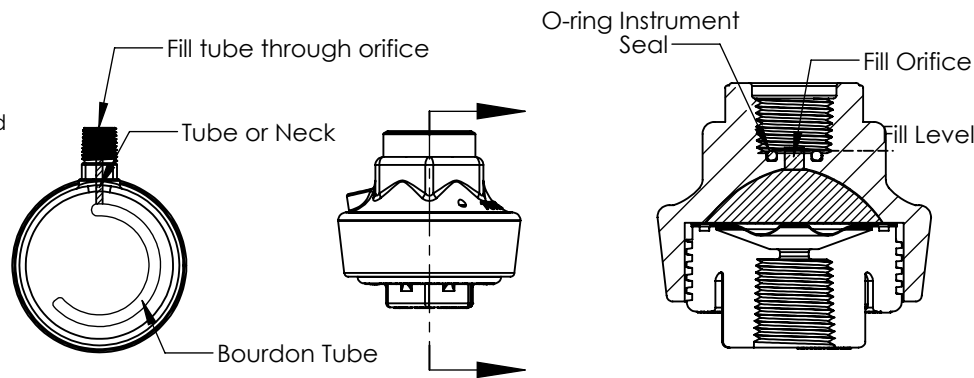


A. Filling the Instrument

When using a 2 1/2" diameter gauge, it is not necessary to vacuum fill the internals of the gauge. It is desirable to fill the neck or straight portion of the bourdon tube. The bottom face of the 1/4" NPT instrument thread should be flat and smooth with a maximum 1/4" Dia. orifice. **Never use thread sealant of any type on the instrument thread.**

- Step 1. Invert the instrument
- Step 2. Using a small syringe or squeeze bottle, fill the straight portion of the tube with a compatible liquid such as aqueous glycerin
- Step 3. Retain the gauge in its inverted position for further assembly



When using a gauge larger than 2 1/2" diameter, it is necessary to also fill the bourdon tube element of the gauge internals. This can be accomplished by vacuum fill or repeated venting of air from the fill liquid by probing the fill liquid with a thin wire or other method.

C. Assembling the Gauge to the Instrument Isolator

Do not apply any type of thread sealant. The instrument will seal on the o-ring at the bottom of the female instrument thread. This creates an o-ring gland and balanced pressure seal. The female thread is a venting thread that allows pressure to escape during assembly.

- Step 1. Make sure the o-ring is in its groove at the bottom of the the venting female thread.
- Step 2. Screw the gauge into the Upper Chamber of the Isolator.
- Step 3. Continue to screw the gauge until reaching the bottom. When reaching the stop or bottom. Tighten firmly by hand only

B. Filling the Upper Chamber of Instrument Isolator

It is required that the Upper Chamber be filled with a compatible liquid.

- Step 1. Upright position
- Step 2. Using a small syringe or squeeze bottle, add the liquid through the fill orifice making sure not to bridge the orifice with the liquid as air will be trapped in the Upper Chamber
- Step 3. Continue to fill until the level of liquid reaches the top surface of the O-ring.
- Step 4. Retain the filled unit in an upright position.

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		DIMENSIONS ARE IN INCHES	DRAWN	P.S.	6/13/2013	TITLE: Filling Instruction Bulletin for TUFF Guard Gauge Isolator P/N TG-55		
			CHECKED	C.W.				
		INTERPRET GEOMETRIC TOLERANCING PER:	COMMENTS:					
		MATERIAL	See Description			SIZE	DWG. NO.	REV
NEXT ASSY	USED ON	FINISH	N/A			A	MQTG-55-XXX-BUL20016	A
APPLICATION		DO NOT SCALE DRAWING			As Noted			