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**Product Name :**  
Perfect Gas Laws Demonstration Unit

**Product Code :**  
LBNY-0005-10200010



#### **Description :**

The unit consists of two vessels connected by a large bore pipe and valve together with an integral air pump. A small scale bench top accessory designed to allow experimental investigation of the first law of thermodynamics using the perfect gas law and the expansion of air. Additional valves allow the vessels to be used in isolation; venting to or from atmosphere and in a combined arrangement where the pressurised vessel can vent into the evacuated vessel. The pump can be used to both pressurise one vessel and evacuate the other.

#### **Experimental Capabilities:**

Observation of the transient responses to different rates of change in a process.  
Observation of the Pressure, Volume, Temperature Relationship for Air.  
Investigation of the First law of Thermodynamics.  
The second Law of Thermodynamics and its Corollaries

#### **Technical Specification :**

A small scale bench top accessory designed to allow experimental investigation of the first law of thermodynamics using the perfect gas law and the expansion of air  
The vessels and interconnecting pipe work are constructed from impact resistant plastic and for operator safety pressure switches limit the operating pressures to safe levels.  
Low inertia thermocouple sensors located in each vessel record the air temperatures and individual pressure transducers record the chamber pressures.  
The unit consists of two vessels connected by a large bore pipe and valve together with an integral air pump.  
The pump can be used to both pressurise one vessel and evacuate the other.  
Additional valves allow the vessels to be used in isolation; venting to or from atmosphere and in a combined

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arrangement where the pressurised vessel can vent into the evacuated vessel.



**Laboratory Instrument India**