



Please use the questions with TJR catalog clarify your needs. After receipt of answers, TJR can find the best rotary table and accessories to meet your requirements.

Q1 Select The Transmission Mechanism



*Not every size of the rotary table can have all kinds of transmission mechanisms

Transmission Mechanism	Worm & Worm Gear			Roller Gear Cam	Direct Drive Motor
Material	<input type="checkbox"/> Aluminum Bronze	<input type="checkbox"/> Special high tensile brass	<input type="checkbox"/> Ion nitrided alloy steel	<input type="checkbox"/>	<input type="checkbox"/> FANUC
Compact Footprint	-	-	-	-	★★★★
Zero Backlash	-	-	-	★★★★	★★★★
Anti-Wear	★	★★	★★★	★★★★	★★★★
Maintenance	★	★	★	★★	★★★★
Rotary Speed	★	★	★	★★	★★★★
Indexing Precision / Repeatability	★★	★★	★★	★★	★★★★
Loading capacity	★★★	★★★	★★★	★★★	★★
Driving Torque (without Brake)	★★★	★★★	★★	★★	★
Popularity	★★★	★★★	★★★	★★	★
	★★★★ Excellent			★★ Good	★ Neutral

The sales of different mechanisms by five major industry sectors

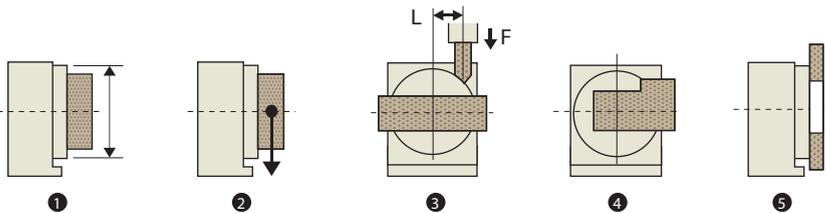


Q2 Select Faceplate Diameter



$\phi 125$ $\phi 170$ $\phi 210$ $\phi 255$ $\phi 320$ $\phi 400$ $\phi 500$ $\phi 630$ $\phi 800$ (Unit:mm)

Depending on the workpiece and cutting conditions as below.



- 1 Workpiece diameter : Within the rotary table diameter.
- 2 Workpiece weight : Should not be bigger than allowable load as specified.
- 3 Workpiece positioning : The value of $(F \times L)$ should be within the torque force.
- 4 When an eccentric load is applied : The workpiece inertia should be within the allowable value.
- 5 Workpiece of larger diameter, but lighter weight : The workpiece must not interface with the machine tool.

Q3 Determine to Servo System



Additional Axis (the 4th or 5th axis) installed in the machine tool control.

Independent Controller (M-signal) used.

1. When the simultaneous machining with X/Y/Z axis is required.
2. Rotary table programming is input at the machine tool control.

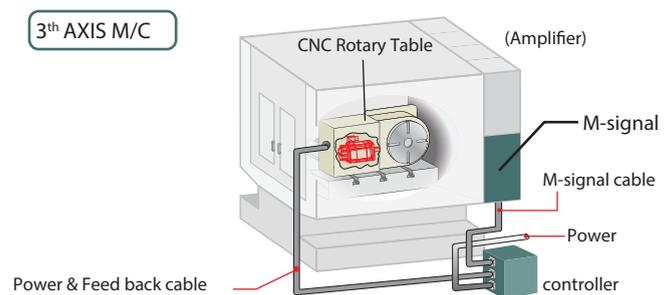
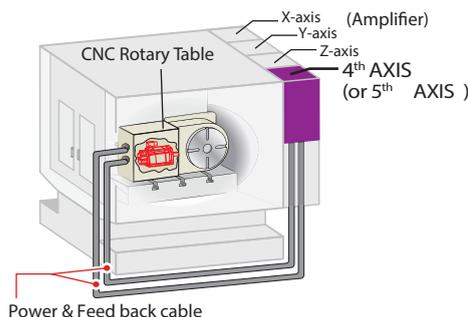
1. When the compatible servo amplifier for the 4th or 5th axis is NOT available.
2. Rotary table programming should be input directly into the independent control.

4th (or 5th) AXIS M/C

3th AXIS M/C

Control System Brand

- FANUC
- MITSUBISHI
- SIEMENS
- HEIDENHAIN
- Others



Q4

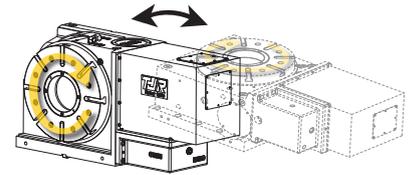
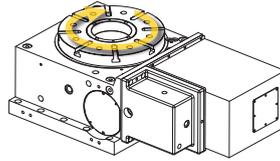
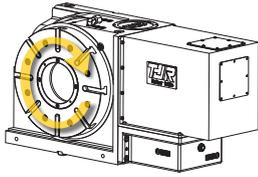
Determine Table Positioning



Vertical

Horizontal

Both



Q5

Select Servo Motor Location to Avoid Any Interference

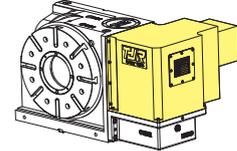
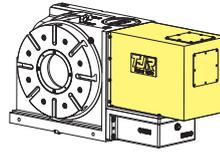
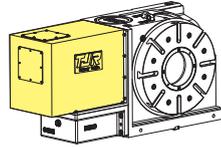
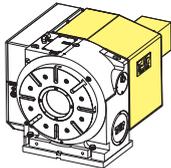


Back Mount

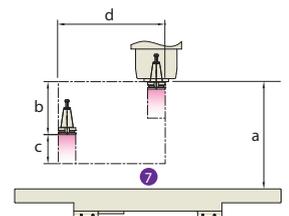
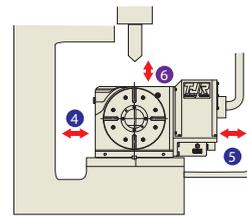
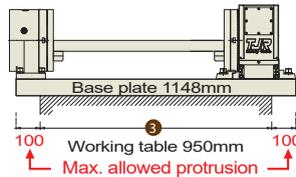
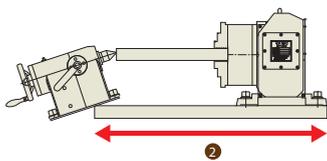
Left Mount

Right Mount

Right Mount with sheetmetal cover reduction
Compact front but for vertical positioning only.



Ensure there is no interference among rotary table, workpiece, and machine tool.



Weight ① Check if the combined weight of the workpiece and rotary table remains within the allowable load of the machine.

X axis ② Check if the workpiece length can stay within the worktable length.

③ Check if the max. allowed protrusion of base plate is less than 100mm at both ends.

Y axis ④ Check if there is no interference with the column?

⑤ Check if there is no interference with a splash guard?

Z axis

⑥ Check if the effective stroke on the Z-axis acceptable?

⑦ Check if there is no interference with ATC?

a : The distance between the spindle nose and working table.

b : The stroke for tool change.

c : The allowable tool length.

d : The swing while tool changes.

Q6

Determine Support Table or Tailstock

(Choose all that apply)

None

Support Table

- No Brake
- Pneumatic
- Hydraulic



Related Optional Accessories

Disk L Block



Middle Plate



Base Plate



When the shape of workpiece is odd or more than 2 workpieces need to be machined at once.



Manual Tailstock

- Manual
- Pneumatic
- Hydraulic



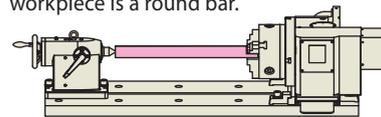
Related Optional Accessories

Scroll Chuck



Flange Disk Manual Chuck

When the shape of workpiece is a round bar.



Q7

Select Accessories

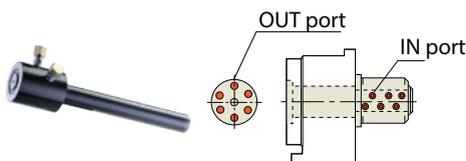
(Choose all that apply)

None

Rotary Joint

Rotary Encoder

Air Hydraulic Booster



For clamping hydraulic-brake rotary tables by using compressed air.

