



- Maximum shaking capacity - 9 Flasks x 2000 ml
- Powerful fan motor for forced air circulation to maintain uniform conditions inside chamber
- Machine filled PUF insulation to eliminate void pockets
- Unique design of thermal barrier for better energy efficiency
- Heating by long SS tubular heaters
- Additional tray to store samples
- Chamber calibration port on side
- Hermetically sealed Compressor with CFC free refrigerant (CIS-24 Plus)
- Microprocessor controller with 4" LCD display for display of shaking speed & temperature
- 9 programs memory
- Power failure and resumption recorded with data and time.
- High temperature safety cut off & alarms for high / low set temperature
- Electrical circuit breaker
- Time delay for compressor switch on (CIS-24 Plus)
- Overload cut off relay for compressor (CIS-24 Plus)
- Rounded inner chamber for easy cleaning
- Attractive door profile

#### Optional

- Touch screen display (TFT) with additional features (Details overleaf)
- Validation protocol with IQ, OQ, PQ Documentation

REMI Orbital Shaking Incubators are designed for precise temperature control and simultaneous shaking applications required in fermentations studies, enzyme reactions, life sciences, tissue culture and biotechnology, research labs.

**These chambers are available in standard & GMP versions.**

### Salient Features :

- Brushless induction Motor with variable frequency drive suitable for continuous operations
- Step less variable frequency drive ensures gentle shaking start and maintains set speed
- Counter balanced mechanism for high stability in uneven load of different sized flasks
- Universal Shaking Platform to accommodate
- different sized assorted flasks

# Orbital Shaking Incubators

## 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 (Programmable 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 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

- 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 Point temperature recording with sensor printer interface and software
- Seven days circular chart recorder
- 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 at any one set point for 24 hours on empty and loaded condition
- Standby Refrigeration System
- GSM alert through SIM card

## Technical Data

	CIS-24 Plus	RIS-24 Plus
Temperature Range & Accuracy	5°C to 60°C, ± 0.5°C	5°C above ambient to 60°C, ± 0.5°C
Internal Volume (Liters)	215	
Platform Size	580mm x 600mm	
Maximum Shaking Capacity (Volume x No. of flasks)*	100ml x 49, 150ml x 49, 250ml x 33, 500ml x 24, 1000ml x 15, 2000 ml x 9	
Shaking Speed range (RPM)	20 to 250	
Shaking Amplitude	25 mm	
Internal Dimensions W x D x H (mm)	660 x 765 x 650	
External Dimensions W x D x H (mm)	800 x 1150 x 1300	
Temperature control	Microprocessor with PT-100 sensor	
Display	4" LCD Screen, Large size Display for ease of reading	
Power Failure Alarm	Audio Visual Alarm	
Door Open Alarm	Audio Alarm in case door open for over one minute	
Temperature Variation Alarm	Set Temperature ± 2°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 (CFC free polyurethane foam)	70 mm minimum for Body & 80 mm for Door	
Noise Level	Less Than 65 db (A)	
Recommended Voltage Stabilizer	VS-02	X

Supply: 220-240 Volts, 50 Hz Single Phase.  
\*Clamps to be ordered separately