



3170 Wasson Road • Cincinnati, OH 45209 USA  
Phone 513-533-5600 • Fax 513-871-0105  
steriflow@richardsind.com • www.steriflowvalve.com

## I & M JSHM Series

### *Installation & Maintenance Instructions for JSHM Series Hand Metering Valve*

Warning: Steriflow Sanitary Hand Metering Valves must only be used, installed and repaired in accordance with these Installation & Maintenance Instructions. Observe all applicable public and company codes and regulations. In the event of leakage or other malfunction, call a qualified service person; continued operation may cause system failure or a general hazard. Before servicing any valve, disconnect, shut off, or bypass all pressurized fluid. Before disassembling a valve, be sure to release all pressure contained in the valve body.

#### **Please read these instructions carefully!**

Your Steriflow product will provide you with long, trouble-free service if it is correctly installed and maintained. Spending a few minutes now reading these instructions can save hours of trouble and downtime later. When making repairs, use only genuine Steriflow Valve parts, available for immediate shipment from the factory.

#### **Ideal Installation**

1. The valve is designed for sanitary service and it is assumed that it will be installed into a clean system. Under these conditions, special considerations to protect the valve such as providing line strainers at the valve inlet are not necessary.
2. The hand metering valve can be installed with the adjusting knob pointed upwards (vertical up position) or with the outlet pointing downward (horizontal position). Either of these two positions will provide the best drainage inside the valve. These restrictions apply only for drainage considerations; the valve will function in any position. Contact factory for other possible orientations.
3. When using this valve in a steam system, it is beset located at the highest point in the piping with the take-off out of the top of the steam header. This will minimize the possibility of water condensing inside the valve.
4. Use caution in tightening commercial sanitary fittings. Over-tightening can cause the gasket to extrude into the flow passage.
5. Operate the hand metering valve within its pressure and temperature rating as stamped on the valve nameplate.

#### **Use**

1. This valve is used to precisely control a set flow through a system dependent upon the inlet pressure to the valve and to provide Class VI shutoff for a system when not in use. To use the valve, slowly open the adjusting screw until the desired flow is achieved out of valve for the given inlet pressure.

2. To change the controlled flow, turn the adjusting screw clockwise to increase the flow, or counterclockwise to decrease the flow.

#### **Preferred Installation**

Caution: Make certain that there is no pressure in the valve before loosening any fittings or joints. The following steps are recommended:

1. Close the valve on the inlet side immediately upstream of the hand metering valve.
2. Turn the adjusting screw counterclockwise until the knob is back out as far as it will go, allowing any trapped pressure to release downstream.
3. Allow pressure to bleed off through the downstream piping. Do not attempt to reverse the flow through the valve by bleeding pressure from the upstream side of the valve.
4. When the pressure gauge downstream of the valve indicates that all pressure has been removed from the system, close the outlet shutoff valve. The valve may be removed from the line and serviced.

Note: refer to the drawing at the end of this document for description and proper orientation of parts.

#### **Disassembling Valve**

1. Follow the instructions under the "Maintenance" section to remove the valve from line.
2. Place the body in a soft jaw vice to protect the finish, and then remove the bonnet by turning counterclockwise with a 1" wrench.
3. With the bonnet removed, lower the knob by turning it clockwise until the knob is completely in the down position.
4. Remove the diaphragm/plug assembly by sliding the bayonet joint between the upper diaphragm plate and the actuator screw part.
5. Place the upper diaphragm plate in a soft jaw vise and unscrew the plug/lower diaphragm plate.

## Preparing Valve for Assembly

1. All parts should be cleaned and examined. Damaged parts should be replaced.

**Note: For all assembly lubrication requirements, Jordan Valve/Steriflow Valve uses Bostik NEVER\_SIIZ, White Food Grade with PTFE, Cat. No. NSWT-14 (improved version without mineral oils).**

2. For soft-seated valves: clean threads on the retainer with Loctite primer "7649". Allow to dry. Install new soft seat on the retainer seat tip. Apply Loctite No. 243 to threads and thread the retainer through the soft seat/plug, the lower diaphragm plate and the diaphragm into the upper diaphragm plate. Tighten until the screw threads run out. Allow to cure.

## Assembling the Valve

1. With valve knob in the down position, slide the bayonet joint in the upper diaphragm plate assembly onto the actuator screw.
2. Slowly back the knob out of the bonnet until the diaphragm rests against the bottom of the bonnet.
3. Screw the bonnet into the body until a positive stop is felt. Tighten hand tight with a 1" wrench.

## Troubleshooting

### If You Experience Erratic Control:

- Valve seat may be defective - replace retainer and soft seat/plug
- Valve plug may not be moving freely - inspect the upper diaphragm plate and bonnet

### Erratic flow or less than expected flow:

- Inspect for jamming between upper diaphragm plate and bonnet
- Diaphragm may have failed - replace if necessary
- Piping may be blocked or undersized
- The valve may be undersized for required flow - make certain that the valve has been sized correctly

### Valve Does not Achieve Class VI Shutoff:

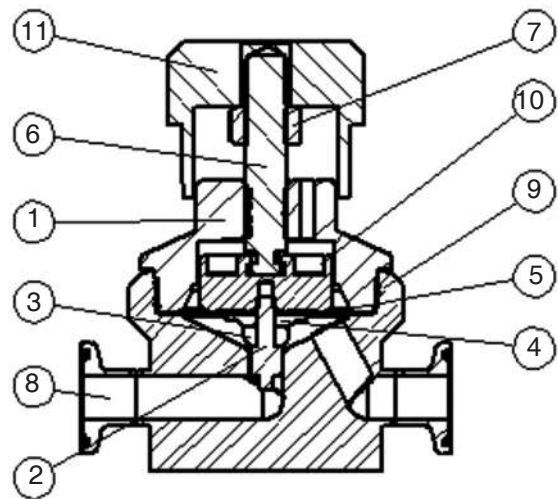
- Inspect soft seat/plug for damage or blockage

## Ordering Spare Parts

Use only genuine Steriflow/Jordan Valve parts to keep your valve in good working order. So that we can supply the parts, which were designed for your valve, we must know exactly which product you are using. The only guarantee to getting the correct replacement parts is to provide your Steriflow Representative with the valve serial number. This number is located on the valve identification tag. If the serial number is not available, the parts needed for your valve might be determined using the following information: Model Number, Valve Body Size, Seat Material and Cv Rating, Spring Range and Set Point, Trim Material, Part Name - Number and Quantity.

Note: Any parts ordered without a valve serial number that are found to be incorrect are subject to up to a minimum 25% restock charge when returned.

## Parts & Illustration



Part No.	Description
1	Bonnet
2*	Seat Tip
3*	Soft Seat
4	Lower Diaphragm Plate
5*	Diaphragm
6	Adjusting Screw
7	Knob Lock Nut
8	Ferrule
9	Body
10	Upper Diaphragm Plate
11	Knob

\* Recommended spare parts