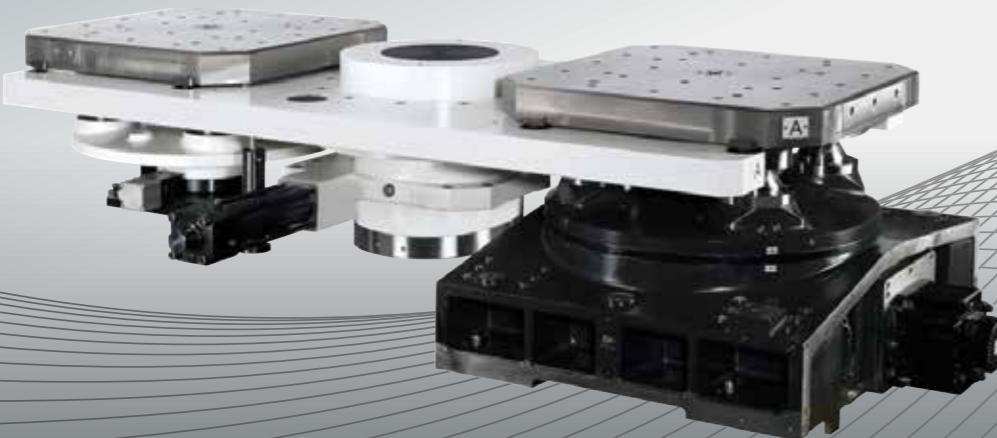


High quality and competitive
NC machinery device

PRODUCT LINE UP



detron Machine Co., Ltd.

No. 47-5, Zuncian Road., Shengang District 42952,
Taichung City, Taiwan
Tel: +886-4-2561-6000 Fax: +886-4-2562-7872
<http://www.detron.com.tw>
e-mail: export.sales@detron.com.tw

16062703 MacS-TEL:04-24733326



MAGNIFY THE VALUE OF MACHINERY

www.detron.com.tw



detron policy prohibits quoted products from being delivered to violate
"The Wassenaar Arrangement" regulation.

We reserve the right to modify and withdraw any part of the content specified herein.

GN_SEP. 2016, EN

Company Overview



As a Professional CNC Rotary Table Manufacturer

detron is committed to engineering, designing, and manufacturing high cost-performance NC rotary table through innovation and steadfast dedication to the quality of our products. We have dedicated our international R&D team with senior Japanese and Taiwanese engineers in advanced application and integration to general machine tools. Our mission is to support our customers to upgrade the machining capability and to create new values.

detron executes strict quality control and enlarges massive production scale by scientific and efficient internal management. **detron** is appointed to be the primary NC rotary table supplier by various machine tool manufacturers in local and international areas. **detron** devotes to reserve competition and manufacturing solution for our customers in rapid enterprise transformation.

Associated Enterprises



2nd Factory **detron**

- production line of B axis for HMC
- production line for APC
- production line for customization



Branch in USA **detron** AccuServe Machine Tool Specialist

- factory outlet for North America
- after-sales service and parts inventory
- distributor training center



Shanghai Branch **detron** Shanghai Outlet

- factory outlet for China
- after-sales service and parts inventory
- distributor training center

Collocation with International Well-known Machining Centers

detron

Japan Mazak



USA Haas



Germany DMG



Korea Doosan



Japan Brother



Honor to be the supplier for other high end machine manufacturers...



Japan Fanuc



Quality Policy



Product Assembly

Standardization in each operation process, with high volume production management, stable quality is guaranteed.

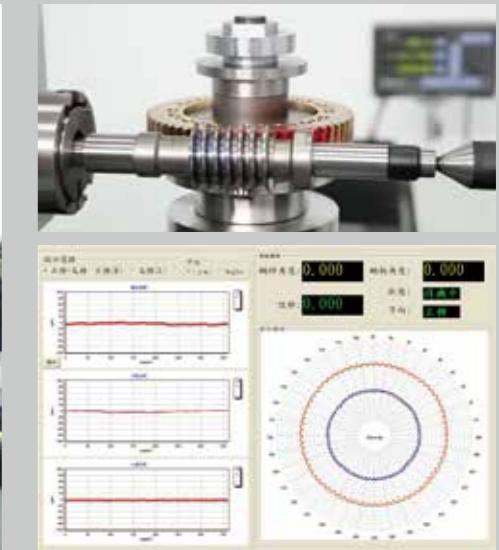
Calibration & Inspection

Apply German Zeiss CMM for full geometric precision inspection and Hi-resolution Renishaw laser calibration to identify positioning accuracy.

Professional Training

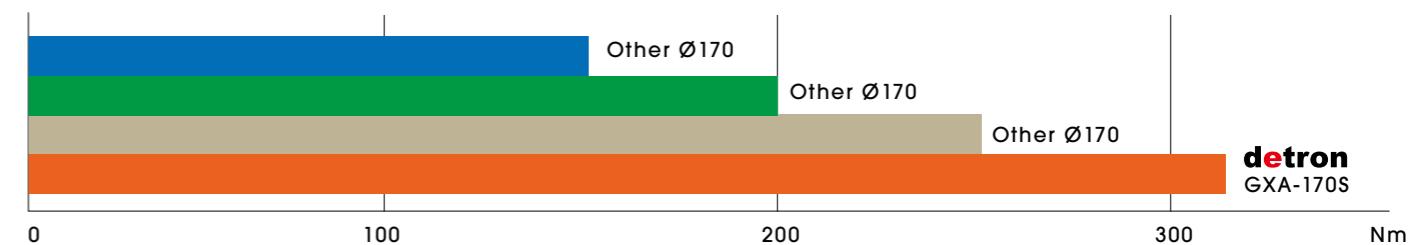
R&D division stands by customers with innovation to upgrade application. On-site technician trainings are regularly taken to intensify engineering skills.

Gear Teeth Occlusion Inspection



detron applies European specified gear occlusion tester to calibrate tooth-flank accuracy. Dual encoder mounted at both terminals for worm shaft and wheel. The comparison of transmissions by theoretical and practical measurement approves the coefficient of performance analysis and gear positioning accuracy.

Practical Clamping Force Approved



GXA-170S stays in stable positioning with repeatedly clamping force by 300Nm upper. The clamping force test is the regular procedure for each **detron** product.

Scan these QR
codes to see video:



Facilities for Key Processing



German Lieberr Hobbing Machines

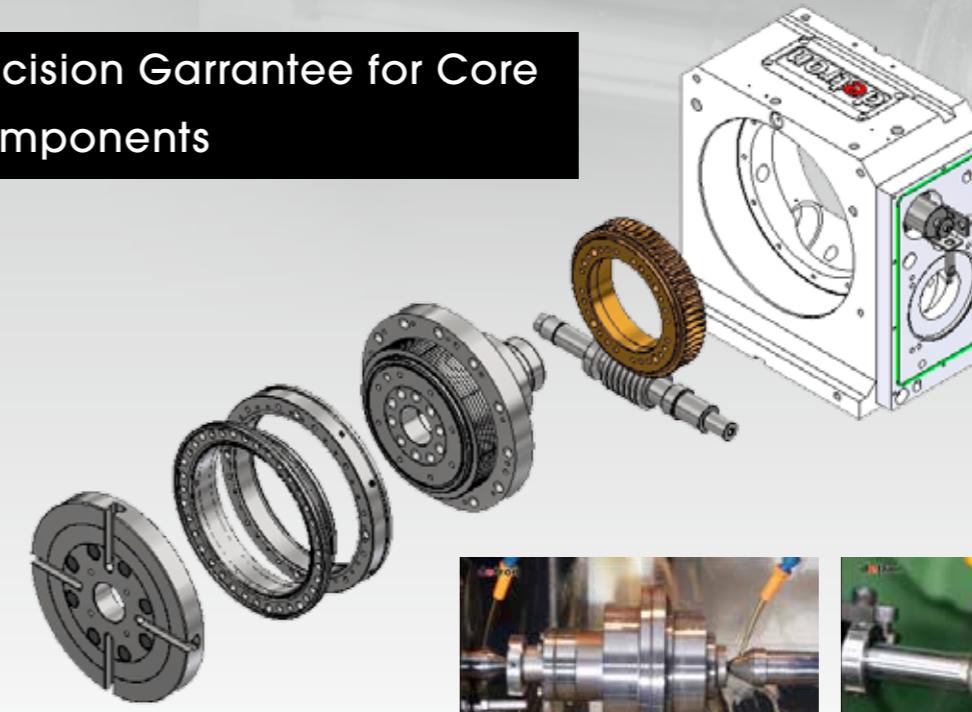


Vertical grinding machine in hydrostatic technology



Finishing grinding for
brake drum face+ID+OD

Precision Guarantee for Core Components



Grinding of consolidated spindle unit



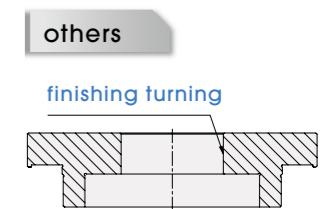
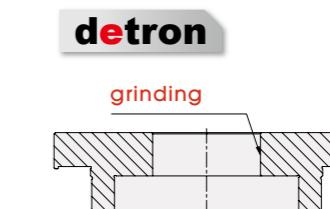
Grinding of worm shaft teeth

PROCESSING OF SPINDLE BORE

Advantages of center positioning hole with grinding

- Superior roundness and surface roughness.
- High accuracy when adjusting jig on center bore.
- Large spindle hole diameter allows multi-port oil distributor mounted.

Quicker Precise Mold Change, Higher Indexing Accuracy and Concentricity.

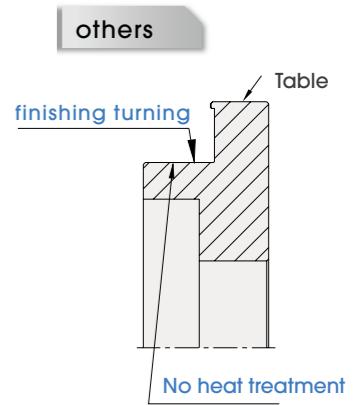
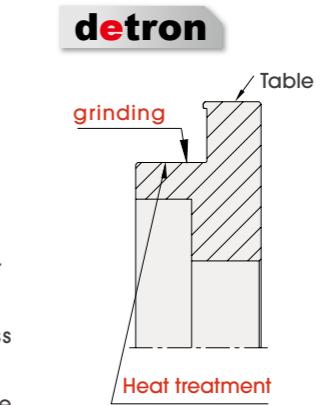


Poor roundness and surface for fixture adjustment.

FINE FINISHING MACHINING OF BRAKE SHAFT

Advantages of surface with hardening and grinding

- Least scratch and wearing concerns, high resistance for large clamping force.
- Precision grinding at the brake features better roundness and cylindricity. As a result, no rotating center offset, minimizing positioning error and increased clamping life are ensured.



Brake surface only with final turning but no heat treatment



Increased Clamping Life. No Offset During Braking.

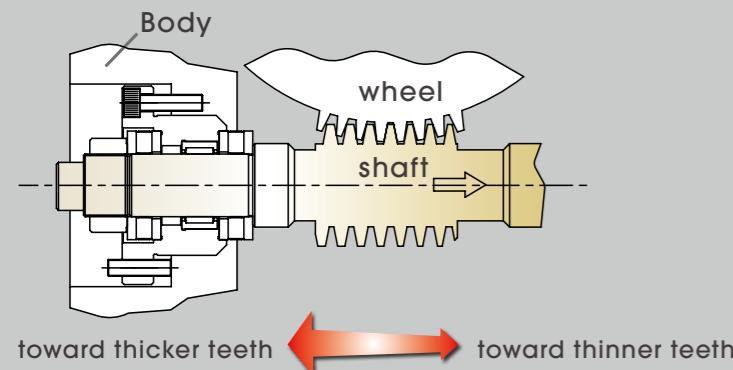
Core Technology - Transmission Parts and Rigidity

detron



- ▲ Exclusive application of patented high-endurable copper alloy for detron appointed models.
- 260% resistance for abrasion compared to conventional worm wheel materials by other brands.

Precise Dual Lead Worm Shaft and Gear



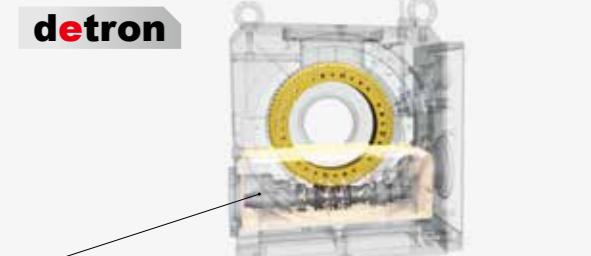
- Offset in axial direction retains **eternal radial geometry accuracy** of worm shaft and wheel.
- Stable gear occlusion accuracy.

Teeth Module Promoted

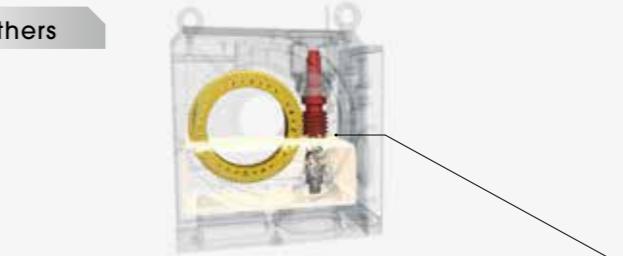


- 30% higher contact surface of gear teeth engagement than conventional worm gear.
- Comparing equal table spec, higher teeth depth provides optimum rigidity for heavy cut.

Lubrication and Thermal Control

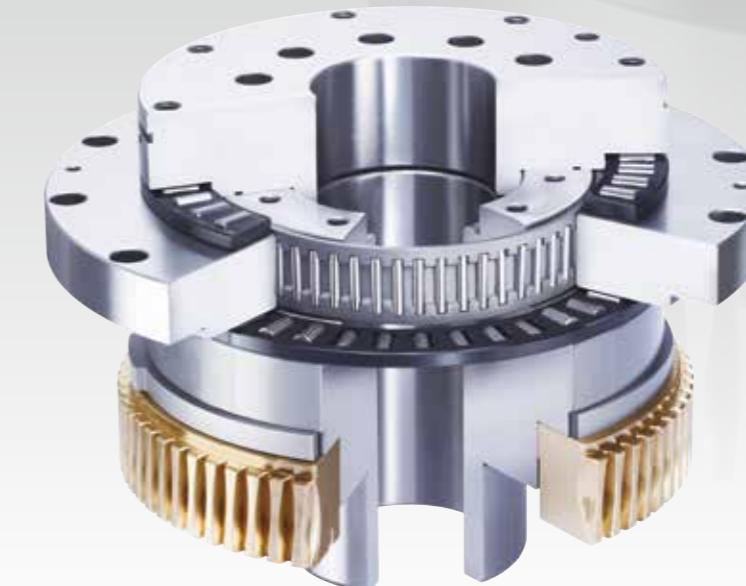


- Worm shaft seated in bottom horizontally.
Fully lubrication and **safe thermal control**.

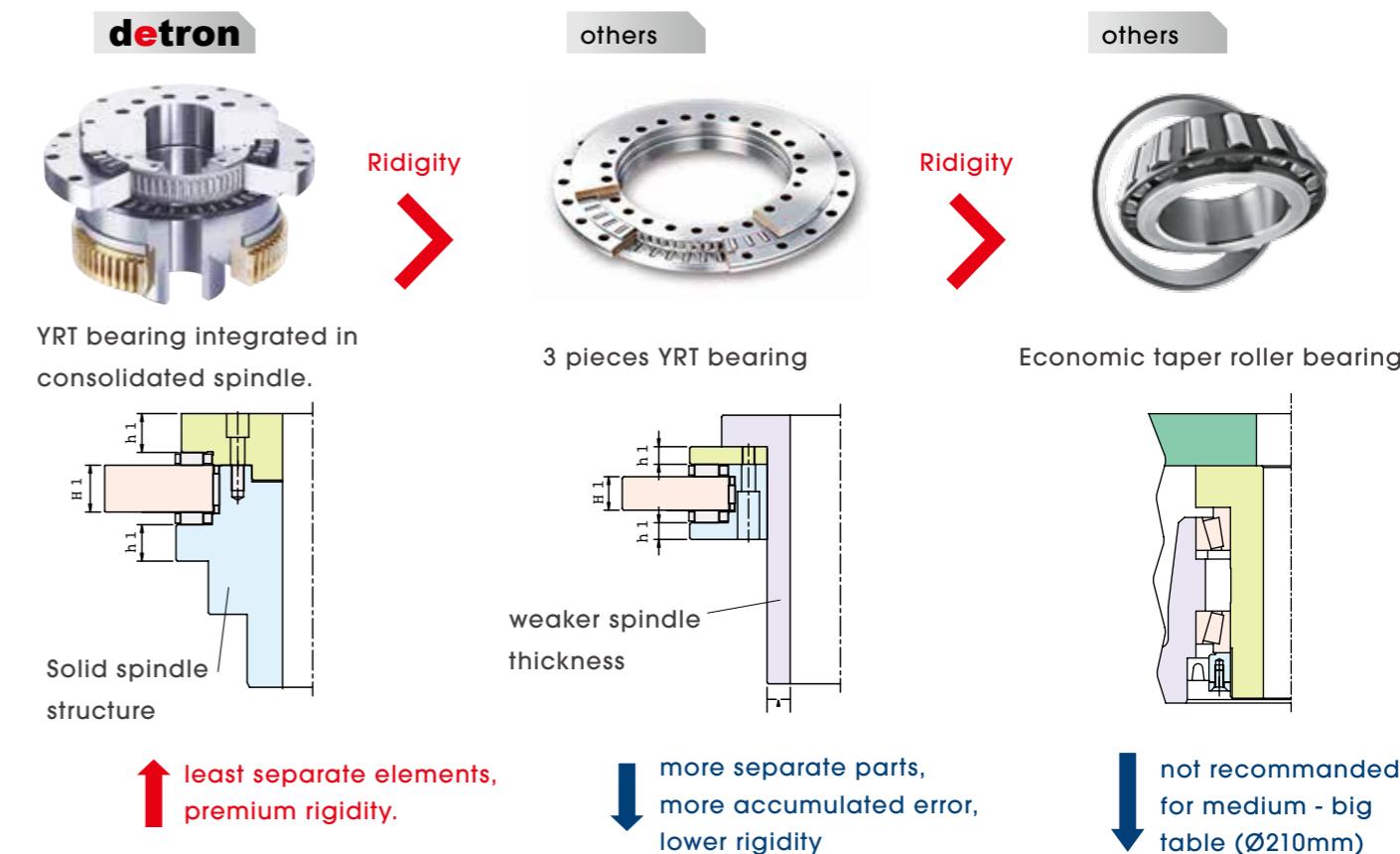


- Only half section of worm shaft lubricated,
thermal deformation is concerned.

Premium Rigidity by YRT Bearing Integrated in Consolidated Spindle.



Comparison of Spindle and Bearing



- The roller parts and steady supportive guide ways distinctly share 20-30% and 70-80% from the whole spindle rigidity.
- H1 & h1, as the supportive roller guide ways, are thicker on detron spindle and act high rigidity.
- Less separate parts, less accumulated error concern.

Core Technology - Reliable Clamping Force

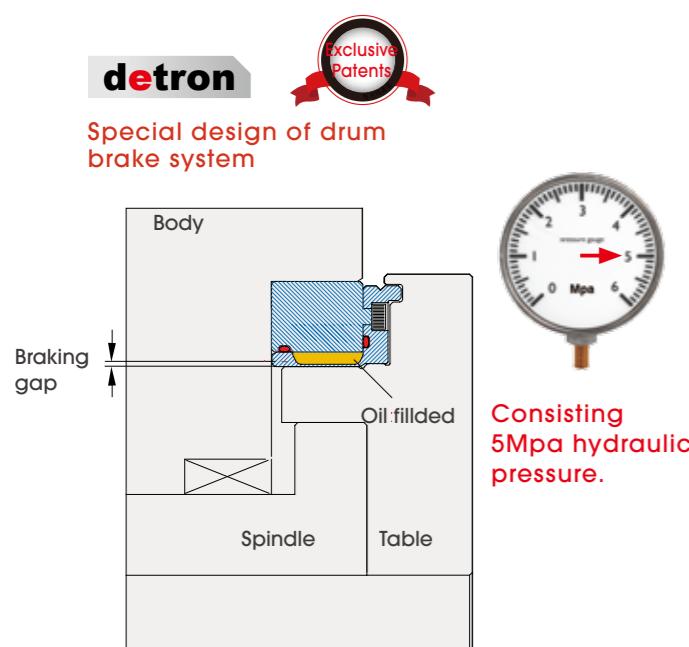
detron

Patented Dual Pneumatic Piston, Braking Force Promoted.

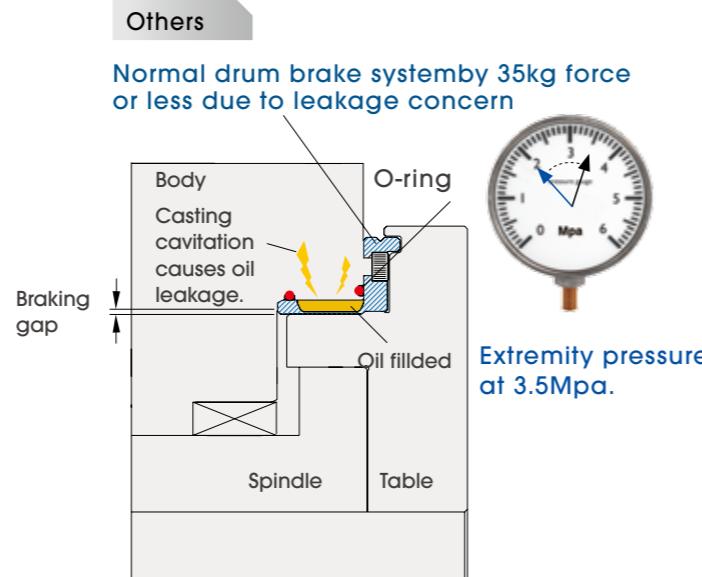


detron applies exclusive patented dual pistons to **multiply the pneumatic pressure zone** and **promote the clamping power**.

Safe and Double Insured Hydraulic Brake



Special design of drum brake system

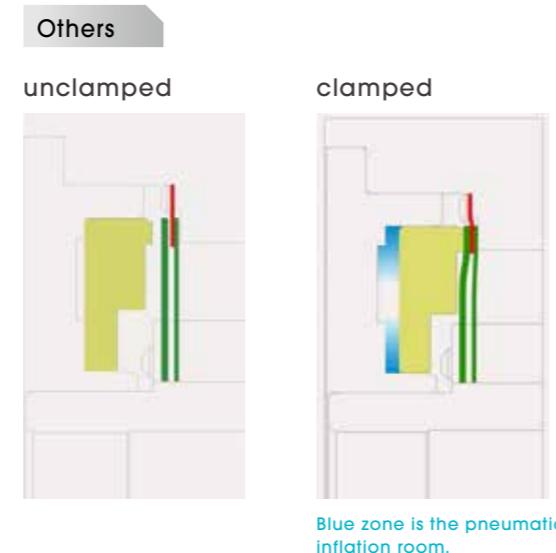


Fully enclosed drum ring resulting in thorough sealing to ensure high stability at higher pressures. Optimized alignment to table body resulting in a more uniform brake contact.



Poor oil sealing, no centricity alignment, no brake gap adjustment, unstable clamping force.

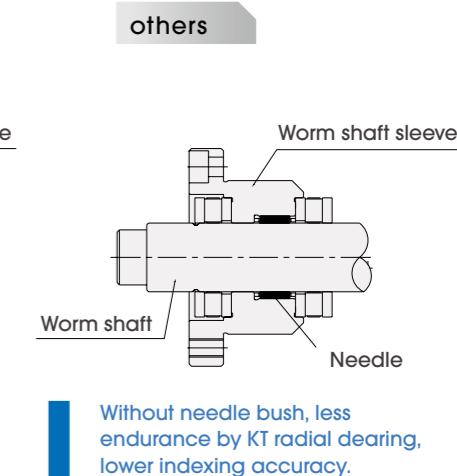
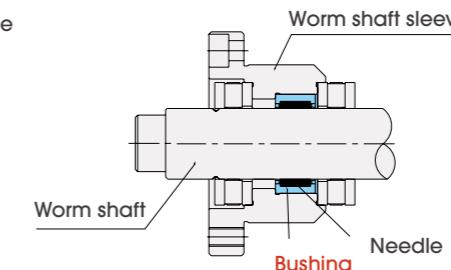
Core Technology - Endurance and Protection



Limited effects by less pneumatic inflation zone of conventional single piston. Lower clamping force.

Reliable Worm Shaft Rotation

Applying a bushing between sleeve and needle to increase the endurance of the sleeve bore, resulting in higher concentricity of the worm shaft and higher indexing accuracy.



High Concentricity. Consistent Accuracy.

WATERPROOF DESIGN

- The electronic parts guard is completely sealed by O-ring to prevent cutting fluid entering and motor burnout.
- Barotropic built-in for dew-proof.
- Waterproof grade IP65.

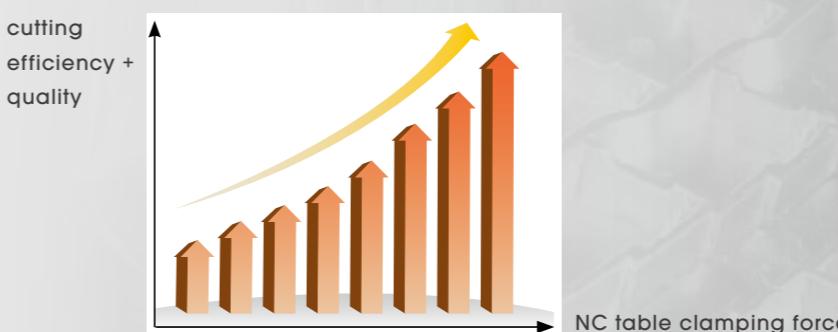
detron



Circumference is fully sealed by O-ring to prevent fluid from entering

Clamping Force Supports Advanced Application Engineering

Clamping force of rotary tables is the important supportive factor for high cutting efficiency. It's recommended to retain NC rotary table clamping force as **200%** compared to cutting force, for which is the safety coefficient.



- Machine Performance
- + Tooling Condition
- + Reliable Parts Holding
- ↓ Productivity and Precision

Comparison Summary between **detron** and Others

detron

Brand	detron	others	detron	others	detron	others
NC table spec	mm	Ø125	Ø170	Ø210		
Height of center	mm	110	110	135	135	160
Center bore diameter	mm	30	25	40	35	45
Bearing	-	RB7013 (Bigger bearing, rigidity upgraded)	RB5013	RB10020 (Bigger bearing, rigidity upgraded)	RB9016	RB10020 (Bigger bearing, rigidity upgraded)
Dynamic load	kN	19.4 (16% up)	16.7	33.1 (5% up)	31.4	33.1 (5% up)
Tilting moment	kN-m	0.82 (54% up)	0.53	2 (19% up)	1.7	2 (19% up)
Worm Gear module	mm	M2 (14% up)	M1.75	M2 (14% up)	M1.75	M2 (14% up)
Clamping Force	kg-m	8	8	18 (225% up)	8	26 (162% up)
Waterproof	-	O-ring sealed, initial barotropic, IP65	Caulking with silicon	O-ring sealed, initial barotropic, IP65	Caulking with silicon	O-ring sealed, initial barotropic, IP65
Allowable cutting torque	kg-m	8.5	8.5	17 (14% up)	15	25 (66% up)

Brand	detron	others	detron	others	detron	others
NC table spec	mm	Ø255	Ø320	Ø400		
Height of center	mm	190 (Large)	160	210	210	255
Center bore diameter	mm	50	40	70	40	110
Bearing	-	Integrated spindle with radial-axial bearing built-in Rigidity upgraded	Taper roller bearing	Integrated spindle with radial-axial bearing built-in Rigidity upgraded	Taper roller bearing	Integrated spindle with radial-axial bearing built-in Rigidity upgraded
Dynamic load	kN	156.8 (45% up)	108	196 (31% up)	150	300 (62% up)
Tilting moment	kN-m	11 (89% up)	5.8	17.5 (50% up)	11.7	39.2 (82% up)
Worm Gear module	mm	M3 (20% up)	M2.5	M3	M3	M4
Clamping Force	kg-m	70 (40% up)	50	118 (39% up)	85	250 (39% up)
Waterproof	-	O-ring sealed, initial barotropic, IP65	Caulking with silicon	O-ring sealed, initial barotropic, IP65	Caulking with silicon	O-ring sealed, initial barotropic, IP65
Allowable cutting torque	kg-m	55 (15% up)	48	78	78	170 (70% up)
Max. table speed (motor 3k rpm)	3000 rpm	25 (15% up)	16.6	25 (15% up)	16.6	20.8 (12.5% up)
Transmission ratio	-	1/120	1/180	1/120	1/180	1/144
Brake structure	-	Exclusive double- ring drum brake. Safe seal.	Disk brake or brake drum in single ring	Exclusive double- ring drum brake. Safe seal.	Disk brake or brake drum in single ring	Exclusive double- ring drum brake. Safe seal.

Description of Nomenclature

Please find the following explanations to have further understanding about mechanical rotary technology.

Clamping Torque

The clamping torque means the efficacy of the clamping mechanism, the clamping force of the worm gear is excluded. The clamping torque shown on this catalog is measured at 5(3.5) Mpa hydraulic pressure and 0.55~0.7 Mpa air pressure.

Allowable Worm Wheel Torque

This allowable worm wheel torque is equal to the allowable torque for the worm wheel when the table rotation speeds is 1 min⁻¹, which is subject to the standard stipulated by the Japan Gear Manufacturers Association.

Allowable Loading

The allowable utmost mass loaded on table surface, for which the part shall be a cylindrical casting located in equal center and diameter of rotary table.

Allowable Cutting Force (while braking)

There are 3 condition by different cut feed directions:
axial loading : cutting force toward table by

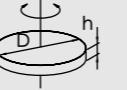
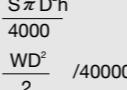
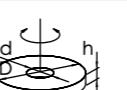
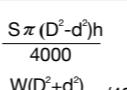
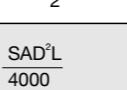
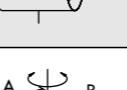
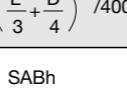
perpendicular direction

momentum loading : cutting force toward table by parallel direction with certain moment

circumference loading : cutting force feeding at the table verge

Allowable Work Inertia

The formula to calculate the moment of inertia

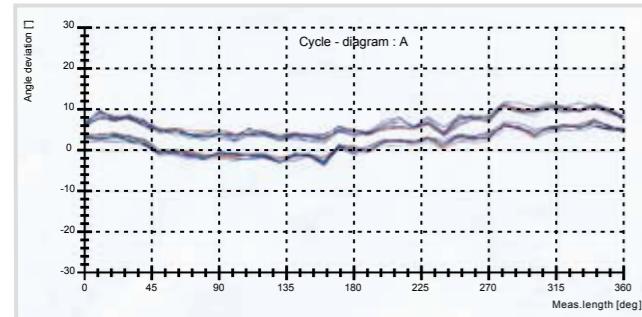
	$W = \frac{S\pi D^2 h}{4000}$ $J = \frac{WD^2}{2} / 40000$		$W = \frac{S\pi D^2 h}{4000}$ $J = Wn(\frac{D^2}{2} + 4H^2) / 40000$	unit: J.(GD ²) : kg·m ² W : kg A.B.D.d.H.h.L : cm
	$W = \frac{S\pi(D^2 - d^2)h}{4000}$ $J = \frac{W(D^2 + d^2)}{2} / 40000$		$W = \frac{S\pi(D^2 - d^2)h}{4000}$ $J = Wn(\frac{(D^2 + d^2)^2}{2} + 4H^2) / 40000$	Densities (S, kg/m ³): Iron : 7.85 * 10 ³ Iron casting : 7.5 * 10 ³ Aluminum : 2.7 * 10 ³ Copper : 8.94 * 10 ³ Brass : 8.5 * 10 ³
	$W = \frac{SAD^2 L}{4000}$ $J = (\frac{L^2}{3} + \frac{D^2}{4}) / 40000$		$W = \frac{S\pi D^2 L}{4000}$ $J = Wn(\frac{L^2}{2} + \frac{D^2}{2} + 4H^2) / 40000$	I : kg·m·s ²
	$W = \frac{SABh}{1000}$ $J = \frac{W(A^2 + B^2)}{3} / 40000$		$W = \frac{SABh}{4000}$ $J = Wn(\frac{A^2 + B^2}{3} + 4H^2) / 40000$	$I = \frac{J}{9.8}$

Strict Indexing Accuracy Norm

Accuracy Tolerance Chart

detron

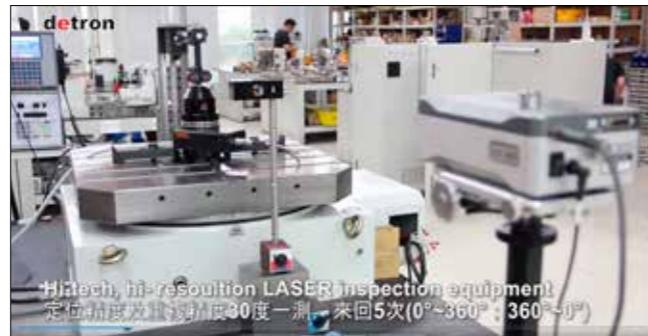
ISO 230-2 Norm (equal to JIS B 6192)



Accuracy Inspection upon ISO 230-2 international norm is operated with **5 continuous runs** in clockwise and counterclockwise test.

Facility of Inspection

detron applies Germany Heidenhain optical encoder and UK Renishaw ball-ball test to approve positioning and repeatability accuracy.



Update Accuracy Identification

Accuracy of Positioning by ISO 230-2 Standard (Unidirectional systematic positioning deviation of an axis)

The inspection presentation of ISO 230-2 is based on **continuously 5 revolutions** of repeatedly clockwise and counter-clockwise test, to diagnose unidirectional systematic positioning deviation.

Remark: Due to environmental influences during the measurement, the recorded measuring error may exceed the catalog limit value by up to 10%.

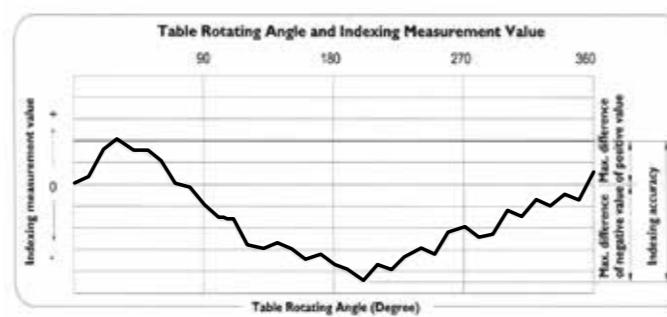
Accuracy of Repeatability by ISO 230-2 Standard (Unidirectional repeatability of positioning)

The inspection presentation of ISO 230-2 based on **continuously 5 revolutions** of repeatedly clockwise and counter-clockwise test, to diagnose unidirectional systematic repeatability of positioning deviation.

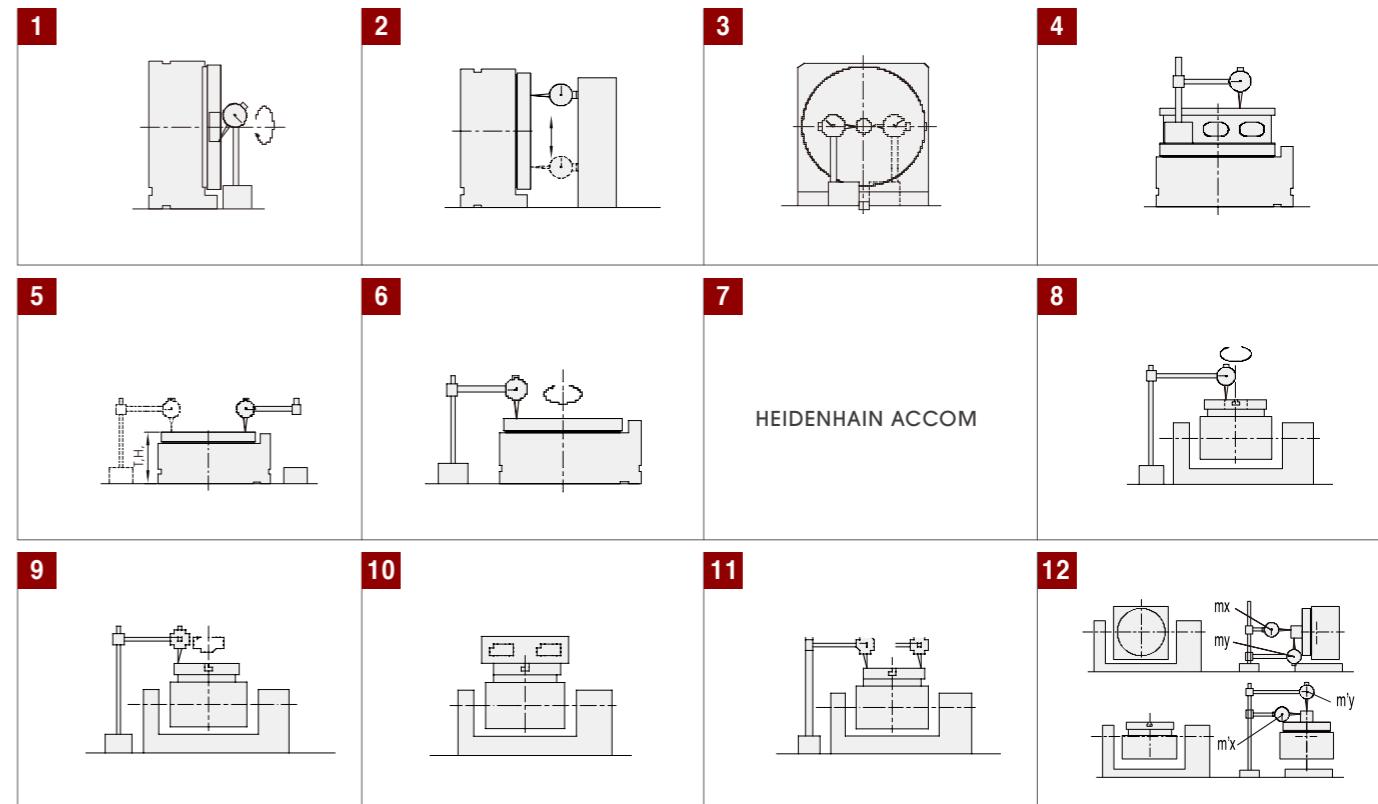
Please note: Due to environmental influences during the measurement, the recorded measuring error may exceed the catalog limit value by up to 10%.

others

JIS B 6330 Norm in Single Run



Simplified inspection norm without number of laps indicated.



Description of Inspection

NO.

		Unit: mm	GX-125P~GX-210P	GX-255H~GX-500H	GX-600H~GX-800H
1.	Run-out of center hole		0.01	0.01	0.01
2.	Perpendicularity between table surface and base bottom		0.02	0.02	0.02
3.	Parallelism between center hole and center of guide block		0.02	0.02	0.02
	Deviation between center hole and center of guide block		0.02	0.02	0.02
4.	Flatness of table surface		0.01	0.015	0.02 / 0.025
5.	Parallelism between table surface and table base		0.01	0.015	0.02 / 0.025
6.	Run-out of table surface Indexing accuracy		0.01	0.015	0.02
7.	Repeatability accuracy	40 sec- GX125 20 sec - GX170-210	15 sec	15 sec	15 sec
		GF Series (for all 5 axis)			
8.	Run-out of table surface		0.01		
9.	Flatness of table surface		0.015		
10.	Parallelism between table Surface and base		0.01	(Ø400-500: 0.015)	0.02
11.	Indexing	Rotary		Refer to specification chart of each model	
		Tilt		Refer to specification chart of each model	
12.	Repeatability	Rotary		6 sec.	
		Tilt		8 sec.	
12.	Parallelism between center line of tilt axis and base plate		0.02/Dia		

STANDARD

4axis

5axis

APC

Premium Line
GXA-S series
Dual Piston Models
Page 21



- GXA-125S
- GXA-170S
- GXA-210S
- GXA-250S

GF-P/H series
CNC Tilting Rotary Table
Page 33



- GF-101S
- GF-125P
- GF-170P/H
- GF-211P/PB/H

Premium Line
GFA-H series
Ultra Big Spindle Bore CNC Tilting Rotary Table
Page 35



- GFA-255H/HB
- GFA-320H

GTF series
CNC Trunnion Tilting Rotary Table
Page 37



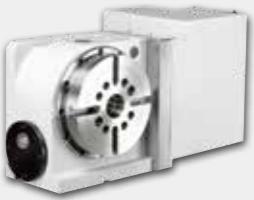
- GTF-212S
- GTF-320H
- GTF-410HB
- GTF-500HB

Premium Line
GXA-H series
Ultra Big Spindle Bore Models
Page 25-28



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

Eco Line
GX-P series*
CNC Rotary Table



- GX-125P/PL
- GX-170P/PL
- GX-210P/PL
- GX-250P/PL

Eco Line
GX-H series*
CNC Rotary Table



- GX-255H/HL
- GX-320H
- GX-400H
- GX-500H

DV/DX series*
DDM Rotary Table
Page 23



- DV-170P
- DV-255P II
- DX-320H

GV-B series
CNC Rotary Table
Page 23



- GV-170SB
- GV-210SB
- GV-255HB

DF series*
CNC DDM Tilting Rotary Table
Page 29



- DTFS-170
- DF-321H
- DF-400H
- DF-500H

VERTICAL Machining Center Series

CX-H series
CNC Indexing Table
Page 29



- CX-255
- CX-320
- CX-400
- CX-500

ST-T series
Tailstock
Page 31



- SR-125P
- SR-170P/H
- SR-210P/H
- SR-255H
- SR-320H
- SR-400H

SVC series
Automatic Pallet Change System
• For full-column moving machining center
• Roller gear cam driving
Page 31



- CVR-600
- CVR-850
- CVR-10D

CVR series
Automatic Pallet Change System
(For C-frame machine center)

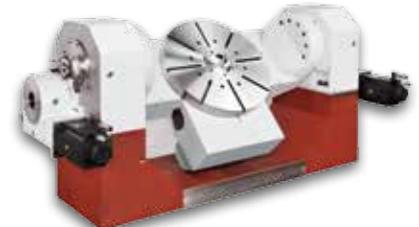


- SVC-700
- SVC-10D
- SVC-12D
- SVC-7050 II
- SVC-10065 II

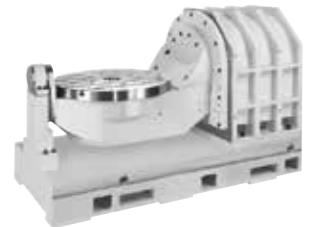
Remark *: Contact detron for further detail.

CUSTOMIZATION

Dual Drive CNC Deep Tilting*
Rotary Table



DDM Tilting Rotary Table*
(Single Support)



DDM Tilting Rotary Table*
(Table-in-Table)



HH series
Horizontal Indexing Table (single pallet)
2-pcs hirth coupling
Page 45



Horizontal Indexing Table
with optional 8+1 port oil distributors



Horizontal Index Table



Horizontal DDM Rotary Table
with customized base



Horizontal Index Table
with customized base



GH series
Horizontal Rotary Table (single pallet)
Page 47



Hydraulic Index Table

HORIZONTAL Machining Center Series

HH-T2 series
Index Table with 2 Pallets
(2-pcs hirth coupling)
Page 49



GH-T2 series
Rotary Table with 2 Pallets
Page 51



ACR series

Fork Type
Page 53



ACR-500
ACR-500T
ACR-630
ACW-500
ACW-630
ACW-800

CUSTOMIZATION

Customized Horizontal
Rotary Table



Customized Horizontal
Rotary Table



Horizontal Rotary Table

- With 10 ports rotary joint
- With optical encoder



APC With Horizontal Table



GXA-S series

New Evolution

GXA-S Multiple-power NC Rotary Table

(pneumatic clamp)

GXA-125S GXA-170S
GXA-210S GXA-250S



G X A - 1 7 0 S

- table size
- S superior pneumatic clamp
- new evolution model
- vertical & horizontal application
- worm gear transmission



Customized model



Upgraded high precision
cross roller bearings.

- Worktable diameter Ø125, Ø170, Ø210, Ø255.
- Exclusive patented dual pneumatic piston braking system.
- 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.

SPECIFICATIONS

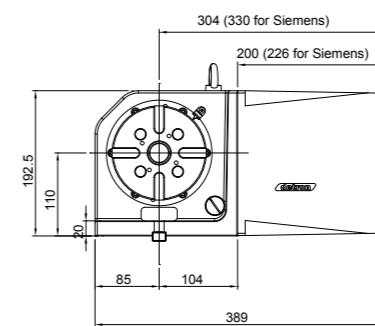
MODEL	Unit	GXA-125S	GXA-170S	GXA-210S	GXA-250S
Worktable diameter	mm / inch	Ø125 / Ø 4.92	Ø170 / Ø 6.69	Ø210 / Ø 8.27	Ø255 / Ø10.04
Center bore diameter	mm / inch	Ø30H7 / Ø 1.18H7	Ø40H7 / Ø 1.57H7	Ø65H7 / Ø 2.56H7	Ø65H7 / Ø 2.56H7
Through-bore diameter	mm / inch	Ø25 / Ø 0.98	Ø40 / Ø 1.57H7	Ø65 / Ø 2.56H7	Ø65 / Ø 2.56H7
Height of table (horizontal)	mm / inch	155 / 6.10	175 / 6.89	175 / 6.89	190 / 7.48
Height of center (vertical)	mm / inch	110 / 4.33	135 / 5.31	160 / 6.3	160 / 6.3
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			
Clamping torque	Nm / ft. lbs.	140 / 103.18	300 / 221.1	400 / 294.8	400 / 294.8
Servo motor type		refer to page 53			
Transmission ratio		1 / 40	1 / 60	1 / 72	1 / 72
Max. table speed	min ⁻¹	66.6	53.3	53.3	53.3
Standard loading inertia*	Kg.m ²	0.2	0.72	1.38	1.38
Maximum loading inertia*	Kg.m ²	1	3	5	5
Resolution	(W.D.) ⁸ 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	52 / 114.4	60 / 132	67 / 147.4
Allowable loading capacity	Vertical	kg / lb	50 / 110	100 / 220	125 / 275
	Horizontal	kg / lb	100 / 220	200 / 440	250 / 550
	Tailstock applied	kg / lb	100 / 220	200 / 440	250 / 550
Allowable load (when table clamped)	F FXL FXL	N / lbs	9700 / 2176.68	14000 / 3141.6	17000 / 3814.8
		Nm / ft. lbs.	410 / 302.17	1020 / 751.74	1265 / 932
		Nm / ft. lbs.	140 / 103.8	300 / 221.1	400 / 294.8
Allowable cutting torque		Nm / ft. lbs.	85 / 62.65	170 / 125.29	260 / 191.62
					266 / 196

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

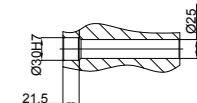
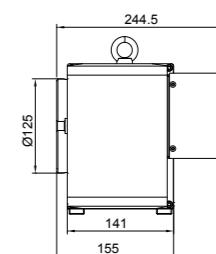
2. Standard loading inertia* is allowed in max table speed. Contact detron for the necessary adjustment of speed and others when maximum loading inertia* is required.

Dimension

GXA-125S

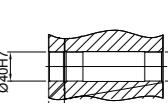
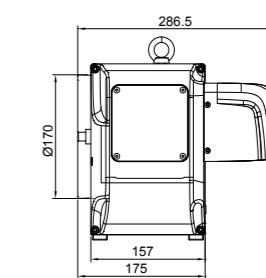
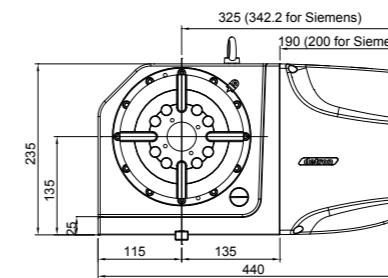


Unit : mm



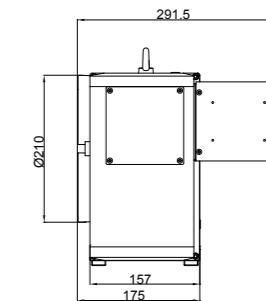
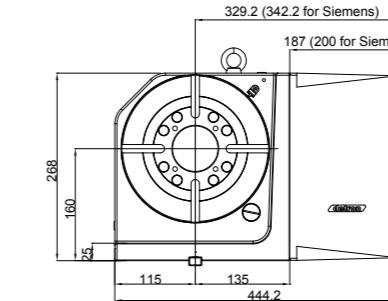
Through-hole Diameter

GXA-170S



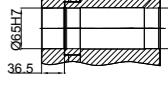
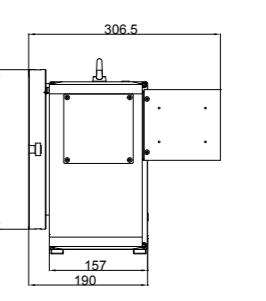
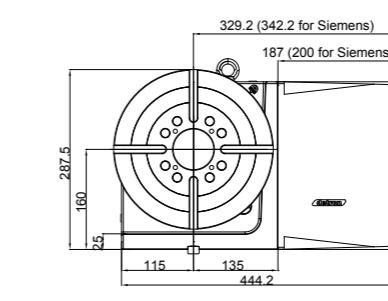
Through-hole Diameter

GXA-210S



Through-hole Diameter

GXA-250S



Through-hole Diameter

Remark: 1. The length of servo guard may vary with servo motor type. (the metal sheet dimensions shown above are based on Fanuc motor)

CNC Rotary Table (Motor mounted at backside)

GV-170SB

GV-210SB

GV-255HB


GV - 2 1 0 S B

Motor mounted at backside of table
 S Super multiple pneumatic
 H Hydraulic
 Table size
 Vertical application
 Worm gear transmission

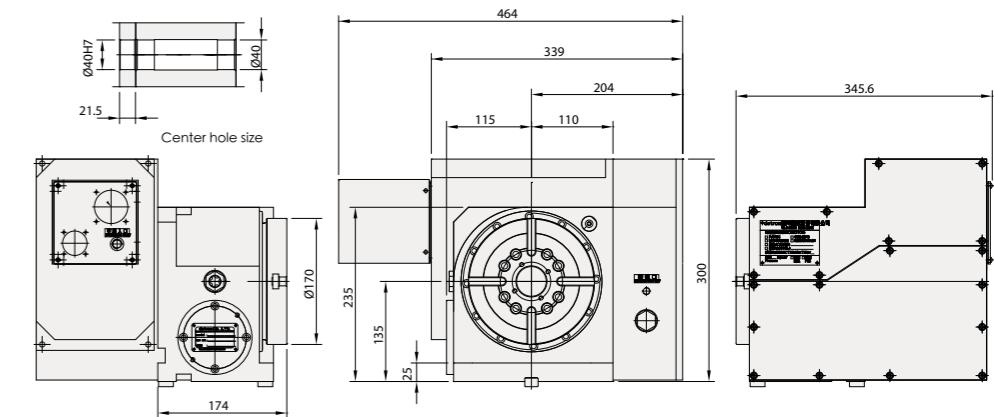
- Worktable diameter Ø170, Ø210, Ø255.
- GV-SB series is new "super multiple brake" mechanism for pneumatic clamp.
- Full gear depth transmitted by dual lead worm drive, resulting in higher efficiency and lower backlash.

SPECIFICATIONS

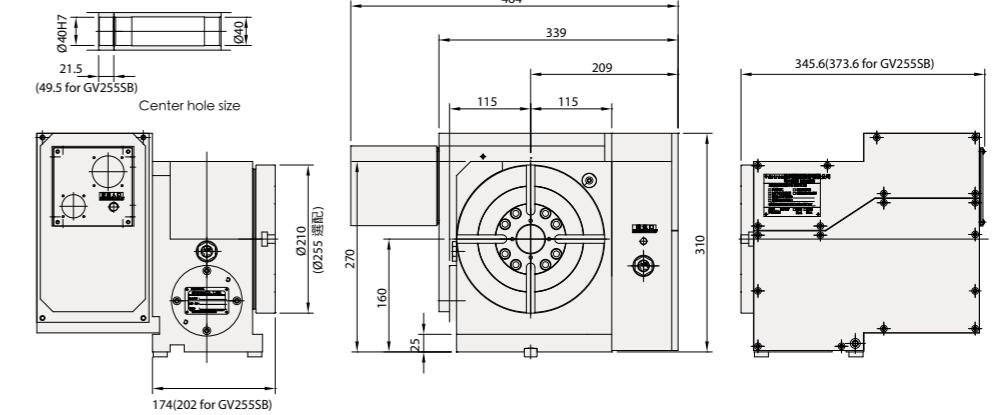
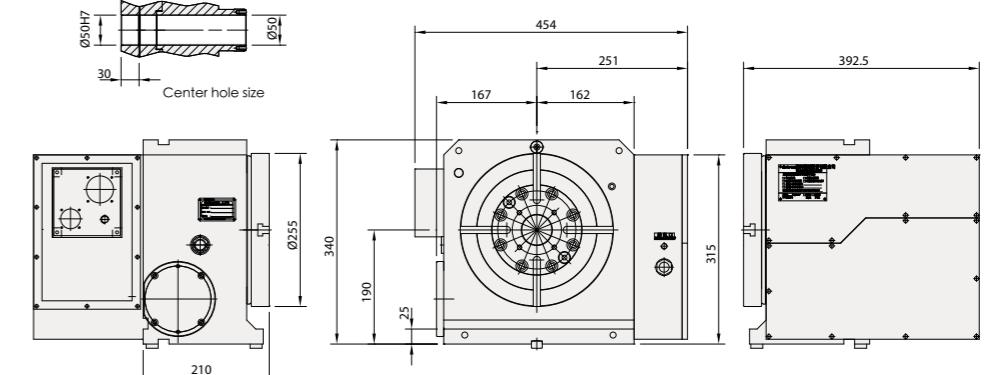
MODEL	Unit	GV-170SB	GV-210SB	GV-255HB
Worktable diameter	mm / inch	Ø170 / Ø6.69	Ø210 / Ø 8.27	Ø255 / Ø10.04
Center bore diameter	mm / inch	Ø40H7 / Ø1.57H7	Ø40H7 / Ø1.57H7	Ø50H7 / Ø1.97H7
Through-bore diameter	mm / inch	Ø40 / Ø1.57	Ø40 / Ø1.57	Ø50 / Ø1.97
Height of center (vertical)	mm / inch	135 / 5.31	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	Nm / ft. lbs.	250 / 184.25	400 / 294.8	700 / 515.9
Servo motor spec		refer to page 53		
Transmission ratio		1 / 90	1 / 90	1 / 120
Max. table speed	min ⁻¹	44.4	44.4	22.2
Allowable loading inertia $(\frac{W \cdot D^2}{8})$	Kg.m ²	0.28	0.42	2.07
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	104 / 228.8	150 / 330.0
Allowable loading capacity	Vertical	kg / lb	75 / 165	75 / 165
	Tailstock applied	kg / lb	150 / 330	150 / 330
Allowable load (when table clamped)	F	N / lbs	14000 / 3141.60	14000 / 3141.60
	FXL	Nm / ft. lbs.	1020 / 751.74	1020 / 751.74
	FXL	Nm / ft. lbs.	250 / 184.25	400 / 294.80
Allowable cutting torque		Nm / ft. lbs.	170 / 125.29	260 / 191.62
				550 / 405.35

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

DIMENSIONAL DRAWINGS

GV-170SB


Equipped with upgraded high precision cross roller bearing.

GV-210SB

GV-255HB


Consolidated spindle with YRT bearing built-in.

Note: 1. The length of servo guard may vary with servo motor type. (metal sheet dimensions shown above are based on Fanuc motor)

GXA-H series

New Evolution

CNC Big Spindle Bore

NC Rotary Table

(Hydraulic Brake)

GXA-255H GXA-320H

GXA-400H

G X A - 2 5 5 H

Table size

New evolution model

Vertical and horizontal application

Worm gear transmission



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



Unified spindle with radial-axial bearing.

SPECIFICATIONS

MODEL

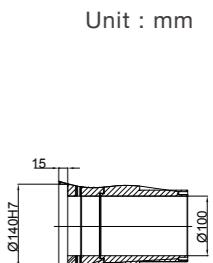
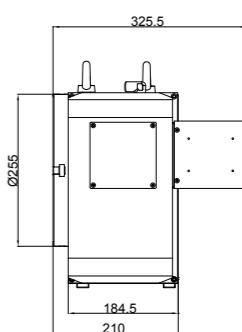
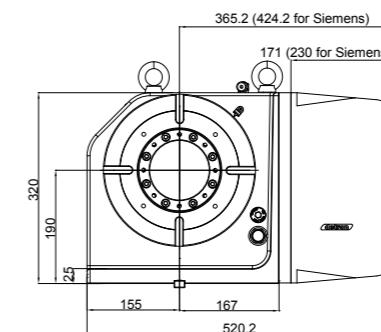
	Unit	GXA-255H	GXA-320H	GXA-400H
Worktable diameter	mm / inch	Ø255 / Ø 10.04	Ø320 / Ø 12.6	Ø400 / Ø 15.75
Center bore diameter	mm / inch	Ø140H7 / Ø 5.51H7	Ø180H7 / Ø 7.08H7	Ø220H7 / Ø 8.66H7
Through-bore diameter	mm / inch	Ø100 / Ø 3.94	Ø140 / Ø 5.51	Ø180 / Ø 7.09
Height of table (horizontal)	mm / inch	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	Nm / ft. lbs.	900 / 663.3	1600 / 1179.2	3000 / 2211
Servo motor type		refer to page 53		
Transmission ratio		1 / 120	1 / 120	1 / 144
Max. table speed	min ⁻¹	22.2	22.2	11.1
Standard loading inertia *	Kg.m ²	2.43	5.12	10.2
Maximum loading inertia *	Kg.m ²	12	20	40
Resolution	($\frac{W.D^2}{8}$) 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
	Tailstock applied	kg / lb	300 / 660	400 / 880
Allowable load (when table clamped)	F N / lbs	20000 / 4488	28000 / 6283.2	38000 / 8527.20
	FXL Nm / ft. lbs.	1700 / 1252.9	3000 / 2211	5400 / 3979.8
	FXL Nm / ft. lbs.	900 / 663.3	1600 / 1179.2	3000 / 2211
Allowable cutting torque	Nm / ft. lbs.	550 / 405.35	780 / 574.86	1700 / 1252.9

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.

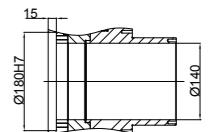
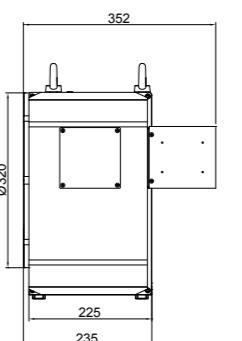
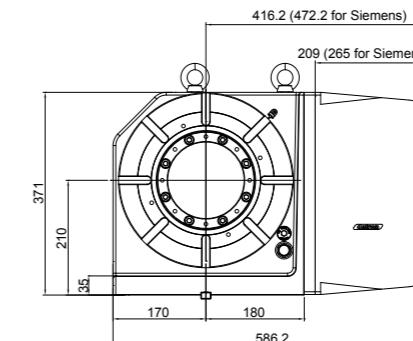
Dimension

GXA-255H



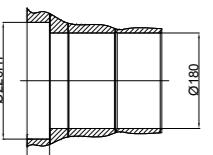
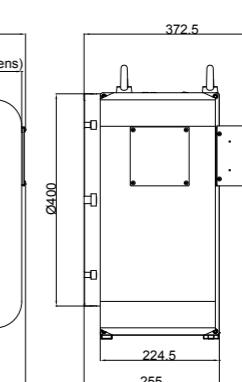
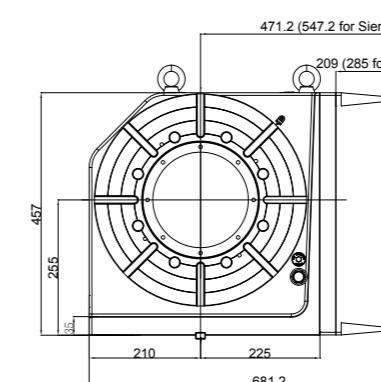
Through-hole Diameter

GXA-320H



Through-hole Diameter

GXA-400H



Through-hole Diameter

Note: 1. The length of servo guard may vary with servo motor type. (metal sheet dimensions shown above are based on Fanuc motor)

CNC Rotary Table (Hydraulic Brake)

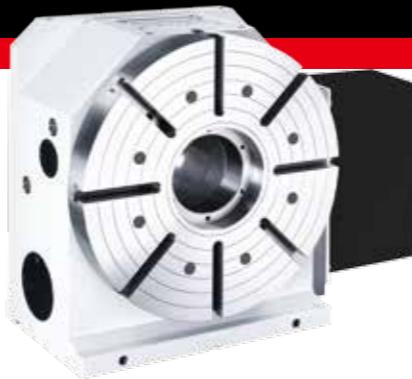
GX-500H

GX-630H

GX-800H

G X - 5 0 0 H

Hydraulic brake
Table size
Vertical & horizontal application
Worm gear transmission



- Worktable diameter Ø500, Ø630, Ø800.
- Equipped with extra large bearings, preloaded in radial and axial directions.
- 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.



Consolidated spindle with radial-
Axial bearing built-in.

SPECIFICATIONS

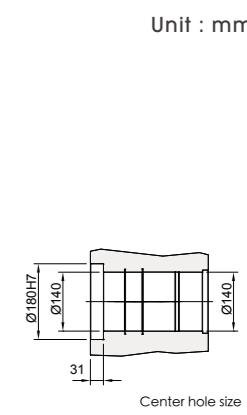
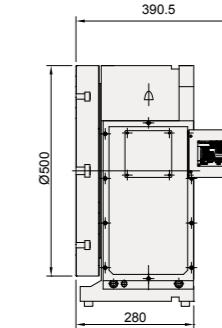
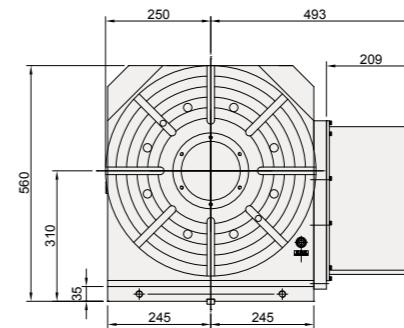
MODEL

	Unit	GX-500H	GX-630H	GX-800H
Worktable diameter	mm / inch	Ø500 / Ø19.69	Ø630 / Ø24.80	Ø800 / Ø31.50
Center bore diameter	mm / inch	Ø180H7 / Ø7.09H7	Ø270H7 / Ø10.63H7	Ø285H7 / Ø11.22H7
Through-bore diameter	mm / inch	Ø140 / Ø 5.51	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	310 / 12.20	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	Nm / ft. lbs.	3200 / 2358.4	4500 / 3316.5	5200 / 3832.4
Servo motor spec		refer to page 53		
Transmission ratio		1 / 180	1 / 180	1 / 180
Max. table speed	min ⁻¹	11.1	11.1	11.1
Allowable loading inertia ($\frac{W \cdot D^2}{8}$)	Kg.m ²	19.1	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	395 / 869.0	720 / 1584.0	1236 / 2719.2
Allowable loading capacity	Vertical Kg / lb	250 / 550	450 / 990	800 / 1760
	Horizontal Kg / lb	600 / 1320	800 / 1760	1500 / 3300
	Tailstock applied Kg / lb	600 / 1320	800 / 1760	1500 / 3300
Allowable load (when table clamped)	F N / lbs	40000 / 8976.0	49000 / 10780	50000 / 11000
	FXL Nm / ft. lbs.	5000 / 3685.0	8500 / 6264.50	10000 / 7370.0
	FXL Nm / ft. lbs.	3200 / 2358.4	4500 / 3316.5	5200 / 3832.4
Allowable cutting torque	Nm / ft. lbs.	2500 / 1842.5	4300 / 3169.1	5000 / 3685.0

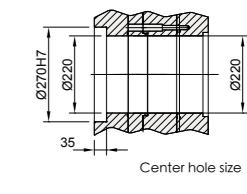
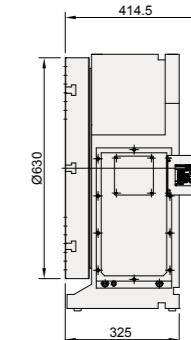
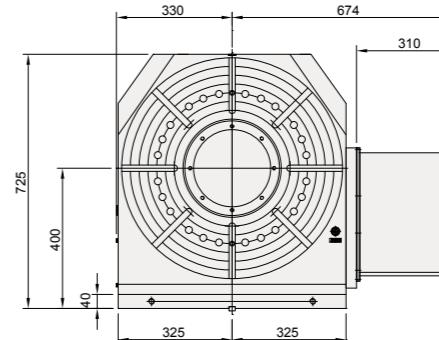
Note: Allowable cutting torque at table speed of 1 min⁻¹.

DIMENSIONAL DRAWINGS

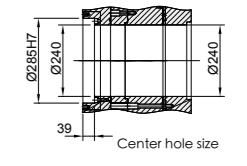
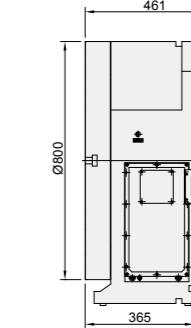
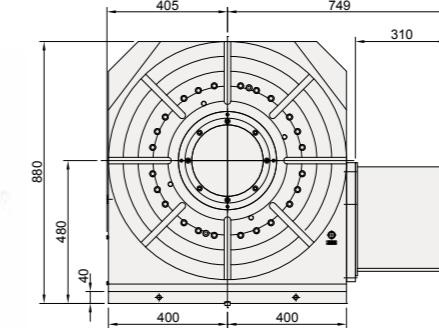
GX-500H



GX-630H



GX-800H



Note: 1. The length of servo guard may vary with servo motor type. (metal sheet dimensions shown above are based on Fanuc motor)

CX-H series

CNC Index Table

CX-255H
CX-320H
CX-400H
CX-500H

C X - 2 5 5 H

- Table size
- Veritcal & Horizontal application
- Coupling (3 pcs type) with worm gear transmission
- Hydraulic brake



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

Equipped with 3-pcs coupling



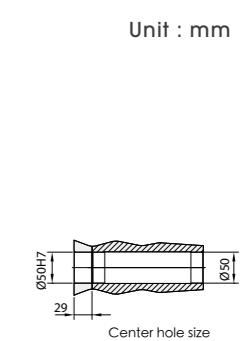
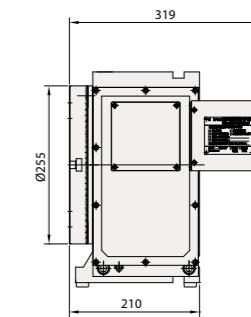
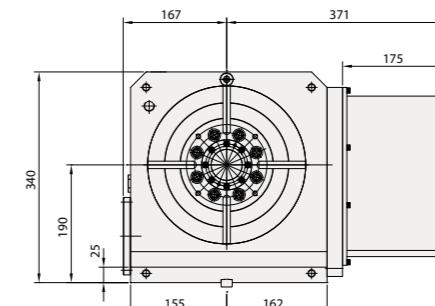
SPECIFICATIONS

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 / 507.5	Hydraulic 3.5 / 507.5
Clamping torque	Nm / ft. lbs.	1750 / 1289.75	2500 / 1842.5	3000 / 2211	6000 / 4422
Servo motor spec		refer to page 53			
Transmission ratio		1 / 120	1 / 120	1 / 144	1 / 180
Max. table speed	min ⁻¹	22.2	22.2	11.1	11.1
Allowable loading inertia (W.D) 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	133 / 293	196 / 431.2	286 / 629.2	413 / 908.6
Allowable loading capacity	Vertical	kg / lb	150 / 330	200 / 440	400 / 880
	Horizontal	kg / lb	300 / 660	500 / 1100	600 / 1320
Tailstock applied	kg / lb	300 / 660	400 / 880	500 / 1100	600 / 1320
Allowable load (when table clamped)	F N / lbs	16000 / 3590.4	20000 / 4488.0	30000 / 6732.0	40000 / 8976.0
	FXL Nm / ft. lbs.	1750 / 1289.75	2500 / 1842.5	3000 / 2211.0	6000 / 4422.0
	FXL Nm / ft. lbs.	3000 / 2211.0	4000 / 2948.0	5000 / 3685.0	10000 / 7370.0
Drive torque	Nm / ft. lbs.	240 / 176.9 (motor α4iF) 480 / 353.8 (motor α8iF)	720 / 530.2	864 / 618.5	1080 / 795.3

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

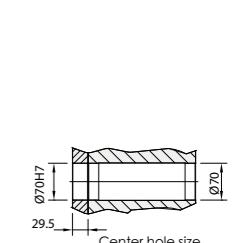
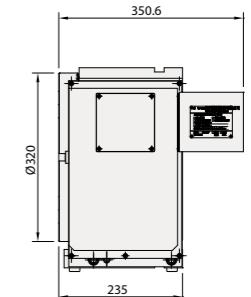
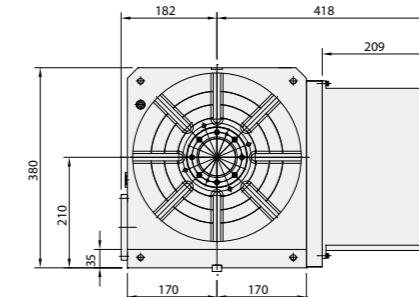
DIMENSIONAL DRAWINGS

CX-255H



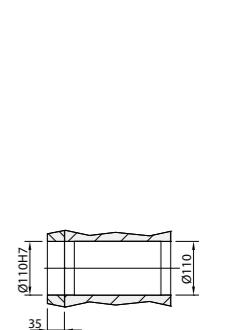
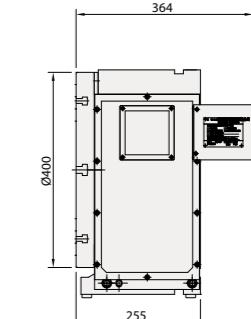
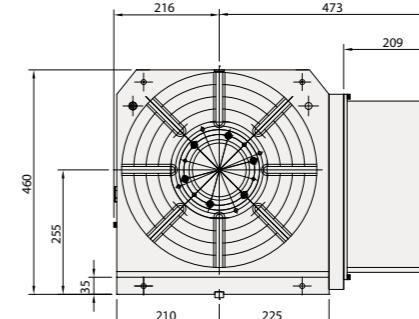
Unit : mm

CX-320H



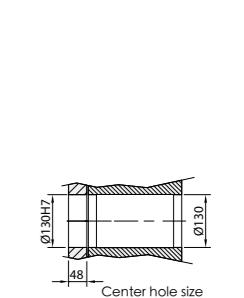
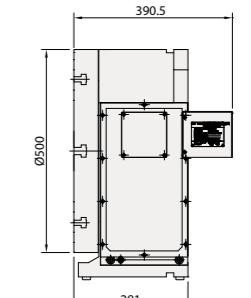
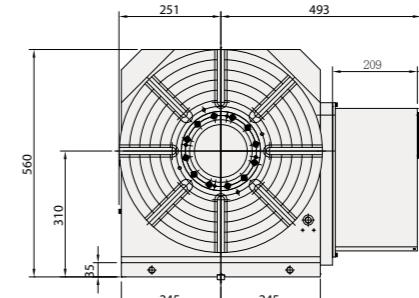
Center hole size

CX-400H



Center hole size

CX-500H



Center hole size

Note: 1. The length of servo guard may vary with servo motor type. (metal sheet dimensions shown above are based on Fanuc motor)

ST-T series

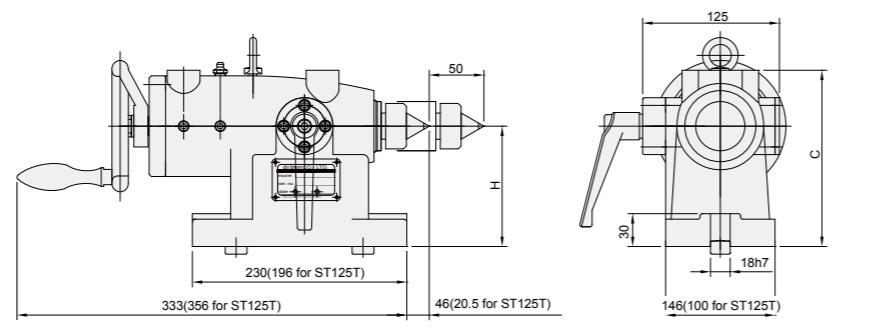
Quill Tailstock

Manual Quill Tailstock



ST - 1 7 0 T P

Quill Tailstock Table size: Ø170
P Pneumatic drive
H Hydraulic drive
With morse taper



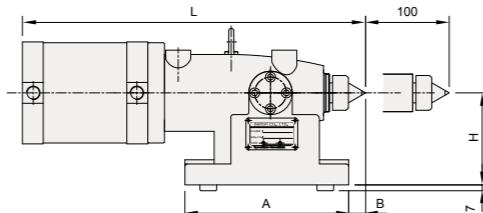
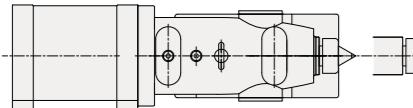
MODEL	ST-125T	ST-170T	ST-210T	ST-255T	ST-320T	ST-400T
H	110 / 4.33	135 / 5.31	160 / 6.30	190 / 7.48	210 / 8.27	255 / 10.04
C	161 / 6.34	183 / 7.20	208 / 8.19	238 / 9.37	258 / 10.16	306 / 12.05
Weight(Kg / lb)	24 / 52.8	26 / 57.2	28 / 61.6	31 / 68.2	30 / 66	31 / 68.2

Pneumatic Quill Tailstock



ST-125TP ST-170TP
ST-210TP

Pneumatic manual switch valve (optional)



unit: mm / inch

MODEL	ST-125TP	ST-170TP/TH	ST-210TP/TH	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)	24 / 52.8	26 / 57.2	28 / 61.6	36 / 79.2	36 / 79.2	36 / 79.2

Note: Max. operating pressure: 2MPa

SR series

Rotary Tailstock



SR - 1 7 0 P

Rotary tailstock Table size: Ø170
P Pneumatic clamping
H Hydraulic clamping

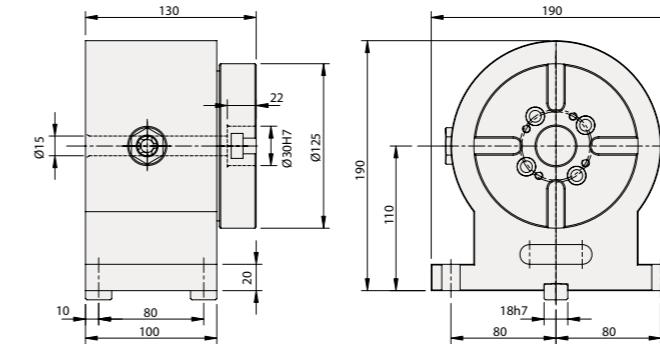
SR-125P SR-170P/H SR-210P/H
SR-255H SR-320H SR-400H

MODEL	SR-125P	SR-170P	SR-210P	SR-255H	SR-320H	SR-400H
Weight(Kg / lb)	20 / 44	28 / 61.6	33 / 72.6	61 / 134.2	68 / 149.6	133 / 292.6

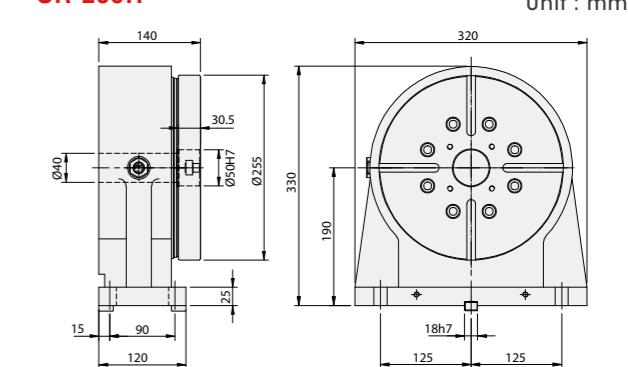
Note: SR rotary tailstock without brake is available, please contact the local agent for application info.

DIMENSIONAL DRAWINGS

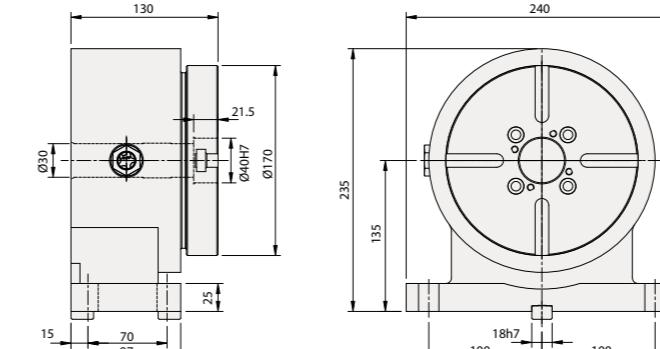
SR-125P



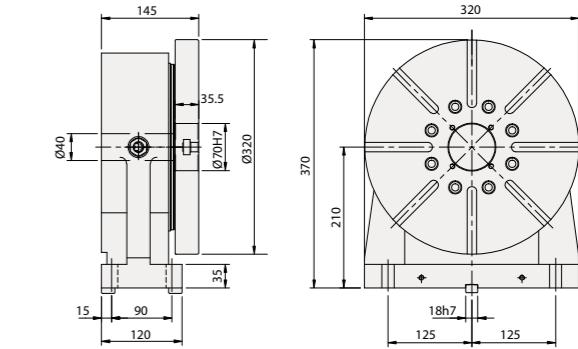
SR-255H



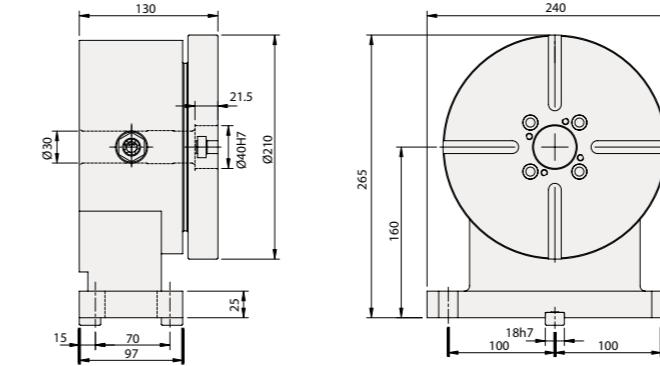
SR-170P/H



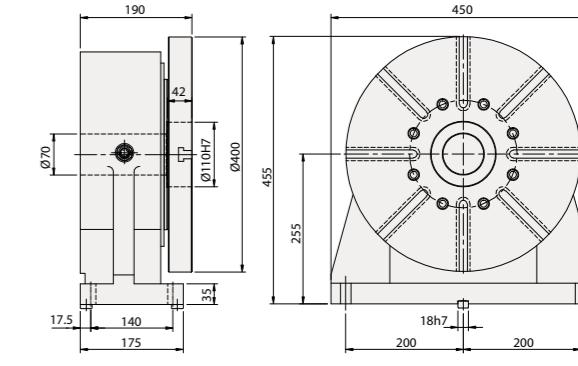
SR-320H



SR-210P/H



SR-400H



CNC Tilting Rotary Table

GF-101S GF-125P
GF-170P/H GF-211P/PB/H

G F - 1 2 5 P (B)

- Table size
- Tilting motor
- P Pneumatic brake
- S Super multiple power brake
- H Hydraulic
- Five axes
- Worm gear transmission



Worktable diameter Ø100, Ø125, Ø170, Ø210.
The pneumatic brake equipped with high precision cross roller bearings. Transmitted by dual lead worm with high efficiency and full depth gear teeth.

(customized) Equipped with high precision cross roller bearings in upgraded spec.

SPECIFICATIONS

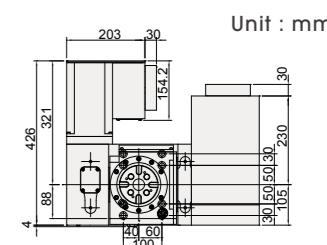
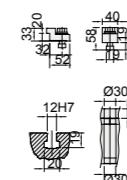
MODEL

	Unit	GF-101S	GF-125P	GF-170P/H	GF-211P/PB/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	Ø40H7 / Ø1.57H7
Height of table (horizontal)	mm / inch	205 / 8.07	230 / 9.06	260 / 10.24	305 / 12.01
Height of center (vertical)	mm / inch	135 / 5.31	160 / 6.30	190 / 7.48	225 / 8.86
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	S: 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	P: 0.55~0.7 / 79.8~101.5
Servo motor spec		refer to page 53			
Transmission ratio		R 1:75	T 1:120	R 1:90	T 1:90
Max. table speed	min ⁻¹	33.3	16.6	44.4	44.4
Allowable loading capacity	In Horizontal	kg / lb	35 / 77	50 / 110	75 / 165
	In Tilt (0~90°)	kg / lb	20 / 44	35 / 77	50 / 110
Allowable unbalancing work moment	WxL	Nm / ft. lbs.	24 / 17.69	24 / 17.69	35 / 25.80
	F	N / lbs	4000 / 897.60	4000 / 897.60	7000 / 1570.8
Allowable load (when table clamped)	FxL	Nm / ft. lbs.	200 / 147.4	85 / 62.65	P: 180 / 132.66 H: 300 / 221.0
	FxL	Nm / ft. lbs.	250 / 184.25	180 / 132.66	P: 260 / 191.62 H: 390 / 287.43
Allowable loading inertia (W _D ²)	kg.m ²	0.044	0.1	0.28	0.42
Resolution	deg.	0.001	0.001	0.001	0.001
Indexing accuracy	sec	40"	60"	40"	60"
Repeatability	sec	6"	8"	6"	8"
Tilting angle range	deg.	+17 ~ -107	+40~ -120	+30~ -120	+30~ -120
Net weight (servo motor excluded)	kg / lb	90 / 198	100 / 220	170 / 374.0	300 / 660
Allowable cutting torque	Nm / ft. lbs.	85 / 62.65	85 / 62.65	170 / 125.29	250 / 184.25

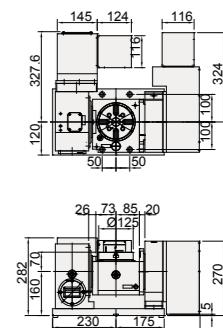
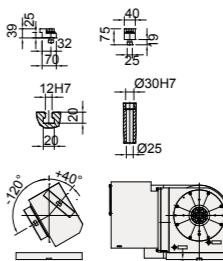
Note: P: Pneumatic S: Super multiple pneumatic H: Hydraulic R: Rotary Axis T: Tilt Axis

DIMENSIONAL DRAWINGS

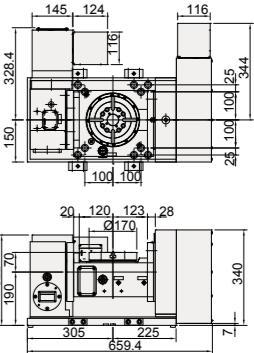
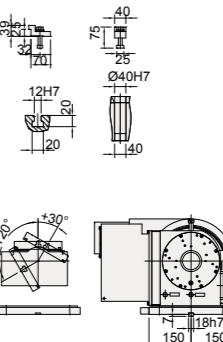
GF-101S



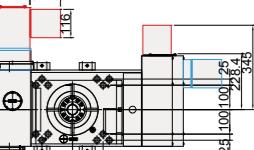
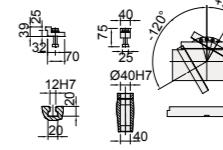
GF-125P



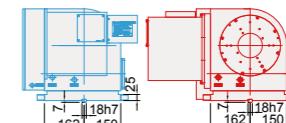
GF-170P/H



GF-211P/PB



GF-211P
GF-211PB



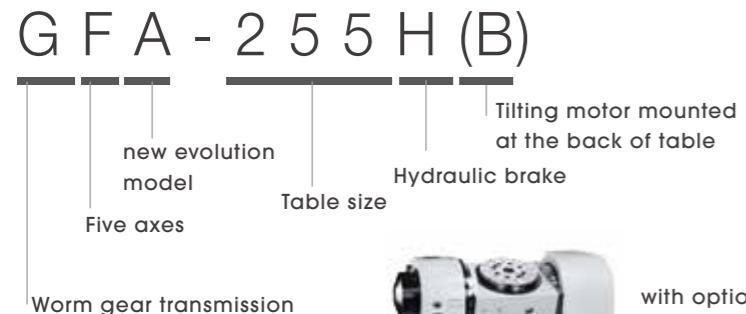
Red lines: GF-211P motor and related layout.
Blue lines: GF-211PB motor and related layout.

Note: 1. The length of servo guard may vary with servo motor type. (the metal sheet dimensions shown 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 Tilting Rotary Table

GFA -255H/HB GFA -320H



SPECIFICATIONS

MODEL

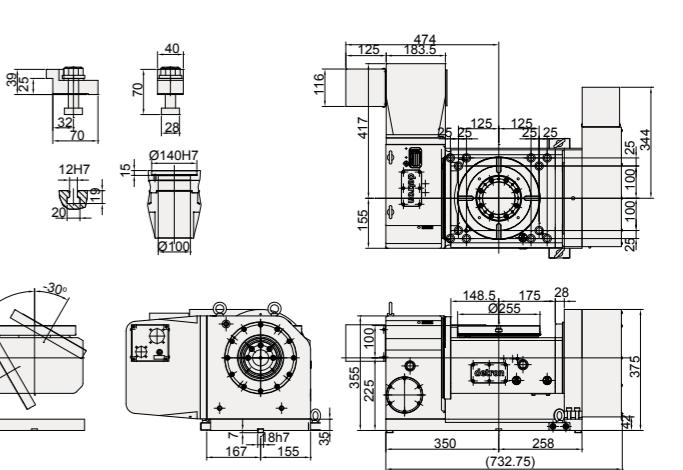
	Unit	GFA-255H	GFA-320H		
Worktable diameter	mm / inch	Ø255 / Ø10.04	Ø320 / Ø12.60		
Center bore diameter	mm / inch	Ø140H7 / Ø5.51H7	Ø180H7 / Ø7.09H7		
Height of table (horizontal)	mm / inch	325 / 12.8	355 / 13.98		
Height of center (vertical)	mm / inch	225 / 8.86	255 / 10.04		
Width of T-slot	mm / inch	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 53			
Transmission ratio		R 1:90	T 1:120	R 1:120	T 1:120
Max. table speed	min ⁻¹	22.2	16.6	22.2	16.6
Allowable loading capacity	In Horizontal	kg / lb	120 / 264	200 / 440	
Allowable loading capacity	In Tilt (0~90°)	kg / lb	75 / 165	150 / 330	
Allowable unbalance work moment	WxL	Nm / ft. lbs.	78 / 57.49	110 / 81.07	
Allowable load (when table clamped)	F	N / lbs	16000 / 3590.40	20000 / 4488.0	
Allowable load (when table clamped)	FxL	Nm / ft. lbs.	900 / 663.3	1600 / 1179.2	
Allowable load (when table clamped)	FxL	Nm / ft. lbs.	900 / 663.3	1600 / 1179.2	
Allowable loading inertia (W.D ²)	kg.m ²	0.98	2.6		
Resolution	deg.	0.001	0.001		
Indexing accuracy	sec	15"	50"	15"	50"
Repeatability	sec	6"	8"	6"	8"
Tilting angle range	deg.	-30 ~ +120	-30 ~ +120		
Net weight (servo motor excluded)	Kg / lb	370 / 814	460 / 1012		
Allowable cutting torque	Nm / ft. lbs.	250 / 184.25	780 / 569.4		

Note: R: Rotary Axis T: Tilt Axis

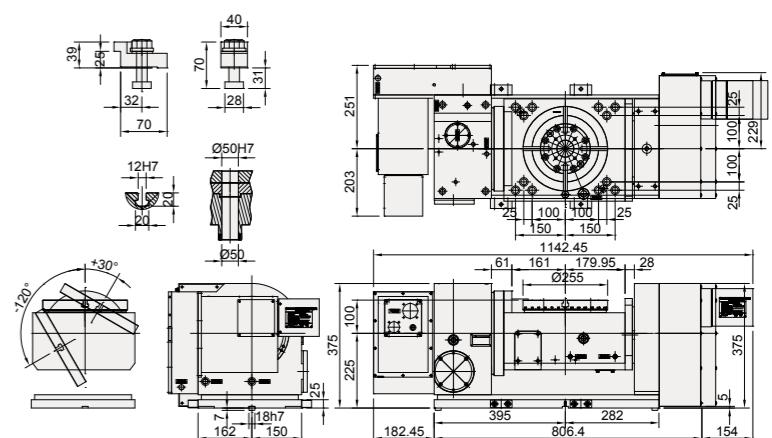


DIMENSIONAL DRAWINGS

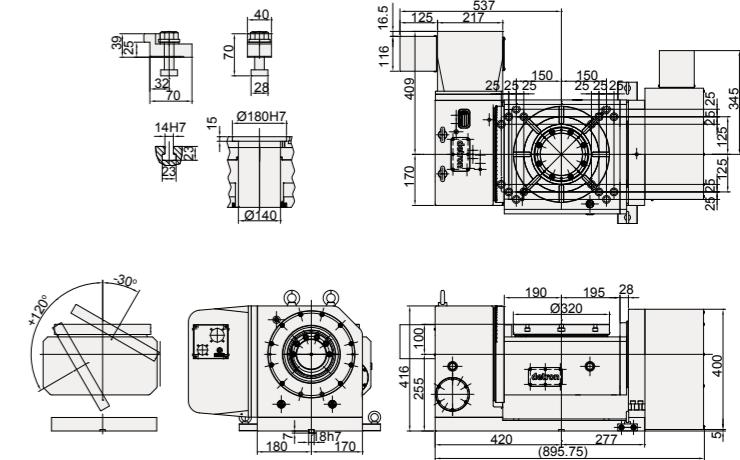
GFA-255H



GFA-256HB



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.

GTF series

CNC Trunnion Tilting Rotary Table

GTF-212S GTF-320H
GTF-410HB GTF-500HB

G T F - 4 1 0 H B

Five axis
Trunnion type for lower gravity
Worm gear transmission

Table size

Tilting motor mounted at the back of table

Hydraulic brake



SPECIFICATIONS

MODEL

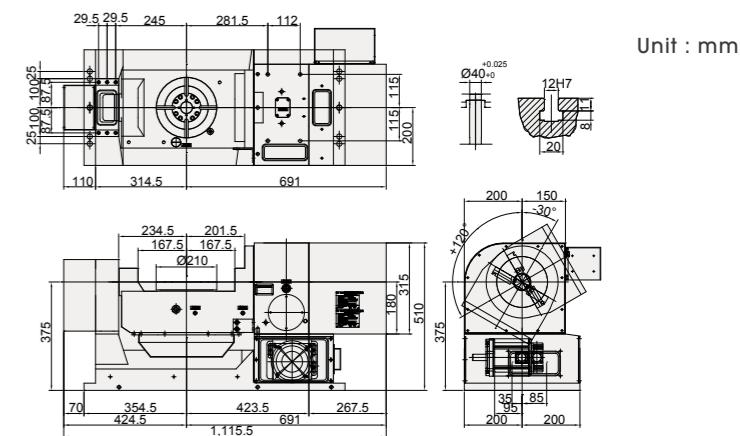
	Unit	GTF-212S	GTF-320H	GTF-410HB	GTF-500HB
Worktable diameter	mm / inch	Ø210 / Ø8.27	Ø320 / Ø12.60	Ø410 / Ø16.14	Ø500 / Ø19.69
Center bore diameter	mm / inch	Ø40H7 / Ø1.57H7	Ø50H7 / Ø1.97H7	Ø70H7 / Ø2.76H7	Ø70H7 / Ø2.76H7
Height of table (horizontal)	mm / inch	375 / 14.76	320 / 12.60	411 / 16.18	460 / 18.11
Height of center (vertical)	mm / inch	375 / 14.76	320 / 12.60	411 / 16.18	460 / 18.11
Width of T-slot	mm / inch	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	H: 5 / 725.00	*P: 0.55 ~ 0.7 / 72.5~101.5	*P: 0.55 ~ 0.7 / 72.5~101.5
Servo motor spec		refer to page 53			
Transmission ratio		R T	R T	R T	R T
		1:90 1:90	1:90 1:120	1:120 1:150	1:144 1:180
Max. table speed	min ⁻¹	33.3 22.2	25 16.6	16.6 11.1	16.6 11.1
Allowable loading capacity	In Horizontal	kg / lb	75 / 165	200 / 440	200 / 440
	In Tilt (0~90°)	kg / lb	50 / 110	100 / 220	150 / 330
Allowable unbalancing work moment	WxL	Nm / ft. lbs.	53 / 39.06	100 / 73.70	200 / 147.40
	F	N / lbs	14000 / 3141.60	16000 / 3590.40	20000 / 4488.0
Allowable load (when table clamped)	FxL	Nm / ft. lbs.	355 / 261.64	700 / 515.90	1180 / 869.66
	FxL	N.mNm / ft. lbs.	585 / 431.15	1400 / 1031.80	1880 / 1385.56
Allowable loading inertia	(W.D) ²	kg.m ²	0.42	2.6	4.3
Resolution	deg.	0.001	0.001	0.001	0.001
Indexing accuracy	sec	20" 60"	20" 60"	15" 60"	15" 60"
Repeatability	sec	6" 8"	6" 8"	6" 8"	6" 8"
Tilting angle range	deg.	-30~+120	-30~+120	-30~+120	-30~+120
Net weight (servo motor excluded)	kg / lb	450 / 990	500 / 1100	940 / 2068.0	1300 / 2860.0
Allowable cutting torque	Nm / ft. lbs.	260 / 191.6	550 / 401.5	780 / 569.4	1700 / 1241

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

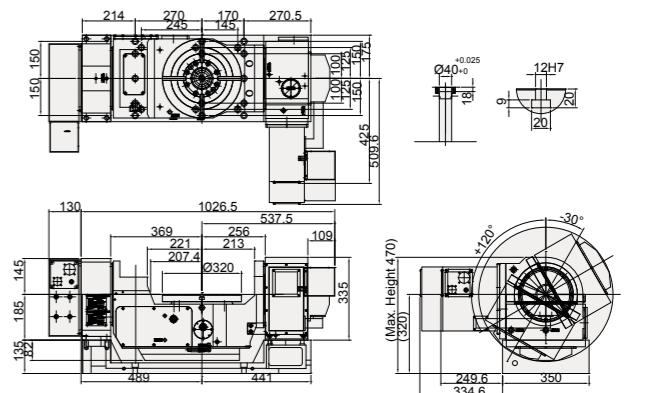
2.air-oil converter built-in

DIMENSIONAL DRAWINGS

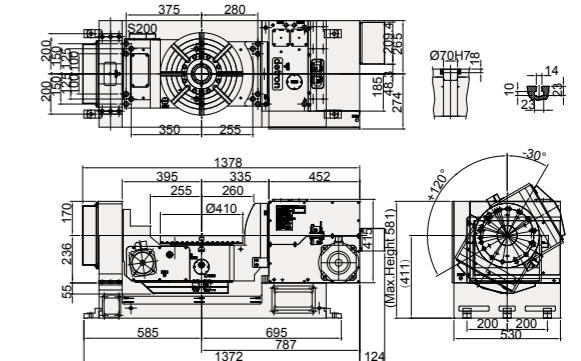
GTF-212S



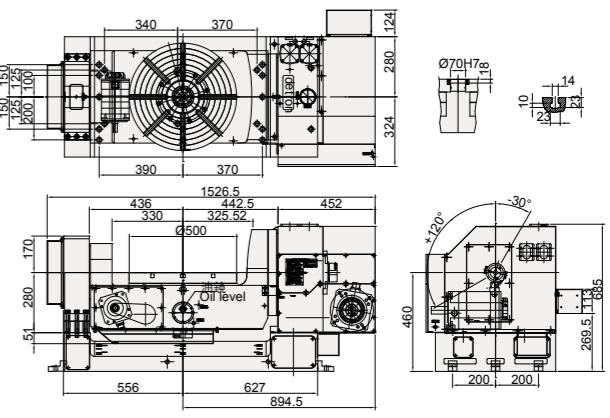
GTF-320H



GTF-410HB



GTF-500HB



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.

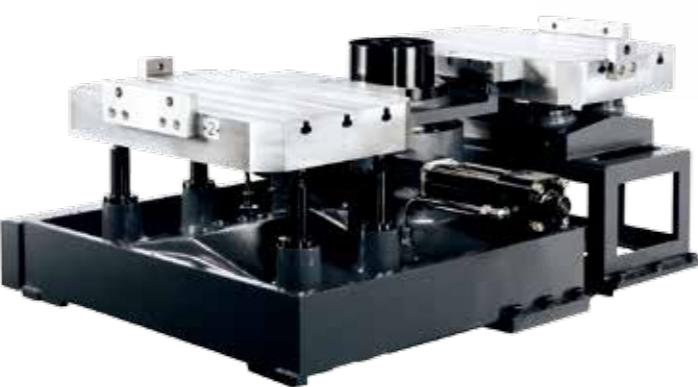
3. According to application engineering, optical encoder is recommended for tilting axis.

4. Customized table Ø630mm and dual drive at tilting axis are available.

CVR series

Automatic Pallet Change System

CVR-600 CVR-850
CVR-10D



C V R - 6 0 0

Rack type Pallet size
Double pallet system (C type)

- EASY INSTALLATION: The pallet change device is directly mounted on the base. Easy to install and space saving.
- FLEXIBLE PRODUCTION: Available to equip with several tables to meet small lot flexible production requirements.
- GREAT LOADING CAPACITY: Hydraulic drive. Workpiece loading capacity up to 300kg x 2 pcs. Fast pallet change is accomplished in 7 seconds.
- HIGH REPEATABILITY: Employs high precision conical positioning blocks to ensure stability of table and repeatability in ± 0.005mm.

SPECIFICATIONS

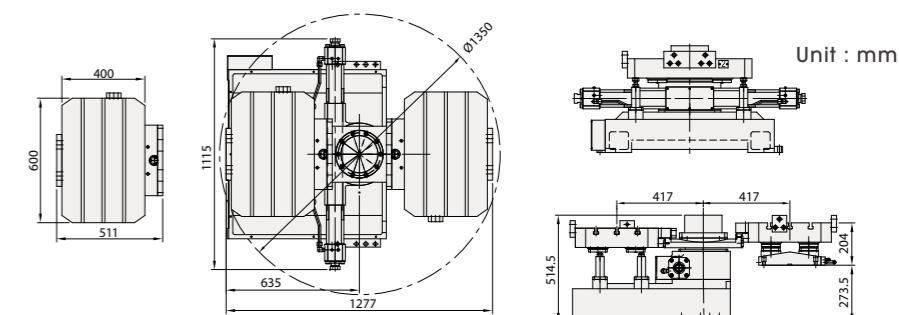
MODEL

	Unit	CVR-600	CVR-850	CVR-10D
Pallet sizes	mm / inch	600 x 400 / 23.62 x 15.75	850 x 500 / 33.46 x 19.69	1000 x 500 / 39.37 x 19.69
Number of pallets		2	2	2
Pallet change method		180° Swing	180° Swing	180° Swing
T-slot size	mm / inch	14H8 / 15HB	18H8 / 0.71HB	18H8 / 0.71HB
Drive method /pressure	Mpa / psi	Hydraulic 6 / 870	Hydraulic 6 / 870	Hydraulic 6 / 870
Pallet clamping force	N / lbs	36850 / 8269.14	36850 / 8269.14	36850 / 8269.14
Cutting load resistant capacity	Nm / ft. lbs.	2350 / 1731.95	2940 / 2166.78	2940 / 2166.78
Pallet positioning method		Taper cone	Taper cone	Taper cone
Allowable loading capacity	Kg / lb	200 x 2 / 440 x 2	300 x 2 / 660 x 2	300 x 2 / 660 x 2
Lifting force	N / lbs	35280 / 7916.83	35280 / 7916.83	35280 / 7916.83
Weight(N.W.)	Pallet exchange mechanism	Kg / lb	450 / 990	550 / 1210
	Pallet	Kg / lb	110x2 / 242x2	190x2 / 418x2
	Sub-pallet	Kg / lb	60 / 132	105 / 231

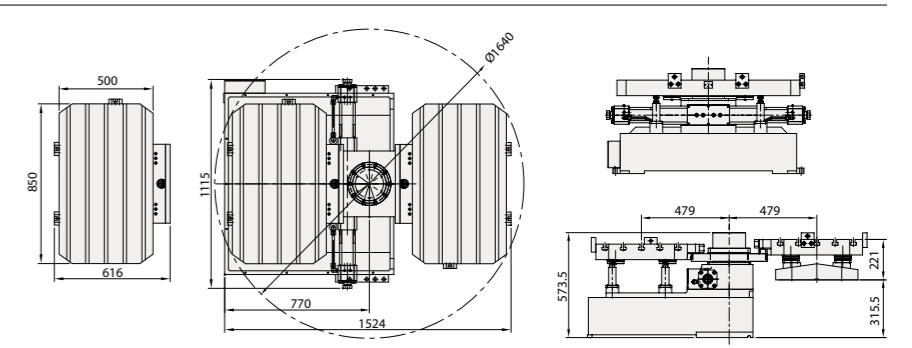
NOTE: Pallet change time may varied with flow of pump, length and diameter of pipe.

DIMENSIONAL DRAWINGS

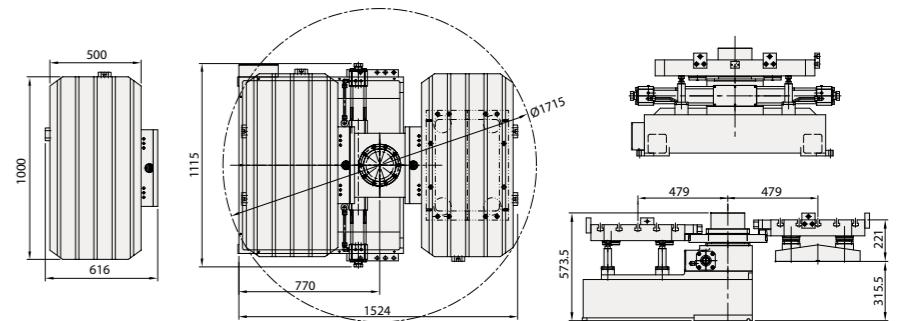
CVR-600



CVR-850



CVR-10D



SVC series

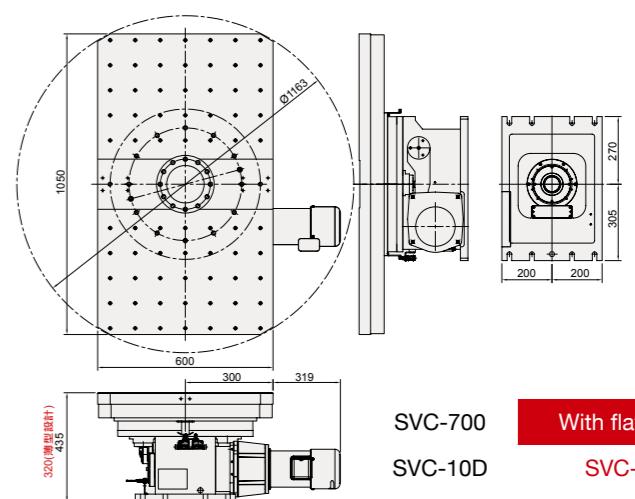
S V C - 1 0 D

Pallet size
Roller gear cam type
Single pallet system (Column moving type)



Automatic Pallet Change System

(Roller Gear Cam Type)



SVC-700 With flat structure
SVC-10D SVC-7050 II
SVC-12D SVC-10065 II

Horizontal Index Table

HH-500HT
HH-630HT
HH-800HT

HH - 500 HT

Square pallet
Hydraulic brake
Table size
Horizontal application
Coupling (2 pcs type) with worm gear transmission (1° / 5°)



SPECIFICATIONS

MODEL

	Unit	HH-500HT	HH-630HT	HH-800HT
Table sizes	mm / inch	500 x 500 / 19.69 x 19.69	630 x 630 / 24.8 x 24.8	800 x 800 / 31.5 x 31.5
Center bore diameter	mm / inch	Ø50H7 / Ø1.97H7	Ø50H7 / Ø1.97H7	Ø50H7 / Ø1.97H7
Height	mm / inch	280 / 11.02	320 / 12.60	360 / 14.17
Wide of T-slot	mm / inch	18H7 / 0.71H7	18H7 / 0.71H7	22H7 / 0.87H7
Resolution		1° / 5°	1° / 5°	1° / 5°
Transmission ratio		1:144	1:180	1:180
Max. table speed	min⁻¹	11.1	11.1	11.1
Servo motor type	FANUC MITSUBISHI SIEMENS	α12iF / β22iS HF-204 1FK7083	α12iF / β22iS HF-204 1FK7083	α22iF / β22iS HF-354 1FK7084
Drive torque	Nm / ft. lbs.	864 / 637	1080 / 796	1980 / 1459
Allowable load (when table clamped)	Nm / ft. lbs. FXL	5760 / 4245.12	15750 / 11607.75	18320 / 13501.84
	Nm / ft. lbs. FXL	9970 / 7347.89	27250 / 20083.25	31690 / 23355.53
Drive method / pressure	Mpa / psi	Hydraulic 5 / 725	Hydraulic 5 / 725	Hydraulic 5 / 725
Indexing accuracy	sec	8	8	8
Repeatability accuracy	sec	2	2	2
Max. workpiece load	Kg / lb	600 / 1320	1200 / 2640	3000 / 6600
Net weight	Kg / lb	410 / 902	760 / 1672	1100 / 2420

HH series

No. Description of Inspection

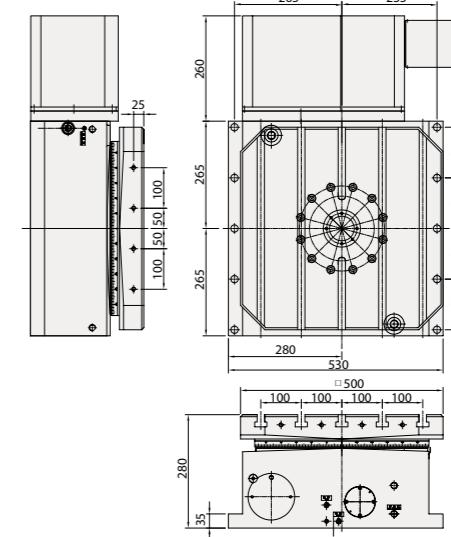
Permissible Error

		HH-500H	HH-630H	HH-800H
1.	Run out of center hole	0.01 / 0.00039	0.01 / 0.00039	0.01 / 0.00039
2.	Table flatness during rotation	0.015 / 0.00059	0.015 / 0.00059	0.015 / 0.00059
3.	Flatness of table surface	0.02 / 0.00079	0.02 / 0.00079	0.02 / 0.00079
4.	Parallelism between table surface and table base	0.02 / 0.00079	0.02 / 0.00079	0.02 / 0.00079
5.	Parallelism between body datum face and guide block	0.02 / 0.00079	0.02 / 0.00079	0.02 / 0.00079
6.	T-slot parallelism	0.02 / 0.00079	0.02 / 0.00079	0.02 / 0.00079

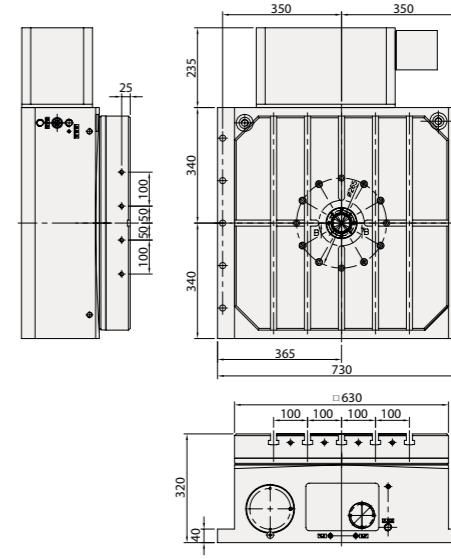
Unit: mm/inch

DIMENSIONAL DRAWINGS

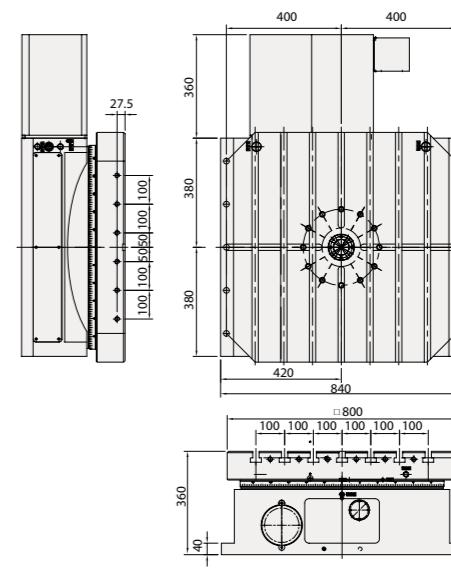
HH-500HT



HH-630HT



HH-800HT



Horizontal Rotary Table

GH-500HT
GH-630HT
GH-800HT

G H - 5 0 0 H T

Square pallet
Hydraulic brake
Table size
Horizontal application
Worm gear transmission (0.001 °)



(customized)

SPECIFICATIONS

MODEL

	Unit	GH-500HT	GH-630HT	GH-800HT
Table sizes	mm / inch	500 x 500 / 19.69 x 19.69	630 x 630 / 24.8 x 24.8	800 x 800 / 31.5 x 31.5
Center bore diameter	mm / inch	Ø50H7 / Ø1.97H7	Ø50H7 / Ø1.97H7	Ø50H7 / Ø1.97H7
Height	mm / inch	280 / 11.02	320 / 12.60	360 / 14.17
Wide of T-slot	mm / inch	18H7 / 0.71H7	18H7 / 0.71H7	22H7 / 0.87H7
Resolution		0.001°	0.001°	0.001°
Transmission ratio		1:144	1:180	1:180
Max. table speed	min⁻¹	11.1	11.1	11.1
Servo motor type	FANUC	α12iF / β22iS	α22iF / β22iS	α22iF / β22iS
MITSUBISHI		HF-204	HF-354	HF-354
SIEMENS		1FK7083	1FK7084	1FK7084
Allowable load (when table clamped)	N.m / ft.lbs	4000 / 2948.0	5000 / 3685.0	8500 / 6264.50
	N.m / ft.lbs	2500 / 1842.50	4500 / 3316.50	5200 / 3832.40
Drive method / pressure	Mpa / psi	Hydraulic 5 / 725	Hydraulic 5 / 725	Hydraulic 3.5 / 508
Indexing accuracy	sec	15	15	15
Repeatability accuracy	sec	6	6	6
Max. workpiece load	Kg / lb	600 / 1320	1200 / 2640	2000 / 4400
Net weight	Kg / lb	450 / 990	750 / 1650	1180 / 2596

GH series

No. Description of Inspection

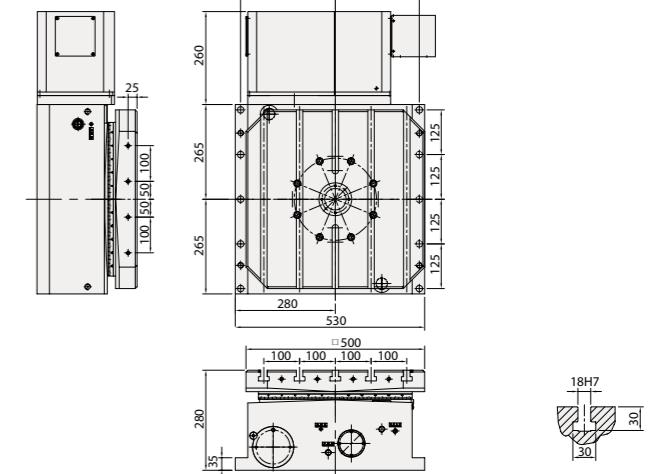
Permissible Error

		GH-500H	GH-630H	GH-800H
1.	Run out of center hole	0.01 / 0.00039	0.01 / 0.00039	0.01 / 0.00039
2.	Table flatness during rotation	0.015 / 0.00059	0.015 / 0.00059	0.015 / 0.00059
3.	Flatness of table surface	0.02 / 0.00079	0.02 / 0.00079	0.02 / 0.00079
4.	Parallelism between table surface and table base	0.02 / 0.00079	0.02 / 0.00079	0.02 / 0.00079
5.	Parallelism between body datum face and guide block	0.02 / 0.00079	0.02 / 0.00079	0.02 / 0.00079
6.	T-slot parallelism	0.02 / 0.00079	0.02 / 0.00079	0.02 / 0.00079

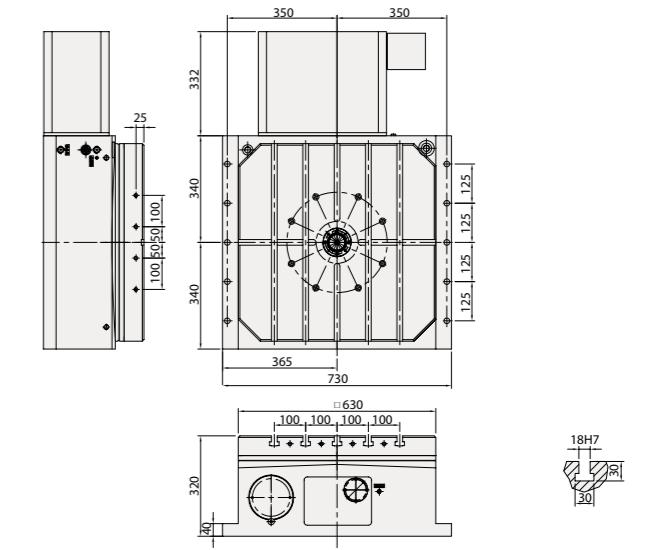
Unit: mm/inch

DIMENSIONAL DRAWINGS

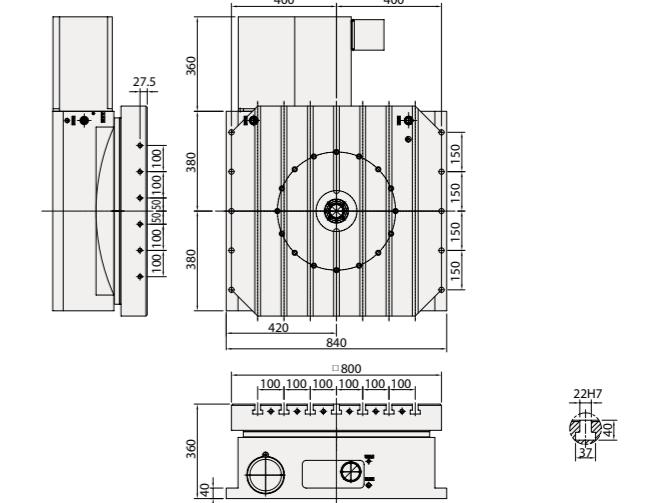
GH-500HT



GH-630HT



GH-800HT



HH-T2 series

Index Table with 2 Pallets for Horizontal Machining Center

HH-501HT2 HH-630HT2
HH-631HT2 HH-800HT2

HH - 5 0 1 H T 2

Two pallets
Pallet type
Hydraulic brake
① With a ballscrew nut bracket
② Standard flat type-motor and edge block are in opposite directions
③ Standard flat type-motor and edge block are in the same directions

Horizontal application

Coupling (2 pcs type) with worm gear transmission (1° / 5°)



(customized)



(customized)

SPECIFICATIONS

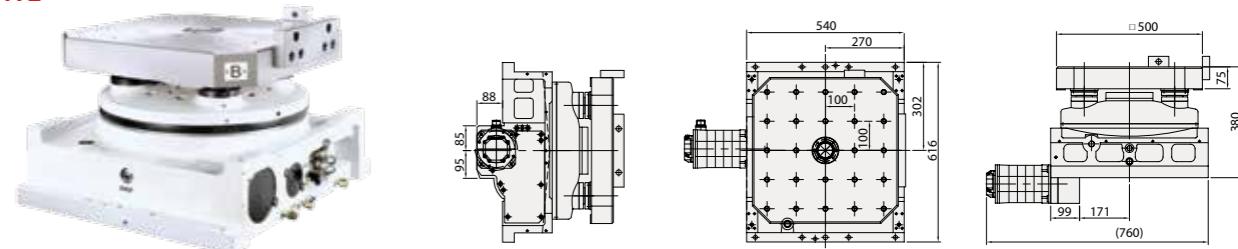
MODEL	Unit	HH-501HT2	HH-630/631HT2	HH-800HT2
Table sizes	mm / inch	500 x 500 / 19.69 x 19.69	630 x 630 / 24.8 x 24.8	800 x 800 / 31.5x 31.5
Center bore diameter	mm / inch	Ø50H7 / Ø 19.7H7	Ø30H7 / Ø 12H7	Ø50H7 / Ø 19.7H7
Height	mm / inch	380 / 14.94	500 / 480	530 / 21
Wide of T-slot	mm / inch	-	-	-
Resolution		1° / 5°	1° / 5°	1° / 5°
Transmission ratio		1:144	1:180	1:180
Max. table speed	min⁻¹	16.6	11.1	11.1
Servo motor type	FANUC MITSUBISHI SIEMENS	α8iF HF-154 1FK7063	α12iF HF-204 1FK7083	α22iF HF-354 1FK7084
Allowable load (when table clamped)	Nm / ft. lbs.	7450 / 5490.7	21700 / 15993	42550 / 31360
Drive torque	Nm / ft. lbs.	580 / 428	1080 / 796	1980 / 1460
Drive method /pressure	Mpa / psi	Hydraulic 5 / 725	Hydraulic 5 / 725	Hydraulic 5 / 725
Index accuracy	sec	8	8	8
Repeatability accuracy	sec	2	2	2
Max. workpiece load	Kg / lb	600 / 1320	1200 / 2640	2000 / 4400
Net weight	Kg / lb	520 / 1144	1140 / 2508 1075 / 2365	1500 / 3300



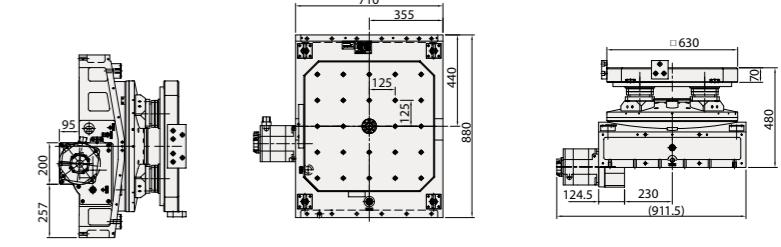
DIMENSIONAL DRAWINGS

Unit : mm

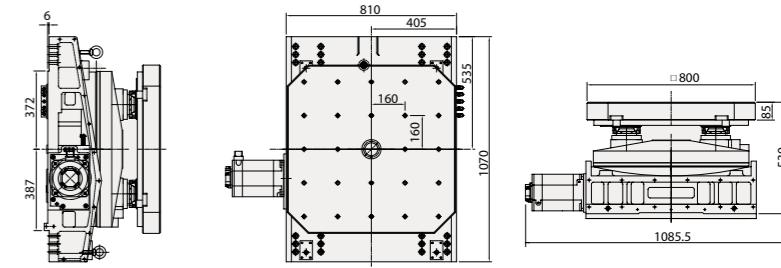
HH-501HT2



HH-631HT2

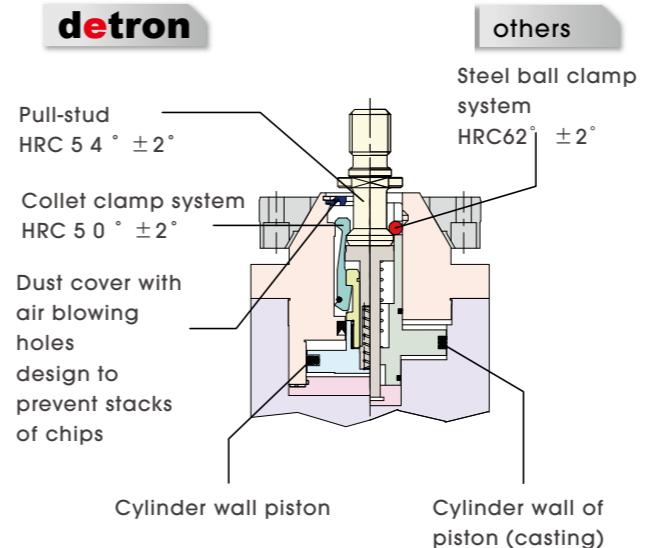


HH-800HT2



定位錐座

detron



others

Steel ball clamp system
HRC62° ± 2°

Pull-stud
HRC 54° ± 2°

Collet clamp system
HRC 50° ± 2°

Dust cover with air blowing holes
design to prevent stacks of chips

Cylinder wall piston

Cylinder wall of piston (casting)

A. Pull-stud Mechanism

Uses a collet clamp system to tighten the pull stud, therefore more uniform pressure exerted on the pull stud surface can be achieved during tightening. This ensures stable clamping force. (maximum pulling force 2800 kg).

B. Piston Mechanism

With the integrated design of the positioning cone, the piston moves together with the oil seal in the precision ground cylinder tube. The oil seal is not easy to wear, and stable clamping force is ensured.

C. Replacement

Thanks to the integrated design of the positioning cone, the entire assembly can be conveniently replaced by simply loosening lockscrews.

GH-T2 series

Rotary Table with 2 Pallets for Horizontal Machining Center

GH-501HT2 GH-630HT2
GH-631HT2 GH-800HT2

G H - 5 0 1 H T 2

Table size Two pallets
Horizontal application Pallet type
Worm gear transmission (0.001 °) Hydraulic brake
With a ballscrew nut bracket
Standard flat type-motor and edge block are in opposite directions
Standard flat type-motor and edge block are in the same directions



(customized)



(customized)

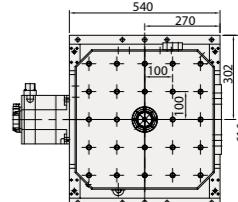
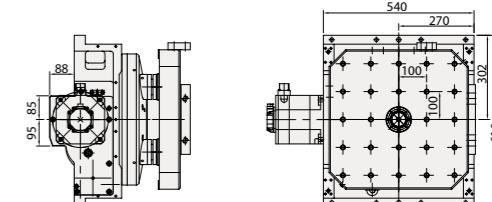
SPECIFICATIONS

MODEL

	Unit	GH-501HT2	GH-630/631HT2	GH-800HT2
Table sizes	mm / inch	500 x 500 / 19.69 x 19.69	630 x 630 / 24.8 x 24.8	800 x 800 / 31.5 x 31.5
Center bore diameter	mm / inch	Ø50H7 / Ø1.97H7	Ø30H7 / Ø1.18H7	Ø50H7 / Ø1.97H7
Height	mm / inch	380 / 14.96	500 / 19.69 480 / 18.9	530 / 20.87
Resolution		0.001°	0.001°	0.001°
Transmission ratio		1:180	1:180	1:180
Max. table speed	min ⁻¹	16.6	11.1	11.1
Servo motor type	FANUC	α12iF	α22iF	α22iF
	MITSUBISHI	HF-204	HF-354	HF-354
	SIEMENS	1FK7083	1FK7084	1FK7084
Allowable load (when table clamped)	Nm / ft. lbs.	3200 / 2358.40	4500 / 3316.50	5200 / 3832.40
	Nm / ft. lbs.	4000 / 2948.0	6800 / 5011.60	8000 / 5896.0
Drive method /pressure	Mpa / psi	Hydraulic 5 / 725	Hydraulic 5 / 725	Hydraulic 3.5 / 507.5
Indexing accuracy	sec	15	15	15
Repeatability accuracy	sec	6	6	6
Max. workpiece load	Kg / lb	600 / 1320	1200 / 2640	2000 / 4400
Net weight	Kg / lb	525 / 1155	1200 / 2640 1120 / 2464	1500 / 3300

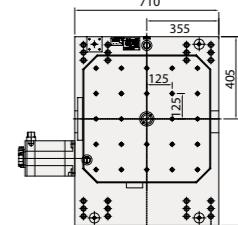
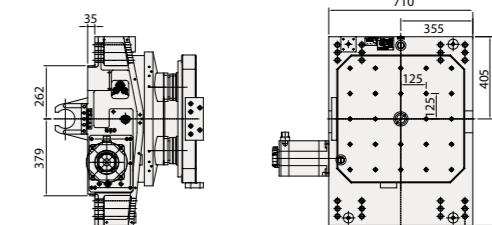
DIMENSIONAL DRAWINGS

GH-501HT2



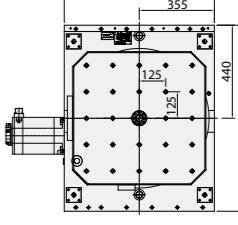
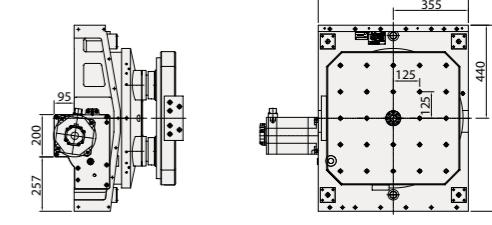
Unit : mm

GH-630HT2



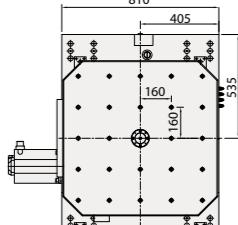
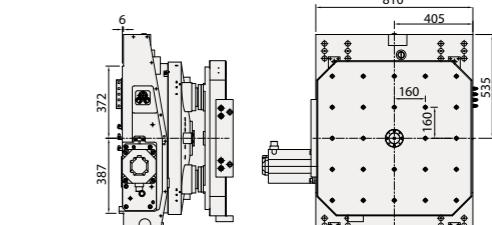
Unit : mm

GH-631HT2



Unit : mm

GH-800HT2



Unit : mm

Fork Type

ACW-500	ACR-500
ACR-500T	ACR-630
ACW-630	ACW-800

ACR - 630(T)

Top-mounted type
Pallet size
R: Rack type
W: Servo type
Automatic pallet change system



HH-500HT2+ACR-500



HH-630HT2+ACR-630



HH-502HT2+ACW-500



GH-631HT2+ACW-630



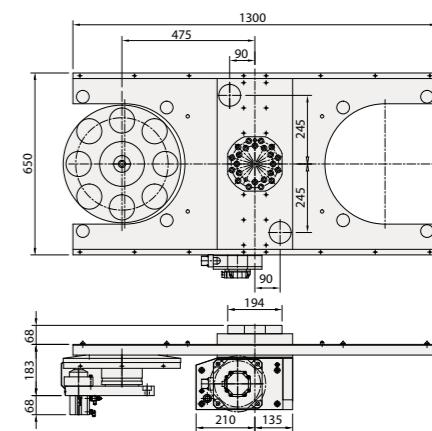
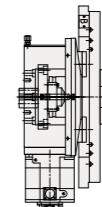
SPECIFICATIONS

MODEL

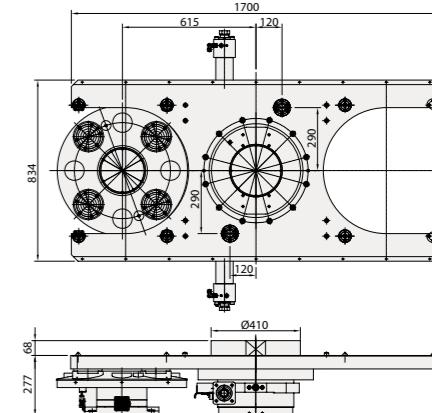
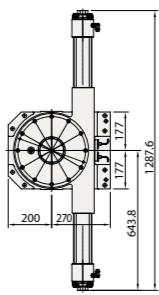
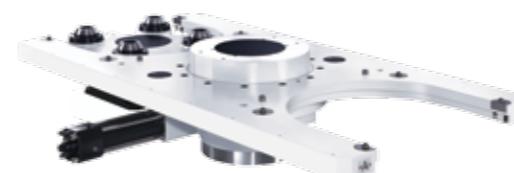
	Unit	ACR-500(T)/ACW-500	ACR-630/ACW-630	ACW-800
Table sizes	mm / inch	500 x 500 / 19.69 x 19.69	630 x 630 / 24.8 x 24.8	800 x 800 / 31.5 x 31.5
Number of pallets		2	2	2
Exchange method of pallet		Hydraulic Swing	Hydraulic Swing / Servo Motor (ABS) Swing	Servo Motor (ABS) Swing
Change degree of pallet	deg	180°	180°	180°
Air pressure	Mpa / psi	0.5 ~ 0.6 / 72.5 ~ 87	0.5 ~ 0.6 / 72.5 ~ 87	0.5 ~ 0.6 / 72.5 ~ 87
Hydraulic pressure	Mpa / psi	6 / 870	6 / 870	6 / 870
Life stroke	mm / inch	60 / 2.36	58 / 2.28	70 / 2.76
Max. workpiece load	Kg / lb	500x2 / 1100 x 2	1200x2 / 2640 x 2	2000x2 / 4400 x 2

DIMENSIONAL DRAWINGS

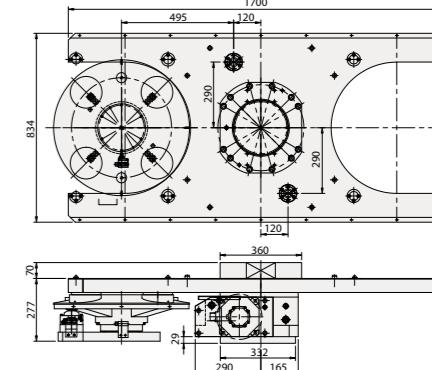
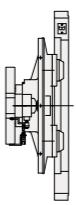
ACW-500



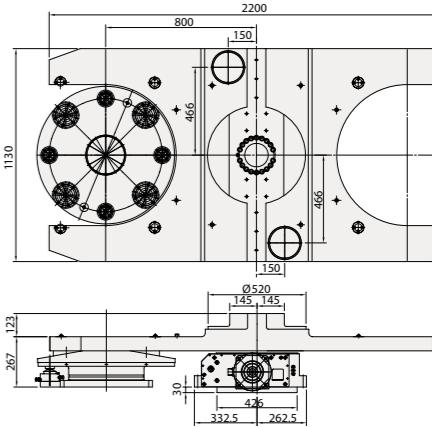
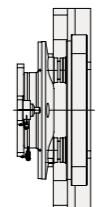
ACR-630



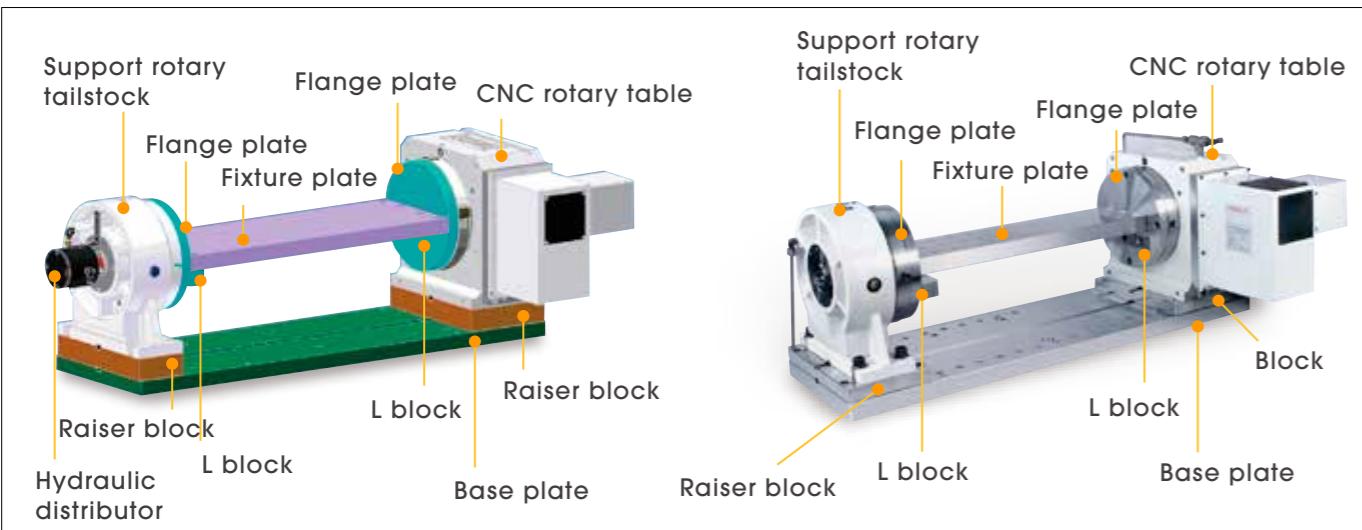
ACW-630



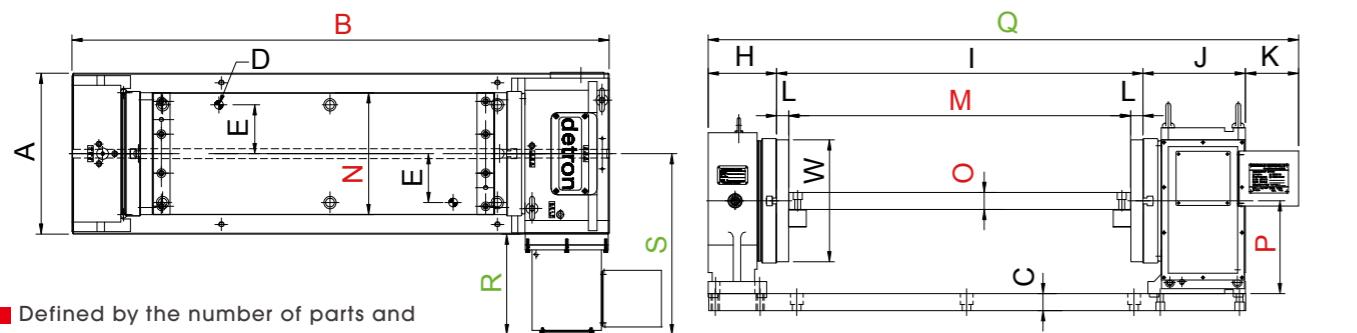
ACW-800



Fixture Plate and Accessories Illustration



Suggested Dimension of Fixture and Base Plate

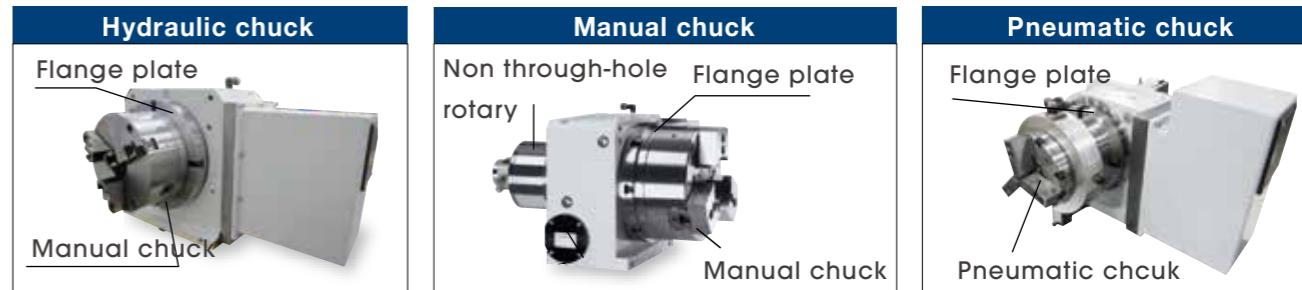


■ Defined by the number of parts and work pieces
■ Attention to machine interference

MODEL	Unit	GXA-125S	GXA-170S	GXA-210S	GXA-255H	GXA-320H	GXA-400H
X axis Travel of Applicable Machine	mm / inch	500 / 20	600 / 24	700 / 28	800 / 32	1000 / 40	1300 / 51
A	mm/inch	210 / 8.27	270 / 10.63	270 / 10.63	334 / 13.15	360 / 14.17	450 / 17.72
B	mm/inch	726 / 28.58	856 / 33.7	956 / 37.64	1101 / 43.35	1241 / 48.86	1440 / 56.69
C	mm/inch	30 / 1.18	35 / 1.38	35 / 1.38	35 / 1.38	40 / 1.57	40 / 1.57
D	mm/inch	2-Ø14 / 2-Ø0.55	2-Ø18 / 2-Ø0.71				
E	mm/inch	80 / 3.15	100 / 3.94	100 / 3.94	100 / 3.94	100 / 3.94	125 / 4.92
H	mm/inch	130 / 5.12	130 / 5.12	130 / 5.12	140 / 5.51	145 / 5.71	190 / 7.48
I	mm/inch	441 / 17.36	551 / 21.69	651 / 25.63	751 / 29.57	861 / 33.90	961 / 37.83
J	mm/inch	155 / 6.10	175 / 6.9	175 / 6.9	210 / 8.27	235 / 9.25	255 / 10.04
K	mm/inch	88 / 3.46	111.5 / 4.4	116.5 / 4.6	115.5 / 4.55	117 / 4.6	117.5 / 4.63
L	mm/inch	20 / 0.79	25 / 0.98	25 / 0.98	25 / 0.98	30 / 1.18	30 / 1.18
M	mm/inch	400 / 15.75	500 / 19.69	600 / 23.62	700 / 27.56	800 / 31.50	900 / 35.43
N	mm/inch	120 / 4.72	170 / 6.69	200 / 7.87	250 / 9.84	300 / 11.81	400 / 15.75
O	mm/inch	30 / 1.18	30 / 1.18	30 / 1.18	40 / 1.57	40 / 1.57	40 / 1.57
P	mm/inch	110 / 4.33	135 / 5.31	160 / 6.30	190 / 7.48	210 / 8.27	255 / 10.04
Q	mm/inch	814 / 32.05	967.5 / 38.1	1072.5 / 42.2	1216.5 / 47.9	1358 / 53.46	1523.5 / 60
R	mm/inch	199 / 7.83	190 / 7.48	194.2 / 7.65	257.2 / 10.13	236.2 / 9.3	246.2 / 9.7
S	mm/inch	304 / 12	325 / 12.8	329.2 / 12.96	424.2 / 16.7	416.2 / 16.4	471.2 / 18.55
W	mm/inch	Ø120 / Ø4.72	Ø170 / Ø6.69	Ø200 / Ø7.87	Ø250 / Ø9.84	Ø300 / Ø11.81	Ø396 / Ø15.6

P.S. The center height of permissible error between rotary table and support rotary tailstock is within ± 0.01 mm

CHUCK AND OTHER OPTIONS FOR CNC ROTARY TABLE



ROTARY TABLE AND COMPATIBLE CHUCK

MODEL	GXA-125S	GXA-170S	GXA-210S	GXA-255H	GXA-320H	GXA-400H	GXA-500H
Manual chuck	SC-4", SC-5"	SK-6", SK-7"	SK-7", SK-8"	SK-8", SK-9"	SK-10", SK-12"	SK-10", SK-12"	SK-12", SK-16"
Hydraulic chuck	HCK-6"	HCK-6"	HCK-8"	HCK-8"	HCK-10"		

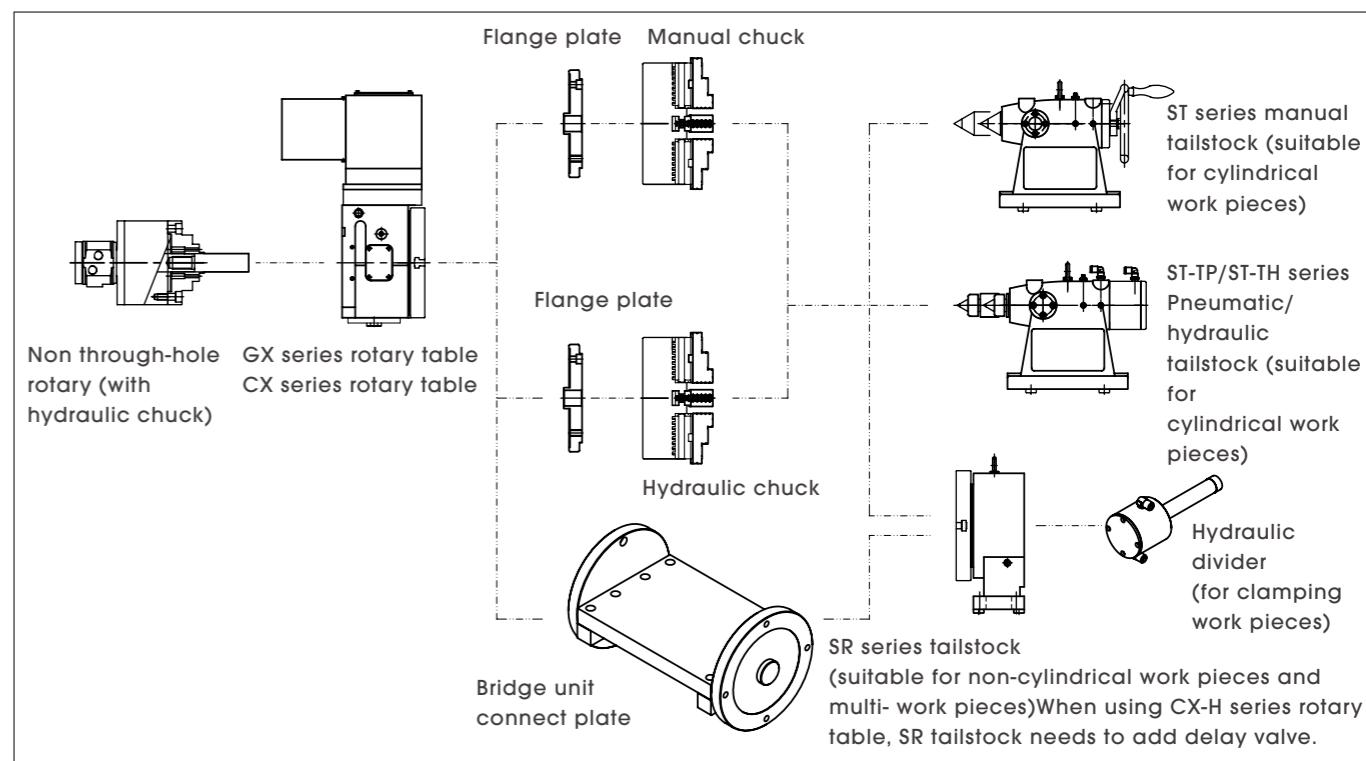
*Model in red is suggested

GRIPPING RANGE OF 3-JAW CHUCK

unit: mm / inch

MODEL	SC-4	SC-5	SK-6	SK-7	SK-8	SK-9	SK-10	SK-12	SK-16
O.D. range	Ø 3 - 90 / Ø 0.12 - 3.5	Ø3-110/ Ø0.12-4.33	Ø3-160/ Ø0.12-6.30	Ø8-180/ Ø0.31-7.09	Ø8-180/ Ø0.31-7.09	Ø11-220/ Ø0.43-8.66	Ø12-260/ Ø0.47-10.24	Ø15-300/ Ø0.59-11.81	Ø30-400/ Ø1.18-15.75
I.D. range	Ø32-84/ Ø1.26-3.31	Ø35-100/ Ø1.38-3.94	Ø55-150/ Ø2.17-5.91	Ø62-170/ Ø2.44-6.69	Ø62-170/ Ø2.44-6.69	Ø70-210/ Ø2.76-8.27	Ø80-250/ Ø3.15-9.84	Ø90-290/ Ø3.54-11.42	Ø110-380/ Ø4.33-14.96

ACCESSORIES CONNECTION DIAGRAM



Hydraulic power unit (HTK series)

Applied for GXA-H & CX-H series rotary tables.
Recommended for application with **hydraulic chuck or hydraulic fixture**.



ABR-35 air booster unit

Use for GXA-H series
Recommended for application in NC table only or with SR-H hydraulic tailstock. Additional hydraulic unit is suggested for peripheral hydraulic part-holding device.

detron Compatible Servo Motor

4th Axis							
Model	CNC and Servo System						
Model	FANUC	MITSUBISHI	YASKAWA	SIEMENS	HEIDENHAIN	FAGOR	Brother (SANGYO)
GXA-125S	α2iF	HF-75	SGMSV08A SGM7J08A	1FK7042	QSY-96A	FKM22.30A	-
	β4is						
GXA-170S	α4iF	HF-54	SGMGV09A SGM7G09A	1FK7060	QSY-116C	FKM42.30A	P50B08075HXS00 Q2AA08075HXP00
	β8is						
GXA-210S	α4iF	HF-54	SGMGV09A SGM7G09A	1FK7060	QSY-116C	FKM42.30A	P50B08075HXS00 Q2AA08075HXP00
	β8is						
GXA-250S	α4iF	HF-54	SGMGV09A SGM7G09A	1FK7060	QSY-116E	FKM42.30A	-
	β8is						
GXA-255H CX-255H	α8iF	HF-154	SGMGV13A SGM7G13A	1FK7063	QSY-116E	FKM44.30A	-
	β8is						
GXA-320H CX-320H	α12iF	HF-204	SGMGV30A SGM7G30A	1FK7083	QSY-155B	FKM64.30A	-
	β22is						
GXA-400H CX-400H	α12iF	HF-204	SGMGV30A SGM7G30A	1FK7083	QSY-155B	FKM64.30A	-
	β22is						
GXA-500H CX-500H	α12iF	HF-204	SGMGV30A SGM7G30A	1FK7083	QSY-155B	FKM64.30A	-
	β22is						
GXA-630H	α22iF	HF-354	SGMGV30A SGM7G30A	1FK7084	QSY-155D	FKM66.30A	-
	β22is						
GXA-800H	α22iF	HF-354	SGMGV30A SGM7G30A	1FK7084	QSY-155D	FKM66.30A	-
	β22is						

5th Axis												
Model	Motor & NC system											
	FANUC		MITSUBISHI		YASKAWA		SIEMENS		HEIDENHAIN		FAGOR	
Axis	Rotary Axis	Tilting Axis	Rotary Axis	Tilting Axis	Rotary Axis	Tilting Axis	Rotary Axis	Tilting Axis	Rotary Axis	Tilting Axis	Rotary Axis	Tilting Axis
GF-101S	α2iF	α2iF	HF-105	HF-105	SGMJV08A SGM7J08A	SGMJV08A SGM7J08A	1FK7042	1FK7042	QSY-96A	QSY-96G	FKM22.30A	FKM22.30A
GF-125P	α2iF / β4is	α4iF / β8is	HF-75	HF-54	SGMJV08A SGM7J08A	SGMGV09A SGM7G09A	1FK7042	1FK7060	QSY-96A	QSY-116C	FKM22.30A	FKM42.30A
GF-170P	α4iF / β8is	α4iF / β8is	HF-54	HF-54	SGMGV09A SGM7G09A	SGMGV09A SGM7G09A	1FK7042	1FK7060 1FK7063	QSY-116C	QSY-116C	FKM22.30A	FKM42.30A
GF-211P	α4iF / β8is	α8iF / β12is	HF-54	HF-104	SGMGV09A SGM7G09A	SGMGV09A SGM7G09A	1FK7042	1FK7060	QSY-96A	QSY-116C	FKM22.30A	FKM42.30A
GFA-255H	α4iF / β8is	α8iF / β12is	HF-104	HF-154	SGMGV09A SGM7G09A	SGMGV13A SGM7G13A	1FK7060	1FK7063	QSY-116C	QSY-116E	FKM42.30A	FKM42.30A
GFA-320H	α8iF / β12is	α12iF / β22is	HF-104	HF-204	SGMGV13A SGM7G13A	SGMGV30A SGM7G30A	1FK7063	1FK7083	QSY116E	QSY-155B	FKM42.30A	FKM44.30A
GTF-320H	α8iF / β8is	α8iF / β12is	HF-104	HF-154 HF-224	SGMGV13A SGM7G13A	SGMGV30A SGM7G30A	1FK7060	1FK7063	QSY-116E	QSY-116J	FKM42.30A	FKM44.30A
GTF-410HB	α8iF / β12is	α12iF / β22is	HF-154	HF-204	SGMGV13A SGM7G13A	SGMGV30A SGM7G30A	1FK7063	1FK7083 1FK7081	QSY-116J	QSY-155C	FKM44.30A	FKM44.30A
GTF-500HB	α8iF / β12is	α22iF	HF-154	HF-354	SGMGV13A SGM7G13A	SGMGV30A SGM7G30A	1FK7063	1FK7084	QSY-116J	QSY-155F	FKM44.30A	FKM66.30A

* Motor models in "green" are for new generated type, application referring to basic 3 axial motor & driver (X/Y/Z axis).

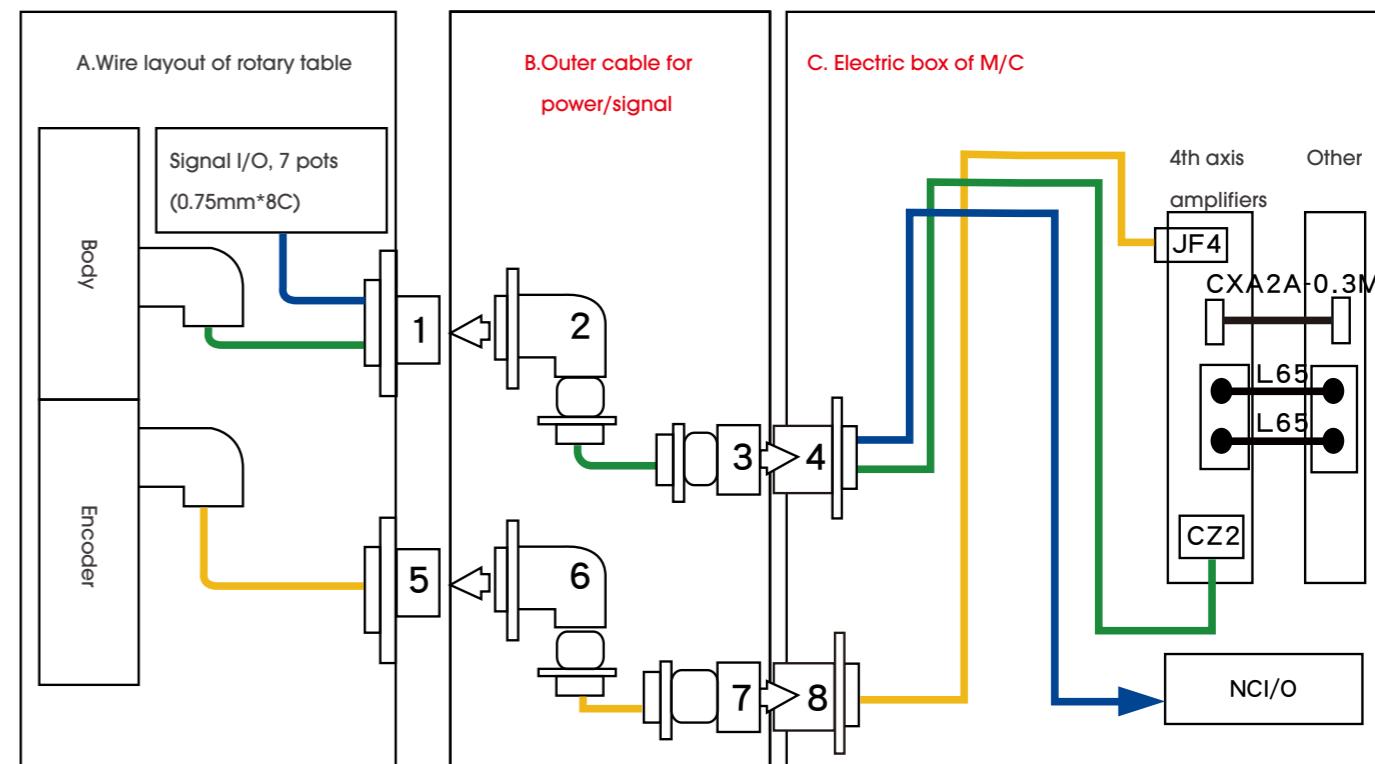
DIAGRAM ILLUSTRATION

Diagram sample to connect Japan NC



Standard military connector (Japanese CNC system)

Military connector is used for FANUC and Mitsubishi controls.



Cable spec. for JP NC

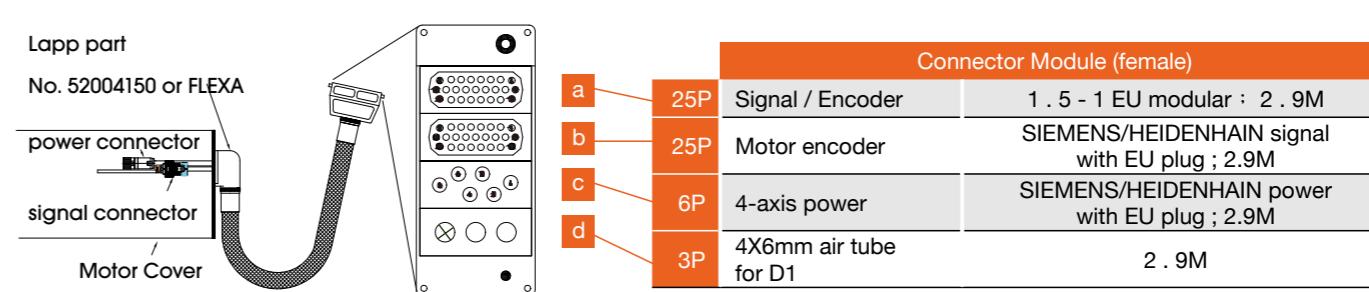
Power connector #	1	2	3	4
connector SPEC	MS3102A28-11P	MS3108A28-11S	MS3106A28-11P	MS3102A28-11S
Signal connector #	5	6	7	8
connector SPEC	MS3102A20-29PW	MS3108A20-29SW	MS3106A20-29PW	MS3102A20-29SW
MITSUBISHI / 17Pin	MS3102A20-29P	MS3108A20-29S	MS3106A20-29P	MS3102A20-29S
MITSUBISHI / 19Pin	MS3102A22-14P	MS3108A22-14S	MS3106A22-14P	MS3102A22-14S

Diagram sample to connect EU NC



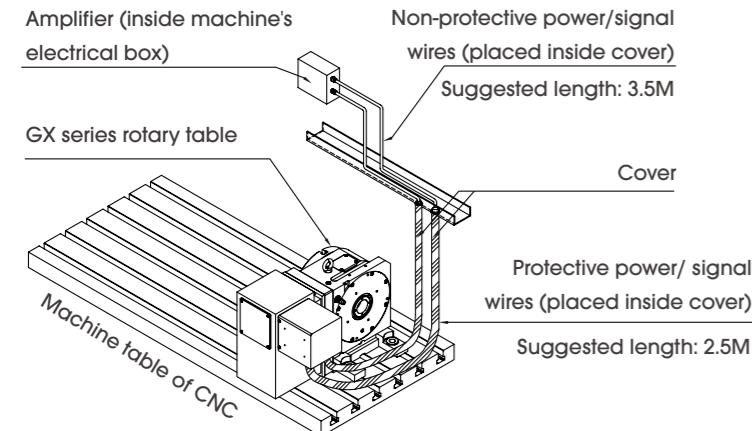
Adherent-type connector (European CNC system or with optical encoder)

One outlet-type connector is used for Siemens and Heidenhain controls.



Guidance to Select Rotary Table

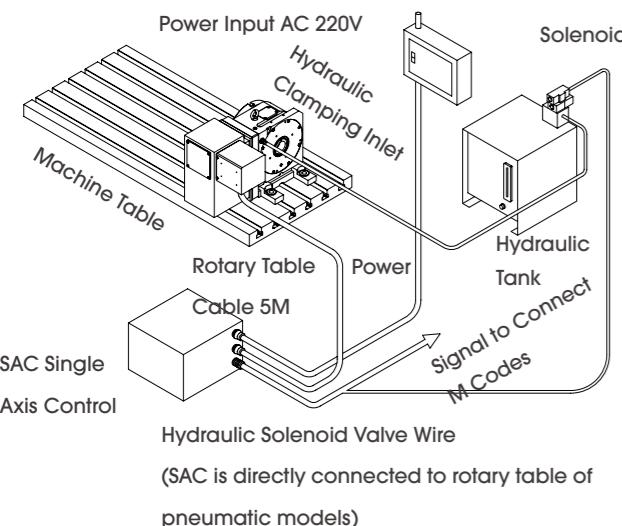
SCHEMATIC DIAGRAM OF ROTARY TABLE AND CNC MACHINE



Feature

- Allows for simultaneous control with X, Y, Z-axis of machine and ARC machining.
- Programs can be directly edited on the control screen of the machine.
- Suggested length 2.5M with protective pipe for outer power / signal cable, from motor cover to machine guarding. (for X travel 500-1300mm machines)
- Suggested length 3.5M without protective pipe for power / signal cable, from machine guarding to amplifier.

SCHEMATIC DIAGRAM OF ROTARY TABLE AND SINGLE AXIS CONTROLLER



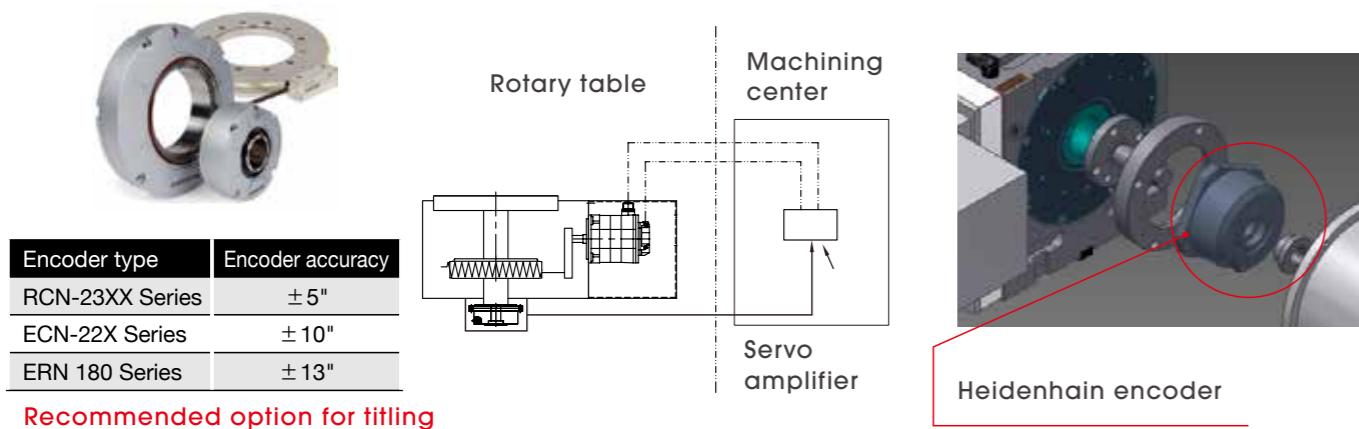
SAC Series- Single Axis Control

Features:

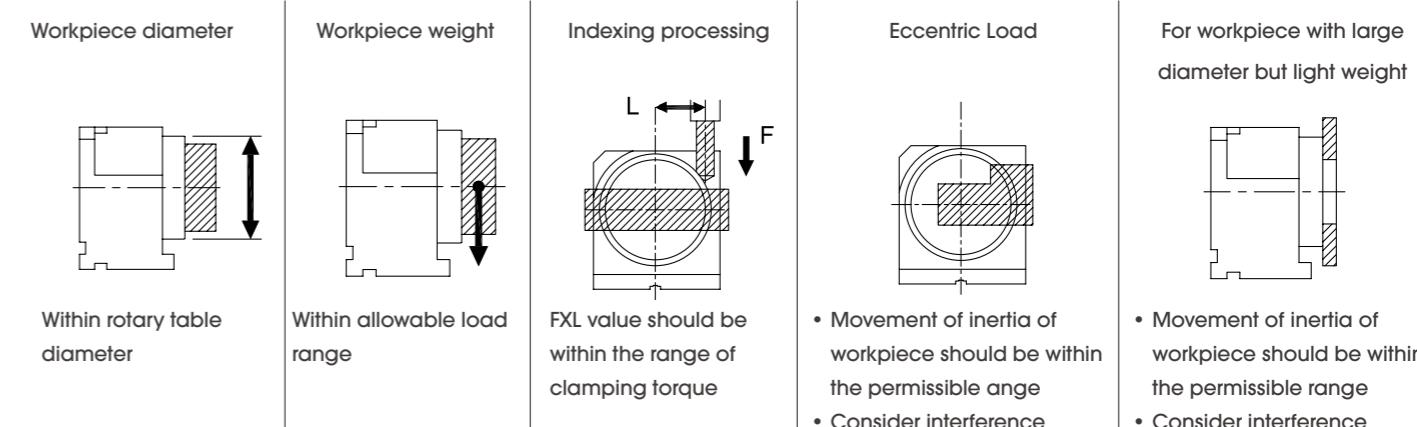
- For machine NC without 4th axis function, SAC provide signals to allow indexing application (no simultaneous function available).
- Programs of rotary table can be directly input through SAC and allow machine NC M code command.
- Compatible with any brand of NC control.



SPECIFICATIONS OF HEIDENHAIN ENCODER



SELECT A PROPER ROTARY TABLE ACCORDING TO WORKPIECE TYPE AND CUTTING CONDITIONS



Interference Reminders

Please refer to right illustration:

X axis (Fig 1)

- A. Pay attention to total length of rotary table+tailstock+fixture+base plate, machine table envelope, rest space between splashguard and X axial limit.

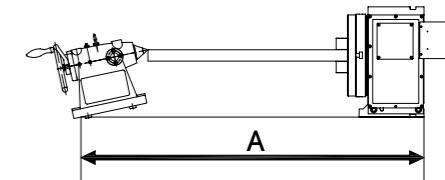


Fig 1

Y axis (Fig 2)

- B. Locate table center paralleled to Y axis center. Pay attention to the clearance of rotary table cover to front splashguard.
- C1 & C2 as the rest space between Y+ / Y- limit.

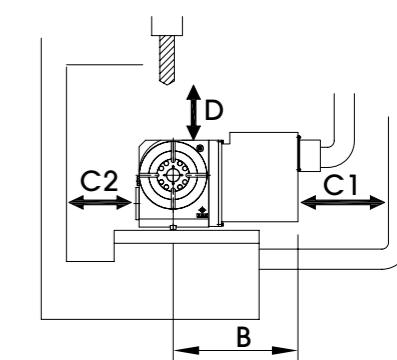


Fig 2

Z axis (Fig 2 and Fig 3)

- D. as maximum distance between tooling and NC table body (refer to item E-1).
- E. Distance between spindle nose to working table.
- F. Stroke for tool change.
- G. Allowable maximum tool length.
- H. Swing of tool change.

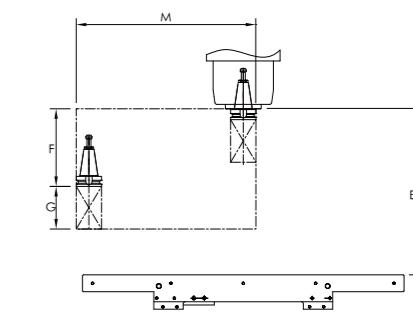


Fig 3

Order Sheet of 4/5th axis

STEP 1 _ Machine Info & NC Table Selection

Q1	Machine Information	Machine Brand _____ Machine Model _____	
Q2	Machine Spec	working table L _____ *W _____ T-slot: _____, T-slot pitch: _____, number of T-slot: _____	Catalog P62_Fig. 4
Q3	Rotary Table	detron Model _____, <input type="checkbox"/> pneumatic brake <input type="checkbox"/> hydraulic brake	
Q4	Connector Cover	Rotary axis (4th axis) cable connector located at <input type="checkbox"/> side <input type="checkbox"/> back Tilting axis (5th axis) cable connector located at <input type="checkbox"/> side <input type="checkbox"/> back	Catalog P62_Fig. 5 & Fig. 6
Q5	Tailstock	<input type="checkbox"/> rotary tailstock, model _____ <input type="checkbox"/> quill tailstock, model _____, <input type="checkbox"/> standard quill taper MT3 <input type="checkbox"/> optional quill taper MT4 Manual Switch Valve required for pneumatic or hydraulic quill tailstock: <input type="checkbox"/> yes <input type="checkbox"/> no	

STEP 2 _ NC Control

Q6	M/C Control System & Servo Motor	<input type="checkbox"/> Fanuc system _____ - α motor <input type="checkbox"/> 4th axis _____ <input type="checkbox"/> 5th axis _____ original 3 axis driver middle code <input type="checkbox"/> -6117- (old) <input type="checkbox"/> -6240- (new) - β i motor <input type="checkbox"/> (4th axis) _____ <input type="checkbox"/> (5th axis) _____ original 3 axis driver middle code <input type="checkbox"/> -6134- (old) <input type="checkbox"/> -6164- (new) <input type="checkbox"/> Mitsubishi system _____ - motor <input type="checkbox"/> (4th axis) _____, <input type="checkbox"/> (5th axis) _____ <input type="checkbox"/> Siemens system _____ - motor <input type="checkbox"/> (4th axis) _____, <input type="checkbox"/> (5th axis) _____ <input type="checkbox"/> Heidenhain system _____ - motor <input type="checkbox"/> (4th axis) _____, <input type="checkbox"/> (5th axis) _____ <input type="checkbox"/> Other system _____ - motor <input type="checkbox"/> (4th axis) _____, <input type="checkbox"/> (5th axis) _____ <input type="checkbox"/> Single Axis Control system _____ - motor <input type="checkbox"/> SACII- _____ motor supplied by <input type="checkbox"/> buyer / <input type="checkbox"/> detron, motor shaft <input type="checkbox"/> straight shaft / <input type="checkbox"/> taper shaft / <input type="checkbox"/> special request _____ amplifier supplied by <input type="checkbox"/> buyer / <input type="checkbox"/> detron	simultaneous movement and axis NC control ability, please consult machine builders for technical support. Servo motor selection: Catalog P57
		When the outer cables are appointed to be supplied by detron: - for Japanese NC <input type="checkbox"/> section B, from motor cover → M/C guarding. <input type="checkbox"/> section B+C, from motor cover → M/C guarding → driver inside elec. cabinet. - for European NC <input type="checkbox"/> section A+B, unified cables, from motor → M/C guarding. <input type="checkbox"/> section A+B+C, unified cables, from motor → M/C guarding → driver inside elec. cabinet.	Connector types: Catalog P558 Cable Illustration: P62_Fig. 5
Q7	Connectors & Outer Cables	Remark- detron standard cable length: 2.5M for section B & 3.5M for section C Special cable length required for section B: _____, for section C: _____	
Q8	Limit switch (5 axis only)	<input type="checkbox"/> AC Axis application, A axis (Tilting Axis) Limit Setting +120° ~ -30° <input type="checkbox"/> BC Axis application, B axis (Rotary Axis) Limit Setting +30° ~ -120°	
Q9	Others	<input type="checkbox"/> Optical scale (encoder ring) with resolution <input type="checkbox"/> ±5" <input type="checkbox"/> ±10" <input type="checkbox"/> ±13" as a recommended option for tilting axis upon 5 axis application.	
Q10	Solenoid	<input type="checkbox"/> DC24V <input type="checkbox"/> AC110V <input type="checkbox"/> AC220V	
Q11	Operation Manual	<input type="checkbox"/> English <input type="checkbox"/> Japanese	

STEP 3 _ Peripheral Accessories

Q12	Chuck (for end- user)	<input type="checkbox"/> Manual chuck, SC- _____ / <input type="checkbox"/> power chuck, SK- _____ <input type="checkbox"/> Pneumatic chuck, _____ <input type="checkbox"/> Hydraulic chuck, _____ <input type="checkbox"/> Chuck interface flanged required only. (Chuck equipped by buyer)	Catalog P56
	Hydraulic System	<input type="checkbox"/> Air booster (air-oil converter) ABR-35, for hydr. table (+tailstock) only <input type="checkbox"/> Hydraulic Unit, please describe the detailed application below: _____	Catalog P56
Q13	Oil/Air Distributor (for end- user)	<input type="checkbox"/> Fixture flange bracket (L-block), for manual fixture <input type="checkbox"/> Fixture flange bracket (L-block), for pneumatic / hydraulic jig with pressure tunnels, tunnel quantity: _____ <input type="checkbox"/> Fixture plate dimension and quantity: _____ <input type="checkbox"/> Base plate dimension and quantity: _____	Catalog P55
	Others	<input type="checkbox"/> Please describe detailed application below: _____	

Motor Location and Others

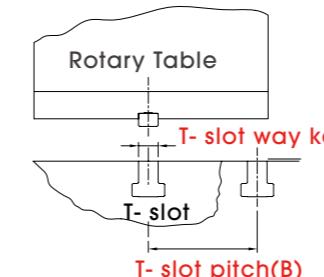


Fig 4

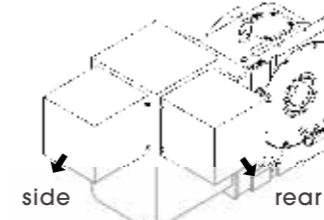
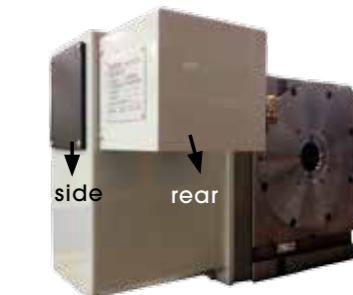


Fig 5



Connector Location

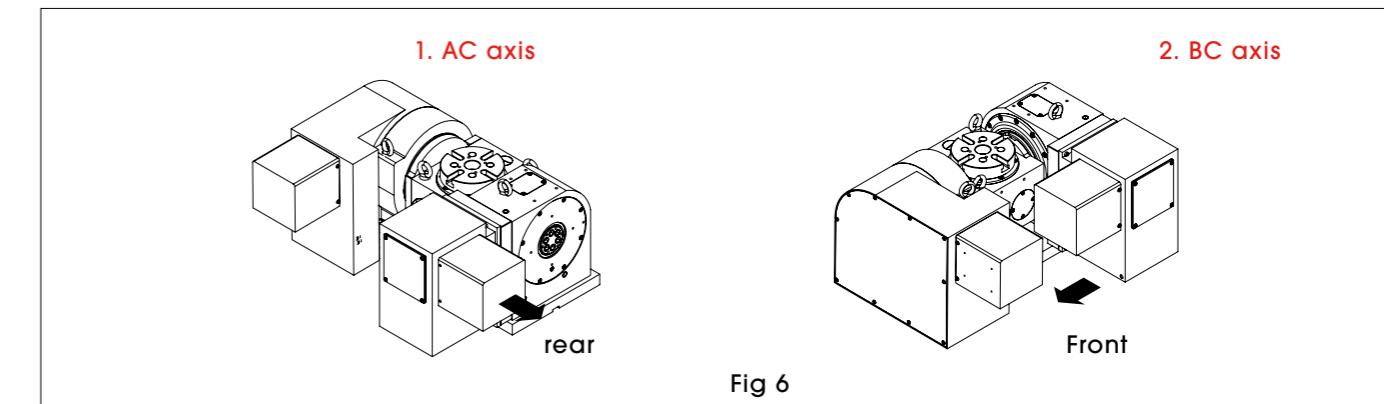


Fig 6

Sections of Cables

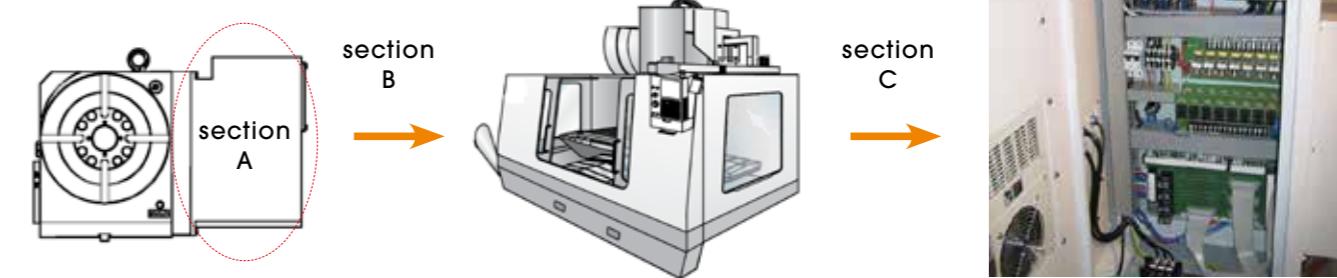


Fig 7

	Regular Connection of Japan NC System	Regular Connection of European NC System
Section A Power+Signal Wire of NC Table	Individual Wires	Integrated Cable
Section B Power+Signal Cables between NC Table to MC Guard	Individual Cables	
Section C Power+Signal Connection in M/C Electrical Cabinet	Individual Connection	Integrated Cable
	Individual Connection	