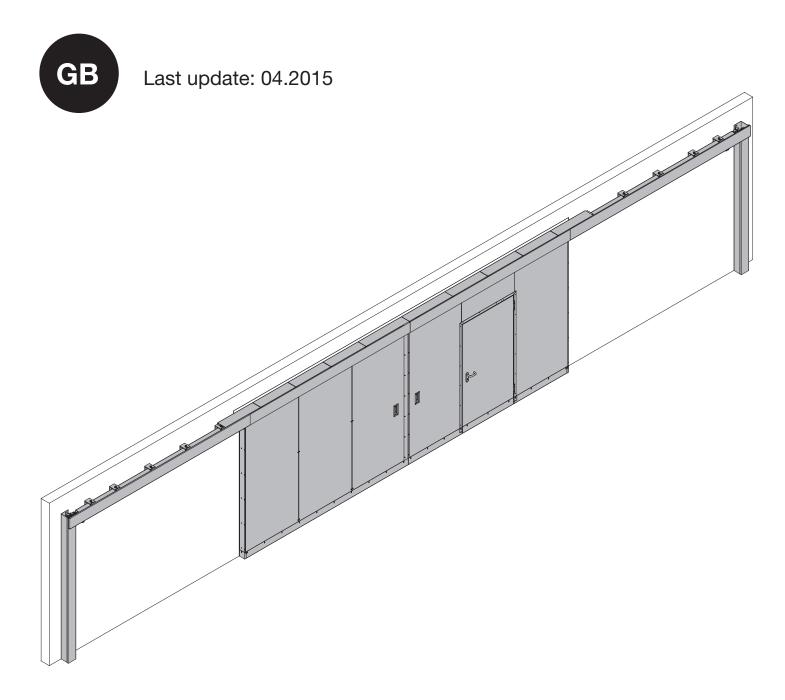


# Installation and maintenance instructions

# for two-leaf fire protection sliding doors



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## 2 Symbol legend

Warning! Danger of injury!





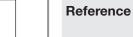


Note

times.



Function check



Y Y



Information on the fire protection door



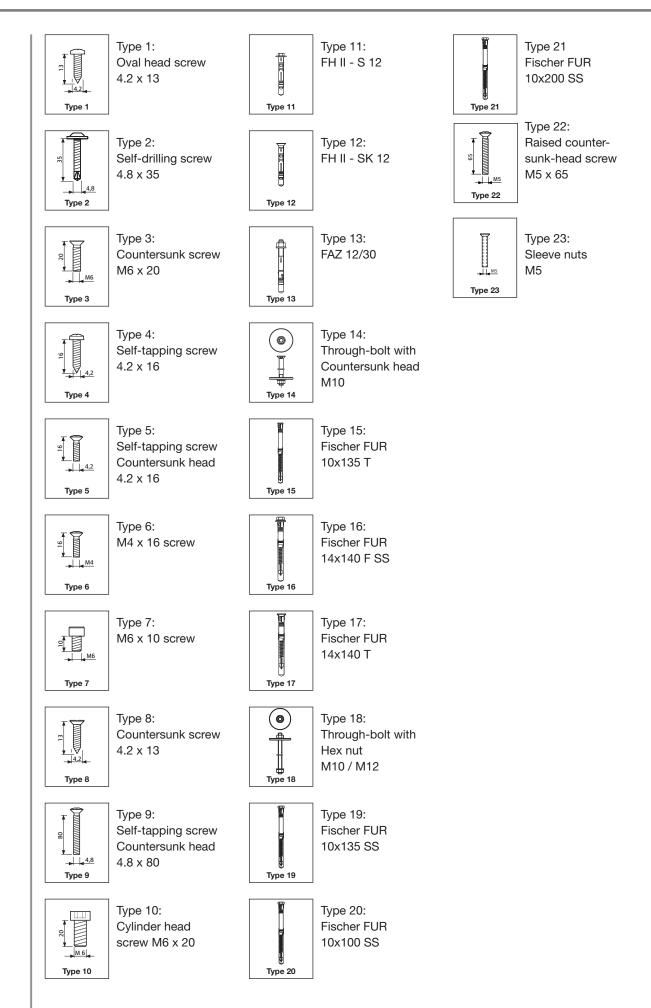
Information on the smoke protection door

## Attention! Danger of damage to property!

This work step must be carried out on the opposite side or it must be carried out several

## B

## **3** Overview of the screws





#### Warning!

To ensure that the system is installed safely and that it works properly, all the instructions in this guide and in the following information must be followed. Physical injury and damage to property may result if the warnings are not heeded.

## 4.1 Target group

#### Installation may only be carried out by skilled personnel.

Qualified and trained personnel who are able to install the door have the following characteristics:

- They are aware of the general and special safety and accident prevention regulations
- They are trained to use safety equipment
- They are trained to use hand and electrical tools
- They have regularly participated in training sessions organised by the manufacturer

Qualified and trained people who can install the wiring for the drives, the control and for the safety systems have the following characteristics:

- They are aware of the general and special safety and accident prevention regulations
- They are trained to use safety equipment
- They can recognise the dangers that arise due to electricity
- They have received sufficient instruction from electrical specialists
- They have regularly participated in training sessions organised by the manufacturer

## 4.2 Warranty

#### Warranty relating to terms of function and safety can only be provided if

- the safety and warning instructions are adhered to,
- the installation has been carried out properly and the steps were carried out in the order indicated in the instructions,
- genuine Teckentrup accessories have been used,
- no additional objects have been attached to the door,
- the components supplied have not be modified or altered in any way,
- the door has been regularly serviced,
- the operator is aware of all the relevant operating instructions (door, drive systems and safety equipment).

### 4.3 General safety instructions



#### Warning!

- The danger area is to be generously cordoned off before the installation takes place.
- People who are not involved in installing the door must not be permitted to enter the danger area.
   The installation must be carried out by at least two people.
- The installation must take place from a safe place (e. g. scaffolding).
- The drawings included have priority.

## 4.4 General requirements

#### Installation company

The client or operator is entitled to receive a declaration of conformity signed by the installation company (see also the last page of the approval).

#### Place of installation/use

- The door can only be installed on foundations that statically permit installation to take place.
- The door needs to be installed inside a building.
- The finished floor must be level and horizontal.
  - The walls on the open side must be in alignment with one another.



#### Attention!

\_

The sliding door must be joined to the adjoining components in such a manner that the dynamic forces that are generated when the door is closed and the forces that are generated when the door warps as a result of fire can be consistently absorbed by the anchoring equipment.

These forces must not place danger the stability of the adjoining walls.



#### Reference:

See the approval for information on the requirements for the condition of the floor.



The fastenings must always be installed in the manner described in the manufacturer's specifications. The indicated edge distances must be adhered to (in some cases, holes that are required for components may need to be repositioned).

#### Wall types

#### Table 1: Wall types/approved fastening types

Wall type	Width [mm] (According to the approval)	Installation	Fixing type	Fastening material
Concrete and masonry	•	•		
		Lintel (guide rail)	Stud bolt	FAZ 12/30 or Atrion ASZ-W 12/08-010-080 S
Completely concrete	≥140	Inlet	- Plastic wall plug	FUR 10/100 o. Atrion ARV-W 10-050-100SW13
		Vertical wall sealing		
Concrete soffit	≥140	Lintel (guide rail)	Stud bolt	FAZ 12/30 or Atrion ASZ-W 12/08-010-080 S
		Inlet	Plastic wall plug	FUR 10/100 o. Atrion ARV-W 10-050-100SW13
		Vertical wall sealing	Stud bolt	Stud bolt
(Masonry storage area)	(≥175)	Consoles guide rail	Through-bolt mounting	Threaded rod M10
Lintel concrete	≥140	Lintel (guide rail)	Stud bolt	FAZ 12/30 or Atrion ASZ-W 12/08-010-080 S
	≥175	Inlet	Through-bolt mounting	Threaded rod M10 + Anchor plate
Side masonry		Vertical wall sealing		
Т90	Masonry $\geq 240$	Inlet and vertical wall sea- ling	Plastic wall plug	FUR 10, FUR 14,
Т30	Masonry ≥175	Inlet and vertical wall sea- ling	Plastic wall plug	FUR 10, FUR 14,
Autoclaved aerated concrete wall				
Concrete lintel also in the storage area	≥140	Lintel (guide rails)	Stud bolt	FAZ 12/30 or Atrion ASZ-W 12/08-010-080 S
Autoclaved aerated concrete	≥200		Through-bolt mounting	Threaded rod M10 + Anchor plate
Reinforced autoclaved aerated concrete	175	Inlet / Vertical wall sealing		
Panelled steel beam		<u> </u>		
		Lintel (guide rails)	Vertical wall sealing	
T90 (El 90)	National requirements	Inlet		Machine screws M10
		Vertical wall sealing		
	National requirements	Lintel (guide rails)		
T30/T60 (El 30/60)		Inlet		
		Vertical wall sealing		

## 4.5 Protection classes

#### General

- The relevant approval/testing certificate can be viewed at
- www.teckentrup.biz/download/technische-informationen.html.
- Fire protection and smoke protection doors are equipped with identification plates.
- The operator is responsible for ensuring that the doors work properly.

#### Note:

The appropriate protection class can only be reached if the proper conditions are fulfilled during installation. If a door fulfils several protection classes, all the valid conditions must be fulfilled for the installation.



#### Fire protection doors (BS)

- Sliding doors can only stay open as long as is needed as per the requirements of the business.
- Outside of this working time, these doors must remain closed under normal circumstances.
- After opening, the sliding door must close by itself via the closing force associated with the door leaf.
- Sliding doors need to be equipped with a locking device. Only locking devices with a general technical approval can be used.
- Sliding doors with locking devices (locking devices and tripping devices) may only be used in openings that need to remain open for business reasons. They may only be used if appropriate devices are in place to shut the door automatically if a fire starts or if smoke builds up.
- Aside from the self-activating tripping device, there must be an emergency tripping function that can be activated manually.
- When the sliding door is open, visible notices must be attached to it that make it clear that placing objects within the door's opening area is forbidden. The sign should also make it clear that persons should also not stay in the door's opening area. The stickers supplied should be used to label the door.
- Additional requirements due to other regulations, in particular health and safety regulations, accident prevention regulations, must be adhered to as well.
- Wall sealing joints < 6 mm must be sealed with permanently elastic sealing compound (e.g. B1 sealant).
- Wall sealing joints < 6 mm must be back-filled or solidified by mineral wool (A1) until they are pressureresistant.



#### Smoke protection doors (RS)

- The installation specifications must be adhered to to ensure smoke protection.
- DIN 18095 / EN 1634 must be taken into account during installation.
- The doors must close automatically.
- If a door that has a retractable bottom seal is being installed, the floor should be even, level, smooth and firm.
- Carpet is not permissible.
- Alternatively, a floor threshold onto which the bottom seal is lowered can be used in the opening area.
- Wall sealing joints must be sealed with permanently elastic sealing compound (e.g. B1 sealant).
- Wall sealing joints < 6 mm must be back-filled or solidified by mineral wool (A1) until they are pressureresistant.
- All element joints and transitions on the door leaf must be sealed with permanently elastic material.

## 4.6 Locks and fittings

#### Reference:

The installation instructions in the accessories packages must be observed!

#### Locks

Locks must comply with DIN 18250-1 / EN 12209. The locks can be replaced with locks with an anti-panic function in accordance with EN 179 or EN 1125.

#### Glass

Glass elements can only be exchanged by people who are qualified and who have the appropriate experience.

### 4.7 Locking devices

Only locking devices with a general technical approval can be used.

The DIBt guidelines for locking devices, the approval and the installation instructions of the manufacturer are the basis for the installation, commissioning and maintenance of the devices.

After a locking device has been fully installed and is ready to use, an acceptance test must be carried out (by an authorised specialist) to ensure that it function correctly and that it has been installed according to the regulations. This test must be commissioned by the operator.

The operator must continuously maintain the locking device in an operational condition and it must be serviced at least every month.

Furthermore, the operator must commission a system test at least once a year; this test must be carried out by a specialist or a person with sufficient training.

The results of the annual test must be documented in a testing book. The operator must keep this documentation.

#### 4.8 Package contents

- Door leaf package
- Accessories package
- Installation drawing

Please see the package supplied for specific details.



#### Note:

The door number on the installation drawing must correspond to the number on the packages and to the number on the last door element.

### 4.9 Surface treatment

#### Galvanised doors

Galvanised doors may only be treated with coating materials that are suitable for galvanised substructures.

#### **Primed doors**

The door leaf is coated with a 2K epoxy primer and can be painted over using all normal top-coat lacquers. Recommendation: 2K acrylic or 2K polyester paint



#### Attention!

A final coat must be carried out within the first 3 months; if this does not take place we will not accept any liability for corrosion damage. If alkyd resin-based top-coat lacquers are used on galvanised substructures located in areas with particularly high weathering influences, this may lead to the total coating not being covered by the warranty in the future.

## 4.10 General information

The instructions describe a 2-leaf fire protection sliding door with weight boxes located on both sides. The diagrams show the door leaf installed on the right. The drive installation on the left is to be carried out in an inverse manner.

Alongside the standard installation, the following installation variants are described in chapter 5. Installation:

- Smoke protection
- Hook lock

For the following variants, consult the appendix before commencing installation:

- Installing artificial lintel
- Installing on the ceiling
- Installing wicket doors
- Door with opening aid
- Free-running function

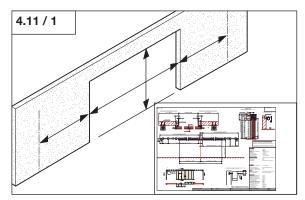
All dimensions in millimetres (mm). We reserve the right to make technical changes.

#### 4.11 Control measurements

#### **Reference:**

See the order confirmation or the installation drawing for information on the ordering dimensions of the door.

• Check that the ordering dimensions of the door are compatible with the structural conditions.





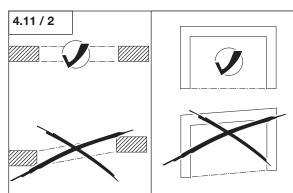
#### Note:

In order to install the door, the following conditions must apply:

- The finished floor must be level and horizontal.
  The walls on the connecting side must be in alignment with one another; they must also be
- level and perpendicular to one another.

Any permissible deviations must be clarified with the manufacturer prior to the door being installed. Uneven areas must be dealt with so that they

- are pressure-resistant and
- comply with the fire safety regulations.
- Check the ground beneath where the door is to be installed.





## 5.1 Installing the lintel seal

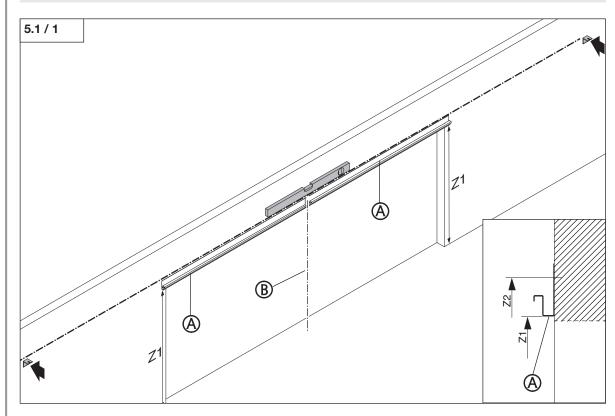
#### **Reference:**

The approved fixing types and fastening material are described in table 1. See the installation drawing for information on the necessary measurements (X/Y/Z) and the centre joint (B).



#### Note:

To ensure that the door functions properly, all the consoles must be positioned on a horizontal line between the beginning and the end console.



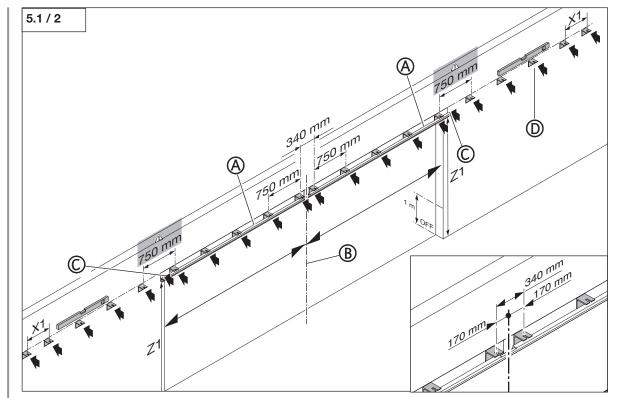
Set the centre joint (B).

• Specify the position for the lintel seal (A).

When doing so, take the following into account:

- the door size ordered and
- the 1 m crack over OFF.

• Draw a horizontal continuous line on the wall for fastening the consoles.





#### Note:

If the distance between the holes at the end of the lintel seal (A) is smaller than 750 mm, then the lintel seal (A) must be attached to position (C) without an additional console (D).



#### **Reference:**

See the installation drawing for information on the necessary measurement (X1).

- Screw the lintel seal (A) with the consoles (D) to the wall; they must be screwed in hand-tight.
- Screw the other consoles into the wall; they should be screwed in until they are hand-tight.
- Align the lintel seals (A) horizontally.
- Align the consoles (D) horizontally and level to the lintel seal (A).
- Tighten the screws.



Type 11

Type 16

#### 5.2 Installing the wall sealing

The wall sealing (B) must be sealed in such a manner that

- it is positioned against the lintel seal (A) at the top,
- it is vertical and
- the measure X3 is adhered to.

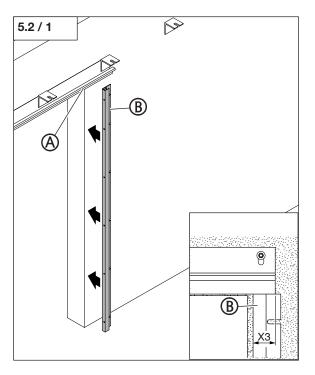


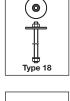
## **Reference:**

Note:

The approved fixing types and fastening materials are described in table 1.

• Screw the wall sealing (B) into the wall; all the holes should be filled with screws.





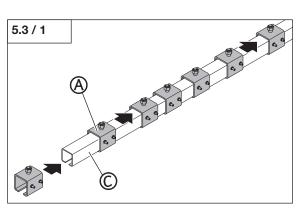


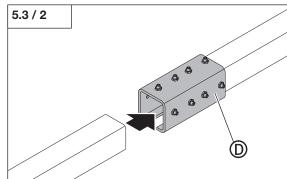
• Install the wall sealing on the opposite side.

## 5.3 Installing the guide rails

The necessary number of sockets (A) corresponds to the number of consoles used (B).

• Slide the sockets (A) onto the guide rail (C).





• Slide all the sockets (A) onto the consoles (B).

If the rail is divided, the guide pieces must be screwed together using a connecting socket (D).

• Position the guide rails (C) parallel to the wall (distance between the middle of the guide rail to the wall [83 ± 1 mm]).

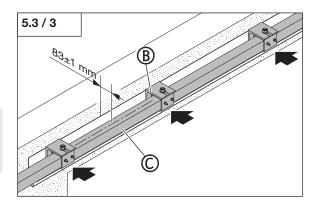


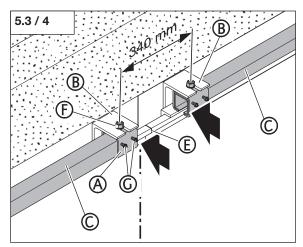
#### Note:

Note:

Ensure that the guide rail is positioned straight and that it is not twisted.

- Position the guide rails (C) in such a manner that the front rail of the guide rail (C) connects completely to the consoles (B) on the centre joint (E).
- Tighten the screws (F) on all the sockets (A).
- The threaded pins (G) should only be screwed in until they are hand-tight.





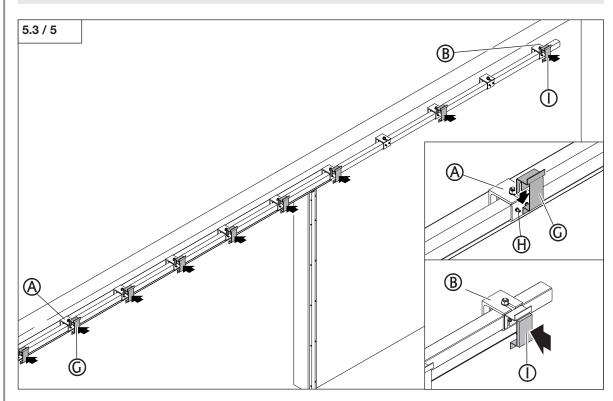


#### Note:

A casing holder with an attached plaster (I) must be installed onto the last socket (B).

#### **Reference:**

At lintel heights of less than 230 mm, the lintel covers must be applied before the casing holder is installed as is described in point 5.13.



#### **Opening area:**

• Place the casing holder (G) onto each socket (A).

#### Storage area:

- Place the casing holder (G) onto each second socket (A).
- Screw the casing holder (G) in tight using two nuts (H).
- Place the casing holder with the plaster (I) onto the socket (B).
- Screw the casing holder with the plaster (I) tightly with two nuts (H).



## b

## 5.4 Installing the sealing gasket for smoke protection

#### Note:

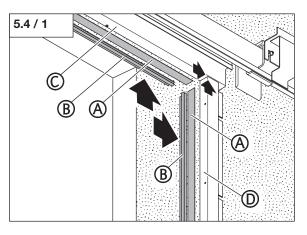
All the wall sealing joints and profile joints must be permanently elastically sealed using B1 sealant before installation. The Elastozell band and the smoke protection sealing gaskets (B) must be installed so they the reach into the corners.

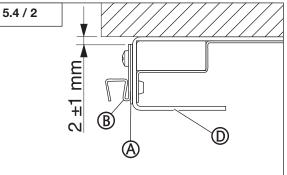
All the sealing gaskets must be positioned flush with one another.

- Apply Elastozell tape 30 x 3 (A) to the whole length of the lintel seal (C).
- Apply Elastozell tape 30 x 3 (A) to the whole length of the wall seal (D).
- Screw the smoke protection sealing gasket (B) in the middle under the lintel seal (C).

The smoke protection sealing gasket (B) must be installed onto the wall seal (D) in such a manner that a distance of  $2 \pm 1$  mm is maintained between the wall and smoke protection sealing gasket (B).

• Screw the smoke protection sealing gasket (B) to the wall seal (D) through the elongated holes.



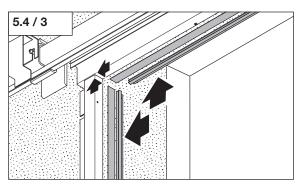


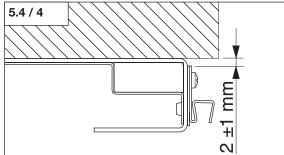




#### Installation:

• Carry out the installation on the opposite door running side.









## 5.5 Installing the door leaves

#### Warning!

To prevent personal injuries occurring, the door elements may only be moved if they are sufficiently secured.

#### Attention!

The following points must be observed to prevent damage to the door elements from occurring:

- The installation aid must be attached before the door elements are set up.
- The door elements must not be turned on their corners.
- The door elements must not be laid on their corners.
- X = 400 mm for door elements up to 3999 mm
- $X=2000\ mm$  for door elements up to 4000 mm



#### **Reference:**

When a wicket door is being installed, the corresponding installation information under point 7.1 must be observed.

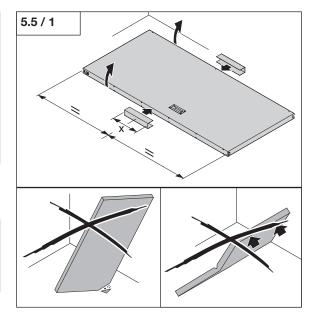


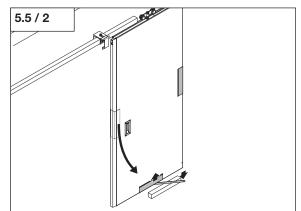
#### Note:

If the door element needs to be fed into the guide rail by hand, the installation aid can be placed against the door element at the bottom and can then be moved by a lever to support the procedure.

Right door leaf: Beginning element with spring profile

Left door leaf: Beginning element with groove profile







#### Note:

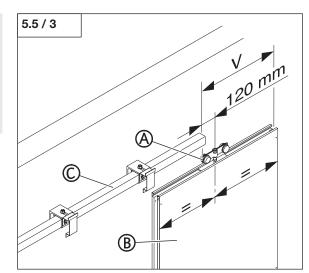
To mount the rolling apparatus (A) along with the door elements (B) (simple installation), the existing installation area must be checked before the installation takes place. Space requirement V = Half the width of the door

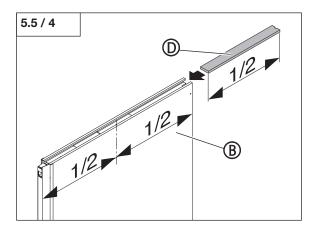
element + 120 mm

• Measure the installation area present.

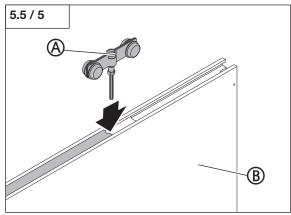
If the installation area is smaller than the space requirement V, the rolling apparatuses must be inserted into the guide rail (C) without door elements. The door elements are screwed in once they have been set up.

• Slide the plaster element (D) into the first door element at the top (B).

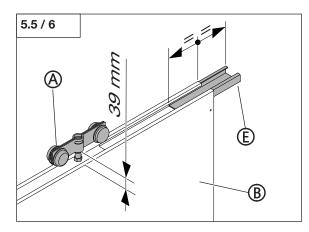




• Screw the rolling apparatus (A) into the door element (B).



- Insert the connection profile (E) half-way into the door element (B).
- Adjust the leading ramp (A). (The lower edge of the roller apparatus should be positioned 39 mm along the upper edge of the door leaf element.)

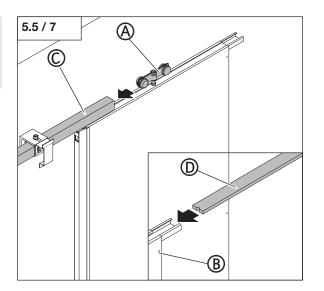




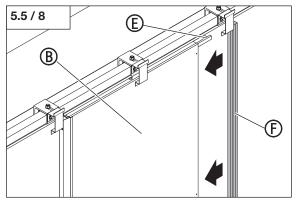
#### **Attention!**

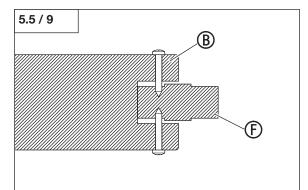
The door must not be allowed to open from the guide rails; this prevents damage to the door (A) from occurring.

- Slide the rolling apparatus (A) into the guide rails (C).
- Slide the plaster element (D) into the door element at the top (B).



- Insert the element connector (F) into the groove on the door element (B).
- Align the element connector (F) to the lower edge of the connection profile (E).

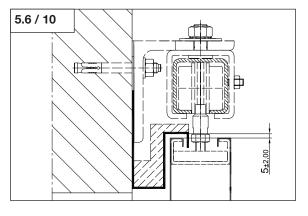




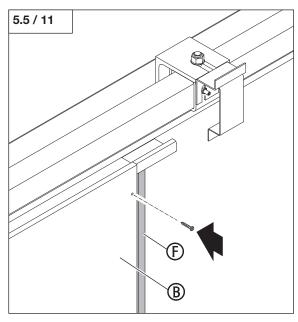


#### **Function check:**

The distance between the door element and the lintel seal must be checked and altered if necessary.



- 50 44.8 Type 2
- Secure the element connector (G) to the top of the door element (B) with a screw.





## Reference:

Further door elements must be prepared as shown in diagrams (5.6 / 4 - 5.6 / 7) before they are inserted into the guide rails.



#### Smoke protection:

For smoke protection doors: two strips of Elastozell band  $15 \times 5$  must be stuck to the entire height of the door element on one side (between the door elements).

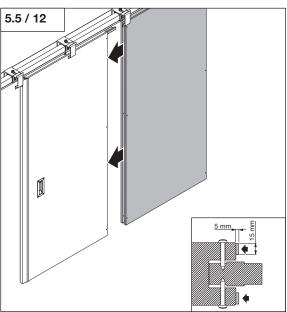
- Prepare the second door element.
- Position the door element against the the door element that was previously installed.

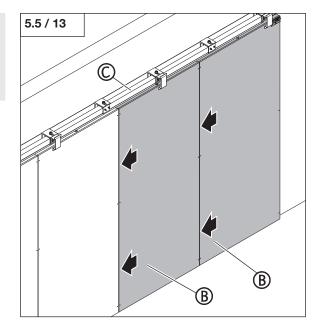


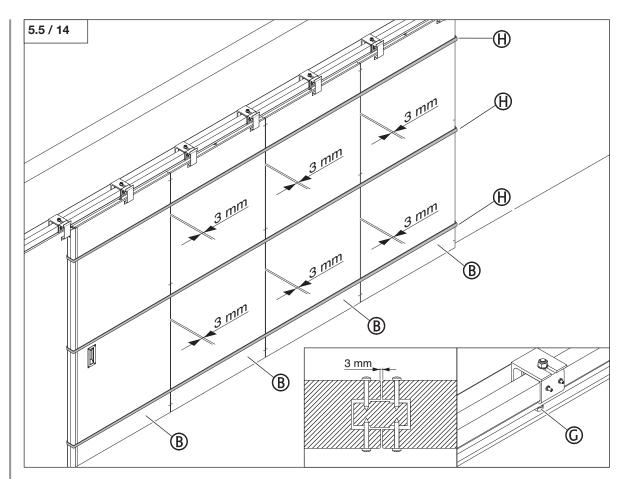
#### **Reference:**

The door element that has already been inserted must be prepared as shown in diagrams (5.5 / 8 + 5.5 / 10) before a further door element can be inserted.

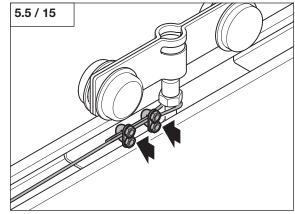
• Insert all further door elements (B) into the guide rails (C).







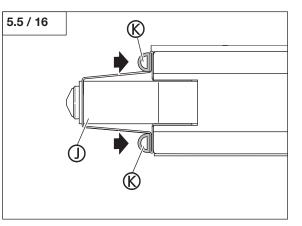
- Position the door leaves (B) vertically.
- Use an adjusting screw to help you to place the door leaves (B) onto the rolling apparatuses (H) so that all the leaves are positioned at the same height.
- Ensure that there is a distance of 3 mm between the door leaves (B).
- If necessary, secure the set-up using tension belts (H).
- Clamp the cable for the closing weights to the first rolling apparatus.



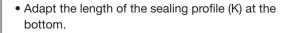


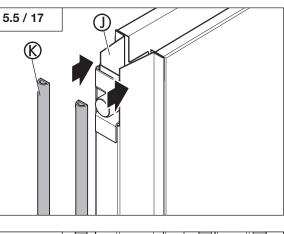
#### Smoke protection:

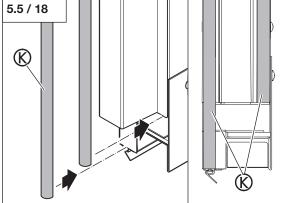
For smoke protection doors, two sealing profiles (K) must be stuck to the door element with the spring (J).



- Stick the sealing profile (K) flush to the door element at the top (J).
- Stick the sealing profile (K) onto the door element at the same height.







• Place the casing that moves in parallel (I) and the centre joint opposite to one another.

• Roughly drill in to a depth of ø 4 mm.

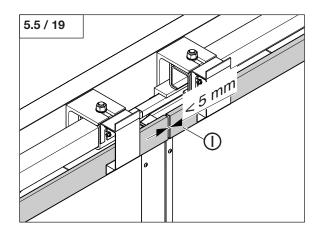
door elements (B)

• Screw the casing that moves in parallel (I) to the

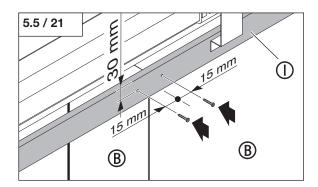
element joints and 50 mm from the ends of the

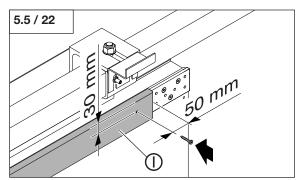
• Screw the casing that moves in parallel (I) firmly to

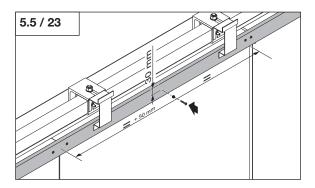
the joints of the door elements (B).



5.5 / 20





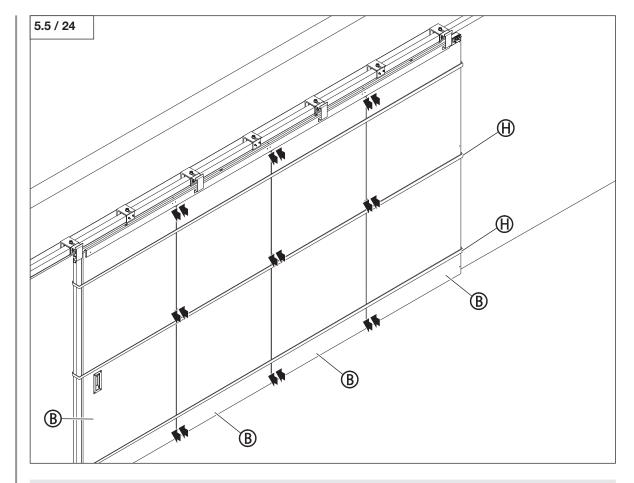






• Screw the casing that moves in parallel (I) firmly 50 mm from the end of the casing.

• Screw the casing that moves in parallel (I) 50 mm per element to the right of the middle of the element.





#### Note:

The door elements (B) must be screwed onto the inner side of the door and onto the outside of the door.

- First screw the door elements (B) in on the installation side, then from the wall side in all the places that have been pre-drilled.
- Remove the tensioning belts (H).



#### Installation:

Carry out the installation steps 5.5 / 1 - 5.5 / 24 on the opposite door leaf.

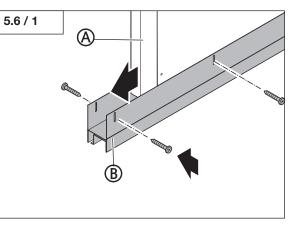


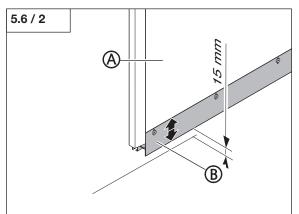
## 5.6 Installing the door guides and dampers

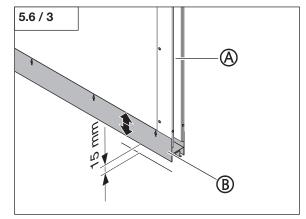
#### Attention!

The door must not be allowed to open from the guide rails; this prevents damage to the door (A) from occurring.

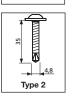
- Push up the door leaf (A).
- Place the guide profile (B) into the door's moving path.
- Slide the door leaf over the guide profile (B) when the door closes.







## b



#### Note:

The following distance must be maintained between the lower edge of the guide profile (B) and the floor: Fire protection = 15 (+5/-10) mm Smoke protection = 12 (+3/-7) mm

Uneven parts of the floor must be taken into account. The guide profile (B) must be positioned flush to the front edge of the door leaf.

The height of guide profile can be adjusted using the elongated holes.

- Drill the necessary holes for the screws in the middle through the elongated holes.
- Screw the entire length of the lower guide profile (B) to the door (A).



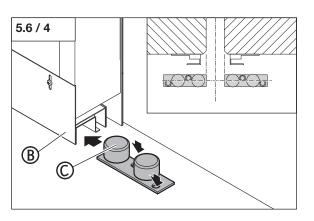
#### Note:

The guide shoe (C) must be installed in such a manner
that the the door leaves (A) run over the guide shoe (C) parallel to the wall and
that the door leaf in positions OPEN and CLOSED

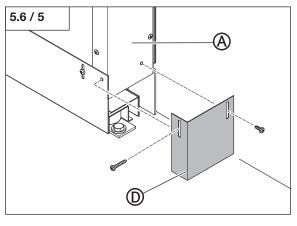
is always located above the guide roller.

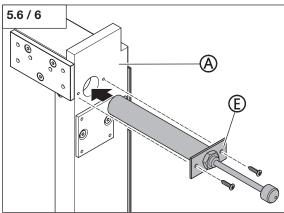
- Slide the door leaf (A) into the CLOSED position.
- Place the guide roller (C) into the lower guide profile (B).
- Mark the drilled holes.
- Push up the door leaf (A) further up.
- Screw the guide roller (C) to the floor.
- Screw the sliding cover (D) on the door opening side to the door element (A).

• Screw the damper (E) on the door opening side



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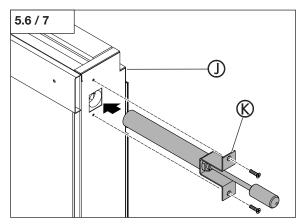






#### Free-running doors

• Screw the damper (K) (70 mm stroke) into the end element (J).

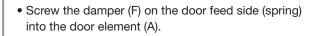


7.00 Type 2

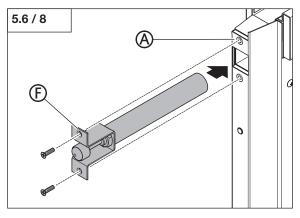
- Type 3
  - into the door element (A).







**Note:** A damper with magnetic head may also be inserted depending on the version.





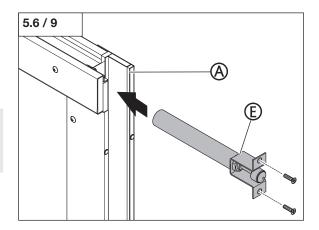
#### Installation:

- Carry out the installation steps 5.6 / 1 5.6 / 6 on the opposite door leaf.
- Screw the damper (F) into the door element (A) door feed side (groove).

## Туре 3

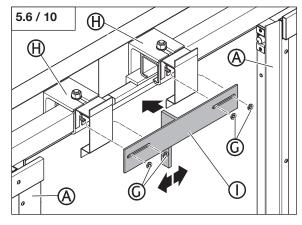


A damper with magnetic head may also be inserted depending on the version.





- Remove the nuts (G) on the sockets (H) that are located left and right from the centre joint.
- Place the buffer console (I) onto the threaded pins.
- Screw the nuts hand-tight (G) onto the threaded pins.
- Close the door leaves (A) and position the buffer (I) in accordance with the given lateral distances.
- Tighten the nuts (G).



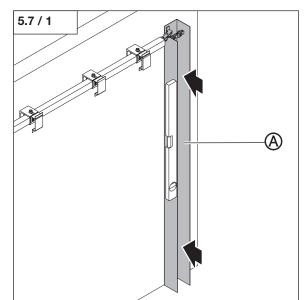


## 5.7 Installing the weight deflection

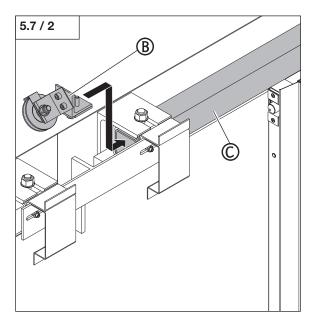
#### Reference:

The approved fixing types and fastening materials are described in table 1.

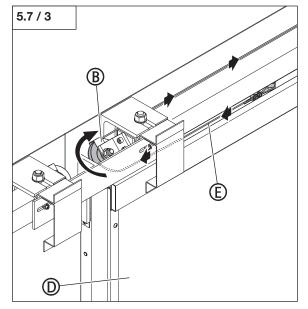
- Place the weight box (A) vertically against the wall in accordance with the installation drawing.
- Screw the weight box into all the pre-drilled holes in the wall.



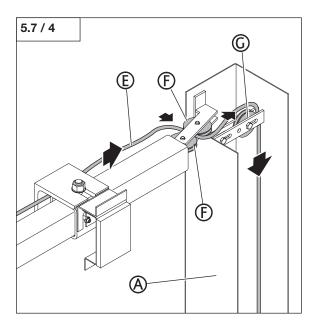
• Place the deflection roller (B) on the centre joint into the guide rail (C).

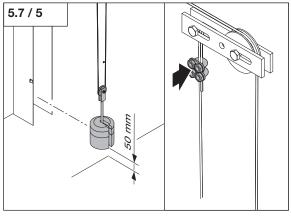


- Slide the door element (D) into the Off position.
- Feed the cable (E) around the deflection roller (B).
- Feed the cable (E) around the weight box (A).



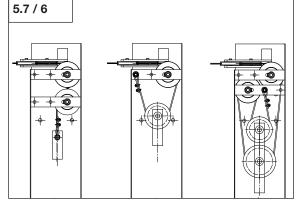
- Feed the cable (E) through the deflection rollers from the rear (F).
- Feed the cable (E) into the weight box (A) over the roller (G).
- Mount the closing weights in weight box (A) to the cable (E).





Multiple-stranded closing weight

Double-stranded closing weight



5.7 / 7

Multiple-stranded closing weight



Installation: Carry out the installation steps 5.7 / 1 - 5.7 / 7 on the opposite door leaf.

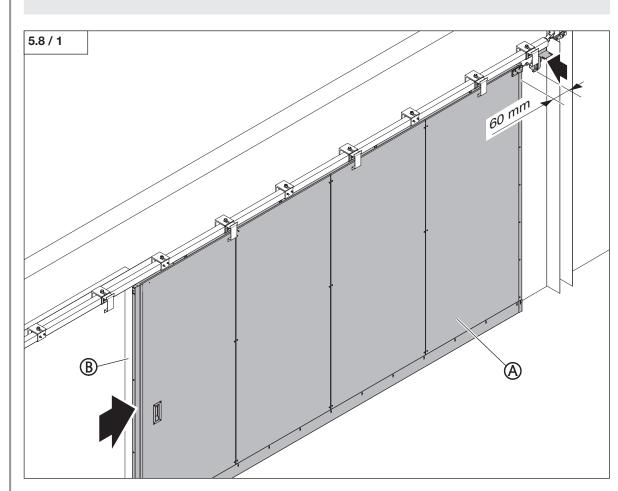
**Reference:** 

## 5.8 Installing the closing regulator

Depending on the design, the door leaf can be opened by hand or by a free-running function.

The installation of the drive are described in point 7.4 "Installing the opening aid".





#### Standard end buffer

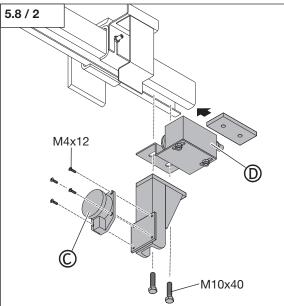


#### **Function check:**

The turning direction must be checked before the damper (D) is installed.

To change the turning direction of the damper (D), the snap ring must be removed, the cable roller must be turned and the snap ring must then be replaced.

- Push the door (A) back until it lines up with the soffit (B).
- Install the magnetic clamp (C) and the radial damper approx. 60 mm behind the door.
- To adjust the closing speed, turn the screw as far as it will go (lowest damping).



#### Shortened end buffer

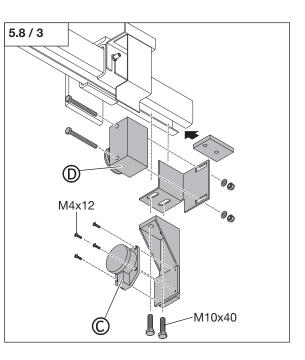
#### **Function check:**

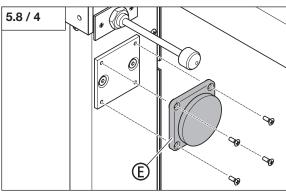
Check the turning direction before installing the damper (D).

To change the turning direction of the damper (D), the snap ring must be removed, the cable roller must be turned and the snap ring must then be replaced.

- Push the door (A) back until it lines up with the soffit (B).
- Install the magnetic clamp (C) and the radial damper approx. 60 mm behind the door.
- To adjust the closing speed, turn the screw as far as it will go (lowest damping).
- Screw the anchor plate (E) and the magnetic clamp onto the base plate of the door element on the door feed side.

• Screw the cable retainer (F) to the retainer plate (G).

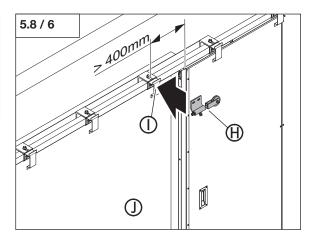






#### Note:

The cable tensioner (H) must be installed on the last socket (I) over the door opening (J). If the distance to the opening is smaller than 400 mm, then the cable tensioner (H) must be installed on the penultimate socket.

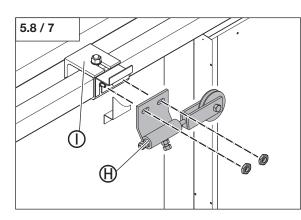


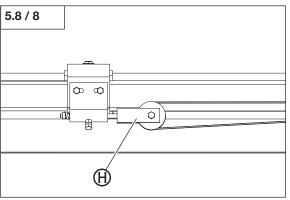


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Type 6

• Screw the cable tensioner (E) onto the last socket (F) in the direction of the opening within the opening at the wall side.







#### Note:

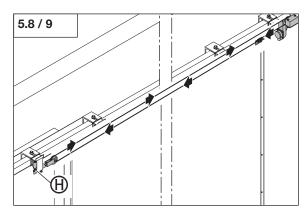
The cable must be laid around the cable tensioner (H) and the speed regulator (D). The steel cable must be untwisted before installation.

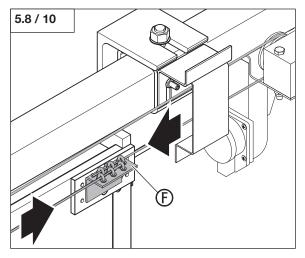
- Feed both of the ends of the cable into the cable retainer (F).
- Place the cable under a small amount of tension.
- Clamp both ends of the cable securely.



#### Note:

The cable must be tensioned with the cable tensioner (H) in such a manner that the cable does not sag and slip over the end of the guide roller.





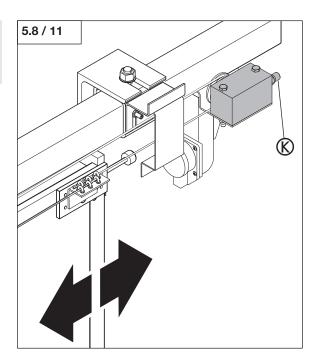


#### Note:

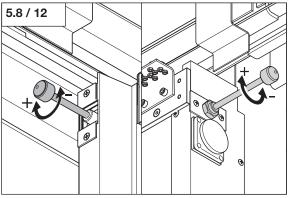
Only use as many closing weights as are necessary to ensure that the door closes properly.

- OPEN and CLOSE the door.
- Use the speed regulator on the drive (K) to determine the automatic closing speed and the number of closing weights.

Top speed:0.2 m/sMinimum speed:0.08 m/s



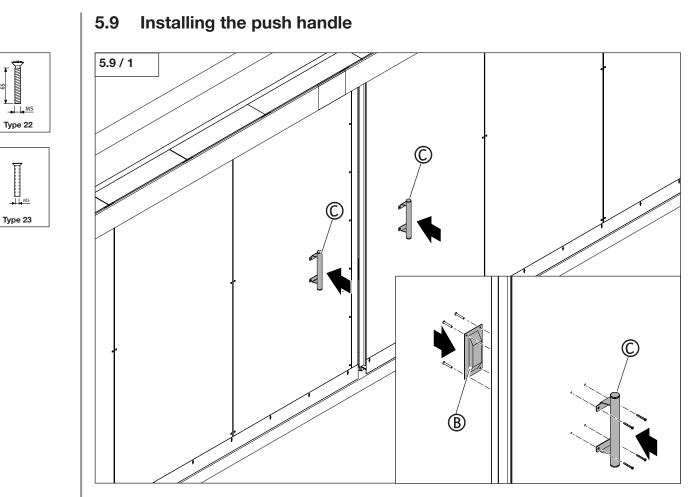
• Adapt the power of the end damper to the closing force and opening force.





#### Installation:

• Carry out the installation steps 5.8 / 1 - 5.8 / 12 on the opposite door leaf.

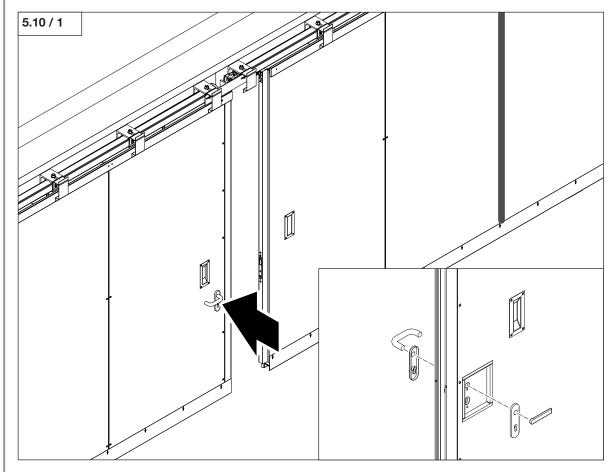


• Screw the shell handle (B) and the push handle (C) to the door elements.

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## 5.10 Installing the hook lock (optional)

For sliding doors with a hook lock, the lock is installed in the left door leaf whilst the door is still in the plant.



Hook lock without push handle:

• Install the PC rosette.

Hook lock with push handle (for standard smoke protection version):

- Install the door push handle.
- Adjust the door push handle.
- Check the function of the door push handle.



#### Smoke protection:

The striking plate and face plate may need to be underlaid with U-washers.



#### **Reference:**

If the door has a bolt switch contact, the contact is pre-installed. The instructions for the bolt switch contact should be observed during connection.



## 5.11 Installing the raised seal and the smoke protection seal

#### Note:

The raised seals must be installed on the soffit side. They help to ensure that the smoke protection seal remains tight.

The entire length of the raised seals (A) must be sealed with B1 sealing material.



#### **Reference:**

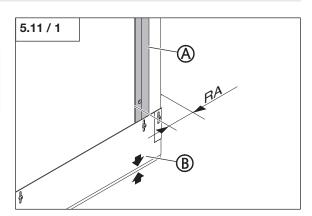
See the installation drawing for the necessary RA, RS and RE measurements.

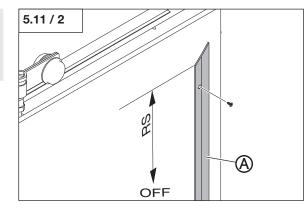


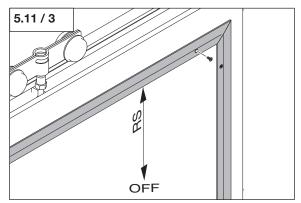
#### Installation inlet side

**Note:** The raised seal (A) may not overlap with the lower guide (B).

- Place the raised seal (A) onto the upper edge of the lower guide (B).
- Position the raised seal (A) so that is in line with the door leaf.









## Type 8

Type 8

## Note:

Due to the increased amount of ground clearance (supplied with 12 mm), the raised seal (A) must be adapted the RS measurement.

• Firmly screw the raised seal (A) into all the drilled holes.



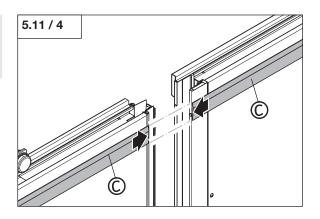
#### Installation lintel side

- Position the raised seal (C) so that it is in line with the door leaf.
- Firmly screw the raised seal (C) into all the drilled holes.



#### Note:

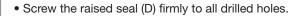
The raised seal (C) or the two door leaves must be placed flush to one another in the middle.

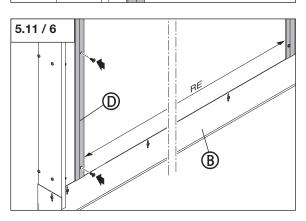


5.11/5

#### Installation opening side

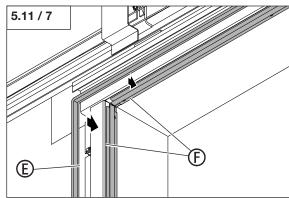
- Place the raised seal (D) onto the upper edge of the lower guide (B).
- Position the raised seal (C) on the door leaf in accordance with the measurements RS and RE.





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#### Installation of smoke protection seal

#### Note:

The seal must be drawn in in such a manner that it - is in contact with the top edge of the finished floor, - is not subject to tension in its entire length and - consists entirely of one strand.

#### Installing the smoke protection seal

• Press the smoke protection seal (E) into the slot (F).



#### Adjust the retractable bottom seal

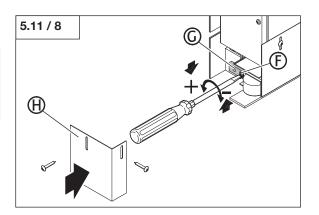
#### Note:

The retractable bottom seals must be adjusted in such a manner that the seals are resting completely on the surface.

• Adjust the retractable bottom seals using the screws (G) and (F).

F	Rough setting
G	Fine setting

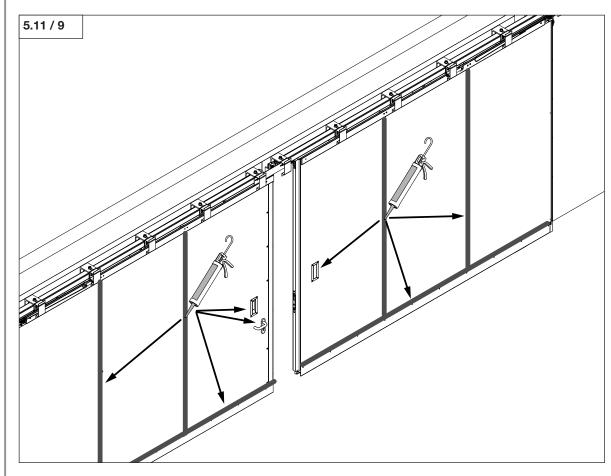
• Screw the cover (H) to the door element.



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#### Note:

All element joints and transitions on the door leaf must be sealed with permanently elastic material on both sides where they join with the wall.



• Seal all the joints and transition in a permanently flexible fashion.



### 5.12 Checking the door

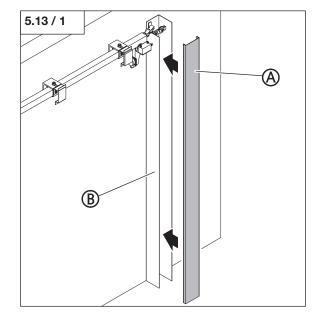
#### Function check:

The functional test is successful if

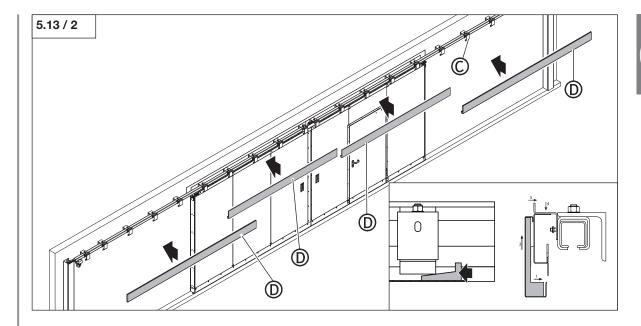
- the door does not make any grinding noises when it opens and closes,
- the specified distances between the components are adhered to,
- the door can be opened and closed completely,
- the smoke protection seals are sealed tightly (only for doors with smoke protection).
- Check the door.

#### 5.13 Installing the casings and covers

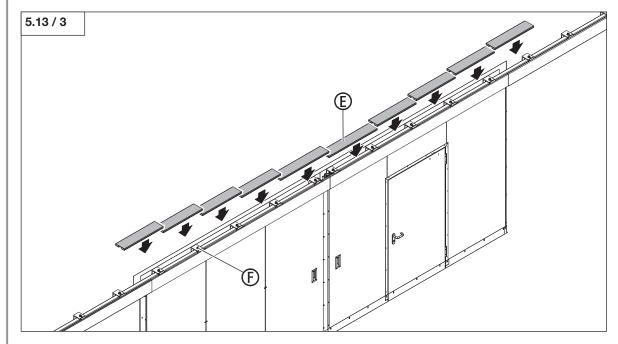
- Press the weight box cover (A) onto the weight box (B).
- Fix the weight box cover (A) using two self-tapping screws.







- Slide one side of the casing splices cover over the casing.
- Place the casings (D) onto the casing covers starting from the middle (C).
- Slide the casing splice cover halfway over the next casing.
- Secure the casing in place with the safety wedges.



• Place the covers (E) onto the sockets (F), beginning at the centre joint.

### 6.1 General information

- In accordance with §3 of the NW Building Code, the owner of the property is responsible for maintenance. The property owner can carry out the required maintenance tasks or employ a specialist company to do it.
- To ensure correct functioning of the fire protection, smoke protection, security, sound insulated and multipurpose doors, professional maintenance should be carried out at least every 12 months (more often for frequently used doors).

#### 6.2 Maintenance work

#### Attention!

Detected faults must be eliminated immediately to guarantee safe operation.

Only suitable cleaning agents should be used for cleaning. The following are not suitable:

- Cleaning agents with contents that cause corrosion or are otherwise harmful
- Scouring agents, abrasive cleaning agents, wire wool or similar products
- Petrol, benzene, turpentine or similar products

Use acid-free graphite, grease or resin-free oil for lubrication purposes.

• Clean seal profiles with a clean cloth, warm water and a rinsing agent.

After cleaning, talcum must be applied to all the slide seals and the raised seals.

Cycle for all the maintenance and cleaning work:

after 1,000 actuations

- at least every 12 months

We recommend setting up a counter to monitor the cycle.



Door components	Required ma	Required maintenance tasks						
	Function check T≤ 12 months/ 1,000 actuations	Clean as needed T≤ 12 months/1,000 actuations	Lubricate / Oil	Re-tighten fastening screws T≤ 12 months/ 1,000 actuations	Reworking	Remark		
Door assembly								
Door leaf	Х	Х				In the case of impaired function (e.g. stiffness) a specialist company must be informed		
Element joints				Х				
Inlet				Х				
Vertical wall seal					Х	Control of the foamers		
Headroom seal				Х				
Casing								
Guide rail		Х	Х	Х		resin-free		
Rolling apparatuses	Х	Х						
Wall mounting				Х		Repair defects (loose masonry, cracks)		
Closing mechanism		<u></u>		I				
Cable clamps				X				
Cable	Х					Replacement of defective cables		
Deflection rollers	Х							
Weights	Х			Х				
Speed regulator (Radial damper)	Х					Test of the closing speed (>0.08 m/s and <0.2 m/s) Replacement of defective dampers		
Cable	Х					Replacement of defective cables		
Cable fastening	Х			Х				
Cable tension spring	Х			Х		The cable tension spring is to be tested		
Locking device	Х					Test the smoke detector in accordance with the maintenance instructions "Testing book for the locking device"		
End damper	Х							
Smoke protection			1	I				
Retractable bottom seal	Х					Replace brittle or damaged seals		
Vertical / horizontal threshold seal	Х	Х			Х	Replacement of brittle or damaged seals and raised seals; apply talcum to the raised seals and seals where necessary.		
Permanently elastic seal	Х				Х	Replace brittle or damaged seals		
Drive	Х					Test the drive in accordance with the maintenance instructions		
Wicket door			1			l		
Door leaf	Х	Х						
Frame				Х				
Hinges	Х			Х				
Lock	Х							
Upper door closer (UDC)	Х		X					
Optional equipment								
Reed contact Wicket door	Х							
Bolt contact Wicket door / hook lock	Х							

## 7.1 Installation of artificial buffers

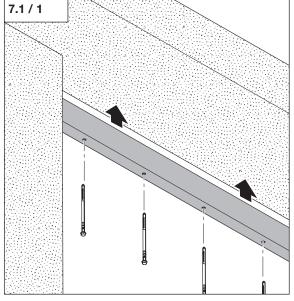
- Check the opening width and the length of the artificial lintel.
- Drill into the ceiling through the holes in the tubular profile.
- Screw the tubular profile to the ceiling.

• Slide the panel over the installed profile.

• Screw the countersunk screws (A) M5 x 40 into the

• Drill through the holes of the profile into the ceiling.





Type 11

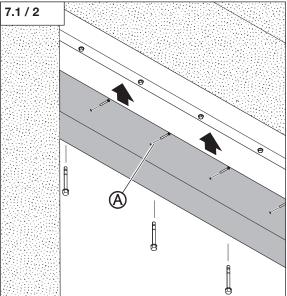


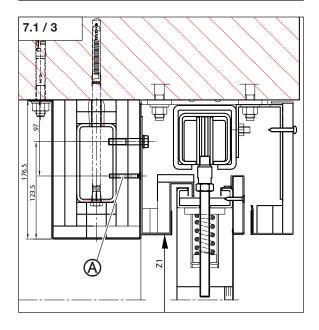
#### **Reference:**

side of the cover.

• Screw the profile to the roof.

Further information on installing the door is described under point 7.2 "Installing on the ceiling".







Type 13

### 7.2 Installing on the ceiling

#### **Reference:**

The approved fixing types and fastening material are described in table 1.

See the installation drawing for information on the necessary measurements (X/Y/Z).

#### Installing the guide rails

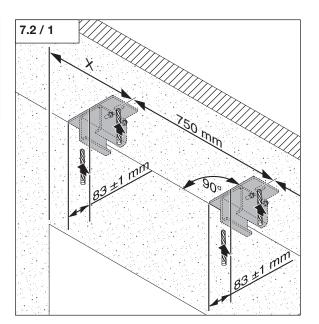
- Placing the first guide rail (Distance from the wall to the middle of the socket 83 ±1 mm).
- Place the drilled hole at a 90° angle to the lintel.

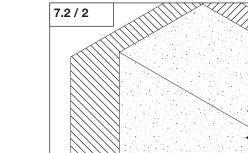
The drilled holes must be flush to another.

- Mark the other sockets with the specified distance of 750 mm.
- L = Clear width on the left

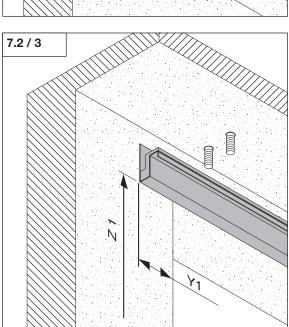
• Place the plugs in.

R = Clear width on the right

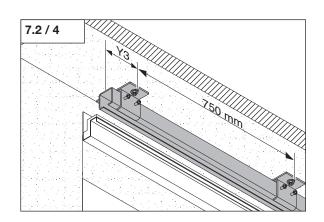




- Specify the top seal positions.
  - Collision with centre contact element (B) - Height = Z1
- Secure the lintel seal through the drilled holes in the lintel (see the table for the plugs).
- Position the lintel seal horizontally and straight; then tighten the plugs.



- Slide the sockets onto the guide rail.
- Set the appropriate distance.
- Screw the sockets to the guide rail under the ceiling until they are hand-tight.
- Position the guide rail so that it is straight and horizontal.
- Tighten the nuts on the anchor bolts.
- Tighten the threaded pins until they are hand-tight to secure the guide rails in their position.



#### **Reference:**

- See point 5.2 for information on how to install the vertical wall seal.
- See point 5.4 for information on how to install the door leaf.

#### Installing the casing

- Remove the M8 nuts and the threaded pins on the guide rail socket.
- Place the casing holder onto the guide rail sockets.
- Screw in the threaded pins hand-tight to the sockets and position the casing holders level with one another.
- Tighten the nuts.
- Install the closing mechanism.

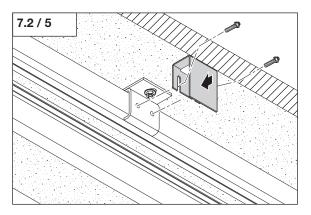
# $\bigcap_{i=1}^{O}$

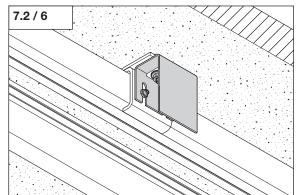
#### **Reference:**

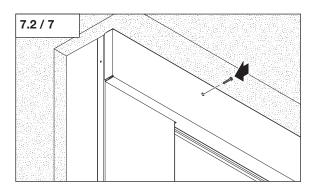
The installation of the door leaves is described in chapter 5.8.



- Slide the casing splice cover onto the beginning element of the casing.
- Place the casing onto the top side of the casing holder.
- Position the casing so that the side of it is flush to the weight box.
- Secure the casing in place with one self-tapping screw per console.







#### 7.3 Installing wicket doors

#### **Reference:**

- The installation information for the installation of the door leaves must be observed (point 5.4).
- The installation drawings must be observed.

#### Installing the wicket door element

The wicket door element consists of a top casing (A), connecting springs for the top casing, frame (B), connecting springs for the frame (lock side, hinge side and top casing, pre installed) and the wicket door (C).

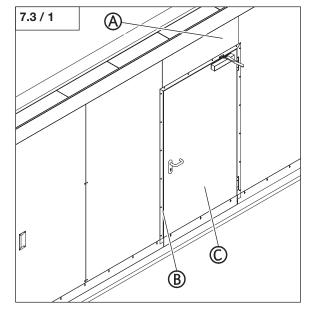
The installation of the wicket door element is to be prepared for in the same manner as the installation for the other elements.

When installing the sliding door, the position of the wicket door (C) in the sliding door must be taken into account.

The wicket door element must be surrounded by at least one other element on both the left and right-hand sides.

You should start with the beginning element just as is the case for a standard installation.

Then continue with the elements up until the position of the wicket door element.



#### Installing the upper casing

The installation of the upper casing is to be prepared for in the same manner as the installation for the other elements.

 Take note of the opening direction (from the soffit opening through the soffit) and the DIN direction of the door.

Choose the corresponding connecting springs for the frame (lock side, hinge side).

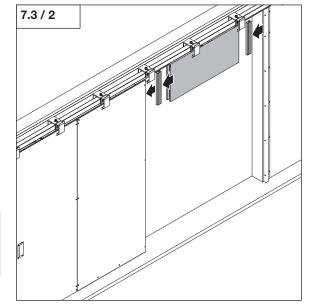
• Install the connecting springs of the upper casing.



#### **Reference:**

The assembly of the connecting springs is described in chapter 5.4 / 8.

• Screw in the connection spring of the upper casing.





Attention!

**Reference:** 

If a reed contact is used in the wicket door, the cables must be pulled through the empty pipes.

The corresponding installation instructions are to be observed during the installation of the reed contact.



#### Frame installation

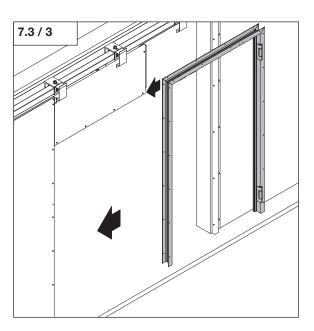
Attention!

The direction in which the wicket door opens must be observed.

The installation and orientation must be carried out in exactly the same manner as the other elements.

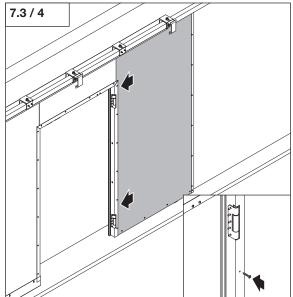
• Mount the upper casing into the guide rail.

- Slide the pre-installed frame onto both the upper casing and the element.
   The side door shaft must be flush to the lower element edge.
- Secure the frame with fastening clamps.





- Install the following element.
- Secure the connecting springs (as described above).
- Align the elements.
- Screw the elements above the frame.
- Align the frame.
- Screw the frame to the elements using the designated drilled holes.





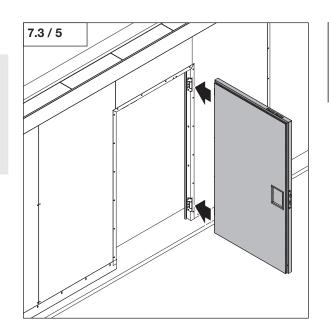
#### Wicket door installation

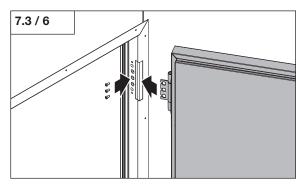
#### Attention!

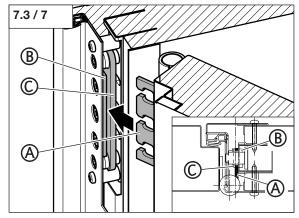
The door leaf, bottom guide and the trim that moves in parallel must have been installed before installing the wicket door.

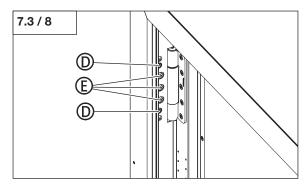
Insert the hinge tab (A) between the clamping plate (B) and the support plate (C).

- Push the pre-installed hinge tabs (A) through the recesses of the frame between the clamping plate (B) and the support plate (C).
- Tighten the cylinder screws until they are hand-tight.
- Align the wicket door using the adjusting screws in the hinge mounting (all-round gap dimensions 5 ± 2 mm).
- K Gap dimension adjusting screwsE Attachment screws
- Tighten the screws.
- Adjust the gap dimension.

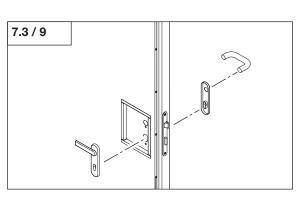


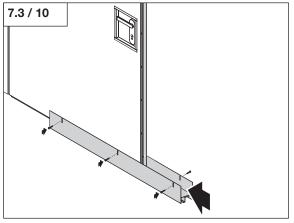






- Install the door handle.
- Adjust the door handle.
- Check the door's functionality.
- Attach the lower guide of the door.
- Position the bottom guide at the side, flush to the door box.
- Slide the bottom guide onto the wicket door.
- Screw the bottom guide into position.







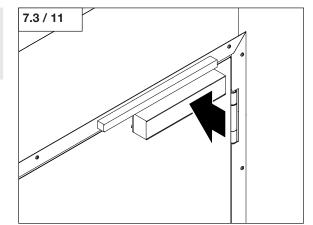
#### **Reference:**

The appropriate installation instructions are to be observed when installing and adjusting the top door closer.

Install the top door closer.

**Standard top door closer installation (illustration),** Opening direction of the wicket door towards the installation.

**Top door closer transom mounting** Opening direction of the wicket door towards the soffit.

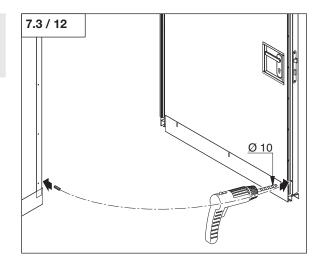




#### Attention!

The door must not be drilled through.

- Cut the seal at the M8 threaded pin so that the threaded pin can be easily inserted through the seal.
- Screw the threaded pin M8 into the frame.
- Highlight the position of the threaded pin in the door rebate and drill a hole.
- Drill a hole into the door into which the threaded pin can fit.





#### **Reference:**

Carry out the further steps as is described in point 5.5.



### 7.4 Installing the opening aid

#### Reference:

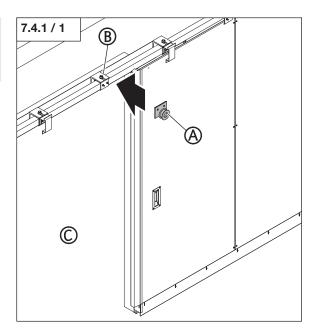
The instructions included with the drive must be taken into account when installing the automatic opening assistance.



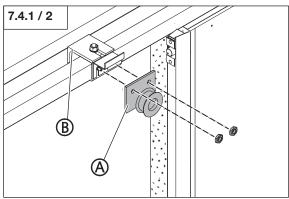
#### Note:

The deflection roller (A) must be installed on the last socket (B) over the door opening (C).

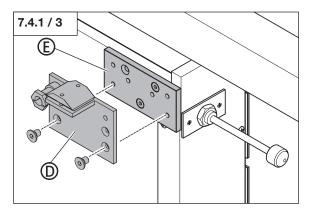
7.4.1 Opening the door with two drives



• Screw the deflection roller (A) to the socket (B).

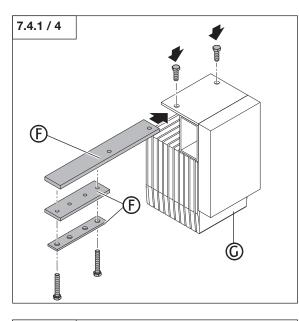


• Screw the door driver (D) to the retainer plate (E).

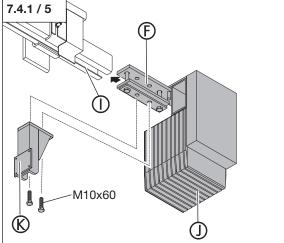


## 7. Appendix

• Screw the clamp plate (F) to the drive (G).



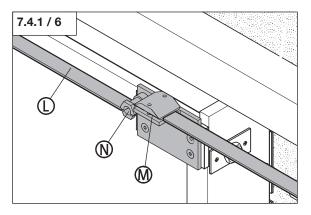
- Place the drive (J) into the guide rail (I) as far as it will go.
- Tighten the screws of the clamping device drive (F).
- Screw the end buffer (K) to the clamping device (F).

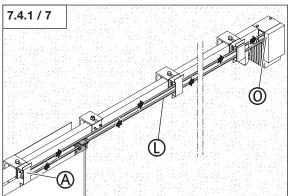




#### Note:

- The cog belt must be laid in such a manner that - the side without the textile fabric is laid into the clamping device (M) and
- the side with the textile fabric is laid into the holding fixture in the tension lock (N).
- Lay the cog belt (L) around the deflection roller (A) and the driver roller (O).







#### Note:

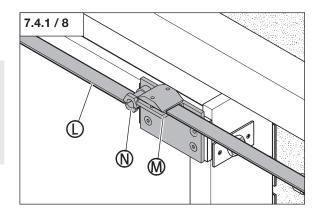
device (M).

The cog belt (L) must be tensioned in such a manner that

• Clamp the cog belt (L) onto the clamping

- it does not sag and

- the shaft on the drive is not subjected to too much stress.
- Tension the cog belt with the tension lock (N).





## Note:

**Reference:** 

closing speed.

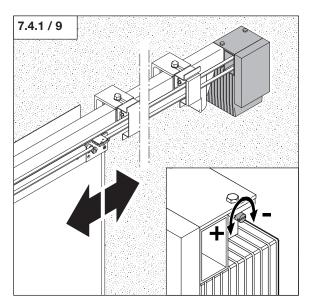
Only use as many closing weights as are necessary to ensure that the door closes properly.

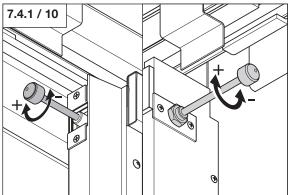
Take note of the instruction for the drive and the control unit when connecting the drive and determining the

- OPEN and CLOSE the door.
- Use the speed regulator on the drive (J) to determine the automatic closing speed and the number of closing weights.

Top speed:0.2 m/sMinimum speed:0.08 m/s

• Adapt the power of the end dampers to the closing force and opening force.





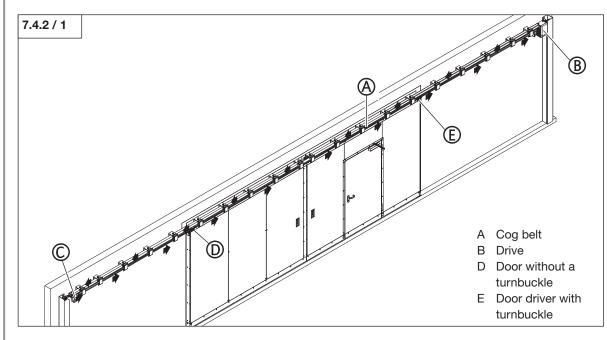


#### Installation:

• Carry out the installation steps 5.4 / 1 - 5.4 / 10 on the opposite door leaf.

#### 7.4.2 Opening the door with one drive

The diagrams show the drive installed on the right. The drive installation on the left is to be carried out in an inverse manner.

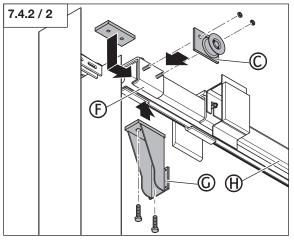




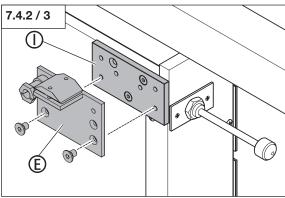
#### Note:

The door must be closed to ensure that installation takes place properly.

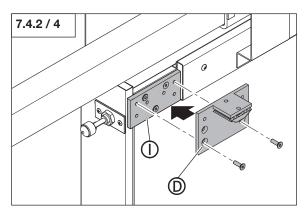
- Screw the deflection roller (C) to the socket (F).
- Screw the end buffer (G) to the guide rail (H).



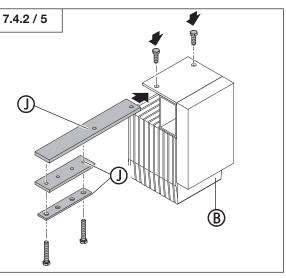
• Screw the door driver with the tension lock (E) to the retainer plate (I).



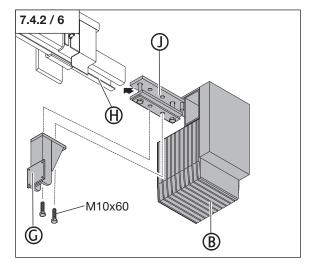
• Screw the door driver without the tension lock (D) to the retainer plate (I).



• Screw the clamp plate (J) to the drive (B).



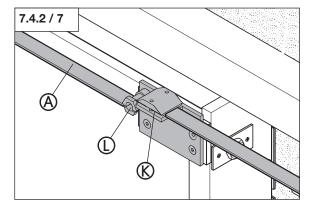
- Place the drive (B) into the guide rail (H) as far as it will go.
- Tighten the screws of the clamping device drive (F).
- Screw the end stop (G) to the clamping device (J).



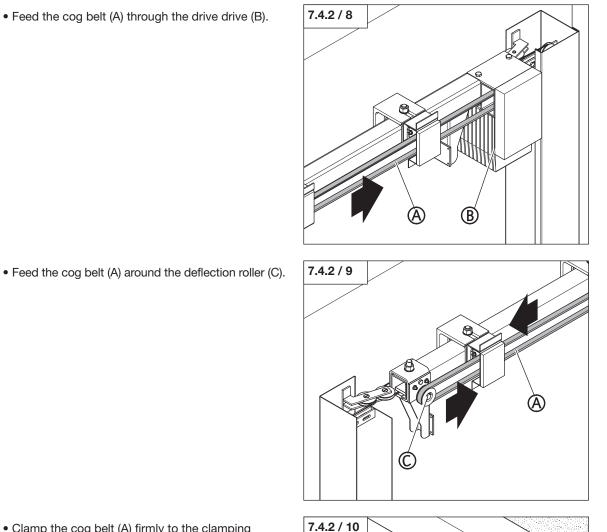


#### Note:

- The cog belt (A) must be laid in such a manner that - the side without the textile fabric is laid into the clamping device (K) and
- the side with the textile fabric is laid into the holding fixture in the tension lock (L).



## 7. Appendix



• Clamp the cog belt (A) firmly to the clamping device (K).

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#### Note:

The cog belt (A) must be tensioned in such a manner that

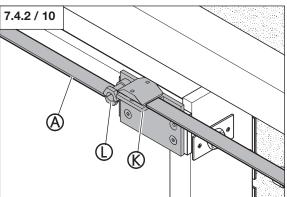
- it does not sag and
- the shaft on the drive is not subjected to too much stress.
- Tension the cog belt with the tension lock (L).

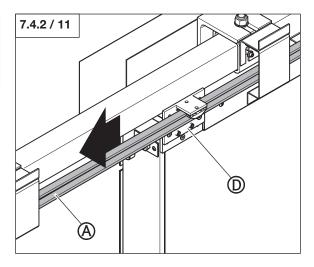


#### Note:

To ensure that the door moves smoothly, the upper channel of the cog belt must be firmly clamped to the door driver (D).

• Clamp the cog belt (A) onto the door driver without a tension lock (D).









#### **Reference:**

Take note of the instructions for the drive and the control unit when closing the drive and determining the closing speed.

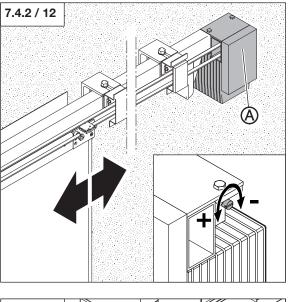
#### Note:

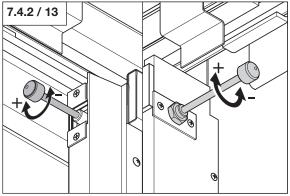
Only use as many closing weights as are necessary to ensure that the door closes properly.

- OPEN and CLOSE the door.
- Use the speed regulator on the drive (A) to determine the automatic closing speed and the number of closing weights.

Top speed: 0.2 m/s Minimum speed: 0.08 m/s

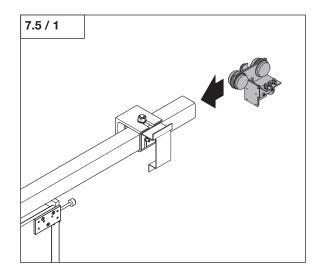
• Adapt the power of the end dampers to the closing force and opening force.





#### 7.5 Free-running function

• Place the rolling apparatus into the guide rail.



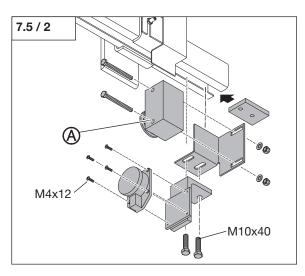


#### **Function check:**

The turning direction is to be tested before the damper (A) is installed.

To change the turning direction of the damper (A), the snap ring must be removed, the cable roller must be turned and the snap ring must then be replaced.

- Install the console at the end of the guide rail.
- To adjust the closing speed turn the screw as far as it will go (lowest damping).





#### **Reference:**

Install the closing regulator as is is described in 5.8 / 6 - 5.8 / 12.



#### Note:

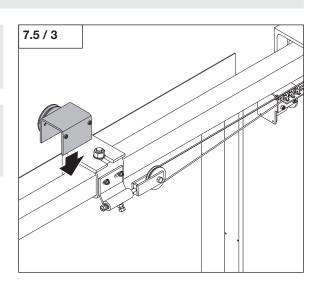
The deflection roller must be installed behind the socket using the cable tensioner.

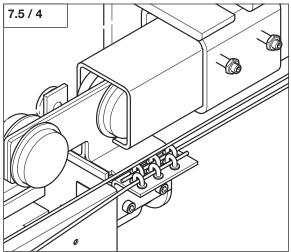


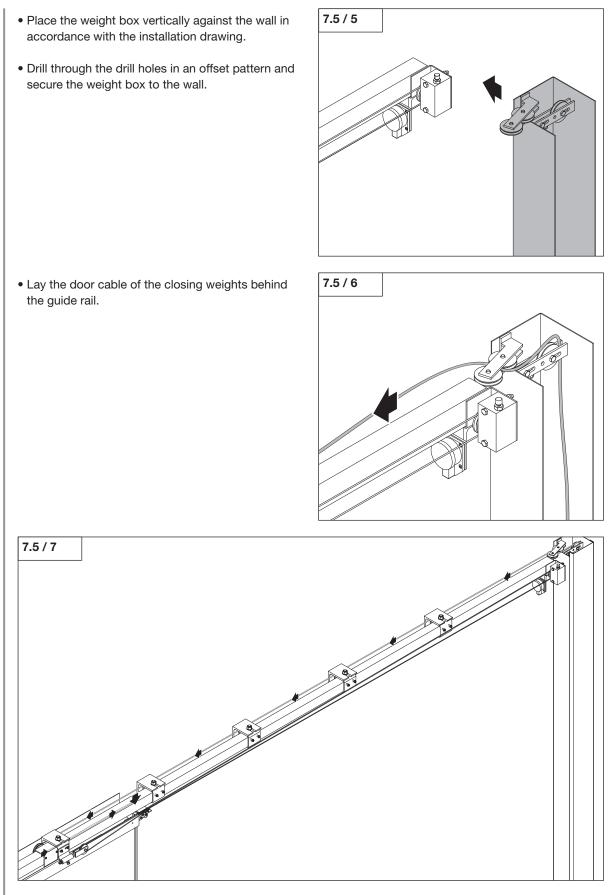
#### Attention!

To ensure that the rolling apparatuses can roll in the guide rail, the screws on the deflection roller must only be tightened slightly.

- Place the deflection roller onto the guide rail.
- Screw the deflection roller firmly to the guide rail.





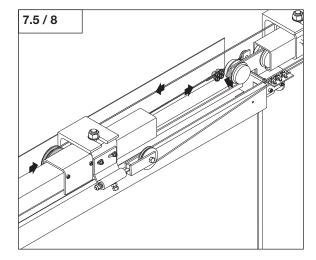


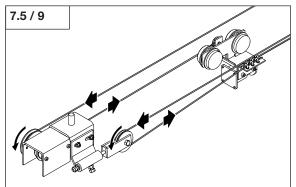
• Feed the door cable up to the deflection roller.

Note:

without the door.

- Feed the door cable around the deflection roller.
- Secure the door cable to the rolling apparatus.

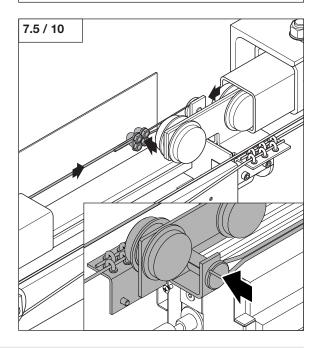




• Feed the door cable around the deflection roller.

The illustration merely shows the cable routing

• Secure the door cable to the rolling apparatus using a M10 x 12 flat head screw.

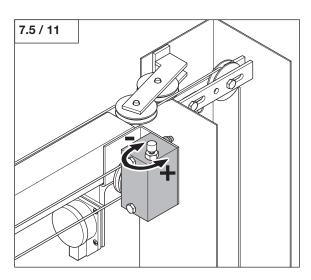


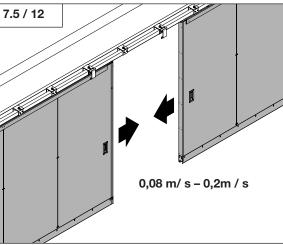


#### **Reference:**

Install the closing weight as is is described in 5.7. Install the weight box cover as is described in 5.13.

• Adjust the speed of the free-running rolling apparatus so that the closing speed of the door is between 0.08 m/s and 0.2m/s.



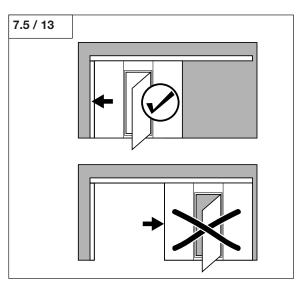




#### Attention!

The wicket door must only be opened when the door is closed.

Opening the wicket door when the door is open may lead to deformation of the door.





Teckentrup GmbH & Co. KG Industriestraße 50 · 33415 Verl-Sürenheide Fon: 05246 504-0 · Fax: 05246 504-0 info@teckentrup.biz · www.teckentrup.biz