



MILESTONE
H E L P I N G
P A T I E N T S



HistosMATE

Automatic cleaner

Operator Manual - MM063

Thank you for choosing one of our systems and welcome to the increasingly crowded club of Milestone laboratory instrumentation users.

We feel confident that you will be fully satisfied adding this new device to your laboratory.

We recommend you read this operator manual carefully and always keep it within reach for convenient and quick referencing.

For any clarification or request for assistance, please contact our representative in your country:

Or contact

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Read this manual carefully before using the instrument.

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The manufacturer reserves the right to change and/or improve specifications without notice and without incurring any obligation.

1. INTRODUCTION

1.1. Symbol used



An instruction accompanied by this symbol provides a quite important and require more attention.



An instruction accompanied by this symbol provides a cautionary statement: failure to follow the instruction may endanger the operator or cause damage to the instrument.



An instruction accompanied by this symbol provides a caution against electric shock. Be sure to follow the instruction to prevent accidents resulting from electric shock.



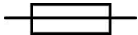
Biohazard: be careful when you execute the procedure marked with this symbol: danger of biohazard contamination.



CE logo: this instrument complies to European Community directives.



Specifies the manufacturer's serial number.



Replaceable fuse



Fragile.



WEEE European directive symbol (2012/19/EC):
Electric/electronic device do not throw out in the environment.



Only authorized and qualified SERVICE personnel.



Manufacturer.

1.2. Designated use

The new HistosMATE unit is an innovative, safe, rapid solution for the efficient cleaning of wax contaminated racks, moulds and forceps.

HistosMATE has been specifically designed to accommodate Milestone processors racks as well as the most common conventional histoprocessors racks.

It is of fundamental importance to remember that proper cleaning of the tools and processing racks has important repercussions on the quality of tissue processing and the duration of the processors. Paraffin in improperly cleaned processing baskets can cause damage to pipelines, processor valves, and can pollute reagents.

For this reason, the use of HistosMATE is recommended not only for users of Milestone processors but for all histology laboratories

HistosMATE is a system that must be operated by trained personnel, such as: laboratory technicians and pathologists.

The system and its accessories have been engineered for laboratory use (indoor use) and they can therefore withstand the harshest laboratory conditions.

The Milestone HistosMATE must be operated exclusively with the reagents listed in Compatible reagents (see chapter 1.7).



The instrument is intended for use in histological laboratory (indoor use) only.



Any other use of the instrument is considered improper and may void the warranty provided by the manufacturer.

1.3. Technical specifications

The technical specifications for the main components of the HistosMATE system are described in the following sections.

- CODE 65280: HistosMATE 220-240V~ 50/60Hz-450W

- CODE 65281: HistosMATE 100-120V~ 50/60Hz-450 W

Working Temperature: 15°C – 30°C (59°F – 86°F)

Humidity (relative): From 10% to 80% - Non condensation

Maximum altitude: 2000m

Indoor use only.

1.3.1. Cabinet

- Heavy duty industrial grade external chassis white painted by antimicrobial powder coatings to inhibit microorganisms growth, formulated with silver ionic technology
- Built-in exhaust fan.

1.3.2. Touch screen terminal

- Characteristics: TFT-LCD 4.3" widescreen color display
Resolution 480x272
Resistive Touchscreen
Mass storage 512MByte
1CPU 600-700MHz
Microsoft Windows CE Version 6.00
- Programs: Customizable time and temperature
- I/O-Interface: 1x USB port 2.0
- Dedicated Milestone software with icon-based graphic interface
- "Time and Temperature" control Software.

1.3.3. Cavity

- Stainless steel.
- Resistance heating elements (400W) controlled by PID technology.
- Magnetic stirrer
- Built-in PT100 Temperature sensor.
- Draining tube with quick coupling.
- Sound Pressure <65db

1.4. Transportation and storage conditions

Temperature: –20°C up to +60°C (–4°F up to 140°F)

Humidity: Humidity: up to 80% (up to 50% at 40°C (104°F)) non-condensation

1.5. Warning information

Should the equipment be used in ways different than those specified by the manufacturer, the warranty provided by the manufacturer may be void.

Main power plugs are considered disconnecting device. Disconnect all plugs from the socket outlet before assembling the system, connection of the optional parts and cleaning.

Equipment shall be connected to a main power socket outlet which is accessible and visible by the operator.

All parts of the equipment and all optional parts must be supplied only by the manufacturer.



DO NOT OPEN THE CHASSIS. Failure to follow the instruction in the documentation might lead to a reduction of device safety. If the equipment is not working properly, contact your supplier or the manufacturer.



Do not remove the instrument panels. Only authorized and qualified **SERVICE** personnel may repair the instrument and access the instrument's internal components.

The instrument is supplied with replaceable fuses, but their replacement must be effected by trained and authorized **SERVICE** personnel. If the system is still not properly working, contact the local authorized and trained **SERVICE** representative or the manufacturer.



It is important that normal standards for safety and good laboratory practices are applied. Always use common sense and the best-known practice when operating the instrument. Failure to follow the instructions in the documentation might lead to a reduction of device safety.

The Competent Authority owning the instrument has primary responsibility for accident-free operation together with designated personnel who operates **SERVICE** or repair it.

To avoid damage to the instrument, use only the reagents listed in chapter 1.7 "Compatible Reagents". Failure to follow the instructions in the documentation might lead to a reduction of device safety.

The use of naked flames that can cause accidental sparks in the areas adjacent to the unit is prohibited.



Be careful: exhaust reagents are toxic.
Handle with care and follow the local standard regulations.



Use caution when handling hot, warm reagent.



Never install HistosMATE unit under a fume hood. The presence of acids or caustic reagents might contaminate the air flow used for ventilating the electronic components, exposing them to possible corrosion or shorting of circuits.

1.5.1. Personal Data Safety

The Device described herein is not intended for managing personal data of natural persons. Personal data of natural persons shall not be inserted into the Device during the use of the Device. The organization that uses the Device shall implement appropriate measures to ensure that no personal data of natural persons is inserted into the Device. All the data referring to a person and inserted into the device shall use, at least, the “pseudonymization”, in such a manner that the personal data can no longer be attributed to a specific data subject without the use of additional information, provided that such additional information is kept separately and is subject to technical and organizational measures to ensure that the personal data are not attributed to an identified or identifiable natural person.

1.6. Label



For symbols explanation see chapter 1.1.

1.7. Compatible reagents

Milestone MileGREEN, Milestone Rack Cleaning Solution, Isoparaffin.



Do not use XYLENE, acetone, benzene, or trichlorethane in the instrument. They can seriously damage the unit.

DO NOT USE REAGENTS DIFFERENT FROM THOSE LISTED ABOVE.
In case of doubts contact: application@milestonemedsrl.com.



It is necessary to put 13L of cleaning reagent in the HistosMATE cavity.

1.8. Waste disposal of the equipment

HistosMATE is a device typically installed in a laboratory where specimens and other biological tissues are present. For your safety, it is therefore required to clean and disinfect before entering in contact with it. You must also wear gloves when operating the system.

In case of return it is required that the unit is cleaned and disinfected before sending it back to Milestone. Non-disinfected devices will be no longer accepted and you will be contacted to pay the relative disinfection cost.

International health rules require that shipments of biohazard materials are not done in standard packages (risk of sanctions).



Do not remove the side panels of the unit during the cleaning operations.



**Before doing any operation disconnect the power supply.
Do not use direct or high-pressure water to clean the instrument.**



For safety reason, any operation without the individual protective devices must be avoided.

It is recommended to use alcohol-based detergents and polyphenolic-based disinfectants to clean and disinfect the instrument.

For further information, contact the manufacturer at application@milestonemedsrl.com.

Removal of equipment from use for disposal:

- 1) Switch OFF the unit. Disconnect the power supply.
- 2) Disconnect all the optional, if available.
- 3) Clean and disinfect all parts of the equipment.
- 4) Dispose all electric and electronic parts of the equipment.

Complying with directive 2012/19/EC of the European Parliament and of the Council of 04 July 2012 on waste electrical and electronic equipment (WEEE), the separate collection environmental managed of equipment is mandatory.

It is necessary to return the used equipment to the distributor or to inquire about the presence of a local empowered system for collection and disposal of WEEE.

The in-observance of Directive 2012/19/EC or of the local law which acknowledge it can have potential effects on the environment and human health.



**This symbol indicates separate collection
for electrical and electronic equipment**

If additional requirements on accident prevention and environmental protection exist in the country of operation, this instruction manual must be supplemented by appropriate instructions to ensure compliance to such requirements.

1.8.1. Waste disposal of reagents



Handle with care and store in a cool dry space using a tightly closed container. Vapors may build up in empty containers. Treat empty containers as hazardous. Waste material should be disposed of in an approved incinerator or in a designated landfill site, in compliance with all federal, provincial and local government regulations. Some reagents can have potential health hazard and cause environmental pollution if not correctly disposed.

For further information refer to the SDS (Material Safety Data Sheet) provided by your supplier.

2. INSTALLATION



Before switching the unit on (when coming from a storage area), allow the instrument to reach environment operating conditions (at least 30 minutes).

2.1. Space requirements

HistosMATE is delivered in a wood box (43kg-94lb) with these dimensions:

Width: 430mm (16.92")	Height: 680mm (26.77")	Depth: 650mm (25.59")
-----------------------	------------------------	-----------------------

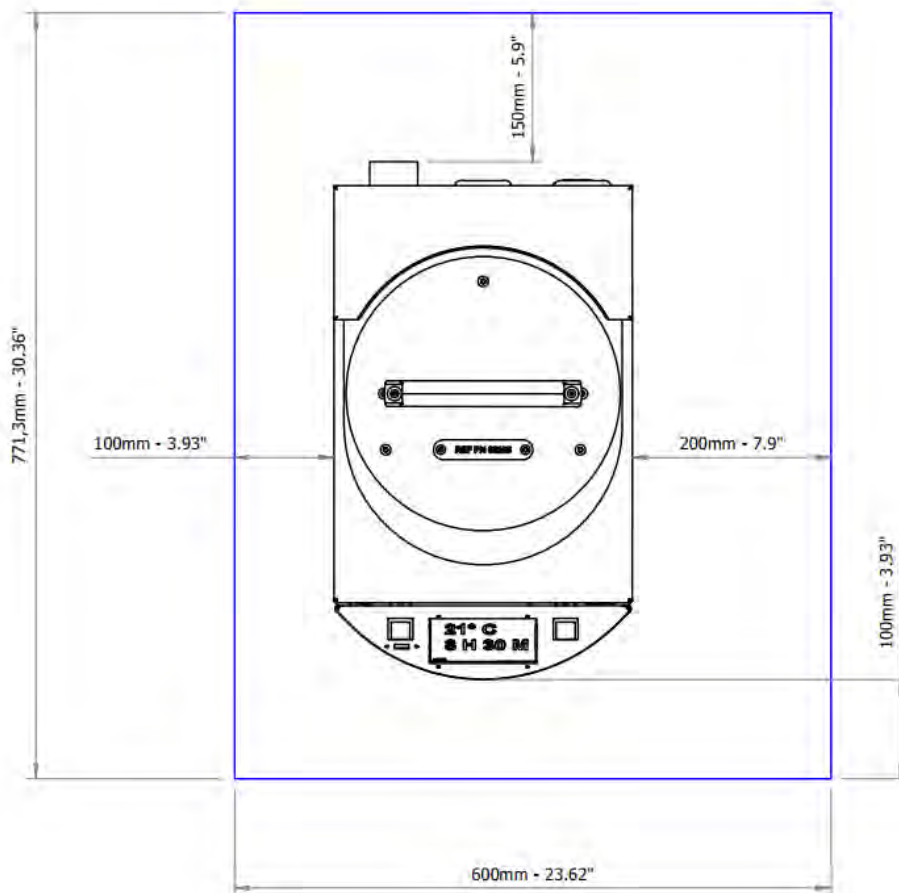
Unit dimensions:

Width: 300mm (11.81")	Height: 465mm (18.30")	Depth: 515mm (20.27")
-----------------------	------------------------	-----------------------

Space dimensions required to locate the Milestone HistosMATE:

Width: 600mm (23.62")	Height: 1000mm (39.37")	Depth: 771mm (30.36")
-----------------------	-------------------------	-----------------------

Make sure that the unit has not been placed against any lateral surfaces that might limit the intake/outlet of cooling air: allow at least a distance of 20cm (7.9in) for each side and behind.



HistosMATE Weight (read carefully):

The weight of the HistosMATE is approximately 35kg (77.16lb); at least 2 persons should remove the unit from its box and locate it on the bench.

If it is necessary to move the HistosMATE after its first installation, it is always recommended to empty it before proceeding with the move



Never install HistosMATE unit under a fume hood. The presence of acids or caustic reagents might contaminate the air flow used for ventilating the electronic components, exposing them to possible corrosion or shorting of circuits.

2.2. Unpacking and checking list

Check if your HistosMATE code corresponds to the voltage supply of the laboratory:

- CODE 65280: HistosMATE 220-240V~ 50/60Hz
- CODE 65281: HistosMATE 100-120V~ 50/60Hz









All parts of the equipment and all optional parts shall be supplied only by Milestone.

When unpacking, check that all parts correspond to the packing list included in the shipment. Utmost care must be made during unpacking of the HistosMATE to avoid any scratch or damage to the external coating.

HistosMATE codes 65280 e 65281 includes the following items:

1. HistosMATE unit
2. Items indicate in the table below

CODE	DESCRIPTION	Q.ty	IMAGE
50036	Power cord for units at 230V~ 50/60Hz (Schuko)	1	
50391	Power cord for units 100-120V~ 50/60Hz (NEMA 5-15P).	1	
50331	Black plastic tube 2.5 m (8ft) long with metal cable clamp to be used to fix the hose to the exhaust fume pipeline	1	
62499	Draining Tube. This tube must be connected to the quick coupling to drain exhausted reagents	1	
65237	Stainless steel basket to automatically remove wax traces from metal moulds and forceps placed inside it	1	

CODE	DESCRIPTION	Q.ty	IMAGE
65235	Holder	1	
USB key containing: - Operator manual in electronic format - LogVIEWER software			



The images shown are for illustrative purposes only.

For optional parts see the chapter 8.

2.3. Placement

HistosMATE unit can be positioned in its final place of use. Make sure it is firmly placed and the bench is level.



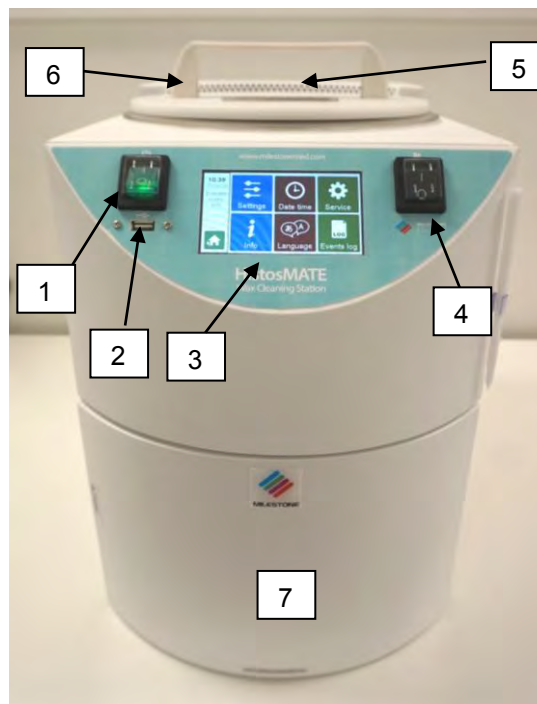
During the setup, the HistosMATE must be disconnected from the main power supply.



A proper location of the HistosMATE is near and connected to any vapors extractor system using the hose supplied. Make sure the unit is not placed against any back surface limiting the air-cooling inlet/exhaust.

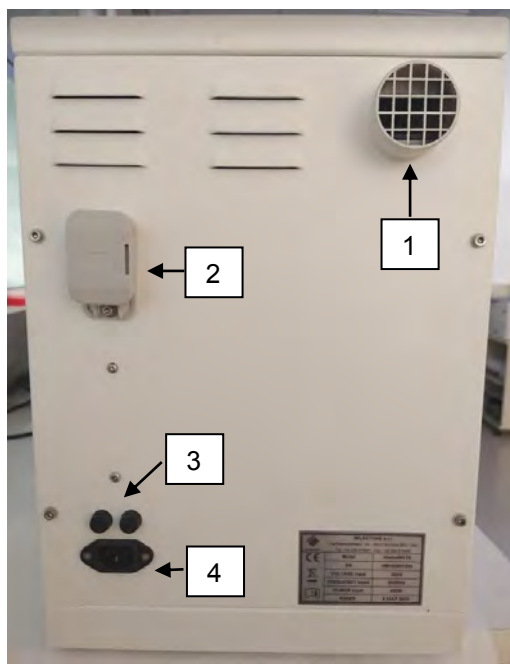
2.4. Unit overview

The picture shows the front view of the HistosMATE system.



- 1) ON/OFF button
- 2) USB port
- 3) Touch terminal
- 4) Ventilation button
- 5) Ventilation
- 6) Holder
- 7) Reagent substitution door

The following picture shows the back side of HistosMATE:



- 1) Fume extractor connectors
- 2) Spare fuses
- 3) Fuses
- 4) Power cord connection

2.5. Fumes extraction system



DO NOT connect the HistosMATE unit to the main power supply during the installation.

1. Connect the black exhaust tube (CODE 50332) to the exhaust outlet located on the back panel of the unit.



In case of connection to an external fume extraction system, the customer is required to adapt the hose connector. The plastic hose supplied has these characteristics:

- Length: 2.5m (98")
- External diameter: 55mm (2.16")
- Internal diameter: 50mm (1.96")
- Fan air flow range: 23–27m³/h (cube meter per hour).



The external fume extraction system must be properly installed at all times, according to local regulations on the safety of laboratory in force.

The external fume extraction system must permit an air flux 27m³/h (cube meter per hour).

2. Use the metal cable clamp (CODE 64757) to fix the hose to the exhaust outlet connection. Use a screw driver to tighten the metal cable clamp.



3. The other end of the exhaust hose is normally connected to any vapors extractor system.

2.6. Power supply

- A ground connection is available in the lab to assure the unit works correctly (yellow/green, green or bare wire). Do not connect a Milestone unit without ground connection. Do not use the blue/white wire (neutral of power line).
- Power supply neutral has to be referred to ground.
- Power supply line wires (their size and distance from the switch board) used in the laboratory are compliant with the label positioned on the back side of our units.
- Plug/socket is visible during the normal use and easily accessible.

Power supply line needs to have a ground connection (Class I device).

Power supply line protection:

115V~ version: miniature circuit breaker curve C, 15A, differential: 30mA.

230V~ version: miniature circuit breaker curve C, 10A, differential: 30mA.



Before connecting the plug to the laboratory's socket, check that the power supply voltage of the unit matches the power supply line of the laboratory.

Damages occur when wrong power supplies the instrument.

The power supply must be protected by a residual current circuit breaker with over current protection, residual current 30mA. Power line must have potential earth connection.

CONNECTING CABLES: Never connect or remove cables when power to the unit is switched on, this will avoid risk of damage.



Main plug is considered as disconnecting device

Equipment shall be connected to main socket outlet which is accessible and visible by the operator.

Disconnect main plug from the socket outlet before setting up the system and before cleaning.

Connect the power cord socket in the HistosMATE plug and the power cord plug to main power supply socket.



See also the label on the back of the unit which provides some important information.

Always provide the S.N. of the unit to Customer Support.

2.7. Reagents

Complete the set up with reagent, by providing at least:

- 13L of cleaning reagent (MileGREEN, Milestone Rack Cleaning solution, Isoparaffin)



The above reagents must be onsite and available at time installation of unit.

3. USING HistosMATE

1. Load the reagent at a level between minimum and maximum marked with the letters MAX and MIN inside the cavity: it is necessary to insert 13 liters of reagent for cleaning.



Load in the cavity the appropriate reagent for the racks, moulds and forceps cleaning (Milestone MileGREEN, Milestone Rack Cleaning Solution, Isoparaffin).



Do not use XYLENE, acetone, benzene, or trichlorethane in the instrument.

The reagent level must be maintained between the MIN and MAX markers etched inside the cavity.

If the level of the reagent falls below the MIN marker etched, add the new cleaning reagent until the MAX marker etched.

2. Connect the power cord and the plug to power supply socket.



Verificate che la tensione riportata sull'etichetta posta sul retro dell'HistosMATE corrisponda all'alimentazione presente nel vostro laboratorio.

3. Switch on the HistosMATE using the green power switch (bright-1) located on the left side of the front panel of the unit. Switch the exhaust fan on using the black switch (not bright-2) located on the right side.





Milestone recommends to keep always ON the fan when the HEATING is ON or turn on the ventilation 1 minute before removing the holder.

4. Turn on the heating by pressing on the rectangular area indicated by the red circle



5. When the holding temperature is reached, HistosMATE is ready to start a cleaning cycle.

Heating power is auto-tuned by a PID controller. The operator must only set up the desired parameters (Time and Temperature).

The unit will always reproduce the same conditions of temperature in the set times, by automatically adjusting the power level.

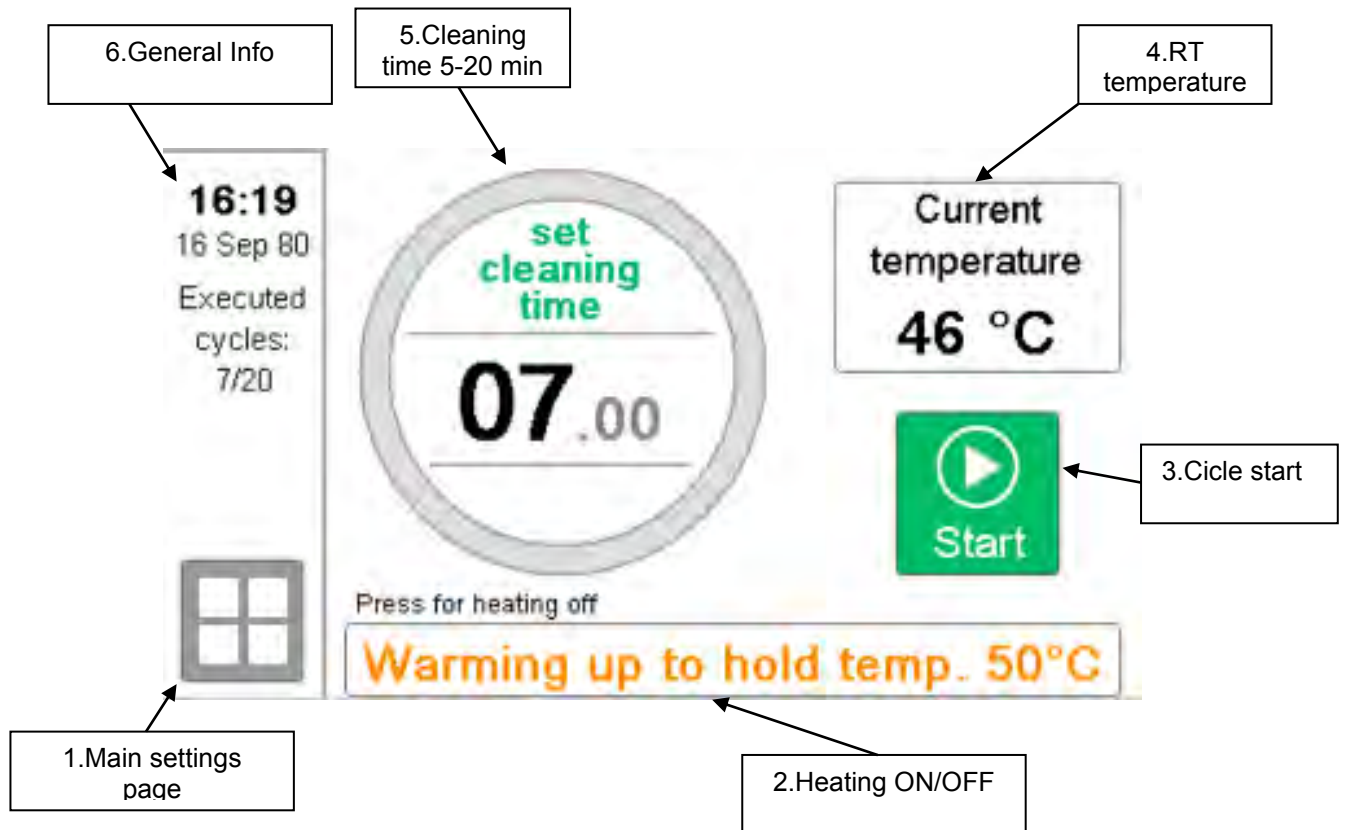
The following section shows how to run and modify a cleaning cycle with the HistosMATE software. Use the touch screen pen to select the desired menu.

Once the Holding temperature is reached, the Start Key will become green.

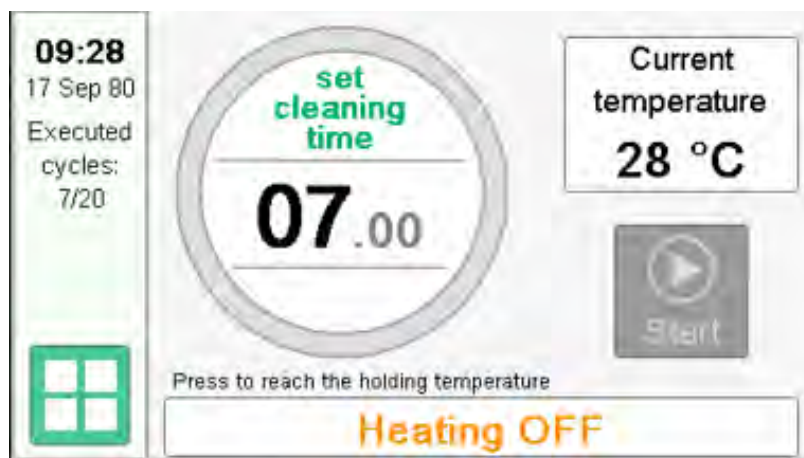


By Pressing it will switch the instrument from Hold to Cleaning temperature. Once the cleaning temperature is reached, the timer will start counting down

3.1. Main page



1. Button for main settings
2. Heating ON/OFF button. When pressed the heating will turn on until the holding temperature is reached. In order to understand how to modify the Holding temperature refer to the chapter 3.2.1.
3. When the heating is OFF, the “Start” icon is grey, as shown in the image below.



Once the heating has been activated, the Start key can be pressed directly even before the Holding temperature is reached. In this way the instrument will bring the reagent to Holding temperature and will then automatically start the cleaning cycle.

4. Box for displaying the temperature reached. Reaching the Holding temperature may vary according to the environmental temperature. However, it is estimated that the temperature of 50 ° C suggested by Milestone as the Holding temperature is reached approximately in 1 h.
5. Area for selecting the cycle duration. By pressing on any part of the circular area, you access the following screen where you can enter the cycle duration.

Minutes :			
Range : 5 - 20			
1	2	3	ESC
4	5	6	CLEAR
7	8	9	ENTER
.	0	⬅️ X	

The cycle time cannot be less than 5 minutes as times less than 5 minutes might not guarantee a correct cleaning. The cycle duration suggested by Milestone is 7 minutes.

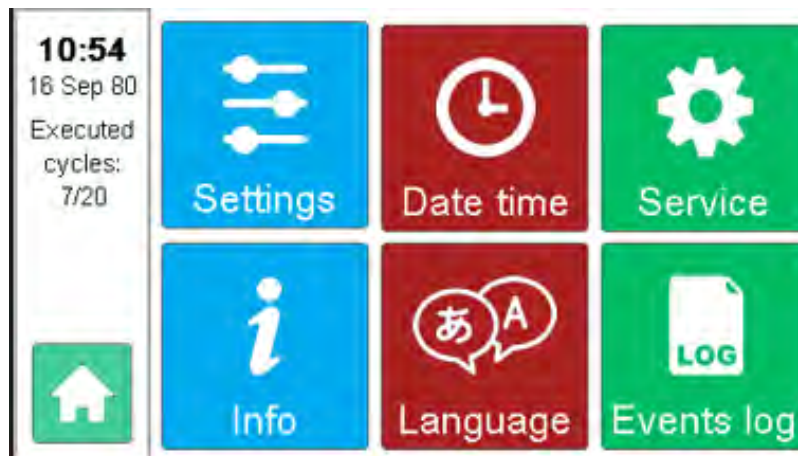
6. General information; here the date, time and number of cycles performed are shown.

3.2. Settings Page

From the main page, is possible to access to the Setting main page by pressing on the highlighted key:



The following screen will be displayed:

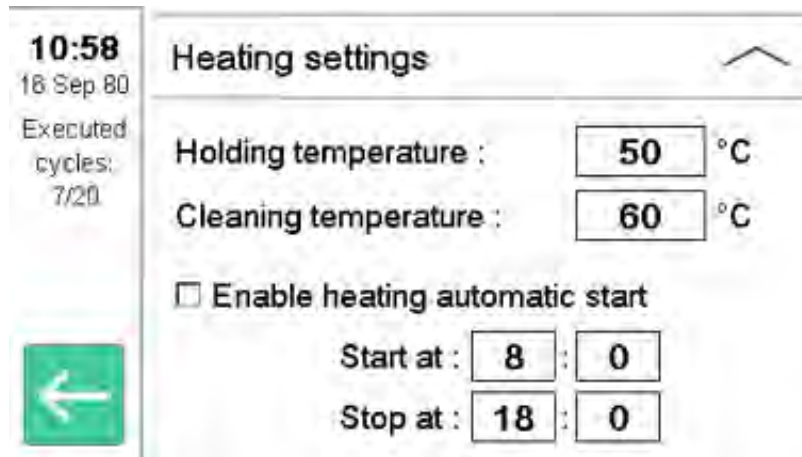


3.2.1. Settings



Under the Setting Icon , two different functions will be displayed: Heating Settings e Reagent settings.

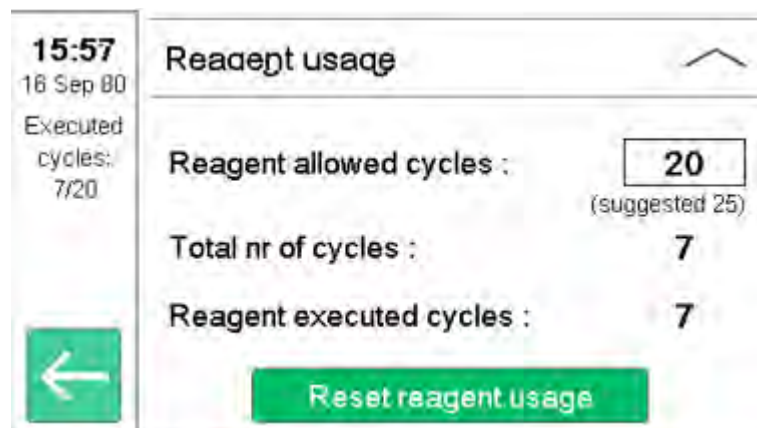
Heating settings



- **Holding temperature:** represents the reagent temperature to be reached when is not in the cycle phase. It is suggested not to change such value.
- **Cleaning temperature: represents** the temperature reached during the cleaning cycle. Only when the cleaning temperature is reached (60°C in this example) the cleaning cycle can start Also in this case is strongly suggested not to change the default parameters.
- **Enable heating automatic start:** when this function is activated the user can select the start and end time of heating. Thanks to this function it is possible to avoid the heating of the reagents during the times when the HistosMATE is not used. This timer indicates the time the heating is switched on, so it is recommended to set the switch on about an hour before the start of the working day.

Reagent usage

On this page you can set the maximum number of cycles before receiving the automatic message that warns the user of the need to change reagents.



Reagent allowed cycle: here you can enter the number of cleaning cycles before receiving the reagent change message. Milestone suggest not to exceed 20 cycles.

Total number of cycles: it is shown the number of cleaning cycles done by the instrument.

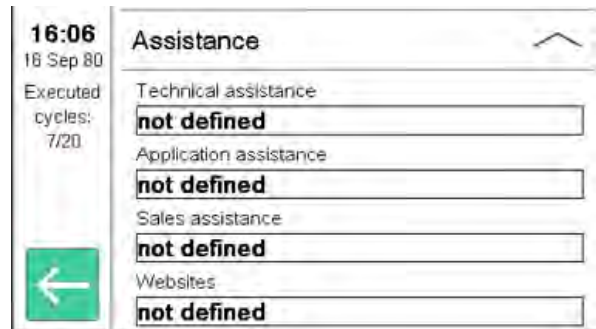
Reagent executed cycles: number of cleaning cycles performed by the reagent in the cavity. By pressing on the green icon "reset reagent use". The number of cycles performed by the reagent will be set to 0.

When exiting the page, always press **SAVE** in order to maintain the modifications

3.2.2. Info



Under the info icon there are two information pages with information about the software version, serial number and all the necessary contacts for any assistance with the instrument.



The contact part is filled in at the time of installation, by clicking on each space, a virtual keyboard is displayed where you can enter contact data.



When exiting the page, always press **SAVE** in order to maintain the modifications

3.2.3. Date and Time



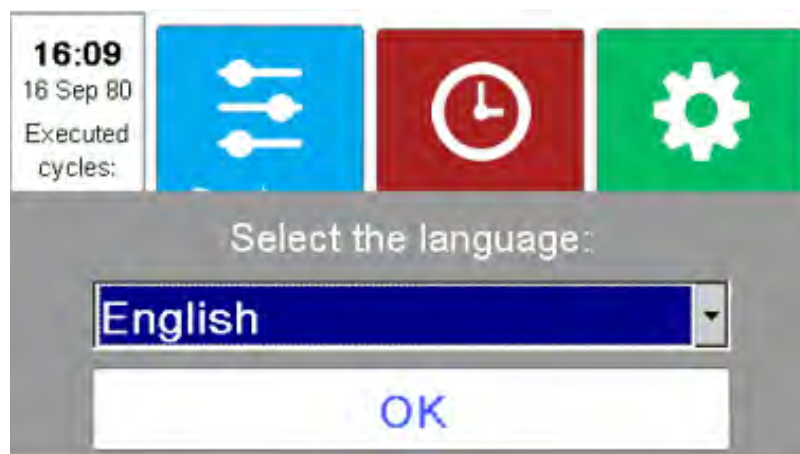
A pressure on the Icon allows the user to modify the Date and time values.

When exiting the page, always press SAVE in order to maintain the modifications

3.2.4. Languages

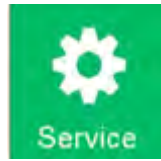


A pressure on the Languages icon allows the user to visualize a combo box with the available languages



When exiting the page, always press SAVE in order to maintain the modifications

3.2.5. Service



Under the Service section, there are features reserved for technical assistance personnel, such as calibrations, factory settings and reserved settings.

3.2.6. Events Log



With a pressure on the Events log icon it is possible to access the following page:

Full list 16:11 List length: 1000

Number	Type	Description	Date
4449	Act	Idle status. Unit SN not defined, SW 16.11	16 Sep
4448	Act	Application started.	16 Sep
4447	Act	Idle status. Unit SN not defined, SW 16.11	16 Sep
4446	Act	Idle status. Unit SN not defined, SW 16.11	16 Sep
4445	Act	Idle status. Unit SN not defined, SW 16.11	16 Sep

Nr. of events to load: 1000 (10 sec loading)

Apply filter Export to USB Exit

From this screen, you can download all the data relating to the use of the HistosMATE; inserting a USB key in the appropriate input, the "export to USB" button will turn green ". By pressing it, all data will be exported to the USB stick.

3.3. Running a cleaning cycle

The following table shows the standard protocol for a cleaning cycle to be carried out with Milestone MileGREEN or Milestone Rack Cleaning Solution (for details see chapter 1.7).

All operations concerning the HistosMATE must be carried out with the appropriate personal protective equipment.

It is strongly recommended to use aspirators with movable arms to be connected at the laboratory ventilation to be placed near the cavity during operations with HistosMATE.



REAGENT	CYCLE TEMPERATURE	CYCLE TIME
Milestone MileGREEN	60°C	7 min
Milestone Rack Cleaning Solution		
Isoparaffin		

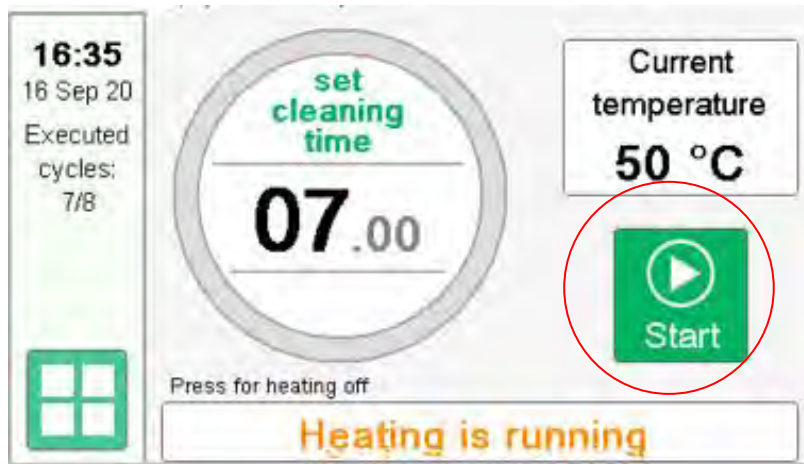
Place the rack (or the stainless-steel basket for moulds and forceps – CODE 65237) on the relative holder (CODE 65235) connected to the lid and place it into the warmed solution. To facilitate this operation, it is advisable to lock the support in the special hooks on the front of the HistosMATE as in the figure below on the right.



The holder is compatible also for all the Synergy racks: REF 66811 RACK SYNERGY LOGOS, REF 66810 RACK SYNERGY Pathos Delta e REF 104302 RACK SYNERGY MAGNUS (in figure)



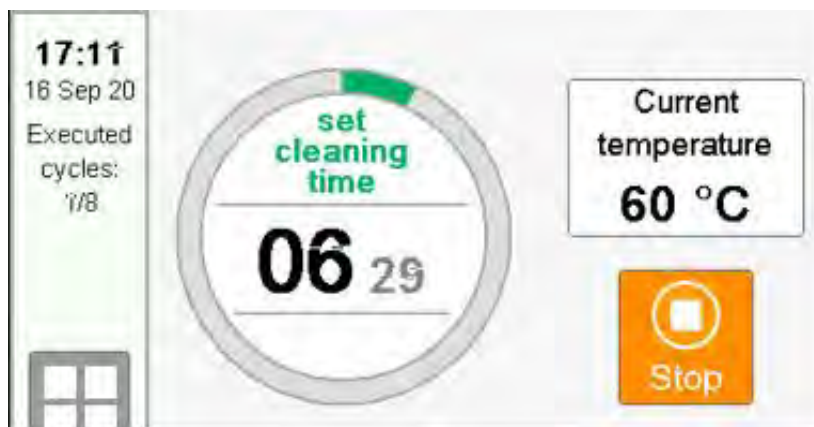
In order to run a cleaning cycle, when the instrument has reached the holding temperature it is possible to press the green button “Start”.



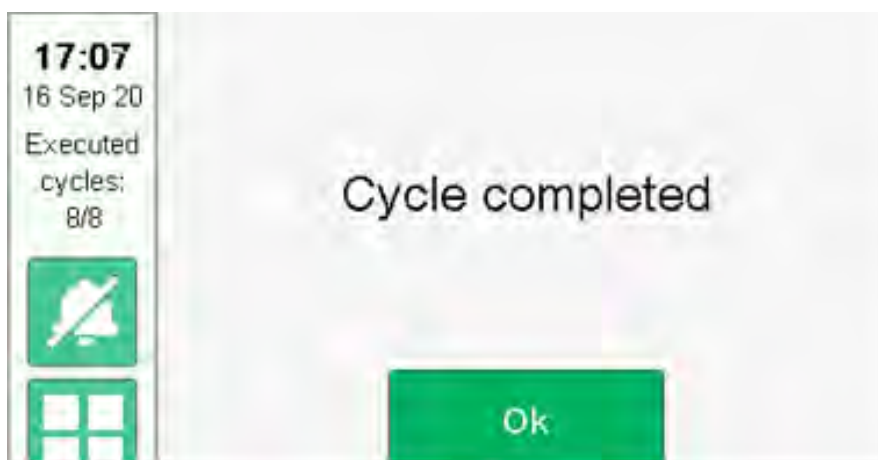
When “Start” is pressed the instrument reach the cleaning temperature and the cleaning cycle starts



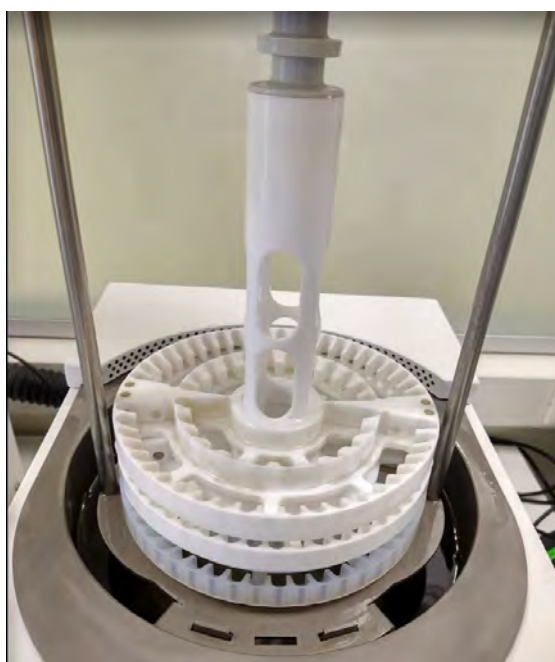
When the cleaning cycle begin, the remaining time is visualized in the middle part of the screen. By pressing the “Stop” key within 20 seconds from the start of the cycle, this cycle will not be counted.



At the end of the cycle the following message is visualized together with an acoustic alarm.



Before removing the basket or rack, it is advisable to let the support drip for a few seconds (20-30) inside the HistosMATE, leaving it hooked to the support hooks previously shown.



Then we recommend a rinse in Ethanol in order to remove any further traces of the reagent used for cleaning and a second rinse in water, wipe the surfaces with a clean dry cloth Allow the rack to dry thoroughly before using it again.

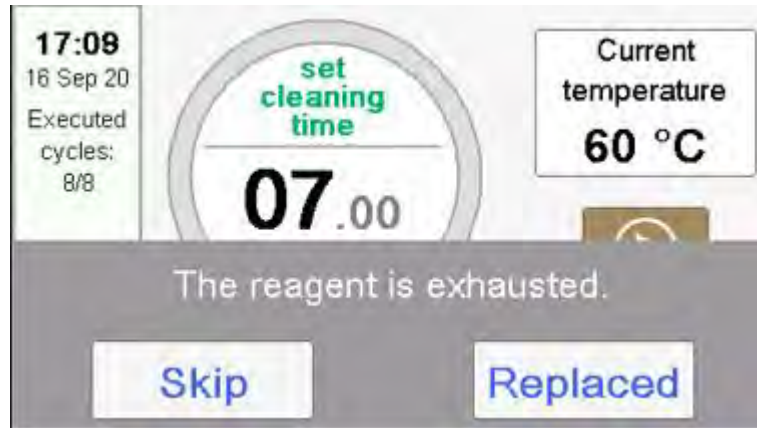


- **Milestone recommends to leave the unit off (or to stop heating the solution) overnight to avoid excessive loss of reagent. In alternative it is possible to use the automatic on / off function indicated in chapter 3.2.1.**
- **It is very important that whenever is necessary to clean something in the HistosMATE, the "start" button is pressed in order to keep documented the real use of the reagents contained in the instrument.**
- **Milestone recommends using factory settings to perform a proper cleaning cycle.**

At the end of a cleaning cycle, it is possible to start a new one immediately, as the instrument will already be at the cleaning temperature.

4. REAGENT MANAGEMENT

When the established number of cycles is reached the following message is visualized:



Milestone Suggest not to exceed 20 cleaning cycles

Skip: it is possible to use the instrument with the same reagent, in this case the count of the cycles performed will continue progressively.

Replace: to be pressed **only if** the procedure indicated in the following chapter is carried out. The cycle count will be reset.



Milestone recommends replacing the old reagent with a new one and press REPLACE.



DO NOT PRESS “REPLACE” WITHOUT changing the reagent, to perform a correct cleaning cycle.

4.1. How to change the reagent



Milestone recommends making sure that the unit is turned ON before draining the exhaust reagent, thus the paraffin remained will be melted.



1) Open the front door of the unit by pressing PUSH label.



2) Insert the draining tube to the connector.



3) Connect the end of the tube to a container. Open the drain valve, placing it in a horizontal position by rotating it 90 ° and let the reagent flow into an empty container (which must be provided by the user) suitable for housing 13 L of reagent.

At the end, reposition the drain valve vertically.
Now the new reagent can be loaded inside the unit.



Milestone recommends switching the unit OFF if you do not immediately insert the new reagent inside the unit or press STOP HEATING icon.

5. DOCUMENTATION

5.1. Display logs in HistosMATE

It is possible to display events and temperature logs directly on the HistosMATE (see chapter 3.2.6)

5.2. Export logs from the terminal

HistosMATE provides the documentation necessary for the report activity of the laboratory. In fact, it is possible to export the Events Log.

Insert the USB memory stick into its port placed on the Left side of the instrument (figure below).

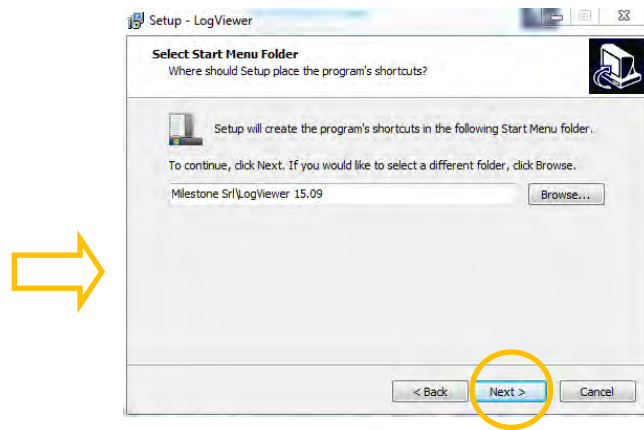
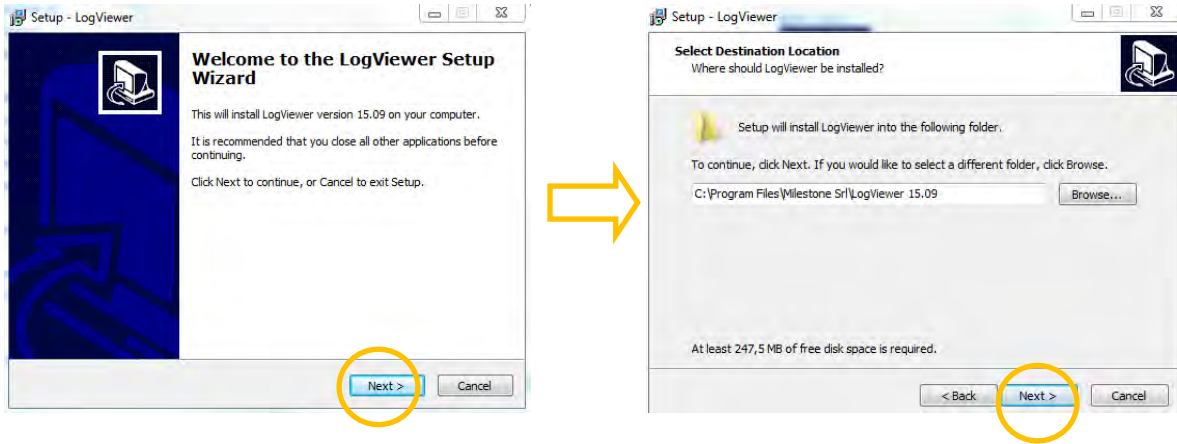


After the export, insert the USB key on a PC: a folder named "HistosMATE S:N." is present and contains the files "LogEvents.s3db" and the "TemperaturesLog.s3db" if they have been downloaded.

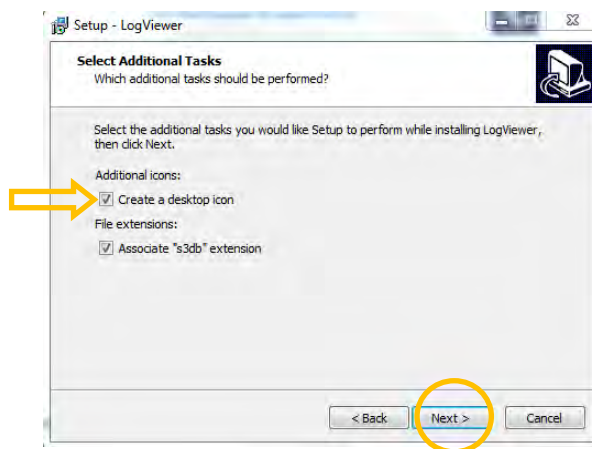


5.3. Install and operate with LogVIEWER

The USB key provided with the device contains LogVIEWER folder. Double click on the “SetupLogViewer.exe” icon to install the program. Press “Next” in the following screens.

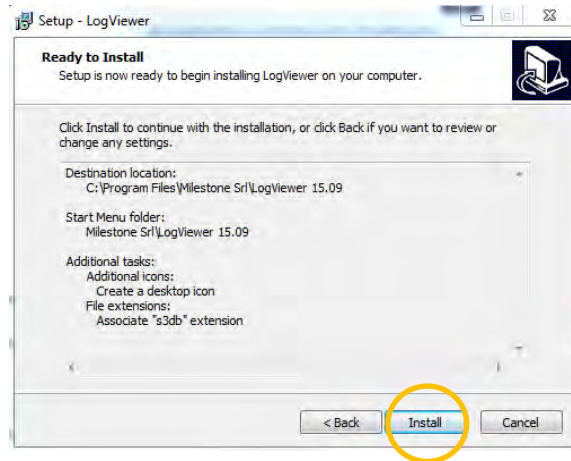


Then the following screen is opened. Select the checkbox “Create a desktop icon”, as shown below. Then press “Next”.



The checkbox “Associate s3db extension” is selected by default and it is suggested not to modify this setting. In this way, it will automatically open the Events log by LogVIEWER program, when exported.

Finally press **“Install”** to complete the installation.



LogVIEWER software is now ready to work.

Microsoft.NET Framework 4.0 is a prerequisite to this application, the setup will install it if not present on your PC.

SAP Crystal Report Runtime is a prerequisite to this application and the setup will install it if not present on your PC.

Log Viewer software is now ready to use.

6. MAINTENANCE

Maintenance of HistosMATE is carried out at two levels:

The first is at laboratory level: a simple routine maintenance can prevent the likelihood of more serious problems. Minimal routine maintenance is required by laboratory personnel that use HistosMATE. The following procedure is recommended to ensure optimal performance of HistosMATE.

The second level of maintenance is technically more detailed and is beyond the scope of normal laboratory personnel. The unit requires once a year a technical preventive maintenance to maintain the high performance and prevent any malfunction.

Switch off the instrument if it not used for a long period of time.

6.1. Laboratory personnel

Minimal routine maintenance is required by laboratory personnel that use the HistosMATE. The following daily actions are recommended to ensure optimal performance of the HistosMATE.

- ❖ Make sure that the HistosMATE is generally kept clean after each use, but do not use abrasives.
- ❖ Check the reagents and change them as follows:
 - REAGENT: Milestone MileGREEN, Milestone Rack Cleaning Solution, Isoparaffin
 - CYCLES ALLOWED: 20

Refer to chapter 4.1 for “How to change the reagent”.



CAVITY CLEANING: periodically inspect and clean the cavity. Do not use aggressive cleaning detergents.

6.2. Authorized service personnel

The service manual information is for use by authorized service personnel when carrying out repairs, and is not intended for use by laboratory personnel. Issued as a separate service manual.



DO NOT OPEN THE SIDE PANEL.

If the equipment is not working properly, contact the local representative or manufacturer.

6.3. Yearly



Contact annually your local distributor or Milestone offices directly: customersupport@milestonemedsrl.com, for how to perform Preventive Maintenance and regular inspections in order to maintain your unit within safe operative standards.

6.4. Customer support intervention/sending the unit to the manufacturer for repairs

This instrument is usually installed in a laboratory where samples and other biological tissues are present. For your safety, it must therefore be cleaned and disinfected before use, and gloves must be worn when using this instrument.

If the unit needs to be returned to Milestone s.r.l. for repairs, the device must be cleaned up and disinfected prior to shipment. See chapter 7. Any units that have not been disinfected will not be accepted and you will be contacted with regards to disinfection cost. In accordance with international health standards, biohazard materials must be shipped in appropriate packages (risk of fines).

7. CLEANING



The procedure described in this chapter must be done at least once a day or following the regulations in use in the laboratory.

For reasons of safety, any operation without the required personal protection equipment is to be avoided.

It is not necessary to perform a decontamination procedure as the included tissues are already processed. It therefore means that they are inert and there is no possibility of contamination.

7.1. Safety precautions

The personnel involved in cleaning up HistosMATE and its optional parts (if any) must wear personal protective equipment, specifically:

- HI-RISK type single-use protection gloves (100% latex or equivalent material). Personal protection system compliant with standard EN 374 and Directive 89/686/EEC.
- Antibacterial mask for surgical/operating theatre use and white coat. Personal protection system compliant with standard EN 149 Grade FFP3D and Directive 89/686/EEC.



7.2. HistosMATE cleaning up

Strictly follow the instructions below to properly perform the cleaning up procedure.

It is suggested to clean the unit at every change of reagent
Do NOT remove the side panels of the unit during the cleaning up operations.
Do not use xylene or chlorine based solvents for the instrument cleaning.

Do not use aggressive detergents



For cleaning up, do not use procedures other than that described in this chapter.

Before every operation disconnect the power supply line. Do not use direct or high-pressure water to clean the unit.

Clean the holder separately by first wiping with a clean cloth to remove paraffin residues and then clean with non-aggressive detergents. At the end the holder must be clean and dry


For further information, email our specialists at: application@milestonemedsrl.com.

8. OPTIONAL AND SPARE PARTS

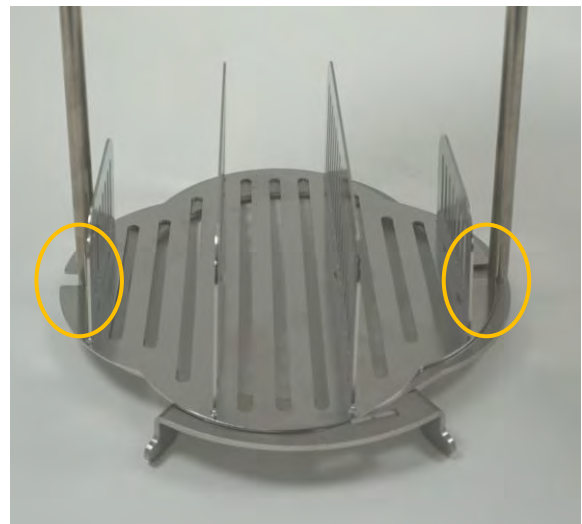


It is prohibited to use parts that are not supplied by Milestone.

The images shown are for illustrative purposes only.

CODE	DESCRIPTION	IMAGE
65241	Stainless steel holder, suitable to host rectangular stainless-steel racks (max up to 3 racks with dimensions: 160mm x 245mm x 52mm (6.3"x 9,65"x 2,05"))	

For racks other than Milestone, there is an adapter to be mounted on the HistosMATE support, making the grooves on both sides coincide with the support rods.



Then insert the racks in the spaces as shown in the figure. Depending upon the type of basket, these can be placed vertically or horizontally according to their size. The user must check the correct coverage of the baskets by the cleaning reagent.



9. ALLARMS- How to manage an alarm

9.1. How to manage an alarm

CODE	DESCRIPTION	WHAT TO DO
1	Serial communication fault (16 sec)	<ol style="list-style-type: none"> 1. Press 'Silent' to hide the alarm. 2. Reboot the system. (wait 2 minutes before the rebooting). 3. Call your customer service if the issue can't be fixed.
2	Stirrer not running (20 sec)	<ol style="list-style-type: none"> 1. Check that in the cavity there is nothing that interfere with the proper stirrer rotation 2. Press 'Silent' to hide the alarm. 3. Reboot the system. (wait 2 minutes before the rebooting) 4. Call your customer service if the issue can't be fixed.
3	Temperature too high (5 sec above threshold)	<ol style="list-style-type: none"> 1. Check that reagent level is correct 2. Press 'Silent' to hide the alarm. 3. Reboot the system. (wait 2 minutes before the rebooting) 4. Call your customer service if the issue can't be fixed.
4	Temperature too low (5 sec below threshold)	<ol style="list-style-type: none"> 1. Check that reagent level is correct and that a cold reagent has not been inserted into the cavity. 2. Press 'Silent' to hide the alarm. 3. Reboot the system. (wait 2 minutes before the rebooting) 4. Call your customer service if the issue can't be fixed.

10. TROUBLESHOOTING

The following table provides the HistosMATE operator with possible causes in the event a problem develops with the unit.

PROBLEM	DIAGNOSIS
The unit does not switch on	Check the power cord is connected If the problem persists, call Service technician
Paraffin traces are still present after the cleaning cycles	If the reagent replacements have been carried out properly, check that the mechanical stirrer is moving correctly and that there is nothing preventing it from rotating correctly Check that it is not the rinsing ethanol that is excessively contaminated with traces of paraffin.



MILESTONE
H E L P I N G
P A T I E N T S

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