**OFI Testing Equipment, Inc. - 11302 Steeplecrest Dr. Houston, TX 77065 USA** **Phone: 832-320-7300 - Email: sales@ofite.com**

# Shear History Simulator

**Brand:** OFI Testing Equipment, Inc.
**Product Code:** 700-200-60
**Availability:** Call for availability

**Description**
The rheology of a fracturing fluid is highly dependent upon the composition/concentration of the polymer and crosslinker, temperature, pH, magnitude of shear, and the duration of shear. To minimize parasitic frictional pressure losses, an optimal fracturing fluid would have only sufficient viscosity to fully transport the proppant from the well head, through the tubulars and perforations, and into the formation. Achieving an optimal fluid design is difficult due to down hole fluid temperature changes and the variability of the magnitude and duration of the shear the fluid is exposed to. Fortunately, the use of delayed crosslinkers makes it possible to control the rheology of a fracturing fluid as a function of a time, pH, temperature, and/or shear. Under ideal circumstances, the polymer would fully crosslink just before entering the perforations of the well. The increase in viscosity allows the fluid to effectively transport the proppant though the perforations and into the formation. OFITE’s Shear History Simulator makes it possible to analyze the effects of shear and temperature upon a fracturing fluid and serves as an invaluable tool in the optimization of a fluid design.

## Features

- Operating Pressure: 3,000 psi (20.7 mPa)
- Maximum Shear Length: 225 ft Capillary Tubing, 1/8" OD
- Circulation Pump : 0 - 40 mL/min
- Injection Pump - 0.002 - 2.5 mL/min provides precise control of cross linker injection
- Transfer test fluid under pressure directly to the OFITE Model 1100

Viscometer
- Individual temperature control for each loop

## Specifications

- Pressure Relief Settings: 3,000 PSI (20.7 mPa)
- Three Capillaries: 0.125" (3.175 mm) OD × 75' (22.86 m) long, 316 Stainless Steel
- Gel Pump: 0 - 40 mL/min
- Additive Pump: 0.002 – 2.5 mL/min
- Dimensions: 39.6" W × 22" H × 24" D (101 × 56 × 61 cm)
- Shipping Dimensions: 48" W × 52" H × 48" D (122 × 132 × 122 cm)
- Net Weight: 420 lb (190.5 kg)
- Shipping Weight: 705 lb (320 kg) approximate

## Software Features

- Displays pump status, each capillary tube temperature and differential pressure, drive pressure, accumulator volume, and more
- Controls the pumps

## Part Number

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