

Scientific Innovations Industrial Solutions



M6550 HP/HT SPINNING DROP TENSIOMETER

The M6550 HP/HT Spinning Drop Tensiometer measures low interfacial tension at elevated temperatures up to 350°F and includes a pressure vessel capable of pressures up to 1,500 psi (with HP1 option).

- Measurement of extremely low interfacial surface tension.
- Accurate RTD temperature readout.
- Advanced PID temperature controller stable at target temperature.
- Accurate speed controller ensures high image synchronization.
- High accuracy of reading with stroboscope illumination.
- LCD numerical display for integrated microscope.
- Lightweight.
- Adjustable leveling.
- Optional chiller sleeve for low temperature applications.
- Optional digital camera imaging system (includes thirdparty PC software for data measurement and image processing).
- Patented design (U.S. Patent: 10,416,059).



M6550 HPHT Pressure Vessel



M6550 Optional Digital Camera with PC Software



M6550 LCD Numerical Display



M6550 Digital Camera Image Processing Software (Optional)

PRODUCT DESCRIPTION

HP/HT Interfacial Tension Measurement

The *Grace Instrument M6550 HP/HT Spinning Drop Tensiometer* measures low interfacial tension at elevated temperature and pressure. The unit features a microscope that magnifies up to 25x with a numerical display resolution of 0.0001 mm, offering researchers the greatest measurement accuracy of any comparable device on the market today. The *M6550* instrument features a unique, patented design.

High-Resolution Microscope for Enhanced Accuracy

The unit was developed for the measurement of interfacial tension, surface tension, absorption rate, and extremely low interfacial tension. Excellent temperature control and optimum synchronization of the instrument allows the sample to be observed over a long period of time under constant conditions.

Lightweight and Easy to Handle

The *M6550* weighs only 40 lbs. and includes a level-adjustment control with handles on its two sides. This allows the user to easily pick up, travel with, and/or manipulate the unit to reposition the test droplet guickly and efficiently.



SPECIFICATIONS

U.S. Patent No. 10,416,059

Pressure Range Atmospheric to 1000 psi (~6.89 MPa) or 1,500 psi (~10.34 MPa) with HP1 Option

Temperature Range Ambient (45°F with Chiller) to 350°F

Speed Range 0 to 11,000 rpm Continuous

Surface Tension Measurement Range 10-6 to 10² mN/m

Capillary Diameter 2.0 mm

Microscope Magnification 25x

LCD Numerical Display Resolution 0.0001 mm

Operating System: Windows XP or Later Live Resolution: 2.0 MP

Digital Camera Imaging System(Optional) (Sold Separately)

Live Resolution: 2.0 M
Optical Format: 1/3"

Focusable Lens: 16 mm (Adds approx. 3" to unit height.)

110-120V AC

Voltage 01

220-240V AC (with Transformer)

Frequency 50-60 Hz Power 600 W

Dimensions 15" W x 19" D x 20" H

Weight 40 lbs.