Installation, Operation, and Maintenance Instructions S2 Unibody Rising Stem Sampling Valve

WARNING:

For your safety and protection it is important that the following precautions be taken prior to working on the valve.

1. **Depressurize and drain the line.**
2. **Cycle the valve to relieve any pressure trapped in the valve.**
3. **Disconnect any air and electrical connections to the valve assembly.**
4. **Know what the media is in the line and wear appropriate protective clothing and equipment. Obtain appropriate MSDS sheets.**
5. **To ensure safe product selection and operation, it is the responsibility of the process system designer and end user to determine the appropriate compatible materials of construction and adequate product ratings for the process system. Process system designer, installer, and end user are responsible for proper installation, operation, and maintenance.**
6. **When disposing of Teflon parts, do not incinerate or subject to open flames.**

General

This Installation, Operation, and Maintenance manual is for the safe use of PBM S2 Unibody rising stem sampling valves. Please read the instructions carefully and save them for future reference.

Installation

The S2 Unibody Rising Stem Sampling Valve is a valve that is used for taking samples from a line or tank. Install the valve using appropriate joint seals and fittings. The valve can be installed in any orientation compatible with taking a sample.

Connect a suitable sampling container or connection to the outlet nozzle of the valve. To open the valve, turn the knob counter-clockwise. The valve will be completely open in about three turns of the knob. An internal stop in the valve will limit open travel. For throttling, open the valve only to the position needed to obtain the desired flow. To close the valve, turn the knob clockwise until the valve seats

In-Service Adjustments

Should seat leakage develop, turn the knob slightly clockwise and the leakage should stop. If leakage continues, the seat may be damaged and need replaced. Should leakage occur past the O-ring seal, the seal should be replaced as it is probably damaged. Note that this seal is normally not wetted. It is wetted only when taking a sample.

Autoclaving:

The valve may be autoclaved at temperatures up to 300 degrees F. It may be autoclaved fully assembled in either the open position, mid-position, or closed position. In addition, the valve parts can be autoclaved in a disassembled condition.

Disassembly of the Valve:

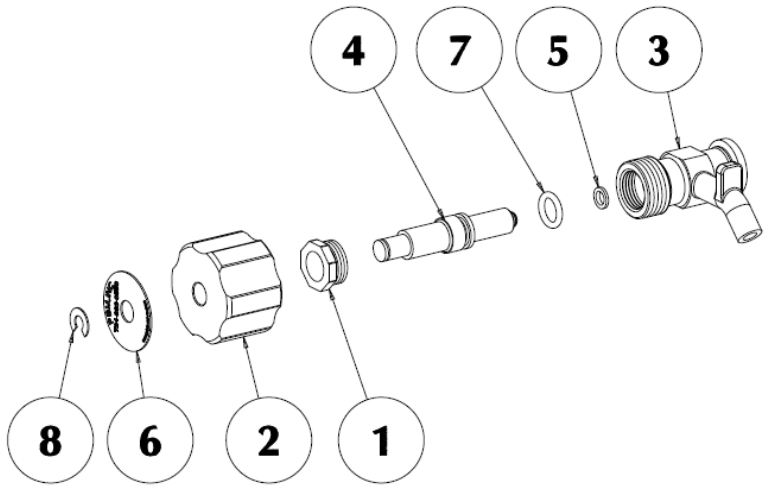
1. Drain the tank, then ensure valve is in the open position.
2. Remove the retaining clip from the knob and remove the metal nameplate.
3. Unthread and remove the knob.
4. Remove the gland internal to the body.
5. Pull the stem out of the body.
6. Remove the O-ring from the stem. The O-ring should be inspected for damage and wear. If it is not damaged or worn it should be suitable for re-use.
7. Remove the seat from the stem. The seat will have to be pried loose and will not be reusable. The seat was press fit onto the stem. Removal of the seat will enlarge the hole diameter through the seat which will affect the

fit on the stem. For this reason the seat should not be reused, despite what may appear to be a suitable appearance. A reused seat is vulnerable to breaking free of the stem making the valve incapable of sealing.

Re-Assembly of the Valve:

1. Clean all metal parts before starting re-assembly.
2. Install the o-ring into the groove on the stem.
3. Place the seat on a clean table with the angled side facing the table and push the end of the stem through the hole in the seat.
4. The seat will now be affixed to the stem. To insert the seat into its groove in the stem, simply push it into the groove in the stem using one's fingers.
5. Insert the stem into the body allowing the O-ring to enter the body, then install the gland into the body bore to secure the stem.
6. Thread the knob onto the body, then install the nameplate over the end of the stem and secure the knob to the stem using the retaining clip.
7. Close the valve by turning the knob clockwise.
8. The valve is now fully assembled.

PARTS LIST	
ITEM	**DESCRIPTION**
1	Gland
2	Knob
3	Body
4	Stem
5	Seat
6	Nameplate
7	O-Ring
8	Rotor Clip Retaining Ring



Repair Kit (V-TEF™/ FKM)	Repair Kit (V-TEF™/ EPR)	Repair Kit (V-TEF™/ EPDM)	Stem (316L S/S)
S2KIT-A	S2KIT-B	S2KIT-C	S2HLA002

Notes for Table above:

1. Standard repair kits include 1 V-TEF™ seat and 1 O-ring.
2. Replacement parts are one each per part number.

Material Definitions:

TF V-TEF™ Chemically modified polytetrafluoroethylene

IMI PBM
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Phone: (724) 863-0550 or (800) 967-4PBM Fax: (724) 864-9255
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