Grace INSTRUMENT
SCIENTIFIC INNOVATIONS • INDUSTRIAL SOLUTIONS

M7370
AUTOMATIC TWIN CELL UCA

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Compact, Lightweight Design with Powerful Capability

The *Grace Instrument M7370 Automatic Pressure Control Twin Cell Ultrasonic Cement Analyzer (UCA)* is used to perform compressive, non-destructive strength tests on cement slurries under controlled conditions of temperature and pressure. The *M7370* features a twin cell design. The user can choose to operate either one or both cells depending on the requirement. In these tests, the *M7370* Automatic-Pressure Control Twin Cell UCA transmits an ultrasonic pulse through a cement slurry sample. By measuring the length of time required for the pulse to travel through the sample, the *M7370 PC* software determines the compressive strength of the cement.

As the cement hardens, the pulse transit time becomes shorter, allowing the *M7370 PC* software to calculate changes in the compressive strength of the cement sample over time. This data is then collected into a customized database for comprehensive analysis, including comparison with data from previous tests. This data can also be easily exported in spreadsheet format.

Completely Automatic Pressure Control—Regulator Adjustment Not Required

Pressure control is completely automated. The user is not required to make any complicated regulator adjustments. Pressure control is simply hands-free for maximum efficiency

Innovative Technology Provides Efficiency & Dependability

Understanding and predicting the likely expansion or contraction of oil well cement during curing is tremendously important in maintaining the integrity of a well. By enabling the researcher to construct test sequences, analyze completed test results, and compare those results with previous results, the M7370 Automatic Pressure Control Twin Cell UCA delivers a powerful analytic tool in one compact package.

Specifications:

Temperature Range:	Amb. to 400°F
Pressure Range:	Atm. to 10,000 psi
Chiller/Cooling Water:	5 - 80 psi
Compressed Air:	50 - 100 psi
Power Supply:	240 V, 50/60 Hz
Dimensions:	27" H x 18" W x 21" D
Weight:	100 lbs.
Heater:	3000W

User-Friendly, Touchscreen Display

Front touchscreen display is easy-to-use and intuitive. During operation, this LCD displays a convenient at-a-glance view of important running parameters such as pressure, temperature, compressive strength, and more. The user has full control of local operations via the touchscreen, including, but not limited to, calibration and stopping test functions. An internal local single board computer adds another layer of safety to the unit by automatically shutting down tests and/or the machine in case of overheating, over-pressure conditions, or PC operating system errors (in case user connects his or her own PC).

Operational Features

- *Features twin cell design.*
- *Completely automatic pressure control—regulator adjustment not required.*
- *User-friendly, touchscreen display.*
- *Pressure and temperature are monitored and regulated automatically.*
- *Continuous measurement of cement sample underconditions of temperature and pressure.*
- *No sample contamination by pressurization media.*
- *Test sequences can be amended during test operations.*