Rainbodeck G-PANEL Installation Guide

Storage and transport

Prepare a flat, clean storage area:
1. Place fence panels and accessories on wooden battens spaced 400-500mm apart. This prevents the composite material from direct contact with standing water, dust, or grit, avoiding scratches, moisture damage, and deformation.
2. For outdoor storage, fully cover the G-panel with a protective sheet. Do not lean G-panel against walls for extended periods to prevent bowing and warping. When stacking, never drag, drop, or slide G-panel to avoid surface scratches.
3. Keep the work area clean and tidy to prevent construction dust and debris from adhering to panel surfaces, which would affect the final appearance after installation.



PRECAUTIONS

The E-cladding is not a structural product.
Installing in temperatures below 5°C or above 30°C is not recommended.
Do not install the E-cladding near a heat source.

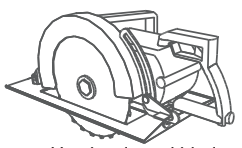
SAFETY & ENVIRONMENTAL REQUIREMENTS

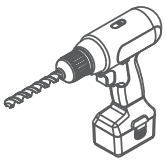
1. Wear safety goggles, gloves, and other protective gear during installation. Follow all power tool safety rules when using drills, cutters, etc.
2. Do not install in strong wind, rain, or freezing conditions to prevent unstable post anchoring or panel damage.
3. Clean the installation site after completion, removing all tools and debris, and wipe down panels to remove dust and oil residues.

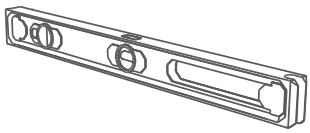


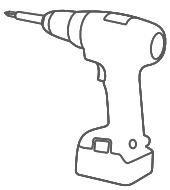
TOOLS

For best results, use carbide tipped blades. When using a drop saw we recommend a 60-80 tooth blade for cutting.


Use hardwood blades









STRUCTURAL & HARDWARE REQUIREMENTS

1. All fasteners must be made of stainless steel or hot-dip galvanized material to prevent rust and failure in outdoor conditions.
2. After installation, check that all screws are tightened and end caps are fully seated to prevent water ingress, corrosion, and loose parts.
3. For multi-section installations, ensure consistent level and plumb alignment.

GENERAL GUIDELINES & INSTALLER'S RESPONSIBILITY

1,Consult local building code officials regarding applicable requirements for specified project.

2,Where required,check with local officials for wind load or any other specified requirements.

3,Consult any neighborhood associations and/or historic districts that may regulate size, placement, and type of cladding.

4,Check local building codes for additional restrictions and requirements.

5,Ensure all installations use accepted building practices and comply with local code and zoning requirements.

6,Understand that an installer is capable of installing G-PANEL.

7,These instructions were prepared for installers with experience in the field of G-PANEL installation. It is assumed individuals have a working knowledge of the tools and application process.

8,Do NOT install G-PANEL directly in contact with sheathing that lacks sufficient and proper ventilation.

9,Extreme heat conditions, such as proximity to cooking grills and fire pits or concentrated/reflected light from glass, could result in damage to G-PANEL. Any concerns about potential damage and mitigation of risk should be addressed to the Official Rainbodeck distributor.

10,G-PANEL may not be suitable for every application. Determining the suitability for the intended use is the sole responsibility of the installer

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PRE-CONSTRUCTION AND DESIGN CONSIDERATIONS

1,For a re-siding application, it is recommended to remove the old siding prior to installation of G-PANEL.

2,Always install G-PANEL over a flat substrate or a suitable cladding or ceiling substructure. Remember, your installation will be only as straight and stable as the structural plane and materials behind it.

3,G-PANEL contracts and expands in response to temperature changes. This dynamic needs to be addressed via proper gapping and fastening in the layout of window and door openings, terminations, corners, and intersections with other roofline and cladding materials.

4,When laying out boards for optimal utilization of materials, take into account the side-to-side and end-to-end gapping instructions.

5,It is required that the boards be laid out in the shade 24 hours prior to their installation. This will allow the boards to acclimate to ambient temperature as well as enable the installer to sort the boards for optimal aesthetics. Keep the boards out of direct sunlight.

Notes

1, Pilot-drilling is required. Pilot-drilling to prevent stress cracking., Note that pilot-drilling will always produce the best results, regardless of the type of screw used.

2,Always use a fastener that is suitable for the job, especially in salt water and salt spray environments. Note that rust stains resulting from fasteners are not covered by stain and fade warranty.

3, Check the level and plumb of the G-PANEL boards often during installation.

4, When butting ends, ensure a sufficient gap is left for thermal expansion/contraction.

5, Screws must always be installed perpendicular to the board. Angling screws is not permitted, as this will result in cracking due to thermal expansion/contraction.

6, Do not attach G-PANEL to structural members that are rotted, damaged, or otherwise insufficiently strong.

7, Do not over tighten the screws and adjust torque settings according to the drill/screw driver manufacturer's instructions.

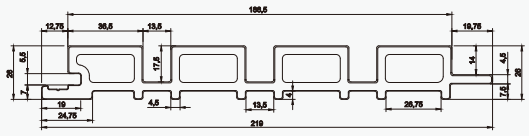
8,Do not caulk joints at board ends or between boards, as this effectively removes the gap.

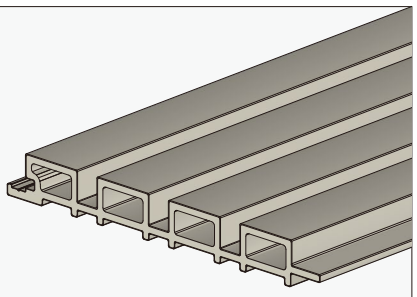
9, At the top of the wall, it may be necessary to cut the board to the required width.

10, The RBD G-PANEL system offers a level of water resistance but is not designed to be a fully waterproof system.

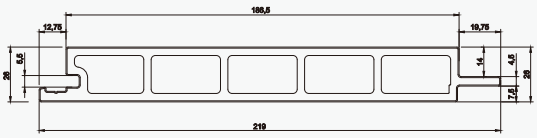
PRODUCT COMPONENTS

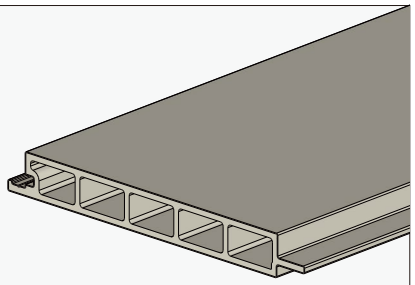
COSHIELD
G-PANEL



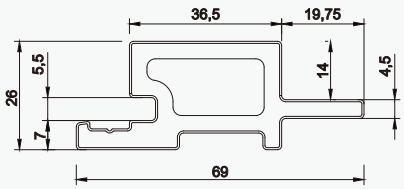


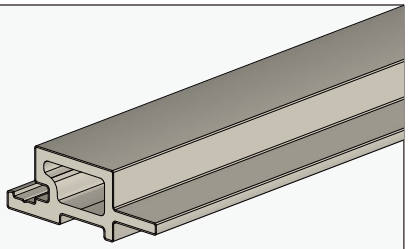
COSHIELD
G-PANEL(FLAT)



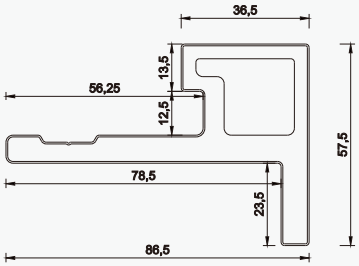


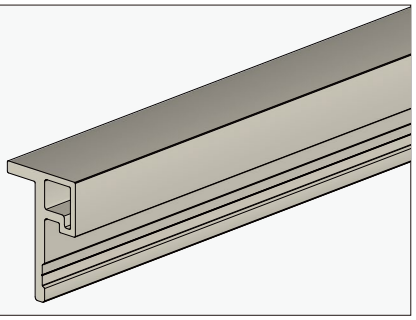
COSHIELD G-PANEL
ADJUSTMENT TRIM



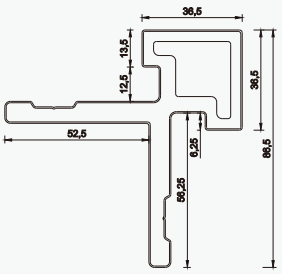


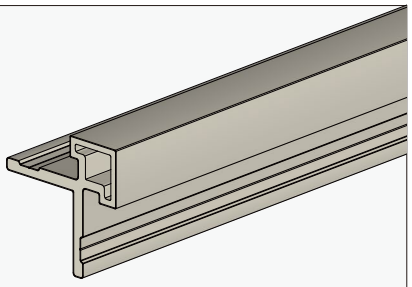
COSHIELD G-PANEL
START/END TRIM



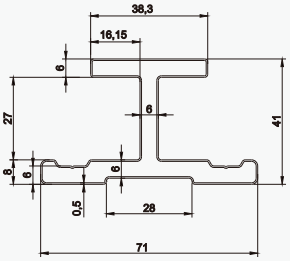


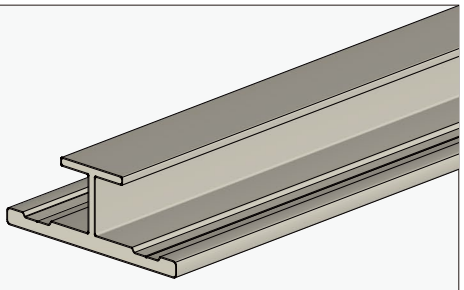
COSHIELD G-PANEL
EXTERNAL CORNER TRIM





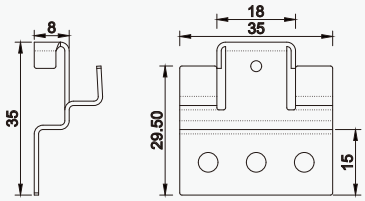
COSHIELD G-PANEL
EXTERNAL JOINT TRIM

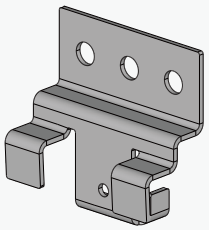




PRODUCT COMPONENTS

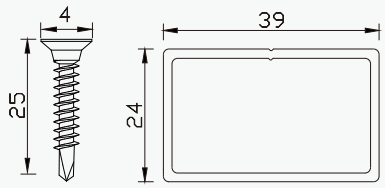
A2 S/S CLIP-G
(FOR G-PANEL /G-PANEL FLAT)

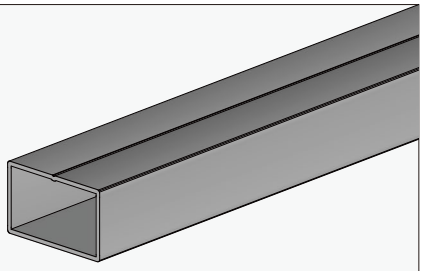




JOIST option1

ALU.JOIST
(The thickness of joist must be ≥ 24mm)

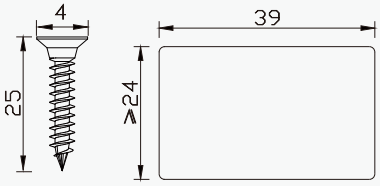


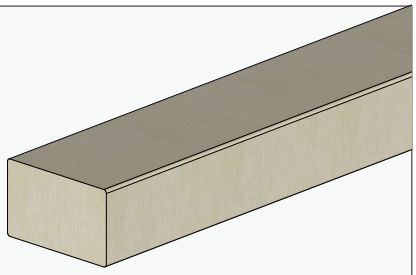


JOIST option2

WOODEN JOIST
(The thickness of joist must be ≥ 24mm)

(Rainbodeck does not provide WOODEN JOIST)





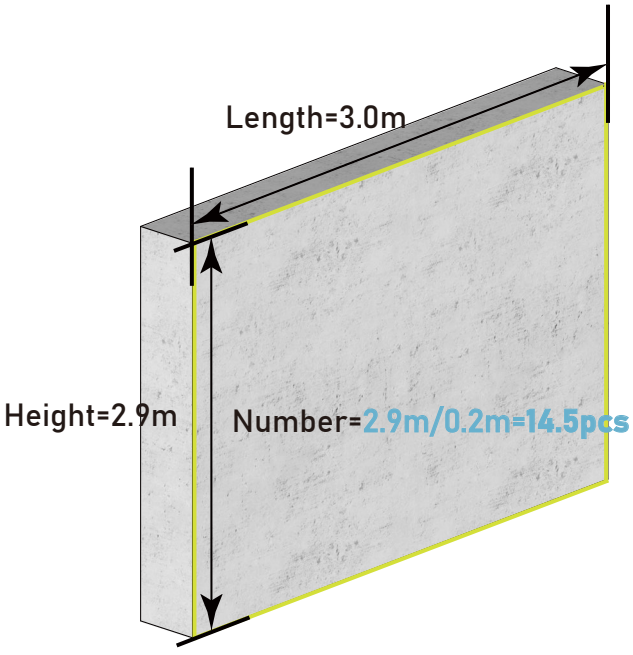
CALCULATING MATERIAL

Step 01: First, determine which types of profiles will be used.
Step 02: Measure the total length and total height of the area .
Step 03: Divide the total length by 200mm to calculate the number of g-panels and trims required.

Example :
Step 01:start/end trim,g-panel,adjustment trim

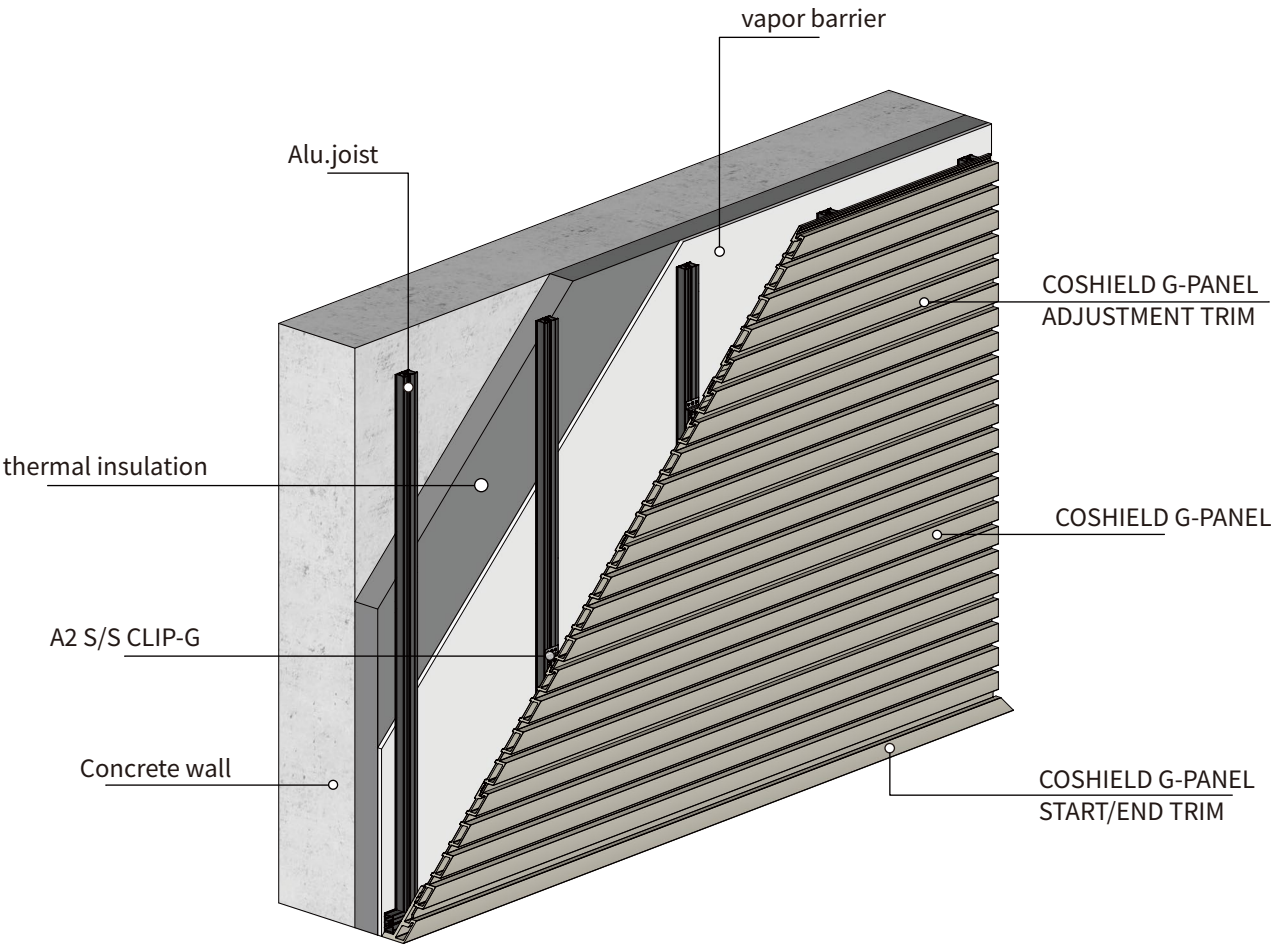
Step 02:
horizatical installation
Length=3.6m,Height=2.9m

Step 03:
Total number=2900mm/200mm=14.5pcs
number of g-panel=14pcs
number of adjustment trim=2pcs



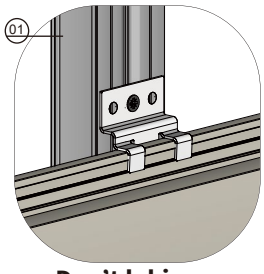
Wall structure

We suggest that each wall panel should be supported by a single keel, and the distance from the center to the center of this keel should not exceed 400mm. Here is a standard layered structure example during the installation process. Please note that during the installation, do not disrupt this layered structure!

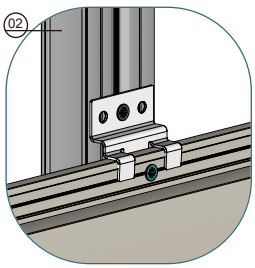


Locking G-Panel Board

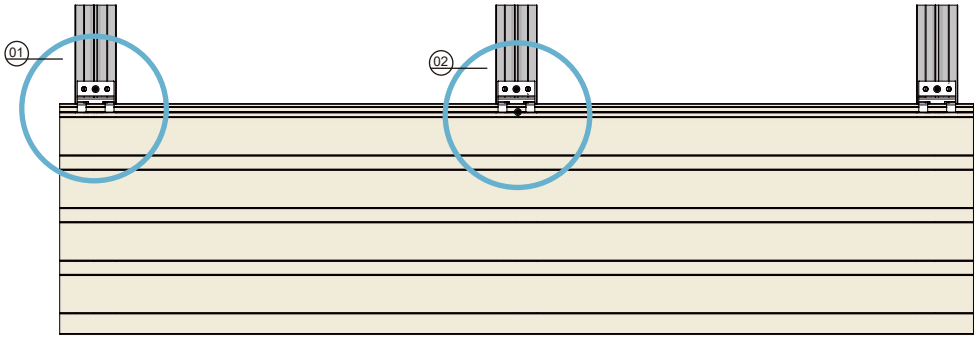
Since WPC must be able to accommodate the expansion and contraction caused by temperature changes, each sheet of material must be locked at a fixed position, but only at one point for each sheet, so that the remaining parts can freely expand and contract.



Don’t loking



Loking



Don’t loking
with screw in the side

Loking
with screw in the middle

Don’t loking
with screw in the side

Expansion and contraction

CAPPING

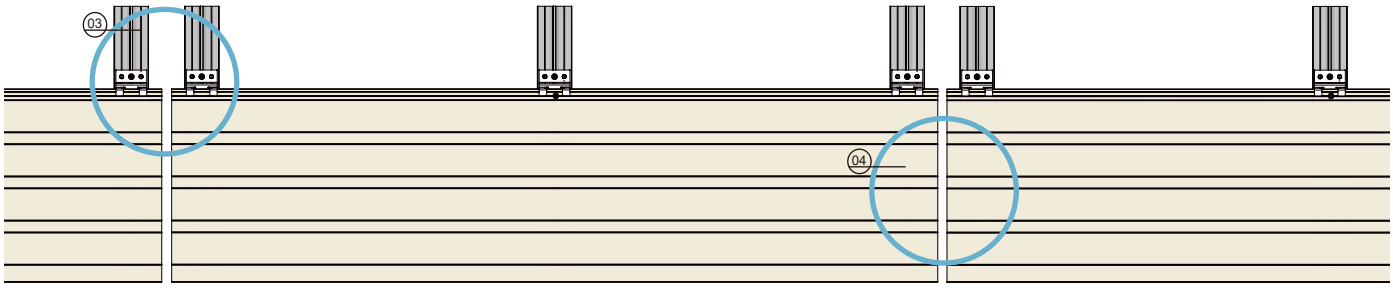
Sufficient gap around the boards to enable air circulation and provide the material adequate space for expansion and contraction. Installations made without adequate air flow or a gap will void the warranty.
The following installation standards must be maintained:
Between the cladding board and any solid object such as a wall or post: 10 mm.
Miniumum gap requirement in between cladding boards,end-to-end or end-to width: follow instruction below

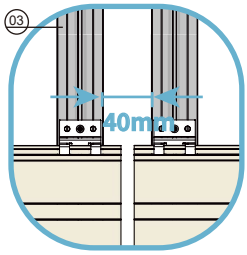
Temperature difference: Highest of the year Vs date of installation		0-5°C	5-10°C	10-20°C	20-30°C
Length of a board piece	<1m	1	2	3	4
	1-2 m	2	3	4	5
	2-3 m	3	4	5	6
	3-4 m	4	5	6	7

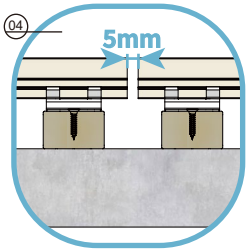
The longer the board, the more it will expand and contract

Unit: mm

The gap between the two boards



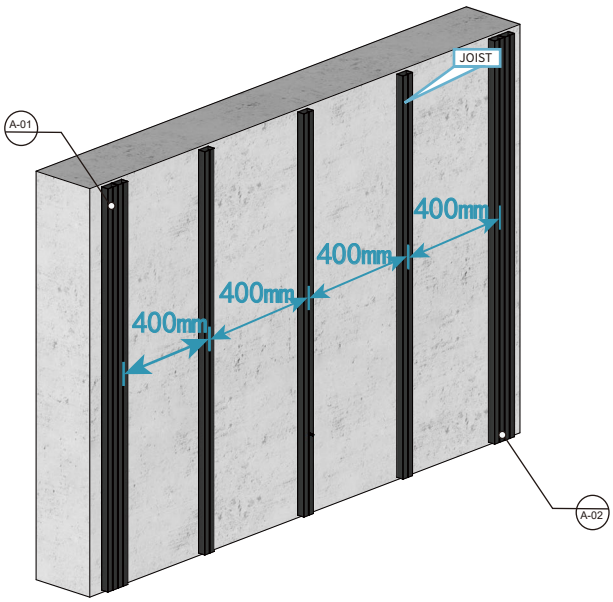


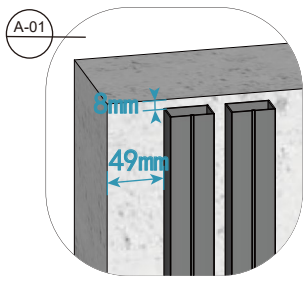


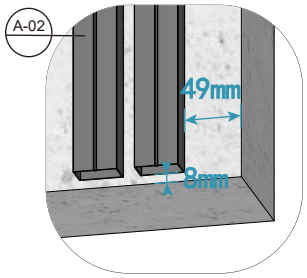
Horizatical installation——single wall

01 Joist installation

- Use wooden keels (fixed with countersunk wood screws) or aluminum keels (fixed with countersunk screws)
- Install the wall panels horizontally and need to install the keels vertically
- The span between the centers of the two keels should be ⩽ 400mm
- The starting position and the ending position should use double keels



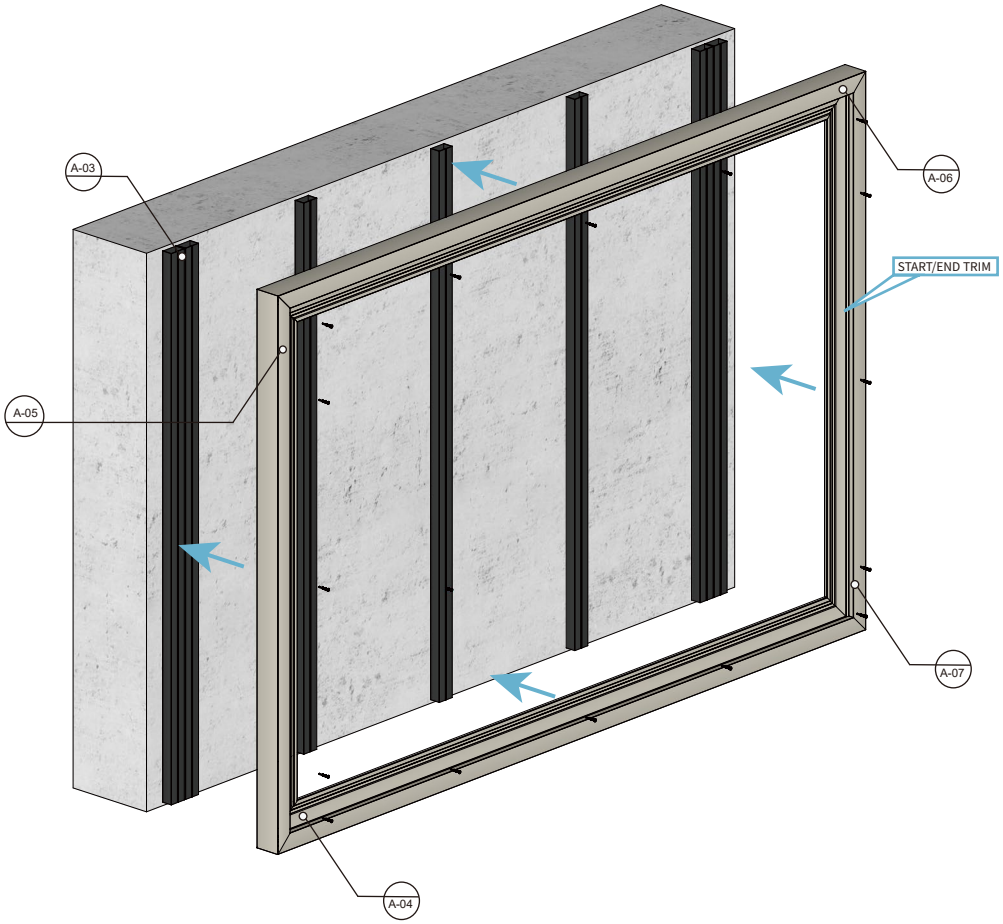


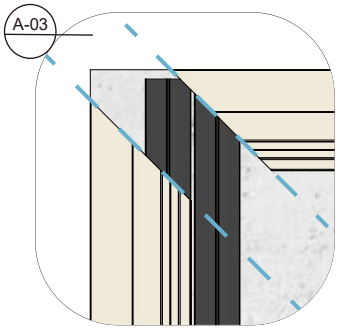


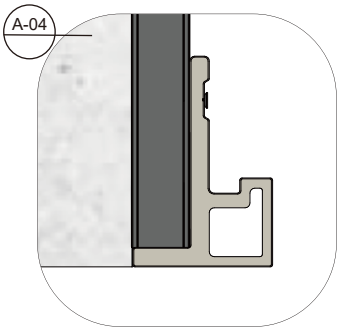
02 Trim edge installation

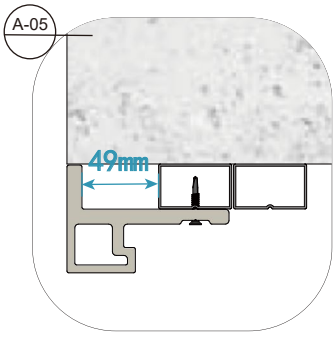
- Use countersunk wood screws or drilling screws to fix all trims

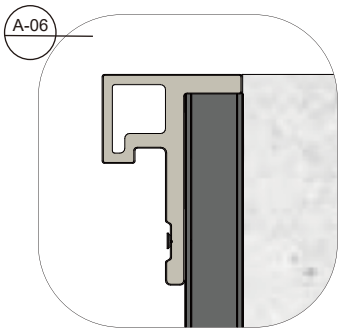
- A frame shaped like a picture frame can be formed by making a 45-degree diagonal cut at the corner, which is more aesthetically pleasing.

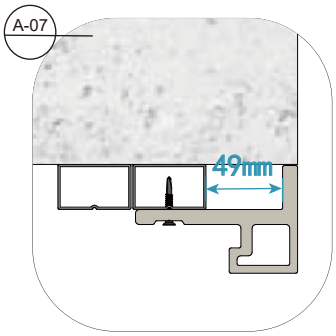








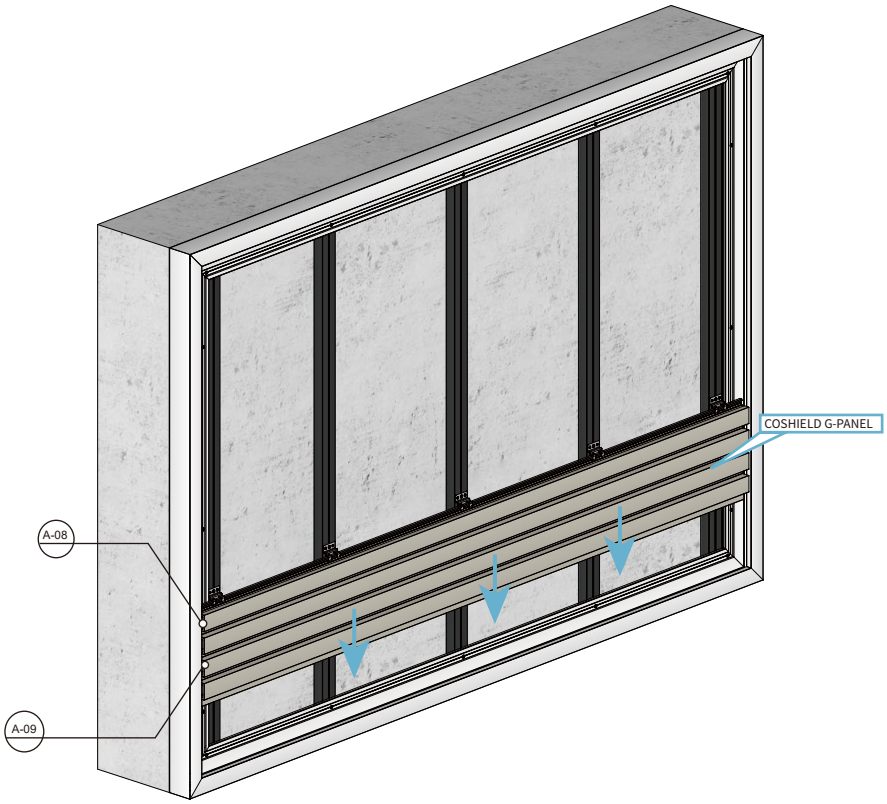


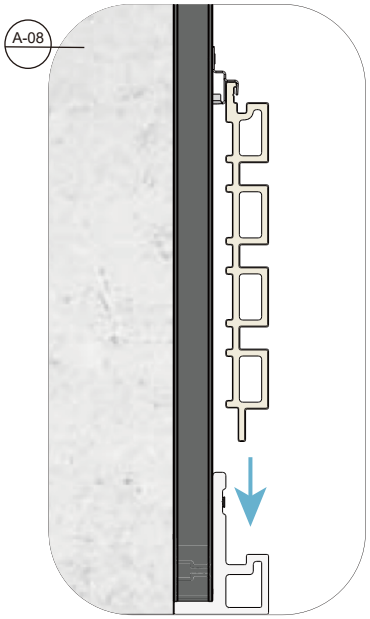


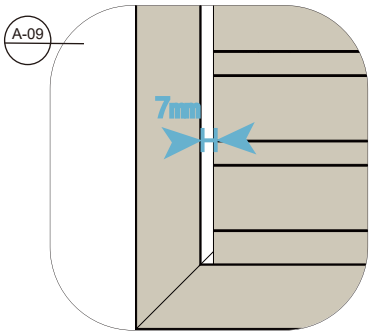
03 The first board installation

- A gap of 7mm should be maintained at the beginning and the end.

- First, use the CLIP-G to hold the first board, and then use wood screws or drill screws to fix the CLIP-G onto the main beam.

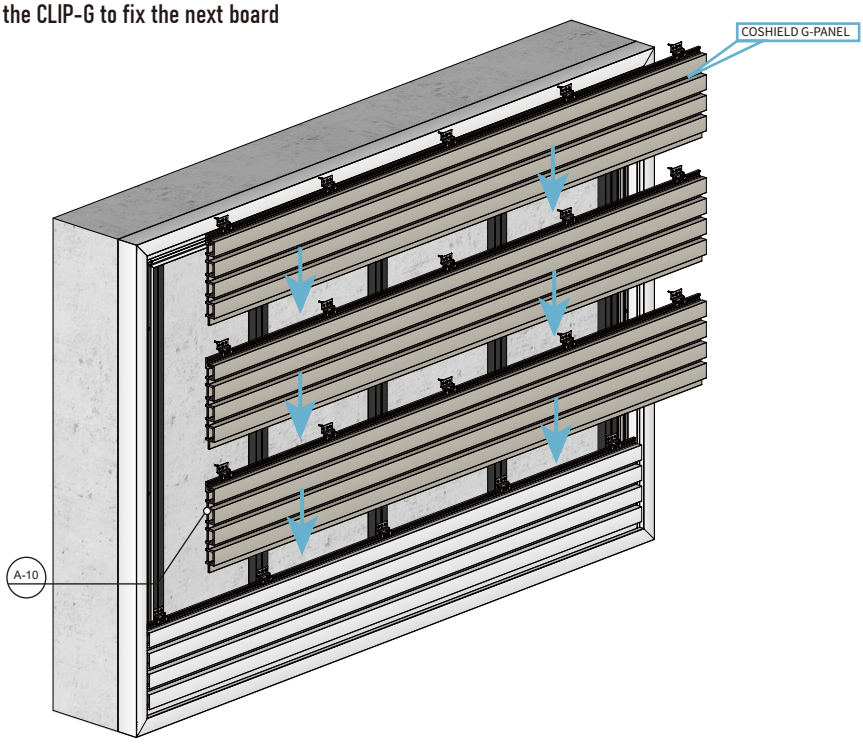


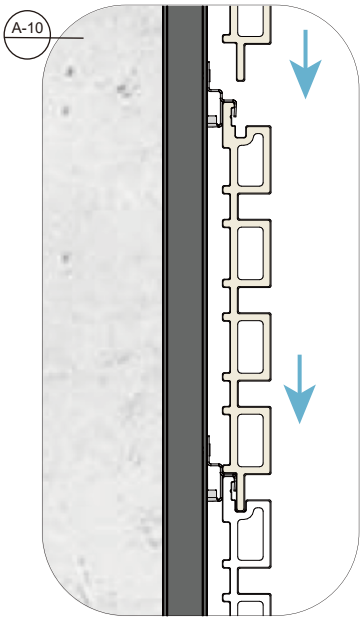




04 The next board installation

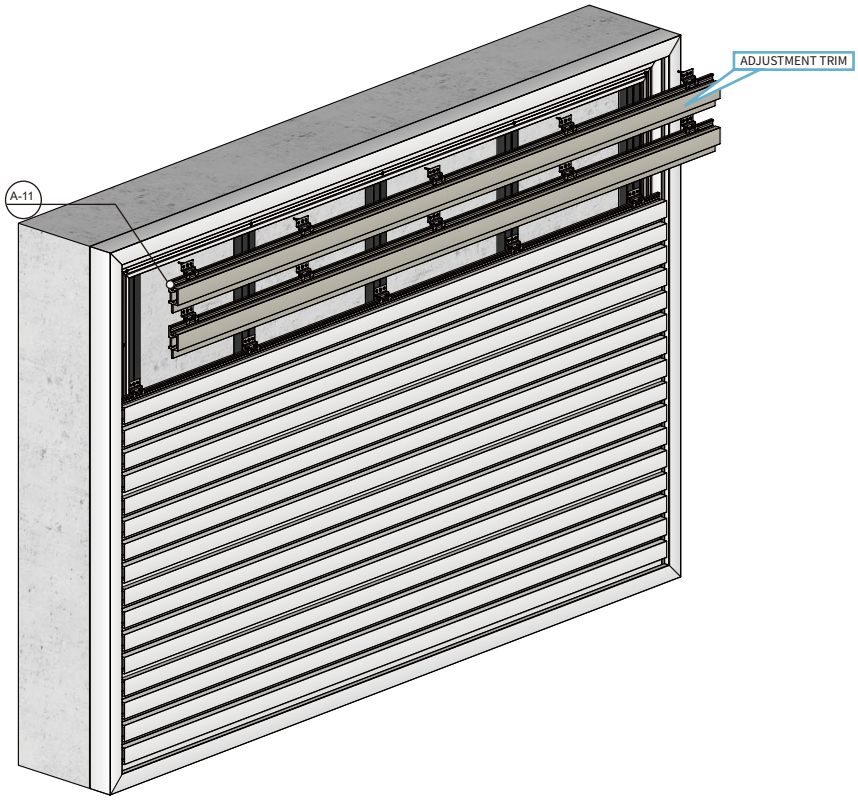
- use the CLIP-G to fix the next board

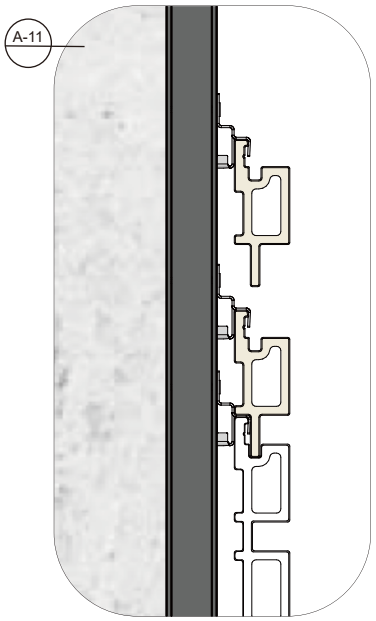




05 The penultimate adjustment trim installation

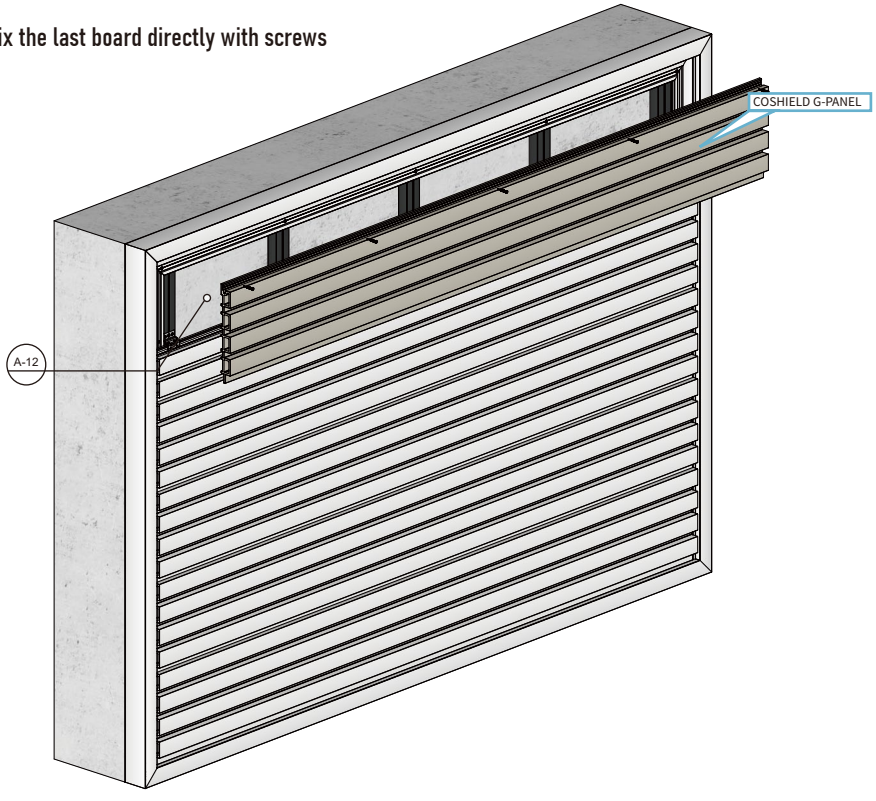
-Before installing the last board, it must install the adjustment trim first.

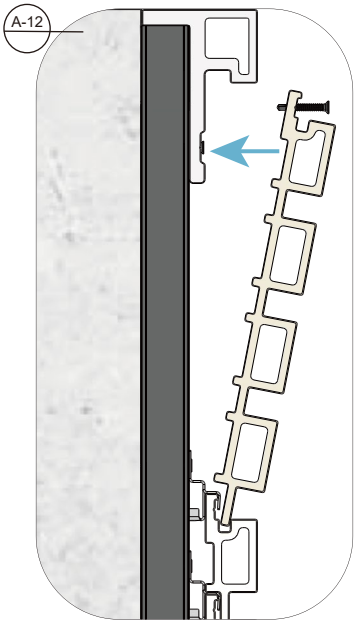




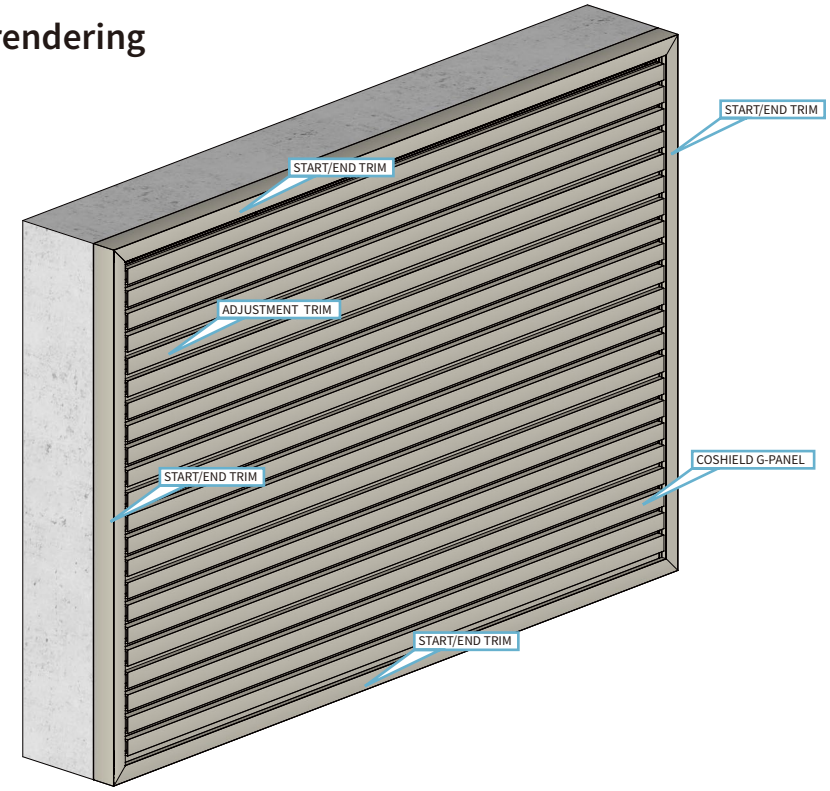
06 The last board installation

-Fix the last board directly with screws



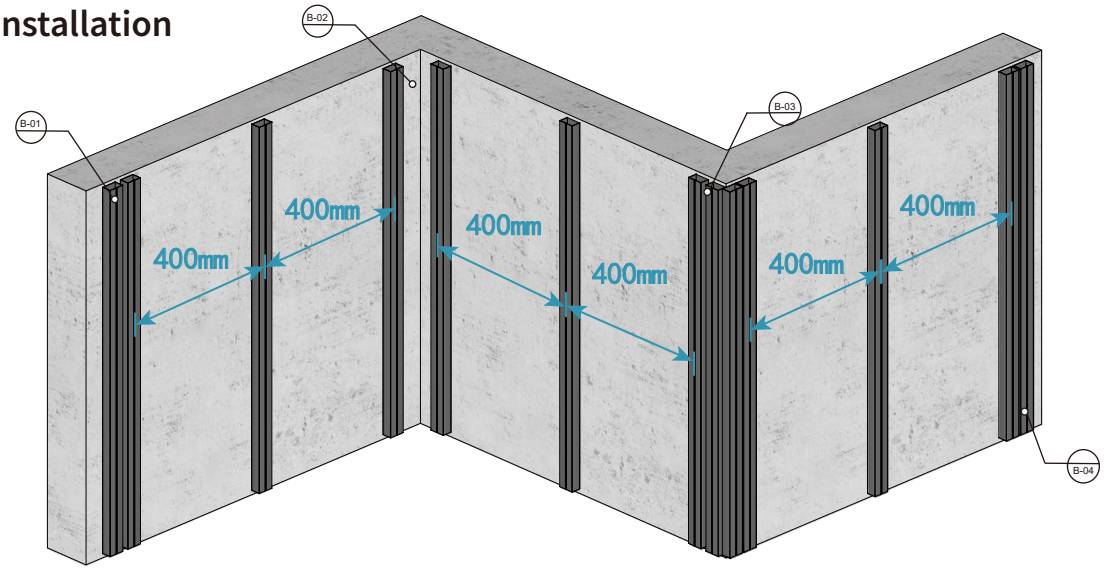


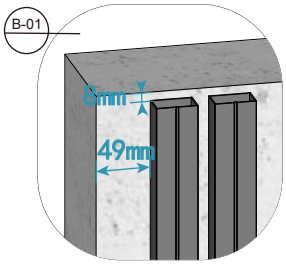
07 The final rendering

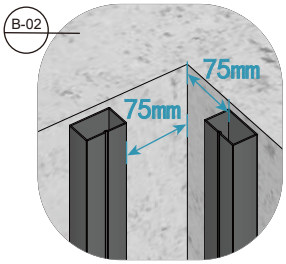


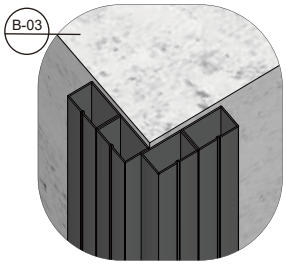
Horizatical installation——Various types wall

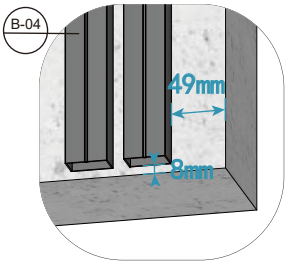
01 Joist installation





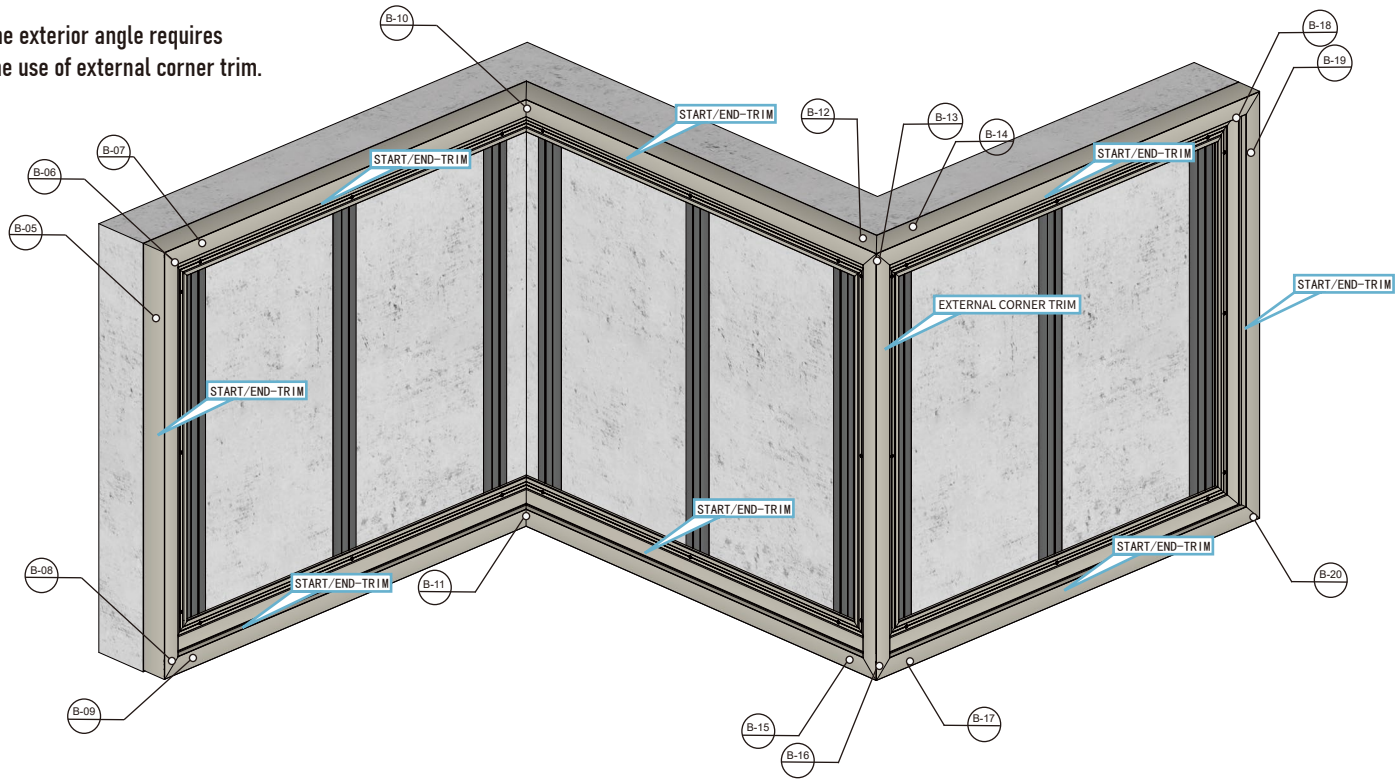


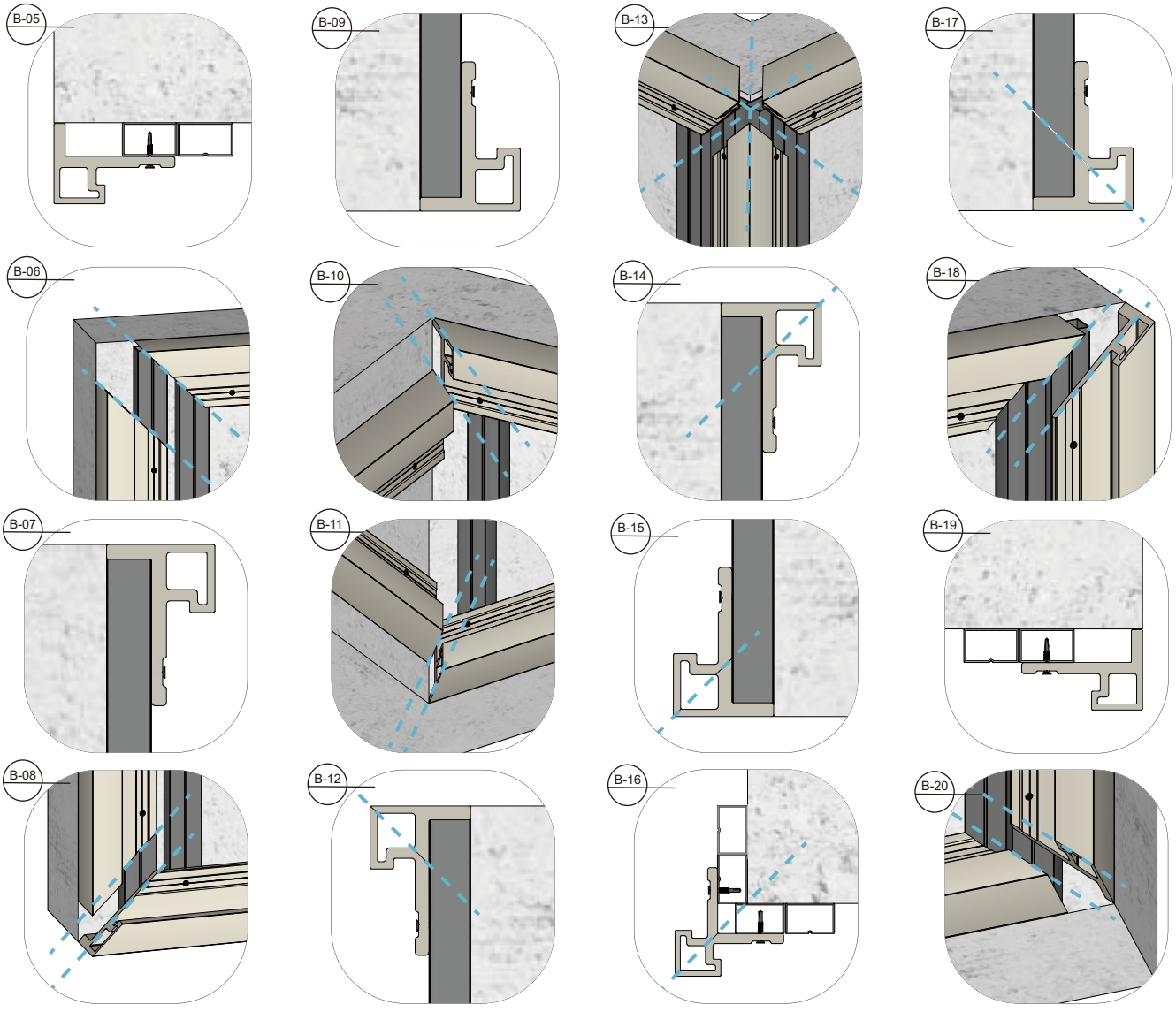




02 Trim edge installation

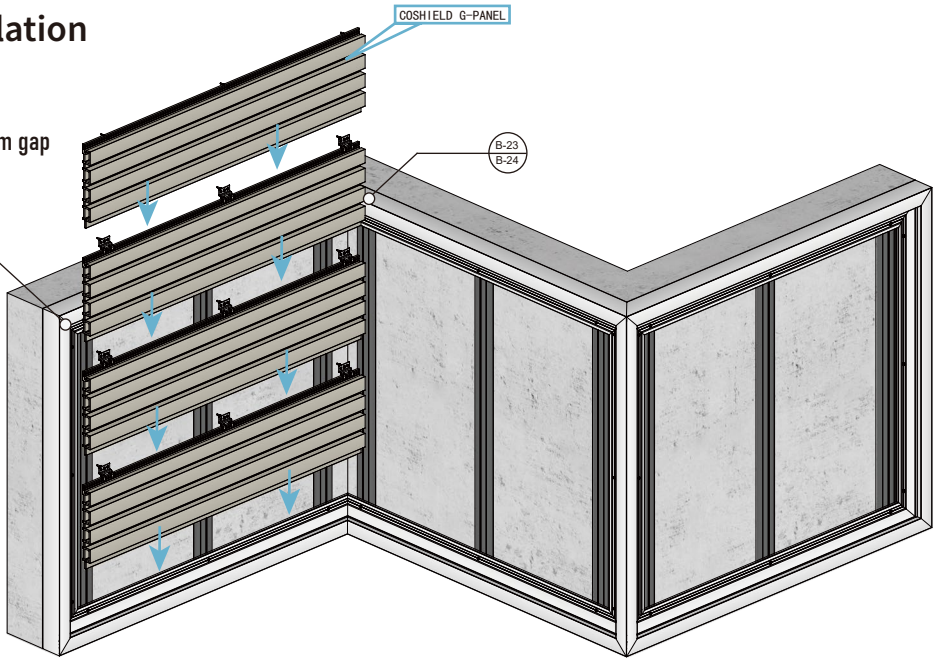
- The exterior angle requires the use of external corner trim.

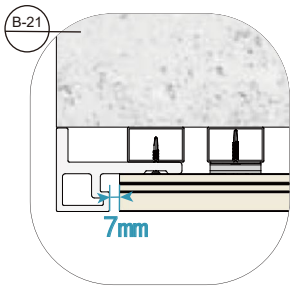


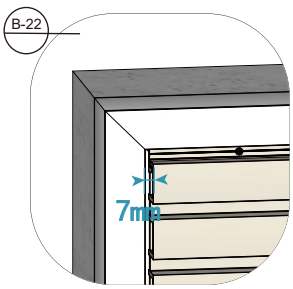


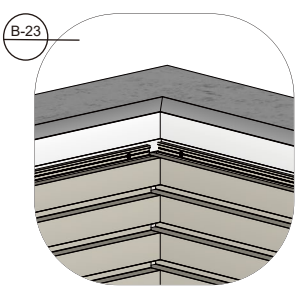
03 Interior wall installation

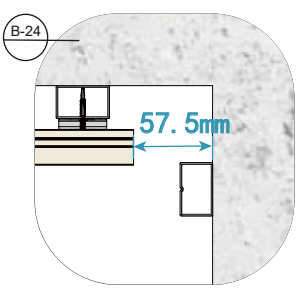
- The starting position should have a 7mm gap reserved between the G-PANEL and the starting piece.
- The position of the inner angle can be reserved with a 57.5mm gap in advance.





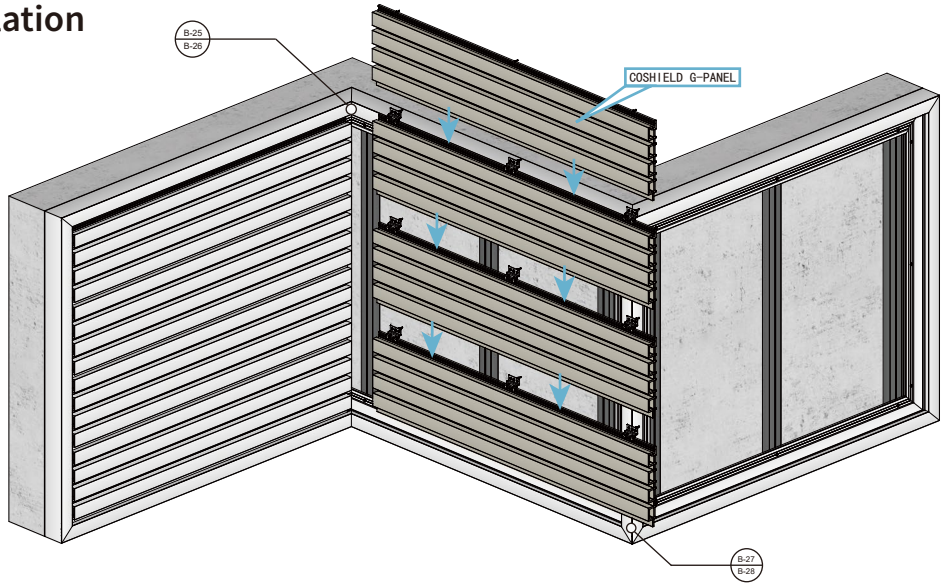


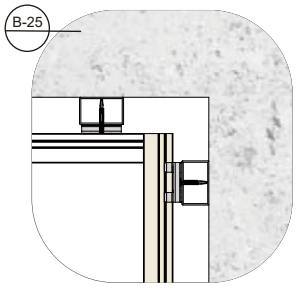


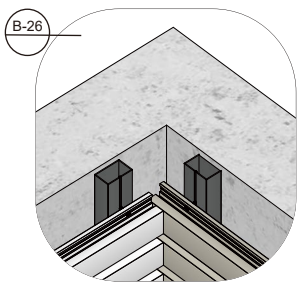


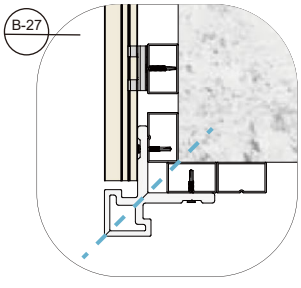
04 Corner wall installation

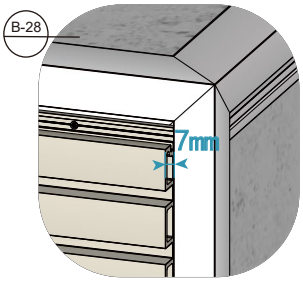
- A 7mm expansion and contraction gap needs to be reserved between external corner trim and G-PANEL.







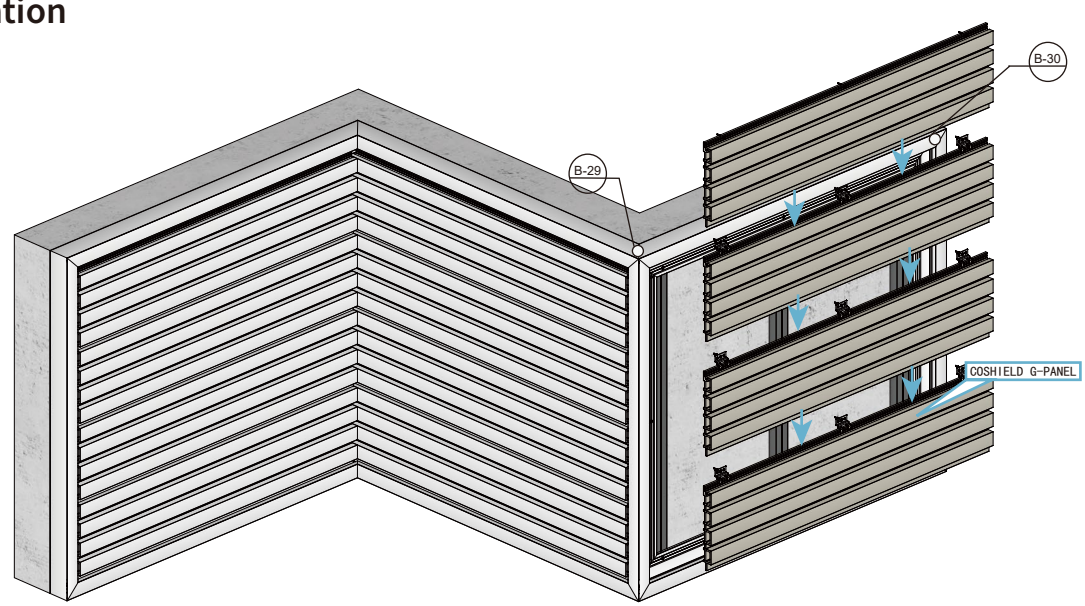


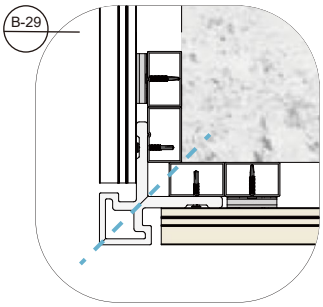


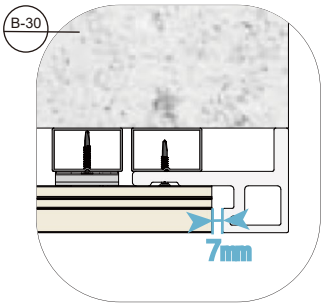
05 Corner wall installation

- A 7mm expansion and contraction gap needs to be reserved between external corner trim and G-PANEL.

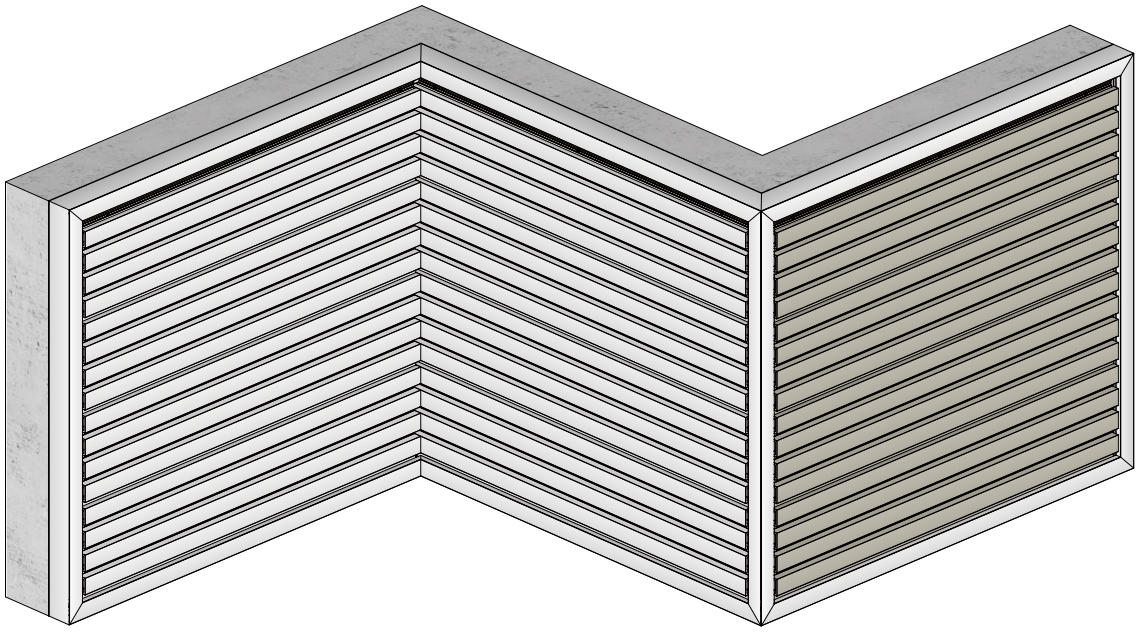
- A 7mm expansion and contraction gap needs to be reserved between the start/end trim at the end and the G-PANEL.





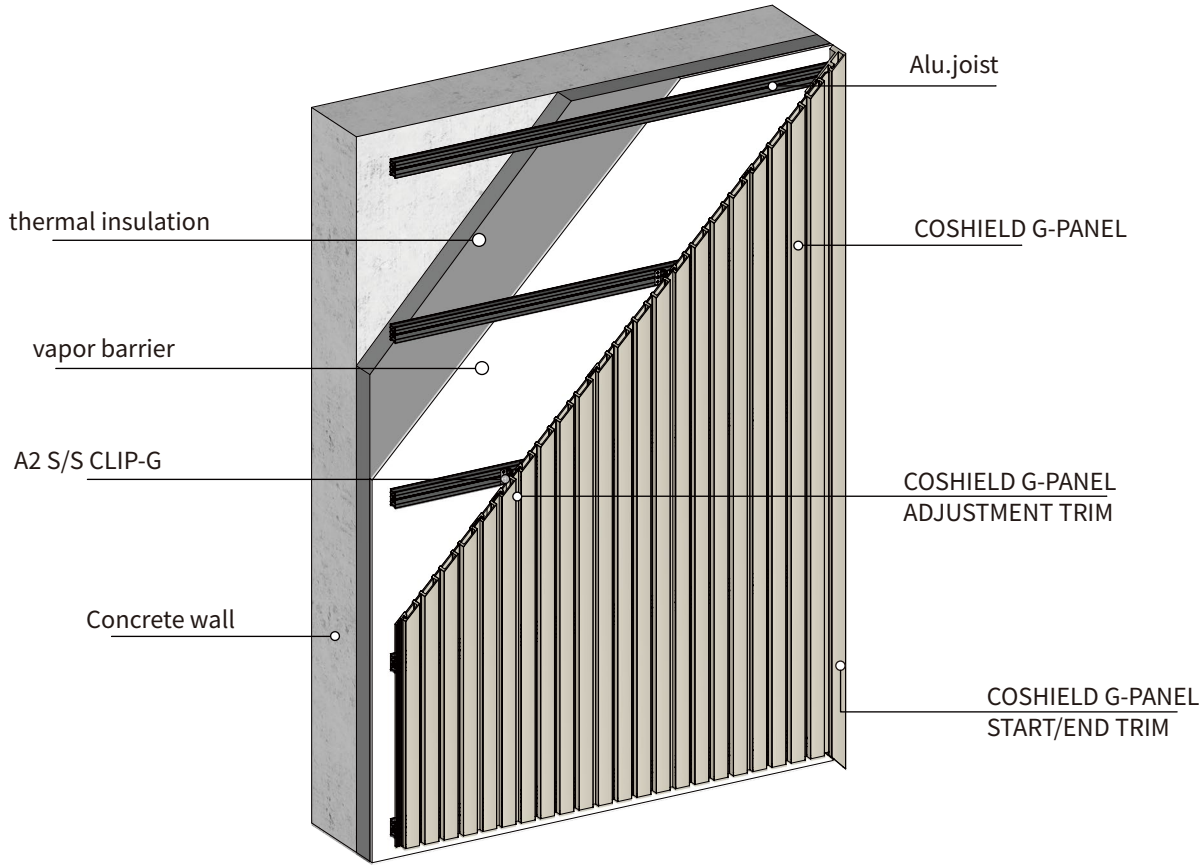


06 The final rendering



Wall structure

We suggest that each wall panel should be supported by a single keel, and the distance from the center to the center of this keel should not exceed 300mm. Here is a standard layered structure example during the installation process. Please note that during the installation, do not disrupt this layered structure!

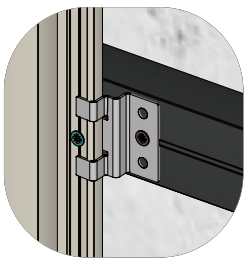


Vertical installation

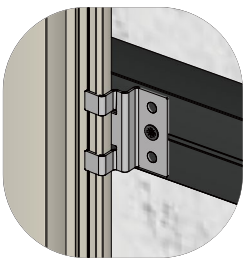
Since WPC must be able to accommodate the expansion and contraction caused by temperature changes, each sheet of material must be locked at a fixed position, but only at one point for each sheet, so that the remaining parts can freely expand and contract.

When installing vertically, it needs to be secured to the first and second joists on the bottom.

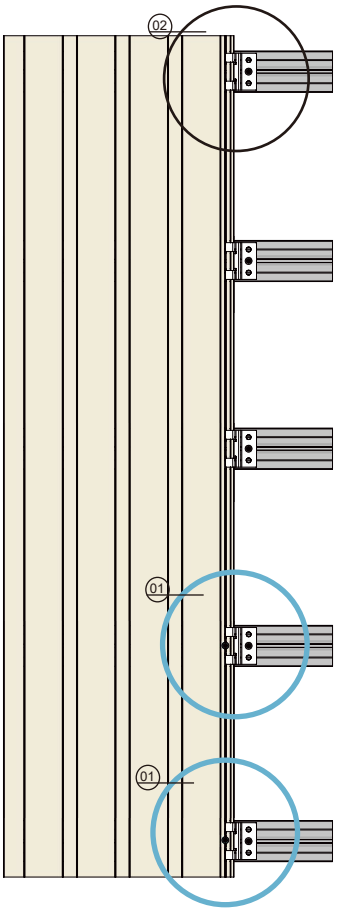
Expansion and contraction



Loking



Don't loking



Don't loking
with screw in the top

Don't loking
with screw in the next

Don't loking
with screw in the third

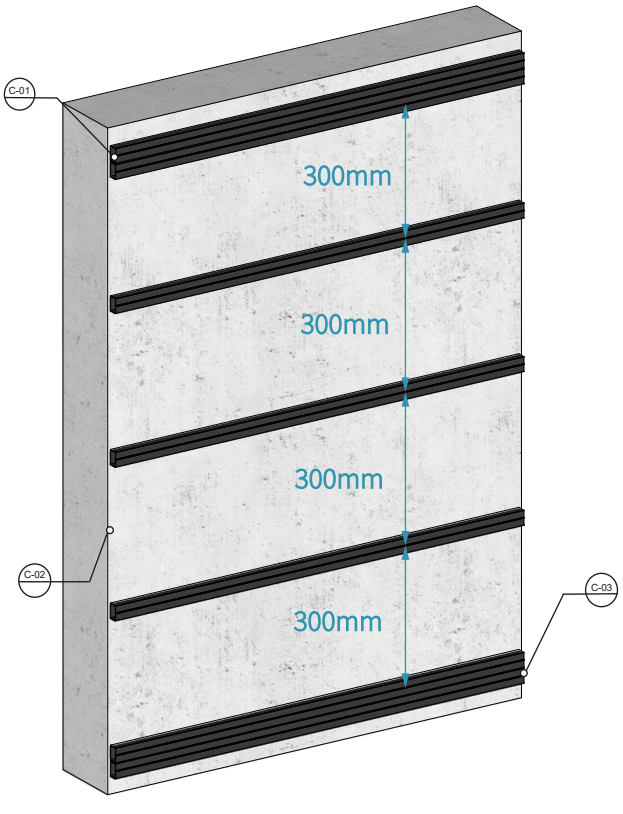
Loking
with screw in the second

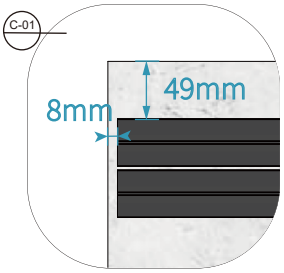
Loking
with screw in the bottom

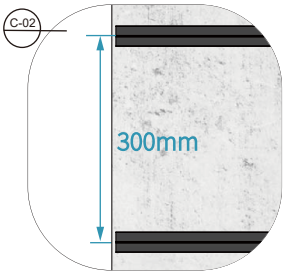
Vertical installation——single wall

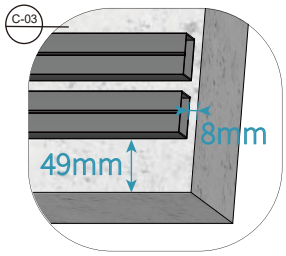
01 Joist installation

- Use wooden keels (fixed with countersunk wood screws) or aluminum keels (fixed with countersunk screws)
- Install the wall panels vertical and need to install the keels vertically
- The span between the centers of the two joists should be ⩽ 300mm
- The top position and the bottom position should use double keels



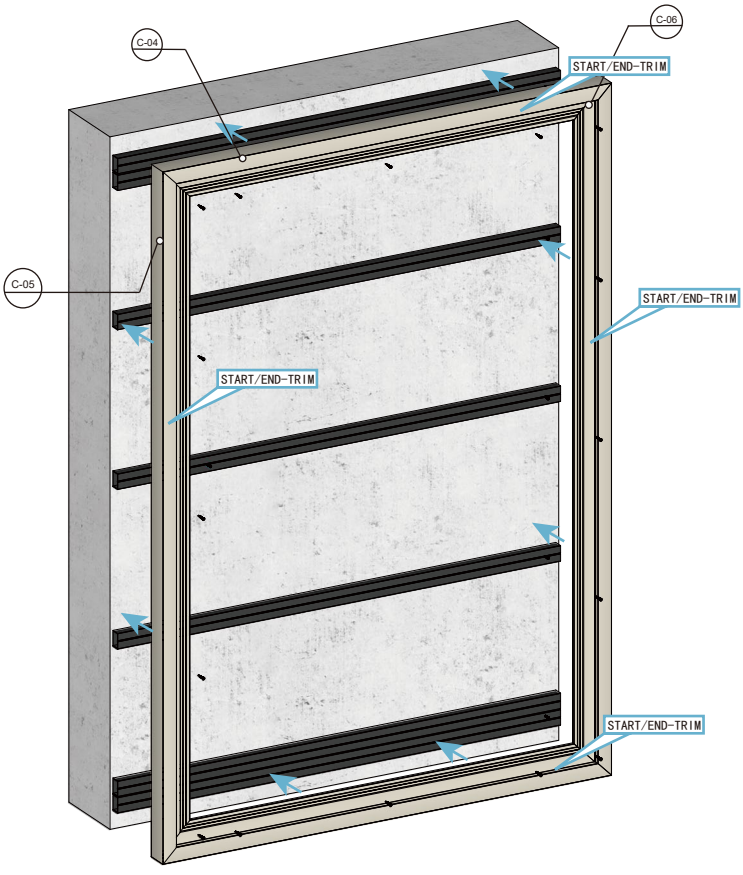


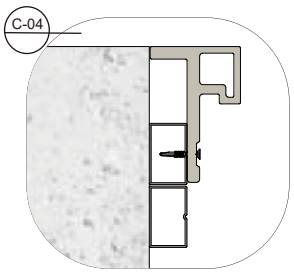


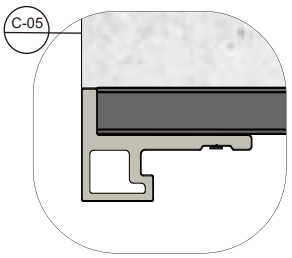


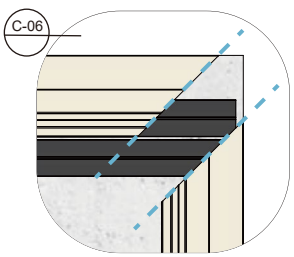
02 Trim edge installation

- Use countersunk wood screws or drilling screws to fix all trims
- A frame shaped like a picture frame can be formed by making a 45-degree diagonal cut at the corner, which is more aesthetically pleasing.





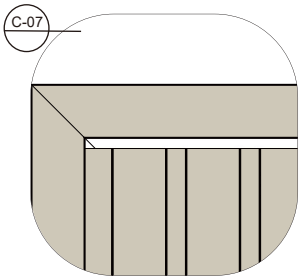


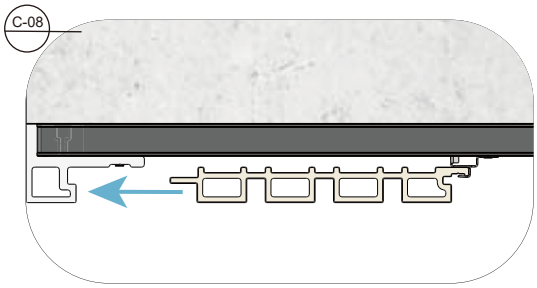


03 The first board installation

- A gap of 7mm should be maintained at the top and the bottom.

- First, use the CLIP-G to hold the first board, and then use wood screws or drill screws to fix the CLIP-G onto the main beam.

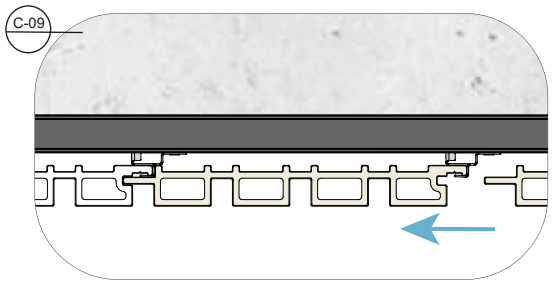


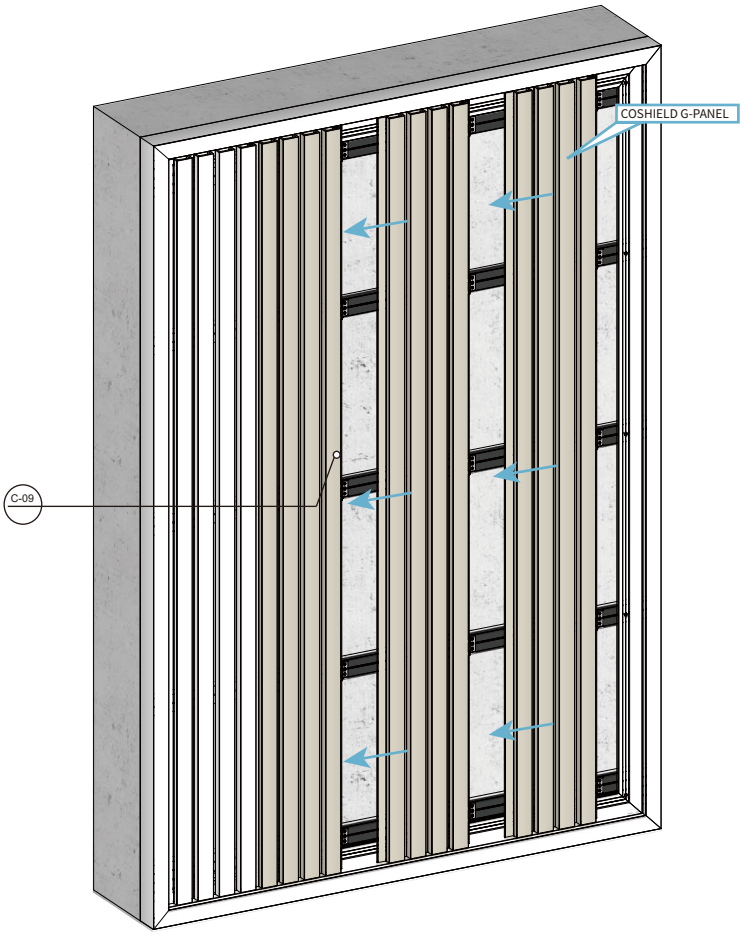




04 The next board installation

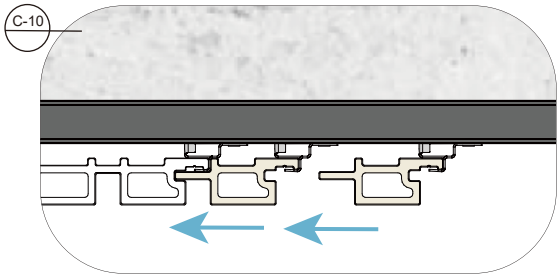
- use the CLIP-G to fix the next board

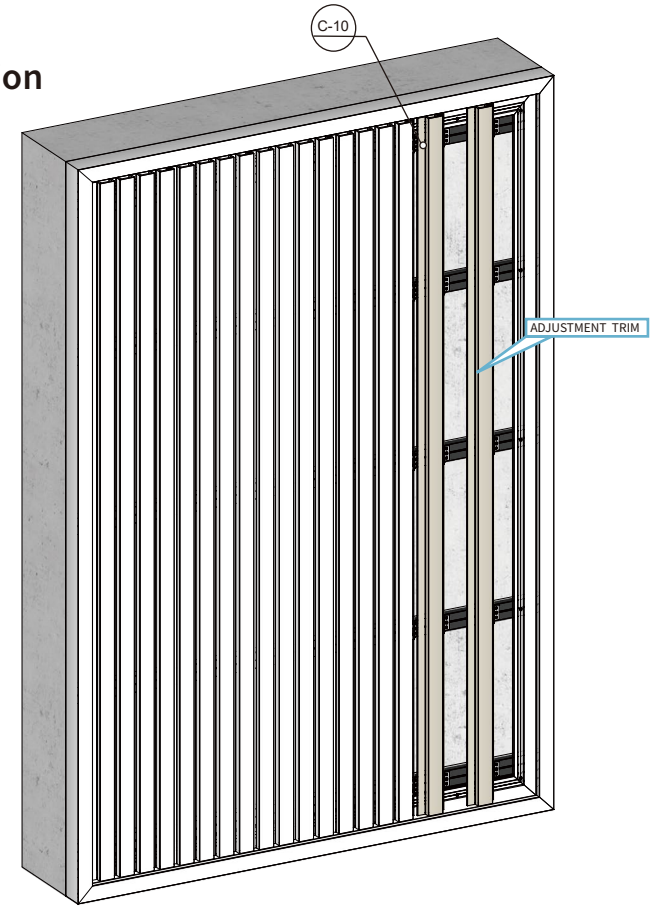




05 The penultimate adjustment trim installation

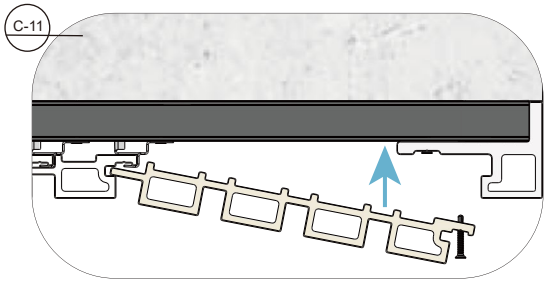
-Before installing the last board, it must install the adjustment trim first.

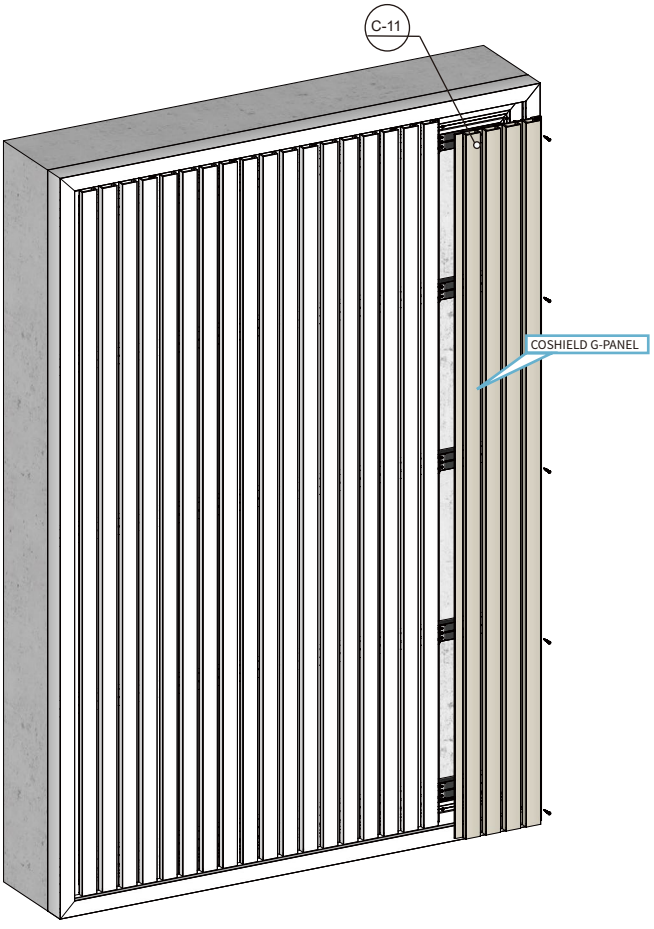




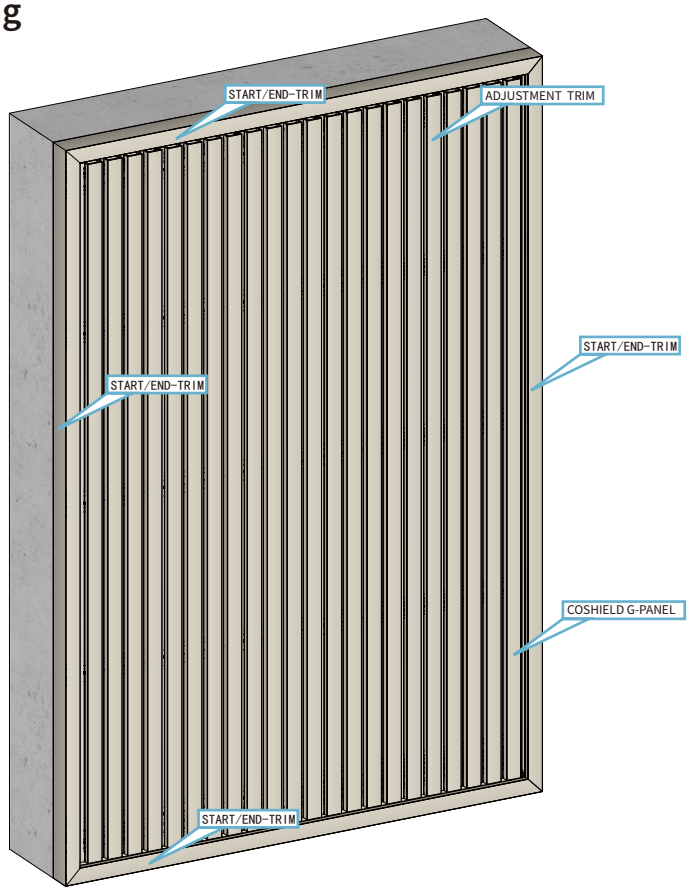
06 The last board installation

-Fix the last board directly with screws



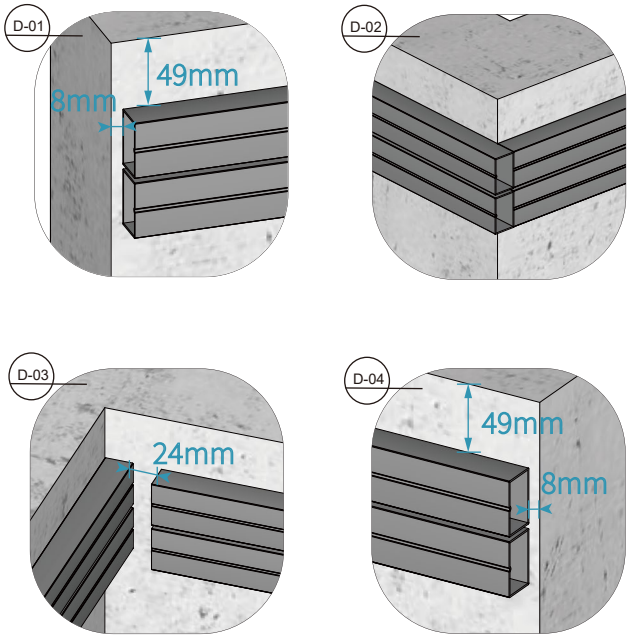


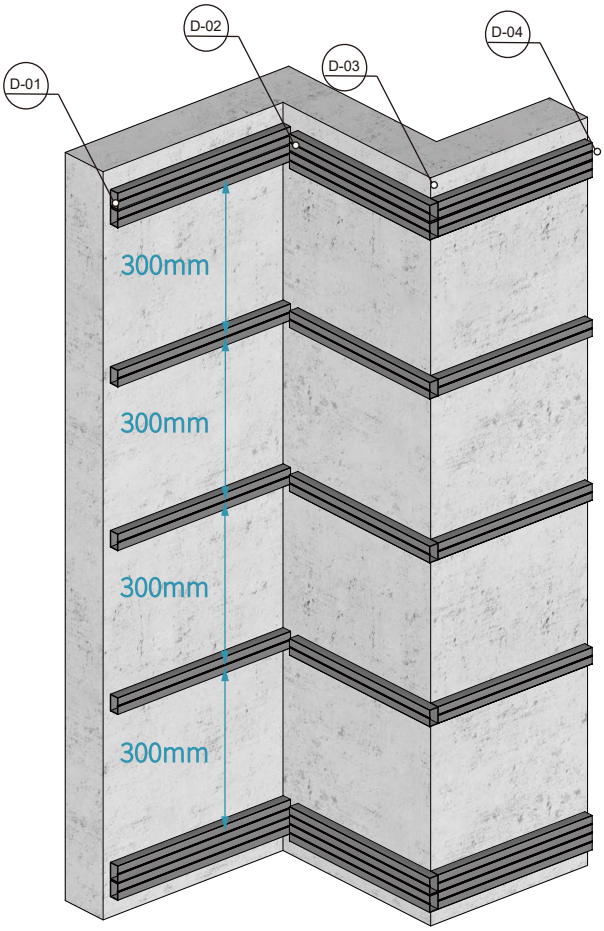
07 The final rendering



Vertical installation——Various types wall

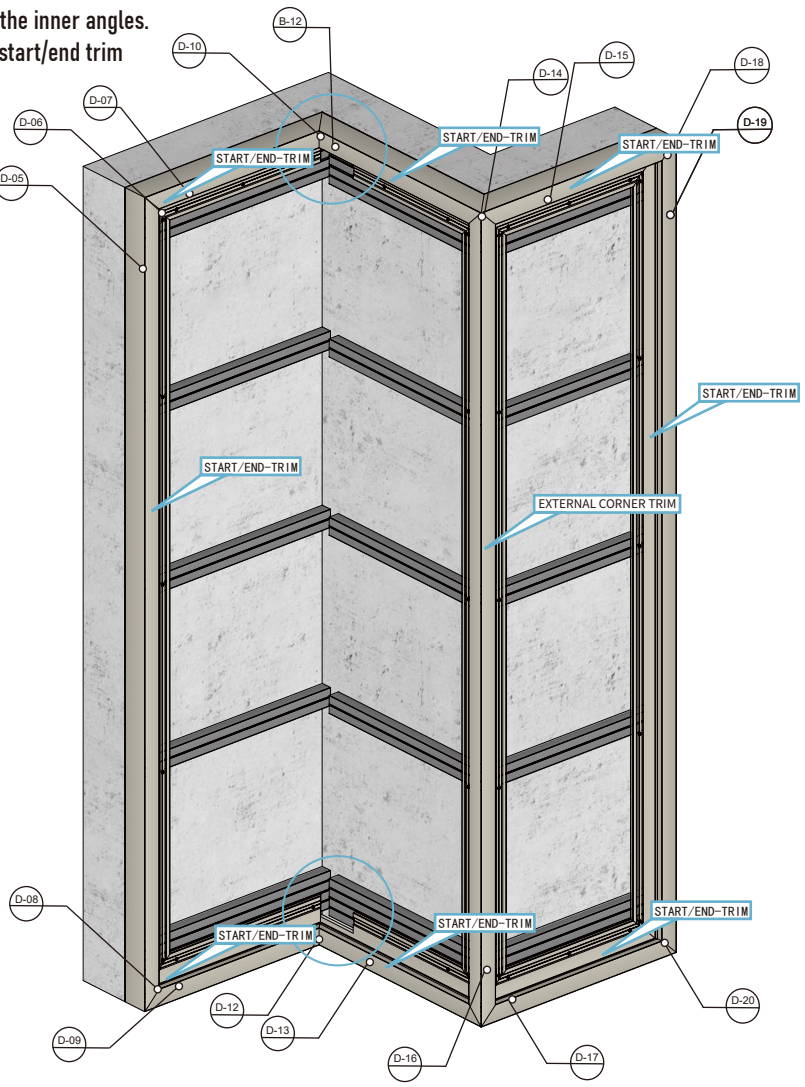
01 Joist installation

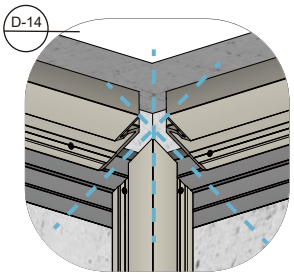


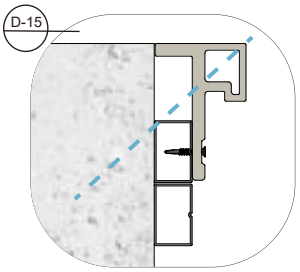


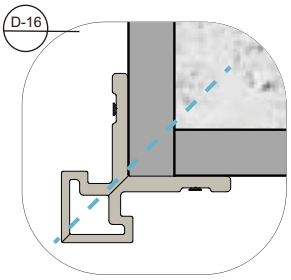
02 Trim edge installation

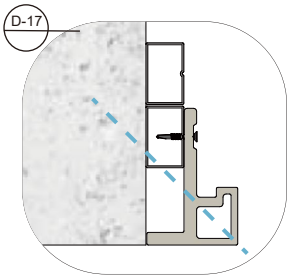
- Pay attention to the positions of the inner angles. You need to cut off a part at the start/end trim on the top and bottom (to install a vertical start/end trim later).
- The exterior angle requires the use of external corner trim

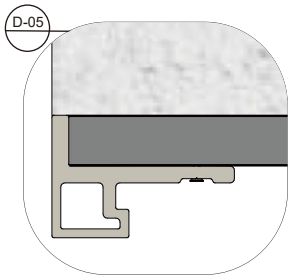


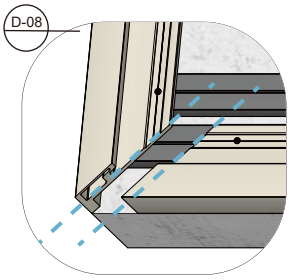


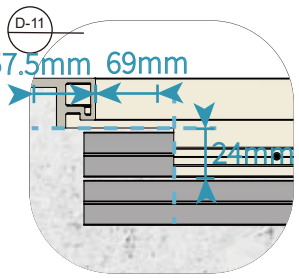


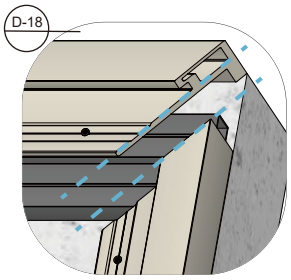


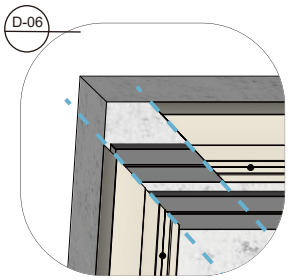


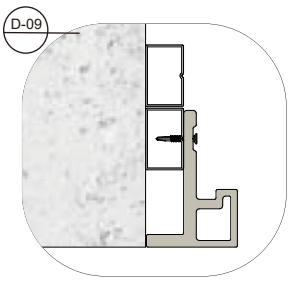


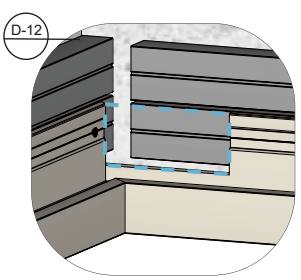


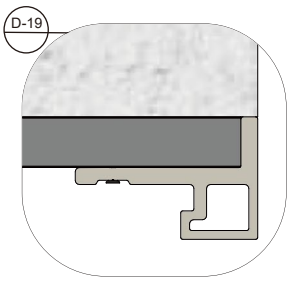


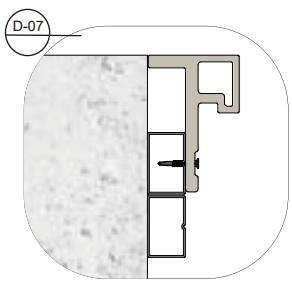


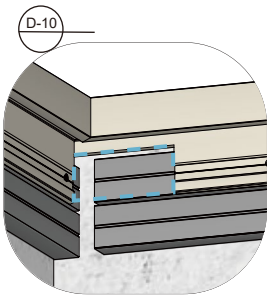


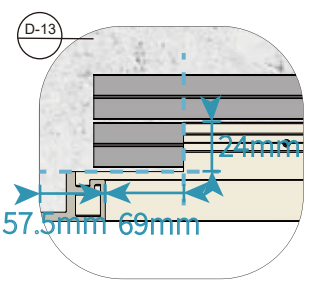


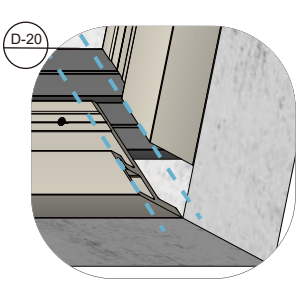






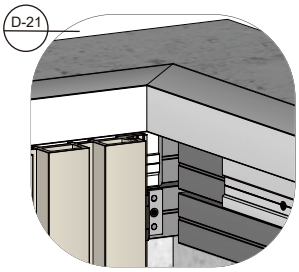


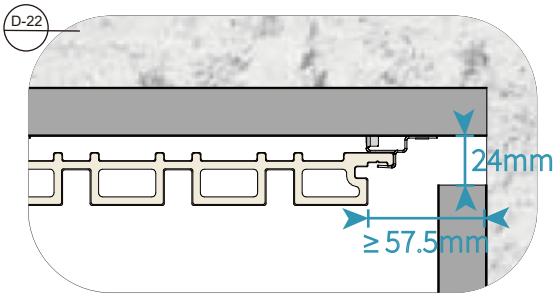


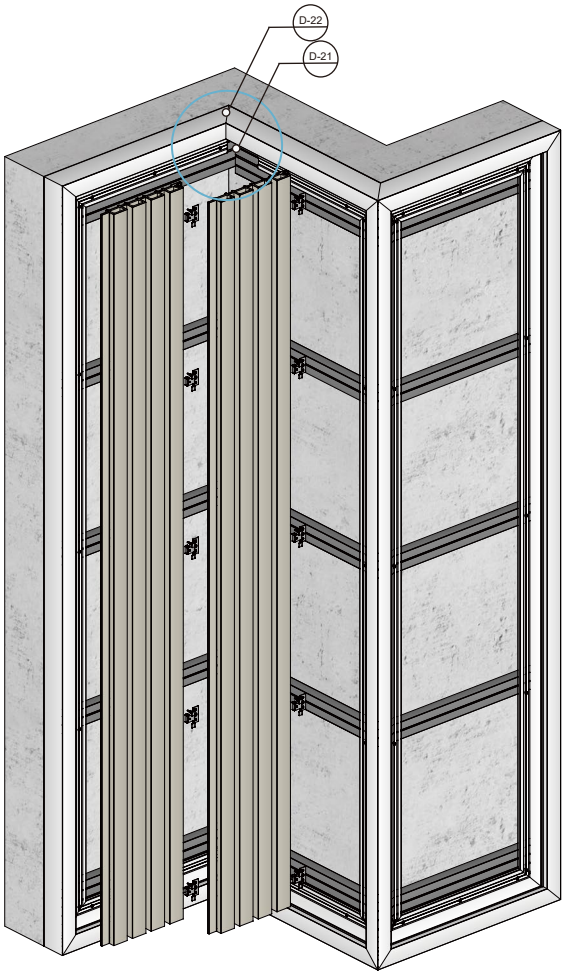


03 Interior wall installation

- Please ensure to leave a gap of at least 57.5mm behind the last board.

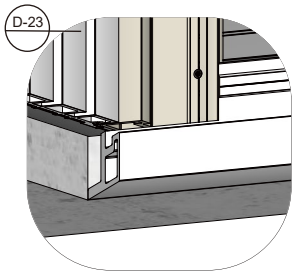


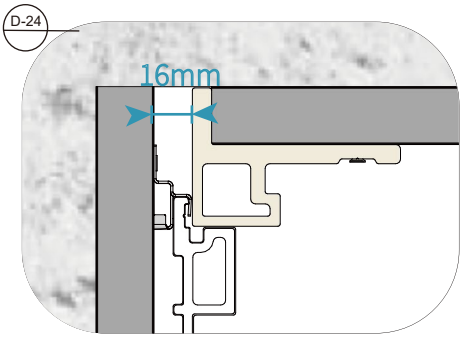


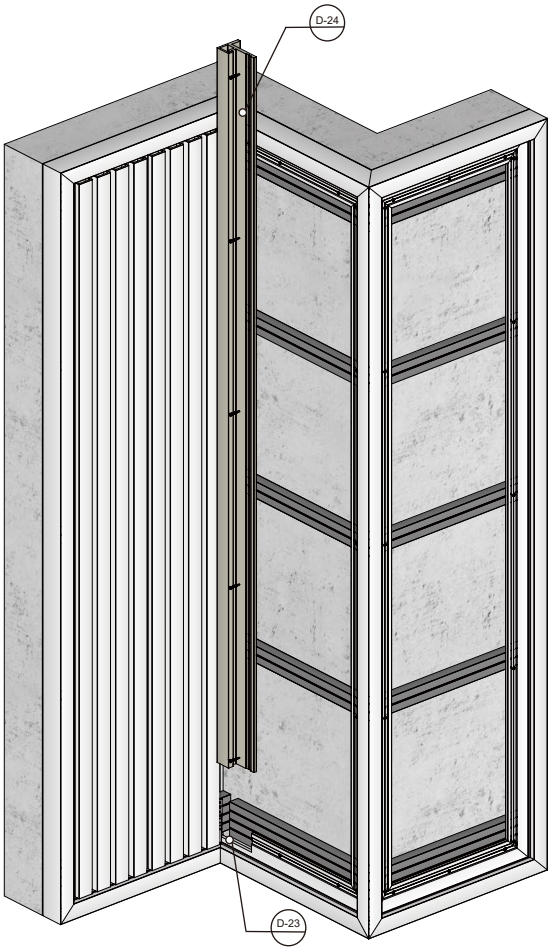


04 Corner wall installation

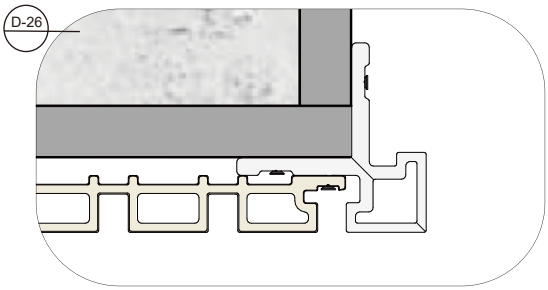
- Place the start/end trim at the inner angle position.

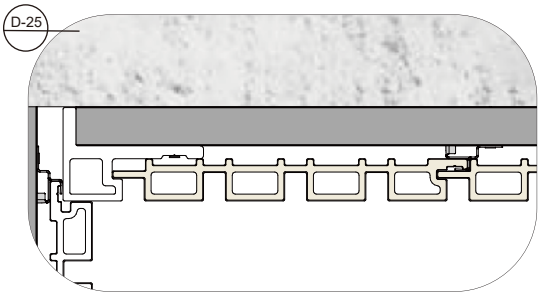


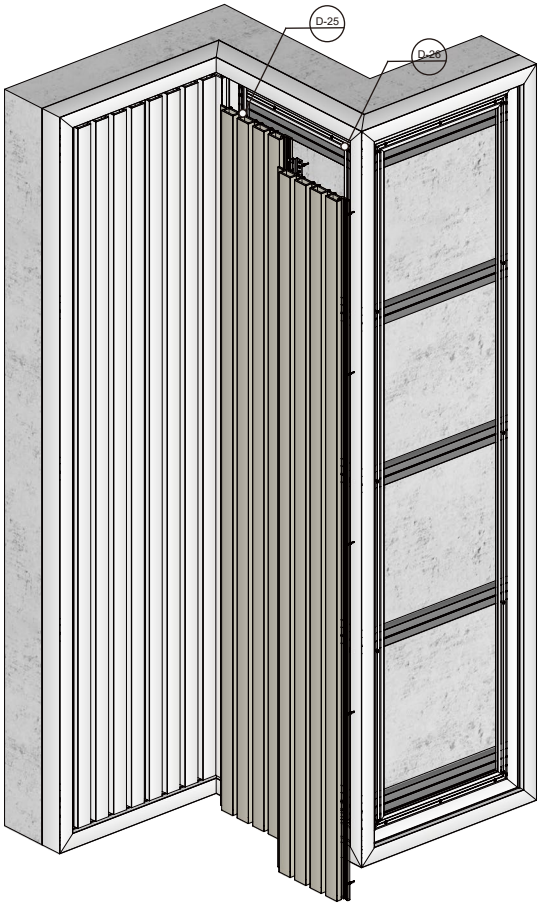




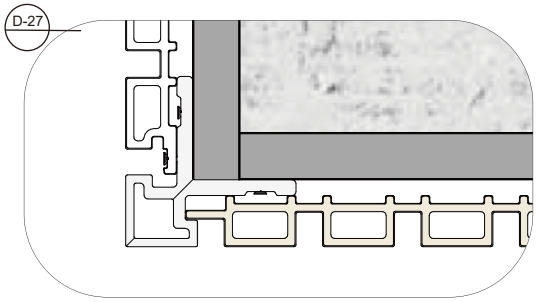
05 Corner wall installation







06 Corner wall installation





07 The final rendering

