

Horizontal Sterilizer Laboratory

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Horizontal Sterilizer Laboratory

PROHS Horizontal Steam Sterilizers have as a basis of their function the control of the parameters Temperature and Pressure, tailored for the specific needs of different laboratorial sectors - such as animal or microbiological laboratories, or the pharmaceutical industry, meeting the most stringent requirements for each area.

To comply with all this, the Sterilizer can be customized in various aspects, according to each and every specific case - the Sterilizer's design, its programs, add-ons, even materials, adapting the equipment to be the perfect solution for each request.

PROHS Horizontal Steam Sterilizers are in conformity with the Directive 97/23/CE.

Available Programs

Designed to sterilize a vast range of products, with customized settings according to the type of load. The parameters are adjustable regarding temperature, time, pressure, amongst others, in order to address different materials, such as liquids, porous loads, glassware and other items used in laboratories and the pharmacological industry.

Models available

PROHS manufactures 7 different volumes, ranging from the 190L up to 740L. In addition, custom models with non-standard volumes can be built according to the needs of the customer.

Each model is available in single or double door configuration.

Vessel

Our vessel is designed with a partial jacket which is environmental friendly, as it uses less steam, which represents a saving in water and energy, and also translates as a lower cost per cycle, while obtaining the same results in the sterilization.

The vessel's welding is done by means of an automated robot.

Construction Design

In the development of these units, we take into consideration the transport, assembly, maintenance, and last but not least, useability.

Taking into account the human factor, our Sterilizers are user-friendly, with clear signals, icons and feedback so that the user can easily understand and follow all the operations of the sterilizer.

Owing to its' modular building process and compact design, the equipment can be easily transported to the desired place of installation. Through the front panel, an authorized technician can easily access the interior, for installation and maintenance.

Ecological Design

Our Sterilizers are equipped with an Economizer that allows a precise control of the electrical power (for example, in standby, the steam consumption is null) and the water dosage for each different cycle.

Security

We follow stringent criteria to comply with all the norms and requirements in the matter of safety and efficiency.

Liquid Program Cooling

Natural Cooling

In this case nothing is used to accelerate the cooling of the chamber and consequently the load.

Active Cooling

After the sterilization phase, compressed air is introduced in pulses in the chamber, through a filter, reducing considerably the cooling of the load. This process does not use steam in the vessel.

Accelerated Cooling

Cold water is introduced in the vessel's jacket during the cooling phase. The temperature of the water is controlled by a sensor, which forces the cycling of the water if the temperature exceeds the pre-determined point.

For safety reasons, when liquids are sterilized, the cycle will only finish when the temperature in the liquids is below 80°C.

Our sterilizer is equipped with a special liquids sensor in the chamber.

Microprocessor

Controlled by the PLC according to the operating program selected by the user.

Electric Box

Two different electric boxes, one for command and another for power.

Piping

Main piping in Stainless Steel and drain pipes in copper (available in SS)

Vessel

Partial Jacket Design, totally built in AISI 316L stainless steel, a material with high resistance to corrosion.

Chamber

The surface finish of the Chamber is either polished or ceramic blasted.

Color Touch Screen

Allows real-time view of all the stages of the sterilization process. All operating commands are automatically done on the 5,7" or 8" touch screen.

Built-in Printer

Provides real time detailed results.

Doors

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

Gasket

In silicon, designed to withstand high temperatures, operated by compressed air.

External Panels

Totally made in AISI 304L. With frontal access for maintenance.

Steam Generator

Fully built in Stainless Steel AISI 316L, with independent control and command system. The Sterilizer can work with an external steam source.

Vacuum Pump

Liquid ring type, reduces the cycle time and increases performance, ensuring adequate air removal.

VALVES

Pneumatic

Operate in the steam and condensates circuit, automatically controlled by the microprocessor.

Safety

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



Technical Characteristics

Model	Useful Dimensions	Exterior Dimensions	Energy		Water Consumption	Weight	Useful Space
			3 - 400V - 50Hz				
190L	50x50x75	180x102x100	18kW	1,3kW	120	495	1
250L	50x50x100	180x1015x1295	30kW	2,1kW	130	570	1
325L	50x50x130	180x1015x1595	30kW	2,1kW	145	685	1
350L	68x68x75	195x122x105	30kW	2,1kW	170	750	4
460L	68x68x100	195x122x134	40kW	2,1kW	170	800	6
600L	68x68x130	195x122x164	50kW	2,8kW	200	830	8
740L	68x68x160	195x122x194	50kW	2,8kW	225	1000	10

PROHS

Units:
 /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 gen.) /S.T.U.

OPTIONS

- One or two vertical sliding doors;
- Steam Generator (integrated or external);
- Double Monitor (Load and Unload Zone);
- Accelerated Cooling with water in the jacket;
- Condensates filtration;
- Condensates sterilization (only on the LAB version)
- Plastron / sanitary barrier (only on the LAB Version)

AVAILABLE CONFIGURATIONS

PLAV

Program Lav (Animal Laboratory and Others) - LAB P1

PLAB

Program Laboratory (Industrial Laboratory) - LAB. Type P3

Programs*

- Solids 1
- Solids 2
- Solids 3
- Solids 4

Liquids With Pre-Vacuum

Liquids Without Pre-Vac

Bowie Dick Test

Air Leakage Test

9 Fully Configurable

Programs

Accessories

- Load / Unload car in Stainless Steel with fixed or adjustable height;
- Load / Unload module automatic in Stainless Steel;
- Load / Unload platform in Stainless Steel;
- Sterilization Baskets in Stainless Steel;
- Silent Air Compressor;
- Water Softener.
- Independent Data Recorder for Validation (S@tis Supervision);

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

