

High quality and competitive
NC machinery device

PRODUCT LINE UP



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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.



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

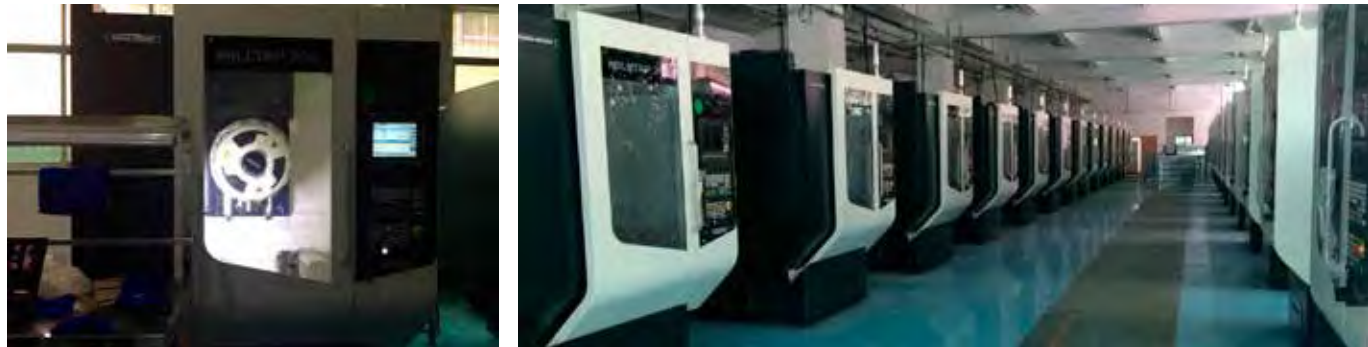
- factory outlet for China
- after-sales service and parts inventory
- distributor training center

Collocation with International Well-known Machining Centers

Japan Mazak



Germany DMG



Japan Brother



Japan Fanuc



USA Haas



Korea Doosan



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





▲ Proceed all assembly in clean thermostatic chambers.



Product Assembly

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

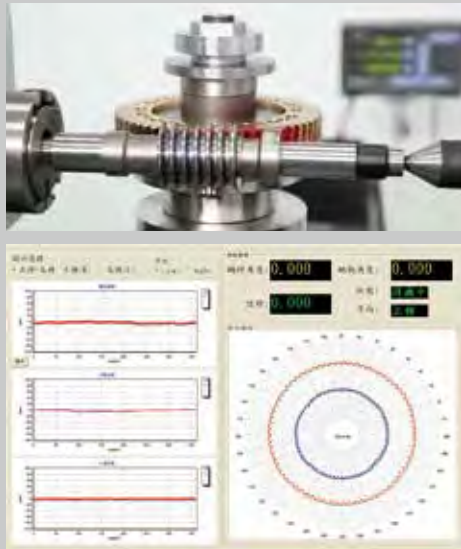
Calibration & Inspection

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

Professional Training

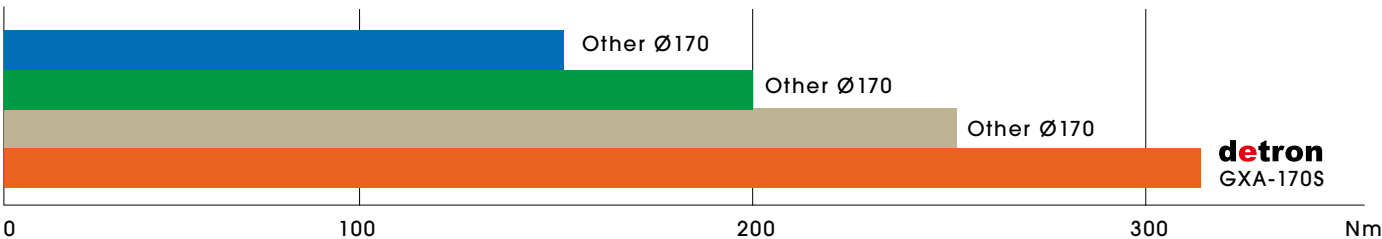
R&D division stands by customers with innovation to upgrade application. On-site technician trainings are regularly taken to intensify engineering skills.

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.

Pratical 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:

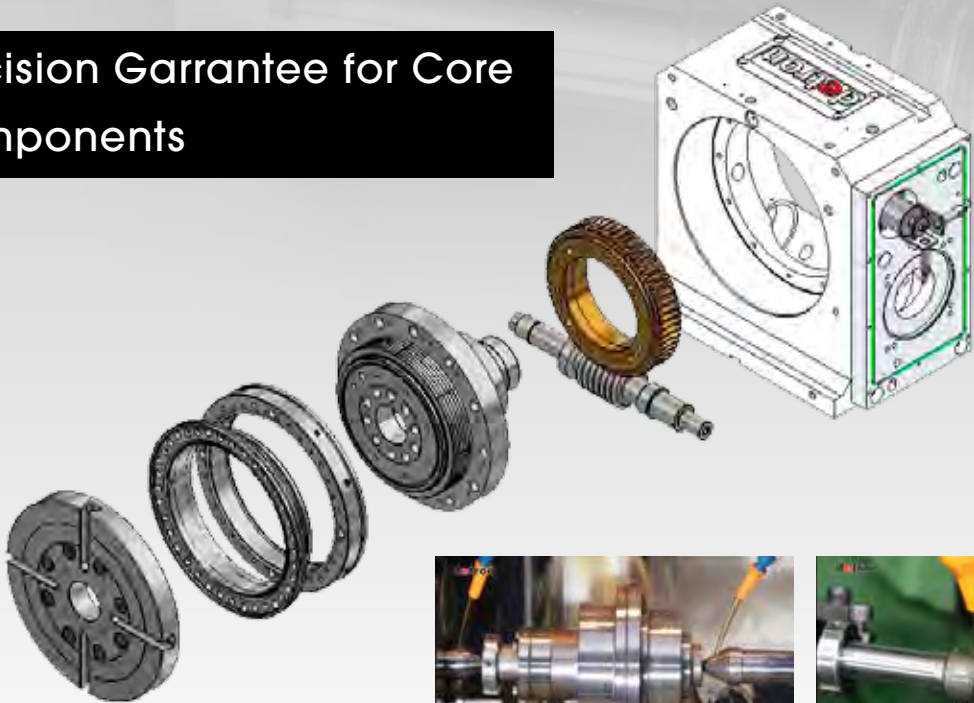


Facilities for Key Processing

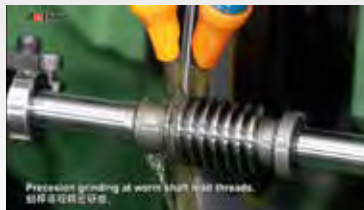


German Lieberr Hobbing Machines

Precision Garrantee for Core Components



Grinding of consolidated spindle unit



Grinding of worm shaft teeth



Adjustment on-line

PROCESSING OF SPINDLE BORE

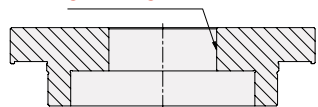
Advantages of center positioning hole with grinding

- 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.

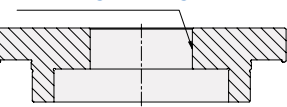
detron

grinding



others

finishing turning



Poor roundness and surface for fixture adjustment.

FINE FINISHING MACHINING OF BRAKE SHAFT

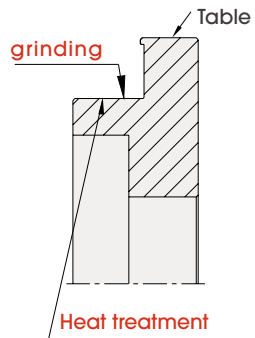
Advantages of surface with hardening and grinding

- 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.

Increased Clamping Life. No Offset During Braking.

detron

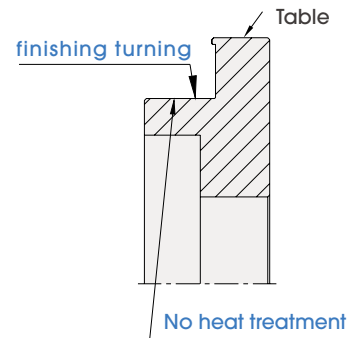
grinding



Heat treatment

others

finishing turning



No heat treatment

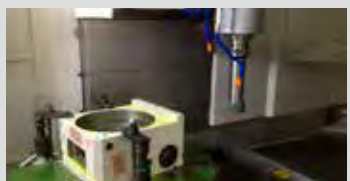
Brake surface with grinding and heat treatment



Brake surface only with final turning but no heat treatment



Vertical grinding machine in hydrostatic technology



Finishing grinding for casting ID



Finishing grinding for gear face



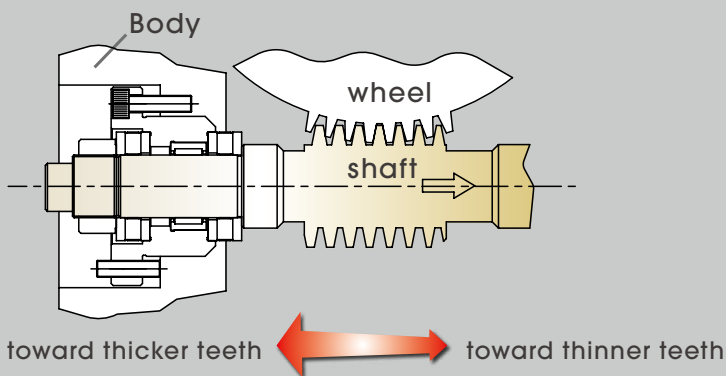
Finishing grinding for brake drum face+ID+OD

Core Technology - Transmission Parts and Rigidity



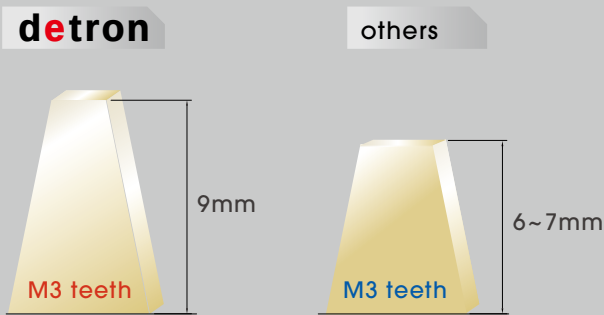
▲ Exclusive application of patented high- endurable copper alloy for detron appointed models.
260% resistance for abrasion compared to conventional worm wheel materials by other brands.

Precise Dual Lead Worm Shaft and Gear



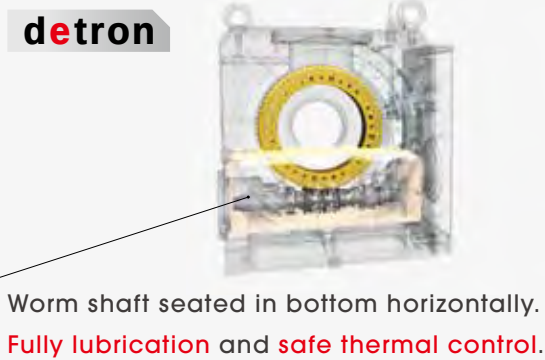
- Offset in axial direction retains **eternal radial geometry accuracy** of worm shaft and wheel.
- Stable gear occlusion accuracy.

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.

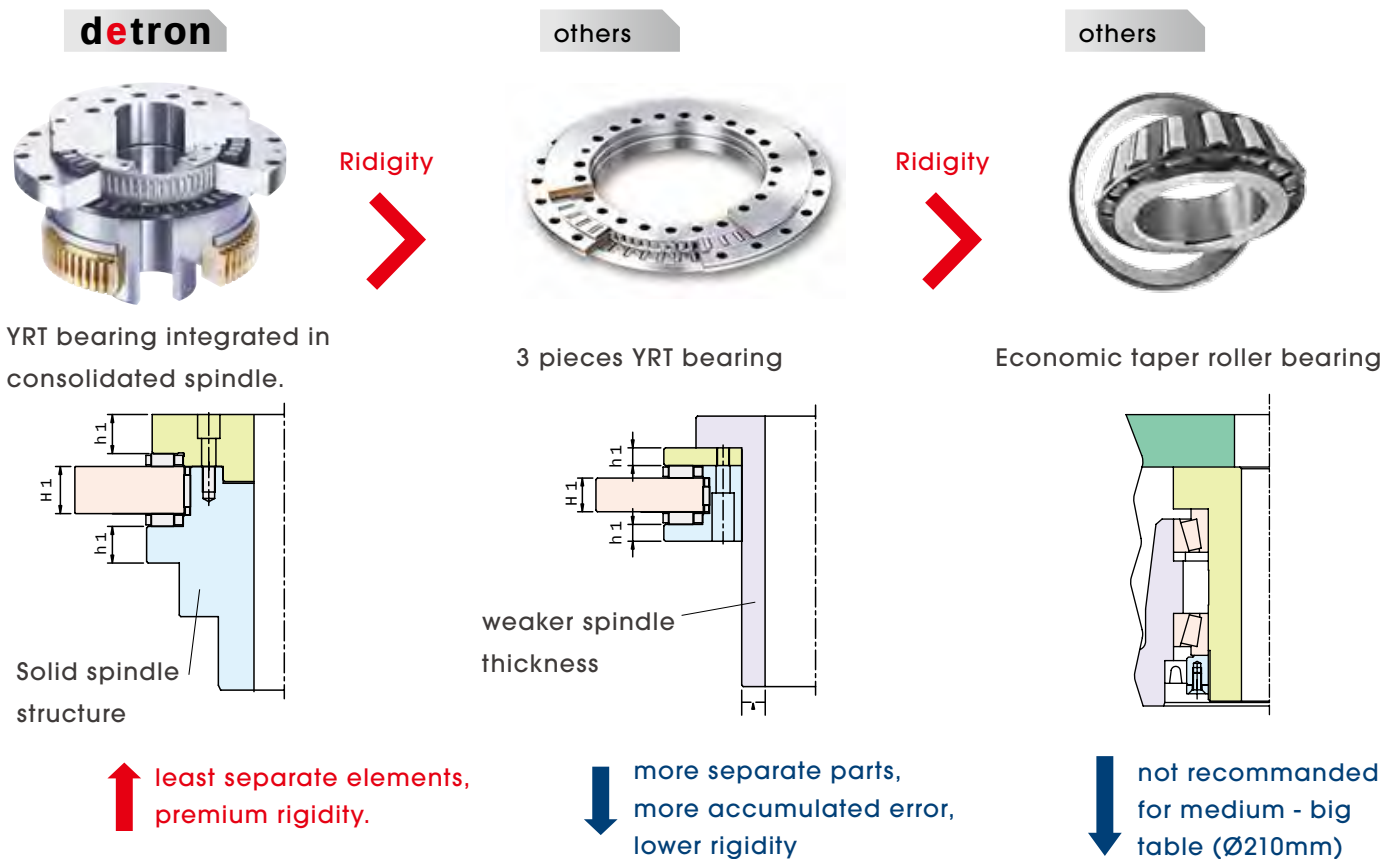
Lubrication and Thermal Control



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

Patented Dual Pneumatic Piston, Braking Force Promoted.

Core Technology - Endurance and Protection

detron

Exclusive Patents

unclamped clamped

Blue zone is the pneumatic inflation room.

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

Safe and Double Insured Hydraulic Brake

detron

Exclusive Patents

Special design of drum brake system

Consisting 5Mpa hydraulic pressure.

Body

Braking gap

Oil filled

Spindle

Table

Others

Normal drum brake system by 35kg force or less due to leakage concern

Extremity pressure at 3.5Mpa.

Body

Braking gap

O-ring

Casting cavitation causes oil leakage.

Oil filled

Spindle

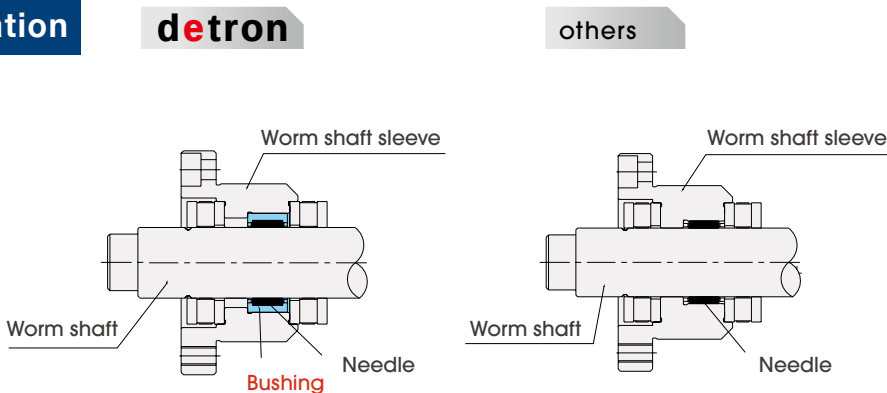
Table

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.

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.

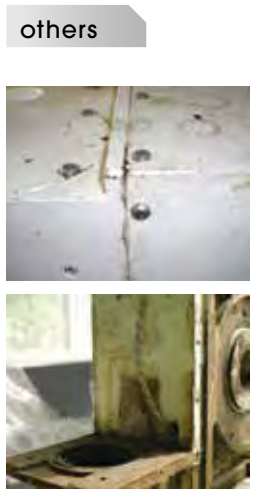


Without needle bush, less endurance by KT radial dearing, lower indexing accuracy.

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.

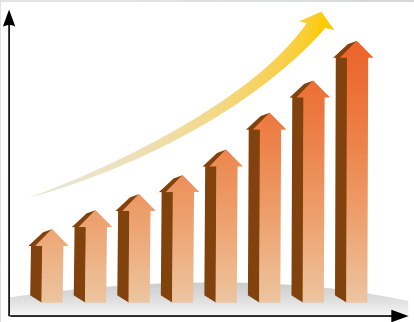


Circumference is fully sealed by O-ring to prevent fluid from entering

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.

cutting efficiency + quality



NC table clamping force

Machine Performance

+

Tooling Condition

+

Reliable Parts Holding

↓

Productivity and Precision

Comparison Summary between detron and Others

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

Brand		detron	others	detron	others	detron	others
NC table spec	mm	Ø255		Ø320		Ø400	
Height of center	mm	190 (Large)	160	210	210	255	255
Center bore diameter	mm	50	40	70	40	110	40
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	Taper roller bearing
Dynamic load	kN	156.8 (45% up)	108	196 (31% up)	150	300 (62% up)	185
Tilting moment	kN-m	11 (89% up)	5.8	17.5 (50% up)	11.7	39.2 (82% up)	21.5
Worm Gear module	mm	M3 (20% up)	M2.5	M3	M3	M4	M4
Clamping Force	kg-m	70 (40% up)	50	118 (39% up)	85	250 (39% up)	180
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	Caulking with silicon
Allowable cutting torque	kg-m	55 (15% up)	48	78	78	170 (70% up)	99.8
Max. table speed (motor 3k rpm)	3000 rpm	25 (15% up)	16.6	25 (15% up)	16.6	20.8 (12.5% up)	16.6
Transmission ratio	-	1/120	1/180	1/120	1/180	1/144	1/180
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.	Disk brake or brake drum in single ring

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 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 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 Cutting Force (while braking)

There are 3 condition by different cut feed directions:

axial loading : cutting force toward table by perpendicular direction

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

circumference loading : cutting force feeding at the table verge

Allowable Work Inertia

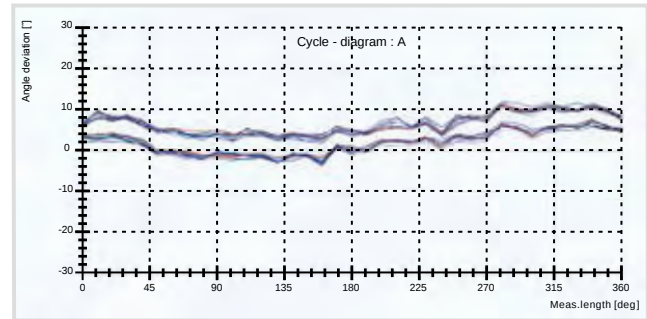
The formula to calculate the moment of inertia

	$W = \frac{S \pi D^2 h}{4000}$ $J = \frac{W D^2}{2} / 40000$		$W = \frac{S \pi D^2 h}{4000}$ $J = W n \left(\frac{D^2}{2} + 4H^2 \right) / 40000$	unit: J.(GD²) :kg-m² W :kg A.B.D.d.H.h.L :cm I :kg.m.s² Densities (S, kg/m³): Iron : 7.85 * 10³ Iron casting :7.5 * 10³ Aluminum : 2.7 * 10³ Copper : 8.94 * 10³ Brass : 8.5 * 10³ $I = \frac{J}{9.8}$
	$W = \frac{S \pi (D^2 - d^2) h}{4000}$ $J = \frac{W (D^2 + d^2)}{2} / 40000$		$W = \frac{S \pi (D^2 - d^2) h}{4000}$ $J = W n \left(\frac{(D^2 + d^2)}{2} + 4H^2 \right) / 40000$	
	$W = \frac{S A D^2 L}{4000}$ $J = \left(\frac{L^2}{3} + \frac{D^2}{4} \right) / 40000$		$W = \frac{S \pi D^2 L}{4000}$ $J = W n \left(\frac{L^2}{2} + \frac{D^2}{2} + 4H^2 \right) / 40000$	
	$W = \frac{S A B h}{1000}$ $J = \frac{W (A^2 + B^2)}{3} / 40000$		$W = \frac{S A B h}{4000}$ $J = W n \left(\frac{A^2 + B^2}{3} + 4H^2 \right) / 40000$	

Strict Indexing Accuracy Norm

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.

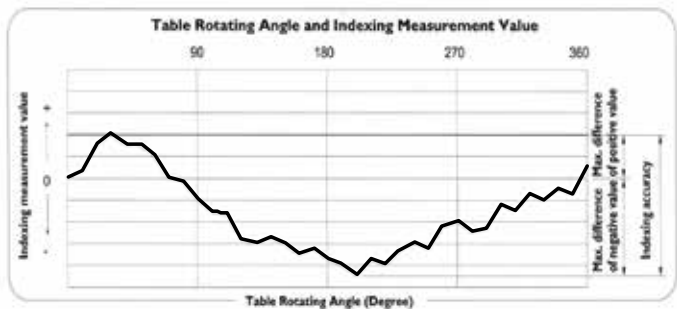
Facility of Inspection

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

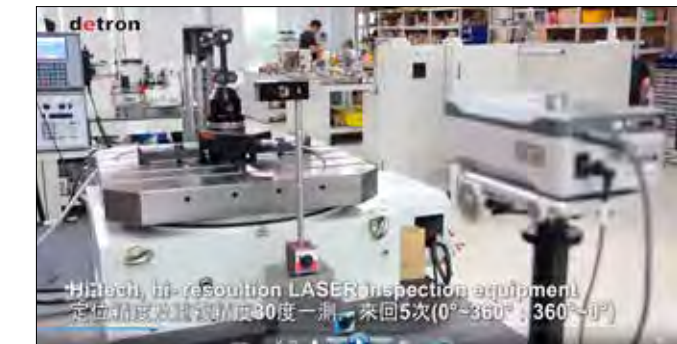


others

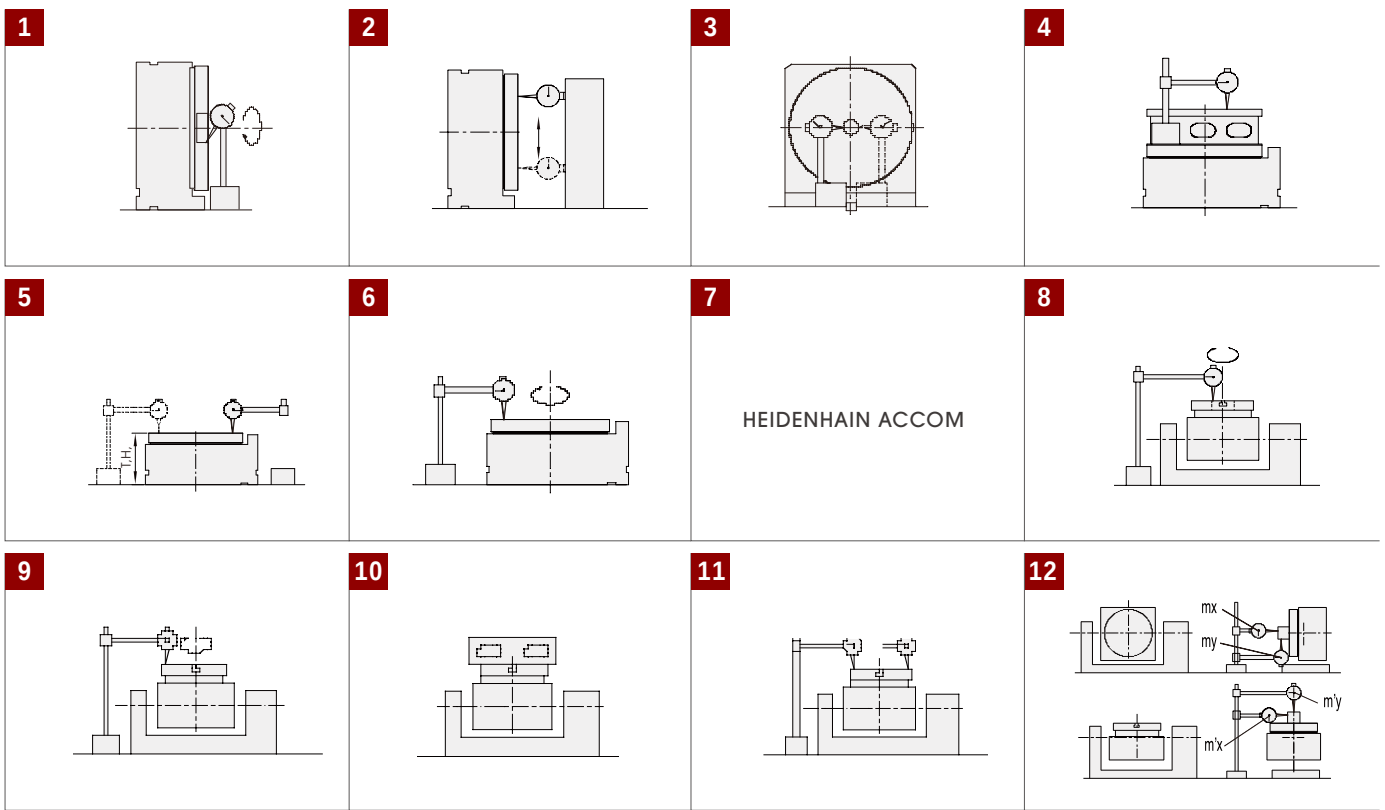
JIS B 6330 Norm in Single Run



Simplified inspection norm without number of laps indicated.



Accuracy Tolerance Chart



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
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)
11.	Indexing	Rotary	Refer to specification chart of each model	
		Tilt	Refer to specification chart of each model	
	Repeatability	Rotary	6 sec.	
		Tilt	8 sec.	
12.	Parallelism between center line of tilt axis and base plate		0.02/Dia	

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%.

Premium Line
GXA-S series
Dual Piston Models
Page 21



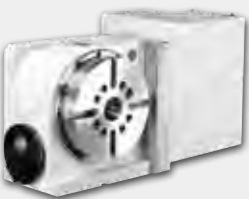
- GXA-125S
- GXA-170S
- GXA-210S
- GXA-250S

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

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



VERTICAL Machining Center Series

DV/DX series*
DDM Rotary Table



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

DF series*
CNC DDM Tilting Rotary Table



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

SR series
Support Rotary Tailstock
Page 32



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

GV-B series
CNC Rotary Table
Page 23



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

CX-H series
CNC Indexing Table
Page 29



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

ST-T series
Tailstock
Page 31

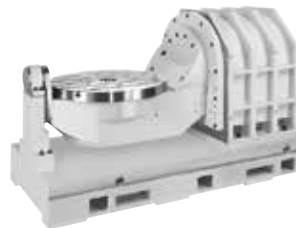


- ST-125T/TP
- ST-170T/TP/TH
- ST-210T/TP/TH
- ST-255T/TH
- ST-320T/TH
- ST-400T/TH

Dual Drive CNC Deep Tilting*
Rotary Table



DDM Tilting Rotary Table*
(Single Support)



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



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



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

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



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

Remark *: Contact detron for further detail.

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

Page 45



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

GH series
Horizontal Rotary Table (single pallet)

Page 47



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

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

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

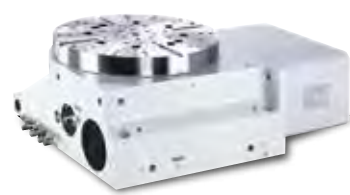
GH-T2 series
Rotary Table with 2 Pallets

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

Horizontal Indexing Table
with optional 8+1 port oil distributors



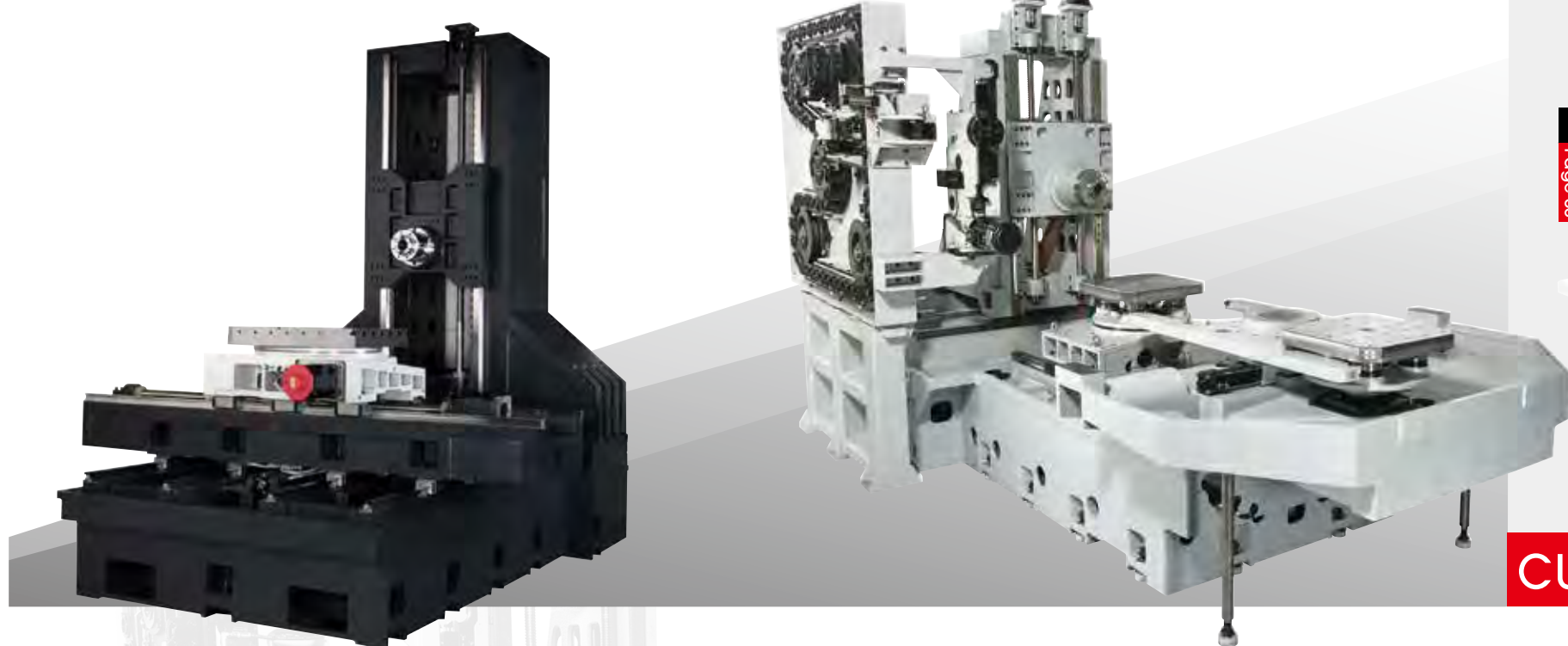
Horizontal Index Table



Horizontal DDM Rotary Table
with customized base



Horizontal Index Table
with customized base



Hydraulic Index Table



Horizontal Rotary Table
• With 10 ports rotary joint
• With optical encoder



APC With Horizontal Table



APC With Horizontal Table



ACR series
Fork Type

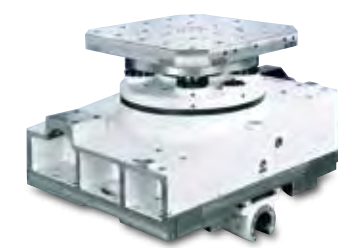
Page 53



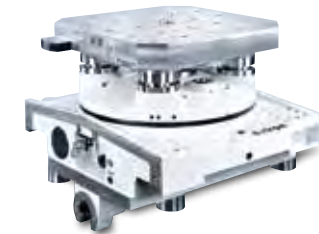
- ACR-500
- ACR-500T
- ACR-630
- ACW-500
- ACW-630
- ACW-800

CUSTOMIZATION

Customized Horizontal
Rotary Table



Customized Horizontal
Rotary Table



HORIZONTAL
Machining Center Series

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

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



- Worktable diameter $\varnothing 125$, $\varnothing 170$, $\varnothing 210$, $\varnothing 255$.
- 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.

Customized model
GX-PL motor at left



Upgraded high precision
cross roller bearings.

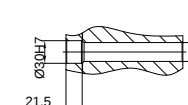
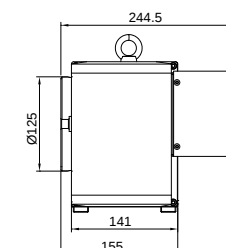
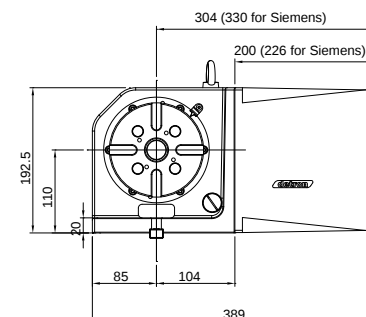
SPECIFICATIONS

MODEL	Unit	GXA-125S	GXA-170S	GXA-210S	GXA-250S
Worktable diameter	mm / inch	$\varnothing 125 / \varnothing 4.92$	$\varnothing 170 / \varnothing 6.69$	$\varnothing 210 / \varnothing 8.27$	$\varnothing 255 / \varnothing 10.04$
Center bore diameter	mm / inch	$\varnothing 30H7 / \varnothing 1.18H7$	$\varnothing 40H7 / \varnothing 1.57H7$	$\varnothing 65H7 / \varnothing 2.56H7$	$\varnothing 65H7 / \varnothing 2.56H7$
Through-bore diameter	mm / inch	$\varnothing 25 / \varnothing 0.98$	$\varnothing 40 / \varnothing 1.57H7$	$\varnothing 65 / \varnothing 2.56H7$	$\varnothing 65 / \varnothing 2.56H7$
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	Pneumatic 0.55 ~ 0.7 / 79.8-101.5	Pneumatic 0.55 ~ 0.7 / 79.8-101.5	Pneumatic 0.55 ~ 0.7 / 79.8-101.5
Clamping torque	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 ($\frac{W.D}{8}$)	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)		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

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 acceleration/deceleration while activate maximum loading inertia *.

Dimension

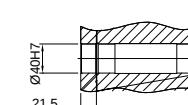
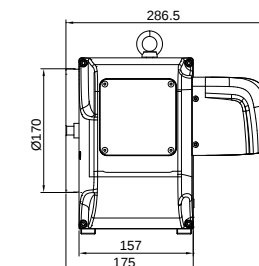
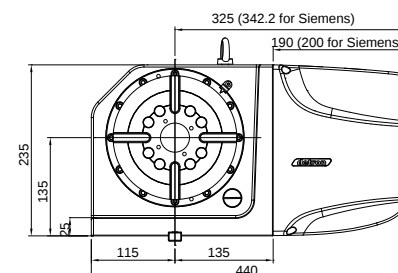
GXA-125S



Through-hole Diameter

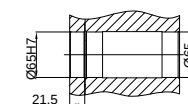
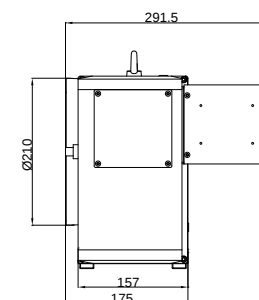
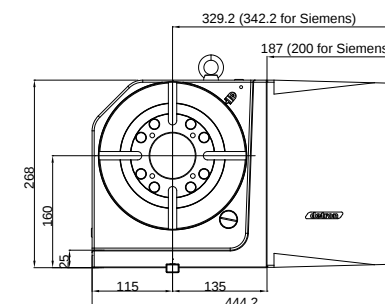
Unit : mm

GXA-170S



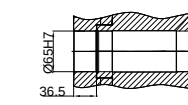
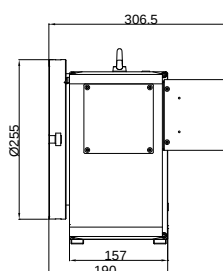
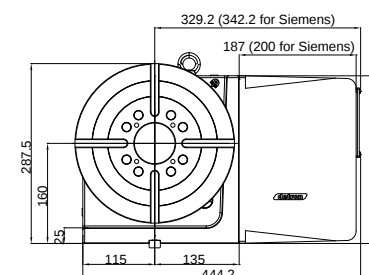
Through-hole Diameter

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)

New Evolution

CNC Big Spidle Bore

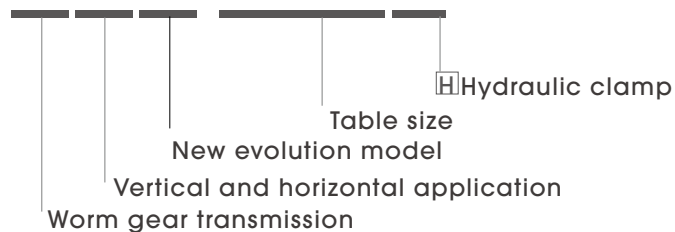
NC Rotary Table

(Hydraulic Brake)

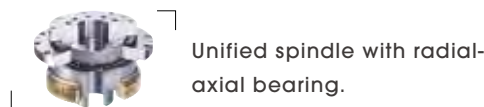
GXA-255H GXA-320H

GXA-400H

G X A - 2 5 5 H



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



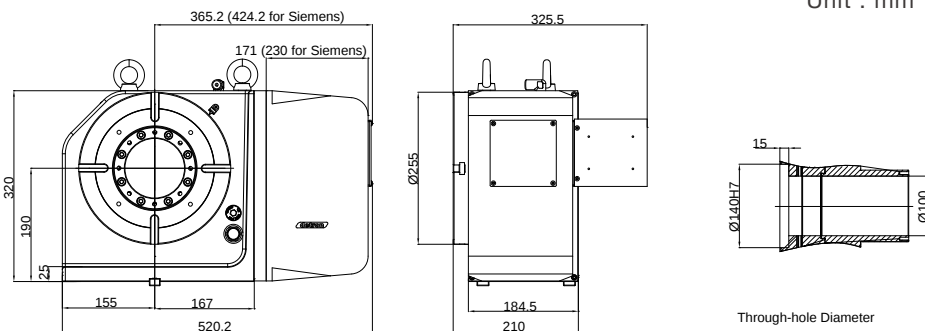
SPECIFICATIONS

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 (^{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	250 / 550
	Horizontal	kg / lb	300 / 660	400 / 880	500 / 1100
	Tailstock applied	kg / lb	300 / 660	400 / 880	500 / 1100
Allowable load (when table clamped)		N / lbs	20000 / 4488	28000 / 6283.2	38000 / 8527.20
		Nm /ft. lbs.	1700 / 1252.9	3000 / 2211	5400 / 3979.8
		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

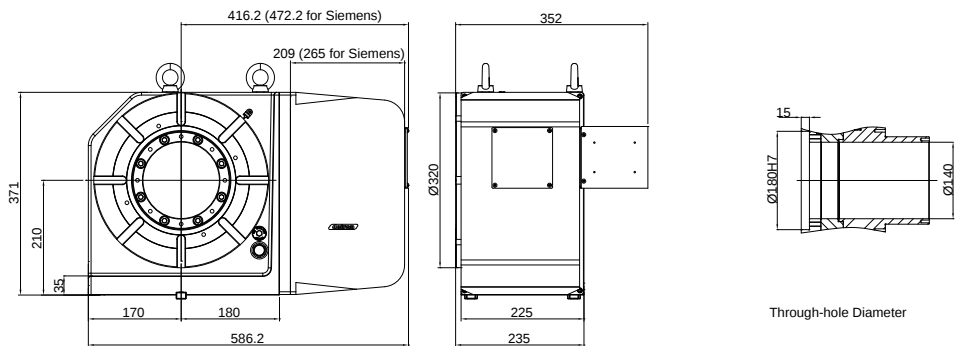
Note: 1. Allowable cutting torque at table speed of 1 min⁻¹.
2. S tandard loading inertia * is allowed in max table speed. Contact detron for the necessary adjustment of speed and acceleration/deceleration while activate maximum loading inertia *.

Dimension

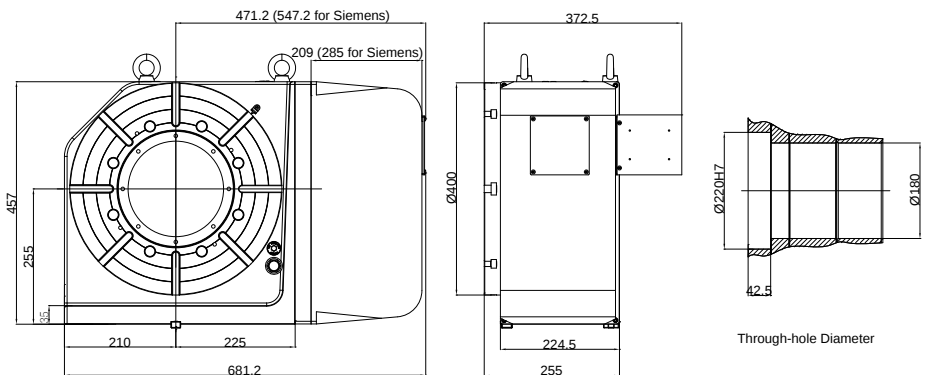
GXA-255H



GXA-320H



GXA-400H



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

Veritcal & horizontal application
Worm gear transmission
Table size
Hydraulic brake

- 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.

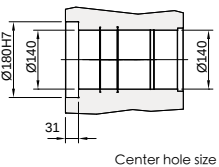
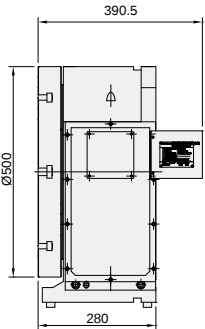
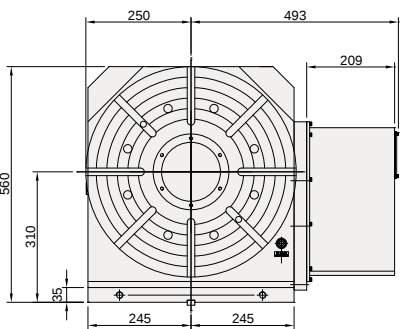
SPECIFICATIONS

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	($\frac{W.D^2}{8}$) 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
	Horizontal	Kg /lb	600 / 1320	800 / 1760
	Tailstock applied	Kg /lb	600 / 1320	800 / 1760
Allowable load (when table clamped)		N /lbs	40000 / 8976.0	49000 / 10780
		Nm /ft. lbs.	5000 / 3685.0	8500 / 6264.50
		Nm /ft. lbs.	3200 / 2358.4	4500 / 3316.5
Allowable cutting torque		Nm /ft. lbs.	2500 / 1842.5	4300 / 3169.1

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

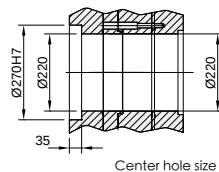
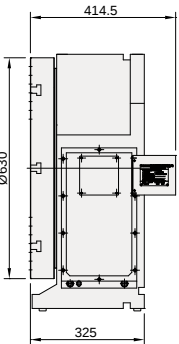
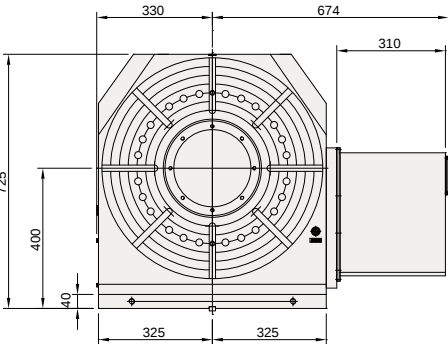
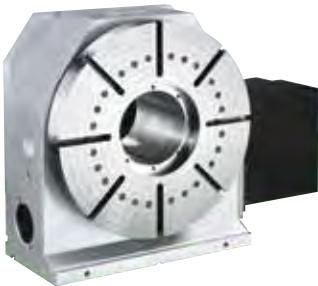
DIMENSIONAL DRAWINGS

GX-500H

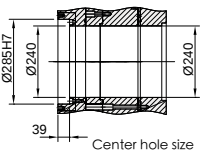
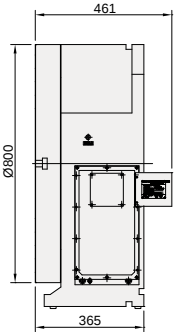
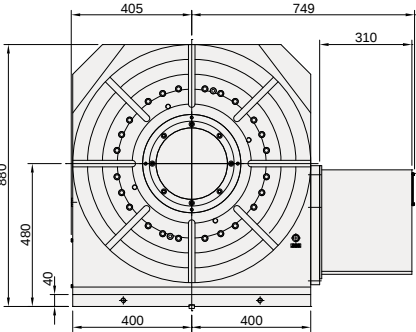


Unit : mm

GX-630H



GX-800H

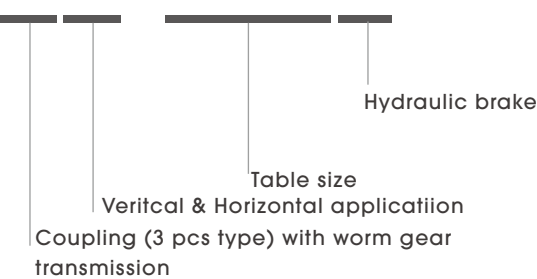


Note: 1. The length of servo guard may vary with servo motor type. (metal sheet dimensions shown above are based on Fanuc motor)

CNC Index Table

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

C X - 2 5 5 H



- 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



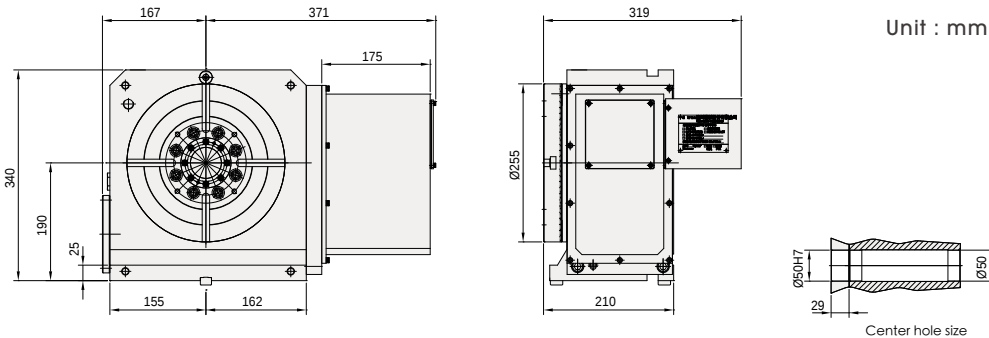
SPECIFICATIONS

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.D² / 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	175 / 385	200 / 440
	Horizontal	kg / lb	300 / 660	350 / 770	500 / 1100
	Tailstock applied	kg / lb	300 / 660	400 / 880	500 / 1100
Allowable load (when table clamped)		N / lbs	16000 / 3590.4	20000 / 4488.0	30000 / 6732.0
		Nm / ft. lbs.	1750 / 1289.75	2500 / 1842.5	3000 / 2211.0
		Nm / ft. lbs.	3000 / 2211.0	4000 / 2948.0	5000 / 3685.0
Drive torque	Nm / ft. lbs.	240 / 176.9 (motor α4iF) 480 / 353.8 (motor α8iF)	720 / 530.2	864 / 618.5	1080 / 795.3

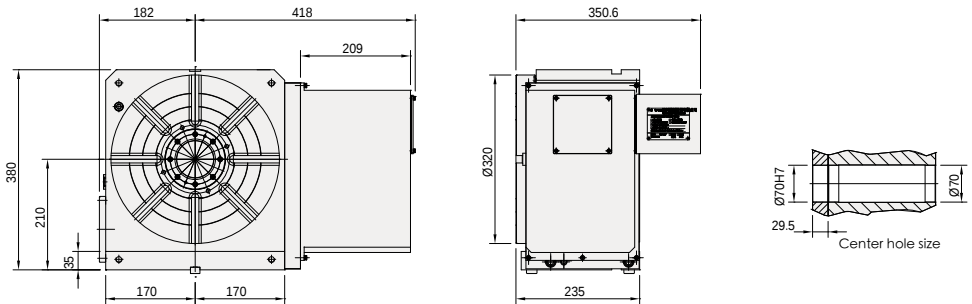
Note: Allowable cutting torque at table speed of 1 min⁻¹.

DIMENSIONAL DRAWINGS

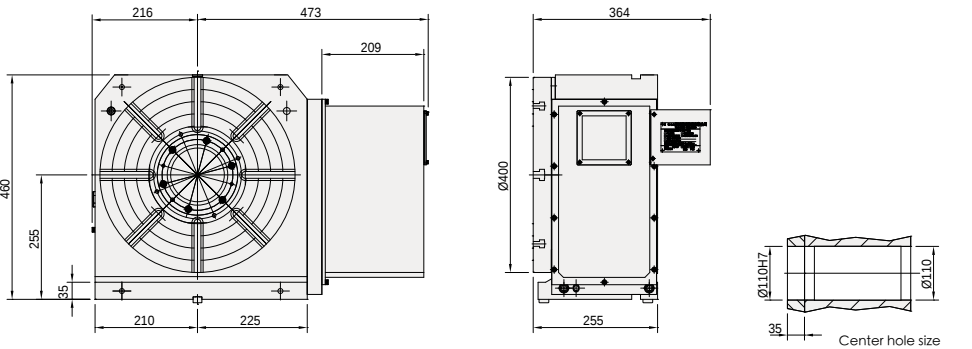
CX-255H



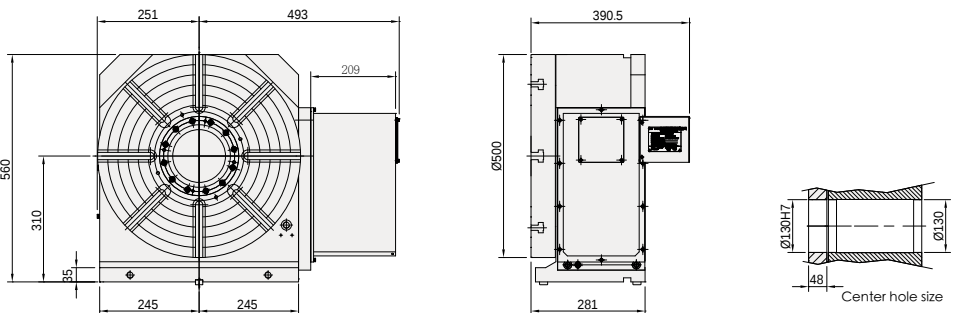
CX-320H



CX-400H



CX-500H



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

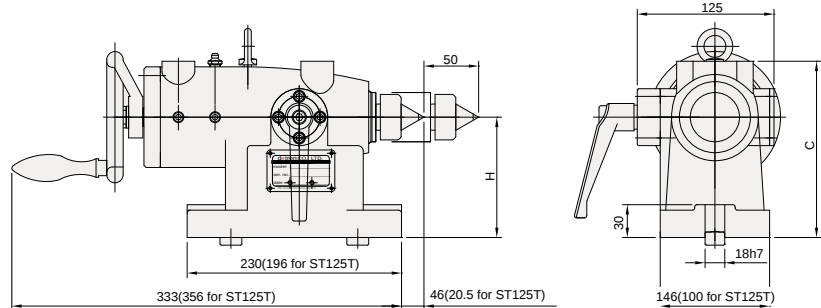
Quill Tailstock

Manual Quill Tailstock



ST - 1 7 0 T P

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



unit: mm / inch

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

Pneumatic Quill Tailstock

Hydraulic Quill Tailstock



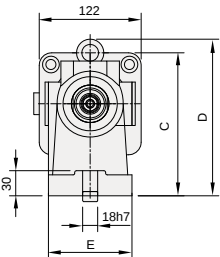
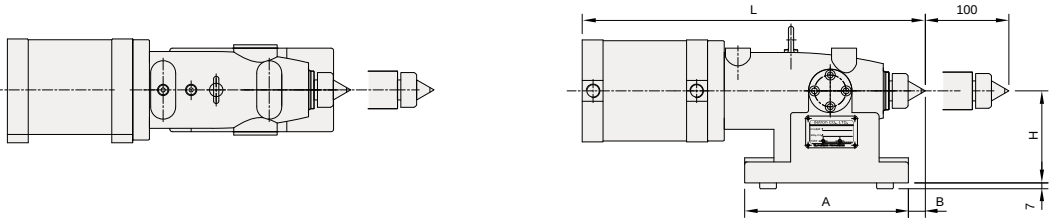
ST-125TP ST-170TP
ST-210TP



ST-170TH ST-210TH
ST-255TH ST-320TH
ST-400TH

Pneumatic manual
switch valve (optional)

Hydraulic 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

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

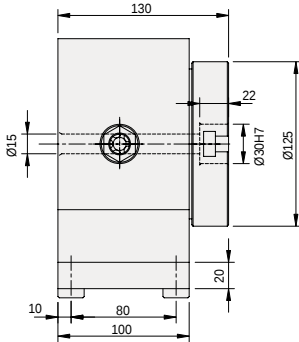
unit: mm / inch

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

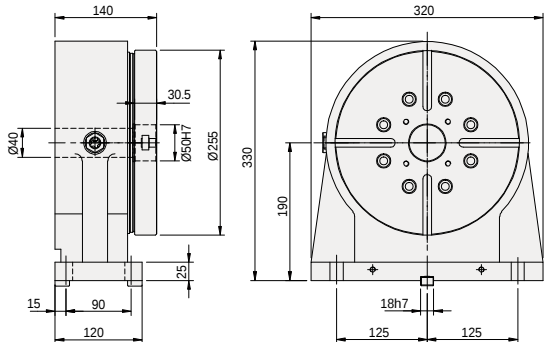
Note: SR rotary tailstock without brake is available, please contact the local agent for application info.

DIMENSIONAL DRAWINGS

SR-125P

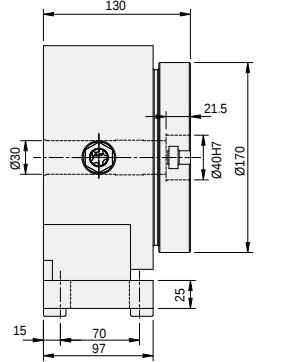


SR-255H

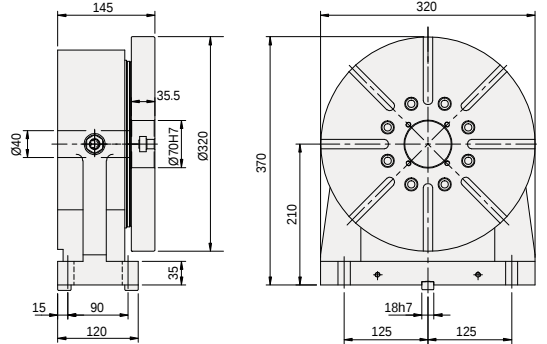


Unit : mm

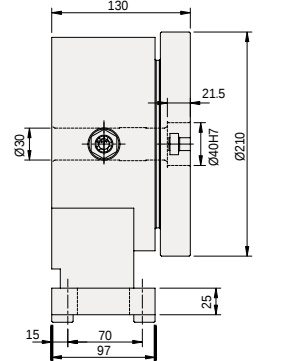
SR-170P/H



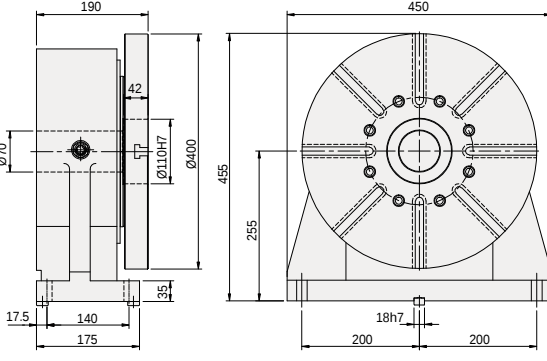
SR-320H



SR-210P/H



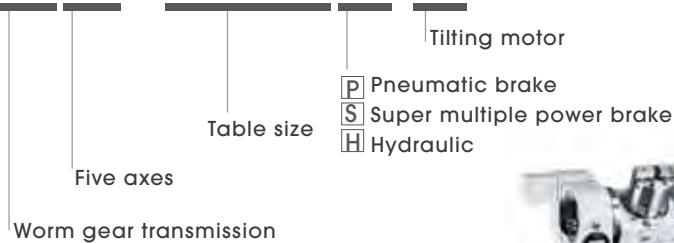
SR-400H



CNC Tilting Rotary Table

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

GF-125P(B)



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.



Equipped with high precision cross roller bearings in upgraded spec.

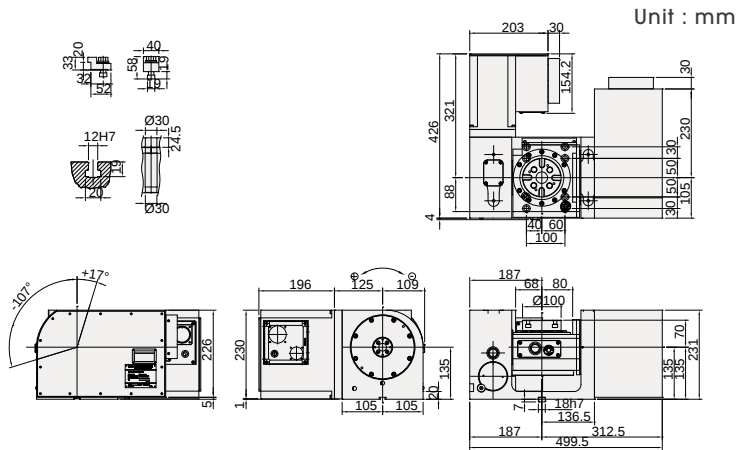
SPECIFICATIONS

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 H: 2.5 / 362.5	P: 0.55~0.7 / 79.8~101.5 H: 2.5 / 362.5
Servo motor spec refer to page 53						
Transmission ratio			R: 1:75 T: 1:120	R: 1:90 T: 1:90	R: 1:90 T: 1:90	R: 1:90 T: 1:120
Max. table speed	min ⁻¹		33.3 16.6	44.4 44.4	33.3 22.2	33.3 22.2
Allowable loading capacity	In Horizontal	kg / lb	35 / 77	50 / 110	75 / 165	75 / 165
	In Tilt (0~90°)	kg / lb	20 / 44	35 / 77	50 / 110	50 / 110
Allowable unbalancing work moment	WxL	Nm / ft. lbs.	24 / 17.69	24 / 17.69	35 / 25.80	53 / 39.06
Allowable load (when table clamped)	F	N / lbs	4000 / 897.60	4000 / 897.60	7000 / 1570.8	14000 / 3141.6
	FxL	Nm / ft. lbs.	200 / 147.4	85 / 62.65	P: 180 / 132.66 H: 300 / 221.0	P: 260 / 191.62 H: 300 / 221.0
	FxL	Nm / ft. lbs.	250 / 184.25	180 / 132.66	P: 260 / 191.62 H: 390 / 287.43	P: 300 / 221.0 H: 450 / 331.65
Allowable loading inertia (W _g ^D)	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"	20" 60"	20" 50"
Repeatability	sec		6" 8"	6" 8"	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

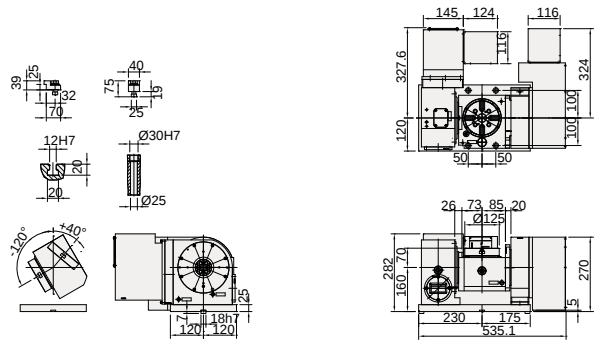
Note: P: Pneumatic S: Super multiple pneumatic H: Hydraulic R: Rotary Axis T: Tilt Axis

DIMENSIONAL DRAWINGS

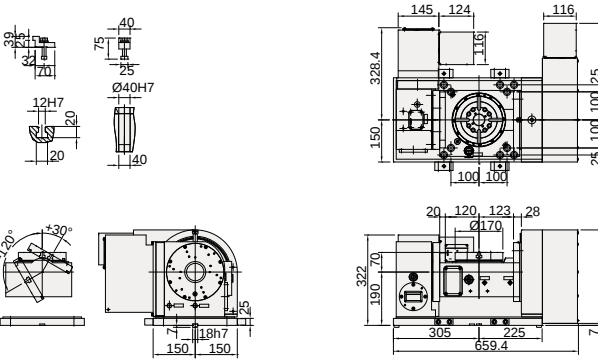
GF-101S



GF-125P



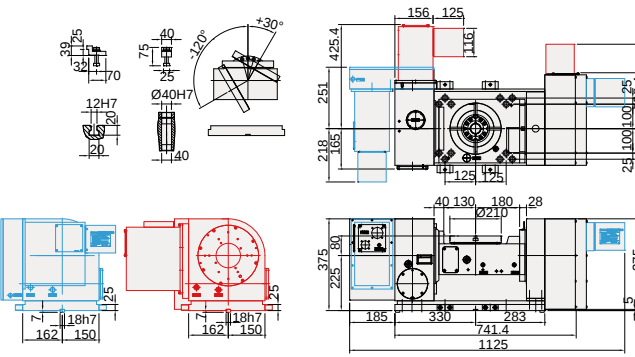
GF-170P/H



GF-211P/PB



GF-211PB



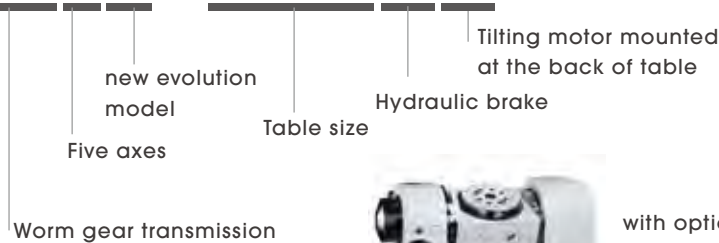
Note: 1. The length of servo guard may vary with servo motor type. (the metal sheet dimensions shown above are based on Fanuc motor)
2. Allowable wheel torque at table speed of 1 min⁻¹.
3. According to application engineering, optical encoder is recommended for tilting axis.

CNC Tilting Rotary Table

GFA -255H/HB GFA -320H



G F A - 2 5 5 H (B)



with optional optical encoder



Consolidated spindle with radial-Axial bearing built-in.

- Worktable diameter Ø255, Ø320.
- The hydraulic brake equipped with radial and axial bearings.
- Full gear depth transmitted by dual lead worm drive, resulting in higher efficiency and lower backlash.

SPECIFICATIONS

MODEL

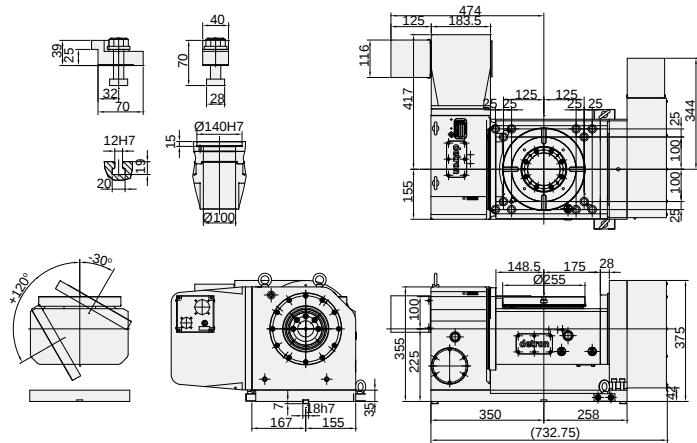
	Unit	GFA-255H	GFA-320H
Worktable diameter	mm / inch	Ø255 / Ø10.04	Ø320 / Ø12.60
Center bore diameter	mm / inch	Ø140H7 / Ø5.51H7	Ø180H7 / Ø7.09H7
Height of table (horizontal)	mm / inch	325 / 12.8	355 / 13.98
Height of center (vertical)	mm / inch	225 / 8.86	255 / 10.04
Width of T-slot	mm / inch	12H7 / 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
Max. table speed	min ⁻¹	22.2	16.6
Allowable loading capacity	In Horizontal	kg / lb	120 / 264
	In Tilt (0~90°)	kg / lb	75 / 165
Allowable unbalancing work moment	WxL	Nm /ft. lbs.	78 / 57.49
Allowable load (when table clamped)	F	N / lbs	16000 / 3590.40
	FxL	Nm /ft. lbs.	900 / 663.3
	FxL	Nm /ft. lbs.	900 / 663.3
Allowable loading inertia ($\frac{W.D^2}{8}$)	kg.m ²	0.98	2.6
Resolution	deg.	0.001	0.001
Indexing accuracy	sec	15"	50"
Repeatability	sec	6"	8"
Tilting angle range	deg.	-30 ~ +120	-30 ~ +120
Net weight (servo motor excluded)	Kg / lb	370 / 814	460 / 1012
Allowable cutting torque	Nm /ft. lbs.	250 / 184.25	780 / 569.4

Note: R: Rotary Axis T: Tilt Axis

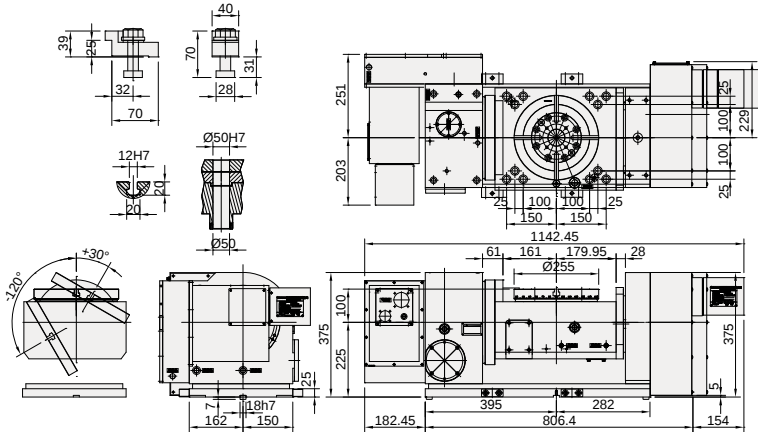
DIMENSIONAL DRAWINGS

GFA-255H

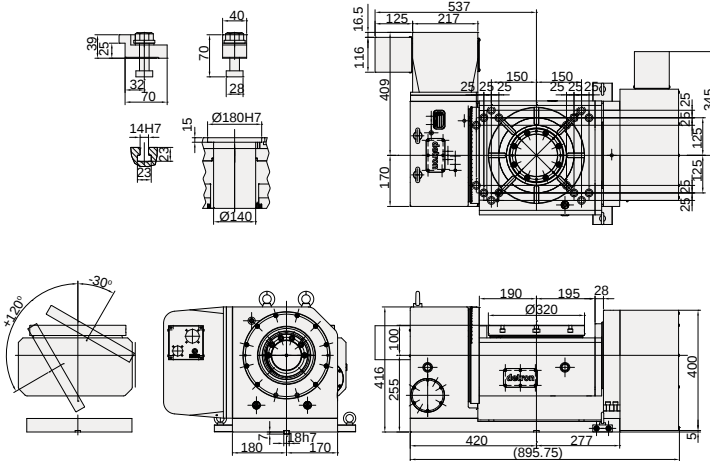
Unit : mm



GFA-256HB



GFA-320H

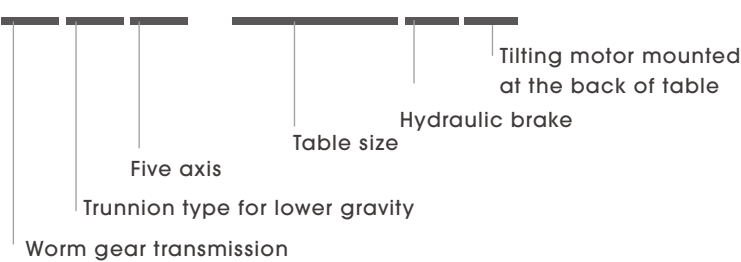


- Note: 1. The length of servo guard may vary with servo motor type. (the metal sheet dimensions shown at above are based on Fanuc motor)
2. Allowable wheel torque at table speed of 1 min⁻¹.
3. According to application engineering, optical encoder is recommended for tilting axis.

CNC Trunnion Tilting
Rotary Table

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

G T F - 4 1 0 H B



- Worktable diameter Ø210, Ø320, Ø410, Ø500.
- The hydraulic brake equipped with radial and axial bearings.
- Full gear depth transmitted by dual lead worm drive, resulting in higher efficiency and lower backlash.
- Built-in air-oil converter for appointed models.



(customized)

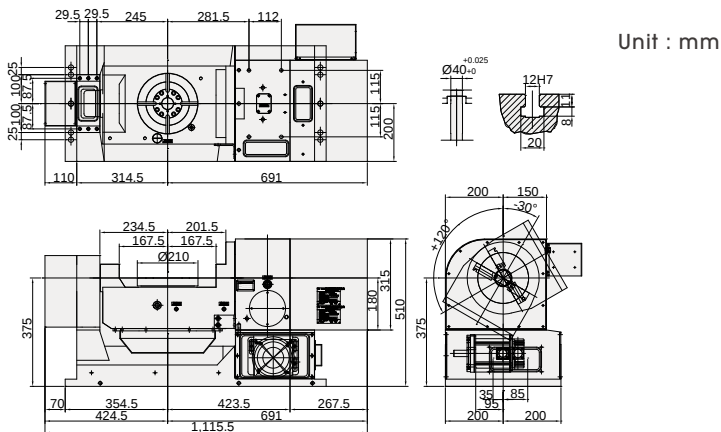
SPECIFICATIONS

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
			1:90	1:90	1:90	1:120
Max. table speed		min ⁻¹	33.3	22.2	25	16.6
Allowable loading capacity	In Horizontal	kg / lb	75 / 165	200 / 440	200 / 440	300 / 660
	In Tilt (0~90°)	kg / lb	50 / 110	100 / 220	150 / 330	250 / 550
Allowable unblancing work moment	WxL	Nm /ft. lbs.	53 / 39.06	100 / 73.70	200 / 147.40	300 / 221.0
Allowable load (when table clamped)	F	N / lbs	14000 / 3141.60	16000 / 3590.40	20000 / 4488.0	30000 / 6732.0
	FxL	Nm /ft. lbs.	355 / 261.64	700 / 515.90	1180 / 869.66	2000 / 1474.00
	FxL	N.mNm /ft. lbs.	585 / 431.15	1400 / 1031.80	1880 / 1385.56	2500 / 1842.50
Allowable loading inertia	(W.D²/8)	kg.m²	0.42	2.6	4.3	9.6
Resolution		deg.	0.001	0.001	0.001	0.001
Indexing accuracy		sec	20"	60"	20"	60"
Repeatability		sec	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

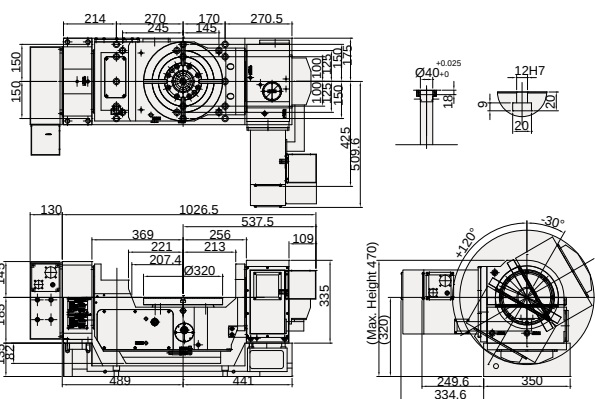
Note: 1.P: Pneumatic H: Hydraulic R: Rotary Axis T: Tilt Axis
2.air-oil converter built-in

DIMENSIONAL DRAWINGS

GTF-212S



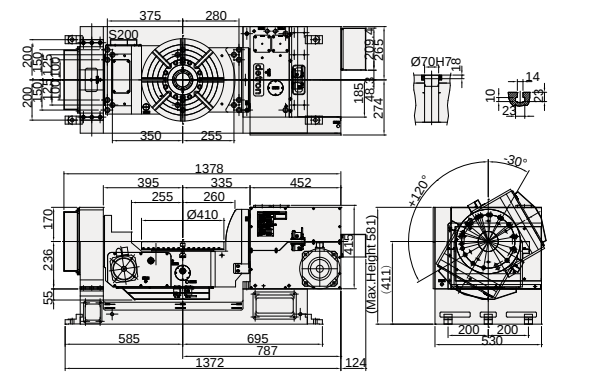
GTF-320H



GTF-410HB



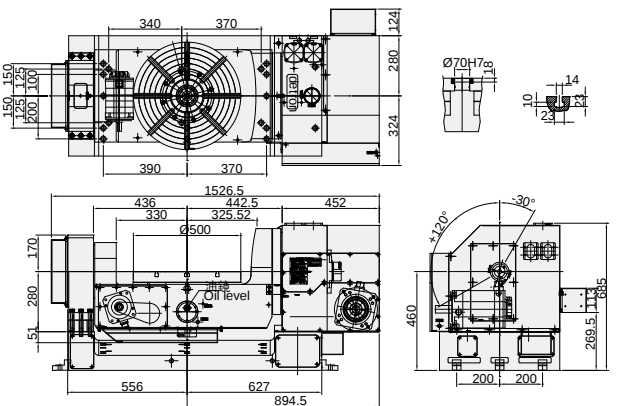
air-oil converter built-in



GTF-500HB



air-oil converter built-in



Note: 1. The length of servo guard may vary with servo motor type. (the metal sheet dimensions shown at above are based on Fanuc motor)
2. Allowable wheel torque at table speed of 1 min⁻¹.
3. According to application engineering, optical encoder is recommended for tilting axis.
4. Customized table Ø630mm and dual drive at tilting axis are available.

Automatic Pallet Change System

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



C V R - 6 0 0

Pallet size
Rack type
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 $\pm 0.005\text{mm}$.

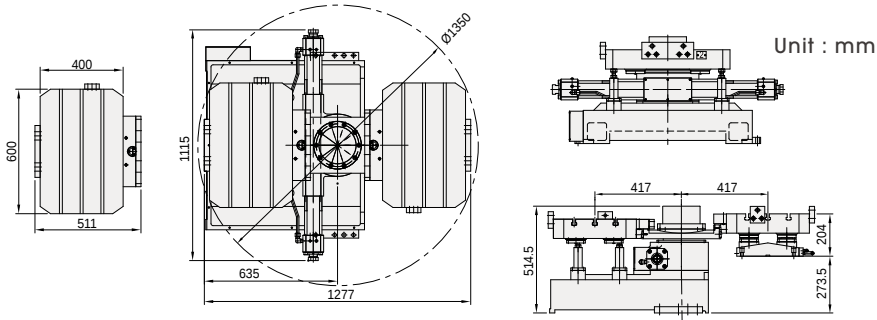
SPECIFICATIONS

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	550 / 1210
	Pallet	Kg / lb	110x 2 / 242 x 2	190 x 2 / 418 x 2	220 x 2 / 418 x 2
	Sub-pallet	Kg / lb	60 / 132	105 / 231	105 / 231

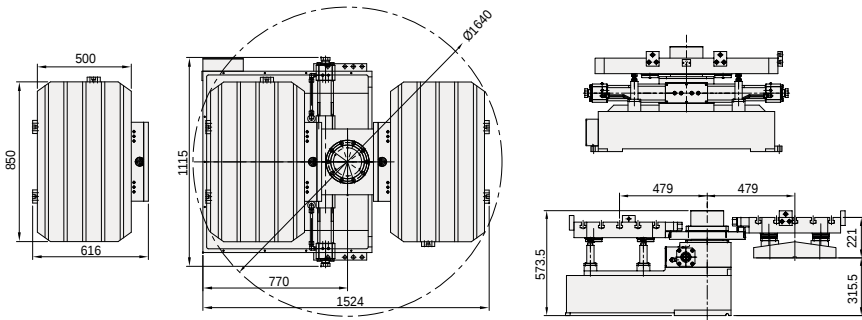
NOTE: Pallet change time may varied with flow of pump, length and diameter of pipe.

DIMENSIONAL DRAWINGS

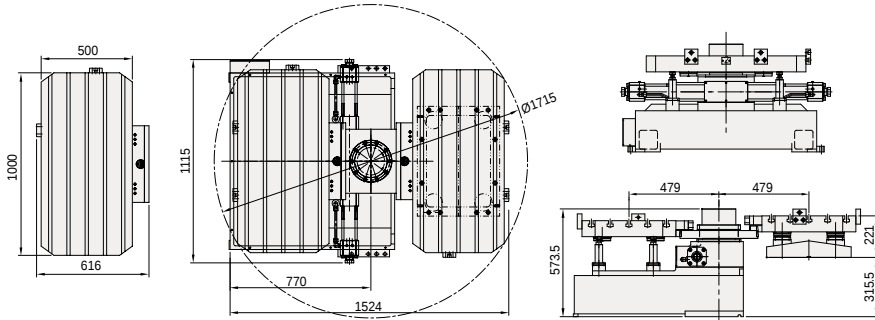
CVR-600



CVR-850



CVR-10D

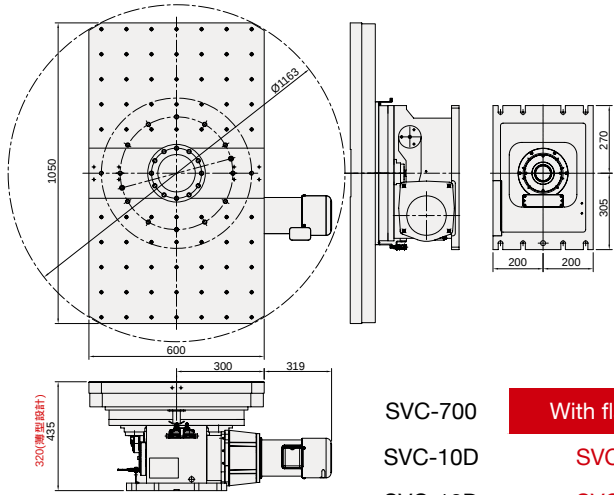


SVC series

Automatic Pallet Change System
(Roller Gear Cam Type)

S V C - 1 0 D

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



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

Horizontal Index Table

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

HH - 500 HT

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



SPECIFICATIONS

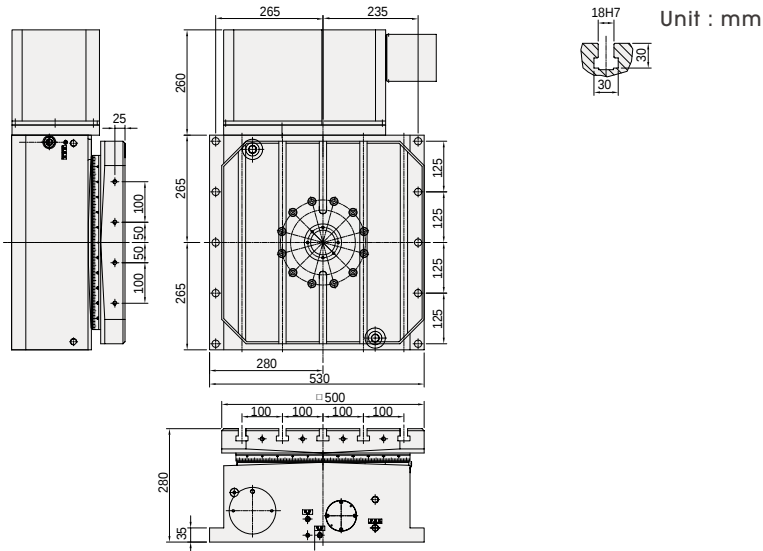
MODEL		Unit	HH-500HT	HH-630HT	HH-800HT
Table sizes	mm / inch		500 x 500 / 19.69 x 19.69	630 x 630 / 24.8 x 24.8	800 x 800 / 31.5 x 31.5
Center bore diameter	mm / inch		Ø50H7 / Ø1.97H7	Ø50H7 / Ø1.97H7	Ø50H7 / Ø1.97H7
Height	mm / inch		280 / 11.02	320 / 12.60	360 / 14.17
Wide of T-slot	mm / inch		18H7 / 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		α 12iF / β 22iS	α 12iF / β 22iS	α 22iF / β 22iS
	MITSUBISHI		HF-204	HF-204	HF-354
	SIEMENS		1FK7083	1FK7083	1FK7084
Drive torque	Nm / ft. lbs.		864 / 637	1080 / 796	1980 / 1459
Allowable load (when table clamped)	 Nm / ft. lbs.		5760 / 4245.12	15750 / 11607.75	18320 / 13501.84
	 Nm / ft. lbs.		9970 / 7347.89	27250 / 20083.25	31690 / 23355.53
Drive method / pressure	Mpa / psi		Hydraulic 5 / 725	Hydraulic 5 / 725	Hydraulic 6.5 / 943
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

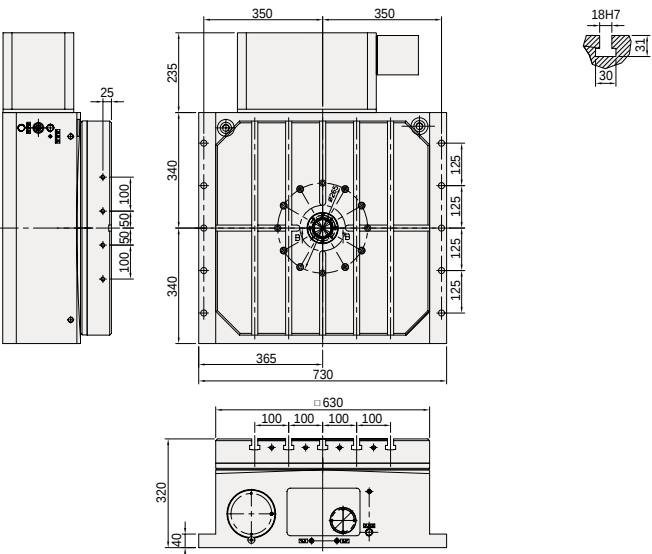
Unit: mm/inch

DIMENSIONAL DRAWINGS

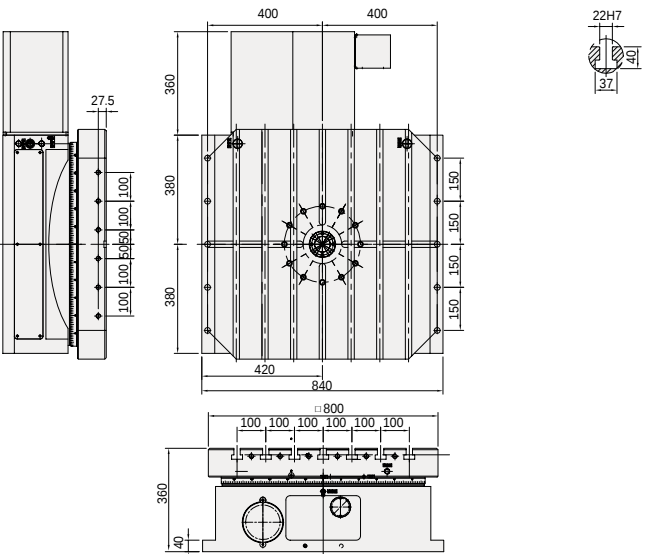
HH-500HT



HH-630HT



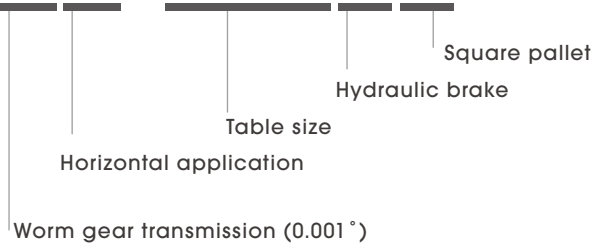
HH-800HT



Horizontal Rotary Table

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

GH - 500 HT



SPECIFICATIONS

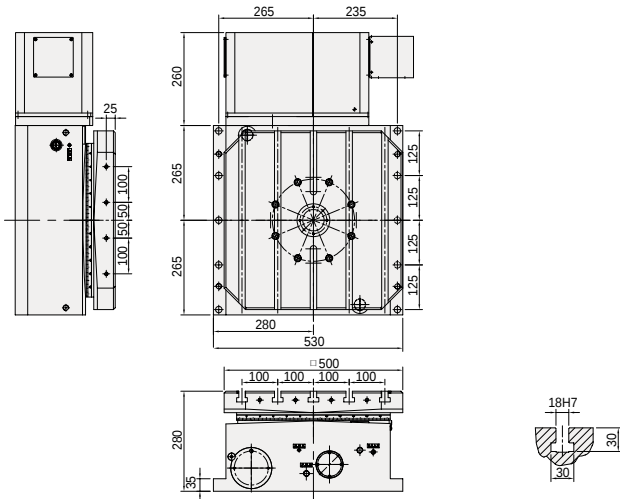
MODEL		Unit	GH-500HT	GH-630HT	GH-800HT
Table sizes	mm / inch		500 x 500 / 19.69 x 19.69	630 x 630 / 24.8 x 24.8	800 x 800 / 31.5 x 31.5
Center bore diameter	mm / inch		Ø50H7 / Ø1.97H7	Ø50H7 / Ø1.97H7	Ø50H7 / Ø1.97H7
Height	mm / inch		280 / 11.02	320 / 12.60	360 / 14.17
Wide of T-slot	mm / inch		18H7 / 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		α 12iF / β 22iS	α 22iF / β 22iS	α 22iF / β 22iS
	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

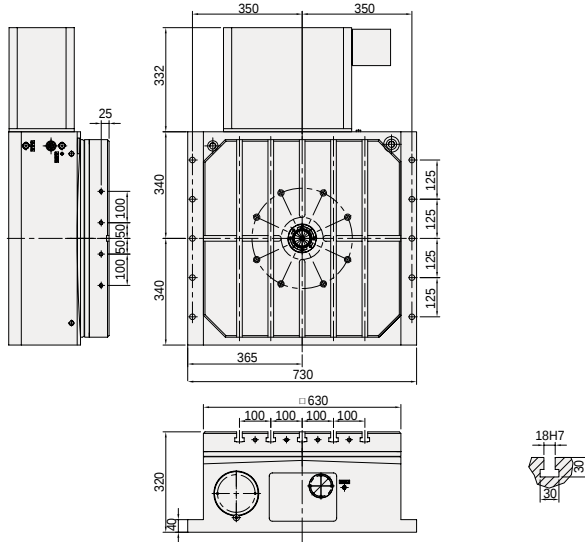
Unit: mm/inch

DIMENSIONAL DRAWINGS

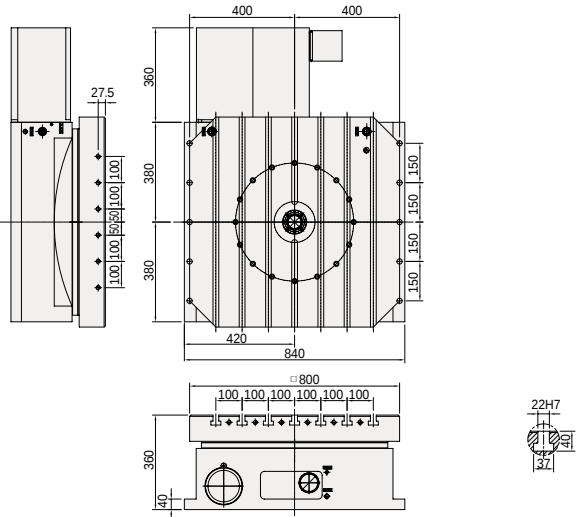
GH-500HT



GH-630HT



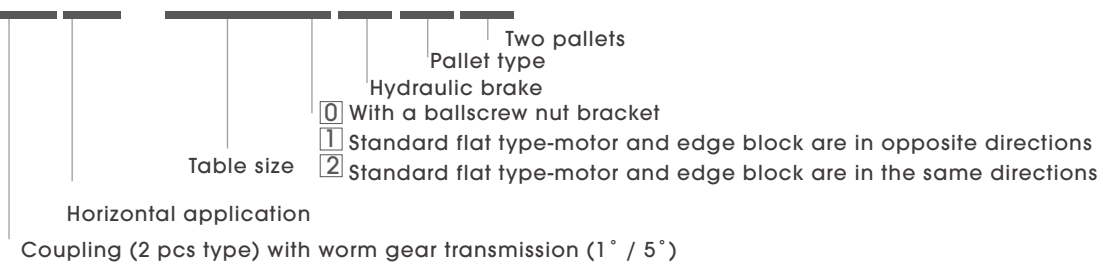
GH-800HT



Index Table with 2 Pallets for Horizontal Machining Center

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

HH - 501 HT 2



(customized)



(customized)

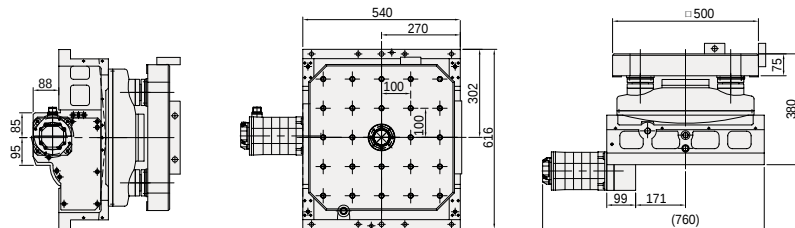
SPECIFICATIONS

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	α 8iF	α 12iF	α 22iF
	MITSUBISHI	HF-154	HF-204	HF-354
	SIEMENS	1FK7063	1FK7083	1FK7084
Allowable load (when table clamped)	 Nm / ft. lbs.	7450 / 5490.7	21700 / 15993	42550 / 31360
	 Nm / ft. lbs.	4300 / 3169	12600 / 9286.2	24600 / 18130
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

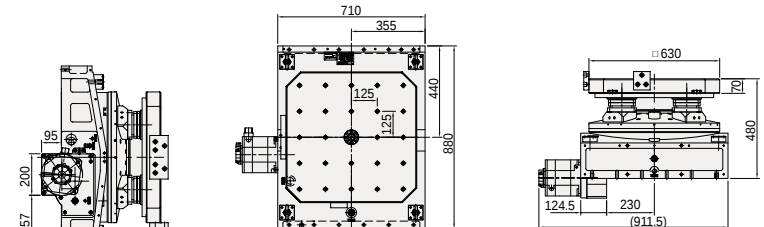
DIMENSIONAL DRAWINGS

Unit : mm

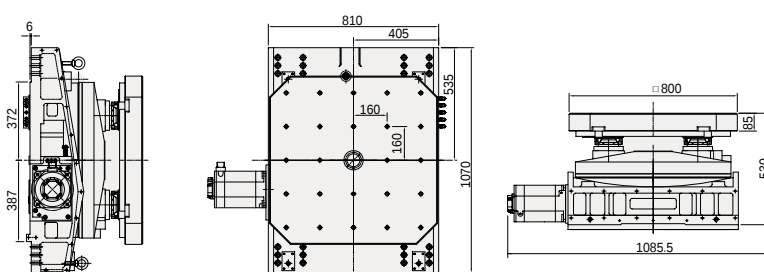
HH-501HT2



HH-631HT2



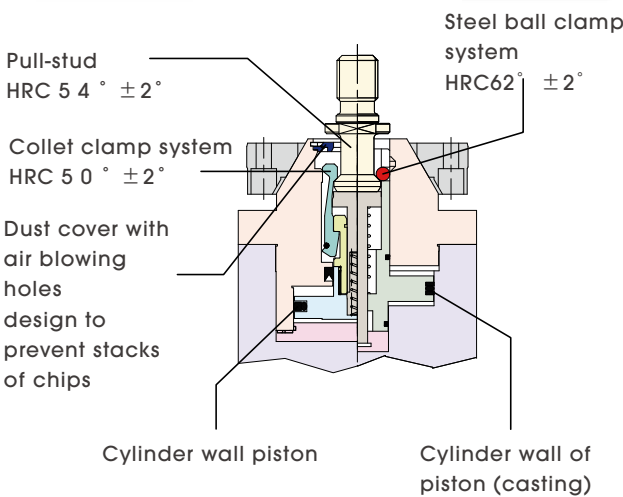
HH-800HT2



定位錐座

detron

others

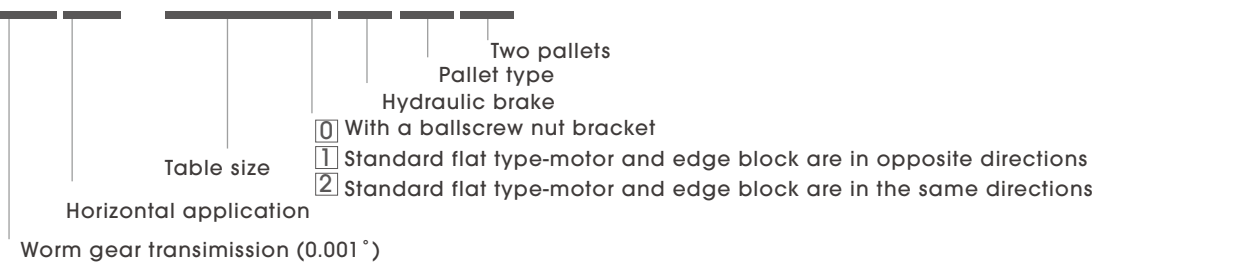


- A. Pull-stud Mechanism
Uses a collet clamp system to tighten the pull stud, therefore more uniform pressure exerted on the pull stud surface can be achieved during tightening. This ensures stable clamping force. (maximum pulling force 2800 kg).
- B. Piston Mechanism
With the integrated design of the 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.

Rotary Table with 2 Pallets
for Horizontal Machining
Center

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

GH - 5 0 1 HT 2



(customized)



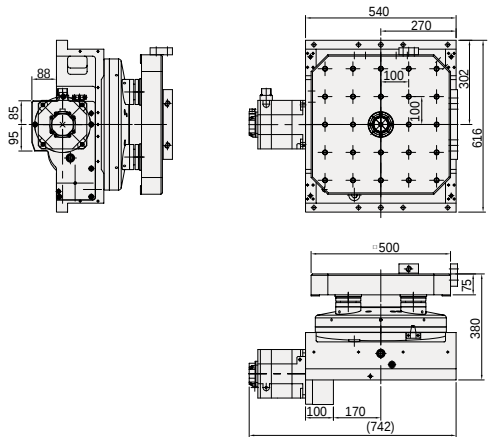
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SPECIFICATIONS

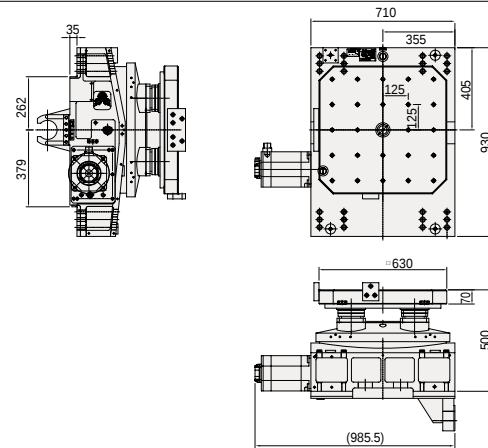
MODEL		Unit	GH-501HT2	GH-630/631HT2	GH-800HT2
Table sizes	mm / inch		500 x 500 / 19.69 x 19.69	630 x 630 / 24.8 x 24.8	800 x 800 / 31.5 x 31.5
Center bore diameter	mm / inch		Ø50H7 / Ø1.97H7	Ø30H7 / Ø1.18H7	Ø50H7 / Ø1.97H7
Height	mm / inch		380 / 14.96	500 / 19.69 480 / 18.9	530 / 20.87
Resolution			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		α 12iF	α 22iF	α 22iF
	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

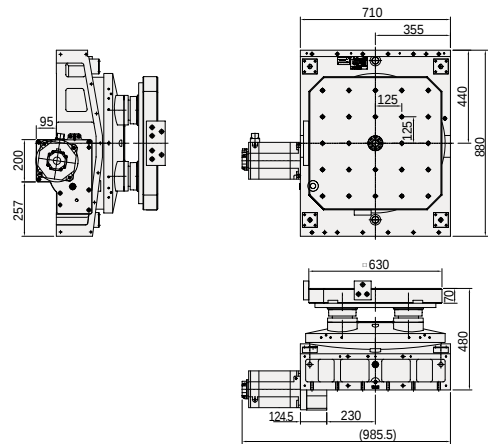
GH-501HT2



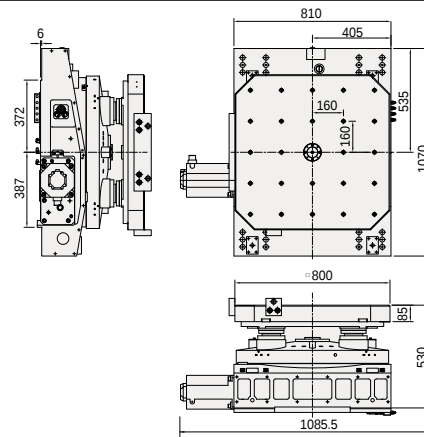
GH-630HT2



GH-631HT2



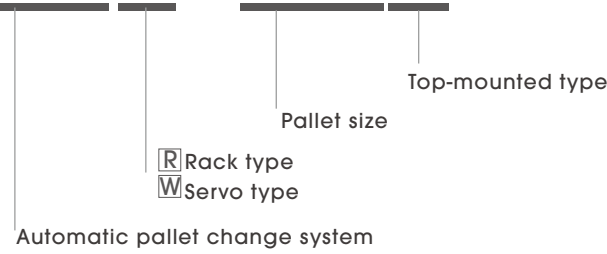
GH-800HT2



Fork Type

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

ACR - 630(T)



HH-500HT2+ACR-500



HH-630HT2+ACR-630



HH-502HT2+ACW-500



GH-631HT2+ACW-630

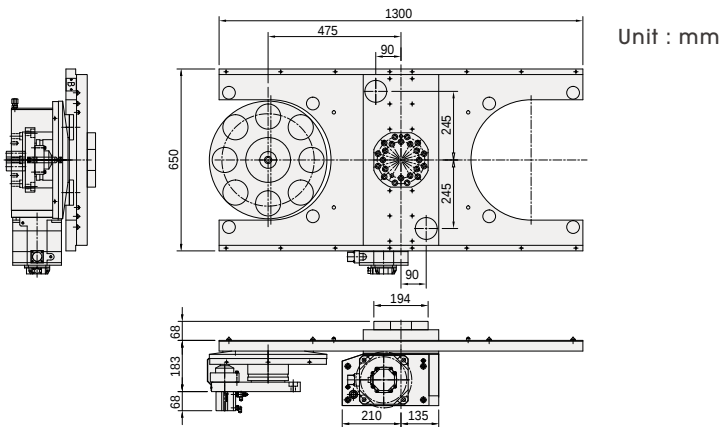


SPECIFICATIONS

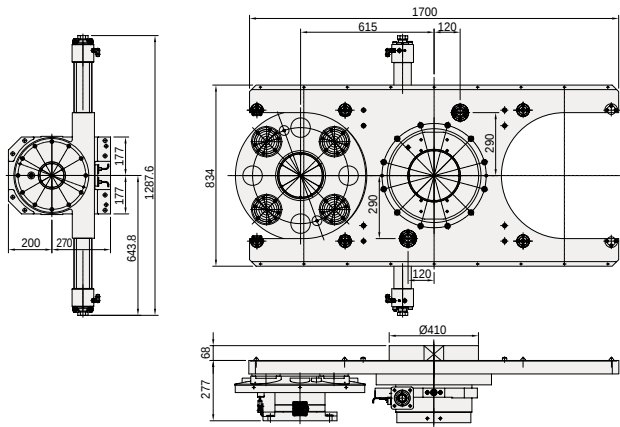
MODEL	Unit	ACR-500(T)/ACW-500	ACR-630/ACW-630	ACW-800
Table sizes	mm / inch	500 x 500 / 19.69 x 19.69	630 x 630 / 24.8 x 24.8	800 x 800 / 31.5 x 31.5
Number of pallets		2	2	2
Exchange method of pallet		Hydraulic Swing	Hydraulic Swing / Servo Motor (ABS) Swing	Servo Motor (ABS) Swing
Change degree of 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

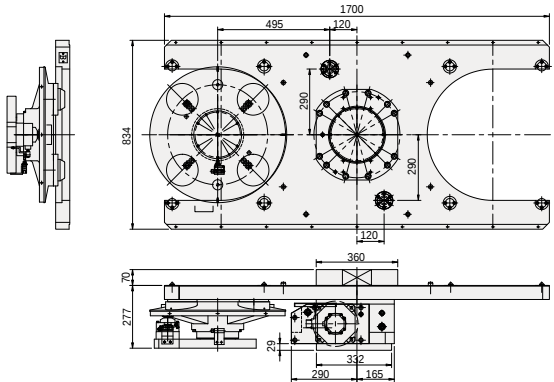
ACW-500



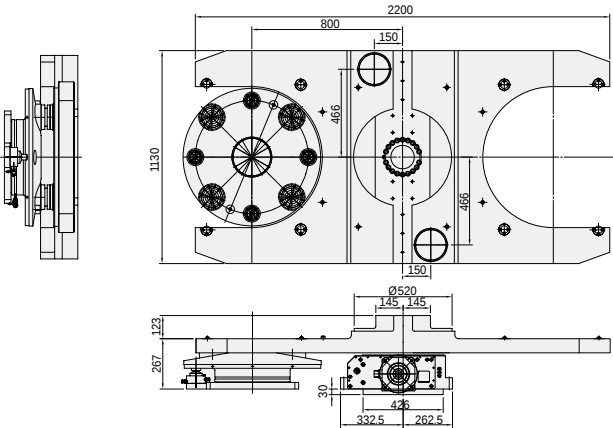
ACR-630



ACW-630

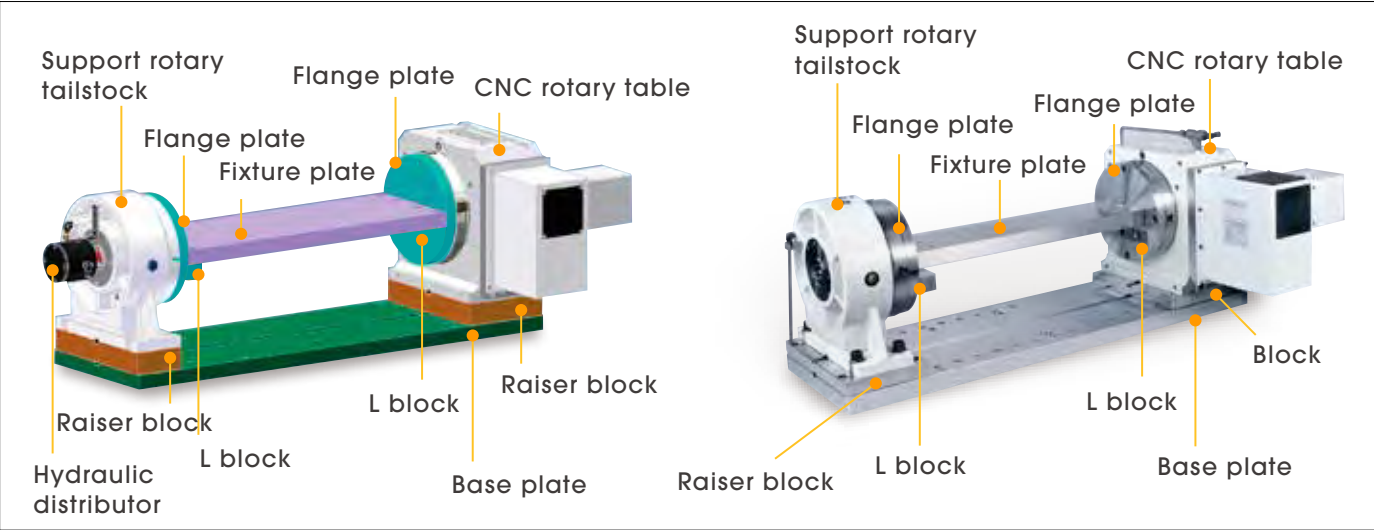


ACW-800

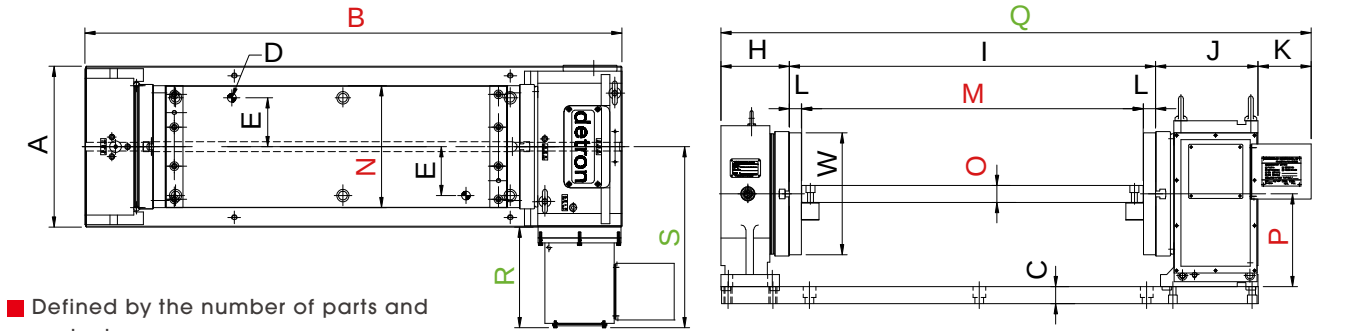


Fixture Plate and Accessories Illustration

CHUCK AND OTHER OPTIONS FOR CNC
ROTARY TABLE



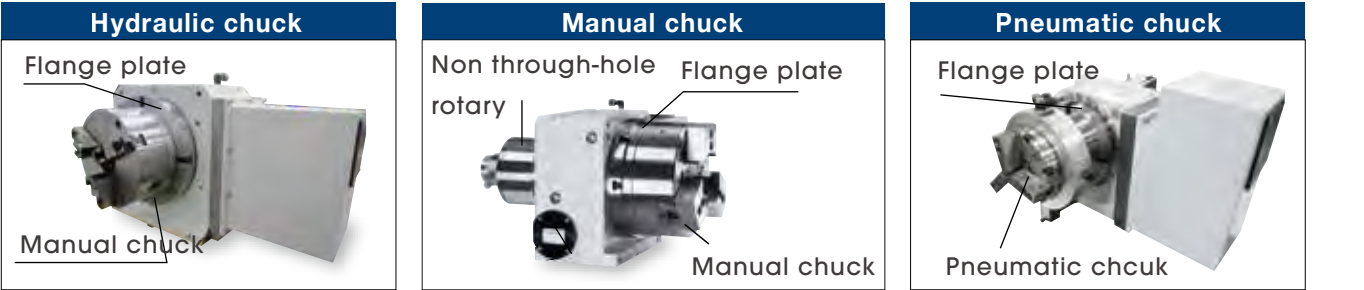
Suggested Dimension of Fixture and Base Plate



MODEL	Unit	GXA-125S	GXA-170S	GXA-210S	GXA-255H	GXA-320H	GXA-400H
X axis Travel of Applicable Machine							
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	2-Ø18 / 2-Ø0.71	2-Ø18 / 2-Ø0.71	2-Ø18 / 2-Ø0.71	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-10"		

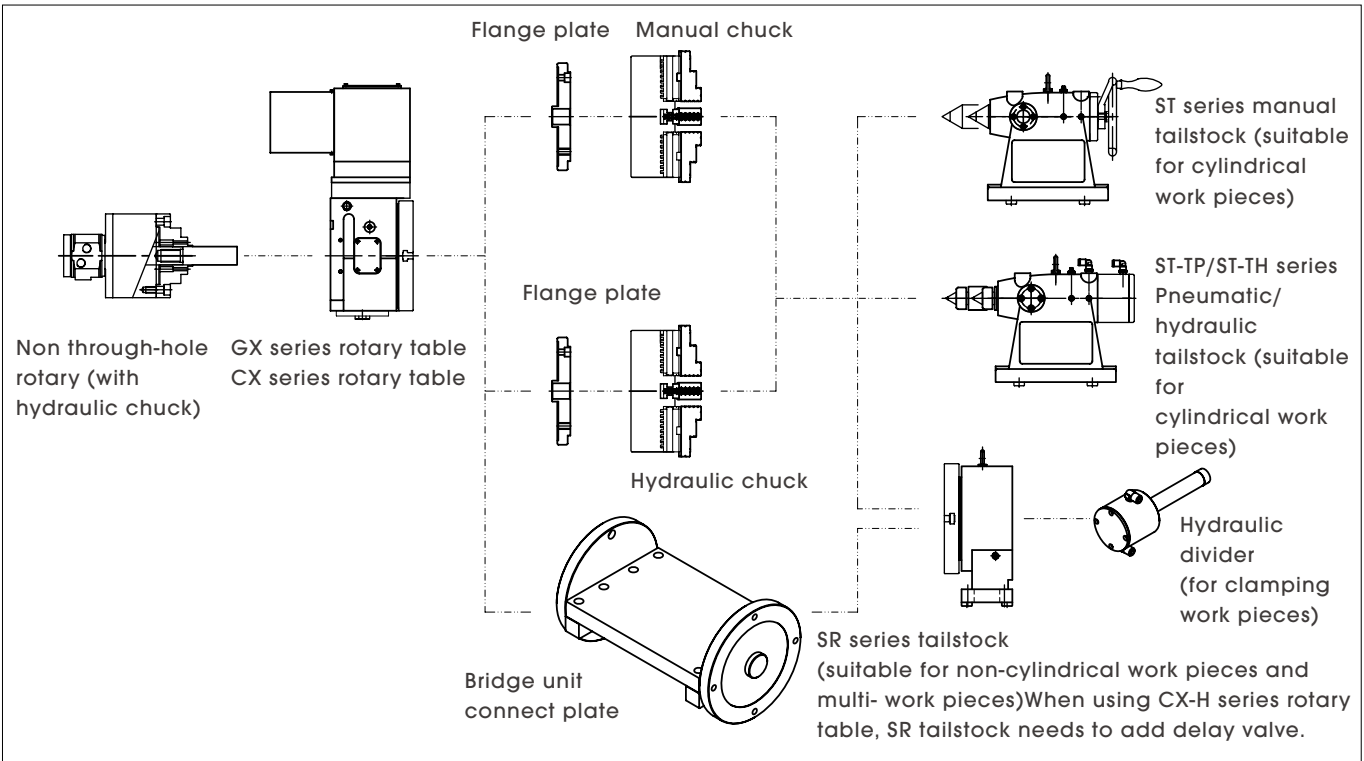
*Model in red is suggested

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 GX-H & CX-H, series rotary tables.
Recommended for application with hydraulic chuck or hydraulic fixture.

ABR-35 air booster unit

Use for GX-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.

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

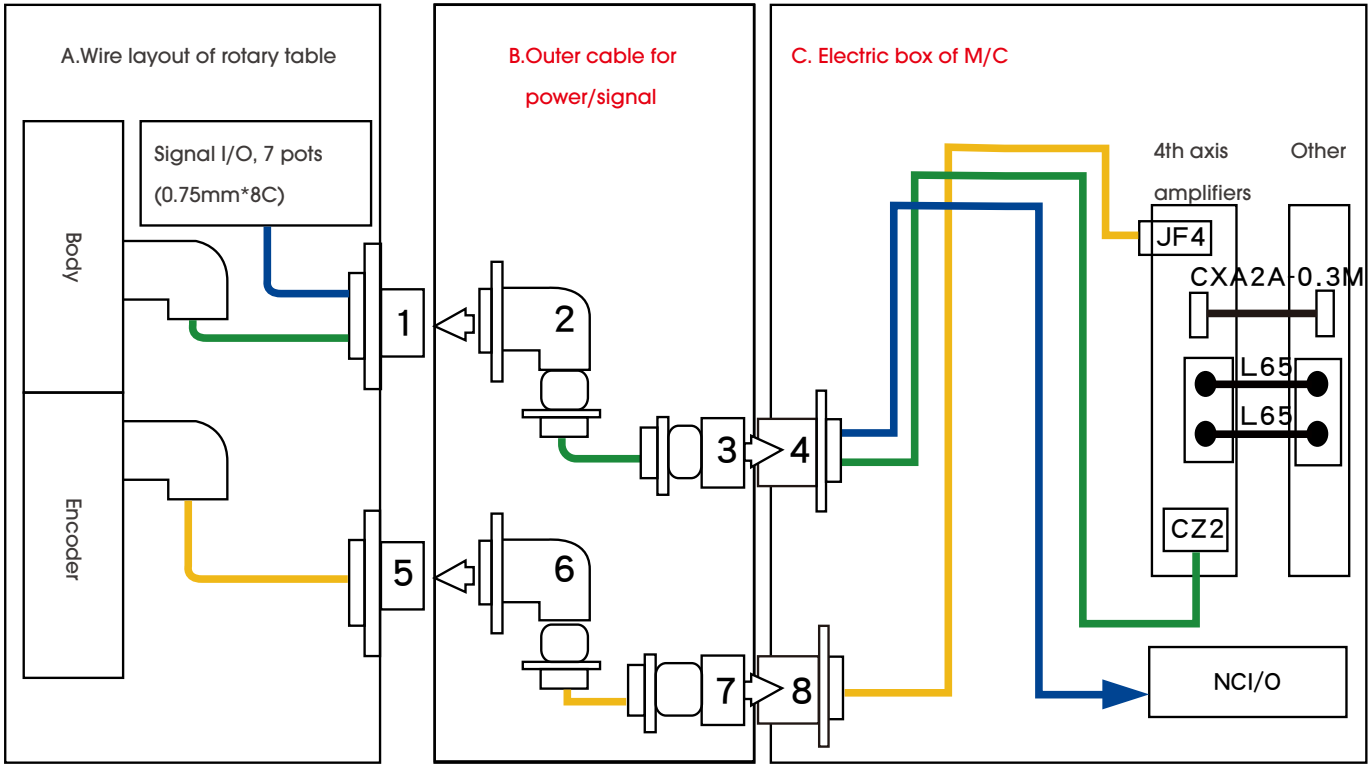
5th Axis												
Motor & NC system												
Axis	FANUC		MITSUBISHI		YASKAWA		SIEMENS		HEIDENHAIN		FAGOR	
	Rotary Axis	Tilting Axis	Rotary Axis	Tilting Axis	Rotary Axis	Tilting Axis	Rotary Axis	Tilting Axis	Rotary Axis	Tilting Axis	Rotary Axis	Tilting Axis
GF-101S	α2iF	α2iF	HF-105	HF-105	SGMJV08A 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	QSY-116E	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 sample to connect Japan NC



Standard military connector (Japanese CNC system)
Military connector is used for FANUC and Mitsubishi controls.



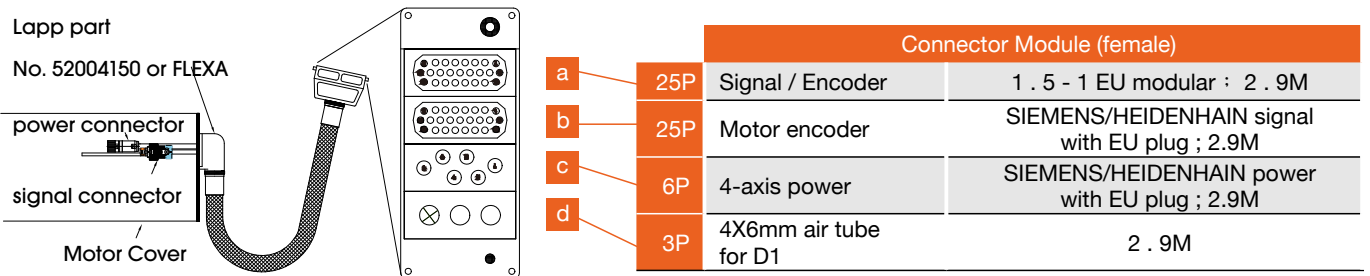
Cable spec. for JP NC

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
FANUC / 17Pin				
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

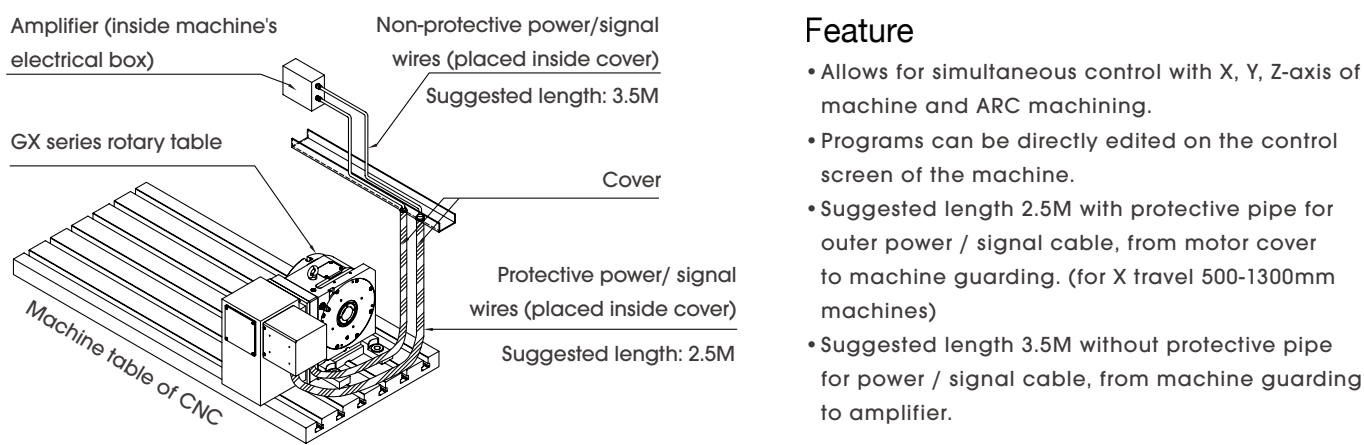


Adherent-type connector (European CNC system or with optical encoder)
One outlet-type connector is used for Siemens and Heidenhain controls.

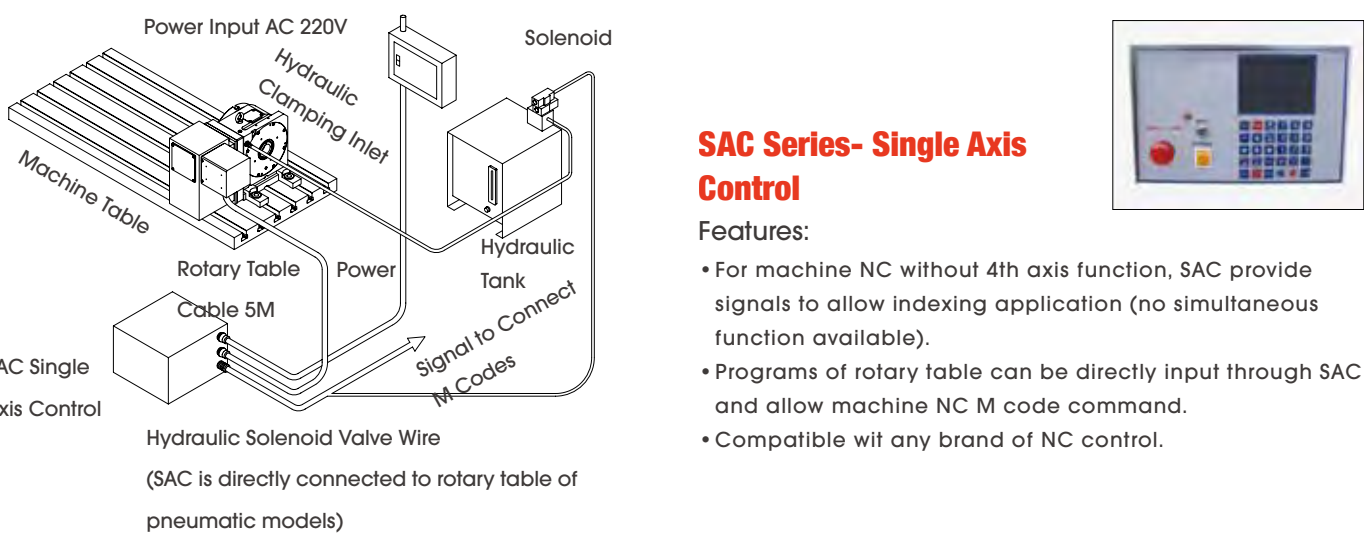


Guidance to Select Rotary Table

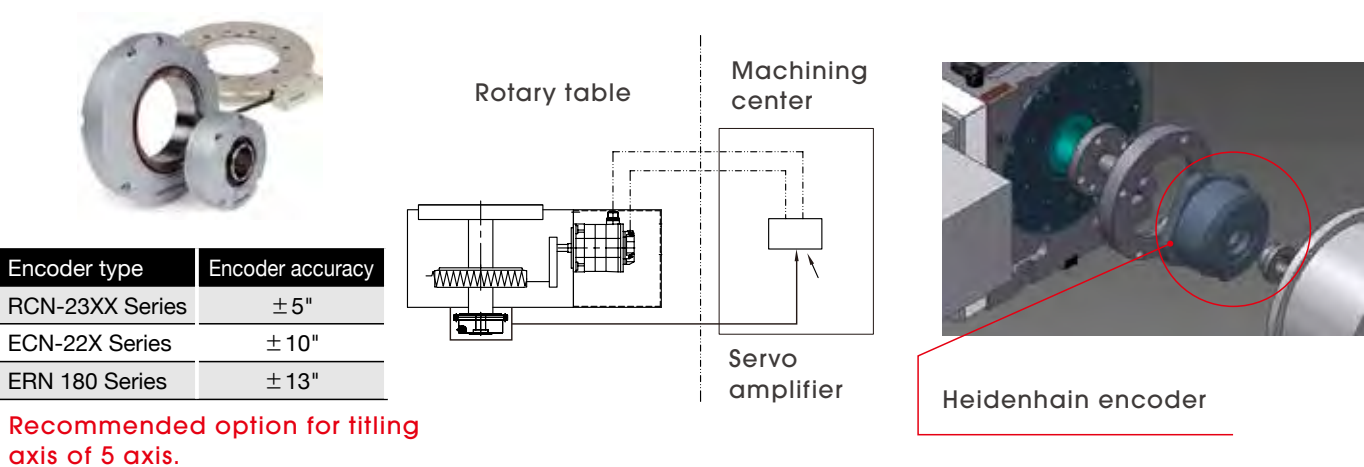
SCHEMATIC DIAGRAM OF ROTARY TABLE AND CNC MACHINE



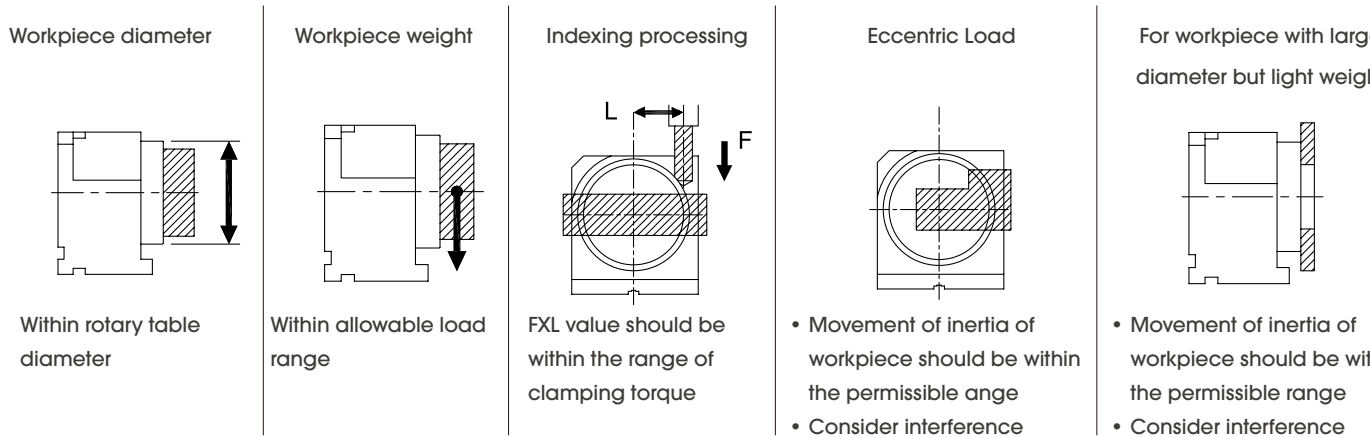
SCHEMATIC DIAGRAM OF ROTARY TABLE AND SINGLE AXIS CONTROLLER



SPECIFICATIONS OF HEIDENHAIN ENCODER



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

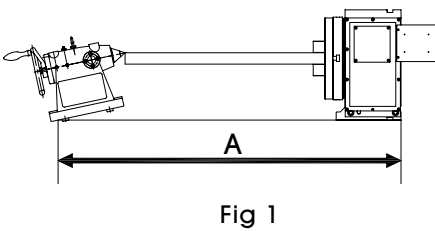


Interference Reminders

Please refer to right illustration:

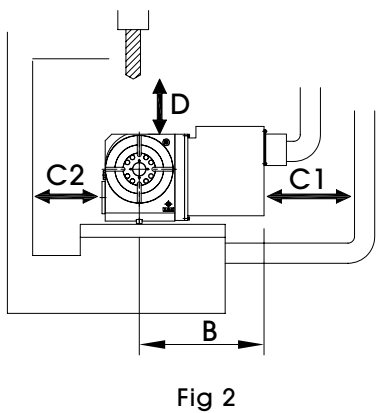
X axis (Fig 1)

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



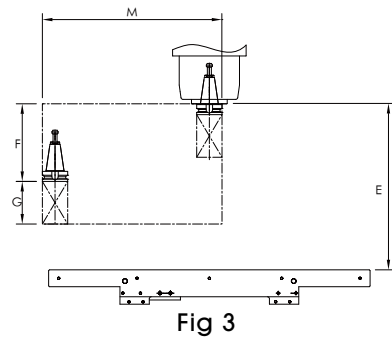
Y axis (Fig 2)

- 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.



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.



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 _____, ☐ pneumatic brake ☐ hydraulic brake	
Q4	Connector Cover	Rotary axis (4th axis) cable connector located at ☐ side ☐ back Tilting axis (5th axis) cable connector located at ☐ side ☐ back	Catalog P62_Fig. 5 & Fig. 6
Q5	Tailstock	☐ rotary tailstock, model _____ ☐ quill tailstock, model _____, ☐ standard quill taper MT3 ☐ optional quill taper MT4 Manual Switch Valve required for pneumatic or hydraulic quill tailstock: ☐ yes ☐ no	

STEP 2 _ NC Control

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

STEP 3 _ Peripheral Accessories

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