



**millennium**

The new shape of  
sterilization

**mocom**<sup>®</sup>  
Sistemi innovativi di sterilizzazione



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.

**B+** **B<sup>2</sup>** **B** **MILLENNIUM**



**Water steam  
sterilizers**





**B+** 17 litres

**B<sup>2</sup>** 21 litres

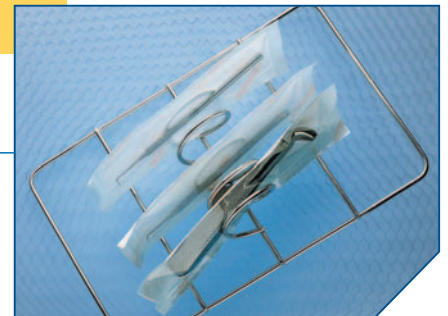
**Millennium B+**, **Millennium B<sup>2</sup>** and **Millennium B** are Mocom's revolutionary step forward in the field of type-B steam sterilizers. They represent an ideal point of reference in terms of safety, performance and flexibility.

The Millennium type B sterilizers are technologically advanced equipments which are also extremely easy to use. Thanks to their 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.

### AUTOCLAVABLE PRODUCTS



**Porous materials**



**Wrapped materials**



**Hollow instruments**



**Solid instruments**

## FEATURES:

**M**icroprocessor controlled electronic

**P**rocess Evaluation System

**A**dvanced software with multilingual display options

**I**ntant steam generation system

**S**ingle-piece (for 17- litre models), formed stainless-steel, surface-treated sterilization chamber

**I**ntegrated printer (**optional for Millennium B model**)

**R**obot-controlled locking system

**W**idescreen liquid crystal display

**H**igh penetration fractionated vacuum system to ensure the complete removal of air

**C**ustomized vacuum drying

**S**everal patent-pending functioning systems

**W**ide range of sterilization programs including a completely customized cycle

**T**wo test programs: Helix / Bowie & Dick test and Vacuum test

**I**ntegrated water filling and draining tanks

**P**ossibility of connection to a water distillation system (automatic filling) and of direct draining to the water piping system

**P**ossibility of serial connection to a PC, with cycle data recording

**P**ossibility to validate the sterilization process according to EN 554 standard

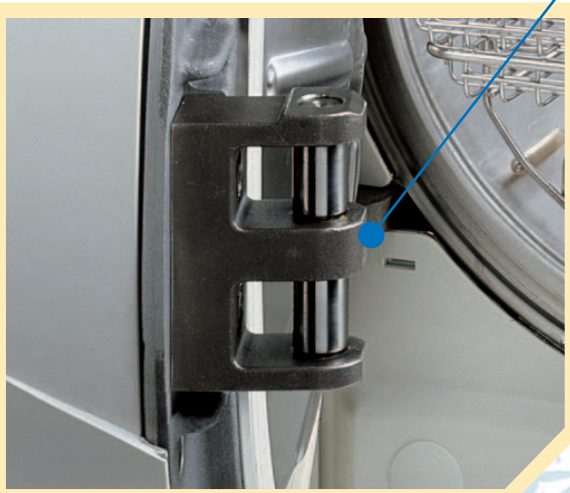


### STERILIZATION CHAMBER

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 B<sup>2</sup>, allows the use of a special tray holder for five trays\* or for three closed cassettes.

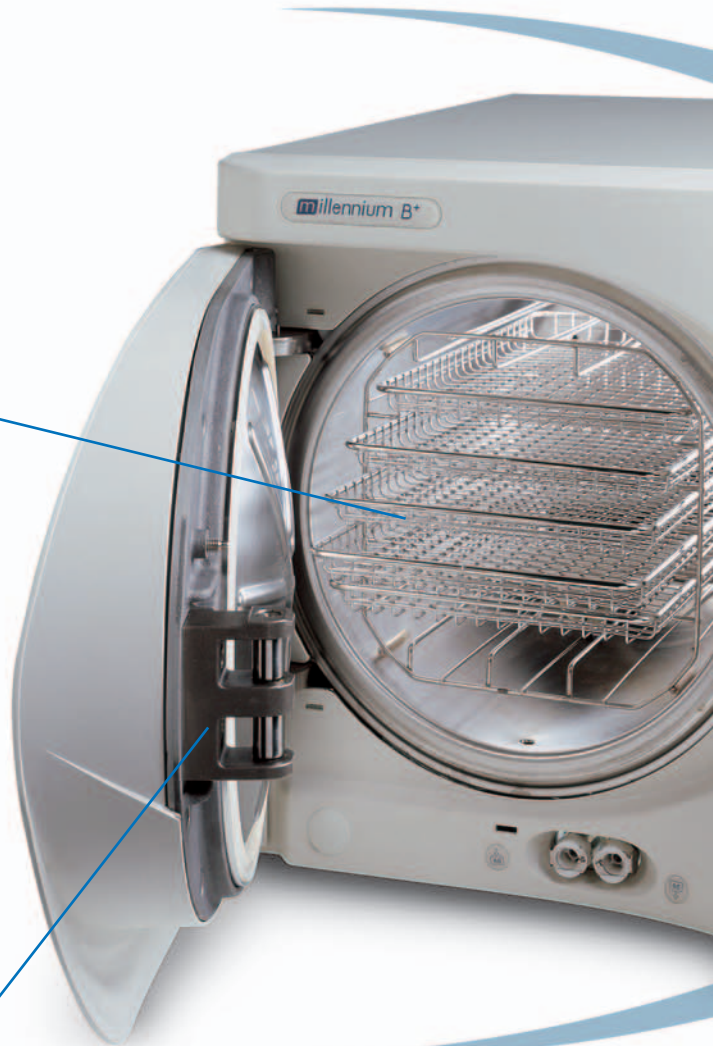
(\*standard trays provided:  
5 for Millennium B+ and Millennium B<sup>2</sup>  
3 for Millennium B)



### LOCKING SYSTEM

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.



# ety and easiness of use



## DISPLAY

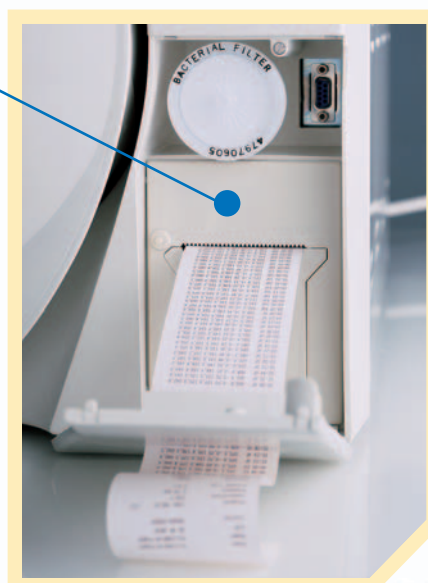
A wide multilingual liquid crystal display allows the clear visualisation of all the necessary information in real time.

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.

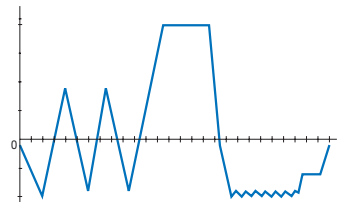
The innovative multi-level setup program allows the customization of the various functions and meets the most demanding user's requirements.

## PRINTER

Millennium sterilizers are equipped with an integrated thermal printer (standard for Millennium B+ and Millennium B<sup>2</sup>, 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.

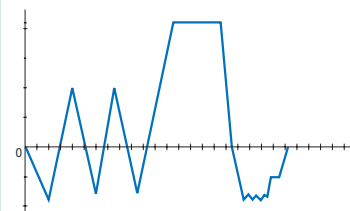


### 01 POROUS MATERIALS AND WRAPPED HOLLOW INSTRUMENTS



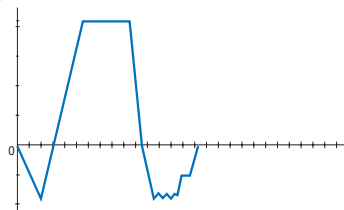
134° C POROUS  
STANDARD DRYING  
134.0 C  
2.10 bar 04:00

### 02 UNWRAPPED HOLLOW INSTRUMENTS



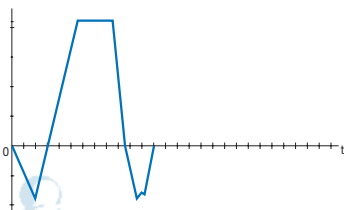
134° C HOLLOW  
STANDARD DRYING  
134.0 C  
2.10 bar 04:00

### 03 WRAPPED SOLID INSTRUMENTS



134° C WRAPPED  
STANDARD DRYING  
134.0 C  
2.10 bar 04:00

### 04 UNWRAPPED SOLID INSTRUMENTS



134° C EMERGENCY  
FAST DRYING  
134.0 C  
2.10 bar 03:00

### TEST PROGRAMS

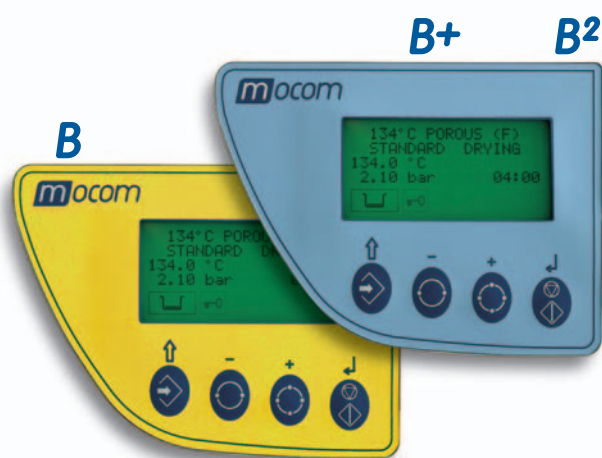
**Helix / Bowie & Dick test** (steam penetration test)

**Vacuum Test** (air leakage test)

## BASIC CONFIGURATION

The four pre-set sterilization programs of **Millennium B+**, **Millennium B<sup>2</sup>** and **Millennium B** guarantee their immediate use by any operator.

# sterilizers for any requirements



SETUP KEY



TEST PROGRAM KEY



STERILIZATION PROGRAM KEY



START/STOP KEY



## 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.

Material	Program	Total time			Process	Autonomy
		B+	B <sup>2</sup>	B		
Wrapped hollow* instruments, porous materials	Porous	32 minutes	41 minutes	40 minutes	134°C 4'	ca. 7 cycles
Wrapped hollow* instruments, porous materials	Prion	46 minutes	55 minutes	54 minutes	134°C 18'	ca. 6 cycles
Unwrapped hollow* instruments	Hollow	25 minutes	32 minutes	33 minutes	134°C 4'	ca. 7 cycles
Wrapped solid instruments	Wrapped	25 minutes	31 minutes	33 minutes	134°C 4'	ca. 10 cycles
Unwrapped solid instruments	Solid	19 minutes	23 minutes	27 minutes	134°C 4'	ca. 10 cycles
Unwrapped solid instruments	Emergency	13 minutes	15 minutes	15 minutes	134°C 3'	ca. 10 cycles
Wrapped hollow* instruments, porous materials	Porous	47 minutes	56 minutes	54 minutes	121°C 20'	ca. 6 cycles
Unwrapped hollow* instruments	Hollow	40 minutes	47 minutes	47 minutes	121°C 20'	ca. 6 cycles
Wrapped solid instruments	Wrapped	40 minutes	46 minutes	47 minutes	121°C 20'	ca. 9 cycles
Unwrapped solid instruments	Solid	34 minutes	38 minutes	42 minutes	121°C 20'	ca. 9 cycles

\* 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.

## TECHNICAL FEATURES:

Type: B (according to EN 13060:2004)

Chamber dimensions (LxD):

- Millennium B+ and Millennium B: 250x350 mm
- Millennium B<sup>2</sup>: 250x450 mm

Chamber volume:

- Millennium B+ and Millennium B: 17 litres
- Millennium B<sup>2</sup>: 21 litres

External dimensions (LxHxD):

- Millennium B+ and Millennium B: 475x410x580 mm
- Millennium B<sup>2</sup>: 475x410x680 mm

Net weight:

- Millennium B+ and Millennium B: 58 kg
- Millennium B<sup>2</sup>: 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
- **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





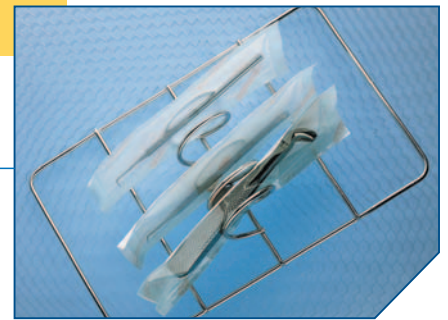
## **MILLENNIUM S**

**Water steam  
sterilizer**





**AUTOCLAVABLE PRODUCTS**



**Wrapped materials**



**Solid instruments**

**Millennium S** is the type S sterilizer par excellence, completely according to EN 13060:2004. It has been designed with high quality features\* and following the technologically advanced standards that stand out the type B models of "Millennium" line.

(\* provided with 3 standard trays)

### STERILIZATION PROGRAMS

Material	Program	Total time	Process	Autonomy
Wrapped solid and hollow* instruments	Wrapped	40 minutes	134°C 4'	ca. 9 cycles
Wrapped solid and hollow* instruments	Prion**	54 minutes	134°C 18'	ca. 9 cycles
Unwrapped solid and hollow* instruments	Solid	32 minutes	134°C 4'	ca. 9 cycles
Unwrapped solid instruments	Emergency	18 minutes	134°C 3'	ca. 9 cycles
Wrapped solid and hollow* instruments	Wrapped	55 minutes	121°C 20'	ca. 8 cycles
Unwrapped solid and hollow* instruments	Solid	45 minutes	121°C 20'	ca. 8 cycles

\* Hollow instruments type "B" according to EN 13060:2004

\*\* Special program

## FEATURES:

**M**icroprocessor controlled electronic

**P**rocess Evaluation System

**A**dvanced software with multilingual display options

**I**ntant steam generation system

**S**ingle-piece, formed stainless-steel, sterilization chamber surface-treated

**I**ntegrable optional printer

**R**obot-controlled locking system

**W**idescreen liquid crystal display

**S**ingle pre-vacuum system to ensure an effective air removal from the chamber

**S**everal patent-pending functioning systems

**W**ide range of sterilization programs including a completely customized cycle

**T**est program: Vacuum test

**I**ntegrated water filling and draining tanks

**D**irect draining to the water piping system

**P**ossibility of serial connection to a PC, with cycle data recording

**P**ossibility to validate the sterilization process according to EN 554 standard

## TECHNICAL FEATURES

Type: S (conform to EN 13060:2004)

Chamber dimensions (LxD)

250x350 mm

Chamber volume:

17 litres

External dimensions (LxHxD):

475x410x580 mm

Net weight:

53 kg

Voltage:

220/240V (other voltages on request)

Frequency:

50/60 Hz

Rated power:

2300 W

Sterilization programs:

7 (available), 4 (pre-set)

Test programs:

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
- **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





**MILLENNIUM B $\mu$**

**The rapid type B  
steam sterilizer**





For the rapid sterilization of hollow instruments and porous materials, Mocom has designed **Millennium B $\mu$** , the small sized type B sterilizer with an exclusive design. Millennium B $\mu$  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

Material	Program	Total time*	Process
Wrapped hollow** instruments, porous materials	Porous	20 minutes	134°C 4'
Wrapped hollow** instruments, porous materials	Prion	34 minutes	134°C 18'
Unwrapped hollow** instruments	Hollow	16 minutes	134°C 4'
Wrapped solid instruments	Wrapped	16 minutes	134°C 4'
Unwrapped solid instruments	Solid	12 minutes	134°C 4'
Unwrapped solid instruments	Emergency	9 minutes	134°C 3'
Wrapped hollow** instruments, porous materials	Porous	35 minutes	121°C 20'
Unwrapped hollow** instruments	Hollow	31 minutes	121°C 20'
Wrapped solid instruments	Wrapped	31 minutes	121°C 20'
Unwrapped solid instruments	Solid	27 minutes	121°C 20'
Special	Special	variable	variable

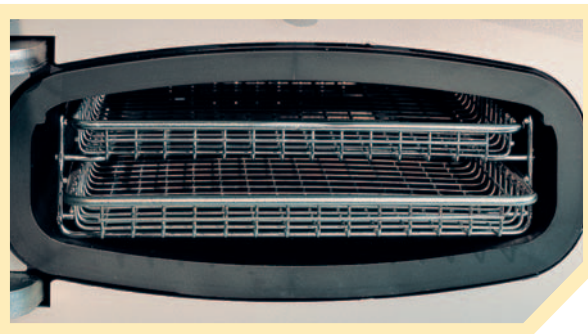
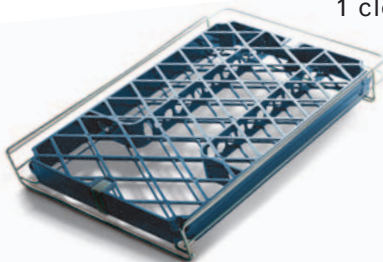
\* All indicated times include the drying phase

\*\* Hollow instruments type "A" and "B" according to EN 13060:2004

# le type B sterilizer

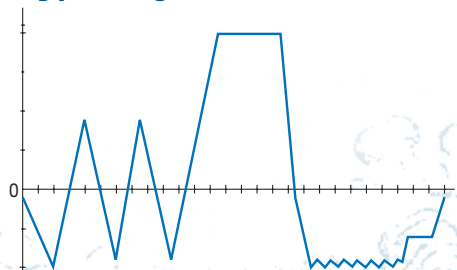
## STERILIZATION CHAMBER

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.



The only type B sterilizer equipped with 11 available cycles, **extraordinarily fast** to perfectly sterilize turbines and handpieces without damaging them.

### Type B cycle



## FEATURES:

**M**icroprocessor controlled electronics

**P**rocess Evaluation System

**A**dvanced software with multilingual display options

**I**ntant steam generation system

**S**terilization chamber of treated Anticorodal

**P**arallel connection to an external printer

**R**obot-controlled locking system

**W**idescreen liquid crystal display

**H**igh penetration fractionated vacuum system to ensure the complete removal of air

**C**ustomized vacuum drying

**S**everal patent-pending functioning systems

**W**ide range of sterilization programs including a completely customized cycle

**T**wo test programs: Helix / Bowie & Dick test and Vacuum test

**I**ntegrated water filling and draining tanks

**P**ossibility of serial connection to a PC, with cycle data recording

**S**terilization process that can be validated according to EN 554 standard



## TECHNICAL FEATURES:

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

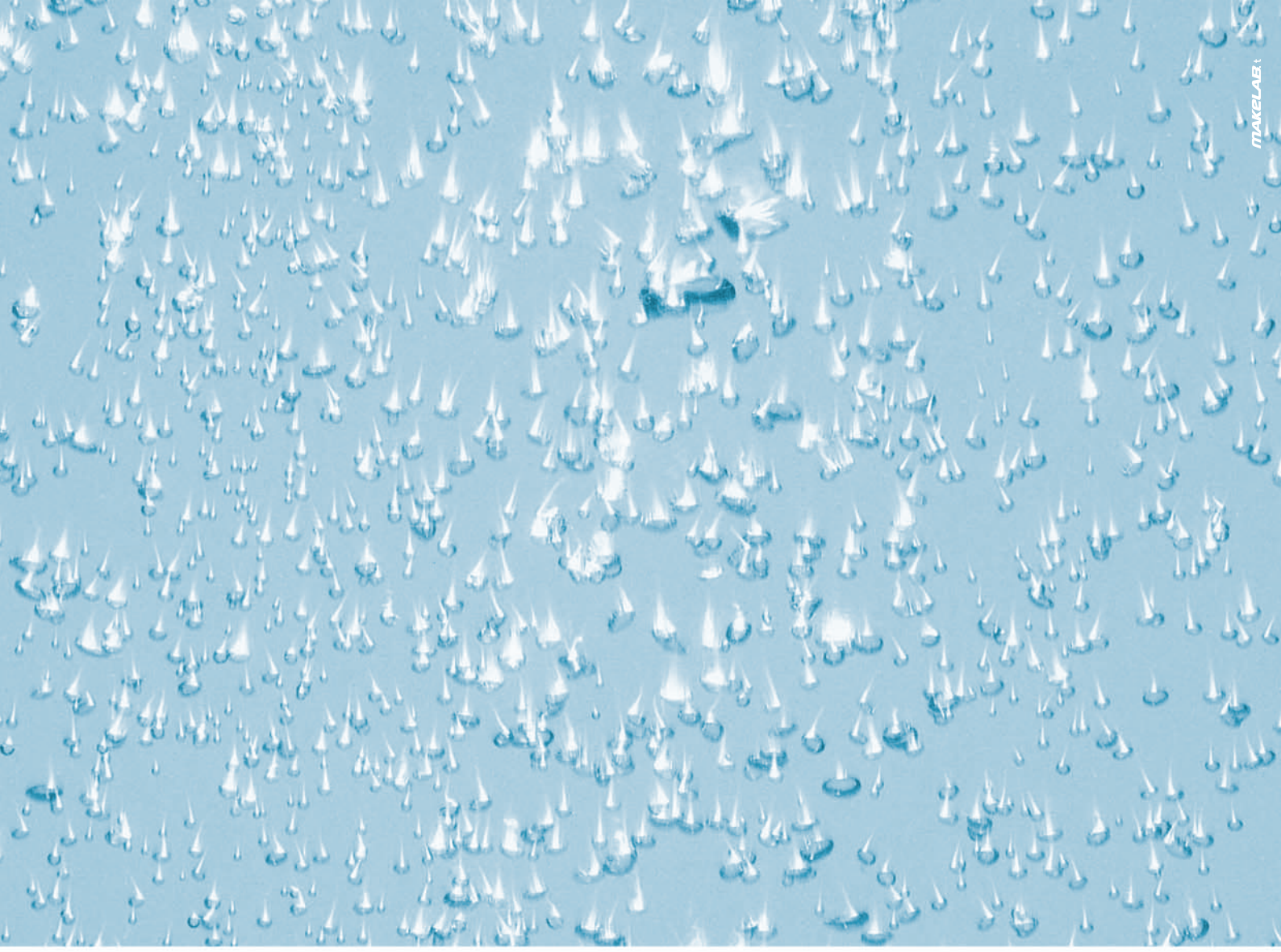
## SAFETY DEVICES

- 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

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**mocom**<sup>®</sup>  
*Sistemi innovativi di sterilizzazione*

Quality System certified by:



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