

# **ETO STERILIZER**

# RIYA

## **Silent Features**

- Modular construction of chamber.
- Model is available from 0.5 Cubic Meters to
   40 Cubic Metres.
- **☑** Easy to operate.
- Fully automatic operation based on PLC control.
- Semi Automatic(Pneumatically Operated Ball Valve) Control.
- ✓ Contact parts are SS 304 / 316.
- Process time about 8 hours.
- ☑ IQ/OQ/DQ documentation can be offered on demand. (OPTIONAL).
- ☑ It is useful for prevention of micro biological contamination useful for treatment of spices, dried nuts, Foods Packed cereals etc.
- Machine is suitable to Sterilize Surgical Medical Device products like I.V. Sets, Disposable Syringes, Disposable Surgical Set, catheter, Urine Bag etc.

Model	RE/ES/ 2.5	RE/ES/4.5	RE/ES/8
Working Capacity in Cu. Ft.	2.5	4.5	8
Working Volume	70 Liters	125 Liters	225 Liters
Chamber Size	12" (W) x 12" (H) x 30"	12" (W) x 12" (H) x 54" (D) OR	18" (W) x 18" (H) x 42" (D) OR
Sterilant Gas	40 grams cartridge	100 grams cartridge	170 grams cartridge
Sterilization Cycle	Warm & Cold Cycles are possible	Warm & Cold Cycles are possible	Warm & Cold Cycles are possible
Aeration	In-built aeration facility provided	In-built aeration facility provided	In-built aeration facility provided
Utility	Compressed Air (100 psig)	Compressed Air (100 psig)	Compressed Air (100 psig)
Power Supply	1 K.W.	2 K.W.	2.5 K.W.
Power Voltage	220 volts, Single Phase, 50 Hertz	220 volts, Single Phase, 50 Hertz	220 volts, Single Phase, 50 Hertz

- Power voltage can be adjusted as per customer's domestic power voltage requirements.
- Rights of technical improvements & modification reserved.
- Illustrations & dimensions are shown for information purpose only.

# ETHYLENE OXIDE INDUSTRIAL ETO STERILIZERS



# **Main System**

- **✓ Sterilization Chamber**
- **☑** Vacuum System
- **☑** Humidification System
- **EO** Gasifying System
- ☑ Electrically Operated Double Automatic Sliding Doors And Air-inflation Sealings, Pair
- ☑ Residual Gas Treatment System
- **☑** Recorder & Printer

# **Specification**

1. MATERIAL OF CASE BODY: STAINLESS STEEL, AISI 304 polished

2. STERILIZING TEMPERATURE: 0-100 °C

3. STERILIZING PRESSURE: -0,8 / +0,8 BAR

4. PRE-VACUUM: -0,8 BAR

5. STERILIZING HUMIDITY: 20-100%RH

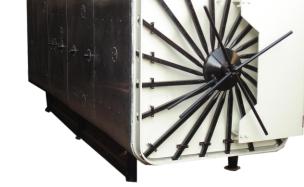
6. EO CONCENTRATION: 250-1200 mg/L

7. STERILIZING TIME: 0,5-12 HOURS

8. AERATION TIME: 0-99 HOURS

9. TIMES OF AIR CHANGE: 0-99

10. ETHYLENE OXIDE WASTE GAS TREATMENT: STANDARD STEAM GENERATOR: 28 kW



MODEL	SIZE (IN FOOT)	SIZE (IN INCH)
RE/IES/72	3 X 3 X 6	36 X 36 X 72
RE/IES/96	4 X 4 X 8	48 X 48 X 96
RE/IES/120	5 X 5 X 10	60 X 60 X 120
RE/IES/240	6 X 6 X 20	72 X 72 X 240

# HORIZONTAL HIGH-PRESSURE AUTOCLAVE



## **Features**

- ✓ ISI marked flange / immersion heating elements
- **☑** Working pressure 15 psi to 20 psi
- ✓ Standard temperature 121°C/134°C
- **☑** Silicon rubber door gasket
- **☑** Digital Temperature controller
- ☑ Digital Timer and alarm (buzzer)

- **☑** Automatic pressure control switch
- **☑** Reliable steam pressure gauges

- ∀ Viewing glass water level check
- **☑** Triple walled construction
- Automatic water level cut-off
- Powder coated / chrome plated MS Stand

#### HORIZONTAL CYLINDRICLE HIGH PRESSURE AUTOCLAVE

Model No.	Die.x Height (MM)	Volume (Liters)
RE/HPHV/75	400 X 600	75
RE/HPHV/100	400 X 750	100
RE/HPHV/180	500 X 900	180
RE/HPHV/250	500 X 1200	250



#### HORIZONTAL RECTANGULAR HIGH-PRESSURE AUTOCLAVE

Model No.	Die .x Height (MM)	Volume (Liters)
RE/HPRA/243	450 X 600 X 900	243
RE/HPRA/324	600 X 600 X 900	324
RE/HPRA/810	600 X 900 X 1500	810
RE/HPRA/1458	900 X 900 X 1800	1458



# VERTICAL AUTOCLAVE RADIAL AND KNOB LOCKING



# **Silent Features:**

- Automatic Sterilization And Control Monitoring
- ✓ Automatic Purging System
   Through Solenoid Valve
- With Automatic Stream Release
   After Sterilization
- ✓ Low Water Indicator In Display For & Element Safety
- ☑ Digital Temperature Controller
  Cum Indicator

# **Optional Features:**

- **☑** Double Wall & Triple Wall
- Heavy Guage Wing Nuts For Perfect Locking AS Standard & Radial Locking Mechanism As Optional
- ✓ Data Record & Printing



**Vertical Autoclave Knob Locking** 



**Vertical Autoclave Radial Locking** 

Product Code	Dia. x Height	Volume	Watt
RE/VA/32	300 MM X 450 MM	32 Liters	2 Kw
RE/VA/75	400 MM X 600 MM	75 Liters	4 Kw
RE/VA/125	450 MM X 750 MM	125 Liters	5 Kw
RE/VA/175	550 MM X 750 MM	175 Liters	6 Kw

# ULTRASONIC AND MEGASONIC PRODUCTS



#### **ULTRASONIC CLEANER AND SURFACE TECHNOLOGY**

One stop solution offering Ultrasonic bath and ultrasonication products. An Ultrasonicator works on the principal of ultrasound frequency (usually 20-40 KHz). Here, Electrical energy is converted into ultrasound waves by means of ultrasonic transducers.

## Ultrasonic cuts down cleaning time by up to 90%!

Ultrasonic Cleaner is based on Cavitation effect caused by high frequency ultrasonic wave vibration signal in fluid. Microscopic bubbles are formed and they implode violently that cause Cavitation, which gives out great impact to the cleaning subject and provides an intense scrubbing action on the surface of cleaning subject. Additionally, the bubbles are small enough to penetrate even microscopic crevices, cleaning them thoroughly and consistently.

## **Applications:-**

- **☑** Electronic Industry for delicate parts
- **☑** Hospitals and Medical Facilities
- ✓ Auto Industry for rugged parts
- **☑** Industrial Manufacturing
- **✓** Jewelry Industry for intricate parts
- **☑** Dental office and Laboratories

## **Silent Features:-**

- ☑ Ultrasonic Bath is designed with MOSFET/IGBT & latest Micro-controller base technology.
- **☑** Auto tuning with over load protection arrangement.
- ☑ Imported transducers are used in our ultrasonic bath / cleaner.
- **☑** Operating frequency of 23/33 Khz. Variable frequencies on demand.
- ☑ Digital tuning & Thermo dynamic design to ensure long life of generator.

## **Volume Available:-**

Power	Capacity (Litres)	Tank Size(LxWxH)
50 W	1.5	150 x 100 x 100 mm
60 W	2.0	200 x 100 x 120 mm
100 W	3.5	230 x 150 x 100 mm
150 W	5.0	250 x 150 x 125 mm
200 W	6.5	300 x 150 x 150 mm
250 W	7.5	250 x 200 x 150 mm
300 W	9.0	300 x 200 x 150 mm
500 W	23.0	450 x 350 x 150 mm
1000 W	30.0	500 x 300 x 250 mm
1500 W	72.0	600 x 400 x 400 mm
500 W	17.0	450 x 250 x 150 mm



- Above Model are available in both
   SS 304 and MS with powder coating.
- Custom sizes are available on request.
- Provided with drain valve

## **Accessories:**

- ☑ Tank Cover, Perforated Tray, Solid Tray, Mesh Basket, Flask Holder.

# STERILIZATION CONSUMABLES AND TESTING MATERIELS



Riya Engineering is trusted one stop solution for sterilization consumables & testing materials.

#### STERILIZATION REELS

Medical grade paper available in both 60 GSM & 70 GSM. Film is available in tinted Blue/Tinted Green, & Natural. With two indicators for steam & ETO sterilization.

- 1. Multi sealing lines.
- 2. Reduces fiber peel and the risk of damage of sealing integrity while loading, stocking and transporting.
- 3. Non-Polluted Printing.
- 4. Certified Medical Grade Paper.
- 5. Meets EN868-5 Requirement of European Standards of sterilization
- 6. No Shrinkage Retort Grade CPP Films used.
- 7. Print with water based link, going as natural as we could be!



#### **ETO GAS CARTRIDGES**

Shiv Machinery provides ethylene oxide gas cartridges which are engineered to provide safe systems that are easier to use than gas tank systems.

- 1. Easy to use, cost effective and accurate sterility.
- 2. Now a stage-leakage of sterilant gas.
- 3. Available in 40 Grams, 100 Grams, 170 Grams & 300 Grams capacity.
- 4. Safe to use.
- 5. Physical Stage:- Liquid

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#### **TYVEK REELS**

TYVEK REELS are specially designed for plasma sterilization process but it can be also used ETO sterilization as well as other low temperature sterilization procedures.

- 1. One side tyvek (100% high density polyethylene fibers) /
  One side transparent films (easy to identify the packed items)
- 2. Durable / Tear Resistant / Light Weight & Flexible / Water-Resistant.
- 3. Unique Balance of strength & softness.
- 4. Size as per customers requirement.



#### **BOWIE-DICK TEST PACK**

Pre assembled for single use test, packs designed to evaluate the performance of the air removal system of pre-vacuum sterilizers operating at 134 c for 3.5 minutes & 121° c for 15 minutes.

- 1. Available in A4 size paper as well as in test pack kit.
- 2. Disposable ready to use test packs
- 3. Designed for STEAM Sterilization at 134° c for 3.5 minutes & 121- c for 15 minutes.
- 4. Accurate Color indicator changes.
- 5. Can be kept as permanent record.



















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