

User Manual

Sterilisator 75

Dry-heat sterilizer



EN

Dear customer,

We thank you for your confidence demonstrated by the purchase of this MELAG product. As an owner-run and operated family concern founded in 1951, we have a long history of successful specialization in hygiene products for practice-based use. Our focus on innovation, quality and the highest standards of operational reliability has established MELAG as the world's leading manufacturer in the instrument treatment and hygiene field.

You, our customer are justified in your demand for the best products, quality and reliability. Providing **“competence in hygiene”** and **“Quality – made in Germany”**, we guarantee that these demands will be met. Our certified quality management system is subject to close monitoring: one instrument to this end is our annual multi-day audit conducted in accordance with ISO 13485. This guarantees that all MELAG products are manufactured and tested in accordance with strict quality criteria.

The MELAG management and team.

Contents

1 General guidelines	4
Formatting rules	4
Symbols used	4
2 Safety	5
3 Description of the device	6
Scope of delivery	6
Intended use	6
Views of the device	7
Symbols on the device	8
Loading variations	9
4 Setup and installation	10
Requirements of the installation location	10
5 First steps	11
Switching the hot air sterilizer on and off again	11
Opening and closing the door	12
Replacing the mount	12
6 Sterilization	13
Preparing the sterilization material	13
Loading the dry-heat sterilizer	13
Information regarding routine operation	14
Setting the temperature	14
Selecting the sterilization times	14
Removing the sterilized equipment	14
Storing sterilized equipment	15
7 Function tests	16
Periodical checks	16
8 Maintenance	17
Checks and cleaning	17
9 Malfunctions	18
General events	18
10 Technical Data	19
11 Accessories	20
Glossary	21

1 General guidelines

Read this user manual carefully before commissioning the device. The user manual includes important safety information. The functionality and value-retention of this device depends on the care accorded to it. Store this user manual carefully and in close proximity to your device. It represents a component of the product.




Should the user manual no longer be legible, damaged or lost, obtain a new copy from MELAG. State the device type and your address in an e-mail.

The device type is specified on the type plate on the rear of the device.

Formatting rules

Example	Explanation
see Chapter 2	Reference to another text section within this document.

Symbols used

Symbol	Explanation
	Indicates a dangerous situation, which if not avoided, could entail slight to life-threatening injuries.
	Draws your attention to a situation, which if not avoided, could result in damage to the instruments, the practice fittings or the device.
	Draws your attention to important information.

2 Safety



When operating the device, comply with the following safety instructions as well as those contained in subsequent chapters. Use the device only for the purpose specified in these instructions. Failure to comply with the safety instructions can result in injury and/or damage to the device.

Qualified personnel

- As with the preceding instrument decontamination, the sterilization of instruments using this steam sterilizer may only be carried out by competent personnel.

Set-up, installation and commissioning

- The device should only be set-up, installed and commissioned by persons authorized by MELAG.
- The device is not suitable for operation in explosive atmospheres.
- Check the device for any damage suffered during transport after unpacking.

Power cable and power plug

- Only the power cable included in the scope of delivery may be connected to the device.
- The power cable may not be replaced by a cable determined to be insufficient.

Danger of short circuit

- Liquids may not be permitted to reach the interior of the device. This could result in an electrical shock or short circuiting.

Preparation and sterilization

- Do not place the objects to be sterilized on material produced from cellulose (e.g., paper, paper towels, staple fiber, bandage material, etc.); this material would produce excessive heat accumulation which would prevent the required heat equalization in the sterilizer.
- Observe the relevant standards and directives for the preparation of instruments.
- In the case of obvious or suspected damage/defects, the device may not be operated further. In such cases, the device has to be repaired.

Transport and storage

- Store and transport the device in a frost-free environment.
- Avoid strong shocks/vibrations.

Repair

- Never open the device housing. Incorrect opening and repair can compromise electrical safety and pose a danger to the user. The guarantee and warranty are forfeited as soon as the device is opened by anyone other than a MELAG-authorized technician.
- The device may only be repaired by the manufacturer or an agency which he has authorized to do so (stockist or customer services).
- Only original MELAG spare parts may be used.

3 Description of the device

Scope of delivery

Please check the scope of delivery before setting up and connecting the device.

Standard scope of delivery

- Sterilisator 75
- User manual
- Declaration of conformity
- Warranty certificate
- Power cable
- Mount 1 or mount 2 (depending on the order)

Intended use

This hot air sterilizer is intended for use in the cosmetics sector, the cosmetic chiropody and the veterinary sector. It was designed for the sterilization of objects made of non-flammable (inorganic) materials with a minimum temperature resistance of 220 °C (e.g. metal, glass, porcelain, stone or enamel). Comply with the restricting information from the instrument manufacturer. Porous sterilization material is unsuitable for hot air sterilization.

Views of the device

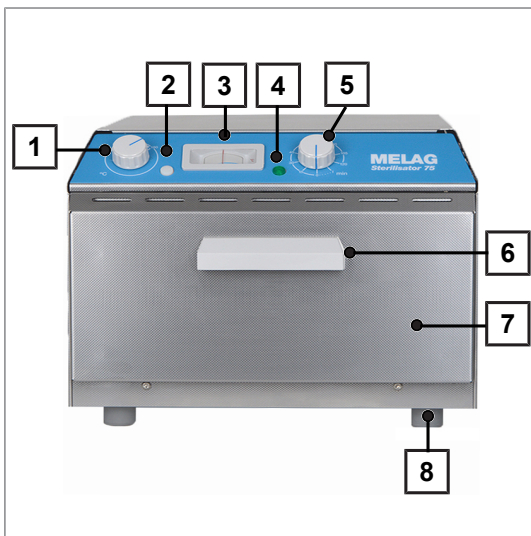


Fig. 1: Fore device view

- 1 Temperature controller
- 2 Control lamp heater
- 3 Thermometer
- 4 Control lamp mains
- 5 On/Off switch and time setting
- 6 Door handle
- 7 Door (opens forwards)
- 8 Device foot

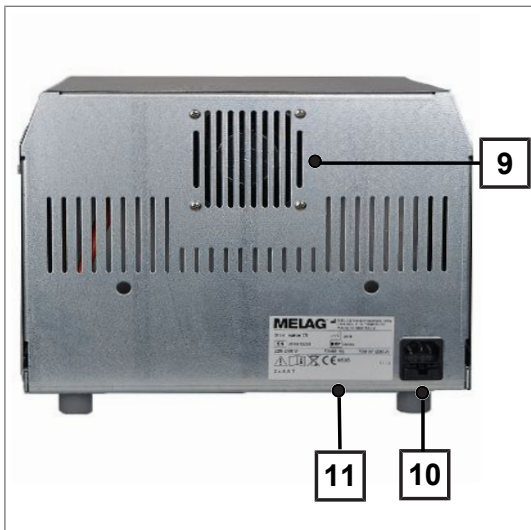


Fig. 2: Rear view of the device

- 9 Fan
- 10 Connection for the power supply and the device fuse
- 11 Type plate



Fig. 3: Inside view of the device

- 12 Sterilization chamber
- 13 Mount

Symbols on the device



Manufacturer of the product



Date of manufacture of the product



Product serial number from the manufacturer



Article number of the product



The user manual includes important safety information. Failure to comply with these instructions can result in injury and material damage.



Please read this user manual carefully before commissioning the device.



This symbol indicates that the marked area becomes hot during operation. Contact with it during or shortly after operation can pose the danger of burns.



In affixing the CE mark, the manufacturer declares that this product fulfils the corresponding EU requirements.



The device may not be disposed as domestic waste. The vendor is responsible for appropriate disposal of the device - it must be delivered to the vendor to be disposed of. MELAG devices are synonymous for long-term quality. When you eventually need to decommission your MELAG device, we offer a special disposal service. Simply contact your stockist.

Loading variations

The hot air sterilizer is delivered with a mount for the acceptance of trays or standard tray cassettes. If one or two trays are ordered with the device, the scope of delivery will include a tray lifter.

The following loading versions are possible in devices with trays and standard tray cassettes of the following sizes:

- Tray (W x H x D): 19 x 2 x 29 cm
- Standard tray cassette (W x H x D): 19 x 4 x 29 cm

Mount 1

Mount 1 belongs to the standard and can accept max. two trays.



Mount 2

Mount 2 can accept a tray or a closed standard tray cassette.



Both mounts are easy to replace. Comply with the instructions under [Replacing the mount](#) [▶ page 12].

4 Setup and installation

Requirements of the installation location



NOTICE

The mains plug and the fuse must be easily accessible.

- Set up the device in such a fashion that the power plug can be disconnected from the mains quickly following danger and that the fuse is easy to access.
-

- ▶ Install the device in a dry and dust-protected location in the interior of a building.
- ▶ Install the device with a minimum clearance of 10 cm to other devices and walls, especially flammable objects.
- ▶ Ensure sufficient ventilation. Ensure sufficient clearance to the top for free removal of the warm air. The device may not be used as an installation device and not be used in the immediate treatment area.
- ▶ The installation surface must be level and have a load-carrying capacity of at least the weight of the device.

Tests after set-up

Perform a temperature check after setting-up the device using thermo sensors or bio indicators. Place the test equipment in the area of the sterilization chamber in which the sterilization temperature is reached the most slowly. This also depends on the arrangement and nature of the sterilization material.

5 First steps

Switching the hot air sterilizer on and off again

The hot air sterilizer is activated via the time setting (On/Off switch) and switches itself off automatically after a pre-set time. The fan comes to a standstill after approx. 45 s.



PLEASE NOTE

Disconnect the power plug if the device is not to be operated for a long period of time.

Setting the operating time

- ▶ Set the On/Off switch to the required operating time (turn clockwise).
- ↳ The mains control lamp will remain illuminated; the control lamp for the heater will switch on and off until the time has elapsed.
- ↳ The hot air sterilizer can be set to continuous operation. In this case, the hot air sterilizer must be switched off manually.

Activating and deactivating continuous operation

- ▶ Switch the On/Off switch to the "I" position (turn anti-clockwise).
- ↳ The mains control lamp will remain illuminated; the control lamp for the heater will switch on and off. The set temperature will be kept constant by the heater switching on and off.
- ▶ Switch the On/Off switch to the "0" position to switch off continuous operation.
- ↳ The mains and heater control lamps will extinguish.

Opening and closing the door



CAUTION

Danger of burns from hot metal surfaces

- Allow the device to cool sufficiently before opening.
- Do not touch any hot metal parts.



PLEASE NOTE

The device must always be deactivated before it is opened.

Do not add any objects or open the door after the sterilization procedure has started; this could result in cooling and the objects not being sterilized for a sufficient time.

1. Move the On/Off switch to the "0" position to switch off.
2. Move the door forwards to open.
3. Move the door backwards to close.

Replacing the mount



CAUTION

The mounts can have sharp edges.

- Wear suitable protective gloves.

The mounts are installed to the left and the right in the sterilization chamber and can be replaced as follows:

1. Slide the mount upwards from below and pull off to the side.
2. Set the mount with the screws into the larger aperture and press the mount downwards.



6 Sterilization

Preparing the sterilization material

Cleaning and disinfection must always have been performed correctly and appropriately before sterilization. Only in this way is it possible to guarantee the subsequent sterilization of the sterilization material. The materials used, cleaning agents and reprocessing procedure are of decisive significance.

Please comply with the the following specifications before loading:

- ▶ Clean, disinfect and dry the instruments before every sterilization.
- ▶ Comply with the specifications of the manufacturer’s cleaning and care information when reprocessing the sterilization material. Only in this way is it possible to guarantee correct cleaning and disinfection and subsequent sterilization.
- ▶ Never place the sterilization material together in blocks, as this will prevent heat equalization.
- ▶ Do not place the sterilization material on cellulose, as this can result in a heat build-up.
- ▶ Unwrapped sterilized equipment loses its sterility upon contact with the ambient air. If you plan to store your instruments in a sterile fashion, wrap them in a suitable packaging before sterilization.
- ▶ Always pack the sterilization material in aluminium containers. Stainless steel is unsuitable due to its reduced heat conductivity. Do not use any textiles, paper or polyamide film as packaging. This packaging is unsuitable for high sterilization temperatures.

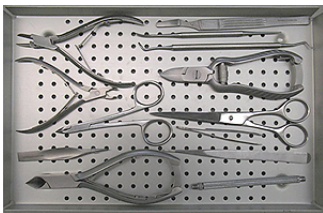
Loading the dry-heat sterilizer

Effective sterilization and successful drying is only possible if the hot air sterilizer is loaded correctly. Ensure the following during loading:

- ▶ Insert trays or standard tray cassettes in the sterilization chamber only with their appropriate mount.
- ▶ When loading, ensure that air can circulate around the instruments unhindered. Do not load the trays or standard tray cassettes one-sided and do not stack the sterilization material.

Example of a correct load

Tray

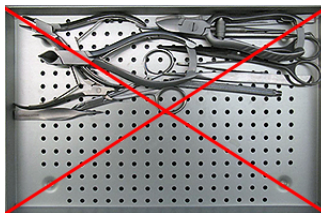


Standard tray cassette



Example of an incorrect load

Tray



Standard tray cassette



Information regarding routine operation

The sterilization temperature must amount to 180 °C before the start of every sterilization procedure. The equilibration time must be taken into account when setting the sterilization time. The pure elimination time amounts to 30 min at 180 °C.

1. Wait 15 min after the thermometer has reached 180 °C.
2. Set the required sterilization time. Comply with the information in the sterilization times table.
3. Check whether the mechanical air movement is functioning correctly via the ventilator noise.

Setting the temperature

Set the temperature for the hot air sterilization as follows:

1. Turn the temperature controller to 180 °C.
2. Wait until the thermometer displays 180 °C and allow the device to heat up for 15 min.
 - ↳ During this time, the hot air sterilizer heats up the complete sterilization chamber.
3. Set the sterilization time via the On/Off switch. Comply with the information in the sterilization times table.

Selecting the sterilization times

Do not exceed the specified loading quantities. Use only trays and cartridges made of aluminium. When needing to pack with foil, use aluminium foil.

Load quantity	Packaging	Pre-heating time	Operating time
max. 500 g inc. 2 trays	unwrapped	15 min	60 min
max. 2 kg inc. 2 trays	unwrapped	15 min	75 min
max. 500 g inc. 1 standard tray cassette	wrapped	15 min	75 min
max. 2 kg inc. 1 standard tray cassette	wrapped	15 min	120 min

Removing the sterilized equipment



CAUTION

Danger of burns from hot metal surfaces

- Allow the device to cool sufficiently before opening.
- Do not touch any hot metal parts.



CAUTION

Unsterile instruments resulting from damaged or burst packaging. This endangers the health of your patients and practice team.

- Should the packaging be damaged or have burst after sterilization, re-pack the sterilization material and re-sterilize it.

Comply with the following when removing the sterilized equipment:

- ▶ Use a tray lifter to remove the tray.
- ▶ Never touch the sterilized equipment, the device interior or the inside of the door with unprotected hands. The components are hot.

Storing sterilized equipment

The maximum storage time is dependent on the packaging and the storage conditions. For standard-conform packaged sterilized equipment – (if protected from dust) it can amount to up to six months. Comply with the provisions of DIN 58953, part 8 and the criteria specified below for the storage of sterilized equipment:

- ▶ Comply with the maximum storage duration in accordance with the packaging type.
- ▶ Do not store the sterilized equipment in the reprocessing room.
- ▶ Store the sterilized equipment in a dust-protected environment e.g. in a closed instrument cabinet.
- ▶ Store the sterilized equipment in an environment protected against moisture.
- ▶ Store the sterilized equipment in an environment protected against excess temperature variations.

7 Function tests

Periodical checks

MELAG recommends an annual inspection using bio-indicators, thermocouples or maximum thermometers.

- ▶ Comply with the valid regional legal specifications.
- ▶ When performing the spore test using biological indicators, the spore packets are to be clamped under an instrument in order to prevent the package from being sucked into the fan motor.

8 Maintenance

Checks and cleaning

**CAUTION**

The mounts can have sharp edges.

- Wear suitable protective gloves.
-

**NOTICE**

Inappropriately performed cleaning can lead to the scratching of and damage to surfaces and the development of leaks in sealing faces. This also favours the development of soiling deposits and corrosion in the sterilization chamber.

Comply with all information regarding cleaning of the parts affected.

Check the sterilization chamber, including the door seal and the mounts for the load once a week for impurities, deposits or damage. If you find any impurities, remove the trays or standard tray cassettes and the mount from the sterilization chamber. Clean the soiled components. When cleaning the sterilization chamber, the mount for the load and the door seal, comply with the following:

- ▶ Switch off the device before cleaning and disconnect the power plug from the socket.
- ▶ Ensure that the sterilization chamber is not hot.
- ▶ Use a soft, non-fuzzing cloth.
- ▶ Use a chlorine and vinegar-free cleaning agent.
- ▶ Soak the cloth in cleaning alcohol or spirit and attempt to wipe away impurities.
- ▶ Only if the sterilization chamber or mount has persistent soiling, use a mild stainless steel cleaning agent with a pH value between 5 and 8.
- ▶ Use a neutral liquid cleaning agent to clean the door seal.
- ▶ Do not use any hard objects such as a metal saucepan cleaner or a steel brush.
- ▶ Check the door seal for damage on a daily basis. Replace the door seal if necessary.
- ▶ Check the contact pressure of the door. The entire surface of the door must be in contact with the frame.

9 Malfunctions

General events

Event	Possible cause	What you can do
The temperature display of the thermometer deviates from the set temperature by more than 8 °C.	The temperature controller has been set incorrectly.	Increase or reduce the temperature by turning the temperature controller: Higher temperature: turn anti-clockwise Lower temperature: turn clockwise
The device does not switch off. The "mains" and "heater" indicator lamp illuminate.	The timer is defective or is set to continuous operation.	Check whether the On/Off switch is set to "I" or "0". If the timer is defective, inform an authorized customer services. The device can be operated provisionally on a semi-automatic basis by actuating the On/Off switch manually.
The temperature displayed deviates from the set temperature. The thermometer displays less than 180 °C or falls from 180 °C to approx. 150 °C within approx. 5 min and continues to fall. Under certain circumstances, there is no audible ventilator noise.	The temperature has been set too low. The temperature controller rotary knob was turned or set incorrectly when unpacking the device or because of incorrect handling e.g. during cleaning.	Set a higher temperature. The temperature controller must be readjusted by a service technician. Contact the authorized customer services / stockist technician. Provisionally, turn the temperature controller until the desired temperature is displayed on the device thermometer.
The device is too hot (more than 180 °C). The temperature fluctuates between 210 and 240 °C. The mains control lamp is illuminated. The heater control lamp is continuously off or on and off every 20 s.	The temperature controller has been set incorrectly or is defective.	Set the temperature controller to e.g. 180 °C and check whether this temperature has been reached / is displayed on the thermometer (note the heating and equilibration time). Should the values deviate, the temperature controller must be readjusted. Contact the authorized customer services / stockist technician. If the thermostat is defective, contact the authorized customer services / stockist technician. Provisionally, turn the temperature controller until the desired temperature is displayed on the device thermometer.

10 Technical Data

Device type	Sterilisator 75
Device dimensions (W x H x D)	31 x 26 x 40 cm
Weight	12 kg
Maximum load	2 kg including trays
Sterilization chamber	
Dimensions (W x H x D) ¹⁾	18 x 7.4 x 29.5 cm
Volume	4 l
Electrical connection	
Power supply	220-240 V 50/60 Hz
Maximum voltage range	207-253 V
Maximum mains voltage supply variations	± 10 %
Electrical power	700 W
Device fuse	2 x 4 A T
Ambient conditions	
Installation location	Interior of a building
Noise emission	56 dB(A)
Waste heat	1.1 MJ
Ambient temperature	5-40 °C
Degree of protection (in accordance with IEC 60529)	IP 20
Relative humidity	up to 31 °C max. 80 % up to 40 °C max. 50 %
Protection category	I

¹⁾with installed mounts

11 Accessories

You can obtain the specified articles and an overview of further accessories from your stockist.

Article	Art. no.
Mount 1	59030
Mount 2	59040
Tray	02075
Standard tray cassette	00287
Tray lifter	28890
Lifter for standard tray cassette	28895

Glossary

Ausgleichszeit

Die Ausgleichszeit umfasst die Zeitspanne, um an allen Stellen des Gerätes und des Sterilisiergutes die geforderte Temperatur von 180 °C zu erreichen.

DIN 58953

Standard – sterilization, sterile equipment supply

Sterilization material

Unsterile, sterilizable material which is still to be sterilized.

Sterilized equipment

Also referred to as a batch: a load which has already been sterilized, i.e. is sterile

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Original instructions

Responsible for content: MELAG Medizintechnik GmbH & Co. KG
We reserve the right to technical alterations

Your stockist

