

ontrol specialist, Serving Hospitals, Medical Institutions & Pharmaceuticals Industries over last 67 years.

Home

Products

Services and Support

Installation

Certification

Contact

Steam Sterilizer

NAT Steel horizontal, high pressure, high vacuum steam sterilizer, rectangular type with vertical sliding Double door, with steam generator and fully automatic operation.

Chamber	<p>Size : 660mm x 660mm x 1250 mm depth</p> <p>Volume : 545 Ltrs</p> <p>Working pressure : 2.2 kg</p> <p>Working temperature : 121o to 135°C</p> <p>Material : SS 316L</p> <p>Chamber is fabricated with full argon welding and is made in round corners for easy cleaning and is given a 2% slope for full drainage of the condensate. Chamber is provided with safety valve and compounding gauges on both sides.</p> <p>Pure steam will be used in the chamber for sterilization purpose.</p> <p>Chamber is provided with SS 316L railing of circular cross section and is easily removable for easy cleaning.</p>
Chamber Baffles	SS 316 L
Jacket	<p>Material : SS 304</p> <p>Working pressure : 2.5 kg</p> <p>Working temperature : 138°C.</p> <p>To maintain uniform heating in the sterilization space.</p>
Insulation of Shell	The entire equipment including doors is insulated with 50mm thickness Resin Bonded Glass Wool & clad with SS304 sheets. With this, the skin temperature of the equipment does not increase more than 550 C.
Steam Generator	Steam Generator of 36 KW is provided underneath the chamber which will generate and provide dry saturated steam to jacket and chamber through steam dryer. Client to provide DM water to inbuilt steam generator to get the pure steam.
Door	The equipment is provided with two automatic, vertical sliding doors operated through pneumatic cylinders. The door is fabricated from SS 316L quality material & sealing is done through movable silicone gasket pressurized by compressed air. Pressure gauge is provided for gasket, Door status indications are provided on both doors. Door movement safeties are taken care during the operations, such as interlocking of doors with process one door at a time and door obstruction facility.
Flush Mounting	A stainless steel 304 sheets are provided on the unloading side door & fixed on the wall to avoid cross flow of sterile air to loading area (complete sealing between sterile and non sterile area).
Valves & Piping	<p>All valves & pipe lines which are connected to chamber will be of SS 316 quality whereas non-contact will be of SS 304 .The connectors are specially fabricated from solid bars & hence cracking of connectors is avoided. All pipe lines are argon welded with proper finish.</p> <p>All process valves are of sanitary construction. All utility connections are brought to one point, at the corner of the equipment for easy operation to the customer. All exhaust, drains are connected to a common drain.</p> <p>A removable screen plug is provided in the drain line to prevent clogging of the drain pipes and fittings.</p> <p>Pneumatic lines are of copper tubes with Brass/SS connectors.</p>
Temperature and Pressure Sensors	Five nos. Class"A" Duplex temperature RTD sensors and one no. pressure sensor will be provided. All sensors are connected to the PLC and recorder. The system has a least count of 0.1°centigrade.
Vacuum Pump	<p>An adequate capacity Water Ring Vacuum Pump is provided along with the equipment to create the highest degree of vacuum in the chamber for air removal & for drying purpose. The pump is mounted on the equipment along with SS304 steam condenser, having copper cooling coil. This will avoid the direct steam entry to the pump.</p> <p>A 0.2 micron vacuum break filter is provided on the sterile area to suck the sterile air for breaking the vacuum after drying stage.</p>
Condenser	Shell and tube type steam condenser made of S.S 304 is provided.
Stand	S.S 304
Programmable Logic Controller	8 level password protection for password security is given. RS232 port is provided for data communication. Inbuilt real time clock is provided with date and time function. UPS is provided as Battery back- up, for automatic restart in case of power failure. EEPROM is provided for secure software storage.F0 calculator for automatic calculation of lethality.
Carriage	SS 316 - 1 No.
Trolley	SS 304 - 2 Nos.
Programs	5 pre-set program and one flexible program i.e. 6 programs will be provided. Other recipes as per user requirement will be provided.
Validation Port	2 nos. validation ports will be provided with special leak tight ferrules is provided to accommodate 16 flexible Temp. sensors for the validation of the system.
Air Filter	0.2 micron
Strip Chart Recorder	Six point strip chart recorder is provided for recording temperature at five points and pressure at one point.
Data Recording	80 columns dot matrix data printer is provided to print the data, time, process parameters, process status and alarms.
Safety and Alarms	<ul style="list-style-type: none"> » High Temperature & Pressure » Utility failure » Vacuum pump trips » Evacuation fails » Heat up fails » Door obstruction » Opening of both doors simultaneously

- » Opening of either door in process

Surface Finish

Chamber & doors are buffed & polished to 0.8 Ra value & parts other non contact to less than 180 grit.

Electric Supply

220 V, 3 ph, 60 Hz, AC

Documentation

- » Design Qualifications
- » Installation Qualifications
- » Operational Qualifications
- » Maintenance & Service Manuals
- » Required Test Certificates

The above documents will be provided along with the equipment.

Rectangular Steam Sterilizer Standard Series

Model	Chamber Dimension	Chamber Volume	Steam Generator
18SR	450 x 450 x 900	182	9Kw
24SR	600 x 600 x 1200	432	18Kw
36SR	600 x 900 x 1500	810	36Kw
36LB	900 x 1200 x 1500	1650	72Kw
3 x 3 x 4	900 x 900 x 1200	972	36Kw
3 x 3 x 6	900 x 900 x 1800	1458	72Kw/Direct steam
4 x 4 x 8	1200 x 1200 x 2400	3456	108Kw/Direct steam
5 x 5 x 10	1500 x 1500 x 3000	6750	Direct steam

Cylindrical Steam Sterilizer - Hyper Series - Technical Details / Size Available

Model	Chamber Diameter (mm)	Chamber Depth (mm)	Chamber Volume (Litres)	Steam Generator Capacity (Litres / kw)	Floor Space (Width x Depth)	Packed (kg)
16 HS	400	600	79	45 / 18	1130 x 1900	380
20 HS	500	900	186	69 / 36	1175 x 2210	600
16 HA	400	600	79	26 / 6	1130 x 1900	350
16 HB	400	1100	145	44 / 9	1130 x 2275	550
20 HA	500	900	186	44 / 9	1175 x 2210	575
20 HB	500	1100	227	44 / 9	1175 x 2350	625
24 HA	600	900	267	44 / 9	1230 x 2400	750
30 HB	750	1100	511	80 / 18	1460 x 3090	900

TOP

1 | 2