



Applications:

Carbonation Chamber for Accelerated Carbonation test of Concrete

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
- Electrical wiring as per CE Compliance
- 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
- 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.

Insulation:

70mm polyurethane insulation (PUF)/ fiberboard to ensure better insulation and less leakage of temperature or RH from inner body to the surroundings

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.

Note: Specifications are subject to change.

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

Trays for samples:

- Removable S.S. trays
- Manufactured from strong S.S. Rods to with-stand heavy load of test specimens
- Such trays also facilitates better air circulation
- The distance between trays will be 15-20 centimeters

Control:

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

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

Documentation:

Supplied complete with Instruction manual and test reports

Warranty:

Unconditional warranty against faulty workmanship for 1 year at site from the date of installation of the equipment.

Pre installation mandatory requirement : (Guarantee void in case of non compliance):

- Distilled water OR DM water continuous supply with tap for boiler input of 3/8" BSP at 3 feet height.
- Room temperature around machine Should be preferably at 25 °C with air conditioning or a well ventilated room with exhaust fan. However surrounding temperature should not exceed 30 °C .
- Stabilized Input Voltage of 230 Volt, 50 Hz, 20 Amps, AC Supply. Use of Servo Controlled Stabilizer is recommended.
- Water drain line with 3/8" nozzle to be provided at floor level.
- Recommended to install the chamber 2 ft. away from the back wall and 1 ft. from all sides
- UPS for control system upto 1 KVA

Supplied complete with following Accessories:

- (1) Mould 100mm X 100mm X 200mm for making prism (5 Nos)
- (2) Attachment for Splitting
 - 100 mm cube
 - 150 mm cube
 - 100mm X 100mm X 200 mm prism

Note: Specifications are subject to change.



Technical Specifications	
Construction	Sandwich type - Double walled
Inner chamber	Mirror polished Stainless Steel S.S. - 304 Grade
Exterior body	Mild Steel
Thermal Insulation	75 mm to prevent thermal loss
Exterior Body Paint	Powder coating in attractive shades
Chamber Dimensions	600 x 600 x 600 mm (W x D x H)
Chamber volume	216 Liters
Optimum performance	With 150 Kgs of Concrete Load
CO2 Concentration	Atmosphere concentration to 4.5% with accuracy 0.01% (Maximum solubility of CO2 in water is 4%)
Temperature Range	10 °C - 70 °C
Temperature Accuracy	± 0.5° C
Temperature Resolution	0.1° C
Temperature Uniformity	2° C
Temperature sensor	Through Pt-100 type RTD sensor
No. of Temperature Sensors	01 number
Humidity Range	40% RH to 90% RH
Humidity Accuracy	± 2% RH
Humidity Uniformity	± 3% RH
Humidity Measurement	Through Capacitance type RH Sensor
No. of Rh Sensors	01 number
Temperature & RH Control	Microprocessor based AUTO-TUNE Digital PID Controller
Indicator	
Chamber Illumination	With 1 LED lights for lesser power consumption
Mobility	On castor wheels
Power Supply	230 Volts, 50 Hz, Single Phase, AC Supply

Note: Specifications are subject to change.