

PRODUCT CATALOGUE

## **AUTOMATIC** **MICROPROCESSOR-BASED** **BOMB CALORIMETER**

Reliable calorific value determination for solid and liquid fuels and other organic materials.



**AUTOMATED MEASUREMENT • BUILT-IN REPORTING • COMPLETE ACCESSORY SET**

### **DESIGNED FOR ROUTINE FUEL ANALYSIS**

Automatic calorific-value and water-equivalent calculation

Product image is illustrative. Supplied configuration and options may vary.

# Fuel analysis, made straightforward

The automatic microprocessor-based bomb calorimeter is designed to determine the heat of combustion and calorific value of solid and liquid fuels and other organic materials. The supplied specification cites Institute of Petroleum BS 1016 and IS 1350:1966.



PRODUCT VISUAL

## AT A GLANCE

- Measurement**  
Automatic calorific value and water-equivalent calculation
- Display**  
128 × 64 blue LCD; graphical display optional
- Reporting**  
Inbuilt printer; full test report with date and time
- Data**  
PC data-recording software; 1,000 logs optional

## CORE ASSEMBLY

### Calorimeter vessel

Copper, chromium-plated or stainless-steel vessel; bomb support positions the bomb correctly.

### Water jacket

Copper, chromium-plated inside and outside, or stainless steel; ebonite top cover and terminal block.

### Offset stirrer

Impeller operates at approximately 800 RPM. Offset drive helps prevent motor heat transfer to the vessel contents.

## TEST OUTPUT

**Full result printout • Printed record storage • PC data recording**

Selectable water-equivalent and sample tests support routine laboratory workflows.

# Key features

A microprocessor-based control unit brings calculation, test selection and reporting together in one instrument.

## 01 Automatic calorific value

Microprocessor-based automatic measurement.

## 02 Automatic calculations

Calorific value and water equivalent.

## 03 128 × 64 LCD

Blue display; graphical 128 × 64 display optional.

## 04 Inbuilt thermal printer

Full test report with date and time.

## 05 16-key keypad

Soft-touch key operation.

## 06 Tablet weight input

Weight of tablet can be entered.

## 07 Test alarms

Alarm on firing and when a test is complete.

## 08 Fuse-wire indication

Open fuse wire indication.

## 09 Stirrer status

Stirrer-on indication (optional).

## 10 Corrosion-resistant crucible

Alloy crucible.

## 11 Selectable test modes

Water-equivalent test or sample test.

## 12 Temperature resolution

0.01 °C standard; 0.001 °C optional.

## 13 Real-time clock

Clock with inbuilt battery.

## 14 PC software

Software for recording data.

## 15 Data memory

1,000 data logs (optional).

## 16 Soft power-on

Soft power-on for the system.

### OPTIONS

Graphical display, 0.001 °C resolution, stirrer indication and 1,000-log memory are optional.

# Accessories & supply notes

The product sheet lists the following accessories with the outfit. Confirm final configuration and quantities when ordering.

|                                                  |       |                                                  |        |                                                 |        |
|--------------------------------------------------|-------|--------------------------------------------------|--------|-------------------------------------------------|--------|
| ● Pressure valve / oxygen-cylinder gas regulator | 1 pc  | ● Temperature sensor                             | 1 pc   | ● Ignition threads, 15 m                        | 1 roll |
| ● Spanner                                        | 1 pc  | ● Microprocessor digital control and firing unit | 1 pc   | ● Stainless-steel bomb vessel with crucible     | 1 set  |
| ● Valve key                                      | 1 pc  | ● Motorized stirrer                              | 1 pc   | ● Pressure-release nut                          | 1 pc   |
| ● Connecting rubber pipes, small and large       | 2 pcs | ● Stainless-steel calorimeter with bakelite lid  | 1 pc   | ● Safety valve with stand and extra accessories | 1 set  |
| ● Pressure gauge with stand                      | 1 pc  | ● Copper inner jacket                            | 1 pc   | ● Rubber tube for bomb-vessel gas filling       | 1 set  |
| ● Tablet-making machine with die and mould       | 1 set | ● Rubber O-rings, large and small                | 6 pcs  | ● Benzoic acid, 50 g                            | 1 pack |
| ● Connecting cord                                | 1 set | ● Nichrome wire, 10 m                            | 1 roll | ● Operation manual                              | 1 copy |

## SUPPLY NOTES

- Industrial oxygen cylinder and precision balance (1 mg accuracy) are under the customer's scope.
- 0.001 °C controller resolution can be supplied at extra cost.
- Automatic gas-filling unit is available at extra cost.

## SPECIFICATION & ENQUIRIES

# REDIUS SOLUTIONS

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Laboratory equipment | Contact us for model configuration and quotation.