

#### Key Applications:

- Viscosity Measurements – ASTM Standards: D445, D2196, D4287 and equivalent
- Temperature Ramps
- Yield Stress Measurements
- Thixotropic Recovery Tests
- Sticky Point Determination

#### Key Industries:

- Oil
- Paint, Coating & Ink
- Pharmaceutical & Cosmetic
- Lubricant
- Food

# BLACK PEARL Viscometer

The BLACK PEARL Viscometer is a high performance rotational viscometer capable of both steady shear and yield stress testing in a rugged, compact size footprint. Designed for performing both routine rheological tests like single point viscosity checks for QC, to complex rheological evaluation for R&D, the BLACK PEARL Viscometer is ideal for investigating the mixing, stirring, and process flow characteristics of fluid systems.

The unit comes standard with built in Peltier Temperature Control for all measuring systems. Cone and plate, parallel plate and concentric cylinder measuring systems are included. The measuring systems employ novel “quick capture” mounting technology. The gapping mechanism is highly accurate and user adjustable.

BLACK PEARL is interfaced and controlled with powerful Windows based software. Key features include:

- Real time display of test values
- Automated program control using
- “Test Definition” windows to rapidly create multiple step experiments
- Provides instantaneous viscosity flow curves
- Interactive graphing allows full control over displayed, printed, and plotted variables
- User enterable data sets and data comparison
- Simple data exportation through Windows Clipboard to Excel
- On-line, intuitive Help System



#### Black Pearl Shear Rate Ranges

Measuring System	Min 1/s	Max 1/s
Concentric Cylinders	0.2	2000
Parallel Plate	0.2	9400
Cone & Plate	0.2	6000

#### Technical Specifications

Angular Velocity	0.01 to 200 rad/s
Shear Rate Range	Measuring System Dependent
Torque Range	0.005 to 20 mNm
Shear Stress Range	Measuring System Dependent
Temperature Range	-10* to 120 C
User Selectable Shear Rates	20,000 discrete steps
Measuring Systems	Cone & Plate, Parallel Plate, and Concentric Cylinders
Dimensions	180 X 520 X 340 mm
Weight	5 Kg

\*below 0 C requires liquid cooling



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