

CTE MODEL 200 / 250 ATMOSPHERIC CONSISTOMETER



ATMOSPHERIC CONSISTOMETER

CTE Models 200 and 250 Atmospheric Consistometers are specifically designed to prepare cement slurries for the testing of various parameters in strict compliance with API Spec 10 and ISO 10426.

The testing of cement slurries requires the measurement of thickening time, free water content, viscosity, rheological properties, fluid loss and various other properties. The Models 200 and 250 provide a simple method for conditioning the cement slurries in preparation for performing these tests. API Spec 10 outlines the requirements and provides the basis for the design and operation of Atmospheric Consistometers. Cement slurries are initially mixed with a CTE Model 7000 Constant Speed Mixer in compliance with Section 5 of API spec 10. The slurry is then placed into the Model 200 or Model 250 for any or all of the following tests as per API and ISO requirements:

- Thickening time
- Water content
- Determination of rheological properties
- Fluid loss test
- Other specific tests can be run according to individual requirements

The Models 200 and 250 are utilized in laboratories involved in oil well cement research programs, research and testing of cement additives, cement manufacturers quality assurance programs, and in the research for well servicing companies and their field labs. Thousands of units are in operation worldwide giving this instrument a high level of quality and design assurance.

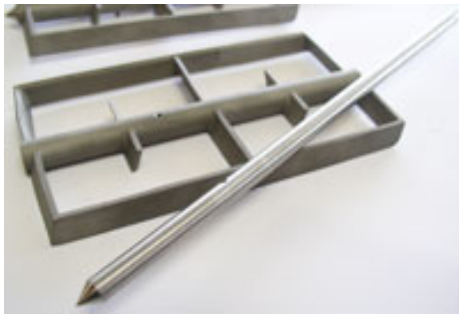
OPERATION

The operation and calibration of Model 200 and 250 are simple and easy to learn. The cement slurry is prepared in accordance with Section 5 of API Spec 10, and then quickly poured into either of two available slurry containers in the unit. The stirring paddle is inserted and the lid placed on the container. The container is then placed into the temperature-controlled water bath and stirring is started. The unit is designed so the stirring operation can begin within one minute or less, in compliance with API Spec 10. The temperature of the water bath is indicated on the temperature controller panels of both the 200 and 250. The Model 250 has a color digital recorder to make a permanent record of the temperature and viscosity during the test. The Nanodac recorder/controller allows the instrument to combine temperature control and data acquisition into one small and efficient package. Temperature control is similar in that it is setup as a set-point controller. It is possible to network the nanodac and assign it an IP address or simply use the supplied USB flash drive to transfer data. Data plots are achieved either using the supplied Eurotherm software or spread sheet.

WARRANTY

All CTE products are covered by a full one-year warranty against defect in materials and workmanship. A sales terms, conditions, and warranty statement is included with each quotation or confirmation of order.





BENEFITS

- Programmable, microprocessor-based temperature controller
- Digital temperature indicator
- Stainless steel water bath tank
- Stainless steel cast paddles and replaceable stainless shafts
- Direct impeller in water bath evenly disperses heat around slurry cups
- Internal copper cooling coils
- Permanently sealed, stainless steel, rotator ball bearings
- Can be filled with mineral oil for higher temperature testing
- Permanently sealed motor provides a very long operational life
- External flip valve provides easy tank drainage

FEATURES

MODEL 250 RECORDING

- Electronic potentiometer mechanism
- Color digital display/recorder for both temperature and consistency
- Data transfer to spreadsheet or custom database program

MODEL 200

- Direct torque spring readout potentiometer mechanism
- Simple, digital, setpoint controller is easy to set and control temperature.

ENVIRONMENTAL & UTILITY CONNECTIONS

ELECTRICAL		ENVIRONMENTAL		DRIVE UNIT	
Input Voltage	230 VAC (±10%) (115 VAC optional)	Operating Temperature	32 - 105 °F (0 - 40 °C)	Drive Motor	1/12Hp, 90VDC
Input Power	2000 W	Operating Humidity	0 - 95% non-condensing	Drive Speed	0-250 rpm (Variable)
Current	9 A (18A, 115V)				
Input Frequency	50 -60 Hz				
MECHANICAL		HEATER		COOLING CONNECTIONS	
Height	25 in. (64 cm)	Heater Power	1500 W	Cooling In/Out	1/4 MNPT (2)
Width	15.5 in. (39 cm)	Heater Type	Cast Rod Heater	Drain	1/4" Tube
Depth	18 in. (45 cm)				
Weight	50 lbs. (23 kg)	Heater Control	SS Relay		