

# CANNON® CT-2000 CONSTANT TEMPERATURE BATH



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- ▶ **Microprocessor-Controlled Temperature Regulation to 150°C**
- ▶ **Built-in Platinum Resistance Thermometer**
- ▶ **On-Screen Temperature Monitoring**

The CANNON CT-2000 Constant Temperature Bath maintains the accurate control required by ASTM D 445 for kinematic viscosity measurements. Within the range of 20 to 100°C temperature is controlled to 0.01°C; outside that range, temperature stability is controlled to within ± 0.03°C.

## Setting Temperature

A front panel keypad permits convenient temperature selection to two decimal places at any temperature from +10°C to 150°C.

The built-in platinum resistance thermometer continuously monitors bath temperature and displays it digitally on a four line by twenty character back-lit liquid-crystal screen. Either Celsius or Fahrenheit display of temperature may be selected. On power-up, the CT-2000 performs an automatic self-test of its circuits.

The CT-2000 also features RS-232 and RS-485 communication ports which permit data acquisition and networking via an external computer. Several baths may be networked to a single computer.

## Bath Features

The bath chamber is a cylindrical clear Pyrex® vessel 300 mm (12 inches) in diameter x 300 mm (12 inches) high. A stainless steel baffle coated with white Teflon is located in the center of the bath to provide a good background for viewing viscometers. Two fluorescent lamps illuminate the interior of the bath brightly and uniformly, without glare.

Twin heating elements inside the bath rapidly heat the medium to any desired temperature within the range. A cooling coil, when connected to tap water or a cooling system, permits operation near ambient temperature. The cooling coil or an accessory cooling unit (CBC-100) is required for bath operation below ambient.

The top cover contains seven round holes 51 mm (2 inches) in diameter. Up to seven glass capillary viscometers (in holders) can be placed in the bath. Two additional holes 10 mm (3/8-inch) in diameter are provided for thermometers.

A solid-state control circuit equipped with a stainless steel-encased thermistor provides proportional control of temperature. A motor driven stirrer ensures a uniform temperature throughout the bath. The entire electrical control system is located in a convenient drawer for easy access if adjustment or repair is necessary.

All wetted parts of the bath are made of stainless steel, glass, or Teflon®. The bath housing is fabricated from heavy aluminum and coated with a corrosion-resistant epoxy finish. The top cover consists of three parts: a stainless steel top surface, an insulating layer, and a bottom stainless steel heat reflector.

The bath is designed to use water or oil (not supplied). Viscometers, holders, bath oil and thermometers must be purchased separately.

## Safety Features

There are multiple safety features. A thermistor in the bath senses any over-temperature fault condition. If such a condition occurs, all power is removed from the bath until an operator resets the over-temperature limit control circuit. A second safety feature cuts power to the heaters if the control thermistor is disconnected. A liquid-level sensor prevents the control circuit from heating the bath until the safe operating level is attained. The bath heaters are automatically turned off when the bath liquid drops below the minimum safe level.



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### CT-2000 Constant Temperature Bath Specifications

Size:	438 mm wide x 464 mm deep x 584 mm high (17.3 x 18.3 x 23 inches)
Bath Volume:	17 liters (4.5 gallons)
Weight:	51.4 kg (113 lbs) without bath fluid
Shipping Weight:	60 kg (131 lbs) (total/two boxes)
Electrical:	Specify exact line voltage when ordering

### Order Information

Catalog #	Item Description
9726-A30	CT-2000, 100-130 VAC, 50/60 Hz, 1400 watts
9726-A35	CT-2000F, 200-250 VAC, 50/60 Hz, 1400 watts