



TORONTECH

BOMB CALORIMETER TORONBC™ -3200



Bomb Calorimeter ToronBC™-3200 accurately measures the calorific value of solid and liquid fuels like coal, oil, and biomass. With fully automated operation, it delivers results in ≤ 14 minutes, features precise temperature control ($\pm 0.1^\circ\text{C}$), and ensures reliable data with RS232 connectivity and PT1000 temperature sensing.

APPLICATIONS

- **Energy & Power Industry** - Determination of calorific values for coal, petroleum products, and biomass fuels to optimize energy efficiency in thermal power generation.
- **Cement & Construction Materials** - Analysis of raw mixes and alternative fuels to ensure product consistency and process reliability in cement and building material production.
- **Chemical & Petrochemical Industry** - Precise fuel testing for quality control, safety compliance, and process optimization in chemical and refinery operations.
- **Research & Academic Institutions** - High-accuracy calorimetry for scientific studies, educational programs, and the development of new fuel and material technologies.
- **Quality Assurance & Certification Labs** - Standardized calorific value testing in compliance with ASTM, ISO, and other international standards for certification and regulatory approval.
- **Environmental & Waste Management** - Evaluation of municipal solid waste, alternative fuels, and renewable biomass for energy recovery and sustainable resource management.

FEATURES

1. Featuring a large-capacity water tank, the jacket maintains a water temperature variation of under 0.1°C per test, with heat capacity accuracy within 0.15%.
2. It offers automatic temperature regulation, consistent water volume, and total water volume monitoring. The entire testing process is fully automated, ensuring reliable and accurate results.
3. Enhanced heat capacity guarantees dependable performance, while the PT1000 platinum resistance enables precise temperature measurement.
4. The standard RS232 interface allows seamless connection to a balance and network, with real-time data transmission over the internal network.

TECHNICAL SPECIFICATIONS

Description	ToronBC™-3200
Analysis Time	≤14min
Temperature Resolution	0.0001K
Precision(RSD) (1g Benzoic Acid)	≤0.15%
Heat Capacity Stability	≤0.25% within three months
System Structure	Benchtop/vertical
Conformance with Standard	ASTM D5865, ASTM D240, ASTM D4809, ASTM E711, ASTM D5468, ISO 1928, ISO 9831, ISO18125, AS 1038.5, BS EN 15400, BIS1350
Test per Hour	2~4
Bomb volume	282ml

Calorimeter Type	Isoperibol
Oxygen Filling	Semi-automatic
Bomb Washing	Manual
Max. Bomb pressure	20Mp
Bomb Identity	Yes
Gas Requirement	99.5% Oxygen
Water Requirement	Distilled Water
Energy Measurement Range	0~50000J
Bucket Filling	Automatic
Constant Volumetric Tank with Temp Control Device	Bucket determine water volume automatically
Independent Bucket and Jacket Water System	Yes
Stirring Method	Blade
Power Inverter	No
Reproducibility based on analysis of 1g Benzoic Acid	0.15%
Average Temperature Increase	2°C
Temperature Measurement	PT1000
Working Temperatures	≤32°C
Cooling method	Refrigerating Device
Network	Yes
Voltage	AC 220V (-10% +10%)50/60Hz (110V is also available)

Max. Power	0.6KW
Dimension	Main body: 500*600*425 Water Tank: 550*356*520
Weight	65kg
Advance Calculation	Yes
Analysis Report	Yes
Statistics Report	Yes
System Monitor	Yes



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