

VISCOSITY

HPHT VISCOMETER MODEL 5550

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 climb arrestor helps keep the sample fluid in the measurement area of the rotor. This protects critical parts such as bob shaft bearings from contamination, prolonging bearing life and decreasing the maintenance intervals. When the bob shaft bearings need replacing, the process to replace them can be accomplished in under 10 minutes with minimal effort and tools.

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.

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



HPHT VISCOMETER

MODEL 5550

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 & B5 bob
combination

Shear Rate Accuracy

±0.01 rpm

Shear Stress, Maximum

4900 dyne/cm² (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 13M

Power Requirements

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

Physical 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.

