

Stony Brook

Portable Field Viscometer

For a quick 'Pass' or 'Fail' decision

Model PDVdi-120

A New Instrument for Rapid and Accurate Determination of the Viscous Properties of Newtonian and Non-Newtonian Fluids Including De-/Anti-icing Fluids

- Inexpensive Non-Newtonian Viscosity Measurement
- Shear Thinning and Thickening Effect Measurement
- Specified Shear Rate Measurement
- Multiple Measurements with Single Sample
- Field Viscosity Test
- Extremely Simple and Easy Operation
- Quick Measurement with Immediate Result
- Easy Cleaning and Maintenance (Reusable Syringe and Large Needle)
- Accurate and Reproducible Result
- Absolute Viscosity Measurement without Instrument Calibration
- Conforms to **SAE AIR 5704** and **ASTM D 5478**



PDVdi-120
Portable Field Viscometer



Carrying Case
with Parts



STONY BROOK SCIENTIFIC, LTD. (SBS)

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PDVdi-120

The new PDVdi-120 Portable Field Viscometer consists of a viscometer main body with a reusable syringe (tube) and a falling needle attached to an extension bar with two markings.

The viscosity of the sample is determined by measuring the falling time of a needle through a predetermined distance (between two markings on the extension bar attached to the needle) within the fluids held in the reusable syringe. The falling time can be measured manually by a stopwatch.

The viscometer includes a viscometer main body with two reusable syringes, a falling needle, a stopwatch, a digital thermometer, an instruction manual and a carrying case.

SPECIFICATIONS

- Viscosity Range: 2 to 10^6 mPa·s (cP)
-outside this range consult SBS.
- Temperature Range: Ambient temperature
- Accuracy and Repeatability: Better than 2%
- Test Sample Volume: Approx. 25 cm^3
-outside this range consult SBS.
- Needle: Metal
- Needle Densities: 2.916 g/cm^3
- Total Instrument Weight: 0.38kg (0.83 lbs)

SPECIAL FEATURES

- Field Viscosity Test
- No Instrument Calibration
- Minimal Disturbance of Sample's Mechanical Structure and Particle Size Distribution with Gentle Needle Passage

APPLICATIONS

Adhesives, Aerosols, Automobile Fluids (Coolant, Engine Oil), Biomaterials, Coatings, Colloids, Cosmetics, Creams, Dairy Products, De-/Anti-icing Fluids, Detergents, Dispersions, Emulsions, Fertilizers, Foams, Fuels, Gels, Grease, Honey, Inks, Ketchup, Latex, Lubricants, Mayonnaise, Milk, Oils, Ointments, Paints, Petroleum, Polymers, Proteins, Pulp, Resins, Shampoos, Slurries, Soaps, Solutions, Surfactants, Suspensions, Varnish and many more.

Operating Procedure



Fig.1 Slide the syringe into the viscometer main body.



Fig.2 Pour the sample into the syringe up to the top of the viscometer main body.



Fig.3 Insert the needle into the syringe until the top of the needle reaches the top of the syringe and then drop the needle.



Fig.4 Measure the falling time between two markings on the extension bar attached to the needle.