

Meter Storage Procedures

Bulletin MN01048 Issue/Rev. 0.2 (5/19)

Smith Meter® PD Meters

The following guideline outlines important information regarding the storage of PD meters. There are several points in this procedure that address the minimum concerns that could occur under certain circumstances:

- Avoiding the formation of rust on sealing, bearing, and sliding surfaces of the PD meter
- Physical damage of the equipment due to mishandling while in storage

Also, damage to metering equipment can occur during hydro-test of the skid/system. To minimize the risk of damage, it is recommended that the system be tested with a replacement spool piece or, worst case, with the pressure containing housing only (no inner-mechanism, packing gland or accessory stack up).

Meter assembly long-term storage instructions

- Remove and pack separately the accessory "stack-up", UPT-1000 and Stack Monitor.
- If the meter is stored in an environmentally controlled area (humidity is greatest concern), seal the inlet, outlet and drain flanges with flange gaskets and blind flanges. The meters should be specified to be Storage Corrosion Protection (RP) from the factory which has good lubricating properties and several years "shelf life" in a sealed, controlled environment.
- If the meter will be stored outdoors in a warehouse with no temperature/humidity controls, additional precautions are necessary. Attach the flange gasket and blind flanges to the inlet, outlet and a screw cap or blind flange to the drain. Fill the meter with non-corrosive oil.
- Inspect for exterior damage on a periodic basis, dependent upon storage location.
- If there is a packing gland with a Zerk fitting, once removed, 2/3 Glycerin and water mix (not paste) should be injected until full and packaged in an air-tight plastic bag. Shelf the packing gland in the upright vertical position to minimize Glycerin loss. Recharge the packing gland with Glycerin approximately every 6 months. Provide a blind packing gland body plug and O-ring suitable for working pressure of the meter for the packing gland opening. The packing gland body plug is provided within the long term storage kit that is available for select meters. Reference the applicable PD Meter parts list to determine the long term storage kit part number and availability.



Meter inner-mechanism is separate from the meter housing long-term storage instructions

- A. The inner-mech should be stored in an environmentally controlled area (humidity is greatest concern). The inner-mech should be specified to be Storage Corrosion Protection (RP) from the factory. If Storage Corrosion Protection (RP) was not specified from the factory, then remove the inner-mech from the pressure housing and submerged in a container of noncorrosive oil. Remove the inner-mech from oil once entrained air is no longer apparent and all inner-mech components are wetted with oil.
- B. The inner-mech should not be stored outdoors, fully exposed or in a warehouse with no temperature/humidity controls.
- C. Cover the sealing surfaces on the inner-mech that are in contact with the PD Meter housing with heavy grease. Cover all remaining internal surfaces of the housing with a light oil. Replace the inner mechanism cinch bolts into the housing. The cinch bolts will require the addition of a washer, nut, and Loctite 518 sealant to maintain the external seal. Attach the flange gasket and blind flanges to the inlet, outlet and a screw cap or blind flange to the drain. Provide a blind cover plate and O-Ring suitable for working pressure of the meter for the packing gland opening. The cinch bolt, washer, nut, Loctite 518, and packing gland blind cover plate

are provided within the long term storage kit that is available for select meters. Reference the applicable PD Meter parts list to determine the long term storage kit part number and availability.

- D. Inspect for exterior damage on a periodic basis, dependent upon storage location.

Meter assembly installed but not flooded and meter assembly installed, flooded, but not in operation long-term storage instructions

- A. The Meter Inner-mechanism must remain installed in these scenarios and meter must be in fully functional and pressure retaining condition.
- B. The Meter Housing is recommended to be ordered from the factory with internal paint coating (two coat process 10-12 mils) and Storage Corrosion Protection (RP) (Internal Oil Coating of Wetted Surfaces).
- C. If the meter has been idle for a period of time, prior to startup, inject the packing gland with 1 oz. of 2/3 Glycerin and water mix (not paste).
- D. Use precaution when starting-up a PD meter in a new line or a line that is flooded but has not been used as line slack or air pockets can emerge. The line should be packed and purged of air in a slow start up process. Reference Bulletin [MN01011](#) for the recommended Start-Up Procedure.

Technical Support

Contact Information:

Field Service Response Center
24/7 Technical Support/Schedule
a Technician: 1-844-798-3819
System Installation Supervision,
Start-Up, Training, and
Commissioning Services Available

Revisions included in MN01048 Issue/Rev. 0.2 (5/19):

Replaced the term, "Masket Gasket", with "Loctite 518".

The specifications contained herein are subject to change without notice and any user of said specifications should verify from the manufacturer that the specifications are currently in effect. Otherwise, the manufacturer assumes no responsibility for the use of specifications which may have been changed and are no longer in effect.