



CHANDLER
ENGINEERING

Model 8340

HPHT CONSISTOMETER

A Critical Tool for Oil Well Cementing

The Model 8340 HPHT Consistometer is designed for laboratories that need to test cement mixtures and additives for use at the hottest temperatures and highest pressures. This instrument is used to test cement thickening behavior under almost any downhole well conditions.

Designed with laboratory efficiency and ease of operation as major goals, the Model 8340 design minimizes the two largest contributors that affect instrument runtime: the cool-down time between tests and downtime for maintenance needs.

Engineering Excellence for Long-term Performance

Chandler Engineering renowned manufacturing and field service experience is evident throughout the design of the Model 8340. The exclusive cooling system shortens the time between tests by as much as 75% as compared with other conventional consistometers. Cool down of a 400°F test to a safe 100°F takes only about 15 minutes.

Maintenance on the hydraulic systems is minimized through a design which is easy to clean and uses standard filters. An avionics inspired modular electronics assembly makes unexpected service a snap further minimizing potential downtime. Slurry cup drive reliability is maximized by use of a magnetic coupling system to connect the drive motor to the cup. Consistency is measured with a torsion spring / paddle system.

Operational Simplicity

The Model 8340 Pressurized Consistometer is extremely simple to operate with all of the operational controls conveniently located on the front panel.

test protocol for automatic operation, a third channel in the chart recorder for tracking pressure, and hesitation timing control which allows the simulation of hesitation squeeze treatments.



FEATURES

- ✓ 75% Shorter Cooling Cycle
- ✓ Built-In Chart Recorder
- ✓ Programmable Consistency Alarm
- ✓ Modular Electronics
- ✓ Dramatically Improved Hydraulic System
- ✓ Compatible with Model 5270 Data Acquisition System



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For deep water capabilities, the Model 8340 can be equipped with an external chiller for performing tests at sub-ambient temperatures. The usefulness of the Model 8340 is not limited to the standard testing of cement thickening time. It can also be used to prepare slurries for other tests such as measuring free water content, testing for fluid loss or rheological properties and viscosity.

Specifications

Maximum Temperature

600°F / 315°C

Maximum Pressure

40,000 psi / 275 MPa

Heater Power

5,000 Watts

Slurry Cup Rotation Speed

150 rpm (Adjustable rpm optional)

Thickening Time Range

0 to 100 Bc (Bearden Units)

Temperature Control

Programmable Controller w/ Chandler Engineering Algorithms

Pressure Control

Manually controlled hydraulic system (Model 8340 standard)
Dynamic pressure control system (Model 8340 AUTO)

Operating Temperature

32 to 120°F / 0 to 50°C

Turn-around Time

20 minutes typical

Pressure Medium

White Mineral Oil

Data Acquisition

Built-in strip chart recorder

Model 5270 Data Acquisition and Control Software for a stand-alone computer optional

Compliance

System complies with API 10A / ISO 10426-1 requirements

Utilities

Cooling Water

20-80 psi / 140 – 550 kPa

Compressed Air

75-125 psi / 517 – 862 kPa

Power Supply

220 VAC +/- 15%, 50/60 Hz 7.5 kVA

Dimensions (W x D x H)

23 x 35 x 77 in. / 57 x 89 x 195 cm

Weight

1,150 lb / 522 kg

Manufacturer's specifications subject to change without notice

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