



autoclaves

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autoclaves



An autoclave is a hermetically sealed instrument designed to perform a sterilization process, i.e., the complete elimination of microorganisms present on a specific object or solution, through the increase in temperature and pressure within the chamber.

Sterilization using pressurized steam is currently the safest sterilization method and involves a working cycle consisting of several phases:

- **Vacuum (generation)**
- **Heating**
- **Sterilization**
- **Cooling**

This method is mainly used in work environments dedicated to pharmaceutical production, healthcare activities, dental practices, as well as in chemical and microbiological laboratories, beauty centers, or any environment requiring the use of sterile materials or solutions.



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bench-top autoclaves

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vertical autoclaves comparison

bench-top autoclaves

SMALL-SIZED AUTOCLAVES WITH HORIZONTAL LOADING FOR SOLIDS

Autoclaves for unwrapped tools

ATV 20: Class N autoclave suitable for sterilizing non-packaged tools, devoid of cavities.



Autoclaves for wrapped and unwrapped tools

ATV 50: Class B autoclave suitable for sterilizing wrapped and unwrapped tools, from porous to fabric and hollow bodies. This instrument uses air extraction even from small cavities (fractional vacuum).



floor standing autoclaves

VERTICAL AUTOCLAVES FOR SOLIDS AND LIQUIDS



small volumes autoclaves

The ATV 80 model represents the perfect balance between compactness and efficiency with its 24-liter chamber. This vertically loaded autoclave is mainly used for routine applications with linear cycles on solids and liquids.



large volumes autoclaves

STANDARD MODELS

ATV-E 500/800/1000: These models have a simple structure with linear working cycles for solids and liquids ensuring excellent sterilization, efficiency, and reliability.

FULL - OPTIONAL MODELS

ATV 600/850/1100: Models with advanced technological features that provide the user with various usage possibilities, ensuring excellent results even for more elaborate working cycles.

bench top autoclaves

CLASS N AUTOCLAVES
MEDICAL DEVICES FOR UNWRAPPED TOOLS



ATV 20



Tray support to prevent contact between the load and the chamber.



Technical data		ATV 20 HYDRA EVO
Capacity	lt	16
Filling tank capacity	lt	4.5
Filling water	Demineralized or distilled	
Dimensions (LxWxH)	mm	510x590x390
Chamber dimensions (Dia*H)	mm	Ø245x318
Chamber material	AISI 304 stainless steel	
Opened door dimensions	mm	300
Rated Power	kW	1.5
Max sterilization temperature	°C	134
Max working pressure	bar	2,4
Max vacuum	-	
Number of supplied trays	4	
Tray material	Anodized aluminium	
Tray dimensions (LxWxH)	mm	192x280x165
Weight	Kg	54
Medical class	IIA	
Code	608.1000.20	

V/HZ 220-240/50-60



Class N sterilization: unwrapped materials without cavities.
General purpose, simple sterilization for laboratories.



Pre-set cycles:

- 121°C cycle: for solid and ferrous materials (unwrapped);
- 134°C cycle: for solid and ferrous materials (unwrapped).



Protected tray holder to safeguard against contact between load and chamber.

Safety thermostat.

Certified safety valve.

3 safety devices on the door:

- mechanic and electro-magnetic device: it blocks the door opening up to the end of the cycle;
- electrical device: it operates when the door is forcibly opened;
- dynamic device: the door gasket does not allow opening of the door if there is pressure within the chamber.



AISI 304 stainless steel circular chamber.

5 kg Maximum load per cycle.

Forced ventilation system.

Rear board with prefitting and automatic water filling and discharge.

Insulation of the chamber with certified ceramic material.



Constantly monitored cycles to detect uncommon feature.

Pre-set cycles, not manipulable to guarantee a safe sterilization.

Printer included.

Manually operated door.

Deionization connection.

Water filling:

- automatic water filling from water supply by external purification device;
- automatic water filling from external tank with purified water.



Sterilization process:

- preheating system: parameters, temperature and pressure are set;
- sterilization: all the micro-organisms are eliminated. Pressure, temperature and time shall be perfectly monitored;
- Drying: perfect drying ensures high sterility.

* to compare Bench Top Autoclaves models see page 9

bench top autoclaves

CLASS B AUTOCLAVES

MEDICAL DEVICES FOR WRAPPED AND UNWRAPPED TOOLS



ATV 50



Tray support to prevent contact between the load and the chamber.



Technical data		ATV 50 EUROPA B EVO	
Capacity	lt	16	
Filling tank capacity	lt	4.5	
Filling water	Demineralized or distilled		
Dimensions (LxWxH)	mm	510x590x390	
Chamber dimensions (Dia*H)	mm	Ø245x320	
Chamber material	AISI 304 stainless steel		
Opened door dimensions	mm	300	
Rated Power	kW	1.7	
Max sterilization temperature	°C	138	
Max working pressure	bar	2,4	
Max vacuum		-0.9	
Number of supplied trays		4	
Tray material	Anodized aluminium		
Tray dimensions (LxWxH)	mm	184x280x17	
Weight	Kg	54	
Medical class	IIA		
Code	608.1000.50		

V/HZ 220-240/50-60



Class B sterilization: wrapped and unwrapped materials (cannulas, tubes or devices with small passages):

- porous bodies: simple and compound materials that soak up fluids (tissues, gowns, surgical gauzes, dressing, etc...);
- hollow bodies: materials, device and obstructions with small cavities.



Pre-set cycles:

- 121°C cycle: for thermoplastic, hallow bodies, solid and ferrous materials (wrapped and unwrapped);
- 134°C classic cycle: for solid and ferrous materials (wrapped and unwrapped);
- 134°C "flash" cycle for quick sterilization cycles (unwrapped);
- 134°C "prion" cycle for Cruetzenfeld & Jacobs disease (wrapped).



Protected tray holder to safeguard against contact between load and chamber.

Safety thermostat.

Certified safety valve.

3 safety devices on the door:

- mechanic and electro-magnetic device: it blocks the door opening up to the end of the cycle;
- electrical device: it operates when the door is forcibly opened;
- dynamic device: the door gasket does not allow opening of the door if there is pressure within the chamber.



AISI 304 stainless steel circular chamber.

5 kg Maximum load per cycle.

Forced ventilation system.

Insulation of the chamber with certified ceramic material.

Rear board with prefitting and automatic water filling and discharge.



Constantly monitored cycles to detect uncommon feature.

Pre-set cycles to guarantee a safe sterilization.

Ergonomic structure and easy to use.

Printer included.

Manually operated door.

Deionization connection.

Night cycle.

PID microprocessor.

Automatic barometric alignment system.

Water filling:

- automatic water filling from water supply by external purification device;
- automatic water filling from external tank with purified water.



Sterilization process:

- fractional vacuum: pump system alternates negative pressure (vacuum) phases with positive pressure phases;
- preheating system: parameters, temperature and pressure are set;
- sterilization: all the micro-organisms are eliminated. Pressure, temperature and time shall be perfectly monitored. A double-probe, microprocessor-controlled system controlled by PID;
- Drying: perfect drying ensures high sterility

Mandatory test for autoclave ATV 50 – class B

The user of a medical device must periodically check its efficiency according to procedures established by directives, standards or guidelines.



	Helix Test	Bowie & Dick	SteamPlus Chemical integrators	VaporLine Chemical integrators	B Test Plus Biological test	Spore	Vaccum Test
Aim	Physical test used to assess the capacity of steam penetration in hollow objects.	Physical test used to assess the capacity of steam penetration in porous objects.	The chemical integrators are more suitable devices for the control of steam sterilization, as they interact with all the cycle parameters (temperature, time, steam presence), certifying proper stability.		Used to assess the ability of the autoclave to destroy all the microorganisms, including spores.		Vacuum test is used to reveal chamber leakage or loss of vacuum.
Frequency	Recommended every 30 days, even if hollow object sterilization is not carried out	Recommended every 30 days, even if porous object sterilization is not carried out.	Recommended once a day.		Recommended every 30 days. Spores must be incubated within 1 hour from the sterilization process.		Recommended every 7 days.
Standard compliance	EN ISO 11138-1	EN ISO 11140-4	EN ISO 11140-1 CLASSE 5		EN ISO 11138-1		-
Pieces in pack	100 strip	20 pcs	100 pcs	250 pcs	-	20 phials	-
Code	608.1000.09	608.1000.10	608.1000.11	608.1000.12	608.1000.13	608.1000.14	-



horizontal autoclaves comparison

FEATURES TABLES

	ATV 20 HYDRA EVO CLASS N	ATV 50 EUROPA B EVO CLASS B
Included printer	yes	yes
Manually operated door	yes	yes
Deionization connection	yes	yes
Night cycle	no	yes
PID microprocessor	no	yes
Automatic barometric alignment system	no	yes

STERILIZATION CYCLES TABLE

	121°C unwrapped	121°C wrapped	134°C unwrapped	134°C wrapped	134°C Flash unwrapped	134°C Prion wrapped
ATV 20 HYDRA EVO CLASS N	X		X			
ATV 50 EUROPA B EVO CLASS B	X	X	X	X	X	X

Technical data		ATV 20 HYDRA EVO CLASS N	ATV 50 EUROPA B EVO CLASS B
Capacity	lt	16	16
Filling tank capacity	lt	4.5	4.5
Filling water		Demineralized or distilled	Demineralized or distilled
Dimensions (LxWxH)	mm	510x590x390	510x590x390
Chamber dimensions (Dia*H)	mm	Ø245x318	Ø245x320
Chamber material		AISI 304 stainless steel	AISI 304 stainless steel
Opened door dimensions	mm	300	300
Rated Power	KW	1.5	1.7
Max sterilization temperature	°C	134	138
Max working pressure	bar	2.4	2.4
Max vacuum		-	-0.9
Number of supplied trays		4	4
Tray material		Anodized aluminium	Anodized aluminium
Tray dimensions (LxWxH)	mm	192x280x165	184x280x17
Weight	Kg	54	54
Medical class		IIA	IIA
Code		608.1000.20	608.1000.50

V/HZ 220-240/50-60

floor standing autoclaves for solids and liquids

VERTICAL AUTOCLAVES WITH SMALL VOLUME



ATV 80



Vertical loading autoclave for routine applications



Sterilization cycles:

- 4 pre-set cycles: 121°C - 135°C cycles for unwrapped solid and liquids
- 1 customized cycle



Pressure safety valve preset to 3 bar

Over temperature protection

Temperature monitoring

Over current and short circuit protection

Electric leakage protection

Anti-scald chamber cover and bench

Automatic troubleshooting

Safety devices: mechanical lock to insert before starting the cycle



Microcomputer control system monitors sterilization process.

Saturated steam monitoring creates a sterilization environment and discharges the steam



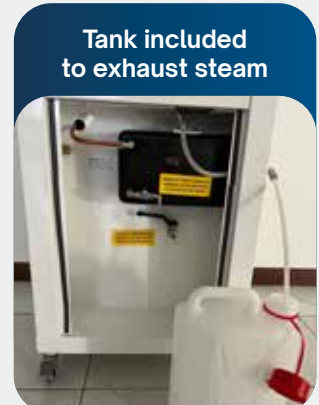
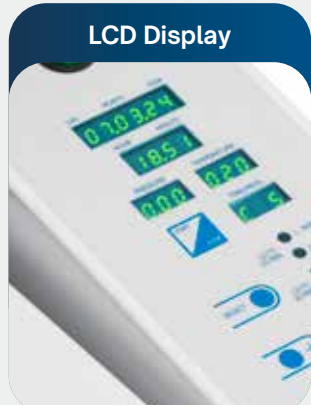
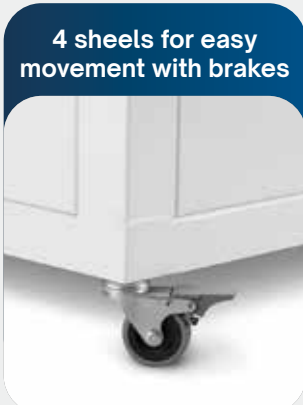
Built-in printer detecting the time, pressure and temperature parameters, serial number of the autoclave, the selected program, the progressive cycle counts, date, month, year
Manual water filling

Technical data

ATV 80

Capacity	lt	24
Filling water		Demineralized or distilled
Dimensions (LxWxH)	mm	500x450x950
Chamber dimensions (Dia*H)	mm	243x500
Chamber material		AISI 304 Stainless steel
Rated power	W	2500
Stainless steel basket (Dia*H)	mm	240x430
Working environment		5-45°C, relatively humidity 10-85%
Sterilization temperature	°C	100-136
Sterilization time range	min	1-99
Lid opening type		Flip (up and down)
Max working pressure	Mpa	2,2
Weight	Kg	60
Code		608.1000.80

V/HZ 220-240/50-60



ACCESSORIES INCLUDED



Stainless steel
AISI 304. Size
Ø240xH430 mm
Codice 608.1000.82

OPTIONAL ACCESSORIES

Steriscan
Strip for measuring the effectiveness of the sterilization (pack 250)
Code 608.1000.05

SPARE PARTS

Not divisible paper for printer 10 pcs pack
Code 608.1000.84

GREEN PAPER FOR STERILIZATION

Code	Size mm	Pack
118.6180.10	500x500	500
118.6180.11 K	750x750	250
118.6180.12 K	1000x1000	250

floor standing autoclaves for solids and liquids

STANDARD VERTICAL AUTOCLAVES WITH LARGE VOLUME



ATV-E 500/800/1000



Vertical loading autoclave for solid and liquid materials



Pre-set cycles:

- Solid cycle
- Liquid cycle



Dry scorch protection
Over pressure protection
Safety valve
Over temperature protection
Over current and short circuit protection
Electric leakage protection
Anti-scald chamber cover and bench
Automatic troubleshooting with 13 error detection procedures

2 safety devices:

- Self-induction interlocking device to avoid misuse
- Safety pressure lid locking



Microcomputer control system



Automatic cold air discharging monitoring to guarantee pure steam sterilization environment

Manual water filling

Technical data		ATV-E 500	ATV-E 800	ATV-E 1000
Capacity	Lt	50	80	100
Filling water		Reverse osmosis water		
Dimensions LxWxH	mm	460x542x1070	620x680x1042	620x680x1222
Chamber dimensions (Dia*H)	mm	Φ325x670	Φ400x709	Φ400x889
Chamber material		SUS 304		
Rated power	W	2600	4600	4600
Stainless steel basket (Dia*H)	mm	(Φ300x200)x2	(Φ360x280)x2	(Φ360x220)x3
Basket included	n°	2	2	3
Working environment		5-45°C, relatively humidity 10-85%		
Sterilization temperature	°C	105-138		
Sterilization time range	min	1-300		
Lid opening type		Slide (left to right)		
Display range of pressure gauge	Mpa	0-0.4		
Max working pressure	Mpa	0.27		
Design pressure	Mpa	0.3		
Plug	A	16	32	32
Weight	Kg	103	164	167
Code		608.1001.05	608.1001.08	608.1001.10

V/HZ 220-240/50-60



Industrial plug included



LED Display



Tank included to exhaust steam



4 sheets for easy movement with brakes



ACCESSORIES INCLUDED



Stainless steel baskets

Code	Dia*H mm	Model	Quantity
608.1001.50	300x200	ATV-E 500	2
608.1001.51	360x280	ATV-E 800	2
608.1001.52	360x220	ATV-E 1000	3

The diameter and the height of the baskets can be customized

OPTIONAL ACCESSORIES



Stainless steel pail
Size 1:
Φ 300mm (Dia)x200mm (H)
Code 608.1001.58

Size 2:
Φ 360mm (Dia)x220mm (H)
Code 608.1001.59



Printer
Code 608.1002.64

Printer paper (2 rolls)
Code 608.1002.63

floor standing autoclaves for solids and liquids

FULL-OPTIONAL VERTICAL AUTOCLAVES WITH LARGE VOLUME



ATV 600/850/1100



Vertical loading autoclave for solid and liquid materials



Sterilization cycles:

- Solid cycle
- Solid cycle with drying
- Liquid cycle
- Liquid and warming cycle
- Agar cycle with melting, sterilization and cooling
- Medical waste cycle
- Customized cycle



Dry scorch protection

Over pressure protection

Safety valve

Water level sensor

Over temperature protection

Temperature monitoring

Over current and short circuit protection

Electric leakage protection

Anti-scald chamber cover and bench

Automatic troubleshooting

3 safety devices:

- Cooling lid lock blocks the lid opening at set temperature
- Mechanical lock to insert before starting the cycle
- Electric double inner lock avoids accidental opening



LCD display

Microcomputer control system monitors sterilization process, maintenance, calibration, traceability and recording.

Cooling fan to speed up the temperature decrease at the end of the cycle
USB port



Preset and auto start up to 6 days in advance

Automatic internal discharging with a steam collecting bottle, speed selected by 6 levels.

Automatic water filling from external tank of 28 lt with reverse osmosis water.

Technical data

		ATV 600	ATV 850	ATV 1100
Capacity	lt	60	85	110
Filling water			Reverse osmosis water	
Dimensions LxWxH	mm	660x644x980	660x644x980	660x644x1180
Chamber dimensions (Dia*H)	mm	Φ400x505	Φ400x700	Φ400x895
Chamber material			SUS304	
Rated power	W	2900	4600	4600
Stainless steel basket (Dia*H)	mm	(Φ360x200)x2	(Φ360x280)x2	(Φ360x250)x3
Baskets included	n°	2	2	3
Temperature accuracy	°C		0.1	
Working environment			5-45°C, relatively humidity 10-85%	
Sterilization temperature	°C		105-138	
Sterilization time range	min		1-6000	
Melting temperature	°C		60-100	
Melting time range	min		1-6000	
Warming temperature	°C		45-60	
Warming time range	min		1-9999	
Drying temperature	°C		80-140	
Drying temperature range	min		1-300	
Temperature range for lid lock	°C		40-80 for liquid cycles, 40-99 for other cycles	
Memory			60 cycles	
Lid opening type			Flip (up and down)	
Steam collector			included	
Inner water tank	Lt		28	
Display range of pressure gauge	Mpa		-0.1 - 0.5	
Max working pressure	Mpa		0.27	
Design pressure	Mpa		0.35	
Plug	A	16	32	32
Weight	Kg	130	135	155
Code		608.1002.06	608.1002.08	608.1002.11

V/HZ 220-240/50-60

Industrial plug included



LCD Display



4 wheels for easy movement with brakes



Tank included to exhaust steam



Mechanical lid lock to insert before starting the cycle



Automatic filling of water from the external tank with reverse osmosis water



Analog pressure
USB port to download data
Printer optionally



ACCESSORIES INCLUDED



Stainless steel baskets

Code	Dia*H mm	Model	Quantity
608.1002.50	360x200	ATV 600	2
608.1002.51	360x280	ATV 850	2
608.1002.52	360x250	ATV 1100	3

The diameter and the height of the baskets can be customized

OPTIONAL ACCESSORIES



Stainless steel pail
Size 1:
Φ 315mm (Dia)
x200mm (H)
Code
608.1002.58

Size 2:
Φ 240mm (Dia)
x200mm (H)
Code
608.1002.59



Load thermometer (Liquid temperature sensor)
Code
608.1002.62

Printer paper (2 rolls)
Code
608.1002.63



Printer
Code 608.1002.64



5 printing sets (pressure sensor + printer)
Code 608.1002.65

vertical autoclaves comparison



Model	ATV-E 500/800/1000	ATV 600/850/1100
Capacity	50 - 80 -100 LT	60 - 85 - 110 LT
Display	LED	LCD
Apertura	Slide (left to right)	Flip (up and down)
Design Pressure	0.3Mpa	0.35MPa
Waste Mode	No	yes
Agar Mode	No	yes
Drying Mode	No	Completamente automatica
Automatic Water Feeding	No	yes
Safety Features	Dry scorch protection, Over pressure protection, Safety valve, Over temperature protection, Automatic troubleshooting, Anti-scald chamber cover and bench, Over current and short circuit protection, Electric leakage protection, Self-induction interlocking devise, Safety pressure lid locking	Dry scorch protection, Over pressure protection, Safety valve, Water lever sensor, Over temperature protection, Temperature monitor, Automatic troubleshooting, Anti-scald chamber cover and bench, Over current and short circuit protection, Electric leakage protection, Cooling lid lock, Mechanical lock, Electric double inner lock
Safety opening	No, the temperature of cover opening is 96°C for solid, 79°C for liquid	Yes, you can set a lower temperature to open the cover
Cycles	Solid cycle Liquid cycle	Solid cycle Liquid cycle Liquid and warming cycle Agar cycle Solid with drying cycle Medical waste cycle Customized cycles
Optional	printer	printer, liquid sensor







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