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# The <u>only</u> HPHT dynamic linear swell meter currently made in the USA

The M4600 HP HT Dynamic Linear Swell Meter (LSM) is the only LSM in the USA capable of high-pressure, hightemperature dynamic test operations.

The Grace Instrument M4600 HPHT Linear Swell Meter is an automated, dual core, high pressure and high temperature linear swell meter (up to 2,000 psi and 500 °F). It is engineered to measure the volumetric expansion (or contraction) of a core/wafer sample under simulated downhole conditions while saturating it with a drilling fluid sample.

### Engineered to achieve highly repeatable test results

The patented design of the M4600 hardware allows core samples to expand in only one direction, making test results extremely repeatable.

The Grace Instrument M4600 HPHT Linear Swell Meter provides the most repeatable test results on the market today. The patented design allows core samples to expand in only one direction, making test results very repeatable.

## **Unit Specifications:**

Sample Size: 75 mL

Pressure Range: Atm to 2,000 psi

Core/Wafer Diameter: 1.00 inch
Core/Wafer Length: 0.4 to 1.00 inch
Maximum Linear Displacement: ±0.6 inches

Linear Resolution: 0.1% of full scale range Temperature: Ambient to 500 °F

#### **Optional Compactor Specifications:**

Pellet Compacting Force: 10,623 lbs. at 2,000 psi Source

Pressure

(Pellet size is 1.0" OD. To compact at 10,000 psi on pellet, set compactor gauge pressure to 1,478 psi.)
Complimentary 2,850 psi Hand Pump

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## **Mechanical specifications:**

Height: 21" tall Width: 20" wide Depth: 14" deep

Construction: 304/316 stainless steel wetted material

#### **Utility requirements:**

Electrical Supply Voltage: 110-120V AC (220-240V AC with Step-

Down Transformer, Supplied if Required)

Line Frequency: 50-60 Hz Power Consumption: 600 W

Pressure Supply: Nitrogen: Atm - 2,000 psi

# **Linear Swell Meter**



The **M4600** is engineered for laboratory HPHT testing of solids and fluids interactions

☑ PC interface ☑ digital data ☑ easy operation

☑ low maintenance ☑ automatic data collection

# **Core/Wafer Compactor**



☑ Compactor Includes Complimentary 2,850 psi Hand Pump