MELAG
competence in hygiene

User manual

Accessories for large steam sterilizers



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 EN 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
Symbols used 4
Formatting rules 4
2 Safety 5
3 Description of the device 6
Intended use 6
Scope of delivery 6
Views of the device 6
4 Commissioning 9
Set-up requirements 9
Space requirements 9
Upgrading the slide rail “Comfort” in the steam sterilizer 10
Aligning the loading trolley to the steam sterilizer 10
Fine adjustment of the locking mechanism 13
5 Application 15
Loading the steam sterilizer with the loading trolley 15
Removing the sterilization batch with the loading trolley 17
6 Technical data 18
7 Accessories and spare parts 19
Glossary 20

1 General guidelines

Please read this user manual carefully before commissioning the device. The manual includes important safety instructions. The functionality and value-retention of this device depends on the care accorded to it. Please store the user manual carefully and in close proximity to the device, e.g. in the bracket on the inside of the floor unit door. It represents a component of the product.

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

Symbols used

Symbol	Explanation
	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.

Formatting rules

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

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.

Carrying the loading trolley

- Only carry the loading trolley using the outer bars on the left and right of the loading level. To prevent injuries, do not carry or lift the loading trolley at the front end (in the area of the latch).
- Only lift the loading trolley with an empty loading and shelf level.

Set-up

- Check the loading trolley and its accessories after unpacking for any damage suffered during transport.
- The loading trolley should only be set-up by MELAG authorized persons.
- Use the loading trolley in a frost-free environment.

Removing the sterile material

- Never use force to open the door.
- Use protective gloves to remove the sterile material. Never touch the sterile material, the chamber or the inside of the door with bare hands. The components are hot.
- Use the loading trolley, batch slider and loading hook to remove the sterile material.
- Check the packaging on the sterile material for damage when removing it from the steam sterilizer. Should the packaging be damaged, re-pack the sterilization material and re-sterilize it.

Maintenance

- The maintenance of the loading system is performed within the scope of the steam sterilizer maintenance.
- Maintenance should only be performed by authorized technicians.
- Only original MELAG spare parts may be used.
- After performing maintenance of the steam sterilizer, check, and if necessary, adjust the alignment of the loading system to the steam sterilizer.

3 Description of the device

Intended use

The loading system is designed for use in the medical sector i.e. in medical and dental practices, outpatient surgeries, group practices and hospitals. It is intended to supplement Cliniclaves. The loading system serves the ergonomic loading and unloading of batches in and from the steam sterilizers as well as to transport the batches.

Scope of delivery

Please check the scope of delivery before using the product.

Standard scope of delivery

- Loading trolley
- Slide rail “Comfort”
- Batch slider (2x with Cliniclave 45 M/Cliniclave 45 MD)
- Loading hook
- User manual

Views of the device

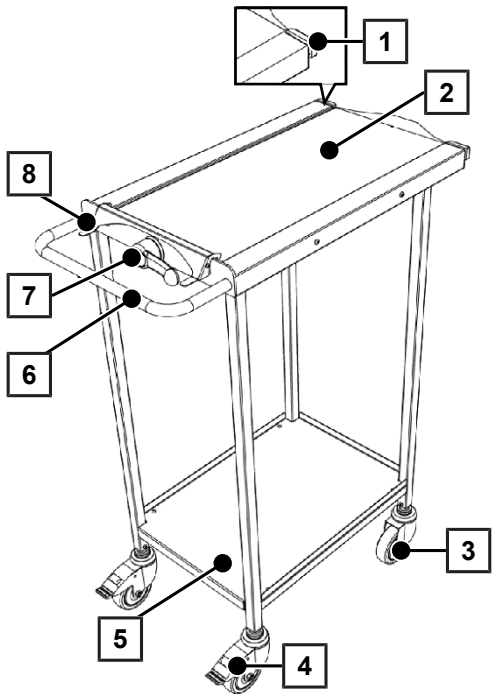


Fig. 1: Loading trolley

1	Shock absorber
2	Loading level
3	Fore casters
4	Rear casters with holding brake
5	Shelf level
6	Sliding handle
7	Release lever
8	Clamp for the batch slider

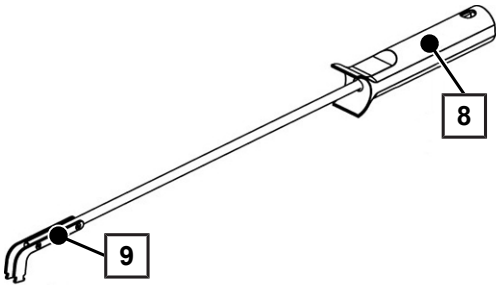


Fig. 2: Loading hook

8 Grip
9 Push rod with hook

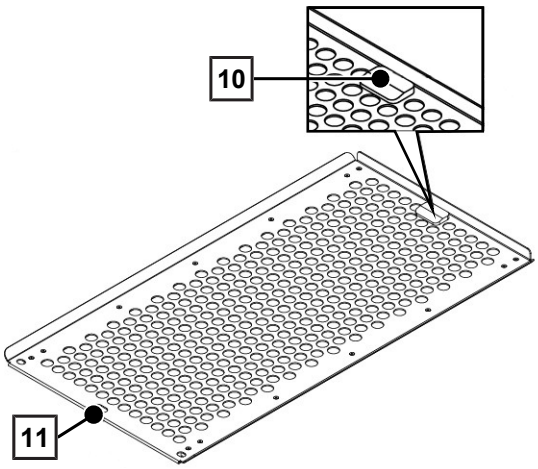


Fig. 3: Batch slider Cliniclave 45/Cliniclave 45 M

10 Stopper for mount
11 Hole for loading hook

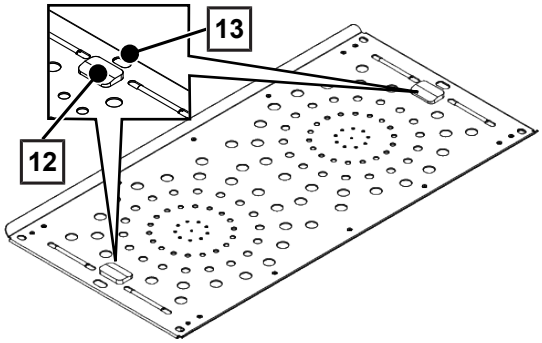


Fig. 4: Batch slider Cliniclave 45 D/Cliniclave 45 MD

12 Stopper for mount
13 Hole for loading hook

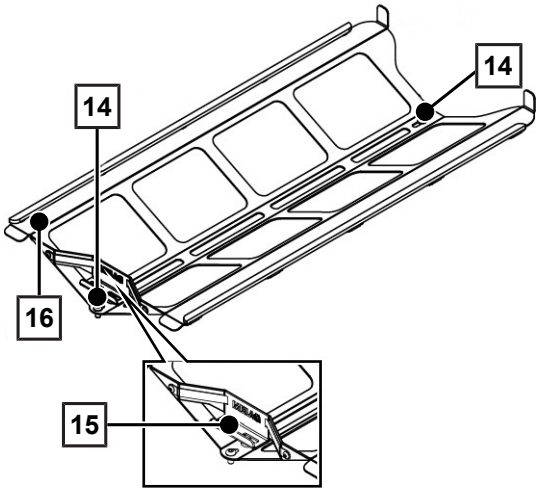


Fig. 5: Slide rail “Comfort” Cliniclave 45

14 Slots for fixing in the sterilization chamber of the steam sterilizer
15 Lock for fixing the loading trolley
16 Sliding surface for batch slider

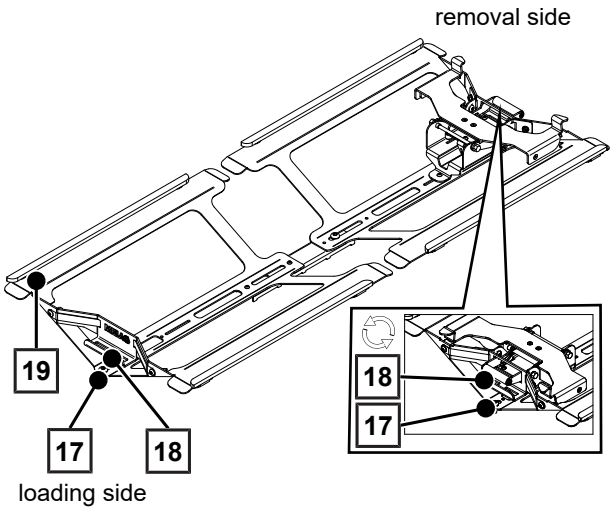


Fig. 6: Slide rail “Comfort” Cliniclave 45 D

17 Slots for fixing in the sterilization chamber of the steam sterilizer
18 Lock for fixing the loading trolley
19 Sliding surface for batch slider

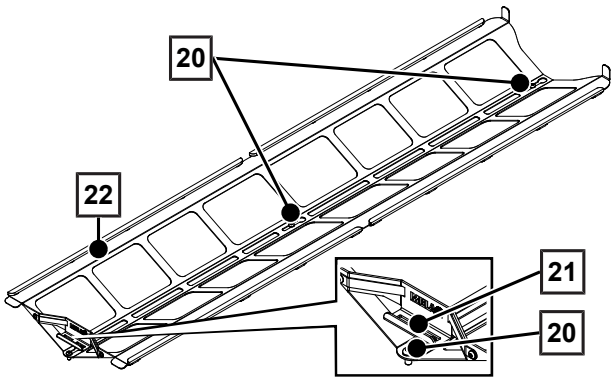


Fig. 7: Slide rail “Comfort” Cliniclave 45 M

20 Slots for fixing in the sterilization chamber of the steam sterilizer
21 Lock for fixing the loading trolley
22 Sliding surface for batch slider

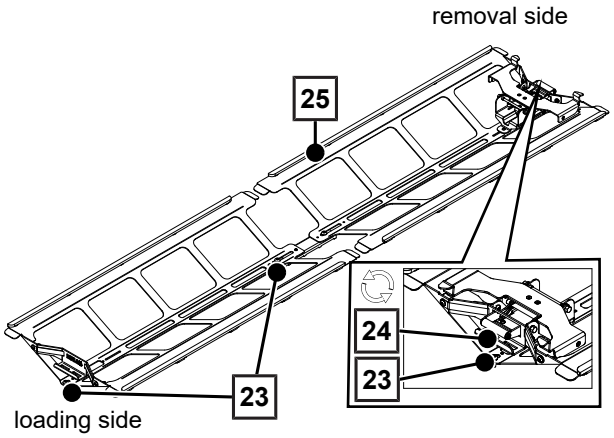


Fig. 8: Slide rail “Comfort” Cliniclave 45 MD

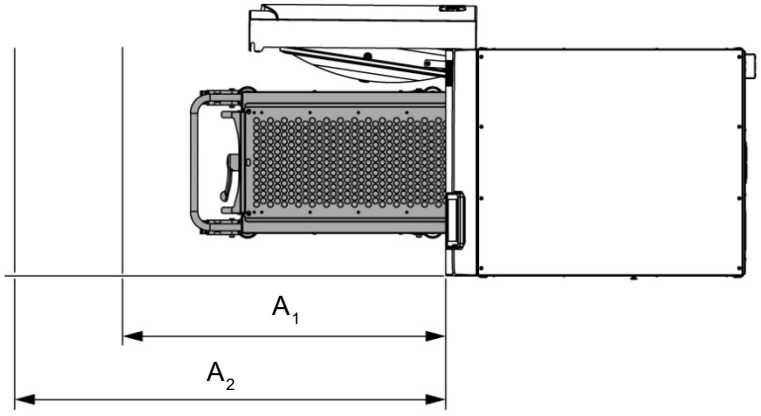
23 Slots for fixing in the sterilization chamber of the steam sterilizer
24 Lock for fixing the loading trolley
25 Sliding surface for batch slider

4 Commissioning

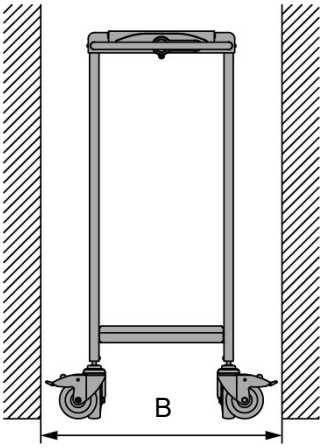
Set-up requirements

- The floor on the loading and removal side of the steam sterilizer is level.
- The location in which the loading trolley is used is free of thresholds and steps.
- There is sufficient space for the loading trolley and the pivoting area of the casters on the loading and removal side of the steam sterilizer.

Space requirements



View of the loading trolley and steam sterilizer from above



Loading trolley from the front

Dimensions		Space required
Depth of the recess (min.)	A_1	90 cm
Depth of the recess (recommended)	A_2	120 cm
Recommended width of the recess to permit unhindered steering	B	65 cm

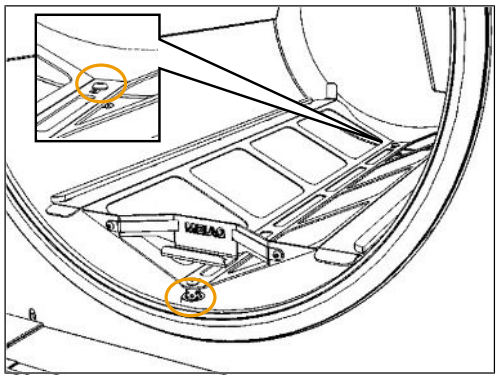
Upgrading the slide rail “Comfort” in the steam sterilizer

PLEASE NOTE

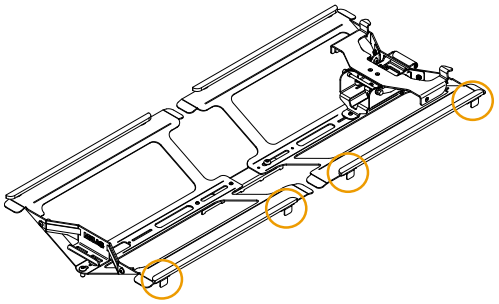
If the steam sterilizer was ordered with a loading system, the slide rail “Comfort” is already installed.

To be able to use the loading system, the slide rail “Basic” must be changed for the slide rail “Comfort”. Proceed as follows:

1. Remove the fixing screws of the slide rail “Basic” in the sterilization chamber (tool required: Allen key 4 mm). Remove the slide rail.



2. Bend the spacers on the edges of the slide rail “Comfort” downwards.
   NOTICE! Ensure that all spacers are bent down. Acting as contact protection between the slide rail and the sterilization chamber, they protect the sterilization chamber against damage.



3. Insert the slide rail “Comfort” into the steam sterilizer in such a way that the side with the locking plate (the loading side with double-door devices) points forwards.
4. Fix the slide rail “Comfort” with the screws included in the scope of delivery loosely at the same fixing points as before. Do not tighten the screws fully.

Aligning the loading trolley to the steam sterilizer

NOTICE

Damage to the loading trolley, the steam sterilizer or the load.

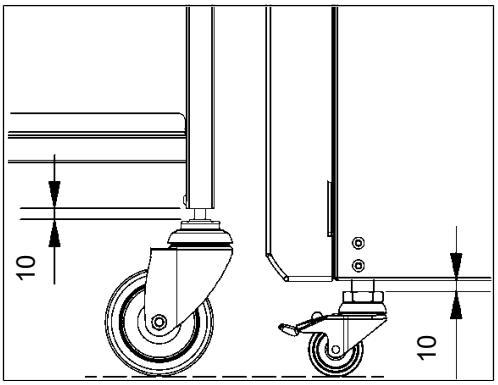
Make sure that the loading trolley is aligned exactly to the steam sterilizer to avoid problems when docking and undocking the loading trolley and to prevent the load from falling.

Setting the starting height of the loading trolley and the steam sterilizer

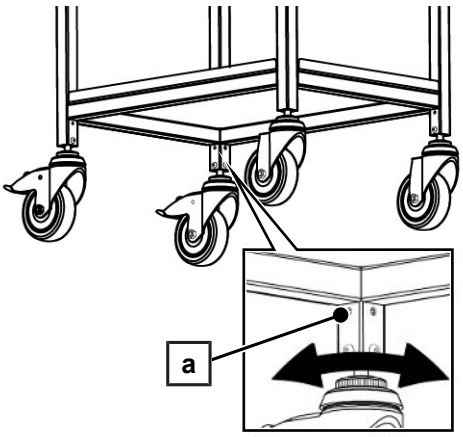
PLEASE NOTE

The steam sterilizer with floor unit must be standing level at its final place of installation before aligning the loading trolley; see technical manual of the steam sterilizer.

As pre-requisite for aligning the loading trolley to the steam sterilizer, the casters of the device and the loading trolley must be advance by 10 mm each.



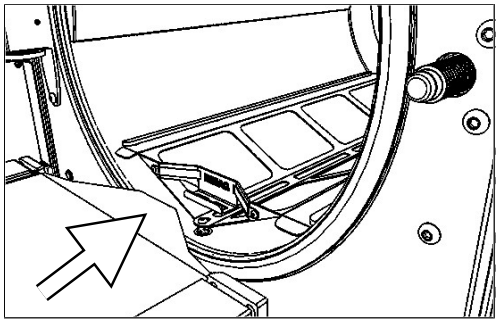
1. In order to set the loading trolley to the required starting height, loosen both grub screws (pos. a) of each loading trolley foot.



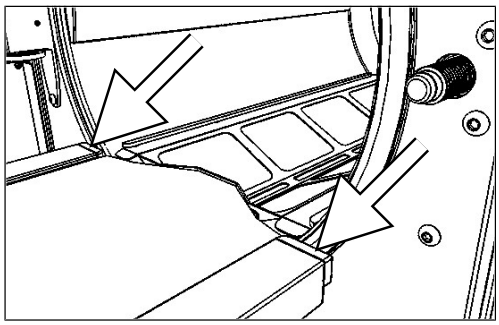
2. Release the holding brake on the casters if necessary.
3. Unscrew the casters 10 mm using the knurled nut.

Aligning the slide rail “Comfort”

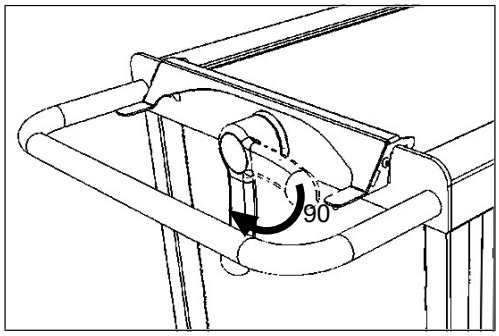
1. Open the door of the steam sterilizer.
2. If necessary, loosen the screws fixing the slide rail in the sterilization chamber of the steam sterilizer.
3. Pull the slide rail “Comfort” forwards to its fullest extent.
4. Slide the loading trolley as far as possible into the trapeze-shaped section of the slide rail “Comfort”. The latch on the loading trolley should not yet latch onto the slide rail “Comfort”.



5. Use the loading trolley to push the slide rail “Comfort” into the sterilization chamber until the shock absorbers of the loading trolley are pressed in and have full contact with the chamber flange.

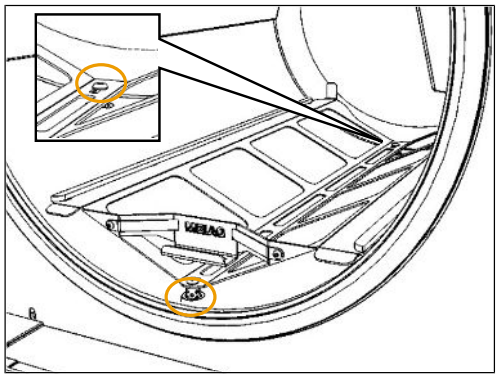


6. If the loading trolley has already latched, release the latch on the loading trolley by moving the release lever 90° downwards.



7. Return the loading trolley. Make sure that the slide rail “Comfort” remains in its position.

8. Tighten the screws for fixing the slide rail in the sterilization chamber.



Setting the height of the loading trolley

1. Slide the loading trolley as far as possible into the trapeze-shaped section of the slide rail “Comfort”.
2. Advance or retract the casters of the loading trolley until the loading level of the loading trolley and the slide rail “Comfort” lie at the same height. The casters can be screwed out up to 20 mm.

PLEASE NOTE

Advance or retract all the casters equally. Check the alignment using a spirit level.

Test the alignment of the loading trolley with a fully-loaded batch slider. The batch slider must be able to slide back and forth without hindrance or scratching between the sterilization chamber and loading trolley.

- Tighten the grub screws on the feet of the loading trolley.

PLEASE NOTE

Setting the height of the steam sterilizer

The height of the steam sterilizer need only be readjusted if the height clearance on the loading trolley is insufficient. This will be an exception. See the steam sterilizer technical manual.

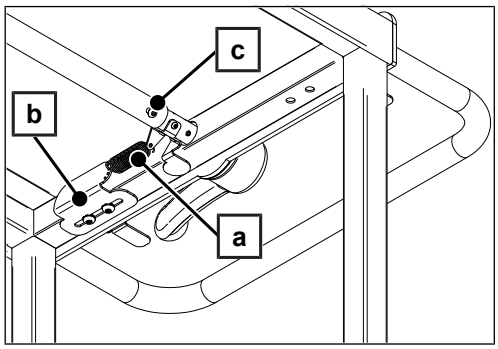
Fine adjustment of the locking mechanism

The locking mechanism can be adjusted longitudinally and for height.

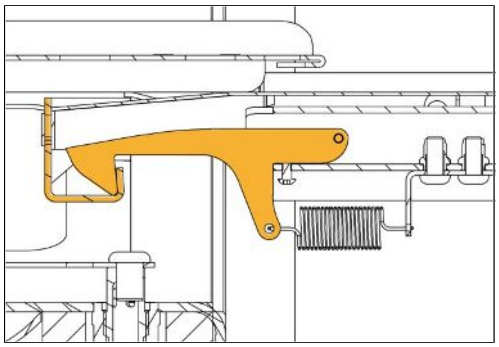
Setting the longitudinal alignment

If the latch of the loading trolley does not lock into the slide rail “Comfort” when moving the trolley to the steam sterilizer, the longitudinal alignment can be altered as follows:

1. Release the spring (pos. a) on the rear underside of the loading trolley from the seal strip (pos. b).



2. Loosen the screw (pos. c) on both sides of the connecting pipe.
3. Slide the connecting pipe as far forwards as possible so that the latch snaps in behind the hook of the lock.
4. Pull back the connecting pipe as far as possible until the latch assumes the position depicted in the following figure.

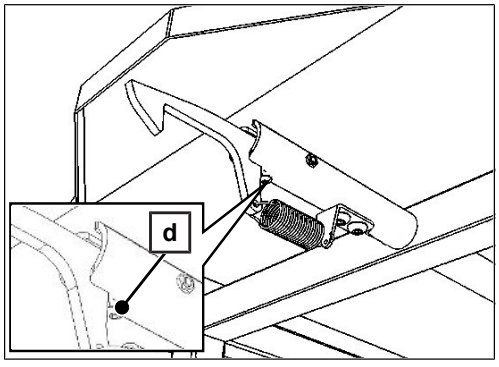


5. Re-tighten the screws (pos. c) fully.

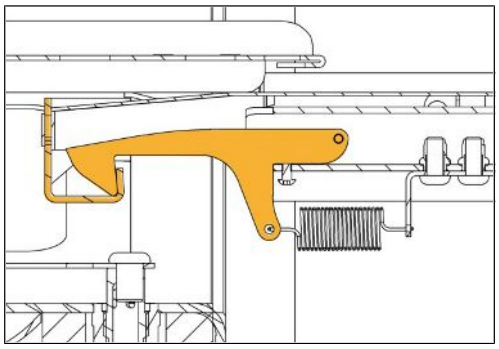
Setting the height

If the latch fails to lock into the locking plate despite the previous measures, the height of the latch can be adapted to the connecting pipe.

1. Turn the adjusting screw (pos. d) on the latch one revolution stepwise.



2. Check whether the latch slides over the edge of the locking plate of the slide rail “Comfort” without difficulty and snaps in, by approaching with the loading trolley.



3. Determine and note the clearance of the screw head to the connecting pipe.
4. Unscrew the adjusting screw almost completely.

NOTICE

Adhesion of the parts

Do not allow any threadlocker onto the rest of the moving parts.

5. Apply a drop of threadlocker (e.g. Loctite 2701) to the fore threads and screw the adjusting screw back to the noted position.
6. Check the latching function again.

5 Application

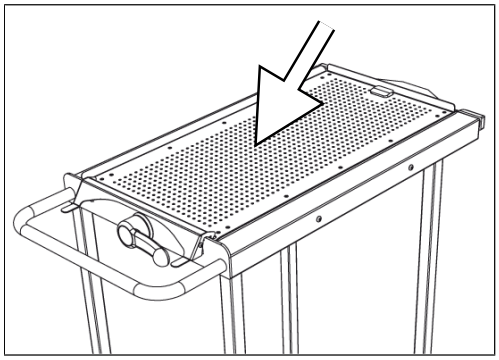
Loading the steam sterilizer with the loading trolley

PLEASE NOTE

Comply with the permissible loading surface of the batch slider (30 x 60 mm).

The sterilization material may not protrude over the batch slider.

1. Place the batch slider on the loading level of the loading trolley with the runners facing downwards.



2. Push the batch slider fully to the rear edge of the loading level until the it snaps into the clamp.

   ↪ The batch slider now lies securely on the loading trolley and cannot slide away.

3. Distribute the sterilization material evenly and (if possible) centrally on the batch slider. Do not exceed the permissible loading surface of the batch slider.

NOTICE

The transport of too much sterilization material (exceeding the specified weight) or too fast can result in damage to the material or the loading trolley.

- Comply with the maximum permissible load quantity of the loading trolley.
- Secure the load by locking the batch slider into the clamp.
- Move carefully over uneven surfaces or thresholds if it is not possible to avoid them.
- Comply with the information and recommendations regarding the load quantity provided in the steam sterilizer user manual.

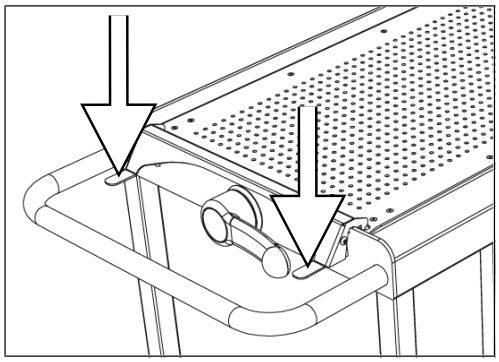
NOTICE

Damage to the chamber flange

- Always move the loading trolley to the steam sterilizer slowly and with caution.
- If the loading trolley did not approach the steam sterilizer correctly, check the chamber flange for damage.

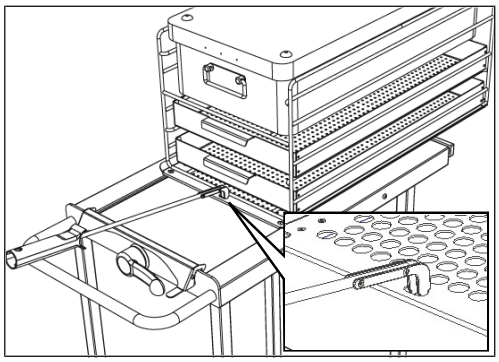
4. Approach the centre of the open steam sterilizer with the loaded loading trolley until the latch snaps into the locking plate of the batch slider “Comfort”.

5. Release the clamp on the rear edge of the batch slider by pressing down and holding both lugs.



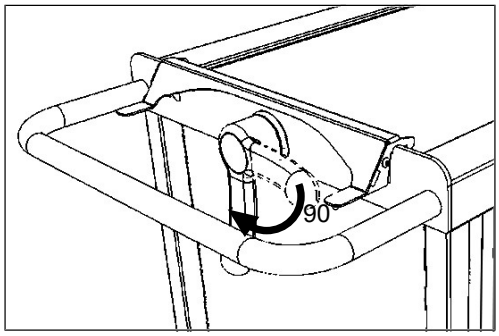
6. Place the loading hook into the rear-most hole of the batch slider.

7. Push the batch slider with load into the steam sterilizer using the loading hook.



8. Let go of the lug and remove the loading hook.

9. Release the loading trolley latch by moving the release lever 90° downwards



10. Reverse the loading trolley.

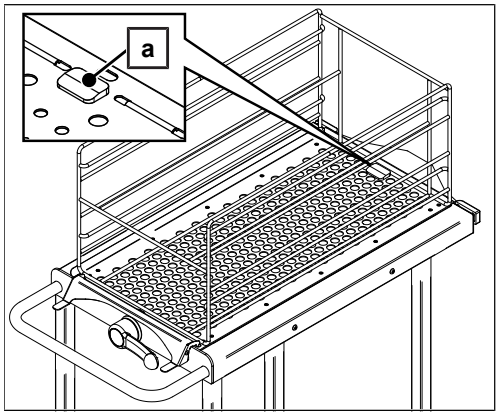
    ➥ The steam sterilizer can now be closed and started.

Securing the mount to the batch slider

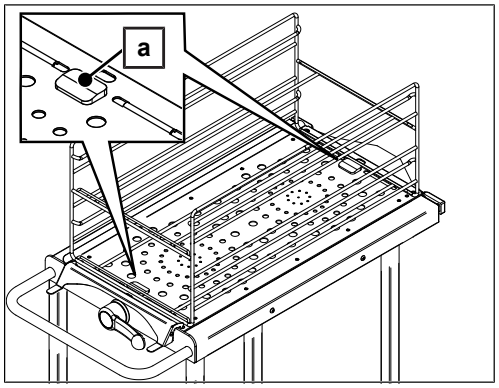
You can place the mount for 4 large trays or 2 instrument baskets on the batch slider.

Secure the mount against slipping on the batch slider as follows:

- **Cliniclave 45/Cliniclave 45 M:**
  Set the mount on the batch slider in such a way that the rear wire of the mount lies between the stopper (pos. a) and the rear edge of the batch slider.



- **Cliniclave 45 D/Cliniclave 45 MD:**
  Set the mount on the batch slider in such a way that the stoppers (pos. a) at the front and rear lie between the wire of the mount and the edge of the batch slider.



PLEASE NOTE

Remove the stopper(s) (pos. a) if you are working without the mount. Retain the stopper(s) e.g. in the bracket inside the door of the floor unit of the steam sterilizer.

Removing the sterilization batch with the loading trolley

CAUTION

Danger of burns from hot instruments and surfaces.

The instruments and the sterilization chamber of the steam sterilizer can still be hot even after the device has been switched off.

- Leave the load to cool on the loading trolley after removing it from the steam sterilizer.
- Wear suitable protective gloves.

CAUTION

Should the loading trolley be insufficiently fixed to or aligned with the steam sterilizer, it can work free whilst removing the load. The sterile material can fall down.

This can result in injuries and damage to the sterile material or the loading system.

- Before removing the load, check whether the latch of the loading trolley has locked correctly into the locking plate of the slide rail “Comfort”.

The sterile material is to be removed from the steam sterilizer in the reverse order as it is loaded.

6 Technical data

Device type	Loading system for the Cliniclave
Loading trolley	
Dimensions (H x W x D)	105 x 43 x 87 cm
Height with max. unscrewed casters	106 cm
Weight	22.6 kg
Max. loading weight (loading level)	40 kg
Batch slider	
Max. loading surface (W x D)	30 x 60 cm
Loading space	30 x 30 x 60 cm (max. 1 StU)
Slide rail “Comfort”	
Dimensions (H x W x D, for Cliniclave 45)	8.2 x 31.3 x 65 cm
Dimensions (H x W x D, for Cliniclave 45 M)	8.2 x 31.3 x 126.9 cm
Dimensions (H x W x D, for Cliniclave 45 D)	8.1 x 31.3 x 71.5 cm
Dimensions (H x W x D, for Cliniclave 45 MD)	8.1 x 31.3 x 133.5 cm
Loading hook	
Length	50 cm

7 Accessories and spare parts

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

Category	Article	Art. no.
Loading trolley	Chamber flange shock absorber	86490
	Caster for the loading trolley, fore	87095
	Caster with holding brake for the loading trolley	87085
	Release lever	25200
	Clamp for the loading trolley for the batch slider	85945
	2x Return spring for the clamp	87175
	Loading hook	85890
Batch slider	Stopper on the batch slider for the mount	85890
	2x Runner for the batch slider, with screws and nuts	85165
Slide rail “Comfort”	Slide rail “Comfort” for Cliniclave 45	80550
	Slide rail “Comfort” for Cliniclave 45 M	80570
	Slide rail “Comfort” for Cliniclave 45 D	85920
	Slide rail “Comfort” for Cliniclave 45 MD	85930
	Spacer for the slide rail “Comfort”	79880
	Guide strip for the slide rail “Comfort”	79840
	Teflon protection strip for the fore side of the slide rail “Comfort”	87780
	Infection protection strips for the slide rail “Comfort” for Cliniclave 45 D/Cliniclave 45 MD	21435
Mount	Tray mount for 2 instrument baskets (1/2 StU) or 4 trays (1/4 StU), for Cliniclave 45/Cliniclave 45 M	04517
	Tray mount for 2 instrument baskets (1/2 StU) or 4 trays (1/4 StU), for Cliniclave 45 D/Cliniclave 45 MD	04522

Glossary

Authorized technician

The term “authorized technician” refers to an employee of a customer service provider or stockist who has been trained and authorized by MELAG to perform maintenance and installation work on MELAG devices. Only they may carry out this work.

Batch

Collection of sterilization material which has been processed together in the same sterilization program.

Sterile material

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

Sterilization material

Unsterile, sterilizable material which is still to be sterilized.

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Original instructions

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

Your stockist

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