

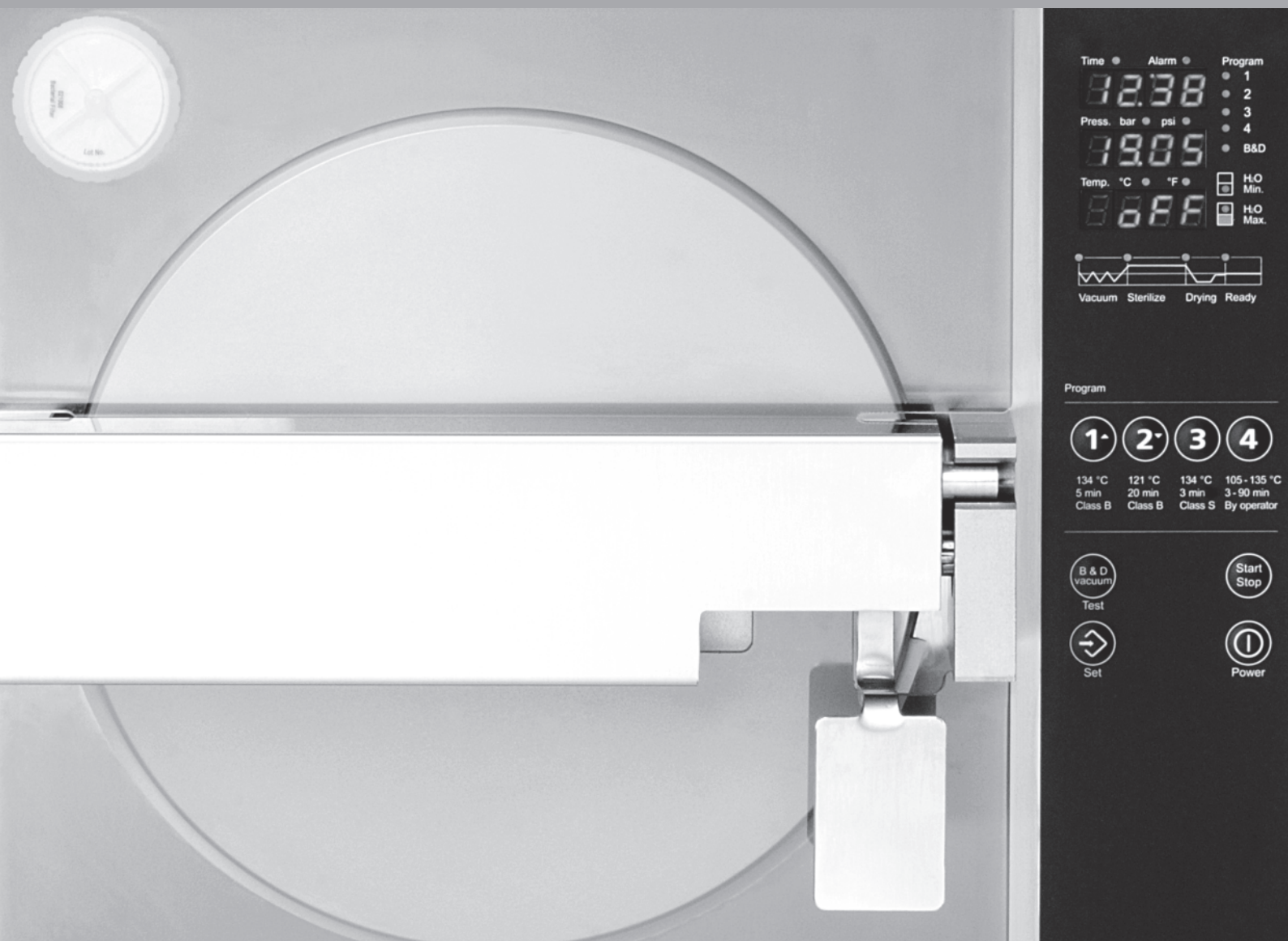
dx

Dental X the sterilization company

THE EVOLUTION LINE

Axyia

The power of sterilization



Time • Alarm • Program
12:38 • 1
• 2
• 3
• 4
Press. bar • psi • B&D
19.05 • H.O Min.
Temp. °C • °F • H.O Max.
8888
Vacuum Sterilize Drying Ready

Program

1	2	3	4
134 °C 5 min Class B	121 °C 20 min Class B	134 °C 3 min Class S	105 - 135 °C 3 - 90 min By operator

B & D vacuum
Test
Start/Stop
Set
Power

Dental X ... a partner with much experience



Dental X ... the sterilization company

Medical, aesthetic and surgical treatments often involve the use of specific instruments, which, if not handled properly, could become a vehicle for the transmission of cross contamination. To eliminate these risks, instruments should be cleaned, disinfected and sterilised safely and efficiently.

The problem of sterilization has always existed. However, with the added new dimensions of globalisation, and the diffusion of new and old illnesses, greater attention to the problems of sterilization, and the social and legal consequences are required.

■ Why Sterilise?

All surgical instruments can come into contact with patient's organic tissue. Without appropriate sterilization, these could transmit infections and/or illnesses to other patients, (cross contamination,) or to the operators themselves, with the potential for enormous damage to the community as a whole, and associated important legal and professional concerns.

■ Sterilisation Methods

Though there are many different systems which can be used for sterilization, the most common, and the safest method is the saturated steam method provided by the autoclave. This system is based on the correlation between pressure temperature and time. The steam conveys heat to the instrument surfaces, and eliminates all organic material.

Certain sterilizing systems, which are still widely in use, are no longer suitable, as they cannot guarantee a safe standard of sterilization. These systems include hot air ovens, microwave ovens, quartz ball sterilizers, and germicidal lamps, all of which do not meet the required standard and are no longer suitable for sterilization.

The EN 13060 standard has given a more precise definition of the term "autoclave" which prohibits many of the pseudo autoclaves previously sold.

The generation of steam in a container (ie a pressure cooker,) is not the equivalent of sterilization, as without the correlated control of temperature, pressure time, and the controlled expulsion of air, sterilization cannot be guaranteed.

The presence of air in the chamber during the process, will prevent steam contacting the instruments, and thereby the temperature from reaching the requisite levels.

Insufficient control of temperature, and temperature changes, during the cycle, will generate safety risks and lead to premature degradation of instruments, compromising their efficiency.

We are all aware of the importance of price, and how easy it is to be seduced by miraculous offers. In sterilization, these miracles are often a mask for inadequate product, which do not offer safe sterilization, can entail significant risk at professional legal and insurance levels, may lead to higher costs due to maintenance requirements.

Many inexpensive autoclaves are little more than horizontal boilers, or small pressure cookers which are no longer adequate for sterilization according to the new standard.



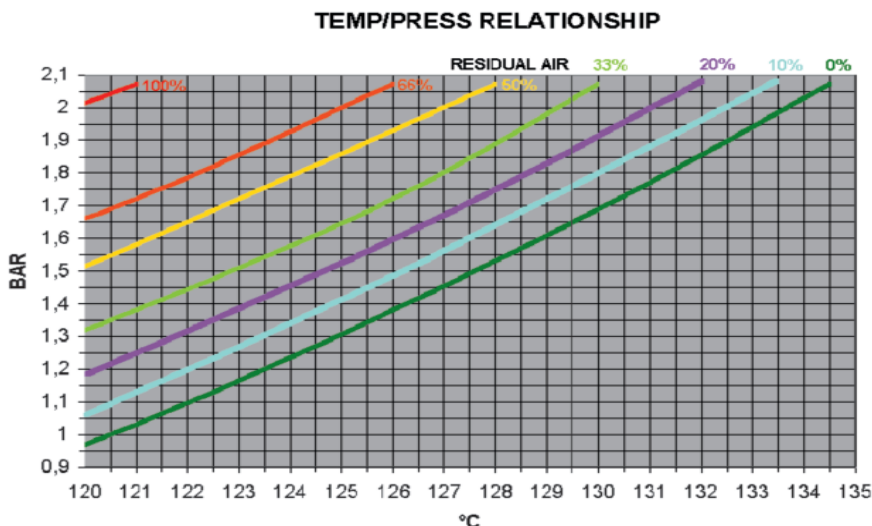
Dental X ... because not all autoclaves are produced equal

Over the last few years, due to the economical crisis, and wild globalisation, several low cost autoclaves have been introduced into the sterilization market. Some of these products look more like boilers than real autoclaves. It should be understood that an autoclave can accord sterilization only if it is able to generate and maintain saturated steam. It is not enough simply to boil water in a pressurised vessel.

A real autoclave shall perform efficient air expulsion, and shall continuously monitor steam saturation through an advanced controlled system called Process Evaluation Control. This P.E.C. Is able to monitor the relationship between temperature and pressure inside the chamber, and will require an advanced electronic control system, and precise fast reading devices.

Machines without this P.E.C. System, cannot be considered autoclaves, and cannot guarantee safe sterilization.

All autoclaves manufactured by Dental X, whether class B S or N, are equipped with the Process Evaluation Control System, and advanced air expulsion systems and reading devices.



The Axyia range of autoclaves have been completely manufactured in stainless steel, bringing a medical feel to the design, and giving a solid durable look. The chambers are extruded from stainless steel in one piece and tested in accordance with all relevant norms.

The chart shows the physical relation between temperature and pressure, and the differences generated by the presence of air in the chamber. All Dental X autoclaves are equipped with an electronic system capable of controlling this relationship in compliance with the EN 13060 standard.

A wide range of choices

Dental X has over 30 years of experience with sterilization and is considered to be one of the major companies for the production of autoclaves worldwide.

Dental X has a complete line of autoclaves that guarantee high standards of quality and conform completely to international standards (EN 13060).

The new Axyia Evolution line combines compact design with thirty years of experience matured in the medical and dentistry sector (Domina Plus line) and the requirements for cost containment.

Technical characteristics and the use of the most advanced technology ensure that the Axyia autoclave guarantees excellent features and maximum reliability.

Axyia 6 S

It is a small autoclave with 6 litre chamber, designed for sterilising wrapped and unwrapped instruments. Class S.

Axyia 6 N

It has the same dimension as the S model, but due to a lower performing drying system addresses the sterilization of unwrapped solid instruments only.

Axyia Plus B

It is a large class B autoclave with a 17 lt chamber designed for sterilizing wrapped and unwrapped instruments (included hollow instruments such as handpieces). This model is equipped with a powerful vacuum pump and can perform the Helix test.

Axyia Plus S

It has the same dimensions as the B model. This model is designed for the sterilization of wrapped and unwrapped instruments. This model does not perform the Helix Test. Class S.

Axyia Plus N

It is the same as the S model but designed only for the sterilization of unwrapped solid instruments. Class N.



Axyia Plus B

Class B automatic autoclave

In line with market trends and the requirement for ever more efficient sterilising systems, Dental X is pleased to present its new Axyia Plus B model.

The Axyia Plus B is a class B autoclave with vacuum pump and an advanced system for controlled sterilization. In accordance with European standard EN13060, the Axyia Plus B can be used to sterilize wrapped and unwrapped surgical instruments including dynamic instruments (drills and hand pieces) as well as woven materials.

The new Axyia Plus B autoclave combines compact design with thirty years of experience matured in the medical and dentistry sector (Domina Plus line) and the requirements for cost containment.

Technical characteristics and the use of the most advanced technology ensure that the Axyia Plus B autoclave guarantees excellent features and maximum reliability.

The vacuum pump

Axyia Plus B is equipped with a powerful double head pump, that creates a deep vacuum before sterilization.

The vacuum pump also gives forced ventilation during drying in order to perfectly dry the load.

The pump is rapid, quiet and reliable.

Fractionated vacuum:

The pump allows fractionated vacuum before sterilization and ensures positive results for the Helix Test. Such results allows the sterilization of all hollows instruments (type A and B).

Traceability:

An external PC socket allows connection to a USB device to allow sterilization cycle traceability in accordance with EN 17665. A serial socket allows connection to a printer.

Stainless Steel chamber:

The stainless steel chamber is moulded without welding to guarantee safety and maximum reliability.

The 17 litre chamber is equipped with 4 standard trays that allow the autoclave to be loaded without compromising steam circulation.

Process Evaluation Control

A powerful micro processor monitors the pressure and temperature values, in order to check the steam saturation. Thanks to this technology, it is possible to increase the performances by improving the thermal profile and saving instruments from premature damage.

Double reservoirs

Axyia Plus B is equipped with double reservoirs to prevent water recycling. Reservoir levels are shown on the display. Reservoir drain pipes and filter are located in the front of the autoclave easy and rapid service.

Protection filters:

To prevent residues present in the chamber from 'contaminating' the internal hydraulic system of the autoclave, all supply and discharge lines have been protected by easily accessible filters which can be cleaned directly by operators, without the need for the intervention of external technical personnel.



Axyia Plus B > the state of the art in the sterilization field



Completely automated:

Axyia Plus B has 7 automatic programmes and one free programme to allow the set-up of new programmes in accordance with future needs and requirements.

Axyia Plus B is equipped with an automatic breakdown diagnostics programme.

Thanks to the automatic switch off, the autoclave can perform a nighttime cycle with the maximum safety. Many other automatic functions allow easy use and service.

Ventilated drying:

Vacuum pump action during drying allows acceleration of the drying process.

Computer connection:

The computer connection allows guaranteed traceability, with more efficient and time saving management of the whole sterilization process, thereby simplifying technical assistance interventions and related costs. Designed for the sterilisation of delicate surgical instruments: This combination of technical features allows sterilisation of all instruments without early deterioration.

Control Test

Axyia plus B is able to perform the Helix test, the Bowie & Dick test and the vacuum test by a simple push of a button.



Axyia Plus S and Axyia 6 S

Class S automatic autoclaves

Both models Axyia Plus S and Axyia 6 S are class S autoclaves able to sterilize all types of instruments, wrapped or unwrapped safely.

The only difference between these models and the B type is the air expulsion system. Instead of using a vacuum pump like the class B models, the S class Axyia models are equipped with an electronic controlled thermodynamic system.

Axyia Plus S with a 17 litre chamber and 4 standard trays is addressed to practices that need to sterilize a lot of instruments per cycle.

Axyia 6 S with a 6 litre chamber and 3 small trays is ideal for practices that need a faster sterilization for smaller loads.

Air expulsion

The air expulsion is performed by a thermodynamic system controlled by the microprocessor according to the process evaluation control.

Such a system correctly applied, permits a very deep vacuum to be reached silently and rapidly.

The deep air expulsion allows the steam to reach all instrument surfaces.

The thermodynamic system is simple and reliable but requires more knowledge by the operator.

Process Evaluation Control

A powerful micro processor monitors the pressure and temperature values in order to check steam saturation. Thanks to this technology it is possible to increase the performance by improving the thermal profile and saving instruments from early damages.

Water reservoirs

All models are equipped with internal reservoirs that must be filled with demineralised water.

Axyia Plus S is equipped with a double reservoir in order to prevent water recycle.

Axyia 6 S due to the small size has only one reservoir.

Reservoir levels are shown on the display. Reservoir drain pipes and the water filter are located in the front of the autoclave for easy and rapid service.



Taking care of your valuable instruments

Completely automated:

All models are totally automatic. Once the desired program has been selected, it is sufficient to push the Start button to start the cycle. During the cycle everything is monitored by the microprocessor.

At the end of the cycle the unit will switch off automatically.

All Axyia class S models have 4 automatic programmes and an auto diagnostic system.

Pre heating

Thanks to the preheating sterilization cycles are faster.

Ventilated drying:

All Axyia class S models are equipped with a special drying pump. This pump allows internal pure air ventilation and speeds up the drying phase with significant advantages.

Traceability:

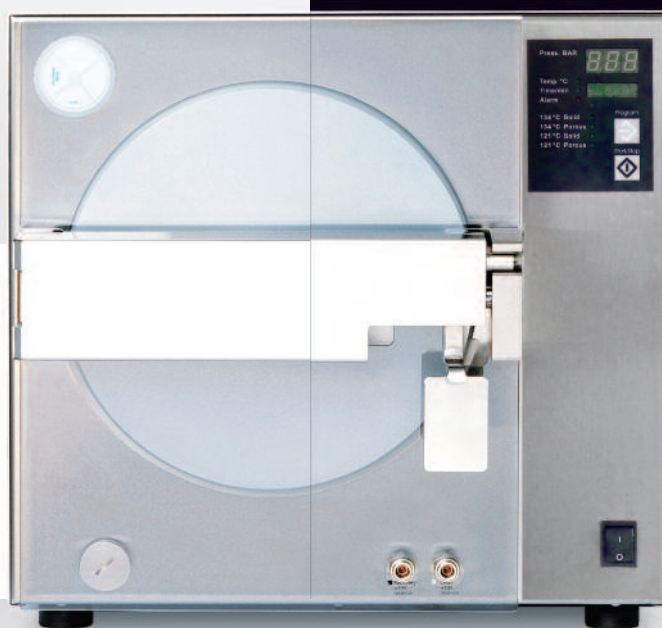
An external PC socket allows connection to a USB device to allow sterilisation cycle traceability in accordance with the standard. A serial socket also allows connection to a printer.

Protection filters:

To prevent residues present in the chamber from 'contaminating' the internal hydraulic system of the autoclave, all supply and discharge lines have been protected by filters which are easily accessible, and can be cleaned directly by operators without the need for the intervention of external technical personnel.



Axyia 6 S



Axyia Plus S

Axyia Plus N and Axyia 6 N Class N automatic autoclaves

Class N autoclaves are the same as S types, except for the drying system. While the S class autoclaves are equipped with a drying pump for internal ventilation, the N class autoclaves have a standard drying performed only by the heating element. In this context the N class autoclaves are designed for the sterilization of unwrapped solid instrument and therefore they do not need high drying standards.

For the model Axyia 6 N only, an external drying kit is available which allows the upgrade of the autoclave for wrapped instruments.

Air expulsion

All models are equipped with an advanced air expulsion system. The N Class as the S Class are equipped with the electronically controlled thermodynamic vacuum.

Air expulsion is performed by a thermodynamic system controlled by the microprocessor according to the process evaluation control.

Correctly applied, this system permits a very deep vacuum to be reached silently and rapidly.

The deep air expulsion allows the steam to reach all instrument surfaces.

Process Evaluation Control

A powerful micro processor monitors the pressure and temperature values in order to check steam saturation. Thanks to this technology it is possible to increase the performance by improving the thermal profile and saving instruments from early damages.

Water reservoirs

All models are equipped with internal reservoirs that must be filled with demineralised water.

Axyia Plus N is equipped with a double reservoir in order to prevent water recycling.

Axyia 6 N due to the small size has only one reservoir.

Reservoir levels are shown on the display. Reservoir drain pipes and filter are located in the front of the autoclave for an easy and rapid service.



Axyia ... a choice of safety

Completely automated

All models are totally automatic. Once the desired program has been selected it is sufficient to push the Start button to start the cycle. During the cycle everything is monitored by the micro-processor

At the end of the cycle the unit switches off automatically.

Class N Axyia models have 4 automatic programmes and an auto diagnostic system.

Traceability

All models can be connected with an external printer or to a USB device. The USB device allows storage of all the cycle information in a file, and downloads on a PC at your convenience with a higher traceability level.

Pre heating

Thanks to the preheating sterilization cycles are much faster.

When the autoclave is ON the heating element heat up to 100°C in order to enable faster cycles. A thermostat keep such temperature in stand by until the start of the sterilization cycle. When the autoclave is ON the heating element starts to heat up to 100 °C in order to enable faster cycles.



Technical features

	Programs	Parameters	Indications		
AXYIA PLUS B	1	STERILIZATION 1	134 °C 5 min	For every load that could be submitted to 134 °C (helix test)	B
	2	STERILIZATION 2	121 °C 20 min	For every load that could be submitted to 121 °C (helix test)	B
	3	FLASH	134 °C 3 min	For sterilization of all unwrapped surgical material	S
	4	S1 Disinfection	105 °C 8 min	For disinfection	B
		S2 Heavy load	134 °C 5 min	For special loads	B
		S3 Heavy load	121 °C 20 min	For special loads	B
		S4 BSE	135 °C 19 min	For Creutzfeld Jacob disease	B
		S5	set by operator		
		Bowie & Dick Vacuum test	134 °C 3,5 min 20 min		
	AXYIA 6S AXYIA PLUS S		Programs	Parameters	Indications
1		Solid	134 °C 4 min	For all unwrapped instruments	S
2		Porous	134 °C 14 min	For all wrapped instruments (hollow A) and porous material	S
3		Solid	121 °C 20 min	For all porous material	S
4		Porous	121 °C 30 min	For all wrapped instruments (hollow A) and porous material	S
AXYIA 6N AXYIA PLUS N		Programs	Parameters	Indications	
	1	Solid	134 °C 4 min	For all unwrapped instruments	N
	2	Porous	134 °C 14 min	For all porous material	N
	3	Solid	121 °C 20 min	For all unwrapped instruments	N
	4	Porous	121 °C 30 min	For all porous material	N

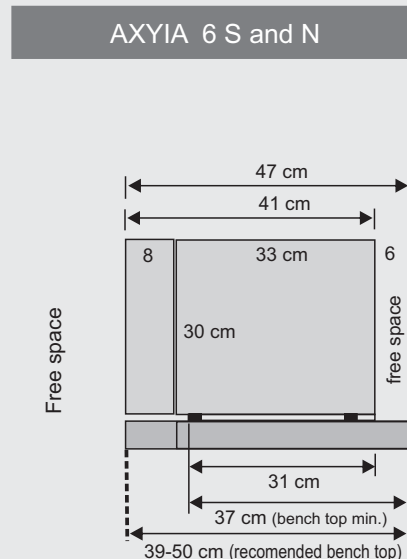
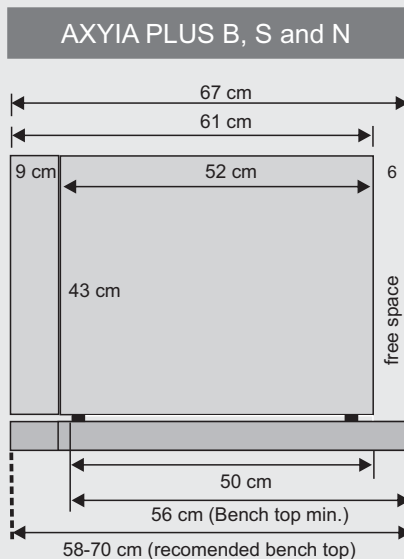
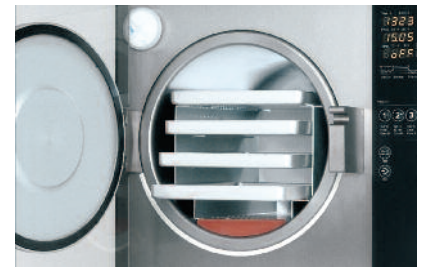
Autoclave's equipment

Axyia 6 S and N

- N 3 small trays (12 x 20 cm)
- N 1 tray handle
- N 1 operator manual
- N 1 draining pipe

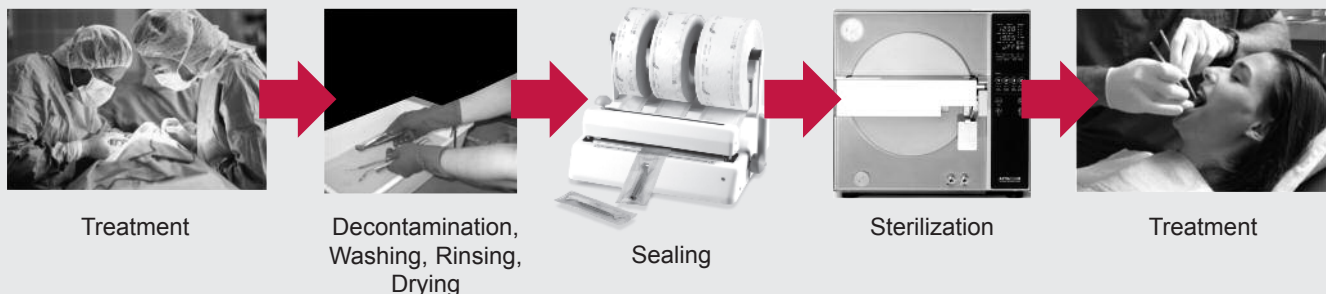
Axyia Plus B, S and N

- N 4 large trays (18,5 x 28,5 cm)
- N 1 tray handle
- N 1 operator manual
- N 1 draining pipe



Technical Features	AXYIA 6N	AXYIA 6S	AXYIA PLUS N	AXYIA PLUS S	AXYIA PLUS B
Stainless steel chamber	6 lt	6 lt	17 lt	17 lt	17 lt
Size of chamber	Ø 170 x P. 276 mm	Ø 170 x P. 276 mm	Ø 245 x P. 360 mm	Ø 245 x P. 360 mm	Ø 245 x P. 360 mm
External dimension (WxHxD)	W.375 x H.450 x D.300 mm	W.375 x H.450 x D.300 mm	W.450 x H.600 x D.435 mm	W.450 x H.600 x D.435 mm	W.450 x H.600 x D.435 mm
Minimal top bench depth	36 cm	36 cm	55 cm	55 cm	55 cm
Supply voltage	230 V - 50 Hz	230 V - 50 Hz	230 V - 50 Hz	230 V - 50 Hz	230 V - 50 Hz
Power consumption: average	500 W	500 W	700 W	700 W	1100 W
Power consumption: max	700 W	700 W	1000 W	1000 W	1500 W
Net weight	18,9 kg	19,2 kg	40,5 kg	41 kg	49 kg
Process Evaluation Control (EN 13060)	■	■	■	■	■
Air expulsion	Thermodynamic vacuum with electronic control	Thermodynamic vacuum with electronic control	Thermodynamic vacuum with electronic control	Thermodynamic vacuum with electronic control	vacuum pump with double head
Night cycle	■	■	■	■	■
Auto diagnostic	■	■	■	■	■
Automated programs	4	4	4	4	8
Drying	standard	with pump	standard	with pump	with vacuum pump
Water reservoirs	1 (2 lt)	1 (2 lt)	2 (4,5 lt each)	2 (4,5 lt each)	2 (4,5 lt each)
Pre-heating	■	■	■	■	■
Printer connection	■	■	■	■	■
PC connection	■	■	■	■	■
USB Log	optional	optional	optional	optional	■
Cycles counter	■	■	■	■	■
Protection Filters	■	■	■	■	■
Volumetric doser	/	/	/	/	■
Warranty 2 years / 2000 cycles	■	■	■	■	■
Cycle	N	S	N	S	B

The instrument reprocessing



Safe sterilization needs a correct treatment protocol, which shall include firstly decontamination, then cleaning, rinsing, and finally packaging at the end of sterilization

The decontamination reduces infection risks during handling and washing. After washing it is important to completely rinse the instruments, as detergent residues can stain the instruments.

The packaging keeps instruments sterile until their use, and shows evidence of their sterility to patients.

Accessories

In order to complete the sterilization process Dental X offers the following accessories:

DX Printer

The new Axyia Evolution line has been designed to be connected to an external printer through a serial port. The printer generates a paper report for each cycle, with the cycle information and the final result.

These reports can be properly stored and can help to trace the sterilization process in case of legal needs.



USB Log

All the traceability without the disadvantages of the paper reports is possible.

All sterilization data are downloaded on the USB drive instead of being printed on paper. The operator can decide if such information shall be stored on the USB or downloaded on a PC.



Demineralizer DX425

Solve water problems by generating a good demineralized water directly in the practice. The demineralizer is connected to the water mains.

The water passing through the resins inside the cartridge become pure and can be used for sterilization. The demineralizer is able to produce roughly 300-400 liters of good water depending on the water quality at the source.

The hardness gauge shows when the cartridge needs replacing. The demineralizer produce 5l/h and is therefore much convenient than a distillor, makin it possible to fill a reservoir in just a few seconds.

DX Labeler

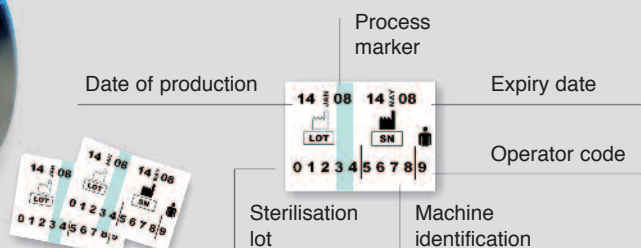
Thanks to the Labeler it is possible to combine the sterile instrument with each patient raising the traceability level.

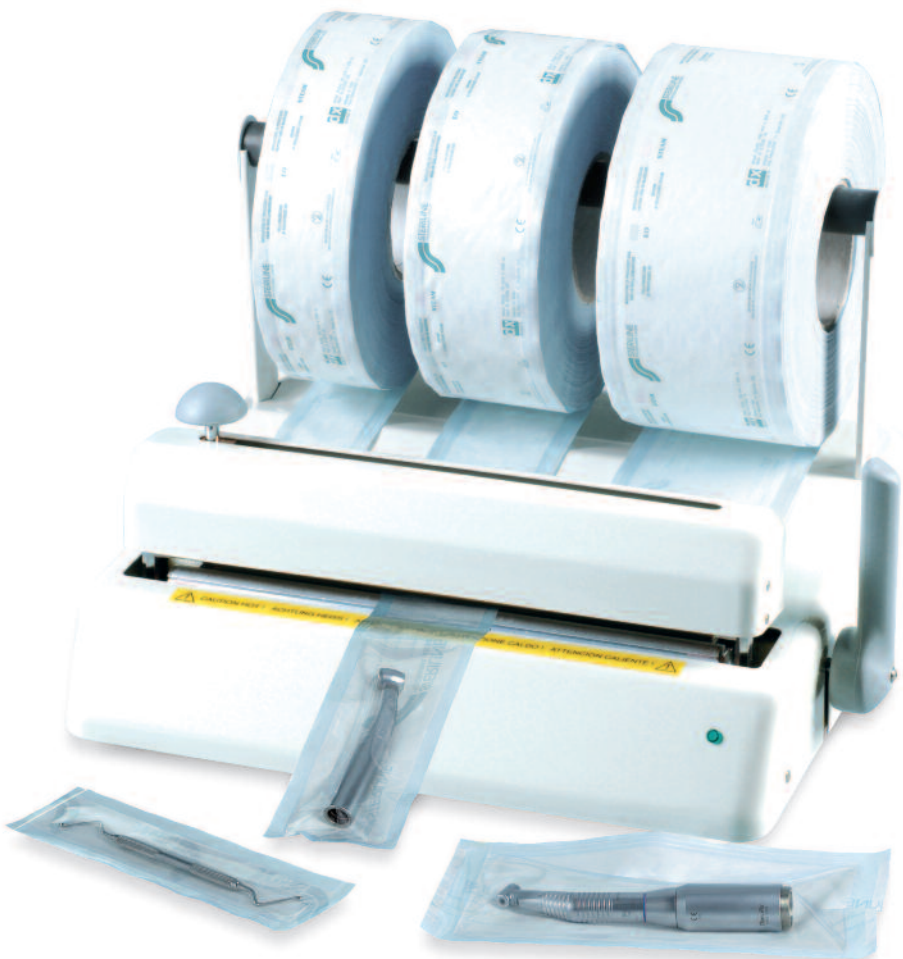
The labels are attached on each envelope before sterilization.

Because of the double layer, the label's top layer can be removed from the envelope after sterilization, and attached on the patient file or on the sterilization register.



Protect your profession with the DX Label System.





Newseal

In order to maintain sterility after sterilization, it is recommended to wrap up the instruments in sealed envelopes. The Newseal sealer enables preparation and sealing of the envelopes with a few simple operations, and to keep instruments sterile until the moment they need to be used.

The Newseal is equipped with a protected paper cut.

The self adjustable heating element prevents the unit from overheating, resulting in rapid and excellent sealing. The 10 mm seal width (over the 6 mm requested by EN 868-5) grants a hermetic seal.

The Newseal model is equipped with one LED. The Newseal Plus has two LED's and an acoustic signal.

Steriline Reel

Sterilization reels are made from a paper layer and a transparent polypropylene layer that enables the operator to see the instruments inside the wrap.

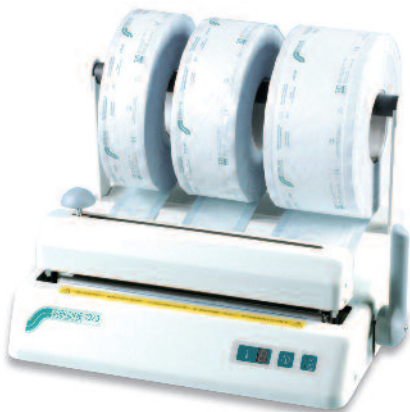
The Steriline reels are marked with process indicators and are available in different sizes.

- 5,5 cm width x 200 mt length
- 7 cm width x 200 mt length
- 10 cm width x 200 mt length
- 15 cm width x 200 mt length
- 20 cm width x 200 mt length
- 25 cm width x 200 mt length



STERILINE 1023

This model is equipped with a digital potentiometer in order to control the temperature in compliance with the EN 11607.



STERILINE MED-V

This model is automatic and is specially designed for people that have to seal a large quantity of envelopes.



Dental X ... a partner with a great experience !

Dental X is the leading company in the sterilization field.

Dental X products are sold in more than 50 countries through a very professional sales and service network.

The experience, the knowledge and the passion of our R&D team has enabled the design and manufacture of a wide range of autoclaves and sealers that represent state of the art, able to meet all sterilization needs.

The special attention to detail, the respect for and conformity to the international norms and standards, and the continuous research for innovation allows us to offer safe, high performance, reliable autoclaves.

The compact and elegant design perfectly fits all the ergonomic and hygiene needs of a modern dental practice.

All Dental X products are guaranteed for 2 years



www.dentalx.it

dental X spa
via marzotto 11
36031 dueville vicenza
tel. +39 0444 367400
fax +39 0444 367436
e-mail: dentalx@dentalx.it
internet: www.dentalx.it



Dental X reserves the right to change specifications and to modify all information released by this catalogue without prior notice.

