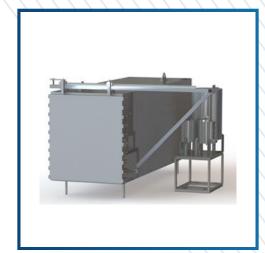


INDUSTRIAL BIG ETO /EO STERILIZER













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CAPACITY & SIZES:

Capacity In CBM	Size in Feet H X W X L	Capacity in Liters	EO Gas Cylinder (20-80)	EO Gas Cylinder (90-10)
1.27	3 X 3 X 5	1275 Ltr	4KGS (Per/Batch)	3KGS (Per/Batch)
2.71	4 X 4 X 6	2718 Ltr	5KGS (Per/Batch)	4KGS (Per/Batch)
3.62	4 X 4 X 8	3625 Ltr	6KGS (Per/Batch)	4KGS (Per/Batch
5.66	5 X 4 X 10	5663 Ltr	8KGS (Per/Batch)	6KGS (Per/Batch)
7.00	5 X 5 X 10	7080 Ltr	9KGS (Per/Batch)	7KGS (Per/Batch)
8.49	5 X 5 X 12	8496 Ltr	10KGS (Per/Batch)	8KGS (Per/Batch)
10.61	5 X 5 X 15	10,618 Ltr	12KGS (Per/Batch)	9KGS (Per/Batch)
12.23	6 X 6 X 12	12,232 Ltr	14KGS (Per/Batch)	11KGS (Per/Batch)
15.29	6 X 6 X 15	15291 Lt	15KGS (Per/Batch)	13KGS (Per/Batch)
20.38	6 X 6 X 20	20388 Ltr	18KGS (Per/Batch)	16KGS (Per/Batch
	1.27 2.71 3.62 5.66 7.00 8.49 10.61 12.23 15.29	In CBM Feet H X W X L 1.27 3 X 3 X 5 2.71 4 X 4 X 6 3.62 4 X 4 X 8 5.66 5 X 4 X 10 7.00 5 X 5 X 10 8.49 5 X 5 X 12 10.61 5 X 5 X 15 12.23 6 X 6 X 12 15.29 6 X 6 X 15	In CBM Feet H X W X L in Liters 1.27 3 X 3 X 5 1275 Ltr 2.71 4 X 4 X 6 2718 Ltr 3.62 4 X 4 X 8 3625 Ltr 5.66 5 X 4 X 10 5663 Ltr 7.00 5 X 5 X 10 7080 Ltr 8.49 5 X 5 X 12 8496 Ltr 10.61 5 X 5 X 15 10,618 Ltr 12.23 6 X 6 X 12 12,232 Ltr 15.29 6 X 6 X 15 15291 Lt	In CBM Feet H X W X L Liters in Liters Cylinder (20-80) 1.27 3 X 3 X 5 1275 Ltr 4KGS (Per/Batch) 2.71 4 X 4 X 6 2718 Ltr 5KGS (Per/Batch) 3.62 4 X 4 X 8 3625 Ltr 6KGS (Per/Batch) 5.66 5 X 4 X 10 5663 Ltr 8KGS (Per/Batch) 7.00 5 X 5 X 10 7080 Ltr 9KGS (Per/Batch) 8.49 5 X 5 X 12 8496 Ltr 10KGS (Per/Batch) 10.61 5 X 5 X 15 10,618 Ltr 12KGS (Per/Batch) 12.23 6 X 6 X 12 12,232 Ltr 14KGS (Per/Batch) 15.29 6 X 6 X 15 15291 Lt 15KGS (Per/Batch)

Note: CUSTOMISE SIZE AVAILABLE

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 Navrangpura; 380009, Gujarat.





Basic Feature:

ETO /EO Sterilizer has been use for Sterile a Surgical Medical Device Products like I.V. Sets, Disposable Syringes, Disposable Surgical Set, catheter, Urine Bag, Packed Cotton Gauze, etc... to reduce microbiological load; and increase life span of material.

- Modular construction of chamber.
- Model is available from 1/2 CU.MTR TO 25 CU.MTR.
- · Easy to operate.
- Fully automatic operation based on PLC control (optional).
- Semi-Automatic (Pneumatically Operated Ball Valve) Control
- Contact parts are SS 304 / 316.
- Process time about 8-10 hrs.
- IQ/OQ/DQ documentation (OPTIONAL).
- It is useful for prevention of micro biological contamination retaining flavor useful for treatment of spices, dried nuts, Foods Packed cereals etc.
- Cartridge puncturing inside chamber under vacuum under special sizes.
- Available various models operating on EO+CO2 or cartridges (Mixture in cylinders / pure Ethylene Oxide cartridges available).

Technical Specification: (Medical Surgical Products and Food Industries – Dry Spices, etc.)

Kindly confirm your product with Manufacturer for suitable specification for sterilizer before final.



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Technical Specification:

(Medical Surgical Products and Food Industries – Dry Spices, etc.) Kindly confirm your product with Manufacturer for suitable specification for sterilizer before final.

Specifications

Sr.	ltem	Material Of Construction / Technical Description
1	Inner Seal (Chamber)	Stainless Steel 304 Grade , Optional Mild Steel. Thickness As per the Capacity & Size of the Sterilizer – 3 mm up to 10 mm Thickness of the chamber.
2	Inner Seal (Jacket)	Stainless Steel 304 Grade , Optional Mild Steel. Thickness As per the Capacity & Size of the Sterilizer – 3 mm up to 10 mm Thickness of the chamber.
3	Hot Water Tank	Stainless Steel 304 Grade, Optional Mild Steel. Thickness As per the Capacity & Size of the Sterilizer – 3 mm up to 6 mm Thickness of the Hot water chamber. (20" X 36" / 48") Cylindrical, vertical tank (SS 304L) Dished argon-welded Bottom end. Ring argon-welded on top for cover. Requisite SS 304L nozzle connections, for incoming and outgoing connections, drain, level switches, sensor etc. SS/MS Pipe legs and leveling flanges Three 6/9 kw heavy-duty electric immersion heaters. One, level-switch (SS ball-float s/w) for water level auto-filling and controlling. One, level-switch (SS ball-float s/w) for heater-protection. One PT-100 sensor for measuring the Hot-water temperature during the cycle RB Insulation with SS 304 cover etc. as per our standard supply.

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4	Steam. Generator Tank	Stainless Steel 304 Grade, Optional Mild Steel. Thickness As per the Capacity & Size of the Sterilizer – 3 mm up to 6 mm Thickness of the Steam Generator tank chamber. (15" X 24", 16" x 20") for humidity control. Cylindrical, vertical tank (SS 304L) Dished argon-welded Bottom end. Ring argon-welded on top for cover. Requisite SS 304L nozzle connections, for incoming water and o utgoing steam connections, drain, level switches, sensor, Pressure-switch, Pressure Gauge, heater, etc. MS Pipe legs and leveling flanges Three 2/3 kw heavy-duty electric immersion heaters. One, level-switch (SS ball-float s/w) for water level, auto-filling and controlling. One, level-switch (SS ball-float s/w) for heater-protection. One thermostat for extra, safety cut-off during the cycle RB Insulation with SS 304 cover etc. as per our standard supply.
5	Chamber Operating Pressure	Negative pressure cycle – up to – 0.750 mm/hg
6	Chamber Testing Pressure	Maximum 1 Kg/cm2
7	Jacket Testing Pressure	Maximum up to 2 kg/cm²
8	Outer Jacket / Reinforcements	SS 304 Sectional Jacket (LIMPET Jacket) on all sides surrounding the chamber.
9	Single Door / Double Door	Automatic Pneumatic Air Operation Horizontal Sliding Door/s, SS 304 Grade Door with contact parts Mild Steel stiffeners, Optional Mild Steel Door/s.
10	Outer Insulation	Aluminum Sheet covers over fix of 75 mm Thickness Resin-Bonded Glass Wool.
11	Gasket	Silicon Gasket (18/25 mm solid section)
12	Penal	S.S 304L, optional Mild Steel Powder coted.
13	Heating	Suitable Capacity Circulation pump provided , this pump will rotate hot water circulate in Jacket for heating Chamber.

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14	Temperature Sensor	For accurate measuring and controlling of Temp. in the chamber	
15	Operating Temperature	Maximum: 65°C (chamber) Maximum: 90°C (Jacket)	
16	RH% Sensor	For measuring and controlling the humidity of the chamber	
17	Pressure Transmitter	For measuring and controlling the pressure-vacuum that the load is subjected to during removal and charging of Gas.	
18	All fittings on the machine	SS 304	
19	Safety Valves	SS 304 Spring loaded and settable for Chamber.	
20	All Valves for Automation	Teflon construction Pneumatic valves, Solenoid valves.	
21	Humidification	Special Humidifier for the purpose of humidification of the load and heating of the gas.	
22	Vacuum	Vacuum pump provided for vacuum and aeration of the load. Water ring vacuum pump for evacuation of the chamber and aeration of the gas at the end of the cycle. (1/2/3 HP Motor).	
23	Automation Hardware	PLC Make: Omron, HMI Make: Omron or Honeywell	
24	Process Reports	Reports are generated by the software for each and every cycle in Detailed Report	
25	Printer	thermal printer (26 digit) (time, pressure, humidity, temp)	
26	ETO GAS	Proposed to be used with a 90:10 ETO:CO2 Gas Mixture Cylinder OR specially designed to also work with 100% ETO cartridges in Some Small Sizes ETO.	
27	Piping package	Gas Inlet: ½". SS 304L with complete welded joints Vacuum: 1.5". SS 304 from Chamber to the Vacuum pump. Air Inlet: 1.5". SS 304 from Teflon, air-filter placed on the sterile side. Exhaust: 1". SS 304 to valve	
28	Chamber Mounting	MS "I" section / saddle mounting Suitably painted.	
29	Circulation Blower (Optional)	Industrial 0.5 HP / 1 HP single stage Circulation pump will be provided with a Teflon-Mechanical Seal for use with boiling water to be circulated in the chamber.	

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30	Blower (Optional)	Regenerative blower, ensures that there is complete homogeneity of the gas in the chamber at all times, this ensures that BI's in all corners of the chamber will always pass during each and every cycle. This is a special Hermetically sealed blower that is completely leak-proof
31	Motor for Blower	Flame-Proof, 0.5 HP / 1 HP (Make : Branded Make)
32	Air-Circulation Piping (for blower)	S S: 2" Dia. Pipes connected to both sides of the chamber and with requisite no. of ports for suction and delivery of the ETO for circulation in the chamber via the above blower.
33	Vaporizer	Shell and Tube Vaporizer is used for Vaporizing the gas before it reaches the chamber. Cylindrical, vertical tank (SS 304L) Dished argon-welded Bottom end. Argon-welded ring on top with self-threads for top-cover to be bolted. Silicon square-section (one pc.)gasket for leak proof operation and ease of maintenance Requisite SS 304L nozzle connections, for incoming and outgoing hot-water and gas connections and drain. A complete coil of seam-less SS316L pipe is used inside the vaporizer for passing the gas. MS Pipe legs and leveling flanges Provision for measuring temperature RB Insulation with SS 304 cover etc. as per our standard supply.
34	Line Vaporizer	Line Vaporizers of SS 304L are provided at different locations along the Gas line to ensure that the temperature of gas entering the chamber is of the required temperature.
35	Pressure	Pressure transmitter gives a 4 to 20 mAmp. signal which is read by the PLC for displaying and controlling of pressure in the system at all times.Make: Honeywell / Danfoss/ Other Brand
36	Gauges for Chamber	-1 to 3bar calibrated Compound-Gauges of standard makes are provided on both the sterile as well as the non-sterile side for Analog display of pressure / vacuum that the system is subject to at all times.
37	Gauge for Steam Generator	0 to 4bar Pressure-Gauge is provided on the Steam-Generator to aid the operator in monitoring the steam-pressure

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38	Gauge on Vac-pump	One -1 to 1bar Compound gauge is provided on the suction point of the Vacuum pump to aid the operator during operation.
39	Gauges for Gasket pressure Only If Auto-Doors	For Auto-door machines, -1 to 7bar compound-gauges are provided on the door manifold as also on the operating side panel to display the vacuum/pressure behind the respective door gasket at all times.
40	Gauge for compressed-air line	The in-coming compressed-air pressure is measured by a -1 to 10bar pressure gauge, mounted on the panel at all times.
41	Pressure /Vacuum switches	Pressure/vacuum switches are used for control of pressure in the Steam-Generator and as safety switches in the Chamber. Additionally gasket seal / retract operations of the Automatic doors are controlled by Pressure /vacuum switches. Make: Indfoss / Danfoss / Other Brand

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