



PAVANI ESTEEM INDUSTRIES PVT LTD

**MANUFACTURER OF MEDICAL & HOSPITAL
EQUIPMENT**

Our company established in 1984, we share a favorable reputation in both Indian and International market place complete with numbers of distributors. We are manufacturing medical and laboratory equipment. We offer items in most competitive price to compete with international market. Our quality is unmatched and we shall provide after sales service anywhere in world.

Fighting for humanity, now and forever
MAHENDRA TANDON (DIRECTOR)



Subject: Catalogue Introduction Letter

Dear Sir,

I am writing this letter to inform you, as our company is the leading manufacturer of **Medical & Hospital Equipment**.

We believe it would suit your requirement well, we provide Medical & Hospital Equipment of best quality and we can guarantee that you can through away the tension of buying new Medical & Hospital Equipment in the future after purchasing from us.

You can select Medical & Hospital Equipment from the range we already have or even order customized products to be made exclusively for you.

If you are interested please feel free to call us or you can also leave an E-mail us at **pavaniesteem@gmail.com**

We are sending catalog of our products range of Autoclave along with this letter that will give you every single detail about the product. We are available at any time, would you wish to contact us. We hope to provide our services soon.

Thanking You,

Yours Truly,

Mahendra Tandon (Director)

+91-9805339999

Pavani Esteem Industries Pvt.Ltd



PAVANI ESTEEM INDUSTRIES PVT LTD

PAVANI MEDICAL WASTE SHREDDER WITH AUTOCLAVE



PEIWS-101

PAVANI MEDICAL WASTE SHREDDER WITH AUTOCLAVE:-

Esteem Biomedical waste Shredder with autoclave is a complete system to treat and sterilize regulated medical waste at the site of production. Designed for hospitals, clinics, laboratories, any institution with significant onsite, classified waste production. The **medical waste shredder with autoclave** uses a dual process to convert medical waste into non-category, ordinary waste which can then be disposed using the regular waste disposal system. Biomedical waste shredding machine is used to destroy waste such as Syringes, scalpels, glass vials, blades, plastics, catheters, broken ampoules, intravenous sets/bottles, PPE Kits, Shoe Covers blood bags, gloves, bandages etc. Shredding is a process by which waste is de shaped or cut in to smaller pieces, so as to make the waste unrecognizable. It helps in prevention of reuse of non-infectious biomedical waste and also acts as an identifier that the waste is safe to dispose off. Shrine is a research backed, cost effective shredding solution with a focus on shredding as a key factor in solid waste management. It shreds dry and wet waste.

Capacity:

- 10 kg Per Hour
- 12 Kg Per Hour
- 25 Kg Per hour
- 50 Kg Per Hour
- 100 Kg per Hour
- 200 Kg per hour

Features:

- **Robust design Precise**
- **dimension Sturdiness**

Specifications:

- Low speed low noise
- Blades are abrasion resistant graded steel- duly heat treated and blades are of EN8 material.
- Door opening safety mechanism thus preventing any aerosol escaping. It is fully operated by screen.
- Provided with manual bag bucket filling mechanism
- Provided with reverse rotation mechanism
- Provided with PLC Panel and emergency stop switch
- Provided with Audio video alarm
- Capacity: Wet waste, decontaminated hospital waste
- Installed Power Shredder : >2,5 kW , electric drive
- Motor tension voltage: 400 V AC, 3 HP with gear box Italian make.
- Stand: Fabricated from welded profile steel
- Cutter module: The frame of the cutter is made of sturdy screwed profile steel, low in torsion
- Cutters with replaceable hook cutters made of wear resistant special steel.
- Hopper: Sturdy sheet steel welded design
- Strippers: For cleaning and bridging over the spaces between cutter shafts and walls
- Electronic control Panel: Complete control and switch gear unit are contained in a control Cabinet.
- It consumes less electricity than other Shredder.
- In case of non shred able material in cutting chamber, machine will stop automatically to avoid damages.
- All safety Features like Overload protection, Short Circuit protection, Door Open cut off switch & Reversal of rotation is provided.
- Water Ring Type vacuum pump will be provided to create complete vacuum for drying shredder material. Chamber SS 316 L will be provided with SS nozzles for spraying the shredded material.



PAVANI ESTEEM INDUSTRIES PVT LTD

PAVANI AUTOCLAVE WITH SHREDDER



PEI-101

On-site Medical Waste Disposal Solution for Hospitals: Integrated autoclave with shredder is an ideal solution for hospitals and healthcare centers to safely dispose infectious medical waste. First of all, Shredder is a system integrated with autoclave and shredder, which completes the sterilization process and shredding process in one closed vessel, so that it ensures a clean ambient and safe operation. Secondly, Shredder has a complete automated treatment process, thus the reliance of a professional operation team can be substantially reduced. Moreover, thanks to the compact and practical design, Shredder requires a minimum space to install and a basic infrastructure to operate. Therefore, hazardous medical waste can always be treated in hospital and healthcare centers in time without transportation of medical waste or secondary risk of infection.

Off-site Medical Waste Disposal Solution for Centralized Facilities:

Shredder is widely used in centralized medical waste facilities as well, and the treatment capacity is up to 5 tons per day. Manpower is largely reduced due to its automated processes for operating this system; meanwhile, the odor is significantly reduced because of the closed and compact design.

Core Features & Advantages:

- Safer and easier: the closed system and fully automated process make medical waste treatment safer and easier to operate.
- Low operation cost: world lowest medical waste operating cost at 0.15/kg
- On-site treatment: prevent the risk of secondary infection
- Low maintenance cost: patented technologies of easily disassembled shredder largely shorten the maintenance and blades changing time.

- Odor control: advanced odor control technology ensures a clean ambient of hospital and medical waste treatment facilities.
- Long lifespan: heavy-duty design and key parts from world famous brands ensures a long term run.
- Giant Monitoring Center (GMC): smart technology realizes remote online support.
- **Capacity :**
50~2500liters/cycle (26~660gals), approx. 12~300kgs/cycle (26~661lbs/cycle), dailydisposal capacity 0.2~5.0 ton
- **Process :**
Shredding prior to steam sterilization
- **Application:**
Hospital installation as well as medical waste treatment facilities
- **Features:**
Shredding and sterilization in a closed and compact system, built-in shredder easy to disassemble

Specifications:

	Criteria	Features
1	Type of Sterilization	Steam sterilization,Pre-vacuum, Fully Automatic
2	Sterilization Temperature	134 °C-140°C
3	Relative Steam Pressure	With a vapor pressure of 30-40psi
4	Models of Knife	2-ways Rotary Blades
5	Operational mode	Waste cycle, All Hospital Waste cycle,glasscycle,Cyclespecials,cleaing cycle and testcycle
6	Time of Processing cycle	25-45 minutes
7	Water consumption percycle	100-500 Liters
8	Electric consumption per cycle	7-9 kWh
9	Form of container	Cylinder-Rotation

10	Capacity of containers	Up to 50 kg/hr
11	Loading capacity	Up to 50 kg/hr
12	Operating and Control Systems	Electronic with a microprocessor
13	Monitor/Display	Colored LCD color touch, screen monitor or display 10"
14	Source of Water	Filtering through reverse osmosis systems
15	Electrical sources	Max 36 kW ,3 phase,380-400 V,50-60 Hz
16	Air Source Pressure	External Compressor
17	Internal Steam Generators	Minimum steam capacity of 25 kg/hr
18	External Compressor	Reverse Osmosis System
19	Connections to PC	RS232
20	Safety System	Automatic pneumatic system for door locking and emergency buttons
21	One batch	> 240 l
22	Cycles time	< 30 min
23	Reduction of microbiologic activity	spore 8log10, virus 6log10, stat requirements and NFX30-503 compliant
24	Final waste	unrecognizable, inert, dry, stable
25	Process management	fully traceable
26	Unloading	automatically in wheel container
27	Steam boiler	built-in
28	EN 285 for Large Autoclaves	
29	Good Practice Standards	



PAVANI ESTEEM INDUSTRIES PVT LTD

PAVANI VERTICAL AUTOCLAVE



PEI-106

PAVANI VERTICAL AUTOCLAVE(PEI-106):-

Autoclave is as per IS 3829. Vertical type, sturdy double walled unit comprises of Steam jacket electrically heated. The inner & outer chamber is made of SS 304. Inner- chamber & lid made of stainless steel with automatic pressure control switch and safety. The lid & radial locking system is S.S 304 Inner & Outer is nicely polished. Provided with ISI marked electric heaters. Pressure is controlled by pressure stat and temperature indicator is also provided. The pressure is controlled from 1.2 kg. To 2.00kg./cm². Provided with double safety valve, Water inlet & outlet valves, pressure release valve S.S wire basket. The panel is provided with controls & indicators, 60 minute timer.

CONSTRUCTION

The unit comprises of steam Chamber electrically heated Inner lid made of stainless steel work on 3- phase 440A/C 50HZ supply fitted with automatic pressure control switch safety valve etc Chamber:- The chamber is made of 16SWG304 SS. Pressure gauge, water outlet valve and air inlet valve, SS steam condenser, tube with SS eject valve. Outer cover:- The outer cover is made out of SS duly insulated with high density mineral wool from the inner chamber and fitted with stable legs. Made of stainless steel heavy gauge fitted with pressure gauge and water draining valve

Our autoclaves are air insulated from inside, however we may incorporate mineral glass wool insulation if the customer desires so. The strong lid constructed out of thick stainless steel plate has a double safety radial locking arrangement, which ensures an easy and smooth opening and closing operation for all our autoclaves.

WORKING PRESSURE

Working pressure for our standard dry sterilization model vertical autoclave is 15 psi, however this can be upgraded to be used for higher pressures of up to 30 psi.

PRESSURE RANGE

The normal pressure range of our autoclave is 10 psi to 25 psi ± 3 psi

PRESSURE CONTROL

The pressure inside our vertical autoclave is controlled through a semi automatic electro mechanical device called piezostat, which controls the pressure inside the chamber and cuts off the current from the heater whenever the pressure exceeds the set pressure value of the autoclave, thus making it very safe and energy efficient.

AS PER GIVEN SPECIFICATIONS:-

FULLY AUTOMATIC AUTOCLAVE STEAM STERILIZER–VERTICAL DOUBLE WALLED (GMP MODEL)

- Double wall design should have single chamber for steam and water.
- Working chamber made of stainless steel LM 304 grade of 2mm thickness.
- Outer cover made of stainless steel 1mm thick.
- Lid, flange & bottom sheet also made of stainless steel. All joints argon welded.
- Joint less silicon gasket, heavy duty industrial flange heater.
- Pressure range: 15 to 22 PSI, factory set at 15 PSI.
- Temperature Control: Microprocessor Based digital display.
- Temperature Sensor: PT-100.
- Temperature Range: 121°C to 125°C.
- Temperature Resolution: 0.1°C. Temperature Accuracy +/- 0.5°C.
- Lid fitted with pressure gauge 0-30 PSI, safety spring loaded pressure valve, and steam release valve.
- Hydraulically tested.
- Foot lifting arrangement
- Electrical: 230 V 15 Amp 50 Hz /440V 3 phase +Neutral [4wire].

SPECIAL ADDITIONAL FEATURES

- Fully Automatic operation cycle
- Initial air purging cycle at the beginning air is automatically removed from the chamber.
- In built digital timer – timer can be adjusted as per sterilization load requirements.
- Automatic steam exhaust at the end of cycle.
- Low water level heater safeguard.



PAVANI ESTEEM INDUSTRIES PVT LTD

PAVANI VERTICAL AUTOCLAVE



PEI-106A

PAVANI VERTICAL AUTOCLAVE (ESTA-106 A):-

CONSTRUCTION:

The unit comprises of steam jacket electrically heated inner lid made of stainless steel work on 3-phase 440A/C 50HZ supply fitted with automatic pressure control switch safety valve etc Chamber:- The chamber is made of 304 SS. Pressuregauge, water outlet valve and air inlet valve, SS steam condenser, tube with SS eject valve. Single Door high pressure sterilizer with triple walled, steam jacket and separate boiler Steam Generator: - The steam generator is made out of SS heavy gauge fitted with pressure gauge and water draining valve. Spring loaded safety valves and automatic vacuum breaker for jacket. Removable plug screen for chamber drain. Display panel will be fitted with on/off switch and with indicators for pressure gauge, safety valve, release valve, indicating lights to show when the pressure control is cutting off current to heater.

Outer cover: - The outer cover is made out of SS duly insulated with high density mineral wool from the inner chamber and fitted with stable legs. Principle:- The steam generates from the jacket and gets condensed by the help of the eject valve which goes through condensing tube the dry steam gets into the chamber to penetrate into the packs contained in the chamber.

Our dry vertical autoclaves are triple walled units. Outer body of our autoclave is constructed out of thick gauge stainless steel sheet of SS-304 grade. The inner chamber is also made of heavy gauge stainless steel sheet of SS-316 grade. The middle wall is also constructed from the strong and sturdy stainless steel sheet of ss-304 grade s stainless steel sheet.

These are steam stocking models connected with a three way valve to control the

sterilization cycle inside the autoclave.

Safety lock for door pressure lock safety device will be provided. The output material will be completely dry.

Our autoclaves are air insulated from inside, however we may incorporate mineral glass wool insulation if the customer desires so. The strong lid constructed out of thick stainless steel plate has a double safety radial locking arrangement, which ensures an easy and smooth opening and closing operation for all our autoclaves. Our deluxe vertical autoclaves are ideally suited for Bio-Tech laboratories, hospitals and research labs where safety is the first

Priority of the users, since it is equipped with a double safety steam release valve. At the same time we test all our autoclaves for up to 2.5 times the standard working pressure to ensure maximum safety and protection from any unfortunate incident. All our triple walled vertical autoclaves are supplied complete with pressure gauge, pressure release valve and stainless steel basket as a standard feature. Provided with low water cut off facility

HEATING:

The heating process in our triple walled vertical autoclave is done through specially designed water heaters of suitable wattage to ensure optimum sterilization time in every sterilization cycle.

Provided with ISI marked electric heaters. Pressure is controlled by pressure stat and temperature indicator is also provided. The pressure is controlled from 1.2 kg. To 2.00kg./cm². Provided with double safety valve, Water inlet & outlet valves, pressure release valve S.S wire basket. The panel is provided with controls & indicators, 60 minute timer.

WORKING TEMPERATURE:

As per the international standards and guidelines our triple walled vertical autoclave has a working temperature of 121Degc, however for specific requirements our autoclaves can be upgraded to be used for up to 138Deg c.

WORKING PRESSURE:

Working pressure for our standard dry sterilization model vertical autoclave is 15 psi; however this can be upgraded to be used for higher pressures of up to 25 psi.

PRESSURE RANGE:

The normal pressure range of our autoclave is 5 psi to 30 psi

PRESSURE CONTROL:

The pressure inside our vertical autoclave is controlled through a semi automatic electro mechanical device called piezostat, which controls the pressure inside the chamber and cuts off the current from the heater whenever the pressure exceeds the set pressure value of the autoclave, thus making it very safe and energy efficient.

Power Supply: Power input to be 220-240 volts, 50 Hz as appropriate and fitted with plug compatible with local sockets



PAVANI ESTEEM INDUSTRIES PVT LTD

PAVANI VERTICAL AUTOCLAVE



PEI-106B

PAVANI VERTICAL AUTOCLAVE (PEI-106B):

General Description:

Automatic, microprocessor controlled steam sterilizer suitable for sterilization of Wrapped,unwrapped instruments and hollow laboratory loads. The autoclave is vertical type and constructed from double walled high-grade stainless steel materials. High pressure, electrically heated vertical steam sterilizer is used for sterilization of surgical instruments, dressing material, linen, rubber, plastic material by means of saturated steam under pressure of 15 to 20 psi. (Adjustable) Apart from health services it is also used in scientific research institutions and universities. Sturdy double walled construction with boiler/inner chamber made of stainless steel of 18 SWG 316 sheet. Outer shell is made of SS 304. The boiler and outer shell is provided with air insulation. Lid is made of stainless steel plate and is tightened all-around by wing nuts/radial arms. Molded, joint fewer gaskets are made of silicon rubber. Sterilizer is hydraulically tested up to 40 psi. Autoclaves are fitted with water level arrangements to indicate water position inside the boiler, pressure gauge, Air/steam release cock, spring loaded safety valve which can be set at any selected point from 10 psi. To 20 psi $\pm$ 3 psi. And drain. ISI marked immersion type heating element heats the water and steam to desired temperature and pressure. Supplied complete with S.S. basket, cord and plug to work on 220 Volts, 50 cycles AC supply. Complete digital temperature controlled with GSM interface & mobile alert feature.



PAVANI ESTEEM INDUSTRIES PVT LTD

PAVANI HORIZONTAL AUTOCLAVE (PEI-107)



PEI-107

PAVANI HORIZONTAL CYLINDRICAL AUTOCLAVE (PEI-107):-

As per IS: 3829 Part- I

We are manufacturers of triple walled horizontal autoclave India since 1984. Our horizontal autoclave are widely used for day to day mass scale sterilization procedures and in various bulk laboratory applications, where dryness of the sterilized medium is of paramount importance, given the fact that semi dry sterilized media is prone to various micro-bacterial and viral infections. We specialize in both standard and customized models, specifically designed to meet the challenging demands of various scientists for individual and specialized research applications. Over a short period of time Esteem brand have been established as reliable exporters of horizontal autoclave in India, catering to the vast markets in South East Asia, Middle East, Africa and Europe.

Apart from that we are supplying our autoclave in India, catering to a variety of customers ranging from Defense Installations, Research Laboratories, Educational Institutes and various R and D laboratories of leading national and multinational companies. Bench top, portable, high speed microprocessor controlled rapid autoclave for use in laboratory for liquid sterilization, pipette & glass sterilization wrapped material etc.

Chamber capacity of 28-30 liters. All interrupts & failures will be indicated through audio-visual alarms and thermal print outs. Provided with adequate safety features like safety valves, overload relay & contractors. Built in steam generator to feed steam to the chamber & to achieve efficient drying.

SALIENT FEATURES OF OUR TRIPLE HORIZONTAL AUTOCLAVE (DRY)

- Steam Stock Provision
- Versatile usage
- Stainless steel construction
- Ergonomic Design
- Energy Efficient

- Double Safety Radial Locking Arrangement
- Double Safety Valve Protection
- Hydraulic Testing Up to 2.5 times the working pressure
- Calibration And Protocol Documentation

CONSTRUCTION

Our horizontal cylindrical autoclave is triple walled units. Outer body of our autoclave is constructed out of thick gauge stainless steel sheet of SS-304 grade. The inner chamber is also made of heavy gauge stainless steelsheet of SS-304 grade. The middle wall is also constructed from the strong and sturdy stainless steel sheet of ss-304 grade s stainless steel sheet. These are steam stocking models connected with a three way valve to control the sterilization cycle inside the autoclave. Our autoclaves are insulated by generous mineral glass ass wool insulation. The strong lid constructed out of thick stainless steel plate has a double safety radial locking arrangement, which ensures an easy and smooth opening and closing operation for all our autoclaves. The steam generator of the autoclave is also constructed from stainless steel sheet of grade ss-304. Autoclave will have fully microprocessor controlled operation of the cycle. Door gasket will be of high grade silicon material fixed permanently in the door. Sterilizer having facility to check functionality of each component separately.

Facility to have up to 25 cycle program. Real time sterilizing cycle output will be indicated through inbuilt printerthrough thermal printouts. Door safety device to prevent any faulty cycle conditions.

Our horizontal autoclaves are ideally suited for hospitals and research labs where safety is the first priority of theusers, since it is equipped with a double safety steam release valve. At the same time we test all our autoclaves for up to 2.5 times the standard working pressure to ensure maximum safety and protection from any unfortunate incident. All our horizontal autoclaves are supplied complete with pressure gauge, pressure release valve automatic pressure control switch, vacuum breaker and steam trap as a standard feature. The unit is mounted on a tube stand constructed of high grade steel, which is duly pre treated with primers for rust proofingand painted with stove enamel. Autoclave chamber will be made of heavy duty stainless steel 316 L or betel with thick glass wool insulation to keep outer surface temp under control. Built in steam generator to feed steam to the chamber & to achieve efficient drying. LED display for easy reading & display have the facility for graphic display of temperature & pressure. Provided with 0.2 micron biological filter for decontaminating discharged air from the sterilizer.

HEATING

The heating process in our triple walled Horizontal autoclave is done through specially designed waterheaters of suitable wattage to ensure optimum sterilization time in every sterilization cycle.

WORKING TEMPERATURE

As per the international standards and guidelines our triple walled Horizontal autoclave

have a working temperature of 121°C, however for specific requirements our autoclaves can be upgraded to be used for up to 134°C.

WORKING PRESSURE

Working pressure for our standard dry sterilization model Horizontal autoclave is 15 psi, however this can be upgraded to be used for higher pressures of up to 30 psi.

PRESSURE RANGE

The normal pressure range of our autoclave is 5 psi to 20 psi

PRESSURE CONTROL

The pressure inside our Horizontal autoclave is controlled through a semi automatic electro mechanical device called piezostat, which controls the pressure inside the chamber and cuts off the current from the heater whenever the pressure exceeds the set pressure value of the autoclave, thus making it very safe and energy efficient.

TECHNICAL FEATURES OF DELUXE HORIZONTAL AUTOCLAVE

Hi-tech radial lock locking mechanism for ultimate ease of operation and safety. Steam Release valve of Stainless Steel ensuring a long life of the equipment.

Heavy grade spring loaded safety valve of brass, duly chrome plated. Water Indication Gauge with stainless steel enclosure

High accuracy and reliable pressure gauge.

Multiple operating valves for the control of the sterilization cycle.

Accidental Vacuum Break Device: Ensuring vacuum break due to power failure or any other usage

Water Level Cut off Device

CUT Hammer contractor for long trouble free usage

Provided with USB port for connecting to external memory device

UPGRADES (STANDARD)

LOW WATER PROTECTION DEVICE

This automatic system can be incorporated with our Horizontal autoclaves to give protection against the low water scenario under prolonged usages.

TIMER WITH ALARM SYSTEM

This semi automatic device can be incorporated with the standard models of our Horizontal autoclave which helps the user to set the sterilization time of the system and do other tasks without bothering to monitor the sterilization cycle. This device cuts off the current from the main system when the set value for a given sterilization cycle is attained and gives a loud audio alarm. Built in memory to store up to last minimum 50 cycles. Built in memory to store up to last minimum 50 cycles. Provided with ring type water pump to create vacuum for air removal & drying during stage. Provided with 2 PT-100 temperature sensors.

DIGITAL TEMPER INDICATOR

A solid state digital temperature controller cum indicator can be incorporated with our basic Horizontal autoclave models for ease of monitoring the temperature of the

autoclave from a distance through its large LED display, which is visible from quite a distance.

OPTIONAL ACCESSORIES:

PROGRAMMABLE TEMPERATURE CONTROLLER

A programmable micro processor based temperature controller cum indicator can be incorporated in our basic Horizontal autoclave models to pre program the sterilization cycle temperature with high amount of accuracy and reliability.

CHART RECORDER

This is a semi automatic self contained easy to use recording device, which permanently records the temperature in any given sterilization cycle of our vertical autoclave on a graph sheet, with the help of a bimetallic strip transducer chip incorporated in the unit

Technical Features: Chart size: 4" dia Accuracy: 2% (FSD) Response time: 12 minutes

PLC CONTROL SYSTEM (optional)

Our standard plc control system is based on the hi-tech state of the art micro-processor circuit technology, ensuring complete automatic operations along with high efficiency and great reliability. This computerized logic control system ensures a 100% automatic operation throughout the sterilization cycle of our vertical autoclave. No intermediary human intervention is necessary after choosing the parameters and initiating the sterilization process in our autoclaves. The ergonomically designed keyboard located on the front level enables the user to choose the desired program, initiate and terminate the cycle, and allows a trained technician to preset the main parameters using an access code. Our PLC control system is extremely easy to use, user friendly and fully programmable.

For an elaborate and presentable documentation of cycle process, our logic control unit is provided with a diligent Wipro/Epson dot matrix printer, which is connected to the central microprocessor system... The printer generates a hard copy of the printout of the relevant or desired information relating to the cycle operation like the pressure, sterilization time, temperature at any given/pre set time interval, vacuum, and drying time, number of cycles, number of pulsing etc.

The standard Horizontal autoclave with PLC control system is designed to operate up to six standard sterilization programs between 105degC and 137degC and two test programs optional. The desired programs can be easily selected by using the numeric keypad, provided at the front level. Apart from that other parameters such as air removal, sterilization and drying stages can be programmed with utmost ease.



PAVANI ESTEEM INDUSTRIES PVT LTD

PAVANI HORIZONTAL AUTOCLAVE



PEI-107A

PAVANI HORIZONTAL CYLINDRICAL AUTOCLAVE HIGH SPEED (PEI-107A)

We are manufacturers of triple walled horizontal autoclave India since 1984. Our horizontal autoclave are widely used for day to day mass scale sterilization procedures and in various bulk laboratory applications, where dryness of the sterilized medium is of paramount importance, given the fact that semi dry sterilized media is prone to various micro-bacterial and viral infections. We specialize in both standard and customized models, specifically designed to meet the challenging demands of various scientists for individual and specialized research applications. Over a short period of time Esteem brand have been established as reliable exporters of horizontal autoclave in India, catering to the vast markets in South East Asia, Middle East, Africa and Europe. Apart from that we are supplying our autoclave in India, catering to a variety of customers ranging from Defense Installations, Research Laboratories, Educational Institutes and various R and D laboratories of leading national and multinational companies.

SALIENT FEATURES OF OUR TRIPLE HORIZONTAL AUTOCLAVE (DRY)

- Steam Stock Provision
- Versatile usage
- Stainless steel construction
- Ergonomic Design

- Energy Efficient
- Double Safety Radial Locking Arrangement
- Double Safety Valve Protection
- Hydraulic Testing Up to 2.5 times the working pressure
- Calibration And Protocol Documentation

CONSTRUCTION

Our horizontal cylindrical autoclave is triple walled units. Outer body of our autoclave is constructed out of thick gauge stainless steel sheet of SS-304 grade. The inner chamber is also made of heavy gauge stainless steel sheet of SS-316 grade. The middle wall is also constructed from the strong and sturdy stainless steel sheet of SS-316 grade s stainless steel sheet. These are steam stocking models connected with a three way valve to control the sterilization cycle inside the autoclave. Our autoclaves are insulated by generous mineral glass ass wool insulation. The strong lid constructed out of thick stainless steel plate has a double safety radial locking arrangement, which ensures an easy and smooth opening and closing operation for all our autoclaves. The steam generator of the autoclave is also constructed from stainless steel sheet of grade SS-304.

Our horizontal autoclaves are ideally suited for hospitals and research labs where safety is the first priority of the users, since it is equipped with a double safety steam release valve. At the same time we test all our autoclaves for up to 2.5 times the standard working pressure to ensure maximum safety and protection from any unfortunate incident. All our horizontal autoclaves are supplied complete with pressure gauge, pressure release valve automatic pressure control switch, vacuum breaker and steam trap as a standard feature. The unit is mounted on a tube stand constructed of high grade steel, which is duly pre treated with primers for rust proofing and painted with stove enamel.

HEATING

The heating process in our triple walled Horizontal autoclave is done through specially designed water heaters of suitable wattage to ensure optimum sterilization time in every sterilization cycle.

WORKING TEMPERATURE

As per the international standards and guidelines our triple walled Horizontal autoclaves have a working temperature of 121°C. , however for specific requirements our autoclaves can be upgraded to be used for up to 134° c.

WORKING PRESSURE

Working pressure for our standard dry sterilization model Horizontal autoclave is 15 psi, however this can be upgraded to be used for higher pressures of up to 30 psi..

PRESSURE RANGE

The normal pressure range of our autoclave is 5 psi to 20 psi

PRESSURE CONTROL

The pressure inside our Horizontal autoclave is controlled through a semi automatic electro mechanical device called piezostat, which controls the pressure inside the chamber and cuts off the current from the heater whenever the pressure exceeds the set pressure value of the autoclave, thus making it very safe and energy efficient.

TECHNICAL FEATURES OF DELUXE HORIZONTAL AUTOCLAVE

- Hi-tech radial lock locking mechanism for ultimate ease of operation and safety.
- Steam Release valve of Stainless Steel ensuring a long life of the equipment.
- Huger grade spring loaded safety valve of brass, duly chrome plated.
- Water Indication Gauge with stainless steel enclosure.
- High accuracy and reliable pressure gauge.
- Multiple operating valves for the control of the sterilization cycle.
- Accidental Vacuum Break Device: Ensuring vacuum break due to power failure or any other usage.
- Water Level Cut Off Device.
- CUT Hammer contractor for long trouble free usage.
- Specially designed ISI marked stainless steel heaters.
- Plug screen to prevent line choking due to sediment discharge.
- Highly accurate temperature and pressure gauges for boiler chamber and jacket

However we are fully capable to cater to the demand of any customized size for any special application.

UPGRADES (STANDARD)

LOW WATER PROTECTION DEVICE

This automatic system can be incorporated with our Horizontal autoclaves to give protection against the low water scenario under prolonged usages.

TIMER WITH ALARM SYSTEM

This semi automatic device can be incorporated with the standard models of our Horizontal autoclave which helps the user to set the sterilization time of the system and do other tasks without bothering to monitor the sterilization cycle. This device cut off the current from the main system when the set value for a given sterilization cycle is attained and gives a loud audio alarm.

DIGITAL TEMPER INDICATOR

A solid state digital temperature controller cum indicator can be incorporated with our basic Horizontal autoclave models for ease of monitoring the temperature of the autoclave from a distance through its large LED display, which is visible from quite a distance.

OTHER ACCESSORIES:

PROGRAMMABLE TEMPERATURE CONTROLLER

A programmable micro processor based temperature controller cum indicator can be incorporated in our basic Horizontal autoclave models to pre program the sterilization cycle temperature with high amount of accuracy and reliability.

CHART RECORDER

This a semi automatic self contained easy to use recording device, which permanently records the temperature is any given sterilization cycle of our vertical autoclave on a graph sheet, with the help of a bimetallic strip transducer chip incorporated in the unit.



PAVANI ESTEEM INDUSTRIES PVT LTD

PAVANI HORIZONTAL RECTANGULAR AUTOCLAVE



PEI-108

PAVANI HORIZONTAL RECTANGULAR AUTOCLAVE (ESTA-108):-As per IS 3829 Part-I

The sterilizer is based on the principle that microbiological action of saturated steam at elevated temp is rapid and thorough. All models work on downward displacement of air principle which is most economical method of obtaining for all types of bulk sterilization which are commonly needed in Medical, Agricultural and Pharmaceutical institute Suitable for sterilizing hospital dressings, linen, rubber plastic goods, surgical instruments, glassware's and utensils etc. Construction Robust and rugged all weld construction which is leak proof unlike riveted construction. Inner chamber is made of stainless steel of 304/316 quality and jacket is made out of rolled steel. Sterilizers will have single door made out of rolled steel lined with S.S. sheet on both sides. All the sterilizers are hydraulically tested to withstand 2.5 times the working pressure. The steam jacket is lined on the outer side with asbestos sheet or glass wool which prevents heat losses due to radiation and is covered by strong rolled steel sheet duly painted. Boiler made of thick stainless steel plate suitably located under the sterilizer.

High grade flanged type heating elements are fitted from front side for easy replacement/repair. Fitted with water gauge glass for water level, safety valve, water inlet and drain valves. It is also provided with Low Water Level cut off device. This device protects the heater in the generator from burning out dry. The steam pressure in the boiler is indicated on an individual pressure gauge. Safety Lock for Door Every horizontal rectangular sterilizer is fitted with SELF LOCKING SAFETY DOOR and interlocking is provided on double door which cannot be opened when the chamber is under pressure.

The clutch mechanism automatically disengages the threads of the radial locking system

for precluding any eventuality of accident when the chamber is under pressure. A heat resistant silicon Rubber gasket ensure steam tight fitting. Pressure Control Electrically operated Dan Foss (Pressure Control Device) is incorporated in all electrically operated sterilizers. It economizes power consumption and limits the use of release valve which would frequently blow steam into the room. It cuts off the power supply to heaters when the set pressure is achieved and re-energizes heaters when pressure falls down. Sterilization Complete sterilizing cycle is controlled from one point with the help of "Multi port valve" fitted at front top. Two speeds of exhaust are available for evacuating.

The Chamber Two separate valves provided for evacuating air and steam from inner chamber and jacket as and when desired. A steam trap is fitted in the chamber discharge line to eliminate the condensate automatically. Switch Box Houses the Pressure control switch, Main switch, Pilot lamps, relays etc. and mounted on the stand of the sterilizer for easy operation. Other Features

Size if Inner Chamber:-

- 450 x 450 x 900mm
- 450 x 600 x 900mm
- 600 x 600 x 900mm
- 600 x 600 x 1200mm
- 600 x 900 x 1500mm
- 900 x 1050 x 2100mm
- 1050 x 1200 x 2100mm
- Extra for PLC Controller

TRIPLE SAFETY

The sterilizer is provided with triple safety.

- (a) By a pressure control switch which automatically limits the pressure to the required set valve.
- (b) Two spring loaded safety valves one each at chamber and boiler level.
- (c) A dead weight safety valve at chamber level.

PLUG SCREEN

Prevents the discharge line from choking. The plug is easily removable for routing cleaning.

- A powerful Ejector (for drying sterilized linen) circulates air through the chamber.
- The circulating air passes through a corrosion resistant metal wool filter.
- A Dial thermometer is provided to show the chamber temperature.
- AUTOMATIC VACUUM BREAKER is provided to break vacuum case of vacuum formation due to steam condensation.

OPERATING TEMPERATURE AND PRESSURE

Sterilizing Temp. : 121°C. And 134°C

- **Sterilizing Pressure:** 1.2 to 2.2 kg/Cm², (15 psi to 22 psi)

Optional Accessories:-

- Chamber/Jacket of S.S. 316

- Doors of S.S. 304/316 • Additional Tray/Shelves
- Carriage & Trolley
- Direct steam supply from centralized boiler
- Temperature recorder • High pressure High vacuum model
- Additional door (Double door) model.
- Fully automatic microprocessor controlled model Spare Accessories
- Pressure gauge/Compound gauge

Water level gauge glass

- Dial thermometer
- Non return valve
- Moisture trap
- Joint less Gasket :- Neoprene/silicon rubber, size : 400 & 500mm

Heating elements (Flange Type) Rating kW 6.0, 9.0





PAVANI ESTEEM INDUSTRIES PVT LTD

PAVANI HORIZONTAL RECTANGULAR AUTOCLAVE



PEI-108

PAVANI HORIZONTAL RECTANGULAR AUTOCLAVE:-

The sterilizer is based on the principle that microbiological action of saturated steam at elevated temp is rapid and thorough. All contact parts are made of SS 316 with food grade joints silicon gasket load in trolley and with door safety interlocking on both door under pressure and jacket is provided for storage of steam and boiler is electric operated heaters and digital temperature controlled and display pressure. All models work on downward displacement of air principle which is most economical method of obtaining for all types of bulk sterilization which are commonly needed in Medical, Agricultural and Pharmaceutical institute Suitable for sterilizing hospital dressings, linen, rubber plastic goods, surgical instruments, glassware's and utensils etc. Construction Robust and rugged all weld construction which is leak proof unlike riveted construction. Inner chamber is made of thick plate of Mild Steel of non magnetic stainless steel of 304/316 quality and jacket is made out of SS 304. All the sterilizers are hydraulically tested to withstand 2.5 times the working pressure. The steam jacket is lined on the outer side with asbestos sheet or glass wool which prevents heat losses due to radiation and is covered by strong rolled steel sheet duly painted. Boiler made of thick stainless steel plate suitably located under the sterilizer.

The clutch mechanism automatically disengages the threads of the radial locking system for precluding any eventuality of accident when the chamber is under pressure. A heat resistant Neoprene Rubber gasket ensure steam tight fitting. Pressure Control Electrically operated Dan Foss (Pressure Control Device) is incorporated in all electrically operated sterilizers. It economizes power consumption and limits the use of release valve which would frequently blow steam into the room. It cuts off the power supply to heaters when the set pressure is achieved and re-energizes heaters when pressure falls down. Sterilization Complete sterilizing cycle is controlled from one point

with the help of “Multi port valve” fitted at front top. Two speeds of exhaust are available for evacuating. The Chamber Two separate valves provided for evacuating air and steam from inner chamber and jacket as and when desired. A steam trap is fitted in the chamber discharge line to eliminate the condensate automatically. Switch Box Houses the Pressure controls switch Main switch, Pilot lamps, relays etc. and mounted on the stand of the sterilizer for easy operation.

SIZE IF INNER CHAMBER:-

- 450 x 450 x 900mm
- 450 x 600 x 900mm
- 600 x 600 x 900mm
- 600 x 600 x 1200mm
- 600 x 900 x 1500mm
- 900 x 1050 x 2100mm
- 1050 x 1200 x 2100mm
- Extra for PLC Controller

OTHER FEATURES

TRIPLE SAFETY:-

The sterilizer is provided with triple safety.

- a) By a pressure control switch which automatically limits the pressure to the required set valve.
- b) Two spring loaded safety valves one each at chamber and boiler level.
- c) A dead weight safety valve at chamber level.

PLUG SCREEN:-

- Prevents the discharge line from choking. The plug is easily removable for routing cleaning.
- A powerful Ejector (for drying sterilized linen) circulates air through the chamber.
- The circulating air passes through a corrosion resistant metal wool filter.
- A Dial thermometer is provided to show the chamber temperature.
- AUTOMATIC VACUUM BREAKER is provided to break vacuum case of vacuum formation due to steam condensation.

OPERATING TEMPERATURE AND PRESSURE:-

- Sterilizing Pressure: 1.2 to 1.5 kg/Sq. cm
- Door of Stainless steel
- Additional Tray/Shelves
- Carriage & Trolley
- Direct steam supply from centralized boiler
- Electrical power: 18Kw, 3 phase, 440 V 50Hz AC supply.
- High pressure High vacuum model
- Water ring type vacuum pump is provided for pre & post vacuum facility.



PAVANI ESTEEM INDUSTRIES PVT LTD

STEAM STERILISER AUTOCLAVE SLIDING DOOR



PEI-108A

SLIDING DOOR AUTOCLAVE (ESTA- 108A):

Capacity:-600x9000x1450

- For Sterilization of glass wares / containers, vessels, linen, rubber articles culture media etc.
- Sliding doors with high temperature resistant silicone gaskets.
- Standard cycles, HPHV cycles, Bowie Dick cycle & leak test cycle.
- Fully Automatic P.L C. based control system covering all parameters with facility for printing. Manual maintenance mode independent to P.L.C.
- Confirming to various international specifications. Complete cGMP models.
- Guaranteed precise chamber temperature control with temperature uniformity as per EN554 & HTM2010.
- On line printing & recording.
Options like inbuilt electrical steam generator, chart recorders, data loggers, air compressor.

Salient Features

- Door movement Vertical
- Smooth Noiseless Door Operation
- No Human Effort Required to Operate the Door
- Aesthetic Full S.S Flush Mounting
- Stainless steel Piping
- Door Locking System under Pressurized Chamber Condition

Single door Steam Sterilizer, Sliding Door,

Rectangular chamberScope of Supply:-

- 1) Basic Unit
- 2) S. S Carriage 1no.
- 3) S. S Floor Trolley 2 nos.
- 4) **Automation -**
Fully Automatic and 3 level password protected PLC based control system including Pneumatic actuated Valves, Solenoid Valves, Pressure Transmitter, S.S control Panel etc
- 5) Vacuum Pump (Water ring type) with S.S condenserInstallation and commissioning charges

SALIENT FEATURES OF ESTEEM AUTOCLAVE

Autoclave will be in sturdy construction using plates of appropriate thickness which prevents buckling under vacuum or bulging due to pressure. Made to confirm to EN 285 or HTM 2010 performance requirements.

Fully automatic by means of PLC based controls, which operate pneumatically actuated solenoid valves. Provision of four different cycles and programs:

1. Standard cycle
 - 1a. Heat up – ster hold (121⁰ C) – exhausts
 - 1b. Heat up – ster hold (134⁰ C) – exhaust

Suitable for standard and custom sterilization cycles at 134 °C and 121 °C, with pre-vacuum,conditioning/sterilization and post-vacuum/drying phases.

The technique uses the method of gravity air removal to ensure uniform steam distribution andpenetration.

Steam trap equipped with air vent ensure maximum air removal.

Useful for sterilization of glass containers i.e. ampoules, vials, glass bottles etc.

It is also useful for Sterilization of glass wares, utensils, vessels, instruments, rubber articles linen etc.in Laboratories and hospital.

2. HP HV cycle

- 2a. 3 pre ster vacuum pulses – heat up – ster hold – exhaust

2b. 3 pre ster vacuum pulses – heat up – ster hold – exhaust – postster vacuum pulsing for drying

Preset cycles, including at least for instruments (134 °C), textiles (134 °C), mixed load (121 °C and/or 134 °C), heavy load (134°C), prions (134 °C) plastic/rubber (121 °C), liquids (121 °C and/or 134 °C), glassware (121 °C and/or 134 °C), fast cycle (134 °C), Bowie-Dick test, vacuum and self test.

This technique uses near 100% air removal from sterilization chamber which results in better temperature uniformity in the chamber because of the absence of air pockets i.e. cold spots.

This technique increases the penetration of steam in porous products from which removal of air is difficult.

Vacuum drying at the end of sterilization hold period ensures drying of the material which has been sterilized.

This cycle is useful for garments, fabrics, drying rubber bungs vessels machine parts etc.

Leak Test Cycle for periodic testing of door integrity and pipeline connections & detecting leakage ampoules.

Another **HP HV cycle** with post vacuum pulses can be provided, if required, for special purpose.

III General Information –

- SS construction with internal contact parts of SS 316.
- SS construction with Jacket parts of SS 316.
- The unit is mounted on sturdy SS tubular stand with level adjustment facility.
- The jacket volume is comparatively large (depth of 50 mm) which ensures better heat distribution in chamber.
- No drives are required. For sliding door movement, pneumatic cylinders are used.
- Autoclaves with hinged doors have mechanical pressure locking device which prevents opening of doors under pressure. The quick throw lever mechanism ensures further safety.
- Door interlocking provision prevents opening of doors under pressure as well as opening of both doors at the same time – after sterilizing cycle only Aseptic side door can be opened. Besides this interlocking, a visual indication is also provided.
- The unit has two safety valves, on the chamber and one on the Jacket, besides having a pressure

Switch which shuts off steam supply to the chamber.

- PLC's used are Imported and compatible with P C. SCADA system can be incorporated for remote monitoring OR monitoring, controlling and data acquisition if required (Optional).
- External communication RS232
- Continuous monitoring of temperature and pressure
- Over-pressure safety release valves (Spirax Sarco)

- Emergency stop button.
- Security key or code for enabling, operation.
- Protection against over voltage, over current surges, fluctuations, spikes and leaks.
- Electrical switchgear of SIEMENS / L & T / TEKNIK makes. Cables of ISI brand.

VIII. UTILITIES –

- Raw steam supply (If not opted for inbuilt steam generator.)
- Water drain pipe on floor level.
- Steam drain pipe of ½” dia.
- Three phase with compulsory neutral and ground.
- Compressed Air of upto 6kg/cm² (If not opted for inbuilt compressor)

TECHNICAL SPECIFICATIONS OF STEAM STERILIZER

1. CHAMBER:

Type	Rectangular
M O C contact parts	S S 316 L Factory tested at working pressure >2.3 bar

2. JACKET:

Type	Rectangular
M O C	S S 316 L

3. DOORS:

Type	Double
Door, Hinged M O C of contact parts	S S 316 L
Sealing	Solid square door gasket provided for effective Sealing
Interlock	Safety interlocks provided. • For avoiding possibilities of door opening during the process • To prevent both doors from opening simultaneously.

4. OUTER. : S.S 304 - 1 mm

5. INSULATION : Resin Bonded Glass wool – 50 mm

Chamber, jacket, door and steam generator will be fully insulated, allowing not harmful temperature on the external surfaces during operation

6. OPERATING PARAMETERS:

Temperature	134°C Max.
Pressure	2.1 kg / cm ² . Max.
Vacuum	Full

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7. HYDRAULIC TEST PRESSURE :

Chamber	3 kg / cm ²
Jacket	4 kg / cm ²

8. MAINTENANCE AND CALIBRATION

- Weekly and Monthly maintenance to be done by user (as explained in maintenance manual).
- Calibration to be done yearly by user.

SCOPE OF SUPPLY FOR STEAM STERILIZER

1. Interconnecting piping M O C : S S 316	1 Set
2. Pneumatically actuated Valve	1 Set
3. Poppet / Solenoid Valve	1 Set
4. Spring loaded safety valves	3 Nos.
5. Steam traps for condensate Evacuation from jacket & chamber	2 Nos.
6. S S port for insertion of multiple Probes for validation	1 No.
7. Pressure and compound gauges	3 Nos.
8. PT – 100 (RTD) probe at drain (Duplex)	1No.
9. Temperature dial gauge	1No.
10. S.S 304 mounting stand	1No.
11. Air Vent Filter	1No.
12. Pressure / Vacuum switch	1Set.
13. S.S control panel	1No.

UTILITIES REQUIRED AT BUYER'S FACILITY FOR FUNCTIONING OF THE STEAMSTERILIZER

Steam	:	Dry saturated steam at 3 kg/cm ²
Through your P.R.V		
Air	:	Compressed air through F R L will be Required at a pressure of 6 kg/cm ² for operating pneumatic valves and door.
Vacuum	:	Full / as required
Water	:	Water for water ring vacuum pump
Power supply	:	Single Phase, 230 Volts Three Phase, 440 Volts.

Specifications:-

Compressed air

The supplier must include compressor to produce sufficient compressed air for their own processes. Eventhough this system might be hooked up to the main compressed air system.

In this case the compressors must start automatically upon failure of the main system.

Loaders and unloaders, trolleys

The supplier must cost complete installation of out loader for both sterilizers. The system must automatically out load the goods after complete cycles.

If there is a load on the out loader the process must stop and an alarm must sound. The supplier must specify different equipment for handling of the goods, such as:

- Trolleys on the clean side, for transportation of sterile goods to storage.
- Trolleys for handling of racks to be fitted into the sterilizers.
Different types of trolleys and racks might be suggested

The bidder must give cost for automatic loading as an option.

The sterilizers will be evaluated according to:

- Quality of build.
- Process time
- Water consumption
- Energy consumption
- Operational cost as a total calculated cost over a period of ten years including service and revalidation.
- Easy to use
- Reputation for goods after market service.
Must be documented to be able to sterilize and dry large orthopedic sets in metal sterilization containers (Wagner Starriest and equivalent).

Pavani Esteem Industries Pvt Ltd
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Visit us: www.pavaniesteem.com

Email id: [pavaniesteem@gmail](mailto:pavaniesteem@gmail.com)

PAVANI ESTEEM INDUSTRIES



Automatic Tissue Processor

PEITP-101

MAHENDRA TANDON (DIRECTOR)



PAVANI ESTEEM INDUSTRIES PVT LTD

Pavani Automatic Tissue Processor



PEITP-101

Pavani Automatic Tissue Processor

Fully automated tissue processor capable of fixation, dehydration, clearing and paraffin embedding of tissue. Temperature range of wax baths 45 °C to 65°C. Excess temperature cut out at 75°C.

Computerized freely selectable and storable programming facilities should be available. Easy editing and changing of programmers should be possible, even during a processing run. Infiltration time for each station should be separately programmable.

A compact and sturdy instrument designed with latest technology for complete automatic dehydration and filtration of human, animal and plant's tissues, up to final fixing in wax. Carousel type with 12 stations (10 reagent stations, 2 wax baths) Metal containers at each station. Capacity of each container 1.8 – 2 liters. Pre programmable provision for dehydration cycle (user selectable) is a standard feature. Glass door with lock and key arrangement provided for easy viewing also prevents unauthorized Tampering of timing cycle. Infiltration time separately programmable for each station.

Freely selectable 10-15 programs. Tissues are subjected to continuous agitation by rotating S.S. Carousel type with 12 stations of 1.8 to 2 liters each; 10 reagent stations, 2/3 wax baths with easy accessibility to all reagent stations. Tissue basket for thorough penetration of reagents. Provision for automatic adjustable delay start is a standard feature. Display of warning in case of faulty running of the stations-exceeding time limit at one station. Import thermostat controls S.S. Wax bath temperature and maintains it throughout the process. Audible alarms, error message and warning codes. Supplied complete with one S.S. Basket Rotor, One S.S. Tissue Basket, 24 Nos. S.S. Tissue Capsules, 10 Nos. The system have inbuilt vacuum which can be applied to any station preferably with efficient fume control system Metal reagent containers with beaker carriers. Metal tissue basket with capacity approx. 100-200 cassettes. Second tissue basket to be provided for additional tissue cassettes. Teflon coated wax baths should be maintained at the temperature of 50-65°C.

One liter capacity Glass Beakers, 11 Nos. Beaker Covers, 2 Nos. S.S. Wax Baths each fitted with reputed make Thermostat, 5 Nos. 24 hours' calibrated metallic timing discs, and one notch pliers to program

timing disc. Facility for editing and changing of programs, during a processing run. Suitable to work on 220 V, single phase, 50 Hz, AC supply. Metal tissue baskets- 2 nos. capacity approx 80 – 100 cassettes each to be run at one go. Inbuilt vacuum function device with fume control system. The vacuum device should be attachable both to the whole instrument as well as to individual stations. Safety device for protection of drying of specimens in case of power failure.

The bucket should go back inside the respective solution when power fails and not hang in mid air. LCD display panel, ergonomic control panel with fully protected keyboard and LCD.

Audible alarm warning / error messages. The tissue baskets should have less base diameter as compared to upper diameter to avoid basket getting stuck inside the containers and firm bottom. Ergonomic control panel with protected keyboard and LCD display. Delayed start function facility available. Instrument is of voltage of 210-240V, 50Hz fitted with Indian type plug, Drain time 60 sec. Machine should also be able to cater to short time (quick) processing.

Interrupting an automatic process for reloading or removing cassettes before the end of a run should be possible. Bucket hangers should be made of hard steel.

Possibility of interrupting an automatic process for reloading or removing cassettes for special applications before the end of the run. Baskets automatically immerse in station during power failure. Program resume at the point of interruption once power is restored. The Hsn Code of the item is 9018.

Accessories provided:-

Automatic wax bath.

Beaker without lip.

Wax baths – 2 no's

Basket Rotor which rotates the tissue basket slowly.

Reagent stations – 2 nos.

Tissue capsule basket S.S. even perforation. Metal tissue baskets – 4 nos.

Tissue capsule S.S. 28 × 28 × 9 mm with sliding cover.

Tissue capsule S.S. 20 × 20 × 10 mm with sliding cover.

UPS with Voltage stabilizer (compatible to the equipment) with 2 hrs power backup– 1 no.

Divider for Tissue capsule's' shape.

Divider for Tissue capsule 'v' shape.

Pavani Esteem Industries Pvt Ltd

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Visit us: www.pavaniesteem.com

Email id: pavaniesteem@gmail.com

PAVANI ESTEEM INDUSTRIES



AUTOPSY TABLE

PEIAT-101

Mahendra Tandon (Director)



PAVANI ESTEEM INDUSTRIES PVT LTD

PAVANI-AUTOPSY TABLE



PEIAT -101

PAVANI AUTOPSY TABLE:

TECHNICAL SPECIFICATION

Esteem autopsy table are especially for all kinds of postmortem work. The construction of these tables incorporates state-of-the-art engineering, heavy gage stainless steel and conveniences Autopsy stainlesssteel table mounted on stainless steel tubular stand. Scientifically designed for maximum efficiency.

Provided with Two No's 6" wide body-supports (S. Steel) removable type, six position head rest, crusher(grinder/aspirator) for disposal, chrome plated swing spout mixing faucet for hot and cold water, leverhandle for waste/drain and deep & large S. S. Sink with overflow. Approx 100 L x 33 W x 33 H (± 4) stainless steel 304 satin polished finish, heliacal-welded seams and joints ground and polished to match adjoining surfaces rounding on all inside and outside corners for easy cleaning. Work surface with high, profiled surround and a seamlessly welded basin & single point connection at the location.

These are without rivets, bolts or other devices to provide a smooth working surface. Constructed of 304 type stainless steel to offer an easy to clean, hygienic platform for performing autopsies.

The autopsy table is provided with other features such as:-

- Large radius inside corners for easy clean up
- Engraved measurement scale on one side for easy measurement of cadaver
- Wooden head rest.
- Large sink basin with lever handle drain
- Double bowl sink
- Rugged, torsion-resistant stainless steel profiles with adjustable feel to equalize outany unevenness
- Three Solid stainless steel sliding body supports.
- Draining to one side
- Spray hose assembly with water control valve nozzle 10ft/3cm of flexible hose

-
- Mounted on Six bullet legs for sturdy performance
 - "Reverse Flow" Hydro aspirator with built-in vacuum breaker available optionally.

In on centimeter ruler on work surface, non-toppling, the drains from the supporting surface and the basin brought together in one drain connection, no sharp edges, with head/neck rest, four perforated stainless steel body supports, fixing and demonstration.

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Email id: pavaniesteem@gmail.com



PAVANI ESTEEM INDUSTRIES



BACTERIOLOGICAL INCUBATOR

Catalog PEI-102

Mahendra Tandon (Director)



PAVANI ESTEEM INDUSTRIES PVT LTD

PAVANI INCUBATOR BACTERIOLOGICAL



PEI -102

INCUBATOR BACTERIOLOGICAL:

Specification :

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

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

Temperature Control: – Temperature is controlled by microprocessor based with digital controller.

Ventilation: – Air ventilators are provided on both sides at top to flue away any gas or fumes.

Control Panel: –The equipment is provided with a panel having a thermostat control knob, ON/OFF switch and two pilot lamps. Power Requirement: – Supplied with cord and plug suitable to operate on 220 V single phase, 50 Hz, AC supply.

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PAVANI ESTEEM INDUSTRIES



BEDED BLOOD COLLECTION AND TRANSPORTATION VAN

CATALOG BCTV-007

Mahendra Tandon (Director)



PAVANI 02 BEDED BLOOD COLLECTION AND TRANSPORTATION VAN (BCTV)



BCTV-007

PAVANI 02 BEDDED BLOOD COLLECTION AND TRANSPORTATION VAN (BCTV):-

Blood collection and transportation van (BCTV) is specially design vehicle for Specific provision of blood donation, collection and proper Blood transportation as per regulatory norms and guidelines BCTV will be equipped with all medical equipments required to conduct/ support voluntary blood donation in mobile camps.

To ensure and maintain blood quality through temperature stability and safety from intransit spoilage there would be separate provision of an active blood refrigeration unit which can maintain optimum temperature range of +2° to +8°C (as recommended by health regulatory norms)

SPECIFICATION OF 02 BEDDED BLOOD COLLECTION AND TRANSPORTATION VAN:

Mobile blood van will be fabricated on a suitable chassis to accommodate 02 blood donor couch

Technical Specification of Chassis:

Model	LPT 709
GVW (kg)	7500
Wheelbase	3800
Engine	3783 cc,TATA 497 SP TURBO,Inter-cooled direct injection diesel engine
Max power	90 HP @2800 rpm
Max torque	325Nm,1500-1800 rpm
Clutch	280mm dia.,Single plate dry friction type
Gear box	GBS-27 Synchronesh,5

forward & one reverse

Brakes

Dual circuit full air S-CAM
brake

Steering

Power Steering

Front suspension

Semi-elliptical leaf springs at
front

Rear Suspension

Semi-elliptical leaf springs
at rear with Auxiliary
springs at
rear only

Fuel Tank

160

Tyres

Front -2, Rear -4, Spare-1

Tyres Size

7.50 x16-12 PR

Chassis Frame

Ladder type frame with
riveted/bolted cross
members, side members are
of channel section, depth:
200mm(max)
width: 60mm

Max Speed

90

Electrical data(Battery)

Battery:12V,75-Ah
Alternator Capacity: 65Amps

Body options

Cab & Chassis , Load body
optional

-
- To ensure and maintain blood quality through temperature stability and safety from transit spoilage there would be separate provision of an active blood refrigeration unit which can maintain optimum temperature range of +2° to +8°C (as recommended by health regulatory norms)
 - BCTV will be well equipped blood donor couches and shall maintain pleasant ambiance & hygiene. The internal design / fitment is planned to sustain in-transit road conditions temperature fluctuations in diverse weather conditions.
 - BCTV body insulation to have PUF/ PU min 12mm thick or thermocol min. 40mm thick or equivalent insulation for reduction of heat and noise within the blood donor compartment
 - The further specifications are as follows:
 - The length of VAN would be between 18 to 22ft
 - BCTV would be engine driven air conditioned the van would be proper storage.
-
- Upholstery / flooring / lighting arrangement etc etc would be latest and maintained the decor.
 - Width will be minimum 2200mm to accommodate the do now couches as well as space for operating the blood collection monitor and the movement of the technician and blood donors.
 - Flooring:
10mm marine plywood with 1.5 mm thick vinyl for flooring
 - Wooden cabinet:
Would have adequate storage as multi capacity 15 cabinets and drawers (with labels/ marking) for keeping blood regents surgical disposables, portable medical equipments separate cabinets with markings for registers and files , stationary , IEC material pamphlets, posters', housekeeping cloth/ mops etc. upper drawer with top opening and lowers drawers with front opening with magnetic lock and key locks for each drawers
 - Wooden / plywood pantry:-
Water proof plywood covered with Formica drawers and shelves for storage and S.S top with inbuilt basin insulated water camper with tab and proper pipeline for waste water drainage
 - Curtain:-
Curtains for all windows and rear good quality polyester cloth curtains with stainless steel public address system would be provided
 - Coach Fans:
AC power fans-4 nos.

240 volts power operated 10" coach fans with white color blades and stainless steel / Color coated grill. There should be short-circuiting as well as overload protection through fuses. All equipments should be preferably AC and DC operated including fans.

- AC plugs points- 06 nos.:

240 volt power operated 15 amp power plug sockets

- 1.5 KVA Sine wave inverter : Battery
02 Battery System

Input DC Range 21-28.4

Efficiency >80%

(on battery mode)

Protection Overload 110%

Short Circuit 300%

Protection 11A+-1A(Standard)

14+-1A (High)

Additional automotive air conditioner should be provide to run on outside electricity in case of unavailability of electricity separate silent 3 KVA Generator .

- Battery -2nos for Inverters:-

150 amps Maintenance free battery

Extra cable for outside AC power

20 meter, four core cable, ISI marked with strong insulation and three pin sockets for both end.

- Branding of blood donor van on front wind screen, both sides and rear:-
3mg /LG film vinyl cut letter/print material for sides, rear and front wind screen glass.

- Miscellaneous:

Emergency light

Hot water electric cattle

Mosquito repellent 03 nos.

Digital wall clock

Dustbins: 02nos

Foot mat: 03nos

Water bottle holders: 03nos

There will be provision for Air conditioner during the Blood donation period also. 1.5 KVA Sine wave inverter and Battery for 02 to 03 hrs backup on full load.

- The mobile Van must be equipped with following as per specifications provided by GOI:

Blood collection Monitor: 02nos

Blood donor couch: 02nos

Portable Blood Refrigerator: 01nos preferably 40 to 60 bags

Table top tube sealer: 01nos

Tube stripper: 01nos

BP apparatus: 01nos

Weighing balance

Complimentary:

- Canopy on one side
- LED with DVD player
- Folding set of 4 chair and table



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PAVANI ESTEEM INDUSTRIES



ESTEEM BIO SAFETY CABINET

PEIBSC-103

Mahendra Tandon (Director)



PAVANI BIO SAFETY CABINET



PEIBSC-103

PAVANI BIO SAFETY CABINET:

Esteem Bio safety Cabinet should be type class II is the latest state-of-the-art biohazard safety cabinet, designed and manufactured to meet the NSIC standard requirements. 99.999% typical ulpa-filtration ensures the highest degree of sample and user protection while the dynamic chamber design prevents any cabinet leaks. Attention has been paid to ergonomics - such as low noise, comfortable lighting system and inherently safe double-balanced laminated glass sash. The Bio safety cabinet must include two DC motor and the motor must automatically adjust the airflow speed. Body S.S with sufficient protective coating, Collection tray for spills below work surface and elimination of protrusions and crevices in the overall construction of the cabinet. The Bio safety cabinet should have microprocessor controller and same must be located on a slanted front panel In addition, external rotor motor used in esteem lab culture bio safety cabinets consume less energy than conventional motors, thus decreasing operating costs. Stringent quality control testing, including individual containment tests, is performed and reported on every unit shipped. Your investment is also protected by a unique design that can be field upgraded later with our retrofit kits tm. Embedded in the ergonomically designed 10-degree sloped front is esteem's new sentinel microprocessor control, equipped with true airflow sensing technology, audible/visual alarm systems.

And full configurability according to the user preferences. The system would be with dual DC motors for airflow maintenance and low energy consumption. Differential pressure gauge would be there.

TECHNICAL SPECIFICATIONS

Power supply 220-240V, 50 Hz

Microprocessor controlled,

Floor standing model with castor wheel and lock.

Would have audio/visual alarms.

Alarm for any out of range parameters

Normal Power Consumption: Approx. 200W.

Timer and interlocking of front sash for UV light should be available.

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PAVANI ESTEEM INDUSTRIES



PAVANI BLOOD BAG TUBE SEALER

PEI.BTS-105

MAHENDRA TANDON (DIRECTOR)



PAVANI ESTEEM INDUSTRIES PVT LTD

PAVANI BLOOD BAG TUBE SEALER



PEI.BTS-105

PAVANI BLOOD BAG TUBE SEALER

The Blood Tube sealer seals the tube of blood bag without causing haemolysis and leakage of blood. The seal is wide and can be separated or torn with little or no force. The Blood Bag Tube Sealer provided by Esteem is a compact equipment to seal the blood bag pilot tube by radio frequency sealing system.

A wide Tear Seal is a special feature of our blood tube sealer. RF power seals the bag using 20 watts of power. Sealing operation is automatically activated with the help of sensor when the tube is placed in between the sealing electrode.

We are offering an extensive range of Blood Bag Tube Sealers, which is used to seal blood bag tube containing blood without causing haemolysis and leakage of blood.

The sealer which comes with battery backup takes less than 1 second to seal per tube depending upon the tube variation. Further, the sealed tube can be easily separated by tearing the sealing section by both sides. Blood tube sealer seal is wide after sealing.

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PAVANI ESTEEM INDUSTRIES



BLOOD BANK REFRIGERATOR

PEIBBR-101

MAHENDRA TANDON (DIRECTOR)



PAVANI ESTEEM INDUSTRIES PVT LTD

PAVANI BLOOD BANK REFRIGERATOR



PEIBBR- 101

PAVANI BLOOD BANK REFRIGERATOR

ESTB-101 Esteem Blood Storage Freezer (with Digital Temperature Controller) Deluxe Model Blood Storage Freezer are most versatile unit for Blood Storage Freezer, specially designed for this purpose. It is available in various Capacities for storing the blood bags/bottles in an automatically controlled temperature of $+2^{\circ}\text{C}$ to 6°C with setting accuracy of $\pm 5^{\circ}\text{C}$. The height of the equipment could also be adjusted. Forced air circulation ensures uniform temperature. We offer a comprehensive range of high precision and superior quality blood bank equipment that helps in the entire process of blood collection. The range is actually very comprehensive and includes all the instruments and equipment that are required in the blood collection process like, Blood Storage Freezer, tube sealer manual, donor couch, tube sealer electronic, blood collection monitor and plasma extractor. ESTB-101 comes with Proper Alarm system, door opened Alarm is one of the Feature. Proper lighting especially of the inside chambers facilities are provided.

CONSTRUCTION:-

External body is made of 1 mm thick C.R sheet and interior made of Stainless Steel of 22G. Cast Wheels provided for easily mobility. Highly polished fully extendable drawers with dividers made of turret punched and corrosion free stainless steel sheets for accommodating blood bottles or Blood bags and permitting free turbulence of cold air are provided.

Cooling System:

- Cooling is achieved by highly efficient Refrigeration system using hermetically sealed Compressor and other Parts.
-

Double pane Glass doors (self-closing) are provided Inner door is of clean acrylic sheet glass for easy viewing inside the chamber. Outer door is duly insulated for proper sealing from external environment and is lockable.

TEMPERATURE CONTROL:

Temperature inside the chamber is maintained Automatically by electronic digital temp. Controller-cum-indicator. External ambient temperature is of +45 degree Celsius with a holding over time for 30 minutes for a full load of blood packs at +4 degree Celsius to 6 degree Celsius. An audiovisual alarm system is incorporated with battery backup in Case of mains failure or temperature variation beyond permitted Tolerance or door opening to prevent the spoilage of stored blood Bags. Cooling down time for a full load of blood packs at +25 degree Celsius takes

13 hours for all packs to reach below +6 degree Celsius. Inside illumination is provided for visibility of bags kept Inside the chamber.

UPRIGHT BLOOD STORAGE FREEZER:

- Fully extendable stainless steel drawers adjustable on 1" centers; solid drawers contain pills.
- Easy-to-clean dished interior cabinet base.
- Triple-pane heated glass door and frame with multi-point neoprene door gasket reduces condensation.
- Adjustable, positive door latch with cylinder key lock hardware for security.
- Commercial grade adjustable door hinges.
- Chart Recorder: 7 days
- Fluorescent interior lights, full-height for maximum visibility.
- Heavy gauge gal annealed steel interior and exterior, textured beige enamel exterior, and white enamel interior; optional stainless steel available.
- Heavy-duty casters, two swivel, two swivel with brakes (BBR 17 & 25), four swivel, two swivels with brakes (BBR 37 & 55).
- Optional Pass-Thru designs are available.
- Hermetically-sealed air-cooled refrigeration system with internal blower coils. Automatic off cycle defrost.

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PAVANI ESTEEM INDUSTRIES



Portable Autoclave 105

PEI.BCM-103

MAHENDRA TANDON (DIRECTOR)



PAVANI ESTEEM INDUSTRIES PVT LTD

PAVANI BLOOD COLLECTION MONITOR WITH SHAKER



PEL.BCM-103

PAVANI BLOOD COLLECTION MONITOR WITH SHAKER:

These Blood collection monitor systems are a combination of a balance shaker and mixer for blood bags. It accepts all kinds of blood donor bags and the 3D mixing system guarantees optimal mixing of blood. This is an accurate electronic blood collection monitor, designed to manage any blood donations.

Features:-

- Lightweight & portable
- Measure volume or weight with high accuracy
- Audio visual alarm is provided

Specifications:-

- Model is powered by main (230 volts 10, 50 Hz.).
- Set point selection of blood up to 999 ml /gm
- The Tarring range is 0-999 gm. i.e. tarring of bag weight before collection
- Automatic clamping at termination of preset volume collection
- Continuous display of current status of volume & collection time
- Having gentle mixing i.e. continuous agitation 12-20 cycle/min
- LED indication and audio alarm at the end of collection
- Measure volume / weight with best accuracy 1 ml. / gm
- The instrument is having audio alarm when blood flow is more than 90ml (high blood pressure) and less than 10ml (low blood pressure) within 20 seconds.

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PAVANI ESTEEM INDUSTRIES



BLOOD DONOR COUCH

PEI.BDC-101

MAHENDRA TANDON (DIRECTOR)



BLOOD DONOR CHAIR



PEI.BDC-101

BLOOD DONOR CHAIR

BLOOD DONOR CHAIR/COUCH Blood donor couches, foldable type, suitable for use donation of blood. Would be constructed from aluminum material or chrome plated robust metallic material or similar and equivalent light and non-corrosive material. With adjustable backrest, mechanically controlled and foldable. Would be provided complete with waterproof mattress.

Blood donor couch is designed to provide a comfortable position for the donor. Donor's position can be easily shifted from upright body position. All surfaces are clean and smooth, easily accessible and can be kept clean. Electrical and mechanical accessories are housed inside the structure making the product safer. Seat elements are designed with ergonomic consideration to maximize donor comfort. Accessories like BP apparatus, blood collection monitor etc. have trays on which they can be placed then by increasing doctors convenient. It is made of SS 304 and with 75mm. Rexene mattress. Arm resting arrangement is given on one side. Provided with arrangement to keep the blood bag and BP Apparatus is fitted with the couch.

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PAVANI ESTEEM INDUSTRIES



BOD INCUBATOR

PEI.BOD-100

MAHENDRA TANDON (DIRECTOR)



PAVANI BOD INCUBATOR



PEI.BOD-100

PAVANI BOD INCUBATOR

Most versatile and highly reliable low temperature incubator, to make Biochemical Oxygen Demand determinations and for preservation of vaccines, insulin, liver extracts, chemicals etc.

Construction

Outer cabinet is made of M.S. Sheet, duly pre treated & finished with epoxy powder coated paint for lasting finish. Inner chamber is made of stainless steel. It has provision for allowing wide range of shelf positions & spacing. SS trays are also provided. The outer chamber may also be provided of mat finished Stainless Steel. Chamber is duly insulated to minimize heat loss. Two doors are provided. Outer door is insulated and is fitted with magnetic tape for air tight closing for no temperature loss. Door is provided with lock and key. Inner door is made of transparent acrylic/ glass for inspecting the specimens inside chamber, without opening the door and with minimum temperature loss.

Temperature Control

The heart of the ESTEEM B.O.D. Incubator is the excellent and reliable solid state temperature controller cum indicator digital display, range from 5°C to 50°C $\pm$ 0.5°C. Hermetically sealed, Dan Foss / Emerson Copeland high performance compressor works efficiently to lower the inside chamber temperature. Heating elements are placed in the path of moving air duly insulated from the body. Cooling coils also lie in the air circulation path. Air is circulated by a double shaft self-cooled, blower to keep the uniform temp. Throughout the inner chamber. A safety thermostat is provided, which switches off the heaters in the event of failure of the normal temp. Control system to protect the specimens from excessive heat. A highly insulated CFC free PUF System is Provided to avoid loss of energy.

Control Panel

All controls and circuitry are housed at the top of the incubator and therefore protected from spillage. Separate indicator lamps for mains, heating and cooling are fitted.

Temperature setting is by finger touch fine and coarse for the user to set any desired temp. A Voltmeter is provided on the panel to read the incoming voltage. Fitted with automatic built in stabilizer.

Illumination:

Our units are provided with door operated illumination system comprising of fluorescent lights

Front Panel:

Front panel of our units comprises of on/off switches heating, cooling and mains indicator lamps, temperature controllers and voltmeters

Temperature Control

Temperature

Sensitivity

Spatial Deviation In

Temperature Readability

Temperature range

Temperature Sensor

Temperature

Controller Display

Adjustable alarm limits



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PAVANI ESTEEM INDUSTRIES



PAVANI VACUUM OVEN

PEIO-112

MAHENDRA TANDON (DIRECTOR)



PAVANI OVEN WITH VACUUM PUMP



PEIO-112

PAVANI OVEN WITH VACUUM PUMP

Durable construction with seamless welds and strong bracing. All of our vacuum ovens are built with a 304 stainless steel chamber for exceptional durability. We use true vacuum valves built of brass that use Teflon seats to prevent leaks. Our double plenum design exceeds CE safety requirements resulting in a cool outer surface. Oven with vacuum pump have digital indicators for temperature, pressure and time control.

Working Chamber Dimension :

Width	Depth	Height
200mm	200 mm	300 mm
300mm	300 mm	400 mm
350mm	350 mm	500 mm
450mm	450 mm	600 mm

Innovative Design –

The doors have positive latch handles with spring-loaded glass to facilitate a good vacuum seal without hinge binds that shorten the gasket life. A selection of gaskets (for specific applications) and a small bench top footprint increase the versatility of our ovens. The temperature (°C) of oven with vacuum pump is 250° C with ± 0.1 sensitivity. Range of vacuum pump is (220/240 V, 50/60 Hz frequency, up to 0.5 Mpa), Vacuum oil (1 L). We were the first to bring square vacuum ovens to the industry and we continue to offer innovative, top-of-the-line vacuum ovens. Our unique cross-flow ventilation forces inert gas to fill the entire chamber. Provided with 2-5 stainless steel shelves.

Versatile –

Choose from 3/8 in. orifices or a KF25 fitting to withstand heavy use, minimize draw-down time and achieve low vacuum levels. We offer a full line of gaskets to suit applications involving high Temperatures, acids, or solvents.

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PAVANI ESTEEM INDUSTRIES



Cell Counter

PEIC-106

MAHENDRA TANDON (DIRECTOR)



PAVANI CELL COUNTER



PEIC-106

PAVANI CELL COUNTER:-

Cell counting is any of various methods for the counting or similar quantification of cells in the life sciences, including medical diagnosis and treatment. It is an important subset of cytometry, with applications in research and clinical practice.

For example, the complete blood count can help a physician to determine why a patient feels unwell and what to do to help. Cell counts within liquid media (such as blood, plasma, lymph, or laboratory reconstitute) are usually expressed as a number of cells per unit of volume, thus expressing a concentration.

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PAVANI ESTEEM INDUSTRIES



PAVANI CENTRIFUGE

PEIC - 101

MAHENDRA TANDON (DIRECTOR)



PAVANI ESTEEM INDUSTRIES PVT LTD

PAVANI CENTRIFUGE



PEIC - 101

PAVANI CENTRIFUGE

Specification:

- Centrifuge for routine testing in clinical laboratory, with the following
- Microprocessor controlled
- Compact design and airflow control avoiding direct operator exposure to aerosols from centrifugation
- Typical capacity: 28 tubes of 15 ml or equivalent
- Fixed angle rotor
- Variable speed control up to 7,500 RPM minimum
- With protection system against opening the cover during operation
- With adjustable timer: 0-90 minutes
- With (LCD) display that displays time and speed
- Build-in tachometer for RPM control
- Sound level less than 65 dB
- Base with adjustable sockets with suction cups
- Cover with safety switch
- Many types of accessories to facilitate their use
- Protective cover
- Dimensions are approx. (WxDxH): 500 x 400 x 250 mm

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PAVANI ESTEEM INDUSTRIES



CO2 INCUBATOR

PEIC -111

MAHENDRA TANDON (DIRECTOR)



PAVANI CO₂ INCUBATOR



PEIC -111

CO₂ INCUBATOR

This equipment is mainly used in clinics of interafertility and having temp. Range from 5 Deg. C. to 37 Deg. C with controlling of Ph. The construction is double walled. The outer is made of CRC pre painted sheets and inner of SS/ shiny plastic or painted aluminum sheet. Cooling is done by hermitically sealed compressor and provided with PUF Insulation. A low wattage heater is provided for heating when required to maintain the temp. Provided with 3 Step Stabilizer to work on 230 Volts AC supply. Air jacketed CO₂ Incubator with inner volume 150liters capacity. It will have minimum 5 height adjustable perforated shelves & humidity reservoir (removable) to achieve at least 95% RH.

Microprocessor controlled temperature ranging from 4° C above ambient to 50° C, with control accuracy of $\pm 0.1^{\circ}$ C with six-sided direct heating with fan less, gentle convection circulation to provide stable temperature control, uniformity and rapid recovery with no over shoot. Infrared CO₂ sensor with programmable auto-zero function providing superior accuracy and stability with CO₂ control range from 0.2 to 20% with accuracy $\pm 0.1\%$ and stability $\pm 0.2\%$ with auto calibration of CO₂ levels. CO₂ Recovery Time: $\leq 5-10$ mins. O₂ Control System: Microcontroller, O₂ control range from 1.0 to 15% or more with accuracy $\pm 0.1\%$, recovery time $\leq 5-10$ minutes. Stainless Steel removable humidity pan. Pan less system will be preferred if the feature is provided. Main body will be made of electro galvanized 304 steel with antimicrobial coating.

Standard 304 stainless steel interior and shelves with inner glass door. Number of shelves will be 4. Highest quality of inner surface with rounded corners on all sides for easy cleaning. The shelves and fan impeller also will be made of stainless steel and will not have nuts or bolts for shelf supports to reduce the scope of growth of contamination. No plastic structure will be inside to avoid volatile organic compounds (VOC). Audio and visible alarm for both temperature and CO² level. LCD display and touch screen. CO² inlet will have HEPA/ULPA filter. Power supply -220 V± 10 V AC, 50/60 Hz. ISO and CE Certification will be provided.

It will come with gas cylinders with regulator. Compatible cylinder's regulators, tubing, fittings and all other accessories will be provided.

Warranty starts from day of installation. System will have at least 2 doors, one main door and one glass door. Non-volatile memory based 72 hour data logger to record parameters such as CO²/ O² concentration, Temperature changes, and door opening. Stackable models preferred.

Technical Specifications:

1. Capacity: 167 liter (5.9 cu.ft)
 2. Temperature Management:
Range: 4° C above ambient to 50°C, Control increment: 0.1°C
Accuracy: +0.4°C at 37°C as per 27 points in the chamber according to German norm DIN 12880 and ambient 22°C,
 3. Uniformity: +0.3°C at 37°C and ambient 22°C
 4. Stability: +0.1°C at 37°C and ambient 22°C
 5. High Temperature Disinfection: 180°C 2-hour cycle CO₂ gas management
 6. Gas range: 0.1 -20% with Control increment of 0.1%
 7. Accuracy: +0.3% at the specified Relative Humidity (RH) at 37°C and ambient 22°C,
 8. Stability: +0.1% at 37°C and ambient 22°C
 9. Uniformity: +0.1% at 37°C and ambient 22°C
 10. Gas Recovery after door opening: Approx 5 min,
-

11. Connections: Gas tubing Inner diameter of 6.5mm and outer diameter of 10mm, gas service pressure required: 0.1MPa (1 bar /14.4 PSI).
12. Range: 0.05 to 0.2 MPa (0.5-1.5bar/ 7.2 -21.8 PSI)
13. Humidity: Reservoir: removable SS pan volume= 2.5ltrs, RH (37°C) up to 95%
14. Controller: Diagnostic interface to show system parameters and functions Dimensions:
15. Chamber/Internal: WxHxD= 539 X 692 X 445mm approx.
16. External: WxHxD = 718 X 900 X 715mm approx.
17. Electrical: 220 -240 volts, 50/60Hz.
18. Power: 500W,
19. Weight: Net. 81 to 105 kg approx., depending on options w/o accessories

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PAVANI ESTEEM INDUSTRIES



PAVANI COOLING CIRCULATION BATH

PEICB-102

MAHENDRA TANDON (DIRECTOR)



PAVANI COOLING CIRCULATION BATH



PEICB-102

PAVANI COOLING CIRCULATION BATH

Heated/Refrigerated circulating open bath system capable of reaching temperature as low as -40°C and heating up to 120°C for a wide variety of laboratory heating and cooling applications. Internal circulation of thermal fluid within the bath allows precise uniformity within $\pm 0.1^{\circ}\text{C}$. Circulation pump enables to circulate heated or refrigerated thermal fluid to external equipments such applications as reactor, condenser, rotary evaporator or controlling the temperature of laboratory equipment such as chromatography columns, viscometers, and densitometers. External circulation pumps capacity 10 liters/min. in flow rate and 0.5 bar in pressure.

Specifications:-

Temp range – $0-100$ degree Celsius

Capacity 10L (minimum)

Controller- Microprocessor based Temp. controller cum indicator heating system

Circulation- Circulation Pump with Stirrer

Accessories- Automatic Voltage Stabilizer 3KVA

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PAVANI ESTEEM INDUSTRIES



PAVANI COOLING INCUBATOR

PELI-110

MAHENDRA TANDON (DIRECTOR)



PEI.I-110

PAVANI COOLING INCUBATOR

Cooled incubators are microprocessor controlled with precise temperature specifications providing an energy efficient solution for your research. Thermoelectric cooling technology eliminates the need for a refrigeration compressor.

Features

- Temperature range: 4 °C to 100 °C
- Electric cooling with Pettier module
- Adjustable fan speed
- Controller with time-segment and real-time programming
- Inner door made of tempered safety glass
- Data recording and USB interface

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PAVANI ESTEEM INDUSTRIES



PAVANI CURLING LIGHT

PEI.CL-101

MAHENDRA TANDON (DIRECTOR)



PAVANI ESTEEM INDUSTRIES PVT LTD

PAVANI CURLING LIGHT



PEI.CL-101

PAVANI CURLING LIGHT

CURLING beautiful merges sustainable LED technology with elegant and timeless form. Curling functions both as a down light and a ceiling light and is perfectly suitable for public spaces as well as private interiors.

With the Curling LED Ceiling Light, we offer you luminaries with a wide range of possible applications thanks to its many variants. Thus, the perfect lighting ambiance can be found for every room situation. You have the choice between two different sizes and the shade variations opal as well as clear. You can also choose an opal reflector in a cylindrical or conical shape. In this way, you reach either a softly scattered, downward or a radiant light.

Each variant has an optical insert which is simply attached by magnetic points above the light source that ensures an optimal scattering of the light with a soft, glare-free light result.

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PAVANI ESTEEM INDUSTRIES



Dead body Freezer

PAVANI- 113

MAHENDRA TANDON (DIRECTOR)



PAVANI ESTEEM INDUSTRIES PVT LTD

PAVANI DEAD BODY FREEZER



PAVANI- 113

PAVANI DEAD BODY FREEZER

Specifications:

Mortuary storage system is designed for storing cadaverous under cool condition to prevent decomposition. These are latest development in Mortuary technology offering vast space saving advantage over the conventional type together with greater hygiene. Useful for Hospitals, Railways & Airports. Double-walled with GI prefabricated panels with insulation in between. Front opening, hinged insulated doors lined with magnetic gasket, handle and lock arrangement with keys in duplicate for individual dead bodies. Trays to carry dead bodies with handles at both ends travel on rollers fitted for easy movement.

DOOR: GLASS DOOR

FLOOR: The floor of our Mortuary Freezers is constructed out of hardened and reinforced steel sheets containing spills for easy cleaning and hygiene.

CASTORS: The unit is provided with very sturdy castors

INDIVIDUAL LOCKS: All the chambers of the mortuary freezers are provided with individual multichannel lock for safety and security.

COOLING: An energy efficient cooling unit is installed in our Mortuary Freezers. We use CFC free compressors of EMERSON/DANFOSS make, conforming to latest international standards and guidelines.

TEMPERATURE RANGE: Temperature range of our standard Mortuary Freezer models are 2°C to 5°C. / -20°C to +5°C. However we have the capacity to modify the same to suit the individual specialized requirements of our customers.

TEMPERATURE RANGE: Temperature range of our standard Mortuary Freezer models are 2°C to 5°C. / -20°C to +5°C. However we have the capacity to modify the same to suit the individual specialized requirements of our customers.

AUDIO VISUAL TEMPERATURE ALARM: An audio visual temperature alarm is provided in the unit for protection during temperature fluctuations.

ILLUMINATION: Mortuary chambers are provided with door operated vapor proof illumination system comprising of fluorescent lights

FRONT PANEL: Front panel of units comprises of on/off switches cooling and mains indicator lamps, temperature controllers and voltmeters.

Suitable to work on 220 V, single phase, 50 Hz, Ac supply.

The logo of Pavani Esteem Industries Pvt Ltd is a large, stylized graphic in the background. It features a green cross-like shape with a yellow globe in the center. Overlaid on this is a pink and white stylized figure of a person with arms raised. The letters 'PE' are written in yellow on the figure's chest. The entire logo is enclosed within a circular frame made of two curved lines, one green and one pink.

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PAVANI ESTEEM INDUSTRIES



Deep Freezer(-40 Deg.C)

PEID-103

MAHENDRA TANDON (DIRECTOR)



PAVANI ESTEEM INDUSTRIES PVT LTD

PAVANI DEEPFREEZER(-40 Deg. C)



PEID-103

PAVANI is providing Deep Freezer with different capacities, frozen and canned door locked. Electronic controls and digital alarm Equipment designed for Research Laboratories. Inner Chamber of S. Steel Outer GI Powder Coat finish or S. Steel Extremely efficient Insulation; sufficiently thick to minimize heat loss. Chest type available Horizontal/Vertical Version Inner S.S. door to avoid temperature loss.

Temperature range:

a) Deep freezer:- 40 Deg .C

Temperature control:

- a) Thermostat/Digital Controller.
- b) MP (Micro) Digital Temperature Controller cum indicator.
- c) Temperature receiving time: 4 Hours.

Instructions:

To be stored in A.C. Rooms & Use of AVS/Servo Controlled Voltage Stabilizer is strongly recommended.

Construction:

Inner Chamber is made of S.S. sheets and is insulated with high density expanded polyurethane (PUF) insulation for minimum temperature loss. Outer M.S. Sheet body pretreated & duly power coated.

SPECIFICATIONS:

- Type Vertical
 - Input Voltage Deep Freezer Voltage Stabilizer 230+/-10% v, 50 Hz, Single Phase AC
 - Voltage Stabilizer AC) 4KVA External stabilizer (input: 170-270v, 50Hz, Single phase
 - Chamber Temperature range -40°C to -20°C (at 22 - 30°C ambient temperature)
 - Dimensions (external 800×790×1917 (with castor wheel)
 - (W×D×H) in mm 800×790×1789 (without castor wheel)
 - Dimensions (internal)(W×D×H) in mm 500×500×1100
 - Inner chamber Volume 300 Liter
 - Total shortage capacity 320 bags of 250 ml plasma bags
 - Storage capacity per compartments 80 bags per compartment
 - Number of trays 3 adjustable stainless steel trays
 - Number of compartments 4 compartments
 - Inner doors 4 Nos. made of stainless steel 304 Grade
 - Cabinet Insulation 125 mm thick PUF insulation
 - Door lock
 - Heating near the door opening Using the discharge line of compressor
 - Outer cabinet material 1.2 mm thick
 - Inner chamber material 1 mm thick
 - Wheels Castor Wheel-TENTE lockable type on front (2 Nos)
 - Castor Wheel-TENTE lockable type on rear (2Nos)
 - Slide out rail
 - Reticent primary R404a (CFC FREE)
 - Compressor Hermetically Sealed Compressor
 - Evaporator tubing (Φ3/8" copper tube) is routed through
 - the outside surface of the inner stainless steel
 - Chamber on all the five sides except the bottom side.
 - Condenser fan Size :300mm, 1380rpm
 - Insulation of the suction line polyurethane tubing
 - Temperature sensing method
 - RTD sensor placed in a stainless steel bracket fitted at the left
-

- Side of the second compartment from the bottom side.
- Condenser fan Size 300mm, 1380pm
- Insulation of the suction line polyurethane tubing
- Temperature sensing method RTD sensor placed in a stainless steel bracket fitted at the left
- Side the second compartment from the bottom side.
- Temperature sensor RTD sensor –PT100
- Chart resolution 3°C
- Method of recording ink pen paper
- Compressor off temperature set value-0.1°C
- Compressor on temperature set value+0.5°C
- High temperature alarm set value+10°C
- Low Temperature alarm Set value -10°C
- Manufacturing Standards ISO 9001:2008(TUV)

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PAVANI ESTEEM INDUSTRIES



PAVANI DEEFPREEZER(-60 Deg. C)

PEID-110

MAHENDRA TANDON (DIRECTOR)



PAVANI DEEPFREEZER(-60 Deg. C)



PEID-110

Esteem is providing Deep Freezer with different capacities, frozen and canned door locked. Electronic controls and digital alarm Equipment designed for Research Laboratories. Inner Chamber of S. Steel Outer GI Powder Coat finish or S. Steel Extremely efficient Insulation; sufficiently thick to minimize heat loss. Chest type available Horizontal/Vertical Version Inner S.S. door to avoid temperature loss.

Temperature range:

a) Deep freezer:- 80 Deg .C to -150 Deg. C

Temperature control:

- a) Thermostat/Digital Controller.
- b) MP (Micro) Digital Temperature Controller cum indicator.
- c) Temperature receiving time: 4 Hours.

Instructions:

To be stored in A.C. Rooms & Use of AVS/Servo Controlled Voltage Stabilizer is strongly recommended.

Construction:

Inner Chamber is made of S.S. sheets and is insulated with high density expanded polyurethane (PUF) insulation for minimum temperature loss. Outer M.S. Sheet body pretreated & duly power coated.

SPECIFICATIONS:

- Type Vertical
- Input Voltage Deep Freezer Voltage Stabilizer 230+/-10% v, 50 Hz, Single Phase AC
- Voltage Stabilizer AC) 4KVA External stabilizer (input: 170-270v, 50Hz, Single phase
- Chamber Temperature range -40°C to -20°C (at 22 - 30°C ambient temperature)
- Dimensions (external 800×790×1917 (with castor wheel)
- (W×D×H) in mm 800×790×1789 (without castor wheel)
- Dimensions (internal)(W×D×H) in mm 500×500×1100
- Inner chamber Volume 300 Liter
- Total shortage capacity 320 bags of 250 ml plasma bags
- Storage capacity per compartments 80 bags per compartment
- Number of trays 3 adjustable stainless steel trays
- Number of compartments 4 compartments
- Inner doors 4 Nos. made of stainless steel 304 Grade
- Cabinet Insulation 125 mm thick PUF insulation
- Door lock
- Heating near the door opening Using the discharge line of compressor
- Outer cabinet material 1.2 mm thick
- Inner chamber material 1 mm thick
- Wheels Castor Wheel-TENTE lockable type on front (2 Nos)
- Castor Wheel-TENTE lockable type on rear (2Nos)
- Slide out rail
- Reticent primary R404a (CFC FREE)
- Compressor Hermetically Sealed Compressor
- Evaporator tubing (Φ3/8" copper tube) is routed through
- the outside surface of the inner stainless steel
- Chamber on all the five sides except the bottom side.
- Condenser fan Size :300mm, 1380rpm
- Insulation of the suction line polyurethane tubing
- Temperature sensing method
RTD sensor placed in a stainless steel bracket fitted at the left

- Side of the second compartment from the bottom side.
- Condenser fan Size 300mm, 1380pm
- Insulation of the suction line polyurethane tubing
- Temperature sensing method RTD sensor placed in a stainless steel bracket fitted at the left
- Side the second compartment from the bottom side.
- Temperature sensor RTD sensor –PT100
- Chart resolution 3°C
- Method of recording ink pen paper
- Compressor off temperature set value-0.1°C
- Compressor on temperature set value+0.5°C
- High temperature alarm set value+10°C
- Low Temperature alarm Set value -10°C
- Manufacturing Standards ISO 9001:2008(TUV)

The logo of Pavani Esteem Industries Pvt Ltd is a large, stylized circular emblem. It features a green cross-like shape in the center, with a yellow globe in the upper right quadrant and a yellow lion in the lower right quadrant. The entire emblem is surrounded by a thick, curved border that transitions from green to yellow to pink.

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PAVANI ESTEEM INDUSTRIES



Deep Freezer (-120 Deg.C)

PEID-110

MAHENDRA TANDON (DIRECTOR)



PAVANI ESTEEM INDUSTRIES PVT LTD

PAVANI DEEPFREEZER(-120 Deg. C)



PEID-110

PAVANI is providing Deep Freezer with different capacities, frozen and canned door locked. Electronic controls and digital alarm Equipment designed for Research Laboratories. Inner Chamber of S. Steel Outer GI Powder Coat finish or S. Steel Extremely efficient Insulation; sufficiently thick to minimize heat loss. Chest type available Horizontal/Vertical Version Inner S.S. door to avoid temperature loss.

Temperature range:

a) Deep freezer:- 80 Deg. C to -150 Deg. C

Temperature control:

- a) Thermostat/Digital Controller.
- b) MP (Micro) Digital Temperature Controller cum indicator.
- c) Temperature receiving time: 4 Hours.

Instructions:

To be stored in A.C. Rooms & Use of AVS/Servo Controlled Voltage Stabilizer is strongly recommended.

Construction:

Inner Chamber is made of S.S. sheets and is insulated with high density expanded polyurethane (PUF) insulation for minimum temperature loss. Outer M.S. Sheet body pretreated & duly power coated.

SPECIFICATIONS:

- Type Vertical
- Input Voltage Deep Freezer Voltage Stabilizer 230+/-10% v, 50 Hz, Single Phase AC
- Voltage Stabilizer AC) 4KVA External stabilizer (input: 170-270v, 50Hz, Single phase
- Chamber Temperature range -40°C to -20°C (at 22 - 30°C ambient temperature)
- Dimensions (external 800×790×1917 (with castor wheel)
- (W×D×H) in mm 800×790×1789 (without castor wheel)
- Dimensions (internal)(W×D×H) in mm 500×500×1100
- Inner chamber Volume 300 Liter
- Total shortage capacity 320 bags of 250 ml plasma bags
- Storage capacity per compartments 80 bags per compartment
- Number of trays 3 adjustable stainless steel trays
- Number of compartments 4 compartments
- Inner doors 4 Nos. made of stainless steel 304 Grade
- Cabinet Insulation 125 mm thick PUF insulation
- Door lock
- Heating near the door opening Using the discharge line of compressor
- Outer cabinet material 1.2 mm thick
- Inner chamber material 1 mm thick
- Wheels Castor Wheel-TENTE lockable type on front (2 Nos)
- Castor Wheel-TENTE lockable type on rear (2Nos)
- Slide out rail
- Reticent primary R404a (CFC FREE)
- Compressor Hermetically Sealed Compressor
- Evaporator tubing (Φ3/8" copper tube) is routed through
- the outside surface of the inner stainless steel
- Chamber on all the five sides except the bottom side.
- Condenser fan Size :300mm, 1380rpm
- Insulation of the suction line polyurethane tubing
- Temperature sensing method
RTD sensor placed in a stainless steel bracket fitted at the left

- Side of the second compartment from the bottom side.
- Condenser fan Size 300mm, 1380pm
- Insulation of the suction line polyurethane tubing
- Temperature sensing method RTD sensor placed in a stainless steel bracket fitted at the left
- Side the second compartment from the bottom side.
- Temperature sensor RTD sensor –PT100
- Chart resolution 3°C
- Method of recording ink pen paper
- Compressor off temperature set value-0.1°C
- Compressor on temperature set value+0.5°C
- High temperature alarm set value+10°C
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PAVANI ESTEEM INDUSTRIES



Deep Freezer -20 Deg C

PEID-102

MAHENDRA TANDON (DIRECTOR)



PAVANI ESTEEM INDUSTRIES PVT LTD

PAVANI DEEP FREEZER -20 Deg C



PEID-102

PAVANI DEEP FREEZER:

PAVANI is providing Deep Freezer with different capacities, frozen and canned door locked. Electronic controls and digital temperature with alarm facility high & low temperature, Equipment designed for Research Laboratories. Inner Chamber of SS-304/316 Outer SS-304 Extremely efficient Insulation, sufficiently thick to minimize heat loss.

Chest type available Horizontal/Vertical Version Inner Acrylic door to avoid temperature loss.

Temperature range:

- a) Deep Freezer : -20° C
- b) Ultra Low Freezer

Temperature control:

- a) Thermostat/Digital Controller.
- b) (Micro) Digital Temperature Controller cum indicator.

Instructions:

To be stored in A.C. Rooms & Use of AVS/Servo Controlled Voltage Stabilizer is strongly recommended.

Construction:

Inner Chamber is made of SS sheets 304/316 and (PUF) insulation 60mm for minimum temperature loss. Outer also with SS. Sheet 304. No. of tray 22 to 24 .

Salient features:

- Audio/Visual alarm provided for rise in temperature high & low.
- Castor wheels for case of mobility with breaking.
- Refrigeration system and electrical circuit easily serviceable.
- CFC free Refrigeration system
- Suitable to work on 230V, Single Phase, 50 HZ, AC supply.

Specifications:-

- (-20°C) vertical with its own ext. voltage stabilizer
- Approx. 250 – 350 liter capacity
- With digital temp. recorder
- 3-4 shelves approx. to hold boxes or plastic container
- CFC free, HCFC Free gas in compressor

PAVANI ESTEEM INDUSTRIES



Catalog of -80 Deep Freezer

PEI D-109

MAHENDRA TANDON (DIRECTOR)



PAVANI -80 °C DEEP FREEZER



PEI D-109

PAVANI ULTRA LOW DEEP FREEZER:

ESTEEM is providing Deep Freezer with different capacities, non-frost and canned door locked. Electronic controls and digital alarm Equipment designed for Research Laboratories. Galvanized steel sheet body with epoxy paint and vacuumed polyurethane foam panels, outer double door with locking facility

Chest type available Horizontal/Vertical Version Inner S.S. door to avoid temperature loss. Upright freezer having rugged construction with heavy gauge, cold-rolled steel exterior and powder coat paint finish, ergonomic with lockable door handle. Easy to remove washable filter for protection from dust on the condenser and increasing refrigeration performance

- Five or more interior compartment doors to reduce cold air loss

Temperature range:

- Deep freezer: -45°C to -86 °C or better

Temperature control:

- Thermostat/Digital Controller.
- MP (Micro) Digital Temperature Controller cum indicator.
- Temperature receiving time: 4 Hours.

Instructions: To be stored in A.C. Rooms & Use of AVS/Servo Controlled Voltage Stabilizer is strongly recommended.

Construction: Inner Chamber is made of S.S. sheets and is insulated with high density expanded polyurethane (PUF) insulation for minimum temperature loss.

Salient features:

- Audio/Visual alarm provided for rise in temperature.
- CFC & HCFC Free.
- Low noise level ≤ 65 db.
- Easy to use microprocessor control panel
- Castor wheels for case of mobility.
- Safety- backup systems for additional sample protection in the event of power or mechanical failure
- Preferably 4-5 drawers with individual freezing circuits
- Temperature control, Alarm system, Remote Alarm Relay, Refrigeration system.
- Suitable to work on 208- 230V/50Hz, AC supply.
- Energy Consumption: Less than 500 watt/ hr
- Vacuum relief port/ pressure equalization port for easy access after door openings
- Stainless steel sturdy shelving to support full product load with 4 or more shelves.
- 5" (12.7 cm) foamed-in-place polyurethane insulation/ VIP insulation technology.
- Low voltage surge protection power management system
- Vacuum relief port.
- Voltage stabilizer.
- Easy to remove air-filter.
- Minimum 3 star 2.0 ton split AC for optimal operation during the summer season with voltage stabilizer

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PAVANI -86 °C DEEP FREEZER

PEID-109

MAHENDRA TANDON (DIRECTOR)



PAVANI -86 °C DEEP FREEZER



PEID-109

PAVANI ULTRA LOW DEEP FREEZER:

PAVANI is providing Deep Freezer with different capacities, non-frost and canned door locked. Electronic controls and digital alarm Equipment designed for Research Laboratories. Galvanized steel sheet body with Epoxy paint and vacuumed polyurethane foam panels, outer double door with locking facility Chest type available Horizontal/Vertical Version Inner S.S. door to avoid temperature loss. Upright freezer having rugged construction with heavy gauge, cold-rolled steel exterior and powder coat paint finish, ergonomic with lockable door handle. Easy to remove washable filter for protection from dust on the condenser and increasing refrigeration performance.

- Five or more interior compartment doors to reduce cold air loss

Temperature range:

- Deep freezer: -45°C to -86 °C or better

Temperature control:

- Thermostat/Digital Controller.
- MP (Micro) Digital Temperature Controller cum indicator.
- Temperature receiving time: 4 Hours.

Instructions: To be stored in A.C. Rooms & Use of AVS/Servo Controlled Voltage Stabilizer is strongly recommended.

Construction: Inner Chamber is made of S.S. sheets and is insulated with high density expanded polyurethane (PUF) insulation for minimum temperature loss.

Salient features:

- Audio/Visual alarm provided for rise in temperature.
- CFC & HCFC Free.
- Low noise level ≤ 65 db.
- Easy to use microprocessor control panel
- Castor wheels for case of mobility.
- Safety- backup systems for additional sample protection in the event of power or mechanical failure
- Preferably 4-5 drawers with individual freezing circuits
- Temperature control, Alarm system, Remote Alarm Relay, Refrigeration system.
- Suitable to work on 208- 230V/60Hz, AC supply.
- Energy Consumption: Less than 500 watt/ hr
- Vacuum relief port/ pressure equalization port for easy access after door openings
- Stainless steel sturdy shelving to support full product load with 4 or more shelves.
- 5" (12.7 cm) foamed-in-place polyurethane insulation/ VIP insulation technology.
- Low voltage surge protection power management system
- Vacuum relief port .
- Voltage stabilizer.
- Easy to remove air-filter.
- Minimum 3 star 2.0 ton split AC for optimal operation during the summer season with voltage stabilizer

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PAVANI ESTEEM INDUSTRIES



Dissection Table with Dip Tank

PEIDT-101

MAHENDRA TANDON (DIRECTOR)



DISSECTION TABLE



PEIDT-101

DISSECTION TABLE WITH DIP TANK

It is designed to keep cadavers and anatomic specimens fully submerged in a fixative solution for prolonged storage. Ideal for anatomy classes at teaching hospitals and universities.

The tank helps maintain moisture content and the natural condition of stored tissues.

Specifications:-

- All 304 stainless steel construction
- Ergonomically placed hand crank for easier and safer elevation
- Magnetic latches to secure cover lids
- Holes in tray for a leveled specimen during elevation
- Flanged drain hole in tray
- Four heavy duty 5" casters for easier transporting

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PAVANI ESTEEM INDUSTRIES



Pavani Distiller Water Plant

PEIDWP-101

MAHENDRA TANDON (DIRECTOR)



PAVANI ESTEEM INDUSTRIES PVT LTD

PAVANI CENTRIFUGE



PEIDWP- 101

Pavani Distilled Water Plant

These distillation water plants have been designed to meet with the requirements of best quality of distilled water. These are best suitable for removing all type of impurities (organic, inorganic, gaseous, bacterial and pyrognic) leaving a final pure distillate. The evaporators are fitted with a set of totally immersed long life heating elements and heavily quoted with tin metal. The elements are easily removable. These are of self ejection type and in case of short supply of water burn outs are not possible. A convenient drain valve is provided for flushing and easy accessibility to the entire evaporation chamber makes cleaning extremely easy. It is double walled. The outer and inner (boiler) is made of SS. The gap between walls is filled with special grade glass wool to a void loss of heat. The condenser is made of SS. The top of boiler is made of SS sheet of chromium plated die casted gun metal. The inlet water washing in to the stills flows around & outside of the condenser tubes where it becomes pre heated nearly to the boiling point.

The preheated water then passes out of the condenser & gives way out to the gaseous and volatile impurities in the atm with the help of special device incorporated herein and finally enters the boiling pan for distillation. The constant level automatically maintains a particular height of water in the boiling pan and allows excess of water to go out. The boiling water is converted in to pure clean dry steam which rises through the baffles to finally run over to the condenser tubes and it is condensed in to distilled water. By turning the cock the boiling pan is rapidly and thoroughly flushed of its concentrated impurities which it has collected from the water supply.

Technical Features of Esteem Water Distillation Plants

- Double distillation plant with stand not wall mounted.
- Approx. 5 – 10 liters/ hour under normally [Depends on the requirement, could be achieved in 50Ltrs/hour]
- Gas vent would be there to remove volatile impurities leaving the condensate free from gaseous
- Tubing would be made up of good quality rubber (heat resistant).
- Wiring of the equipment should be enclosed in Case.
- It would have deconcentrator a bleeder device on the evaporation that constantly removes a part of the boiling water from it so that the cumulative concentration of non volatile impurities in the water is prevented.
- Load-10 KW
- Power supply- 220 Volts 50Hz
- Flow rate-10 Liters / hr
- Training of laboratory staff for the purchased equipment.
- Availability of spares/ disposables.
- Certifications-ISO, CE & GMP would be provided.

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PAVANI ESTEEM INDUSTRIES



Pavani Dry Heat Sterilizer

PEID -111

MAHENDRA TANDON (DIRECTOR)



PEID -111

PAVANI DRY HEAT STERILIZER:

Specifications:

- Class-100, GMP MODEL Basic unit with double door
- MOC (Chamber, Shelves & Trolleys) : SS304
- Cooling attachment for rapid cooling
- PLC with TOUCH SCREEN
- PLC based controlled panel with 8 point Temp. (8 Probes for temp. at different points with provision to insert additional probes for validation.)
- Temp. variation inside the chamber will not be more than 5 0 C (Hottest point and coldest point)
- Audio visual alert upon cycle interruption/error in operation or completion of cycle.
- 2 Nos. USB port & 1 Nos. Ethernet port.
- High temp. Class100 HEPA filter inside the chamber & at inlet & exhaust line
- Temperature range up to 300 degree C.
- Trolley 2Nos
- Door opening and closing will be by horizontal sliding mechanism
- Drive to the door will be given by pneumatically operated cylinders
- Door safety arrangement will be provided for obstruction during the closing operation
- The door movement will be fully controlled by PLC
- Door sealing will be done by suitable vacuum type silicon gasket.
- Both the doors will not get opened at the same time. Interlocking arrangement and indicating lamp will be provided.
- Door opening temperature will be settable after completion of sterilization cycle.

- MOC (Chamber, Doors, Carriages & Trolleys) : SS 304
- Load will be placed on perforated removable shelves placed directly in the chamber. Dry heat will be distributed uniformly in the chamber.
 - Trolley (SS 304) with wheels for loading and unloading of the material will be provided.
 - All nozzles and pipelines will be interconnected with sanitary fittings and orbital welded.
 - SS Heaters accessed from non sterile side
 - Programmable microprocessor support
 - Fully auto control with data printing system & printer
 - Gauge for positive pressure
 - Heater is controlled through auto control system of reputed brand
 - Air Inlet Module : SS316, Cooling Coil, Pre & HEPA Filter, Validation Port, Automatic
 - Motorized or Pneumatic control Damper, linked with PLC
 - Gauge for positive pressure
 - Heater is controlled through auto control system of reputed brand
 - Air Inlet Module : SS316, Cooling Coil, Pre & HEPA Filter, Validation Port, Automatic
 - Motorized or Pneumatic control Damper, linked with PLC
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PAVANI ESTEEM INDUSTRIES



PAVANI DRYING OVEN

PEIO-113

MAHENDRA TANDON (DIRECTOR)



PEIO-113

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

CONSTRUCTION:

The construction is double walled on sturdy angle iron frame with both inner and outer with SS as per GMP Model. The inner wall is painted with high temp. Aluminum paint to withstand long duration heating cycles normally required in industrial applications, and the outer wall is finished with powder coated paint. The 75 mm gap between the two walls is filled with high grade glass wool insulation to prevent loss of heat and thereby saving energy. Air is circulated by a heavy duty blower to maintain inside temperature uniformity with a minimum temperature gradient throughout the working chamber. Brackets to support the heavily laden perforated trays at different height are provided on the sides of the inner chamber. The front door with sturdy hinges is also double-walled with gap between the two walls filled-in with high grade glass wool insulation.

HEATING

Heating is done by Tubular air heaters placed in the moving air path. These are interlocked with blower. Ventilation with adjustable opening on the top facilities fleeing of any fumes or vapors produced.

TEMPERATURE CONTROL

The temperature is controlled by fine capillary hydraulic type imported thermostat with an accuracy of 5°C over a range of 50°C to 150°C $\pm$ 5°C. Temperature is indicated by Dial Thermometer. The equipment is tested for continuous performance & safe operation in our most modern testing laboratory. It is securely packed to avoid any transit damage during dispatch.

CONTROL PANEL

The Control panel includes a Main switch to ON/OFF the unit, mains indicator, a dial type thermometer, Temperature control knob of thermostat is calibrated in the factory after actually observing the temperature in steady state.

POWER SUPPLY

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

OPTIONAL ACCESSORIES

- Timer
- Digital Indicator in lieu of dial thermometer.
- Temperature Indicator cum Controller Digital in lieu of thermostat & dial thermometer