

STABILITY CHAMBER / HUMIDITY OVEN

Construction & Design Features

- Stability Chambers are Precisely Constructed and fabricated thereby giving consistency in performance-operation and an professional look.
- Unique air circulation system, refrigeration system, humidity system, full view observation glass door and trays.
- Foamed - in - place PUF insulation ensures temperature stability and reduced energy consumption.
- Direct % RH capacitance humidity sensor to measure humidity parameter .
- Stand by refrigeration system and stand by humidity system is provided (as an optional feature to avoid breakdown losses).

Control Panel Features

- Microprocessor-based PID controller with auto tuning option for accurate control of temperature and humidity conditions with printer interface module to store data with on line and off line printer option as per print time interval.
- Resistive type temperature sensor & Direct % RH capacitance humidity sensor.
- A multipoint (4+4) temperature and humidity scanner with printer interface and PC interface facility for online mapping purpose.
- GSM mobile alert module to give malfunction SMS on three cell phones simultaneously.
- A PLC system for an auto changeover of standby systems and other event logging and monitoring purpose.
- Alternatively a Advance PLC system with touch screen display with all the above features incorporated. Network.

Safety Interlock Features

- Thermostatic safety system is provided as an additional safety feature.
- Low water level cut off for steam generation (Humidification) system.
- Dedicated Safety system to cut off the humidity system and chamber shut down in case of overshoot or undershoot of temperature or humidity with audio visual alarm.
- Stability Chambers are provided with safety cut offs and alarms at centralised alert & security gate area.
- Electrical Safety fuses for short circuit protection.
- Software logging for all the alarms and events.

Software Features

- 21 CFR part 11 USFDA compliant software with validation documents.
- GSM alarm system (mobile alert).
- All the events, utility, working status, all the alarms are logged in the software.
- Records in graphical and in tabular form.

Complete documentation with extensive DQ, IQ, OQ and PQ protocols as per the International guidelines .

Technical Data

- Standard Model(S): Inside S.S.304 with mirror polish & outside mild steel powder coated.
- GMP Model(G): Inside S.S. 316 with mirror polish & outside with S.S. 304 matt buff.
- Temperature Range / Accuracy : 40°C to 60°C / $\pm 0.2^{\circ}\text{C}$ / 2°C
- Humidity Range. / Accuracy : 40% to 95% RH t / $\pm 2\%$ RH

MODEL	CAPACITY CU.FT/LTRS	INNER SIZE
IEC-SC/90	3 / 90	45 X 45 X 45 CM
IEC-SC/165	6 / 165	70 X 50 X 50 CM
IEC-SC/280	10 / 280	90 X 55 X 55 CM
IEC-SC/324	12 / 324	90 X 60 X 60 CM
IEC-SC/440	16 / 440	90 X 70 X 70 CM
IEC-SC/600	21 / 600	120 X 70 X 70 CM
IEC-SC/800	28 / 800	120 X 80 X 80 CM
IEC-SC/1000	34 / 1000	150 X 90 X 70 CM

Optional Extras / Accessories
a) PLC based system: PLC with HMI touch screen grey monitor with 21 CFR Part 11 features
b) Magnetic door lock feature
c) GSM system: alarms sent to predefined mobile numbers
d) HMI: touch screen grey
e) Digital PID controller with printer interface to connect EPSON Dot matrix line printer. Print interval programmable, can print date, time, temperature
f) PC interface for above controller with software on CD & hardware or software with 21 CFR part 11 features
g) Imported RH sensor European make, Rotronic Switzerland for higher accuracy
h) Standby humidity system
i) Standby refrigeration system
j) Data logger: 4 point temp. + 4 point humidity data logger with sensors placed at specific points in chamber with printer interface and memory of 5000 readings per channel
k) PC interface for above controller with software on CD & hardware