

## HPHT Cement Consistometer Model 640 & Model 640CC

### Description

Fann pressurized consistometers are available in single cell and dual cell configurations. The Model 640 & Model 640CC are designed to measure cement slurries in compliance with API specifications and test schedules. These units can be also used to prepare slurries for the measurement of free water content, viscosity, fluid loss, and rheological properties.

These consistometers have pressure and temperature operating ranges of up to 40,000psi and 600°F . They are supplied with a magnetic drive for the rotational drive of the slurry cup as standard equipment. With high temperatures and pressures applied to the cement, it is possible to simulate a variety of conditions found in actual downhole well cementing. The measured thickening time can then be used to formulate plans for the actual cementing of the well.

The operational controls are located on the front panel which allows for ease of operation. The readout indicators for viscosity, pressure, and temperature are easily read from the 12-inch color touch-screen. Operational instructions are also accessible from the touch-screen.



### Advantages

- Text test files can be transferred to user data base or spread sheet
- Permanent on-board record of test files
- Programmable, audible alarms for viscosity and time
- Automatic pressure vessel and oil reservoir cooling after test
- High capacity cooling jacket to rapidly cool pressure vessel
- Oil reservoir cooling coils to rapidly cool oil between tests
- Easily connected to local networks (LAN) for remote viewing
- No other computer is required to operate the instrument
- External control box allows access to ports, repair, or future upgrades
- Externally mounted computer control box allows access to ports, repair, or future upgrades
- Simple calibration routines to quickly calibrate the instrument
- Graphical customization to change labels, colors, visibility, and scaling
- Programmable, automatic test shut down by viscosity or time

## Safety Features

- Over-current sensing relay monitors and protects against short circuits
- Thermocouple detection protects against run-away heater
- Rupture disc protects system over-pressure
- Fused circuitry
- Automated error reporting

## Specifications\*

Electrical - Single Cell	
Input Voltage	230 VAC ( $\pm 10\%$ )
Input Power	5,500 W
Current	25 Amps
Input Frequency	50-60 Hz

Electrical - Dual Cell	
Input Voltage	230 VA C ( $\pm 10\%$ )
Input Power	11,000 W
Current	50 Amps
Input Frequency	50-60 Hz

Mechanical - Single Cell	
Height	66.5 in. (169 cm)
Width	33 in. (84 cm)
Depth	31 in. (79 cm)
Weight	1,480 lbs. (672 kg)

Mechanical - Dual Cell	
Height	66.5 in. (169 cm)
Width	48 in. (122 cm)
Depth	31 in. (79 cm)
Weight	2,200 lbs. (998 kg)

Air/Water Connections	
Water In/Out	1/4 MNPT (2)
Air Input	1/4 MNPT (1) (Max 120psi)

Environmental	
Operating Temperature	32 -105 °F (0 - 40 °C)
Operating Humidity	0 - 95% non-condensing

\*Temperature/Pressure/Motor Speed/Timing Performance specifications compliant with API spec 10A and API RP 10B-2/ISO 10426-2.

## Ordering Information

Part No. 102538936 - HPHT Consistometer, Single Cell 40,000 psi 600° F Model 640  
 Part No. 102546634 - HPHT Consistometer, Dual Cell, 40,000 psi 600° F Model 640CC

*Fann Instrument Company offers a complete line of equipment, materials, and supplies for analyzing various drilling fluids and oil well cements in accordance with API Specifications and API Recommended Practices.*