

## **YORLAB® H.P. CYLINDRICAL HORIZONTAL STERILIZER** **Model No.: YSL / YSU-405**

—As per IS-3829 Part-1

### Specifications :

- The sterilizer is based on the principle that microbiological organism are killed or made inactive by maintaining high temperature for the time required.
- The medium used for raising the temperature is dry saturated steam. The steam also displace the air under the gravity effect out of the chamber resulting an efficient sterilization. Robust and rigid construction, designed for all types of bulk sterilization which are commonly needed in Medical, Agricultural and Pharmaceutical Institutions.
- Suitable for Sterilizing hospital dressings, linen, rubber, plastic goods, surgical instruments, glass wares, utensils etc.

### Construction :

- Triple walled with steam jacket and separate boiler Inner chamber and steam jacket are made up of Heavy gauge S.S. Sheet with leak proof argon-arc welding.
- The sterilizer has single piece door made of steel plate lined with S.S. from inside and back plate and ring is also made of thick stainless steel sheet.
- All the sterilizers are hydraulically tested to withstand 2.5 times the working pressure.
- Door is grooved to hold EPDM or silicon (Optional) gasket to securely rest on front facia of door ring for easy & perfect leak proof locking.
- Mounted on tubular steel frame with ground leveling screwed flanges. The Outer jacket is wrapped with insulation material to minimize the heat losses due to radiation and is covered by polished stainless steel sheet for elegant appearance.

### Steam Generator :

- Made of heavy stainless steel sheet and provided in unique design with minimum joints and bolted parts thus reduces the 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 generators for better efficiency. Fitted with gauge glass assembly with shut off 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 " PIEZOSTAI" (Pressure Control Device) is incorporated in all electrically operated sterilizers. It economizes on power consumption and control the steam generation to set value depending on the temperature for sterilization.

### Safety Door :

- Sterilizer has hinged self locking single piece thick steel plate lined with S.S. from inside door 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 eliminates the chances of any accident.

### Single Point Control :

- Complete sterilizer cycle is controlled from one point with the help of " Multiport valve" fitted at the top. Two speeds of steam exhaust are available, fast and slow. Drying of the sterilized load can also be done. 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 PIEZOSTAT, 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 the triple safety features. At the boiler level by a PIEZOSTAT which automatically limits the pressure to the required set value and a spring loaded safety valve in case of its failure which releases the steam to keep pressure within the safety limits.
- At the chamber level, a spring loaded safety valve and a dead weight release valve to release the steam in case the... pressure exceeds the safety limit.
- All these safety features function independent of one another and subsequently i.e. one takes over the charge in case of other's failure.
- A plug screen prevents the discharge line from choking. The plug is easily removable for daily cleaning.
- Powerful Ejector for drying sterilized linen circulates air throughout the chamber. The circulating air passes through a corrosion resistant metallic wool filter.

To be continue...

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- A dial thermometer is provided to show the chamber temperature. Automatic Vacuum breaker is provided to break vacuum in case of formation of vacuum due to steam condensation.

**Operating Temp. & Pressure :**

Sterilizing Temp : 121°C

Sterilizing pressure: 1.2 to 1.5 kg/cm<sup>2</sup> (15 psi to 22psi)Power Requirement : Suitable to operate on 440Volts,  
3 ph, 50 Hz, Ac supply**Available Models :****Standard :**

- The autoclave is manually operated.

**Semi Automatic :**

- The process is controlled by programmable logic controller & is user friendly.
- Four fixed sterilization cycles take care of hospital sterilization needs. The automation avoids the human errors and interference thus assures quality sterilization.
- This unit can be handled by unskilled person and need not to be attended all the time thus sparing the operator for other work.
- Fully Automatic : This is the upper version of semi automatic machine with five fixed and one variable parameters cycles.
- Main machine interface is provided to monitor the process parameters, set the desired parameters and to get online printing of the process to keep records for future reference.

**Material of Construction :**

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

**Optional Accessories :**

- Digital Temperature Indicator can be supplied in lieu of dial thermometer. Digital Temperature Controller with timer can be fixed at an extra cost.
- Once the temperature is attained it will automatically start the timer. It raises an alarm at a set time, so that operator is alerted & he can perform balance operations
- Automatic water feed system can be incorporated in the boiler, so that at higher level it switched off the water pump and restart it at lower level automatically. In addition to vacuum dry provided in the MPV an extra ejector can be provided in the autoclave for better drying of the load.
- Digital Pressure & Compound gauges can be provided in lieu of analog gauges.
- POP type safety valve can be installed in lieu of spring load safety valve, for more accurate & better performance

if required, at an extra cost.

- Dressing Drums
  - Parisian for Direct steam supply from centralized 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...
  - Moisture trap
  - Jointless Gasket : Neoprene/silicon rubber, Size : 400mm & 500mm
  - Heating elements (Flange Type)
  - Ratingkw 6.0, 9.0
  - Various level of automation is available to suit customer need.

- (1) micro 50 - Four process cycles provided are with fixed parameters and takes care of all sterilization need.
  - No display is available.
  - No online data printing
- (2) Micro75- Four process cycles with fixed parameter.
  - No display
  - Online process printing is available.
- (3) Micro100- Four process cycles with fixed parameters.
  - Display (Two line)
  - Online process printing
- (4) Micro150- Five fixed and one flexible process cycles are provided.
  - Display (Four line)
  - Online printing
- (5) 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 for valve etc.

**Available in following capacities :**

dia	x	depth	load
400	x	600 mm	6kw
400	x	1100mm	9kw
500	x	900 mm	9kw
500	x	1200 mm	9kw
600	x	900 mm	9kw
750	x	1100mm	18 kw