725	Hydraulic 5 / 725	Hydraulic 5 / 725
Clamping torque	N.m / ft. lbs.	900 / 663.3	1600 / 1179.2	3000 / 2211
Servo motor spec		refer to page 71		
Transmission ratio		1 / 120	1 / 120	1 / 144
Max. table speed / at specified servo motor speed	min ⁻¹	22.2 / 2664	22.2 / 2664	11.1 / 1600
Standard loading inertia * $(\frac{W D^2}{8})$	kg.m ²	2.43	5.12	10.2
Maximum loading inertia * $(\frac{W D^2}{8})$	kg.m ²	12	20	40
Resolution	deg.	0.001	0.001	0.001
Indexing accuracy	sec.	15	15	15
Repeatability	sec.	6	6	6
Net weight (servo motor excluded)	kg / lb	114 / 251	147 / 323.4	253 / 556.6
Allowable loading capacity	Vertical	kg / lb	150 / 330	200 / 440
	Horizontal	kg / lb	300 / 660	400 / 880
	Rotary Tailstock applied	kg / lb	300 / 660	400 / 880
F _{xL} When table clamped		N / lbs	20000 / 4488	28000 / 6283.2
		N.m / ft. lbs.	1700 / 1252.9	3000 / 2211
		N.m / ft. lbs.	900 / 663.3	1600 / 1179.2
Allowable cutting torque		N.m / ft. lbs.	550 / 405.35	780 / 574.86
Allowable Max. rotary joint quantity		6	6	6

Note: 1. Allowable cutting torque at table speed of 1 min⁻¹.

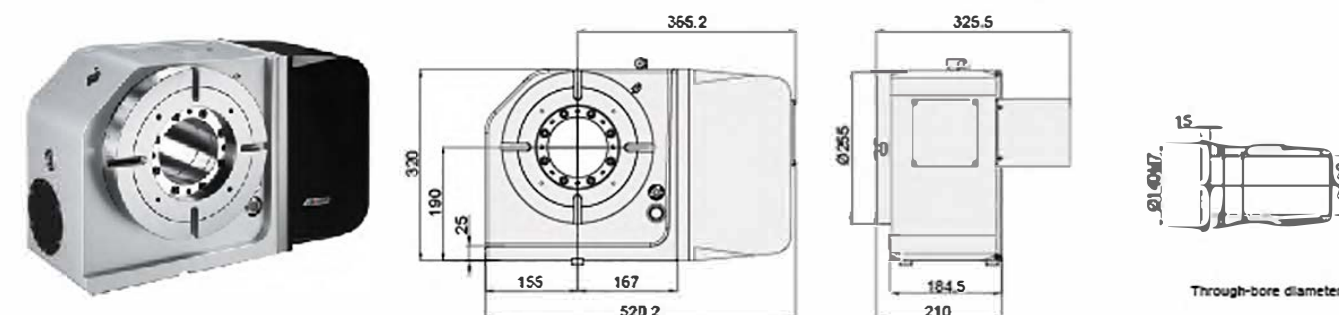
2. Standard loading inertia * is allowed in max table speed. Contact detron for the necessary adjustment of speed and others when maximum loading inertia * is required.

3. F_{xL} When table clamped is a reference data, the users should consider proper safety factor or contact detron for details.

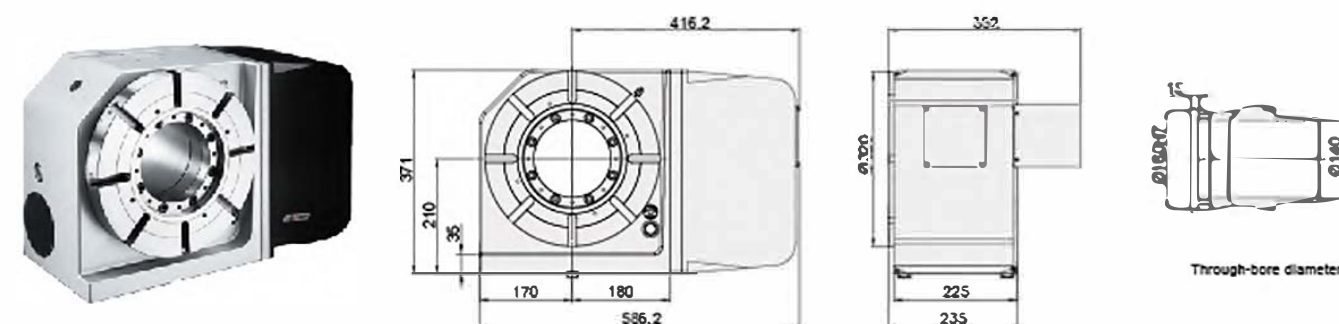
DIMENSIONAL DRAWINGS

Unit : mm

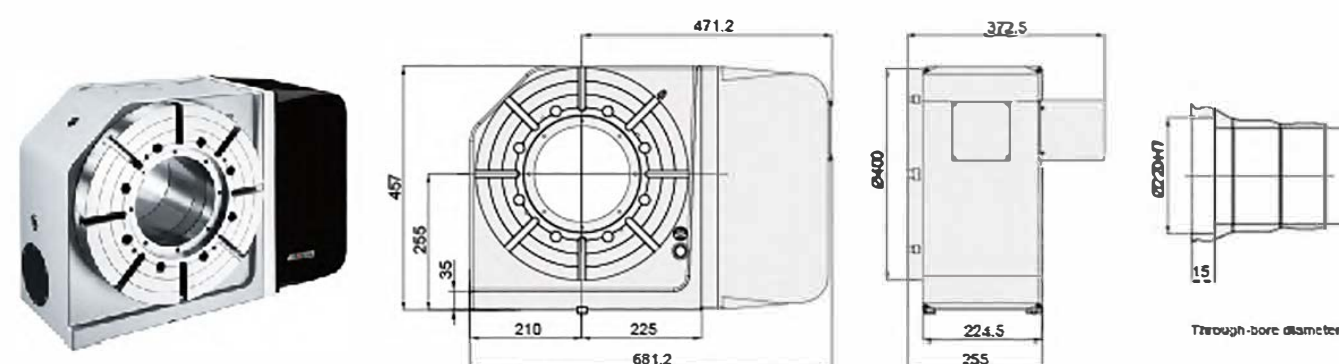
GXA-255H



GXA-320H



GXA-400H



Note: The length of servo guard may vary with servo motor type.
(metal sheet dimensions shown above are based on Fanuc motor)

for VMC_Worm Wheel Transmission

GXA-H series

CNC Rotary Table

Ultra Big Spindle Bore, Hydraulic Clamp

GXA - 500H

Hydraulic brake
New optimization model
Table size
Vertical & horizontal application
Worm gear transmission



- Worktable diameter Ø500, Ø630, Ø800.
- Equipped with extra large bearings, preloaded in radial and axial directions.(P.18)
- Motor is mounted at right side(vertical and horizontal application).
- Full gear depth transmitted by dual lead worm drive, resulting in higher efficiency and lower backlash.(P.20)



Consolidated spindle with radial-axial bearing built-in.

SPECIFICATIONS

MODEL	Unit	GXA-500H GXA-630EH	GX-630H	GX-800H
Worktable diameter	mm / inch	Ø500 / Ø19.69 Ø630 / Ø24.80	Ø630 / Ø24.80	Ø800 / Ø31.50
Center bore diameter	mm / inch	Ø305H7 / Ø12H7	Ø270H7 / Ø10.63H7	Ø285H7 / Ø11.22H7
Through-bore diameter	mm / inch	Ø265 / Ø10.43	Ø220 / Ø8.66	Ø240 / Ø9.45
Height of table (horizontal)	mm / inch	280 / 11.02	325 / 12.80	365 / 14.37
Height of center (vertical)	mm / inch	350 / 13.78	400 / 15.75	480 / 18.90
Width of T-slot	mm / inch	18H7 / 0.71H7	18H7 / 0.71H7	22H7 / 0.47H7
Width of guide block	mm / inch	18 / 0.71	18 / 0.71	18 / 0.71
Clamping method / pressure	MPa / psi	Hydraulic 5 / 725	Hydraulic 5 / 725	Hydraulic 3.5 / 507.5
Clamping torque	N.m / ft. lbs.	5700 / 4204.11 4500 / 3319	4500 / 3319.03	5200 / 3835.32
Servo motor spec		refer to page 71		
Transmission ratio		1 / 180	1 / 180	1 / 180
Max. table speed / at specified servo motor speed	min ⁻¹	11.1 / 2000	11.1 / 2000	11.1 / 2000
Allowable loading Inertia ($\frac{W D^2}{8}$)	kg.m ²	25	40.5	122.4
Resolution	deg.	0.001	0.001	0.001
Indexing accuracy	sec.	15	15	15
Repeatability	sec.	6	6	6
Net weight (servo motor excluded)	kg / lb	396 / 871.2 455 / 1001	720 / 1584.0	1236 / 2719.2
Allowable loading capacity	Vertical	kg / lb	450 / 990	800 / 1760
	Horizontal	kg / lb	800 / 1760	1500 / 3300
	Rotary Tailstock applied	kg / lb	800 / 1760	1500 / 3300
FxL When table clamped		N / lbs	45000 / 10098	49000 / 10780
		N.m / ft. lbs.	8300 / 6121.7	8500 / 6264.50
		N.m / ft. lbs.	5700 / 4204.11 4500 / 3319	5200 / 3832.4
Allowable cutting torque		N.m / ft. lbs.	2500 / 1842.5	4300 / 3169.1

Note: 1. Allowable cutting torque at table speed of 1 min⁻¹.
2. FxL When table clamped is a reference data, the users should consider proper safety factor or contact detron for details.

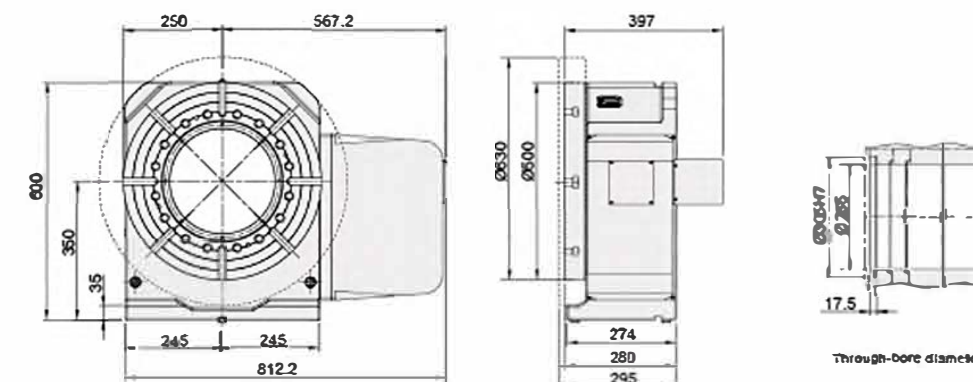
DIMENSIONAL DRAWINGS

Unit : mm

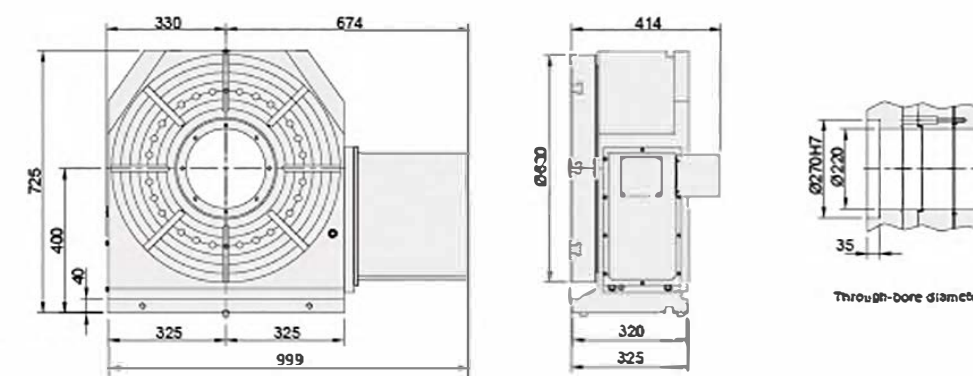
GXA-500H



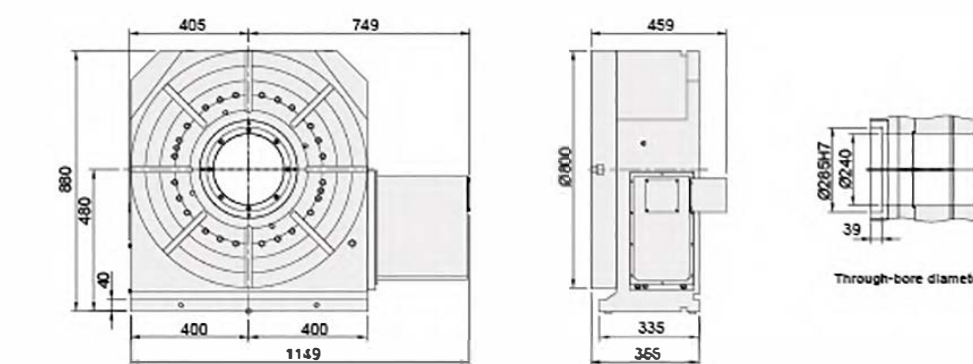
▲ GXA-630EH



GXA-630H



GXA-800H



Note: The length of servo guard may vary with servo motor type.
(metal sheet dimensions shown above are based on Fanuc motor)

GXA-L series

CNC Rotary Table

High - Power Clamp, Motor at Left

G X A - 1 7 0 S L

- new optimization mode I
- Table size
- Motor mounted at left side of table
- [S] Super multiple pneumatic
- [H] Hydraulic
- [X] Vertical & horizontal application
- [V] Vertical application
- worm gear transmission



Worktable diameter Ø170, Ø210, Ø255.
Motor mounted at left side of table
Full gear depth transmitted by dual lead worm drive, resulting in higher efficiency and lower backlash. (P.20)

SPECIFICATIONS

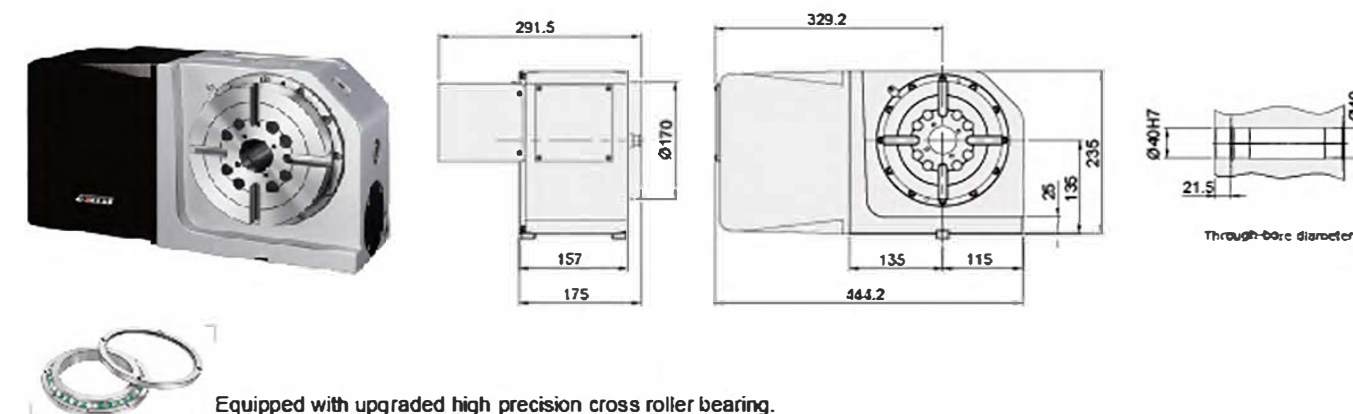
MODEL	Unit	GXA-170SL	GVA-210SL	GXA-255HL
Worktable diameter	mm / inch	Ø170 / Ø 6.69	Ø210 / Ø 8.27	Ø255 / Ø10.04
Center bore diameter	mm / inch	Ø40H7 / Ø 1.57H7	Ø65H7 / Ø 2.56H7	Ø140H7 / Ø 5.51H7
Through-bor diameter	mm / inch	Ø40 / Ø 1.57H7	Ø65 / Ø 2.56H7	Ø100 / Ø 3.94
Height of table (horizontal)	mm / inch	175 / 6.89	-	210 / 8.27
Height of table (vertical)	mm / inch	135 / 5.31	160 / 6.3	190 / 7.48
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
Clamping method / pressure	Mpa / psi	Pneumatic 0.55 ~ 0.7 / 79.8-101.5	Pneumatic 0.55 ~ 0.7 / 79.8-101.5	Hydraulic 5 / 725
Clamping torque	N.m / ft. lbs.	300 / 221.1	400 / 294.8	900 / 663.3
Servo motor spec		refer to page 71		
Transmission ratio		1 / 60	1 / 72	1 / 120
Max. table speed / at specified servo motor speed	min ⁻¹	53.3 / 3200	53.3 / 3840	22.2 / 2000
Allowable loading inertia $(\frac{W \cdot D^2}{8})$	kg.m ²	0.72	1.38	2.43
Resolution	deg.	0.001	0.001	0.001
Indexing accuracy	sec.	20	20	15
Repeatability	sec.	6	6	6
Net weight (servo motor excluded)	kg / lb	51.5 / 113.3	60 / 132	114 / 251
Allowable loading capacity	Vertical	kg / lb	100 / 220	150 / 330
	Horizontal	kg / lb	200 / 440	300 / 660
	Rotary Tablestock applied	kg / lb	200 / 440	300 / 660
F _{xL} When table clamped	F	N / lbs	14000 / 3141.6	20000 / 4488
	FXL	N.m / ft. lbs.	1020 / 751.74	1265 / 932
	FXL	N.m / ft. lbs.	300 / 221.1	400 / 294.8
Allowable cutting torque	Cutting torque	N.m / ft. lbs.	200 / 147.41	260 / 191.62
Allowable Max. rotary joint quantity		4	4	6

Note: 1. Allowable cutting torque at table speed of 1 min⁻¹.
2. F_{xL} When table clamped is a reference data, the users should consider proper safety factor or contact detron for details.

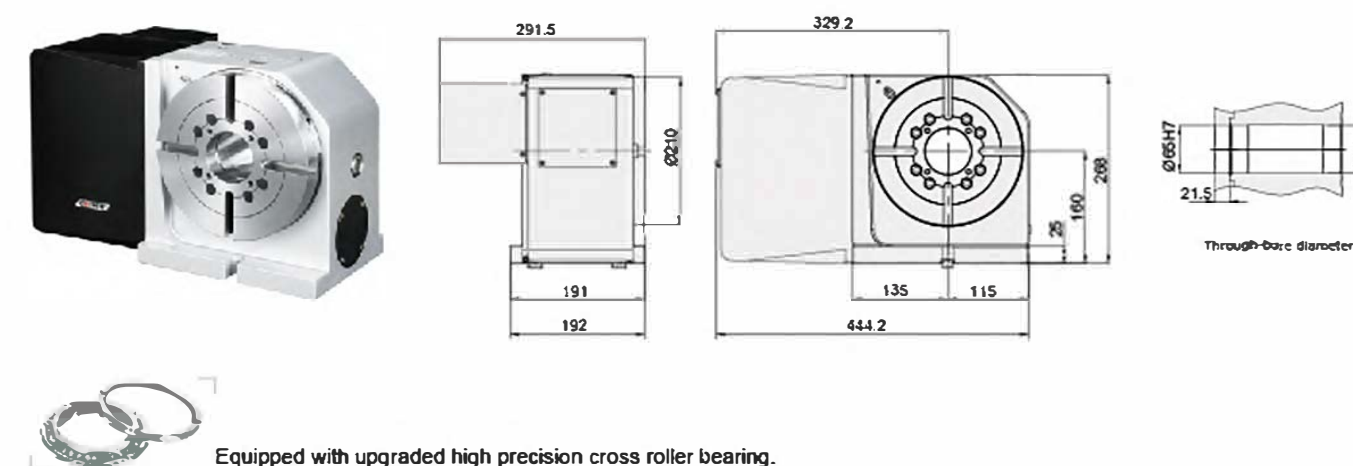
DIMENSIONAL DRAWINGS

Unit : mm

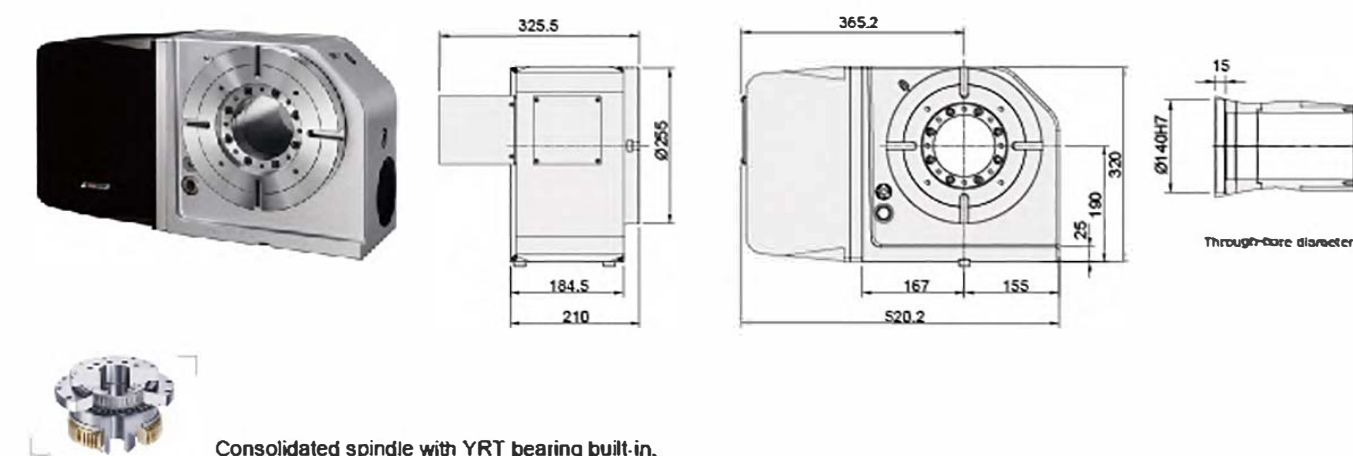
GXA-170SL



GVA-210SL



GXA-255HL



Note: The length of servo guard may vary with servo motor type.
(metal sheet dimensions shown above are based on Fanuc motor)

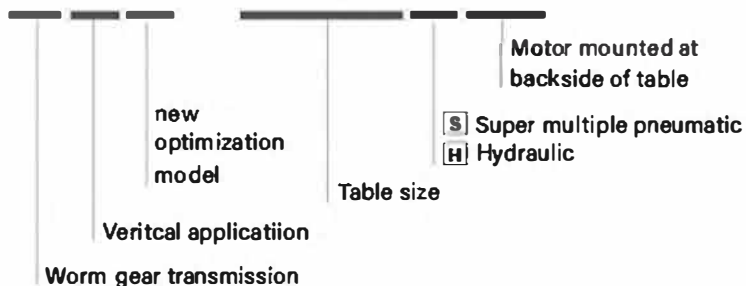
for VMC_Worm Wheel Transmission

GVA-B series

CNC Rotary Table

High - Power Clamp, Motor at Back

GVA - 210SB



Worktable diameter Ø170, Ø210, Ø255.
GVA-SB series is new "super multiple brake" mechanism for pneumatic clamp.(P.19)
Full gear depth transmitted by dual lead worm drive, resulting in higher efficiency and lower backlash.(P.20)

SPECIFICATIONS

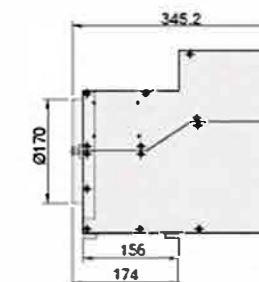
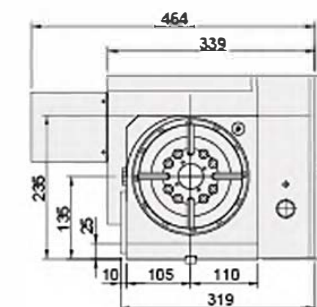
MODEL	Unit	GV-170SB	GVA-210SB	GVA-255HBII
Worktable diameter	mm / inch	Ø170 / Ø6.69	Ø210 / Ø8.27	Ø255 / Ø10.04
Center bore diameter	mm / inch	Ø40H7 / Ø1.57H7	Ø65H7 / Ø2.6H7	Ø140H7 / Ø5.51H7
Height of center (vertical)	mm / inch	135 / 5.31	160 / 6.30	190 / 7.48
Width of T-slot	mm / inch	12H7 / 0.47H7	12H7 / 0.47H7	12H7 / 0.47H7
Width of guide block	mm / inch	18 / 0.71	18 / 0.71	18 / 0.71
Clamping method / pressure	Mpa / psi	Super Multi- Pneumatic 0.55 ~ 0.7 / 79.8 ~ 101.5	Super Multi- Pneumatic 0.55 ~ 0.7 / 79.8 ~ 101.5	Hydraulic 5 / 725
Clamping torque	N.m / ft. lbs.	250 / 184.25	400 / 294.8	900 / 663.3
Servo motor spec		refer to page 71		
Transmission ratio		1 / 90	1 / 90	1 / 120
Max. table speed / at specified servo motor speed	min ⁻¹	44.4 / 4000	44.4 / 4000	22.2 / 2664
Allowable loading inertia $(\frac{W D^2}{8})$	kg.m ²	0.28	0.68	1.21
Resolution	deg.	0.001	0.001	0.001
Indexing accuracy	sec.	20	20	15
Repeatability	sec.	6	6	6
Net weight (servo motor excluded)	kg / lb	90 / 198	84 / 184.8	149 / 328
Allowable loading capacity	kg / lb	75 / 165	125 / 275	150 / 330.0
	Rotary Tailsstock applied	150 / 330	250 / 550	300 / 660
FxL	N / lbs	14000 / 3141.60	17000 / 3814.8	20000 / 4488
When table clamped	N.m / ft. lbs.	1020 / 751.74	1265 / 932.3	1700 / 1253.0
	N.m / ft. lbs.	250 / 184.25	400 / 294.80	900 / 663.3
Allowable cutting torque	N.m / ft. lbs.	170 / 125.29	260 / 191.62	550 / 405.35

Note: 1. Allowable cutting torque at table speed of 1 min⁻¹.
2. FxL When table clamped is a reference data, the users should consider proper safety factor or contact detron for details.

DIMENSIONAL DRAWINGS

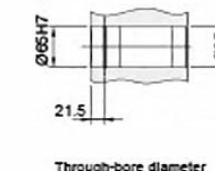
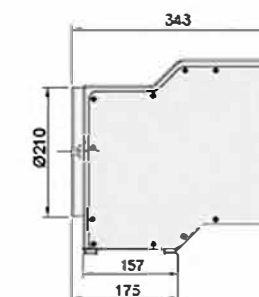
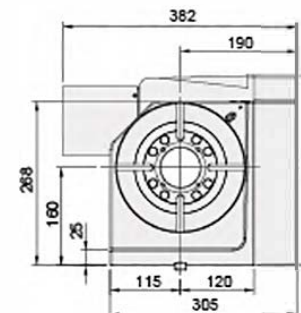
Unit : mm

GV-170SB



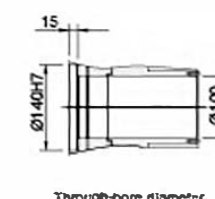
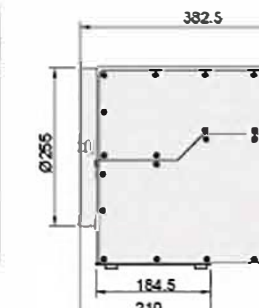
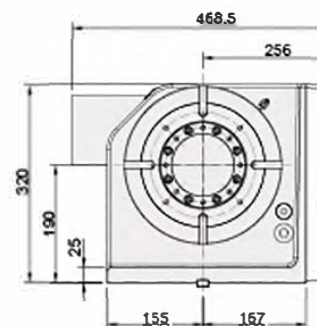
Equipped with upgraded high precision cross roller bearing.

GVA-210SB



Equipped with upgraded high precision cross roller bearing.

GVA-255HBII



Consolidated spindle with YRT bearing built-in.

Note: The length of servo guard may vary with servo motor type.
(metal sheet dimensions shown above are based on Fanuc motor)

CNC Index Table

CX - 255H

Hydraulic brake

Table size

Vertical & Horizontal application

Coupling (3 pcs type) with worm gear transmission



- Worktable diameter Ø255, Ø320, Ø400, Ø500.
- Motor is mounted at right side (vertical and horizontal applications).
- Equipped with three piece type coupling with worm gear to achieve positioning. It is suitable for heavy cutting.
- The minimum degree is 1°.



Equipped with 3-pcs coupling

SPECIFICATIONS

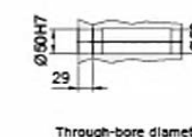
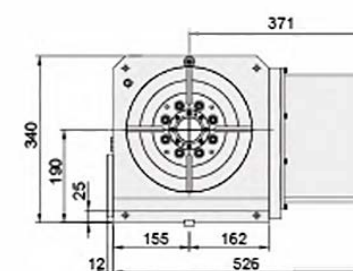
MODEL	Unit	CX-255H	CX-320H	CX-400H	CX-500H
Worktable diameter	mm / inch	Ø255 / Ø10.04	Ø320 / Ø12.60	Ø400 / Ø15.75	Ø500 / Ø19.69
Center bore diameter	mm / inch	Ø50H7 / Ø1.97H7	Ø70H7 / Ø2.76H7	Ø110H7 / Ø4.33H7	Ø130H7 / Ø5.12H7
Through-bore diameter	mm / inch	Ø50 / Ø1.97	Ø70 / Ø2.76	Ø110 / Ø4.33	Ø130 / Ø5.12
Height of table (horizontal)	mm / inch	210 / 8.27	235 / 9.25	255 / 10.04	281 / 11.06
Height of center (vertical)	mm / inch	190 / 7.48	210 / 8.27	255 / 10.04	310 / 12.20
Width of T-slot	mm / inch	12H7 / 0.47H7	14H7 / 0.55H7	14H7 / 0.55H7	18H7 / 0.71H7
Width of guide block	mm / inch	18 / 0.71	18 / 0.71	18 / 0.71	18 / 0.71
Clamping method / pressure	MPa / psi	Hydraulic 3.5 / 508	Hydraulic 3.5 / 508	Hydraulic 3.5 / 508	Hydraulic 3.5 / 508
Clamping torque	N.m / ft. lbs.	3000 / 2211	4000 / 2948	5000 / 3685	10000 / 7370
Servo motor spec	refer to page 71				
Transmission ratio		1 / 120	1 / 120	1 / 144	1 / 180
Max. table speed / at specified servo motor speed	min ⁻¹	22.2 / 2664	22.2 / 2664	11.1 / 1600	11.1 / 2000
Allowable loading inertia ($\frac{W \cdot D^2}{8}$)	kg.m ²	2.48	4.57	10.2	19.1
Resolution	deg.	1°	1°	1°	1°
Indexing accuracy	sec.	8	8	8	8
Repeatability	sec.	2	2	2	2
Net weight (servo motor excluded)	kg / lb	134 / 295	186 / 410	350 / 771	450 / 992
Allowable loading capacity	Vertical	kg / lb	125 / 275	175 / 385	400 / 880
	Horizontal	kg / lb	300 / 660	350 / 770	500 / 1100
	Rotary Table lock applied	kg / lb	300 / 660	400 / 880	500 / 1100
FxL When table clamped		N / lbs	16000 / 3590.4	20000 / 4488.0	30000 / 6732.0
		N.m / ft. lbs.	1750 / 1289.75	2500 / 1842.5	3000 / 2211.0
		N.m / ft. lbs.	3000 / 2211.0	4000 / 2948.0	5000 / 3685.0
Drive torque	N.m / ft. lbs.	240 / 176.9 (motor α iF4) 480 / 353.8 (motor α iF8)	720 / 530.2	864 / 618.5	1080 / 795.3

Note: 1. Drive torque is the torque output by the motor at the maximum speed of the worktable.
2. FxL When table clamped is a reference data, the users should consider proper safety factor or contact de'ron for details.

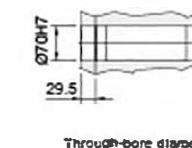
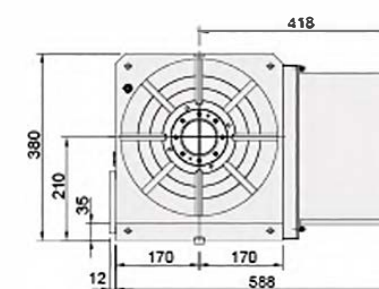
DIMENSIONAL DRAWINGS

Unit : mm

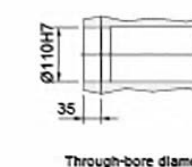
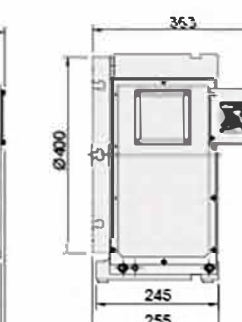
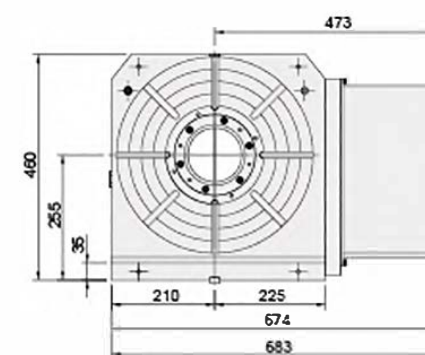
CX-255H



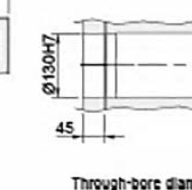
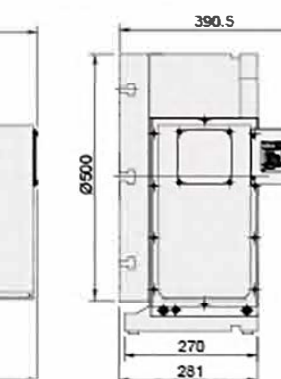
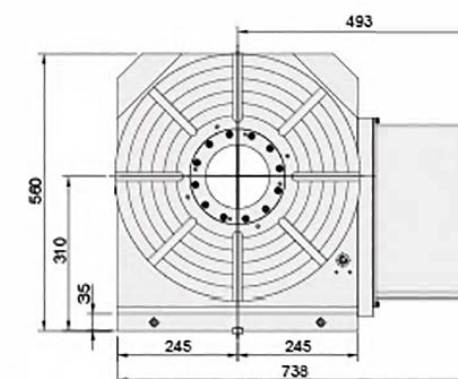
CX-320H



CX-400H



CX-500H



Note: The length of servo guard may vary with servo motor type.
(metal sheet dimensions shown above are based on Fanuc motor)

ST-T/TP/TH series

Quill Tailstock



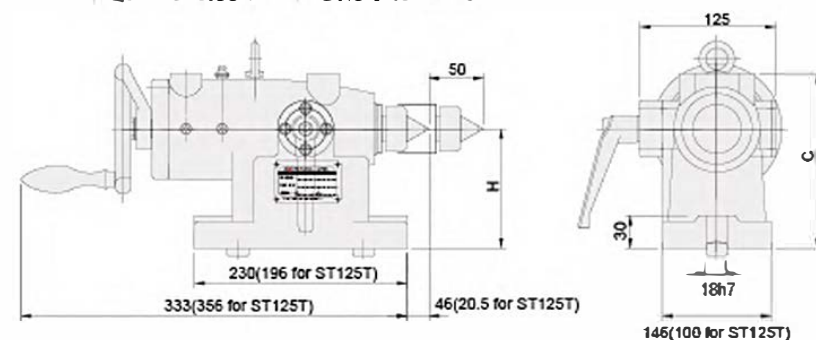
ST - 170 TP

P Pneumatic drive
H Hydraulic drive

With morse taper

Quill Tailstock

Table size: Ø170



unit: mm/inch

MODEL	ST-125T	ST-170T	ST-210T	ST-255T	ST-320T	ST-400T
H	110 / 4.33	135 / 5.31	160 / 6.30	190 / 7.48	210 / 8.27	255 / 10.04
C	161 / 6.34	183 / 7.20	208 / 8.19	238 / 9.37	258 / 10.16	306 / 12.05
Weight(Kg / lb)	16 / 35.2	22 / 48.4	24 / 52.8	26 / 57.2	28 / 61.6	31 / 68.2

Pneumatic Quill Tailstock

Hydraulic Quill Tailstock

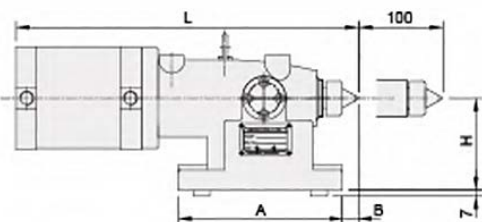
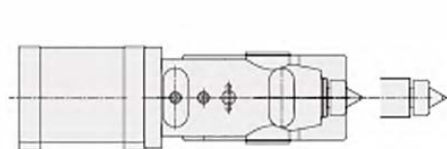


Pneumatic manual switch valve (optional)



ST-255TH ST-320TH
ST-400TH

Hydraulic manual switch valve (optional)



unit: mm/inch

MODEL	ST-125TP	ST-170TP	ST-210TP	ST-255TH	ST-320TH	ST-400TH
H	110 / 4.33	135 / 5.31	160 / 6.3	190 / 7.48	210 / 8.27	255 / 10.04
C	171 / 6.73	196 / 7.72	221 / 8.70	238 / 9.37	258 / 10.16	306 / 12.05
A	196 / 7.72	230 / 9.06	230 / 9.06	230 / 9.06	230 / 9.06	230 / 9.06
B	23 / 0.91	48.5 / 1.91	48.5 / 1.91	46 / 1.81	46 / 1.81	46 / 1.81
D	191 / 7.52	216 / 8.5	241 / 9.49	271 / 10.67	291 / 11.46	336 / 13.23
E	100 / 3.94	146 / 5.75	146 / 5.75	146 / 5.75	146 / 5.75	146 / 5.75
L	416.5 / 16.4	416.5 / 16.4	416.5 / 16.4	392 / 15.43	392 / 15.43	392 / 15.43
Weight(Kg / lb)	18 / 39.6	24 / 52.8	26 / 57.2	28 / 61.6	30 / 66	33 / 72.6

Note: 1. Max. operating pressure: 2MPa
2. Illustration stroke 100mm is for quill withdraw. The effective quill stroke is 50mm.
3. Quill stroke more than 50mm is an available option.

SR-P/H series

Rotary Tailstock



SR - 170 P

P Pneumatic clamping
H Hydraulic clamping

Rotary tailstock

Table size: Ø170

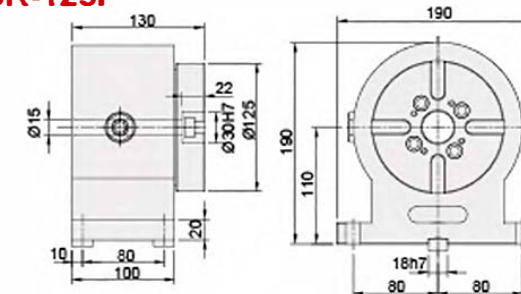
MODEL

	SR-125P	SR-170P	SR-210P	SR-255H	SR-320H	SR-400H	SR-500H
Clamping torque (N.m)	70	130	130	400	400	1600	2400
Clamping method / pressure(MPa)	Pneumatic 0.55~0.7			Hydraulic 5			
Net weight (Kg)	20	28	33	58	70	140	265

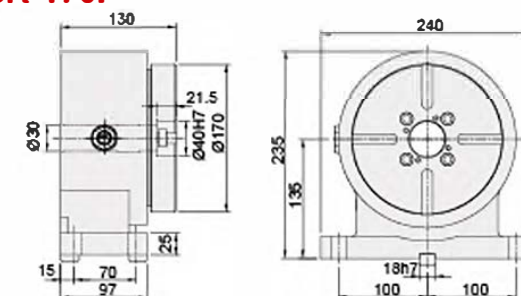
Note: SR rotary tailstock without brake is available, please contact the local agent for application info.

DIMENSIONAL DRAWINGS

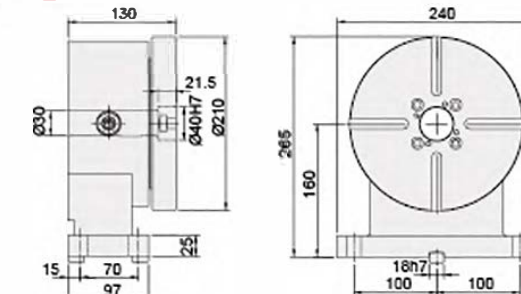
SR-125P



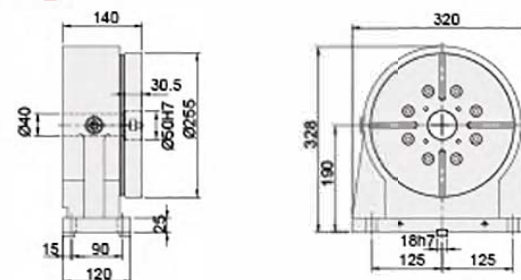
SR-170P



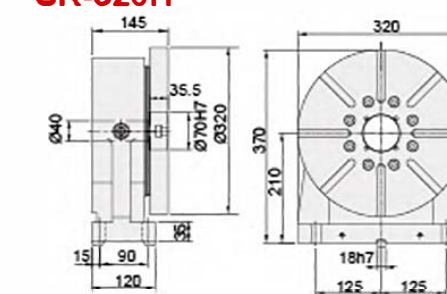
SR-210P



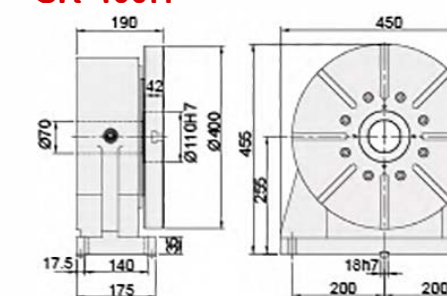
SR-255H



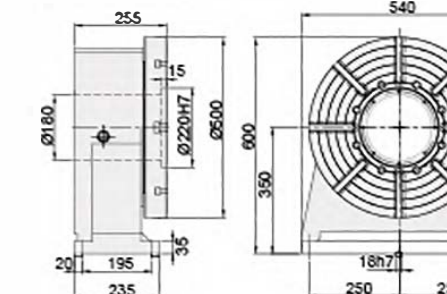
SR-320H



SR-400H



SR-500H



for VMC_Worm Wheel Transmission

GFA-S series

CNC Tilting Rotary Table

GFA-125S

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



Worktable diameter Ø100, Ø125, Ø170, Ø210.
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

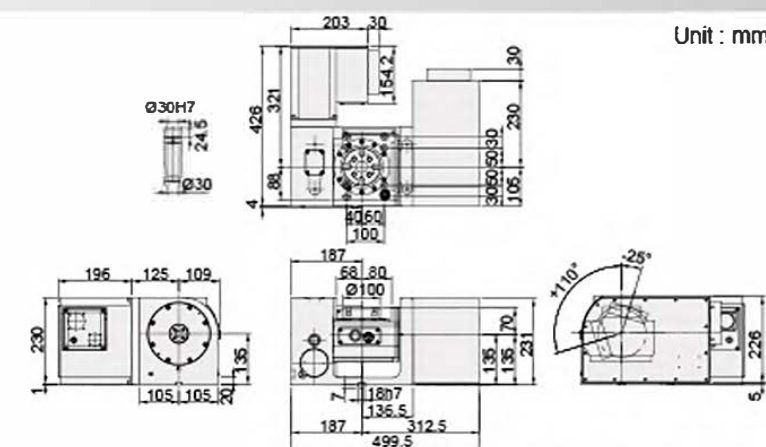
MODEL	Unit	GFA-101S	GFA-125S	GFA-170SII/HII	GFA-210S/H
Worktable diameter	mm / inch	Ø100 / Ø3.94	Ø125 / Ø4.92	Ø170 / Ø6.69	Ø210 / Ø8.27
Center bore diameter	mm / inch	Ø30H7 / Ø1.18H7	Ø30H7 / Ø1.18H7	Ø40H7 / Ø1.57H7	Ø65H7 / Ø2.56H7
Height of table (horizontal)	mm / inch	205 / 8.07	224.5 / 8.84	260 / 10.24	280 / 11.02
Height of center (vertical)	mm / inch	135 / 5.31	160 / 6.30	190 / 7.48	210 / 8.27
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:0.55~0.77/9.8~101.5	P:0.55~0.77/9.8~101.5	P:0.55~0.77/9.8~101.5 H:2.5/363	P:0.55~0.77/9.8~101.5 H:2.5/363
Servo motor spec	refer to page 71				
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.d')	kg.m ²	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	230 / 490.6
Allowable cutting torque	N.m / ft. lbs.	85 / 62.65	85 / 62.65	200 / 147.4	250 / 184.25
Allowable Max. rotary joint quantity	Port	-	3	4	4

Note: 1. R: Rotary Axis T: Tilt Axis

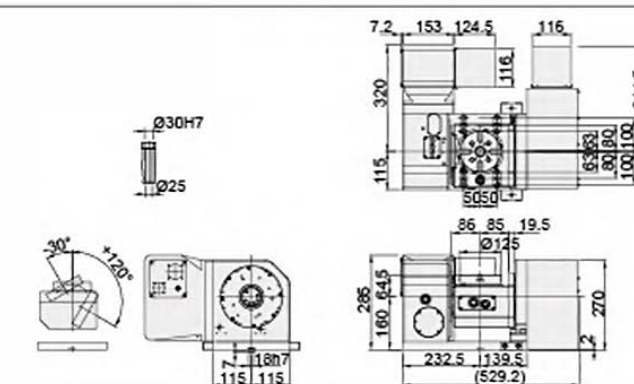
2. FxL When table clamped is a reference data, the users should consider proper safety factor or contact detron for details.

DIMENSIONAL DRAWINGS

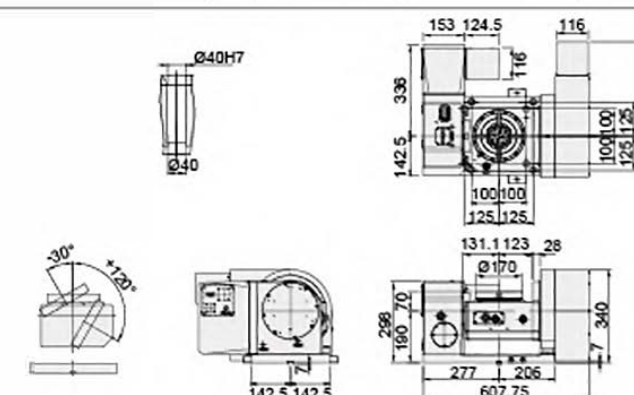
GFA-101S



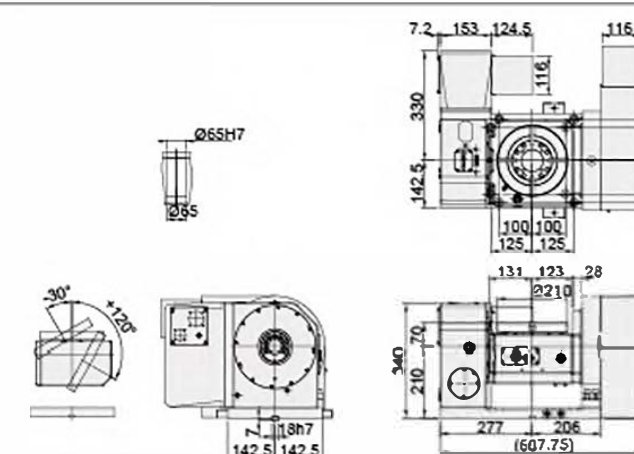
GFA-125S



GFA-170SII/HII



GFA-210S/H



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.

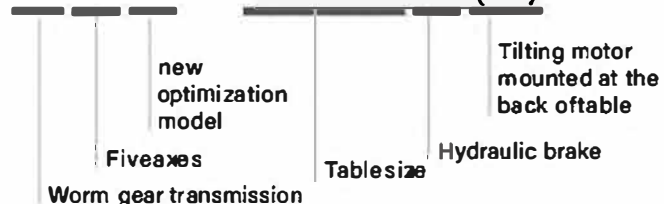
3. According to application engineering, optical encoder is recommended for tilting axis.

GFA-H/HB series

CNC Tilting Rotary Table



GFA-255H(B)



- Worktable diameter 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)



Consolidated spindle with radial-axial bearing built-in.

SPECIFICATIONS

MODEL	Unit	GFA-255H/HB	GFA-320H
Worktable diameter	mm / inch	Ø255 / Ø10.04	Ø320 / Ø12.60
Center bore diameter	mm / inch	Ø140H7 / Ø5.51H7	Ø180H7 / Ø7.09H7
Height of table (horizontal)	mm / inch	325 / 12.8	355 / 13.98
Height of center (vertical)	mm / inch	225 / 8.86	255 / 10.04
Width of T-slot	mm / inch	12H7 / 0.47H7	14H7 / 0.55H7
Width of guide block	mm / inch	18 / 0.71	18 / 0.71
Clamping method /pressure	MPa / psi	Hydraulic 5 / 725.0	Hydraulic 5 / 725.0
Servo motor spec		refer to page 71	
Transmission ratio		R 1:90	T 1:120
Max. table speed / at specified servo motor speed	min ⁻¹	22.2 / 2000	16.6 / 2000
Clamping torque	N.m / ft. lbs.	900 / 663.8	1600 / 1179.2
Allowable loading capacity	In Horizontal	kg / lb	120 / 264
	In Tilting (0~90°)	kg / lb	90 / 166.33
Allowable unbalancing work moment	WxL	N.m / ft. lbs.	92 / 68
Fxl When table clamped	F	N / lbs	16000 / 3590.40
	FxL	N.m / ft. lbs.	900 / 663.8
	FxL	N.m / ft. lbs.	900 / 663.8
Allowable loading inertia	(W ² /8)	kg.m ²	0.98
Resolution	deg.	0.001	0.001
Indexing accuracy	sec	15"	50"
Repeatability	sec	6"	8"
Tilting angle range	deg.	-30 ~ +120	-30 ~ +120
Net weight (servo motor excluded)	kg / lb	320 / 704	470 / 1037
Allowable cutting torque	N.m / ft. lbs.	370 / 272.9	780 / 569.4
Allowable Max. rotary joint quantity	Port	6 / 6	6

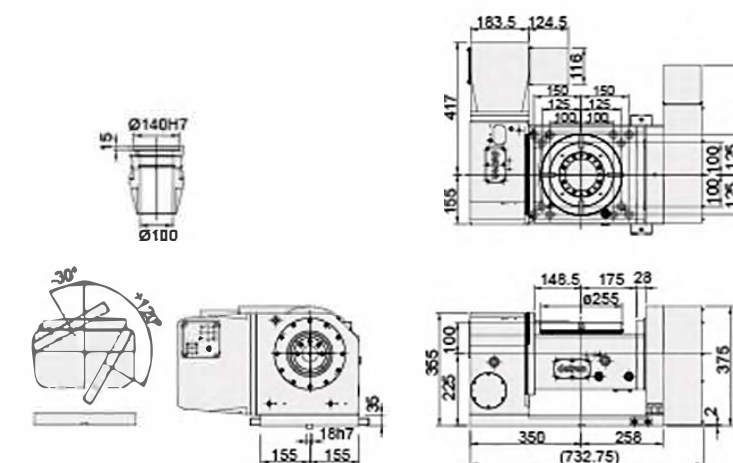
Note: 1. R: Rotary Axis T: Tilt Axis

2. FxL When table clamped is a reference data, the users should consider proper safety factor or contact detron for details.

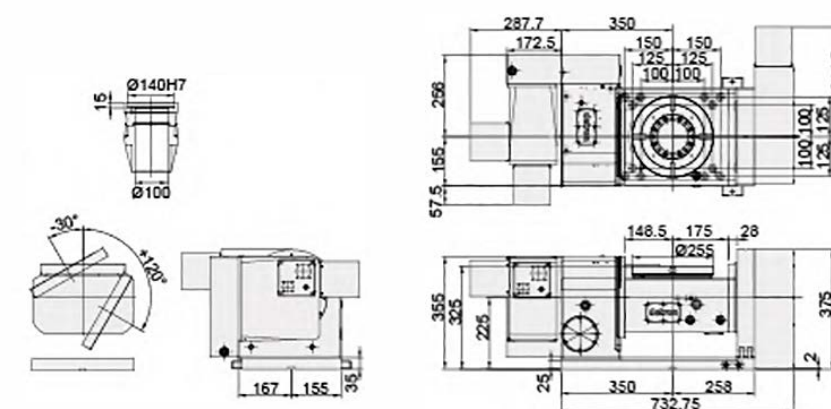
DIMENSIONAL DRAWINGS

Unit : mm

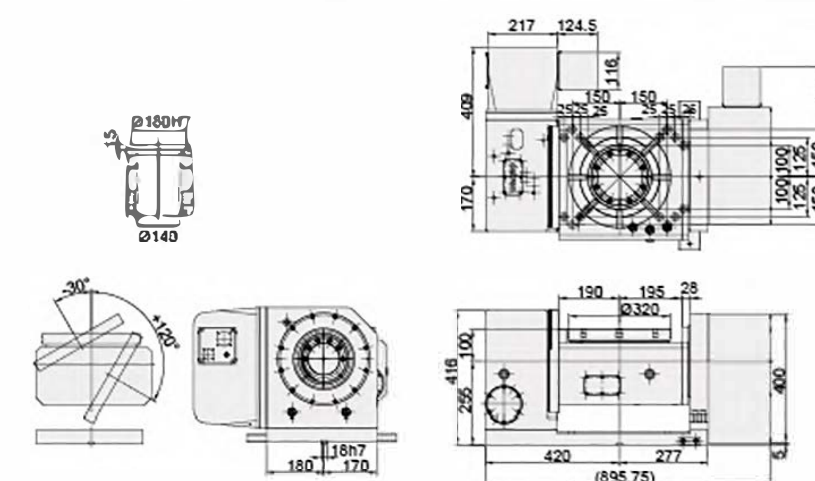
GFA-255H



GFA-255HB



GFA-320H



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.

CNC Trunnion Tilting Rotary Table

GTFAE-410XB

- Flat supplemental base for standard 3 axis M/C
- new optimization model
- Five axis
- Trunnion type for lower gravity
- Worm gear transmission
- Tilting motor mounted at the back of table
- ☒ hydraulic clamp by air booster converter built-in
- ☒ superior pneumatic clamp
- ☒ hydraulic brake



- Worktable diameter Ø210, Ø320, 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)
- Built-in air-booster for appointed models.



Option type, motor mounted at the front side

customized base available according to demand

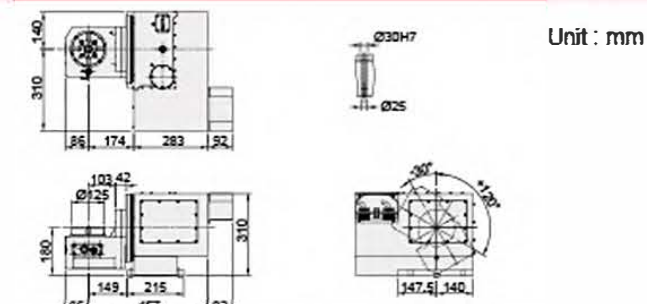
SPECIFICATIONS

MODEL	Unit	GTFAE-125S	GTFAE-210S	GTFAE-320XB/H	GTFAE-410XB	GTFAE-500XB
Worktable diameter	mm / inch	Ø125 / Ø4.92	Ø210 / Ø8.27	Ø320 / Ø12.60	Ø410 / Ø16.14	Ø500 / Ø19.69
Center bore diameter	mm / inch	Ø30H7 / Ø1.181H7	Ø40H7 / Ø1.574H7	Ø50H7 / Ø1.97H7	Ø70H7 / Ø2.76H7	Ø70H7 / Ø2.76H7
Height of table (horizontal)	mm / inch	180 / 7.09	375 / 14.76	385 / 14.37 317 / 12.48	411 / 16.18	460 / 18.11
Height of center (vertical)	mm / inch	180 / 7.09	375 / 14.76	385 / 14.37 317 / 12.48	411 / 16.18	460 / 18.11
Width of T-slot	mm / inch	12H7 / 0.47H7	12H7 / 0.47H7	12H7 / 0.47H7	14H7 / 0.55H7	14H7 / 0.55H7
Clamping method / pressure	MPa / psi	*P: 0.5~0.6 / 72.5~87	*P: 0.55~0.7 / 79.7~101.5	*P: 0.6~0.7/87~101.5 *H: 5/725	*P: 0.6~0.7 / 87~101.5	*P: 0.6~0.7 / 87~101.5
Servo motor spec		refer to page 71				
Transmission ratio		R: 1:60 T: 1:90	R: 1:90 T: 1:90	R: 1:100 T: 1:120	R: 1:120 T: 1:150	R: 1:120 T: 1:180
Max. table speed / at specified servo motor speed	min ⁻¹	33.3 / 2000	22.2 / 2000	33.3 / 3000	22.2 / 2000	25 / 2500
Clamping torque	N.m / ft. lbs.	140 / 103.26	900 / 663.8	400 / 295	600 / 442.48	750 / 553.17
Allowable loading capacity	In Horizontal In Tilting (0~90°)	kg / lb	30 / 66	100 / 220	200 / 440	200 / 440
Allowable unbalancing work moment	WxL	N.m / ft. lbs.	27 / 19.91	53 / 39.06	100 / 73.70	200 / 147.40
FxL	F	N / lbs	2800 / 629.5	14000 / 3141.60	16000 / 3590.40	20000 / 4488.0
When table clamped	FxL	N.m / ft. lbs.	140 / 103.26	400 / 295	750 / 553.17	1600 / 1180
	FxL	N.m / ft. lbs.	900 / 663.8	600 / 442.48	1500 / 1108.25	2000 / 1475
Allowable loading inertia	(W.D) ² / 8	kg m ²	0.06	0.55	2.6	4.3
Resolution	deg.	0.001	0.001	0.001	0.001	0.001
Indexing accuracy	sec	40"	80"	20"	80"	15"
Repeatability	sec	6"	8"	6"	8"	6"
Tilting angle range	deg.	-30 ~ +120	-120 ~ +30	-120 ~ +30	-120 ~ +30	-120 ~ +30
Net weight (servo motor excluded)	kg / lb	142 / 312.4	455 / 1001	700 / 1540	940 / 2088.0	1270 / 2794
Allowable cutting torque	N.m / ft. lbs.	85 / 62.69	280 / 191.6	550 / 401.5	780 / 569.4	1700 / 1241
Allowable Max. rotary joint quantity	Port	-	4	6	6	6

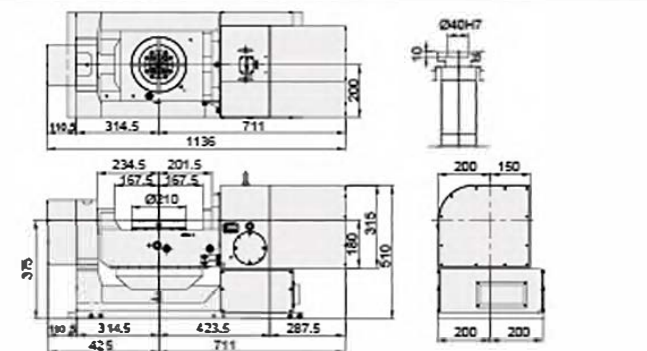
- Note: 1. P: Pneumatic H: Hydraulic R: Rotary Axis T: Tilt Axis
2. For the motor model selection of GTFAE125S, please contact us.
3. FxL When table clamped is a reference data, the users should consider proper safety factor or contact detron for details.

DIMENSIONAL DRAWINGS

GTFAE-125S



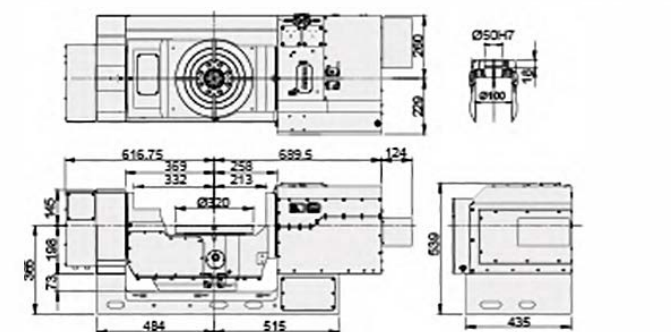
GTFAE-210S



GTFAE-320XB



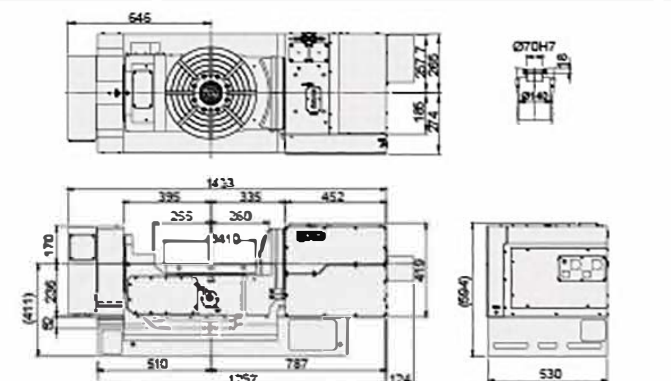
air-oil converter built-in



GTFAE-410XB



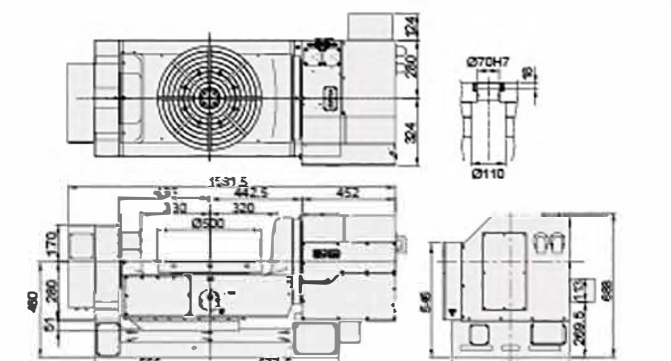
air-oil converter built-in



GTFAE-500XB



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.

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

☒ hydraulic clamp by air booster converter built-in
☒ superior pneumatic clamp
☒ hydraulic brake

Table size



- Worktable diameter, Ø255, Ø320, 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.



◀ GTFAE-410HL(S) with tilting axial motor at front.

SPECIFICATIONS

MODEL	Unit	GTFAE-170SL	GTFAE-255SBL(S)	GTFAE-320XBL(S)	GTFAE-410XBL(S)/ HL(S)	GTFAE-500XBL					
Worktable diameter	mm / inch	Ø170 / Ø6.69	Ø255 / Ø10.455	Ø320 / Ø12.60	Ø410 / Ø16.14	Ø500 / Ø19.69					
Center bore diameter	mm / inch	Ø40H7 / Ø1.57H7	Ø40H7 / Ø1.57H7	Ø50H7 / Ø1.97H7	Ø70H7 / Ø2.76H7	Ø70H7 / Ø2.76H7					
Height of table (horizontal)	mm / inch	240 / 9.45	360 / 14.17	365 / 14.37	411 / 16.18 370 / 14.57	460 / 18.11					
Height of center (vertical)	mm / inch	240 / 9.45	360 / 14.17	365 / 14.37	411 / 16.18 370 / 14.57	460 / 18.11					
Width of T-slot	mm / inch	12H7 / 0.47H7	12H7 / 0.47H7	12H7 / 0.47H7	14H7 / 0.55H7	14H7 / 0.55H7					
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	*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 71									
Transmission ratio		R	T	R	T	R	THL(S)	R	T		
		1/90	1/90	1:90	1:120	1:100	1:120	1:120	1:150 1:120	1:120	1:180
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	11.1 / 16.65 13.32	16.6 / 2000	11.1 / 2000	
Clamping torque	N.m / ft. lbs.	300/221	400/294.7	430/295	600/442.48	750/553.17	1500/1106.25	1600/1180	2000/1475	2500/1843.75	3000/2212.5
Allowable loading capacity	In Horizontal 	kg / lb	75 / 165	100 / 220	200 / 440	200 / 440	300 / 660				
	In Tilting (0~90°) 	kg / lb	50 / 110	75 / 165	100 / 220	150 / 330	250 / 550				
Allowable unbalancing work moment	WxL 	N.m / ft. lbs.	40 / 29.5	53 / 39.06	100 / 73.7	200 / 147.40	300 / 221.0				
F _{xL} When table clamped	F 	N / lbs	7000 / 1570.8	20000 / 4488.0	20000 / 4488.0	20000 / 4488.0	30000 / 6732.0				
	F _{xL} 	N.m / ft. lbs.	300 / 221	400 / 295	750 / 553.17	1600 / 1180	2500 / 1843.75				
	F _{xL} 	N.m / ft. lbs.	400 / 294.7	600 / 442.48	1500 / 1106.25	2000 / 1475	3000 / 2212.5				
Allowable loading inertia	($\frac{W \cdot D^2}{8}$) 	kg.m ²	0.28	0.55	2.6	4.3	9.6				
Resolution	deg.	0.001	0.001	0.001	0.001	0.001	0.001				
Indexing accuracy	sec	20" 60"	20" 60"	20" 60"	20" 60"	15" 60"	15" 60"				
Repeatability	sec	6" 8"	6" 8"	6" 8"	6" 8"	6" 8"	6" 8"				
Tilting angle range	deg.	-120 ~ +30	-120 ~ +30	-120 ~ +30	-120 ~ +30	-120 ~ +30	-120 ~ +30				
Net weight (servo motor excluded)	kg / lb	275 / 606.3	560 / 1235	750 / 1653	1020 / 2175 850 / 1860	1270 / 2800					
Allowable cutting torque	N.m / ft. lbs.	200 / 147.4	250 / 182.5	550 / 401.5	780 / 569.4	1700 / 1241					
Allowable Max. rotary joint quantity	Port	-	4	6	6	6					

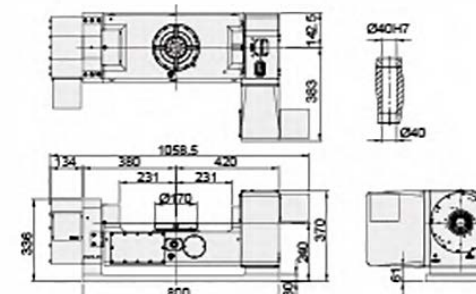
Note: 1. P: Pneumatic H: Hydraulic R: Rotary Axis T: Tilt Axis

2. F_{xL} When table clamped is a reference data, the users should consider proper safety factor or contact detron for details.

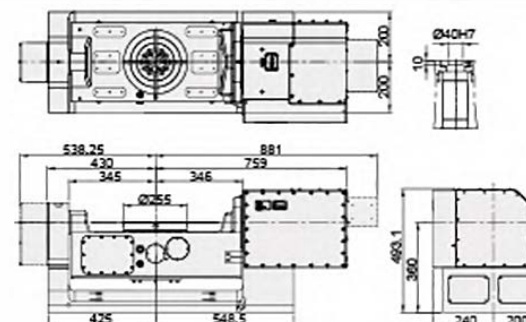
DIMENSIONAL DRAWINGS

Unit : mm

GTFAE-170SL

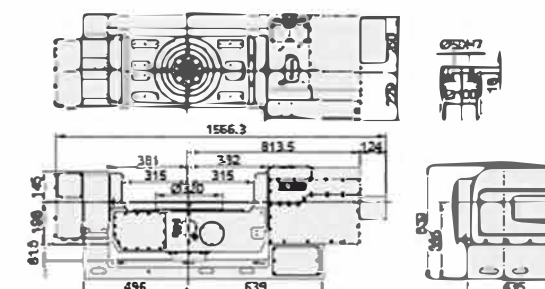


GTFAE-255SBL(S)



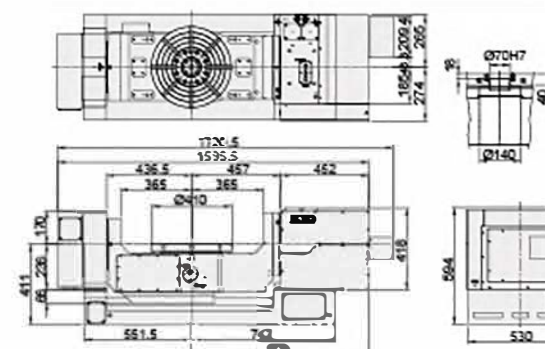
▲ sub table as available option

GTFAE-320XBL(S)



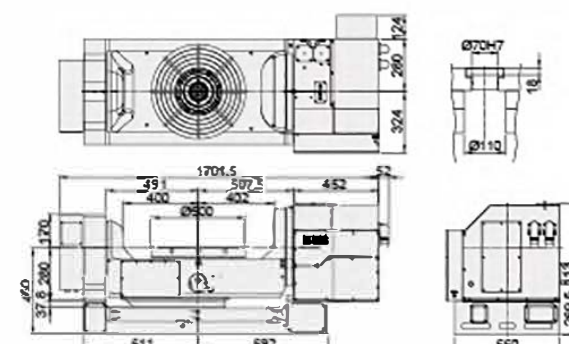
▲ sub table as available option

GTFAE-410XBL(S)



▲ sub table as available option

GTFAE-500XBL



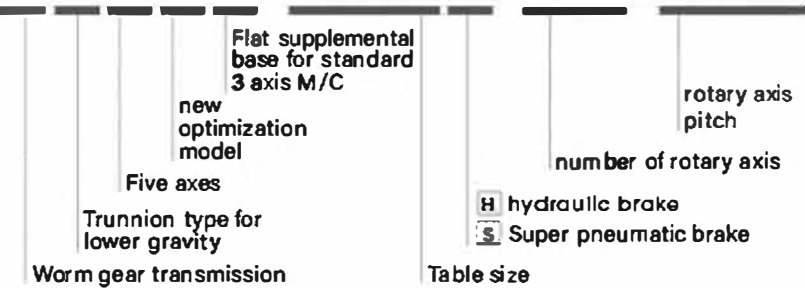
▲ air-oil converter built-in

- 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.

GTFAE-2W/3W series

Multi Spindle Tilting Rotary Table

GTFAE-210S-2W-320



Worktable diameter Ø125, Ø210, Ø255

Multiple rotary axis allow high volume production and automation integration.

SPECIFICATIONS

MODEL	Unit	GTFAE-210S-2W-320	GTFAE-255H-2W-400
Worktable diameter	mm / inch	Ø210 / Ø8.27	Ø255 / Ø10.04
Center bore diameter	mm / inch	Ø40H7 / Ø1.57H7	Ø40H7 / Ø1.57H7
Pitch of rotary axis	mm / inch	320 / 12.60	400 / 15.75
Max. work swing	mm / inch	310 / 12.20	390 / 15.35
Height of table (horizontal)	mm / inch	270 / 10.63	370 / 14.57
Height of center (vertical)	mm / inch	270 / 10.63	370 / 14.57
Width of T-slot	mm / inch	12H7 / 0.47H7	12H7 / 0.47H7
Width of guide block	mm / inch	18 / 0.71	18 / 0.71
Drive pressure / method	MPa / psi	Pneumatic 0.55~0.7 / 79.8~101.5	Hydraulic 5 / 725.0
Servo motor spec	refer to page 71		
Transmission ratio		R 1/90	T 1/120
Max. table speed / at specified servo motor speed	min ⁻¹	25 / 2250	22.2 / 2664
Clamping torque	N.m / ft. lbs.	400 / 295	900 / 663.8
Allowable loading capacity	In Horizontal kg / lb	50 / 110	100 / 220
	In Tilting (0~90°) kg / lb	35 / 77	75 / 165
Allowable unbalancing work moment	WxL N.m / ft. lbs.	92 / 68	130 / 95.8
FxL When table clamped	F N / lbs	9800 / 2203	11000 / 2473
	FxL N.m / ft. lbs.	400 / 295	900 / 663.8
	FxL N.m / ft. lbs.	900 / 663.8	2500 / 1843
Allowable loading inertia	($\frac{W \cdot D^2}{8}$) kg.m ²	0.22	0.8
Resolution	deg.	0.001	0.001
Indexing accuracy	sec	20"	60"
Repeatability	sec	6"	8"
Tilting angle range	deg.	-30 ~ +120	-30 ~ +120
Net weight (servo motor excluded)	kg / lbs	440 / 970	856 / 1887
Allowable cutting torque	N.m / ft. lbs.	250 / 184	550 / 405

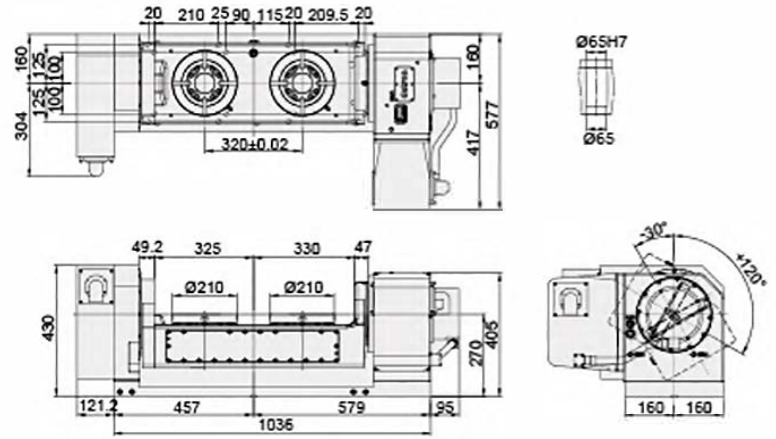
Note: 1. R: Rotary Axis T: Tilt Axis

2. FxL When table clamped is a reference data, the users should consider proper safety factor or contact detron for details.

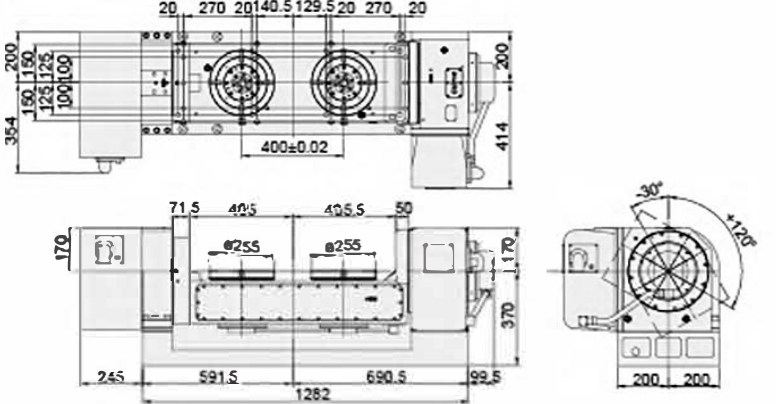
DIMENSIONAL DRAWINGS

Unit : mm

GTFAE-210S-2W-320

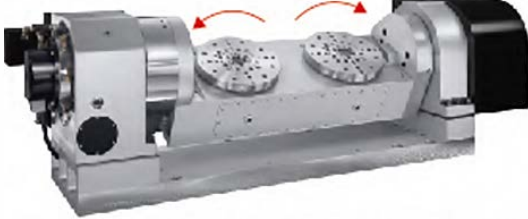


GTFAE-255H-2W-400



Hybrid Drive ▶▶▶

GTFAE-255H-2WS-400



Individual rotations on each axis.

GDTF-500HB-2W-600



Rotary axis by DDM for 50rpm.
Tilting axis by worm wheel transmission.

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.