

APPLICATION GUIDE

Fill fluid and vibration

When to choose a dry, glycerin filled or silicone filled gauge, and what fill does for a shaking line.

Instruments covered

Series P100, Series P200, Series P600, Series P800, Series P150

What fill does

A filled gauge has its case flooded with a clear liquid. The liquid damps the pointer and the movement, so the reading stays steady on a line that shakes or pulses, and the moving parts wear more slowly. It also keeps moisture out of the case, so the window does not fog.

Dry gauges

A dry case suits steady lines with little vibration, such as a filter housing or a tank head. Series P100 and Series P150 can be ordered dry.

Glycerin filled gauges

Glycerin is the standard fill for pumps, compressors and machinery. Most dial gauges in the catalogue are glycerin filled, including Series P200 and Series P600, the heavy duty model for lines with pulsation. Glycerin thickens in the cold, so the pointer responds more slowly at low ambient temperatures.

Silicone filled gauges

Silicone stays fluid at lower temperatures than glycerin, so it is the better fill for outdoor and cold sites. Series P800 and Series P150 offer a silicone fill option.

Choosing a fill

1. Steady line, indoors: dry or glycerin filled.
2. Pump, compressor or machine mount: glycerin filled.
3. Outdoor or cold site with vibration: silicone filled.
4. Strong pulsation on top of vibration: a filled gauge plus a gauge snubber (see AN-04).

Check the temperature

Each specification sheet lists the operating temperature for that gauge. Keep both the process and the ambient temperature inside it.