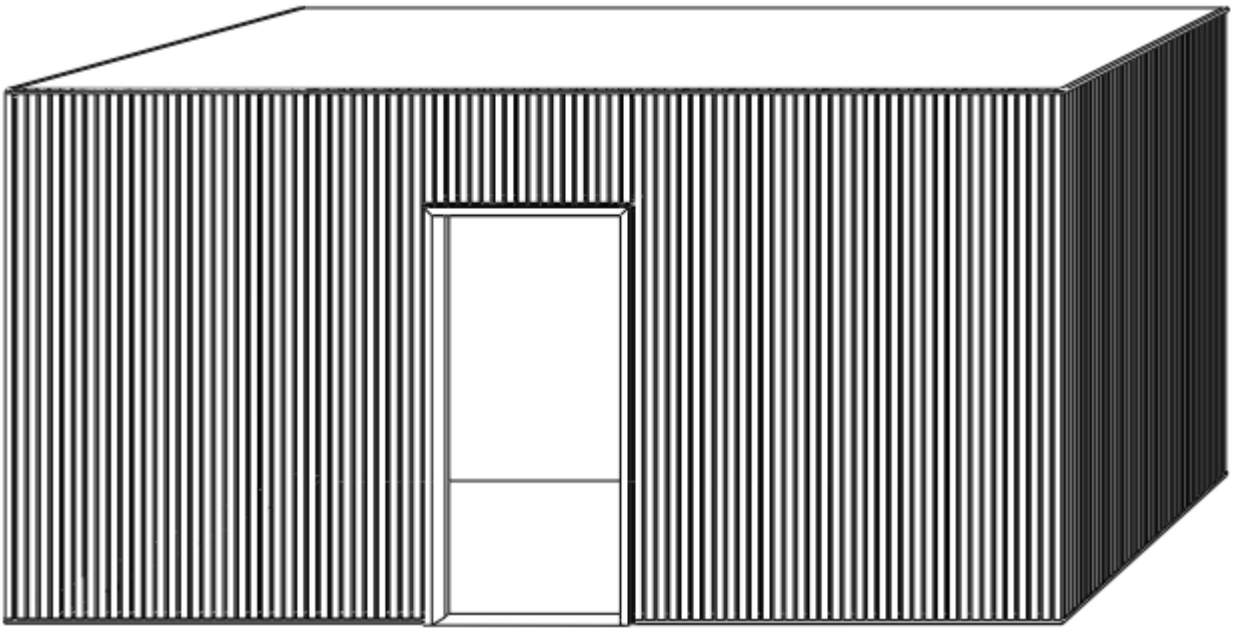
COMPOSITE SLATTED CLADDING

INSTALLATION GUIDE



ARENA

COMPOSITE PRODUCTS

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Important Note

Please take safety precautions before installing the cladding, check that the equipment is working properly and is free of malfunctions, and wear protective safety gear such as gloves, goggles, and impact resistant shoes.

Safety

Please take safety precautions before installing the decking, check that the equipment is working properly and is free of malfunctions, and wear protective safety equipment such as gloves, goggles, and impact resistant shoes.

Environment

Proper installation requires a clean, smooth, and flat surface. Check with local building regulations before installing any type of cladding. If installation is not carried out within a timely manner following receipt of the composite cladding components, the components should be stored on a flat surface at all times. Never place it on an uneven surface.

Planning

Plan the layout for your cladding before you begin to ensure you get the best look for your cladding project. Check to see if any local authority building regulations are applicable (prior to any installation. We recommend planning the overall layout approach and scope of the layout prior to installation to try to avoid mistakes in this area.

Heat and Fire

Excessive heat on the surface of Composite products from external sources such as, but not limited to fire or reflection of sunlight from energy efficient window products: Low-emissivity (Low-E) glass can potentially harm composite products. Low-E glass is designed to prevent passive heat gain within a structure and can cause unusual heat build-up on exterior surfaces. This extreme elevation of surface temperatures, which exceeds that of normal exposure, can possibly cause composite products to melt, sag, warp, discolour, increase expansion/contraction, and accelerate weathering.

Static

Static build-up is a naturally occurring phenomenon that can occur with many plastic products. Dry and windy environments may make this even more apparent; this all varies depending on the climate and age of the wall cladding.

Fasteners

When fastening composite products all screws that are face fastened should always be driven in at a 90-degree angle to the cladding surface.

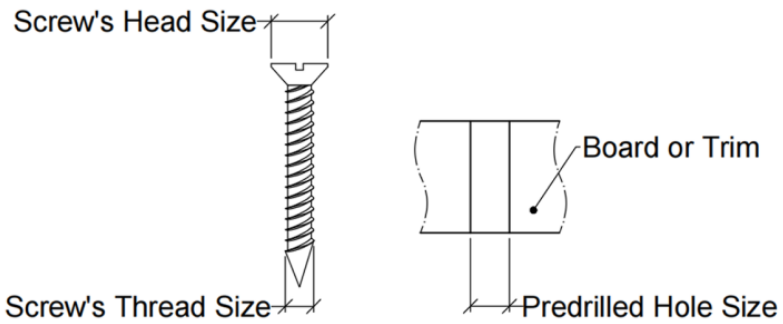
Toenailing/skew-screwing should never be used with composite cladding products. An extra batten should be added if a 90-degree angle cannot be driven into the board. All fasteners should be on their own independent battens when two board ends meet each other there must be two battens side by side. The end of each board must sit on its own batten.

Use white chalk, straight boards, or string lines as templates for straight lines. NEVER USE COLORED CHALK, Coloured chalk will permanently stain composite products and must not be used.

All screws that are face fixed should always be stainless steel. Depending on the screws that you use when face fixing, there could be potential bulging or mushrooming. It is recommended to take care of these mushrooms/bulges by taking a rubber mallet and patting them down to give a better look. If you need to replace the screws yourself, be sure to check first with your local hardware stores to see if they have screws that are engineered specifically for composite wood. These screws will ensure the correct results for composite cladding, using other screws that are not recommended for composite could potentially damage/harm the cladding.

Pre-Drill

It is recommended to use an M4 (4mm) screw for face fixing the boards and the trims onto the batten. When face fixing, it is recommended to predrill a slightly bigger hole on the board and the trim to allow for expansion and contraction, as shown in the below diagram.

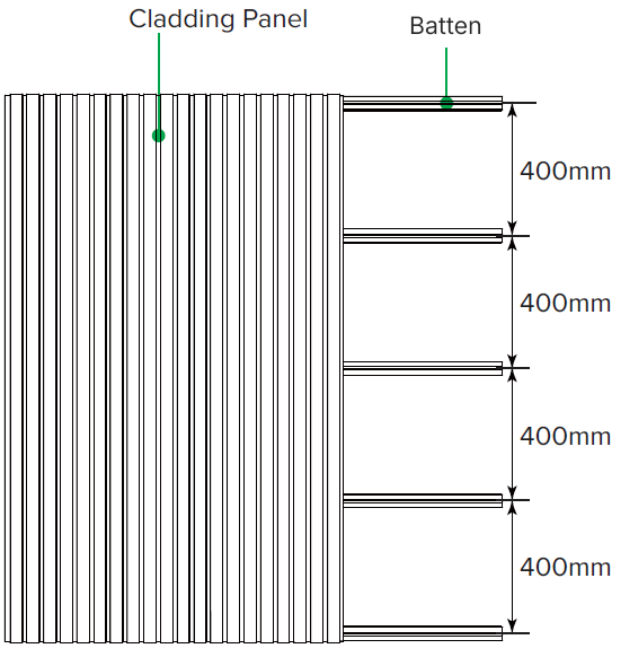


The predrilled hole size should be larger than the screw's thread size, from 1.5 mm to 2mm. Moreover, the predrilled hole size should also be smaller than the screw's head size, by at least 2mm. If this difference is less than 2mm a washer should be used.

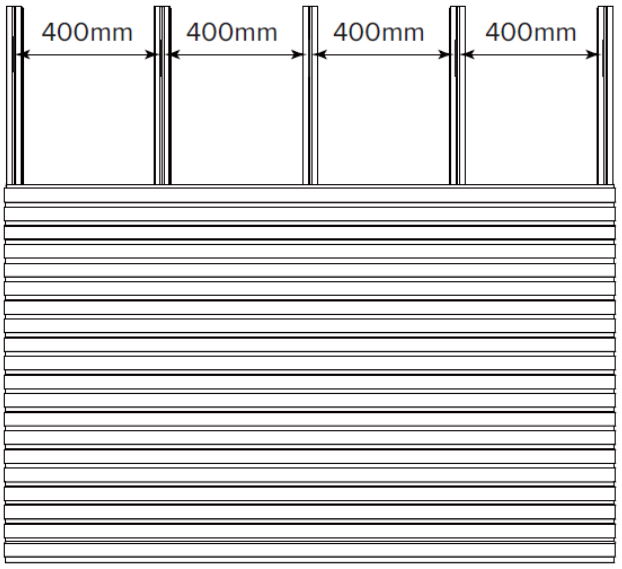
Batten Selection

Batten Dimensions - 40 × 20mm to 40 × 60 mm

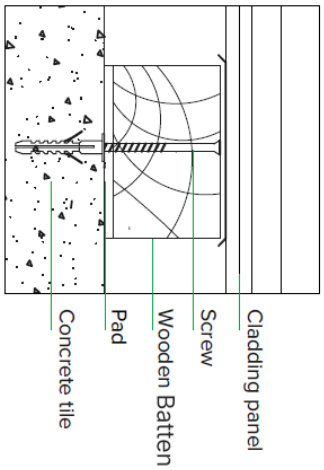
Installation Direction - Battens must be installed perpendicular to the orientation of the wall cladding panels.



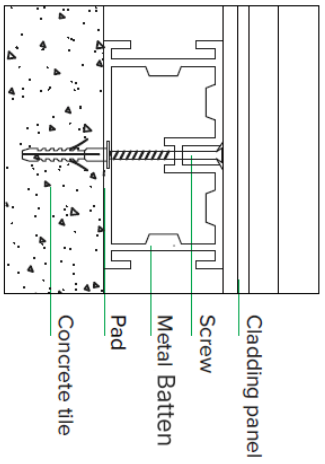
Vertical Installation Guide for Cladding



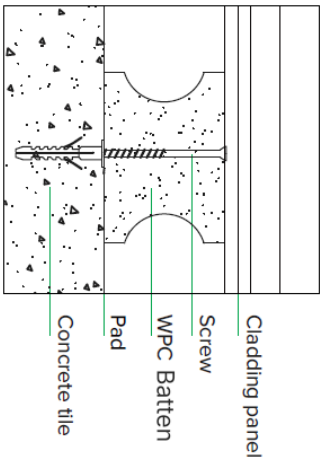
Horizontal Installation Guide for Cladding



Installation of Wooden Batten



Installation of Metal Batten



Installation of WPC Batten

Batten Installation

A building professional should be consulted regarding vapor barriers and insulation for your project. Where a vapor barrier is to be used, it should be a breathable type and must be positioned behind the battens. The batten needs to have a minimum thickness of 30mm.

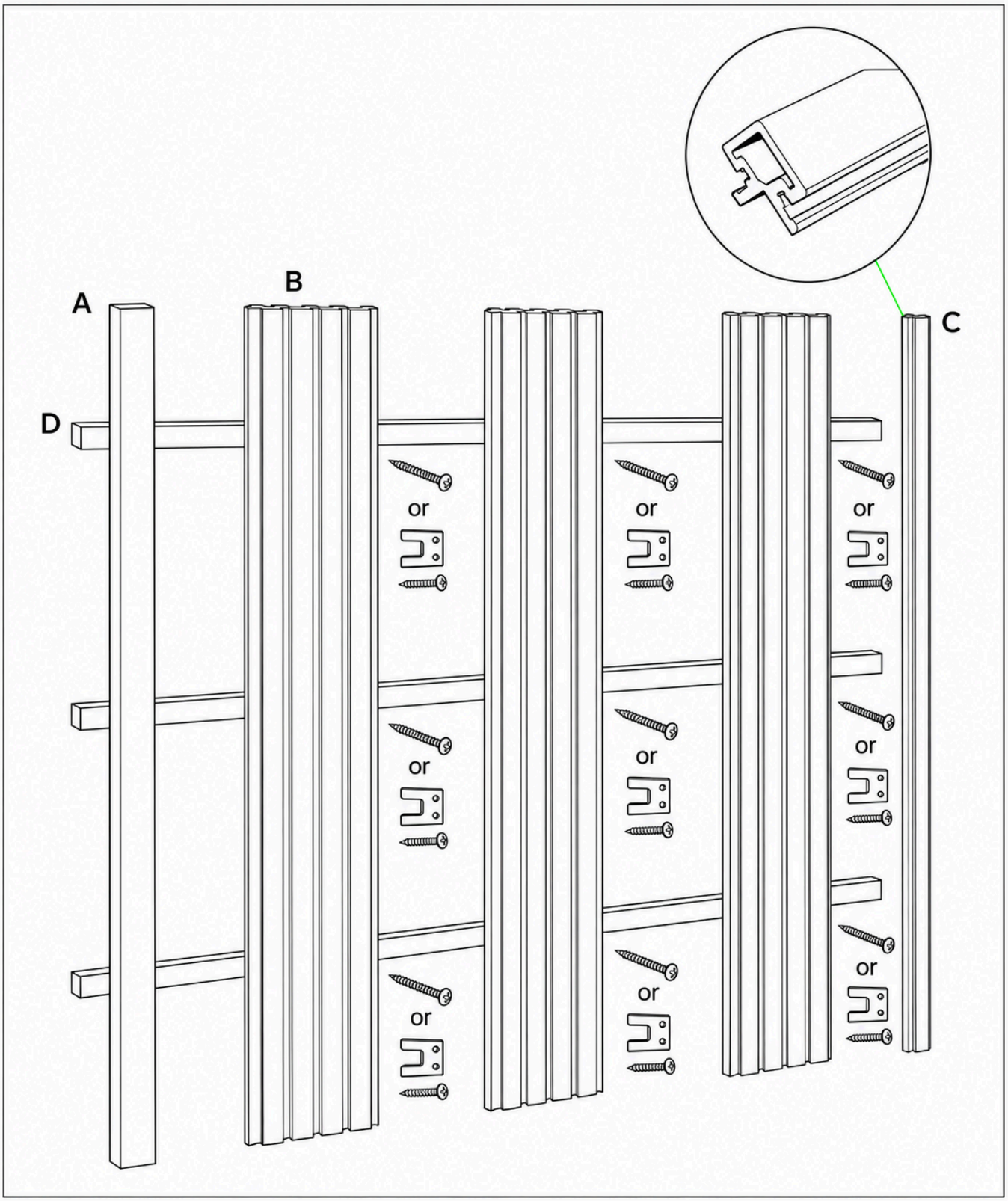
Use a suitable A4 Stainless Steel Countersunk Wood/Masonry screw to fix the batten to the wall. All battens need to be flat and levelled against the wall surface using shims/packers if necessary.

Expansion and Contraction Values

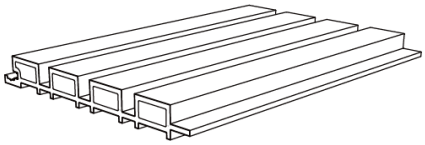
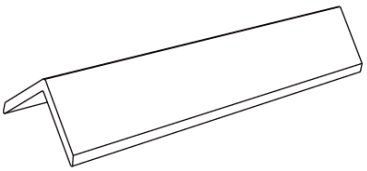
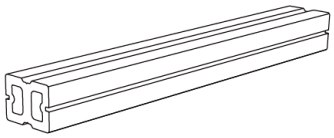
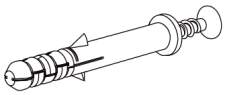
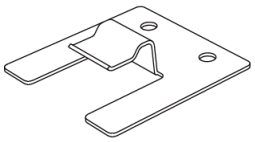
Composite boards will experience expansion and contraction with changes in temperature. Expansion and contraction are most significant where extreme temperature changes occur. The cladding boards should be fixed allowing for gaps as shown in the following table to allow for this movement.

Ambient Temperature (°C)	Length (m)								
	1	2.44	2.8	3	3.6	3.9	4	4.88	Gap (mm)
0	1.6	3.2	3.2	4.8	4.8	6.4	6.4	7.9	
5	1.6	3.2	3.2	3.2	4.8	4.8	6.4	6.4	
10	1.6	3.2	3.2	3.2	3.2	4.8	4.8	4.8	
15	1.6	1.6	1.6	3.2	3.2	3.2	3.2	4.8	
20	1.2	1.6	1.6	1.6	1.6	3.2	3.2	3.2	
25	1.2	1.6	1.6	1.6	1.6	1.6	1.6	1.6	
30	1.2	1.2	1.2	1.2	1.2	1.6	1.6	1.6	

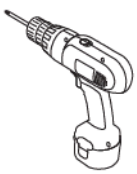
Cladding Parts Overview



Cladding Parts Introduction

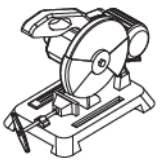
Code	Description
	Cladding Panel
	L Trim
	Batten
	Expansion Screw
	Connector Clip
	Screw

Recommended Tools


Electric Drill


Tape Measure


Rubber Hammer

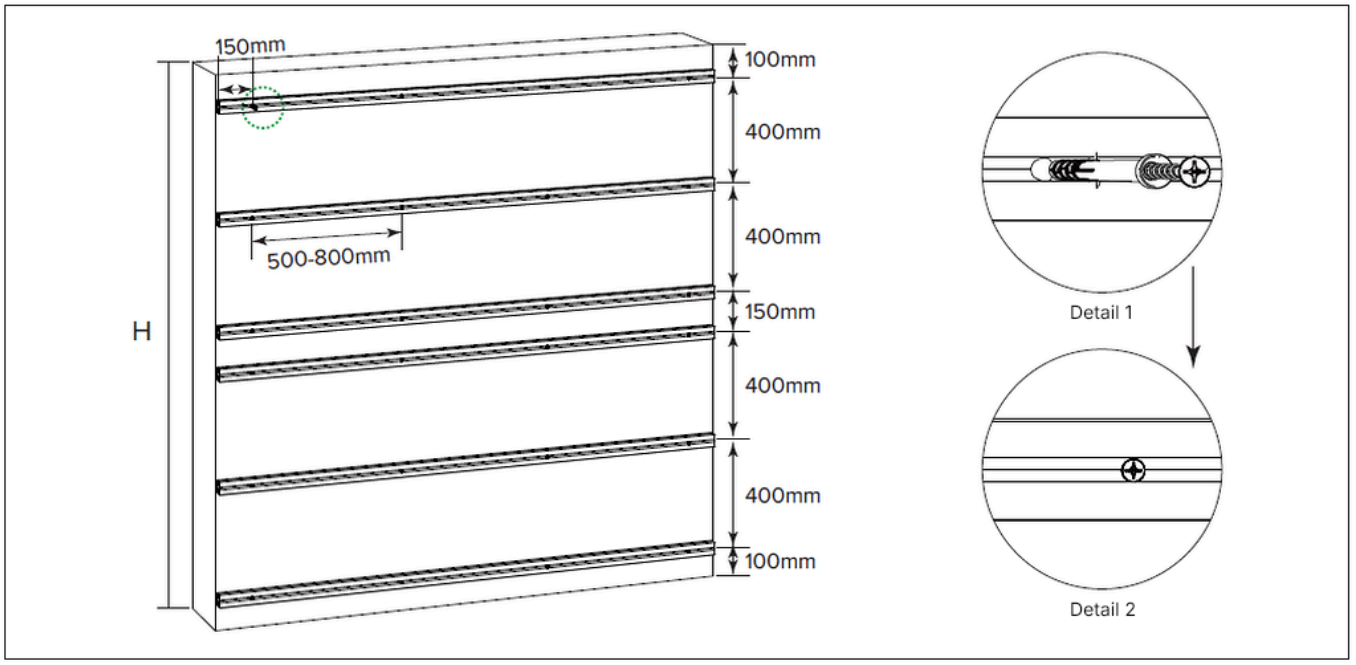

Circular Saw


Spirit Level

Cladding Installation

Batten Installation

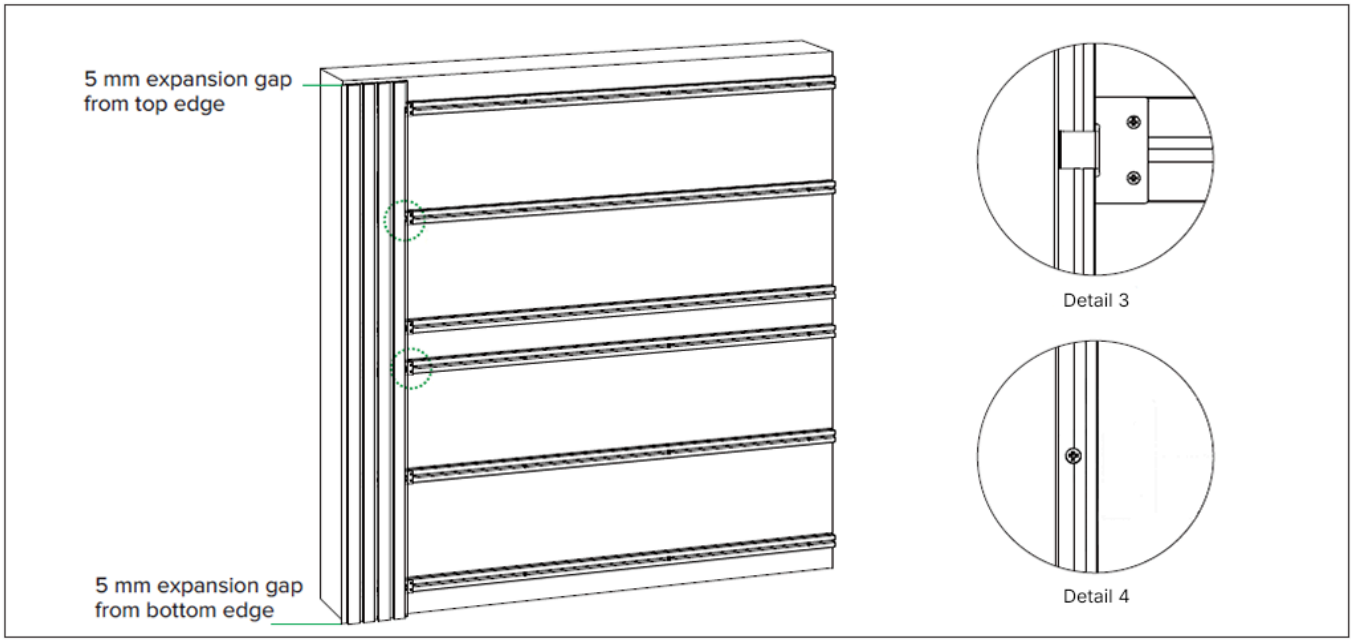
Install Battens at the specified intervals below, ensuring WPC Battens are pre-drilled before fastening. Secure to rigid substrates using M6–M8 expansion screws (min. 40 mm depth) or to timber substrates using M4–M4.2 self-tapping screws (min. 20 mm depth).



When the vertical wall cladding height (H) exceeds 3,000 mm, add a midpoint horizontal batten to prevent panel sagging from dead weight.

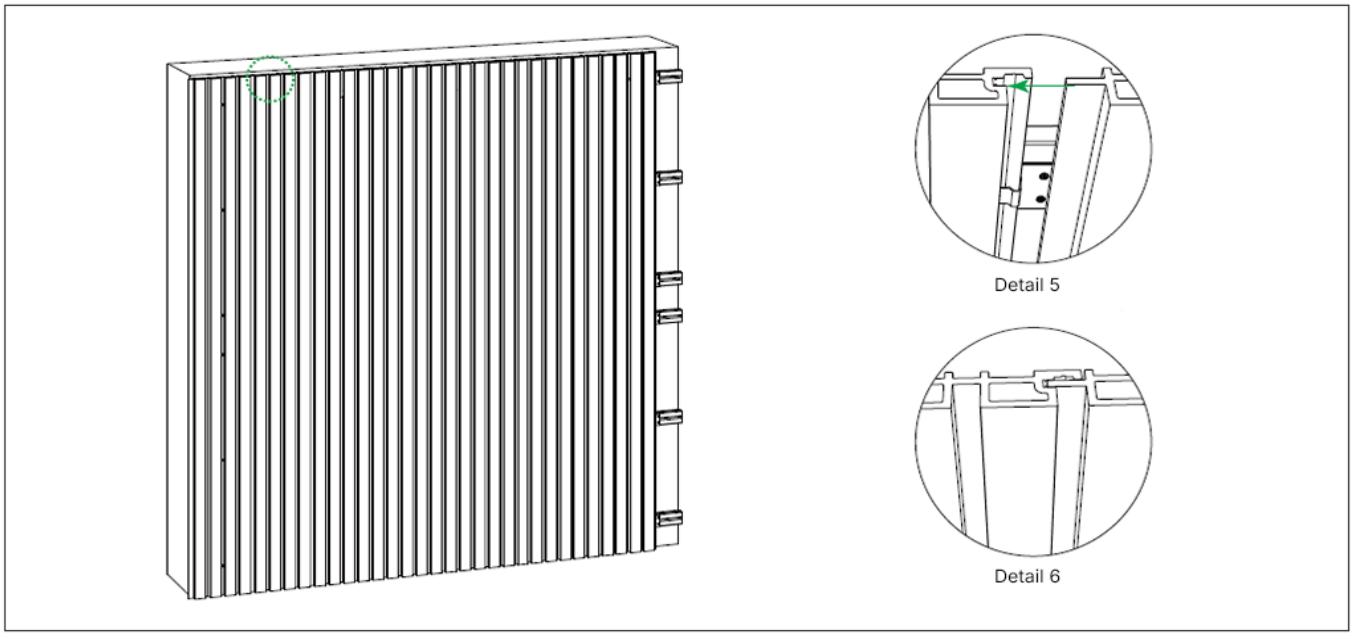
First Cladding Panel Installation

Cut wall panels to length, align the tongue with the batten end, and set top/bottom expansion joints. Pre-drill through the panel's center groove and fasten to the batten with screws.
At the right-hand side of the cladding pre-drill and fix with screws (or use connecter clips, centering one connector clip) at each batten.



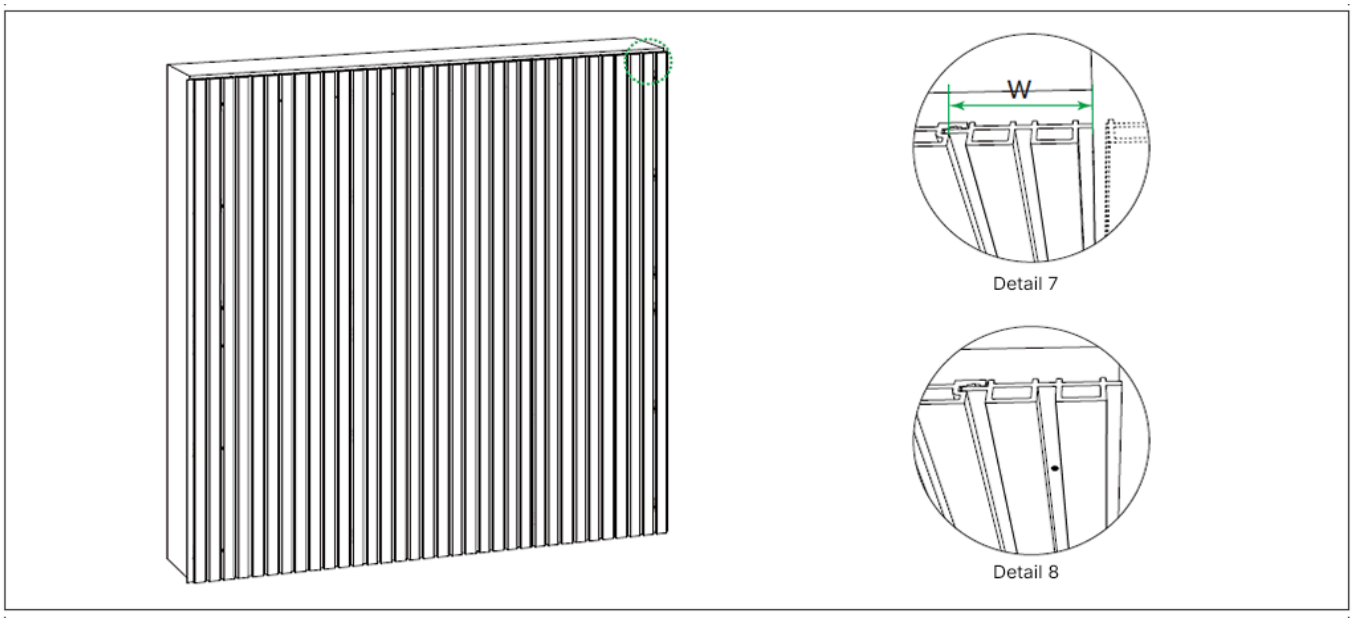
Subsequent Panel Installation

Insert the 2nd piece of cladding panel into the 1st piece of cladding and repeat the screw/ connector clip fixing procedures. Repeat the last step by fixing more cladding panels until the remaining wall width is too narrow for a full panel.



Final Cladding Panel Installation

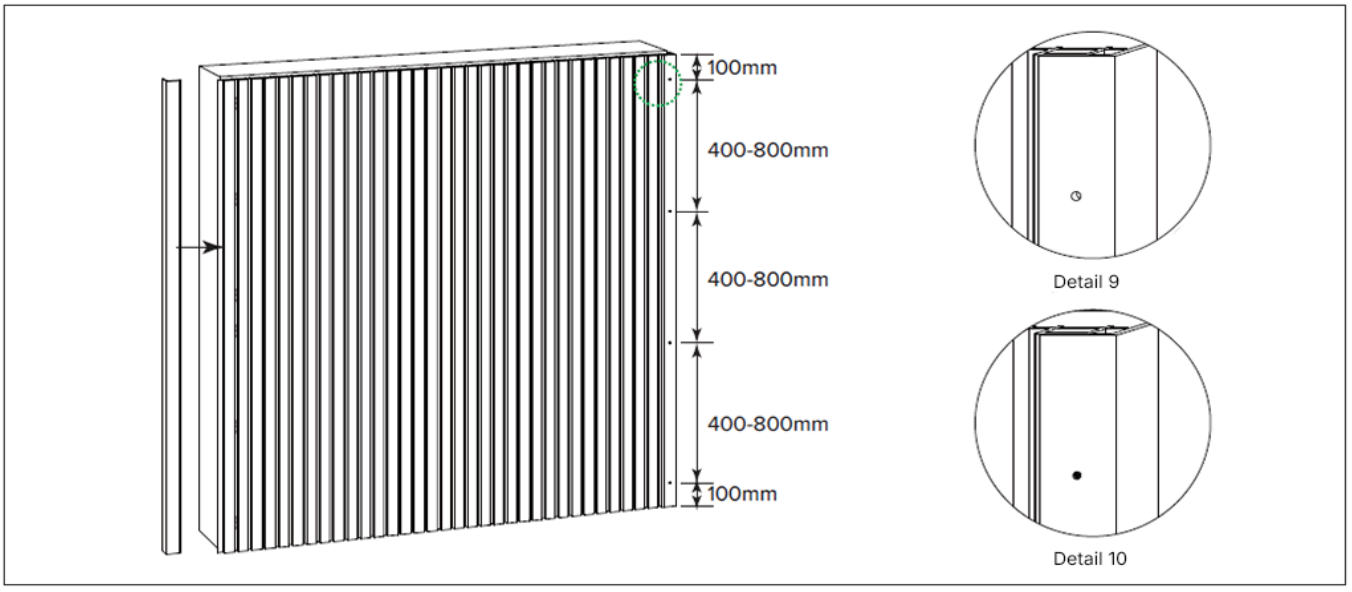
Measure the distance from the last panel to the corner ('W' mm) (see Detail 7) and cut a cladding panel from the insert side to match the measured distance.
Position the cladding panels into place. Drill pilot holes within the panel grooves, then secure the panels using self-tapping screws (see Detail 8).



L Trim Installation

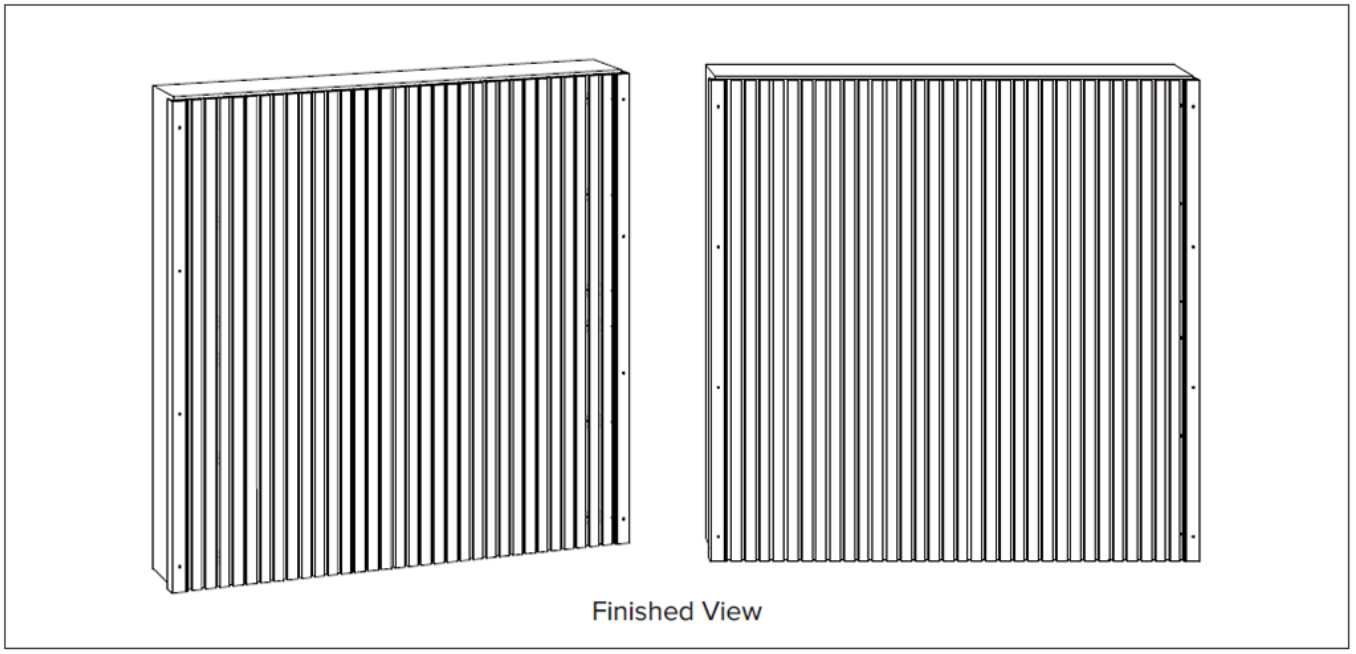
Measure & cut trim to size (Allow a 5mm expansion gap at both top and bottom to prevent warping from thermal expansion).

Pre-drill holes, then secure with self-tapping screws.



Completion and Finishing Touches

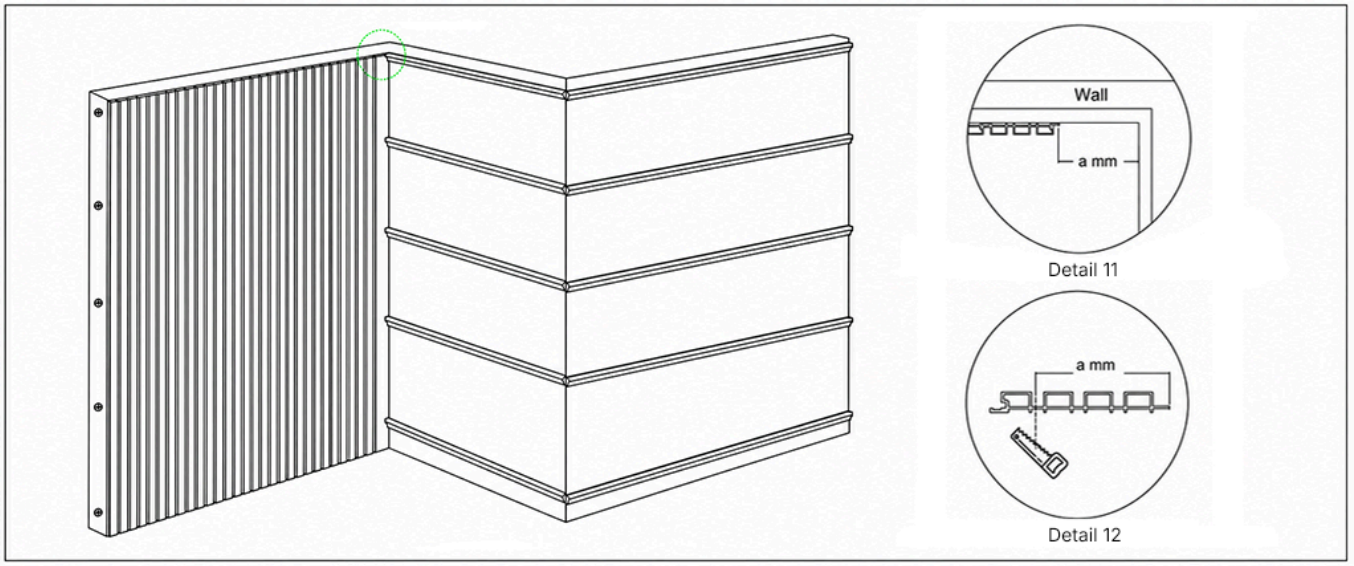
Inspect the cladding surface to check that all joints are tight and flush. Clean the panels using a soft, damp cloth to eliminate construction dust and debris.



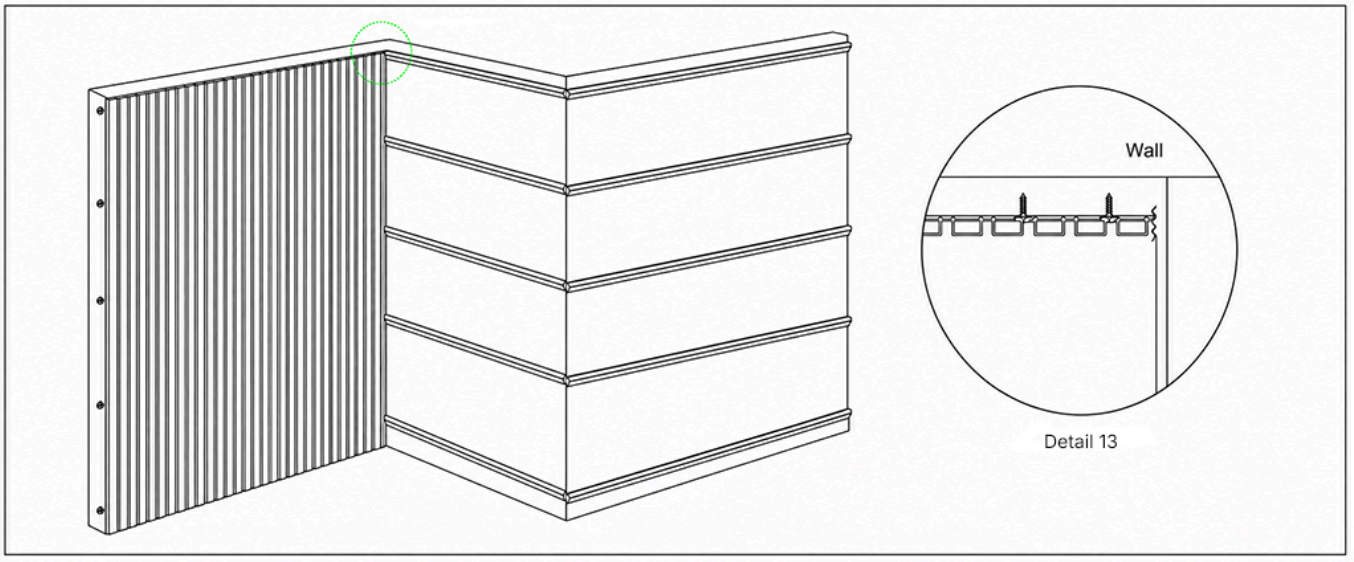
Finished View

Navigating Internal & External Corners

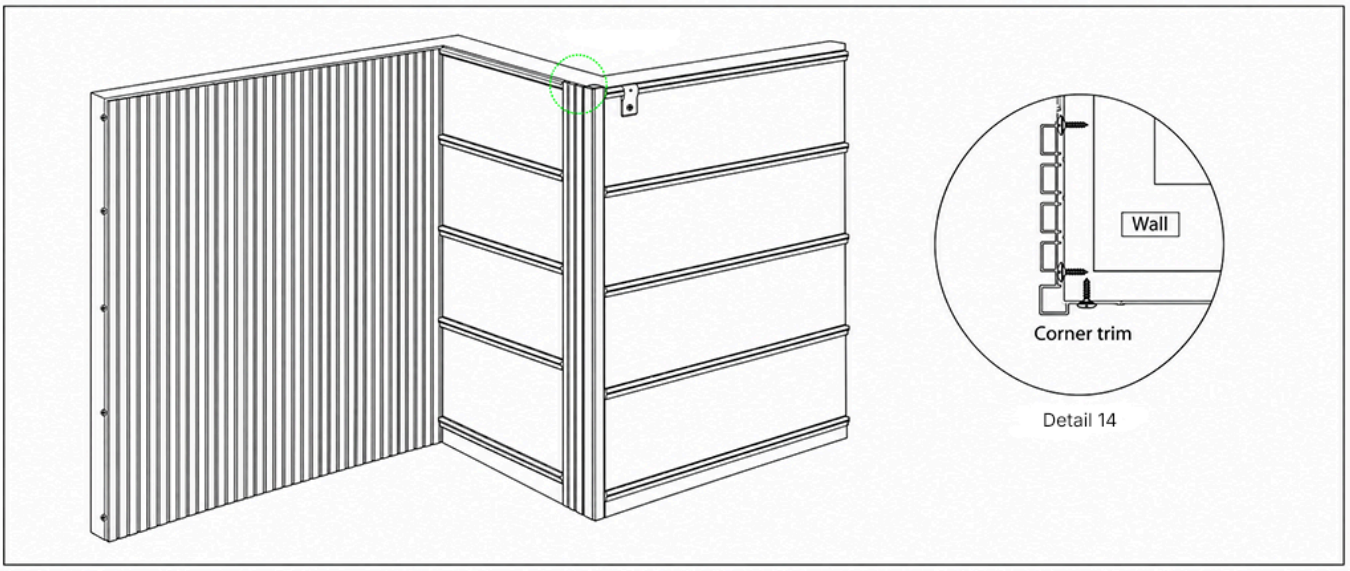
Measure the distance from the last cladding panel to the corner and mark it as ‘a’ mm. Cut a cladding panel from the insert side to fit the measured distance.



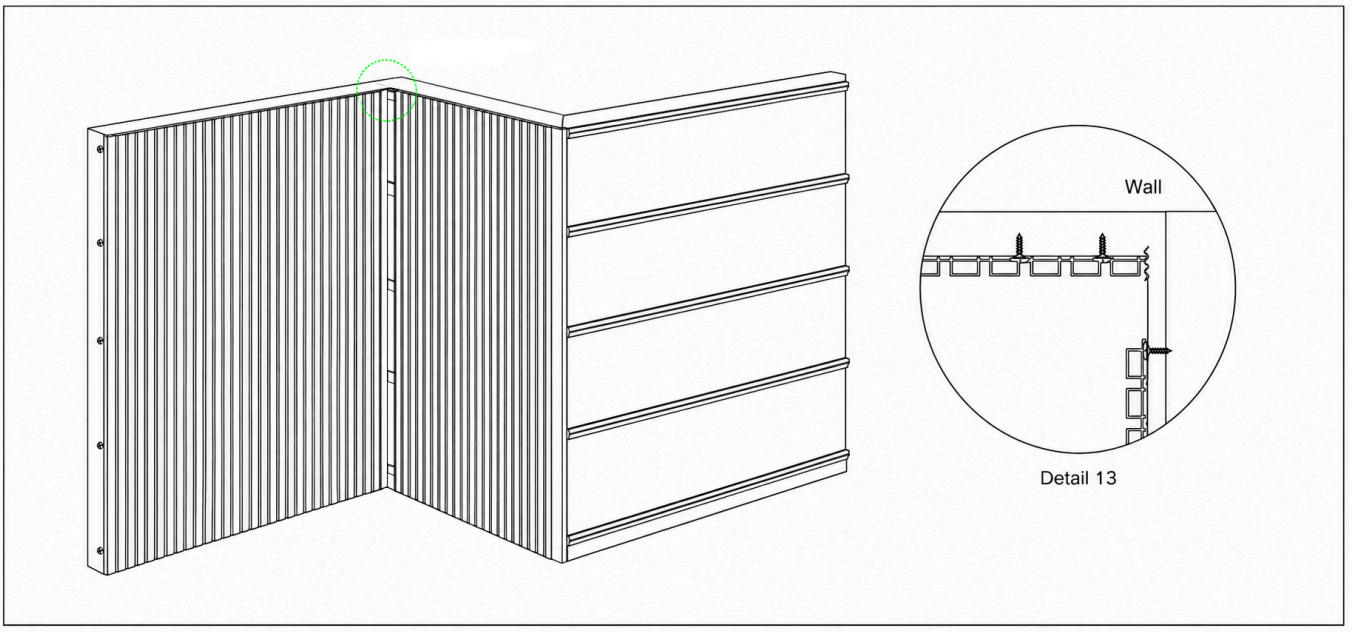
Screw the cut-out cladding panel to the batten at the nearest groove to the corner. (For better screwing effect, use rubber stoppers where the cladding panel meets the top and bottom battens).



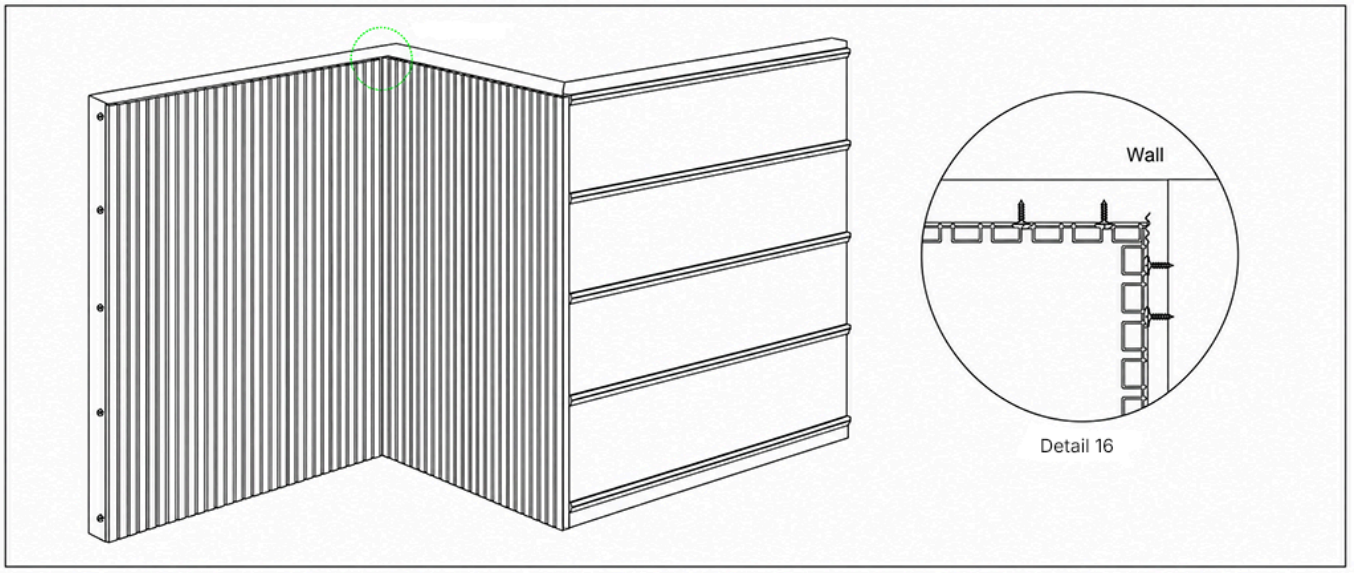
Install the corner trim to the corner with screws (see Detail14).



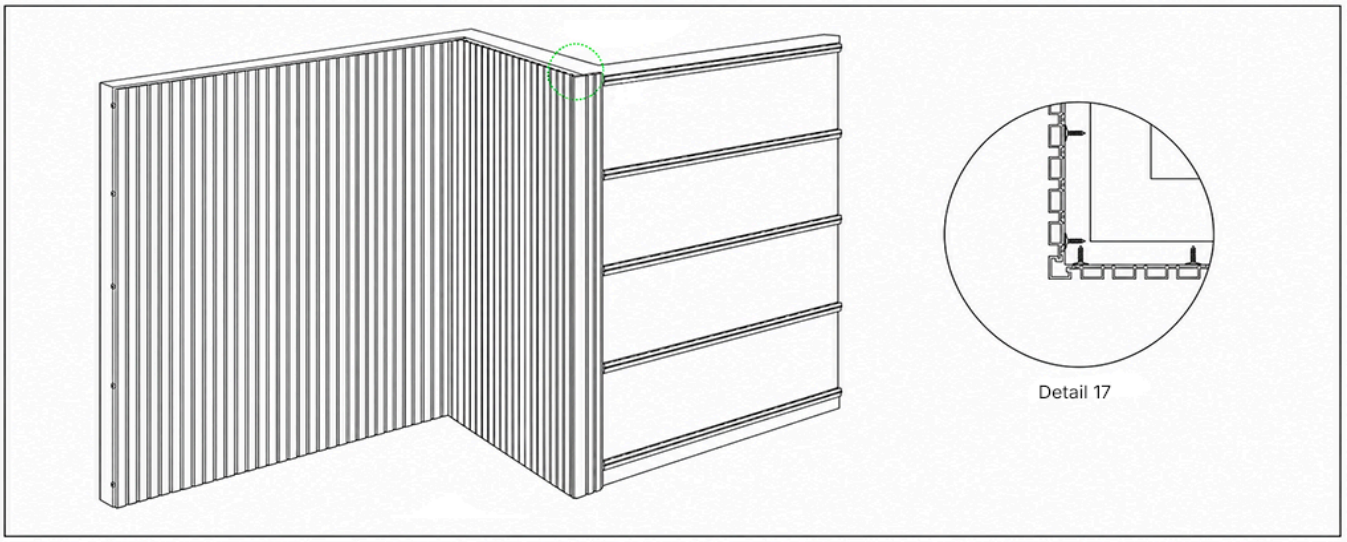
Continue installing connector clips and cladding panels sequentially until the remaining wall width is too narrow for a full panel. Measure the remaining wall width and cut a cladding panel to fit.

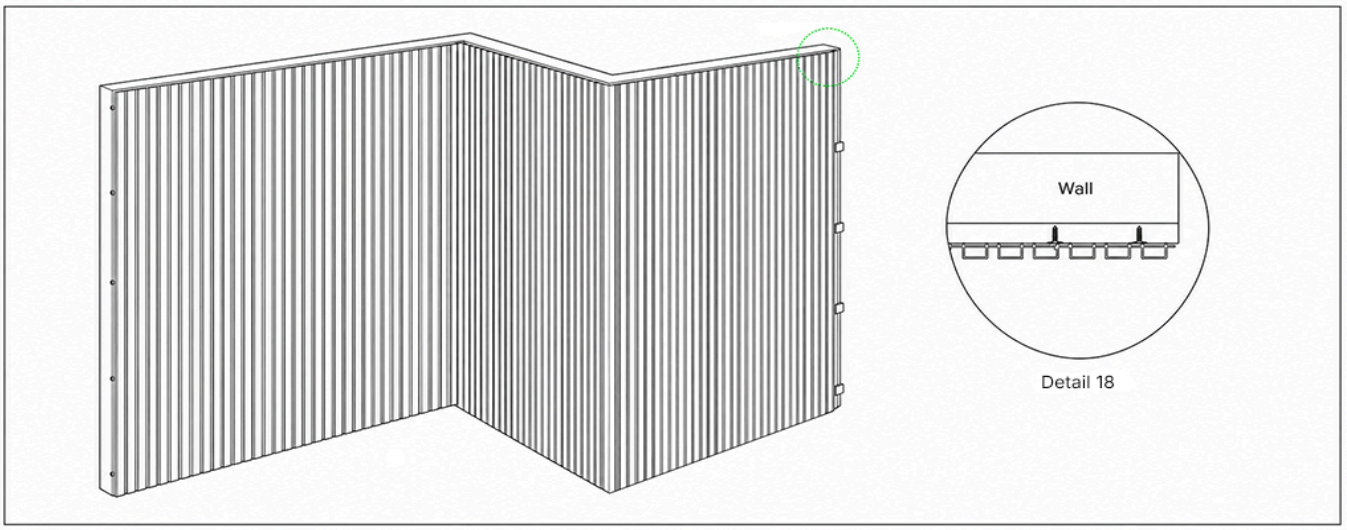


Screw the cut-out cladding panel to the battens at the nearest grooves to the corner.

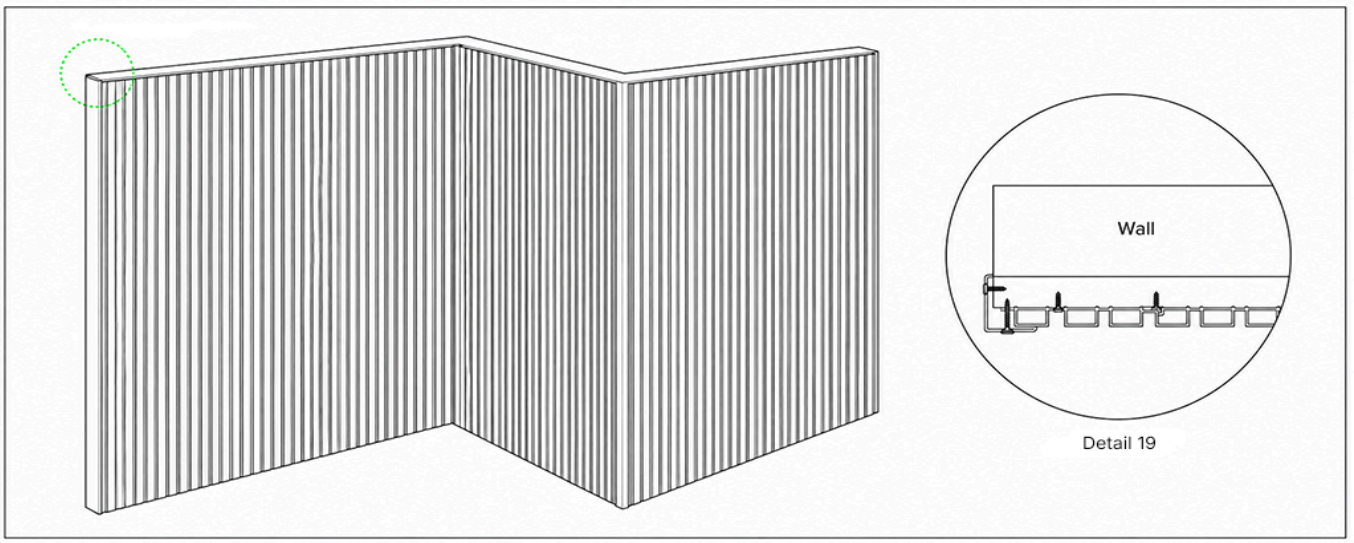


Continue installing cladding panels and connector clips on the other side of the corner trim until the remaining wall width is too narrow for a full panel. Measure the remaining wall width and cut a cladding panel to fit. Then install the cladding panel onto the battens (see Detail 17).





Put end covers on both sides of the wall cladding project and secure them to the cladding panels and battens with screws. (For better screwing effect, use rubber stoppers where the trimmer meets the batten).



Maintenance Guidelines

To ensure the structural integrity of the wall cladding system, panels must not be utilized as primary load-bearing supports for awnings, heavy lighting fixtures, or decorative fixtures. For recessed accent lighting, specific expansion gaps are mandatory. Furthermore, all wall railings, canopy systems, and security cameras must be anchored to structural framing (studs/battens) rather than the cladding panels themselves. It is recommended to use dedicated metal or PVC trims rather than standard fascia boards around exterior plumbing, and sliding gate/window wheels should operate exclusively on dedicated tracks to prevent surface contact and friction.

Problem	Solution
General Debris & Mold	• Clean with warm soapy water and a soft, non-metallic brush. • For deep cleaning, a pressure washer may be used, provided the pressure remains below 1750 PSI (120 bar) and the nozzle is kept at least 30cm away from the cladding surface.
Oil /Grease /Food	• All spills must be removed promptly. • Use warm soapy water and a soft, non-metal scrub brush to clean. • If the stain persists, apply an all-purpose cleaner.
Efflorescence & Water Spots	• For mineral deposits or salt-water spots (white films), apply a 1:1 mixture of white vinegar and water. • Allow the solution to dwell on the surface for 10 minutes before scrubbing and rinsing.
Ice and Snow	• Strictly avoid using metal objects or sharp tools to clear snow or ice off the cladding panels. • Use a salt-free, non-corrosive ice melt designed not to leave any residue on the surface.
Irregular Heat Sources	• Composite products tend to retain heat. • Proper precautions must be taken to prevent the cladding from being exposed to direct fire or abnormal heat sources to avoid permanent surface damage.