

Ultrasonic Cement Analyzer Model 304



Description

The Ultrasonic Cement Analyzer (UCA) offers a nondestructive method for measuring the compressive strength of cement. The UCA applies an ultrasonic pulse to a cement slurry and measures the change in velocity as the ultrasonic signal travels through the slurry and cures. These ultrasonic velocity measurements are correlated to the cement's compressive strength. The UCA system consists of the following:

- Processor, control software, monitor and keyboard
- Pressure controller
- Autoclave

Application

The UCA continuously monitors the strength development trend of cement compositions while the cement is curing. The user can determine the initial set time and the wait-on-cement (WOC) time of a cement slurry. This test data is useful for planning a cementing schedule for a well.

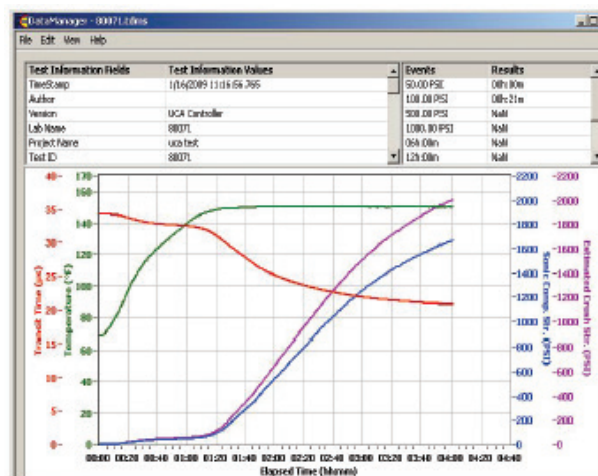
Advantages

- Measures up to 8 samples simultaneously with additional autoclaves
- Individually controls and monitors autoclaves, up to 8
- Displays real-time graph for monitoring slurry quality
- Records and displays signals (events) when sample reaches user-defined strength and time values, up to four each
- Remote control via LAN, Intranet, or Internet
- Network-enabled for email reports and test monitoring via LAN
- Start Wizard gives step-by-step instructions and key reminders to prevent errors and missed steps
- Stores unlimited amount of test data

Data Manager Features

- Recalculates data for different cement type or temperature units
- Choice to print or save as .pdf
- Saves data as .txt or .csv file for exporting into spreadsheet or analyzing after test ends
- Option to calculate data for new compressive strength or time events after test ends
- Zoom in or out on graph for detailed view

Attribute	Value
Temperature Range	40°F to 400°F 4.4°C to 204°C
Pressure Range : Pressure Controller 20,000 psig	2000 psig to 20,000 psig 13.8 MPa to 138 MPa
Cup Volume	200 mL
Heating Rate	8°F /min 4.4°C /min
Power	230 VAC, 50/60 Hz, 10 amp



Ordering Information

UCA Systems

Part Number	Description
102177691	UCA System with 1 Autoclave
102177696	UCA System with 2 Autoclaves
101443624	UCA System with 4 Autoclaves
102177697	UCA System with 8 Autoclaves

Available Separately

Part Number	Description
101638033	UCA Processor 230V, 50/60 Hz
101002037	Autoclave, 230V, 50/60 Hz
102271450	Pressure Controller, 30,000 psig

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