Email : sales@scilabexport.com
Phone: +91-7082934803

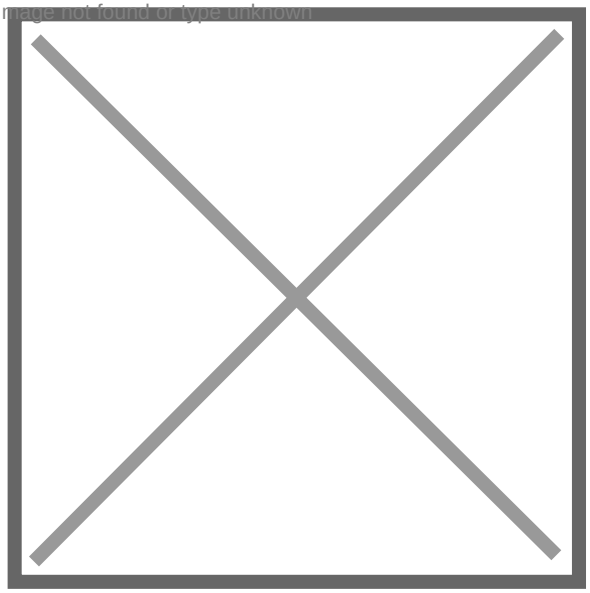
**Product Name :**

Boyle's Law

**Product Code :**

SLE/EA/28

Image not found or type unknown



Email : sales@scilabexport.com
Phone: +91-7082934803

## Description :

**Boyle's Law** (Product Code: SLE/EA/28) is a bench-mounted apparatus used to prove that the pressure of trapped air varies inversely with its volume in engineering and physics laboratories. Students work hand-operated pumps that pressurise one of two clear-walled oil cylinders and so move a 'liquid piston' of oil in the other, while a mechanical gauge, a digital indicator and a thermocouple record pressure, air-column height and temperature. This Boyle law apparatus is made in India by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, an OEM engineering lab equipment manufacturer, at its own factory in Ambala.

### Specifications

| Parameter | Detail |
|---|---|
| Mounting | Bench-mounting, with a back plate |
| Cylinders | Two clear-walled cylinders containing oil |
| Pressure control | Hand-operated pumps to increase or decrease the pressure in the left-hand cylinder |
| Liquid piston | Oil moving in the right-hand cylinder compresses ordecompresses a trapped column of air in the test cylinder |
| Volume measurement | Digital indicator for the change in height of the trapped air column (height change × cross-sectional area = volume change) |
| Pressure measurement | Mechanical pressure gauge on the trapped air |
| Temperature measurement | Thermocouple and digital display for the trapped air temperature |
| Working gas | Normal, clean, dry air (behaves as an ideal gas over the pressure range used) |
| Product code | SLE/EA/28 |
| Manufacturer | Jain Scientific Equipments Pvt Ltd (ScienceLab) — OEM |
| Country of origin | India (made in Ambala, Haryana) |

### What Is the Boyle's Law Apparatus Used For?

Boyle's law says that, for a fixed mass of gas at constant temperature, pressure multiplied by volume stays constant. Students pump in steps, reading the trapped-air pressure on the mechanical gauge and the change in air-column height on the digital indicator; multiplying that height change by the column's cross-sectional area gives the change in volume. Plotting pressure against the reciprocal of volume should give a straight line, confirming the inverse relationship.

The thermocouple matters because compressing air warms it: students watch the air temperature and pause between steps so it stays constant, which is the condition the law requires. The same readings let a teacher demonstrate how the air temperature changes during a quick compression or ex
institu

OEM

Email : sales@scilabexport.com
Phone: +91-7082934803