REMI

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

Performance

- Designed as per ICH guidelines to meet, WHO and USFDA requirement
- Fulfills storage conditions of 25^0C-60% RH, 40^0C-75% RH, 30^0C-65% RH, 25^0C-40% RH, 30^0C-35% RH
- Temperature Range: 20^0C to 60^0C, Accuracy:$\pm0.2^0$C,Uniformity:$\pm1^0$C (STABILITY CHAMBERS)
- Humidity range: 40% RH to 95% RH, Accuracy:±2% RH, Uniformity:±3%RH (STABILITY CHAMBERS)
- Temperature Range:2^0C to 8^0C, Accuracy:$\pm0.2^0$C, Uniformity:$\pm1^0$C (COLD ROOMS)
- Standby refrigeration system available for uninterrupted functioning (Optional)
- Standby humidity system available for uninterrupted functioning (Optional)
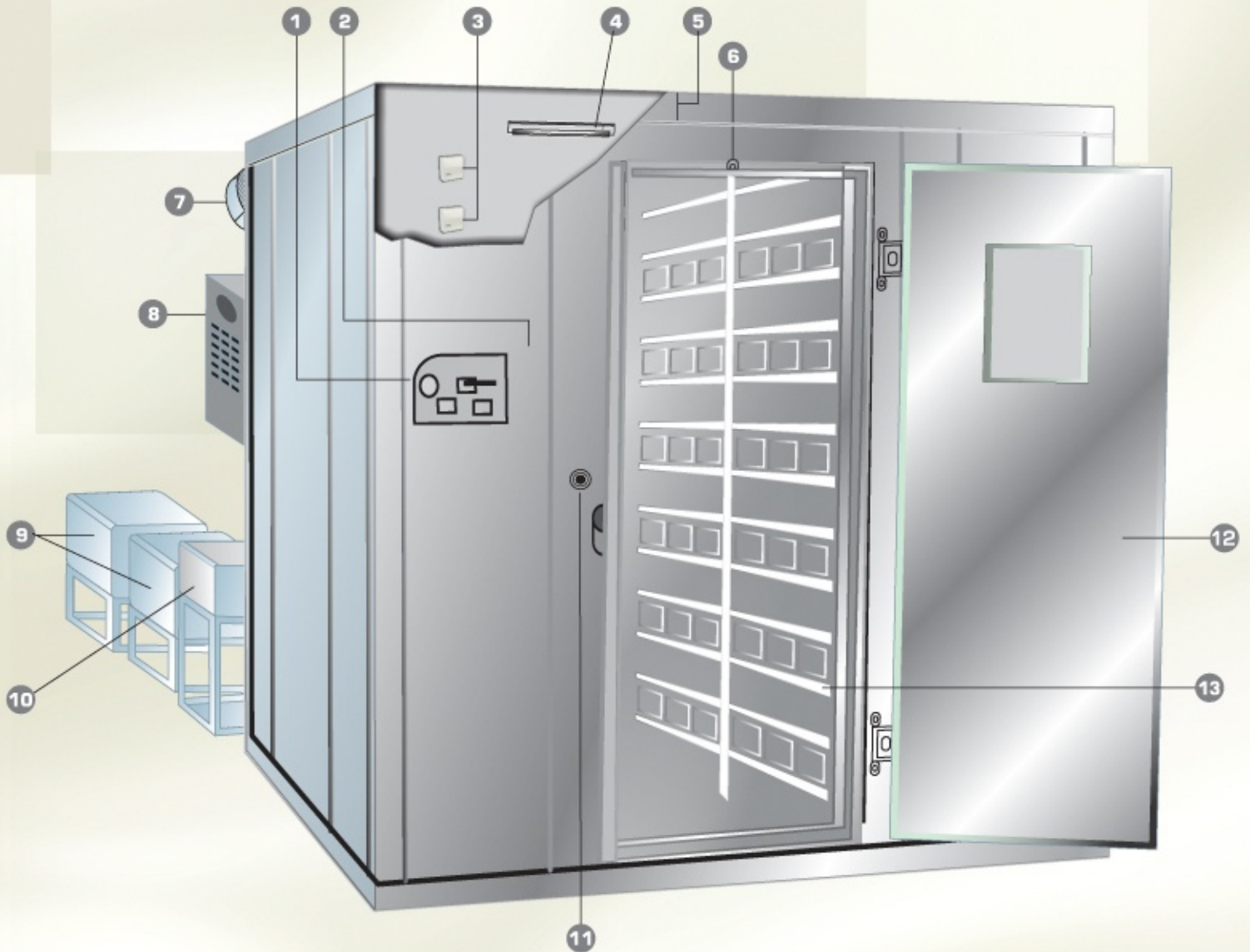
Leading Technology

- Microprocessor based auto tuning PID controller 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
- PLC with touch screen HMI fully protected with password, instead of PID controller for precise control of temperature and humidity (optional)
- Data stored in PC server with LAN connectivity and password protection (Optional with software)
- GSM mobile alert on six cell phones via SMS in case of temperature and humidity deviations beyond specified Limits (Optional with software)

User Friendly

- Capacitance type Humidity sensor enables direct display of RH and temperature (STABILITY CHAMBERS)
- PC communication via Ethernet/RS-485 and software complying to 21CFR part 11 USFDA guidelines (Optional)
- Multipoint Temperature and Humidity logger with printout facility (optional)
- Facility to open the door from inside in case of door locked with emergency bell having switch inside chamber
- Thirty chambers connected to one software.
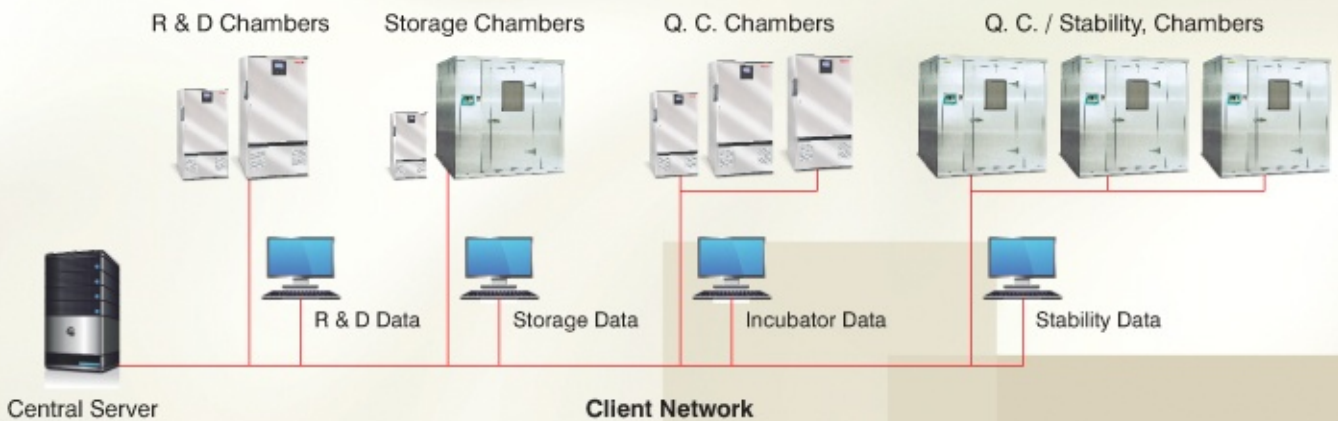- Integration with BMS

Safety

- Audio visual alarm for temperature, humidity variations and utility failures
- Output for remote alarm in lab and at security gate
- Magnetic door lock system with biometrics for door access and software to monitor door open log (Optional)
- Electrical circuit breaker
- Safety includes shut off of humidity and air heaters in case of temperature overshoots or undershoots beyond specified limits with alarms
- Low water level alarm and power cut off of boiler tank heater
- Overload cut off relay for compressor
- Time delay for compressor switch on

REMI

PLUS
*P*erformance
*L*eading Technology
*U*ser Friendly
*S*afety

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 80 mm 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
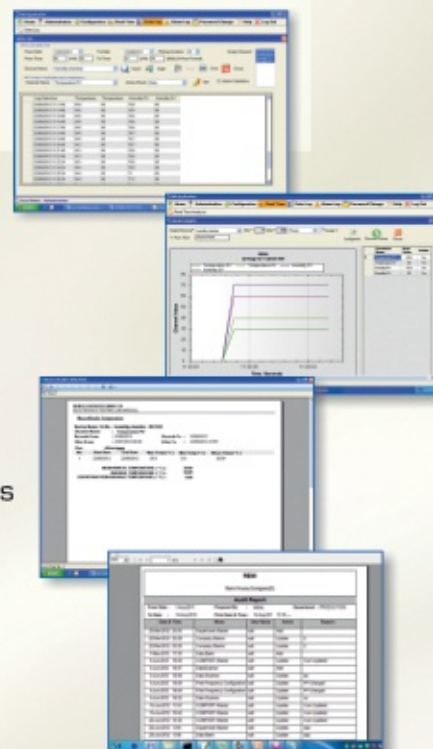12. Highly ergonomic handle with unique multi lever key lock
13. SS Racks and Trays

REMI

PLUS
Performance
Leading Technology
User Friendly
Safety

Web Server

Web Based Encrypted Reports

Remote Security Alarm

Web Browsers www.

Reports

Printer Output

Bio Metric Access

Server

PLC

Data Alarm Management

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

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**

REMI

Features of Remi *Datasoft* Software complying to 21 CFR Part 11

- Multiple level alpha numerical passwords with password ageing
- Electronic signature
- Secured audit trail report
- Alarm report with mention of alarm condition
- Mean Kinetic Temperature, can be calculated for user defined period
- Reports in graphical and tabular form
- Data stored in PC server with LAN connectivity, accessible on any PC with password authentication
- Blocked user access after three unsuccessful login attempts
- Multi chamber data acquisition on single software supports 30 machines
- Supports communication through Ethernet / RS-485
- Supports web based online remote access via Ethernet
- GSM mobile alert on six cell phones via SMS in case of deviations
- Biometrics system for door access by authorized person with log
- Possible to integrate with BMS
- Online and offline Trends

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 2950 x 2160	2160 x 2950 x 2160	2160 x 2950 x 2660	2160 x 3450 x 2560	2660 x 3450 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				
Electrical	220-240 volts, 50Hz, 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

Note : Specifications are Subject to change without prior notice.

REMI

OPTIONAL ACCESSORIES

- PLC Based Control System with HMI Touch Screen Mono lit
- Software compliant to 21 CFR Part 11 requirements
- Data logger with 8 / 16 Sensors (4+4 / 8+8 Temperature and Humidity)
- Standby Refrigeration System
- Standby Humidity System
- Biometrics Magnetic Door Access for Secured Door opening with software to maintain log
- GSM Mobile Alert for six Numbers

Other Product

- Photo Stability Chambers
- Cold Cabinets
- Ultra Low Freezers
- Bench Top Centrifuges
- Rotary Shakers
- Magnetic Stirrers
- Cooling Incubators
- Orbital Shaking Incubators
- Deep Freezers
- Refrigerated Centrifuges
- Laboratory Stirrers
- Vortex Mixers

REMI GROUP

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