

## 1008, 1009 AND 2008 PRESSURE GAUGES LIQUID FILL PROCEDURE

**PIP #: SS-PI-105**

Applicable to:  
1008, 1009 and  
2008 Pressure  
Gauges

Duralife® 2½"/3½"1009, 63mm/100mm 1008S, and 63mm 2008S gauges can be liquid filled in the field or at an authorized distributor. This allows for a standard dry gauge to be filled in the field. Liquid filling a gauge is generally required when the gauge will be exposed to excessive vibration and at times, pulsation. When filling a dry gauge, it is important to fill to recommended levels. Proper fill levels will:

- Maintain a consistent appearance of the fill level when more than one gauge is being used. Fill levels are most noticeable when multiple gauges are placed side by side in a panel or mounted side by side in a pipe tee.
- Ensure the gauge will not leak through the fill plug if the gauge becomes over filled. This may occur with elevated internal gauge temperature and expansion of the fill.
- Immerse the Bourdon tube and movement with the fill fluid to provide maximum protection against vibration and pulsation.

### Procedure to Liquid Fill a Dry Pressure Gauge:

- Remove the black/blue ventable plug on the top of the gauge (P/N 256A183-01). This is a ventable plug and is used on all 2½" and 3½"1009, 63mm and 100mm 1008S, and 63mm 2008S.
- Hold the gauge vertically and dispense the fill fluid through the fill hole. The correct fill level is when the distance from the horizontal fill line to the inside diameter of the gauge ring (bezel) meets the dimensions on the table below (see green arrows in figure 1 for reference).

Type	Vertical Fill Measurements
2½" 1009, 63mm 1008 and 63mm 2008S	5/16"-7/16"
3½" 1009, 100mm 1008	7/16" - 9/16"

*Table 1 – Distance from the horizontal fill line to the inside diameter*

- Return the ventable plug to the gauge. Be careful not to insert this plug too quickly to avoid build-up of case pressure which will cause an error in the gauge reading. This is particularly true for ranges below 100 psi. If case pressure needs to be relieved or equalized, lift the blue insert in the plug then push it back down.
- Clean off all residual fill fluid that may have gotten on the exterior of the gauge with warm water and a mild soap.
- Inspect the gauge for general appearance and leaks (be careful when filling with silicone and Halocarbon as both are very difficult to remove from external surfaces). Use of a solvent is not recommended.
- Add a throttle plug in the socket of the gauge. (P/N 112A393-01 for gauges up to 1000 psi and P/N 118A108-01 for higher pressures. This will require a special tool for insertion.)
- Identify the fill by marking the appropriate box on the gauge label. Repack the gauge in the original carton and mark the label to indicate the fluid that has been used to fill the gauge.

*Verify the distance from the horizontal fill line to the inside diameter indicated by the green arrows meets Table 1 dimensions.*



*Figure 1 – 251009SWL02L60# Pressure Gauge*