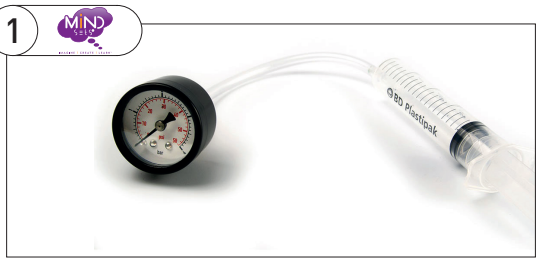
1. Boyle's Law Indicator

This simple low-cost apparatus provides a means of demonstrating Boyle's law. It is not 100% accurate, but is adequate for demonstrations giving students literally a 'feel' for increase in pressure against volume.

Code	Pack	Price
SEPACBL1	Each	£15.23



2. Lascells Charles' Law Sets

The Lascells Charles' Law Set is a convenient tool for exploring the relationship between the volume (V) and temperature (T) of a gas. Both a graduated capillary and a thermometer are mounted on a board for easy suspension in a water bath. An oil or mercury bead can be added to the capillary tube (full instructions are provided). Using the apparatus, students can collect data to prove the directly proportional relationship between V and T, and extrapolate a value for Absolute Zero, to a very good approximation.

- Size: 300 x 35 x 20mm
- Weight: 36g
- Temperature range: -10 to 110°C

Code	Description	Pack	Price
SED0200	Charles' law set	Each	£16.10
SED0202	Charles' law set in Gratnells tray	10	£174.95
SED0204	Charles' law tube	Each	£7.41

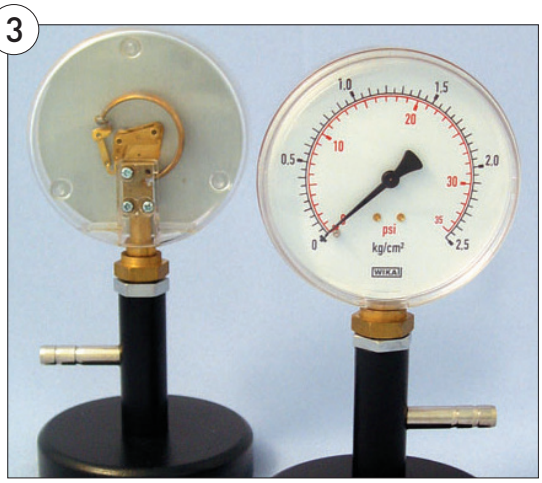
3. Bourdon Gauge

This product is for both general and laboratory use. The gauge of rugged design is mounted on a heavy metal base giving great stability. The read-out is by a substantial black needle on a 100mm Ø white face. The back of the gauge is enclosed by clear Perspex, allowing the mechanism to be viewed. The input metal tube is rifled and designed to fit rubber tubing of 8mm internal Ø.

Calibration: scales are given on the white face in both kg/cm^2 (black) and psi (red). Conversion to SI units (pascals) can be obtained with sufficient accuracy by multiplying the kg/cm^2 readings by 105.

Note: the gauge is for positive pressures only (i.e. those in excess of atmospheric pressure). Connection to a source of negative pressure (e.g. vacuum pump) could result in damage to the apparatus.

Code	Pack	Price
BC-2004	Each	£38.78



4. Hero's Engine

A functional glass model of the earliest form of steam turbine. Comprising a borosilicate glass bulb 70mm Ø approx., with side arms bent at right angles and formed into jets at their tips.

This is for demonstration purpose only and must be used behind two safety screens, one to protect the students and one to protect the teacher, safety goggles must also be worn and a relevant risk assessment should be carried out as it normally would with other experiments.

Code	Pack	Price
PHY1118	Each	£13.60