

MEDIQUA

Life Science Solutions

STEAM HIGH TEMPERATURE STERILIZER
FOR HOSPITAL APPLICATION





Your best partner to step in the future of the Smart Hospital, thanks to our experience and research of the most innovative and advanced technologies and systems to care about Life.



As an international reference company for the medical area, we offer an entire range of products to take care of all the needs of our customers and a precious support in the complex management of the hospital systems, providing the correct advices in the supply phase of the medical devices, following the after sales key phase and supporting our partners from the training to the daily management of all these advanced devices, always keeping innovating and conforming our wide know-how to the constantly changing and growing medical reality.



Central Sterile Services Department (CSSD)

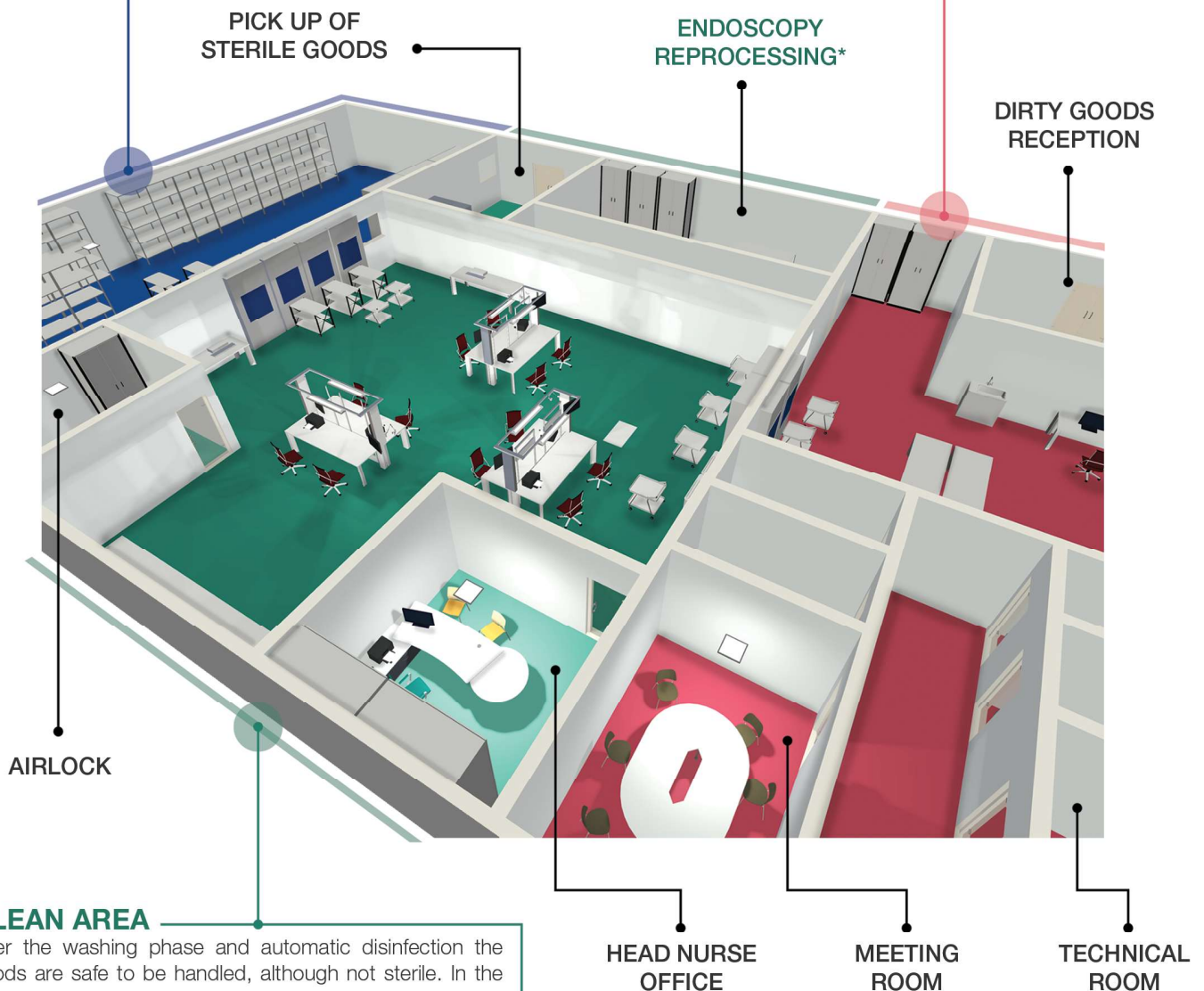
Inside the CSSD the best practice is to divide the site in three well separated areas: dirty area, clean area, sterile area. The processed instruments follow a precise flow from an area to the other, through pass-through machines for disinfection and sterilization. However, in places where the space and the organization don't allow two separate areas, a single area with single door machines is still realized.

STERILE AREA

Following the sterilization process, the instruments are now available to be delivered right away in the place of use or they are stored waiting to be used.

DIRTY AREA

In the dirty area all the instruments and used devices arrive from the various departments and operating theaters that need to be reprocessed to be used again. In this first phase the transition to the clean area occur thanks to a disinfection process. In addition, a manual pre-wash and an ultrasound treatment could be needed.



CLEAN AREA

After the washing phase and automatic disinfection the goods are safe to be handled, although not sterile. In the clean area the instruments that come out from the disinfectors are packed, to be prepared to the following process in the sterilizer.

*ENDOSCOPY AREA

Inside some centers this area is separated from the CSSD. Inside this area there are machines that guarantee the high disinfection, or, as in the case of Mediqua, the sterilization of the endoscopes.



Main features



1 The steam sterilizers I CAN STEAM are designed for a simple and effective experience for the operators, thanks to the touch screen user friendly interface.

2 The sterilizers can be supplied with steam produced by an integrated electrical steam generator, or by clean steam provided by the client (direct steam), or by an integrated steam generator warmed through heat exchange with dirty steam of the facility (indirect steam).

3 The machine is equipped with several safety devices, that makes it extremely reliable. These operate for example stopping the door closing when there are obstacles on the way; preventing the simultaneous opening of the doors (in the double doors model), to avoid cross-contamination; allowing the opening of the door only at atmospheric pressure. Everything always in compliance with current regulations. There are redundant temperature sensors, which refer to two separate control boards, to always ensure the efficiency of the sterilizer.

4 The information of each cycle is recorded and printed. It is possible to enter a tracking system of the operators with a barcode (and machine personal password for each operator). Our system is compatible with the main tracking systems on the market.

5 Automatic start: chance to program an automatic start with heating cycle and test cycles before the arrival of the operators.

6 An energy saving system is available on the generator (specifically for water and electricity), so that the sterilizer goes into stand-by mode and then there is either a complete cooling of the machine mode, or only a percentage reduction in consumption mode, so that in this second case the machine will be able to run again a cycle in a short time.



Front Panel

The **control panel** is covered with composite material carbon fiber panel, for a pleasant and unique effect.

Analogical reading system of the pressure inside the chamber through pressure gauges.

15" capacitive multitouch **screen** in 4:3, that responds perfectly even to a touch with a glove, with a resolution of 1024 x 768 pixels and a viewing angle of 178°, which allows the operator a perfect reading of the screen in any position, without loss of contrast and color. In the double door sterilizers, there is a 5" capacitive multitouch screen on the unloading side, with a resolution of 800 x 480 pixels.

Automatic vertical / horizontal **door**, pneumatic / electrically operated.

The door and all external surfaces are covered with insulating material to ensure an external temperature below 45°C, and preserve the operator.

Almost unlimited storage of cycles (100,000+), with the chance to export data through a **USB key**, which can be inserted in the front panel.

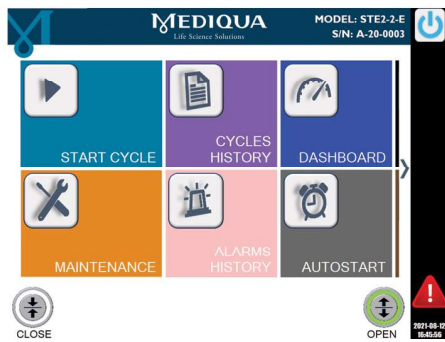
External surface refined with a "Scotch Brite" satin finish, for perfect cleaning.

Emergency button: red mushroom-shaped button with light and acoustic signal, which can stop immediately the machine, so that the machine will automatically reach the safety condition.

Front panel hinged and closed with a specific universal key.

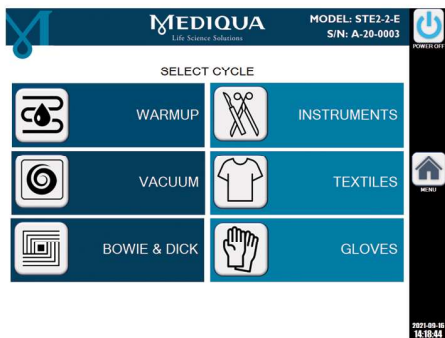
Integrated panel ink **printer** (or thermal). It is also possible to connect directly the sterilizer to an external printing device.

Touch Screen Display



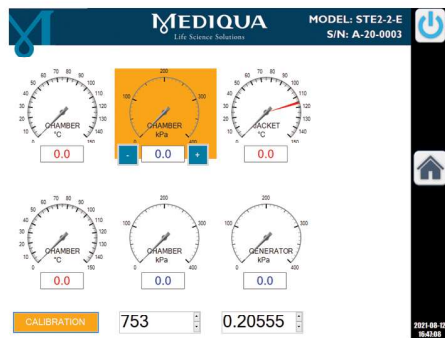
Main menu

The main menu is very intuitive and allows the use of the autoclave without any problem: any operator or technician can use the system, with very simple instructions received together with the machine, this to ensure an easy use of the device for any level of experience operator.



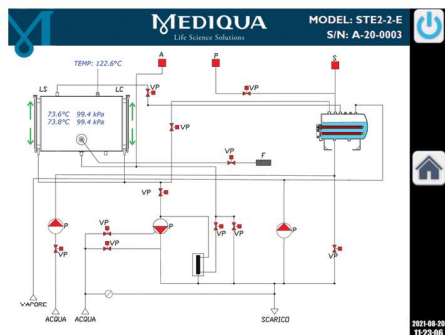
Sterilization cycles

Sterilization cycles: the autoclaves are preprogrammed with sterilization cycles that cover the needs of all hospital applications: various standard processes at 134 ° C and 121 ° C, as well as test cycles (VACUUM TEST to check the integrity of the chamber and hydraulic plant, and BOWIE & DICK test to check the efficiency of steam penetration and sterilization process). It is possible to set customized cycles, on customer request.



Technical menu

Technical menu: accessible only for technical/maintenance purposes. There are several security levels in the sterilizer system, all protected by passwords. It is also possible to add more than 100 different operators with customizable access keys, to ensure traceability of the cycles.



Synoptic screen

From the synoptic screen (password protected) all the internal functions of the various sterilizer components are displayed. The technical operators who have access to this section can manually check the correct functioning of each single component.



Multilingual system

The system is multilingual: several languages are pre-installed and can be selected by the user. Additional languages can be added to the system upon customer request.

Main structural features

- **Sterilization chamber** made of AISI 316L stainless steel (AISI 316Ti on request). The bottom of the chamber is made in a way that allow perfect drainage of condensation. It complies with the European directive PED 2014/68 / EU and with CE marking. The internal surfaces of the chamber and of the doors are subjected to electro-polishing treatment to obtain a smooth and compact surface, with high resistance to corrosive attack.

- **PC Windows 10** that allows strong customization for the customer and remote assistance. Reliable hardware that supports optimal working even in high temperature conditions.

- **Sterilization cycle control system** via controller (PC) and master / slave system consisting of two electronic control boards with microprocessor developed by Mediqua, each managing an independent system of pressure and temperature probes.

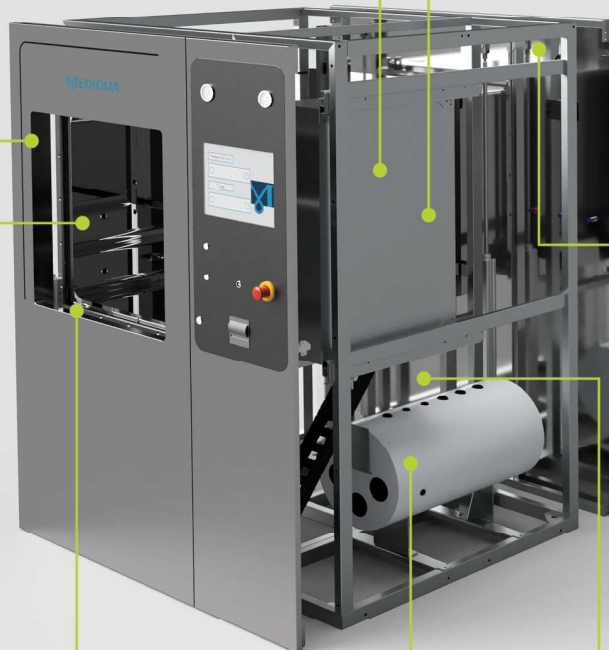
- **Steam jacket** realized from a sheet of austenitic stainless steel AISI 316L. Its structure guarantees strength to the chamber and high heat exchange surface. The welding is carried out by a fully automatic robotic system that makes constant control of the results.

- **Panels and frame** made of AISI 304 stainless steel (AISI 316L on request).

- All sterilizers can be supplied with internal loading **trolleys**, grids and external trolleys for handling which can be of fixed or variable height; **automatic loading and unloading** systems of the trolleys are available on request.

- **Liquid ring vacuum pump** that guarantees efficiency and performance, with high and stable vacuum levels (but as optional we can supply the device with an innovative dry vacuum pump, a system that allows to reduce the consumption of water of the autoclave because the pump is oil operated).

- For the production of steam, you can choose between an electric steam generator, which works with electric heating elements, or a steam generator with heat exchanger, in which the production of steam takes place through heat exchange with the steam supplied by the customer, if the house steam is not suitable for direct use of the sterilizer.



Conformity and certification



The STEAM line products are certified by Bureau Veritas, world leader in inspection, conformity assessment and certification services. As medical devices they have an identification number issued by the Notified Body and are CE marked in accordance with the European directive of the specific field. They are built in compliance with the most recent European regulations on the production of medical devices.

All internal processes are subjected to strong and specific controls and implemented over time to be always in line with the highest technological production standards. This allows us to monitor all stages from production to testing so that each device is delivered respecting the perfect state of the art.



ISO 13485
BUREAU VERITAS
Certification



ISO 9001
BUREAU VERITAS
Certification



SERVICE

After the delivery of our devices we keep supporting you, providing experience and expertise, even after installation and providing continuous support and training, with many in-house or on customer side, technical trainings for operators and users.



OUR OFFICES

We offer a complete maintenance package, customized on customer needs. Thanks to our presence on the Italian territory (and abroad), the response time in case of need is fast, to ensure the maximum productivity of the plants and facilities where our products are installed.

Thanks to the high-tech standard of our systems, the machines can be connected to the internet network, so that operational problems can be quickly solved even with a remote diagnosis, made by highly qualified Mediqua operators.



Steam sterilizers | CAN STEAM



MODEL	CHAMBER CAPACITY (STU ^{***})	CHAMBER CAPACITY (l)	CHAMBER DIMENSIONS WxHxD (mm)	OVERALL DIMENSIONS WxHxD (mm)
STE(1/2)*-1-(E/S/SE/ES/ESE)**	1	75	330x330x700	750x1450x990
STE(1/2)-2-(E/S/SE/ES/ESE)	2	150	340x670x700	1050x1850x990
STE(1/2)-3-(E/S/SE/ES/ESE)	3	220	340x670x950	1050x1850x1240
STE(1/2)-4-(E/S/SE/ES/ESE)	4	301	660x670x700	1370x1850x990
STE(1/2)-6-(E/S/SE/ES/ESE)	6	430	660x670x950	1370x1850x1240
STE(1/2)-6L1-(E/S/SE/ES/ESE)	6	553	660x1200x700	1750x1850x1150
STE(1/2)-8-(E/S/SE/ES/ESE)	8	557	660x670x1250	1370x1850x1540
STE(1/2)-8L4-(E/S/SE/ES/ESE)	8	692	660x1500x700	1950x2150x1150
STE(1/2)-9-(E/S/SE/ES/ESE)	9	751	660x1200x950	1750x1850x1400
STE(1/2)-10-(E/S/SE/ES/ESE)	10	705	660x670x1580	1370x1850x1870
STE(1/2)-12-(E/S/SE/ES/ESE)	12	880	660x670x2000	1370x1850x2290
STE(1/2)-12L1-(E/S/SE/ES/ESE)	12	988	660x1200x1250	1750x1850x1700
STE(1/2)-12L4-(E/S/SE/ES/ESE)	12	939	660x1500x950	1950x2150x1450
STE(1/2)-15-(E/S/SE/ES/ESE)	15	1249	660x1200x1580	1750x1850x2030
STE(1/2)-16-(E/S/SE/ES/ESE)	16	1236	660x1500x1250	1950x2150x1750

(*) (1/2) means whether the sterilizer is with 1 or 2 doors;

(**) (E/S/SE/ES/ESE) is related to the code of the type of steam, which can be:

- E - steam produced by an electric generator integrated in the machine;
- S - clean steam coming from the customer's plant;
- SE - steam generated using heat exchange with dirty steam from the customer's plant;
- ES - you can choose between steam in E mode or in S mode;
- ESE - you can choose between steam in E mode or SE mode.

(***) STU = international standard "sterilization unit", dimensions 300 mm x 300 mm x 600 mm



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MODEL	CHAMBER CAPACITY (STU***)	CHAMBER CAPACITY (l)	CHAMBER DIMENSIONS WxHxD (mm)	OVERALL DIMENSIONS WxHxD (mm)
STE(1/2)*-18-(E/S/SE/ES/ESE)**	18	1581	660x1200x2000	1750x1850x2450
STE(1/2)-20-(E/S/SE/ES/ESE)	20	1562	660x1500x1580	1950x2150x2080
STE(1/2)-24L1-(E/S/SE/ES/ESE)	24	1976	660x1200x2500	1750x1850x2950
STE(1/2)-24L4-(E/S/SE/ES/ESE)	24	1977	660x1500x2000	1950x2150x2500
STE(1/2)-28-(E/S/SE/ES/ESE)	28	2078	1000x1300x1600	2750x2000x2100
STE(1/2)-32-(E/S/SE/ES/ESE)	32	2472	660x1500x2500	1950x2150x3000
STE(1/2)-36-(E/S/SE/ES/ESE)	36	2597	1000x1300x2000	2750x2000x2500
STE(1/2)-42-(E/S/SE/ES/ESE)	42	3198	1000x2000x1600	2750x2700x2100
STE(1/2)-48-(E/S/SE/ES/ESE)	48	3246	1000x1300x2500	2750x2000x3000
STE(1/2)-54-(E/S/SE/ES/ESE)	54	3997	1000x2000x2000	2750x2700x2500
STE(1/2)-72-(E/S/SE/ES/ESE)	72	4497	1000x2000x2500	2750x2700x3000

Other products



Mediqua has a wide range of devices to suit every request: hospital, laboratory and industrial application. All the products needed in CSSD (Central Sterile Services Department) are available, including steam sterilizers, low temperature plasma (1) and formaldehyde sterilizers, endoscope washers (2), instrument washers (3), bed and trolley washers (4), benchtop sterilizers, bedpan washers, ultrasonic disinfectors and complete range of accessories and furniture.





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