

# Sundy

Stock code:300515



# SDAC1000

Bomb Calorimeter - CV

<http://en.sandegroup.com>

## 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



# SDAC1000

## Bomb Calorimeter - CV

Analysis time  $\leq 12$ min

Optional support stand, customer can choose either benchtop / vertical type.



Main body dimension: 428mm\*565mm\*450mm  
Water tank dimension: 220mm\*565mm\*410mm  
Main body weight: 45kg  
Water tank weight: 25KG

### Application

SDAC1000 can be used to determine the calorific value of solid and liquid combustibles such as coal, coke, petroleum oil, cement black meal, biomass fuels, solid wastes 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	$\leq 12$ min
Temperature Resolution	0.0001 °C
Heat Capacity Precision	$\leq 0.10\%$
Calorimeter Type	Isoperibol
Heat Capacity Stability	$\leq 0.20\%$ within 12 months
Balance Connection	RS232
Power Requirement	220V $\pm 10\%$ , 50/60Hz

## Highlights

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

- ▶ Helix tube multi-point isothermal technology, create a controllable and stable internal environment (consists of jacket and jacket lid, temperature difference  $<0.05^{\circ}\text{C}$ ), stop the interference of external environment (such as air flow, temperature) to bucket, test result is reliable.
- ▶ With semiconductor temperature control technology for the jacket, both cooling and heating can be realized. There is no need to fill cold water to decrease the water temperature to ensure 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.
- ▶ Support automatic pipeline flushing and water change to ensure the long-term stability of the heat capacity.

### 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.

### Humanized design, high automation, fast test speed.

- ▶ 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, faster heat transfer of oxygen bomb, testing time is greatly reduced. Analysis time for each sample is less than 12 min.
- ▶ 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.

### 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.
- ▶ Strong data processing capability, statistics report and printing function. Capable of connecting with network and balance.



# 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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