



Precision Boyle's Law Apparatus

- Precise measurements of absolute pressure and volume for convincing verification of Boyle's Law
- Dial gauge measures absolute pressure in kPa and psi
- Built-in length scales with movable markers for volume measurement
- Included bicycle pump permits easy and precise control of pressure
- Pressure-resistant gas tube has surrounding safety shield

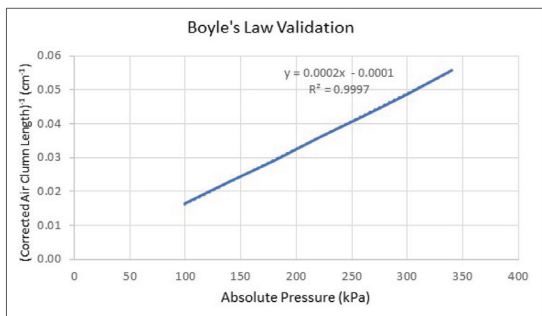
Based on proven designs, this updated Boyle's Law Apparatus permits a quantitative verification of Boyle's Law to be quickly and easily performed. The results are reliable and more convincing than measurements obtained from a simple syringe-based apparatus.

The air sample is enclosed in a thick-walled glass tube of constant bore, so that the length of the air column is strictly proportional to the gas volume. Hydraulic oil seals the air sample in the tube and partially fills a reservoir, so the pressure in the reservoir equals the pressure in the air sample. The pressure is measured by an absolute pressure dial gauge with a range of 0 - 500kPa.

Pressure is applied using a supplied high pressure bicycle pump, which allows precise fine control for making a large series of measurements or for using the volume proportions method. A needle valve allows for controlled pressure release and a vent knob is provided for the tube.



Item No.	Description
PBLA01	Precision Boyle's Law Apparatus



Sample chart of the inverse of Length vs. Absolute Pressure.



Close-up view of pump attachment and needle valve.



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