

OIL WELL CEMENTING

MECHANICAL PROPERTIES ANALYZER

6265 MPRO®

A Critical Tool for Oil Well Cement Testing

Recent research into the long-term performance of oilfield cement has made it clear that the cement's mechanical properties, not just its compressive strength, are critical to the long-term integrity of the well. With a technological breakthrough (US patent #6941819), Chandler Engineering has developed the first high-pressure, high-temperature instrument designed specifically to measure the mechanical properties of oil field cements.

The 6265 Mechanical Properties Analyzer (MPRO) continuously measures the elastic mechanical properties (Poisson's ratio, Young's modulus, Bulk Modulus) and compressive strength of API cement as it cures under high-temperature and high-pressure conditions. These results enable the optimization of the cement's formulation for long-term performance.

A Proven, Reliable Technique

Ultrasonic cement analyzers (UCA) are widely used to determine compressive strength during curing. The 6265 MPRO is a unique, specialized UCA that uses proven, proprietary ultrasonic analysis techniques to perform its measurements. The instrument's single vessel curing technique preserves the sample conditions and testing integrity throughout the test thereby eliminating damage to the sample from handling or from unrealistic induced stresses caused by cooling and depressurization.

FEATURES

- ✓ Real-Time Observation of Mechanical Properties Development
- ✓ Used to Predict WOC Time
- ✓ Non-Destructive Method
- ✓ Uses Proven Industry Standard Algorithms

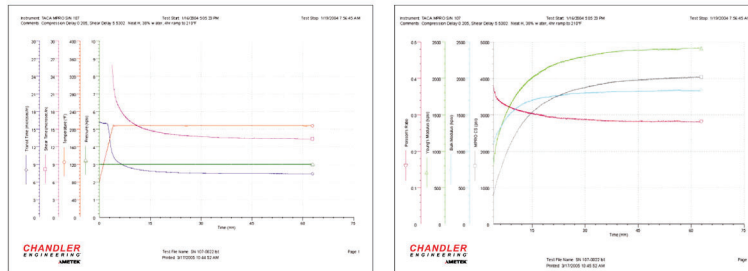


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Operational Simplicity

The various acoustic measurements are read by an internal computer which automatically performs the numerous complex calculations. All test data including the mechanical property results are then transferred to a computer which is running Chandler's 5270 Data Acquisition Software. The software produces real-time graphs of the test parameters and the measured mechanical properties. These graphs can be printed at any point during testing. All test data is recorded on the computer's disk drive as the test progresses so that data is not lost in the event of a power failure. The 5270 software is capable of monitoring multiple Chandler Engineering instruments so only one computer is needed in the lab thereby saving valuable space.



SPECIFICATIONS

Measurements

Poisson's Ratio, Young's Modulus,
Bulk Modulus, Compressive Strength

Max Temperature

400°F / 204°C

Max Pressure

7,500 psi / 52 MPa

Utilities**Power**

220 VAC, ±15%, 50/60 Hz, 0.75 kVA

Compressed Air

75-125 psi Intermittent Flow with Five
Gallon (20 liter) Reservoir Tank

Water

Clean Water 5-150 psi

Coolant

Clean Water or Ethylene Glycol
Solution

Drain

Suitable for Hot Water Temperatures
that may Exceed 200°F / 93°C

Dimensions

6265 MPRO (w x d x h)
18 x 17 x 16 in / 46 x 43 x 41 cm
57 lb / 26 kg

6265-I Intensifier
9 x 19. x 25 in / 23 x 48 x 64 cm
118 lb / 54 kg

Shipping Information

(w x d x h)
36 x 36 x 49 in / 91 x 91 x 124 cm
243 lb / 110 kg

Manufacturer's specifications subject to change without notice.

