

**OPTIONAL ACCESSORIES:-**

**Stand by Refrigeration system**



Ready to use stand by refrigeration system in case of regular system fails. This includes Compressor, Evaporator, condensers and other accessories.



**Safety Controller**

Dedicated safety controller with separate sensor to switch off the power supply in case of overshoot and undershoot of temperature giving audio visual alarm.



**Data scanner**

Data Scanner 4 point temperature and 4 point humidity or 8 point temperature 8 point humidity complete with Sensors and printer interface and data storage facility.

**Printer Interface**

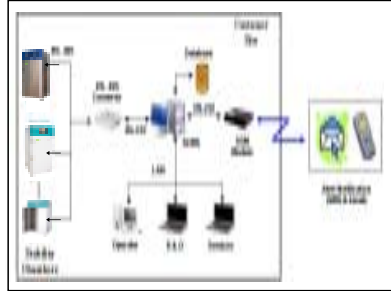
Facility to store, print records on printer with set values, Process values, date and time with variable print time interval. Data storage facility to print the data online and off line, suitable for 80 col. Dot matrix printer. printer interface for LUX & UV meter automatic shut off after specified exposure level.

**Software**

CFR 21 Part 11 compliance web based communication software for data management. Complete with RS 485 multi dropping to monitor multiple chambers to one software.

**PC Inter face and data management**

PC Interface with 2 way communication allows remote monitoring and data logging to control the chamber. Web based software having reports in tabular as well as graphical form.



**PLC system**

for auto changeover of standby systems and other event managements with 3.7" LCD display with touch screen, security lock for prevention of unauthorized tampering.



**Temperature & Humidity sensor**

Electronic capacitance type Temperature & humidity sensors, which will avoid wick, cup and water.



**US FDA 21 CFR Part 11 FEATURES:**

- ✓ Set and view control parameters
- ✓ Complying US FDA 21 CFR Part 11
- ✓ Access control and different access levels
- ✓ Multi user with individual user name and password
- ✓ Database protection, backup and restore facility
- ✓ Online and Offline trends
- ✓ Chamber wise report / trend generation, printing facility reports can be export to other formats (PDF, Excel)
- ✓ Analysis of stored data
- ✓ Alarm acknowledgement with user comments
- ✓ Auto logout and account lockout facility for security reasons
- ✓ Access control with unique username and password
- ✓ Reconfirmation of username and password for change of critical parameters Alphanumeric password.
- ✓ Password aging Complying US FDA 21 CFR Part 11
- ✓ Date and time stamp audit trails User, Equipment,
- ✓ Alarm, SMS audit trails Separate alarm and log data recording SOP for installation, backup, restore, software operation

**Documentation :** For GMP compliance models LABTOP offers IQ, OQ, PQ and DQ validation with documentation, reports, calibration and test certificates.

**Calibration:** The equipment is calibrated with the help of master calibrator, which is certified for its accuracy by Electronics Regional Testing Laboratory (ERTL West) Government of India recognized testing laboratory with traceable reference to National Physical Laboratories (NPL).

\*GMP Model : Inside Stainless Steel 316, 0.8mm thick and outside Stainless Steel 304, 1.0mm thick. Standard model: Inside Stainless Steel 304, 0.8mm thick and outside mild steel 1.0mm powder coated.

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**The LABTOP® Stability Test Chambers** are especially designed to conduct stability and shelf life studies on drug and drugs substances. In addition to this, Laptop Stability Test Chambers are extensively used for seeds testing, biological studies, testing on electronic & mechanical components, Cement plants, packaging industries etc.... LABTOP chambers conform to International Standards such as ICH, WHO Guideline, and USFDA requirements.

**STABILITY TEST CHAMBER**

## STABILITY TEST CHAMBERS

### Cabinet Construction and Refrigeration System

The cabinet of Labtop Chambers are insulated with high density CFC free Poly Urethane Foam. Interior of chamber is mirror finish stainless Steel (304 SS, 0.8 mm thick). The exterior is white powder coated (1.0 mm thick) mild steel and the door has a magnetic gasket with a keyed door lock. Stainless steel trays are provided for storage inside. The cooling is effected by a hermetically sealed compressor of high quality. GMP models are in total stainless steel (Inside S. S 316 with mirror finished and outside. S 304 dull finish.) is also manufactured by Skylab.

### Special Features

- ✓ Unique airflow system ensures even distribution of humidity and temperature.
- ✓ Formed - in - place PUF insulation ensures temperature stability and reduced energy consumption.
- ✓ Precise control of temperature and humidity by using CE approved micro controller based PID controller (Imported, Auto tuning type).
- ✓ Refrigeration system with CFC free compressor and R-134a ECO-friendly refrigeration system with time delay.
- ✓ Display of set value and process value.
- ✓ Castor wheels for ease of mobility.

### Technical Specification:-

Cat. No	LSC-170/170 G*	LSC-290/290 G*	LSC-350/350 G*	LSC-450/450 G*	LSC-600/600 G*	LSC-800/800 G*	LSC-1000/1000 G*
Volume	170 Ltrs.	290 Ltrs.	350 Ltrs.	450 Ltrs.	600 Ltrs.	800 Ltrs.	1000 Ltrs.
Inner size(WXDXH)	50x43x85cms.	56x47x112cms.	58x51x120cms.	64x58x122cms.	68x61x146cms.	90x61x146cms.	115x60x146cms.
Outer size (WXDXH)	63x85x144cms.	68x91x165cms.	76x95x176cms.	75x102x178cms.	80x101x207cms.	103x105x207cms.	128x104x207cms.
Temperature	20°C To 60°C	20 °C to 60 °C	20 °C to 60 °C	20 °C to 60 °C	20 °C to 60 °C	20 °C to 60 °C	20 °C to 60 °C
Accuracy	± 0.2 °C	± 0.2 °C	± 0.2 °C	± 0.2 °C	± 0.2 °C	± 0.2 °C	± 0.2 °C
Humidity RH%	40 % To 95 %	40 % to 95 %	40 % to 95 %	40 % to 95 %	40 % to 95 %	40 % to 95 %	40 % to 95 %
Accuracy	± 2%	± 2%	± 2%	± 2%	± 2%	± 2%	± 2%
Uniformity	± 3%	± 3%	± 3%	± 3%	± 3%	± 3%	± 3%
No. of trays	Three	Four	Four	Four	Five	Five	Ten

## PHOTO STABILITY TEST CHAMBERS

The LABTOP ® Photo Stability Test Chambers are design to provide high intensity lighting system to comply with ICH guide lines for photo stability conditions with white fluorescent exposure of 1.2 million LUX hours and ultra violet energy exposure of 200 W hours/sq. meters. LABTOP chambers conform to International Standards such as ICH, WHO Guideline, and USFDA requirements. printer interface for LUX & UV meter, automatic shut off after specified exposure level



### Technical Specification:-

Cat. No	LPC-170/170 G*	LPC-290/290 G*	LPC-350/350 G*	LPC-450/450 G*	LPC-600/600 G*	LPC-800/800 G*	LPC-1000/1000 G*
Volume	170 Ltrs.	290 Ltrs.	350 Ltrs.	450 Ltrs.	600 Ltrs.	800 Ltrs.	1000 Ltrs.
Inner size(WXDXH)	50x43x85cms.	56x47x112cms.	58x51x120cms.	64x58x122cms.	68x61x146cms.	90x61x146cms.	115x60x146cms.
Outer size (WXDXH)	63x85x144cms.	68x91x165cms.	76x95x176cms.	75x102x178cms.	80x101x207cms.	103x105x207cms.	128x104x207cms.
Temperature	20°C To 60°C	20 °C to 60 °C	20 °C to 60 °C	20 °C to 60 °C	20 °C to 60 °C	20 °C to 60 °C	20 °C to 60 °C
Accuracy	± 0.2 °C	± 0.2 °C	± 0.2 °C	± 0.2 °C	± 0.2 °C	± 0.2 °C	± 0.2 °C
Humidity RH%	40 % To 95 %	40 % to 95 %	40 % to 95 %	40 % to 95 %	40 % to 95 %	40 % to 95 %	40 % to 95 %
Accuracy	± 2%	± 2%	± 2%	± 2%	± 2%	± 2%	± 2%
Uniformity	± 3%	± 3%	± 3%	± 3%	± 3%	± 3%	± 3%

## PLANT GROWTH CHAMBERS

The LABTOP ® Plant Growth Chambers are designed to study the effects of different environmental parameters such as humidity, temperature and light in various applications tests involving micro-organisms, plants and tissues etc.. Apart from various customized industrial and research applications. labtop plant growth chamber have a variety of usage in R & D laboratories and research studies across the globe. These plant growth chambers have a variety of usages in tissue culture applications, enzyme reaction studies, growth observation studies, fermentation analysis and various other general and specialized applications in various laboratories..



### Technical Specification:-

Cat. No	LPC-170/170 G*	LGC-290/290 G*	LPC-350/350 G*	LPC-450/450 G*	LPC-600/600 G*	LPC-800/800 G*	LPC-1000/1000 G*
Volume	170 Ltrs.	290 Ltrs.	350 Ltrs.	450 Ltrs.	600 Ltrs.	800 Ltrs.	1000 Ltrs.
Inner size(WXDXH)	50x43x85cms.	56x47x112cms.	58x51x120cms.	64x58x122cms.	68x61x146cms.	90x61x146cms.	115x60x146cms.
Outer size (WXDXH)	63x85x144cms.	68x91x165cms.	76x95x176cms.	75x102x178cms.	80x101x207cms.	103x105x207cms.	128x104x207cms.
Temperature	20°C To 60°C	20 °C to 60 °C	20 °C to 60 °C	20 °C to 60 °C	20 °C to 60 °C	20 °C to 60 °C	20 °C to 60 °C
Accuracy	0.5 °C	0.5 °C	0.5 °C	0.5 °C	0.5 °C	0.5 °C	0.5 °C
Humidity RH%	40 % TO 95 %	40 % to 95 %	40 % to 95 %	40 % to 95 %	40 % to 95 %	40 % to 95 %	40 % to 95 %
Accuracy	± 2%	± 2%	± 2%	± 2%	± 2%	± 2%	± 2%
Uniformity	± 3%	± 3%	± 3%	± 3%	± 3%	± 3%	± 3%
Digital Timer	1 -99 hrs 59 min	1 -99 hrs 59 min	1 -99 hrs 59 min	1 -99 hrs 59 min	1 -99 hrs 59 min	1 -99 hrs 59 min	1 -99 hrs 59 min
Co2 (optional)	300 to 5000 ppm	300 to 5000 ppm	300 to 5000 ppm	300 to 5000 ppm	300 to 5000 ppm	300 to 5000 ppm	300 to 5000 ppm
Illumination (LUX)	0 to 20000	0 to 20000	0 to 35000	0 to 35000	0 to 35000	0 to 35000	0 to 35000
No. of trays	Three	Four	Four	Four	Five	Five	Ten

### Illumination

Our plant growth/Photo stability chambers are provided with door operated illumination system comprising of fluorescent lights, beside two panels of diffused fluorescent light panel located at the either side of the chamber to enable the user to conduct the photo periodic tests and experiments.

## WALK - IN STABILITY / PHOTO STABILITY CHAMBERS



- ✓ Prefabricated modular type construction with high density CFC free PUF insulation
- ✓ A safety alarm system is provided in case of any emergency
- ✓ Chambers are available in standard size and also custom made to suit your requirement
- ✓ Display of set value and process value



Insulated panel



Refrigeration system



condensing unit

### Technical Specification:-

Cat. No	LSC-3375/3375 G*	LSC-8000/8000 G*	LSC-12500/12500 G*	LSC-18750/18750 G*	LSC-22500/22500 G*
Volume	3375 ltrs.	8000 Ltrs.	12500 Ltrs.	18750 ltrs.	22500 ltrs.
Inner size(WXDXH)	1.5x1.5x1.5mtrs	2.0x2.0x2.0mtrs	2.5x2.5x2.0mtrs	2.5x3.0x2.5mtrs	3.0x3.0x2.5mtrs
Outer size (WXDXH)	1.66x2.46x1.66mtrs	2.16x2.96x2.16mtrs	2.75x3.50x2.16mtrs	2.75x3.96x2.75mtrs	3.16x3.96x2.75mtrs
Temperature	20°C To 60°C	20 °C to 60 °C	20 °C to 60 °C	20 °C to 60 °C	20 °C to 60 °C
Accuracy	± 0.2 °C	± 0.2 °C	± 0.2 °C	± 0.2 °C	± 0.2 °C
Humidity RH%	40 % TO 95 %	40 % to 95 %	40 % to 95 %	40 % to 95 %	40 % to 95 %