

CTE MODEL 22-400 AND 22-400-2 PRESSURIZED CONSISTOMETER



PRESSURIZED CONSISTOMETER

The **CTE Model 22-400** and **Model 22-400-2** are specifically designed to measure the thickening time of cement slurries in strict compliance with ISO-10426, API Spec 10A and API RP-10B Schedules. With high temperatures and pressures applied to the cement, it is possible to simulate a variety of conditions found in actual down-hole well cementing. The measured thickening time can then be used to formulate actual well cementing plans.



OPERATION

Operation of the pressurized consistometer is simple with all of the operational controls conveniently located on the front panel. The readout indicators for the viscosity, pressure, and temperature, as well as operational instructions, are easily read from the 12-inch color touch-screen.

The consistometer is designed so that closure, heating, and pressurization can be achieved quickly. This ensures compliance with the requirement of ISO and API schedules.

The temperature control system will automatically control the rate of temperature rise of the slurry (i.e. temperature gradient). When the slurry reaches the desired maximum temperature, the system will hold the slurry temperature at that level.

The temperature and viscosity of the slurry, and current pressure are displayed constantly on the touch-screen numerically and graphically.

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

- Instructions displayed on touchscreen allow first-time users to operate instrument efficiently
- Rate of temperature rise of the slurry can be closely controlled over a wide range of temperature gradients including a multi-slope gradient
- Easy network configuration for remote viewing of tests, data transfer.
- Hundreds of similar units are in operation with interchangeable parts
- High-wattage slurry heater provides high heating rates needed to simulate high temperature gradients in wells as required by ISO and API schedules
- The units have viscosity alarms that can be set over the range from less than 30 Bc to 100 Bc
- The cooling coils around the pressure vessel permits the circulation of a cooling fluid to cool the pressure vessel quickly
- Oil reservoir cooling used to rapidly cool oil between tests

FEATURES

- 12 inch color touch-screen for display of testing parameters and access to programmable features
- Easy network LAN connection for remote viewing in real-time
- USB drive for data export
- Maximum operating pressure 22,000 psi (150 MPa)
- Maximum operating temperature 400° F (205° C)
- Precision magnetic drive assembly
- Automatic cooling
- Oil reservoir cooling
- No other processor or PC is required to operate the system
- Ultra-fast processor ensures high-speed computing
- Lots of on-board memory for thousands of tests
- CementLab software takes consistometer technology into the 21st century
- Supplied with tool kit, multi-wrench, printer, spares, and accessories
- Pressure control optional
- Redesigned with automated technologies to remove unnecessary valves, switches, and timers

ENVIRONMENTAL & UTILITY CONNECTIONS

ELECTRICAL	ENVIRONMENTAL	DRIVE UNIT
Input Voltage 230 VAC (±10%)	Operating Temperature 32 - 105 °F (0 - 40 °C)	Drive Motor .016 Hp, 36VDC
Input Power 6500 W	Operating Humidity 0 - 95% non-condensing	Drive Speed 150 rpm (Variable Speed Optional)
Current 30 A		
Input Frequency 50 -60 Hz		
MECHANICAL	HEATER	AIR/WATER/N2 CONNECTIONS
Height 61 in. (155 cm)	Heater Power 5000 W	Water In/Out 1/4 MNPT (2)
Width 33 in. (84 cm)	Heater Type Cast Heater w/ Cooling Coils	Air Input 1/4 MNPT (1) (Max 120psi)
Depth 30 in. (76 cm)	Heater Control SS Relay	
Weight 850 lbs. (386 kg)		