

Steam sterilizers
Matachana S1000



S1000 steam sterilizers The evolution of a success

MATACHANA series S1000 Sterilizers have been designed taking into account the real needs of today's hospital sterilization, as much in sterilization centrals as in surgical units, outpatient centres, outsourced sterilization services, etc.

The S1000 is designed and manufactured in our production site in Barcelona (Spain), a new plant equipped with the latest technological breakthroughs in terms of sustainability, energy efficiency and process control.

Technical specification	1004 V/E		1006 V/E		1008 V/E		1010 V/E		1012 V/E	
	1 door	2 doors	1 door	2 doors	1 door	2 doors	1 door	2 doors	1 door	2 doors
Total dimensions (mm)										
Height	1954	1954	1954	1954	1954	1954	1954	1954	1954	1954
Width	1710(**)	1710(**)	996	996	996	996	996	996	996	996
Depth	958	977	1314	1336	1614	1636	2054	2076	2313	2338
Chamber dimensions (mm)										
Height	670	670	670	670	670	670	670	670	670	670
Width	670	670	670	670	670	670	670	670	670	670
Depth	625	638	998	996	1296	1265	1735	1733	2000	1988
Power (kW)*										
With generator (models E)	33	33	51	51	63	63	63	63	63	63
Without generator (models V)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Sterilization modules (S.M)										
	4	4	6	6	8	8	10	10	12	12
Chamber volume (liters)										
	279	285	445	445	565	578	774	773	893	892

(*) S1000 has version with built-in steam generator as well as without steam generator to be connected to steam network (external supply).
(**) This value includes the service area which is required for maintenance.

General features of series S1000

- **Technology:**
New control system more powerful and modern. TFT touch screen for loading area with integrated PLC. Frontal made of an innovative material that prevents dirt and reflections. Easy to clean.
- **Ergonomics:**
More accessible displays with a modern and versatile interface.
- **Sustainability:**
Energy and water consumption reduced thanks to incorporated economizer systems.
- **Efficiency:**
Redesigning of vacuum system by Venturi.
- **Compatibility:**
Perfect drying tested with the most demanding packaging on the market.
- **Connectivity:**
Ready to connect with the most usual management and traceability systems via Ethernet port.
- **Comfort:**
New range of more functional accessories, adapted to the loading requirements.
- **Accessibility:**
Full circuits and components redistribution that facilitates the accessibility of the Technical Service for easy maintenance procedures.
- **Remote diagnosis:**
Remote connection via Ethernet port to know the sterilizer's condition and enable the Technical Support Service to diagnose incidences/failures remotely for faster solution.

Regulations

Matachana series S1000 steam sterilizers have brought a revolution in the world of sterilization since its appearance on the market in the 70s.

The combination of quality materials, a multidisciplinary engineering and a thoroughly controlled production process result in a top-quality product according to European and international standards, able to accommodate the needs of the most demanding customers.

Series S1000 equipment has therefore been designed and built to adhere rigorously to the following specifications:

- European Standard EN 285
- International Quality Standards ISO 9001 and EN ISO 13485
- European Medical Devices Directive 93/42/EEC
- European Pressure Equipment Directive 97/23/EC (PED)
- European Directive on electromagnetic compatibility 2004/108/EC
- European Low Voltage Directive 2006/95/EC
- European Directive on machinery 2006/42/EC

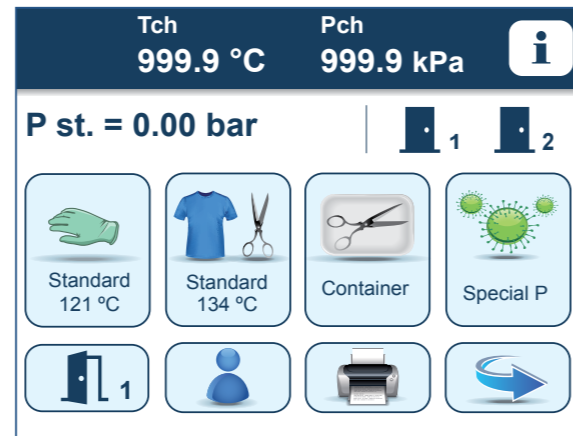
Compliance with these standards and directives ensures a total quality management comprising equipment design, production, delivery, installation and commissioning, as well as after sales service.



Control Unit

With this sterilizers' new line Matachana aims to create and develop equipment with an easy and intuitive use while offering a high level of quality.

Hence the incorporation of a control unit composed mainly by a **TFT colour touch panel QVGA** (with integrated PLC) for the loading area, a **4 lines characters LCD display** with function keys for the unloading area and an industrial PLC.



Navigation menu

Matachana has developed an intuitive interface with a number of icons that allows the user of the sterilizer to move easily and quickly through different programs selection menus and configuration.

Additionally, the software offers several useful features such as:

- Summaries management of printer process
- User selection menu
- Display sensor values (temperature and pressure)
- Passwords edition
- Maintenance settings
- Alarm, warning and error messages

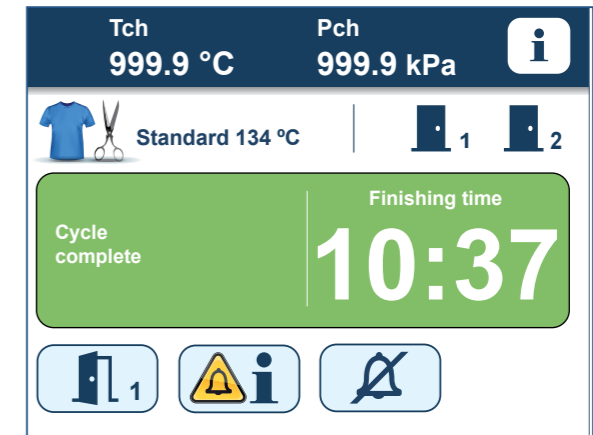
Separate readings

The control unit provides a sterilization monitoring thanks to the temperature and pressure double reading, connected to the two PLC available in the equipment. The temperature and pressure sensors are independent which ensures a management of independent readings too.

Print functions

The equipment includes a thermal printer that allows the operator or the maintenance technician to receive information about the equipment status and cycle progress.

Additionally, the large internal screen memory enables to connect an external printer via Ethernet port, for printing cycles in A4 format. It makes it more manageable and, in addition to the report's texts, allows a pressure and temperature graph of the cycle. Furthermore, the system downloads cycles through a USB port in the sterilizer frontal, offering the operator the possibility to file and keep the different reports of the cycles run and their corresponding graphs for their later printout and display.



End of cycle indication

To allow a rapid identification of the process final status, the software displays a message of "Completed cycle" on green background when the cycle is successfully completed, whereas a message of "Incorrect cycle" is displayed on red background to indicate an end of process with fault.

Connectivity with monitoring and tracking software

It enables to send cycle data to our EasyLOOK monitoring software via Ethernet port, as well as to other traceability software.



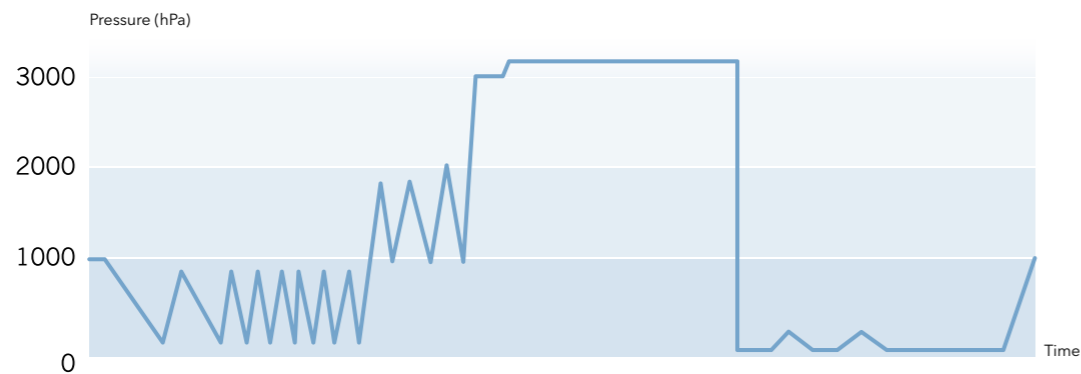
Programs

MATACHANA series S1000 Sterilizers have several pre-set programs covering an extensive range of combinations to suit the needs of the most demanding sterilization centres.

Two types of programs are available:

- **Test programs:** checking correct sterilizer operation
- **Production programs:** sterilization or production programs of sterile material

Graph (Pressure profile) of a production cycle:



Indication of the S1000 standard programs list:

Production programs	Application
Standard 134 °C	For packed materials (solid instruments or with cavities)
Standard 121 °C	For packed thermosensitive materials
Containers 134 °C	For packed materials (solid instruments or with cavities) or heavy loads in baskets or containers
Rapid 134 °C	For solid materials simple packing (one layer)
Special P 134 °C	For materials likely to be contaminated with prions (*)
Test programs	Application
Vacuum Test	Check the chamber tightness
B&D Test	To ensure the correct air removal and the steam penetration on the load
Preheating	Preheat the chamber (at the beginning of the day)

(*) Do not assume that prions can be inactivated by treating only with this program. An adequate pre-treatment will be required prior to sterilization with this program, as recommended by WHO.

Additionally, there are other optional programs (Open Liquids, Silicone Implants, steam Disinfection, Autostart) and others according to customer request.

Options

- Built-in compressor
- Vacuum system with liquid ring pump
- Connection to recovery systems and external cooling, allowing considerable savings in water consumption
- Manual and automatic steam bypass
- Record and graphic display by a 3, 4 or 5 channels video recorder
- Data download via USB port
- Option for printout report and cycle graph in A4 format by external printer
- Supply by UPS
- Able to perform maintenance on left side
- Remote alarm
- Air detector (manual and automatic version)
- Automatic generator purge
- Frontal in stainless steel
- Extra manometer on frontal
- Supplies alarm
- Programmed Autostart
- Automatic shut off after the last cycle of the day
- Connection to automatic loading and unloading systems
- Built-in steam-heated steam generator
- Steam generator with integrated dual heating function (electric or steam)



Series S1000 main features



Compact design

Compact design

Its size allows placing it in tight spaces and benefits the installation greatly.

Continuous chamber and jacket in stainless steel

High quality 1.4404 (AISI 316L).

Enveloping design jacket

No "cold spots" in the chamber guaranteed.

Chassis in high quality steel

Vertical sliding doors

Through pneumatic cylinder with security and stop systems. Conditioning of doors (double door models) to ensure that the door from the sterile area can be opened ONLY if the cycle has been successfully completed.

High precision mechanized of the door gasket housing

Ensures a gasket's high durability and easy maintenance.

Vacuum system by ejector (Venturi system) with water recirculation pump and economizer tank

Low maintenance, quiet and efficient. Low water consumption.

Separate water tanks

The water tank for the generator has a heat recovery system for the condensates which favours the non condensates gases removal and achieves an energy saving.



Vacuum system



Water tanks



Stainless circuits



Steam generator



Electrical cabinet



Accessibility for maintenance

Separate control and registration

by two PLC (one of them built into the touch screen).

High visibility backlit frontal

Incorporates several indicators icons helping the user to know at any moment the equipment status quickly and easily. Additionally, the device is equipped with a light indication of the emergency pushbutton activation.

Chamber and steam manometers on the loading frontal panel and chamber on the unloading side frontal panel.

Control panel composed by a TFT colour touch screen (loading side) and LCD display with function keys (unloading side).

Frontal service door

Manufactured with an innovative material that prevents the accumulation of dirt and reflections. Easy to clean.

Steam generator made of 1.4404 stainless steel (AISI 316L) with automatic operation.

Setting the working pressure depending on the program selected and resistances control by multicontactor system. Both functions guarantee energy savings. Levels regulation system of security, "minimum" and "maximum" by level floats and with visual level indicator.

Additionally and as an option, the generator can be fitted with steam-heated steam generator version as well as dual version (electric and steam-heated steam) integrated in the generator.

Electrical cabinet with passive distribution systems

Simplifies the wiring and reduces maintenance costs.

Total accessibility to equipment components

From one side as well as from the frontal panel (complete opening), facilitating the sterilizer's maintenance.

Ethernet connection

Allows an effective connectivity to different peripherals (PC, barcodes, printers, etc.).

Direct connection to our monitoring software EasyLOOK

Possibility of connection to the most common traceability and total management software.

Loading systems and accessories

Matachana offers a wide range of loading accessories whose top priority is to facilitate the work in the preparation area and subsequent loading / unloading into the sterilizer.

Each one of these accessories is adapted to different models of S1000 sterilizers as well as to different needs the final user may have.

The main accessories available are:

Modular basket in stainless steel 1.4301 (AISI 304).

Loading platforms in stainless steel 1.4301 (AISI 304) rod. With temperature resistant wheels and caps.

Transport trolleys at a fixed height in stainless steel 1.4301 (AISI 304) with different compatible fixing systems, depending on the guides system installed in the sterilizer. High manoeuvrability due to the wheels with locking and brake system.

Transport trolleys at an adjustable height with electrical height adjusting of the platform

Facilitates the task in areas with sterilizers of different heights. High manoeuvrability due to the wheels with locking and brake system.

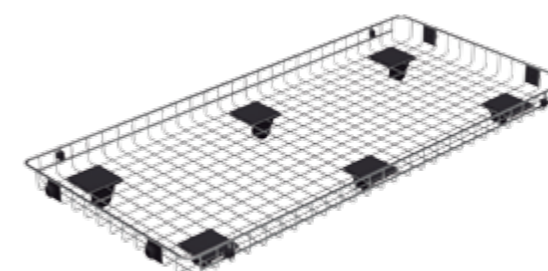
Loading/unloading trolley with variable height and electrically adjustable height platform (semi-automatic version). Simply using a basic pushbutton system, the user introduces the load into the chamber automatically and can also remove it once the sterilization cycle has completed successfully.

Loading frame in stainless steel 1.4301 (AISI 304), designed to facilitate to the maximum tasks in the preparation area with "anti-breakage" shelves. Lightweight, resistant and versatile.

Automatic loading and unloading systems

They offer optimum ergonomics and enables to reduce the physical effort of the staff. In addition, as its complete flexibility allows to adapt to different working methods (with or without loading chassis, platforms, etc.).

Other accessories address your needs to MATACHANA, so that our experts can help you choose the best loading configuration.



Loading platform



Loading frame



Manual trolley at fixed height



Semi-automatic loading trolley



Manual trolley at adjustable height





Matachana Group

Innovation is the way forward

Since our foundation 50 years ago, our mission has been to provide the best service, bringing our knowledge and field experience to our customers to facilitate their daily work, allowing them to be efficient in the production whereas keeping rigorously the quality.

Our history has taken us from the beginnings in 1962 to the transformation in 2000 in **Matachana Group**, with its subsidiaries in France, Germany, Argentina and Asia Pacific, as well as the collaboration of direct distributors in over 70 countries.

In **Matachana Group** we are aware that Training and Service contribute decisively to achieve customer satisfaction. For this reason, we have always invested in the development of these two areas of activity, which enables a direct contact with customers and help us to develop together a continuous improvement process.

Technical Assistance Service

A service of engineers, highly skilled expert technicians and support staff, all committed to ensure the proper equipment operation and condition.

Training Academy

Committed to the responsibility to obtain the optimum operation from our equipment, in **Matachana Group** we invest in the training of future users. In addition, we offer training courses regularly in 5 continents, forming customers and direct distributors.

Environmentally friendly

The sterilizers are designed and manufactured using the latest technologies on the market to achieve the best results in terms of energy savings and reduction in water consumption. Our Production Center complies with the ISO 14001 Environmental Management System.

Quality

All our products are developed, manufactured and tested within a strict quality control acc. to the International Standard ISO 9001, as well as the International Standard EN ISO13485 Standard for the sterilizers marked as medical device.

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