



CHANDLER ENGINEERING

Model 7550

HPHT Viscometer

The Smallest Footprint 30,000 psi Viscometer for Drilling and Completion Fluids

The search for deeper reservoirs in harsher environments is testing the limits of drilling and completion fluids. Testing requirements have now exceeded the limits of most traditional instruments. Viscosity measurements are no exception. The Chandler Engineering design team lead the industry with the introduction of the Model 7600 Ultra High Pressure High Temperature Viscometer in 2005.

The same design expertise has taken that robust technology and developed a more compact version of the viscometer. The Model 7550 HPHT Viscometer has many of the same features as the Model 7600. However, in order to satisfy the greater need of the industry, the instrument design was made to be extremely user friendly with only slightly lowered limits. Additionally the Model 7550 was designed to comply with US and European safety standards, an industry first.

The Model 7550 boasts shear rate accuracy and a magnetically coupled optically encoded torque measurement which enables sensitive, precise viscosity measurement in spite of the harsh temperatures and pressures. The small size and light-weight design of the system is as remarkable as its superb performance. Through new technology, the combined weight of the instruments vessel plug and sample cup has been kept to 12 pounds for easier, safer handling and cleaning.

The Model 7550 is a fully automated viscometer. The associated software is a powerful data acquisition and analysis tool designed to be operator friendly. Through the software (which can run on almost any computer), virtually any test cycle can be programmed and run. It can be set-up to automatically capture peak gel strength as well as 10 second and 10 minute gel values.



FEATURES

- ✓ User Friendly
- ✓ Compact Size
- ✓ Ergonomically Designed
- ✓ Designed for Safety
- ✓ Automated With Data Acquisition
- ✓ Meets API/ISO Standards
- ✓ Optically Encoded Torque Measurement

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Designed to provide users with as much flexibility as possible, the control software allows for a test cycle to be edited during testing. Test cycles can be easily paused and resumed or profile steps skipped. The software even has the capability to run automatic calibration cycles using your calibration fluids.

Once testing is completed, the results can be displayed in user-configurable graphs. Sharing test results with other programs and colleagues is very easy as all test data is stored in a universal spreadsheet file format.

Specifications

Maximum Temperature:

500°F / 260°C

Maximum Pressure:

30,000 psi / 207 MPa

Shear Rate Range:

0.0017 - 1021 sec⁻¹

Shear Rate Accuracy:

±0.025% of F.S.

Motor Speed Range:

0.001 - 600 rpm

Shear Stress Range:

0 - 6000 dyne / cm² ±0.05% of F.S.

Other ranges are available with alternate spring assemblies.

Regulatory:

Pressure Equipment Directive (PED 97/23/EC) compliant

Utilities

Power Requirements

Main Power: 208-240 VAC, 50/60Hz, 10A maximum

Instrument Air or N2

150 psi, 1034 kPa ±10% (filtered and dry)

Coolant: Water or Chiller Accessory

Physical Dimensions

Dimensions (wxdxh)

28 in W x 18 in D x 17 in H

Weight

200 lbm / 91 kg

*Manufacturer's specifications subject to change without notice



Model 7550 Rotor Assembly on Stand



Model 7550 Open View



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