

# **SDAC1200**

Bomb Calorimeter - CV

### Professionalism

Sundy continuously insists on independent innovation and attaches great importance to the acquisition and protection of intellectual property.

Member of "National Technical Committee on Coal Standardization Administration of China" (SAC/TC42). Sundy has acquired 318 patents, among which 90 are invention patents.







Production Line	Meeting Room	R&D
Lab	Exhibition 2017	Public listed







### Quality

ISO 9001 Quality Management System.

ISO 14001 Environmental Management System.

ISO 18001 Occupational Health and Safety Management System.

CE Certificate





Main body dimension: 390mm\*565mm\*485mm Water tank dimension: 220mm\*565mm\*410mm

Main body weight: 50KG Water tank weight: 25KG

### **Application**

SDAC1200 can be used to determine the calorific value of solid and liquid combustibles such as coal, coke, petroleum oil, cement black meal, biomass fuels as well as building material.

#### **Conformance to Standards**

- ASTM D5865 Standard test method for gross calorific value of coal and coke.
- ASTM D240 Standard test method for heat of combustion of liquid hydrocarbon fuels by bomb calorimeter.
- ▶ ASTM D4809 Standard test method for heat of combustion of liquid hydrocarbon fuels by bomb calorimeter (precision method).
- ▶ ISO 18125 Solid biofuels Determination of calorific value.
- ▶ ISO 1928 Solid mineral fuels Determination of gross calorific value by the bomb calorimetric method and calculation of net calorific value.
- ▶ ISO 9831 Animal feeding stuffs, animal products, and faeces or urine Determination of gross calorific value Bomb calorimeter method.
- ▶ ISO 1716 Reaction to fire tests for products Determination of the gross heat of combustion (calorific value).

### Specification

Analysis Time	Fast mode <10min,Standard mode<12min Precision mode <14min (Default)	
Temperature Resolution	0.0001°C	
Heat Capacity Precision	≤0.08%	
Calorimeter Type	Isoperibol	
Heat Capacity Stability	≤0.20% within 12 months	
Balance Connection	RS232	
Power Requirement	220V±10%, 50/60Hz	

### Highlights

### Optimized design, fully automatic oxygen filling & releasing, automatic bomb raising & lowering.

- Unique bucket water circle system, which is able to determine water volume for each testing automatically. New stainless steel oxygen bomb can be easily assembled and disassembled. High stirring efficiency by propeller, faster heat transfer of oxygen bomb, testing time is greatly reduced.
- Unique automatic press type oxygen filling & releasing design, no blockage, much more stable than traditional automatic calorimeter.



Automatic bomb raising & lowering
Automatic oxygen filling & releasing

- Equipped with a semiconductor thermostatic water tank with cooling and heating function. More precise temperature control and lower power consumption and noise than conventional compressor cooling water tank.
- High automation: bomb raising & lowering, oxygen filling & releasing, oxygen filling pressure and air tightness detection, bucket water volume constant, bucket water temperature control, pipeline flushing, water change, etc.

#### Accurate and reliable test result

- ▶ Larger heat capacity, it makes the testing result more accurate and reliable.
- Support two ignition methods: nickel wire and cotton thread.

### Reasonable structure, reliable operation, safe and environment friendly.

- With self-diagnostic function, malfunction can be detected accurately, easy to maintain.
- ▶ Unique crucible support design, convenient to use.

### Good environment adaptability, precise, accurate and reliable rest result.

▶ Helix tube multi-point isothermal technology, create a controllable and stable internal environment (consists of jacket and jacket lid, temperature difference<0.05℃), stop the interference of external environment (such as air flow, temperature) to bucket, test result is reliable.



Diagram for helix tube multi-point isothermal technology

- ▶ Independent jacket and bucket water system. After the test, bucket water automatically flow back into water tank, no affection between inlet and outlet of bucket water and jacket water. Jacket water temperature is stabilized.
- Constant volume oxygen vessel, the bucket water volume will not affected by the operator, so that heat capacity more stable.



Constant volume oxygen vessel



## **About us**

Sundy, established in 1993, is a leading supplier of coal analysis total solutions in China. With 27 years development, Sundy provides products from individual mechanical samplers, sample preparation equipment & analysis instruments to fuel intelligent management systems, intelligent integrated sampling and sample preparation systems, intelligent dust extraction systems. Product application covers from coal production, coal consuming to coal trading, coal inspection and research, from the industries of power plant, coal, metallurgy and chemical, to the industries of building material, inspection and scientific research.

With the commitment of "Honesty, Cooperation, Profession, Innovation" and extensive experience in R&D and manufacturing, Sundy has acquired over 42% of domestic market share, and products have been sold to over 50 countries in the world including USA, UK, Italy, Russia, Indonesia, Mongolia, Rwanda, South Africa, Laos, Turkey, Greece, Thailand, Vietnam, Middle East, Brazil, etc.

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