



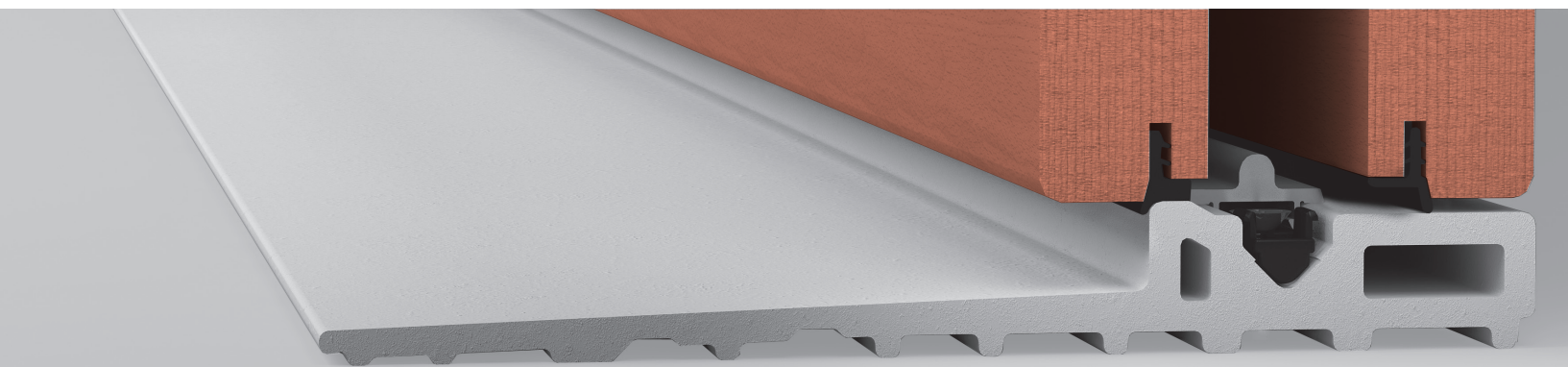
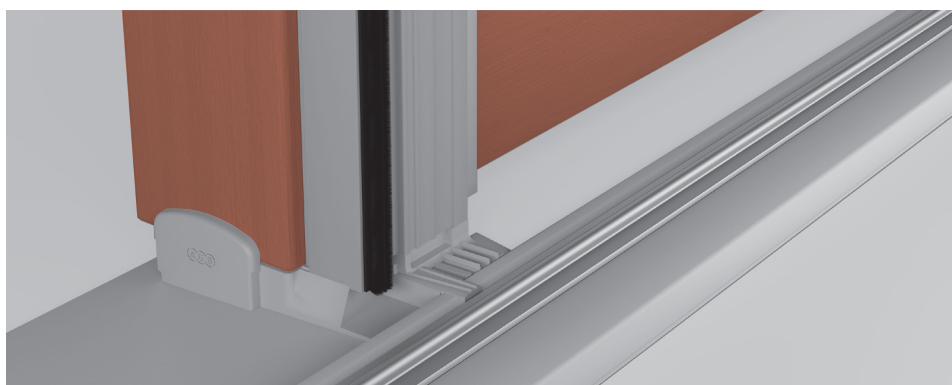
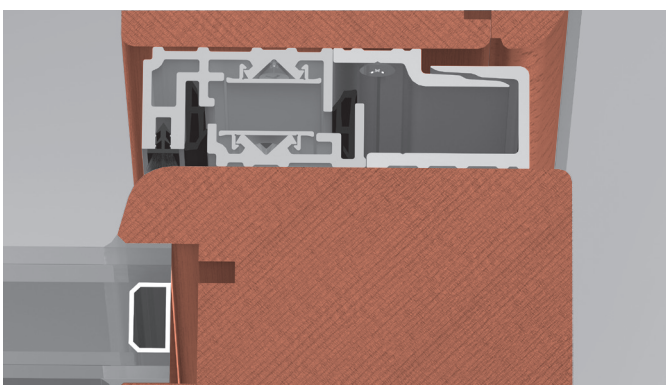
**Alban Giacomo SpA**

COMPANY WITH QUALITY MANAGEMENT  
SYSTEM CERTIFIED BY DNV  
= ISO 9001:2008 =

## TECHNICAL MANUAL

# LIFT&SLIDE Climatech

- System sections 68x100 mm and 68x110 mm.
- Sash with only one bottom rail with the possibility for a baseboard.
- Vertical - bottom outside gasket: balloon gasket with vulcanized EPDM corner.
- Inside face EPDM gasket to cover the milled section.
- PVC top gasket with fin.
- Central point gasket made of coextruded EPDM sponge.
- Top aluminium locking profile with waterproofed sponge seals
- Water, air, wind, and soft body impact tests conducted with glass: 44.1/15/33.1 (minimum usable).
- Universal reduced aluminium top guide and pultruded fibreglass threshold.
- 28 mm distances between the sashes.
- Central point composed of PVC reverse rebate and aluminium anti-burglar kit.
- Pattern E constructed with symmetric central point with aluminium pin holder and end caps for closing the openings.
- Exterior brush weatherstripping.





## Initial Type Testing (ITT) results for Climatch

	<b>LAYOUT A</b>		<b>LAYOUT E</b>	
	<i>Window and door dimensions</i>		<i>Window and door dimensions</i>	
Water	3985x2750 mm	<b>8A</b>	3985x2750 mm	<b>8A</b>
Air	3985x2750 mm	<b>4</b>	3985x2750 mm	<b>4</b>
Wind	3985x2750 mm	<b>3B</b>	3985x2750 mm	<b>3C</b>
Noise abatement with glass 43 db - 55.4/15/44.1	3985x2750 mm	<b>41db</b>	3985x2750 mm	<b>40db</b>
Noise abatement with glass 41 db - 44.1/15/33.1	3985x2750 mm	<b>39db</b>	3985x2750 mm	<b>39db</b>
<b>NB.</b> Door or window thickness 68x110 mm				
Heat transmittance	3000x2350 mm	<b>1,55 W/m²K</b>	4000x2350 mm	
<b>NB.</b> Ug 1.4, improved glass spacer, Section 68x110 mm				
Soft heavy body impact	1600x1500 mm	<b>5</b>	4000x2750 mm	<b>5</b>



**Window and door manufacturers benefitting from the AGB cascading contract are required to install glass with the following minimum requirements:**

Minimum thickness 44.1/15/33.1 Shatterproof

Ug 1.4 W/m²K or better (e.g. Ug 1.1 W/m²K)

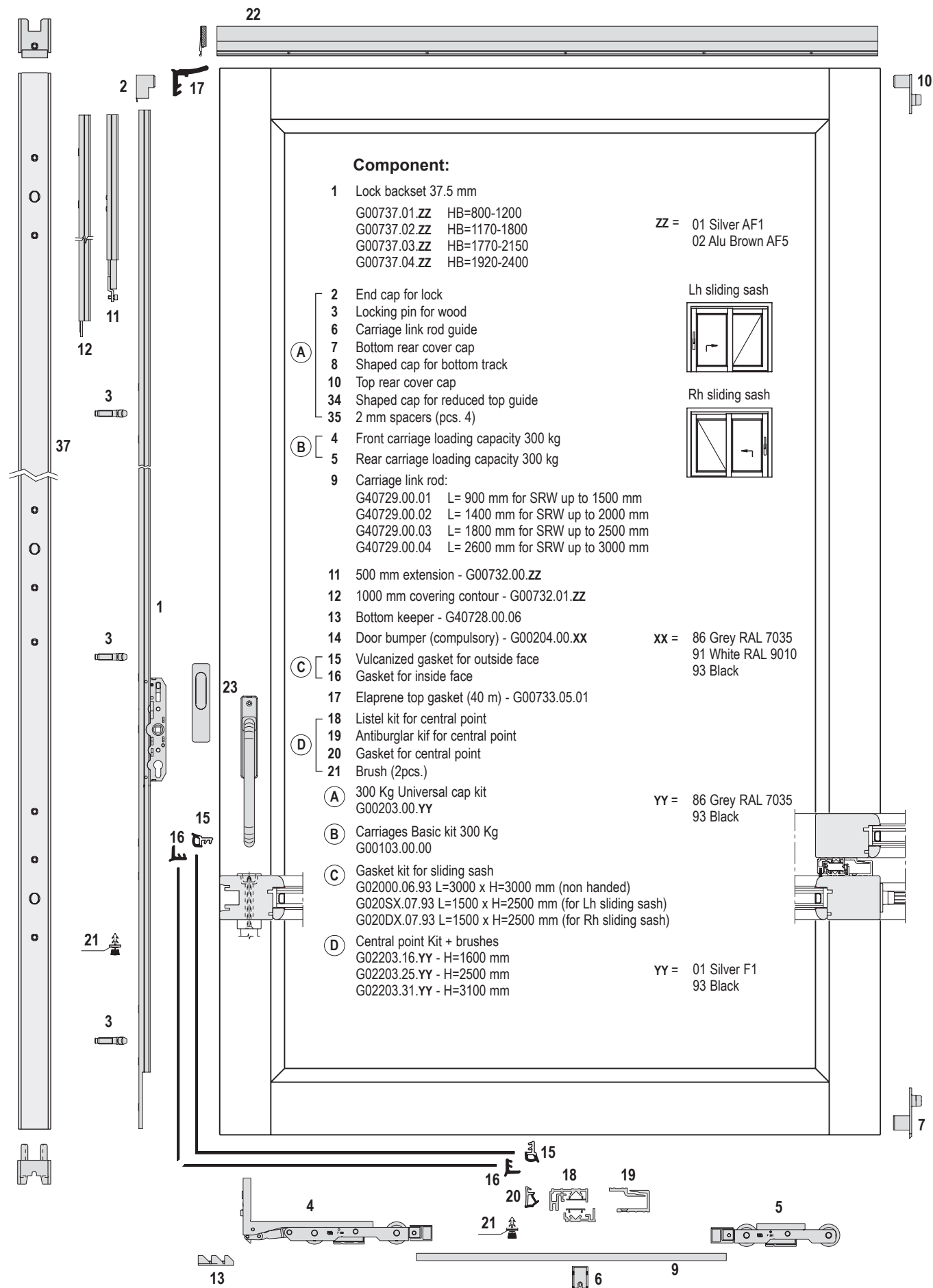
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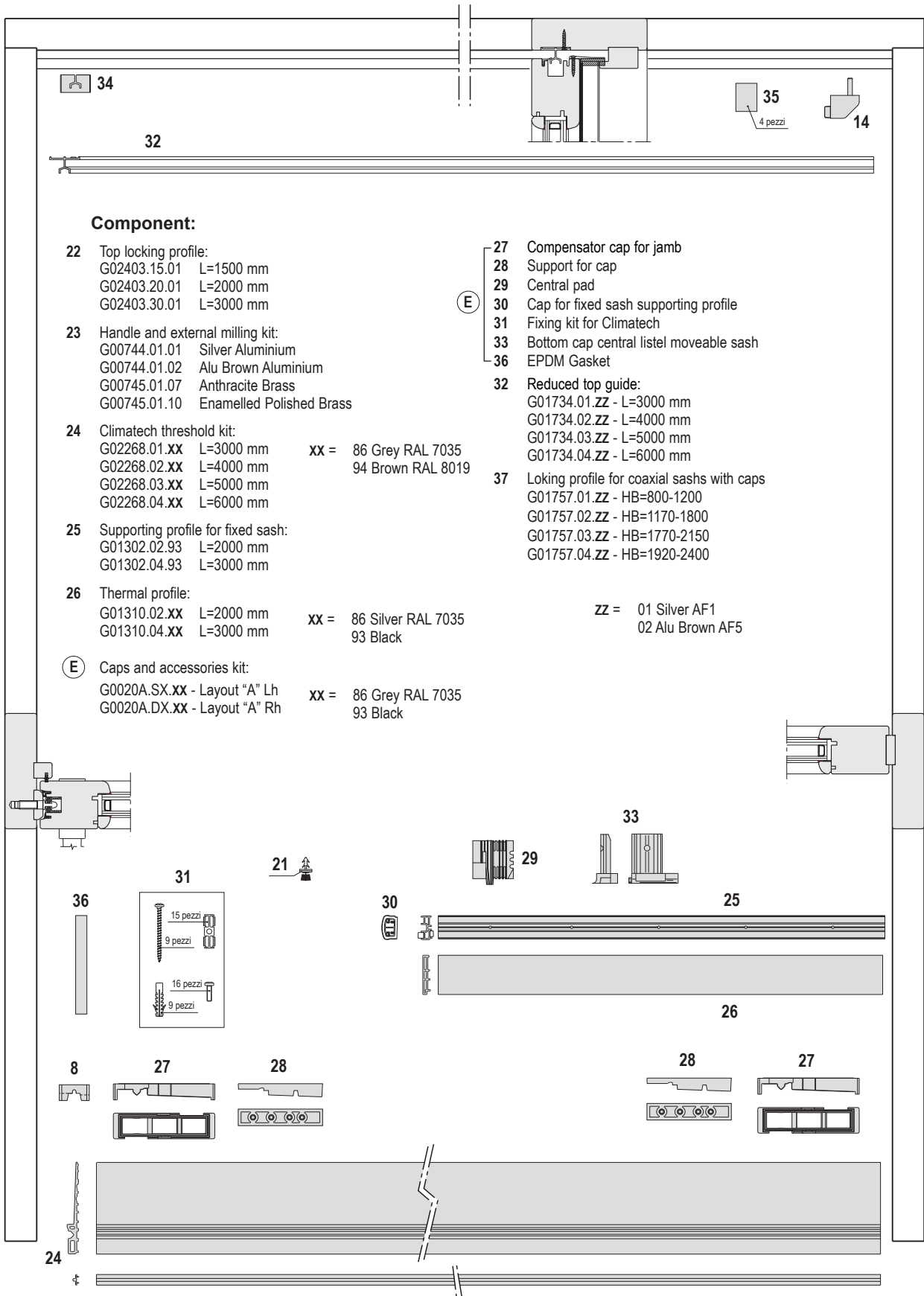
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## Hardware diagram - Sash



Hardware diagram - Frame



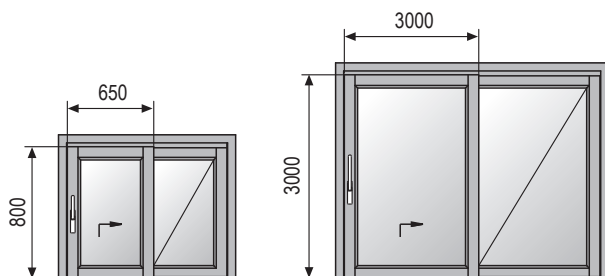
Component:

- 22 Top locking profile:  
G02403.15.01 L=1500 mm  
G02403.20.01 L=2000 mm  
G02403.30.01 L=3000 mm
- 23 Handle and external milling kit:  
G00744.01.01 Silver Aluminium  
G00744.01.02 Alu Brown Aluminium  
G00745.01.07 Anthracite Brass  
G00745.01.10 Enamelled Polished Brass
- 24 Climatch threshold kit:  
G02268.01.XX L=3000 mm    XX = 86 Grey RAL 7035  
G02268.02.XX L=4000 mm    94 Brown RAL 8019  
G02268.03.XX L=5000 mm  
G02268.04.XX L=6000 mm
- 25 Supporting profile for fixed sash:  
G01302.02.93 L=2000 mm  
G01302.04.93 L=3000 mm
- 26 Thermal profile:  
G01310.02.XX L=2000 mm    XX = 86 Silver RAL 7035    ZZ = 01 Silver AF1  
G01310.04.XX L=3000 mm    93 Black    02 Alu Brown AF5
- (E) Caps and accessories kit:  
G0020A.SX.XX - Layout "A" Lh    XX = 86 Grey RAL 7035  
G0020A.DX.XX - Layout "A" Rh    93 Black
- 27 Compensator cap for jamb  
28 Support for cap  
29 Central pad  
30 Cap for fixed sash supporting profile  
31 Fixing kit for Climatch  
33 Bottom cap central listel moveable sash  
36 EPDM Gasket  
32 Reduced top guide:  
G01734.01.ZZ - L=3000 mm  
G01734.02.ZZ - L=4000 mm  
G01734.03.ZZ - L=5000 mm  
G01734.04.ZZ - L=6000 mm  
37 Locking profile for coaxial sashes with caps  
G01757.01.ZZ - HB=800-1200  
G01757.02.ZZ - HB=1170-1800  
G01757.03.ZZ - HB=1770-2150  
G01757.04.ZZ - HB=1920-2400

The following screws are required for assembly:							
With 68x100 profile				With 68x110 profile			
3x40mm	3,5x30mm	4x50mm	4,5x35mm	3x40mm	3,5x30mm	4x50mm	4,5x35mm
4,5x60mm	4,5x80mm	6x120mm*		4,5x60mm	4,5x80mm	6x140mm*	
*Fully threaded screws or turbo screws							



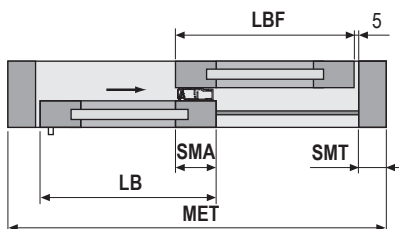
## Width of sliding sashes dimensional limits and calculation



## Width of sliding sashes calculation

### Layout A

1 fixed door and 1 sliding door



$$LB = [MET - 2 \times (SMT + 5)] : 2 + SMA : 2$$

E.g.:  $LB = [4000 - 2 \times (45 + 5)] : 2 + 100 : 2$      $LB = 2000$  mm

### Layout D

1 fixed door and 2 sliding doors



$$LB = [MET - 2 \times (SMT + 5)] : 4 + SMA : 2$$

### Layout E



2 fixed and 2 sliding doors



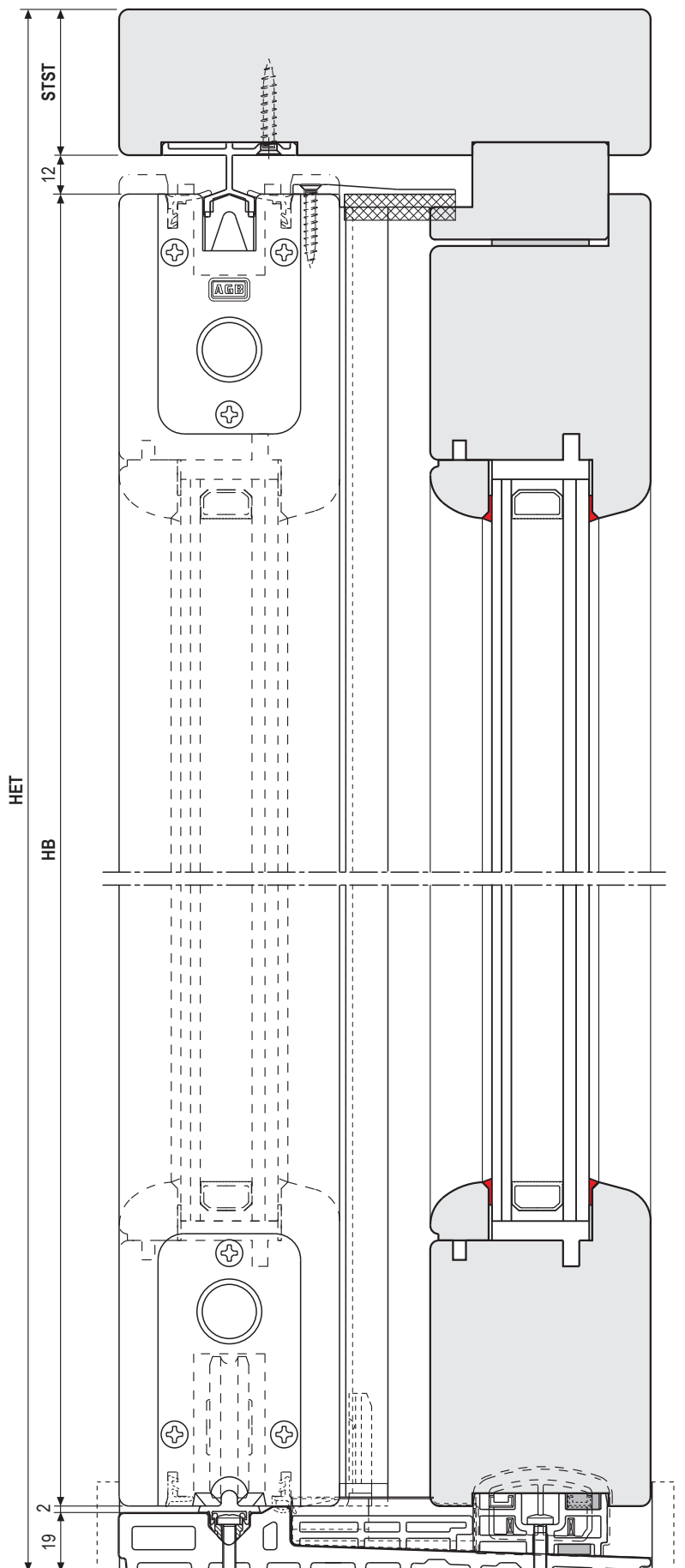
$$LB = [MET - (2 \times (SMT \times 3) + 5)] : 4 + SMA : 2$$

## Key legend of symbols and abbreviations

<b>LB</b>	= Door width
<b>MET</b>	= Outside frame measurement (architectural opening)
<b>SMT</b>	= Door frame jamb thickness
<b>SMA</b>	= Sash jamb thickness
<b>LBF</b>	= Fixed door width
<b>Air</b>	= 5 mm

-  = Silicone or suitable gasket
-  = Neutral silicone bead with Primer

## Width of sliding sashes calculation

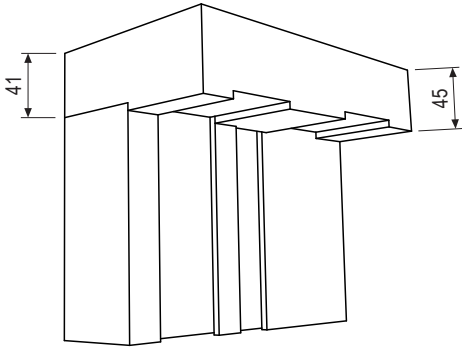


**HET** = Outside frame height  
**HB** = Sliding door height  
**STST** = Thickness of top frame rail

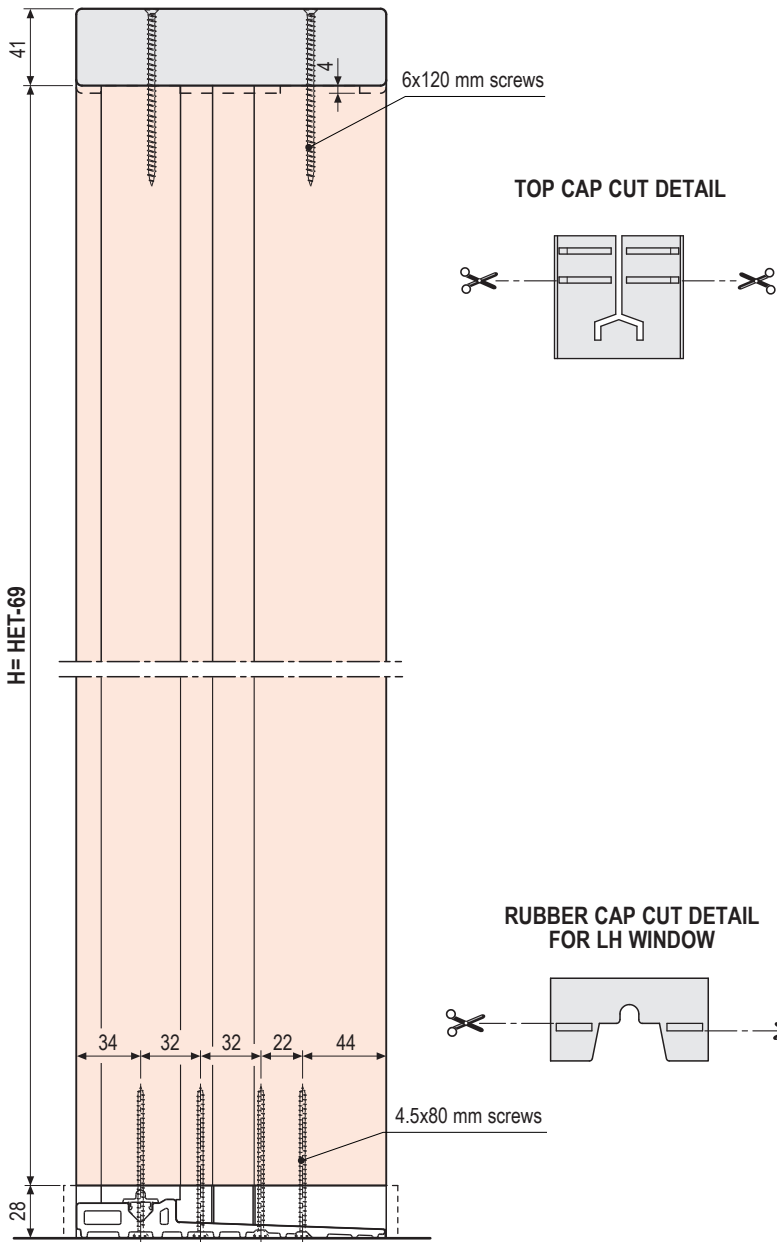
Tolerance **HB** ±0,5

$$HB = HET - (STST + 12 + 21)$$

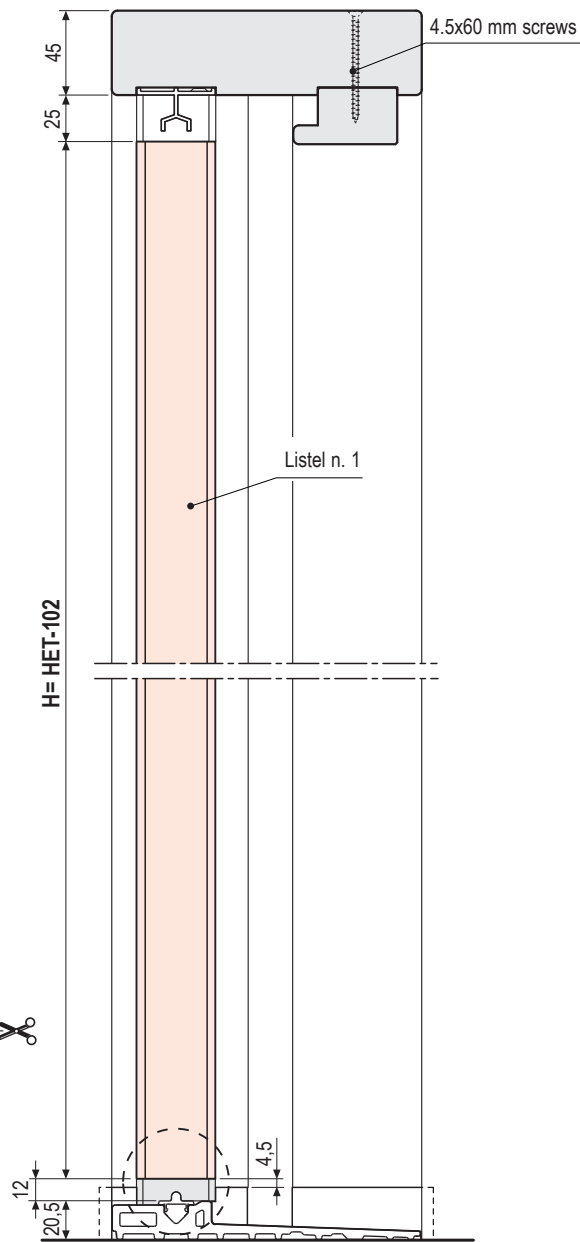
Calculation of stiles and listels measurements



STILES HEIGHT CALCULATION

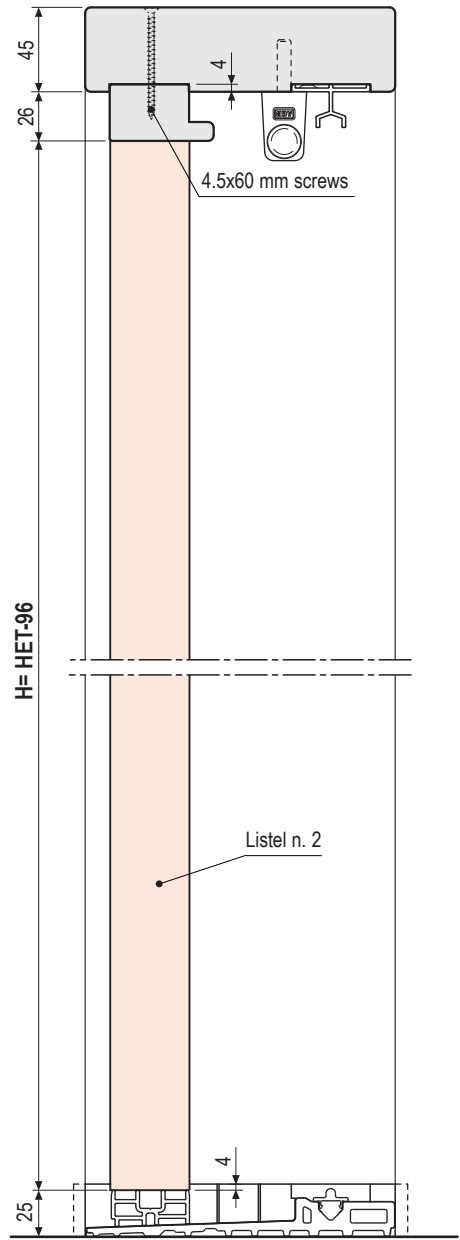


LISTEL N.1 HEIGHT CALCULATION

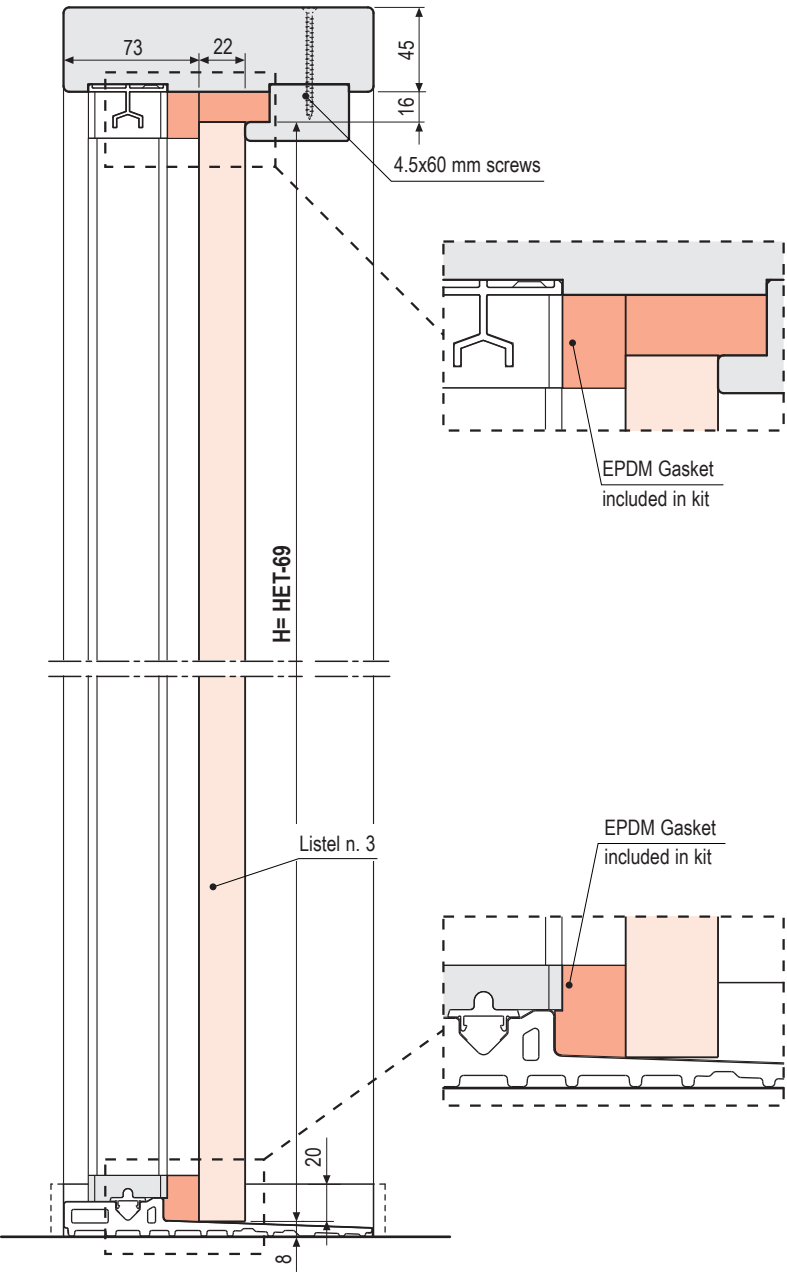




LISTEL N.2 HEIGHT CALCULATION

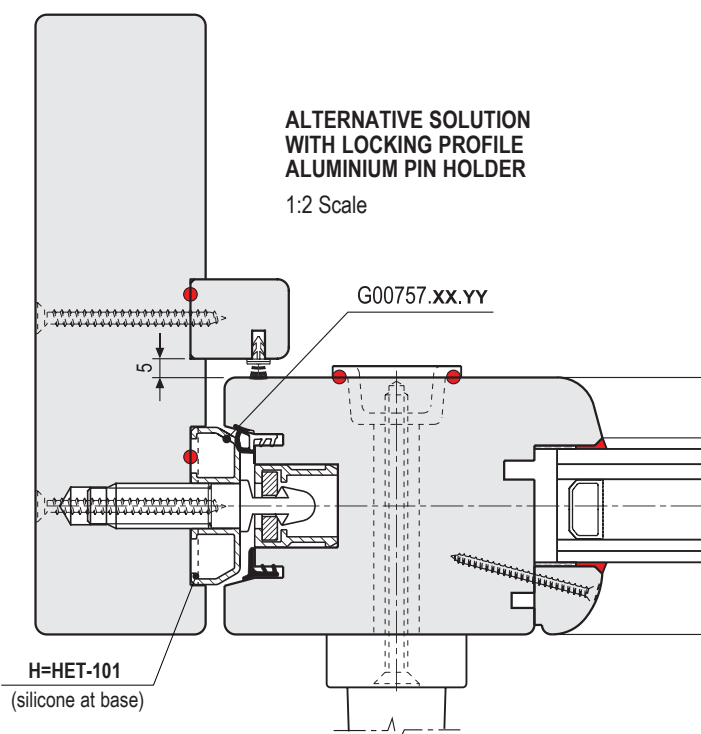
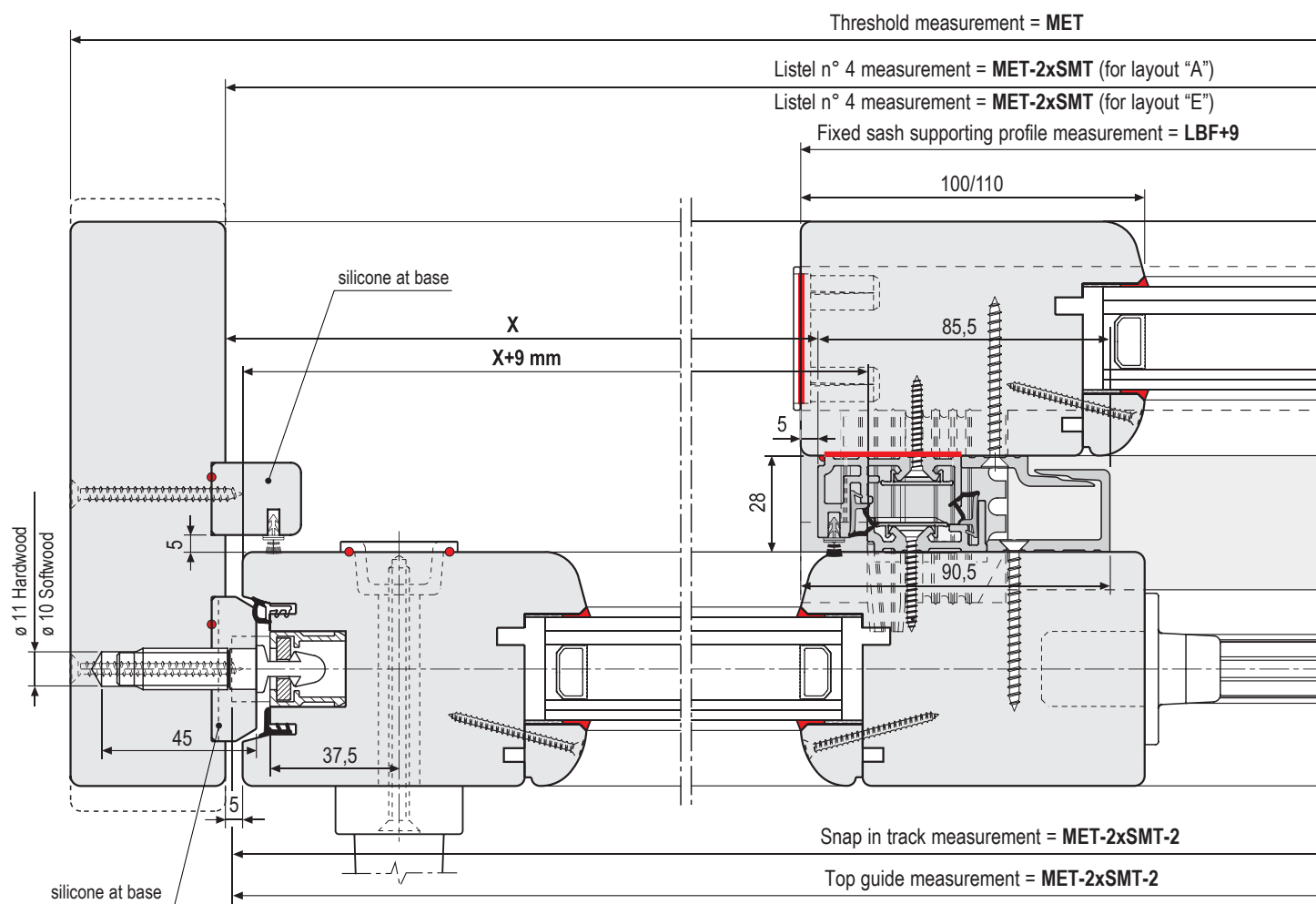


LISTEL N.3 HEIGHT CALCULATION



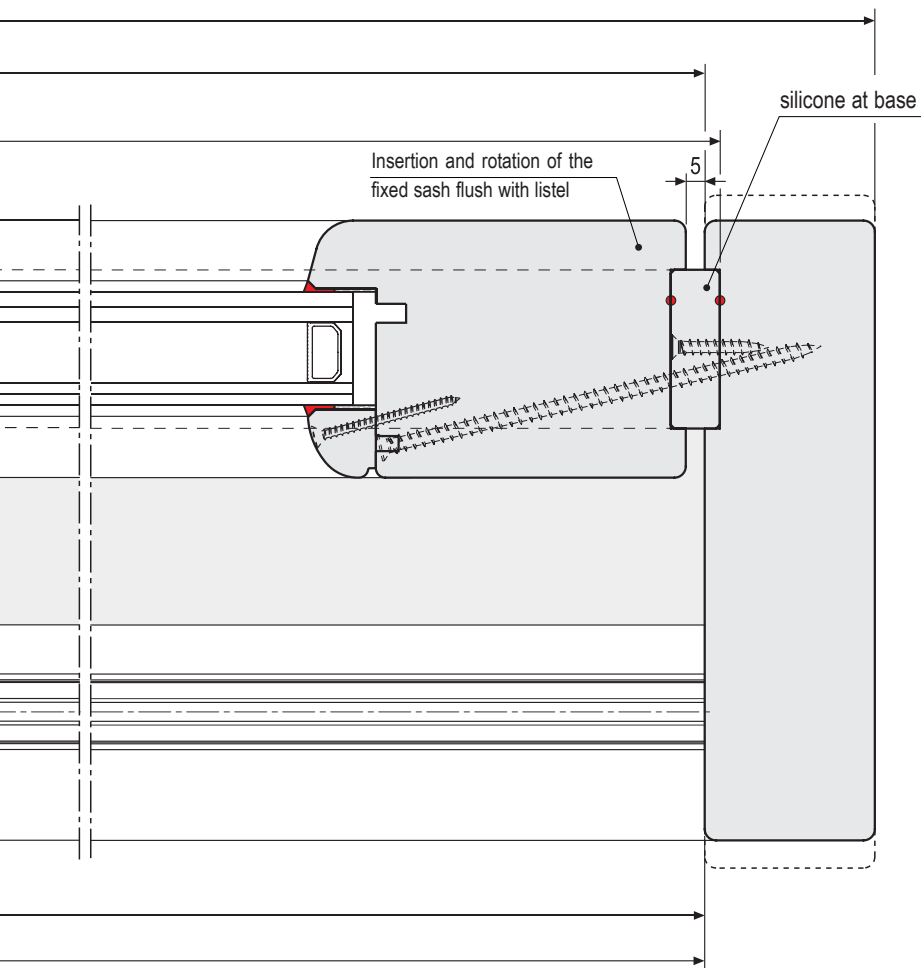
### Horizontal section

1:2 Scale

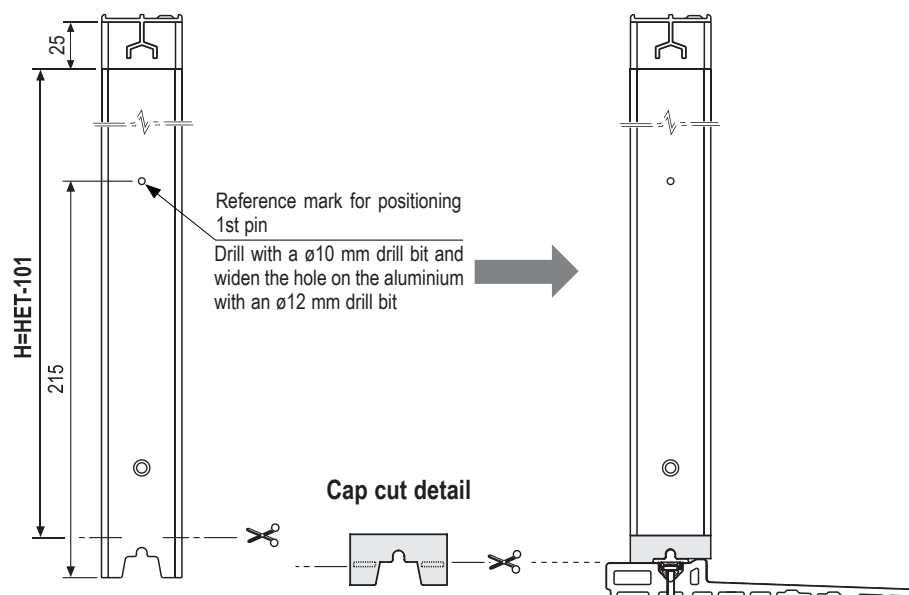


XX = 00 (HB 800 - 1800)  
01 (HB 1770 - 2900)

YY = 01 Silver AF1  
02 Alu Brown AF5

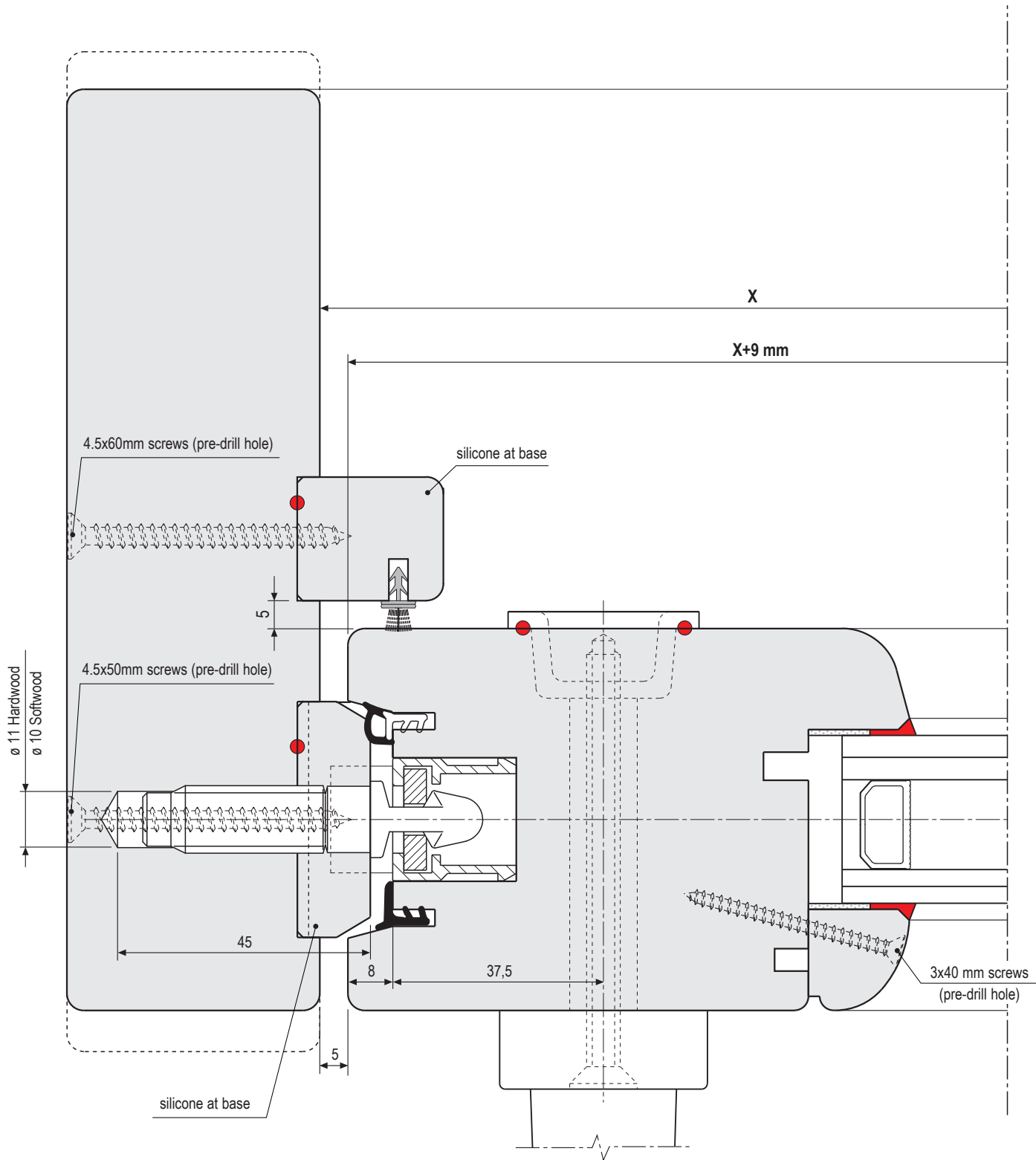


#### BOTTOM PART PROFILE CUT



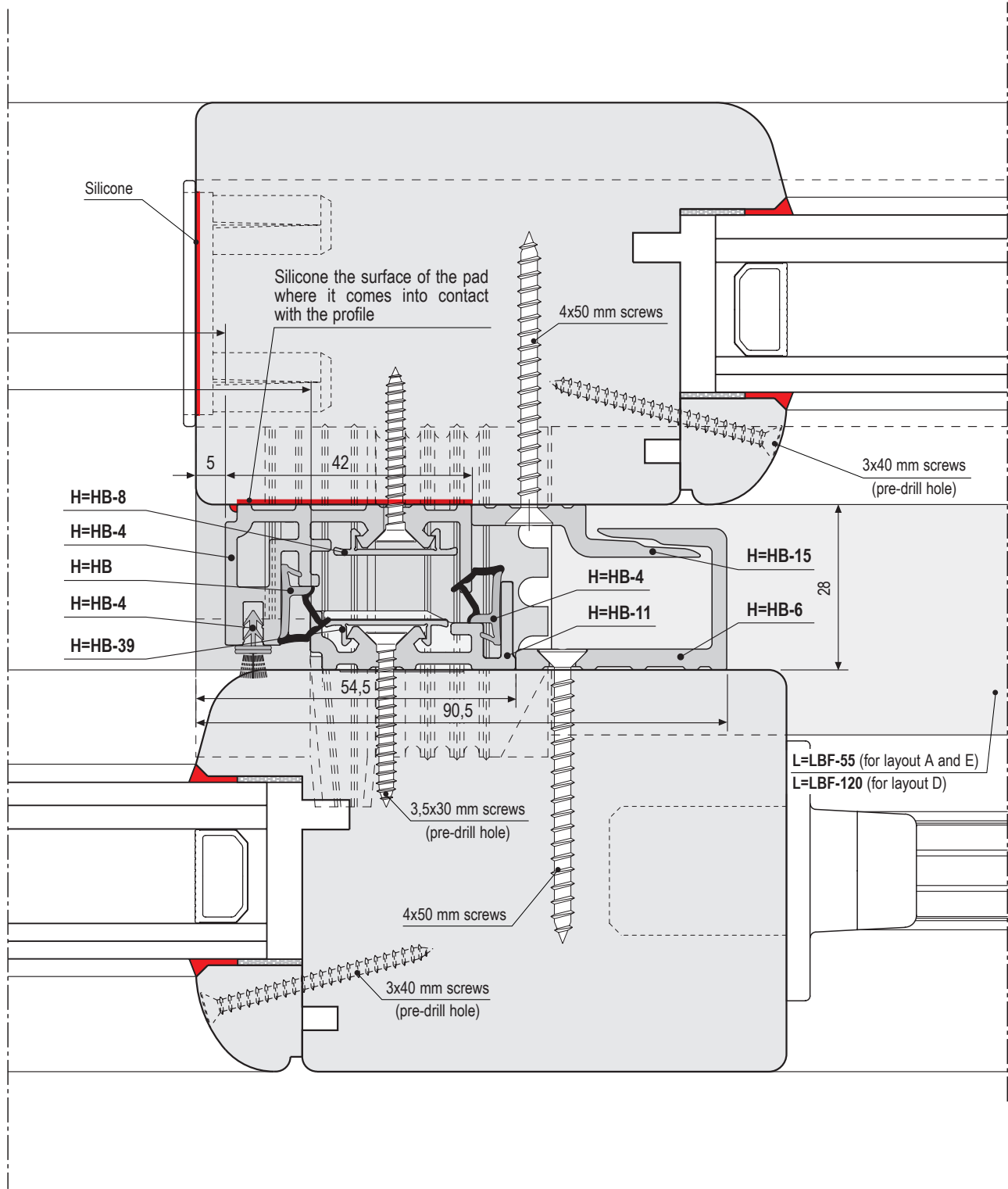
Horizontal section – sliding sash side point

1:1 Scale



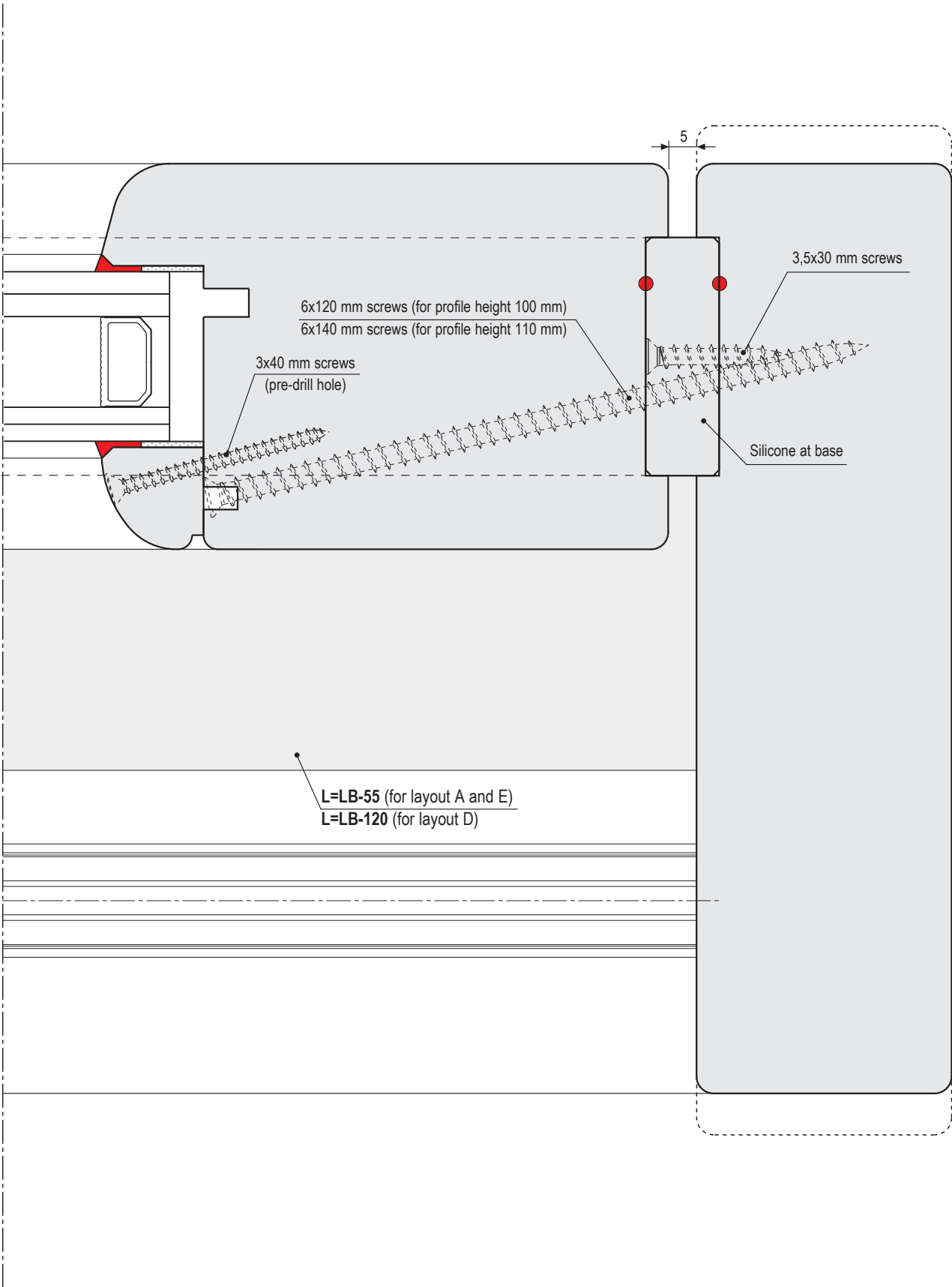
**Horizontal section central point**

1:1 Scale



Horizontal section – fixed sash side point

1:1 Scale

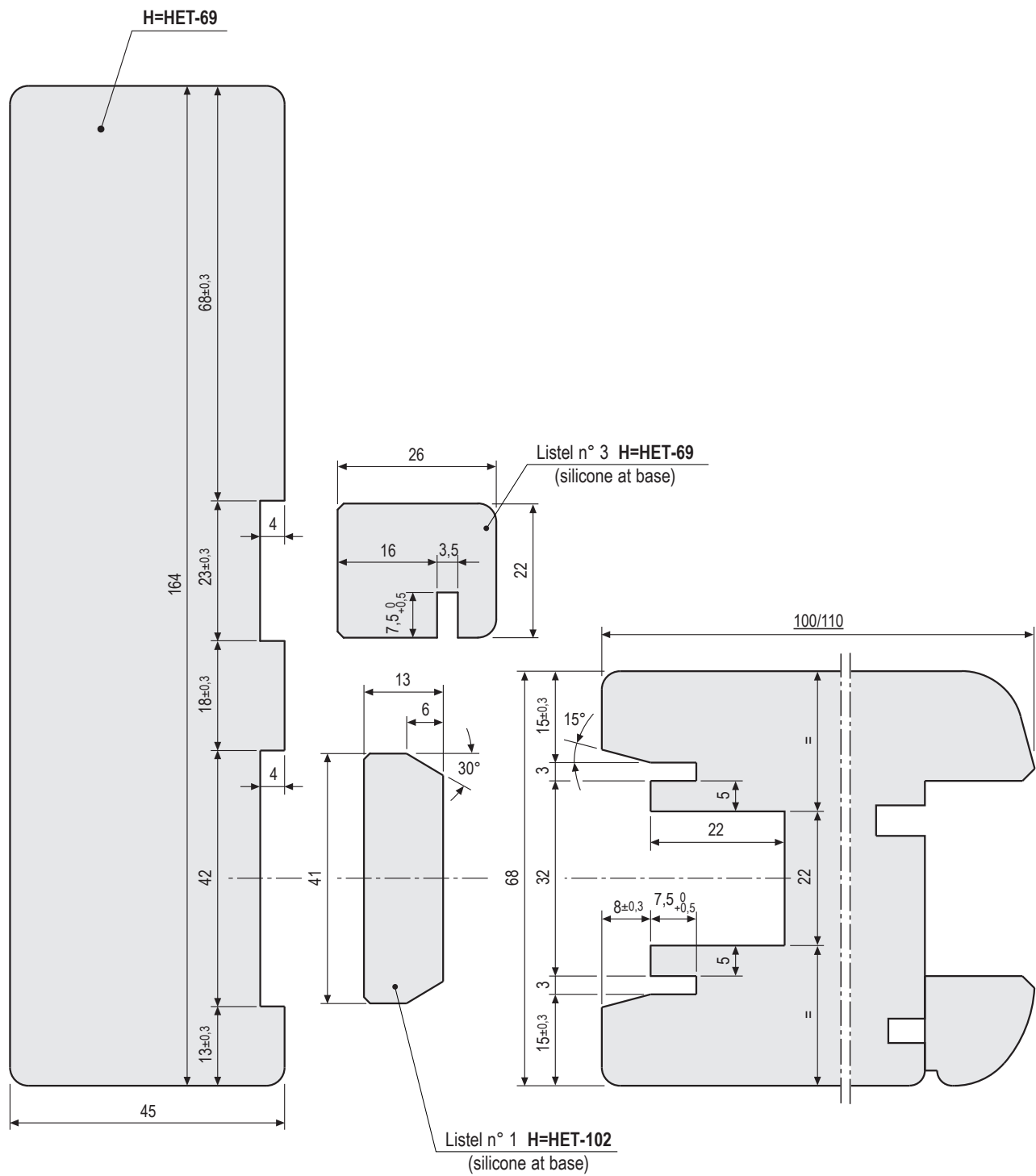


## Sash/frame processing and assembly

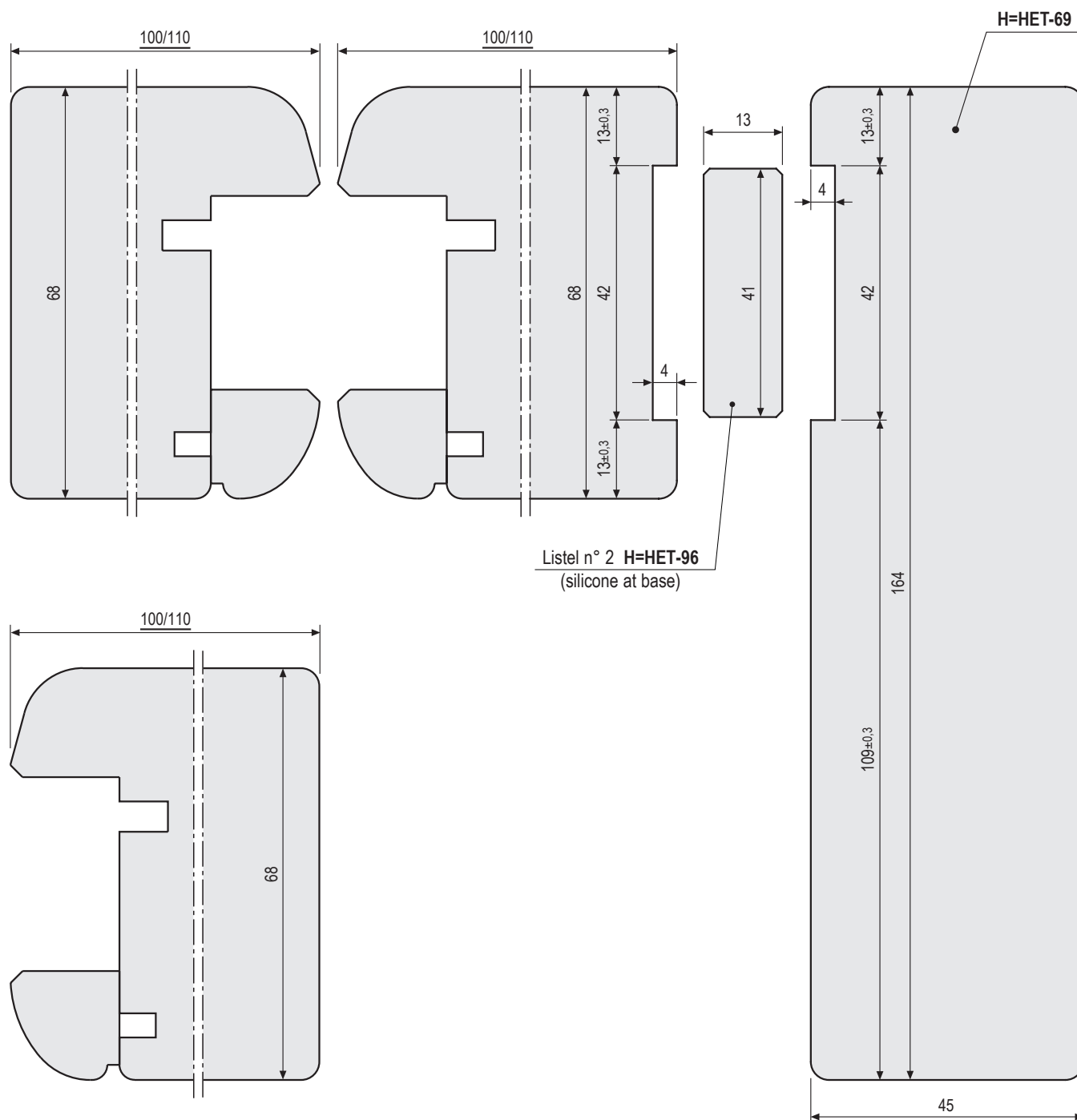
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Wood detailing: horizontal sections

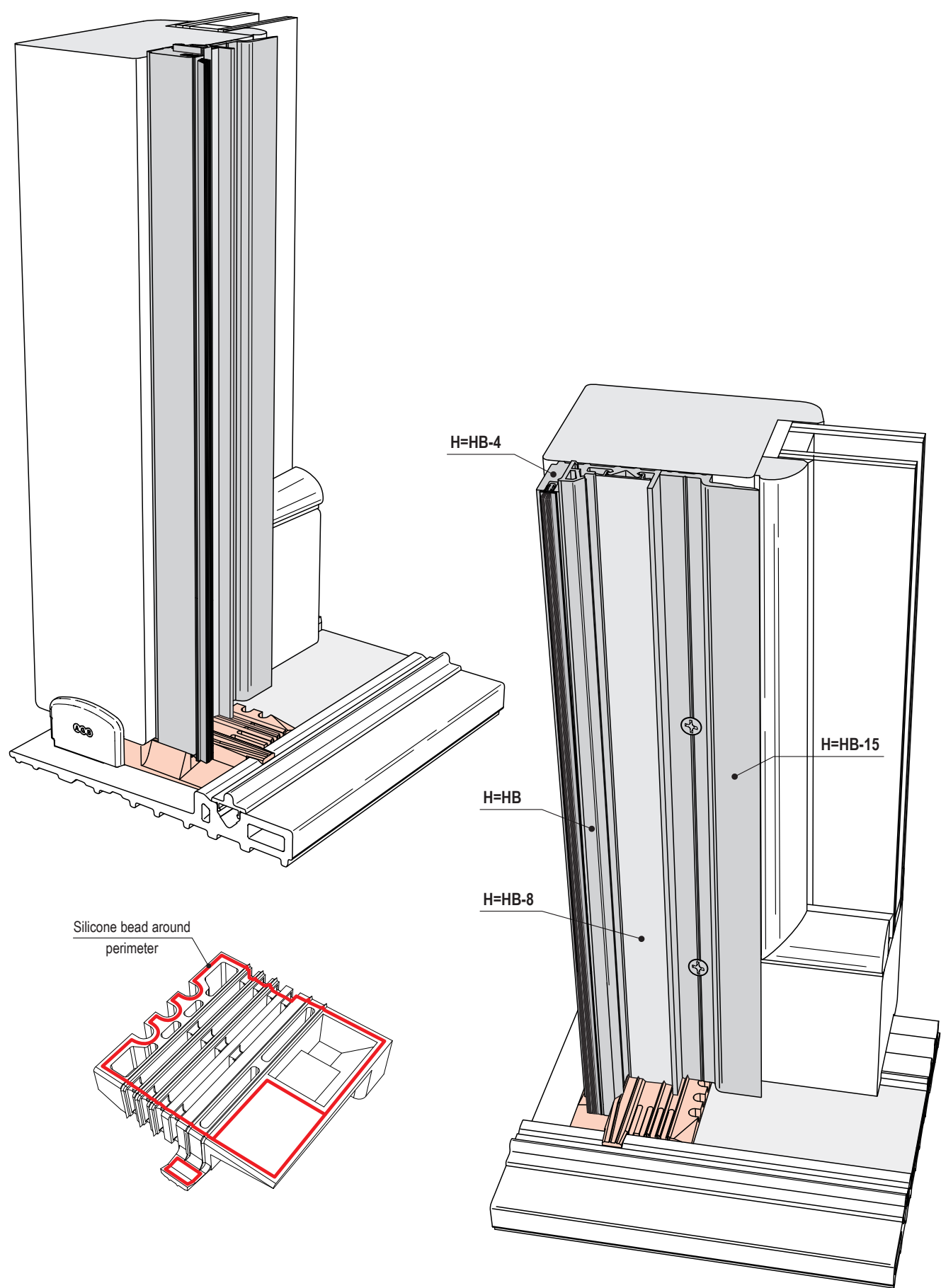
1:1 Scale





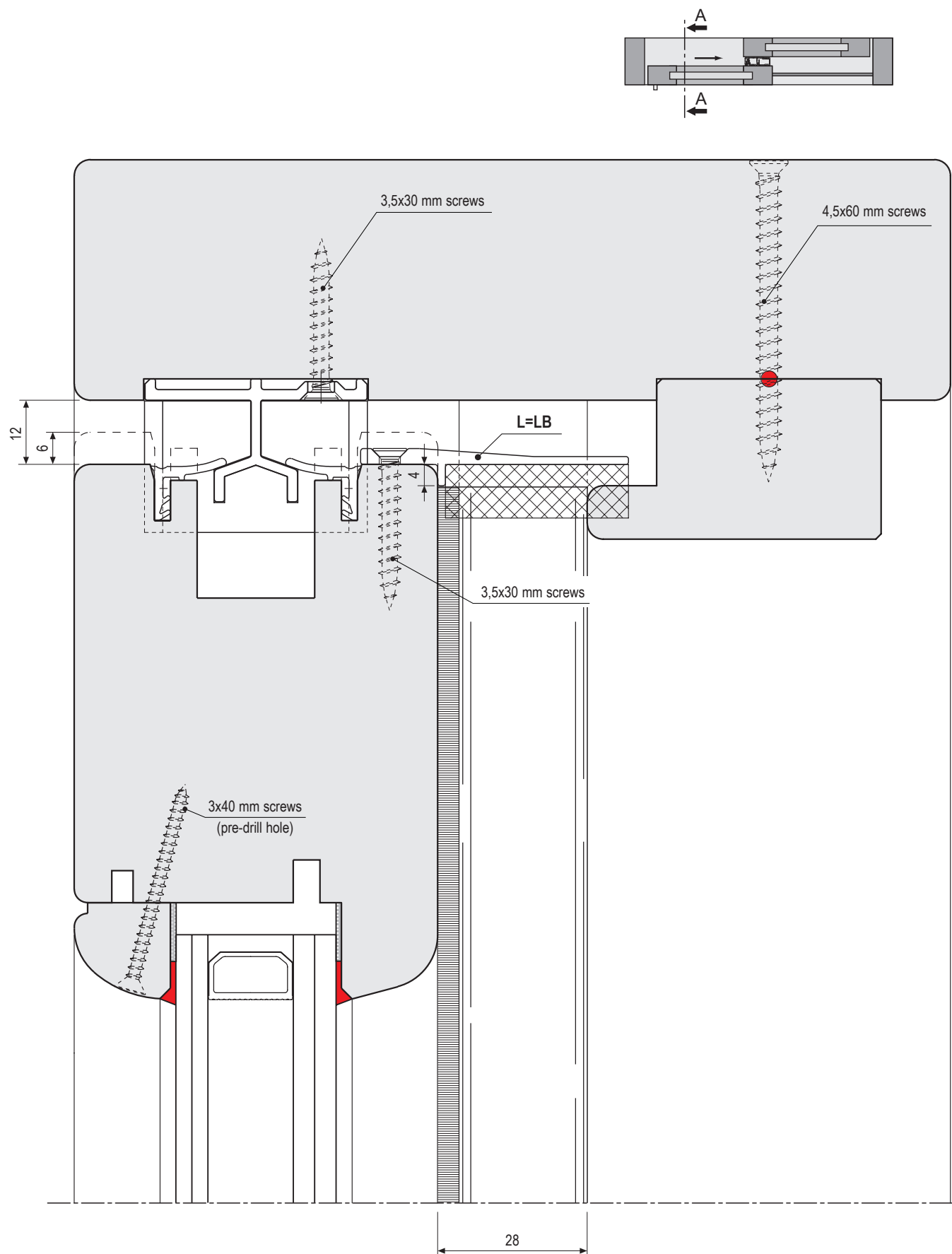


Pad application on central stiles



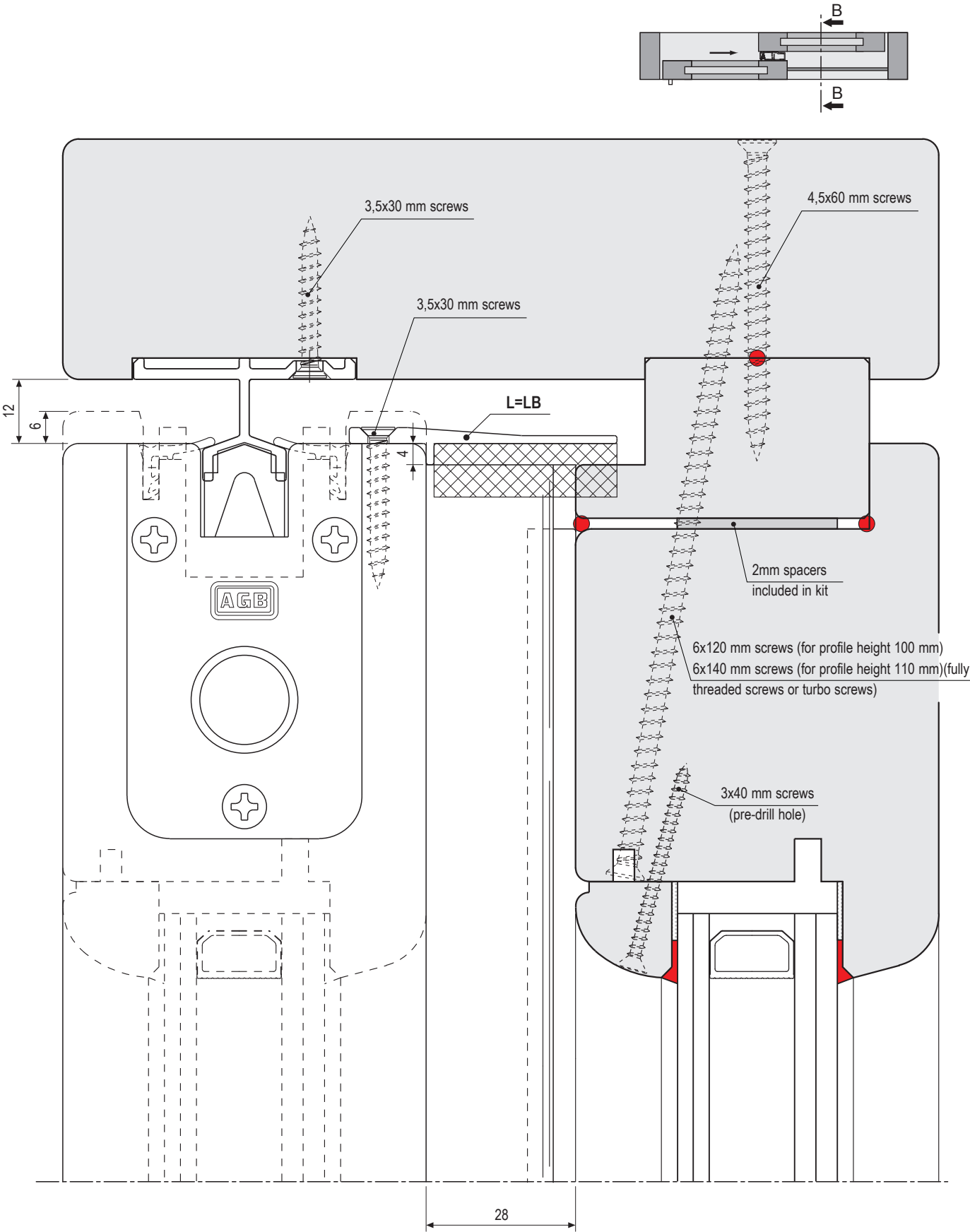
## Top point vertical section (Section A-A)

1:1 Scale



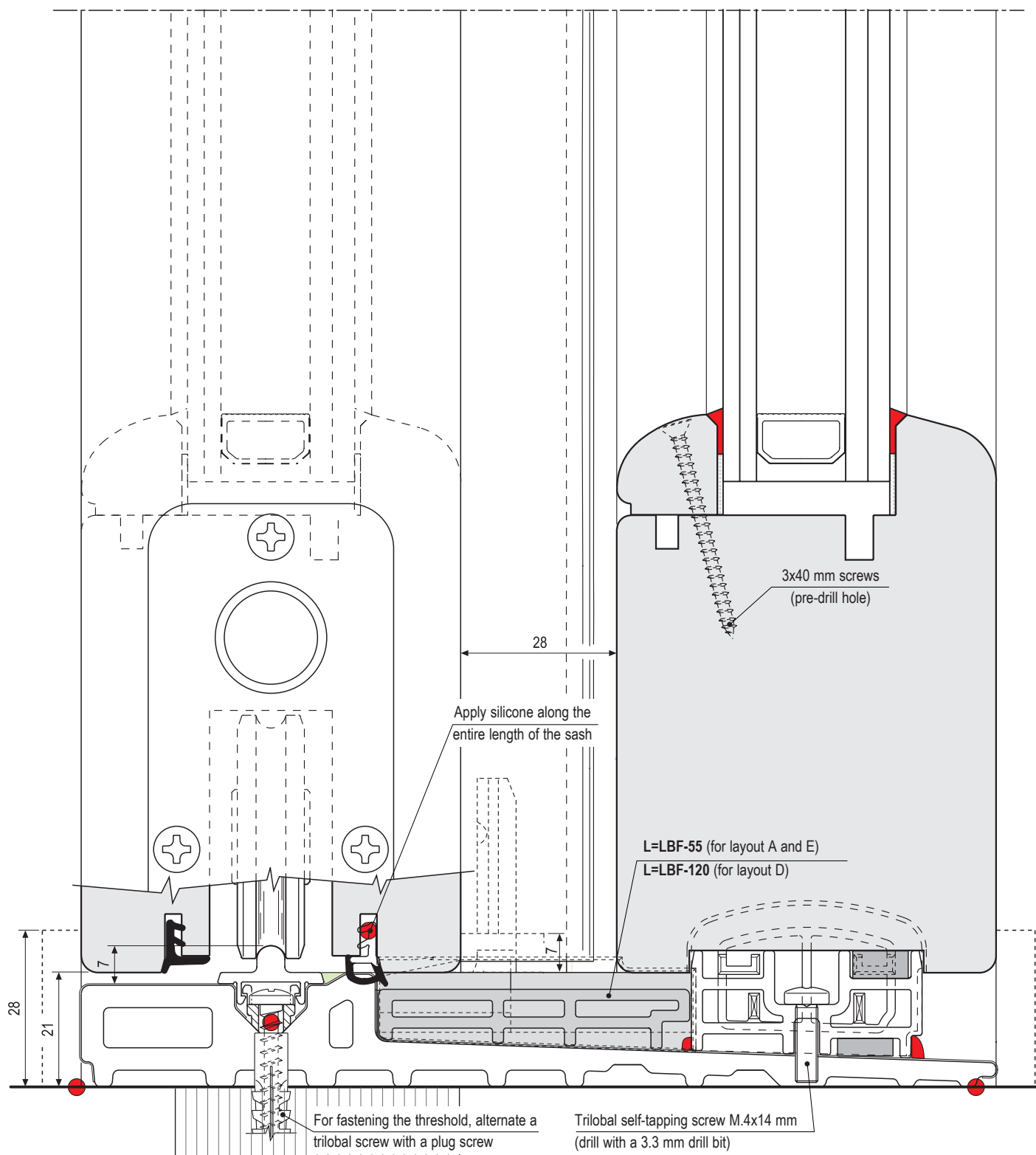
Top point vertical section (Section B-B)

1:1 Scale



## Bottom point vertical section

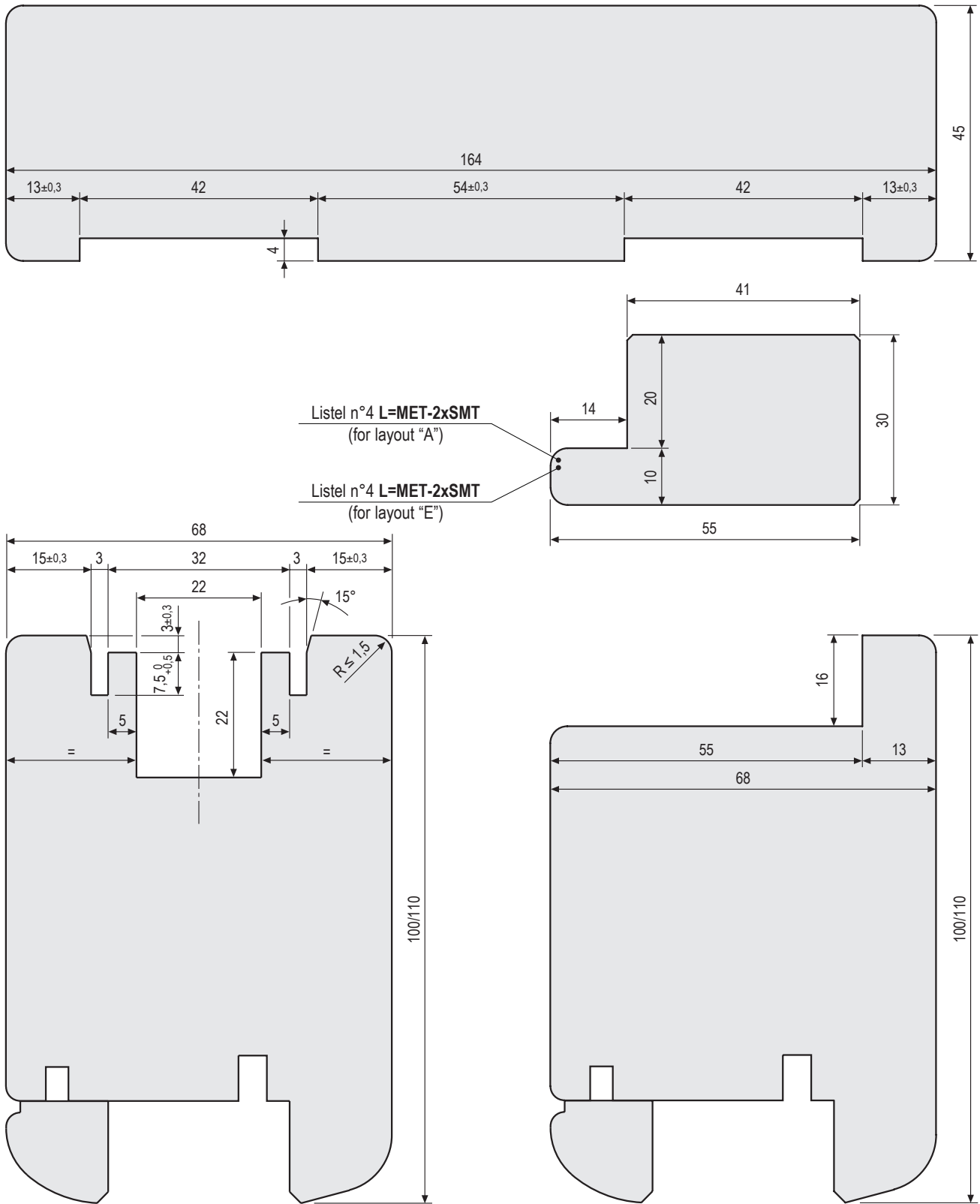
1:1 Scale



Wood detailing: vertical sections

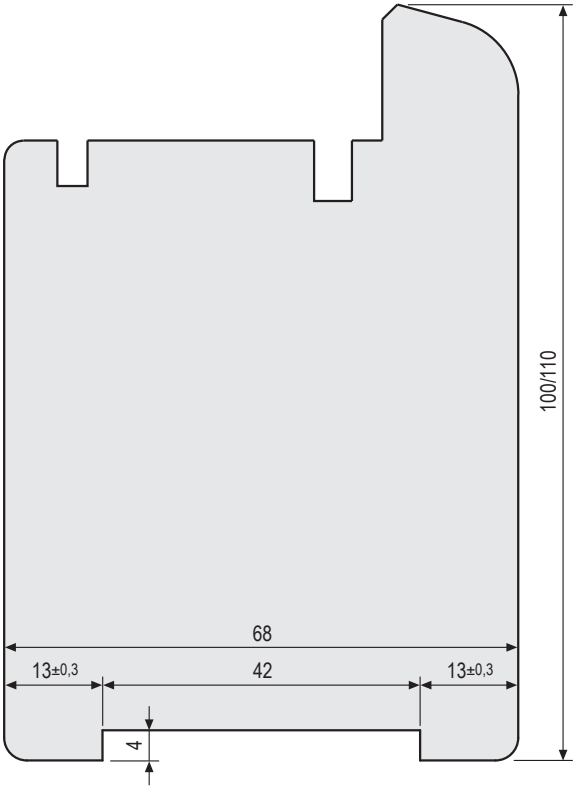
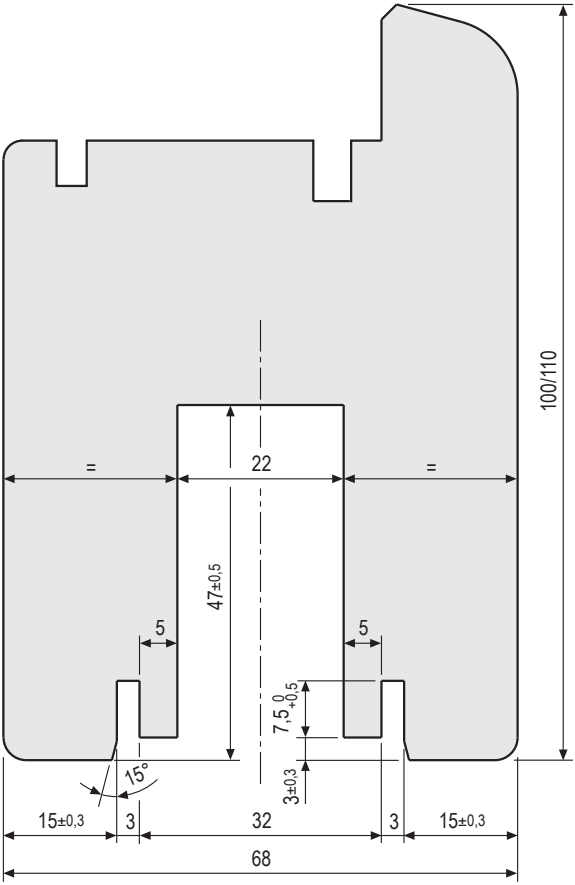
1:1 Scale

TOP POINT

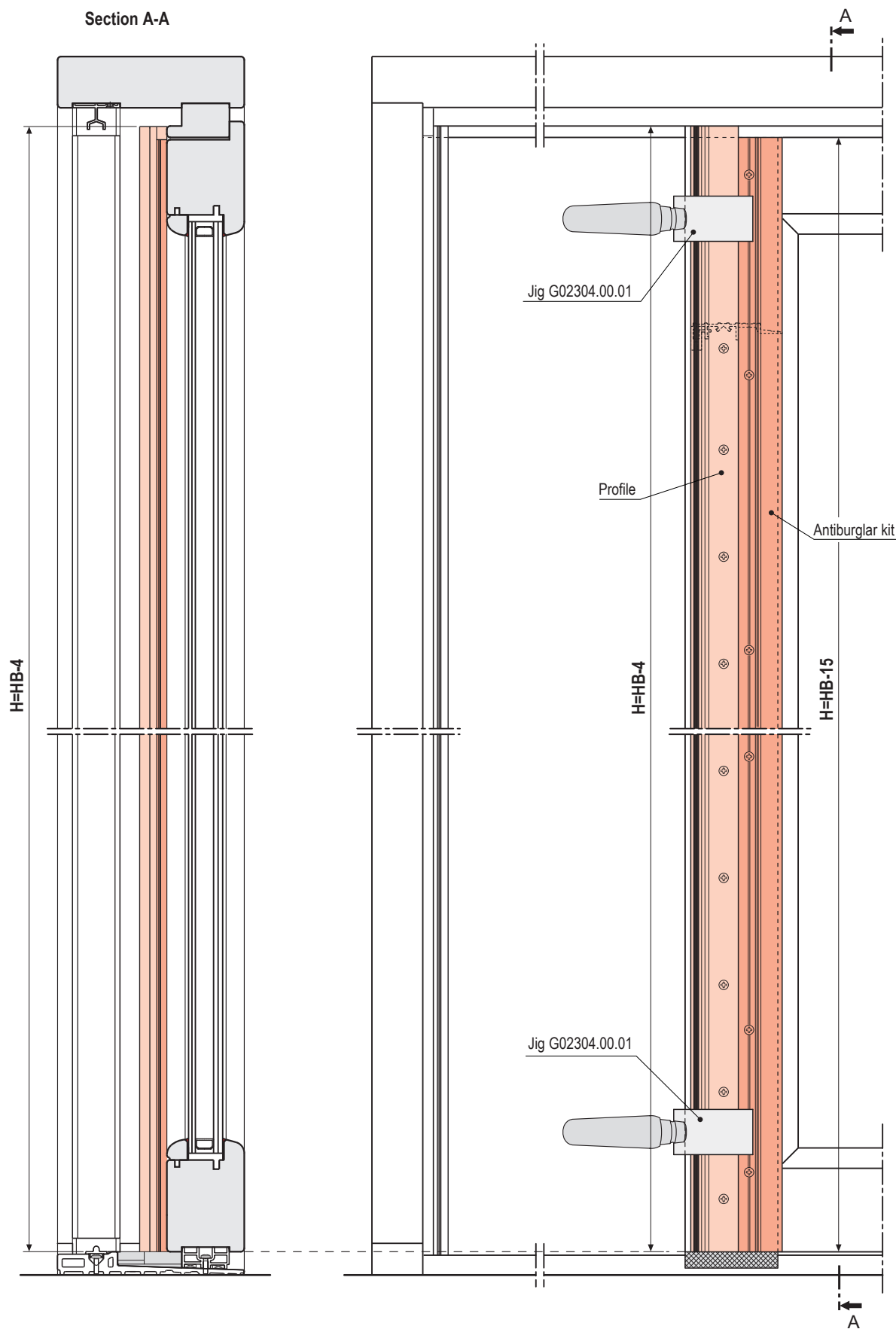


**BOTTOM POINT**

1:1 Scale

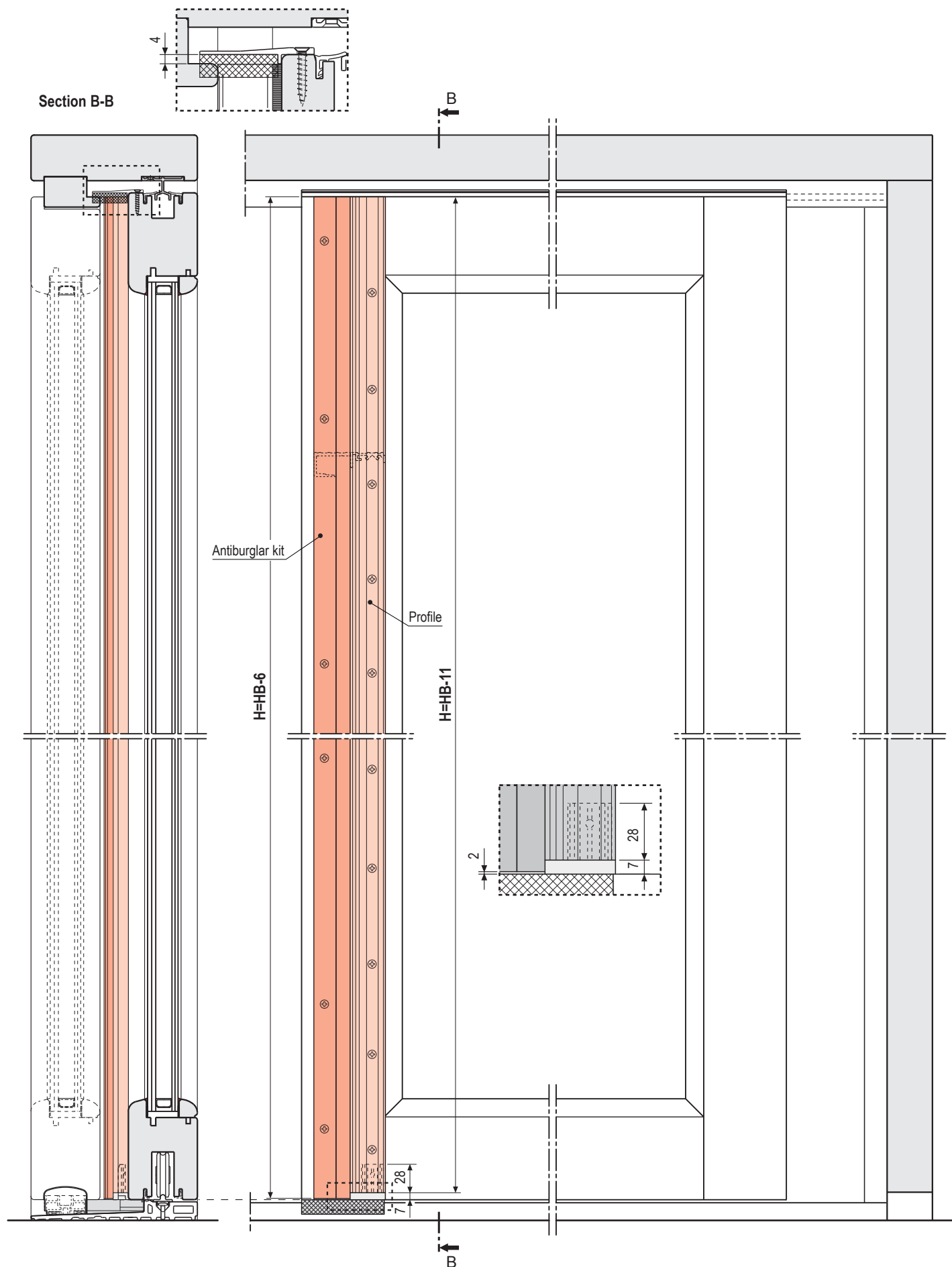


Application of central profile and antiburglar kit on fixed sash





## Application of central profile and antiburglar kit on sliding sash



## Jig for positioning central profile and antiburglar kit on sliding sash

### Operations:

- 1) Place the listel 5mm from the edge of the fixed sash and fasten with 3.5x30 mm screws.  
Align the gasket groove of the profile with that of the pad (see detail "A")
- 2) Set the jig against the jamb and measure the X height, then block with the appropriate clamp (Fig. 1).
- 3) Position the jig on the sliding sash and secure the moveable antiburglar kit with 4x50mm screws (Fig. 2).
- 4) Set the moveable profile on the antiburglar kit and fasten with 3.5x30mm screws

Field of application of the jig: 870-3000 mm

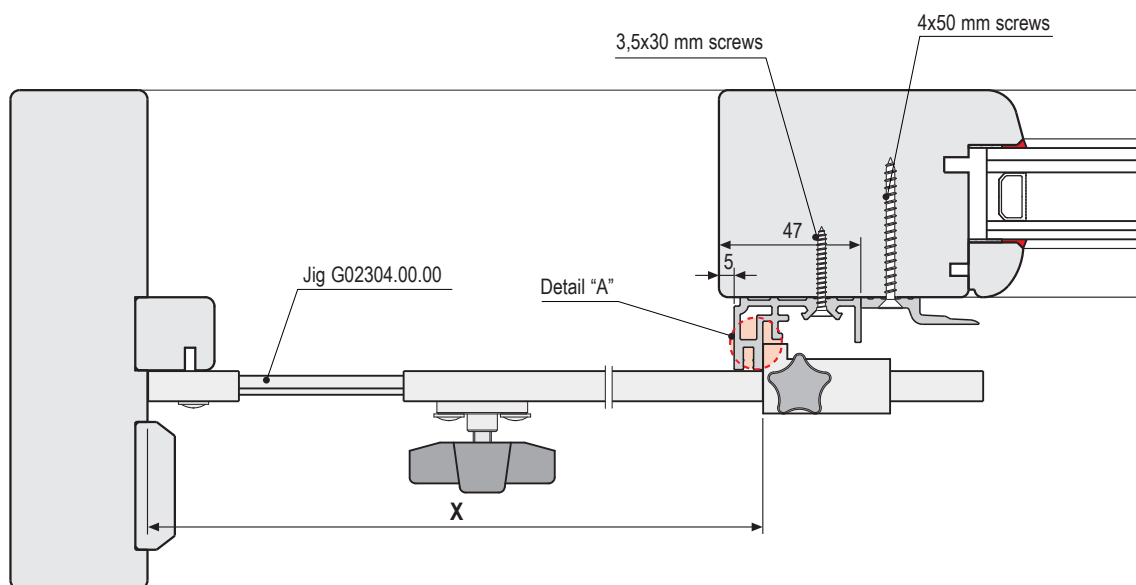


Fig. 1

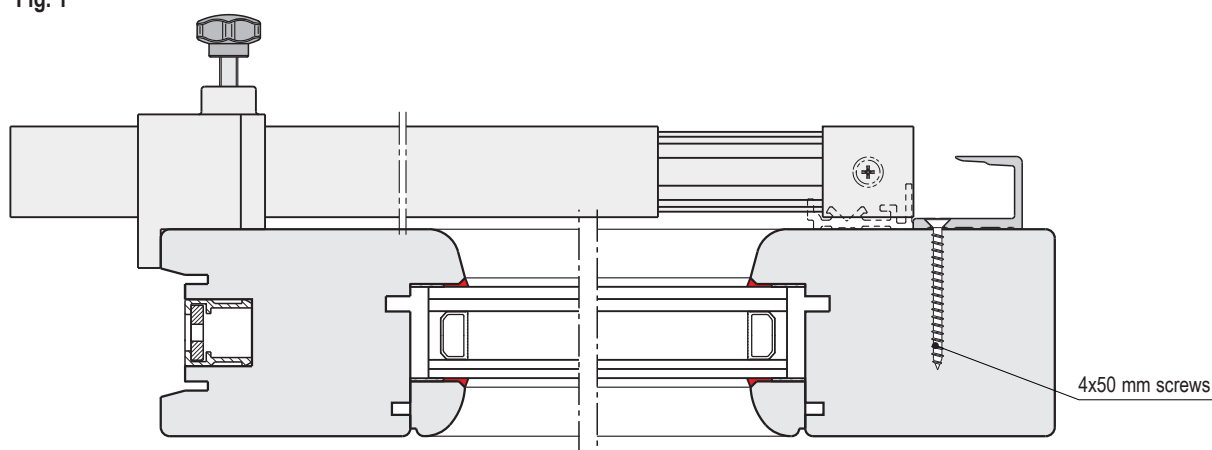


Fig. 2

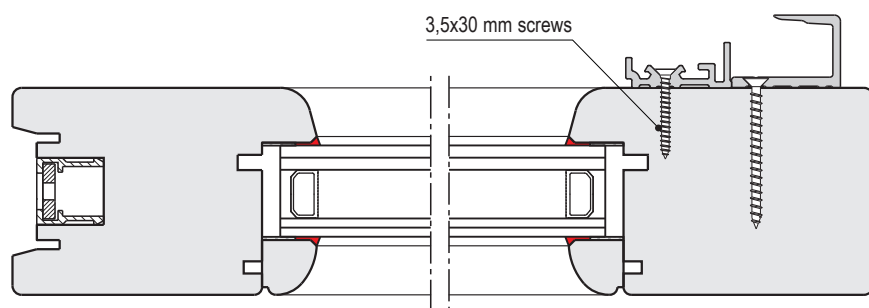
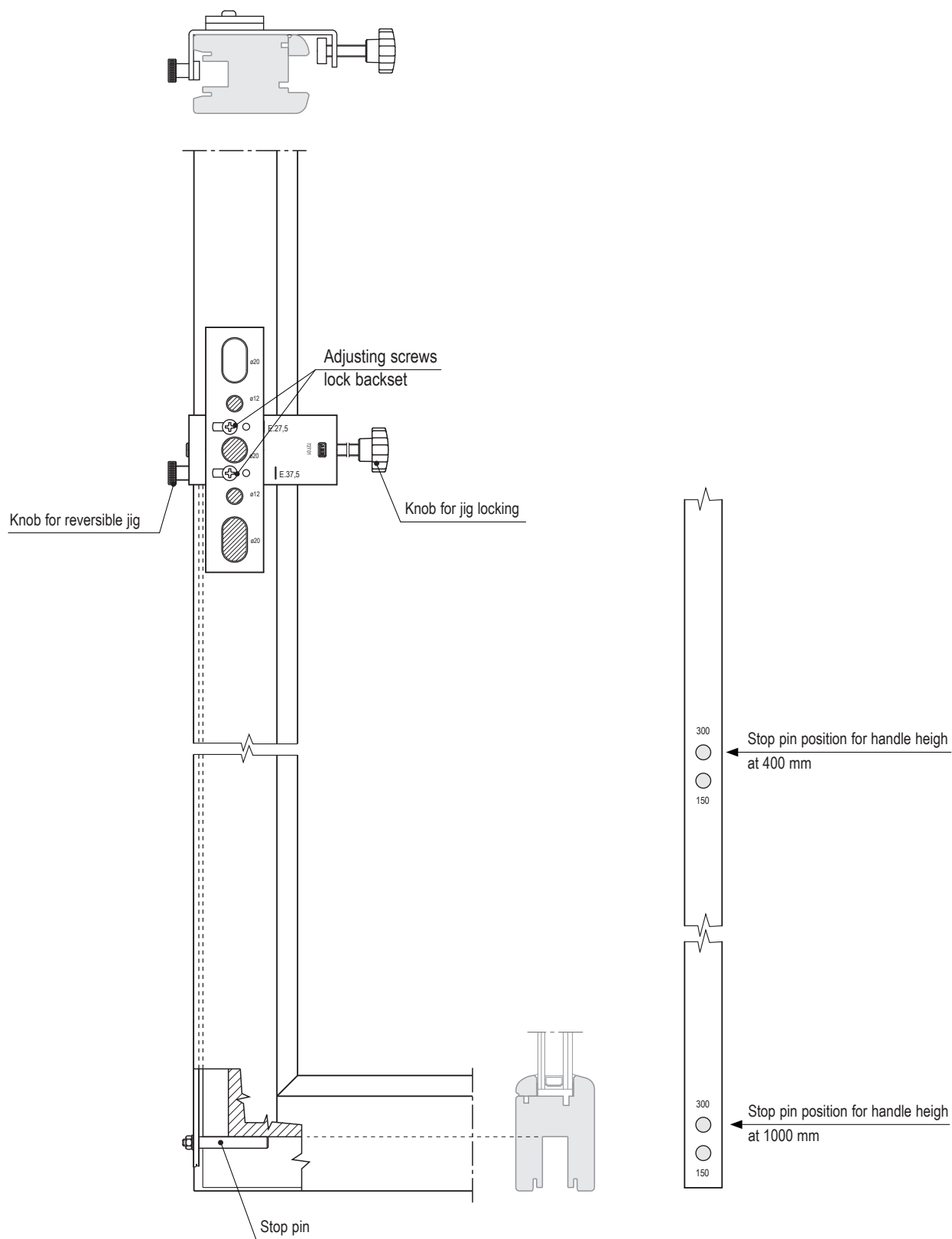


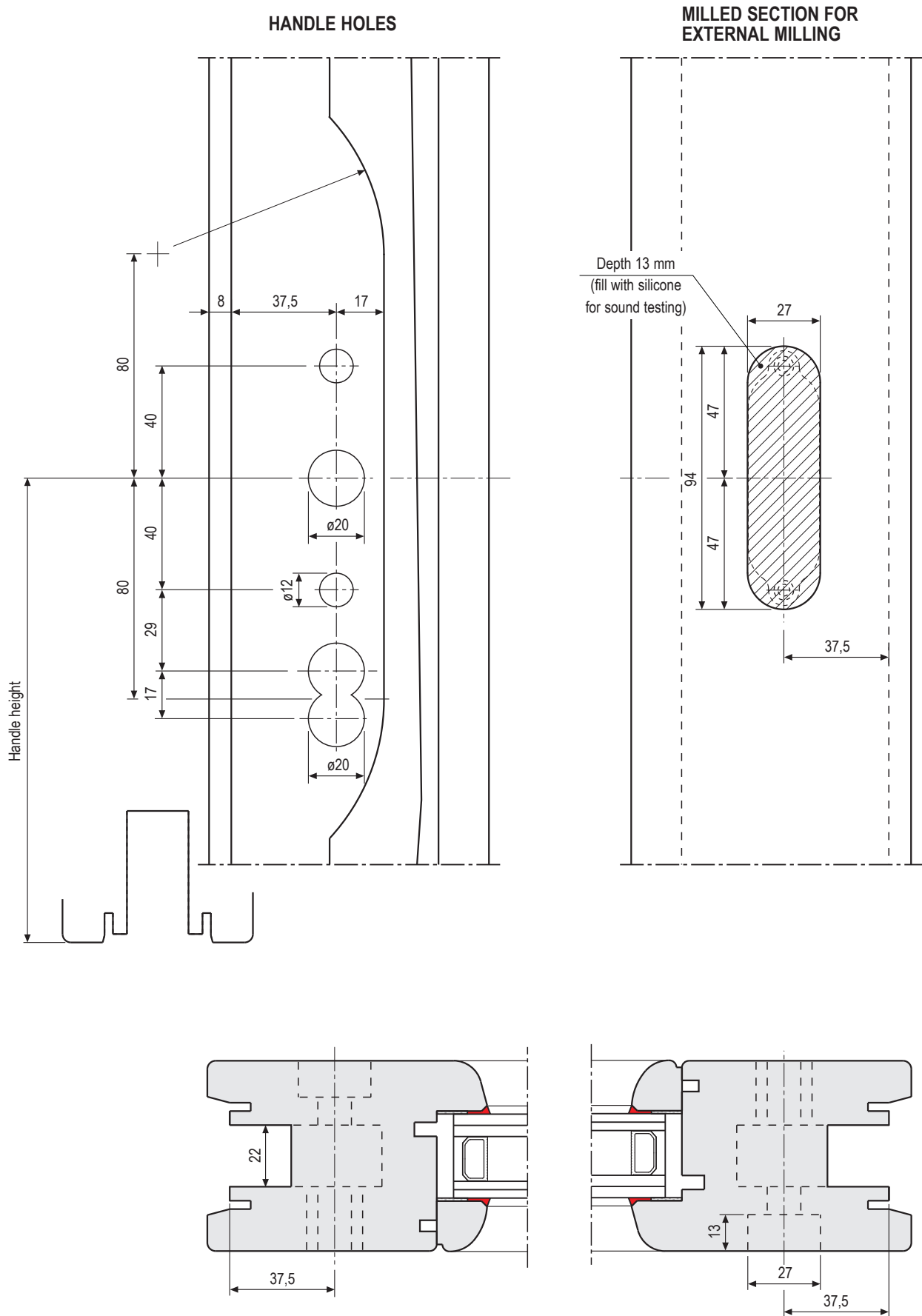
Fig. 3

## Jig application for lock holes

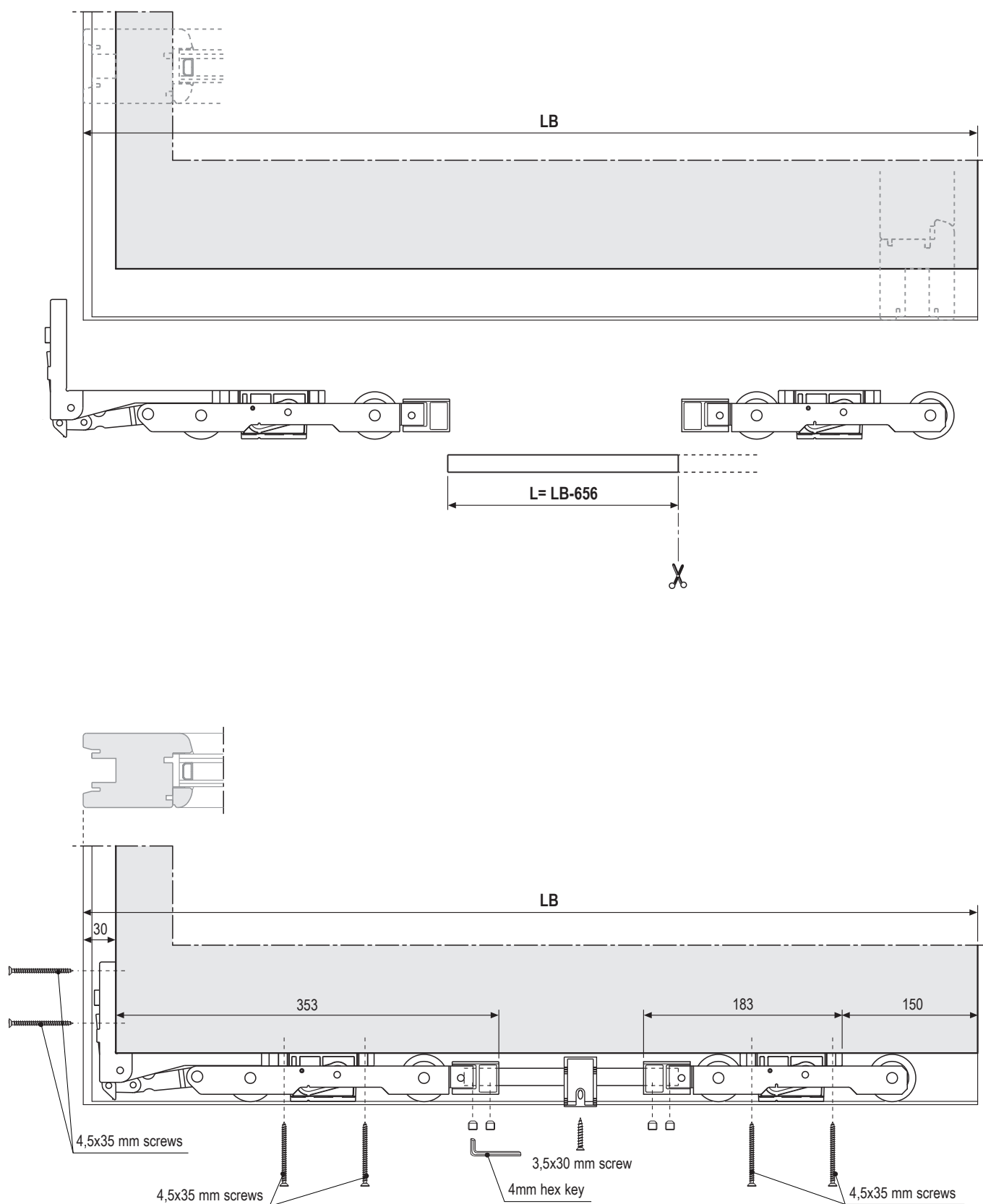


Holes for handle and milled section for external milling

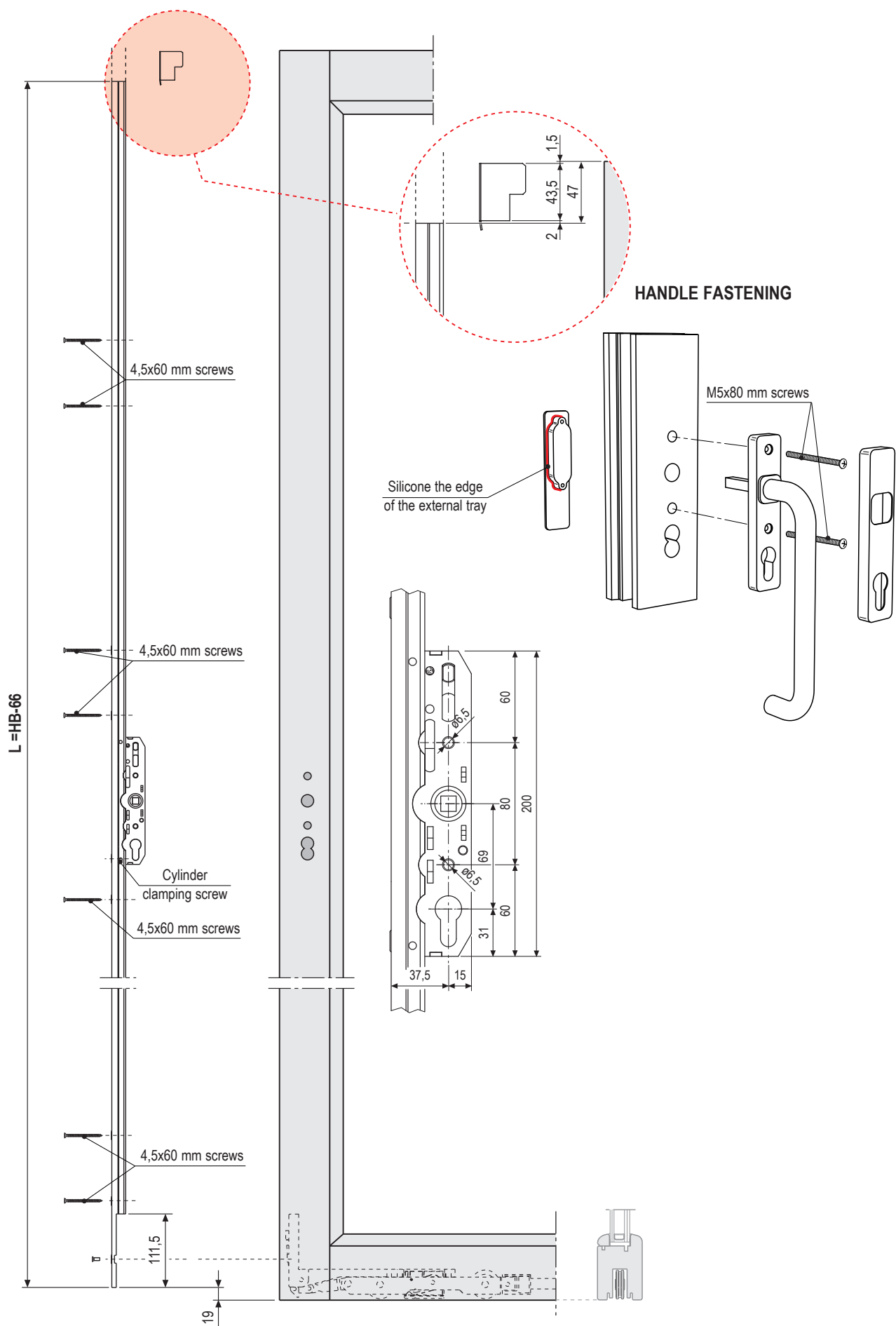
1:2 Scale



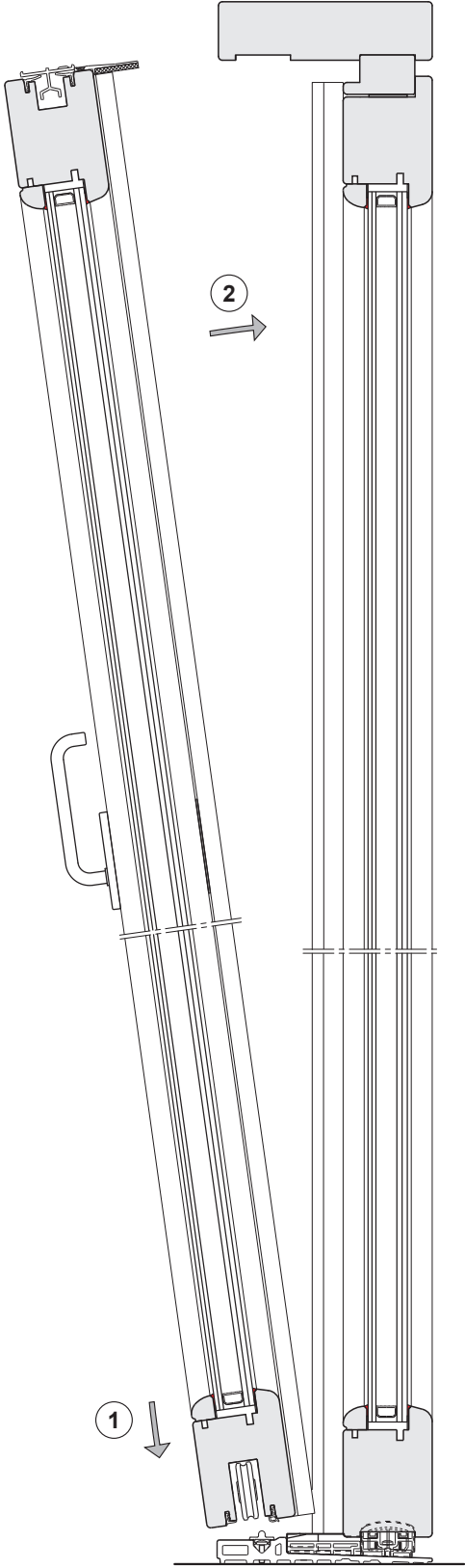
## Carriage installation



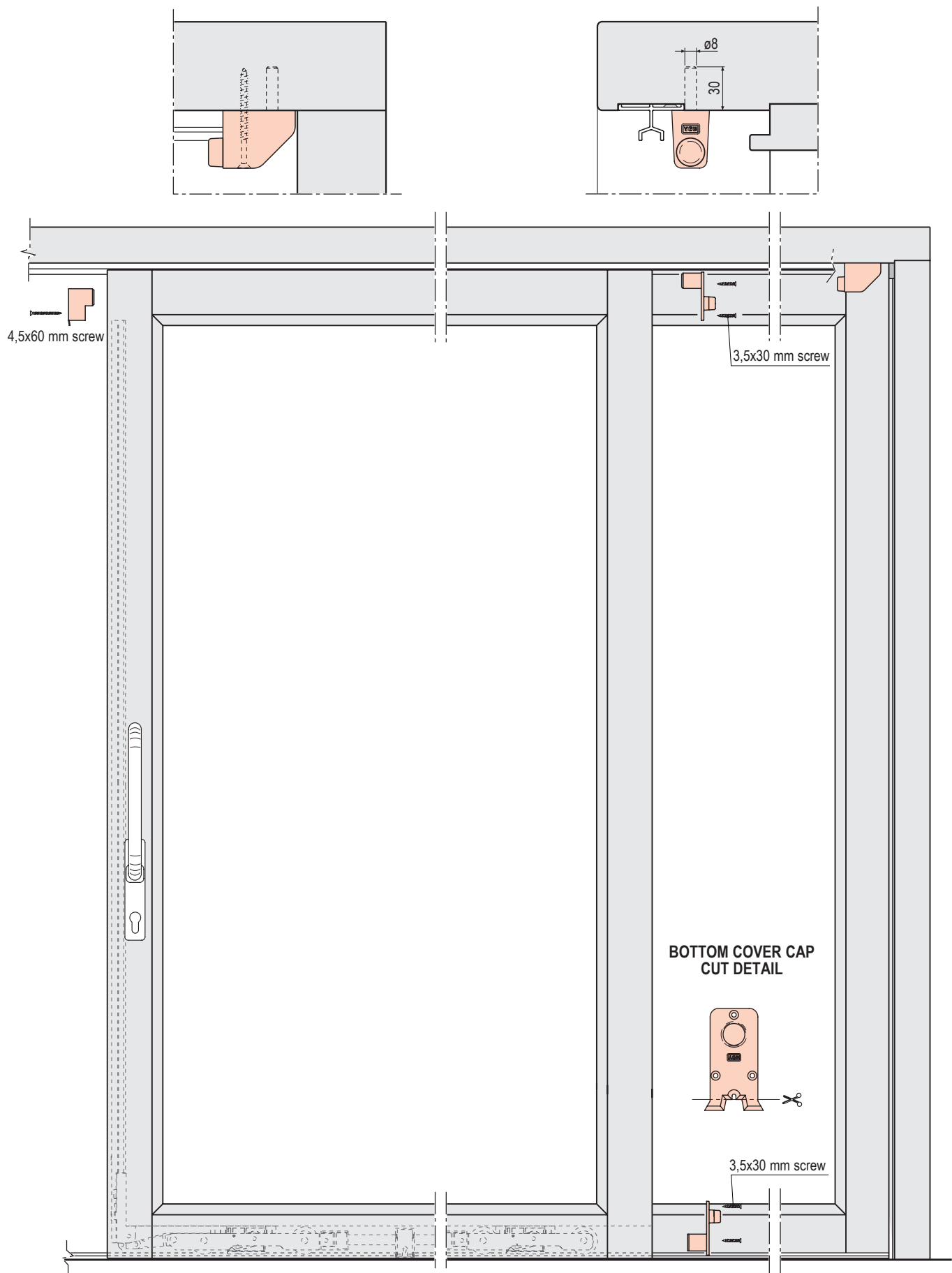
Lock and handle assembly



**Sash assembly**



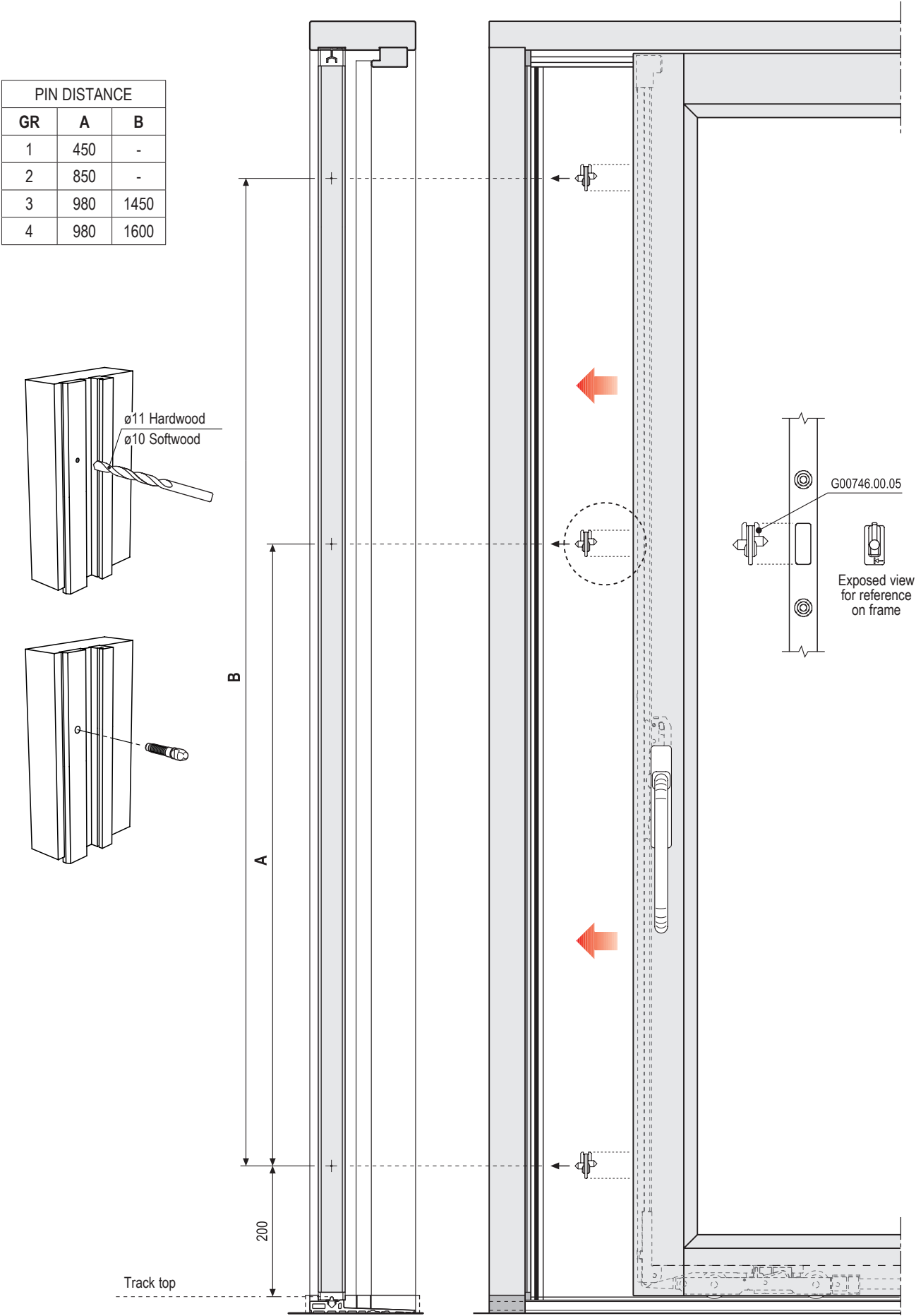
Top and bottom end cap assembly



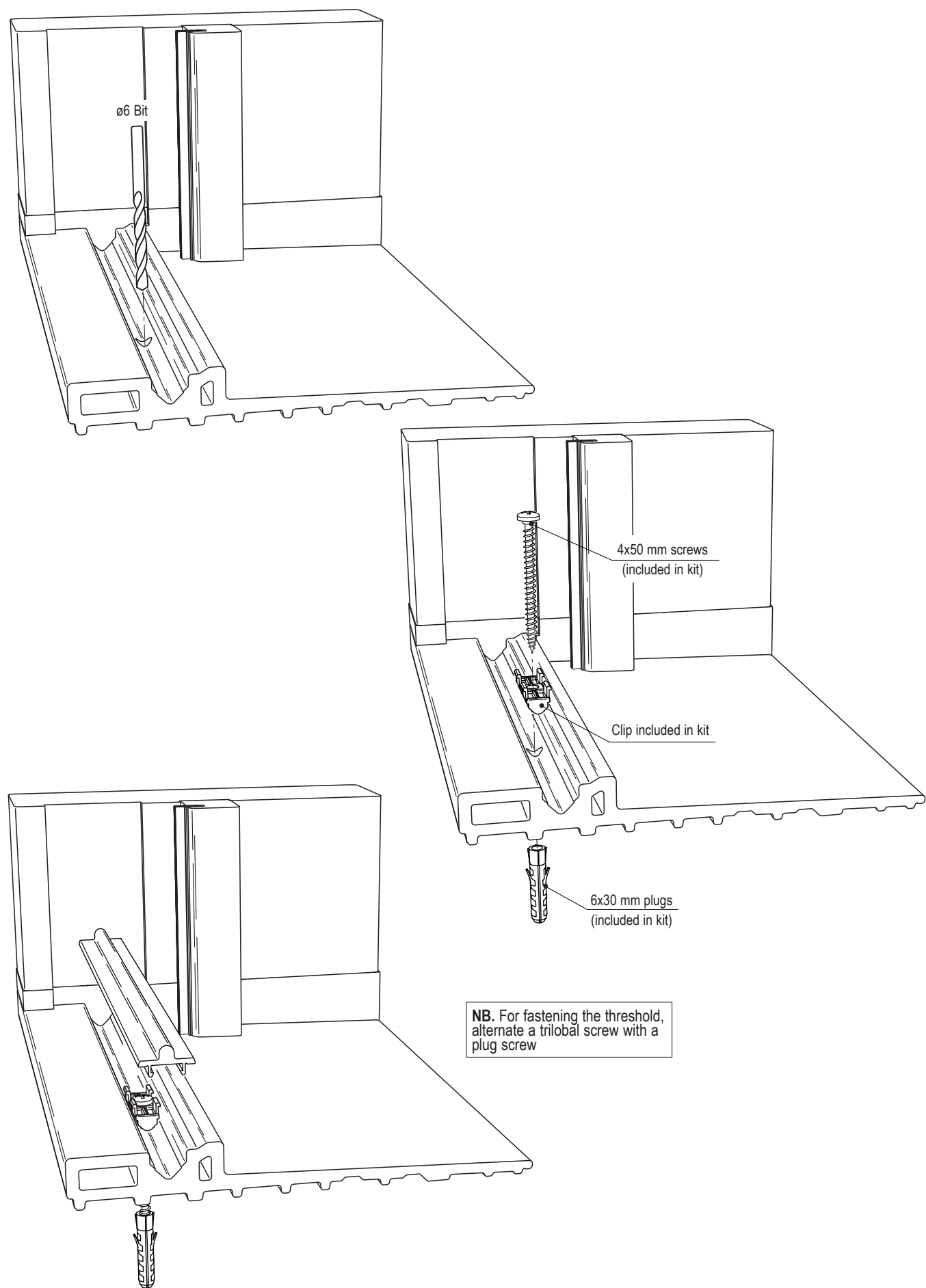


**Locking pins assembly**

PIN DISTANCE		
GR	A	B
1	450	-
2	850	-
3	980	1450
4	980	1600

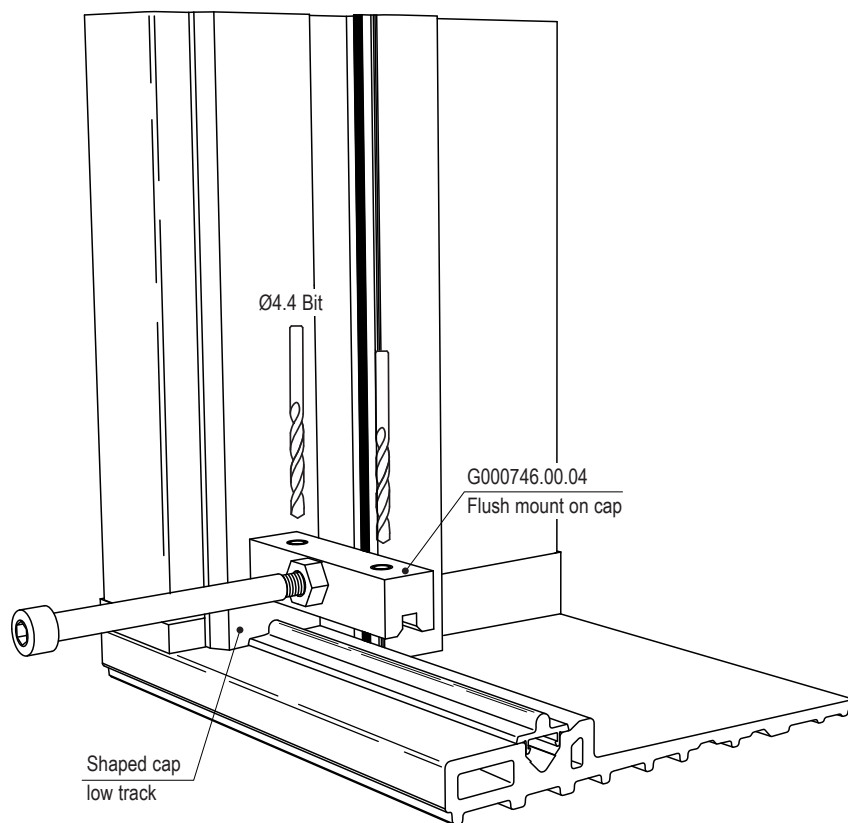


Threshold fastening

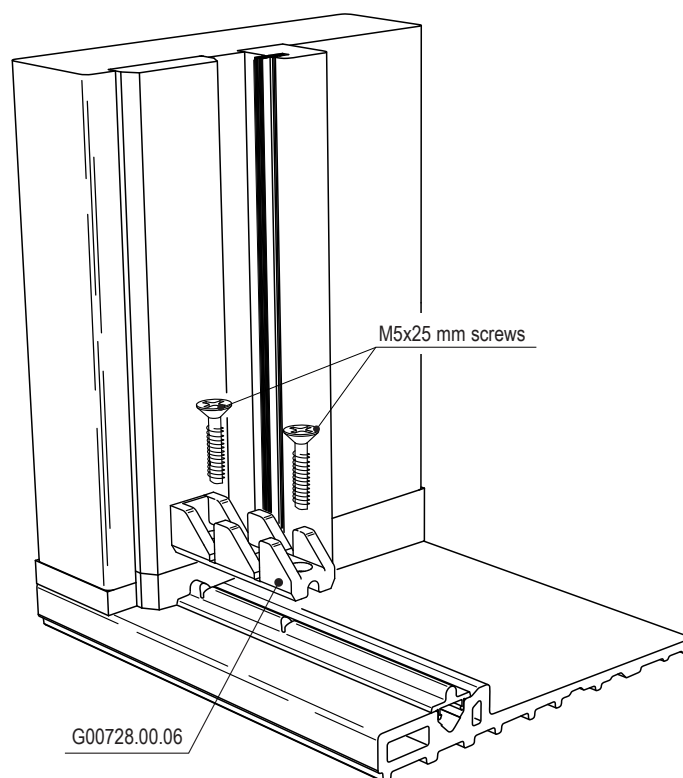


## Ventilation striker application

JIG FOR VENTILATION STRIKER  
APPLICATION DETAIL

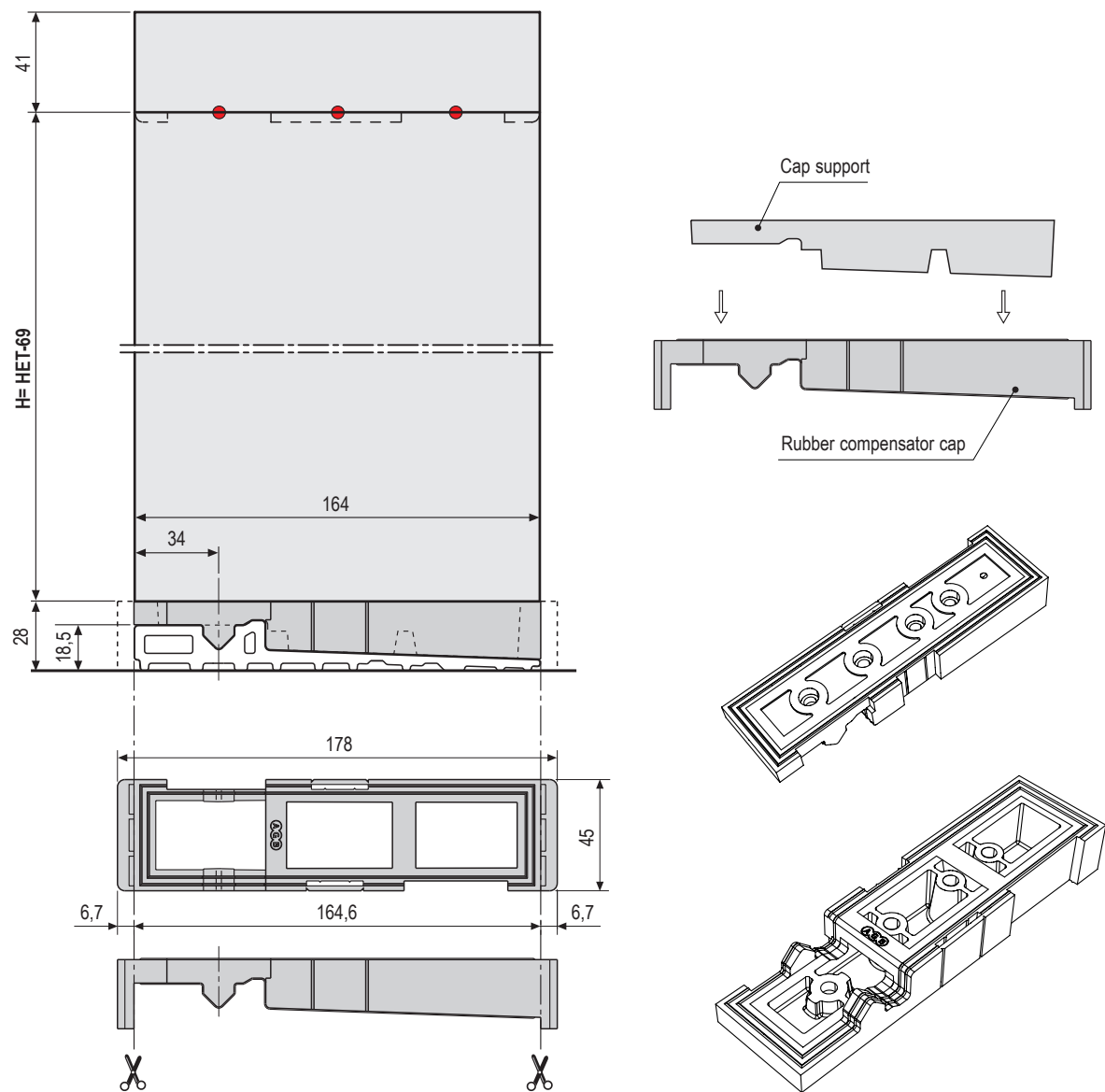


VENTILATION STRIKER  
APPLICATION DETAIL

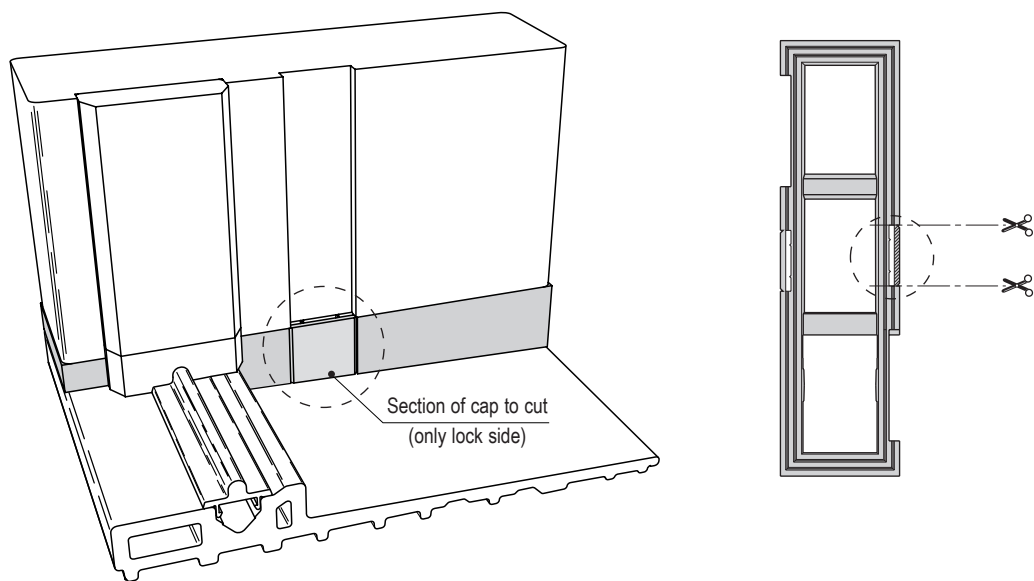


Caps under jambs application

COMPENSATOR CAP ASSEMBLY AND CUT



CAP CUT AT LISTEL N°3 DETAIL

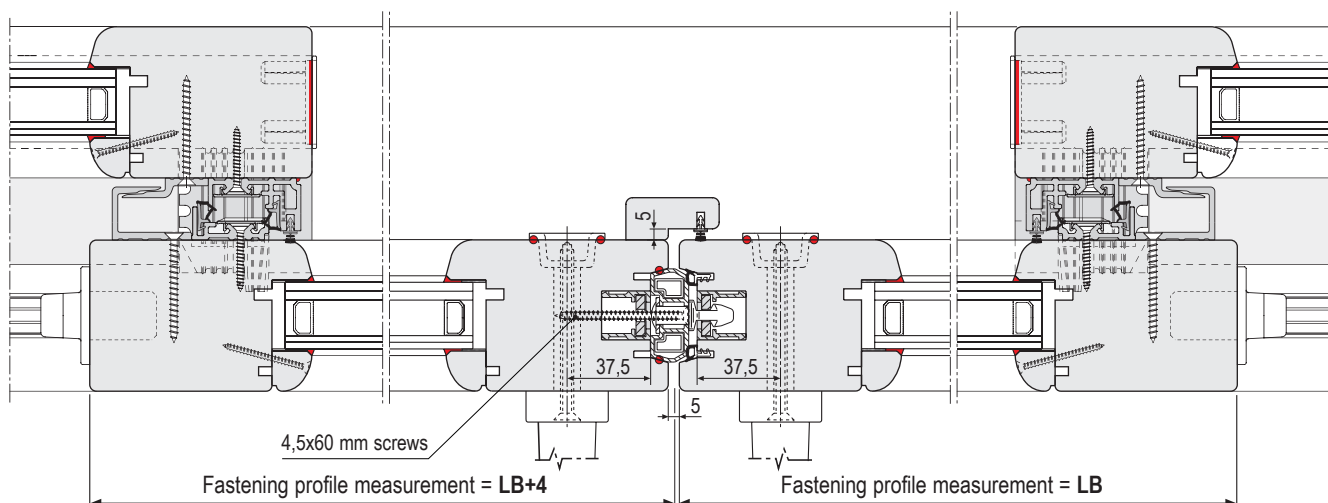


## Solution for central point with coaxial sashes

### SYMMETRIC SOLUTION WITH ALUMINIUM PROFILE



Layout E - 2 fixed doors and 2 sliding doors

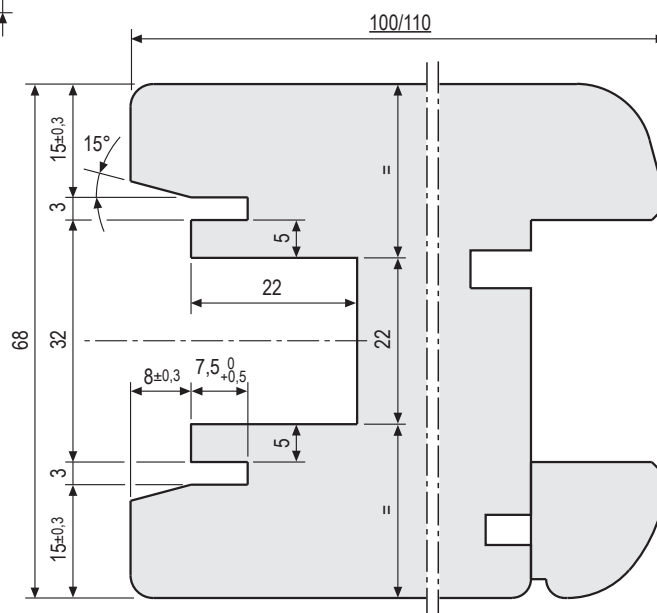
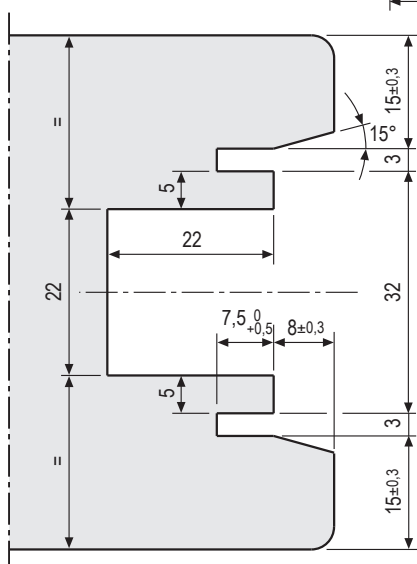
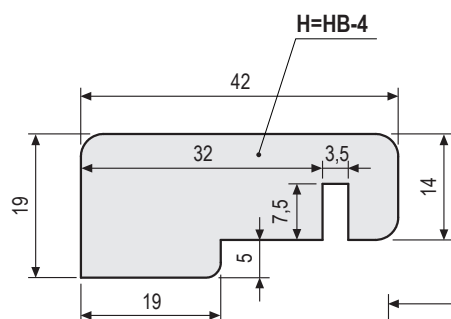


XX = 01 (HB 800 - 1200)  
02 (HB 1170 - 1800)  
03 (HB 1770 - 2150)  
04 (HB 1920 - 2400)

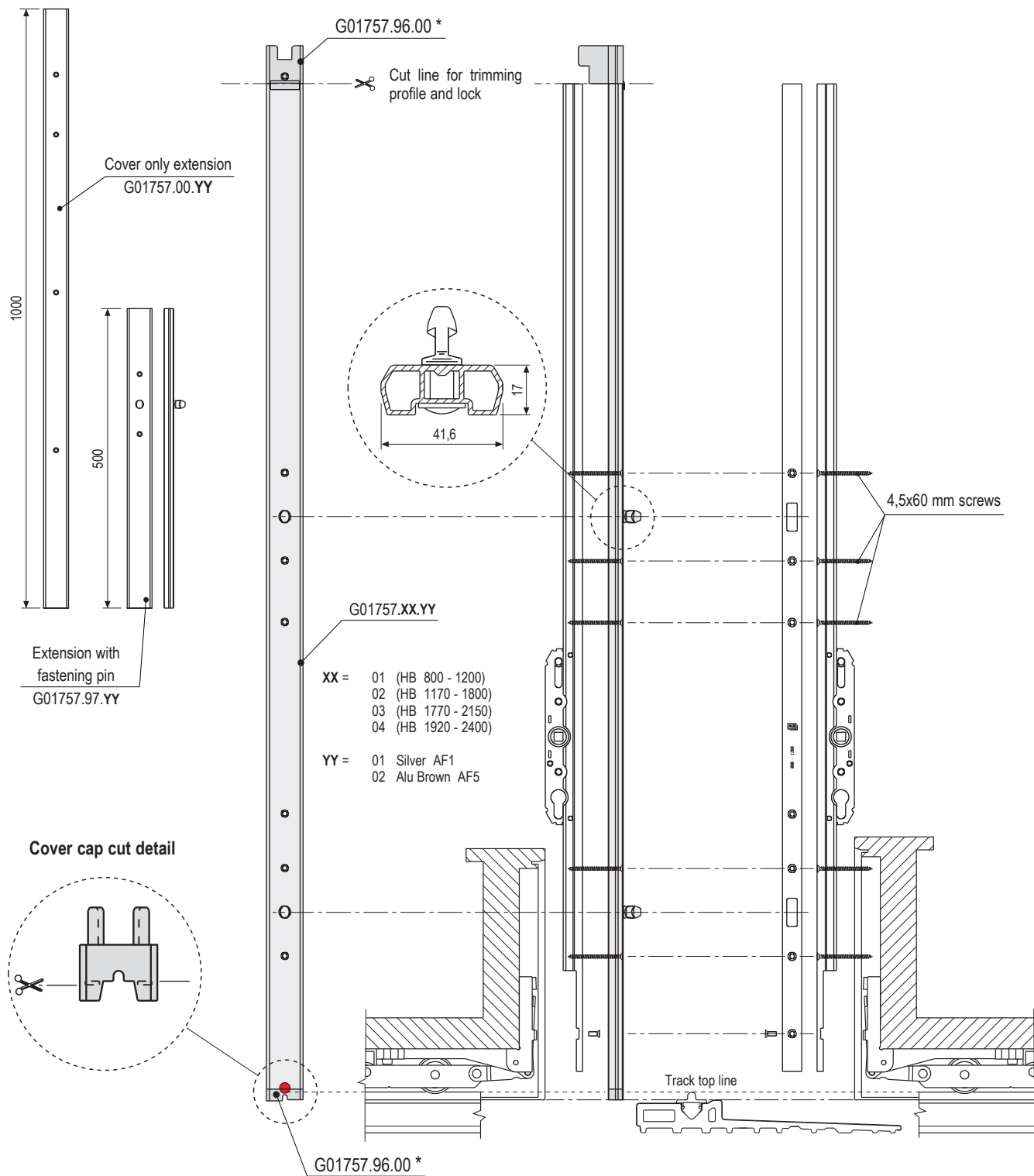
YY = 01 Silver AF1  
02 Alu Brown AF5

### WOOD DETAILING

1:1 Scale

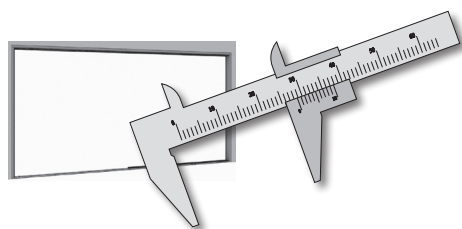


## Locking profile for central point with symmetric coaxial sashes detail



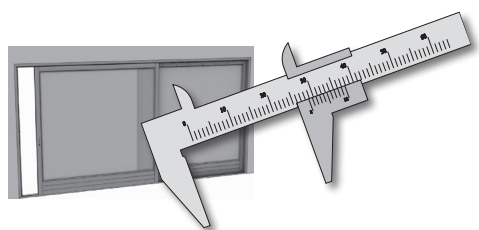


## Steps to take for factory process control (FPC)



### Frame component measurements and techniques for air-water tightness

- 1 - Measure the length and width of the top rail and the vertical jambs
- 2 - Check that the width and depth of the milled housing for the aluminium top guide and the wooden listels conform to the instructions included in this technical manual.
- 3 - Verify the width and length of the listels.
- 4 - Control that the length of the fixed sash supporting profile and the bottom track match the instructions in this technical manual.



### Sash component measurements and techniques for air-water tightness

- 1 - Based on the frame measurements, calculate, according to the instructions in this technical manual, the measurement of the sashes (LxH) and verify that the dimensions of the sash produced conform to those calculated.
- 2 - Verify the orthogonality (square) of the sashes by measuring the diagonals: it is very important that they are the same for correct operation and closing.
- 3 - Check that the thickness of the sash is exactly 68 mm.
- 4 - Verify that the width of the milled housings for the carriages are 22mm and check that they are exactly in the centreline of the 68 mm thickness.
- 5 - Check the depth of the milled housings for the gaskets, making sure that they are free from dirt and paint, or glue residue.
- 6 - Check the depth and position of the lock hole.
- 7 - Control the coplanarity of the bottom jamb/transom joints of both sashes. Level with stucco if required, in order not to compromise the seal.
- 8 - The double glazing sheets should have silicone applied on both the rebate support as well as around the outer perimeter.
- 9 - Silicone the inner glazing beads or use specific gaskets.
- 10 - Make a silicone bead inside the groove for the bottom outer gasket before inserting it. Under the bottom gasket fin, apply a thin line of silicone between the wood and fin along the entire length of the sash.



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*Cylinders plant:*

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