

KFV

axxent door hinge

for aluminium doors

Window systems

Door systems

Comfort systems

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1 Introduction

Please read these instructions carefully before you begin the assembly work. Observe the notes in Chapter 2 "Safety", in order to prevent personal injury or malfunctions.

These instructions are an integral part of the axxent door hinge and must be accessible to the specialist personnel at all times.

1.1 Producer and service

KFV Karl Fliether GmbH & Co. KG
A company of the SIEGENIA GROUP
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42551 Velbert

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Fax: +49 2051 278-167
E-mail: info@kfv.de

Please contact your retail partner in case of complaints or service requirement.

1.2 Validity

These instructions are applicable until they are revoked. Updated versions can be downloaded at any time from the download portal of our website www.siegenia.com/de.

1.3 Target group of this documentation

This documentation is intended for use by specialists only. All work described in these instructions is to be performed only by experienced professionals with training and practice in the assembly, retrofit as well as the commissioning and maintenance of door hinges.

1.4 Intended use

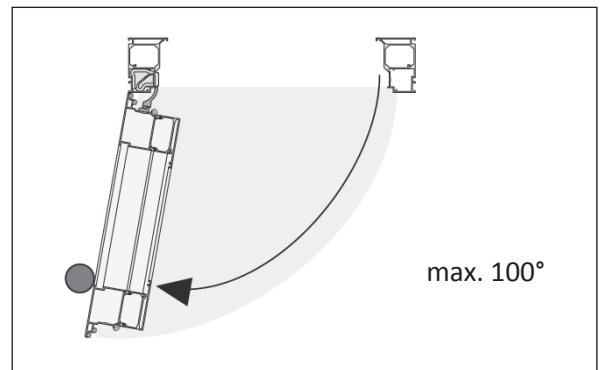
1.4.1 Installation location

- The axxent door hinge is designed exclusively for vertical installation in single-sash doors within the vertical walls of permanent structures.
- The axxent door hinge may only be installed in doors that have been assembled in a technically sound manner.
- The door design must permit the use and secure fixing of the axxent door hinge. A technical test must be performed in case of doubt.

1.4.2 Miscellaneous

- A third door hinge is required if a door closer is used.

- The service life of the axxent door hinge is shortened if a door closer is used. The durability (mechanical fatigue strength) of the axxent door hinges in combination with a door closer must be verified by cycle testing the door in accordance with EN 1191.
- Do not attempt to repair the axxent door hinge. If the axxent door hinge is damaged, it must be repaired by KFV or by a service agent authorised by KFV.
- An opening restrictor is absolutely essential:



1.5 Improper use

- The axxent door hinge may not be used for fire or smoke protection doors without an additional test or certification.
- The axxent door hinge must not be used in doors for wet rooms or rooms in which the air contains aggressive or corrosive components.
- The axxent door hinge must not be tampered with and/or modified.
- Do not paint movable or adjustable locking elements of the axxent door hinge.
- Do not continue to use the axxent door hinges if the door and/or the frame is warped and/or damaged.

1.6 Maintenance and service notes

- Check that all moving components are functioning properly once a year.
- Never use cleaning agents that are aggressive or contain solvents. This could damage the surfaces of the components.
- When cleaning, ensure that no water runs into the door hinge.
- Dry the hardware thoroughly after cleaning it.
- Both the contractors and the user must be trained in the operation and maintenance of the axxent door hinge.

- When treating surfaces (e.g. painting or glazing the front doors), remove all hardware components and protect them from any stains which may result from this treatment!
- Remove any stains or spills immediately because they could impair functioning and damage the surface protection of the hardware!
- The door hinge is maintenance-free and must not be lubricated with oil or grease.

1.7 Installation conditions and requirements

The following requirements and conditions must be observed before and during installation:

- Before installing the axxent door hinges, check the dimensional accuracy of the door and the door frame. Do not install the axxent door hinges if the door and/or the frame is warped and/or damaged.
- Observe the specified positions and sizes for all milling and drilling dimensions within the defined tolerances.
- Install the axxent door hinge in accordance with our assembly instructions.
- Use a suitable clamp for assembly:
 - M6 clinch nuts, steel or stainless steel, max. head protrusion: height: 0.5 mm, diameter: 10 mm
 - countersunk screws M6 x 25 and M6x 40 in accordance with DIN 965 (ISO 7046), strength class at least 8.8 (also stainless steel)
- Remove any splinters from routed pockets after milling.
- Do not overtighten the screws or insert them at an angle.
- Do not perform mechanical work on the door in the region of the axxent door hinge (such as drilling or cutting).
- Use only acid-free neutral-cure sealants to prevent corrosion of components and/or the door.

1.8 Transport

- Block set the door leaf in the frame with door gap restrictors.
- axxent door hinges are sensitive components and must therefore be handled with care. For example, they must not be thrown, hit hard or bent.

1.9 Dimensions

All measurements are given in mm.

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1.10 Symbols used

The following icons are used in this document:

	general warning symbol
	useful information or advice
	Do not use mechanical force
	Wear safety goggles
	Wear safety footwear
	Wear safety gloves
	Continue reading the instructions at the corresponding point
	Milling cutter and drill diameter
	Groove length
	Groove depth from bottom edge of face plate
	Groove width
	Through hole
	Metal profiles
	Timber profiles
	PVC profiles

Other types of presentations

Below is a list of symbols used in these instructions and their meanings:

- Items of text following this marker are found in lists.
 - Items of text following this marker are found in subordinate lists.
- Items of text with this marking in front of them are instructions that must be followed in the specified order.
- " " Items of text in quotation marks are cross-references to other chapters or sections.

1.11 Applicable documents

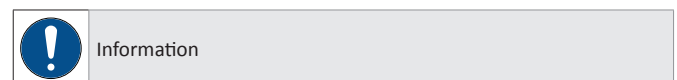
For the installation of the axxent door hinges, it is essential to observe all assembly and operating instructions that are enclosed with other (optional) components.

1.12 Appropriate disposal

- The axxent door hinges and the optional accessories should not be disposed of with household waste. Comply with the current local and national regulations.
- The packaging consists of raw materials that can be recycled and can be taken to the local waste paper disposal site.

2 Safety

Before starting the assembly work, read the following safety instructions carefully. They are designed to keep you safe and prevent hazards, injuries and material damage. Observe all warning notes.



Information

This symbol indicates special features and designates facts that require increased attention.

2.1 Personal protective equipment

You will need the following personal protective equipment when working on or assembling the axxent door hinge:

- safety footwear
- protective gloves
- protective goggles

2.2 Heavy components

When working with axxent door hinges, the door leaf will need to be lifted off in some cases.

Risk of injury to fingers due to crushing.

This presents a danger of foot injuries.



Wear safety footwear

2.3 Sharp edges

Cropping metal components creates sharp edges. This presents a danger of cutting injuries.



Wear safety gloves

2.4 Swarf flying around rapidly

During milling work, there will be swarf flying around rapidly.

This presents a risk of eye injuries.



Wear safety goggles

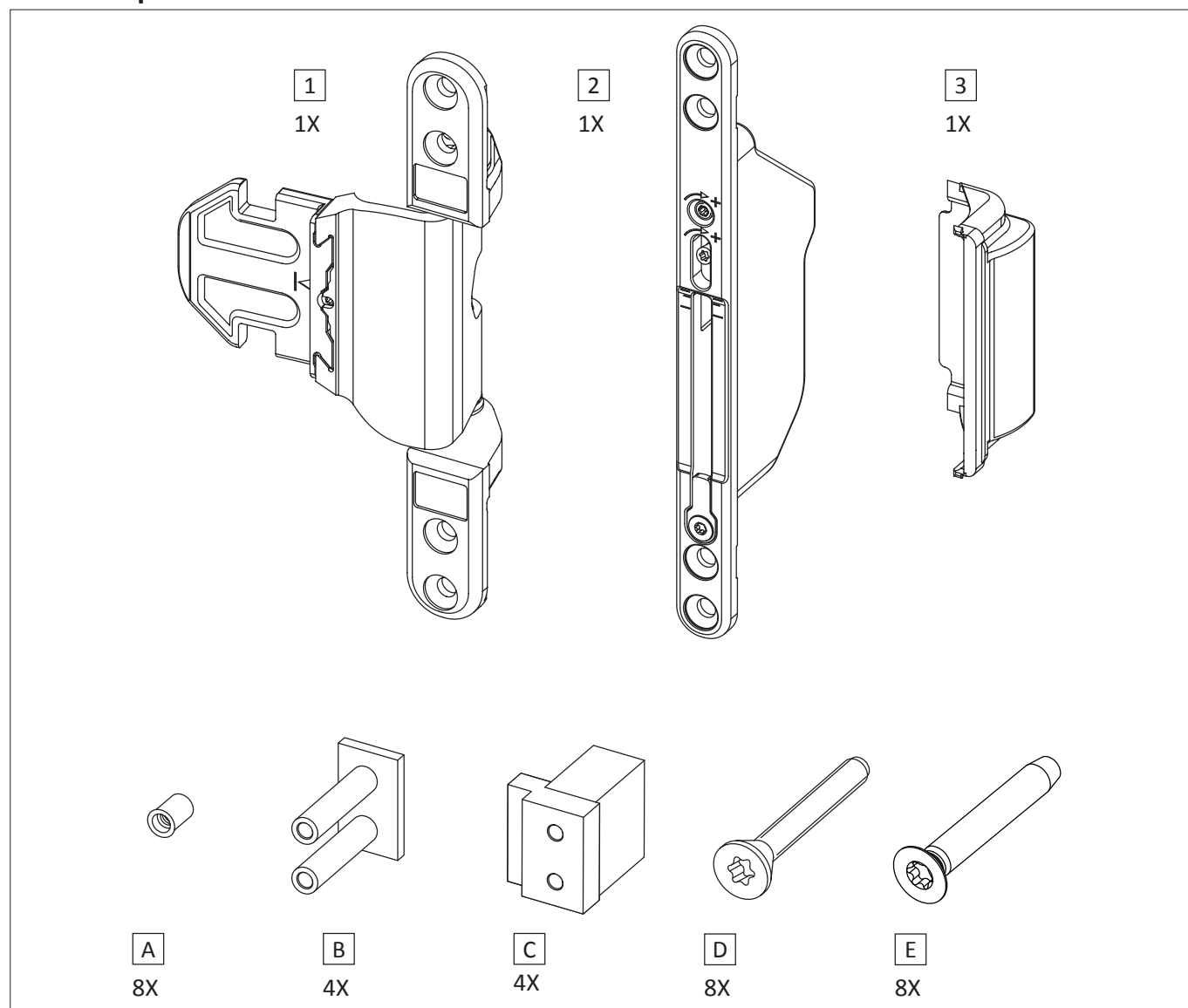
3 Liability

Please refer to our General Terms and Conditions of Business to see our liability and warranty conditions.

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4 Component overview



Item	Component	material number
1	Frame part	TBV RT7...
2	Sash part	TBV FT7...
3	Cover cap	TBV AK7...
A	M6 clinch nut	TBX ZU003
B	Screw cases	Profile-specific
C	Attachment part	Profile-specific
D	Countersunk screws M6 x 25/M6 x 40 DIN965, T 30	TBX ZU001 / profile-dependent
E	Self-tapping countersunk screws M6 x 20/M6 x 40 DIN7500, T 30 (self-tapping). Suitable for material strengths from 1.8 mm or following release from the producer.	TBV ZU717/TBV ZU739 / profile-dependent

5 Size variants

The following table displays the maximum permissible load values of the axxent door hinge, taking into consideration the interaction between the height (interval between the bottom to the top axxent door hinge) and the width of the door leaf.

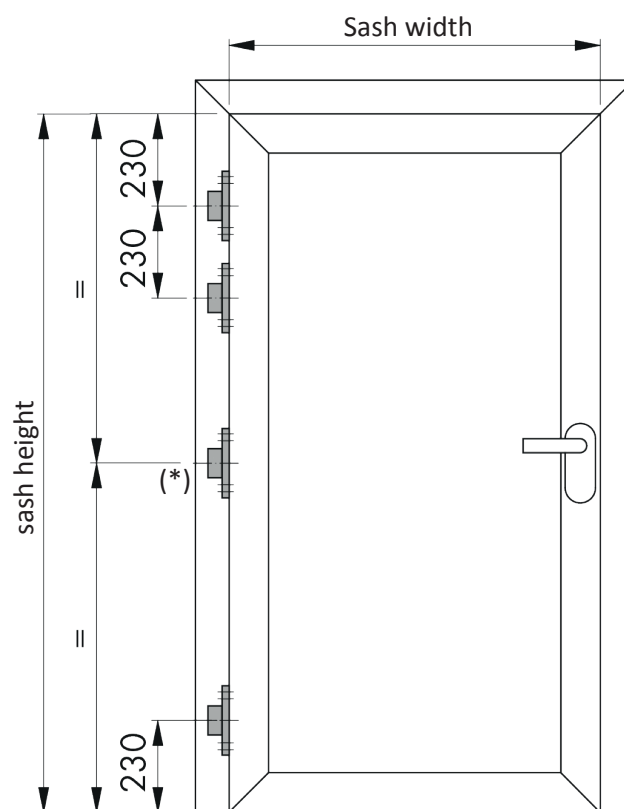
On the basis of a hinge clearance of 1435 mm, the maximum permissible weight of the door leaf of 120 kg decreases from a door leaf width of 1001 mm.

Dimensions in mm / Weight in kg								
Hinge clearance	1900 - 2000	maximum weight of the door leaf = 120 kg						Door leaf weight
	1850 - 1899						119	
	1800 - 1849						116	
	1750 - 1799					117	113	
	1700 - 1749				118	114	109	
	1650 - 1699				115	110	106	
	1600 - 1649			116	111	107	103	
	1550 - 1599		118	113	108	104	100	
	1435 - 1549	114	109	104	100	96	92	
		up to 1000	1001 - 1050	1051 - 1100	1101 - 1150	1151 - 1200	1201 - 1250	1251 - 1300
Door leaf width								

6 Positioning the axxent door hinge

When using a door closer or in case of public and commercial buildings, three or more axxent door hinges must be used, with the third hinge being located directly below the top hinge.

* A central guide band is fixed in a suitable position according to the specifications of the producer!

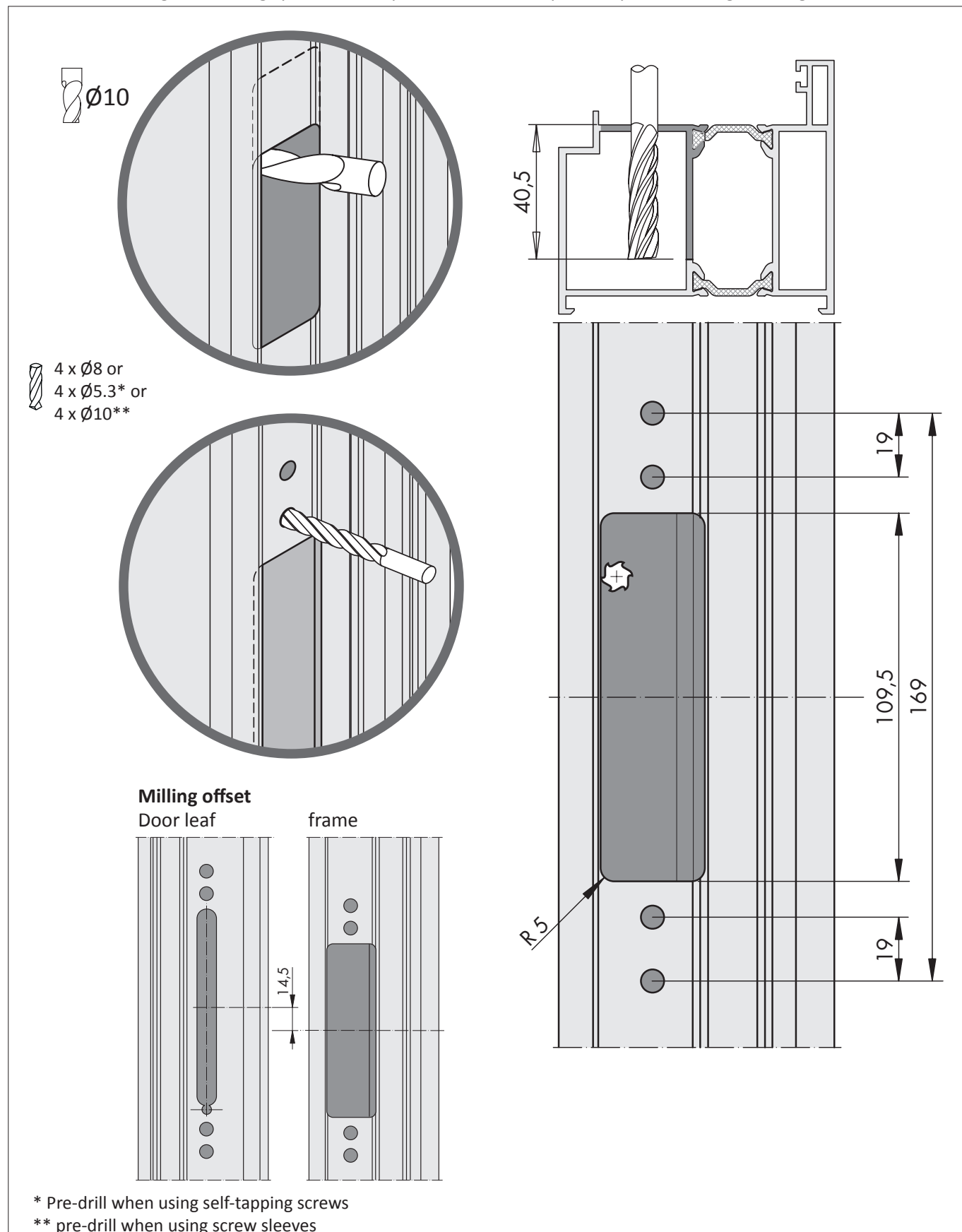


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7 Installation steps

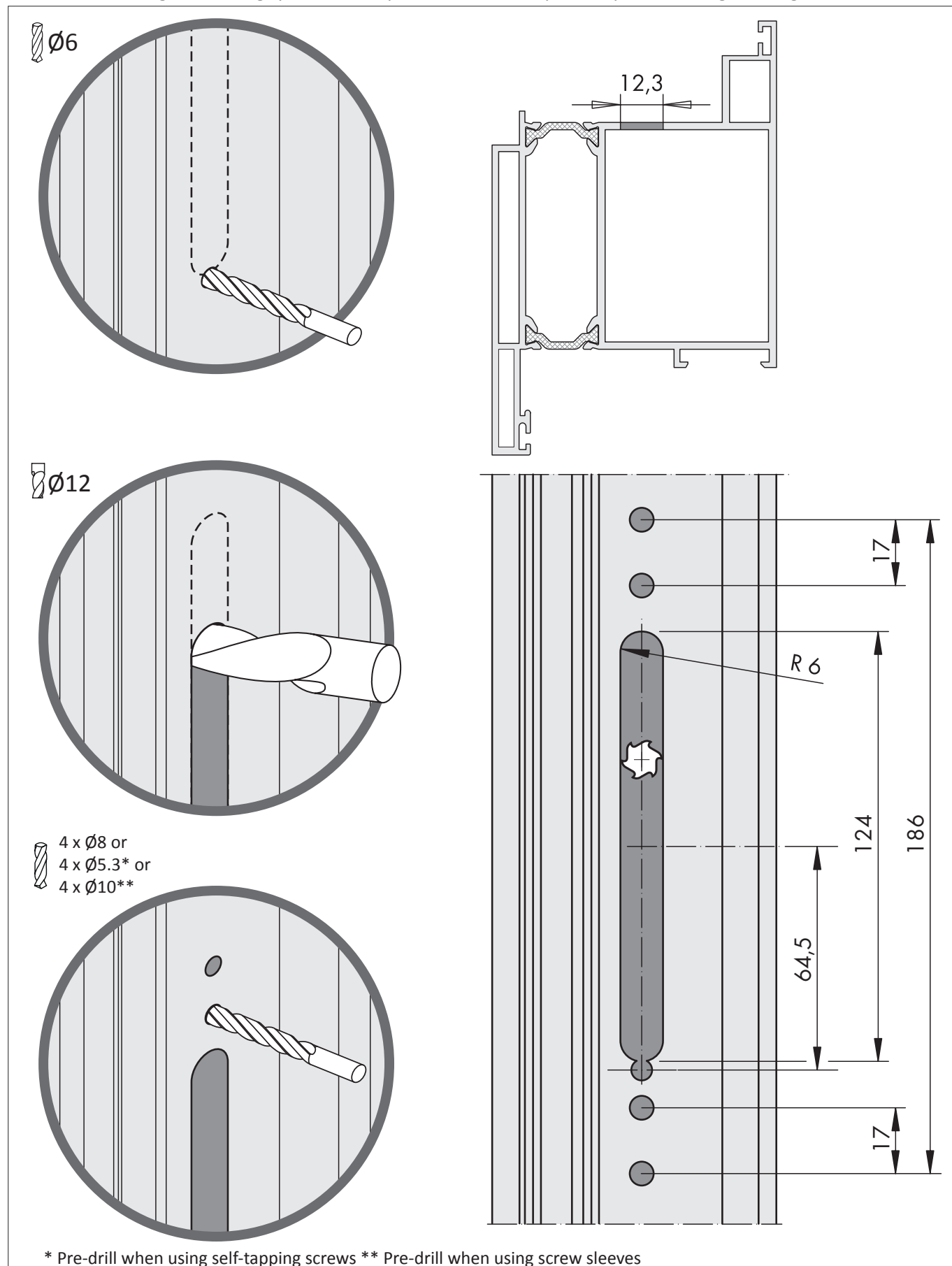
7.1 Assembly step 1: milling the frame

For detailed milling and drilling specifications please refer to the profile-specific milling drawing.



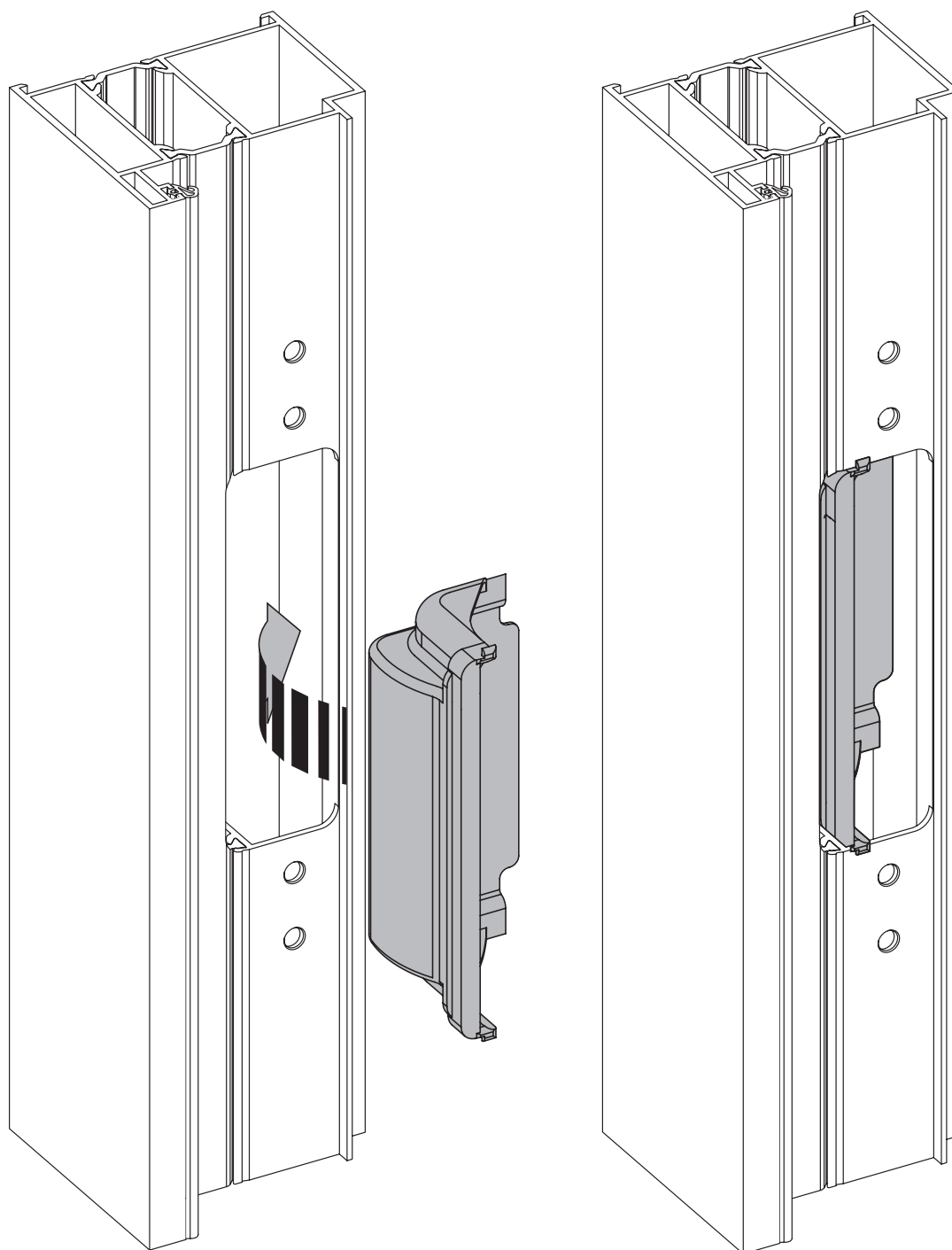
7.2 Assembly step 2: milling the sash

For detailed milling and drilling specifications please refer to the profile-specific milling drawing.



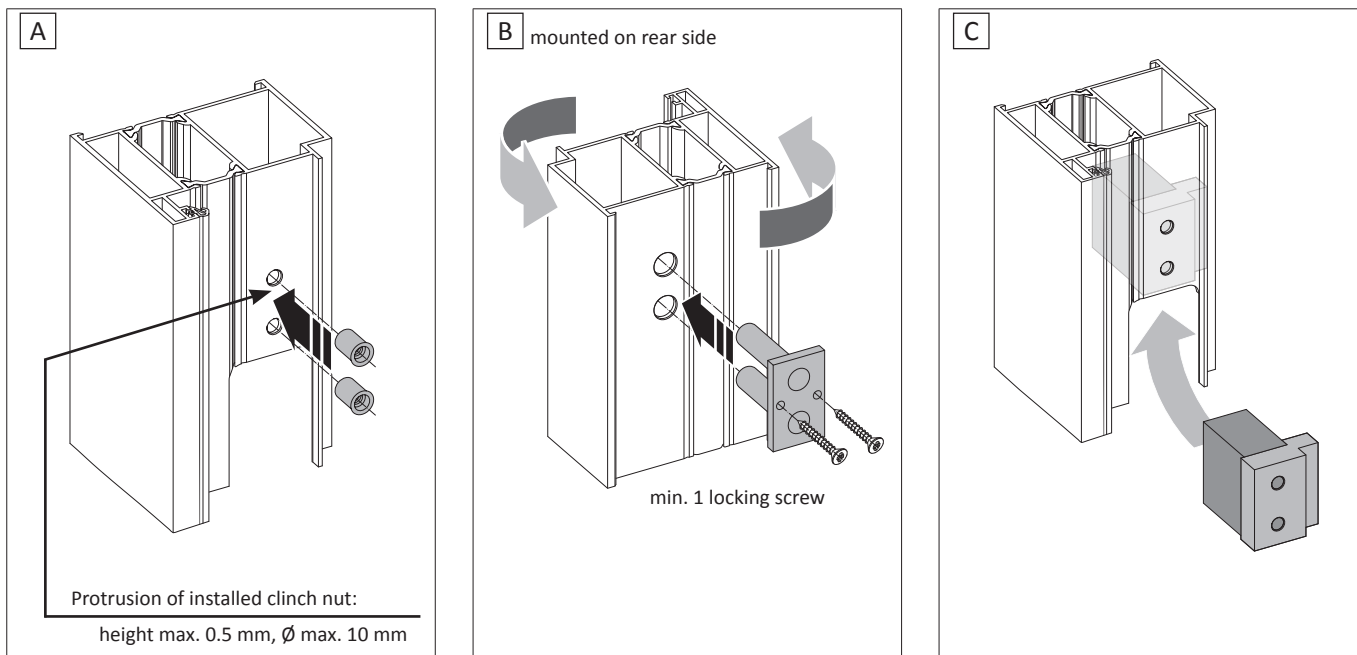
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7.3 Assembly step 3: inserting the cover cap into the door frame



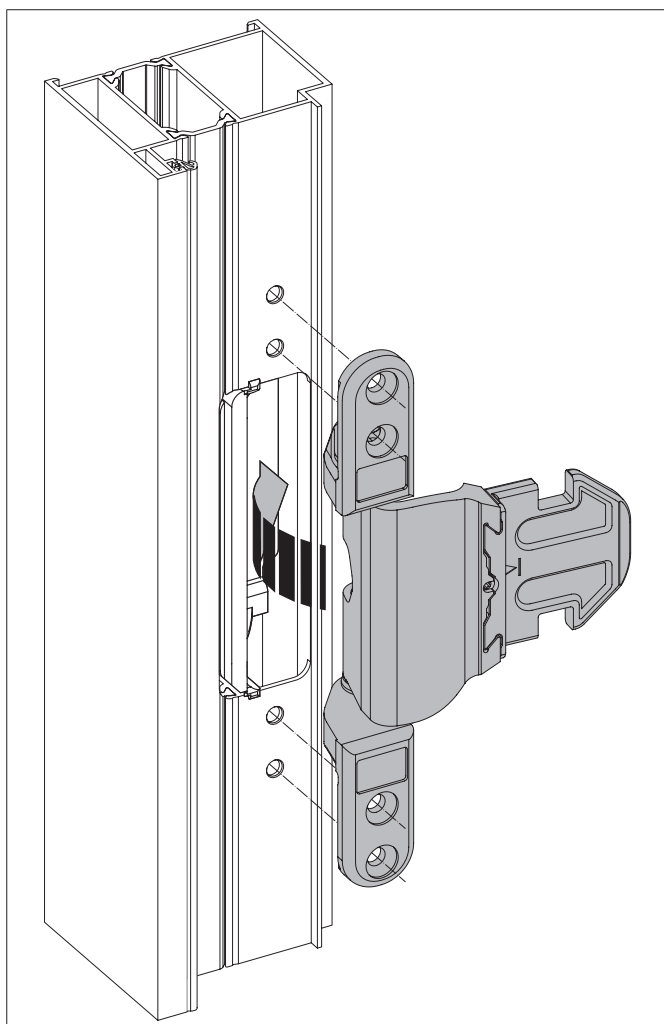
7.4 Assembly step 4: installing the frame part

Step 1 (optional)*

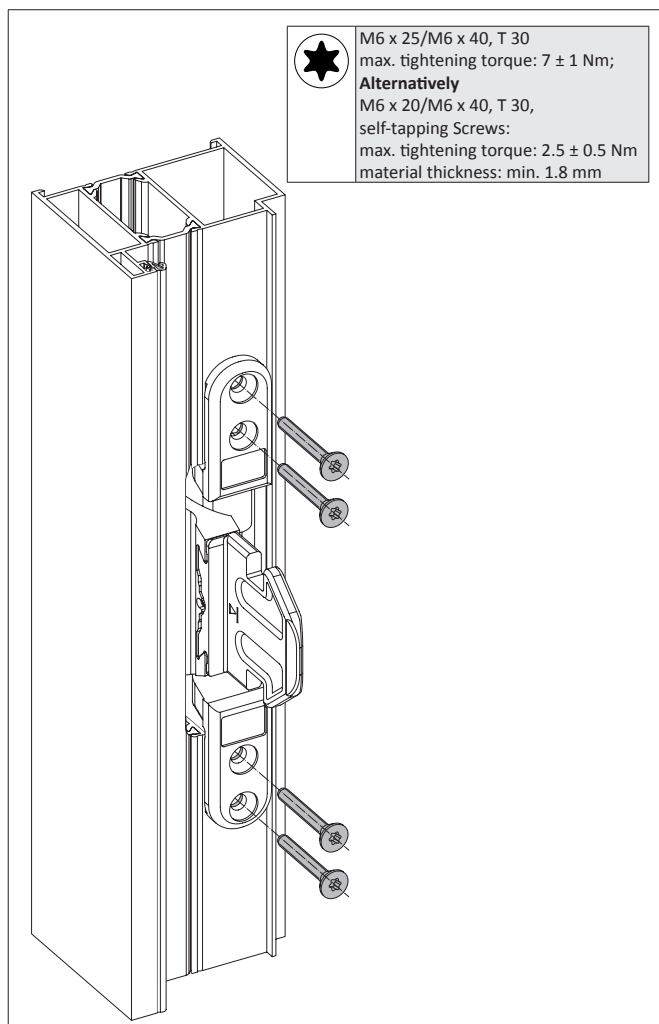


* this step is omitted if self-tapping screws are used

Step 2



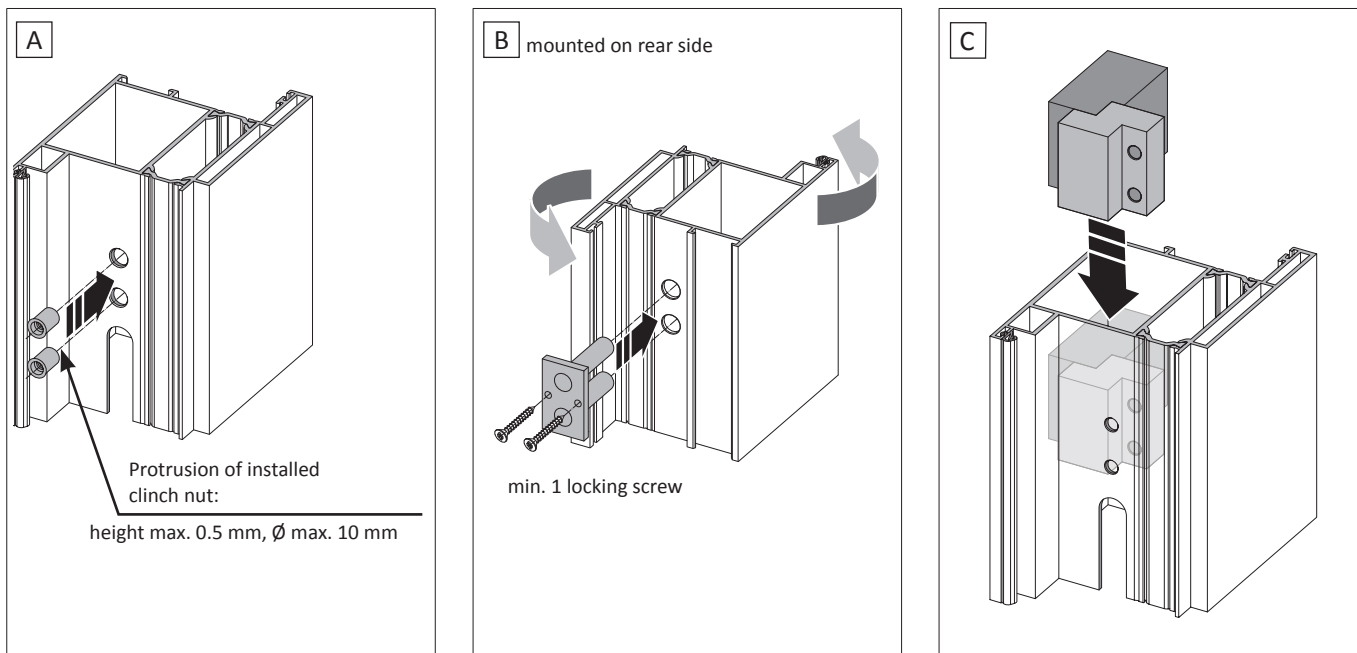
Step 3



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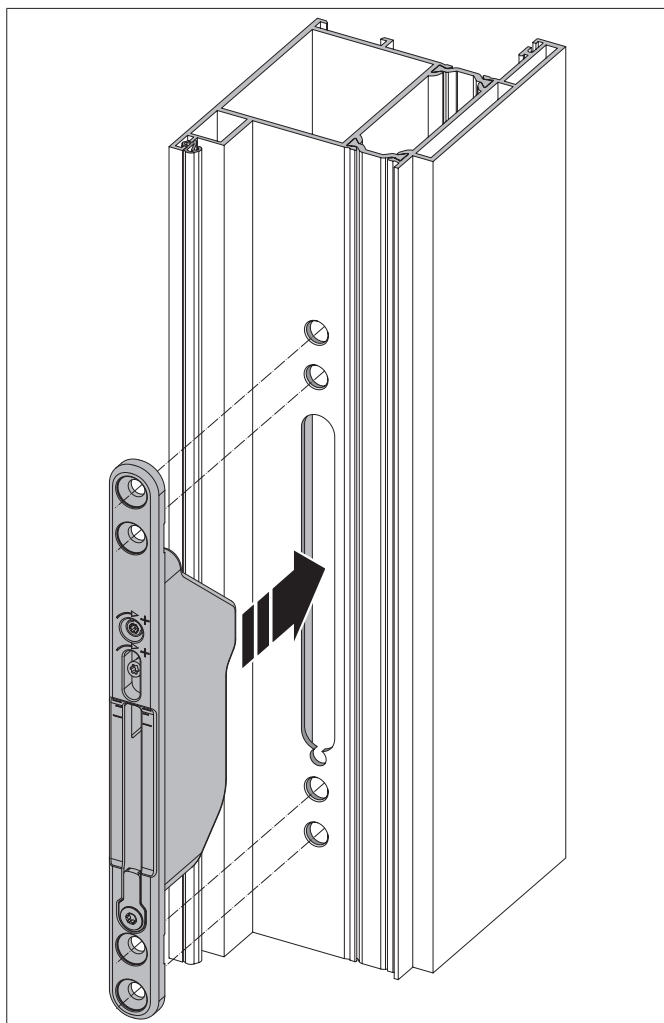
7.5 Assembly step 5: installing the sash part in the door leaf

Step 1 (optional)*

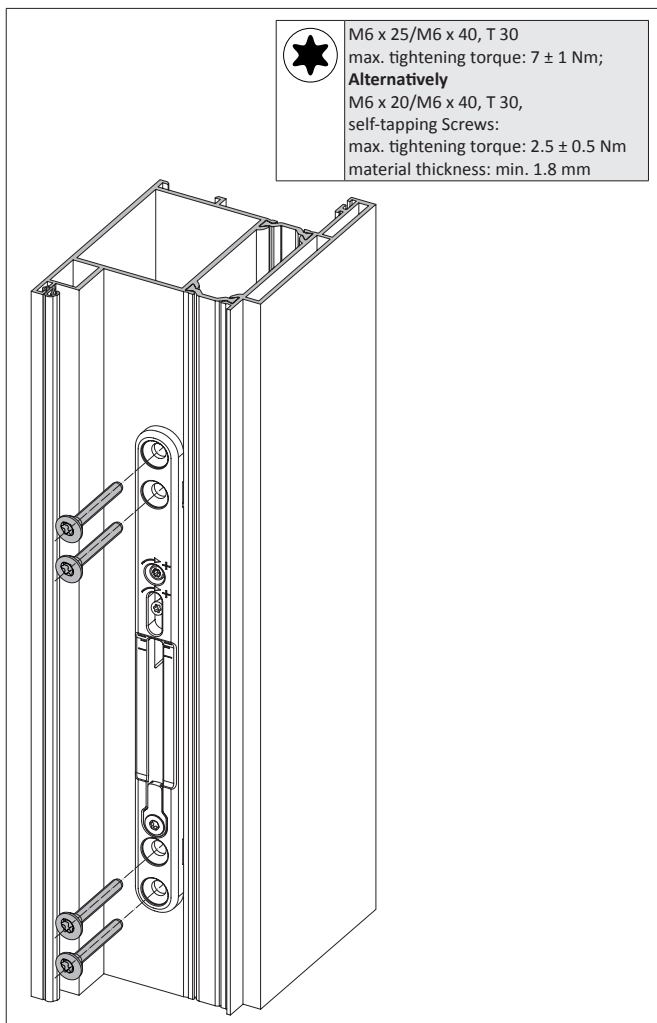


* this step is omitted if self-tapping screws are used

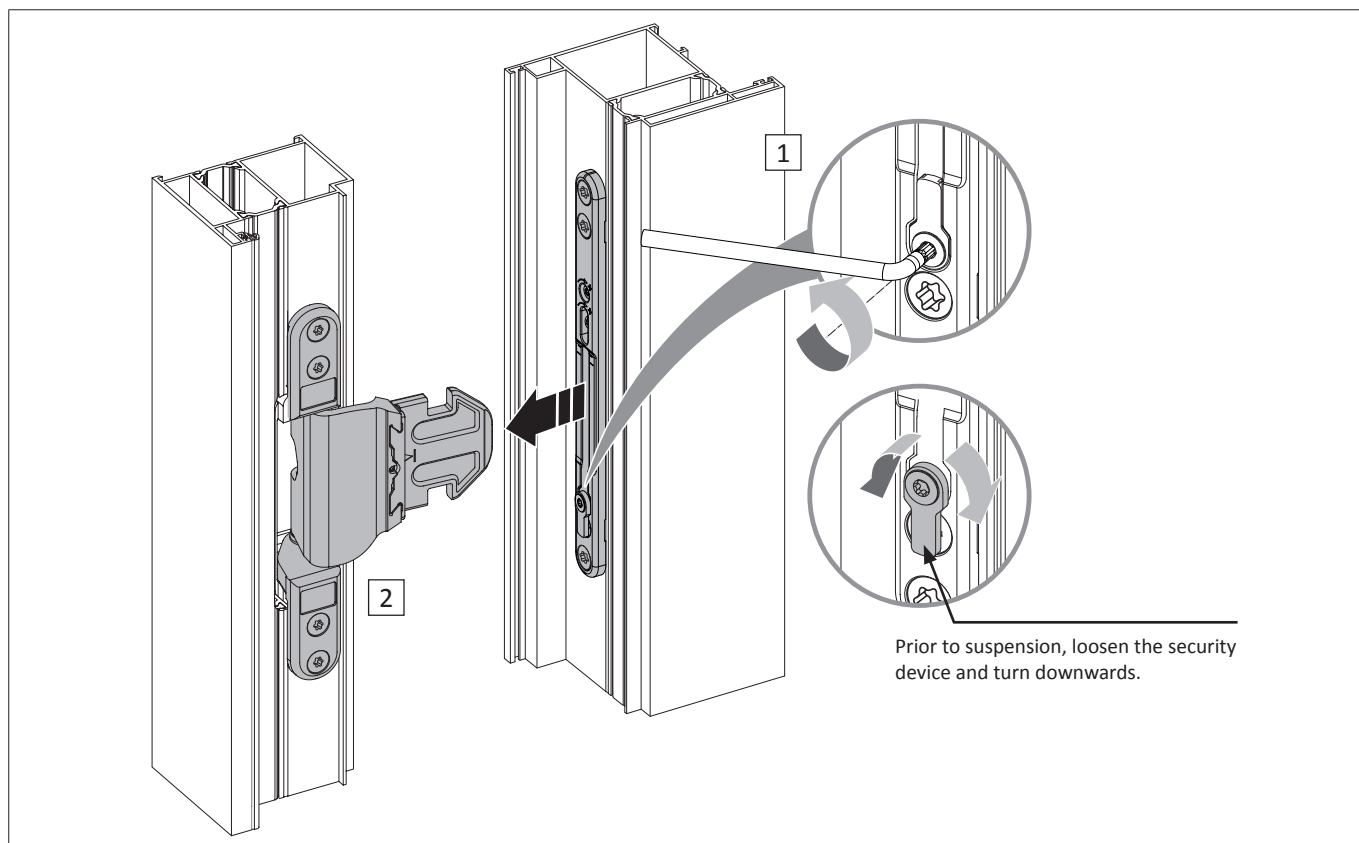
Step 2



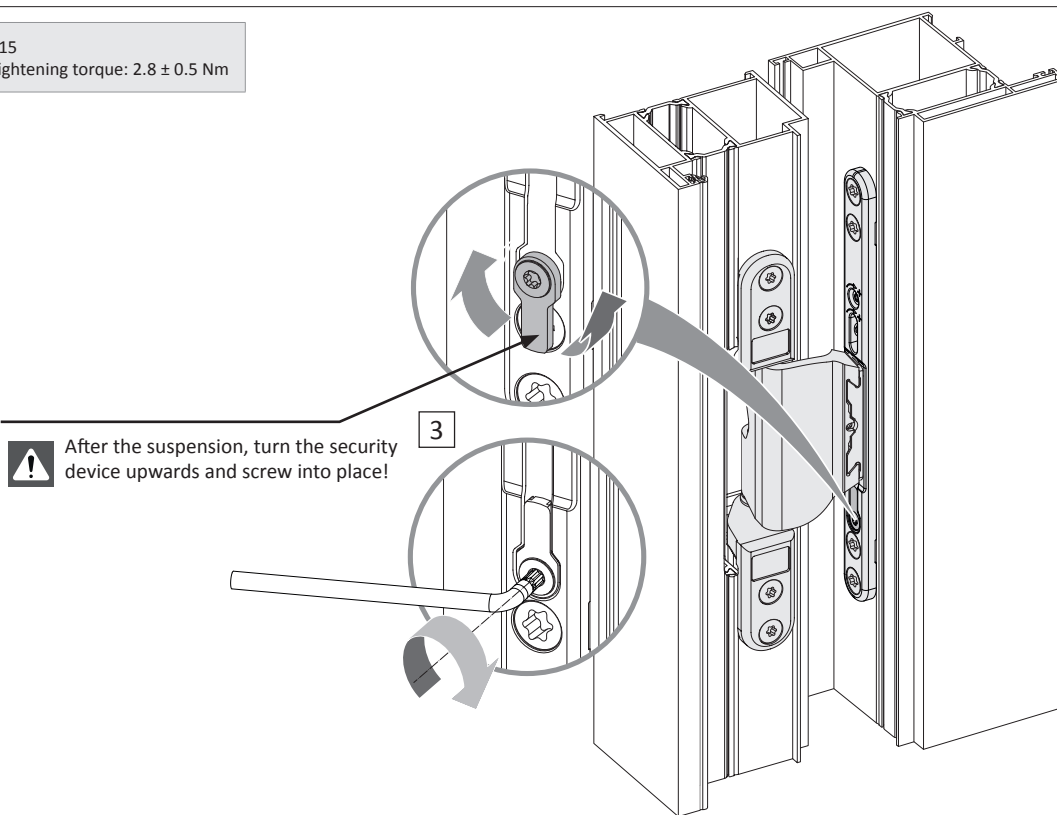
Step 3



7.6 Assembly step 6: suspension of the door leaf



M4, T 15
max. tightening torque: $2.8 \pm 0.5 \text{ Nm}$



Especially suitable for adjustment,

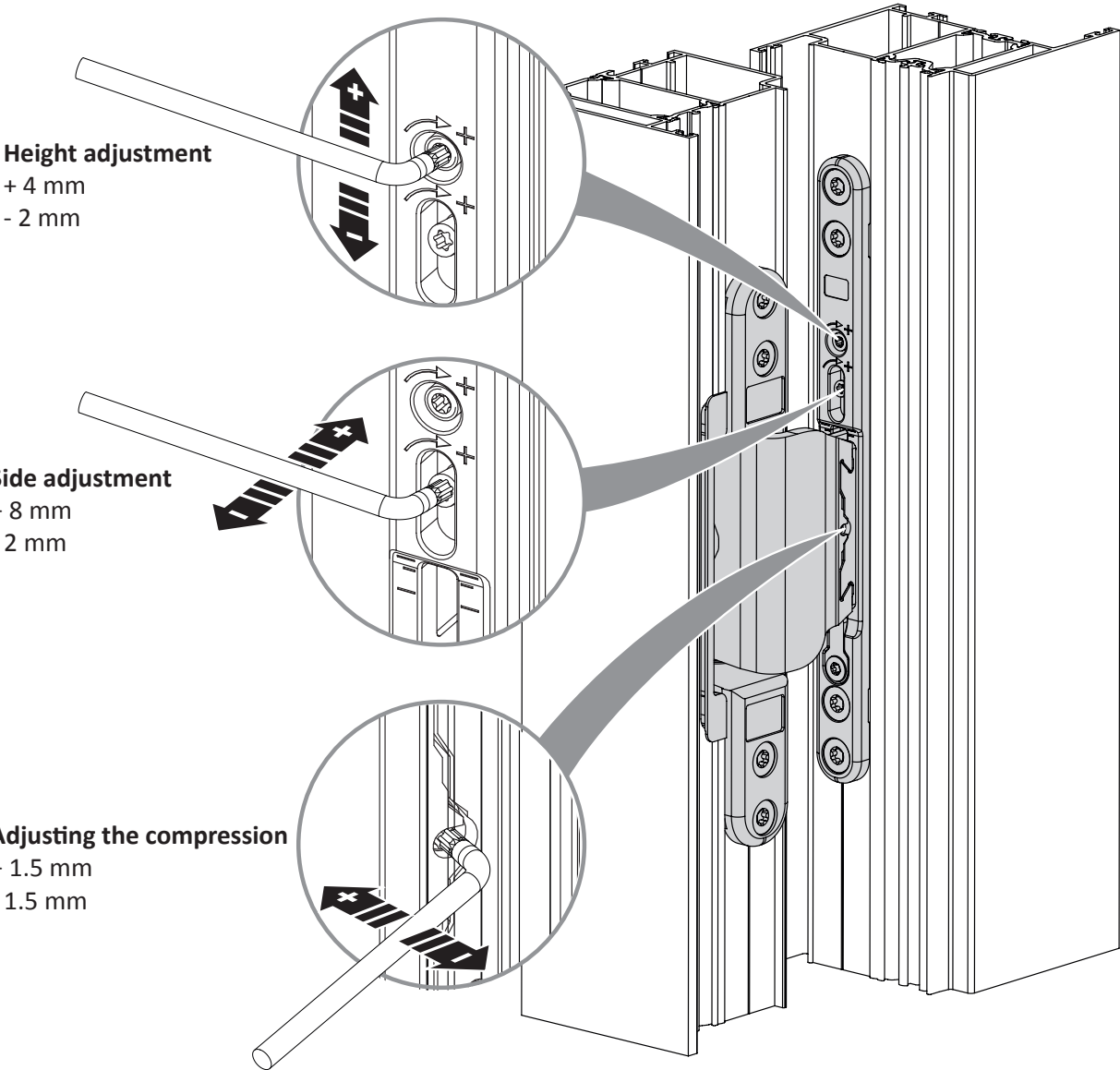
Material description	material number
TBX ZU002-screwdriver-TX-XXP010 (allen key TX15)	3508880
TBX ZU006-screwdriver-TX-G-XXP001 (screwdriver TX15 with handle)	3518147

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7.7 Assembly step 7: adjustment options



- Perform adjustments with the unit installed.
- Always adjust all door hinges synchronously.
- During the elevating adjustment, ensure that the top hinge bears the load in a controlled manner.



Especially suitable for adjustment,	
Material description	material number
TBX ZU002-screwdriver-TX-XXP010 (allen key TX15)	3508880
TBX ZU006-screwdriver-TX-G-XXP001 (screwdriver TX15 with handle)	3518147

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