



**STABILITY
CHAMBER**

INTRODUCTION

The stability chamber works on the principle of relative humidity(RH). The Stability chambers are designed to create artificial replicas or environmental conditions. So as desired you can expose the product to any environmental condition.

The stability chamber maintains the performance standard of giving the best quality result of the product, so you can be assured of product quality which is required by all standard regulatory agencies. Stability chamber help to ensure customer safety, which means a consumable up product in the market maintain its quality through any environmental condition which ultimately helps the brand ethics toward its customer



PHARMACEUTICALS •
COSMETICS •
FOOD AND BEVERAGES •
VETERINARY
• STORAGE AND CONSERVATION
QUALITY CONTROL AND RESEARCH

APPLICATION

- **INSTALLATION QUALIFICATION (IQ):** CONFIRMS THAT THE CHAMBER IS DELIVERED, INSTALLED, AND DOCUMENTED ACCORDING TO SPECIFICATIONS. THIS INCLUDES VERIFYING ALL COMPONENTS, MANUALS, SOPS, CALIBRATION RECORDS, AND ENSURING CORRECT INSTALLATION.

OPERATIONAL QUALIFICATION (OQ): TESTS ALL FUNCTIONS OF THE CHAMBER (SUCH AS CONTROLS, ALARMS, TEMPERATURE AND HUMIDITY UNIFORMITY) TO VERIFY OPERATION WITHIN DEFINED PARAMETERS. THIS OFTEN INVOLVES EMPTY-CHAMBER MAPPING AND VERIFYING SAFETY FEATURES AND ALARMS.

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- **PERFORMANCE QUALIFICATION (PQ):** ASSESSES CHAMBER PERFORMANCE UNDER SIMULATED OR ACTUAL LOAD (WITH PRODUCTS INSIDE) TO CONFIRM THAT IT CONSISTENTLY MAINTAINS DEFINED ENVIRONMENTAL CONDITIONS THROUGHOUT THE USABLE SPACE.

CERTIFICATE

The refrigeration operates through a **hot gas bypass system**, offering enhanced stability and efficiency, particularly suited for the demanding climate conditions of **India**. This technology ensures smooth temperature regulation even in high ambient temperatures, extending the lifespan and performance of the equipment. **Build:** PUF-insulated MS/SS body with corrosion resistance. Compressor will run for 24*7 without disturbing the environment condition .

ADVANCED REFRIGERATION SYSTEM

Note:

- 1.All technical data are valid in an empty chamber (without samples on trays) for the ambient temperature of 22 °C and the supply voltage of 230 V $\pm$ 10 %. *)
- 2.The trays can be filled up to approx. 50% of the area, if possible in such a way as to allow an even flow of air inside the chamber space. **)
- 3.All incubators should be kept in a 15- 30 degree C environment.
4. Additional environment temperature sensors will be customized for outside environment as optional .

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TECHNICAL SPECIFICATION

MODEL		SCH/SCC CUSTOMIZATION DIMENSION(OPTIONAL)			
INNER VOLUME .+.+..		500 Ltr	1000 Lts	1400 Ltrs	2000 Ltrs
Cooling Mode		Hot gas by pass /Condensing Principles continuous compressor ON			
Standard Dimension WDH in mm Standard Dimension for 3 feet door		850*850*700 800*650*1000	850*850*1400 1200*650*1300	1200*850*1500	1600*850*1500
DOOR (GLASS DOOR OPTIONAL)		SINGLE DOOR		DOUBLE DOOR	
STANDARD TRAY		5	7	7	7
OPTIONAL TRAY OR SHELVES AS PER YOUR REQUIREMENT					
OPERATING TEMPERATURE		5 TO 45 DEGREE C (CUSTOMIZATION)			
Degree of protection /HMI		IP21/7INCH (Data Logging Optional)			
POWER SUPPLY		SINGLE PHASE 50HZ ,220 VOLT		SINGLE/3 PHASE	3 PHASE
HUMIDITY(OPTIONAL)		AMBIENT +10-80%(OPTIONAL UPTO 95 PERCENT AS PER DESIGN)			
Humidity type (optional)		1.Boiler B. Pan C Ultrasonic			
ICH CONDITION		25 DEGREE C/60% RH	30 DEGREE C/65%RH	30DREEC/75 %RH	40 DEGREE/75%RH

CUSTOMIZED OPTION

Temperature Control

TMP01 Self-contained, Air-cooled Condensing Unit

TMP02 Remote, Outdoor, Air-cooled Condensing Unit (All-Weather Housing)

TMP03 Extended Temperature: -10°C (non-lighted units)

TMP04 Extended Temp: -10°C (lights off) / 0°C (lights on)

TMP05 Extended Temp: +60°C (no refrigeration above 40°C)

TMP06 Extended Temp: +60°C (continuous running condenser)

TMP90 Extended Temperature Range up to +90°C — For ultra-high-temperature applications.

. Refrigeration

STND Standby Refrigeration

AL Aluminium coil Condenser coil for insect

Doors & Access Options

DR01 Observation Window with Cover (12" x 12") on Door

DR02 Door Lock

DR03 Full Size Glass Door

DR04 LED Working Light (energized when door opens)

DR05 Left-Hand Door Swing

DR06 Heavy Duty Door Handle with Latch

DR07 Locking Door, Power Switch, Dry Contacts (one door)

DR08 Locking Door, Power Switch, Dry Contacts (two doors)

DR09 Customization Dimension

. Control Systems & Interfaces

CTL03 Android-based Touchscreen

CTLO4 (5-15R 1A Convenience Receptacle (Programmable)

CTL05 Dry Contact for Remote Alarm

CUSTOMIZED OPTION

Humidity Control

- HMD01 Pan-type Humidifier + Electronic RH Sensor (0–1 VDC)
- HMD02 Pan-type Humidifier/Dehumidifier + RH Sensor (0–1 VDC)
- HMD03 Pan-type Humidifier/Dehumidifier + Advanced RH Sensor (0–5 VDC)
- HMD04 Ultrasonic Humidifier + Advanced RH Sensor (0–5 VDC)
- HMD05 Ultrasonic Humidifier/Dehumidifier + Advanced RH Sensor (0–5 VDC)
- HMD06 Ultrasonic Humidifier + Electronic RH Sensor (0–1 VDC)
- HMD07 Ultrasonic Humidifier/Dehumidifier + RH Sensor (0–1 VDC)

. CO₂ Control

- GAS01 Additive CO₂ Control with 2000 ppm Sensor
- GAS02 Additive CO₂ Control with 5000 ppm Sensor
- GAS03 Additive CO₂ Control with 10% Sensor
- GAS04 CO₂ Removal System (requires GAS01/GAS02/GAS03)

Data Logging & Instrumentation

- TRA-DATA Temperature & RH Recorder with Data Logging — Records environmental data for compliance.
- P47 PAR Sensor (400–650 nm) — Measures photosynthetically active radiation.
- S47 Spectroradiometer (400–1100 nm) — Captures a broad light spectrum for precision lighting analysis.
- EMCB MCB & Temp/RH Safety Controller — Provides electrical and environmental safety control.

Lighting Systems

- LGT01 Closed Loop Dimmable Lighting + PAR Light Sensor
- LGT02 Open Loop Dimmable Lighting (independent shelf dimming)

CUSTOMIZED OPTION

. Shelving & Structural Hardware

SHF01 Additional Epoxy Wire Shelf

SHF02 Stainless Steel Wire Shelf

STR01 Caster Assembly with Levelers (30 Series)

STR02 Stacking Hardware for 30 Series

STR03 External Drip Pan

STR04 Additional Access Ports (1", 2", 3", or 4")

DON Unstandard dimension

. Doors & Access Options

DR01 Observation Window with Cover (12" x 12") on Door

DR02 Door Lock

DR03 Full Size Glass Door

DR04 LED Working Light (energized when door opens)

DR05 Left-Hand Door Swing

DR06 Heavy Duty Door Handle with Latch

DR07 Locking Door, Power Switch, Dry Contacts (one door)

DR08 Locking Door, Power Switch, Dry Contacts (two doors)

DR09 Customization Dimension

Filters, Coils, Accessories

FLT01 Air Filter Assembly (insect screen)

FLT02 Phenolic Coated Coils (for Drosophila research)

FLT03 Cover for WAC4 Unit

. Warranty

WR01 Extended Warranty (1, 2, or 3 Years)



SHOOLINLAB

THANK YOU

For watching this presentation



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