



For Applications Where:

- Process fluid is corrosive and could attack or destroy the instrument
- Process fluid is solid laden or viscous and could block the instrument element
- Process fluid could solidify and immobilize the instrument element; I.E. freeze or polymerize
- Corrosives
- Sanitary Systems
- Suspended Solids
- Viscous Fluids
- Cleanable Systems
- Freezing Fluids
- Food, Beverage and Dairy
- Filtration Systems
- Pulp & Paper
- Pharmaceuticals
- Petrochemical
- Water Treatment

Diaphragm seals are suitable for use with bourdon tube type pressure gauges, recorders, transmitters, etc. Used as an attachment, the thin flexible diaphragm serves as a separating member stopping the medium from entering the gauge thereby preventing clogging and corrosion. The instrument bourdon tube, connection and all space above the diaphragm are evacuated and solid filled with a liquid which transmits the process pressure to the instrument element through movement of the diaphragm.

Diaphragm seals can be mounted directly to the instrument or remote connected with stainless steel seamless or armored capillary tubing.

When ordered with a gauge, the diaphragm seals are furnished as a complete unit, fully calibrated and tested, ready for installation.

Available in 2 Designs

Welded or Bonded

A metal diaphragm capsule is welded to the top housing, which is then clamped to a bottom housing, providing a double, positive seal.

For applications where the pressure range is less than 15 psi, or the vacuum range is less than 30" Hg, a Viton diaphragm seal is recommended. The Viton or Teflon diaphragm is permanently bonded to the top housing.

Either the welded or bonded design allows for the top housing and pressure instrument to be removed without losing the fill fluid. The top housing and welded or bonded diaphragm are interchangeable with all standard bottom housings.

Clamped

A metal, elastomeric, or Teflon diaphragm is clamped securely between the top and bottom housings by clamp rings, assuring a positive seal. The top housing is contoured to match the diaphragm, minimizing distortion of the diaphragm should the pressure instrument be removed. A Viton or Kalrez diaphragm enables the seal to be used on ranges below 15 psi and vacuum less than 30" Hg.

The top housing and diaphragm are interchangeable with all standard bottom housings.