

# CANNON<sup>®</sup> CT-500/518 CONSTANT TEMPERATURE BATH



# CANNON® CT-500/518 CONSTANT TEMPERATURE BATH



- ◆ Accurate temperature control from 20°C to 100°C
- ◆ Safe/reliable operation

The CANNON CT-500/518 baths maintain accurate temperature control of  $\pm 0.01^\circ\text{C}$  within the range of  $20^\circ\text{C}$  to  $100^\circ\text{C}$ , providing the temperature sensitivity required by ASTM D 445 for kinematic viscosity measurements with glass capillary viscometers. Two electric 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 below or slightly above ambient temperature.

## Temperature Selection

A special selector switch on the front panel facilitates rapid setting of ten popular temperatures for kinematic viscosity determinations.

Temperatures which may be selected with this switch are 20, 25, 30, 40, 50, 60, 70, 80, 90, and  $100^\circ\text{C}$ . After the switch has been set, the bath will equilibrate to within a fraction of one degree of the desired temperature. A fine tuning control then allows temperature adjustment to within  $\pm 0.01^\circ\text{C}$  of the target temperature. By switching to the “variable” setting on the front panel, any temperature within the operating range can be obtained.

## Description of Bath

A solid-state control circuit provides proportional control of temperature. The sensing element for the control circuit is a stainless steel-encased thermistor.

A motor-driven stirrer ensures a uniform temperature throughout the bath. The entire electrical control system is located in a convenient drawer, mounted on glides for easy access if adjustment or repair is necessary.

The CT-500 bath chamber is a cylindrical clear glass vessel 305 mm (12 inches) in diameter and 305 mm (12 inches) high. The CT-518 bath chamber is a full 457 mm (18 inches) high. A Teflon<sup>®</sup>-coated stainless steel baffle located in the center of the bath provides a plain reflective background to aid in viewing instruments. The top cover contains seven round holes 51 mm (2 inches) in diameter for insertion of viscometer holders, allowing up to seven viscosity measurements to be made simultaneously. Covers are supplied for capping unused holes. Two additional holes 10 mm ( $\frac{3}{8}$ -inch) in diameter, are provided for thermometers. Other hole configurations are available on special order. All wetted parts of the CT-500/518 Constant Temperature Baths are made of stainless steel, glass, or Teflon. The frame is fabricated from heavy aluminum and coated with a corrosion-resistant epoxy finish. Viscometers, holders, bath oil, and thermometers must be purchased separately.

## 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 circuit. A second safety feature cuts power to the bath heaters if the control thermistor is disconnected. Finally, operation of the bath is not possible unless it is filled with liquid to a safe operating level. A liquid-level sensor prevents the control circuit from heating the bath until a safe operating level is attained. The bath heaters are automatically turned off when the bath liquid drops below minimum safe level.

### CT-500 Constant Temperature Bath Specifications

Size (CT-500):	407 mm wide x 362 mm deep x 610 mm high (16 x 14.25 x 24 inches)
Capacity CT-500:	17 L (4.5 gal)
CT-518:	23.8 L (6.3 gal)
Weight (CT-500):	22 kg (48 lbs)
Shipping Weight (CT-500):	34 kg (75 lbs)

### Order Information

Catalog #	Item Description
9726-A10	Model CT-500, 120 volts AC, 50/60 Hz, 1000 watts
9726-A15	Model CT-500F, 240 volts AC, 50/60 Hz, 1000 watts
9726-A17	Model CT-518, 120 volts AC, 50/60 Hz, 1300 watts
9726-A19	Model CT-518F, 240 volts AC, 50/60 Hz, 1300 watts