

KTC 2 (III)

Mounting instructions



060382-45532/18949 – 08/2026

EN

Inhalt

1	Information about this document	4	4.5	Removing packaging	14
1.1	Contents and purpose	4	5	Mounting	15
1.2	Target group	4	5.1	Safety during mounting	15
1.3	Other applicable documents	4	5.2	Prepare the mounting surface	15
1.4	Symbols used	4	5.2.1	Mounting with floor ring	16
1.4.1	Hazard categories	4	5.2.2	Mounting on a finished floor	27
1.4.2	Further labeling	5	5.3	Mounting the frame	31
1.5	Optional equipment	5	5.4	Mounting the canopy height extension (optional)	39
1.6	Customer Service	5	5.5	Mounting the lower ceiling ring	40
2	Safety	5	5.6	Mounting the frame	43
2.1	Safety equipment	6	5.7	Mounting the reinforcement of the track rail	44
2.2	Danger points	6	5.8	Mounting the reinforcement of the lower ceiling ring	47
2.3	Safety equipment	6	5.9	Mounting the drive and the canopy integrated control unit	49
2.3.1	Personal protection	6	5.11	Mounting the ceiling beam	51
2.3.1.1	Safety bumpers	6	5.12	Mounting the glass panes of the drum wall	54
2.3.1.2	Canopy sensors	6	5.14	Mounting the showcases	64
2.3.1.3	Top sensor on door leave	6	5.16	Mounting the automatic sliding door	75
2.3.1.4	Person detection sensor	6	5.18	Mounting the integrated sensors	81
2.3.1.5	Emergency stop button	7	5.19	Mounting the light barriers	82
2.3.1.6	Light barriers	7	5.20	Mount safety bumpers	83
2.3.1.7	Safety switch for glass showcase doors	7	5.22	Connecting the power supply unit, equipotential bonding and slip ring	85
2.3.1.8	Speed monitoring	7	6	Commissioning	86
2.3.1.9	Contact for sliding door lock	7	6.1	Safety during initial commissioning	86
2.3.1.10	Control unit	7	6.2	Before initial commissioning	86
2.4	Uninterrupted power supply (UPS)	7	6.3	Commissioning of sliding doors	87
2.5	Risk assessment	7	6.3.1	Carrying out a teach-in run	87
2.6	Specific protection requirement	7	6.3.2	Setting the sliding door parameters	89
2.7	Equipotential bonding	7	6.3.3	Confirmation of sliding door error messages	89
2.8	Safety markings	7	6.4	Commissioning of revolving doors	89
2.9	Residual risks during mounting	8	6.4.1	Operation of the control unit	89
2.9.1	General risks at the mounting and installation site	8	6.4.2	Acknowledging error messages	90
2.9.2	Replacement parts	9	6.4.3	Confirming warning messages	90
3	Product description	10	6.4.4	Commissioning the frequency inverter (Lenze i550)	90
3.1	Parts included and equipment features	10	6.4.5	Carrying out a teach-in run	91
3.2	Technical data	10	6.5	Commissioning of the sensors	91
3.2.1	Mechanical information	10	6.5.1	IXIO-ST (canopy sensor for non-CE versions)	91
3.2.2	Information on the drive unit	10	6.5.1.1	IXIO-ST (sliding door sensor)	92
3.2.3	Environmental conditions	10	6.5.1.2	BEA Flatscan SLZ (sliding door sensor)	92
3.3	components	11	6.6	Setting the driving parameters according to customer specifications	92
3.3.1	Ceiling structure	11	6.7	Restore factory settings	93
3.3.2	Drum wall segments	11	6.8	Carrying out a function test	93
3.3.3	Leading and trailing mullions	11	7	Completion of assembly	94
3.3.4	Door leaves	11	7.1	Safety during completion of assembly	94
3.3.5	Program switch	11	7.2	Inserting lower ceiling segments	94
3.3.6	Door locks	12	7.3	Mounting sensors Flatscan SLZ	99
3.3.6.1	Night shields	12			
3.3.6.2	Electromechanical locking device	12			
3.3.7	Mounting surface	12			
3.4	Identification plate	12			
4	Delivery and transport	13			
4.1	Safety during transport	13			
4.2	Delivery and storage	13			
4.3	Inspection on delivery	14			
4.4	Transporting packages	14			

7.4	Mounting the upper ceiling	100
7.5	Apply silicone	103
7.6	Mounting the rainproof cover (optional)	104
8	Annex	106
8.1	Floor ring mounting checklist	106
8.2	Floor ring dimensional check	108
8.3	Test log A – floor ring before casting	109
8.4	Test log B – floor ring after casting	110
8.5	Overview of the position	111
8.6	Revolving door parameters	111
8.7	Maintenance parameters	112
8.8	Parameters of the sliding door	112
8.9	Parameter menus for the handheld device	113
8.9.1	Settings	113
8.9.2	Travel	113
8.9.3	Special functions	114
8.9.4	Diagnosis	114
8.10	Error list	116
8.12	Overview of control unit	121
8.13	Overview of canopy integrated control unit	121

1 Information about this document

1.1 Contents and purpose

This manual facilitates the safe and efficient mounting of the KTC 2 III revolving door (hereinafter also referred to as the "revolving door"). This manual constitutes a component of the product and must be stored in the immediate vicinity of the product so that it is accessible to qualified personnel at all times. Before commencing any work, qualified personnel must have carefully read through and understood this manual. Complying with all safety instructions and action steps provided in this manual is the basic prerequisite for safe working. The local accident prevention regulations and general safety conditions for the scope of application of a revolving door also apply.



Figures

The figures serve to provide a general understanding and may differ from the model of the revolving door that is actually delivered.

1.2 Target group

This manual is intended for dormakaba installation personnel or qualified dormakaba subcontractors.

1.3 Other applicable documents

In addition to this manual, the following documents are also applicable to the revolving door:

- Door unit guide
- Wiring diagram
- Installation diagram
- The inspection log
- Approval drawing

In addition, documents provided by dormakaba such as circuit diagrams, overviews of connections, approval certificates, supplier documents, conversion manuals, handover certificates, etc., also apply.

1.4 Symbols used

1.4.1 Hazard categories

In this manual, safety instructions are marked by symbols. The safety instructions are introduced by a statement/signal word that expresses the extent of the hazard.



DANGER

This signal word indicates a situation of immediate risk, which will lead to death or serious injury if not averted.



WARNING

This signal word indicates a possible hazardous situation that may result in death or serious injury if not averted.



CAUTION

This signal word indicates a possible hazardous situation that may result in minor or slight injury if not averted.



ATTENTION

This signal word indicates a situation of potential risk, which could lead to damage to property or the environment if not averted.



Note

This signal word indicates useful information for efficient and trouble-free operation.

Safety instructions in the action steps

Safety instructions may relate to certain individual action steps. These safety instructions are embedded in the action step so as not to disrupt the flow of reading when carrying out the action. The statement/signal words described above are used.

Example:

1. Loosen the screw.



Caution!

Risk of injury from the cover!

2. Carefully close the cover.
3. Tighten the screw.

1.4.2 Further labeling

In this manual, the following labeling is used to highlight action steps, results, lists, references, and other elements:

Labeling	Explanation
1., 2., 3...	Step-by-step action steps
►	Results of instructions for action
, p. 5	References to sections of this manual and other applicable documents
•	Lists without a defined sequence
Display	Screen elements (e.g. buttons, allocation of function buttons)

1.5 Optional equipment

Some described options may or may not be available depending on the selected revolving door type or options. These functions/options are marked with an asterisk (*) in the document.

1.6 Customer Service

Address	dormakaba Deutschland GmbH DORMA Platz 1 58256 Ennepetal Germany
Internet	www.dormakaba.com

2 Safety

This section provides an overview of all the important safety aspects for personal protection and for safe, fault-free mounting. Other task-related safety instructions are included in the sections on the individual phases of the door's life cycle.

2.1 Safety equipment



WARNING

Danger of death due to non-functional safety equipment

When the safety equipment is not functional or is deactivated, there is the danger that extremities or people may be crushed in the revolving door, possibly leading to serious injury or death.

- Check that all safety equipment is functional.
- Never deactivate or bypass safety equipment.



WARNING

Danger of death due to deactivated safety equipment

If the emergency stop button is pushed or the "Summer" program mode is activated during operation, then existing safety equipment is not in operation. This can cause serious injuries if attempts are made to turn the door manually.

- Before turning the door manually, check to make sure that no one could be injured.



WARNING

Danger to life through electric current

Touching live parts will result in death or serious injury from electric shock.

- Work on electrical units must only be carried out by qualified electricians.
- Before starting work on electrical units and equipment, establish a voltage-free state and maintain this state for the entire duration of the work.
- Do not touch live parts or cables.
- Suitable personal protective equipment must always be worn when working with the product.



WARNING

Electric shock if the unit is not correctly de-energized

If the unit has an uninterruptible power supply (UPS), the mains connection to the control unit must be disconnected, as must the connection to the RCD/light barrier.

- Before working on the unit, ensure that the indicator lamp on the UPS is no longer illuminated.
- Before working on the unit, use a voltage tester to check that there is no voltage.
- Never open the UPS. The UPS is energized.

2.2 Danger points

When passing through the revolving door, people may be at risk of injury at the following points:

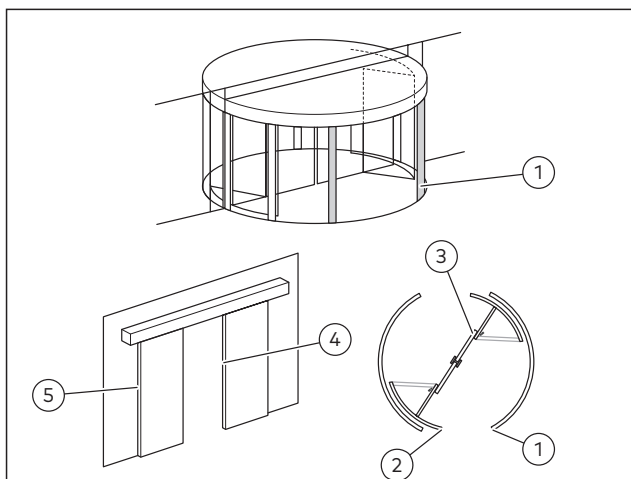


Fig. 1 Danger points

- (1) Opposing closing edge
- (2) Main closing edge
- (3) Secondary closing edge
- (4) Main closing edge (sliding door)
- (5) Secondary closing edge (sliding door)

2.3 Safety equipment

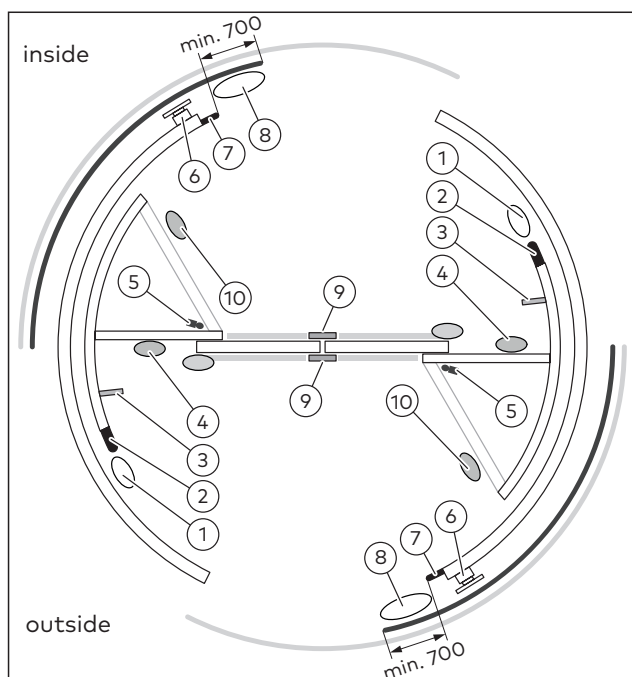


Fig. 2 Safety equipment and operating elements (example)

- (1) Pre-detection sensor
- (2) Passive safety bumper – vertical
- (3) Light barrier 1 (inside) and light barrier 2 (outside)
- (4) Top sensor on door leaf
- (5) Safety switch for glass showcase doors
- (6) Internal emergency stop button (outside optional)
- (7) Active safety bumper
- (8) Canopy sensor
- (9) Safety sensor for sliding door
- (10) Person detection sensor

2.3.1 Personal protection

The optional door leaf sensors detect people approaching the revolving door leaves.

As soon as anyone enters the range of the sensors, the revolving door will slow to a lower (adjustable) speed or stop. As soon as all the people have left the range of the pre-detection sensors, the revolving door will resume with its current program settings after a restart period.

2.3.1.1 Safety bumpers

Safety bumpers are attached to the night shields and the right mullions.

If one of the passive safety bumpers (Fig. 2/2) on the night shields is touched, the revolving door will not stop. The passive safety bumper serves merely to cushion impacts. The pre-detection sensor takes over the function of the safety bumper and stops the door. The pre-detection sensor has 2 functions (2 sensor curtains): The first sensor curtain slows down the door. The second sensor curtain stops the door. The active safety bumpers (Fig. 2/7) on the mullions are safety contact strips. The safety contact strip includes a contact that is broken when touched. If the contact is broken and the night shield's leading mullion is within 700 mm of the mullion, the revolving door stops. Once contact has been restored in the safety contact strip, the revolving door will resume operation according to its current program settings after an adjustable waiting period.

2.3.1.2 Canopy sensors

These contactless sensors (Fig. 2/8) are used to detect obstacles at the main closing edges.

If an obstacle has been detected at least 700 mm before the door leaf has reached the post, the system will immediately switch to positioning speed or stop depending on the parameter settings. The unit resumes operation when the sensors no longer detect an obstacle. The control unit tests the function of the sensors twice with each rotation. If the sensors fail, the unit moves to the start position at positioning speed.

2.3.1.3 Top sensor on door leaf

The contactless sensors (Fig. 2/4) are mounted in the top area of door leaf. During rotation, the unit stops immediately as soon as people are detected. After leaving the safety zone, the unit restarts. Top sensor slows down the door. Light barrier stops the door.

2.3.1.4 Person detection sensor

The contactless sensors (Fig. 2/4) are mounted in the top area of Lower ceiling which near the showcase door. It prevent people from getting trap after door being switched to (OFF) in winter mode.

2.3.1.5 Emergency stop button



An emergency stop button (Fig. 2/6) is located on the inside of the building on the leading mullion and possibly also on the outside of the building, depending on the options selected for the order. When the emergency stop button is pushed, the revolving door stops immediately and the drive unit is disengaged. Then it is possible to rotate the door leaves manually.

Depending on the model, the emergency stop can be reset by pulling or turning the emergency stop button, and the revolving door will resume operation according to its current program settings.

2.3.1.6 Light barriers

The contactless sensors (Fig. 2/3 and Fig. 2/4) are mounted in the foot area horizontally between door leaf and strut. During rotation, the unit stops immediately as soon as people are detected. After leaving the safety zone, the unit restarts. Light barrier stops the door.

2.3.1.7 Safety switch for glass showcase doors

The switches (Fig. 2/5) are located on the showcase doors.

The unit stops immediately if one of the glass door leaves is opened during rotation.

To restart the unit, the door leaves must be closed.

2.3.1.8 Speed monitoring

The speed of KTC revolving doors must not exceed 750 mm/sec, therefore the KTC 2 model cannot be set to a higher speed. When setting the speed, the types of users have to be considered (e.g. also disabled or elderly persons). Danger to persons must be prevented. This may require reducing the factory-set speed of 600 mm/s.

2.3.1.9 Contact for sliding door lock

If the sliding door is opened while the revolving door is rotating, the unit moves to the start position at positioning speed. To restart the unit, the sliding door must be closed.

2.3.1.10 Control unit

The unit controls are located in the ceiling. The control unit is a self-monitoring system, which immediately identifies system errors or malfunctions, then responds and displays them.

2.4 Uninterrupted power supply (UPS)

The optionally available UPS is dimensioned so that, in the event of a power failure, the unit continues to operate for a certain period of time (a few minutes) independently of the mains voltage.

During this time, the building itself can be left to move the turnstile and any night shield into the locking position and close it.

2.5 Risk assessment

The assembling technician ensures that the results of the risk assessment is observed. The assembling technician carries out a self-responsible check and alerts the door operator to possible unsecured dangers.

2.6 Specific protection requirement

To the extent that the risk assessment poses a danger with regards to health or injuries, unacceptable impact by a door user, additional protection must be provided by a safety sensor. This must be taken into account if there are particularly vulnerable people (children, elderly people or people with disabilities) in the door area.

2.7 Equipotential bonding



WARNING

Danger of death due to contact voltages and electric arcs

Contact voltages and electric arcs can be caused by missing or faulty equipotential bonding of the power supply unit. This results in a risk of injury or even death.

- Never commission the revolving door without connecting the equipotential bonding to the equipotential bonding bar.
- Before commissioning, make sure that the following components have potential equalization and are connected to the grounding terminal: Control unit, power supply unit and ceiling construction.

2.8 Safety markings

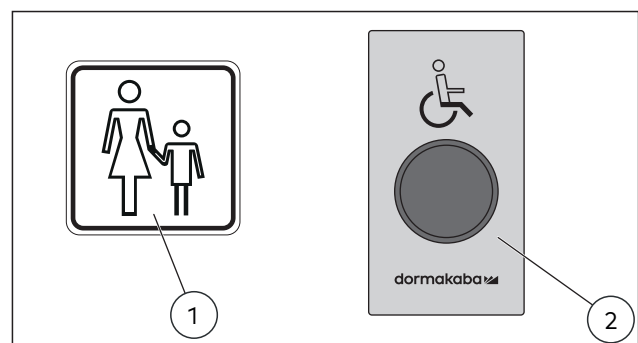


Fig. 3 Overview of labels/instruction plates

- (1) Hold children by the hand
- (2) Person with limited mobility push button

2.9 Residual risks during mounting

The following section describes the residual risks that may arise when mounting the revolving door. In order to reduce the risk of personal injury and property damages, and to avert dangerous situations, follow the safety instructions detailed here and the safety instructions in the other sections of this manual.

2.9.1 General risks at the mounting and installation site



WARNING

Risk of crushing injuries to limbs when working with heavy components!

Heavy components can cause serious injury if they are put down incorrectly.

- Only lift and lower heavy components carefully using approved lifting devices.
- Never move heavy components suddenly.



WARNING

Risk of injury due to incorrect mounting and commissioning

Incorrect mounting can lead to serious injury and significant property damages.

- Before commencing work, ensure that there is enough space for mounting.
- Handle open, sharp-edged components with care.
- Mount the components properly.
- Secure components so that they do not fall down or tip over.



WARNING

Risk of injury due to careless working on a ladder!

Because of the height of the revolving door, a ladder is required for some mounting work. Falls from ladders can cause serious injury.

- When working from a ladder, ensure that the ladder is securely positioned on firm, even ground.
- Ladders must be in perfect condition.
- If necessary, have a second person secure the ladder.



WARNING

Risk of injury due to improper use of lifting devices

In order to lift certain components to the required working height, approved lifting devices are required. Falling components can cause serious injuries.

- During lifting work, ensure that the lifting device is securely positioned on firm, even ground.
- Always take account of the center of gravity of the components during lifting work.
- Never exceed the permissible lifting weight of a lifting device.
- Ensure that no one is present under raised loads during lifting work.



WARNING

Risk of injury due to falling over debris, cables, and items left lying around

Loosely laid cables and remains of packaging and other items left lying around create tripping hazards. Tripping may result in injury.

- Lay cables in such a way that they are always on the ground and do not form loops.
- Tie several cables running in parallel together with cable ties.
- Remove remains of packaging from the working area immediately and dispose of them at the appointed locations.
- Clearly mark items that represent a tripping hazard.
- Remove items that are no longer required from the working area, especially from the floor.



CAUTION

Risk of injury during mounting work from the revolving door!

Sharp-edged recesses and edges can lead to cuts.

- Always look out for sharp recesses and edges on components before starting work.
- Always wear protective gloves to move components with sharp recesses and edges or to transport them to the working area.

**WARNING****Risk of injury due to insufficiently qualified personnel**

Insufficiently qualified personnel cannot assess the risks associated with handling the revolving door, thus putting themselves or others at risk of serious or life-threatening injury. If unqualified personnel work on the unit or stay in the unit's danger zone, this results in dangers that could cause serious injury and considerable property damages.

- Arrange for all work described in this manual to be carried out only by dormakaba mounting personnel or by companies appointed by dormakaba.
- Ensure initial commissioning is carried out only by personnel who have participated in the associated commissioning training course run by dormakaba.
- Keep inadequately qualified personnel away from the danger zones.

**ATTENTION****Property damage due to uneven flooring and floor cracks**

Uneven or loose flooring can lead to inaccurately aligned components during positioning. This can cause property damages.

- Mount only on even, firm flooring.
- Ensure that there are no gaps in the flooring wider than 4 mm.

**ATTENTION****Danger to the environment due to improper handling of environmentally hazardous substances!**

If environmentally hazardous substances are handled incorrectly, in particular if they are disposed of incorrectly, significant damage can be caused to the environment.

- Always observe the instructions on handling and disposing of environmentally hazardous substances given below.
- If environmentally hazardous substances are accidentally released into the environment, take appropriate action immediately. If in doubt, notify the relevant local authorities about the damage and obtain advice about appropriate action to take.

**ATTENTION****Risk of property damages due to objects left lying around and loose materials!**

Items left lying around (e.g. tools) or materials that are not fixed in place (e.g. cables) in the area of the floor or ceiling may move out of control on commissioning the revolving door and become jammed in the revolving door. This can cause property damages.

- Remove items that are no longer required such as tools and materials from the working area of the revolving door immediately.
- Remove objects and debris from the rotation radius of the door leaves before commissioning.
- Ensure that there are no loose elements or cables hanging from the ceiling before commissioning.

The following environmentally hazardous substances are used:

Electric and electronic components

These components must be collected separately and disposed of at community collection sites or through a company that specializes in disposing of this type of waste.

Lubricants

Lubricants such as greases and oils contain poisonous substances. They must not be released into the environment. A specialized disposal company must be hired for their disposal.

Batteries (optional)

The optionally available UPS (Uninterruptible Power Supply) contains rechargeable batteries. Batteries are hazardous waste and must be disposed of at community collection sites or through a company that specializes in disposing of this type of waste.

2.9.2 Replacement parts**WARNING****Risk of injury due to using the wrong replacement parts**

Using incorrect or faulty replacement parts can result in dangers to personnel and also the risk of damage, malfunction, or complete failure.

- Only use original replacement parts from dormakaba or replacement parts approved by dormakaba.
- Always contact dormakaba in case of any uncertainties.

Ordering spare parts



Note

The use of unauthorized spare parts will void the manufacturer's warranty.

Complaints about incorrectly delivered, damaged, or missing components and materials can be made to dormakaba Customer Service ("1.6 Customer Service" on page 5).

Replacement part list

A list of the replacement parts recommended by dormakaba can be obtained from dormakaba Customer Service.

3 Product description

3.1 Parts included and equipment features

The parts included and the equipment features of the revolving door are described in the attached door unit guide.

All fixing materials required for mounting are supplied by dormakaba.

3.2 Technical data

3.2.1 Mechanical information

Dimensions

Measurement	Value	Unit
Nominal diameter	3000 to 5400	mm
Passage height	2100 to 3000	mm
Number of door leaves	2	

Weight information

Measurement	Value	Unit
Door with showcase, cladding 304, CH = 300 mm, D = 5400 mm, PH – 3000 mm	2970	kg

3.2.2 Information on the drive unit

Power supply unit

Measurement	Value	Unit
Power supply	230 ± 10 %	V AC
Power frequency	50/60	Hz
Fuse supplied by the customer	16	A
Control voltage	24 ± 10%	V DC
Max. supply current for external loads	300	mA

Power consumption (without lighting, incl. sensors)

Measurement	Value	Unit
Standby mode	115	W
Positioning speed	231	W
Speed for people with reduced mobility	269	W
Walking speed (600 mm/sec)	350	W
Door closed	108	W

Drive unit

Measurement	Value	Unit
Protection class	IP 20	
Operating noise LAeq	< 60	dB(A)

3.2.3 Environmental conditions

Measurement	Value	Unit
Temperature range	-20 to +60	°C
Relative humidity: (non-condensing)	< 90	%

3.3 components

3.3.1 Ceiling structure

Upper ceiling (solid ceiling)

The upper ceiling has 14 upper ceiling segments. These segments are mounted on the ceiling structure.

The ceiling structure consists of the outer track rails and the truss, which also serves to reinforce the outer track rails.

The top cover is available in the options "standard (dust protection)", "rainproof sheet" and "rainproof prepared".

An optional façade connection panel seals the upper ceiling to the building façade.

The option "prepared for rain-proofing" is prepared by dormakaba and must be completed on site by a specialized roofing/sealing company.

Canopy

Canopies seal the ceiling around the building's perimeter and protect internal wiring.

The canopies also house the motion sensors.

Lower ceiling (rotating ceiling)

The lower ceiling consists of a support, an inner ring and the lower ceiling segments.

The beam and reinforcement frame not only serve to support the lower ceiling segments, but also serve as a support for the drive unit, control system and power supply unit. The beam supports of the structure are used to lay the electrical cables.

The inner ring also contains the night shield.

The lower ceiling consists of 12 (with showcases) or 14 (without showcases) individual lower ceiling elements. The lower ceiling serves as a screen and protects the installations above it from dirt.

There are recesses in the lower ceiling elements to accommodate ceiling spotlights.

Drive unit

The drive unit is attached to the inner ring of the lower ceiling.

The drive unit is an AC motor with electromechanical locking device. The torque is transferred via friction gear.

The drive unit is connected to the control unit. In case of power failure, the drive is disengaged and the revolving door can be turned manually.

Control unit

The unit controls are located in the lower ceiling.

The control unit controls all sensors, switches, drives etc. It contains a safety module for a redundant monitoring of all safety commands.

The control unit activates the drives through a frequency inverter.

The signals are transmitted via a slip ring from the fixed part to the rotating part of the door.

3.3.2 Drum wall segments

Drum wall segments are mounted with a frame and attached to the floor.

In addition to holding the ceiling structure, the drum wall segments also hold the optional side façade connection panels.

3.3.3 Leading and trailing mullions

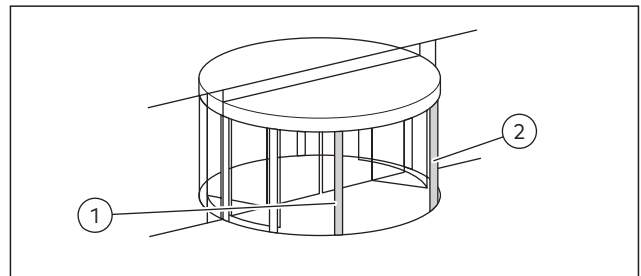


Fig. 4 Leading and trailing mullions

Leading (Abb. 4/2) and trailing mullions (Fig. 4/1) are located at the entrance and exit of the revolving door. The door leaves move toward the leading mullion (Fig. 4/2) and away from the trailing mullion (Fig. 4/1).

There are operating elements on the leading mullions (Fig. 4/2) such as emergency stop buttons, disabled access buttons, program switches, etc.

3.3.4 Door leaves

The revolving door has 2 door leaves with an automatic sliding door with 2 sliding leaves in the middle. The outer parts of the door leaves can be equipped with showcases.

3.3.5 Program switch

The program switches for the revolving door and the sliding door are located inside the building on the front mullion of the revolving door. Depending on the type of program switch, a key may be used or a code entered in order to gain access.

3.3.6 Door locks

3.3.6.1 Night shields

A night shield closes off the exterior of the building and prevents unauthorized access to the building through the revolving door. The night shields are attached to the rotating lower ceiling.

3.3.6.2 Electromechanical locking device

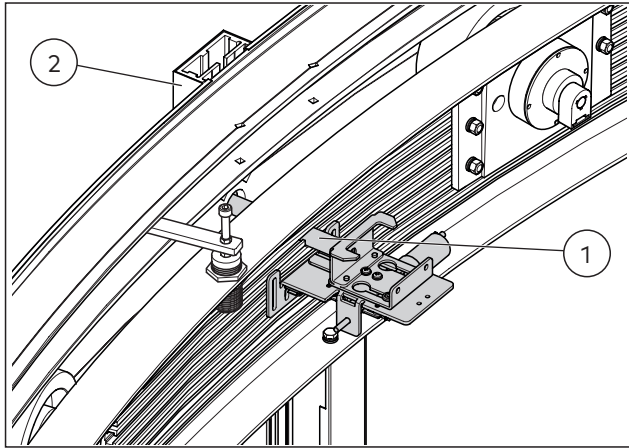


Fig. 5 Electromechanical locking device

The electromechanical locking device (Fig. 5) is located in the revolving lower ceiling. After the program switch has been set to "Off", the revolving door rotates at positioning speed into the locking position. The pin (Fig. 5/1) will then be pushed into the left inner mullion (Fig. 5/2). The electromechanical locking device unlocks automatically as soon as the revolving door is switched back to automatic mode.

3.3.7 Mounting surface

The revolving door can be mounted on a raw or finished floor.

When mounting it on a raw floor, a floor ring is first affixed to the raw floor. The floor ring is then worked into the raw floor. Once the base ring is finished, only the fastening elements for the drum wall segments should be visible.

If the revolving door is mounted on finished flooring, the fasteners are mounted on the finished flooring.

3.4 Identification plate

Revolving door

The identification plate for the revolving door is located inside the building near the façade on the drum wall profile and contains the following information:

- Name and address of the manufacturer
- Revolving door type
- Date of production
- Connected loads
- Performance values
- Environmental conditions
- IP protection class
- Conformity markings

4 Delivery and transport

4.1 Safety during transport



WARNING

Risk of injury due to improper attachment and movement of the load!

Incorrect attachment and movement of loads can cause life-threatening injury.

- Only use approved lifting gear and lifting accessories with sufficient load-bearing capacity.
- Lift the load only when it is balanced.
- Never stand under or in the swinging range of raised loads.
- Do not use torn or frayed lifting accessories.



WARNING

Risk of injury due to unlabeled centers of gravity!

Unlabeled centers of gravity on loads can cause serious injury as a result of unpredictable behavior when lifting.

- Find the center of gravity when fastening the components.
- Secure load-bearing equipment and lifting accessories to the components to prevent them from slipping.
- Remove persons from the danger zone.



WARNING

Danger of death due to hanging loads!

Lifting loads poses a risk of death due to falling parts or parts swinging out of control.

- During transport, ensure that no persons, objects, or obstacles are in the swaying range of the object being transported.
- Only use approved lifting gear and lifting accessories with sufficient load-bearing capacity.
- The load must not be lifted by built-in components.
- Ensure that the lifting accessories are securely in place.
- Do not use torn or frayed cords and straps.
- Do not allow cords and straps to lay against sharp edges and corners; do not allow them to become knotted or twisted.



WARNING

Risk of injury from heavy load

Unassisted lifting of loads that are too heavy can lead to injury.

- Use suitable aids such as lifting devices and hoists.
- Always lift or transport heavy loads with two people.



WARNING

Risk of injury when lowering the load

Incorrect lowering of the load can cause serious injury.

- Do not lower the load onto live parts/cables.
- Lower the load only onto a secure, level surface with adequate load-bearing capacity.
- Never stand under or in the swinging range of suspended loads.

4.2 Delivery and storage

Type of delivery

The revolving door is delivered in various packages by a shipping company appointed by dormakaba.

Storage of the packages



ATTENTION

Property damages due to standing water caused by weather

- As far as possible, store packages securely indoors.
- If outdoor storage is unavoidable, protect packages against the weather.
- Place packages on a dry base on which no moisture can accumulate.

In general, packages should be stored under the following conditions:

- Do not expose to corrosive media.
- Protect against direct sunlight.
- Place level with the ground on suitable bases (e.g. square timber).
- Avoid mechanical vibrations.



Note

The packages may carry instructions on storage which go beyond the requirements specified here. These instructions must be followed.

4.3 Inspection on delivery

Check that the delivery is undamaged and complete.

The parts included are documented in the enclosed door unit guide. Check the delivery immediately upon receipt to ensure that it is complete and has not suffered transport damage.

In the event of externally visible transport damage or signs of transport damage to the package during shipment, proceed as follows:

- Do not accept the delivery or accept it only conditionally.
- Note the extent of damage on the shipping documents or the transport company's delivery note.
- Initiate a complaint in case of incompleteness or transport damage (Customer Service, p. 5).



Note

Register complaint of any defect as soon as it is noticed. Damage compensation claims can be filed only within the applicable complaint periods.

4.4 Transporting packages

Transport by crane

The packages may only be transported by crane under the following conditions

:

- Crane and lifting gear must be designed for the weight of the package.
- Lifting accessories must be designed for the weight of the package.
- The crane operator must be authorized to operate the crane.

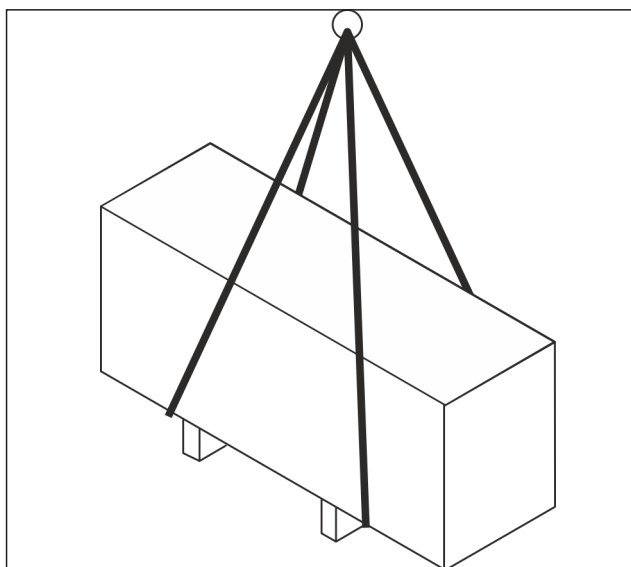


Fig. 6 Transport of package by crane

- Attach with ropes, straps or multipoint suspension gear in accordance with Fig. 6. If applicable, observe suspension markings on the package.
- Ensure that the package is hanging straight, take note of eccentric center of gravity as appropriate.

Transport by forklift

The packages may only be transported with a forklift under the following conditions transport with a forklift:

- The forklift must be designed for the weight of the packages.
- The forklift driver must be authorized to drive ground conveyors with a driver's seat or driver's station in accordance with applicable local regulations.

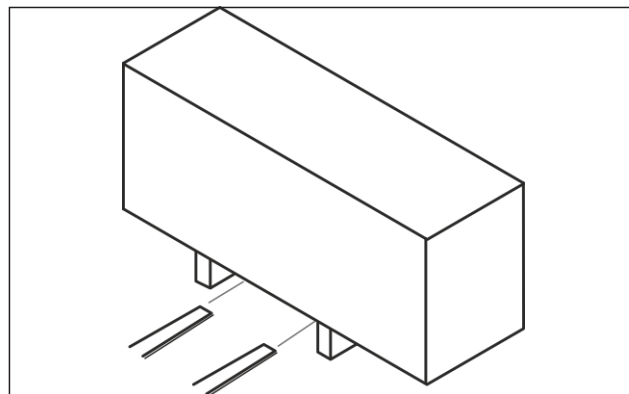


Fig. 7 Transport by forklift

- Move the forks of the forklift between the crosspieces of the package in accordance with Fig. 7.
- If the package has an eccentric center of gravity, ensure that it cannot tip over.

4.5 Removing packaging

About the packaging

The individual packages are shrink-wrapped in film and packed on wooden frames, in crates, or in wooden boxes.

The packaging is intended to protect the individual components against transport damage, corrosion, and other damage until they are mounted. Therefore, do not destroy the packaging and remove it just before mounting.

Handling packaging materials

Dispose of packaging materials in accordance with the relevant statutory provisions and local regulations.

5 Mounting

5.1 Safety during mounting



WARNING

Danger of death due to incorrect mounting!

If mounting does not take place in an approved area or if the materials and components supplied are used for purposes other than to mount the revolving door, this can lead to serious injury and significant property damage.

- Mount revolving door in approved areas only.
- Only use the materials and components supplied for mounting of the revolving door.
- Never install the revolving door in any way other than described in this document.
- Never use equipment other than that described in this document for mounting.
- Do not install the revolving door on soft floors (e.g. carpet).
- Never affix additional objects to the revolving door or suspend objects from it.
- Never use replacement parts that are not approved by the manufacturer.



WARNING

Danger to life through electric current

The drive unit, control unit, and power supply unit are energized components. Touching the components poses an immediate risk of death from electric shock.

- When laying cables, ensure that the insulation is not damaged.
- Immediately replace components and cables with damaged insulation.
- Do not place or rest loads on cables.



CAUTION

Risk of injury on sharp edges and pointed corners

Sharp edges and pointed corners on components can cause abrasions and cuts.

- When handling sharp or pointed components, wear protective gloves and safety shoes.
- Handle components carefully and properly.
- When transporting components, take their weight into account.



ATTENTION

Risk of property damage if on-site specifications are not observed

Deviations from the on-site specifications when assembling the revolving door can lead to property damages.

- Mount the revolving door in the intended position only.
- If anything is unclear, please consult the facility operator.

5.2 Prepare the mounting surface

The revolving door may be mounted either on a raw or a finished floor.

For mounting on a raw floor, the floor ring is worked into the screed.

When mounting on a finished floor, the revolving door is mounted without a floor ring. The fixing components of the revolving door are screwed into the finished floor.

5.2.1 Mounting with floor ring

Mounting the floor ring

Requirements

- Qualified mechanics
- Protective clothing
- Safety glasses
- Protective gloves
- Safety shoes
- Leveling staff
- Laser leveling device with stand
- Hand brush and dustpan
- Drilling machine
- Blower for cleaning drill holes
- Brush for cleaning drill holes



ATTENTION

Property damages due to improper mounting of the floor ring!

Improper alignment of the floor ring can lead to defective mounting of the revolving door.

- Always position the floor ring on the mounting surface in accordance with on-site specifications.
- When laying the floor ring, make sure that the ring is level.

The floor ring is supplied in 6 parts. The parts are screwed together. The floor ring is then positioned on the finished floor level (FFL).

As an option, the floor ring is fitted with a center or circumferential clamping flange to which sealing material provided by the customer can be attached.

Make sure:

- Details of the mounting location of the revolving door are available.
- Information from facility operator about the finished floor level (FFL) is available.
- Blocks (e.g. wooden) to align the floor ring with the FFL are available.
- Checklist for floor ring mounting has been completed (8.1 Floor ring mounting checklist, p. 106).

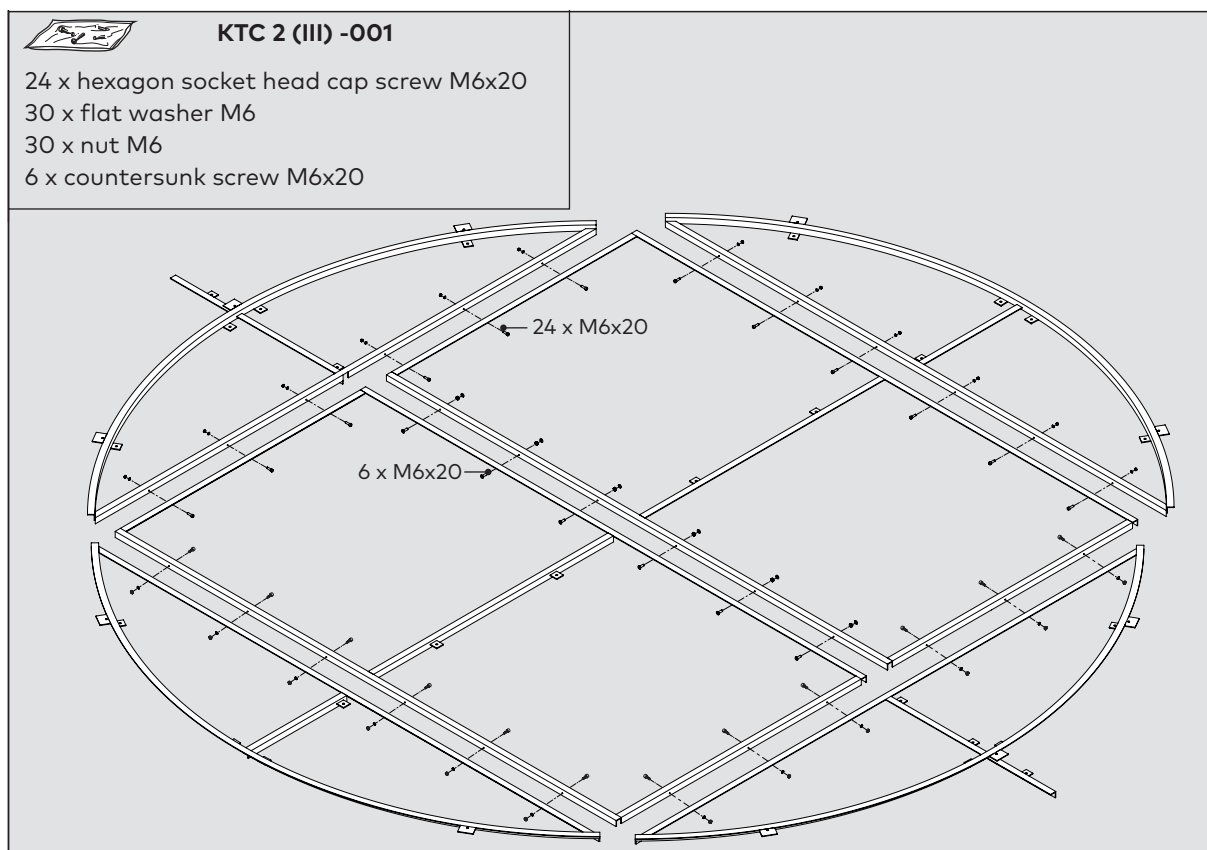


Fig. 8 Floor ring parts

1. Screw together floor ring parts (Fig. 8) at the marked points.

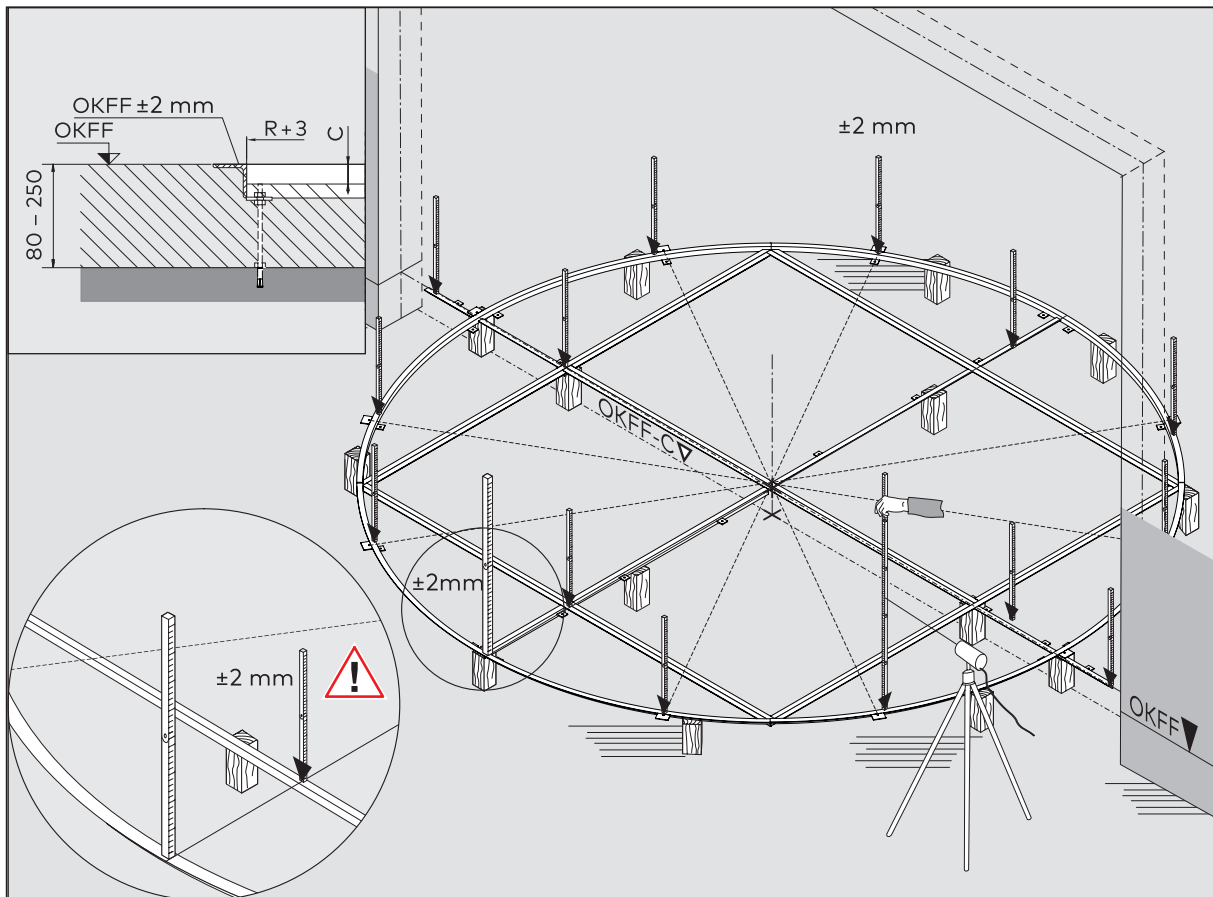


Fig. 9 Aligning the floor ring

2. Position the floor ring so that it is level, taking account of the on-site information about the mounting surface. Position according to the approval drawing. For a glass façade, align the center of the floor ring with the center of the glass façade.
3. Align the floor ring evenly with the upper edge of the finished floor with blocks, as shown in Fig. 9.
4. Check and record details of the floor ring (8.2 Floor ring dimensional check, p. 108).

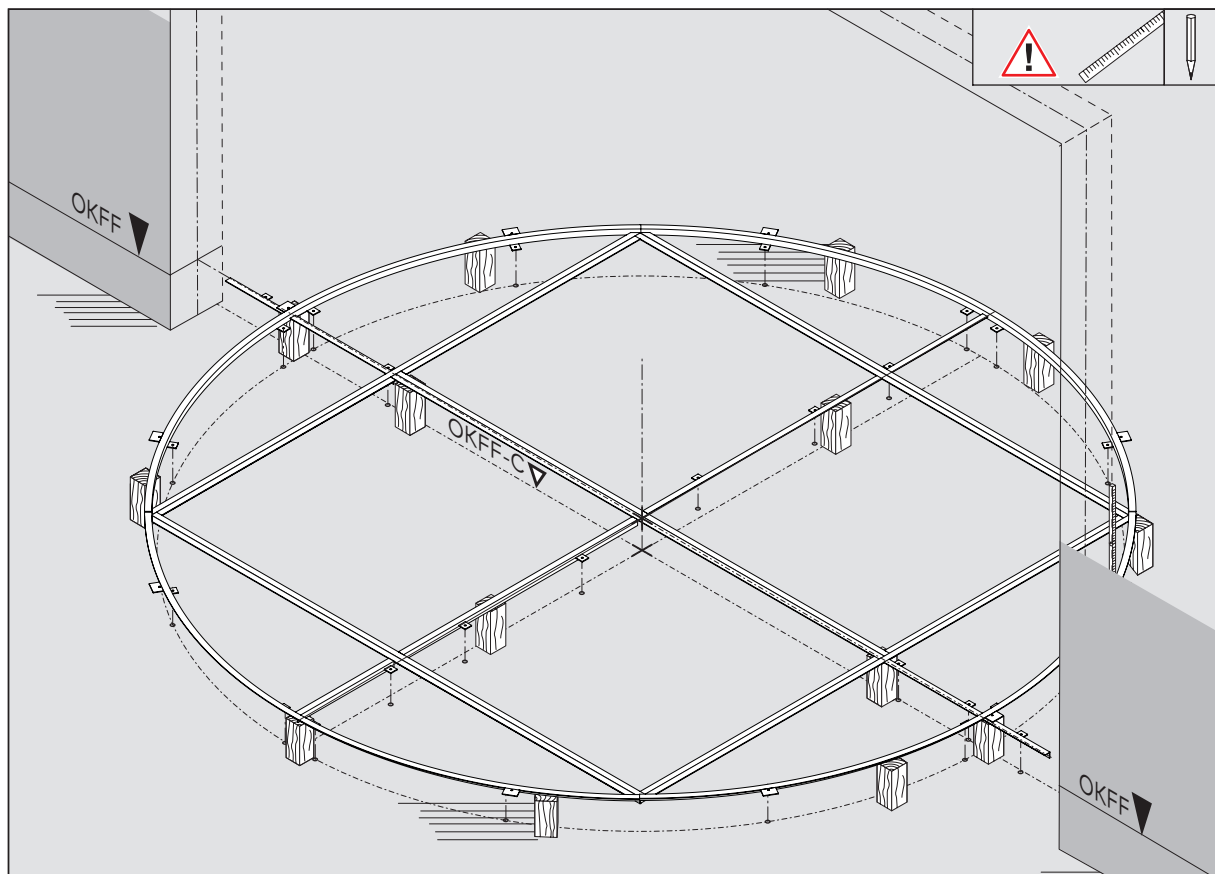


Fig. 10 Marking the drilling positions

5. Mark the drilling position of the lugs.

6. Remove floor ring.

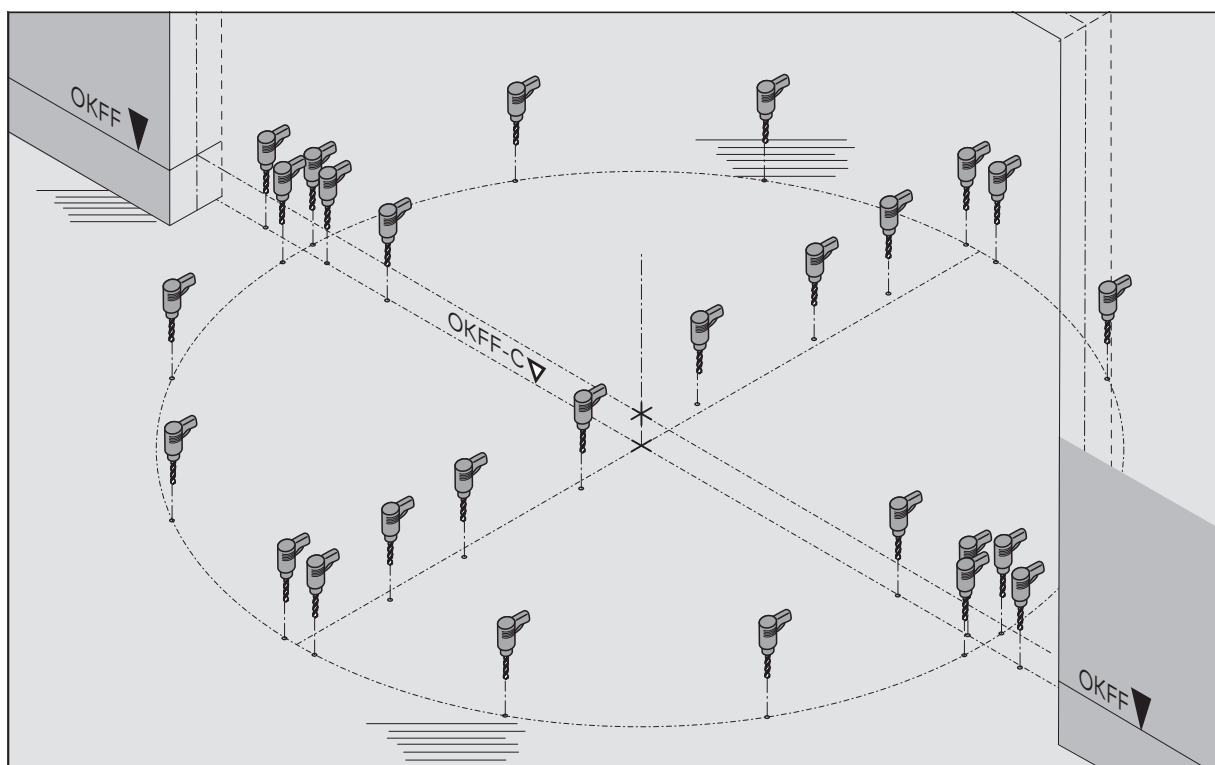


Fig. 11 Drill the holes



Caution

Wear safety glasses.

8. Clean the drill holes with the blower and cleaning brush.

7. Drill the marked holes (Fig. 11).

- ▶ Ø 12 mm, depth: min. 43 mm

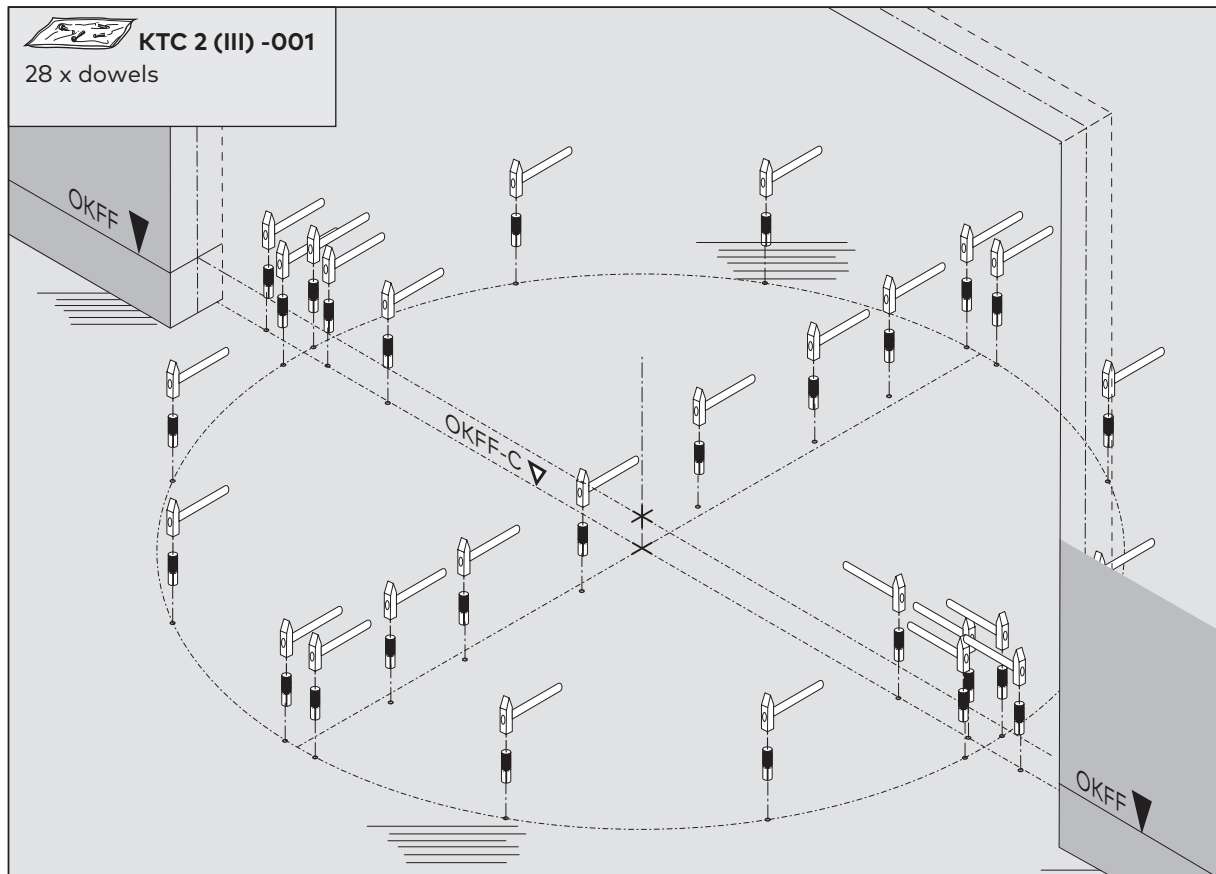


Fig. 12 Inserting dowels

9. Insert dowels (Fig. 12) into the drill holes.

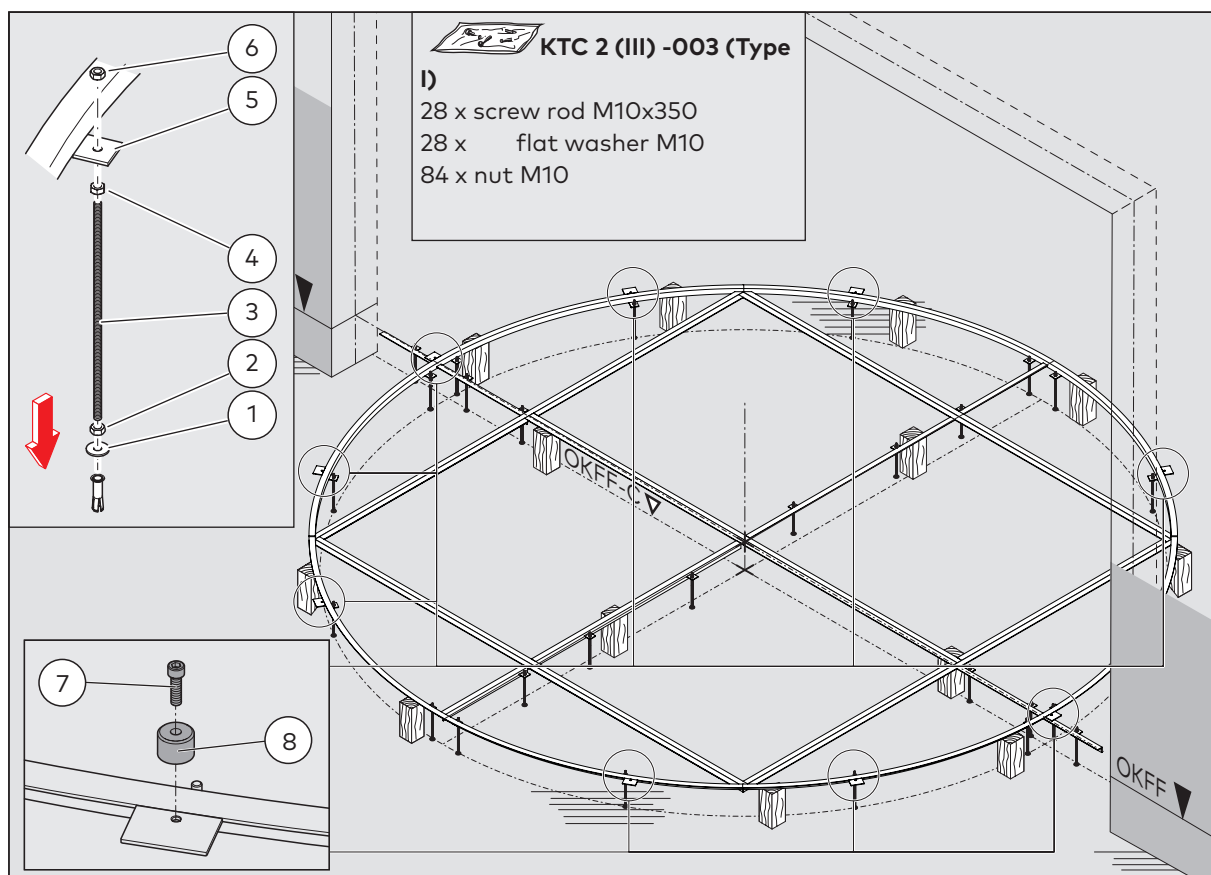


Fig. 13 Mounting the floor ring with threaded rods

10. Screw threaded rods (Fig. 13/3) i into the dowels.
11. Place washer (Fig. 13/1) onto the threaded rod from above.
12. Screw the nuts (Fig. 13/2) onto the threaded rods to counter the dowels.
13. Screw the nuts (Fig. 13/4) onto the threaded rods.
14. If necessary, mount the brackets for the shuttering or the foil guide plate (P. 22, P. 23).
15. Fit the floor ring lugs (Fig. 13/5) onto threaded rods.
16. Screw the nuts (Fig. 13/6) onto the threaded rods.
17. Recheck the FFL dimension and dimension C. If necessary, adjust the dimensions by turning the 2 upper nuts.
18. Secure the floor ring with the third nut (Fig. 13/6) (leveling error ± 2 mm).
19. Cut off the excess length of the threaded rods.
20. Fasten the rubber buffers (Fig. 13/8) with screws (Fig. 13/7) to the floor ring.

Sealing the floor ring

As an option, the floor ring is fitted with a center or circumferential clamping flange to which sealing material provided by the customer can be attached.

If necessary, seal the floor ring in accordance with DIN 18533.

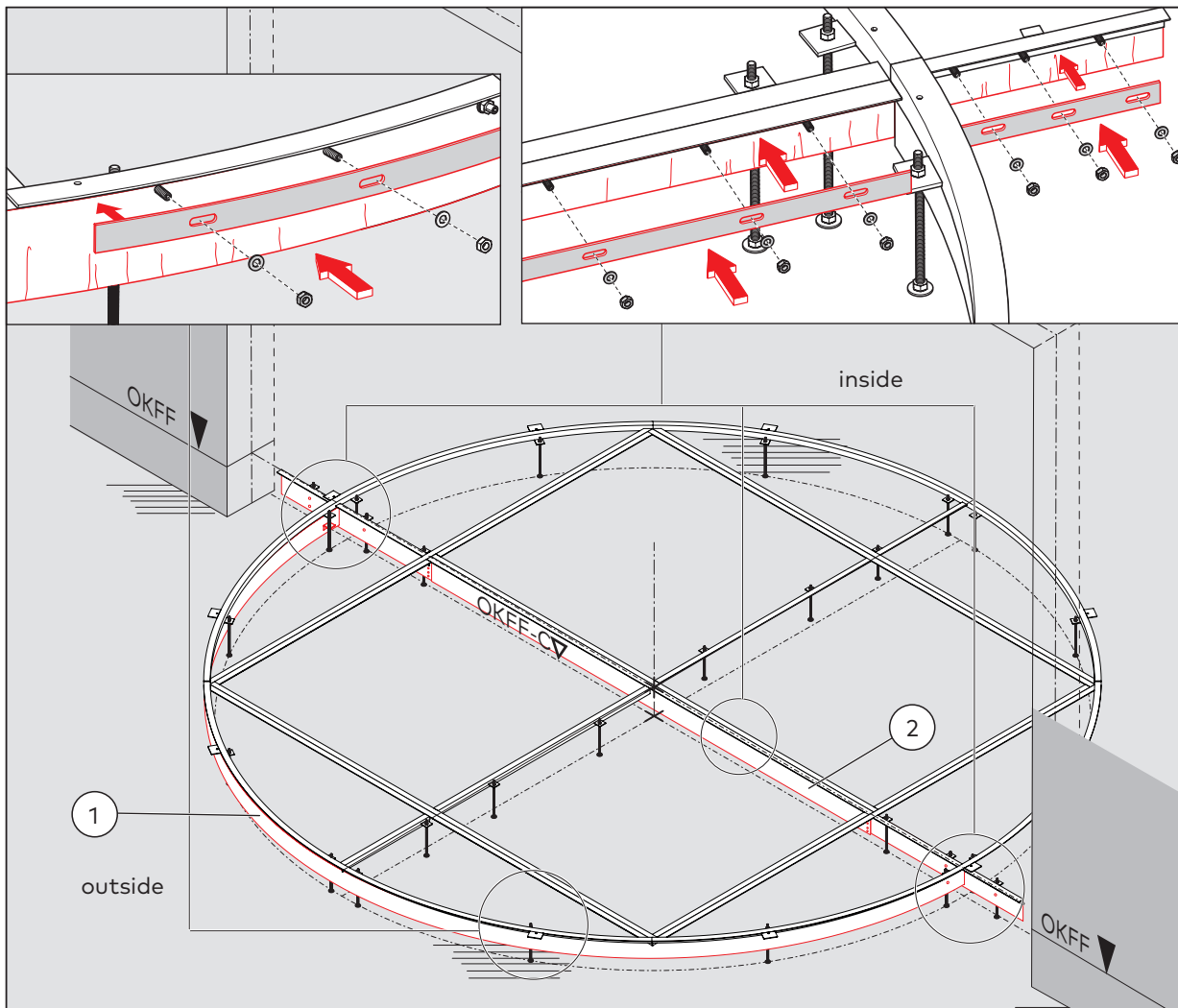


Fig. 14 Sealing the floor ring

1. Seal the floor ring with a clamping flange in the center (Fig. 14/2) or on the outer circumference (Fig. 14/1), depending on the variant.

Mounting the shuttering/foil guide plate externally

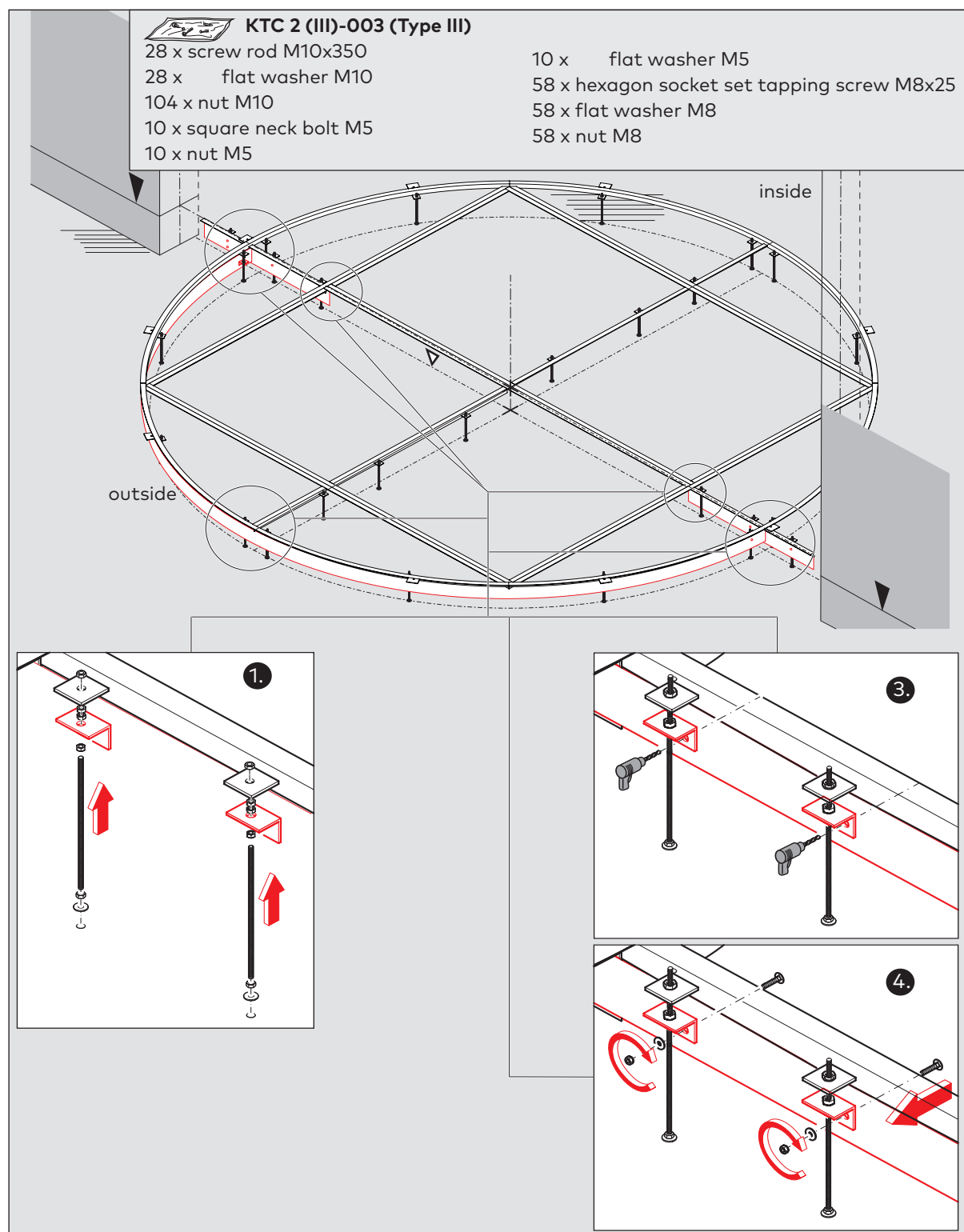


Fig. 15 Mounting the shuttering/foil guide plate

1. Attach 2 mounting brackets with 2 nuts each to threaded rods.
2. Hold the formwork/foil guide plate firmly. Adjust the formwork/foil guide plate to the floor unevenness as required.
3. Drill screw holes into the formwork and foil guide plate at the position of the brackets.
4. Use screws to mount the shuttering/foil guide plate on the mounting bracket.
5. Lay the next foil guide plate in an overlapping pattern and connect with self-tapping screws.
6. Repeat steps 1 – 5 for additional formwork and foil guide plates.

Mounting the shuttering/foil guide plate in center axle

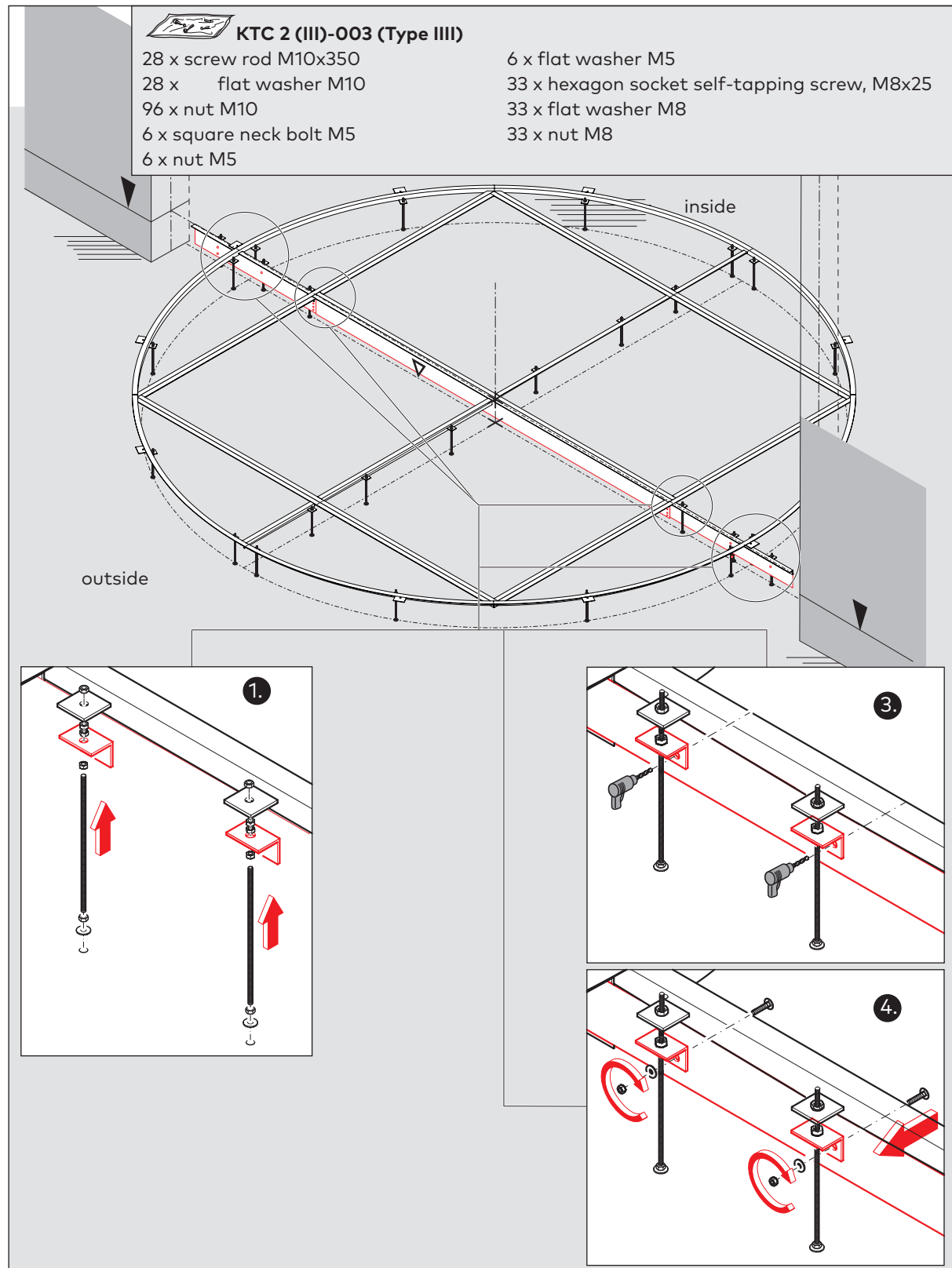


Fig. 16 Mounting the foil guide plate

1. Attach 2 mounting brackets with 2 nuts each to threaded rods.
2. Hold the formwork/foil guide plate firmly. Adjust the formwork/foil guide plate to the floor unevenness as required.
3. Drill screw holes into the formwork and foil guide plate at the position of the brackets.
4. Use screws to mount the shuttering/foil guide plate on the mounting bracket.
5. Lay the next foil guide plate in an overlapping pattern and connect with self-tapping screws.
6. Repeat steps 1 – 5 for additional formwork and foil guide plates.

Checking the horizontal position of the floor rings

Requirements

- Qualified mechanics
- Protective clothing
- Safety shoes
- Laser leveling device with stand
- Leveling staff
- Test Log A (8.3 Test log A – floor ring before casting, p. 109)

The floor ring is elevated to the FFL dimension. The level positioning of the floor ring is then checked.



ATTENTION

Property damage due to improper leveling!

Improper positioning of the stand or leveling staff may lead to measurement errors when leveling. Measurement errors may lead to the revolving door being incorrectly mounted. This will result in property damages.

- Before leveling, ensure that the stand is securely positioned on the ground and cannot wobble or tilt.
- Before leveling, ensure that the laser leveling device is aligned horizontally on the stand.
- Always position the leveling staff vertically during leveling.
- After leveling, note the tolerance of ± 2 mm for the individual measured values against the reference value.

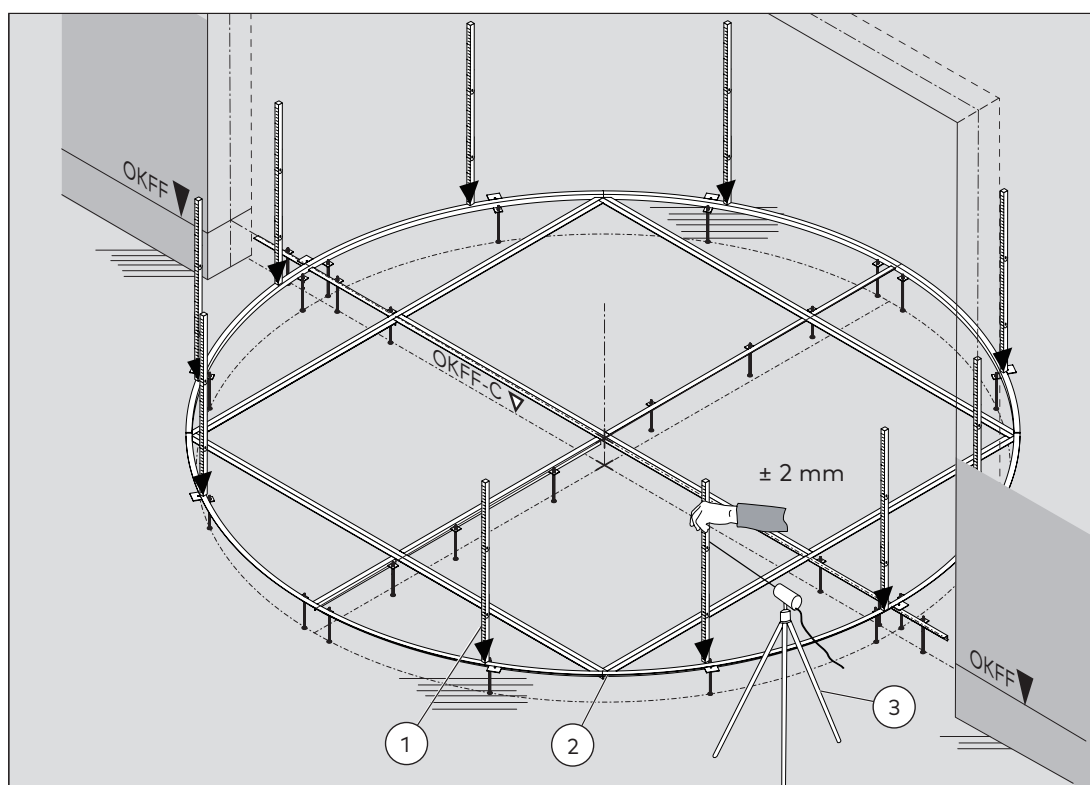


Fig. 17 Leveling the floor ring

1. Position the laser leveling device (Fig. 17/3) horizontally in front of the floor ring (Fig. 17/2).
2. Select a reference point, then position the leveling staff (Fig. 17/1) vertically at any point on the floor ring.



Note

The reference point is used for the following measuring points.

3. Measure the reference point and note the reading.
4. Repeat the measurement at a minimum of 6 different points over the circumference and center of the floor ring. Note the measurements and positions.
5. Compare measurements with reference value. The deviation tolerance for the measurements is ± 2 mm.
6. Adjust measuring points that are outside the tolerance by readjusting the threaded rods.
7. Repeat measurement as per steps 3-6 until the levelness of the floor ring is within the tolerance.

Pour the floor ring into the screed

1. Check the floor ring according to Test Log A (8.3 Test log A – floor ring before casting, p. 109).
2. Before casting, insert the supplied screws in all threaded holes of the floor ring.



ATTENTION

Property damage due to improper casting of the floor ring!

Improper casting of the floor ring can lead to property damages during subsequent mounting of the revolving door.

- Always arrange for a specialist company to cast the floor ring.
- When casting, always ensure that measurement C is observed.

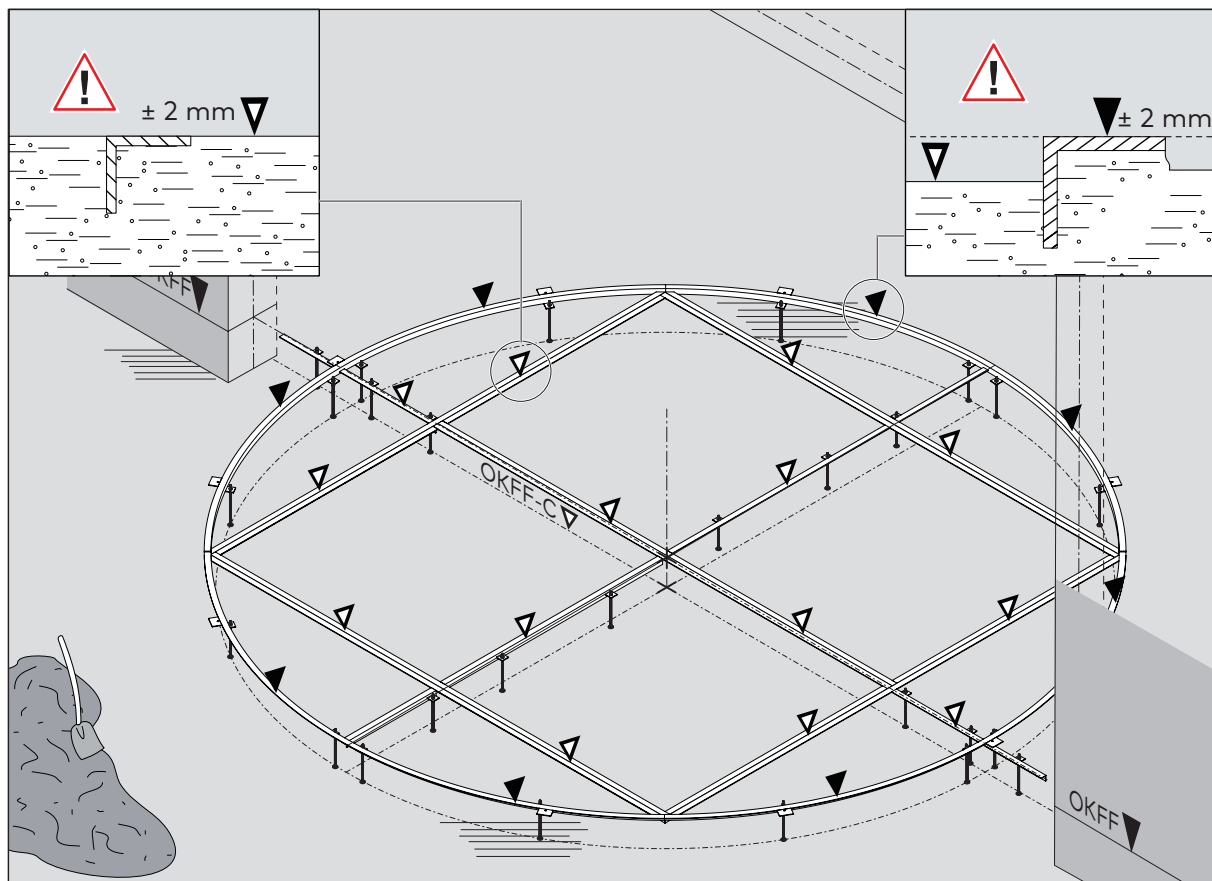


Fig. 18 Casting the floor ring with screed

3. Arrange for a specialist company to cast the floor ring in screed. Ensure that measurement C is maintained during casting.

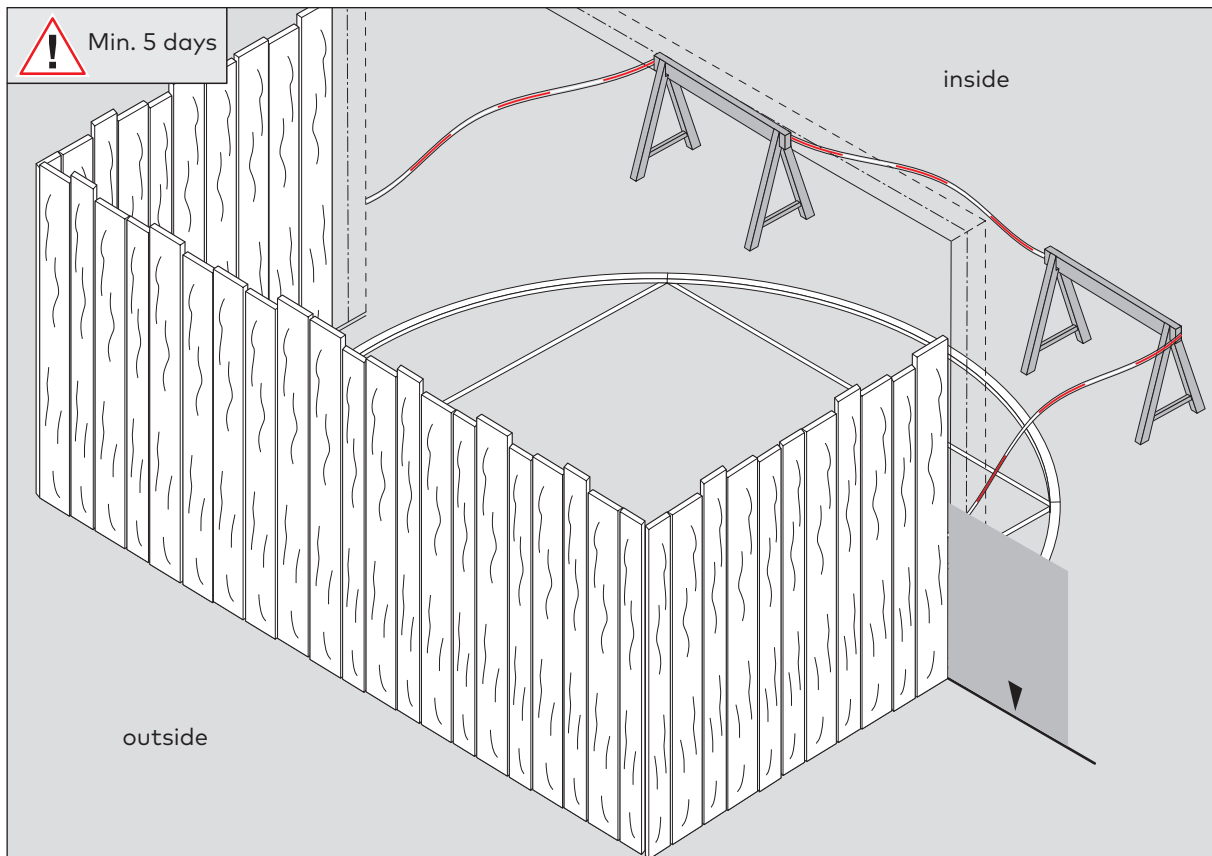


Fig. 19 Letting the screed dry

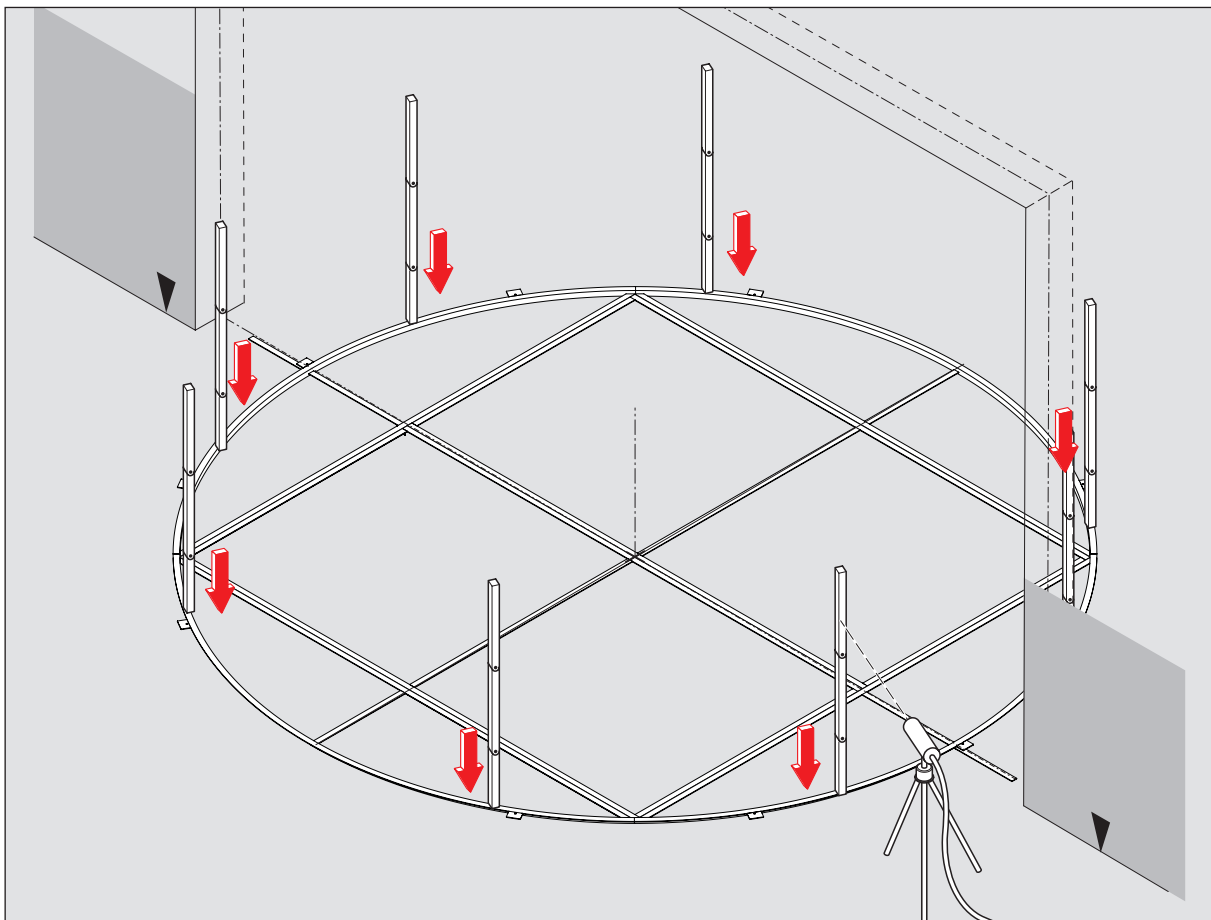


Fig. 20 Checking the alignment

4. Check the floor ring according to Test Log B (8.4 Test log B – floor ring after casting, p. 110).

5.2.2 Mounting on a finished floor

Preparing the finished floor

Requirements

- Qualified mechanics
- Protective clothing
- Safety glasses
- Protective gloves
- Safety shoes
- Hand brush and dustpan
- Sledgehammer
- Laser leveling device with stand
- Blower for cleaning drill holes
- Brush for cleaning drill holes



WARNING

Risk of injury due to improper leveling!

If the finished floor is not leveled before mounting, faults can occur during subsequent operation of the revolving door. This can lead to dangers that can cause serious injury and significant property damages.

- Always level the finished floor before mounting.
- Never carry out mounting without first leveling.



ATTENTION

Property damage due to inaccurate marking of axis center!

Inaccurate marking of the axis center on the mounting surface can lead to subsequent discrepancies during mounting. This can result in errors and property damages.

- Always mark the axis center accurately.
- Always use the drilling template provided to mark the drill holes.

Position the floor ring according to the approval drawing. The holes for the fixing components and bearing shell must be drilled into the finished floor. The fixing components are then mounted into the drill holes with dowels.

Make sure:

- Details of the mounting location of the revolving door are available from the facility operator.
- The floor level should not deviate by more than ± 2 mm.

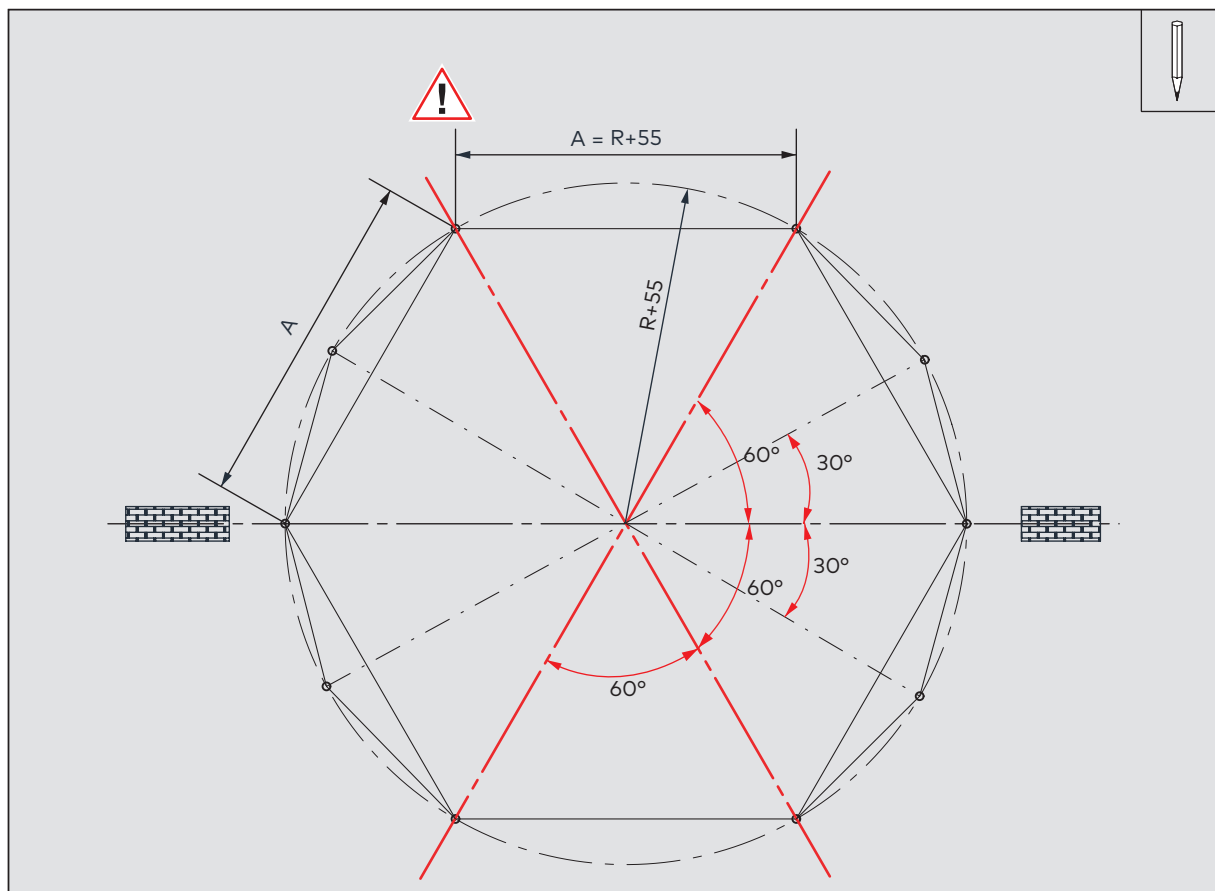
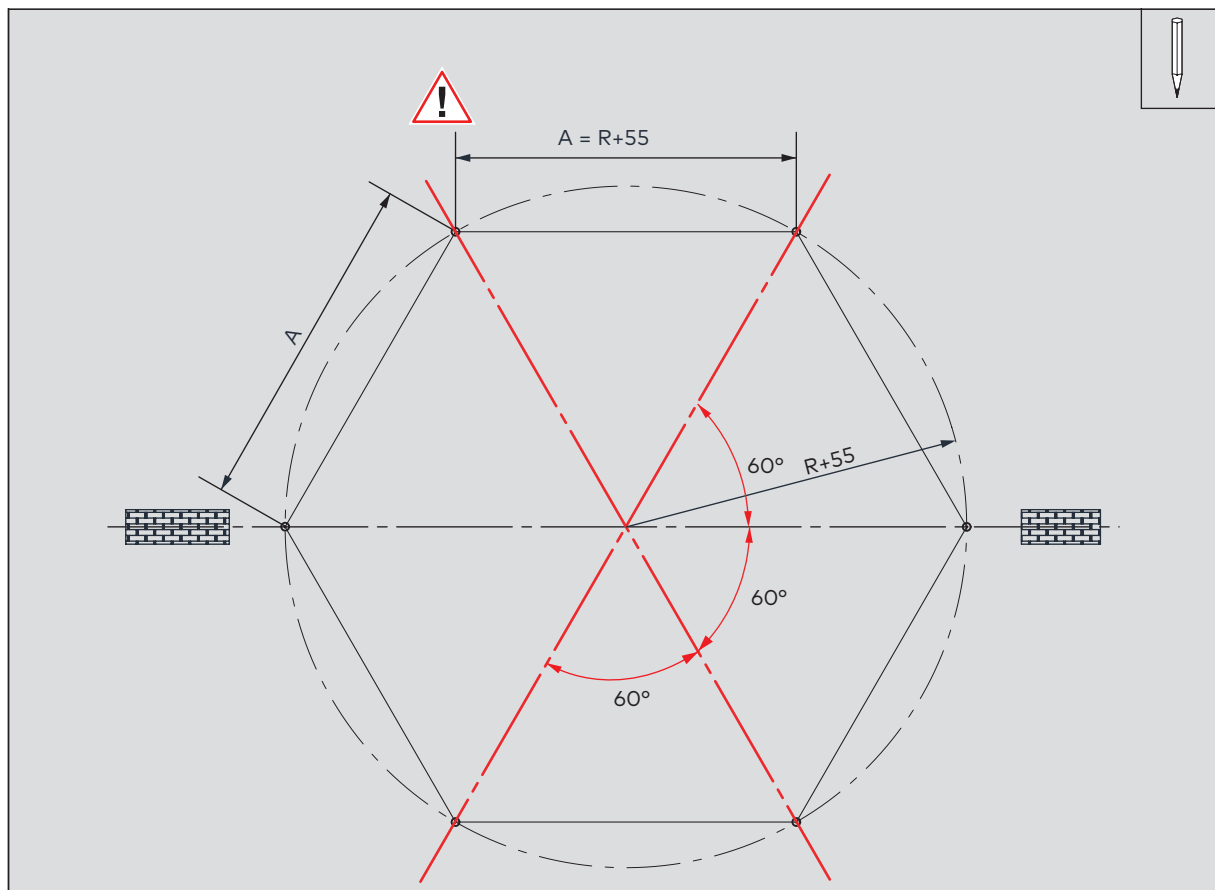


Fig. 21 Marking the drilling positions (D > 4800)

Fig. 22 Marking the drilling positions ($D \leq 4800$)

1. Mark the drilling positions precisely on the mounting surface.

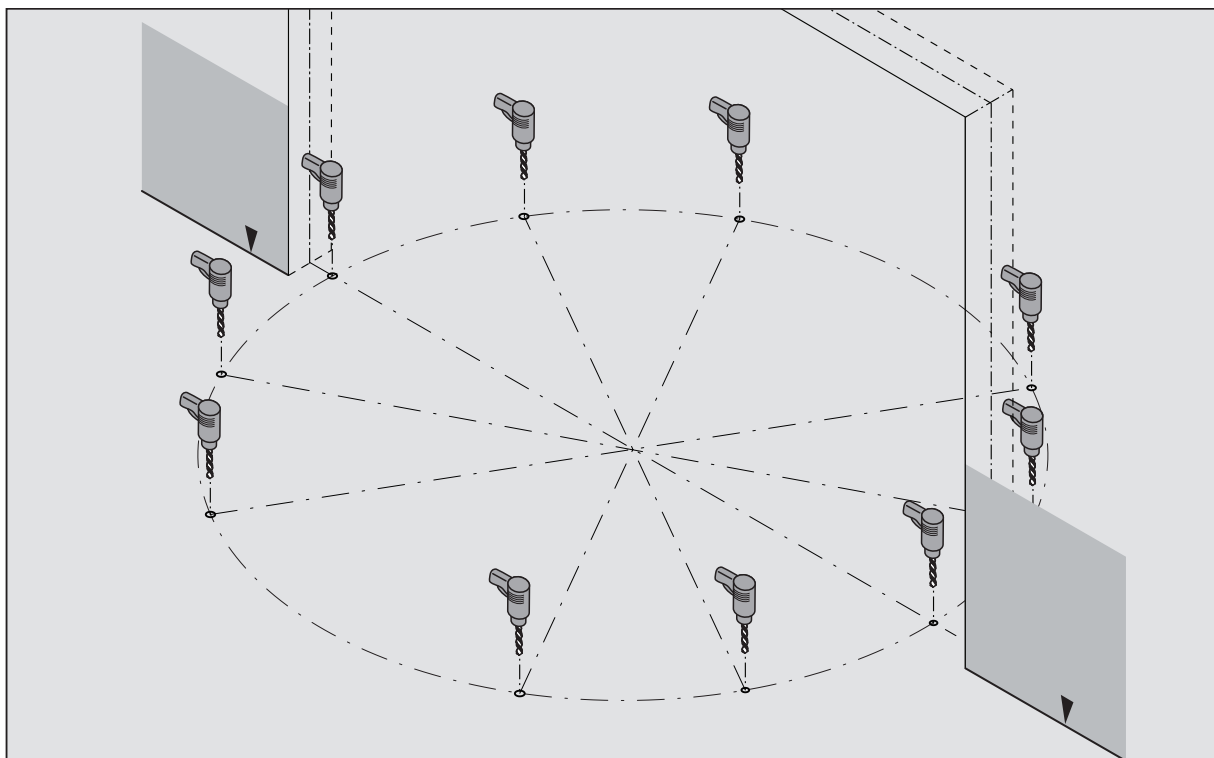


Fig. 23 Drill the holes

**Caution!**

Wear safety glasses.

2. Drill the marked holes (Fig. 11).

- ▶ $\varnothing$ 12 mm, depth: 100 mm

3. Clean the drilling site.

4. Clean the drill holes with the blower and cleaning brush.

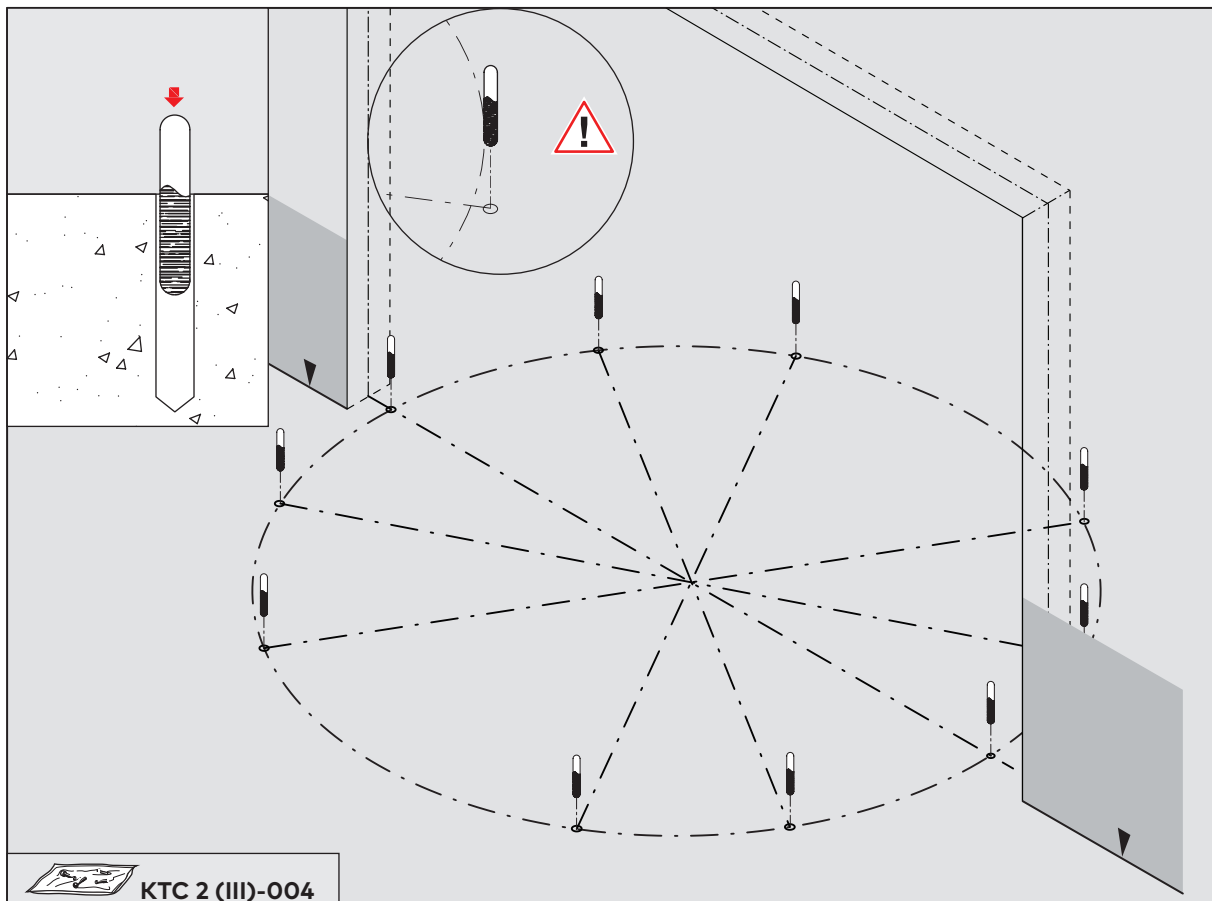


Fig. 24 Inserting the chemical anchors

5. Slowly insert the chemical anchors into the drill holes.

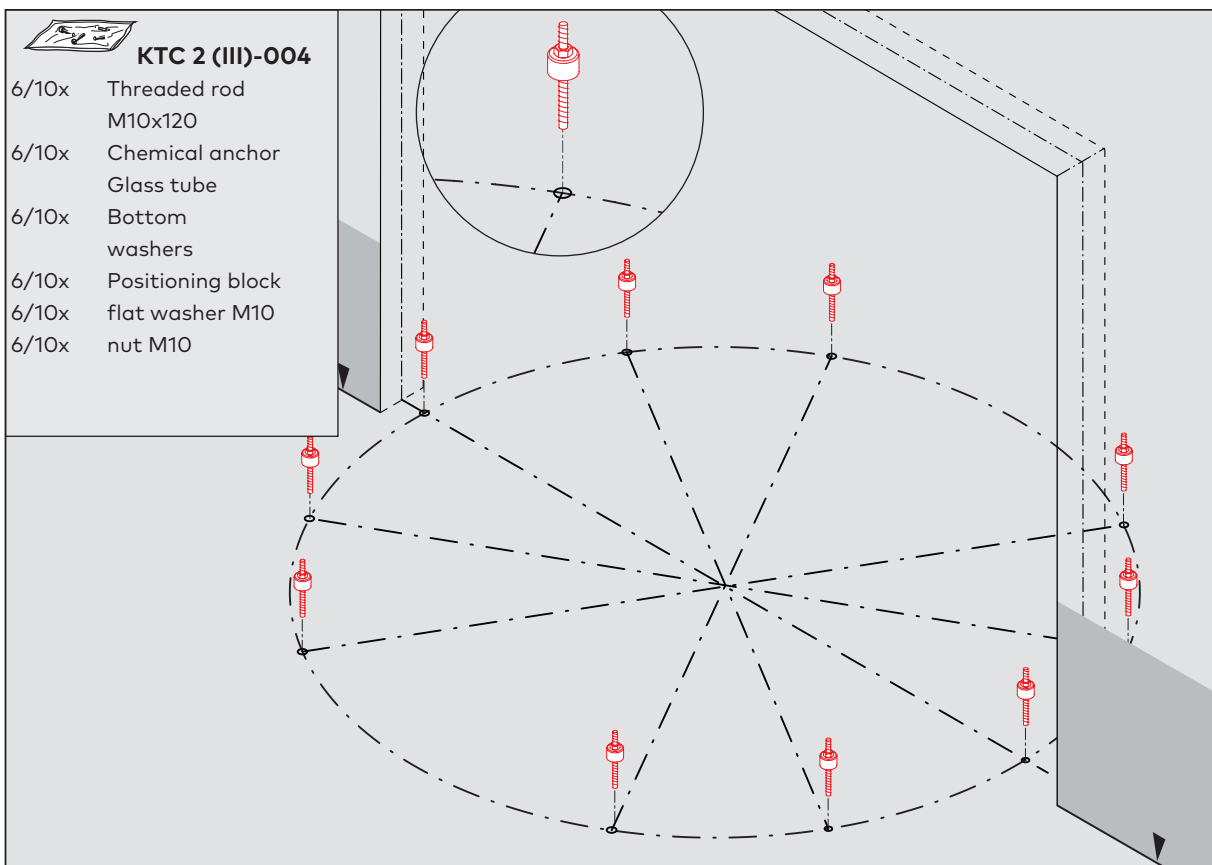


Fig. 25 Inserting the threaded rods

6. Insert the threaded rods with the positioning blocks, flat washers and nuts.

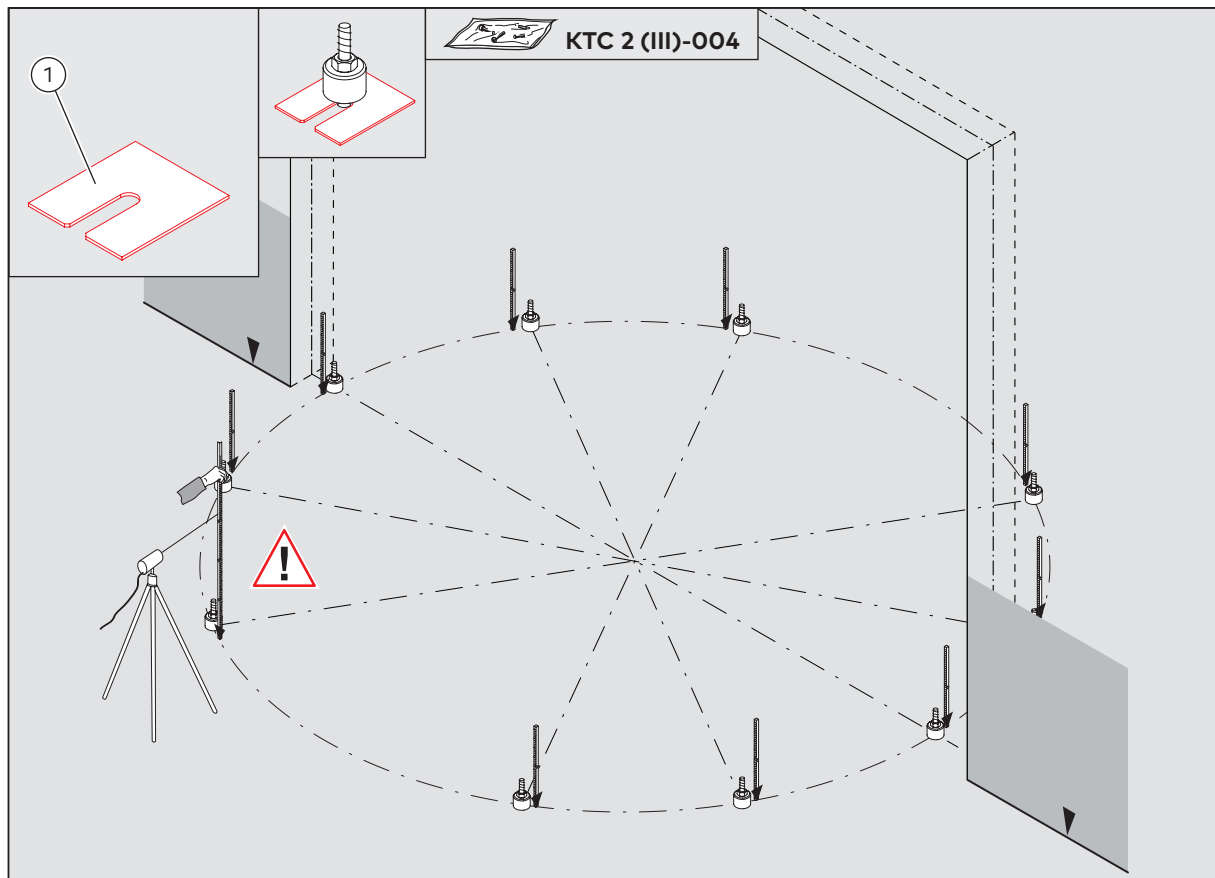


Fig. 26 Aligning the threaded rods with the bottom shims

7. Use the bottom shims (Fig. 26/1) to align the threaded rods.
8. Depending on the temperature, allow the anchors to cure for ≥ 2 hours.

5.3 Mounting the frame

Prerequisites

- Qualified mechanics
- Protective clothing
- Protective gloves
- Safety shoes
- Sledgehammer

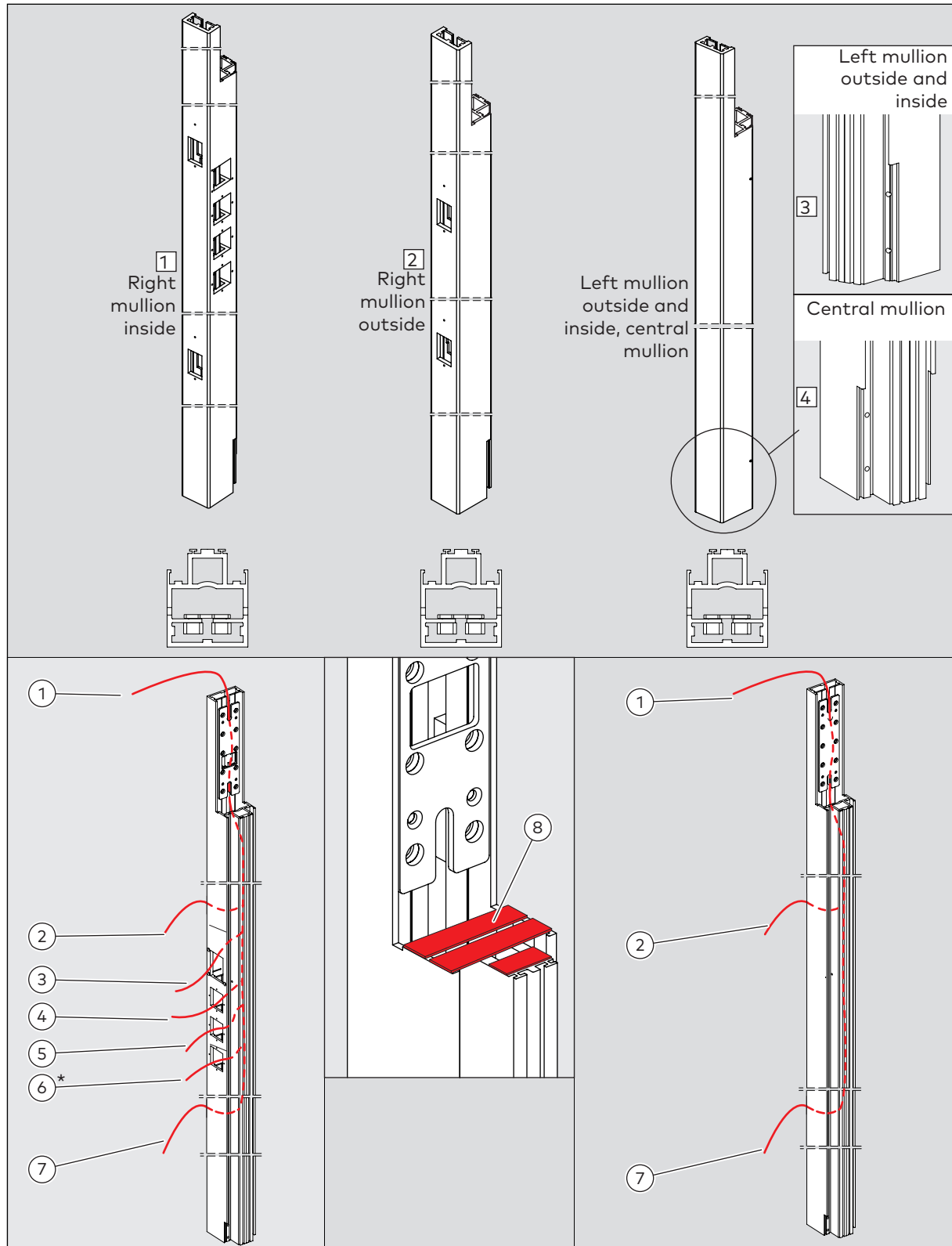


Fig. 27 Description of the different posts and cable routing

- | | |
|--|---|
| (1) Cable inlet | (5) Program switch for sliding doors |
| (2) Emergency stop button | (6) Key switch (optional for (4) and (5)) |
| (3) 7-segment display | (7) Disabled access button |
| (4) Program switch for revolving doors | (8) Sound insulation |

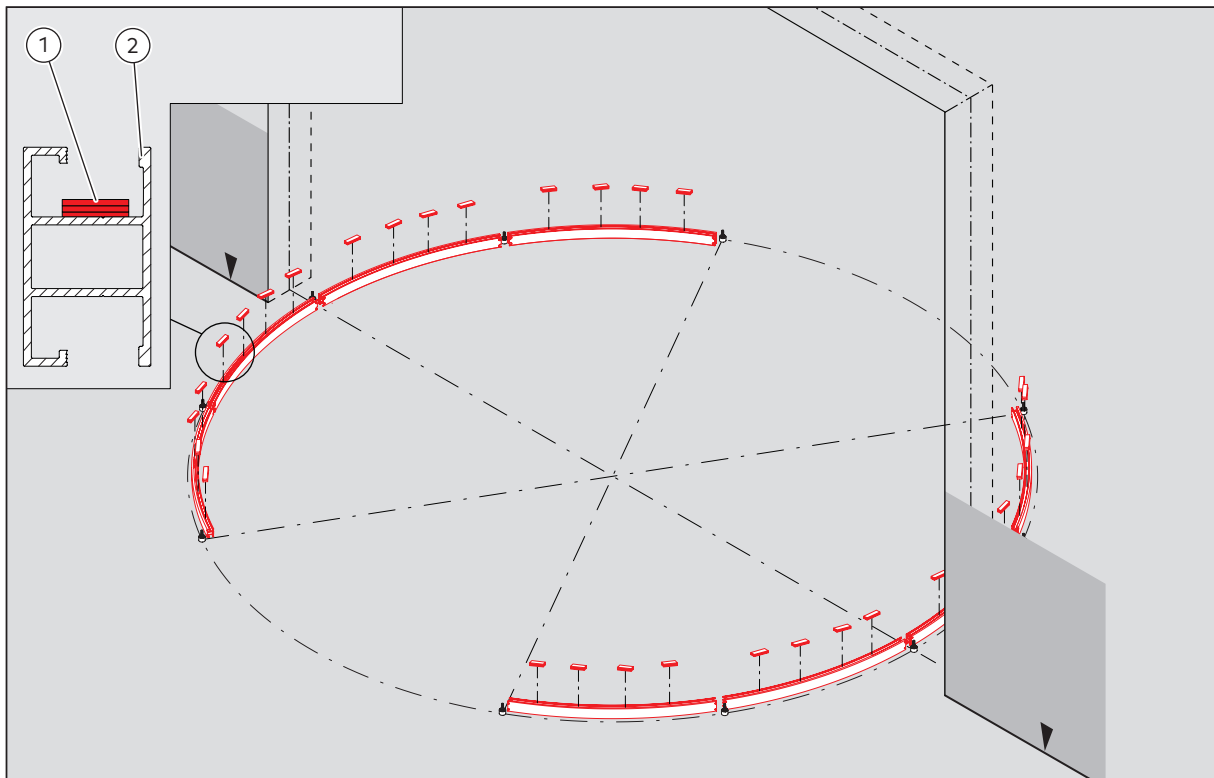


Fig. 28 Mounting the bottom frame

1. Place 4 plastic blocks (Fig. 28/1) on each piece of the bottom frame (Fig. 28/2).

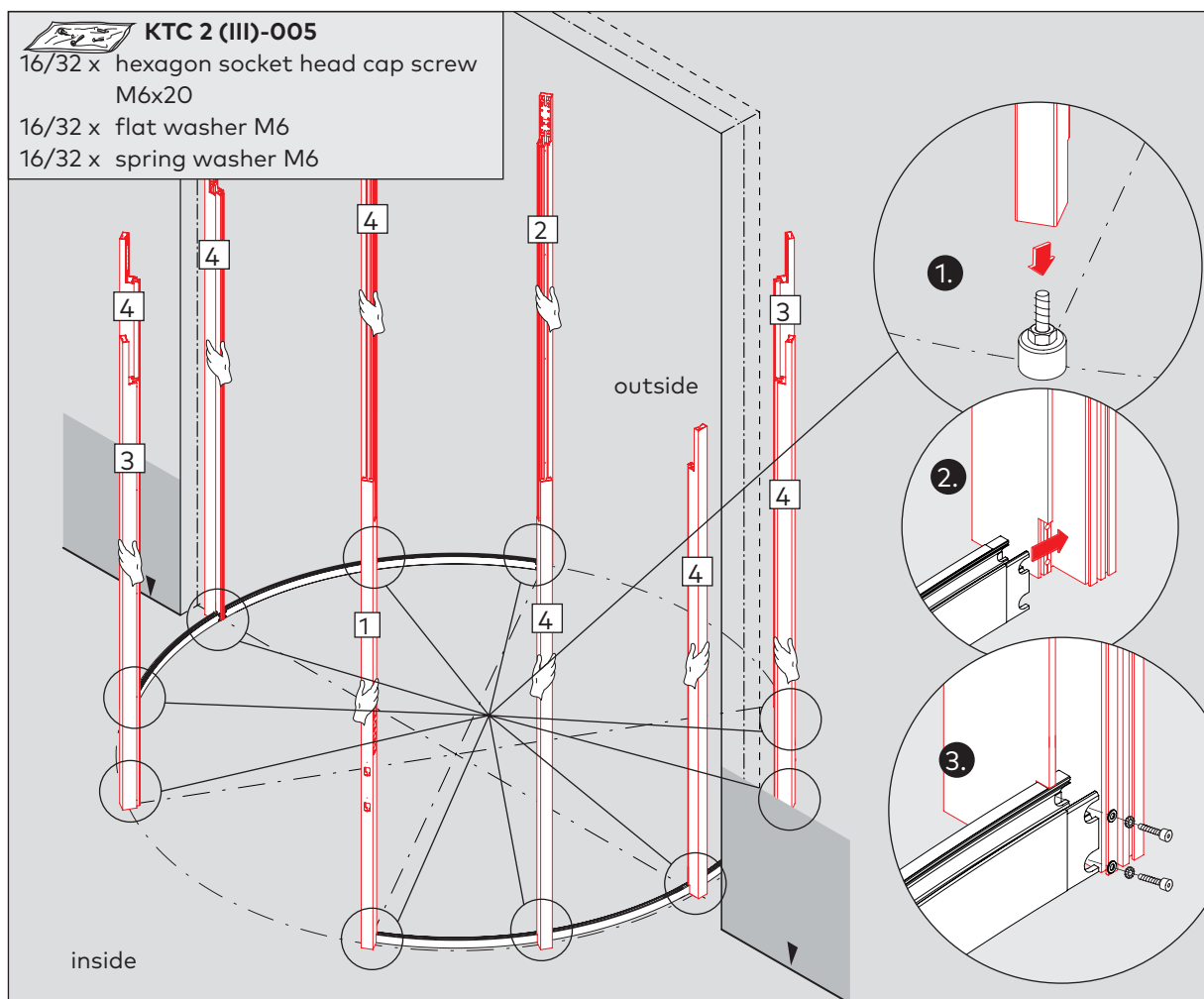


Fig. 29 Mount posts

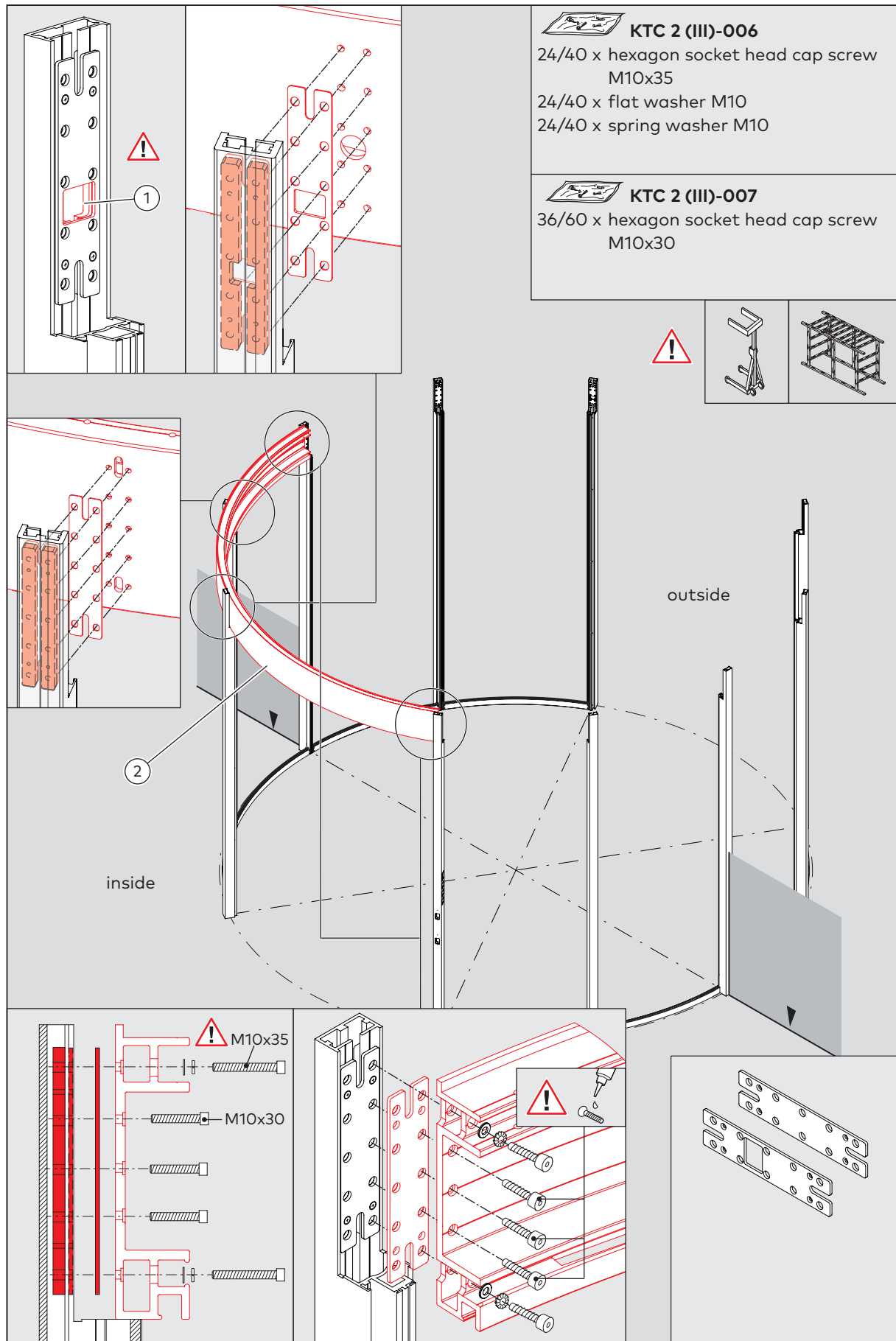
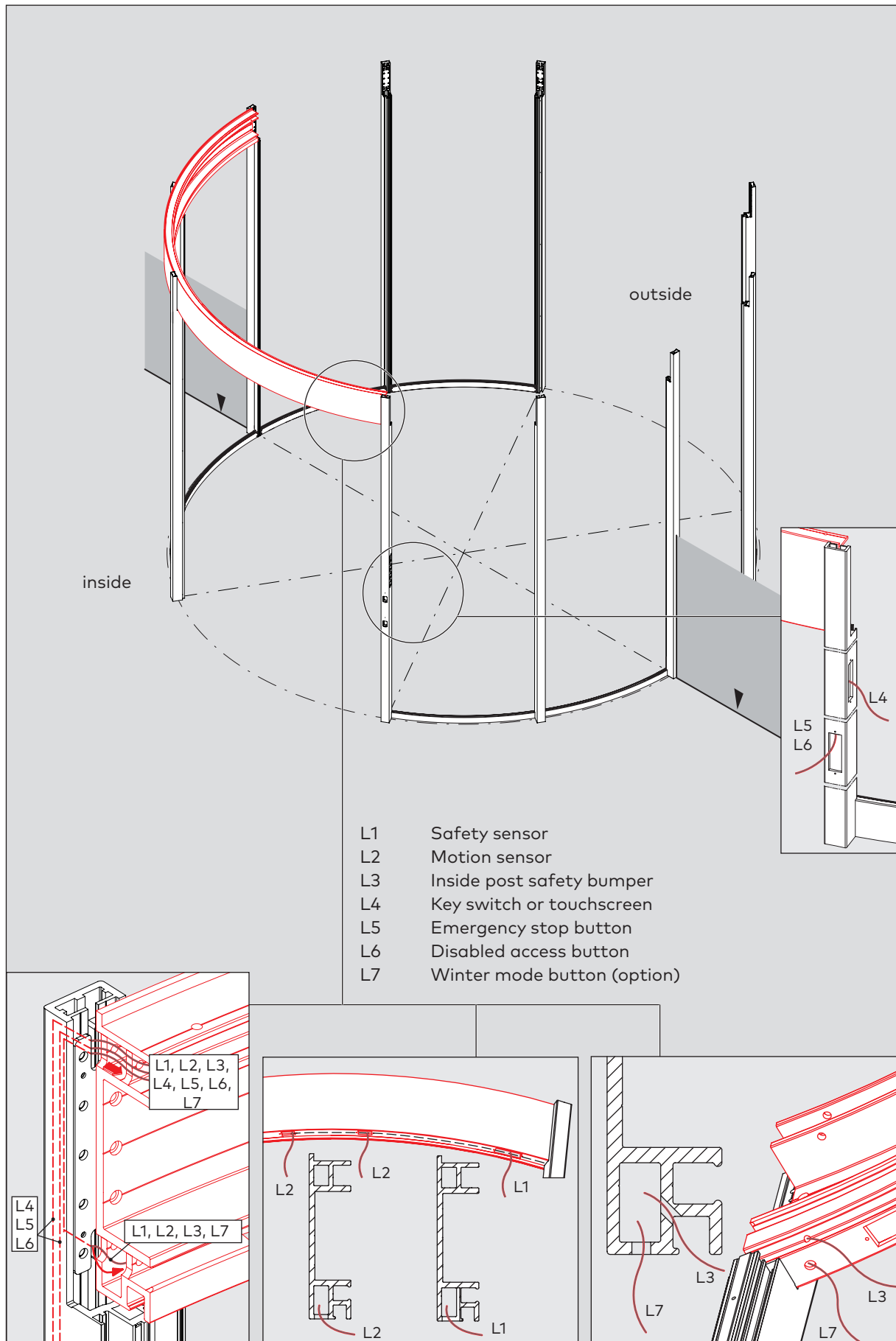


Fig. 30 Installation of the inner track rail

2. Fasten the inside track rail (Fig. 30/2) to the posts using 1 distance plate per post. Do not tighten the screws yet.

- ▶ Use the distance plate with the hole (Fig. 30/1) for the inner left post.



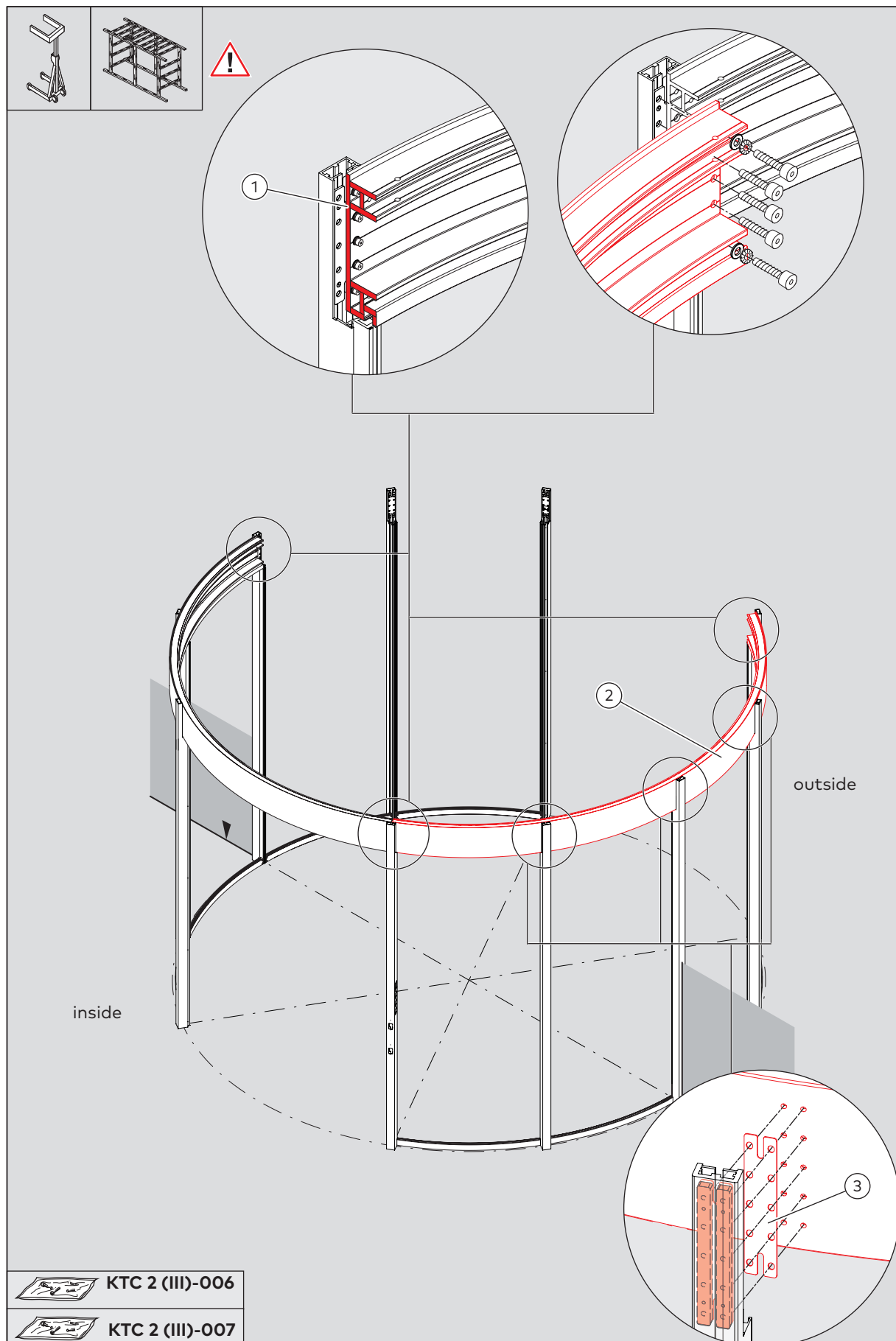


Fig. 32 Installation of the middle track rail

3. Make sure that the sound insulation (Fig. 32/1) is installed at the ends of the track rails.
4. Fasten the middle track rail (Fig. 32/2) to the posts using 1 distance plate (Fig. 32/3) per post. Do not tighten the screws yet.

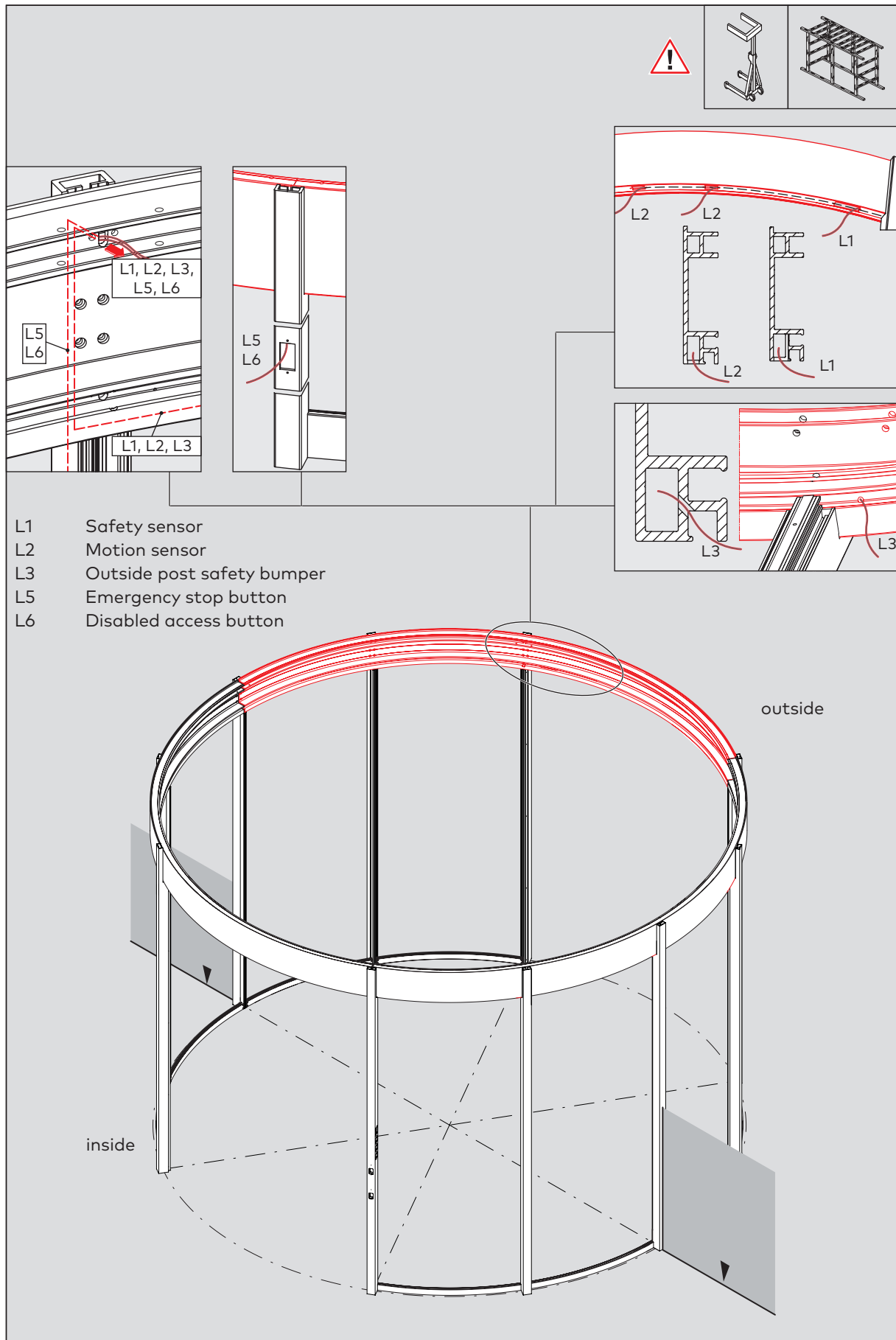


Fig. 33 Guiding the cables in the outside track rail

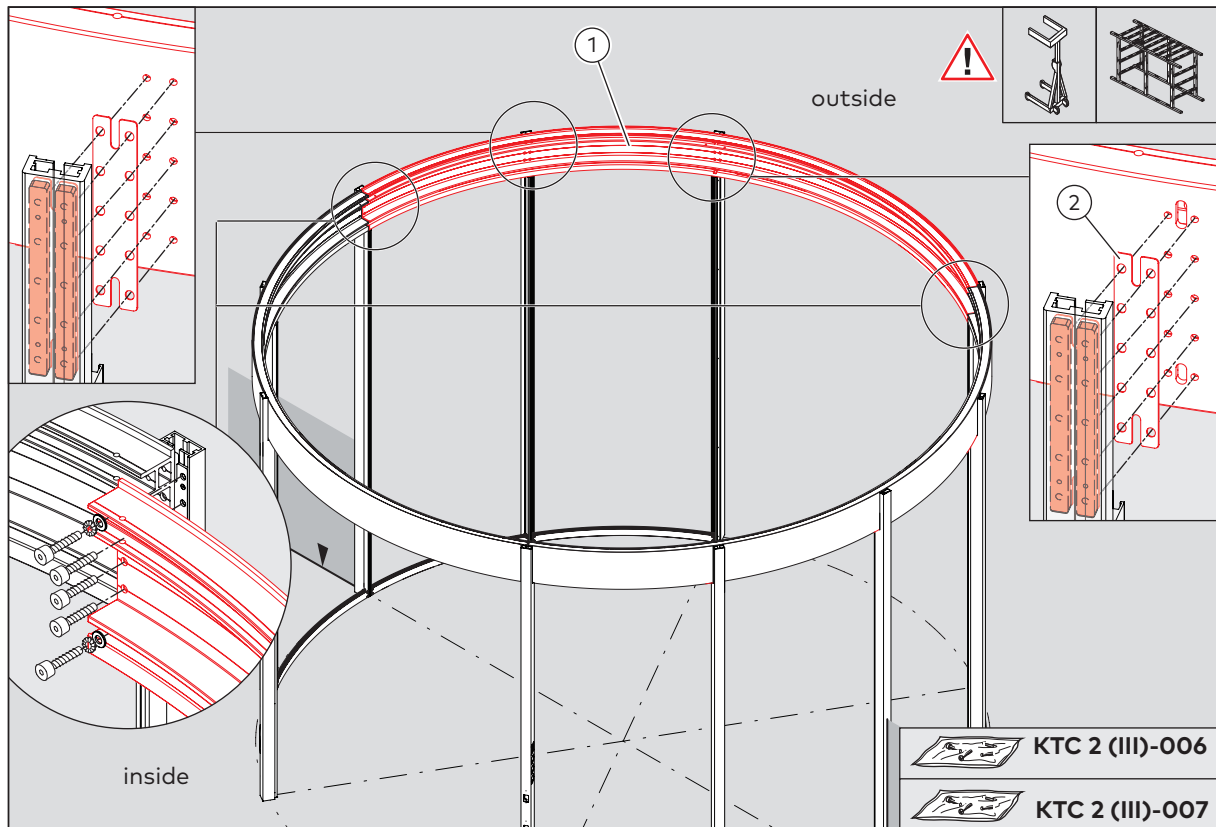


Fig. 34 Mounting the outside track rail

5. Fasten the middle track rail (Fig. 34/1) to the posts using 1 distance plate (Fig. 34/2) per post. Do not tighten the screws yet.
6. Check that the cables have been routed correctly.
7. Check that a spacer plate is attached to each mullion.
8. Check the dimensions of the revolving door (Fig. 35).
 - ▶ The diameter must not deviate by more than 2 mm.
 - ▶ The width of the entrance and exit must not differ by more than 2 mm.

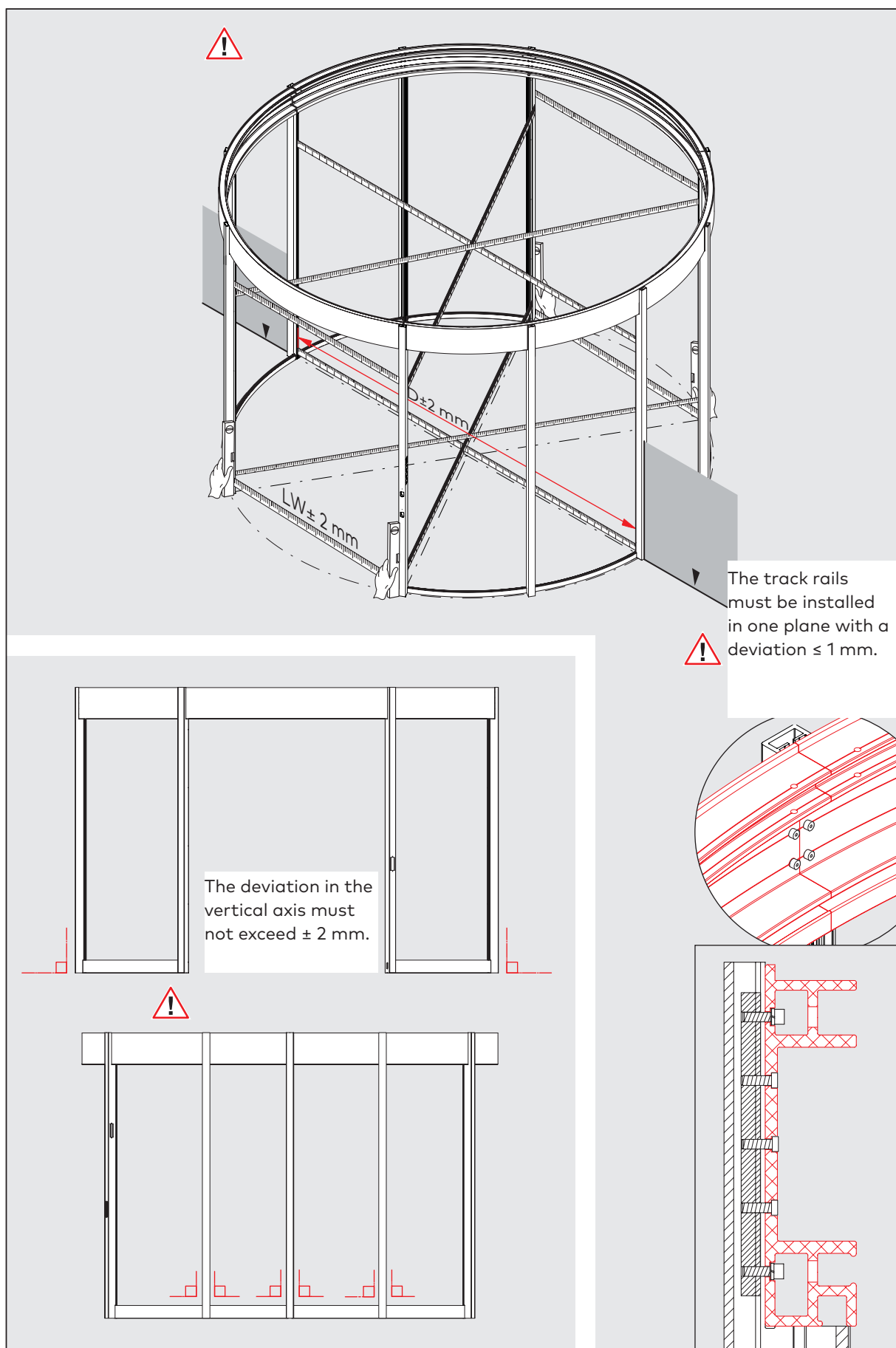


Fig. 35 Checking the frame

5.4 Mounting the canopy height extension (optional)

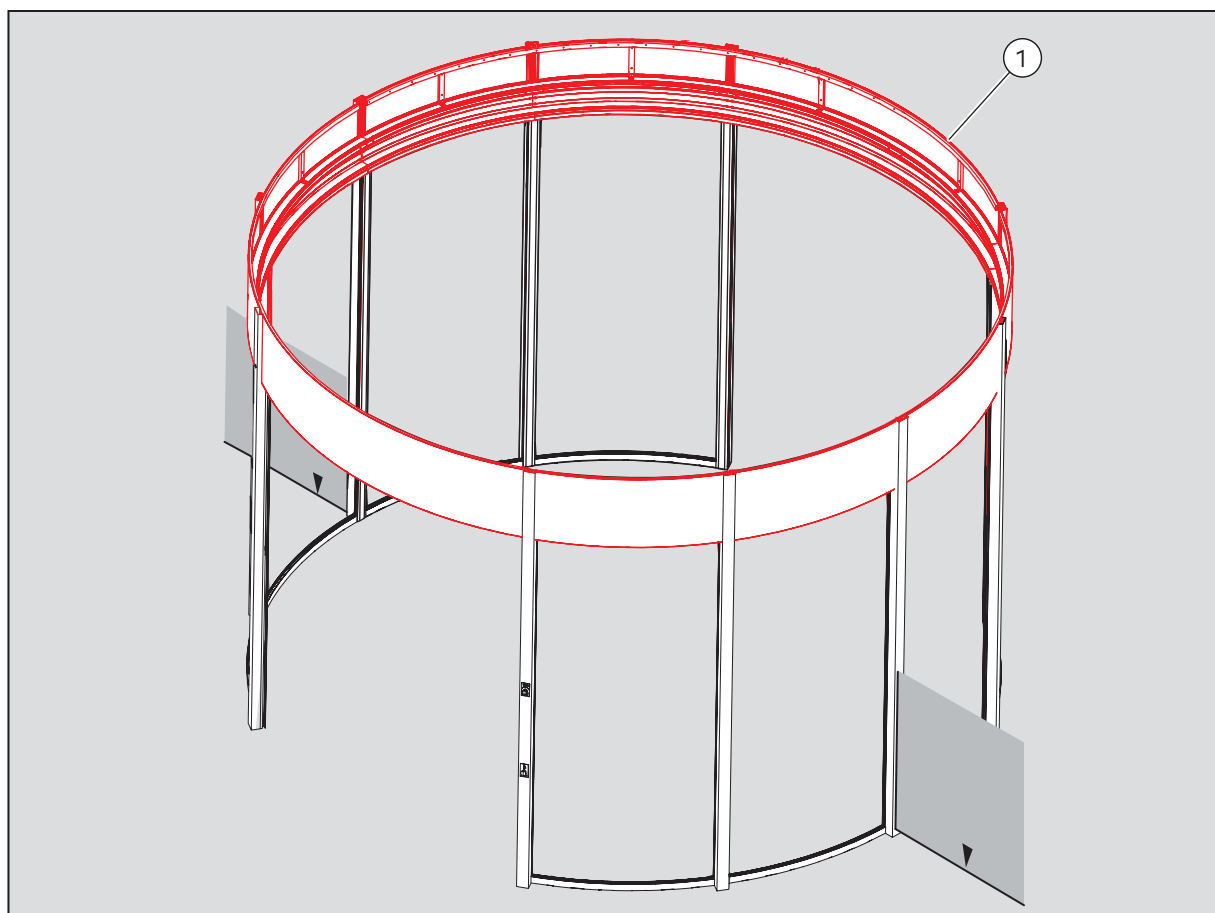


Fig. 36 Mounting the canopy height extension

1. The mounting of the canopy height extension (Fig. 36/1) is the same as described in "5.3 Mounting the frame" on page 31.

5.5 Mounting the lower ceiling ring

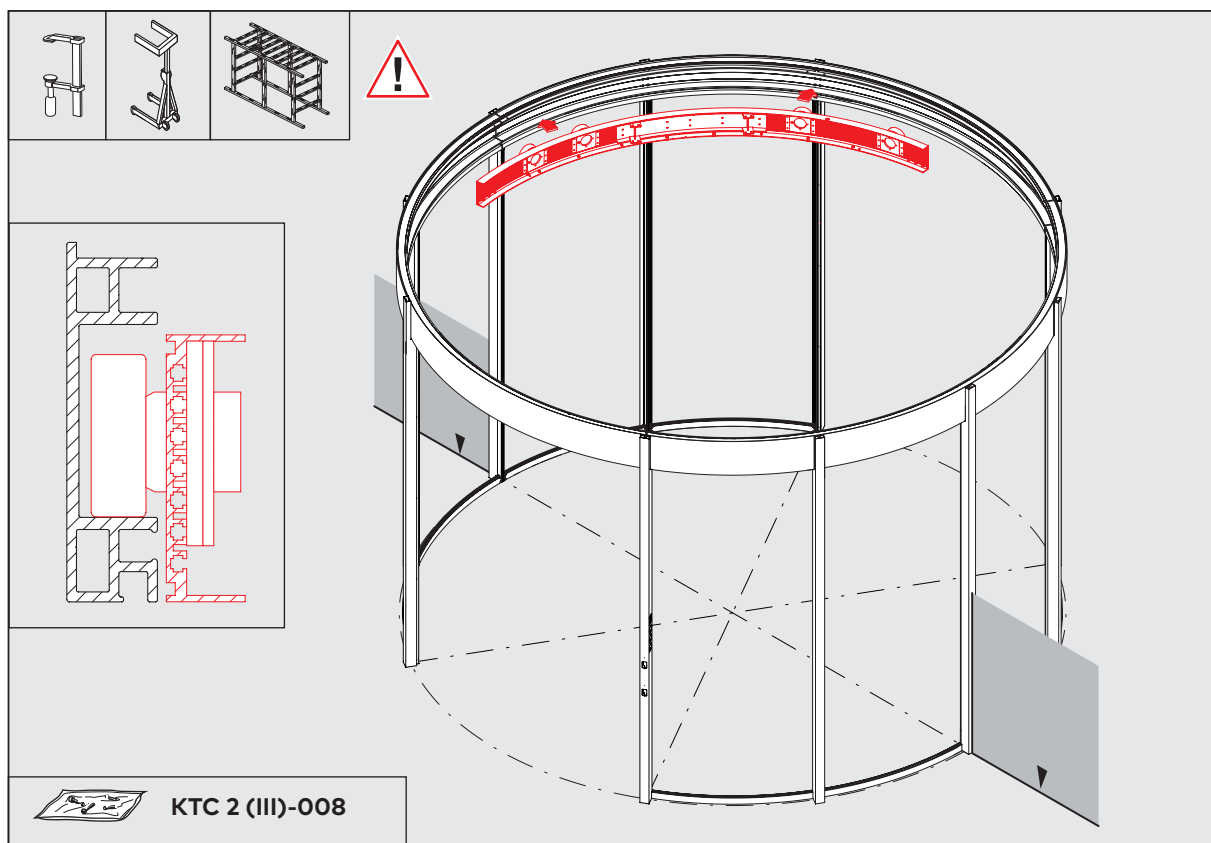


Fig. 37 Mounting the lower ceiling ring

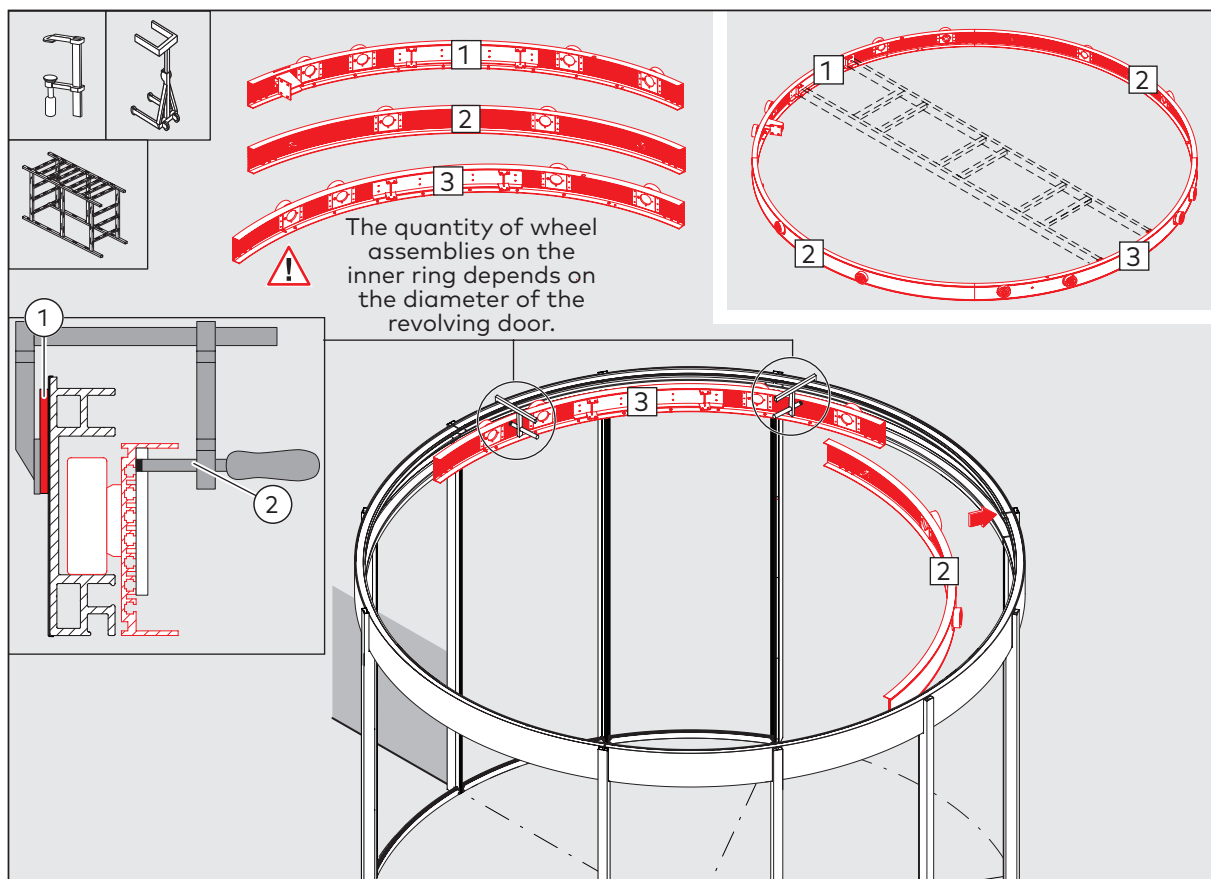


Fig. 38 Mounting the lower ceiling ring

1. Use bar clamps (Fig. 38/2) to fix the pieces of the ceiling ring to the track rail. Protect the canopy against scratches by placing the wooden blocks

(Fig. 38/1) between the canopy and the bar clamps.

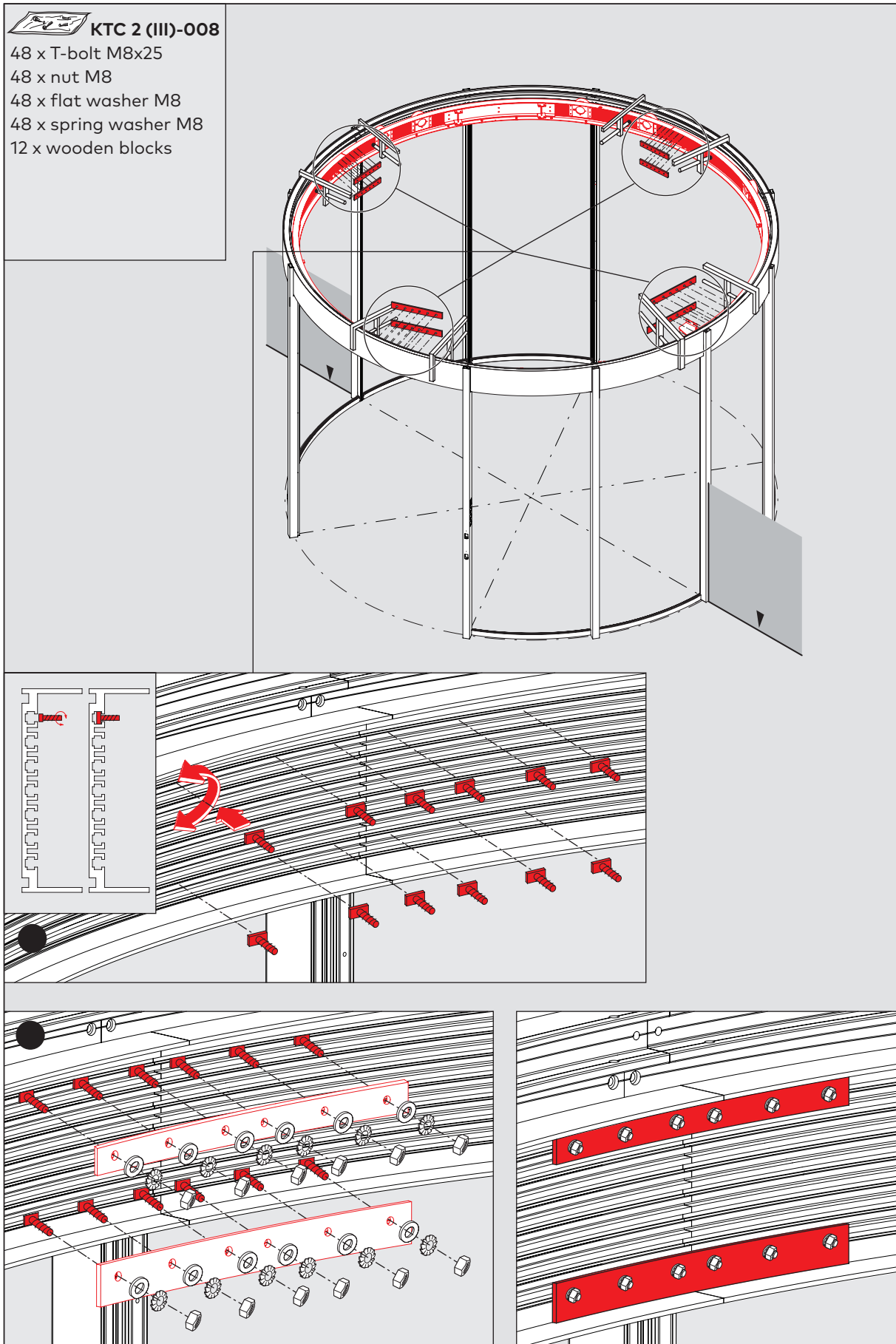


Fig. 39 Mounting the lower ceiling ring

1. Connect the parts of the ceiling ring. Do not tighten the nuts yet.
2. Remove the rod clamps.

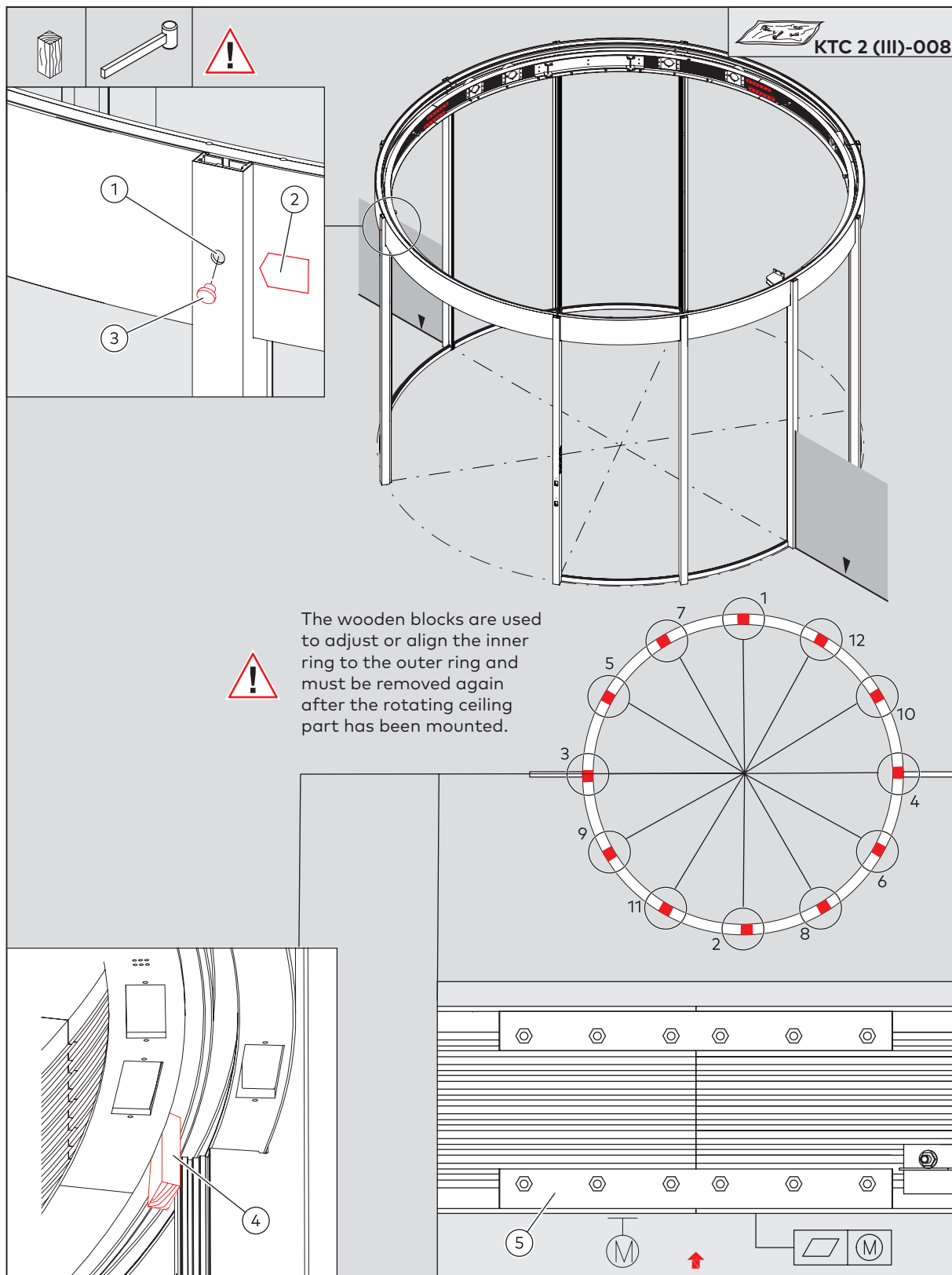


Fig. 40 Mounting the lower ceiling ring

3. Insert the 12 wooden blocks (Fig. 40/4) between the inner ring and the track rail in the order indicated in Fig. 40.
4. Make sure the inner rail parts are level.
5. Tighten the nuts to lock the connecting plates (Fig. 40/5).
6. Electromechanical locking device: close the hole (Fig. 40/1) in the inner left post with the cap (Fig. 40/3).
7. Electromechanical locking device: place the sticker (Fig. 40/2) for the emergency release next to the hole.

5.6 Mounting the frame

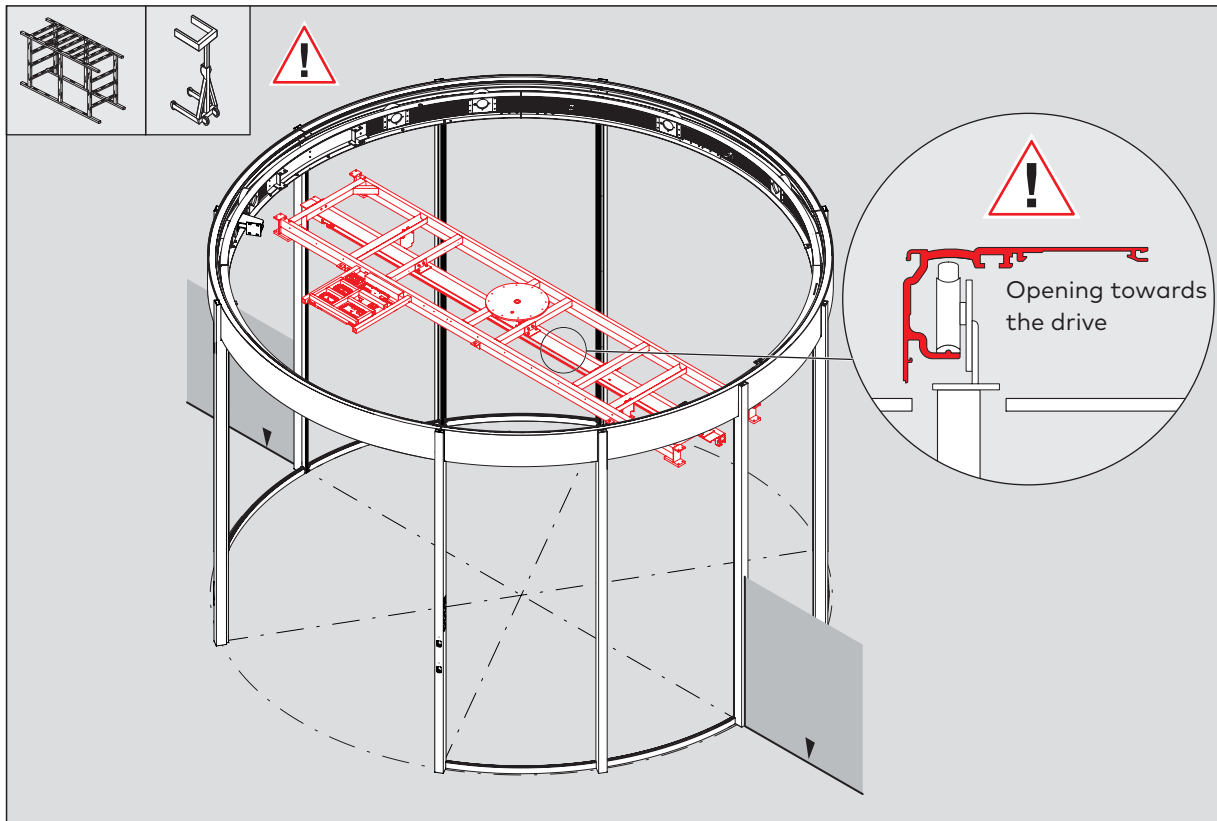


Fig. 41 Mounting the girder

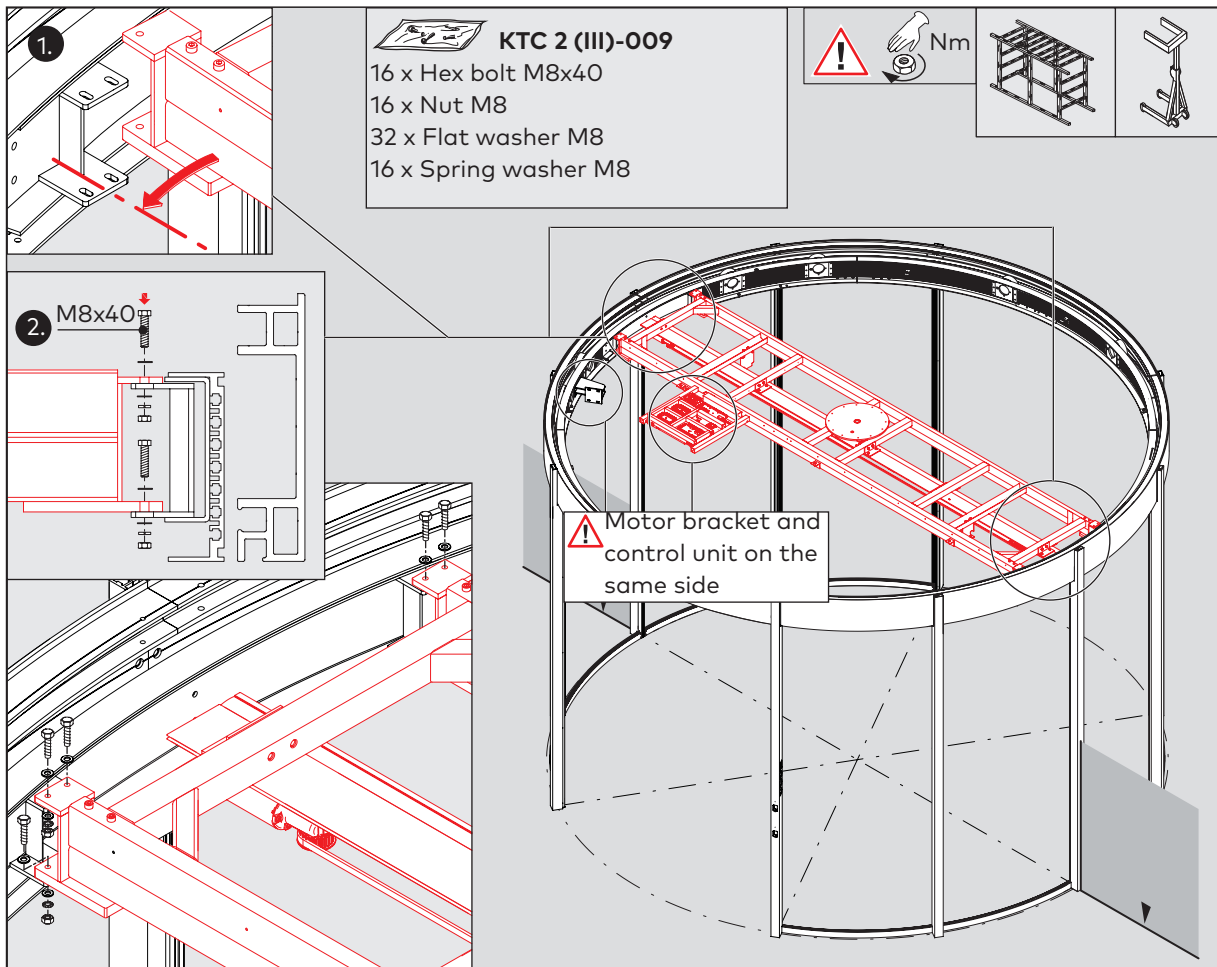


Fig. 42 Mounting the frame

5.7 Mounting the reinforcement of the track rail

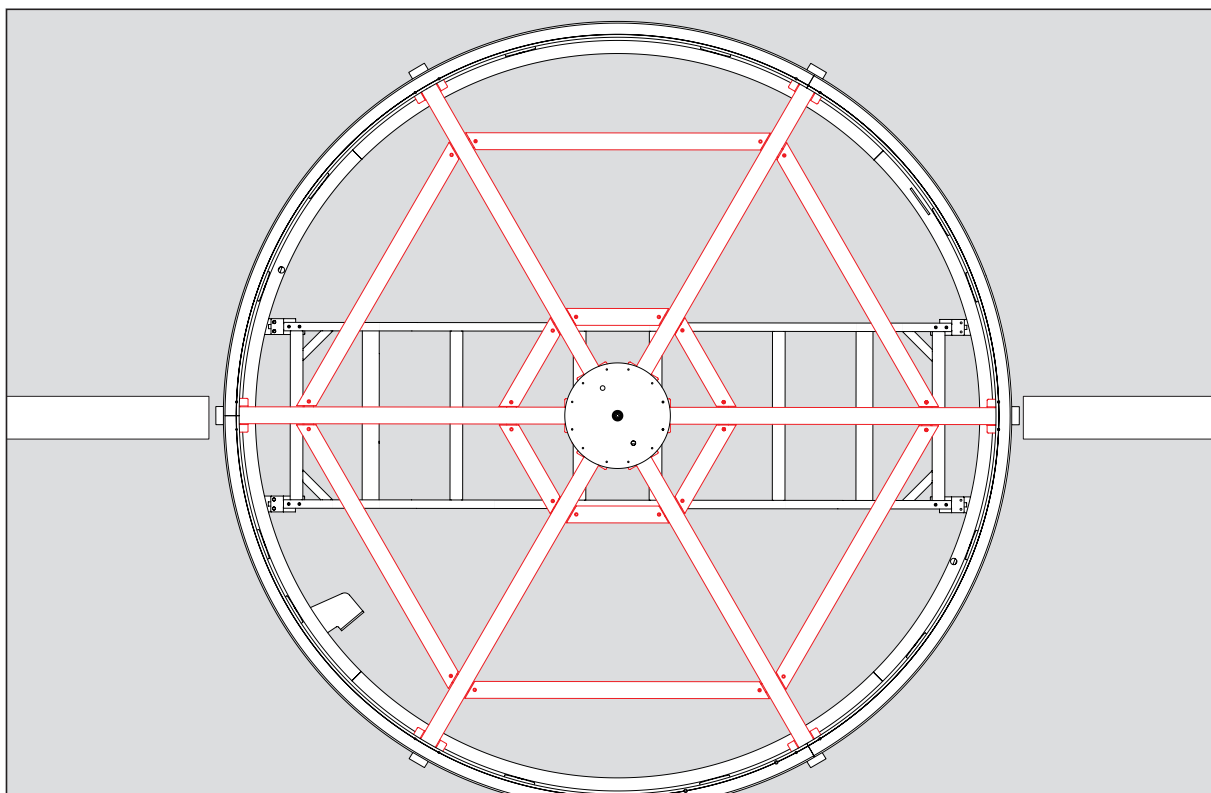


Fig. 43 Reinforcement of the track rail $D \leq 4800$

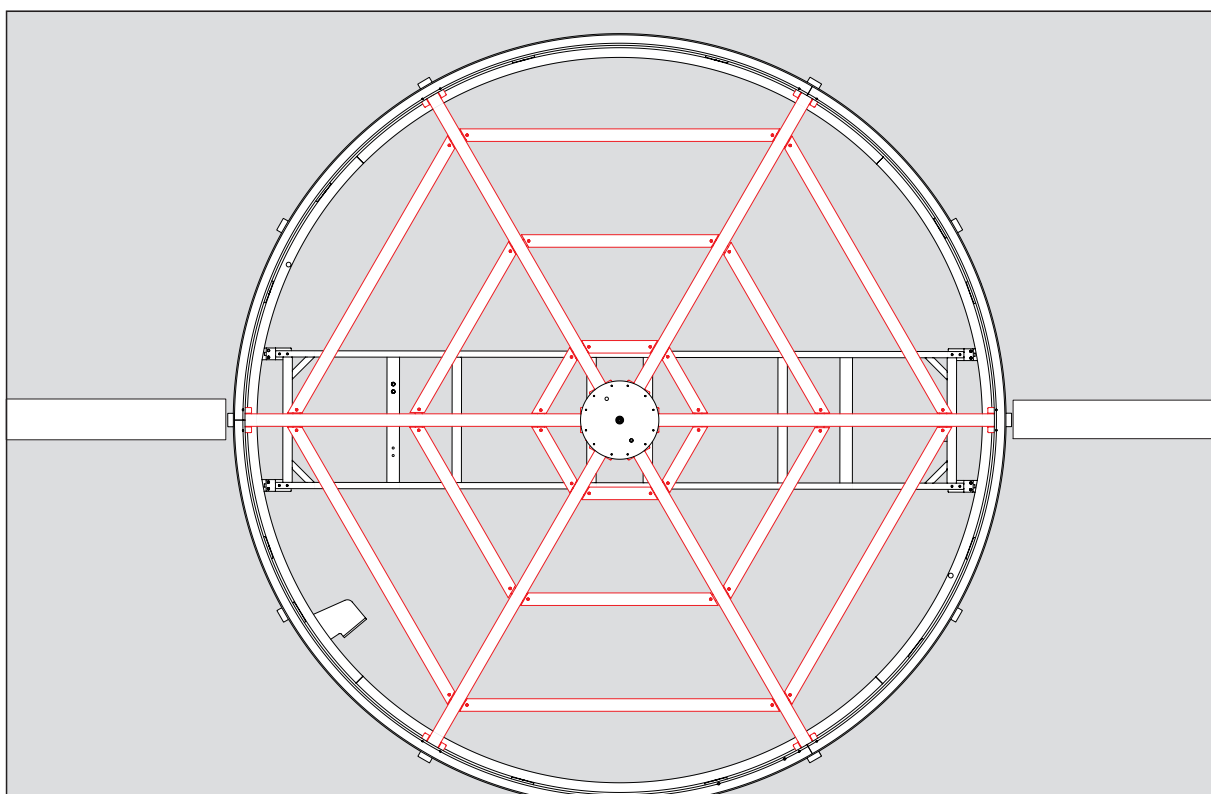


Fig. 44 Reinforcement of the track rail $D > 4800$

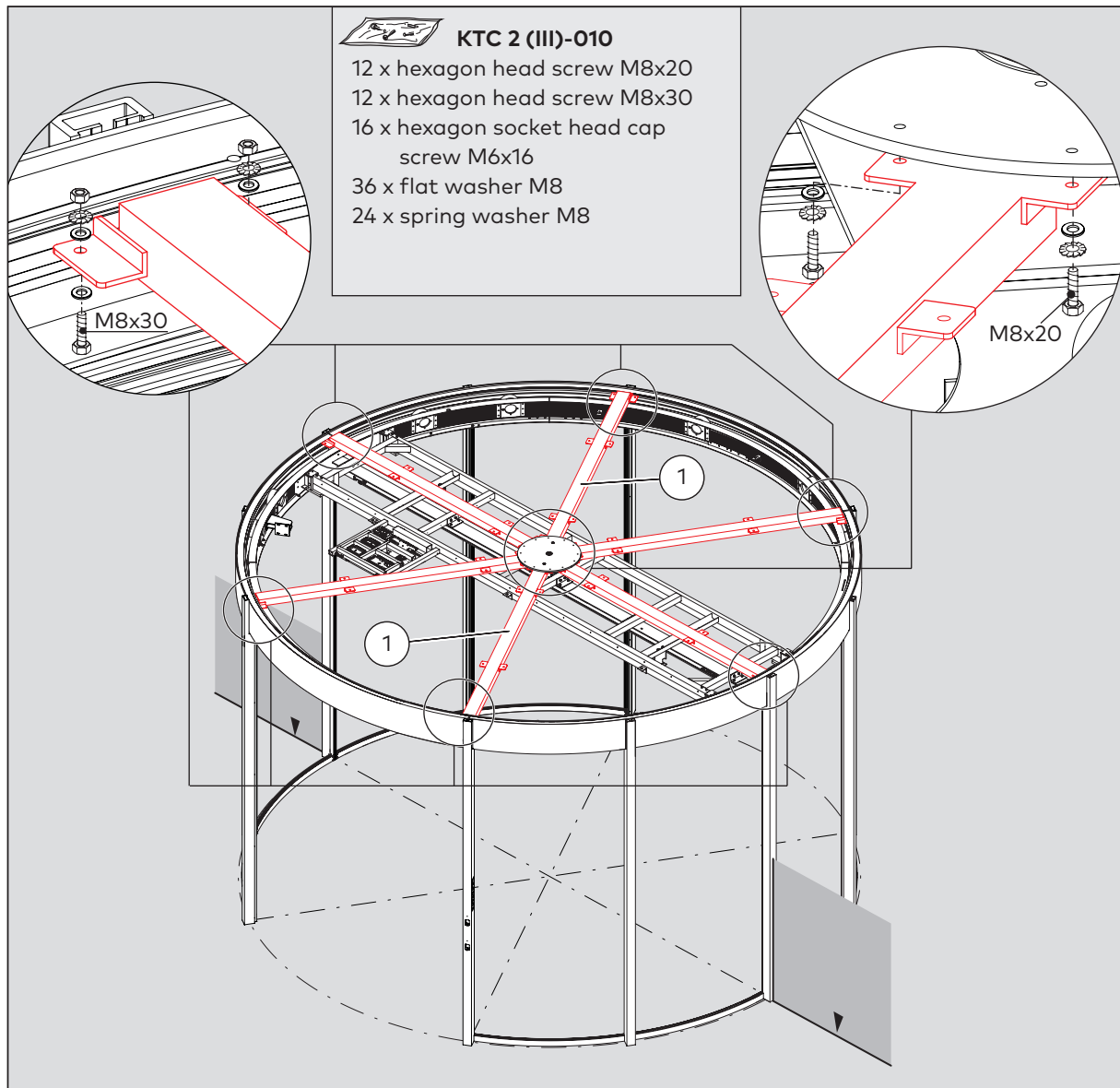


Fig. 45 Mounting the reinforcement of the track rail

1. Attach the reinforcement to the track rail. Make sure that the reinforcement with the cable duct (Fig. 45/1) is positioned as shown in Fig. 45. Do not tighten the screws yet.

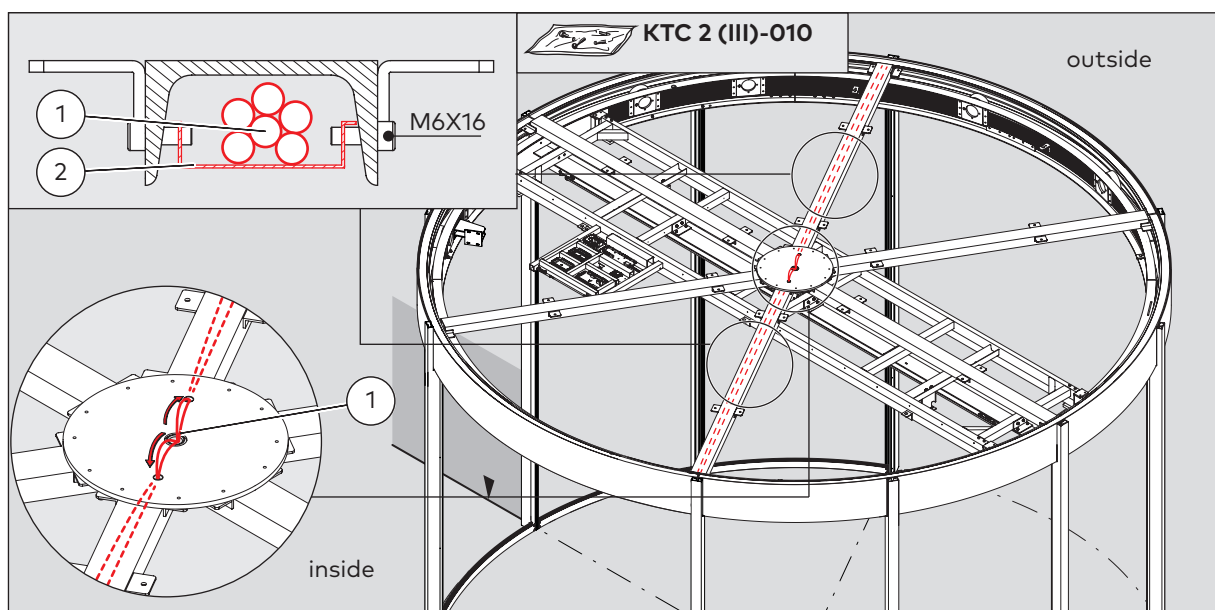


Fig. 46 Mounting the reinforcement of the track rail

2. Guide the cables (Fig. 46/1) through the cable duct (Fig. 46/2).

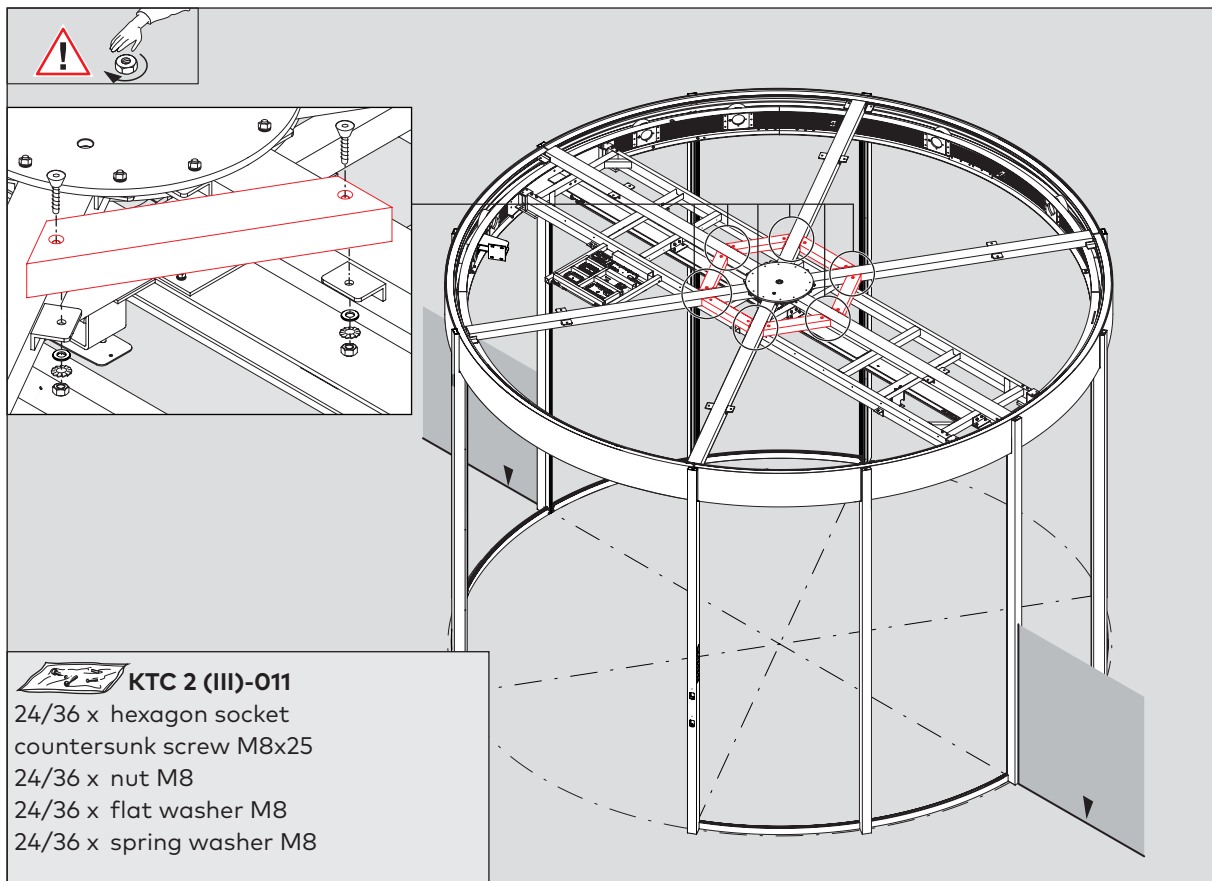


Fig. 47 Mounting the reinforcement of the track rail

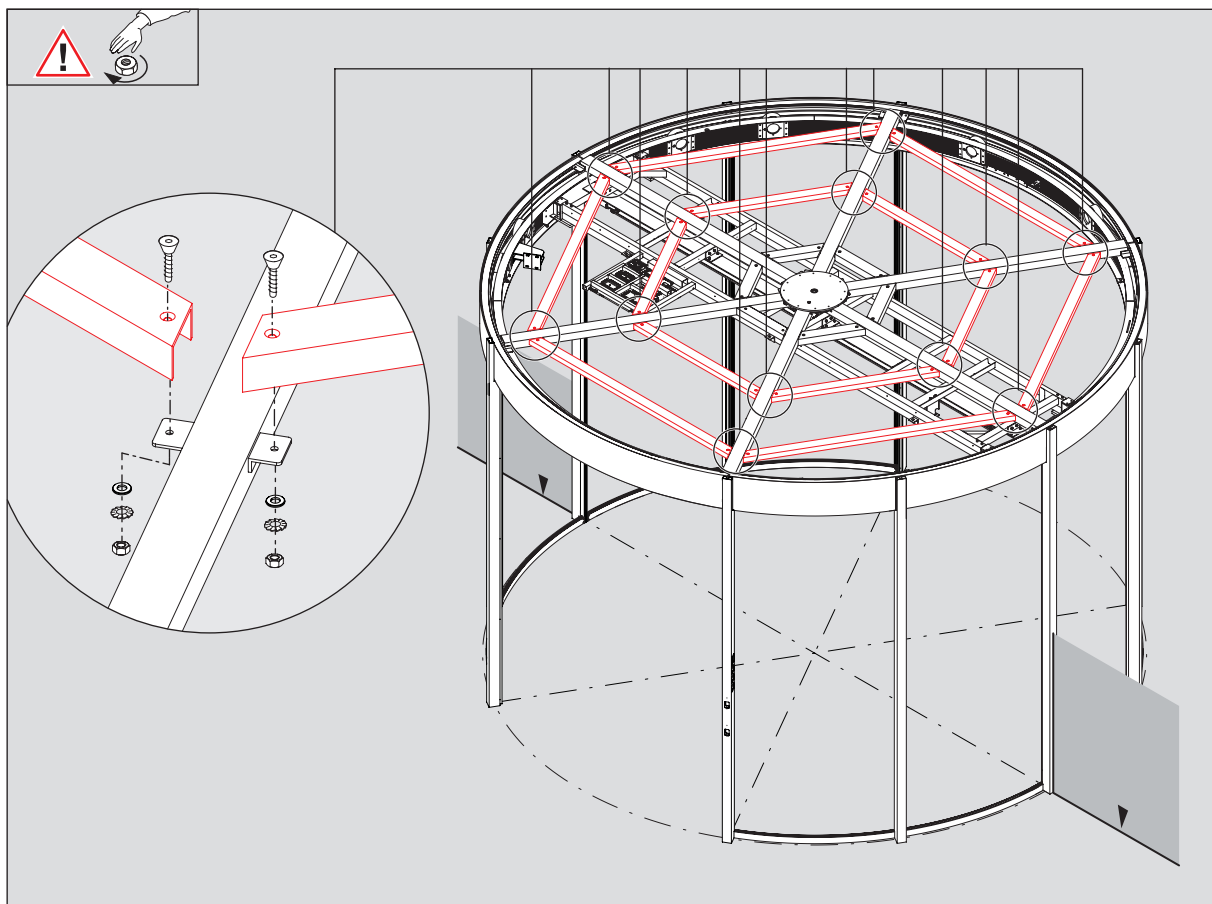


Fig. 48 Mounting the reinforcement of the track rail

5.8 Mounting the reinforcement of the lower ceiling ring

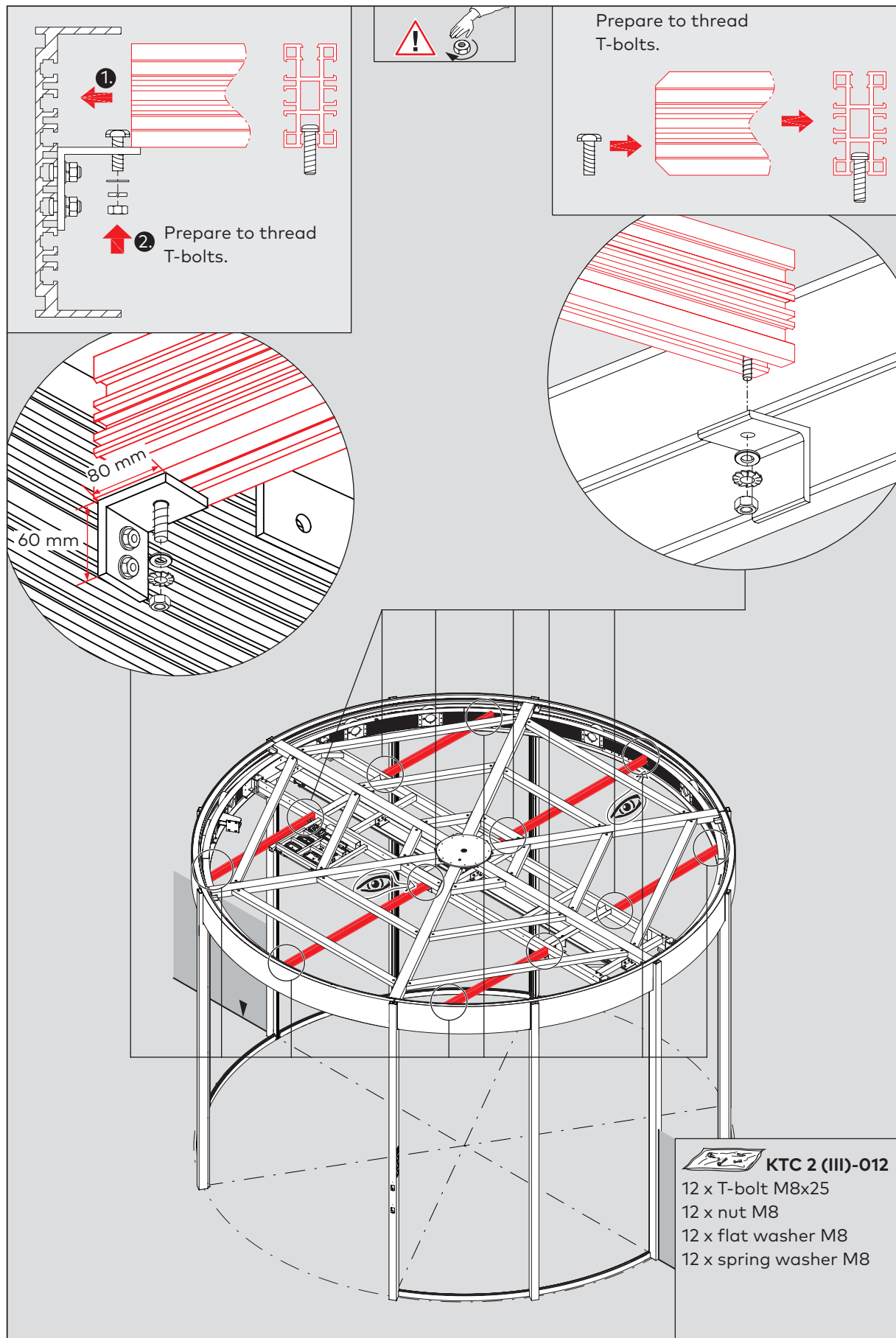


Fig. 49 Mounting the reinforcement of the lower ceiling ring

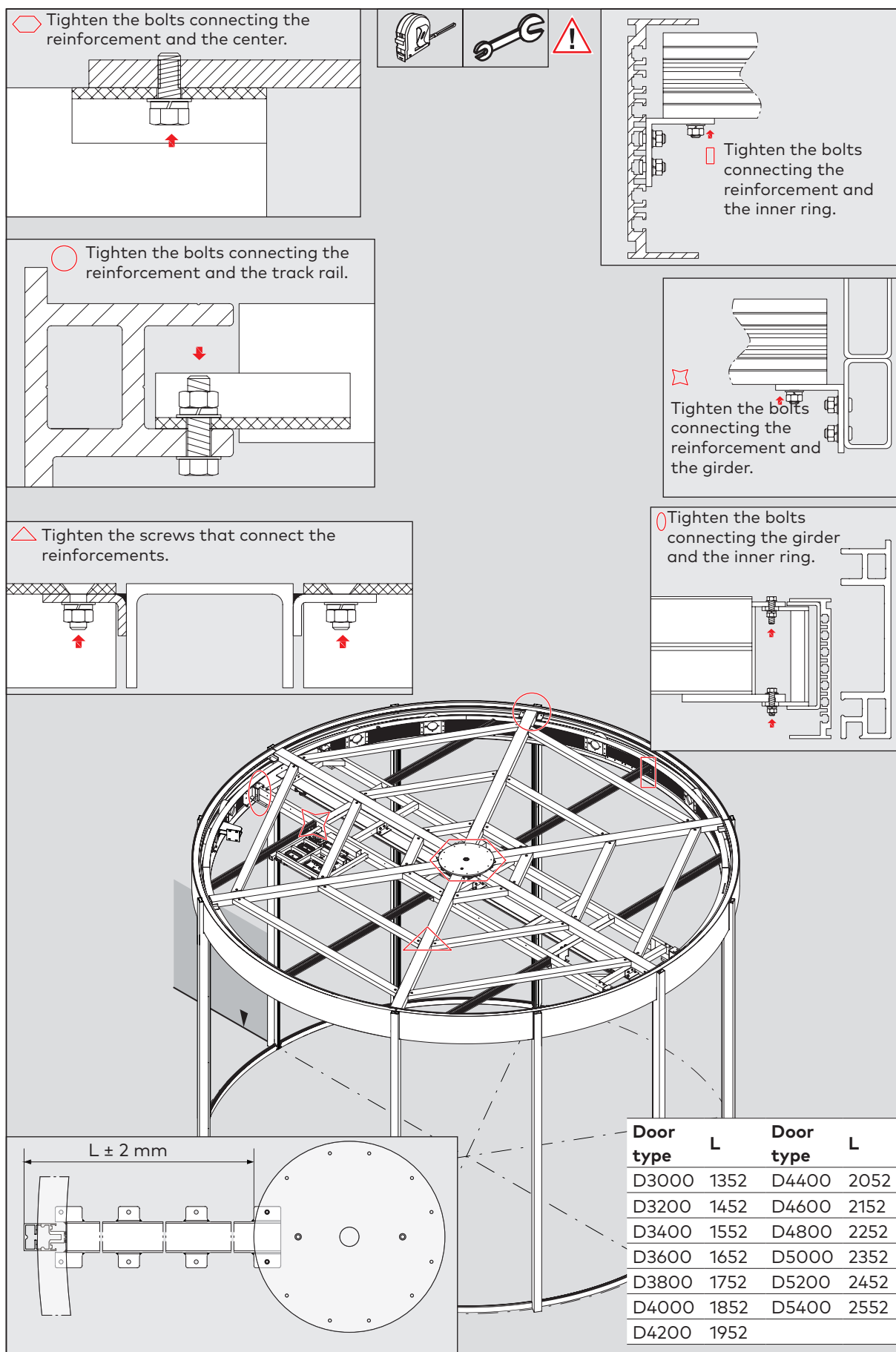


Fig. 50 Adjusting the reinforcements

1. Adjust the distance L between the center disc and the mullions.
2. Tighten the screws.
3. Remove the wooden blocks.

5.9 Mounting the drive and the canopy integrated control unit

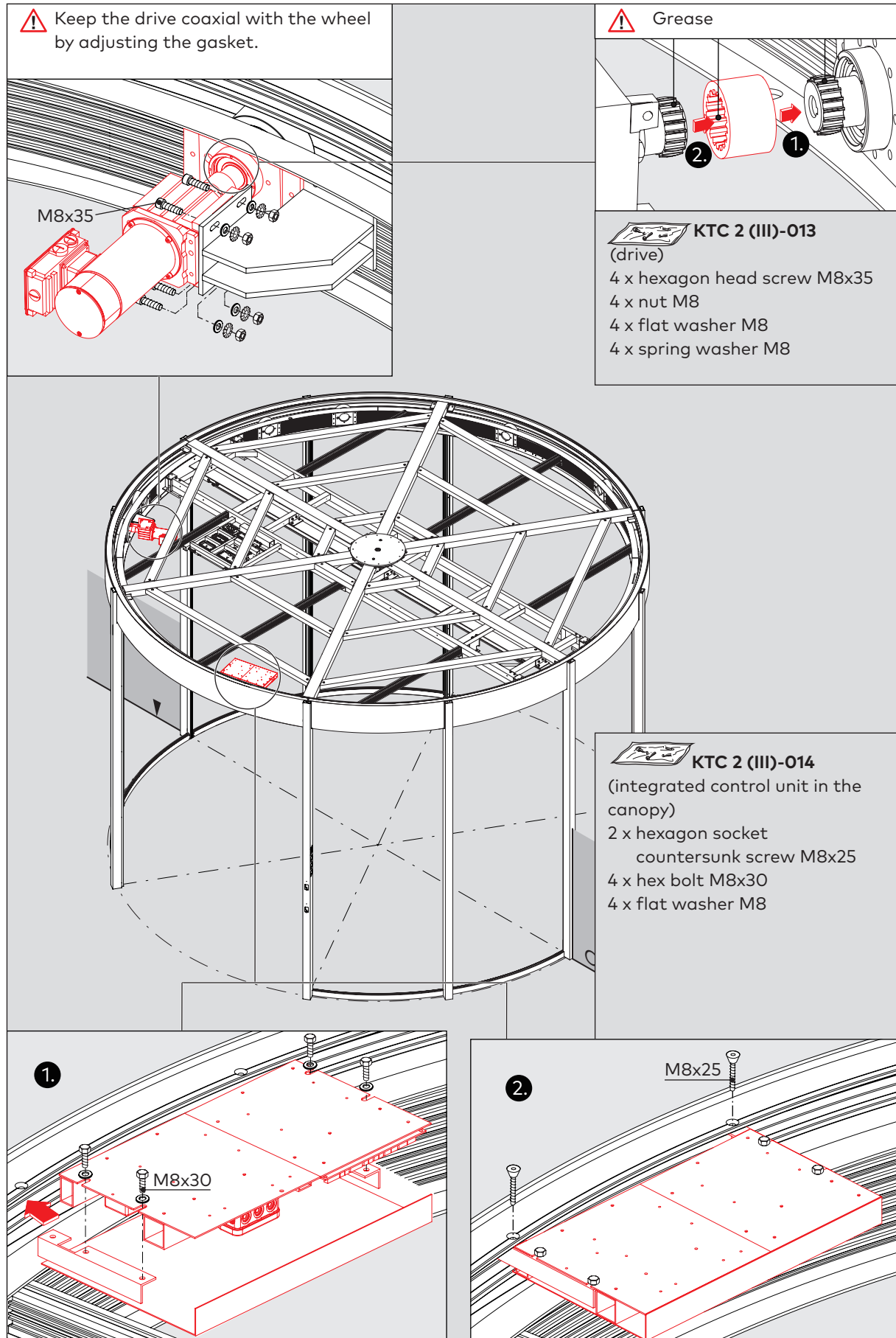


Fig. 51 Mounting the drive and the canopy integrated control unit

5.10 Mounting of the electromechanical locking device, the incremental encoder and the UPS (uninterruptible power supply)

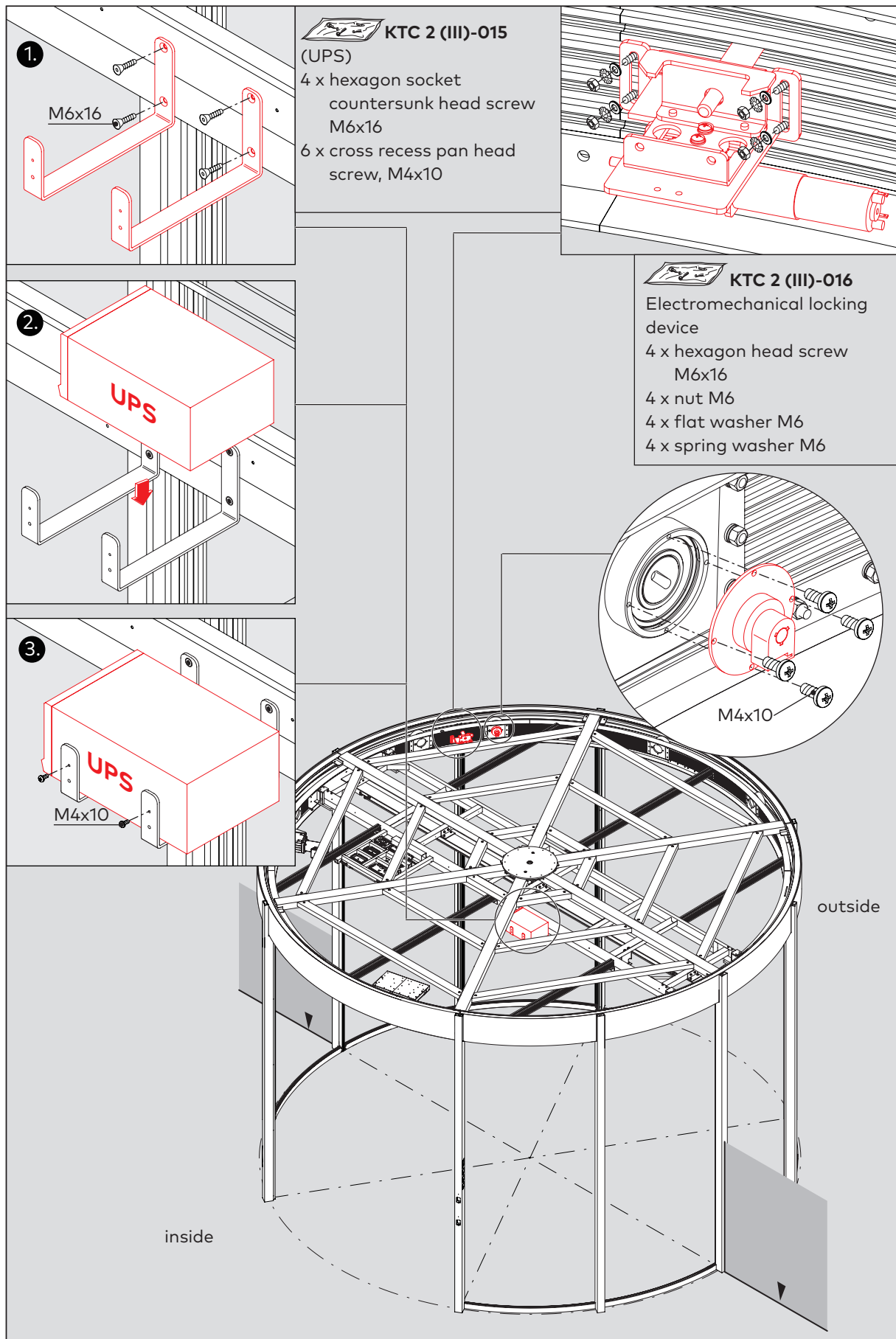


Fig. 52 Mounting the electromechanical locking device, the encoder, and the UPS

5.11 Mounting the ceiling beam

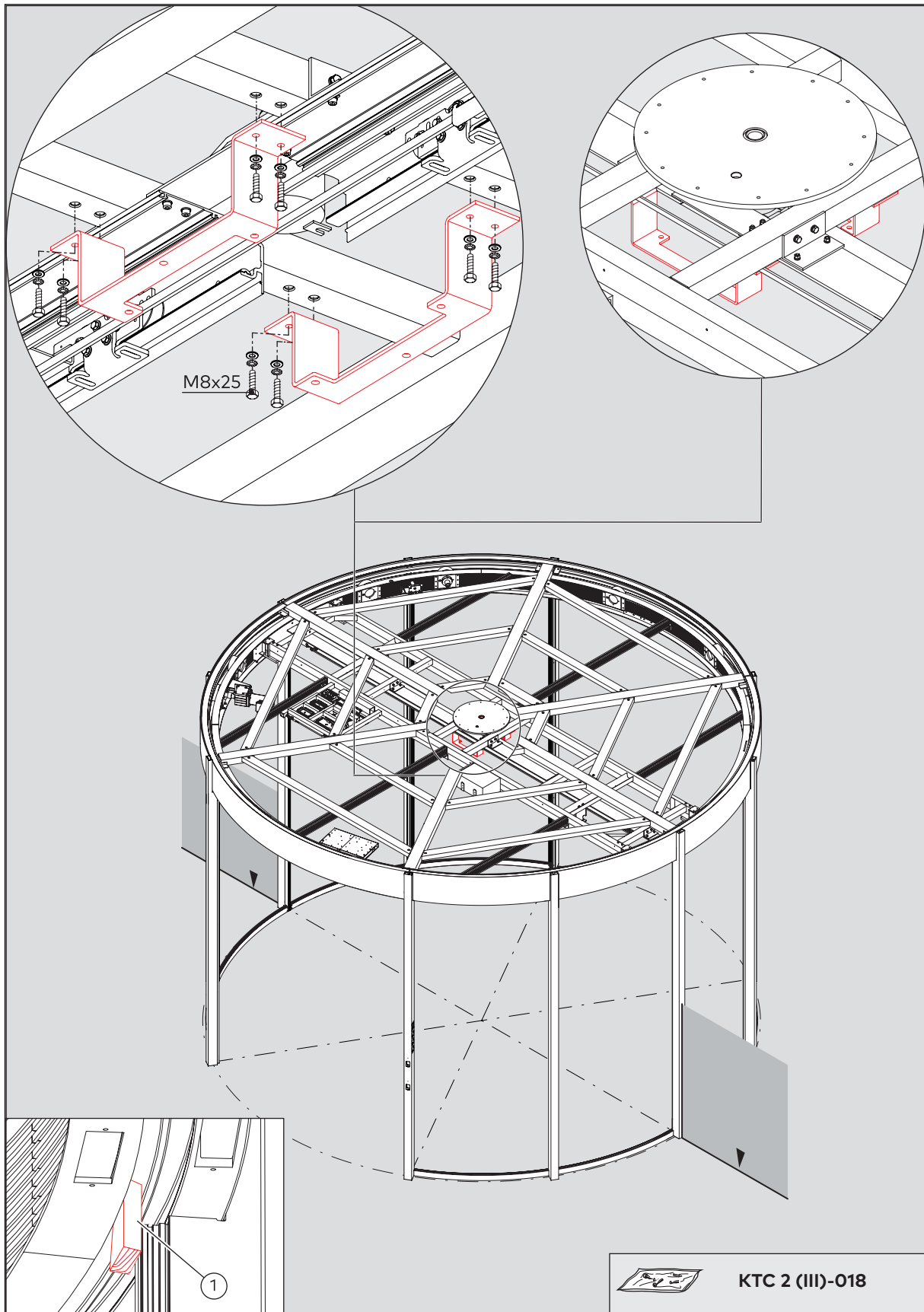


Fig. 53 Mounting the bracket for the ceiling beam

1. Remove the 12 wooden blocks (Fig. 53/1) from Chapter "5.5 Mounting the lower ceiling ring".
2. Check the gap between the inner ring and the outer ring.

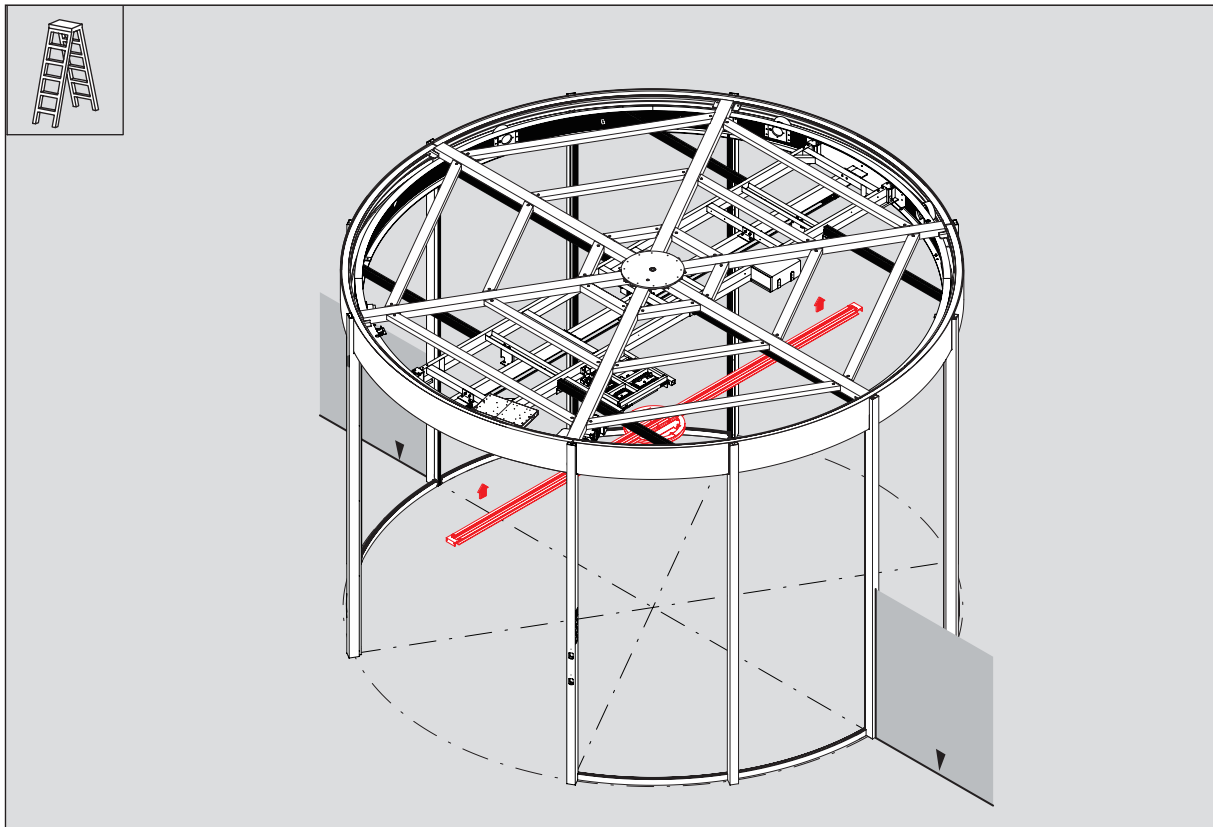


Fig. 54 Mounting the ceiling beam

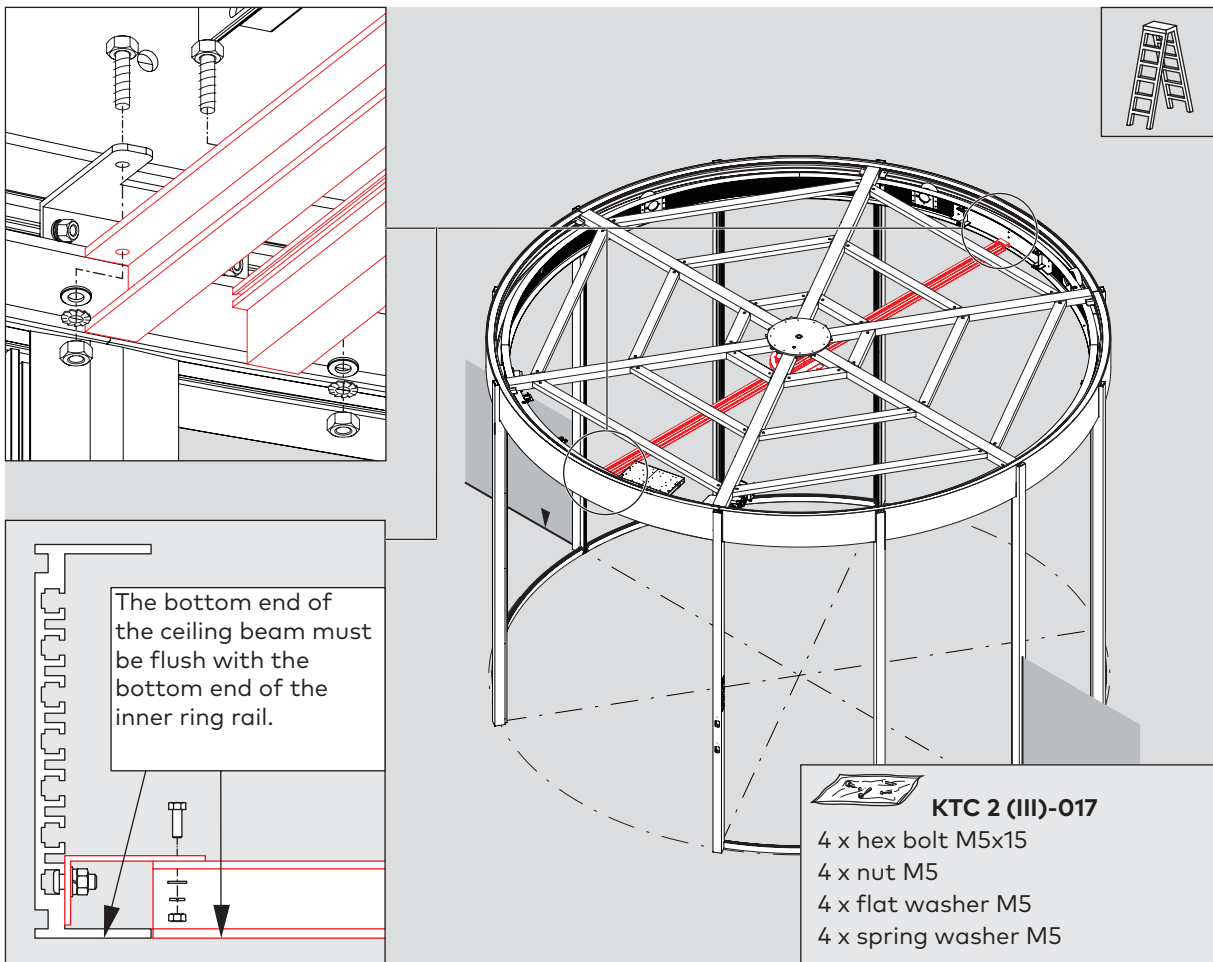


Fig. 55 Mounting the ceiling beam

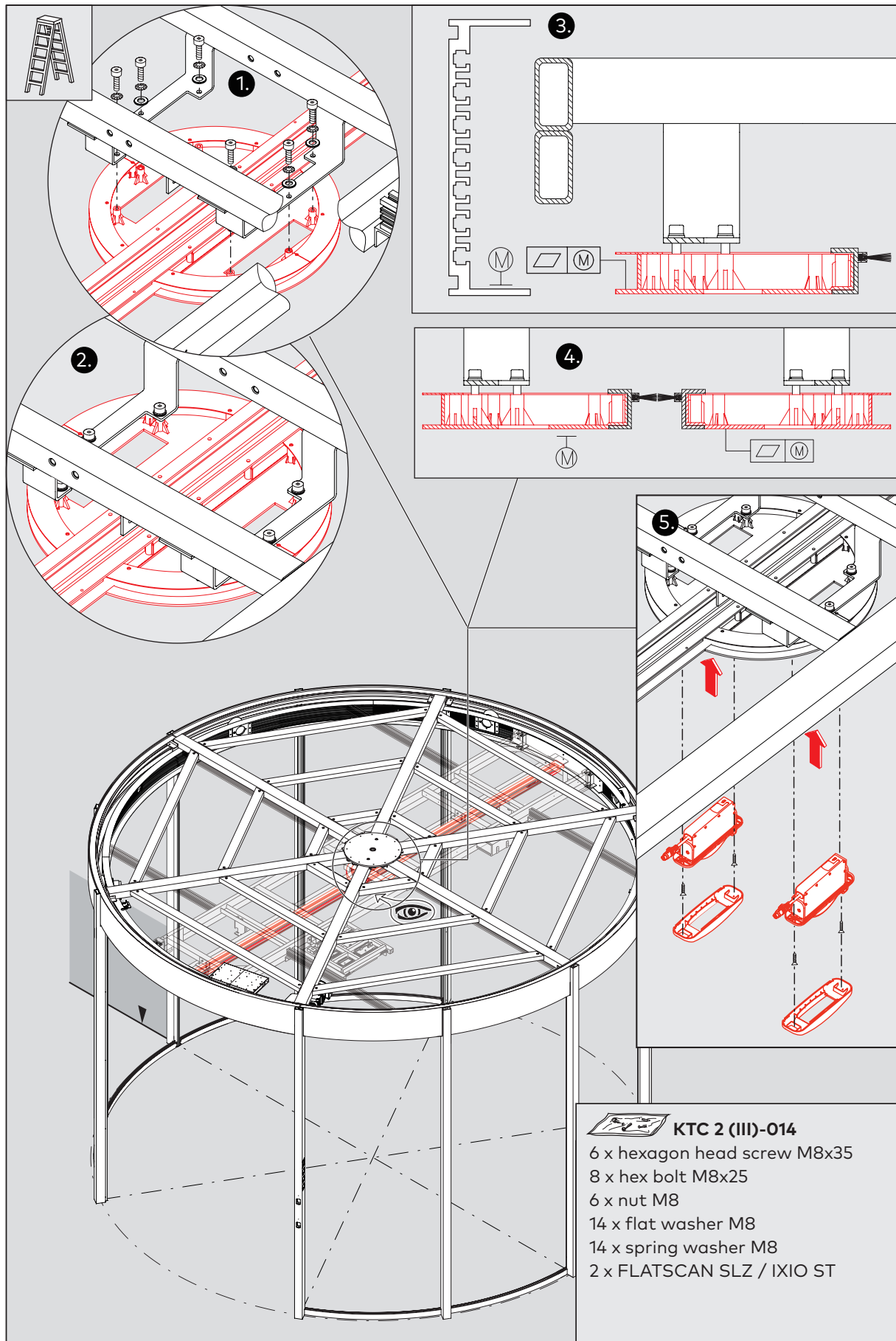


Fig. 56 Mounting the ceiling beam and the sliding door sensors

5.12 Mounting the glass panes of the drum wall

Prerequisites

- Qualified mechanics
- Protective clothing
- Protective gloves
- Safety shoes
- Vacuum lifting tool
- Sledgehammer
- Rod clamp

The drum wall segments are mounted in pairs. At least 2 people are required to move the segments.



WARNING

Risk of injury due to improper handling of drum wall segments

Improper lifting of a drum wall segment can lead to accidents involving serious injury. Drum wall segments may fall.

- Always lift and transport segments with the aid of vacuum lifting tools.
- At least 2 people are always required to lift or transport segments.
- Always secure set-down segments.
- Never lift or lower segments with sudden movements.
- Always have and transport segments one after the other.
- Clean dirty glass surfaces to prevent the vacuum lifting tool from sliding off/coming away.

D > 4800

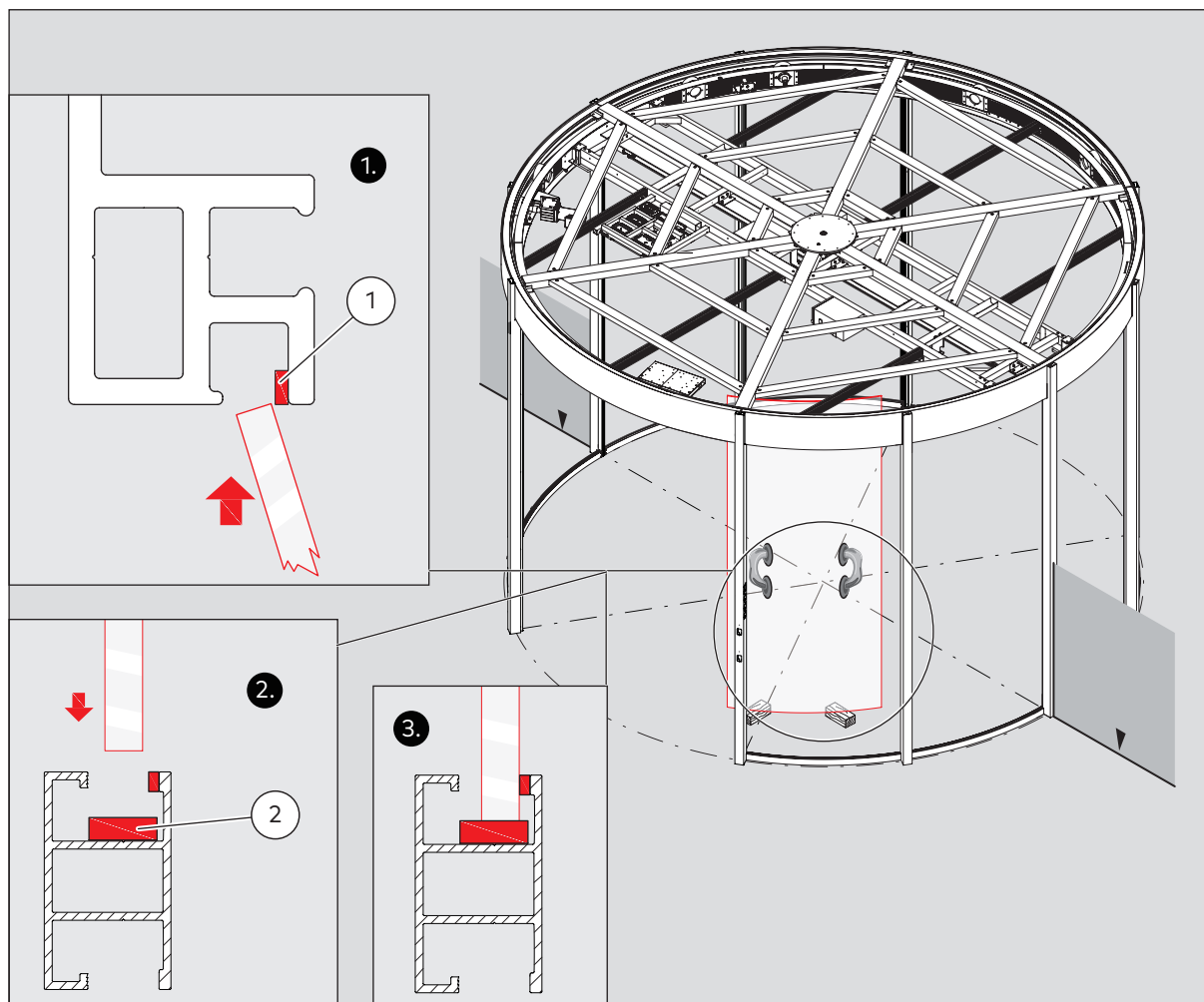


Fig. 57 Glazing the drum walls D > 4800

1. Make sure that the foam sealing tape (5 mm, Fig. 57/1) and the plastic blocks (Fig. 57/2) are in place before glazing the drum wall.

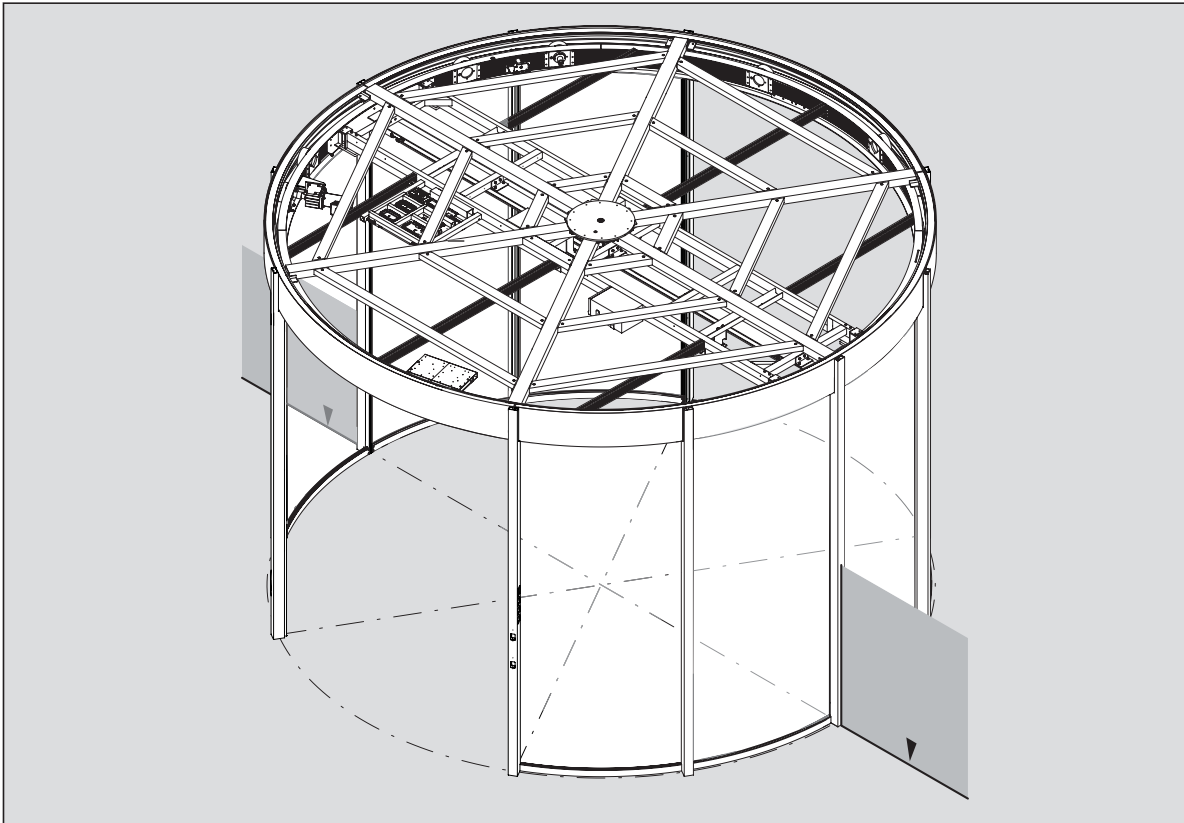
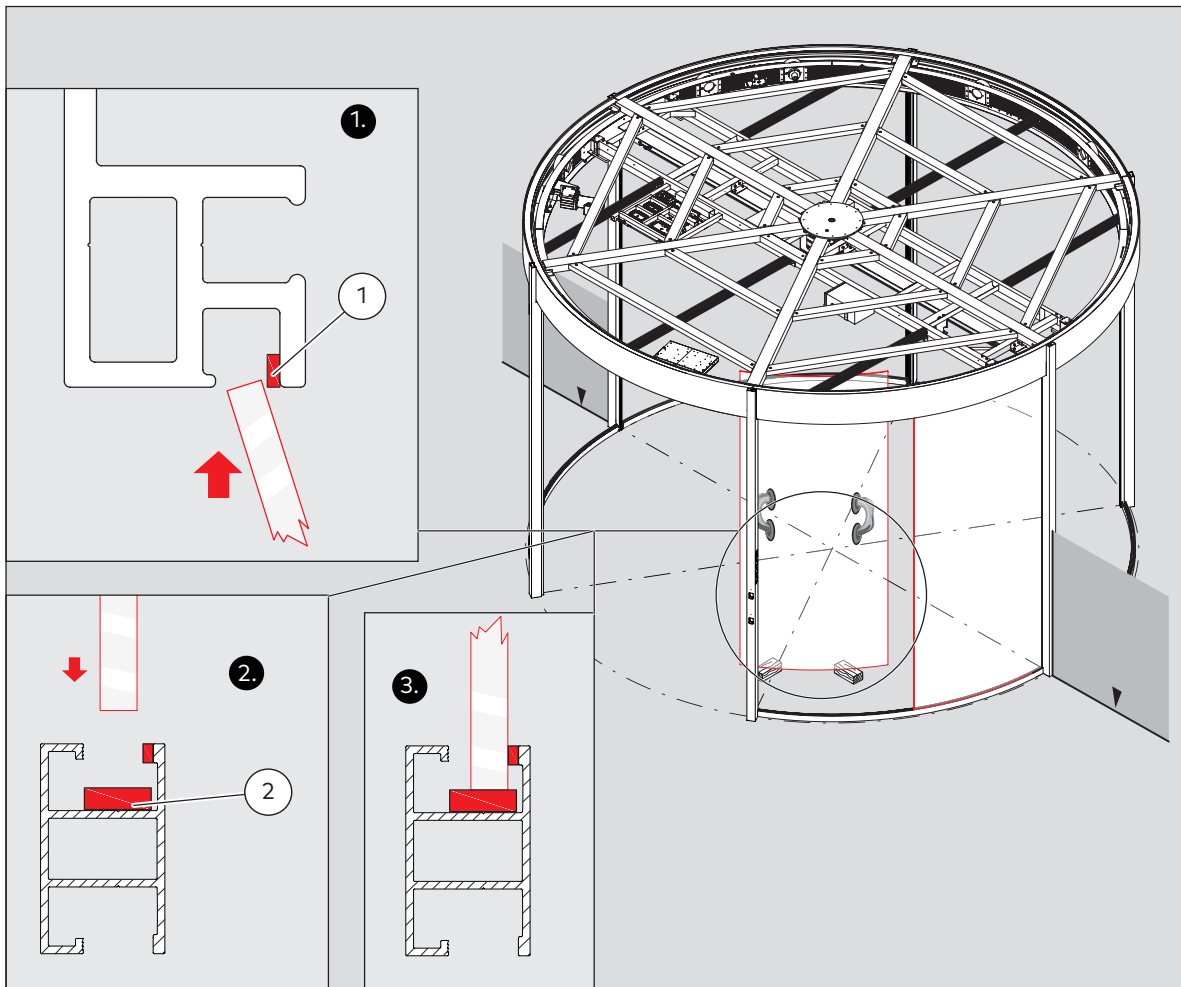
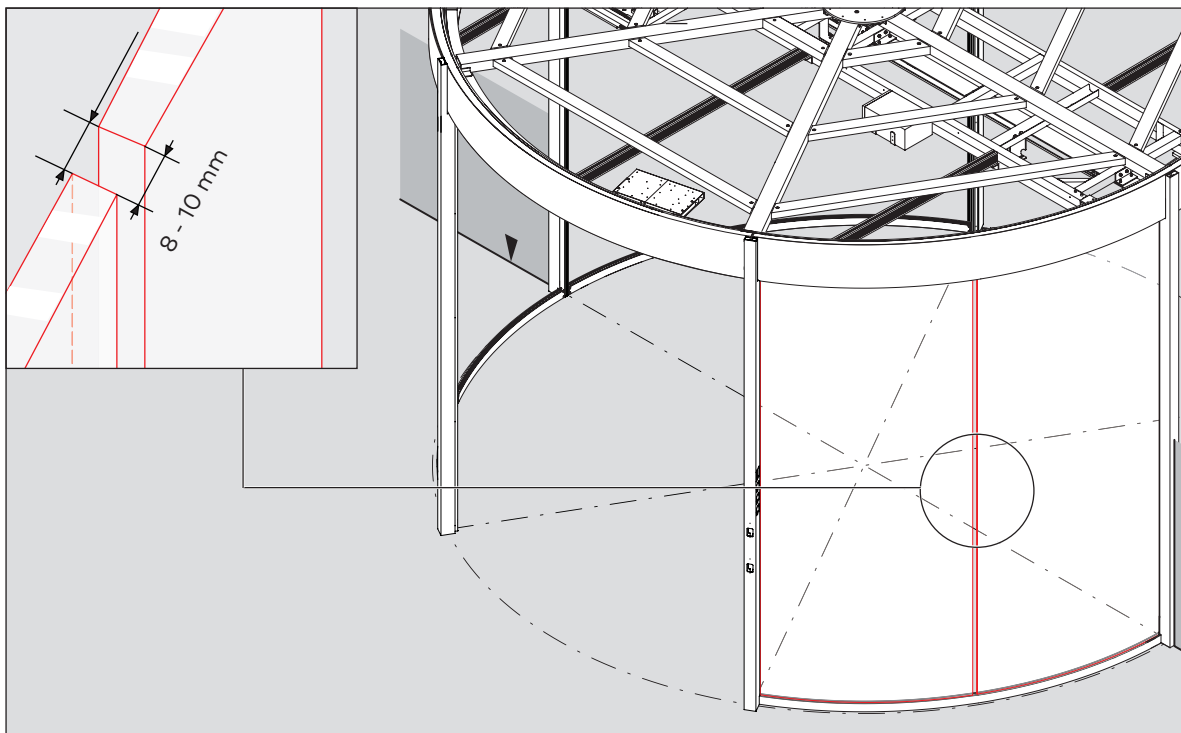


Fig. 58 Glazing the drum walls $D > 4800$

2. Mount the remaining glass panels in the same way.

$D \leq 4800$ Fig. 59 Glazing the drum walls $D \leq 4800$

1. Make sure that the foam sealing tape (5 mm, Fig. 59/1) and the plastic blocks (Fig. 59/2) are in place before glazing the drum wall.

Fig. 60 Glazing the drum walls $D \leq 4800$

2. Mount the remaining glass panels in the same way. Make sure that the gap for the rubber covers between the glass panes is 8 to 10 mm.

Mounting the covers and seals on the mullions

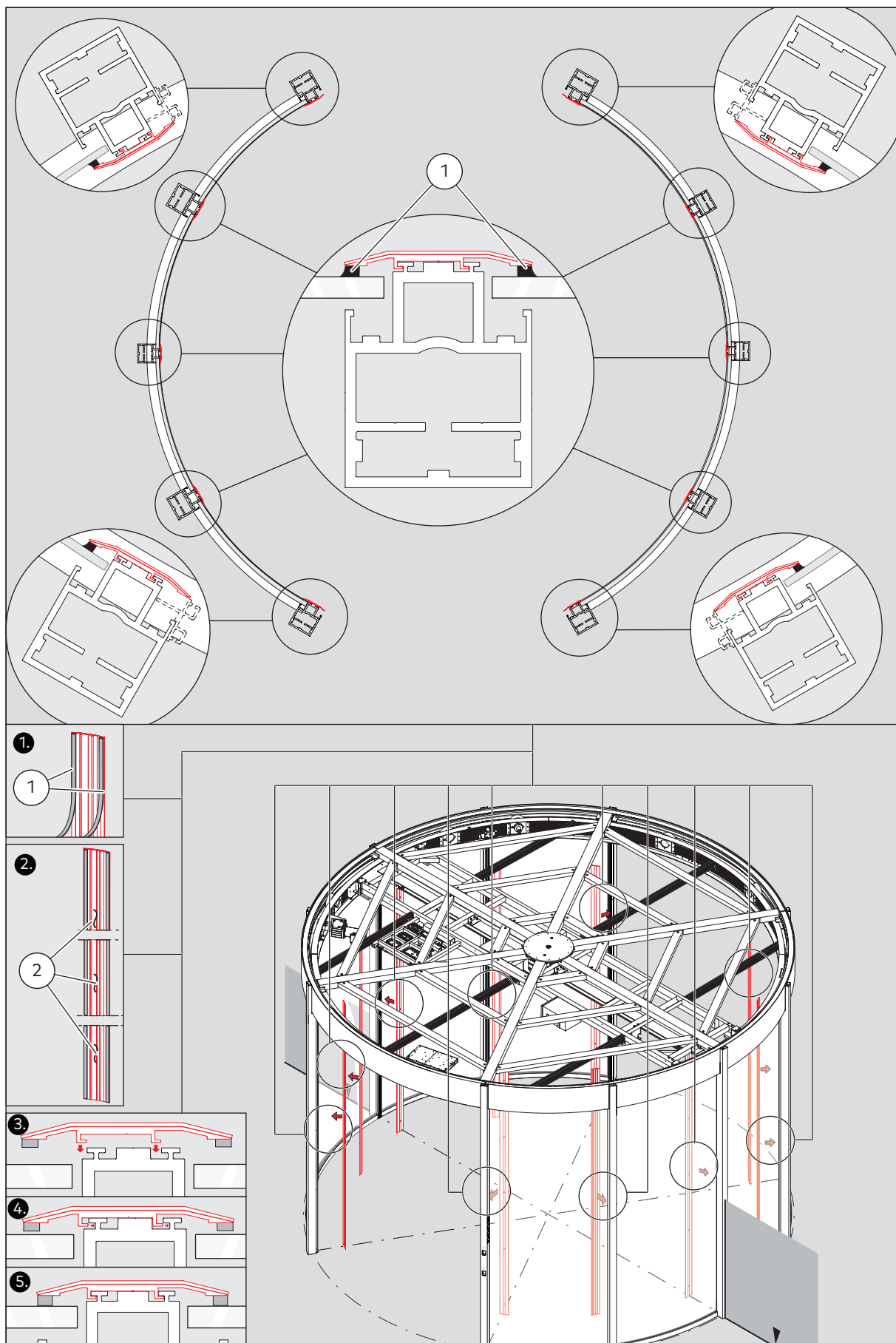


Fig. 61 Mounting the covers

1. Use the foam sealing tape (Fig. 61/1) and silicone (Fig. 61/2) to mount the covers.

**Note**

Spray rubber seals/covers with soapy water for easier mounting.
In cold weather conditions pre-warm the rubber seals/covers.

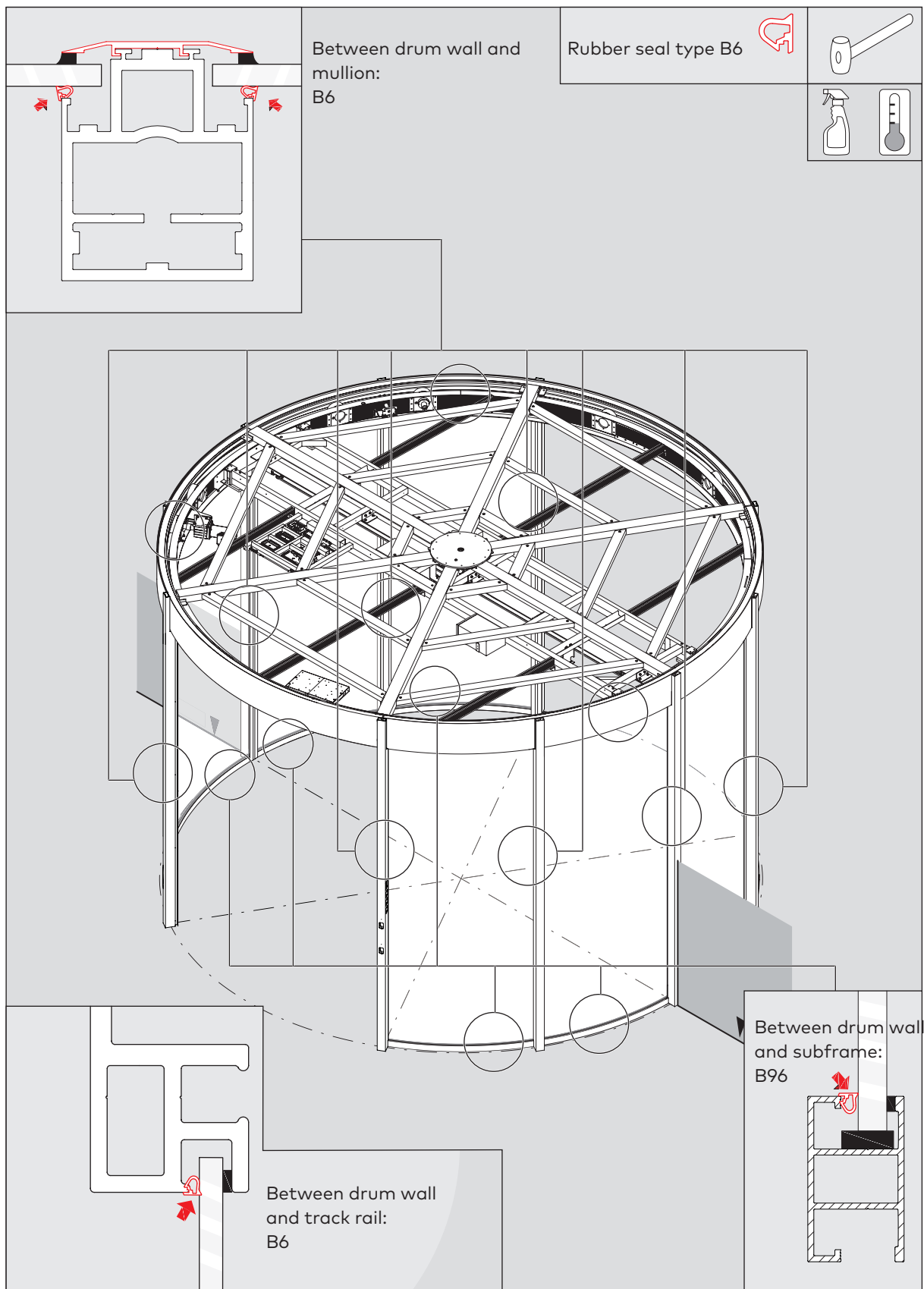


Fig. 62 Mounting the rubber seals

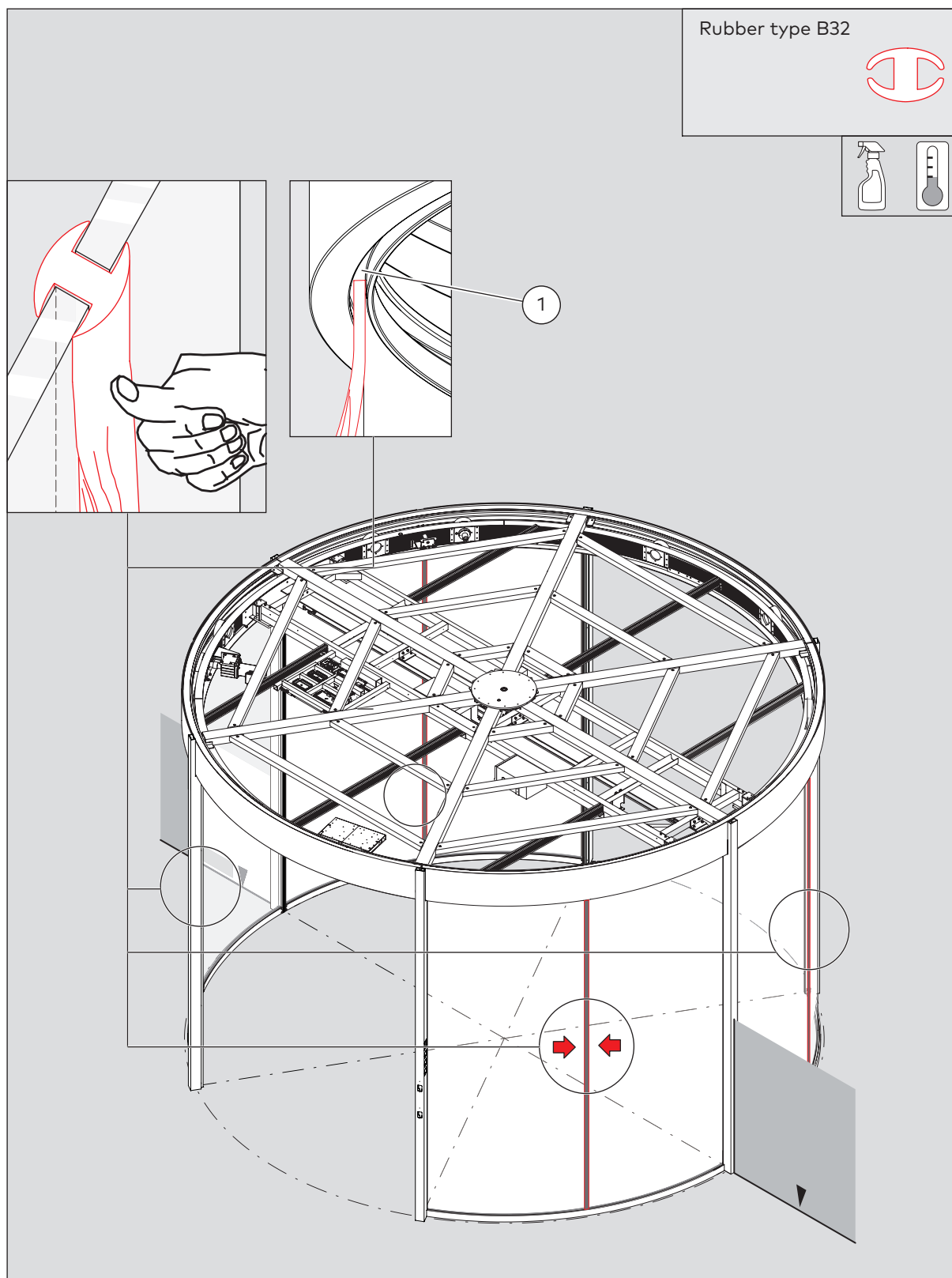


Fig. 63 Mounting the rubber covers $D \leq 4800$

2. Make sure the rubber covers are the correct length. Shorten if necessary.
3. Make sure that the rubber cover is inserted into the groove (Fig. 63/1) of the upper and lower profiles.

5.13 Mount night shields

Prerequisites

- Qualified mechanics
- Protective clothing
- Safety shoes
- Wooden blocks

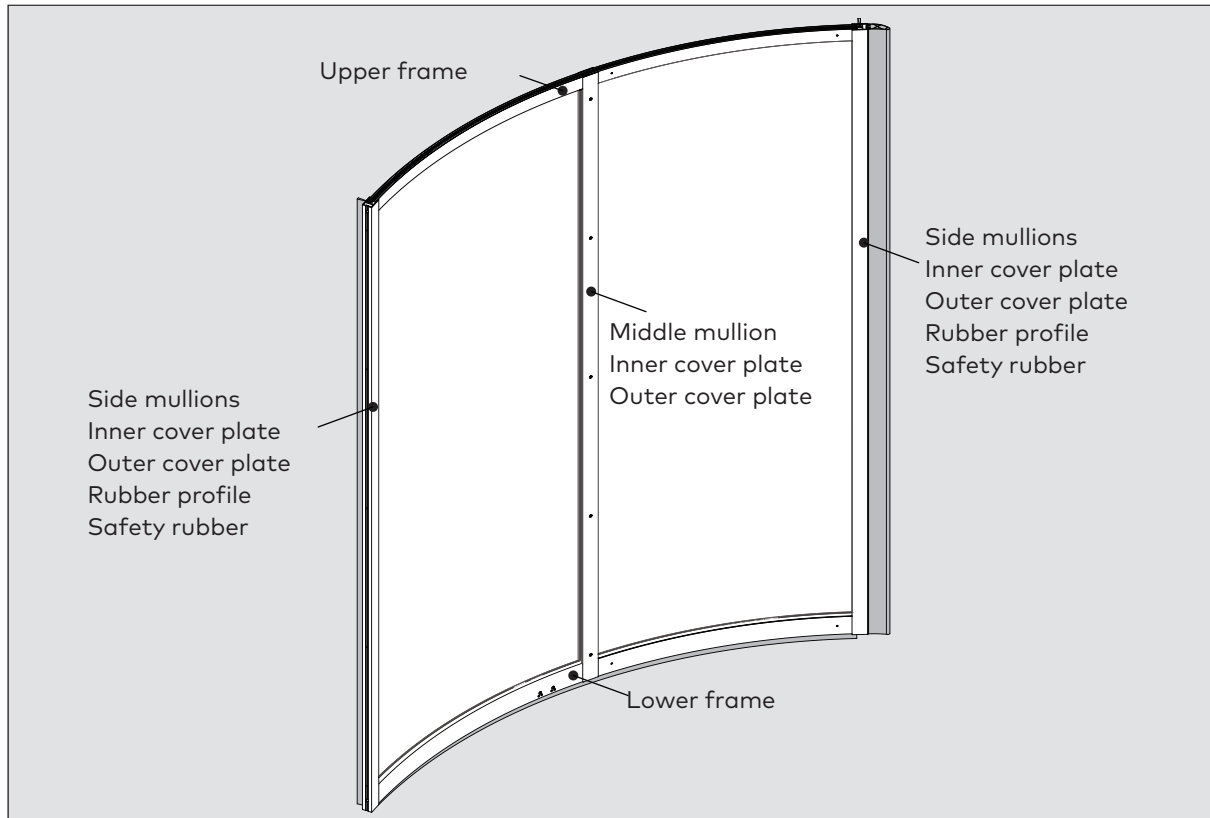


Fig. 64 Overview night shield

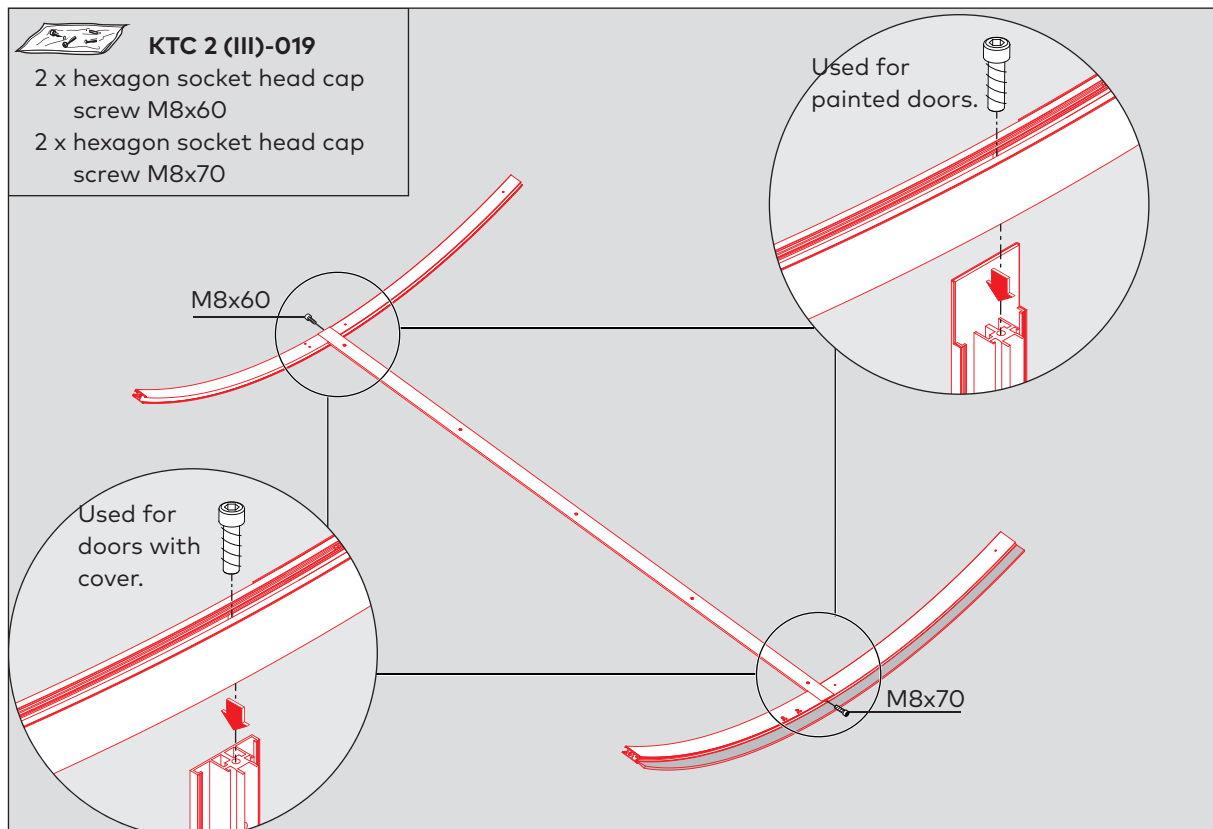


Fig. 65 Mounting the frame of the night shield

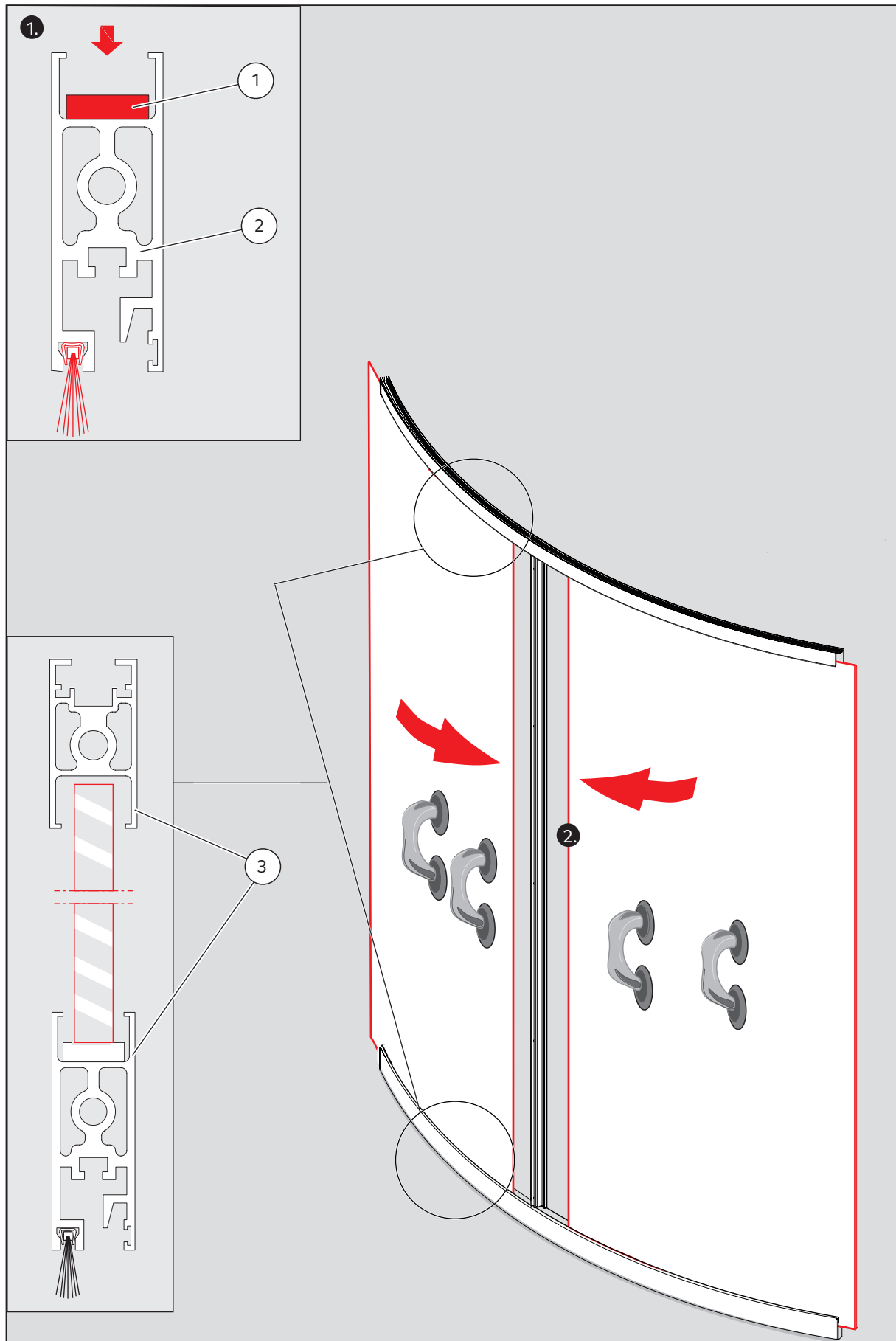


Fig. 66 Monting of the glass panels of the night shield

1. Place the plastic blocks (FigFig. 66/1) into the profile of the top frame (Fig. 66/2).
2. Slide the glass panels from the side into the profiles of the frame (Fig. 66/3).

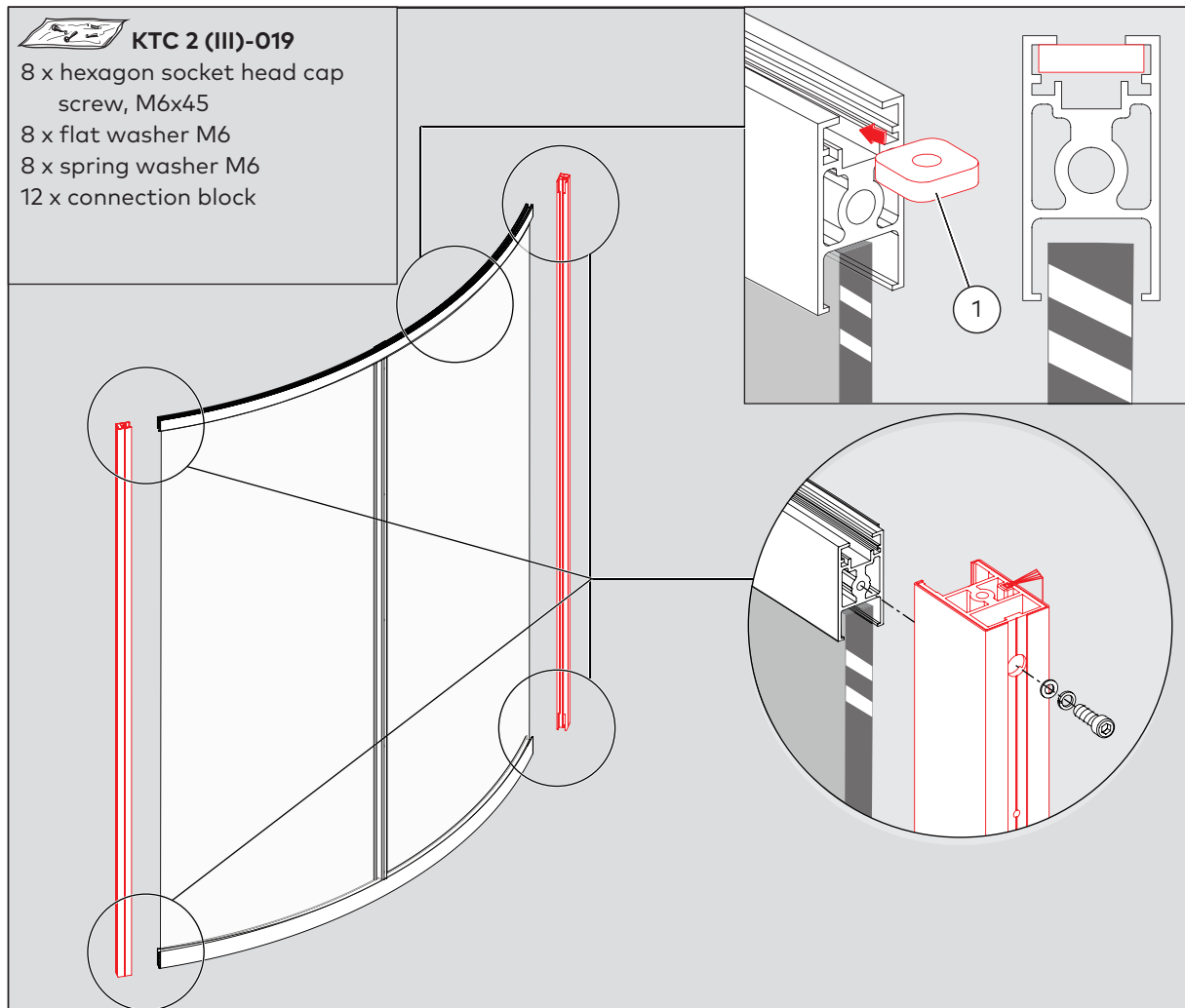
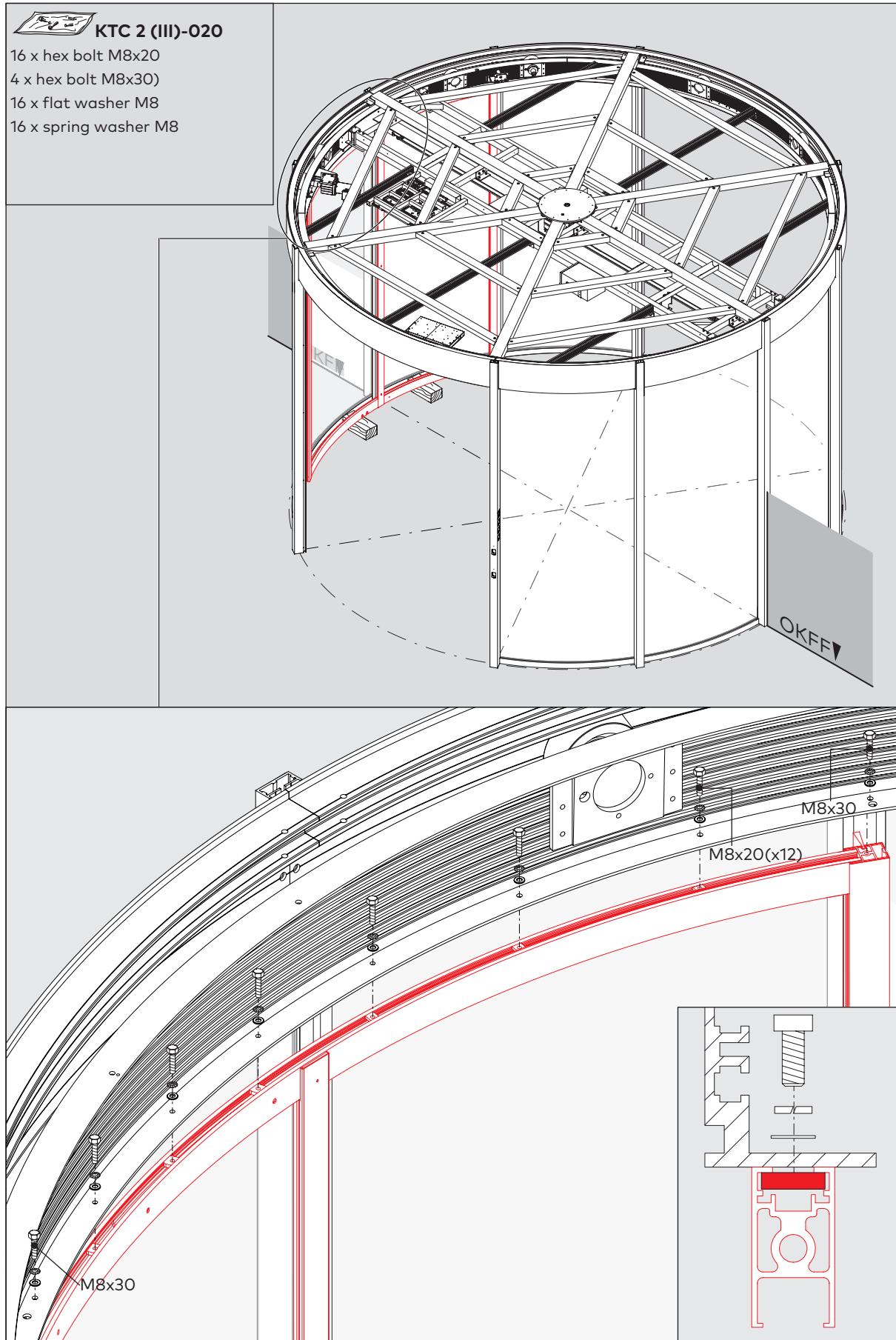


Fig. 67 Mounting the frame of the night shield

1. Insert 6 connection blocks (Fig. 67/1) in each of the top frames.
2. Use the screws and washers to connect the frame parts.



5.14 Mounting the showcases

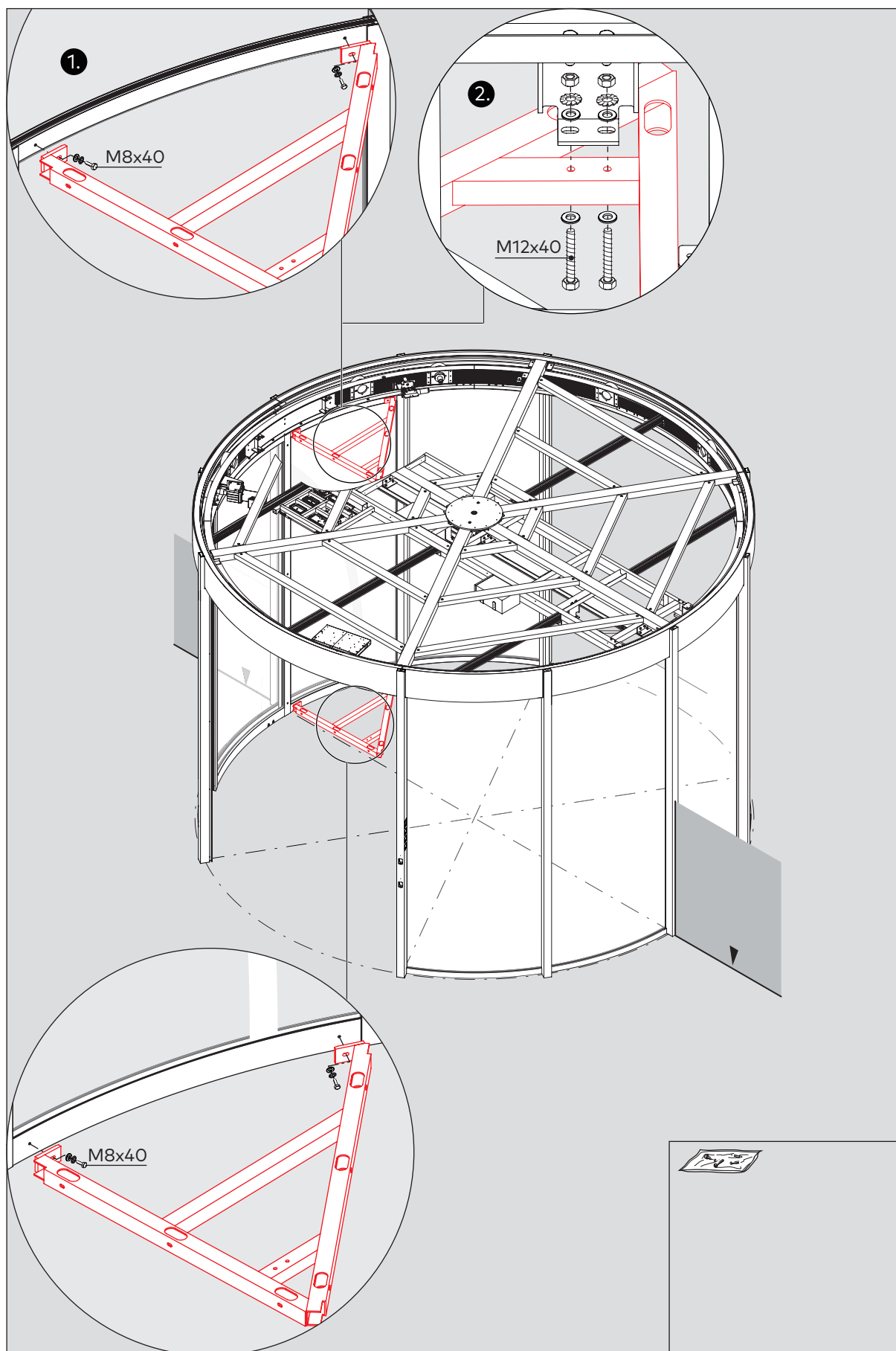


Fig. 69 Mounting the upper and lower frame of the showcase

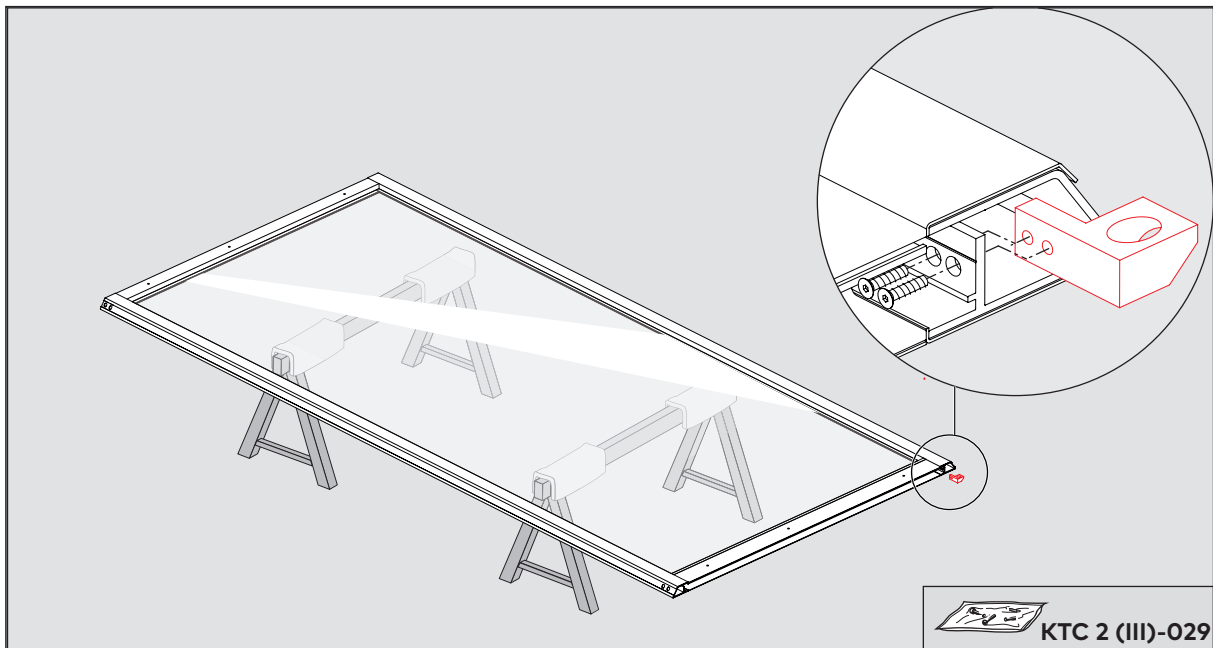


Fig. 70 Mounting the light barriers

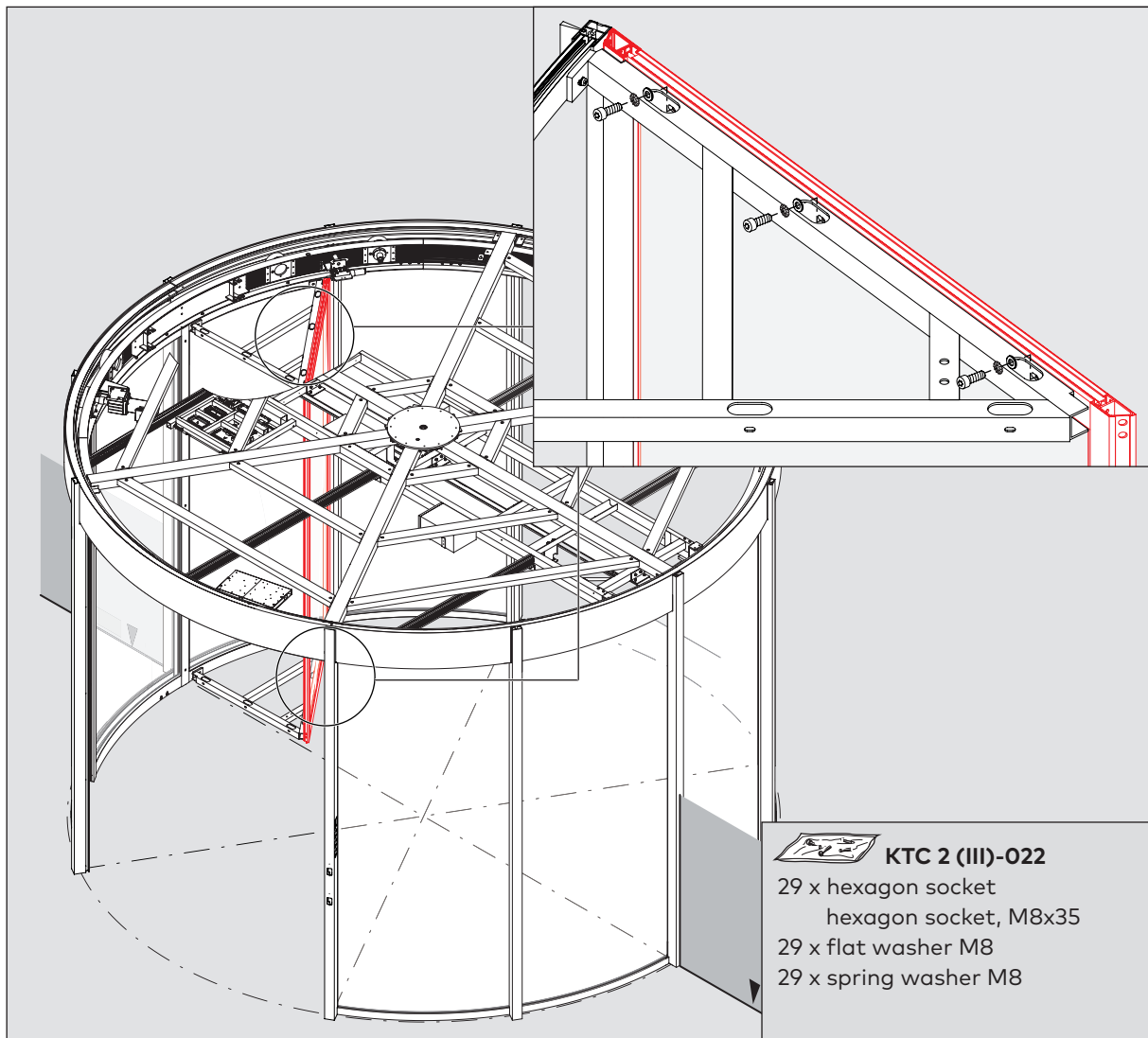


Fig. 71 Assembly of the fixed showcase wing

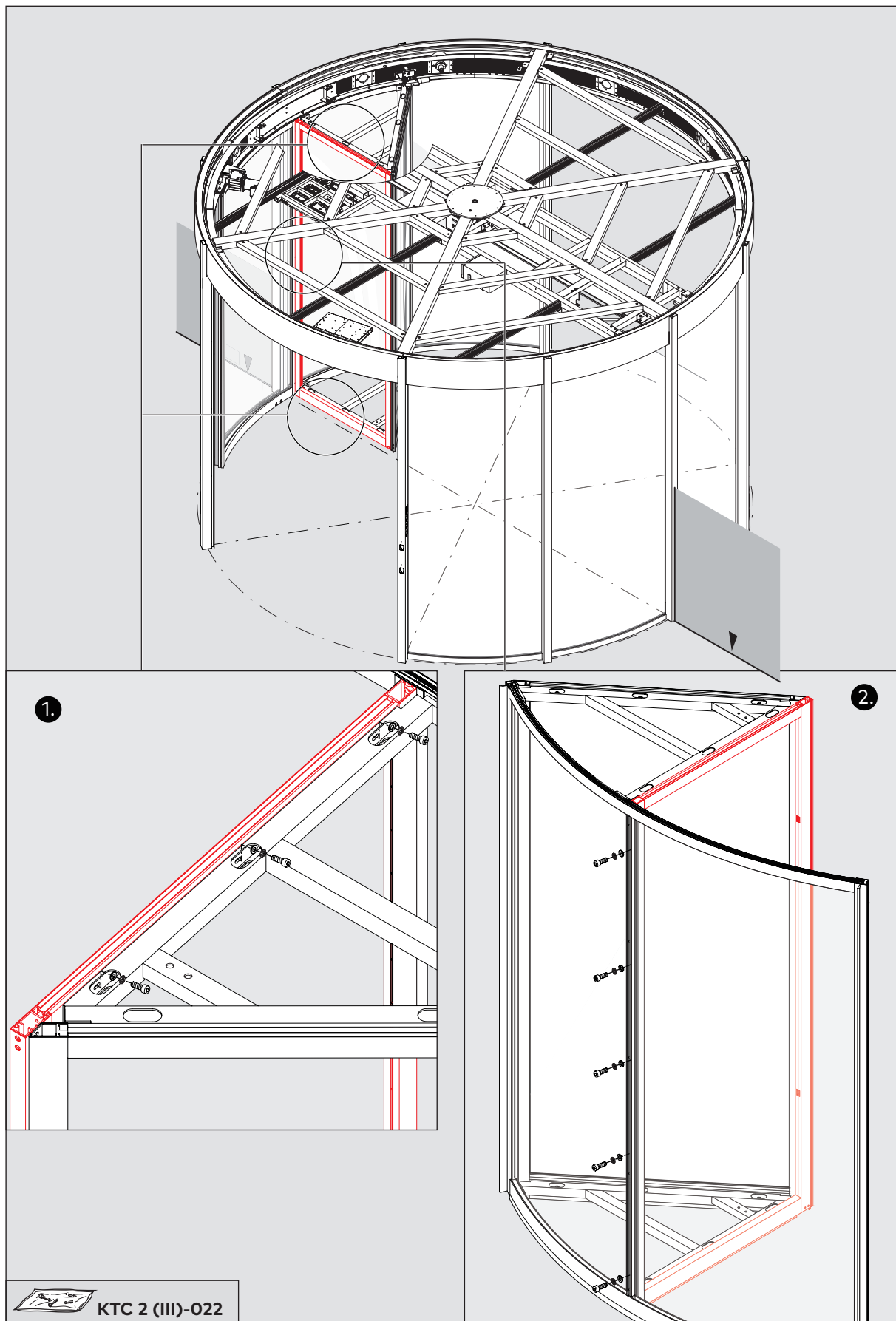


Fig. 72 Mounting the showcase door frame

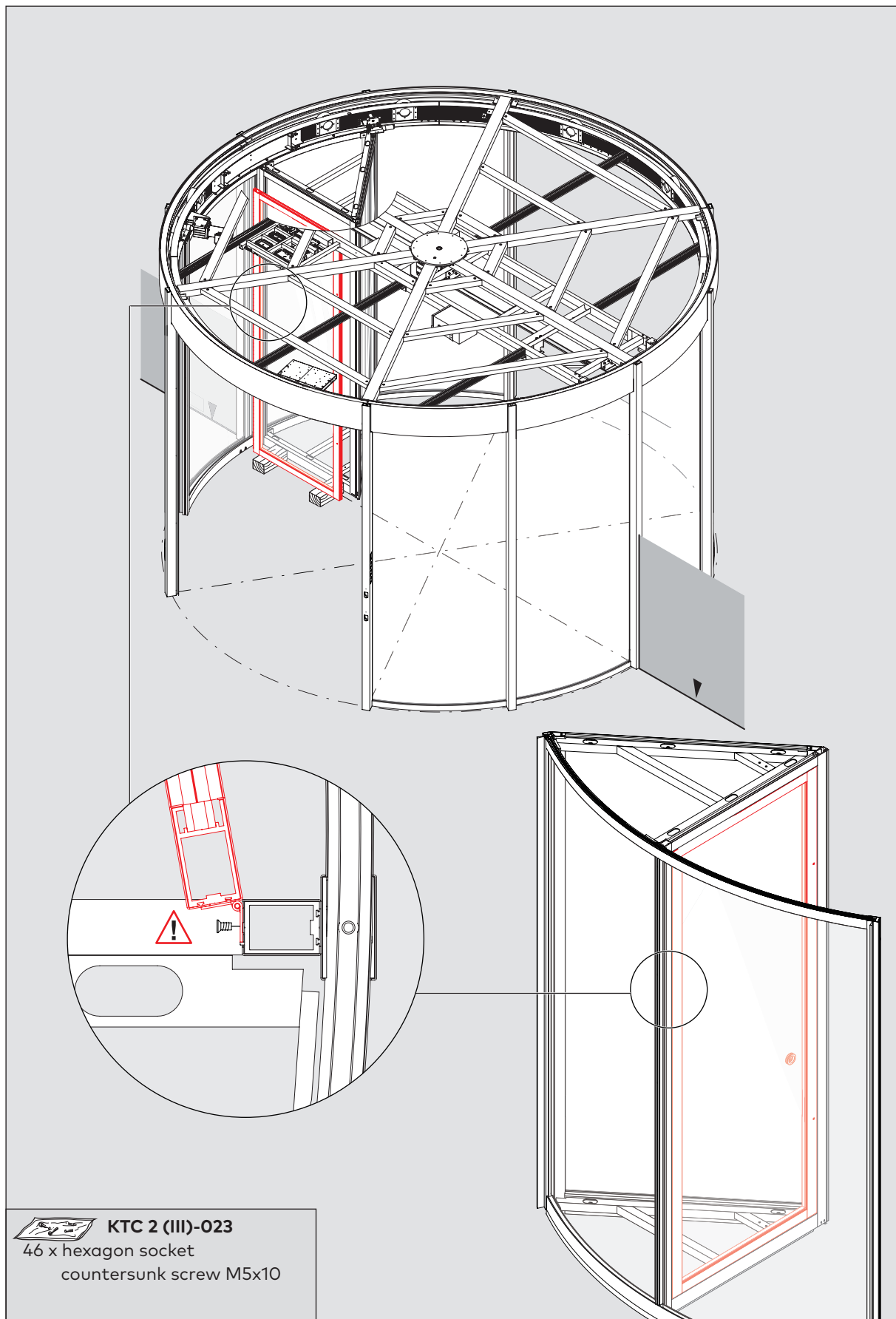


Fig. 73 Mounting the showcase door

1. Place the showcase door in the door frame. Fix the door with 2 screws in the upper and lower part of the frame.
2. Close the door and check that it is aligned in the frame. Adjust if required.
3. Secure the door with the remaining screws.

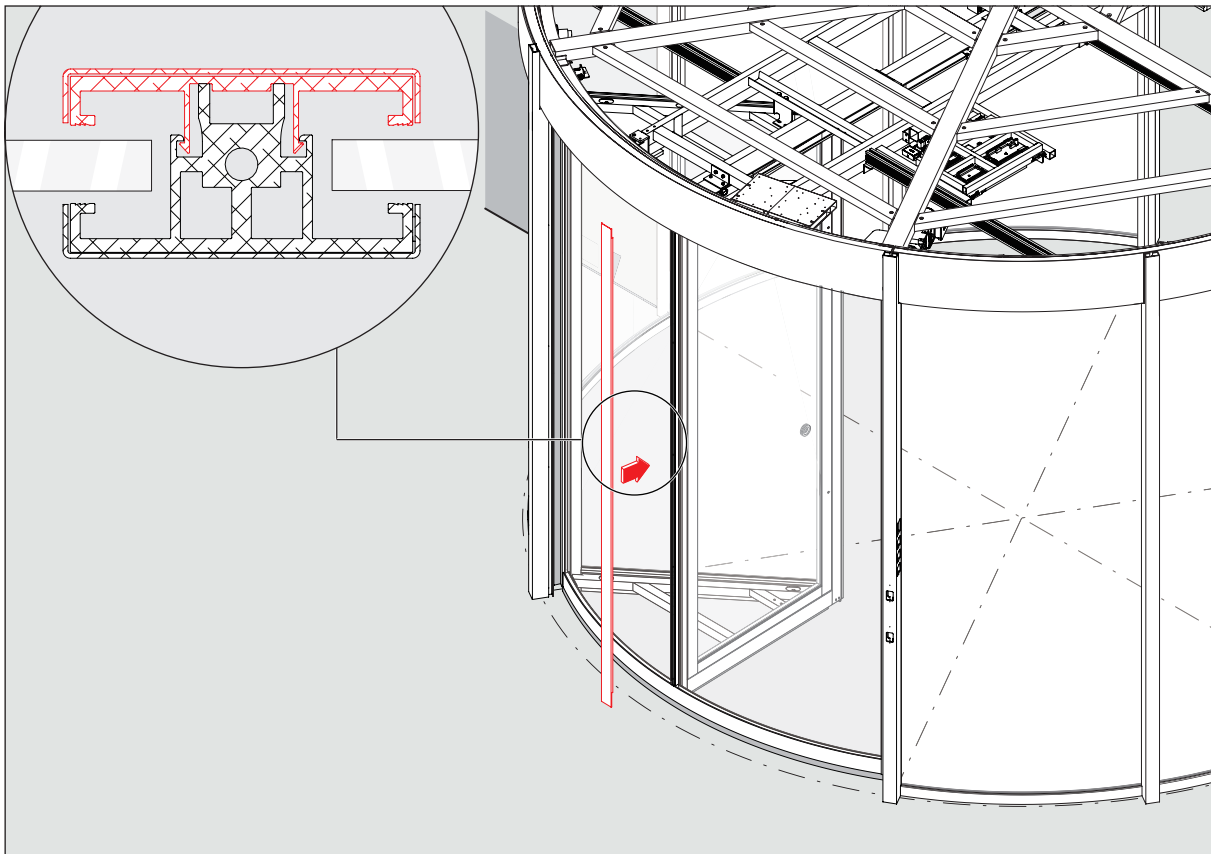


Fig. 74 Mounting the cover of the night shield

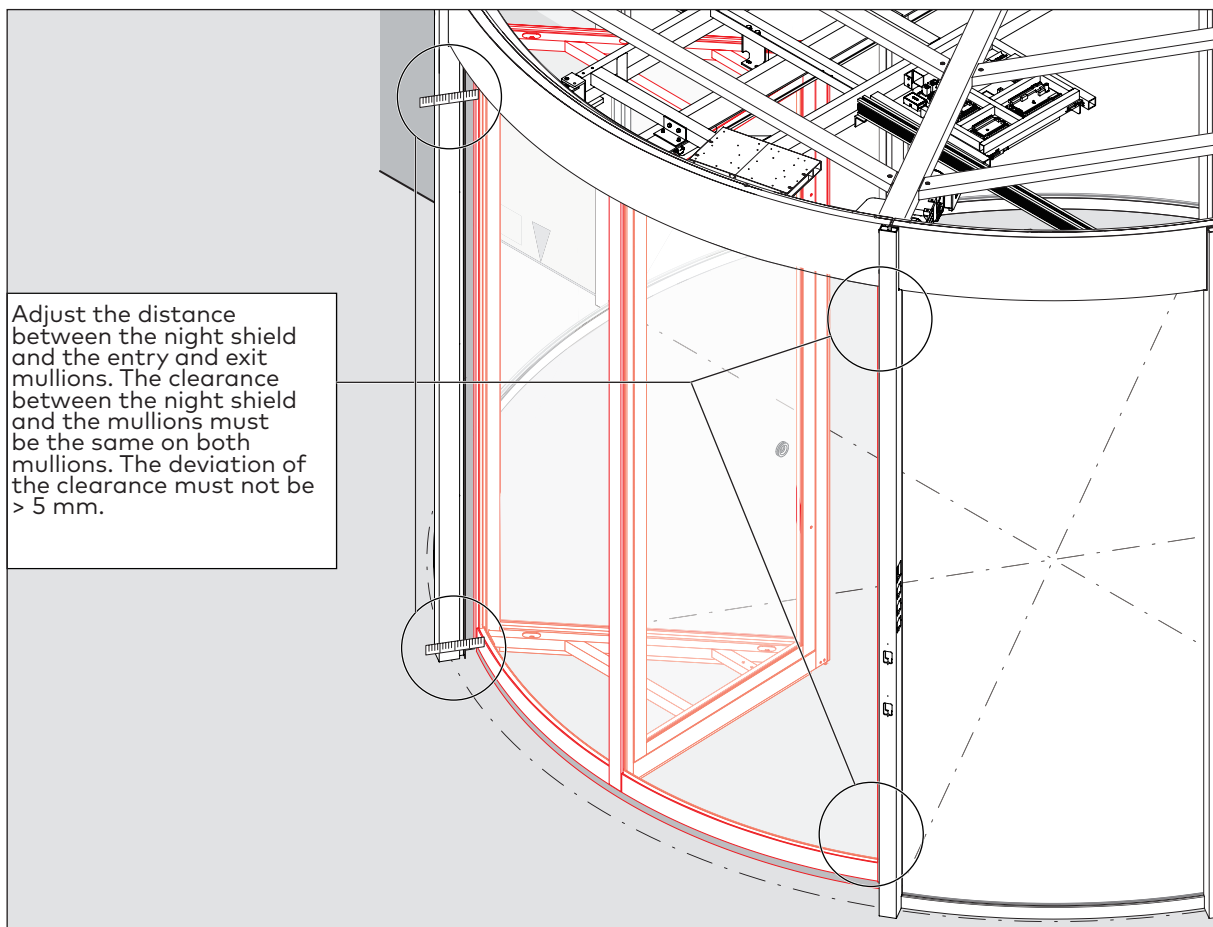


Fig. 75 Checking the distance between the night shield and the mullion

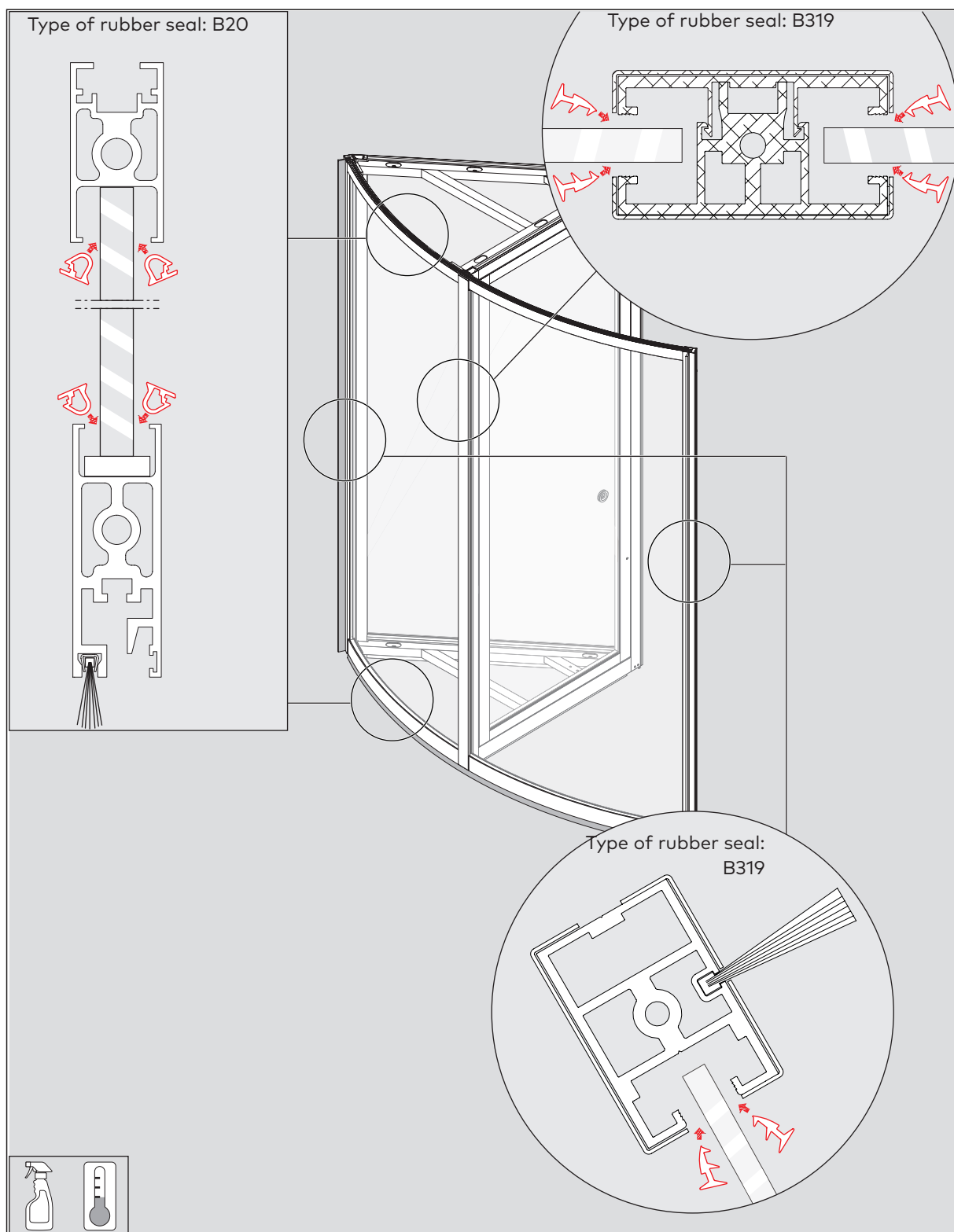


Fig. 76 Mounting the rubber seals of the night shield

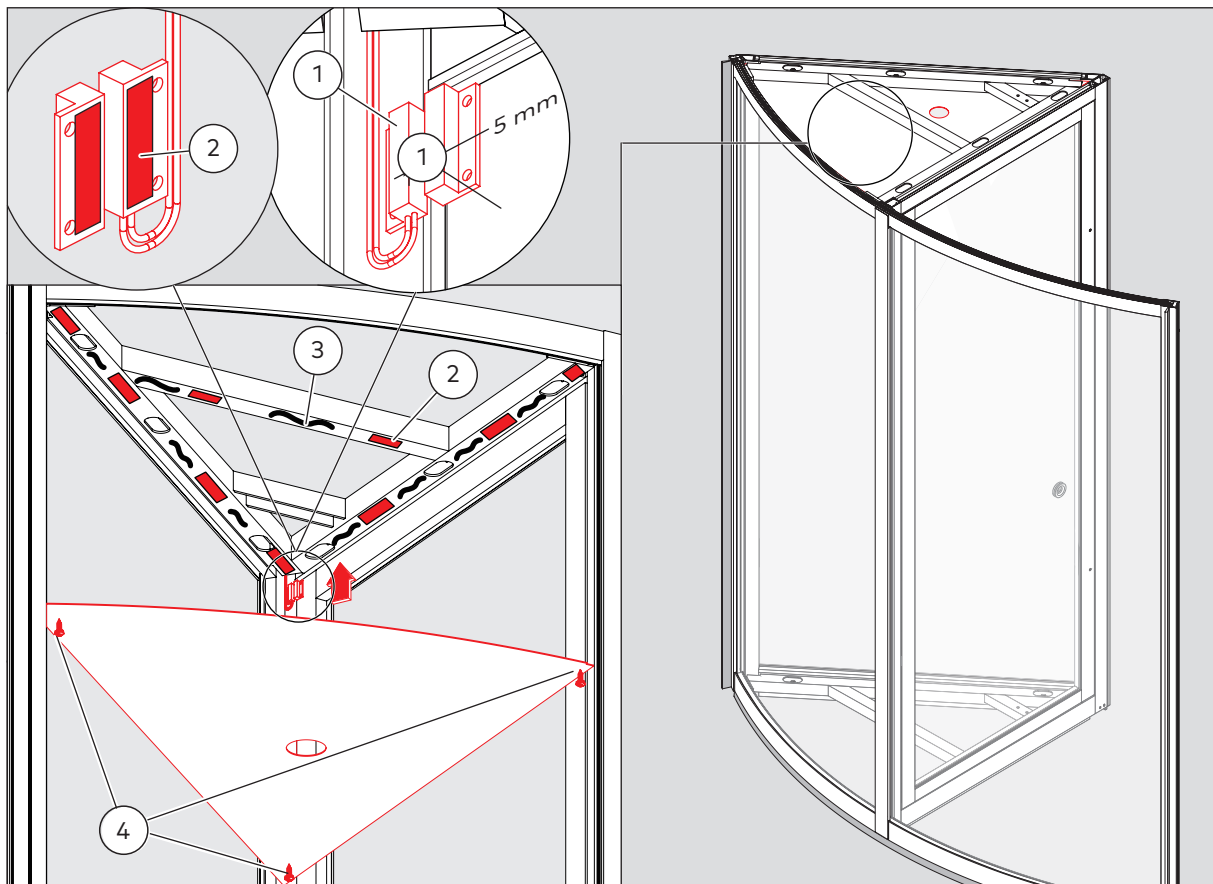


Fig. 77 Mounting the ceiling and the safety switch of the showcase door

4. Install the limit switch (Fig. 77/1) with adhesive tape (Fig. 77/2).

5. Mount the ceiling with adhesive tape (Fig. 77/2), silicone (Fig. 77/3) and 3 screws (Fig. 77/4).

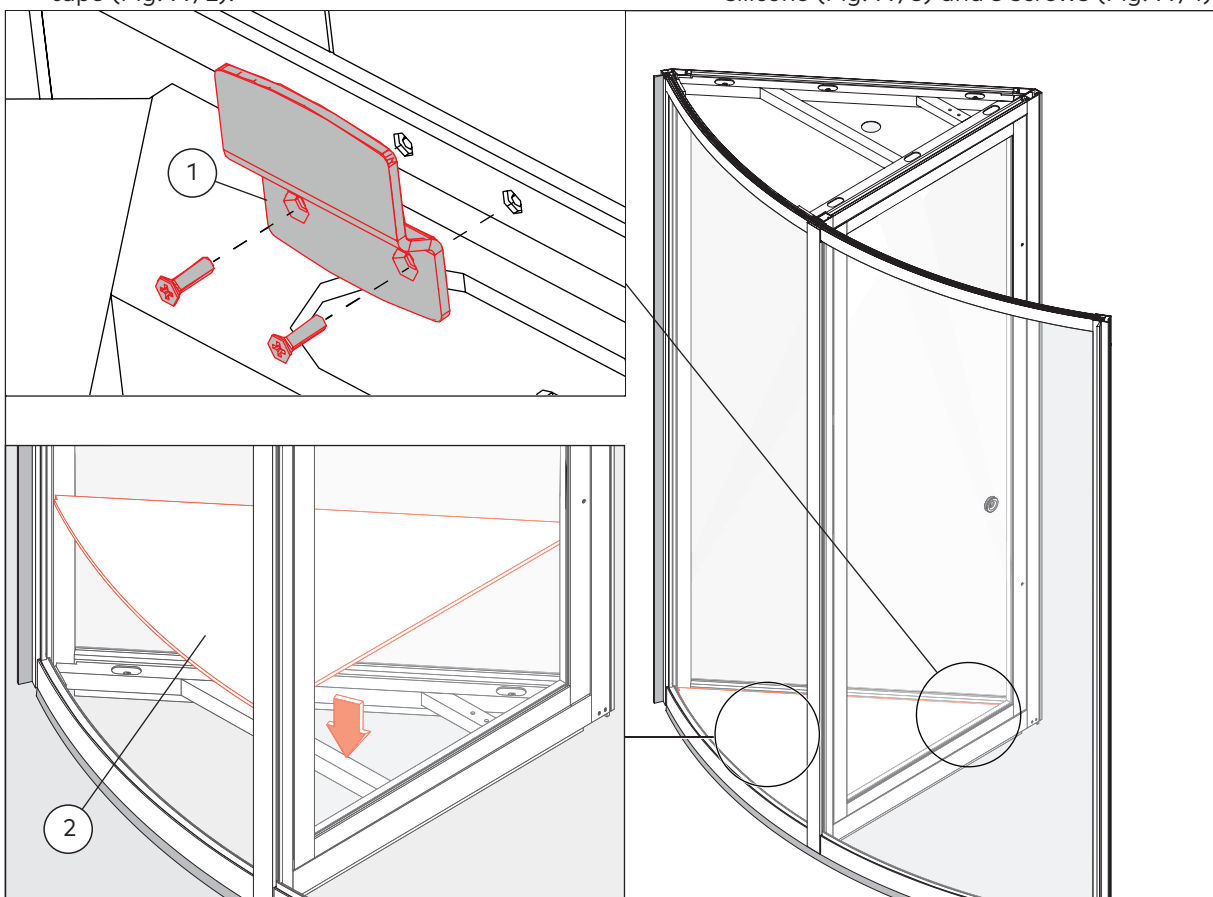


Fig. 78 Mounting the floor of the showcase

6. Fix the door stopper (Fig. 78/1) with 2 screws.

7. Mount the floor (Fig. 78/2).

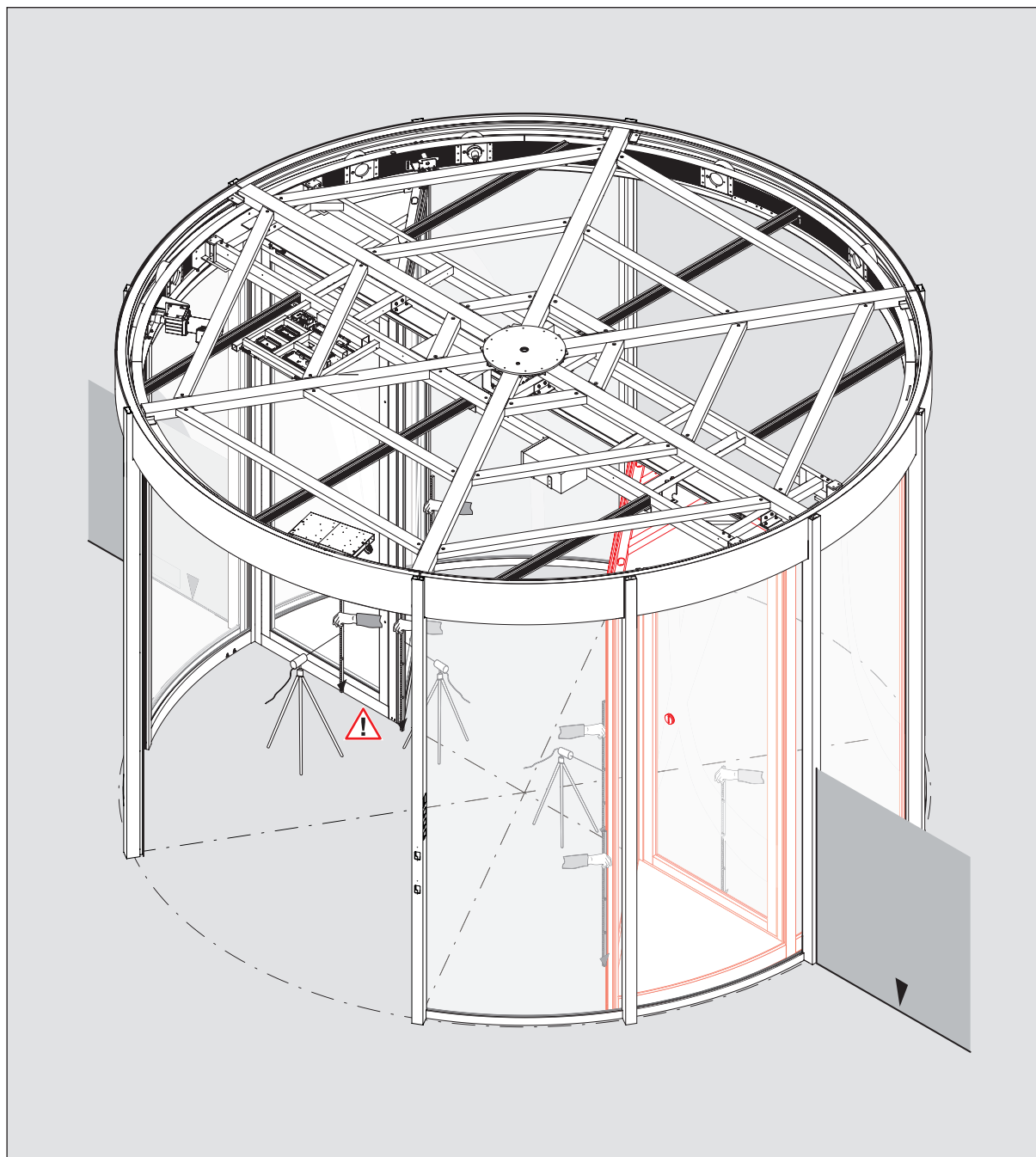


Fig. 79 Assembly of the second showcase

8. Repeat the steps to mount the second showcase.
9. Check the alignment of the showcases.

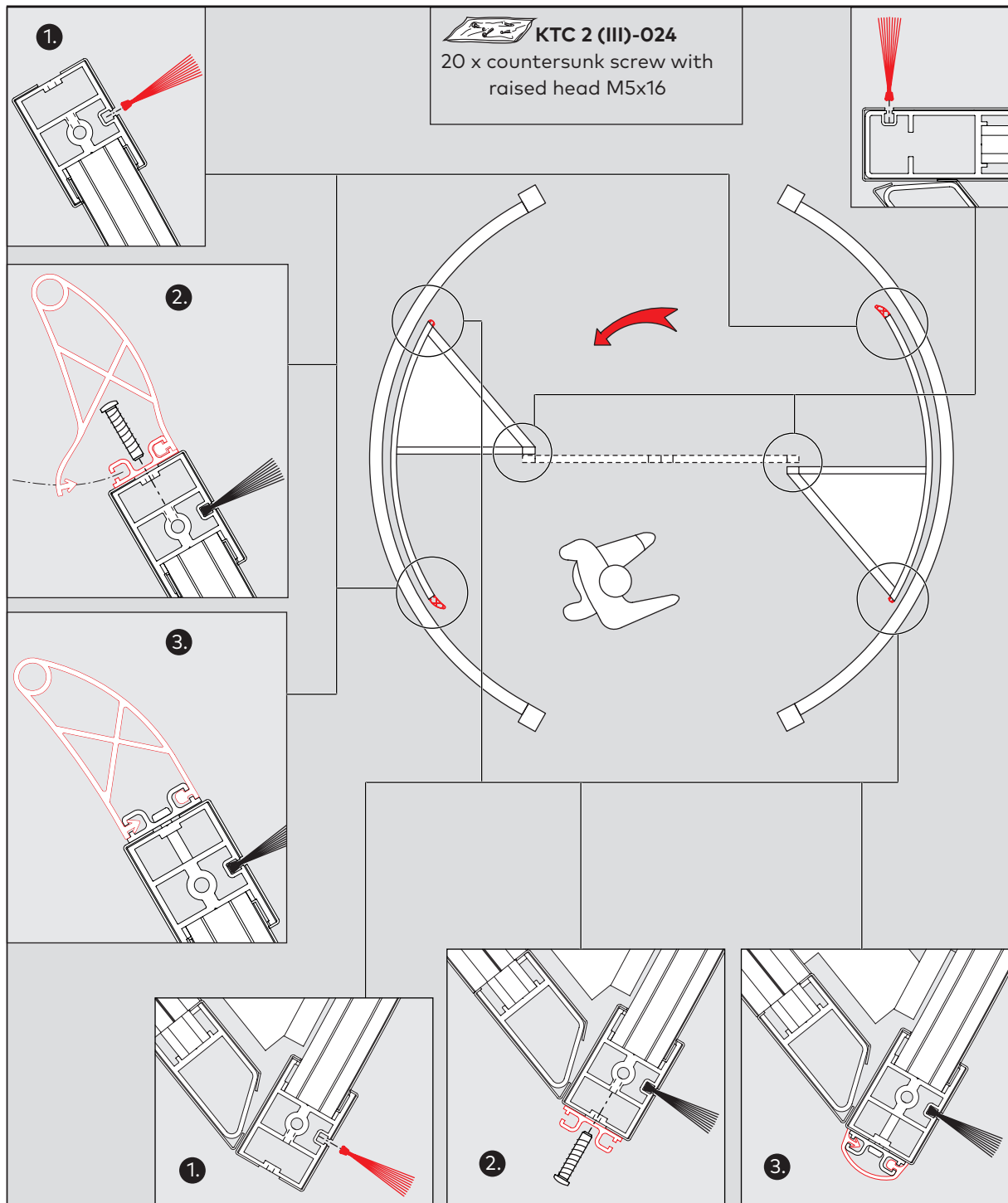


Fig. 80 Mounting the safety bumpers on the night shield

5.15 Mounting the door leaf without showcase

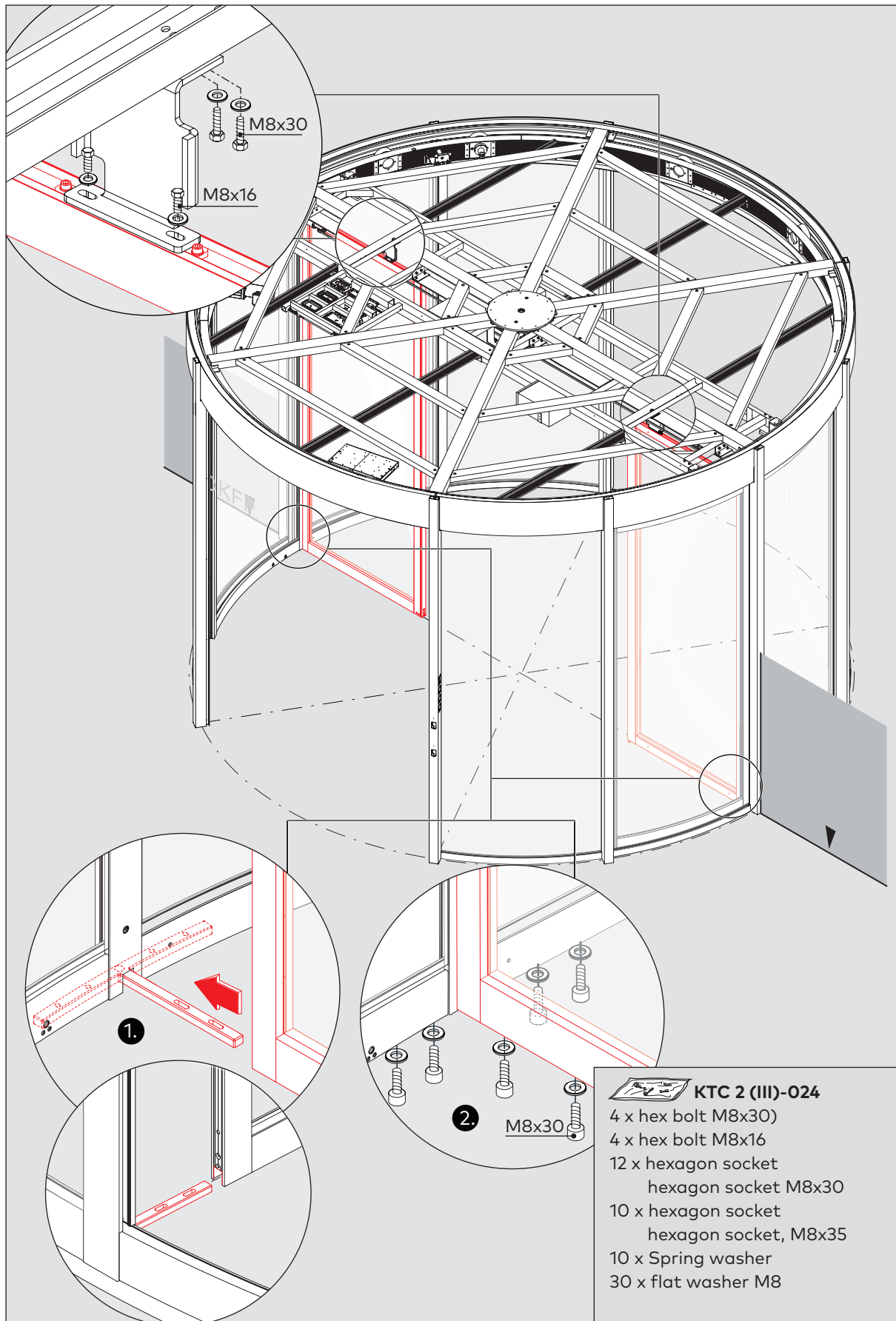


Fig. 81 Mounting the door leaf

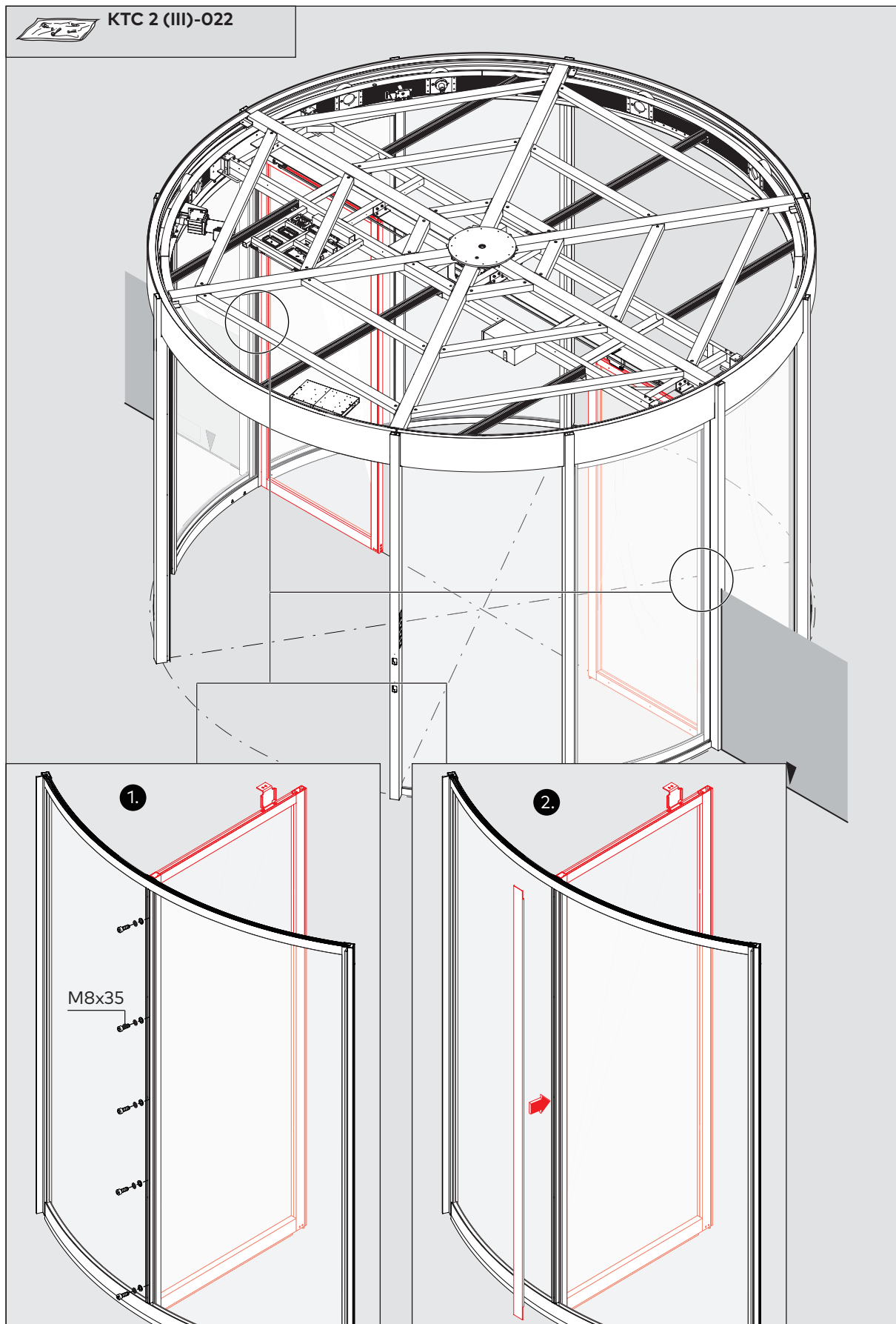


Fig. 82 Mounting the cover of the night shield

5.16 Mounting the automatic sliding door

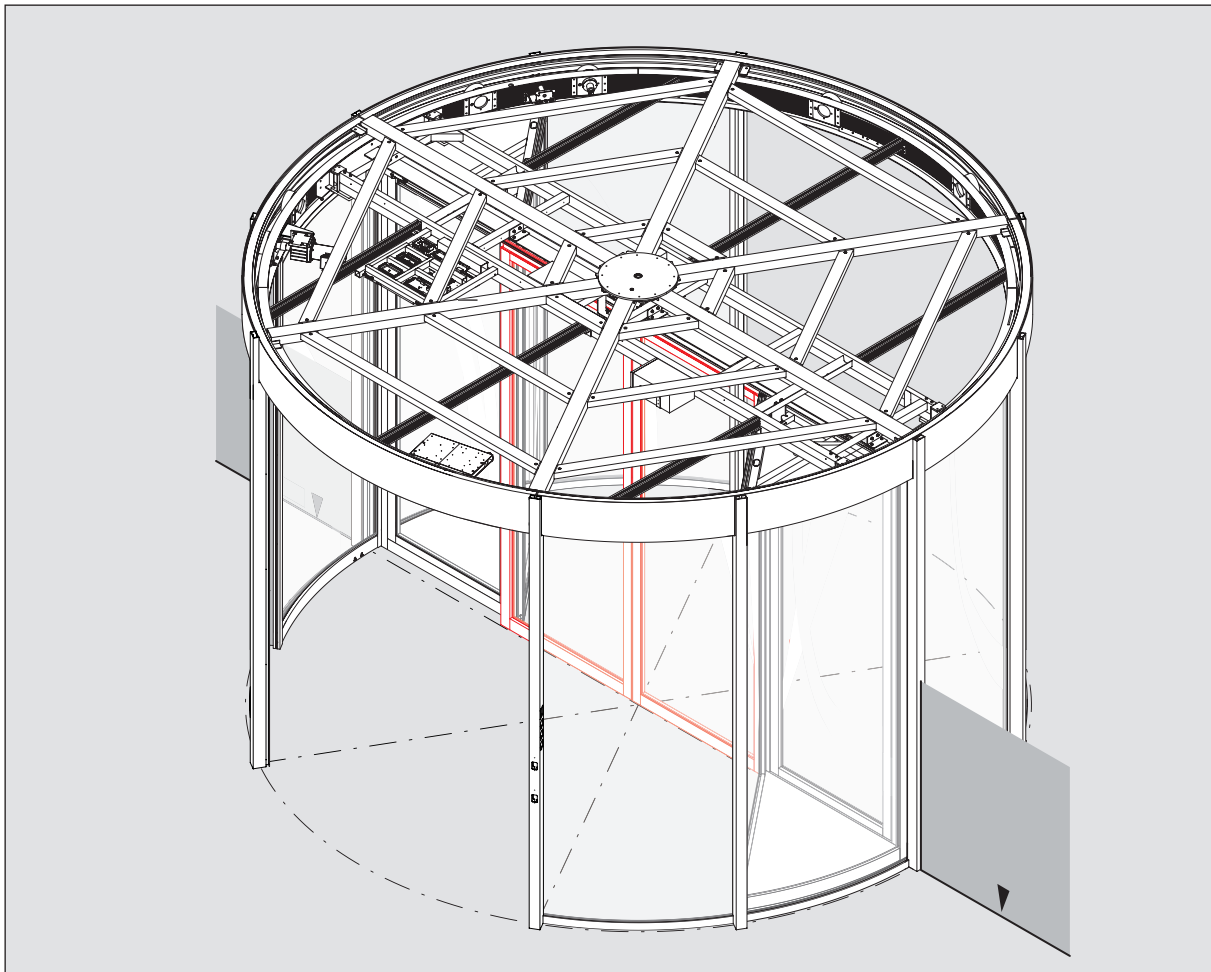


Fig. 83 Automatic sliding door overview

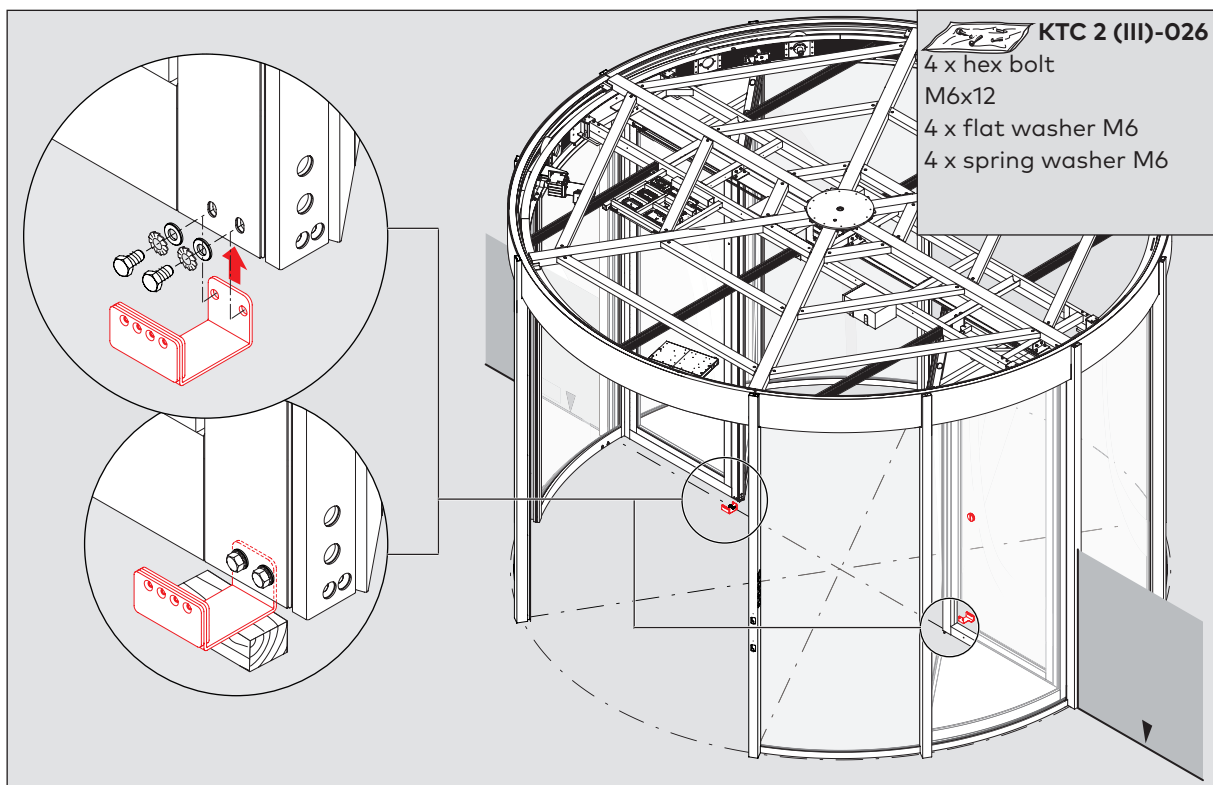


Fig. 84 Mounting the bracket for the sliding door

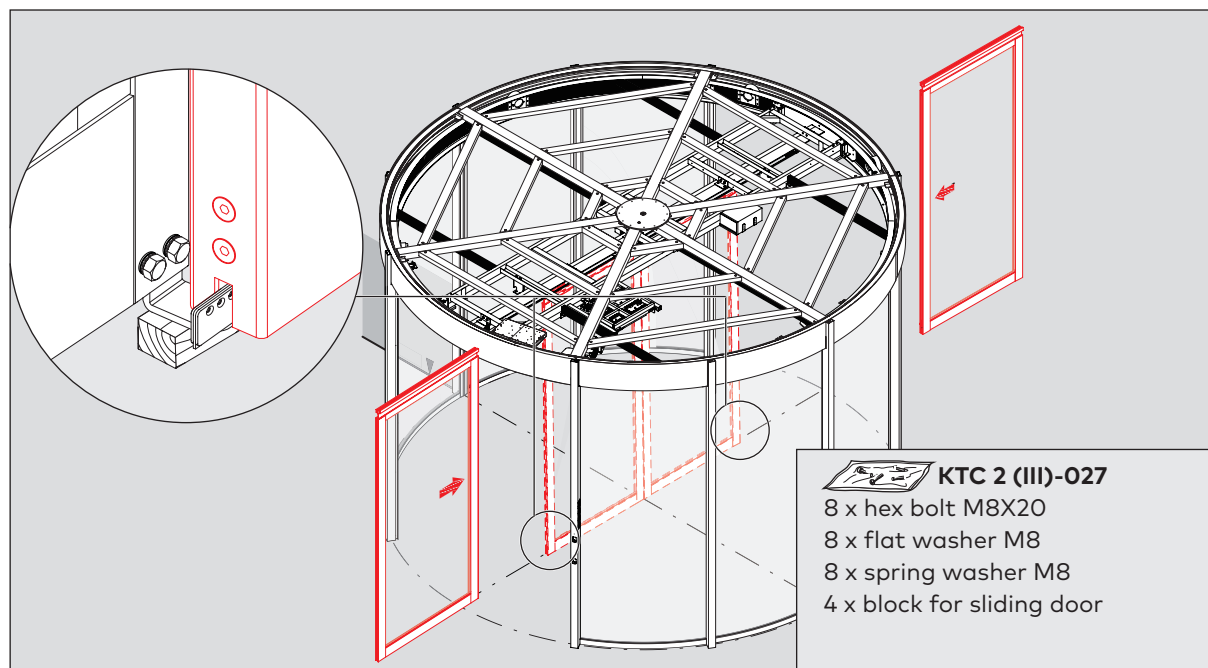


Fig. 85 Hang the door leaves into the brackets

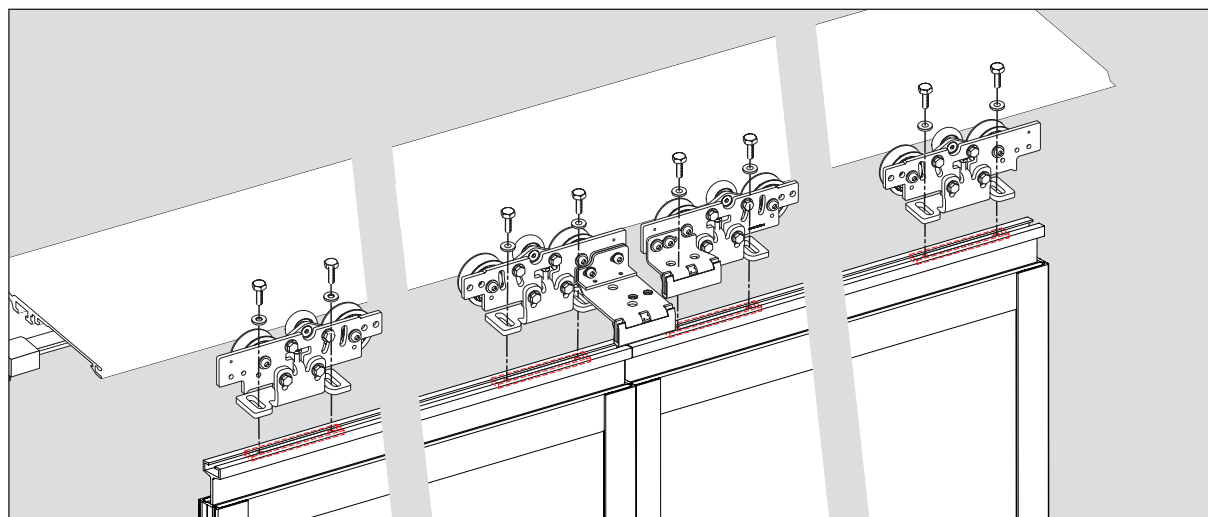


Fig. 86 Fixing the door leaves to the roller carriers

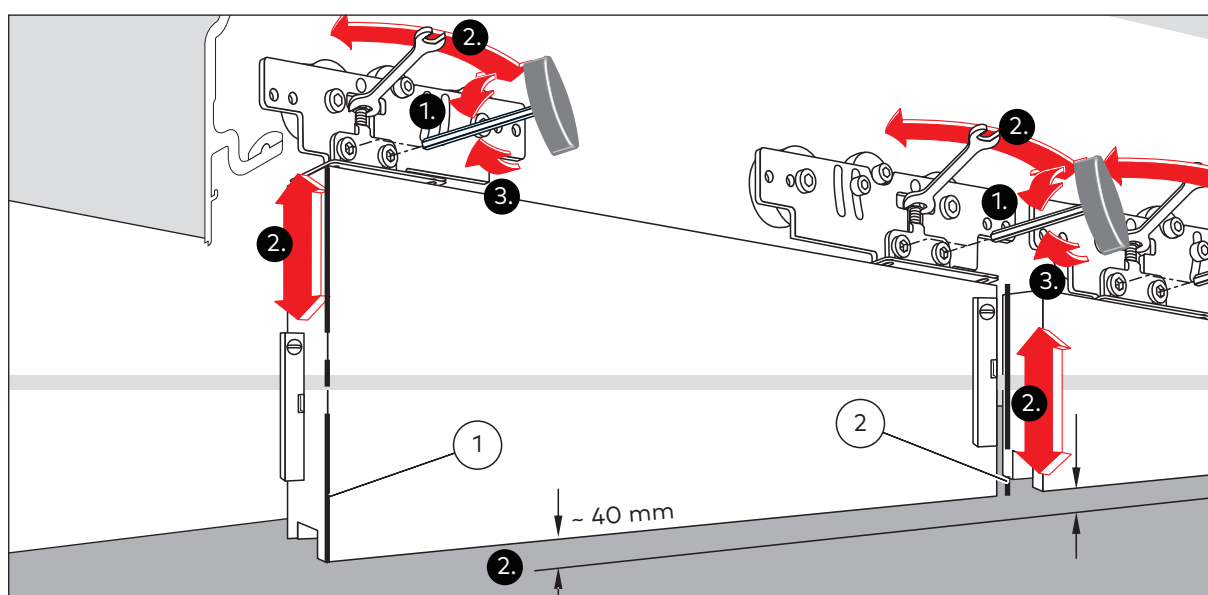


Fig. 87 Adjusting the height of the door leaves

1. Loosen the brackets at the main (Fig. 87/1) and secondary closing edge (Fig. 87/2).
2. Adjust height by turning the hexagon nut.
3. Tighten the screws on the brackets.
4. Open the door and make sure the center seals are parallel to the side screens.

5. Close the door and then open it again 1 – 6 mm.

6. Check the gap between the center seals across the entire height to ensure that the door leaves are aligned parallel.

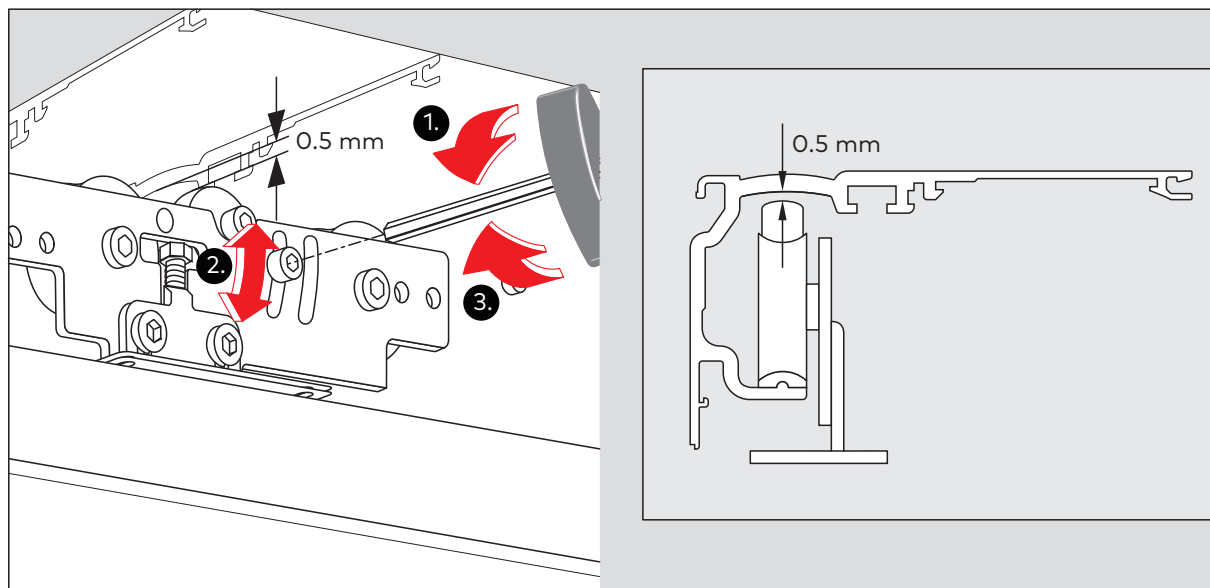


Fig. 88 Mounting the automatic sliding door

1. Loosen the screws to release the derailment protection roller of the roller supports.
2. Adjust the derailment protection to a clearance of 0.5 mm from the track rail and the mounting bracket.

3. Check for smooth operation and retighten the screws.
4. Manually move both door leaves to their full opening width and secure them in this position.

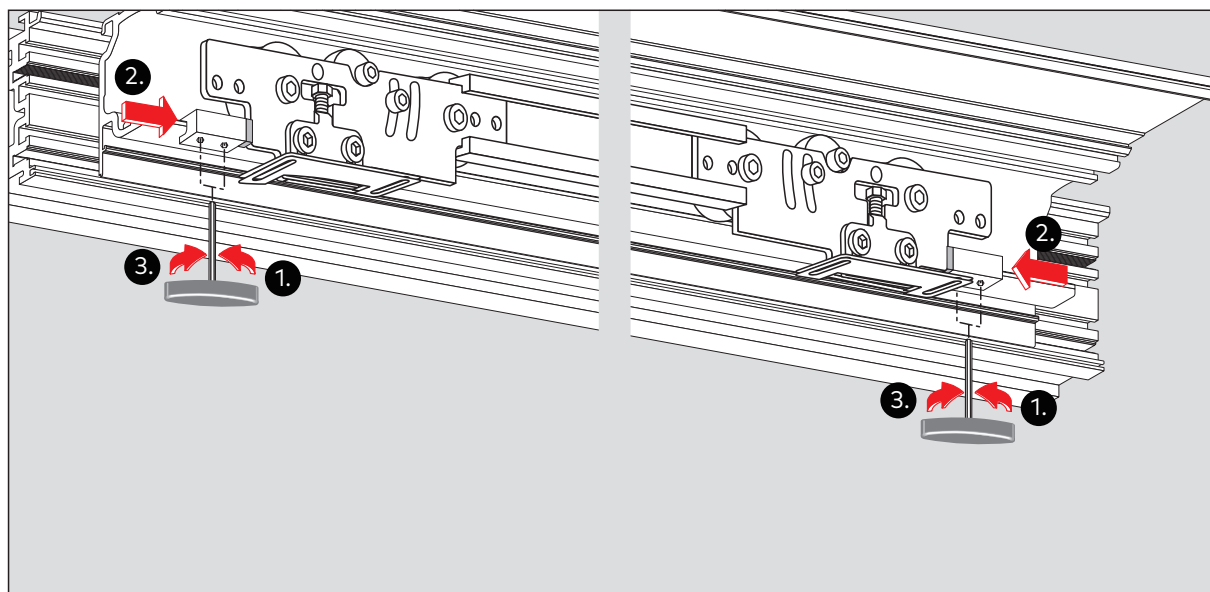


Fig. 89 Adjusting the opening width

1. Loosen the screws of the end stops.
2. Slide the end stops along to meet the roller carriers.
3. Tighten the screws on the end stop.
4. Determine the center point of the door.

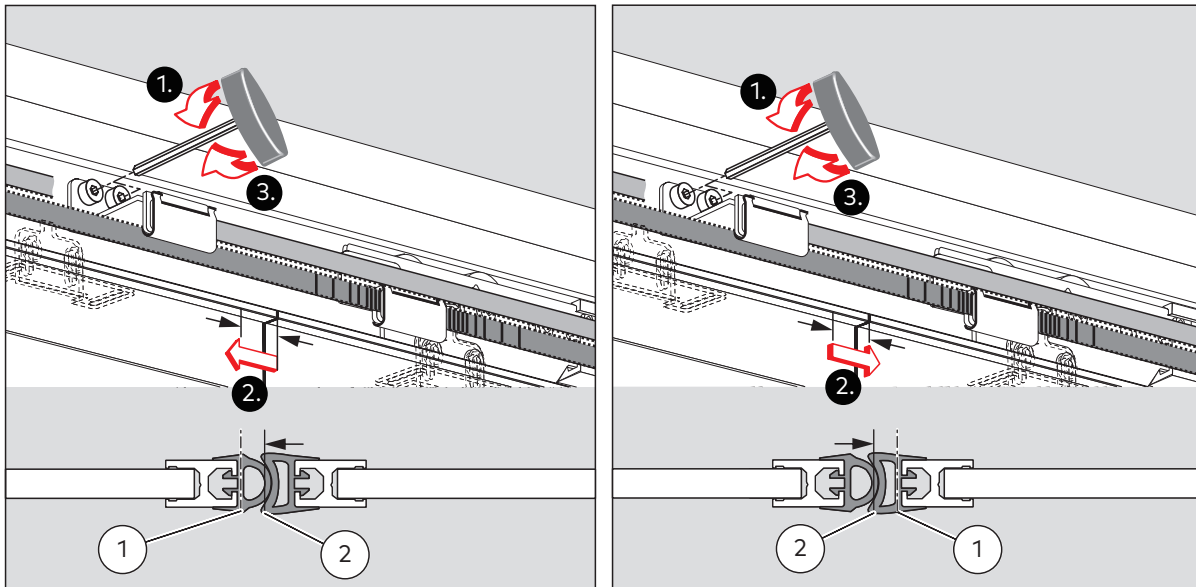


Fig. 90 Adjusting the main closing edge

1. Loosen the connection between the carrier and the toothed belt on the left door leaf.
2. Move both door leaves manually until the main closing edge (Fig. 90/1) matches the center point of the door (Fig. 90/2).
3. Retighten the connection between the carrier and the toothed belt.
4. If necessary, shift the toothed belt one or more teeth further as shown in Fig. 91.

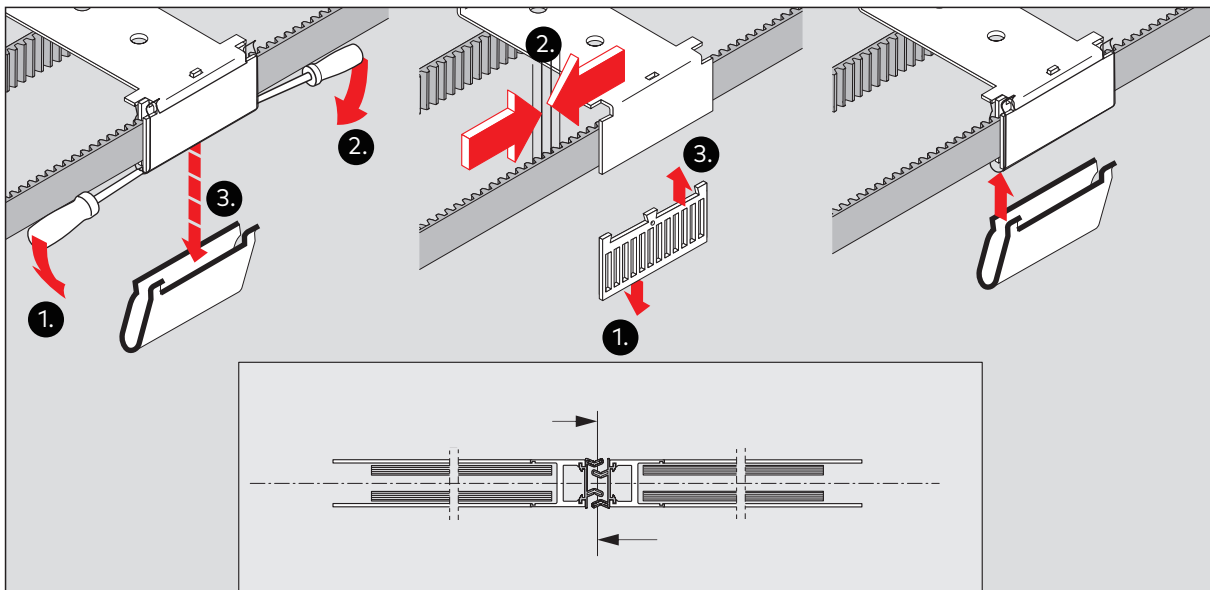


Fig. 91 Correcting major discrepancies between main closing edge and center point

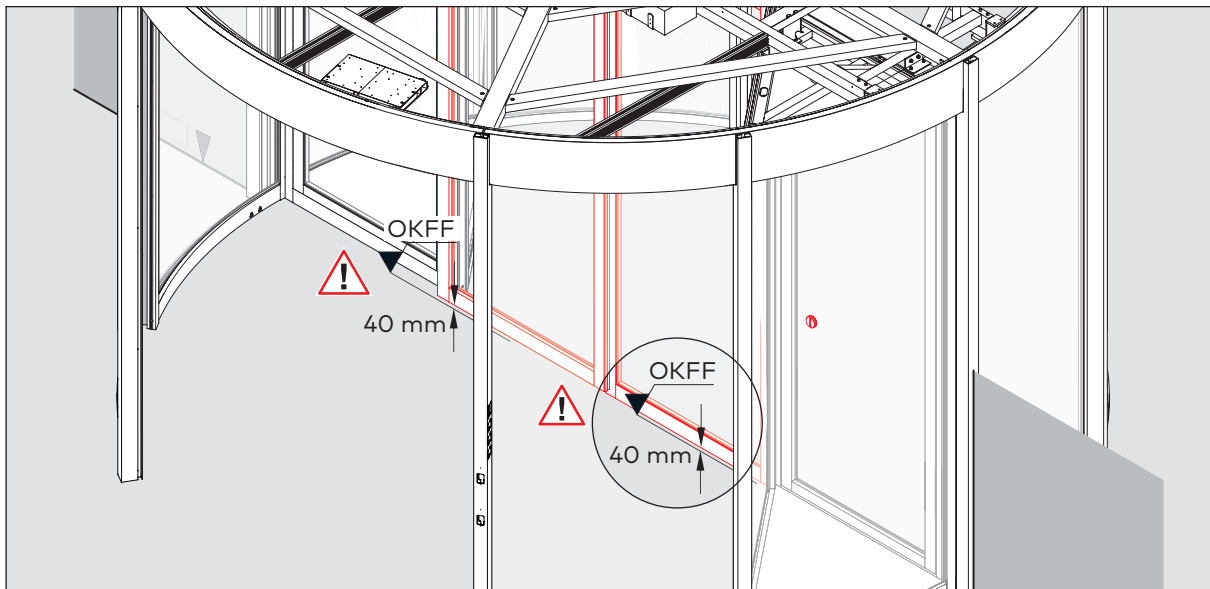


Fig. 92 Checking the clearance under the sliding door

5.17 Mounting the operating elements

Prerequisites

- Qualified electricians
- Qualified mechanics
- Protective clothing
- Safety shoes
- Protective gloves



ATTENTION

Damage to the operating elements due to incorrect procedure!

Incorrect procedures when preparing or mounting the operating elements can lead to damage to the mullions or operating elements.

- Always insert the operating elements into the post in accordance with Fig. 93.
- Always connect operating elements to the control system according to the connection diagram.
- Always deburr the drill holes for the operating element cables on the revolving door housing.

Make sure:

- Wiring diagram is available.
- There is an installation diagram available.

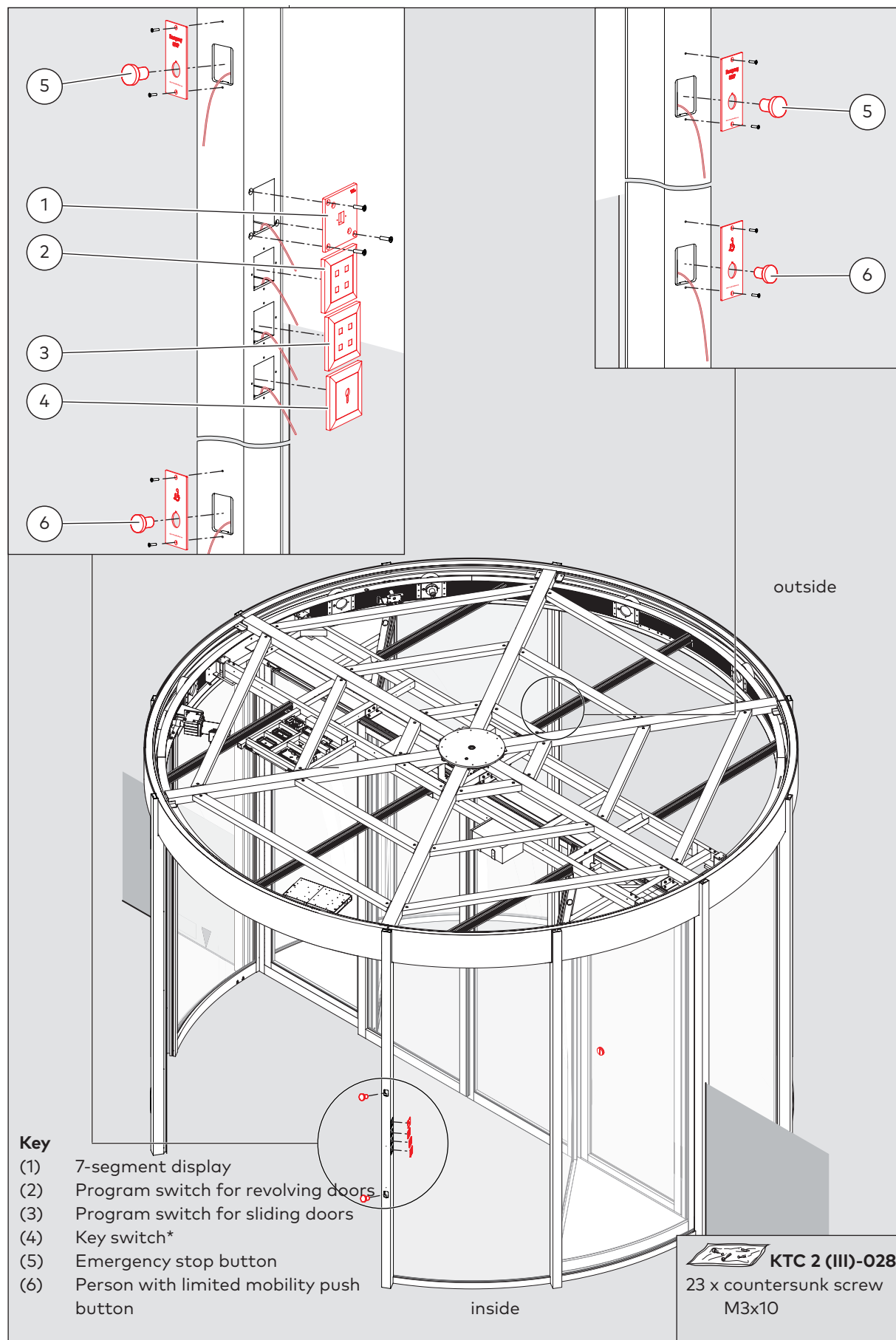


Fig. 93 Mounting the automatic sliding door

1. Deburr the drill holes at the entrance and exit from the inside and outside.
2. Connect the operating elements at the entrance and exit according to the installation and wiring diagrams.

5.18 Mounting the integrated sensors

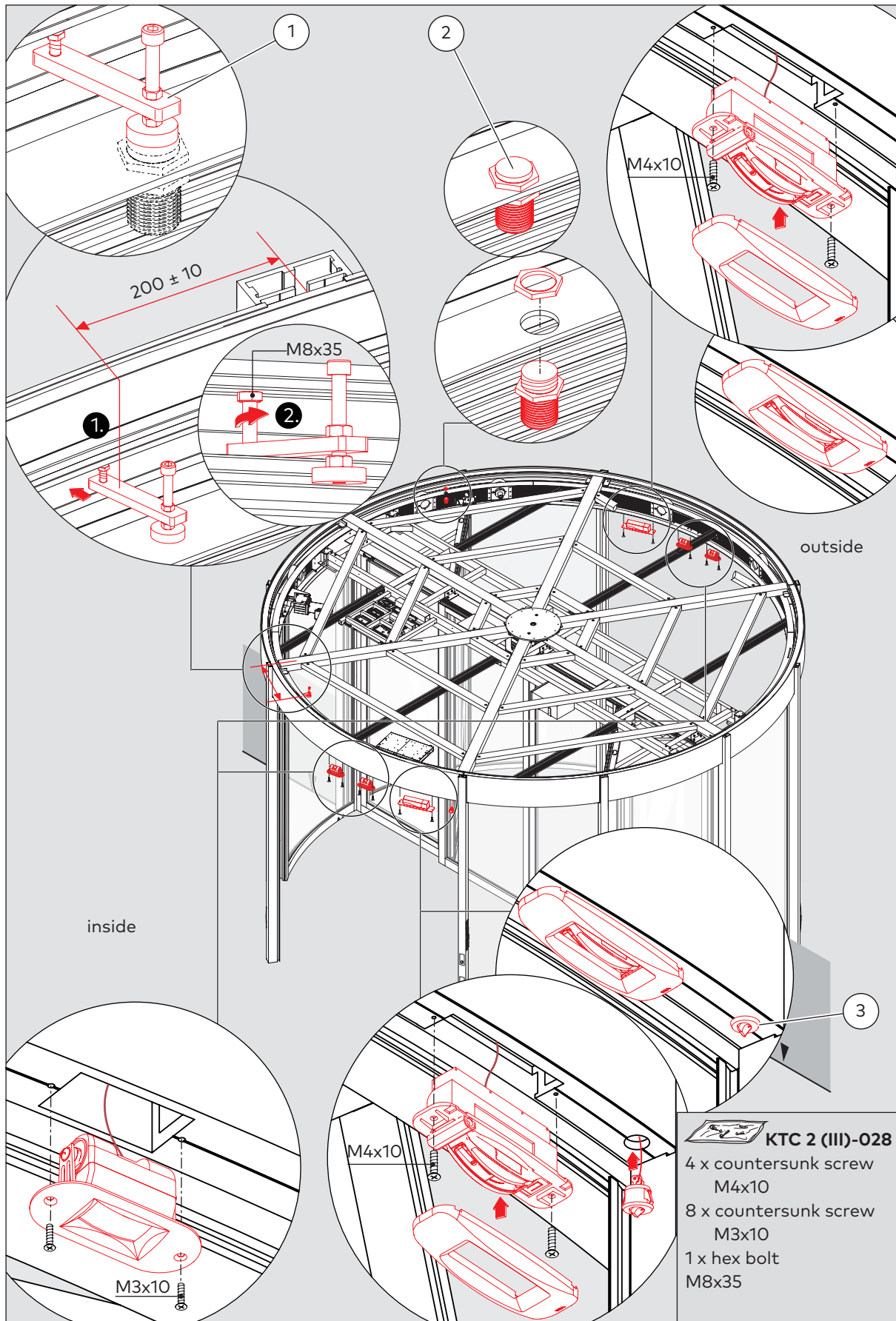


Fig. 94 Installing the sensors in the canopy

1. Insert the motion sensors and safety sensors in the recesses of the canopy.
2. Secure the motion sensors and safety sensors with 2 screws each.

3. Screw the zero-point sensor (Fig. 94/2) into the inner ring.
4. Screw the cam (Fig. 94/1) of the zero-point sensor onto the outer ring.
 - ▶ Distance to the center of the inner left mullion: ± 200 mm
 - ▶ Distance between sensor and camera: 3–5 mm
5. Optional: Insert the switch for winter mode (Fig. 94/3) into the recess of the canopy.
6. Connect wires according to the wiring diagram.

5.19 Mounting the light barriers

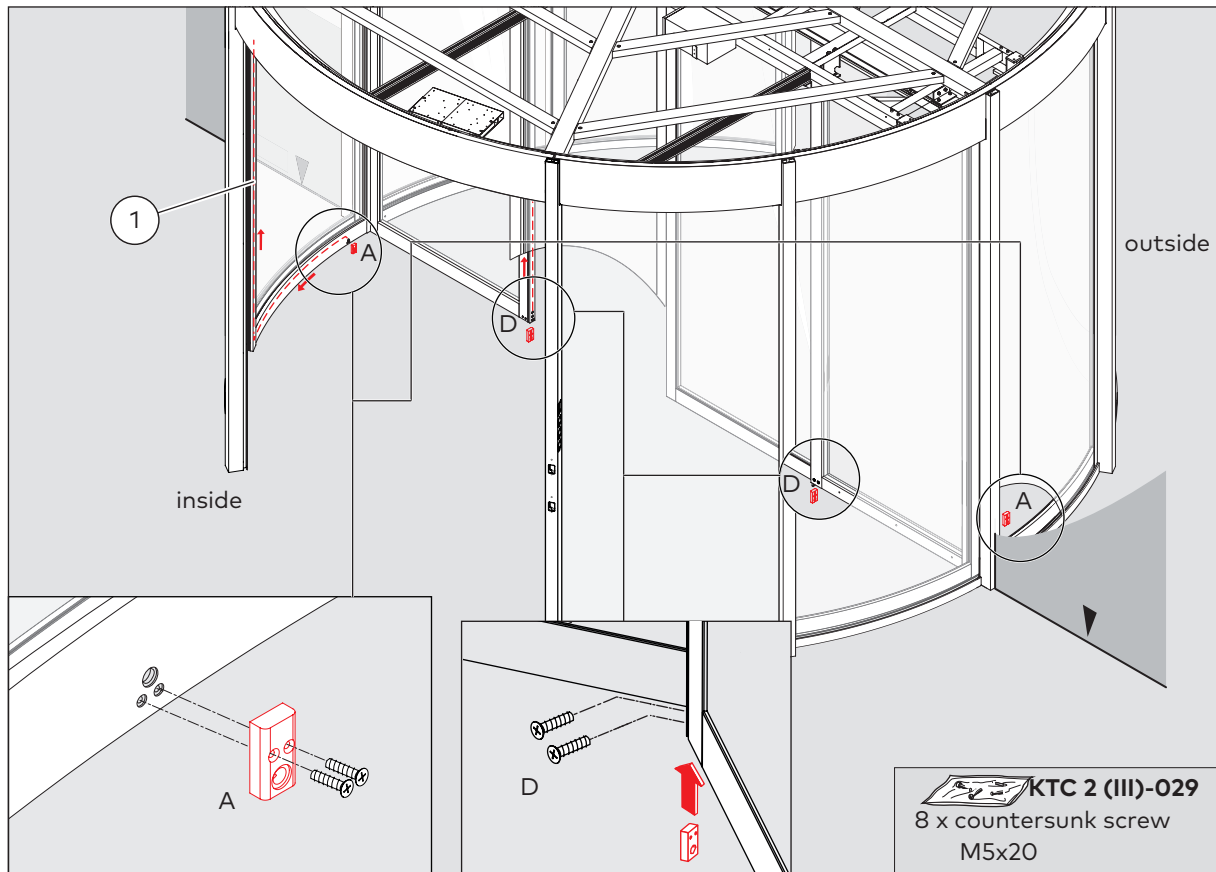


Fig. 95 Mounting the light barriers

(1) Cable routing

5.20 Mount safety bumpers

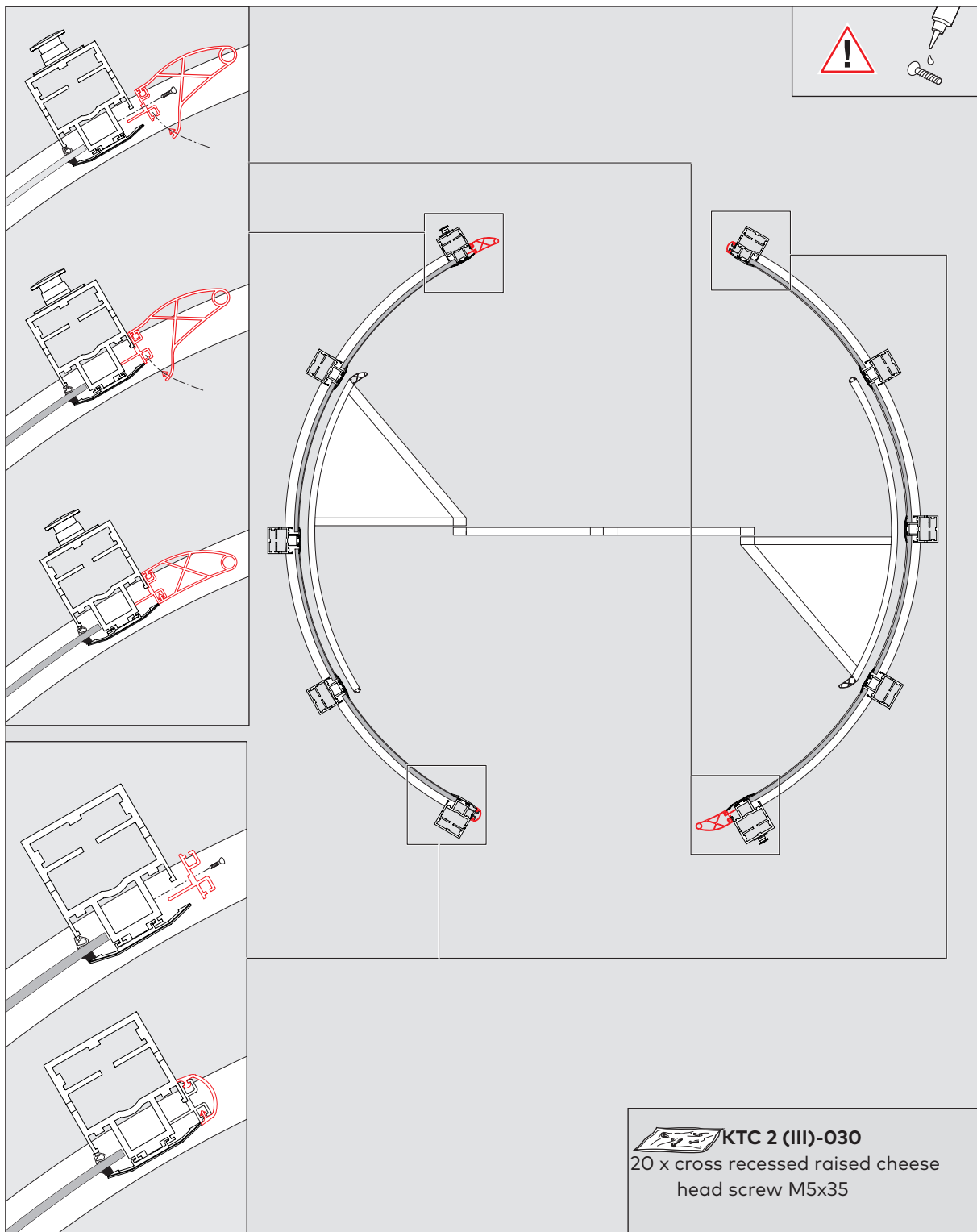


Fig. 96 Mount safety bumpers

5.21 Mounting the warm air curtain (optional)

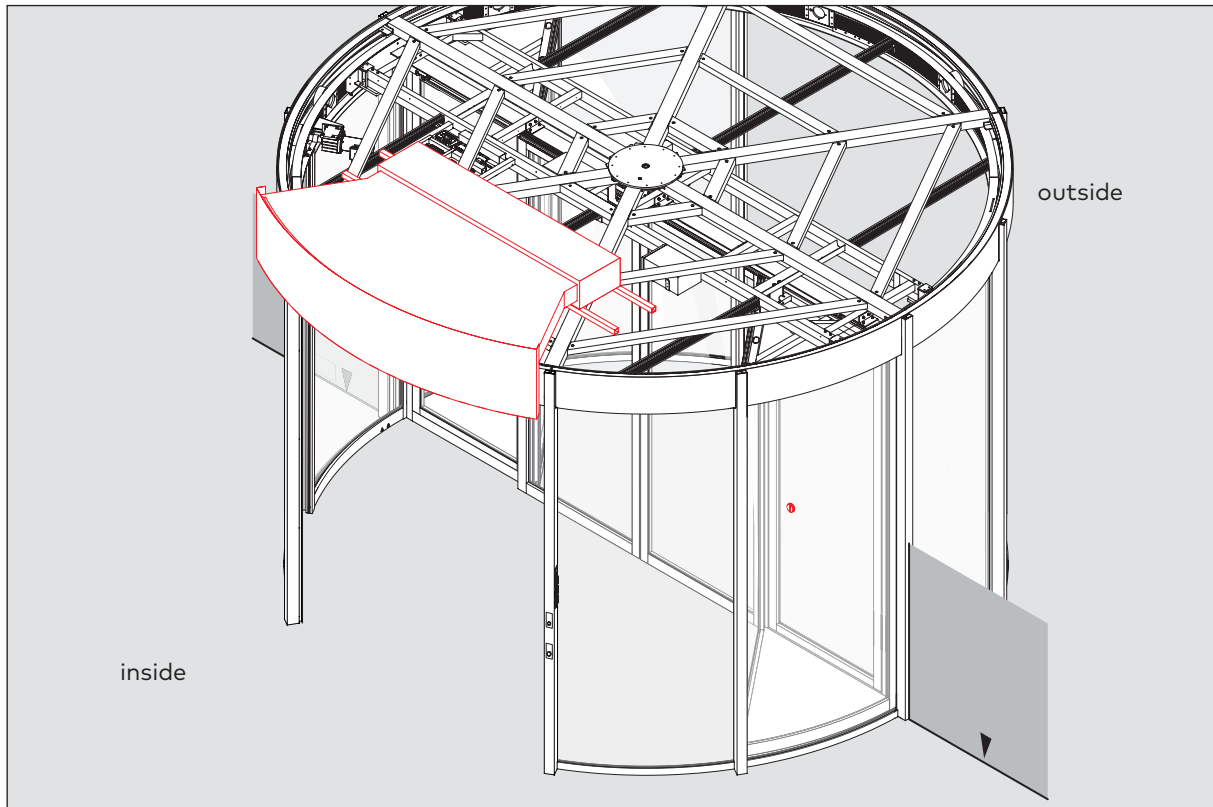


Fig. 97 Warm air curtain overview

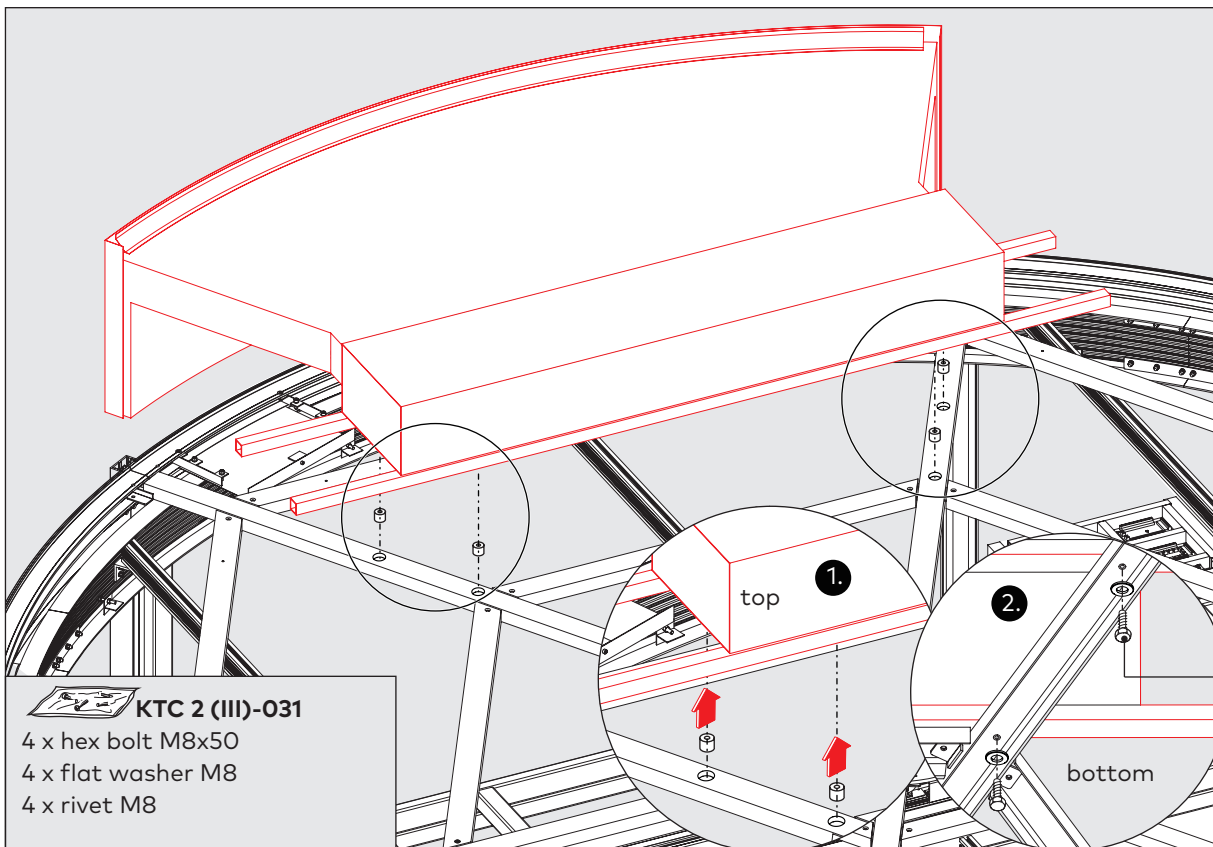


Fig. 98 Mounting the warm air curtain

5.22 Connecting the power supply unit, equipotential bonding and slip ring

Prerequisites

- Qualified electricians
- Qualified mechanics
- Protective clothing
- Safety glasses
- Safety shoes
- Lint-free cloth
- Commercially available degreaser
- Cable tie holders
- Cable ties



WARNING

Danger to life through electric current

If the power cord is connected to the electrical power supply before the power supply unit is connected, there is an immediate risk of death from electric shock.

- Before connecting the power cord to the power adapter, make sure that the power cord is not connected to the local power supply.
- The power cord must only be connected by a qualified electrician.

Make sure:

- The power cord of the power supply unit is not connected to the electrical power supply.
- Wiring diagram is available.
- There is an installation diagram available.



Attention

Property damage due to improperly laid cables!

1. Check that all cables have been properly laid and connected in accordance with the wiring and installation diagrams. If necessary, stick the cable clamps underneath the control unit with double-sided adhesive tape and re-lay the cables or connect them. Lay the cables in such a way that they cannot be damaged by the ceiling panels.

Connecting the equipotential bonding

- Always earth (ground) door system with the aid of an external equipotential bonding.
- Mount the cementing at a suitable position within the door system - depending on prevailing conditions.
- Please note that at least 6 mm² is required for the external connection.

Connect slip ring

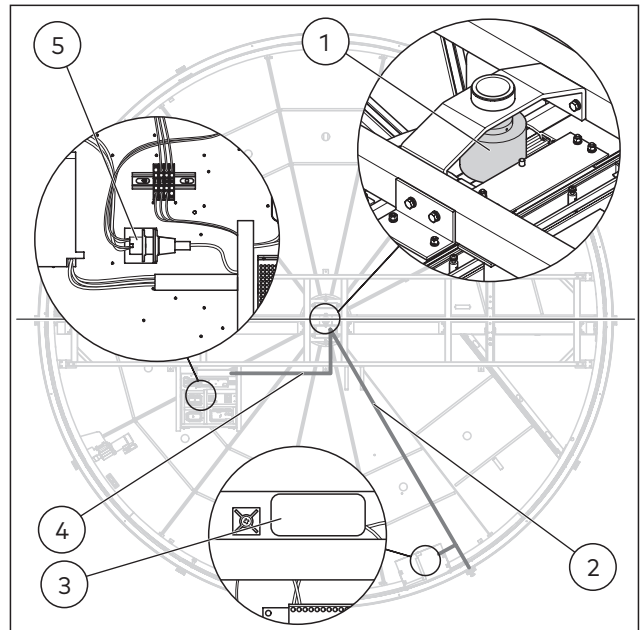


Fig. 99 Connect slip ring

2. Lay a cable (Fig. 99/4) from the slip ring (Fig. 99/1) to the rotating part of the door.
3. Lay a cable (Fig. 99/2) from the slip ring (Fig. 99/1) to the fixed part of the door.
4. Guide the slip ring line (Fig. 99/4) to the mains connection (Fig. 99/5) in the control unit.
5. Guide the slip ring line (Fig. 99/2) to the mains connection (Fig. 99/3) in the canopy integrated control unit.



Attention

Property damage due to improper connection!

6. Connect all cables that are not yet connected to the control unit (). Observe the wiring diagram.
7. Route the building's power supply to the power supply unit and connect it. Observe the wiring and installation diagrams.

6 Commissioning

Prerequisites

- Qualified electricians
- Qualified mechanics
- Protective clothing
- Safety shoes
- Ladder



Note

The teach-in run and subsequent parametrization can also be carried out using the dormakaba handheld devices (available separately).

6.1 Safety during initial commissioning



DANGER!

Danger to life through electric current

The drive unit, control unit, and power supply unit are energized components. Touching the components poses an immediate risk of death from electric shock.

- Immediately replace components and cables with damaged insulation.
- Make sure that all cables are routed flush on the structure and cannot come into contact with other components (e.g. door leaves).



WARNING!

Risk of injury due to automatic start-up of the revolving door

The revolving door can be set in motion automatically. If there are people in the revolving door, they may be at risk of injury.

- Never turn the revolving door on or off when people are in it.
- Only release the emergency stop button once there are no longer any people in the revolving door and the issue causing the emergency stop has been resolved.



WARNING!

Safety equipment not yet in operation at initial commissioning!

During the teach-in run, the safety equipment required for normal operation is not yet operational. This may result in risk of entanglement and risk of crushing at the closing edges, which may cause injuries.

- Start the teach-in run only after everyone has left the danger zone.
- Ensure that no one is present in the area of the closing edges.

6.2 Before initial commissioning

The revolving door must be checked for the following points before initial commissioning:

- The door system is completely mounted.
- The ceiling cover has not yet been mounted.
- The electrical power supply is connected but not yet switched on.
- The structure is intact (e.g. no cracks in the glass).
- All components supplied separately are connected according to the installation instructions and wiring diagram.
- The zero-point sensor (Fig. 100/2) and the corresponding cam (Fig. 100/1) were adjusted.
 - ▶ Clearance between sensor and cam: 3–5 mm
 - ▶ When the unit is in the locked position, the cam must be opposite the sensor.

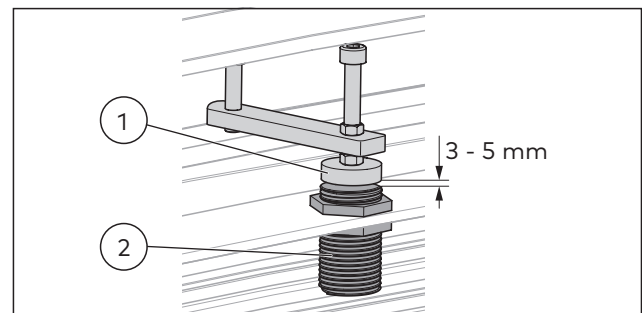


Fig. 100 zero point sensor

- The emergency stop button has been pushed.
- The door leaves can be turned by hand.
- Door leaves are in summer position.
- Jumpers in the program switches are set correctly (Fig. 101).

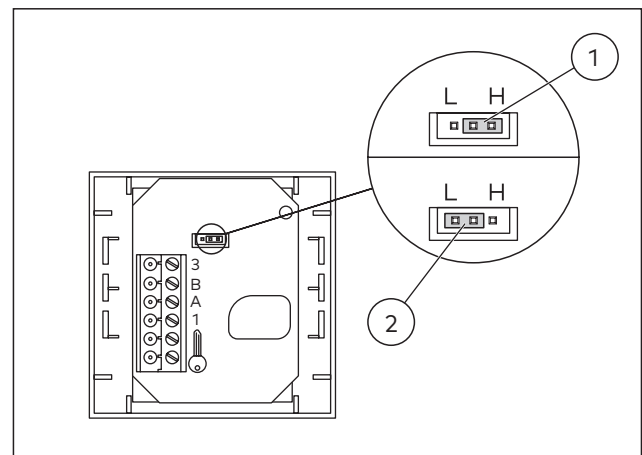


Fig. 101 Jumper settings

- (1) Program switch for sliding doors
- (2) Program switch for revolving doors

- DIP switches 1 + 2 in the control units must be set as follows:

- ▶ I1 control unit: DIP 1 - OFF, DIP 2 - OFF
- ▶ Control unit O1: DIP 1 - OFF, DIP 2 - OFF

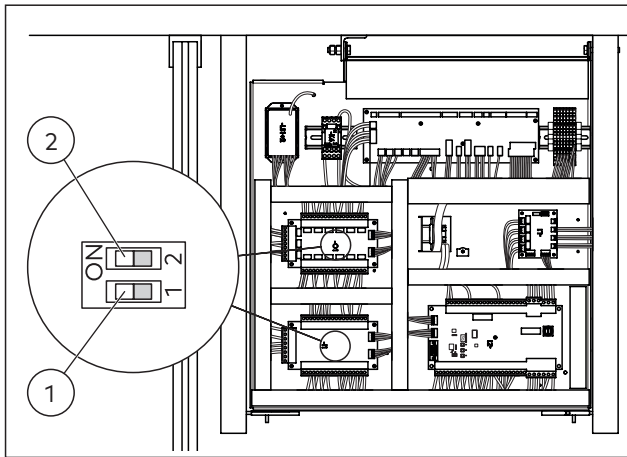


Fig. 102 DIP switches control unit

- ▶ Canopy integrated control unit I2
DIP 1 - ON, DIP 2 - OFF
- ▶ Canopy integrated control unit O2
DIP 1 - ON, DIP 2 - OFF

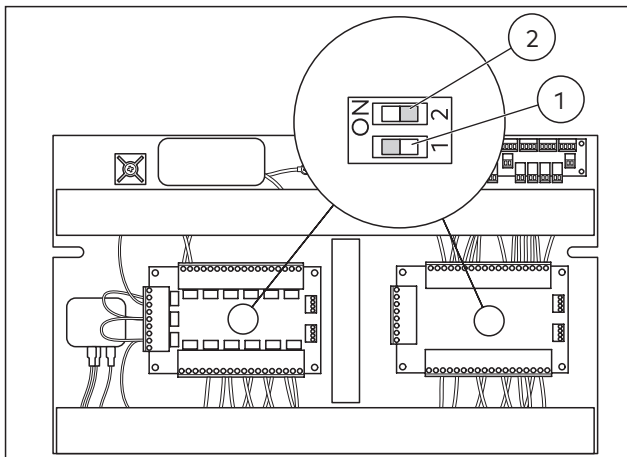


Fig. 103 DIP switches canopy integrated control unit

- DIP switch (Fig. 104/1) on the lock board in the control unit must be set to S.

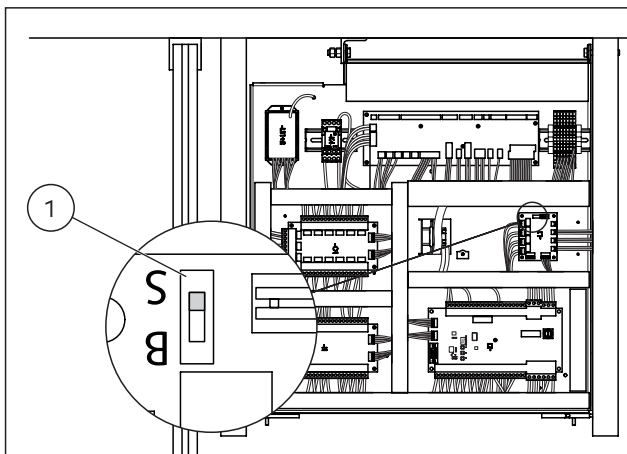


Fig. 104 DIP switch lock board in control unit

- No electrical discharge lamps are installed in the immediate vicinity of the door system.

6.3 Commissioning of sliding doors

6.3.1 Carrying out a teach-in run

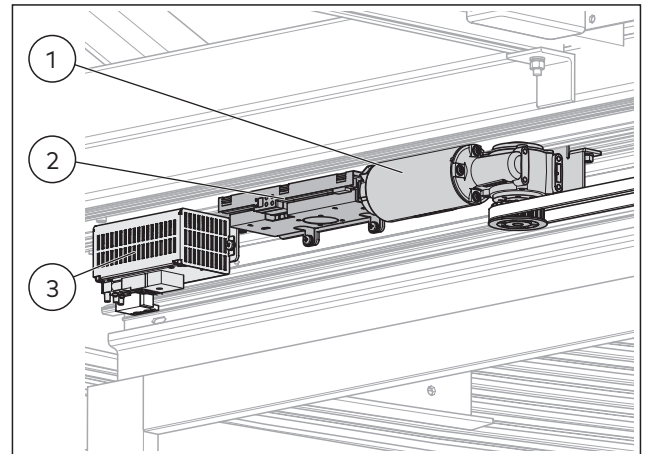


Fig. 105 Drive unit of the sliding door

- (1) Drive
- (2) Control unit (ES 200 basic module)
- (3) Power supply unit

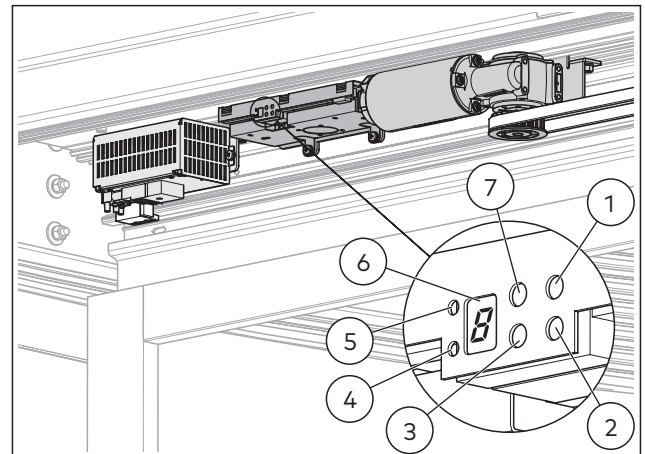


Fig. 106 Control unit

- (1) SERV key (service)
- (2) SEL key (select)
- (3) - button
- (4) LED 1
- (5) LED 2
- (6) Display
- (7) + button

Prerequisites

- The drive is fully mounted.
- The protective earth (PE) is connected.
- The safety sensors are connected.
- Separately supplied components such as program switches, activators, motion sensors, night/bank key switches and emergency stop buttons are installed and connected.
- The end stops are set so that both active leaves touch the end stops when the wings have reached the maximum opening width.
- When the door is closed, the active and passive door panels must not collide with the sealing profiles.
- The door must function smoothly. Check the length of the toothed belt connecting screws and replace the screws if necessary.

- The infrared sensors must be bridged (terminals 21–23, 26–28 at ES 200) or de-activated (LEDs 1 + 2 are on).
1. Press the emergency stop button.
 2. Set the revolving door to the "Summer" configuration.
 3. Set the revolving door program switch to "Summer."
 4. Disconnect the ES 200 basic module from power supply (if the system is equipped with a battery pack, the battery pack has to be disconnected from the control unit as well).
 5. Make sure the sliding door program switch is set to "Off."
 6. Open the door leaves by 50% (unlock the door manually, if required).

7. Hold down **SERV** while plugging in the power cord.
8. Hold down **SERV** until a rotating circle appears on the display.
 - The door starts a closing cycle.

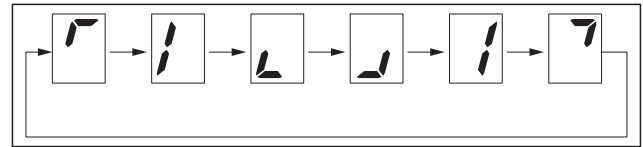


Fig. 107 Display during teach-in run

9. If the door opens, press - on the control unit once in order to change the rotation direction of the drive.

The learning cycle begins in the locked position. First the door opens at high speed, then it closes. The learning cycle is complete when the 7-segment display no longer shows the rotating circle.

10. If the toothed belt derails several times during the learning cycle, re-tension the belt and reset the system to the original settings.

After the system has been reset to original settings, all settings varying from the original settings (such as drive type, door type) have to be adjusted manually via the keys on the control unit or with the aid of a handheld (parametrization).

11. Re-activate the bridged infrared sensors as required and check for proper functioning.
12. Press **SERV** to trigger a night/bank pulse and test the sliding door and infrared sensors.

6.3.2 Setting the sliding door parameters

1. Press **SEL** to access the menu level.
2. Press **+** or **-** to navigate to the parameter.
3. Press **SEL** to choose the parameter.
4. Press **+** or **-** to adjust the value.
5. Press **SEL** to return to the menu level.

6.3.3 Confirmation of sliding door error messages

If an error occurs at the sliding door, the display shows .

1. Press **SEL** to display the error symbol.
2. If there are multiple errors, press **+** or **-** to switch between the errors.
Up to 10 errors can be saved.
3. Eliminate the cause of the error.

Symbol	Error/components causing the error
	No error
	Obstacle
	Lock
	Program switch
	Light barrier
	Incremental encoder
	Battery pack
	System
	Emergency stop
	Error in learning cycle parameter
	Drive error

6.4 Commissioning of revolving doors

6.4.1 Operation of the control unit

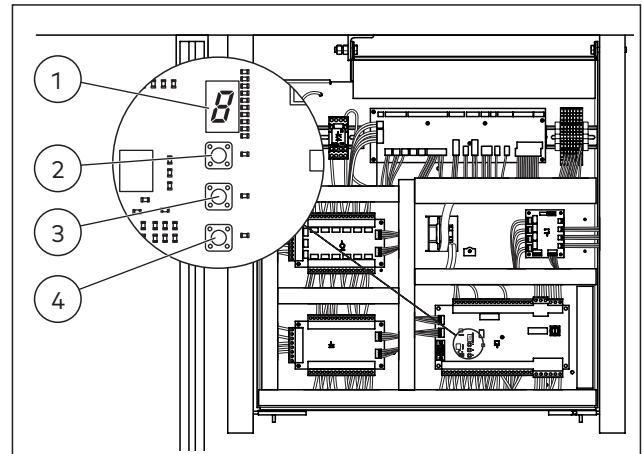


Fig. 108 Control unit

- (1) Display
- (2) **+** push button
- (3) **-** push button
- (4) **Select** button

The control unit is parametrized via the buttons.

Settings and phases of the teach-in run are shown on the display.

The following tasks can be performed:

- Configuration of the control unit
- Read error log
- Maintenance
- Reset system to original settings
- Start of a learning cycle
- Resetting maintenance parameters
- Display of the X-position (= locking position)
- Display of warning messages

The standard display shows a dot .

Different types of information are represented differently by flashing or displaying a decimal point behind the symbol.

Type of symbol	Flashes	Decimal point
Parameter	No	Yes
Current position	Yes	No
Current value, error symbol	No	No
Initialization, X-position	All segments flash	

The following functions can be executed by pressing the buttons **+**, **-** and **Select** (Fig. 108/2)

- +** push button
 - Scroll through parameters and error messages.
 - Increase the parameter value.
- push button
 - Scroll through parameters and error messages.
 - Reduce the parameter value.

Select **button**

- Open parameter menu.
- Save the changed value.

6.4.2 Acknowledging error messages



WARNING!

Risk of injury when eliminating fault with unknown error message

Unauthorized fault elimination of an error message not described may result in serious injuries.

- If the error message is not on dormakaba's error list ("8.10 Error list" on page 116), always contact dormakaba to correct it.
- Never attempt to eliminate an unknown error message on your own.

Errors occurring during the teach-in run or commissioning of the sensors are shown on the display of the control unit with an error number. The "Error no." column on the error list shows which error message this is.

The "Acknowledgement" column of the error list indicates whether an error message is acknowledged

- Automatic (A)
- with the program switch (M)
- by carrying out a learning cycle (L)
- by resetting the power supply (-)

Proceed as follows to acknowledge an error message via the program switch (M):

1. Check the error number on the display of the control unit and correct it according to the error list (8.10 Error list, p. 116).
2. Ensure that no one is in the revolving door.
3. Set the program switch to 0 (Off).
4. After waiting for at least 3 seconds, restart the revolving door using the program switch.
5. If necessary, run the teach-in run or commission the sensors again.

6.4.3 Confirming warning messages

If there is no error but a warning, the corresponding warning message will be shown on the display:

Every 3 seconds, the dot (not blinking) is replaced by the error symbol for 500 ms.

If there are multiple warnings, they will be displayed one after the other.

A warning informs the operator about possible functional limitations, malfunctions or damage. The warning will disappear once the cause of the possible malfunction, failure or damage has been remedied. In contrast to a fault situation, the system can still be operated.

Symbol	Warning message, cause, situation
	No learning cycle was carried out
	Locking device registered, but no IO4 module available/defective module
	Emergency stop function activated
	The system has learned the program switch for the sliding door, but no switch is available/switch is defective
	Electromechanical locking device does not work properly
	Mandatory parameter(s) missing, e.g. wheel diameter

6.4.4 Commissioning the frequency inverter (Lenze i550)



Attention

Property damage due to improper configuration!

1. Configure the frequency converter according to the enclosed manufacturer's documentation.
2. Use the keyboard to set the following parameters:

Parameter	Description	Value
P450:01	Preset 1 (positioning speed)	12.3 Hz
P450:02	Preset 2 (speed disabled)	18.4 Hz
P450:03	Preset 3 (Walking speed)	38.0 Hz
P220:00	Acceleration time 1	2.8 s
P221:00	Deceleration time 1	1.0 s
P225:00	Quick stop time	0.5 s

6.4.5 Carrying out a teach-in run



WARNING!

Danger of death due to inactive safety equipment!

During the teach-in run, the safety equipment required for normal operation is not yet operational. Persons present in the revolving door during the teach-in run may sustain injuries.

- Ensure that no one is present in the area of the door leaves.
- Start the teach-in run only after everyone has left the area.

Prerequisites

- The door is in its original position.
- There is no malfunction of the encoder, the zero point sensor or the frequency converter.
- The optional sliding door has already been put into operation.
- The sliding door and the showcase doors are closed.
- The frequency converter and the control unit have been parameterized.
- The infrared sensors have been configured according to the circuit diagram or are bridged.

Attention

Ensure that the wheel diameter has been correctly entered and confirmed after each factory setting.

0 = 150 mm
1 = 160 mm

During the learning cycle, the door learns the diameter of the door. The system therefore counts the encoder pulses the system requires to perform a full rotation. A full rotation corresponds to the interval between 2 starting point signals. The revolving door moves at positioning speed until the door has reached its locking position for the second time. If a locking device has been configured, the system requests a test. The display shows a rotating circle.

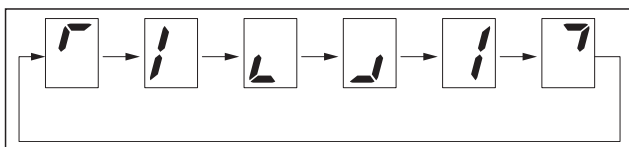


Fig. 109 Display during teach-in run

The electromechanical locking device is switched off.
The motor contact is switched on.

1. Press the emergency stop button at the entrance or exit.
2. Switch on the electrical power supply.
 - ▶ The control unit is initialized. All segments of the display light up briefly.
3. Set the revolving door program switch to Automatic 1.
4. Press and hold the **Select** button for 4 seconds.
5. Ensure that no one is in the revolving door.
6. Unlock the emergency stop button.
 - ▶ The revolving door starts the teach-in run.
 - The door system rotates at setting speed.
 - The door performs at least one full rotation.
 - After the door completes the cycle, it will return to functioning in standard mode.
 - ▶ The display shows a rotating circle.
 - ▶ The teach-in run is terminated as soon as an error occurs during the teach-in run.
7. If the teach-in run is terminated, press the emergency stop button and correct the error according to the error list (8.10 Error list, p. 116).
8. Start the teach-in run again and correct additional errors, if necessary.
9. Make sure that the control unit has learned the correct diameter by checking the parameter.

6.5 Commissioning of the sensors

The connected sensors are only operational after their function test.



Attention

Property damage due to improper configuration!

1. Configure the sensors according to the enclosed manufacturer documentation.

6.5.1 IXIO-ST (canopy sensor for non-CE versions)

1. Set the following parameters:

Parameter	Value
AIR: IMMUNITY	PH < 2.8 mm 2 PH > 2.8 mm 6
AIR: WIDTH:	8 (500 mm)
AIR: NUMBER:	1
AIR: PRESENCE TIME	Standard value: 3 (1 min)

6.5.1.1 IXIO-ST (sliding door sensor)

1. Set the following parameters:

Parameter	Value
AIR: IMMUNITY	PH < 2.8 mm 2 PH > 2.8 mm 6
AIR: WIDTH:	1 or 2 depending on door width
AIR: NUMBER:	2
AIR: PRESENCE TIME	Standard value: 3 (1 min)
REDIRECTION	1

6.5.1.2 BEA Flatscan SLZ (sliding door sensor)



Note

For unit diameters of 4.20 m or more, the sliding doors must be protected with BEA Flatscan SLZ sensors.

1. Refer to the enclosed conversion manual for the parameter settings for the BEA Flatscan SLZ sensors.

6.6 Setting the driving parameters according to customer specifications



ATTENTION

Property damage due to improper parametrization

If travel parameters are not set according to the facility operator's specifications, the travel parameters may possibly need to be reset later, which means additional costs.

- Set the travel parameters only according to facility operator specifications.
- Contact dormakaba if no specifications are available ("1.6 Customer Service" on page 5).

The travel parameters for the revolving door are entered after the teach-in run and commissioning of the sensors. The travel parameters are set according to the on-site specifications of the facility operator.

Make sure:

- Travel parameters (8.6 Revolving door parameters, p. 111) are available.

Adjusting a single-digit parameter

1. **Press Select.**
 - ▶ The first parameter is displayed as an icon.
2. **Press + or -** to select the next or previous parameter.
3. Press **Select** to view the selected parameter value.
 - ▶ The preset value is displayed.
4. **Press + or -** to change the parameter value.
5. Press **Select** to save the parameter value and exit the parameter level.

Adjusting a multi-digit parameter

1. **Press Select.**
 - ▶ The parameters accessed appear as symbols.
2. **Press + or -** to select the next or previous parameter.
3. Press **Select** to view the selected parameter value.
 - ▶ The first digit of the preset value is displayed.
4. **Press Select.**
 - ▶ The number can now be adjusted.
5. **Press + or -** to change the digit.
6. Press **Select** to save the digit and go to the next digit.
7. Follow the steps above to adjust the remaining digits.
8. After adjusting the last digit, press **Select** to exit the parameter level.

Adjusting maintenance parameters

1. **Press Select.**
 - ▶ The parameters accessed appear as symbols.
2. **Press and hold + and -** simultaneously for 3 seconds.
 - ▶ The display shows
3. Release both keys.
 - ▶ The first maintenance parameter is displayed as an icon.
4. Adjust the parameters as described above.
5. To reset all maintenance parameters press and hold **+** and **SEL** simultaneously for 3 sec.
 - ▶ The display shows

6.7 Restore factory settings

1. Disconnect the control unit from the power supply.
2. Press and hold **Select** while connecting the power supply.
 - ▶ The display shows a rotating circle.

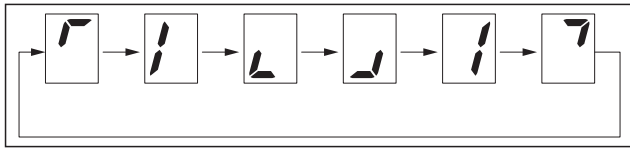


Fig. 110 Display during reset

- ▶ When the display shows , factory settings have been restored.

6.8 Carrying out a function test

Function test overview

The function of the revolving door must be tested after the teach-in run and commissioning of the sensors.

Depending on the actual revolving door versions, the following functions must be tested in the course of commissioning:

- Emergency stop button
- Restart of the revolving door after an emergency stop
- Disabled access button
- Active safety bumper – front mullion
- Motion sensors on entrance and exit
- Door leaf sensors
- Programs of the program switch
- Function of the night/bank switch*
- Electromechanical locking device

* Optional



WARNING!

Risk of injury due to improper function test

If the safety equipment is not connected correctly, the safety equipment may not work during the function test. This can cause serious injury.

- Ensure that no one is present in the danger zone before starting the function test.
- Leave the danger area immediately if safety equipment does not work/respond as intended.



Note

Optional functions are marked with *.

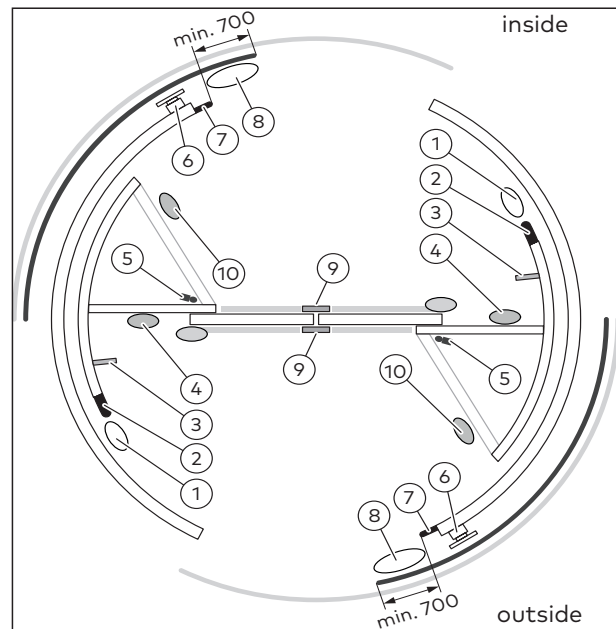


Fig. 111 Safety equipment and operating elements (example)

- (1) Pre-detection sensor
- (2) Passive safety bumper – vertical
- (3) Light barrier 1 (inside) and light barrier 2 (outside)
- (4) Top sensor on door leave
- (5) Safety switch for glass showcase doors
- (6) Internal emergency stop button (outside optional)
- (7) Active safety bumper
- (8) Canopy sensor
- (9) Safety sensor for sliding door
- (10) Person detection sensor

1. Set the program switch for the revolving door to Automatic 1.
2. Test the available emergency stop buttons (Fig. 111/6).

- ▶ When the emergency stop button is pushed, the revolving door stops immediately and the drive unit is disengaged. Then it is possible to turn the door leaves manually.



Note

All emergency stop buttons must be unlocked to test the restart.

3. Unlock the emergency stop button and test the restart of the revolving door.
 - ▶ The revolving door will continue with the current program settings.
4. Test the disabled access buttons.
 - ▶ The revolving door reduces the current speed for 1 rotation and then continues with the current speed.

Warning

Risk of injury due to improper testing!

- Check each of the door leaves individually.

5. Check the reliable response of the following functions of the door leaves while the revolving door is turning:
 - Forward presence sensors (Fig. 111/1)
 - Light barrier (Fig. 111/3)
 - Top Sensor on door leave (Fig. 111/4)
 - Door leaf switches showcase (Fig. 111/5) *
 - Canopy sensors (Fig. 111/8)
 - Safety sensor sliding door (Fig. 111/9)
 - Person detection sensor (Fig. 111/10)
6. Check the active safety bumper – leading mullion (Fig. 111/7) for reliable response on entrance and exit.
7. Set the program switch for the revolving door to Automatic 2.
8. Repeat steps 2-6.
9. Check the program modes on both program switches.

7 Completion of assembly

7.1 Safety during completion of assembly

**WARNING****Danger of death if test not carried out**

On completion of all mounting and installation work, the revolving door must undergo an acceptance test in accordance with the relevant regulations.

- Check the revolving door according to EN 16005.

**WARNING****Danger of death if facility operator instruction not carried out**

On completion of all mounting and installation work, the facility operator must receive instruction according to the handover certificate.

- Carry out all facility operator instructions in accordance with the handover certificate.
- Arrange for facility operator to sign handover certificate.

7.2 Inserting lower ceiling segments

Prerequisites

- Qualified electricians
- Qualified mechanics
- Protective clothing
- Industrial safety helmet
- Safety shoes

- Cable tie holders
- Cable ties
- Ladder

**WARNING****Risk of fire due to wrong lighting**

Depending on the design, in particular with a wooden lower ceiling or brush seals on the door leaves, installation of unauthorized lighting can cause a fire.

- Only use the lighting supplied.
- Use other lighting elements only after consultation with dormakaba.

**WARNING****Risk of injury due to improper mounting of the lower ceiling**

Improperly mounted lower ceiling segments may detach during operation, causing serious injury as well as considerable property damage.

- Always follow the specifications regarding the lower ceiling in the overview plan.

The segments of the lower ceiling are numbered. An overview plan in the supplied documentation shows the arrangement of the lower ceiling segments in the ceiling construction.

Make sure:

- Wiring diagram is available.
- There is an installation diagram available.
- The power supply unit is disconnected from the electrical power supply.

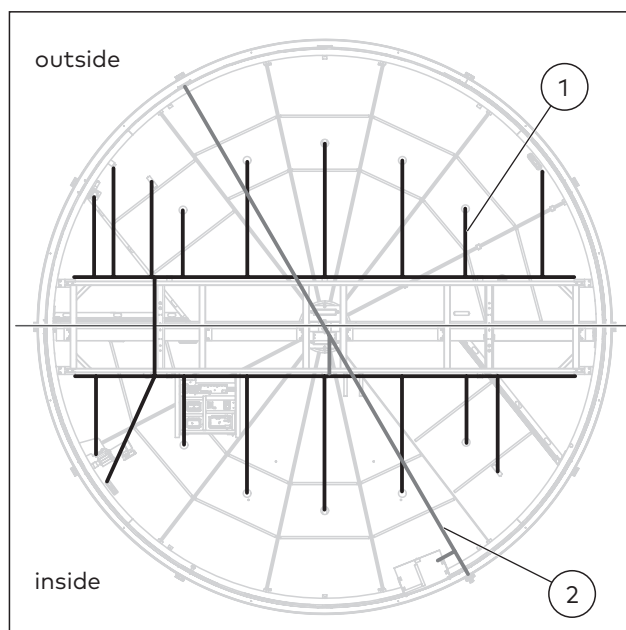


Fig. 112 Cable guiding in the ceiling

- (1) Cable routing rotating part
- (2) Fixed part for cable routing

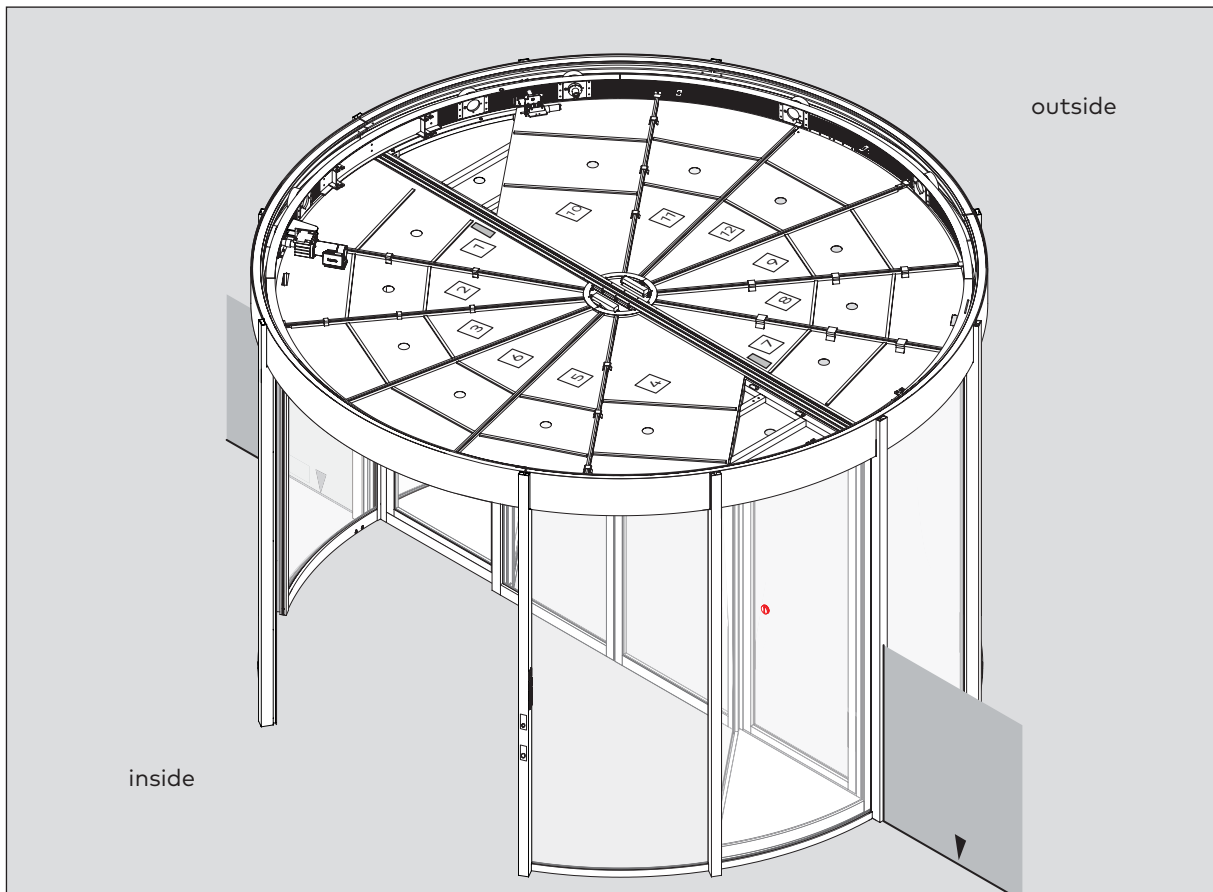


Fig. 113 Side view: Arrangement of the lower ceiling segments (with showcase)

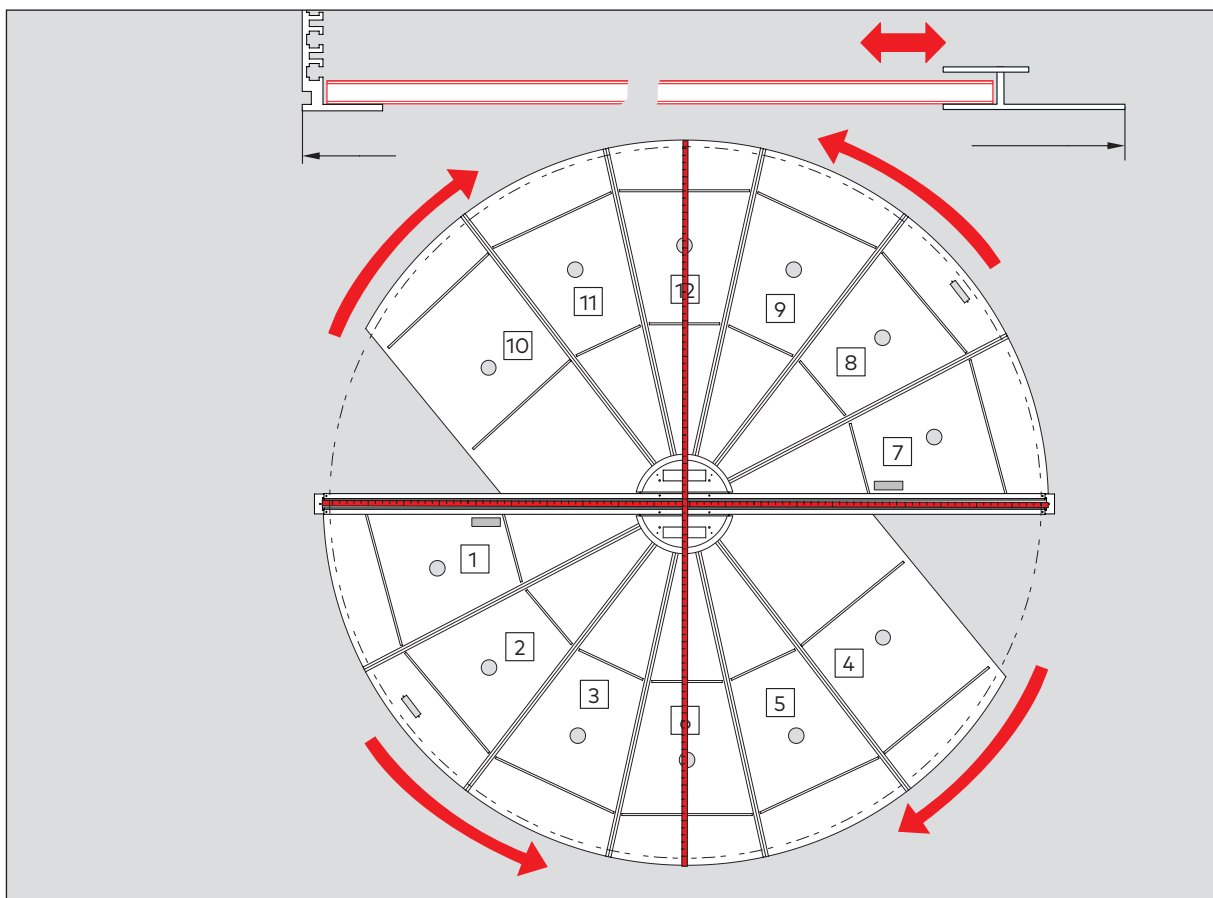


Fig. 114 Top view: Arrangement of the lower ceiling segments (with showcase)

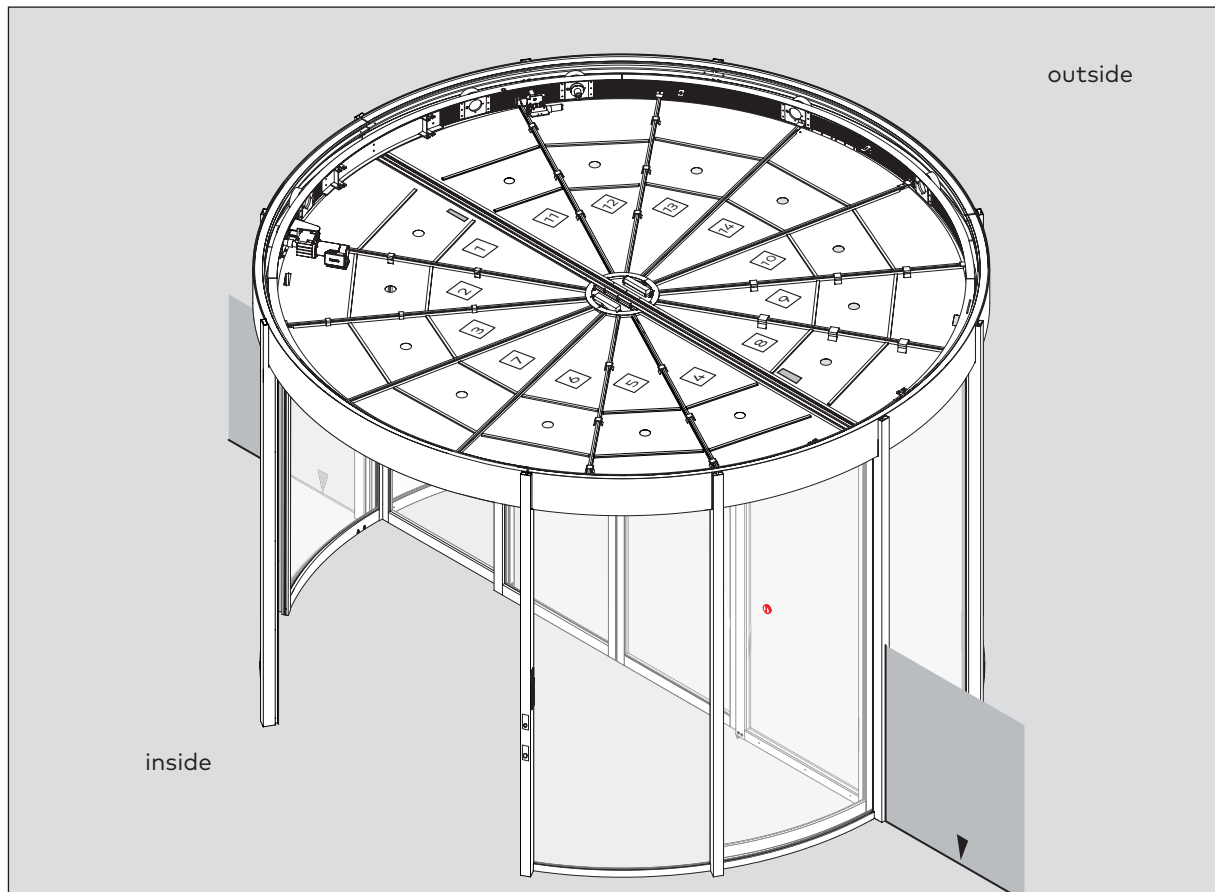


Fig. 115 Side view: Arrangement of the lower ceiling segments (without showcase)

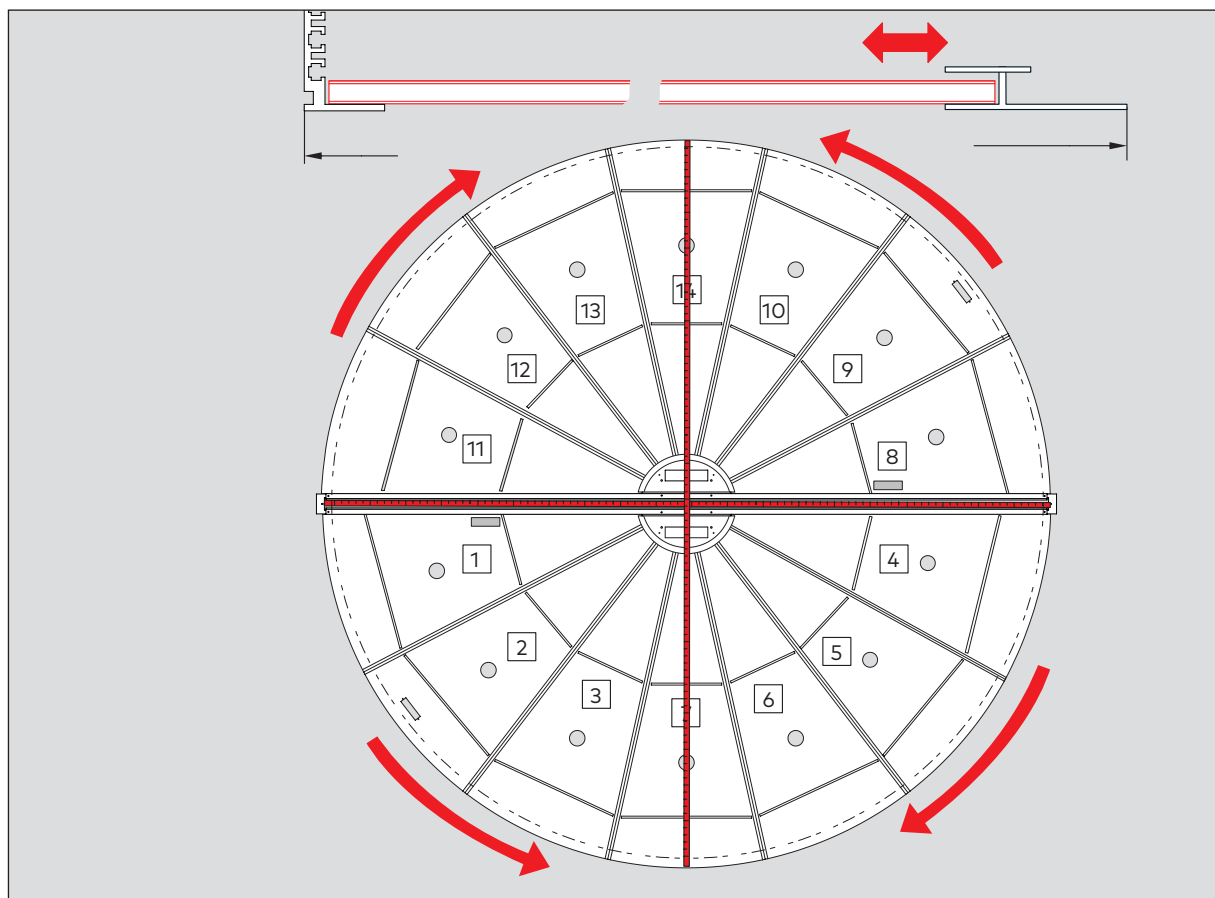


Fig. 116 Top view: Arrangement of the lower ceiling segments (without showcase)

1. Mount the lower ceiling segments in the order indicated by the numbers on the segments.

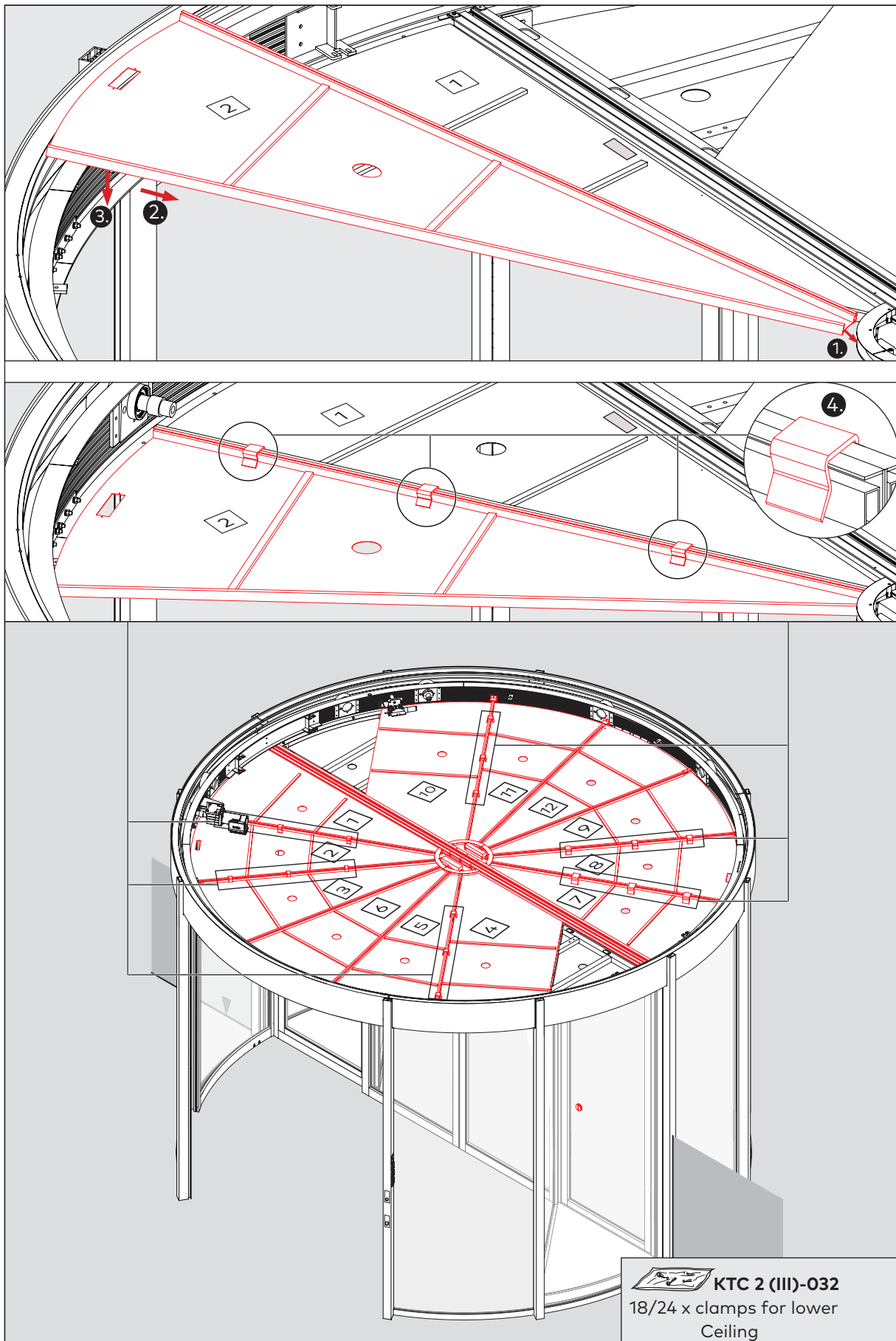


Fig. 117 Mounting the lower ceiling segments with clamps

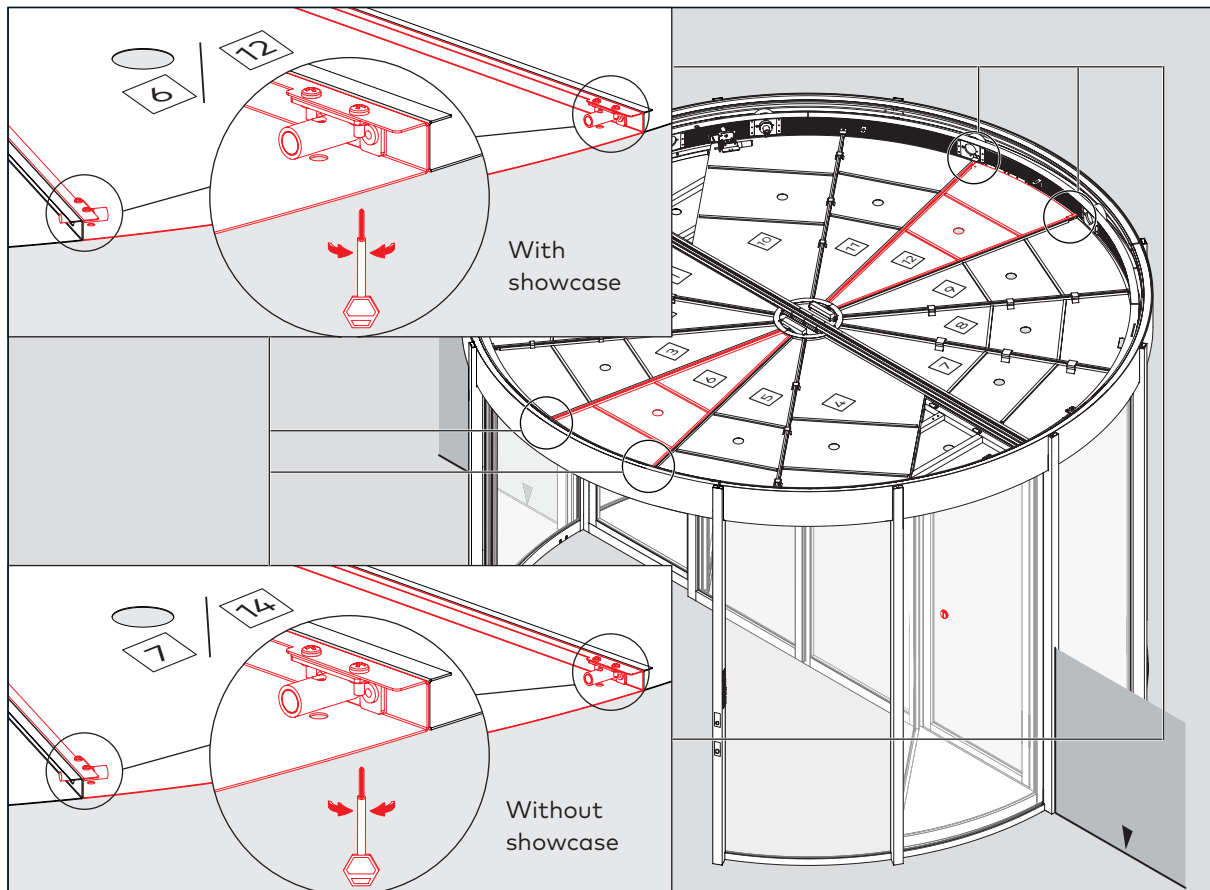


Fig. 118 Mounting the lower ceiling segments

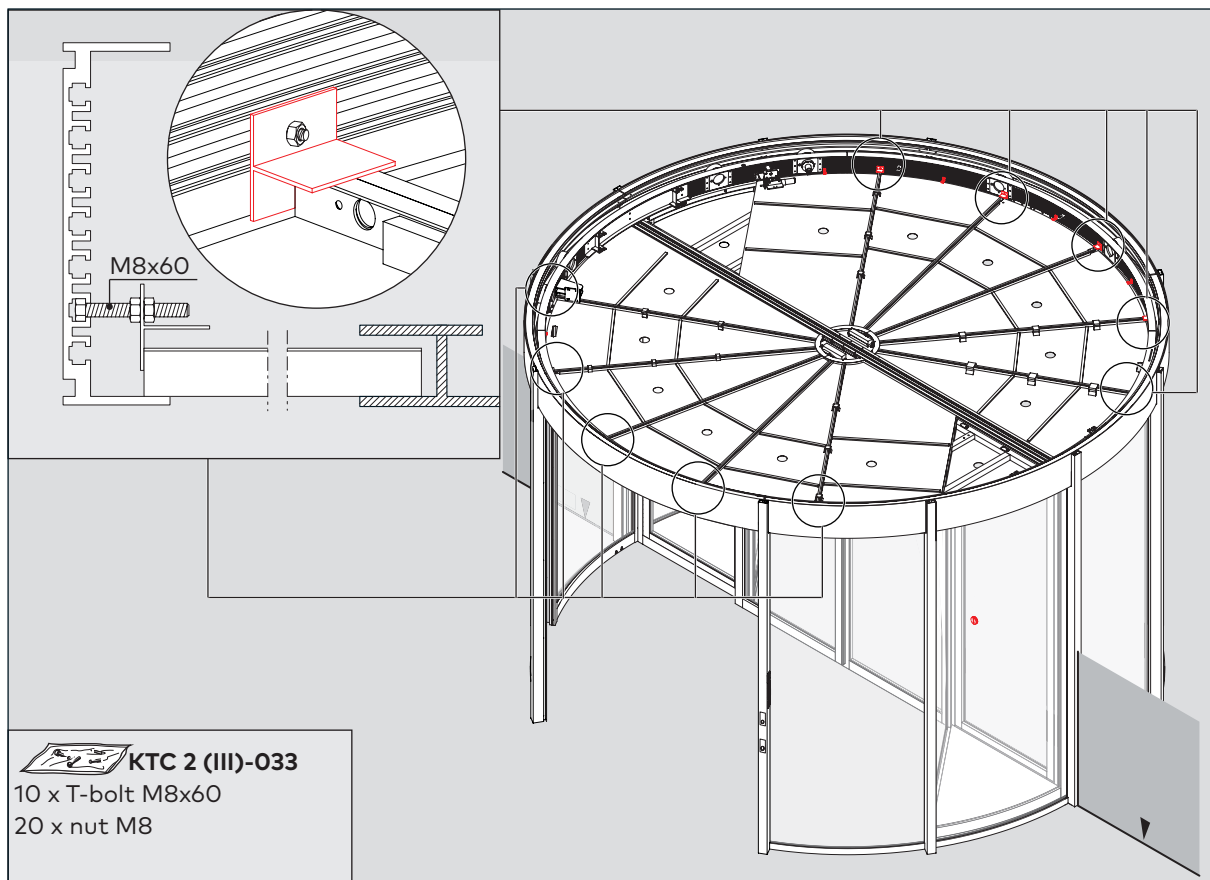


Fig. 119 Securing the edges of the lower ceiling segments

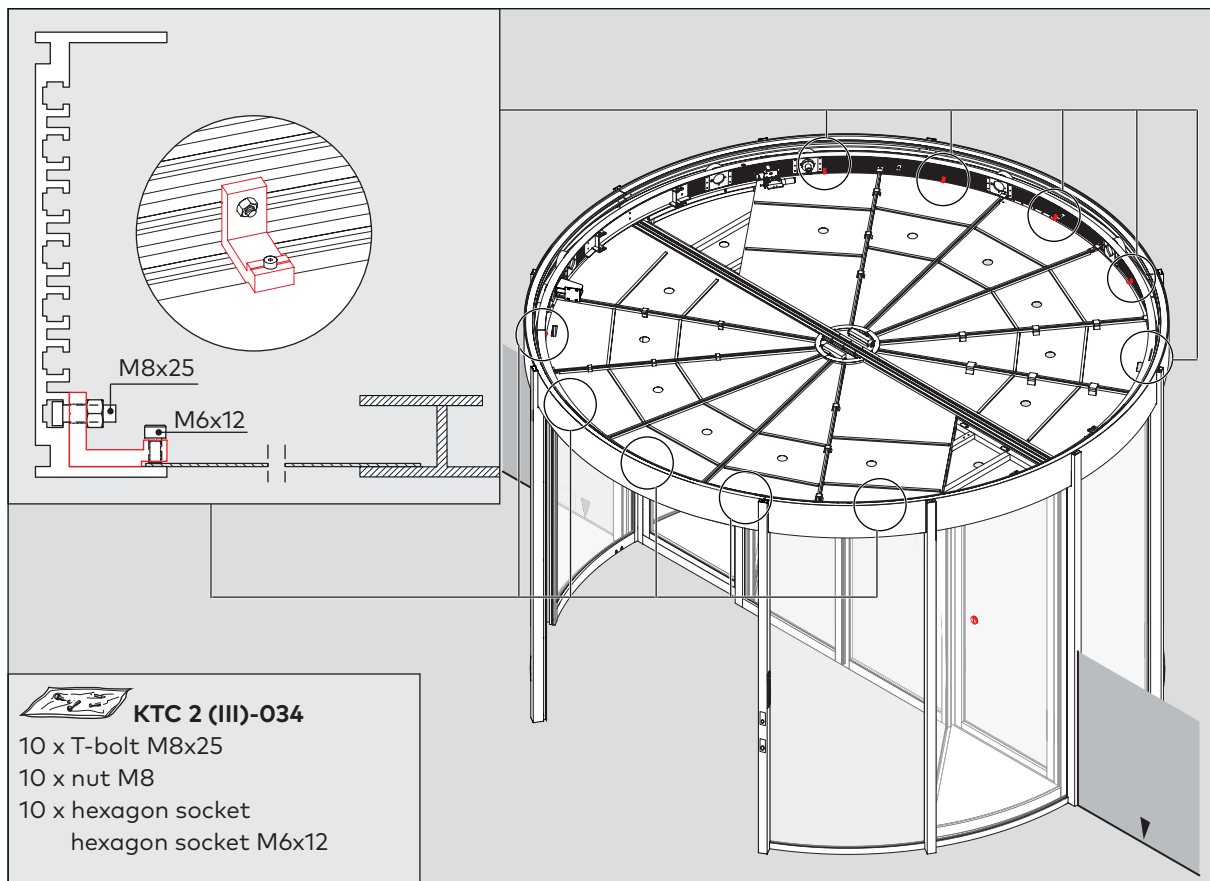


Fig. 120 Securing the lower ceiling segments with angle brackets

7.3 Mounting sensors FLATSCAN SLZ

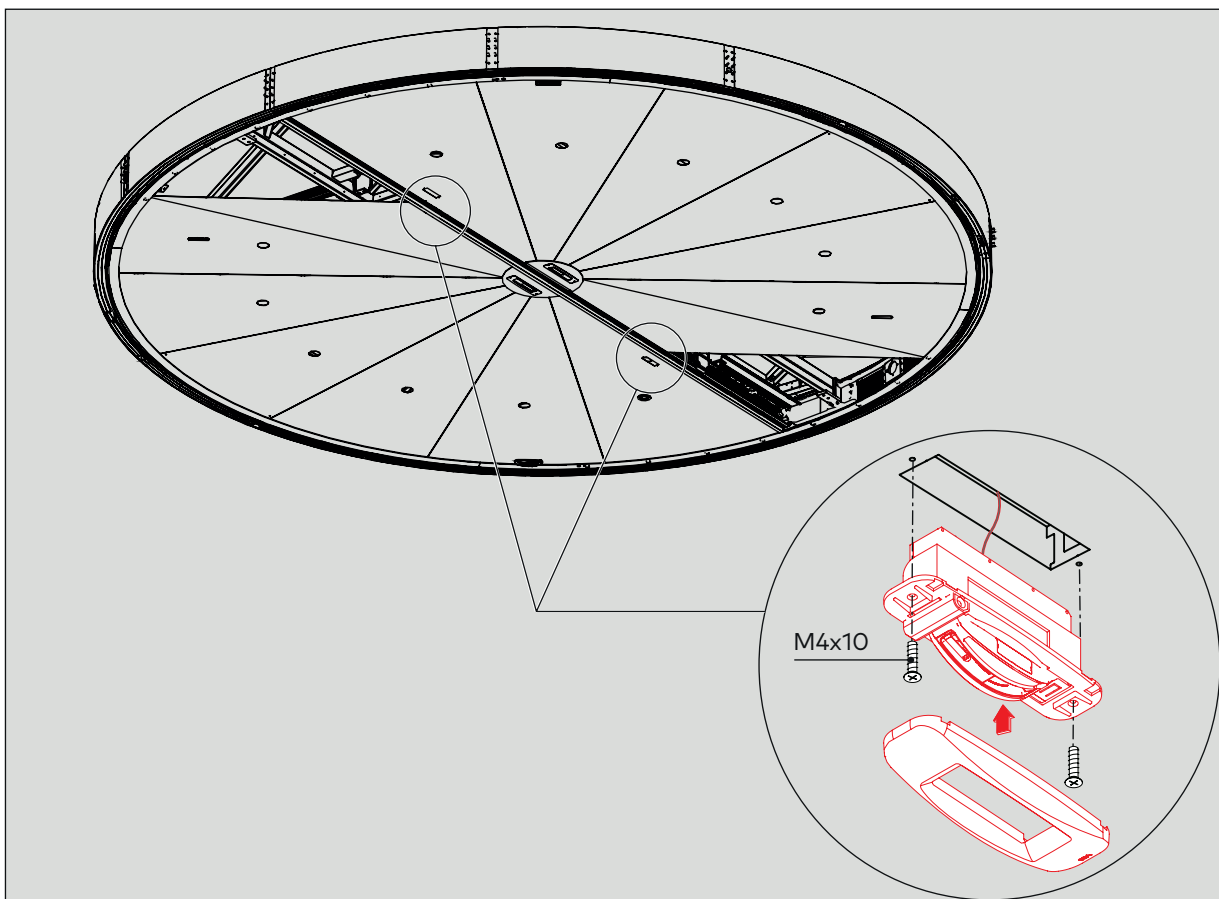


Fig. 121 Mounting sensors FLATSCAN SLZ

7.4 Mounting the upper ceiling

Requirements

- Qualified mechanics
- Protective clothing
- Industrial safety helmet
- Safety shoes
- Ladder



WARNING

Risk of falling when mounting the upper ceiling

There is a risk of falling when mounting the upper ceiling. Depending on the installation height, this can lead to serious or even fatal injuries.

- For upper ceilings that are not accessible with a working platform, ladder or similar, wear a safety harness.
 - Always keep access routes free of obstacles.
 - Remove tripping hazards.
-

1. Mount the upper ceiling segments in the order indicated by the numbers on the segments.

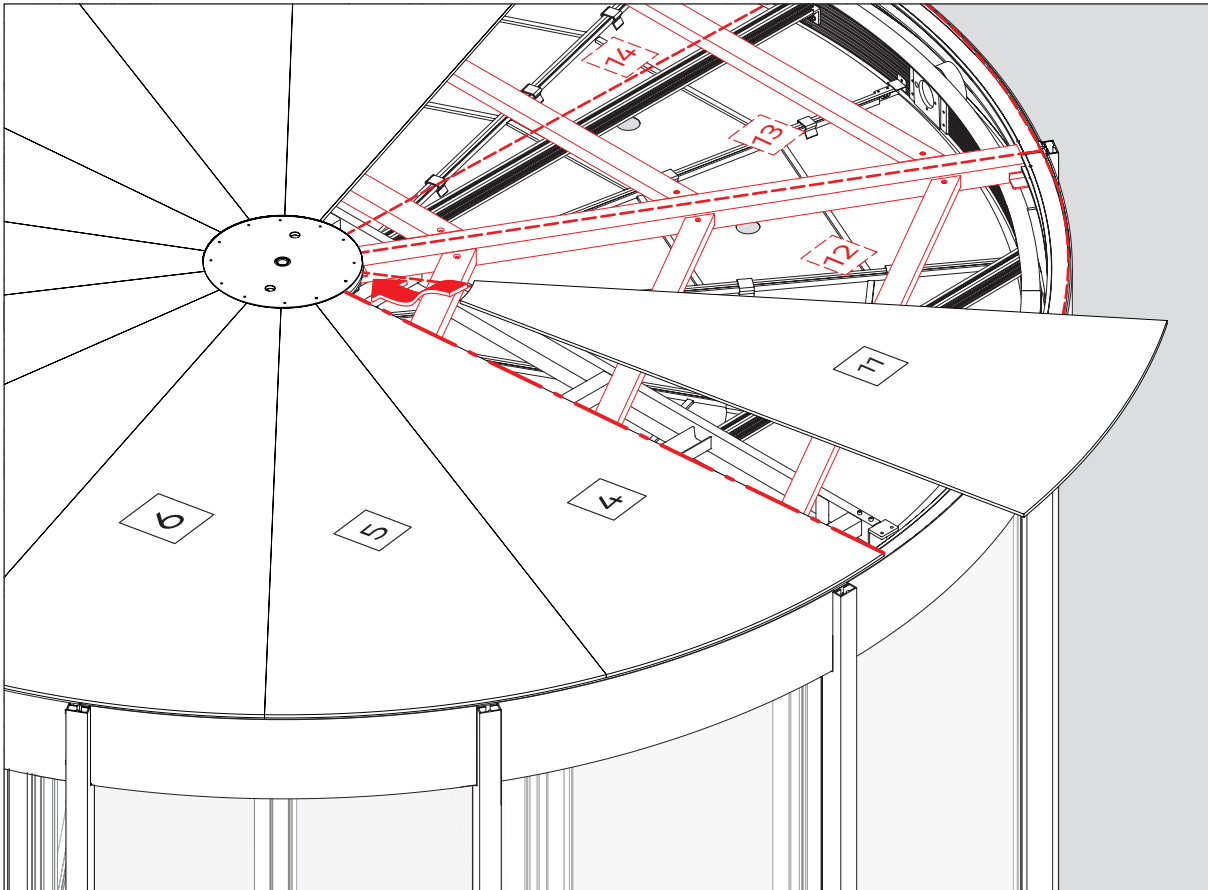


Fig. 122 Mounting the upper ceiling segments (standard canopy height CH = 300 mm)

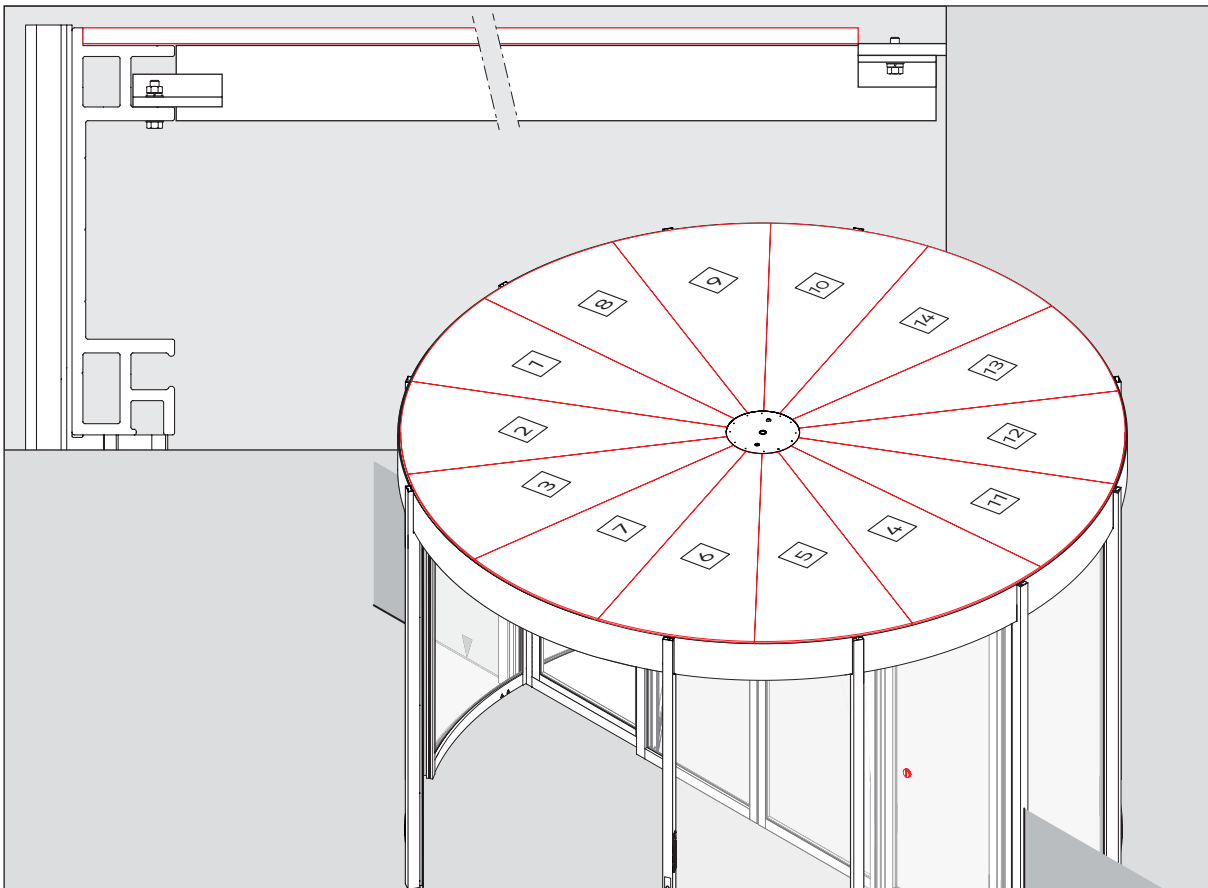


Fig. 123 Mounting the upper ceiling segments

Mounting the raised upper ceiling

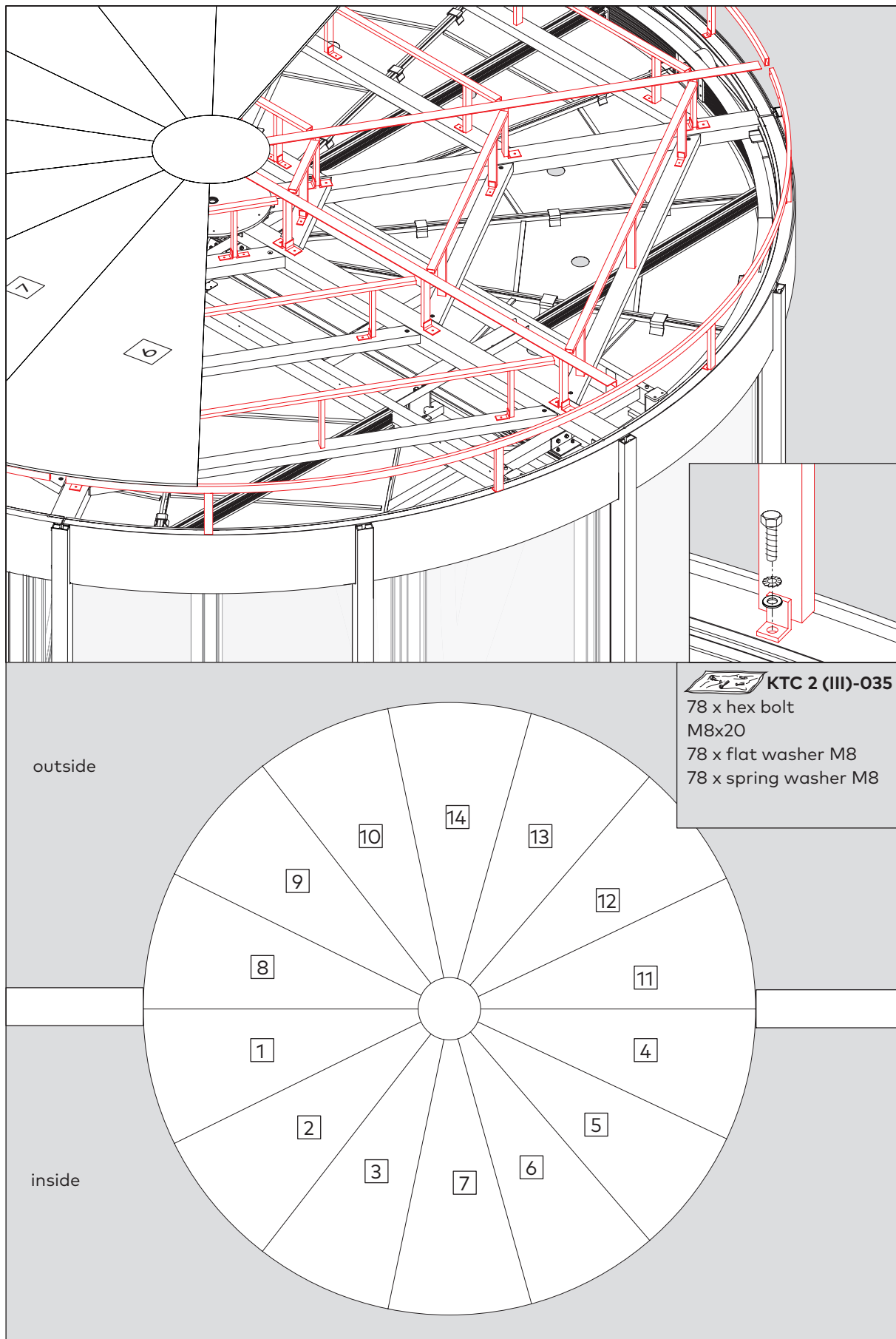


Fig. 124 Mounting the elevated upper ceiling (elevated canopy height CH > 300 mm)

7.5 Apply silicone

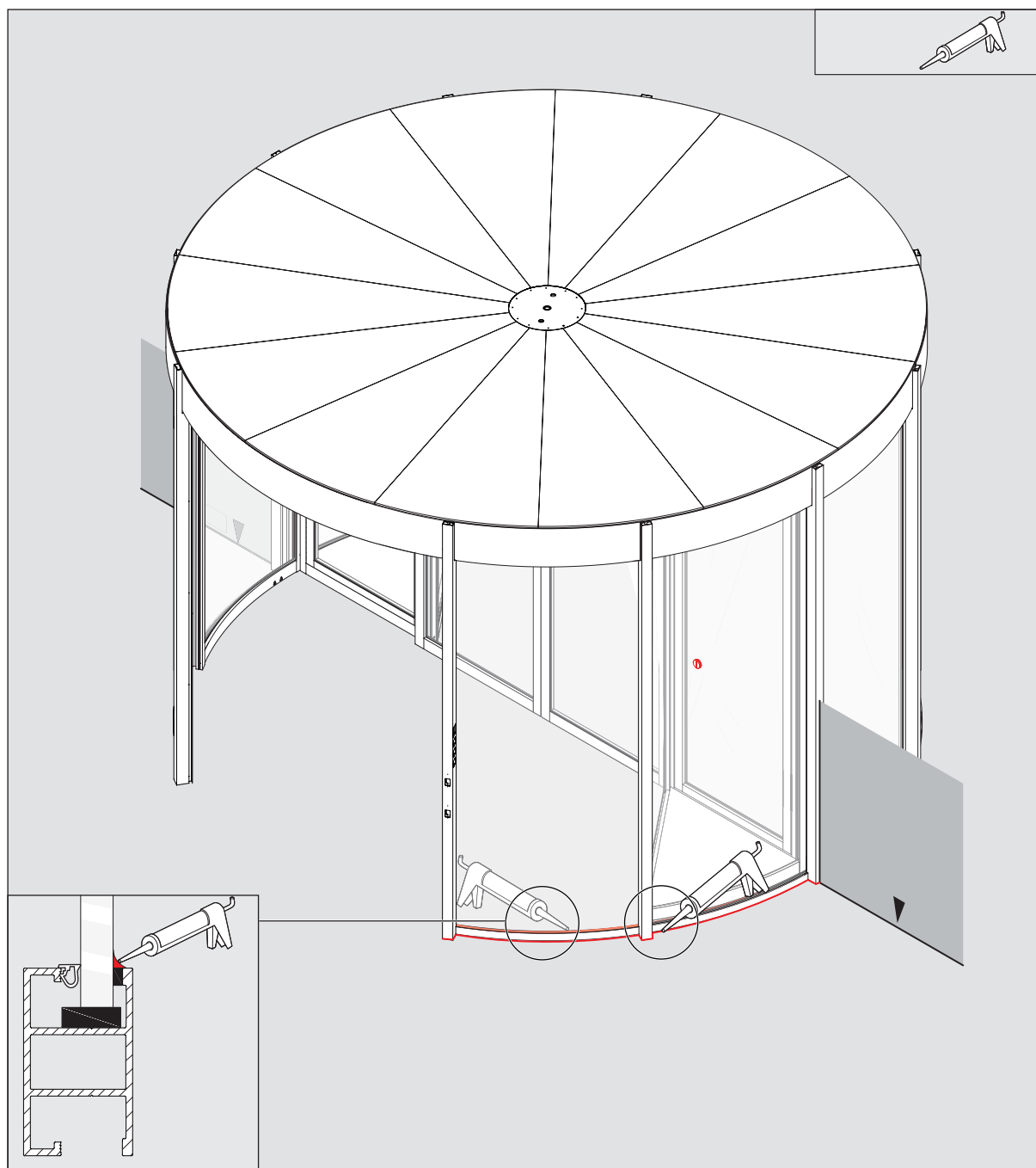


Fig. 125 Apply silicone

1. Apply silicone to the inside of the door between the drum wall and the bottom frame.
2. If necessary on site, apply silicone to the outside of the door between the drum wall and the floor.

7.6 Mounting the rainproof cover (optional)

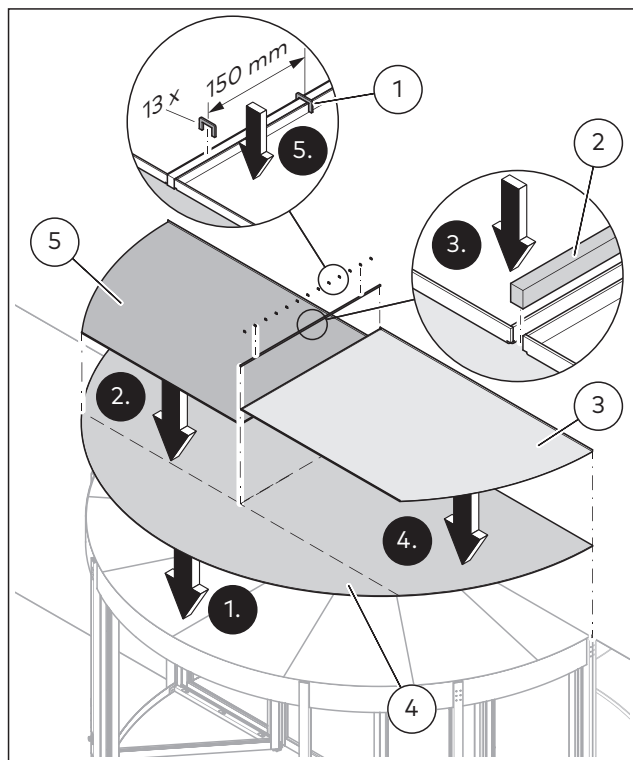


Fig. 126 Mounting the wooden ceiling and the first 2 rainproof cladding parts

1. Mount the wooden ceiling (Fig. 126/4) on the prepared outside ceiling.
2. Apply glue to the wooden ceiling beneath the first cladding part (Fig. 126/5). Position the cover onto the glue and into its final spot.
3. Apply joint sealing tape (Fig. 126/2) next to the cover.
4. Apply glue to the wooden ceiling beneath the second cover part (Fig. 126/3). Position the cover onto the glue and in its final spot. Compress the joint sealing tape between the two covers.
5. Connect the covers with clamps (Fig. 126/1) as shown every 150 mm.

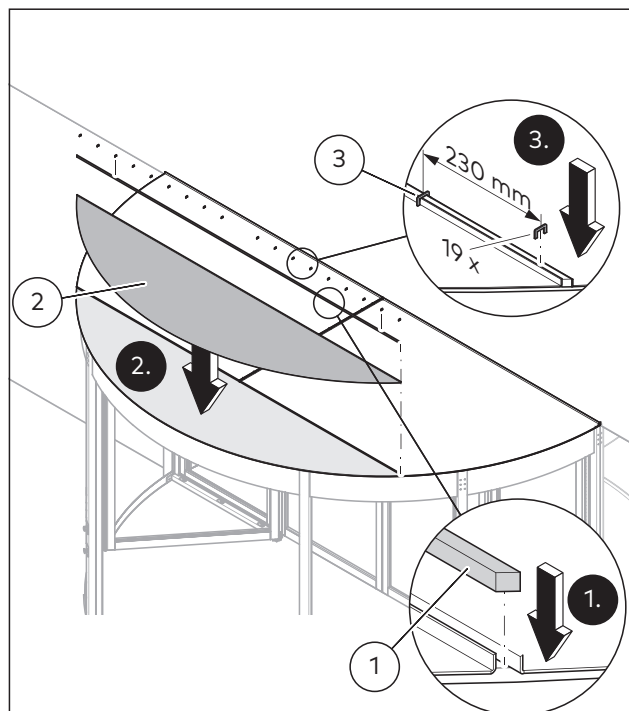


Fig. 127 Mounting the third rainproof cover part

1. Apply joint sealing tape (Fig. 127/1) next to the covers.
2. Apply glue to the wooden ceiling beneath the last cover (Fig. 127/2). Position the cover onto the glue and in its final spot. Compress the joint sealing tape between the two covers.
3. Connect the covers with clamps (Fig. 127/3) as shown every 230 mm.

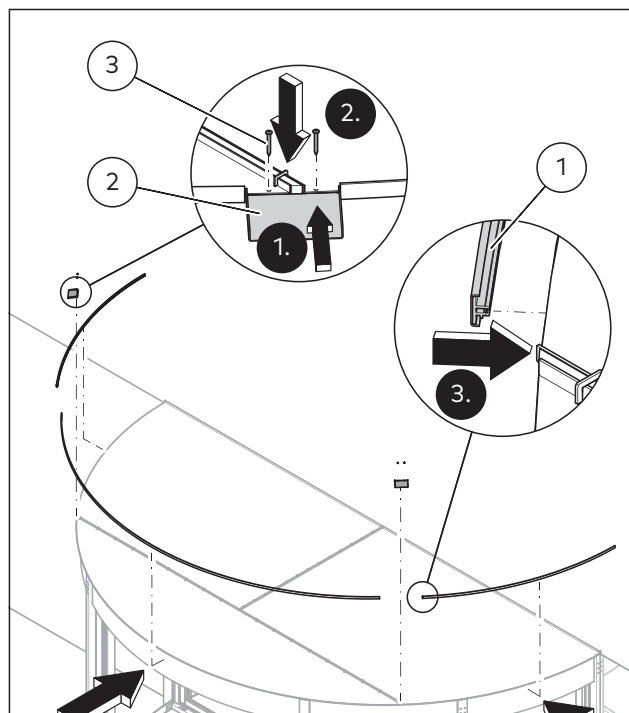


Fig. 128 Mounting water drains and the strips

1. Place the water drains (Fig. 128/2).
2. Fasten the water drains with nails (Fig. 128/3).
3. Clip the strips (Fig. 128/1) on the rim of the covers.

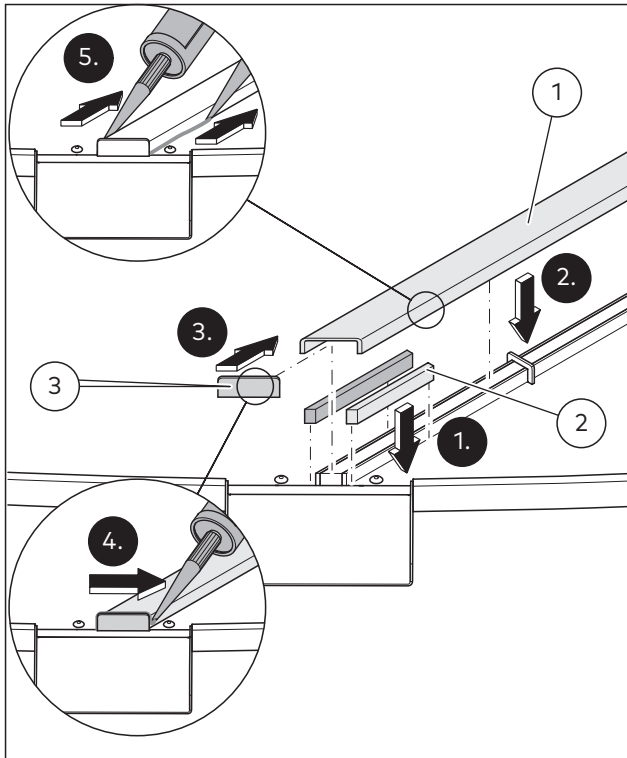


Fig. 129 Mounting the U profiles

1. Apply joint sealing tape (Fig. 129/2) at the ends of the seam near the water drains.
2. Place the U profiles (Fig. 129/1) on top of the seams between the cover parts.
3. Stick the end pieces (Fig. 129/3) onto the U profile.
4. Apply silicone to seal the end piece.
5. Apply silicone along the sides of the U profiles and on the junction of the U profiles.

8 Annex

8.1 Floor ring mounting checklist

If the floor ring is incorrectly mounted and the concrete/screed incorrectly cast, the revolving door unit/curved sliding door unit cannot be mounted.

All mounting steps must be carried out carefully and work steps checked/recorded. In case of deviations from the specifications, inform dormakaba immediately in order to agree on appropriate measures.

The separate test log for the floor ring is used to check critical points during the mounting of the floor ring and helps to avoid costly and time-consuming rework at a later date. The measuring points to be tested are listed in the separate floor ring test log. The cross section shown in the test log shows the levels to be checked and the areas of the floor

ring to be cast. Unless the floor ring is cast with concrete/screed and the outer ring shimmed with concrete/screed, the floor ring will not be capable of bearing loads. Protect the elevated structure against damage/deformation with suitable barrier measures until cast. It is strongly recommended to cast as soon as possible in order to prevent interim damage to the elevated floor ring. The surface of the flooring lying on the outside of the floor ring must not be higher than the surface of the ring. Use the relevant mounting instructions for mounting the floor ring.

Checklist before mounting:

	Yes	No	Note
Floor ring mounting instructions are available	☐	☐	
Floor ring drawings are available (top view, sectional views)	☐	☐	
Mounting position clear, mounting drawing is available (e.g. customer drawing, consultation with site management, if necessary, dormakaba door unit approval drawing)	☐	☐	
Floor ring test log is available	☐	☐	
Mounting area for the floor ring is cleared and accessible	☐	☐	
No projected edges in the mounting area, no expansion joints	☐	☐	
Floor suitable for mounting (raw floor that is capable of bearing loads and dowels)	☐	☐	
Distance from the raw floor to the FFL (measurement A) as per specification (e.g. dormakaba door unit approval drawing or dormakaba floor ring drawings)	☐	☐	
Work equipment is available: Tools and aids, measuring tape, leveling device, spirit level, welding equipment, angle grinder, drilling machine, protective clothing, etc.	☐	☐	

After mounting and casting the floor ring, please send the completed test logs A and B for the floor ring to the dormakaba contact person.

8.2 Floor ring dimensional check

	4	3	2	1
--	---	---	---	---

D

C

B

A

Kontrollmasse Bodenring
control dimensions floor ring

Innen
inside

Aussen
outside

Kontrolliert durch : _____
checked by

Datum : _____
Date

8.3 Test log A – floor ring before casting

[illegible]

8.4 Test log B – floor ring after casting

Prüfprotokoll B – nach dem Eingießen – inspection record B – after casting –		☐ Ja yes ☐ Nein no		☐ Ja yes ☐ Nein no		☐ Ja yes ☐ Nein no	
Bodenbelag außerhalb Ring nicht höher floor cover outside ring not higher than level of upper surface ring		☐ Ja yes		☐ Nein no		☐ Ja yes	
Bodenbelag oberhalb Ring floor cover outside ring not higher than level of upper surface ring		☐ Ja yes		☐ Nein no		☐ Ja yes	
Unterfüllung Außenring mit Beton / Estrich support filling of outer ring with concrete / screed		☐ Ja yes		☐ Nein no		☐ Ja yes	
Gewindebohrungen freigängig thread holes free and clean		☐ Ja yes		☐ Nein no		☐ Ja yes	
Nein no		☐ Ja yes		☐ Nein no		☐ Ja yes	
Nein no		☐ Ja yes		☐ Nein no		☐ Ja yes	

Messung Radius R und Nivellierung Ringfläche measurement radius R and levelling surface of ring		Nivellierung Strebefläche und Estrich levelling surface of braces and screed	
OKFF FFL 0 mm Sollmaß nominal measure :		OKFF - C FFL - C 0 mm Sollmaß nominal measure :	
Toleranz tolerance :		Toleranz tolerance :	
Abweichung zu OKFF (+/-mm) deviation to OKFF (+/-mm)		Abweichung zu OKFF - C (+/-mm) deviation to OKFF - C (+/-mm)	
Pos.		Pos.	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	
Ring ring		Strebe brace	
innen inside		innen inside	
außen outside		außen outside	

8.5 Overview of the position

Angle	Position in the summer configuration	Position in the winter configuration	Setting the program switch for revolving doors
0°	Locking position		"Off"
0°		X position	Automatic 1
60°	X position 1		Automatic 1
90°	X-position 2		Automatic 1
90°	Summer position		Summer
90°	Home position		not "Off"
180°		X position	Automatic 1
240°	X position 1		Automatic 1
270°	X-position 2		Automatic 1

8.6 Revolving door parameters

Parameter	Symbol	Description	Unit	Value range	Standard value
Current error status		Error list			
Door diameter		Door diameter	mm	2000–6500	(system learns diameter)
Number of electric locking devices		Electromechanical bolt locking device available?		0 = no 1 = yes	0
Press and hold after stop		Time until the electric brake is released after an emergency stop	s	0–9 0 = Locking device was never unlocked	1
#X Pos Auto 1-2		Number of start positions in automatic 1 or 2		2–5	2
SlowStop canopy sensor		Slow stop time of the canopy integrated sensors	s	0–15 16 = ∞	16
SlowStop front door leaf sensor		SlowStop time of the door leaf sensor	s	0.0–15.9 16.0 = ∞	16.0
SlowStop front NS sensor		SlowStop time before the NS sensor	s	0.0–15.9 16.0 = ∞	16.0
Press and hold after stop		Time for the door to start after a safety stop.	s	0–9.9	1.0
Safety area stop		Detection range of the canopy integrated sensor in the safety area for SlowStop	mm	700–3500	700
Summer position		Starting positions: 0°/180°			(System reads X positions)
Starting position summer		Starting positions: 90°/270° = 0, 60°/240° = 1		0-1	0
Wheel diameter		Wheel diameter: 0 = 150 mm, 1 = 160 mm must be set before the learning cycle		0-1	1

Parameter	Symbol	Description	Unit	Value range	Standard value
PoSV after safety stop		The timing system operates at positioning speed after leaving the stationary position after a safety stop	s	0.0–2.9	1.0
A/M lighting		Automatic/manual lighting control		0 = automatic 1 = manual	0
FUT warm air curtain		Run-on time of the warm air curtain	s	0–600	10
E-Brake HP		Switch to the X position with e-brake		0 = no 1 = yes	1
Offset HP		Feed for starting in X position without E-lock	mm	0–250	0
NS Pass entrance mullion		NS-Pass entrance mullion emergency braking/holding braking		0 = emergency braking 1 = holding braking	0
Learning with sliding doors		Individual learning		0 = with revolving door 1 = without revolving door	0

8.7 Maintenance parameters

Parameter	Symbol	Description	Unit	Value range	Standard value
Rotation number		Number of rotations		0–99 999 999 5 digits x 1 000	
Number of e-locks		Number of activations of the electromechanical locking device		0–99 999 999 8-digit	

8.8 Parameters of the sliding door

Parameter	Symbol	Description	Unit	Value range	Standard value
Locking device in program switch settings		0 = "Off" setting 1 = "Off" and "Exit" setting 2 = "Off" and "Automatic/Partially open" setting 3 = The door is always locked in the locking position		0–3	0
Locking type		0 = no locking device 1 = bistable locking device 2 = bistable locking device with feedback contact (NO) 3 = monostable locking device (fail-safe design) 4 = combination locking device 5 = rod lock system (DCW)		0–5	0
Emergency operation via battery pack		0 = no battery 1 = emergency closing 2 = emergency opening 3 = emergency operation via battery pack		0–3	0

Parameter	Symbol	Description	Unit	Value range	Standard value
Hold-open time		0 = 0 s 1 = 1 s 2 = 2 s 3 = 5 s 4 = 8 s 5 = 10 s 6 = 15 s 7 = 20 s 8 = 25 s 9 = 30 s		0-9	1
Opening speed		0 = 10 cm/s 1 = 15 cm/s 2 = 20 cm/s 3 = 25 cm/s 4 = 30 cm/s 5 = 35 cm/s 6 = 40 cm/s 7 = 45 cm/s 8 = 50 cm/s 9 = 55 cm/s A = 60 cm/s b = 65 cm/s c = 70 cm/s d = 75 cm/s		0-d	0
Closing speed		0 = 10 cm/s 1 = 15 cm/s 2 = 20 cm/s 3 = 25 cm/s 4 = 30 cm/s 5 = 35 cm/s 6 = 40 cm/s 7 = 45 cm/s 8 = 50 cm/s		0-8	0

8.9 Parameter menus for the handheld device

8.9.1 Settings

Parameter	Description	Unit	Value range	Standard value
Number of locks	Number of locking devices (0 = no locking device)		0-1	0
Unlock electric locking device	Time until the electromechanical locking device is released after an emergency stop via the electromechanical locking device	s	0-9	2
External lighting on	Switch lighting on or off via external switch.		Off On	Off
air curtain delay	Adjustment of the follow-up time for the warm air curtain	s	0-600	10

8.9.2 Travel

Parameter	Description	Unit	Value range	Standard value
Number X-Pos Auto 1-2	Number of start positions in automatic 1 or 2		2-5	2
SlowStop canopy	Slow stop time of the canopy integrated sensors	0.1 s	0-160	1

Parameter	Description	Unit	Value range	Standard value
SlowStop leaf	SlowStop time for door leaf sensor and pre-detection sensor	s	0–16	16
Press and hold after stop	Time for the door to start after a safety stop.	0.1 s	0–99	10
Safety area stop	Canopy sensor in the safety area SlowStop	mm	700 – 3500 limited to max. passage width	699
PosV after stop	The time when the system moves at positioning speed after it has left the stationary position after a safety stop.	0.1 s	0.0–29	20

8.9.3 Special functions

Parameter	Description	Unit	Value range	Standard value
Original setting	Command: Reset system to original settings! All parameters will automatically be reset to their original settings.			
Teach-in run	Command: Start teach-in run!			
Error reset	Command: Acknowledge error!			
Procedure for locking	Command: Lock!			
Procedure for unlocking	Command: Unlock!			
Leaf sens. Current	Disables the door leaf sensors and the pre-detection sensors in the rotating part of the door.		No Yes	No
SCS on door act.	Disables the safety contact strips (SCS) and light barriers on the door.		No Yes	No
Ext. SCS Act.	Disables the safety contact strips (SCS) on the outside.		No Yes	No
Int. SCS Act.	Disables the safety contact strips (SCS) on the inside.		No Yes	No
Ext. CS act.	Disables the canopy sensors (CS) on the outside		No Yes	No
Int. CS act.	Disables the canopy sensors (SBS) on the inside.		No Yes	No
Keylock	Activate/deactivates the keyboard.		Off On	Off

8.9.4 Diagnosis

Parameter	Description	Unit	Value range	Standard value
Software version	Displays the current software version of the control unit	yyxx	e.g. 0100 = Version 1.00	
Current error status	Displays the current error status		0 = no errors, see error list in the MS9 documentation	
Current rotations	Rotations at current error		The 5th position is rounded	
Error log 1–9	Error log: This log stores errors occurring in the past		0 = no errors, see error list in the MS9 documentation	

Parameter	Description	Unit	Value range	Standard value
Revolutions log 1–9	Rotations during former error 1		The 5th position is rounded	
Service reset!	Command: Resets the error log and the maintenance parameters (current rotations, vandalism brake, clutch and wind brake activation).		Protective strips	
Electric brake cycles	Indicates how often the electromechanical locking device has been activated		The 5th position is rounded	
Number of rotations	Indicates the number of rotations the door made so far		The 5th position is rounded	
Maintenance date	Indicates the date of the last maintenance	MMYY	e.g. 1003 = October 2003	
Door diameter	Indicates the diameter of the door	mm	4-digit display	
Door position	Shows the current door position	°	0–360	
Speed	Displays the current door speed	mm/s	4-digit display	
Locked	Locked?		No Yes	
Unlocked	Unlocked?		No Yes	
SCS internal door	Indicates the status of the safety contact strips (SCS) in the rotating part of the door		Activated OK	
Door leaf sensor	Display of the status of the door leaf sensor and pre-detection sensors for slow-stop (internal door)		OK Activated	
Ext. CS Slow	Displays the status of the canopy sensor (CS) for SlowStop (outside)		Activated OK	
Int. CS Slow	Displays the status of the canopy sensor for SlowStop (inside)		Activated OK	
Int. Radar	Displays the status of the radar detector (inside)		OK Activated	
external Radar	Displays the status of the radar detector (outside)		OK Activated	
X Pos. Sensor	Displays the status of the zero point sensor		Activated OK	
Emergency stop	Emergency stop button activated?		Activated OK	
Disabled access button	Button to reduce speed to "low speed for disabled users" activated?		OK Activated	
PGS OFF	Input status of the wired program switch. Is the program switch set to "Off"?		Deactivated Activated	
PGS Auto 1	Input status of the wired program switch. Is the program switch set to "Automatic 1"?		Deactivated Activated	
PGS Auto 2	Input status of the wired program switch. Is the program switch set to "Automatic 2"?		Deactivated Activated	
PGS summer	Input status of the wired program switch. Is the program switch set to "Summer"?		Deactivated Activated	
DCW® reset	Command: Initialize DCW bus The system checks how many DCW bus components are connected.			
DCW® list	Specifies the number of registered DCW bus components.			

8.10 Error list

Error number and flashing codes on the control unit

The first 1 or 2 digits of the error number indicate how often the error LED on the revolving door program switch flashes. For example, the error LED flashes 2 times = error no. 202 or 203, the error LED flashes 18 times = error no. 1801.

CPU display	Error category	Error no.	Error message, cause, situation	Behavior	Behavior after acknowledgement	Acknowledgment
	No error	0				
	Watchdog error	101	Watchdog error	Safety stop	Door is ready for operation	D
	Locking device error	202	Door in locking position and unsuccessfully attempted to lock three times	Door can only be opened manually, possibly after manual unlocking	Door is ready for operation	D
		203	Both limit switches of a locking device are closed			
	Program switch error	301	Program switch defective or missing	The door revolves to its home position at positioning speed.	Door is ready for operation	A
		302	The revolving door program switch is connected, although a DCW sliding door program switch is already connected			

CPU display	Error category	Error no.	Error message, cause, situation	Behavior	Behavior after acknowledgement	Acknowledgement
4	Sensor errors	401	Test of canopy sensor slow-stop inside failed	The door rotates at setting speed to the locking position and locks when the program switch is set to "Off". In any other mode, the door rotates to the home position at positioning speed.	Door is ready for operation	D
		402	Test of canopy sensor slow-stop outside failed			
		403	Test of door wing sensor 1 failed			
		404	Test of door wing sensor 2 failed			
		405	Test failed: Safety contact strip at horizontal night shield, 2 x safety contact strip at bottom of door leaf, limit switch for deflection device	Safety stop	Door is ready for operation	D
		406	Test of light barrier 1 failed			
		407	Test of light barrier 2 failed			
		408	Test of pre-detection sensor at night shield 1 failed	The door rotates at setting speed to the locking position and locks when the program switch is set to "Off". In any other mode, the door rotates to its home position at the set speed.	Door is ready for operation	D
		409	Test of pre-detection sensor on night shield 2 failed			
		410	Test of vertical safety contact strip at internal post failed	Safety stop	Door is ready for operation	D
		411	Test of vertical safety contact strip at external post failed			
5	Encoder error	501	No encoder signal following 3 unsuccessful driving attempts due to obstructions — see "Error caused by obstruction"	While program switch is set to "Off", the door travels to the locking position and locks. In any other mode: Safety stop	Door runs through a positioning cycle and is then ready for operation.	D
		502	Short circuit between the channels			
		503	A channel is missing			
6	Frequency converter error	601	Frequency converter was not ready for ≥ 6.5 seconds	Safety stop	Door is ready for operation	D

CPU display	Error category	Error no.	Error message, cause, situation	Behavior	Behavior after acknowledgement	Acknowledgment
	CPU error	701	CPU defective	Safety stop – door clear. CPU is disabled after this. The error display does therefore not flash and consists only of the number "7".	Acknowledgment only by switching the supply voltage off and on again. The door is then ready for operation.	-
		702	EEPROM defective (cannot be written to)	Safety stop – door clear	Acknowledgment only by switching the supply voltage off and on again. The door is then ready for operation.	
		703	EEPROM error (checksum is not correct)	Safety stop – door clear	The door is only ready for operation after a successful teach-in run.	
	Teach-in run error	901	Too many encoder pulses between 2 X-positions	Safety stop	Door is ready for operation	L
		902	Too many encoder pulses between 2 X-positions			
		903	Incorrect direction of rotation			
	DCW® error	1001	Time-out at input module 1	Safety stop	Door is ready for operation	D
		1002	Time-out at output module 1			
		1003	Time-out at input module 2			
		1004	Time-out at output module 2			
	X-position error	1102	More than 2 rotations without X-position Possible cause: Defective zero point sensor	Safety stop	Door is ready for operation	D
	Error when locking	1201	The electrical test of the electric brake failed	The door is ready for operation but only at positioning speed.	Door is ready for operation	D
		1202	Mechanical test of the electric brake failed (braking distance test)			-
	Circumferential speed error	1301	The orbital speed is too high Possible cause: defective frequency converter, vandalism	Safety stop	Door is ready for operation	D
	Obstacle error	1401	The door was blocked by an obstacle more than three times	Safety stop	Door is ready for operation	D

CPU display	Error category	Error no.	Error message, cause, situation	Behavior	Behavior after acknowledgement	Acknowledgement
	Error in the braking speed	1501	The residual speed is too high when braking to stop	The door is ready for operation but only at positioning speed.	Door is ready for operation	-
		1502	The residual speed when braking at a reduced speed is too high for people with mobility restrictions			
	Sliding door error	1701	The automatic sliding door will emit an error signal during standard operation if it is set to "Automatic 1" or "Automatic 2".	The door revolves to its home position at positioning speed.	Door is ready for operation	D
		1702	The manually operated sliding door will not close if the program switch is set to "Automatic 1" or "Automatic 2"			
	Power failure	1801	Power failure although a UPS (emergency power supply unit) is connected	While program switch is set to "Off", the door travels to the locking position and locks. In any other mode, the door moves to its home position.	Door is ready for operation	A
	UPS battery pack error (emergency power supply unit)	1901	UPS indicates an error in the battery pack, e.g. "Low battery level".	The door revolves to its home position at positioning speed.	Door is ready for operation	D

* See Chapter 6.4.2 Acknowledging error messages

8.11 External 7-segment display (optional)

This display is located on the inner right main mullion and shows system errors/status.

The display is controlled via the 4 outputs of a DCW output module.

Each combination corresponds to an icon (number or letter).

OUT				Symbol	Description	Indication
10	9	8	7			
-	-	-	-		No message	always
-	-	-	x		No teach-in run has been performed	always
-	-	x	-		Low battery level, emergency current module	always
-	-	x	x		Lock defective	The electromechanical locking device is connected and the learning cycle has been completed.
-	x	-	-		Canopy sensors active	always after a learning cycle has been performed within the detection range
-	x	-	x		Safety bumpers / showcase leaf switch active	always
-	x	x	-		Safety bumpers mullion active	always after a learning cycle has been performed within the detection range
-	x	x	x		Rotating part of the door leaf sensor active	always, after a learning cycle
x	-	-	-		Emergency stop active	always
x	-	-	x		Light barrier rotating part active	always, after a learning cycle
x	-	x	-		Motion sensor active	always
x	-	x	x		The unit is moving too fast	The maximum speed is too high after the learning cycle is completed
x	x	-	-		Sliding door not closed	always
x	x	-	x		Error sensor test	always, after a learning cycle
x	x	x	-		Zero point sensor not working.	always, after a learning cycle
x	x	x	x		Program switch cannot be read	If a learned program switch combination has changed so that no clear program switch setting is available for the revolving or sliding door

If several of these conditions occur simultaneously, they are displayed one after the other.

8.12 Overview of control unit

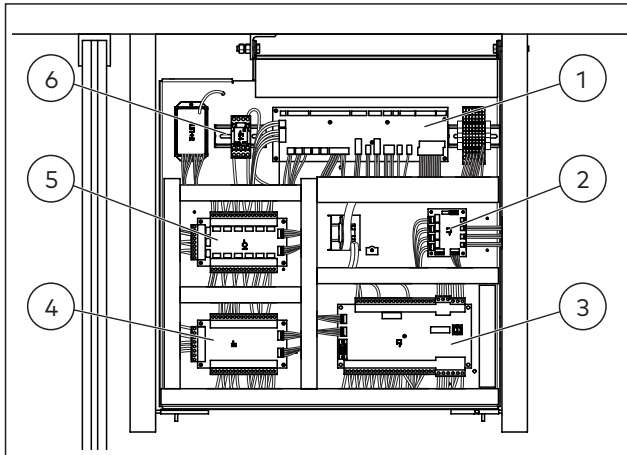


Fig. 130 Front view control unit

- (1) P1 board
- (2) K7 relay
- (3) Lock the circuit board
- (4) O1
- (5) I1
- (6) CPU Z1

8.13 Overview of canopy integrated control unit

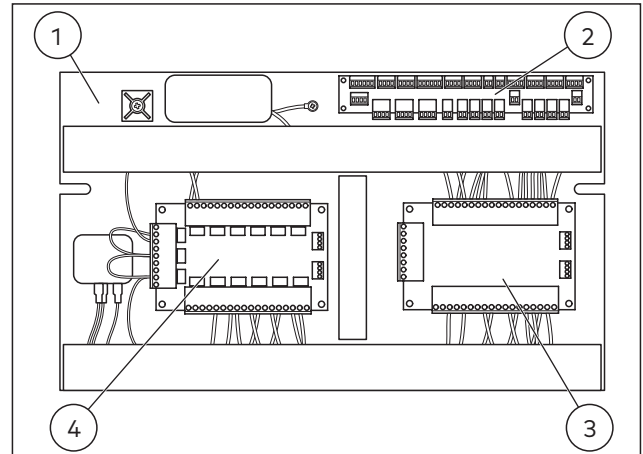


Fig. 132 Canopy integrated control unit

- (1) Sub control board
- (2) P2 board
- (3) I2
- (4) O2

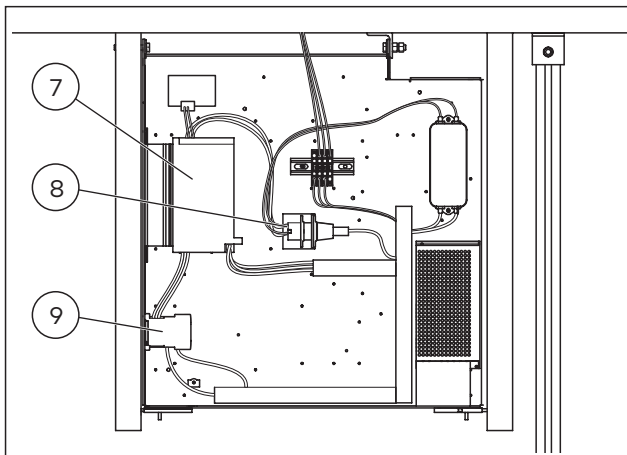


Fig. 131 Rear view control unit

- (7) Frequency converter (i550)
- (8) Power connector X103
- (9) Contactor (9501460056000)



www.dormakaba.com

dormakaba Deutschland GmbH
DORMA Platz 1
58256 Ennepetal
Germany
+49 2333 793-0

www.dormakaba.com