

Assembly instructions

EN

High Speed door SR Strong Outdoor



Installation manual

High Speed door **SR Strong Outdoor**

English

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Dear Customer,

Thank you for choosing a Novoferm quality product. This product has been designed and manufactured in accordance with the ISO 9001 quality system. We hope that you are satisfied and that it exceeds your expectations.

The correct operation and appropriate servicing affect the performance and life of the door to a high degree. Operating errors and poor maintenance inevitably lead to the product malfunctioning. Furthermore, a sustainable and safe operation can only be guaranteed if it is used correctly and with careful maintenance.



Note!

Depending on the ordered accessories, the delivery may contain additional manuals, for example for the control of the door. Please read these instructions carefully and thoroughly. Please read the comments carefully and make sure you keep to the safety instructions and warning guidelines in these manuals.

+++ WARNING +++ WARNING +++ WARNING +++

1. Introduction



IMPORTANT!

- The area of application for this industrial SpeedRoller door is set out in EN 13241
- Upon operating the door, the qualified expert must check for potential hazards and satisfy himself that the door is balanced and functioning properly and can be operated by hand as per EN 12604 and EN 12453
- Maintenance should be performed at least every year or 100,000 cycles.
- Annual maintenance that is not carried out by a qualified service centre using original parts, will void the warranty. (Please ask your dealer).

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1.1 General instructions

- Read the installation manual thoroughly before beginning to install the product! Note all comments and take the safety and warning instructions very seriously!
- Make sure that the generally applicable legal and other mandatory regulations for accident prevention and environmental protection, national regulations and approved technical regulations for safe and proper execution of the work are respected.
- The qualified expert is responsible for checking if the supplied fixing materials are suitable for the building's structure.
- Keep to the sequence given in the assembly drawings!
- Always use the correct tools!
- Only perform work on the industrial door when the door is put out of service.
- Pay special attention to the dangers that can arise when tensioning the springs: use special tools!
- Failure to follow these instructions may result in serious injury or material damage!
- The used components are manufactured from high quality, durable and solid materials. Nevertheless, during the installation of the door caution is necessary to avoid damage.

- Replace any defective parts by original spare parts only, otherwise the safe and proper operation of the door can not be guaranteed. Also, the warranty is no longer available!

1.2 Opening construction and mounting

Install the SpeedRoller door on a steel or concrete structure that is strong enough to support the forces of wind. Installation on masonry, plaster concrete etc. is strongly discouraged. It is recommended to build a solid steel frame first.



Warning

- When mounting the door, parts could fall down, causing injury to persons and damage to objects. Fix the side guides and the top roll carefully when you start assembling.
- When working with high voltage there is a risk of electrocution. Make sure that the electrical installation at the customer complies with the applicable safety requirements.
- Turn off the power before any installation work and secure it against unauthorized switching on. Disable - if present - the lever for emergency opening.
- Never apply high voltage to the control unit, this will lead to irreparable damage to the electronics.
- Only perform welding and grinding work when it is expressly permitted on the current location. A fire or explosion hazard may exist! Provide adequate ventilation for welding or grinding to prevent the explosion of dust and other combustible materials.

+++ WARNING +++ WARNING +++ WARNING +++

1.3 Tolerances

All parts are produced to standard tolerances with the utmost care. The standard tolerance for steel parts is ± 2 mm, and for aluminium ± 1 mm. The maximum tolerance for assemblies is the sum of the tolerances for the various materials.

1.4 Operating Test

- After completing the installation, operation of the door must be checked using the Delivery checklist in the User manual.
- Fill out the Delivery checklist truthfully and sign it.
- Pass this Installation manual together with the User manual and other documentation to the customer.

1.5 Initial use



Warning

A defective door can hurt people or damage property. Only use the door when it is in a faultless condition.

+++ WARNING +++ WARNING +++ WARNING +++

- An electrically powered door may only be put into use subsequent to the issuing of a declaration of conformity.
- This door may only be used at ambient temperatures between -30 and $+40$ degrees Celsius.
- Properly instruct users how to operate the door. Do not permit third parties (visitors for example) to use the door.
- These installation instructions are to be handed over to the customer and must be kept during the whole period of use!
- Do not modify the software of the programmable control system.
- Modification or extension of the product only by the supplier.
- Novoferm is not liable for damage and / or injury caused as a result of actions which are contrary to this manual.



Warning

Movements of the door can hurt people or damage objects.

- Ensure that during the operation of the door no persons or objects are in the range of the door leaf.
- Never grab in the guide, the tension spring, the tension belt or pulley during operation of the door.
- Never place objects against the door or against the roller.
- Never attach parts to the door which increase its weight.
- Never use the door as a hoist to lift people or objects.

+++ WARNING +++ WARNING +++ WARNING +++

1.6 Disassembly

The door should be disassembled by a qualified expert following chapter 4 in reverse order.



Warning

When disassembling the door parts could fall down, causing people to get injured or objects getting damaged. For instance, support the top roll with a forklift before disassembling it.

+++ WARNING +++ WARNING +++ WARNING +++

2. Preparation

2.1

Symbols



Note!



Measuring



Levelling



Measuring out



Drilling



Tightning



Manual operation



Shortening



Forklift truck



Lubricating



Cutting



Reading



G Clamp



Safety helmet



Ty-Rap

①②③, etc. Installation sequence

2.2 Preliminary remarks:

- Do not trail the top roller over the ground
- During the installation, place the top roller on a clean surface
- Do not step on the cloth (door panel)!
- The following instructions apply to standard SR Strong Outdoor doors



2.3 The Strong Outdoor consists of the following main sections:



- The top roller: a door roller surrounded by a plastic door panel (cloth) and a bottom beam.
- Two columns that support the top roller and guide the door panel.
- A control box and the slip-on door drive.
- A tube with the lightcurtains and a box with further small parts.

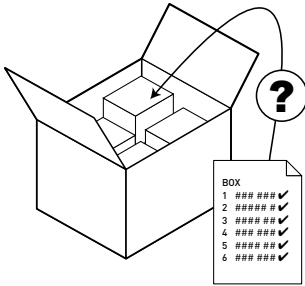
When installing multiple doors you must carefully sort all components!

Report any transport damage immediately to Novoferm Netherlands BV.

+ NOTE! +++ NOTE! +++ NOTE! +++ NOTE! +++ NOTE! +++ NOTE! +++ NOTE! +++ NOTE! +++ NOTE! +++ NOTE! +

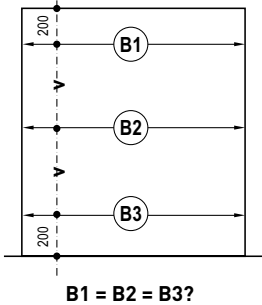
2. Preparation

2.4



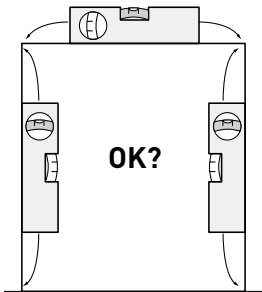
Ensure that the correct parts have been supplied. When installing multiple doors make sure to sort everything carefully.

2.6



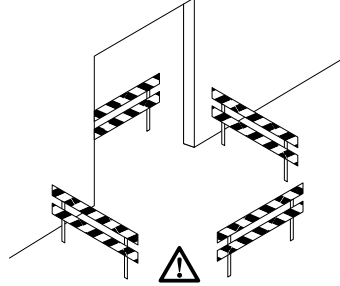
Make sure that the width of the standard opening.

2.8



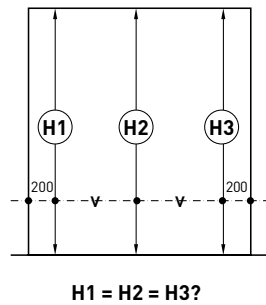
Make sure that lintel and frames are straight and level.

2.5



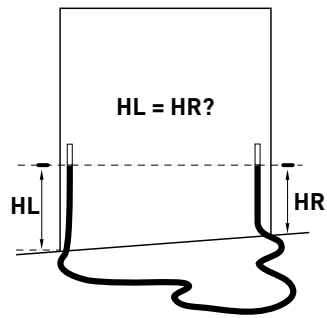
Make sure that the work area is adequately cordoned off.

2.7



Make sure that the height of the standard opening.

2.9



Make sure that the floor within the range of the door is smooth and level.

2. Preparation



2.10 **M** Required wall mounting kit (included)



- Each door is supplied with the appropriate, matching mounting kit
- When installing more doors, be sure to use the correct mounting kit
- The included assembly kit is always the most current version
- Make sure the supplied mounting kit is suitable for the structural conditions

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Mounting kit SpeedRoller Strong Outdoor

Mounting SR Strong Outdoor to Iso wall*			
Amount	Description	Material	Dimensions
15	Ø 4,8x22 Drill screw	Steel	Ø 4,8x22
32	M10 Wire rod	Steel	L = dikte isowand + 40mm
32	M10 Flange nut	Steel	M10
32	M10 Washer		M10
32	M10 Lead Screw Nut	Steel	M10

Mounting SR Strong Outdoor to Steel rear wall*			
Amount	Description	Material	Dimensions
15	Ø 4,8x22 Drill screw	Steel	Ø 4,8x22
32	M10x25 Taptite	Steel	M10x25

Mounting SR Strong Outdoor to Concrete / Wooden rear wall*			
Amount	Description	Material	Dimensions
15	Plug S6 Fischer		Ø 6x30
15	Ø 4,8x25 Plate screw	Steel	Ø 4,8x25
32	Plug S12 Fischer		Ø 12x60
32	M10 Fender washer	Steel	M10
32	Ø 10x80 Hanger bolt	Steel	Ø 10x80

Mounting kit Hood

Mounting Hood to Iso wall*			
Amount	Description	Material	Dimensions
20	Hexagonal Plate Parker 6,3x16	Steel	6,3x16
24~36	Flange nut M6 DIN6923	Steel	met kartels
24~36	Fender washer M6 DIN9021	Steel	M6
14~20	Wire rod M6 DIN975	Steel	L = ISO + 20

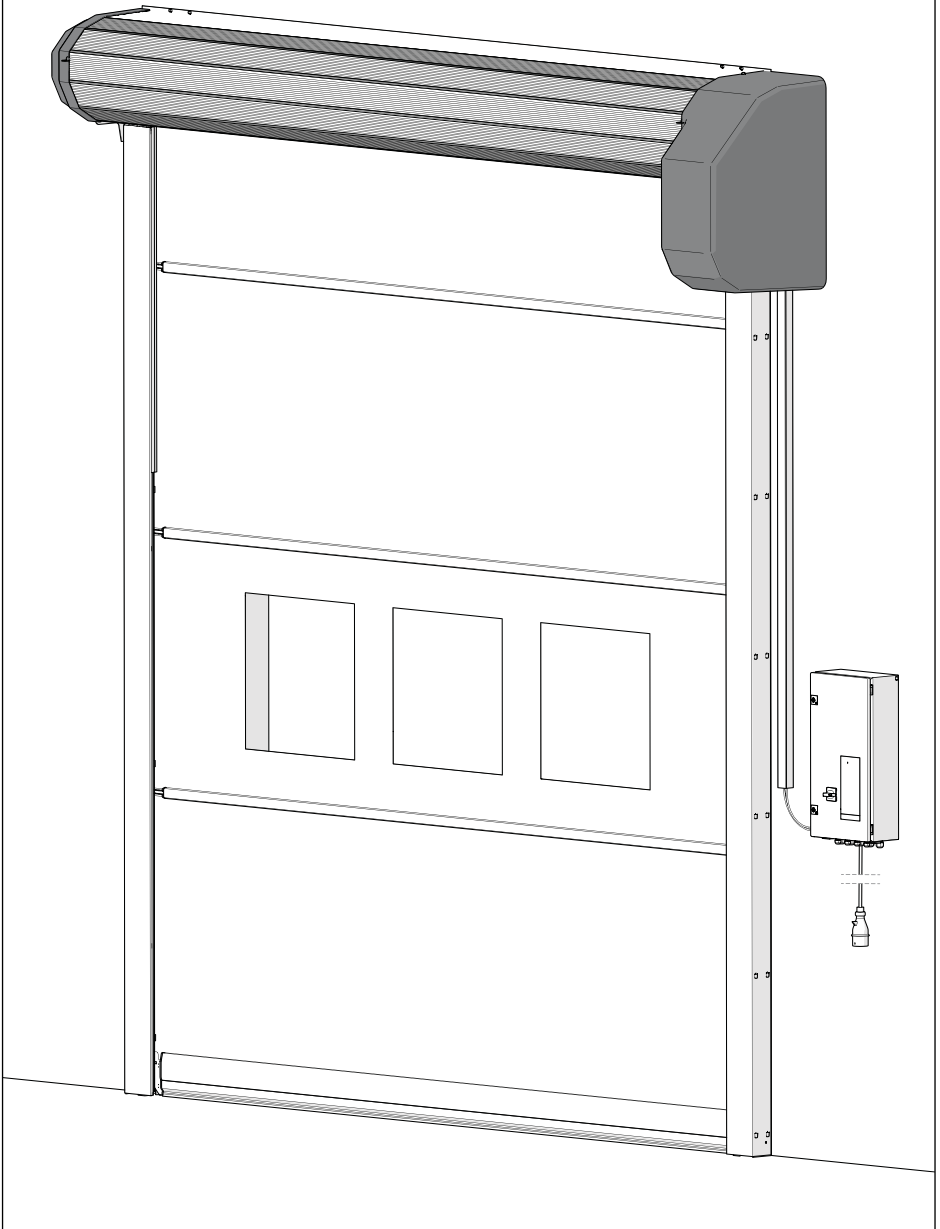
Mounting Hood to Concrete / Wooden rear wall*			
Amount	Description	Material	Dimensions
20	Plug S6 Fischer	-	6x30
20	Fender washer M5 DIN9021	Steel	M5
20	Plate screw 4,8x38 DIN7981 C-H	Steel	4,8x38

Mounting Hood to Steel rear wall*			
Amount	Description	Material	Dimensions
20	Taptite M6x20 DIN7500D	Steel	M6x20

* Subject to change. The supplied mounting kit is always the latest version.

3.1

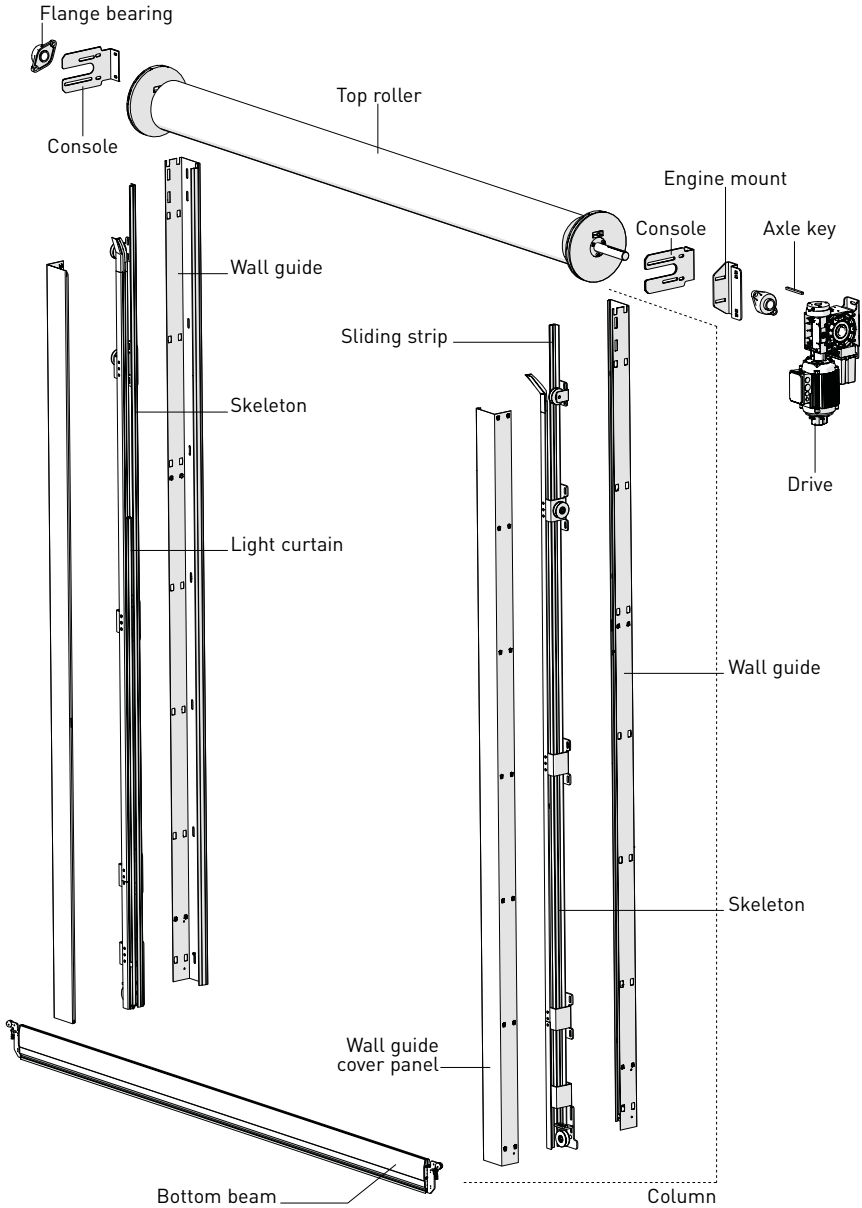
Overview



3. Parts

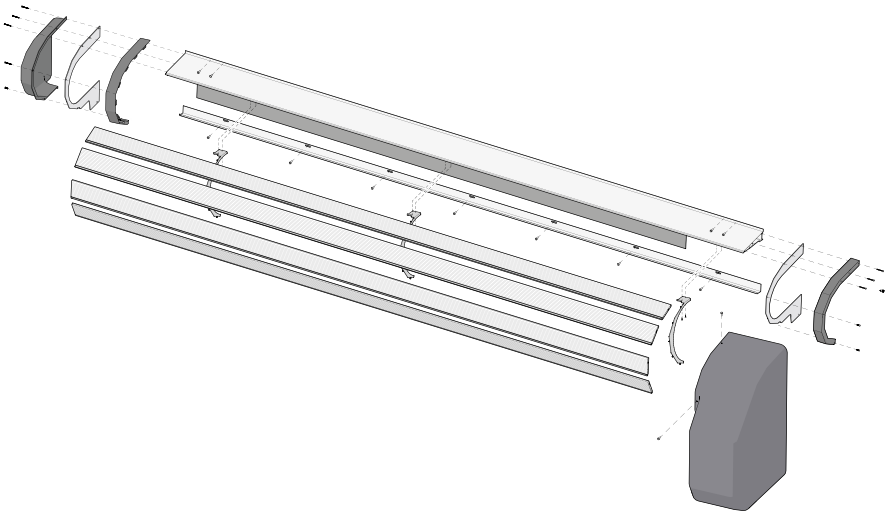
3.2

Exploded view SpeedRoller Strong Outdoor - without Hood



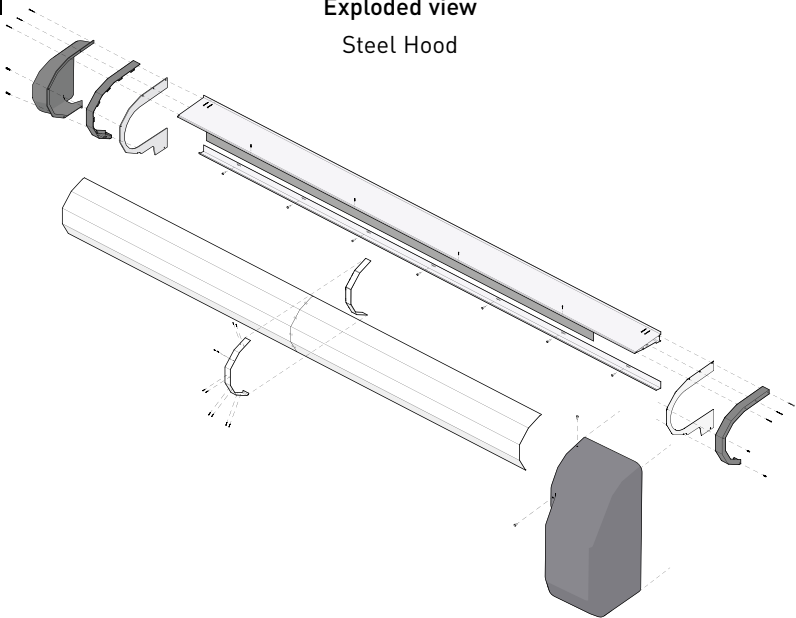
3.3a

Exploded view
Plastic Hood

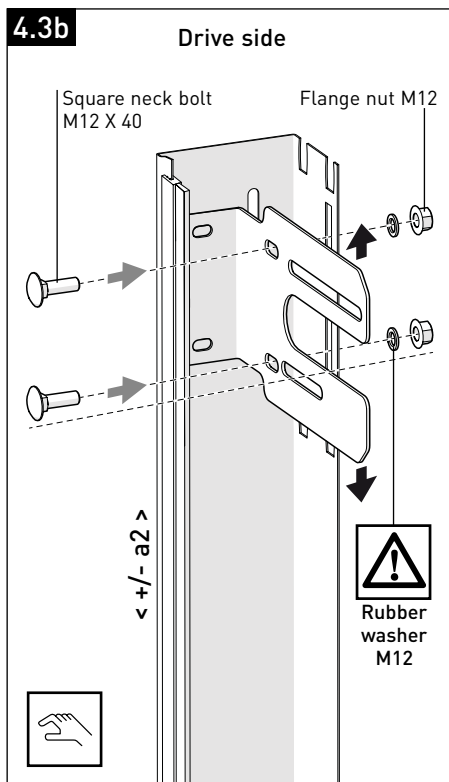
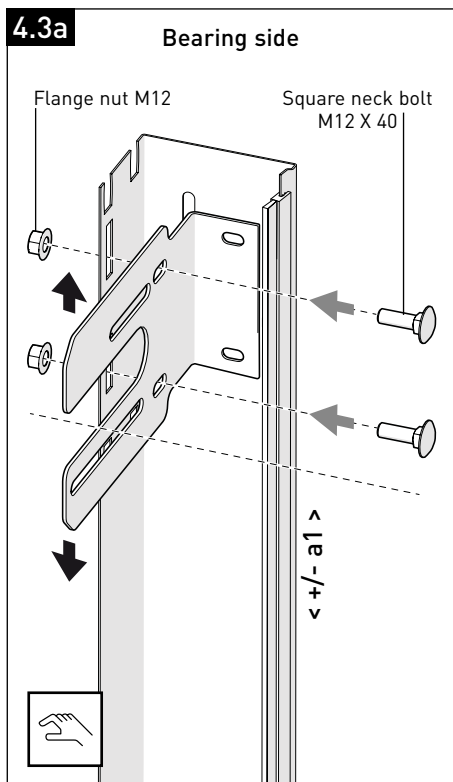
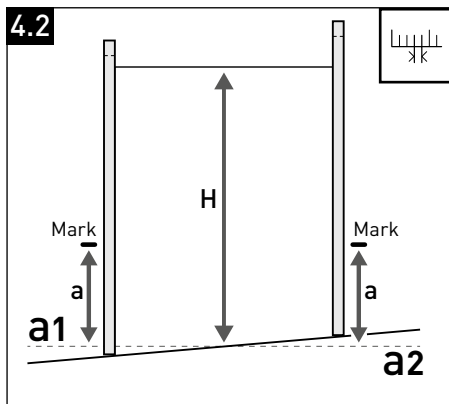
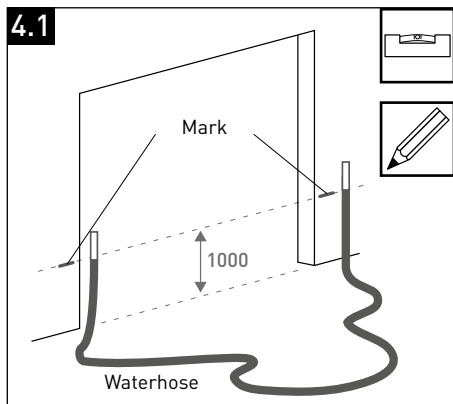


3.3b

Exploded view
Steel Hood



4. Installation

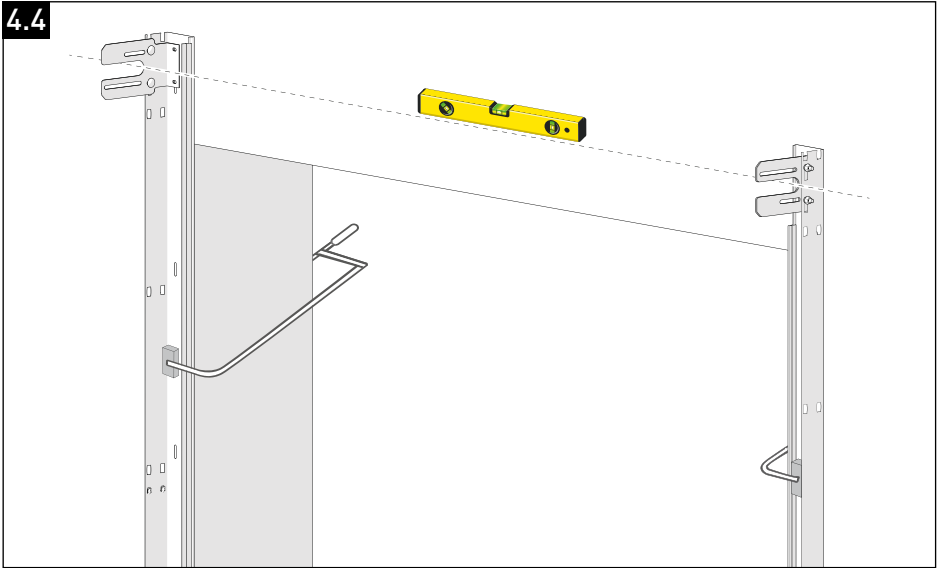


Mount the consoles hand-tight to the columns (1 X per column).

- Bearing side > fixed > with lock bolt M12x40 and flange nut M12
- Drive side > hand-tight > with lock bolt M12x40, rubber washer and flange nut M12

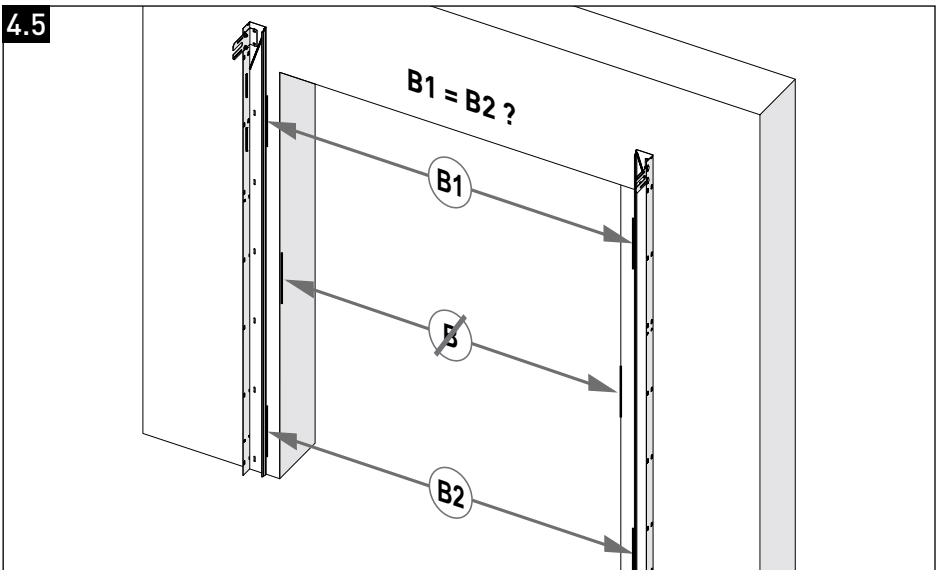
Take into account the height difference > between a1 and a2!

4.4



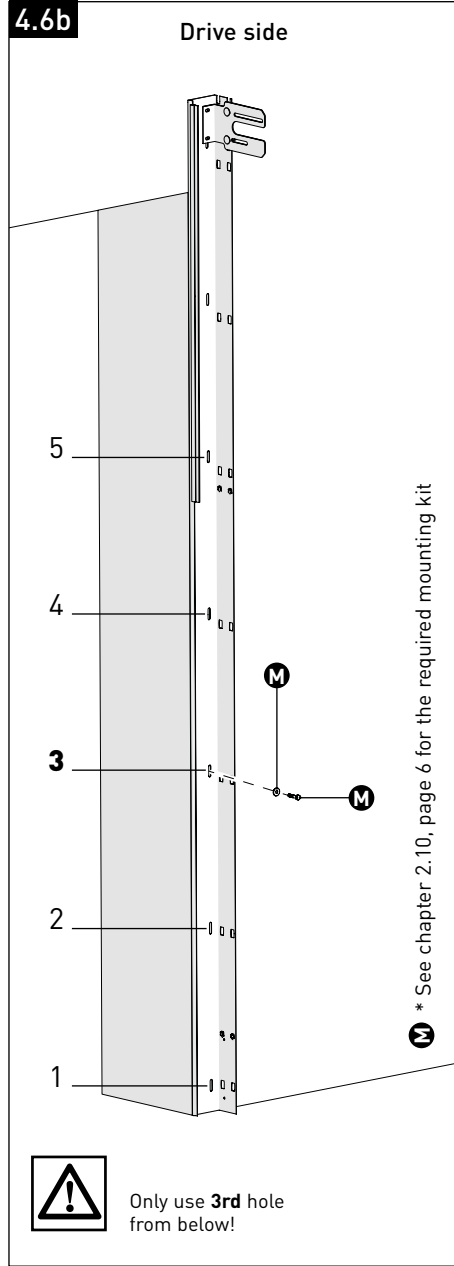
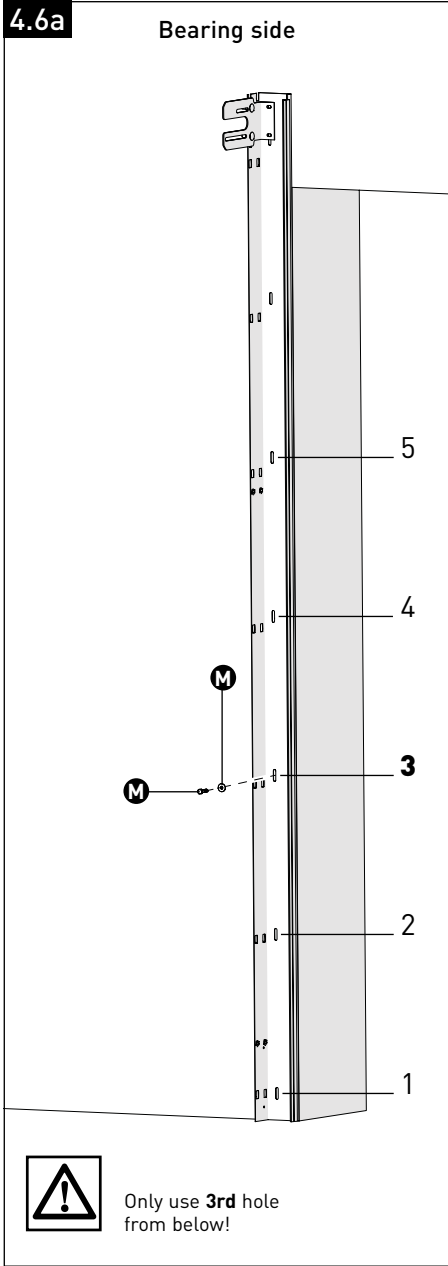
Place wall guides upright and clamp them to the wall with adhesive clamps. Make sure that the consoles are level with each other.

4.5



B inside measurement = clear width on the order form.
Note: this may vary from the actual clear width of the building!
 The inside measurement (**B1** and **B2**) must be the same at each height.

4. Installation

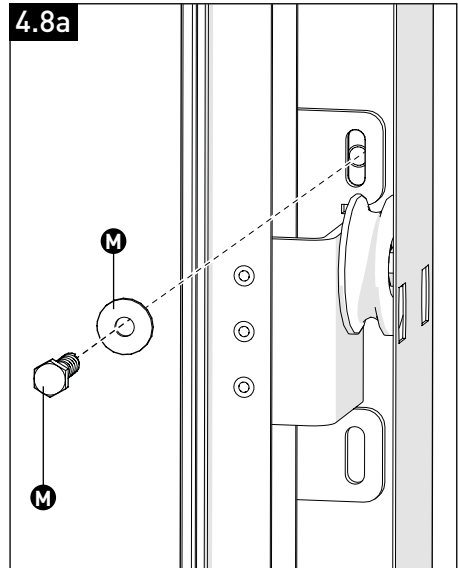
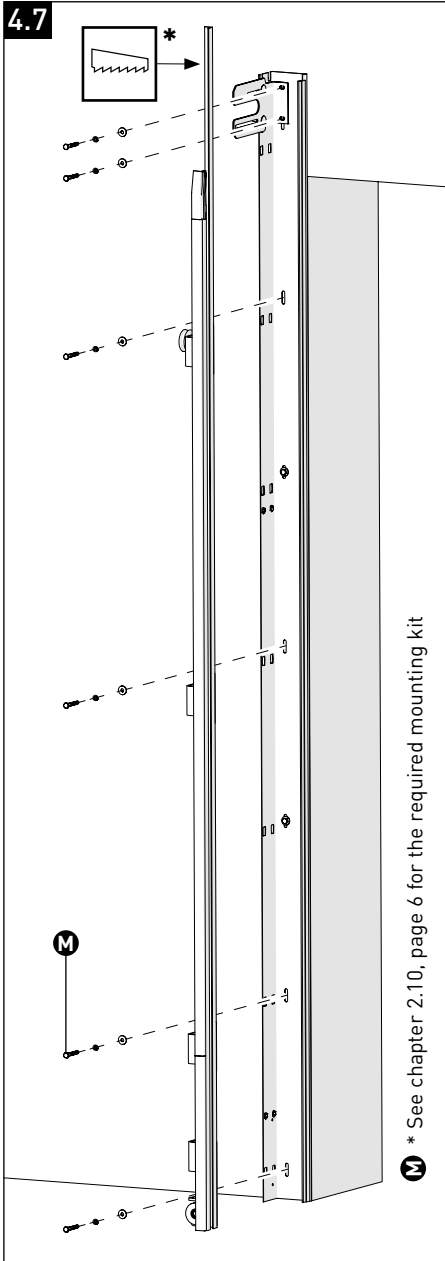


* See chapter 2.10, page 6 for the required mounting kit

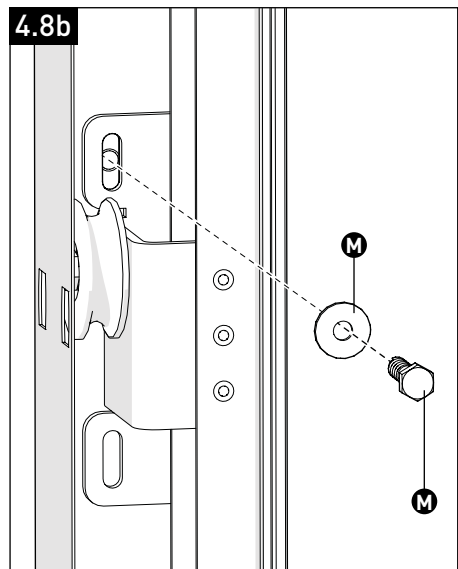


Secure the wall sides of the columns hand-tight to the wall with 1 bolt and washer.
Note: only use the **3rd** hole from below.

4. Installation



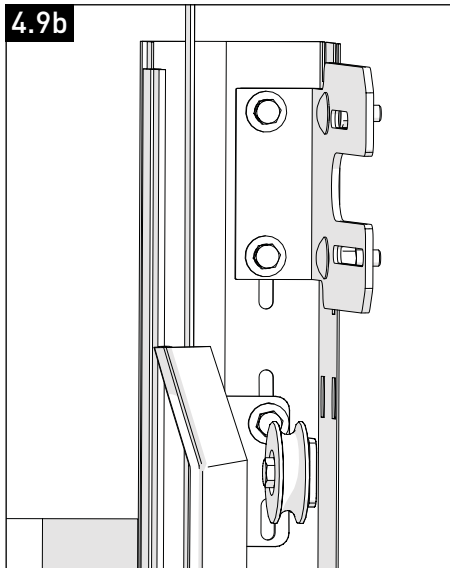
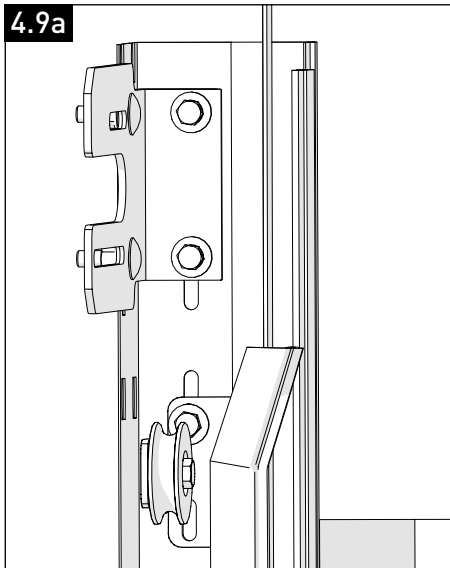
The slotted holes in the skeleton correspond to the holes in the columns, see detail 4.8a and 4.8b.



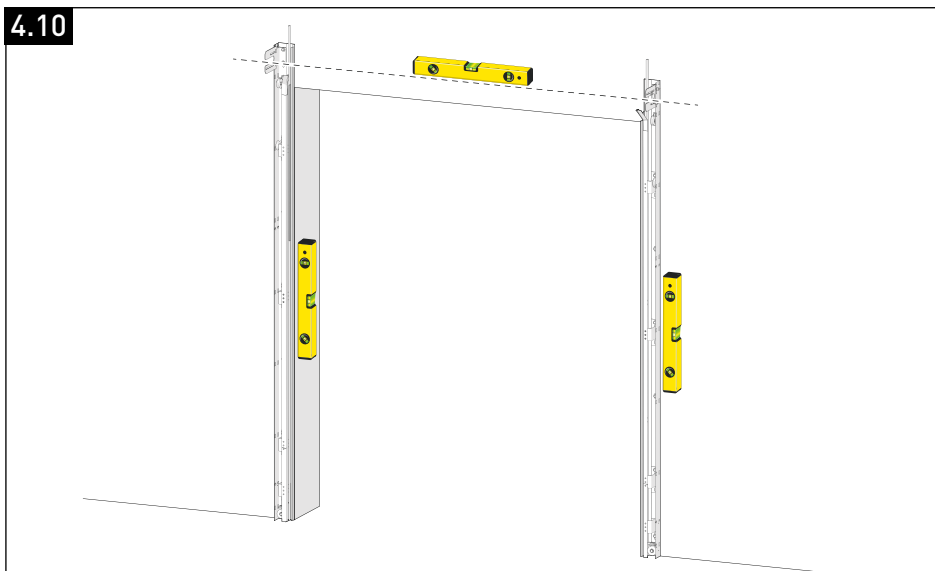
Mount the wall side of the wall guides with the skeleton **hand-tight** to the wall.

* Allow the sliding strips to extend as long as possible, just as the available space allows. If there are no obstacles, you can leave the sliding strips long.

4. Installation

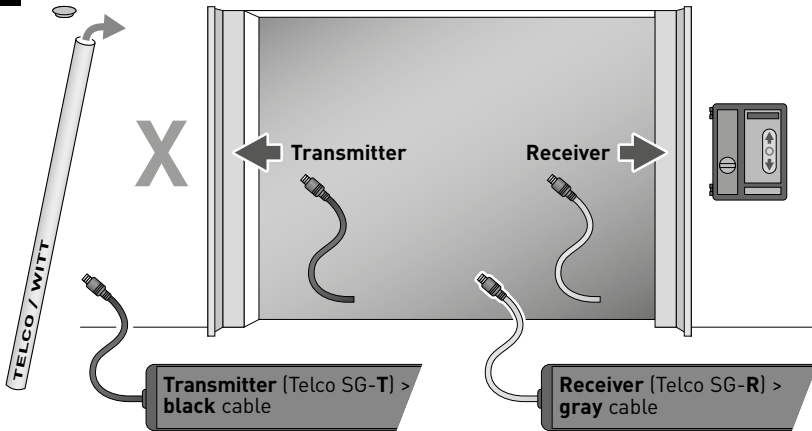


Place the separate upper pulleys hand-tight in the upper slotted holes (**left and right**)



Make sure the columns are completely level and secure them permanently.

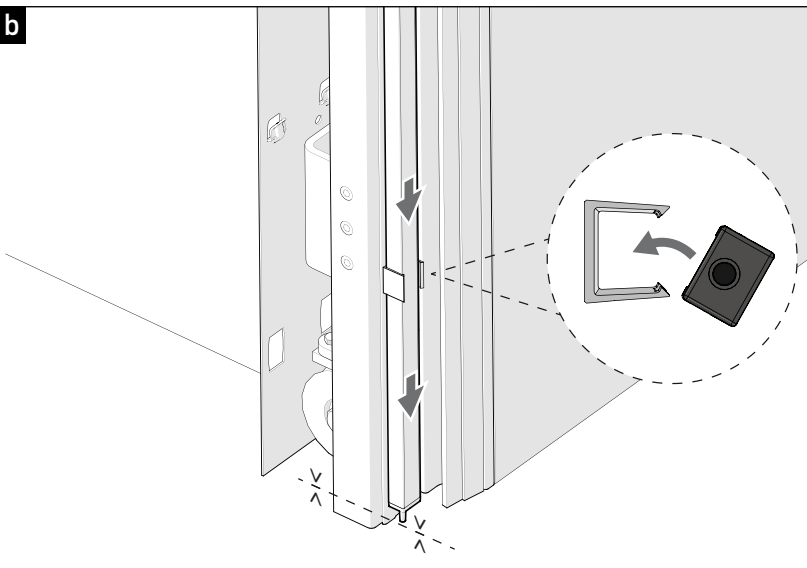
4.11a



Note: Transmitter (Telco SG-T) has a **black** cable,
Receiver (Telco SG-R) has a **gray** cable.

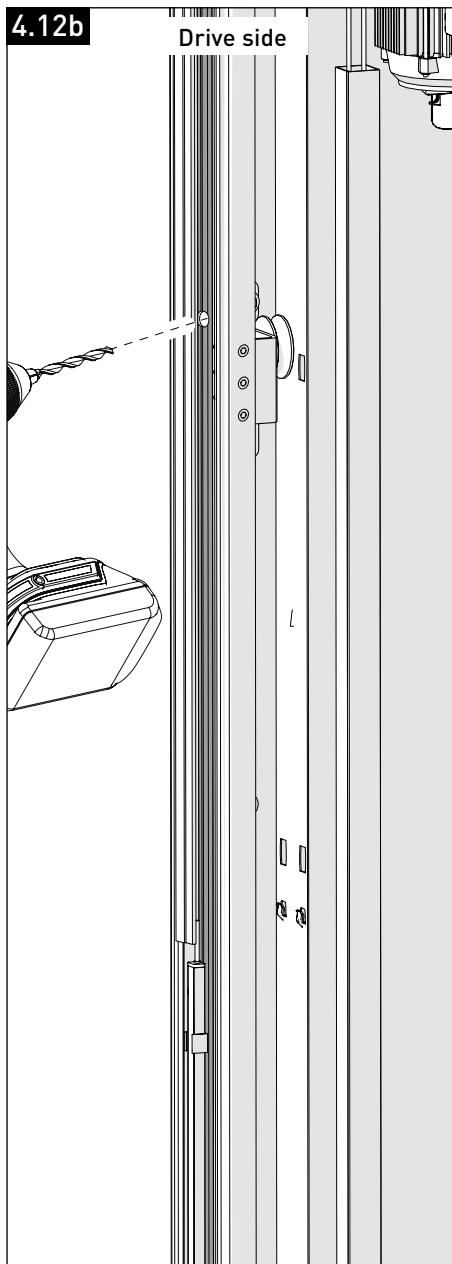
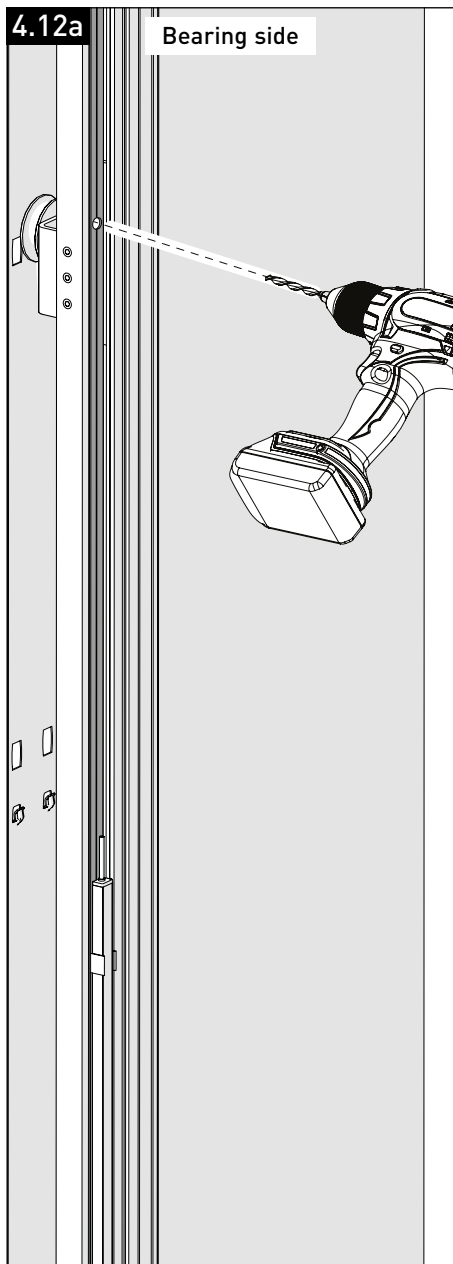
Snap the supplied light curtain to the inside of the columns (see 4.11b).
Position the **Transmitter** (SG-T) of the light curtain on the wall guide **opposite** the control.
Position the **Receiver** (SG-R) of the light curtain on the wall guide **where the control is located**.

4.11b



Slide the transmitter and receiver side of the light curtain down into the supplied clips until the spacers on the underside of the light curtain are on the floor.
Please make sure that both sides of the light curtain are aligned exactly horizontal.

4. Installation

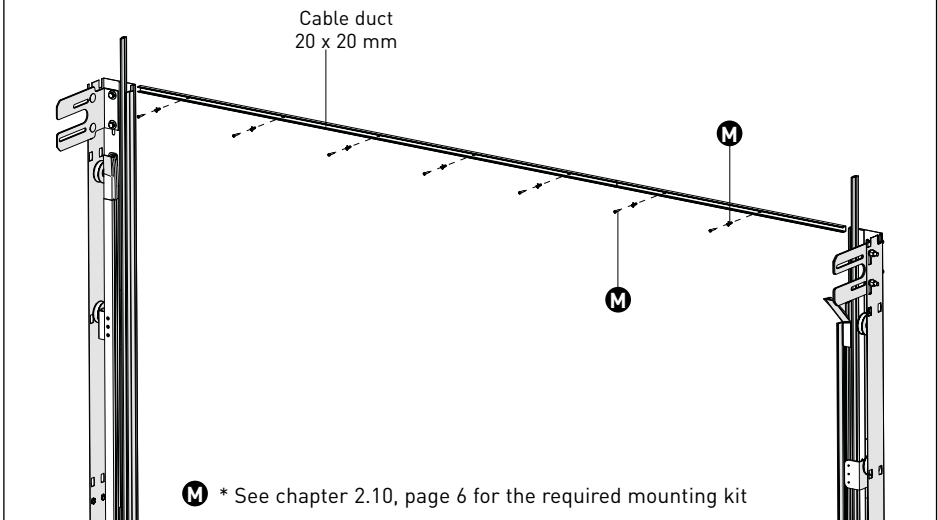


Drill a hole through the sliding strip at the next bracket above the light curtain.



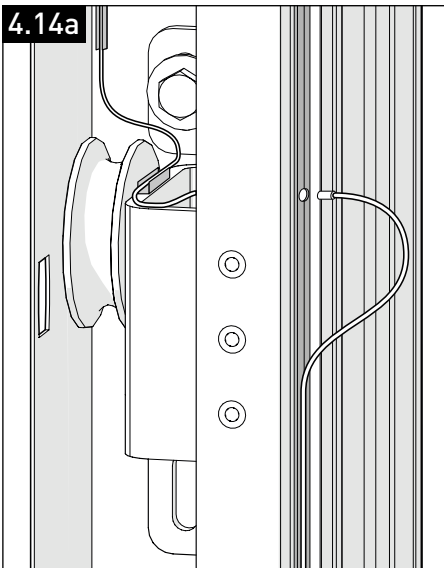
Drill a hole through the sliding strip at the next bracket above the light curtain.

4.13



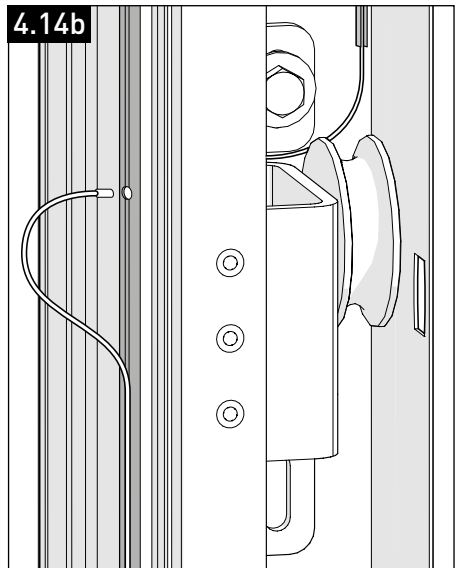
Attach the enclosed 20 x 20 mm cable duct(s) to the wall as indicated. Use the included screws. The top of the cable duct must be parallel to the top of the wall guides.

4.14a



Feed the light curtain cable through the hole and fasten the cable with a cable duct on top of the bracket as indicated.

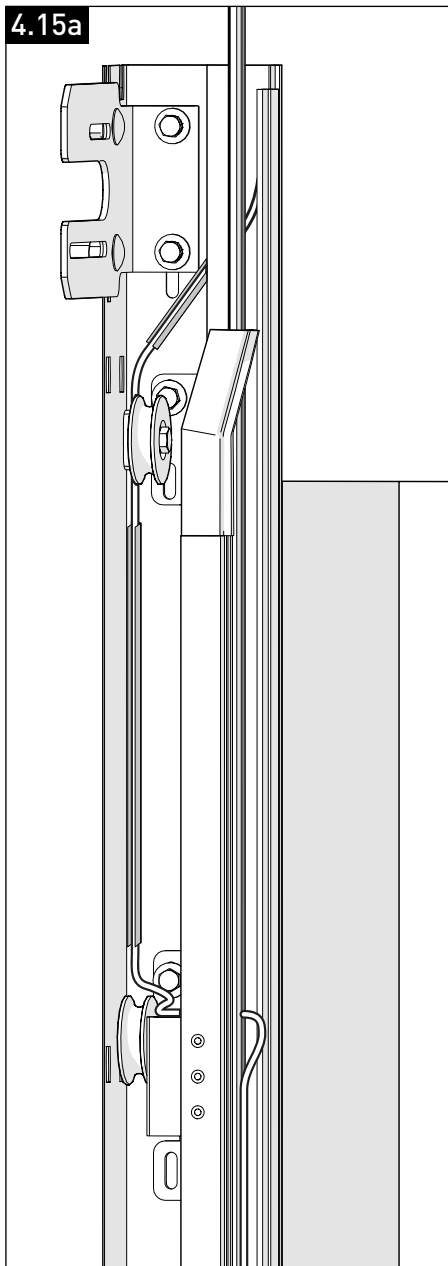
4.14b



Feed the light curtain cable through the hole and fasten the cable with a cable duct on top of the bracket as indicated.

4. Installation

4.15a



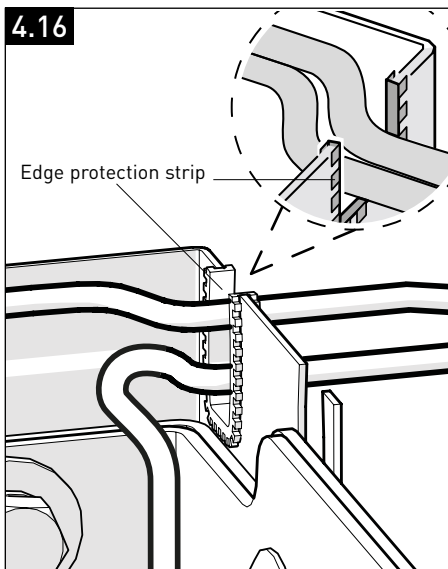
Lead the light curtain cable through the cable duct on the rear wall.

4.15b



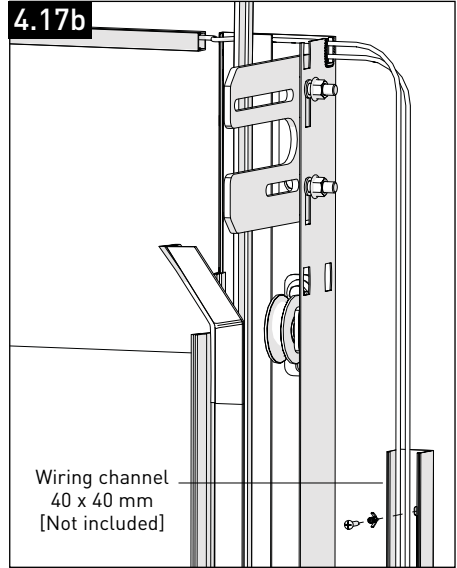
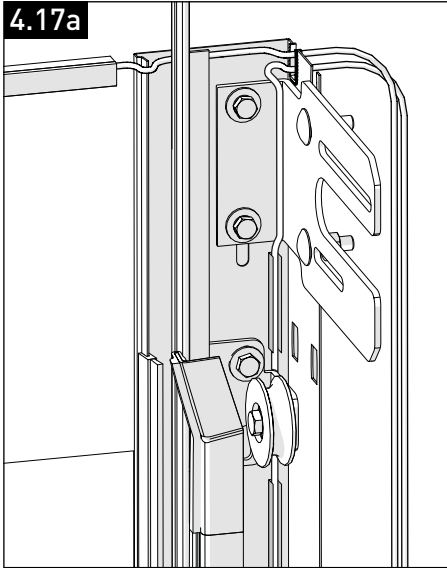
Route the light curtain cable along the upper pulley bracket and through the upper angled cable duct to the horizontal cable duct.

4.16

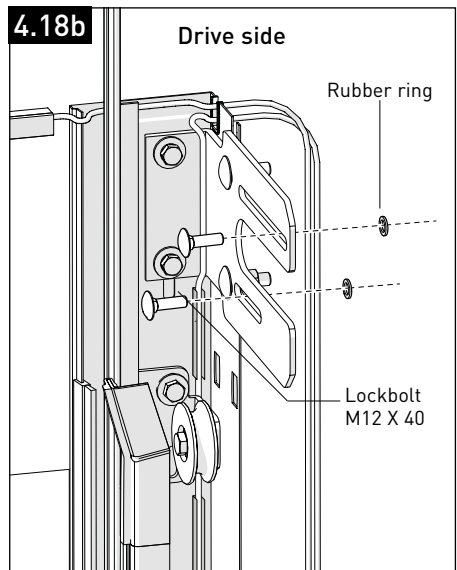
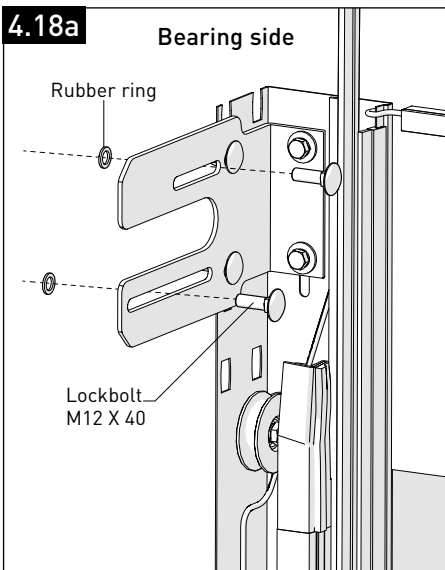


Place the supplied cable edge protection strip in the upper recess of the wall guide. **Drive side only!**

4. Installation



Ensure proper cable routing to the control box, e.g. with a 40 x 40 mm wiring channel. Make sure that the edge protection strip is correctly positioned in the guide (see 4.16).



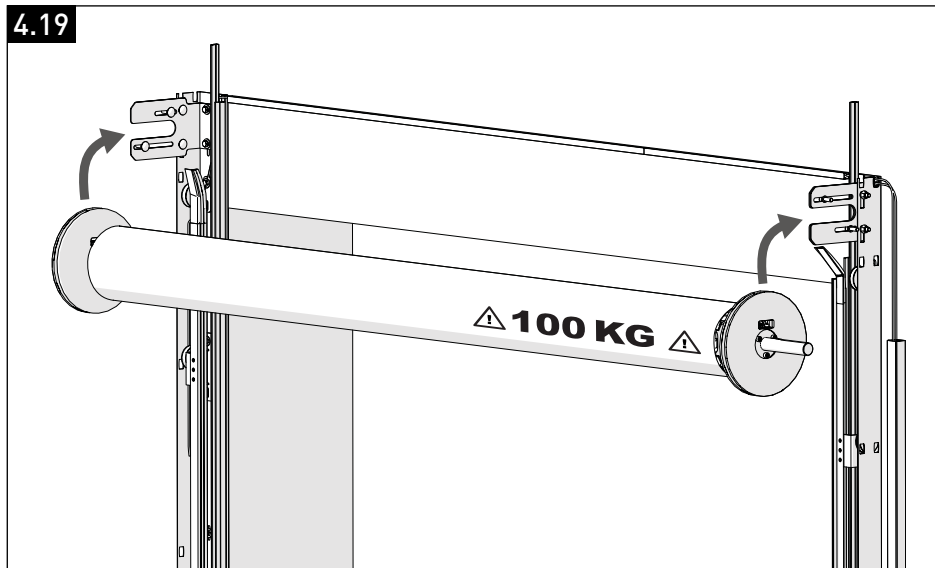
Fit the lock bolts and rubber rings to mount the top roller from the inside out.



Fit the lock bolts and rubber rings to mount the top roller from the inside out.

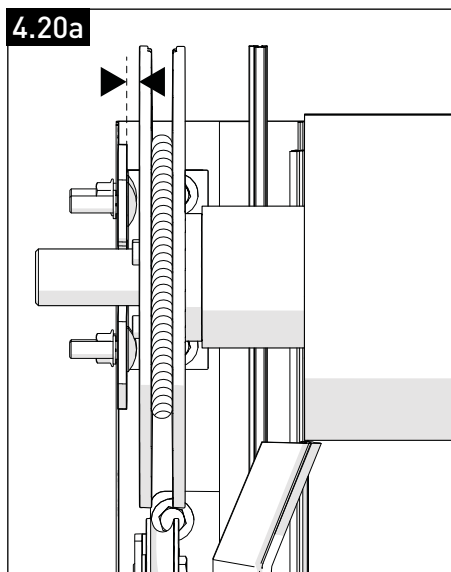
4. Installation

4.19

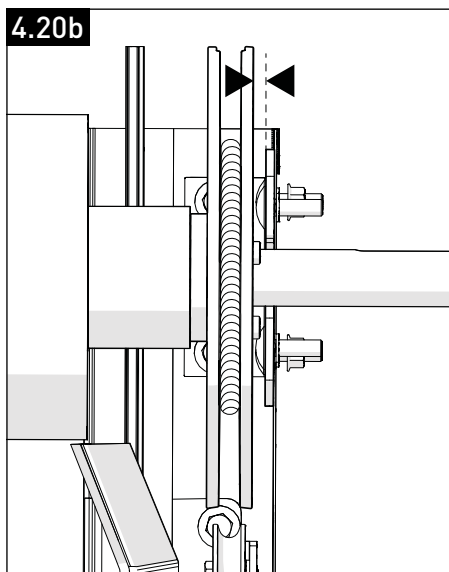


The top roller is delivered complete. Raise the top roller with a forklift truck and slide the axles into the consoles.

4.20a



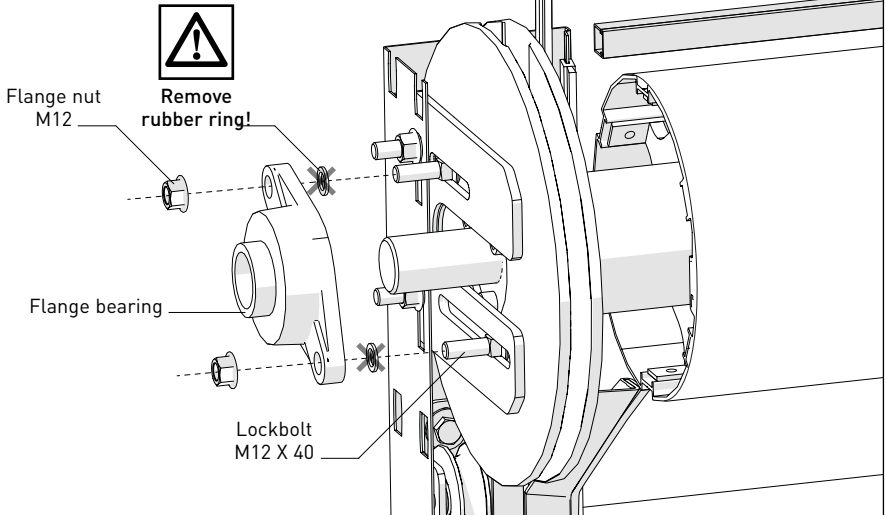
4.20b



Make sure that the winding pulleys are within the consoles and that the left and right sides of the consoles are sufficiently spaced to allow them to rotate freely.

4.21a

Bearing side

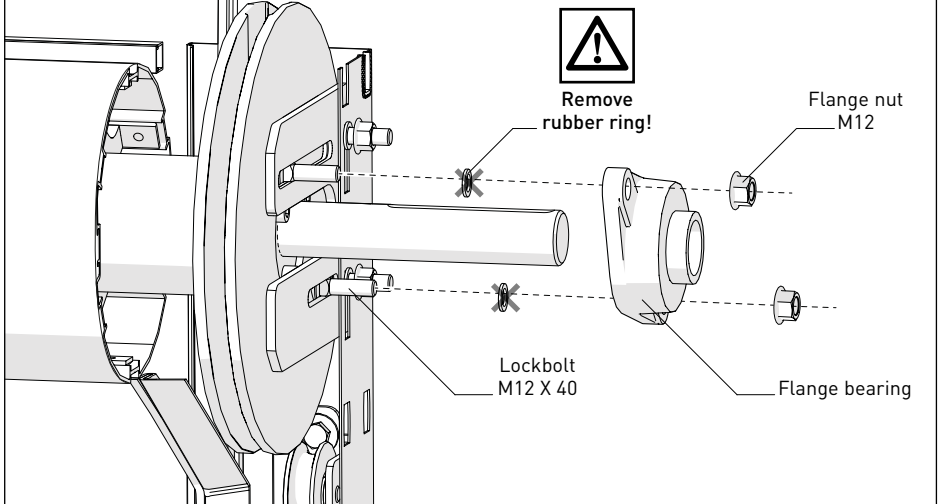


The rubber rings can be removed.

Slide the flange bearing from the outside onto the axle and secure the flange bearing by hand with the lock bolts and self-locking flange nuts provided.

4.21b

Drive side

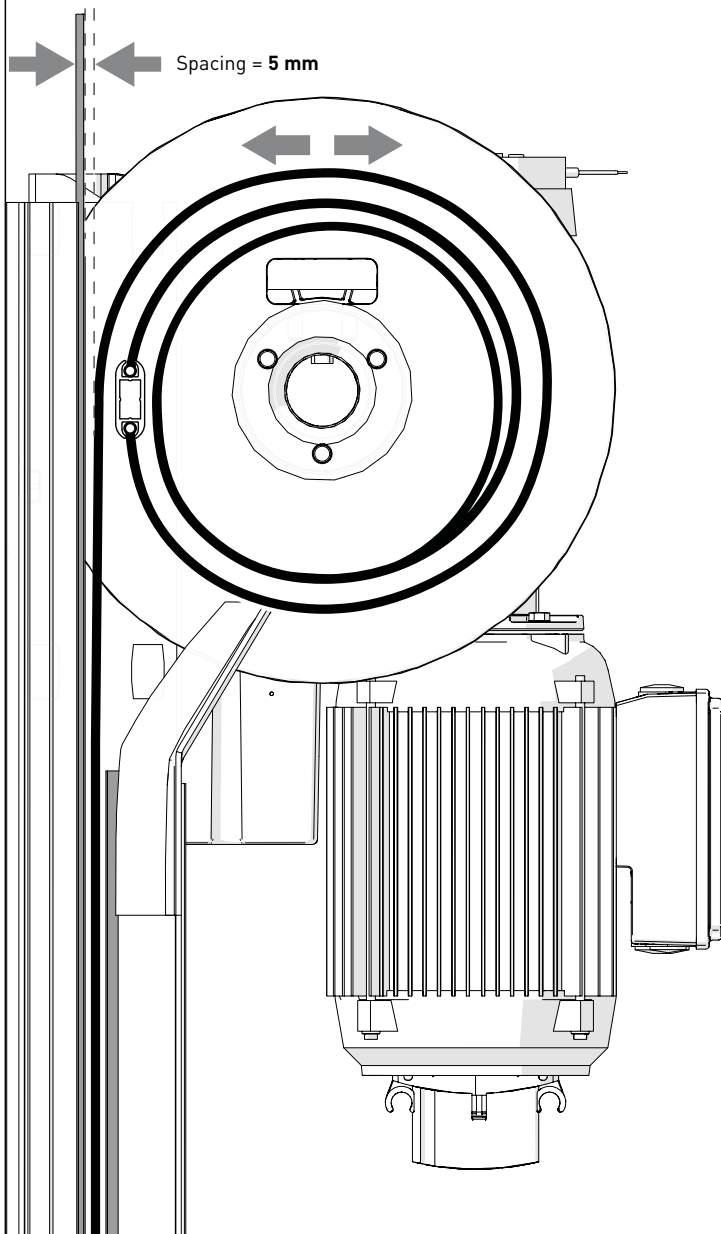


The rubber rings can be removed.

Slide the flange bearing from the outside onto the axle and secure the flange bearing by hand with the lock bolts and self-locking flange nuts provided.

4. Installation

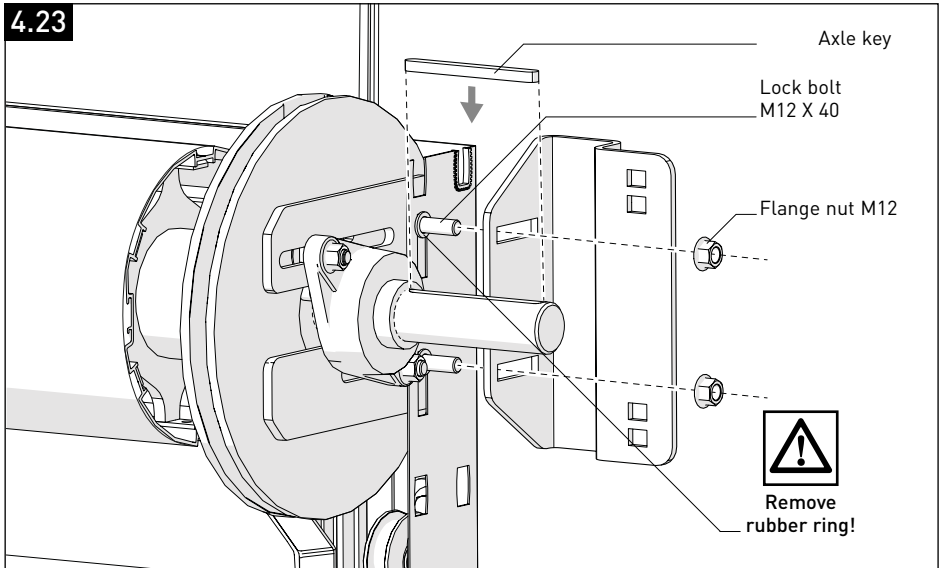
4.22



Roll up the door leaf all the way. Align the upper roller and drive horizontally, so that the widest part of the upper roller is 5 mm away from the rear slide strip. **Now tighten both flange bearings.**

4. Installation

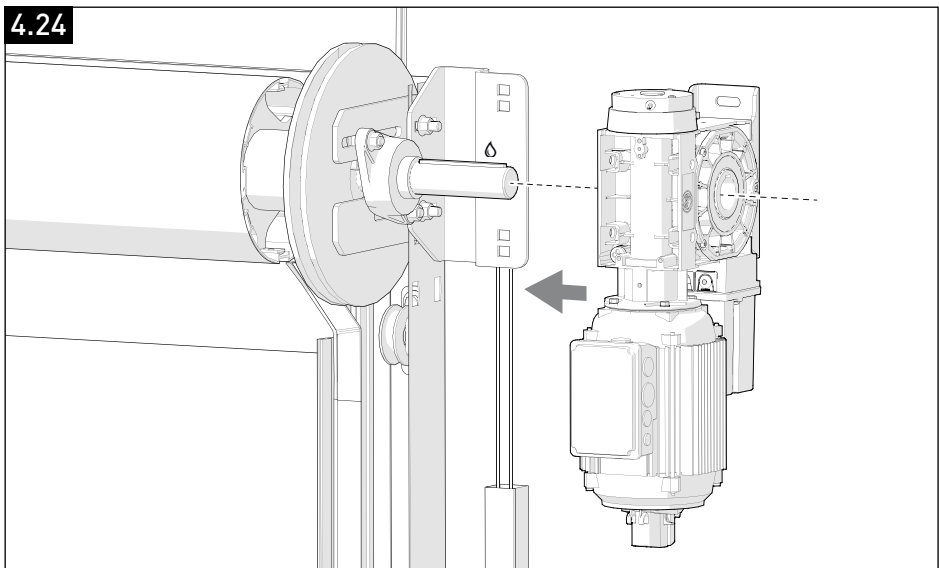
4.23



The rubber rings can be removed.

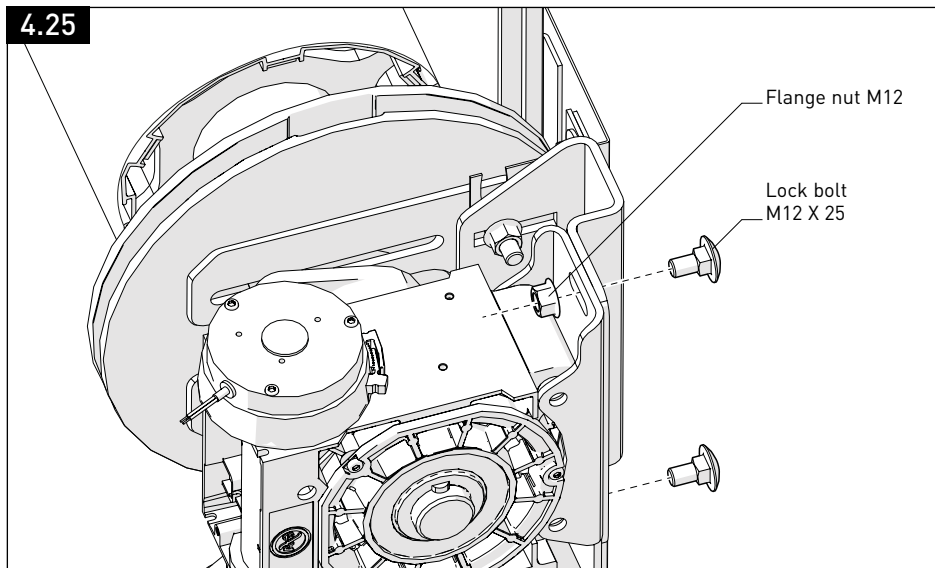
Hand-tighten the engine mount to the console and to the wall guide with the lock bolts and flange nuts. Slide the axle key in the axle keyway.

4.24



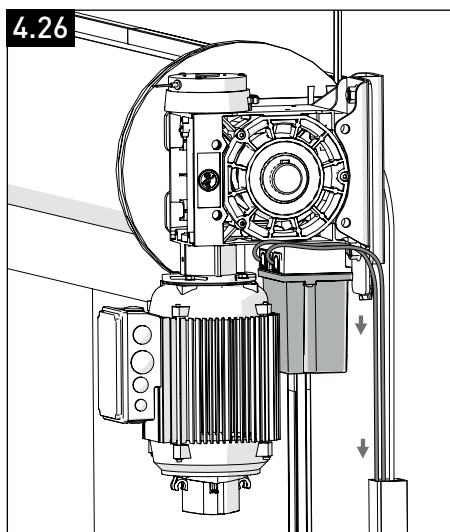
Slide the drive over the axle. Add grease to slide the drive over the axle more easily.

4. Installation



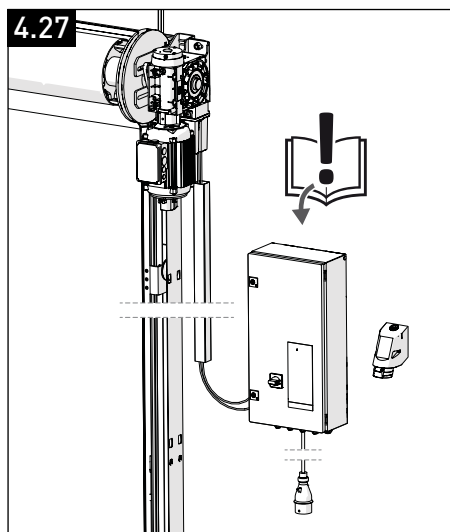
Then attach the drive to the engine mount.

Use the M12 lock bolts and flange nuts (2 X).



Feed the drive cables down into the vertical wiring channel towards the control box.

Please pay attention! Cut cables to the correct length, do not roll them up!



For proper installation of the 3 kW operating system, refer to the manual supplied with the control box. For connecting the **light curtain** see wiring diagram 4.28a or 4.28b on the next pages.

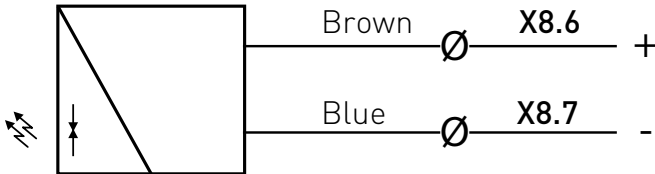
4.28a

Wiring diagram Telco Light curtain

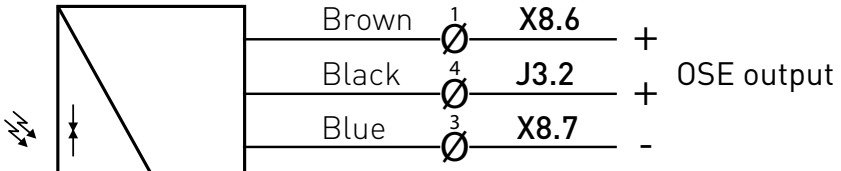
Connections:	Power supply +	Brown
	Power supply -	Blue
	SGR OSE output	Black

Refer to the manual of the controller to find the correct parameter settings.

T100 R

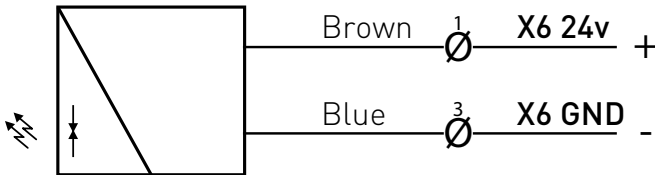


SGT 15 OSE (Black wire)

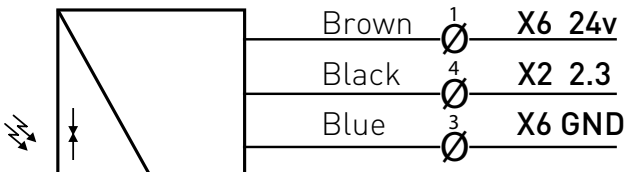


SGR 15 OSE (Gray wire)

TS971



SGT 15 OSE (Black wire)



SGR 15 OSE (Gray wire)

4. Installation

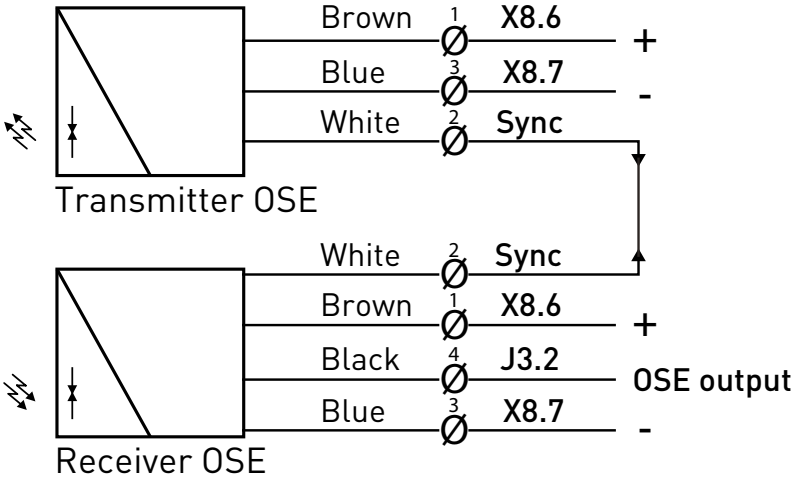
4.28b

Wiring diagram Witt Light curtain

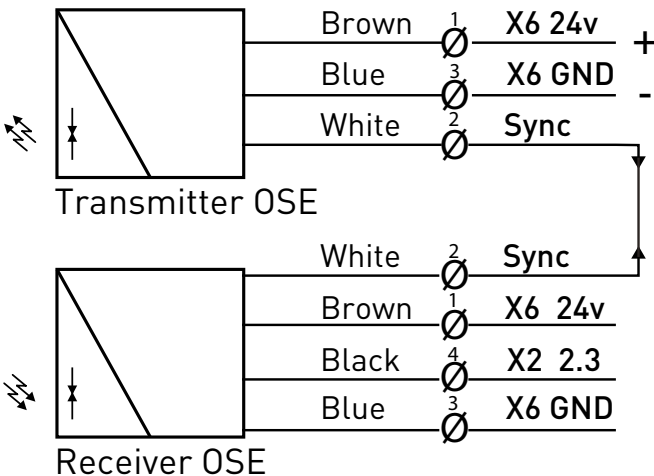
Connections:	Power supply +	Brown
	Power supply -	Blue
	SGR OSE output	Black
	sync	White

Refer to the manual of the controller to find the correct parameter settings.

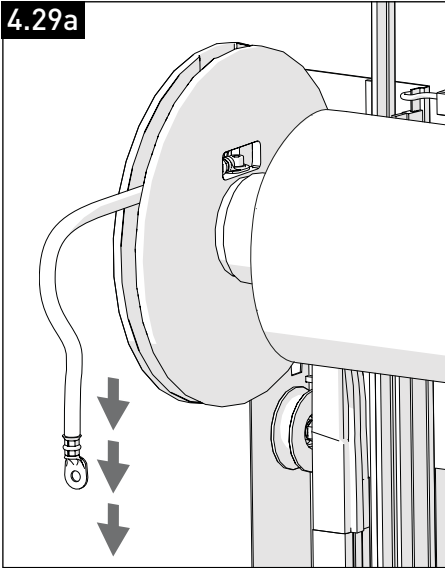
T100 R



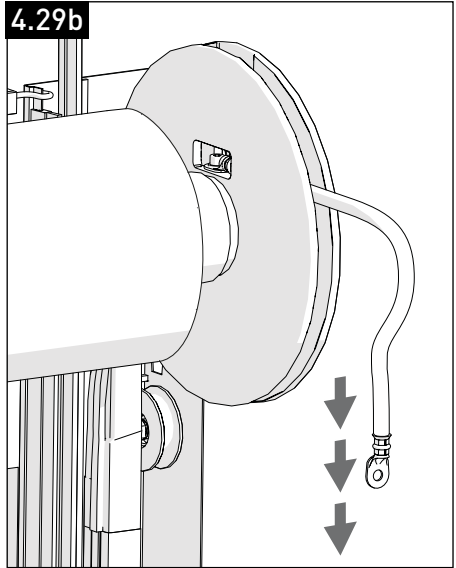
TS971



4.29a

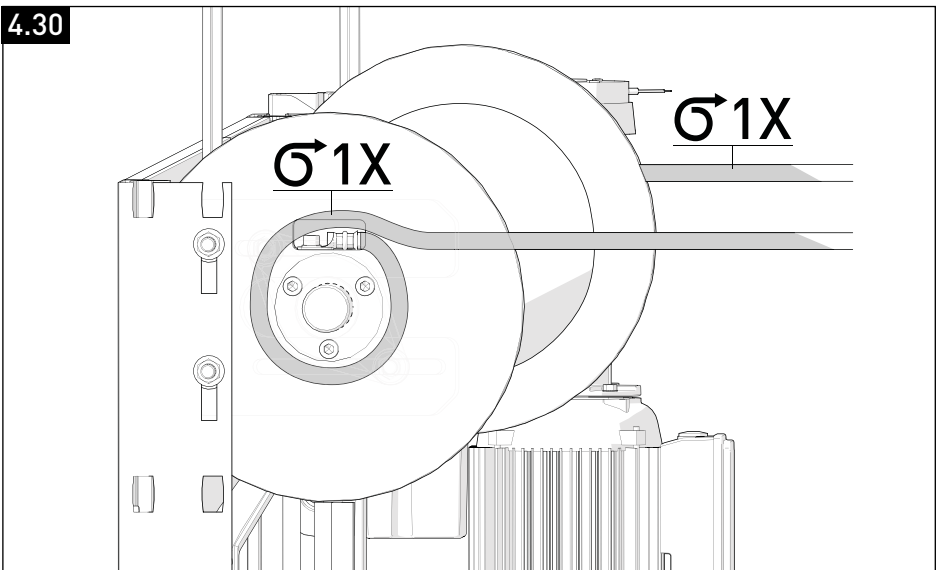


4.29b



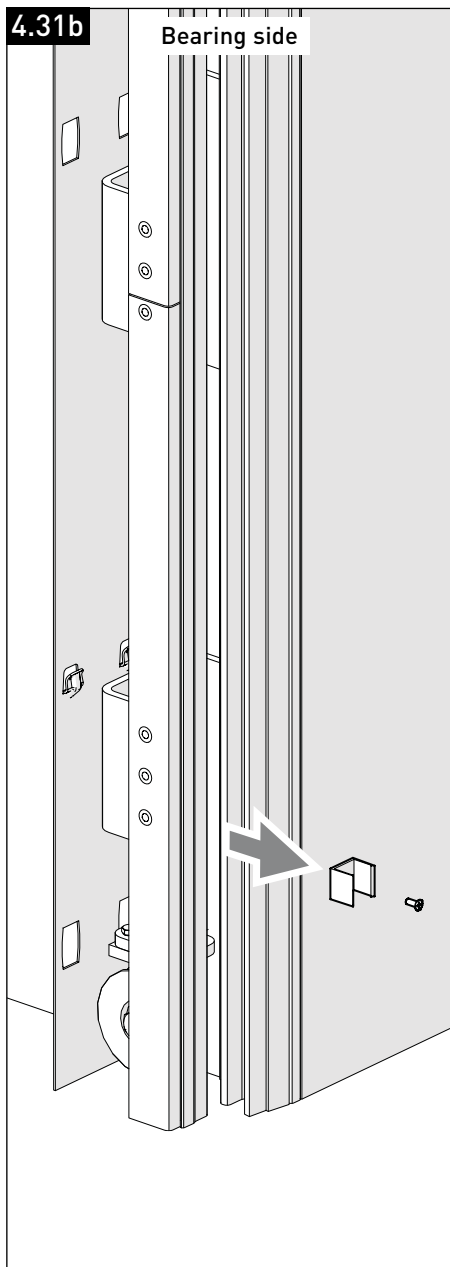
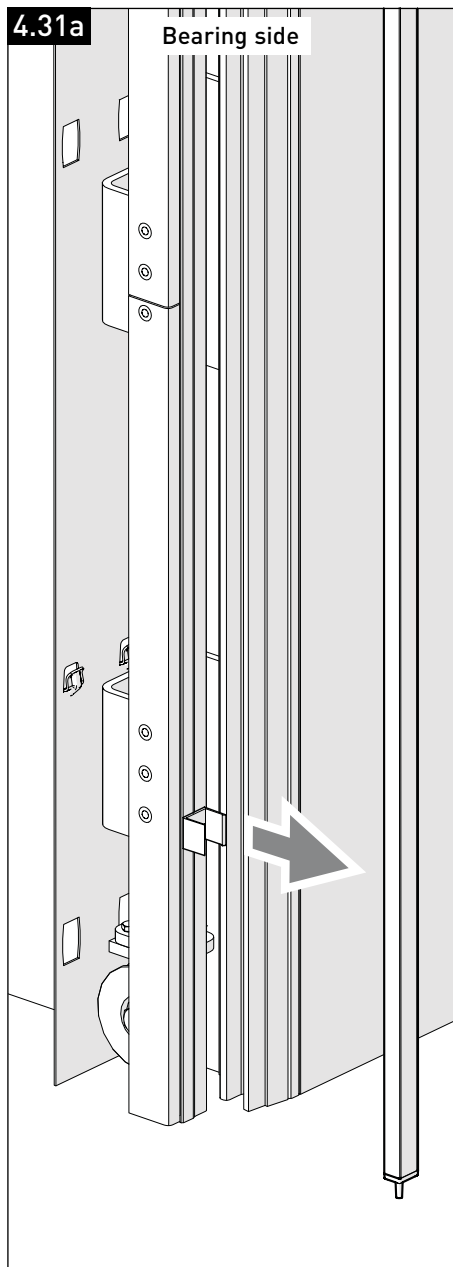
Roll the elastic bands all the way off the aluminium winding disc.

4.30

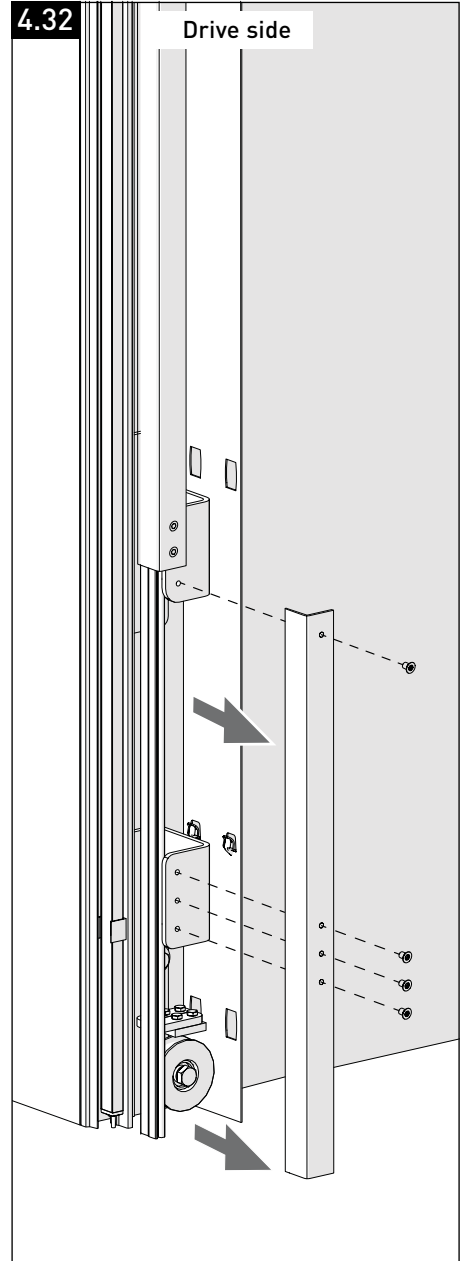
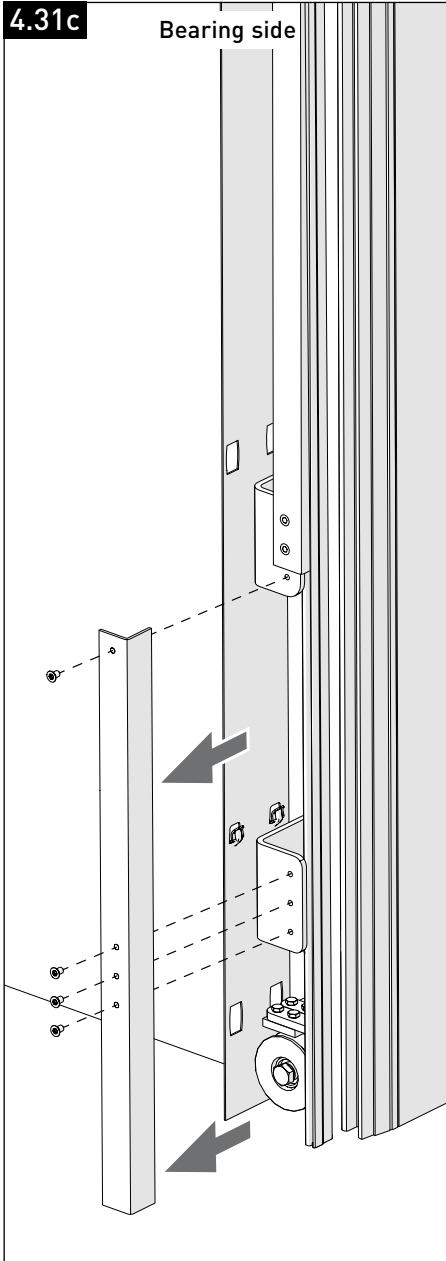


Roll the elastic band back onto the winding disc one revolution. The elastic band must be rolled in the opposite direction to the door leaf so that it is pulled upwards.

4. Installation



Temporarily remove the light curtain on the bearing side.
Snap the light curtain out of the mounting clips and unscrew the bottom clip.
Attention: the clip and the light curtain have to be re-assembled later!

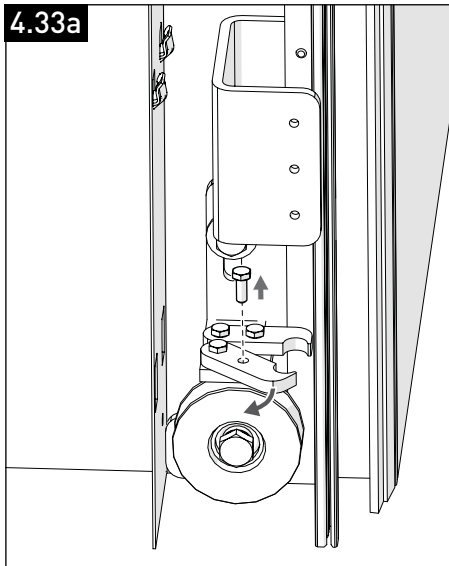


Remove the lower part of the skeleton left and right.

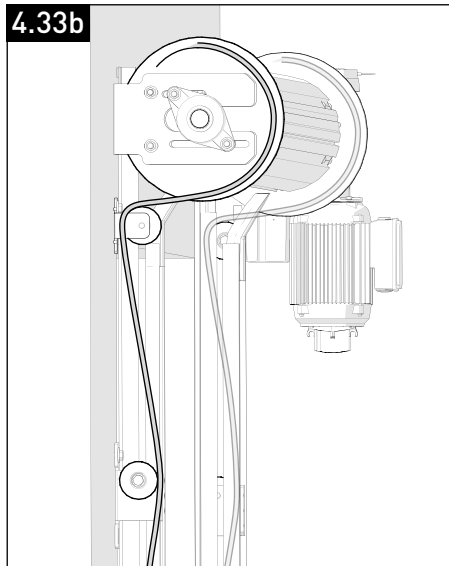
To do so, unscrew the lower 4 taptites from the brackets.

Attention: do not throw these taptites away, they will be needed again later!

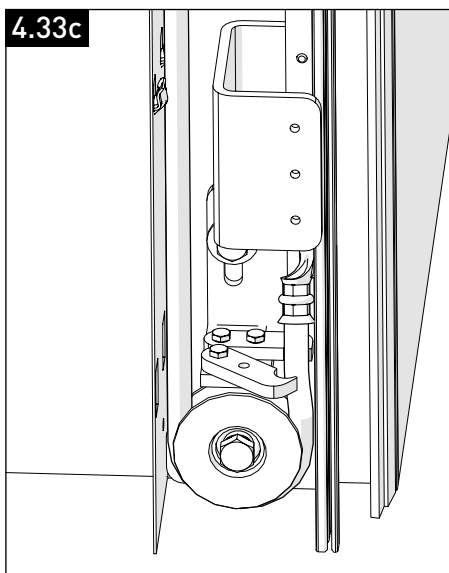
4. Installation



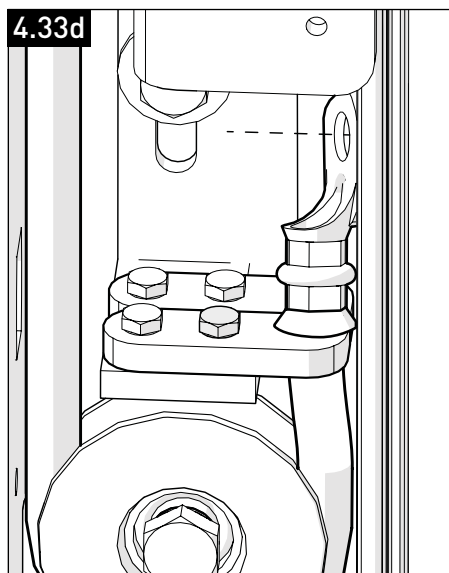
Loosen the front clamping plates by loosening one bolt and unscrewing one bolt all the way out (**L + R**).



Guide the elastic bands along the upper two pulleys as indicated.

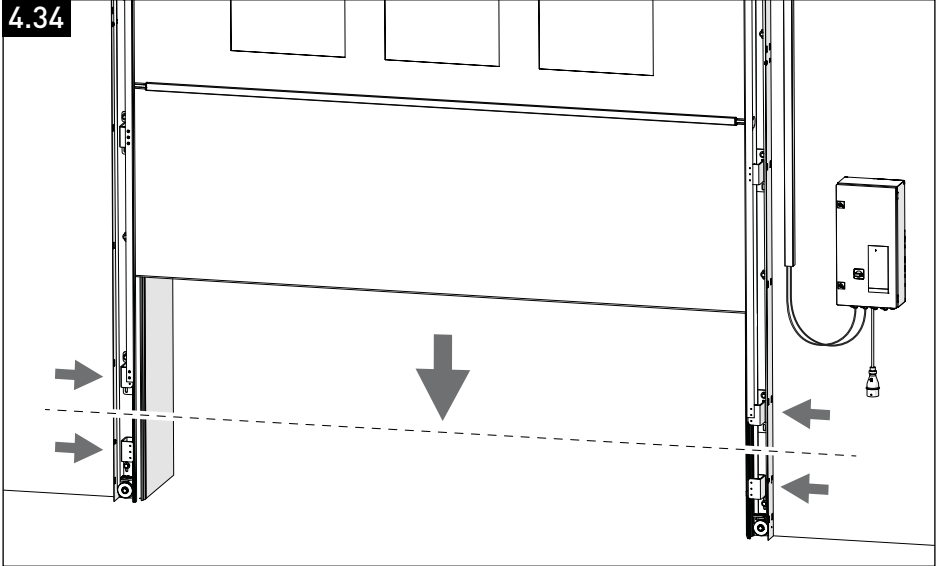


Guide the rubber bands under the lower pulley. Point the eye towards the threaded end of the lower beam (**L + R**).

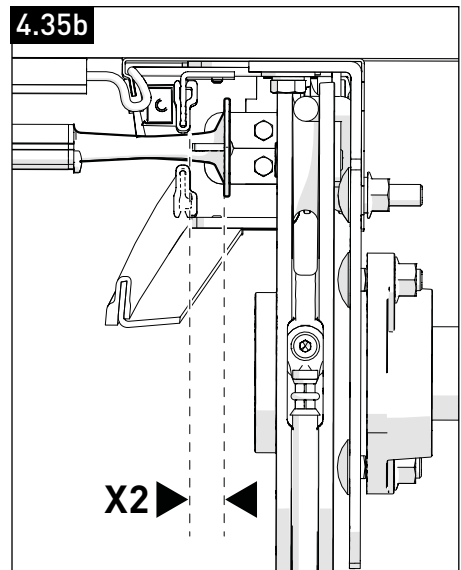
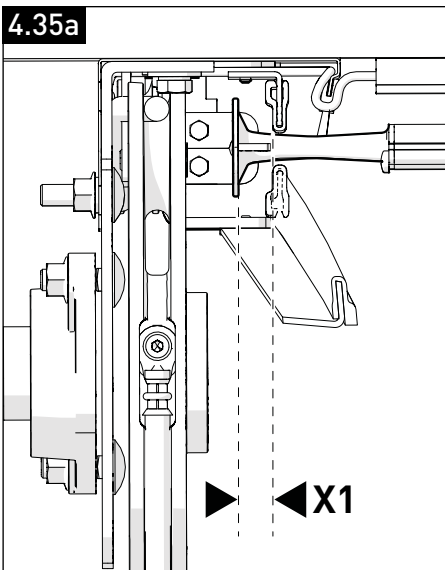


Clamp the elastics between the clamping plates and secure the clamping plates with all four bolts (**L + R**).

4. Installation

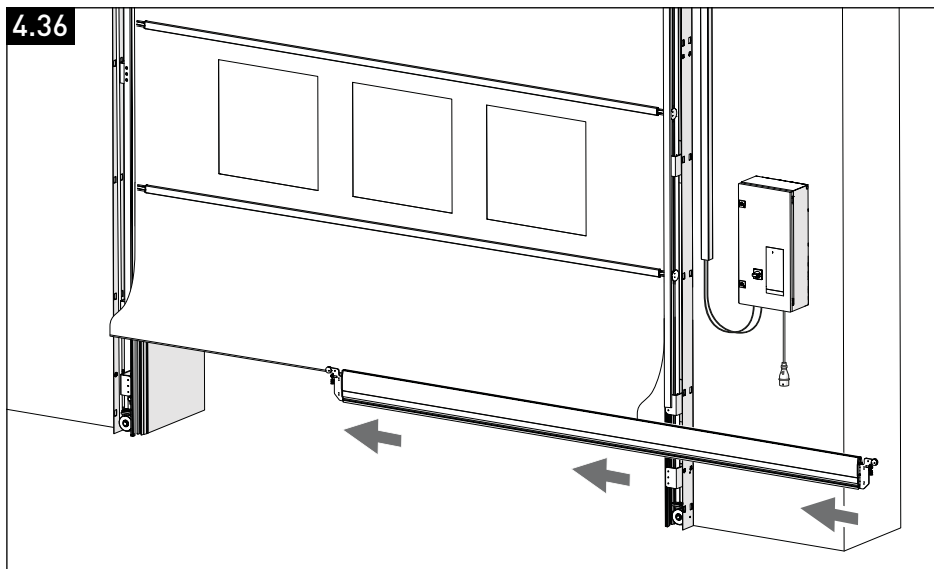


Roll the cloth down to between the lower 2 brackets.

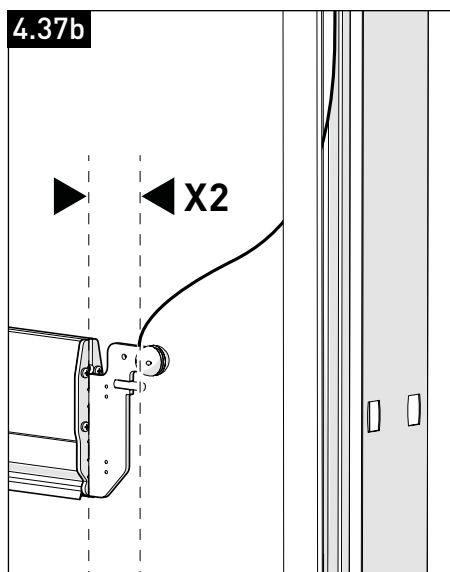
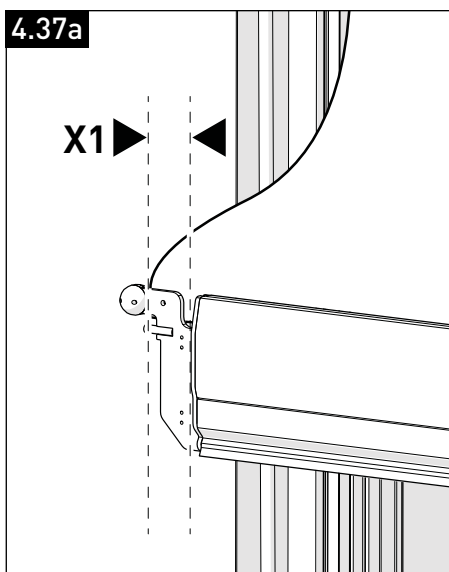


Ensure that the distance between the hook and the guide is the same on both sides.
See top view: $X1 = X2$

4. Installation

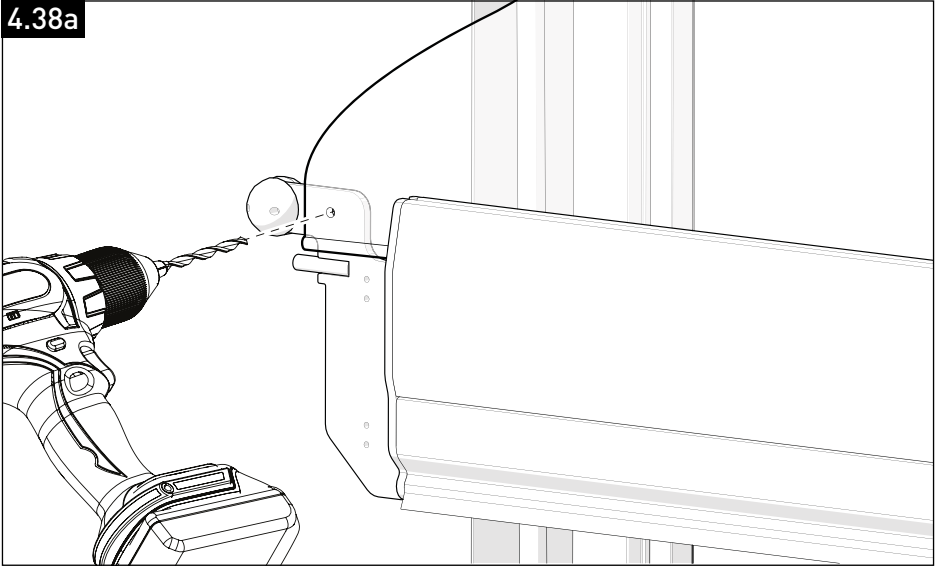


Slide the bottom beam over the curtain tendon as shown.



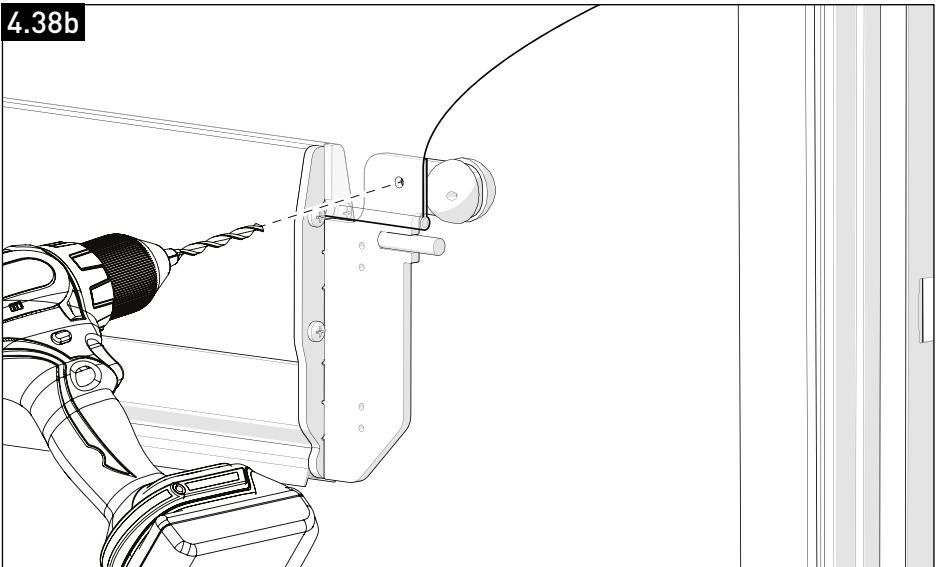
Centre the bottom beam: $X1 = X2$!

4.38a



Pull the curtain forward and drill a hole in the curtain on the left, at the level of the hole in the bottom beam. Make sure that the bottom beam is still neatly centred. $X1 = X2$.

4.38b

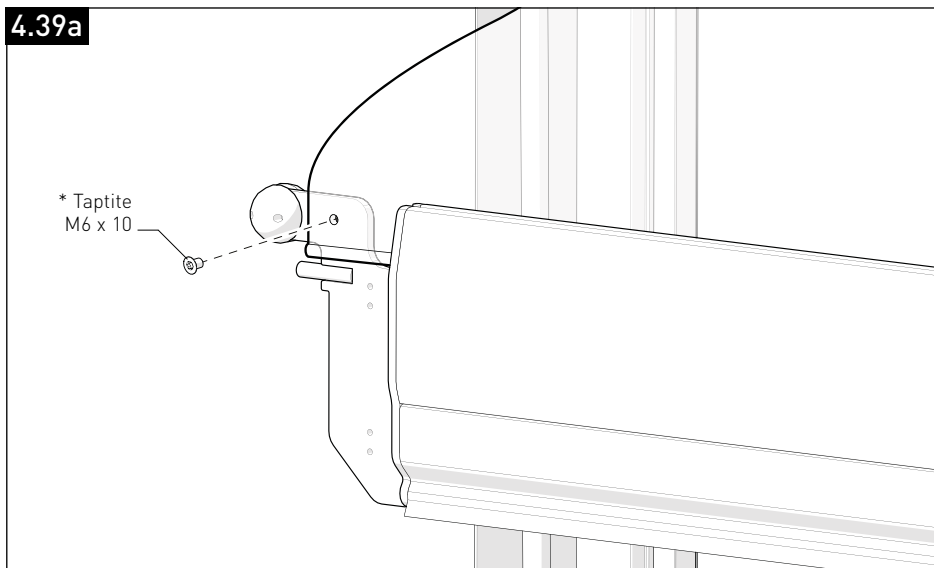


Pull the curtain forwards and drill a hole in the curtain on the right at the level of the hole in the bottom beam.

4. Installation

4.39a

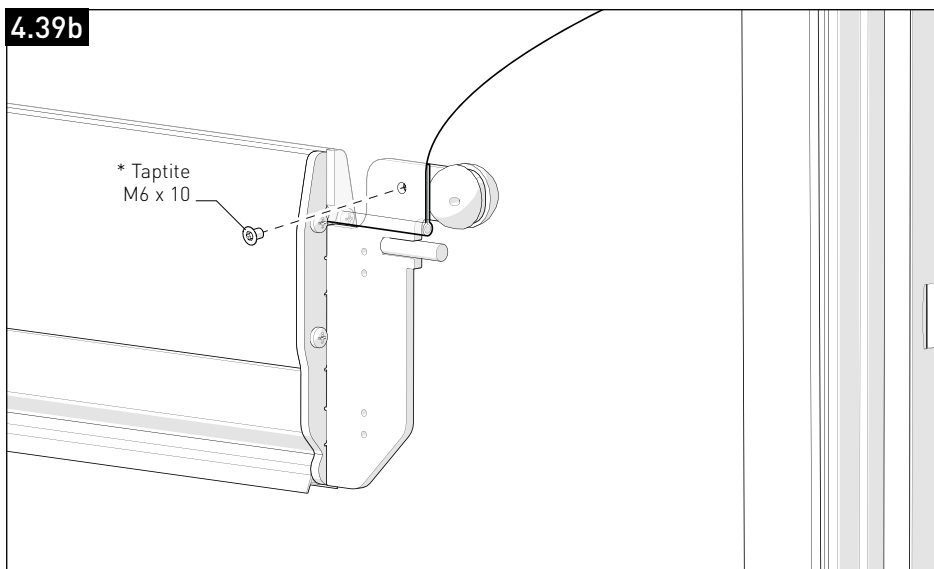
* Taptite
M6 x 10



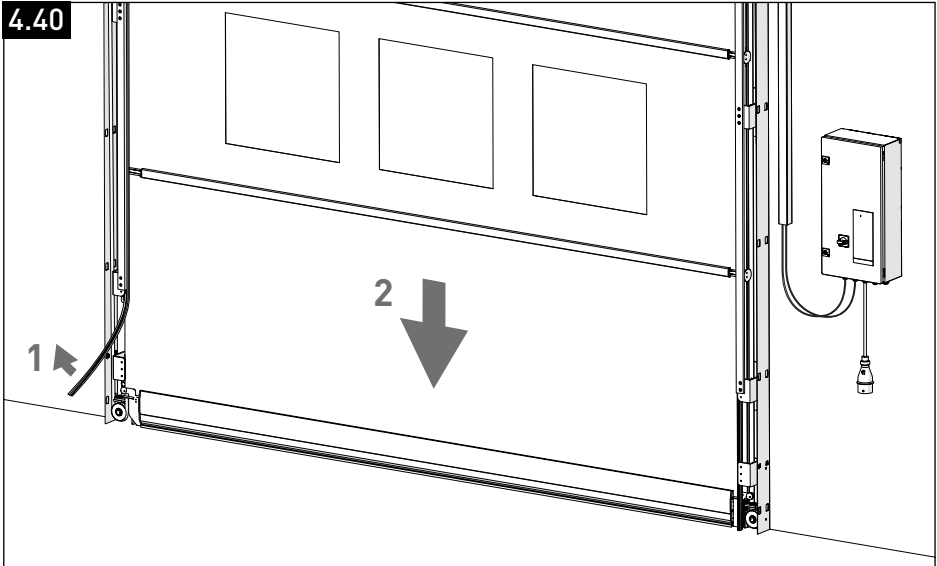
Secure the bottom bar on the left with the supplied M6 x 10 taptites.

4.39b

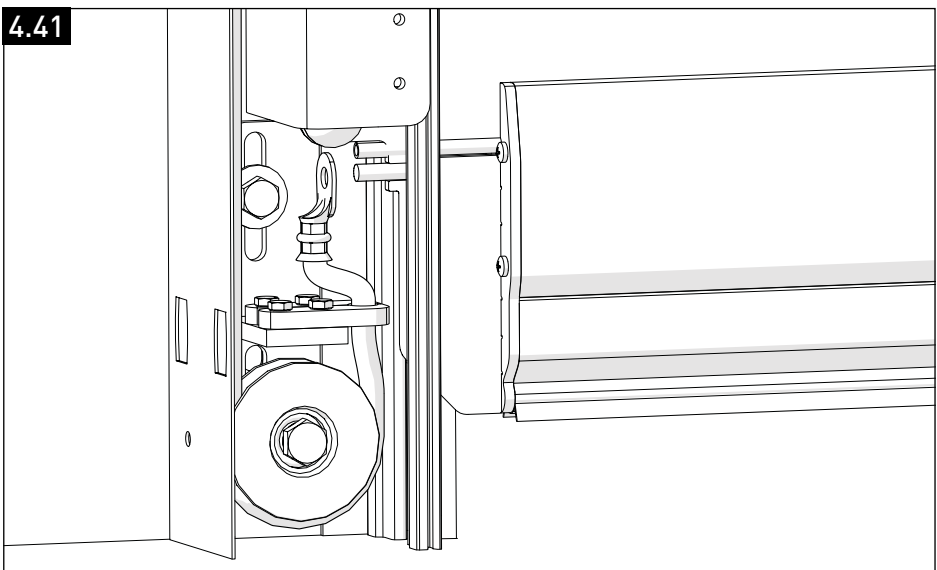
* Taptite
M6 x 10



Secure the bottom bar on the right with the supplied M6 x 10 taptites.



Bend the sliding strips forward (1) so that the door curtain can be hung back into the guides. Then lower the bottom beam all the way down (2).

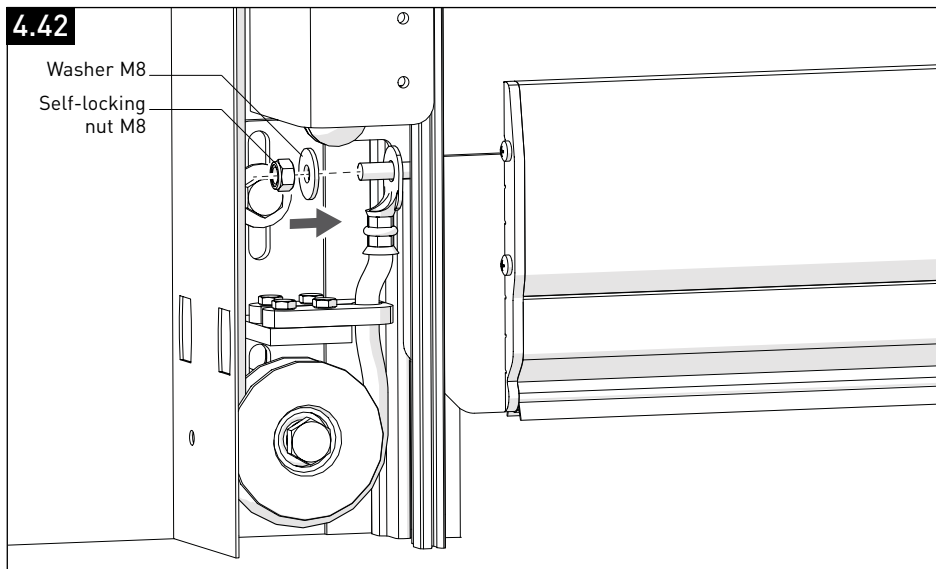


Slide the eye of the elastic band over the threaded end of the bottom beam. Do this on both sides (**left and right**).

4. Installation

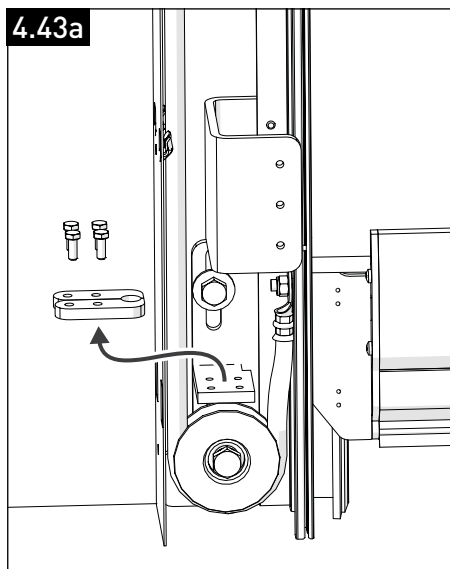
4.42

Washer M8
Self-locking
nut M8

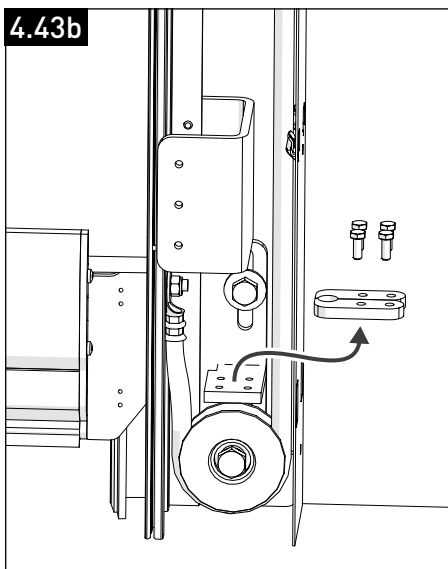


Slide the M8 washer over the threaded end, and secure the elastic band by hand with the self-locking M8 nut. Tighten the nut until it sits completely on the threaded end, so that the nut is secured. Do this on both sides (**left and right**).

4.43a

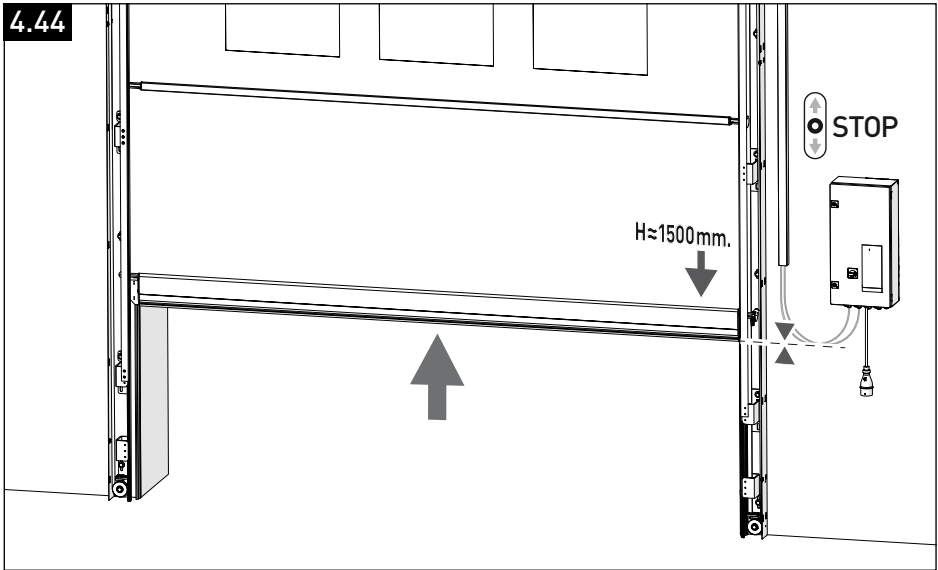


4.43b

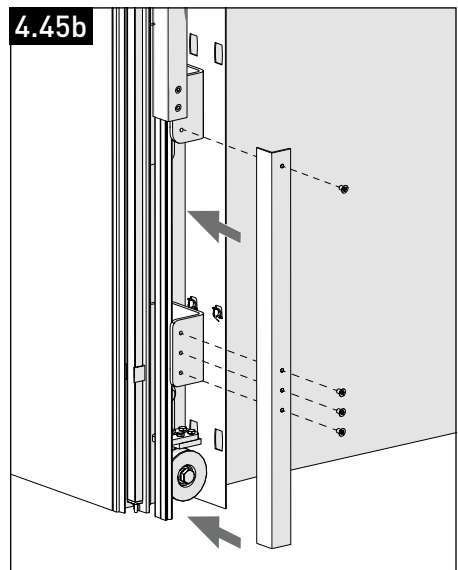
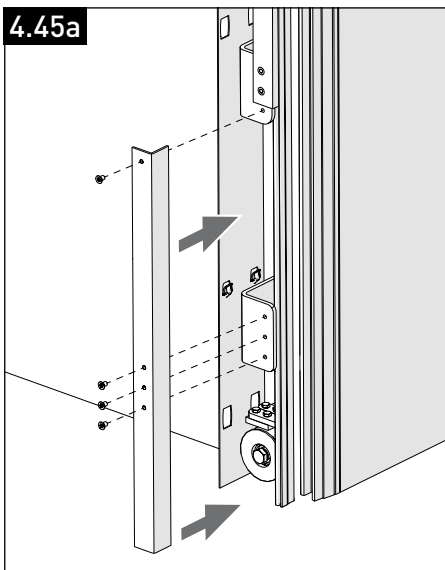


Remove the **left and right** clamps holding the elastic bands.

4. Installation

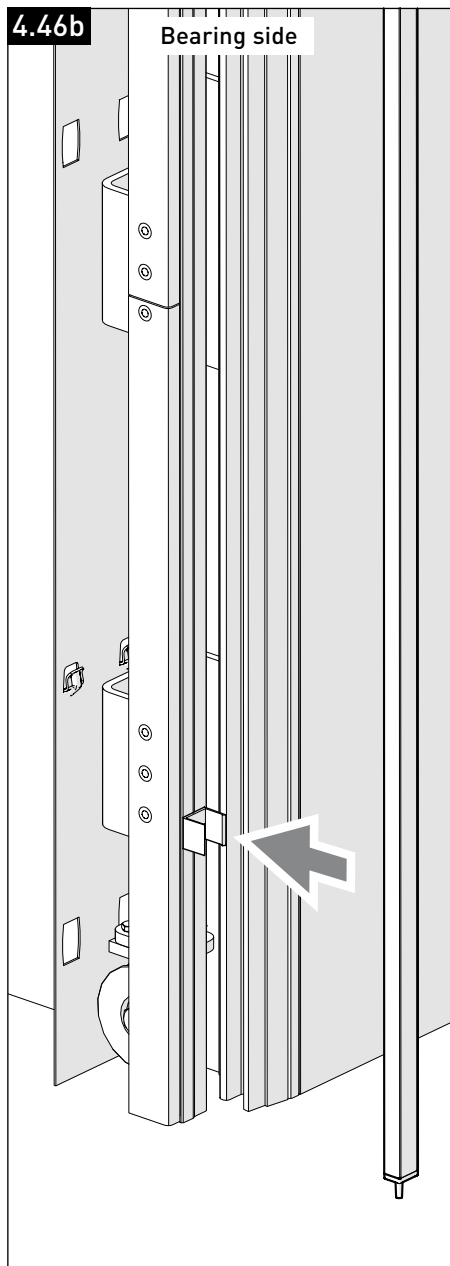
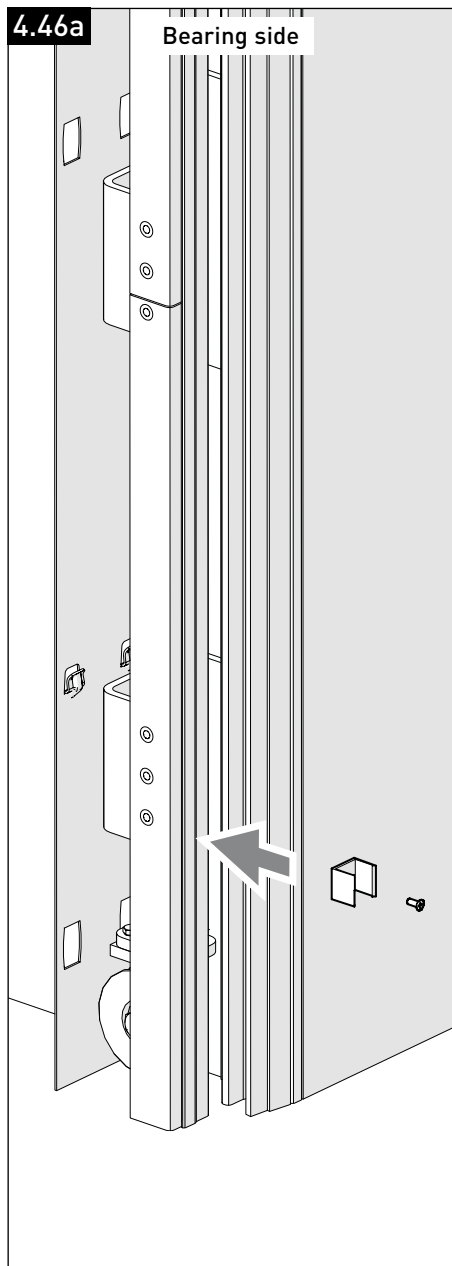


Roll up the curtain to 1.5 M. from the floor.



Reattach the lower parts of the skeleton to their original position.

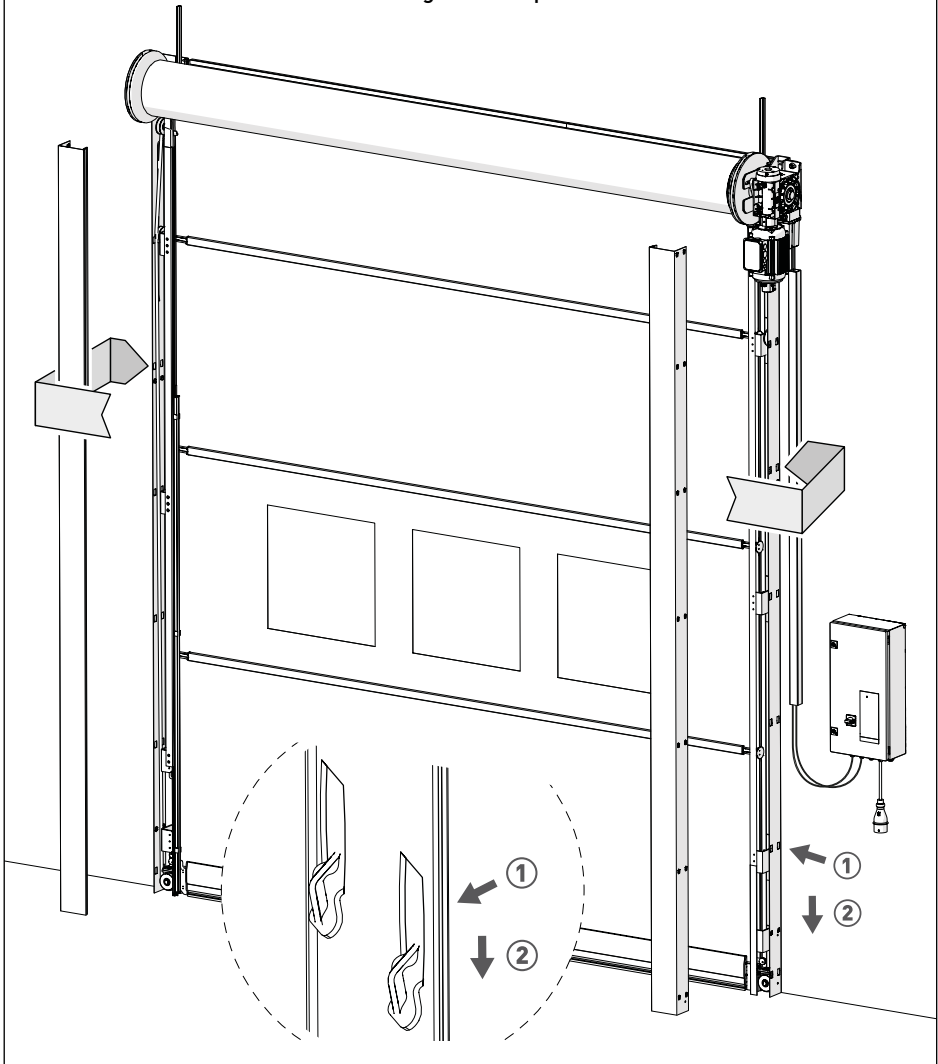
4. Installation



Replace the clip and the light curtain on the bearing side.

4.47

Mounting of cover panels



Hook the left and right cover panels into the columns. Insert the clamps into the recesses provided and slide the cover panels downwards until they snap into place.



This completes the mechanical part of the door assembly. For exact adjustment of the 3 kW control system, see the relevant manual. Make sure you use the correct manual for the 3 kW control system.

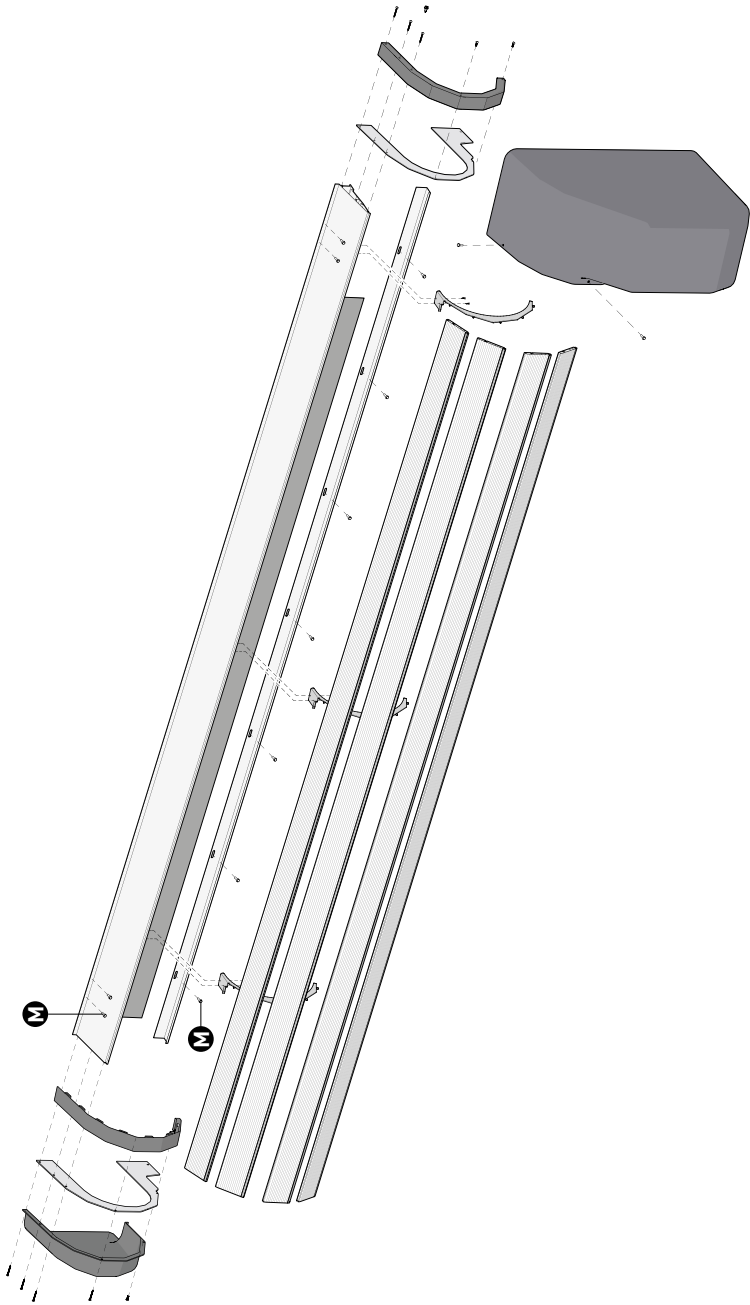
The following is the assembly of the hood.

5. Installation Hood

(Plastic)

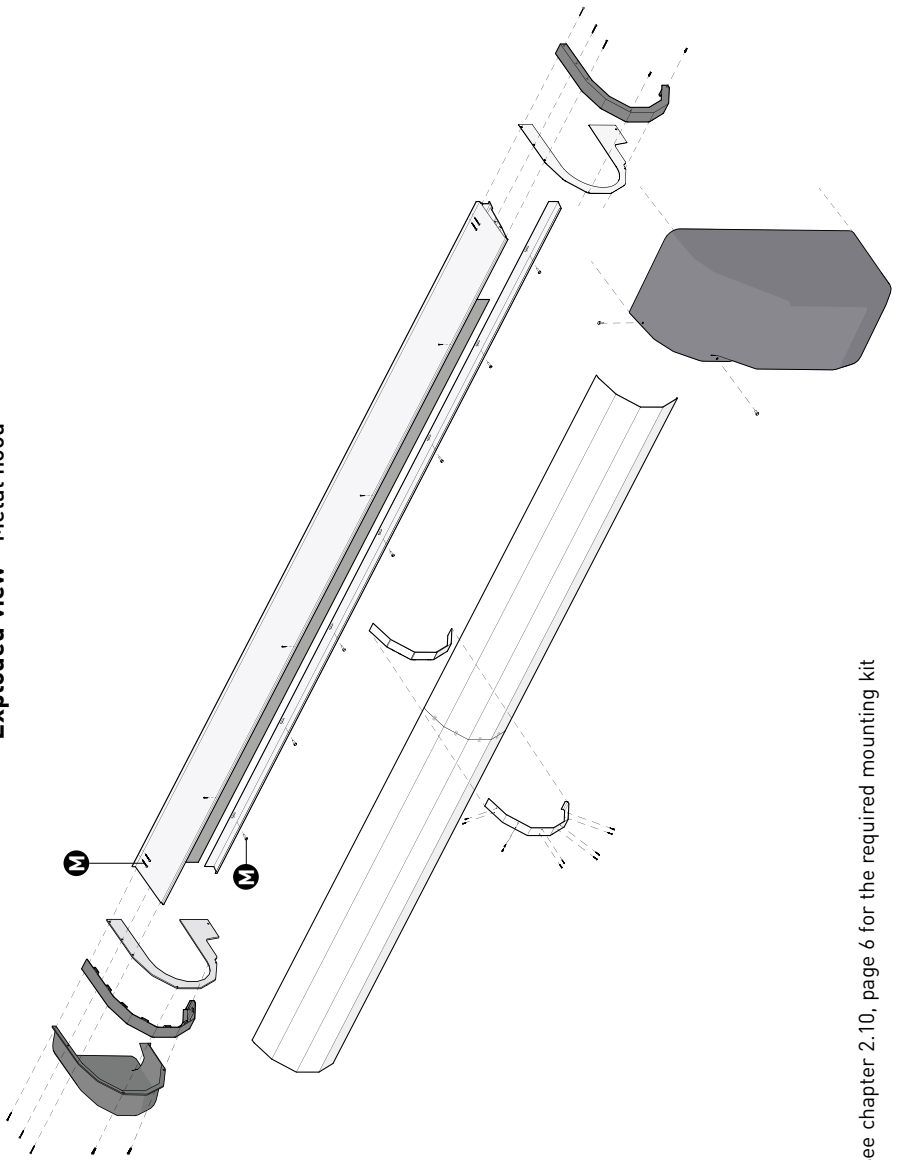
5.1a

Exploded view - Plastic hood



M * See chapter 2.10, page 6 for the required mounting kit

Exploded view - Metal hood



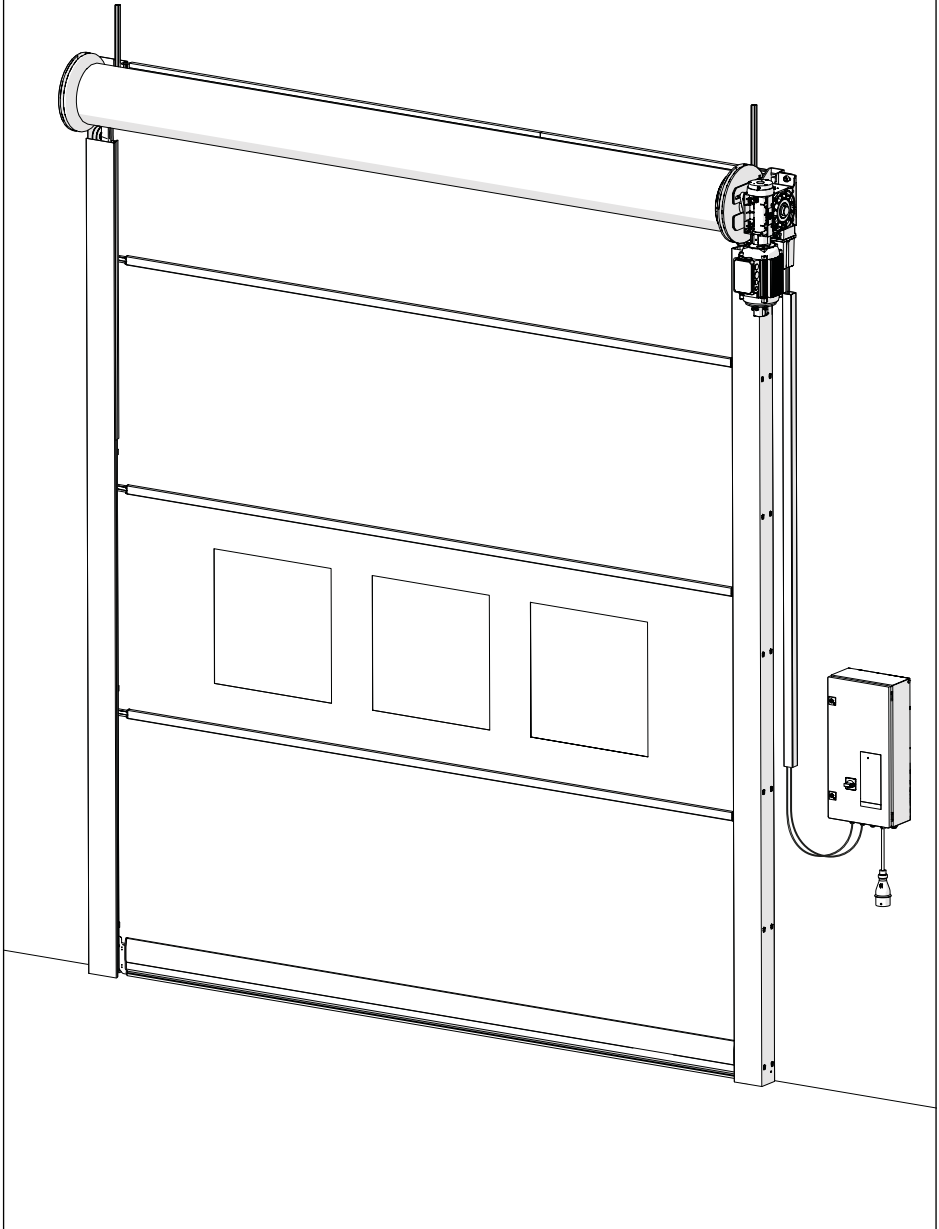
M * See chapter 2.10, page 6 for the required mounting kit

(Métal)

5.1b

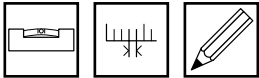
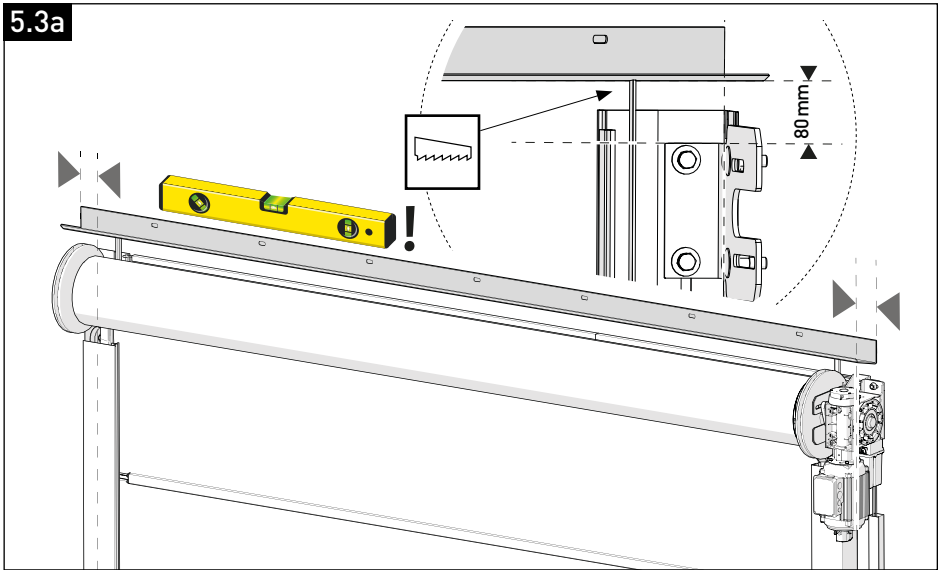
5. Installation Hood

5.2



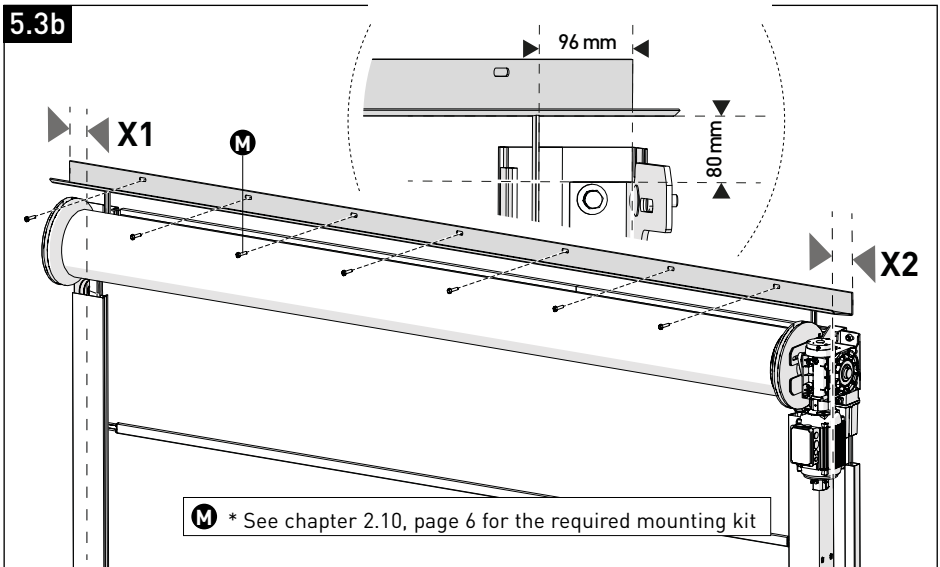
5. Installation Hood

5.3a

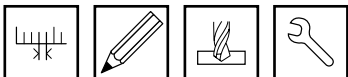


The inlay profile must be mounted horizontally against the wall. The height is 80 mm from the rear edge of the consoles (See detail). Determine the correct position accurately!

5.3b

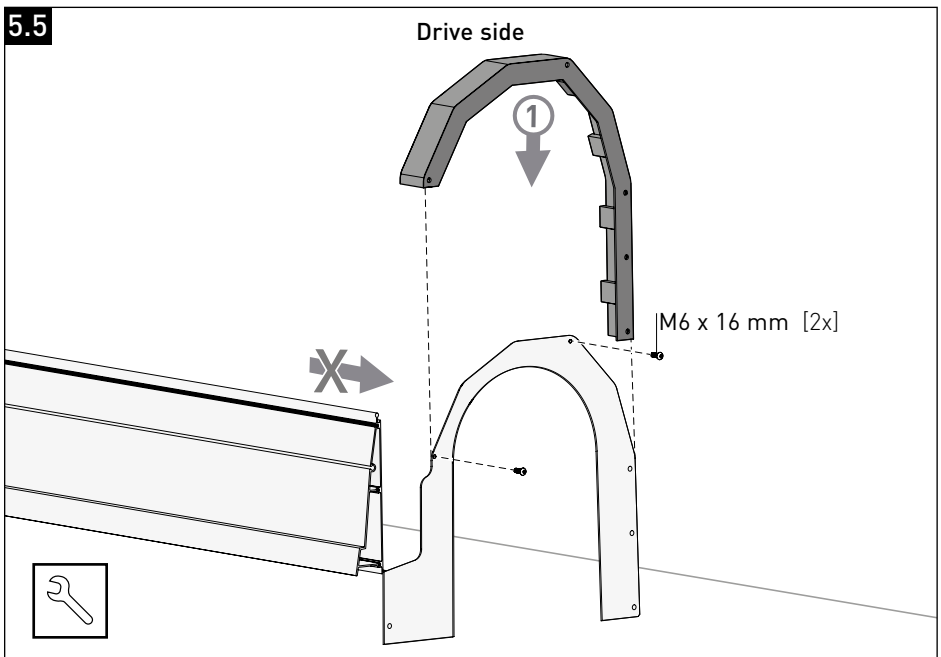
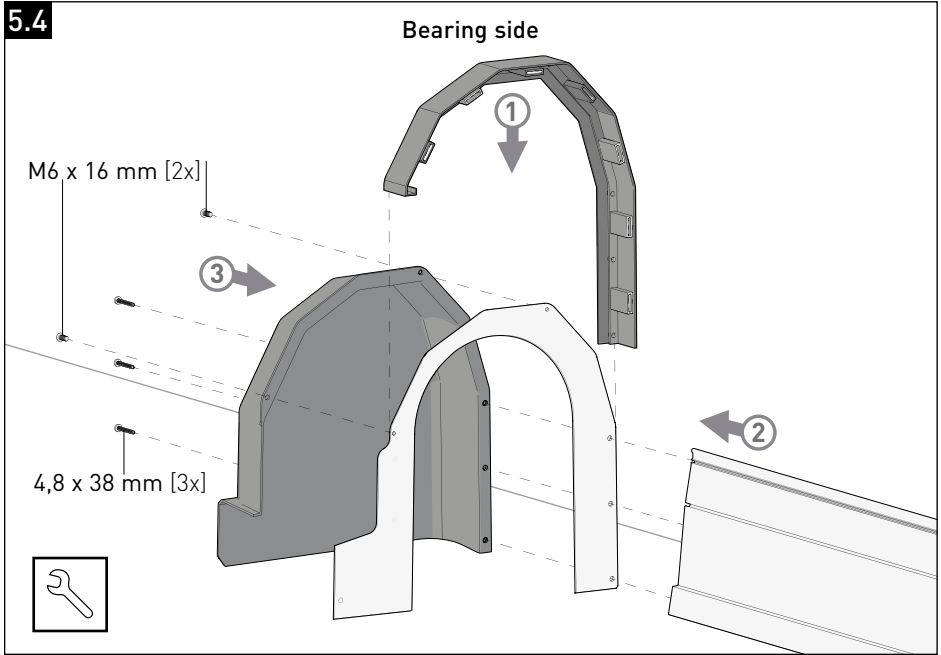


M * See chapter 2.10, page 6 for the required mounting kit

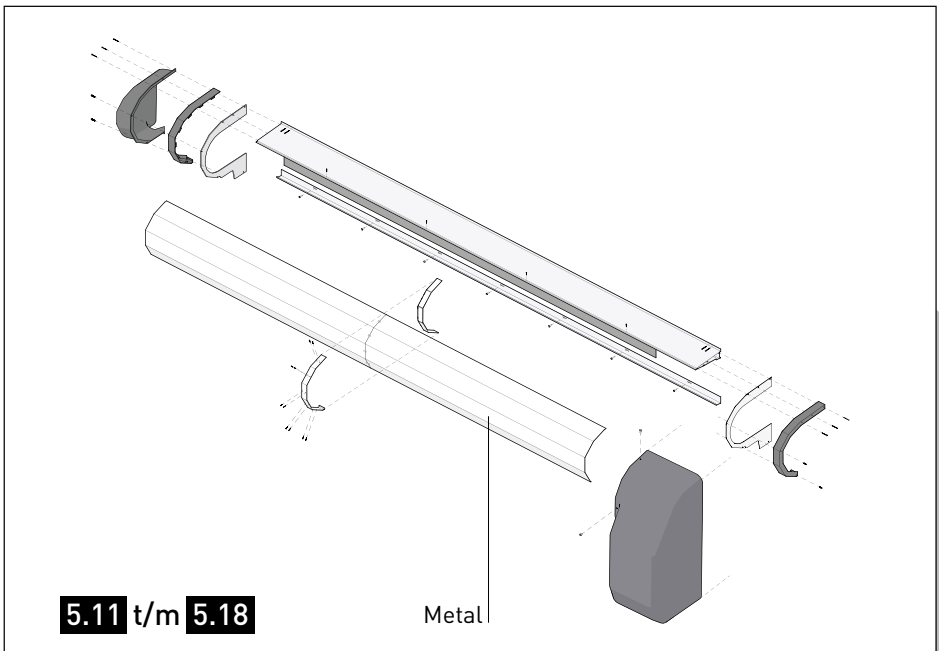
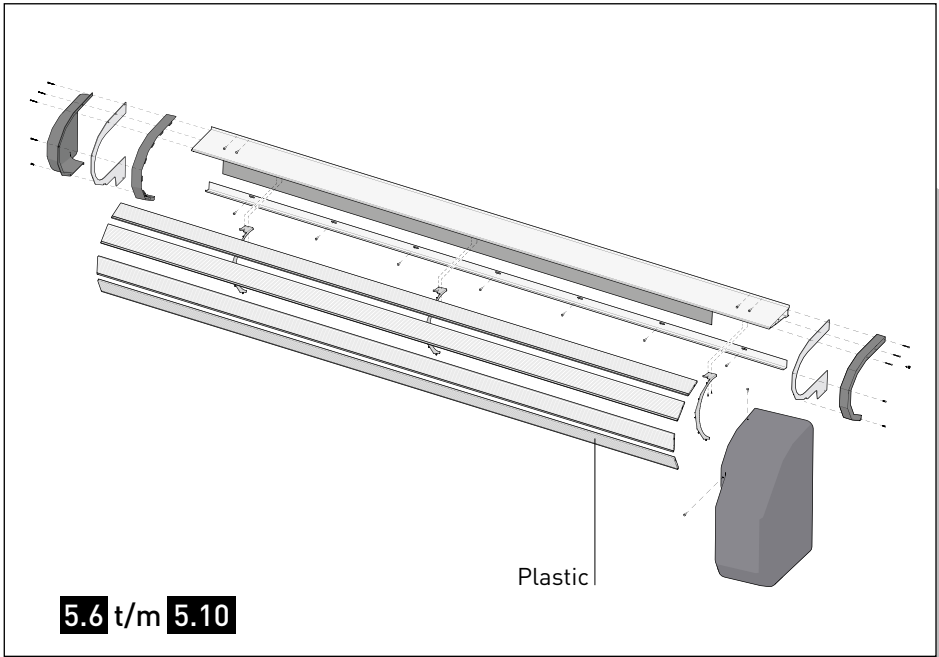


The inlay profile must be centred horizontally in relation to the columns ($X1 = X2$). Always use the supplied mounting kit to mount the inlay profile against the wall.

5. Installation Hood

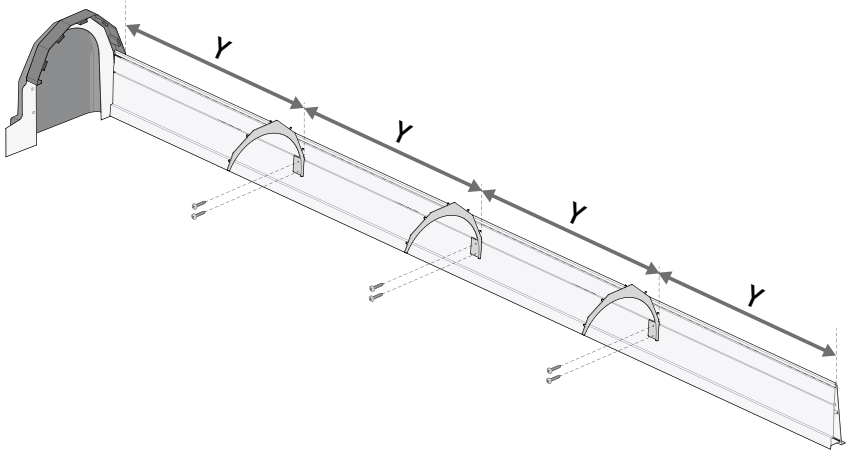


5. Installation Hood



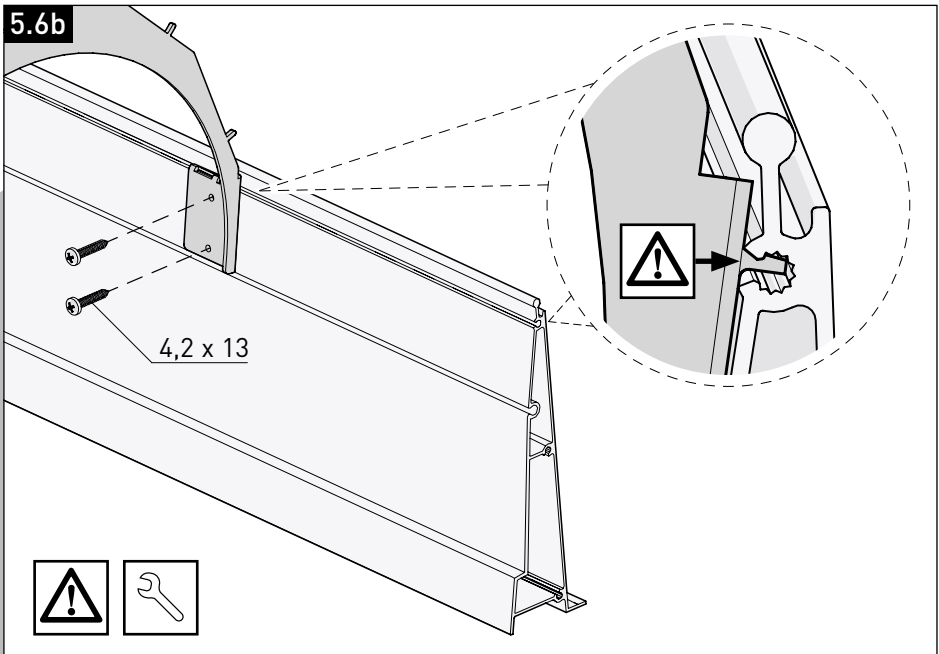
5. Installation Hood

5.6a

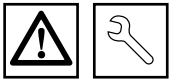


(Plastic)

5.6b

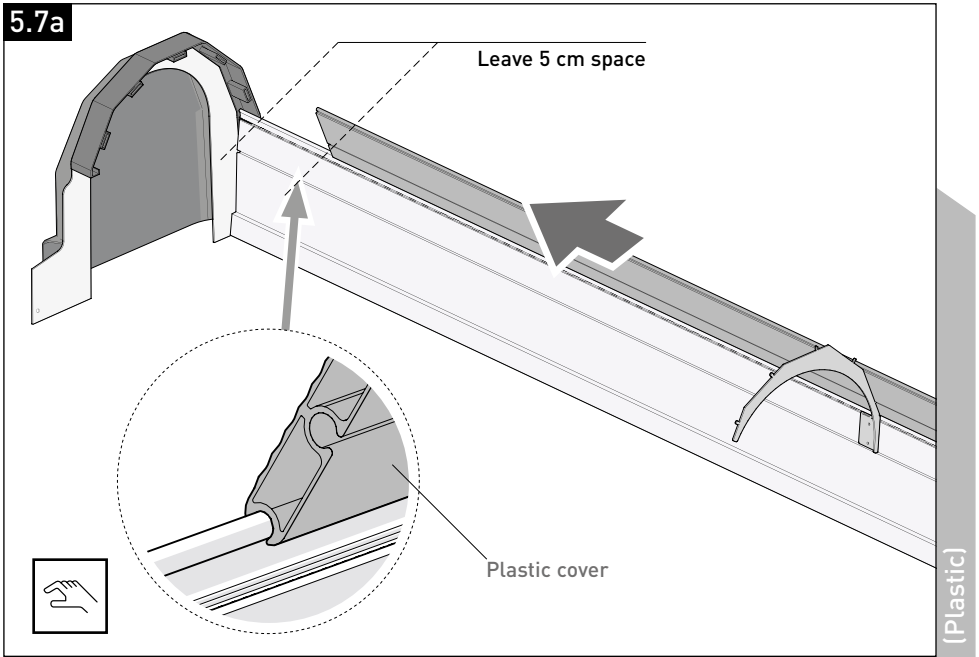


(Plastic)

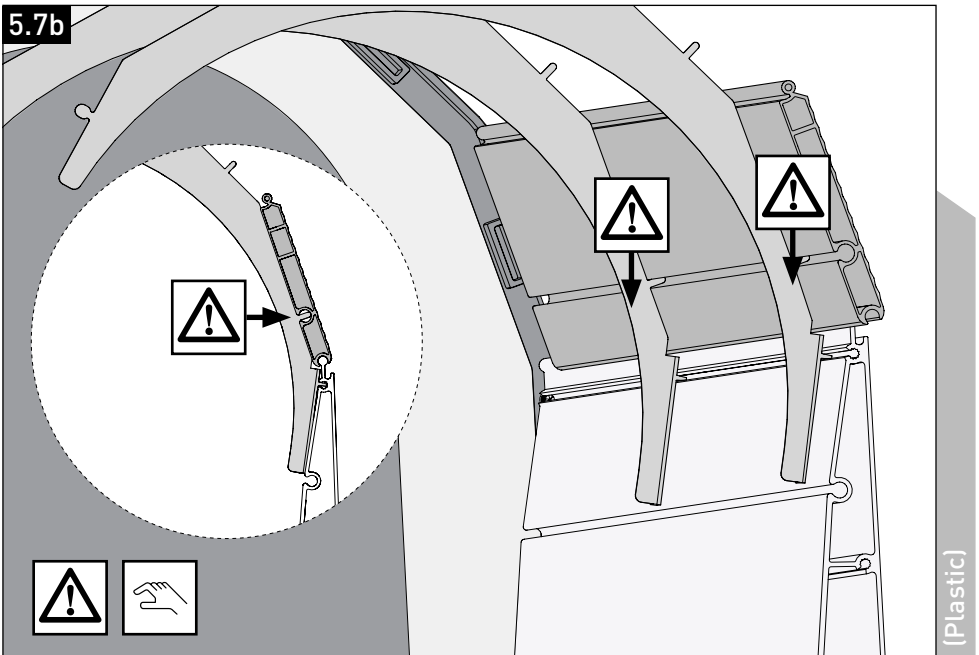


5. Installation Hood

5.7a

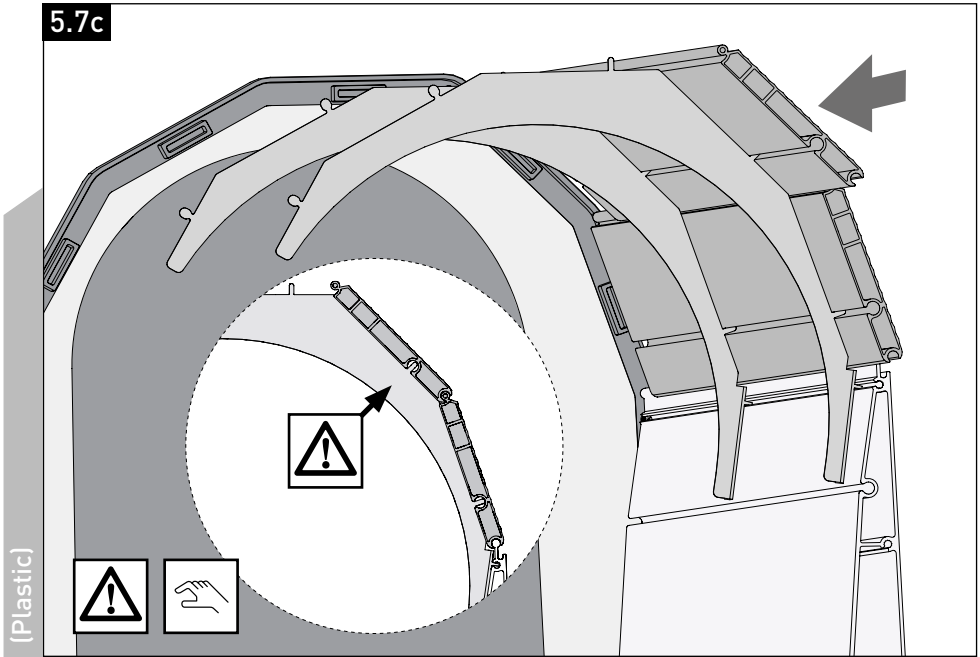


5.7b

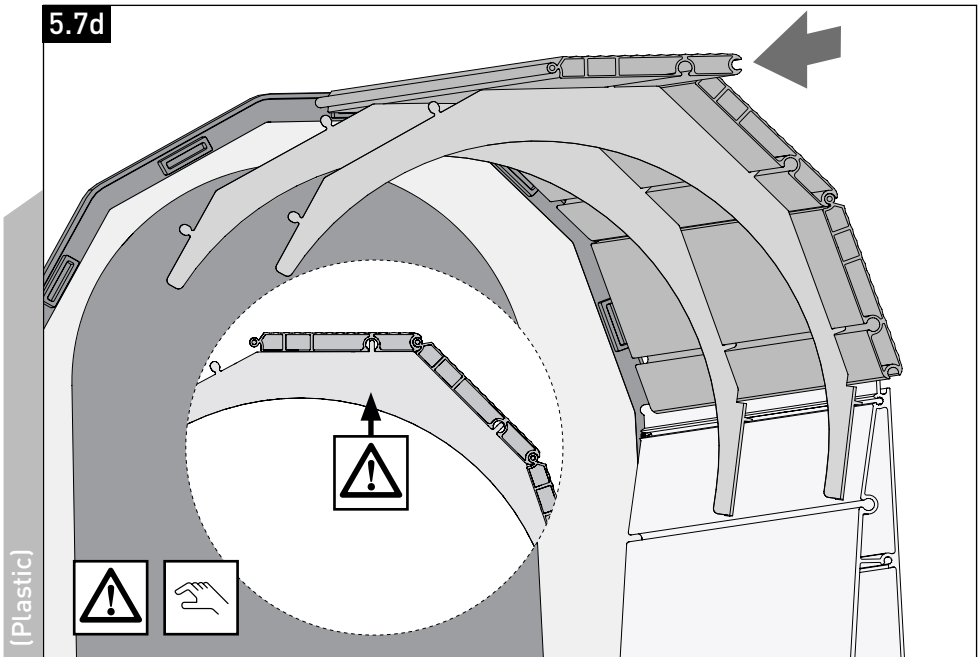


5. Installation Hood

5.7c

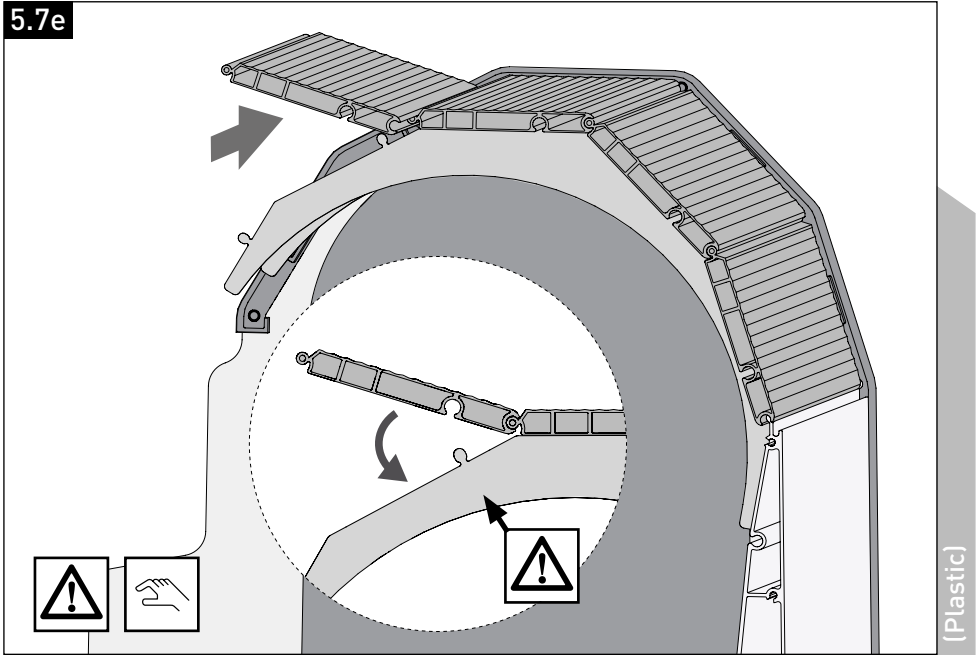


5.7d

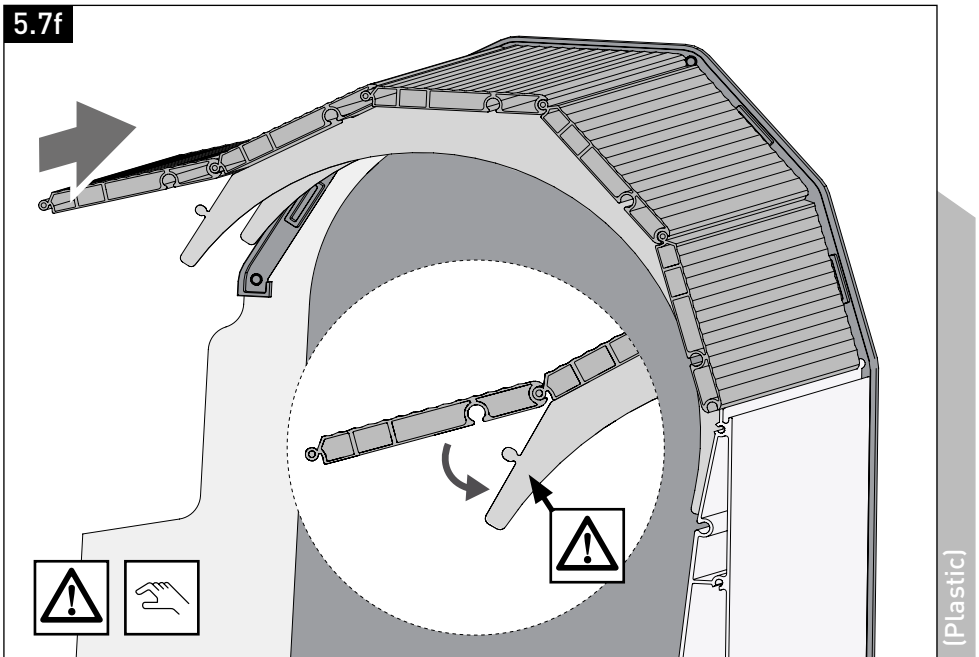


5. Installation Hood

5.7e

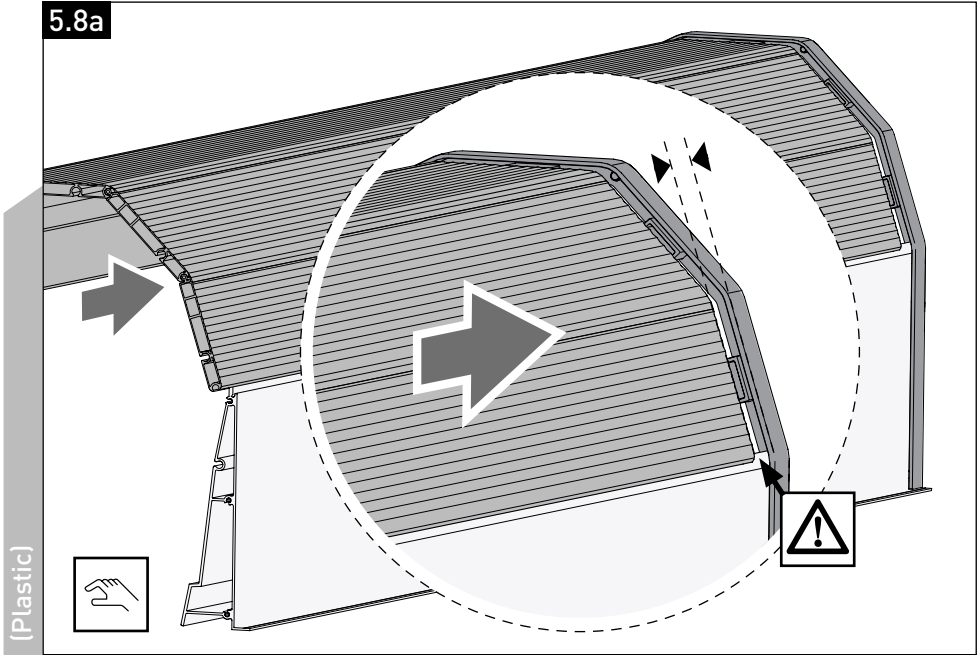


5.7f

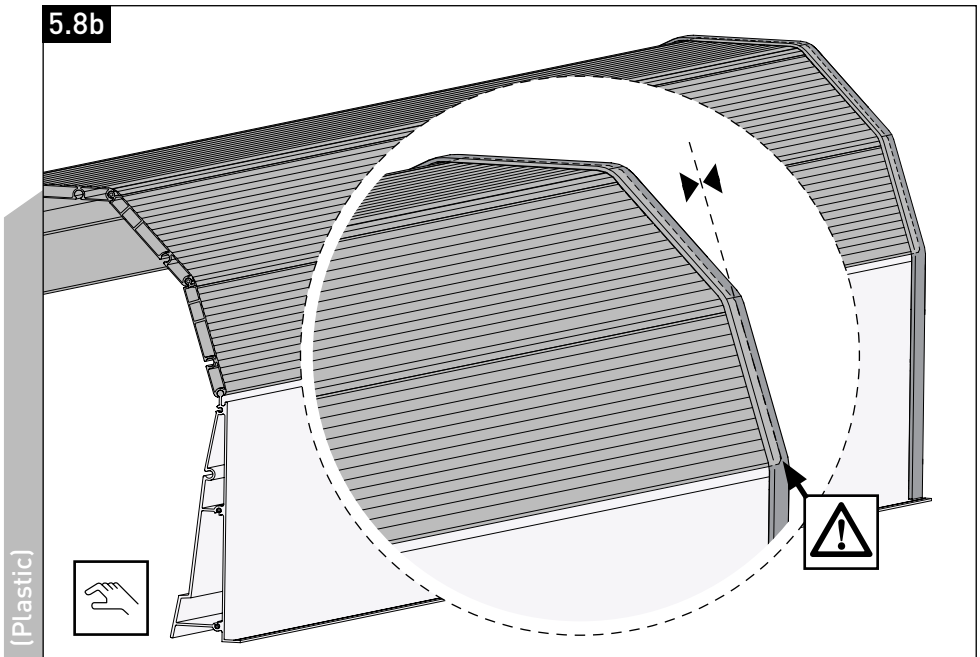


5. Installation Hood

5.8a

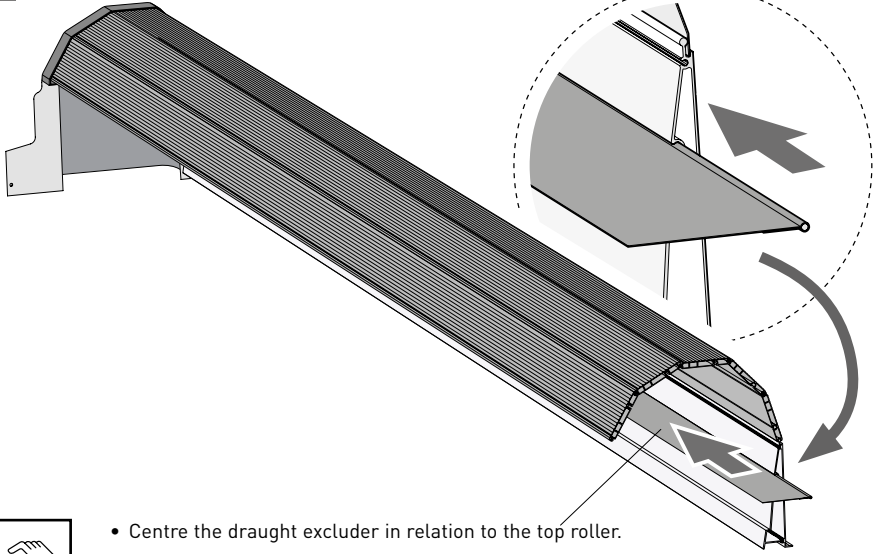


5.8b



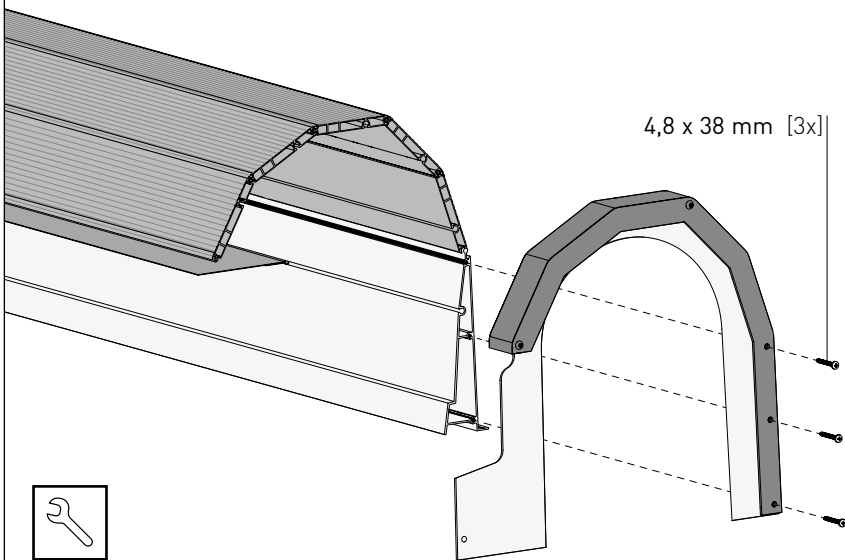
5. Installation Hood

5.9



(Option)

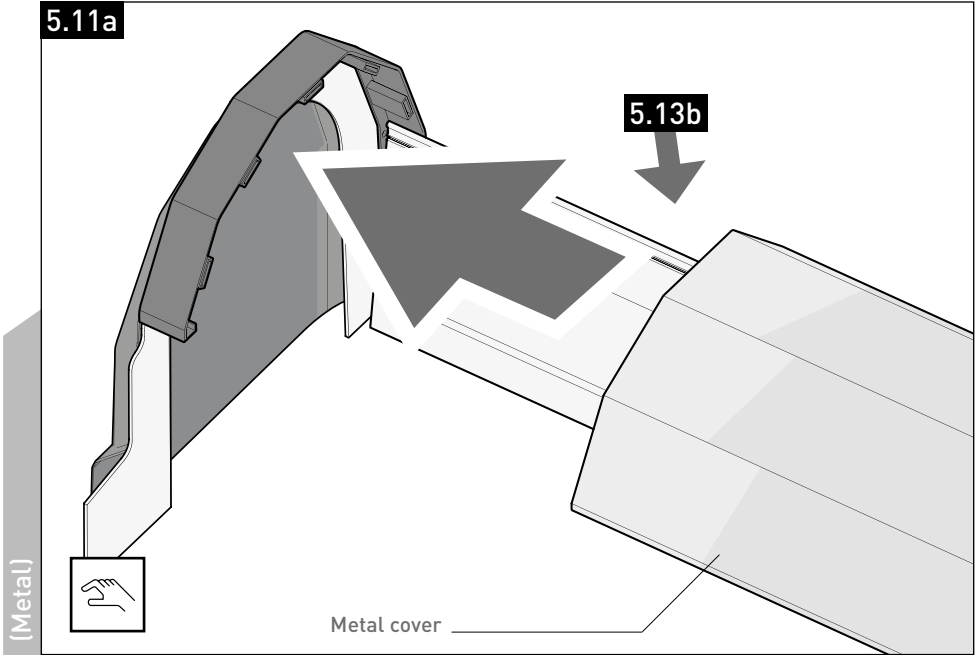
5.10



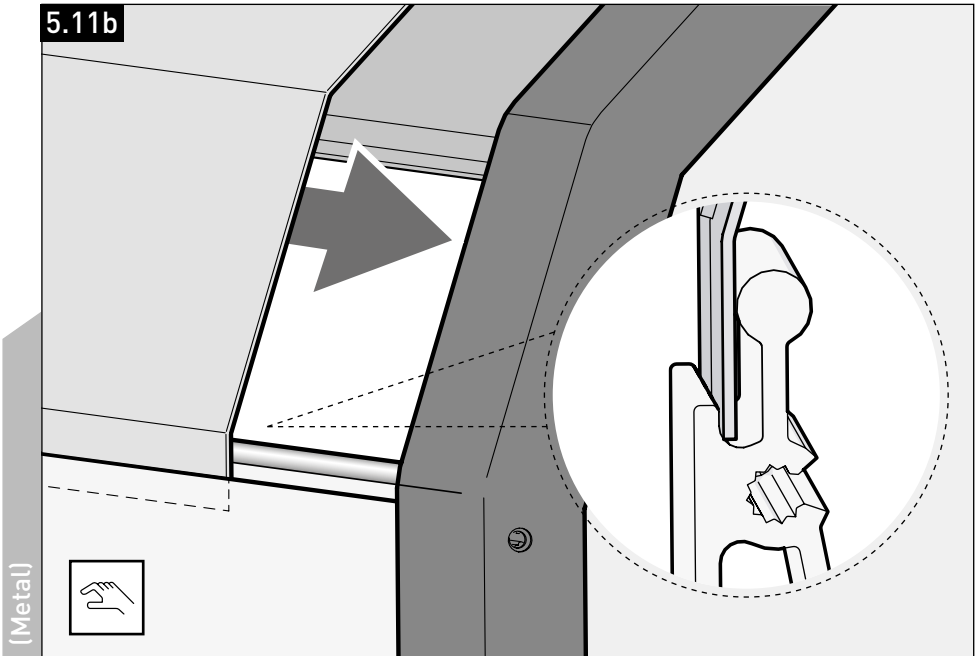
(Plastic)

5. Installation Hood

5.11a

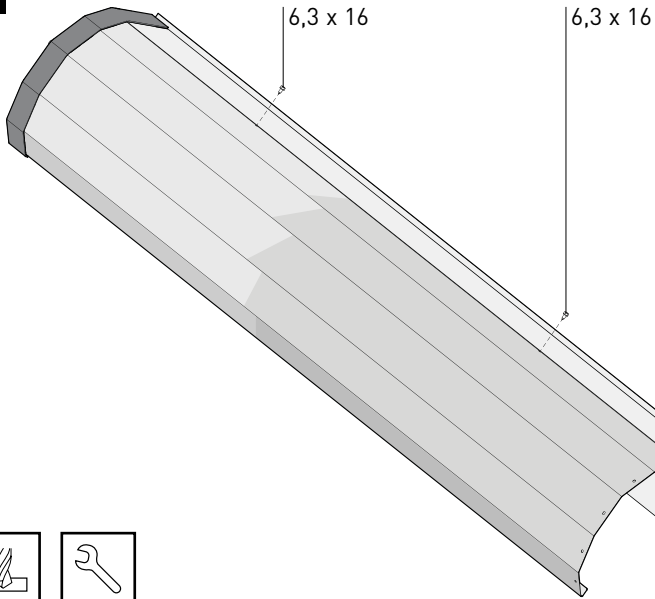


5.11b



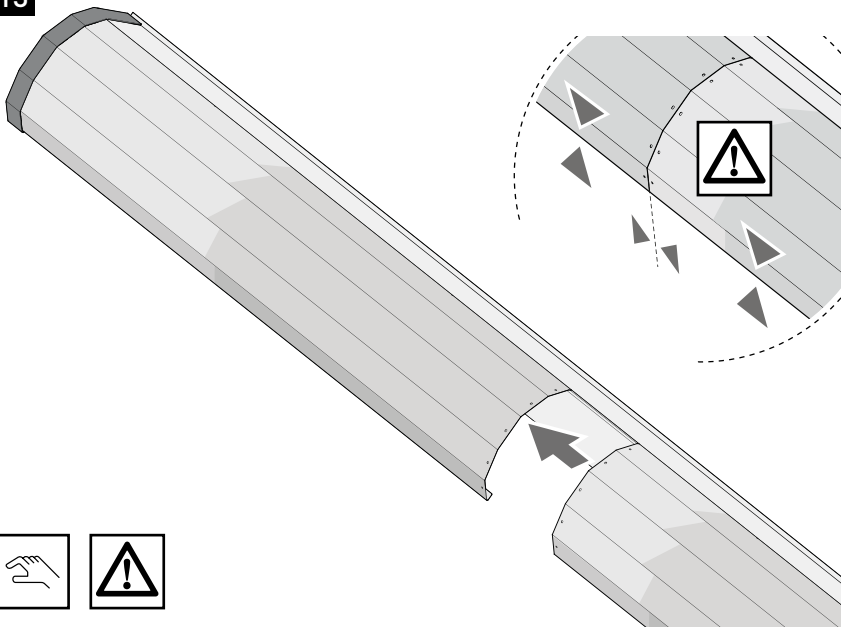
5. Installation Hood

5.12



[Metal]

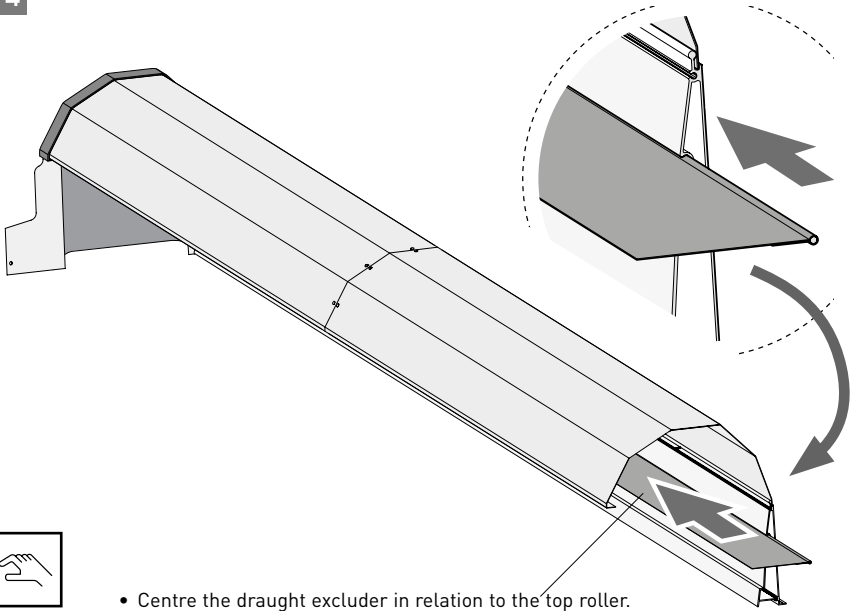
5.13



[Metal]

5. Installation Hood

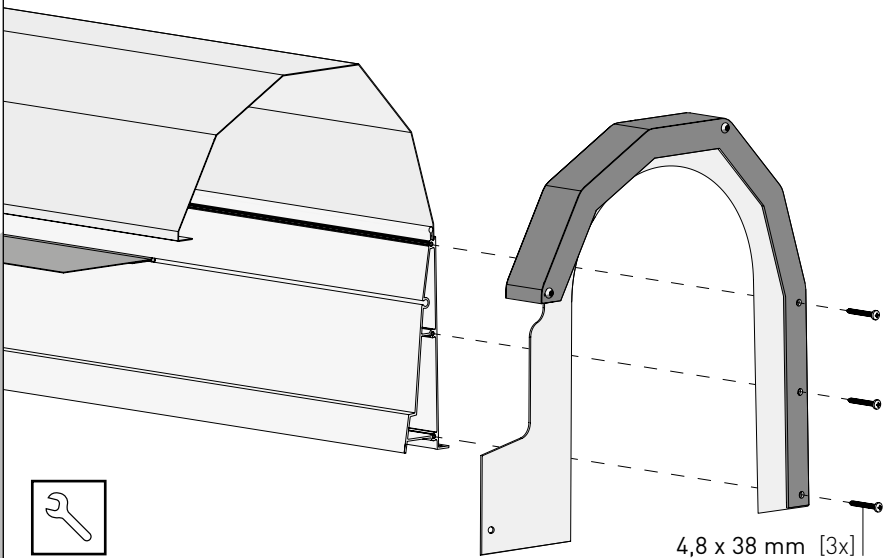
5.14



(Option)



5.15

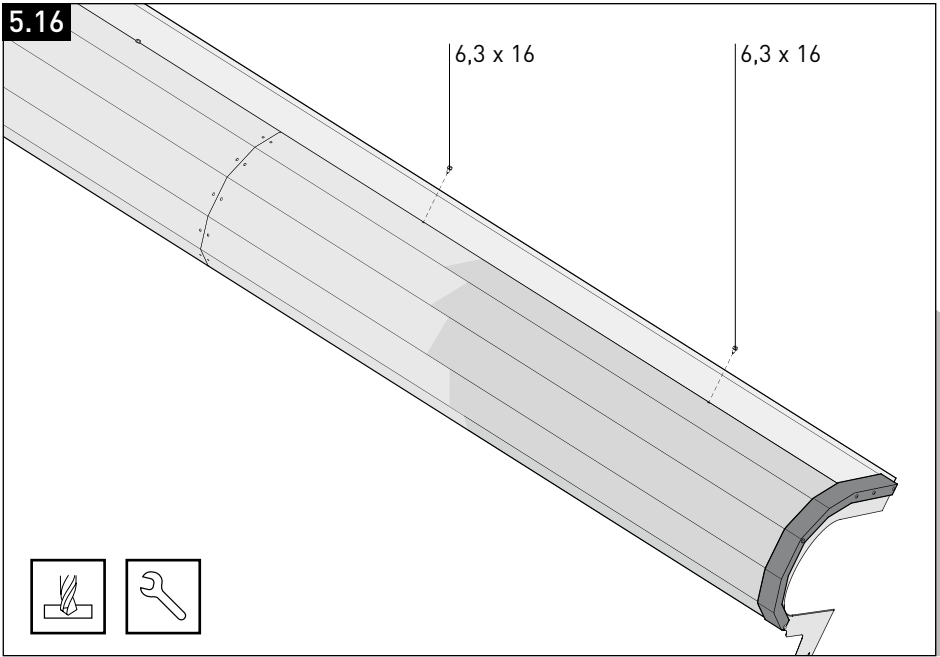


(Metal)

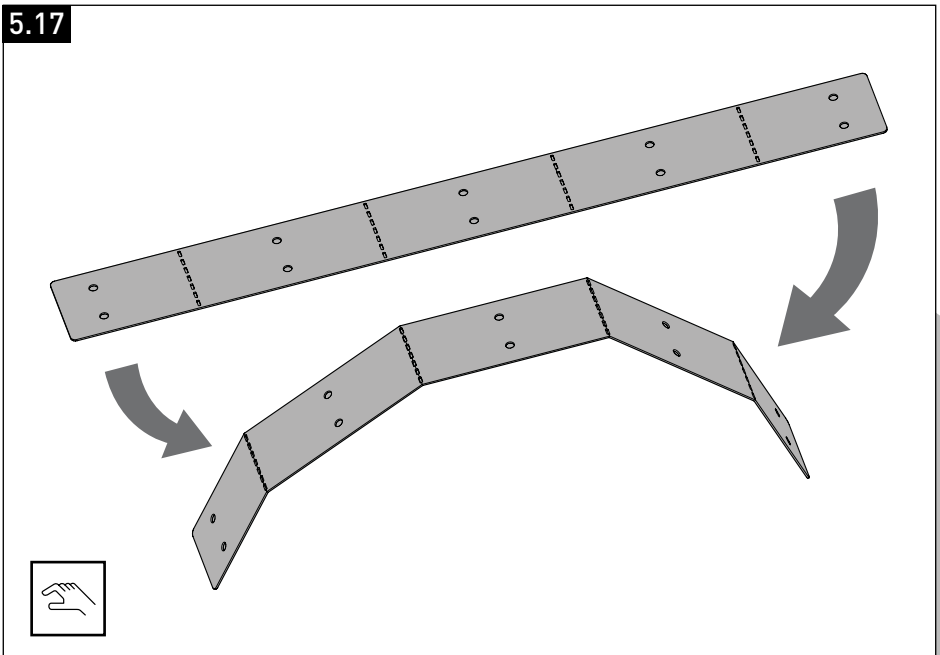


5. Installation Hood

5.16

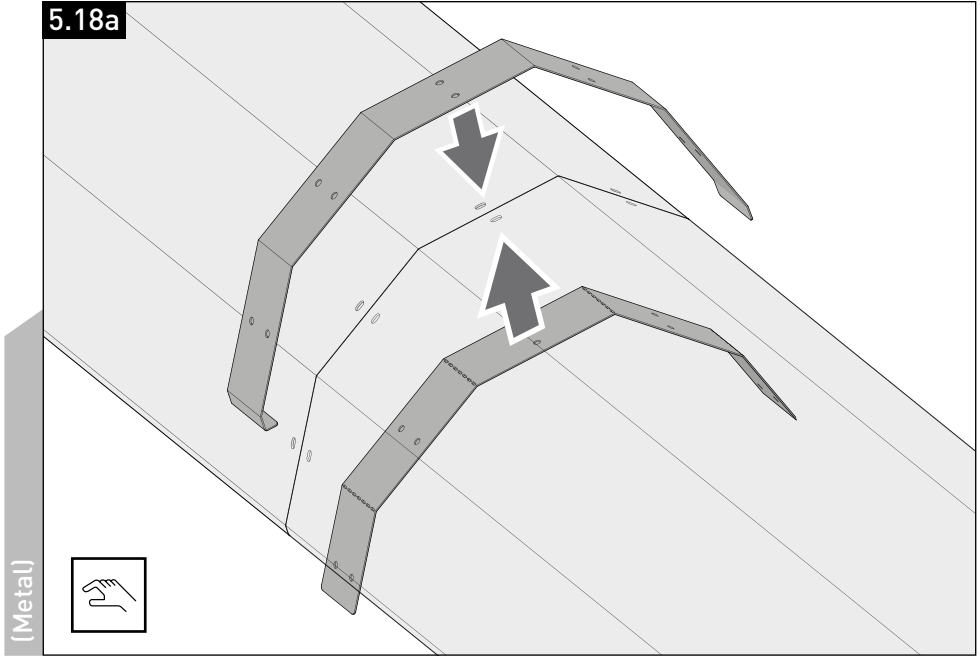


5.17

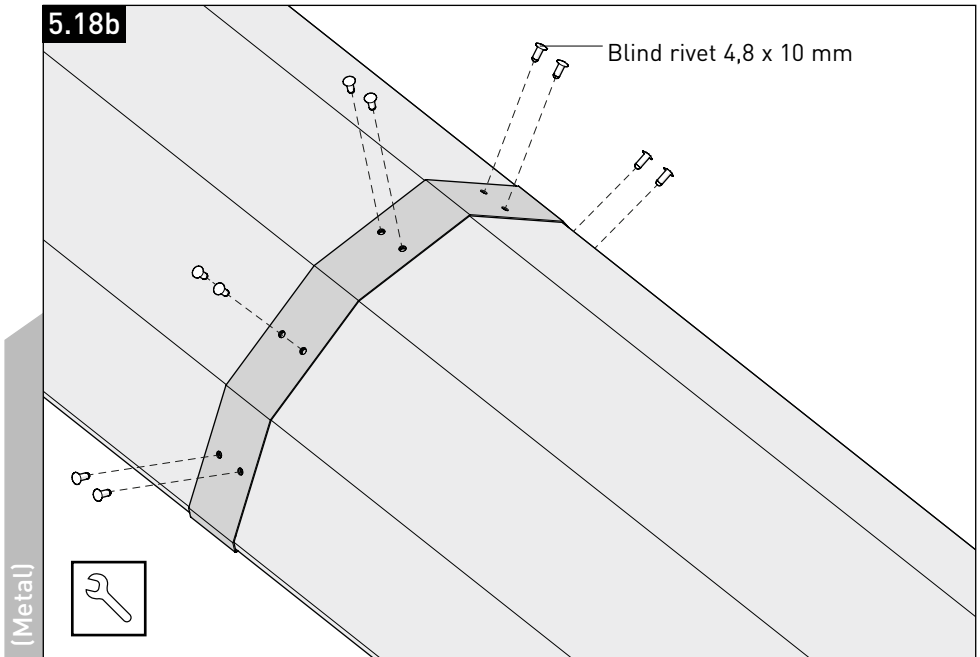


5. Installation Hood

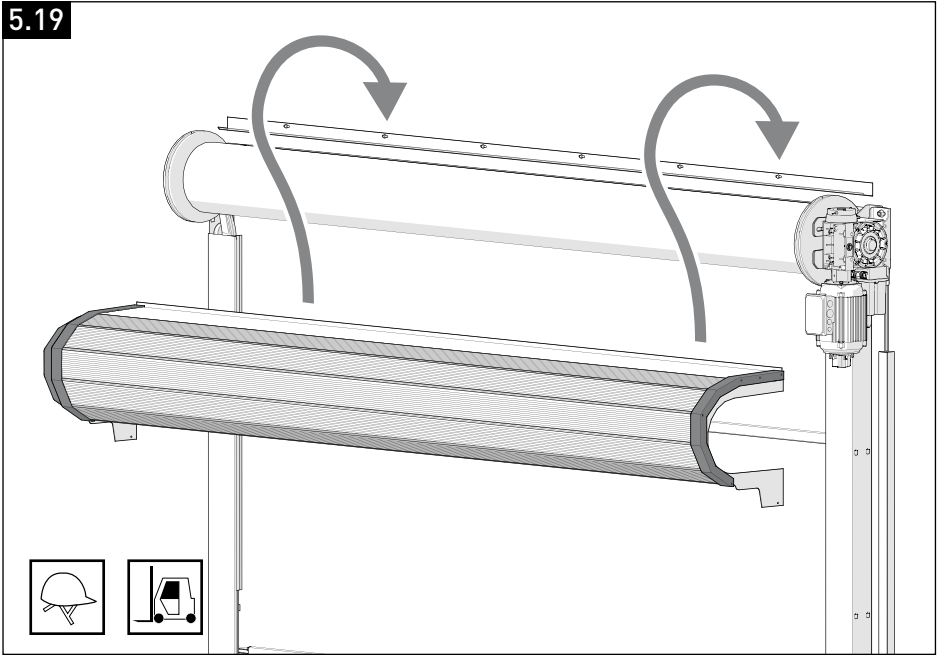
5.18a



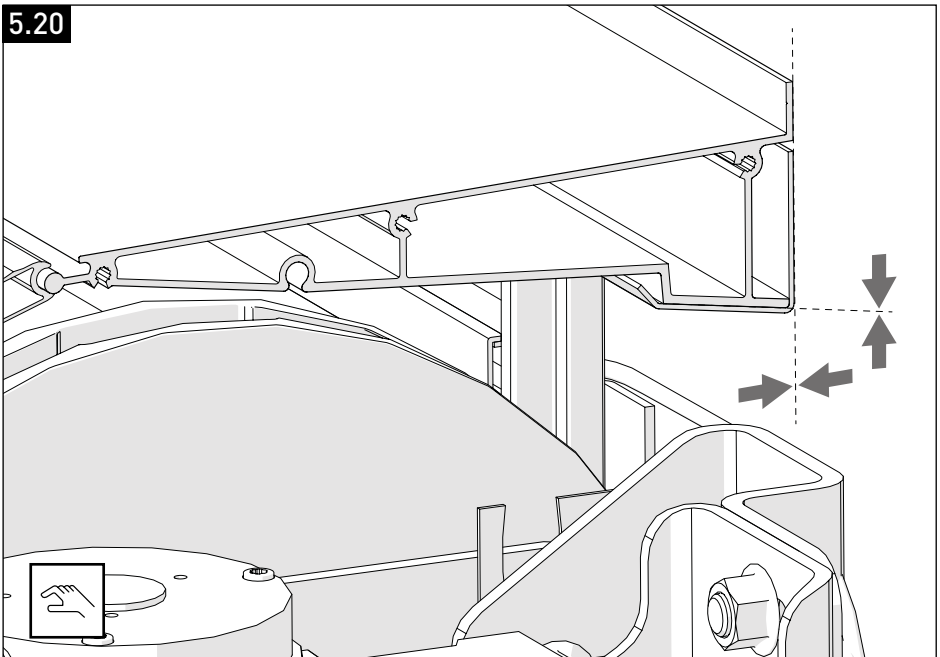
5.18b



5.19

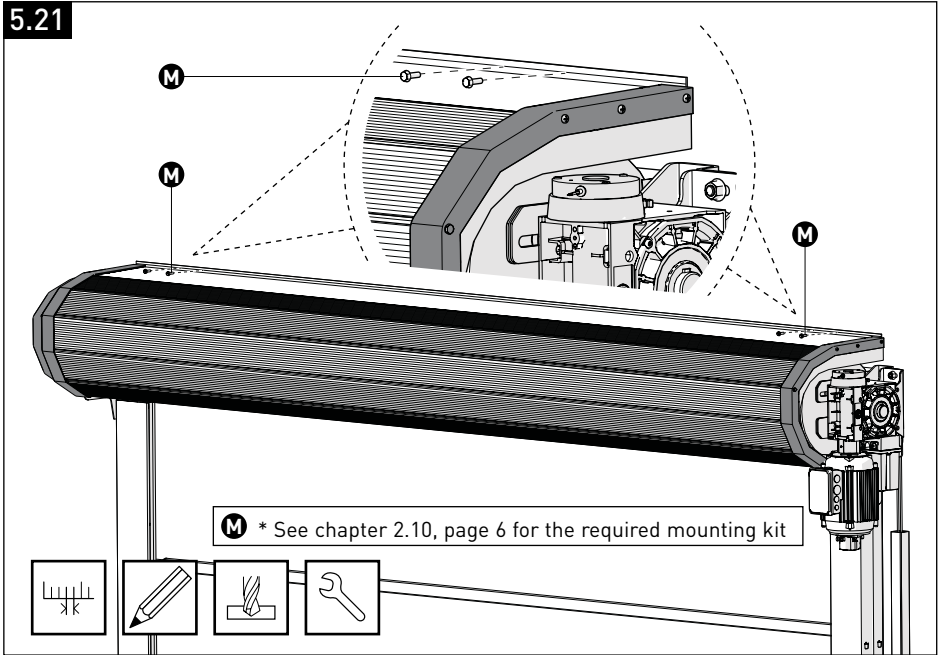


5.20

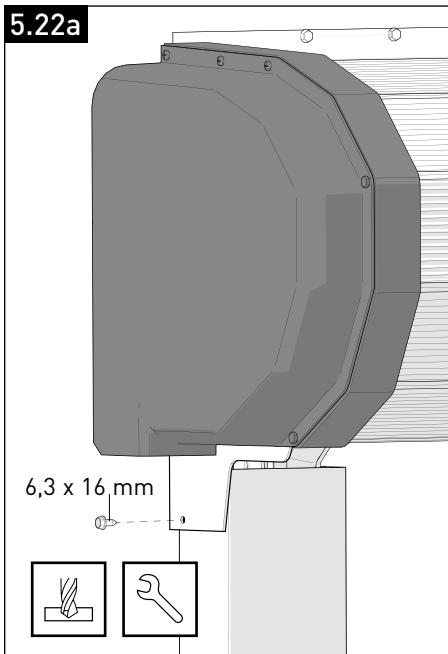


5. Installation Hood

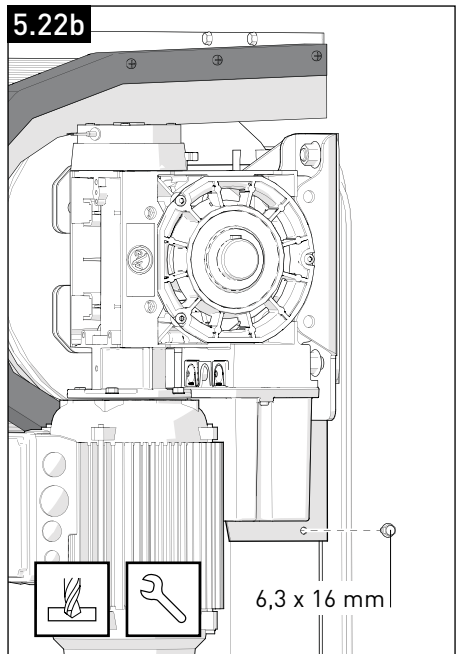
5.21



5.22a

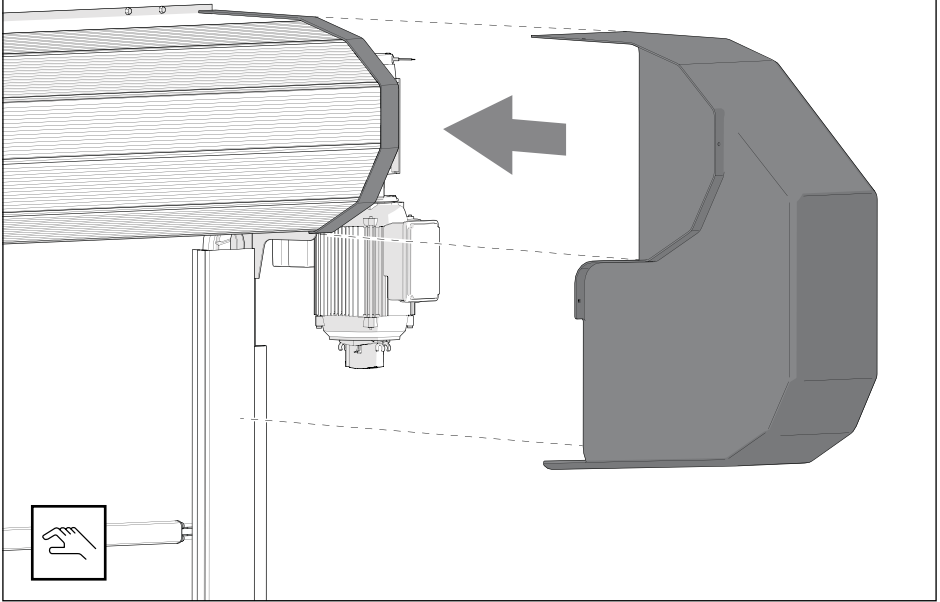


5.22b

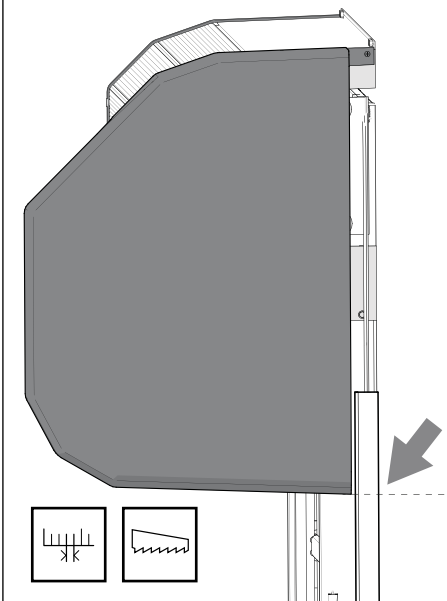


5. Installation Hood

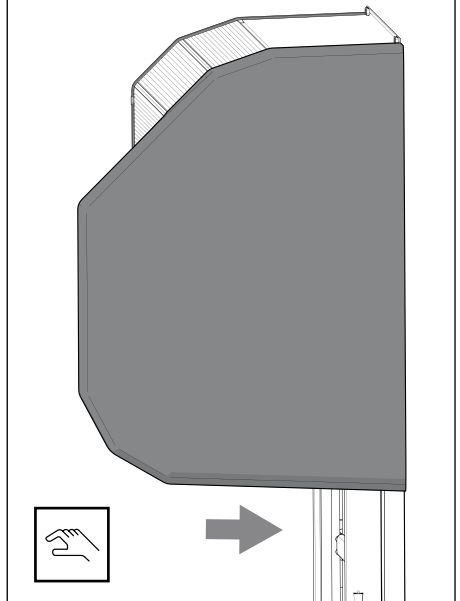
5.23



5.24

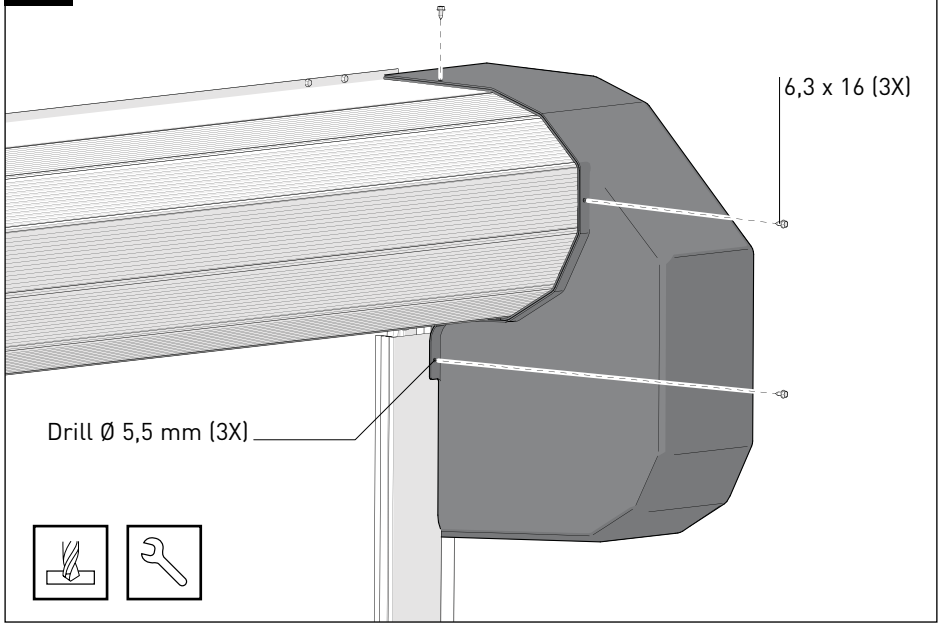


5.25



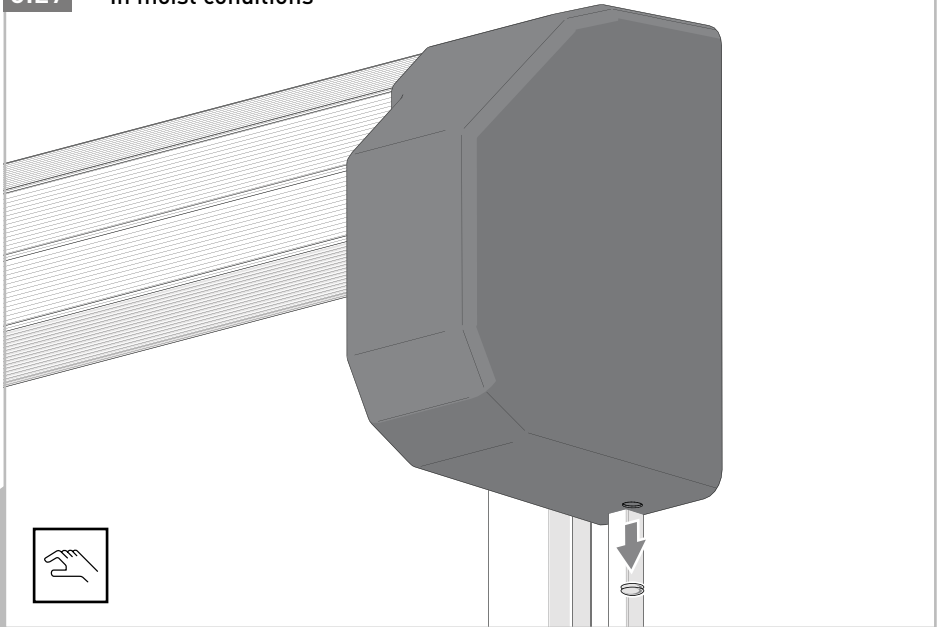
5. Installation Hood

5.26



5.27

* In moist conditions



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