

# 7650 INSTALLATION INSTRUCTIONS

This is important information. Read it carefully before beginning work.

- 1) Inspect the meter for damage that may have occurred during shipping. If container is damaged report it to freight carrier immediately.
- 2) Make sure your pressure, temperature, fluid and other requirements are compatible with the meter.
- 3) Select a suitable location for installation to prevent excess stress on the meter which may result from:
  - a) Misaligned pipe.
  - b) The weight of related plumbing.
  - c) "Water Hammer" which is most likely to occur when flow is suddenly stopped as with quick closing solenoid operated valves. (If necessary a surge chamber should be installed. This will also be useful in pressure start-up situations.)
  - d) Thermal expansion of liquid in a stagnated or valve isolated system. (If necessary install valving which will allow the meter to be drained when not in use.)
  - e) Instantaneous pressurization which will stress the meter and could result in tube failure. Note: In closed thermal transfer or cooling system install the meter in the cool side of the line to minimize meter expansion and contract and possible fluid leaks at the meter in the cool side of the line to minimize meter expansion and expansion and contraction and possible fluid leaks at the threaded connections.
- 4) Handle the meter carefully during installation.
  - a) Use an appropriate amount of Teflon tape on external pipe threads before making connections. Do not use paste or stick type thread sealing products.
- 5) Install the meter vertically with the inlet port at the bottom. No piping runs required.
- 6) Standard connections are vertical, NPT type.
- 7) Meter with stainless steel fittings will support several feet of pipe as long as significant vibration or stress resulting from misaligned pipe are not factors.
- 8) Meters with plastic fittings must be installed so that fitting are not made to support any part of the associated plumbing. In addition meter cases should be fastened to bulkhead, panel or stanchion.
- 9) Meter used in gas service should have suitable valves plumbed in at the inlet and outlet of the meter. These valves should be no more than 1 ½ pipe diameters from the meter ports. The valve at the outlet should be used to create back pressure as required to prevent float bounce. It should be set during installation and then left alone. The inlet valve should be used for throttling purposes. Valves may not be essential, but they are most useful in many installations. Remember: To get a correct indication of flow rate in gas service it is necessary to know the pressure right at the outlet of the meter (before the valve). Standard gas calibrations are for air at 14.7 psia (0 psig).

## **CAUTION:**

7650 Series meters have O-ring seals. Use with incompatible fluids will cause O-rings to swell which may cause glass tubes to fail.

Plastic fittings are not suitable for gas applications.

Glass tube meters should not be used with strong or hot alkalis, fluorines, hydrofluoric acid, steam or water above 200 °F (93 °C). Meters can be used in air service up to 220 °F (104 °C). Meter with PVC fittings are rated for 100°F (38 °C).

Extra caution must be exercised when meters are used in high pressure gas cylinder applications. Pressure regulators should be installed at the cylinder and at the inlet of the meter.

Serious property damage and great person injury could occur as the result of a meter misused or used in an unsuitable application.