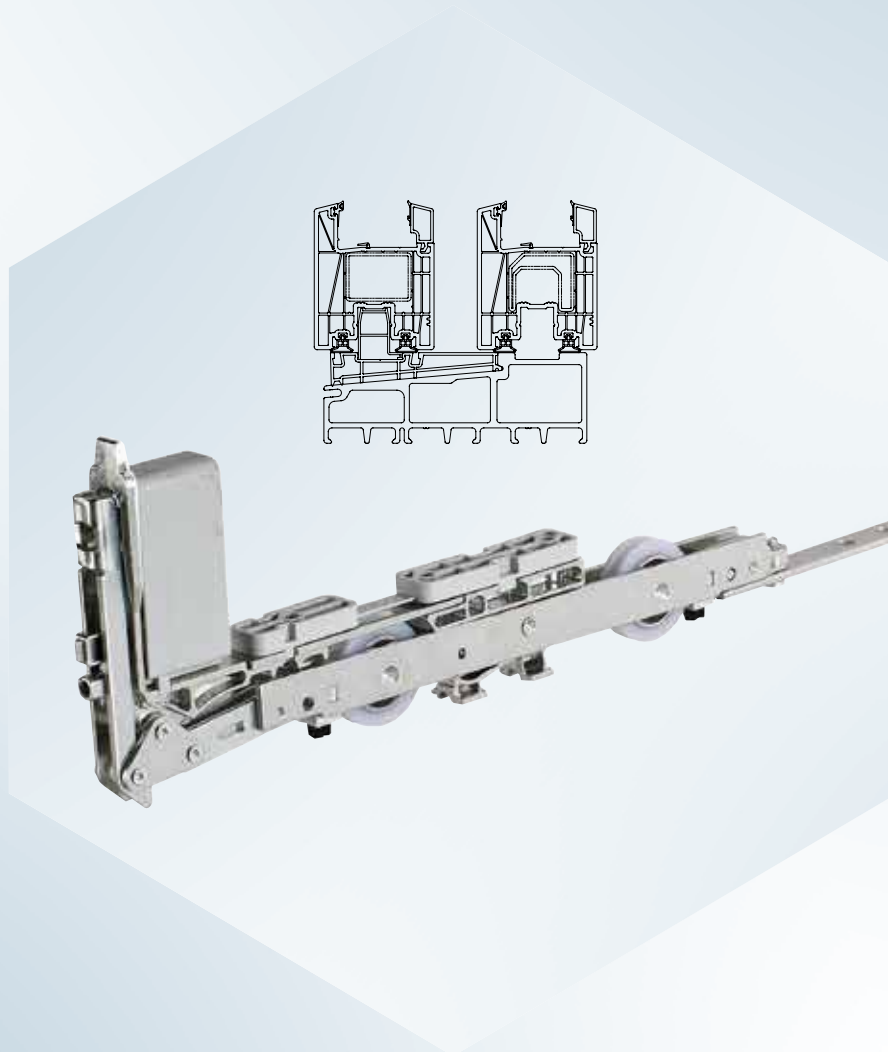


ASSEMBLY INSTRUCTIONS

L&S hardware

L&S Salamander evolution Drive 82 PVC



Only
for use by certified specialists!



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Important Information

Target group

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

Instructions for use and safety

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

Overloading or improper operation of the lift and slide hardware may cause the sash to jump out of its guide, fall out and cause serious injury. If overloading of the lift and slide hardware is expected under special circumstances, such as in Schools, Kindergartens etc., this must be prevented using the appropriate measures,

e.g.

- Adjustment of the buffer stop to reduce the opening width, or
- Installation of a profile cylinder to prevent improper use.

Please observe the terms of our functional warranty (<https://www.maco.eu/assets/757813>) as well as the conditions of our surface warranty for MACO TRICOAT-PLUS hardware (<https://www.maco.eu/assets/757713>).

Observe the “Guidelines and Instructions on Product and Liability (GIPL)” of the Quality Association of Locks and Hardware. This policy describes all safety-related issues for end-users for window and balcony door topics. (Download available on the website of the Quality Association of Locks and Hardware).

For MACO lift and slide hardware HS, the application ranges given on page 7 must not be exceeded. In addition, SALAMANDER’s specifications for the lift and slide door hardware, in particular on possible restrictions on sash dimensions and sash weight, must be strictly adhered to.

Assemble the complete hardware only from MACO hardware parts and the required SALAMANDER accessories.

When using Accoya (registered trademark of Titan Wood Limited) and acid-treated woods (e.g. Oak, Teak, Larch), use only the TRICOAT-PLUS fittings.

Use the specified screw sizes as specified in this guide.

Turn the screws straight (unless otherwise stated) and do not over-tighten, otherwise smooth operation of the hardware may be impaired.

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

Around the rollers, ensure a positive transfer of the compressive forces onto the reinforcement profile!

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

Do not use acid-curing sealants, as these can lead to corrosion of the hardware parts.



Keep the runner of the roller track, the threshold and all folds free of deposits and dirt, and in particular of cement or plaster residues. Avoid direct moisture on the hardware and contact of the hardware with acidic cleaning agents.

Attach the operating label in a clearly visible manner to the built-in lift and slide sash. The operating label can be found in the base carton.

Do not make any constructive changes to the hardware parts.

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

Certification

The MACO hardware mentioned in the assembly instructions are tested and regularly monitored in standardised tests in accordance with EN 13126. The achieved standards Class H3 does not refer to the 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 the installation of the element in the building
- the use of accessories (e.g. weather seals, sealing rails, handles, etc.)
- the use of additional equipment (e.g. sliding damper, swing-check damper, operating force reduction, etc.) and/or attachments (e.g. Aluminium shells, sun protection on the sash, insect protection)
- External environmental influences (e.g. humidity, sunlight, high or low temperatures, temperature fluctuations, etc.) or
- room-side influences (moisture, aggressive cleaning agents, etc.)

Key



HS Lift&slide unit



FH Sash height



FB Sash width



RAB Frame outer width



RAH Frame outer height



L Total length



GM Handle height



DM Backset drive gear



O Optional

{ } Dimensions for flat roller track

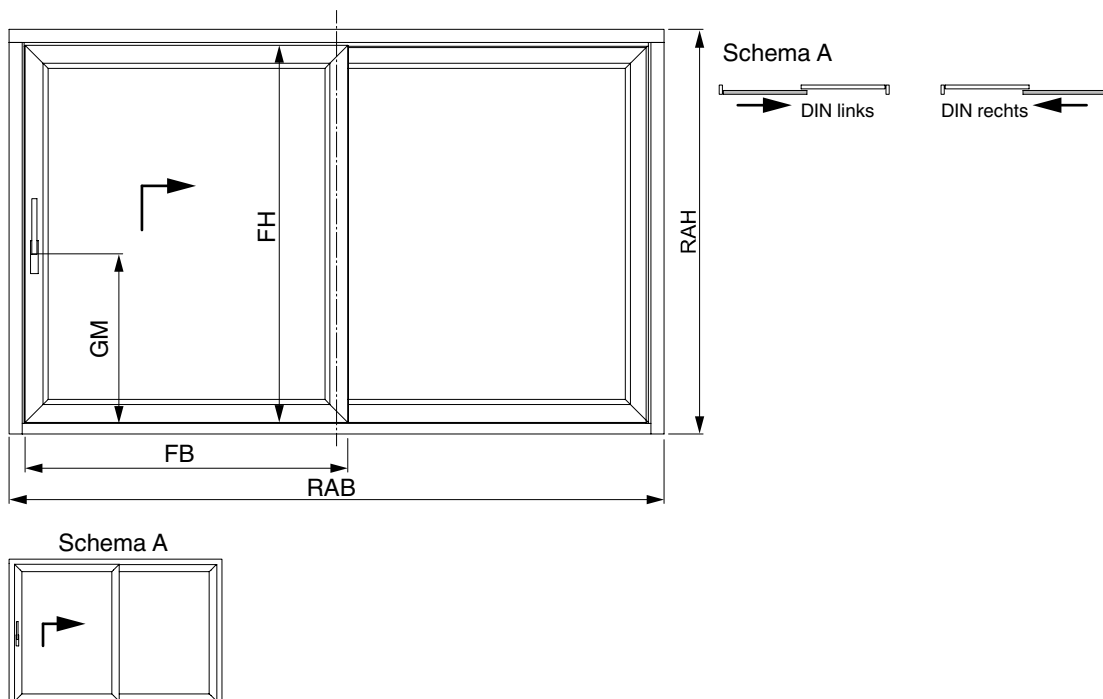
Dimensions in [mm]: All dimensions without units are specified in [mm]



Notes

A large rectangular area filled with a fine grid pattern, intended for taking notes.

Design and application range



Application range

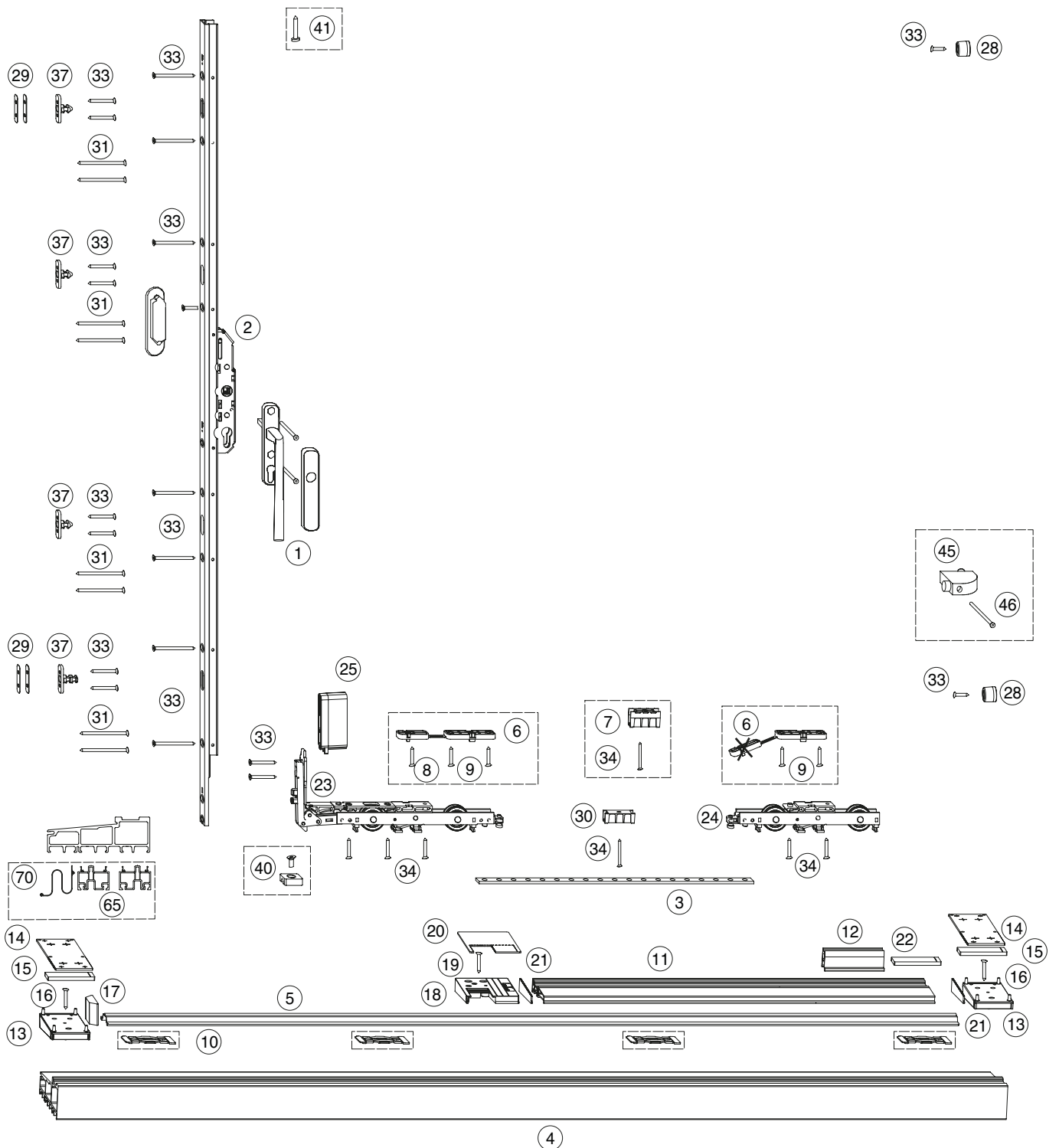
The application ranges stated in the table apply for MACO L&S 300.

The maximum application ranges and weights specified by the profile manufacturer apply when processing the profiles and must be observed.

Designation	Unit	Department	
		Tall roller track	Flat roller track
FB	(mm)	740 - 3330	
FH	(mm)	765 - 2880	755 - 2870
Weight of sliding sash	(kg)	max. 400*	
DM	(mm)	37.5	
GM drive gear size Gr. 1 - 2	(mm)	409	399
GM drive gear size Gr. 3 - 4	(mm)	1009	999

*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 combination



Hardware combination

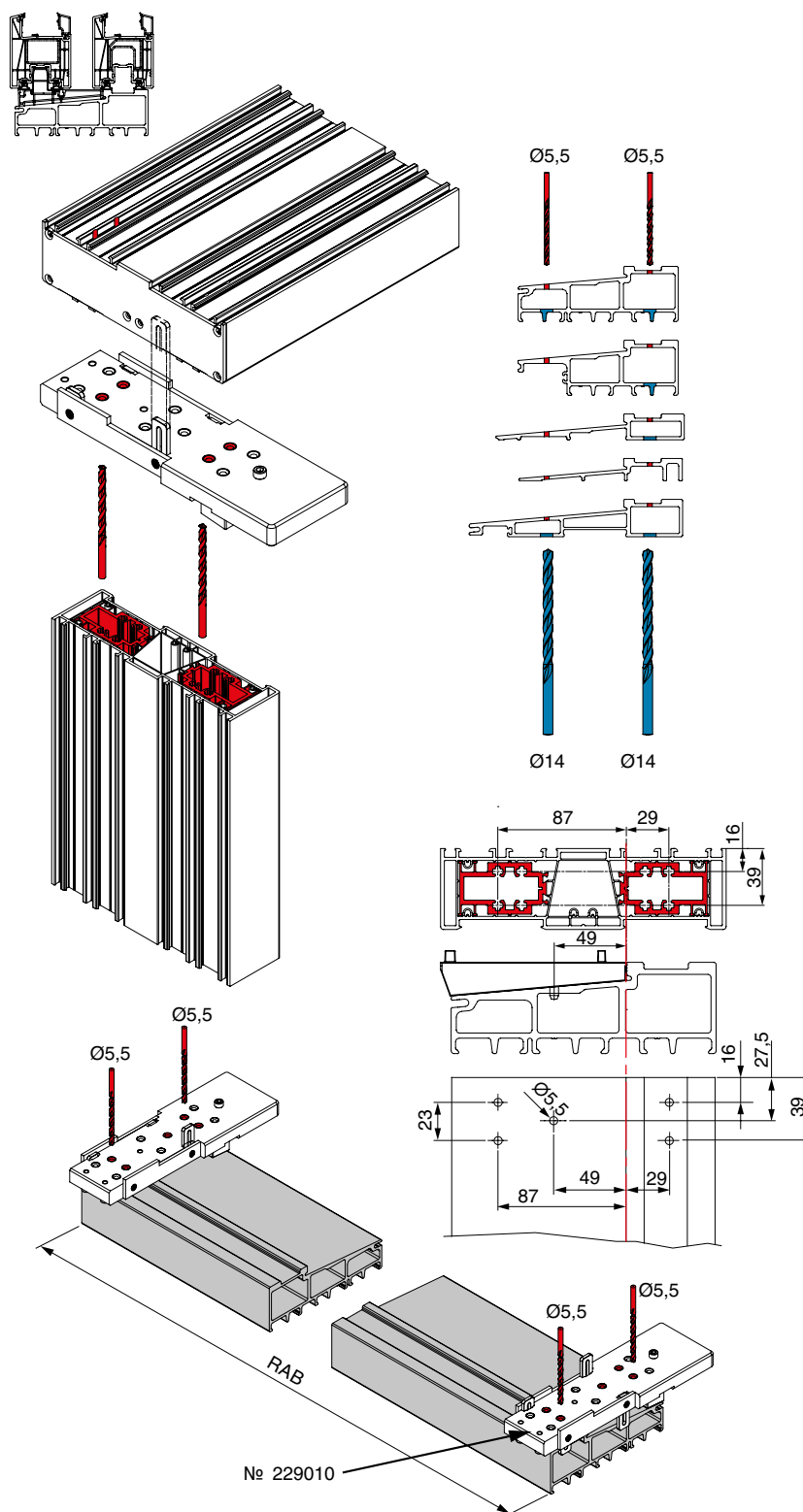
Pos.	Item designation
1	L&S handle
2	L&S drive gear
3	Perforated connecting rod L&S 16.4 x 4
4	MACO GRP threshold with slot-in groove
5	MACO Fiber-Therm roller track
6	L&S roller underlay for front and back roller 10 mm stackable silver
7	Rod guide for flat roller track 27 x 22 groove
8	Countersunk self-tapping screws B 4.8 x 25
9	Chip board screw PZ 5 x 30 countersunk head
10	MACO Fiber-Therm bullet catch for flat roller track
11	MACO intermediate PVC profile
12	Salamander eD82 surface-mounted track for fixed standard sash, length = 100 mm
13	Connecting plate for Fibertherm Salamander eD82, silver
14	EPDM seal for 2 mm connection plate
15	EPDM seal for 6 mm roller track groove
16	Pozidrive hardware bolt 4 x 30 silver
17	EPDM seal for Salamander eD82 stop profile
18	Sealing plate with drainage for left intermediate profile, silver
19	Pozidrive hardware bolt 4 x 30, silver
20	EPDM seal for 2 mm sealing plate left+right, black
21	EPDM seal for GE-SA intermediate profile
22	EPDM seal for 6 mm roller track groove
23	300 KG front L&S roller without brushes
24	300 KG back L&S roller without brushes
25	Packers for L&S KU 36 mm high - roller, espagnolette side, silver
28	Soft 20 mm high buffer stop, grey
29	Packer for L&S KU lock bolt thickness = 0.5 + 1 mm, silver
30	Rod guide for high roller track, 17 x 22 groove
31	Countersunk self-tapping screws B 4.8 x 80
33	Countersunk self-tapping screws B 4.8 x 45
34	Countersunk self-tapping screws B 4.8 x 22
37	Interlocking device
40	L&S locking block 300/400 KG
41	Filister head screw 6.3 x 38 (safety catch)

OPTIONAL

Pos.	Item designation
45	Stop buffer package 28 mm gap
46	Countersunk self-tapping screws B 4.8 x 80
65	MACO Fiber-Therm doubling profile, height 30 mm L = 6000 mm, white
70	Sealing strip, 200 mm wide, black

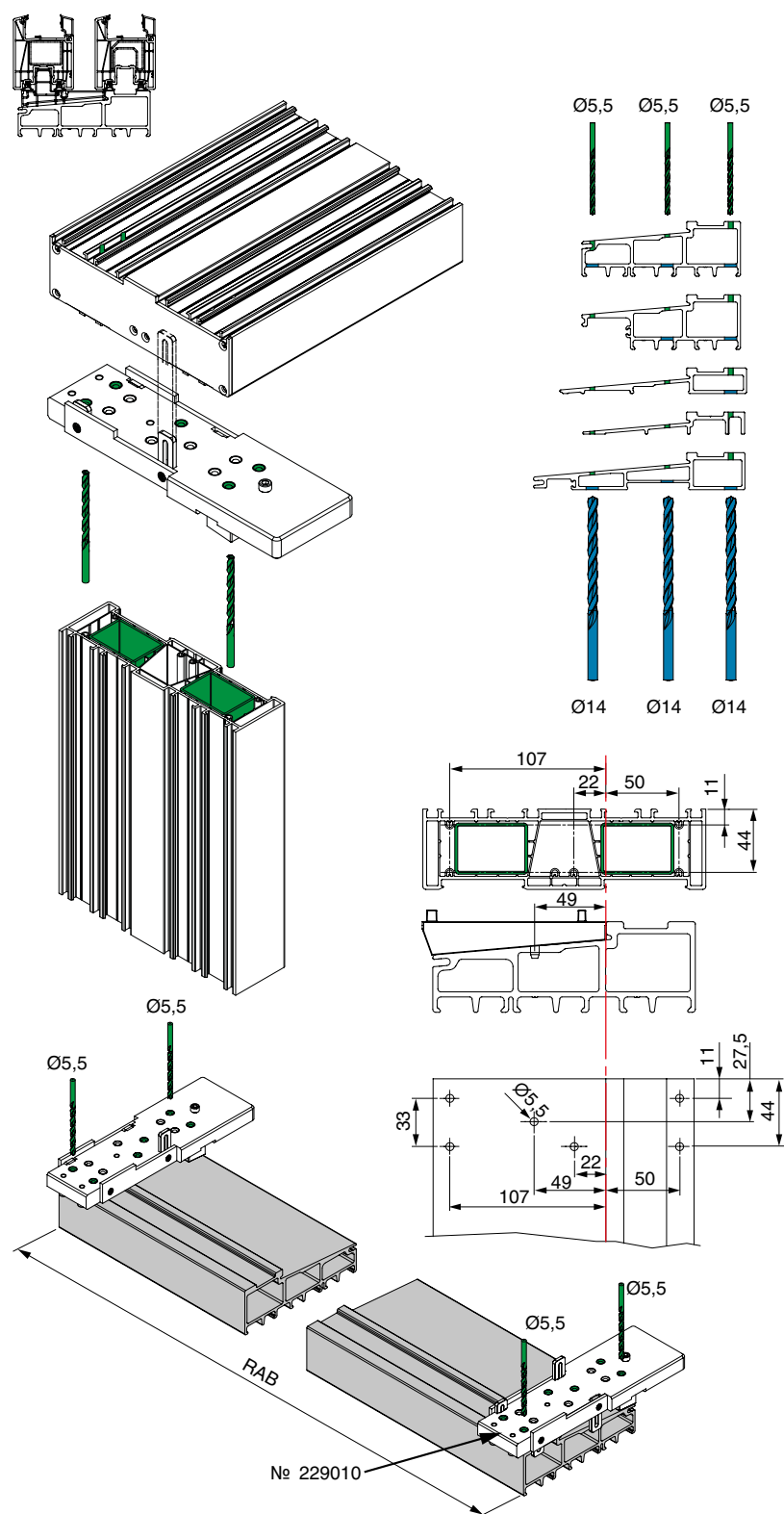
Installation on frame

Threshold and aluminium reinforcement



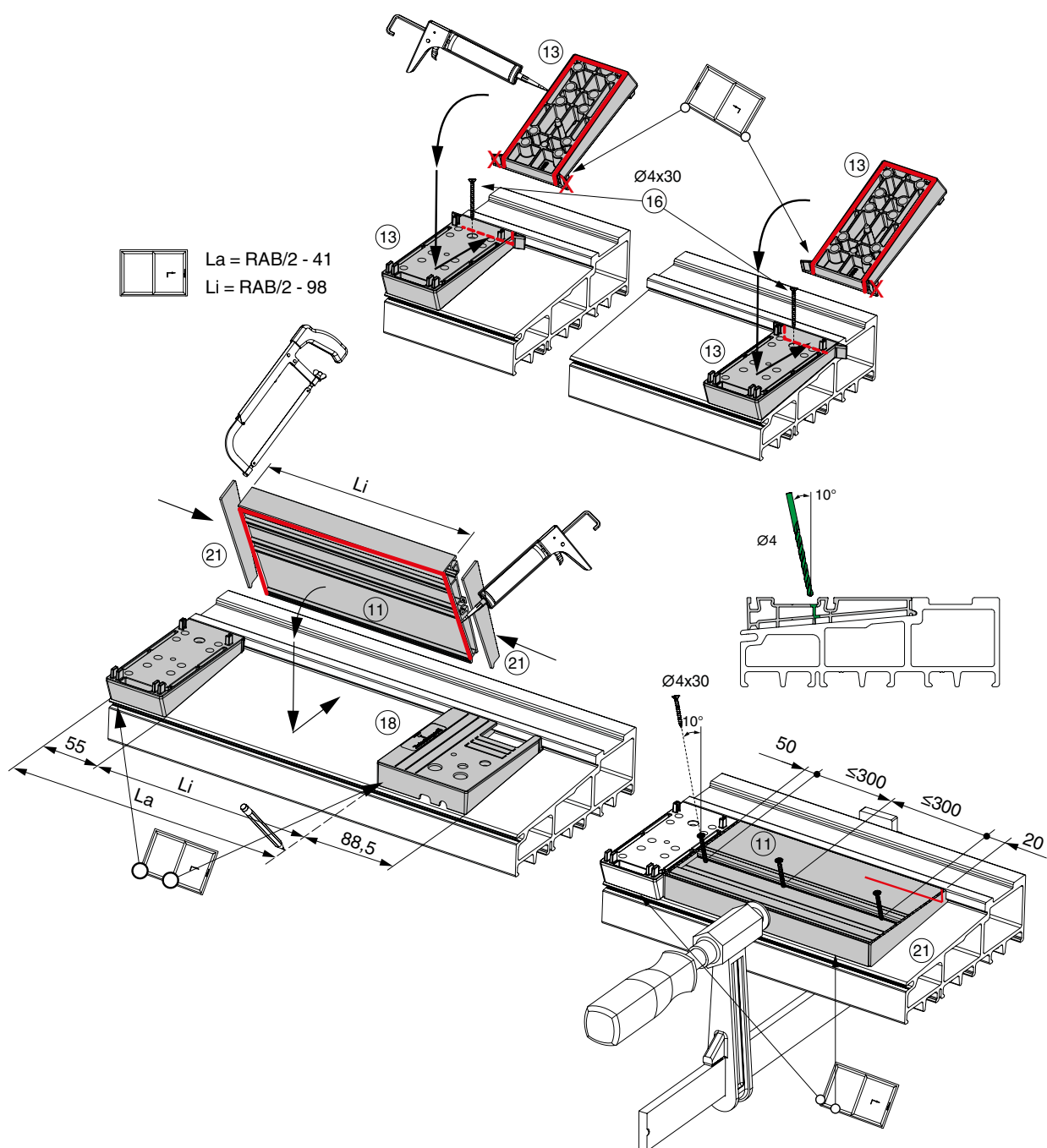
Installation on frame

Threshold and steel reinforcement



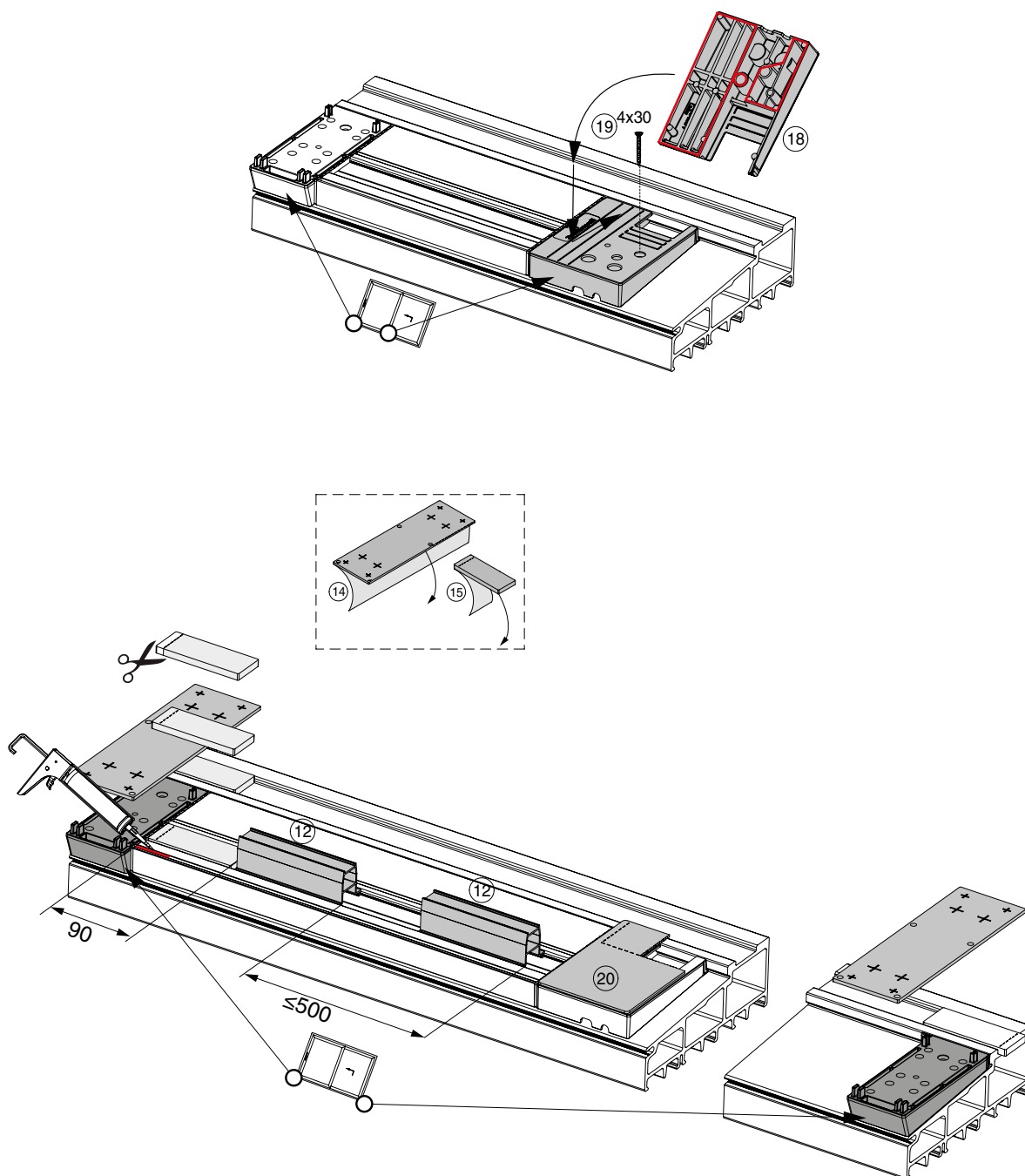
Installation on frame

Threshold assembly



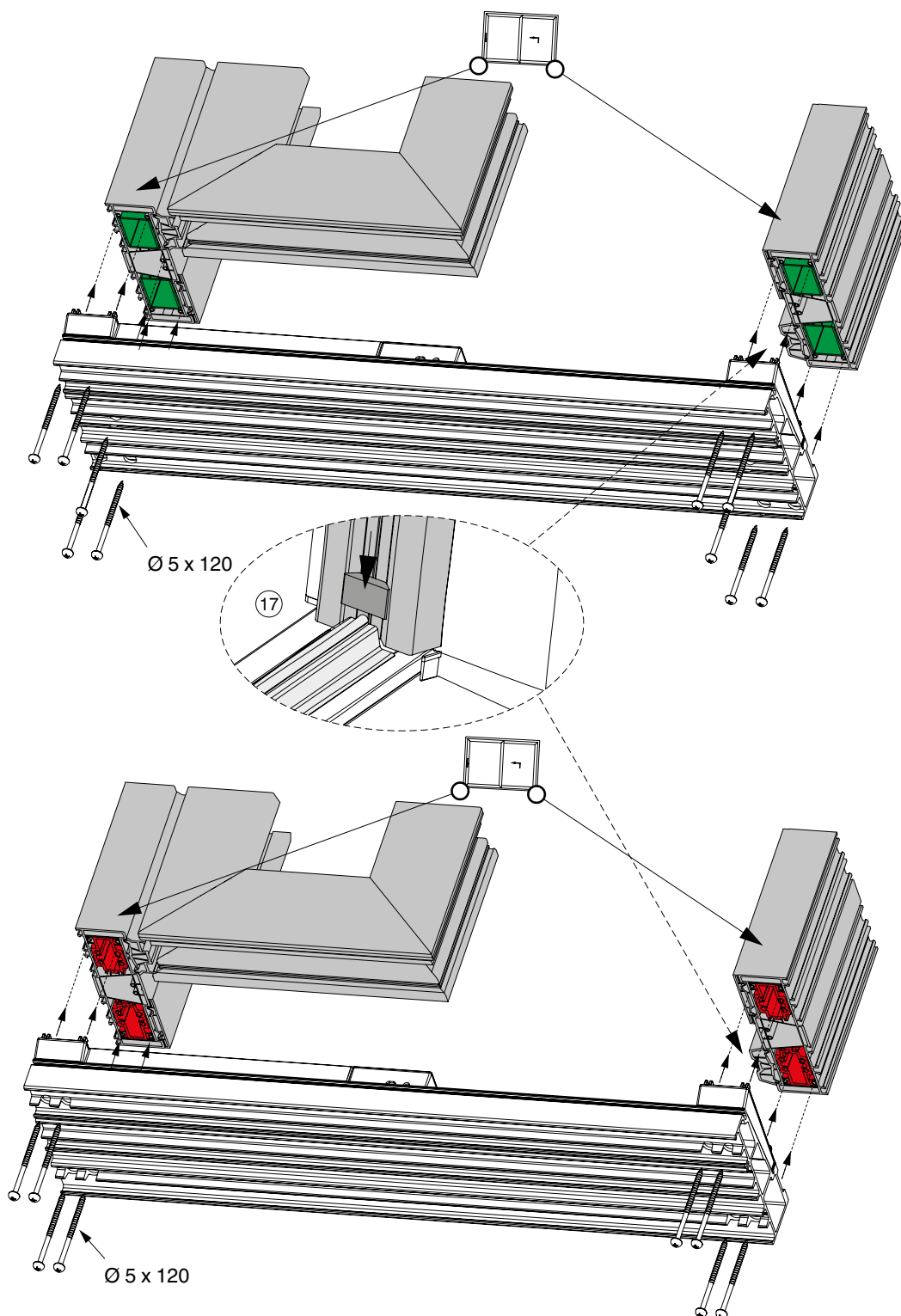
Installation on frame

Threshold assembly



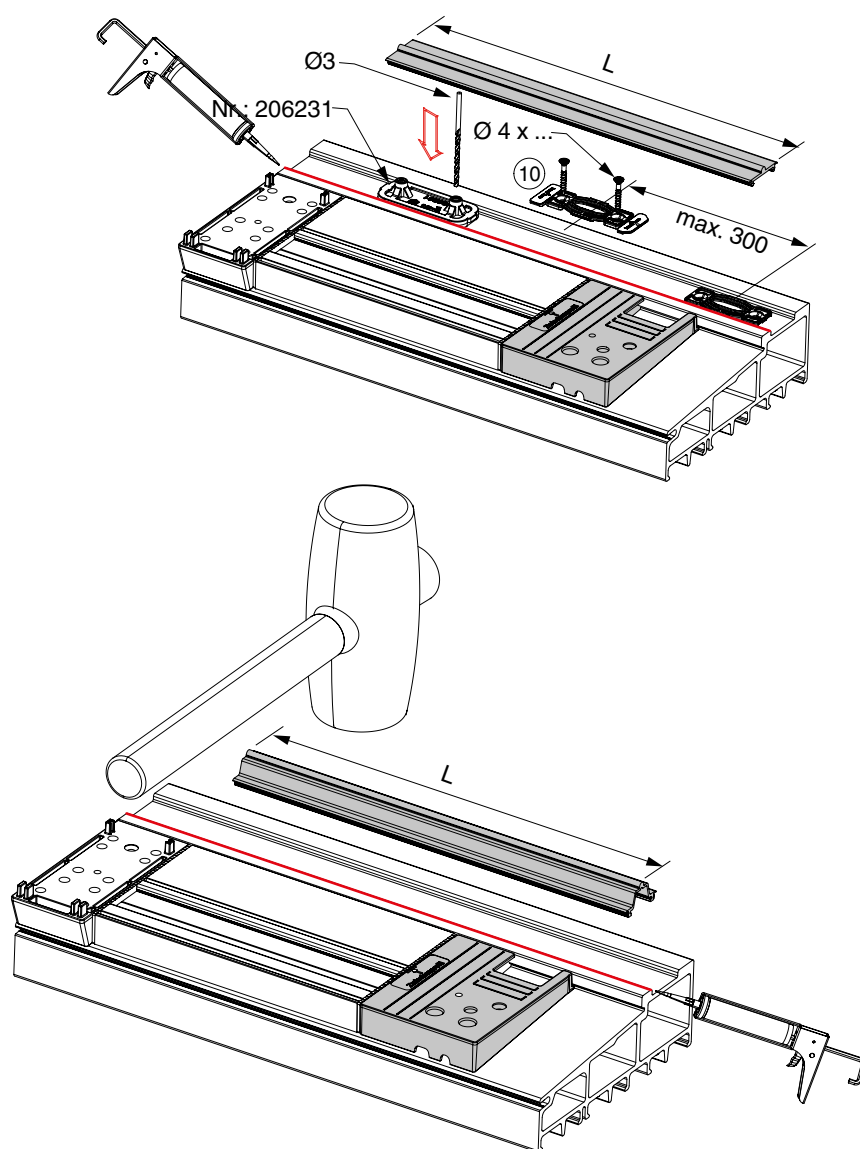
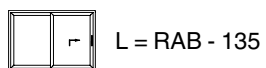
Installation on frame

Frame assembly



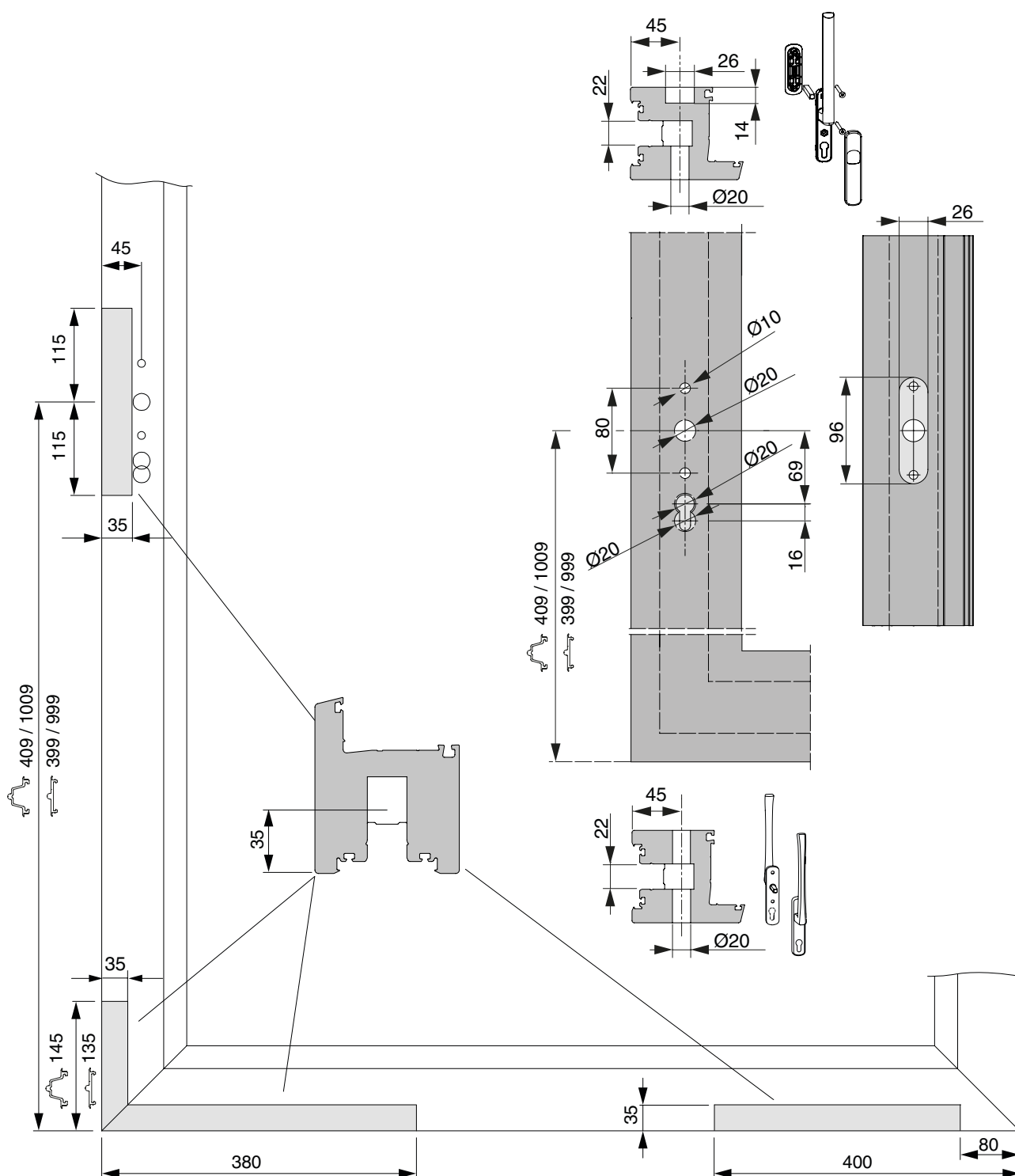
Installation on frame

Frame assembly



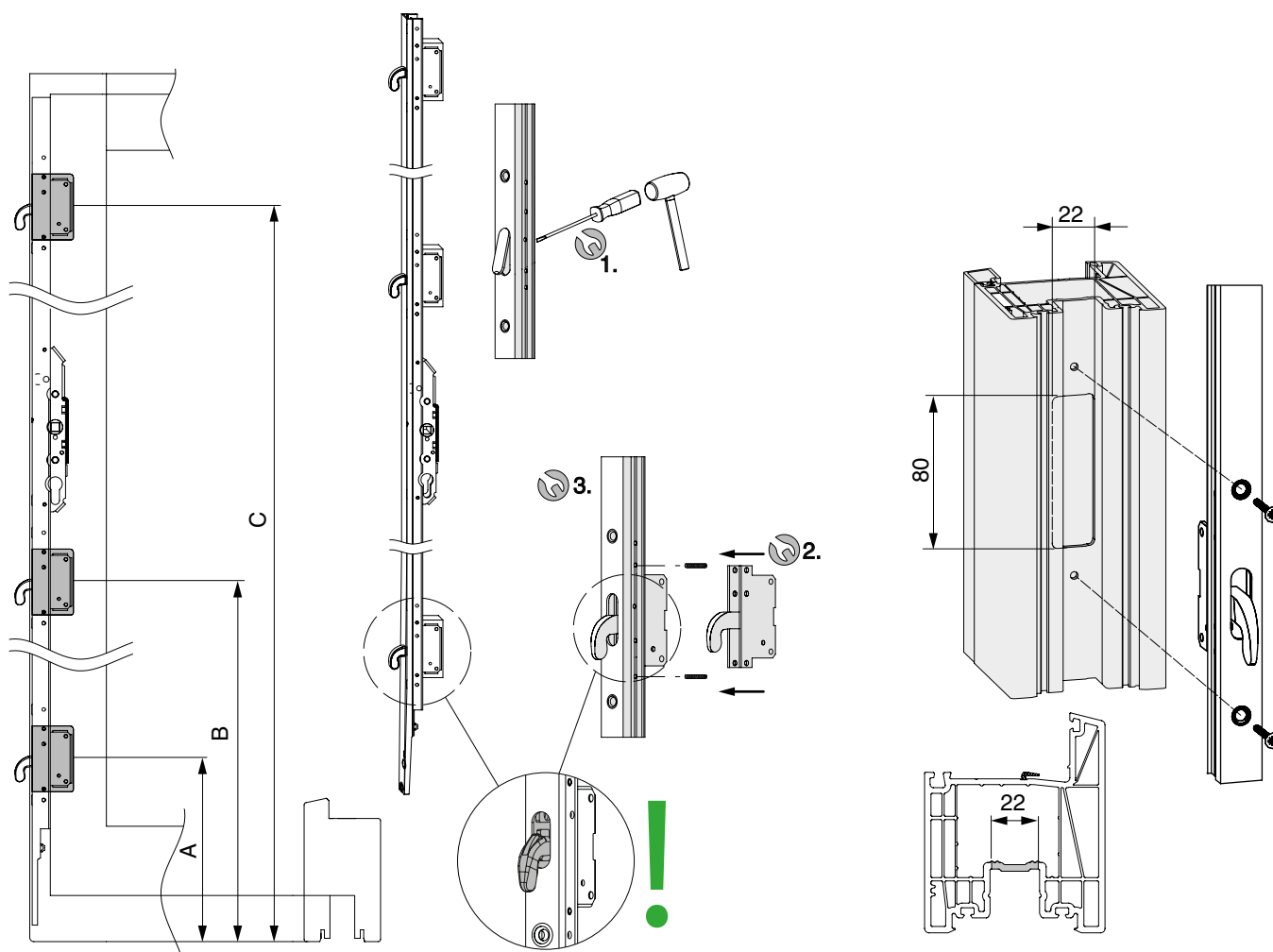
Installation on sash

Drilling and milling on the sash



Installation on sash

Drilling and milling on hook drive gear

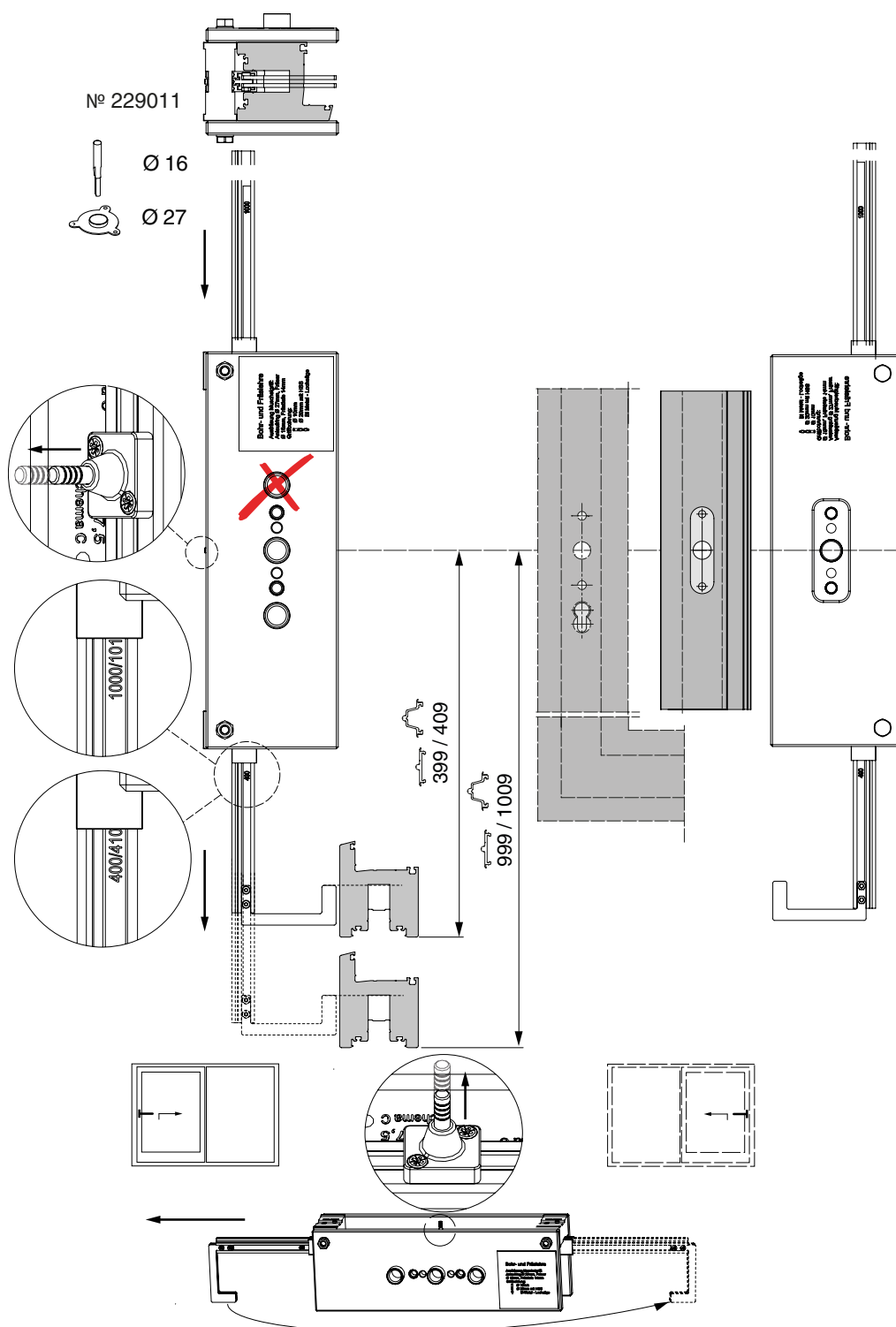


	A	B	C
Gr. 1	221	591	-
Gr. 2-3	221	1091	-
Gr. 4	221	809	1689
Gr. 5	221	1221	2121
Gr. 6	221	1421	2521
Gr. 7	221	1421	2521

	A	B	C
Gr. 1	211	581	-
Gr. 2-3	211	1081	-
Gr. 4	211	799	1679
Gr. 5	211	1211	2111
Gr. 6	211	1411	2511
Gr. 7	211	1411	2511

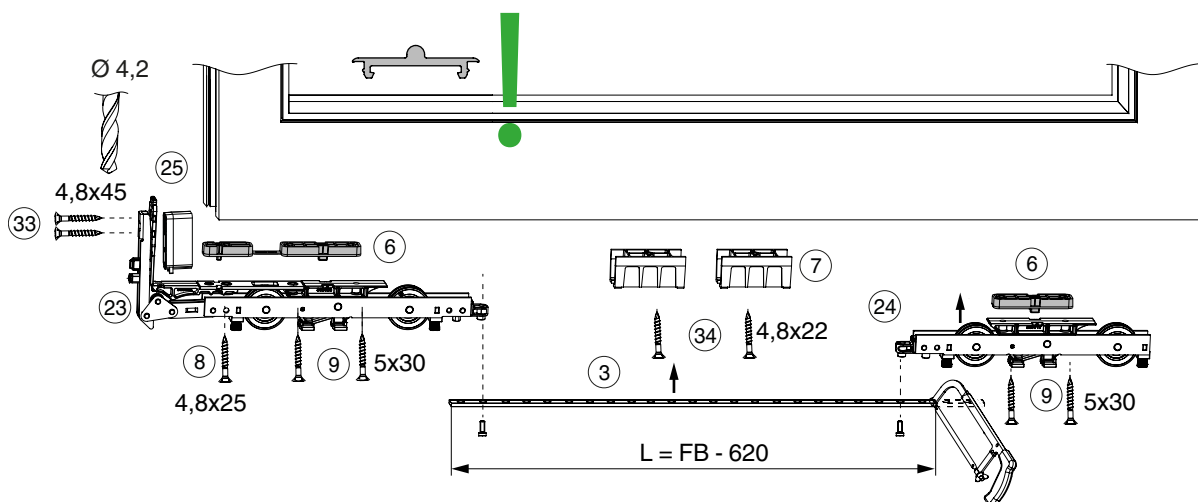
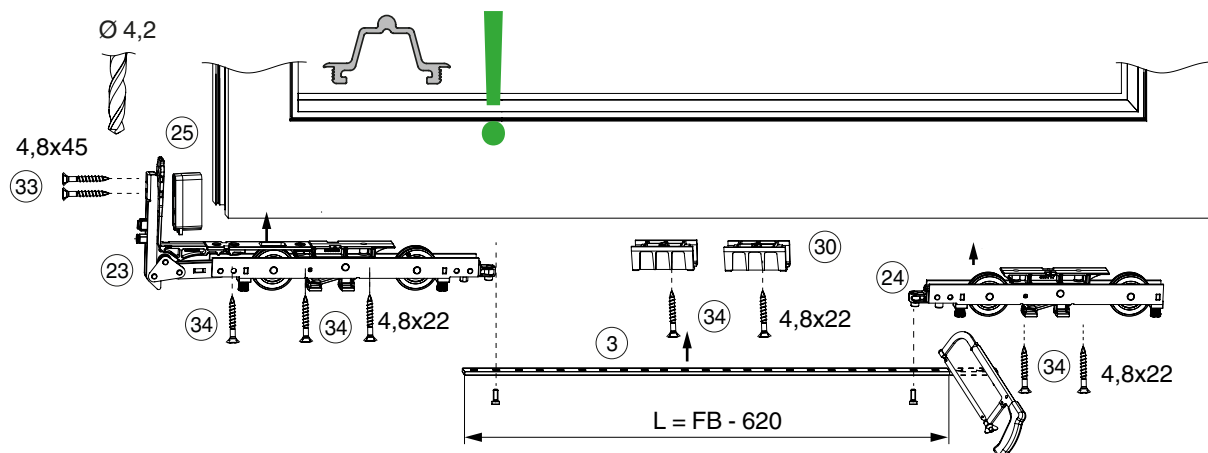
Installation on sash

Drilling and milling jig for L&S handle



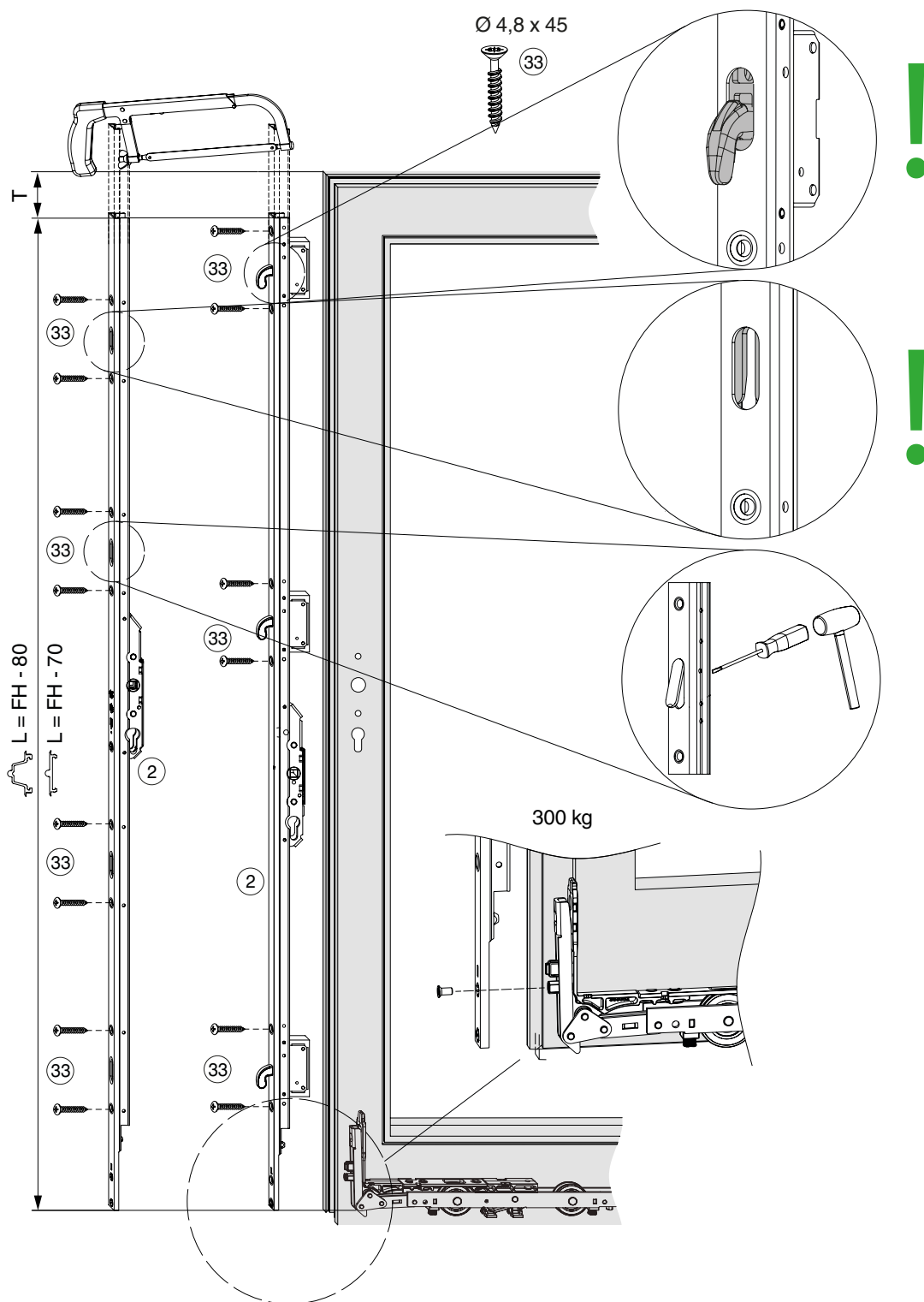
Installation on sash

Roller assembly



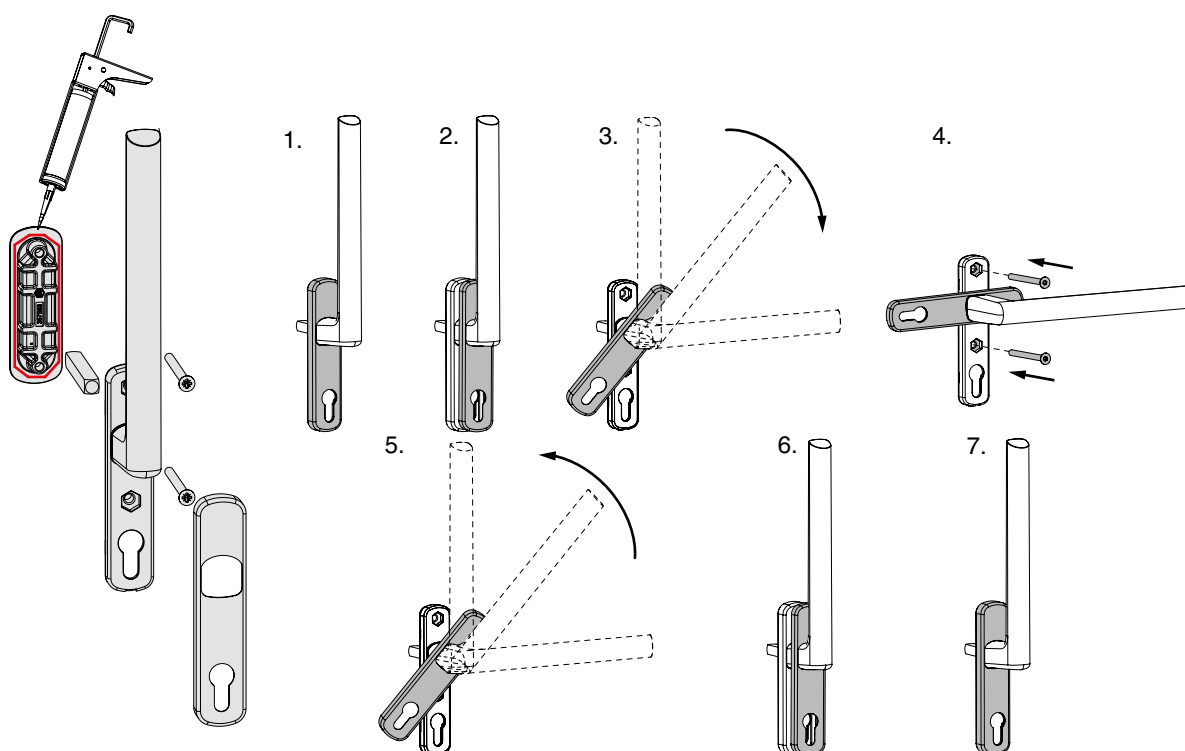
Installation on sash

Drive gear assembly



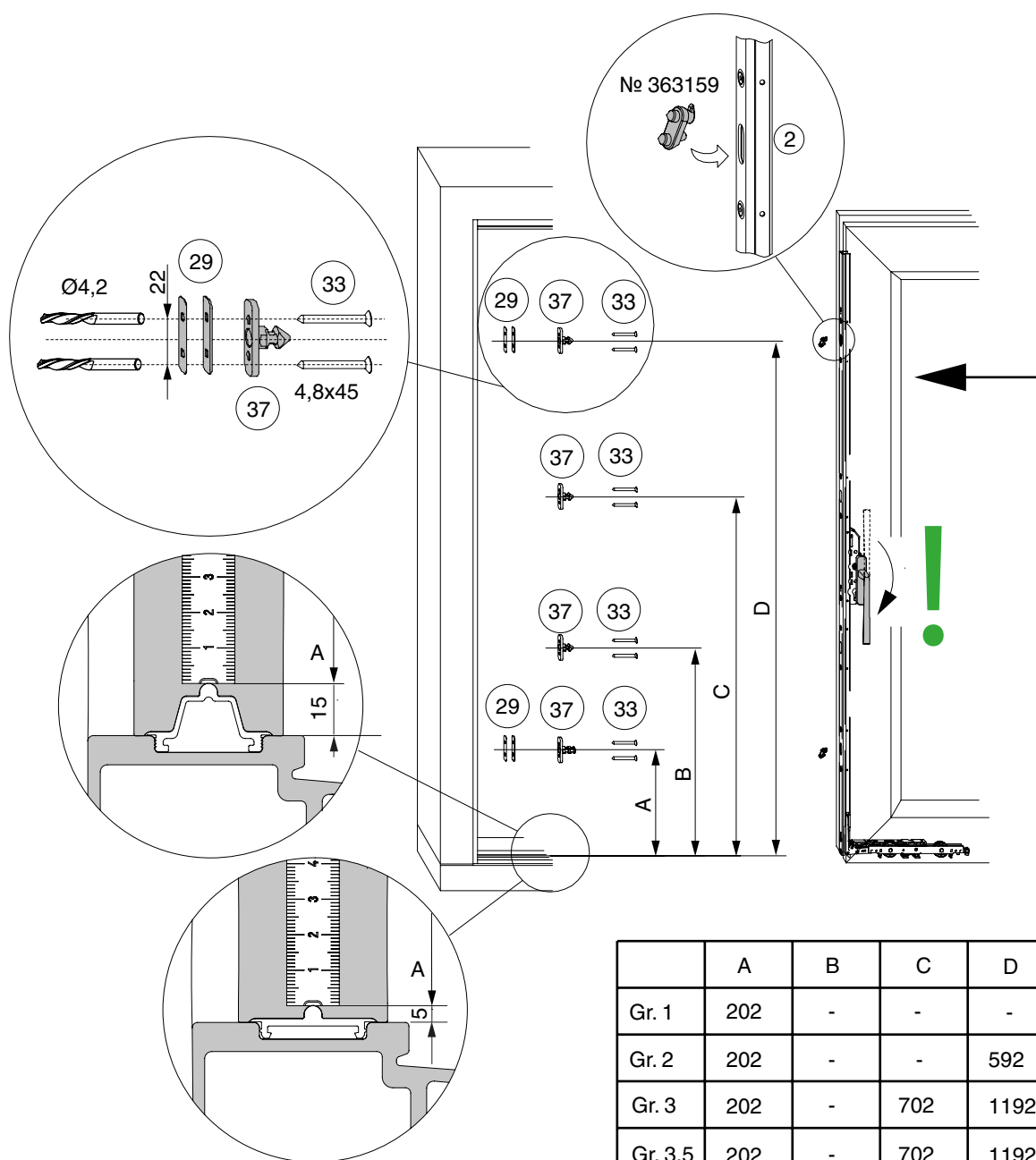
Installation on sash

Handle fitting



Installation on sash and frame

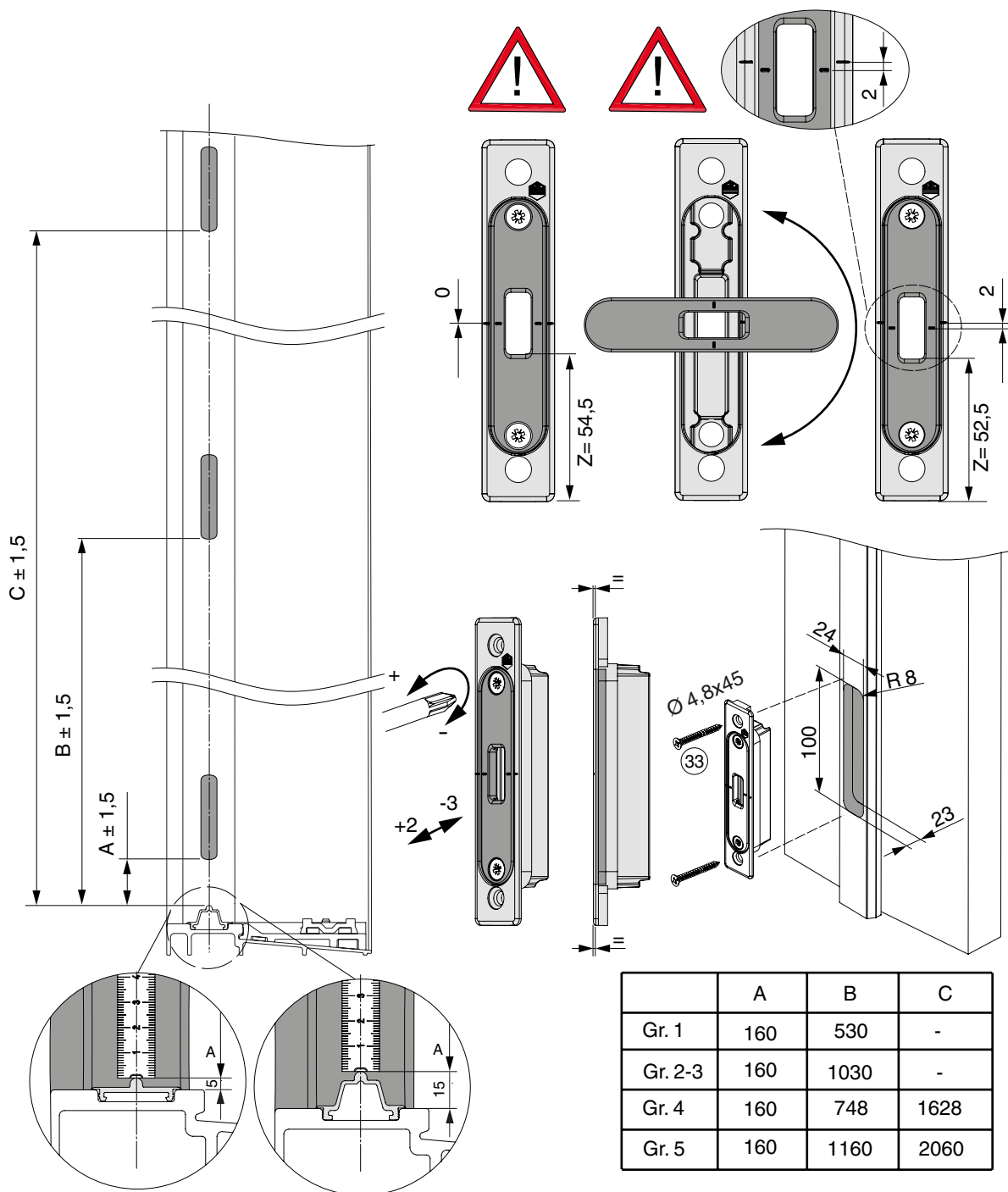
Locking bolt



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

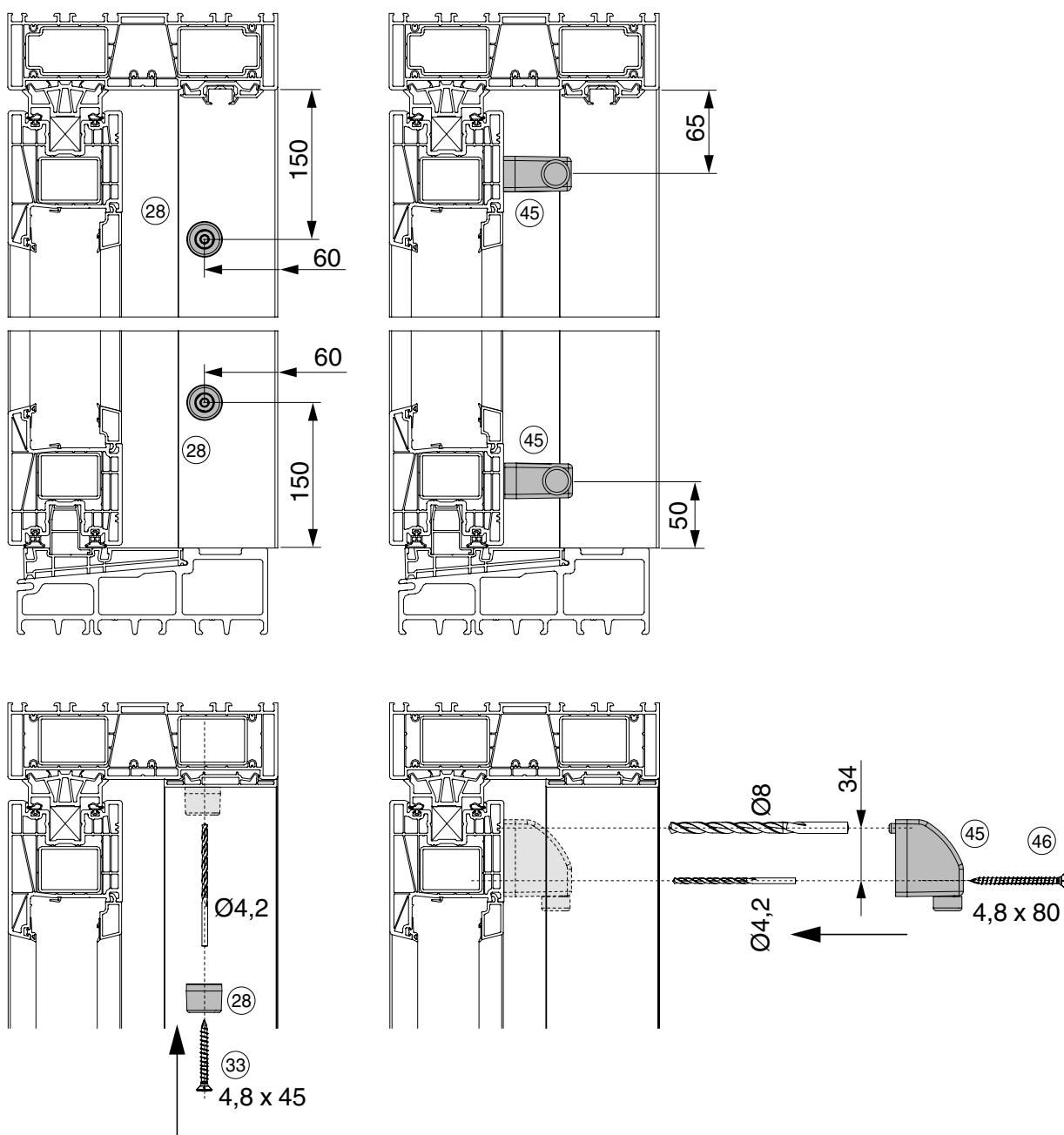
Installation on sash and frame

Hook striker plate

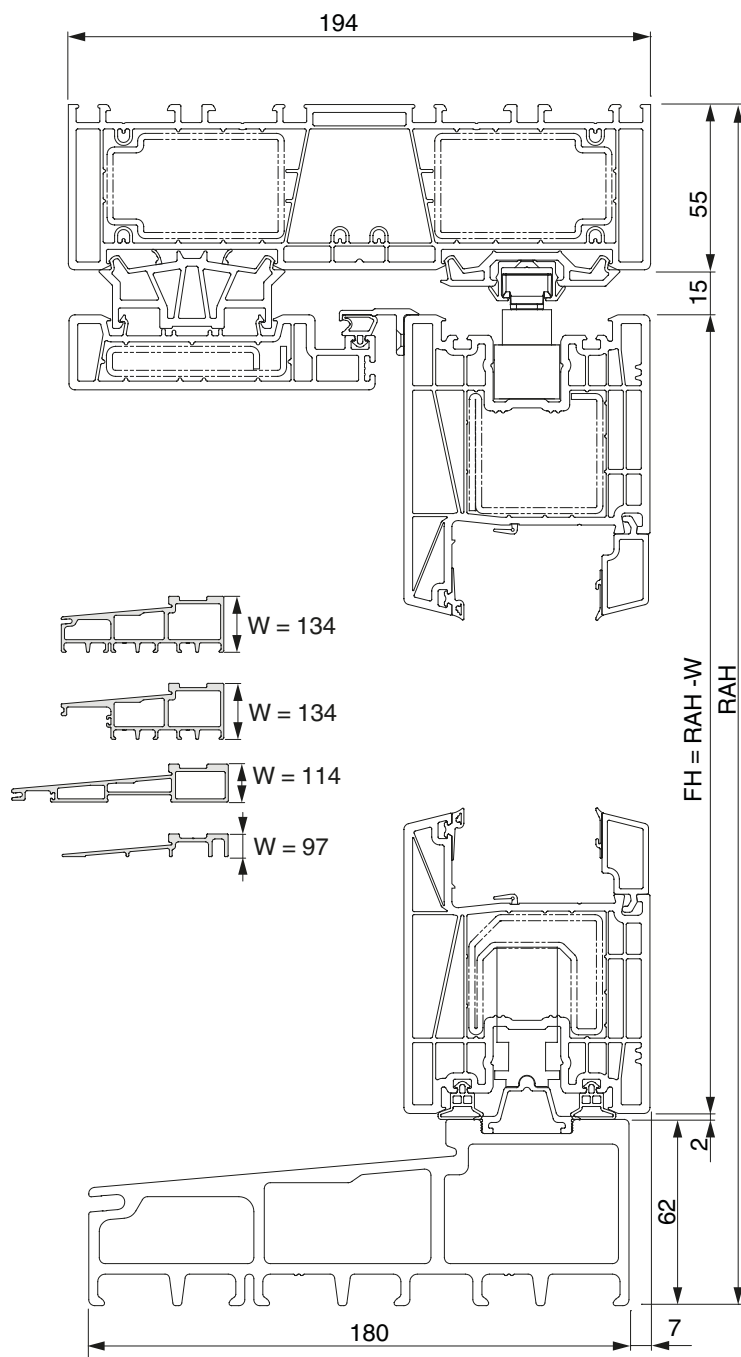


Installation of accessories

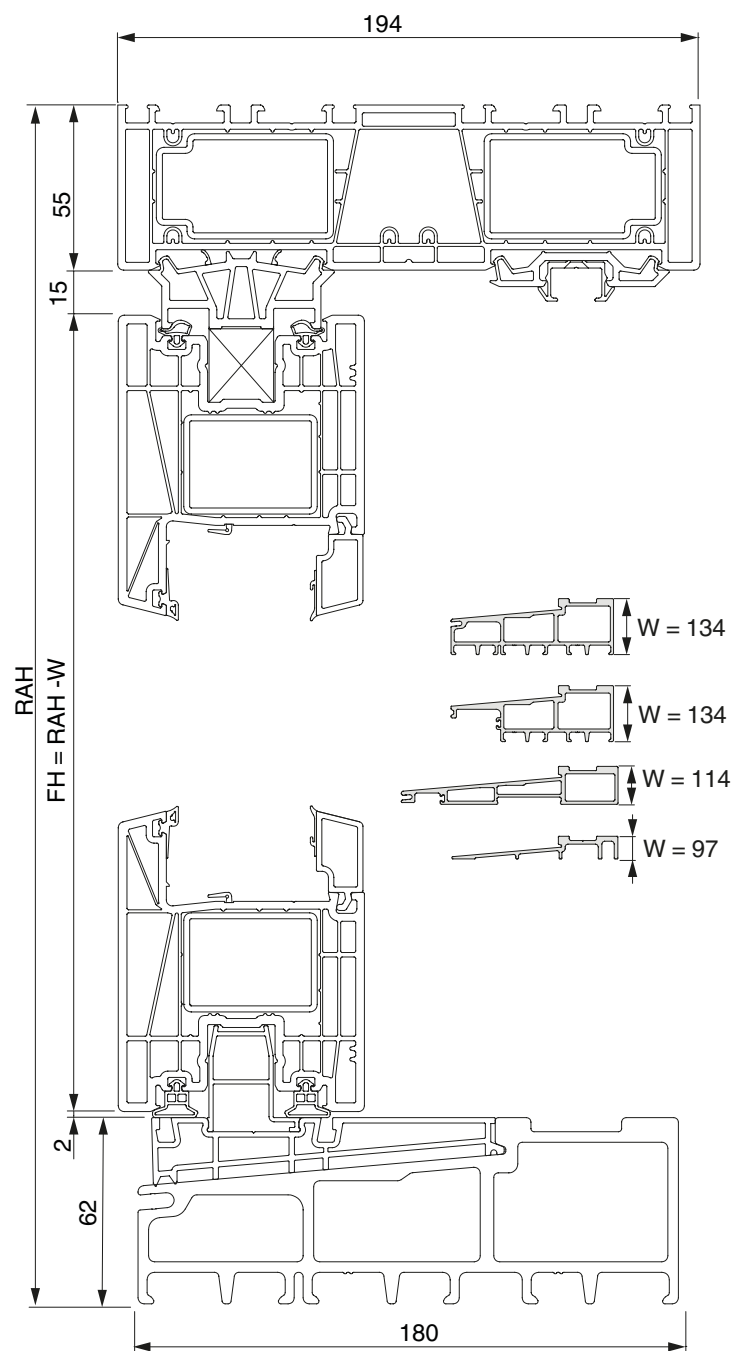
Buffer stops



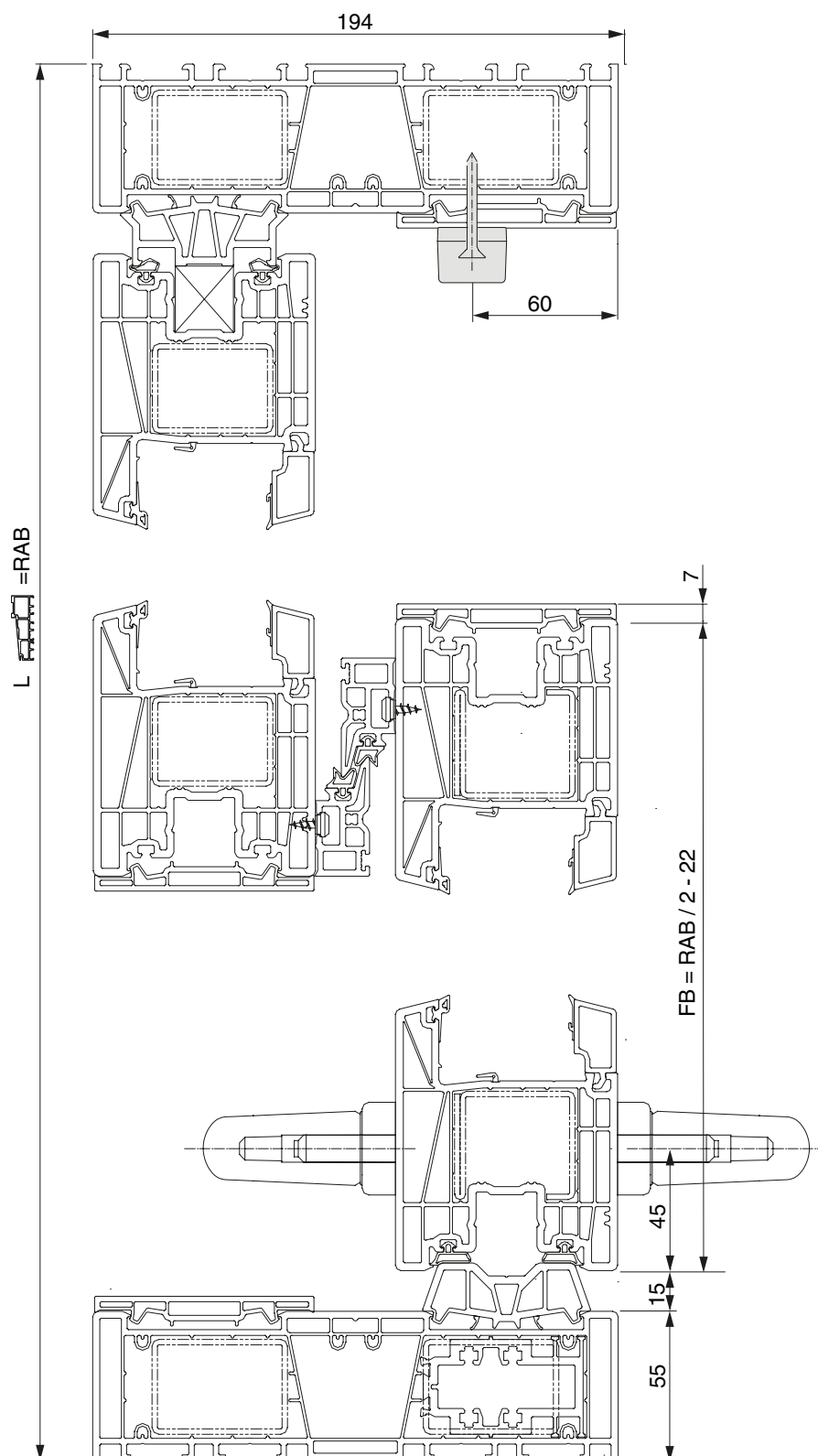
Vertical section of sliding sash



Vertical section of fixed sash



Horizontal section



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