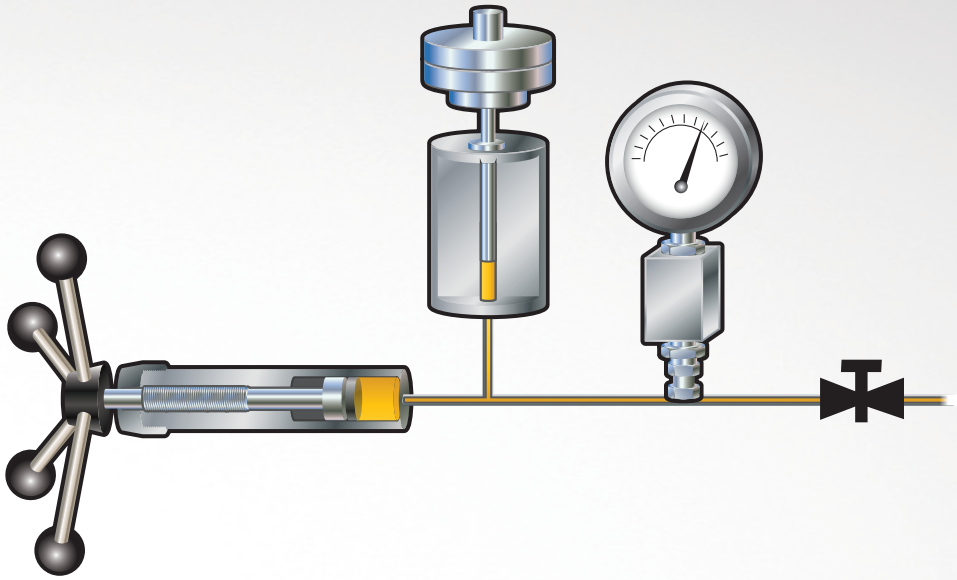

To perform the test:

STEP 1 The pressure gauge should be mounted in the same orientation (vertical or horizontal) as in the process.

STEP 2 Measurement points should be distributed uniformly over the calibration range.

STEP 3 Calibrated weights are placed on the instrument corresponding to the measurement points.

STEP 4 Pressure is added with an internal pump or screw press until the piston holding the weights begins to float.

STEP 5 The piston and weight are spun by hand to minimize friction.

STEP 6 While the piston is floating the reading on the device under test is compared to the pressure corresponding to the sum of the selected weights.

TECH TIPS

- Deadweight tester weights are calibrated to match a wide range of pressure units.
- Local gravity often is the largest factor affecting accuracy. Use Fluke PRESSCAL software to achieve accuracy of +/– 0.008%.
- To increase the number of available set points, use incremental weight sets.
- 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! Choose fittings, tubing and seals with pressure ratings above the full scale of the instrument.
- Hydraulic systems are preferable to gas systems for pressures above 2000 psi due to safety and ease of use.
- Consider achieving cleanliness using distilled water as a media or use a liquid separator from Fluke instead of gas.
- Lubrication can improve performance by using oil when it is allowed.

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