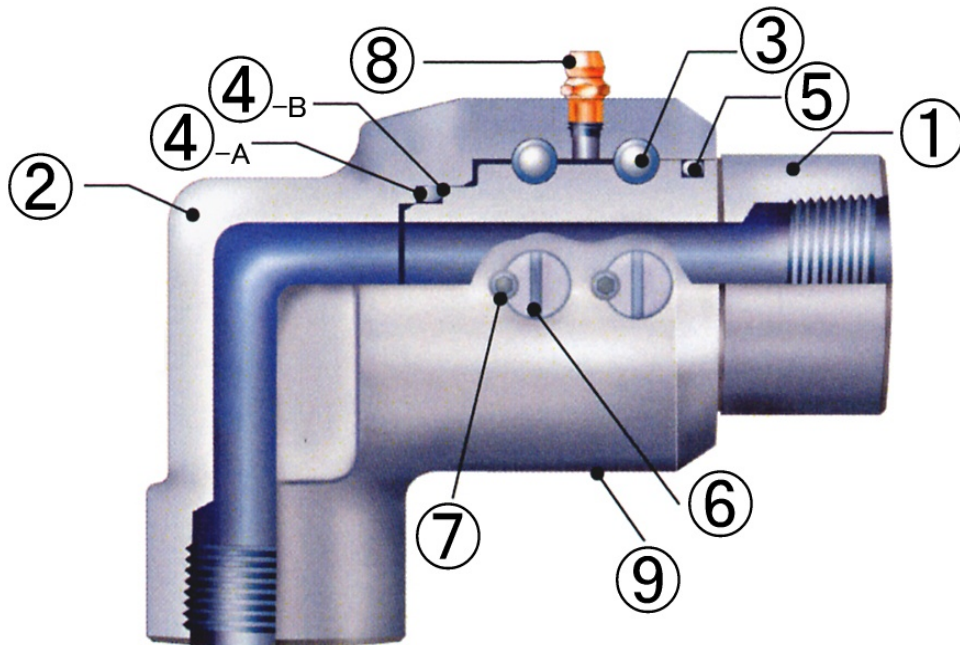


Pearl Swivel Joints

B Series

CONSTRUCTION



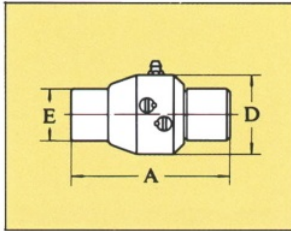
① SHAFT ② BODY ③ STEEL BALL ④-A SEAL(O-RING) ④-B BUCK-UP RING ⑤ DUST SEAL ⑥ BALL PLUG
⑦ SET SCREW ⑧ GREASE NIPPLE ⑨ PLUG (IMAGE: B-2)

SERVICE CONDITIONS etc.

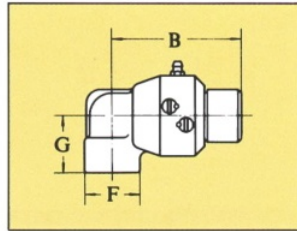
Max. Pressure	13.7MPa
Max. Temperature	100 degrees C
Material	Steel (Weld Steel)
Seal	NBR O-ring
Buck-up Ring	PTFE
Connection	Female Taper Thread (Rc)

As to B series, PTFE or FKM seals are available for higher temperatures and chemical products.

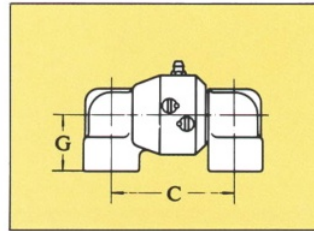
DIMENSIONS of B series



スタイル No.1



スタイル No.2



スタイル No.3

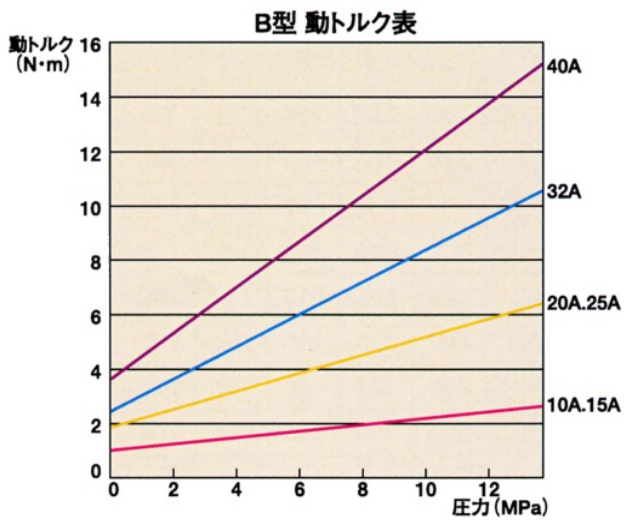
SIZE		A	B	C	D	E	F	G
(A)	(B)							
10	3/8	91	77	73	(48)	32	32	49
15	1/2	91	77	73	(48)	32	32	49
20	3/4	118	108	107.5	(66)	46	46	63
25	1	118	108	107.5	(66)	46	46	63
32	1 1/4	120	130	135	(72)	58	58	45
40	1 1/2	120	134	145	(78)	63	63	52

*() : auxiliary dimension

WEIGHT CHART(Unit = 1kg/1 piece)

SIZE(A)	NO.1	NO.2	NO.3
10	0.8	1.0	1.2
15	0.7	0.9	1.1
20	1.9	2.2	2.8
25	1.8	2.1	2.7
32	2.2	2.8	3.4
40	2.3	3.4	4.4

DYNAMIC TORQUE GRAPH



Dynamic Torque Graph

- * The rotating torque varies with the storage condition and storage period of a swivel joint and the type of fluid used.
- * This data represents typical values obtained by measurements according to internal test standards and does not represent guaranteed values.
- * The starting torque is larger than the dynamic torque. When wringing (adhesion phenomenon) occurs, the starting torque is particularly large. It is not an abnormality.

Table of B series

		NBR O-ring with PTFE Buck-up Ring			FKM O-ring with PTFE Buck-up Ring		
		Style	Name	Our Code	Style	Name	Our Code
Thread Connection	NO.1	B-1	SJ-B-1 10A	BB10010101	BV-1	ask	
			SJ-B-1 15A	BB15010101			
			SJ-B-1 20A	BB20010101			
			SJ-B-1 25A	BB25010101			
			SJ-B-1 32A	BB32010101			
			SJ-B-1 40A	BB40010101			
	NO.2	B-2	SJ-B-2 10A	BB10020101	BV-2	ask	
			SJ-B-2 15A	BB15020101			
			SJ-B-2 20A	BB20020101			
			SJ-B-2 25A	BB25020101			
			SJ-B-2 32A	BB32020101			
			SJ-B-2 40A	BB40020101			
	NO.3	B-3	SJ-B-3 10A	BB10030101	BV-3	ask	
			SJ-B-3 15A	BB15030101			
			SJ-B-3 20A	BB20030101			
			SJ-B-3 25A	BB25030101			
			SJ-B-3 32A	BB32030101			
			SJ-B-3 40A	BB40030101			
	NO.4	B-4	SJ-B-4 10A	BB10040101	BV-4	ask	
			SJ-B-4 15A	BB15040101			
			SJ-B-4 20A	BB20040101			
			SJ-B-4 25A	BB25040101			
			SJ-B-4 32A	BB32040101			
			SJ-B-4 40A	BB40040101			
NO.5	B-5	SJ-B-5 10A	BB10050101	BV-5	ask		
		SJ-B-5 15A	BB15050101				
		SJ-B-5 20A	BB20050101				
		SJ-B-5 25A	BB25050101				
		SJ-B-5 32A	BB32050101				
		SJ-B-5 40A	BB40050101				
NO.6	B-6	SJ-B-6 10A	BB10060101	BV-6	ask		
		SJ-B-6 15A	BB15060101				
		SJ-B-6 20A	BB20060101				
		SJ-B-6 25A	BB25060101				
		SJ-B-6 32A	BB32060101				
		SJ-B-6 40A	BB40060101				

Ordering Information

The following data is required:

1. Type of joint
 2. Product (fluid) to be handled
 3. Working & Maximum temperature and pressure
 4. Style & Size of joint
 5. Frequency of movement
 6. Working environment: Ex) Use in a clean room, etc.
- * Any other special requirements

Installation Suggestions

1. Standard packing material NBR (Buna-N) cannot be used, for the fluid such as phosphoric ester-type operating oil, chlorinated hydrocarbon-type operating oil, organic solvent or acid.
2. The ball bearing section of the joint is finished precisely and has no backlash, restricting the movement of pipeline in the direction of joint swivel.
Therefore, please make careful examination of the pipeline movement before selecting the style.
3. The life of joint depends largely on the size of moment load. Please avoid giving large moment load onto the joint when designing.
4. Swivel joints are not suited for successive rotation unlike rotary joint.
However, they have sufficient properties to be used in extremely low speed.
5. While lubrication at packing replacement is normally sufficient for use under room temperature, lubrication of once a week may be necessary if they are used under high temperature.
6. When a joint is used correctly, the limit of packing use is when leak is discovered. Replace the packing with a new one in this case.

Frequently Asked Questions

Q. Can I use the swivel joint for running steam?

A. Yes. Please select the type "PK". If there is a problem with the dimensions and rotating torque, you can use the swivel joint with low-pressure steam up to about 160°C by changing the packing material and grease of "A" and "C".

Q. Is there no problem with using the swivel joint under high rotation speed?

A. The swivel joint can be used even under high rotation speed, though its service life will be shortened.

Q. Can I use the swivel joint by connecting it to the end of a hose?

A. The swivel joint has a bearing structure and is sealed with an O-ring. Therefore, its rotating torque is larger than that of a rotary joint. There is no advantage in using the swivel joint unless the hose has adequate strength.

Q. The swivel joint fails to operate properly.

A. It is time to replace the swivel joint.

Q. Fluid leaks when the swivel joint is in a certain position during operation.

A. **There is probably a problem regarding installation.**

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