Matachana Steam Sterilizers
Series S1000

INTRODUCTION:

Matachana S1000 sterilizers are of medium/high capacity and are designed to be installed in hospital CSSDs, surgical areas, out-patient departments and outsourcing sterilization services.

They are manufactured according to the technical specifications of updated European Standard EN 285: 2006 + A2:2009, following the quality international standards ISO 9001 and EN ISO 13485, thus guaranteeing that the company Antonio Matachana, S.A. carries out quality management in the design, production, delivery, installation and after-sale service of their products.

Some of the most significant characteristics of these sterilizers are their ergonomic features, their easy manageability, their capacity, the control by industrial micro-computers with a colour touch screen, their ejector vacuum system and automatic-pneumatic activated doors.

MODELS:

The Serie S1000 is made up by 16 models, with 4 different chamber dimensions, with a loading capacity from 6 to 12 sterilization modules and one (1) or two (2) doors, and with built-in steam generator (E) or connected to the steam network (V):

<table>
<thead>
<tr>
<th>Code</th>
<th>Model</th>
<th>Total Dimensions (mm)</th>
<th>Chamber Dimensions (mm)</th>
<th>Capacity S.M.</th>
<th>Chamber Volume (L)</th>
<th>Power (kW)</th>
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</thead>
<tbody>
<tr>
<td>78328</td>
<td>1006 V-1</td>
<td>996x1954x1310</td>
<td>670x670x998</td>
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<td>445</td>
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</table>
MAIN FEATURES:

The new generation Matachana S1000 sterilizers incorporate in their technical design the latest advances in safety and efficiency, guaranteeing the user perfect control over all of the sterilization processes:

- Chamber and continuous jacket made of high quality stainless steel 1.4404 EN 10028-7 AISI316L – the continuous jacket guarantees the absence of “could points” in the chamber.

- Chassis made of high quality steel.

- Steam conducting pipes and chassis made of stainless steel.

- Connection of steam pipes by Clamp system, which is highly waterproof and quick and easy to disassemble.

- Vacuum by means of ejector (Venturi system), with recirculation water pump and economizer tank: high efficiency and low maintenance, silent and effective.

- Automatic -pneumatic sliding system doors with safety locking mechanism.

- Mechanized door gasket groove for a longer gasket life and easier maintenance.

- Independent water tanks with special system for recovering heat from condensates, which allows preheating generator water, thus saving energy. Also we control the amount of non condensable gases (according to the EN285).

- Independent control and register by industrial microcomputer and touch screen with built-in PLC easy use and understanding.
• Backlit panel of great visibility with symbols to indicate different situations, e.g. process status, alarms (during the cycle or supplies), pending repair...

This will allow the user to know the status of the equipment in fast and simple way.

• Easy access to the main components (maintenance operations).

• Electrical cabinet with field passive elements such as distribution systems for the sensors and actuators. This system will shorten servicing times making the wiring of the sensors quick and easy.

• Access ports for validation.

• Manometers at the frontal panel (chamber and steam).

**STEAM GENERATOR:**

Models 1006 E-1/2, 1008 E-1/2, 1010 E-1/2 and 1012 E-1/2 are equipped with a new generation of built-in automatic steam generators, made in stainless steel. The steam generation is done by means of electric heating elements of appropriate power to the capacity of each sterilizer model. Equipped with security system and water control level with indicator at the front side.

Alternatively, a steam-to-steam generator can be built in model 1008, 1010 and 1012. Heating elements have been replaced by steam pipes in order to produce the steam from the existent central steam network.
CONTROL AND RECORDING SYSTEMS:

The sterilizer is controlled by a touch screen with PLC and an industrial PLC with analogue/digital inputs and outputs, where all of the operations of the sterilizer are centralised.

The sterilizer is equipped with a high-quality TFT colour touch screen, which provides colour brilliance and an increased viewing angle.

By means of the colour touch screen, the user “intercommunicates” with the micro-computer of the sterilizer in order to carry out the following functions:

- Access to menus for selecting programs, information, maintenance and statistics.
- Operation of the doors, status indication
- Viewing of program parameters
- Monitoring of the current cycle data: Temperature, Pressure, phase, time, cycle time, and phase name
- Indication and management of alarms, operator errors, and reset cycle
- Viewing of process curves (pressure and temperature) in real time
- Management of user names and passwords

Matachana S1000 sterilizers are equipped as standard with an alphanumerical digital printer installed on the loading side, for the detailed recording of the sterilization process. Besides pressure, temperature and time, the printer provides other important data such as cycle number, batch, date, total cycle time, etc. This printer has a big paper storage, which allows printing up to 220 cycles. Optionally, there is the option to connect an external Ethernet printer.

Due to the large internal memory of this new screen, it is possible to store the data of the last 1,000 process cycles (including 20 cycles with complete analogue curves).

In addition, the control system is ready for connection to external PC systems (CSSDoc, third-party traceability systems, and remote access) as well as to the internet through its Ethernet switch.

For sterilizers of double doors, the load side provides a screen with a modern and ergonomic operation menu that allows giving support to the user in many ways, such as the selection and start up of the cycles.
PROGRAMS:

The microcomputer with standard programming has a number of programmes covering a wide range of sterilization processes. Optionally, and on-demand, you can incorporate other programs according to the special needs of the user.

<table>
<thead>
<tr>
<th>PROGRAMS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test</td>
<td>Vacuum test</td>
</tr>
<tr>
<td>Test</td>
<td>Bowie &amp; Dick test (134ºC – 3,5 minutos)</td>
</tr>
<tr>
<td>Standard</td>
<td>Standard 134ºC</td>
</tr>
<tr>
<td>Standard</td>
<td>Standard 121ºC</td>
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<tr>
<td>Standard</td>
<td>Containers 134ºC</td>
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<tr>
<td>Standard</td>
<td>Fast 134ºC</td>
</tr>
<tr>
<td>Standard</td>
<td>Special 134ºC</td>
</tr>
<tr>
<td>Optional</td>
<td>Open liquids program</td>
</tr>
</tbody>
</table>

OPTIONS AND ACCESSORIES:

- CSSDoc supervision software (process monitoring, machine status monitoring, data recording)
- Videorecorder.
- Manual steam supply by-pass.
- Internal built-in air compressor.
- Remote alarm.
- Uninterruptible power supply system (UPS).
- Air tightness and independent gasket pressurization.
- Possibility of maintenance in left side.
- Possibility of building different voltages and frequencies.
- Vacuum system by liquid ring pump.
- Connection to external cooling systems.
- Loading system (trolleys, racks, platforms, baskets, shelves...).
- Automatic loading/unloading systems.
- Panelling (side panels, jambs, lintels, maintenance doors).
- Water treatment system (softener, reverse osmosis).
STANDARDS AND DIRECTIVES

Matachana S1000 sterilizers are manufactured according to the latest in-force regulations in the European Union. As most significant:

- Medical Device Directive 93/42/EEC. The Matachana S1000 sterilizers referred to above comply with the aforementioned directive and for this reason they are visibly and indelibly marked with the CE marking followed by the number of the notified body that has performed the conformity assessment procedure.

- Pressure Vessel Directive 97/23/EC: As pressure equipment, the sterilizer meets the standards set out about design, manufacturing and evaluation of the pressure equipment and assemblies. As well the sterilizers will have the CE mark followed by the number from the notified body. The sterilizer is designed according to the AD-2000 design code.

- Other applicable directives are:
  - Low Voltage 2006/95/EC
  - Electromagnetic Compatibility 2004/108/EC
  - Machinery 2006/42/EC