



YARDCOM

WALL CLADDING STACKING

INSTALLATION INSTRUCTIONS

Wall Cladding Installation Instructions (Aluminum alloy joist)

- **Note:** The installation diagrams and instructions provided in this guide are for reference only. Any use of Yardcom products must comply with local laws, regulations, and building codes. Users are solely responsible for any risks and liabilities associated with the installation.
- **Key Points:** Please read these wall cladding installation instructions carefully before starting the installation process.

Installation Tools:

Standard woodworking tools, such as chainsaws (desktop and portable), impact drills, hand drills, etc. Our common saw blades are diamond saw blades.

Safety Precautions for Installation Work:

Operators should be safety conscious, use safe and qualified construction equipment and wear appropriate protective tools, such as cut-resistant gloves, dust masks, etc.

Profile Application Structure:

Yardcom product profiles cannot be used alone for other load-bearing structures such as beams and columns, and must be used in conjunction with some of the profiles available for load-bearing structures.

Construction Drawing:

Before using Yardcom product profiles, the corresponding drawings should be made according to the site to ensure the reasonable matching and dimensional accuracy of the profiles, as well as to reduce unnecessary material loss and labor idleness during construction.

Storage Environment for Profiles:

Yardcom products must be stacked on a flat, level hardened ground, and avoid direct contact between the product and the ground and long-term in a wet, waterlogged area to reduce the deformation caused by the product, etc.

Environmental Adaptation of Profiles:

Yardcom products must be stacked on a flat, level hardened ground, and avoid direct contact between the product and the ground and long-term in a wet, waterlogged area to reduce the deformation caused by the product, etc.

Installation Base for Cladding:

Yardcom wall cladding installation cannot be fixed directly on the substrate surface, joist is needed to ensure that the rain water inside the wall cladding drains smoothly and stays dry. The distance between the wall cladding and the substrate surface is 30 mm.

- **Precautions:** Pre-drilled holes are necessary when you need to use the nail fixed, and can not be smaller than the screw rod diameter of more than 1 mm. Open nail parts from all the edges of the wall cladding must not be less than 10 mm.

Table: The surface temperature of the WPC profile and the linear expansion coefficient of the profile, that is, the length gap guidance parameters (mm)

Profile length (M)	Surface Temperature of Profiles During Installation /°C (Applicable to ambient temperatures that result in panel temperatures ranging from -30 to 60°C, with an allowable deviation of ±5°C)																
	-30	-20	-10	-5	0	5	10	15	20	25	30	35	40	45	50	55	60
0.5	1.9	1.7	1.5	1.3	1.3	1.2	1.1	0.9	0.8	0.8	0.7	0.5	0.4	0.3	0.3	0.1	0.0
1	3.8	3.4	2.9	2.8	2.5	2.4	2.1	1.9	1.7	1.5	1.3	1.1	0.8	0.7	0.4	0.3	0.0
1.5	5.7	5.0	4.5	4.1	3.8	3.4	3.2	2.9	2.5	2.2	1.9	1.6	1.3	0.9	0.7	0.3	0.0
2	7.6	6.7	5.9	5.5	5.0	4.6	4.2	3.8	3.4	2.9	2.5	2.1	1.7	1.3	0.8	0.4	0.0
2.5	9.5	8.4	7.4	6.8	6.3	5.8	5.3	4.7	4.2	3.7	3.2	2.6	2.1	1.6	1.1	0.5	0.0
3	11.3	10.1	8.8	8.2	7.6	7.0	6.3	5.7	5.0	4.5	3.8	3.2	2.5	1.9	1.3	0.7	0.0
3.5	13.2	11.8	10.3	9.6	8.8	8.1	7.4	6.6	5.9	5.1	4.5	3.7	2.9	2.2	1.5	0.8	0.0
4	15.1	13.4	11.8	10.9	10.1	9.2	8.4	7.6	6.7	5.9	5.0	4.2	3.4	2.5	1.7	0.8	0.0
4.5	17	15.1	13.3	12.3	11.3	10.4	9.5	8.5	7.6	6.6	5.7	4.7	3.8	2.9	1.9	0.9	0.0
5	18.9	16.8	14.7	13.7	12.6	11.6	10.5	9.5	8.4	7.4	6.3	5.3	4.2	3.2	2.1	1.1	0.0
5.5	20.8	18.5	16.2	15.0	13.9	12.7	11.6	10.4	9.2	8.1	7.0	5.8	4.6	3.4	2.4	1.2	0.0
6	22.7	20.2	17.6	16.4	15.1	13.9	12.6	11.3	10.1	8.8	7.6	6.3	5.0	3.8	2.5	1.3	0.0

Supplementary notes:

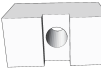
1. The above table is calculated based on the linear expansion coefficient of materials tested by a third party. The reference guideline is that for every 1 meter of board material, for every increase or decrease of 1°C, the board length expands or shrinks approximately 0.042mm.
2. The temperature in the above table specifically refers to the surface temperature of the profile (board material), not the ambient air temperature. It is recommended to use a handheld 'infrared thermometer' for measurement. The parameter 'Leave gap' in the table above specifically refers to the linear spacing between the ends of two adjacent profiles (board materials) in the length direction.

3. For areas of the profile (board material) that require direct screw fixation, pre-drilling must be done before driving in the screws.
4. The connecting card components used to secure the Wall Claddings should not fix more than 2 Wall Claddings with a single card component.
5. If more than one Wall Cladding is installed in the length direction of the board material, double joists must be used at the connection points, and the board material should not extend beyond the joist by more than 100 millimeters.
6. Example of leaving a gap during lengthwise installation: If a board material of 3.5m per piece is installed, and the surface temperature of the board material is measured at 16°C during installation, while the local annual climate characteristics estimate the maximum temperature of the board material to be 60°C (allowable $\pm 5^{\circ}\text{C}$); In this situation, it can be found from the table above that during installation, a spacing of 5.9–6.6mm should be reserved at the adjacent ends in the length direction of the board material.
7. Special climate reference: The table above only lists conditions where the surface temperature of the profile (board material) reaches up to 60 ($\pm 5^{\circ}\text{C}$), which is generally applicable to most usage environments. If the actual environment is more special, reasonable installation gaps can be made according to the guideline that 'for every 1 meter of board material, for every 1°C increase or decrease, the board length expands or shrinks approximately 0.042mm.
8. General note: The linear expansion coefficient of our profiles meets the requirements of European and American standards, and this coefficient is used as a guide for installation gaps. However, the linear expansion coefficient only applies to the profile in its uninstalled and free state, where temperature affects the length shrinkage and expansion of the profile, and does not encompass all environmental factors encountered in actual use. Therefore, it is added here: if the user has reasonable installation gap cases of similar WPC products primarily made of HDPE in their usage environment, which have been validated over a long period without quality risks from shrinkage and expansion, and if this installation gap case differs from the comparison table provided by our company, in such cases, the user may proceed according to their own 'reasonable installation gap plan' that has been verified to comply with local usage conditions.

Wall Cladding Profile Table

Profile Name	Model	Material	Illustration	Specifications (millimeters)	Usage
Wall Cladding	HLYC-017F	WPC		168*24	Wall Decoration
Corner Edge Banding Board	HLYC-015F	WPC		98.5*98.5	Corner Decoration
U-Shaped Edge Banding Board	HLYC-016F	WPC		68.5*39	Inner Corner Decoration
I-Beam Edge Banding Board	HLYC-013F	WPC		89*38.5	Splicing Decoration
F-Shaped Edge Banding Board	HLYC-014F	WPC		88.5*66	End decoration
Decorative cladding	HLSC-022B	WPC		18*184	Door and window openings

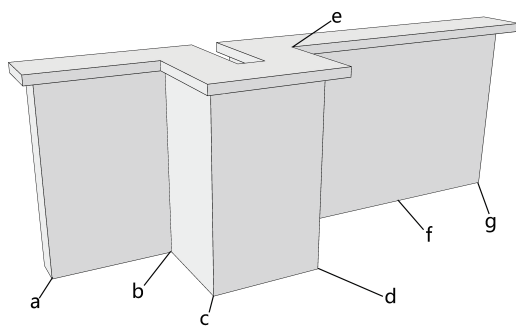
Wall Cladding Accessory List

Profile Name	Model	Material	Illustration	Specifications (millimeters)	Usage
Connecting accessories	HLPM-100(J)	301 stainless steel		40*37.22*16.7	Plate connection card
Wall Cladding spacer 1	HLPP-052 (C)	Rubber		40*20*24.5	Support for the gap between the cut Wall Cladding and the joist
Wall Cladding spacer 2	HLPP-053 (C)	Rubber		Φ 20*17	Support for the gap between the cut Wall Cladding and the edge banding
Plum blossom groove countersunk self-tapping and self-drilling screw Color Screws	HLPM-115 (I)	410 stainless steel		M5-34.29	This screw is used for fixing the edge banding plate (batch head T25)
Plum blossom groove cylindrical head self-tapping and self-drilling screw	HLPM-116 (I)	410 stainless steel		M5-48.5	This screw is used for securing wall cladding clips (Torx screwdriver bit T25)
Plum blossom groove cylindrical head self-tapping and self-drilling screw	HLPM-117 (I)	410 stainless steel		M4-47.2	This screw is used to fix the wall cladding clip keyhole nails and wall panel rubber pads (batch head T15)
Plum blossom groove cylindrical head self-tapping and self-drilling screw Color Screws	HLPM-120 (I)	410 stainless steel		M5-57.2	This screw is used to fix wall cladding and U-shaped edge panels (batch head T25)
Aluminum alloy joist	HLPM-093 (E)	Aluminum alloy black plating		60*40*1.2	60 sides of the keel can be installed with card components
Aluminum alloy joist	HLPM-106 (E)	Aluminum alloy black plating		50*30*1.2	50 sides of the keel can be installed with card components

• Notes:

1. If other materials not listed in the accessory table are required during construction, please consult the product installation after-sales personnel in advance.
2. All edge claddings and Wall Claddings must be pre-drilled before installing screws when using exposed nails. The pre-drilled hole must not be more than 1mm smaller than the screw diameter. The distance from the exposed nail area to all edges of the Wall Cladding must not be less than 10mm. The center spacing of the screws must not exceed 400mm. When the length of the edge banding and Wall Cladding is less than 400mm, at least 2 screws must be fixed.
3. A gap of 5mm should be reserved between the main board material and each auxiliary edge banding board after insertion.

Installation Preparation



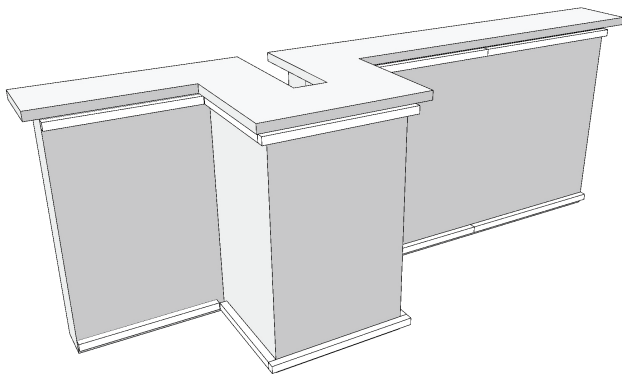
▲ Schematic diagram of the base surface

Caution:

The base surface must be level.

Schematic diagram of joist layout

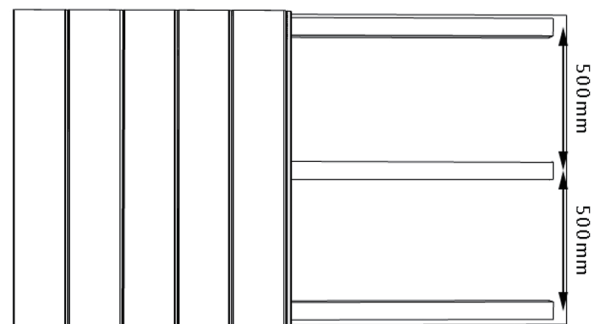
As shown in Figure 1-1、1-2:



▲ Figure 1-1



▲ Figure 1-2



▲ Horizontal layout

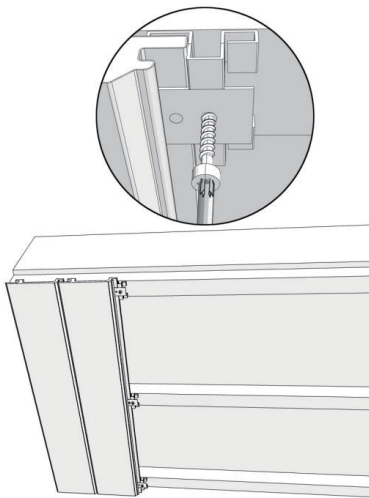
Matters Needing Attention:

1. Fix joists with plastic expansion screws.
2. Determine joists spacing and pre-drill holes. Spacing between joist centers must not be more than 500 mm.
3. Make sure the overall surface of the joists is flat and flush.

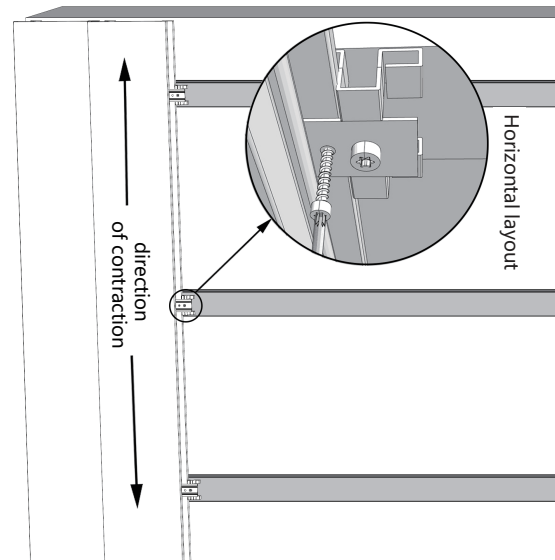
Schematic diagram of clip installation

Caution:

1. Clips must be arranged one for each joist , and Spacing shall not be greater than 500 mm.
2. Each wall cladding must have one HLP-098 (B), its location is determined by the actual thermal expansion and contraction of the boards, generally at the beginning/middle/end of the wall cladding length.



▲ Clip installation schematic



▲ Schematic diagram of thermal expansion and contraction of locking plate nails A

2. When HLP-098 (B) is located at the start end, gap must be left between the end of the wall cladding and the start of the previous wall cladding, the dimensions of which are shown in the table of Length Leaving Guideline Parameters (mm).

See Figure B for details.

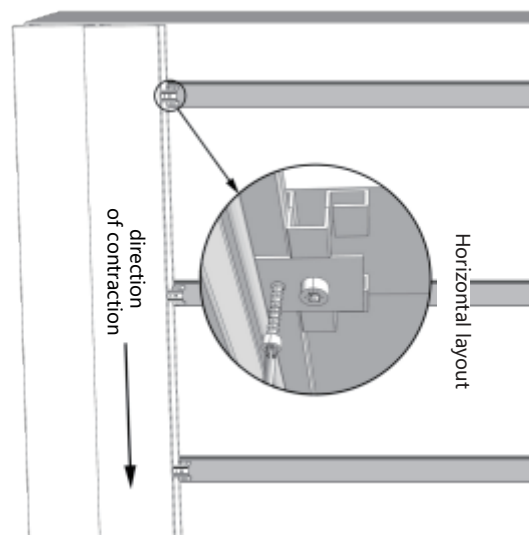
Schematic diagram of three types of locking plate nails for thermal expansion and contraction:

Caution:

If the length direction of the wall cladding exceeds that of a single board, it is recommended to use the HLYC-013F to connect.

1. When the clip locking plate nail is positioned in the center, expansion joints must be left at both ends of the Wall Cladding. The dimensions are specified in the guidance table for length expansion joints (mm).

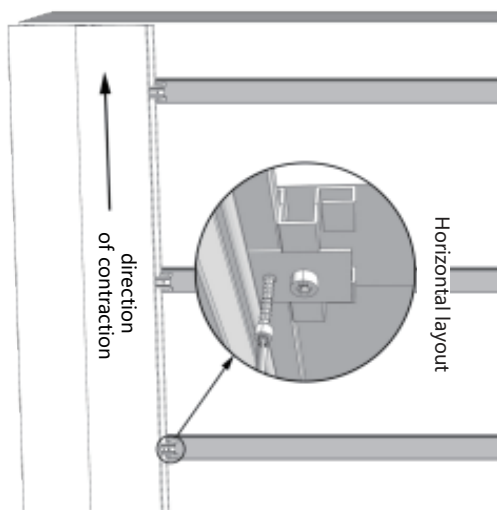
See Figure A for details.



▲ Schematic diagram of thermal expansion and contraction of locking plate nails B

3. When HLP-098 (B) is located at the rear end, gap must be left between the beginning of the wall cladding and the rear end of the previous wall cladding, the dimensions of which are shown in the table of Length Leaving Guideline Parameters (mm).

See Figure C for details.



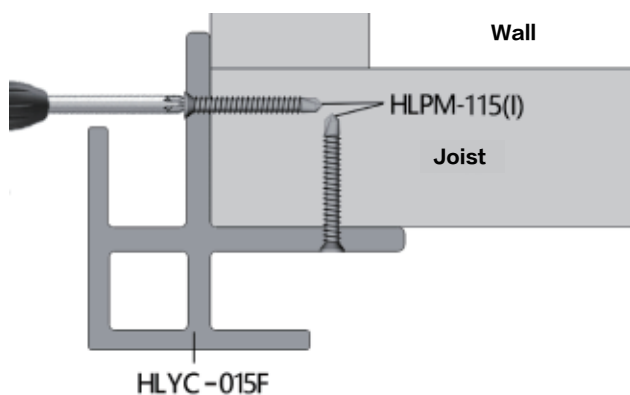
▲ Schematic diagram of thermal expansion and contraction of locking plate nails C

Wall Cladding Vertical Installation Steps

Designer Outer Corner Trim

1. Start by installing HLYC-015F from node c.

As shown in Figure 2-1:

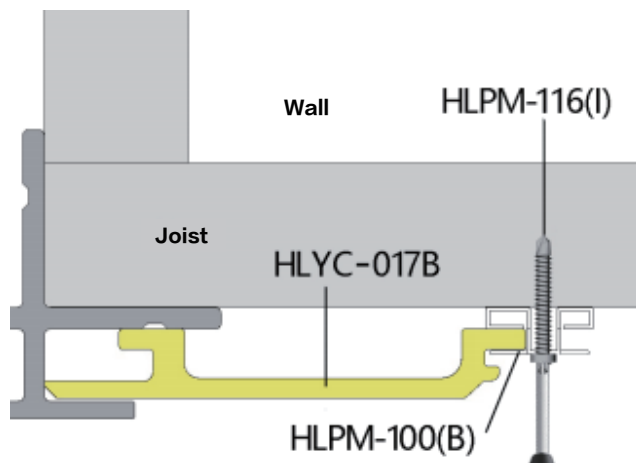


▲ Figure 2-1

Wall cladding installation

1. Snap the HLYC-017F into the grooves of HLYC-015F, and then fix the cladding with clips.

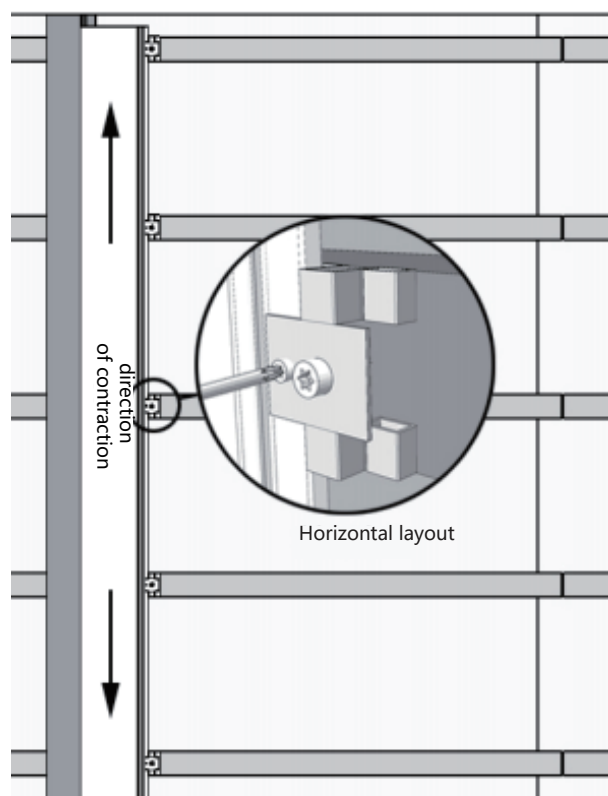
As shown in Figure 3-1 and 3-2 :



▲ Figure 3-1

Caution:

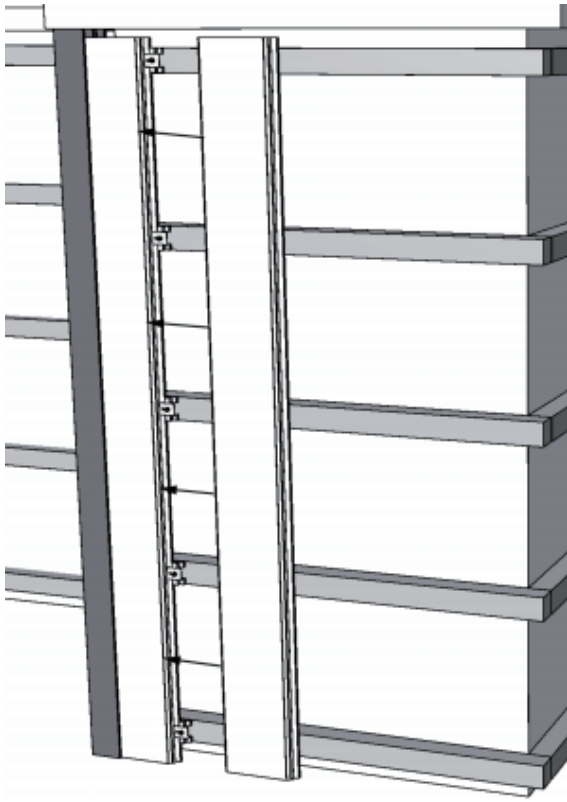
If the length direction of the wall cladding exceeds that of a single board, it is recommended to use the HLYC-013F to connect.



▲ Figure 3-2

2. Install the middle wall cladding.

As shown in Figure 4-1 :



▲ Figure 4-1

3. Follow step 2 and install to last board.

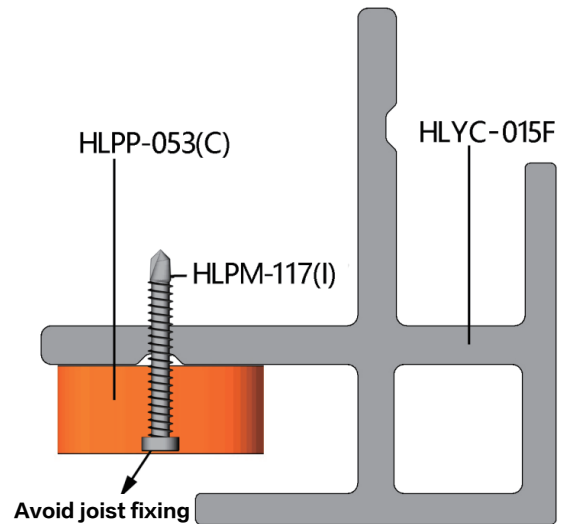
Designer Outer Corner Trim HLYC-015F Installation:

1. Attach HLPP-053 (C) to HLYC-015F.

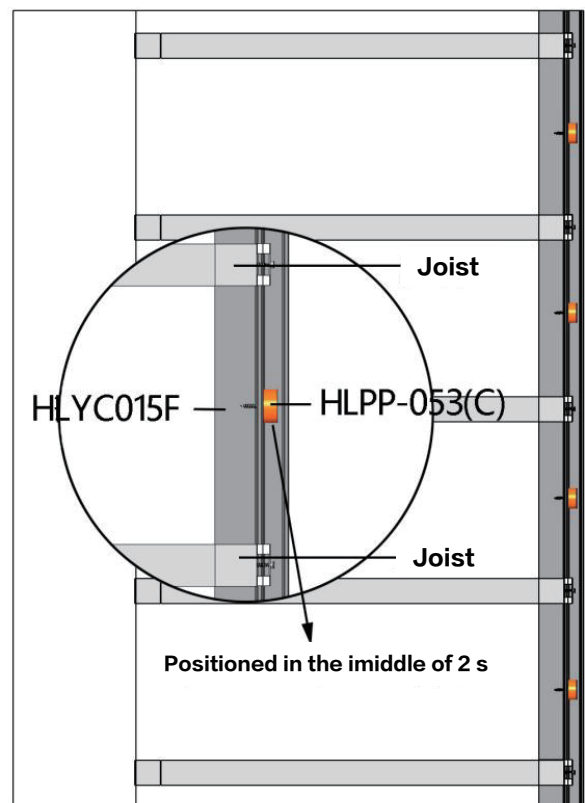
As shown in Figure 5-1 and 5-2 :

Caution:

HLPP-053 (C) should be fixed to HLYC-015F avoiding the joist position to avoid conflict.



▲ Figure 5-1



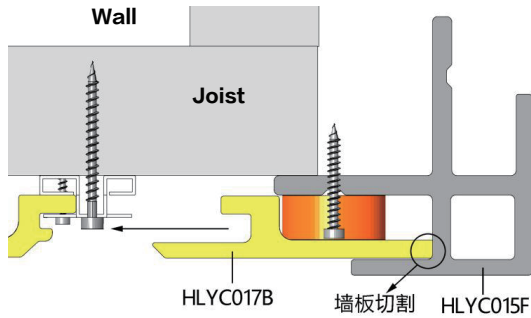
▲ Figure 5-2

2. Snap HLYC-015F together with the cut wall cladding.

As shown in Figure 6-1 :

Tip:

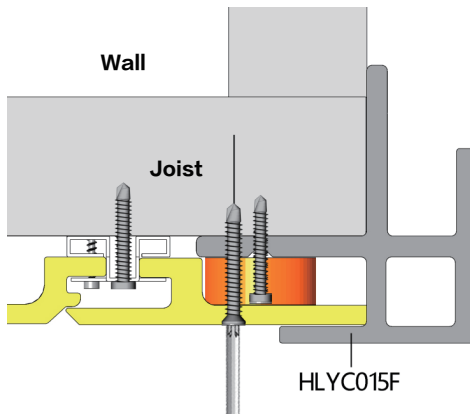
Cut the width of the wall cladding according to the actual size.



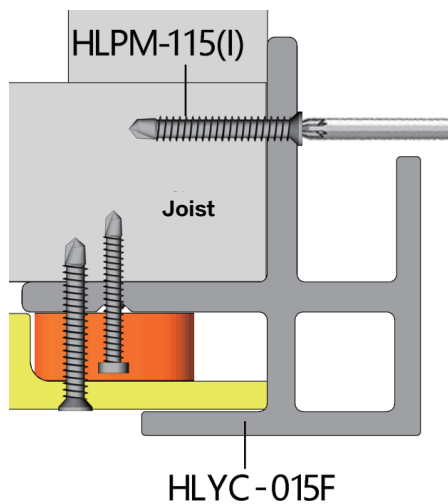
▲ Figure 6-1

3. Snap HLYC-015F into the installed wall board clips along with the cut wall cladding.

As shown in Figure 6-2 and 6-3 :



▲ Figure 6-2

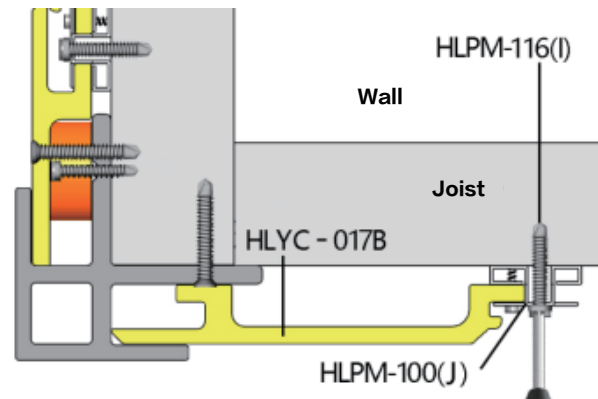


▲ Figure 6-3

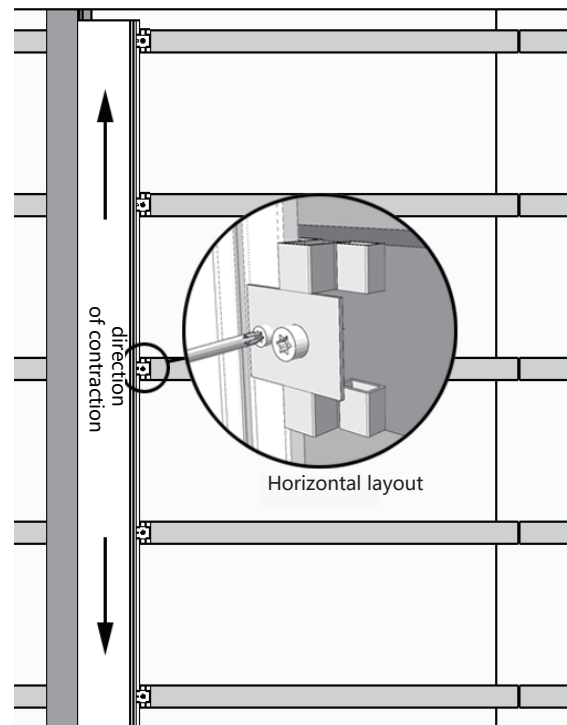
Wall cladding installation

1. Snap the wall cladding into HLYC-015F, and then connect the clips.

As shown in Figure 7-1 and 7-2 :



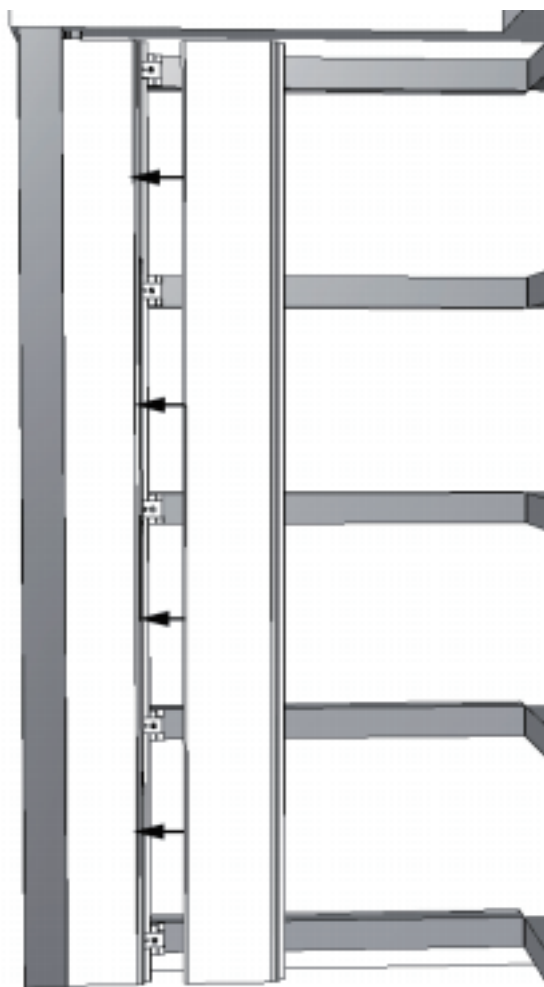
▲ Figure 7-1



▲ Figure 7-2

2. Install the middle wall cladding.

As shown in Figure 7-3 :



▲ Figure 7-3

3. complete to the last board according to step 2.

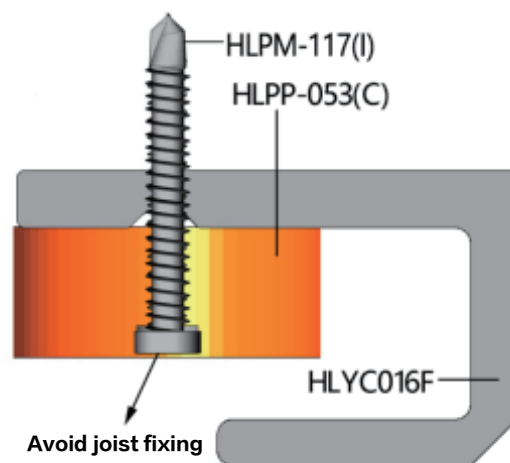
Designer Outer Corner Trim HLYC-016F Installation:

1. Attach HLPP-053 (C) to HLYC-016F.

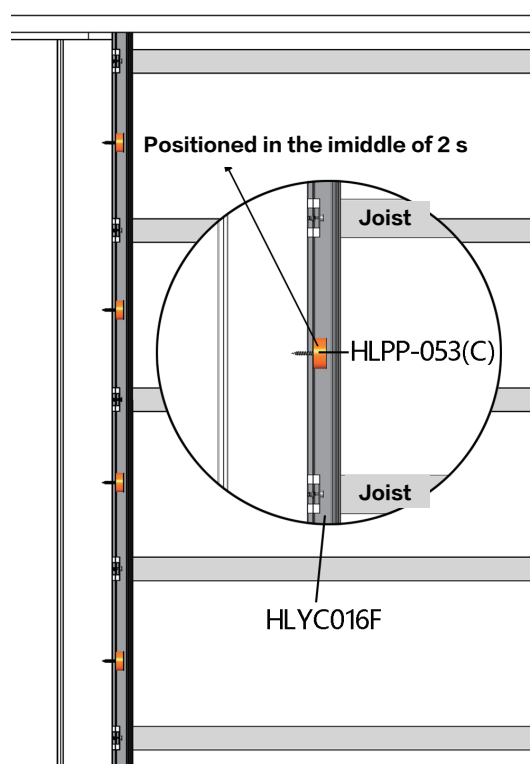
As shown in Figure 8-1 and 8-2:

Caution:

HLPP-053 (C) should be fixed on HLYC-016F in positions that avoid the joists to prevent conflicts between the screws and the joists.



▲ Figure 8-1



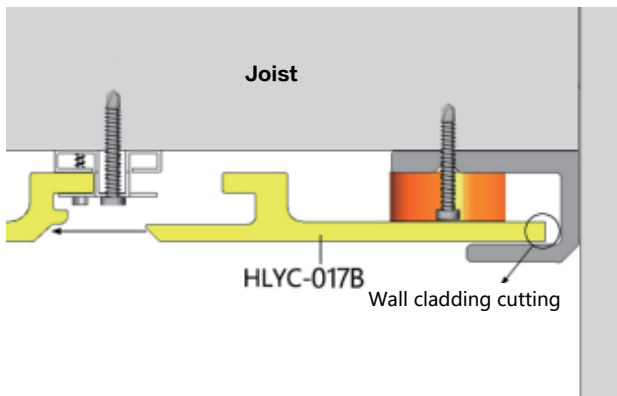
▲ Figure 8-2

2. Fix HLYC-016 with the cut wall cladding together.

As shown in Figure 8-3 :

Caution:

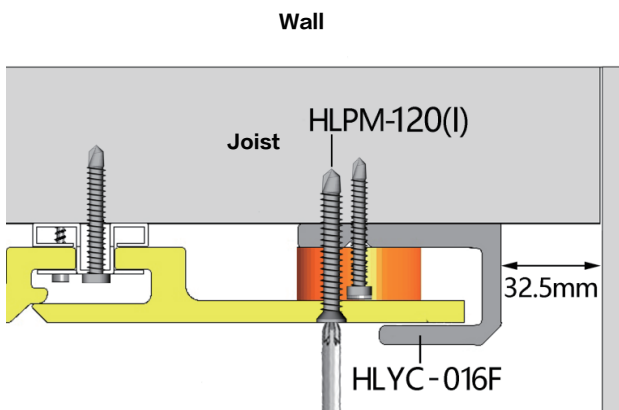
Determine the size according to the actual site, the size is 32.5 mm between the edge of HLYC-016F and the other side of the joist after installation.



▲ Figure 8-3

3. Snap the fixed wall cladding and HLYC-016F together into the installed wall cladding clips.

As shown in Figure 8-4 :

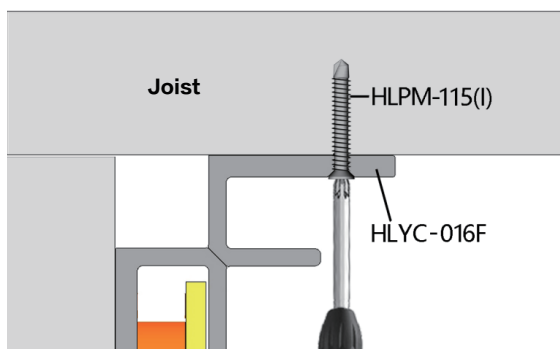


▲ Figure 8-4

HLYC-016F Installation

1. Install HLYC-016F against the other side of it.

As shown in Figure 9-1 :

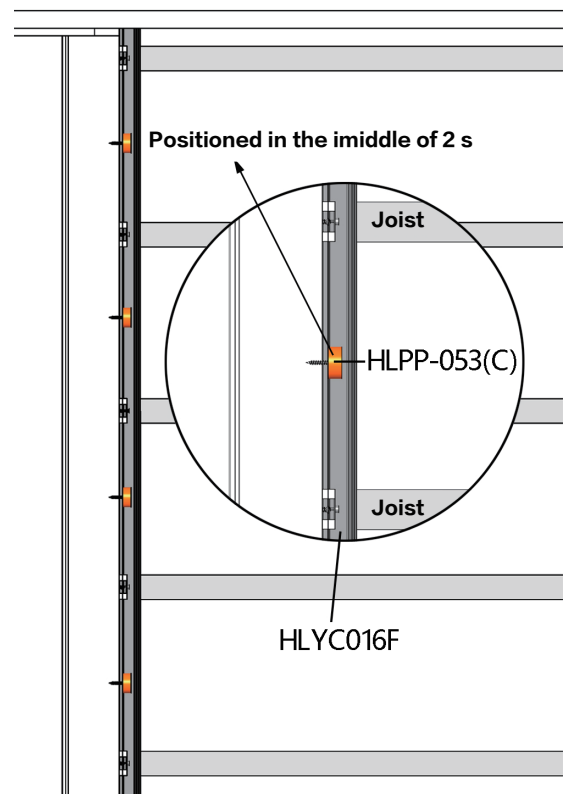


▲ Figure 9-1

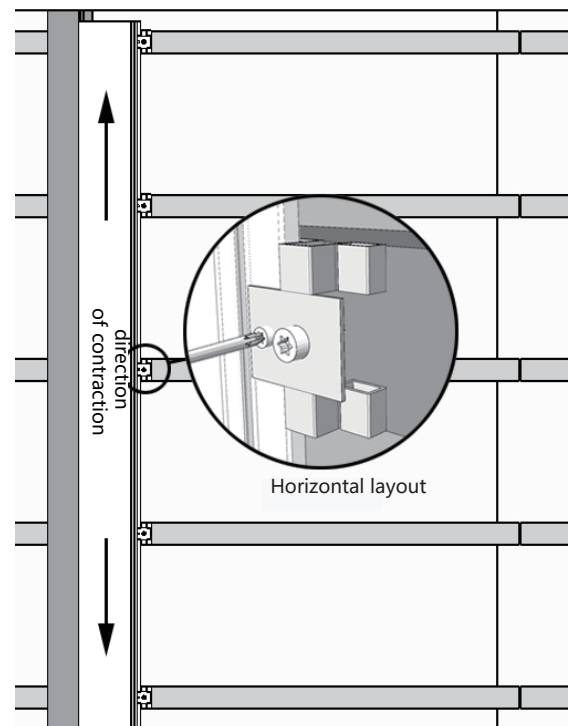
Wall cladding installation

1. Snap the wall cladding into HLYC-016F, and then fix the clips.

As shown in Figure 10-1 and 10-2 :



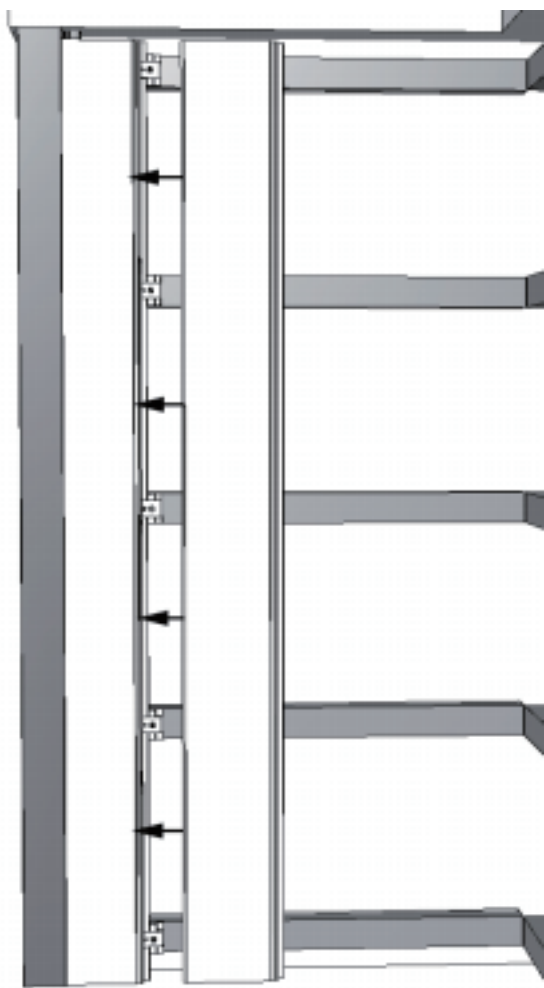
▲ Figure 10-1



▲ Figure 10-2

2. Install the middle wall cladding.

As shown in Figure 10-3 :



▲ Figure 10-3

3. complete to the last board according to step 2.

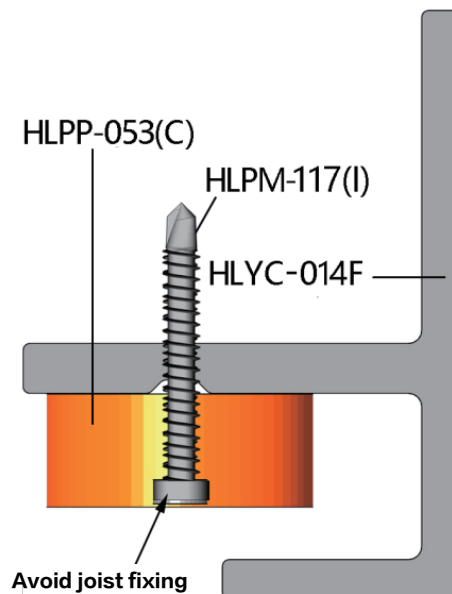
HLYC-014F Installation

1. Fix HLPP-053(C) on HLYC-014F.

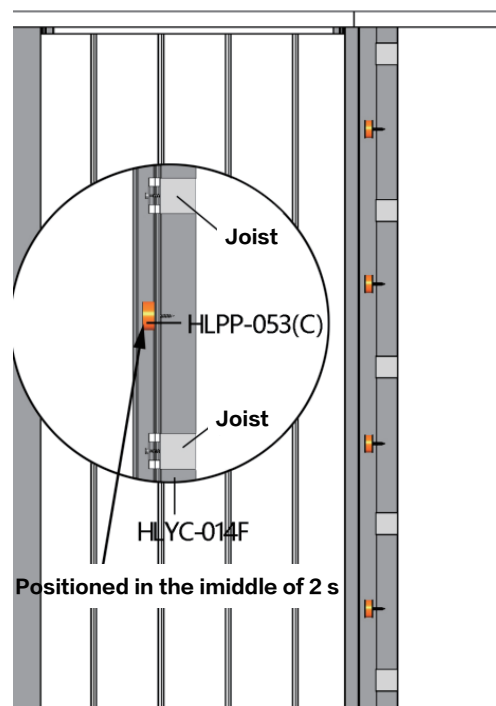
As shown in Figure 11-1 and 11-2 :

Caution:

HLPP-053 (C) should be fixed on HLYC-014F in positions that avoid the joists to prevent conflicts between the screws and the joists.



▲ Figure 11-1



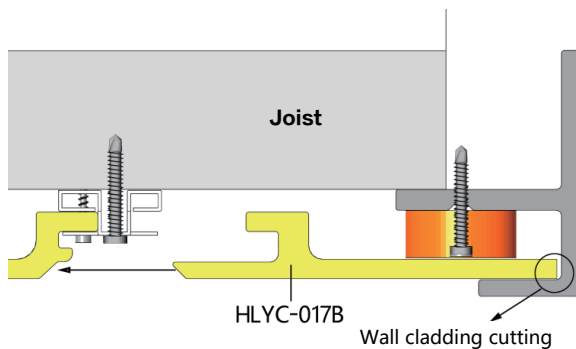
▲ Figure 11-2

2. HLYC-014F is fixed together with the cut wall cladding.

As shown in Figure 11-3 :

Caution:

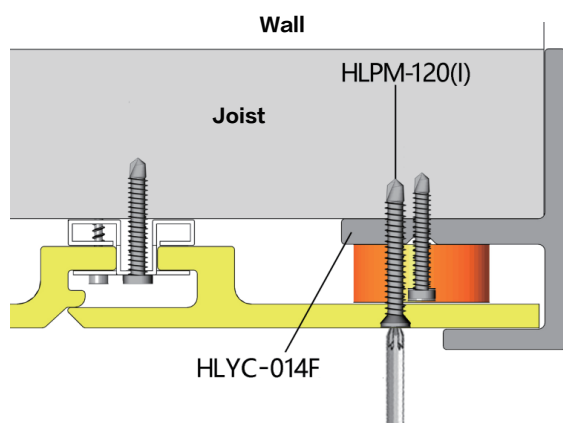
Determine the size according to the actual site, the size is the edge of HLYC-014F flush with the end of the wall after installation.



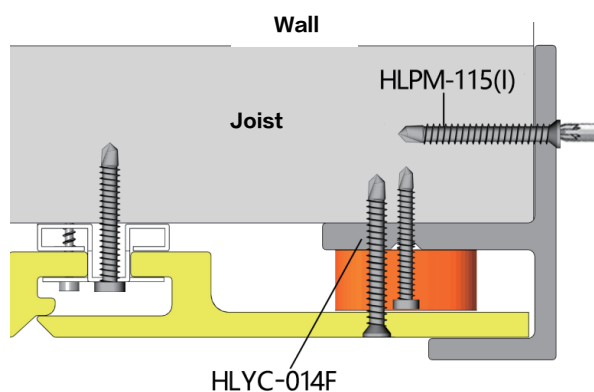
▲ Figure 11-3

3. Snap the fixed wall cladding and HLYC-014F together into the installed wall cladding clips.

As shown in Figure 10-4 and 10-5 :



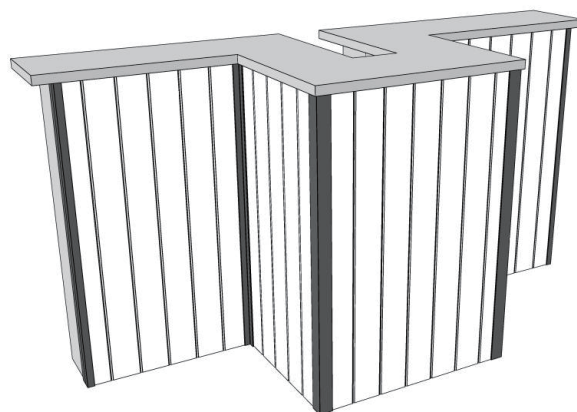
▲ Figure 11-4



▲ Figure 11-5

Wall cladding vertical installation effect.

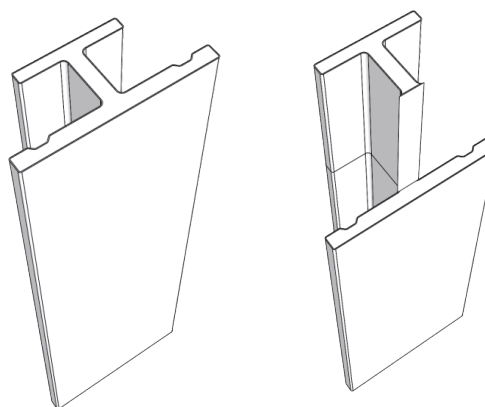
As shown in Figure 12 :



▲ Figure 12

Special Wall Cladding Installation Methods

Special Wall Cladding Vertical Installation Reference for Unique Situations



HLYC-013F

Specifications (mm) : 89*38.5

▲ Cutting dimensions (mm) : 9.5*70

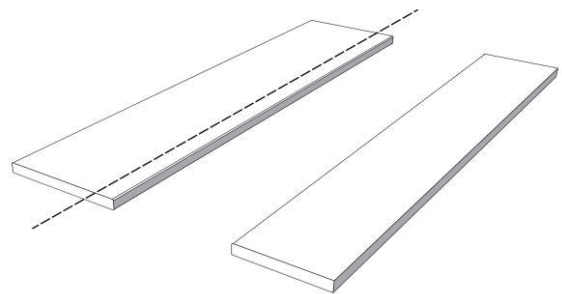
See Figure E for details.

1. Use HLYC-013F to connect the upper and lower wall claddings, and reserve gaps according to the linear expansion coefficient.
2. Each HLYC-013F should be cut as shown in the table before installation.



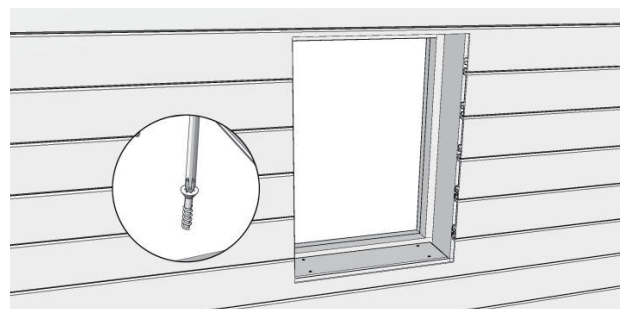
▲ Diagram of window openings

As shown in Figure 13-1 :

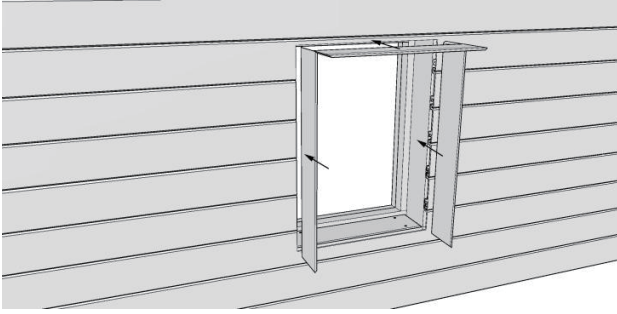


▲ Figure 13-1

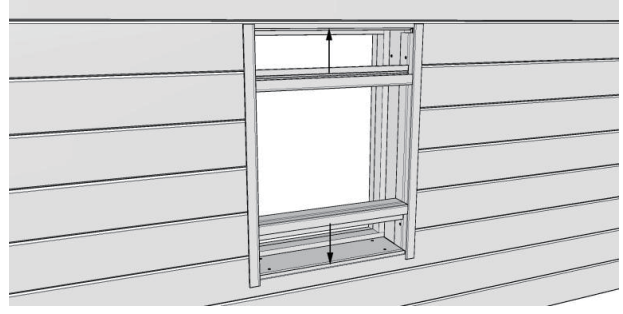
As shown in Figure 13-2、13-3、13-4 :



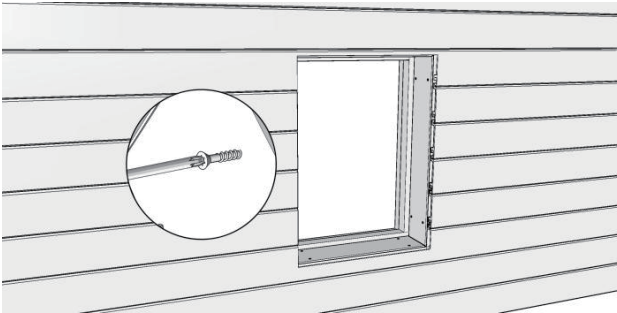
▲ Figure 13-2



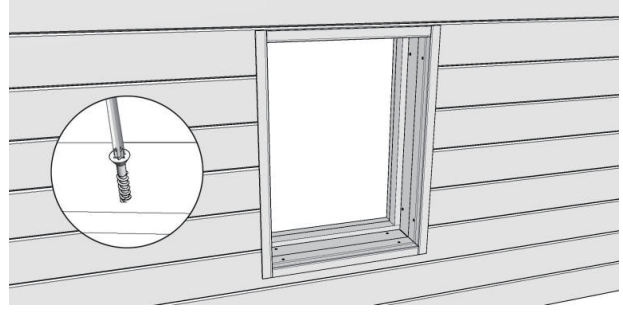
▲ Figure 13-3



▲ Figure 13-7



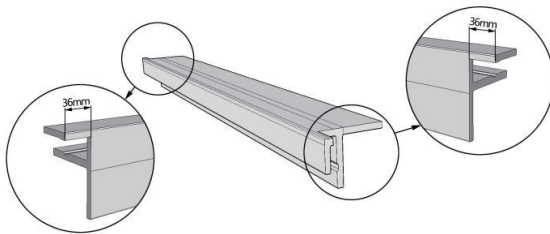
▲ Figure 13-4



▲ Figure 13-8

3. Determine (cut) the size of HLYC-014F according to the size of the door and window openings.

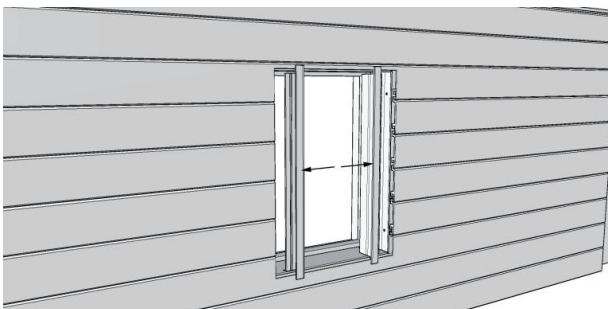
As shown in Figure 13-5 :



▲ Figure 13-5

4. Door and window openings HLYC-014F installation.

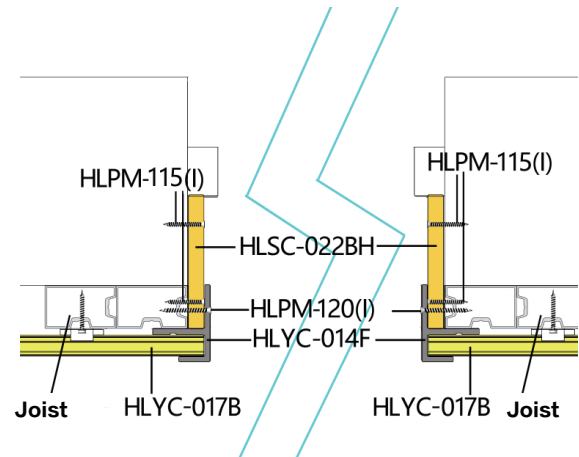
As shown in Figure 13-6、13-7、13-8 :



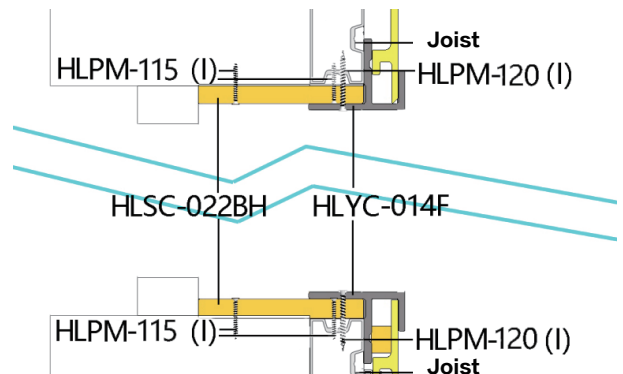
▲ Figure 13-6

5. Cross-section of window and door openings.

As shown in Figure 13-9 for the horizontal section and 13-10 for the vertical section:



▲ Figure 13-9



▲ Figure 13-10