

INSTALLATION, OPERATION AND MAINTENANCE FOR SHARPE® SERIES 25 SWING CHECK VALVES



It is the responsibility of the customer to determine the suitability of ASC-ES valves products in their particular application.
Disclaimer: Supplier shall not be liable or responsible for omissions or errors in its bulletin.

COMPONENT BREAKDOWN

For a complete breakdown of the individual components, please refer to the specific cut sheet for the respective class and material of the valve.

SAFETY PRECAUTIONS

- *Before removing valve from pipeline:* media flowing through a valve may be corrosive, toxic, flammable, or of a contaminant nature. Where there is evidence of harmful fluids having flowed through the valve, the utmost care must be taken. It is suggested that at least the following safety precautions should be taken when handling the valves. More precautions may be required, refer to the media's Safety Data Sheet for additional precautions.
 1. Always wear eye shields
 2. Always wear gloves and overalls
 3. Wear protective footwear
 4. Wear protective headgear
 5. Ensure that running water is easily available
 6. Have suitable fire extinguisher ready if the media is flammable
- By checking line gauges, ensure that no pressure exists on either the upstream or the downstream sides of the valve.
- Ensure that any media is released.
- Ideally, the valve should be decontaminated.

INSTALLATION

Sharpe® brand gate valves have been designed and engineered to provide long lasting and trouble-free service when used in accordance with the instructions and specifications herein.

• General

- The following instructions only refer to Sharpe® brand standard valves as described in this document.
- Keep any protective covering in place until the moment of installation. Valve performance depends upon the prevention of damage to the sealing surfaces. Upon removal of any covers, make sure that the valve is completely open and free of obstructions.
- When shipped, valves may contain a silicon based lubricant which aids in the assembly of the valve.

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- ASC Engineered Solutions cannot anticipate all of the situations a user may encounter while installing and using the valve.
- The user must know and follow all applicable industry specifications and government regulations for the safe installation and use of these valves.
- Only qualified personnel or technicians who are trained for maintenance work and have read the instructions are to install the valve.
- Misapplication of the product may result in injuries or property damage of which ASC Engineered Solutions is not liable for.
- The installation location shall be carefully considered in order to allow for easy operation and maintenance of the valve.
- Before installing the valves:
 - The pipes must be flushed clean of dirt, burrs and welding residues, or you will damage the seats and sealing surfaces.
 - Check the valve identification tag carefully to verify that it is the correct valve for the application.
 - Check the inside passage and seal surface of the valve. Clean as necessary to remove all dirt and foreign material.
- These valves should be installed using good pipe fitting practices.
 - Valves are designed for uni-directional flow indicated by the cast in flow arrow on the side of the valves.
 - All check valves should be installed at least ten pipe diameters away from upstream pumps, elbows, fittings or equipment.
 - Check valves should be installed horizontal or straight vertical per the below:
 - For vertical installation of the check valve, the flow must be in an upward direction so the disc seats when flow is reduced. The upstream pressure must exceed the cracking and downstream back pressure or else the valve may not open properly. Low flows can cause disc chatter, wear of seat and disc, and erosion.
 - The valve, as well as the piping to and from the valve should be supported properly to eliminate excessive pipe strain after the valve is installed.
 - Other positions may cause functionality issues.

OPERATION

• General

- Sharpe® brand valves are designed to be used under normal conditions and in accordance with Sharpe® valves published pressure/temperature charts.
 - Valves are metal seated so, per API 598, there is an allowable through leakage.
 - Metal seated valves should not be used with flammable media applications because of their tendency to spark when operating.
- Any media which might solidify, crystallize or polymerize should not be allowed to stand in the valve cavities unless regular maintenance is provided.

• Operation

- Sharpe® check valves are automatically opened or closed by fluid flow; allowing flow in the preferred direction and preventing flow in the reverse direction.

STORAGE

- Valves shall be stored in a dry warehouse, with end covers installed.
- For long term storage, valves shall be checked periodically, and cleaned to remove dirt and foreign material. Refer to Sharpe® PS 8-5-4 for detailed storage criteria. Special care shall be taken for the cleanliness of seat surfaces, to prevent damage to the seat and disc.

MAINTENANCE

• General

- Sharpe® valves are designed to have a long, trouble-free life.
- The following checks should, however, help to extend valve life or reduce plant problems.

• Leakage at Pipeline Joint

- Verify the tightness of flange bolting. If loose, tighten bolts equally and uniformly not to exceed the strength of the mounting bolts. Normal gasket materials should be used in the correct quantity.

• In-Line Leakage

- Check that the valve is fully closing. If it is, leakage amounts greater than the allowable may be due to a damaged seat or disc sealing surface and it will be necessary to replace the valve.
 - ASC Engineered Solutions does not offer any repair parts for the Series 25 swing check valves so if anything breaks or wears out beyond the warranty period replacing the valve is recommended.