

# Vertical autoclaves without drying

**AES Series CLASSIC LINE** 

**Technical information** 



## Why choose RAYPA?

## Expert manufacturer, original design, global brand



#### **GLOBAL REACH**

With half a century of experience, we have a long list of satisfied customers around the world. Currently, we export 85% of our annual turnover and have a stable network of distributors with presence in over 100 countries.



## EFFICIENT TECHNICAL SERVICE

Our team of highly qualified technicians and engineers is expert in our products. If you experience a technical issue, it will be our priority to rectify it. When you purchase a RAYPA unit, you're guaranteed top-level support and technical assistance.



#### **EXPERT MANUFACTURER**

After more than 45 years in the industry, RAYPA is a global leader in the manufacture of laboratory autoclaves. Each of our autoclaves is designed and manufactured entirely within our modern facility equipped with the latest technology.



## FULL AND CUSTOMIZABLE RANGE

We offer an extensive portfolio of laboratory autoclaves to cover multiple applications and market segments. Discover the combination of autoclave model and accessories that best fits your needs within our 11 series and 35 available models.



#### INNOVATION AND QUALITY

Our products feature advanced technology, ongoing innovation, superior construction quality, and are designed for a long service life. Our technical and engineering staff works tirelessly every day to optimize our products and exceed our customers' expectations.



## COMPREHENSIVE CONSULTANCY

Our team of specialists assesses each project and provides guidance to clients on the option that best suits their requirements. After the sale, we offer training on the use and recommended maintenance of each unit to ensure its optimal operation and extend its lifespan.

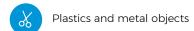
## Vertical autoclaves without drying

AES Series vertical floor-standing autoclaves with top-loading access are designed to meet the essential needs of general labware sterilization across various educational institutions and research facilities, all while boosting laboratory productivity. With a spacious chamber and optimized use of resources like water, energy, and time, these autoclaves provide an efficient and cost-effective solution to handle laboratory workloads effectively.

#### **RECOMMENDED APPLICATIONS**









\*For this application, the sterilization time must be extended, the chamber should not be fully loaded, and chemical and/or biological tests should be used to validate the proper sterilization of the load.



#### **MAIN FEATURES**

#### **ECONOMIC AND DURABLE**

AES Series autoclaves are economic, robust and offer excellent performance for general laboratory sterilization procedures. They can be used either for solids and liquids sterilization procedures and they consume limited valuable laboratory resources such as water, power or operator time.

#### **MULTIPLE TYPES OF STERILIZATION CYCLES**

Multiple options available to perform solids or liquids sterilization. Optional core probe for liquid sterilization, temperature holding at the end of the sterilization cycle for culture media, and manual unsteaming push-button for a faster cooling phase of solids

#### **EFFORTLESS INSTALLATION AND MAINTENANCE**

Designed for simplicity, AES Series autoclaves are plug and play, requiring only an electrical connection. They can operate without a dedicated drain and feature casters for seamless mobility across your laboratory space, making them as versatile as they are easy to use.

#### **SAFETY FIRST**

AES Series autoclaves are designed with several features to ensure the safety of the operators. These include an overpressure safety valve, a thermally insulated door, an overtemperature safety thermostat, an open door detection system and an independent safety pneumatic system that locks the main door while positive pressure is present in the sterilization chamber.

#### **ADVANTAGES**

	The sterilization chamber and door are made of high- quality AISI-316L stainless steel, providing exceptional resistance to corrosion.	4	Available special models with increased heating capacity to achieve faster heating and sterilization phases.
C€	Autoclaves manufactured in full compliance with all applicable European Union quality, regulatory and safety standards.	Û°ç	Adjustable temperature holding at the end of the sterilization cycle between 40-80°C (agar mode).
<u></u>	Steam generation by powerful Incoloy® 825 electric heating elements assembled inside the sterilization		Programmable auto-start for up to 24h.
	chamber and shielded by a protective grid.		Optional software for sterilization data management.
•	Control by a PID microprocessor with 4 predefined and 6 editable programs, adjustable by time, temperature and type of sterilization cycle (agar mode and/or	Ö	Plug and play equipment, no plumbing required.
	flexible temperature probe control).	0	Seamless mobility, all models include casters.
	Manual steam release push-button for a faster cooling phase in solids sterilization cycles.	B	Optional embedded or external printer.

#### **WORKING PRINCIPLE**

AES Series autoclaves provide a solution for the multiple sterilization needs of a general laboratory, including liquids, culture media, biological waste, contaminated media, instruments, glassware and other laboratory items.

The load has to be placed in baskets inside the chamber, and after manually filling the tank with purified water, the equipment starts to heat up and purge until the set combination of sterilization time and sterilization temperature is reached.



Quick steam release push-button



\*Standard casters included. Optional: medical-grade casters with brakes (Ref. 4WHBR).

#### **OPERATION OF A STERILIZATION CYCLE**

#### **HEATING PHASE**

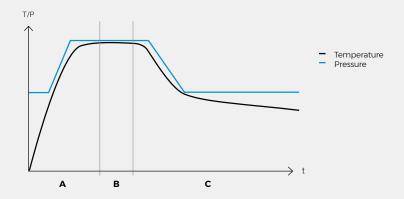
- In this initial step, the powerful heating elements assembled at the bottom of the sterilization chamber heat up dramatically, transferring energy to water to produce saturated steam throughout the chamber.
- To shorten the duration of this step, RAYPA offers special models with increased heating capacity, a feature of particular interest for autoclaves operating in laboratories with high workloads.

#### **STERILIZATION PHASE**

- Upon reaching the set sterilization temperature inside the chamber, the sterilization phase begins accurately sustaining the temperature throughout the duration of this phase.
- This crucial step is controlled by a PT-100 Class A temperature probe located within the chamber. As an option for liquids sterilization processes, this phase can be regulated by a flexible PT-100 Class A temperature probe located inside a sample.

#### **COOLING PHASE**

- At the end of the sterilization phase, a natural cooling phase begins. A beep will sound when a safe temperature is reached allowing the chamber to be opened.
- · In solid programs, discharge can be manually forced through a push-button to reduce the duration of the cooling phase.
- In programs with agar mode, the preprogrammed temperature (selectable between 40°C and 80°C) will be maintained indefinitely.





A. Heating phase



B. Sterilization phase



C. Cooling phase

#### PREDEFINED PROGRAMS

Program N°	Sterilization temperature °C	Sterilization time min	Program mode
P0	115	60	SOL/LIQ-1
P1	121	30	SOL/LIQ-1
P2	133	20	SOL/LIQ-1
P3	121	20	SOL/LIQ-1

AES Series autoclaves have a total of 10 programs, from P0 to P9, and the first four are predefined and protected.

The remaining programs, from P4 to P9, can be edited by setting the following parameters:

- · Sterilization temperature.
- · Sterilization time.
- Temperature control of the sterilization cycle can be performed by the chamber temperature probe or by the combined use of the chamber probe and the core probe.
- Sterilization with temperature maintenance at the end of the cycle (agar mode).

#### **FUNCTIONS OF THE DISPLAY**

The alphanumeric screen apart from showing the standard sterilization parameters also shows current sterilization phase and several visual alerts, including warning or failure messages. The available languages include English, Spanish, French and Catalan. To install other languages, please contact us.



#### **DIGITAL MICROPROCESSOR**

Digital PID microprocessor with 6 push-buttons for simple programming and parameter selection.



#### **LOADING CAPACITIES**



#### ISO ERLENMEYER FLASKS

		<b>250mL</b> (Ø85 x 143mm)			(1	<b>500mL</b> (Ø105 x 183mm)			<b>1000mL</b> (Ø131 x 230mm)			<b>2000mL</b> (Ø166 x 280mm)					
Autoclave	Usable volume	Total baskets	Units / basket	Tota	l units	Total baskets	Units / basket	Total	l units	Total baskets	Units / basket	Total	units	Total baskets	Units / basket	Total	l units
model	L			Α	В			Α	В			Α	В			Α	В
AES-28	31	2	7	14	=	1	4	4	8	1	1	1	=	1	1	1	=
AES-50	50	3	7	21	28	1	4	4	12	1	1	1	3	1	1	1	2
AES-75	75	3	12	36	48	2	8	16	24	2	5	10	=	1	3	3	6
AES-110	110	4	12	48	60	3	8	24	32	3	5	15	=	1	3	3	9
AES-150	153	4	21	84	105	4	14	56	=	3	8	24	=	1	5	5	=



#### **ISO BOTTLES**

		<b>250mL</b> (Ø70 x 143mm)			(	<b>500mL</b> (Ø80 x 185mm)			<b>1000mL</b> (Ø101 x 230mm)			<b>2000mL</b> (Ø136 x 260mm)					
Autoclave	Usable volume	Total baskets	Units / basket	Total	units	Total baskets	Units / basket	Tota	l units	Total baskets	Units / basket	Total	units	Total baskets	Units / basket	Tota	l units
model	L			Α	В			Α	В			Α	В			Α	В
AES-28	31	2	9	18	=	1	7	7	14	1	4	4	=	1	1	1	=
AES-50	50	3	9	27	36	1	7	7	21	1	4	4	12	1	1	1	2
AES-75	75	3	20	60	80	2	14	28	42	2	8	16	=	1	4	4	8
AES-110	110	4	20	80	100	3	14	42	56	3	8	24	=	1	4	4	12
AES-150	153	4	33	132	165	4	24	96	=	3	15	45	=	1	8	8	24

The data contained within these tables, regarding load capacities, serves as a non-binding guide to assist you in the selection of the most appropriate autoclave model.

A: Number of units using standard baskets.

B: Number of units using specially designed baskets for the specific combination of autoclave model and container.

A: Number of units using standard baskets.

B: Number of units using specially designed baskets for the specific combination of autoclave model and container.

#### **ACCESSORIES**

#### **INTEGRATED BASKET LIFT SYSTEM**

References		CLASSIC-LIFT	CLASSIC-LIFT-R
Dimensions L x D x H mm		800 x 300 x 2100	800 x 300 x 2600
Power W		480	480
Voltage ∨		230	230
Frequency Hz		50/60	50/60
Weight Kg		40	45
Maximum load Kg		30	40
	79 L	✓	-
For autoclaves with the following chamber volumes	115 L	<b>~</b>	✓
	175 L	-	✓

- $\boldsymbol{\cdot}$  Stainless steel electric lift system built into the side of the autoclave with swivel arm to help load and unload heavy items. Push-button operation with opening up to 200°.
- · Motor with auto brake system in the event of obstacles or overload.
- · Available in two models: the standard lift system and reinforced lift system.
- $\cdot$  It can be factory fitted or retrofitted.



#### **MOBILE BASKET LIFT SYSTEM**

Reference	MOB-LIFT
Dimensions L x D x H mm	420 x 800 x 2200
Power W	200
Voltage V	115 - 230
Frequency Hz	50/60
Weight Kg	85
Maximum load Kg	30

- $\boldsymbol{\cdot}$  Stainless steel electric lift system with casters to help load and unload heavy items up to 30Kg.
- $\cdot$  Equipped with long-life battery for cordless use.
- · Push-button operation.
- $\boldsymbol{\cdot}$  Motor with auto brake system in the event of obstacles or overload.
- · Compatible with any autoclave model.



#### **ACCESSORIES**

## STAINLESS STEEL WIRE BASKETS FOR STERILIZING CLEAN LOADS OR HEAVY ITEMS

References		CV-28	CV-75-130	CV-75S	CV-75	CV-150-130	CV-150S	CV-150M
Dimensions	External Ø x H mm	270 x 185	370 x 130	370 x 180	370 x 265	470 x 130	470 x 190	470 x 235
Dimensions	Internal Ø x H mm	260 x 180	360 x 125	360 x 175	360 x 260	460 x 125	460 x 185	460 x 230
	33 L	2	-	-	-	-	-	-
Maximum capacity for	55 L	3	-	-	-	-	-	-
autoclaves with the following chamber volumes	79 L	-	4	3	2	-	-	-
	115 L	-	6	4	3	-	-	-
	175 L	-	-	-	-	6	4	3



#### STAINLESS STEEL LIQUIDS COLLECTOR TRAY FOR WIRE BASKETS

	TR-270	TR-370	TR-470
External Ø x H mm	240 x 50	320 x 50	420 x 50
Internal Ø x H mm	238 x 48	318 x 48	418 x 48
CV-28	<b>~</b>	-	-
CV-75S & CV-75	-	✓	-
CV-150S & CV-150M	-	-	<b>~</b>
	Internal Ø x H mm CV-28 CV-75S & CV-75	External Ø x H mm         240 x 50           Internal Ø x H mm         238 x 48           CV-28         ✓           CV-75S & CV-75         -	External Ø x H mm         240 x 50         320 x 50           Internal Ø x H mm         238 x 48         318 x 48           CV-28         ✓         -           CV-75S & CV-75         -         ✓



## UNPERFORATED STAINLESS STEEL BASKETS FOR STERILIZING DIRTY LOADS OR OBJECTS WITH RISK OF SPILLAGE

References		CCI-28	CCI-75S	CCI-75	CCI-150S	CCI-150M
Dimensions	External Ø x H mm	270 x 185	370 x 180	370 x 265	470 x 190	470 x 235
Differisions	Internal Ø x H mm	260 x 180	360 x 175	360 x 260	460 x 185	460 x 230
	33 L	2	-	-	-	-
Maximum capacity for	55 L	3	-	-	-	-
autoclaves with	79 L	-	3	2	-	-
the following chamber volumes	115 L	-	4	3	-	-
	175 L	-	-	-	4	3



## STAINLESS STEEL "SCHIMMELBUSCH" DRUM FOR STERILIZING INSTRUMENTS AND BIOHAZARDOUS LOADS

References		TBE-24x16	TBE-34x24	TBE-48x24
Dimensions	External Ø x H mm	240 x 165	340 x 240	480 x 240
	Internal Ø x H mm	230 x 155	330 x 230	470 x 230
	33 L	2	-	-
Maximum capacity for	55 L	4	-	-
autoclaves with the following	79 L	-	2	-
chamber volumes	115 L	-	3	-
	175 L	-	-	3



#### **ACCESSORIES**

#### STAINLESS STEEL CYLINDERS FOR STERILIZING PETRI DISHES

References		CEP-1027	CEP-1041	CEP-1427	CEP-1441
Dimensions	External Ø x H mm	100 x 270	100 x 410	140 x 270	140 x 410
Petri dishes	Maximum number dishes / cylinder	10	18	10	18
	Diameter Ø mm	80	80	120	120
	33 L	4	4	2	2
Maximum capacity for	55 L	8	4	4	2
autoclaves with	79 L	16	8	10	5
the following chamber volumes	115 L	24	16	15	10
	175 L	28	14	16	8



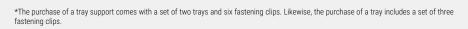
#### STAINLESS STEEL CYLINDERS FOR STERILIZING PIPETTES

References		CEPP-726	CEPP-740	CEPP-1025	CEPP-1435
Dimensions	External Ø x H mm	70 x 260	70 x 400	100 x 250	140 x 350
Dilliensions	Internal Ø x H mm	60 x 250	60 x 390	90 x 240	130 x 340
Maximum capacity for	33 L	11	11	6	6
	55 L	22	11	12	12
autoclaves with	79 L	42	21	20	10
the following chamber volumes	115 L	63	42	30	20
	175 L	90	30	51	34



#### STAINLESS STEEL WIRE BASKET WITH HEIGHT ADJUSTABLE TRAYS

References			SRA-R-300	SRA-R-400	SRA-R-500
External dim	ensions Ø x H mn	1	250 x 190	350 x 180	450 x 180
Trava	Reference	3	TRAY-SRA-R-300	TRAY-SRA-R-400	TRAY-SRA-R-500
Trays	Dimension	s Ø x H mm	240 x 20	340 x 20	440 x 20
		33 L	2	-	-
Maximum ca	nacity for	55 L	3	-	-
autoclaves w	ith the following	79 L	-	3	-
chamber volu	ımes	115 L	-	4	-
		175 L	-	-	4



- $\cdot$  For sterilization of instruments, small bags and other small objects that must be placed straight up.
- · Material: AISI-304 stainless steel.





#### **ACCESSORIES**



#### FLEXIBLE TEMPERATURE **PROBE PT-100 CLASS A**

After installing this accessory, the temperature regulation of the sterilization cycle can either be controlled by the main chamber temperature probe or both the main chamber temperature probe and the flexible temperature probe.

The temperature control by the flexible temperature probe is especially advantageous for processes involving the sterilization of large volumes of liquids, where the sterilization process is regulated by both the temperature achieved in the center of the liquid sample as well as the temperature achieved in the sterilization chamber Furthermore, should the autoclave be opened at chamber temperatures higher than 80°C there is a risk of liquids boiling over which can be avoided if the temperature of the sample is controlled throughout the sterilization procedure.

Must be installed in our facilities.

Ref. PT-2



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#### **EXTERNAL DOT MATRIX PRINTER**

Prints program number, cycle number, temperature, pressure, date and hour and error messages.

Selectable print frequency between 10 and 240 seconds.

Connection: RS-232.

Consumables: PAPER-ITS for paper and 70945 for ribbon.



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#### **SOFTWARE SW7000**

Communication software between the equipment and the PC for display and recording in real time or display after each cycle. Cycles can also be printed or exported to Excel.

PC connection via RS-232.

It is supplied with an RS-232 cable, a USB memory stick including installation software and drivers, and an RS-232 to USB adapter.

Ref. SW7000



#### **EMBEDDED THERMAL PRINTER**

Prints program number, cycle number, temperature, pressure, date and hour of the run and error messages.

Selectable print frequency between 10 and 240 seconds.

Must be installed at our factory.

Consumable: PAPER-IT for paper



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#### **CABLE GLAND**

Installation of a Ø2mm or Ø4mm cable gland to provide access to as many as 8 external temperature probes for calibration and validation procedures.

Ref. CG2MM & CG4MM



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#### **ACCESSORIES**



#### **EXTERNAL TEMPERATURE PROBE ADAPTER**

External adapter for continuous validation processes that provides access to an external probe (Ø3-6mm) to take temperature readings that are independent of the equipment microprocessor.

It is located on the autoclave door. Must be installed at our factory.

Ref. EXT-TP



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#### TRANSPORT TROLLEY

Auxiliary trolley to aid in the loading and unloading of the autoclave.

Made of chrome iron and plastic.

The surface of each shelf is textured to prevent the load from moving.

Equipped with rubber casters to reduce noise and prevent floor wear.

Dimensions (LxDxH): 730x490x700mm



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#### **PREMIUM CASTERS**

Although all AES Series autoclaves include casters, this accessory offers the option of upgrading to stronger, medical grade casters that include brakes.

This enhances the mobility of the equipment.

Must be installed at our factory.

Ref: 4WHBR



#### **CONDENSATE TANK**

Water tank with a maximum capacity of 12L to capture the moisture of the condensate produced during the purging phase and to collect dirty water during cleaning operations.

Ref. TANK-AE



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#### **TEMPERATURE DATA LOGGER**

AISI-316L stainless steel disk temperature recorder with connection base and software.

Recommended for autoclave validation and for monitoring the internal temperature of containers.

Available in different sizes.

Ref. VAL-DL



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#### **STERILIZATION CONTROL TAPE**

Class 1 indicator for steam sterilization. The color change indicates that the materials have been processed; however, this does not guarantee adequate sterilization. Additional methods, such as biological indicators (EN ISO 11138), are required.

Pack of 5 rolls of 50m x 19mm tape.

Ref. TEST-CT



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#### **SPECIFIC SERVICES**



#### **IQ-OQ DOCUMENTATION**

Delivery of documentation and protocols for autoclave qualification through a third party.

Ref. IQ-OQ DOC

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#### **IQ-OQ-PQ QUALIFICATION**

Autoclave qualification service performed by RAYPA technicians or authorized entities. It covers the startup of the equipment and the comprehensive qualification of its performance.

Ref. IQ-OQ-PQ

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#### **CALIBRATION CERTIFICATE FOLLOWING ENAC** TRACEABILITY STANDARDS

Unitary certification of proper equipment calibration and performance in compliance with international standards.

Ref. MAPEO-ENAC



#### MAPPING OF STABILITY AND **HOMOGENEITY**

Generation of documentary evidence certifying that the temperature and pressure distribution within the autoclave is uniform and stable, in accordance with the manufacturer's design specifications.

Ref. MAP-3, MAP-7 and MAP-9



#### **ON-SITE COMMISSIONING & TRAINING**

On-site commissioning, which includes verification of the correct operation and installation of the equipment and a training session for users on the use and maintenance of the equipment.

Ref. INSAE

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#### **REMOTE COMMISSIONING & TRAINING**

Guided remote startup including a training session for users on the operation and maintenance of the equipment.

Ref. INSAE-REM



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#### **MAINTENANCE CONTRACT**

Regular inspection plan that includes technical inspection, probe calibration and compliance with the preventive maintenance plan, in addition to tariff

Ref. MANT-1.2 and MANT-1.3



#### **EXTENDED WARRANTY**

Extended warranty up to a total of 3 vears.

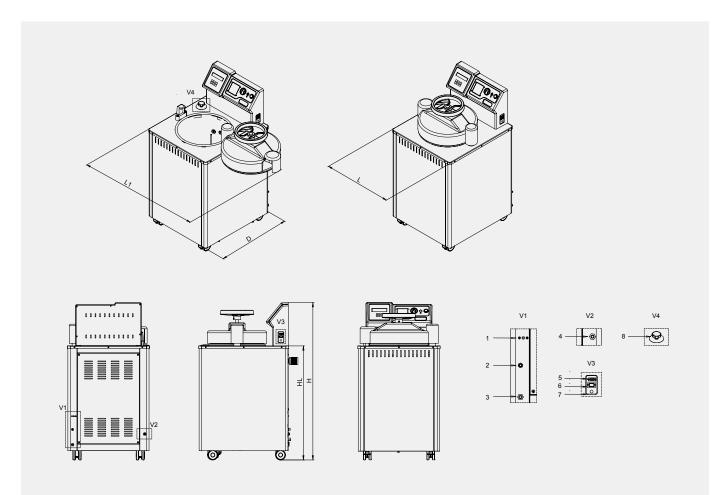
Ref. WE-CL



#### SET OF CONSUMABLES, **SPARE PARTS AND ESSENTIAL COMPONENTS**

Set of original spare parts, consumables and components, chosen specifically to adhere to each model's maintenance plan, intended to maximize equipment longevity and minimize downtime in the event of a malfunction.

#### **TECHNICAL DRAWINGS OF THE AUTOCLAVE**

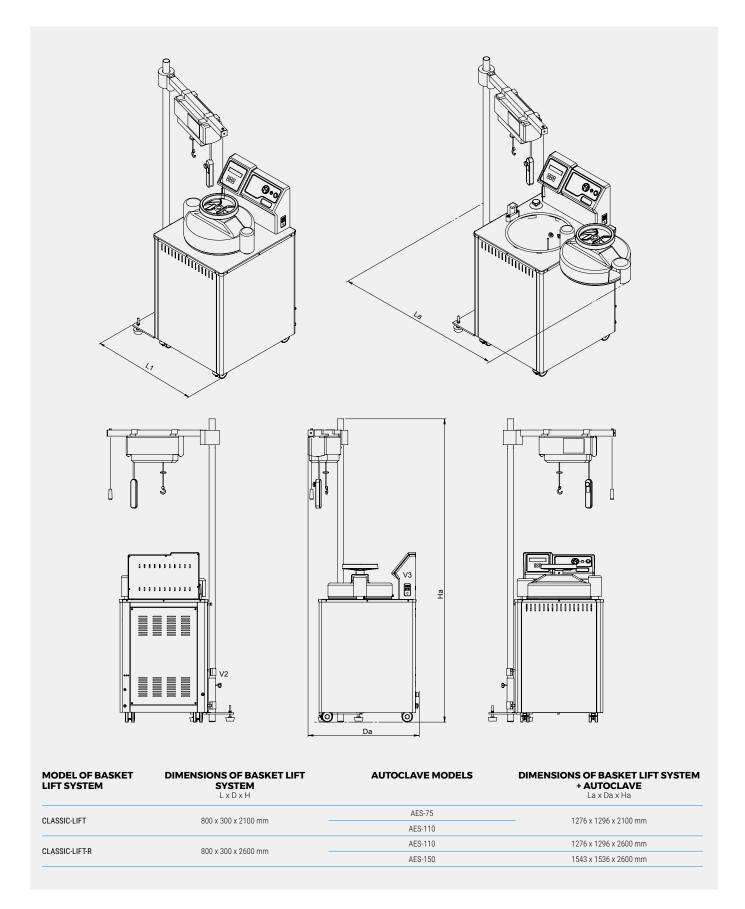


MODELS	L LENGTH with closed door	<b>L1</b> LENGTH with maximum door opening	<b>D</b> DEPTH	<b>H</b> HEIGHT	<b>HL</b> LOAD HEIGHT	HD DRAIN HEIGHT sterilization chamber
AES-28	505 mm	900 mm	580 mm	1110 mm	788 mm	140 mm
AES-50	505 mm	900 mm	580 mm	1290 mm	967 mm	140 mm
AES-75	610 mm	1100 mm	700 mm	1185 mm	860 mm	140 mm
AES-110	610 mm	1100 mm	700 mm	1435 mm	1112 mm	140 mm
AES-150	750 mm	1380 mm	820 mm	1400 mm	1073 mm	140 mm

#### CONNECTIONS

1	Sterilization chamber electrical heating elements safety thermostat
2	Safety valve outlet
3	Sterilization chamber drain outlet and purge outlet
4	Power supply cable (AES-110 and AES-150 models)
5	RS-232 Port
6	Ethernet Port
7	Power supply cable (AES-28, AES-50 and AES-75 models)
8	Two position drain tap

#### TECHNICAL DRAWINGS OF THE AUTOCLAVE + CLASSIC-LIFT

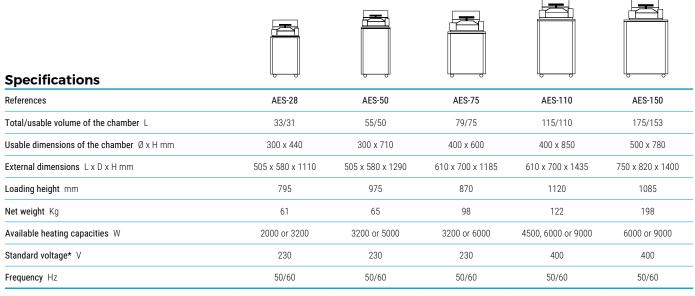


#### **TECHNICAL SUMMARY**

		Recommended setting	General laboratory
<b>(</b>	General classification	Equipment placement	Floor-standing
Ψ	General Classification	Load direction	Top-loading
		Chamber profile	Round
		Culture media and liquids	++
П	Decemporated type of lead	Glassware	++
	Recommended type of load	Plastics and metal objects	++
		Laboratory waste bags	+
	Charilination to should an	Method to generate steam	Heating elements
	Sterilization technology	Type of purge	Gravity displacement
4)))	Transfer of data	RS-232	<b>~</b>
▣		Embbeded printer	0
ري	Batch printers	External printer	0
		Sterilization chamber volume	33 - 175 L
		External building material	AISI-304
		Sterilization chamber material	AISI-316L
		Heating elements material	Incoloy® 825
		Gasket material	Silicone rubber
*	Sterilization chamber and door specifications	Min max. sterilization temperature	100 - 134°C
		Maximum pressure (above atmospheric pressure)	2,1 Barg
		Mechanism to open the door	Manual wheel
		Direction in which the door opens	Lateral
		Automatic locking with pressure	<b>~</b>
		Thermally insulated door	<b>~</b>
		Screen display	Digital LCD
		Screen size	2 lines x 16 digits
	User interface and microprocessor	Total number of available programs	10
			<b>~</b>
		Timer start	<b>~</b>
		Agar mode (temperature holding after cycle ends 40-80°C)	<b>~</b>
Ö	Special cycles and process optimization	Solids fast cooling (manual push-button for a faster cooling phase)	<b>~</b>
ð		Temperature regulation by core probe	0
		Agar mode	40 - 80°C
÷ò÷		Temperature of sterilization phase	100 - 134°C
ſl	Adjustable cycle parameters	Duration of sterilization phase	1 - 250 min
		Temperature regulation by core probe	On/Off
		Capacity of the sterilization chamber water tank	3 - 9,5 L
		Flexible temperature probe	0
		Standard casters	<b>~</b>
$\oplus$	Other specifications	Premium casters with brakes	0
	•	Pressure gauge	<b>→</b>
		Electric customization (115-230M V / 230-400T V)	0
		Special models with increased heating capacity	0
ىر	Services	Third-party qualification (IQ-OQ-PQ)	0

 <sup>+:</sup> Recommended
 ✓: Standard
 0: Optional

#### **TECHNICAL DATA**



<sup>\*</sup>Other voltages and electrical configurations available on request. Special models with increased heating capacity may operate with other voltages.

#### Safety features

- · Safety valve.
- · Safety thermostats with manual rearm for the heating jacket and the heating elements.
- Pneumatic door blocking system while positive pressure exists inside the sterilization chamber.
- · Open door sensor.
- · Thermally insulated door.
- · Heating elements cover.
- Several visual and acoustic safety and warning alarms.

#### Regulations

All our AES Series autoclaves are designed to comply with the strictest international directives and standards, including the following regulations:

- EN-61010-1 Safety requirements for electrical equipment for measurement, control and laboratory use. Part 1: General requirements
- EN-61010-2-040 Part 2-040: Requirements for laboratory autoclaves.
- EN-61326 Electrical equipment for measurement, control and laboratory use. EMC requirements.
- · AD 2000 Merkblatt Pressure vessels.
- 2014/35/UE Low voltage.
- 2014/30/UE Electromagnetic compatibility.
- · 2014/68/UE Pressure equipment.

#### **General features**

- 134 °C 250 min Barg  y automatic microprocessor control by either chamber temperature pe or flexible temperature probe yity displacement -304 stainless steel -316L stainless steel sloy® 825 one rubber 232
Barg  y automatic microprocessor control by either chamber temperature be or flexible temperature probe  vity displacement  -304 stainless steel  -316L stainless steel  lloy® 825  one rubber
y automatic microprocessor control by either chamber temperature pe or flexible temperature probe  //ity displacement -304 stainless steel -316L stainless steel //oy® 825 one rubber
pe or flexible temperature probe vity displacement -304 stainless steel -316L stainless steel sloy® 825 one rubber
-304 stainless steel -316L stainless steel lloy® 825 one rubber
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4 preset and 6 user free)
o 24 h
display
zontal swiveling door with blocking wheel
-control of obtained values (T° & t) vs programmed values. Cycle is omatically interrupted if obtained values differ from programmed values
ssure gauge on control panel
er is directly poured into the sterilization chamber
nage connection operated by an independent drainage valve on control el for manual release of sterilization chamber water tank
i

#### **MORE INFORMATION**



> Watch video



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