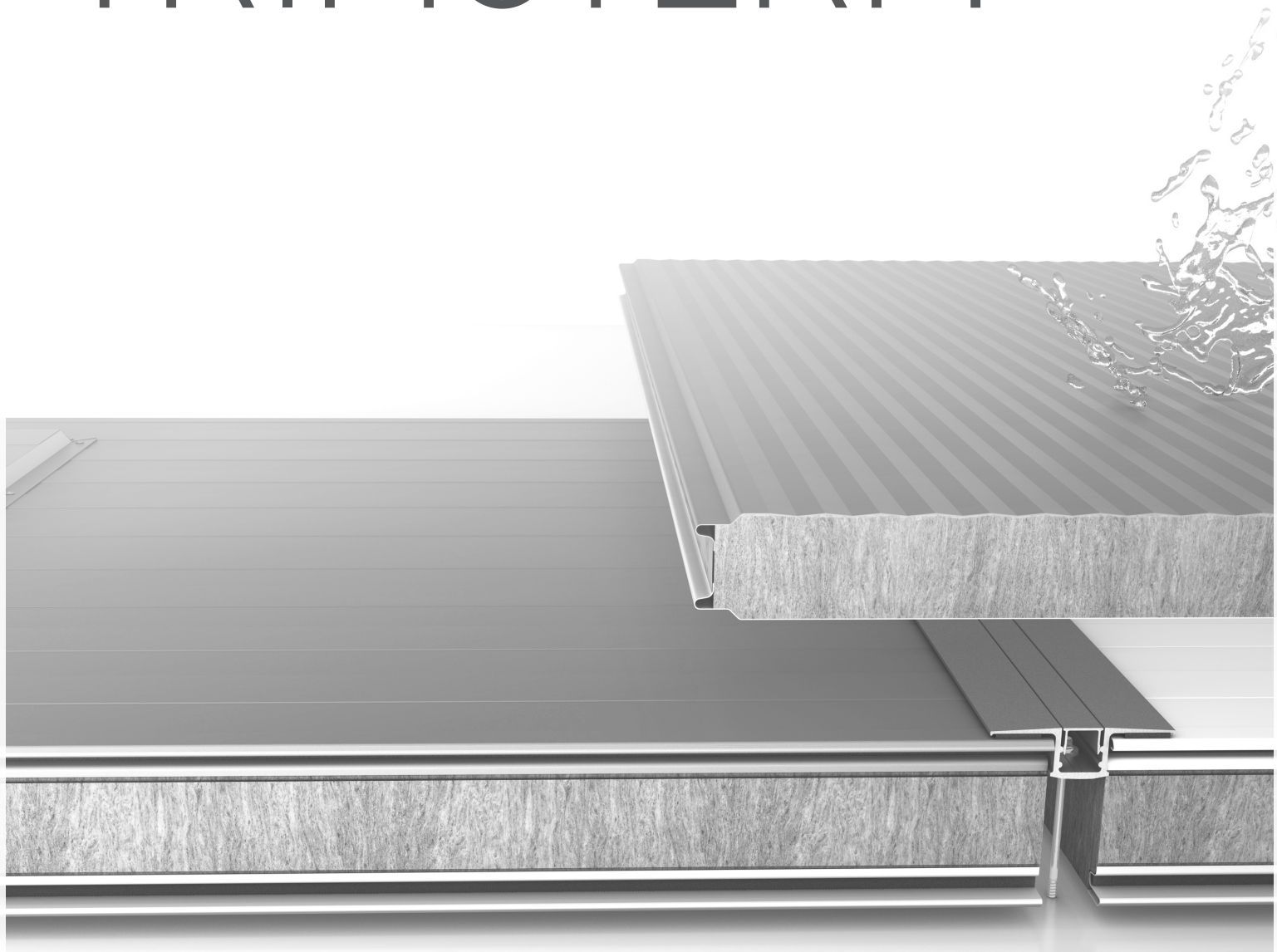


# TRI MO TRIMOTERM



**TRIMOTERM FTV**  
FAÇADE INSTALLATION GUIDE

For general contractors and installation team!

# Installation guide for Trimoterm FTV panels.



Descriptions of details, and other information in this document, are only provided to illustrate the system(s) of Trimoterm cladding products and applications. Each user of such information is fully responsible for the incorporation of this advisory information in their designs.

Trimo assumes no liability whatsoever for any damages incurred by you resulting from errors in or omissions from the information included herein.

Care has been taken to ensure that information contained in this document is accurate, but Trimo, including its subsidiaries, does not accept responsibility or liability for errors in information.

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# A General

## A1 Guidelines

### A1.1 Introduction

This installation guide provides step-by-step instructions for installing both horizontal and vertical series of all Trimoterm FTV wall panels.

### A1.2 Safety regulations

All safety procedures, including but not limited to fall protection and material handling, are the exclusive responsibility of the installing contractor.

To prevent accidents and health hazards, always follow safety protocols. Before installation work, check whether the installation site is subject to any particular requirements regarding occupational safety. Always follow local occupational safety provisions.

### A1.3 Owner's / Contractor's responsibilities

- A qualified and experienced installer, with demonstrated expertise in the proper installation of insulated metal panels and associated construction elements, must be selected.
- The installer must review and fully understand both the project's installation drawings and this installation guide prior to beginning work.
- All panels and related components must be installed in strict accordance with the project's installation drawings and with the relevant sections of this guide.
- Panels must be verified as suitable for their intended application.
- The project's structural framing must be properly designed and in suitable condition to support the erection and the design loads imposed by the wall panels.
- The placement of interior and/or exterior panel joints and perimeter seals must be correctly specified in accordance with the project's moisture and vapor control requirements.
- Installation must comply with all applicable codes, regulations, service conditions, and recognized standards of good engineering and construction practice.



# A Package

## A2 Package description

Trimoterm FTV packaging protects panels during transport, handling and storage. Clear labelling and correct stacking improve safety and logistics efficiency. The packaging fit the entire Trimoterm FTV range regardless of type or thickness and is designed to minimise environmental impact at the end of their lifecycle.

### A2.1 Size and weight of the package

Max. width (A)	Max. length (L)	Standard height (H)	Max. weight
1,230 mm	13,000 mm (13,200 mm)*	1,000 - 1,320 mm	3,000 kg

\* Value for standard transport; Non-standard transport 13,200 mm - 14,200 mm.

Tab. 1.1: Package maximal dimension and weight.

### A2.2 Specification of packages

This specification lists all packages and their key data (number, size, weight, packing type, contents). Use it to verify deliveries on site.

PACKAGE NUMBER		PACKAGE LENGTH		PACKAGE WIDTH		PACKAGE HEIGHT		PACKAGE WEIGHT	
STAT. CODE	PACKET NO. DESCRIPTION	LENGTH	WIDTH	HEIGHT	QUANTITY UM	PACKING TYPE UNIT Q. UM	WEIGHT: GROSS LENGTHUM	NET POSITION	UM
ODPR 81031666	0000117911-00001 Trimoterm Power S FTV HL-80/1000 MS 0,60 mm PVDF 35 µm R9007 / 0,50 mm SP 25 µm R9002	6.300	1.000	920 MM	62,000 M2	STYRO-FOAM/CARDBOA 10 PC	1174,4 6.200 MM	SURESTE DE 01 A 04 + MERMA	KG
ODPR 81031666	0000117911-00002 Trimoterm Power S FTV HL-80/1000 MS 0,60 mm PVDF 35 µm R9007 / 0,50 mm SP 25 µm R9002	6.300	1.000	920 MM	62,000 M2	STYRO-FOAM/CARDBOA 10 PC	1174,4 6.200 MM	SURESTE DE 01 A 04 + MERMA	KG
ODPR 81031666	0000117911-00003 Trimoterm Power S FTV HL-80/1000 MS 0,60 mm PVDF 35 µm R9007 / 0,50 mm SP 25 µm R9002	6.300	1.000	920 MM	62,000 M2	STYRO-FOAM/CARDBOA 10 PC	1174,4 6.200 MM	SURESTE DE 01 A 04 + MERMA	KG

Fig. 1.0

More information about package elements is available in the following document:



Packaging, transport, and storage for Trimo products



# A

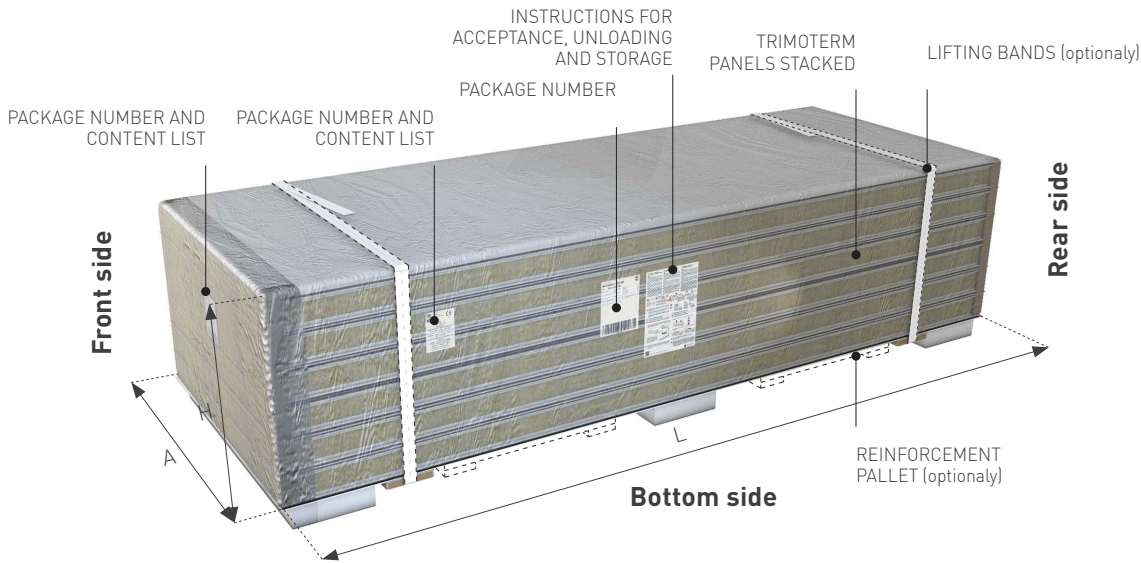


Fig. 1.1: Trimoterm FTV panel package example (image is illustrative).

### A2.3 Panel description

Panel thickness	50	60	80	100	120	133	150	172	200	220	240	250
Weight (Fe 0.55/0.5) (kg/m²)	15.8	17.0	19.4	21.8	24.2	25.8	27.8	30.5	33.8	29.7	38.6	32.4

Tab. 1.2: Weight of the panel (informative)

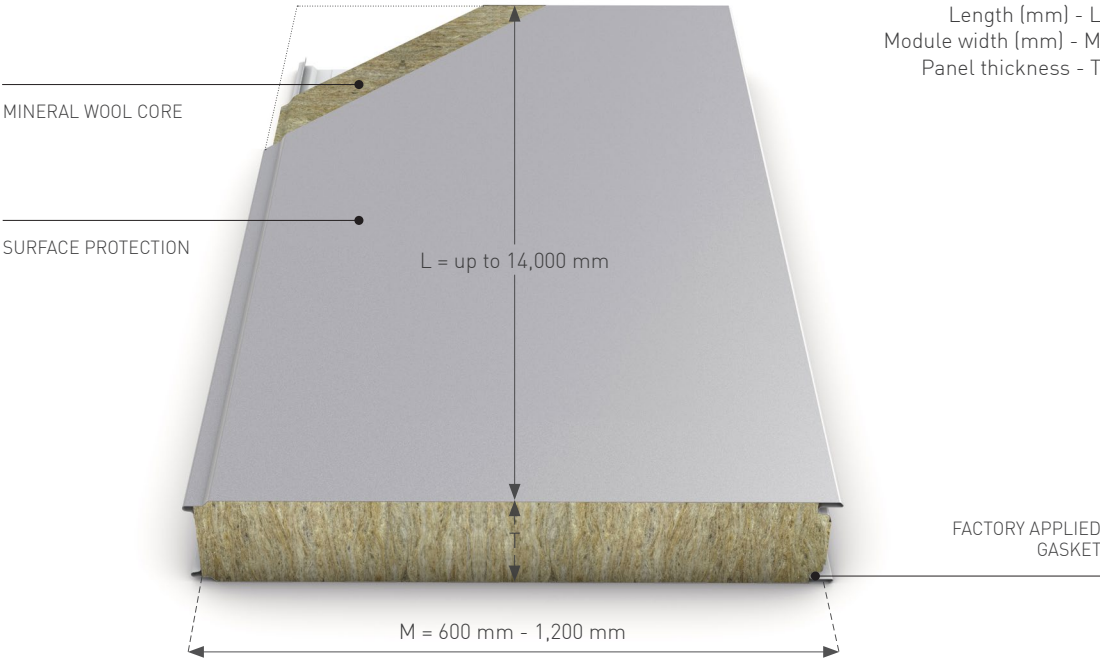


Fig. 1.2: Typical cross-section of a Trimoterm panel

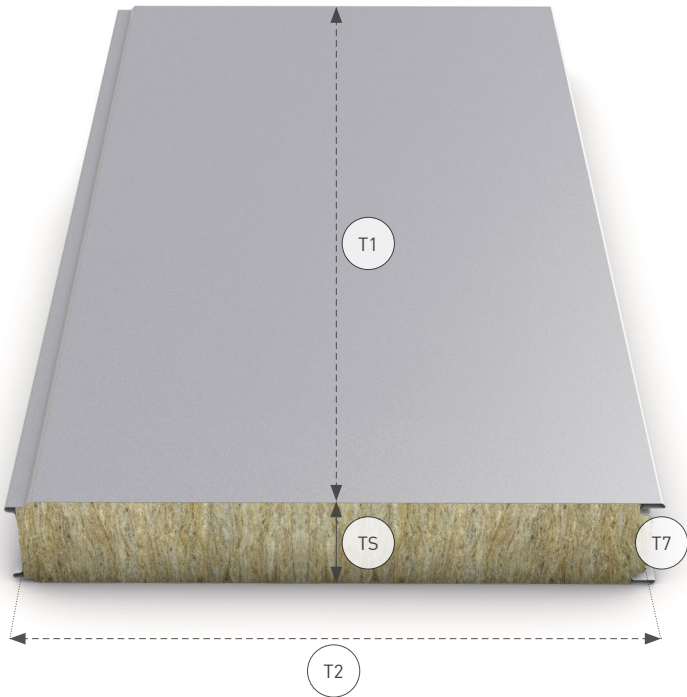




# A

## A2.4 Panel tolerances

Tolerance is the acceptable upper and lower limit for measurements. It can be applied to every measurable aspect of a manufacturing element. The tolerances for rectangular Trimoterm FTV panels are in accordance with EN14509 standard.



Name	Dimension	Tolerance	Value (mm)	Remarks
Panel thickness	T	TS	T < 100 mm ... ± 2mm T > 100 mm ... ± 2%	Tolerance of element thickness
Panel length < 3 m	L	T1	L < 3 m ... ± 5 mm L > 3 m ... ± 10 mm	Tolerance of external steel sheet length
Panel width	M	T2	± 2	Tolerance of the external steel sheet module width
Panel flatness (longitudinal)			0.6 mm 1.0 mm 1.5 mm	Flatness deviation of the external steel sheet surface in the longitudinal direction. Measurement length: L = 200 mm L = 400 mm L = 700 mm
Panel end shift (transversal)		T7	± 2	Deviation of internal / external steel sheet position

Tab. 1.3







# A

## A2.5 Panel identification

Each panel in the package has its own identification number and a designated position on the facade, which must correspond to the project documentation. The data is printed on the internal side of the panel's longitudinal joint.

Using the delivery note and project documentation, you can accurately determine the installation position of each individual panel.

1. Panel position
2. Packet number

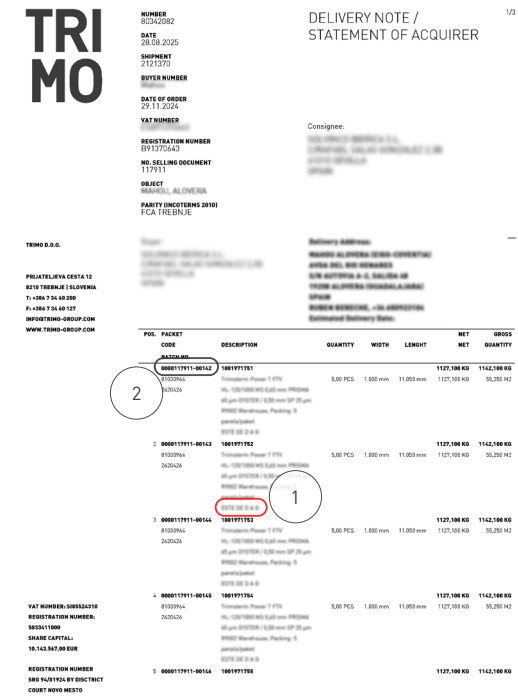


Fig. 1.3: Delivery note / statement of acquirer

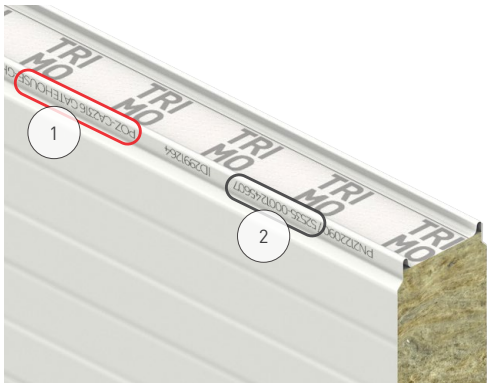


Fig. 1.4: Individual panel installation reference (indicated on panel joint)

## NOTES & WARNINGS

Panels of the same colour may differ slightly in shade, so it is important to install each panel in its assigned position as indicated on the panel and defined in the project layout. This ensures a consistent visual appearance for the facade.



# A

## A2.6 Receiving

Inspect goods delivered for any possible damage before unloading.

- Record any visible damage on the delivery note.
- Take a photo of the damaged goods immediately, while the goods are still on the truck.

Verify that the following details on the specification match the actual delivery:

- Order number
- Quantities
- Identity of all packages and panels

List of documents issued with each material dispatch:

- Specification of packages**  
The document is typically sent with the order confirmation and includes a list of all packages to be manufactured and delivered.
- Delivery note / statement of acquirer**  
The delivery note is issued after the material has been dispatched from the factory. It includes details about the delivery location and time, as well as a list of contents. Shortly before arrival, the truck driver contacts the designated contact person listed on the delivery note.
- Instructions for acceptance, unloading, and storage, along with handling and installation instructions**  
A printed copy of the instructions is attached to the panel package. It contains important instructions regarding the unloading and storage of the packages.
- Instructions for damage complaints**  
It contains detailed instructions on how to proceed in case the packages have been damaged during transport.

List of documents available on the Trimo website or provided upon special request:

- Trimoterm FTV installation guide**  
The installation guide provides key instructions for installing Trimo panels. It is primarily intended for the installation team in order to ensure safety, efficiency, and correct handling during setup.
- Packaging, transport and storage of Trimo products**  
A document that provides a detailed description of possible methods for packaging, transport, and storage of Trimo panels.

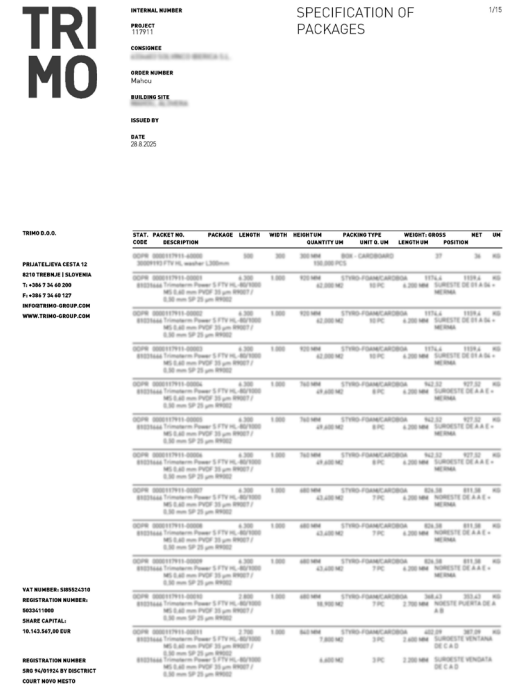


Fig. 1.5: Package specification list (example)

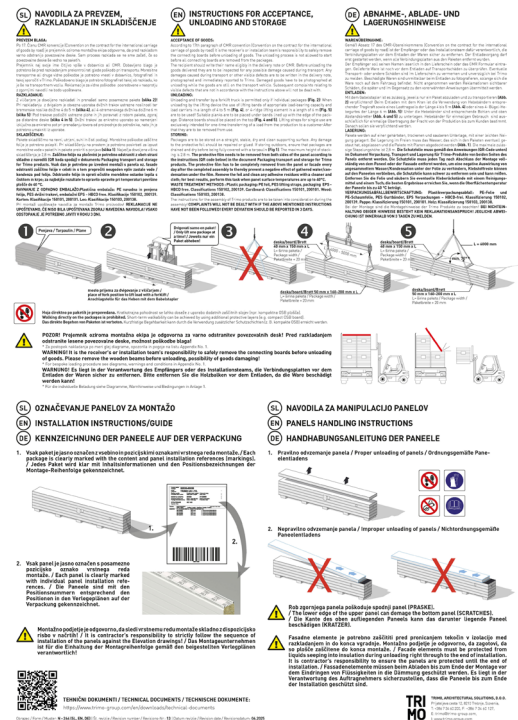


Fig. 1.6: Instructions for acceptance, unloading and storage. Handling and installation instructions.



# A Unloading

## A3 Package unloading

Follow the document 'Packaging, transport and storage for Trimo products' during package unloading. A link to the document is provided below.



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Unloading can be carried out using:

- **Forklift (for packages shorter than 8 metres),**
- **Crane**

Ensure a level and sufficiently large surface for handling during unloading, depending on the situation. The unloading methods permitted also depend on the size and weight of the package – for details, refer to the document referred to above.

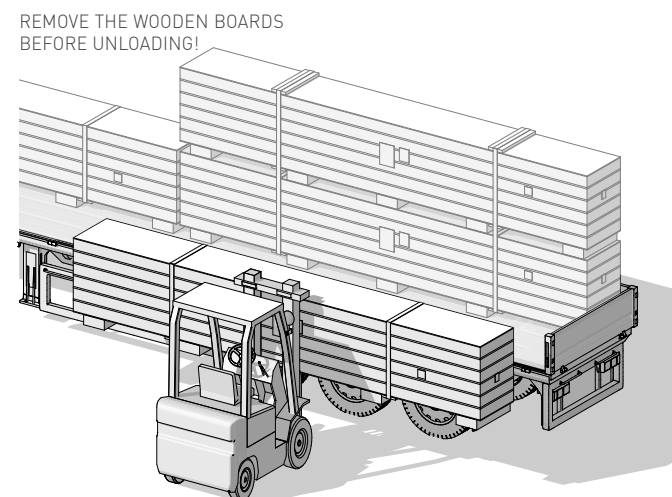


Fig. 1.7: Unloading panels from the side of flatbed trailer.

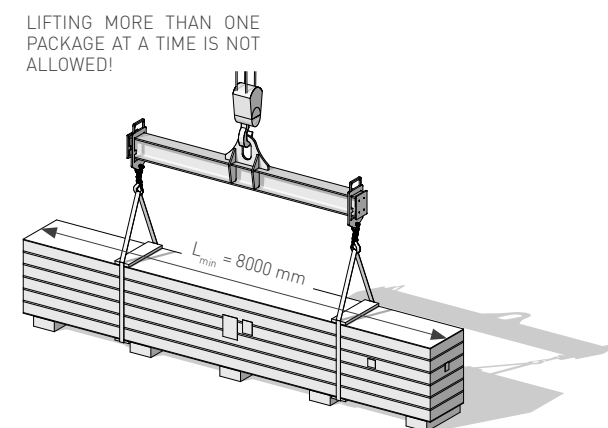


Fig. 1.8: Unloading package with crane.

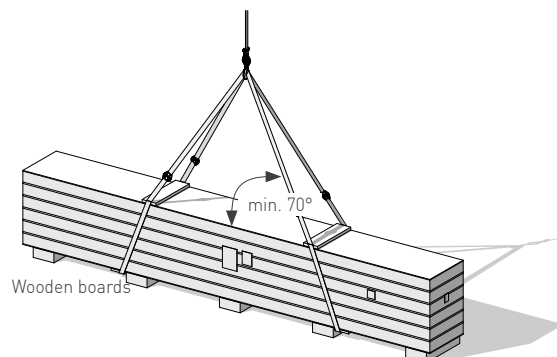


Fig. 1.9: Lifting package using four-point harness.



# A Storage

## A4 Temporary storage on site

Follow the document 'Packaging, transport and storage for Trimo products' strictly when storing the package.

### Basic limitations

- The packaging is suitable for storing the package for up to 3 months.
- In case of deviations of storage condition, no warranty can be given.

### Requirements

- Store panels on a fortified surface that prevents water accumulation (inclined terrain with ensured drainage).
- Store panels (packages) at least 100 mm above ground level using wooden planks or other durable material.
- Cover packages with a tarpaulin down to the bottom edge. Use a non-transparent cover with a minimum weight of 400 g/m².
- Ensure the bottom edge of the cover extends at least 50 mm below the package edge. Secure the cover mechanically.
- Ensure that the packages are drained and dry before covering fully.

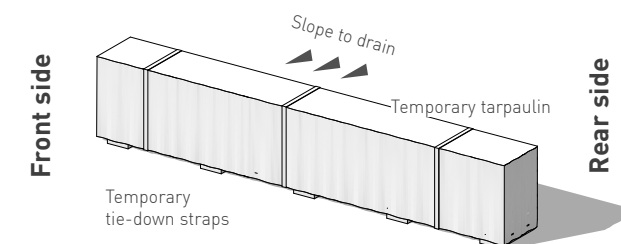


Fig. 2.0: Trimoterm FTV panel package on site (tarpaulin covered).



# A Panel handling

## A5 Handling during installation

Handle panels properly to prevent damage. Never slide or drag panels. Never place panels on their edge or on sharp/uneven surfaces.

There are three possible methods for lifting panels:

- Manual lifting
- Lifting with vacuum lifters
- Lifting with mechanical grippers

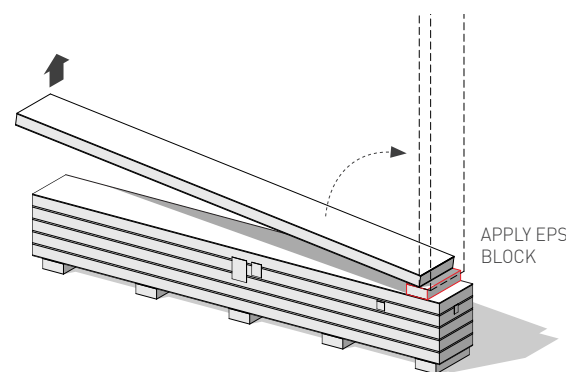
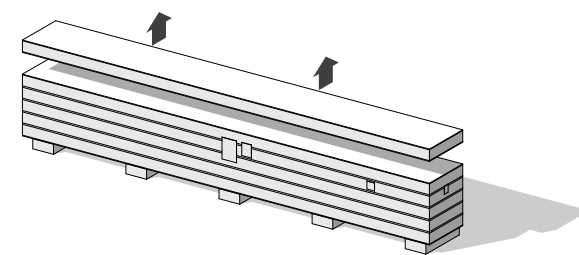


Fig. 2.1: Taking panels from the package properly.

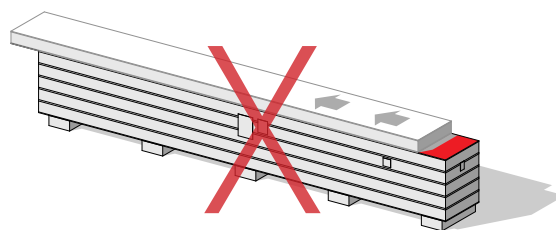


Fig. 2.2: Do not slide panels across rough surfaces.

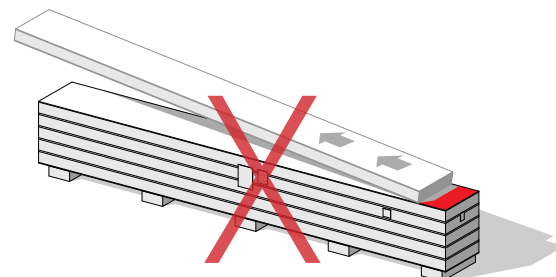


Fig. 2.3: Do not slide panels off package (scratches).



### NOTES & WARNINGS

**Panels must be protected from liquids seeping into insulation during unloading right through to the completion of installation.**

It is contractor's responsibility to ensure the panels are protected until the completion of installation.



# A

## A5.1 Manual lifting

Panels that meet the manual handling weight limit may be lifted by two people.

Always transport panels upright, on their edge, and use EPS support blocks to protect the edges from damage.

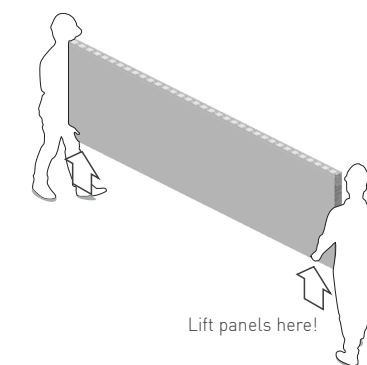


Fig. 2.4: Permitted lifting points on the panels.

## A5.2 Lifting with vacuum lifters

For lifting and positioning Trimoterm FTV panels at installation locations (for both vertical and horizontal facade installation), the use of a certified crane with vacuum grippers for sandwich panels is recommended. Panel installation time is typically reduced when using vacuum lifting equipment.

Use a certified crane with vacuum grippers for panel installation. Remove the protective foil from the areas where the panel will be gripped. Maximum vacuum suction pressure is 30 kPa.

When using vacuum grippers, follow the equipment manufacturer's instructions.



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Fig. 2.5: Setting horizontal panels with vacuum.



# A

## A5.3 Lifting with mechanical grippers

Use a special mechanical gripper for vertical or horizontal panel installation. Determine the gripper and pin dimensions statically, based on panel thickness and weight.

For horizontal facade installation, place the grippers in the longitudinal joint of the Trimoterm FTV mineral wool sandwich panel. Use two grippers per lift, except for small panels.

For vertical facade installation, use the gripper for panel lengths up to 14 metres. Before attaching the gripper to the panel's cut edge, place polystyrene foam underneath the panel and shift the panel by 200 mm to allow drilling. Attach the gripper so that the gravity axis of the panel passes through the gripper fastener.

If you need specific instructions on how to use mechanical grippers, please contact Trimo technical support.



Instructions for use - gripper for FTV panels

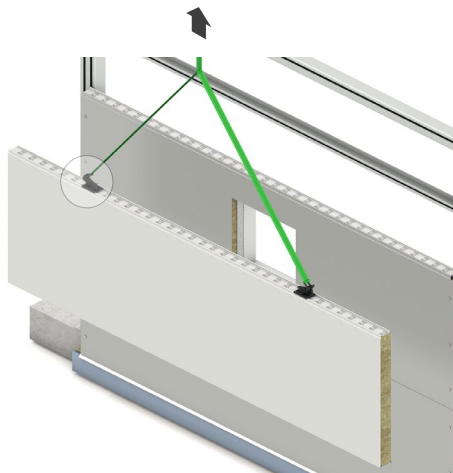


Fig. 2.6: Correct lifting with grippers for horizontal facade panels.

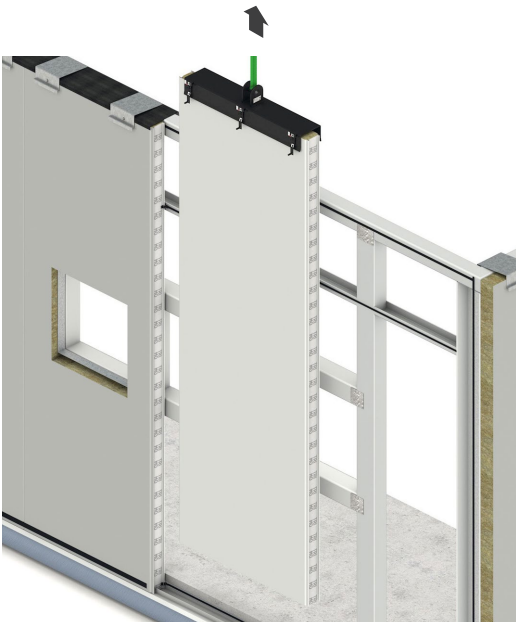


Fig. 2.7: Correct lifting with grippers for vertical facade panels.



# A Tools

## A6 Installation tools

### A6.1 Tools and gear for installation

#### Protective Gear

Always follow safety protocols to prevent accidents and health hazards. Wear protective gloves and clothing when handling sharp elements, edges, and corners. Before starting installation work, check whether the site is subject to any specific occupational safety requirements. Always comply with local occupational safety regulations.

#### Measuring Tools

- Leveling laser
- Spirit level
- Plumb bob
- Measuring tape

#### Cutting and Forming Steel Sheets

- Metal shear
- Circular saw
- Jigsaw
- knife for insulation
- Tin snips (left, right) for cutting flashings
- Seaming tool

#### Drilling, Fastening, and Sealing Panels

- Cordless drill driver
- Rivet gun
- Drill bits
- Nut driver bit (typically SW8, for tightening screws)
- Caulking gun





# A

## A6.2 Panel cutting

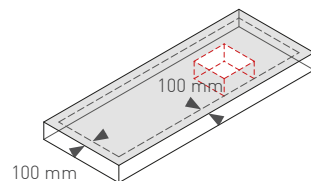
Cutting and trimming of Trimoterm FTV panels, such as window and door openings or slanted cuts, is performed on-site by the installation company. Use only metal shears, fine-tooth saws, or metal circular saws that do not overheat the material at the cutting location. Do not use grinding machines or welding equipment near Trimoterm FTV sandwich panels.

Remove all metal swarfs from panel surfaces by the end of the working day to prevent corrosion caused by moisture exposure.

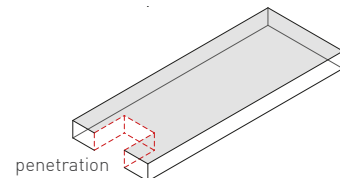
### Recommended penetration positions

The recommendations below apply to small penetrations (up to 200 mm) that do not require reinforcement; however, the project designer must confirm whether reinforcement is needed in each specific case.

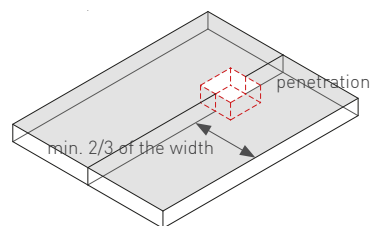
1. More than 100 mm from the panel edge.



2. Aligned with the panel edge (modules > 1000 mm).



3. Central to the joint (2/3 of panel width must be intact).



4. Between penetrations min. 300 mm

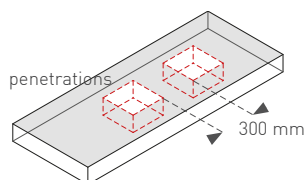


Fig. 2.8: Panel cutting tools

# A

## Basic cutting sequences

- Step 1: Be sure to allow adequate space for laying out and cutting panels.
- Step 2: Place the panel on padded sawhorses with the internal side up.
- Step 3: Mark the cut line with washable felt tip marker.
- Step 4: Apply masking tape to both sides of the cut line (required, if protective foil is not applied).
- Step 5: Cut the external steel sheet to a depth of 1 cm (use panel cutting tool).
- Step 6: Turn the panel over and cut the internal steel sheet to a depth of 1 cm (use panel cutting tool).
- Step 7: After both sheets are cut, cut the panel core using an insulation knife.
- Step 8: Gently sweep away metal swarf immediately after cutting.

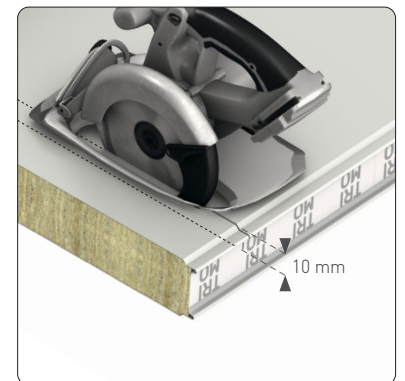


Fig. 2.9: Panel cutting step 5



Fig. 3.0: Panel cutting step 7



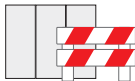
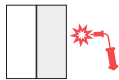
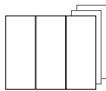
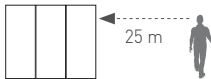


# B

## Installation guide

### B1 General warnings for installers before panel installation

- 1. Panel orientation**  
Do not rotate panels by 180°, as this may cause visible color differences at the joints. Install panels in the marked sequence and orientation.
- 2. Be aware of possible colour shade variations**  
Panels of the same colour may differ slightly in shade, so it is important to install each panel in its assigned position. Additionally, regularly check colour consistency from a distance of at least 25 metres and from multiple angles. Perform these checks before completing the installation of large surfaces to avoid extensive disassembly and replacement.
- 3. Supply of replacement panels**  
Verify panel quantities in advance and order reserves accordingly, as ordering and delivery of replacement panels may take time. Avoid construction delays by carefully checking and planning for stock availability.
- 4. Fastening elements**  
Before installation, verify that the type, quality, and quantity of fastening elements match the project design documentation and statical calculation. Use fastening elements made of stainless steel grade A2 or A4. Follow the recommended pre-drilling sizes and installation guidelines provided by the supplier.
- 5. Welding and grinding**  
Do not weld or use grinding tools near panels, as this may permanently damage the panel coating. Metal swarf should be gently sweep away immediately after cutting.
- 6. Weather conditions during installation**  
Install panels only in dry weather conditions, without precipitation or high humidity. Moisture during installation may cause water retention in joints, increasing the risk of corrosion and sealant failure. Strong winds can compromise the safe handling of panels, so in the event of strong winds, apply additional safety measures or postpone installation. Always check the local weather forecast before starting work, and prepare accordingly.
- 7. Surface Protection During Construction**  
Appropriate care must be taken to prevent scratches and mechanical damage to the panel surface. It is recommended that panels are protected when construction work is carried out close to them. Avoid the use of adhesive tapes, as certain types may adhere strongly to the surface and leave glue residue. If tape application is necessary, always test it on a concealed area beforehand and remove it promptly after use.



# B

### B1.1 Installation direction

The panels can be installed in both left-to-right and right-to-left directions, providing versatility in planning and execution. Always install panels from bottom to top. Installing elements from top to bottom is not permitted, as it may compromise the integrity and performance of the system.

#### HORIZONTAL PANEL ORIENTATION

- 1. column installation**  
Installation direction: LEFT>RIGHT or RIGHT>LEFT



Fig. 3.1

#### VERTICAL PANEL ORIENTATION

- 1. row installation**  
Installation direction: LEFT>RIGHT or RIGHT>LEFT

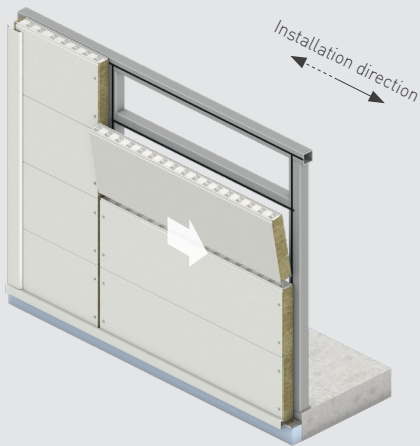


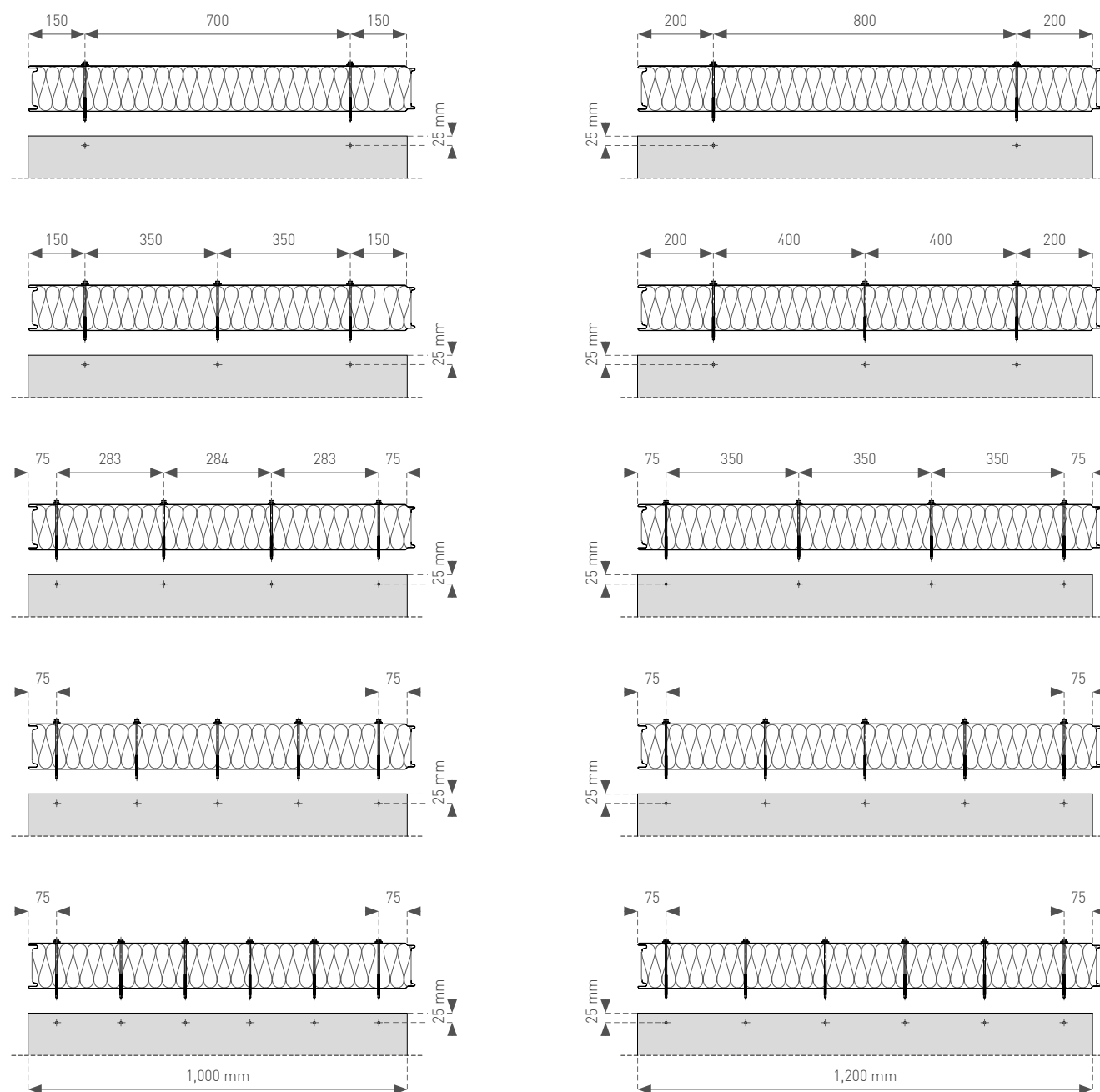
Fig. 3.2



# B Fastening scheme

## B2 Fastening scheme on the panel edge

A fastening scheme for Trimoterm FTV panel edges (widths 1,000 mm and 1,200 mm) is shown below. Use a minimum of 2 fasteners per panel end. Position fasteners at least 25 mm from the transverse panel edges. Fasten panels to the sub-structure using through fasteners.



# B Preferences

## B3 Installation preferences

### B3.1 Installation and control of structure

Before panel installation, check the actual condition of the building and verify it against the panel layout in the execution drawings. The prescribed tolerances of the load-bearing structure must be observed (IFBS guideline PA 09 - Performance tolerance in light metal structures point 3.1.1).

Set-out gridlines and mark them on the building. Consider the actual element tolerances of the panels. Install each panel according to the gridlines set and consider/monitor installation and panel tolerances. Correct any deviations using appropriate measures during panel installation.

- 1. support structure alignment** single-span system  $\pm 2L / 1,000$  (L-column axis distance)  
multi-span system  $\pm L / 1,000$  (L-column axis distance)
- 2. support structure torsion** single-span system  $\pm 1^\circ$  / column torsion  
multi-span system  $\pm 0.5^\circ$
- 3. axis span tolerance** column width  $<200$ :  $\pm 10$  mm / columns width  $>200$ :  $\pm 20$  mm
- 4. column inclination tolerances**  $\pm 1^\circ$
- 5. column height difference tolerance**  $\pm 20$  mm
- 6. column curvature tolerance**  $\pm 10.0$  mm / 10 m

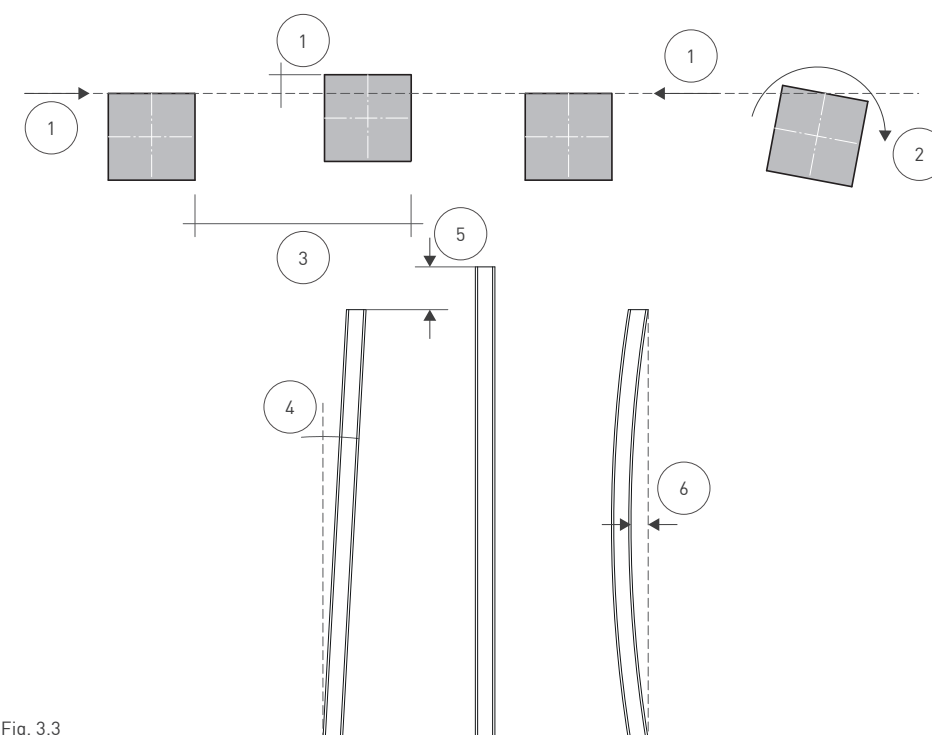


Fig. 3.3



# B

## B3.2 Thermal bow

Panels exposed to direct sunlight may exhibit thermal bow which can prevent proper engagement. This phenomenon is intensified in the case of sheets in dark colors.

To correct this, move the panels to a shaded area or flip them over to expose the cooler side to sunlight for approximately 15 minutes. The panel will flatten back to its original shape and be ready for installation.

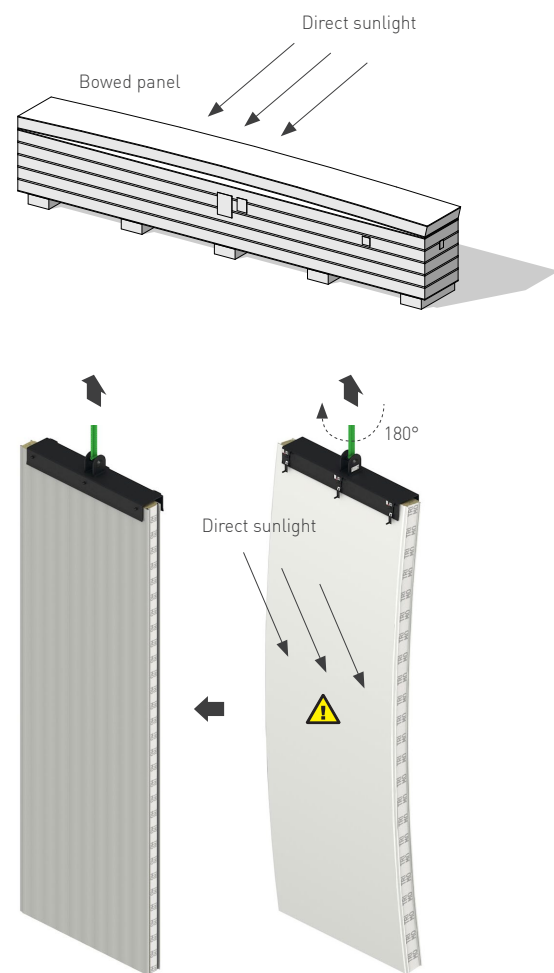


Fig. 3.4: Thermal bow correction.



# B

## B3.3 Protective foil removal

Protective foil, when present on the panel, prevents minor damage during handling and transport.

- Interior side of the panel: Remove the foil before panel installation.
- Exterior side of the panel: Remove the foil at locations where access will no longer be possible after installation (e.g., screw points, longitudinal joints). Otherwise, remove the foil from all installed panels no later than the end of the working day.
- For long-term storage of uninstalled panels, the protective foil must be removed in advance. For detailed information, refer to the document below.



Packaging, transport, and storage for Trimo products. document

TRI  
MO



PACKAGING, TRANSPORT AND STORAGE FOR TRIMO PRODUCTS

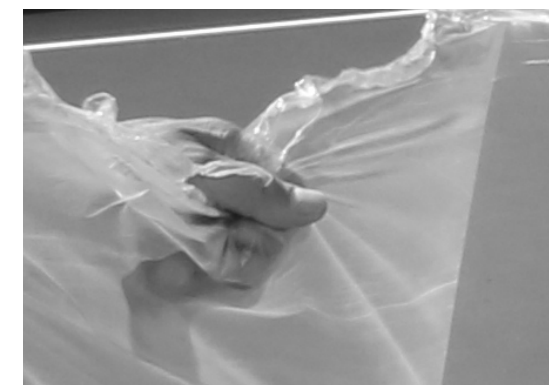


Fig. 3.5





# C

## Installation sequences

### • C1 HORIZONTAL ORIENTATION

#### C1.1 PREPARATION FOR PANEL INSTALLATION



#### WALL 1 (COVER FLASHING & CORNER FLASHINGS)

##### Verify substructure placement

Confirm that the supporting structure is present in all locations necessary for panel installation. This includes extensions, the bottom edge on the foundation beam, the top edge at the parapet, and around window openings.

##### Check structural flatness

Assess the flatness of the substructure according to the guidelines outlined in chapter B3.1. Any deviations may affect panel alignment and sealing.

##### Install initial L-profile (longitudinal)

Position the L-profile along the designated line to define the starting edge of the panel installation.

##### Confirm structural width

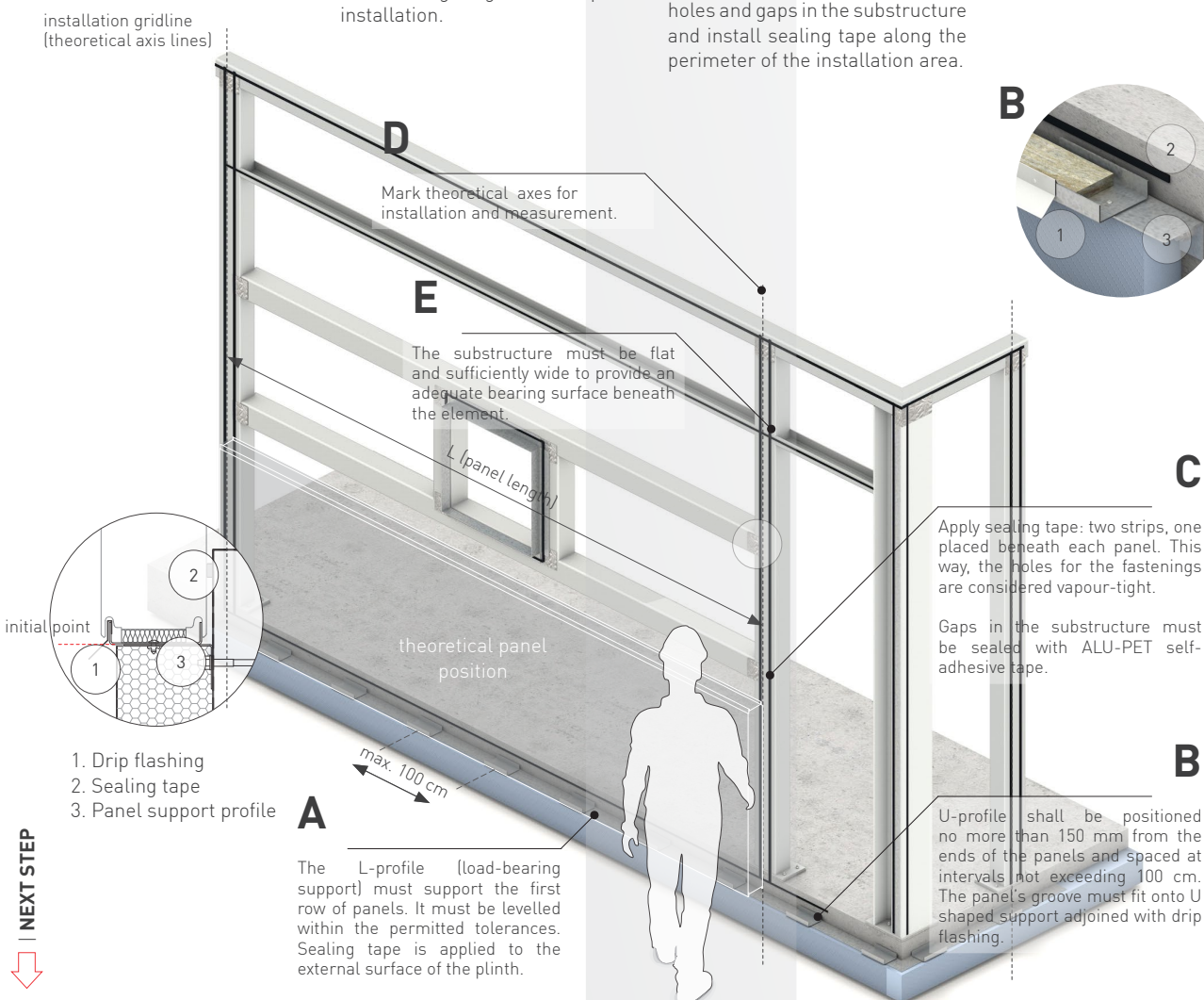
Ensure the substructure is wide enough to support the panels securely. For details involving flashings, maintain a proper gap (usually 20 mm) between adjacent panels to accommodate finishing elements.

##### Mark theoretical axes

Draw theoretical axis lines on the substructure to compare the actual situation with the design plans. This step is essential for accurate alignment and positioning during installation.

##### Apply sealing tape

To ensure proper sealing and thermal performance, seal all holes and gaps in the substructure and install sealing tape along the perimeter of the installation area.



# C

#### WALL 2 (HF PROFILE & CORNER ELEMENTS)

##### Corner verification

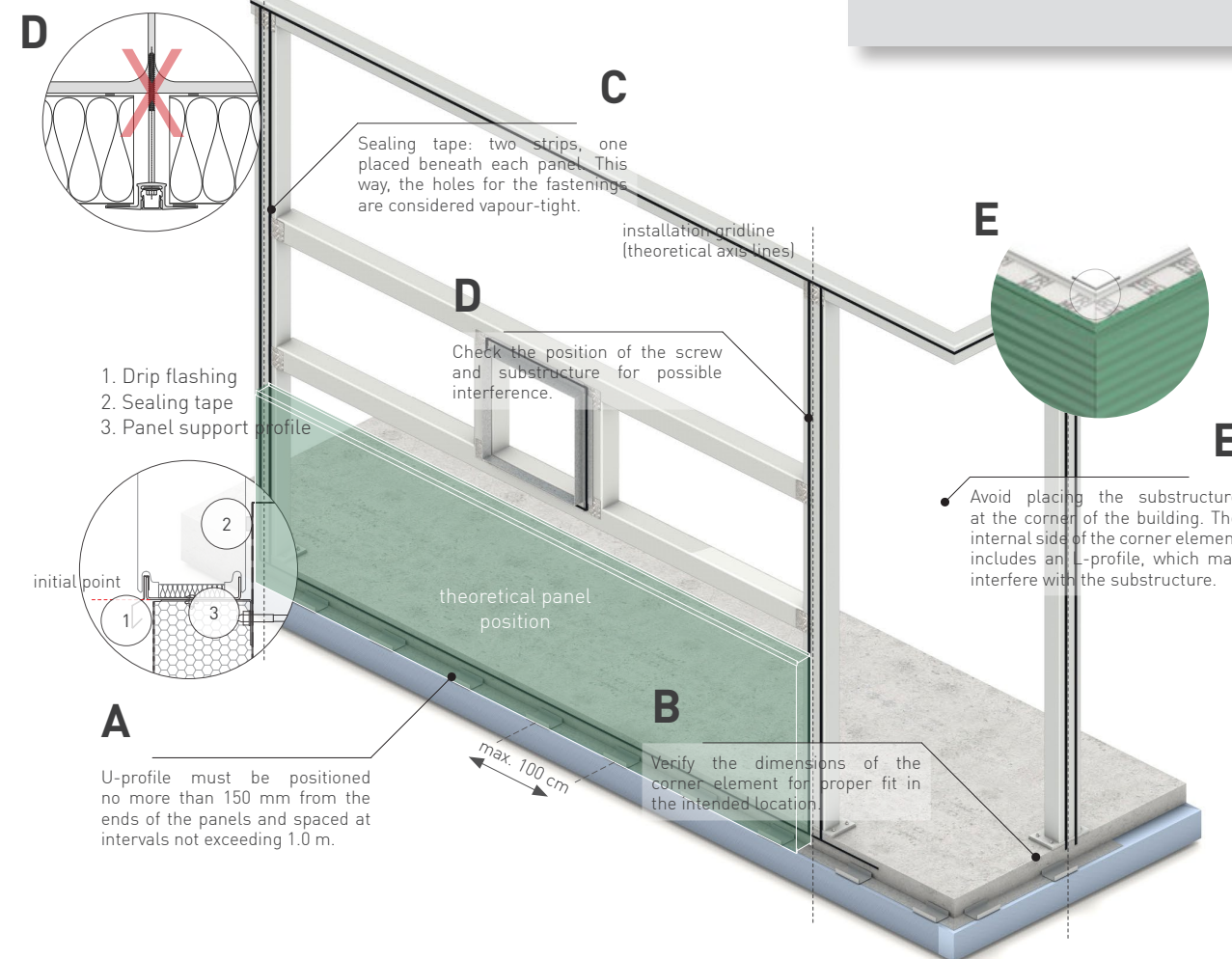
At building corners, measure dimensions in both directions to ensure that corner elements can be installed accurately and without misalignment.

##### Spacing with HF profiles

When using HF profiles, maintain a 40 mm gap between adjacent panels to accommodate the profile system and ensure proper fit.

##### Screw position check

Review the planned screw locations carefully. In specific details, the screw may align directly with the axis of the substructure, potentially colliding with the flange of an HEA profile. If such a conflict is identified, notify the project designer and agree on a suitable resolution.



#### ! NOTES & WARNINGS

Use Trimoterm FTV installation guide as a general reference. Details may differ from project to project. Always follow project-specific execution details.

Use sealant material that complies with project design requirements for thermal insulation, tightness, and fire resistance.

In the event of any uncertainties, contact Trimoterm technical support.





# C

## • C1 HORIZONTAL ORIENTATION

### C1.2 INSTALLATION OF THE FIRST ROW OF PANELS

#### WALL 1 (COVER FLASHING & CORNER FLASHINGS)

##### Install U-profiles

Mount U-profiles at intervals of 1.0 m, maintaining a 9 mm distance from the substructure to ensure proper fit into the panel groove. Before installing the first panel, install the base drip flashing. The gap between the support U-profiles and the panel is filled with mineral wool (class A1, density  $\geq 100 \text{ kg/m}^3$ ).

##### Place the first panel

Use one of the approved lifting methods described in Chapter A5. Check if the tongue of the panel being installed is facing the direction of lay. Align the first panel precisely in its intended position.

Avoid handling the panels in heavy wind ( $< 9 \text{ m/s}$ ). To avoid a colour mismatch, pay particular attention to the installation direction and sequence.

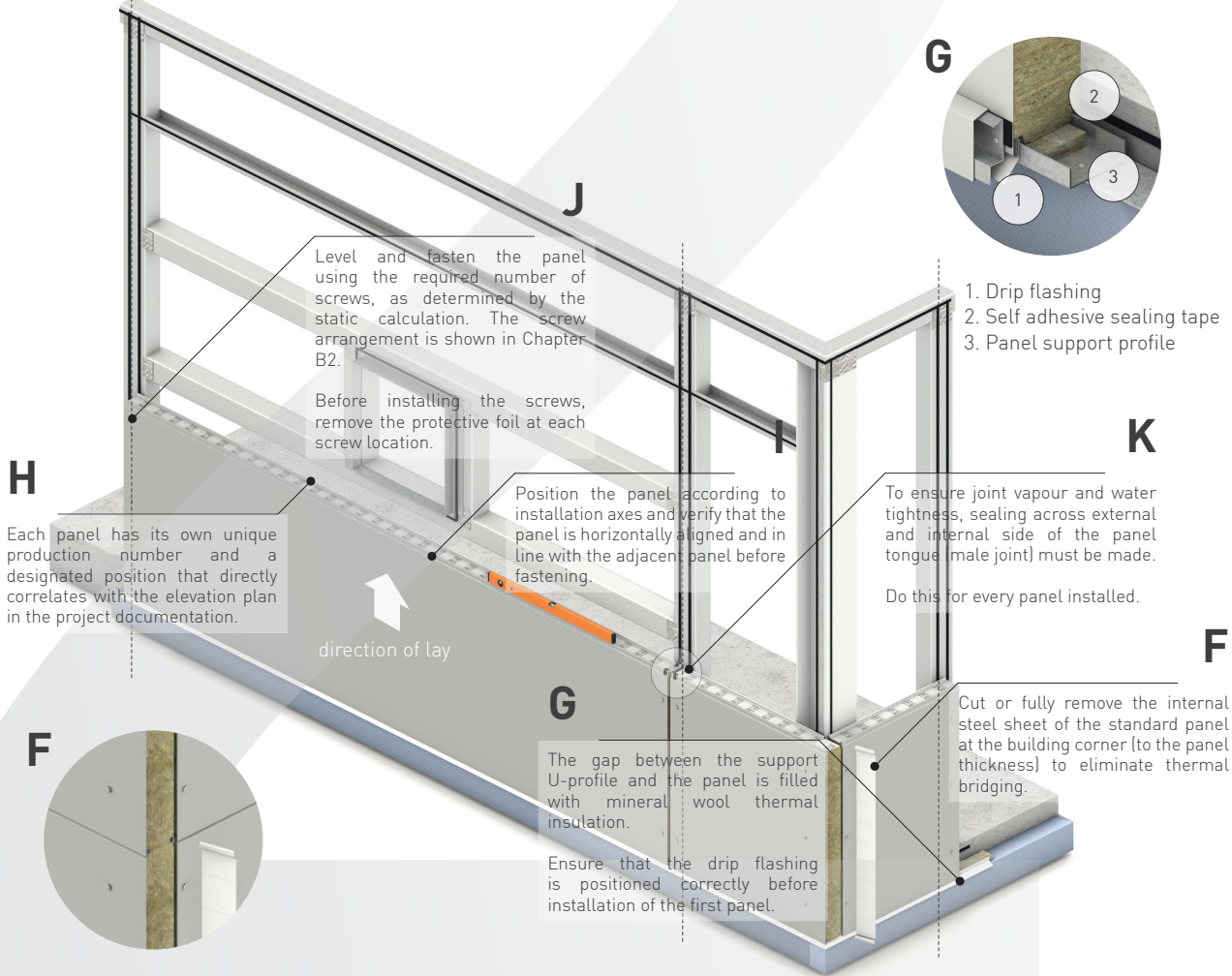
##### Check horizontal alignment

Before fastening, use a spirit level to verify that the panel is horizontally aligned.

##### Fasten the panel

To ensure structural integrity, secure the panel using screws, as specified in the static calculation.

installation gridline  
(theoretical axis lines)



JOINT TYPE | STANDARD



# C

#### WALL 2 (HF PROFILE & CORNER ELEMENTS)

##### Corner support verification

Inspect the support conditions of corner elements to ensure they are not suspended without adequate bottom support.

##### Vertical load fixing (HF102)

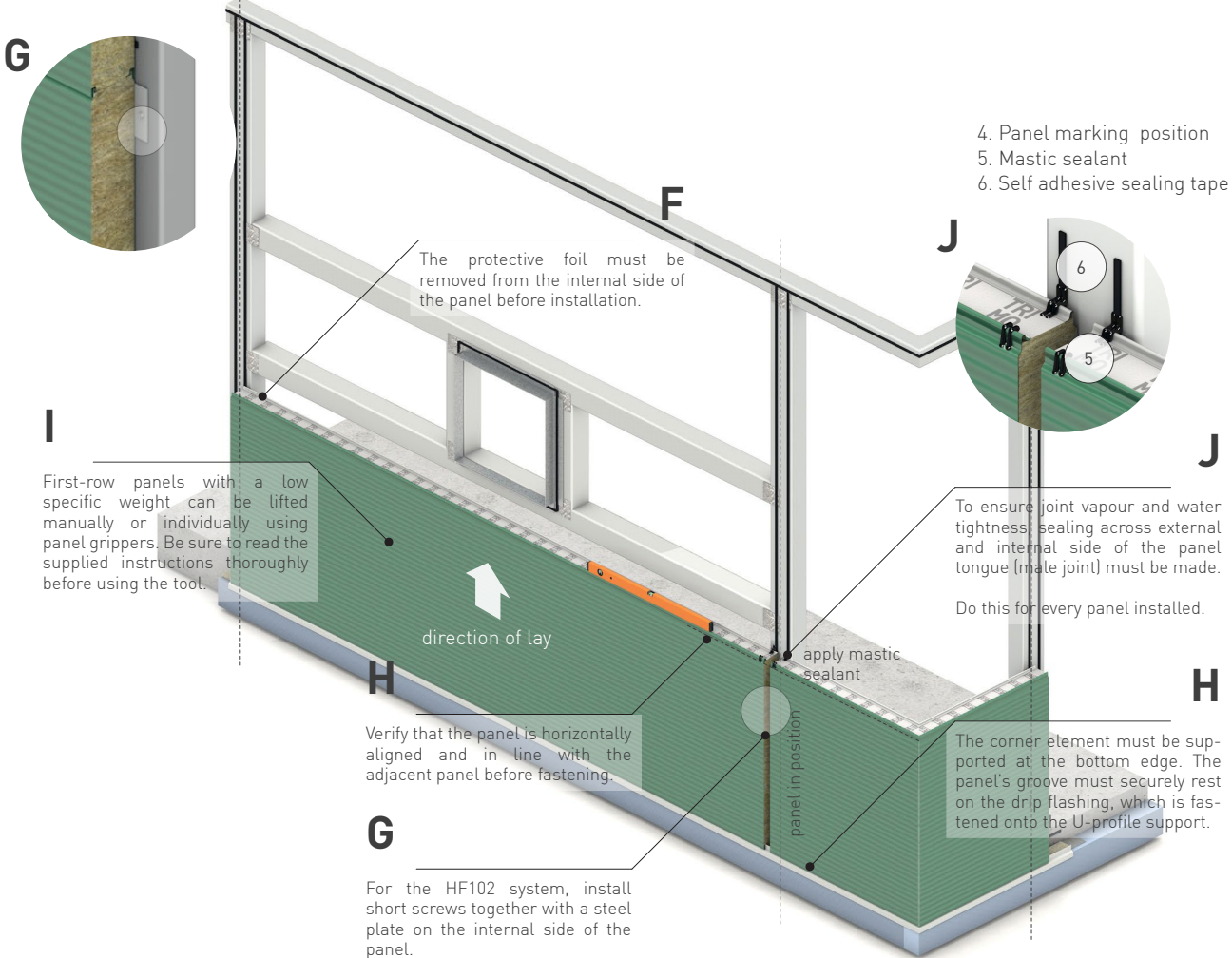
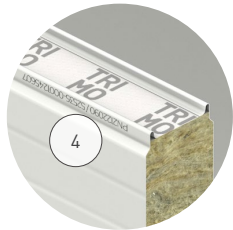
For the HF102 system, install short screws together with a steel plate on the internal side of the panel to transfer vertical loads into the substructure.

Oznaka paketa / Package	52535-00058
Kupec / Customer	TRIMO UK LTD.
Številka naročila / Purchase order number	80/2012; CA2316
Prodajni nalog / projekt / Sales order / project	52535
Proizvodni nalog / Work order	2122090
Dimenzije paketa (mm) / Package dimensions (mm)	3075x1000x840
Bruto / neto teža (kg) / Brutto / Netto (kg)	483 / 453
Datum proizvodnje / Production date	
Opomba / Note	

Material	Naziv / Description	Šarža / Batch	Dolžina / Length	Kos / Piece	Pozicija / Position	Kratek naziv / Short desc
80026780	FHL120 M-MS-GREYAL PUR0707/8010SP060T-K4	0001245607	2975 mm	1	CA2316 GATEHOUSE/GH	
		0001245608	2965 mm	3	CA2316 GATEHOUSE/GH	
		0001245609	2975 mm	1	CA2316 GATEHOUSE/GH	

Fig. 3.6: Each panel is clearly marked with individual installation reference (example on the right). With Trimoterm FTV panels the reference is indicated on internal side of longitudinal panel joint.



JOINT TYPE | STANDARD



## C

- **C1 HORIZONTAL ORIENTATION**

### C1.3 INSTALLATION OF REMAINING PANELS

## WALL 1 (COVER FLASHING & CORNER FLASHINGS)

### Apply mastic seal

Before placing the next panel on top of the bottom panel, apply mastic sealant to ensure airtightness on the internal side of the panel.

**Compress panels to seal groove/tongue joint**

Firmly compress the panels to ensure a tight joint connection. The weight of the upper panel assists in compressing the joint and supports proper sealing.

### Check vertical alignment of panels

Always verify the vertical alignment of panels during installation. Horizontal and vertical lines must be properly aligned, with special attention to transitions to and connections with adjacent facade sections.

### Remove protective foil from installed panels

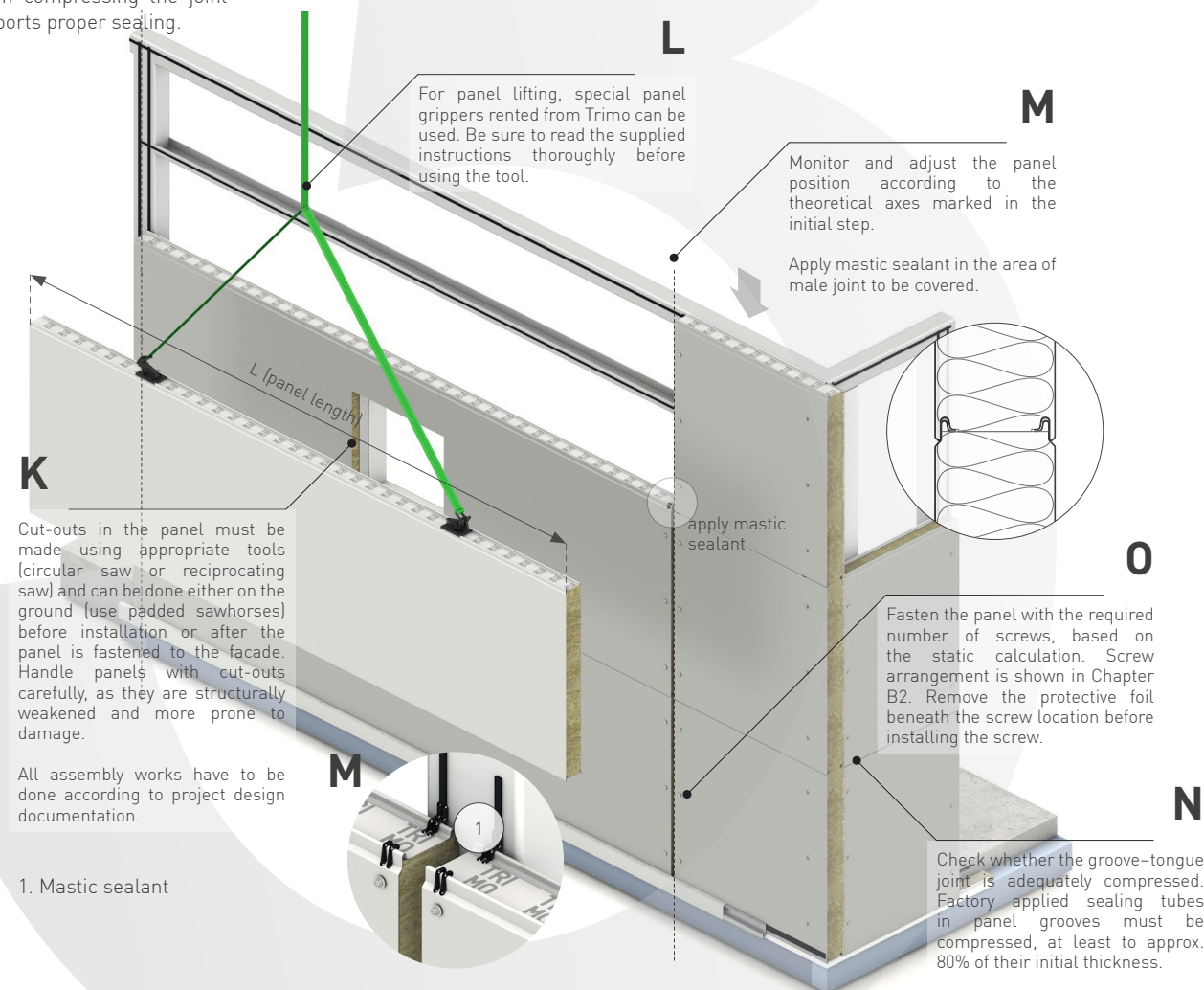
Remove the protective foil from all installed panels no later than the end of the working day.

### Fasten the panel

To ensure structural integrity, secure the panel using screws, as specified in the static calculation.

### Protect panels against water and moisture

The installer is responsible for keeping panels dry until installation is complete. Trapped moisture can cause internal corrosion. Avoid installation during rain, snow, or dense fog.



## C

## WALL 2 (HF PROFILE & CORNER ELEMENTS)

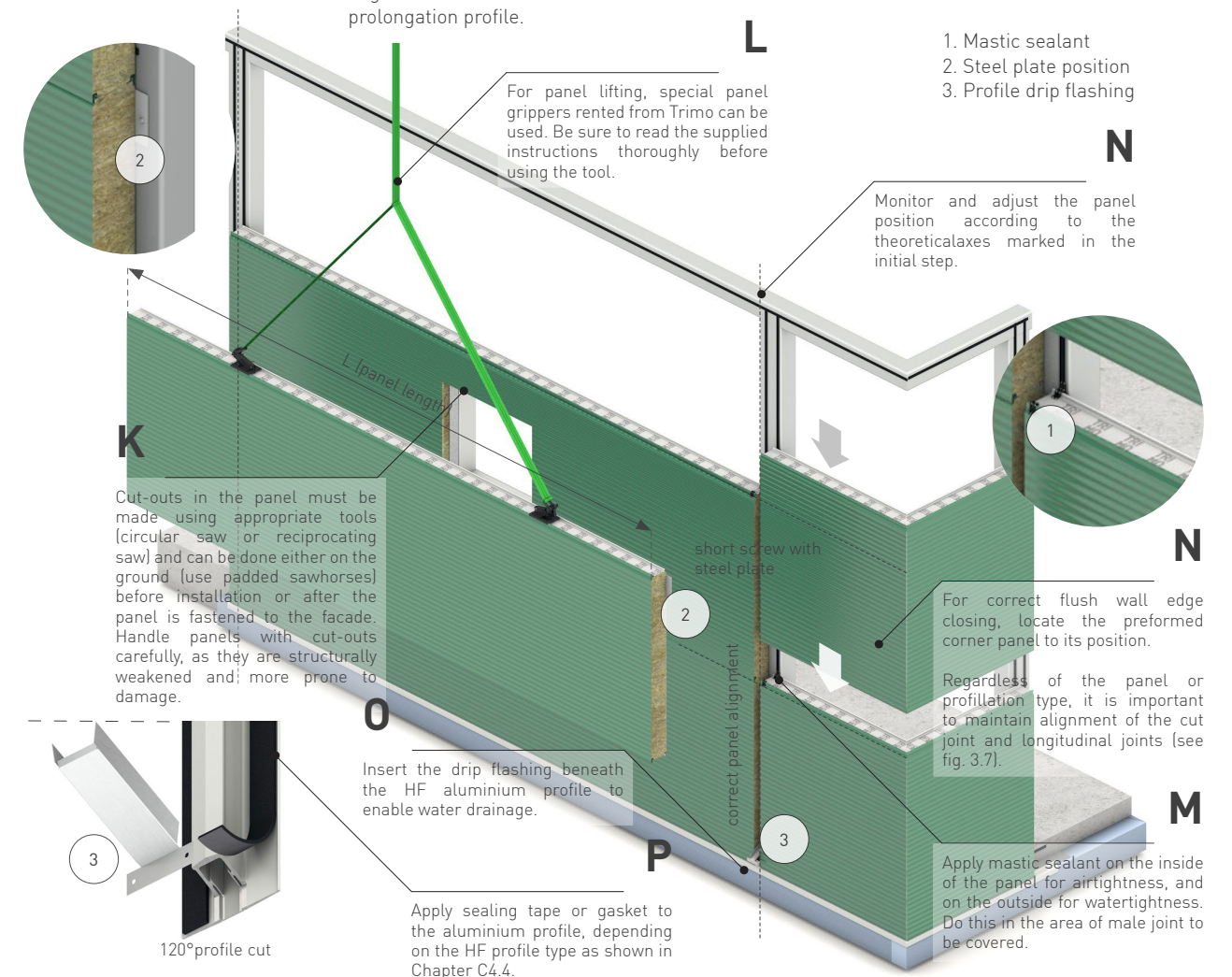
**Insert profile drip flashing at the bottom of the joint (for HF profiles)**

Install the profile drip flashing into the 40 mm expansion gap between sandwich panels—either in the base/drip detail or at the top of an opening. This element enables drainage of potential rainwater and protects the facade system. The flashing must be secured with two rivets during installation.

### Pre-install gasket into HF profiles

Self-adhesive tape 6x25xL (ID: 3017631) must be applied to the internal legs of the HF102/1 aluminium profile. Surfaces must be clean and dry. Use a roller or squeegee to press the tape firmly for optimal adhesion.

The gasket (ID: 30023441) must be manually applied to the edge of the HF140/1 aluminium prolongation profile.





## C

- **C1 HORIZONTAL ORIENTATION**

## C1.4 FINALISING PANEL WALL WITH FLASHINGS AND FINISHING ELEMENTS

## WALL 1 (COVER FLASHING & CORNER FLASHINGS)

**Fill the gap with mineral wool**

To complete the installation, any exposed wool surfaces must be appropriately protected against the weather. Insert soft mineral wool (class A1, density  $\geq 100 \text{ kg/m}^3$ ) into the gap between panels to improve thermal and acoustic insulation. Protect the wool with vapour-permeable adhesive tape to prevent water ingress.

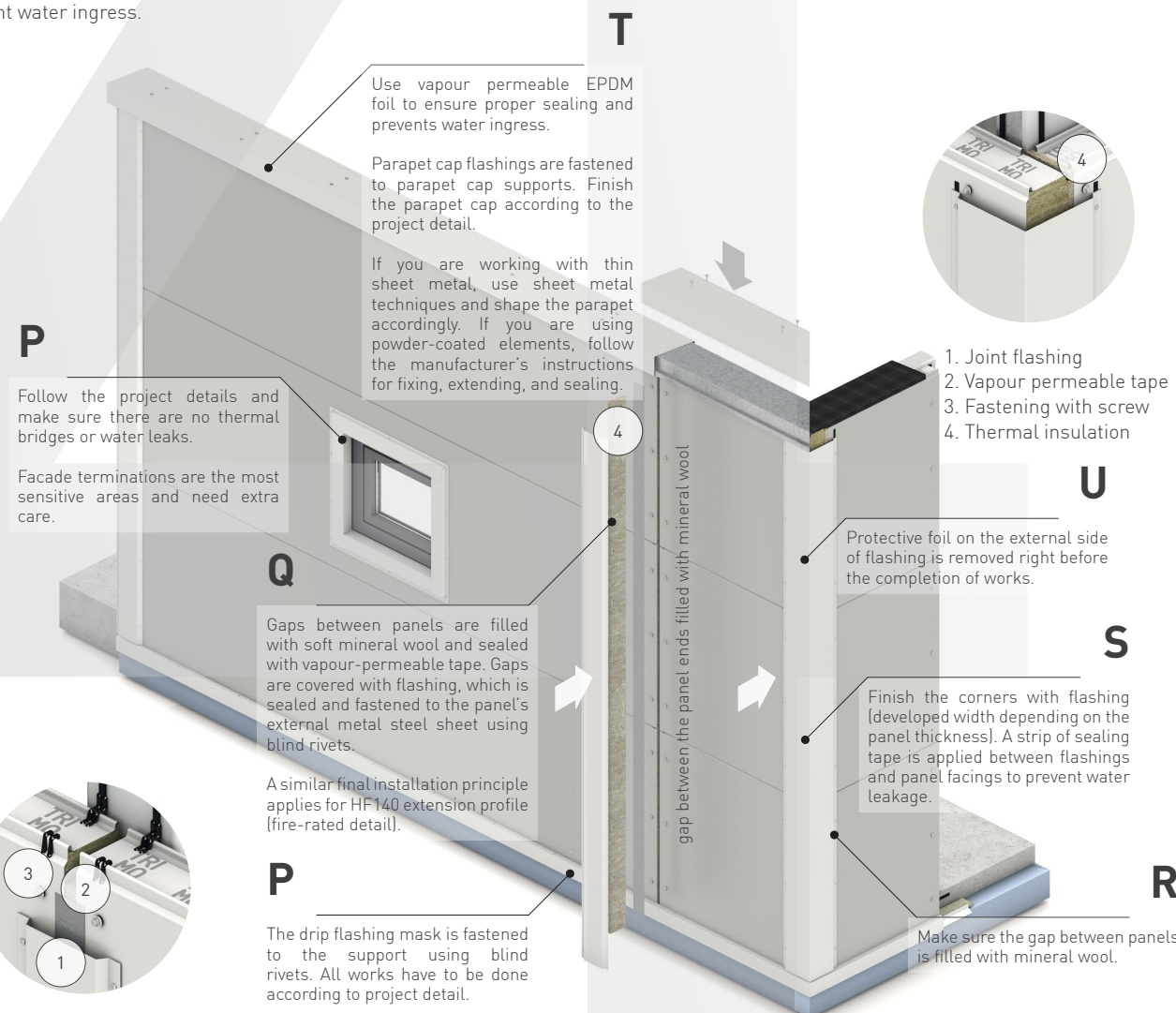
### Check water tightness

Inspect all joints and sealing areas to ensure proper water tightness. Facade terminations need extra care.

## Install flashings

Install flashings according to design details to protect joints and edges from water ingress and to complete the facade visually. Drawings of standard flashings are presented in a separate catalogue.

For HF140 profiles, follow the project-specific fixing details.



## C

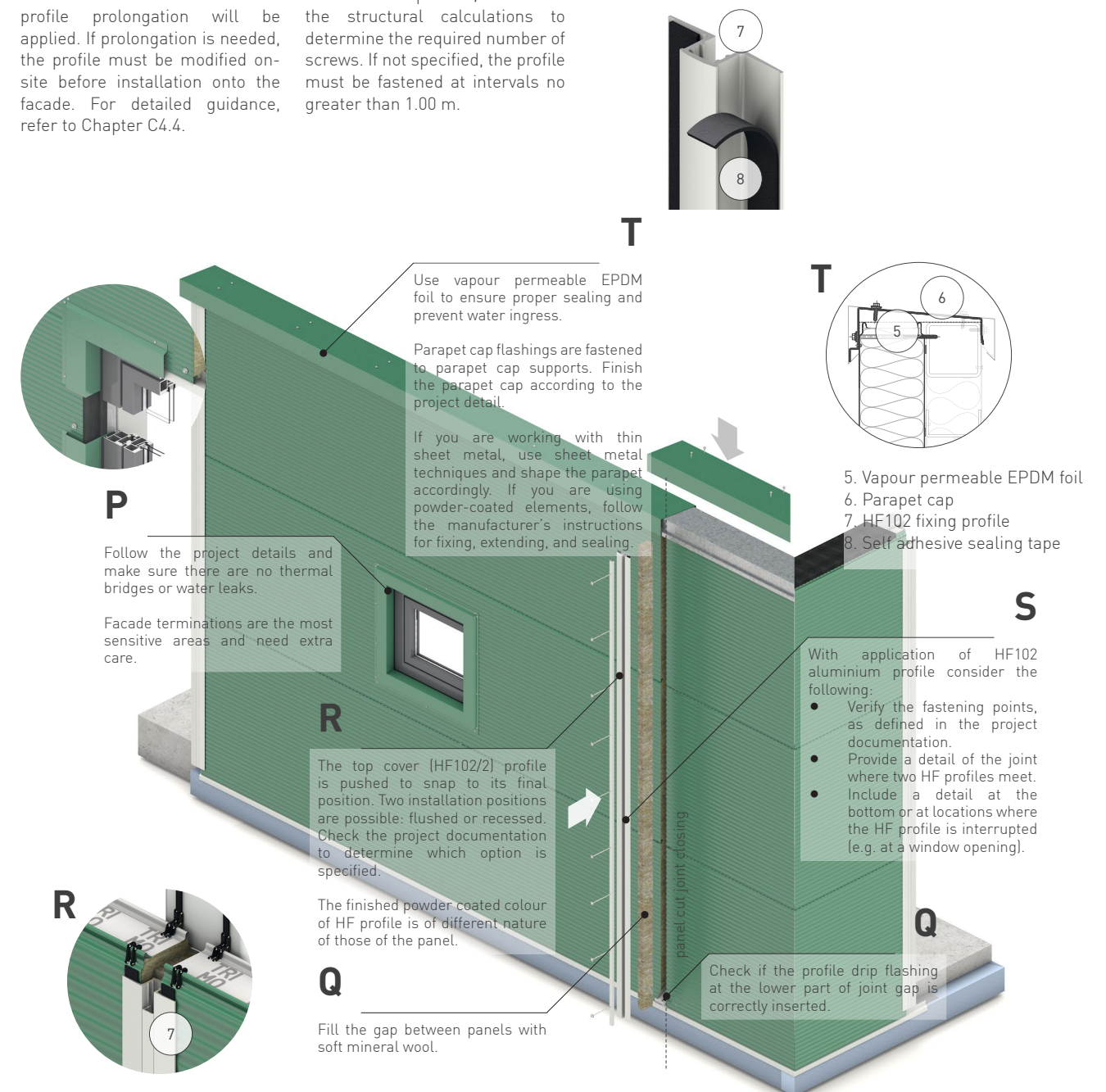
## WALL 2 (HF PROFILE & CORNER ELEMENTS)

### HF profiles prolongation

Check the location where HF profile prolongation will be applied. If prolongation is needed, the profile must be modified on-site before installation onto the facade. For detailed guidance, refer to Chapter C4.4.

## Install HF profiles

For HF102 profiles, refer to the structural calculations to determine the required number of screws. If not specified, the profile must be fastened at intervals no greater than 1.00 m.





# C

## Installation sequences

### • C2 VERTICAL ORIENTATION

#### C2.1 PREPARATION FOR PANEL INSTALLATION



#### WALL 1 (COVER FLASHING & CORNER FLASHINGS)

##### Verify substructure placement

Confirm that the supporting structure is present in all necessary locations for panel installation. These include extensions, the bottom edge on the foundation beam, the top edge at the parapet, and around window openings.

##### Check structural flatness

Assess the flatness of the substructure according to the guidelines outlined in chapter B3.1. Any deviations may affect panel alignment and sealing.

##### Confirm structural width

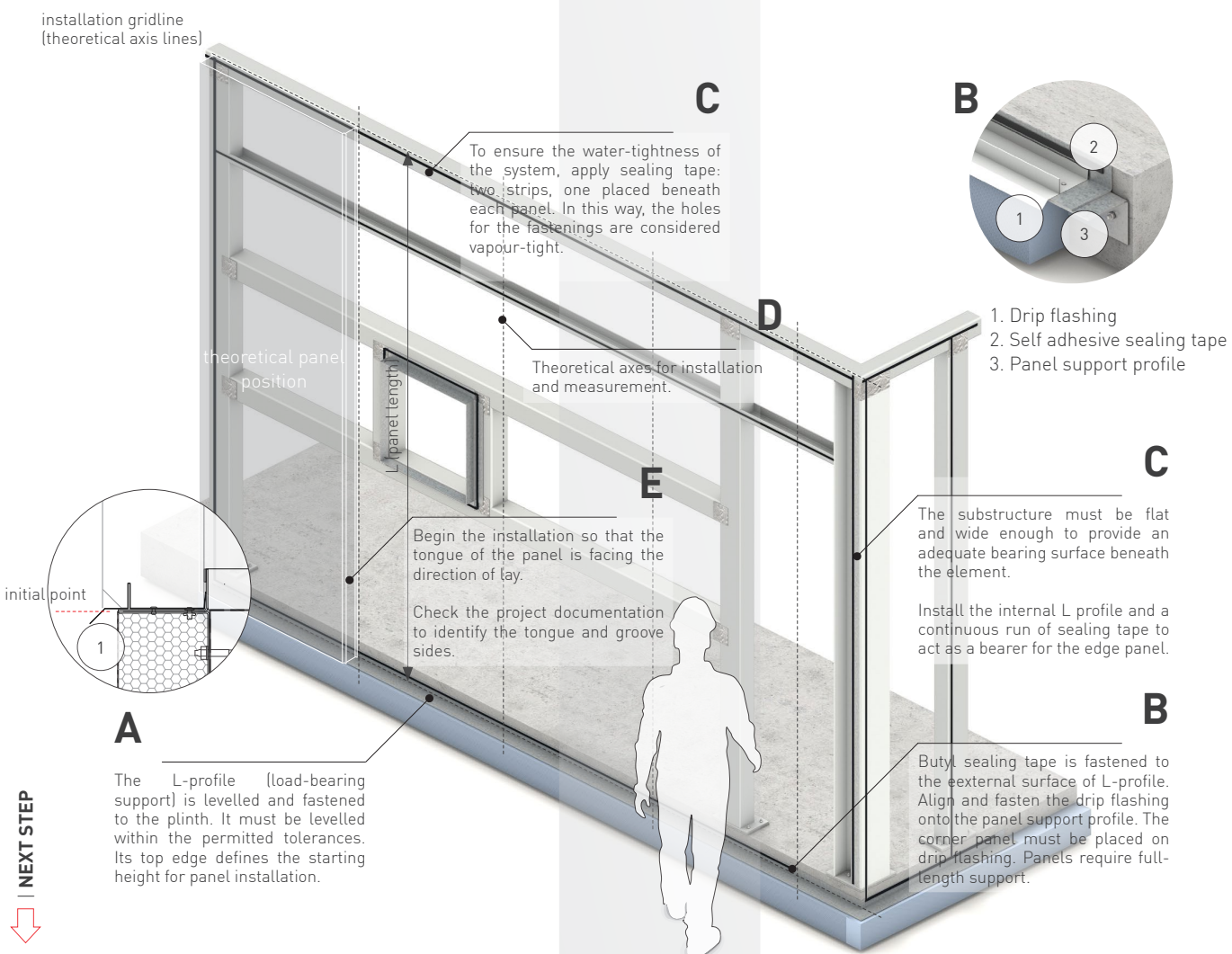
Ensure the substructure is wide enough to support the panels securely.

##### Apply sealing tape

To ensure proper sealing and thermal performance, install sealing tape along the perimeter of the installation area.

##### Mark theoretical axes

Draw theoretical axis lines on the substructure to compare the actual situation with the design plans. This step is essential for accurate alignment and positioning during installation.



# C

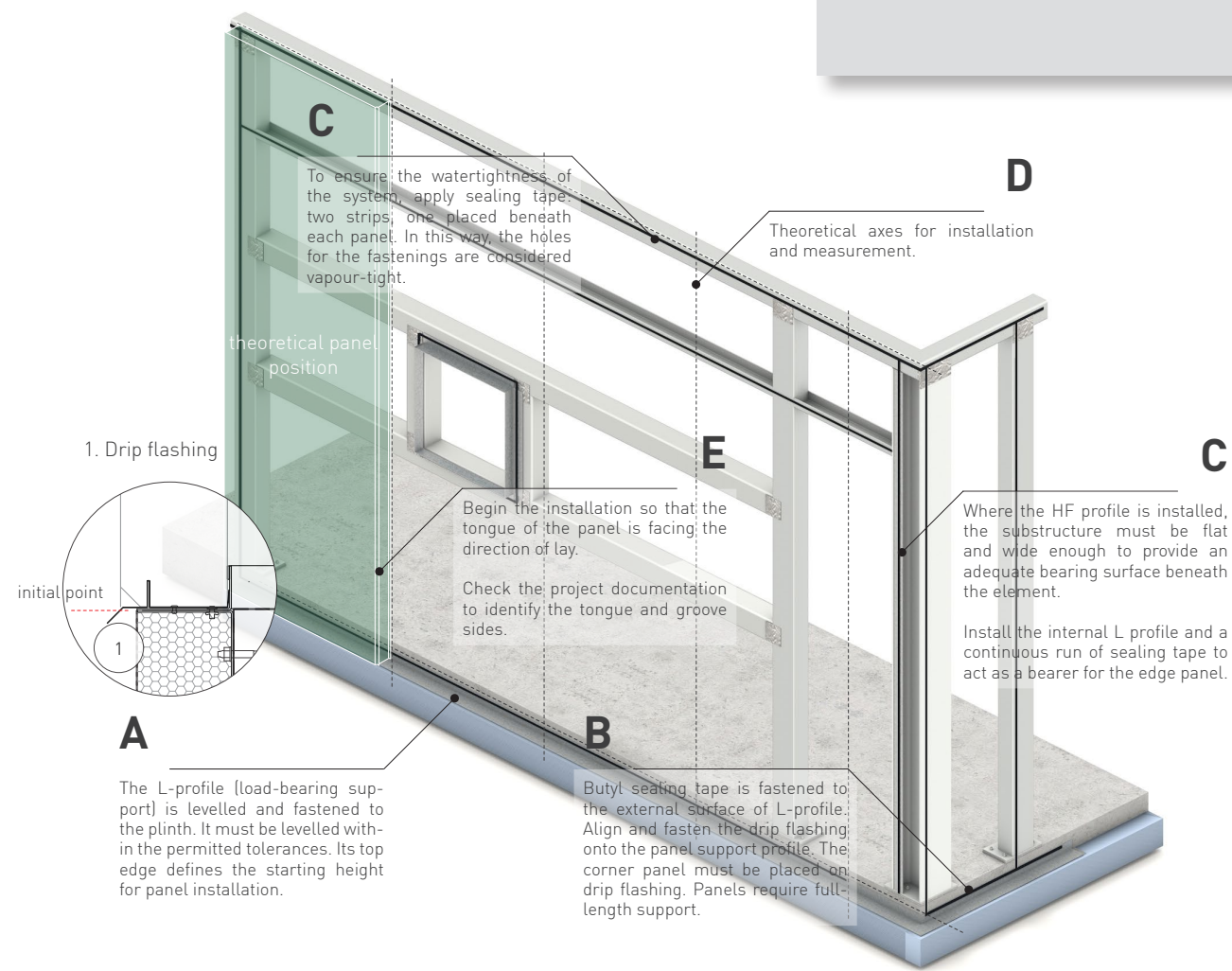
#### WALL 2 (HF PROFILE & CORNER ELEMENTS)

##### Corner verification

At building corners, measure dimensions in both directions to ensure that corner elements can be installed accurately and without misalignment.

##### Screw position check

Review the planned screw locations carefully. In specific details, the screw may align directly with the axis of the substructure, potentially colliding with the flange of an HEA profile. If such a conflict is identified, notify the project designer and agree on a suitable resolution.



#### ! NOTES & WARNINGS

Use Trimoterm FTV installation guide as a general reference. Details may differ from project to project. Always follow project-specific execution details.

Use sealant material that complies with project design requirements for thermal insulation, tightness, and fire resistance.

For any uncertainties, contact Trimoterm technical support.





# C

## • C2 VERTICAL ORIENTATION

### C2.2 INSTALLATION OF THE FIRST COLUMN OF PANELS

#### WALL 1 (COVER FLASHING & CORNER FLASHINGS)

##### Install initial L-profile (longitudinal)

Position the L-profile along the designated line to define the starting edge of the panel installation.

##### Install drip flashing

Install the drip flashing (the flashing must include a vertical leg that inserts into the panel core).

All assembly works have to be done according to project design documentation.

##### Place the first panel

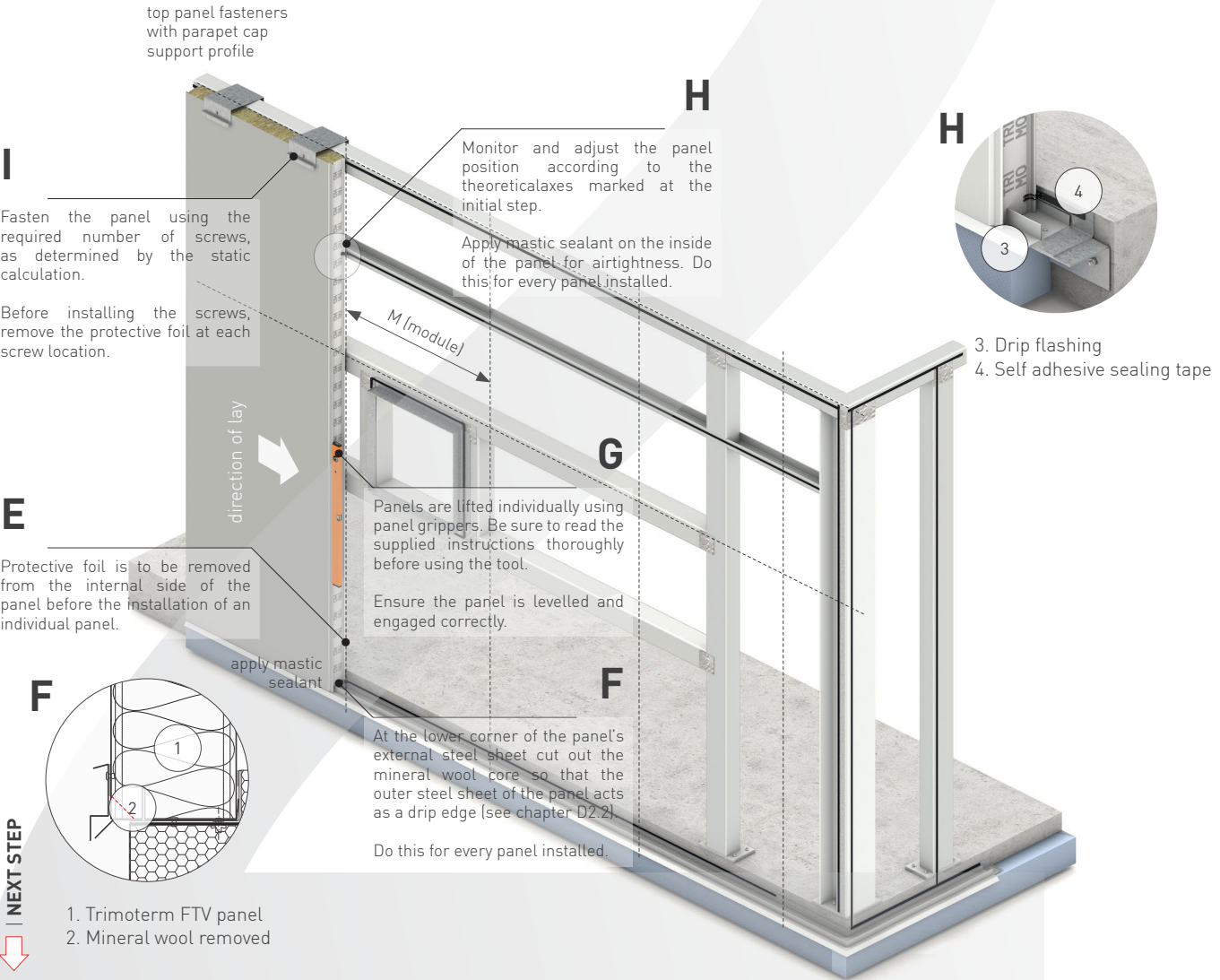
Cut out the mineral wool core so that the outer steel sheet of the panel acts as a drip edge for water running down the facade (see also image on page 51). Align the first panel precisely in its intended position. Avoid handling the panels in heavy wind.

##### Check vertical alignment

Before fastening, use a spirit level to verify that the panel is vertically aligned.

##### Fasten the panel

To ensure structural integrity, secure the panel using screws, as specified in the static calculation.

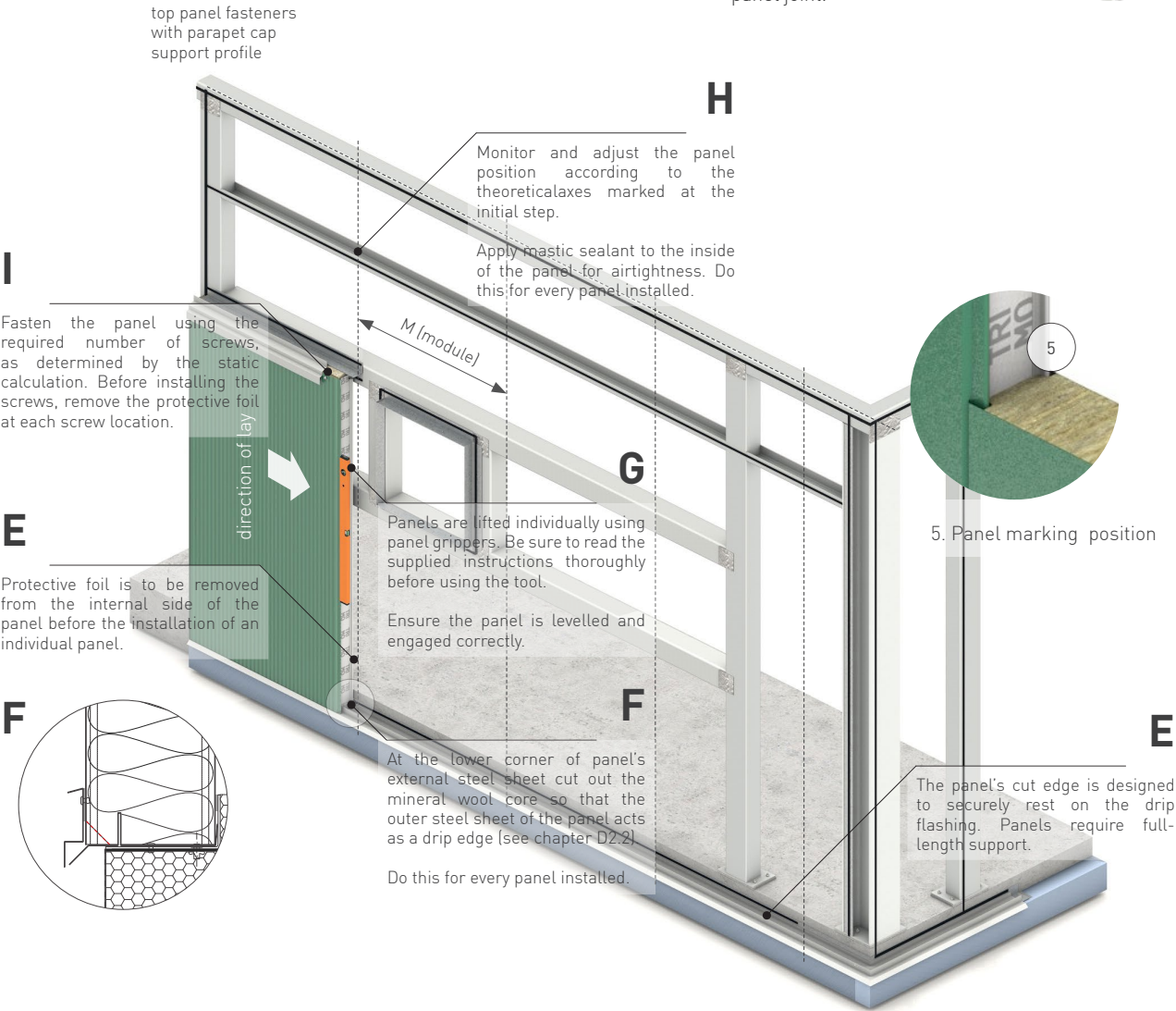


# C

#### WALL 2 (HF PROFILE & CORNER ELEMENTS)

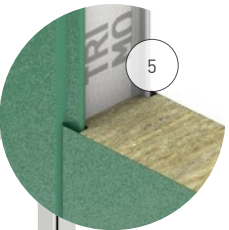
##### Corner support verification

Inspect the support conditions of corner elements to ensure they are not suspended without adequate bottom support.

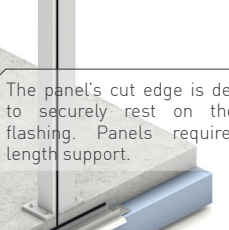


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Kupec / Customer	TRIMO UK LTD.		
Številka naročila / Purchase order number	80/2012; CA2316	Prodajni nalog / projekt / Sales order / project	Proizvodni nalog / Work order
Dimenzije paketa (mm) / Package dimensions (mm)	52535	Bruto / neto teža (kg) / Brutto / Netto (kg)	2122090
Opomba / Note	3075x1000x840	483 / 453	Datum proizvodnje / Production date
Material / Naziv / Description / Serija / Batch / Dolžina / Length / Kosi / Pieces / Pozicija / Position / Kratek naziv / Short desc			
80026780	FHL120 M-MS-GREYAL PUR0707/8010SP060T-K4	2975 mm	1 CA2316 GATEHOUSE/GH
	0001245607	2965 mm	3 CA2316 GATEHOUSE/GH
	0001245608	2975 mm	1 CA2316 GATEHOUSE/GH
	0001245609		

Fig. 3.8: Each panel is clearly marked with individual installation reference (example on the right). With Trimoterm FTV panels the reference is indicated on the internal side of longitudinal panel joint.



5. Panel marking position



5. Panel marking position





## C

## • C2 VERTICAL ORIENTATION

## C2.3 INSTALLATION OF REMAINING PANELS

## WALL 1 (COVER FLASHING &amp; CORNER FLASHINGS)

**Apply mastic seal**

Before placing the second panel next to the first, apply mastic sealant to ensure airtightness on the internal side of the panel.

**Compress panels to seal groove/tongue joint**

Compress the panels firmly to achieve a tight groove/tongue connection.

**Check vertical alignment of panels**

Always verify the vertical alignment of panels during installation. Horizontal and vertical lines must be properly aligned, with special attention to transitions and connections with adjacent façade sections.

**Remove protective foil from installed panels**

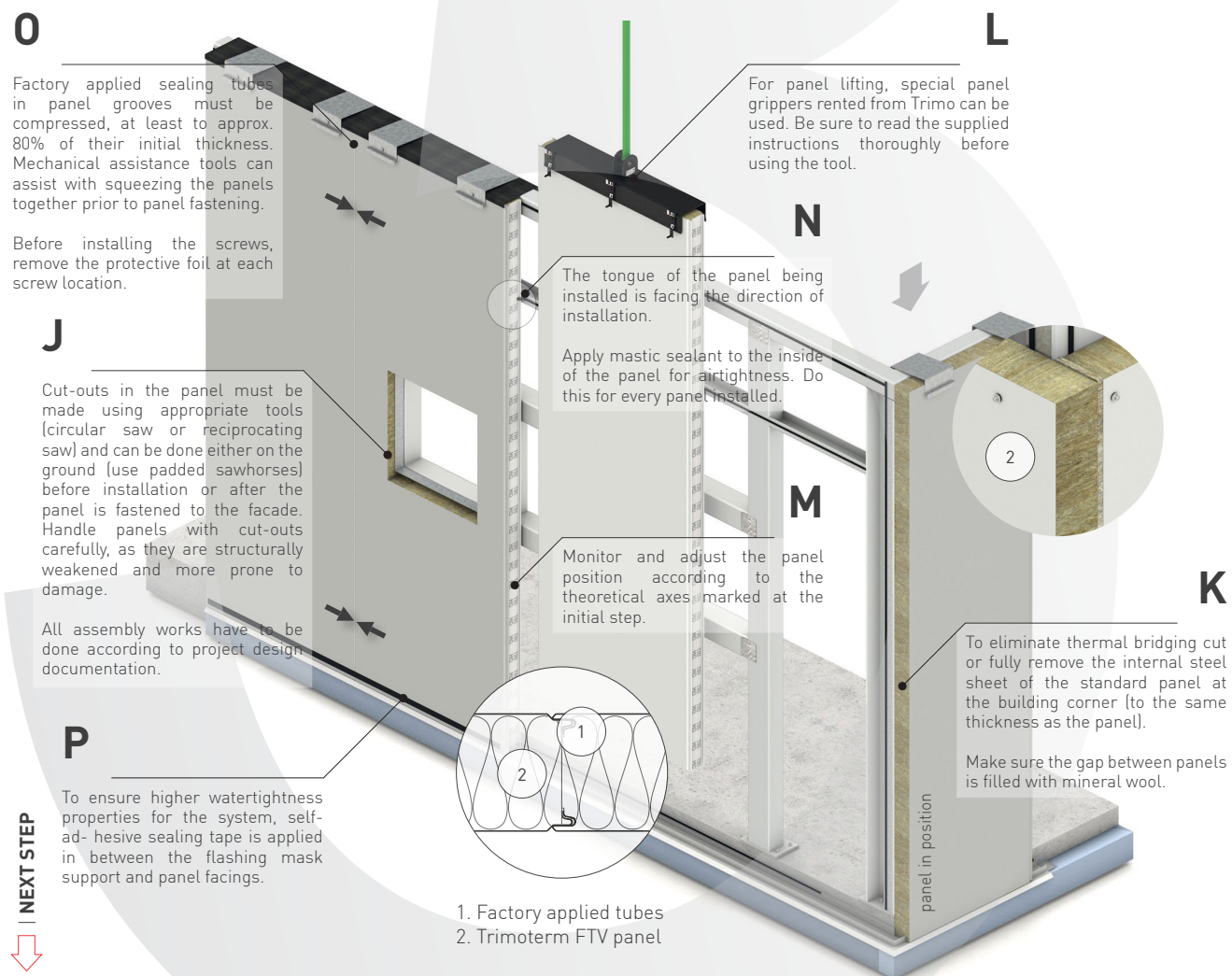
Remove the protective foil from all installed panels no later than the end of the working day.

**Fasten the panel**

To ensure structural integrity, secure the panel using screws, as specified in the static calculation.

**Protect panels against water and moisture**

The installer is responsible for keeping panels dry until installation is complete. Trapped moisture can cause internal corrosion. Avoid installation during rain, snow, or dense fog.



## C

## WALL 2 (HF PROFILE &amp; CORNER ELEMENTS)

**Insert profile drip flashing at the bottom of the joint (for HF profiles)**

Install the profile drip flashing into the 40 mm expansion gap between the sandwich panels—either in the base/drip detail or at the top of an opening. This element enables drainage of rainwater and protects the façade system. The flashing must be secured with two rivets during installation.

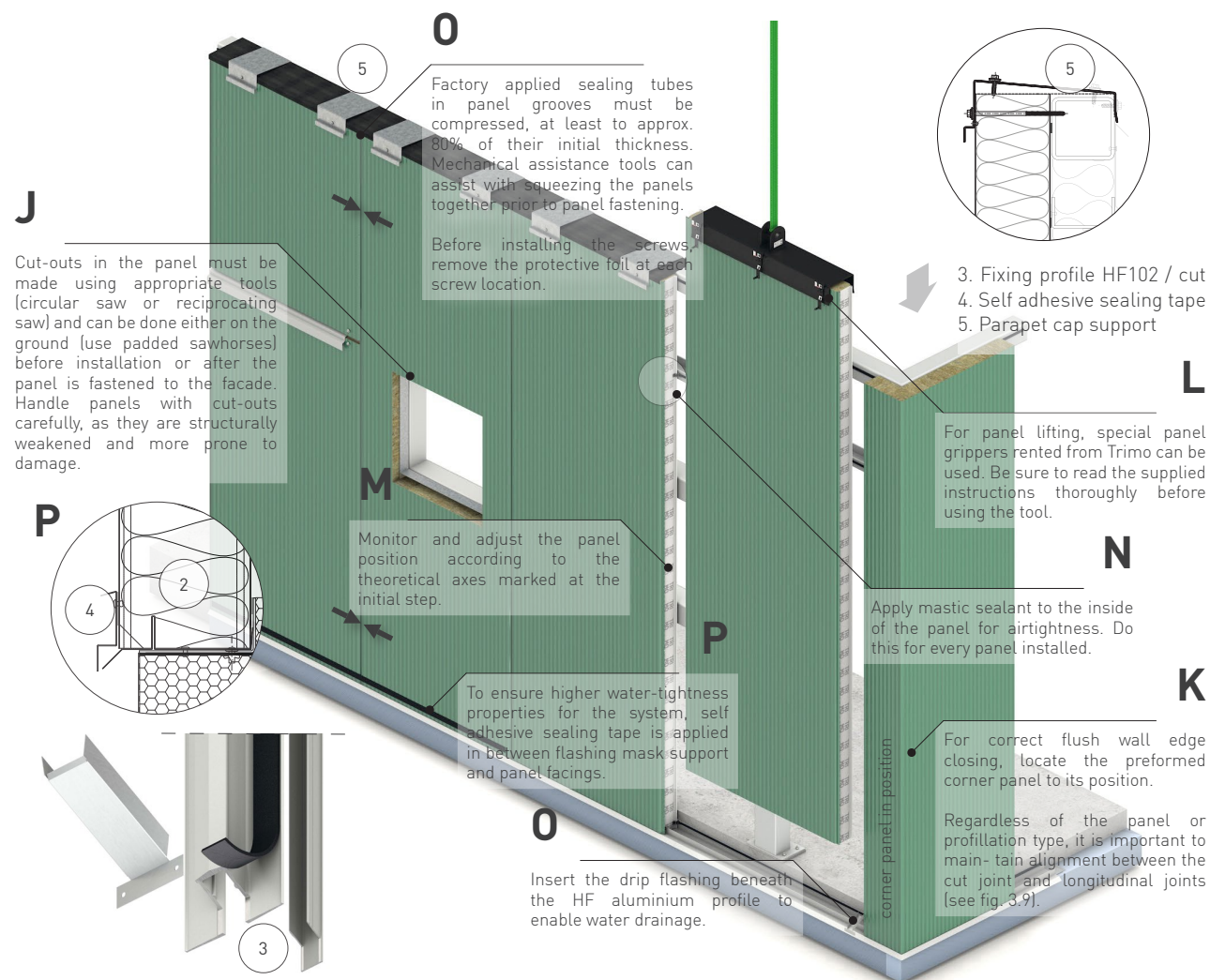
**Vertical installation of multiple panels**

If you are mounting several panels one above the other, there is a specific detail between them. The installation procedure for this detail is outlined in Chapter D2.1.

Fig. 3.9: correct panel alignment



Fig. 4.0: incorrect panel alignment





## C

## • C2 VERTICAL ORIENTATION

## C2.4 FINALISING PANEL WALL WITH FLASHINGS AND FINISHING ELEMENTS

## WALL 1 (COVER FLASHING &amp; CORNER FLASHINGS)

**Fill the gap with mineral wool**

Insert soft mineral (class A1, density  $\geq 100 \text{ kg/m}^3$ ) wool into the gap between corner panels to improve thermal and acoustic insulation. Also fill other gaps with mineral wool as specified in the project details.

**Check water tightness**

Inspect all joints and sealing areas to ensure proper water tightness. Facade terminations need extra care.

**Install flashings**

Once the assembly of all sides of the building's walls has been completed, work continues with the installation of all flashings. Install the flashings according to the design details to protect joints and edges from water ingress and to visually complete the facade.

Drawings of standard flashings are presented in a separate catalogue.

1. Parapet cap
2. Fastening screw
3. Thermal insulation
4. HF102 fixing profile
5. Self adhesive sealing tape
6. Vapour permeable EPDM foil

Use vapour-permeable EPDM foil to ensure proper sealing and prevent water ingress.

Parapet cap flashings are fastened to the parapet cap support. Finish the parapet cap according to the project detail.

If you are working with thin sheet metal, use sheet metal techniques and shape the parapet accordingly. If you are using powder-coated elements, follow the manufacturer's instructions for fixing, extending, and sealing.

P

Follow the project details and make sure there are no thermal bridges or water leaks.

Facade terminations are the most sensitive areas and need extra care.

All assembly works have to be done according to project design documentation.

U

The protective film on the external side of flashing is removed right before the completion of works.

S

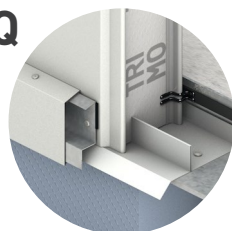
Finish the corners with flashing (the width depending on the panel thickness). A strip of sealing tape is applied in between flashings and panel facings to prevent water leakage.

R

Make sure the gap between panels is filled with mineral wool.

Q

The drip flashing mask is fastened to the support using blind rivets. All works have to be done according to project detail.



## C

## WALL 2 (HF PROFILE &amp; CORNER ELEMENTS)

**Consider HF102 profile prolongation**

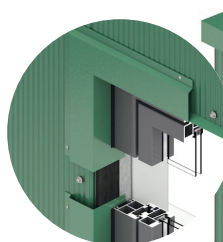
Check the location where HF profile prolongation will be applied. If prolongation is needed, the profile must be modified on-site before installation onto the facade. For detailed guidance, refer to Chapter C4.4..

**Pre-install gasket into HF profiles**

Self-adhesive tape 6x25xL (ID: 3017631) must be applied to the internal legs of the HF102/1 aluminium profile. Surfaces must be clean and dry. Use a roller or squeegee to press the tape firmly for optimal adhesion.

**Fasten the panel**

For HF102 profiles, follow the fastening instructions in the project documentation. If not defined, the profile must be fastened at intervals not exceeding 1.00 m.



P

Follow the project details and make sure there are no thermal bridges or water leaks.

Facade terminations are the most sensitive areas and need extra care.

All assembly works have to be done according to project design documentation.

U

Use vapour permeable EPDM foil to ensure proper sealing and prevent water ingress.

Parapet cap flashings are fastened to parapet cap support. Finish the parapet cap is done according to the project detail.

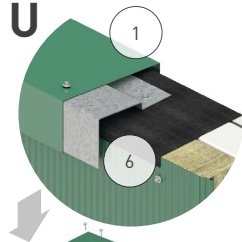
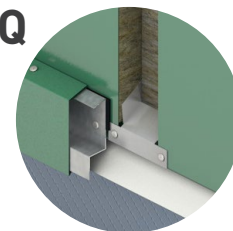
If you are working with thin sheet metal, use sheet metal techniques and shape the parapet accordingly. If you are using powder-coated elements, follow the manufacturer's instructions for fixing, extending, and sealing.

The top cover (HF102/2) profile is pushed to snap to its final position. Two installation positions are possible: flushed or recessed. Check the project documentation to determine which option is specified.

The finished powder coated colour of the HF profile is different to that of the panel.

Q

The drip flashing mask is fastened to the support using blind rivets. All works have to be done according to project detail.



S

With application of HF102 aluminium profile consider the following:

- Verify the fastening points, as defined in the project documentation.
- Provide a detail of the joint where two HF profiles meet.
- Include a detail at the bottom or at locations where the HF profile is interrupted (e.g. at a window opening).

R

Fill the gap between panels with soft mineral wool.

Q

Check if profile drip flashing at the lower part of joint gap is correctly inserted so as to enable drainage of rainwater.





C

C3 Trimoterm FTV installation check list



CHECK-LIST				
Steps	Step description	Correct	Incorrect	Notes
1	Substructure meets tolerance requirements (horizontally, vertically, dimensions, plains).			
2	Facade element supports (vertical and horizontal) are installed according to details, dimensions, and plains.			
3	Panels protected from water during unloading and during installation.			
4	Sealing tapes installed onto the substructure according to the details.			
5	Protective foil fully removed from the panel's internal side before installation.			
6	Protective foil partially removed from panels' external side before installation, and fully removed every day after panel installation.			
7	Each panel positioned and levelled according to allowed tolerances.			
8	Each panel is through fastened with number and type of screws determined according to static calculation.			
9	HF102 panel fastened according to structural calculation. Panels need to be fastened through internal steel sheet as well.			
10	Drip element, aluminium profile prolongation, profile gasket - installed according to the details. (HF102, HF140).			
11	Flashings prolonged and joined with overlapping, and sealed. Water ingress into the panel is prevented.			

Tab. 1.4: Trimoterm FTV installation check list







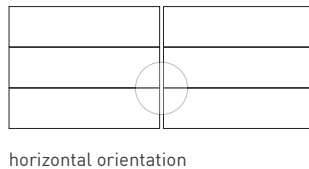
# D

## Installation details

### • D1 HORIZONTAL installation details

#### D1.1 Panel joint (fasteners and sealants)

This detail is provided as an illustrative example. All panels and related components must be installed in strict accordance with the project's installation drawings and the relevant sections of this guide. For the whole range of detail options, see system design details.



horizontal orientation

#### 1. assembly step

**Level and orient panels** to allow water drainage.

**Fasten each panel** end with at least two fasteners.

**Do not overtighten fasteners** This prevents panel damage or deformation.

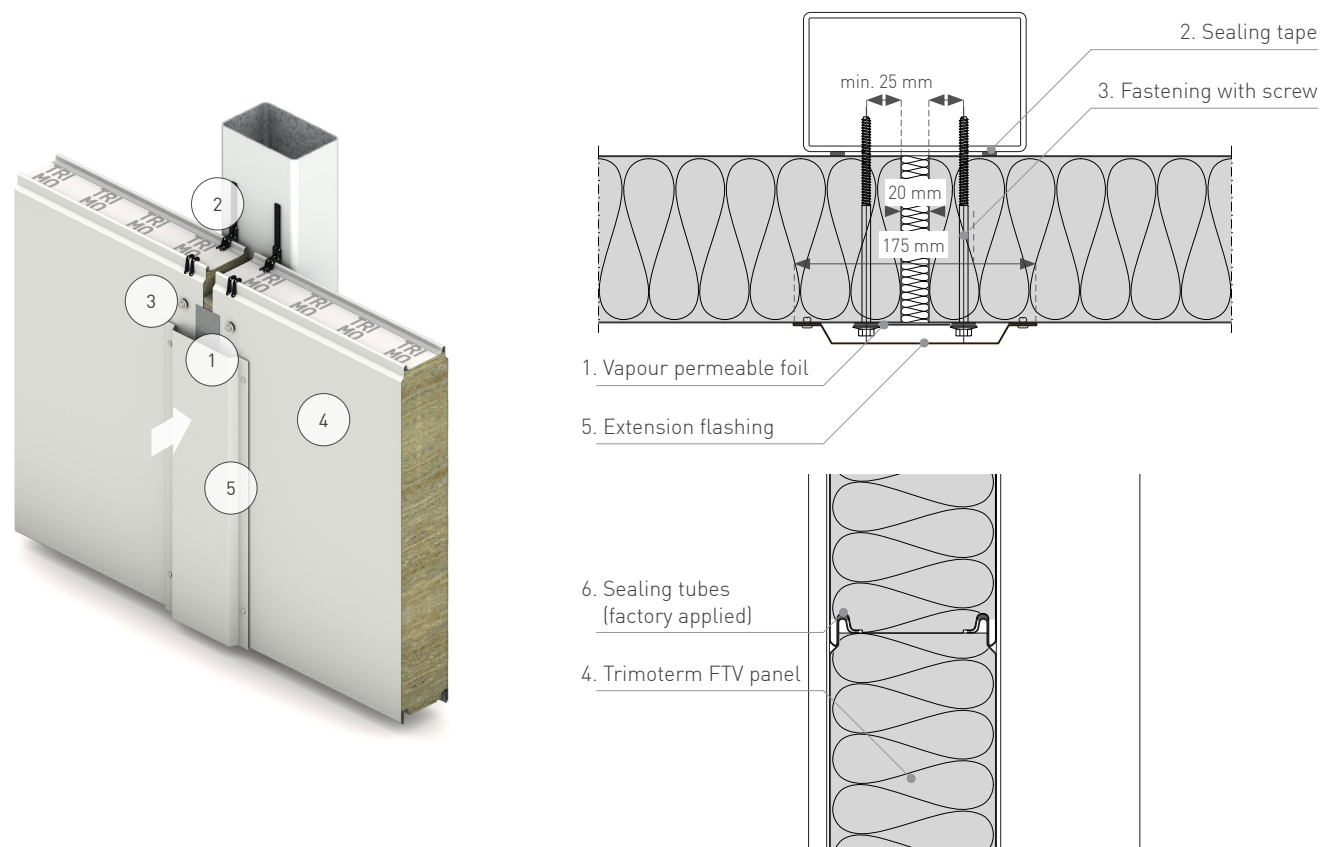
#### 2. assembly step

**Compress sealing tubes** in the grooves of adjacent panels to approximately 80% of their original thickness.

**Seal across** the external and internal sides of the panel tongue (male joint) to ensure vapour-tight joints.

#### 3. assembly step

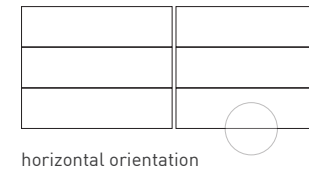
**Fill the gap** between panel ends with mineral wool and **seal** with vapour-permeable tape. Cover the joint with vertical flashing and fasten it to the outer steel sheet of the panel using blind rivets (see chapter A4.1).



# D

### D1.2 Panel base

This detail is provided as an illustrative example. All panels and related components must be installed in strict accordance with the project's installation drawings and the relevant sections of this guide. For the whole range of detail options, see system design details:



horizontal orientation



Trimoterm FTV system design details

#### 1. assembly step

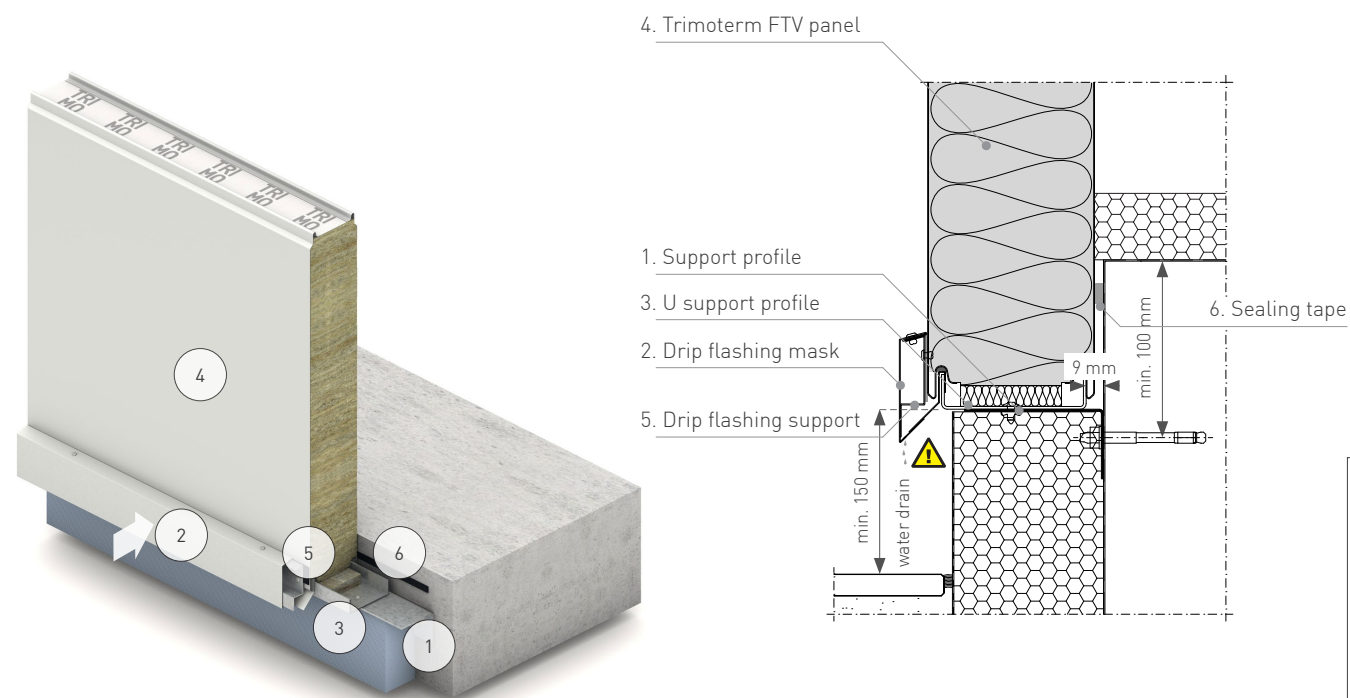
Level and fasten the support profile (load bearer) to the concrete plinth at the height required according to the fastener manufacturer's instructions. Ensure the profile is leveled. The profile height defines the starting point of the installation. Apply butyl sealing tape to the external surface of the plinth.

#### 2. assembly step

Before fastening the panel, fasten the U support profile for panel support. Fill the gap between the panel's longitudinal joint and the U profile with mineral wool.

#### 3. assembly step

Apply self-adhesive sealing tape between the flashing mask support and the panel's outer steel sheet. Fasten the drip flashing mask to the support using blind rivets. Fit the drip flashing with a 50 mm overlap.



Make small V cuts at the back of the flashing.

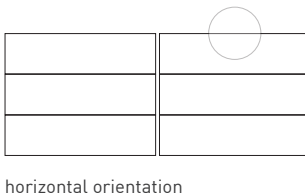




## D

## D1.3 Parapet wall

This detail is provided as an illustrative example. All panels and related components must be installed in strict accordance with the project's installation drawings and the relevant sections of this guide. For the whole range of detail options, see system design details:



Trimoterm FTV system design details

## 1. assembly step

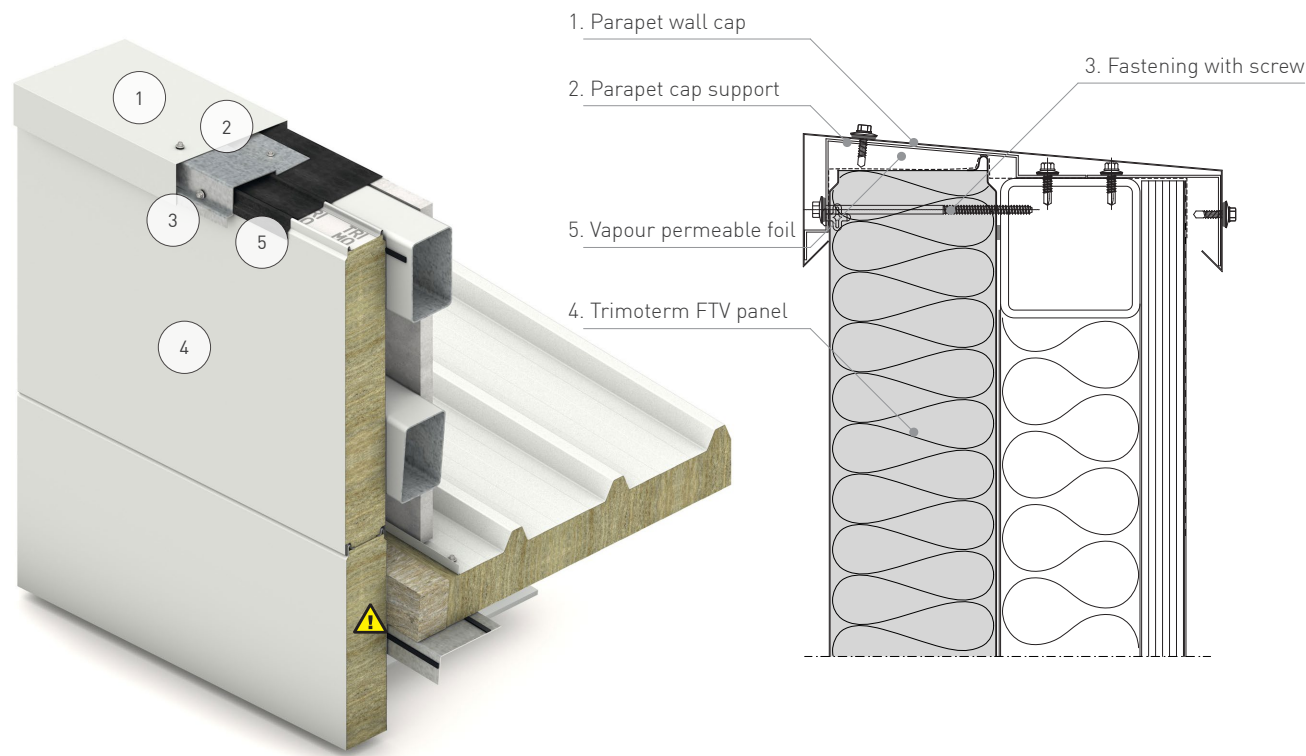
Install EPDM sealing tape at the joint where the roof's thermal insulation connects to the panel. This ensures vapour barrier properties. Fasten each panel end with at least two fasteners.

## 2. assembly step

Install vapour-permeable EPDM foil over the panel, and optionally across the entire sub-structure, to prevent water ingress into the panel. Fasten the parapet cap support profile through the panel's steel sheet into the sub-structure with screws spaced at approximately 1.0 m.

## 3. assembly step

Attach and fasten the parapet wall cap to the support profile with screws. Perform the connection of two parapet caps according to instructions (see chapter D3.3).



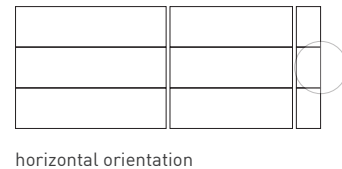
To ensure watertightness of the system, Install EPDM sealing tape at the joint where the roof's thermal insulation connects to the panel.



## D

## D1.4 External corner

This detail is provided as an illustrative example. All panels and related components must be installed in strict accordance with the project's installation drawings and the relevant sections of this guide. For the whole range of detail options, see system design details:



Trimoterm FTV system design details

## 1. assembly step

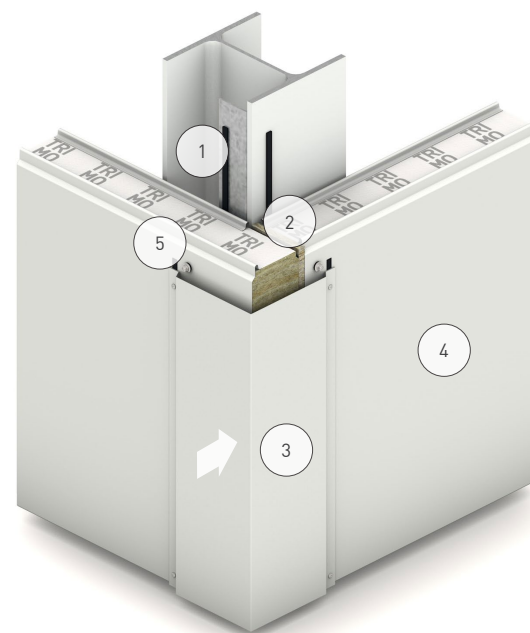
Apply self-adhesive sealing tape between the structure and the inner steel sheet of the panel. Cut off the portion of the inner steel sheet on the panel to be installed in the corner so that the cut corresponds to the adjoining panel thickness. This eliminates the cold bridge.

## 2. assembly step

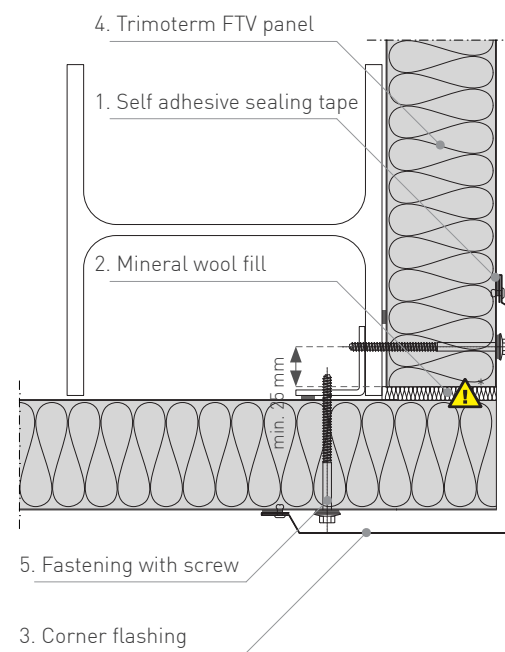
Remove protective foil from the inner side of the panel. Engage the corner panel and fasten each panel end with at least two fasteners. Fill the gap between corner panel ends with mineral wool.

## 3. assembly step

Apply sealing tape between the flashings and the outer steel sheet of the panel. Fasten the corner flashing to the outer steel sheet using blind rivets. Perform proper extension of the flashing according to instructions (see chapter D3.1).



Cut or fully remove the internal steel sheet of the standard panel at the building corner to eliminate thermal bridging.







# D

## D1.5 Internal corner

This detail is provided as an illustrative example. All panels and related components must be installed in strict accordance with the project's installation drawings and the relevant sections of this guide. For the whole range of detail options, see system design details:



Trimoterm FTV system design details

### 1. assembly step

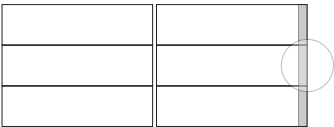
Apply self-adhesive sealing tape between the structure and the inner steel sheet of the panels. Consider the installation sequence carefully, as incorrect sequencing may make this step impossible to perform.

### 2. assembly step

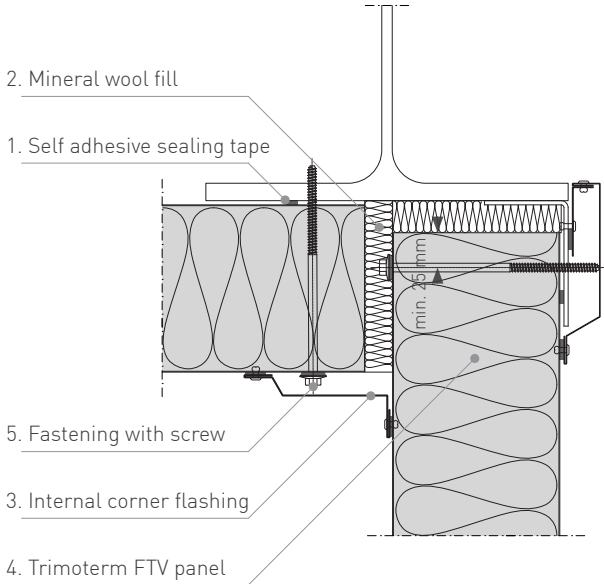
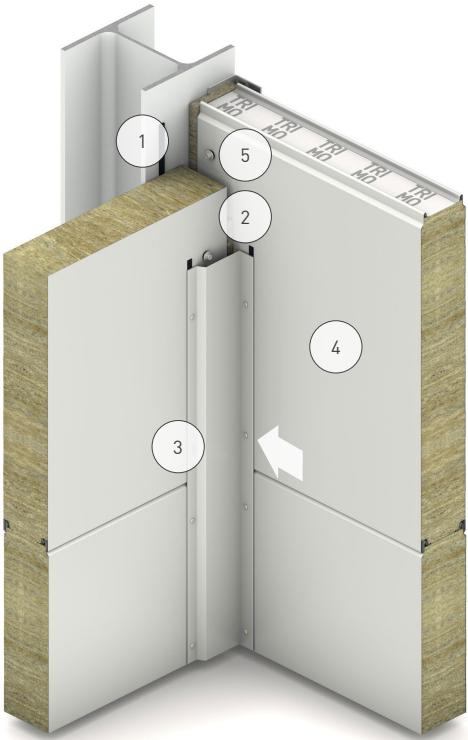
Fasten each panel end with at least two fasteners. Fill the gap between the panel's cut edge and the structure with mineral wool. When installing the second column of panels, take care not to damage the surface of adjacent panels with tools during fastening.

### 3. assembly step

Apply sealing tape between the internal corner flashing and the outer steel sheet of the panels. Fasten the internal corner flashing to the outer steel sheet using blind rivets. Perform proper extension of the flashing according to instructions (see chapter D3.1).



horizontal orientation



# D

## D1.6 Panel penetration (field of panel example)

This detail is provided as an illustrative example. All panels and related components must be installed in strict accordance with the project's installation drawings and the relevant sections of this guide. For the whole range of detail options, see system design details and Trimoterm fire application document.

For penetrations through fire-rated partition walls, follow dedicated firestop installation instructions to ensure proper sealing and compliance with fire protection requirements.

### 1. assembly step

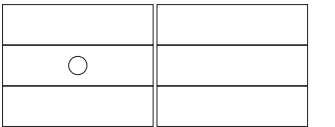
Locate the penetration on the wall panel and cut an opening (approx. 20 mm clearance).  
**Important:** Every penetration weakens the panel. Before cutting, confirm that the opening is planned in the project. If not, consult the structural engineer to verify feasibility. Refer to chapter A6.2.

### 2. assembly step

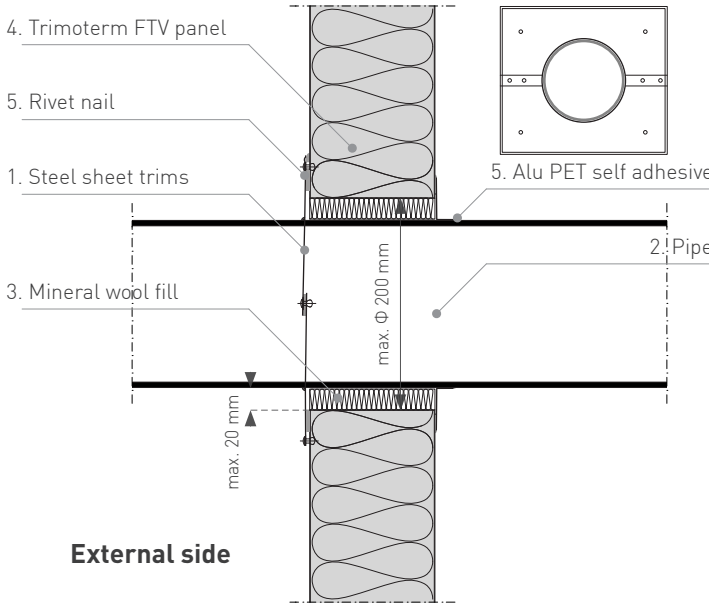
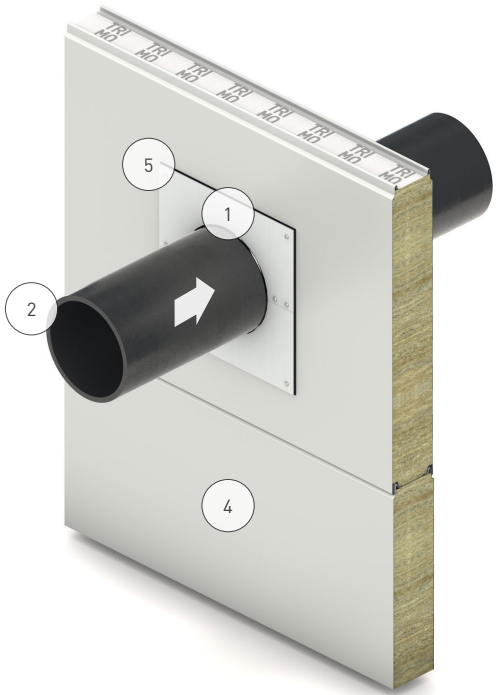
Install the pipe through the prepared opening. Ensure that neither the pipe nor any other penetrating element rests against the panel. Fill the gap around the pipe with mineral wool. Apply self-adhesive sealing tape around the penetration.

### 3. assembly step

For partition walls, install decorative trims around the opening. For external walls, ensure the penetration is sealed watertight on the outside, typically using double steel sheets (upper and lower parts), sealing strips, and sealant. On the interior side, apply a vapour barrier by taping all joints with aluminium tape.



horizontal orientation



The configurations may not meet specific project requirements, so it's crucial for an expert to assess them against the actual criteria.



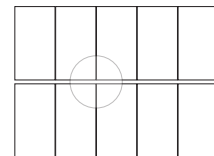
# D

## Installation details

### • D2 VERTICAL installation details

#### D2.1 Panel joint (fasteners and sealants)

This detail is provided as an illustrative example. All panels and related components must be installed in strict accordance with the project's installation drawings and the relevant sections of this guide. For the whole range of detail options, see system design details.



vertical orientation

#### 1. assembly step

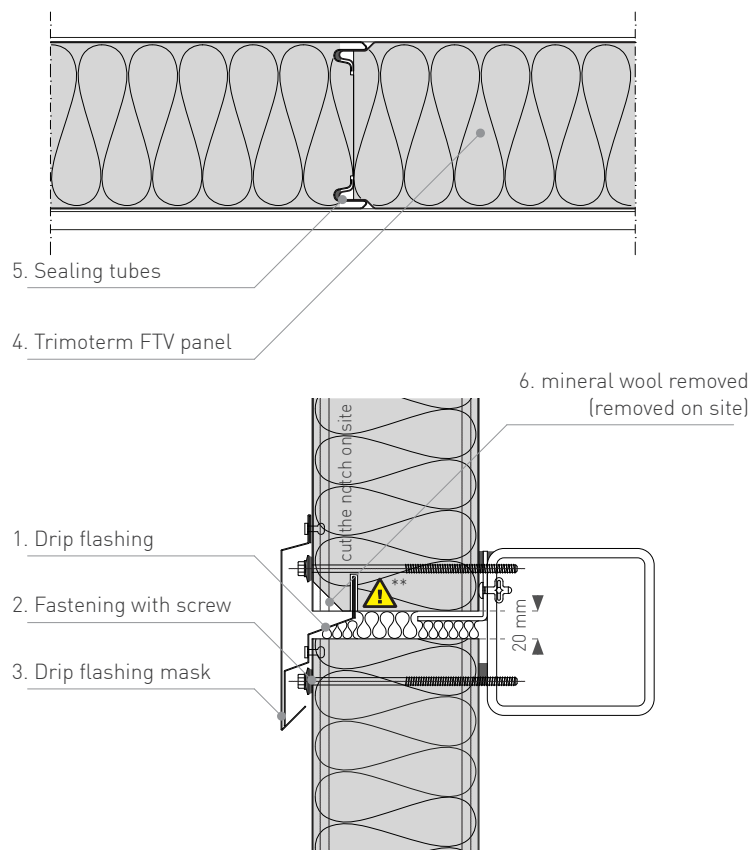
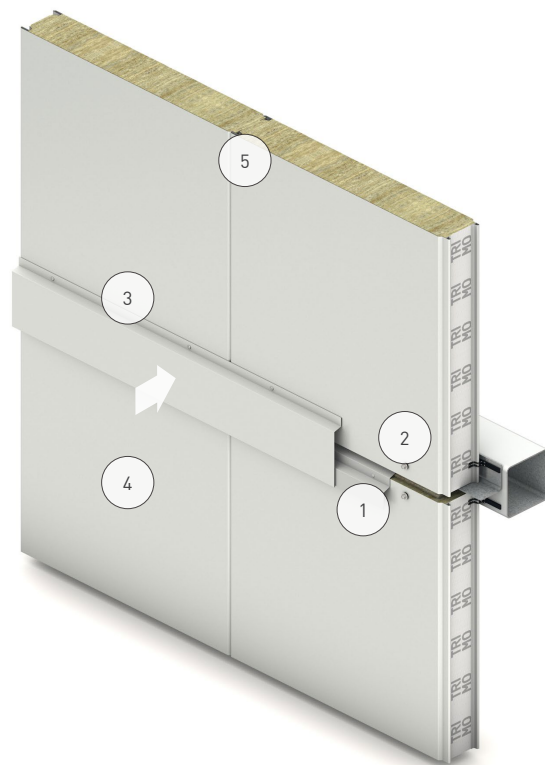
Bottom panels must be fully installed, with all fasteners in place, as access will not be possible later.

#### 2. assembly step

Install the support profile that will later provide bearing for the upper panels. Install the drip flashing to ensure proper drainage of water that may occur at the joint of the upper panels. Mineral wool must also be installed to provide thermal insulation of the detail.

#### 3. assembly step

Before installation, prepare the upper panels by removing the mineral wool at the bottom near the external steel sheet and at the location where the drip flashing will be inserted. The drip flashing must fit into the panel, so a groove must be prepared in advance.



⚠ Remove the mineral wool part of the panel on site.

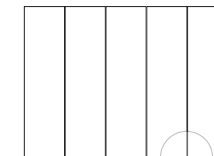
\*\* Cut the notch on site.



# D

### D2.2 Panel base

This detail is provided as an illustrative example. All panels and related components must be installed in strict accordance with the project's installation drawings and the relevant sections of this guide. For the whole range of detail options, see system design details:



vertical orientation



Trimoterm FTV system design details

#### 1. assembly step

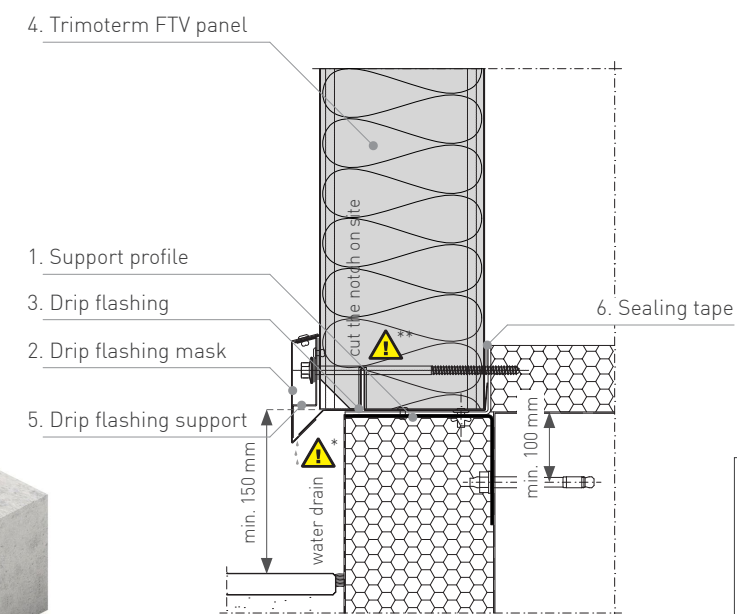
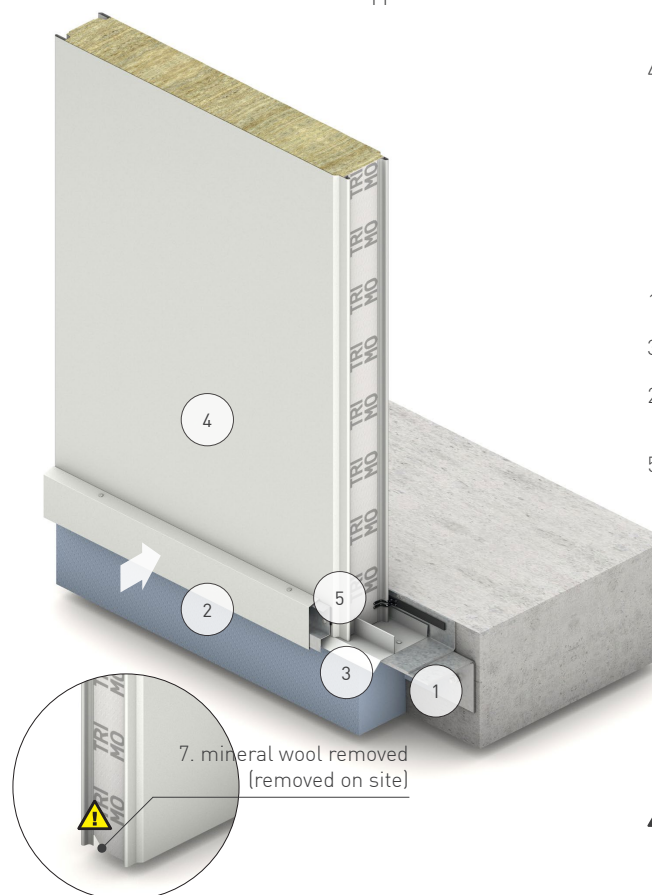
Level the support profile (load bearer) and fasten it to the concrete plinth at the required height. This height defines the starting point of the installation. Apply sealing tape to the external surface of the plinth. Install the drip flashing to ensure proper drainage of any water at the joint between panels.

#### 2. assembly step

Before fastening the panel, **trim and remove the mineral wool** core at the lower corner of the panel's external steel sheet and at the location where the drip flashing will be inserted. Engage the panel. Apply self-adhesive sealing tape between the flashing mask support and the panel's external steel sheet. Install and fasten the drip flashing mask support.

#### 3. assembly step

Install the panel and fasten it with the specified fasteners as indicated in the project documentation. Insert the fasteners together with the flashing mask support. Attach the cover flashing using blind rivets. Extend the flashing with an overlap of at least 50 mm.



⚠ Remove the mineral wool part of the panel on site.

\* Make small V cuts at the back of the flashing.

\*\* Cut the notch on site.



# D

## D2.3 Parapet wall

This detail is provided as an illustrative example. All panels and related components must be installed in strict accordance with the project's installation drawings and the relevant sections of this guide. For the whole range of detail options, see system design details:



Trimoterm FTV system design details

### 1. assembly step

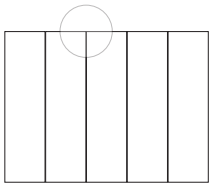
Install EPDM sealing tape at the joint where the roof's thermal insulation connects to the panel. This ensures vapour barrier properties. Fasten each panel end with at least two fasteners.

### 2. assembly step

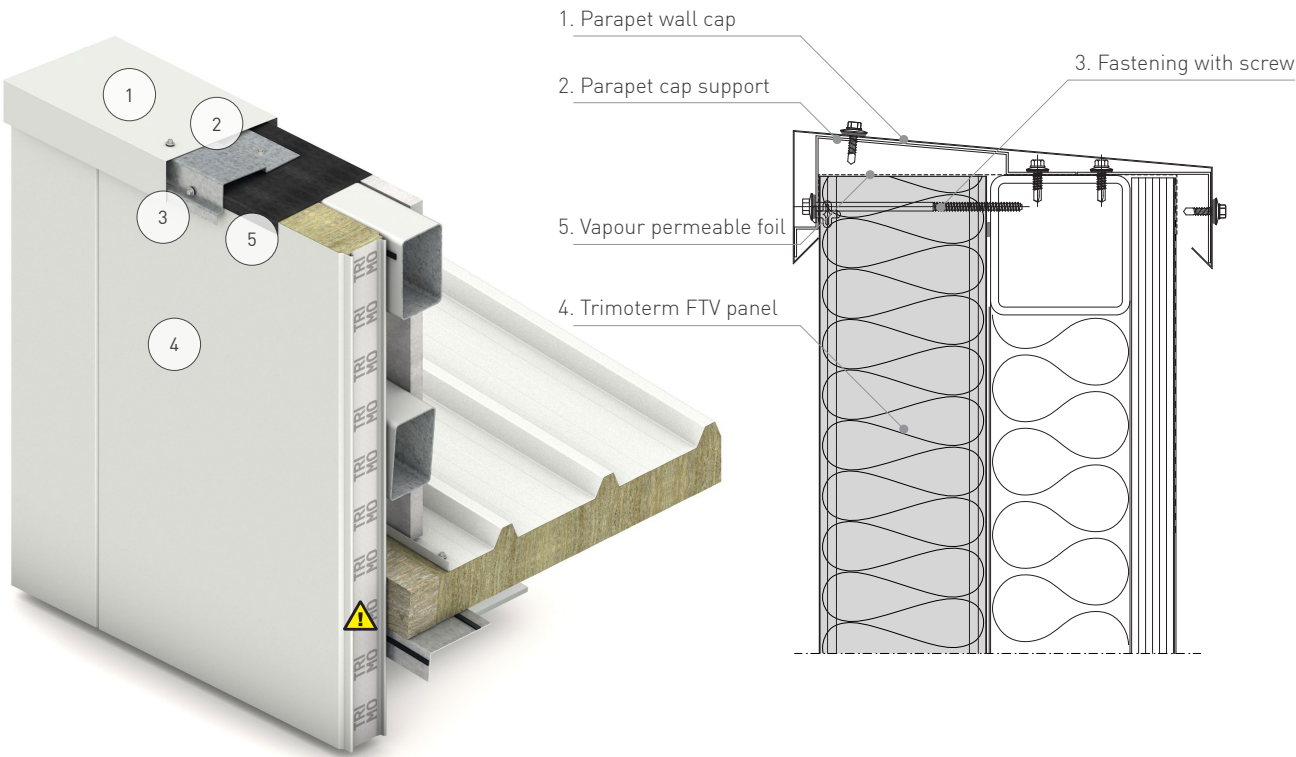
Install vapour-permeable EPDM foil over the panel, and optionally across the entire sub-structure, to prevent water ingress into the panel. Fasten the parapet cap support profile through the panel steel sheet into the sub-structure with screws spaced at approximately 1.0 m.

### 3. assembly step

Attach and fasten the parapet wall cap to the support profile with screws. Perform the connection of two parapet caps according to instructions (see chapter D3.3).



vertical orientation



To ensure the watertightness of the system, install EPDM sealing tape at the joint where the roof's thermal insulation connects to the panel.



# D

## D2.4 External corner

This detail is provided as an illustrative example. All panels and related components must be installed in strict accordance with the project's installation drawings and the relevant sections of this guide. For the whole range of detail options, see system design details:



Trimoterm FTV system design details

### 1. assembly step

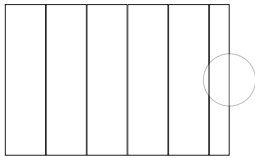
Apply self-adhesive sealing tape between the structure and the inner steel sheet of the panel. Cut off the portion of the panel's inner steel sheet to be installed in the corner, so that the cut corresponds to the adjoining panel thickness. This eliminates the cold bridge.

### 2. assembly step

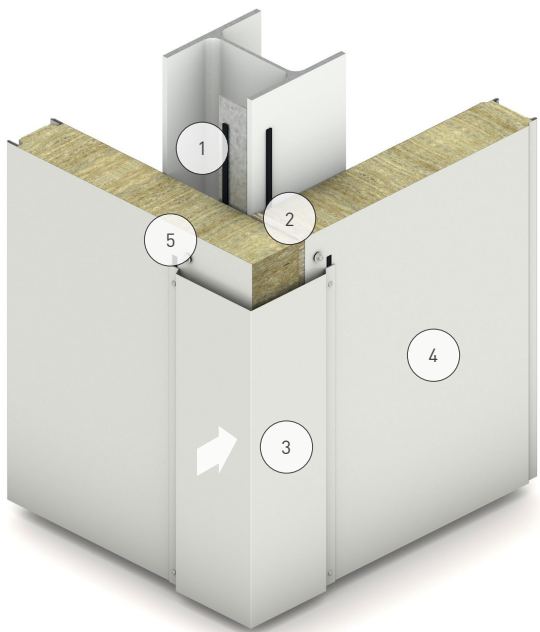
Remove the protective foil from the inner side of the panel. Engage the corner panel and fasten each panel end with at least two fasteners. Fill the gap between the corner panel ends with mineral wool.

### 3. assembly step

Apply sealing tape between the flashings and the outer steel sheet of the panel. Fasten the corner flashing to the outer steel sheet using blind rivets. Perform proper extension of the flashing according to instructions (chapter D3.1).



vertical orientation



To eliminate thermal bridging, cut or fully remove the internal steel sheet of the standard panel at the building corner.



## D

## D2.5 Internal corner

This detail is provided as an illustrative example. All panels and related components must be installed in strict accordance with the project's installation drawings and the relevant sections of this guide. For the whole range of detail options, see system design details:



Trimoterm FTV system design details

## 1. assembly step

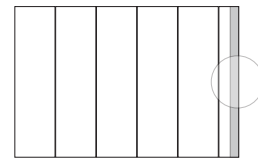
Apply self-adhesive sealing tape between the structure and the inner steel sheet of the panels. Consider the installation sequence carefully, as incorrect sequencing may make this step impossible to perform.

## 2. assembly step

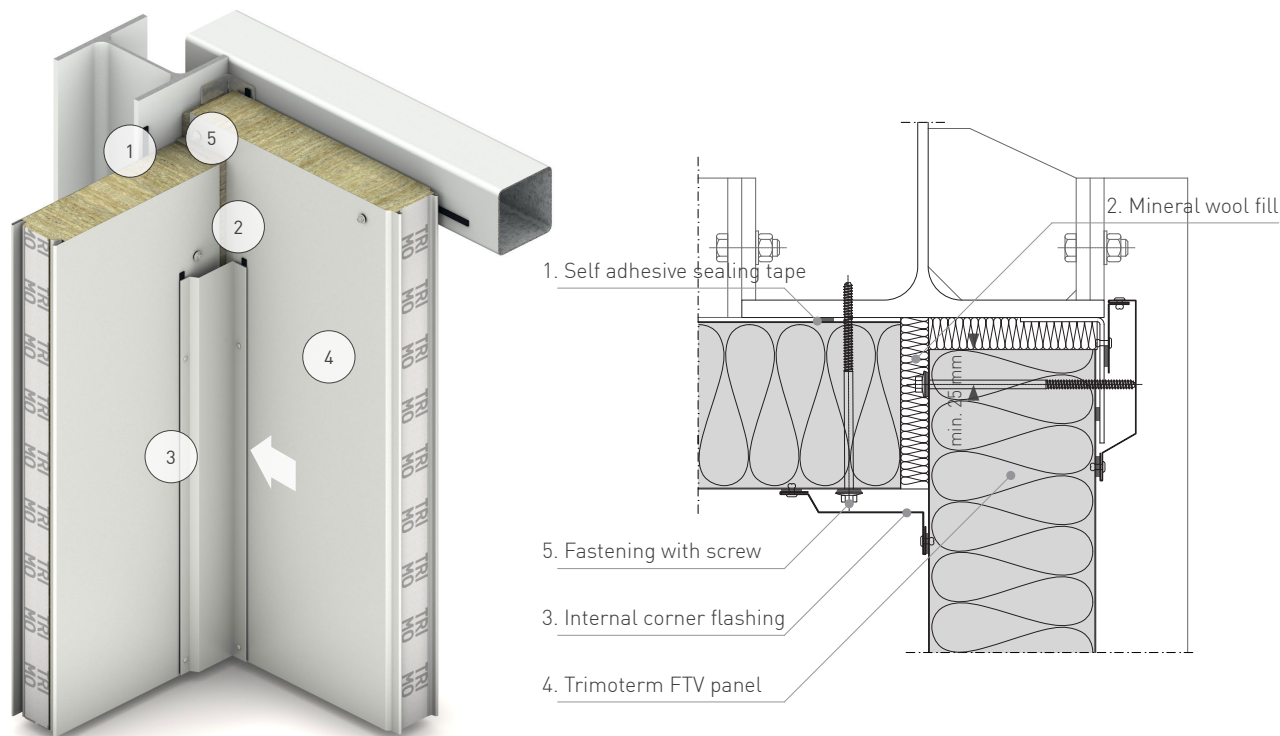
Fasten the panel along its length with approximately one fastener per metre. Fill the gap between the panel's cut edge and the structure with mineral wool. When installing the second column of panels, take care not to damage the surface of adjacent panels with tools during fastening.

## 3. assembly step

Apply sealing tape between the internal corner flashing and the outer steel sheet of the panels. Fasten the internal corner flashing to the outer steel sheet using blind rivets. Perform proper extension of the flashing according to instructions (see chapter D3.1).



vertical orientation



## D

## D2.6 Panel penetration (edge of panel example)

This detail is provided as an illustrative example. All panels and related components must be installed in strict accordance with the project's installation drawings and the relevant sections of this guide. For the whole range of detail options, see system design details and Trimoterm fire application document.

For penetrations through fire-rated partition walls, follow dedicated firestop installation instructions to ensure proper sealing and compliance with fire protection requirements.

## 1. assembly step

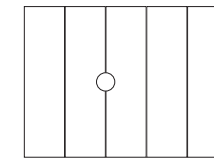
Locate the penetration on the wall panel and cut an opening (approx. 20 mm clearance). **Important:** Every penetration weakens the panel. Before cutting, confirm that the opening is planned in the project. If not, consult the structural engineer to verify feasibility. Refer to chapter A6.2.

## 2. assembly step

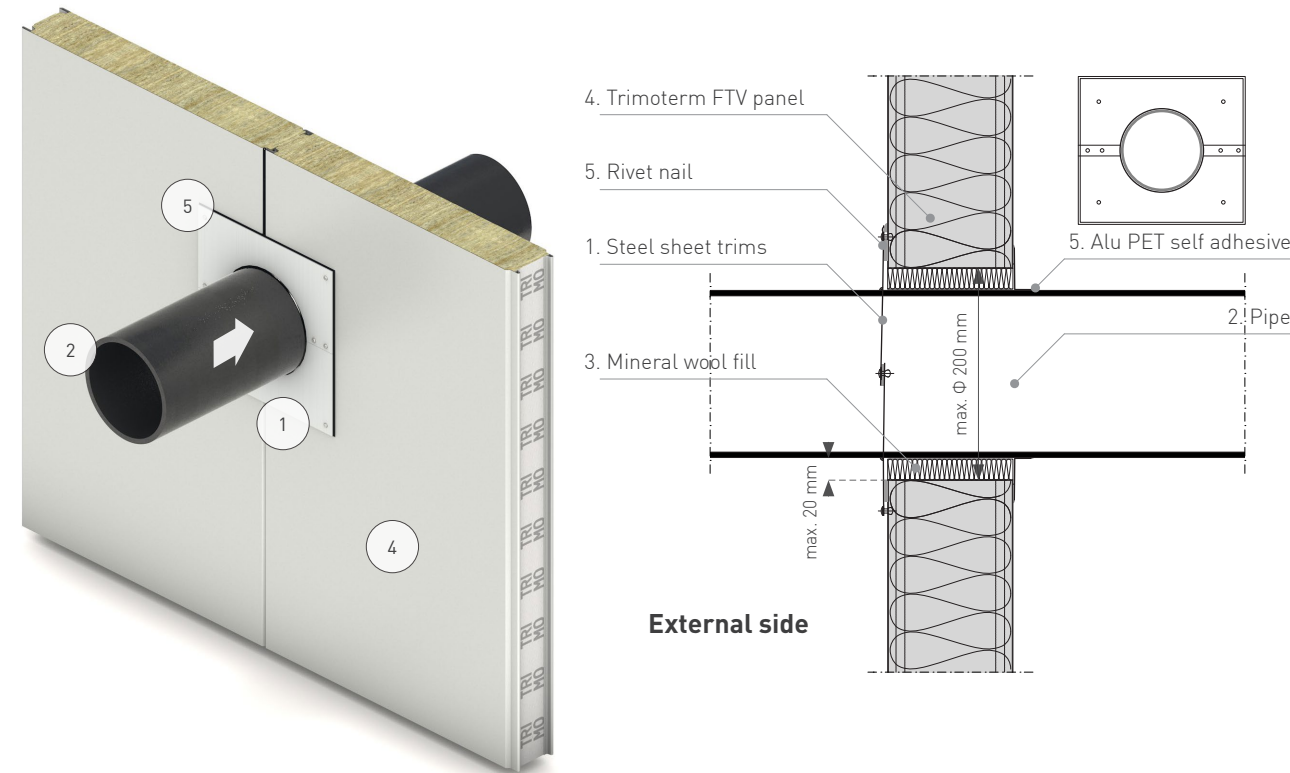
Fill the internal joint with butyl sealant above and below opening. Install the pipe through the opening. Ensure that the pipe does not rest against the panel. Fill the exterior reveal above the penetration with color-matched sealant to the top of the panel. Fill the gap around the pipe with mineral wool. Apply self-adhesive sealing tape around the penetration.

## 3. assembly step

For partition walls, install decorative trims around the opening. For external walls, ensure the penetration is sealed watertight on the outside, typically using double steel sheets (upper and lower parts), sealing strips, and sealant. On the interior side, apply a vapour barrier by taping all joints with aluminium tape.



vertical orientation



The configurations may not meet specific project requirements, so it's crucial for an expert to assess them against the actual criteria.







## D

## D3 Flashing and profile guidelines

## D3.1 Flashing mask extension and fitting

This detail is provided as an illustrative example.

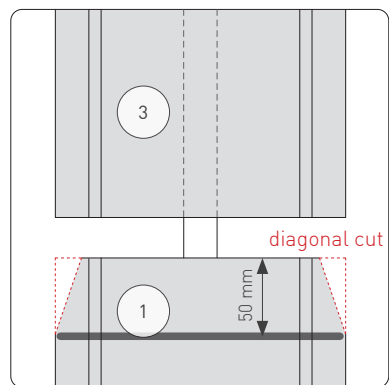


Fig. 4.1: Flashing mask front view

## 1. assembly step

## Prepare lower flashing

Trim the edge piece from the lower flashing mask. Apply sealant to the lower flashing and ensure an overlap of at least 50 mm.

## 2. assembly step

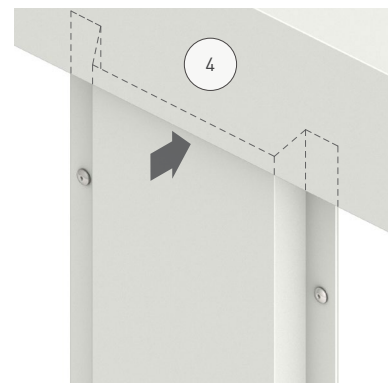
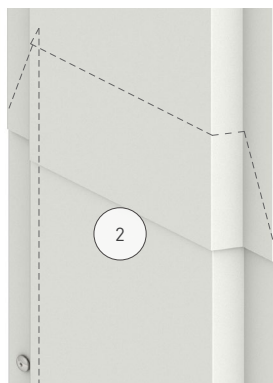
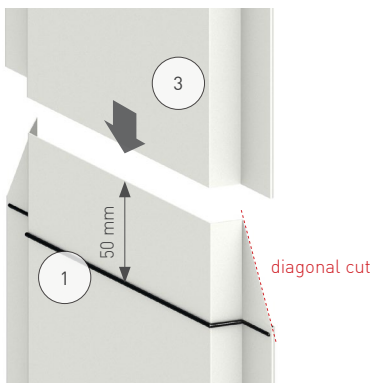
## Fasten vertical flashing

The vertical flashing mask is fastened to the external steel sheet of the panel using blind rivets. **In order to allow thermal expansion, the flashing components must not be connected to each other with the rivet.**

## 3. assembly step

## Ensure water protection

Push the vertical flashing mask under the parapet cap to prevent water ingress on the inner side. At the bottom joint with the drip flashing, provide a path for water drainage.



1. Mastic sealant
2. Vertical extension mask (in position)
3. Vertical extension mask
4. Parapet flashing cap

## D

## D3.2 Drip flashing extension and fitting

The drip flashing mask is fastened to the support using blind rivets. Flashings are fastened with a maximum spacing of 300 mm. Drip flashing is to be fitted with a 50-mm overlap. The extension flashing mask is fastened to the support using blind rivets.

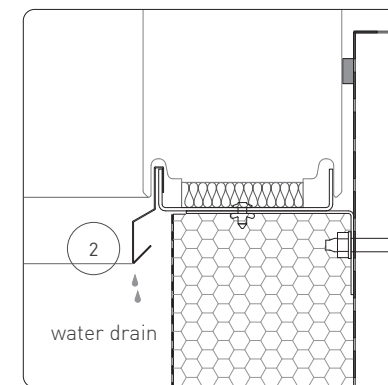


Fig. 4.2: Drip flashing cross-section

## 1. assembly step

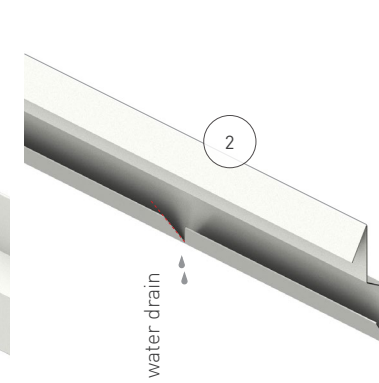
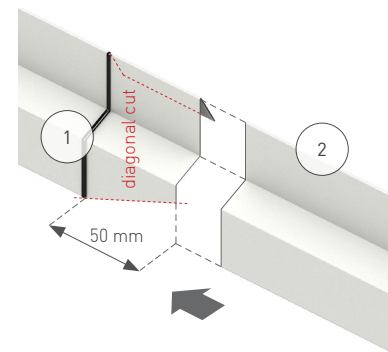
## Joining two drip flashings

Cut the first drip flashing as shown in the diagram below. Apply sealant to this flashing and position it under the adjacent drip flashing, ensuring an overlap of at least 50 mm.

## 2. assembly step

## Ensure water drainage

For water drainage, make small V cuts at the back of the flashing at approx. 3 m distance.



1. Mastic sealant
2. Drip flashing mask





## D

## D3.3 Parapet cap extension and fitting

This detail is provided as an illustrative example.

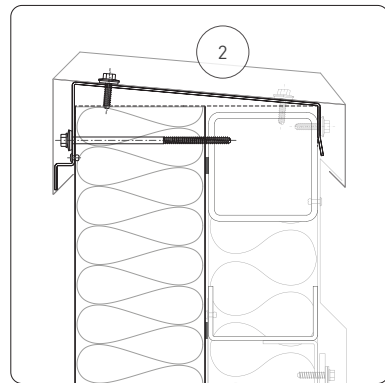
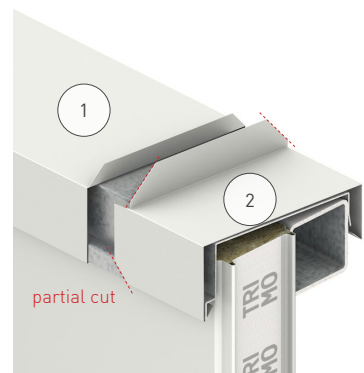


Fig. 4.3: Parapet cap cross-section

## 1. assembly step

## Join the parapet cap

Snap the parapet cap onto the metal sub-cap. Then fasten the parapet cap with screws as specified in the detail. Take care not to damage the waterproofing layers below (e.g., EPDM membrane).



1. Parapet flashing cap 1
2. Parapet flashing cap 2
3. Fastening screw
4. Vertical corner flashing

## 2. assembly step

## Join the parapet cap

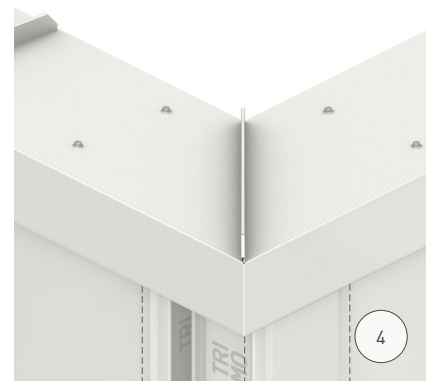
Execute the joint using a sheet-metal standing seam connection. Fasten the parapet cap with screws as specified in the detail.



## 3. assembly step

## Join the parapet cap on edge

Apply the standing seam principle to the parapet edge. This ensures continuity of the parapet cap and provides a uniform appearance whereby all joints look consistent.



## D

## D3.4 Fitting of aluminium HF102 fixing profile

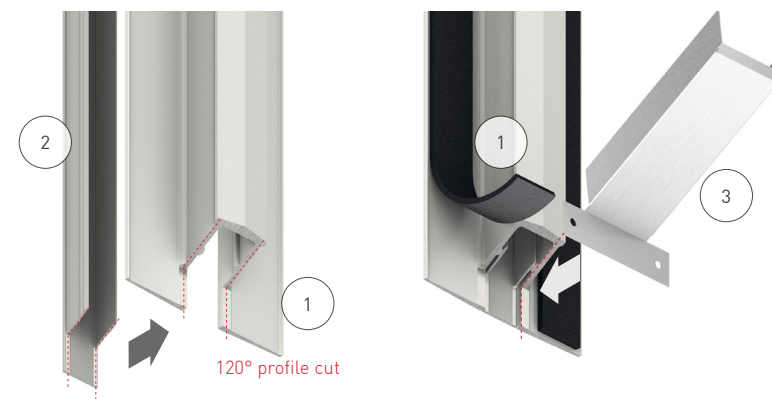
HF102 aluminium profiles serve not only a decorative and load bearing purpose but also provide sealing against water ingress. It is therefore essential to execute the drip edge detail and the profile extension detail correctly, in accordance with the instructions below. During installation, ensure that thermal expansion of the material is accommodated.

## 1. step

Cut the base of the HF102 aluminium profile on site.

## 2. step

Prior to installation, apply pre-compressed sealing tape to the inner side of the aluminium profile.



1. Fixing profile HF102
2. Decorative profile HF102/2
3. Profile drip flashing

## Assembly of HF102 aluminium fixing profile

Prior to installation, EPDM 6x25 sealing tape should be applied to the HF102 aluminium fixing profile. The seal must be applied to the profile edge. The optimum processing temperature, both for the bonding elements and the ambient temperature, is between +15°C and +30°C (60°F and 85°F). To achieve an optimum bond strength, the bonding surfaces must be dry and free of dust, oil, and release agents.

The cutting of profiles to a required length should be carried out by a suitable portable saw with a function that accommodates variable cutting angles. The deviation allowed is  $\pm 0.5$  mm at a width of 102 mm.

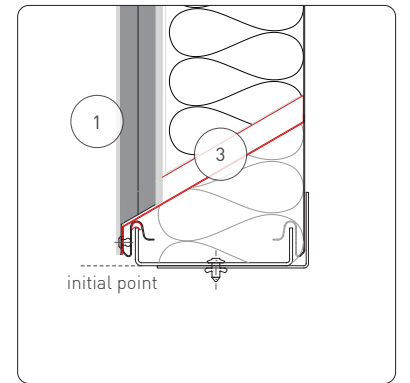


Fig. 4.4: Profile drip flashing in position.

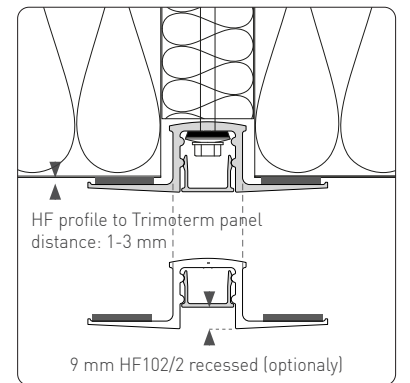


Fig. 4.5: Position of HF102 profile, and distance to Trimoterm panel.

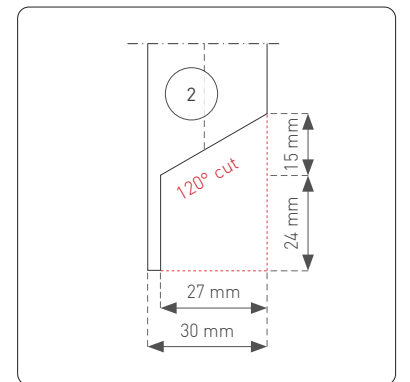


Fig. 4.6: The base of the aluminium profile is diagonally cut on site by the installer.



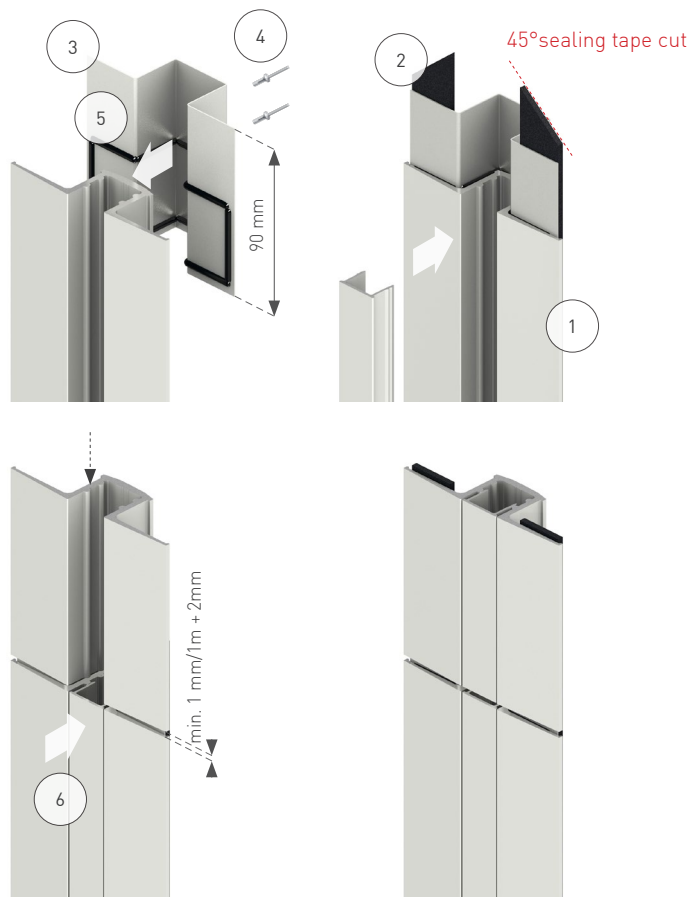
## D

## 1. assembly step

Apply the mastic seal in two longitudinal and transversal strips on the extension flashing. Install the extension flashing on the aluminium profile and fasten it with a rivet.

## 2. assembly step

Install the EPDM 6x25xL self-adhesive sealing tape on the internal side of the aluminium fixing profile. The extension of the EPDM 6x25xL self-adhesive sealing tape must be done at an angle of 45°.



1. Fixing profile HF102
2. 6x25xL self-adhesive sealing tape
3. Extension flashing
4. Rivet 4x10
5. Mastic sealant
6. Decorative profile HF102/2

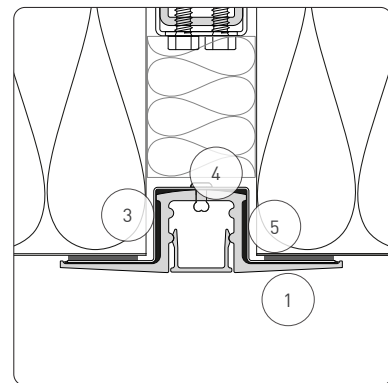


Fig. 4.7: Position of sealing tape on the HF102 aluminium profile.



## NOTES &amp; WARNINGS

The thermal dilatation gap on the HF102 profile extension must be min. 1 mm/1 m of profile +2 mm.

The HF102 fixing profile has the function of an edge fixing, but only for wind load. In order to transfer the load of the panel's weight, the back sheet metal of the panel must also be fastened.



## D

## D3.5 Fitting of aluminium HF140 extension profile

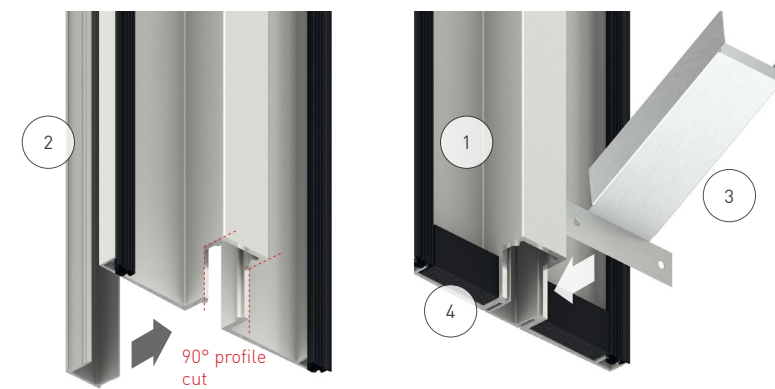
HF140 aluminium profiles serve not only a decorative purpose but also provide sealing against water ingress. It is therefore essential to execute the drip edge detail and the profile extension detail correctly, in accordance with the instructions below. During installation, ensure that thermal expansion of the material is accommodated.

## 1. step

Cut the base of the HF140 aluminium profile on site.

## 2. step

Prior to installation apply pre-compressed sealing tape to the inner side of the aluminium profile.



1. Extension profile HF140
2. Decorative profile HF140/2
3. Profile drip flashing
4. Pre-compressed sealing tape

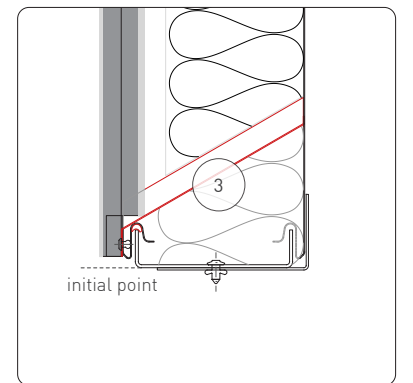


Fig. 4.8: Profile drip flashing in position.

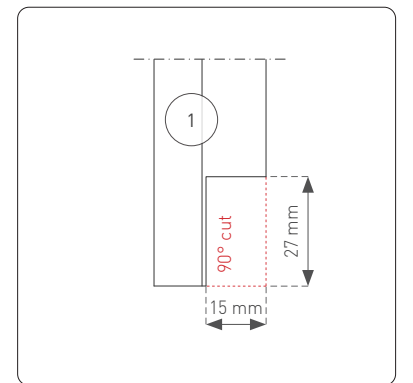


Fig. 4.9: The base of the aluminium profile is diagonally cut on site by the installer.





## D

### Assembly of HF140 aluminium extension profile

The sealing gasket is part of the HF140 aluminium extension profile. The seal must be applied to the profile edge. It enables rainwater to penetrate the facade system.

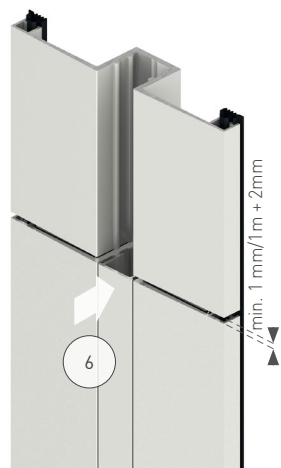
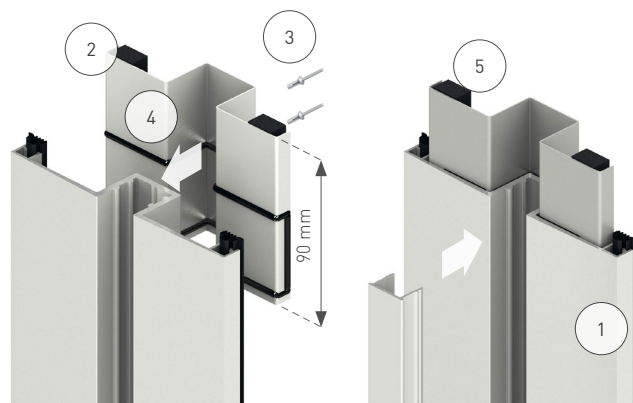
The cutting of profiles to the required length should be carried out using a suitable portable saw with a function that accommodates variable cutting angles. The deviation allowed is  $\pm 0.5$  mm at a width of 140 mm.

#### 1. assembly step

Apply the mastic seal to the extension flashing in two longitudinal and transversal strips. Install extension flashing with mastic seal on the aluminium profile and fasten it with a rivet.

#### 2. assembly step

Apply the self-adhesive pre-compressed sealing tape to the inner side of the extension flashing. Holes around the EPDM gasket must be filled with mastic seal.



1. Extension profile HF140
2. Extension flashing
3. Rivet 4x10
4. Mastic sealant
5. Self adhesive pre-compressed sealing tape
6. Decorative profile HF140/2



#### NOTES & WARNINGS

The thermal dilatation gap on the extension must be min. 1 mm/1 m of profile +2 mm.

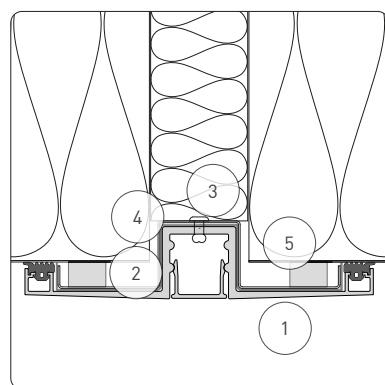


Fig. 5.0: Position of sealing tape on the HF140 aluminium profile

## D

### HF102 fixing profile assembly

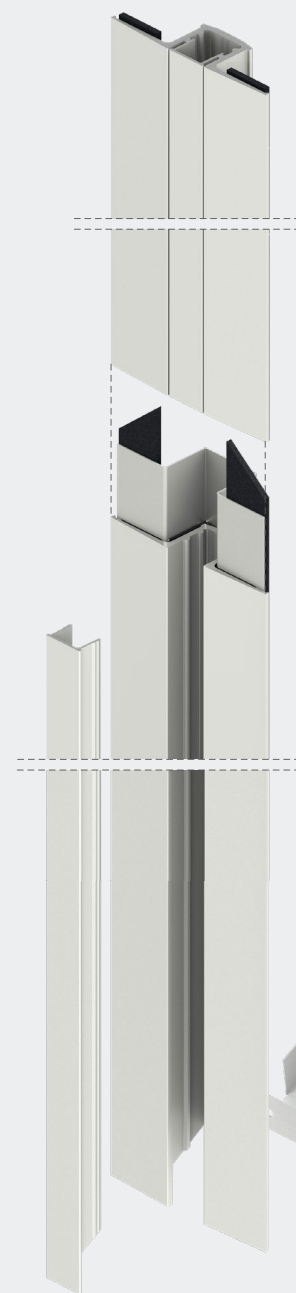


Fig. 5.1

PROFILE EXTENSION

PROFILE BASE

### HF140 extension profile assembly

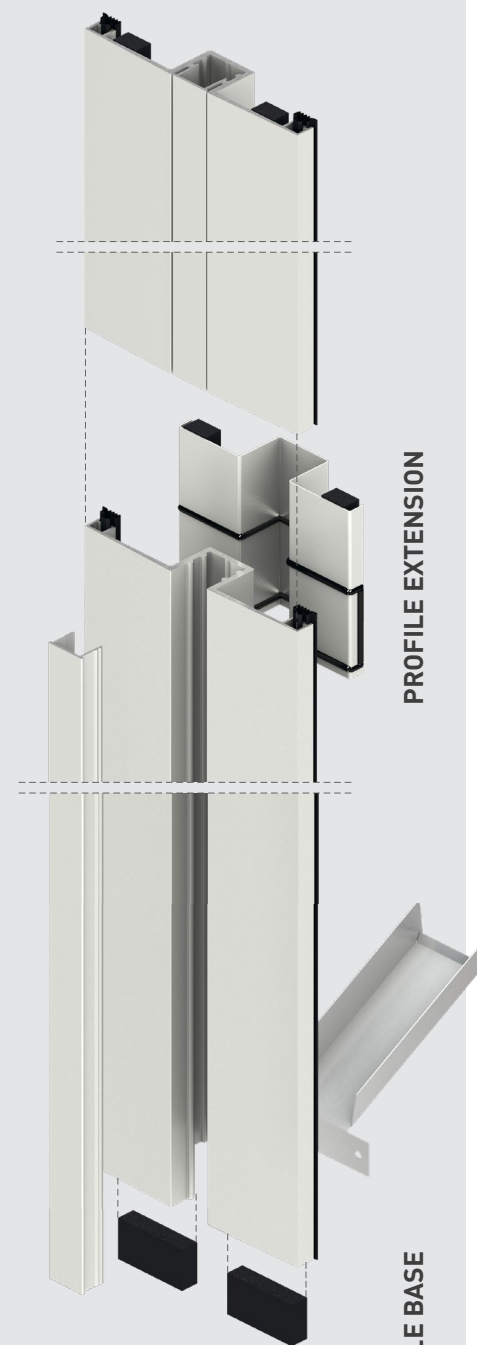


Fig. 5.2

PROFILE EXTENSION

PROFILE BASE





# E

# Life-cycle management

## E1 Replacement of damaged panels

Trimoterm facade panels can be replaced individually thanks to their modular and reversible design. Replacement of panels requires re-application of sealant prior to re-installing.

### E1.1 Replacement principles

#### Instructions 1

This document explains the disassembly steps of a horizontally installed panel wall according to detail TE-H-01.01. Every panel is fastened with screws across the panel.

#### Instructions 2

This document explains the disassembly steps of a vertically installed panel wall according to detail TE-H-01.02. Every panel is fastened with screws across the panel.



Instructions for replacing of horizontal Trimoterm FTV panel



Instructions for replacing of vertical Trimoterm FTV panel



# E

## E2 Panel life-cycle assessment

This product is part of a wider material cycle in which resources move through extraction, manufacturing, installation, use, and end-of-life processes. This diagram presents the full life-cycle structure, from the product stage (A1–A3) through end-of-life (C1–C4) and the potential for reuse and recycling (D). A5 covers impacts linked to installation on the construction site, including handling, cutting, fastening, and the treatment of packaging and installation waste. Module C1 marks the first step of the end-of-life stage and includes the physical removal of the product from the building. Together, these interconnected stages define the product’s overall life-cycle profile.

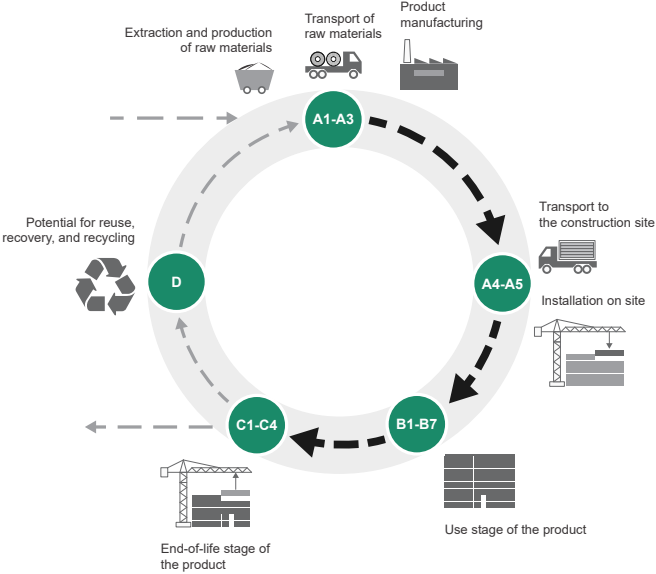


Fig. 5.3





# E

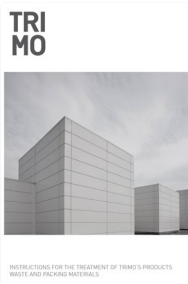
## E3 End of panel life-cycle

Panel waste can take various forms, including offcuts from panel cutting, leftover materials, damaged panels, or debris from building construction and demolition. These panel remnants should be disassembled into their individual layers, and the constituent materials should be separated accordingly.

For more information on the end-of-life treatment of Trimo's product waste and packaging materials, see:



Treatment of Trimo's products waste and packing materials document



# F Related documents

## F1 Related Trimoterm documents

This chapter contains all the relevant technical documents for additional information on Trimoterm panels. These documents include structural design data, technical specifications, guidelines, and other resources essential for a comprehensive understanding of the subject. For further information about the panels visit:



[www.trimo-group.com/en/downloads/technical-documents](http://www.trimo-group.com/en/downloads/technical-documents)

Insulated façade system - Trimoterm FTV	Fire-resistant internal wall system - Trimoterm FTV	Backing wall - insulated façade system - Trimoterm FTV	Foogiene - food and hygiene internal wall system - Trimoterm FTV	Flat roof system - Trimoterm FTV	Internal wall system - Trimoterm FTV
Trimoterm technical specifications	Trimoterm structural design data	Trimo flashing catalogue	Trimo accessories catalogue	Instructions for use / gripper for Trimoterm panels	Packaging, transport and storage for Trimo products
Trimoterm FTV book	Treatment of Trimo product waste and packing materials	TrimoDesign YouTube channel			



# Notes

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# GLOBAL PRESENCE



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