

IDEAL GASES BOYLE'S LAW

RT 153

Description:

Boyle's law shows that at constant temperature, the product of pressure and volume of an ideal gas is always constant. The validity of this rule can be tested with the help of a container with a variable volume and a pressure gauge. It can also be understood that a container with a fixed number of gas molecules in it collide with the walls of the container more times at the same time and cause the pressure to rise as a result of reducing the volume of the container, In this device, it is checked by changing the volume of air at con-stant mass and temperature. Another experiment conducted with this device is performed in con-stant volume, where the air is heated and expands which causes the pressure to increase inside the tank. In this experiment it is shown that the division of the air pressure by its temperature will be a constant number in different pressures and temperatures.

Specifications:

- Transparent Cylindrical containers
- Carbon steel oil tank
- Pressure gauge
- Safety system including safety valve, pressure
- Switch
- Pneumatic fittings
- Temperature sensors
- Electrical panel including display and switch, etc.
- Air compressor
- Piping system with valves and fittings
- Heating element
- Wheeled carbon steel structure
- Installation and training video included
- Instructions manual included
- 10-year warranty

Note: Direct contact with the sales department is required to confirm the last updated technical specifications and pictures.

Applications:

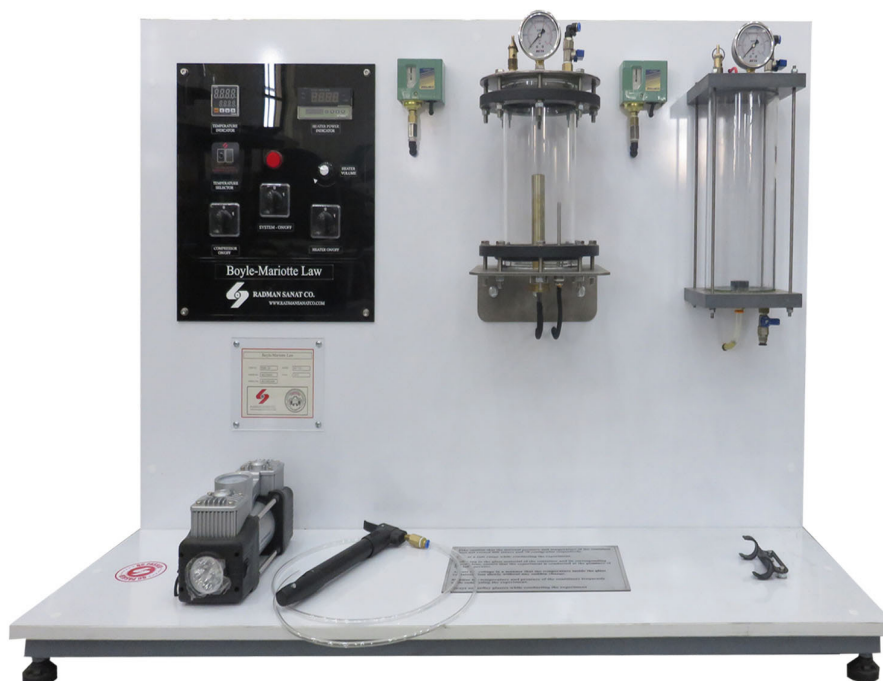
1. Familiarizing with the Boyle-Marriott's law
2. Accurate measurement of pressure and volume for ideal gases
3. Investigating and calculating the inverse relationship between pressure and volume at constant temperature
4. Investigating the relation between pressure and temperature in constant volume

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Required For Operation:

- 220 v Single Phase Electricity
- Desirable Temperature (°C): 10-30
- Relative Humidity: 15% - 80%



Dimensions (L*W*H) mm:1200×700×900

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