

SHURJOINT

Swing Check Valves Model SJ-900

Installation Instructions

Product Description

The Model SJ-900 Swing Check Valve is available in sizes 2-1/2" to 12" (65 – 300mm) and is designed for use in systems with service temperatures up to 180°F (82°C). The single clapper features dual springs for non-slamming operation and the streamlined body and wide open clapper design provide for low friction loss. This valve can be installed in the vertical (upward flow only) or horizontal position and the EPDM rubber faced clapper provides a non-stick leak-tight seal with as little as 5 feet / 1.5 meters of head. The removable bonnet and clapper assembly provide easy access for maintenance. The Model SJ-900 check valve is rated at 300 psi / 20 bar working pressure.

Pipe Preparation

While pipe sizes are normally identified by the nominal size, always check the actual O.D. of the pipe and the fittings to be connected, as in some markets it is customary to refer to a different pipe O.D. with the same nominal size.

The "A" Dimension (gasket sealing surface - end of pipe to the front of the groove) should be free of indentations, projections, loose coatings, rust, etc. for optimum sealing. Pipe ends should be cut square within tolerances of 0.030" / 0.8mm for 2-1/2" & 3" pipe sizes, 0.045" / 1.2mm for 4" to 6" and 0.060" / 1.6mm for 8" and above.

Roll or cut groove the pipe end with a **SHURJOINT** or other grooving machine in accordance with the manufacturer's latest operation manual and to the proper groove specification. Refer to ANSI/AWWA C606-04 for groove specifications.

Installation Instructions

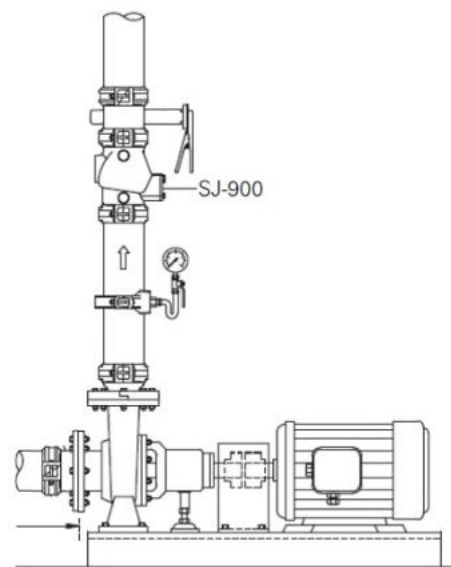
1. **Locate the Arrow Mark** on the valve body. The arrow must point to the direction of flow.
2. **Position the check valve** in accordance with the flow direction. In vertical installations, the arrow will point upward.
3. **Connect the check valve** with two rigid couplings (i.e. **SHURJOINT** model Z07). Please refer to the specific installation instructions for the couplings being used.



Model SJ-900

Cautions

- ❖ Use the Grade "E" EPDM gasket for water and other recommended services only. see gasket selection guide for other gaskets and services.
- ❖ Always thoroughly lubricate the gasket I.D and O.D. to ensure optimum gasket sealing.
- ❖ Excessive bolt torque may lead to joint failure. Recommended bolt torques are 25 Lb-Ft / 35 N-m for 3/8" bolts, 40 Lb-Ft / 55 N-m for 1/2" bolts, 80 Lb-Ft / 110 N-m for 5/8" bolts and 110 Lb-Ft / 150 N-m for 3/4" bolts.
- ❖ Uneven bolt tightening may cause the gasket to be pinched, resulting in an immediate or delayed leak.



Shurjoint Piping Products, Inc.

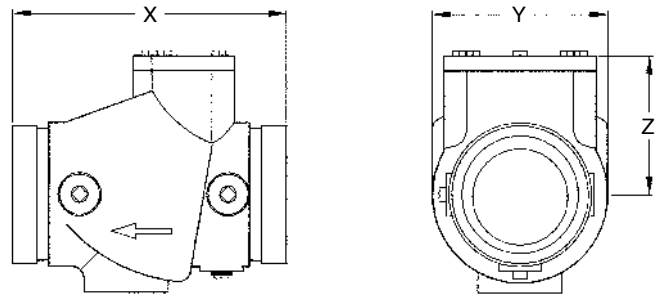
Web Site: www.shurjoint.com E-mail: world@shurjoint.com

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Dimensions

Nominal Size	Pipe OD mm/inch	Dimensions (mm / inch)			Weight Kg/Lbs
		X	Y	Z	
65 2 1/2	73.0 2.875	190 7.48	114 4.50	95 3.75	4.9 10.8
65 2 1/2	76.1 3.000	190 7.48	114 4.50	95 3.75	4.9 10.8
80 3	88.9 3.500	178 7.00	114 4.50	95 3.75	4.7 10.4
100 4	114.3 4.500	216 8.50	146 5.75	117 4.60	7.9 17.4
150 6	165.1 6.500	305 12.00	210 8.25	178 7.00	22.5 49.5
150 6	168.3 6.625	305 12.00	210 8.25	178 7.00	22.5 49.5
200 8	219.1 8.625	365 14.37	260 10.23	217 8.54	29.0 63.8
250 10	273.0 10.750	508 20.00	365 14.37	273 10.75	43.0 95.0
300 12	323.9 12.750	610 24.00	398 15.67	327 12.87	64.0 140.0

Grooved end dimensions & tolerances shall conform to AWWA/ANSI C-606-04.



Flow Data

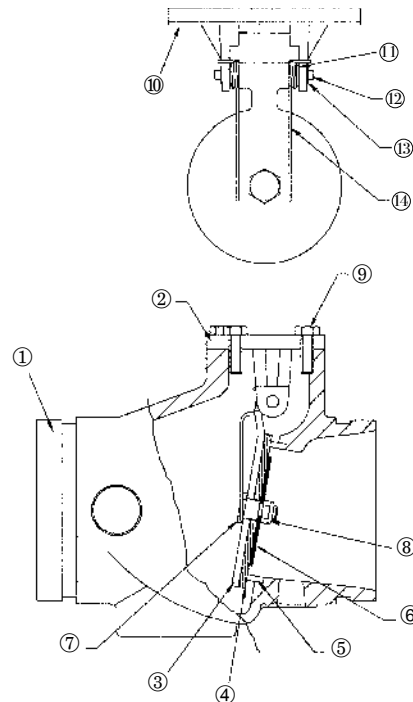
Equivalent Pipe Length of Sch. 40 Pipe

Valve Size mm /inch	Actual OD mm /inch	Equivalent Length Meter/feet	Valve Size mm /inch	Actual OD mm /inch	Equivalent Length Meter/feet
65 2 1/2	73.0 2.875	2.1 7.0	150 6	168.3 6.625	7.3 24.0
65 2 1/2	76.1 3.000	2.1 7.0	200 8	219.1 8.625	11.6 38.0
80 3	88.9 3.500	4.6 15.0	250 10	273.0 10.750	19.8 65.0
100 4	114.3 4.500	7.3 24.0	300 12	323.9 12.750	25.9 85.0
150 6	165.1 6.500	7.3 24.0			

* 1 psi - 3 psi cracking pressure

Material Specification

- ❖ **Valve Body & Bonnet (①②)**
Ductile iron to ASTM A536 Gr. 65-45-12
- ❖ **Surface Finish:** Epoxy coated (black)
- ❖ **Clapper (③):** Stainless steel Type 304 of ASTM A240 (2-1/2" - 4"), ductile iron ASTM A536 Gr. 65-45-12 (6" - 12")
- ❖ **Clapper Facing (④):** Grade "E" EPDM (Classified ANSI/NSF 61 approved)
- ❖ **Seat Ring (⑤):** Bronze C83600 of ASTM B505
- ❖ **Facing Retainer (⑥), Cap Screw (⑦), Lock nuts (⑧):** Stainless steel type 304
- ❖ **Hinge Pin (⑩):** Stainless steel Type 303 of ASTM A582
- ❖ **Spring (⑭):** Stainless steel Type 302 of ASTM A313
- ❖ **Set Screw (⑨):** Heat-treated carbon steel hex set screw



Shurjoint Piping Products, Inc.

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