

## Horizontal Sterilizer PN



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PROHS Horizontal Steam Sterilizers have as a basis of their function the control of the parameters Temperature and Pressure, seeking the complete elimination of all living microorganisms. Through a fast and uniform heat transfer, PROHS Horizontal Steam Sterilizers are an indispensable tool in all Health Institutions.

## **PROHS Horizontal Steam Sterilizers are in conformity with**

Directive 93/42/EEC Directive 97/23/CE  
EN 285

## **Products that can be sterilized**

Metallic Instruments; Rubber objects (not thermo-sensitive)  
Textiles and Glasses Culture Medium

## **Available Programs**

The Sterilizer is defined to operate in two specific sterilization temperatures - 121°C and 134°C. It has 5 standard validated programs and 2 test programs (Bowie & Dick, leakage test). Up to 100 new (and fully configurable) Sterilization programs can be created.

## **Construction Materials**

Body and doors totally built in AISI 316L stainless steel, a material with high resistance to corrosion. External shield in AISI 304 stainless steel.

## **Thermal Isolation**

Is achieved through the use of mineral wool, coated with an external protection in aluminum. The temperature on the surface of the external panels and doors never exceeds 45°C at a room temperature of 23°C.

## **Doors**

Automatic vertical sliding doors, pneumatically operated and equipped with a safety device.

## **Components Characteristics**

**Microprocessor** - The Sterilizer is fully controlled by the PLC (Programmable Logic Controller), according to the operating program selected by the user.

**Safety Valve** - Operates as a security system to avoid excessive pressure inside the chamber, being duly certified.

**Pneumatic Valves** - Operate in the steam and condensates circuit, automatically controlled by the microprocessor.

**Pressure Sensors** - Used in the equipment (Chamber and Jacket), ranging from -1 to 3 bar (0 KPa to 400 KPa).

**Temperature Sensors** - Platinum resistance type according to Class A from EN 60751.

**Gasket** - Produced in silicon, and specifically designed to withstand high temperatures.

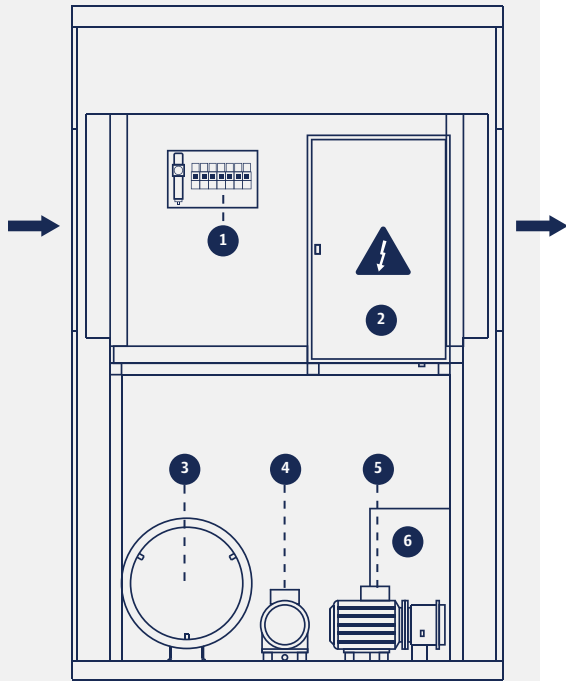
**Bacteriological Filter** - The air entrance for the required equalization of the pressures in the Sterilizer is achieved through a filter which retains microorganisms, bacteria, particles, etc. (retention efficiency  $\geq$  99,995% for particles bigger than 0,3  $\mu$ m).

**Fluid Circuit** - All pipes and connections used to distribute steam and condensates through the Sterilizer, are made of copper and brass. Optionally, they can be provided in stainless steel.

## **Doors and Safety**

- Security system that stops the door lock if there is interposition of objects;
- The sterilization program does not start when doors are open.
- Doors do not open simultaneously.
- Doors do not open when the Sterilizer is under pressure.





The selection of high quality and certified components and spare parts, allows a cost reduction over the useful life of the Sterilizer.

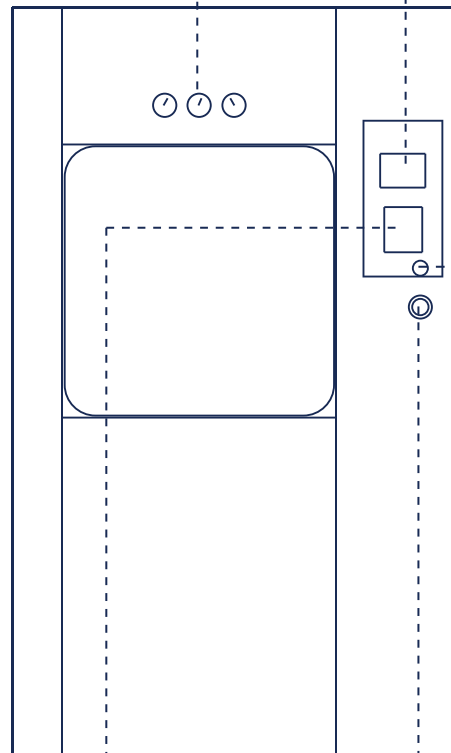
**Gauges** – Easy visualization of the working pressure in the steam generator, jacket and chamber.

**Color Touch Screen 5,7"** – Allows real-time view of all the stages of the sterilization process. All operating commands are automatically done on the touch screen.

- Cycle Selection;
- Opening and Closing the Doors;
- Alarms (visual and audible);
- Several menus; (technical area, calibration, configuration, alarm storage, etc);

The double door version of the Sterilizer has a panel in the discharge zone that allows the visualization of the sterilization cycle's current stage.

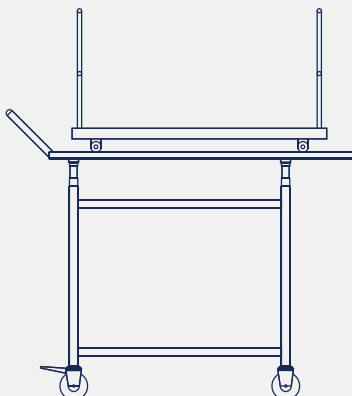
- 1 Pneumatic Valves Group** - Allows the correct operation of the pneumatic valves.
- 2 Electric Box** - Consists of highly reliable control and power components.
- 3 Steam Generator** - To feed steam to the Sterilizer. Fully built in stainless steel, with the adequate control and command system.
- 4 Water Pump** - Allows water to be efficiently fed into the system.
- 5 Vacuum Pump** - Liquid ring type, reduces the cycle time and increases performance.
- 6 Water Deposit** - the vacuum pump water is reutilized in the water deposit, reducing the overall water consumption.



**On/Off Button**

**Emergency Button** – Completely stops the Sterilizer

**Printer** – Fast and user-friendly records of easy interpretation for conclusive results in real time.



Side view for Loading Cart and Platform

# Technical Characteristics

Model	Useful Dimensions	External Dimensions	Energy		Water Consumption	Weight	Useful Space
			3 - 400V	50/60Hz			
70L	32X32X70	170x77x92	26kW	3,6kW	110	260	1
110L	40x40x70	180x84x96	26kW	3,6kW	120	495	1
175L	50x50x70	180x94x96	26kW	3,6kW	130	570	1
250L	50x50x100	180x94x127	26kW	3,6kW	145	685	1
340L	70x70x70	195x116x96	32kW	3,6kW	170	750	4
360L	60x60x100	180x106x127	32kW	3,6kW	170	800	1
490L	70x70x100	195x116x127	32kW	3,6kW	200	830	6
640L	70x70x130	195x116x157	47kW	3,6kW	225	1000	8
780L	70x70x160	195x116x187	47kW	3,6kW	225	1200	10
930L	70x70x190	195x114x206	47kW	3,6kW	225	1400	12

**PROHS**

/litres capacity      /cm height x width x length      /cm height x width x length      /WITH Steam Generator      /WITHOUT Steam Generator      /litres (per cycle)      /Kg (approximate, with steam generator)      /S.T.U.

## OPTIONS

- The Sterilizer is available with **one** or two **doors**;
- **Car** and **Charging Platform** in stainless steel;
- **Sterilization Baskets** in stainless steel;
- **Independent Data Recorder**;
- **Process Software** (stores the cycle's data);
- **Steam Generator** (integrated or external);
- **Silent Air Compressor**;
- **Water Softener**;
- **Color Touch Screen** in unloading area.

## Programs\*

Heating Program
134°C Normal (textiles)
121°C (Rubbers)
134°C Fast
134°C Instruments
134°C Containers
134°C Prions
Bowie Dick Test
Air Leakage Test
Possibility to create up to a 100 new programs

## Sterilization

### Duration (minutes)

–
4m
16m
3m
4m
4m
18m
3m30s
–

## Types of Drying

- High Vacuum Drying
- High Vacuum and Air Pulses Drying (instruments)
- High Vacuum and Steam Pulses Drying (containers)

\* all cycles can be adjusted or removed according to customer demand

