

## **Humidity Chambers**



REMI Humidity Chambers are designed for testing of electronic, electrical components, corrosion studies on mechanical parts, shelf life studies on paints, varnishes and cement at respective manufacturing facilities. These chambers control precise temperature and Humidity.

These chambers are available in standard & GMP versions.

## Salient Features:

- Precise monitoring of temperature and humidity conditions
- Temperature range 10°C to 60°C, Humidity range 40% to 95% RH
- Unique design of thermal barrier for better energy efficiency
- Machine filled CFC free PUF insulation to eliminate void pockets
- Powerful fan motor for forced air circulation to maintain uniform conditions inside chamber
- · Heating by long life SS tubular heaters



- Hermetically sealed Compressor with CFC free refrigerant
- · Chamber calibration port on side
- Adjustable trays
- Output for remote alarm
- Microprocessor controller with LCD display & capacitance type sensor
- 4" attractive LCD display for direct display of humidity & temperature
- Auto tuning of controller
- Settable High / low alarm points with date and time
- Centronic interface to record Temperature, Humidity, Date & Time by attaching Dot Matrix printer with Adjustable print interval
- Remi 'Datasoft' data acquisition software as per 21 CFR part 11 requirements (Optional)
- Power failure and resumption recorded with date and time
- PC communication through RS-485 with data acquisition software
- High temperature safety cut off & alarms for high / lowset parameters
- Low water level alarm and power cutoff of boiler tank heater
- · Overload cut off relay for compressor
- · Rounded inner chamber for easy cleaning
- Attractive door profile
- Data logger for 8 Point (4+4) temperature / humidity recording with sensor, printer interface and software (Optional)
- Weight carrying capacity of each tray: 30 Kg Uniformly distributed
- Auto door closer
- · Smart Handle with LED door closure indication

### **Optional**

- (i) Touch screen display ( TFT ) with additional features(Details overleaf)
- (ii) Validation protocol with IQ, OQ, PQ Documentation
- (iii) Port for calibration probes / safety back up

# **Humidity 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
- 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

## **Touch Screen Display**

#### **Features**

- 7 inch big colour touch screen
- PLC (Programable logic controller)
- Memory of 1500 records
- Centronic interface to record Temperature, Date & Time by attaching Dot Matrix printer with adjustable print interval
- 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 'Datasoft' Data acquisition software complying to 21 CFR part 11 as per USFDA Guidelines (optional)

### 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 RS-485 connectivity and can be monitored on PC with password authentication
- Multi chamber data acquisition on single software
- Communication through RS 485 / TCP IP
- GSM Mobile Alert for six Numbers
- Power failure and resumption recorded with date and time

### **Optional Accessories**

#### To be Ordered separately

- Chamber illumination with the help of 2 Nos. fluorescent tubes
- Chamber illumination with 2 Nos. ultra violet lights
- 24 hours Cyclic Timer for regulating illumination conditions
- Data logger for 8 / 16 Point temperature & Humidity recording with sensors 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							
	CHM-6 Plus	CHM-10 Plus	CHM-12 Plus	CHM-16 Plus	CHM-19 Plus	CHM-28 Plus	CHM-35 Plus
Internal Volume (Liters)	200	280	370	450	540	800	1000
Number of Shelves	2	3	4	5	6	6	7
Internal Dimensions W x D x H (mm)	660 x 655 x 450	660 x 655 x 650	660 x 655 x 850	660 x 655 x 1050	660 x 655 x 1250	800 x 800 x 1250	800 x 800 x 1580
External Dimensions W x D x H (mm)	800 x 1095 x 1020	800 x 1095 x 1220	800 x 1095 x 1420	800 x 1095 x 1620	800 x 1095 x 1820	960 x 1370 x 1950	960 x 1370 x 2270
Temperature Range & Accuracy	10°C to 60°C, ± 1°C						
Humidity Range (Rh) & Accuracy	40% to 95%, ± 3%						
Temperature & Humidity control	Microprocessor with Capacitance type sensor						
Display	4" LCD Screen, Large size Display for ease of reading						
Power Failure Alarm	Visual Alarm						
Door Open Alarm	Audio Visual Alarm in case door open for over one minute						
Temperature / Humidity Variation Alarm	Set Humidity $\pm$ 3%, Set Temperature $\pm$ 1°C, Audio Visual Alarm						
Illumination	8 Watts Fluorescent Tube						
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	70 mm minimum for Body & 80 mm for Door, CFC free polyurethane foam						
Noise Level	Less Than 65 db(A)						
Recommended Voltage Stabilizer	VS-04 VS-07						G-07

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