

## Handling & Installation For Diaphragm Seal Systems

Barksdale Diaphragm Seal Systems are highly accurate and sensitive pressure measuring instruments. Careful handling of these systems is important at all times, but proper handling is especially critical during transportation, storage, handling, and installation.

**Visual Check of Packaging** – All our diaphragm seal systems are rigorously tested prior to shipping, and they are packaged to provide maximum protection during shipment. However, excessive shock or damage during shipment can damage the contents. Check packaging for evidence of excessive shock upon receipt.

**Handling Prior to Installation** – The seal system is designed to be a rugged but accurate instrument after it is properly installed. However, it is most vulnerable during handling before and during installation.

- Remove Packaging with Care – risk of damage is very high if not done carefully.
- Lift the complete system as a unit, using two (or four) hands.
- Prevent stress on threaded or welded connections.
- If system is connected by capillary tubing:
  - Lift unit under seals and instrument – do not lift by pulling on capillary.
  - When unwinding capillary coil, carefully unreel capillary, without kinking the capillary.
- Clear the workspace where the system is unpacked of loose items that could damage the seal.

**Diaphragm Protection** - Each diaphragm seal has been shipped with a protective cover to prevent damage to the diaphragm.

- Do Not Remove Protective Diaphragm Cover until just before installation.
- After removing diaphragm cover, do not touch diaphragm with hands or tools. It can be easily damaged with just a slight touch.

### Installation:

- Carefully bend capillary to fit installation. Sharp bends can cause cracks in capillary.
- Do Not Twist Capillary at any time. To install threaded seal, carefully turn whole system. For differential threaded seals: 1) remove lower flanges, 2) screw in place, and 3) replace lower flanges on seal system, with care not to touch diaphragm.
- Fix capillary in place after seal installation, to minimize movement or vibration.
- Thoroughly clean pipelines of debris or loose metal particles before installing seals.
- Use of Standard Gaskets is recommended, consistent with temperature requirements.
- Gasket should not cover any part of the diaphragm.
- All screwed joints are sealed to protect integrity of seal fluid. Do not open sealed joints, or seal will not function properly.
- Tighten flange bolts to recommended torque only - do not over-tighten.