



THERES SCIENTIFIC WORKS

MANUFACTURES OF ALL TYPES INDUSTRIAL
SCIENTIFIC INSTRUMENTS

TSW-101 "THERES" AUTOCLAVE VERTICAL



Regular working pressure : 15 psi

Inner Chamber Dia & Depth	Capacity	Load
250 x 450 mm	22 Liter	2.0 kw
300 x 500 mm	40 Liter	3 kw
350 x 600 mm	50 Liter	3 kw
450 x 600 mm	90 Liter	4 kw
550 x 750 mm	187 Liter	5 kw
750 x 1000 mm		6.5 kw

Vertical Autoclave, high pressure electrically heated steam sterilizer is used for sterilization of hospital surgical instruments, dressing material, linen, rubber, plastic materials by mean of saturated steam under pressure of 20 psi. Autoclave is also used in all scientific laboratories, educational institutions and industries.

Construction: Double walled construction with boiler made of stainless steel thick sheet. Inner and Outer chamber is fully made of Stainless Steel Sheet. Lid is made of stainless steel thick plate and is tightened all-round by wing nut locking system. Sterilizer is hydraulically tested upto 40 psi as safety measures and fitted with Neoprene Rubber Gaskets to ensure tight sealing.

Autoclaves are fitted with pressure gauge, steam release cock, spring-loaded safety valve that can set at any selected point from 15 psi to 20 psi +/- 3 psi and drain outlet. An ISI marked immersion type suitable rating heating element heats the water and steam to desired temperature and pressure.

Supplied complete unit with PEDAL LIFTING DEVICE, Perforated S.S. Basket, Wing Nut opener, Cord and plug to work on 220 Volts, 50 Hz AC supply

Maximum Pressure : 30 psi



TSW-102 "THERES" INCUBATOR – (LAB MODEL)

CONSTRUCTION: Bacteriological Incubator is sturdy, double walled with doors, Inner chamber made of Stainless steel. Door fitted with Double glass window and heavy stainless steel hinges facilitate inspection of samples without opening the door. Transparent glass door let viewing the specimen inside without disturbing chamber temperature. The outer body is of thick mild steel sheet with attractively finished in powder coating for durable operation. Inner space in between the walls is filled with 2.5" fine glass wool insulation to minimize the heat loss between the walls.

Available in following chamber sizes:

Inner Chamber W x H x D	No. of Shelves	Rating
350 x 350 x 350 mm	1 No.	300 W
450 x 450 x 450 mm	2 Nos.	500 W
450 x 600 x 450 mm	2 Nos.	600 W
600 x 600 x 600 mm	3 Nos.	750 W
600 x 900 x 600 mm	3 Nos.	1000 W

The temperature is controlled by a capillary thermostat variable from +5 deg above ambient upto 80 deg with a sensitivity of +/- 2 deg C. Inner chamber accommodates easily removable stainless steel perforated trays adjustable height, adjustable Air ventilator is provided at the top.

Supplied complete with trays, air ventilators, pilot lamps indicating Lamps on/off switch, Thermostat, & Cord and plug. Suitable to operate on 220 volts 1 Phase, 50 Hz AC supply.

TSW-103 "THERES" B.O.D. INCUBATOR – CONSTRUCTION:

Double walled robust cabinet, wheel mounted, Insulated with 3" mm super glass wool between the intermediate and exterior walls, which forms the main structure. Outer chamber is made of mild steel attractively finished with powder coating for durable operation. Inner Chamber made of Stainless steel interior walls has supports allowing wide range of shelf positions and spacing. Door fitted with Double glass window and heavy stainless steel hinges facilitate inspection of samples without opening the door. Transparent glass door let viewing the specimen inside without disturbing chamber temperature. Lock arrangements is provided in the double walled outer door. Unit fitted with a door-operated lamp of illumination inside the chamber.

TEMPERATURE CONTROL: B.O.D. Incubator is the excellent and reliable Digital temp. Controller – cum – Indicator with RTD Sensor control range from 5 deg C to 60 deg C +/- 1 deg C. Hermetically sealed high performance Kirloskar-Copeland compressor, air cooled condenser works efficiently to lower the inside chamber temperature and accessories provided at the bottom of the chamber. Heating elements made of Nichrome wires are placed in the inner back side of the BOD Incubator. Cooling coils are



distributed all round the chamber and lie in the air circulation path. Air is circulated by a fan to keep the temp uniform throughout inner chamber.

CONTROL PANEL: All controls and circuitry are housed at the top of the incubator and therefore protected from spillage. Separate indicator lamps for mains, heating and cooling are fitted. Temperature setting knob allows the user to select and set any desired temp.

Supplied complete with 2 or 3 shelves of Stainless Steel as per chamber, Cord and plug Suitable to work on 220V, 1 Phase, 50 Hz, AC supply. The unit is provided with 4 Nos. wheels for easy movements.

Inner Chamber size W x H x D	Capacity Cu. Ft.	No. of Shelves	Power Rating
455 x 610 x 410 mm	4.0 Cu. Ft.	2 Nos.	1.0 KW
505 x 830 x 415 mm	6.0 Cu. Ft.	2 Nos.	1.5 KW
565 x 865 x 550 mm	10.0 Cu. Ft.	3 Nos.	1.5 KW
650 x 900 x 580 mm	12.0 Cu. Ft.	3 Nos.	2.0 KW

TSW-104 "THERES" WALL TABLE/ ISLAND TABLE

Material of Construction

Table top - Well polished 19 mm +/- 1 mm thick black color Granite with rounded edge.

Under Storage Modules - Modules fabricated from 20 Swg. Electro-Galvanized Sheet by multiple folding to give reinforcement to the structure. The folded sheet panels are welded together to form sturdy modules. Modules are with one top drawer and bottom cupboard with one inner adjustable horizontal partition and two shutters. The shutters will be mounted on imported stainless steel self closing hinges. The Drawers will be mounted on wheels and channels for smooth free movement. The drawer and the cupboard will have stainless steel curved handles and branded locking arrangements. The base of the modules will be provided with skirting panels for aesthetic look. **Knee whole space** - Knee whole space with foot rest will be provided in between the modules. **Color** - Color combination of IVORY and drawer fronts contrasting DA Gray for aesthetic appeal.

TSW-105 "THERES" BUNSEN BURNER

Electrically operated, Body made of Stainless Steel and the base made of Stainless sheet. Unit is fitted with built-in Energy Regulator and indicating lamps. Supplied with plug and cord. Available with/without Pyrometer. Suitable for heating crucibles with samples.

Temp. Range: 600 deg. C

Type of Power Rating

350 Watts (With regulator)



TSW-106 “THERES” CONSTANT TEMPERATURE BATH

Double walled chamber, inner made of thick stainless steel sheets and outer made of mild steel sheets duly finished in powder coating. Glass Window provided in the front side for an easy inside view.

Inner space in between the walls tightly packed with special grade glass wool. Top Lid is made of stainless steel sheet plate and provided with handle. Heating elements are chromium plated immersion type. Temperature controlled by precision thermostat. A medium speed stirrer with 1/20 HP motor is fitted to the unit for continuous stirring and thus maintaining uniform temperature throughout the working chamber. Built in control panel accommodates indicating lamps, precision thermostat, On/Off switch, speed regulator to control speed of the stirrer. Designed to work on 220/230 volts a/c supply.

TEMPERATURE RANGE: Ambient +5 deg C to 100 deg C +/- 2 deg C



Capacity Volume	Chamber size
20 Litres	200 x 250 x 320 mm
24 Litres	220 x 250 x 320 mm
40 Litres	370 x 260 x 350 mm
28 Litres	300 x 360 x 300 mm
40 Litres	370 x 300 x 400 mm



TSW-107 “THERES” FUME EXHAUST HOOD

Laboratory fumes hoods are one of the most important components used to protect laboratory personnel from exposure to hazardous chemicals and agents used in the laboratory. When used properly, they exhaust toxic, offensive or flammable materials when the containment of an experiments or procedures fails and vapors or dust escape from the apparatus being used.

Constructions: Cabinets is made of Thick Ply Board / M.S. Duty Powder coated / Stainless steel (304). Interiors coated with FRP Coating / Lead sheets and further coated with fire proof epoxy paint. Working table is covered with Granite.

Door: Front door is made of 6mm clear Toughened glass. Counter weight balance Front Door. Vertical sliding facility & the front door can be stopped at any point.

Exhaust System: Exhaust blower consists of single phase motor which is enclosed in a wooden casing connected with a PVC Exhaust Ducting.

Working Area Size
2' x 2' x 2'
3' x 2' x 2'
4' x 2' x 2'
5' x 2' x 2'
6' x 2' x 2'

TSW-108“THERES” BIO SAFETY

Product : Class II Bio safety Cabinet-B1, B2, Class III

MOC : G.I Powder Coated

Internal Dimension : L1200 mmXW600mmXH600mm

External Dimension : L1300mmXW800mmXH2200mm

Direction of flow : Vertical

Air Balancing : 70% Recirculation and 30% exhaust

Cleanliness ; Class 100 as per ISO 14644-1(replace US FED STD 209E

Internal Work Area : Made of IS 304 Grade Stainless steel with satin finish

Front door : By 5mm clear Toughen glass –sliding Door

Size: 3x2x2, 4x2x2, 6x2x2.



TSW-109 “THERES” FLOCCULATOR (JAR TESTING APPARATUS)

Illuminator base consists of fluorescent tube mounted below translucent plastic to provide diffused cold light through floc samples. Flocculator consists of geared continuous run heavy duty 1/20 H.P. variable speed motor from 50 to 100 RPM with built in speed control.

Stainless steel stirring rods are provided with adjustable spacers to adjust the depth of stirring paddles. The stirring shaft can be removed without disturbing other stirrers. It is supplied with stirrers (2, 4, or 6 depending upon order). Suitable to operate on 220 Volt, 50Hz, 1 Phase, AC supply. The units are supplied with beake



TSW-110 “THERES” ELECTRICAL MUFFLE FURNACE

Double walled chamber inner made of 4 nos. siliminite refractory slabs and outer made of cold rolled mild steel sheet finished in powder coating. Insulation by Ceramic fibre blankets to minimize radiation heat loss. Double walled insulated door mounted on heavy-duty hinges is provided with effective locking arrangements. Heating elements will be Kanthal A1 coils suspended in the grooves of the refractory.

Temperature is maintained and controlled by Digital temperature controller working in conjunction with Cr/A1 thermocouple placed in the hot zone. Supplied complete with control panel.

Operating Temperature: Ambient +5 to 1100 Deg. C
Max. Temperature : 1150 Deg. C

Light weight with ceramic wool insulation. Suitable to work on 220V, single phase 50 Hz, AC supply.

Muffle Size (inside)	Rating)
100 x 100 x 225 MM (4"x4"x9")	1.5 kw
125 x 125 x 250 mm (5"x5"x10")	2.5 kw
150 x 150 x 300 mm (6"x6"x12")	3.5 kw
200 x 200 x 300 mm (8"x8"x12")	5.0 kw
300 x 300 x 300 mm (12"x12"x12")	7.5 kw



TSW-111 "THERES" HOT AIR OVEN (LABORATORY MODEL)

Construction: It is double walled construction. Inner chamber made of Stainless steel. Outer chamber is made of mild steel attractively finished in powder coating for durable operation. Inner chamber is fabricated with ribs to adjust trays to any convenient height. Oven supplied with removable perforated trays 2 or 3 depending on sizes. Trays are made of Stainless Steel

Insulation: It insulated by 2.5" gap between the walls is filled with special grade glass wool for proper insulation and to avoid heat losses.

Door: It is double walled inner Stainless Steel and outer chamber mild steel with powder coated paint fitted with heavy stainless steel hinges with spring loaded lock.

Heating Elements: Heating elements are made of high-grade Nichrome wire, which are put inside the porcelain beads and placed at the bottom for uniform temperature all over the space.

Temperature Control: The temperature is controlled by a capillary thermostat variable from 5 deg. C above ambient to 250 deg.C with a sensitivity of +/- 2 deg C.

Ventilation: Air ventilators are provided at top as well as at the bottom to ventilate gases and fumes if any.

Control Panel: The equipment is provided with a panel which is just below the door having a Capillary type Thermostat, thermostat control known knob, On/Off switch, two pilot lamps and provision for fixing the Timer.



Power Requirement: Supplied with cord and plug, Suitable to operate on 220V as per indicator single phase, 50 Hz AC supply

Available in following chamber sizes:

Inner Chamber W x H x D	No. of Shelves	Rating
350 x 350 x 350 mm	1 No.	1.2 KW
450 x 450 x 450 mm	2 Nos.	1.8 KW
450 x 600 x 450 mm	2 Nos.	2.5 KW
600 x 600 x 600 mm	3 Nos.	3.0 KW
600 x 900 x 600 mm	3 Nos.	4.0 KW

TSW-112 "THERES" HEATING MANTLE WITH EGULAT

Aluminium Housing with powder coat finish. The heating elements are made out of Kanthal wire on helically wound coil form safety insulated by fibre glass sleeveings which in turn is attached to knitted glass fabric, to give flexible support to the flask and controlled by a simmerstat.

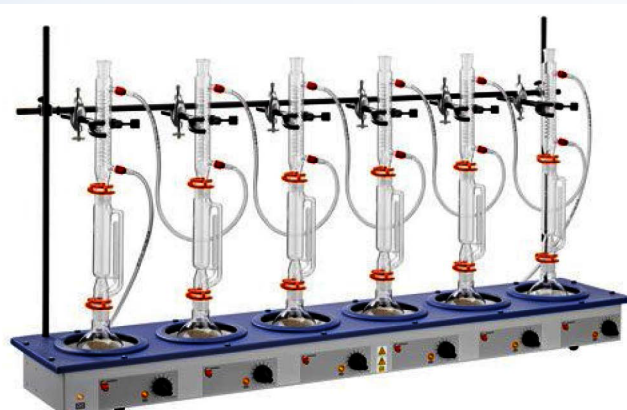
Temperature range: 5 deg.C above ambient to 400 deg. C

Capacity	Watts
100 ml	60
250 ml	150
500 ml	200
1 Litres	300
2 Litres	500
3 Litres	500
5 Litres	800
10 Litres	1000
20 Litres	1500



TSW-113 "THERES" SOXHLET EXTRACTION MANTLE (C.O.D) (WITHOUT GLASS PARTS)

Capacity	Watts	Type
250 ml	450	3T x 3R
250 ml	900	6T x 6R
500 ml	600	3T x 3R
500 ml	1200	6T x 6R



TSW-114 "THERES" HOT PLATE

This is heavy duty heating plate with a removable MS/SS plate at the top. The housing is

made of mild steel sheet and finished in powder coat paint. A heat control switch for low, medium and high heat and two nos. indicating lamps are provided on the front panel

The hot plate has a maximum power consumption of 3.0 Kw. The unit is designed for operating on 230 V, 1 phase, 50 Hz AC supply.



Standard Size	Rating
10" x 12" Dia	1.5 kw
10" x 16" Dia	1.5 kw
12" x 18" Dia	1.5 kw
12" x 24" Dia	2.0 kw
18" x 24" Dia	3.5 kw

HSI-116 "THERES" INCUBATOR SHAKER

Double walled chamber, inner made of polished stainless steel sheets and outer made of cold rolled mild steel sheets with powder coat finish. The wall is insulated with special grade glass wool.

The inner chamber accommodates one no. easily removable stainless steel tray at adjustable height and is also provided with a shaking platform with threaded holes for mounting stainless steel clamps for holding conical flasks from 50 ml to 1000ml capacity.

An outer double door with inner full view acrylic door permits inspection of specimens. Heating is by imported nichrome wires Temp. is controlled by a Digital Indicator cum controller working in conjunction with PT 100 sensor. Powerful air circulator creates positive airflow through the incubator.

The shaker is driven by a variable DC motor with variable speed control. The control panel accommodating, Digital controller, pilot indicating lamps, on/of switches etc, will be provided at the top of the unit.

Specification:

Temperature range : 5°C to 60°C
 Temperature accuracy : $\pm 0.5^\circ\text{C}$
 Shaking speed : 50 to 250 rpm

Platform holding capacity	Platform Size
8 Conical flasks x 250 ml	325mm x 325mm
16 Conical flasks x 250 ml	425mm x 425mm

Custom built sizes can also be provided on request.

TSW-115 "THERES" HUMIDITY CHAMBER

Double walled construction, interior made of thick gauge stainless steel sheets and exterior made of cold rolled mild steel sheets finished in powder coat. Inner space in between the walls is packed with special grade glass wool. The door is double walled having toughened glass window and seals against atmospheric infiltration by rubber gasket. The Inner chamber accommodates stainless steel trays at adjustable height.

Humidity is controlled by a humidistat humidity controller, having range 35% to 100% but humidity can be obtained from atmospheric humidity of 95% with sensitivity of $\pm 3\%$. Temperature controlled by digital temperature controller from ambient + 5°C to 60°C with an accuracy of $\pm 1^\circ\text{C}$.

Heater and blower are fitted in the rear side of the interior for above ambient temperature. For achieving below ambient temperature evaporator coils, compressor, condenser and fan motor are provided. Humidity is attained by the mist of water that is circulated inside the chamber for maintaining 40% to 95% humidity. A water reservoir will be provided with Auto low-level water cut off device and alarm.

Compact control panels with switches, Indicating lamps, Temperature controllers are fixed at the side of the chamber for operational convenience.

Chamber size
455 x 455 x 710 mm
605 x 605 x 605 mm
605 x 605 x 910 mm



TSW-117 "THERES" LAMINAR FLOW CABINETS HORIZONTAL & VERTICAL MODELS

THEREW offers a comprehensive range of high performance Horizontal, Vertical Laminar Flow Clean air Cabinets. These are designed to meet the filtration, Illumination, and noise & vibration requirements, providing particle free air to meet class 100 conditions of US Federal Standard.

CONSTRUCTION: All Laminar Flow Cabinets are basically constructed out of DURO BOARD teak wood, which is termite and insect proof, fire and weather resistant. Front, back, top and exterior surfaces are covered with white DECOLAM or FORMICA. Interior are epoxy painted. Work table is made of mica top (optional) S.S. top and side panels of 6mm thick transparent flexi glass duly framed.

AIR FLOW AND FILTRATION: Laminar flow principle involves double filtration of air. Atmospheric air is drawn through pre filter and is made to pass through highly effective HEPA (High Efficiency Particular Air) filters having efficiency rating as high as 99.99% with cold DOP



UV Lamp.

and 99.97% with hot DOP, thus retaining all air-borne particles of size 0.3 micron and larger. Double filtered air blow in laminar flow through the work table at designed velocity of 90 ft/min +/- 20%.

LIGHTING: Work area properly illuminated by diffused, glare free fluorescent light supplied with Gas inlet, Front Door, Manometer, Wheel for easy movement,

POWER REQUIREMENT: 230V, Single phase, 50 Hz AC
suppl Size: Horizontal & Vertical

Model	HL-22/VL-22	HL-32/VL-32	HL-42/VL-42
Working Area	2' x 2' x 2'	3' x 2' x 2'	4' x 2' x 2'
Size of HEPA Filter	2' x 2' x 6"	3 x 2' x 6"	4 x 2' x 6"

HSI-119 "THERES" ORBITAL SHAKER

These shakers are ideal for mixing and development of culture, chemical, solvent and various other applications.

The orbital shaker is assembled in heavy duty mild steel angle and sheet section. The drive has Single Excenter and 3 pin.

Platform size	Holding capacity
325mm x 325mm	8 Flask x 250ml
425mm x 425mm	16 Flask x 250ml



Temperature Range: 5 Deg C ambient to 90 Deg. C.
Size: 350 x 250 x 100mm (6 Holes)
Size: 400 x 300 x 100mm (12 Holes)



TSW-118 "THERES" OIL BATH

Double walled chamber, inside made of stainless steel and outside made of cold rolled mild steel sheet and finished in powder coating. Inner space in between wall is in tightly packed with special grade glass wool in all the sides. The inner chamber accommodates perforated and removable diffuser shelf. The lid is also made of stainless steel and provided with handle.

Heating is achieved by immersion heaters and the temperature is controlled Digital Temperature Controller from Ambient to 300° C with an accuracy of $\pm 1^{\circ}\text{C}$. The unit is fitted with high speed stirrer with speed regulator for speed control. Built in control panel is provided at the side of the chamber. Instruments supplied without Oil.

RECTANGLE

Inner Chamber Size	Rating
250 x 250 x 250 mm	2.0 kw
300 x 300 x 300 mm	3.0 kw
355 x 355 x 355 mm	4.0 kw

ROUND

Capacity	Rating
500 ml	500 watts
1000 ml	750 watts
2000 ml	1000 watts
3000 ml	1500 watts
5000 ml	1500 watts
10 Litres	2000 watts
20 Litres	2500 watts



TSW-120" THERES" WATER BATH – LAB TYPE (6&12 HOLES RECTANGULAR & ROUND)

Double walled chamber, Inner SS, Outer M.S. / S.S. with powder coat finish, immersion heater, thermostat control, Concentric rings, Glass wool insulation.

TSW-121 "THERES" VACUUM OVEN

Vacuum oven is reliable to-day-to operation in variety of uses in the filed of Medical, Industries etc.

CONSTRUCTION: Unit is study with Double walled chamber. Inner chamber is cylindrical in shape made of Stainless steel with provision for vacuum and the vacuum gauge is provided at the top of unit and outer chamber rectangular in shape made of thick M.S. Sheets attractively finished in powder coating for durable operation.

A glass-viewing window is provided in the centre of the chamber for viewing the specimen inside without disturbing / opening the door. The Oven is filled with superior grade pure white thick glass wool insulation to reduce the radiation heat loss to the minimum. The Inner Chamber accommodates stainless steel trays at adjustable height. The door is of stainless steel plate with specially designed mechanism having alignment. A positive screw specially designed for tightening the lid obtains a perfect seal.

A seal of band heaters is wrapped round the vacuum chamber for fast response and maximum uniformity of heat. The temperature is indicated and controlled by a Digital Temperature Indicator cum controller working in conjunction with a FEK thermocouple.

A compact model control panel-accommodating, pilot indicating lamps, Main Switch, Fuses, Digital Temperature

Indicator cum controller working in conjunction with a FEK thermocouple will be fitted on the side of the Oven for easy operation.

Supply 3-core wire and plug. Suitable to operate on 220 volts 1 Phase, 50 Hz AC su

Chamber Size	Temperature Range
250 mm Dia x 250 mm Depth	200 Deg.C
250 mm Dia x 300 mm Depth	200 Deg.C
300 mm Dia x 300 mm Depth	200 Deg.C
300 mm Dia x 450 mm Depth	200 Deg.C
300 mm Dia x 550 mm Depth	200 Deg.C



TSW-122 "THERES" SEROLOGICAL WATER BATH

Serological Water baths are versatile enough to handle any clinical procedure, Incubation, Inactivation, Agglutination, as well as most serological pharmaceutical, biomedical procedure.

CONSTRUCTION: Double wall construction. Complete inner chamber made of HIGHLY POLISHED STAINLESS STEEL. Outer Chamber is made of Mild Steel Sheet, finished with power coating. Gap between the walls is filled with special grade glass wool for proper insulation to avoid heat losses.

The Water Bath is provided with a drain plug to facilitate easy emptying and cleaning of the inner chamber whenever necessary. Pyramidal shaped cover and perforated removable diffuser are standard accessories.

HEATING ELEMENTS: Immersion heating elements made of high grade materials are fitted at bottom with different rating for different sizes.

TEMPERATURE CONTROL: Temperature is generally controlled by Capillary thermostat from 5 deg. ambient to 90 deg.C +/- 1 deg.C.

CONTROL PANEL: The equipment is provided with a panel having a thermostat. ON/OFF switch, two pilot lamps. Supplied with cord and plug.

POWER: Suitable to operate on 220V, Single Phase, 50 Hz, AC supply.

Chamber Size	Load
250 x 175 x 175 mm for 2 racks	1 KW
350 x 250 x 175 mm for 4 racks	1.5 KW
450 x 250 x 175 mm for 6 racks	2 KW



No.SF468, Immanuvel Stree, Akash Nagar,
Gerugambakkam, Chennai - 600 128.
Email-theresscientific@gmail.com
web : www.theresscientificworks.com

 **9841441914**

 **7904979923**