



TECH TIPS

- Use a reference gauge with better accuracy to meet test uncertainty ratios over a wider range of pressures.
- Forgo wrenches or PTFE tape by using adapters to fit multiple sizes and types of devices with leak tight seals to 20,000 psi.
- Safety first! Always use fittings, tubing, and seals with pressure ratings above full scale of the instrument.
- If possible use oil for better lubrication.
- Use gas to improve cleanliness or a liquid-to-liquid separator available from Fluke.
- Hydraulic systems are preferable to gas systems for pressures above 2000 psi due to safety and ease of use.

To perform the test:

- STEP 1** The pressure gauge should be mounted in the same orientation (vertical or horizontal) as in the process. An angle adapter such as the P5543 may be used.
- STEP 2** The reference pressure gauge (2700G) should be mounted such that the display is easily seen.
- STEP 3** For hydraulic comparators prime the fluid with the priming pump, to remove any bubbles.
- STEP 4** Measurement points should be distributed uniformly over the calibration range. Conveniently source pressure with a manual pump up to 300 psi, after that use an external pressure supply.
- STEP 5** For gas comparators use the fine needle valve or fine adjustment screw press to precisely meter the pressure.
- STEP 6** With hydraulic models use the screw press to source and fine adjust the pressure.
- STEP 7** The source pressure can be adjusted until the device under test is reading a nominal pressure or until the reference gauge reads the nominal pressure.

Additional resources

For more in depth information about this application check out these videos and application notes from Fluke.



Check out the 700G videos.



700G Data Sheet.

Interpreting Specifications for Process Calibrators, Application Note