



Technical Catalogue of Wital
System Profiles
Lift-and-Slide Doors
Wital Prestige Therm Light

INNOVATIVE
TECHNOLOGIES
POLISH PRODUCT

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1. General information

1.1 Physical parameters of PVC profiles

Test		Unit	Standard	WITAL window profiles
1	Softening temperature according to Vicat	°C	PN-93 C-89024	80,3
2	Impact resistance at -10°C		PN-EN-477:1997	No cracks
3	Resistance to temp. of +150°C		PN-EN- 478:1997	No noticeable changes on external surfaces, slightly deformed walls inside the structure
4	Tensile strength	Mpa	PN-81 C-89034	46.2
5	Impact tensile strength	Mpa	PN-72 C-04243	64.4
6	Charpy notch impact strength	KJ/m ²	PN-81 C-89029	55.3
7	Tensile coefficient of elasticity	MPa	DIN 5345	2443
8	Thermal expansion	%	PN-EN-479:1997	1.7
9	Colour change after aging		PN-86 P-04906	5 gray scale number, which corresponds to a colour change of 0.
10	Density ρ	g/cm ³	PN-92 C-89035 method B	1,44 ±0,02

1. General information

1.2 Quality Guarantee

WITAL system profiles, manufactured from modified polyvinyl chloride, are the basis for making PVC windows and doors. Their production is in accordance with the requirements of Polish standards (PN-88/B-10085), the requirements of the Building Research Institute and refers to the tests carried out at the Rosenheim Institute.

PW WITAL provides a guarantee for a period of 5 years with respect to:

- consistent material quality,
- flawless shaping of profiles within acceptable tolerances,
- chemical resistance according to the provided table,
- light resistance (colour fastness) of white window profiles.

Colour difference from the standard according to the 5th degree on the gray scale. The warranty can be claimed only in the case of compliance with PW WITAL's guidelines for handling the window profiles.

Warranty claims will not be recognized for defects caused by:

- treating the surface with solvents or aggressive cleaners,
- improper storage and warehousing,
- wrong installation,
- improper treatment and maintenance,
- unusual external impacts,
- acts of God (e.g., natural disasters, fire),
- actions of the end user or bystanders.

In case of legitimate complaints, we provide free replacement of the material.

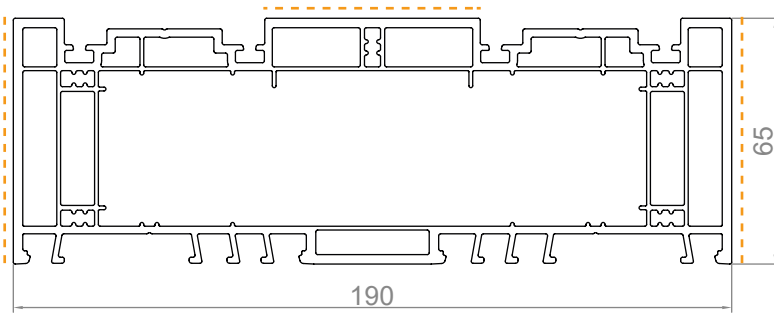
Overreaching claims, regardless of the legal basis, have no force.

The rules for the consideration of complaints and the manner of the complaint procedure are established by PW WITAL.

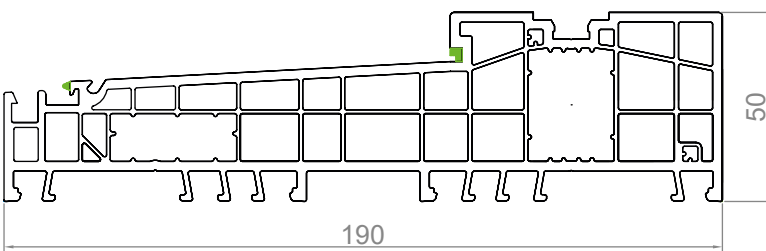
The validity of the warranty begins on the date of shipment.

2. Overview of profiles and system components
 2.1 PVC profiles

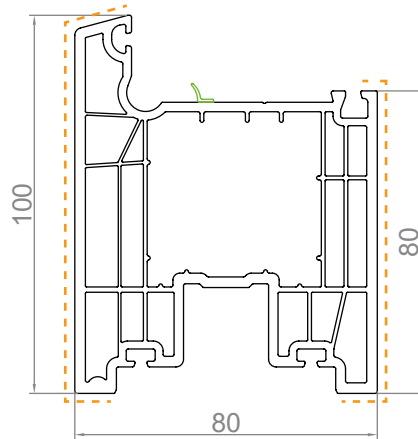
78010 Frame



78050 Threshold

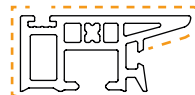


78020 Sash

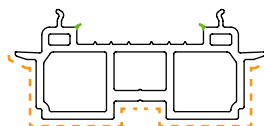


78033 Interlock

78033 Interlock

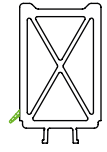


78030 Connecting strip for fixed sash
 Catch strip
 Upper sealing strip connector

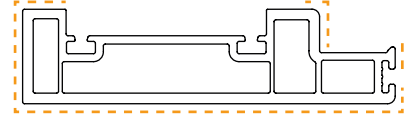


2. Overview of profiles and system components
2.1 PVC profiles

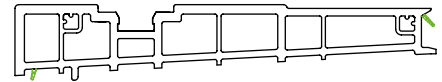
78052 Profile for fixed sash



78032 Upper sealing strip



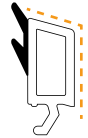
78051 Fixed sash adapter



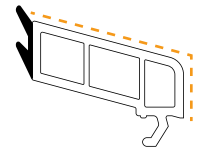
78031 Frame and sash cover



68040 Glazing bead



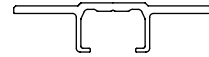
68041 Glazing bead



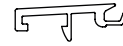
----- Veneer for foiling- optional

2. Overview of profiles and system components
 2.2 Aluminium profiles

78111 Top rail



78150 Drip cap



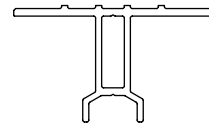
78152 Rail track 15mm



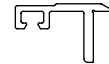
78153 Rail track 5mm



78110 Top rail



78112 Slide sash sealing

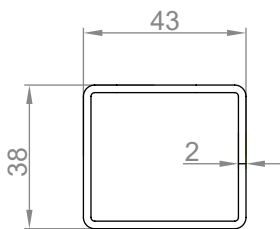


78151 Threshold cover



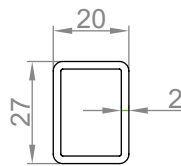
2. Overview of profiles and system components
 2.3 Profile reinforcements

200B4338
 Sash and frame
 reinforcement



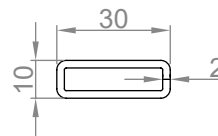
200B4338		
A	X	Y
2.0	8.37	6.89

200B2720
 Threshold
 reinforcement



200B2720		
A	X	Y
2.0	1.66	1.01

200B3010
 Threshold
 reinforcement



200B3010		
A	X	Y
2.0	1.37	0.20

2. Overview of profiles and system components

2.3 HST system components

78351 Slide sash sealing – vertical



78352 Interlock sealing



78350 Slide sash sealing – bottom



78354 Brush sealing



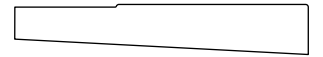
57074 Glazing seal



78051-D1 Threshold adapter seal left



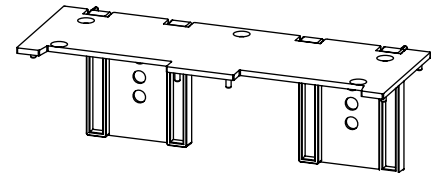
78051-D2 Threshold adapter seal right



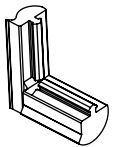
78352_D1 7033 additional sealing strip seal



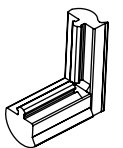
78412 Frame connector including additional seals / right / left



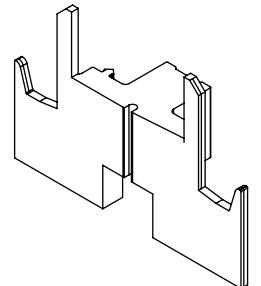
78425 Seal corner 78350 left



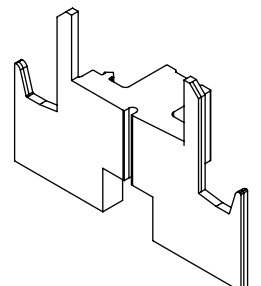
78426 Seal corner 78350 right



78427 Central rail track 5mm sealing



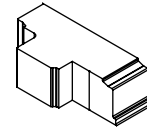
78428 Central rail track 15mm sealing



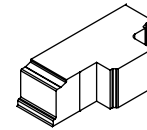
2. Overview of profiles and system components

2.3 HST system components

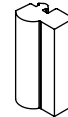
78431 Left sealing of upper sealing strip



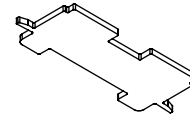
78432 Right sealing of upper sealing strip



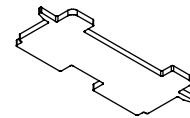
78433 Top sealing of slide sash sealing 78112



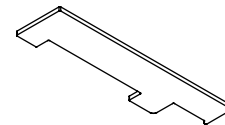
78437 Seal 78030 left



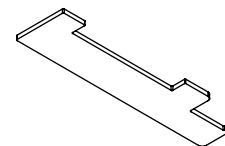
78438 Seal 78030 right



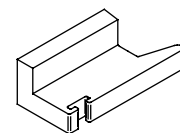
78439 Seal 78032 left



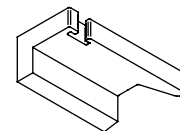
78440 Seal 78032 right



78441 Seal 78033 left



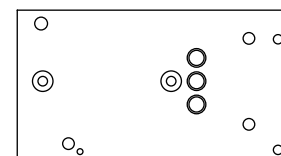
78442 Seal 7033 right



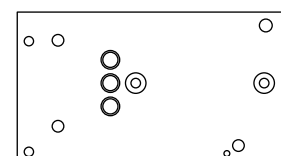
78450-D1 Threshold seal 78050 EPDM black



78451 Threshold connector left including additional seals



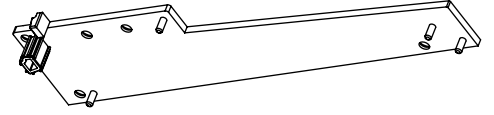
78452 Threshold connector right including additional seals



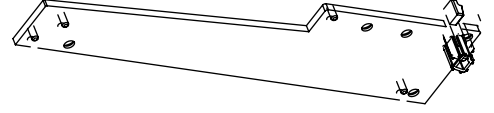
2. Overview of profiles and system components

2.3 HST system components

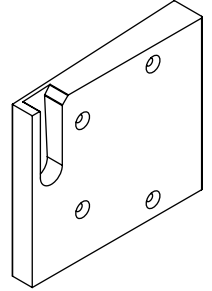
78453 Threshold cap left including additional seals



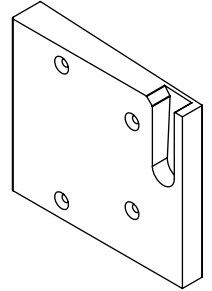
78454 Threshold cap right including additional seals



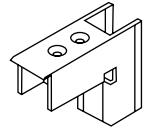
78455 Left center seal including additional seals



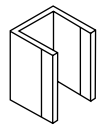
78456 Right center seal including additional seals



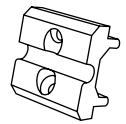
78421 Sash fixing element



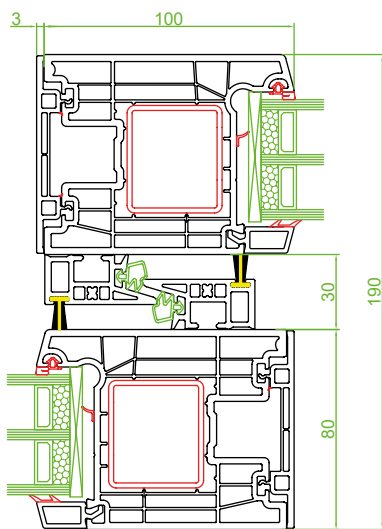
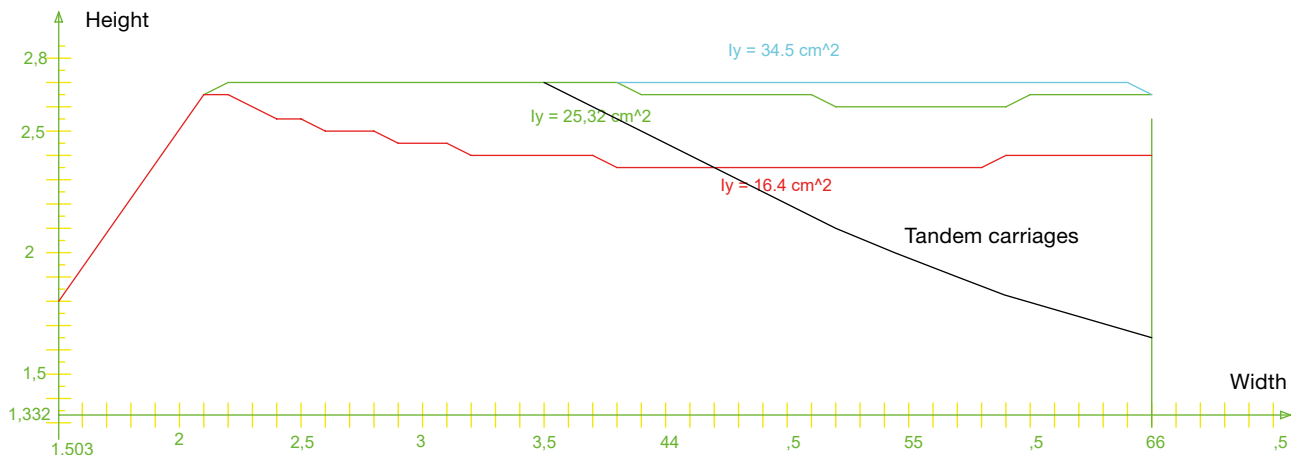
78422 Sash fixing element



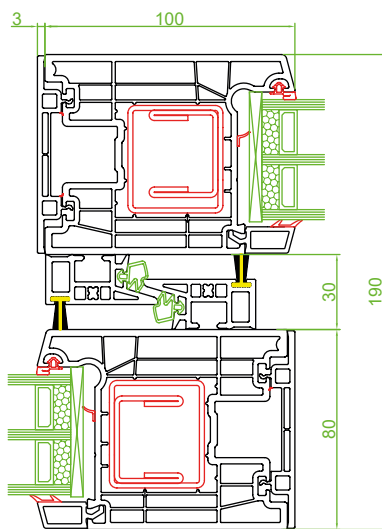
78457 Sash stabilizer for 5 mm track rail



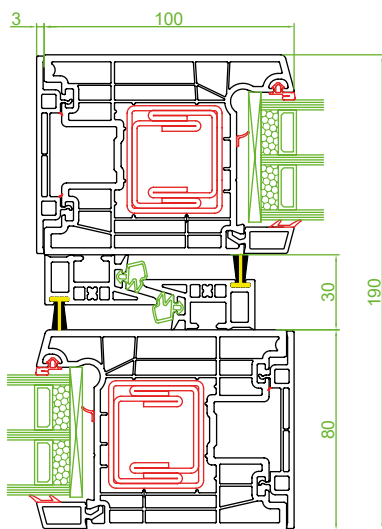
3. Maximum leaf dimensions (size limitations)
 3.1 White - B2 - 800 Pa



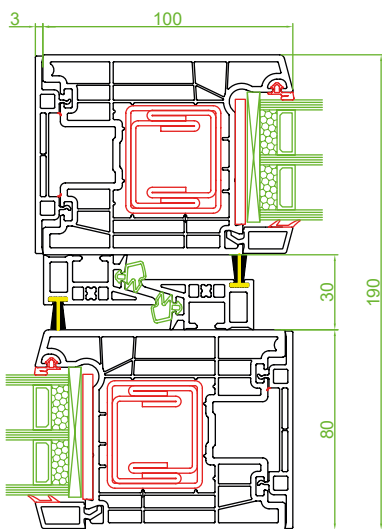
$I_y = 16,14 \text{ cm}^4$



$I_y = 25,32 \text{ cm}^4$

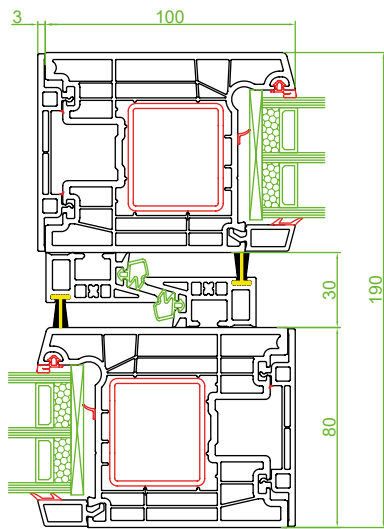
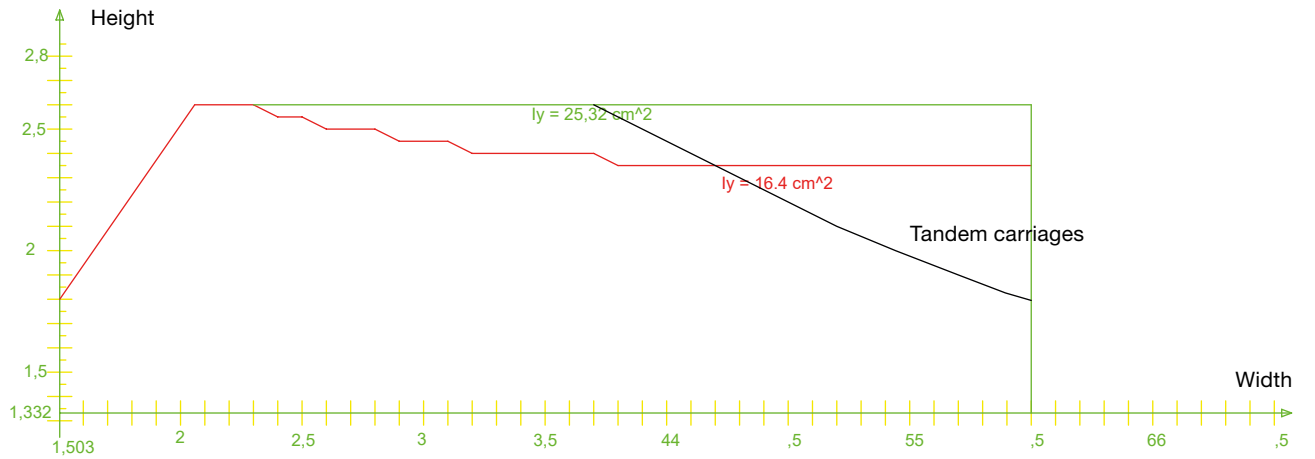


$I_y = 34,50 \text{ cm}^4$

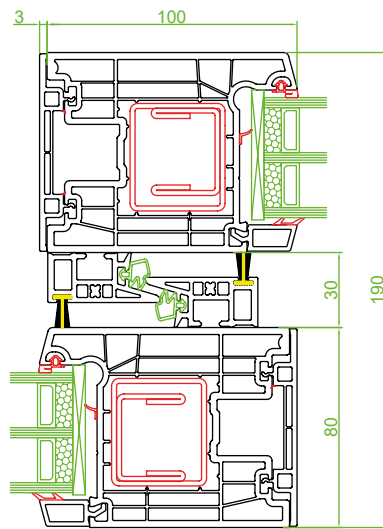


$I_y = 42,84 \text{ cm}^4$

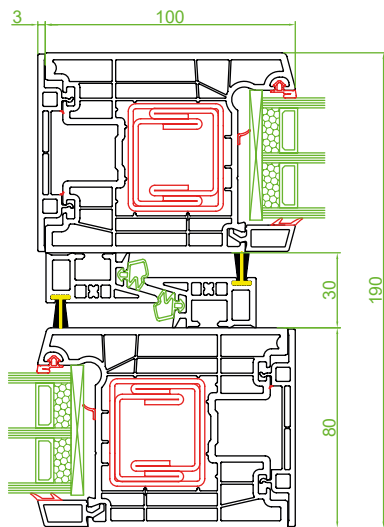
3. Maximum leaf dimensions (size limitations)
 3.2 Colour one side and both sides – B2 – 800 Pa



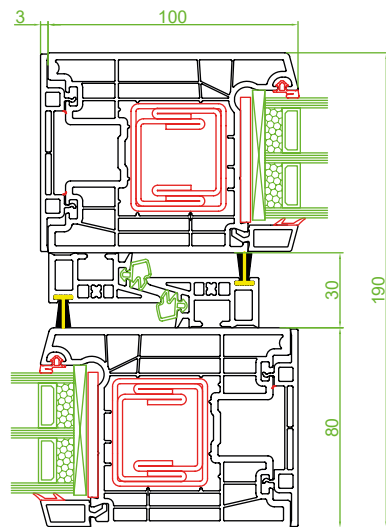
$I_y = 16,14 \text{ cm}^4$



$I_y = 25,32 \text{ cm}^4$

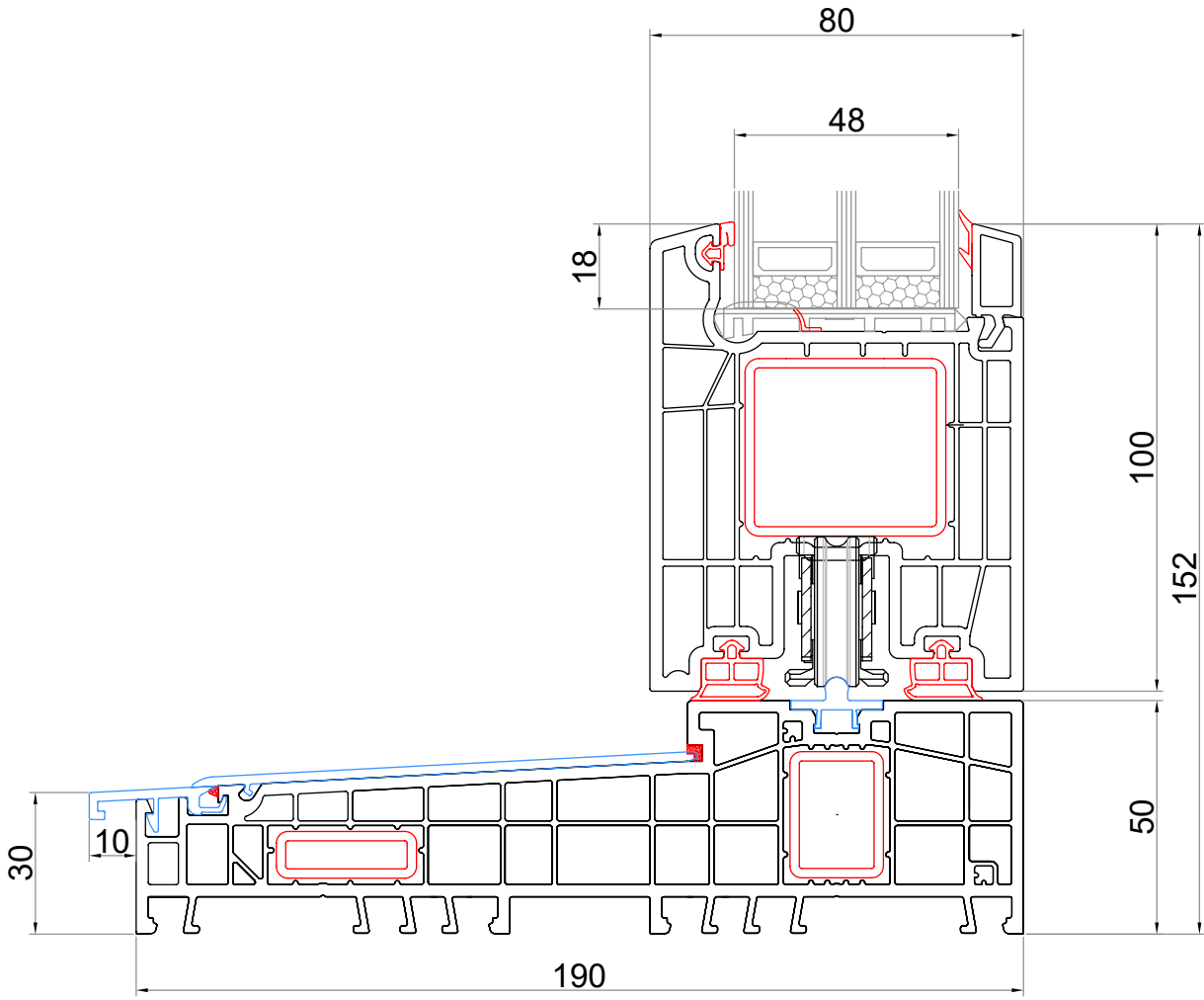
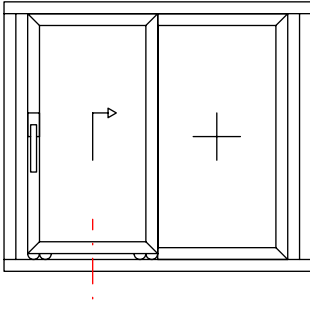


$I_y = 34,50 \text{ cm}^4$

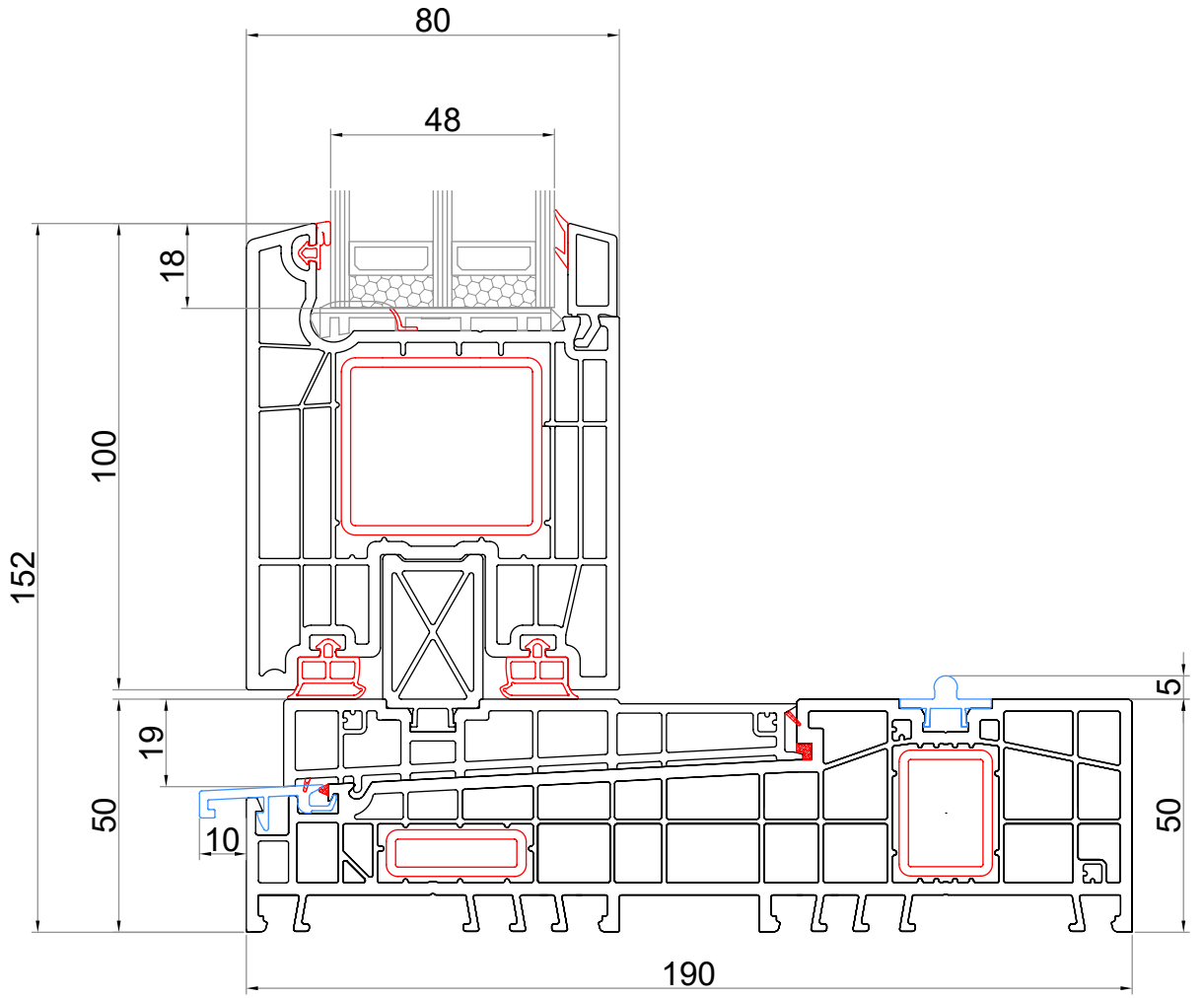
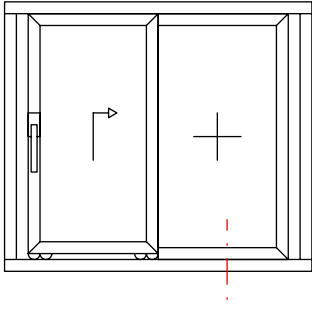


$I_y = 42,84 \text{ cm}^4$

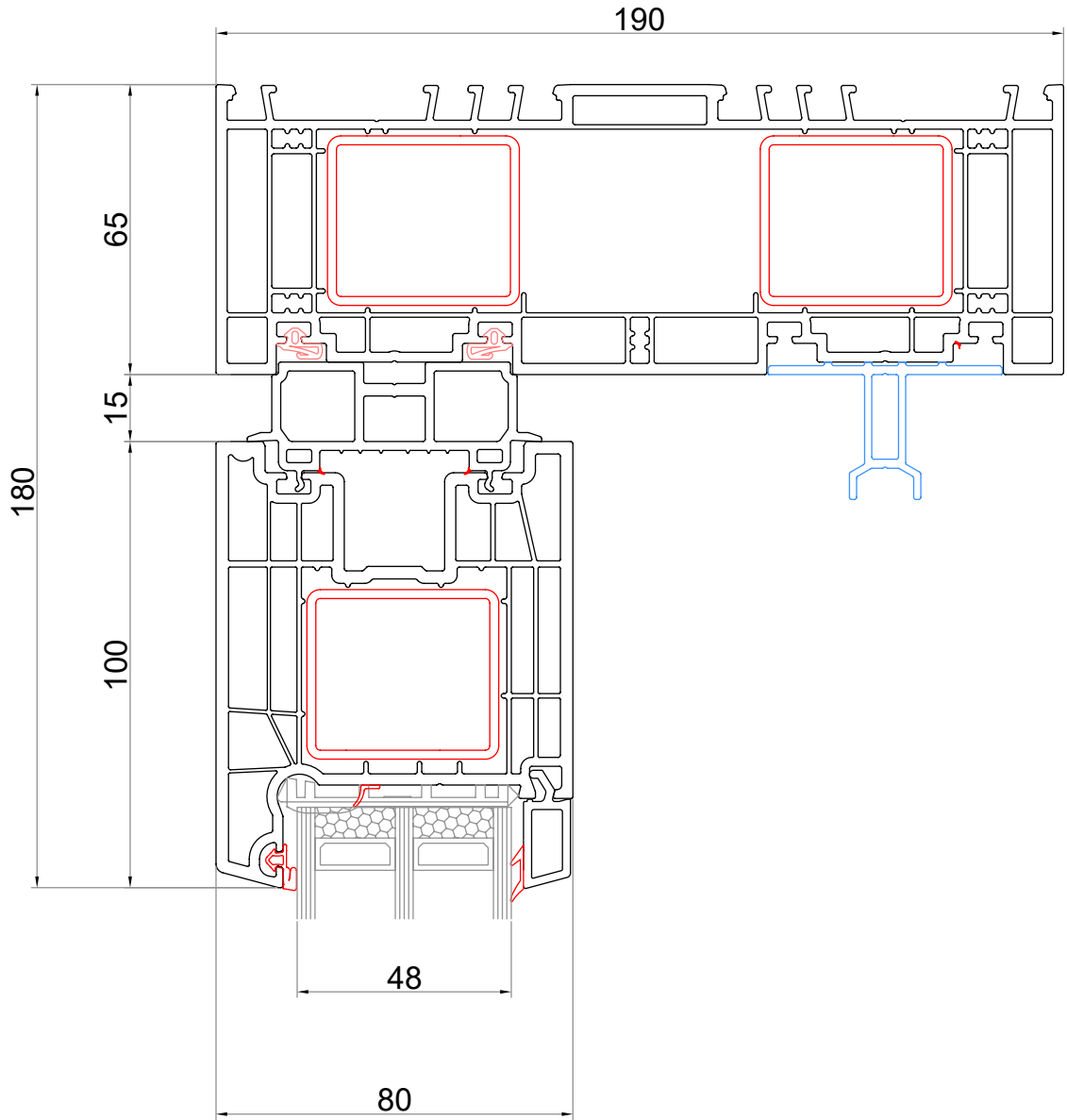
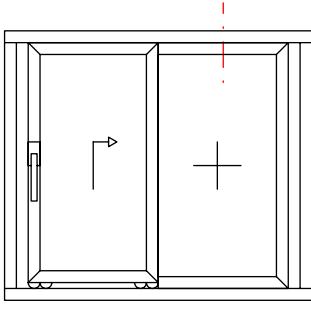
4. Assemblies
4.1 Threshold / Slide sash



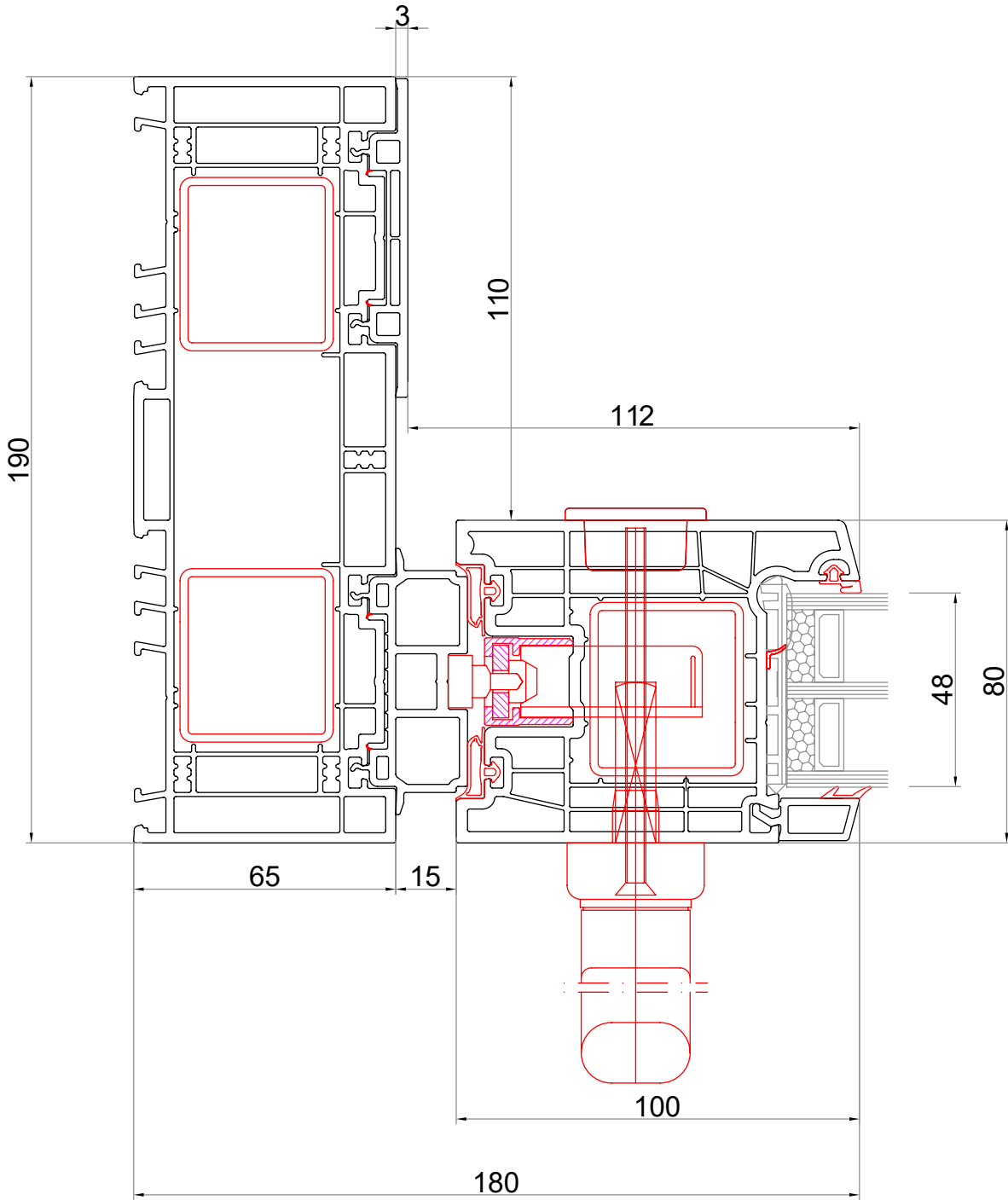
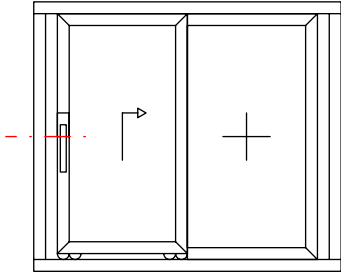
4. Assemblies
4.2 Threshold / Fixed Sash



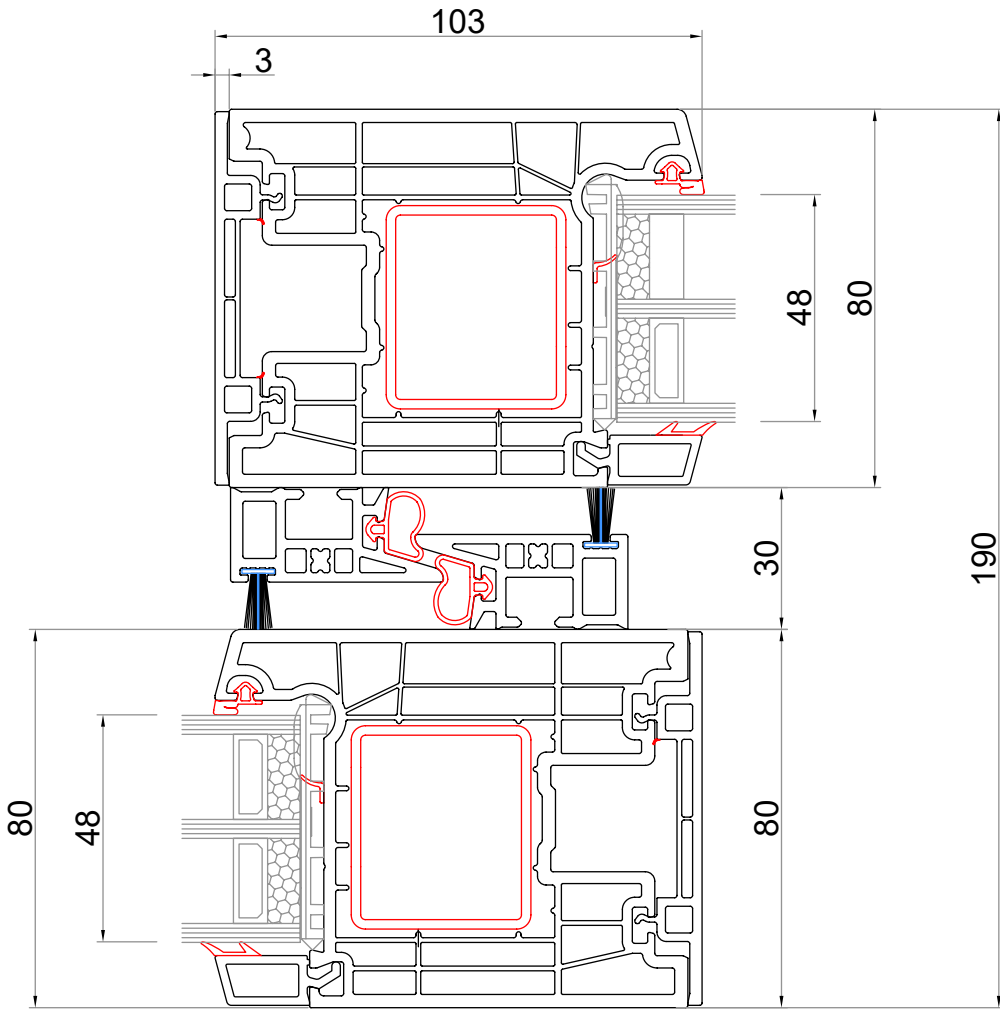
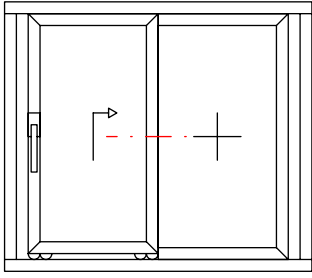
4. Assemblies
4.4 Frame / Fixed Sash – top



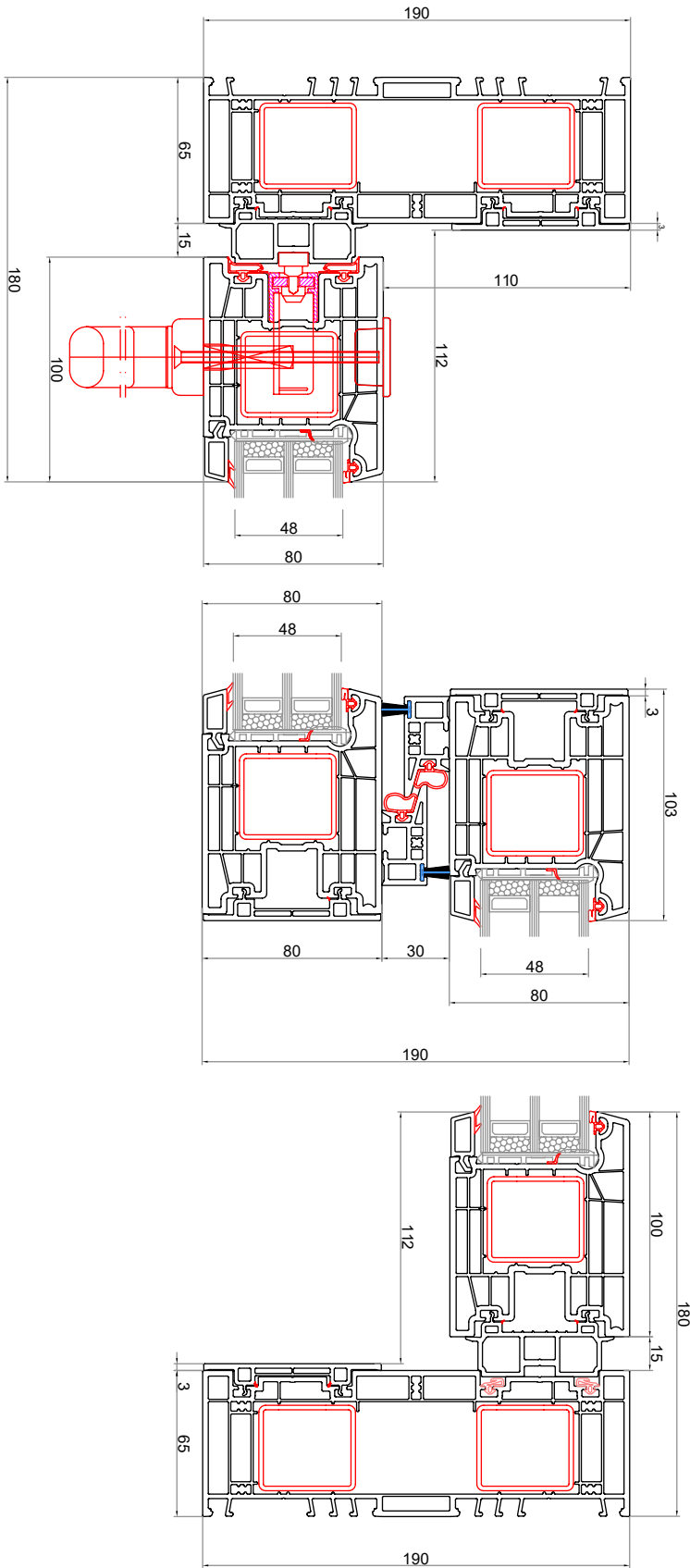
4. Assemblies
4.5 Frame / Slide sash- vertical

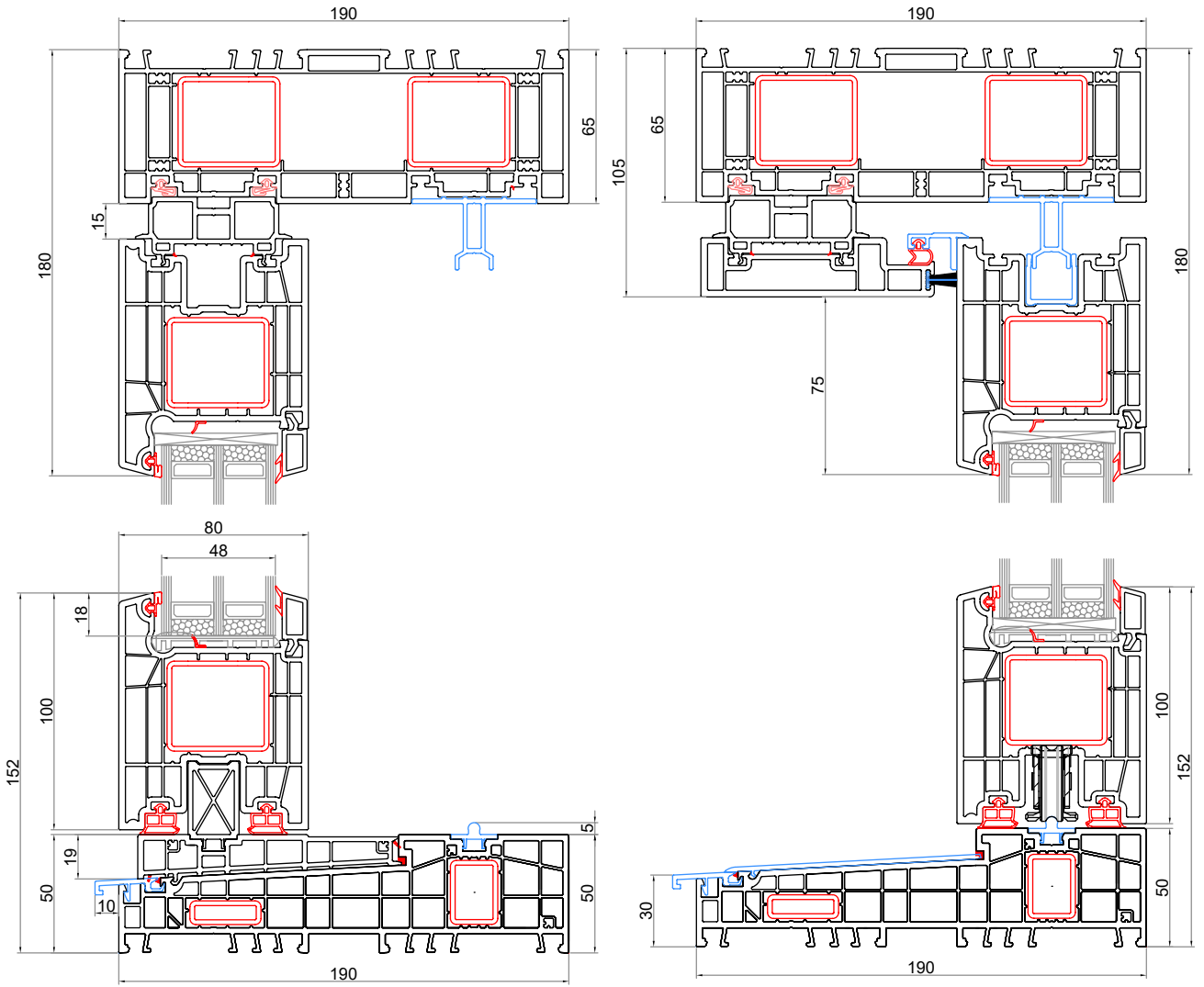


4. Assemblies
4.6 Slide sash / fixed Sash – vertical



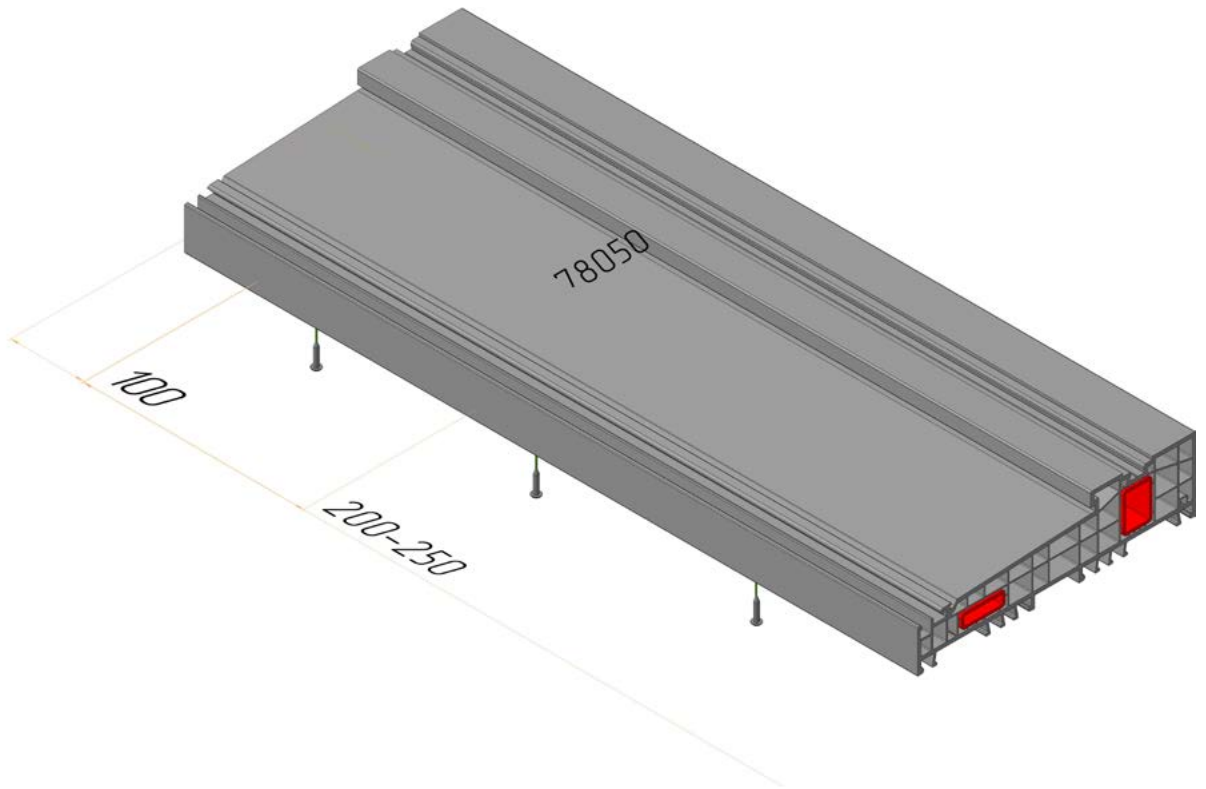
4. Assemblies
4.7 Diagram A – horizontal cross-section



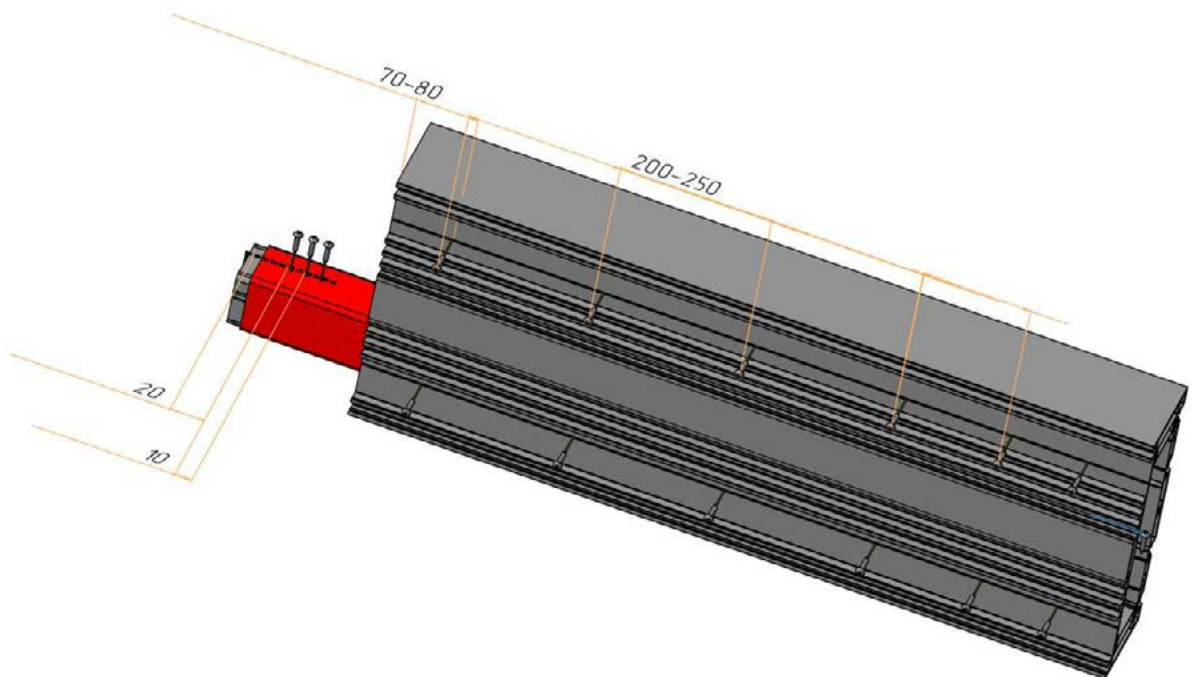


5. Assembly diagrams

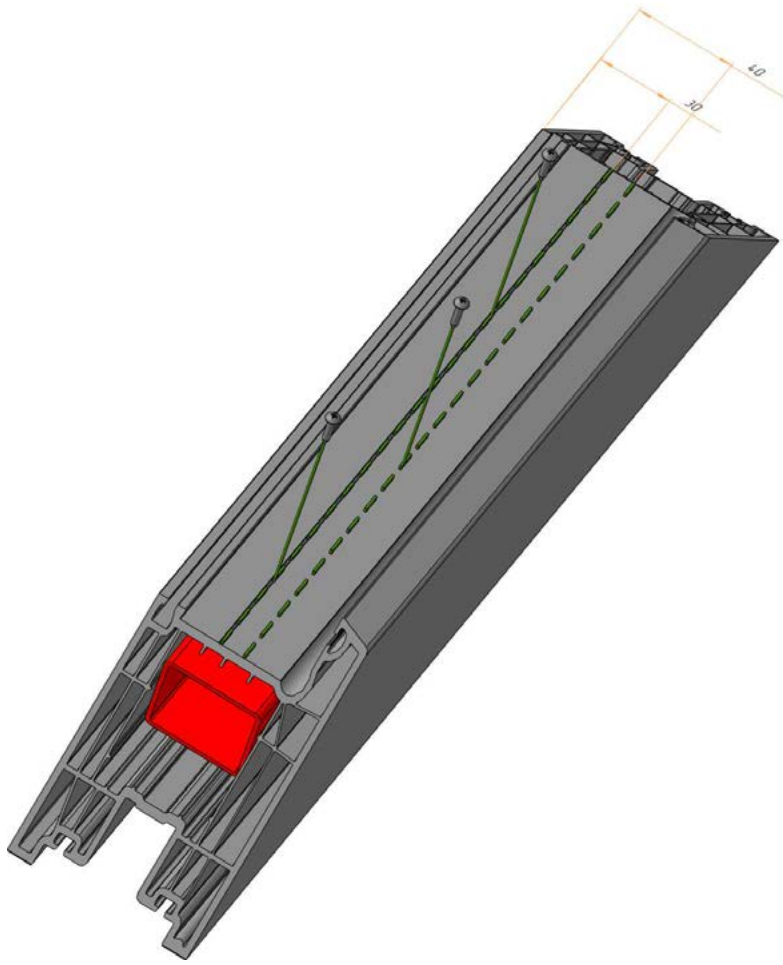
5.1 Mounting of reinforcement to threshold

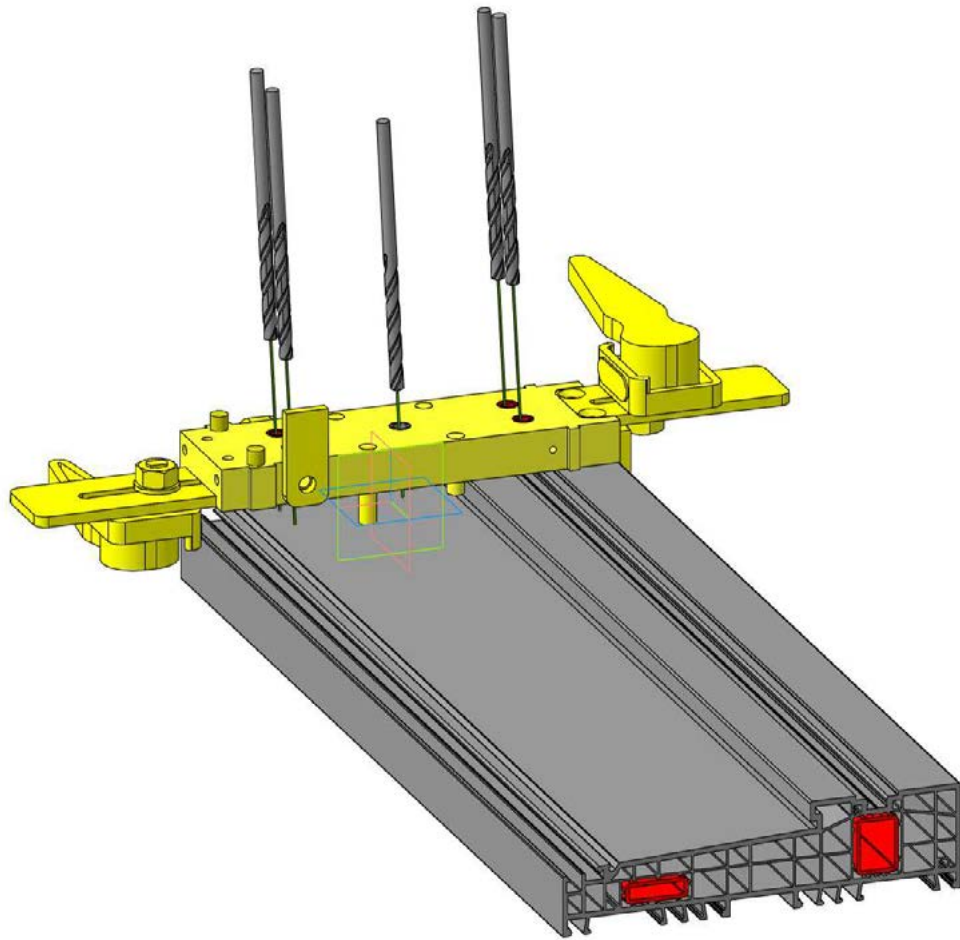


5.2 Mounting of reinforcement to frame

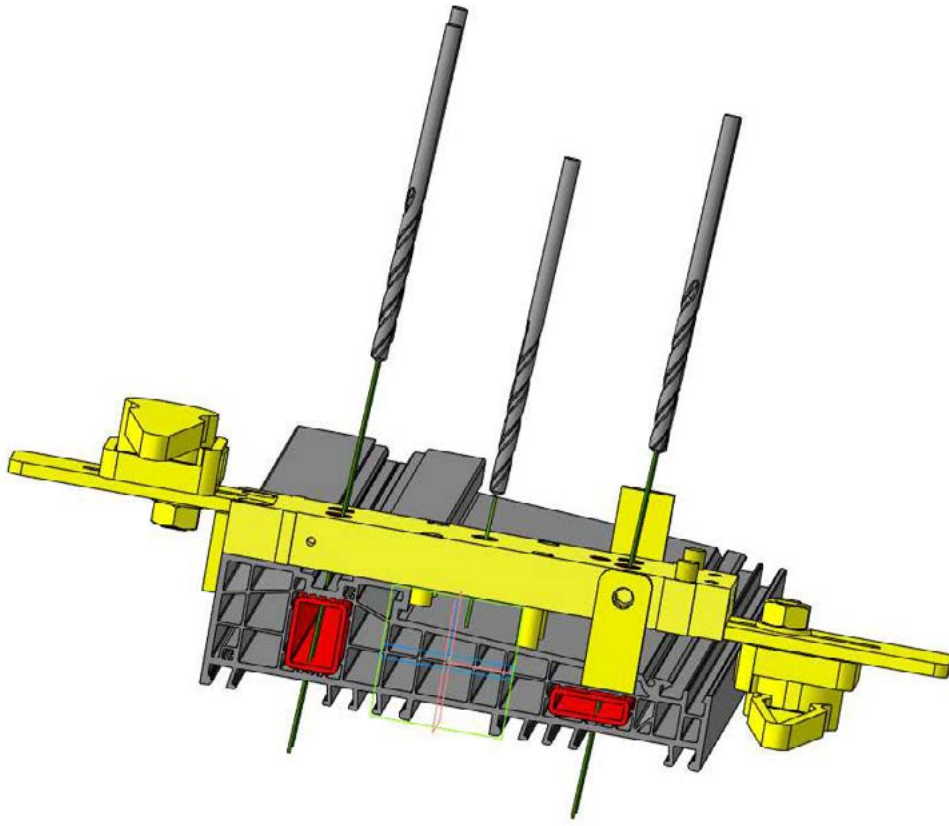


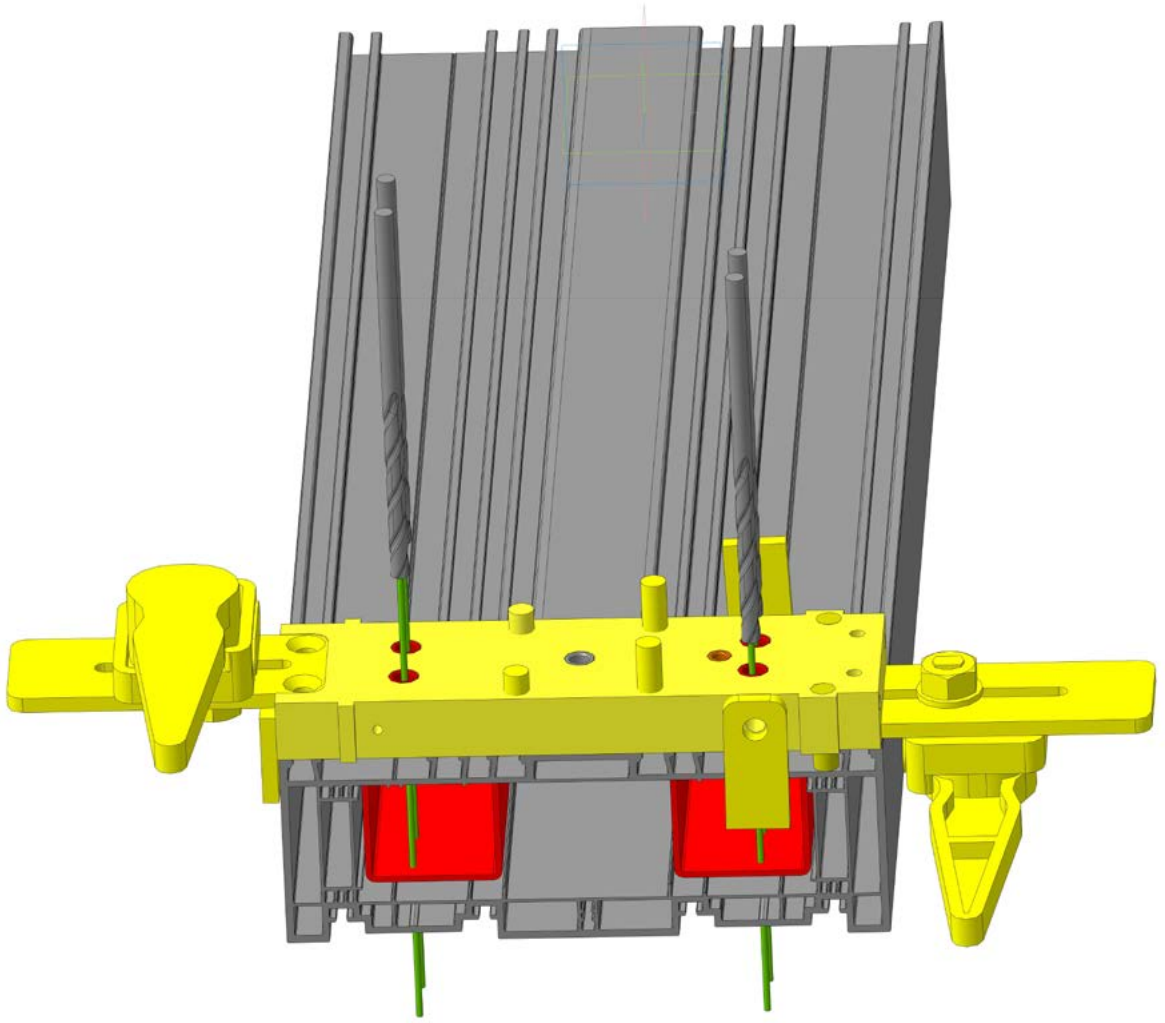
5. Assembly diagrams
5.3 Mounting of reinforcement in sash



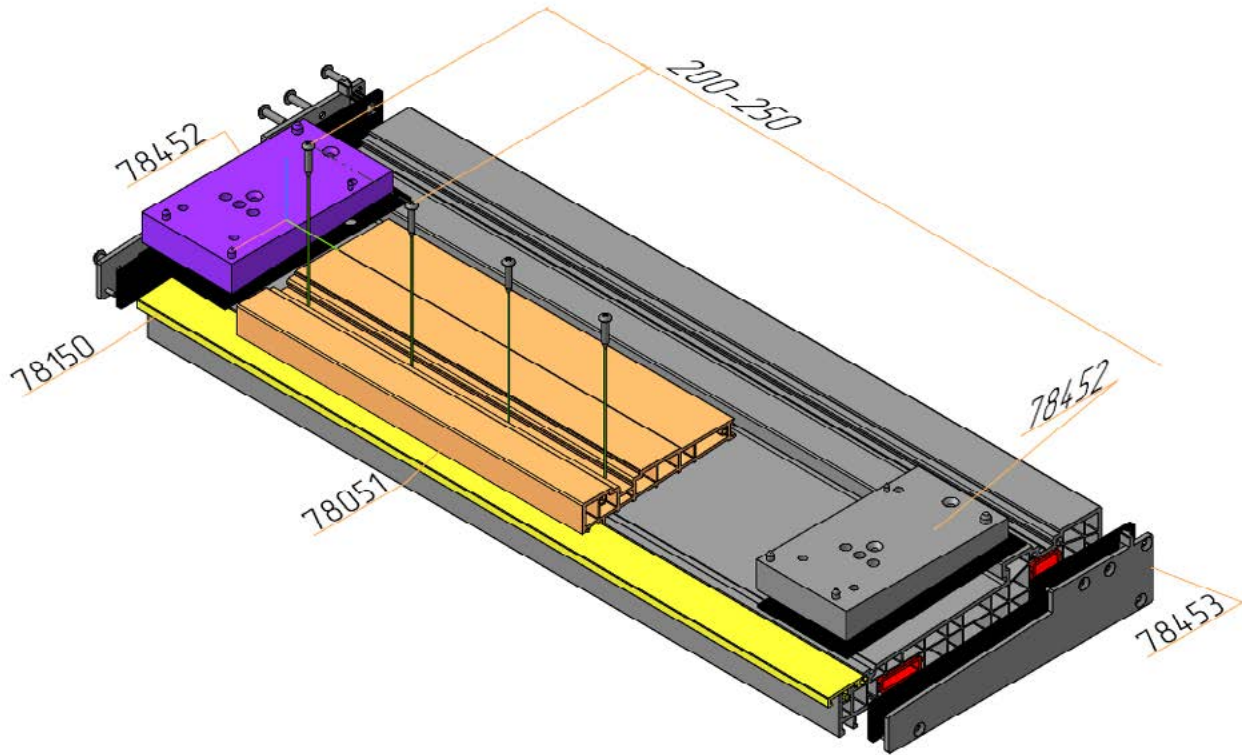


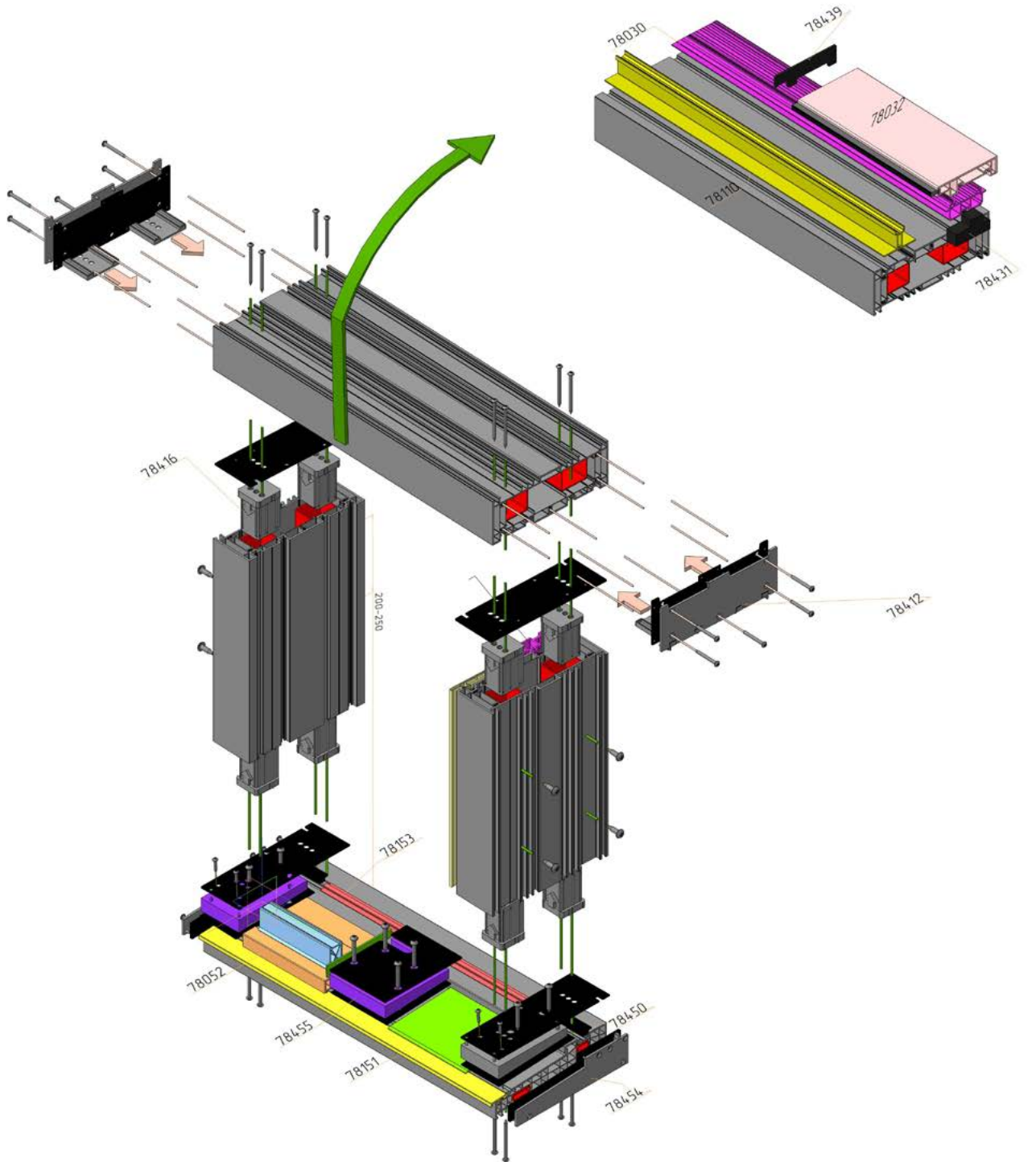
5. Assembly diagrams
5.5 Drilling for threshold-frame connector – side view



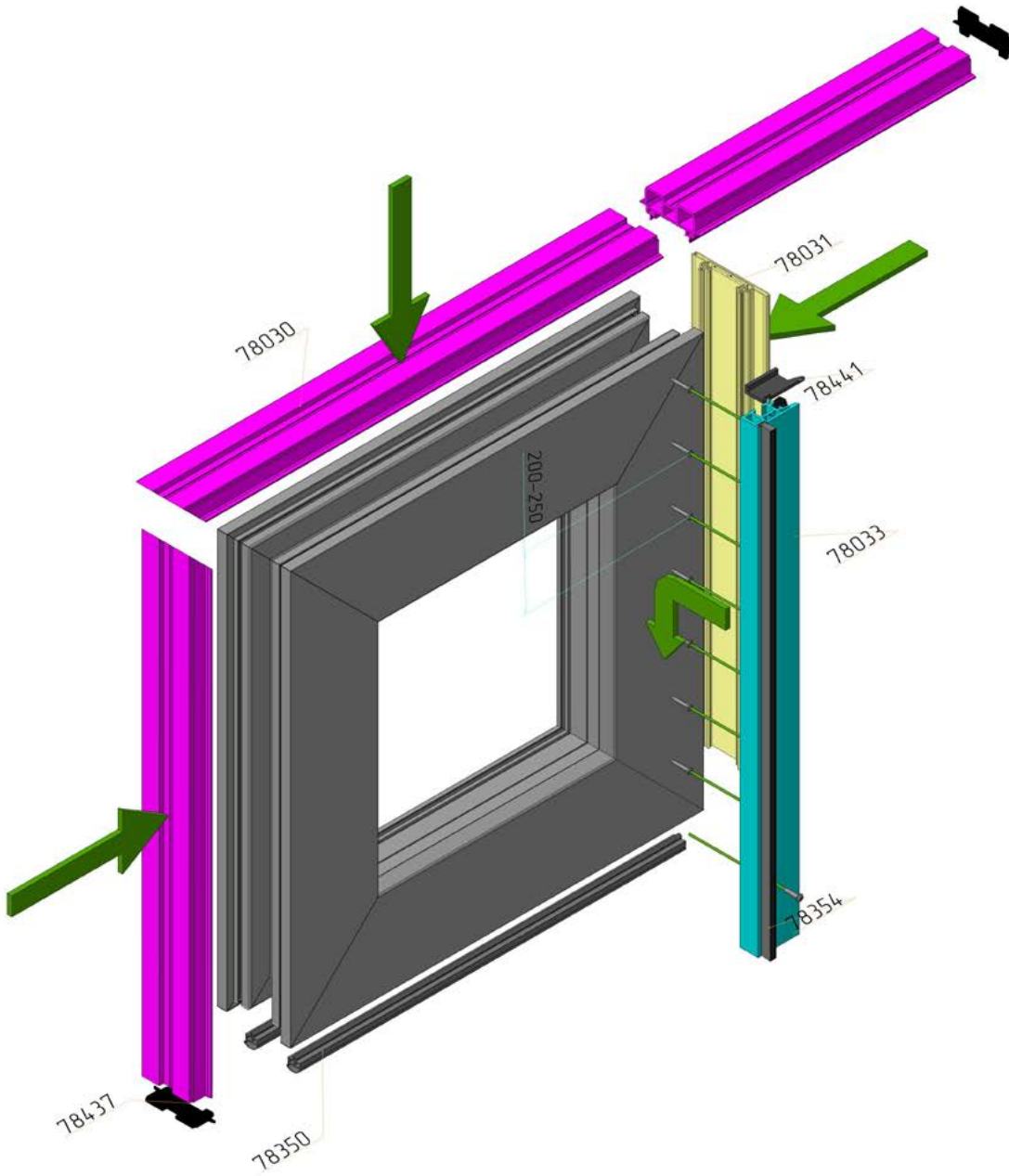


5. Assembly diagrams
5.7 Mounting of fixed sash adapter to threshold

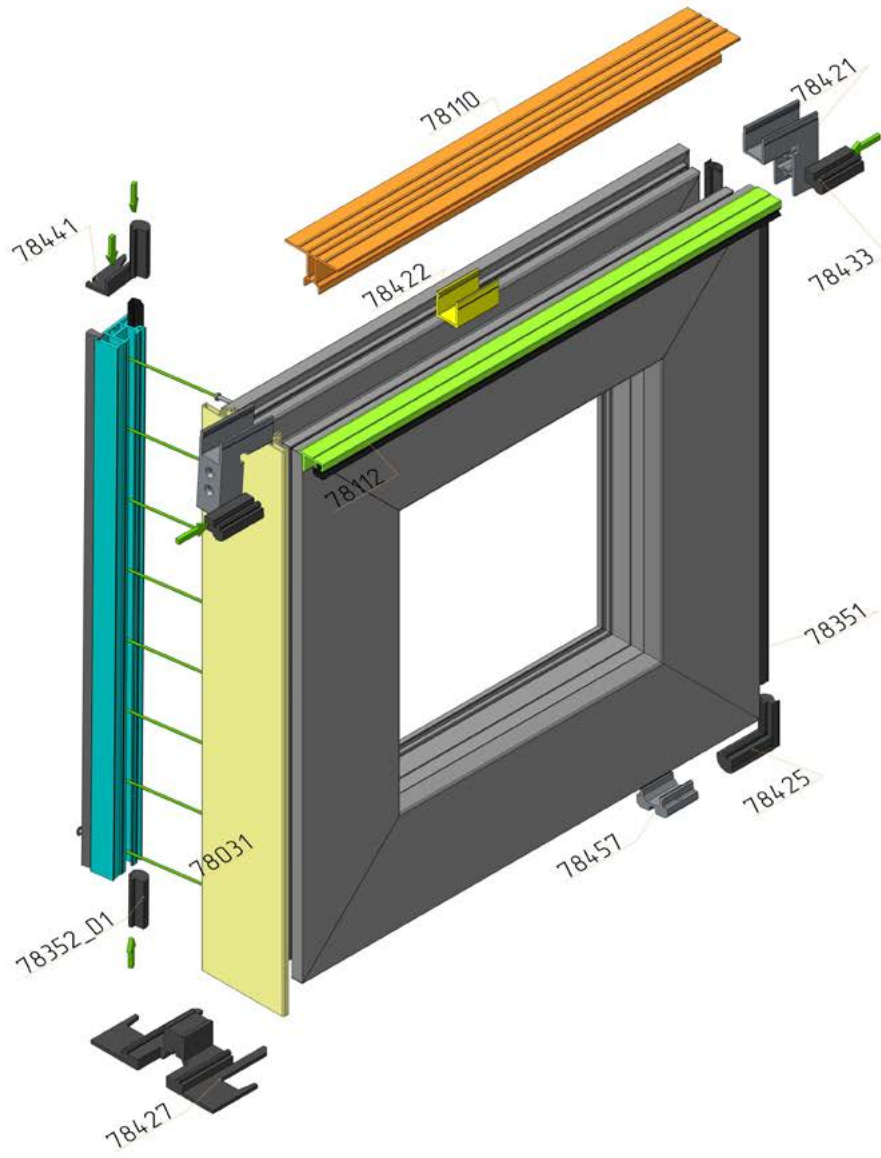


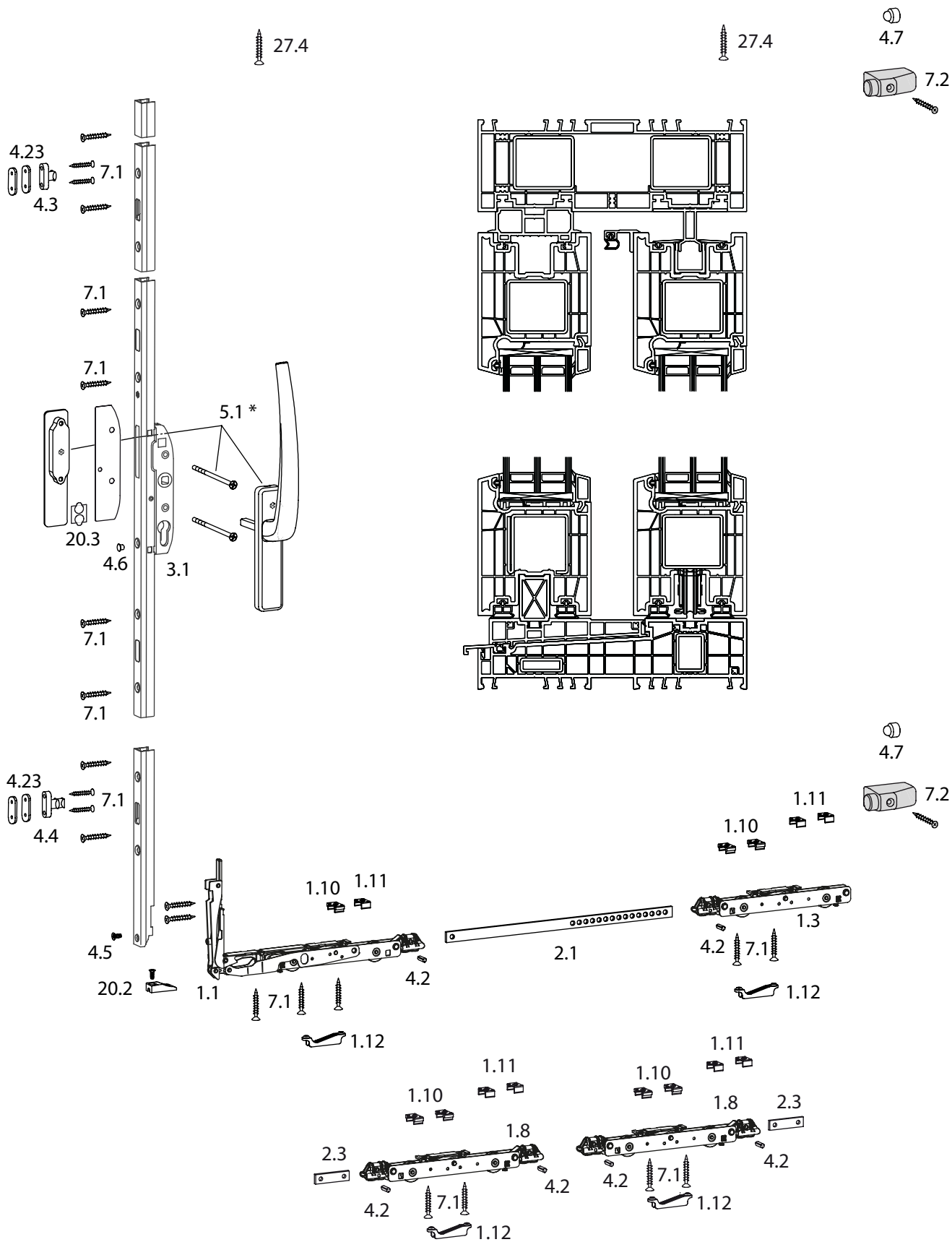


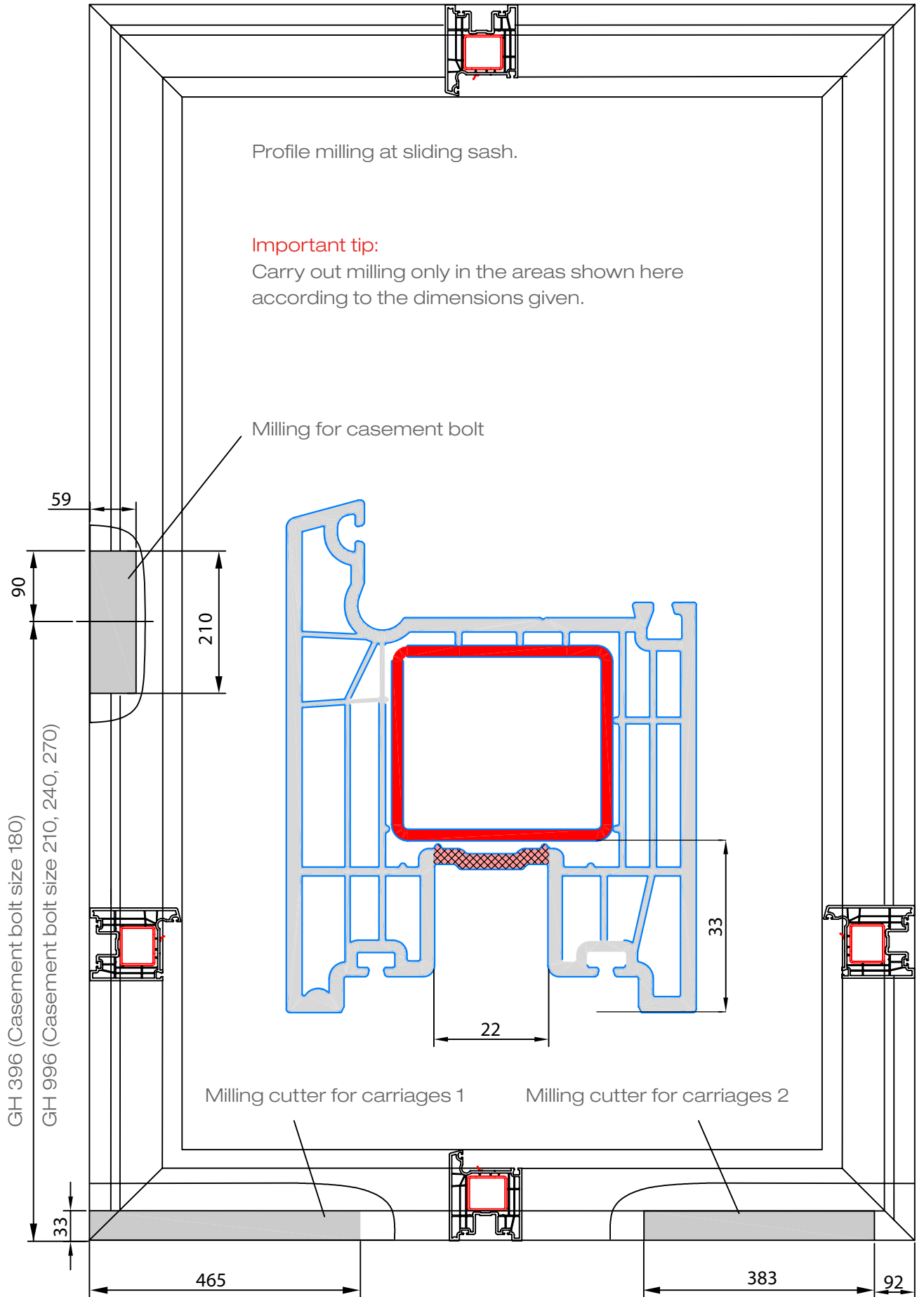
5. Assembly diagrams
5.9 Fixed sash



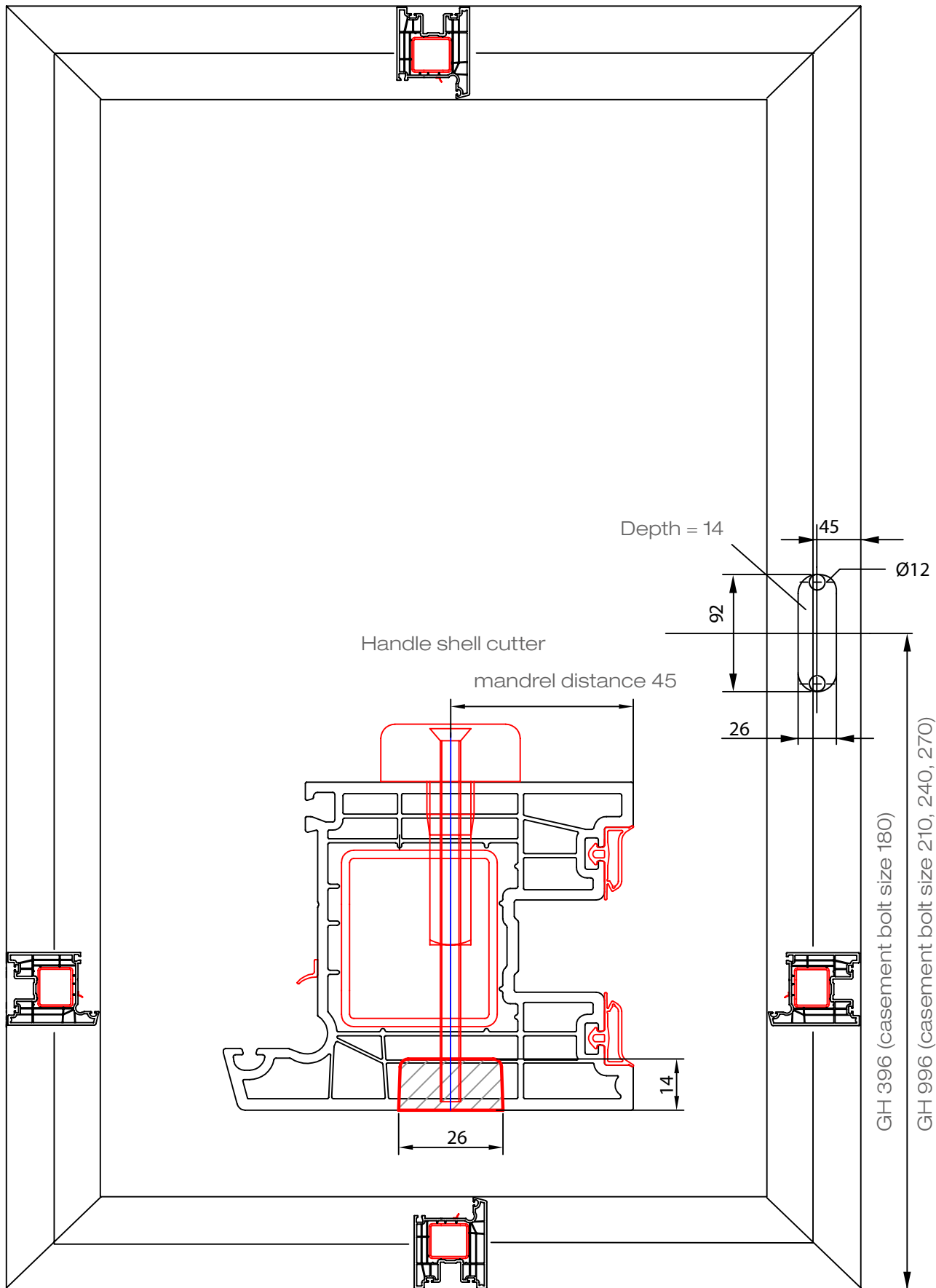
5. Assembly diagrams
5.8 Slide sash







6. Hardware
6.3 Exterior sash frame:
Handle shell cutter



6. Hardware
 6.4 Inside sash frame:
 Handle opening

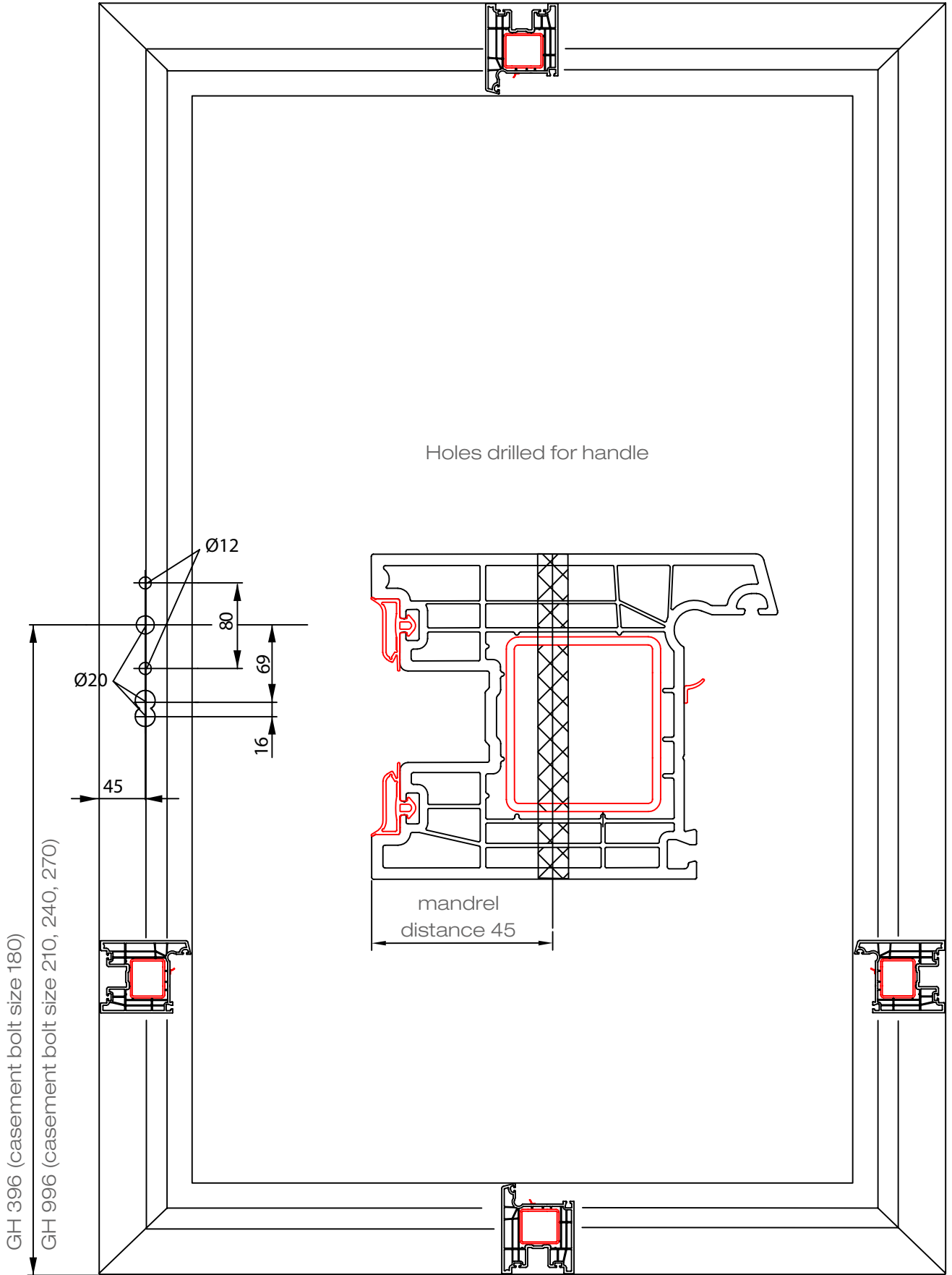
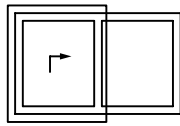


Diagram A



Installation procedure

A Mounting of carriages in leaves

(the hardware groove must have no burrs)

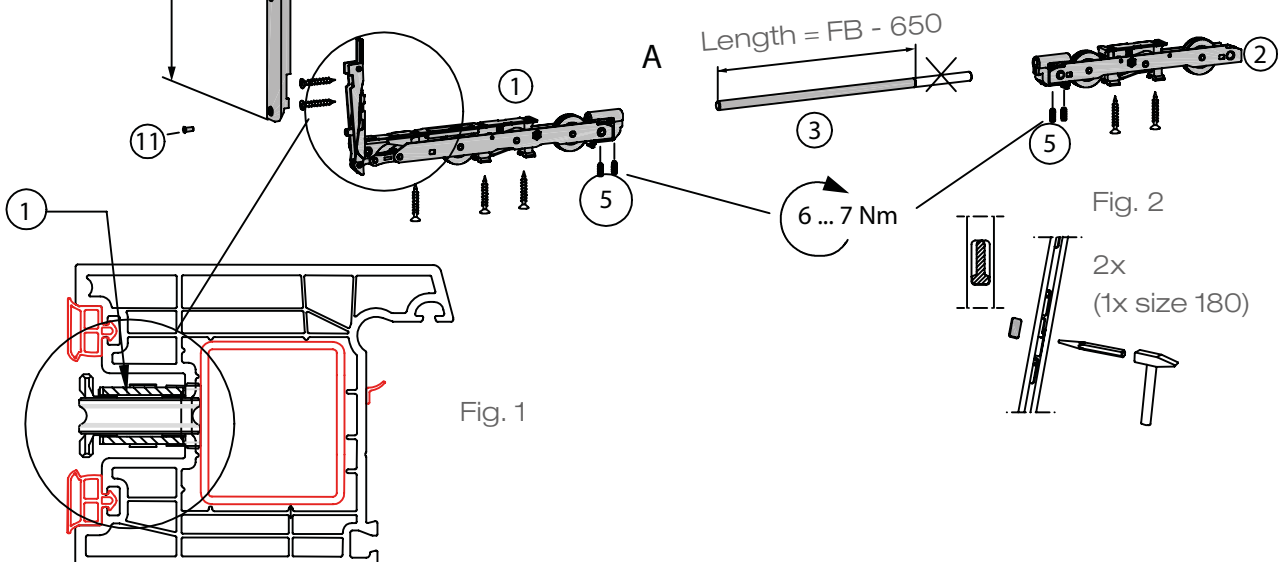
- Fasten the carriage on the handle side **1** with 3 pcs. of 4.8 x 32 screws (pre-drill with a $\varnothing 4$ drill bit). First screw in the bottom, then both side screws 3.9 x 45 (consider the cross section of Figure 1).
- Insert the cut-to-length connecting rod **3** through the sash profile chamber into the carriage coupling element and connect with headless screws **5** (6 ... 7 Nm). Mount the carriage **2** on the connecting rod, connect with headless screws **5** (6 ... 7 Nm) and fasten with 2 pcs. of 4.8 x 32 screws (pre-drill with a $\varnothing 4$ drill bit).

B Mounting the casement bolt **6**

- Insert the cut-to-length casement bolt **6** into the closed position (handle up, locking points must be closed).
- Insert the casement bolt rail **6** into the leaf and fasten it at the bottom with a self-tapping M5 x 12 flat head screw **11** on the carriage **1**.
- Fix the casement bolt with 8 pcs. of 4.8 x 60 screws to the sash (pre-drill with $\varnothing 4$ drill bit).
- Put cap **12** on the hole for the lock bolt. When using the Pz handle (lockable inside and outside), cap **12** is not needed.

C Mounting of handle **7** and handle shell **8** – see section “Installation of handle”.

With more than 2 locking points, remove the pre-stamped sheet metal covers from the casement bolt rail (see Figure 2).



6. Hardware

6.6 Mounting of handle

Installation procedure

A Mounting of square mandrel: Drive the square mandrel 7 Vk with a plastic mallet into the escutcheon of the handle 7 Rs (consider the reference dimension K – see arrow).

B Shorten the M 5 x 100 screws to 85 mm.

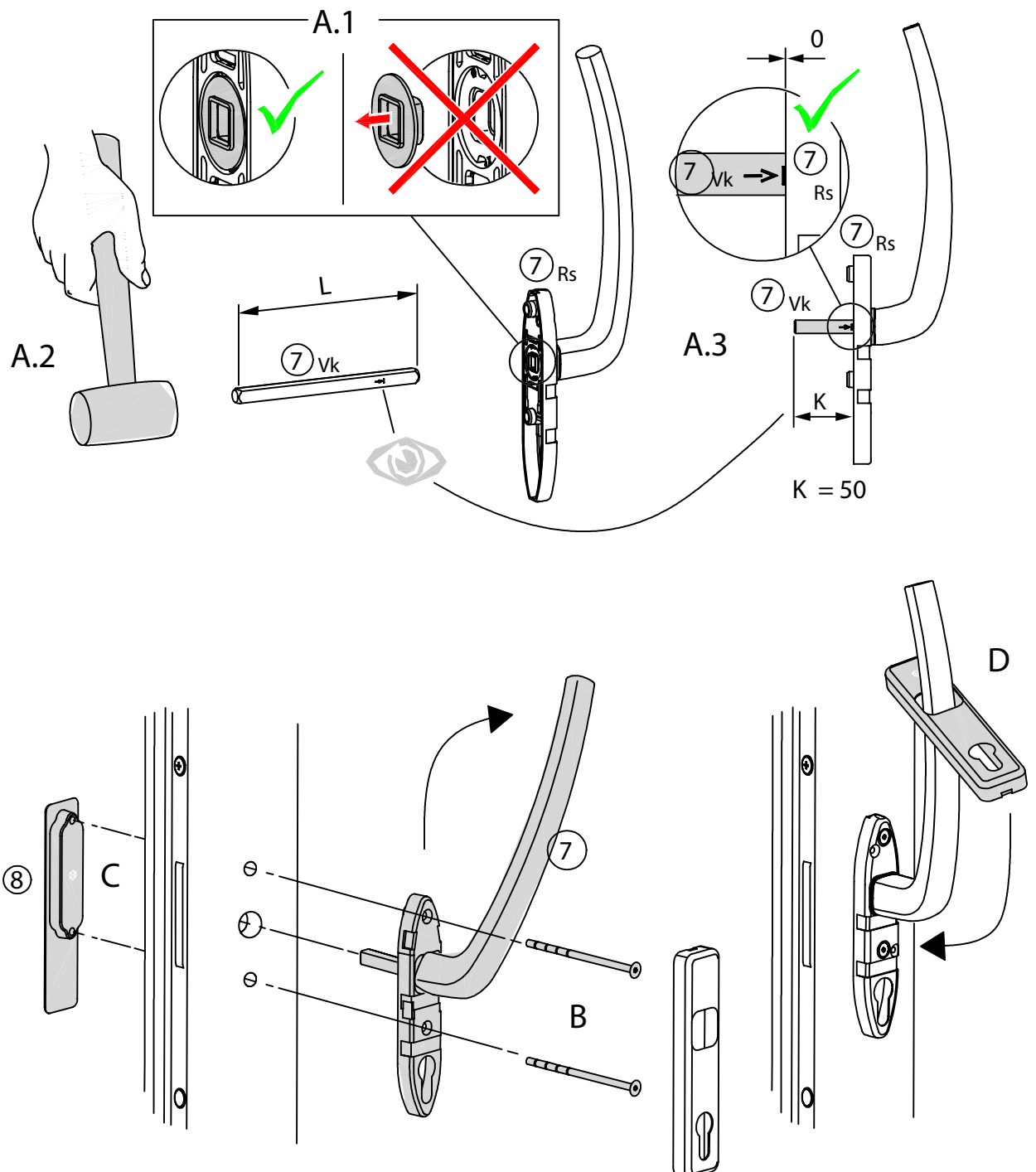
C Connect handle 7 to handle shell 8 with screws.

D Mount the handle escutcheon on the handle.

Instructions for other versions of the handle can be ordered from the manufacturer.

K – reference dimension

L – length of the square mandrel



6. Hardware
 6.7 Mounting of sash stop

Installation procedure

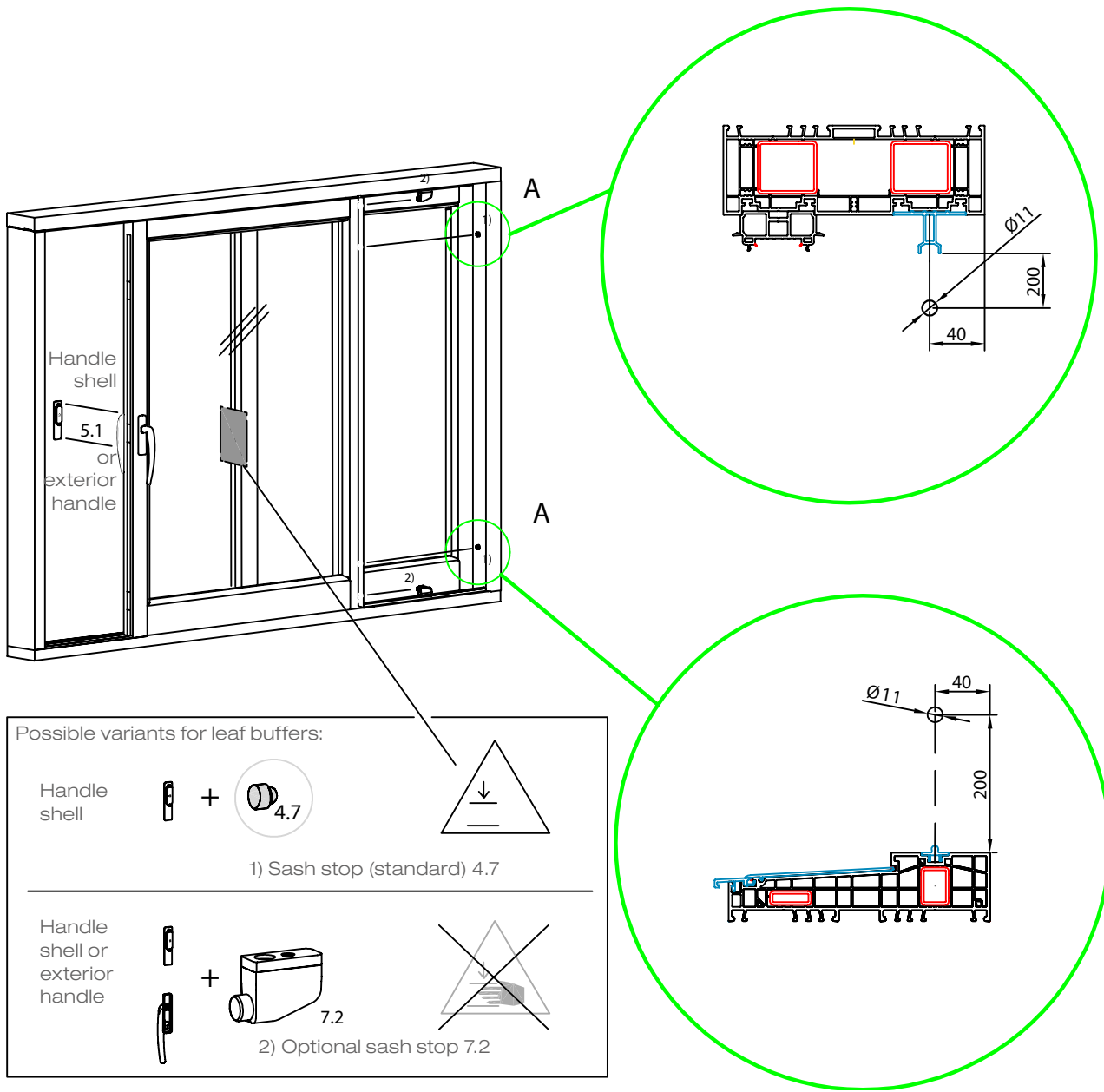
A* Sash stop (standard): two mushroom-shaped rubber dampers are installed on each sliding sash.

Note:

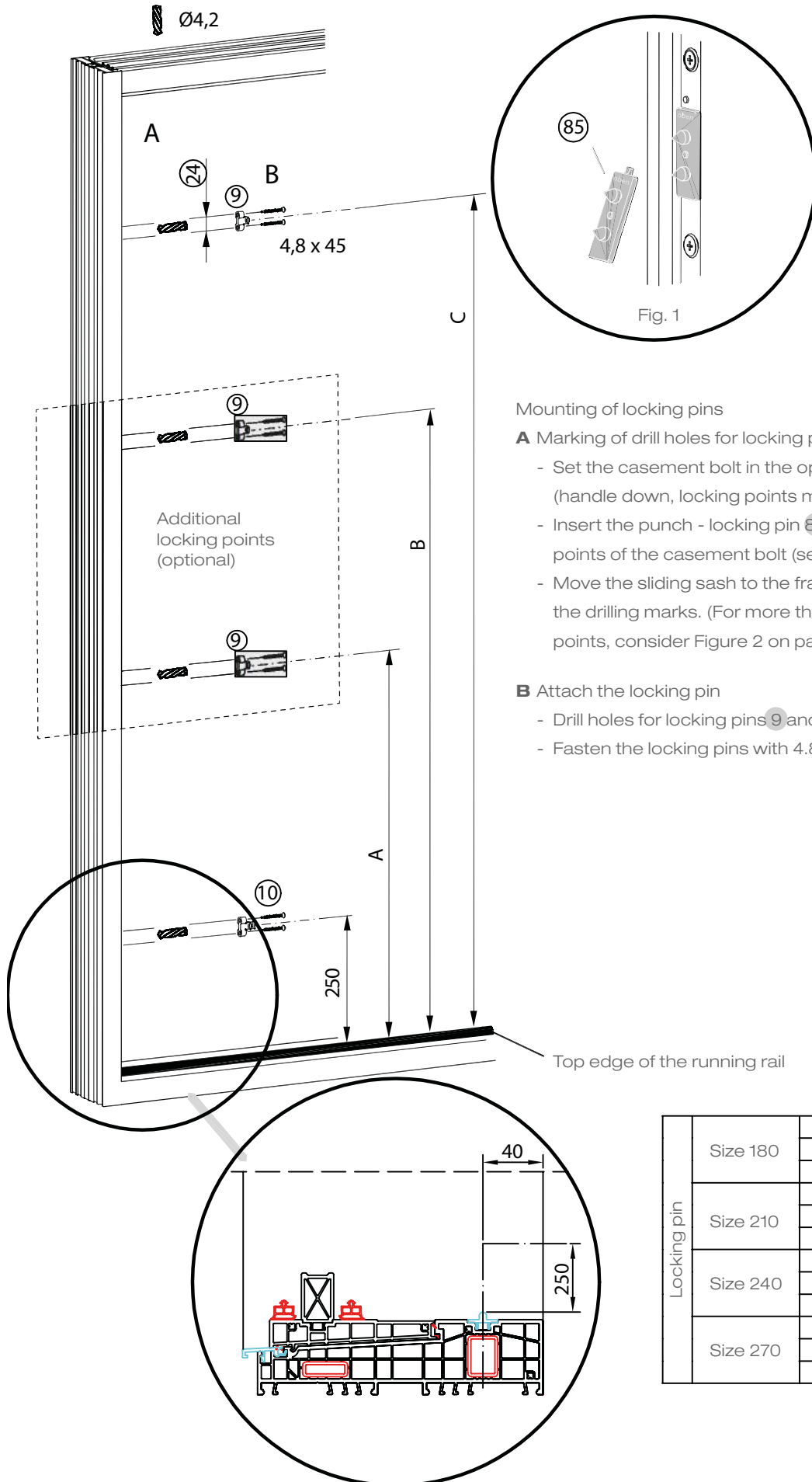
Risk of injury in the handle shell area!

To avoid the risk of injury, it is recommended to mount optional leaf stops according to the instructions „HS optional sash stop”.

For the exterior handle, install sash stops according to the instructions „HS optional sash stop”! Mark out holes on the frame for mushroom-shaped rubber dampers and drill a hole. Push the mushroom-shaped rubber dampers into the drill holes.



6. Hardware
 6.8 Frame:
 Mounting of locking pins



Mounting of locking pins

A Marking of drill holes for locking pins

- Set the casement bolt in the open position (handle down, locking points must be open).
- Insert the punch - locking pin 85 into the locking points of the casement bolt (see Figure 1).
- Move the sliding sash to the frame to align the drilling marks. (For more than two locking points, consider Figure 2 on page 5) (See Figure 1).

B Attach the locking pin

- Drill holes for locking pins 9 and 10 with $\varnothing 4.2$ drill.
- Fasten the locking pins with 4.8 x 45 screws.

Locking pin	Size 180	A	-
		B	600
		C	1000
	Size 210	A	750
		B	1200
		C	1600
	Size 240	A	750
		B	1200
		C	1900
	Size 270	A	750
		B	1200
		C	2200

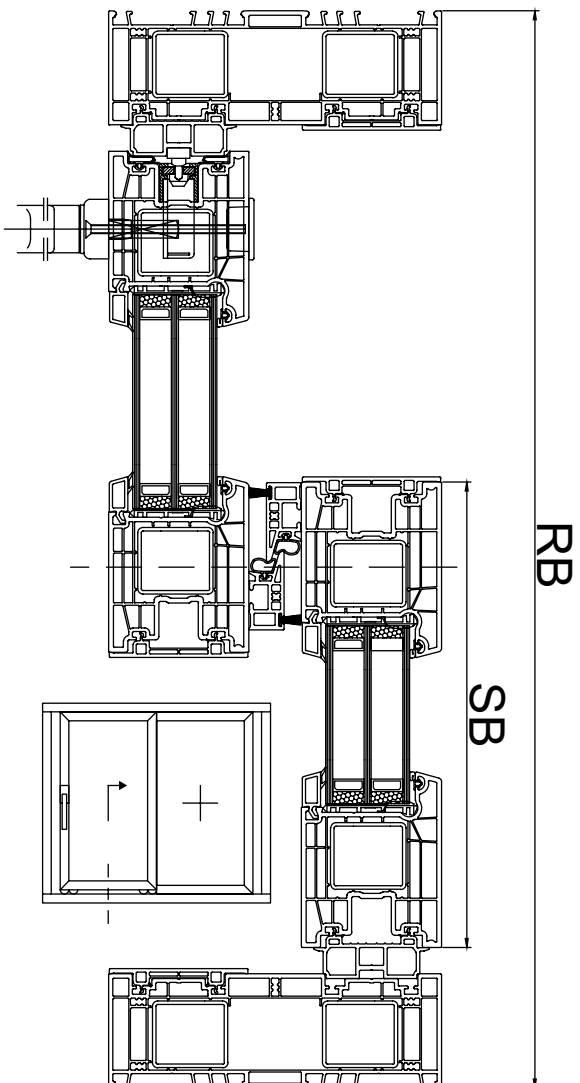
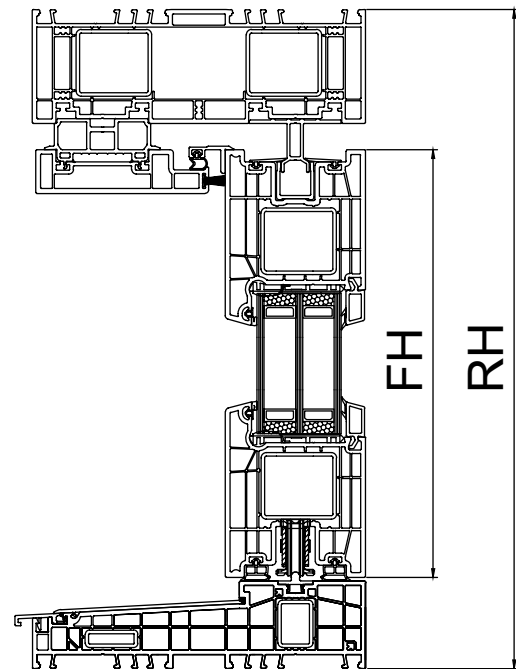
7. Nominal dimensions

Diagram A – functional dimensions

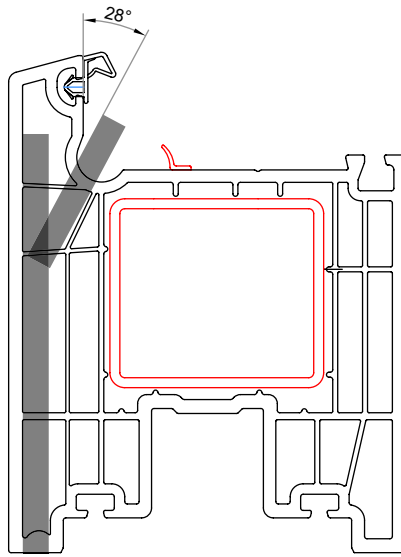
Diagram A - basic elements	Function
Frame width	RB-6
Frame height	RH-115
Threshold	RB-6
Sash width (after welding)	RB/2-31,5
Sash height (after welding)	RH-132
Glass width	FB-176
Glass height	FH-176
Glazing bead width	FB-160
Glazing bead height	FH-160

Diagram A - additional elements	Function
Interlock – fixed sash	FH-15
Interlock – slide sash	FH
Cover trim fixed sash	FH-25
Cover trim slide sash	FH
Cover trim interior frame	RH115
Cover trim exterior frame	RH-155
Fixed sash adapter	FB-75
Connecting strip for fixed sash width	FB+15
Connecting strip for fixed sash height	FB+15
Upper sealing strip connector	RB/2-113
Catch strip	RH-115
Upper sealing strip	RB/2-113

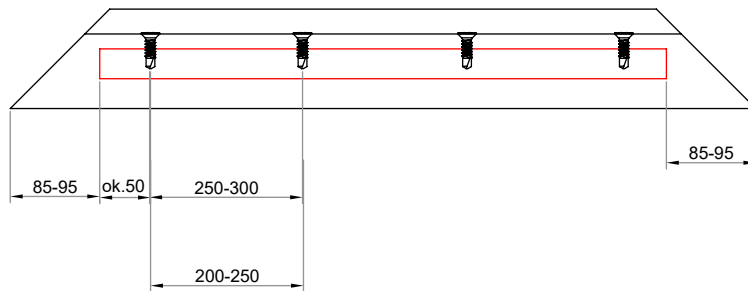
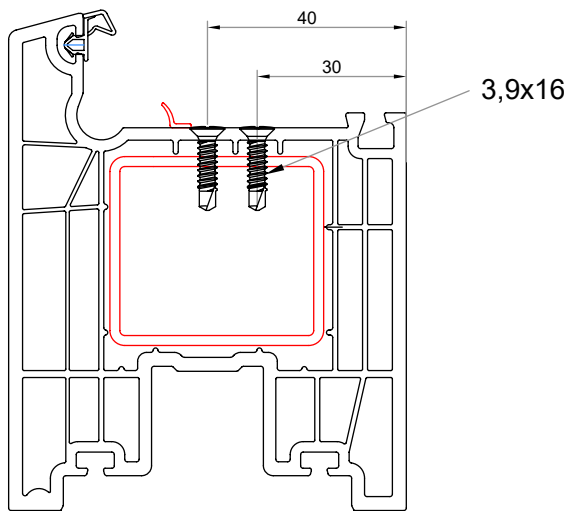
Diagram A - steel reinforcement and aluminium elements	Function
Steel to frame horizontal	RB-6
Steel to frame vertical	RH-6
Steel to leaf horizontal	FB-165
Steel for leaf vertical	Fh-165
Steel to threshold 1	RB-6
Steel to threshold 2	RB-6
Top rail	RB-148
ALU rail track	RB-148
ALU drip cap	RB-6
ALU threshold cover	RB/2-119
ALU Slide sash sealing	FB
Fixed sash connector	FB-56



8. Execution tips
8.1 Drainage

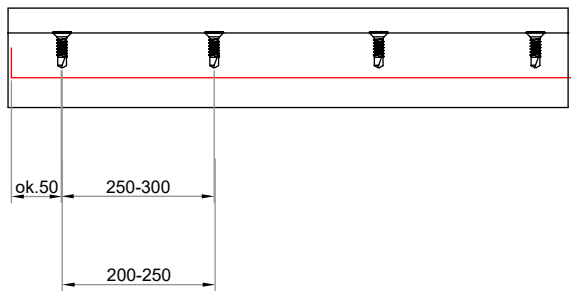
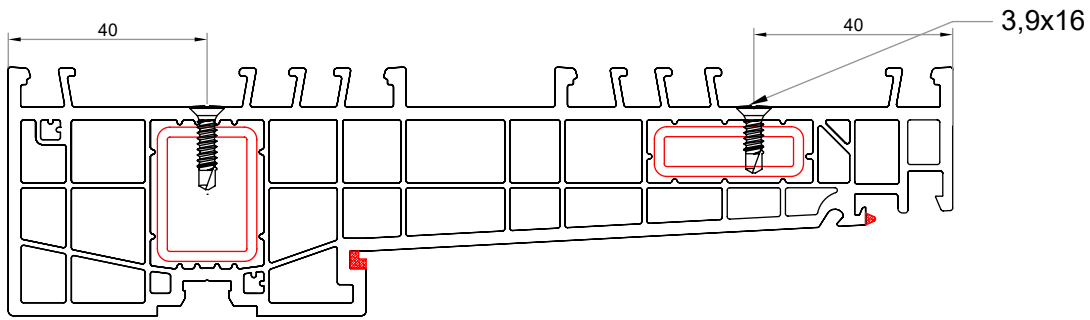
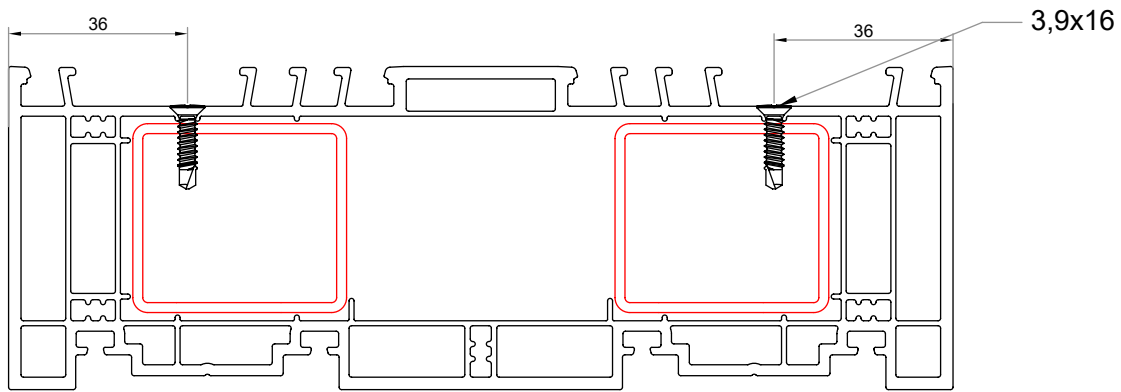


8.2 Mounting of reinforcement in sash

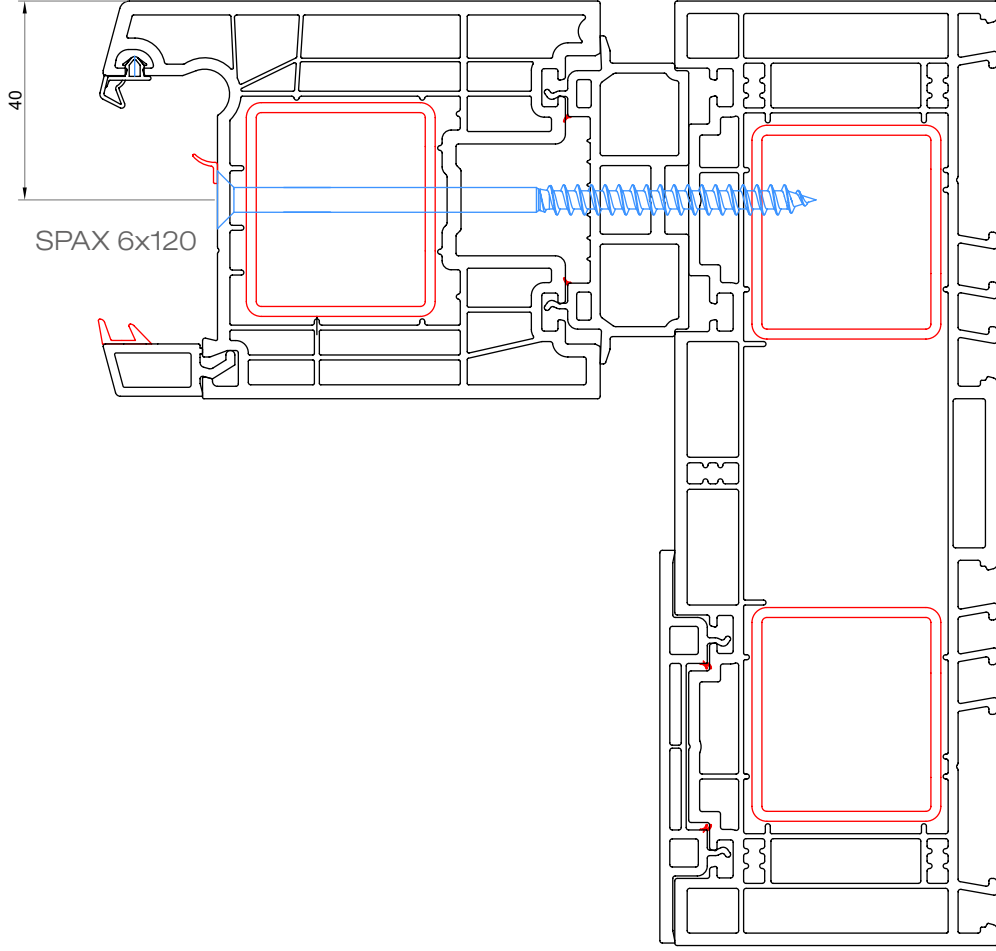


8. Execution tips

8.3 Mounting of reinforcement in frame and threshold

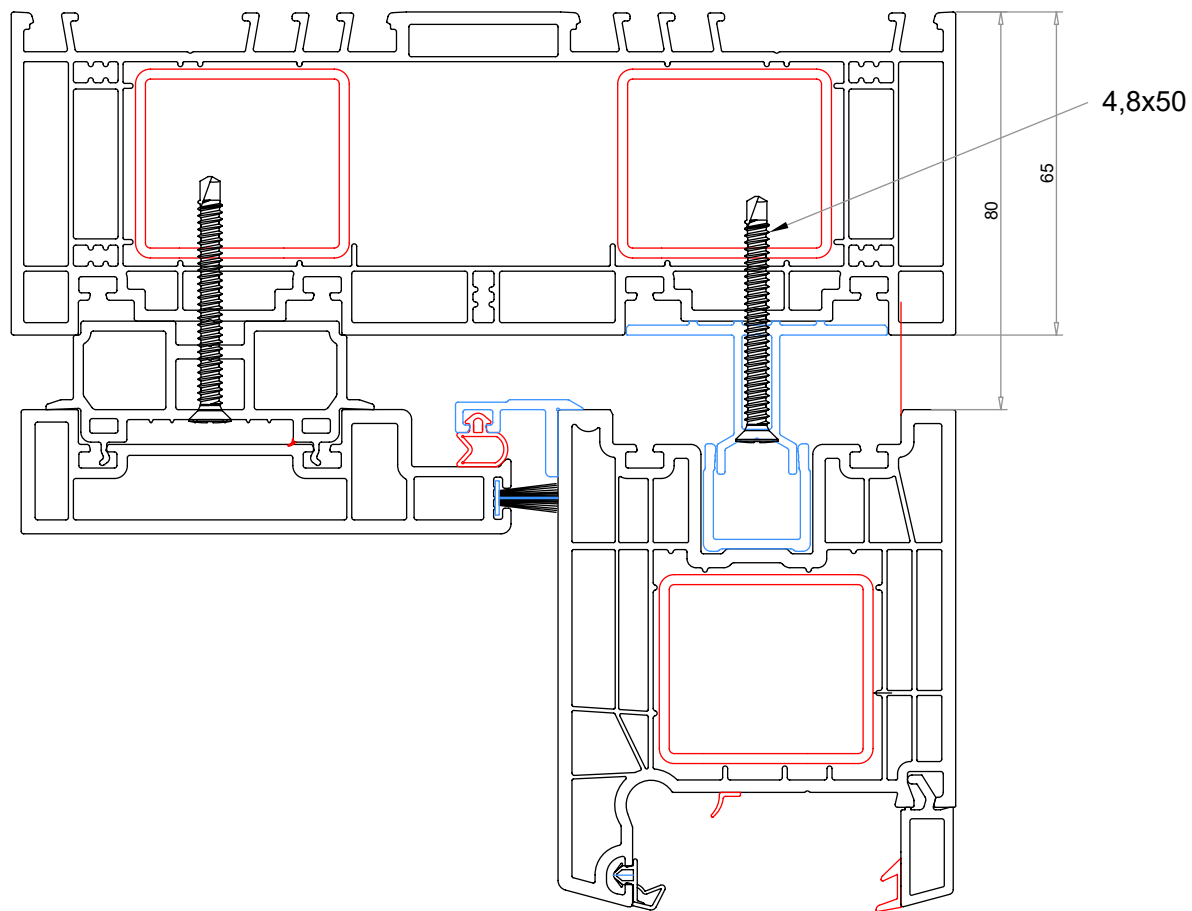


8. Execution tips
 8.4 Mounting of fixed to frame

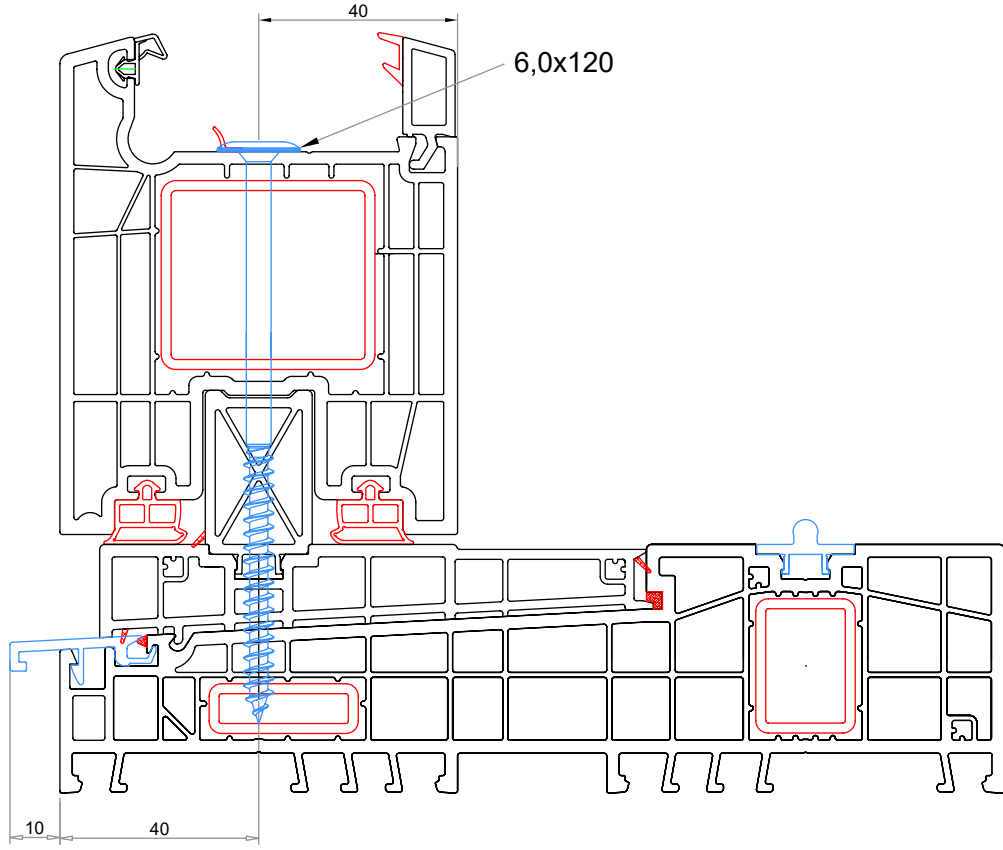


8. Execution tips

8.5 Mounting of top rail and upper sealing strip to frame



8. Execution tips
 8.6 Mounting of fixed sash to threshold



8. Execution tips

8.7 Mounting of Interlock on fixed and slide sash

