

Accelerated Carbonation Chamber



Applications

It is used for testing the durability of concretes under an environment of constant temperature, humidity and CO₂ concentration, which is a special apparatus for carbonation test of concretes.

Salient Features

- Double wall construction
- Interior fabricated from high grade stainless steel (S.S.304).
- Exterior body made of Mild steel material - which is duly powder coated in attractive shades
- Double walled metal door with sponge - type silicon gasket for air-tight sealing
- Chamber illumination is accomplished by Fluorescent light with door switch.
- Cord wire duly tested and inspected with stress factor as per CE standard
- Electric Motor located at the back side of unit, protected with safety cover to avoid accident
- Standard motor of reputed Make
- User friendly and tactfully designed chamber door and locking mechanism
- Aesthetic outer appearance and high quality

Air Circulation

Temperature is maintained by a quiet running blower circulation air throughout the chamber. Forced air circulated vertically down and re circulated throughout the chamber for uniform temperature and humidity.



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Humidity

- Humidity created by steam injection method. The boiler tank is fitted in the back side of the chamber for better servicing, Electromagnetic switch for controlling the wet heater from burning off if water level is not adequate. Float valve provided to control water level in the boiler tank.

Heating & Cooling System

- Long lasting SS tubular heaters used as heating element. The stainless steel fins provided to ensure better heat transfer.
- Hermetically sealed compressor CFC free compressor (134 A gas) coupled with evaporation coil and condenser.

Control

- Microprocessor based Digital Auto-Tune PID temperature and direct RH digital controller. Humidity directly measured in % RH by electronic sensor.

Technical Specifications

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|---------------------------------|--|
| • Construction | : Sandwich type |
| • Inner chamber | : Stainless steel S.S.-304 Grade |
| • Exterior body | : Mild steel |
| • Paint | : Powder coating in attractive shades |
| • Thermal insulation | : 75mm to prevent thermal loss |
| • Chamber Dimension | : 600 mm X 600mm X 600mm |
| • Chamber Volume | : 200 liter |
| • Optimum Performance | : with 150 kg of Concrete load |
| • Temperature range | : 5°C above Ambient to 60°C. |
| • Humidity range | : Ambient to 80% RH
(Maximum carbonation takes place between 40% RH to 80% RH) |
| • CO ₂ Concentration | : Atmosphere concentration to 4.5% with accuracy 0.01%
(Maximum solubility of CO ₂ in water is 4%) |
| • Controller | : Digital PID Temp & RH Controller |

Safety Features

- High temperature safety cut off
- Low water level boiler cut off
- Electrical overload cut off
- Time delay for compressor switch ON
- Electrical circuit breaker

Mfg. by :



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