

2012

# CATALOG

Laboratory Equipments

**LABSOUL (INDIA)**  
*inspiring science*



# B.O.D. INCUBATORS

These are suitable for preservation of vaccines, insulin, liver extracts, chemicals etc. and to make biochemical oxygen demand determination.

It is made up of double walled M.S. Sheet finished with epoxy based powder coated paint, inner chamber is made of highly polished stainless steel / anodized aluminium. Two doors are provided. Inner door is made of transparent acrylic for inspecting specimens outer door is insulated and is fitted with magnetic tape with lock and key.

Temperature range from 5°C to 50°C with an accuracy of  $\pm 1^\circ\text{C}$  provided with two air circulating Fans, high performance compressor, cooling coils, heating elements, digital temperature Control and display.

ITEM CODE	CAPACITY ( in Cu. Ft.)	SIZE OF THE CHAMBER ( in MM)
LSI 001	6	825 X 505 X 415
LSI 001A	8	850 X 600 X 500
LSI 001B	10	880 X 550 X 550
LSI 001C	12	900 X 650 X 580

**\*\*\* Digital temperature controller / PID / TOUCH SCREEN LCD controller with data logging and computer interfacing options on Demand.**

**\*\* you can select your inner chamber material either aluminium Or Stainless steel.**

**\* Complete unit in 304 grade stainless steel on request.**

# HOT AIR OVEN



Hot air ovens are suitable for temperature upto 250°C for chemicals , glassware in laboratories, research institutions, industries, hospitals and R& D centres. This suits to various applications like heating , drying, sterilizing & baking.

**Construction:** All external cases are made of mild steel, often with strong seamless welding & covered with a thick layer of stoved epoxy polyster paint. This provide a strong, highly scratch & heat resistant surface for a long lasting attractive finish. Internal surfaces ( Including the doors) are manufactured from either aluminium or stainless steel, with great care in order to eliminate sharp edges. The double walled chamber is filled with high grade insulation to prevent heat loss. Elements are of the sheathed black heat type are put inside beads & placed at the bottom & in both the side ribs are placed for uniform temperature. The door closes on to an asbestos gasket the shelves slide neatly into the fixed runners. The fixed ventilators are provided on both side of the wall. The thermometer is provided on the top of oven to check the temperature. The oven is mounted on four rubber feet to prevent

Code	Inner Chamber size ( in MM)	Watts	Capacity ( in litres)	Shelves
LSI 002	300 X 300 X 300	750	27	1
LSI 002A	355 X 355 X 355	800	45	2
LSI 002B	405 X 405 X 405	1000	65	2
LSI 002C	455 X 455 X 455	1500	95	2
LSI 002D	455 X 455 X 605	2000	125	2
LSI 002E	605 X 605 X 605	2500	220	2

\*\*\* Digital temperature controller / PID / LCD TEMPERATURE controller with data logging and computer interfacing with timer options on Demand.

\*\* you can select your inner chamber material either aluminium or Stainless steel.

\* Complete unit in 304 grade stainless steel on request.

# INCUBATOR BACTERIOLOGICAL

Incubators are suitable for variety of uses like drying of slides, paraffin embedding tissue culture work incubation of anti body test, microbiological determination incubation of hydroxyl steroids and crystallization studies. Incubators are suitable for temperature upto 80°C with an accuracy of  $\pm 1^\circ\text{C}$ .

**Construction:** All external cases are made of mild steel, often with strong seamless welding & covered with a thick layer of stoved epoxy polyester paint. This provide a strong, highly scratch & heat resistant surface for a long lasting attractive finish. Internal surfaces ( Including the doors) are manufactured from either aluminium or stainless steel, with great care in order to eliminate sharp edges. The double walled chamber is filled with high grade insulation to prevent heat loss. Elements are of the sheathed black heat type are put inside beads & placed at the bottom & in both the side ribs are placed for uniform temperature. The door closes on to an asbestos gasket the shelves slide neatly into the fixed runners. The fixed ventilators are provided on both side of the wall. The thermometer is provided on the top of oven to check the temperature. The oven is mounted on four rubber feet to prevent



CODE LSI 003

Code	Inner Chamber size ( in MM)	Watts	Capacity ( in litres)	Shelves
LSI 003	300 X 300 X 300	750	27	1
LSI 003A	355 X 355 X 355	800	45	2
LSI 003B	405 X 405 X 405	1000	65	2
LSI 003C	455 X 455 X 455	1500	95	2
LSI 003D	455 X 455 X 605	2000	125	2
LSI 003E	605 X 605 X 605	2500	220	2

- \*\*\* Digital temperature controller / PID / LCD TEMPERATURE controller with data logging and computer interfacing with timer options on Demand.
- \*\* you can select your inner chamber material either aluminium or Stainless steel.
- Complete unit in 304 grade stainless steel on request.



# VACUUM OVEN

It is a highly versatile, compact oven with a large useful working area, it can be operated at atmospheric or reduced pressure by using reduced pressure, the oven enables heat sensitive materials to be dried at low temperature. Alternatively more stable samples may be dried more rapidly at higher temperature, without fan circulation.

**Construction:** The external case is tough stoved epoxy based powder coated steel, to with stand the most demanding working conditions. The vacuum chamber is made of thick jointless 304 grade stainless steel sheet provided with one shelf, which carries a mercury in glass thermometer which can be viewed through the 150mm wide window by large area heaters strapped to its outer surface.

Glass fiber insulation maintains safe, low outer case temperatures. The chamber is closed by a 6mm thick toughened glass plate seating on to a silicone rubber gasket. The door closures are screw threaded catches which ensure an excellent vacuum tight seating.

**Vacuum Controls:** Reliable inlet & exhaust valve is fitted. These are situated near the front corner of the oven for convenient connection to a vacuum pump, vapour trap or exhaust. A vacuum gauge is fitted showing vacuum pulled from 0 to 760 mm

Digital Temperature controller is fixed to control temperature from ambient to 250°C with in  $\pm 1^\circ\text{C}$ .



CODE	SIZE OF THE CHAMBER ( DIA X DEPTH in inches)
LSI 004	12" x 12"

\*\*\* PID / LCD TEMPERATURE controller with data logging and computer interfacing with timer options on Demand.

\* Complete unit in 304 grade stainless steel on request.

 **LASIN**

# MUFFLE FURNACE

Muffle furnaces are suitable for high temperature upto 900°C to fulfill the demands of research institutions, industries and R&D centres.

**Construction:** The outer casing is made of thick mild steel finished with epoxy based powder coated paint. Heating elements are made of high temperature kanthal wire surrounding the heating chamber, assuring the most uniform distribution of heat and protects the heating elements against damage and chemical deterioration. Highly efficient lightweight and insulation is cast permanently into the furnace body. All furnaces are equipped with a dependable indicator pyrometer having a 3' 5" scale calibrated at 20°C increments to 1200°C with chromel alumel thermocouple. Thermal fuse, lead wire and plug to work on 220/230 Volts AC are also provided.

Digital temperature controller is fixed to control temperature in chamber.



CODE LSI 005

CODE	SIZE OF CHAMBER ( in MM)	RATING
LSI 005	100 X 100 X 225	1.6 K.W.
LSI 005A	125 X 125X 250	2 K.W.
LSI 005B	150 X 150 X 300	3 K.W.
LSI 005C	175 X 125 X 350	3.5 K.W.

\*\*\* PID / LCD TEMPERATURE controller with data logging and computer interfacing with timer options on Demand.

\*\* Industrial furnace Grooved type is also available on request for higher working temperatures and of big sizes.

\* Complete unit in 304 grade stainless steel on request.

# ORBITAL SHAKING CUM B.O.D. INCUBATOR

It is very suitable for orbital shaking, in variable speeds under controlled temperature.

**Construction:** The low temperature incubator is made of double walled M.S. sheet finished with epoxy based powder coated paint, inner chamber is made of highly polished stainless steel. Two doors are provided. Inner door is made of transparent acrylic for inspecting specimens outer door is insulated and is fitted with magnetic tape with lock and key.

Temperature range from 5°C to 50°C with an accuracy of  $\pm 1^\circ\text{C}$  provided with two air circulating fans, high performance compressor, cooling coils, heating elements, digital temperature control and display is also fitted with a door operated lamp and a caster wheel for easy mobility.

A variable speed regulator is provided on the top panel to control. The R.P.M. of shaking tray fixed inside the chamber platform.



CODE	SIZE OF SHAKING INCUBATOR	NUMBER OF FLASK
LSI 006	850 X 600 X 600 MM	36 OF 250 ML EACH
LSI 006A	450 X 450 450 MM	16 OF 250ML EACH

\*\*\* PID / LCD TEMPERATURE controller with data logging and computer interfacing with timer options on Demand.

- Complete unit in 304 grade stainless steel on request.

# HOT PLATE



CODE LSI 007 / 007A



CODE LSI 007F

Available in three variants round plate, rectangular plate and magnetic stirrer with hot plate.

A cast iron plate is fixed on a thick mild steel body. Heating elements made of high temperature kanthal wire are fixed beneath the plate. Body is covered with thick layer of epoxy polyster paint. This provide a highly scratch & heat resistant surface for long lasting attractive finish. Temperature is controlled by an energy regulator.

CODE	ITEM DESCRIPTION	SIZE	RATING
LSI 007	Round plate	8 inches diameter	1.5 K.W.
LSI 007A	Round Plate	12 inches diameter	1.5 K.W.
LSI 007B	Rectangular Plate	250 x 300 x 150 mm	1 K..W.
LSI 007C	Rectangular Plate	250 x 400 x 150 mm	1 K.W.
LSI 007D	Rectangular Plate	300 x 450 x 150 mm	2 K.W.
LSI 007E	Rectangular Plate	450 x 600 x 150 mm	3 K.W.
LSI 007F	Magnetic stirrer with hot plate	6" x 6"	1200 RPM, 300 watts

- Customised sizes also available on request.
- Digital temperature controller / PID controller at extra cost.
- Hot plate tops can be available in S.S.

# ROTA MANTLE

It is the combined unit of magnetic stirrer and heating mantle. Magnetic stirrer is fixed beneath the heating mantle.



CODE	FLASK CAPACITY	WATTS	SPEED (in RPM)
LSI 008	500 ML	150	1200
LSI 008A	1000 ML	250	1200
LSI 008B	2000 ML	400	1200

# HEATING MANTLE

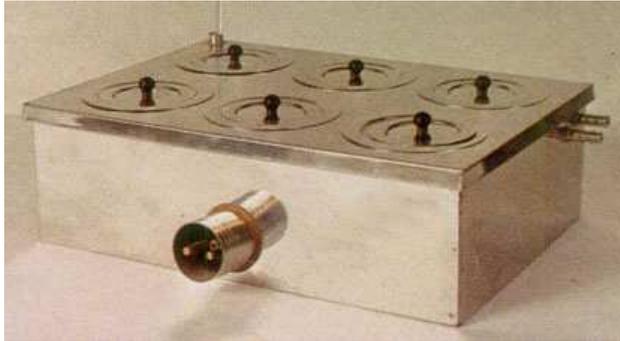
Heating mantles are designed to meet the highest electrical standards. The flexible mantle is suspended above a thermal insulating 'Former' which provides maximum heat transfer coupled with minimum risk of flask breakage. The outer housing is constructed of aluminium, finished with heat & scratch resistant epoxy polyester paint. To ensure a safe, low outer case temperature. All mantles have indicator lights temperature control regulator & a cord.



CODE	CAPACITY (in ML)	RATING
LSI 009	50	50 W
LSI 009A	100	60 W
LSI 009B	250	150 W
LSI 009C	500	200 W
LSI 009D	1000	300 W
LSI 009E	2000	450 W
LSI 009F	3000	450 W
LSI 009G	5000	600 W
LSI 009H	10000	2 x 600 W
LSI 009 I	20000	3 x 600 W

- Customised sizes also available on request.
- Digital temperature controller / PID controller at extra cost.

# WATER BATH ( WITH CONCENTRIC RINGS)



**SINGLE WALLED**



**DOUBLE WALLED**

Rectangular water bath is suitable for evaporating liquids like alcohol or for melting solids such as agar Concentric rings can be removed to accommodate containers of various sizes.

**Construction Double Walled :** Double walled chambers made of stainless steel and outer wall made of thick mild steel finished with epoxy based powder coated paint. The double walled chamber is filled with high grade insulation to prevent heat loss. This is provided with ISI mark 1500 watts heating device, controlled by capillary type thermostat from ambient to 110°C, withing  $\pm 1^\circ\text{C}$  , two indicator lights & one ON/ OFF rotary switch.

**Construction Single Walled :** Single wall chamber made of high quality 304 grade stainless steel provide with ISI mark 1000 watts heating device. The chamber is built in constant level device & having holes of 3" diameter with concentric rings.

CODE	SIZE OF INNER CHAMBER	NUMBER OF HOLES
LSI 010	350 X 250 X 100 MM	6 HOLES
LSI 010A	400 X 300 X 100 MM	12 HOLES

- **DIGITAL TEMPERATURE CONTROLLER / PID also available at extra cost.**
- **Complete unit in 304 grade Stainless steel also available.**
- **Customized sizes available.**
-

# SEROLOGICAL WATER BATH

Serological water bath is suitable for clinical procedure, incubation, inactivation & pharmaceutical biomedical procedure.

**Construction:** Double walled chamber made of stainless steel & outer wall made of thick steel finished with epoxy based powder coated paint. The double walled chamber is provided with a drain plug to facilitate easy emptying & cleaning of the inner chamber when required. S.S. lid & perforated removable diffuser are also provided with double walled chamber. This chamber houses an ISI mark 1500 watts heating device, which is controlled by capillary type thermostat from ambient to 100°C within  $\pm 1^\circ\text{C}$ , two indicator lights & ON/OFF Rotary switch.



CODE	SIZE OF CHAMBER	NUMBER OF RACKS TO ACCOMODATE
LSI 011	300 X 250 X 175 MM	2
LSI 011A	350 X 300 X 175 MM	4
LSI 011B	450 X 300 X 175 MM	6

- Customised sizes also available on request.
- Digital temperature controller / PID controller at extra cost.
- 1/20 HP motor with stainless steel rod & blades at an extra cost.

# HIGH PRECISION WATER BATH

This water bath provides consistent temperature control over the range ambient to 110°C for numerous applications where temperature uniformity and stability are important specially for experiments or research

**Construction :** The inner chamber is made up of thick stainless steel tank housed in a powder coated outer case filled with high grade insulation to prevent heat loss. It is provided with a glass window for an easy inside view and a powerful stirring system to ensure good temperature uniformity through out the bath. The ISI mark heaters are controlled from ambient to 110°C . This unit is fitted with Digital temperature controller cum indicator.

CODE	WORKING CHAMBER SIZE
LSI 012	425 x 250 x 225 mm
LSI 012A	450 x 375 x 375 mm



- Customised sizes also available on request.
- Digital temperature controller / PID controller at extra cost.

# SHAKING WATER BATH

This water bath is suitable for studies on tissues metabolism, enzymes and protein coagulations or other experiments requiring shaking at constant speed under controlled temperature environment.

**Construction:** The inner chamber consists of thick stainless steel tank housed in a powder coated outer case filled with high grade insulation to prevent heat loss. The ISI mark heaters are controlled from ambient to 100°C by capillary type thermostat. This bath has a shaking trolley, which can be controlled to 40 to 140 strokes per minute. The shaking tray can either hold test tubes or flasks or 25ml or 50 ml or 100ml capacity as required. The front panel includes ON/OFF switches for heaters & shaking mechanism. It also includes temperature control knob & speed control knob and provided with L shaped thermometer to indicate the inside temperature.



CODE	SIZE OF WORKING CHAMBER
LSI 013	275 x 275 x 75 mm
LSI 013A	275 x 275 x 150 mm

CODE	SHAKING TRAY TO HOLD FLASKS (conical flask)
LSI 013 / LSI 013A + a	16 flasks of 25ml each
LSI 013 / LSI 013A + b	12 flasks of 50 ml each
LSI 013 / LSI 013A + c	9 flasks of 100ml each
LSI 013 / LSI 013A + d	5 flasks of 250ml each
LSI 013 / LSI 013A + e	4 flasks of 500 ml each
LSI 013 / LSI 013A + f	2 flasks of 1000 ml each
LSI 013 / LSI 013A + g	25 test tubes of 25mm dia

- Customised sizes also available on request.
- Digital temperature controller / PID controller at extra cost.
- Complete unit in 304 grade Stainless Steel is also available.

# WATER STILL

Electrically operated , for pyrogen free distilled water the main body is made of stainless steel sheet. A triple vapour baffle of stainless steel is provided, the lid gets automatically sealed by water forming in a recess in the head of the lid and this minimizes the loss of steam. The still is fitted with immersion type elements which are capable of displacing the connectors if the still runs dry. However to ensure long service special care should be taken to avoid the still running dry as the protective arrangement cannot be expected to last beyond three operations. In case of burn out of the heating elements it can be easily replaced. The stated output of the stills is approximate as it is bound to vary according to the voltage of the mains. The still is provided with wall brackets.

CODE	CAPACITY PER HOUR	RATING in KW	MODEL TYPE
LSI 014	2 LITRE	1.5	WALL HUNG
LSI 014A	4 LITRE	3.0	WALL HUNG
LSI 014B	4 LITRE	3.0	TABLE MODEL
LSI 014C	4 LITRE	3.0	Glass condenser table model



**WATER STILL ( TABLE MODEL LSI 014C ) :** It is made up of stainless steel insulated boiling chamber to prevent heat loss and a special borosilicate glass condenser.

- Water still wall hung type is also available in aluminium body and in all the three capacities 2 litre, 4 litre and 6 litre.
- Table model is available in stainless steel condenser and borosilicate glass condensers.

# FUME HOOD



CODE	WORKING AREA
LSI 015	90 X 60 X 60 CM
LSI 015A	120 X 60 X 60 CM
LSI 015B	20 X 75 X 75 CM
LSI 015C	150 X 75 X 75 CM

- Do mention the material of body required by the customer whether its Stainless steel / mild steel or Ply board.

# TISSUE FLOATATION BATH

Tissue floatation bath is suitable for tissue culture, enzyme reactions fermentation tissue section processing etc. This is ideal for preparing distortion less and wrinkle free tissue specimens.

**Construction:** This is comprising a black powder coated aluminium tank housed in a powder coated outer case filled with high grade insulation provided with capillary type thermostat, indicator light ON/OFF switch and a lid. Temperature range ambient to 80°C  $\pm 1^\circ\text{C}$ .



CODE	SIZE OF BATH
LSI 016	210 mm ( dia) x 75mm ( depth)
LSI 016A	250 mm (dia) x 125mm ( depth)

Digital temperature controller / PID controller at extra cost.



# PARAFFIN EMBEDDING BATH

Body made of mild steel sheet duly painted. Top made of M.S./S.S. sheet. Complete with wax pots with covers. Temperature ambient to 70C controlled

CODE	CUPS AND TUBES
LSI 017	4 cups and 6 glass tubes
LSI 017A	6 cups and 8 glass tubes
LSI 017B	12 cups and 12 glass tubes

- Customised sizes also available on request.
- Digital temperature controller / PID controller at extra cost.
- Complete unit in 304 grade Stainless Steel is also available.

# AUTOCLAVE (VERTICAL)



Electrically heated vertical autoclave is used for sterilization of surgical instruments, dressing material, linen, rubber, plastic material by means of saturated steam under pressure of 15 to 20 PSI. It is also used in scientific research institutions & universities.

**Construction:** Sturdy double walled construction with inner chamber is made of 304 grade stainless steel 16 SWG sheet & outer shell is also made of stainless steel highly polished. The boiler & outer shell is provided with air insulation. Lid is made of thick gauge stainless steel sheet & is tightened all around by wing nuts & jointless neoprene gasket.

Autoclave is fitted with water level arrangement, dial pressure gauge, steam release valve, spring loaded safety valve, which can be set at any selected point from 10 psi to 20 psi  $\pm$ 3 psi, dead weight type safety valve, ISI marked immersion type heating element & stainless steel basket with stand.

Code	SIZE OF AUTOCLAVE	CAPACITY ( in LITRES)
LSI 018	300 x 550 mm	50
LSI 018 A	400 x 600 mm	100

- Pressure control switch is available at extra cost.
- Electronic panel including digital temperature controller or PID is also available.
- Radial Locking for above autoclave.

# AUTOCLAVE PORTABLE



CODE	SIZE OF AUTOCLAVE	CAPACITY ( in LITRES)
LSI 019	300 X 300 MM	25
LSI 019A	300 X 375 MM	32

Available in both stainless steel and aluminum

- Pressure control switch is available at extra cost.
- Radial Locking for above autoclave.

# THIN LAYER CHROMATOGRAPHY APPARATUS



CODE LSI 020

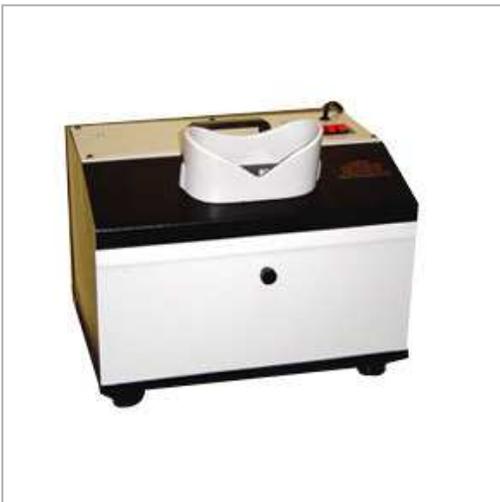
To introduce the principles of absorption chromatography using the thin layer technique. This mechanism is having moveable applicator with inbuilt thickness arrangement between 0 to 2 mm ( Minimum division 0.25mm). It further consists of the following components:

- Applicator
- Perspex base of 114 x 23 cm to support glass plates.
- Plate rack aluminum, anodized for ten 20 x 20cm or 20 x 10 glass plates.
- Developing tank with lid.
- Spotting template made of Perspex
- TLC plates set of five 20 x 20 cm and two 20 x 5 cm. or set of ten 20 x 10 cm and two 20 x 5cm
- Glass sprayer with rubber bellow , cap. 100ml.
- Micro pipette
- Scribe for marking lines made of stainless steel
- Instruction manual.

\* Applicator is available in both aluminum and brass.

\*\* Draining rack for washed plates / TLC plate storage cabinet is also available on request.

\*\*\* Chromatography cabinet and drying cabinet ( electrical ) can be made on order.



# U.V. CHROMATOGRAPHY INSPECTION CABINET

This compact mechanism is designed for T.L.C. plates upto 250 x 300mm and can be used for observing either fluorescence or quenching of fluorescence processes. Construction: External case is made of thick mild steel sheet. It is duly powder coated from outside and inside its completely black in color which prevents reflection of the U.V. radiation, which further protects eyes. Eye protective glass is there to protect eyes from waves and also to view inside the cabinet.

CODE	MODEL	No. of Tubes
LSI 021	Dual Wave	One U.V. lamp (either short wave or long wave) & one visible
LSI 021A	Triple wave	One short wave , one long wave & one visible light

- U.V. Torch is also available with short and long wave both.

# DEEP FREEZER ( HORIZONTAL & VERTICAL )



CODE LSI 022

Deep Freezer/Low Temperature Cabinet Horizontal/Vertical  $-80^{\circ}\text{C}$  "LASIN" make Deep-Freezer / Ultra Deep Freezer Cabinets are in conformity with all requirements of industry for economic way to create Temperature below freezing point to suit various standards application in the field of, science & research for storage & testing in biology, anatomy, chemistry & in many other fields, for industry & science.

**Features :** Digital temperature controller / PID controller on panel. Outer body is of M.S. sheet powder coated and inner chamber is perforated sheet and insulation is of high grade.

**Temperature Range:**

Deep Freezer :  $-20^{\circ}\text{C}$  &  $-35^{\circ}\text{C}$   
Ultra Deep Freezer :  $-40^{\circ}\text{C}$  /  $-70^{\circ}\text{C}$ .

**Sizes:** Customized sizes on order.

- Complete unit 304 grade stainless steel is also available.
- Horizontal or vertical freezer on demand.

# TRAY DRIER

Standard sturdy double wall fabrication. Inner & outer chamber made out of thick mild steel sheet. Inner chamber backed silver paint finish and exterior finished in hammertone. Heavy duty forced air blowers are provided to constantly circulate hot air to achieve uniform temperature in the whole chamber. Double wall door is mounted on heavy hinges and provided with heavy moulded latch.

Temp. is controlled by a thermostat and it can be read on dial type thermometer. Temperature range: 50° C to 150° C  $\pm$  2° C to 5° C and equipment is workable on 220 V AC 50Hz single phase.

CODE	SIZE OF THE CHAMBER	NUMBER OF TRAYS
LSI 023	430 X 840 X 650 mm	8
LSI 023A	430 X 840 X 910 mm	12
LSI 023B	910 X 840 X 910 mm	24
LSI 023C	960 X 1270 X 1450 mm	48

- **Timer 0-24 hours**
- **Digital temperature controller / PID / LCD display controller with timer**
- **Aluminum trays are available.**



# LABORATORY CENTRIFUGE



CODE LSI 025



CODE LSI 024



CODE LSI 024

**SQUARE BODY CENTRIFUGE :** Ultra spin centrifuge with stepless speed control, illuminated switch, digital preset timer of 1 to 99 minute provided with audio visual alarm by pass switch & digital speed indicator. The motor shutoff, when the cover is opened with instant break switch. Maximum speed 6000 RPM.

**Round Doctor Model :** Electrical with speed regulator.

**Round Handi Model :** Electrical with speed regulator.

Round Head Doctor / Handi			SQUARE BODY CENTRIFUGE		
CODE	NO. OF TUBE	RPM	CODE	NO. OF TUBES	RPM
LSI 024	4	3500	LSI 025	4	6000
LSI 024A	6	3500	LSI 025A	6	6000
LSI 024B	8	3500	LSI 025B	8	6000

- 15ML , 50ML AND 100ML tubes can be used in square centrifuge and 15ml in case of round type.
- Digital RPM indicator and digital timer is optional.

# BLOOD BANK REFRIGERATOR



Blood Bank chamber is a most versatile unit for Blood Bank mounted on a sturdy angle frame. The inner chamber is made up of stainless steel sheet and outer of mild steel sheet duly powder coated paint. Caster wheels provided for easily mobility. The temperature is maintained in  $4^{\circ}\text{C}$  to  $6^{\circ}\text{C}$  with forced air circulation ensures uniform temperature, for storing blood bottles or blood bags. Temperature is controlled by Microprocessor PID digital temperature controlled-cum-indicator and triggers the AUDIO VISUAL ALARM in the event of fluctuation exceeding permitted tolerance. Unit is also fitted with DOOR OPERATED ALARM and POWER SUPPLY FAILURE ALARM, as a safety devices.

A highly efficient refrigeration system consists of hermetically sealed compressor, for high performance cooling coil runs all around the cabinet to maintain uniformity of temperature.

The entire refrigeration unit is housed at bottom. Two doors are provided. Inner door is of transparent acrylic sheet for easy viewing inside the chamber. Outer door is duly insulated for proper sealing from external environment and is lockable. Drawers are provided for holding bags. Suitable to works on 220/230 volts A.C.

CODE	CAPACITY ( in LITRES)	NUMBER OF BAGS
LSI 026	85	50
LSI 026A	165	110
LSI 026B	200	200
LSI 026C	280	250
LSI 026D	400	360

- Chart type recorder is optional.
- Voltage stabilizer of 3 KVA / 5 KVA is optional and recommended.
- Digital TOUCH SCREEN LCD with computer interfacing can also be provided on request.

# SEED GERMINATOR



- Double walled, outside mild steel powder coated, puff insulated.
- Inside stainless steel, perforated adjustable shelves.
- Temperature 5°C to 50°C. digitally controlled with indicator.
- Humidity 90% to 95% +/- 3% digitally controlled, with indicator, illumination, cyclic timer, hermetically sealed compressor unit.
- Wheels for mobility
- Works on 220 V AC.

CODE	SIZE OF THE CHAMBER	NUMBER OF TRAYS
LSI 027	555 X 605 X 910 MM	14
LSI 027 A	( 555 X 605 X 910 ) X 2	28

\*\*\* Digital temperature controller / PID / TOUCH SCREEN LCD controller with data logging and computer interfacing options on Demand.

\* Complete unit in 304 grade stainless steel on request.

# MELTING POINT APPARATUS

CODE: LSI 028



CODE: LSI 029



For determination of melting points up to 350° C. The mounted block is illuminated from below by a lamp fixed in its housing. The aluminium block accepts three capillary tubes and mercury thermometer. The temperature is regulated by energy regulator fitted to the unit. The lamp provides uniform and shadow less light, regulator fitted to the unit. Supplied without capillary tubes and thermometer.

## DIGITAL HIGH PRECISION :

Digital automatic Melting Point Apparatus is designed for quick and accurate detection of melting point. Feature packed & easy to use, this is an indispensable bench top tool. This equipment has an arrangement to hold the capillary containing the sample in uniformly heating media. The temperature is indicated on a digital display readable in 1.0C. At the point, when the sample melts, the heating is automatically cut-off.

### Technical Specifications

#### Display

Digital 3 Digit, Bright LED with accuracy 1%

#### Power

230V 10% AC, 50 Hz,

# PLASMA FREEZER



For uniform and safe storage of plasma and related blood components at uniform preset temperature range - 30°C. All vertical models of plasma freezers are fitted with 7 days circular chart recorder fitted Digital Temp. indicator -cum- Controller. supplied with three stainless steel storing shelves. To work on 220/230 volts.

Construction: outer body is made up of thick mild sheet and inner chamber is of stainless steel.

CODE	NUMBER OF BAGS TO ACCOMODATE
LSI 030	130 BAGS
LSI 030 A	240 BAGS

\*\*\* Digital temperature controller / PID / TOUCH SCREEN LCD controller with data logging and computer interfacing options on Demand.

\* Complete unit in 304 grade stainless steel on request

 **LASIN**



CODE LSI 031

# HUMIDIFIER

**HUMIDIFIER S. S. Body DR 143** Based on the rotating disc-splash plate principal. It produces only super fine particles of micron size, which become part of the atmosphere, thereby reaching every corner of the room, resulting in uniform humidity. Due to the upward thrust imparted to the micron sized water droplets, by high speed motorized unit, they remain suspended in the atmosphere for longer duration of time. The unit is capable of atomizing up to 3 litres of water in an hour at full evaporation, in the driest possible ambient conditions. The unit has body made up of S.S. A single unit is effective for an enclosed space of volume up to 40 cu. mtrs. The unit is provided with high speed 2800 RPM motor to run longer period, and the blades are aerodynamically balanced to ensure drop less fumigation. To work on 220/230 volts A.C. supply **OPTIONAL ACCESSORIES** a) Control box with humidistat b) Automatic 0-60 minutes "GERMAN" Timer



CODE LSI 032

# PHOTOCHEMICAL REACTOR

The reactor comprises of 8 U.V. tubes, fitted in a heavy metal enclosure with a stainless steel highly polished reflector. Two clamping rods are provided for holding the suspended glass reactor. A cooling fan is provided at the base of the reactor. Complete with switches, indicator, lights, plug and cord.

A magnetic stirrer is provided for continuous stirring during radiation, complete with two pieces of PTFE coated magnetic rotors.

 **LASIN**

# VACUUM PUMP



**Vacuum Pump Oil Sealed :** oil sealed , air cooled , v-belt driven and mounted on base plate with belt guard etc. with motor 220V AC single phase.

Available in single stage and double stage models with various capacities.

**Portable Diaphragm type Vacuum Pump cum Air compressor (OIL FREE) :** Oil free diaphragm type , light weight available in various models.

VACUUM PUMP OIL SEALED			VACUUM PUMP OIL FREE				
CODE	DISPLACEMENT ( in Ltrs./ Min.)	Motor (in HP)	CODE	Max. Flow (in Ltr./ Min.)	Max. Vacuum(In Hg)	Max. Pressure ( in PSI)	Motor (in HP)
LSI 033	32	0.25	LSI 034	15	22"	25	1/20
LSI 033 A	50	0.25	LSI 034 A	15	22"	35	1/16
LSI 033 B	75	0.50	LSI 034 B	45	22"	40	1/8
LSI 033 C	100	0.50	LSI 034 C	45	27"	60	1/4

- Vacuum gauges for pumps are optional (with regulator or without regulator )
- Moisture trap with non return valve for oil sealed vacuum pumps are available at extra cost.

# ROTARY SHAKERS

It has a uniform circular motion in horizontal plane, rotation effect ranges from a gentle rise and fall of the liquid to a vigorous swirling. All positions on the platform receive identical agitation. Platform size are as follows:



**HEAVY DUTY**

CODE	PLATFORM SIZE	NUMBER OF FLASKS
LSI 035	25" X 25" , ¼ H.P. MOTOR	25 Flasks of 250 ml each
LSI 035 A	25" X 25" , ¼ H.P. MOTOR	36 Flasks of 100ml each
LSI 035 B	36" x 36" , 0.5 H.P. MOTOR	25 Flasks of 250 ml each

- Digital RPM display is optional .
- Whole unit in S.S. Can be made on request.

Eccentric drive imparts circular motion to the platform in a horizontal plane. Durable all steel construction , finished in blue stoved enamel. Complete with F.H.P. motor to work on 220 V , AC single phase.

CODE	PLATFORM SIZE	NUMBER OF FLASKS
LSI 036	12" X12"	9 Flasks of 250 ml Each
LSI 036 A	18"X 18"	16 Flasks of 250 ml Each

- \*\* Digital RPM display is optional .
- \* Whole unit in S.S. Can be made on request.
- \*\*\* S.S. clamps on platform can be replaced by rods to hold the flasks on request





# WRIST ACTION FLASK SHAKER

This mechanism is made from heavy cast iron & finished with a thick layer of epoxy based polyester paint. This shaker can accept 4 or 8 flask upto 1000ml capacity. The metal case is mounted on four rubber feet to absorb vibration. The electronic speed control is step less. Supplied complete with side arms, clamps & key fitted with F.H.P. motor to work on 220 V AC 50 Hz..

CODE	NUMBER OF FLASKS
LSI 037	4 FLASKS
LSI 037 A	8 FLASKS



CODE LSI 038

# V.D.R.L. SHAKER

Very useful for V.D.R.L. type grouping as well another agglutination tests also for mixing of solution in small flask, beakers, bottles or similar containers. A timer incorporated in the electrical circuit is being cut off automatically as soon as the setting is over. Platform 30cm x 30 cm, operated on 230 V AC, single phase.

# VORTEX SHAKER



CODE LSI 039

Vortex shaker / Test tube shaker vibration type, variable speed , vortex genie short rapid eccentric stroke and motor driven. Neoprene cap imparts vigorous agitation to tube or small flasks. Shaking starts when vessel is pressed against cup, with ON/OFF switch and indicator, vacuum rubber fitted at the bottom to prevent movement.

# WILLY GRINDER / WILLY MILL



CODE LSI 040

Chamber size 40mm x 25mm, 65mm x 25mm with ¼ H.P. motor , with polished hopper 2" dia. With cover. Three delivery sieves 20, 40 and 60 mesh respectively, each with plastic receiver. Works on 220 V AC. A removable glass plate forms the face of the chamber and permits observation during operation.

Chamber is also available in stainless steel with all metal parts in contact with samples including blades, rotor, chamber walls, delivery tubes and hopper are of stainless steel.

# LABORATORY STIRRER



With noise less universal motor, maximum speed 4000 RPM with electric variable speed regulator between 200 to 4000 RPM. The stirrer shaft is of stainless steel with 3 bladed propeller having 37mm, sweep, shaft and stirrer coupled by means of simple bush coupling with grub screw. Stirrer is mounted on a adjustable heavy stand.

**Low Speed ( Geared ) Stirrer :** Safe and versatile unit. A very high torque is developed at a relatively low operating speed. It is suitable for affectively stirring high viscosity fluids and pastes.

**Motor :** Geared , 1/20 H.P. , 4000 RPM it is coupled to speed reducing gear unit giving output speed of 150 RPM at 220 V AC/DC.

**Stirrer Shaft :** 8mm dia , 350mm long shaft fitted with 4 bladed turbine impeller made of S.S.

**Stirring capacity :** 2 to 3 Kgs. Of thick materials.

**Optional :** Digital RPM indicator.

## TISSUE HOMOGENIZER ( LOW SPEED )

It is multipurpose unit, suitable for low speed homogenization of tissue and also small volume low speed stirring applications. Low speed operation provides high torque for grinding and homogenizing of animal or vegetable tissues.

**Motor :** noiseless continuous type , 220 / 230 V AC 50 Hz.

**Homogenising Cup And Rod :** Borosilicate heavy wall glass cup with Teflon ( P.T.F.E) pestle having stainless steel shaft, capacity 30ml

**Homogenising speed :** A variable speed controller is provided to control from 200 to 2400 RPM approx.

**Rubber Bush :** For stirring ( 6 or 8mm)



# LABORATORY GRINDER



CODE LSI 044

It comes with stainless steel jars one big and one small size with plastic handles.

Variable speed can be acquired by speed regulator. Digital RPM indicator is attached.

Upto 12000 RPM can be attained.

- Digital RPM indicator is optional.
- ISI marked AC motor.

# ABBE REFRACTOMETER

Designed for accurate and quick examination of the :

- Refractive Index
- Mean Dispersion of liquids , solids and powder

ND range : ND 1.300 to ND 1.700 in step of 0.001

Accuracy: + 0.0002

Sugar ( Percentage ) : 0 to 95% in steps of 1 division

Accuracy : 0.5%

Temperature : 0 – 100° C

The body of instrument is fixed having a learning of 60°, correct refractive index and sugar percentage can be read directly in the field. It consists of a abbe double prism compensator , telescope mirror limb, graduated , sector , reading , magnifier and a radial arm which carries a vernier. Abbe's double prisms leaves a narrow space ( about 0.1mm) between the adjoining faces of prisms and compensator consists of the amici prisms which serves for rendering the line of achromatic separation. A thermometer is fitted on the double prisms.



CODE LSI 045

# BUTYRO REFRACTOMETER

This instrument can be used for measurement of fats in ghee and other such products giving a reading directly in terms of the oil scale also known as butyro scale. The micrometer eye-piece allows an accuracy on this scale of 0.1 and the oil scale may also be converted into a refractive index scale using conversion tables. This allows measurements on materials with index of refraction in the range of 1.42 to 1.49 with an accuracy of 0.0002 as tables are supplied for converting oil scale reading into index of refraction, relative to mean sodium lines. The prism box is water jacketed for temperature control and a sample achromatizing device enables the removal of all colors from the border line thus enabling the instrument to be used with white light.

The instrument is provided with a test liquid for checking and resetting the scale if necessary and is encased in a portable wooden box. Refraction range from 1.42 to 1.49 with accuracy of 0.0002 fitted with sugar and oil scale, sugar scale 50 – 80 % and oil scale 0-100%



CODE LSI 046

# ABEL'S FLASH POINT



This apparatus is suitable for determining the close up flash point of petroleum and mixture according to IP 33 and IP 170 and also 1448 ( Part I) 1985 (P:20). It is supplied with oil cup cover, fitted stirrer, thermometer socket, S.S. water bath and stand.

An electric heater is fitted at the bottom for operation on 220 Volts AC circuits. With oil test jet , electrically heated with energy Regulator control.

## Optional Accessories:

- LSI 047A Spare nichrome heating element.
- LSI 047B Thermometer IP 74C having wide range.
- LSI 047C Thermometer IP 75C having wide range.

CODE LSI 047

# REDWOOD VISCOMETER

**Redwood Viscometer No. 1** Electrically heated with energy regulators for temperature control.

## OPTIONAL ACCESSORIES:

- LSI 048A Thermometer ( Low Range ) IP 8C
- LSI 048B Thermometer (Medium Range) IP 9C
- LSI 048C Thermometer ( High Range) IP 10C
- LSI 048D Stop Watch (Electronic)

LSI 049 **REDWOOD VISCOMETER NO. 2** electrically heated with energy Regulator for temperature control.



CODE LSI 048 & LSI 049

# CLEVELAND FLASH POINT AND FIRE POINT APPARATUS



CODE LSI 050

This apparatus is used for determination of flash point and the fire point of petroleum products except fuel oil with open cup flash point below 80°C as per specification IP 36 and IS 1449 (P:69)1969. The apparatus consists of a cup, heating plate to specific dimension, thermometer clip and test flame attachment with swivel joint for passing over test liquid surface in the prescribed manner. Heating is controlled by means of energy regulator fitted to the apparatus. Suitable for operation on 220V 50 Hz AC.

## OPTIONAL ACCESSORIES:

- LSI 050A Thermometer IP 28C range -5°C to 400°C
- LSI 050B Spare nichrome element

# CLOUD AND POUR POINT APPARATUS

This is made according to specifications laid by IP15 and IS 1448 (P:10) 1970. The pour point is the lowest temperature at which the oil will just fail to flow. The apparatus consists of main cooling bath made out of S.S. sheet, stand unit with drain plug, cover having provision for fitting thermometer and a filling aperture for adding freezing mixture. A glass jar for containing oils, jacket, disc and gasket as specified are also provided. Cloud and Pour point single with insulated body.

- LSI 051A Cloud and Pour Point four with insulated body.

## OPTIONAL ACCESSORIES :

- LSI 051B Cloud and pour point thermometer IP 1C
- LSI 051C Cloud and pour point thermometer IP 2C



CODE LSI 051

# SOFTENING POINT APPARATUS ( RING & BALL APPARATUS)

For determination of softening point of bituminous materials according to IP 58 and IP 1205-1958. Softening point is that temperature at which the specimen under test becomes soft enough to allow a steel ball of specific dimensions to fall a required distance under test conditions. The apparatus consists of glass beaker , ring stand, two steel balls with ring, ball guides and hand stirrer.

## OPTIONAL ACCESSORIES:

LSI 052A      Thermometer IP 60C  
LSI 052B      Thermometer IP 61C



# TAR VISCOMETER APPARATUS

As per IP-72 and IS 1206 standards. It is used for determination of the viscosity of road oils and cut back bitumen. It consists of S.S. bath with cup of 10mm or 4mm orifice and sleeve, stirrer with ball lifting clip and ball with stand fitted with leveling screws.. Operates on 220V AC. With energy regulator for temperature control.

## OPTIONAL ACCESSORIES:

LSI 053A      Spare silver plated cup having 10mm or 4mm orifice  
LSI 053B      Measuring cylinder 100ml cap.  
LSI 053C      Thermometer IP 8C low range  
LSI 053D      Thermometer IP 9C medium range  
LSI 053E      Thermometer IP 10C high range.



# ENGLER VISCOMETER APPARATUS



CODE LSI 054

As per IP-212 and ASTM D – 490 specifications and is used for determining the viscosity of lubricating and fuel oils.

It consists of S.S. water bath having a oil cup with lid and stirring device mounted on stand. The oil cup lid has a thermometer socket in which thermometer rests to check the temperature in the water bath. The bath is fitted with a 500 watts heater and is supplied with a wooden or ebonite valve to fit the jet ( without glassware). Suitable to operate on 220V AC mains. Electrically heated with energy regulator control.

## OPTIONAL ACCESSORIES:

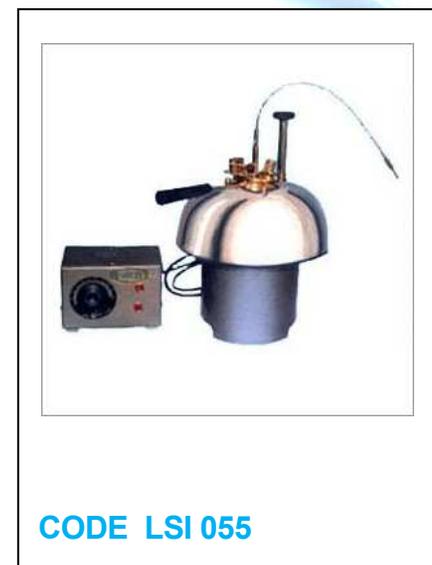
LSI 054A Thermometer ASTM – 24C  
LSI 054B Thermometer ASTM – 25C

# PENSKY MARTEN'S FLASH POINT APPARATUS

Pensky Marten's Flash Point Apparatus is made as per IP 34, ASTM D-93-58T and IS 1448 (Part I) 1270 (P:21) and IS 1203-1953 method B. The apparatus consists of brass test cup with handle removable cup cover, with spring operated rotating shutter having pilot jet and stirrer with flexible shaft. The assembly rests in air bath which is covered with dome shape metal top, the cup is fitted with insulated handle and locking arrangement near cup flange and the assembly is kept on round shape electric heater with temperature regulator. Suitable for operation on 220V 50 Hz AC circuits. With oil test jet, electrically heated with energy regulator control.

## OPTIONAL ACCESSORIES:

LSI 055A Low Range Thermometer with brass collar IP-15C  
LSI 055B High Range thermometer with brass collar IP-16C  
LSI 055C Spare Nichrome heating element.



CODE LSI 055

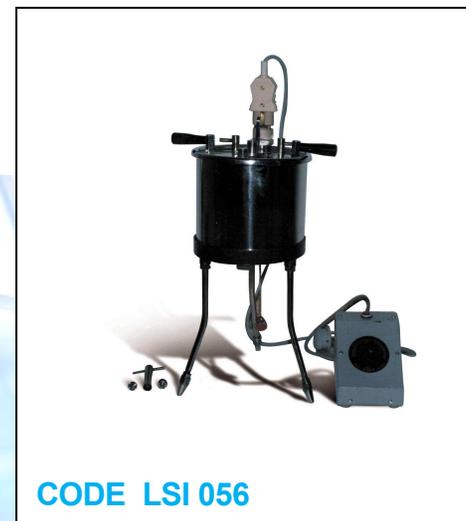
# SAYBOLT VISCOMETER APPARATUS

Saybolt Viscometer apparatus is made as per ASTM D-88 specifications with universal and furol jets made of Stainless steel. Stirring is done by hand with turn table arrangement without stainer, withdraw tube and glasswares. Suitable to operate on 220V AC mains .

Electrically Heated with Energy regulator control.

## OPTIONAL ACCESSORIES:

LSI 056A	Strainer for filtering oil
LSI 056B	Withdrawl tube (Metal)
LSI 056C	Thermometer ASTM 17C
LSI 056D	Thermometer ASTM 18C
LSI 056E	Thermometer ASTM 19C
LSI 056F	Thermometer ASTM 20C



# CARBON RESIDUE APPARATUS (CONRADSON)

It is made as per IP 13 and ASTM-189 specifications. It is useful to determine amount of carbon and residue when an oil is evaporated under specified conditions of crude oil etc. and are useful in the manufacture of various lubricants. The apparatus consists of spun steel iron crucible 25CC. capacity, sheet iron hood, sheet iron block on a stand with triangular wire and a gas burner. Single test apparatus.

LSI 057A Four test apparatus



# BOMB CALORIMETER APPARATUS



CODE LSI 058

As per IP-12 specifications. It is used for determination of heat of combustion, calorific value and sulphur contents of solid and liquid fuels. The bomb body and lid are machined from corrosion, resisting stainless steel rod. Its capacity is approx. 300ml. It is provided with high pressure valve and electrodes. The calorimeter vessel, water jacket, stirrer FHP motor driven are provided as per IP standards. The bomb calorimeter is supplied with firing unit, with electrical digital thermometer, pellet press, ignition wire, and pressure gauge on stand with copper pipe fitting.

- LSI 058A Spare bomb 300ml Capacity
- LSI 058B Spare Neoprene washer bomb
- LSI 058C Spare Stainless steel crucible
- LSI 058D Same but with electronic printer for automatic recording Temp.

# DROP POINT OF GREASE APPARATUS

As per IP 31, IP 132 and ASTM-566 specifications. As per IP 131 the apparatus consists of brass sleeve and case, metal cup, a glass boiling tube, cork fitted to a bath and a 600ml beaker. The assembly is kept on a heater with energy regulator control, stand and F.H.P. electric stirrer.

As per IP 132 the unit comprises of a glass beaker with fibre cover, glass test tube with three indentations, chromium plated brass cup, cork for tube and a 1.5mm. diameter brass rod. The assembly is kept on a heater with energy regulator, stand and a F.H.P. electric stirrer as per IP 31.

LSI 059A same as above but as per IP 132 & ASTM-566

## OPTIONAL ACCESSORIES:

- LSI 059B IP 40C low Range thermometer
- LSI 059C IP 41C high range thermometer
- LSI 059D IP 62C drop point special thermometer.



CODE LSI 059

# PENETROMETER APPARATUS



As per IP 49, 50 & 167 specifications and also as per IS 1448 (P:92 and P:93). This apparatus is used for penetration test on a wide variety of materials such as greases, petroleum, bitumen, tar, wax, polish, food stuff, rubber asphalts and pharmaceuticals creams. A given force is applied over a given period of time and the depression is made in the sample which is measured in tenth of a millimeter and expressed as penetration.

It consists of a head support mounted on a vertical rod which can be adjusted for height. A rack and pinion and pointer assembly provides fine adjustment of needle tip to sample and incorporates a slipping clutch mechanism which makes reading of penetration and subsequent resetting a sample an accurate operation. The dial is graduated from 0-400 in one tenth millimeter subdivision. Instrument is supplied with two sample containers.

**WITH CONTAINERS AND WEIGHTS HAVING PENETRATION NEEDLE**

**LSI 060A** Same but with containers and weights having penetration cone, hollow type.

# HUMIDITY/ PLANT GROWTH CHAMBER



An all purpose humidity chamber specifically designed for drying environment of animal and plant growth, investigation of vapor, proofness of packed material, determination of di-electric strength, insulation tests of electrical components and other tests requiring an atmosphere of controlled temperature and humidity.

A strong double walled chamber with the inner chamber made of thick S.S. sheet and the outer body made of thick M.S. sheet. The door is also double walled having glass window for inspection, the humidity is controlled by a sensitive humidistat having a range from 40 to 95% fitted inside the chamber with hygrometer. Forced air circulation by turbo blowers is provided along with stainless steel water tank in the side of the chamber. The temperature and humidity is controlled by a digital temperature & humidity controller with display. The indicating lights, controller knobs have been provided on the side panel.

<b>Cat No.</b>	<b>Size</b>	<b>Cap.(in Ltr)</b>	<b>Temp. Range</b>
<b>LSI 061A</b>	700X450X450	150	Ambient to 55°C
<b>LSI 061B</b>	600x600x600	220	Ambient to 55°C
<b>LSI 061C</b>	900x600x600	330	Ambient to 55°C
<b>LSI 061D</b>	700X450X450	150	10°C to 55°C
<b>LSI 061E</b>	600x600x600	220	10°C to 55°C
<b>LSI 061F</b>	900x600x600	330	10°C to 55°C

# TISSUE CULTURE RACK

Tissue culture rack are very useful for various types of tissue culture plants and other tissue culture work in tissue culture room.

**Construction** : Tissue rack are made of tubular mild steel pipes duly painted for longer life / made of aluminium.

**Racks** : Each rack of size 48"x12" (depth) is covered with thick unbreakable plexi glass / sunmica paste duro board. Which are terminate and insect proof fire and weather resistant. Distance between each rack is 15"

**Lighting** : Four florescent tubes are properly illuminated by diffused, glare free florescent lights are built in upper portion in worktable.

**UV Germicidal Light** : Are fitted inside the rack / work area.

**Chocks** : All florescent tubes chocks and ultra violet germicidal tube chocks are fitted out side of rack. If desired to avoid heat dissipation inside the rack.

**Timer** : 0-24 Hours Digital Timers can be provided in tissue culture rack.

**Control Panels** : All control panels are fitted tops of tissue culture racks. On/Off switch of florescent tubes and UV tubes. All control panels are fitted separately in each rack with indicator light.

**Easy Mobility** : The whole rack is provided with four nos. castor wheels at the bottom for easy mobility to any place.

- LSI 062A** UNIT OF FOUR SHELVES WITH 16 Florescent tubes 4 U.V. LIGHTS
- LSI 062B** UNIT OF FIVE SHELVES WITH 20 Florescent tubes 5 U.V.LIGHTS
- LSI 062C** UNIT OF SIX SHELVES WITH 24 Florescent tubes 6 U.V. LIGHTS



# ANAEROBIC CULTURE JAR



CODE LSI 063 & LSI 064

**LSI 063 : Anaerobic culture jar B.T.L type** ( Modified Mcintosh and flides pattern, all metal construction consisting of a stainless steel jar with a top flange recessed for a toroidal rubber sealing ring and a cover held in place by a strong bridge clamp. The cover is fitted with two needle valves for evacuation and a sachet containing a catalyst. A side arm on the jar is provided for connecting to semi solid lucas indicator. (The jar is supplied without semi solid lucas indicator). With pressure cum vacuum gauge.

**LSI 064 : Anaerobic Culture Jar modified MCINTOSH** and flides pattern, for safe growth anaerobes by utilizing a catalyst which is active above tightening 0°C.

The heavy polycarbonate jar 23cm high and 15cm dia has top surface ground flat and the metal cover fitted with a toroidal sealing ring is held in place by hand tightening only. The cover is fitted with two needle valves for evacuation and filling and a sachet containing the catalyst with Pressure gauge.

## REPLACEMENT PARTS:

**LSI 063A** Catalyst in monal sachet  
**LSI 063B** Rubber sealing Ring  
**LSI 063C** Gas Packs

# STERILITY TEST APPARATUS



CODE LSI 065

This mechanism is to accept up to three 47mm dia filter funnels. This mechanism can be connected in series to the same vacuum source to expand capacity if required.

Large support base provides excellent stability each of the three vacuum outlets has leak proof, two way stopcock & a vent to accept filter funnel through silicon rubber cork.

**LSI 065A** Six 47mm dia filter funnels in series with six stainless steel funnels.

# FLOW CUP VISCOMETERS

It consists of a cup having different viscosity range. It is used for measuring the viscosity of paints, varnishes, lacquers and other viscous products, complete with stand. As per I.S. specifications.

CODE No.	Type	Viscosity Range (Approx.) stokes	Used For
LSI 066A	B-2	Upto 0.5	Spirit Lacquers
LSI 066B	B-3	0.5 to 1.2	Heavy Liquid
LSI 066C	B-4	0.8 to 2.5	Heavy Liquid
LSI 066D	B-5	1.5 to 5.0	Heavy Liquid
LSI 066E	B-6	6.0	Heavy Liquid



CODE LSI 066

# LABORATORY JACKS



CODE LSI 067

An all purpose constructed from stainless steel , Aluminum or mild steel. Suitable for hot plates, burners, baths, glassware & many other items. It is a knob operated scissor action lifting mechanism for quick , easy & accurate height adjustment.

Aluminum & mild steel jacks are furnished with a thick layer of epoxy based polyester paint, which provides a strong highly scratch & chemical resistant surface.

Code No.	Material of Jack	Height of jack	Size of top plate
LSI 067A	MILD STEEL	230 mm	12 x 14 cm
LSI 067B	MILD STEEL	330 mm	20 x 20 cm
LSI 067C	MILD STEEL	400 mm	25 x 25 cm
LSI 067D	ALUMINUM	230 mm	12 x 14 cm
LSI 067E	ALUMINUM	330 mm	20 x 20 cm
LSI 067F	S.S. 304 GRADE	230 mm	12 x 14 cm
LSI 067G	S.S. 304 GRADE	330 mm	20 x 20 cm
LSI 067H	S.S. 304 GRADE	400 mm	25 x 25 cm

# AUTOMATIC PIPETTE WASHER



CODE LSI 068

This unit has a large capacity of washing device. Especially recommended for serological, bacteriological or clinical laboratories. It operates on a siphonic principle to send a continuous flow of water over and through the pipettes, at a most normal pressure the water is completely changed in cycles of about one minute and even at reduced pressure this washer operates efficiently.

It consists of a stainless steel washing cylinder 22" height, 6" diameter mounted on base 10" in diameter and a removable pipette holder which is of 6½" diameter. The cylinder has a ½" inlet with a removable nose nipple for attaching to permanent drain if desired. This unit can accommodate pipettes up to 376mm in length.

# COD DIGESTION APPARATUS

This unit is supplied with fifteen sets of glass reaction vessels 200ml and air condensers with digital temperature controller cum display. Temperature range up to 250°C.

It is provided with timer up to 2 hrs. to work on 220V AC 15 Hz.



CODE LSI 069

# POLARIMETER



CODE LSI 070

**LSI 070 : Student Polarimeter** consists of Laurent half shade , polarizer, analyser , brass scale graduated from 0 to 360° or 0 to 180° with vernier reading 6" and accommodates a 200mm glass tube.

It is packed in a card board box.

LSI 070A      Student Polarimeter Bi-Quartz  
LSI 070B      Student Polarimeter Tri-Quartz



CODE LSI 071

**LSI 071 : Research Polarimeter** used in medical, pharmaceutical and chemical research laboratories. Consists of a imported half shade nicol polarizer, analyser, 100mm, diameter circular scale divided in degrees 0-360° x 1° and a sugar scale divided -30° to +130° x 1° ISS, a divided micrometer drum is given to read 0.05° (3 minutes ) and 0.1° ISS, the scale is properly illuminated for taking readings, the body is very sturdy and separate sodium lamp stand is provided.

Complete with polarimeter tube, bubble traps at the centre , 200mm. Sodium lamp with stand and transformer.

LSI 071A      spare sodium lamp, and transformer  
LSI 071B      Research Polarimeter with 400mm tube.  
LSI 071C      Spare sodium lamp, and transformer for 400mm tube.

