TOOLS FOR MEASURING PRESSURE

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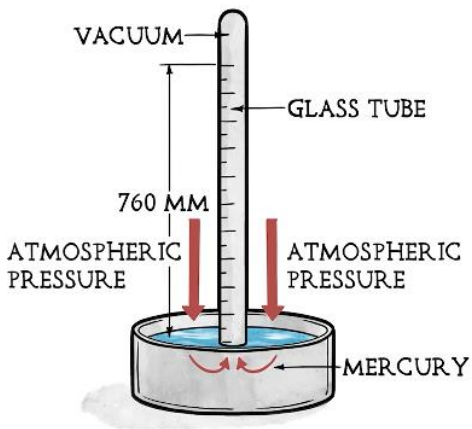
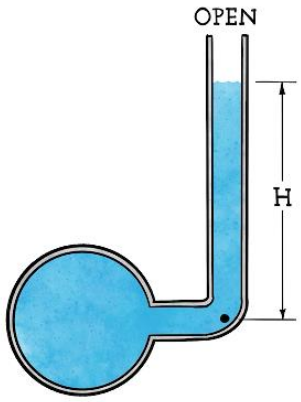
SUMMARY

There are five common tools used to measure pressure. These include **barometers, piezometer tubes, differential manometers, Bourdon Tubes, and electronic gauges.** They each employ a different method to measure pressure.

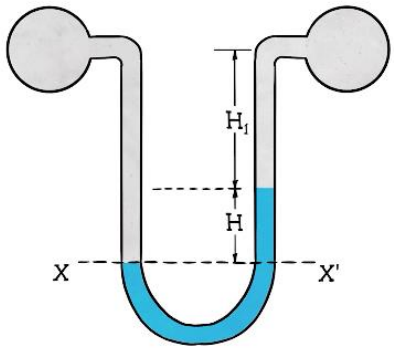
- A **barometer** measures atmospheric pressure by comparison of a vacuum to pressure applied from atmosphere.
- A **piezometer tube** measures liquid pressure against atmosphere, using a measurement of liquid height to translate to liquid pressure.
- A **differential manometer** measures the pressure difference between two points in a pipe or between two pipes.
- A **Bourdon Tube** is the most common type of pressure measuring device in the fire protection industry. It has a tube which expands or contracts depending upon the pressure within the tube. This movement of the tube moves a link, which is then calibrated to move a dial.
- **Electronic gauges** take an applied pressure that has a diaphragm equipped with piezoresistive pressure sensors. When the diaphragm deflects, there is a change in the cross-section area of the strain gauge, which is measures electronically and translated to a pressure readout.



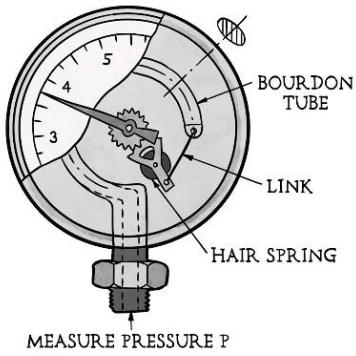
Barometer
(Measures atmospheric pressure)



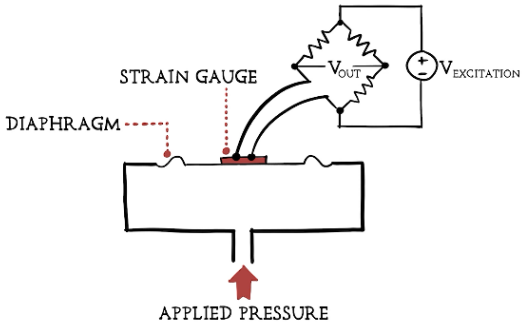
Piezometer Tube
(Measures liquid pressure in a system against atmosphere)



Differential Manometer
(Measures pressure between two systems)



Bourdon Tube
(Most common type of pressure gauge)



Electronic Gauge
(diaphragm with measurements of deflection to read pressure)

VIDEO LINK

www.meyerfire.com/university/tools-used-for-measuring-pressure

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