Taha Kimia Tajhiz Co.

Fann Co.

Rheometterr
Modell 280
Datasheet

Drilling Fluids Testing / Viscometers and Rheometers Equipment

Rheometer
Model 280

Model 280 Rheometer
Part No. 206984

The Model 280 is a hand-powered, two-speed rotational Rheometer designed specifically for field testing the rheological properties of drilling fluids. A small crank drives the rotor at a pre-selected constant speed through a precision gear train governor. Rotor speeds of 300 or 600 are obtained by setting the position of the speed control lever. Measurements are read directly from the deflection scale. The readings obtained are used to determine the plastic viscosity and yield point of the test fluid.

Gel strength measurements are read directly from the deflection scale. When making gel-strength measurements, force is applied manually by turning the gel knob and observing the maximum reading on the deflection scale before the gel breaks.

The Model 280 Rheometer requires very little field maintenance, and is the lightest field instrument available for determining plastic viscosity and yield point.

Plastic Viscosity is a measure of the internal resistance to flow attributable to the amount, type, and size of solids present in a given fluid. The plastic viscosity in centipoise is equal to the 600 RPM reading minus the 300 RPM reading.

Yield Point is the resistance to initial flow, or represents the stress required to start fluid movement. This measurement is reported in lb/100sq. ft. and is equal to the 300 RPM reading minus the Plastic Viscosity.

Apparent Viscosity is the viscosity a fluid appears to have on a given instrument at a stated rate of shear. Apparent Viscosity is equal to the 600 RPM reading divided by 2. This measurement is also reported in centipoise.

The API recommended Torsion Spring, Rotor, and Bob are supplied with the Model 280 Rheometer. A stainless steel sample cup is also included.

An optional High Impact plastic carrying case is available. Please order separately.

Rheometer Parts	Part Number
Stainless Steel Sample Cup	207030
Bob	207033
Rotor	207031
Torsion Spring	207040
Carrying Case high Impact Plastic	207041

Rheometer Cup Heater

The **Rheometer Cup Heater** allows measuring viscosity at elevated temperatures. Heater Cups are fitted with a removable stainless steel sample cup for easy cleaning, and are designed to fit snugly on the Rheometer base. The Thermostat control allows heating up to 200°F (93°C).

Ordering Information

Part No. 206961 – Rheometer Cup Heater, 115 Volt
Part No. 206966 – Rheometer Cup Heater, 230 Volt

The **Rheometer/Viscometer Check Kit** is designed to be used to conveniently check the calibration of a Fann Rheometer or any other Rheological instrument. This kit contains all items necessary to determine the accuracy of any concentric cylinder viscosity measuring instrument.

Two 16oz bottles of *certified viscosity standards* (traceable to National Institute of Standards and Technology) are included.

Rheometer/Viscometer Check Kit Included Items	Part Number	Qty
Thermometer, 19-27°C (ASTM #17C)	205171	1
Stainless Steel Sample Cup	207030	2
Lid for Sample Cup (Brass)	205054	2
Package of Cleaning Wipes	205305	2
Certified Calibration Fluid, 50 cP	207120	1
Certified Calibration Fluid, 100 cP	207121	1

Rheometer/Viscometer Check Kit in Stainless Steel Carrying Case
Part No. 207026

Rheometer Calibration Stand Part No. 207083

Rheometer Calibration Stand is designed for use in recalibrating the Torsion Springs for Model 280 & 286 Rheometers. Torsion springs must be removed from the instruments in order to perform this calibration.

Calibration Stand Included Items	Part Number	Qty
Weight 20 gm	205052	1
Weight 50 gm	205053	1
Calibration Instructions	204210	1
Calibration Thread, Spool	207849	1

Fann Instrument Company offers a complete line of viscosity measuring instruments for use in testing drilling fluids in accordance with the following American Petroleum Institute publications:

API Recommended Practice 13B-1, ANSI/API 13B-1/ISO 10414-1, API Recommended Practice 13B-2, & API Specification 13A

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