

**Product Name :**  
Calorimeter For Regenerative Engine Test Set

**Product Code :**  
ENGLABINGCAG690004



**Description :**

Calorimeter For Regenerative Engine Test Set

**Technical Specification :**

An exhaust gas calorimeter for use with Regenerative Engine Test Set.

The engines are separately available.

The equipment measures the heat content of exhaust gases and enables students to determine the energy lost to exhaust in the energy balance for single-cylinder, four-stroke petrol and diesel engines.

The main components of the Exhaust Gas Calorimeter are:

Control valve

Gas-to-water shell and multi-tube heat exchanger

Instrumentation unit the heat exchanger is mounted on a sturdy base plate.

A hand-operated valve, which mounts on the control console of the test set, controls the flow of cooling water through the heat-exchanger jacket.

Exhaust gases from the test engine mounted on the test set flow through the tubes.

A jacket of constantly flowing cooling water surrounds the tubes, and the heat content of the gases is assessed by measuring the cooling water flow rate and the inlet and outlet temperatures.

A turbine flow meter measures the flow rate.

For safety, the heat exchanger also includes a pressure relief valve in case insufficient cooling water is flowing.

Thermocouples measure the temperature of gas and water at the inlet and outlet.

Specification:

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Heat exchanger: Stainless steel shell and multi-tube with pressure-relief valve  
Flow measurement: Turbine flow meter with digital display  
Temperature measurement: Thermocouples with digital display  
Flow control: Hand-operated valve  
Net Dimensions and weights:  
Temperature and flow display unit: 190 mm x depth 130 mm x height 450 mm and 4 kg  
Calorimeter: length 1200 mm x depth 500 mm x height 800 mm and 30 kg  
Approximate Packed Dimensions: 0.8 m<sup>3</sup> and 50 kg."



## Engineering Lab Equipment India