CAL2K Bomb Calorimeter

Fully Automatic. Guaranteed Accuracy.

The CAL2K system is the most advanced, fully automatic calorimeter available today. The result of years of research with dedicated engineers employing the latest state-of-the-art technology and the highest quality materials.

The CAL2K is easy to use and has special features, which places it in a league of its own. Accuracy is guaranteed with microprocessors that use self-correcting processes, exceeding the standard requirements of DIN, ASTM and ISO. Its ability to interface with a personal computer, ensures preferred results with displays, data printouts and connectivity across a network.

The CAL2K has been designed for the high volume market and is most suitable for laboratories running 10 or more CV samples per day.

**Packed with special features, placing it in a league of its own.** Find out what makes the CAL2K simply remarkable.

* Easy to maintain – easy to maintain, self-system test for technicians.
* Compact Size – able to fit more systems into a standard laboratory.
* Fully Automatic Operation – temperature readings and calculations are done for you.
* Network Up to 7 Calorimeters – Possible to network up to 7 calorimeters.
* Rapid. Accurate. Rapid and accurate determinations.
* 10 Samples per hour using the CAL2K Cooler and 2 Bomb Vessels.
* Waterless Vessel – Isothermal design using a waterless patented vessel. No bucket. No Spillage. No Measuring.
* More Memory. More Determinations. Large memory for storing more than 2000 determinations, including operating conditions and user statistics.
* Automatic Correction – Automatic correction for firing wire, cotton, spiking, and more.
* Automatic Calibration – fully automatic calibration, with 10 stored calibrations per vessel for standard deviation.
* Calibrated Sensors – Calibrated sensors built into vessel wall.
* Optional Spiking – Can use spiking for hard to combust samples.
* Intelligent “SMART” Vessel – Intelligent SMART vessel with fault diagnostics and calorific processor.
* Pre-programmed Vessel – Vessels are pre-programmed for 5000 determination cycles before inspection.
* Firing Limits – Adjustable firing limits set per vessel.
* High and low mass limits.
* Determination Cycle Adjustment
* Precise and reproducible determination of gross calorific values according to ISO 1928, DIN 51900 abd BS1016:105.

**Need to know information** – more information for the technically minded.

* LCD Display
* Easy To Use
* Approx. 280mm x 340mm in size
* Compact. Lightweight.
* TUV Certification
* Operating Temperature : 0-60°C
* Temperature Resolution : 0.000001°C
* Repeatability : 0.1% RSD
* Resolution : 0.001 MJ/Kg
* Results Per Hour : 10 samples per hour using 2 bomb vessels

**The CAL2K. And More**

Additional items to expand your CAL2K System.

The complete CAL2K system consists of : The CAL2K-1 Calorimeter, CAL2K-1-KT Calorimeter Installation Kit, CAL2K-2 Cooler, CAL2K-2-KT Cooler Installation Kit, CAL2K-3 Filling Station, CAL2K-3-KT Filling Station Installation Kit, CAL2K-4 Vessel and the CAL2K-4-KT Vessel Installation Kit.

**Additional Extras**

* CAL2K Interconnection Cable (required only when networking units)
* Regulator – High Pressure Oxygen Regulator (required and MUST be supplied before installation)

**Items To Source**

* Balance (recommended Sartorius Balance CP64 equivalent)
* Water Tap Connection
* PC with Windows 98/2000/NT4.0 installed (required only if running software – a PC is not required to operate the unit).

The CAL2K Complete System

Everything you need to start analysing.

**CAL2K Calorimeter**

The CAL2K-1 Calorimeter can operate as either a stand-alone unit or via PC.

When operating as a stand-alone unit it is operated via the keyboard and all relevant information is displayed on the LCD display. Up to 7 calorimeter can be connected as a network with or without a PC.

**The Vessel**

The CAL2K-4 vessel is the first of its kind and is the heart of the CAL2K system. Its sophisticated design allows the temperature to be measured to five decimal places in degrees Celsius. The vessel is an intelligent (SMART) vessel with a microprocessor built into its base. The vessel is capable of : firing counts, identification, memory and reconditioning data. The vessel is the combustion chamber. It is made of stainless steel and tested up to a pressure of 300 atmospheres (4200psi).

**The Filling Station**

The Filling Station is designed to fill the vessel with oxygen to 3Mpa. The filling rate is controlled so as not to disrupt the sample in the crucible. The Filling Station is extremely easy to operate and requires minimal adjustments and maintenance.

**The Cooler**

The unit is designed to reduce the temperature of a recently fired vessel, obtained from the calorimeter, to ambient temperature in 2-3 minutes.