



Bomb Calorimeter C200



- ***Allows Measurement of the Calorific Value of Liquid and Solid Fuels by a Fundamental Method***
- ***An Easily Understood Procedure, Designed for Educational Use***
- ***Minimal Operating Costs and Low Maintenance***
- ***Two year Warranty.***



Introduction

For combustion studies, the calorific value of fuels is a fundamental property that should be understood by all students. In the present climate of increasing fuel costs, reducing resources and global climate change, the efficient use of fuel is more important than ever.

The **Hilton Bomb Calorimeter C200** allows students to investigate the calorific value of both conventional and potential alternative fuels. The unit will provide interesting and instructive experimental work for all students, and will be of particular interest to those studying:

- **Combustion**
- **Thermodynamics**
- **Energy Conservation**
- **Mechanical Engineering**
- **Fuel Technology**
- **Fuel Research**

Experimental Capabilities

- Measurement of Calorific value of liquid fuel
- Measurement of calorific value of solid fuel
- Comparison with a standard fuel

Description

The C200 is a conventional bomb calorimeter, with a stirred and highly insulated water vessel. The reaction vessel is machined from corrosion resistant Stainless steel and has a volume of approximately 300ml.

The calorimeter allows measurement of heat of combustion of solid and liquid fuels and determination of their calorific value.

The calorimeter is provided with high pressure valves and ignition electrodes together with a firing unit.

Additional essential components supplied; include an electronic digital thermometer (with a resolution of 2 decimal places), pellet press (for powdered fuel), ignition wire, pressure gauge, safety bursting disc and a bottle pressure regulator for safer oxygen charging and a highly accurate set of digital scales.

Specification

A self contained conventional bomb calorimeter complete with highly insulated and polished, stirred water vessel. A stainless steel, hydraulically proof tested reaction vessel, together with all ignition equipment, pellet press, digital thermometer, oxygen charging couplings, safety bursting disc, pressure gauge and a highly accurate set of digital scales.

Dimensions

Nominal:-
Height: 300cm Depth: 250cm
Width: 250cm Weight: 25kg.

Services Required

Oxygen: Commercial Oxygen in a suitable vessel capable of pressurising the reaction vessel up to 25 Bar gauge.
Electrical: A: 230/240 Volts, Single Phase, 50Hz (With earth/ground).

Or

B: 110-120 Volts, Single Phase, 60Hz (With earth/ground).

Accessories and Spares

Unit supplied with:
One experimental operating and maintenance manual in either English, Spanish or French. Accessories and spares for 2 years normal operation.

Ordering Information

Order as: C200 Bomb Calorimeter

Electrical Specification

Either: **A:** 230/240 Volts, Single Phase, 50Hz (With earth/ground).

B: 110/120 Volts, Single Phase, 60Hz (With earth/ground).

Language

Either: English, Spanish, French.

Shipping Specifications

Net Weight: 25kg (approx.)
Gross Weight: 100kg. (approx.)
Packing Case Dim: 90 x 90 x 50 cm (approx.)
Packing Case Volume: 0.40m³ (approx.)

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