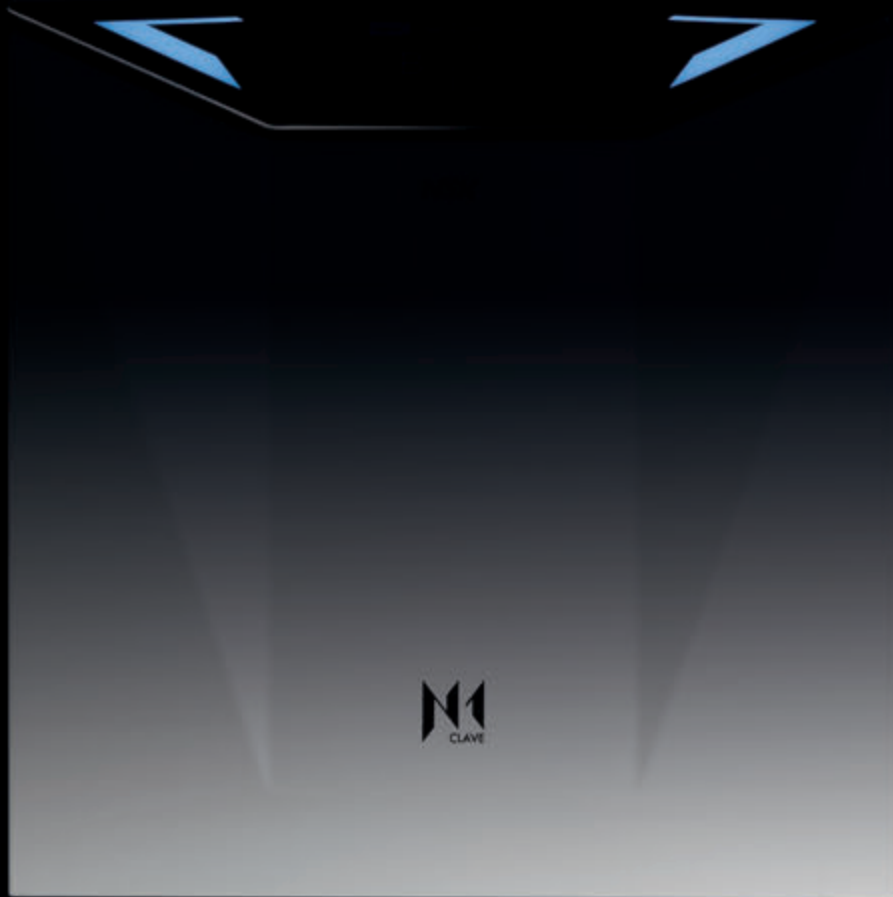


The all-new



NSK



If the future were an autoclave...

High performance, cutting-edge technology that interacts with humans and respect for the environment.

With its **6 registered patents**, N1clave was created to give innovative answers to today's challenges and the needs of professionals and their teams.

A revolutionary concept in 5 versions: an unprecedented load-time ratio in the sterilization cycle, advanced connectivity and user experience and operation using just tap water, which you can either reuse at the end of the cycle or drain without contaminating the environment.

...it would be N1clave.







Home	Test	Set	Info
B Universal	B L21	B Pion	S Fast

NSK






N1
CLAVE

A leap forward
that changes our
habits, everyday
gestures and
even what we ask
from technology.
That's when the
revolution happens.
Performance,
technology,
sustainability:
whatever the
keyword of your
idea of the future,
N1clave will help
you shape it.





Time is the most precious resource, both at work and in our private lives. This is the reason why N1clave express superior performance, thanks to patented innovative technologies, which ensures perfect drying of the instruments and guarantees the sterilization cycle speed to match the autoclave's extraordinary load capacity. Its high efficiency is perfectly revealed in the data on load capacity of its different versions, that combine maximum safety and reduced energy consumption at the same time.

6	7	8+	9+	10+
11"	11"	11"	11"	11"
				
6 trays 290 mm long	6 trays 370 mm long	7 trays 290 mm long	7 trays 370 mm long	9 trays 370 mm long
6 kg	7 kg	8 kg	9 kg	10 kg



Time

performance

10+

N1clave owes its spectacular performance to a combination of innovative technologies.

The **Boosteam®** system (which combines the booster with the steam generator inside the chamber) speeds up the sterilization cycle while optimising the chamber load.

The **Zeodry®** system uses zeolite, a mineral that absorbs moisture and releases heat, thereby improving drying performance while reducing energy consumption.

The **11" diameter chamber** and the innovative modular trays system allow to comfortably manage the large loads that the autoclave is able to sterilize. Higher speed, greater load, higher savings and more safety: for this reason, N1clave does not make a generic promise in litres capacity (18 l, 24 l, 28 l) but speaks in practice of kilos of load in relation to the minutes necessary to sterilize it.

1

Boosteam®



A simple and ingenious idea: placing two boosters and the steam generator inside the chamber, respectively on the two sides and on the bottom. In this way, N1clave guarantees maximum performance using space that is usually empty and wasted.

2

Zeodry®



The zeolite is a self-regenerating material, which does not need maintenance or to be periodically replaced: contained within the steam generator, it contributes to the maximum performance of N1clave.

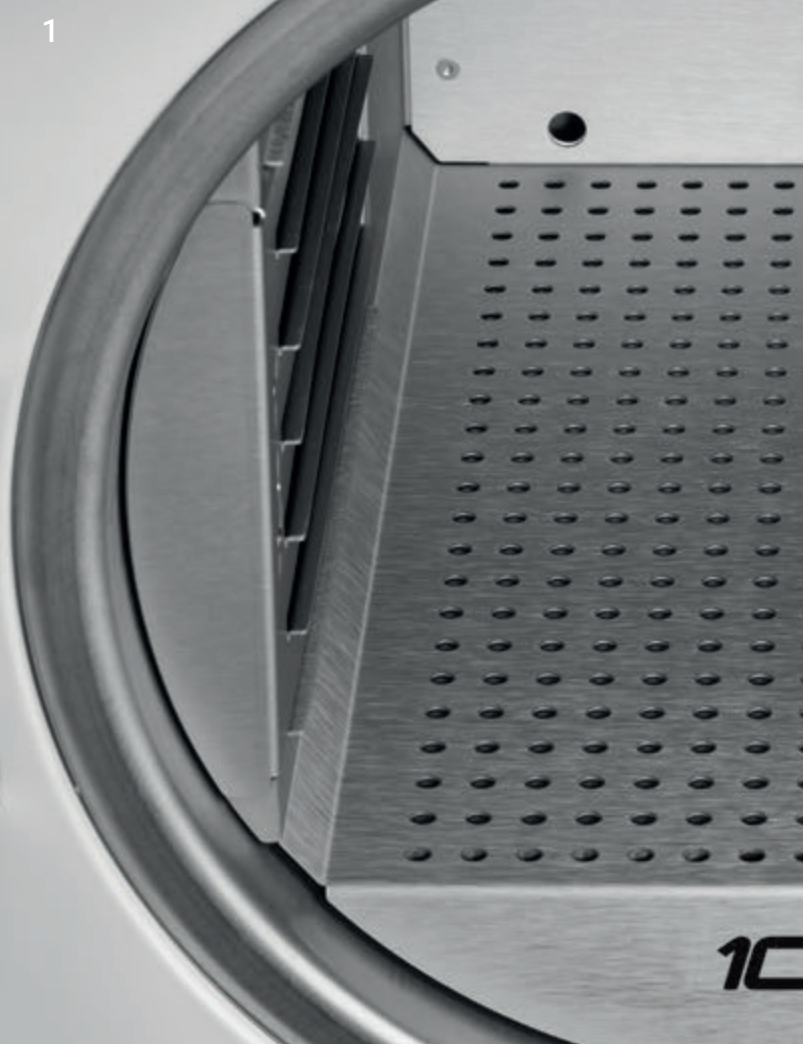
3

11" chamber

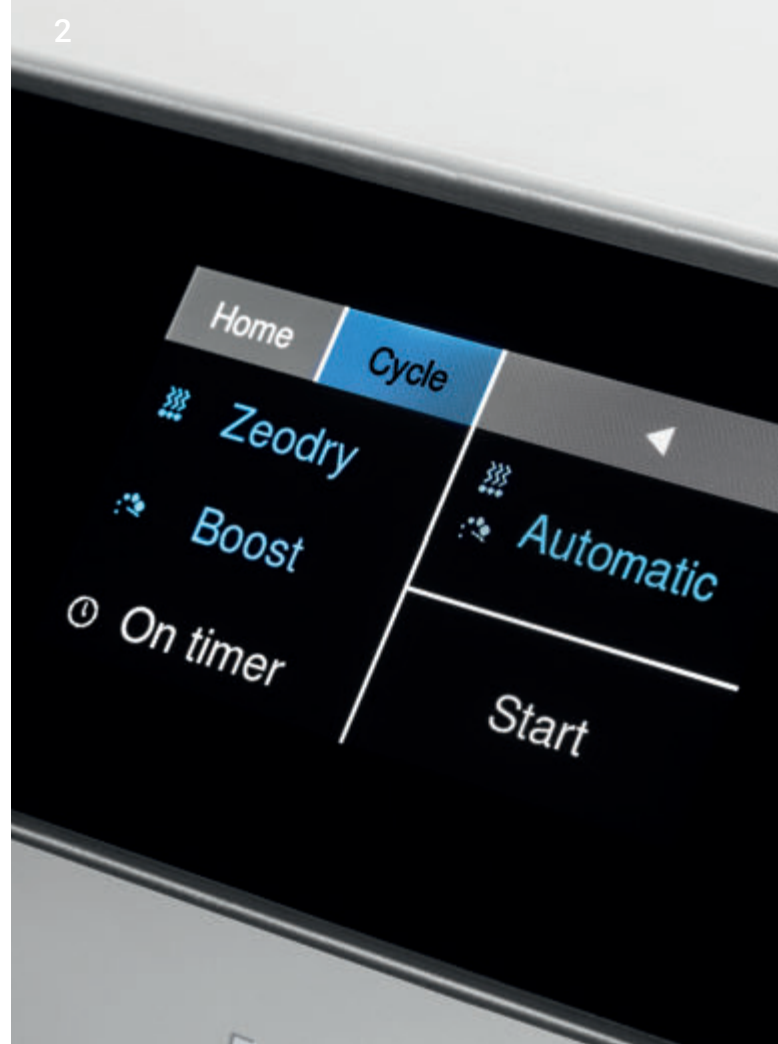
The extraordinary performance of N1clave finds its first and fundamental condition in the 11" diameter chamber, in two different depths, which characterizes all the autoclave versions.

The chamber guarantees a large and optimized load volume, also thanks to the innovative modular system of trays and the possibility of inserting sterilization cassettes and containers of various types and models.

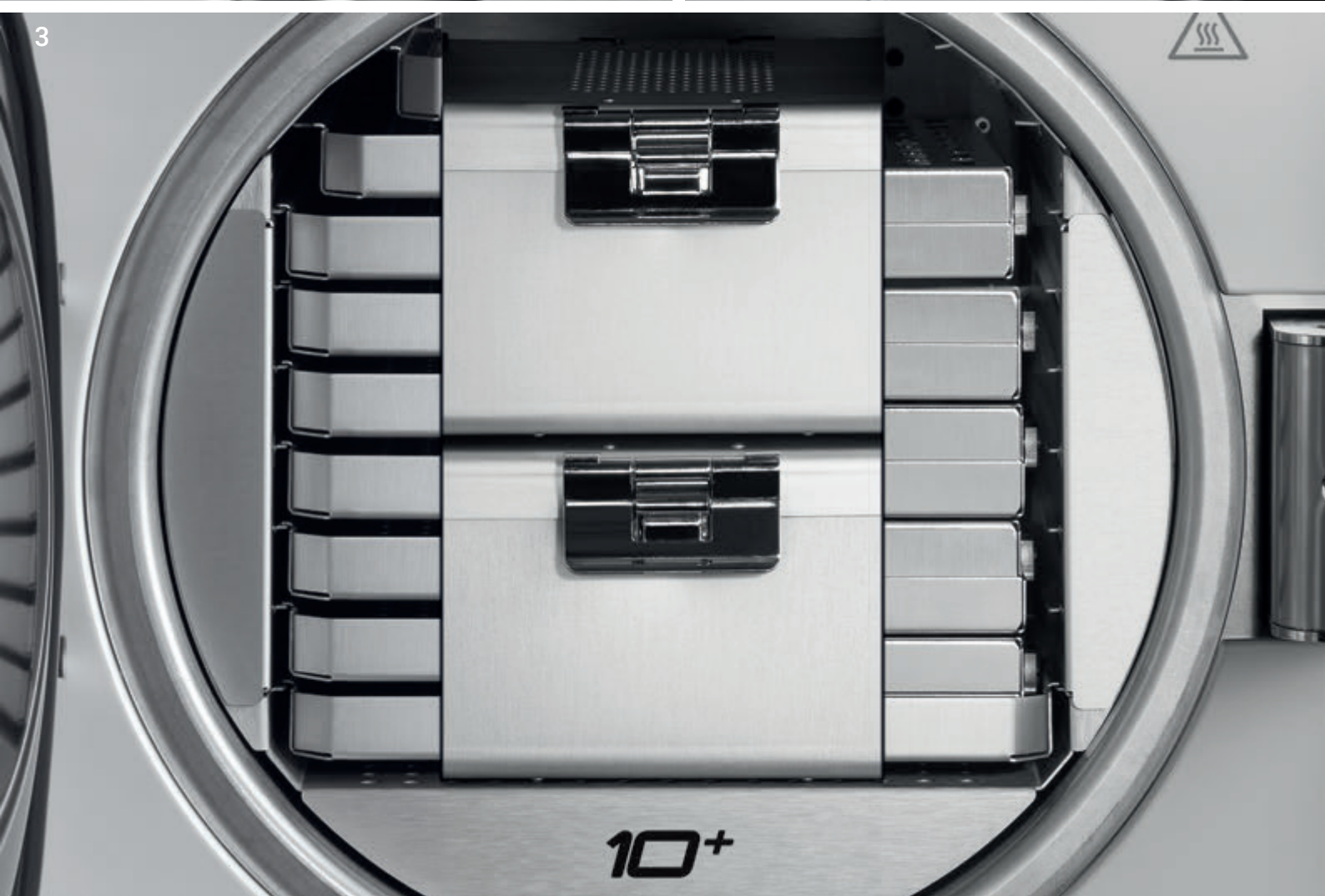
1



2



3



A simple touch is all you need to connect to the future of sterilization. N1clave is the first autoclave that is perfectly in sync with contemporary languages and meets the need to manage each operation and stage in a precise, intuitive and comfortable way. The latest generation connectivity allows you to manage the data of the sterilization cycles securely and receive precise and timely assistance, the innovative Light Signature accompanies every step and warns about any risk, the elegant and immediate graphic interface allows to use the menus in a simple and innovative way.



Touch

technology







Technology is getting more and more advanced, people have less and less time. The innovation of N1clave nullifies this gap with an extremely gratifying user-experience in its being effective and immediate. This is the deep reason in choosing the light, a primordial and evolved element at the same time, as a fundamental communication tool and a distinctive aesthetic feature of N1clave. The **Light Signature** system indicates the status and the work stage of N1clave through a series of colours and signals (blinking, pulsed, and fixed lights). The **touch screen**, placed in an optimal position, completes a user-experience that is at the same time advanced and intuitive in every aspect – revolutionary for an autoclave.

1

Light Signature

The combination of colours and light signals makes it extremely easy, safe and pleasant to follow N1clave in all its work phases.

LIGHT TYPE	MEANING	BLUE	YELLOW	RED	GREEN
					
BLINK	attention	switching on	warning	alarm	-
IMPULSE	in progress	heating	-	-	dry start/cycle to end
FIX	running	cycle process	manual stop in dry	-	cycle end ok

2

Touch screen

Positioned at the center of the innovative cockpit and characterized by the ergonomic inclination, the touch screen offers an extremely gratifying work experience.

1



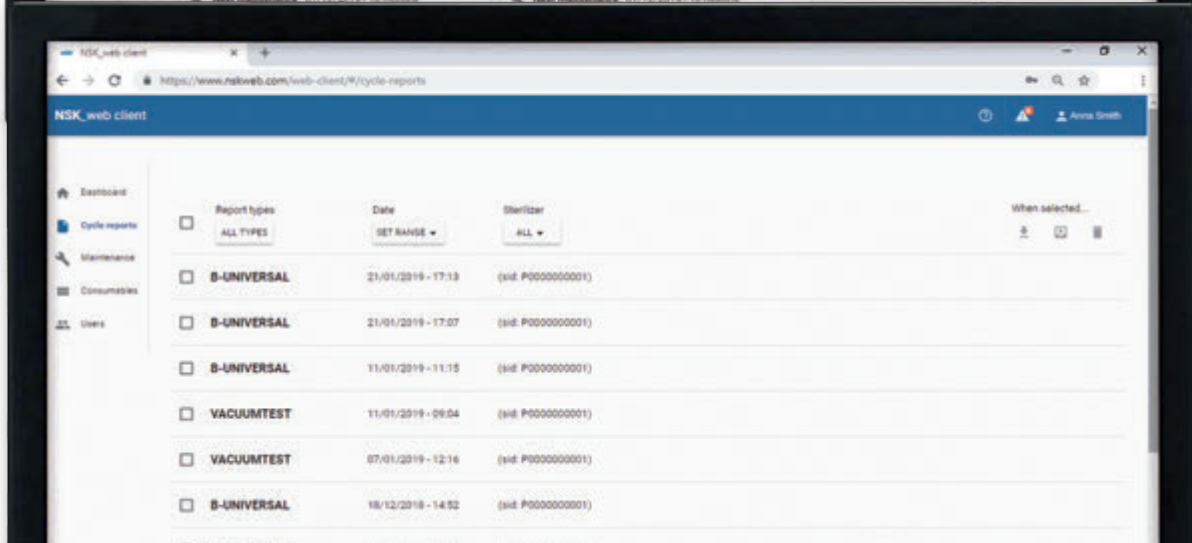
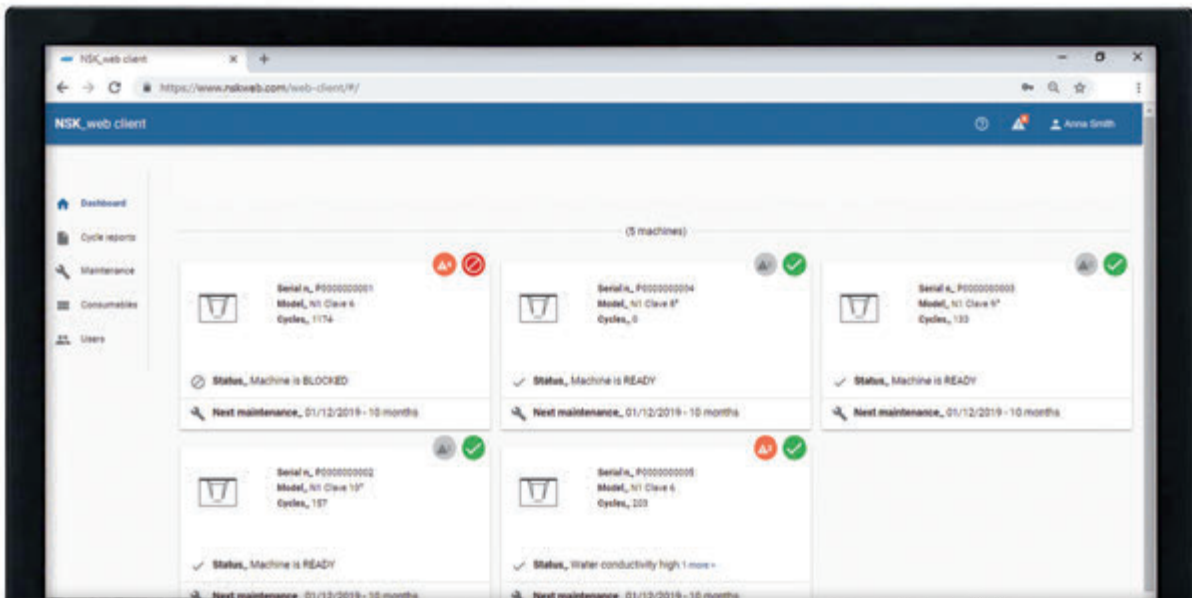
2



Efficiency, control, safety. N1clave innovative **Web Client** puts the most advanced connectivity for the first time in the service of sterilization, with packages of varying services never seen in this field. These services are collected and made available in two different ways: Dashboard and Cloud.

Thanks to the **Dashboard** services of the innovative Web Client, you can control the autoclave remotely (checking its status: if it is switched on, working, blocked, and so on), receive communications and alerts, be informed of the need to carry out ordinary and extraordinary maintenance operations.

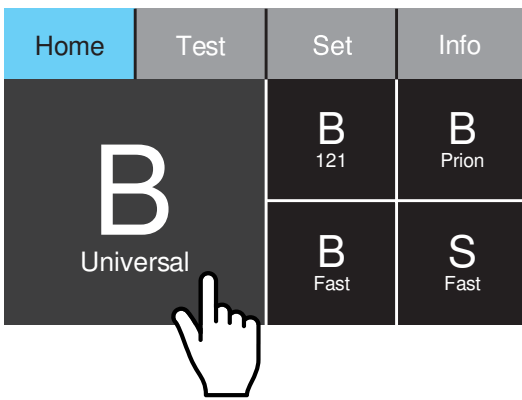
With the **Cloud** services, it is possible to track and store all the data of the cycles in a completely safe way, download them and make them available in a PDF or in digitally signed format, identified by a distinctive serial number, which can not be in any way counterfeited.



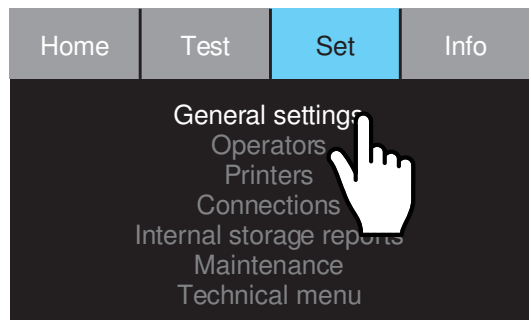
The extraordinary user-experience of N1clave meets a fundamental requirement: to create a digital environment of signals and icons that naturally accompany every gesture of the operator through a simple and linear sequence of steps, making her work serene and precise in such a delicate operation as instrument sterilization.

The **graphic interface** of the touch screen menu responds exactly to these needs: clarity, immediacy, precision in the management of cycles, tests and any other operation, ordinary and extraordinary.

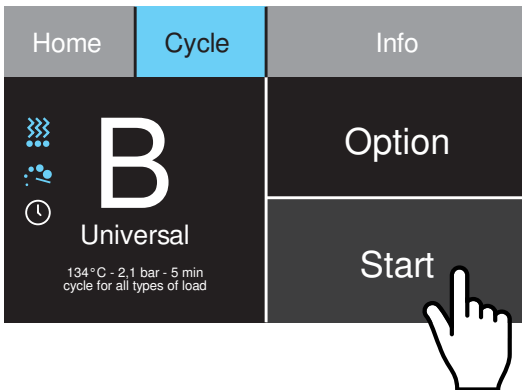
CYCLE SELECTION



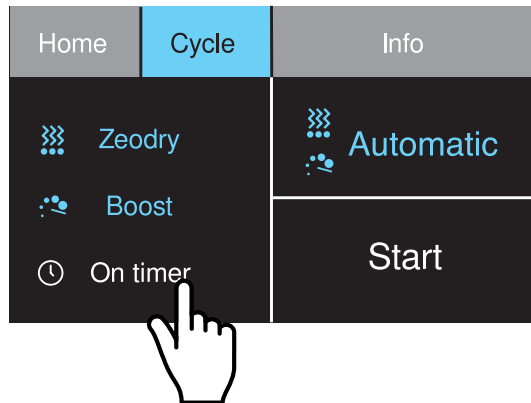
GENERAL SETTINGS



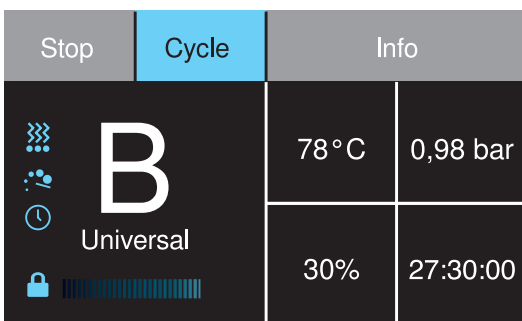
CYCLE START



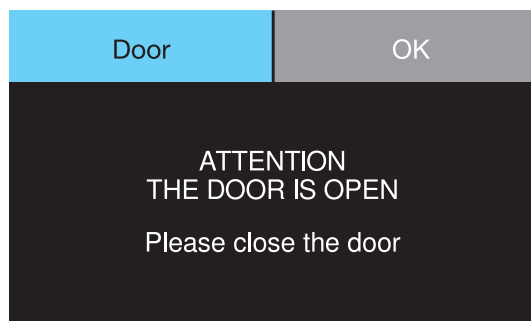
SETTING SELECTION



CYCLE IN PROGRESS

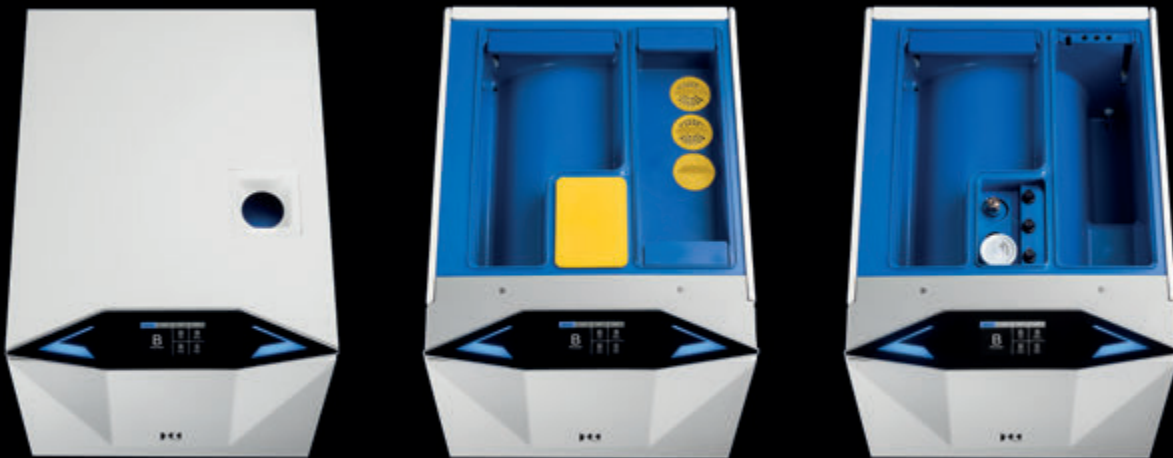


WARNINGS



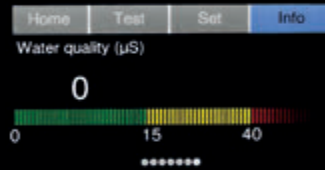
N1clave is the first autoclave patented to work with tap water.

That alone tells you how revolutionary it is. But there is more. An extraordinary innovation, due to the Water Perpetual® system, with its special patented filters positioned inside the autoclave. In this way, N1clave increases comfort in sterilization management and takes care of the environment and a precious resource such as water. For environmental sustainability in technology is today's true innovation.



Water

sustainability



Simply open the tap, fill a jug with water and pour into the new N1clave. The **Water Perpetual®** system, through the **Water-In Filters**, makes the water quality suitable for the sterilization cycle. Furthermore, it guarantees a potentially infinite recycling of water, which when filtered at the end of the sterilization cycle through the **Water-Out Filter** can be reused or released already decontaminated into the environment. An extremely easy and safe choice, which you make by operating the easily accessible selector positioned on the front of the autoclave. With N1clave, the environment is respected and no distilled water is needed. There is no need for external, uncomfortable, cumbersome and expensive filtering devices. Eco-sustainability and safety, thanks to the visualization in the graphic interface of the **water quality** and the status of the filters and to the yellow highlighting of the parts of the filtering system on which to intervene for maintenance.

1

Water Perpetual®



The control panel of the Water Perpetual® system, located on the front of the autoclave, includes the water drain tap, the selector for the activation of water recycling and the outlet tap.

Water-Out Filter

The Water-Out Filter is positioned so as to be easily accessible.

2

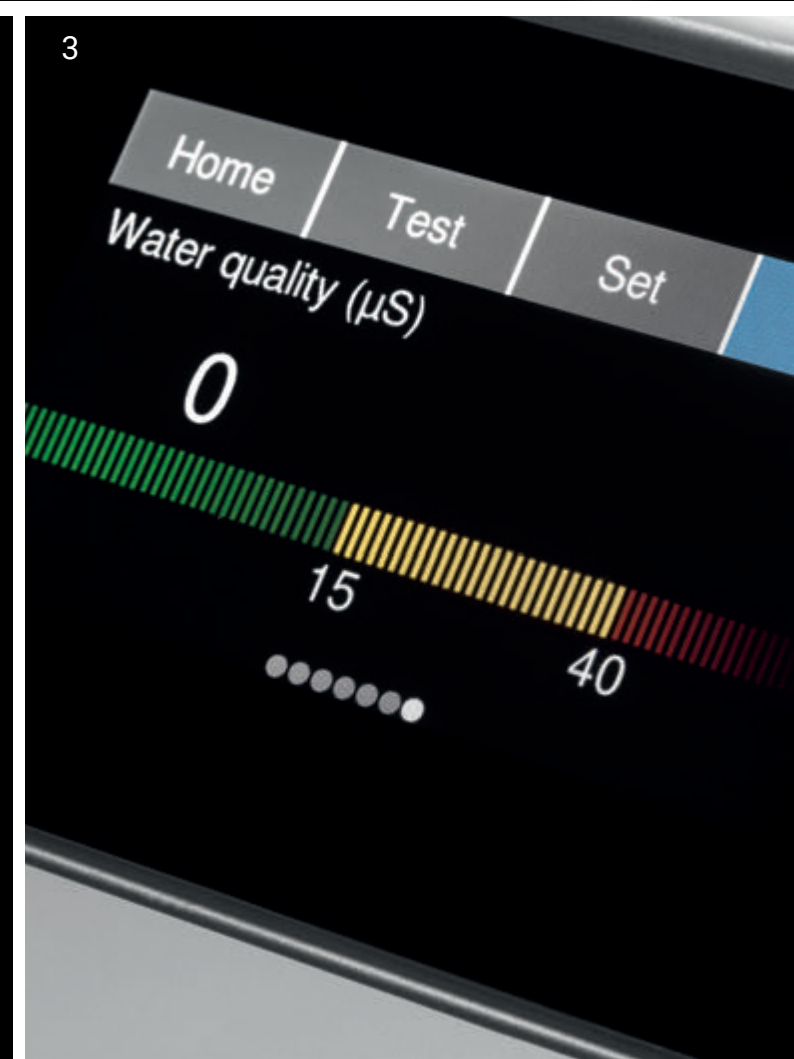
Water-In Filters

The Water-In Filters are housed in the tank unit, easily reachable by lifting the cover and replacing it effortlessly and with maximum ease.

3

Water quality

The innovative graphic interface allows you to monitor the quality of the water and its evolution.



Autoclave versions A single, revolutionary concept, available in 5 versions that differ in terms of load capacity, number of trays in the 11" chamber and time required for the sterilization cycles.

With N1clave, you always step into the future of sterilization. Thanks to its 5 versions you can choose how to do it: based on the specific needs of each clinic.



	6	7
CHAMBER DIMENSIONS	11" x 350 mm	11" x 450 mm
LOAD CAPACITY (MAX)	6 kg	7 kg
TRAYS	6 trays 212 x 290 mm	6 trays 212 x 370 mm
COCKPIT COLOUR	glossy white	glossy white
LIGHT SIGNATURE	-	-
WATER PERPETUAL®	✓	✓
STEAM GENERATOR	✓	✓
ZEOLITE	-	-
BOOSTERS + COOLING	-	-
USB	✓	✓
LAN	✓	✓
WEB CLIENT*	✓	✓

* terms and conditions may vary from country to country.



8+	9+	10+
11" x 350 mm	11" x 450 mm	11" x 450 mm
8 kg	9 kg	10 kg
7 trays 212 x 290 mm	7 trays 212 x 370 mm	7 trays 212 x 370 mm 1 tray 194 x 370 mm 1 tray 147 x 370 mm
glossy black	glossy black	glossy black
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓

Sterilization cycles N1clave guarantees sterilization cycles fully compliant with international regulations, offering unrivaled performance in terms of load-time ratio, in total safety.

PROGRAM	WRAPPING	ESPECIALLY SUITABLE FOR	STERILIZATION FOR
B Universal	Single and multiple wrapped	Mixed loads; long, narrow bore hollow bodies	134 °C Sterilization time 5,5 min
B 121	Single and multiple wrapped	Mixed loads; larger quantities of textiles; thermo-instable goods (e.g. plastic, rubber goods)	121 °C Sterilization time 20,5 min
B Prion	Single and multiple wrapped	Instruments where a danger of infection by pathologically modified proteins is suspected (e.g. Creutzfeld-Jacob-Disease, BSE)	134 °C Sterilization time 20,5 min
B Fast	Single wrapped and unwrapped instruments (no textiles)	Narrow bore hollow bodied instruments	134 °C Sterilization time 3,5 min
S Fast	Only unwrapped (no textiles)	Simple solid instruments; transmission instruments; simple hollow bodies	134 °C Sterilization time 3,5 min

AUXILIARY PROGRAM

- VACUUM TEST
- BOWIE & DICK TEST
- HELIX TEST




USE/FUNCTION

- For measuring leak rate, a test for dry and cold device (test without load)
- Steam penetration test with special test package
- The test for assessing steam penetration into hollow bodies must be performed with the Helix device placed in the chamber.

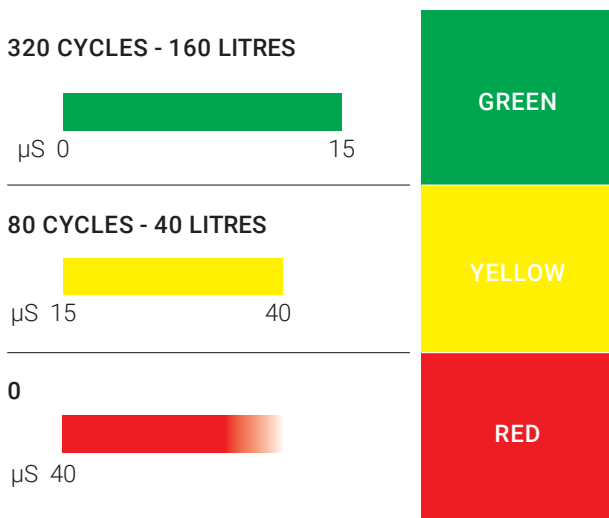
	6	7	8+	9+	10+
OPERATING TIME*	40-55 min	45-60 min	40-50 min	50-70 min	55-75 min
DRYING	20 min	20 min	12 min	12 min	12 min
LOAD	6 kg	7 kg	8 kg	9 kg	10 kg
OPERATING TIME*	55-70 min	60-75 min	55-65 min	65-90 min	70-90 min
DRYING	15 min	15 min	15 min	15 min	15 min
LOAD	6 kg	7 kg	8 kg	9 kg	10 kg
LOAD TEXTILE	1,5 kg	2 kg	2,5 kg	3 kg	3,5 kg
OPERATING TIME*	55-70 min	60-75 min	55-65 min	65-90 min	70-90 min
DRYING	22 min	22 min	17 min	17 min	17 min
LOAD	6 kg	7 kg	8 kg	9 kg	10 kg
LOAD TEXTILE	1,5 kg	2 kg	2,5 kg	3 kg	3,5 kg
OPERATING TIME*	30-35 min	35-40 min	30-35 min	40-45 min	45-50 min
DRYING	8 min	8 min	8 min	8 min	8 min
LOAD	1 kg	1,2 kg	2 kg	2,5 kg	3 kg
OPERATING TIME*	30-35 min	35-40 min	20-25 min	35-40 min	40-45 min
DRYING	5 min	5 min	5 min	5 min	5 min
LOAD	1 kg	1,2 kg	2 kg	2,5 kg	3 kg

* The cycle operating time is variable and depends on the load (standard load - maximum load) and the installation conditions.

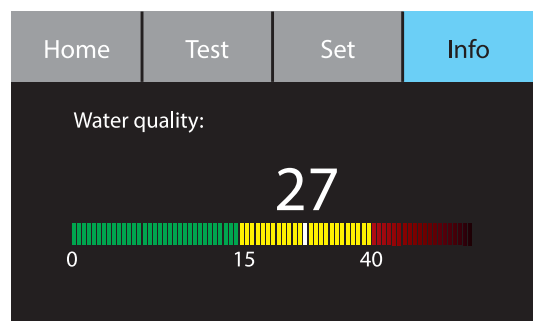
Water treatment N1clave simplifies and makes water treatment even safer, thanks to the two long-life internal filters – the first and only autoclave with this kind of feature. N1clave always offers excellent performance, even when the level of conductivity of the water is not optimal: in this case, it is sufficient to simply equip the autoclave with a third additional filter, that can be easily placed in its specific slot.

WATER QUALITY (μS)	LITRES	CYCLES	WATER-IN FILTERS
0-200	300	600	
200-400	200	400	
400-600	150	300	

Water-In Filters suggested configuration and available cycles, based on tap water conductivity of the clinic.



Average performance in case of tap water conductivity $200 \mu\text{S} > 400 \mu\text{S}$.



Example of water quality visualization and monitoring in the graphic interface.

Accessories



Large quantity
label printer
Order code: Z1417300



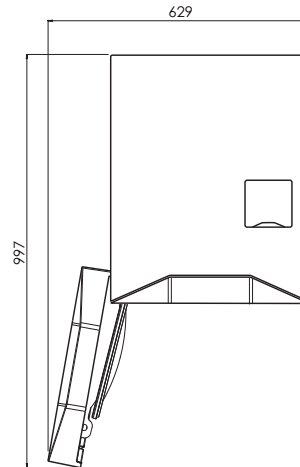
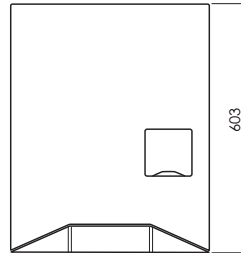
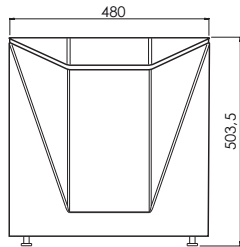
Aquakit
Order code: Z1417200



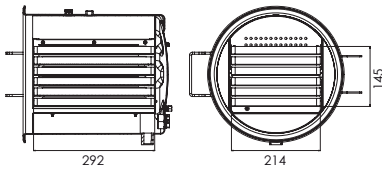
USB WiFi connector
Order code: Z1417100

Technical datasheet

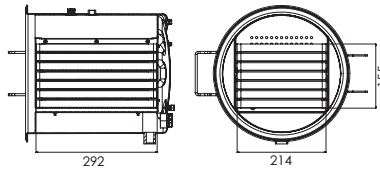
OVERALL REQUIRED SPACE



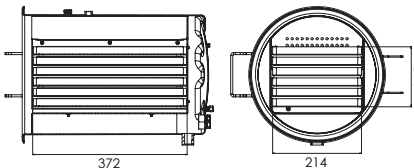
USEFUL SPACE



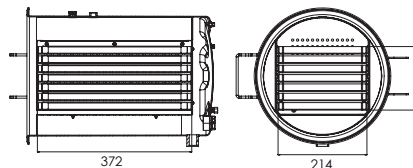
6 Model name: N1clave 6
Order code: Y1004214



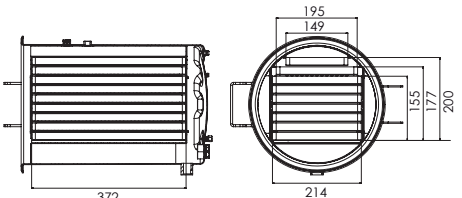
8+ Model name: N1clave 8+
Order code: Y1004216



7 Model name: N1clave 7
Order code: Y1004215



9+ Model name: N1clave 9+
Order code: Y1004217



10+ Model name: N1clave 10+
Order code: Y1004218

Documentation

- Device declaration of conformity
- Chamber declaration of conformity
- Operating manual
- Quick start guide
- Work test report

Main compliance with harmonised standards

- EN 13060
- EN ISO 14971
- EN ISO 13485
- EN 61010-1
- EN 61010-2-040
- EN 61326-1
- EN 13445
- EN 62304

Certification information

- Medical device directive (MDD): 93/42/EEC
- Classe II B device
- Chamber compliance to PED directive 2014/68/UE
- ISO 9001 - ISO 13485

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