Steam sterilizers
Matachana S1000

●●● **matachana**

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.

Models	1004 E-1 1004 V-1	1004 E-2 1004 V-2	1006 E-1 1006 V-1	1006 E-2 1006 V-2	1008 E-1 1008 V-1	1008 E-2 1008 V-2	1010 E-1 1010 V-1	1010 E-2 1010 V-2	1012 E-1 1012 V-1	1012 E-2 1012 V-2
Technical specification	1 door	2 doors	1 door	2 doors	1 door	2 doors	1 door	2 doors	1 door	2 doors
Total dimensions (mm)										
Width	1710 **	1710 **	996	996	996	996	996	996	996	996
Height	1954	1954	1954	1954	1954	1954	1954	1954	1954	1954
Depth	958	977	1314	1336	1614	1636	2054	2076	2313	2338
Dimensiones cámara (mm)										
Width	670	670	670	670	670	670	670	670	670	670
Height	670	670	670	670	670	670	670	670	670	670
Depth	625	638	998	996	1265	1296	1735	1733	2000	1998
Power (kW) *										
WITH generator (E)	33	33	39	39	51	51	63	63	63	63
WITHOUT generator (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 complementary elements, 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.

Therefore, for the design and manufacture of the S1000 Series devices, the following regulations have been followed and/or taken into account :
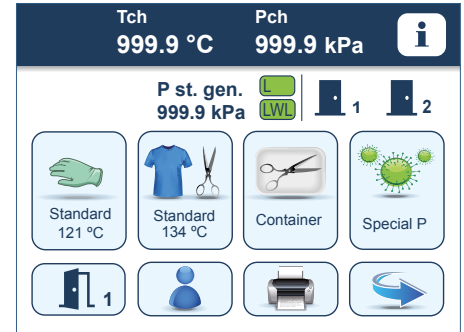
- European Standard EN 285
- International Quality Standards ISO 9001 and EN ISO 13485
- European Directive 93/42/EEC on medical devices
- European Pressure Equipment Directive 2014/68/EU
- European Directive on electromagnetic compatibility 2014/30/EU
- European Low Voltage Directive 2014/35/EU
- European 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.

Tch	Pch	
999.9 °C	**999.9 kPa**	**i**

P st. gen.
999.9 kPa | L / LWL | 1 | 2

Standard 121 ºC	Standard 134 ºC	Container	Special P

| 1 | | | |

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 sterilization supervision thanks to the double reading of temperature and chamber pressure by means of independent sensors connected to the two PLCs in the unit. This configuration assures an autonomous management of the readings, being a differentiating point with respect to other manufacturers.

Print functions

The sterilizer 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.
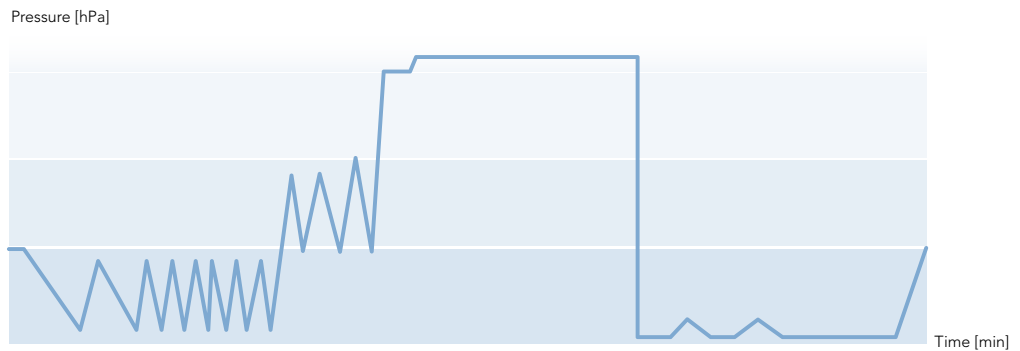
Programs

MATACHANA Series S1000 sterilizers have several pre-set programs covering an extensive range of combinations to suit the needs of the most demanding sterilization centrals.

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:

Pressure [hPa]

Time [min]

S1000 standard programs	
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 working 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

- EasyCHECK. Integrated electronic B&D test
- 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
- 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
- Front panel in stainless steel
- Extra manometer on front panel
- Supplies alarm
- Programmed Autostart
- Automatic shut off after the last cycle of the working day
- Connection to automatic loading and unloading systems
- Built-in steam-heated steam generator
- Steam generator with integrated dual heating function (electric or steam)
- Smart steam supply management

Series S1000
main features

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.

Frame 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.

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 push-button activation.

Vacuum system

Water tanks

Stainless steel circuits

Steam generator

Electrical cabinet

Accessibility for maintenance

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.

Smart control system consisting of:

- Adjustment of the working pressure according to the selected program

- Resistance control by means of a multi-contactor system

- Generator filling as per the program phase

All these functions guarantee energy savings and low water consumption.

MATACHANA offers maximum safety in its generators, ensuring proper operation depending on the water level inside the generator.

Additionally, there is the option of having the generator in steam-steam-heated version and also in dual version (electric and steam-heated steam) integrated in the same generator.

Electrical cabinet with passive distribution systems

Simplifies the wiring and reduces maintenance costs.

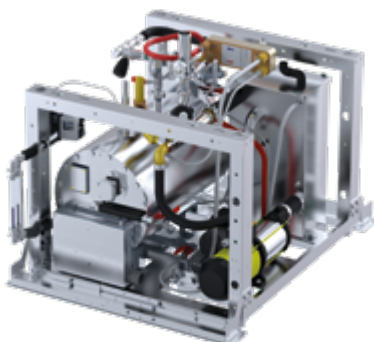### Total accessibility to equipment components

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.).
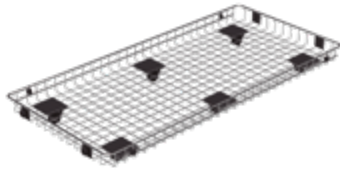
Direct connection to our EasyLOOK monitoring software

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

Loading systems and complementary elements

Loading platform

MATACHANA provides a wide range of loading complements whose top priority is to facilitate the work in the preparation area and subsequent loading / unloading into the sterilizer.

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

- **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.

- **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.

Loading frame

Trolley at fixed height

Motorized load transfer trolley

Automatic loading/unloading system

- **Loading/unloading 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.

- **Loading/unloading trolleys with electric platform height adjustment**

  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 electrically adjustable height platform**

  Simply using a basic push-button system, the user introduces the load into the chamber automatically and can also remove it once the sterilization cycle has completed successfully.

- **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 frames, platforms, etc.).

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

Innovation is the way forward

Since the company's foundation more than 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.

MATACHANA has a worldwide presence, with offices based in Spain, France, Germany, Italy, United States, Argentina and Malaysia, or through its distributors in over 110 countries.

In MATACHANA 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 Engineering Support

An assistance provided by engineers, highly skilled expert technicians and support staff, all committed to ensure the proper equipment operation and condition.

MIEC, training center

As we feel seriously committed and liable for achieving the optimum operation from the MATACHANA equipment, we invest in the training of future users, proposing a service of educational courses to all our customers on a regular basis and in the 5 continents.

Environmentally friendly

The devices 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 located in Castelldefels (Barcelona) complies with the ISO 14001 Environmental Management System and ISO 50001 Energy Management.

Quality

The MATACHANA devices are developed, manufactured and tested within a strict quality control according to the international Standards ISO 9001 and EN ISO 13485 for the quality management of medical devices.

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