



ESTEEM INDUSTRIES INC.
MEDICAL OVENS
(AS PER IS 6365-1971)

ESTO-111 ESTEEM HOT AIR OVEN
LAB MODEL WITH THREE SIDE HEATING ELEMENTS



ESTO-111

Esteem Hot Air Oven Elegantly designed and fabricated to suit various applications in ever growing field of Medical, Agricultural and Industrial Research; for day to day heating, drying, sterilizing, baking etc., in Laboratories, Hospitals & Industries.

CONSTRUCTION :-

Ovens are sturdy, with double walled construction. Inner Chamber made of ALUMINIUM or STAINLESS STEEL sheet. Outer chamber is made of mild steel sheet, finished with white powder coated paint. The gap between the walls is filled up with special grade glass wool for proper insulation to avoid heat losses. Inner chamber has ribs For placing the shelves at convenient levels. Supplied with 2 or 3 removable shelves. It is fitted with heavy hinges with a ball Catcher, spring loaded door closing device. Door is duly insulated.

ELEMENTS :-

Heating elements are made of high quality nickel/chrome plated nichrome wire which are put inside beads and placed at the bottom and in both the side ribs for uniform temperature all over the work space.

TEMPERATURE CONTROL :-

Temperature is controlled by imported capillary type thermostat from 50°C to 250°C ± 1°C. Temperature control knob is graduated in centigrade degrees. Ovens are supplied without thermometer.



VENTILATION :-

Air Ventilators are placed near the top of the both sides to remove Hot gases and fumes if any.

CONTROL PANEL :-

Comprising of switch to ON/OFF the power, switch to select high or low rates of heating, thermostat control knob and indicators for mains and thermostats. Supplied with cord and plug. Suitable to operate on 220 volts, 1 ph, 50 Hz, AC supply.

OPTIONAL ACCESSORIES :-

- Air Circulating Fan.
- Digital Display Temp. Indicator.
- Digital Display Temp. Controller-Cum-Indicator In lieu of thermostat.
- Micro processor based PID temp. controller cum indicator in lieu Of thermostat.
- L - shaped Thermometer (Mercury) or straight type.
- Timer

Size of inner chamber :-

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

**OVENS**

ESI-131 A DRY HEAT STERILIZER "HEPA FILTERED FRESH AIR SUCTION DEVICE (STERILE HOOD)"



ESI-131

Esteem Dry Heat Sterilizer “HEPA Filtered Fresh Air Suction Device (Sterile Hood)” Ovens suitable for use in controlled areas / clean room Temp. from 50 to 250°C ± 1°C controlled by digital Temp. Controller cum Indication.

INTRODUCTION :-

Pursuant to our continuous R&D, these Dry Heat Sterilizers have been specially developed, keeping in view requirement for use in controlled area like parenteral section in pharmaceutical industries & clean rooms, in Electronics Industries, Research Lab., Medical & Agriculture, Space Research, Atomic Energy etc. These are also known as “ Sterile Hood”.



SALIENT FEATURES :-

The unique modular design of these Dry Heat Sterilizer have the built in advantage that fresh air is sucked into the sterilizer through HEPA filters, which are DOP tested for efficiency of 99.97% down to 0.3 micron particle size. Pre-filter is also provided to extend the life of HEPA filter. The specially designed air blower unit has balanced, light weight, blower & motor of reputed make. The air recirculation system ensures uniform heating of the chamber & works on the principle of heat convection & hot air recirculation. Air exhaust outlet is also provided to make up for fresh air. It is easy to replace the filter.

These have been aesthetically designed with functional utility & efficiency. These equipment are very useful for use in controlled/clean areas in pharmaceutical manufacturing & find wide acceptance in variable application in different industries engaged in manufacture of sterile product. In the heart of design of these equipment is the principle of judicious combination of Dry Heat Sterilizer with built in "HEPA Filtered fresh air suction device. These are most suitable for use in controlled areas/clean room. Temp from 50-250°C ± 1°C is controlled by digital temp. Controller cum indicator (D.T.C).

CONSTRUCTION: –

These are of tripled walled construction.

Outer Body: – Made of CRC sheets duly pretreated for surface treatment in seven tank dipping process & epoxy powder coated for attractive finish.

Inner Chamber: – Made of highly polished SS sheet or anodized aluminium. It is provided with arrangement for keeping shelves at convenient height.

Shelves: – Made of SS sheet / Aluminium Sheet, as per material of chamber, are provided.

Middle Walls: – Made of G.I. Sheets.

Insulation :– The gap between the outer & middle wall is filled with special grade insulation to prevent heat loss.



Heating Element: – Heating Element of suitable capacity, are provided in the air circulation path.

These are made of high grade nickel chromium wire & duly insulated.

Temperature Control: – Temperature controlled by Digital Temperature Controller cum Indicator (D.T.C) from 50°C to 250°C ± 1°C. The temperature can be easily set & in indicated & controlled by the controlled as per requirement.

Ventilation: – Air Ventilator ports are provided.

Fresh Air Filtration Device: – Fresh air is sucked into the sterilizer through suction devices comprising of HEPA filter, Air blower motor unit, ducting & air circulation plenums around the chamber. Rest air is recirculated.

CONTROL PANEL: –

The control panel housed with DTC, ON/OFF Switch, Indicating light, high/low temp. switch etc., is easily accessible.

Power supply: – Equipment is suitable to operate on 230V, 1 phase, 50 Hz, AC supply. It is supplied complete with cord & plug.

Size of inner chamber :–

W × H × D No. of shelves

455 × 455 × 455 mm 2

605 × 605 × 605 mm 3

Other sizes on request.

Optional Accessories:–

- Timer
- Microprocessor controlled PID temperature controlled cum indicator.



ESI-132 ESTEEM UNIVERSAL OVEN --MEMMERT TYPE



ESI-132

Esteem Universal Oven is suitable for applications involving high temperature upto 300°C and corrosive chemicals in Laboratories, Research Institutions and Industries.

CONSTRUCTION:-

Esteem Ovens are sturdy, with double walled construction. Inner chamber is made of M.S. Sheets or Highly Polished Stainless Steel. Outer chamber is made of Mild Steel Sheet, duly pretreated in seven tanks process for surface treatment & finished with durable Powder Coated Paint. 75 mm gap between the walls is filled with special grade glass wool for proper insulation and to avoid heat losses. Inner chamber is fabricated with ribs to adjust shelves to any convenient height. Supplied with 2 or 3 removable shelves.

SHELVES are made of perforated polished SS Sheet/M.S. Mesh. Door is double walled & is insulated and is fitted with heavy hinges with a ball catcher spring - loaded door closing device.



HEATING ELEMENT:-

Heating elements are made of high grade imported nichrome wire which are insulated inside the porcelain beads and are generally placed at the bottom and both sides ribs for uniform temperature all over the space.

TEMPERATURE RANGE :-

A Wide temperature range of 50°C to $300^{\circ}\text{C} \pm 2^{\circ}\text{C}$ to 3°C for various applications. The temp. Inside the chamber maintained constant by natural convection currents of heated air.

TEMPERATURE CONTROL:-

Temperature is controlled by IMPORTED capillary type THERMOSTAT. Temperature control knob of each oven is graduated in centigrade degrees after actually observing the temperature is steady state. Supplied with L-shaped prismatic glass THERMOMETER fitted on top of the Oven for reading the chamber temperature.

VENTILATION:-

Air ventilator ports provided on both sides at top to ventilate, gases and fumes if any & to accelerate convection process.

CONTROL PANEL:-

The equipment is provided with a panel on which are mounted a thermostat control knob, ON/OFF switch high/low switch pilot indication lights.

The units are tested for continuous performance and safety in our most modern laboratory equipped with various test instruments. The unit can be fitted with an optional air circulating fan.

