

Diaphragm Seal Pressure Gauge Selection Guide

For corrosive · viscous · sanitary media — a guide by MANOGAUGE

A diaphragm seal (chemical seal) isolates the gauge from the process media using a flexible diaphragm and a fill fluid, protecting the Bourdon tube from corrosive, viscous or clogging media.

When to Use a Diaphragm Seal

- Corrosive media (acids, chlorides) that attack brass/steel.
- Viscous, crystallizing, slurry or particle-laden media that clog a standard socket.
- High-temperature media (with a capillary to keep the gauge cool).
- Sanitary / hygienic processes (food, pharma) needing flush surfaces.

Seal Types & Mounting

Type	Mounting / Use
Threaded seal	General, screwed to process (G/NPT)
Flanged seal	Pipelines / large ports, corrosive media
Sanitary (tri-clamp)	Food & pharmaceutical, CIP/SIP
In-line / flush	Viscous & slurry, no dead space

Diaphragm & Fill Fluid

Item	Options
Diaphragm material	316L, Hastelloy, tantalum, PTFE-coated (per media)
Fill fluid	Silicone, glycerine, food-grade (per temperature & hygiene)
Connection to gauge	Direct-mount or capillary (remote, high-temp)

Selection needs: media, temperature, pressure range, process connection, hygiene. MANOGAUGE builds diaphragm-seal assemblies to spec — www.manogauge.com.

About MANOGAUGE

MANOGAUGE (Zhejiang Xinzhongxin Instrument Technology Co., Ltd.) — a National High-Tech pressure gauge manufacturer in China: stainless steel, liquid-filled, digital, diaphragm, tire, medical and explosion-proof gauges, with CE/PED/ATEX/FDA and OEM/ODM service. More & quotes: www.manogauge.com | sales@manogauge.com. Free to share or cite — please keep the source link to www.manogauge.com.