CNC Tilting Rotary Tables
Min. indexing angle –0.001°

Driven by Worm & Worm Gear

FHR Series

Dual-axis dual-arm type

(Hydraulic Brake)

FHR(s)-255C/255CL

FHR-320/320C

5 FEATURES

1. Both the tilting axis and rotary axis use large-diameter radial & axial bearings.
2. Because the tilting axis normally needs to bear heavy load, Japanese-made worm and worm gear are employed to improve wear resistance and precision of tilting axis. **standard component**
   (It's wear life is 2.6 times longer than aluminum bronze PBC3.)
3. The tilting, supporting, and rotary axis are all equipped with the hydraulic-brake mechanisms. (Employing three independent hydraulic drum-brake systems)
4. Max. tilting angle: ±110°
5. Anti-wear alloy steel worm gear is optional

Alloy steel worm gear
(Optional)

▲ FHR(s)-255C
(Cradle type)

▲ FHR-320
(Standard type)

▲ FHR(s)-255CL
(Extended cradle type)

▲ FHR-320C
(Cradle type)

▲ Workpiece sample – 5 axis simultaneous contouring

Item / Model		Unit	FHR(s)-255C / 255CL		FHR-320 (Standard type)		FHR-320C (Cradle type)	
Table Diameter		mm	Ø 255		Ø 320		Ø 320	
Diameter of Table Central Hole		mm	Ø 110		Ø 150		Ø 150	
Inner Diameter of Mandrel Sleeve		mm	Ø 80H7		Ø 120H7		Ø 120H7x30 deep	
Diameter of Center Through Hole		mm	Ø 80		Ø 120		Ø 80	
Table Height (Horizontal)		mm	290		355		310	
Table T-slot Width		mm	12H7		14H7		14H7	
Guide Block Width		mm	18h7		18h7		18h7	
Axis		-	Rotation	Tilt ±110°	Rotation	Tilt ±110°	Rotation	Tilt ±110°
Min. Increment		deg.	0.001	0.001	0.001	0.001	0.001	0.001
Indexing Precision (while tilt 0°~+90°)		sec.	15	60*1	15	50*1	15	60*1
Repeatability		sec.	6	8	6	8	6	8
Clamping System (Hydraulic)		kgf/cm²	35	35	35	35	35	35
Clamping Torque		kgf·m	70	140	115	175	70	175
Servo Motor Model	FANUC	Taper/Straight shaft	αiF4 / αiF8 / αis12 / βis8 (Taper)	αiF8/αis12/βis12(Taper)	αiF8 / αis12 / βis12(Taper)	αiF12 / βis22 (Straight)	αiF8 / αis12 / βis12 (Taper)	αiF12 / βis22 (Straight)
	MITSUBISHI	Straight shaft	HG/HF-104	HG/HF-154	HG/HF-104	HG/HF-204	HG/HF-104	HG/HF-204
Speed Reduction Ratio		-	1 : 120	1 : 120	1 : 120	1 : 120	1 : 120	1 : 120
Max. Rotation Rate of Table (Calculate with Fanuc α Motor)		r.p.m	**25 *(25)**	**16.6 *(11.1)**	**25**	**16.6**	**25**	**16.6**
Allowable Inertia Load Capacity (Horizontal)		kg.cm.sec²	8.13		25.6		25.6	
Allowable Workpiece Load	0° Horizontal	kg	100		200		200	
	0°~90° Tilt	kg	75		150		100	
Allowable Thrust Load (with Rotary Table Clamping)	F	kgf	1500		1800		1800	
	FxL	kgf·m	140		175		175	
	FxL	kgf·m	70		115		70	
Driving Torque (Rotary axis)		kgf·m	55 *(31)		80		55	
Net Weight (servo motor excluded)		kg	296(Ø255C) / 312(Ø255CL)		470		489	

★ *( ) Alloy Steel worm & gear series
★ *1. Indexing precision can be better after installing an additional angle encoder. Please refer to the table on page 70 for more details.

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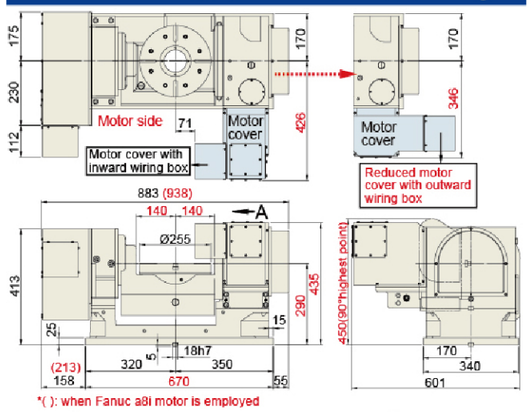
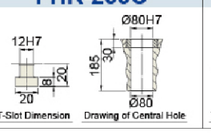
FHR(s)-255C (Cradle type)

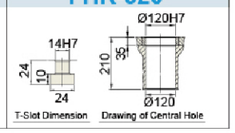


4-port rotary joint can be accommodated.

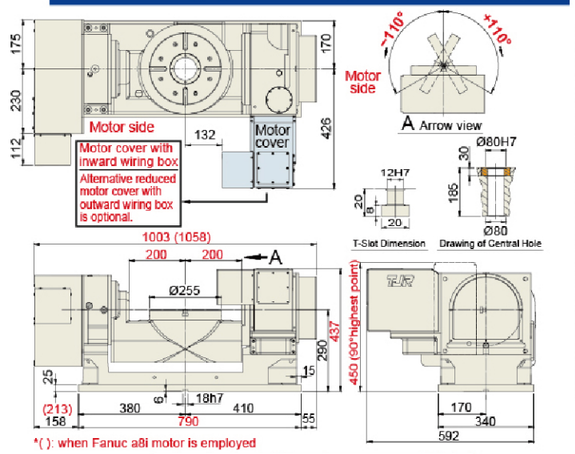
FHR-255C



FHR-320

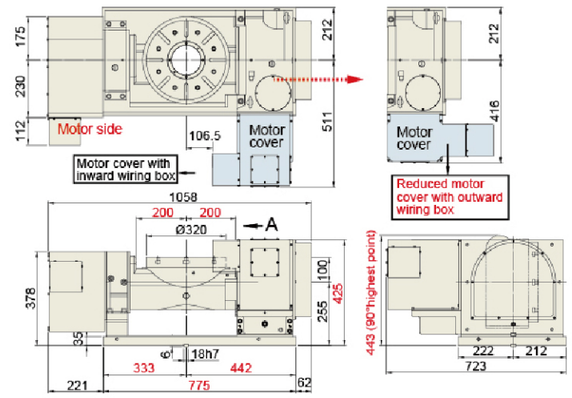


FHR(s)-255CL (Extended cradle type)



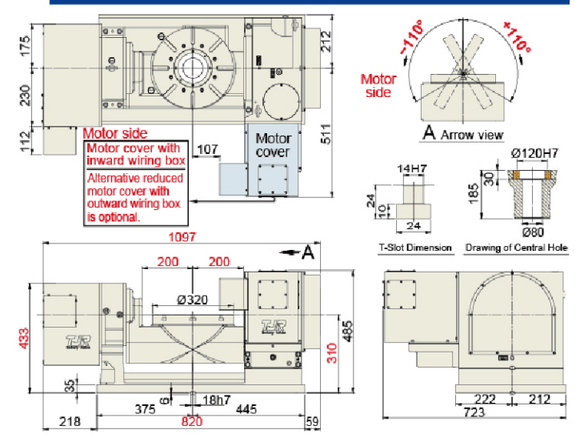
4-port rotary joint can be accommodated.

FHR(s)-320 (Standard type)



6-port rotary joint can be accommodated.

FHR(s)-320C (Cradle type)



4-port rotary joint can be accommodated.

★ In accordance with the foreign trade control ordinance, permission of the ministry of economy, trade and industry is required when exporting dual-axis products overseas.