

9 Series Horizontal Sterilizers Product Specification

Product Description

The 9xx Series of horizontal slide door steam sterilizers are designed to provide user selectable gravity and pre-vac steam sterilization cycles. A vacuum pump and efficient handling of the condensate cooling enables minimal use of water. Unique Smart Dry™ Technology varies the dry time based upon load size to ensure consistent, complete drying.

Application

For general purpose steam sterilization of unwrapped equipment, wrapped instruments and utensils, glassware, stainless steel components and liquids in vented or unsealed containers.

Models & Dimensions

Model	Chamber Size w x h x d	Chamber Volume ft3, (ltr)	Dimensions w x h x d in (mm)
969HS	26" x 42.5" x 41"	26.2 (99)	66.9" x 78.7" x 50.4" (1700 x 2000 x 1280)
9612HS	26" x 42.5" x 55"	35.2 (133)	66.9" x 78.7" x 65.4" (1700 x 2000 x 1660)
9615HS	26" x 42.5" x 67"	42.8 (162)	66.9" x 78.7" x 77.2" (1700 x 2000 x 1960)
9618HS	26" x 42.5" x 78.7"	50.4 (191)	66.9" x 78.7" x 89" (1700 x 2000 x 2260)



Configuration & Options

Door Selections

- Single Door, HS1
- Double Door, HS2

Service Side

- Right Side
- Left Side

Installation Type

- Recessed
- Cabinet

Options

- Integrated Steam Boiler
- Chilled Water Connection
- Steam to Steam Heat Exchanger (external)
- Load & Unload Automation

Accessories

- Transport Cart
- Loading Rack
- Seismic Anchoring Kit

Standards

UL61010A-1, UL61010A-2-041, AAMI ST-08

Standard Features

Construction / Design

Loading Height – All HS sterilizers have a 13.8" (350mm) loading height

Chamber - Stainless steel, type 316L, with dedicated steam line

Chamber Insulation – Mineral wool totally encased by aluminum sheet metal to protect the insulation and hold in heat

Doors – Horizontally sliding, powered, stainless steel. The motor includes a safety clutch which will stop the door if an obstruction is encountered

Door Seal – A precision milled stainless steel channel in the front of the chamber holds the round, silicone seal. The seal is activated, after door closure, by compressed air and is retracted using a vacuum created by the vacuum pump

Mechanical Vacuum Pump – A highly efficient, liquid ring vacuum pump is provided to remove air during pre-vac, aid in the drying phase and draw in the door seal

Valves – Pneumatic control valves are used for precise control of steam flow in and out of the chamber and jacket

Jacket – Stainless steel, type 316L, segmented jacket, with separate steam line, provides improved control of temperature by eliminating steam overshoot reducing the possibility of superheated steam

Drain Tempering – Condensate is cooled to below 140°F (60°C) before being discharged

Control System –PLC based controller

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Display Panel – A TFT color touch panel is used for operator control and display of cycle parameters

Piping – All wetted surfaces are stainless and can be used with clean steam

Printer – Built in 42 column impact dot matrix

Temperature Measurement – Twin PT-1000 RTD's, in a 3 wire circuit, are used to monitor temperatures

Options

Integrated Steam Boiler – An electric boiler can be installed in the top area of the sterilizer to provide local steam when house steam is not available. The boiler can be fed with tap water or DI/RO water can be used to provide clean steam

Chilled Water Connection – The sterilizer can be connected to a chilled water system to essentially eliminate potable water use. Cooling of the condensate and vacuum are improved with the consistent lower temperature of the chilled water

Steam to Steam Heat Exchanger – Uses house steam as a heat source to boil DI or RO water to produce clean steam for the sterilizer

Cycle Description

All 9xx series sterilizers are factory pre-programmed with 9 cycles, 3 gravity, 4 pre-vac, liquid and Air Removal (Bowie-Dick) cycles as well as a leak test. A total of 10 cycles, maximum, can be stored.

Automation

Optional automatic unload is available for single and double door units, automatic load and unload is available for 2 door units.

Installation

Matching stainless enclosures, fabricated for various ceiling heights, are included to provide a smooth finish to wall recessed sterilizers. For standalone cabinet type units, a full stainless enclosure is provided.

Preventive Maintenance

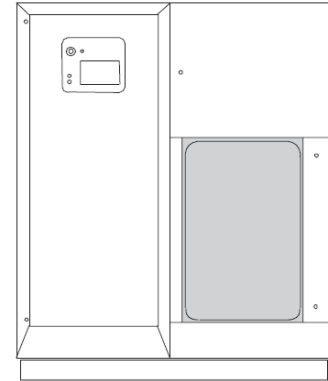
Belimed recommends regular preventive maintenance to ensure proper operation of the equipment. Belimed maintains a nationwide, factory trained Service Technician Group which can perform this maintenance and/or train Biomedical staff on the proper procedure. Belimed also offers a number of PM Plans. Contact Belimed Technical Service for more details.

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Technical Information

For REFERENCE Only – Refer to Cutsheets for Construction Purposes

Model		Outside Dimensions w x h x d (mm)	Loading Height (mm)
Single door	Double Door		
969HS1	969HS2	66.9" x 78.7" x 50.4" (1700 x 2000 x 1280)	13.8" (350)
9612HS1	9612HS2	66.9" x 78.7" x 65.4" (1700 x 2000 x 1660)	13.8" (350)
9615HS1	9615HS2	66.9" x 78.7" x 77.2" (1700 x 2000 x 1960)	13.8" (350)
9618HS1	9618HS2	66.9" x 78.7" x 89" (1700 x 2000 x 2260)	13.8" (350)



(9-6-9 , 9-6-12 , 9-6-15 , 9-6-18) HS1/HS2 STERILIZERS - TECHNICAL DATA																					
Ref.	Utility	Connection				Type	Pressure				units	Peak Consumption*				units	Consumption/Load*				units
		9-6-9	9-6-12	9-6-15	9-6-18		9-6-9	9-6-12	9-6-15	9-6-18		9-6-9	9-6-12	9-6-15	9-6-18		9-6-9	9-6-12	9-6-15	9-6-18	
SS	Steam supply	1 1/4"	1 1/2"		NPT	40-50				PSIG	3.5	4.6	5.6	6.6	lb/min	66	88	110	132	lb	
CW	Cold Water	3/4"		1"		30-70					8.8	11	13.2		gal/min	93	119	159	185	gal	
CA	Compressed Air	1/4"				70-100					0.28				CFM	17				ft ³	
EL	Electric Supply	4x4 junction box w/ receptacle								2.5		3.4		kW	1.2		1.7		kWh		
DR	Open Drain	Indirect drain								9.2	12	17		gal/min	101	130	172	201	gal		
CD	Condensate	3/4"			NPT																
Optional utilities for chilled water cooling (used for reduction of cold water consumption).																					
CS	Chilled Water supply	1 1/4"			NPT	30-70				PSIG	17	22	26	gal/min	63k	82k	107k	119k	BTU		
CR	Chilled Water Return	1 1/4"																			
CW	Cold Water	3/4"		1"		30-70				PSIG	4.4		gal/min	2.6				gal			

Carry-in Dimensions	9-6-9	9-6-12	9-6-15	9-6-18	units
Height	75	75	75	75	in.
Width	58	67	67	67	
Length	67	70	75	93	

Weights	9-6-9 HS1	9-6-12 HS1	9-6-15 HS1	9-6-18 HS1	units	9-6-9 HS2	9-6-12 HS2	9-6-15 HS2	9-6-18 HS2	units
Transport	3197	4850	5401	5622	lb	4145	5335	5842	6283	
Operating	3704	4188	4637	5158		4652	5136	5621	6106	
Test	5071	7826	8708	9590		6041	8334	9150	10031	