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 reprocessing 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.

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1 General guidelines

Please read this user manual carefully before starting to use the accessories. The user manual includes important safety information. Make sure that you always have access to digital or printed version of the user manual.

Should the manual no longer be legible, is damaged or has been lost, you can download a new copy from MELAG download centre at www.melag.com.

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

Symbol	Explanation
	Prerequisites for the following handling instruction.
	Refer to the glossary or another text section.
	Information for safe handling.

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

- Only competent and trained personnel may use the product.
- The operator must ensure that the users are regularly trained in the operation and safe handling of the product.

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.

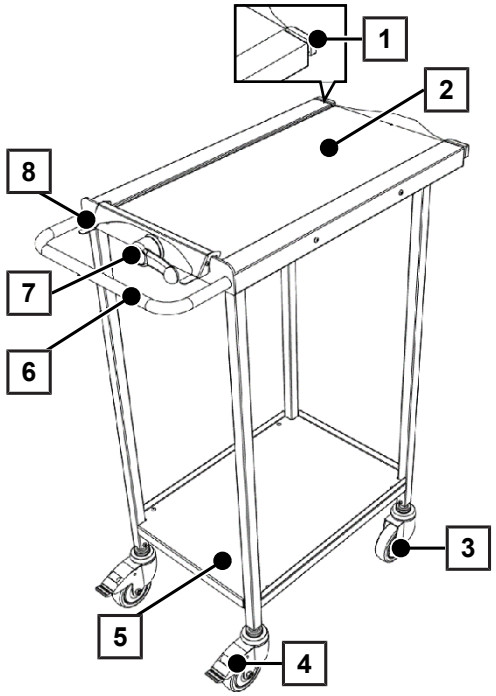
Scope of delivery

Please check the scope of delivery before using the product.

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

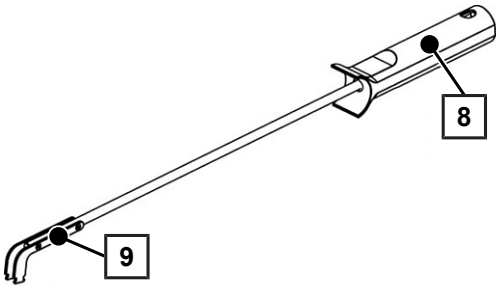
Views of the device

Loading trolley



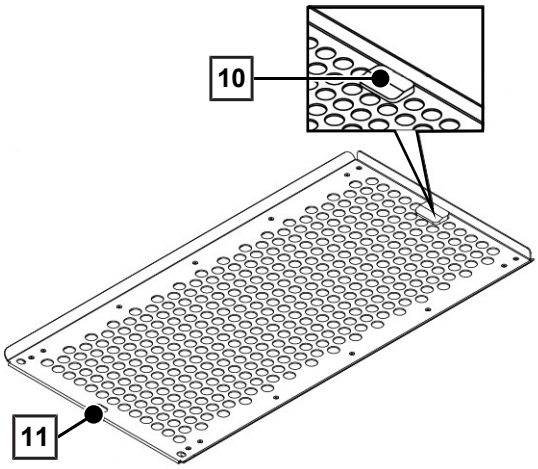
1	Shock absorber
2	Loading level
3	Fore casters
4	Rear casters with holding brake
5	Shelf level
6	Sliding handle
7	Release lever
8	Clamp for the batch slider

Loading hook



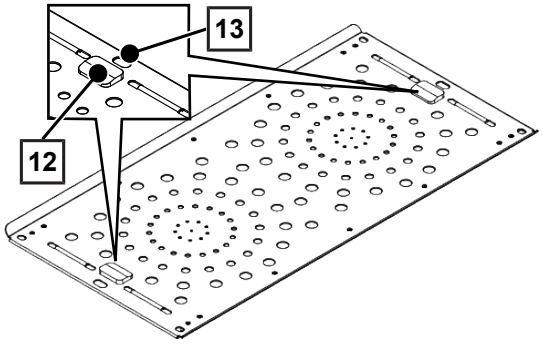
8 Grip
9 Push rod with hook

Batch slider Cliniclave 45/Cliniclave 45 M



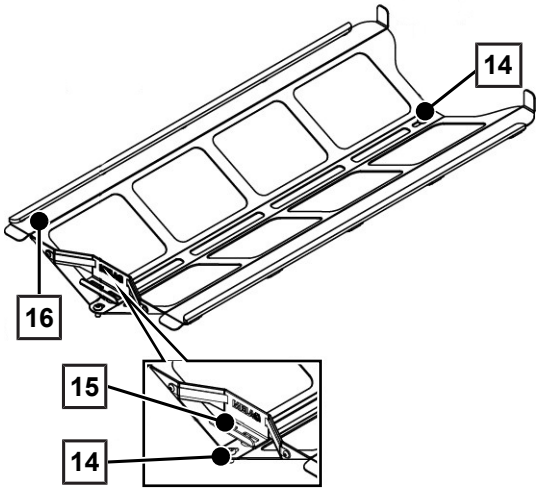
10 Stopper for mount
11 Hole for loading hook

Batch slider Cliniclave 45 D/Cliniclave 45 MD



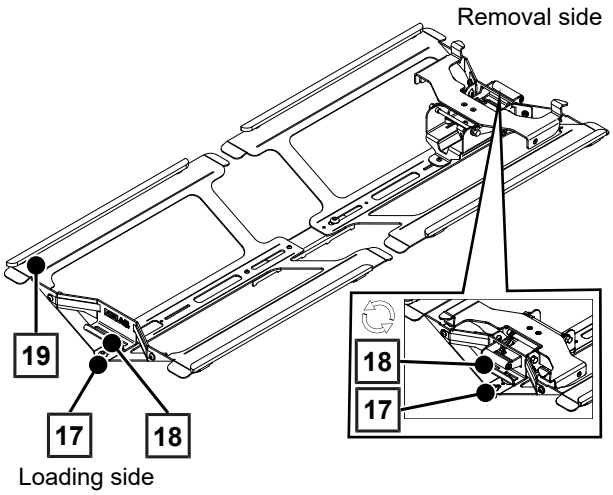
12 Stopper for mount
13 Hole for loading hook

Slide rail Comfort Cliniclave 45



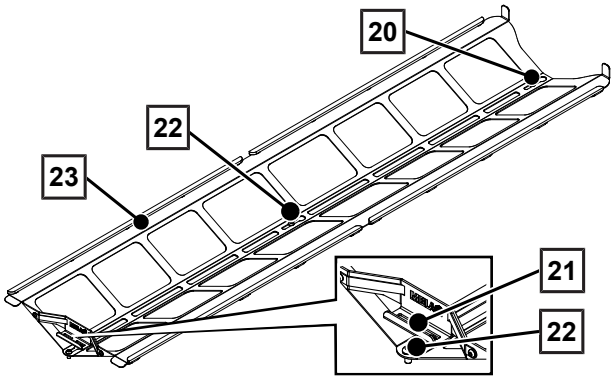
14 Slots for fixing in the sterilization chamber of the steam sterilizer
15 Lock for fixing the loading trolley
16 Sliding surface for batch slider

Slide rail Comfort Cliniclave 45 D



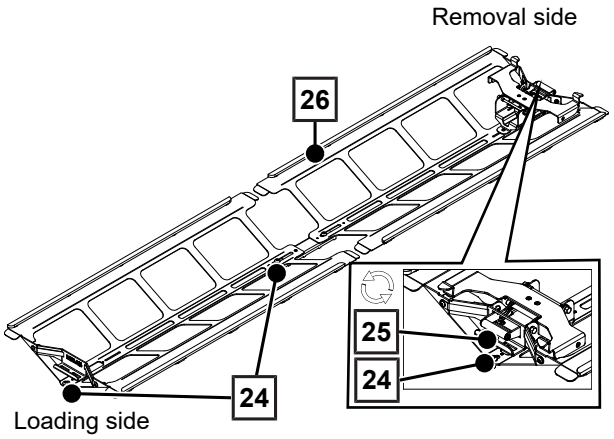
17 Slots for fixing in the sterilization chamber of the steam sterilizer
18 Lock for fixing the loading trolley
19 Sliding surface for batch slider

Slide rail Comfort Cliniclave 45 M



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

Slide rail Comfort Cliniclave 45 MD



24 Slots for fixing in the sterilization chamber of the steam sterilizer

25 Lock for fixing the loading trolley

26 Sliding surface for batch slider

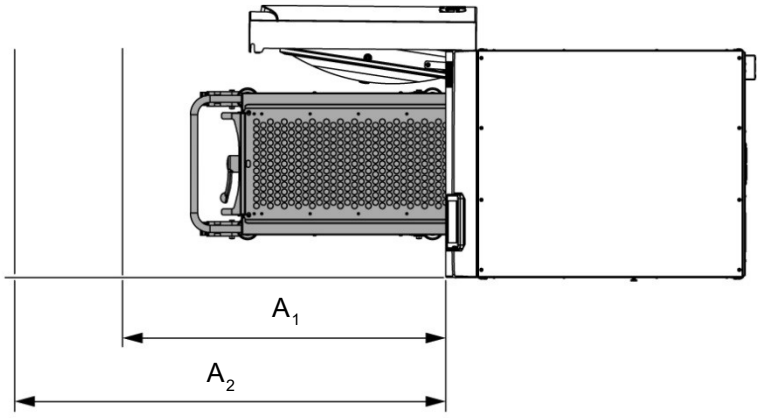
4 Commissioning

Setup requirements

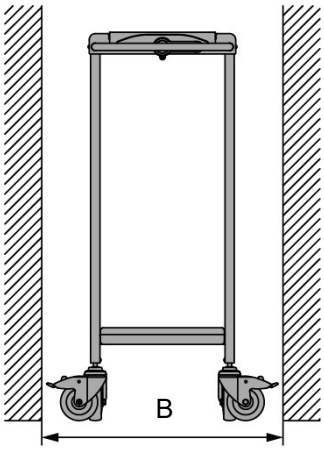
Comply with the following for safe handling:

- Check the loading trolley and its accessories after unpacking for any damage suffered during transport.
- The loading trolley should only be setup by persons authorised by MELAG.
- Use the loading trolley in a frost-free environment.
- The floor on the loading and removal side of the steam sterilizer is level and horizontal.
- 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

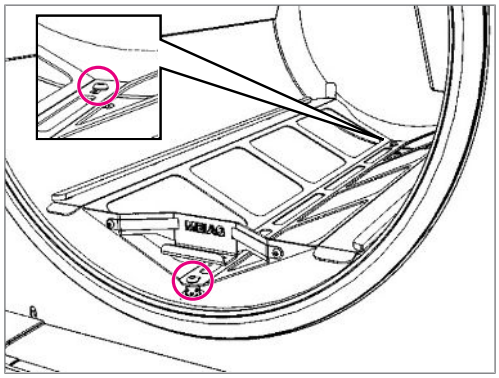
If the steam sterilizer was ordered with a loading system, the slide rail Comfort is already installed.

To be able to use the loading system, replace the existing slide rail Basic with the slide rail Comfort. Proceed as follows:

The following must be fulfilled or present:

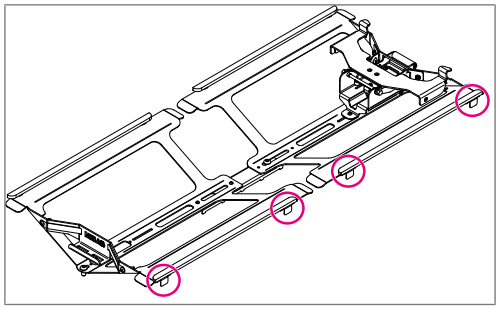
✓ Allen key 4 mm

1. Remove the fixing screws of the slide rail Basic in the sterilization chamber.
   Cliniclave 45 M: Remove the front and middle screw only. The rear screw remains in the device.

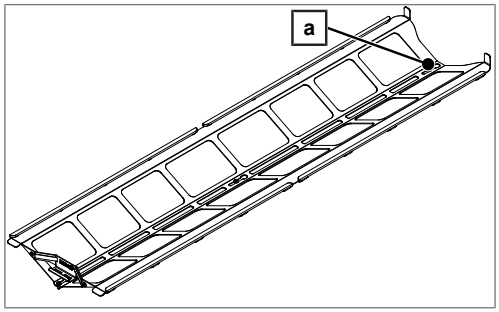


2. Remove the slide rail.
   Cliniclave 45 M: Pull the slide rail slightly forward. Lift the slide rail from the rear screw in the sterilization chamber.

3. 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.



4. 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.
   Cliniclave 45 M: Position the slide rail so that the keyhole (pos. a) is above the rear screw in the sterilization chamber.



5. Fix the slide rail Comfort with the enclosed screws 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.

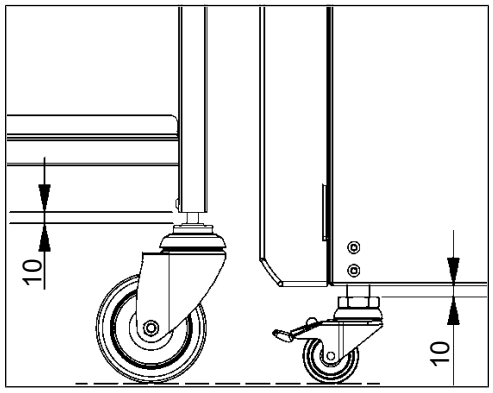
Make sure that the loading trolley is aligned exactly to the steam sterilizer to avoid problems when docking and undocking the loading trolley and to prevent the load from falling.

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

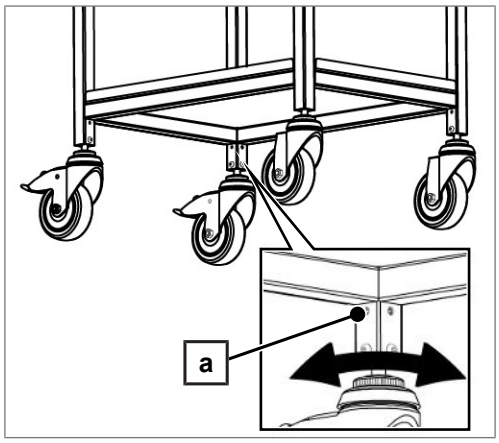
PLEASE NOTE

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 advanced by 10 mm each.



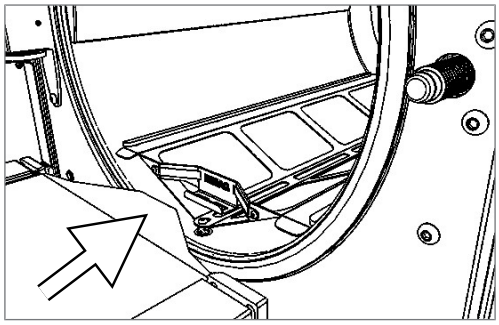
1. In order to set the loading trolley to the required starting height, loosen both grub screws (pos. a) of each loading trolley foot.



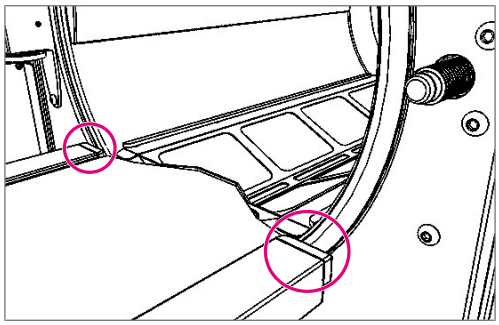
2. Release the holding brake on the casters if necessary.
3. Unscrew the casters 10 mm using the knurled nut.

Aligning the slide rail Comfort

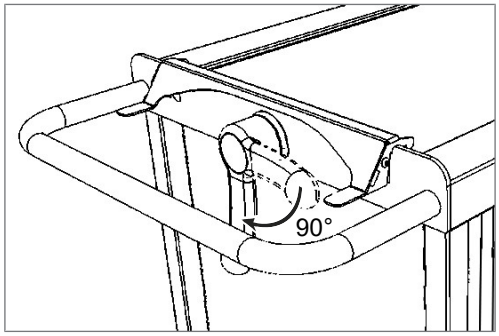
1. Open the door of the steam sterilizer.
2. If necessary loosen the screws fixing the slide rail in the sterilization chamber of the steam sterilizer slightly.
   Cliniclave 45 M: Loosen the front and middle screw only. Do not loosen the rear screw.
3. Pull the slide rail Comfort forward as far as it will go.
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.



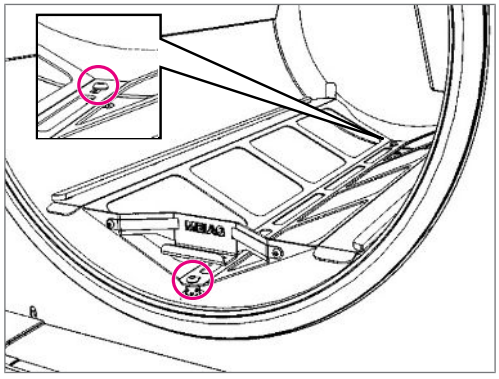
5. Push the slide rail Comfort together with the loading trolley as far into the sterilization chamber as is possible until the shock absorbers of the loading trolley are pressed in and lie fully against the chamber flange.



6. If the loading trolley has 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.
   Cliniclave 45 M: Tighten the front and middle screw only. Do not tighten the rear screw.



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 four 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.

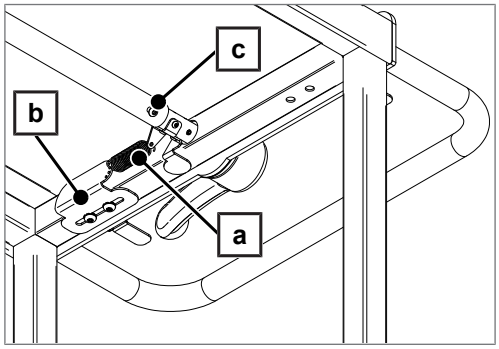
Fine adjustment of the locking mechanism

The locking mechanism can be adjusted longitudinally and for height.

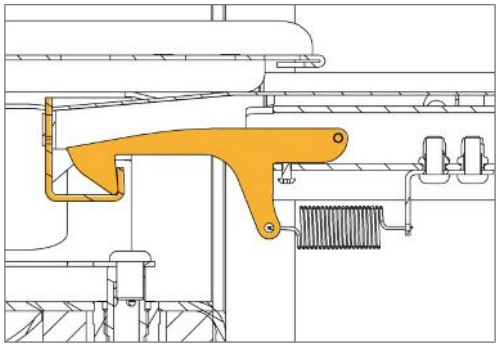
Setting the longitudinal alignment

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 spring plate (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.

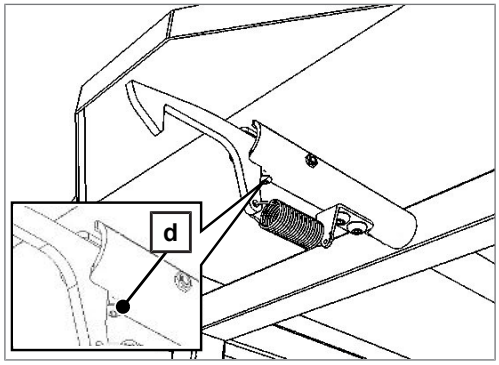


5. Re-tighten the screws (pos. c) fully.

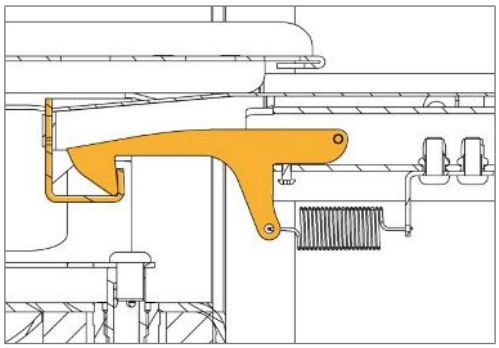
Setting the height

If the latch fails to lock into the locking plate despite these 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 and remove the adjusting screw.

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

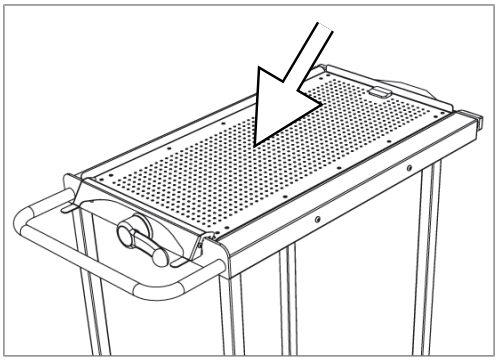
Loading the steam sterilizer with the loading trolley

PLEASE NOTE

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

The ▸load 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 it snaps into the clamp.

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

3. Distribute the ▸load 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 load (exceeding the specified weight) or too fast can result in damage to the load 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.

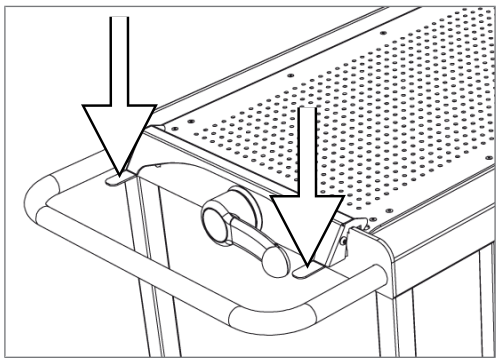
NOTICE

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.

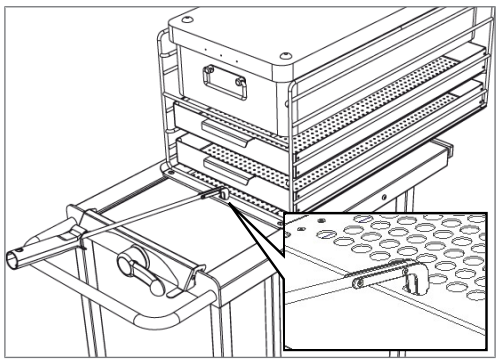
4. Approach the centre of the open steam sterilizer with the loaded loading trolley until the latch snaps into the locking plate of the batch slider.

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



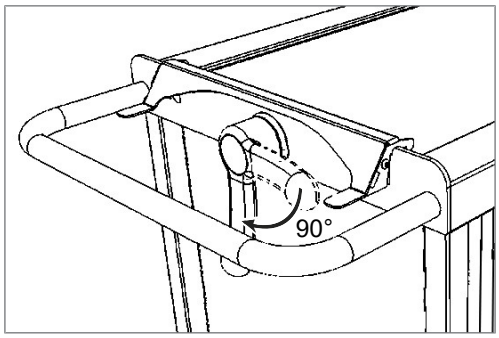
6. Place the loading hook into the rear-most hole of the batch slider.

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



10. Return the loading trolley.

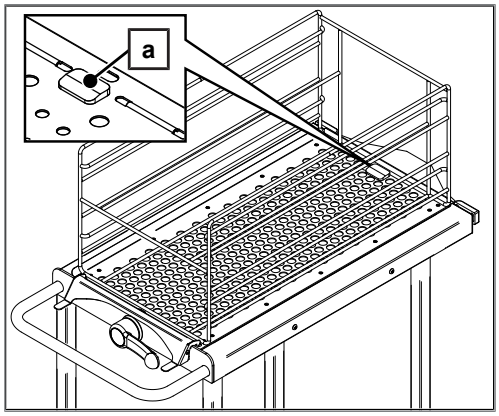
➥ The steam sterilizer can now be closed and started.

Securing the mount to the batch slider

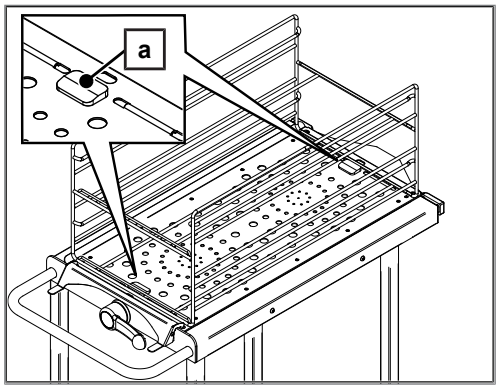
You can place the mount for 4 large trays or 2 instrument baskets on the batch slider.

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 load 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.

Comply with the following for safe handling:

- Never use force to open the door. This could damage the device or result in the emission of hot steam.
- Use protective gloves to remove the sterile material. Never touch the sterile material, the sterilization 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 load and re-sterilize it.

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

Transport and storage

Comply with the following for safe handling:

- Store and transport the device frost-free.
- 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.

6 Maintenance

Servicing

Comply with the following for safe handling:

- The maintenance of the loading system is performed within the scope of the steam sterilizer maintenance.
- Maintenance should only be performed by authorised 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.

7 Technical data

Device type	Loading system for 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
Usable chamber space	30 x 30 x 60 cm (max. 1 sterilization unit)
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

8 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	Shock absorber chamber flange	ME86490
	Caster for the loading trolley, fore	ME87095
	Caster with holding brake for the loading trolley	ME87085
	Release lever	ME25200
	Clamp for the loading trolley for the batch slider	ME85945
	2x return spring for the clamping bracket	ME87175
	Loading hook	ME28887
Batch slider	Stopper on the batch slider for the mount	ME85890
	2x sliding skid for batch slider (runner for the batch slider, with screws and nuts)	ME85165
Slide rail Comfort	Slide rail Comfort (Cliniclave 45)	ME80550
	Slide rail Comfort (Cliniclave 45 M)	ME80570
	Slide rail Comfort (Cliniclave 45 D)	ME85920
	Slide rail Comfort (Cliniclave 45 MD)	ME85930
	Spacer for the slide rail Comfort	ME79880
	Guide strip for the slide rail Comfort	ME79840
	Teflon protection strip for the fore side of the slide rail Comfort	ME87780
	Infection protection strips for the slide rail Comfort (Cliniclave 45 D/Cliniclave 45 MD)	ME21435
Mount	Mount for 2 instrument baskets (1/2 StU) or 4 trays (1/4 StU) (Cliniclave 45/Cliniclave 45 M)	ME04517
	Mount for 2 instrument baskets (1/2 StU) or 4 trays (1/4 StU) (Cliniclave 45 D/Cliniclave 45 MD)	ME04522

Glossary

Authorised technician

An authorised technician is a person intensively trained and authorised by MELAG who has sufficient specific device and technical knowledge. to perform maintenance and installation work on MELAG devices. Only they may carry out this work.

Batch

The batch is the composition of items which has been subject to the same reprocessing procedure.

Load

Products, devices or materials that are reprocessed together in one operating cycle.

Sterile material

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

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