

**Product Name :**  
Bomb Calorimeter

**Product Code :**  
FUEL SUK-AS03LAB007



**Description :**

Bomb Calorimeter

**Technical Specification :**

A Bomb Calorimeter measures the amount of heat generated when matter is burnt in a sealed chamber in an atmosphere of pure Oxygen gas.

**Bomb**

Calorimeter provides a simple inexpensive yet accurate method to determine the Heat of Combustion, Calorific Value and the Sulphur contents of solids & liquids and fuels. The outfit provided is complete for the analysis as per methods recommended by the Indian Standard Institute (IS: 1359 –1959), British Standard Institute (BS 1016: Part 5:1967) and the Institute of Petroleum (IP 12/63T). Each part of the outfit has been finished and tested according to the specifications laid down by these Institutions.

**Microprocessor Bomb Calorimeter Salient Features:**

- Bomb body is machined from corrosion resistant stainless steel alloy
- Each bomb is tested at a pressure of 300 atm for 10 minutes
- Offset stirrer precludes heat from motor to Calorimeter Vessel
- No temperature correction

- Detection of maximum rise of temperature
- Windows based software
- Temperature resolution:  $\pm 0.0010$  C
- Memory Storage: 100 data
- Battery backup for stirrer and Microprocessor unit (UPS)
- RS 232C interface to connect with computer
- Soft touch keypad
- Auto firing (With software only)
- LCD display with backlit 16 x 2 characters
- Easy to handle and operate

**The following tasks are Automated with the Microprocessor Bomb Calorimeter with Software:**

- Automatic feeding of Calorific values of ignition wire and cotton thread
- Automatic firing in the bomb
- Automatic detection of maximum rise of temperature
- Automatic calculation of Heat Capacity of Bomb Calorimeter (Equivalent Value)
- Automatic calculation of Calorific Value of samples
- Automatic saving of Heat Capacity of Bomb Calorimeter and Calorific Values in summary format
- Automatic delivery of result data in report format

**The Digital Differential Temperature/Firing Unit with Electronic Timer Features:**

- Temperature Indication: 3.5 Digit digital display
- Differential Temperature range: 0 – 100 C
- Reading Resolution of temperature:  $0.001^{\circ}$  C
- Firing Voltage for Bomb: 12 VAC
- LED Indication for filament continuity
- LED Indication for Bomb Combustion

**Bomb Calorimeter is supplied with the following items**

Cotton Steel Bomb  
Standard Vessel  
Bomb Weighing Bomb  
Stirrer – 2 nos.  
General Capsules – 50 nos.  
Gas Release Valve Oxygen Cylinder  
Adjustable Spindle and Stirrer  
Machined Ignition Wire (20 M. 36 SWG)  
Fillet Press  
Bottle of Mandol Tablets  
Bomb Calorimeter Jacket  
Computer with Printer (Optional)  
Bomb Auto Gas Filling Device (Optional)



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