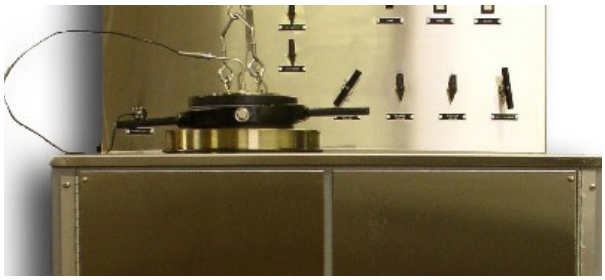
HTHP Curing Chamber
Model 730C-8, 730C-16, 730CC-16

Description

Fann curing chambers are specifically designed to prepare cement samples for comprehensive strength testing in accordance with API specifications. These models operate up to a maximum pressure of 30,000psi and up to a maximum temperature of 700°F. These pressurized curing chambers contain pressure vessels with controlled heating rates, and are used to cure standard two-inch cement cube samples. Fann curing chambers are available to cover the wide range of temperatures and pressures associated with actual conditions found in oil well cementing applications. Both single cell with 8 and 16 cubes and dual cell with 16 cubes configured units are available from Fann, pictured below.



Advantages

- Internal cooling coils permit the circulation of a cooling fluid to cool the chamber quickly - maximizing the number of tests that can be run in a day
- Units operate to extremely high temperatures and pressures to include well conditions with geothermal temperatures and ultra deep pressures
- Rugged design
- Each curing chamber is fully tested in the factory to the maximum rating of the unit, ensuring that the instrument is completely and satisfactorily operational
- Special long-life seal proven to be reliable under high temperature stress and does not require cooling

Curing Chamber Testing

Testing to determine the compressive strength of samples is usually done after the samples have been cured for hours or days. The actual testing of the cubes is done with a compressive strength tester. Curing chambers are used in oil well cement research programs, research and testing of cement additives, cement manufacturer's quality assurance programs, and in the research and field laboratories of well servicing companies. These units cover a wide range of operational temperatures and pressures to simulate a wide variety of down-hole conditions.

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Application

Cement slurries for testing are initially mixed with a constant speed mixer in compliance with API specifications. The slurry is then poured into slurry molds and the molds are lowered into the pressure vessel. The pressure vessel is brought up to temperature and pressure to meet the conditions of the specific well being studied. Typical values for the increase of temperature and pressure on the samples in the molds are detailed in API specifications.

Specifications

Electrical	
Input Voltage	230 VAC (±10%)
Input Power	9000 W (single cell) 18000 W (dual cell)
Current	30 Amps (single cell) 50 Amps (dual cell)
Input Frequency	50-60 Hz

Mechanical (16 cube single cell)		Mechanical (16 cube dual cell)	
Height	61 in. (155 cm)	Height	61 in. (155 cm)
Width	33 in. (84 cm)	Width	48 in. (122 cm)
Depth	31 in. (79 cm)	Depth	30 in. (76 cm)
Weight	1,480 lbs. (672 kg)	Weight	1,850lbs (839kg)

Mechanical (8 cube single cell)	
Height	61 in. (155 cm)
Width	33 in. (84 cm)
Depth	30 in. (76 cm)
Weight	1,500 lbs (681 kg)

Heater	
Heater Type	External heater bands with high quality insulation jacket, internal cooling coils
Heater Control	SS Relay

Air/Water Connections	
Water In/Out	1/4 MNPT (2)
Air Input	1/4 MNPT (1) (max 120psi, dry)

Environmental	
Operating Temperature	32 -105°F (0 - 40 °C)
Operating Humidity	0 - 95% non-condensing

Ordering Information

Part No. 102538948 - HTHP Curing Chamber, Single Cell, 8 Cubes, 700°F, 30KPSI Model 730C-8
Part No. 102538938 - HTHP Curing Chamber, Single Cell, 16 Cubes, 700°F, 30KPSI Model 730C-16
Part No. 102538940 - HTHP Curing Chamber, Dual Cell, 16 Cubes, 700°F, 30KPSI Model 730CC-16

Fann Instrument Company offers a complete line of equipment, materials, and supplies for analyzing various drilling fluids and oil well cements in accordance with API Specifications and API Recommended Practices.

Phone: 281-871-4482 Web: www.fann.com Email:fannmail@fann.com
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