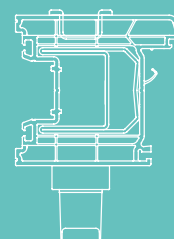
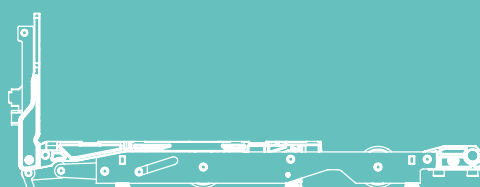
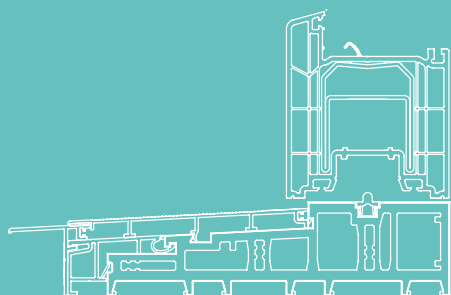




TECHNOLOGY IN MOTION

MACO RAIL-SYSTEMS

SLIDING HARDWARE



ASSEMBLY INSTRUCTIONS

HS Profine PremiDoor 88 PVC

Exclusively for certified specialists!

Key



HS lift & slide element



FH Sash height



FB Sash width



RAB Frame outer width



RAH Frame outer height



L Total length



GM Handle height



DM Backset drive



O Optional

{ } Dimensions for roller track flat

Dimensions in [mm]: All dimensions without a unit definition are given in mm



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Important Information

General Information

The current version of our General Terms & Conditions can be found on the MACO website (www.maco.eu/en-INT/Terms-and-conditions). Retain these assembly instructions for later use and maintenance.

Failure to comply with these assembly instructions releases MACO from any liability. Please note your obligation to inform your customer regarding the operation and maintenance of the system as well as all safety related information.

MACO as a customer-oriented and service-oriented company offers you the "Operating and Maintenance Instructions for SKB Standard, Self-locking, Positive Control and PAS END USER" (Order number 757957) and "Maintenance and setting instructions for SKB Standard, Self-locking, Positive Control and PAS SPECIALIST" (Order number 757962) for passing on to end customers. You can find the documents in the download area on www.maco.eu. Please hand over the user manual to the end user and ensure they are briefed.

Target Group

This documentation is intended exclusively for specialist companies and certified specialists. The work-steps described herein may only be carried out by certified specialists.

Certification

The MACO hardware mentioned in the assembly instructions are tested and regularly monitored in standardised tests in accordance with EN 13126. The achieved Class H3 standard does not refer to your individual element system. Due to a wide range of influencing factors, individual element systems may experience minor deviations from standardised testing, such as:

- › the influence of processing tolerances
- › the effect of assembly tolerances after installation of the element in the building envelope
- › the use of accessories (e.g. weather seals, seal rails, handles, etc.)
- › the use of attachments (e.g. Aluminium shells, sun protection on the sash, insect protection)
- › environmental influences (e.g. humidity, sunlight, high or low temperatures, temperature fluctuations, etc.)
- › room-side influences (moisture, aggressive cleaning agents, etc.)

Important Information

General Safety Information

It is important to follow these instructions to ensure people's safety!

When reading this document and the safety instructions, please note the following signs and colours:



This indication indicates a situation that may arise if the instructions are not followed and which can lead to fatal injuries.



This indication indicates a situation that may arise if the instructions are not followed and which can lead to fatal and/or serious injuries.



This indicates a situation that may arise if the instructions are not followed and which can lead to minor injuries.



This note indicates important additional information that is relevant to the error-free assembly / function of the product.

Please pay attention to the VHBE guideline (hardware for windows and balcony doors) of the Gütegemeinschaft Schlösser und Beschläge e.V. (quality assurance association for locks and hardware). This guideline describes all safety-relevant topics for end users for window and balcony door hardware.

Important Information

General Safety Information

WARNING

In order to ensure the long-term functionality and thus the operating safety of windows and balcony doors over their expected service life, the fastening of safety-relevant hardware parts is of particular importance.

MACO indicates explicitly that large sash weights are moved and accelerated during opening and closing. This applies particularly to sliding elements. It is at the discretion and the responsibility of the respective manufacturer (window builder), installers and dealers of windows and balcony doors, in particular of lift&slide doors, to offer corresponding movement restrictors or similar.

Incorrect assembly can lead to serious injuries. The installation must be carried out by personnel who have been instructed according to the state of the art and recognised rules of technology.

Due to overuse or improper operation of the Parallel Sliding Door System, the sash may jump out of its guide rails, fall out and thereby cause serious injuries.

Due to the high weight of the element, always pay attention to the correct securing of the element during manufacture, transport and assembly on the construction site.

ATTENTION

If under special circumstances (use in schools, kindergartens, etc.), it is to be expected that the sliding element could be overstressed, this must be prevented by appropriate measures such as moving the stop buffers to reduce the opening width.

Improper handling may lead to crushing. Ensure users are aware of the risk in case of improper handling. This applies particularly to customers with small children.

Injuries may occur in the event of improper handling, in particular if persons or parts of the body are between the frame and the sash when closing or between the sash and the reveal or adjacent components.



Important Information

Note

These instructions describe all assembly steps required to set up standard version hardware. The hardware must be greased/oiled before commissioning (see operating and maintenance instructions).

The Parallel Sliding Door System (PAS) are only intended for use in stationary buildings. They are used for horizontally opening and closing windows and balcony doors. The Parallel Sliding Door System must be installed perpendicular and never in an inclined position.

Intended use

The areas of application mentioned on page 11 apply to the MACO PAS hardware. Screw-in torque settings are binding and must be followed.

Mount all hardware parts professionally as described in this manual and observe all safety instructions.

To fasten the hardware, use the specified screw sizes! These must reach into the steel reinforcement when using PVC profiles.

Be sure to follow the profile manufacturer's processing policy.

The hardware may not be used for timber with aggressive content / surface treatments.

The hardware parts described in these assembly instructions are made of colourless passivated steel and sealed in accordance with DIN EN 12329. They must not be used in environments with aggressive, corrosive air content. If you are not sure, please ask your MACO contact person for advice.

The hardware manufacturer shall not be liable for any malfunctions or damage to the hardware or to the windows or balcony doors equipped with them, if they are subject to use of third-party hardware, inadequate tendering, failure to comply with the installation rules or application diagrams.

The fabricator is responsible for compliance with the functional dimensions specified in these assembly instructions as well as for flawless hardware assembly and secure fastening of all components.

In order not to affect the lightness of the hardware, turn the screws straight (unless otherwise indicated) and do not over-tighten!

Fix the screws of the supporting components (e.g. rollers, roller rail and guide rail) in the reinforcement profile.

With the spacer-block setting, observe the technical guideline No. 3 of the glazier trade „Blocking of glazing units“.

Important Information

Intended use

Keep the roller track and all latches free from deposits and dirt to avoid damage to the hardware and ensure optimal functionality. In particular, protect the hardware from cement or plaster residues.

Do not make any constructive changes to the hardware parts.

Always close and lock the window and balcony door sash when windy or drafty. For the purposes of this definition, wind and draught are present if the window or window door sashes located in one of the opening positions are caused to move by air pressure or air suction of their own accord and uncontrollably open or close.

The resistance to wind loads in the closed and locked state depends on the respective construction of the windows and balcony doors. If wind loads in accordance with DIN EN 12210 (in particular test pressure p₃) are to be expected, suitable hardware are to be selected and agreed on separately in conjunction with the respective window construction and the frame material.

The defined maximum sash weights for the individual hardware designs must not be exceeded.

The component with the lowest permissible load capacity determines the maximum sash weight. Application diagrams and component mappings must be observed.

The hardware and the rebate spaces must be sufficiently ventilated, especially during the construction phase, so that they are not exposed to direct moisture or condensation.

The hardware are to be kept free of deposits and contamination by building materials (construction dust, gypsum plaster, cement etc.), therefore windows must be covered accordingly.

The hardware must only be cleaned or polished with mild, pH-neutral detergents in diluted form.

Attach the operating label in a clearly visible manner to the built-in lift and slide sash. The operating label is located in the basic box or in the „corner deflection“ package.



Important Information

Improper use

The respective hardware system may only be assembled with hardware components from the MACO slide hardware range. In the event of improper installation of the hardware and/or the use of non-original or non-factory approved system accessories, no liability will be accepted.

Do not use vinegar-based or acid-curing sealants, as these can lead to corrosion of the hardware parts. Further information on MACO surfaces can be found on our website www.maco.eu or in brochure Order No. 49510 (in the download area).

The lift and slide elements may only be surface treated before the hardware is installed. Any subsequent surface treatment may restrict the functionality of the hardware. In this case, no warranty claims against the hardware manufacturer shall be accepted.

Protect the hardware from damage by angular or sharp tools.

If you are not sure, please ask your MACO contact person for advice.

Important Information

Storage and Handling

Check the following immediately after delivery:

- › Completeness of delivery (as per the delivery note)
- › Any damage to the packaging
- › Any damage to the materials
- › Improper storage or transport of hardware parts can affect the surface quality. To prevent this, the following points must be observed:
 - › It must be ensured that the room air is permanently dry
 - › Major temperature fluctuations leading to condensation must be prevented. Condensation on hardware causes the galvanised surfaces to be attacked
 - › Avoid aggressive vapours from cleaning agents or assembly aids such as silicone and the like, even for a short time. Vapours from such substances can very quickly lead to corrosion of hardware
 - › Salty air polluted by trade and industry also leads to corrosion on galvanised surfaces and is also not suitable for storage areas.

Transport

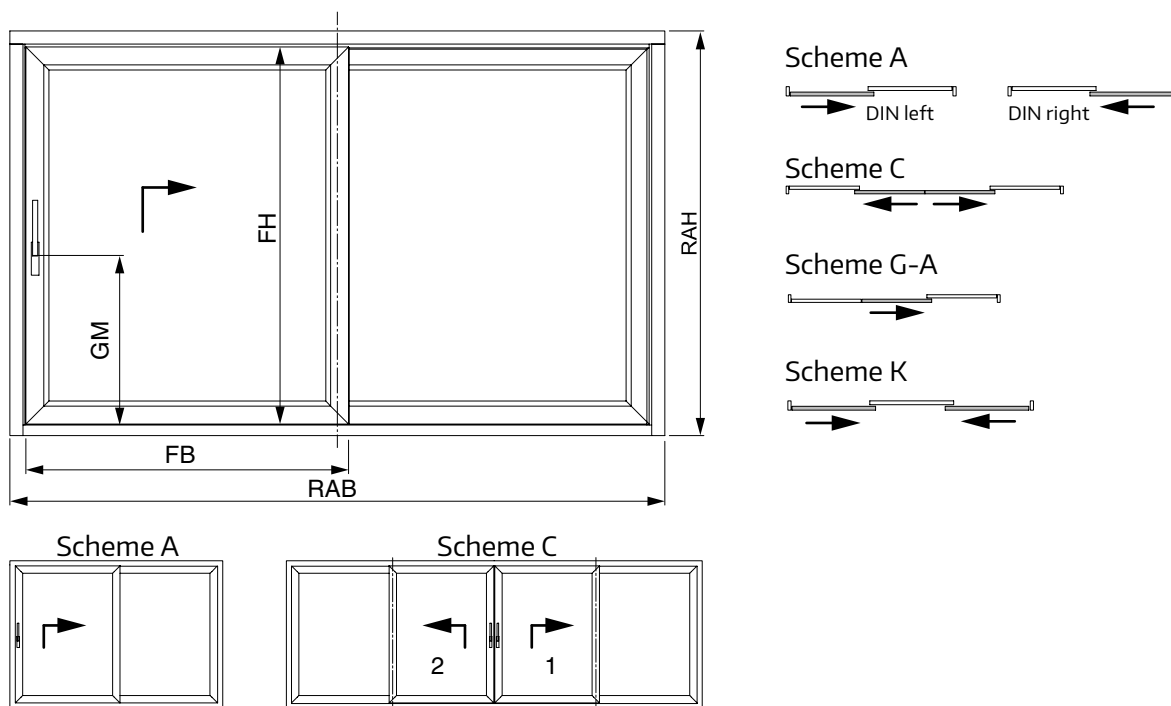
Finished elements must be stored and transported as follows:

- › Upright
- › Slip and tilt secured on suitable surfaces (e.g. G. transport frames)
- › Protected from dirt and damage
- › Avoid loads on mechanical connections!
- › Use special transport devices!

For intermediate storage outdoors:

- › Ensure elements and hardware are covered or packaged

Version and Application Areas



Application Areas

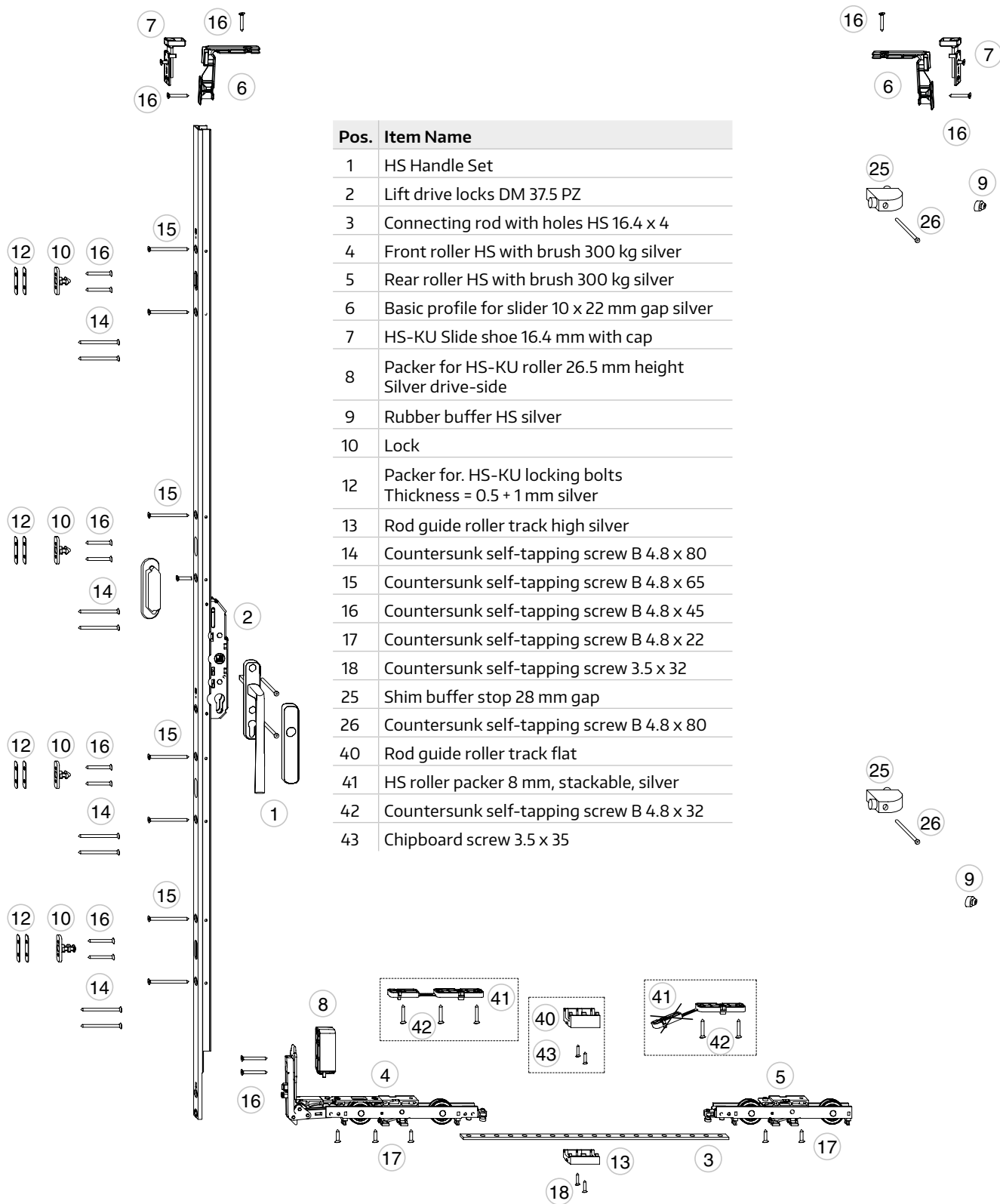
For MACO HS 300 the application areas as per the following table apply.

For the handling of the profile, the maximum areas of application and maximum weights apply, as per the specifications of the profile manufacturer and these must be adhered to.

Item	Unit	Area	
		Roller track high	Roller track flat
FB	(mm)	700 - 3280	
FH	(mm)	815 - 2920	807 - 2912
Sash weight sliding sash	(kg)	max. 400*	
DM	(mm)	37,5	
GM drive size 1 - 2	(mm)	408	400
GM drive size 3 - 4	(mm)	1008	1000

*From a sash weight of over 200kg, we recommend installing a drive damper.
(The drive damper can be ordered via the Technical Online Catalogue (TOM) or via the Catalogue.)

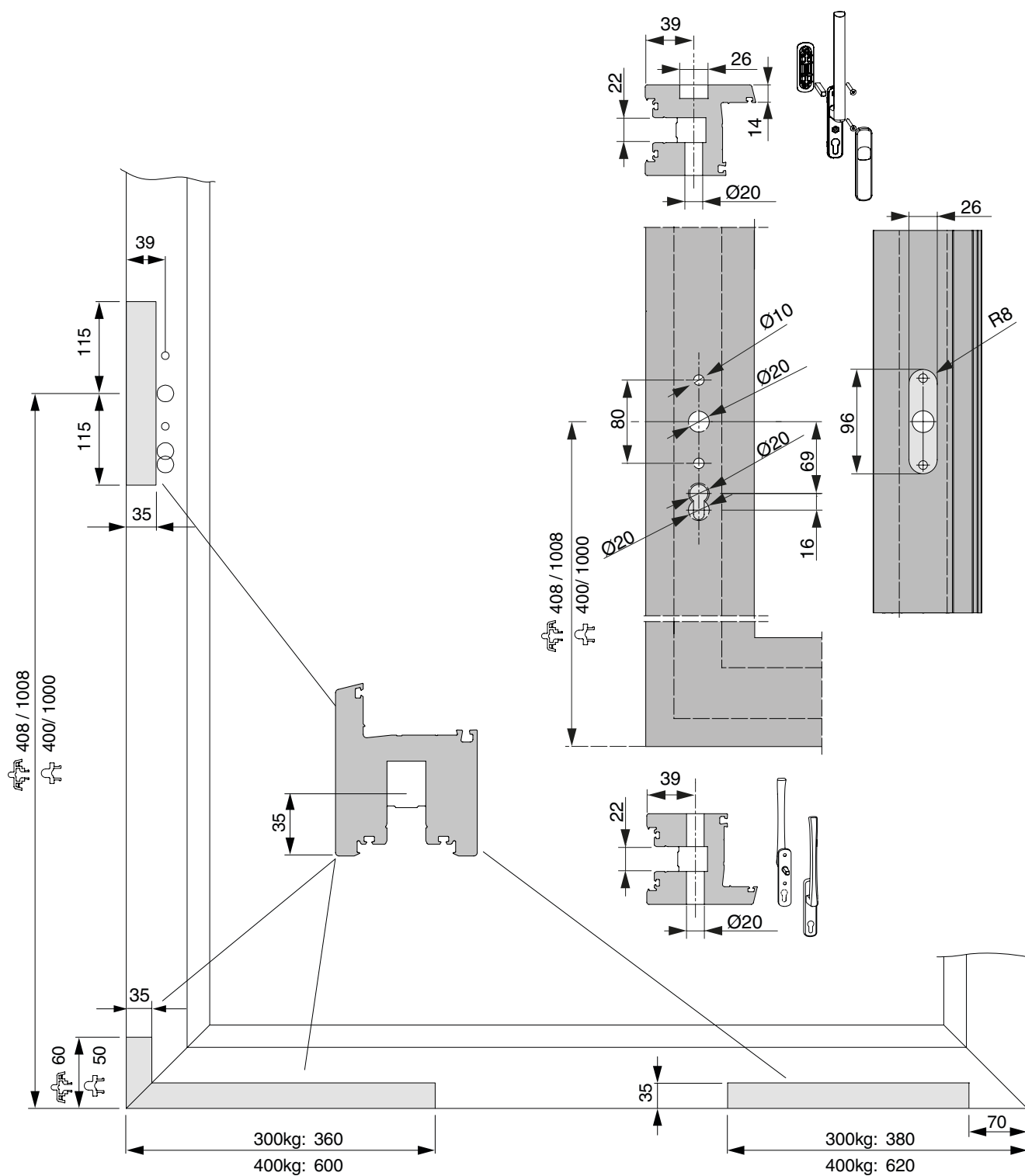
Hardware Composition



Pos.	Item Name
1	HS Handle Set
2	Lift drive locks DM 37.5 PZ
3	Connecting rod with holes HS 16.4 x 4
4	Front roller HS with brush 300 kg silver
5	Rear roller HS with brush 300 kg silver
6	Basic profile for slider 10 x 22 mm gap silver
7	HS-KU Slide shoe 16.4 mm with cap
8	Packer for HS-KU roller 26.5 mm height Silver drive-side
9	Rubber buffer HS silver
10	Lock
12	Packer for HS-KU locking bolts Thickness = 0.5 + 1 mm silver
13	Rod guide roller track high silver
14	Countersunk self-tapping screw B 4.8 x 80
15	Countersunk self-tapping screw B 4.8 x 65
16	Countersunk self-tapping screw B 4.8 x 45
17	Countersunk self-tapping screw B 4.8 x 22
18	Countersunk self-tapping screw 3.5 x 32
25	Shim buffer stop 28 mm gap
26	Countersunk self-tapping screw B 4.8 x 80
40	Rod guide roller track flat
41	HS roller packer 8 mm, stackable, silver
42	Countersunk self-tapping screw B 4.8 x 32
43	Chipboard screw 3.5 x 35

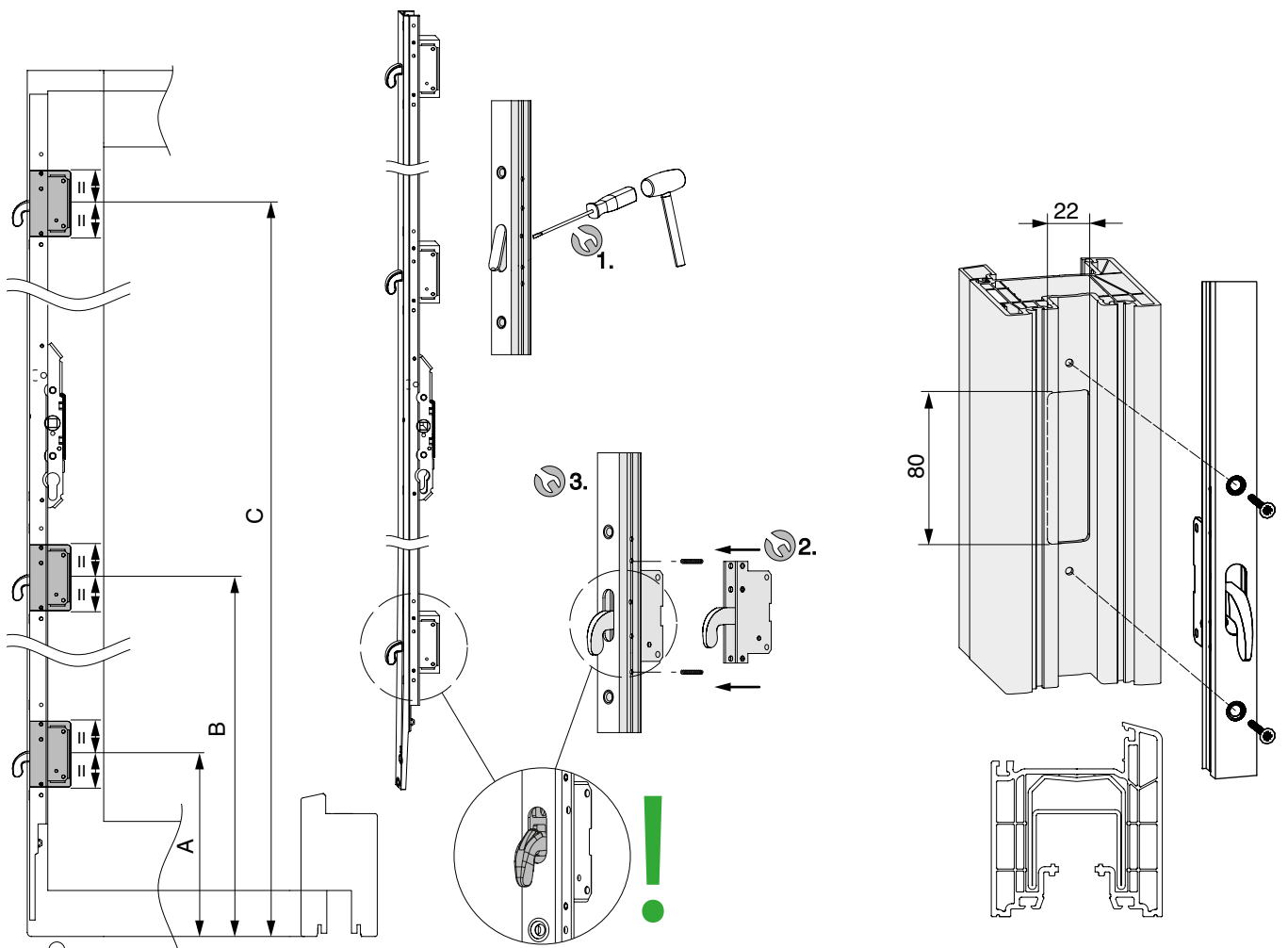
Assembly on the sash

Drilling and milling on the sash



Assembly on the sash

Drilling and milling for hook drive

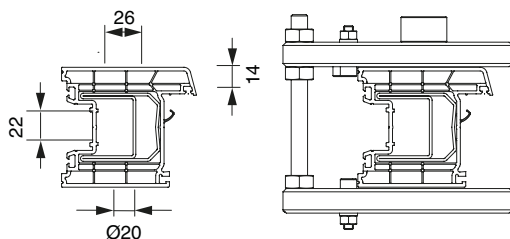
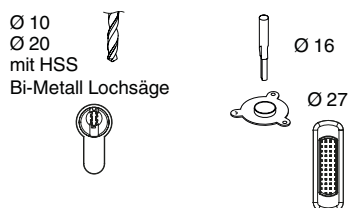


	A	B	C
Size 1	219	589	-
Size 2-3	219	1089	-
Size 4	219	807	1687
Size 5	219	1219	2119

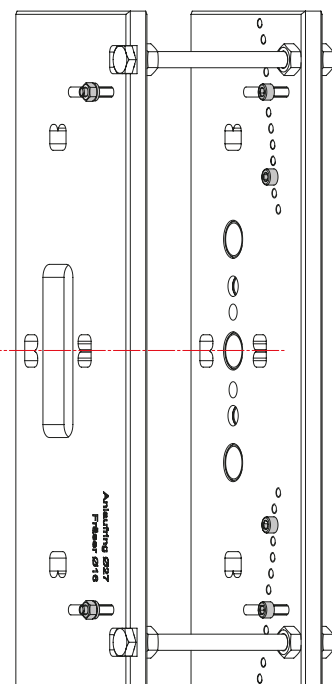
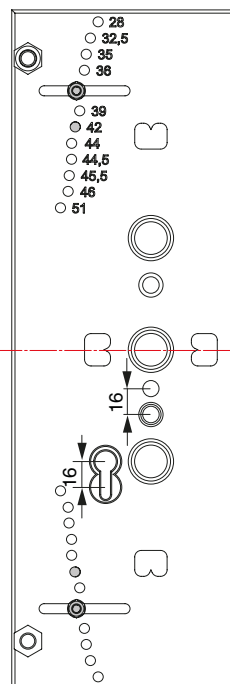
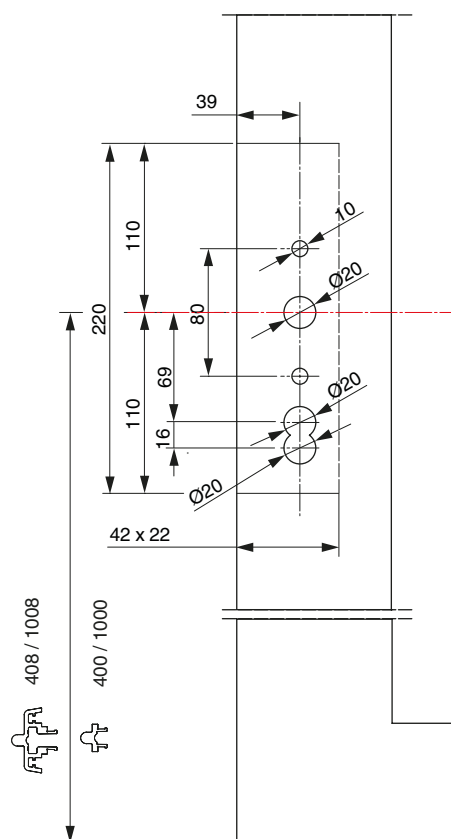
	A	B	C
Size 1	211	581	-
Size 2-3	211	1081	-
Size 4	211	799	1679
Size 5	211	1211	2111

Assembly on the sash

Drilling and milling jig for HS handle

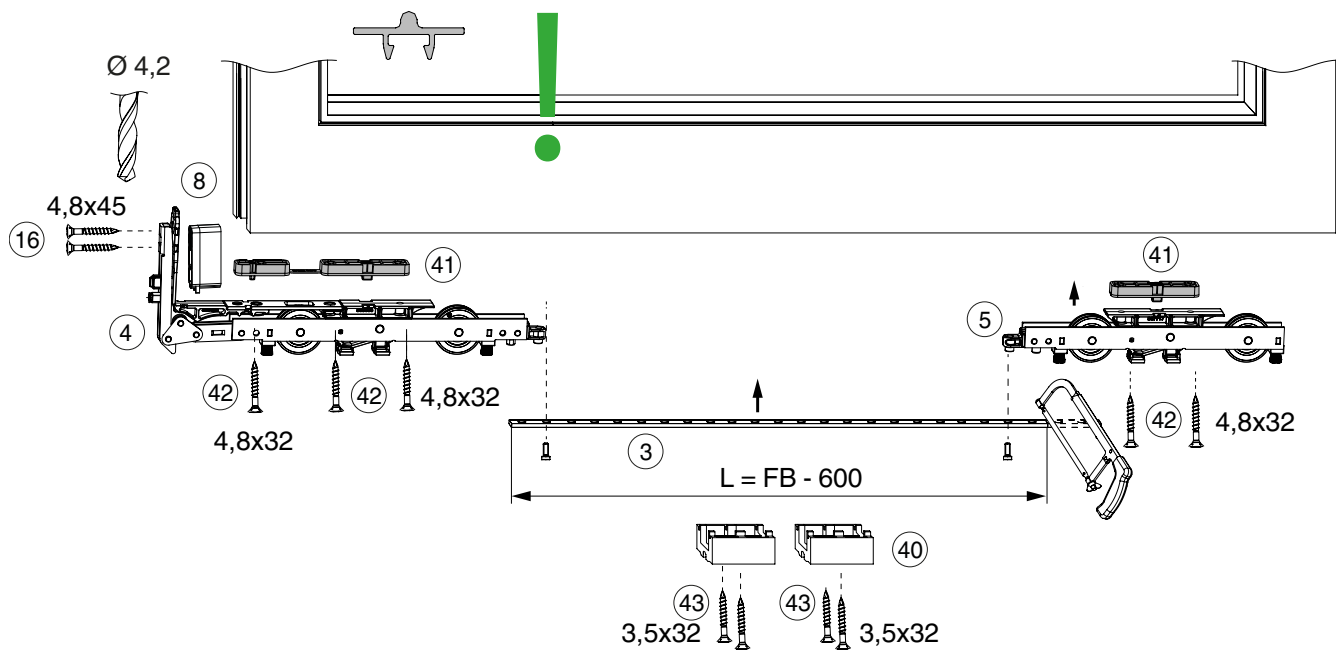
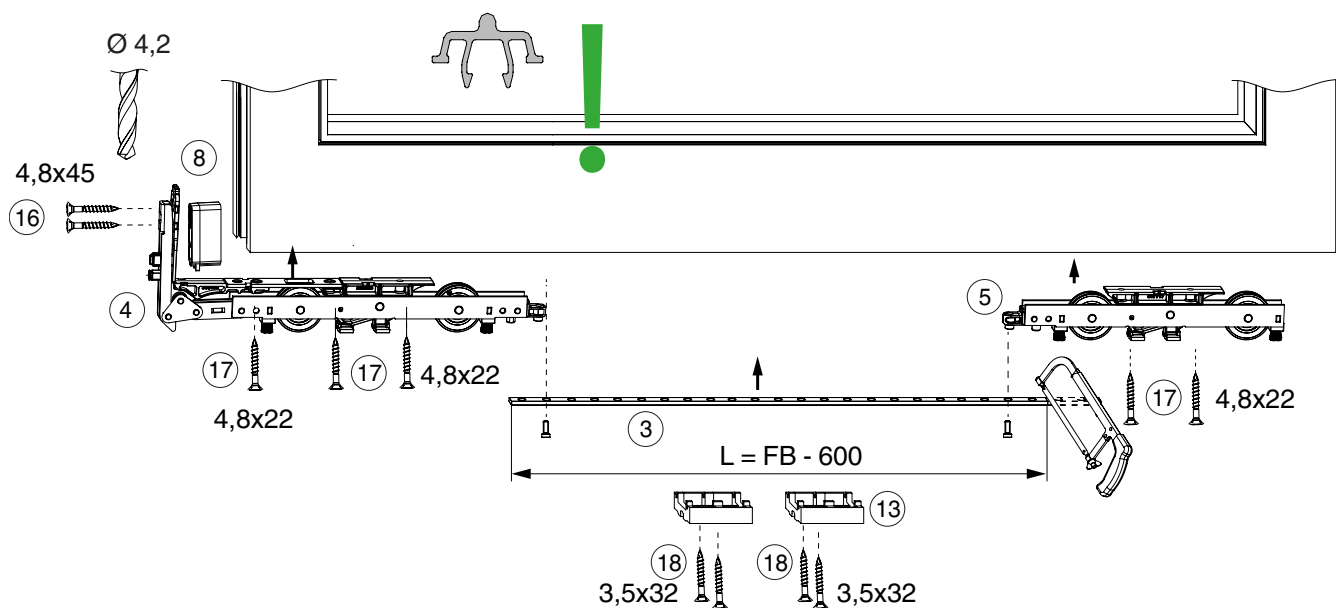


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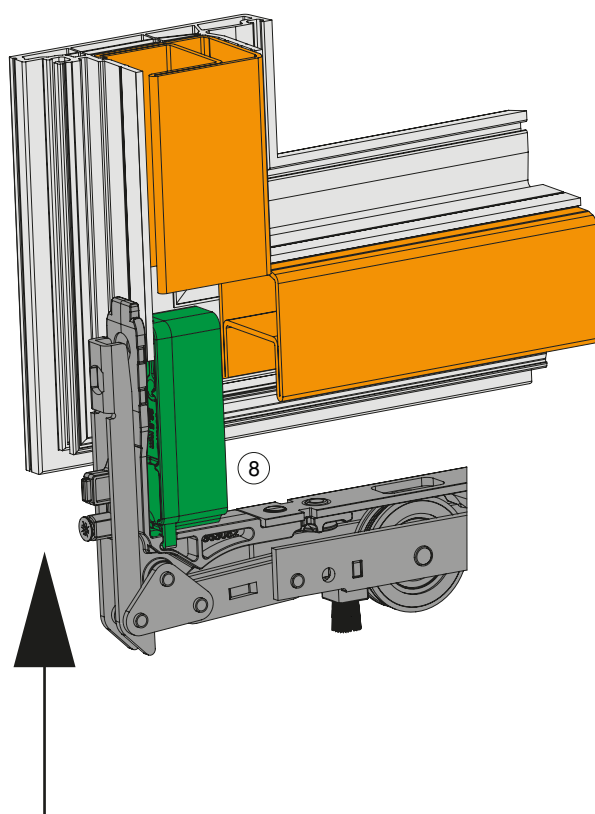
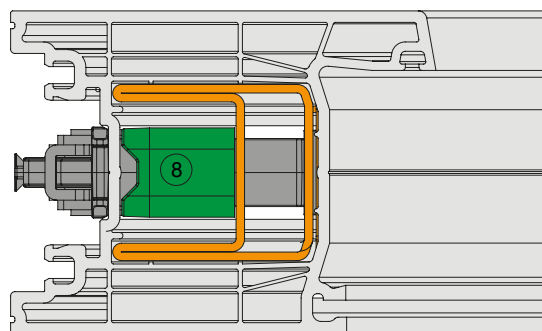
Assembly on the sash

Roller assembly



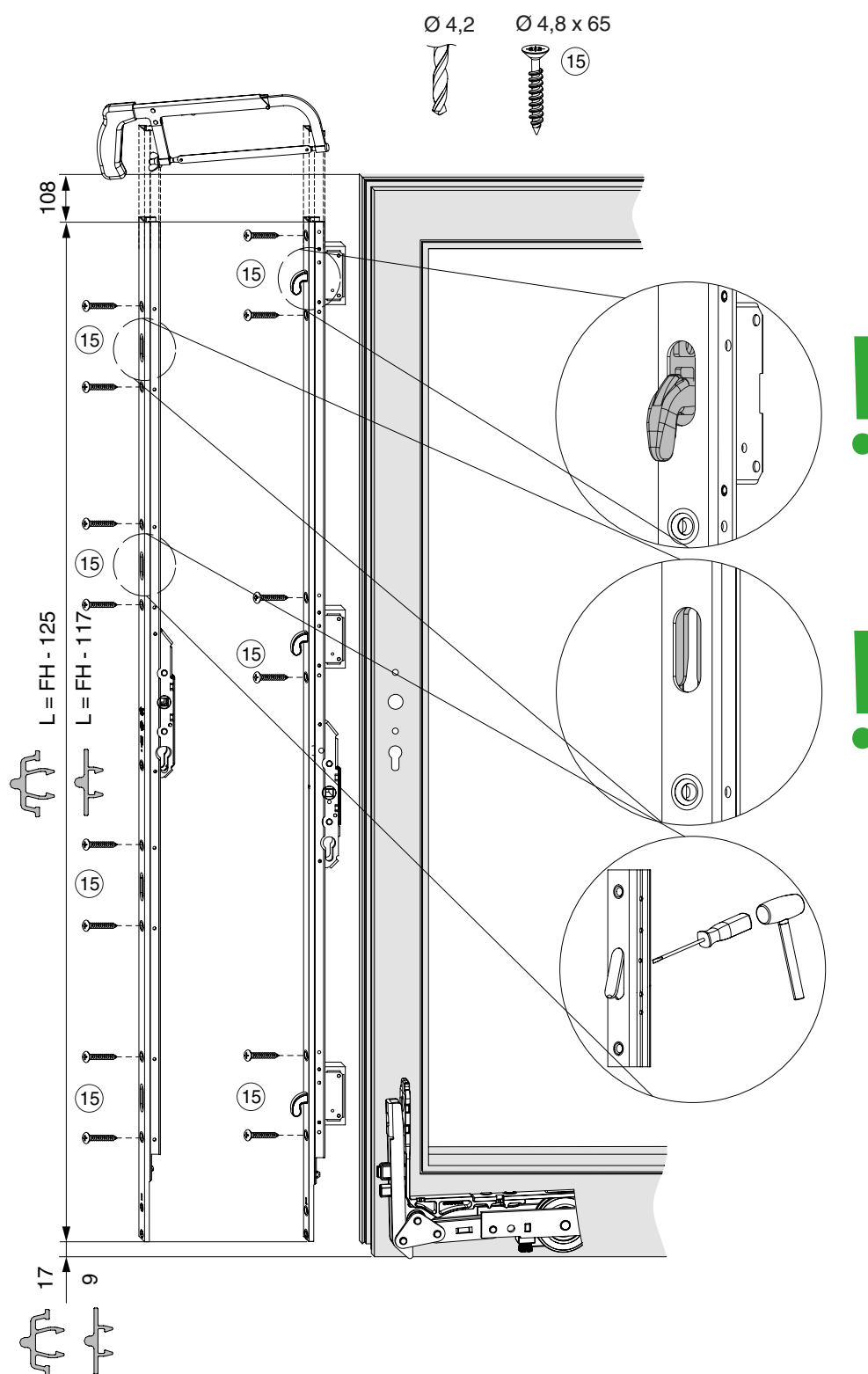
Assembly on the sash

Packer assembly



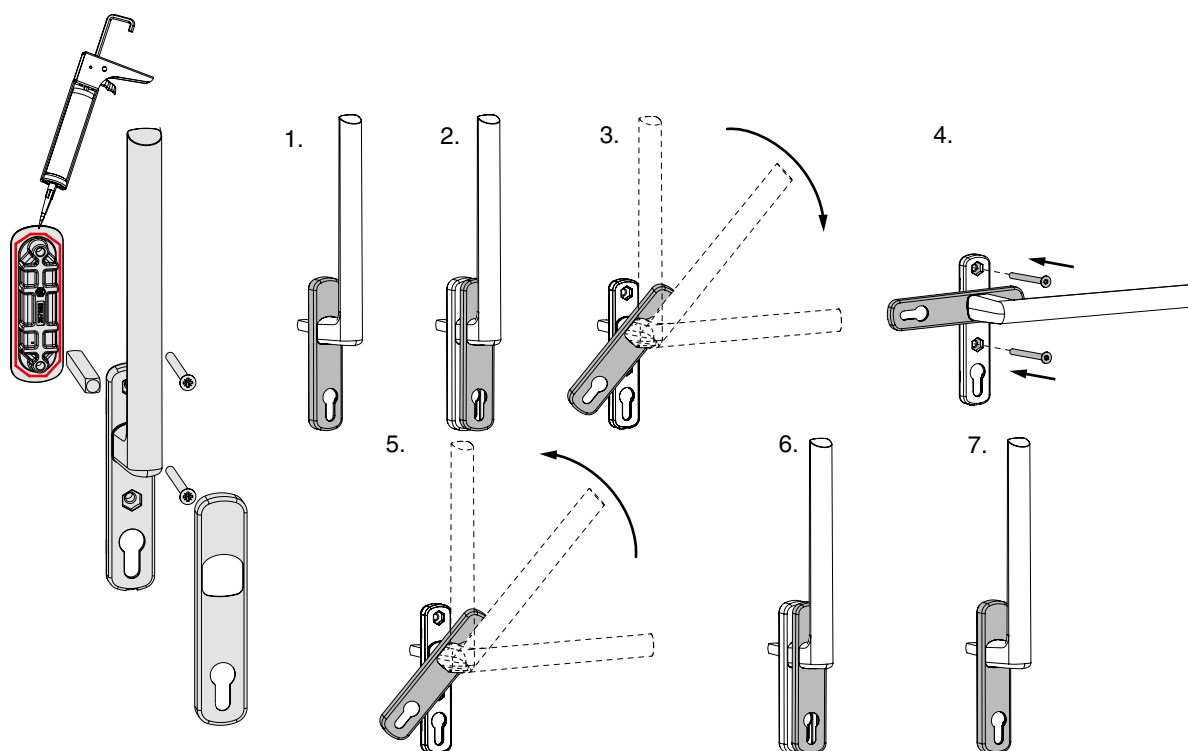
Assembly on the sash

Drive assembly



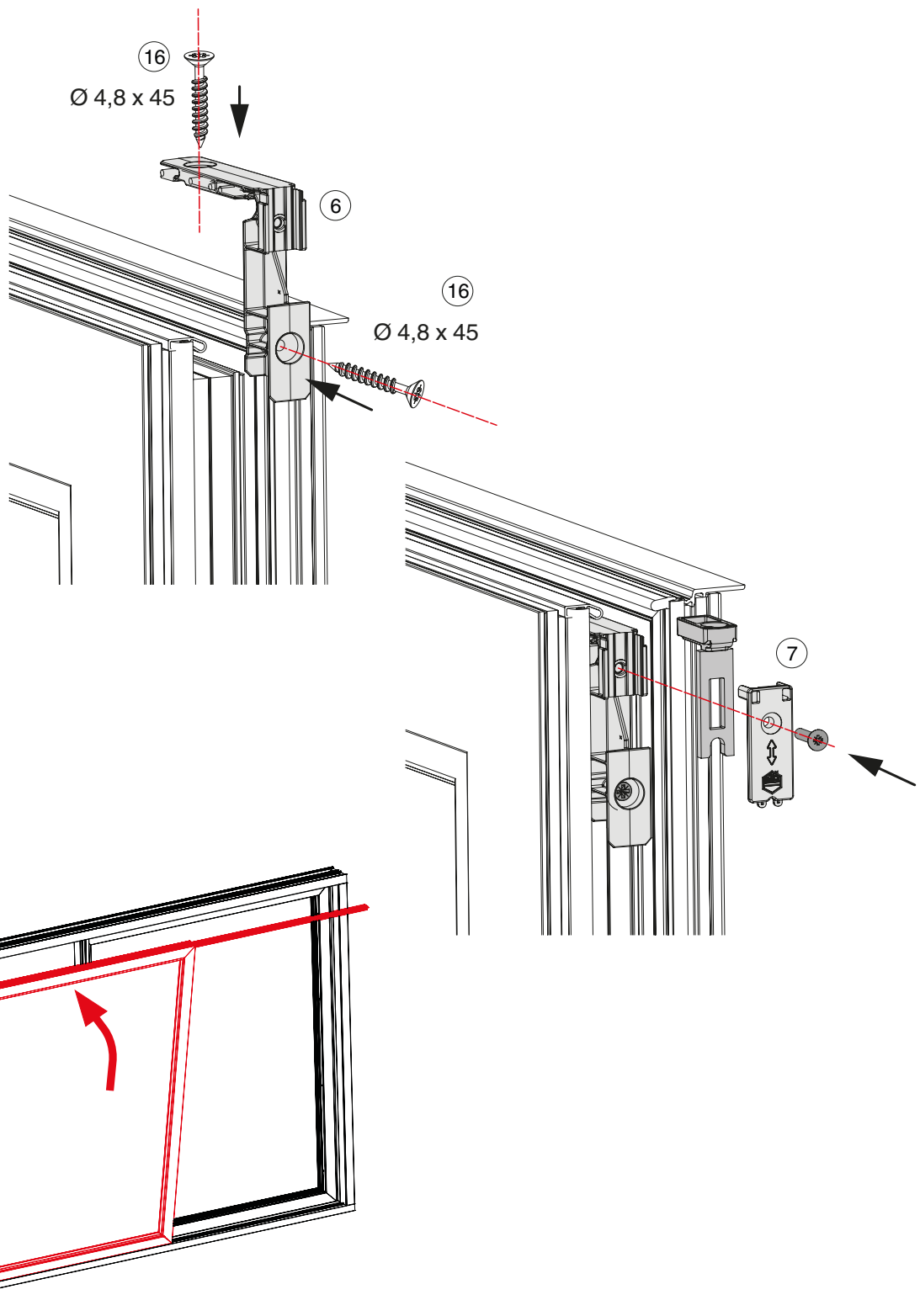
Assembly on the sash

Handle assembly



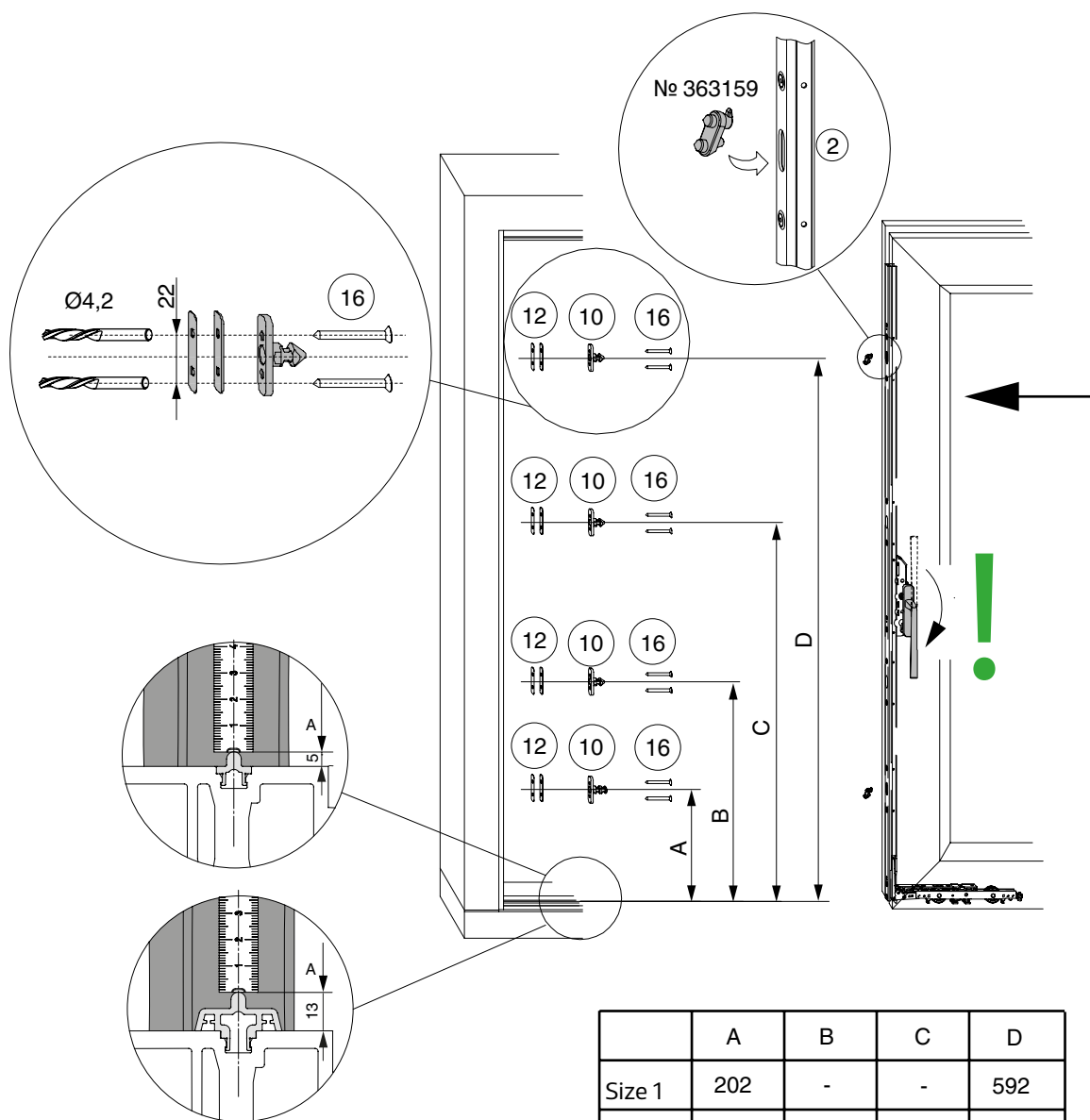
Assembly on the sash

Slider assembly



Assembly on the sash and frame

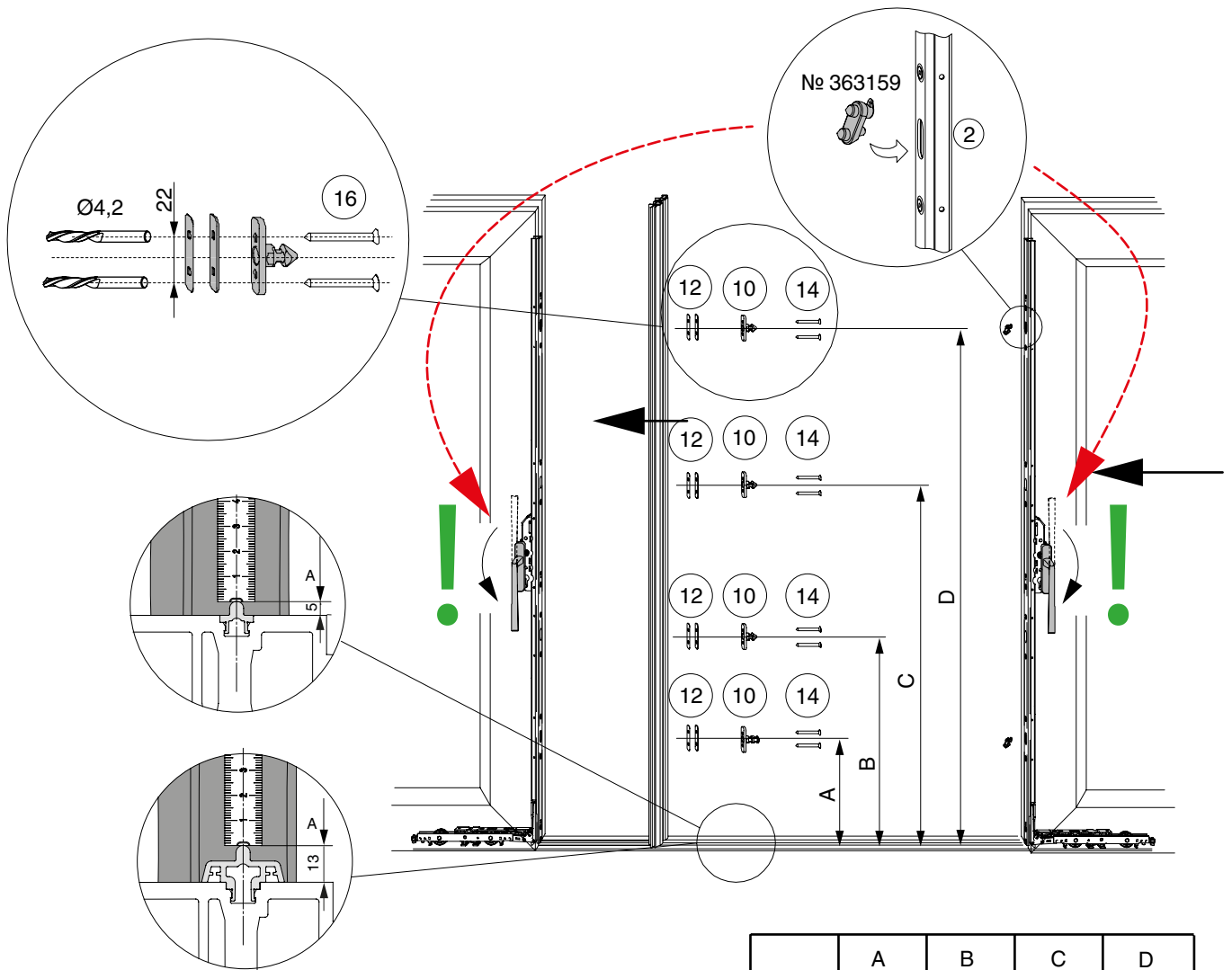
Locking bolt Scheme A



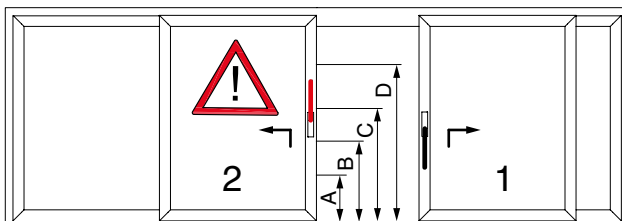
	A	B	C	D
Size 1	202	-	-	592
Size 2	202	-	592	1107
Size 3	202	702	1192	1507
Size 3,5	202	702	1192	1707
Size 4	202	702	1192	1907
Size 5	202	702	1192	2307

Assembly on the sash and frame

Locking bolt Scheme C



Scheme C

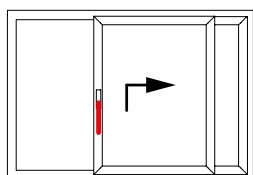


	A	B	C	D
Size 1	202	-	-	592
Size 2	202	-	592	1107
Size 3	202	702	1192	1507
Size 3.5	202	702	1192	1707
Size 4	202	702	1192	1907
Size 5	202	702	1192	2307

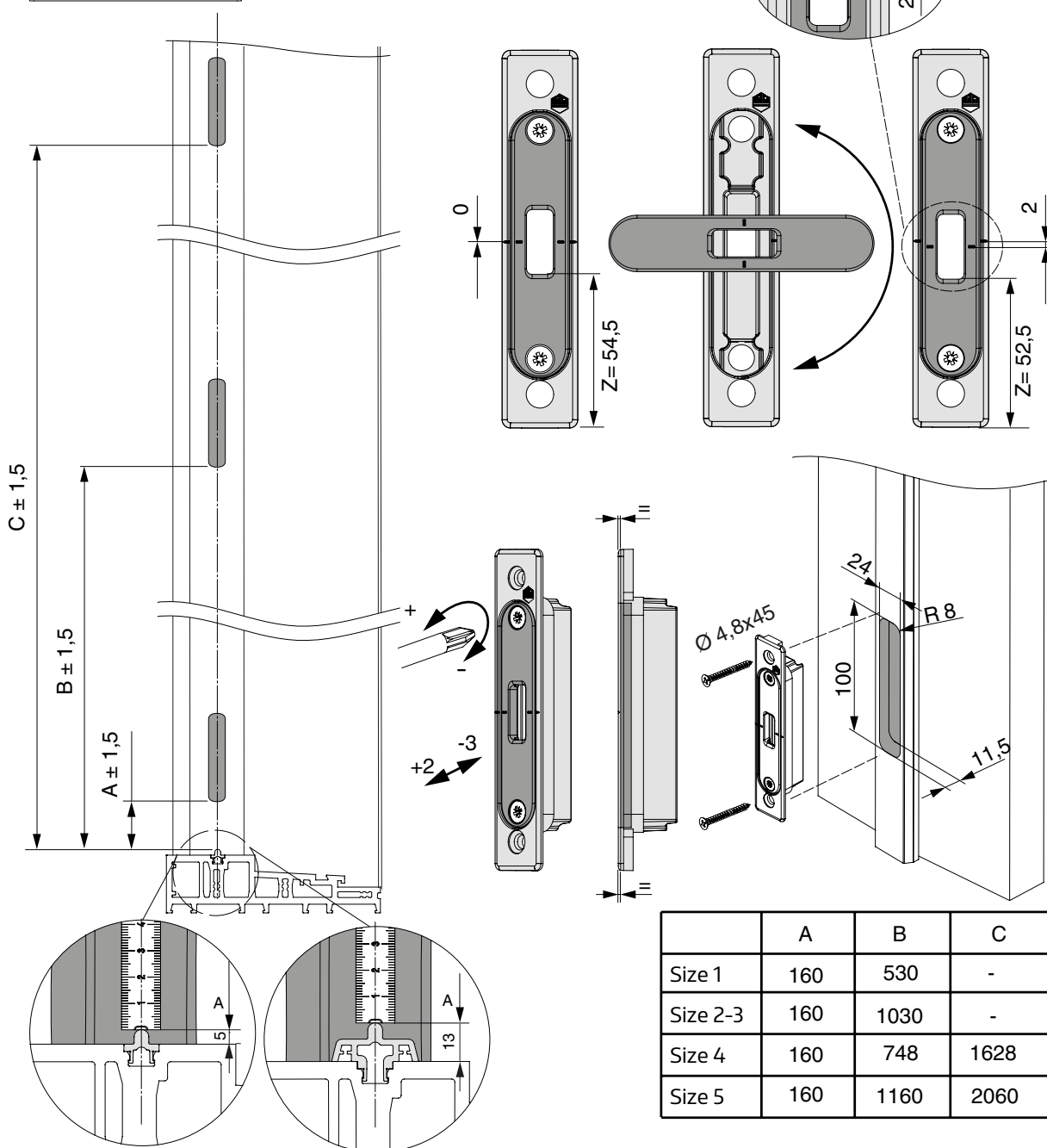
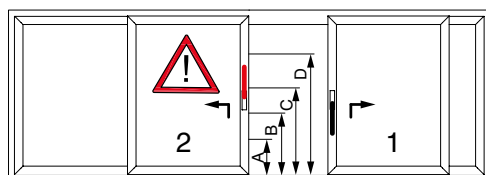
Assembly on the sash and frame

Hook striker plate

Scheme A



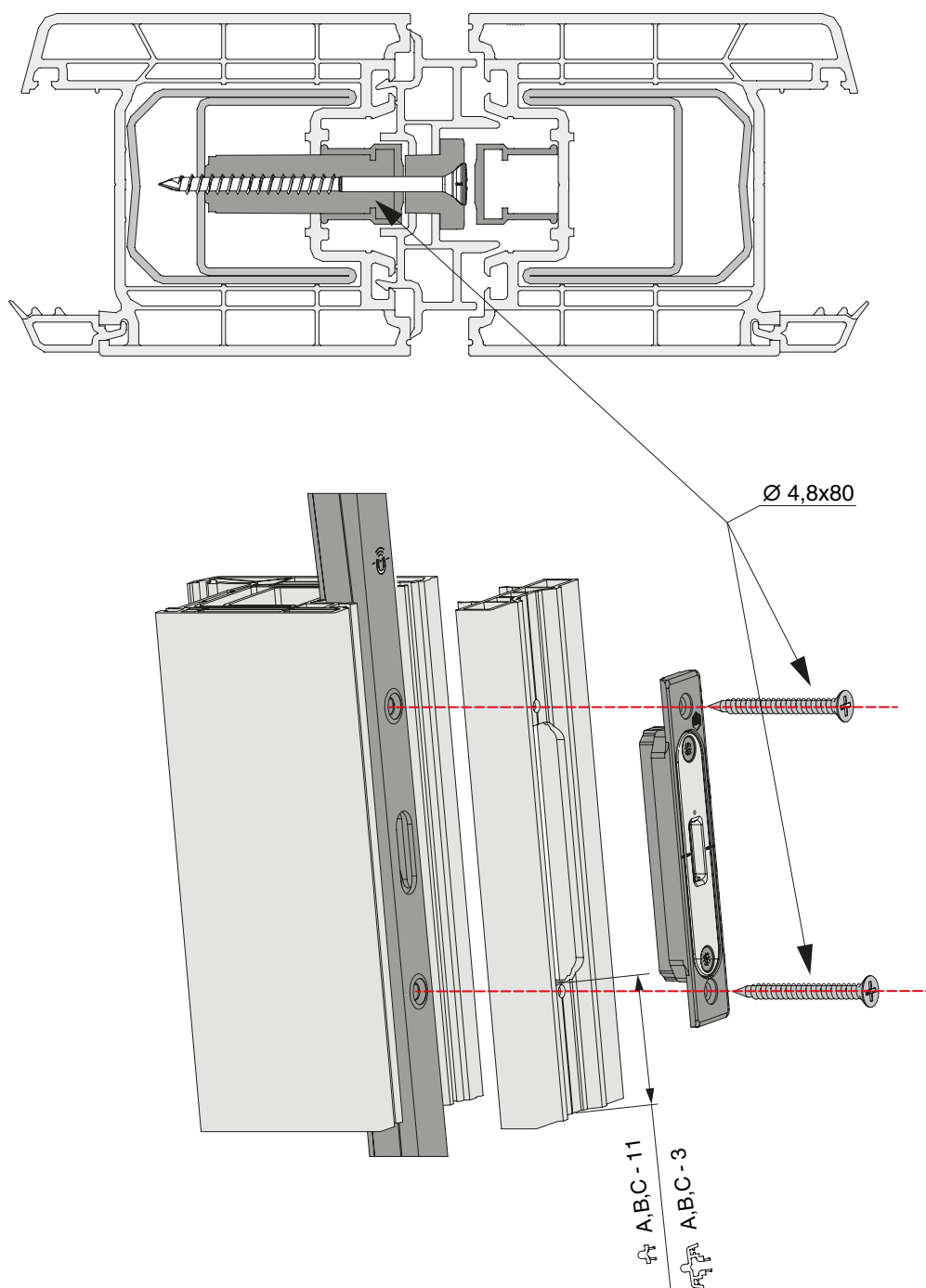
Scheme C



	A	B	C
Size 1	160	530	-
Size 2-3	160	1030	-
Size 4	160	748	1628
Size 5	160	1160	2060

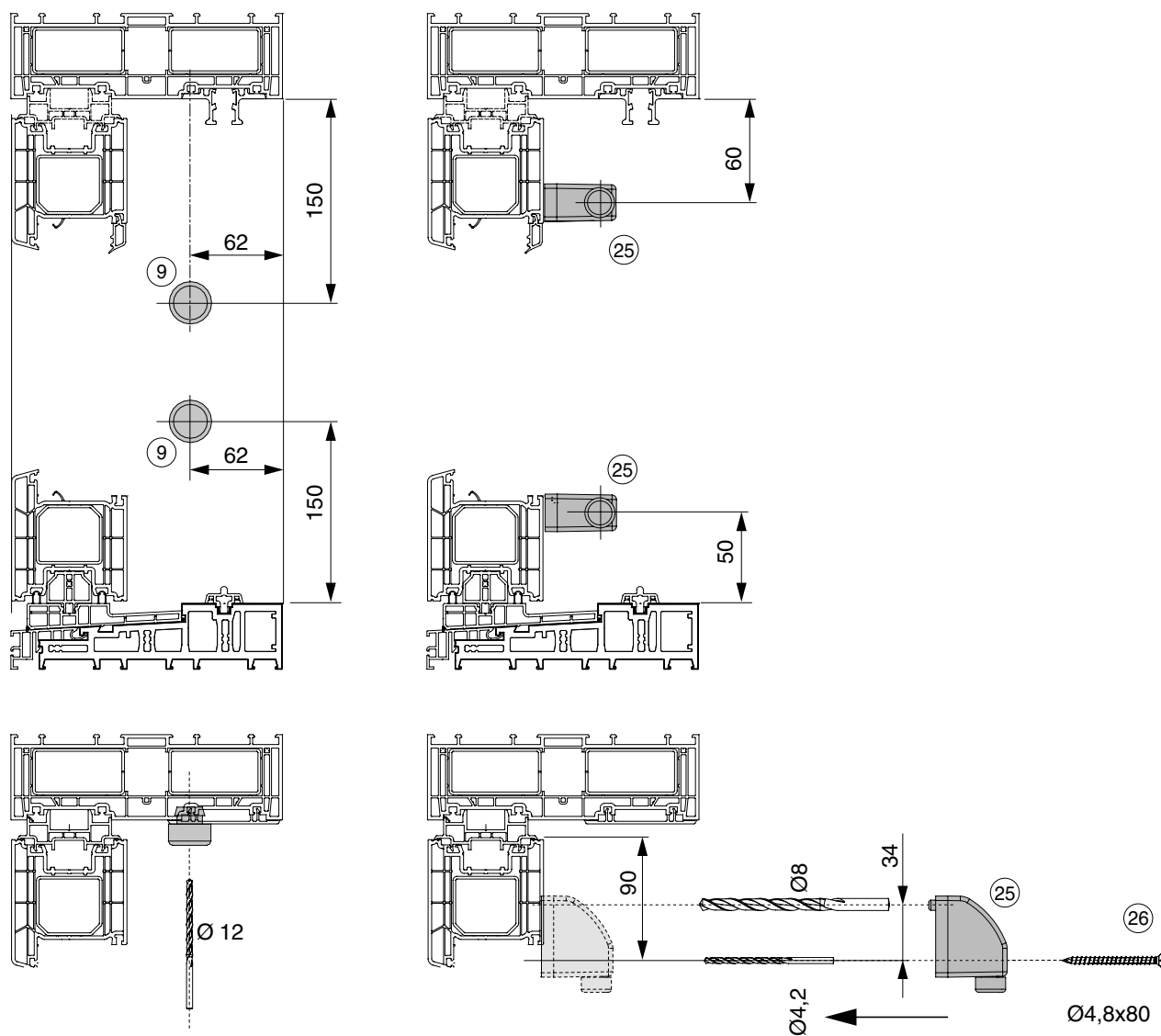
Assembly on the sash and frame

Striker plate for hook Scheme C, G-A

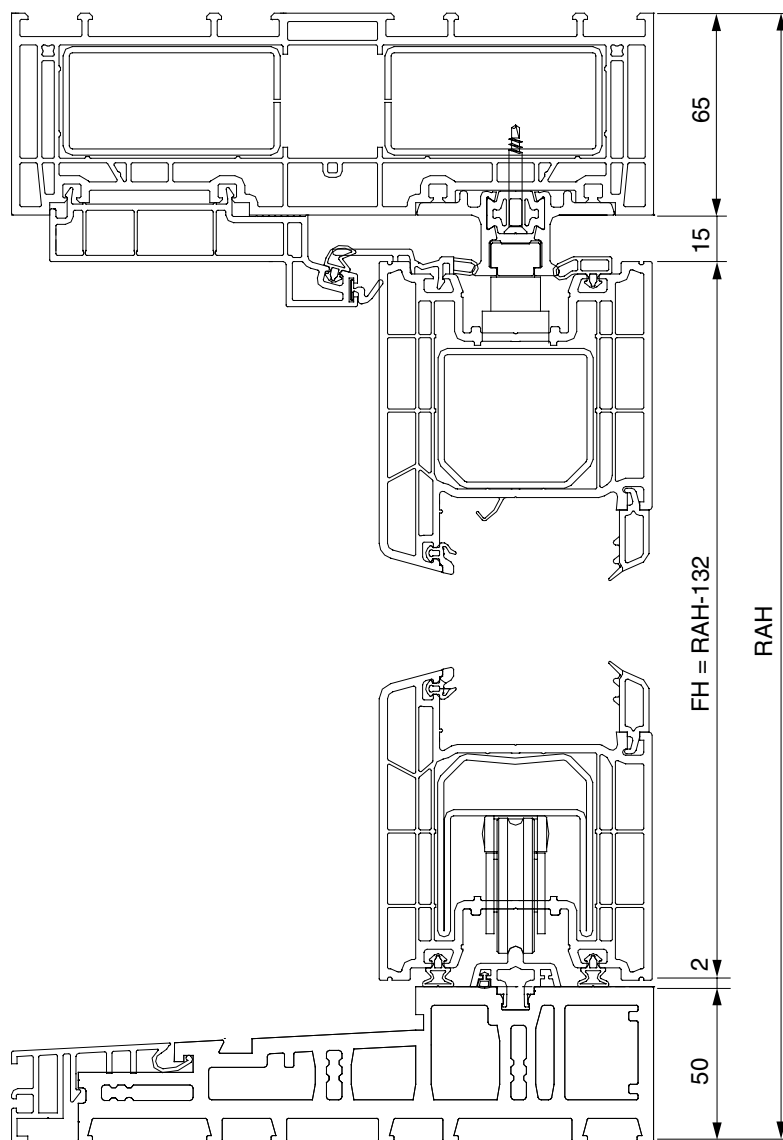


Assembly on the sash and frame

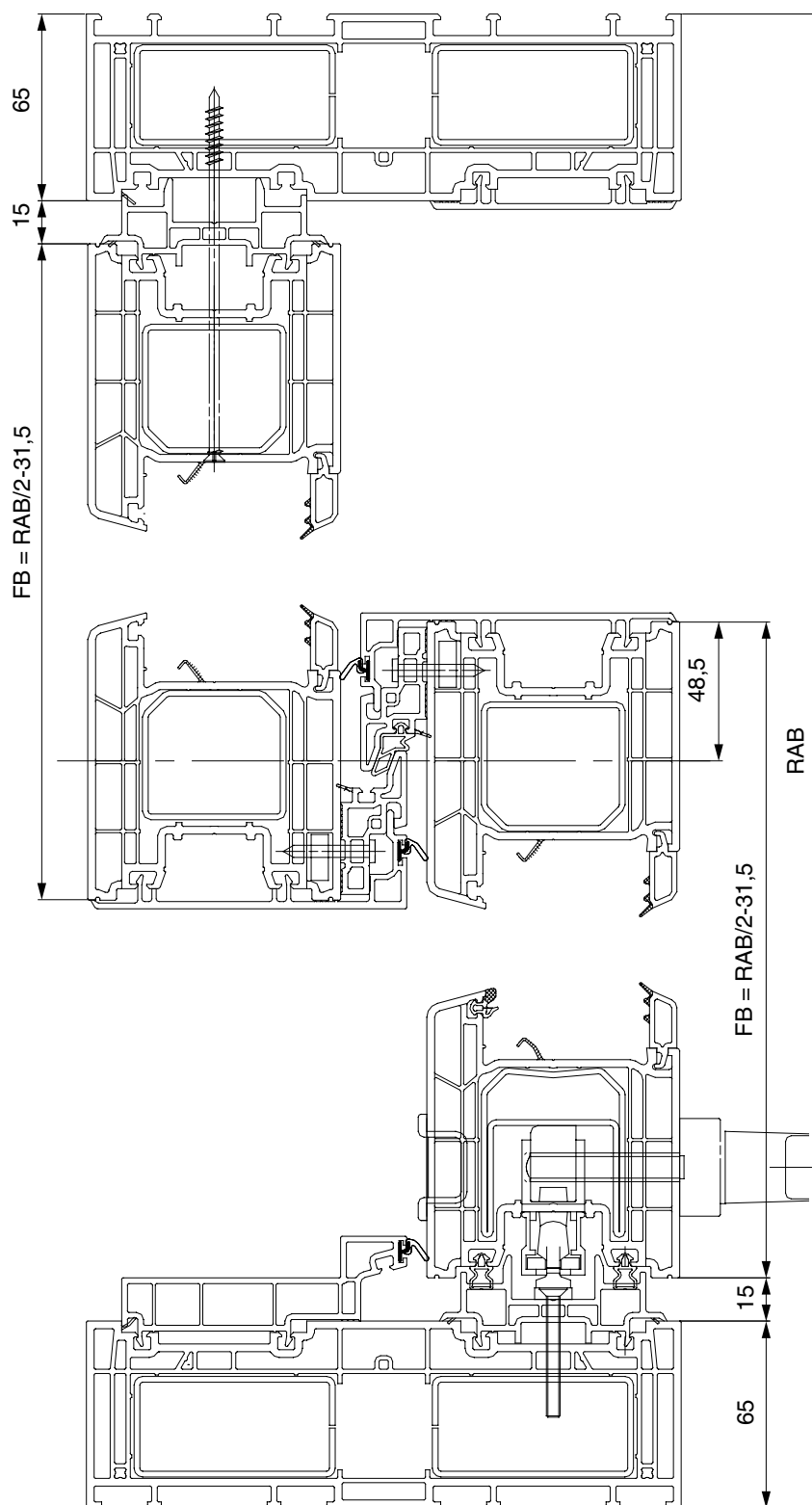
Buffer Stop



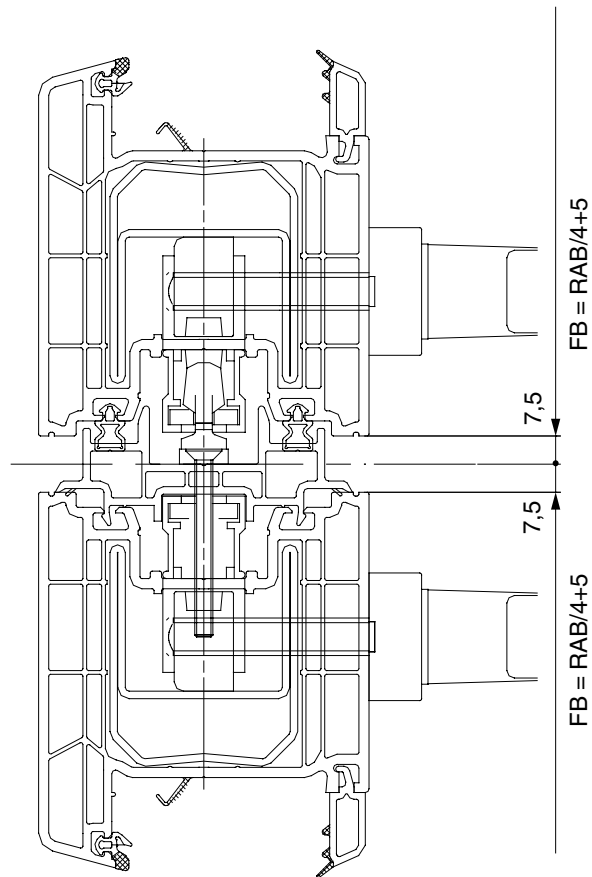
Vertical section 88 sliding sash



Horizontal section 88 Scheme A

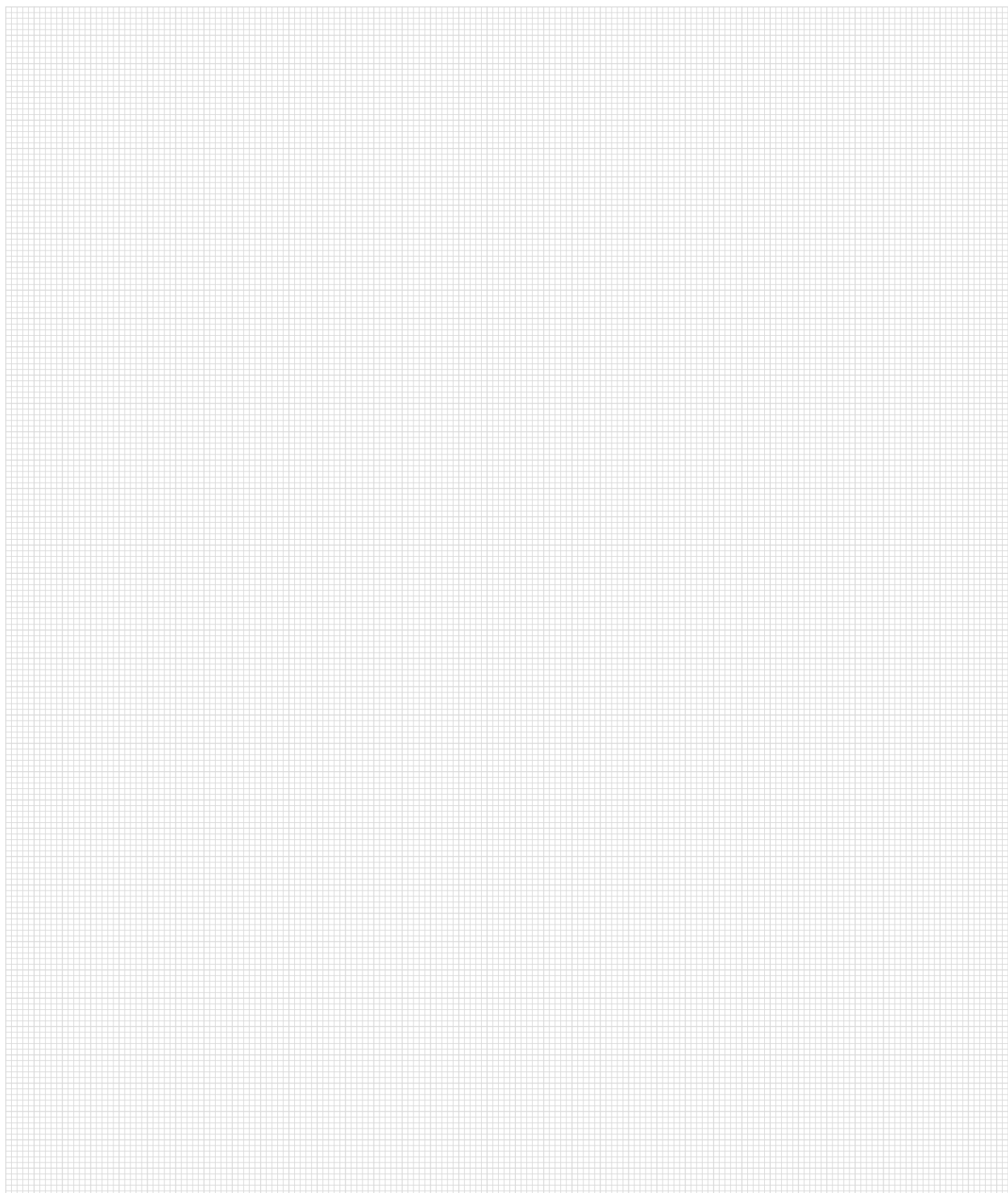


Horizontal section 88 Scheme C

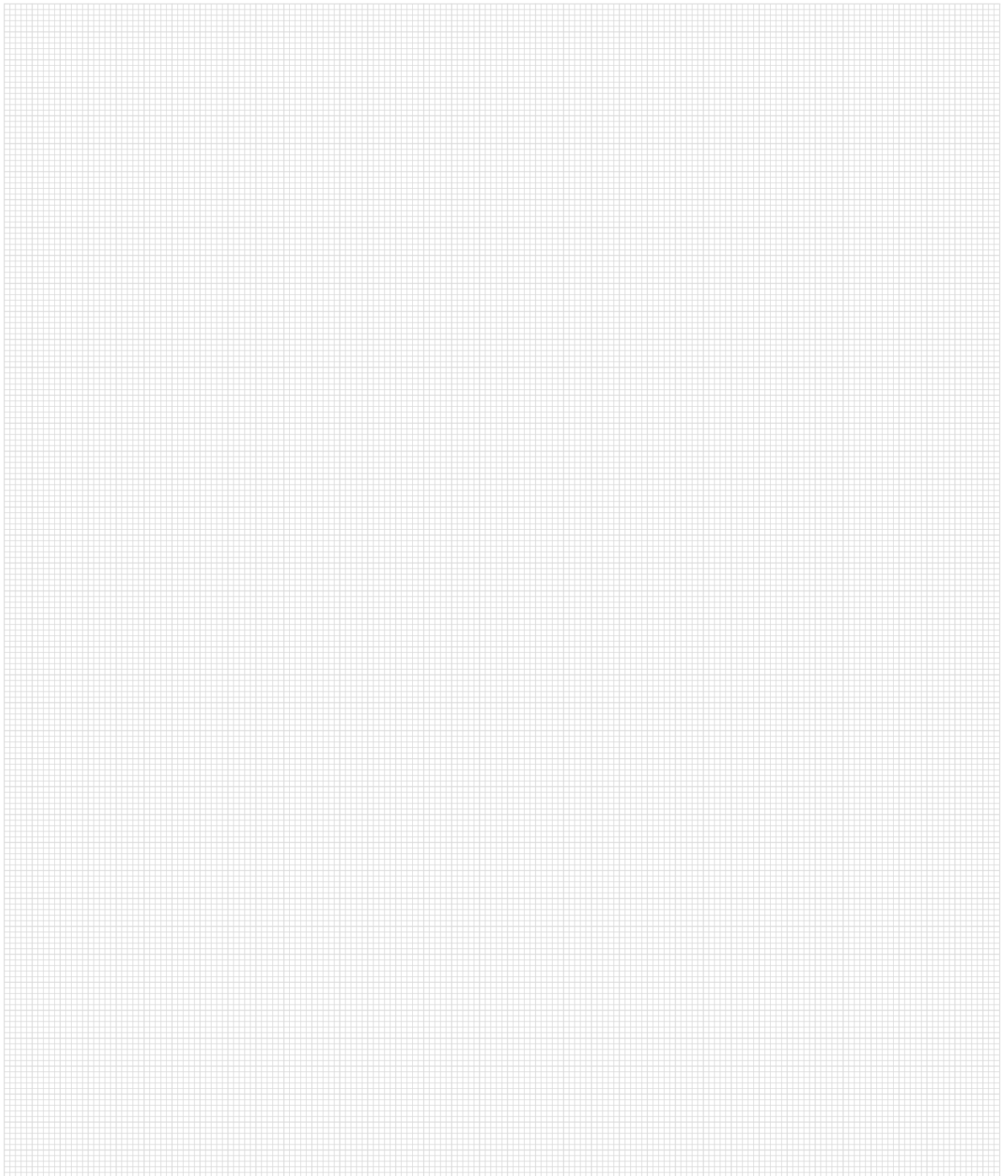




Notes

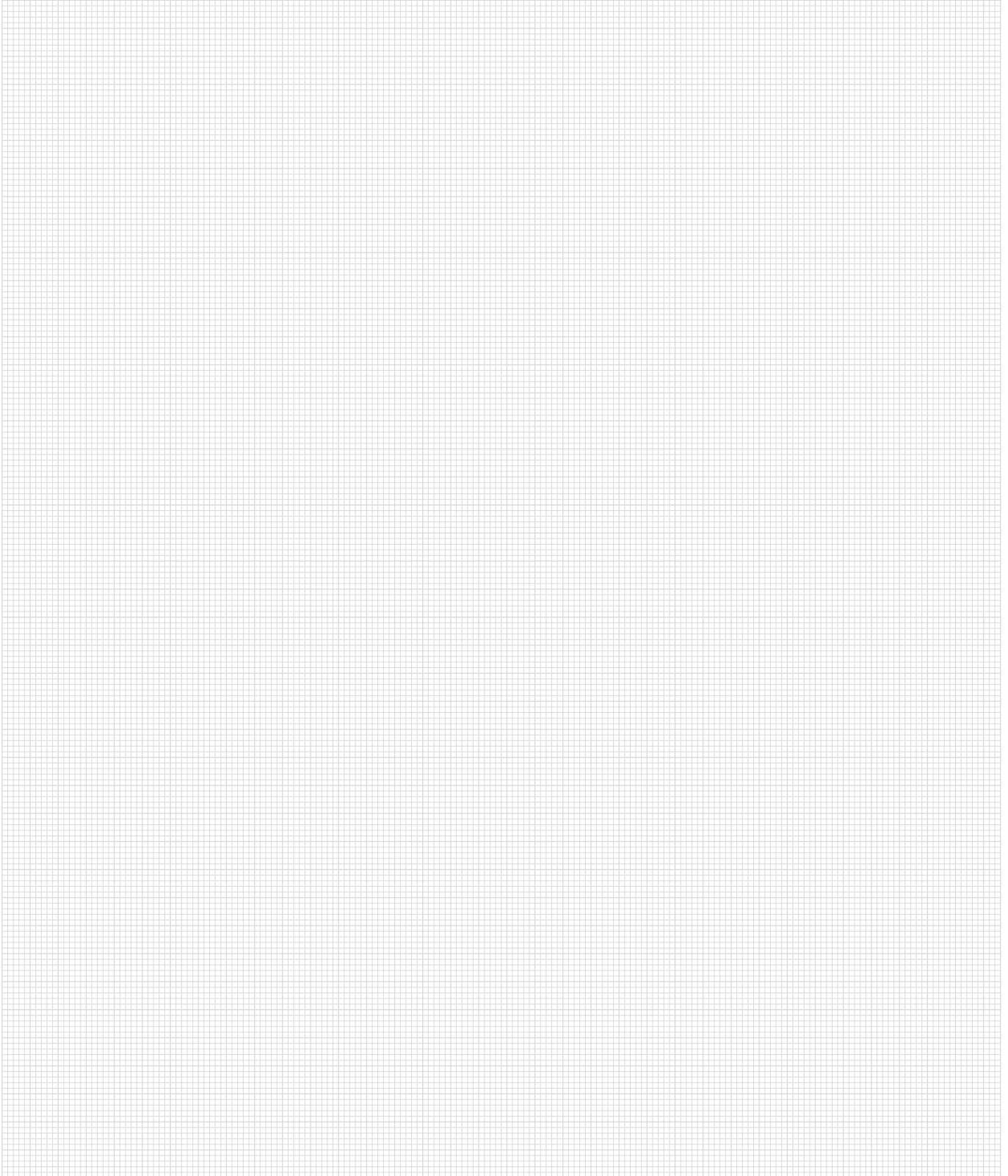


Notes



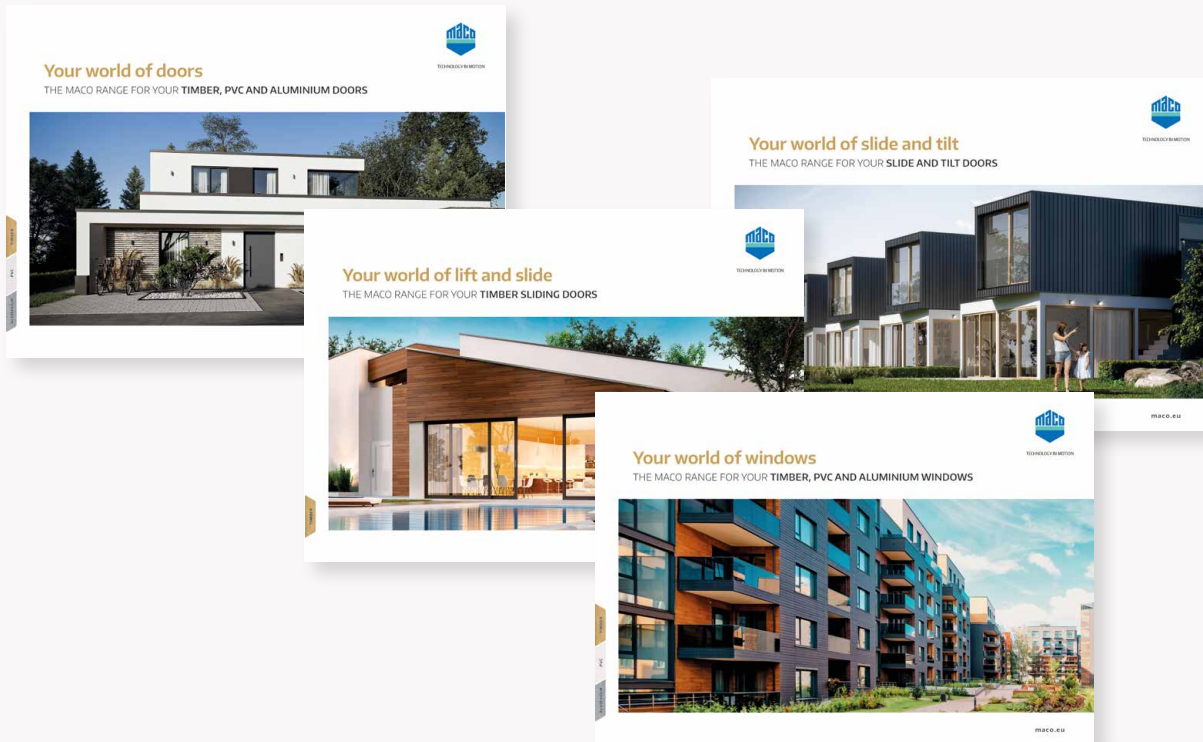


Notes



You want everything from a single source

We provide you with complete solutions for sliding doors, windows and doors - for timber, PVC and aluminium. Experience our versatile system offer, comprehensive service included. Discover more of this on our website www.maco.eu or contact your MACO representative.



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www.maco.eu/contact



TECHNOLOGY IN MOTION



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