Model 5550

HPHT VISCOMETER

A Critical Tool for Oil Field Fluids

The Model 5550 HPHT Viscometer is a concentric cylinder viscometer that uses the rotor and bob geometry accepted by the energy industry. Its design meets the requirements set forth in ISO and API standards for viscosity measurement of completion fluids at high pressure and high temperature.

Engineering Excellence for Superior Performance

The small, bench-top Model 5550 is engineered with a number of features that make it both highly accurate and very reliable.

The instrument's temperature control system uses a sliding carbon-block heater which provides precise control while eliminating the oils and circulators associated with liquid high-temperature baths. The rotor drive employs an accurate, high precision speed control system for precise shear rate control.

Torque measurements are performed by a highly accurate digital sensor which is external to the sample cell to avoid corrosion or abrasion. The proprietary design of the bob's shaft serves as a very effective climb arrestor which keeps the sample in the measurement region of the cell and away from critical rod seals and bearings. This combination of benefits provides better test results while prolonging the life of key components. Should the bob's shaft bearings need replacing, a user will be pleased to discover that he can replace them in less than ten minutes compliments of the best-engineered design on the market.

FEATURES

- ✓ External Digital Torque Measurement
- ✓ Dry, Carbon Heating Block Simplified Head Design
- ✓ Highly Effective Gel Climb Arrestor
- ✓ Rheo 5000 Data Acquisition And Control Software
- ✓ Automatic Calibration
- ✓ HASTELLOY® C-276 Wetted Components

AMETEK® OIL & GAS

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Operational Simplicity

The Model 5550 Viscometer is simple to operate. All of the basic operational controls are conveniently located on the front panel. Test schedule programming, control and data acquisition are provided by the Chandler Rheo 5000 software, which operates on an independent computer. The control system provides automatic temperature and pressure profile control, motor speed profiles, and automatic calibration capabilities. The software also features real time displays of test parameters and results. All data is easily exported to a spreadsheet file for archiving and data sharing.

Specifications

Temperature, Maximum	500°F / 260°C
Pressure, Maximum	2,000 psi / 13.9 MPa
Shear Rate Range**	0.17 to 1700 sec^{-1} (0.1 to 1000 rpm) with standard R1 rotor & B1 bob combination
Shear Rate Accuracy	±0.01 rpm
Shear Stress, Maximum	4900 $dyne/cm^2$ (F440 spring)**
Cool Down	Less than 15 minutes typical
Heating Power	1200 watts
Heater Style	Oil-Free sliding carbon block
Data Acquisition	Rheo 5000 Application & Control Software
Wetted Parts	HASTELLOY® C-276 Rotor, Bob and Bob Shaft - Standard
Tech Standards	ISO 13503-1, API RP 39

Utilities

Power Requirements	110VAC 11A, 50/60 Hz or 220VAC 6A, 50/60 Hz ± 10%

Physical Dimensions

Dimensions (w x d x h)	11 in. x 16 in. x 25 in. / 30 x 41 x 56 cm
Weight:	80 lb / 36 kg

Manufacturer's specifications subject to change without notice
***Several bob and rotor combinations are available.*

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