Ball Check Valve Installation Instructions

Models 508

Flomatic Corporation

LOW-LEAD IAPMO R&T NSF/ANSI 372

Description:

Flomatic ball check valves, Model 508 is designed especially for use with sewage pumps and applications involving viscous liquids or slurries. The principle of the ball check valve is very simple. The ball has sufficient weight to seat tightly even in high viscous liquid, but to open freely so that the headloss is minimal. Flomatic ball check valves can be installed horizontally or vertically provided that they are installed as the illustration shows. **The preferred installation of a ball check is in the vertical position.** This will insure that gravity will seat the ball properly each time. However, if the ball check valve is to be used in a horizontal installation, it is important that the static head is at least 10 feet of water (4.3 pounds per square inch). **Recommended flow velocity range is 3-5 feet/second** (if a higher flow velocity is required, please consult the factory). Ball check valves with a floating ball should be installed in a **vertical orientation only** and have a minimum of 10 feet of static head to seal correctly. **Do NOT subject ball check valves to freezing conditions.**

The pressure rating for Flomatic ball check valves is 150 pounds per square inch. If a high pressure ball check is required, please consult the factory. Flomatic ball check valves incorporate a standard sinking ball, which operates on gravity. Special floating balls are available for valves to be installed in different positions than described above. The maximum recommended operating temperature for Flomatic ball check valves is 180°F. For any installation which requires higher temperatures, please consult factory.

Operation:

Flomatic ball check valves permit flow in one direction only and are tight seated when the outlet pressure exceeds the inlet pressure.

Installation:

1. Check inside the valve to be sure that any materials used in shipping are removed. Check for any foreign material that should not be inside the valve and remove.
2. Check the operation of the ball by pushing it away from the seating surface to be sure it moves freely.
3. Inspect the ends to be sure there are no raised burrs or edges that would allow the valve to not seal when connected.
4. Install the valve with the flow arrow in the direction of flow.
5. If installed in a vertical position the direction of flow must be in an up-arrow direction.
6. If installed in a horizontal position the valve must be installed with the cover oriented to the top.

Maintenance:

Flomatic ball check valves do not require any regular maintenance.

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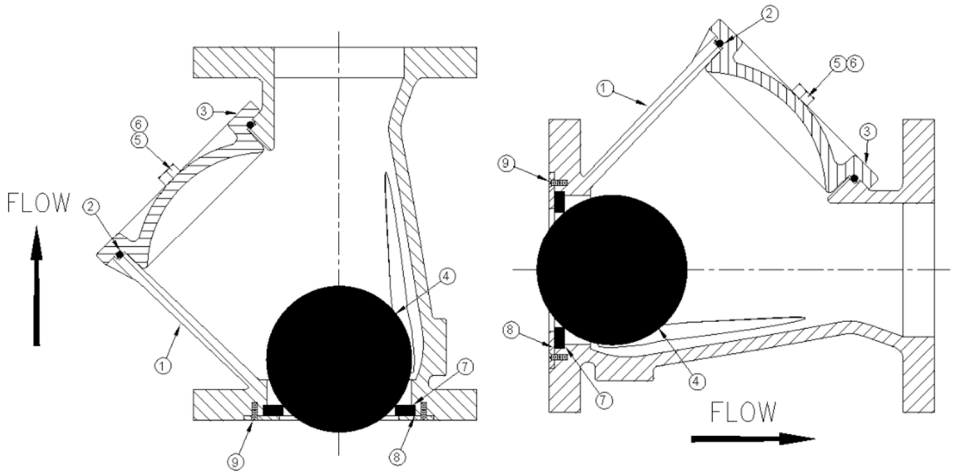
Service / Repair:

Disassembly of the valve may be required due to debris obstructing the valves ability to operate correctly or for inspecting the valve for wear.

NOTE: BEFORE ATTEMPTING TO DISASSEMBLE THE VALVE BE SURE PUMP IS LOCKED OFF AND SYSTEM PRESSURE IS RELIEVED AND ISOLATED FROM VALVE

1. Loosen and remove cover bolts (if applicable) and / or remove the valve cover.
2. Remove the O'ring.
3. Clean and inspect the ball for damage and / or debris.
4. Examine the seating area for damage.
5. Reassemble valve with new or existing parts as needed.
6. Put valve back in operating service.
7. Inspect valve for any cover and end connection leaks.



Item #	Qty	Description
1	1	Body (Epoxy Coated)
2	1	O'Ring
3	1	Cover (Epoxy Coated)
4	1	Ball (sinking)*
5	2	Bolt
6	2	Nut
7	1	Seal
8	1	Retaining Ring
9	6	Flat Head Cap Screw

See spec sheets for part details

Troubleshooting	
Problem: Valve has noisy operation or slams when pump shuts down.	Solution: Check the flow velocity and / or system piping for trapped air.
Problem: Can not achieve desired flow	Solution: Check valve internally for any foreign material.
Problem: Valve leaking back	Solution: Check ball and seat for damage and / or check the static head conditions.

Information needed to order repair parts:

Valve Model Number
Valve Size

1 Year Limited Warranty: Flomatic valves are guaranteed against defects of materials or workmanship when used for the services recommended. If in any recommended service, a defect develops due to material or workmanship, and the device is returned, freight prepaid, to Flomatic Corporation within 12 months from the date of purchase, it will be repaired or replaced free of charge. Flomatic Corporations' liability shall be limited to our agreement to repair or replace the valve only.

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FLOMATIC® VALVES