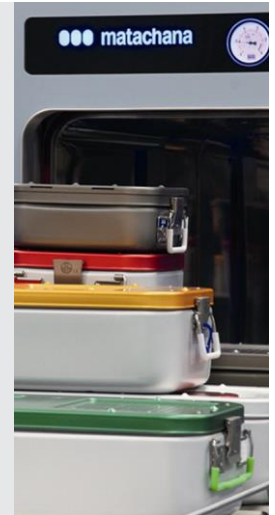


MATACHANA Tabletop sterilizer MOD. M30-B

COMMERCIAL DESCRIPTION – REF. 78015.6



INTRODUCTION

The sterilizer **M30-B** has been designed according to the European Standard EN 13060 for small steam sterilizers, with Type B cycles. Type B states the highest demands on security and work of a steam sterilizer below a sterilization module.

For the sterilization of all kind of material: hollow instruments (turbines, hand pieces, counter angles, etc.), wrapped, delicate material, etc. [1]

One of **M30-B** features is its great productivity; optimising the material's management and saving time and resources.

It includes the latest technology, taking care of every detail so that it can be operated in a simple practical way.



[1]: The intended use of this device is the sterilization of goods for invasive use

MAIN FEATURES

External casing

The sterilizer **M30-B** is a compact desk-top unit with single door operation.

The casing consists of varnished aluminium. It can be easily withdrawn for maintenance. The door cover and front are made of plastic.

Chamber

The sterilization chamber is a horizontal, round shaped and single-walled welding construction, made entirely of chrome-nickel-molybdenum stainless steel.

The inner surface of the chamber is pickled for purification.

The chamber is completely covered with an isolating material for thermal isolation.

The chamber door is a massive horizontally hinged flap door. It is equipped with two redundant locking catches made of chrome-nickel steel and a closing device that shuts the sterilizer if the chamber is under pressure. The door is sealed with a silicone lip gasket. The chamber is heated with an electric heater.

Independent Steamer

The new instant steam generation system by means of an independent steam generator controlled by a microprocessor, guarantees a very fast sterilization cycle.

Powerful vacuum device

A multi-step pre-vacuum for optimum deaeration and thus steam penetration of wrapped instruments, laundry and also hollow products (e.g. hand - and angle pieces), as well as a post-vacuum to ensure drying of the sterilization goods is achieved by means of an electromotive vacuum pump with a specific, pre-connected condensation device.

Independent sensor

According to EN 13060 standard, an additional PT-100 temperature sensor is placed into the sterilization chamber for an independent monitoring of the temperature.

Absolute pressure gauge

A barometrically compensated absolute-pressure gauge 0-4000 mbar registers the pressure distribution in the chamber independent of the atmospheric air pressure. In the control system, the thus generated analogue signal (4 to 20 mA) is digitally evaluated and subsequently processed.

This equipment guarantees a precise and reproducible control of the sterilizing temperature during the holding time within allowed gap from -0°C to +3°C with fluctuations of max + 1°C. This guarantees reproducible sterilization results according to the standards.

Self regulation of the cycle duration

The cycle duration is self regulated according to the load by means of an internal system that optimises the different parameters. In this way, the shortest possible cycle is made.

Savings: optimum management of resources

Shorter cycles guarantee an efficient management of water and steam and lower energy consumption that translate into resource saving.

Diagnosis via modem

Problem solving is more cost effective by connecting the sterilizer to the service station via PC modem. The diagnosis program (Software-PC) reveals fault histories and saves considerable time.

WATER TREATMENT

Water quality

Before the start of a cycle, the sterilizer checks the quality of the demineralized water and avoids starting a cycle if the conductivity levels are surpassed. The salt contents of the feed water is automatically checked. If the electric

conductivity exceeds a value of 15 μ S/cm, an indication is shown in the display, when exceeding 200 μ S/cm a starting lock prevents from permanent damage of the unit.

Separated waters

The water does not re-circulate, that is why it does not carry particles from previous cycles. This keeps the steam quality within required standards and instruments do not get dirt or oil. The condensed steam is directly drained off via a heat exchanger into the waste water tank. For steam production, the steam generator feeds directly from the demineralized water of the container.

Two integrated water containers

One of them with demineralized water and the other collects condensed water. Both containers are easily pulled out from the machine's front side. The demineralized water container is easily filled with up to 3 litres of water.

OPERATIONAL / FUNCTIONAL FEATURES

Automatic control

The sterilizer is equipped with a versatile and efficient microprocessor control with automatic data protection in case of voltage drop, safety program-abort-control in case of failures as well as LED-displays for all inputs and outputs. For detection of process failures the control is equipped with cycle-time-monitoring, overtemperature protection circuit as well as a process monitoring system.

The standard equipment includes a RS 232 interface for PC/modem connection.

Display communication

Program selection takes place via menu guided dialogue system. Via five function keys in softkey design program selection and changes of specific process parameters may be carried out.

Information concerning program selection, process status, and digital actual values for pressure and temperature, charge number and failure reports in plain language are displayed on a backplane illuminated fully graphic LCD-display. (180 x 240 Pixel).

The measured pressure-and temperature values will be displayed graphically-analogue in real time while the sterilization cycle is proceeding.

Door locking system

The door is easily opened by pressing the open button. The door locking mechanism closes safely by simple pressing the door. The chamber door is equipped with two redundant locking catches made of chrome-nickel steel.

While the chamber is under pressure, an opening of the door is excluded by a lock according to the applicable standards.

The door is sealed with a silicone lip gasket.

Horizontal flap door

The door, once opened, serves as a practical working space where to place trays while loading and unloading.

Cycle recording

There is always an internal data recording of the last 50 cycles. In this way, the data can be checked on the screen or it can be printed if a printer is available.

PROGRAMMES

Conceived to achieve maximum speed, complying at the same time with the established requirements for each type of material to be sterilized, according to the standard:

5 sterilization programs

- **QUICK PROGRAM 134 °C**
For instruments without internal channels, unwrapped. For an immediate use (For example, scissors, probes, drills, etc.).
Cycle time with full load: 16 to 28 minutes.

- SHORT PROGRAM 134 °C**
 For porous materials, instruments with cavities (hollow products), and wrapped instruments. To end this program in advance the fixed set vacuum drying time of 5 minutes may be suspended by the user not earlier than one minute after the beginning of the drying phase.
 Cycle time with full load: 19 to 37 minutes
- STANDARD PROGRAM 134 °C**
 For porous materials, instruments with cavities (hollow products), and wrapped instruments. The drying time is prefixed in 15 minutes. This makes it the choice program for sterilizing wrapped cassettes.
 Cycle time with full load: 29 to 44 minutes
- PRIONS PROGRAM 134 °C**
 For materials suspicious to be contaminated by prions. The drying time is prefixed in 15 minutes. Sterilization time at 134 °C: 20 minutes, following the legal requirements.
 Cycle time with full load: 47 to 61 minutes
- STANDARD PROGRAM 121 °C**
 For delicate materials not resistant to 134 °C sterilization temperature, like rubber, some plastics or porous materials. The drying time is prefixed in 15 minutes.
 Cycle time with full load: 52 to 67 minutes

Two test programs

- The **M30-B** is equipped with two test programs for daily testing according EN 13060:
- VACUUM TEST**
 Test program for daily checking of the vacuum pump's capacity, the chamber's tightness, doors' seal and piping system.
- DEAERATION TEST**
 Test program for checking the sterilizer for satisfactory air extraction and the correct steam penetration of porous goods at a temperature of 134° C. The holding time is adjusted to 3.5 minutes at a temperature of 134° C. In order to perform this test, a test set (helix) is used according EN 867-5 with an inserted chemical indicator.

CYCLE DOCUMENTATION

The built-in printer (optional) records the start of the different cycle phases, the parameter's values and the final status of the sterilization. The different advises, warnings and errors are then printed.

It is also possible to print the cycle's data through the printer of a PC and the PC-Software programme (optional).

TECHNICAL DATA

Chamber dimensions (diameter x depth)	270 x 500 mm
Outer dimensions (width x height x depth)	500 x 560 x 780 mm
Sterilization temperature	134 °C – 121 °C
Loading of chamber	max. 6 Kg.
	4 trays (180 x 20 x 500 mm.)
Contents of water tanks	3.5 litres each
Net weight	70 Kg.
Voltage / Frequency / Current	230 V / 50 Hz / 16A
Power	3,6 kW

STANDARD ACCESSORIES

- Reversible rack (capacity: four trays or three cassettes)
- Four trays
- One extraction tray handle

OPTIONAL ACCESSORIES

- **M30-B with built in printer (Ref. 78015.7)**
Alphanumeric matrix printer, to print specific program data: Sterilizer number, date, cycle, program identification, program parameters, starting-finishing time, pressure and temperature information with time indication, failure message with indication of its cause.
- **Software-PC “Steridoc” (Ref. 41346.2)**
 - Records cycle data (up to 50 cycles) in a PC
 - Display and printing through PC
 - On line monitoring of a running cycle
 - Remote diagnosis via MODEM
- **M30-B sterilizer with automatic water production and supply (Ref. 78015.8 & Ref. 78015.9)**
Offers the convenience of having the supply of demineralised water on the sterilizer’s demand and the automatic drainage of the condensates’ water.

Made of:
 - Pre-installation from factory of valves and necessary controls in the sterilizer
 - Demineralising cartridge. Can be installed on either side of the autoclave, or if there isn’t enough space on the wall or on the table.
 - Tank for condensates with drain connection
 - Requires connection to the water mains.

DECLARATION OF CONFORMITY

Sterilizer M30B have been designed, manufactured, certified and approved in accordance with the strictest European Directives and Standards applicable to small steam sterilizers, that warrants the best benefits never reached in tabletop sterilizers:

- European Directive 93/42/CEE concerning Medical Devices
- European Directive 97/23/CE concerning Pressure Equipment
- European Directive 89/336/CEE concerning Electromagnetic Compatibility
- European Directive 98/37/CE concerning Machinery
- European Directive 73/23/CEE concerning Low Voltage
- EN 13060 Small steam sterilizers
- EN 61010-1 Safety requirements for electrical equipment for measurement, control, and laboratory use. Part 1: General requirements.
- EN 61010-2-040 Safety requirements for electrical equipment for measurement, control, and laboratory use. Part 2-040: Particular requirements for sterilizers and washer-disinfectors used to treat medical materials.
- EN 61326 Electrical equipment for measurement, control and laboratory use. EMC requirements.