

PRODUCT INFORMATION**PROCEDURE TO LIQUID FILL 2½" & 3½" 1009 GAUGES
AND 63mm & 100mm 1008 GAUGES**

Duralife® 1009 gauges with a PowerFlex™ movement and 63mm and 100mm 1008 gauges can be filled in the field or at distributor locations. 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.

Shown below is the procedure to liquid fill a dry gauge:

1. Remove the black vented plug on the top or rear of the gauge (P/N 256A151-01). This is the standard vented plug that is shipped on all dry gauges. It is identified as being a vented plug by a slit on the inside surface of the plug that allows the gauge to breath when dry. This plug is intended for dry gauges only and is not recommended when hermetically sealing, weatherproof or dustproof are required.
2. If the gauge has a top fill hole, hold the gauge vertically. For gauges with a back fill hole, place the gauge face down on a fiat surface. With the exception of 1009s and 1008s with ½ NPT connections which have a center back fill hole, all gauges come standard with a top fill hole.
3. For top fill gauges, dispense the fill fluid through the fill hole. The correct fill level is achieved when the level of the fill line to the ring I.D. meet a vertical fill line as indicated below.

<u>Type</u>	<u>Vertical Fill Measurement</u>
2½" 1009 & 63mm 1008	5/16" - 7/16"
3½" 1009, 100mm 1008	7/16" - 9/16"

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4. When filling a gauge with a top fill hole, the liquid will fill both front and back of the dial. Gauges with a back fill hole require a premeasured amount of fill to meet the fill line specification. The prescribed amounts in milliliters are:

		<u>ml</u>
3½" (100mm) 1009	04L	184
100mm 1008	04L	201

5. Insert the black sealing plug P/N256A135-01). 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, insert a small blade screw driver under the lip of the sealing plug. Firmly push against the sealing plug creating a vent opening between the sealing plug and case hole as the plug is pressed into the case.
6. Clean off all residual fill fluid that may have gotten on the exterior of the gauge with warm water and a mild soap.
7. 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.
8. 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.