Rotary joint

model WRA66

model WRB8

model WRA6

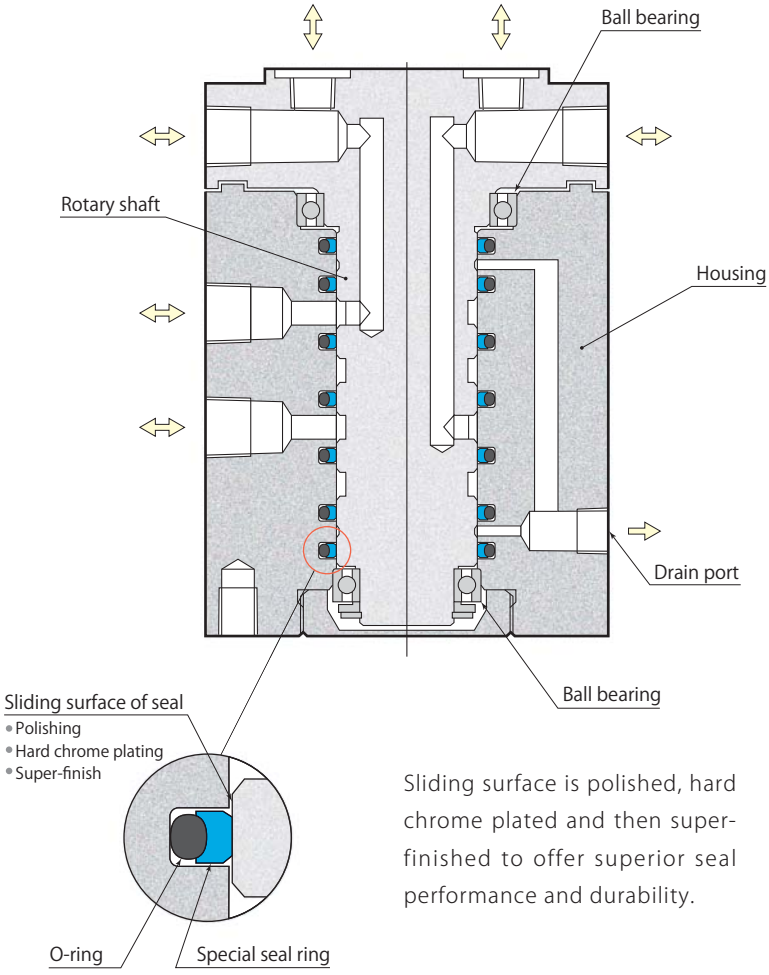
model WRA2F

Single rotary standard 25MPa

model **WRA□**

Rotary joints are best suited for supplying hydraulic pressure and air to rotary table of machining center on which use of secured hydraulic hoses or fixed piping is difficult.

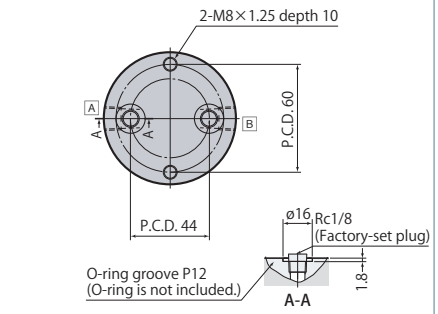
Four types are available with 2 to 8 circuits, and each circuit can be used independently.

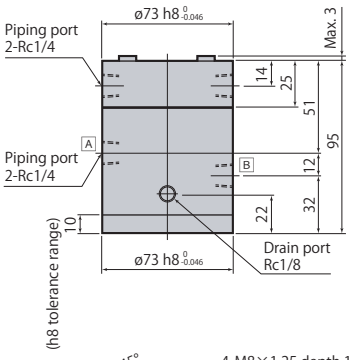


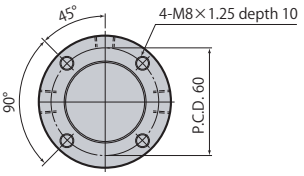
Sliding surface is polished, hard chrome plated and then super-finished to offer superior seal performance and durability.

2 circuits

WRA2







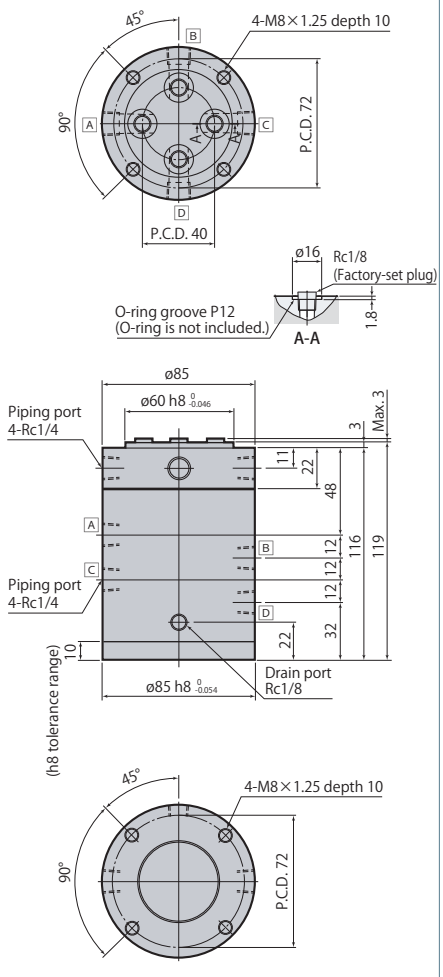
Each piping port is marked with code A or B.

Specifications

Model	WRA2	WRA4	WRA6	WRA8
Number of circuits	2 circuits	4 circuits	6 circuits	8 circuits
Orifice area mm²	20.4			
Fluid used	General mineral based hydraulic oil (ISO-VG32 equivalent) or air			
Max. pressure MPa	25			
Allowable rotations	Varies depending on fluid pressure (refer to **page →246** for details on allowable rotations.)			
Operating temperature °C	0–70			
Piping port size	Rc1/4 (body upper surface is Rc1/8)			
Mass kg	3.0	5.0	8.9	12.9

4 circuits

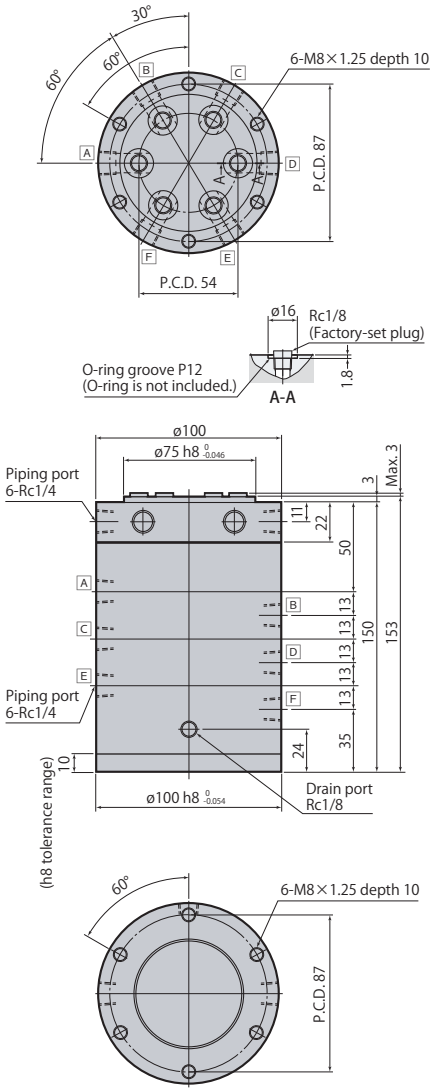
WRA4



Each piping port is marked with code A through D.

6 circuits

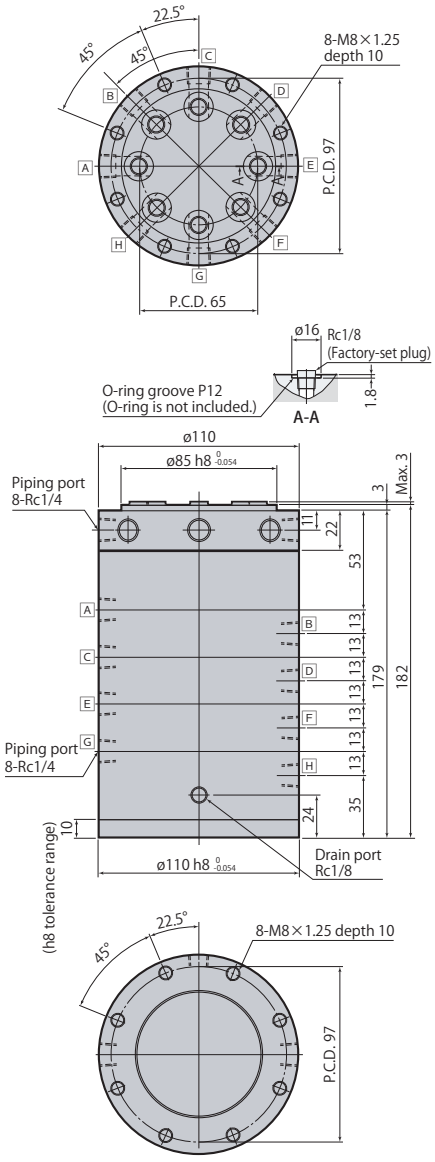
WRA6



Each piping port is marked with code A through F.

8 circuits

WRA8



Each piping port is marked with code A through H.

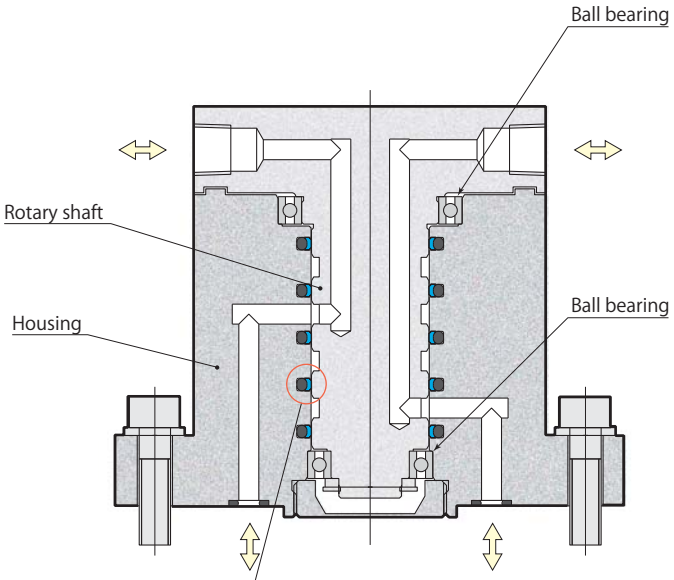
● Mounting screws are not included.

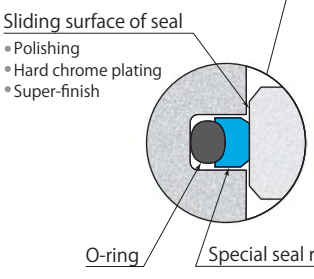
Single rotary with flange 25MPa

model **WRA□F**

Single rotary with flange is a compact type rotary joint with mounting section of the body shaped in the form of flange to keep the overall height low. Four types are available with 2 to 8 circuits, and each circuit can be used independently.

Fluid should be supplied from flange side of the body with manifold piping.

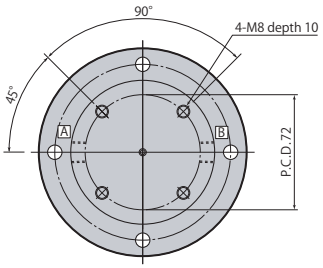


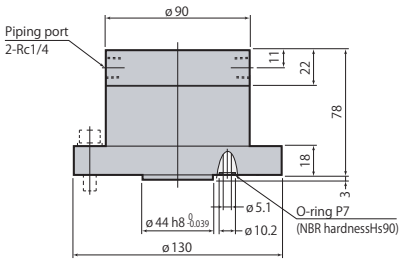


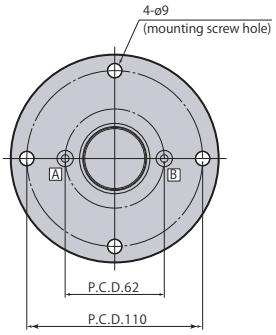
Sliding surface is polished, hard chrome plated and then super-finished to offer superior seal performance and durability.

2 circuits

WRA2F







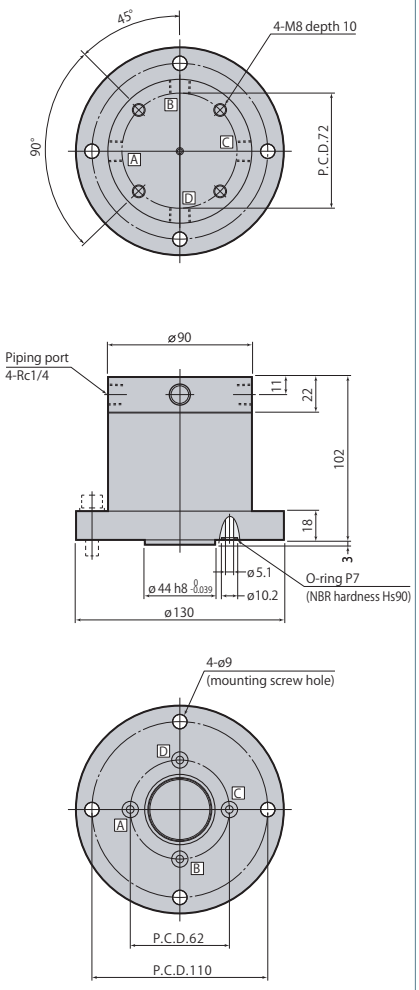
Each piping port is marked with code A or B.
The mounting surface finish must be no rougher than Rz6.3 (ISO4287:1997).

Specifications

Model	WRA2F	WRA4F	WRA6F	WRA8F
Number of circuits	2 circuits	4 circuits	6 circuits	8 circuits
Orifice area mm²	20.4			
Fluid used	General mineral based hydraulic oil (ISO-VG32 equivalent) or air			
Max. pressure MPa	25			
Allowable rotations	Varies depending on fluid pressure (refer to **page →246** for details on allowable rotations.)			
Operating temperature °C	0–70			
Piping port size	Rc1/4 (body lower surface is manifold piping)			
Mass kg	4.9	6.1	10.9	14.9

4 circuits

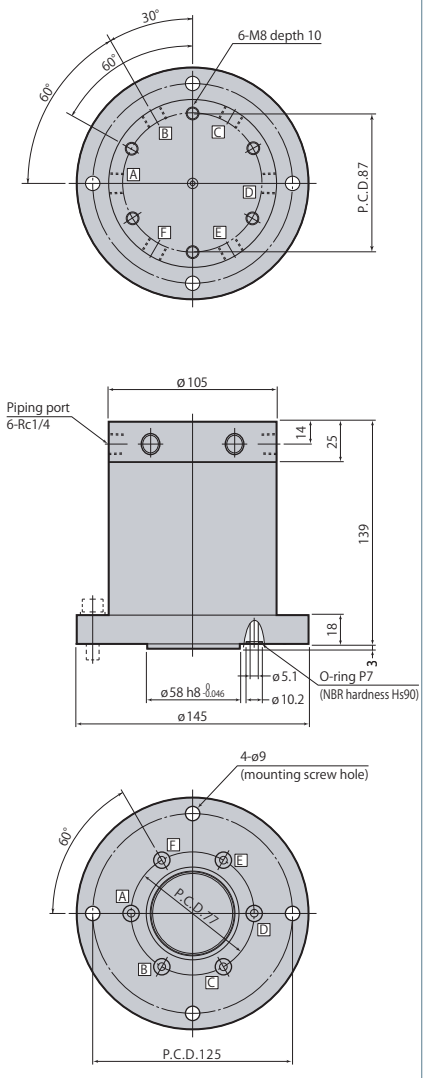
WRA4F



Each piping port is marked with code A through D. The mounting surface finish must be no rougher than Rz6.3 (ISO4287:1997).

6 circuits

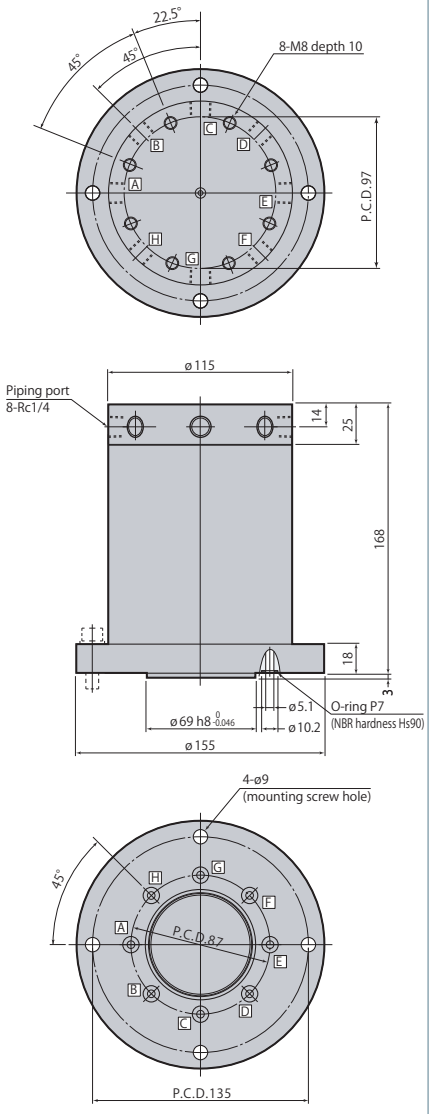
WRA6F



Each piping port is marked with code A through F. The mounting surface finish must be no rougher than Rz6.3 (ISO4287:1997).

8 circuits

WRA8F



Each piping port is marked with code A through H. The mounting surface finish must be no rougher than Rz6.3 (ISO4287:1997).

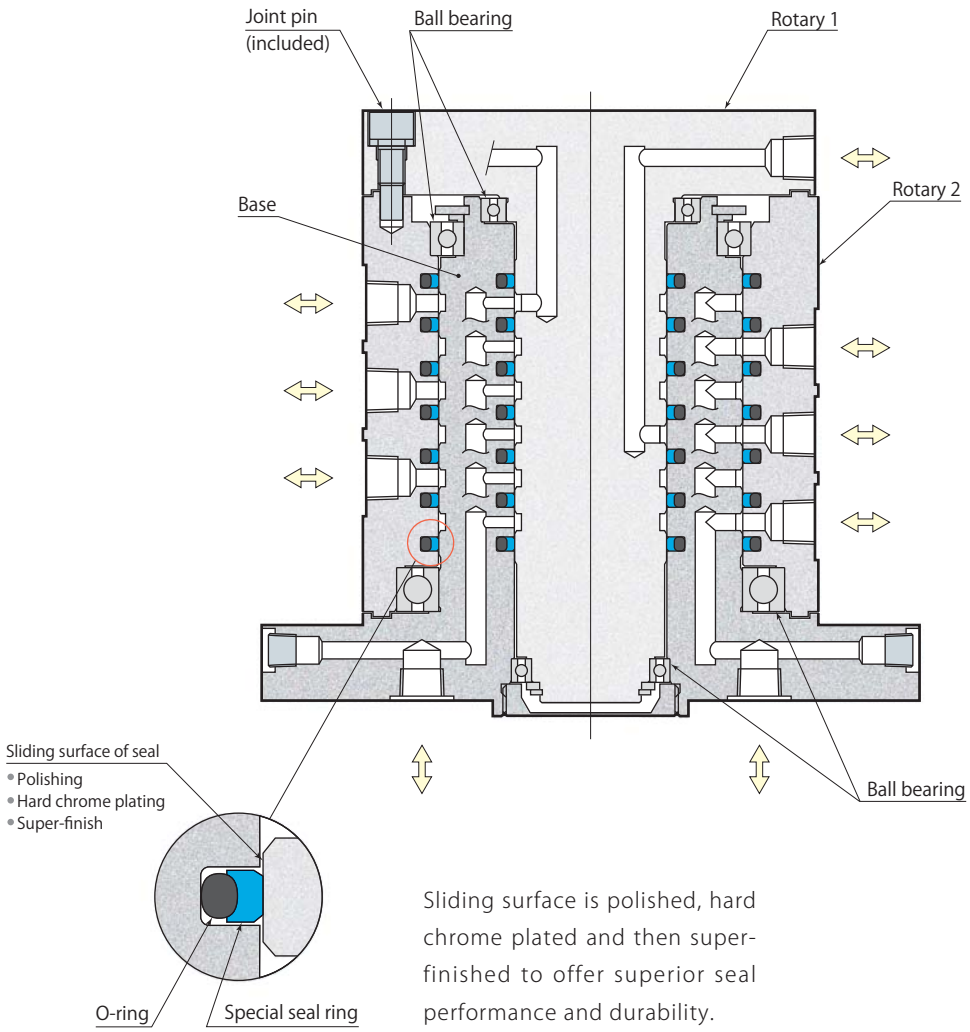
● Mounting screws are not included.

Double rotary with flange 25MPa

model **WRA□□**

Double rotary type combines two rotaries on same axis to keep the overall height lower still. Two types are available with 12 or 16 circuits, and each circuit can be used independently.

Rotary 1 and Rotary 2 rotate independently but they can be synchronized by using a joint pin (included).



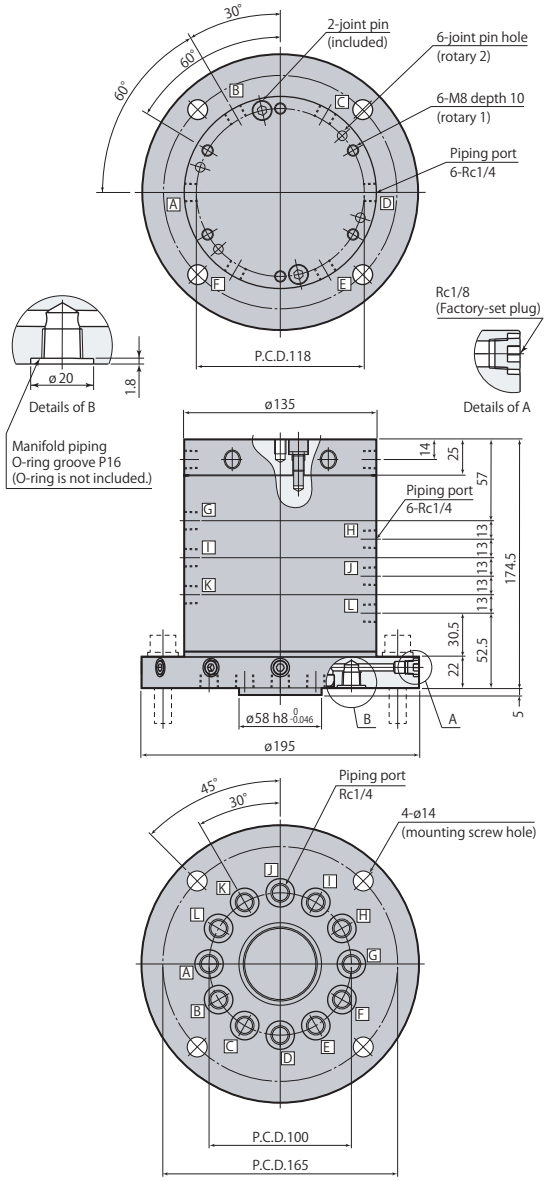
Sliding surface is polished, hard chrome plated and then super-finished to offer superior seal performance and durability.

Specifications

Model		WRA66	WRA88
Number of circuits		12 circuits	16 circuits
Orifice area	mm^2	A–F port : 8.6 G–L port : 20.4	A–H port : 8.6 I–P port : 20.4
Fluid used		General mineral based hydraulic oil (ISO-VG32 equivalent) or air	
Max. pressure	MPa	25	
Allowable rotations		Varies depending on fluid pressure (refer to **page →246** for details on allowable rotations.)	
Operating temperature	°C	0–70	
Piping port size		Rc1/4	
Mass	kg	22	30

12 circuits

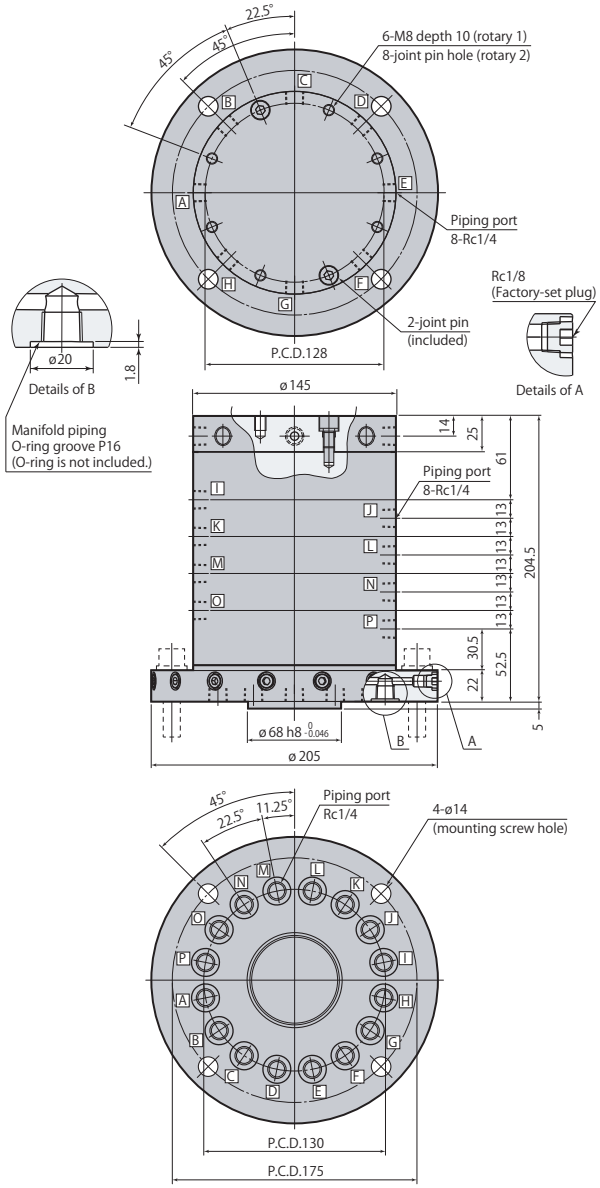
WRA66



Each piping port is marked with code A through L.

16 circuits

WRA88



Each piping port is marked with code A through P.

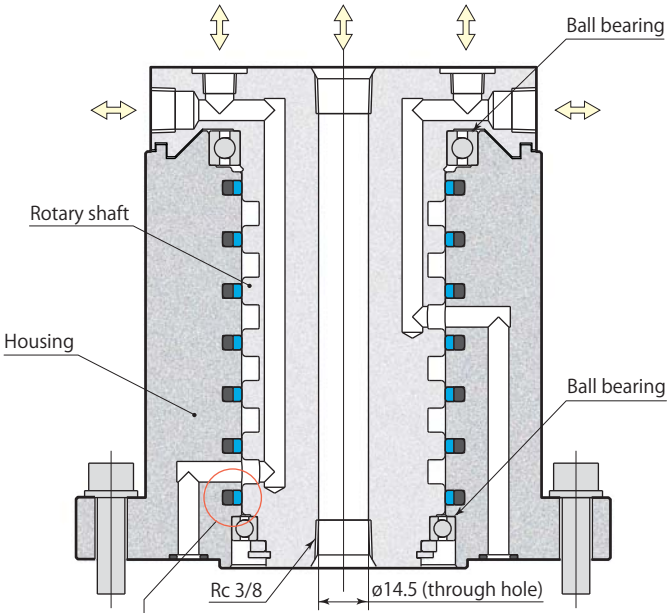
● Mounting screws are not included.

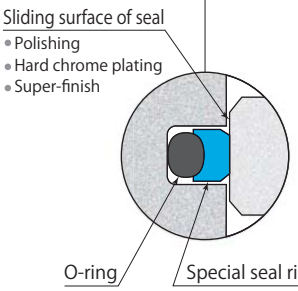
Single rotary with flange 7MPa

model **WRB□**

Rotary joint model WRB was developed for low pressure applications. Aluminum is adopted as body material to reduce the weight. This is a center through type, which the through bore of rotary shaft can be used for coolant piping.

Single rotary with flange is a compact type rotary joint with mounting section of the body shaped in the form of flange to keep the overall height low. Four types are available with 2 to 8 circuits, and each circuit can be used independently. Fluid should be supplied from flange side of the body with manifold piping.

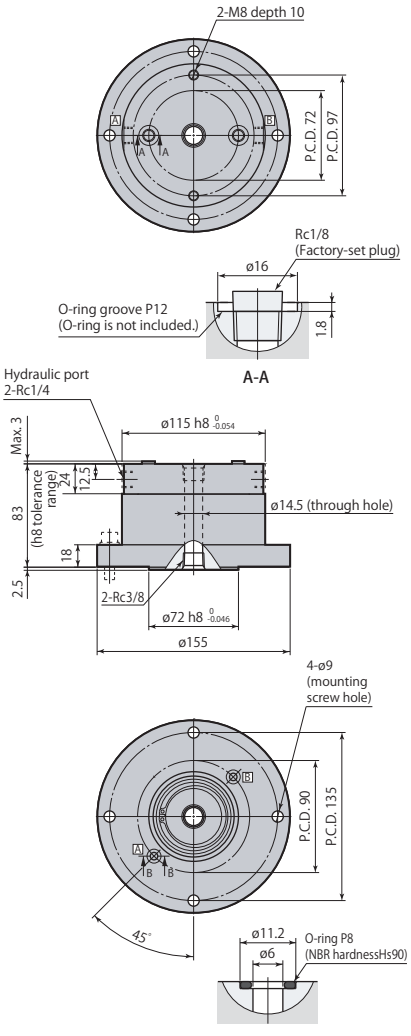




Sliding surface is polished, hard chrome plated and then super-finished to offer superior seal performance and durability.

2 circuits

WRB2



Each piping port is marked with code A or B.
The mounting surface finish must be no rougher than Rz6.3 (ISO4287:1997).

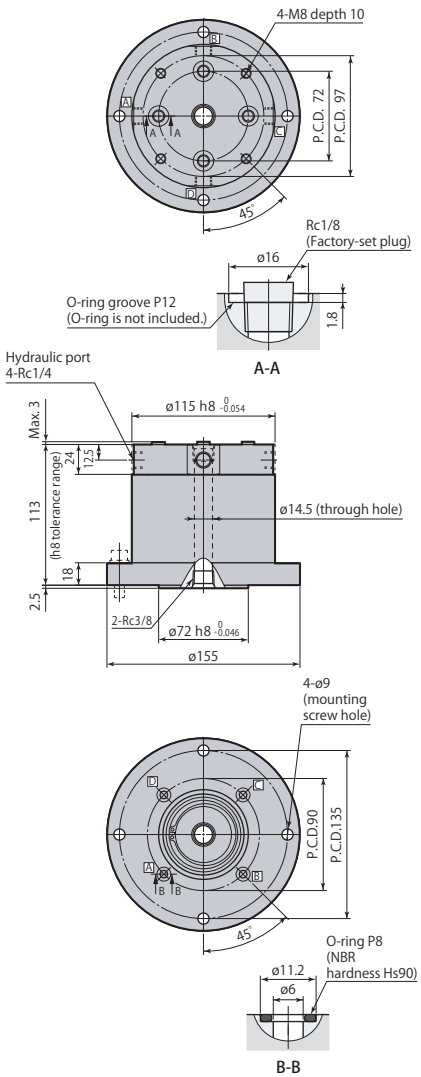
Specifications

Model	WRB2	WRB4	WRB6	WRB8
Number of circuits	2 circuits＋1 circuit*	4 circuits＋1 circuit*	6 circuits＋1 circuit*	8 circuits＋1 circuit*
Orifice area mm²	28.3			
Fluid used	General mineral based hydraulic oil (ISO-VG32 equivalent) or air (center through circuit: coolant)			
Max. pressure MPa	7			
Allowable rotations	Varies depending on fluid pressure (refer to **page →246** for details on allowable rotations.)			
Operating temperature °C	0–70			
Piping port size	Body lower surface is manifold piping, upper surface is Rc1/8, side surface is Rc1/4, center through is Rc3/8			
Mass kg	4.5	5.5	6.5	7.5

∗: ＋1 circuit indicates a center through circuit (coolant).

4 circuits

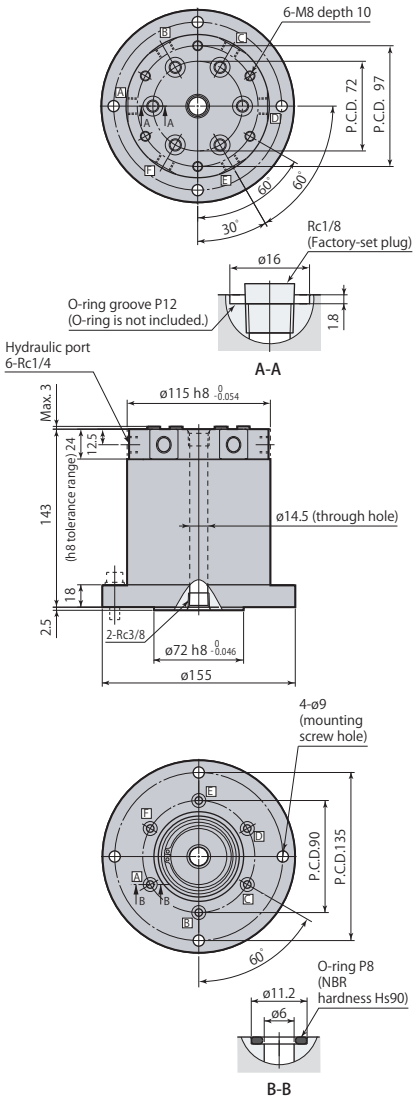
WRB4



Each piping port is marked with code A through D. The mounting surface finish must be no rougher than Rz6.3 (ISO4287:1997).

6 circuits

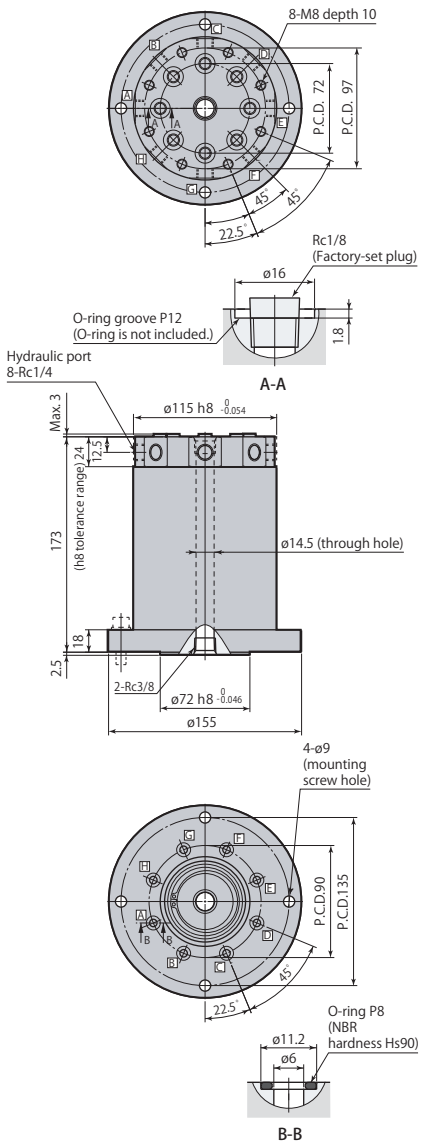
WRB6



Each piping port is marked with code A through F. The mounting surface finish must be no rougher than Rz6.3 (ISO4287:1997).

8 circuits

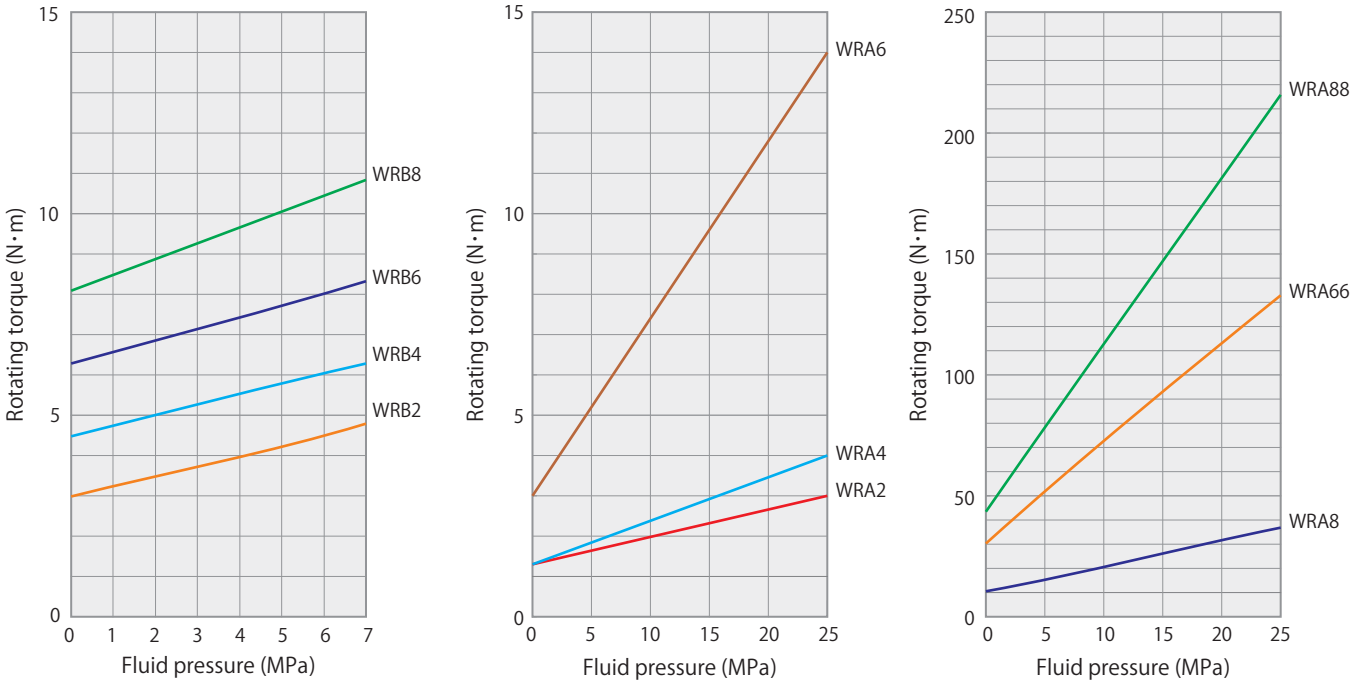
WRB8



Each piping port is marked with code A through H. The mounting surface finish must be no rougher than Rz6.3 (ISO4287:1997).

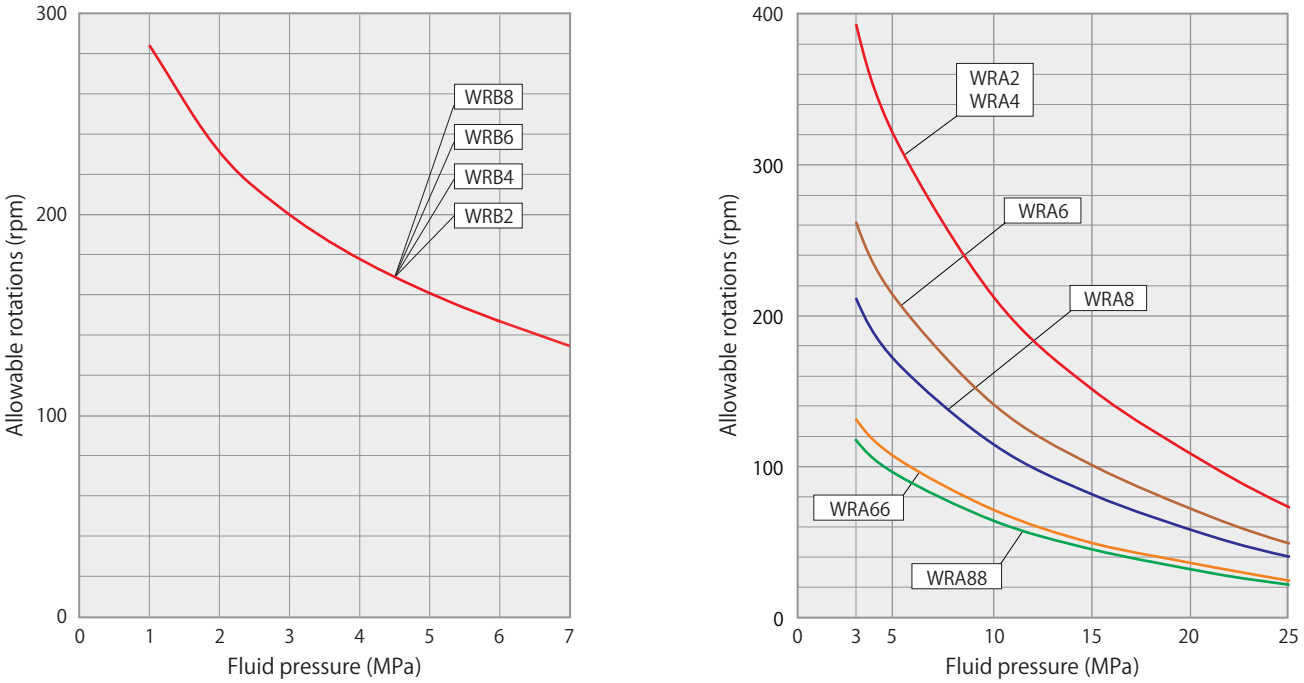
● Mounting screws are not included.

Rotating torque (reference)



1. Diagram above depicts torque (sliding resistance of packing) for stable rotation.
2. Starting torque may become twice as much as torque during stable rotation.
3. There is variance of torque with each product.
4. Rotating torque values indicated above are reference values.

Allowable rotations



1. Diagram above depicts allowable rotation when proper lubrication oil film has been formed.
2. Simultaneous use of maximum values is not possible, since used fluid pressure, rotating speed and operating temperature mutually affect each other.

Caution in use

1. Fluid applied is limited to general mineral based hydraulic oil or air. Contact us concerning other fluid.

2. When applying hydraulic oil to rotary joint, oil film leakage to adjacent circuits is inevitable. When the oil and air circuits are being allocated in one rotary joint, be sure to allocate a circuit between them as a drain circuit. (If the air circuit can tolerate the oil leakage, drain circuit is not mandatory.)

3. Non-stop operation should be avoided, as heat from packing's sliding resistance is generated.

4. At installation, fixate the rotating side. For the stationary side, only the rotational restraint should be provided to avoid an eccentric overload. (Refer to diagram below.)

5. Flexible hose must be used for piping when installation. Do not use the steel tube.

6. When using mineral hydraulic oil, drain port should have an independent piping to return the oil directly to tank.