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AUTOCLAVE

TECHNICO®

VERTICAL MODEL

HORIZONTAL MODEL

264, Sidco Indl Estate, Thirumudivakkam, Chennai - 44 Ph: 40535555

TECHNICO®

TLPPL 101 -'TECHNICO' AUTOCLAVE–VERTICAL :

Technico Vertical Autoclave is a Double walled chamber. The Interior, Perforated Basket and the Doomed Lid are made of polished Stainless steel of 304 grade, argon TIG welded. The outer chamber is also made of 304 Grade Stainless Steel Sheet. The Doom Lid is tightened with wing nuts to ensure pressure tightness. Heating elements are Immersion type Heaters of suitable rating. The Unit is fitted with Neoprene Rubber Gasket to ensure tight sealing. The Unit is incorporated with Pedal Lifting Device for easy opening of the Lid.

Standard accessories supplied with unit are pressure gauge, steam release cock, spring-loaded safety valve, cord and plug.

Technical Specifications:

Pressure Range : 20 psi +/- 3 psi
Inner Temperature : 120 to 131 Deg.C
Operating Voltage : 230 V AC

Optional Accessories:

1. Digital Temp. Controller with Sensor
2. Automatic low Water Cut off Switch
3. Automatic Pressure Switch
4. Automatic Timer 0 – 60 minutes
5. Water level indicator

Inner Chamber size Diameter x Height	Capacity	Power Rating
250 x 450 mm	22 ltrs	2.0 Kw
300 x 500 mm	40 ltrs	3.0 Kw
350 x 600 mm	50 ltrs	3.0 Kw
450 x 600 mm	100 ltrs	4.0 Kw
450 x 750 mm	125 ltrs	4.0 Kw
550 x 750 mm	150 ltrs	5.0 Kw
750 x 1000 mm	250 ltrs.	6.0 Kw

TLPPL 102 - 'TECHNICO' HORIZONTAL AUTOCLAVE – CYLINDRICAL :

Technico Horizontal Autoclave is a Triple walled unit, mounted horizontally on a sturdy heavy mild steel tubular stand. Interior chamber & Boiler are made of SS 316 Grade. Jacket Exterior, Lid ring radial system piping and boiler are made of SS 304 Grade, and the Lid made of polished Stainless steel with leak proof argon TIG welding. The Lid is tightened with radial locking system Self Locking Safety door which cannot be opened while the chamber is under pressure

Separate valves are provided for injection of steam into the chamber and releasing the steam from the chamber.

Standard Accessories supplied with the unit: Automatic Low Water Level cut off device, Pressure gauge, and steam release cock, Safety valve and Digital Temperature Indicator.
Pressure Range: 10 – 20 psi.
Power : 440 V, 3 Phase

Diameter x Depth	Capacity (approx)	Power Rating
400 x 600 mm	78 ltrs	6.0 kw
500 x 900 mm	165 ltrs	9.0 kw
550 x 750 mm	152 ltrs	6.0 kw
400 x 1100 mm	162 ltrs	9.0 kw
500 x 1200 mm	221 ltrs	9.0 kw

BOD INCUBATOR

TECHNICO®

TECHNICO®

TLPPL 103 – 'TECHNICO' BOD INCUBATOR:

Technico BOD Incubator is a Double walled chamber with interior made of stainless steel of 304 Grade and exterior made of Cold Rolled Mild Steel Sheets finished in Epoxy powder coating. Insulation is by special grade glass wool. Removable stainless steel Trays are provided at adjustable height.

Double door system, with inner Acrylic door for full view of the inner chamber and outer double walled insulated door provided with lock and key arrangement.

Temp. is controlled by a Digital On/off controller with RTD Sensor. A Circulating fan assembly is incorporated in the unit for uniform temperature inside the chamber. Alternatively a Microprocessor based PID controller can be provided

Inside Illumination is provided by fluorescent tube lights.

CFC free Refrigeration System by Emerson-Copeland compressor, air cooled condenser and accessories provided at the bottom of the chamber.

The control panel consists of Digital Temp. controller, indicating lamps, on/off switch etc. is provided at the bottom. The unit is mounted on smooth/free moving 4 nos. castor wheels for easy mobility.

Technical Specifications:

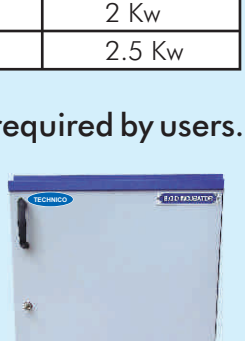
Max. Temp : +5 °C to 60 °C,
Temp. Accuracy : 1 °C to 2 °C
Operating Voltage : 230 V Single-Phase 50 cys.

Inner Chamber size	Capacity Cu. Ft	Capacity 1trs	No. of trays	Power Rating
455 x 415 x 610 mm	4	112 ltrs	2	1 Kw
500 x 415 x 800 mm	6	168 ltrs	2	1.5 Kw
570 x 550 x 870 mm	10	280 ltrs	3	1.5 Kw
650 x 550 x 900 mm	12	335 ltrs	3	2 Kw
700 x 650 x 900 mm	15	420 ltrs	3	2.5 Kw

We can supply other BOD sizes like " MINI' OR Extra 'LARGE' as may be required by users.

Optional Extra :

- Automatic Voltage Stabilizer
- Microprocessor based Digital PID controller with SSR out put
- Timer
- Puff Insulation



INCUBATOR

TECHNICO®

DIGITAL MODEL

THERMOSTAT MODEL

TECHNICO®

TLPPL 104 -- 'TECHNICO' DIGITAL BACTERIOLOGICAL INCUBATOR :

Technico Digitally controlled Model Bacteriological Lab Incubator is a Double walled chamber with interior made of stainless steel sheets of 304 Grade and Exterior made of cold rolled mild steel sheet finished in Epoxy powder coating. Inter space in between walls is tightly packed with glass wool to minimize radiation heat loss. The Inner chamber accommodates Stainless steel perforated trays at adjustable height. A Double walled insulated door mounted on heavy-duty hinges and provided with and locking arrangements is provided

.

Temperature is controlled by a Digital Temperature Controller working in conjunction with PT100 Sensor housed in the hot zone.

Air Circulating Fan Assembly driven by suitable motor is incorporate in the unit for maintaining uniform temperature inside the working chamber. Adjustable Air Ventilator is provided at the top.

Built in front control panel accommodating pilot indicating lamps, on/off switch, Digital Controller etc are located at the lower portion or at the right side of the chamber.

Temperature Range : ambient +5 °C to 80 °C 2 ° C
Temperature Accuracy : + / - 2 Degs C
Power Supply : 230 V AC, Single Phase

Optional :

a) Microprocessor based Digital PID Controller with SSR output for better then + / - 1 Deg. C Accuracy
b) Digital timer

Inner Chamber (L x B x Ht)	Capacity	Power Rating
300 x 300 x 300 mm	2	150W
350 x 350 x 350 mm	2	150W
450 x 450 x 450 mm	2	200W
450 x 450 x 600 mm	2	200W
600 x 600 x 600 mm	3	400W
600 x 600 x 900 mm	3	400W

TLPPL 105 --'TECHNICO' THERMOSTATIC BACTERIOLOGICAL INCUBATOR :

Technico Thermostatically Controlled Model will be same as above except that the Temperature is controlled by capillary thermostat housed in the hot zone. Adjustable Air Ventilator is provided at the top.

Built in front control panel accommodating pilot indicating lamps, thermostat and energy regulator located at the lower portion or at the right side of the chamber.

Temperature Range : ambient +5 °C to 80 °C 8 to 10 ° C
Temperature Accuracy : + / - 8 to 10 Degs C

CARBON
&
SULPHUR APPARATUS

TECHNICO®

TECHNICO®

TLPPL 106 - 'TECHNICO' CARBON & SULPHUR DETERMINATION APPARATUS :

Technico C & S Apparatus comprises of :

(a) Tubular combustion furnace unit,
(b) Control panel with transformer and
(c) Glass parts for determination of percentage of Carbon & Sulphur.

a) The Combustion Furnace, tubular in shape is heated by 3 Nos. Silicon Carbide heating elements suitable for max. temperature 1300 Deg.C. The furnace is designed to accommodate Combustion tube dimensions of 17 mm x 22 mm x 600mm. The furnace is provided with Ceramic fibre blanket insulation.

b) Control panel with transformer : This is a compact and attractive unit made of cold rolled mild steel sheet and finished with powder metal coating accommodating the following:-

1. A step down transformer with 6 steps coarse and 6 steps fine control on the secondary side.
2. Digital Ammeter range 0-20 Amps.
3. Digital Volt meter range 0-300 Volts.
4. Digital Temperature Indicator
5. Indicating Lamps.
6. 6 way rotary switches 2 nos. for coarse and fine control.

c) The following Glass Parts of Borosilicate Glass are mounted on an attractive teakwood stand with laminated board as the base.

1. Sulphur Cup.
2. Sulphur burette, 4 ml or 25 ml.
3. Coil condenser.
4. One Litre Reservoir.
5. 'L' bend Stopcock.
6. Three way stopcock.
7. Carbon Burette with a range of 4.5% or 1.05% or 0.5% (To be Specified)
8. Levelling bottle.
9. Gas washing bottle.
10. Absorption vessel.
11. Dust Trap.
12. Eye piece.

Standard accessories are supplied along with every complete equipment.

1. Kanthal scoop for handling the combustion boat	: 1 No.
2. Instruction manual with pressure temperature correction chart.	: 1 set.
3. Combustion tubes	: 2 Nos.
4. Clamps for heating elements.	: 4 Nos.
5. Rubber tube	:10 Mtrs.
6. Combustion Boats	:50 Nos.

Available in Single Burette Model OR Double Burette Model

CIRCULATION BATH

TECHNICO®

CIRCULATION MODEL

CRYOSTAT MODEL

TECHNICO®

TLPPL 107 -- 'TECHNICO' CIRCULATION WATER BATH WITH COOLING :

Technico CWB is a Double walled chamber, inner made of stainless steel of 304 grade and outer made of thick gauge cold rolled mild steel sheets and attractively finished in powder coat paint. The inter space in between the walls is tightly packed with puff to avoid thermal losses. The Chamber is provided with top opening lid made of stainless steel and provided with handle.

Evaporating coils are kept inside the inner chamber for faster cooling. The refrigeration system consisting of compressor, air-cooled condenser and accessories is provided at the lower portion of the bath.

The temperature is controlled by Digital ON/OFF temperature controller with an accuracy of 2 °C. (The unit is fitted with a stirrer to re-circulate the liquid in the tank to maintain uniform temperature inside the bath.) A FHP circulating pump to re-circulate liquid in the tank to an external source is also provided.

Built in control panel with indicator lights, On/Off switches, Digital ON/OFF controller etc. and is provided on the top portion of bath for operational convenience.

Optional - Stirrer

Capacity (ltrs)	Chamber size	Rating (kw)
12	200 x 220 x 260 mm	1.5
28	300 x 360 x 300 mm	2.0
40	370 x 300 x 400 mm	3.0

TLPPL 108 -- 'TECHNICO' CRYOSTAT (LOW TEMP. BATH) :

Technico Cryo Bath is a Double walled chamber, inner made of stainless steel of 304 Grade and outer made of cold rolled mild steel sheets and attractively finished in powder coat painting. The inter space in between the walls is tightly packed with PUF Insulation. The Chamber is provided with top opening lid made of stainless steel and provided with handle.

Evaporating coils are kept inside the inner chamber for faster cooling. CFC free refrigeration system consisting of hermetically sealed compressor, air-cooled condenser and accessories is provided at the lower portion of the bath.

The temperature is controlled by Digital ON/OFF temperature controller with an accuracy of +/- 1 to 2 °C. The unit is fitted with a stirrer to re circulate the liquid in the tank to maintain uniform temperature inside the bath.

Capacity (ltrs)	Chamber size	Rating (kw)
12	200 x 220 x 260 mm	2.0
28	300 x 360 x 300 mm	3.0
40	370 x 300 x 400 mm	4.0

Temperature Range :-20 °C / -30°C
Temp. Accuracy : 1 to 2 °C.
Operating Voltage :230 Volts

Optional:
Microprocessor based Digital PID temperature controller for better accuracy

WATER BATH

TECHNICO®

CONSTANT TEMP BATH

SERIOLOGICAL WATER BATH

6 HOLE WATER BATH

TECHNICO®

TLPPL 109 - 'TECHNICO' SERIOLOGICAL WATER BATH :

Technico SWB is a Double Walled Chamber, inner made of Stainless Steel of 304 Grade and outer made of cold rolled mild steel sheet and finished in powder coating. The inter space in between the wall is tightly packed with special grade glass wool to eliminate radiation heat loss to the minimum. The top doomed lid with plastic knob is provided for the unit. A drain plug is fitted to drain out the used water. The inner chamber fitted with immersion type heating element and covered with perforated removable diffuser tray. A capillary type thermostat controls temperature within the operating range of Ambient + 5 to 90 Deg.C with an accuracy of +/- 5 deg.C. The front panel accommodates all controlling components.

Optional
a)Digital Temperature Controller with Sensor
b)Microprocessor based PID Controller SSR out put

Inner size	Racks	Capacity
250 x 150 x 185 mm	1	7 ltrs
300 x 250 x 175 mm	2	14 ltrs
330 x 300 x 175 mm	4	18 ltrs
455 x 300 x 175 mm	6	25 ltrs
605 x 300 x 175 mm	8	32 ltrs

TLPPL 110 - 'TECHNICO' CONSTANT TEMPERATURE BATH :

Technico CTB is a Double walled chamber, inner made of thick stainless steel sheets of 304 grade and outer made of thick CRCA Sheets duly finished in Epoxy powder coating. Glass Window provided in the front side for an easy inside view. Inter space in between the walls will have air tight insulation. Top Lid is made of stainless steel plate and provided with handle. Heating elements are chromium plated immersion type. Temperature controlled by precision thermostat. A Medium speed stirrer with FHP motor fitted to the unit for continuous stirring and thus maintaining uniform temperature. Built in control panel accommodates indicating lamps, precision thermostat, On/Off switch, located at the top of the chamber.

Optional
- Digital On/Off Temp. Controller with sensor
- PID temperature controller with SSR out put
- FHP Circulating Pump to re circulate liquid to an external source
- Fluorescent Lighting arrangement

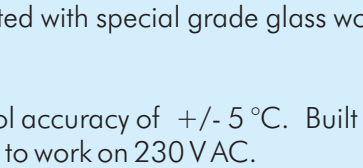
Cap. Ltrs	Chamber size	Power Rating
12	220 x 220 x 260 mm	2.0
28	300 x 360 x 300 mm	3.0
40	370 x 260 x 350 mm	4.0

TLPPL 111 : 'TECHNICO' WATER BATH (DOUBLE WALLED) :

Technico Water bath is a Double walled, stainless steel of 304 grade inside and outside of Stainless Steel or Mild steel sheet, finished in powder coating. The gap between the outer and inner walls is insulated with special grade glass wool. The top of the bath and concentric rings are also stainless steel.

The temperature is controlled by a thermostat from ambient + 5 to 90 °C with a control accuracy of +/- 5 °C. Built –in front panel is provided with two pilot lamps concentric rings on/off switch, wire and plug to work on 230 V AC.

Chamber size	No of Holes
300 x 250 x 100 mm	(6 holes of Ø 75 mm)
300 x 405 x 100 mm	(12 holes of Ø 75 mm



DEEP FREEZER

TECHNICO®

VERTICAL DEEP FREEZER

DEEP FREEZER - HORIZONTAL

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TLPPL 112 – 'TECHNICO' DEEP FREEZER – VERTICAL MODEL:

Technico Upright Deep Freezer Model is a Double walled chamber. The inner chamber is made of non corrosive thick gauge Stainless Steel sheet of 304 Grade and outer made of thick cold rolled mild steel sheets, attractively finished in Epoxy powder coating. The inter space between the outer and inner chamber will be tightly packed with PUF insulation on all the sides for effective insulation to prevent any temperature loss. The inner chamber accommodates 2 Nos. Stainless steel Trays at adjustable height

The double walled door in the front, is made as per chamber construction, mounted heavy duty hinges and provided with effective locking arrangements. The door is gasketted along the edges for effective sealing of the door in closed position.

CFC Free Refrigerant system consists of Hermetically Sealed Copeland Compressor, air cooled condenser and heavy duty motor driven fan are provided at the lower portion. Temperature is indicated and controlled by Smart Range of Digital Temp..Controller working in conjunction with PT-100 sensor. The unit is mounted on smooth moving castor wheels for easy movement within the laboratory.

Power ; 230 Volts single phase 50cys. Ac
Temperature Range : - 20 Deg.C/ - 40 Deg.C
Optional
Suitable Voltage Stabilizer

Capacity	Trays	Inner Chamber size
110 ltrs	One	425 x 400 x 680 mm
165 ltrs	Two	500 x 415 x 825 mm
280 ltrs	Three	580 x 500 x 1000 mm
325 ltrs	Three	725 x 500 900 mm

TLPPL – 113 - 'TECHNICO'DEEP FREEZER – HORIZONTAL MODEL :

Technico Horizontal Model Deep freezer is a Double walled chamber with opening at the top. Top portion of the chamber and top lid are made of thick Stainless steel of 304 grade well polished and fusion welded. The outer chamber is made of cold rolled steel sheets and attractively finished in powder coat finish.
High-class insulation with PUF is provided all the sides between the two walls to minimize the sweating in humid condition. The top lid is provided with gasket seals and locking arrangements.

Evaporating coils are lead soldered and provided at the rear and sides of the inner chamber for faster cooling of the cabinet. CFC Free Refrigerant system consists of Hermetically Sealed Copeland Compressor, air cooled condenser and heavy duty motor driven fan are provided on the right side of the cabinet

The control panel with built in Digital Temperature Controller cum Indicator, indicators, switches etc., provided at the side of the cabinet.
Temperature Range: - 20 Deg.C/40 Deg.C

The Freezers can be given with Inner and Outer fully made of Stainless Steel

Capacity	Inner Chamber size (L x B x H)
110 ltrs	550 x 400 x 650 mm
185 ltrs	800 x 400 x 650 mm
250 ltrs	1200 x 400 x 650 mm
360 ltrs	1500 x 400 x 650 mm

ELECTRIC MUFFLE FURNACE
(900 – 1100 Deg.c)

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TLPPL 114 - TECHNICO ELECTRIC MUFFLE FURNACE(900 – 1100 Deg.C) :

Technico Muffle Furnace construction comprises of an Outer chamber fabricated out of thick cold rolled mild steel sheets, Rectangular in shape placed horizontally with opening in the front. Refractory Muffle of required size forms the inner chamber. This is surrounded by ceramic fibre blankets on all the four sides and the rear to reduce heat losses to a minimum.

The furnace is heated by **KANTHAL A1** heating coils wound in spiral form on the muffle embedded in high grade refractory cement and backed by ceramic fibre blankets.

Inner chamber size	Power Rating
100 x 100 x 225 mm	3.5 Kw
125 x 125 x 250 mm	3.5 Kw
150 x 150 x 300 mm	4.0 Kw
200 x 200 x 300 mm	5.0 Kw
300 x 300 x 300 mm	6.0 Kw

The temperature inside is maintained at any desired level within the operating range by a Digital Automatic Temperature Indicator-cum- controller working in conjunction with a Cr/Al thermocouple housed in the hot zone.

Control panel: Consists of temperature controller, Air break magnetic contactor, indicating lamps, Energy Regulator. The furnace is finished in attractive powder coat finish.

Technical Specifications:

Operating Temp : 900 °C, 1000 °C. to 1100 °C
Temp. Accuracy : 1% of Set Temperature
Power supply : 230 volts AC, Single phase.

Optional:

Microprocessor based Digital PID Controller with SSR out put for better accuracy of 2 to 3 °C

TLPPL – 115 TECHNICO ELECTRIC FURNACE (1200 Deg. C) :

The general design and construction comprises of an Outer chamber fabricated out of thick cold rolled mild steel sheets, Rectangular in shape placed horizontally with opening in the front. Refractory Muffle of required size forms the inner chamber. This is surrounded by ceramic fibre blankets on all the four sides and the rear to reduce heat losses to a minimum.

The chamber is provided with a single door with 100mm thick ceramic fibre insulation mounted on heavy duty hinges and provided with latch. The furnace is heated by KANTHAL APM heating coils wound in spiral form on the muffle embedded in high grade refractory cement and backed by ceramic fibre blankets. The temperature inside is maintained at any desired level within the operating range by a Digital Automatic Temperature Indicator-cum- controller working in conjunction with a Cr/Al thermocouple housed in the hot zone.

Control panel: Consists of temperature controller, Air break magnetic contactor, indicating lamps, isolator. The furnace is finished in attractive powder coat finish.

Technical Specifications:

Operating Temp : 1200°C
Temp.Accuracy : **1%** of the Set temperature
Power supply : 230 volts AC, Single phase.

Optional:

Microprocessor based Digital PID Controller with SSR out put for better accuracy of 2 to 3 °C

Inner chamber size	Power Rating
100 x 100 x 225 mm	4.0 Kw
125 x 125 x 250 mm	4.0 Kw
150 x 150 x 300 mm	4.5 Kw
200 x 200 x 300 mm	6.0 Kw
300 x 300 x 300 mm	7.5 Kw

ELECTRIC FURNACE
(1350 - 1400 Deg.c)

TECHNICO®

TECHNICO®

TLPPL – 116 - TECHNICO ELECTRIC FURNACE (1350 – 1400 Deg. C)

The general design and construction comprises of a Double walled chamber, outer made of cold rolled mild steel sheets and finished in powder coating paint. Inner chamber formed by high temperature withstand Zirconia Vacuum board followed by Ceramic fibre blankets on all the sides. Double walled door mounted on heavy-duty hinges in the front is provided with effective locking arrangements. Optionally, the door can be provided with door limit switch to cut off the power supply whenever the door is opened and to restart when the door is closed.

The Furnace will be heated by means of HIGH QUALITY SILICON CARBIDE RODS. Temperature is maintained and controlled by Digital PID Temperature controller with SSR output . Alternatively a Microprocessor based PID Controller auto tuned with Thyristor Control Device working in conjunction with Pt/Pt/Rh 13% thermocouple.

Control Panel :

A compact control panel accommodating the following will be provided along with the furnace:

- PID / Programmable Controller
- Pilot Indicating lights.
- SSR
- Thyristor Power Control Device
- Voltmeter - Only for PID model
- Ammeter - Only for PID model
- Main isolating switch

Technical Specifications

Continuous Operating Temperature: 1350 °C.
Maximum Temperature : 1400 °C.
Temp. Accuracy : +/- 1 %.
Operating Voltage : 230 Volts Single phase 50 cys.

Optional Accessories:

a. Microprocessor based Digital PID Controller with SSR out put for better accuracy of 2 to 3 Degs C
b. Programmable Controller for Cyclic Program Control
c. Thyristor Control Device
d. Imported Silicon carbide Heating Elements.

Inner chamber size	Power Rating
100 x 100 x 225 mm	6.0 Kw
125 x 125 x 250 mm	6.0 Kw
150 x 150 x 300 mm	6.0 Kw
200 x 200 x 300 mm	8.0 Kw 3 Phase
300 x 300 x 300 mm	9.0 Kw 3 Phase

TUBULAR FURNACE

TECHNICO®

ELECTRICAL TUBULAR FURNACE: (1000-1150 °C)

HIGH TEMPERATURE TUBULAR FURNACE
1350 - 1400°C

TECHNICO®

TLPPL–117 -'TECHNICO' ELECTRICAL TUBULAR FURNACE: (1000-1150 °C)

Technico Tubular furnace is supplied in vertical or horizontal model, as per request of customers.
Double walled chamber outer chamber made of cold rolled mild steel sheets and finished in powder coating. The Inner chamber is formed by high Alumina tube capable of withstanding temperature up to 1200 °C. The tube will have one end closed or both ends opened as per the requirement of customers. Insulation with high-density superior quality ceramic fibre blanket.

The furnace is heated by Kanthal A1 heating elements. The temperature is controlled PID. Controller working in conjunction with Cr/Al type thermocouple. The size of the tubes available is 50 to 100 mm OD and with length of 450 mm to 650 mm.

Technical Specifications

Operating Temperature Range	: 600 to 1000*C
Maximum Temperature	: 1150*C
Temp. Accuracy	: +/- 1 Deg.C
Operating Voltage	: 230 Volts single

Optional:
- Microprocessor based Digital Progammable Controller with Thyristor out put for better accuracy of 2 to 3 °C
- End fittings for inert atmosphere purging:
- Quartz tube with end fitting

Tube size (mm)	Rating
Ø40 x 350 (L)	750 watts
Ø50 x 450 (L)	1000 watts
Ø65 x 650 (L)	1500 watts

TLPPL 118 - 'TECHNICO' HIGH TEMPERATURE TUBULAR FURNACE:)

Technico High Temp. Tubular furnace is supplied in vertical or horizontal model, as per request of customers.

Double walled chamber outer chamber made of cold rolled mild steel sheets and finished in powder coating. The Inner chamber is formed by high Alumina tube capable of withstanding temperature up to 1400 °C. The tube will have one end closed or both ends opened as per the requirement of customers. Insulated with high density superior quality ceramic fibre blanket.

The furnace is heated by silicon carbide heating elements. The temperature is controlled Digital PID Controller. The sensor will be Pt/Pt/Rh type thermocouple. The size of the tubes available is 50 to 100 mm OD and with length of 450 mm to 1000 mm.

Technical Specifications:

Operating Temp	: 1350*C
Max. Temp	**: 1400*C**
Temp. Accuracy	: +/- 2 to 3 Deg.C
Operating Voltage	: 230 Volts

Optional:
- Programmable Controller with Thyristor Power Device
- End fittings for Inert Atmosphere purging.
- Imported Silicon Carbide Rods
- End fittings with water cooling jacket

Tube size (mm)	Power Rating - Kw
Ø50 x 650 (L)	3
Ø60 / Ø 70 x 750 (L)	3.5

OTHER WORKING TUBE SIZE ON REQUEST.
For Sillicon "O" rings Flow meter and valves for inlet and outlet

HIGH TEMPERATURE FURNACE
1500 / 1600 1700 °C

TECHNICO®

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TECHNICO®

TLPPL 119 -- HIGH TEMPERATURE CHAMBER FURNACE:

For Temperature of 1500 / 1600 / 1700 °C

Specially designed for specific applications heated by **Molybdenum di-silicide rods** where maximum continuous operating temperature will not exceed **1500 / 1600 / 1700 °C**

Technico furnace is double walled, Box type rectangular in shape with opening in the front, heated by **MOLYBDENUM di silicide rods.** The temperature is controlled by Microprocessor based PID Controller. The power to the heating elements controlled by **Current Limit Feed Back type Thyristor** pack with auto/manual option with control and indication accuracy +/- 2/3 deg. C.

The outer chamber is fabricated out of thick C.R.C.A Sheets (1.6 mm), fully reinforced with angle iron frame work to make the equipment mechanically very rigid. The outer shell has air cooling facility to circulate air by a cooling fan to have a cool exterior to make the skin temperature is maintained around 60 / 70 Deg.C.

The furnace chamber will be lined with **Imported CERAMIC BOARDS of 1700 °** This will follow by a layers of Vacuum Forming Zirconia BOARDS of 1500° C. Low mass high grade thermal insulation will be provided to ensure consistent result in efficient heating and cooling of the furnace and to keep the surface temperature within permissible limits.
Double walled door with insulation by Ceramic Boards / Zirconia Fibre Board is provided in the front opening. The door will be mounted on heavy duty hinges to provide perfect seal when the door is in closed position. The door will have simple but effective locking arrangement.

As option a door limit switch is incorporated, to cut off the power supply, when the door is opened during the operation and to re-start again when it is closed.

The temperature inside the chamber is indicated and controlled by a smart range Digital PID Programmable controller which will have Auto/manual control features and other standard control systems. The Controller work in conjunction with B type thermocouple and thyristor power control device.

Due to this arrangement of Current Limit Feed Back arrangement, the Control System is protected from higher current / voltage. The Heating element initially has a lower ohmic value. When we set the required Amperage in the control system, there will be a larger current drawn. Without the current limit option, the higher voltage will damage the system electronics. Hence, we are providing the advantage of the special Thyristor.

A compact control panel accommodating the following will be provided along with the furnace:

* Microprocessor based Programmable PID Controller. (Make – Honeywell or Shinko or Eurotherm)
* Pilot Indicating lights.
* HRC Fuse units. (L & T)
* Thyristor Power Control Device.
* Voltmeter. (AE)
* Ammeter. (AE)
* Circuit Breaker (Make Siemens)
* Main isolating switch.
* Step down Transformer (Of reputed make)
* Safety Controller (Make Honeywell or Autonics)

HIGHTEMP TUBULAR FURNACE

TECHNICO®

1500 / 1600 / 1700 °C

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TECHNICO®

TLPPL 120 - HIGH TEMPERATURE TUBULAR FURNACE:

For Temperature of 1500 / 1600 / 1700 °C

Specially designed for specific applications heated by **Molybdenum di-silicide rods** where maximum continuous operating temperature will not exceed **1500 / 1600 / 1700 °C**

Technico Moly Furnace is double walled, rectangular in shape with a inner working chamber made of **SINTERED ALUMINA** heated by Imported **MOLYBDENUM di silicide rods.** The temperature is controlled by Microprocessor based progammable PID Controller. The power to the heating elements controlled by **Current Limit Feed Back type Thyristor** pack with auto/manual option with control and indication accuracy +/- 2/3 deg. C.

The outer chamber is fabricated out of thick C.R.C.A Sheets and has air cooling facility to circulate air by a cooling fan to have a cool exterior to make the skin temperature is maintained around 60 / 70 Deg.C.

The Working inner chamber is a **Tubular Sintered Alumina Tube** for required ID and length. The furnace chamber will be lined with ***Imported CERAMIC BOARDS of 1700 °*** This will follow by a layers of Vacuum Forming Zirconia BOARDS of 1500° C. Low mass high grade thermal insulation will be provided to ensure consistent result in efficient heating and cooling of the furnace and to keep the surface temperature within permissible limits.
The temperature inside the chamber is indicated and controlled by a smart range Digital PID Programmable controller which will have Auto/manual control features and other standard control systems. The Controller work in conjunction with B type thermocouple and thyristor power control device.

Due to this arrangement of Current Limit Feed Back arrangement, the Control System is protected from higher current / voltage. The Heating element initially has a lower ohmic value. When we set the required Amperage in the control system, there will be a larger current drawn. Without the current limit option, the higher voltage will damage the system electronics. Hence, we are providing the advantage of the special Thyristor.

OPTION Gas Purging Fittings : The furnace will be provided with Gas purging end fittings with water cooling arrangement. (Cool water supply not in our scope). The fittings will have double Silicon / Viton 'O' rings with suitable inlets and outlets for gas with a Flow meter and flash back arrester. Suitable for Nitrogen and Argon Gas.

A compact control panel accommodating the following will be provided along with the furnace:

* Microprocessor based Programmable PID Controller. (Make – Honeywell or Shinko or Eurotherm)
* Pilot Indicating lights.
* HRC Fuse units. (L & T)
* Thyristor Power Control Device.
* Voltmeter. (AE)
* Ammeter. (AE)
* Circuit Breaker (Make Siemens)
* Main isolating switch.
* Step down Transformer (Of reputed make)
* Safety Controller (Make Honeywell or Autonics)

CUPELLATION FURNACE

TECHNICO®

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TECHNICO®

TLPPL 121 -- "TECHNICO" CUPELLATION FURNACE :

Technico Cupellation furnace is specially designed for front loading of materials under test where the maximum temperature inside the chamber required is of the order of 1200 Deg.C

The inner chamber is formed by high temperature withstanding sillimanite refractory capable of withstanding temp. Up to 1200 Deg.C and having provision for insertion of Silicon Carbide Rods are provided on two sides or above and bottom of the furnace for maintaining uniform temperature of 1200 Deg.C .

The Inner chamber will be lined with **Silicon Carbide plate** in all the sides to protect the heating element for oxidation effect and to increase the life the elements. The chamber has provision to insert thermocouple for control of process temperature. The thermocouple will be pt/pt 13% Rh

The inter-space between the inner and outer chamber will be tightly packed with high density ceramic fibre mats to totally eliminate the radiation heat loss.

The Furnace will be provided with a front opening door . The door opening can vertical with counter weight or horizontal with centre pivot such that the hot face of the door will not face the operator. The Door will have a observation hole. The door will be provided with a positive break safety switch to isolate the power line when the door is open.

The **Heating is by Silicon Carbide Rods** which are suspended in both the sides of the inner chamber will be used as heating elements to heat the charge to temperatures of 1200 Deg.C. The silicon carbide rods possess a unique quality of ageing.

To exploit the property of ageing, the power to the heating elements will be fed through a **thyristor power control** device for control of power to be Silicon carbide rods to ensure long life to the heating elements.

Suitable **air inlet** is provided in such a way that the fresh air is drawn from the rear and will get preheated when they travel through the heating element and will enter the chamber thro the front. An adjustable air valve is provided to adjust the air flow. Suitable **exhaust with chimney** is provided. For removal of any fumes. However the extraction system and lead filter will not be in our scope.

A Compact control panel accommodating the following components will be supplied along with the oven :

1) Pilot indicating lights for mains/load indication.
2) HRC Fuse units.
3) EUROTHERM Digital Programmable PID Temp. indicator cum controller with Thyristor control device.
4) Ammeter
5) Voltmeter with Selector Switch

WORKING CHAMBER SIZE AS REQUIRED

FUSION FURNACE

TECHNICO®

TECHNICO®

TLPPL 122 -- FUSION FURNACE :

Technico Fusion or Crucible Furnace is specially designed for top loading of materials under test where the maximum temperature inside the chamber required is of the order of 1350 Deg.C and above in which samples in small crucibles can be kept for the Heating process..

The outer chamber is fabricated out of thick gauge mild steel sheets fully reinforced, with horizontal/vertical angle/channel iron frame make the equipment mechanically very rigid.

The inner chamber is formed by high temperature withstanding Silicon Carbide Plates capable of With standing temp. Up to 1400 Deg.C and having provision for insertion of Silicon Carbide Rods on both sides horizontally for maintaining uniform temperature of 1350 Deg.C and above.

The Furnace will be provided with Top Door which can be lifted by means of a Paddle and slide out to one side to load and unload the furnace. Precaution will be taken to ensure the smooth operation of the Door.

The inner wall will be lined with Vacuum Forming Board and the inter-space between the inner and outer chamber will be tightly packed with high density ceramic fiber mats to totally eliminate the radiation heat loss. The skin temp. of the oven will not exceed more than 20 to 30 Deg.C above the ambient even at the continuous operation at elevated temp.

Silicon Carbide Rods are suspended in both the sides & bottom of the inner chamber will be used as heating elements to heat the charge to temperatures of 1350 Deg.C and above. The silicon carbide rods will be provided with M type clamps at both ends of the furnace and will be inter connected with the aid of aluminum braided wires. The silicon carbide rods possess a unique quality of ageing. To exploit the property of ageing, the power to the heating elements will be fed through a thyristor power control device for control of power to be Silicon carbide rods to ensure long life to the heating elements.

The temperature inside the chamber is indicated and controlled by Digital PID temperature indicator cum controller working in conjunction with Pt/Pt/ Rh 13% to an accuracy of +/- 1to 2 Deg.C. to exactly know the temperature of the test sample.

A separate Compact control panel accommodating the following components will be supplied along with the oven:

1) Pilot indicating lights for mains/load indication.
2) HRC Fuse units.
3) EUROTHERM / SHINKO Digital Programmable PID temp. indicator cum controller
4) Thyristor control device.
4) Ammmeter - 3 Nos.
5) Voltmeter - with Selector Switch

WORKING CHAMBER SIZE AS REQUIRED

EGG INCUBATOR

TECHNICO®

EGG INCUBATOR WITH HUMIDITY CONTROL

FLOCCULATOR
(JAR TESTING APPARATUS)

TLPPL 123 -- 'TECHNICO' EGG INCUBATOR WITHOUT HUMIDITY CONTROL :

Technico Egg Incubator is a Double walled chamber, outer made up of M.S. Sheet, finished in powder coating & inside made of stainless steel sheets. The inter space between inner & outer wall is packed with high-grade glass wool.

Temp. ranges from ambient + 5 °C to 70 °C. and is controlled by Digital temp controller with an accuracy of +/- 1 °C. The unit is provided with air circulating fan and a manual tray tilting device, so as to tilt the tray holding the eggs. Supplied with control panel. Designed to work on 220/230 V AC supply.

Capacity	Rating-Kw
50 eggs	50 W
100 eggs	150 W
200 eggs	200 W
250 eggs	200 W

TLPPL 124 – 'TECHNICO' EGG INCUBATOR WITH HUMIDITY CONTROL :

Same as above but provided with additional RH / Humidity Control System.

Optional : Microprocessor based digital PID Temperature controller with Sensor Automatic fitting with timer

Capacity	Rating-Kw
50 eggs	1.75 Kw
100 eggs	2.0 Kw
200 eggs	2.2 Kw
250 eggs	2.5 Kw

TLPPL 125 - 'TECHNICO' FLOCCULATOR (JAR TESTING APPARATUS) :

Technico Flocculator or Jar Testing apparatus consist of a Illuminated base with fluorescent tube mounted below translucent plastic plate 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 either two or four or six stirrers working on 220 V AC. This unit is supplied with beakers.

Models Available: 2 stirrers x 1 litres or 2 litres
4 stirrers x 1 litres or 2 litres
6 stirrers x 1 litres or 2 litres

ISOLATION GLOVE BOX

TECHNICO®

FOUR PORT MODEL

TWO PORT MODEL

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TECHNICO®

TLPPL 126 -- 'TECHNICO' ISOLATION GLOVE BOX :

Technico Glove Box main Working Chamber will be made of Stainless Steel 304 with Epoxy Powder Coating finish. The chamber will be provided with a Antee/ Mini-pass Chamber to enable transfer of necessary samples into the main chamber.

The Glove Box Chamber will have a front window for clear observation of the inner chamber. If Transparent Acrylic window is required on both sides we can also provide this.

The gloves will made of **Black Neoprene Rubber** of 30Mil.
Size : 6: cuff x 32" L Or 8" cuff x 32 " L

The chamber will be illuminated by tube light provided in the front top side for a clear bright view of the inner chamber.

The main Chamber will be provided with a Vacuum Port, Gas purging port and gas inlet Port with suitable valves arrangement The vacuum Port will be used to vacuumized the chamber to remove the Air / Atmosphere / Moisture vapours from the chamber. The Chamber under – ve pressure can be now purged with any Inert Gas like Nitrogen etc. to have a working Inert atmosphere inside.

Both the Main Chamber and Antee Chamber can be purged with Inert gas like Nitrogen etc. for having a Inert working atmosphere inside the Glove Box Chamber. The gas from a Cylinder is connected to the Gas inlet below the Moisture Silica Gel Filter.

This will neutralize the –ve pressure and make the chamber slightly above atmospheric pressure. A Dial Gauge is provide to indicate the vacuum and Pressure. The same process can be performed for the Antee Chamber

Note : The Glove Box is not meant to be operated under High Vacuum or High Pressure.

A suitable Vacuum Pump of required capacity will be provided with in-built and fittings with Vacuum Hose connection. A timer will be provided which will cut-off the vacuum system at safety level.

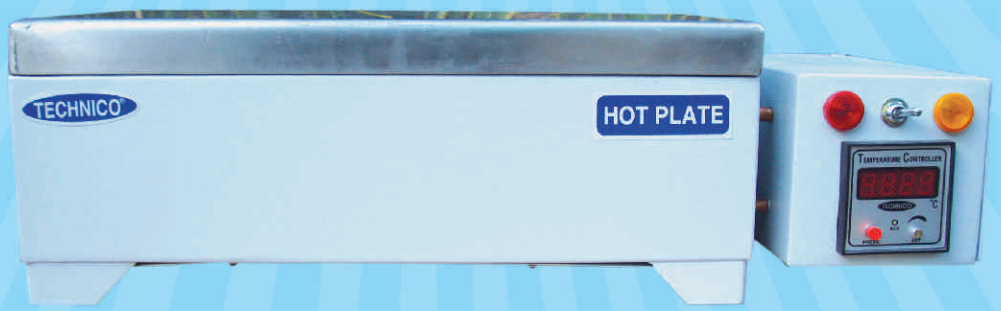
A Control Panel with the Indicating lamp, MCB, Switches, Timer and other Control and Indicating Instruments will be provided on the right side of the Glove Box.

OPTIONAL :

a. Low wattage heater with Digital Controller
b. RH Humidity Sensor and Indicator
c. Automatic Pressure Control and Purging
d. Shelf
e. Additional Side Door for Equipment Transfer

Chamber size (L) x (W) x (H)	No of Gloves.
800 X 800 X 800 mm	1 Pair
1000 x 800 x 900 mm	1 Pair
1200 x 900 x 1000 mm	1 Pair or 3 gloves
1500 x 900 x 1000 mm	2 Pair

HEATING MANTLE



HOT PLATE

ELECTRIC BUNSEN

TECHNICO®

TLPPL 127 -- 'TECHNICO' HEATING MANTLE :

Technico Heating Mantles are single piece and are made of flexible knitted glass fabric to which resistance wire is attached in a coil form. The heating mantle is housed in a housing made of mild steel sheets with powder coating finish. Each mantle is fitted with Built-in Energy Regulator & pilot lamps. Designed for operation on 230 V single-phase 50 cys. A/C. Suitable for heating applications using round bottom borosilicate glassware.

Optional : Digital Temperature Controller with Sensor.

Capacity (ml)	100	250	500	1000	2000	3000	5000	10000	20000	50000
Rating (watts)	60	150	200	300	500	750	800	1000	2000	3000

TLPPL 128 -- 'TECHNICO' HOT PLATE

Technico Hot Plates are available in two models – Round and Rectangular shape with **cast iron or stainless steel top.**
This is a heavy duty heating plate with a removable cast iron plate / Stainless Steel 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 unit is designed for operating on 230 V Single phase 50 C/S. mains.

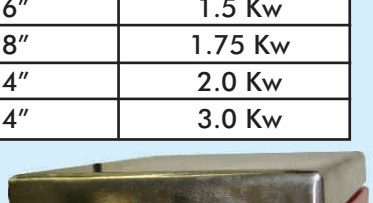
Round model / Square model

Size	Rating
8"	1.5 Kw
10"	2.0 Kw
12"	2.0 Kw

For Rectangular Model

Size	Rating
10" x 12"	1.5 Kw
10" x 16"	1.5 Kw
12" x 18"	1.75 Kw
12" x 24"	2.0 Kw
18" x 24"	3.0 Kw

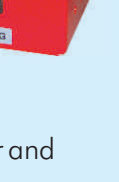
Optional:
- Digital temperature controller
- Microprocessor based PID Controller.
- Top made of Stainless Steel
- Fully made of Stainless Steel



TLPPL 129 - 'TECHNICO' ELECTRIC BUNSEN :

Electrically operated, Body made of stainless steel. The Unit is fitted with built in energy regulator and indicating lamp. Suitable for heating crucibles with samples.

Power Supply : 230 V single-phase 50 cys. A/C.
Temperature Range : Ambient + 5 to 600 Deg.C
Power Rating : 300 watts



HOT AIR OVEN

TECHNICO®

DIGITAL MODEL

THERMOSTAT MODEL

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TECHNICO®

TLPPL 130 -- 'TECHNICO' HOT AIR OVEN (DIGITAL MODEL)

Technico HOT AIR OVEN is Sturdy double walled on the back and two sides with interior walls made of Stainless 304 sheets and exterior made of M.S. sheets. The doors will be double walled and seals against atmospheric infiltration gasket. The doors will be mounted in heavy duty hinges for easy opening and closing.

Inter space in between the outer and middle wall is tightly packed with special grade glass wool. The outside skin temperature will be around 20 top 30 degs C above ambient. The Oven will be provided with required number of adjustable Trays.

Suitable heater is provided which will have much longer life. The Heating system will be designed for max. 250 degs C operation with uniform temperature all over the Oven chamber.

An Air Circulation Fan with a suitable motor mounted at the back for ensuring uniform temperature throughout the heating chamber. The temperature inside the chamber is controlled by a Digital Temperature Indicator cum Controller which will work in conjunction with a Thermocouple.

A control panel with Digital Indicator cum controller, Air circulating fan starters, Indicator lamps for line and load, Mains Switch, Fuse etc is provided.

Technical specifications:

Temperature Range. : Ambient + 5 °C to 250 °C
Temperature Accuracy : 5 °C.
Operating Voltage : 230 Voltage

Chamber Size	Trays	Power rating kw
300 x 300 x 300	2	1.2
355 x 355 x 355	2	1.5
455 x 455 x 455	2	1.8
455 x 455 x 605	2	2.5
605 x 605 x 605	3	3.0
910 x 605 x 605	3	4.0

Options :

a) Timer
b) Fully Made of Stainless Steel
c)Microprocessor based PID Controller with SSR

TLLPL 131 - 'TECHNICO' HOT AIR OVEN (THERMOSTAT MODEL)

Technico Hot Air Oven – Thermostat Model is a Double walled chamber, inner made of stainless steel sheets and outer made of cold rolled mild steel sheets duly finished in powder coating. Inter space in between the walls is tightly packed with special grade glass wool.

Inner chamber accommodates perforated stainless steel trays at adjustable heights. Insulated double walled door in the front is provided with locking arrangements. Heating is by Kanthal A1 heaters evenly distributed on the three sides. **Temperature is indicated and controlled by precision thermostat** within the operating range. Built in control panel accommodating all electrical/electronic accessories is provided at the side of the chamber

Technical specifications:

Temperature Range. : Ambient + 5 °C to 250 °C
Temperature Accuracy : 10 °C.
Operating Voltage : 230 Voltage single phase 50 cys. AC

Other details as Above

Chamber Size	Trays	Power rating kw
300 x 300 x 300	2	1.2
355 x 355 x 355	2	1.5
455 x 455 x 455	2	1.8
455 x 455 x 605	2	2.5
605 x 605 x 605	3	3.0
910 x 605 x 605	3	4.0

INDUSTRIAL OVEN

TECHNICO®

TECHNICO®

TLPPL 132 - 'TECHNICO' HOT AIR OVEN (INDUSTRIAL TYPE)

Technico Industrial type Oven is a Triple walled chamber, inner made of stainless steel sheets and outer made of cold rolled mild steel sheets duly finished in powder coating. Inter space in between the walls is tightly packed with special grade glass wool. The middle wall will be made of Electro Galvanized Steel.

Inner chamber accommodates perforated stainless steel trays at adjustable heights. Insulated double walled door in the front is provided with locking arrangements. Heating is done by Kanthal A1 heating coils, which are evenly distributed on the two sides /two sides and the bottom portion of the chamber for uniform heating. .

Temperature is indicated and controlled by Digital temperature indicator cum controller working in conjunction with FEK sensor within the operating range. Air Circulating Fan assembly is incorporated in the unit for maintaining uniform temperature inside the working chamber.

Built in control panel accommodating all electrical/electronic accessories is provided at the side of the chamber

Technical Specifications:

Temperature Range : Ambient + 5 °C to 300 - 400 °C
Temp. Accuracy : 5 °C

Chamber size (mm)	Trays	Power rating kw
455 x 455 x 455	2	4.5 Kw
455 x 455 x 605	2	4.5 Kw
605 x 605 x 605	3	6.0 Kw
605 x 455 x 910	3	6.0 Kw
605 x 605 x 905	3	9.0 Kw

Options :

a) **Microprocessor based PID Controller with SSR output**
b) **Microprocessor based PID Controller with Thyristor Control**
c) **Microprocessor based Programmable Controller with Thyristor Control**
d) **Timer**
e) **Fully Made of Stainless Steel**

OTHER BIGGER SIZES CAN BE GIVEN ON REQUEST

The Industrial Type Oven can be provided with Trolley, Exhaust Systems

TRAY DRIER

TECHNICO®

LABORATOR TYPE

INDUSTRIAL TYPE

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TECHNICO®

TLPPL 133 -- 'TECHNICO' TRAY DRIER (LABORATORY & INDUSTRIAL TYPES)

Technico Tray Drier consist of a Triple walled chamber. The inner chamber fabricated out of Mild Steel OR 304 Grade Stainless steel sheet. The Middle and outer chamber is made of Mild Steel. The inter space in between the walls is tightly packed with special grade Glass wool insulation to eliminate radiation heat loss to a minimum.

The chamber is provided with a double walled door double door made of mild steel or SS 304 in the front with Glass wool insulation in between. The door mounted on heavy duty hinges and provided with roller type spring loaded latch.

The heating elements used will be Strip type heaters distributed in both sides of the Drier and the terminals are neatly brought and terminated in the junction box outside the chamber. The heating elements can be easily replaced and due care is taken for easy maintenance.

To achieve uniform temperature all over the inner chamber, the unit is incorporated with continuously rated powerful motor along with blower assembly the blower assembly will be fitted on the sides or Top of the oven. The Drier will be provided with adjustable opening at the top to vent moisture vapours produced during processing.

The temperature inside is maintained at any desired level within the operating range by a On/Off Digital temperature controller working in conjunction with RTD / Thermocouple placed in the hot zone.

The Drier will accommodates required number of Trays . The Trays are fabricated out of 304 Grade stainless steel sheets. The trays will be of Stainless Steel Trays with SS bracket runners.

A compact control panel accommodating, Pilot indicating lamps, On/Off switch, On/Off Digital temperature controller, MCB, Starter, units, etc., is provided at one side of the chamber for operational convenience.

Standards Models :

12 Trays / 24 Trays / 48 Trays / 72 Trays / 96 Trays or as required.

Dimension of the inner chamber will be designed and offered as required by you

Options :

a. **Microprocessor based PID Controller**
b. **Microprocessor based Programmable Controller with Thyristor Control**
c. **Timer**
d. **Trolley with Trays / baskets for Bigger Driers.**
e. **Fully Stainless Steel 304 or 316 for Food applications / GMP Standard**

NON STANDARD SIZE CAN BE OFFERED ON REQUEST

HOT & COLD CHAMBER

TECHNICO®

SS MODEL

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TECHNICO®

TLPPL 134 -- 'TECHNICO' HOT & COLD TEST CHAMBER:

Technico HOT & COLD Chamber is a Sturdy, triple walled construction, interior made of 304 stainless steel sheets and exterior made of Cold Rolled Mild Steel / Electro-Galvanized Sheet steel. The inter space in between the walls is tightly packed with 75mm PUF insulation to minimize thermal loss.

The chamber is provided with double walled door with toughened glass viewing window which allows inspection of samples without disturbing the temperature inside the chamber. The door is mounted on heavy duty Chromium plated hinges and with effective locking arrangements and seals against atmospheric infiltration by resilient silicon rubber gasket .

Heating elements are made of imported nichrome wires evenly distributed on the three sides. The temperature below ambient is achieved by incorporating heavy duty sealed CFC free compressor of Emerson Copeland make having condenser reservoir, cooling fan assembly and filled with suitable Refrigerant gas which will be circulated through out the inner chamber for effective uniform temperature..

The temperature within the range is controlled and indicated by Microprocessor based PID Controller OR optionally a Smart Range Microprocessor based Programmable PID Controller with PT 100 Sensor. The Microprocessor based programmable PID Controllers will have multi-segments (heat, cool & soak) having multi program

The operating time for the chamber can be set by means of a automatic timer provided in the control panel.
A compact control panel accommodating all controlling switches, indicating lamps, Temperature controllers are located at the Side of the chamber for operational convenience.

Option : RS232 Computer interfacing. In addition User friendly software will be incorporated. (Computer not in our scope)

Technical Specifications:

- Inner chamber made of Stainless steel 304 grade.
- Outer made of Mild Steel Powder coated OR Stainless Steel .
- Microprocessor based PID Programmable Cyclic Temp controller.
- Temperature controlling accuracy: +/- 1 to 3 °C.
- PT 100 sensor for temperature sensing.
- Viewing window facility provided through toughened plane.
- Silicon Gasket for leak proof.
- Puff
- High Temperature Chamber protection through thermostat
- Door heater provided to avoid mist formation in viewing window
- Door light provided to inspect samples at test conditions.
- Double stage refrigeration system with hermetically sealed Emerson Copeland
- Heavy duty castor wheels for easy movement
- Power supply: Single Phase, 230 V,50 Hz .

Available Temperature Ranges: - 50 Deg.C. to _150 Deg.C. +/-3 Deg.C.
Chamber Size : 450 x 450 x 450 mm Min Size

ANY WORKING CHAMBER SIZE AND TEMPERATURE RANGE CAN BE OFFERED

HUMIDITY TEST CHAMBER

TECHNICO®

SS MODEL

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TECHNICO®

TLPPL 135 -- 'TECHNICO' HUMIDITY TEST CABINET :

Technico Humidity Test Chamber is a double walled chamber. The inner chamber is made of 304 Stainless Steel material with mirror finish. The outer wall is made of Mild Steel with Powder coating finish or alternatively Stainless Steel 304 with or without epoxy powder coating finish for excellent looks.

The chamber is provided with a double walled Door with a toughened glass viewing window which allows inspection of samples without disturbing the temperature inside the chamber. The door is mounted on heavy duty plate hinges with effective locking arrangement and seals against atmospheric infiltration by resilient magnet gasket. A second door made of clear Acrylic will be provided mounted on SS hinges and with magnetic catch to enable full visibility of the inner chamber keeping minimum loss of the test process condition.

The inner space in between the inner and outer wall is insulated and tightly packed with 'PUF' to ensure effective thermal sealing.

Heating elements are made from imported nichrome wires evenly distributed at the back side of the chamber.

Forced Air Circulation fan assembly is incorporated inside the chamber to maintain uniform temperature inside the working chamber.

The cooling stage of temperature is achieved by incorporating heavy duty sealed CFC free compressor of Emerson Copeland make having condenser reservoir, cooling fan assembly and filled with suitable refrigerant gas which will be circulated throughout the inner chamber for effective uniform temperature up to 20 degs C. Cooling system is provided at the bottom portion of the chamber.

The RH / Humidity can be controlled from 45% RH to 95% RH in the temperature range of 20 to 60 degs C The RH is control within the range by a Smart Microprocessor base PID controller with RH sensor.

SPECIFICATIONS :

No. Trays	: 2 or 3
MOC of Trays	: SS 304
Temp . Controller	: Microprocessor based PID Type
RH Controller	: Microprocessor based PID Type
Power Supply	: 230 V AC, Single Phase.
Temperature Range	: 15 to 60 degs C +/- 1 degs C
Humidity Range	: 45% to 95% +/- 3 % RH

Temp. range for RH Operation : 20 to 60 Degs C only

Standard Chamber size	Power Rating
455 x 455 x 710 mm	3.0 kw
605 x 605 x 605 mm	4.5 kw
605 x 605 x 910 mm	4.5 kw

Options :
Timer, Voltage Stablizer, Programmable Controller, Recorder, PC Interface
Small & bigger sizes also available based on request.

ENVIRONMENTAL / STABILITY CHAMBER

TECHNICO®

TECHNICO®

TLPPL 136 -- 'TECHNICO' ENVIRONMENTAL / STABILITY CHAMBER :

Technico Environmental / Stability Chamber is a double walled chamber. The inner chamber is made of 304 Stainless Steel material with mirror finish. The outer wall is made of Mild Steel with Powder coating finish or alternatively Stainless Steel 304 with or without epoxy powder coating finish for excellent looks.

This is a Double walled construction, interior made of thick gauge stainless steel sheets of 304 Grade and exterior made of cold rolled mild steel sheets finished in powder coat. Inter space in between the walls is packed with glass puff. 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.

Heating elements are made of Nichrome heating coils evenly distributed at the back side of the chamber. Forced Air Circulation Fan assembly is incorporated to maintain uniform temperature inside the working chamber.

Temperature below ambient is achieved by Refrigeration System consists of evaporator coils, compressor, condenser, fan motor and accessories.

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.

Humidity is controlled by a Microprocessor based PID humidity controller, with sensitivity of 3%. Temperature is controlled by Microprocessor based PID Temperature Controller from + 10 to 60 °C with an accuracy of 1 °C.

A compact control panel with switches, Indicating lamps, Digital PID controllers etc, is located at the side of the chamber for operational convenience.
Illumination is provided with Fluroscent lamps with cyclic timer

No. Trays	:	2 or 3
MOC of Trays	:	SS 304
Temp . Controller	:	Microprocessor based PID Type
RH Controller	:	Microprocessor based PID Type
Power Supply	:	230 V AC, Single Phase / 415 V, 3 Phase, 50 Cys.
Temperature Range	:	15 to 60 degs C +/- 1 degs C
Temp. range for RH Operation	:	20 to 60 Degs C only
Humidity Range	:	45% to 95% +/- 3 % RH

Standard Chamber size	Power Rating
455 x 455 x 710 mm	3.0 kw
605 x 605 x 605 mm	4.0 kw
605 x 605 x 910 mm	4.5 kw

Optional :

Timer, Voltage Stablizer, Programmable Controller, Recorder, PC Interface
Small & Bigger size also available based on request

SALT SPRAY TEST CHAMBER

TECHNICO®

TECHNICO®

TLPPL 137 -- 'TECHNICO' SALT SPRAY / CORROSION TEST CHAMBER :

Technico Salt Spray Test Chamber entire chamber is constructed by thick Polypropylene or Acrylic sheet body. The Top Lid Door will be made of transparent Acrylic. The solution reservoir is separated externally in a cylindrical vessel and fixed to the side of the main chamber. The solution is sprayed inside the chamber by means of compressed air (Air Compressor not in our scope) and its level is controlled by float valve.

The main Chamber is provided with transparent Acrylic cover lid mounted on fabricated acrylic hinges. The top lid closes the entire chamber without fog leakage. The saturation tower and the control panel are attached with the sidewall of the main chamber. The Control panel is made of FRP material. Solution and water drain out tap are also provided. Suitable specimen holders and job holding devices are furnished inside the chamber.

Technical specifications :

Chamber temp.	:	35 C
Control accuracy	:	3 C
Saturation tower temp.	:	40 C to 45 C
Controller type	:	PT-100 (RTD type)
Temperature Controller :		
Size	:	48 x 48 mm
Type	:	Digital
Humidity Indicator :		
Size	:	48 x 48 mm
Type	:	Digital
Digital Timer:		
Make	:	Selectron
Size	:	72 mm x 72 mm
Hours	:	999.9 hrs.
Pressure gauge:		
Range	:	0 - 4.2 kg/cm^2
Range	:	1 kg/cm^2 (SATURATION TOWER)

SOLUTION TANK : 5% of the sodium chloride (100 lit) is prepared and poured in the chamber reservoir. It is passed to the spray tower through the mechanical float through which is maintaining the water level in the tower.
POWER SUPPLY :The chamber's plug pin should be connected to the power supply and the timer should be set according to the testing hours.
PRESSURE REGULATOR WITH GAUGE :
The compressed air enters to the solenoid valve. It is controlled by the help of pressure regulator (15 lbs) in pressure gauge.

When the testing specimen or components are loaded to the chamber the drain out valve is kept open because the condensed fog water should not touch the specimens.

Standard Size ; 600 x 600 x 600 H OR 600 x600 x 900 H

SHAKER

TECHNICO®

WATER BATH ORBITAL SHAKER

ORBITAL SHAKER (OPEN TYPE)

TECHNICO®

TLPPL 138 – 'TECHNICO' WATER BATH ORBITAL SHAKER :

Inner is made of Stainless steel 304 and outer fabricated out of cold rolled mild steel sheets with powder coating. The pyramidical lid is made of stainless steel prevents falling of condensed water droplets on the specimens. The inter space between the two walls is tightly packed with special grade glass wool in order to prevent thermal losses.
Heated by Energy efficient heaters and controlled by Microprocessor based Digital Controller with LED display with RTD Sensor.
The Bath is provided with an oscillating tray riding on rollers oscillated through a PMDC motor for continuous operation. The shaking tray can either hold test tubes or Erlenmeyer flasks of capacity 25 ml or 50 ml or 100 ml or 250 ml or 500 ml or 1000 ml as ordered by the users. Electronically controlled shaking mechanism provides quit reciprocating motion and precise speed control. The unit is fitted with DC drive for speed range from 20 to 200 cycles per minute.

Built in front control panel accommodating all the controlling devices located at the side of the bath for operational convenience .

Cooling Option : CFC Free Refrigeration system provided at the lower portion for controlling the temperature from 0 to 100 Deg.C.

Supplied complete with one shaking tray for holding 9nos x 250 ml flasks and cord and plug.

Technical Specifications:

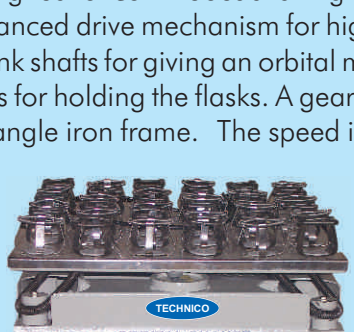
Inner Chamber size	:	405 x 300 x 150 mm
Holding Capacity	:	250 ml x 9 Nos Conical Flasks
Temperature range	:	0 to 100 deg.C. +/- 0.5 Deg.C
Shaking speed	:	40 to 140 cycles/per minute
Power Rating	:	2.5 Kw (approx)
Operating Voltage	:	220- 230 Volts single phase 50 cys

Optional

Spare Shaking Tray for holding: 12 Nos. x 100 ml Concial Flask or
9 Nos. x 250 ml Conical Flask or
5 Nos. x 500 ml Conical Flask or
35 Nos. x 25 mm dia Test tubes

TLPPL 139 -TECHNICO ORBITAL SHAKER (OPEN TYPE) :

Designed for continuous shaking of solutions in Erlenmeyer Flasks . It is a compact bench type table top model, counter balanced drive mechanism for high stability and dependability for continuous operation. Platform fitted on ball bearing crank shafts for giving an orbital motion to the flasks within a diameter of approx. 25 mm. Platform provided with lotus clamps for holding the flasks. A geared variable speed DC Motor with variable speed control, mounted on a heavy and sturdy angle iron frame. The speed indicated by Digital RPM Indicator . Designed to work on 220/230 Volts A/C supply.



Platform Size	Holding capacity
1. 45 x 45 cm	9 Flasks x 500 ml
	16 Flasks x 250 ml
2. 60 x 60 cm	25 Flasks x 500 ml
	36 Flasks x 500 ml
3. 90 x 90 cm	49 Flasks x 500 ml
	81 Flasks x 250 ml

SHAKING INCUBATOR

TECHNICO®

FLOOR STANDING WITH COOLING

TECHNICO®

TLPPL 140 -- 'TECHNICO' ORBITAL SHAKING INCUBATOR HEATING BENCH MODEL :

Designed for continuous shaking of solutions in Erlenmeyer flasks. It is a compact bench type table top model with platform fitted with lotus clamps mounted on a ball bearing crank shafts to give an orbital motion to the flasks with in a diameter of 25mm. A see-through acrylic cover is provided.
Heating system with air circulation is also provided. Temperature controlled by Digital Temperature Controller and fitted to Air circulating fan for temperature uniformity.
The DC motor with variable speed control is coupled by means of a V-belt with pitch pulley and is mounted on a heavy and sturdy angle iron frame. The speed is indicated in RPM Indicator. . Designed to work on 220/230 volts AC supply.

Technical specifications:

Temperature Range :Ambient + 5 to 70 Deg. C.
Accuracy :+/- 1 to 2 Deg. C.

Optional

- Timer
- Additional platform

Microprocessor based Digital PID Controller with SSR out put for better accuracy

Platform size	Holding Capacity
300 x 300 mm	250 ml x 9 nos.
355 x 355 mm	250 ml x 12 nos
455 x 455 mm	250 ml x 16 nos
600 x 600 mm	250 ml x 25 nos

TLPPL 141 - 'TECHNICO' FLOOR INCUBATOR ORBITAL SHAKER :

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 250 ml to 1000 ml capacity. Illumination inside the working chamber is provided by Fluorescent tubes.

An outer double door with inner full view acrylic door permits inspection of specimens. Heating is by Kanthal A1 coils. 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.
Evaporating coils are placed at the rear side of the inner chamber. CFC free Refrigeration System includes Emerson Copeland Make hermetically sealed compressor air cooled condenser unit and accessories. Refrigeration System is provided at the lower portion of the chamber.
The shaker is driven by a variable DC motor with variable speed control. The speed is indicated RPM Indicator for digital display of speed with preset facility. The control panel accommodating, digital controller, pilot indicating lamps, on/off switches, digital RPM Indicator, etc., will be provided at the top of the unit. Supplied Complete With One No. Shaking Platform

Technical Specification:

Chamber size : 600 x 600 x 600 mm
Platform Holding Capacity : 9 Nos. x 1000 ml or 16 Nos. x 500 ml or 25 Nos. x 250 ml
Temperature range : +5 °C to 60 °C
Temperature accuracy : ± 1 Deg.C
Shaking speed : 50 to 250 rpm
Operating Voltage : 230 volts single phase 50 cys. AC

Optional

1. Cyclic Timer
2. Chamber illumination by Fluorescent lamp or UV Lamp
3. Spare Platform for holding flasks
4. Microprocessor based Digital PID Controller with SSR out put for better accuracy.

VACCUM OVEN

TECHNICO®

SS MODEL

TECHNICO®

TLPPL 142 - TECHNICO' CYLINDRICAL VACUUM OVEN :

Double walled chamber, outer chamber rectangular in shape made of thick mild steel sheets. The inner chamber is CYLINDRICAL in shape made of stainless steel sheets with provision for vacuum pump and the vacuum gauge is provided at the top of unit. The inner chamber accommodate one no. Stainless steel tray at adjustable height.

The oven is insulated with special grade glass wool to reduce the radiation heat loss to the minimum. The door is of stainless steel plate with a specially designed Mechanism having alignment. A perfect seal is obtained by a positive screw specially designed for tightening the lid. A glass window is provided in the centre for viewing without opening the door.

A set of band heaters is wrapped around the vacuum chamber for fast response and maximum uniformity of heat. The temperature is indicated and controlled by a microprocessor based PID Temperature indicator cum controller working in conjunction with RTD senser

A compact model control panel accommodating, Pilot Indicating lamps, PID Temperature controller, will be fitted on the side of the oven for easy operation.

Chamber size (diameter x Depth) mm	200 x 200	250 x 250	250 x 300	300 x 300
Maximum temperature ° C	200	200	200	200

TLPPL 143 - TECHNICO' RECTANGLE VACUUM OVEN :

Double walled chamber, outer chamber rectangular in shape made of thick mild steel sheets. The inner chamber is **RECTANGLE** in shape made of stainless steel sheets with provision for vacuum pump and the vacuum gauge is provided at the top of unit. The inner chamber accommodate one no. Stainless steel tray at adjustable height.

The oven is insulated with special grade glass wool to reduce the radiation heat loss to the minimum. The door is of stainless steel plate with a specially designed Mechanism having alignment. A perfect seal is obtained by a positive screw specially designed for tightening the lid. A glass window is provided in the centre for viewing without opening the door.

A set of band heaters is wrapped around the vacuum chamber for fast response and maximum uniformity of heat. The temperature is indicated and controlled by a Microprocessor based PID Temperature indicator cum controller working in conjunction with a RID sensor.

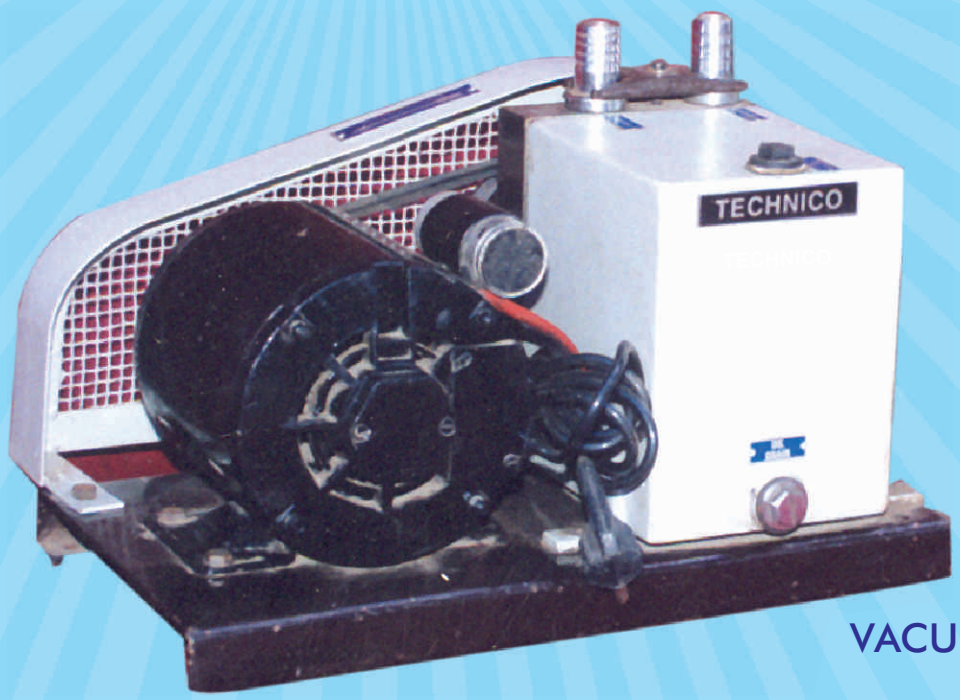
A compact model control panel accommodating, Pilot Indicating lamps, PID Temperature controller, will be fitted on the side of the oven for easy operation.

Chamber size (diameter x ht) mm	300 x 300 x 350
Maximum temperature ° C	200

Optional:
Belt driven / Direct drive Vacuum pump,
Analog / Digital Pirani Gauge, Gas ballast and KF couplings.

VACCUM PUMP

TECHNICO®



VACUUM PUMP

VACUUM PUMP – DIRECT DRIVE

TECHNICO®

TLPPL 144 - 'TECHNICO' VACUUM PUMP :

These Rotary oil-sealed pumps are quite operating and vibration less designed for continuous working and tested to assured satisfactory performance of the pump. Mechanism is contained in a metal case with oil level sight gauge and drain plug at base. Motor driven pumps are completely mounted on rectangular base plate and are furnished with V belt & Motor. Supplied with non-return Valve & Vacuum gauge.

Stage	Single stage				Double stage			
Pumping speed ltr	50	100	150	200	50	100	150	200
Motor speed (RPM)	550	550	550	550	550	550	550	550
Motor power (H.P)	1/4	1/4	1/2	1/2	1/4	1/4	1/2	1/2

Optional Extra: Vacuum Gauge (Dial type with regulator)

TLPPL 145 – 'TECHNICO' VACUUM PUMP – DIRECT DRIVE

Direct Drive Rotary High vacuum Pump have fast evacuation, extremely light and portable, Low Noise & Vibration & Low current consumption.

These Pumps are Direct Drive, Double Stage, Oil Sealed, Rotary High vacuum Pump with state of art being adopted to ensure proper alignment and fine setting of each and every component.

The main components are made of high quality raw material consisting od specially treated Cast iron and Steel.

The Pump is coupled directly to the motor shaft without using any additional coupling to ensure the compactness of the pump and the noiseless powerful positive drive.

An inbuilt forced lubrication system is provided in the pump to make sure that the lubrication is made available all over the pump including the bearings and vacuum sealing surface. This not only works to De-Vacuum the system during the stop mode, but also acts as NRV to check the oil rise into the connected system.

An incorporated Baffle arrests the Oil Mist coming out of the exhaust nozzle. A closed type silencer cum exhaust nozzle is fitted to prevent any dust going into the Pimp.

Free Air Displacement LPM	Power HP	Ultimate vacuum in mbar	Oil Charge in lts.
50	1/4	0.02	0.30
100	1/3	0.02	0.30
150	½	0.002	1.25
250	3/4	0.002	1.55
300	1	0.002	2.50
500	1	0.002	3.00

KJELDHAL DIGESTION UNIT

KJELDHAL DISTILLATION UNIT

C.O.D. APPARATUS

SOXHLET EXTRACTION UNIT

TECHNICO®

TLPPL 146 - TECHNICO' KJELDHAL DIGESTION UNIT:

This is very useful for estimation of nitrogen content in the substance by digestion for 300 or 500 ml. Capacity flasks provided with LEAD FUME DUCT
and pair of hangers. The unit works on 220 / 230 v A. C. supply.

Model : Mantle type - 3 Test
Rating : 200 watts x 3 – 600 watts
Model : Mantle type - 6 Test
Rating : 500 watts x 6 3000 watts

TLPPL 147. TECHNICO' KJELDHAL DISTILLATION UNIT:

This is very useful for distillation purpose for 300 ml or 500 ml.
The unit is provided with condenser rack. The unit works on 220 / 230 v A.C. supply.

Model : Mantle type - 3 Test
Rating : 200 watts x 3 – 600 watts
Model : Mantle type - 6 Test
Rating : 500 watts x 6 3000 watts

TLPPL 148 COD - 'TECHNICO' C.O.D. APPARATUS :

The apparatus comprises of one row of independently heated and controlled, heating mantles. The mantles are designed to accommodate Round Bottom flasks. Each heating mantle has independent energy regulator and indicating lamp to indicate the working of individual heating mantle.

The heating mantles are mounted on a common frame made of mild steel tubular structure finished in powder coating. The openings of the flasks are inserted intothe matching clamp type stand.Each Round bottom flask accommodates a coil condenser. The C.O.D apparatus are available in 3-test model, 4-test model and 6-test model.
Capacity: 100 ml R.B.Flask, 250 ml R.B Flasks and 500 ml R.B. Flask

TLPPL 149 -- 'TECHNICO' SOXHLET EXTRACTION UNIT :

The equipment comprises of one row of independently heated and controlled heating mantles. The mantles are designed to accommodate Flat Bottom/Round / Bottom .Flasks.

Each Flask accommodates suitable Extractor and suitable Allihin Condenser fitted above the extractor.

Supplied complete with connecting tubes and rods.

Supplied with Glass Parts or without Glass parts as per customers' request

Capacity	Model
250 ml	3 Test
250 ml	4 Test
250 ml	6 Test
500 ml	3 Test
500 ml	4 Test
500 ml	6 Test
1000 ml	3 Test
1000 ml	4 Test
1000 ml	6 test

WATER DISTILLATION UNIT

TECHNICO®

WALL MOUNTED UNIT

BARNSTEAD DISTILLATION UNIT

TECHNICO®

TLPPL 150 - 'TECHNICO' WATER DISTILLATION PLANT :

Wall mounting type: The entire fabrication is made of Stainless steel and supplied in highly polished finish. The unit comprises of a main boiling chamber with a high dome lid and provided with water sealing arrangement and a tubular condensing column with an automatic water level arrangement to maintain the water level inside the chamber always constant.

Capacity (ltrs/hr)	Power in Kw
2	2
4	3
6	4.5
8	6
10	8

Note; Up to 6 lts..Capacity - Wall Mounted type
From 8 lts . - Floor Mounted type

TLPPL 151 – 'TECHNICO BARNSTEAD TYPE WATER DISTALLATION UNIT :

Electrically operated.(Improved model) double walled: inner and outer body and boiling condenser also made of stainless steel. (a) This method of producing distilled water is designed specially to meet the needs of the Hospital and Research Laboratories. For Pyrogen free distilled water.

- Tank is double walled inner & outer made of Stainless Steel.
- Highly insulated filled in glass - wool in between the walls.
- Condenser is also made of Stainless Steel.
- High Quality ISI marked Kettle elements (Heaters).
- Capacity : 2 Ltr./ hr. to 20 Ltr. / hr.

Optional:
Low water level cut off Electronic Circuit for safety against Dry run of Heaters.

APPROX. OUT PUT / HRS.	RATING	SUPPLY
2 ltrs	2 KW	230
4 ltrs	3 KW	230
10 ltrs	8 KW	440
15 ltrs	10 KW	440
20 ltrs	14 KW	440

INFRARED MOISTURE BALANCE : (IRMB)

MELTING POINT APPARATUS

MELT FLOW INDEX TEST MACHINE: (MFI)

TECHNICO®

TLPPL 152 -- INFRARED MOISTURE BALANCE : (IRMB)

The IRMB is suitable for determining moisture of various types of granules / powder on dry weight basis.
The unit is provided with a calibrated Torsion wire type balance linked to a scale with a pointer. The sample moisture is evaporated by means of a IR lamp positioned above the balance plate. The mean difference between the initial weight and the final weight is taken and the direct reading on the scale give the percentage of moisture.

Supplied complete with L Thermometer, 10, disposable pans, and dust cover.

Capacity	:	25 or 10 grams
Accuracy	:	0.2% by direct reading
		0.1% by estimation.

Supplied with manufacturer's Calibration Certificate for Thermometer.

TLPPL 153 - TECHNICO MELTING POINT APPARATUS:

The apparatus is used determination of melting points up to 350 °C. The mounted block is illuminated from below by a Lamps fixed in its housing. The block made of mild steel sheets accept three capillary tubes and a mercury thermometer. The temperature is regulated by means of an energy regulator fitted to the unit. The lamp provides uniform and shadow-less light. Supplied complete with capillary tubes and thermometer.

Optional : Heavy Duty Melting Point Apparatus same as above but fitted with Digital Temperature controller with sensor for temperature regulation.

TLPPL 154 -- MELT FLOW INDEX TEST MACHINE: (MFI)

The M.F.I. Apparatus has been designed to be in accord with ASTM D 1238 "Test method for flow rates of thermoplastics by extrusion plastometer". It also conforms to other published standards in essence.

The apparatus is a dead weight extrusion plastometer consisting of a thermostatically controlled melting chamber (the barrel) in which the polymer under test is heated and from which it is extruded through a standard die (some times referred as the jet or orifice) under standard conditions of load which is of course, made up of the combined weights of the "extrusion piston" and the "loose weight", both of which are carefully calibrated to well within the most stringent limits called for in the published standard.

Model No.	:	Table top Model.
Chamber (Barrel)	:	Made of M.S.sheet with powder coat finish. 684 mm dia x 162 mm long
Temperature controller	:	Digital Temperature Controller With range up to 400 deg.c, resolution up to 0.1 deg.c and Accuracy of +/- 0.1% F.S.D.
Timer	:	Digital Timer with range up to 999.9 seconds and having Preset facility and buzzer out put.
Paint	:	Powder coated
Weights	:	2.16 Kg and 5 Kg.. (supplied with the Apparatus) Other weights: against enquiry

PASS BOX

TECHNICO®

TLPPL 155 – TECHNICO PASS BOX :

Pass Box are used for transfer of material from contaminated room to Clean / Sterile Rooms with reducing the chance of contaminating the Clean Room.

Pass Box can be of two basic Models.

1. Static Pass Box

2. Dynamic Pass Box

Technico Pass Box can be made of Electro Galvanized Steel with powder coating finish outer and Stainless Steel inner OR Fully of Stainless Steel material.

Options Available :

a) UV Light for Sterilizing
b) White Illumination
c) Without Door Inter Locking
d) With Door Interlocking
e) Push Button Operation for Door Interlock
f) Digital Display Operation for Door Interlock
g) Dynamic / Positive Pressure with Blower
h) Dynamic –Ve Pressure with Filter and Blower
i) Vacuum Pump option

Standard Dimensions : (Inner Working Space)

450mm x 450mm x 450mm
600mm x 600mm x 600mm
800mm x 800mm x 800mm

Other sizes can be given.

BLUE LINE **IMPORTED RANGE**

VERTICAL PRESSURE AUTOCLAVE / STEAM STERILIZER

(Digital Display Automation)

I) MODEL LS-B35L / LS-B50L / LS-B75 / LS-B100L

Characteristics:

I .Fully stainless steel structure

2.Hand wheel type of quick-open door structure

3.Door safety lock system

4.Digital display of working status,touch of key

5.Auto discharge the cool air,and steam discharging auto matically after sterilization

6.Over temperature&over pressure auto-protection

7.Safe protection of water lacking

8.Self-inflating type seal

9.Automatically shut off with beep reminding after sterilization

10.Used for sterilization of medical instruments, medical cotton products.

11.Fully stainless steel SUS304/AISI 304 -3mm

12.24 months warranty

13.Possible to install drying system according request

Technical Data:

Model technical data	LS-B35L-I(automatic)	LS-B50L-I(automatic)	LS-B75L-I(automatic)	LS-B100L 1(automatic)
Chamber volume	35L(φ318x450)mm	50L(φ340x550) mm	75L(φ400x600)mm	100L(φ440x650) mm
working pressure	0.22MPa			0.14 MPA
Working temperature	134℃			126℃
Max working pressure	0.23 Mpa			0.165 Mpa
Heat average	=±1℃			
Timer	0～99min or 0～99hour59min			
Adjustment of temperature	105～134℃		105～124?	
Power	2.5Kw/AC220V.50Hz	3Kw/AC220V.50Hz	4.5Kw/AC220V.5Hz	
Overall dimension	450x450x1010(mm)	510x470x1130(mm)	560x560x1120 (mm)	540x560x1250 (mm)
Transport dimension	570x550x1150(mm)	590x590x1280(mm)	650x630x1280(mm)	680x630x1370 (mm)
G.W/N.W	72Kg/56Kg	88Kg / 68Kg	100Kg / 80Kg	110Kg / 85Kg

VERTICAL PRESSURE AUTOCLAVE / STEAM STERILIZER

II) Model : GI80T/GI80TW/GI80TR

(1) CE certificate

(2) ISO9001 by DNV (3) ISO13485 by DNV

(4) Production License of Medical Instrument

(5) Registration Certificate for Medical Device

(6)Every single autoclave has a pressure vessel certificate.

Main Feature :

1. Multiple sterilization modes :

Five sterilization modes are preset for sterilization, drying and warming of scald and liquid substances and for melting and warming of agar separately.

2. Safety Performance:

- Unique anti-scald design: The cover and bench of the sterilization chamber are made of special plastics to give a nice look and avoid causing corrosions and scald. The unique steam discharge and collection system can help to prevent scald.
- Self-induction interlocking device: Automatically the pressure within the chamber of the sterilizer and locks the handle and chamber cover in order to prevent steam from jetting out and injuring people due to improper operation
- Overheating prevention system: the system performs real-time monitoring on the temperature changes within the chamber of the sterilizer and conducts immediate power-off protection in case of over high temperature of abnormal temperature changes
- Dry scorch prevention: the system performs real time monitoring on the water level within the chamber of the sterilizer and conducts immediate power off protection in case of over low water level.
- Excessive pressure prevention: we adopts a double pressure protection system, which consist of safety valve and excessive pressure prevention system, the system performs real time monitoring on the pressure changes within the chamber of the sterilizer and conducts immediate pressure-releasing or power off protection in case of over high pressure.
- Chamber cover checking system: the system automatically checks the situation of chamber cover, the sterilizer will fail to start if the chamber cover has not been properly locked.
- Electric leakage protection: the system conducts immediate power off protection in case of electric leakage in order to protect the operator from being injured by electric leakage.
- Over current and short circuit protection: the system conducts immediate power off protection in case of over current or short circuit.

VERTICAL PRESSURE AUTOCLAVE / STEAM STERILIZER

III) MODEL : GR85DA/GR85DF/GR85DR

To meet the requirements of a future Laboratories.
GR series intelligent autoclaves -- a once-off selection that exempts all the worries of continual upgrading

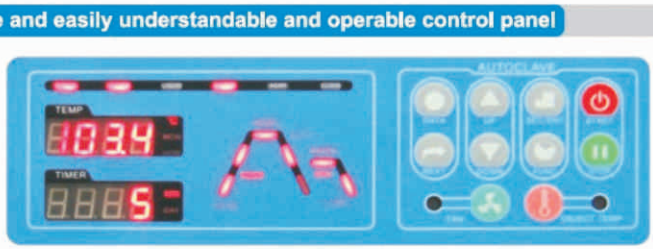
Certificate:

(1) CE certificate (2) ISO9001 by DNV (3) ISO13485 by DNV
(4) Production License of Medical Instrument
(5) Registration Certificate for Medical Device
(6) Every single autoclave has a pressure vessel certificate

1. Main Feature:

- **Heavy gauge sterilization chamber**
  The heavy gauge sterilization chamber in a diameter of 40cm offers a massive space to satisfy various sterilization requirement.
- **Microcomputer control system**
  The last "Inspiration" fast-speed microcomputer intelligent control system highly robust to not only realize the total-processing controls of the sterilization, but also enable convenient maintenance, inquiry, calibration, recording and upward scalability in the future. It allows three ties of administrations. ie: user, administrator and Engineer, to guarantee satisfactory use and management of the autoclave.
- **Waste sterilization mode**
  Dedicated waste sterilization procedures are established for effective sterilization of lab waste
- **Drying**
  Thoroughly drying according to CE standards
- **Cooling lock OPEN temperature**
  Each procedure can set different cooling lock OPEN temperatures according to the thermal inertia of the sterilization object so as prevent the user from opening the cover and hence getting burnt when the sterilization object is still in an unsafe state
- **Sterilizing Temperature**
  105 to 138 degree
- Simple and easily understandable and operable control panel

Simple and easily understandable and operable control panel



The control panel is installed on the top cover for the convenience of operation and observation. A four-digit temperature display that conforms to the latest national and industrial standards is provided. The status flow chart clearly displays the autoclave' s working conditions, including the present sterilization mode, present working state, completed sterilization steps and impending sterilization steps. Press " DATA" key at any time to check the specific parameters of the present procedure.

Co 2 INCUBATOR (CE Certified)

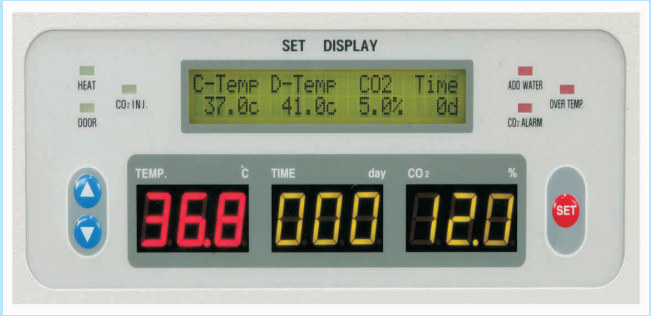
- Setting on LCD, Display on LED
- Dual Beam Infra-Red Sensor
- 173 Liter Capacity
- Round Corner & Shelves System
- Water Jacket type
- Various use purpose
- Available Double stack up for saving space
- Safely Device
- Gas Seal Screen (Option)
- CE, KGMP, ISO9001, ISO14001 Certificate

SPECIAL FEATURES :

- Infra Red Sensor
- Water Jacket for maintaining temperature
- Mobile on wheels
- Two Stage Regulator

Specification ;

Control : Digital PID Controller
Temp. Range : ambient + 5 ° C to
Co2 Range : 0 to 20 % +/- 0.1 % at 5%
Co2 Sensor : Dual Beam Non dispersive Infra Red Sensor
Humidification : Up to 96% RH at 37 ° C
Display : dual Display, Set – LCD & Run LED
Dimension Inner : 510 x 480 x 705 (H) mm
Dimension Outer: 600 x 600 x 990 (H) mm
Capacity : 173 lts.
Material Inner : Stainless Steel
Material Outer: Steel with Powder coating
Water Jacket Volume : 34 lts.
Door : Double, Silicon magnetic packed door
Safety Device : Over Temp. Protector, Gas monitor alarm, Water level monitor, Power breaker
Utility : Sample port, access hole, drain port
Power : 220 V, 4.2 A
Certification : CE, KGMP, ISO 9001, ISO 14001



Options :

Two Stage regulator
Co2 Bomb
N2 Bomb
Co2 Analyser
O2 Analyzer

TABLE TOP INCUBATOR SHAKERS

Table Top Incubator Shaker.
Heating : Ambient + 5 to 50 ° C
Size :
350 x 350
450 x 450

COOLING INCUBATOR WITH LCD DISPLAY (C E certified)

Table Top Incubator Shaker.
Heating : + 5 to 80 ° C
Size :
400 x 440 x 500 (70 lts)
500 x 460 x 800 (150 lts)

HEATING INCUBATOR WITH LCD DISPLAY(C E Certified)

Table Top Incubator Shaker.
Heating : Ambient + 5 to 80 ° C
Size :
400 x 405 x 500 (80 lts)
500 x 460 x 800 (150 lts)

OVEN WITH LCD INDICATION

- Auto Control of Fan Speed to avoid damage to samples
- Large LCD Display to know more data at same time
- Self diagnosis to identify fault
- Over temp. And Temp Differential Alarm
  (Optional)
- Individual Audi / Visual Alarm to ensure safe run for Experiments.
- Programmable Controller – 15 periods / 30 steps, 1 to 99.99 hrs timer for each period, fan Speed 0 – 100% adjustable
- RS 485 output for PC / Recorder / Printer

375 x 370 x 370mm – 50 lts
455 x 450 x 510mm – 100 lts.
560 x 530 x 595mm - 175 lts.

VACUUM OVEN

- Microprocessor based with Timer Function
- Dual layer tempered Glass Window
- Temp. Range : 200 ° C
- Vacuum range : 133 Pa

320 x 320 x 300
450 x 450 x 450
560 x 600 x 640

VACUUM OVEN LCD

- Microprocessor based with Timer Function
- LCD Control / Indication
- Dual layer tempered Glass Window
- With vacuum Pump & bottom Chamber
- Temp. Range : 200 ° C
- Vacuum range : 133 Pa

320 x 320 x 320
400 x 400 x 400
500 x 500 x 500

PHARMA / MEDICNE STABILITY CHAMBER

Temp. Range : 0 to 65 °C +/- 1.5 °C
Humidity range : 40 to 90 % RH +/- 3% RH
Compressor : Danfoss
Humidity Sensor : Rotonics
Controller : Programmable Type PLC
Test point : 40 °C 75% RH & 25 °C 60% RH
Internal : Stainless Steel
External : Steel Plastic Sprayed.

Safety :
Compressor Over Heating, Fan Over Heating, Over Temp., Compressor Over Pressure, Overload Protection, Low Water

SALT SPRAY CORROSSION TEST CHAMBER

Environment Temp. : 15 to 30 °C
Relative Humidity : less then 85% RH
Atmosphere : 86 to 106 Kpa

Cabinet made of FRP and Polyurethane filling
Compressed in FRP. Totally corrosion resistant
Spray Tower : Baffle type with nozzles
Spray Regulator to increase / decrease Brine Spray
Brine Pre heating tank Liquid Level control
Collector with Nozzle for eruptive fog
Saturated Air baffle in SS 304
Roof Cover Transparent
Pressure regulating valve
Pressure Meter
Temperature controller for 75 Degs C
Timer : 1 to 9999.9 hrs
Low Water alarm

Working Chamber Dimensions in mm	Chamber capacity in lts	Salt Tank capacity in lts
600 x 450 x 400	108	15
700 x 400 x 500	140	20
900 x 600 x 500	270	25
1000 x 700 x 500	350	32
1200 x 100 x 500	600	40
1600 x 1000 x 500	800	40
2000 x 1000 x 600	1200	40

TECHNICO®

BLUE LINE — IMPORTED RANGE

DEEP FREEZER CHEST MODEL – 40 ° C :

Safe Control System :

- Keyboard lock, password protection function, and method against missing-adjustment of the operating parameter;
- Setting of the alarm temperature range
- 7 system failure alarms (high temperature alarm, low temperature alarm, sensors failure alarm, door-opening alarm, electricity failure alarm, low back-up battery alarm, low voltage alarm).
- Code display of the failure position (some machines have all these seven alarms)
- Three alarm ways (buzzer alarm, flashing alarm, remote signal alarm)
- The starting delay function due to self-checking and the interval protection function between temporary stop and start can ensure the reliable operation.
- The system can record the condition of the maximum and the minimum temperature inside the box automatically without recording paper.
- With the specially designed function, the system can operate under the state of sensor failure or the state of numerical disturbance safely and automatically.
- The operating parameter display function can ensure that the system is under supervision by operator and with security and stability.
- Equipped with remote alarm interface
- The distinguished operating parameter of the temperature control system can separate the operator menu from the supervisor menu, which can locate the respective responsibility of the operating parameter and the article storage.
- The inbuilt lithium accumulator can keep displaying the temperature inside the box and can keep the light and sound alarm available for 72 hours after electricity failure.
  The large-screen design is easy for observation.
- The safe lock design can prevent missing-opening.
- Wide voltage band is available for 187—242V voltage.
- The refrigerator body is made of high-quality structural steel plate, which is treated with advanced phosphate rot-proof spray coating processing. The surface color is soft
- Standard capacity : 120, 170, 200, 250, 300, 460, 560 lts.

DEEP FREEZER UPRIGHT MODEL – 40 ° C :

Total useful volume	Temp. inside the box	Exterior size (W*D*H)
120L	-10~-60°C	1330X720X350
200L	-10~-60°C	1600X720X950
250L	-10~-60°C	1660X720X950

BLUE LINE — IMPORTED RANGE

DEEP FREEZER CHEST MODEL – 60 ° C :

Total useful volume	Temp. inside the box	Exterior size (W*D*H)
120L	-10~-60°C	1330X720X950
200L	-10~-60°C	1600X720X950
250L	-10~-60°C	1660X720X950

DEEP FREEZER UPRIGHT MODEL – 60 ° C :

Temperature Range	Chamber Size (L)	Type
-60~-10°C	150	Chest Freezer
-60~-10°C	340	Standing Freezer

DEEP FREEZER CHEST MODEL – 70 ° C :

Total useful volume	Temp. inside the box	Exterior size (W*D*H)
120L	-10~-70°C	1330x720x950
200L	-10~-70°C	1600x720x950
250L	-10~-70°C	1660x720x950

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BLUE LINE — IMPORTED RANGE

DEEP FREEZER CHEST MODEL – 80 ° C :

Total useful volume	Temperature inside the box	Exterior size (W*D*H)
120L	-10~-80°C	1330X720X950
200L	-10~-80°C	1600X720X950

DEEP FREEZER CHEST MODEL – 86 ° C :

useful volume	Temperature inside	Exterior size (W*D*H)
120L	-10~-80°C	1330X720X950

useful volume	Temperature inside	Exterior size (W*D*H)
-86°C~-10°C	150	Chest Freezer
-86°C~-10°C	125L	Standing Freezer
-86°C~-10°C	285L	Standing Freezer
-86°C~-10°C	340	Standing Freezer
-86°C~-10°C	385L	Standing Freezer
-86°C~-10°C	500	Standing Freezer

DEEP FREEZER CHEST MODEL – 120 ° C :

Technical Parameters:

- Refrigeration principle: double-compressor auto cascade
- Inner Temperature: -120°C or -150°C
- Capacity: 150L
- Temperature Adjustment Range: -80- -120°C or -150°C ~ -105°C
- Noise: 65db
- Power: 1200W
- AMPS: 10A
- Voltage: 220V/ 50~60HZ
- Exterior Dimensions (H*W*D): 900*1300*810(mm)
- Interior Dimensions (H*W*D):550*540*540(mm)
- Case Material: cold-rolled steel with spraying plastics
- Chamber Material: stainless steel
- Compressor: TECUMSEH
- Fan: Germany EBM 29W
- Sensor: PT100
- Temperature controller: Japan RKC
- Pressure Relay: DANFOSS
- Time Relay: Japan OMRON
- Auxiliary Relay: Japan OMRON
- Oil Separator: Taiwan GUANYA
- Refrigerant (High stage): R134A, R404A
- Refrigerant (Low stage): R508B

Temperature Range	Chamber Size (L)	Type
-120°C~-80°C	150L	Chest Freezer
-150°C~-150°C	150L	Chest Freezer

Main Features:

1. Unique refrigerating technique with both fan and natural convection, protecting condenser fans against dust build-up
2. Environment-friendly, fluorine-free refrigerants
3. Two ways of condensation, by fans and air convection.
4. R232 connect (optional), great help in data-analyzing
5. Accessories of world-famous brand, ensuring the quality.
6. Designed according to the customers' individual demand, with high performance-price ratio
7. Both light and sound alarms systems are available
8. Noise abatement insulation package for quieter environment
9. The removable filter makes the cleanout easier.

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BLUE LINE — IMPORTED RANGE

BLOOD BANK REFRIGERATOR 4°C

Total useful volume	Input power	Temp. inside the box	Exterior size (W*D*H)	Blood storage volume (200ml/b)
120L	150W	4±1°C	500x500x1200	50
170L	160W	4±1°C	530x530x1420	120
210L	180W	4±1°C	530x530x1580	160
255L	220W	4±1°C	550x550x1730	225
300L	250W	4±1°C	600x500x1700	250
340L	280W	4±1°C	600x580x1780	280
400L	300W	4±1°C	890x530x1700	300
560L	400W	4±1°C	1190x580x1800x	430

PHARMACEUTICAL REFRIGERATOR 2~8°C

Total useful volume	Temp. inside the box	Exterior size (W*D*H)
120L	2~8°C	500x500x1200
170L	2~8°C	530x530x1420
210L	2~8°C	530x530x1580
260L	2~8°C	550x550x1730
280L	2~8°C	600x500x1680
300L	2~8°C	600x520x1700
340L	2~8°C	600x520x1780
400L	2~8°C	890x530x1680
560L	2~8°C	1190x580x1780
600L	2~8°C	1190x580x1800
800L	2~8°C	1430x628x1880
1200L	2~8°C	1430x628x2000
1600L	2~8°C	1900x748x2010

ARC INFRARED CARBON AND SULFUR ANALYZER with Tubular Combustion Furnace

Infrared Carbon and Sulfur Analyzer is used in combination with WI-H85 Stainless Steel High-temperature Tubular Combustion Furnace. It can rapidly and accurately conduct content determination of carbon and sulfur in materials like steel, iron, alloy, nonferrous metals, cement, minerals and catalysts, etc.

Main Features

1. Adopting infrared detector with low noise, high sensitivity and high stability;
2. Modular design of the whole machine, which improves the reliability of the instrument;
3. Automatic linking with electronic balance;
4. English operation interface, easy to operate and master;
5. Complete software that can perform more than forty functions like documentation assistance, system monitoring, channel selection, statistics, results correction, breakpoint correction and system diagnosis.
6. Dynamic display of the data, and carbon and sulfur release curves during the analysis process;
7. Wide measuring linear range that can also be extended;
8. Imported electromagnetic valve to improve the reliability of the air system;
9. Stainless steel high-pressure tubular furnace with its temperature digital displayed;
10. Highly-efficient aluminum alloy dust collector.

Main Technical Parameters:
Measuring range: Carbon ω (C) 0.001% -6.0000%
(can be extended to 99.999%); Sulfur ω (S) 0.0005% -0.3500%
(can be extended to 99.999%)
Analysis error: Carbon: better than GB/T223.69-1997 standard
Sulfur: better than GB/T223.68-1997 standard
Analysis time: 25-60 seconds Adjustable, generally about 35 seconds
Electronic Balance: Weighing range :0-300g

ARC INFRARED CARBON AND SULFUR ANALYZER with Automatic Ignition Furnace.

Infrared Carbon and Sulfur Analyzer is used in combination with WI-H86B High-speed Automatic Ignition Furnace. It can rapidly and accurately conduct content determination of carbon and sulfur in materials like steel, iron, alloy, nonferrous metals, cement, minerals and catalysts, etc.

Highly-frequent continuous arc ignition, automatic tracking sample combustion;

TECHNICO®

BLUE LINE — IMPORTED RANGE

MAGNETIC STIRRER

Basic Model 3 L
0 - 1500 rpm

LCD Digital Model
Max. 20L / 100 - 1500 rpm

10 Channel Basic
0 - 1100 rpm/SS

MAGNETIC STIRRER CUM HOT PLATE

LED Model
280 ° C / SS
100 - 1500 rpm

LED Model
280 ° C / Ceramic
100 - 1500 rpm

LED Model
550 ° C / Ceramic
100 - 1500 rpm

LED Model
280 ° C / Ceramic
0 - 1500 rpm

10 Channel
120 ° C / SS
100 - 1100 rpm

www.technicolab.com
technicolab@gmail.com

BLUE LINE IMPORTED RANGE

ROCKING SHAKER
10 – 70 rpm

3 D SHAKER
10 – 70 rpm

ORBITAL LINEAR SHAKER
(100 – 350 Linear)
(100 – 800 Orbital)

MICRO PLATE MIXER

VORTEX MIXER 0 – 2500 rpm

GLOVE BOX STYSTEM

Main Features :

Water & Oxygen : < 1 ppm
Leakage rate : <0.05 vol % / h
Control Panel : Touch Screen
Closed loop circulation of Gas with Oil / Vacuum.
Regreneration : Automatic Control
Barometric Pressure Control : Automatic +/- 15 mbar
Box Cleaning : Automatic control and saves Gas.
Foot Switch : For Barometric control Pressure
Data back up : Automatic data recording

Transfer Chamber :

Double Door
Large Antee Chamber with Pressure Indication.
Additional Small Antee Chamber with Pressure display

Gas Purification System :

Water and Oxygen purification with single column
Water / Oxygen : , 1 ppm
Intergated Seal circulation Pump
Vacuum Pump with Oil filter
Siemens PLC control module
Automatic Regeneration
Box Pressure by automatic control
System self Diagnostic function
Water cooling automatic

Optional :

- Moisture / Water Analyzer : 0 – 1000ppm
- Oxygen Analyzer : 0 – 1000 ppm
- Refrigerator : - 35 ° C
- Organic Solvent absorption System
- A varity of Gas – Liquid Interface
- A varity of transfer Chamber

LAB FURNACE

Features :

- Temp. Range : 900 to 1350 / 1400 ° C
- Alumina Fiber Board inner Chamber
- Light Weight
- Compact size
- Eleging Finish
- Microprocessor PID Programmable Controller
- Accuracy : +/- 1 ° C
- Elements : Silicin carbide Elements
- Control : Silicon Control Rectifiers

HIGH TEMPERATURE FURNACE

Features :

- Temp. Range : 1700 ° C
- Alumina Fiber Board inner Chamber
- Light Weight
- Compact size
- Eleging Finish
- Microprocessor PID Programmable Controller
- Accuracy : +/- 1 ° C
- Elements : MoSi2 ements
- Control : Silicon Control Rectifiers

Other Furnace :

Tubular Furnace, Atmosphere Furnace, Vacuum Furnace, Bottom Loading Furnace etc

ROTARY EVAPORATOR

Speed range : 20 – 280
Heating range : 180 ° C
Lift : By Motor
Timer Display : LCD
Heating bath : Large 5 lts.
Control panel : Detachable for remote operation
Evaporating Flask with ejector for easy removal
Speed Display : LCD
Tempperature Display : LCD
Stroke : 150mm
Interface : RS 232

ULTRASONIC CLEANERS PLASTIC COATED

- Unique outer edge design. The outer edge of the cleaning tank has one coating of special plastic that enhances the profile and acts as an anti corrosion and anti scalding surface.
- The cleaning tank is made of thick special stainless steel for high durability.
- High performance transducers of international brand to improve the cleaning effect.
- Highly robust intelligent microprocessor control.
- Embedded frequency scanning can effectively clean the dead corners for optimal cleaning effects.
- High Ultrasonic power with low noise.

FEATURES :

- **DEGASIFICATION :** It can rapidly remove the gases in solutions and evenly mix the ultrasonic cleaning liquid. Preset range of Degasification time: 1 to 99 minutes.
- **Heating :** Heating can performed independently or with ultrasonic and degasification. Preset range of heating : 0 to 60 ° C
- **Adjustable Power :** It is possible to adjust the power as required.
  Range of Power adjustment : 30% to 100%
- **Water level control system :** The liquid level in the cleaning tank is monitored on real time basis. The Power supply is disconnected and alarm is given if water level is low. Provided in larger cap.
- **Over Temperature protection System :** Real time measurement of solution temp. If the temp. Exceeds 75 ° C, an over temp. Alarm will be given. If the temp. Exceeds 80 ° C, operation will be stopped.
- **Memory :** Stored parameter can be saved and will hold even on power failure.
- **Automatic shutdown :** Preset range of cleaning time : 1 to 720 minutes. Considering the safety, the system will shut down automatically after 12 hours of continuous operation.
- **Level Line :** The tank is marked with a level line so that the liquid can be maintained at that required level.

- **Water discharge :** Water can be discharged by a drain valve on side of tank. Provided in larger cap.
- **Working Frequency :** 40 Khz +/- 2 K

Model	Cap. in lts.	L x W x D	Watts	Heater rating	Adj. Power	Water Drain	Water level Control
4B	4	300x150x100	220	–	–	–	–
4P			220	–	30 - 100	–	–
4H			450	250	30 - 100	–	–
6B	6	300x150x150	220	–	–	–	–
6P			220	–	30 - 100	–	–
6H			450	250	30 - 100	–	–
10B	10	300x240x150	400	–	–	y	y
10P			400	–	30 - 100	y	y
10H			900	500	30 - 100	y	y

OTHER LAB EQUIPMENTS;

- VIBERATION TESTER FOR PET BOTTLES AND CANS
- BALL MILLS OF DIFFERENT CAPACITIES
- OIL BATHS OF DIFFERENT SIZES
- ULTRASONIC CLEANER / BATHS & SONICATORS
- PLANT GROWTH CHAMBER
- SEED GERMINATOR
- MAGNETIC STIRRERS
- INCINERATORS
- CENTRIFUGES
- PH METERS, CONDUCTIVITY METERS
- ANALYTICAL / ELECTRONIC BALANCE,

SPARES AND ACCESORIES :

- RTD'S / THERMOCOUPLE'S
- SILICON CARBIDE HEATING ELEMENTS
- DIGITAL / PID / PROGRAMMABLE CONTROLLER CUM INDICATOR
- NEOPRENE GLOVES FOR ISOLATION GLOVE BOX : 6" x 32 " OR 8" x 32"
- MANTLES FOR HEATING MANTLE
- RH SENSOR & INDICATOR
- ALUMINA TUBES
- QUARTZ TUBES
- SS TRAYS

OTHER PRODUCTS MANUFACTURED BY US :

ALL TYPE OF LABORATORY MODULAR FURNITURE – ISLAND TABLES, WORK TABLES, INSTRUMENT TABLES, ANTI VIBRATION TABLES, FUME HOODS, LAMINAR & BIO SAFETY CABINETS.

ALL TYPES OF LABORATORY BOROSILICATE GLASSWARE

TECHNICO®

OTHER 'TECHNICO' LAB EQUIPMENTS

Tunnel Furnace

Walkin Cold Room

Plant Growth Chamber

Split Furnace

SS Chiller Bath

Incinerator

Annealing Furnace

Double Deck Oven

Ball Mill

TECHNICO®

'TECHNICO' BOROSILICATE LAB GLASSWARE

TECHNICO®

'TECHNICO LAB' FURNITURE, FUME HOOD, LAMINAR / BIO SAFETY CABINETS ETC.