



The Features of Roller Drive system

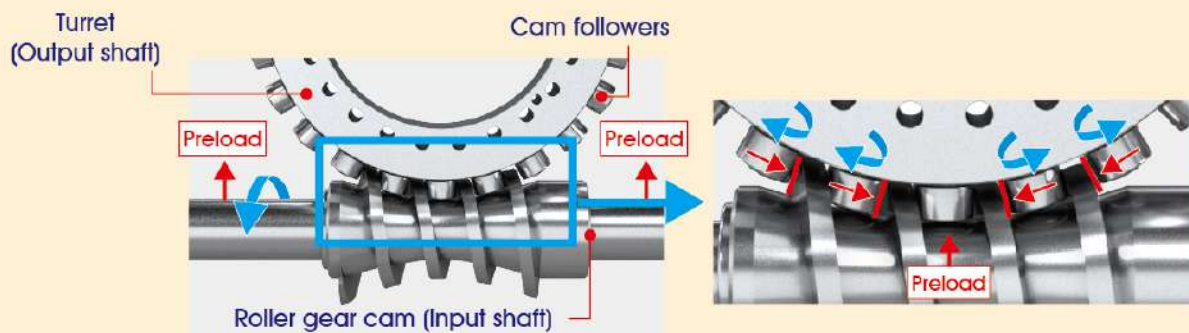


- 01 Zero backlash
- 02 Wear-free durability
- 03 High productivity
due to lower speed reduction ratio
- 04 High torque capacity
- 05 Low Maintenance



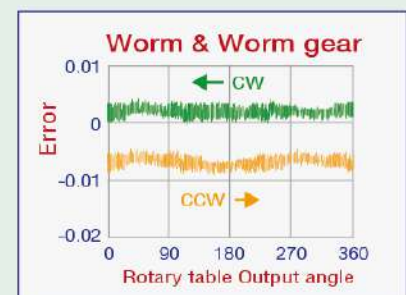
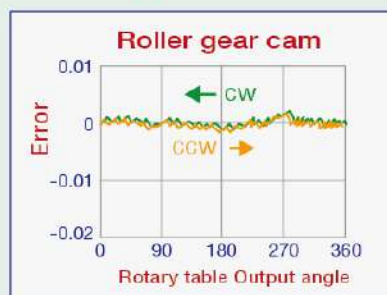
■ The Core of TJR RC Series Roller-Drive CNC Rotary Table Exclusive : Zero-Backlash Mechanism

By preloading the input and output shafts beforehand, the four cam followers can be always kept in contact with the cam surface, which eliminates backlash completely and provides high rigidity. TJR RC series roller gear cam rotary table with proprietary adjustment ensures the optimum preload. The cam followers planted in the turret employ internal roller bearings which can transmit the motor torque efficiently while rotating. Besides, the cam followers can be rotated at low torque for a long term. without wear and adjustment.



■ High accurate continuous cutting

Backlash can be eliminated with preloading the cam followers. Even machining with the turning direction in reverse will not adversely affect the machining surface.



Roller Gear Cam RC Series

Product lineup

RC Heavy duty & versatile model (Left / Right)



Table face plate

- Ø170
- Ø210
- Ø255
- Ø320
- Ø400



Select Accessories

R
Right hand

Right Side Motor

N
Right hand

Right Side Motor with sheet metal cover reduction

Use radial & axial bearings

L
Left hand

Left Side Motor

Support Table → Trunnion application with RC-170R and a Support Table.

Tailstock Scroll Chuck Adapter

Rotary Joint → A rotary joint with at least 6 port is available for RC series.

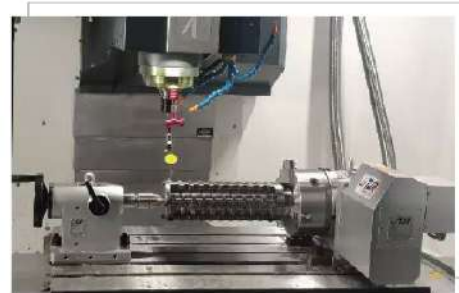
Applications

	<ul style="list-style-type: none"> ◆ Automotive parts High-speed positioning which reduces non-cutting time.
	<ul style="list-style-type: none"> ◆ Cutting Tool Grinding Precision improved by continuous zero backlash machining.
	<ul style="list-style-type: none"> ◆ Molding parts High speed & accurate continuous cutting.
	<ul style="list-style-type: none"> ◆ Turbine blade Fast-accelerated driven machining.

Example



▲ RC-170R + RTA-170



▲ RC-210R + TTJ-210

Roller Gear Cam RC Series

Specifications



Air brake



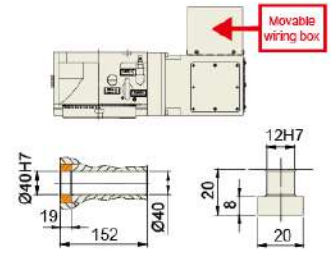
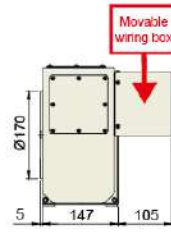
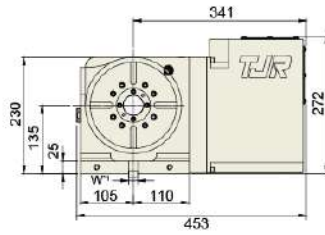
Oil brake

Item / Code No.	Unit	RC-170R	RC-210R/L	RC-255R/N	RC-320R/N/L	RC-400R/N	
Table Diameter	mm	Ø170	Ø210	Ø255	Ø320	Ø400	
Diameter of Table Central Hole	mm	Ø67	Ø67	Ø110	Ø150	Ø150	
Inner Diameter of Mandrel Sleeve	mm	Ø40H7	Ø40H7	Ø80H7	Ø120H7	Ø120H7	
Diameter of Center Through Hole	mm	Ø40	Ø40	Ø80 Big Bore	Ø120 Big Bore	Ø120 Big Bore	
Center Height (Vertical)	mm	135	160	160	210	255	
Table Height (Horizontal)	mm	152	152	200	235	250	
Table T-slot Width	mm	12H7	12H7	12H7	14H7	14H7	
Guide Block Width	mm	18h7	18h7	18h7	18h7	18h7	
Min. Increment	deg.	0.001	0.001	0.001	0.001	0.001	
Indexing Precision	sec.	30	30	20	20	20	
Repeatability	sec.	8	8	6	6	6	
Clamping System (Pneumatic / Hydraulic)	kgf/cm ²	Pne.6	Pne.6 / Hyd.35	Hyd.35	Hyd.35	Hyd.35	
Clamping Torque	kgf-m	31	31 / 50	70	115	200	
Servo Motor Model	FANUC	Taper shaft	aiF8 / βis8	aiF8 / βis8	aiF8 / βis12 (Taper)	aiF12 / βis22 (Straight)	aiF12 / βis22 (Straight)
	MITSUBISHI	Taper/Straight shaft	HG/HF-54 / 104	HG/HF-54 / 104	HG/HF-154	HG/HF-204	HG/HF-204 (Straight)
	SIEMENS	Straight shaft	1FK7063	1FK7063	1FK7063	1FK7083	1FK7083
	HEIDENHAIN	Straight shaft	QSY-116C	QSY-116C	QSY-116E / QSY-130C	QSY-155B	QSY-155B
Speed Reduction Ratio	-	1 : 36	1 : 36	1 : 60	1 : 90	1 : 90	
Max. Rotation Rate of Table (Calculate with FANUC αMotor)	r.p.m	83.3	83.3	50	33.3	33.3	
Allowable Inertia Load Capacity (Horizontal)	kg·cm·sec ²	5.4	8.3	16.3	44.8	100	
Allowable Workpiece Load (dynamic)	Vertical	kg	75	75	100	150	200
	with Tailstock	kg	150	150	250	350	500
	Horizontal	kg	150	150	250	350	500
Allowable Load (with clamping)	F	kgf	1450	1450	2000	3000	4000
	FxL	kgf-m	110	110	150	300	400
	FxL	kgf-m	31	31 / 50	70	115	200
Driving Torque	kgf-m	14	14	35	56	73.5	
Net Weight (Servo motor excluded)	kg	44	52	110	187	-	

Code No.	Motor Mounting Location	Diagram	VERTICAL	HORIZONTAL
R	Right Mount		✓	✓
L	Left Mount		✓	✓
N	Right Mount with sheet metal cover reduction		✓	✗

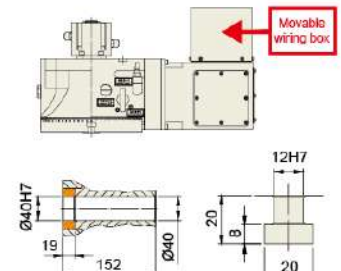
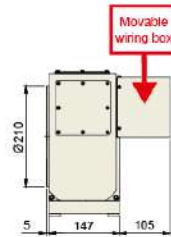
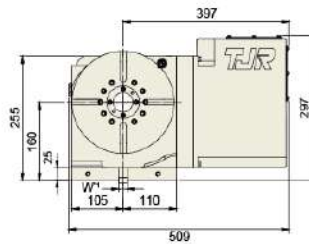
Roller Gear Cam RC Series

RC-170 **R** Right hand



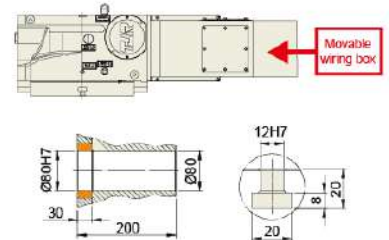
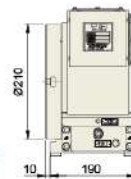
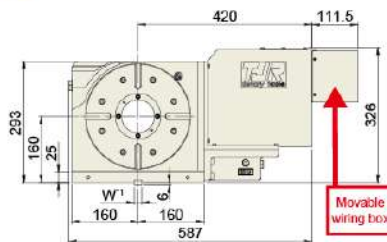
Drawing of Central Hole T-slot Dimension

RC-210 **R** Right hand **L** Left hand



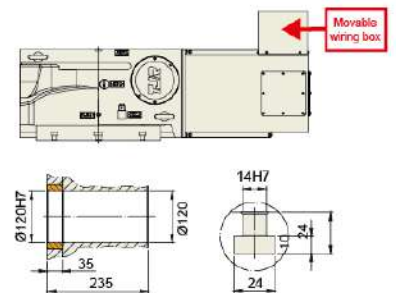
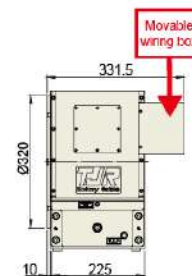
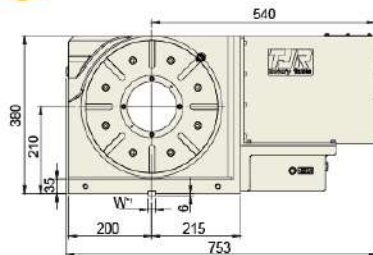
Drawing of Central Hole T-slot Dimension

RC-255 **R** Right hand **N** Right hand



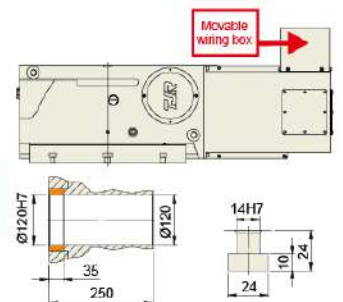
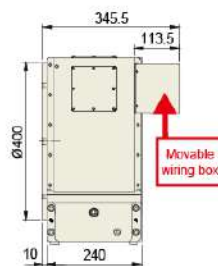
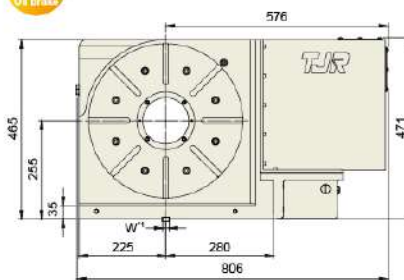
Drawing of Central Hole T-Slot Dimension

RC-320 **R** Right hand **N** Right hand **L** Left hand



Drawing of Central Hole T-Slot Dimension

RC-400 **R** Right hand **N** Right hand



Drawing of Central Hole T-Slot Dimension

*1 : The Guide Key size can be changed based on the T-slot of work table.

* Air purge function is provided inside the motor cover as standard.

* External dimensions depend on the type of the servo motor. Indicated dimensions are in case of FANUC. Please contact us for CAD files.