

***Stony Brook***

# ***High Temperature Viscometer***

***Model: HTV-100***

***A New Instrument for the Accurate Determination of the Viscous Properties of Newtonian and Non-Newtonian Fluids at High Temperature***

- **Absolute Viscosity Measurements without Instrument Calibration at Temperature up to 350°C**
- **Quick and Easy Viscosity Measurement**
- **Optional Disposable Sample Tube**
- **Minimal Disturbance of Sample's Mechanical Structure**
- **Automatic Falling Time Measurements to 0.001 sec.**
- **Better than Two Percent Accuracy and Repeatability**
- **Data Output to PC and Printer**



**BETATEK INC.**  
*Instrumentation Superbly Supported*  
*L'instrumentation à son meilleur*

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## HTV-100

The High Temperature Viscometer consists of a support stand and a sample tube filled with the liquid whose viscosity is to be determined. Viscosity of the sample is determined by measuring the falling time of a controlled needle through a predetermined distance of the fluid held in a sample tube. The falling time is measured automatically by means of Hall sensors and a magnet in the weight holder. For Non-Newtonian fluid, a computer program is available from SBS.

## SPECIFICATIONS

- Viscosity Range: 1 to  $10^8$  mPa.s (cP)\*
- Temperature Range:
  - 40 to 200°C with constant temp. circulator
  - 40 to 350°C with electric heater
- Accuracy and Repeatability: Better than 2%\*
- Test Sample Volume: Approx.  $1.5 \text{ cm}^3$ \*
- Needle Densities: 6 to  $1000 \text{ g/cm}^3$
- Total Instrument Weight: 5.4 kg (12 lb)
- \* Outside this range consult SBS.

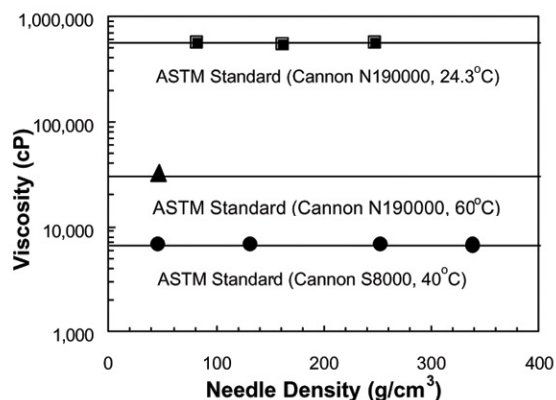
## SPECIAL FEATURES

- Disposable Sample Tubes (Optional)
- No Sample Tube Cleaning (Optional)
- Minimal Disturbance of Sample's Mechanical Structure and Particle Size Distribution with Gentle Needle Passage

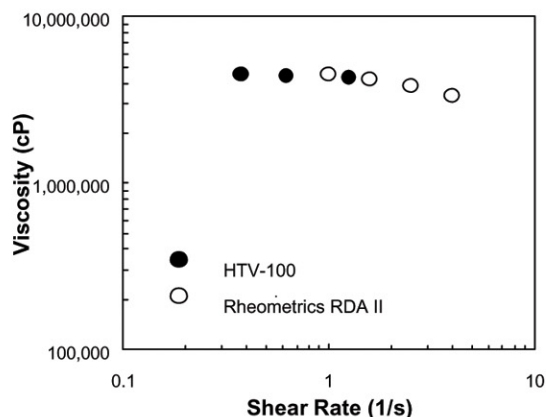
## APPLICATIONS

Adhesives, Asphalts, Automobile Fluids, Biomaterials, Chemicals, Coal Slurries, Coatings, Colloids, Cosmetics, Creams, Dairy Products, Detergents, Dispersions, Emulsions, Foams, Fuels, Gels, Grease, Honey, Inks, Ketchup, Latex, Lubricants, Mayonnaise, Oils, Ointments, Paints, Petroleum, Pitches, Plastics molten, Polymers, Proteins, Pulp, Resins, Shampoos, Slurries, Soaps, Solutions, Surfactants, Suspensions, Varnish and many more.

## Typical High Temperature Viscometer Measurements



Viscosity measured by the High Temperature Viscometer compared to the data known of ASTM standards (Cannon S8000 at 40°C and N190000 at 24.3 and 60°C)



Viscosity measured by the High Temperature Viscometer compared to the data measured by the Rheometrics RDA II for Low Density Polyethylene at 190°C

## Schematic of HTV-100

