YSI

TEMPERATURE
CONTROL EQUIPMENT

YORCO
SALES PVT. LTD.

YSI

MODEL NO.: YSI-185

YSI ANAEROBIC INCUBATOR

Features

- Equipped with large LCD screen display, high- precision microcomputer control (with timing function), it can accurately and visually reflect the actual temperature inside the incubator, over heating alarm adopted, safe and reliable.
- UV Sterilizer effectively prevent bacterial contamination.
- Switch-control for solenoid value, it can accurately adjust the flow and input any necessary gas.
- Stainless steel cultivation and operation room, transparent impact-resistant glass front window for easy observation, Latex gloves are comfortable and reliable, easy to use.
- Operation room is equipped with deoxidization catalyst.
- The incubator is designed with a double widen door, it can put more petri dishes.
- Equipped with leakage protection.

MODEL	YSI-185
Time for creating anaerobic state in sample chamber	< 5 minutes
Time for creating anaerobic state in operation chamber	< 1hr
Anaerobic environment maintenance time	> 12 hrs (when no supply of mixed gas)
Temperature Range	RT+3-60 °C
Temperature Stability	<±0.3°C
Temperature Uniformity	<±0.1 °C
Display Resolution	0.1°C
Timing Range	1-9999min
Power Rating	600W
Power Supply	AC 220V,50HZ
Net/Gross Weight (Kg)	240/320
Interior Chamber Size (WxDxH)cm	30x19x29
Operation Chamber Size(WxDxH) cm	82x66x67
Exterior Size (WxDxH) cm	126x73x138

MODEL NO.: YSI-411

YSI WATER BATH

- Rectangular, Thermostatic Control,
Single Wall, Provided with Concentric Rings, Inner Chamber of S.S. Great for evaporating liquids like alcohol or for melting solids such as agar. Concentric rings can be removed to accommodate containers of various sizes.
Single walled chamber made of Stainless Steel. The concentric rings are chrome plated.
Supplied complete with two indicator lamps, concentric rings, ON/OFF Switch, Cord & Plug but without thermometer. Suitable to operate on 220V, 1 ph, 50 Hz, AC supply.

Inner chamber S.S :

L	x	W	x	D	
300	x	250	x	100 mm	with 6 holes of 75mm dia
300	x	300	x	100 mm	with 9 holes of 75mm dia
405	x	300	x	100 mm	with 12 holes of 75mm dia

Optional Accessories :

- Digital temperature indicator.
- Digital temperature Controller cum indicator.

MODEL NO.: YSI-412

YSI WATER BATH

-Rectangular, Thermostatic Control,
Great for evaporating liquids like alcohol or for melting solids such as agar. Concentric rings can be removed to accommodate containers of various sizes.
Double walled chamber made of Stainless Steel and outer wall made of thick mild steel sheet duly powder coated. The gap between outer and inner walls is filled with special grade glass wool insulation. The concentric rings are also made of Stainless Steel. The temp. is controlled by capillary thermostat of reputed make from 5°C above room temp. to 90°C.
Supplied complete with two indicator lamps, concentric rings, ON/OFF Switch, Cord & Plug but without thermometer. Suitable to operate on 220 V, 1 ph, 50 Hz, AC supply.

Inner chamber S.S :

L	x	W	x	D	
300	x	250	x	100 mm	with 6 holes of 75mm dia
300	x	300	x	100 mm	with 9 holes of 75mm dia
405	x	300	x	100 mm	with 12 holes of 75mm dia

Optional Accessories :

- Digital temperature indicator.
- Digital temperature Controller cum indicator.

YSI

MODEL NO.: YSI-413

YSI WATER BATH SEROLOGICAL

As per IS -6593

True to its name, YSI Serological Water Bath is a versatile equipment to handle any clinical procedure, Incubation, Inactivation, Agglutination, as well as most Serological, Pharmaceutical, biomedical procedures.

YSI Serological Water Bath have unique design due to its unmatched performance and quality of raw material used.

Construction : YSI Serological Water Bath are sturdy, with double walled construction. Complete inner chamber made of HIGHLY POLISHED STAINLESS STEEL. Outer Chamber is made of Mild Steel Sheet, duly powder coated paint. 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. Test tube racks can be provided on requirement. Pyramidal shaped cover (Aluminum Lid) and perforated removable diffuser are standard accessories.

Heating Elements : Reliable immersion heating elements made of high grade materials are fitted at bottom with different ratings for different sizes.

Temperature Control : Temperature is generally controlled by "IMPORTED" capillary type THERMOSTAT from ambient to 80°C ± 0.5°C. Temperature control knob is graduated in centigrade degrees.

Control Panel : The equipment is provided with a panel having a thermostat control knob, ON/OFF switch, two pilot lamps. Supplied with cord and plug.

Power Requirement : Suitable to operate on 220 v, single phase, 50 Hz, AC supply.

Size of inner chamber :

W	x	H	x	D	Volume	load
300	x	250	x	150mm for 2 racks	11	1.0KW
330	x	300	x	150mm for 4 racks	15	1.5KW
455	x	300	x	150mm for 6 racks	20	2.0KW
605	x	300	x	150mm for 8 racks	27	3.0KW
250	x	125	x	125mm with lid	4	0.5KW

Optional Accessories :

- Test Tube Rack made of Stainless Steel 3 Tier with Lifting Handle 13mm Dia 24 Hole or 16mm Dia 18 Hole
- Digital Display temp. indicator in lieu of Thermometer.
- Digital Display temp. controller-cum-indicator in lieu of thermostat & thermometer
- Microprocessor based PID temperature controller cum indicator in lieu of thermostat &thermometer.
- Stirrer with 1/20 hp motor with S.S rod & blades.

MODEL NO.: YSI-413D

YSI WATER BATH SEROLOGICAL

-As per : IS-6593

True to its name, YSI Serological Water Baths are versatile enough to handle any clinical procedure, Incubation, Inactivation, Agglutination, as well as most serological, pharmaceutical, biomedical procedure

YORK Serological Water Bath have unique design due to its to its unmatched performance and quality of raw material used.

Construction : YSI Serological Water Baths are sturdy, with double walled construction. Complete inner chamber made of HIGHLY POLISHED STAINLESS STEEL. Outer Chamber is made of Mild Steel Sheet, finished with powder coated paint. 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. Test tube racks can be provided on requirement. Pyramidal shaped cover (Aluminum Lid) and perforated removable diffuser are standard accessories.

Heating Elements : Immersion heating elements made of high grade materials are fitted at bottom with different ratings for different sizes.

Temperature Control : Temperature is generally controlled by an electronic digital temperature controller-cum-indicator from ambient to 80°C ± 0.5°C & also provided with stirrer with stainless steel shaft & blade with speed controller.

Control Panel : The equipment is provided with a panel having a thermostat control knob, ON/OFF switch, two pilot lamps. Supplied with cord and plug.

Power Requirement: Suitable to operate on 220 v, single phase, 50 Hz, AC supply.

Size of inner chamber :

W	x	H	x	D	Volume	load
300	x	250	x	150mm for 2 racks	11	1.0KW
330	x	300	x	150mm for 4 racks	15	1.5KW
455	x	300	x	150mm for 6 racks	20	2.0KW
605	x	300	x	150mm for 8 racks	27	3.0KW
250	x	125	x	125mm with lid	4	0.5KW

Optional Accessories :

- Test Tube Rack made of Stainless Steel 3 Tier with Lifting Handle 13mm Dia 24 Hole or 16mm Dia 18 Hole
- Microprocessor based PID temperature controller cum indicator in lieu of thermostat & thermometer.
- Stirrer with 1/20 hp motor with S.S rod & blades.

MODEL NO.: YSI-413Ex

YSI WATER BATH SEROLOGICAL DIGITAL (NEW)

-As per : IS - 6593

YSI general purpose water baths are intended to be used in several universal and unique applications in microbiology, research and industrial laboratories. They provide exceptional temperature control of liquid for uniform and stable temperature.

SS304 STAINLESS STEEL

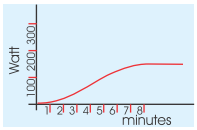
Corrosion Free Rigid Construction : The inner chamber of the Water Bath is made of seamless corrosion resistant stainless steel grade 304 for a longer life time and easy cleaning.

Temperature Uniformity : Excellent temperature uniformity is obtained by incorporated PID control system which maintains the temperature very precisely.

WATT METER

Lowest Power Consumption Algorithm : Even though the system has a high wattage heater to act in response to any settled temperature more quickly compared to other systems, but only a fraction of the heater wattage is consumed when the set temperature has been achieved, saving lot of energy.

Automatic Key lock Feature : This feature ensures that no manipulation could be done within the system while operated by an un-authorized person.



Soft Start for Heater : In built soft start for the heaters prolongs the heater life.

Remote Monitoring Alarms and Controls : The system incorporates user friendly feather touch buttons for setting temperature, delay time and process time which would be seen on seven segment display. LED'S indicates the mode of operation. All the process date could be recorded to remote computer via RS232/RS485 or an optional attachment for the printer could be provided.

Data Retentive Delay and Process Timer : This feature ensures that the material inside is objected to the set temperature for the set time only, irrespective of any power cuts or voltage fluctuations.

Specification:

Temperature Range	Ambient— 80°C
Temperature Sensor	RTD (PT 100)
Control System	PID, Programmable Microprocessor
Temperature Set & Display Sensitivity	0.1°C
Temperature Fluctuation	± 0.1°C
Timer	999 min delay +999 Process
Useful Volume, liter	5,18,23,32,42.5
Power Consumption, KW	0.5, 2.0, 2.0, 2.5, 3.0
Power Supply, Volts AC.	230V, 50 Hz.
Internal Material	S.S.304 Polished
External Material	M.S Sheet, Power Coated

Internal Dimensions:

W	x	H	x	D	Volume	Load
254	x	127	x	127 mm	4 liter	
304	x	254	x	178 mm	14 liter	
330	x	304	x	178 mm	18 liter	
457	x	304	x	178 mm	25 liter	
610	x	304	x	178 mm	33 liter	

External Dimensions:

W	x	H	x	D
320	x	175	x	355 mm
350	x	300	x	400 mm
380	x	350	x	430 mm
510	x	350	x	430 mm
660	x	350	x	430mm

MODEL NO.: YSI-414

YSI DRY BATH INCUBATOR

Accommodates test tubes and micro centrifuge tubes 5 for microbiology, and clinical and laboratory incubation, boiling, inactivation, wet washing samples, concentration enzyme analysis and other general industrial use.

A Dry-Block heater unit having recessed chamber to hold inter changeable insert blocks made of metal alloy with excellent thermal conductivity are provided with choice of different sizes of hole for tubes or containers ranging from 6 to 26 mm dia.

Temperature range from ambient to 85°C is controlled by Digital solid state Controller cum Indicator.

MODEL NO.: YSI-415

YSI HIGH PRECISION WATER BATH WITH STIRRER

Table top model with double walled construction is ideally suited for experiments or research work requiring very closely controlled temperature with an accuracy of ± 0.1°C with digital Temp. Controller.

The inner chamber is made of thick stainless steel sheet & is 100% leak proof.

The outer wall consists of thick CRC sheet which is duly de greased and pre treated with primer paint to prevent rusting and finished with powder coating

The space between the two walls is packed tightly with high grade glass wool to ensure constant temperature and minimum loss of heat.

It is provided with a glass window for an easy inside view. A speed controlled stirrer is provided for continuous stirring of the medium to ensure uniform temperature throughout.

The heating mechanism comprises of sets of ISI Marked heaters corresponding to faster and slower heating. The later are meant for better temperature control.

The temperature is controlled from ambient to 100°C by Solid State Electronic Temperature Controller cum Indicator.

Inner Chamber :

W	x	H	x	D	Inner chamber vol.
430	x	240	x	265	27 liter

TEMPERATURE CONTROL

MODEL NO.: YSI-417

YSI WATER BATH INCUBATOR SHAKER

—Metabolic Shaking Incubator

Desktop model designed for studies on tissue metabolism, Enzymes and Protein Coagulation or other experiments requiring shaking of subject matter at constant speed under controlled temperature environment.

The basic construction is double walled with 100% Leakproof inner chamber of thick polished Stainless Steel shut & has smooth inside working surface. The Outer Wall consists of thick CRC sheet which is duly degreased and pretreated to prevent rusting and finished with powder coating. The lid made of thick polished S.S. sheet prevent failing of condensed water droplets on the specimens. The space between the two walls is packed tightly with high grade glass wool to prevent loss of heat and ensure constant temperature. Heating is achieved by a high quality immersion type ISI Marked heater and temperature is controlled by Digital Temperature Controller cum Indicatorfrom ambient to 90°C ± 0.5°C. The shaking mechanism comprises of variable speed motor fixed on the left side and coupled to the shaking tray which shakes linearly to and fro on ball rollers moving in guides which are greased for smooth motion.

The shaking speed can be controlled between 40 to 140 cycles per minute. The shaking tray can either hold test tubes or flasks of 25 ml or 50 ml or 100 ml capacity as ordered by the users. Front panel includes switches to ON/OFF mains, Shaking mechanism and Indicators. It also includes thermostat control knob, Speed control knob, and L-shaped thermometer to indicate the inside temperature.

Size of Inner chamber:

W	x	H	x	D	Volume
275	x	275	x	75mm	6 liter
275	x	275	x	150mm	11 liter
400	x	300	x	75mm	9 liter
400	x	300	x	150mm	18 liter

Spare Accessories :

- Shaking Tray for 25 or 100 ml conical flask or test tube rack
- Digital Speed Controller cum Indicator
- Digital Display RPM

MODEL NO.: YSI-431

YSI HOT AIR STERILIZER (OVEN)

-Memmert Type As Per : IS - 3119

Due to progressive policy of continuously developing high quality products, YSI Hot Air Sterilizers have unique design.

All the instruments are subjected to tough quality control before despatch. These are designed principally to destroy Bacteria, Viruses, Fungus and Sterilize Surgical & Dental Instruments. Glass wares etc. by application of dry heat at temp. ranging between 140°C to 200°C as per IS 3119.

Construction : YSI Ovens are sturdy, with double walled construction. Inner chamber is made of Highly Polished Stainless Steel AISI 304 grade. Outer chamber is made of Mild Steel Sheet duly pre-treated in seven tanks process for surface treatment & are finished with durable Powder Coated Paint. (S.S. Outer chamber is optional) 75 mm gap between the walls is filled with special grade glass wool for proper insulation and to avoid heat losses. Inner chamber is fabricated with ribs to adjust shelves to any convenient height. Supplied with 2 or 3 removable shelves. Shelves are made of polished SS Sheet. Insulated door is fitted with heavy hinges with a special design spring - loaded door closing device. Door gasket is made of synthetic rubber compound

Heating Element : Heating elements are made of high grade imported Nichrome wire, properly insulated and are generally placed at the bottom and both side ribs for uniform temperature all overthe space.

Temperature Control : Temperature is controlled by Imported capillary type Thermostat. Temperature control knob of each oven is graduated in centigrade degrees after actually observing the temperature is steady state. Supplied with L-shaped prismatic glass THERMOMETER fitted on top of the Oven for reading the chamber temperature. Wide temperature 50°C to 250°C -±1°C ovens for various applications.

Ventilation : Air ventilator ports provided on both sides at top to ventilate, gases and fumes if any.

Control Panel : The equipment is provided with a panel having a thermostat control knob. ON/OFF switch, two pilot indication lights and provision for fixing the TIMER.

Power Requirement : Supplied with cord and plug. Suitable to

operate on 220 V single phase, 50 Hz, AC supply.

Size of inner chamber :

W	x	H	x	D	Cap.	No. of Shelves	Load
300	x	300	x	300 mm	27 liter	2	1.5 kw
355	x	355	x	355 mm	45 liter	2	1.5 kw
455	x	455	x	455mm	92 liter	2	2.0 kw
455	x	605	x	455mm	125 liter	3	2.2 kw
605	x	605	x	605 mm	220 liter	3	2.5 kw
605	x	910	x	455mm	250 liter	3	2.5 kw
605	x	910	x	605 mm	330 liter	3	3.0 kw

- These sizes are provided with air circulating fan as standard feature.

Optional Accessories :

- Air Circulating Fan.
- Digital Display Temp. Indicator in lieu of L-Shaped Thermometer.
- Digital Display Temp. Controller-Cum-Indicator in lieu of thermostat & L-shaped thermometer.
- Micro processor based PID temp. controller-cum-indicator in lieu of thermostat & L-shaped thermometer.
- Timer

Spare Accessories :

- L-shaped thermometer
- Stirrer with 1 /20 hp motor with S.S rod & blades.

Available in various chamber sizes Inner chamber made of S.S.304 grade

W	x	H	x	D	Ltrs.
300	x	300	x	300mm	28
355	x	355	x	355mm	45
455	x	455	x	455mm	95
455	x	605	x	455mm	125
605	x	605	x	605mm	224
605	x	910	x	455mm	252
605	x	910	x	605mm	336

MODEL NO.: YSI-431A

YORK STERILE DRY HEAT STERILIZER WITH "HEPA" FILTERED

Fresh Air Suction Device (Sterile Oven)

YSI

MODEL NO.: YSI-431D

YSI HOT AIR STERILIZER (OVEN) DIGITAL

-Memmert Type as per : IS 3119

Due to progressive policy of continuously developing hi gh high quality products, YSI Hot Air Sterilizers have unique design. All the instruments are subjected to tough quality control before despatch. These are designed principally to destroy Bacteria, Viruses, Fungus and Sterilize Surgical & Dental Instruments. Glass wares etc. by application of dry heat at temp. ranging between 140°C to 200°C as per IS 3119.

Construction : YSI Ovens are sturdy, with double walled construction. Inner chamber is made of Highly Polished Stainless Steel. Outer chamber is made of Mild Steel Sheet duly pre-treated in seven tanks process for surface treatment & are finished with durable Powder Coated Paint. 75 mm gap between the walls is filled with special grade glass wool for proper insulation and to avoid heat losses. Inner chamber is fabricated with ribs to adjust shelves to any convenient height. Supplied with 2 or 3 removable shelves. Shelves are made of polished SS Sheet. Insulated door is fitted with heavy hinges with a special design spring - loaded door closing device. Door gasket made of synthetic rubber compound instead of Asbestos.

Heating Element : Heating elements are made of high grade imported Nichrome wire which are insulated inside the porcelain beads and are generally placed suitably in Air Path for uniform temperature all over the space.

Temperature Control : Temperature is controlled by an electronic digital temperature controller-cum-indicator, provided with air Circulating fan for providing homogenous temperature through out the chamber with wide temperature 50°C to 250°C ovens for various applications.

Ventilation : Air ventilator ports provided on both sides at top to ventilate, gases and fumes if any.

Control Panel : The equipment is provided with a panel having a digital temperature control knob. ON/OFF switch, two pilot indication lights and provision forfixing the TIMER.

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

Size of inner chamber:

W	x	H	x	D	Cap.	No. of Shelves	Load
300	x	300	x	300 mm	27 liter	2	1.5 kw
355	x	355	x	355 mm	45 liter	2	1.5 kw
455	x	455	x	455 mm	92 liter	2	2.0 kw
455	x	605	x	455 mm	125 liter	3	2.2 kw
605	x	605	x	605 mm	220 liter	3	2.5 kw
605	x	910	x	455 mm	250 liter	3	2.5 kw
605	x	910	x	605 mm	330 liter	3	3.0 kw

MODEL NO.: YSI-431Ex

YSI HOT AIR STERILIZER (OVEN) DIGITAL (NEW)

-Memmert Type as per IS : 3119 The very unique design is ideal for the applications in all biology and microbiology laboratories such as medical and veterinary ; research and quality control examination in pharmaceutical, food and cosmetics industries and biotechnology. Latest state of art heating system controlled by PID microprocessor control system and a unique insulation endow with highly precise and constant temperature. Very homogeneous temperature distribution in the chamber is obtained by natural forced air convection which means minimum instability and no cross contamination

SS304 STAINLESS STEEL

Corrosion Free Rigid Construction The inner chamber of the Hot Air Sterilizer is made of Seamless Corrosion resistant Stainless Steel 304 for a longer lifetime and easy cleaning.

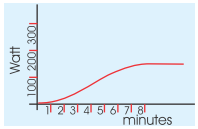
Temperature Uniformity Excellent temperature uniformity is obtained by incorporated PID control system which maintains the temperature very precisely.

Lowest Power Consumption Algorithm Even though the system has high wattage heater to act in response to any selectable temperature more quickly compared to other system, but only a fraction of the heater wattage is consumed when the set temperature has been achieved, saving of energy

TEMPERATURE CONTROL

YSI

TEMPERATURE CONTROL



- Soft Start for Heater
- In built soft start for the heaters prolongs the heater life.

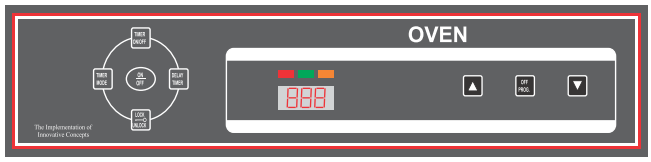
Automatic Key Lock Feature:
This feature ensures that no manipulation could be done within the system while operated by an un-authorized person.

Remote Monitoring, Alarms, and Controls:
The system incorporates user friendly feather touch buttons for setting temperature, delay time and process time which could be seen on Seven Segment Display. LED's indicates the mode of operation. All the process date could be recorded to remote computer via RS232/RS485 or an optional attachment for the printer could be provided.

Data Retentive Delay and Process Timer:
This feature ensures that the material inside is objected to the set temperature for the set time only, irrespective of any power cuts or voltage fluctuations

Specifications:

Temperature Range	Ambient-250°C
Temperature Sensor	RTD (PT 100)
Control System	PID, Programmable Microprocessor
Temperature Set & Display Sensitivity'	1°C
Temperature Fluctuation	± 1°C
Timer	999 Min delay +999 Process
Useful Volume, liter	28.5, 45, 96, 128, 227, 256, 341
No. of Shelves	2, 2, 2, 3, 3, 3, 3
Power Consumption, Kw	1.0, 1.0, 1.5, 2.0, 2.5, 2.5, 3.0
Power Supply, Volts AC.	230V, 50 Hz.
Internal Material	S.S 304 Polished
External Material	M.S. Sheet, Powder Coated.



Size of inner chamber:

W	x	H	x	D	Cap.	No. of Shelves	Load
300	x	300	x	300 mm	27 liter	2	1.5 kw
355	x	355	x	355 mm	45 liter	2	1.5 kw
455	x	455	x	455 mm	92 liter	2	2.0 kw
455	x	605	x	455 mm	125 liter	3	2.2 kw
605	x	605	x	605 mm	220 liter	3	2.5 kw
605	x	910	x	455 mm	250 liter	3	2.5 kw
605	x	910	x	605 mm	330 liter	3	3.0 kw

External Dimensions:

W	x	H	x	D
515	x	660	x	655 mm
565	x	710	x	705 mm
665	x	815	x	785 mm
665	x	970	x	785 mm
815	x	970	x	785 mm
815	x	1275	x	785 mm
815	x	1275	x	935 mm

Salient Feature:

- Compact, Ergonomic Overall Design
- Corrosion Free Rigid Construction
- Lowest Power Consumption Algorithm
- Soft Start For Heaters
- Automatic Key lock Feature
- Remote Monitoring, Alarms, and Controls
- Date Retentive Delay and Process Timer

MODEL NO.: YSI-432

YSI UNIVERSAL OVEN

—Memmert Type,
Suitable for applications involving high temperature upto 300°C and corrosive chemicals in Laboratories, Research Institutions and industries.
Construction : YSI Ovens are sturdy, with double walled construction. Inner chamber is made of M.S. Sheets or Highly Polished Stainless Steel. Outer chamber is made of Mild Steel Sheet, duly pretreated in seven tanks process for surface treatment & finished with durable Powder Coated Paint. 75 mm gap between the walls is filled with special grade glass wool for proper insulation and to avoid heat losses. Inner chamber is fabricated with ribs to adjust shelves to any convenient height. Supplied with 2 or 3 removable shelves.
SHELVES are made of perforated polished SS Sheet/M.S. Mesh. Door is double walled & is insulated and is fitted with heavy hinges with a ball catcher spring - loaded door closing device.
Heating Element : Heating elements are made of high grade imported nichrome wire which is properly insulated and are generally placed suitably in the Air Path for uniform temperature all over the space.
Temperature Range : A Wide temperature range of 50°C to 300°C ± 2°C to 3°C for various applications. The temp. inside the chamber maintained constant by natural convection currents of heated air.
Temperature Control : Temperature is controlled by Digital Temperature Controller cum Indicator, provided with Air Circulating fan for providing homogenous temperature through out the chamber.
Ventilation : Air ventilator ports provided on both sides at top to ventilate, gases and fumes if any & to accelerate convection process.
Control Panel : The equipment is provided with a panel on which are mounted a thermostat control knob, ON/OFF switch high/low switch pilot indication lights.
The units are tested for continuous performance and safety in our most modern laboratory equipped with various test instruments.
Power Requirement : Suitable to operate on 220 V single phase, 50 Hz, AC supply.

Size of inner chamber :

W		H		D	No. of Shelves
300	x	300	x	300mm	2
355	x	355	x	355mm	2
455	x	455	x	455mm	2
455	x	605	x	455mm	3
605	x	605	x	605mm	3
605	x	910	x	455mm	3
605	x	910	x	605mm	3

Optional Accessories :

- A unique dedicated Microprocessor Controller " Fugy Logic Control" with and accuracy of ± 0.1°C, P.I.D. Control, 0-999 minutes Data retentive process and delay timer, with 7 segment LED Display
- Adjustable overshoot Alarm and Heater cut off
- Lowest Power consumption Algorithm
- In built Soft Start for Heaters prolange heater lifts
- Built in RS- 232 Port
- (Optional) Parrallel Printer Port
- Timer

YSI

TEMPERATURE CONTROL

MODEL NO.: YSI-434

YSI DELUXE OVEN

-High Temp.,

Deluxe Model Ovens are sturdy, YSI with double walled construction. Inner chamber is made of M.S./S.S. Outer chamber is made of M.S. duly pretreated in seven tanks process for surface treatment & finished with durable Powder Coated Paint. Inner chamber is of S.S. 304. 100 mm gap between the walls is filled with special grade glass wool for proper insulation and to avoid heat losses. Inner chamber has support to adjust shelves to any convenient height. Supplied with 2 removable shelves, made of perforated polished SS Sheet.

Door is double walled, insulated and is fitted with heavy hinges with a ball catcher door closing device.Temperature Control : Temperature is controlled by digital temp. controller cum indicator, Provided with Air Circulating fan for homogenous temperature through out the chamber. Heaters are placed at suitable place for uniform temperature and a power selection switch which permits selection of High, Medium and Low Wattage, assures quick stabilizing of working temperature inside the chamber. Temperature range various from 50°C to 350°C ± 3°C. The oven is complete with two indicators, rotary switch for low, medium and high pressure wattage with off position.

Power Requirement : Suitable to operate on 220 V single phase, 50 Hz, AC supply.

Size of inner chamber :

W	x	H	x	D	Load
455	x	455	x	455 mm	3.5 kw
605	x	605	x	605 mm	5.0 kw
605	x	910	x	605 mm	5.0 kw

Optional Accessories :

- Air circulating fan.
- Timer.
- Micro processor based PID Temp. Controller-cum-Indicator.

MODEL NO.: YSI-433

YSI VACUUM OVEN

—Digital With Glass Door

Inner chamber made of S.S. 304 grade & outer made of pre treated, powder quoted mild steel CNC crafted body, temperature range 50oC to 130oC. Temperature controlled by digital temperature controller cum indicator, provided with one S.S. shelf but without vacuum pump.

Sizes : 225 x 300 mm
300 x 500 mm .

MODEL NO.: YSI-435

YSI GLASS BEAD STERILIZER

Complete body made of stainless steel AISI-304 grade with inner chamber also made of thick st. steel, thermostatically controlled for temp from 50°C to 300°C. Supplied complete with glass beads suitable for instant sterilization of needles, forceps, beads etc. Available small & medium size.

MODEL NO.: YSI-436

YSI INDUSTRIAL DRYING OVEN

Suitable for heat treatment, baking and drying applications in Industries or Institutes engaged in the production of Vaccines. Tablets, Bottle Sterilizing, Baking Breads or Biscuits, Drying Chemicals, PCB Processing, Armature Windings, Soaking electronic components like YSI, Coils, EHT Coils, Transformers etc.

Construction : The construction is double walled on sturdy angle iron frame with both inner and outer walls of thick CRC sheet which is duly pretreated for surface treatment & finished with powder coated paint. The inner wall is painted with high temp. aluminium paint to withstand long duration heating cycles normally required in industrial applications, and the outer wal I is finished with powder coated paint. The 75 mm gap between the two walls is filled with high grade glass wool insulation to prevent loss of heat and thereby saving energy. Air is circulated by a heavy duty blower to maintain inside temperature uniformity with a minimum temperature gradient throughout the working chamber. Brackets to support the heavily laden perforated trays at different height are provided on the sides of the inner chamber. The front door with sturdy hinges are also double-walled with gap between the two walls filled-in with high grade glass wool insulation. The door also have system to prevent opening.

Heating : Heating is done by Tubular air heaters placed in the moving air path. These are interlocked with blower. Ventilation with adjustable opening on the top facilities flueing away of any fumes or vapours produced during the process.

Temp. Control : The temperature is controlled by Digital Temperature Controller cum Indicator with an accuracy of 5°C over a range of 50°C to 250°C ± 5°C. The equipment is tested for continuous performance & safe operation in out most modern testing laboratory. It is securely packed to avoid any transit damage during despatch.

Control Panel : The Control panel include a Main switch to ON/OFF the unit, mains indicator and digital temperature controller, Heater controller cum indicator to maintain & observe the temperature.

Power Supply : The unit is supplied complete in all respect. It is suitable to work on 220V, 50 Hz single phase or 440 V, three phase Ac depending upon the size.

Optional Accessories :

- Timer

Size of inner chamber :

W	x	H	x	D	Tray Cap.	Load
90	x	90	x	60 cms (3' x 3' x 2')	12	5 KW
90	x	90	x	90 cms (3' x 3' x 3')	18	6 KW
90	x	120	x	90 cms (3' x 4' x 3')	24	7 KW
90	x	150	x	90 cms (3' x 5' x 3')	24	10 KW
90	x	180	x	60 cms (3' x 6' x 2')	36	10 KW
90	x	180	x	90 cms (3' x 6' x 3')	48	15 KW
90	x	240	x	90 cms (3' x 8' x 3')	60	15 KW
120	x	240	x	90 cms (4' x 8' x 3')	96	18 KW
120	x	180	x	120 cms (4' x 6' x 4')	48	18 KW

MODEL NO.: YSI-436T

YSI TRAY DRYER

Same as YSI-436 but with aluminium trays & M.S. Trolley. but temperature range ambient to 150°C Controlled with Digital temp. Controller cum Indicator.

Size of Inner chamber :

W	x	H	x	D	Tray	Load
430	x	840	x	915 mm	12	4 kw
915	x	840	x	915 mm	24	6 kw
965	x	1275	x	1450 mm	48	10 kw
965	x	1 700	x	1700 mm	96	20 kw

MODEL NO.: YSI-424

YSI KIELDHAL DRY BLOCK DIGESTER

The Dry-Block Kjeldhal is an economical, compact, constant—temperature heating system suitable for Test tubes etc. Dry-Blocks are particularly suitable in the Laboratory for digestion, incubation, boiling and variety of Industrial application. The system comprises of a heater base dry-Block of metal alloy provided with holes to accept 40 test tubes of 26 mm dia x 250 mm long/20 test tube of 42 mm dia. x 290 mm long. Block heaters have been fixed at the base of the dry-block duly embossed. Temperature is maintained uniform throughout the block. Temperature range from 50°C to 450°C with the help of solid state Digital Temp. Controller cum Indicator.

Power 2 KW, Single Phase, 230 Volt 50 Hz.

Major Components :

- Kjeldhal thermostat digestion block.
- Insert Rack tubes.
- Insert Rack for condenser (Exhaust manifold)
- Complete exhaust manifold.
- Two-tier console with spillage tray.
- 0 shape ring for condenser.
- Cooling pump (Watertrap).
- Kjeldhal lifting device.

MODEL NO.: YSI-425

YSI C.O.D. DIGESTER

Spare

- COD digestion tube
- Rack
- Bottled Tab Dispenser

MODEL NO.: YSI-438

YSI HOT INCUBATOR BACTERIOLOGICAL (M. TYPE)

As per : IS - 3118

True to their name,YSI Incubator Bacteriological (Memmert type)

The perfect choice for reliable day to day operation in variety of uses. Drying of slides, paraffin embedding, tissue culture work, incubation of antibody test, excellent for Microbiological determinations, crystallization studies and Incubation of hydroxy steroids.

Construction :

YSI incubators are sturdy, with double walled construction with complete inner chamber made of Highly Polished Stainless Steel. Outer chamber is made of Mild Steel Sheet, finished with powder coated paint. (S.S. 304 is optional for outer chamber) . 75 mm gap between the walls is filled with special grade glass wool for proper insulation and to avoid heat losses. Inner chamber fabricated with ribs for adjusting shelves to convenient height. Supplied with 2 or 3 removable shelves. SHELVES are made of Stainless Steel Sheet. Door is insulated & fitted with heavy hinges. Door has Double glass window which facilitate inspection of samples without opening the door. Heating elements, made of high grade imported Nichrome wire are put inside the porcelain beads and placed at the bottom and side ribs for uniform temperature all over the space. Door gasket is made out of synthetic rubber compound

Temperature Control:

Temperature is controlled by imported capillary type thermostat from ambient to 80°C ± 0.5°C. Temperature control knob is graduated in centigrade degrees after actually observing the temperature in steady state. An L-shaped prismatic glass Thermometer is fitted on top of the Incubator for reading the chamber temperature.

Ventilation :

Air ventilators are provided on both sides at top to ventilate gas or fumes if any.

Control Panel :

The equipment is provided with a panel having a thermostat control knob, ON/OFF switch and two pilot lamps.

Power Requirement :

Supplied with cord and plug suitable to operate on 220 V single phase, 50 Hz, AC supply.

Size of inner chamber :

W	x	H	x	D	Cap.	No. of Shelves	Load
300	x	300	x	300 mm	27 liter	2	1.5 kw
355	x	355	x	355 mm	45 liter	2	1.5 kw
455	x	455	x	455 mm	92 liter	2	2.0 kw
455	x	605	x	455 mm	125 liter	3	2.2 kw
605	x	605	x	605 mm	220 liter	3	2.5 kw
605	x	910	x	455 mm	250 liter	3	2.5 kw
605	x	910	x	605 mm	330 liter	3	3.0 kw

These sizes are provided with standard feature air circulating fan as standard feature.

Optional Accessories:

- Timer
- Air Circulating Fan
- Micro processor based PID Temp. controller-cu-indicator in lieu of thermostat & L-shaped thermometer.

MODEL NO.: YSI-438D

YORK INCUBATOR BACTERIOLOGICAL (M.TYPE)

As per : IS -3118
True to their name YSI Incubator Bacteriological (Memmert type)

Perfect choice for reliable day to day operation in variety of uses. Drying of slides, paraffin embedding, tissue culture work, incubation of antibody test, excellent for Microbiological determinations, crystallization studies and Incubation of hydroxy steroids. Construction :YORK Incubators are sturdy, with double walled construction with complete inner chamber made of Highly Polished Stainless Steel. Outer chamber is made of Mild Steel Sheet, finished with powder coated paint. 75 mm gap between the walls is filled with special grade glass wool for proper insulation and to avoid heat losses. Inner chamber fabricated with ribs for adjusting shelves to convenient height. Supplied with 2 or 3 removable shelves. SHELVES are made of fully Polished Stainless Steel Sheet as per chamber. Door is insulated & fitted with heavy hinges. Door has Double glass window which facilitate inspection of samples without opening the door. Heating elements, made of high grade imported Nichrome wire are put inside the porcelain beads and placed in the Air path for uniform temperature all over the space.
Temperature Control : Temperature is controlled by an electronic digital temperature controller-cum-indicator provided with air Circulating fan for providing homogenous temperature through out the chamber with temperature from ambient to 80°±0.5°C.
Ventilation : Air ventilators are provided on both sides at top to ventilate gas or fumes if any.
Control Panel : The equipment is provided with a panel having a Digital Controller knob, Digital Display, ON/OFF switch and two pilot lamps.
Power Requirement : Supplied with cord and plug suitable to operate on 220 V single phase, 50 Hz, AC supply.

Size of inner chamber:

W		H		D	Cap.	No. of Shelves	Load
300	x	300	x	300 mm	27 liter	2	1.5 kw
355	x	355	x	355 mm	45 liter	2	1.5 kw
455	x	455	x	455 mm	92 liter	2	2.0 kw
455	x	605	x	455 mm	125 liter	3	2.2 kw
605	x	605	x	605 mm	220 liter	3	2.5 kw
605	x	910	x	455 mm	250 liter	3	2.5 kw
605	x	910	x	605 mm	330 liter	3	3.0 kw

MODEL NO.: YSI-438Ex.

YSI INCUBATOR BACTERIOLOGICAL (M.TYPE) NEW

-As per : IS - 3118 The very unique is ideal for the applications in all biology and microbiology laboratories such as medical and veterinary ; research and quality control examinations in pharmaceutical, food and cosmetics industries and biotechnology. Latest state of art heating system controlled by PID microprocessor control system and a unique insulation endow with highly precise and constant temperatures. Very homogenous temperature distribution in the chamber is obtained by natural force air convection which meant minimum instability and no cross contamination

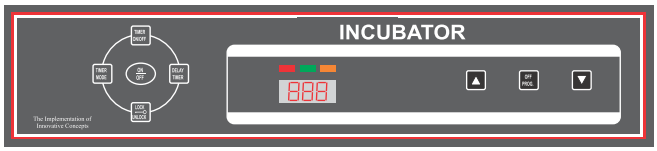
Corrosion Free Rigid Construction.
The inner chamber of the Bacteriological incubator is made of seamless corrosion resistant Stainless steel 304 for a longer life time and easy cleaning .

Temperature Uniformity Excellent temperature uniformity is obtained by incorporated PID control system which maintains the temperature very precisely.

Lowest Power Consumption Algorithm Even though the system has high wattage heater to act in response to any settable temperature more quickly compared to other systems, but only a fraction of the heater wattage is consumed when the set temperature has been achieved saving lot of energy.

TEMPERATURE CONTROL

YSI



Size of inner chamber:

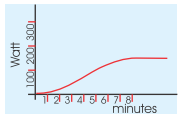
W x H x D	Cap.	No. of Shelves	Load
300 x 300 x 300 mm	27 liter	2	1.5 kw
355 x 355 x 355 mm	45 liter	2	1.5 kw
455 x 455 x 455 mm	92 liter	2	2.0 kw
455 x 605 x 455 mm	125 liter	3	2.2 kw
605 x 605 x 605 mm	220 liter	3	2.5 kw
605 x 910 x 455 mm	250 liter	3	2.5 kw
605 x 910 x 605 mm	330 liter	3	3.0 kw

External Dimensions:

W		H		D
515	x	660	x	655 mm
565	x	710	x	705 mm
665	x	815	x	785 mm
665	x	970	x	785 mm
815	x	970	x	785 mm
815	x	1275	x	785 mm
815	x	1275	x	935 mm

Salient Feature :

- Compact, Ergonomic Overall Design.
- Corrosion Free Rigid Construction.
- Lowest Power Consumption Algorithm.
- Soft Start For Heaters.
- Automatic Key lock Feature.
- Remote Monitoring, Alarms, and Controls.
- Date Retentive Delay and Process Timer.



Soft Start For Heaters
In built soft start for the heaters prolongs the heater life.

Automatic Key Lock Feature
This feature ensures that no manipulation could be done within the system while operated by an un-authorized person.

Remote Monitoring, Alarm and Controls
The system incorporates user friendly feather touch buttons for setting temperature, delay time and process time which could be seen on Seven Segment Display. LED's indicates the mode of operation. All the process data could be recorded to remote computer via RS232/RS485 or an optional attachment for the printer could be provided.

Data Retentive Delay and Process Timer
This feature ensures that the material inside is objected to the set temperature for the set time only, irrespective of any power cuts or voltage fluctuations.

Specifications :

Temperature Range	Ambient- 80°C
Temperature Sensor	RTD (PT 100)
Control System	PID, Programmable Microprocessor Temperature Set &
Display Sensitivity'	0.1°C
Temperature Fluctuation	± 0.1°C
Timer	999 Min delay +999 Process
Useful Volume, liter	28.5,45, 96,128,227,256,341
No. of Shelves	2, 2, 2, 3, 3, 3, 3
Power Consumption, KW	0.5, 0.5, 0.5, 1.0, 1.5, 1.5, 2.0
Power Supply, Volts AC.	230V, 50 Hz.
Internal Material	S.S 304 Polished
External Material	M.S. Sheet, Powder Coated.

MODEL NO.: YSI-440

YSI BOD INCUBATOR

—"Super Deluxe" with Solid State,
Most versatile and highly reliable low temperature incubator, to make Biochemical Oxygen Demand determinations and for preservation of vaccines, insulin, lever extracts, chemicals etc.

Construction : Robust Construction. Outer cabinet is made of M.S. Sheet, duly pre treated & finished with epoxy powder coated paint for lasting finish. Inner chamber is made of highly polished stainless steel. It has provision for allowing wide range of shelf positions & spacings. Stainless steel trays are also provided. Chamber is duly insulated to minimize heat loss. Two doors are provided. Outer door is insulated and is fitted with magnetic gasket for air tight closing for no temperature loss. Door is provided with lock and key. Inner door is made of unbreakable transparent acrylic glass empaneled in aluminum door frame for inspecting the specimens inside chamber, without opening the door and with minimum temperature loss.

Temperature Control : The heart of the YSI B.O.D. Incubator is the excellent and reliable solid state temperature controller cum indicator digital display, range from 5°C to 50°C ± 0.5°C. Hermetically sealed, high performance compressor works on Environment friendly and CFC free refrigerant and PUF insulated to lower the inside chamber temperature. Heating elements are placed in the path of moving air duly insulated from the body. Cooling coils also lie in the air circulation path. Air is circulated by a double shaft self-cooled, blower to keep the temp. uniform throughout the inner chamber. A safety thermostat is provided, which switches off the heaters in the event of failure of the normal temp. control system to protect the specimens from excessive heat. Also fitted with a door operated lamp for illumination inside the chamber. Conceded aesthetic design caster wheels are provided at bottom for easy mobility.

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 fine and coarse knobs allow the user to set any desired temp. A Digital Voltmeter is provided on the panel to read the incoming voltage.

YSI

Salient Feature : YSI BOD INCUBATOR switches from heating to cooling and vice versa irrespective of the ambient temperature because of its unique design and thus is capable of working without any user intervention. Supplied complete with 3 shelves of Stainless Steel as per the chamber, cord and plug, to work on 220 Volts, 1 Phase, 50 Hz, AC supply. The unit is supplied with suitable Automatic Voltage Stabilizer.

Available in following chamber sizes :

W	x	H	x	D	Cap. Cu. ft.
455	x	605	x	415 mm	4.0
500	x	800	x	415 mm	6.1
565	x	865	x	550 mm	10.0
650	x	900	x	550 mm	12.0
700	x	900	x	650 mm	15.0

Optional Accessories (YSI-440, 440A) :

- Interior illumination with 3 Nos. fluorescent tubes.
- Automatic cyclic timer 0-24 hrs. regulating illumination cycle.
- Arrangement for incubation carbon dioxide &air mixture.
- Carbon-di-oxide Cylinder 9 liters.
- Air compressor.

MODEL NO.: YSI-441

YSI HUMIDITY SYSTEM (STEAM) BOD INCUBATOR

Can be incorporated in the BOD Incubator for maintaining humidity arrangement. Humidity is created by condensation of steam generated by heaters dipped in water. Humidity is controlled by imported Humidistat from ambient to 95% ± 3% RH.

MODEL NO.: YSI-441A

YSI HUMIDITY SYSTEM (WATER SPRAY) BOD INCUBATOR

Can be incorporated in the BOD Incubator for maintaining humidity arrangement Humidity is created by spraying water in the form of fine mist generated with the help of air compressor and other accessories which are supplied with the unit. Humidity is controlled by Digital temperature and Humidity Control from ambient to 95% ± 3% RH.

MODEL NO.: YSI-442

YSI LABORATORY BIOLOGICAL INCUBATOR SUPER DELUXE

—Environmental Studies (Environmental Chamber/ Growth Chamber) Phytotron.

These are well designed for conducting different Laboratory & Research experiments to study growth of plants and animals under controlled environmental conditions and also in the fields of enzymatic digestion processes, incubation etc.

Construction :

Robust construction. Interior made of polished S.S. sheet, intermediate walls of S.S. Sheet and Outer cabinet is made of M.S. Sheet duly pre-treated & finished with epoxy powder paint. PUF insulation is provided to prevent thermal losses. Double walled door with a gasket seals the inner chamber from outside air. Viewing glass window allows inspection of samples without opening the door or disturbing the temperature. 3 Nos. Stainless Steel adjustable shelves are provided. Air ventilation and arrangement to introduce fresh air supply.

Cooling/Heating System :

Cooling is achieved by Environment friendly CFC free refrigerant, refrigeration system using a hermetically sealed air cooled compressor and other parts of high quality. This system is fixed at the lower part of the incubator. Cooling coil is fixed in the rear/side portion of the chamber in the path of moving air.

Heating is provided with Air heaters duly insulated from the body & are fixed nearthe cooling coil. The blower circulate the air into chamber through heaters/cooling coils to ensure uniformity of temperature inside the chamber.

Temperature. Control :

Temperature is controlled by solid state Digital Temperature Controller cum Indicator digital display using Pt 100 RTD sensor device. Temp. range 1°C to 50°C -±1°C.

Humidification :

It is controlled by humidistat and is achieved by spraying water vapour inside the chamber with the help of pump/air compressor or through steam generation. This system creates the required humidity from ambient to 95% ±3% RH. Arrangement exists only for increasing the humidity & not for dehumdification.

Illumination :

High intensity illumination of approx 12000 LUX is provided inside the chamber by fluorescent tubes, cyclically creating day/night conditions automatically controlled through 24 hrs. timer.

Control Panel :

All control, except humidistat, are fitted in the front panel for indication of temperature humidity, illumination, timer, etc. & are easily accessible.

Power Supply :

Suitable to work on 230 Volts, 50 Hz, Single Phase, AC supply.

Available in following chamber sizes :

W	x	H	x	D	No. of Shelves
665	x	856	x	550 mm	3
765	x	1365	x	670 mm	4

Optional Accessories :

- Voltage Stabilizer 5 KVA
- Two set point digital temp. controller cum indicator.

YSI

TEMPERATURE CONTROL

MODEL NO.: YSI-443

YSI PLANT GROWTH CHAMBER

State-of-the-art equipment for Plant growth and animal studies. Provision for light, temperature and humidity are made to test plant growth and analyse their flowering cycle.
Inner chamber made of S.S. 304 and outer of thick cold rolled steel duly pre-treated & powder coated. 75 mm thick glass wool of high density is sandwiched between the two walls to provide insulation.
A see through window is provided for inspection of plants. Heating is controlled by Microprocessor based programmable digital temp controller cum indicator to maintain temp. between 5°C to 50°C ± 1°C but 15°C to 50°C ± 2°C when the lights from both sides and top are in on position. A Seven Days programmable timer is also provided.
Cooling is maintained by hermetically sealed compressor works on environment friendly CFC Free Refrigerant and PUF insulated. Provision for 50,000 lux is provided with a mixture of incandescent lamp & fluorescent light to give effect of day light, whereas humidity is controlled from 55% to 95% ± 5% by a Microprocessor based controller.

Chamber Volume :
10 Cuft.
20 Cuft.
30 Cuft.
45 Cuft.
50 Cuft.

MODEL NO.: YSI-449Ex

YSI Co^2 INCUBATOR

Features

Fast Heat-Up, Fast-Recovery, Stable Control

- 6 Sides Direct Heating System
  Electric Heating wire is covered on all sides of chamber which makes stable uniformity and provides fast heat-up & temperature recovery
  3 parts of heating section are controlled and calibrated individually by 3 temperature sensors.
- Dry Wall and Air Jacket
- Warm Air from heating wire is preserved in space between chamber and insulation. It helps temperature recovered faster and minimize heat loss. Dry wall with insulation is not required to regular maintenance.
- DUAL BEAM IR CO2 Sensor Fast & Precise Detection for CO2 gas regardless of temperature and humidity
- Natural Humidification using Water Tray
  The heater on bottom side warm the water in tray and it makes humidification. Circulation fan deliver the moisture formed from the water in entire chamber
- No Condensation
  Heating by front door heater & frame heater prevent condensation in chamber and on glass door
- Microprocessor PID Control
  Intelligence Control for CO2 densityTemperature, Alarm, Automatic Decontamination(Optional).
- HEPA filtration of gas supply inlets.
  Various Option
  various option such as decontamination, Oxygen Control is available in CO2 incubators.

Model		YSI-449Ex
Chamber volume (L)		180
Temp. °C	Range	Ambient +5~60
	Accuracy	±0.1 (37)
	Resolution	0.1
	Control	Digital PID
Co_2	Range	0% ~20%
	Accuracy	±:0.1%
	Resolution	0.1%
	Sensor	IR Co2
	Control	Microprocessor
	Inlet pressure range	0.6~0.7 bar
Display		LED Display
Operating Panel		Individual 2 channel Touch Button
Jacket Type		Dry Wall Type (6 sides heat)
Chamber material		Stainless Steel (304)
Number of shelves		3/8
Chamber dimension (WxDxH)		473 x 528 x 710mm
Over all dimension (WxDxH)		560 x 665 x 945mm

YSI

MODEL NO.: YSI-449

YSI Co^2 INCUBATOR (NEW)

YSI Co, Incubators are designed for wide range of applications in biomedical, pharmaceutical and clinical laboratories i.e flabs all YSI Co_2, Incubator feature an option of selection between SS 304 and copper-enriched alloy interior with inherent germicidal protection against contamination and Direct Heat and Air jacket/Water jacket temperature control for accurate, uniform in vitro modeling of the in vivo environment.

Continuous Contamination Control UV Light.

The CO, incubator incorporates a Programmable Ultraviolet Lamp, isolated from cell cultures, that sterilizes conditioned air and humidity water reservoir water to avoid contamination without disturbing cell cultures in vitro.

CU/SS 304 Construction for Germicidal Protection.

Copper enriched stainless steel alloy interior surfaces eliminate contamination sources and mitigate the affects of airborne contaminants introduced through normal use.

Direct Heat and Air Jacketed Heating System.

The Direct Heat and Air jacket surrounds the inner walls with a natural convection air flow that converts to radiant wall heat through thermal conduction. This technique achieves accurate, uniform and highly responsive temperature control within the chamber.

Infrared CO_2 Control System.

The YORK dual beam infrared Coe system is linked to microprocessor controller with a sophisticated PID algorithm. This ensures Ultra-Fast recovery without overshoot and accurate CO_2, averages during periods of frequent CO_2, incubator access with multiple door openings.

Control, Alarm And Monitoring

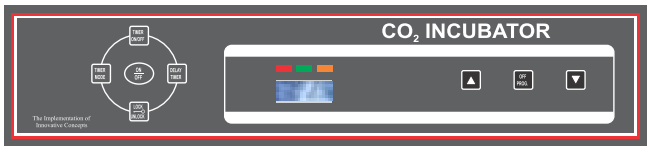
All instrument functions including the temperature, CO_2% and Humidity % of the incubator are programmable with a facility for a settable alarm for each parameter.

The easy to read 4 line blue LCD display with all set and process temperature, CO, and Humidity % and visual alarm for each parameter incorporated.
Rapid Response Class 100.

Product yields and reliability can be affected by airborne contamination costing you time and money. Class 100 HEPA Filter Flow System (optional) air quality contributes to an ideal culturing environment.

Specifications

Temperature	
Control	± 0.1°C
Range	5°C above ambient to 50°C
Uniformity	± 0.3°C @ 37°C (98.6F)
Tracking Alarm	User-Programmable
Over Temperature	
Sensor	RTD (PT100)
Setability	0. 1°C
Function	Shuts of heat
Temperature Safety Sensor	Independent RTD (PT 100)
Controller	Independent Micro Controller
Sterilization Cycle	
Sensor	24 hours time
Sterilization Cycle (optional)	
Sensor	RTD (PT 100)
Cycle Temperature	140°C (284F)
Cycle Length	12 hours
Co_2	
Control Better than	± 0.1%
Range	0-20%
Inlet Pressure	15 PSIG (1.0 bar)
Sensor	IR
Readability and Setability	0.1%
Tracking Alarm	User Programmable.
Humidity	
RH	Ambient to 100% @ 37°C (98.6F)
Humidity Pan	5.0 liters
Display	In 0.1% increments
Fittings	
Access Port	1.3" (3.3cm) with removable
silicon plug with filter	
Co_2, Inlet	1/4" hose
Unit Heat load	500 watts



Shelves	
Dimension	14" x 16"
Construction	Stainless Steel, Perforated
Surface Area	1.55 sq.ft.
Max. per Chamber	22.5 sq. ft.
Standard, maximum	4, 15
Construction	
Interior Volume	5.25 cu.ft (150 liters)
Interior	Type 304, polished Stainless Steel.
Exterior	20 gauge, cold-rolled steel, powder coated.
Outer Door Gasket	Four-sided, molded, magnetic vinyl.
Inner Door Gasket	Removable, cleanable Feather-edged, Silicone
Electrical	
Operating Voltage	230V, 50Hz
Data Outputs	RS232/RS485, Printer Output (optional)
Dimensions	
Exterior	26.5"Wx 38" H x 24" L
Interior	18" Wx 24" H x 18" L

At one glance

- Compact, Ergonomic Overall Design
- Direct Heat and Air Jacketed Temperature Control
- Cu/SS enriched Contamination resistant interiors
- UV protection for Contamination Control
- Precise P.L.D Enhanced CO_2 recovery
- High performance Control, Monitoring and Alarm Functions
- Infra Red CO, sensor
- Menu driven through microprocessor
- User Selectable single/profile control mode
- In built Real Time Clock
- Data Retentive Time for both UV and process

YSI

MODEL NO.: YSI-451

YSI ORBITAL SHAKER INCUBATOR

Integrated Microprocessor Digital PID Controller provides temperature, shaking speed, timer and safety at once. Equipped with timer, alarm in built temperature calibration. Temperature and shaking can be controlled together or independently with wait - off timer Temperature from +10°C to 60°C with ± 0.5°C at 25°C accuracy

Salient Features :

- Accommodates both shaking platform and static shelf together for shaking incubation and general incubation.
- Transparent double layer tempered safety glass window for sample observation during operation without opening the door.
- Built-in working lamp.
- Shaking motion automatically cut-off to protect user from moving parts when door open.
- Slow start and stop motion control provides smooth operation and prevent shock.
- Spring rack holds various shape of containers.
- Volume adjustable Flask Holder made by polycarbonate plastic.

Technical Specifications :

Chamber Volume (Capacity)	:	165L
Temperature :		
Heating Type	:	Forced Convection
Range	:	10°C—60°C/w Cooling System
Accuracy	:	± 0.5°C at 25°C
Uniformity	:	± 0.5°C at 25°C
Illumination	:	None Fluorescent Lamp 20W x 2EA
Shaking :		
Speed /Stroke	:	60~300RPM/20mm Orbital Motion
Control :		
Main Controller	:	Digital PID Controller with Timer, Auto-Tuining, Calibration Function
Wait of Timer	:	mm:ss/hh:mm/Continuous Selectable
Sensor	:	PT100
Safety Device :		
Temperature Safety :		Hydraulic Over Temperature Protection Device
Electrical	:	Electrical Leakage Breaker
Dimensions :		
Chamber	:	530mm(W)x530mm(D) x 590mm(H)
Platform	:	500mm (W) x 495mm (D)

Material :		
Internal	:	Stainless Steel Polished (SUS304)
External	:	CR Steel with Epoxy Powder Coating.
Door	:	Self Weight Balanced Door with Transparent Tempered Safety Glass Window.
Utility:		
Lamp	:	25 Watt Crypton Working Lamp in Chamber.

Optional Accessories :

- Flask Holder Size Adjustable from 50-100m1 Min. 25 Max. 45 EA
- Flask Holder Size Adjustable from 200-300 ml x16 EA
- Flask Holder Size Adjustable from 500m1 x 16 EA or 1000 ml x5 EA
- Spring Rack 500 x495 x140 mm
- Test Tube Holder Dia. 16mm x 30 Holes 100 x 185 x 208mm
- Test Tube Holder Dia. 25 mm x 18 Holes 100 x 185 x 208 mm
- PVC Coated Static Wire Shelf 500 x 510 mm

MODEL NO.: YSI-452

YSI CONSTANT TEMPERATURE SHAKING INCUBATOR

Characteristics :

- Large-screen LCD, Shows temperature, speed, working time menu operation interface, easy to operate. Microcomputer control temperature and oscillation frequency with timing functions, built-in power -off protection can automatically resume operation after power on.
- Unique air duct breeze circulation, large observation window.
- Speed control : intelligent brush less DC motor, high speed accuracy, slow start design, auto lock if speed out of control. adjustable starting speed to prevent the splash of shake ask liquid.

Model Shaking	YSI-452
Amplitude	20mm
Temp. Range	RT+5~65°C
Rotary Speed	30~300rpm
Chamber Material	Mirror St. Steel
Outer Shell	ABS
Temp. Control Mode	LCD PID intelligent control
Inner Chamber Size(WxLxH)	455x380x290mm
Max. Capacity	100ml*16/250*10/500*6
Number of flask clamp	250*8

MODEL NO.: YSI-515

YSI ORBITAL SHAKER

Features :

- Suitable for bench space.
- Well-designed chamber for air convection which makes temperature uniformed precisely.
- Artificial intelligence system which maintains precise thermostatic control.
- Internal viewing acryl lid allows observation without disturbance to cultures.
- LED indicates temperatures, speed, time and state of power failure.
- Brushless DC motor provides low noise and no vibration.

Specifications :

Temp. Range	:	Ambient + 5°C to 60°C.
Temp. Accuracy	:	±.5°C at 37°C.
Temp. Increment	:	0.1°C.
Temp. Control	:	Microprocessor digital PID.
Speed Range	:	30 to 300 rpm.
Speed Accuracy	:	±1 rpm.
Speed Increment	:	1 rpm.
Time Range	:	1 minute to 48 hours or continuous operation.
Time Accuracy	:	±1%. Controller : Microprocessor.
Motor	:	Plate Type Brushless DC Motor.
Stroke	:	22mm. Operating Panel : Touch Button.
Platform Size	:	250(W)x310(D)mm. Platform
Capacity	:	250m1 x 8 (standard)
Power	:	220V, 50Hz.

Optional Accessories :

- Spring wire rack
- Microplate rack

YSI

MODEL NO.: YSI-453

YSI HUMIDITY & TEMPERATURE CONTROL CABINET

Humidity and temperature control Cabinet is well designed for conducting different laboratory and research experiments for different quality control tests to be carried out on different materials e.g. cement, motors, various electrical fittings, electronic circuits and components, cloth and paper etc. under controlled temp. and humidity conditions.

Construction : It is of robust construction. The outer body is made of M.S. Sheet duly pre treated & finished with epoxy powder paint for lasting finish. Caster wheels provided for easy mobility. The intermediate wall is of S.S. Sheet. Inner chamber is made of Stainless Steel. Trays are also supplied to make the shelves inside the chamber. Inner chamber facilitates self placement at different height. The chamber is insulated by filling glass wool in the space of between outer body and chamber to prevent temperature loss. Door is also insulated.

Forced air circulation in the chamber by a blower ensures uniform temperature and humidity inside the chamber. Finned type heater duly insulated from body are provided in the moving air path. Humidity is achieved by generating of steam by immersion type water heater in water reservoir & its subsequent condensation in the circulating air.

Temperature and Humidity Control : Temperature Range ambient to 55°C ± 0.5°C and Humidity Range from ambient to 95% ± 3% are Controlled by digital temperature and Humidity Controller cum Indicator which controls wet temperature for controlling humidity and switches off immersion heaters to stop generating steam. Arrangement exist only for increasing humidity & not for decreasing the humidity.

Temperature Range : Ambient to 55°C + 0.5°C. Humidity Range : Ambient to 95% + 3%. RH.

Size of inner chamber:

W		H		D
455	x	710	x	455 mm
605	x	605	x	605 mm
605	x	910	x	605 mm

MODEL NO.: YSI-455

YSI ENVIRONMENTAL TEST CHAMBER

Salient Features :

- Non volatile memory for data storage of upto 2500 records .
- User friendly Microprocessor Design/Operation.
- Audio Visual alarm warnings to Temp. & RH variation and low water level.
- Capacitance type humidity sensor for direct display of humidity in % RH.
- Built in safety circuit, which cuts off system & stops unit in case of malfunction of Microprocessor.
- RS-232 Port (interface) for keeping hard copy of temperature Humidity, Time & Data .
- High voltage safety cutoff for unit protection Adjustable print interval with printer (Optional) General : Elegantly designed double walled cabinet to provide controlled atmosphere by varying Temp. and relative Humidity values above freezing point for conducting various R & D tests eg, Plant & Animal growth test, pharmaceutical tablet stability test, determination of dielectric test, Packed material vapour test, Insulation test of electrical component. Inner Chamber made of S.S.-304 grade thick sheets and outer wall is of thick cold rolled steel duly pretreated and powder coated. A heavy door with a see through window is also provided. Temp. range from 10 to 60°C ± 1°C and Rel. Humidity 40% to 95% ± 3% is controlled with Microprocessor based programmable Controller cum Indicator for displaying Temp in C°. & Humidity in %age directly. Heater take care of temp. above ambient where as hermetically sealed compressor of reupted make such as Tecumesh/Emersion etc. which is using Environment friendly CFC free refrigerant maintains below ambient and the unit is PUF insulated, where as humidity is created by natural mist through Steam generation.

Inner Chamber:

W	x	H	x	D
455	x	710	x	455 mm
605	x	605	x	605 mm
605	x	910	x	605 mm

Option a /Accessories :

- RS-232 interface for humidity control through personal & for multiple networking of chambers.
- Chamber illumination with fluorescent or ultra violet lights
- Cyclic timer for regulating illumination conditions.
- Voltage Stabilizer..... 3 KVA, 4 KVA.

YSI

MODEL NO.: YSI-458

YSI STABILITY TEST CHAMBER MICROPROCESSOR CONTROLLED

Most versatile and highly reliable chamber ideal for stability & shelf life test for drugs, its substances & various other products / devices for research and quality control examinations in pharmaceutical, food and cosmetics industries and biotechnology. Capacitance type Humidity Sensor for direct display of Humidity and temperature with user friendly Microprocessor control system for setting and control of run parameters. Unique insulation endow with highly precise and constant temperatures.

Construction : Outer body is made of 304 Grade Stainless Steel (dull buff finish) / CRC Sheet duly powder coated and the inner chamber is made of 304/316 Grade Stainless Steel (#4 finish) It has provision for allowing wide range of shelf positions & spacings. Stainless steel trays are also provided. Chamber is duly insulated to minimize heat loss. Also fitted with a door operated lamp for illumination inside the chamber. Conceded aesthetic design caster wheels are provided at bottom for easy mobility.Control Panel : All controls and circuitry are housed at the top of the chamber and therefore protected from spillage. Separate indicator lamps for mains, heating and cooling are fitted. Temperature setting fine and coarse knobs allow the user to set any desired temp.Yorco stability chambers

The Chamber is incorporated with RS 485 port (optional) and software to enhance the performance and utility and PC interface allows the user to monitor the performance of number of cabinets even from very remote location.

The Data obtained from various stability Chambers/Incubators and deep freezers with in the Lab can be stored and analyzed with windows based software. Reports are generated both in tabular and Graphical formats. The security features in the Software are in accordance with the requirement of 21 CFR Part-11 (optional).

Suitable to work on 220 V, Single Phase, 50Hz supply.

Optional Features :

- The Chamber illumination is carried out by fluorescent or Ultra Violet Lights.
- 8 Channel temperature/ Humidity Data Logger.
- Printer interface with data storage facility.
- Cyclic timer for regulating illumination conditions.
- Ready to use stand by refrigeration system incase of regulars system fails. This includes compressor, evaporator, condensers and other accessories.
- PLC system for auto changeover of standby system.
- Dedicated safety controller with separate sensor to switch of the power supply incase of over shoot and under shoot of temperature giving audio visual alarm.
- LCD display with touch screen for ease in handling & setting of various parameter.
- Mobile alert via GSM technology incase system fails.

Corrosion Free Rigid Construction.

Inner Chamber is made of Seamless Corrosion resistant Stainless Steel 304 fora longer life time.

Temperature Uniformity.

Excellent temperature uniformity is obtained by incorporated PID control system which maintains the temperature very precisely.

Low Power Consumption Algorithm.

Smart Microprocessor act in response to any selectable temperature more quickly compared to other system, thus saving of energy.

Automatic Key Lock Feature.

This feature ensures that no manipulation could be done within the system while operated by an un¬authorized person.

Salient Features :

- Designed is accordance with ICH guidelines. Manufactured to comply with the requirements of cGMP for stability and Shelf life test on drugs and drug substances.
- Microprocessor controlled for high stability and ease in operating.
- Menu driven 10 program memory.
- Audio Visual alarm warnings of Temp. & RH variation and low water level.
- Non volatile memory for data storage up to 2500 records.
- Validation protocol for IQ, OQ, PQ & DQ as per ICH guidelines.
- 8 channel mapping of temperature and humidity with calibration certificate.
- High voltage safety cutoff for unit protection.
- Adjustable print interval.
- Centronics interface for keeping hard copy of Temp., Humidity, Time & Date.
- Built in safety circuit, which cuts off system & stops unit in case of malfunction of microprocessor.
- Safety thermostat to prevent over heating.
- Display of set value and process value.
- Superior insulation ensures temperatures stability and reduces energy consumption.

TECHNICAL DATA						
Volume	Approx	Approx	Temperature		Humidity	
Litrs.	Working Space (cm) WxDxH	External Dim. WxDxH	Range	Accuracy	Range	Accuracy
170	50x41 x84	62 x67x138	10°C to 60°C	±1°C	40% to 95%	±3%
285	58 x49 x 99	70x 75x 153	10°C to 60°C	±1°C	40% to 95%	±3%
340	62 x52 x 102	74 x 78 x 151	10°C to 60°C	±1°C	40% to 95%	±3%
450	70x 71 x110	83 x 87x 174	10°C to 60°C	±1°C	40% to 95%	±3%

YSI

MODEL NO.: YSI-464

YSI SEEDS GERMINATOR

-Single Chamber

Designed for conducting various experiments on variety of seeds under different parameters of temperature, humidity etc. Atmospheric environment can thus easily be simulated within the laboratory to perform different experiments without going into the field, by creating desired condition of temperature & humidity in the chamber of seed germinator. It is of double walled construction. Inner chamber is made of Stainless Steel & outer cabinet is made of MS sheet, duly pre treated & finished with epoxy powder paint. Insulation is provided between inner chamber & outer body to minimise heat loss. S.S. Water reservoir at the bottom provides 90% to 95% fixed humidity (not adjustable). Environment friendly CFC free refrigerant used and the unit is PUF insulated. Temperature range from 5°C to 50°C ± 0.1°C is controlled by Digital Temperature Controller cum Indicator.

Door is also provided with a viewing glass window to view the germination of seeds inside the chamber without opening the door, thus no temperature/humidity loss. Air circulation ensures uniform temperature inside the chamber.

Heater provided for temperature control and humidity is achieved by steam generator inside the chamber. A water reservoir in the bottom is heated through immersion type heaters generates the steam, creating humid condition inside the chamber.

Panel is fitted with Digital temperature controller cum indicator and pilot lamps, switches etc. Supplied complete with 6 SS perforated trays. Complete with cord and plug, to operate on 220 Volts, 1 Ph, 50 cycles AC supply. The unit is incorporated with an Automatic Voltage Sterilizer for better and efficient working.

Size of inner chamber:

W	x	D	x	H
555	x	910	x	605mm

MODEL NO.: YSI-465

YORK SEEDS GERMINATOR

-Single Chamber (day light)

Details same as per YSI-464 but provided with exterior lighting arrangement to simulate (manually operated by switch) light conditions also.

Optional Accessory :

- 0-24 hours imported programmable timer for regulating illumination cycle.

MODEL NO.: YSI-466

YSI SEEDS GERMINATOR

-Dual Chmaber,

Latest range of YSI Seed Germinator sets new standard for conducting experiments in the field of seed germination of variety of seeds under different environmental conditions of temperature, humidity, illumination. Both chambers have different environmental conditions.

Temperature Control: Temperature of both the chambers can be controlled separately and independently by Digital Temp. Controller cum Indicator. In one Chamber - The temperature can be controlled from ambient to 50°C (i.e. Heating system only is provided). In another chamber- Temperature can be controlled from 2°C to 50°C (with help of refrigerated system comprising of hermetically sealed compressor and suitable heating system).

Construction : Outer body is made of MS Sheet duly pre treated and finished with epoxy powder paint. Inner chamber is made of stainless steel of suitable thickness. 14 Nos. Trays made of stainless steel are provided in each chamber, of size 430 x 480mm each. Both the chambers are PUF insulated to minimise the temperature loss and enable to achieve the required conditions at the earliest. Both chambers have independent controls. Viewing window of glass are provided in the doors, for viewing purpose. Doors are insulated against any heat loss, wheels provided for ease of mobility. Air circulation blower unit Provided for ensuring uniform temperature within the chambers. Cooling is achieved by Environment friendly CFC Free refrigeration system by hermetically sealed compressor of high quality, along with other parts such as condenser, cooling coils, fan motor etc.

Illumination : (Optional) both the chambers can be equipped with fluorescent lights fro enabling photosynthesis & are switched ON/OFF by 0-24 hours timer to simulate the day/night conditions.

Humidification : Humidity inside the chamber is provided by steam generated through heating water with the help of immersion type heater. A water reservoir is provided in the machine with heaters and controls for this purpose, to achieve 90 to 95% +3% to 5% RH (not adjustable).

Control Panel : Switches and indicating lights for cooling, heating, humidity and illumination, timer, thermostats, etc. are provided on the control panel for easy access. Suitable to work on 230Volts single phase, 50Hz AC supply.

The unit is supplied with a built in Automatic Voltage Stabilizer.

Size of each chamber :

W	x	H	x	D
555	x	910		605 mm

MODEL NO.: YSI-467

YSI SEEDS GERMINATOR

—Dual Chamber,

Same as per YSI-466 but fitted with heating and cooling systems in both the chambers.

Option al Accessories for (YSI-466, 467) :

- Micro processor based PID temp. controller cum indicator in lieu of Digital Temperature Controller
- Interior illumination the 3 tube lights 60cm., per chamber.
- 0-24 hrs timer for illuminations.

YORCO

SALES PVT. LTD.

YSI STERI STERICLEAN YSPL

CORPORATE OFFICE

YORCO SALES PVT. LTD.

Yorco Corporate Tower, Plot No.2, Gazipur, Patparganj, Delhi-110096

Tel.: 011-46202222 (100 lines), Fax : 011-46202244

Email: **sales@yorco.com**, Website: **www.yorco.com**

YORCO CUSTOMER SUPPORT CENTRES

DELHI	MUMBAI	HYDERABAD	CHENNAI	BANGLORE	KOLKATA
11, Netaji Subhash Marg, Daryaganj, N.Delhi-02	Yorco Chamber 3A, Takwadi, Mumbai- 400002	3-4-512/4/1, LIG-H34RRT, Barkatpura, Hyderabad-04	Post Box No. ..... Chennai- 18	Yorco Estate, No.7, 4th Cross, Banglore-32	Post Box No. ..... Kolkata- 700007
sales@yorco.com	mumbai@yorco.com	hyderabad@yorco.com	chennai@yorco.com	blr@yorco.com	kolkata@yorco.com