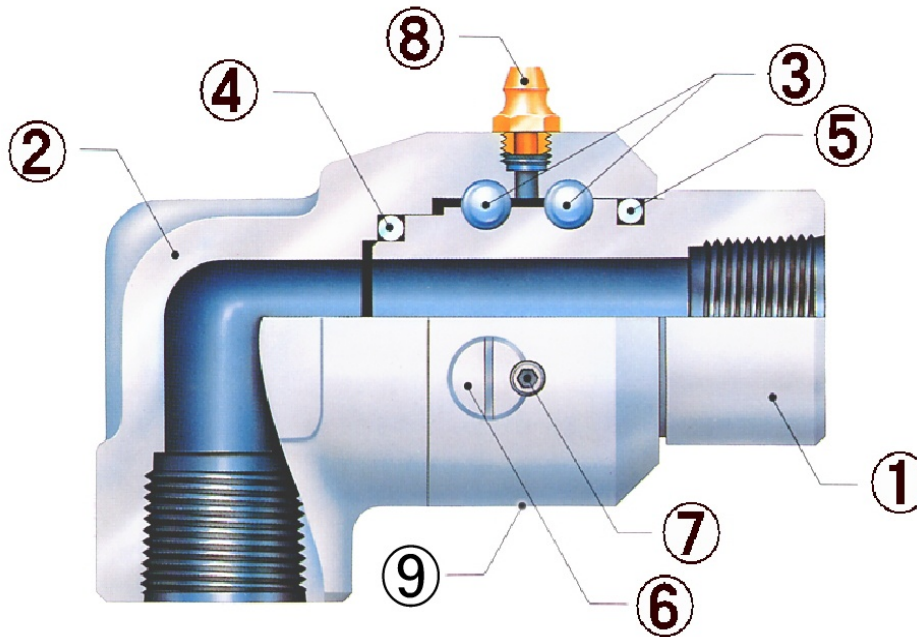


Pearl Swivel Joints

AS Series

CONSTRUCTION



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

SERVICE CONDITIONS etc.

Max. Pressure	10A~50A 4.1MPa 65A~80A 2.1MPa
Max. Temperature	100 degrees C
Material	Stainless Steel
Seal	NBR O-ring
Connection	Female Taper Thread (Rc)

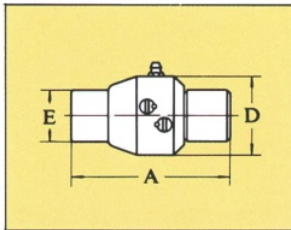
As to AS series, PTFE or FKM seals are available for higher temperatures and chemical products.

Materials of Special Packing

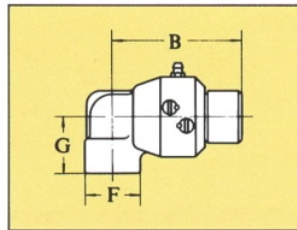
Material	Model	Max. Temperature
FKM	ASV	160 °C
PTFE seal	ASP	180 °C
Perflour	ASM	-
Silicon rubber	ASN	-
EPDM	ASE	-
Kalrez	ASX	-
Steam-resistant fluoro-rubber	ASH	160 °C
Other materials	ASZ	-

* Max. temperatures are given as a guide for use with hot water, steam, and hot oil. Please consult us for use with a special fluid.
* The grease must be changed for use with a fluid at 100°C or more or with a special fluid.
* "Kalrez" is a registered trademark of DuPont.

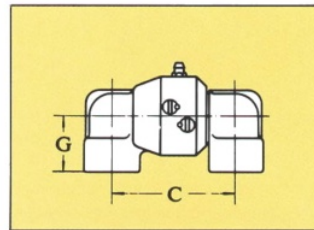
DIMENSIONS of AS series



スタイル No. 1



スタイル No. 2



スタイル No. 3

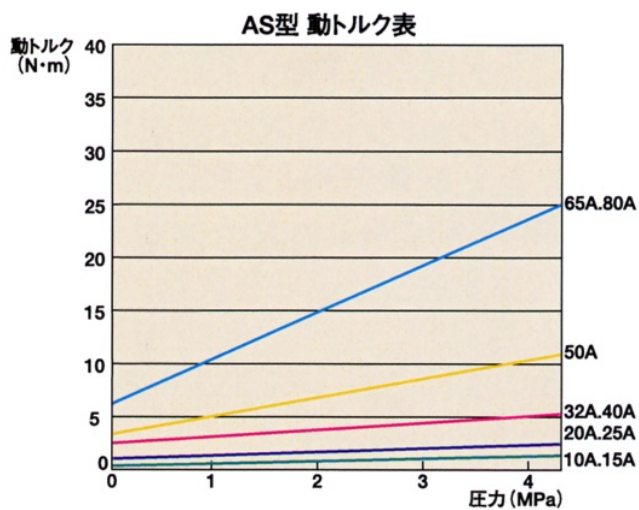
SIZE		A	B	C	D	E	F	G
(A)	(B)							
10	3/8	84	74	70	(44)	32	32	35
15	1/2	84	74	70	(44)	32	32	35
20	3/4	105	98	92	(60)	44	43	45
25	1	105	98	92	(60)	44	43	45
32	1 1/4	120	110	109	(76)	56	62	70
40	1 1/2	120	110	109	(76)	62	62	70
50	2	150	145	155	(94)	75	78	88
65	2 1/2	180	200	230	(113)	95	91	69
80	3	190	220	250	(125)	110	105	78

*() : auxiliary dimension

WEIGHT CHART(Unit = 1kg/1 piece)

SIZE(A)	NO.1	NO.2	NO.3
10	0.6	0.7	0.9
15	0.55	0.65	0.85
20	1.3	1.55	1.9
25	1.2	1.5	1.75
32	2.0	2.8	3.8
40	2.1	2.8	3.6
50	4.0	5.5	7.3
65	5.5	6.2	6.9
80	7.0	7.6	8.6

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 AS series

		NBR O-ring			FKM O-ring		
		Style	Name	Our Code	Style	Name	Our Code
Thread Connection	NO.1	AS-1	SJ-AS-1 10A	AS10010101	ASV-1	SJ-ASV-1 10A	AS10010102
			SJ-AS-1 15A	AS15010101		SJ-ASV-1 15A	AS15010102
			SJ-AS-1 20A	AS20010101		SJ-ASV-1 20A	AS20010102
			SJ-AS-1 25A	AS25010101		SJ-ASV-1 25A	AS25010102
			SJ-AS-1 32A	AS32010101		SJ-ASV-1 32A	AS32010102
			SJ-AS-1 40A	AS40010101		SJ-ASV-1 40A	AS40010102
			SJ-AS-1 50A	AS50010101		SJ-ASV-1 50A	AS50010102
			SJ-AS-1 65A	AS65010101		SJ-ASV-1 65A	AS65010102
			SJ-AS-1 80A	AS80010101		SJ-ASV-1 80A	AS80010102
	NO.2	AS-2	SJ-AS-2 10A	AS10020101	ASV-2	SJ-ASV-2 10A	AS10020102
			SJ-AS-2 15A	AS15020101		SJ-ASV-2 15A	AS15020102
			SJ-AS-2 20A	AS20020101		SJ-ASV-2 20A	AS20020102
			SJ-AS-2 25A	AS25020101		SJ-ASV-2 25A	AS25020102
			SJ-AS-2 32A	AS32020101		SJ-ASV-2 32A	AS32020102
			SJ-AS-2 40A	AS40020101		SJ-ASV-2 40A	AS40020102
			SJ-AS-2 50A	AS50020101		SJ-ASV-2 50A	AS50020102
			SJ-AS-2 65A	AS65020101		SJ-ASV-2 65A	AS65020102
			SJ-AS-2 80A	AS80020101		SJ-ASV-2 80A	AS80020102
	NO.3	AS-3	SJ-AS-3 10A	AS10030101	ASV-3	SJ-ASV-3 10A	AS10030102
			SJ-AS-3 15A	AS15030101		SJ-ASV-3 15A	AS15030102
			SJ-AS-3 20A	AS20030101		SJ-ASV-3 20A	AS20030102
			SJ-AS-3 25A	AS25030101		SJ-ASV-3 25A	AS25030102
			SJ-AS-3 32A	AS32030101		SJ-ASV-3 32A	AS32030102
			SJ-AS-3 40A	AS40030101		SJ-ASV-3 40A	AS40030102
			SJ-AS-3 50A	AS50030101		SJ-ASV-3 50A	AS50030102
			SJ-AS-3 65A	AS65030101		SJ-ASV-3 65A	AS65030102
			SJ-AS-3 80A	AS80030101		SJ-ASV-3 80A	AS80030102
	NO.4	AS-4	SJ-AS-4 10A	AS10040101	ASV-4	ask	
			SJ-AS-4 15A	AS15040101			
			SJ-AS-4 20A	AS20040101			
			SJ-AS-4 25A	AS25040101			
			SJ-AS-4 32A	AS32040101			
			SJ-AS-4 40A	AS40040101			
	NO.5	AS-5	SJ-AS-5 10A	AS10050101	ASV-5	ask	
			SJ-AS-5 15A	AS15050101			
			SJ-AS-5 20A	AS20050101			
			SJ-AS-5 25A	AS25050101			
			SJ-AS-5 32A	AS32050101			
			SJ-AS-5 40A	AS40050101			
	NO.6	AS-6	SJ-AS-6 10A	AS10060101	ASV-6	ask	
			SJ-AS-6 15A	AS15060101			
			SJ-AS-6 20A	AS20060101			
			SJ-AS-6 25A	AS25060101			
			SJ-AS-6 32A	AS32060101			
			SJ-AS-6 40A	AS40060101			
	SJ-AS-6 50A	AS50060101					

Table of AS series

		PTFE Seal					
		Style	Name	Our Code			
Thread Connection	NO.1	ASP-1	SJ-ASP-1 10A	AS10010103			
			SJ-ASP-1 15A	AS15010103			
			SJ-ASP-1 20A	AS20010103			
			SJ-ASP-1 25A	AS25010103			
			SJ-ASP-1 32A	AS32010103			
			SJ-ASP-1 40A	AS40010103			
			SJ-ASP-1 50A	AS50010103			
			SJ-ASP-1 65A	AS65010103			
			SJ-ASP-1 80A	AS80010103			
	NO.2	ASP-2	SJ-ASP-2 10A	AS10020103			
			SJ-ASP-2 15A	AS15020103			
			SJ-ASP-2 20A	AS20020103			
			SJ-ASP-2 25A	AS25020103			
			SJ-ASP-2 32A	AS32020103			
			SJ-ASP-2 40A	AS40020103			
			SJ-ASP-2 50A	AS50020103			
			SJ-ASP-2 65A	AS65020103			
			SJ-ASP-2 80A	AS80020103			
	NO.3	ASP-3	SJ-ASP-3 10A	AS10030103			
			SJ-ASP-3 15A	AS15030103			
			SJ-ASP-3 20A	AS20030103			
			SJ-ASP-3 25A	AS25030103			
			SJ-ASP-3 32A	AS32030103			
			SJ-ASP-3 40A	AS40030103			
			SJ-ASP-3 50A	AS50030103			
			SJ-ASP-3 65A	AS65030103			
			SJ-ASP-3 80A	AS80030103			
	NO.4	ASP-4	ask				
	NO.5	ASP-5	ask				
	NO.6	ASP-6	ask				

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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