Rotary Joint

Oil pressure / air pressure / coolant
Rotary joint

Long service life • Compact size • Low torque
The central supply port can also be used for the supply of high-volume coolant

Model representation

No central supply port

HJRC ① ② ③ - ④⑤ (Example HJRC0200-SA)

① Number of supply ports	② No central supply port	③ Design number	④ Primary side piping mode	⑤ Secondary side piping mode
HJRC	02:2 supply port 04:4 supply port 06:6 supply port 08:8 supply port	0: No central supply port	0: It refers to the version of the product	— B: External piping type (RP thread) S: External piping type (RC thread)	A: Plate connecting external piping used in (with R thread plug) D: Plate connecting external piping used in (with G thread plug)

Precautions: 1. If you need a connection method other than the above piping method, please contact us separately

Specification

Model		HJRC0200	HJRC0400	HJRC0600	HJRC0800
Operating pressure MPA	Oil	0~25.0			
	Air	0~1.0			
Supply port	Number of supply ports	2	4	6	8
	Minimum channel area mm2	19.6			
Central supply port		Nil			
Operating fluid		Ordinary hydraulic oil or air			
Operating temperature	° C	-10~70			
Weight	Kg	4.5	5.5	8.0	9.5

Precautions
1. When oil and gas are used together, the oil film may penetrate into the air pressure circuit. Please set a line liquid discharge circuit between the two circuits.
2. Continuous operation will lead to heating of internal seals, so please avoid continuous operation

Type

Rotary joint is applicable to oil pressure / air pressure / large capacity coolant supply ※1

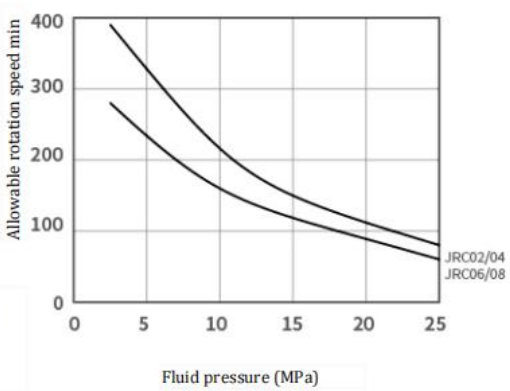
The low friction seal developed by the Company is used to realize low torque and smooth rotation. This joint has high rigidity, high durability and high sealing performance.

The number of supply ports can be 2, 4, 6, 8, 12 and 16, and no central supply port ※ 1 is optional
※1. Only the HJRB model is designed with a central supply port that can be supplied with thousands of large capacity coolant.
(when using the central supply port, please set the swivel joint separately.)

Capability curve

Allowable rotation speed chart

Allowable rotation speed		
Model representation	HJRC0200 HJRC0400	HJRC0600 HJRC0800
Fluid pressure (MPa)		
25	80	60
14	160	125
7	280	200
2.5	390	280

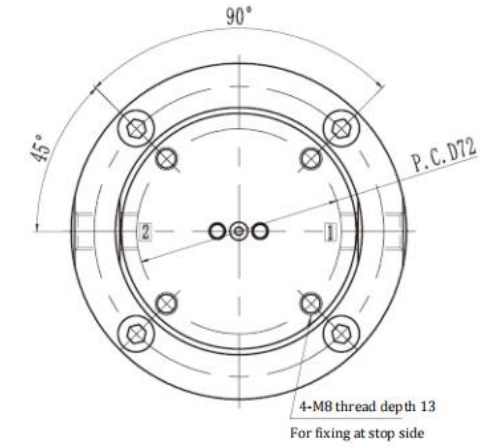


Precautions
1. This chart shows the relationship between allowable rotation speed (min-1) and fluid pressure (MPa).
2. Even if it is below the allowable rotation speed, it cannot be used if the operating temperature exceeds the specification value.

Overall dimension

No central supply port

※This figure shows HJRC0200-B-D. (2-circuit)
If RC thread is required for the primary side supply port or the secondary side supply port, please contact us separately.

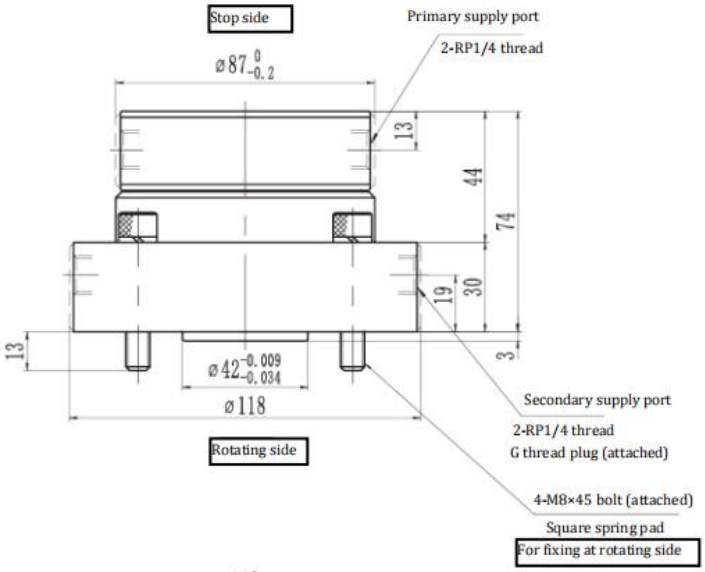


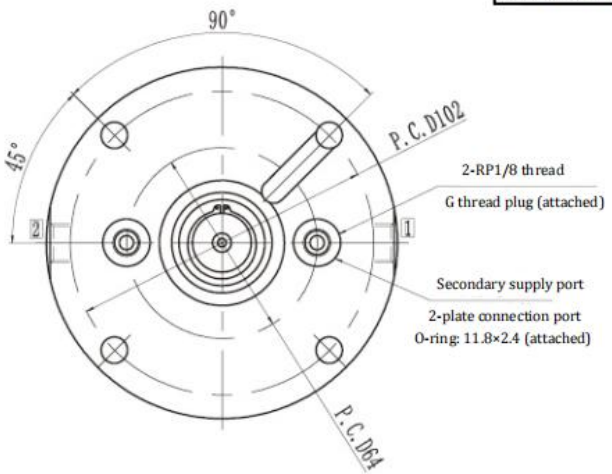
Model representation

HJRC ① - ② ③ ④

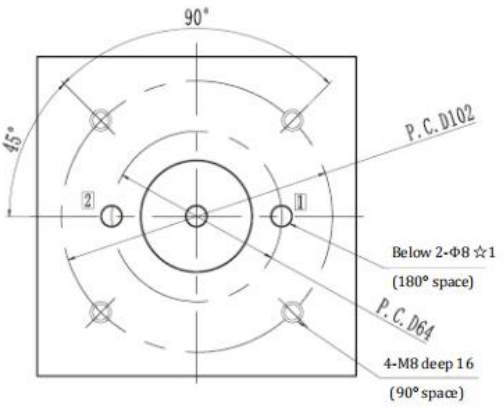
(Example HJRC0200-BA) Primary side piping
(Example HJRC0200-SD) Secondary side piping

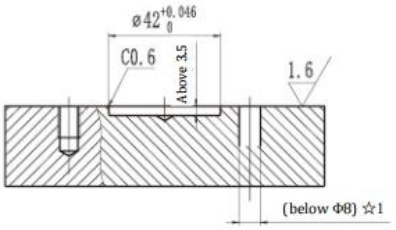
Precautions
1. Use bolts to fix the flange on the rotating side, and fix only the rotating direction on the stop side.
2. Use a hose for the piping on the stop side.
3. When oil and gas are used together, the oil film may penetrate into the air pressure circuit. Please set up a residual liquid discharge circuit between the two circuits.
4. Continuous operation will lead to heating of internal seals, so please avoid continuous operation.
5. Each supply port is marked with the interface number.
6. When using the RP1/4 interface on the secondary side to connect with external piping, use the attached RP1/8 threaded plug to plug the plate connection port. When using the plate connection port, please install the O-seal ring and RP1/4 threaded plug.





Installation part processing dimension



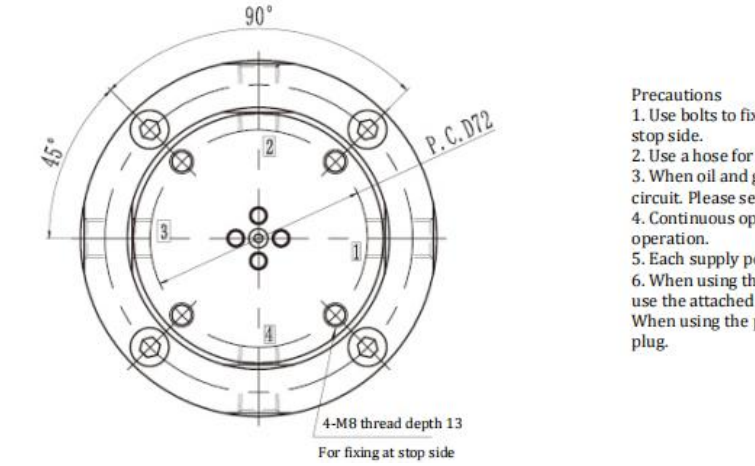


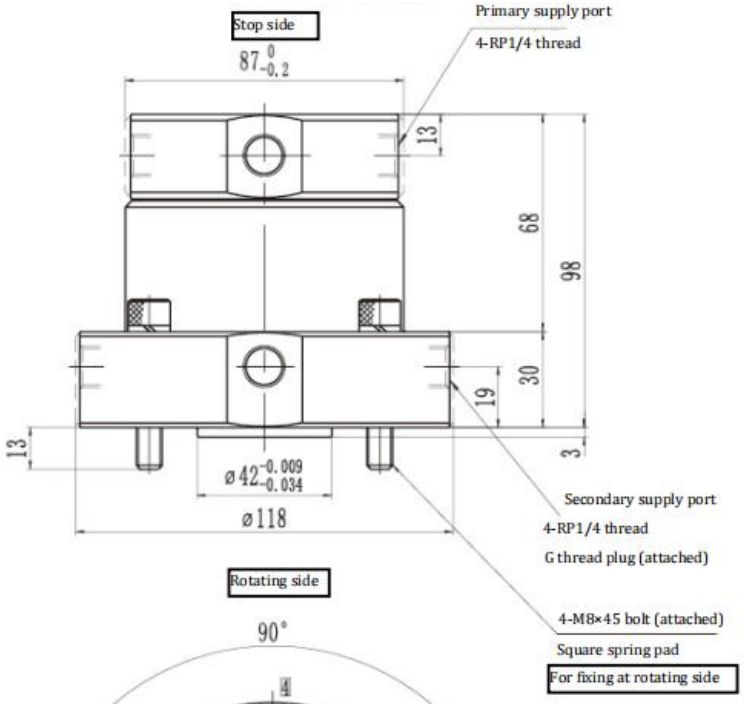
Precautions
☆1. Only the plate connection mode needs this processing
2. The surface roughness of installation surface (sealing surface of O-seal ring) shall be processed in accordance with Ral.6.

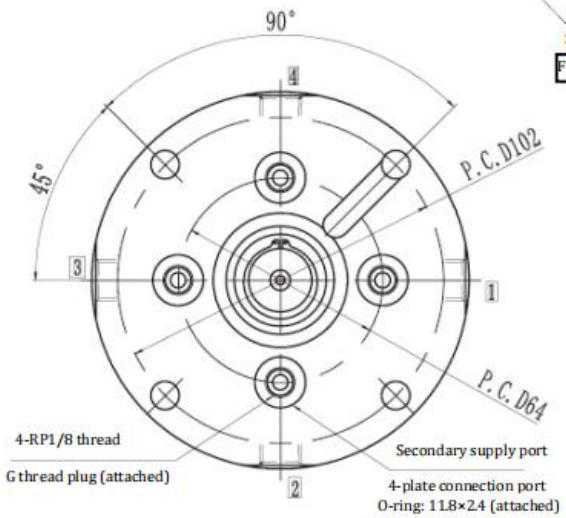
Overall dimension

No central supply port

※This figure shows HJRC0400-B-D. (4-circuit)
If RC thread is required for the primary side supply port or the secondary side supply port, please contact us separately.







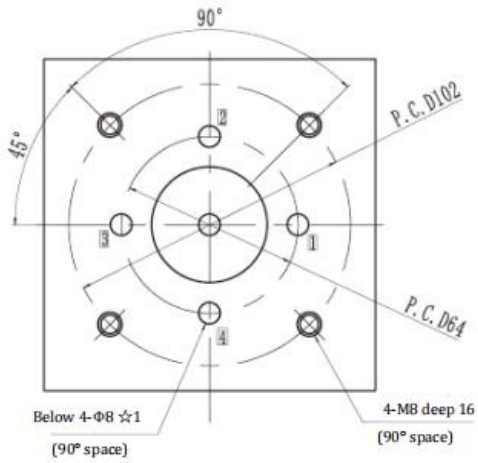
Model representation

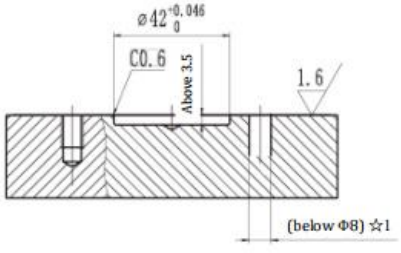
HJRC ① - ② ③ ④

(Example HJRC0400-BA) Primary side piping
(Example HJRC0400-SD) Secondary side piping

Precautions
1. Use bolts to fix the flange on the rotating side, and fix only the rotating direction on the stop side.
2. Use a hose for the piping on the stop side.
3. When oil and gas are used together, the oil film may penetrate into the air pressure circuit. Please set up a residual liquid discharge circuit between the two circuits.
4. Continuous operation will lead to heating of internal seals, so please avoid continuous operation.
5. Each supply port is marked with the interface number.
6. When using the RP1/4 interface on the secondary side to connect with external piping, use the attached RP1/8 threaded plug to plug the plate connection port.
When using the plate connection port, please install the O-seal ring and RP1/4 threaded plug.

Installation part processing dimension



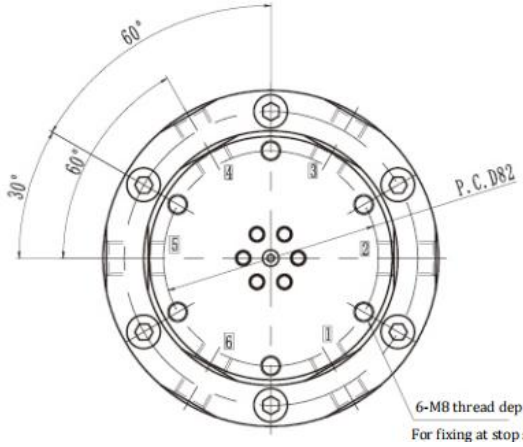


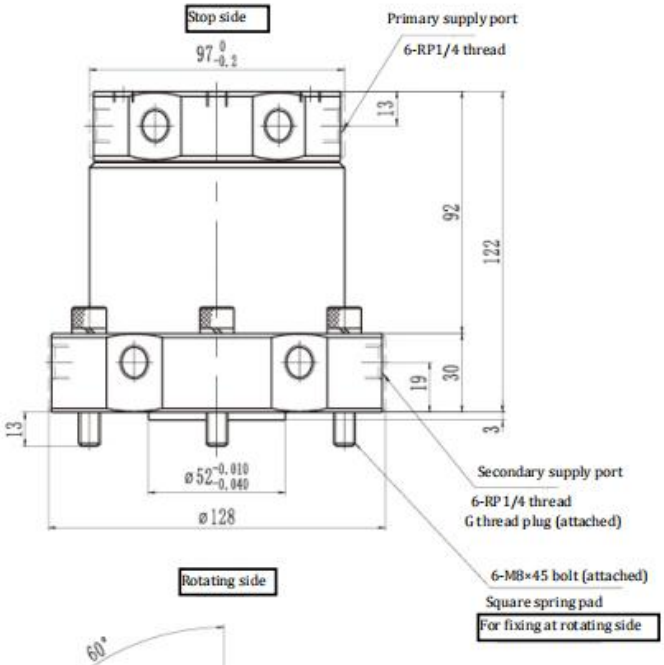
Precautions
☆1. Only the plate connection mode needs this processing
2. The surface roughness of installation surface (sealing surface of O-seal ring) shall be processed in accordance with Ral.6.

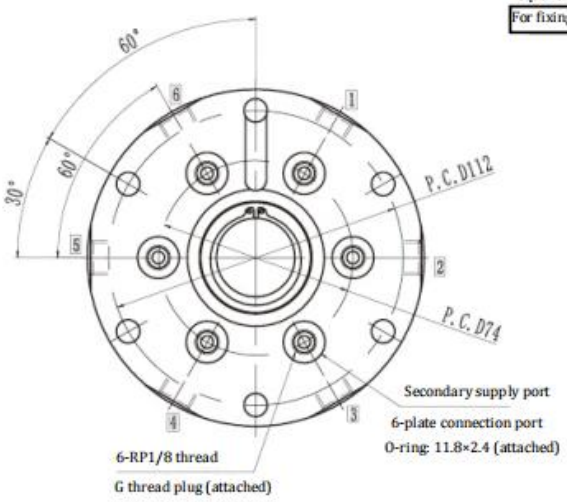
Overall dimension

No central supply port

※This figure shows HJRC0600-B-D. (6-circuit)
If RC thread is required for the primary side supply port or the secondary side supply port, please contact us separately.







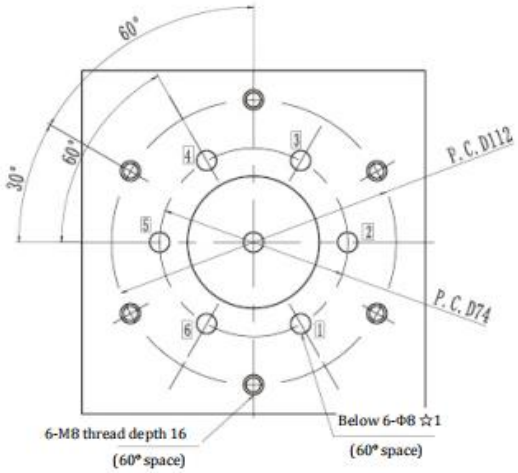
Model representation

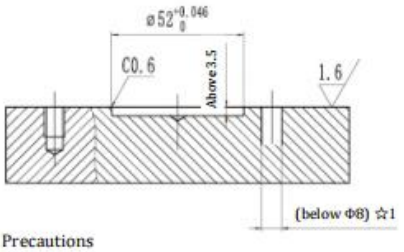
HJRC ① - ② ③ ④

(Example HJRC0600-BA) Primary side piping
(Example HJRC0600-SD) Secondary side piping

Precautions
1. Use bolts to fix the flange on the rotating side, and fix only the rotating direction on the stop side.
2. Use a hose for the piping on the stop side.
3. When oil and gas are used together, the oil film may penetrate into the air pressure circuit. Please set up a residual liquid discharge circuit between the two circuits.
4. Continuous operation will lead to heating of internal seals, so please avoid continuous operation.
5. Each supply port is marked with the interface number.
6. When using the RP1/4 interface on the secondary side to connect with external piping, use the attached RP1/8 threaded plug to plug the plate connection port.
When using the plate connection port, please install the O-seal ring and RP1/4 threaded plug.

Installation part processing dimension



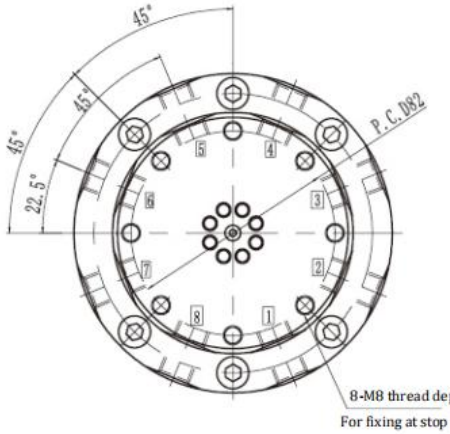


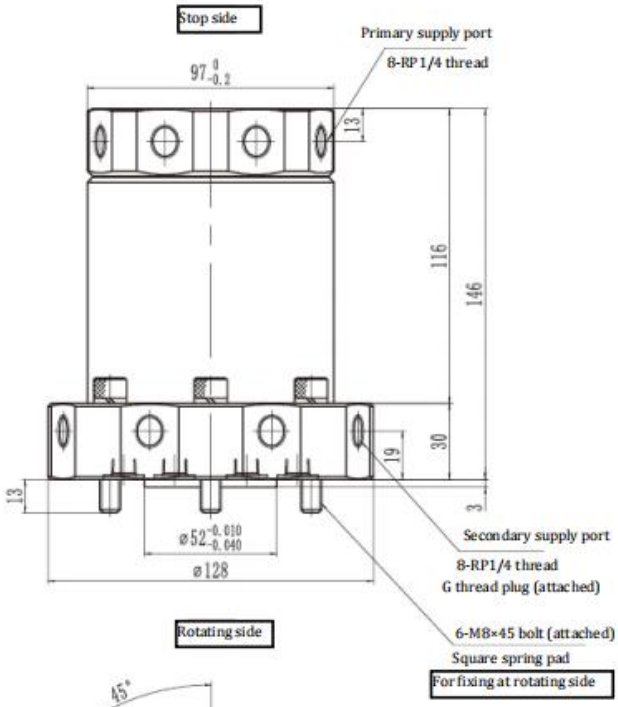
Precautions
☆1. Only the plate connection mode needs this processing
2. The surface roughness of installation surface (sealing surface of O-seal ring) shall be processed in accordance with Ral.6.

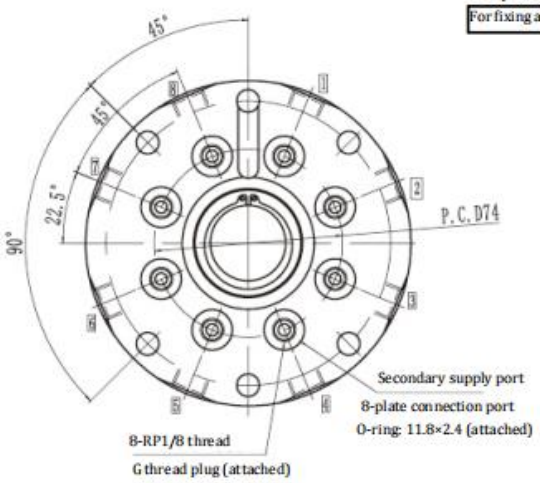
Overall dimension

No central supply port

※This figure shows HJRC0800-B-D. (8-circuit)
If RC thread is required for the primary side supply port or the secondary side supply port, please contact us separately.







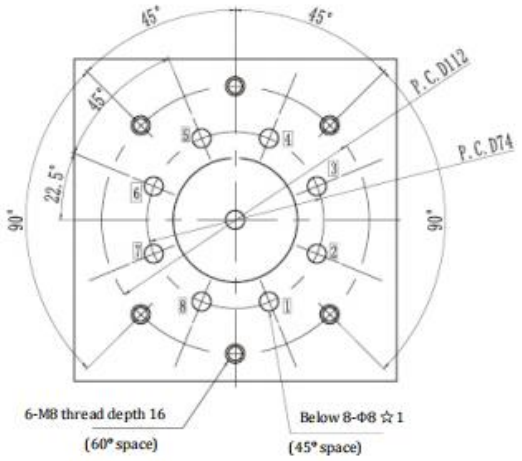
Model representation

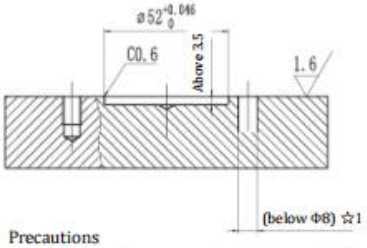
HJRC ① - ② ③ ④

(Example HJRC0800-BA) Primary side piping
(Example HJRC0800-SD) Secondary side piping

Precautions
1. Use bolts to fix the flange on the rotating side, and fix only the rotating direction on the stop side.
2. Use a hose for the piping on the stop side.
3. When oil and gas are used together, the oil film may penetrate into the air pressure circuit. Please set up a residual liquid discharge circuit between the two circuits.
4. Continuous operation will lead to heating of internal seals, so please avoid continuous operation.
5. Each supply port is marked with the interface number.
6. When using the RP1/4 interface on the secondary side to connect with external piping, use the attached RP1/8 threaded plug to plug the plate connection port.
When using the plate connection port, please install the O-seal ring and RP1/4 threaded plug.

Installation part processing dimension





Precautions
☆1. Only the plate connection mode needs this processing
2. The surface roughness of installation surface (sealing surface of O-seal ring) shall be processed in accordance with Ral.6.

Model representation

No central supply port

HJRD ① ② ③ - ④ ⑤ (Example HJRD1200-SG)

① Number of supply ports ② No central supply port ③ Design number ④ Primary side piping mode ⑤ Secondary side piping mode

HJRD	12:12 supply port 16:16 supply port	0: No central supply port	0: It refers to the version of the product	—	B: External piping type (G thread) S: External piping type (RC thread)	G: Plate connecting type

Precautions: 1. If you need a connection method other than the above piping method, please contact us separately

Precautions
1. When oil and gas are used together, the oil film may penetrate into the air pressure circuit. Please set up a residual liquid discharge circuit between the two circuits.
2. Continuous operation will cause the seal to heat up, so please avoid continuous operation.

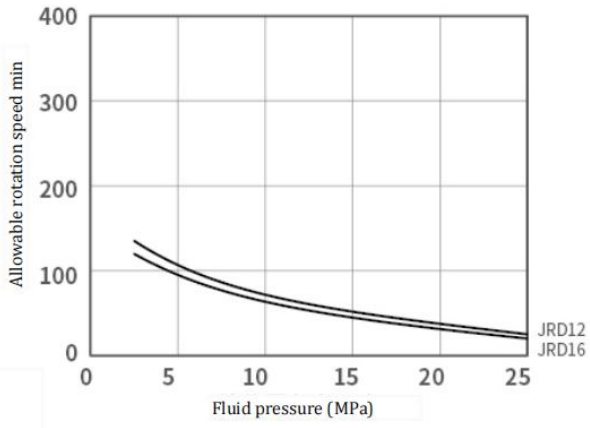
Specification

Model		HJRD1200	HJRD1600
Operating pressure MPA	Oil	0~25.0	
	Air	0~1.0	
Supply port	Number of supply ports	12	16
	Minimum channel area mm2	9.1	
Central supply port		Nil	
Operating fluid		Ordinary hydraulic oil or air	
Operating temperature	°C	-10~70	
Weight	Kg	20	25

Capability curve

Allowable rotation speed chart

Allowable rotation speed (min^{-1})		
Model representation	HJRD1200	HJRD1600
Fluid pressure (MPa)		
25	25	20
14	55	48
7	90	80
2.5	135	120

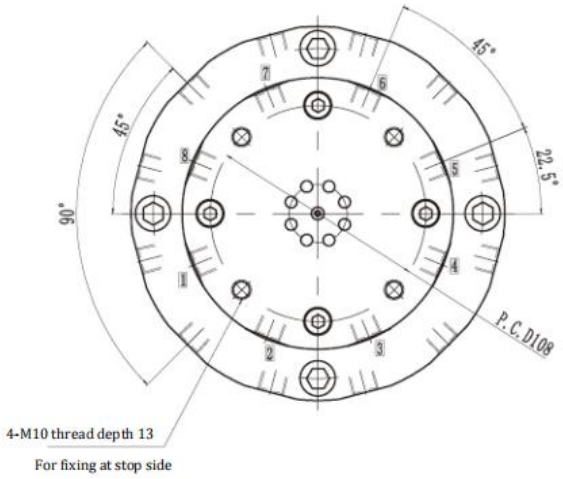


Precautions
1. This chart shows the relationship between allowable rotation speed (min-1) and fluid pressure (MPa).
2. Even if it is below the allowable rotation speed, it cannot be used if the operating temperature exceeds the specification value.

Overall dimension

No central supply port

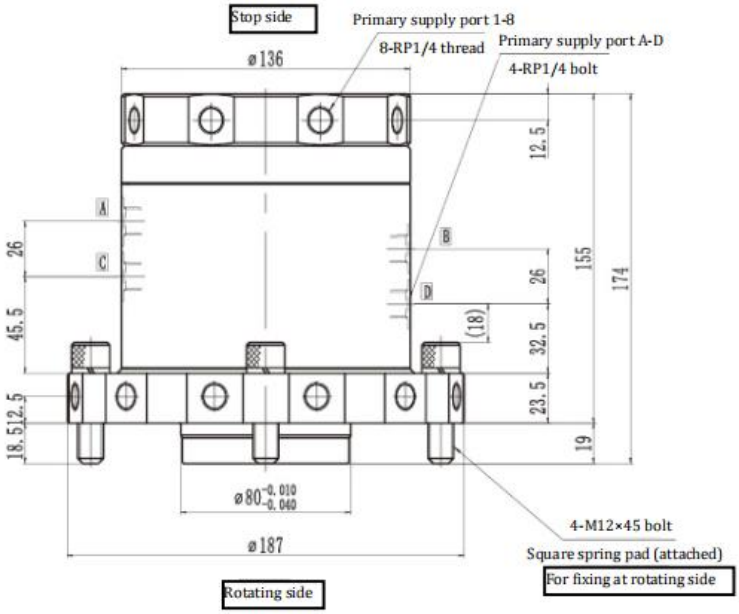
※This figure shows HJRD1200-B-G. (12-circuit)
If RC thread is required for the primary side supply port, please contact us separately.



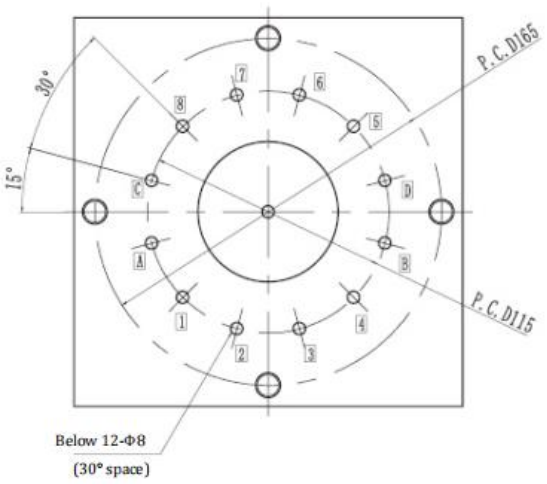
Model representation

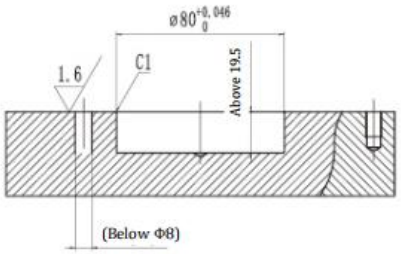
HJRD ① - ② ③ ④ (Example HJRD1200-BG) Primary side piping
(Example HJRD1200-SG) Secondary side piping

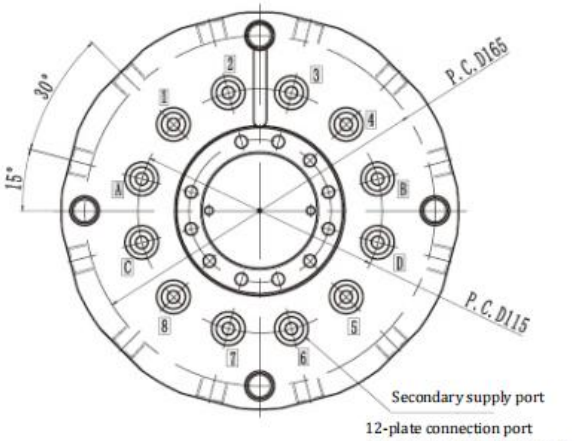
Precautions
1. Use bolts to fix the flange on the rotating side, and fix only the rotating direction on the stop side.
2. Use a hose for the piping on the stop side.
3. When oil and air pressure are used at the same time, please use 1 to 8 for oil and A-D for air pressure. Dual structure is adopted, and the diameter of 1 to 8 rotary seals is designed to be smaller than that of A to D.
● The resistance of the seal is reduced due to oil pressure, which effectively reduces the rotating torque.
● The problem of oil film from oil pressure circuit to air pressure circuit is effectively solved
4. When oil and gas are used together, the oil film may penetrate into the air pressure circuit. Please set up residual liquid discharge between the two circuits.
5. Continuous operation will lead to heating of internal seals, so please avoid continuous operation.
6. Each supply port is marked with and interface number.



Installation part processing dimension





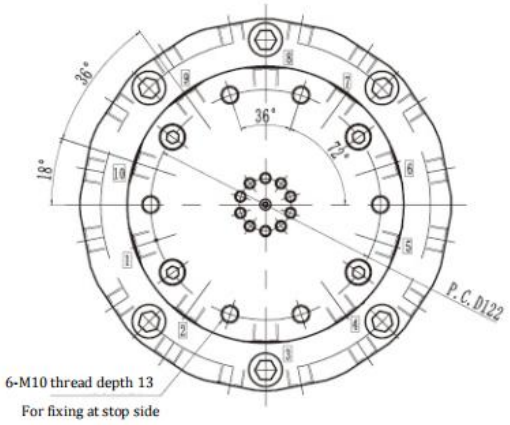


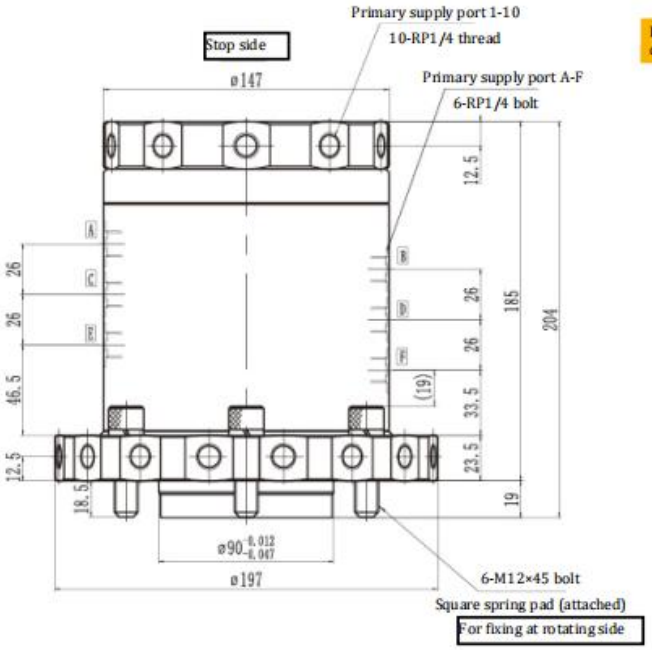
Precautions
1. The surface roughness of installation surface (sealing surface of O-seal ring) shall be processed in accordance with Ra1.6.

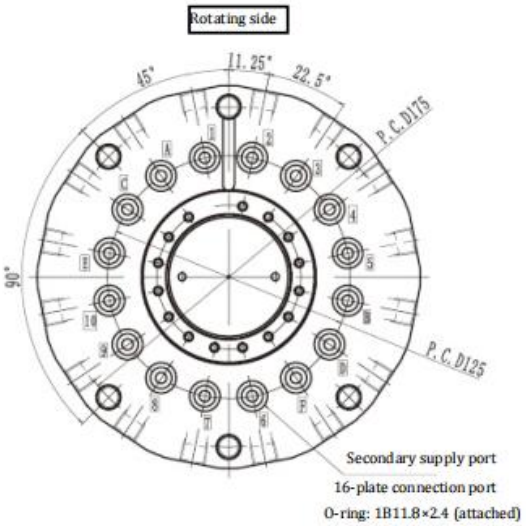
Overall dimension

No central supply port

※This figure shows HJRD1600-B-G. (16-circuit)
If RC thread is required for the primary side supply port, please contact us separately.







Model representation

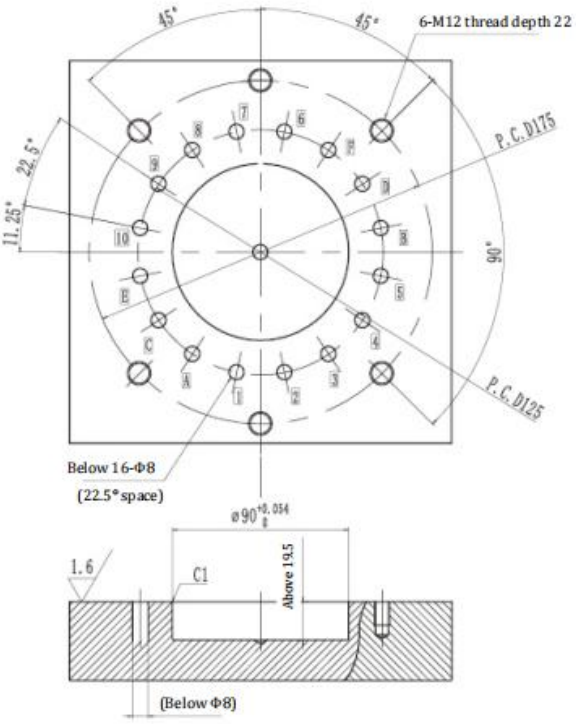
(Example HJRD1600-BG) Primary side piping

HJRD ① - ② ③ ④

(Example HJRD1600-SG) Secondary side piping

Precautions
1. Use bolts to fix the flange on the rotating side, and fix only the rotating direction on the stop side.
2. Use a hose for the piping on the stop side.
3. When oil and air pressure are used at the same time, please use 1 to 8 for oil and A-D for air pressure. Dual structure is adopted, and the diameter of 1 to 8 rotary seals is designed to be smaller than that of A to D.
● The resistance of the seal is reduced due to oil pressure, which effectively reduces the rotating torque.
● The problem of oil film from oil pressure circuit to air pressure circuit is effectively solved
4. When oil and gas are used together, the oil film may penetrate into the air pressure circuit. Please set up residual liquid discharge between the two circuits.
5. Continuous operation will lead to heating of internal seals, so please avoid continuous operation.
6. Each supply port is marked with and interface number.

Installation part processing dimension



Precautions
1. The surface roughness of installation surface (sealing surface of O-seal ring) shall be processed in accordance with Ra1.6.

Model representation

With central supply port

HJRB ① ② ③ - ④⑤⑥ (Example HJRB0210-SGS)

① Number of supply ports	② With central supply port	③ Design number		④ Primary side piping mode	⑤ Secondary side piping mode	⑥ Central supply port piping mode
HJRB	02:2 supply port 04:4 supply port 06:6 supply port 08:8 supply port	1: With central supply port (1 supply port)	0: It refers to the version of the product	— B: External piping type (G thread) S: External piping type (RC thread)	G: Plate connecting type	B: External piping type (RP thread)*1 S: External piping type (RC thread)

Precautions: ※1. Correspond by conversion connector. Please inquire separately. 2. If you need a connection method other than the above piping method, please contact us separately

Specification

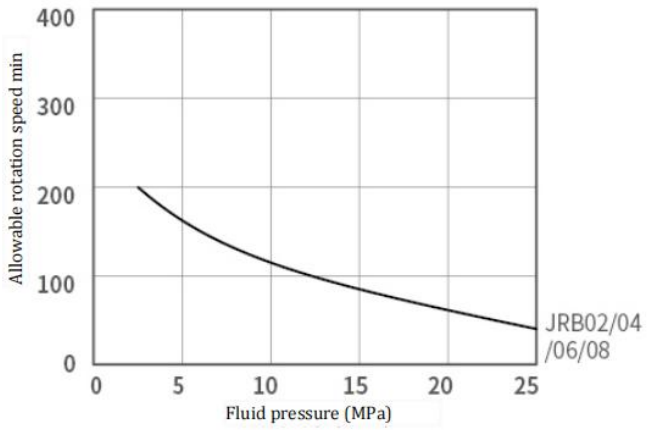
Model		HJRB0210	HJRB0410	HJRB0610	HJRB0810
Operating pressure MPa	Oil	0~25.0			
	Air • coolant	0~1.0			
Supply port	Number of supply ports	2	4	6	8
	Minimum channel area mm2	28.3			
	Operating fluid	Ordinary hydraulic oil or air			
Central supply port	Number of supply ports	1			
	Minimum channel area mm2	254			
	Use flow	Coolant			
Operating temperature	° C	-10~70			
Weight	Kg	7.5	10.0	12.5	15.0

Capability curve

Allowable rotation speed chart

Precautions
1. When oil and gas are used together, the oil film may penetrate into the air pressure circuit. Please set up a residual liquid discharge circuit between the two circuits.
2. Continuous operation will lead to heating of internal seals, so please avoid continuous operation.

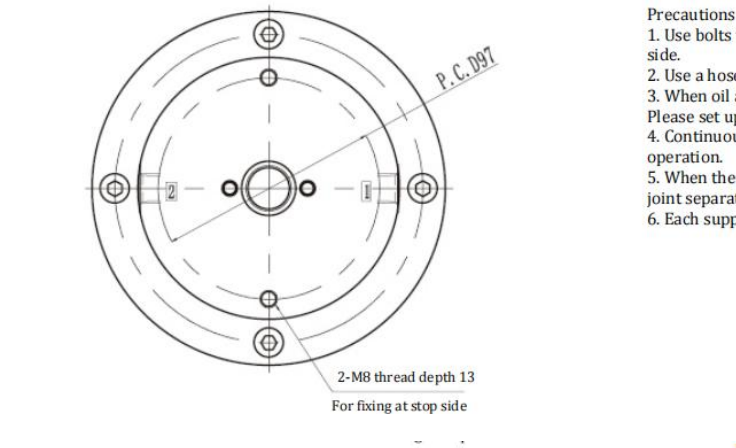
Allowable rotation speed (min^{-1})				
Model representation Fluid pressure (MPa)	HJRB0210	HJRB0410	HJRB0610	HJRB0810
25	40			
14	90			
7	140			
2.5	200			



Overall dimension

With central supply port

※This figure shows HJRB0210-B-G-B. (2-circuit + 1 central supply port)
If RC thread is required for the primary side supply port or the center supply port, please contact us separately.
(The central supply port corresponds to the conversion injector)



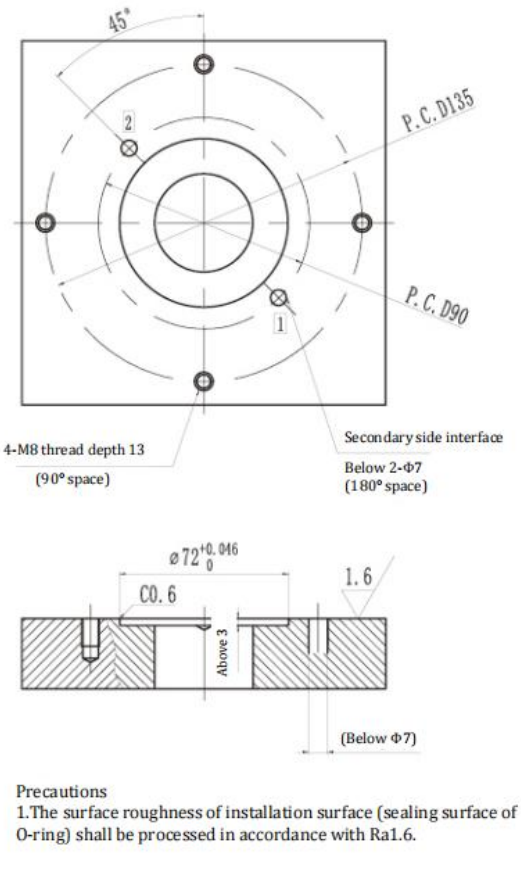
Model representation

HJRB ① - ② ③ ④

(Example HJRB0210-BGB) Primary side piping
(Example HJRB0210-SGS) Central supply port piping mode

Precautions
1. Use bolts to fix the flange on the rotating side, and fix only the rotating direction on the stop side.
2. Use a hose for the piping on the stop side.
3. When oil and gas are used together, the oil film may penetrate into the air pressure circuit. Please set up a residual liquid discharge circuit between the two circuits.
4. Continuous operation will lead to heating of internal seals, so please avoid continuous operation.
5. When the central supply port is used for coolant supply, it is necessary to prepare a rotary joint separately.
6. Each supply port is marked with an interface number.

Installation part processing dimension

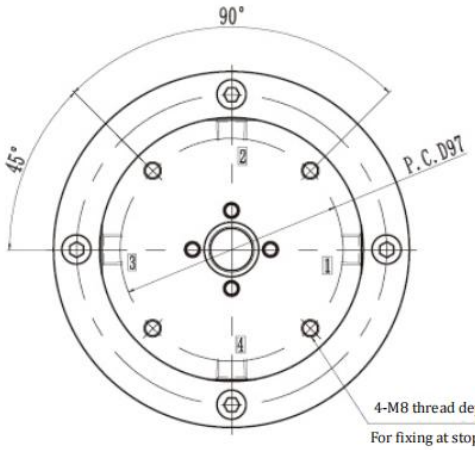


Precautions
1.The surface roughness of installation surface (sealing surface of O-ring) shall be processed in accordance with Ra1.6.

Overall dimension

With central supply port

※This figure shows HJRB0410-B-G-B. (4-circuit + 1 central supply port)
If RC thread is required for the primary side supply port or the center supply port, please contact us separately.
(The central supply port corresponds to the conversion injector)

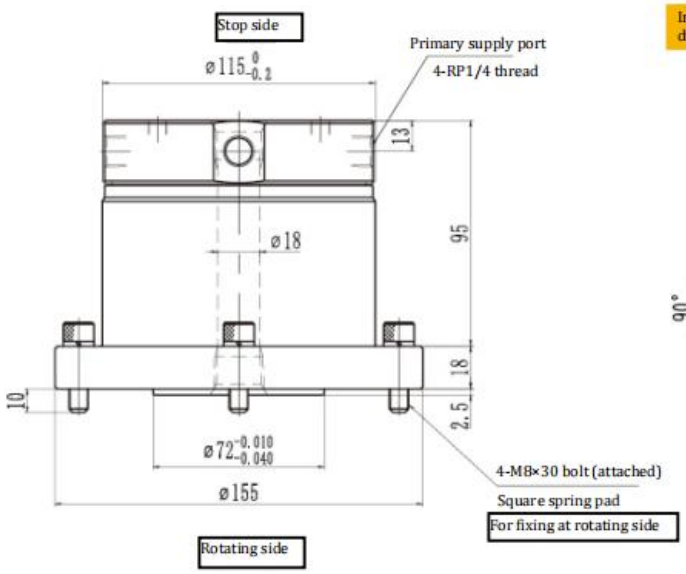


Model representation

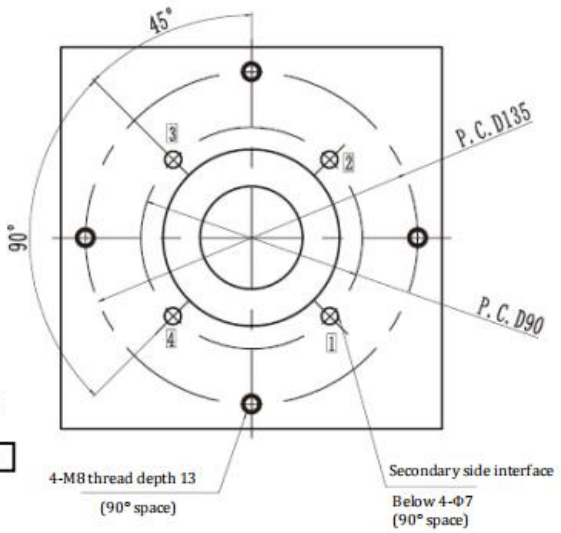
HJRB ① - ② ③ ④

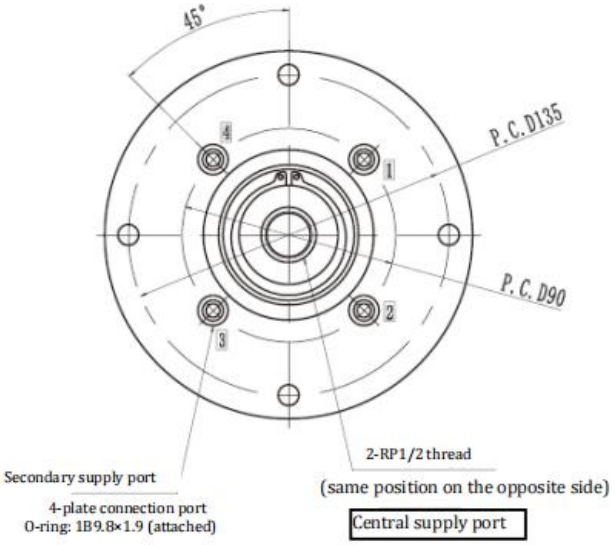
(Example HJRB0410-BGB) Primary side piping
(Example HJRB0410-SGS) Central supply port piping mode

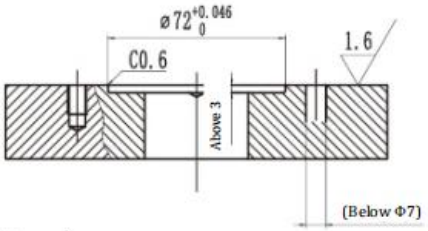
Precautions
1. Use bolts to fix the flange on the rotating side, and fix only the rotating direction on the stop side.
2. Use a hose for the piping on the stop side.
3. When oil and gas are used together, the oil film may penetrate into the air pressure circuit. Please set up a residual liquid discharge circuit between the two circuits.
4. Continuous operation will lead to heating of internal seals, so please avoid continuous operation.
5. When the central supply port is used for coolant supply, it is necessary to prepare a rotary joint separately.
6. Each supply port is marked with an interface number.



Installation part processing dimension





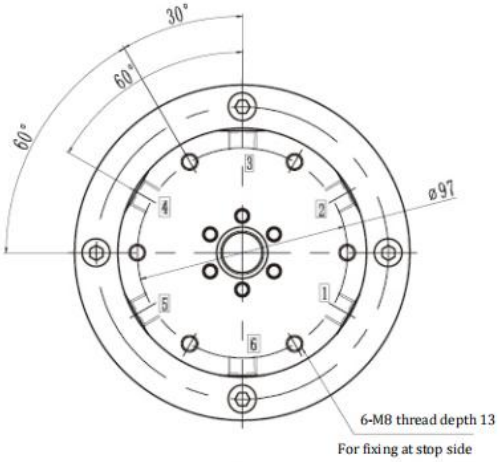


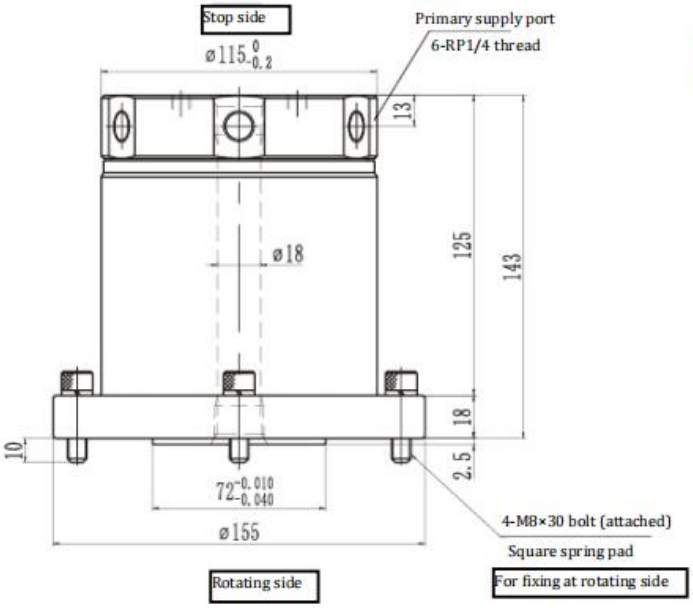
Precautions
1.The surface roughness of installation surface (sealing surface of O-ring) shall be processed in accordance with Ra1.6.

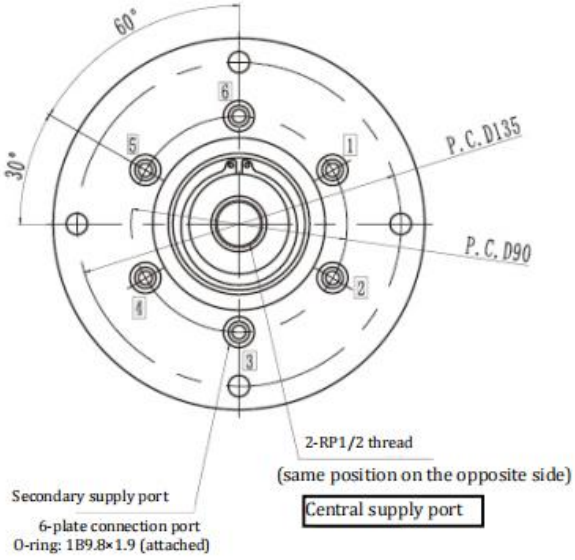
Overall dimension

With central supply port

※This figure shows HJRB0610-B-G-B. (6-circuit + 1 central supply port)
If RC thread is required for the primary side supply port or the center supply port, please contact us separately.
(The central supply port corresponds to the conversion injector)







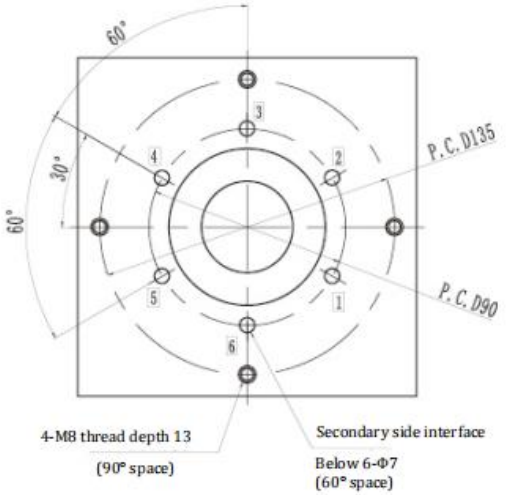
Model representation

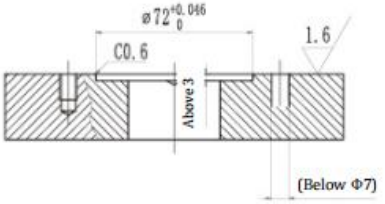
HJRB ① - ② ③ ④

(Example HJRB0610-BGB) Primary side piping
(Example HJRB0610-SGS) Central supply port piping mode

Precautions
1. Use bolts to fix the flange on the rotating side, and fix only the rotating direction on the stop side.
2. Use a hose for the piping on the stop side.
3. When oil and gas are used together, the oil film may penetrate into the air pressure circuit. Please set up a residual liquid discharge circuit between the two circuits.
4. Continuous operation will lead to heating of internal seals, so please avoid continuous operation.
5. When the central supply port is used for coolant supply, it is necessary to prepare a rotary joint separately.
6. Each supply port is marked with an interface number.

Installation part processing dimension



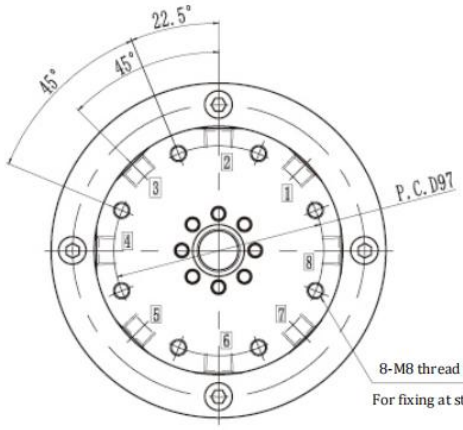


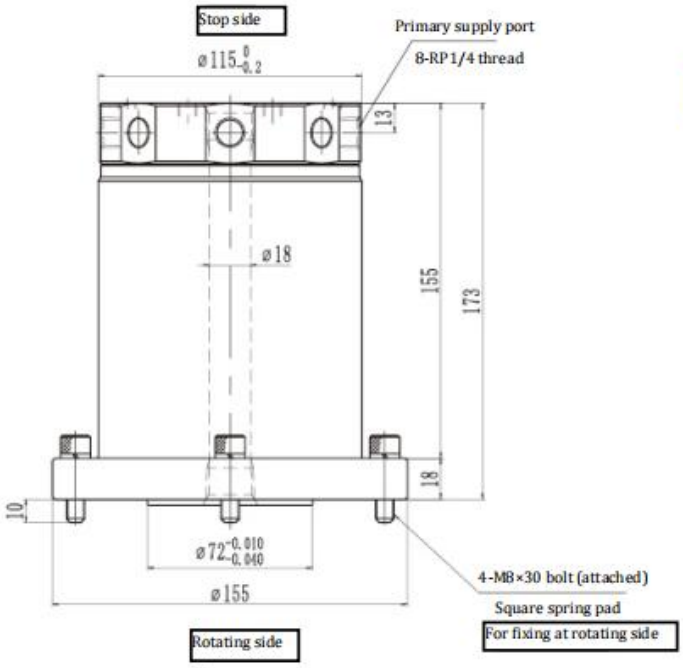
Precautions
1.The surface roughness of installation surface (sealing surface of O-ring) shall be processed in accordance with Ra1.6.

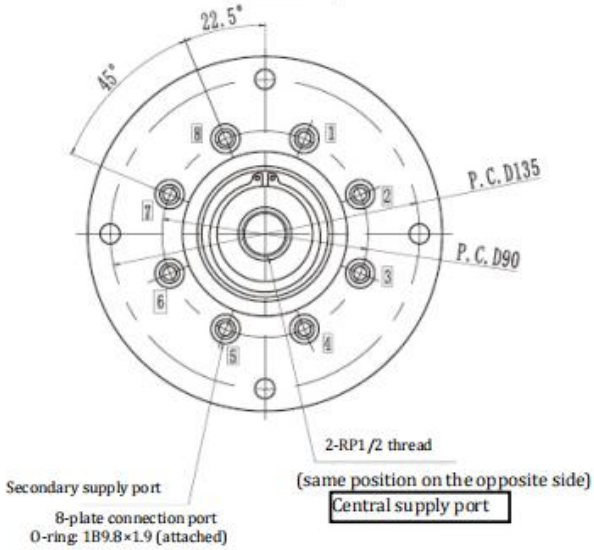
Overall dimension

With central supply port

※This figure shows HJRB0810-B-G-B. (8-circuit + 1 central supply port)
If RC thread is required for the primary side supply port or the center supply port, please contact us separately.
(The central supply port corresponds to the conversion injector)







Model representation

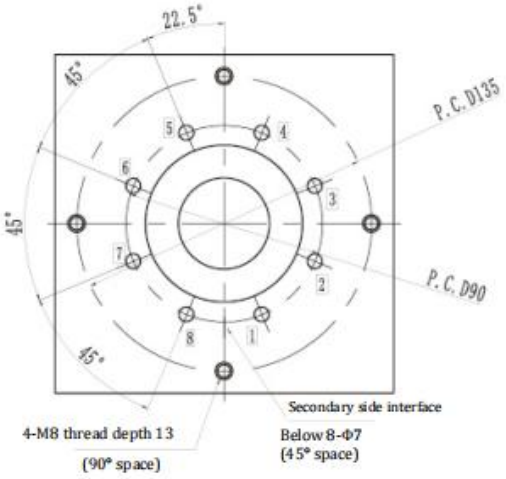
HJRB ① - ② ③ ④

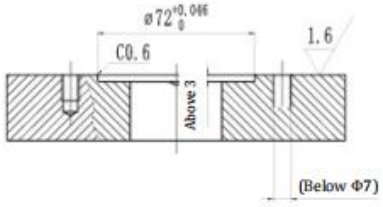
(Example HJRB0810-BGB) Primary side piping

(Example HJRB0810-SGS) Central supply port piping mode

Precautions
1. Use bolts to fix the flange on the rotating side, and fix only the rotating direction on the stop side.
2. Use a hose for the piping on the stop side.
3. When oil and gas are used together, the oil film may penetrate into the air pressure circuit. Please set up a residual liquid discharge circuit between the two circuits.
4. Continuous operation will lead to heating of internal seals, so please avoid continuous operation.
5. When the central supply port is used for coolant supply, it is necessary to prepare a rotary joint separately.
6. Each supply port is marked with an interface number.

Installation part processing dimension





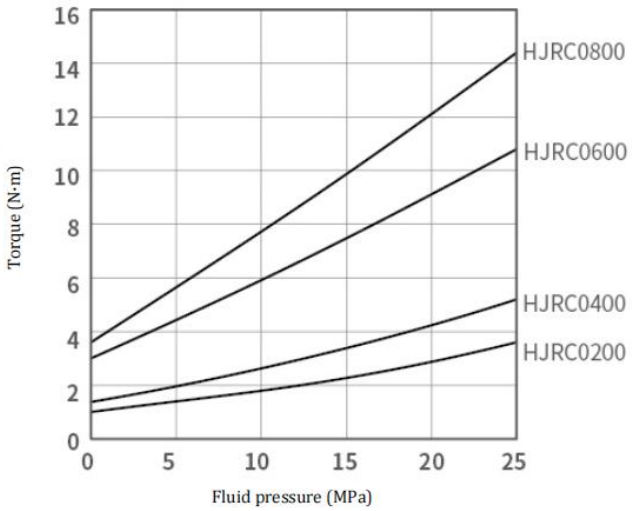
Precautions
1.The surface roughness of installation surface (sealing surface of O-ring) shall be processed in accordance with Ra1.6.

Capacity Curve

Torque: reference

HJRC: no central supply port

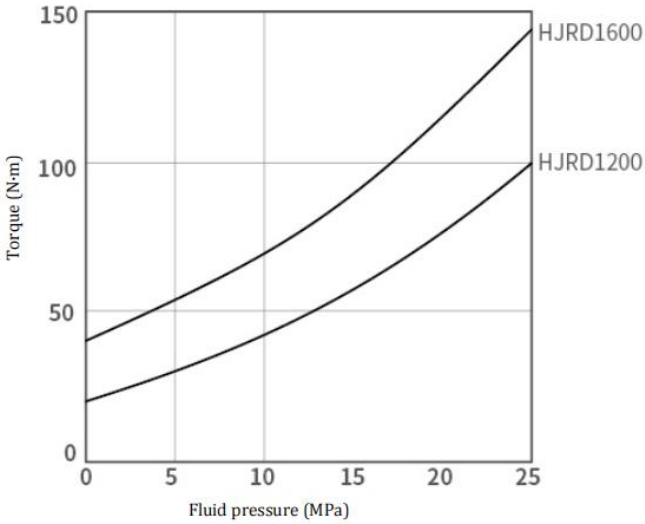
Model representation Fluid pressure (MPa)	Torque (N• m)			
	HJRC0200	HJRC0400	HJRC0600	HJRC0800
25	3.6	5.2	10.8	14.4
20	2.9	4.2	9.1	12.1
15	2.3	3.4	7.5	9.8
10	1.8	2.6	5.9	7.7
7	1.6	2.2	5.0	6.4
0	1.0	1.4	3.0	3.6



Precautions
1. This chart shows the relationship between torque (N·m) and fluid pressure (MPa).
2. The starting torque may occasionally be twice as large as the torque shown in the curve, and it will change due to conditions such as shelving time.
3. The torque is the reference.

HJRD: no central supply port

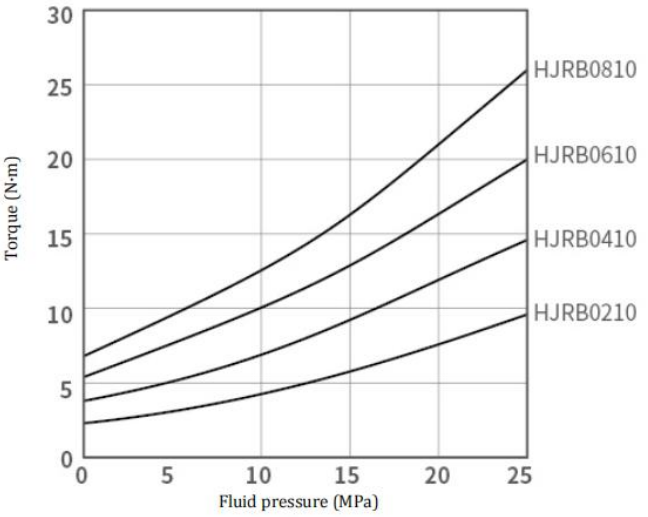
Model representation Fluid pressure (MPa)	Torque (N• m)	
	HJRD1200	HJRD1600
25	100.0	145.0
20	75.0	114.0
15	56.0	89.0
10	42.5	70.0
7	35.0	59.0
0	20.0	40.0



Precautions
1. This chart shows the relationship between torque (N·m) and fluid pressure (MPa).
2. The starting torque may occasionally be twice as large as the torque shown in the curve, and it will change due to conditions such as shelving time.
3. The torque is the reference.

HJRB: with central supply port

Model representation Fluid pressure (MPa)	Torque (N• m)			
	HJRB0210	HJRB0410	HJRB0610	HJRB0810
25	9.6	14.6	20.0	26.0
20	7.6	12.0	16.2	21.0
15	5.7	9.3	13.0	16.5
10	4.2	6.8	10.0	12.7
7	3.5	5.7	8.5	10.5
0	2.3	3.8	5.3	6.8



Precautions
1. This chart shows the relationship between torque (N·m) and fluid pressure (MPa).
2. The starting torque may occasionally be twice as large as the torque shown in the curve, and it will change due to conditions such as shelving time.
3. The torque is the reference.

Precautions

Precautions for design

1. Confirm the specification
Confirm the specifications of each product before use.

2. The stop side only constrains the direction of rotation.
In order to prevent the load phenomenon caused by eccentricity, the stop side only constrains the rotation direction, and the rotation side is fixed with attached bolts.

3. Please use hose for piping at the stop side.
If steel pipes are used for piping, the load will increase during rotation, and then failure will occur.

4. Please do not run the rotary joint continuously.
Continuous operation will lead to heating of the internal seals.

5. When the oil pressure circuit is adjacent to the air circuit, the oil film may penetrate into the air pressure circuit.
If the oil film may penetrate into the adjacent air pressure circuit from the oil pressure circuit, please set up a residual liquid discharge circuit between the two circuits. (depending on the model, there are also structures that do not allow oil film to penetrate into specific adjacent air pressure circuits.)

6. The torque will vary with the pressure conditions of the fluid.
The torque shown in the capacity curve is for reference only.

7. The starting torque will be more than twice the specified torque.
The starting torque will change due to the time of placing.

8. The central supply port is not a rotating structure
When using the central supply port, please configure the swivel hose connector separately

Precautions for installation and construction

1. Confirmation of operating fluid
Please select the appropriate hydraulic oil correctly.
Use clean air that has been treated with a strainer.

2. Disposal before piping
Please fully clean the piping, pipe joints, oil and air pressure holes, etc. and ensure they are used in a clean state. Problems such as blockage caused by insufficient cleaning will lead to lowered flow characteristics, sealing ring damage, etc.
Residual foreign matters or cutting chips in the circuit may cause oil leakage or poor operation.
This product does not have the function of filtering foreign matters and impure substances in the oil pressure system and piping.
During piping construction, please clean the working environment and adopt correct construction methods to avoid foreign matters being mixed into the machine.

3. Winding method of sealing tape
When winding, please leave 1 to 2 threads on the top of the joint.
The residual sealing tape head in the circuit will cause oil leakage or poor operation.
During piping construction, please clean the working environment and adopt correct construction methods to avoid foreign matters being mixed into the machine.

4.Body installation
Please be careful not to pinch the O-seal ring during installation.
When installing the body, please use all the attached hexagon socket bolts (strength grade 12.9) and install according to the tightening force specified in the following table.

Model	Installation bolt nominal	Tightening torque (N• M)
HJRC	M8	25
HJRD	M12	80
HJRB	M8	25