

C 6000

/// An evolution in calorimetry

The champion of modern calorimetry has been developed even further. The new C 6000 has an intuitive touch screen with unique user guidance. The high level of automation simplifies everyday work and enables high sample throughput. The strictest adherence to standards gives rise to the most accurate repeatable results in the world and guarantees the desired assurance.

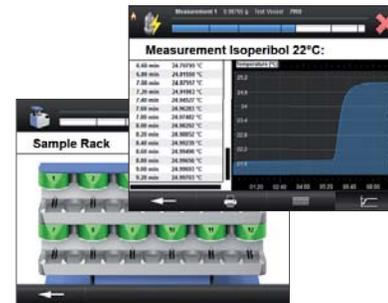
Especially suitable for: sectors in which adherence to standards is a prerequisite and a large number of samples need to be measured.



C 6000 Functions

The new movement-sensitive touch screen guarantees even easier, more intuitive use.

The C 6000 easily meets all standards.



- > Easily-accessible USB interface for simple, enhanced data management
- > Ethernet interface for data management via an FTP server
- > Spherically-shaped decomposition vessel for improved heat transfer and shorter measurement times
- > Powerful device software with a control chart view of calibration and calorific value corrections, compliant with globally-applicable standards
- > RFID technology for decomposition vessel detection
- > Inverted crucible holder for easier measurement preparation
- > 3 starting temperatures: 22 °C, 25 °C, 30 °C



Your Laboratory, our C 6000 Package

The C 6000 is available in global standards or isoperibolic versions. Thanks to the innovative technology of the C 6000 global standards, conventional adiabatic as well as isoperibolic measurement methods can be used. This makes it the only device with such a high level of automation in the market. Both variants also have a fast dynamic mode.

What do you need? Just get in contact with us!

C 6000 global standards Packages

C 6000 PACKAGE 1/10 | Ident. No. 0010004520

C 6000 Calorimeter, C 6010 Decomposition vessel , RC 2 basic Circulating chiller

C 6000 PACKAGE 1/12 | Ident. No. 0010004521

C 6000 Calorimeter, C 6012 Decomposition vessel, halogen resistant, RC 2 basic Circulating chiller

C 6000 Package 2/10 | Ident. No. 0010004522

C 6000 Calorimeter, C 6010 Decomposition vessel

C 6000 Package 2/12 | Ident. No. 0010004523

C 6000 Calorimeter, C 6012 Decomposition vessel, halogen resistant

C 6000 isoperibol Packages

C 6000 Package 1/10 | Ident. No. 0010004524

C 6000 Calorimeter, C 6010 Decomposition vessel, RC 2 basic Circulating chiller

C 6000 Package 1/12 | Ident. No. 0010004525

C 6000 Calorimeter, C 6012 Decomposition vessel, halogen resistant, RC 2 basic Circulating chiller

C 6000 Package 2/10 | Ident. No. 0010004526

C 6000 Calorimeter, 6010 Decomposition vessel

C 6000 Package 2/12 | Ident. No. 0010004527

C 6000 Calorimeter, C 6012 Decomposition vessel, halogen resistant



Technical data C 6000 Calorimeter

TECHNICAL DATA

Measuring range max.	40,000 J / 9,560 cal
Temperature measurement resolution	0.0001 K
Oxygen operating pressure max.	40 bar
Display	TFT with touch screen
Measuring modes	> Isoperibol 22 / 25 / 30 °C > Dynamic 22 / 25 / 30 °C > Adiabatic 22 / 25 / 30 °C
Reproducibility (1g benzoic acid NBS39i)	0.05 to 0.15 % RSD
Measurements per hour	Isoperibol 4 Dynamic 6 Adiabatic 5
Number of possible decomposition vessels per device	Up to 4
Decomposition vessels	C 6010 / C 6012

INTERFACES

PC	9 pin (M) RS 232 serial
Printer	USB-B, Ethernet
Balance	9 pin (M) RS 232 serial

AUTOMATIC FUNCTIONS

Automatic water filling and draining	Yes
Automatic oxygen, venting, flushing	Yes
Ignition and ignition energy determination for each experiment	Yes

COOLING WITH RC 2 BASIC CHILLER

Cooling medium temperature min.	12 °C
Cooling medium temperature max.	27 °C
Cooling medium permissible operating pressure	1.5 bar

CALORIMETER STANDARDS

Analysis according to	GB T213	DIN 51900
	DIN EN ISO 1716	ASTM D240
	DIN CEN TS 14918	ASTM D4809
	DIN EN 15170	ASTM D5865
	ISO 1928	

GENERAL DATA

Weight	29 kg
Dimensions (W x H x D)	500 x 450 x 450 mm
Permissible ambient temperature	20 – 30 °C
Permissible relative humidity	80 %
Voltage	220 – 240 V
Frequency	50 / 60 Hz
Power input	1,700 W
Protection class according to DIN EN 60529	IP 20



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C 6000 isoperibol Package 1/10

/// Data Sheet

The C 6000 isoperibol oxygen bomb calorimeter combines modern technology, variability and automation in one instrument. It operates according to all bomb calorimeter standards, such as e.g. the DIN, ISO, ASTM, GOST and GB. The operator can choose between three different starting temperatures 22 °C, 25 °C, 30 °C in each measuring mode. Due to the new design of the decomposition vessel the measurement time could be reduced. Due to the variety of different interfaces for PC, printer (Ethernet, serial and USB), balance and USB Stick this unit is easily adaptable to the customer's specific application needs. Further adaption to data management and LIMS is possible with our calorimeter software C 6040 Calvin (Accessory).



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Measuring modes:

- isoperibol
- dynamic

Features:

- Automatic ignition and ignition energy determination
- Automatic water filling and draining
- Automatic oxygen filling, venting and flushing
- RFID technology for automatic decomposition vessel identification
- New design of the decomposition vessel allowing easier and faster sample preparation
- Easy and convenient capacitive touch screen operation
- Control chart view and correction calculation of globally used standards
- Ethernet interface to connect a network printer
- USB interface allowing easy data management and software updates

The C 6000 isoperibol Package 1/10 consists of:

- C 6000 isoperibol
- C 6010 decomposition vessel, standard
- RC 2 basic cooling water supply

Technical Data

Measuring range max. [J]	40000
Measuring mode dynamic 22°C	yes
Measuring mode isoperibol 22°C	yes
Measuring mode dynamic 25°C	yes
Measuring mode isoperibol 25°C	yes
Measuring mode dynamic 30°C	yes
Measuring mode isoperibol 30°C	yes
Measurements/h dynamic	6
Measurements/h isoperibol	4
Reproducibility dynamic (1g benzoic acid NBS39i) [%RSD]	0.15
Reproducibility isoperibol (1g benzoic acid NBS39i) [%RSD]	0.05
Touchscreen	yes
Working temperature [°C]	22 - 30
Temperature measurement resolution [K]	0.0001
Cooling medium temperature [°C]	12 - 27
Cooling medium permissible operating pressure [bar]	1.5
Cooling medium	tap water
Type of cooling	flow
Chiller	RC 2 basic
Flow rate [l/h]	60 - 70
Rec. flow rate at 18°C [l/h]	60
Oxygen operating pressure max. [bar]	40
Interface scale	RS232
Interface printer	USB
Interface PC	RS232
Interface test rack	yes
Interface ext. keyboard	yes
Oxygen filling	yes
Degasification	yes
Decomposition detection	yes
Decomposition vessel C 6010	yes
Analysis according to DIN 51900	yes
Analysis according to DIN EN ISO 1716	yes
Analysis according to DIN EN ISO 9831	yes
Analysis according to DIN EN 15170	yes
Analysis according to DIN CEN TS 14918	yes
Analysis according to ASTM D240	yes
Analysis according to ASTM D4809	yes
Analysis according to ASTM D5865	yes
Analysis according to ASTM E711	yes
Analysis according to ISO 1928	yes
Analysis according to GB T213	yes
Dimensions (W x H x D) [mm]	500 x 425 x 450
Weight [kg]	29
Permissible ambient temperature [°C]	20 - 30
Permissible relative humidity [%]	80
Protection class according to DIN EN 60529	IP 20
RS 232 interface	yes



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USB interface	yes
Voltage [V]	220 - 240 / 100 - 120
Frequency [Hz]	50/60
Power input [W]	1700

