



**Horizontal Sliding Door Rectangular Steam Sterilizer
(LM-SDS)**

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Horizontal Sliding Door Rectangular Steam Sterilizer

Eliminating the Microorganisms

LuxMed® Sliding double door steam sterilizer is commonly referred to by several alternative names, technical descriptions, and industry terms depending on its configuration and application, including double-door pass-through autoclave, HPHV (High-Pressure High-Vacuum) double-door sterilizer, and barrier autoclave.

Pass-Through Autoclave: Named for its double-door feature allowing loading from a non-sterile (dirty) side and unloading from a sterile (clean) side.

Barrier Sterilizer / Bio-Seal Autoclave: Often used in high-containment laboratories (BSL-3/BSL-4) or pharmaceutical cleanrooms to maintain a physical and microbiological barrier between environments.

Horizontal Rectangular Steam Sterilizer: Describes the chamber geometry typical of large-capacity sliding-door units.

CSSD Sterilizer: Frequently referenced by its placement in a hospital's Central Sterile Services Department.

Pulse Vacuum Dual-Door Sterilizer: Highlights the automated air-removal vacuum feature utilized prior to steam injection.

LuxMed® Sliding Double Door Steam Sterilizer is a heavy-duty, pass-through autoclave designed for hospitals, central sterile services departments (CSSD), and pharmaceutical labs to safely process bulk loads between clean and unsterile zones.

Key Features

- **Pass-Through Design:** Double doors allow loading from the unclean/utility side and unloading from the sterile cleanroom side, preventing cross-contamination.
- **Automatic Sliding Doors:** Pneumatic or motorized vertical/horizontal sliding doors replace heavy manual hinged doors for ease of use.
- **Chamber Build:** Heavy-gauge stainless steel (SS 304 or SS 316) built to withstand high pressure and vacuum cycles.
- **Temperature & Pressure:** Standard operating range typically spans from 121°C to 134°C (pressure up to 200–300 kPa / 3 bar).
- **Capacity:** Available in large capacities ranging from 150 liters up to 1,500+ liters.

Safety Mechanisms

- **Interlock System:** Prevents both doors from opening at the same time.
- **Pressure Lock:** Blocks door opening while the chamber remains pressurized.
- **Obstruction Sensors:** Automatically halts or reverses door movement if an object or user is detected in the path.
- **Low-Water Cutoff:** Protects built-in steam generators from dry-burn damage.



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Applications

- Sterilization of wrapped or unwrapped surgical instruments.
- Processing glass vessels, rubber goods, and lab utensils.
- Pharmaceutical vial and ampoule sterilization.

LuxMed® Sliding double-door steam sterilizer (pass-through autoclave) is a high-capacity institutional system used between a cleanroom/sterile side and an unclean/loading side in hospitals, CSSD (Central Sterile Services Department), and pharmaceutical labs to prevent cross-contamination.

Design & Construction

- **Chamber Build:** Heavy-duty, corrosion-resistant stainless steel (AISI 304 or 316/316L grade).
- **Door Mechanism:** Automatic horizontal or vertical sliding doors (pneumatic or motorized) with manual override options for power outages.
- **Gasket Sealing:** Air-actuated or pneumatic heat-resistant silicone rubber gaskets ensuring a hermetic seal.
- **Insulation:** High-density mineral wool or rockwool insulation covered with a stainless-steel outer jacket to minimize heat radiation.

Technical Parameters

- **Operating Temperature:** 121°C to 134°C
- **Working Pressure:** 1.2 to 2.2 bar (approx. 100–200 kPa / 15–30 PSI)
- **Capacity Range:** Typically, available from 150 liters up to 1,200+ liters depending on facility requirements.
- **Control System:** PLC or microprocessor-based touch control panels with digital cycle tracking

Safety & Interlock Features

- **Interlocking Doors:** Dual doors cannot be opened simultaneously; the clean-side door only unlocks after a successful, verified sterilization cycle.
- **Pressure Lock:** Prevents doors from opening while the internal chamber is pressurized or at a high temperature.
- **Obstruction Sensor:** Reverses or stops sliding door motion immediately if an obstacle or user is detected.
- **Low-Water Cutoff:** Protects internal electric steam generators from dry-burn damage.



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➤ Technical Specifications – Indian Market Models

Model	Working Chamber (in Inch)	Capacity (in Liter)	Power Consumption (3 Phase / 440Vac)	Door
LM-HSRS-180-SD	18" × 18" × 36"	180 Liter	12 kW	Single Door
LM-HSRS-250-SD	18" × 24" × 36"	250 Liter	12 kW	Single Door
LM-HSRS-350-SD	24" × 24" × 38"	350 Liter	18 kW	Single Door
LM-HSRS-450-SD	24" × 24" × 48"	450 Liter	18 kW	Single Door
LM-HSRS-850-SD	24" × 36" × 60"	850 Liter	27 kW	Single Door
LM-HSRS-180-DD	18" × 18" × 36"	180 Liter	12 kW	Double Door
LM-HSRS-250-DD	18" × 24" × 36"	250 Liter	12 kW	Double Door
LM-HSRS-350-DD	24" × 24" × 38"	350 Liter	18 kW	Double Door
LM-HSRS-450-DD	24" × 24" × 48"	450 Liter	18 kW	Double Door
LM-HSRS-850-DD	24" × 36" × 60"	850 Liter	27 kW	Double Door

➤ Technical Data – Export Model

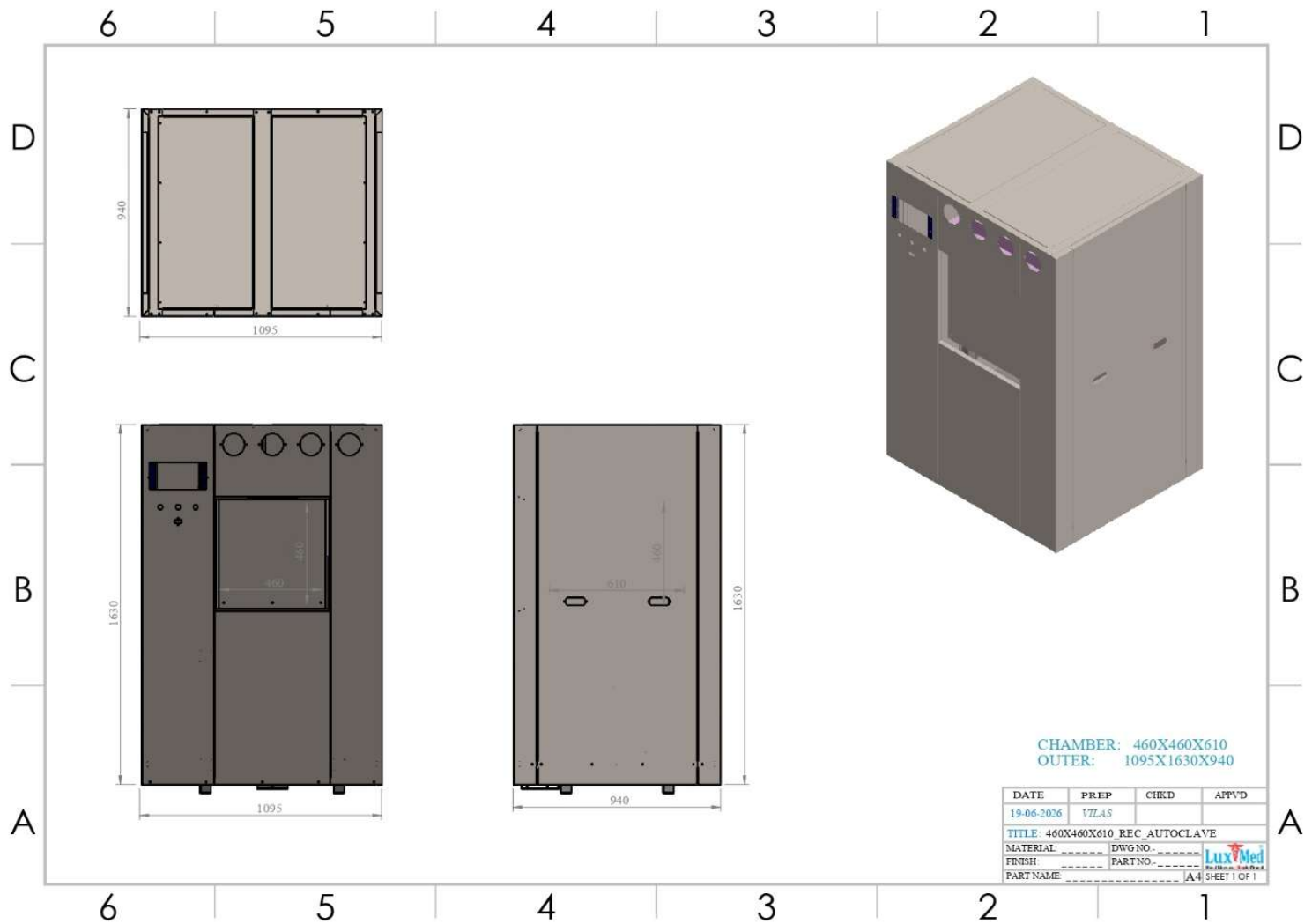
Technical Parameter	Unit	LM-HSRS-EX-10	LM-HSRS-EX-13	LM-HSRS-EX-17	LM-HSRS-EX-20
Chamber Volume – 1 (Single Door)	L / Cu ft	468 / 16.5	609 / 21.5	796 / 28.1	–
Chamber Volume – 2 (Double Door)	L / Cu ft	468 / 16.5	609 / 21.5	796 / 28.1	937 / 33.1
Chamber Width	mm / in	660 / 26"	660 / 26"	660 / 26"	660 / 26"
Chamber Height	mm / in	700 / 27½"	700 / 27½"	700 / 27½"	700 / 27½"
Chamber Depth	mm / in	1000 / 39¾"	1300 / 51¼"	1700 / 66⅞"	2000 / 78¾"



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➤ Horizontal sliding door rectangular steam sterilizer drawing



- Inner Chamber: 460*460*610 MM
- Outer Chamber: 1095*1630*940 MM

