

Sting 11

Bench-Top Steam Sterilizers

High-Tech in Sterilization

celitron
medical technologies
WE DO IT RIGHT!





Company Profile

Celitron Medical Technologies Kft. is a developer and manufacturer of high quality Sterilizers (Bench-Top and Large Steam Sterilizers, Plasma Sterilizers, HMI, Sterilizer Evaluation System) that meets stringent requirements which are secured in a Quality Management System in accordance with International Standards. The company controls, measures and analyzes all processes and implements any action for achieving the required output.

With selected and tailor made models for OEM partners and distributors in these markets, Celitron is aiming to secure a stronghold in the European market in the long term by means of high service quality and strong delivery capacity, and to enter attractive markets such as Asia and America with an expanding sales team.

Celitron intends to grow globally by developing new solutions for the Medical, Dental and Laboratory markets of tomorrow. Celitron's strong innovative drive is based on close relationships with partners and the know-how of the research and development team as well as the quality manufacturing of the Hungarian team.

Celitron's products comply with the following international standards and directive guidelines:

CE 0473 Approved by the British Notified body Intertek- AMTAC.

EN 13060- Small Steam Sterilizers; **Medical Device Directive** (MDD) 93/42/EEC; **Pressure Equipment Directive** (PED) 97/23/EC; **ISO 17665-1:2006.**

Safety and EMC Standards:

EN 60601-1 + A1:93 + A2:95- Medical Electrical Equipment- General Requirements for Safety;

EN 61010-1- Safety Electrical Equipment for Laboratory Use; **EN 61010-2-040:05-** Safety requirements for electrical equipment for measurement, control and laboratory use- Particular requirements for sterilizers and washer-disinfectors used to treat medical materials; **EN 60601-1-2:01-** Medical electrical equipment- General requirements for basic safety and essential performance- Collateral standard: Electromagnetic compatibility- Requirements and tests (EMC);

EN 61326: 1997 + A1:98 + A2:01 + A3:03 Electrical equipment for measurement, control and laboratory use- EMC- requirements; **EMC Directive** 89/336/EEC Article 7 (1).

Quality Management System Standards:

ISO 9001: 2000- Quality Management Systems- Requirements; **ISO 13485:2003-** Medical devices - Quality management systems- Requirements for regulatory purposes; **EN ISO 14971 –** Risk Management for Medical device.





The Sting 11 Bench-Top Steam Sterilizers

The European Standard EN 13060 defines three types of sterilization cycles, differing in their intended use: Type B, Type S and Type N, all classified as Small Steam Sterilizers. Celitron's Sting 11 Sterilizers offer a solution to each type, allowing you to choose the most suitable sterilizer for your needs.

The Sting 11 Bench-Top Steam Sterilizers have a load capacity of 23 liters volume in the chamber, either jacketed or electrically heated. External dimensions are especially suitable for small clinics. The Sting 11 Sterilizers have numerous safety features including: a thermostat, temperature sensors, a water detection electrode in the chamber, a pressure sensor, a safety pressure release valve and software safety features.

The Sting 11 Sterilizers are equipped with an Energy Saving Mode which is activated if the Sterilizer is not used after a certain period of time. This Mode reduces power consumption by approximately 12% to 30% and is thus environmental friendly.

The Sting 11 Sterilizers meet the highest standards requirements for quality, safety and operation. Stainless Steel Pressure Vessels 316 Ti, conforms to the Pressure Equipment Directive (PED).

The Sting 11 Sterilizers have a fully automatic door-locking device. Opening and closing of the door by pressing only one button.

The Sterilizers are supplied as a stand-alone unit. A Reverse-Osmosis water purification system is available in order to avoid the need to refill the water reservoirs. This system improves the quality of the water used to generate steam. The use of mineral-free water will contribute to better performance and longer life of the Sterilizers' chamber.



The sterilization cycles' data of the Sting 11 Sterilizers can be collected through an optional SD card.

The design of the Sting 11 Sterilizers is modern; the units are reliable, incorporate high-tech features, and are based on more than 20 years of experience in the sterilization field.



Sting 11B



Class B Sterilizer

As a Class B Sterilizer, the Sting 11B can process all types of loads as specified in the standard: wrapped, non-wrapped, solid, hollow load products type A and porous products. It can be used to sterilize dental handpieces, laparoscopes, wrapped surgical sets, etc. Sting 11B is designed with similar features as a Large Steam Sterilizer, extensively used in CSSDs' and Operating Theaters (OT).

Sting 11B is a fully automatic high-speed pre & post vacuum Steam Sterilizer, designed for sterilization of wrapped materials, hollow instruments and porous loads in hospitals, private clinics and dental offices.

This **Sting 11B** Bench-Top Sterilizer is equipped with a built-in mini steam generator and a powerful vacuum pump.

■ Operation

Operating **Sting 11B** is simple: close the door, select the cycle on the Touch-Screen Panel, and press the Start Key. The cycle will run automatically. At the end of the cycle, by pressing the 'Open Door' button on the Touch-Screen Panel, the door will automatically open.

■ Steam Generator - Very Fast Cycle!

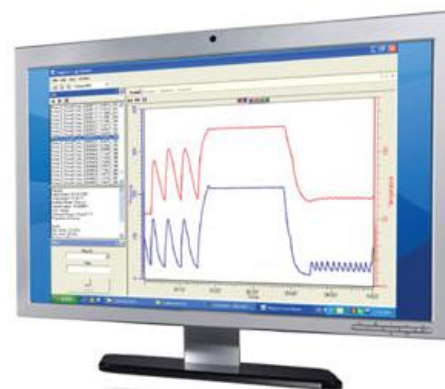
Sting 11B is equipped with a stand-alone 2.9 kW steam generator, made of Stainless Steel 316 Ti.

■ Pre-Programs Sterilization Cycles

Sting 11B offers 7 preset cycles:

5 sterilization cycles, and 2 test cycles. Up to totally 20 cycles can be custom designed by Celitron.

Temperature	Time	Dry time	Description
134 °C	3 min	1	Flash
134 °C	3 min	2	Unwrapped
134 °C	3.5 min	20	Wrapped
134 °C	18 min	20	Prion
121 °C	20 min	20	Porous



Test Programs

Two test programs are available in the Sting 11B to assure a proper sterility level.

Programs	Temperature	Time
Bowie & Dick test	134 °C	3.5 min
Leak test		20 min

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Reasons to choose Sting 11B Bench-Top Sterilizer ►►

1 High Quality Components

The chamber is built of Stainless Steel 316 Ti. All components have been purchased meeting the highest quality standards requirements from known leading companies around the world.

2 High Reliability

Sting 11B has been sold all over Europe, the Middle East, Australia & Mexico, and is highly recommended by doctors and professionals.

3 Outstanding Performances

- **Very Fast Cycle!** - A high speed integrated steam generator, steam is always ready for fast sterilization.
- **Vacuum System** - Air removal via a powerful vacuum system, using a membrane pump with a cooler.
- **Large capacity** - 23 liter (net) chamber volume, jacketed with steam.

4 Modern Design

A combination of simple lines, modern colors and state of the art technology.

5 High Technology

- **Simple operation** using a high-tech computerized control system.
- **Self-diagnostic system** to control the system's operation. Proprietary Windows based PC software enables full cycle documentation.
- **Blue Graphic Touch Screen Display** and an ergonomic User Interface.
- Sterilization cycles' data collected online on a **SD card**.
- **The most advanced interface connections:** Ethernet, USB, RS232 and RS485.

6 Easy to Install

- **Utilities free**, just plug into a power source and start sterilizing.
- **Self adjusting** to the local environment conditions.

7 Reliable Service

Sting 11B is easy to maintain due to the modular design of all internal and external components. The service technician can monitor all service processes via PC. Celitron's After-Sales Service Department maintains a network of competent technicians who can assist all over the world.

8 Easy to use

- **A fully automatic door-locking device.** Opening and closing of the door by pressing only one button.
- **A RO water purification system** is available in order to avoid the need to refill the reservoirs.
- **A friendly Graphic Touch-Screen User Interface**, available for users in a variety of languages.

9 Environmental Friendly

- **Energy saving mode** reduces power consumption by approximately 12% to 30% and is thus environmental friendly.
- **Water saving system** using a membrane pump - no water is needed during the vacuum stage.
- **Paperless recording** using a SD card.

10 Highest Standards

- Meets the highest standards requirements for quality and safety, complies with EN 13060 (Small Steam Sterilizers Standard).
- Stainless Steel Pressure Vessels 316 Ti conforms to the Pressure Equipment Directive (PED).
- Safety Standards: EN 60601-1, EN 61010-1 and EN 61326.
- CE 0473 approved by the British notified body Intertek-AMTAC.

11 We do it right!

Celitron Medical Technologies is committed to the continuous improvement of its products, while keeping up to date with the most advanced technologies, regulation requirements and keeping its customers satisfied.



Specifications

Item	Value
Chamber dimensions, Inner Dia. x Depth, mm (inch)	261 (10.3) x 452 (17.8)
Chamber volume, Liter (gal)	26 liters (7 gal) Total 23 liters (6.1 gal) Net
External dimensions W x H x D, cm (inch)	53.4 (21) x 47.5 (18.7) x 60.9 (23.9)
Weight, kg (lb)	70 kg (154 lb)
Shipping weight, kg (lb)	80 kg (176 lb)
Shipping dimensions W x H x D, cm (inch)	75 (29.5) x 68 (26.8) x 71 (28)
Tray dimensions W x H x D, cm (inch)	19.5 (7.6) x 2 (0.8) x 39 (15.4)
No. of trays	6
Cassettes (optional)	4
Heaters power, Power supply	2900W, 1 phase, 220V - 13A, 50/60 Hz 2200W, 1 phase, 115V - 13A, 50/60 Hz
Available cycles	7
Water reservoirs	2 (Mineral-free water and Drain water)
kW including steam generator	3.5kW, 16A, 50/60 Hz

	Sting 11B	Sting 11S	Sting 11E
Intended Use	The sterilization of all wrapped or non-wrapped, solid, hollow load products Type A and porous products.	The sterilization of products as specified by the manufacturer of the Sterilizer, including non-wrapped solid products, and at least one of the following: porous products, small porous items, hollow load products type A, hollow load products type B, single wrapped products, multiple- layer wrapped products.	The sterilization of non-wrapped solid products.
Control System	Touch Screen Panel with LCD Blue & White graphic display.	Keypad - 2 line Characters LCD Blue & White graphic display.	Keypad - 2 line Characters LCD Blue & White graphic display.
Chamber	Total Volume: 26 Liters. Net Volume: 23 Liters. 316 Ti Stainless Steel, Jacketed.	Total Volume: 26 Liters. Net Volume: 23 Liters. 316 Ti Stainless Steel, Jacketed.	Total Volume: 26 Liters. Net Volume: 23 Liters. 316 Ti Stainless Steel.
Steam	Steam is circulated through the jacket, and is produced through a steam generator.	Steam is produced inside the chamber via heaters located around it.	Steam is produced inside the chamber via heaters located around it.
Cycles	Sting 11B offers 7 preset cycles: 5 sterilization cycles, and 2 test cycles. Up to 20 cycles can be custom designed by Celitron.	The sterilization cycles are defined upon the customer's request.	The Sterilizer offers 4 sterilization cycles.
Drying Process	Through a vacuum pump.	Through a vacuum pump.	Heating of the chamber.
Water Reservoir	2 Water Reservoirs: 1 for mineral-free water and 1 for drain water.	1 Water Reservoir for mineral-free water.	1 Water Reservoir for mineral-free water.
Vacuum	Pre & Post Vacuum	Vacuum Pump	No Vacuum
Options	Printer PC Software SD Card	Printer PC Software SD Card	Printer PC Software SD Card
Communication port options	USB connection Ethernet connection RS232 RS485	USB connection Ethernet connection RS232 RS485	USB connection Ethernet connection RS232 RS485

Ordering Information:

Standard Accessories

- ▶ **One Stainless Steel Trays Rack**
- ▶ **6 Stainless Steel Trays***
*more trays are available upon request.



Standard Communication Ports

- ▶ **RS232 or RS485**
Enables connecting the computer and the Sterilizer using the PC Software.

Optional Accessories

- ▶ **Option 1 - Impact Printer**

Each cycle can be documented by the printer which records: the selected cycle, cycle parameters, date, time, temperature, pressure, errors, etc. The data is automatically stored and can be re-printed.

- ▶ **Option 2 - HMI PC Software - Elegator light**

The software collects and documents the sterilization programs. The connection is done through RS232, an optional USB connection or RS485 connection.

- ▶ **Option 3 - SD Card & Reader**

1 Gigabyte SD card collects up to 20 years logging data, including: the selected cycle, start time, cycle stages, temperature / pressure, end time, cycle status (pass / fail), including log viewer software.



- ▶ **Option 4 - Communication Ports**

- USB- Enables connecting the computer and the Sterilizer using the PC Software.
- Ethernet Connection- enables controlling, monitoring and connecting your Sterilizer with no need of additional software.



- ▶ **Option 5 - Reverse-Osmosis**

A water purification system is available in order to avoid the need to refill the water reservoirs. This system improves the quality of the water used to generate steam.

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