

Cement Curing Autoclave



Two-Cube Model Autoclave

The Cement Curing Autoclave is an instrument used to cure cement slurry samples under elevated hydrostatic pressure and temperature. The cement slurry samples are contained in one or two 2 inch cube molds, surrounded by water (or oil), within the pressure chamber. The Autoclave simulates pressure and temperature conditions for curing cement samples in accordance with API test procedures. After a specified curing time, set cement cubes are removed for crush testing for determining compressive-strength development.

The Cement Curing Autoclave cures cement slurry samples under elevated pressure and temperature to prepare them for destructive compressive-strength tests. These tests help determine compliance to American Petroleum Institute (API) Specification 10A, Specification for Cements and Materials for Well Cementing. This device meets the requirements for pressurized cement curing equipment found in API Specification 10A, and API Recommended Practice 10B, Recommended Practice for Testing Well Cements.

An Autoclave pressure vessel is inserted into an automatic temperature-controlled heating jacket and pressurized. An automatic bleed-off valve mounted atop the autoclave assembly prevents excessive pressure buildup within the curing vessel. This model cures two single-cube specimens simultaneously. This Autoclave is equipped with a state-of-the-art digital programmable rate set-point temperature controller.

The Cement Curing Autoclave includes a heating jacket which completely surrounds the cement curing pressure chamber, temperature controller, thermocouple, pressure gauge, adjustable pressure regulator, and manual fill and bleed valve.

The Autoclave requires an external pressure source, such as compressed nitrogen gas or a hydraulic pump, capable of providing pressure up to 3,000 psig. A manually operated hydraulic pump capable of producing pressure up to 3,000 psig is available as an optional accessory.

Specifications

Temperature.....400°F (204°C)
Pressure.....3,000 psig (34.5 MPa)
Volume.....40.6oz (1200ml)
Capacity.....2 Cubes
Power Requirements..115/230 Volts, 16/8 amps
Power Output.....1,800 Watts



Included Accessories

- 100072605 WRENCH, PRESSURE VESSEL
- 100029847 VISE GRIP, CHAIN CLAMP
- 100012374 CUBE MOLD, 2 IN, SINGLE CAVITY (2)
- 100020334 CUBE MOLD REMOVAL TOOL
- 101520490 HANDLE, CHAMBER

Ordering Information

Part No. 101497200 Cement Curing Autoclave 115 Volt, 16 Amps 50/60 Hz

Part No. 101533369 Cement Curing Autoclave 230 Volt, 8 Amps 50/60 Hz

Optional Equipment

Part No. 101443557 Hand Operated Hydraulic Pump, 3,000 psig

Fann Instrument Company offers a complete line of equipment, materials and supplies for use in testing Oil Well Cements in accordance with:

API Specification 10A, ANSI/API 10A/ISO 10426-1-2001

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