The new shape of sterilization
A leading figure in the development of innovative sterilization systems, MOCOM has always been producing high performance devices of excellent quality, which combine process safety and efficacy with the customer’s requirements.
MILLENIUM

B+  B²  B

Water steam sterilizers
Millennium B+, Millennium B² and Millennium B are Mocom’s revolutionary step forward in the field of type-B steam sterilizers. They represent an ideal point of reference in terms of safety, performance and flexibility.

The Millennium type B sterilizers are technologically advanced equipments which are also extremely easy to use. Thanks to theirs high number of configuration options and to the corresponding patented devices, they can satisfy any sterilization requirement and ensure the highest performance in every situation.
FEATURES:

Microprocessor controlled electronic Process Evaluation System
Advanced software with multilingual display options
Instant steam generation system
Single-piece (for 17-litre models), formed stainless-steel, surface-treated sterilization chamber
Integrated printer (optional for Millennium B model)
Robot-controlled locking system
Widescreen liquid crystal display
High penetration fractionated vacuum system to ensure the complete removal of air
Customized vacuum drying
Several patent-pending functioning systems

Wide range of sterilization programs including a completely customized cycle
Two test programs: Helix / Bowie & Dick test and Vacuum test
Integrated water filling and draining tanks
Possibility of connection to a water distillation system (automatic filling) and of direct draining to the water piping system
Possibility of serial connection to a PC, with cycle data recording
Possibility to validate the sterilization process according to EN 554 standard
The single-piece (for 17-litre models), formed stainless steel sterilization chamber ensures higher durability, quality and finishing.

The 17-litre capacity for Millennium B+ and Millennium B and 21-litre capacity for Millennium B², allows the use of a special tray holder for five trays* or for three closed cassettes.

(*standard trays provided:
5 for Millennium B+ and Millennium B²
3 for Millennium B)

The special locking system has been designed in conformity with the strictest standards. It is characterised by a double door-locking robotized mechanism with a triple-protection system which ensures complete safety and usability.

A slight pressure will close the door with no further effort.
**DISPLAY**

A wide multilingual liquid crystal display allows the clear visualisation of all the necessary information in real time. The four lines of characters and the included symbols guide the users throughout their navigation in the various cycle phases and provide indications of the autoclave’s functioning status.

The innovative multi-level setup program allows the customization of the various functions and meets the most demanding user’s requirements.

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**PRINTER**

Millennium sterilizers are equipped with an integrated thermal printer (standard for Millennium B+ and Millennium B², optional for Millennium B), which allows the complete recording of all the cycle data. Printouts can be customized according to different requirements. All reports can be printed in multiple copies, which allows the identification of each individual sterilized tray and ensure the user’s easy filing. In addition to that, the serial connection allows the storage of data in the PC by means of a suitable software.
**Basic Configuration**

The four pre-set sterilization programs of **Millennium B+**, **Millennium B²** and **Millennium B** guarantee their immediate use by any operator.

**Test Programs**

- Helix / Bowie & Dick test (steam penetration test)
- Vacuum Test (air leakage test)
STERILIZATION PROGRAMS

The menu offers a wide range of programs, specifically developed for a suitable treatment of the various materials. Different combinations of the vacuum pulses, temperature and process time and the duration of drying, allow the efficient sterilization of each type of load.

<table>
<thead>
<tr>
<th>Material</th>
<th>Program</th>
<th>Total time</th>
<th>Process</th>
<th>Autonomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wrapped hollow* instruments, porous materials</td>
<td>Porous</td>
<td>32 minutes</td>
<td>134°C 4’</td>
<td>ca. 7 cycles</td>
</tr>
<tr>
<td>Wrapped hollow* instruments, porous materials</td>
<td>Prion</td>
<td>46 minutes</td>
<td>134°C 18’</td>
<td>ca. 6 cycles</td>
</tr>
<tr>
<td>Unwrapped hollow* instruments</td>
<td>Hollow</td>
<td>25 minutes</td>
<td>134°C 4’</td>
<td>ca. 7 cycles</td>
</tr>
<tr>
<td>Wrapped solid instruments</td>
<td>Wrapped</td>
<td>25 minutes</td>
<td>134°C 4’</td>
<td>ca. 10 cycles</td>
</tr>
<tr>
<td>Unwrapped solid instruments</td>
<td>Solid</td>
<td>19 minutes</td>
<td>134°C 4’</td>
<td>ca. 10 cycles</td>
</tr>
<tr>
<td>Unwrapped solid instruments</td>
<td>Emergency</td>
<td>13 minutes</td>
<td>134°C 3’</td>
<td>ca. 10 cycles</td>
</tr>
<tr>
<td>Wrapped hollow* instruments, porous materials</td>
<td>Porous</td>
<td>47 minutes</td>
<td>121°C 20’</td>
<td>ca. 6 cycles</td>
</tr>
<tr>
<td>Unwrapped hollow* instruments</td>
<td>Hollow</td>
<td>40 minutes</td>
<td>121°C 20’</td>
<td>ca. 6 cycles</td>
</tr>
<tr>
<td>Wrapped solid instruments</td>
<td>Wrapped</td>
<td>40 minutes</td>
<td>121°C 20’</td>
<td>ca. 9 cycles</td>
</tr>
<tr>
<td>Unwrapped solid instruments</td>
<td>Solid</td>
<td>34 minutes</td>
<td>121°C 20’</td>
<td>ca. 9 cycles</td>
</tr>
</tbody>
</table>

* Hollow instruments type “A” and “B” according to EN 13060:2004

PROCESS EVALUATION SYSTEM

The advanced sterilization process self-evaluation system (“Process Evaluation System” as defined by EN 13060:2004), allows an accurate cross-referenced control of the basic parameters of temperature, pressure and time. It also signals any failure throughout the whole sterilization process and it provides the user with the most fundamental guarantee: the total safety.
Type: B (according to EN 13060:2004)

Chamber dimensions (LxD):
- Millennium B+ and Millennium B: 250x350 mm
- Millennium B²: 250x450 mm

Chamber volume:
- Millennium B+ and Millennium B: 17 litres
- Millennium B²: 21 litres

External dimensions (LxHxD):
- Millennium B+ and Millennium B: 475x410x580 mm
- Millennium B²: 475x410x680 mm

Net weight:
- Millennium B+ and Millennium B: 58 kg
- Millennium B²: 63 kg

Voltage:
220/240V (other voltages on request)

Frequency:
50/60 Hz

Rated power:
2300 W

Sterilization programs:
11 (available), 4 (pre-set)

Test programs:
Helix / Bowie & Dick test, Vacuum test

Total sterilization mass:
- Solid/Unwrapped hollow materials: 6 Kg
- Solid/Wrapped hollow materials: 3 Kg
- Porous materials: 1 Kg

SAFETY DEVICES

- Integrated evaluation system of the sterilization process
- Self-diagnosis of the sterilizer functioning
- Door-locking robotized mechanism with electromechanical triple-protection and safety micro-switches
- Self-levelling hydraulic system
- Safety thermostats for the steam generator and the chamber heating element
- Safety valve

APPLICABLE DIRECTIVES AND REFERENCE STANDARDS

- 93/42/EEC: Medical Devices Directive
- EN 13060:2004 Small Steam Sterilizer Standard
- EN 61010-1: Safety Requirements for Electrical Equipment for Laboratory Use
- EN 61010-2-041: Particular Requirements for Autoclaves using Steam
The rapid type B steam sterilizer

MILLENNIUM B

T he r a p i d t y p e B s t e a m s t e r i l i z e r
For the rapid sterilization of hollow instruments and porous materials, Mocom has designed **Millennium Bμ**, the small sized type B sterilizer with an exclusive design. Millennium Bμ offers a wide range of type B, S and N cycles, all complete with pre-vacuum and drying that satisfy the most varied sterilization needs with safe and exceptionally rapid results.

### AUTOCLAVABLE PRODUCTS

**Porous materials**

**Wrapped materials**

**Hollow instruments**

**Solid instruments**

### STERILIZATION PROGRAMS

<table>
<thead>
<tr>
<th>Material</th>
<th>Program</th>
<th>Total time*</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wrapped hollow** instruments, porous materials</td>
<td>Porous</td>
<td>20 minutes</td>
<td>134°C 4’</td>
</tr>
<tr>
<td>Wrapped hollow** instruments, porous materials</td>
<td>Prion</td>
<td>34 minutes</td>
<td>134°C 18’</td>
</tr>
<tr>
<td>Unwrapped hollow** instruments</td>
<td>Hollow</td>
<td>16 minutes</td>
<td>134°C 4’</td>
</tr>
<tr>
<td>Wrapped solid instruments</td>
<td>Wrapped</td>
<td>16 minutes</td>
<td>134°C 4’</td>
</tr>
<tr>
<td>Unwrapped solid instruments</td>
<td>Solid</td>
<td>12 minutes</td>
<td>134°C 4’</td>
</tr>
<tr>
<td>Unwrapped solid instruments</td>
<td>Emergency</td>
<td>9 minutes</td>
<td>134°C 3’</td>
</tr>
<tr>
<td>Wrapped hollow** instruments, porous materials</td>
<td>Porous</td>
<td>35 minutes</td>
<td>121°C 20’</td>
</tr>
<tr>
<td>Unwrapped hollow** instruments</td>
<td>Hollow</td>
<td>31 minutes</td>
<td>121°C 20’</td>
</tr>
<tr>
<td>Wrapped solid instruments</td>
<td>Wrapped</td>
<td>31 minutes</td>
<td>121°C 20’</td>
</tr>
<tr>
<td>Unwrapped solid instruments</td>
<td>Solid</td>
<td>27 minutes</td>
<td>121°C 20’</td>
</tr>
<tr>
<td>Special</td>
<td>Special</td>
<td>variable</td>
<td>variable</td>
</tr>
</tbody>
</table>

* All indicated times include the drying phase

** Hollow instruments type “A” and “B” according to EN 13060:2004
The only type B sterilizer equipped with 11 available cycles, extraordinarily fast to perfectly sterilize turbines and handpieces without damaging them.

STERILIZATION CHAMBER
The special sterilization chamber is made entirely of treated Anticorodal and is characterized by an exclusive (patent-pending) ovalized shape. Its 5.5 litre capacity allows using 2 standard trays or 1 closed cassette, both supplied standard.
FEATURES:

- Microprocessor controlled electronics
- Process Evaluation System
- Advanced software with multilingual display options
- Instant steam generation system
- Sterilization chamber of treated Anticorodal
- Parallel connection to an external printer
- Robot-controlled locking system
- Widescreen liquid crystal display
- High penetration fractionated vacuum system to ensure the complete removal of air
- Customized vacuum drying
- Several patent-pending functioning systems

- Wide range of sterilization programs including a completely customized cycle
- Two test programs: Helix / Bowie & Dick test and Vacuum test
- Integrated water filling and draining tanks
- Possibility of serial connection to a PC, with cycle data recording
- Sterilization process that can be validated according to EN 554 standard
Type: B (according to EN 13060:2004)

Chamber dimensions (LxHxD):
220x80x310 mm

Chamber volume:
5.5 litres

External dimensions (LxHxD):
375x310x545 mm

Net weight:
35 kg

Voltage:
220/240V (other voltages on request)

Frequency:
50 Hz

Rated power:
3000 W

Sterilization programs:
11 (available)
4 (pre-set)

Test programs:
Helix / Bowie & Dick test
Vacuum test

Total sterilization mass:
• Solid/Unwrapped hollow materials: 1.8 Kg
• Solid/Wrapped hollow materials: 1 Kg
• Porous materials: 0.3 Kg

TECHNICAL FEATURES:

SAFETY DEVICES

• Integrated evaluation system of the sterilization process
• Self-diagnosis of the sterilizer functioning
• Door-locking robotized mechanism with electromechanical triple-protection and safety micro-switches
• Self-levelling hydraulic system
• Safety thermostats for the steam generator and the chamber heating element
• Safety valve

APPLICABLE DIRECTIVES AND REFERENCE STANDARDS

• 93/42/EEC: Medical Devices Directive
• 89/336/EEC: Electromagnetic Compatibility Directive
• 73/23/EEC: Low Voltage Directive
• EN 13060:2004 Small Steam Sterilizer Standard
• EN 61010-1: Safety Requirements for Electrical Equipment for Laboratory Use
• EN 61010-2-041: Particular Requirements for Autoclaves using Steam

GUARANTEE
24 months