

HYVAC PRODUCTS, INC.

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HyVac Vacuum Gauges

The vacuum gauges HyVac offers fall into 3 main groups.

0-30" Bourdon Tube Gauge - Mechanical - Medium Vacuum

0-30" bourdon tube vacuum gauges are okay for very rudimentary vacuum pressures below 28" of mercury vacuum. Unfortunately they are not really very good, due to inaccuracies based on things such as the barometric pressure of the day, or the users height above or below sea level just to name a few. Allowances must be calculated to accurately determine what number you are actually reading today. If you are looking for a reading of 20"-27" of Hg vacuum as an example, these bourdon tube gauges 0-30" are the gauges for you.

Manometers - Physical - Medium Vacuum

Primary standard via NST, but again allowances have to be made, but generally more accurate than 0-30" gauges mentioned above and carry the backing of being a primary standard. This means no calibration on a continuing basis is required, once certification is accomplished.

T/C or Thermocouple gauges - High Vacuum

These are electronic gauges employing a thermocouple gage sensor head of varying degrees of sensitivity and a meter of some kind that will reflect the appropriate scale. HyVac has 3 main types of gauges in this category. All basically measure the pressure from either 2-5 Torr down to 5 microns of mercury vacuum. They have some limitations, but basically, a good, general purpose, portable, high vacuum gauge. The viewing scales available are analog (like a VU meter), digital with direct digital read out of microns or LED type where a bar graph shows what pressure you have achieved. All three are a great choice for vacuum readings from 2 Torr down to about 10 microns. This is the type of gauge to consider, with options, if unattended computer data logging is a requirement or desire.

HyVac Vacuum Gauges cont.

McLeod gauges - Physical - High Vacuum

HyVac makes and markets a McLeod gauge. We use these gauges to test our pumps during the manufacturing process. They are very accurate for pressures between 50-.1 microns of Hg vacuum. The HyVac gauge is based on a compound system employing mercury and special oil which gives the gauge the accuracy of a mercury gauge with the responsiveness and sensitivity of an oil gauge. Fast degassing times and fast repeatability are the trademarks of this gauge. The mercury in the gauge is covered with oil and never gets exposed to working atmosphere so minimizes any work place environmental concerns typical of mercury based gauges without sacrificing performance. The McLeod gauge again is a primary standard subscribing to Boyle's Law of gas compressibility so calibration is accomplished only once. Certification for this gauge is available and a NIST traceable calibration service when required is also available.

If your aim is to measure pressures below .1 micron we can help you out here also but the gauges start to get exotic more specialized and more expensive.

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