

Indexing Tables

Series - HC
HC-H



EXACT MACHINERY CO., LTD.



Available exclusively from:



INDEXING
TECHNOLOGIES INC.

WWW.INDEXINGTECHNOLOGIES.COM

Innovation.Quality.Professional

EXACT Machinery Co., Ltd.

is manufacturer, it develops and produces stable and quality goods with extremely precise CNC tilting table, Rotary table, indexing table, auto pallet changer (APC) and various kind of dividing systems for lots of demand in machine tools, metal working, high-tech and automotive industries along with sanitary equip-ment, modern bathroom facilities and domestic appliances all around the world for more than fifteen years.

Nowadays, **EXACT** Machinery is a professional worldwide supplier with a distribution network committed to complete customer satisfaction along with a strong solid technological R/D foundation. **EXACT** products are offering economical and accurate for position of equipment, inspection, machining parts and various applications with high efficiency.



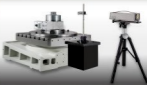
● Optical Auto-Collimator



● Surface Roughness Measuring Instrument

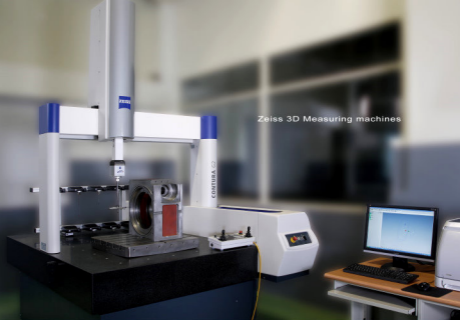


● Hardness tester instrument



● Agilent Laser Angular Position Measurement System

● Zeiss 3D measuring machine



HIGH ACCURACY

Dual Lead Worm Gear System with Servo driver

The dual lead worm is a one-piece unit that is more rugged and accurate than the conventional split worm gear used by many other builders and provides a smooth uninterrupted motion, easier adjustment for backlash and requires minimum maintenance. Table is driving by servomotor.



HEAVY DUTY CUTTING TOLERATION

Three Pieces of Hirth Coupling Gear clamping system and positioning

The positioning and accuracy are controlled by encoders from servo motors as well as a high precision three-pieces Hirth coupling. Material of Hirth coupling are processed with high treatment. The entire range incorporate a non-lifting table top, there are provided with high accuracy ± 4 arc second for standard frame, heavy-duty cutting, rigidity and durable.





● **HC**



● **HC-H**

We have designed several automation indexing tables for different purpose such as common type HC-R (RV) for both of vertical and horizontal used, horizontal type HC-H series for horizontal machine (table top with or without T-Slots), special purpose machine and so on.

There are some multi spindle types of Hirth coupling gear type indexing table by special request to speed up your work for more choices.

We also have a lot of HC-H Series with APC combination, The entire range of standard automatic indexing tables are driving by servomotor with incorporate a non-lifting tabletop positioned by a three-piece Hirth coupling, HC series is a great designed of indexing table and different than continue type of NCT Series, if you're required much high accuracy with heavy-duty cutting but without helix works, it should be your best working device definitely.



● Agilent Laser Angular Position Measurement System








HC

Non-lifting CNC Hydraulic coupling Gear Index Table

Motor driver with dual lead worm transmission
 Built-in 3 pcs Hirth coupling,
 each every 1 or 5 degrees indexing (72D or 360D)
 Hydraulic clamping system, Hydraulic Pressure = 35 kg/cm²
 It can be horizontal or vertical position.



Model		HC-200R(L)	HC-250R(L)	HC-320RV	HC-400RV	HC-500RV
Table Diameter	(mm)	ø200	ø250	ø320	ø400	ø500
Table Center Hole Diameter	(mm)	ø35 ^{H7}	ø55 ^{H7}	ø100 ^{H7}	ø120 ^{H7}	ø120 ^{H7}
Table Center Through Hole Diameter	(mm)	ø25	ø30	ø80	ø80	ø90
Horizontal Position Height	(mm)	200	200	240	265	300
Center Height of Vertical Position	(mm)	135	170	230	250	310
Table T-Slot Width	(mm)	12 ^{H7}	12 ^{H7}	14 ^{H7}	14 ^{H7}	18 ^{H7}
Standard guide block width	(mm)	18 ^{H7}	18 ^{H7}	18 ^{H7}	18 ^{H7}	18 ^{H7}
Hydraulic Pressure	(kg/cm ²)	35 by Hyd.	35 by Hyd.	35 by Hyd.	35 by Hyd.	35 by Hyd.
Table Division	(division)	72	72 360	72 360	72 360	72 360
Minimum input increment	(degree)	5	5 1	5 1	5 1	5 1
Total speed (Motor 2000rpm)	Rotation Speed (r.p.m.)	26.7	16.6	27.7	16.6	11.1
	Gear Ratio	1 / 75	1 / 120	1 / 72	1 / 120	1 / 180
Servo Motor (Optional)	FANUC	αIF4	αIF8	αIF12	αIF12	αIF12
	MITSUBISHI	HF-54T	HF-104T	HF-204S	HF-204S	HF-204S
	SIEMENS	1FK7060	1FK7063	1FK7083	1FK7083	1FK7083
Rotation torque	(kgf-m)	23	48	78	170	240
Indexing accuracy (accumulative)	(sec)	± 4"	± 4"	± 4"	± 4"	± 4"
Repetitive accuracy	(sec)	± 1"	± 1"	± 1"	± 1"	± 1"
Clamping Torque	F  (kgf)	1000	1500	2000	2500	3000
	F x L  (kgf-m)	250	300	400	500	600
	F x L  (kgf-m)	250	350	450	550	650
Load Capacity	0°  (kg)	250	300	350	500	600
	90°  (kg)	70	125	175	250	300
Weight	Net (kg)	76	110	220	300	450

* We reserve the right to make changes arising from constant product development without advance notice.

* The list of fitting servomotor, please refer to page 43.

⊙ Standard accessories

Block nuts	Hangers
⊙	⊙

* Optional accessories

DNS controller	Tailstock		3-jaw chuck with sub plate	Hydraulic unit
	Taper	Support		
* (p.38)	* (p.34)	* (p.36)	* (p.42)	* (p.42)

Guaranteed inspection accuracy

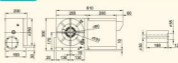


NO	Inspection items	HC-200	HC-250	HC-320	HC-400	HC-500
1	Concentricity of center hole	0.01	0.01	0.01	0.01	0.01
2	Perpendicularity of table with guide block	Per total table length		0.02	0.02	0.02
3	Height difference of both center lines of Rotary table and tailstock	Per 300 mm		0.02	0.02	0.02
4	Perpendicularity of table top to frame bottom	Per total table length		0.02	0.02	0.02
5	Table top flatness	Per total table length		0.015	0.015	0.015
6	Parallelism of table top to frame bottom	Per total table length		0.01	0.01	0.01
7	Parallelism between table surface and frame bottom	Per total table length		0.02	0.02	0.02

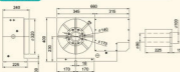
HC-200R



HC-250R



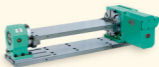
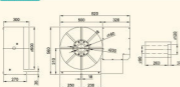
HC-320RV



HC-400RV



HC-500RV







HC-H

Non-lifting CNC Horizontal Hydraulic coupling Gear Index Table

Motor driver with dual lead worm transmission
 Built-in 3 pcs Hirth coupling,
 each every 1 or 5 degrees indexing (72D or 360D)
 Hydraulic clamping system, Hydraulic Pressure = 35 kg/cm²
 ※ Horizontal position only



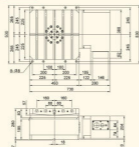
Model		HC-450H		HC-600H		HC-800H	
Table Plate size (LxW)		(mm) 450 x 450		600 x 600		800 x 800	
Table Center Hole Diameter		(mm) $\phi 50^{H7}$		$\phi 40^{H7}$		$\phi 60^{H7}$	
Table overall Height		(mm) 280		320		380	
Table T-Slot Width		(mm) 18 ^{H7}		20 ^{H7}		22 ^{H7}	
Standard guide block width		(mm) 18 ^{H7}		20 ^{H7}		20 ^{H7}	
Hydraulic Pressure		(kg/cm ²) 35 by Hyd.		35 by Hyd.		35 by Hyd.	
Table max. Division		(division) 72 360		72 360		72 360	
Minimum input increment		(degree) 5° 1°		5° 1°		5° 1°	
Total speed (Motor 2000rpm)	Rotation Speed (r.p.m.)	16.6		11.1		11.1	
	Gear Ratio	1 / 120		1 / 180		1 / 180	
Servo Motor (Optional)	FANUC	α iF12		α iF12		α iF22	
	MIITSUBISHI	HF-204S		HF-204S		HF-3S4S	
	SIEMENS	1FK70B3		1FK70B3		1FK7101	
Rotation torque		(kgf-m) 200		280		430	
Indexing accuracy (accumulative)		(sec) $\pm 4''$		$\pm 4''$		$\pm 4''$	
Repetitive accuracy		(sec) $\pm 1''$		$\pm 1''$		$\pm 1''$	
Clamping Torque	F  (kgf) (N)	3970 38500		6448 63000		9600 94000	
	F x L  (kg-m) (N-m)	1428 13990		1980 19400		4000 39200	
	F x H  (kg-m) (N-m)	550 5390		840 8232		1950 19110	
Load Capacity	ϕ  (kg)	1200		2500		4000	
Weight	Net (kg)	300		650		1000	

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 ※ The list of fitting servomotor, please refer to page 43.

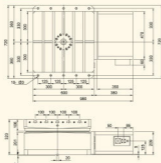
Guaranteed inspection accuracy

NO	Inspection Items		HC-450H	HC-600H	HC-800H
1	Concentricity of center hole		0.01	0.01	0.01
2	Table run out	mm	0.01	0.015	0.015
3	Table straightness	mm	0.015	0.02	0.02
4	Parallelism between plate and base	mm	0.015	0.02	0.02
5	Square of side reference plane	mm	0.015	0.02	0.02
6	T-Slot tolerance	mm	0.015	0.02	0.02

• HC-450H



• HC-600H



• HC-800H

