

HORIZONTAL AUTOCLAVE

ALS-INS069



Registered Office: 43-B, 3rd Floor, Okhla Village Jamia Nagar, New Delhi - 110025, India.

E-mail : instruments@almanaclifescience.com | **Web :** www.almanaclifescience.com

Landline No: 011-43506838 | **WhatsApp No:** +91 9773645708

DESCRIPTION

The Horizontal Autoclave is designed for high capacity sterilization in laboratories, hospitals, and industrial applications. This autoclave provides reliable sterilization with advanced features, ensuring safety, efficiency, and ease of use. Its triple-walled construction, digital controls, and durable stainless steel design make it suitable for handling large loads in controlled environments like clean rooms

KEY FEATURES

- **Cylindrical/Rectangular Design:** Available in both cylindrical and rectangular configurations to suit different space and application requirements.
- **Stainless Steel Construction:** The interior and exterior are made from high-grade stainless steel (SS 304), providing resistance to corrosion and enhancing durability.
- **Triple-Walled Construction:** Ensures enhanced insulation and safety during operation.
- **Automatic Pressure Control:** Integrated automatic pressure control switch maintains pressure between 15 and 20 psi with accuracy of ± 1 psi.
- **Digital Temperature Controller:** Allows precise control over sterilization temperatures, typically set at 121°C.
- **Automatic Water Level Cut-off:** Optional feature that prevents overheating by cutting off the system in case of low water levels.
- **Digital Timer and Alarm:** The digital timer controller is equipped with an end-cycle buzzer for enhanced user convenience.
- **Vacuum Breaker and Steam Trap Valve:** Maintains operational efficiency by releasing trapped air and excess steam from the chamber.
- **External Boiler System:** A separate, externally fitted boiler provides efficient steam generation. The boiler is connected directly to the chamber, and a water level indicator ensures ease of monitoring.
- **Pressure Control:** Each unit features an automatic pressure control switch, allowing precise management of pressure within the chamber, from 5 psi to 20 psi, with an accuracy of ± 1 psi.
- **Reliable Sealing:** The autoclave is equipped with a durable neoprene rubber gasket, ensuring a tight and trustworthy seal during the sterilization process to maintain optimal pressure and temperature conditions.
- **Optional Accessories:** A range of optional accessories is available to further enhance the autoclave's performance, including an HMI (Touch Screen Panel) for intuitive control and monitoring.

DOOR MECHANISM

Single Door Model: Features a single front-loading door with a radial locking system.

Double Door Model: Equipped with doors on both ends to facilitate pass-through operation between two adjacent rooms

Optional Features & Accessories

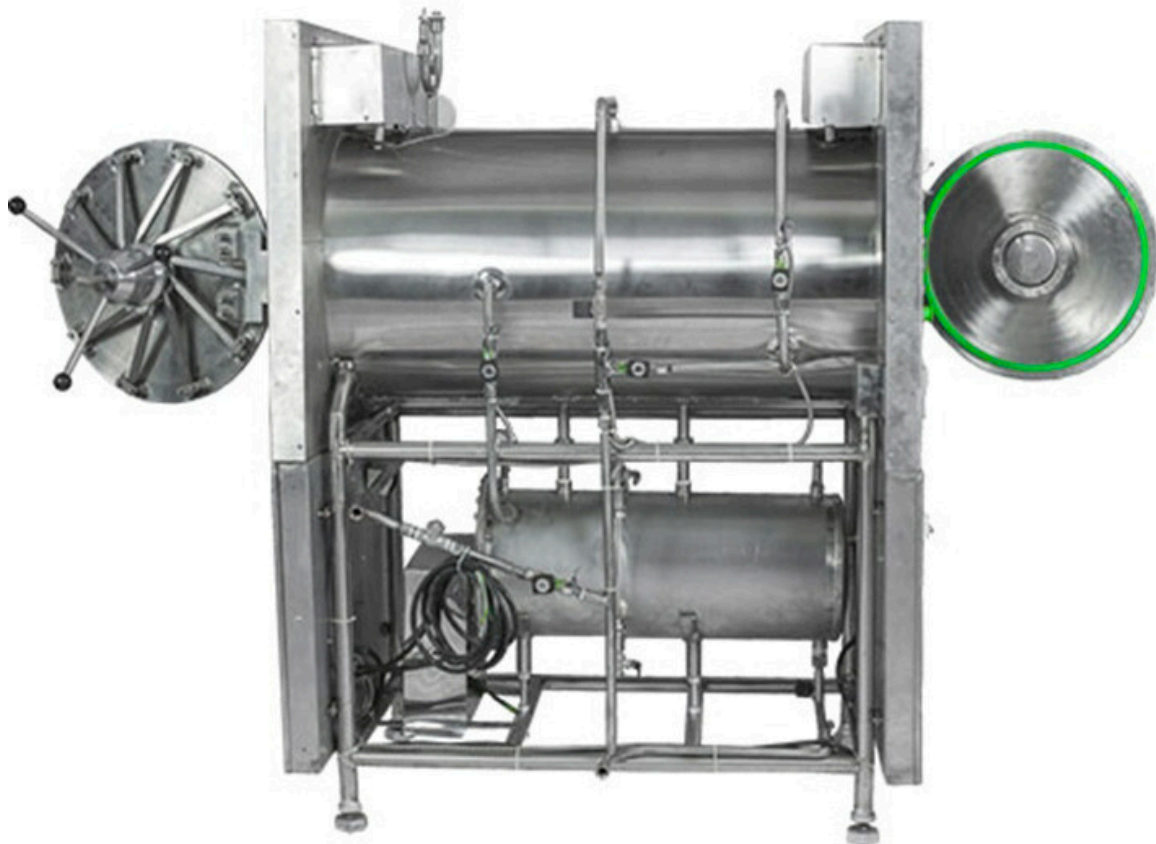
- **High-Pressure & Temperature Operation:** Capable of working at 30 psi with a sterilization temperature of 134°C for demanding sterilization needs.
- **Vacuum Drying Provision:** Ensures complete drying of sterilized materials, reducing contamination risks.
- **Low Water Cut-Off:** Automatic cut-off feature protects the autoclave by preventing operation with insufficient water levels.
- **Digital Pressure Display:** Provides real-time pressure monitoring for precise control and safety.
- **Auto Pressure Release:** Solenoid valves automatically release pressure at the end of the cycle, enhancing user safety and ease of operation.
- **GMP Compliance:** Available in SS 304 or SS 316 construction for environments requiring strict regulatory standards.
- **Data Management & Connectivity:** Equipped with a USB interface, Ethernet, and thermal printer options for seamless data logging and documentation.
- **PLC with HMI Interface:** Programmable Logic Controller (PLC) with an intuitive Human-Machine Interface (HMI) provides precise control and easy monitoring of sterilization cycles (only in double door models)

Quality Assurance and Installation Requirements

Before delivery, each of our horizontal autoclaves undergoes rigorous testing to ensure performance and safety. The units are pressure-tested up to 30 psi, and all critical parameters such as leakage, power control, temperature regulation, safety valves, and key machine components are thoroughly inspected to meet the highest standards.

Installation Notice:

For the installation of a double-door autoclave, some minor alterations or modifications may be required at the installation site to accommodate the unit properly. Our team is available to assist with these adjustments to ensure a smooth installation process



TECHNICAL SPECIFICATION

Design Type	Cylindrical or Rectangular
Construction	Triple Walled
Inner chamber	SS 304 with full argon welding
External chamber	SS 304
Finishing	Mirror finished inner and external surface
Insulation	Glass wool
Boiler	Made of SS 304 sheet; water inlet & outlet valves; Water level glass window; Boiler safety valve
All piping	SS 304
Chamber condensate line	Fitted with steam trap and check valve
Working temperature	121°C
Working pressure	15 to 20 psi
Hydraulic tested on	40 psi
Controller type	<ul style="list-style-type: none"> ◦ PID temperature controller ◦ Digital timer controller with END cycle buzzer
Heaters	ISI mark immersion heaters
LID	SS 304 w/ Pressure locking device
Radial locking system	Chrome plated MS
Stand	Chrome plated MS
Pressure	<ul style="list-style-type: none"> ◦ Automatic pressure control switch ◦ Analog dial type pressure gauge ◦ Manual pressure release valves for chamber & jacket
Multiport valve	<ul style="list-style-type: none"> ◦ Selection of sterilization ◦ Only chamber pressure release ◦ Full chamber / jacket both pressure release
Tray	Perforated tray made of SS 304
Standard fittings	· Mains MCB · Silicon gasket · Vacuum breaker, Stream trap · Pressure safety valve · Boiler safety valve
Power supply	440 Volts 50Hz, Three Phase
Optional	· Working at 30 psi with 134°C · Provision of vacuum drying · Low water cut-off · Digital pressure display · Auto release of pressure through solenoid valves · Complete SS 304 / SS 316 construction (GMP model) · PLC + Color HMI with Data logging, USB interface, Ethernet, printer

SINGLE DOOR MODEL

HORIZONTAL AUTOCLAVE (CYLINDRICAL)

Model No.	Dia. x Height (mm)	Volume(Liters)
ALS-H040	300 x 500	40
ALS-H075	400 x 600	75
ALS-H138	400 x 1100	138
ALS-H176	500 x 900	176
ALS-H178	550 x 750	178
ALS-H215	500 x 1100	215
ALS-H235	500 x 1200	235
ALS-H339	600 x 1200	339
ALS-H552	750 x 1200	552

HORIZONTAL AUTOCLAVE (RECTANGULAR)

Model No.	W x H x D (mm)	Volume(Liters)
ALS-R182	450 x 450 x 900	182
ALS-R243	450 x 600 x 900	243
ALS-R324	600 x 600 x 900	324
ALS-R432	600 x 600 x 1200	432
ALS-R540	600 x 750 x 1200	540
ALS-R810	600 x 900 x 1500	810

DOUBLE DOOR MODEL

HORIZONTAL AUTOCLAVE (CYLINDRICAL)

Model No.	Dia. x Height (mm)	Volume (Liters)
ALS-H075D	400 x 600	75
ALS-H138D	400 x 1100	138
ALS-H176D	500 x 900	176
ALS-H178D	550 x 750	178
ALS-H235D	500 x 1200	235
ALS-H339D	600 x 1200	339
ALS-H552D	750 x 1200	552

HORIZONTAL AUTOCLAVE (RECTANGULAR)

Model No.	W x H x D(mm)	Volume(Liters)
ALS-R182D	450 x 450 x 900	182
ALS-R243D	450 x 600 x 900	243
ALS-R324D	600 x 600 x 900	324
ALS-R432D	600 x 600 x 1200	432
ALS-R540D	600 x 750 x 1200	540
ALS-R972D	900 x 900 x 1200	972
ALS-R1215D	900 x 900 x 1500	1215