

Procedure to fill 2½" & 3½" 1009 gauges, 63mm & 100mm 1008S gauges, and 63mm 2008 panel gauges

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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/blue ventable plug on the top of the gauge (P/N 256A183-01). This is a ventable plug and is used on all 2½", 3½" 1009 63mm, 100mm 1008S and 63mm 2008S.
2. Hold the gauge vertically and dispense the fill fluid through the fill hole. The correct fill level is achieved when the level of the fill line to the gauge ring (bezel) I.D. meets a vertical fill line length as indicated below.

| <u>Type</u> | <u>Vertical Fill Measurement</u> |
|------------------------------------|----------------------------------|
| 2½" 1009, 63mm 1008 and 63mm 2008S | $\frac{5}{16}" - \frac{7}{16}"$ |
| 3½" 1009, 100mm 1008 | $\frac{7}{16}" - \frac{9}{16}"$ |

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3. 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.
4. Clean off all residual fill fluid that may have gotten on the exterior of the gauge with warm water and a mild soap.
5. 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.
6. 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.