LCD
Standard

TFT
Optional

25.0
59.8

REMI Walk in chambers are designed for simulating, monitoring & control of environmental conditions like temperature & humidity. All these chambers are double walled & modular in construction, easy to assemble at site. They are available in standard sizes & can also be tailor made to suit specific requirements. Forced air circulation with the help of fan blower maintains uniform conditions. Use of intelligent control systems & dedicated REMI 'Datasoft' software complying to 21 CFR Part 11 requirements greatly enhances the performance. These chambers can be provided with standby refrigeration & humidity systems (optional) for uninterrupted functioning.

CONSTRUCTION • Double walled prefabricated modular panels with PUF insulation, easy to assemble at site • Standard model with inner of Stainless Steel (304 Grade) and outer Powder coated steel sheet • GMP model with inner (316 Grade) and outer of Stainless Steel (304 Grade) • CFC free Refrigeration system with split type condensing unit located outside lab helps to emit hot air beyond working area • Heating by long lasting SS tubular heaters • Humidity by steam injection. Boiler and water reservoir made of SS with heater and low water level cut off • Forced Air Circulation by heavy duty motor • SS racks and trays.
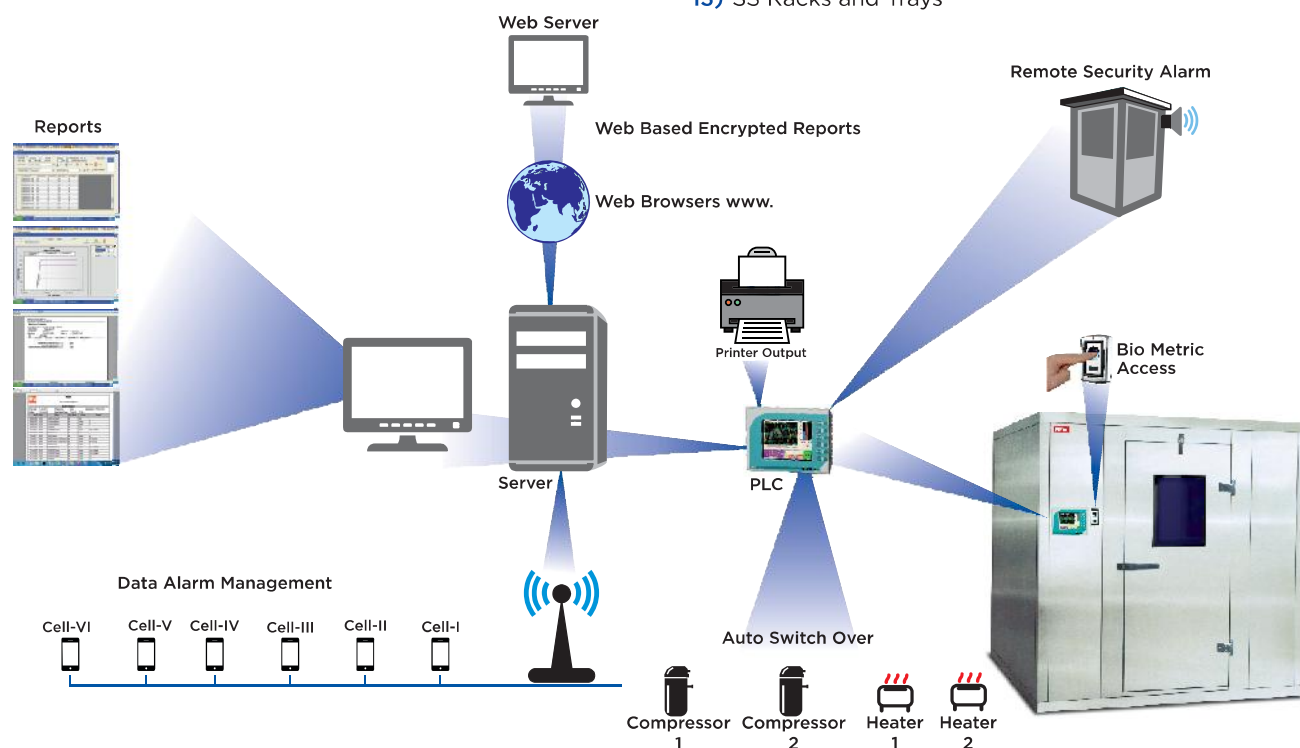
Salient Features :

- Designed as per ICH guidelines to meet, WHO and USFDA requirement

- Fulfills storage conditions of 25°C-60% RH, 40°C-75% RH, 30°C-65% RH 25°C-40% RH, 30°C-35% RH

- Temperature Range: 20°C to 60°C, Accuracy:$\pm0.2^\circ$C,Uniformity:$\pm1^\circ$C (STABILITY CHAMBERS)

- Humidity range: 40% RH to 95% RH, Accuracy:±2% RH, Uniformity:±3%RH (STABILITY CHAMBERS)

- Temperature Range:2°C to 8°C, Accuracy:$\pm0.2^\circ$C, Uniformity:$\pm1^\circ$C (COLD ROOMS)

- Microprocessor based auto tuning PID controller provided for precise control of temperature and humidity

- Auto change over to standby systems through PLC (Optional)

- Auto switch over to standby sensor in case of Controlling Sensor failure through PLC (Optional)

- Capacitance type Humidity sensor enables direct display of RH and temperature (STABILITY CHAMBERS)

- Audio visual alarm for temperature, humidity variations and utility failures

- Output for remote alarm in lab and at security gate

- Safety includes shut off of humidity and air heaters in case of temperature overshoots or undershoots beyond specified limits with alarms

- Facility to open the door from inside in case of door locked with emergency bell having switch inside chamber

- Low water level alarm and power cut off of boiler tank heater

- Overload cut off relay for compressor

- Time delay for compressor switch on

- PC communication via Ethernet/RS-485 and software complying to 21CFR part 11 USFDA guidelines (Optional)

- Data stored in PC server with LAN connectivity and password protection (Optional with software)

- PLC with touch screen HMI fully protected with password, instead of PID controller for precise control of temperature and humidity (optional)

- Standby refrigeration system available for uninterrupted functioning (Optional)

- Standby humidity system available for uninterrupted functioning (Optional)

- Multipoint Temperature and Humidity logger with printout facility (optional)

- GSM mobile alert in case of temperature and humidity deviations beyond specified Limits (Optional with software)

- Magnetic door lock system with biometrics for door access and software to monitor door open log (Optional)

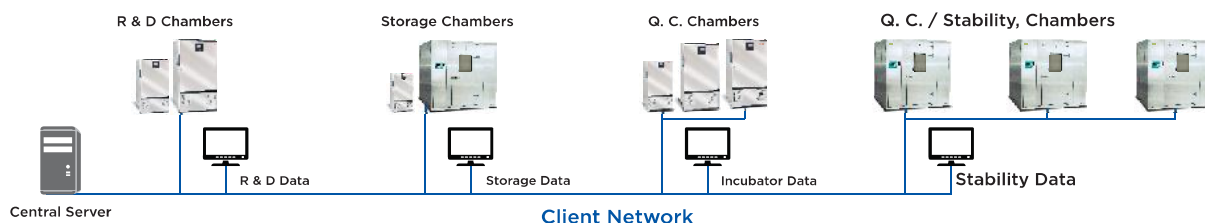- Validation protocol with IQ, OQ, PQ Documentation
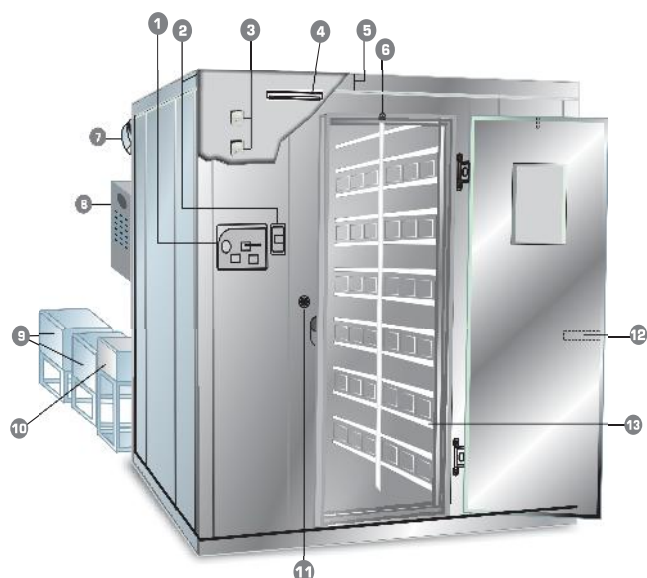
1) Intelligent PLC/PID control system helps maintain highly accurate set parameters

2) Biometrics system for secured door access

3) Dual Capacitance type Humidity Sensors failure of one sensor automatically transfers regulation to other sensor

4) Chamber illumination by fluorescent tubes

5) PUF Insulation 80mm for maximum thermal protection

6) Spring Door Latch for door closure

7) Blower Motor for forced air circulation

8) Control panel with Data-logger, PC connectivity and electrical components

9) Standby refrigeration by Compressor-1 and Compressor-2

10) Standby humidity by Heater-1 and Heater-2

11) Emergency bell switch to open the door from inside

12) Highly ergonomic handle with unique multi lever key lock

13) SS Racks and Trays

Web Server

Web Based Encrypted Reports

Remote Security Alarm

Reports

Web Browsers www.

Printer Output

Bio Metric Access

Data Alarm Management

Cell-VI Cell-V Cell-IV Cell-III Cell-II Cell-I

Server

PLC

Auto Switch Over

Compressor 1   Compressor 2   Heater 1   Heater 2

CHAMBERS CONNECTIVITY CHART

R & D Chambers   Storage Chambers   Q. C. Chambers   Q. C. / Stability, Chambers

R & D Data   Storage Data   Incubator Data   Stability Data

Central Server

Client Network

Walk-in Chambers

LCD Display

Features

- 4 Inch attractive LCD display
- Intelligent Controller helps maintain temperature in case of sensor failure
- Battery Backup for Temperature Controller
- Auto tuning of controller
- Self-Diagnosis for errors
- Histogram format of 24 hours temperature recording
- Power failure and resumption recorded with date and time
- Settable High / low alarm points
- Memory for storage of upto 1000 records
- Centronic interface to record Temperature, Date, & Time by attaching Dot Matrix printer with adjustable print interval
- Alarm on equipment / output for remote alarm
- PC communication through RS-485 with data acquisition software
- Remi 'Datasoft' Data acquisition software complying to 21 CFR part 11 as per USFDA Guidelines (optional)

Touch Screen Display

Features

- 7 inch big colour touch screen
- PLC (Programable logic controller)
- Memory of 10,000 records
- Centronic interface to record Temperature, Date & Time by attaching Dot Matrix printer with adjustable print interval
- PC communication through REMI Datasoft
- Ethernet port
- Battery backup in case of power failure for display, alarms & off-line data logging (optional)
- Programmable cyclic timer for controlling illumination conditions

REMI 'Data Soft'

Features

- Multiple level alpha numerical password with password ageing
- Secured audit trail report
- Alarm report with mention of alarm condition
- Mean Kinetic Temperature able to be calculated for any days & alarm deviation report
- Reports in graphical and tabular form
- Data Stored in PC server with Lan connectivity and can be monitored on any PC with password authentication
- Multi chamber data acquisition on single software
- Communication through RS 485 / TCP IP
- GSM Mobile Alert for six Numbers

Optional Accessories

To be Ordered separately

- Data logger for 8 Point temperature recording with sensor printer interface and software
- Software as per 21 CFR Part 11 requirements
- PLC Based Control System with HMI Touch Screen
- Biometrics Magnetic Door Access for Secured Door opening with software to maintain log
- Validation (mapping) consist of one cycle for temperature and humidity at any one set point for 24 hours on empty and loaded condition
- Standby Refrigeration System
- Standby Humidity System
- GSM alert through SIM card

Technical Data

WALK-IN STABILITY CHAMBERS	WSC-50	WSC-80	WSC-100	WSC-120	WSC-150
WALK-IN COLD ROOM	WCR-50	WCR-80	WCR-100	WCR-120	WCR-150
Internal Volume (Liters)	5000	8000	10000	12500	15000
Number of Shelves	16	24	32	48	48
Internal Dimensions W x D x H (mm)	1250 x 2000 x 2000	2000 x 2000 x 2000	2000 x 2000 x 2500	2000 x 2500 x 2400	2500 x 2500 x 2400
External Dimensions W x D x H (mm)	1410 x 2360 x 2160	2160 x 2360 x 2160	2160 x 2360 x 2660	2160 x 2860 x 2560	2660 x 2860 x 2560
Internal Body Material	Stainless Steel 304 grade (Standard Models), Stainless Steel 316 grade (GMP Models)				
External Body Material	Powder Coated CRCA Steel (Standard Models), Stainless Steel 304 grade (GMP Models)				
Insulation	80 mm minimum, CFC free polyurethane foam				
Illumination	Fluorescent Tubes				
Control & Display	Microprocessor based PID control system with large 4" LCD Display				
Power Failure Alarm	Audio Visual Alarm				
Door Open Alarm	Audio Alarm in case door open for over one minute				

Supply: 220-240 Volts, 50 Hz Single Phase.

	Walk-In Stability Chambers	Walk-In Cold Rooms
Sensor	Capacitance type direct reading	PT-100
Temperature Range & Accuracy	20°C to 60°C, ± 1°C	2°C to 8°C, ± 1°C
Humidity Range (RH) & Accuracy	40% to 95%, ± 3% RH	xx
Audio Visual Variation Alarm	Set Humidity ± 3% RH, Set Temperature ± 2°C	Set Temperature ± 2°C