Vertical Autoclave Class B & Class N

Robust and Compact Space-efficient

LuxMed®
Healthcare Redefined
A Brand of
LUXLIGHTING TECHNOLOGY PRIVATE LIMITED



Vertical Autoclave Class B

(LM-VA-B)



Vertical Autoclave Class N

(LM-VA-N)

https://youtu.be/7b0Ke_Zjz_o?si=NV42psQ0uJ-VLOW4

www.luxmed.in

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LuxMed® Class B Vertical Autoclave

LuxMed® Class B Vertical Autoclaves are equipped with a powerful vacuum system that removes air from the chamber before sterilization and performs post-vacuum drying after the cycle. This ensures complete steam penetration into wrapped, hollow, porous, and complex instruments, meeting the highest international sterilization standards.



Key Features

- Fully automatic Micro Based Processor with Led Display
- Pre-vacuum and post-vacuum sterilization cycle
- High-efficiency vacuum pump
- Automatic water filling system
- Automatic drying cycle
- Temperature & pressure monitoring
- Safety pressure relief valve
- Low water level protection
- Data logging & USB port (Optional)
- Buzzer alarm for cycle completion

Technical Specifications

Model	LM-VA-B-22L	LM-VA-B-40L	LM-VA-B-50L	LM-VA-B-80L	LM-VA-B-100L	LM-VA-B-120L	LM-VA-B-150L
Sterilization Class	Class B						
Chamber Material	SS 304 / SS 316						
Operating Temp.	121°C						
Working Pressure	1.2 – 2.2 Bar						
Control System	Micro-Based Processor						
Vacuum System	Pre & Post Vacuum						
Insulation	Glass Wool / Ceramic Insulation						
Sterilization Time	25 to 30 Minutes						
Chamber Size in (Dia x Depth) mm	250 x 450	300 x 500	350 x 500	400 x 600	450 x 600	500 x 750	550 x 750
Load	2 KW	3 KW	4 KW	5 KW	5 KW	6 KW	6-8 KW
Capacity	22 Ltr.	40 Ltr.	50 Ltr.	80 Ltr.	100 Ltr.	120 Ltr.	150 Ltr.
Drum Size	1 Drum (200 × 250 mm)	1 Drum (250 × 300 mm)	1 Drum (300 × 300 mm)	2 Drums (300 × 300 mm)	2 Drums (350 × 300 mm)	2 Drums (400 × 350 mm)	2 Drums (450 × 350 mm)
Power Supply	230V AC, 50Hz						
Safety Features	Pressure, Temperature & Water Protection						

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LuxMed® Class N Vertical Autoclave

LuxMed® Class N Vertical Autoclaves operate using the gravity displacement method, making them ideal for sterilizing solid, unwrapped instruments and laboratory materials. These units provide a cost-effective and reliable solution for routine sterilization applications in laboratories, clinics, and educational institutions.



Key Features

- Semi-automatic or fully automatic operation
- Gravity displacement sterilization
- Digital temperature controller
- Heavy-duty radial locking system
- Automatic pressure control
- Safety valve protection
- Low maintenance design
- Energy-efficient operation
- Easy-to-clean chamber

Technical Specifications

Model	LM-VA-N-22L	LM-VA-N-40L	LM-VA-N-50L	LM-VA-N-80L	LM-VA-N-100L	LM-VA-N-120L	LM-VA-N-150L
Sterilization Class	Class N						
Chamber Material	SS 304 / SS 316						
Operating Temperature	121°C						
Working Pressure	1.2 – 2.2 Bar						
Control System	Micro-Based Processor						
Air Removal Method	Gravity Displacement						
Insulation	Glass Wool / Ceramic Insulation						
Sterilization Time	25 to 30 Minutes						
Chamber Size in (Dia x Depth)	250 x 450 mm	300 x 500 mm	350 x 500 mm	400 x 600 mm	450 x 600 mm	500 x 750 mm	550 x 750 mm
Load	2 KW	3 KW	4 KW	5 KW	5 KW	6 KW	6-8 KW
Capacity	22 Ltr.	40 Ltr.	50 Ltr.	80 Ltr.	100 Ltr.	120 Ltr.	150 Ltr.
Drum Size	1 Drum (200 × 250 mm)	1 Drum (250 × 300 mm)	1 Drum (300 × 300 mm)	2 Drums (300 × 300 mm)	2 Drums (350 × 300 mm)	2 Drums (400 × 350 mm)	2 Drums (450 × 350 mm)
Power Supply	230V AC, 50Hz						
Safety Features	Pressure, Temperature & Water Protection						

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LuxMed® Vertical autoclaves

LuxMed® Vertical autoclaves, or top-loading steam sterilizers, are cylindrical devices essential for sterilizing labware, medical instruments, and culture media. They are primarily categorized into three wall configurations and two levels of automation to suit different budget and sterilization requirements.

Wall Configurations:

Double-Walled: Features a single exterior wall and a stainless steel inner chamber. It is an economical option suitable for basic clinical or academic lab use.

Triple-Walled: The most robust design, featuring an extra outer jacket that acts as a steam reservoir. This design is highly efficient, as steam is pre-generated in the jacket before being transferred to the chamber, ensuring dry and uniform sterilization.

2. Levels of Automation

Economy/Semi-Automatic: Constructed with a mild steel (MS) exterior and stainless steel interior. Pressure is typically controlled via a manual pressure switch or mechanical valves, and the lid is sealed with traditional wing nuts.

Fully Automatic: Built entirely of high-grade stainless steel. These units utilize microprocessors or PLC controllers to automate water filling, purging, temperature holding, and exhaust phases. They frequently feature radial locking systems, foot pedals for easy lid opening, and data-logging capabilities.

Fully Automatic: Built entirely of high-grade stainless steel. These units utilize microprocessors or PLC controllers to automate water filling, purging, temperature holding, and exhaust phases. They frequently feature radial locking systems, foot pedals for easy lid opening, and data-logging capabilities.

LuxMed® Vertical autoclaves are classified by their air removal method into Class B, Class S, and Class N types, each designed for different sterilization needs. Class B autoclaves are the most advanced, using a vacuum for pre- and post-vacuum cycles to sterilize a wide range of items including wrapped, hollow, and porous loads. Class S autoclaves are capable of sterilizing certain packaged or hollow loads, often using a vacuum, while Class N autoclaves are the simplest type, suitable only for unwrapped solid instruments using gravity displacement.

LuxMed® Class B autoclaves

Air removal: Uses a vacuum pump to remove air, allowing steam to penetrate all items thoroughly.
Best for: Sterilizing solid, hollow, porous, and wrapped instruments.
Example uses: Medical and dental practices that handle a variety of instruments.

LuxMed® Class S autoclaves

Air removal: Often uses a vacuum pump for air removal, sometimes with heat-assisted drying.
Best for: Sterilizing specific types of loads, such as packaged instruments, as specified by the manufacturer.
Example uses: Facilities with a need for more advanced sterilization than Class N, but with specific limitations on load types.

LuxMed® Class N autoclaves

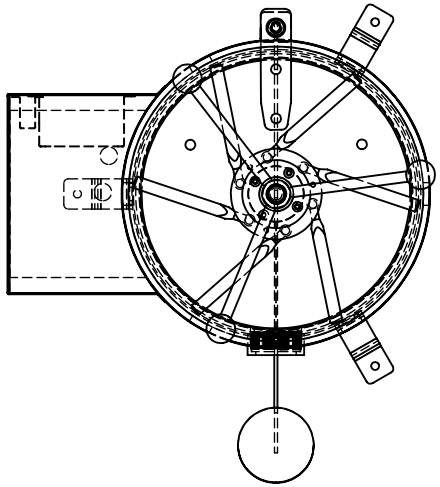
Air removal: Uses gravity to displace air, which is the simplest method.
Best for: Sterilizing only unwrapped, non-porous solid instruments.
Example uses: Situations where only very basic instruments need to be sterilized and vacuum systems are not needed or feasible.

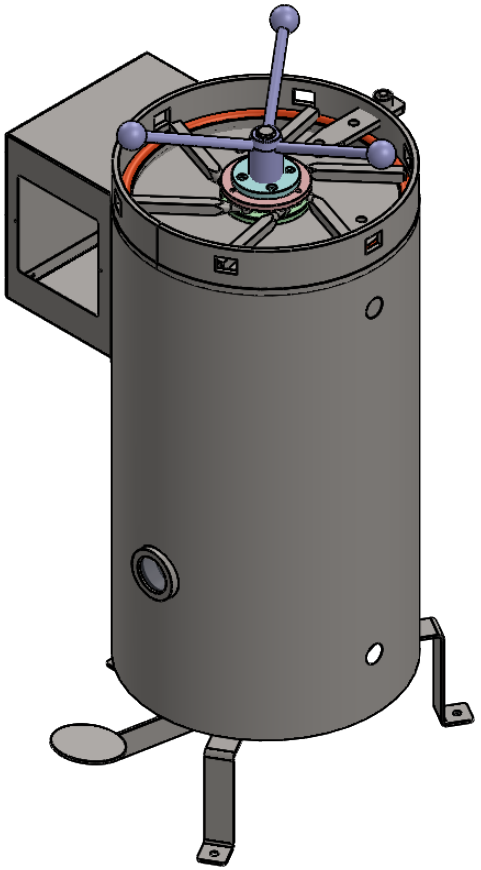
The primary difference between Class B and Class N Vertical autoclaves lies in their method of air removal and the types of loads they can effectively sterilize. Class B models are more advanced and versatile, meeting stringent international standards (EN 13060), while Class N models are more basic.

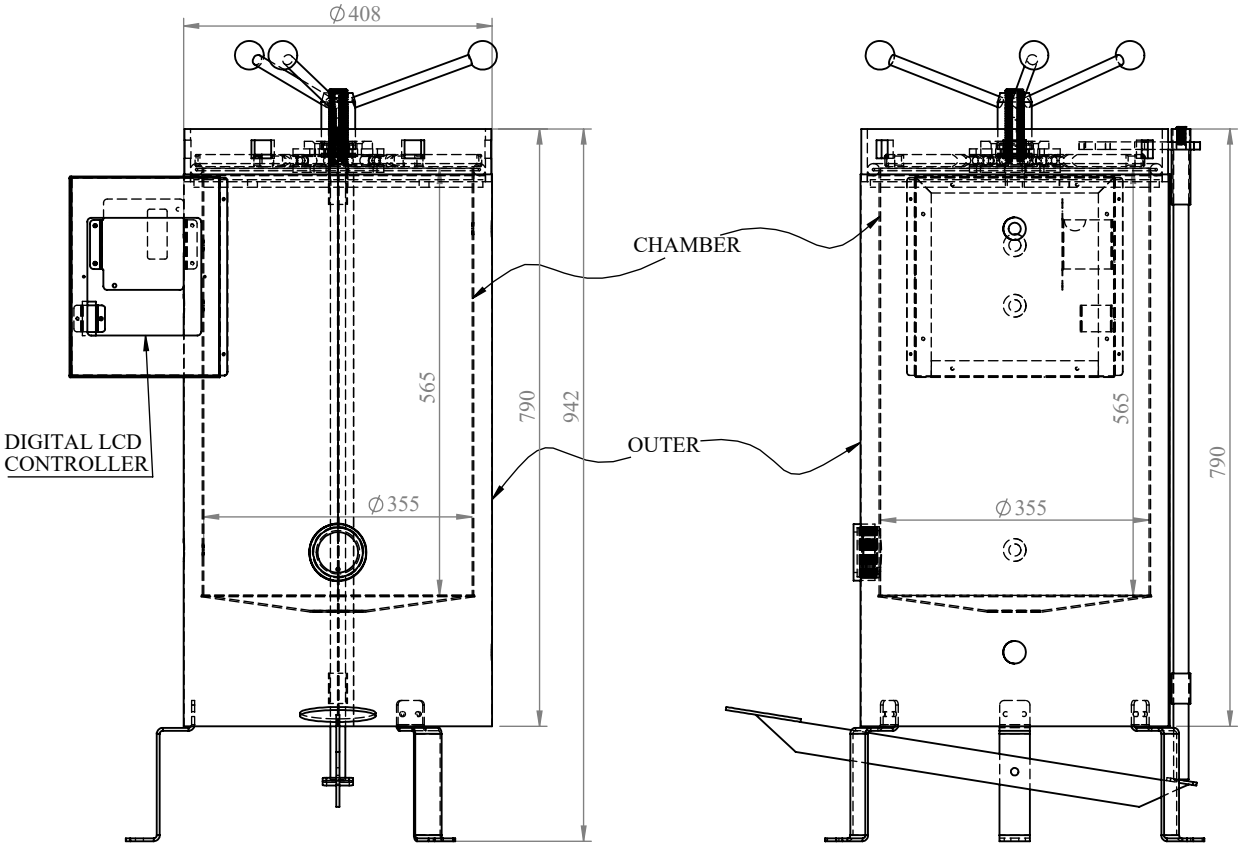
Key Differences of LuxMed® Vertical autoclaves

Feature	LuxMed® Class B Autoclave	LuxMed® Class N Autoclave
Air Removal Method	Uses a powerful **vacuum pump** to completely remove air (pre-vacuum phase).	Uses **gravity displacement**, where steam pushes air downwards and out of the chamber.
Air Removal Efficiency	Guarantees virtually 100% air removal, allowing full steam penetration.	Does not guarantee complete air removal, especially in complex loads.
Load Types	Can sterilize all types of loads: **solid, hollow, porous, wrapped, and textiles**.	Limited to sterilizing only **solid, unwrapped instruments**.
Wrapped Items	Yes, it can sterilize wrapped or packaged instruments, which remain sterile after the cycle until the package is opened.	No, it cannot effectively sterilize wrapped items because steam cannot penetrate the wrapping material without a vacuum.
Hollow Instruments	Yes, it is effective for instruments with lumens (hollow spaces/cannulas) like dental handpieces.	No, it is not suitable for hollow instruments as air pockets may remain, preventing proper sterilization.
Best For	Hospitals, dental clinics with advanced surgical tools, multi-specialty practices, and research labs requiring the highest sterilization standards.	Small setups, beauty salons, or tattoo shops that only use simple, solid metal tools.
Cycle Time	Generally has a longer overall cycle time due to the vacuum and drying phases.	Generally has a shorter cycle time for its limited load type.
Price	More expensive due to the advanced technology and vacuum pump.	More budget-friendly.
Product Image		

In summary, the LuxMed® Class B autoclave offers superior sterilization capabilities for a wider range of complex instruments and materials, making it a more versatile and safer choice for professional medical and dental environments where infection control is critical. The Class N autoclave is suitable only for basic, low-risk applications involving simple, solid instruments.







THIS CHAMBER IS SUITABLE FOR
TWO DRESSING DRUMS OF Ø=12", H=10"

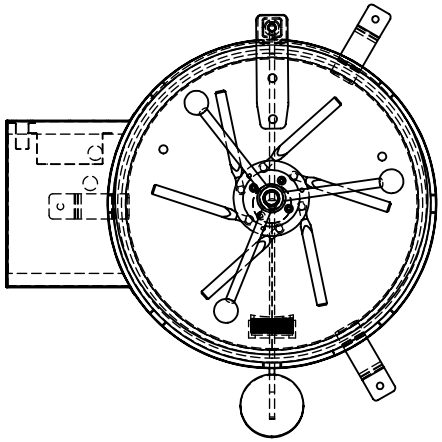
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06-06-2026	VILAS		

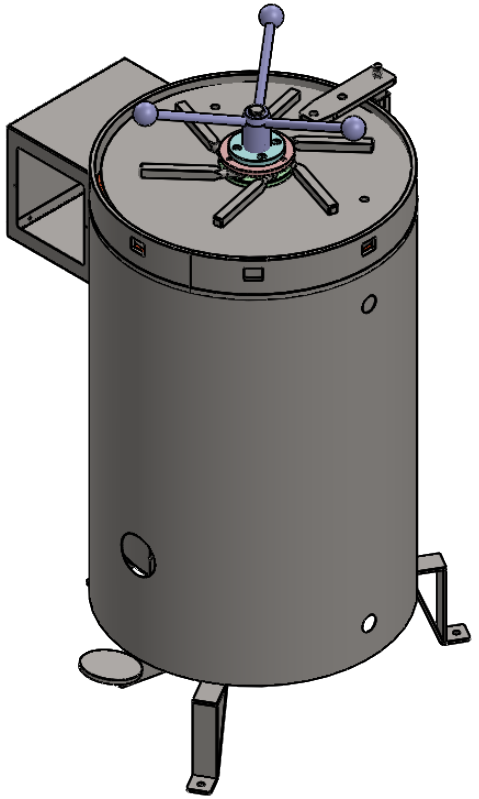
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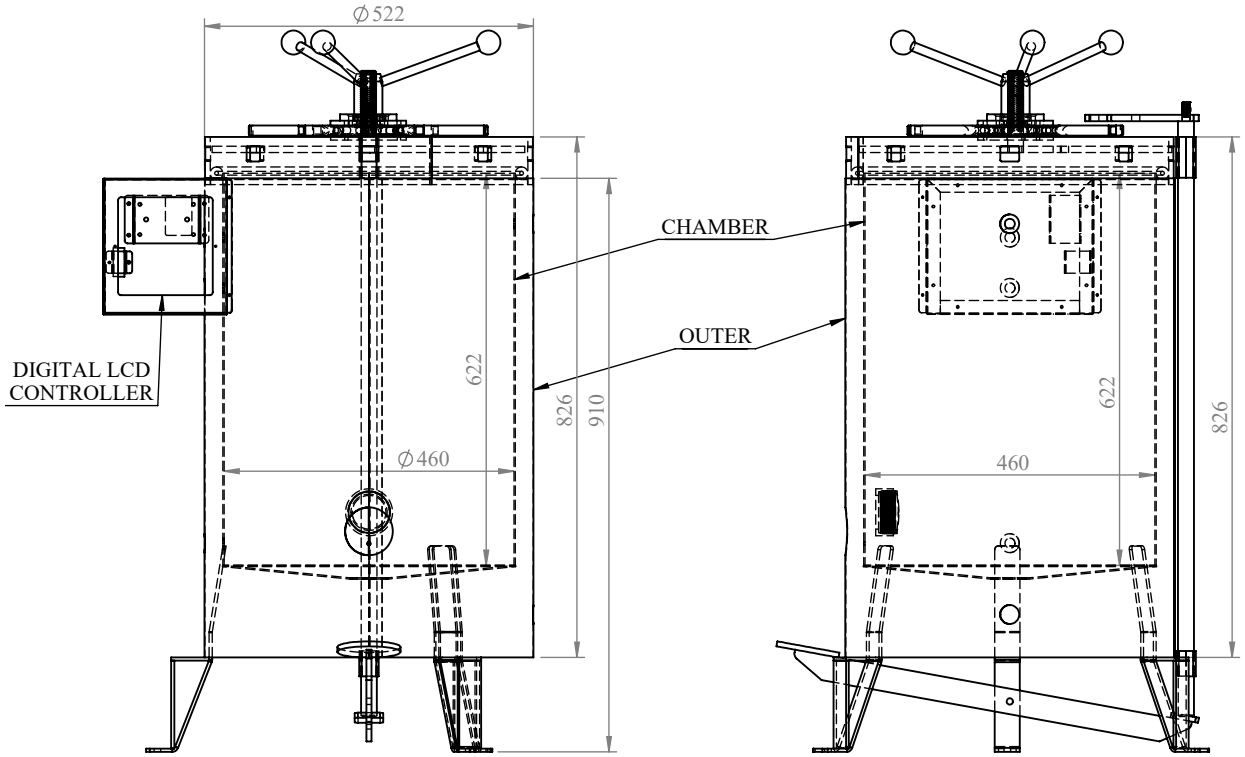
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FINISH: _____ PART NO.- _____

PART NAME: _____ A4 SHEET 1 OF 1







THIS CHAMBER IS SUITABLE FOR
TWO DRESSING DRUMS OF ϕ=15", H=12"

DATE	PREP	CHK'D	APPV'D
06-06-2026	VILAS		

TITLE: VERTICAL ROUND AUTOCLAVE_102LTR

MATERIAL: _____	DWG NO.- _____	LuxMed
FINISH: _____	PART NO.- _____	
PART NAME: _____	A4	SHEET 1 OF 1