

# Installation and Startup Instructions

## “Flush / Drain System” Option FDS

1.

### 1.1 Principle of Operation

The flush system is designed to purge water soluble liquids (latex, coolants, syrup, etc.) that could solidify in the pressure ports causing sluggish meter response or clogged pressure passages. Two ball valves are included in the flow meter construction ball valve #3 (equalizing Valve) that isolate the pressure ports during normal flow conditions, and ball valve #4 (water inlet) allows water or other cleaning fluids to flow through the pressure ports and piping system during the flush cycle.

2.

### 2.1 Installation

Select a site which is convenient for viewing and which provides service access to the front and rear of the flow meter. The site selected should provide at least 10 diameters of straight meter sized pipe upstream and a ball valve, no special straight run piping requirements downstream. Mount the flow meter rigidly to minimize shock and vibration. Install a drain line downstream of the flow meter but before ball valve #2.

**Note: Place ball valves (not included) before and after the flow meter to isolate the flow meter during the flushing cycle also add a drain line refer to figure 1 for recommended piping configuration.**

3.

### 3.1 Operation and Maintenance

Sluggish flow meter response can be caused by clogged pressure port passages with debris or sludge. Flush the piping system to dissolve sludge build-up in the pressure passages and flow nozzle through the drain line. Flush media before it solidifies to prevent clogging.

### 3.2 Flush Procedure

To flush the piping system, close ball valves #1 (inlet) and ball valve #2 (outlet) at the flow meter body. Open the equalizing ball valve #3 and then open ball valve #4 (water inlet) turn water on. Open the drain ball valve #5 to purge media from piping system into a bucket or container until the fluid flows clear. This completes the flushing process.

**Important: Be sure to flush piping system after each use to prevent clogging of the pressure ports and flow nozzle.**

Close the drain ball valve #5, close ball valve #4 and equalizing ball valve #3, open ball valve #2 outlet of the flow meter. Start pump and **slowly** open the ball valve #1 observing the flow meter response fully open ball valve #1, **slowly** close ball valve #2 until the desired flow rate is obtained.

# 4.

## 4.1 Preventative Maintenance

Avoid placing flow meter where it will be subject to water hammer and surges. Use caution during start up open and close ball valves slowly.

If the flow meter is still sluggish and not responsive refer to the installation, operation, and maintenance manual for additional instructions. The flow meter may need to be returned for further inspection and/or repairs. Contact the factory for an RMA#.

Protect the meter from dripping or splashing corrosives or solvents which may attack meter exterior and eventually damage the internal mechanism causing the flow meter to not malfunction.

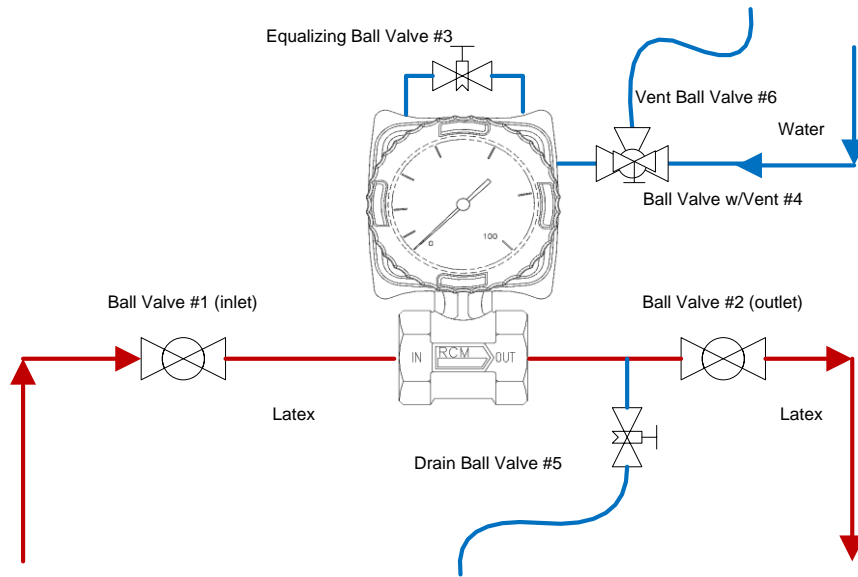


Figure 1

Latex Modified Concrete Mixer Piping System

## 4.2 Drain Procedure (Protect from freezing liquids)

To completely drain fluid from the bellows chamber close ball valve #1 and ball valves #2 then open equalizing ball valve #3, open drain ball valve #5 and remove vent cap then open ball valve #6 to purge residual fluid in the flow meter bellows chamber. Wait a few minutes for the fluid to drain completely. This is best done after flushing the system with water to purge latex that can solidify and clog the pressure passages and flow nozzle.

**Important:** Be sure all ball valves are in their proper position before starting - up. Compressed air can be used to clear out residual water.