



SANKYO
SEISAKUSHO CO.

RollerDrive
CNC

RCC

CNC ROTARY TABLE

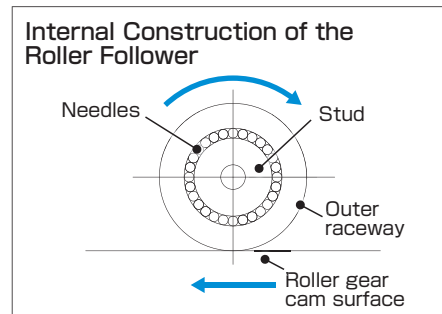
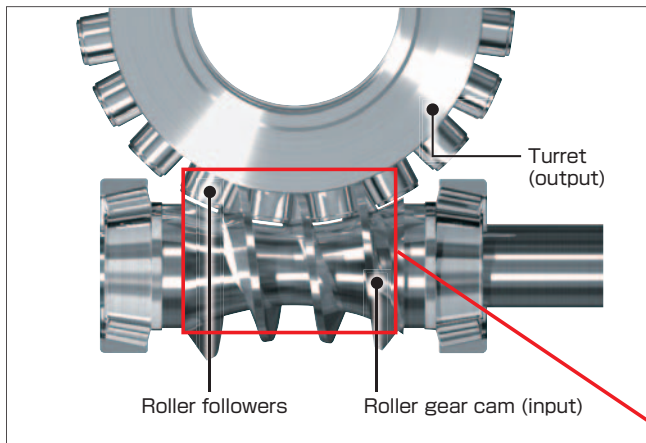
RollerDrive CNC™

RCC series

90-degree index in 0.4 seconds



Exclusive Zero Backlash Structure

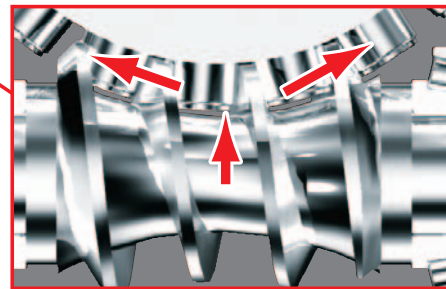


Features

Rolling contact **Preload**

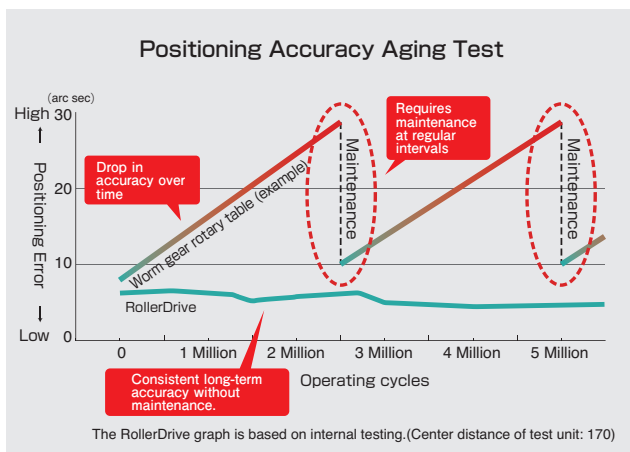
- No backlash (play).
- Power transferred by rolling contact eliminates wear.
- High accuracy and good efficiency.
- Preloadable for high rigidity.

Preload mechanism



Low Maintenance and Excellent Price Performance

Consistent Long-term Accuracy without Backlash Adjustment.



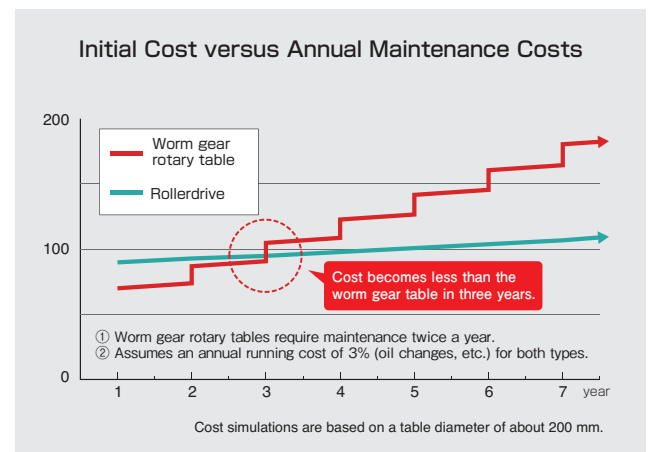
Worm gear models

Accuracy declines over time. Requires maintenance to achieve initial accuracy.

The RollerDrive

Accuracy is consistent with no maintenance even after 5 million operation cycles.
(Requires regular oil changes)

Cost Comparison with a Worm Gear Rotary Table Offers Long-term Use Low Maintenance



Worm gear models

Maintenance costs occur once or twice a year to adjust the backlash.

RollerDrive

Long-term use is possible without any mechanical maintenance.

Beats the cost of a worm gear even after adding annual running costs to the initial investment cost. Price performance continues thereafter.

Based on internal calculations.

Specifications RCC series

Specifications

Specifications		RCC170	RCC200	RCC250	RCC320	RCC400
Table diameter	mm	φ170	φ200	φ250	φ320	φ400
Table reference bore diameter	mm	φ65 ^{+0.03} ₀	φ75 ^{+0.03} ₀	φ110 ^{+0.035} ₀	φ165 ^{+0.04} ₀	φ200 ^{+0.046} ₀
Center height	mm	150	165	210	255	300
Gear ratio		1/60	1/60	1/60	1/60	1/60
Maximum table speed ^{※1, ※2}	min ⁻¹	75	75	75	50	50
Indexing accuracy	arc.sec	±15	±10	±10	±10	±10
Repeatability	arc.sec	8	4	4	4	4
Net. weight	kg	70	100	170	280	410

※1 Depends on which motor is mounted.

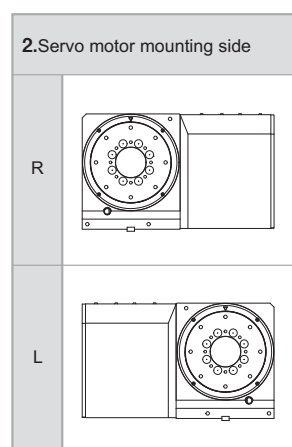
Load capacity			RCC170	RCC200	RCC250	RCC320	RCC400
Allowable payload	Upright position	kg	80	100	120	180	250
	Horizontal position	kg	160	200	250	350	500
Allowable load	Allowable axial load	N	12740	15789	37420	56000	74220
	Continuous holding torque ^{※2}	N·m	168	286	528	768	1368
	Maximum output torque ^{※2}	N·m	287	524	1003	1481	2675
	Allowable bending moment	N·m	598	948	2210	3550	8135
Allowable inertia moment ^{※2}		kg·m ²	0.6	1.2	2	4.5	10

※2 Maximum table speed and holding torque values are given for a FANUC motor. Contact Sankyo if you wish to use a different motor.

Options	RCC170	RCC200	RCC250	RCC320	RCC400
Hydraulic clamber (N·m/6MPa)	350	450	990	1200	2600
Built-in rotary joint (number of ports)	6	6	6	6	6
External rotary joint (number of ports)	6+1	6+1	8+1	8+1	8+1
Output rotary encoder	RON/RCN200 (HEIDENHAIN)	RON/RCN200 (HEIDENHAIN)	RON/RCN200 (HEIDENHAIN)	RON/RCN200 (HEIDENHAIN)	RON/RCN200 (HEIDENHAIN)

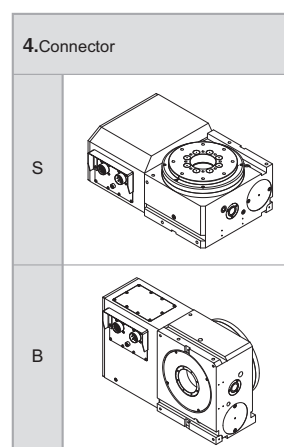
Product Code

¹ RCC200	-	² L	³ C	⁴ B	⁵ 1	-	⁶ E	⁷ C	⁸ J
1 Model		2 Servo motor mounting side	3 Servo Motor	4 Connector	5 Table		6 Encoder	7 Option	8 Rotary joint
RCC170 RCC200 RCC250 RCC320 RCC400		R L	A B C X	S B	1 (See Dimensions diagrams)		E	C	J:Built-in H:External



3.Servo Motor

	Manufacture
A	FANUC
B	MITSUBISHI
C	SANYO
D	—
E	—
X	Ask Sankyo for mounting other motors



Wiring Specifications

Pin Assignments

Power Connector

Pin No.	Signal	Use
A	U	Motor power
B	V	
C	W	
D	GND	Brake power
E	BK	
F	BK	

Encoder Connector

FANUC	
Pin No.	Signal
A	—
B	—
C	—
D	—
E	—
F	RD
G	※RD
H	SHD
J	+5V
K	+5V
L	—
M	—
N	0V
P	—
R	+6V
S	—
T	0V

MITSUBISHI	
Pin No.	Signal
A	SD
B	SD※
C	RQ
D	RQ※
E	P5(+5V)
F	LG
G	—
H	—
J	—
K	—
L	BT
M	SHD
N	—
P	—
R	—
S	—
T	—

SANYO	
Pin No.	Signal
A	+5V
B	SG
C	ES+
D	ES—
E	BAT+
F	BAT—
G	GND
H	—
J	—
K	—
L	—
M	—
N	—
P	—
R	—
S	—
T	—

Connector Model Number

■ Power Connector
(RCC170/200/250)
N/M3102A20-15P
(RCC320/400)
N/M3102A24-10P

■ Encoder Connector (for all models)
(RCC170/200/250)
N/M3102A20-29P

Cable

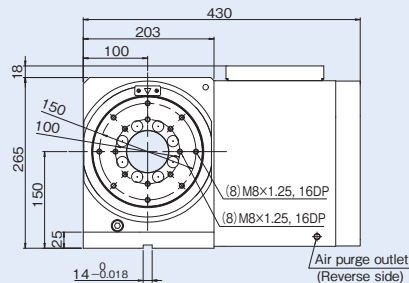
1	CN	-	2	200	-	3	P	4	S	5	F	6	A	7	3
1	—		2	Model		3	Power/Encoder	4	Connection	5	Flexible conduit	6	Connection	7	Length
	CN			170 200 250 320 400			P: Power cable E: Encoder cable		S: Straight A: Angle (connector on RCC)		F: With N: Without		S: Straight A: Angle (connector on amplifier)		3:3m 5:5m X: (Special) specify length in meters

Connector Model Number

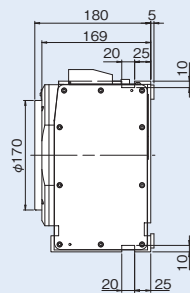
Use	Model	Connector Model No. (on RCC)	Connector Model No. (on customer's equipment)
Power connector model	RCC170/200/250	Straight N/MS3106B20-15S	Straight N/MS3106B20-15P
		Angle N/MS3108B20-15S	Angle N/MS3108B20-15P
	RCC320/400	Straight N/MS3106B24-10S	Straight N/MS3106B24-10S
		Angle N/MS3108B24-10S	Angle N/MS3108B24-10S
Encoder connector model	RCC170/200/250 320/400	Straight N/MS3106B20-29S	Straight N/MS3106B20-29P
		Angle N/MS3108B20-29S	Angle N/MS3108B20-29P

Dimensions

RCC170



Connector code S



Connector code B

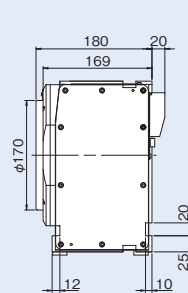


Table center bore

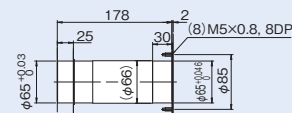
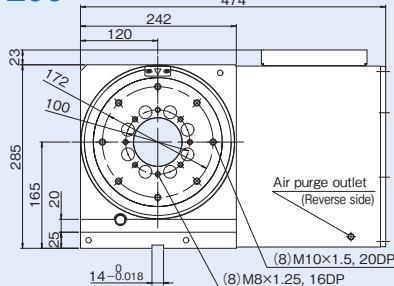
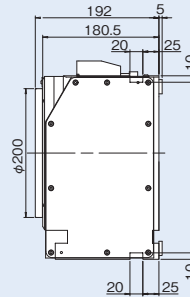


Figure-1

RCC200



Connector code S



Connector code B

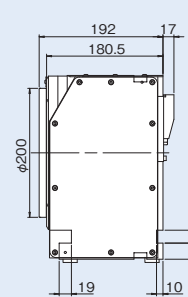


Table center bore

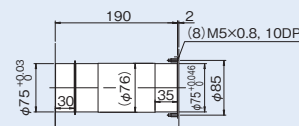
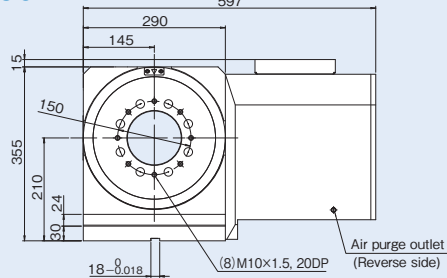
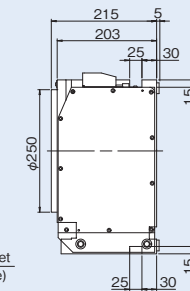


Figure-2

RCC250



Connector code S



Connector code B

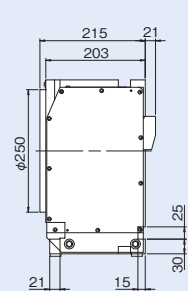


Table center bore

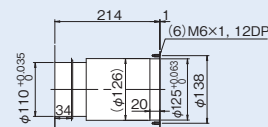
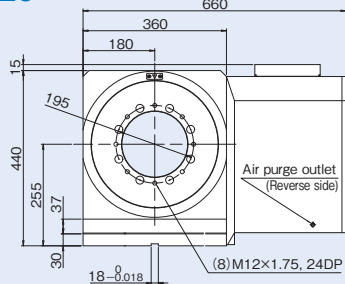
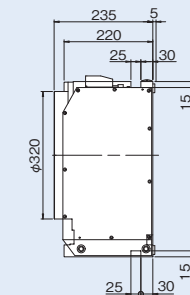


Figure-3

RCC320



Connector code S



Connector code B

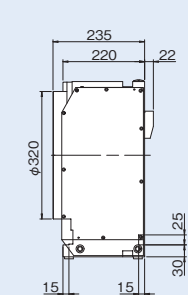


Table center bore

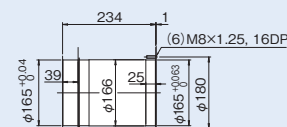
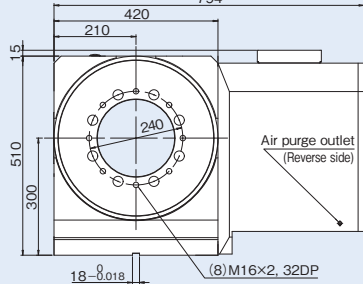
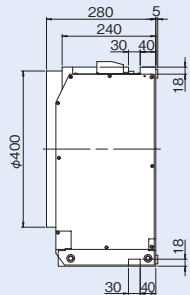


Figure-4

RCC400



Connector code S



Connector code B

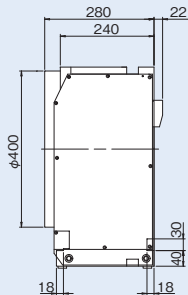


Table center bore

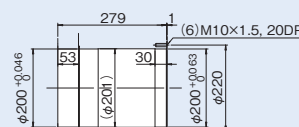
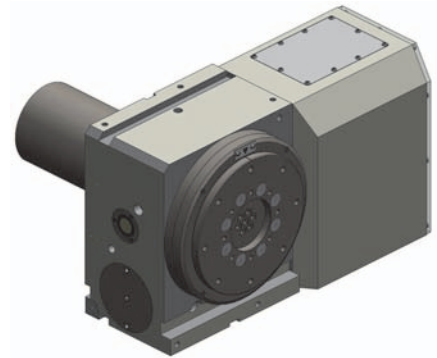


Figure-5

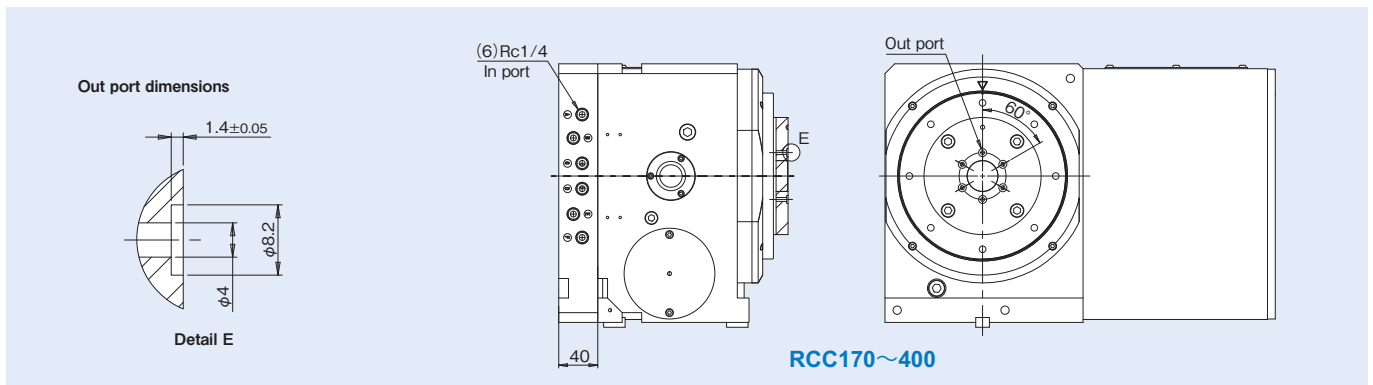
Rotary Joints

Model/size	RCC170	RCC200	RCC250	RCC320	RCC400
Built-in	6	6	6	6	6
External	6+1	6+1	8+1	8+1	8+1
Maximum actuation pressure	Actuation fluid: Hydraulic pressure 6MPa Actuation fluid: Air 0.7MPa				

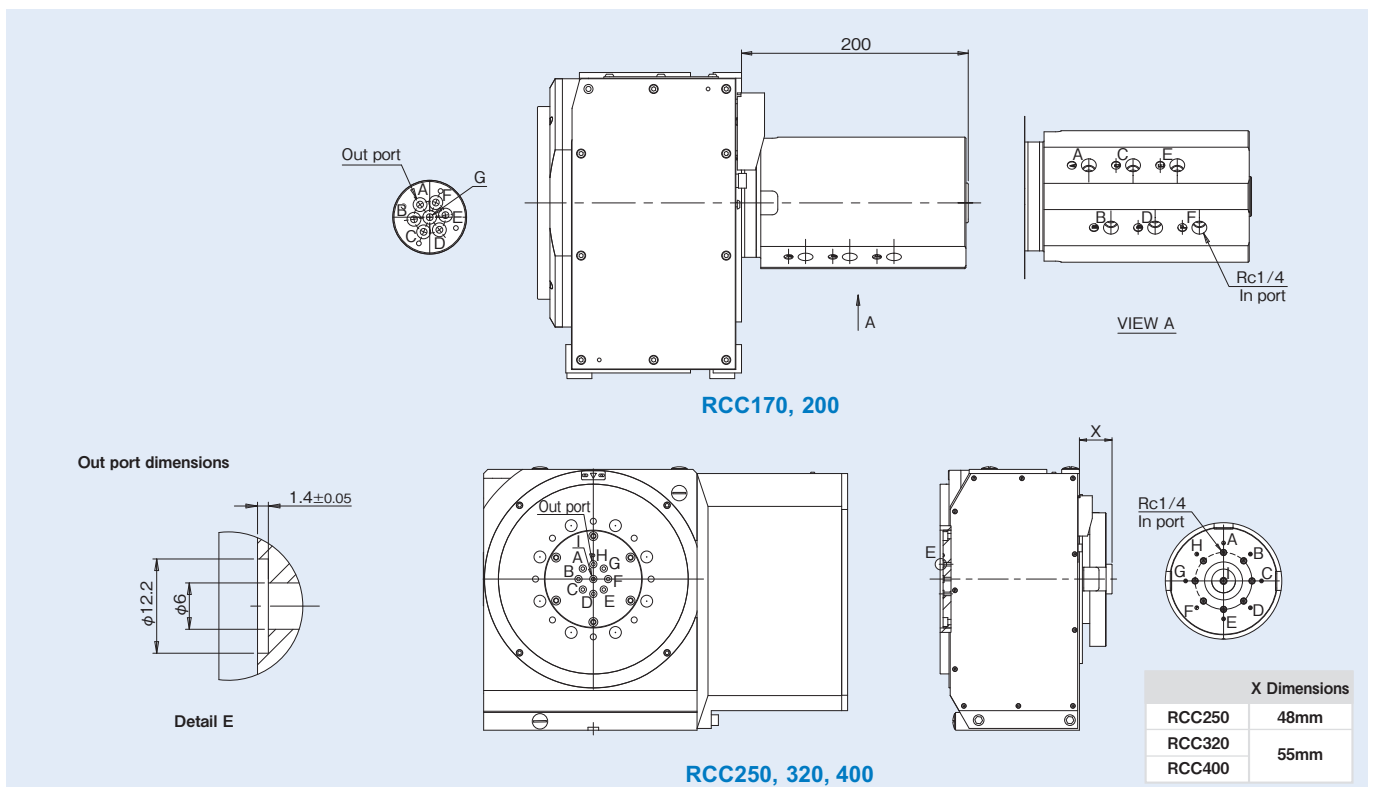


- ※1 The +1 indicates port in the center bore.
 ※2 Make sure to furnish a line filter in the air supply line.
 ※3 Under prolonged used, a small amount of actuation oil may leak from the oil port toward the adjacent air port. If possible, the adjacent ports should be left open for use as drain ports.

Built-in



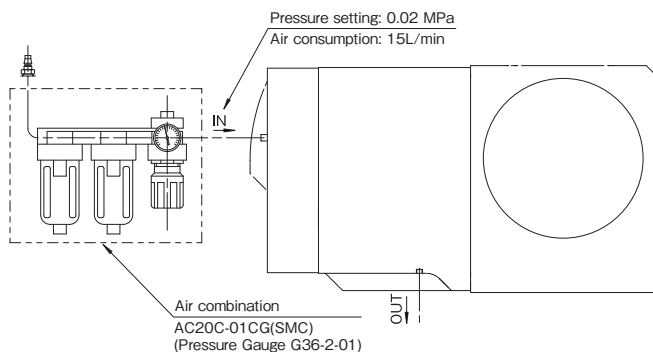
External



Precautions / Service Network

Notes on Air Supply

■Sankyo's CNC Circular Table comes standard equipped with an air purge outlet. (Use it to blow out condensation and coolant to prolong the life of electrical parts and prevent rust in the motor housing.) Supply clean air for the air purge by referring to the drawing shown below.



Lubrication

■Sankyo's CNC Circular Table uses an oil bath to protect the internal mechanisms and maintain reliability. Refill and perform oil changes regularly using the oil listed in the instruction manual.

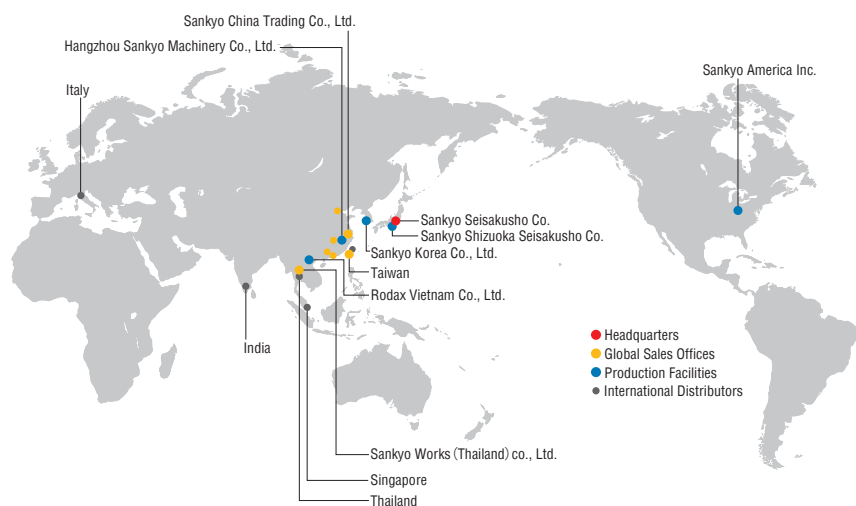
Grinding Machine Applications

■When used in grinding machines, the seal device on the outer periphery of our table may become damaged. The warranty does not cover any such damage.

Maximum Rotation Speed

■The maximum rotation speed for the table given in the specifications refers to the indexing speed. Consult with Sankyo if the table is to be rotated continuously. Otherwise, the table will heat up and lose accuracy, causing overload alarms with the servomotor.

Global network



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