

## INSTALLATION, OPERATION & MAINTENANCE FOR SVF SERIES HBEV BALL VALVES



The Series HBEV valve is seal welded and non-repairable.

### GENERAL

SVF Ball valves have been designed and engineered to provide long lasting and trouble free service when used in accordance with the instructions and specifications herein.

The following instructions refer only to SVF Series HBEV Ball Valves.

Keep protective cover in place until moment of installation. Valve performance depends upon preventing of damage to ball surface. Upon removal of cover, make sure that the valve is completely open and free of obstruction.

If requested, valves can be shipped from the factory containing a silicon based lubricant which aids in the assembly of the valve. This may be removed with a solvent if found intolerable.

Certain ferrous valves are phosphate and oil dipped during the course of manufacture, but they are completely non-toxic and the valves are quite safe to use for edible or potable products.

### STORAGE:

All manual valves are shipped in the fully open position with protective end caps (covers). Keep all protective packaging, flange covers, or end caps attached to the valves during storage. To avoid damage to the seat due to contact with the balls edge, leave the valve in the **fully open or closed position** during storage. It is recommended to keep the valves in a clean and dry environment until ready for use.

### !!!CAUTION! Safety Precautions!!!

Before removing valve from pipeline NOTE that:

Media flowing through a valve may be corrosive, toxic, flammable, a contaminant or harmful nature. Where there is evidence of harmful fluids having flowed through the valve, the utmost care must be taken. It is suggested that the following minimal safety precautions be taken when handling valves.

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 readily accessible.
6. Have a suitable fire extinguisher ready if media is flammable.
7. Be sure that you are aware of the fluid that has been passing through the valve before opening or dismantling any valve. Require MSDS information.

By checking line gauges ensure that no pressure is present at the valve.

Ensure that any media is released by operating valve slowly to half open position. Ideally, the valve should be decontaminated when the ball is in the half open position.

These valves, when installed, have body connectors which form an integral part of the pipeline and the valve cannot be removed from the pipeline without being dismantled.

Valves and accessories must not be used as a sole support of piping or human weight. Safety accessories such as safety relief (overpressure) valves are the responsibility of the system designer.

It is the user/system designer's responsibility to use insulation in high temperature applications. Refer to OSHA documents for more details.

*What do you need today?™*

## INSTALLATION, OPERATION & MAINTENANCE FOR SVF SERIES HBEV BALL VALVES

### INSTALLATION:

#### THREADED END VALVES

The valve may be installed for flow or vacuum in any orientation or position using good piping practice. For threaded end valves, use a suitable joint or TFE tape for ease of fit-up.

#### WELDED END VALVES

The valve may be installed for flow or vacuum in any orientation or position using good piping practice.

1. Place the valve in the OPEN position.
2. Align the valve between the pipe ends and make the appropriate welds according to standard welding procedures. **NOTE: The body temperature in the seal area must not exceed 392°F.**
3. Allow the valve to cool. Quenching is allowed.
4. Cycle the valve a few times and then leave it in the desired OPEN or CLOSED position.

### OPERATION

SVF valves provide tight shut off when used under normal conditions and in accordance with SVF's published pressure/temperature chart. If these valves are used in a partially open (throttled) position seat life may be reduced.

SVF valves have 1/4 turn operation closing in a clockwise direction. It is possible to see when the valve is open or closed by the position of the wrench handle. When the wrench is in line with the pipeline, the valve is open.

Any media which might solidify, crystallize or polymerize should not be allowed to stand in the ball valve cavities unless regular maintenance is provided. If minimal maintenance is required, SVF offers steam jacketed ball valves.

### MAINTENANCE

With self-wiping ball/seats, SVF valves have a long, trouble free life, and maintenance is seldom required. The following checks will help to extend valve life, or reduce plant problems.

SVF ball valves utilize live-loaded stem seals featuring Belleville Washers (disk springs) that maintain constant pressure on the Stem Seal area even under a wide range of pressure and temperature fluctuations. If stem leakage is evident proceed as follows:

#### STEM LEAKAGE

Remove the Handle Nut, Handle and Stem Nut. Examine the disk springs (Belleville washers) for damage. If in good condition tighten the stem nut until disk springs are firmly compressed, then back nut off 1/16th of a turn. If leakage continues, the valve will need to be replaced.

#### IN-LINE LEAKAGE

Check that the valve is fully closed. If leakage occurs while the valve is in the closed position, a seat or ball sealant surface may be damaged and it will be necessary to replace the valve.

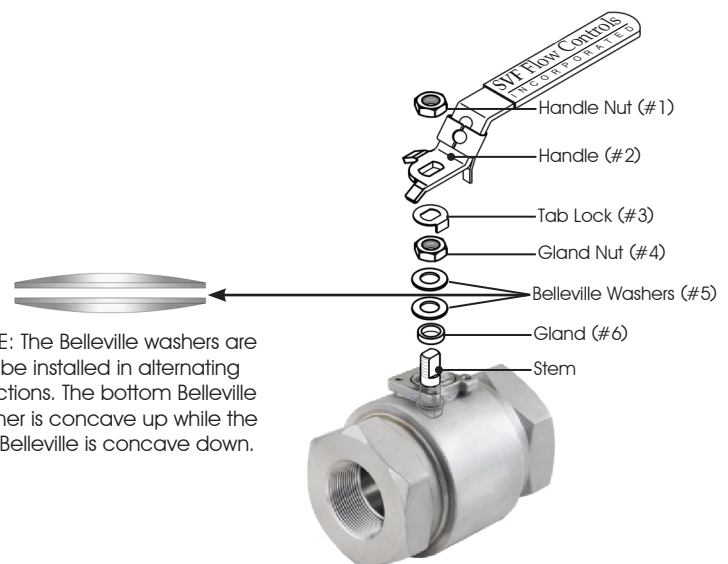
#### LEAKAGE AT PIPELINE JOINT:

#### THREADED END VALVES

Test for tightness of threaded ends. If loose, tighten with the appropriate size wrench - **excessive force will damage the end.** A suitable joint or TFE tape should be used.

#### WELDED END VALVES

Examine welds for leak point. Correct as necessary according to standard welding practices.



NOTE: The Belleville washers are to be installed in alternating directions. The bottom Belleville washer is concave up while the top Belleville is concave down.