

**MODEL NO.: YSI-408****YSI H.P. RECTANGULAR  
HORIZONTAL STERILIZER**

As per: IS — 3829 Part-I

**Introduction :** The sterilizer is based on the principle that microbiological organisms are killed or made inactive by maintaining high temperature for a related time. The medium used for raising the temperature is dry saturated steam. The steam also displaces the air under the gravity effect out of the chamber resulting efficient sterilization and is the most economical way of bulk sterilization as required by medical pharmaceutical and agricultural institutes. These sterilizers are available as high pressure sterilizers and High Pressure High Vacuum sterilizers. In HPHV sterilizers forced vacuum is created to remove the trapped air from packs so that steam penetration is effective resulting proper sterilization. Suitable for sterilization of hospital dressing, linen, rubber plastic goods, surgical instruments, glassware and utensils etc.

**Construction :** The sterilizer's design is robust, energy efficient with high stability. The even steam circulation all around the material placed inside the chamber and even heating (no air pockets) is the overruling point of this design. Inner chamber is made out of thick plate of non magnetic stainless steel of grade SS 304/SS 316 fully. TIG welded. Jacket is of BQ steel as per IS 2002 /SS 304/ SS 316 Channel jacket usually preferred which is designed to give high pressure strength as well as to save energy.

The sterilizer will have single /optional) double door made out of BQ steel lined with S.S. from inside or complete S.S. 304/316 (Optional). The door will be radial arm hinged door or (Optional) pneumatically operated vertically /horizontally sliding door. The shell is insulated with mineral/glass wool covered with CRCA sheet duly painted/ SS 304/ Aluminium. All the sterilizers are hydraulically tested to withstand 2.5 times the working pressure.

**Steam Generator :** Made of heavy stainless steel sheet and comes in unique design with minimum joints and bolted parts thus no chances of leaks. Suitable capacity heating elements and low water level cutoff system to protect the former from burning out dry are provided. Main hole provided on heater plate provides for easy cleaning of the deposited scale inside the generator for better efficiency. Fitted with gauge glass assembly with setoff valves (to avoid spillage of hot water in case of glass tube breakage) for water level indication, water



inlet and outlet valves.

**Pressure Control :** The "PIEZOSTAT" (pressure control device) is incorporated in all electrically operated sterilizers. It economizes on power consumption and controls the steam generation to set value depending on the temperature for sterilization.

**Safety Door :** Doors have self pressure locking safety device and cannot be opened when under pressure. The self locking device automatically engages the clutch mechanism when the chamber is pressurized to avoid opening of the door thus eliminating the chances of any accident. The sliding door has (optional) inbuilt retraction mechanism which avoids any accident caused due to obstruction during its movement.

The doors are sealed with chamber by heat resistant EPDM / Silicon / Neoprene rubber gaskets.

**Single Point Control :** Complete sterilizer cycle is controlled from one point with the help of Multi port Valve "fitted at the top. Two speeds of steam exhaust are available fast and slow. Drying of the sterilized load can also be done. An additional ejector is also provided for better drying of the sterilized load. Easily readable jacket and chamber pressure gauges are mounted along the multi port valve. A steam trap is fitted in the chamber discharge line to drain 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 :

- 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.
- A 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 in case of vacuum formation due to steam condensation in the jacket.

Operating Temperature and pressure :

High Pressure Sterilizer

- Sterilizing Temp. : 121°C
- Sterilizing Pressure : 1.2 to 1.5 kg/Cm2(15 psi to 22 psi)

Material of Construction :

	Std.	Optional
Chamber	-S.S.304	S.S.316/S.S.316L/S.S.316Ti
Jacket	-BQ MS	S.S.304/S.S.316
Door	-BQ MS	S.S.304/S.S.316
Steam Generator	-S.S.304	S.S.316
Outer Cover	-CRCA MS	S.S.304/Aluminium
Stand	-ERW MS	S.S.304

Tubes/MS Channel

Available in following capacities :

W	H	D	Load
450	450	900	18Kw
600	600	1200	18Kw
600	900	1500	36Kw
900	900	1500	36Kw
900	1050	2100	72Kw with auto water feeding (or direct steam operated)
1050	120	2100	72Kw with auto water feeding (or direct steam operated)

Various level of automation is available to suit customer need.

(1)Steri micro 50 -Four process cycles provided are with fixed parameter and takes care of all sterilization need.

-No display is available.

-No online data printing

(2)Steri Micro75 -Four process cycles with fixed parameter.

-No display

-Online process printing is available.

(3)Steri Micro] 00 -Four process cycles with fixed parameters.

-Display (Two line)

-Online process printing

(4)Steri Micro] 50 - Five fixed and one flexible process cycles are provided.

-Display (Four line)

-Online printing

(5)Steri Micro 200 - Five fixed and one flexible process cycle.

-Display (four line/ Touch Screen)

-Online printing

-High end plc is provided to take care of process parameter like Fo Value etc.

Option a /Accessories :

- Chamber/Jacket of S.S. 316
- Door of S.S. 304/316
- Additional Tray/Shelves
- Carriage & Trolley
- Parisian for direct steam supply from centralised boiler
- Temperature recorder
- High pressure High vacuum model
- Additional door (Double door) model.
- Fully automatic micro processor controlled model

Spare Accessories :

- Pressure gauge/Compound gauge
- Water level gauge glass
- Dial thermometer
- Non return valve
- Steam trap
- Jointless Gasket : Neoprene/Silicon rubber
- Heating elements (Flange Type) Rating kw 6.0, 9.0

\*\*All models can have Box Type (European Style) design for elegant look (Optional)

\*\*All other higher sizes as per requirement of the customer and will be direct steam (from centralized sources) operated.