

# VISCOSITY

## PRESSURIZED FOAM RHEOMETER MODEL 8500

### An Advanced Tool For Well Completions

The Model 8500 Pressurized Foam Rheometer is designed specifically to measure the rheological properties of foamed systems under extended pressure and temperature conditions. The Model 8500 is a fully automated closed loop system that includes both hardware and software for the study of foam rheology over a wide range of foam qualities, shear rates and shear stresses.

An integrated high pressure view window allows visual determination of foam quality, stability and bubble distribution. An optional CCD camera and image acquisition system is available for video capture and image analysis of the foam through the view cell. The system incorporates a pulse free positive displacement Quizix pump for injection of the base fluid and volume determination. Differential pressure transducers are provided to cover a wide range of shear stress measurements. Flow rate and shear rate of the foamed fluids are measured using a Coriolis mass flow meter. The shear loop is contained within a convection oven housing enabling uniform temperature control of all components within the loop.

The Model 8500 is a fully automated rheometer. The software is designed to allow the operator control over foam quality, shear rate, shear stress, time length of tests and operating temperature. The Model 8500 utilizes a calibrated volume to calculate and control the percentage of foam quality.

## FEATURES

- ✓ Coriolis Mass Flow Meter
  - Accurate measurement and feedback of flow rate
- ✓ Foam Generator
  - Gas & liquid mixing at the desired foam quality
- ✓ High Pressure View Cell
  - Visually monitor foam stability, bubble size and bubble distribution
- ✓ Gas Booster
- ✓ Over Temperature Circuit for Safety Control
- ✓ Over Pressure Relief Valves for Safety Control
- ✓ User Friendly Software
- ✓ Simplified Operation



# PRESSURIZED FOAM RHEOMETER

MODEL 8500

## SPECIFICATIONS

**Temperature, Maximum**

350°F / 177°C

**Pressure, Maximum**

3,000 psi / 20,791 kPa

**Shear Stress Range**

2 – 5000 dyne/cm<sup>2</sup>

**Shear Rate Range**

5 – 1000 1/sec

**Wetted Materials**

C276 Inside Oven, 316 Stainless Steel  
Outside of Oven

**Power Requirements**

220 VAC, 20A, 50/60 Hz Single Phase

**Air Supply**

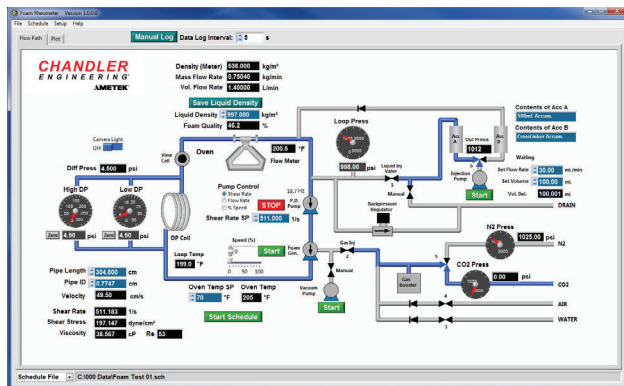
80 – 120 psi @ cfm

**Water**

20 – 30 psi

**Compressed Gases**

N<sub>2</sub> and CO<sub>2</sub>



Software Screenshot



Manufacturer's specifications subject to change without notice.

