



## BOMB CALORIMETER TORONBC™ -1500

The ToronBC™-1500 Bomb Calorimeter is a compact and highly efficient instrument designed for precise determination of calorific values in a wide range of fuels and materials. With dimensions of 542 × 400 × 490 mm and a weight of just 54 kg, it is engineered to deliver powerful performance while maintaining a space-saving footprint in the laboratory. Its automated oxygen filling and release system streamlines operation, while the self-cleaning combustion chamber ensures minimal maintenance and long-term reliability.

Optimized for productivity, the ToronBC™-1500 processes each sample in just 7.5 minutes, making it an excellent solution for laboratories requiring rapid, repeatable, and accurate results. Whether applied in energy production, research, or quality control environments, this calorimeter combines robust functionality with ease of use, providing a dependable platform for consistent fuel analysis and material testing.

## **APPLICATIONS**

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### **Applicable Standards**

1. ASTM D5865-2019: Gross calorific value of coal and coke
2. ASTM D240-2019: Heat of combustion of liquid hydrocarbon fuels by bomb calorimeter
3. ASTM D4809-2018: Precision method for heat of combustion of liquid hydrocarbon fuels
4. ISO 1928:2020 - Coal and coke — Gross calorific value
5. ISO 18125:2017 - Solid biofuels — Calorific value determination
6. ISO 9831:1998 - Animal feeds and by-products — Gross calorific value
7. ISO 1716:2018 - Fire reaction tests — Gross heat of combustion
8. Calorific value of coal
9. Heat of combustion of petroleum products
10. Calorific value of solid biofuels

11. JC/T1005-2006 – Calorific value of cement raw mix

## FEATURES

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### 1. Compact, All-in-One Design

1. Integrated touchscreen interface for seamless operation
2. No external water tank or desktop connection required
3. Standalone functionality with a space-saving footprint
4. Dual semiconductor system for efficient cooling and heating
5. Precision jacket temperature control ensures reliable performance in diverse environments

### 2. Accurate, Stable, and Consistent Results

1. Automatic bucket temperature control guarantees uniform starting conditions
2. Enhances repeatability and supports long-term testing accuracy

### 3. High Automation & Test Efficiency

1. Fully automated operation: oxygen filling and release, pressure monitoring, bucket filling, temperature regulation, and bomb cleaning
2. Smart water circulation system with stable stirring for rapid and even heat transfer
3. Reduced test cycle time without sacrificing precision
4. Ergonomic bomb tool for quick and effortless handling

### 4. Reliable Performance

1. Delivers consistent, reproducible calorific value measurements

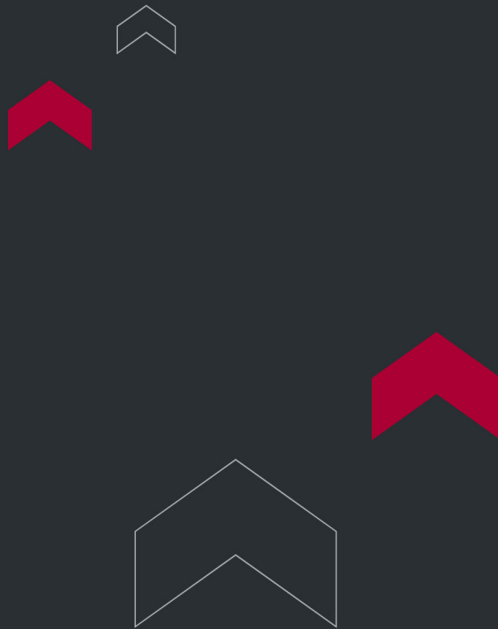
- 2. Engineered for dependable operation across a wide range of materials

5. Safe, Practical Design for Long-Term Use

- 1. Built-in self-diagnostics simplify maintenance and troubleshooting
- 2. User-friendly crucible holder for easy sample placement
- 3. Robust structural design ensures safe and stable long-term use

TECHNICAL SPECIFICATIONS

| Specification           | Value                                                |
|-------------------------|------------------------------------------------------|
| Analysis Time           | 7.5 min                                              |
| Temperature Resolution  | 0.0001°C                                             |
| Precision               | ≤0.05% RSD (1g benzoic acid)                         |
| Jacket Type             | Isoperibol                                           |
| Heat Capacity Stability | ≤0.20% within three months                           |
| Voltage                 | 220V±10% □ 50/60Hz □ ≤0.5kW (110V is also available) |



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