



BURN-IN-CHAMBER

AN ISO 9001 : 2015 / 14001 : 2015 / WHO-GMP CERTIFIED CO. & CE MARK PRODUCT

Model No : SRL / BC-33



Construction :

MOC of the Chamber will be: Double walled Chamber with Inner & outer of GI duly pre painted, PUF Insulation in between two walls.

(I) Flooring: 2 mm aluminum chequer plates.

(ii) The unit will be made of double walled leak proof metal door with lock, with a provision of opening door from inside.

(iii) Forced air circulation for uniform temperature.

Insulation of Walls, ceiling and floor : 60-80mm thick puff panels with puff in-place density of minimum of 1kg per cubic foot or its equivalent. Insulation with expended polystyrene or any equivalent material having R factor of minimum 34. Insulation material shall maintain its dimensional stability in an operating temperature range of 5°C to +60°C Insulation puff.

Door : Flush type doors of metal surfaces (as per above specification of metal) with proper puff insulation of above mentioned standard or its equivalent. Doors shall have magnetic snap-in perimeter gasket or its equivalent, self-closing cam lift gravity hinges or its equivalent, a posi-seal door closure or its equivalent. Door shall have key lockable latch handle with an inside safety release. Doorjamb shall be made fiberglass reinforced plastic or any other suitable material compatible with constructed door.

Application :

These equipments are used for climatic & durability tests of electrical & electronic components, corrosion test on mechanical assemblies, materials for simulated tropical & extreme tropical conditions.

Heating System :

Nichrome wire coiled or strip heaters or tubular heaters are used depending upon the design of the Burn-In-Chamber which may vary with the specific application and this should be conveyed to us by the user to ensure optimum performance parameters. A port hole of suitable dimension will be provided for giving power outside.

Ecocentric System :

Chamber runs on the basis of Dewpoint control. Less deviations during short-term door opening & power failure. Less utility area Increased storage area. Low operating cost. Minimum power & water consumption. Reduced deviations. Less breakdowns due to standby refrigeration & humidification system. Due to PLC HMI & controlling through microprocessor based PID Temp. & RH operations the on time of both Temp. & RH system is reduced & efficiency of this system is increased with reduced energy consumption.

Power Supply :

Single Phase 230V AC, 50Hz / Three Phase 440V AC, 50Hz

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Air Circulation :

The chamber is provided with best air circulation to give better temperature uniformity this is achieved by using one set of motor & blower in baffle wall Compartment to push treated air in working chamber. This system gives better than 1 deg c. temp. uniformity in working chamber.

Uniform forced air circulate across the shelf via air diffusers on the top wall. Uniform horizontal or vertical airflow shall be provided for maintaining uniform temperature and RH in the room. System for adjustable forced air exchange shall be provided with up to 20 air exchanges per hour of fresh air to the room or its equivalent and an option to shut it down when not required. No direct radiation on the specimen.

Controls :

PID Action : Provides Precise Temperature, Maintain Uniform And Accurate Growth Environment, Timer, Alarm, Auto-Tuning And Auto Start Stop Function. Technical Design and Construction Silent Fan Motor to Maintain Uniform Temperature Over Temperature and Current Protection Capability Ensure User Safety, Adjustable Sliding Rack, Alert Unexpected Interruption Of Electrical Power Or Unauthorized Change.

Optional : [PLC with HMI TFT screen]

PLC-HMI Control system with touch screen display & HMI for data Storage, Stepwise Programmable Controller with 10 or more programs Provides Automatic Operation of Variable Temperature, Humidity Value, 50 Or More Cycles with Minimum 100 Sections in Each Cycle. Data logger with RS 485/232 port for logging & transfer of data. Auto restart, power failure event logging, memory protection S.M.A.R.T/ SELF diagnostics system. Control system shall have audio/audiovisual warning/alarm when set temperature/RH is below or above the set values. Ethernet communication port. Ambient temp. Monitoring. Over Temp. and Current Protection Capability Ensure User Safety, Adjustable Sliding Rack, Water Level Sensor Alert Control System. Total no of output: 23 channels. Alert Unexpected Interruption of Electrical Power or Unauthorized Change. 4 digit Password lock.

Safety Features :

2 minute compressor "on" delay timer to safeguard the compressor. Compressors overload relay protector. Electronic low water level cut off device to cut off the supply to boiler heater in case of low water level. Safety Temp. Controller. MCB for mains.

- (i) Unit will be provided with safety devices for temperature and humidity overshoot in case of malfunction.
- (ii) Built-in temp. Deviation, audio/visual alarms. Safety thermostat for over shooting of temp. Safety circuit to cut off the whole system.
- (iii) OLP (Overload Protector) & Time delay Circuit for safety of compressors.
- (iv) HRC fuses for compressors, Heaters & Mains.

Temp. Range :

Temp Range : Above ambient 5°C to 100°C

Accuracy : 0.2°C

Uniformity : $\pm 2^{\circ}\text{C}$

Certification :

MSME Award For Best Manufacturing Practices 2023.

ISO 9001:2015 Certified Co. D&B registered & CE mark product.

ISO 14001:2015 & WHO-GMP

ISO 45001:2018 & ISO/IEC 17025: 2017

NSIC & MSME registered / ROHS Compliance / UL Compliance

Documentation :

To comply with the documentation requirements, we provide IQ, OQ & PQ protocols to be executed before taking the chamber in to for regular use, and support the supply with the following documents with the detail operational and service manual.

Standard Operating Procedure (SOP)

Operational Manual for Controller

IQ,PQ,OQ protocols certificate.

Calibration certificate of all controlling modules with traceable to NABL / ERTL accredited labs.

Certificate of MOC.

Test Report of chamber prior to supply with mapping certificate. wiring diagram for ease of service maintenance.

TECHNICAL SPECIFICATION

Model No : SRL-BC-33	BC-A	BC-B	BC-C
Capacity Liters	45	175	480
Chamber Size (cms)	40 X 40 X 40	40 X 110 X 40	80 X 40 X 150
Rating	1.0 K.W	1.5 K.W	3.0 K.W

Due to continuous development & improvements in design, we reserve the right to change the specification without notice.