JORDANVALVE

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

Mark 608DS (1-1/2" - 2")

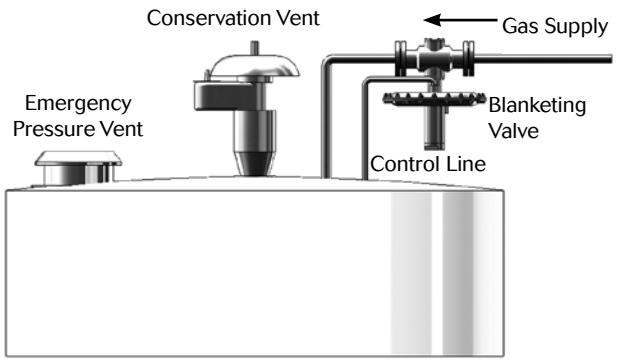
Installation Instructions for
Mark 608DS Gas Pressure Regulators

Warning: Jordan Valve Pressure Regulators 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 spring tension.

Please read these instructions carefully!

Your Jordan Valve 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 Jordan Valve parts, available for immediate shipment from the factory.

Ideal Installation



IMPORTANT: IF THE INTENDED SET POINT OF THIS VALVE IS BELOW 8 wc (20 mbar), THE VALVE MUST BE MOUNTED IN THE INVERTED POSITION (SPRING HOUSING DOWN).

1. To protect the valve from grit, scale, thread chips and other foreign matter, ALL pipelines and piping components should be blown out and thoroughly cleaned before the installation process begins.
2. Shutoff valves, pressure gauges and by-pass piping are optional, and if installed should be in accordance with all applicable codes, standards, and practices. They are recommended to provide easier adjustment, operation, and testing.
3. The flow arrow on the valve body must be pointed in the direction of flow. Ideally, the valve should be installed in the highest horizontal line of piping.
4. If possible, install a relief valve downstream from the valve. Set at slightly above the control point of the valve but below the maximum safety limit for the tank.
5. It is strongly recommended that the installer read and be thoroughly familiar with API 2000, Standard Information for Tank Blanketing Regulator Selection before installing and attempting to operate this product.

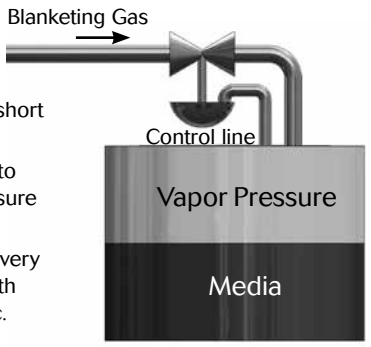
Control Line

A control line must be installed as follows:

1. Connect one end of a ¾" pipe to the fitting under the diaphragm.
2. Connect the other end to an appropriate fitting on the tank.
3. DO NOT locate the control line tap in any location where turbulence or abnormal velocities may occur.

Control line should slope downward toward the tank to prevent Condensation buildup.

1. Make the control line as short and straight as possible.
2. Connect the control line to the point where the pressure is to be controlled.
3. Increase 1 pipe size for every 10 feet of control line, with setpoints less than 5" w.c. (0,012 bar).



4. The control line should be sloped away from the valve.
5. Install a pressure gauge to measure pressure in the tank itself, not in the outlet piping or the control line to aid in setting the valve.

Control Line Piping Recommendation

- Keep the regulator as close to the tank as possible and as high as possible.
- Minimize the length of the downstream pipe coming from the valve.
- NEVER reduce the pipe size on the valve outlet to the tank. This line must always be as large as the valve size, or one pipe size larger to assure it does not act as a restriction.
- Any downstream isolation valve after the regulator must be a full port type. The isolation valve cannot act as a restriction.
- The sensing line must be a minimum of 3/4" pipe.
- A sensing line isolation valve is recommended. Again, must be full ported.
- Slope the sensing line to the sensing port on the tank.
- Keep the sensing line as short and straight as possible.
- For each 10 feet of sensing line, increase the line size by one pipe diameter. (Especially important on the blanket pressures of less than 5 inches of water column).
- Keep the sensing port on the tank as far removed as possible from the downstream pipe outlet going into the tank.

Start-Up

With the inlet, outlet, and bypass shutoff valves closed, and no pressure in the downstream line:

1. Slowly open the inlet valve just enough to start flow through the valve. Observe the tank pressure gauge. Increase the downstream pressure slowly by gradually opening the inlet valve.
2. Do not fully open the inlet valve until you are sure that the regulator has control of the system. Usually, the handwheel on the inlet valve will turn freely when this is achieved.
3. To change the controlled pressure, adjust the controlled pressure supplied to the top of the diaphragm.

Trouble Shooting

The first step in troubleshooting a pressure regulator is to classify the action of the controlled pressure into one of the following categories:

A. Under Pressure: Controlled pressure too low; not enough flow or no flow through valve.
B. Over Pressure: Valve will not close or controlled pressure increases after valve closes.
C. Pressure Fluctuates: Controlled pressure rises and falls, will not settle out under low loads.

The next step is to determine what could cause the trouble. The third step is to locate and remedy the cause by the process of elimination. Make no assumptions and check the easy ones first. The guide below lists the controlled pressure action, common causes and procedure for checking each cause.

Controlled pressure action UNDER PRESSURE:

- Valve undersized for application. Check capacity required and valve capacity.
- Line strainer screen clogged. Blow down strainers or visually check that they are clear.
- Incorrect setting on range spring. Vary the setting and check response.
- Main valve diaphragm or balance diaphragm ruptured. See action on valve maintenance.
- Malfunction of other piping components. Check for leaking safety valves, inadvertently opened or closed valves.

Controlled pressure action OVER PRESSURE:

- Incorrect setting on range spring. Vary the setting and check response.
- Main valve seats leaking. Close inlet shut-off valve, allow downstream pressure to bleed off, close outlet valve and remove loading pressure tubing. Back out adjusting screw on valve until free. Crack open inlet shut-off valve - if the fluid issues from the main valve port, the main valve seats are leaking.
- By-pass shut-off leaking. During period of leakage close outlet shut-off valve, observe downstream pressure gauge.

Controlled Pressure Fluctuates:

- Valve oversized. Check capacity required and valve capacity.

Note: Valve is NOT field repairable. Contact your local representative or 800-543-7311 for repair information.

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