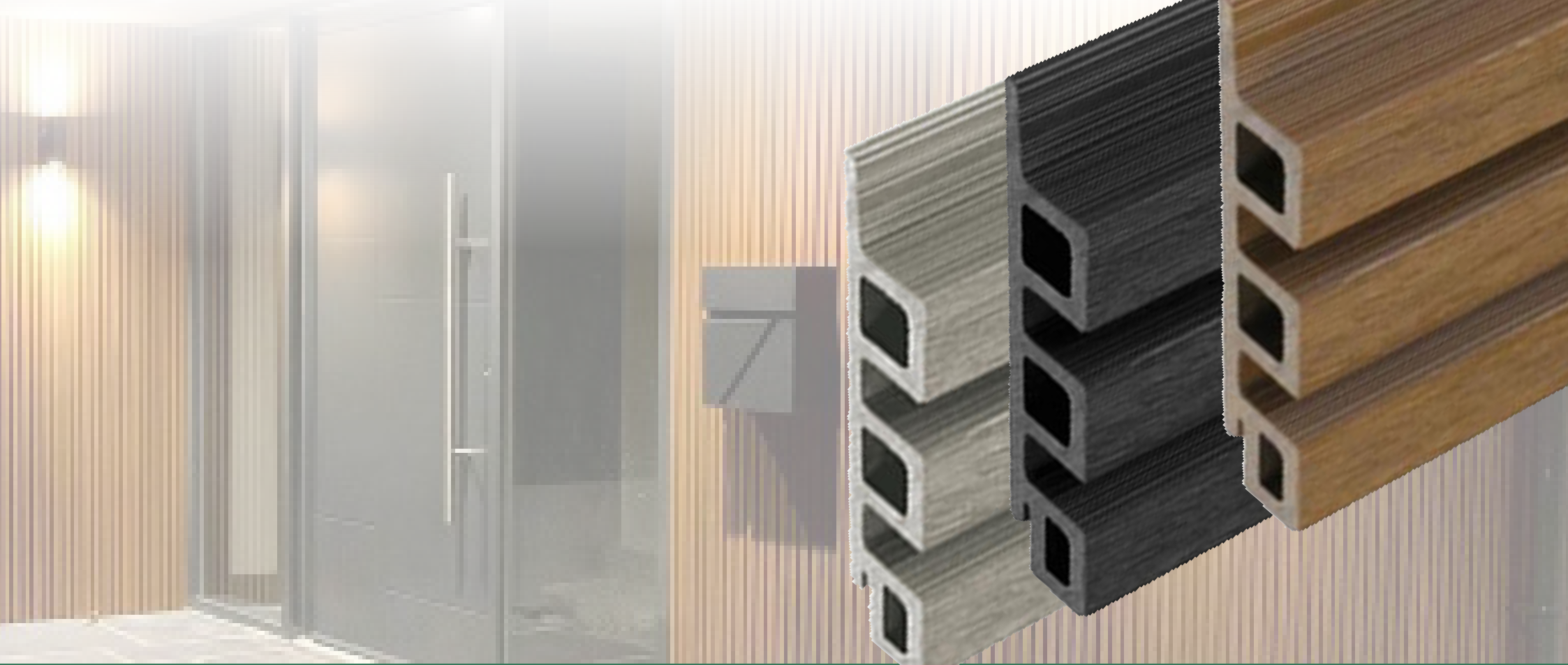


COMPOSITE SALES

PART OF THE PBSL GROUP



 **COMPOSITE CLADDING** INSTALLATION GUIDE

WELCOME TO

OUR INSTALLATION GUIDE

Our slatted cladding takes inspiration from natural western red cedar. This stunning material looks as impressive as natural wood cladding with no need to paint, stain, or oil. Our slatted cladding products come with a 25-year warranty.

This versatile system offers flexibility and style while also maintains the same environmentally friendly ethos. The composite slatted range is made up of high quality recycled HDPE plastic and reclaimed wood fibres.



FIRE RATING CLASS E



LOW MAINTENANCE, NO NEED TO PAINT



NO ROTTING, SPLINTERING OR WARPING



25-YEAR WARRANTY



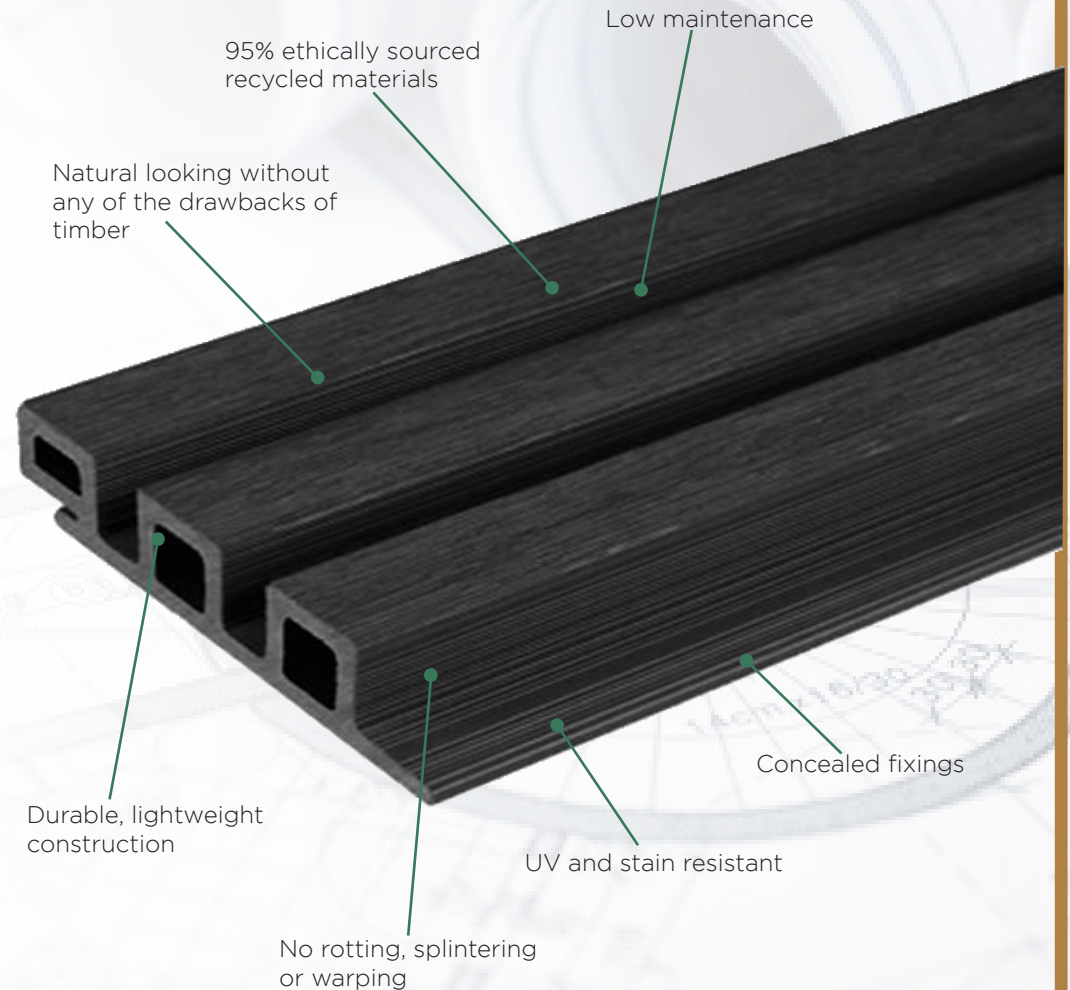
CE CERTIFIED



ENVIRONMENTALLY FRIENDLY

The Board

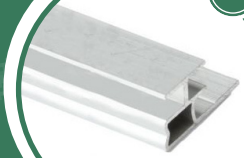
Our composite slatted cladding boards are made from a combination of recycled high density polyethylene and reclaimed wood fibres. This composite of materials results in a high strength cladding system that is fully resistant to weathering.



- Each board is 120mm wide x 25mm thick x 3.6mtr long
- Please note that images are used for illustration purposes only. The actual product may slightly vary from the image supplied.

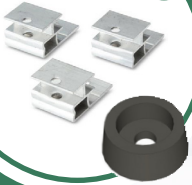
Accessories

1



Starter bars, made from aluminium, are a crucial part of a composite cladding installation. They should be set in place before the first board of cladding is secured into it.

2

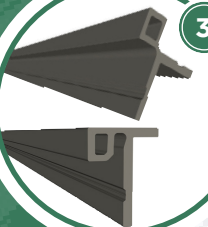


Cladding clips are used to fix and align composite cladding boards securely. They should be used in conjunction with our cladding clips screws.

We recommend using seven clips per cladding board, with them being placed at 500mm centres. Each pack of 250 clips will fix approximately 35 boards of cladding.

These plastic pads are used in conjunction with our cladding screws for starter bars to conceal the screw and create a clean fixing as well as protect the integrity of the starter bar.

3



Corner trims are used to create a 90° turn in the composite cladding by seamlessly continuing the slatted effect around a corner of a property. End trims are the solution to neatly fitting cladding around doors and windows and creating a break in a cladding run. Trims must be installed before fitting the composite cladding.

4



We offer coloured screws to be used with our composite decking boards and clips to create a more aesthetically pleasing finish.

Before you start

Whilst our composite materials are highly durable, we do recommend you follow the below guidelines for storage, handling, and installation to ensure products are kept in the best possible condition.

Allow the composite cladding to acclimatise for a minimum of 3 days prior to installation.

Materials should be stored under cover, in shade, and protected from weather until ready to install. Products should not be stored outside and should not be covered with plastic sheeting.

Use

Standard woodworking tools can be used to install our composite products. When using a chop saw, we would recommend a fine tooth 60T+ Multipurpose Aluminium blade for maximum efficiency and neatness on cuts

Slatted Composite Cladding Boards are not intended for use as columns, support post, beams, joist stringers, or other primary loadbearing members. Boards must be supported by a compliant substructure and CANNOT be installed onto existing cladding boards. All fixings should be fastened at a 90° angle to the cladding system

Handling

Cladding materials should be placed and not dumped when unloading. Boards should be lifted and set down with care to avoid damage. Do not slide boards over one another. Cladding boards should be carried in the middle and on their edge for best support when moving. During installation, avoid sliding or dragging any equipment across the board to prevent the surface from tarnishing.

Safety

Personal protection equipment (PPE) should be worn at all times when installing composite cladding

We recommend to wear gloves, protective eye wear, and a dust mask.



CALCULATING

MATERIALS AND EXPANSION GAPS

To determine how much cladding material will be required you can either use detailed plans and elevations or follow the method below.

Step 1. Measure the length of trims

First, work out what type of trims you will require and how many linear meters you need. We offer two finishing trims with the slatted cladding range - End trim and Corner trim. They both come in 3.6m lengths, so divide the total length required by that number. You may have extra waste on areas where you prefer no joints.

Example:

Corner Trim: Total Length 50m / 3.6m = 13.8 or 14 Trims

End Trim: Total Length 14m / 3.6m = 3.8 or 4 Trims

Step 2. Measure the m2 area of boards

To work out how many cladding boards you need, first measure the m2 area of the wall or screen you are trying to build, and times that by 8.93. Then divide that number by 3600mm to work out the number of individual boards you need.

Example:

Number of cladding boards

$55\text{m}^2 \times 8.93 = 491.15$ lin meters

$491.15\text{m} / 3.6\text{m} = 136.43$ or 137 boards

(2.48 slatted cladding boards at 3.6m lengths = 1 m2 of area)

Total amount:

137 Cladding Boards

14 Corner Trim Boards

4 End Trim Boards

4 x boxes of cladding clips

4 x packs of wood screws for cladding clips

Stainless Steel 316 colour coded screws.

Plus starter bars and plastic pads as required (Fixings and screws which are available in packs of 250)

Note: Laying boards vertically may lead to additional waste depending on wall height, please factor this into your consideration. Offcuts can always be used above/below windows and above doors.



CALCULATING

MATERIALS AND EXPANSION GAPS

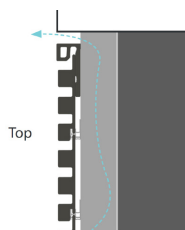
SPACING BOARDS & BATTENS:

Due to the natural expansion and contraction of the composite material with changes in ambient temperature and humidity, cladding boards should be installed with an expansion gap between adjoining boards.

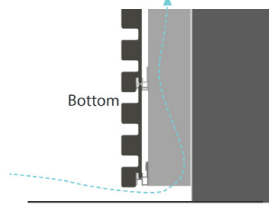
Refer to the expansion gap table below for measurements.

As an example: If installing whole-length cladding boards (3600mm long) and the air temperature at the time of installation is 21C, the expansion the gap should be 4.4mm between adjoining boards as noted in expansion gap table.

- Plastic or timber battens should be installed with a 20mm gap between ends.
- A minimum 15mm gap should be provided between the lowest cladding board edge and the ground.
- A clear cavity between the rear face of the cladding and the outer wall of the covered structure should be provided. This should be no less than 25mm to allow sufficient airflow.
- Joists should be no more than 500mm from centre to centre.
- Extra care is required in order to provide sufficient joisting around windows, fascias, soffits, guttering, ventilation points, and corners of walls. These locations should be planned and co-ordinated with the cladding system to ensure alignment with the composite fascias and trims. This will allow fixing of the cladding and end trims back to the battens
- A double joist arrangement will be required for mid-panel joints and at corners to allow the joint trims to be seated and fixed to both joists. Consider expansion and contraction as noted in expansion gap table.



Ventilation zone behind cladding



Primary ventilation from bottom

BATTEN SPECIFICATION:

- Cladding can be fixed to solid plastic, pressure treated softwood timber (in accordance with BS8417), or aluminium battens depending on design requirements.
- Battens should be fixed into position at 500mm centres using suitable A4 stainless steel, countersunk wood/masonry screws or good quality exterior screws. All battens need to be fixed in a minimum of 3 places.
- All battens need to be minimum 19mm thick, flat and levelled against the wall. Use shims as required.
- Battens used at external corners should be at least 50mm wide to accommodate the Corner/End Trims and provide space for the Aluminium Cladding Clips to be fixed.
- External Corner Battens: min 19mm thick x 50mm wide
- Standard Battens: min 19mm thick x 38mm wide

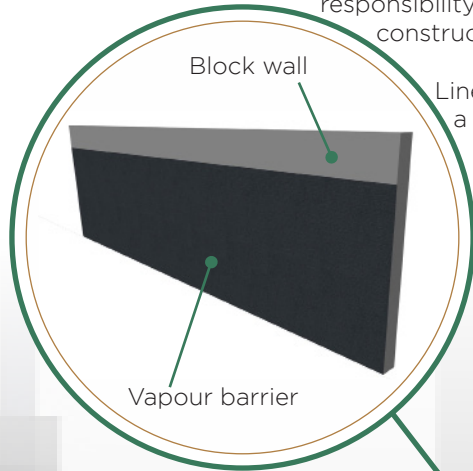
N.B. Prior to installation, a building professional should be consulted regarding vapour barriers and insulation for your project. Where a vapour barrier is to be used, it should be a breathable type and must be positioned behind the battens to allow the cladding a minimum 25mm airflow. It is essential that a barrier/coating is installed to prevent water penetration.

Installation Temperature (°C)	Length (Meters)										Gap (mm)
	1	2.44	2.8	3	3.66	3.9	4	4.88	5.4		
-10	2.4	5.9	6.7	7.2	8.8	9.4	9.6	11.7	13.0		
-5	2.2	5.4	6.2	6.6	8.1	8.6	8.8	10.7	11.9		
0	2.0	4.9	5.6	6.0	7.3	7.8	8.0	9.8	10.8		
5	1.8	4.4	5.0	5.4	6.6	7.0	7.2	8.8	9.7		
10	1.6	3.9	4.5	4.8	5.9	6.2	6.4	7.8	8.6		
15	1.4	3.4	3.9	4.2	5.1	5.5	5.6	6.8	7.6		
20	1.2	2.9	3.4	3.6	4.4	4.7	4.8	5.9	6.5		
25	1.0	2.4	2.8	3.0	3.7	3.9	4.0	4.9	5.4		
30	0.8	2.0	2.2	2.4	2.9	3.1	3.2	3.9	4.3		
35	0.6	1.5	1.7	1.8	2.2	2.3	2.4	2.9	3.2		
40	0.4	1.0	1.1	1.2	1.5	1.6	1.6	2.0	2.2		



HORIZONTAL

STEP 1 Ensure the wall is in suitable condition for the system to be fixed onto. PBSL Group cannot take any responsibility for inadequately constructed walls.



Line the wall with a vapour barrier membrane and fix in place.

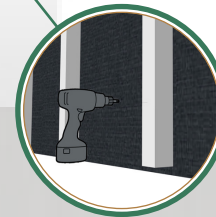


All battens should be flat and levelled against the wall, using shims as required.

STEP 2 Fix treated timber battens to the wall to create the sub frame. Joists should be spaced at 500mm centres using suitable A4 stainless steel, countersunk wood/masonry screws.



We recommend pre-drilling and fixing the battens every 500mm, try to fix into the centre of the blockwork or panel and avoid mortar joints where possible.

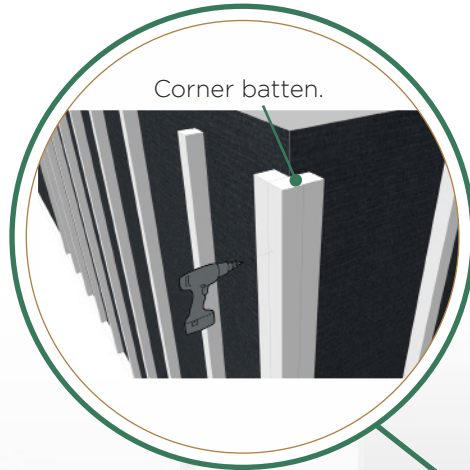


Allow the composite cladding to acclimatise for a minimum of 3 days prior to installation.

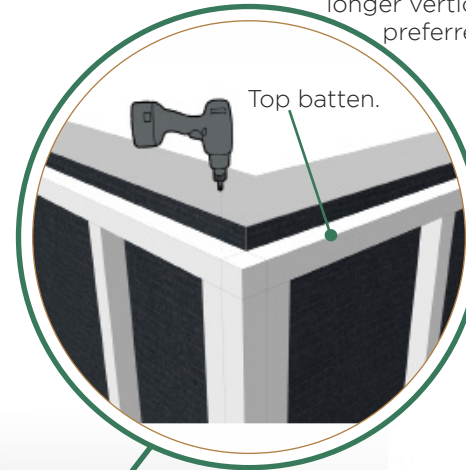


HORIZONTAL

STEP 3 Install battens to the corners to allow the trims to be fixed later.



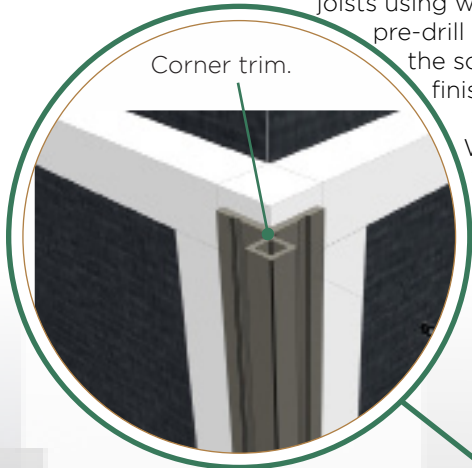
STEP 4 Install top battens where end trims are to be used. The top batten is not vital, you do have the option of a longer vertical batten if preferred.





HORIZONTAL

STEP 5 Before the cladding boards can be installed, you must first fit the corner and end trims. Fix these to the joists using wood screws, pre-drill and countersink the screws for even finish.

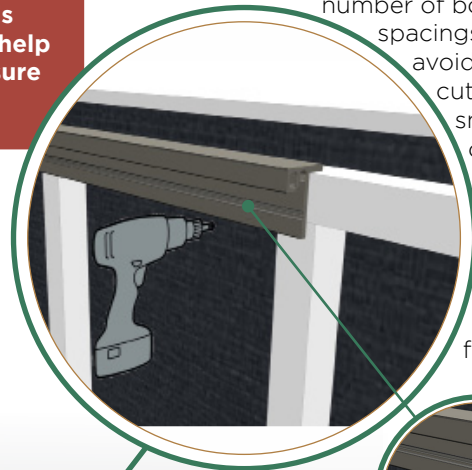


Corner trim.

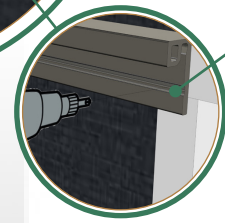
We recommend fixing points every 500mm.


It is recommended that one complete section is installed at a time to help align boards and ensure consistency.

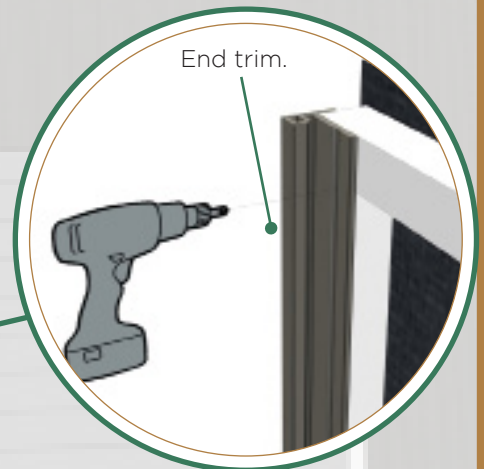
STEP 6 End trims to the top of the wall can be fixed at the start, however, ensure you have calculated the number of boards and spacings required to avoid unnecessary cutting. There is a small recess groove on the trim where we recommend to screw into as shown below. Corners can be joined to create a neat picture frame.



Groove.



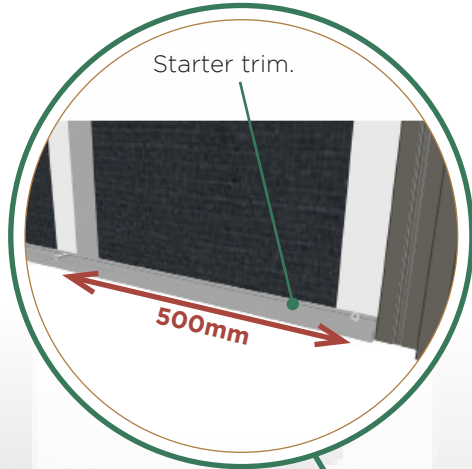
End trim.



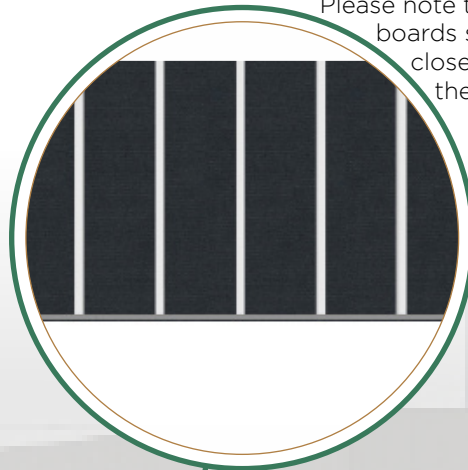


HORIZONTAL

STEP 7 Fix the aluminium cladding starter bar to the base of the batten every 500mm (into each batten).

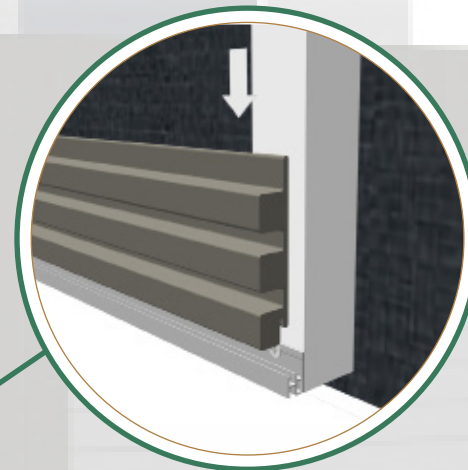


STEP 8 Ensure that the starter bar is flat and sufficiently secured.



Please note that all cladding boards should be no closer than 15mm to the ground.

STEP 9 Take a cladding board and place with the lip up onto the starter bar.



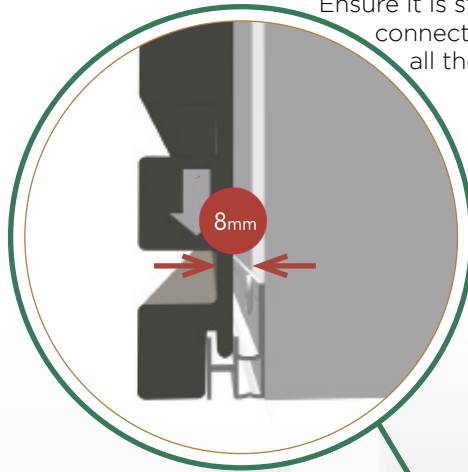
If the cladding is to be installed higher up the building, you may wish to use a corner or end trim as this looks better than the starter bar when seen from below. Refer to page 12



HORIZONTAL

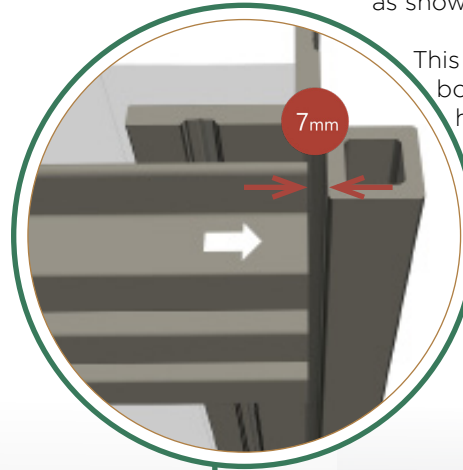
STEP 10 Press down firmly on the board to slot it into place.

Ensure it is straightened and connected properly all the way along.

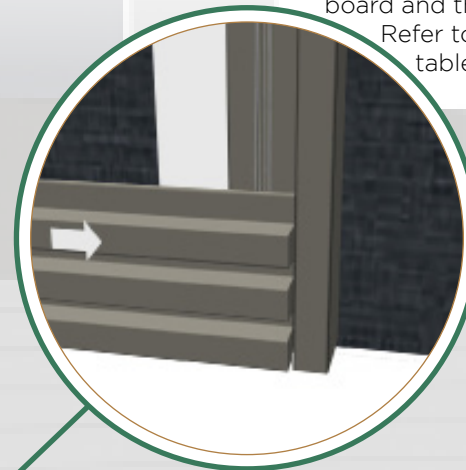


STEP 11 Boards which border on a corner trim should be positioned 5-7mm away from the corner trim batten face as shown in the diagram.

This is to allow the board to sit horizontally against the trims' back face and not ride up on the trims profile.



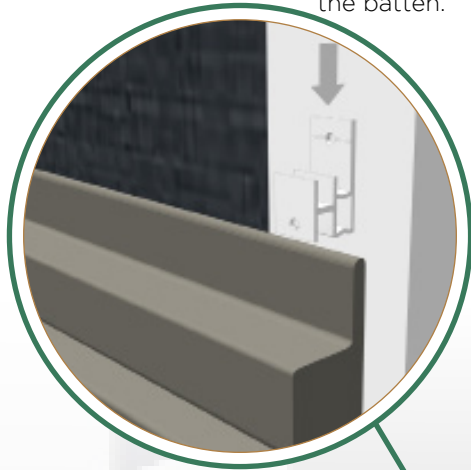
STEP 12 Cladding boards which border on end trims should be positioned with a 5mm gap between the end of the board and the trim face. Refer to expansion gap table.



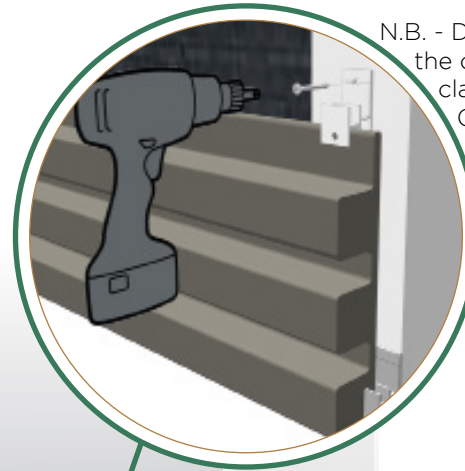


HORIZONTAL

STEP 13 Slide an aluminium cladding clip over the top edge of the cladding board and align it with the centre of the batten.



STEP 14 Use wood screws (stainless steel wood screws) to fix the clip into the batten.



N.B. - Do not fix through the clip into the cladding board. Continue to fix the remaining clips along the rest of the board every 500mm into the battens.

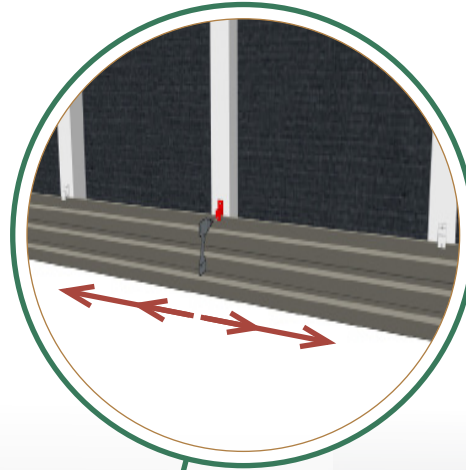



HORIZONTAL


STEP 15 To ensure even expansion and contraction of the boards and to prevent the boards from moving, you may choose to secure each cladding board using the central cladding clip



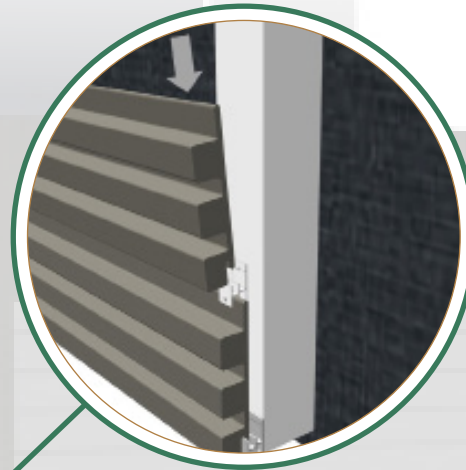
STEP 15a This will allow for even expansion and contraction along the length of the board.




Don't forget to continually check your cladding is aligned.


Only fix the centre cladding clip. Please make sure to pre-drill through the cladding board before fixing the screw to avoid splitting.

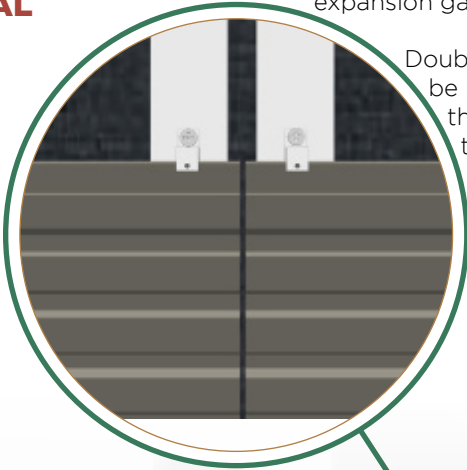
STEP 16 Install the remaining cladding boards in the same way as steps 9 to 15.





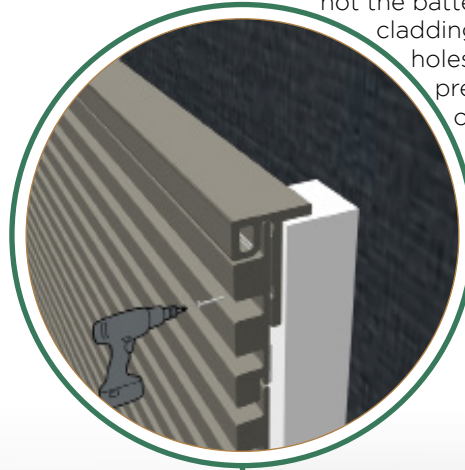
HORIZONTAL

STEP 17 Where boards meet end to end, ensure the appropriate expansion gap is left between boards. Refer to the expansion gap table.

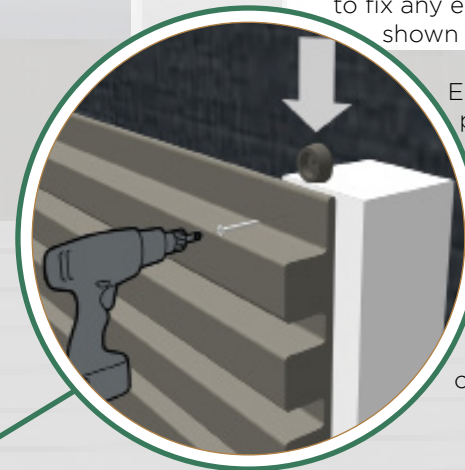


Double battens should be used no more than 20mm apart to ensure a secure fixing.

STEP 18 Finish with an end trim at the top as shown. We recommend installing through the recess and not the batten part of the cladding. Ensure all holes are pre-drilled and countersunk to achieve a smooth finish.



STEP 19 Where a final aluminium cladding clip or end trim cannot be used, a plastic pad can be used to fix any end boards as shown adjacent.



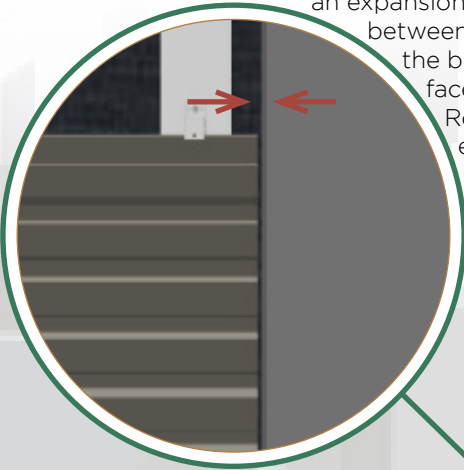
Ensure all holes are pre-drilled and countersunk to achieve a smooth finish. We recommend installing through the recess and not the batten part of the cladding.


On some projects you may not choose to use our stainless steel colour coded screws to fix the final cladding board. All projects differ and comes down to taste.

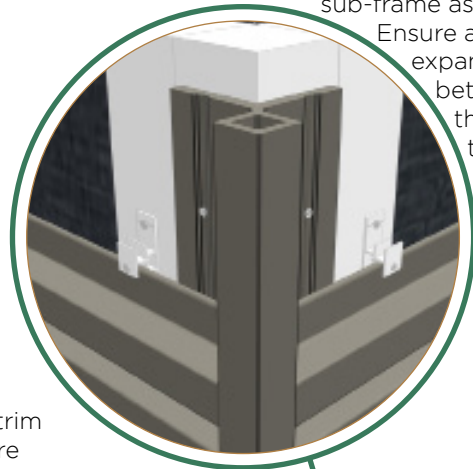


HORIZONTAL

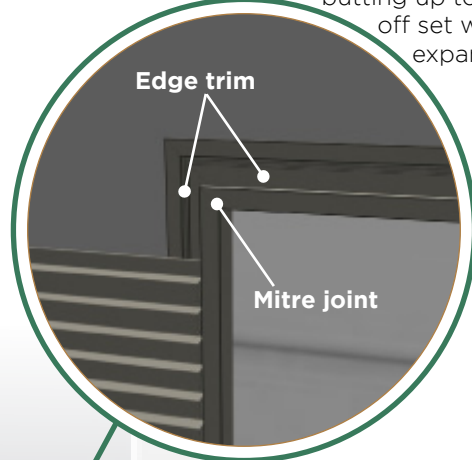
STEP 20 Where cladding panels run into a wall or a post, an end trim is not always required. Just ensure an expansion gap is left between the end of the board and the face of the wall. Refer to the expansion gap table for more information.



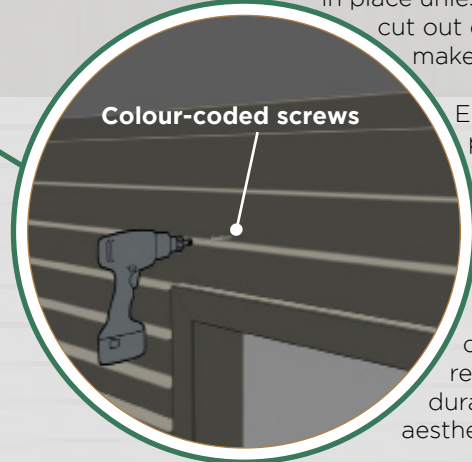
STEP 21 Corner trims can be used to create a neat finish to corners. Ensure the trims are installed on a full corner sub-frame as shown adjacent. Ensure a sufficient expansion gap is left between the end of the board and the corner trim profile. Refer to the expansion gap table for measurements.



STEP 22 For garage doors, end trims can be mitre cut to create a neat finish to the door opening. Ensure any panels butting up to the end trim are off set with a sufficient expansion gap.



STEP 22a The first panel above the door can be fixed with a colour-coded screw as a cladding clip cannot be fixed in place unless recesses are cut out of the end trim to make room.



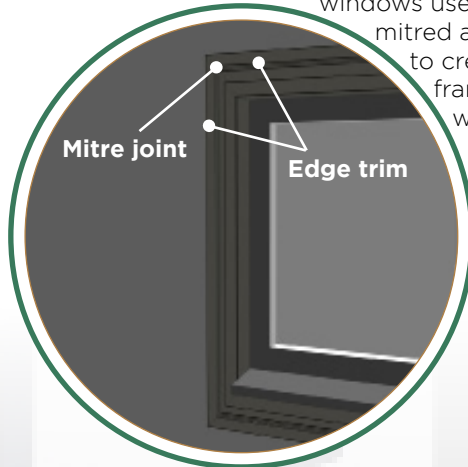
Ensure all holes are pre-drilled and countersunk. Cladding boards can also be cut along their length however this is best done along any recesses for best durability and aesthetics.



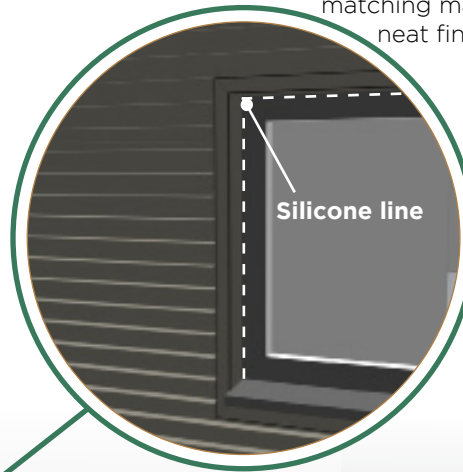
HORIZONTAL

STEP 23 Details around windows can be achieved using either the corner or end trims. For shallow recessed windows use an end trim, mitred at the corners, to create a picture frame around the window.

As always, ensure that holes are pre-drilled and counter sunk.

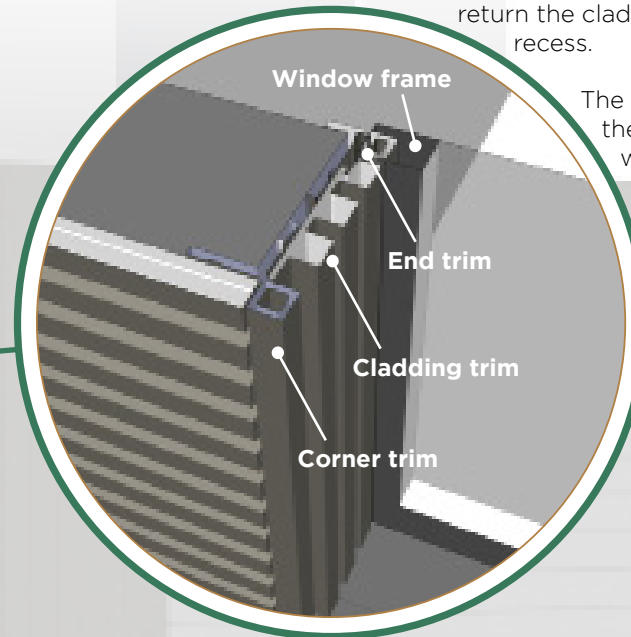


STEP 24 Cladding can then be laid around the window and the joints around the frame sealed with colour matching mastic to achieve a neat finish.



STEP 25 For windows with a deeper recess, a corner trim can be used to return the cladding into the recess.

The cladding can then abut the window frame directly or an end trim can complete the cladding.



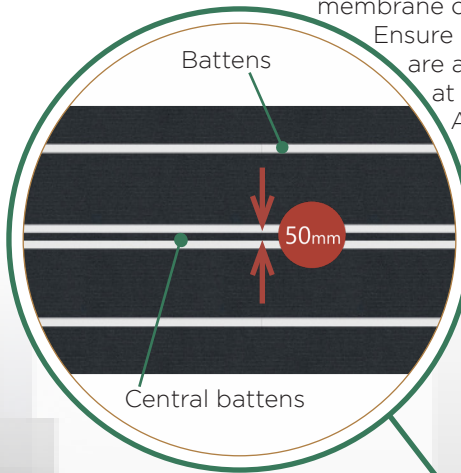

Installation complete.

VERTICAL

STEP 1 As with the vertical method, the battens should be secured appropriately onto a suitable wall with vapour membrane or similar in place.

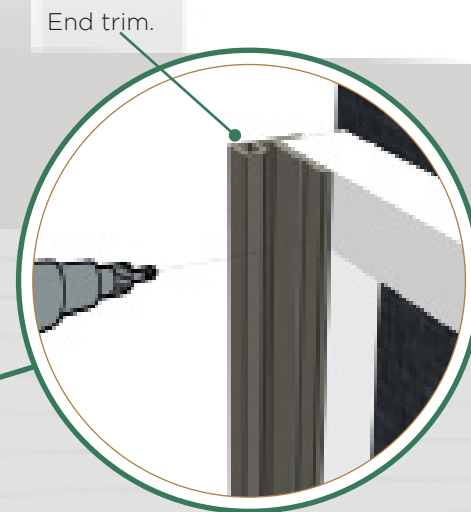
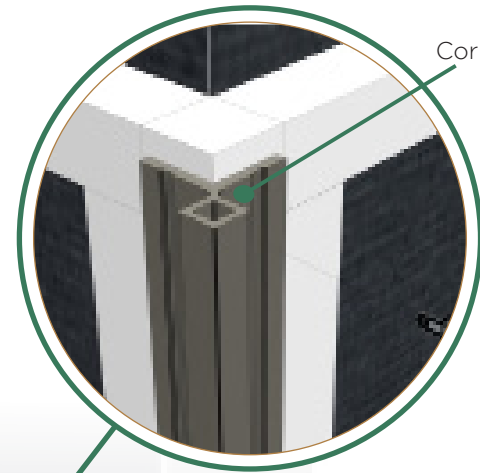
Ensure that the battens are aligned and spaced at 500mm centers.

A double row should be installed in the centre with the joists 50mm apart. This is for the locking clips which will be installed later.



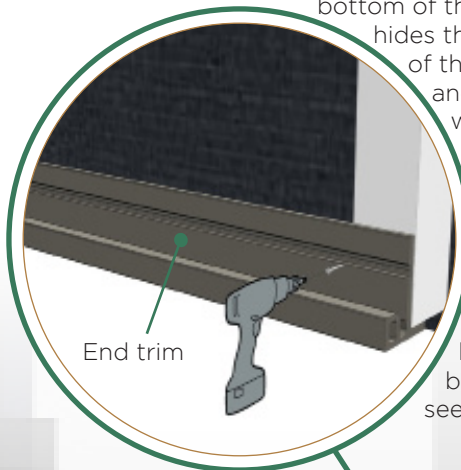
An alternate method is to install the cladding panels vertically. For this the sub-frame battens will need to run horizontally to the ground.

STEP 2 As with the horizontal method, install the corner and end trims first.

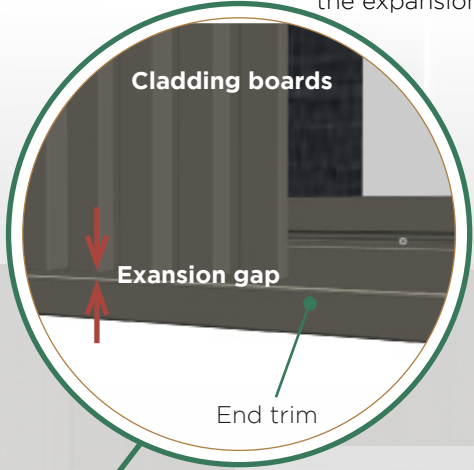


VERTICAL

STEP 3 When laying the boards vertically, it is best practice to run an end trim horizontally across the bottom of the joists. This hides the hollow section of the cladding board and finishes it off well. On some projects this may not be needed if the cladding is sitting on brick / aluminium detail or sufficiently low enough that the bottom of the boards will not be seen.



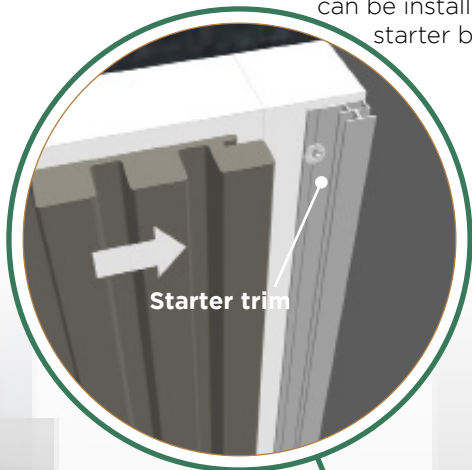
STEP 4 Cladding boards will need to be packed up above the end trim to create an expansion gap. Refer to the table for the expansion gaps required.





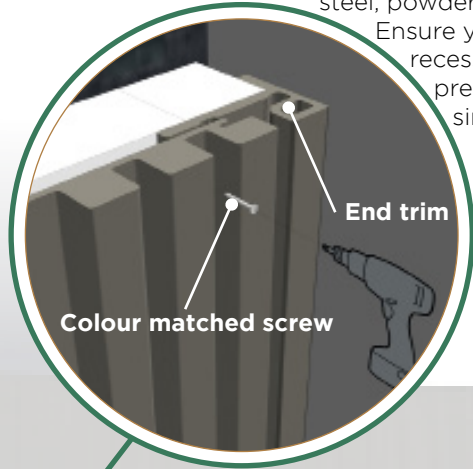
VERTICAL

STEP 5 If you start installing the vertical cladding in a corner where no trim is needed, the first board can be installed with a starter bar as shown.




Don't forget to continually check your cladding is plumb.

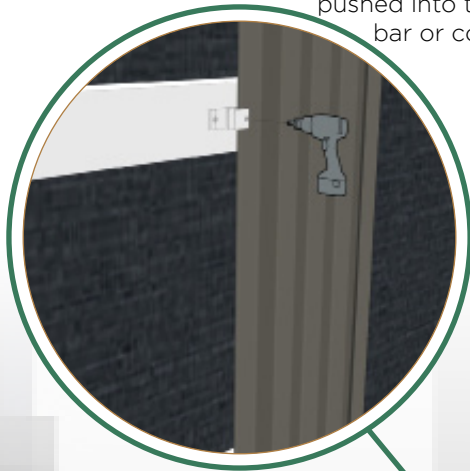
STEP 6 If you need to use an end trim or corner trim to start, you will need to face fix the first board using stainless steel, powder-coated screws. Ensure you fix in the recess of the board, pre-drill and counter-sink for even finish.



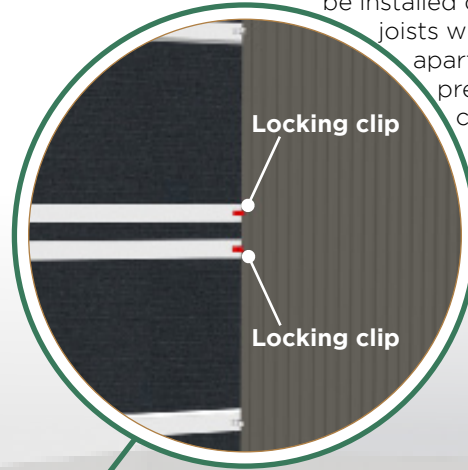


VERTICAL

STEP 7 Fix the first cladding board to the joists using the supplied clips. Ensure that the board is vertical and pushed into the first starter bar or corner / end trim.



STEP 8 Boards should be 'locked' in place with the two central clips only to ensure they do not fall. These should be installed on the two central joists which are 50mm apart. Ensure to pre-drill through the cladding prior to fixing.



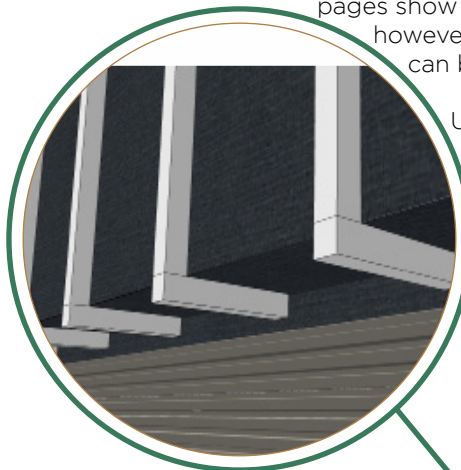
Install the remaining boards in the same way.

STEP 9 The final cladding board can be slotted into place and fixed with a colour-coded screw through the end or corner trim. Ensure the holes are pre-drilled and countersunk for a neat finish.



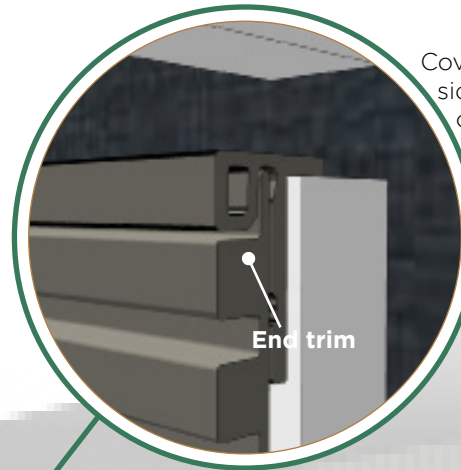

Installation complete.

STEP 1 There are multiple ways to construct a soffit whilst using the slatted cladding system. The next few pages show a typical scenario, however, other methods can be used.



Use treated timber joists to wrap the underside and front face of the soffit. Fix them at 500mm centres.

STEP 2a Depending on the height of the soffit you can either:



Cover up to the underside using the cladding panels and finish with an end trim, or;

STEP 2b Cover up to the underside and use the plastic pads and colour-coded screws to fix the last board.

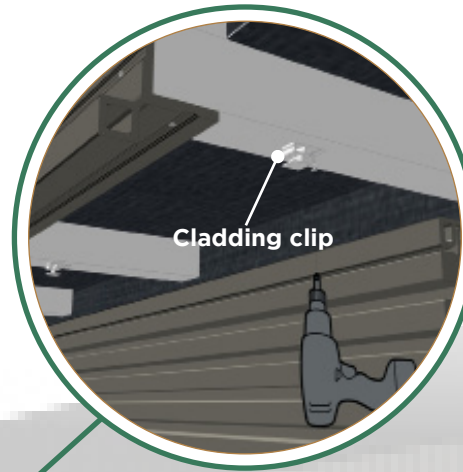


Either method can work depending on the scenario.

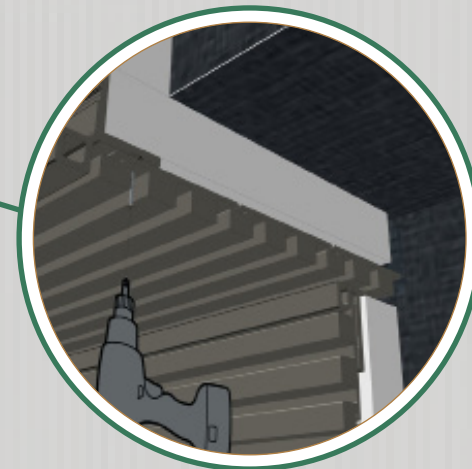
STEP 3 Fix the corner trim to the edge of the joists using the supplied wood screws. Ensure screws are pre-drilled and countersunk.



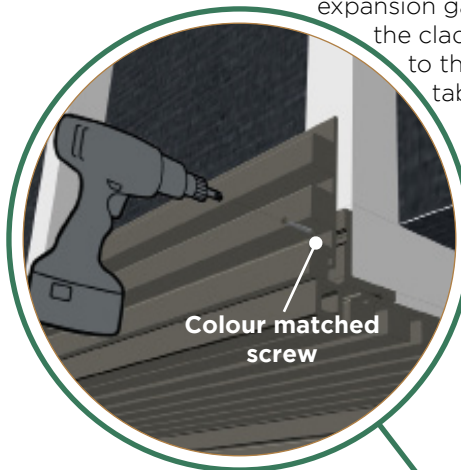
STEP 4 Measure and install the cladding clips and boards as required



STEP 5 Any boards fixed through the face must be pre-drilled and screws countersunk for even finish.

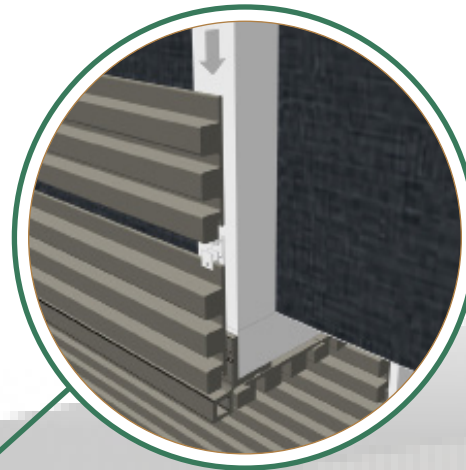



STEP 6 Fix the first board to the outside face. Ensure a suitable gap is left to the corner trim. Make sure to leave an expansion gap when packing the cladding board. Refer to the expansion gap table.



Fix the board using colour coded screws pre-drilled and countersunk.

STEP 7 Install the rest of the cladding boards as outlined previously.

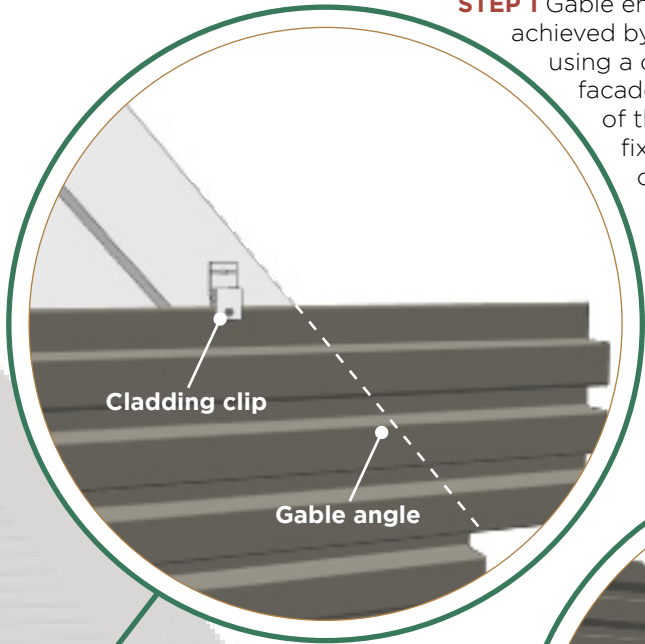



Installation complete.

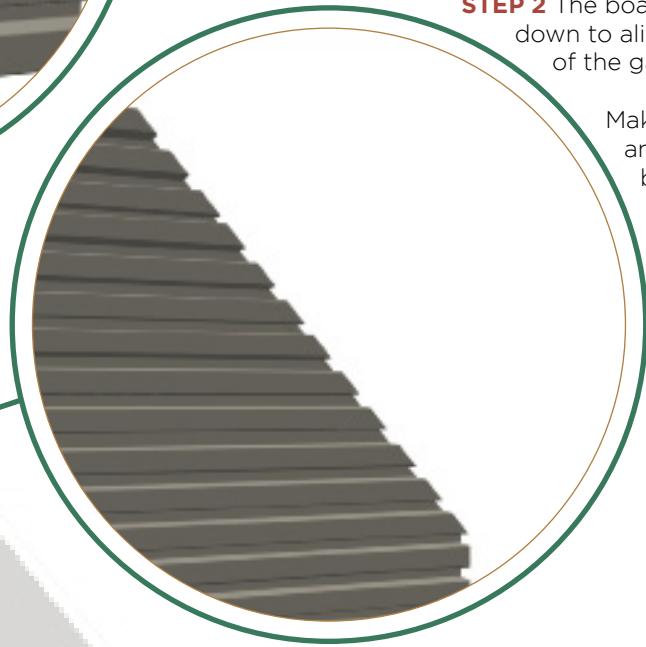


GABLE END

STEP 1 Gable end details can also be achieved by fixing the boards and using a cover trim to finish the facade. Hang over the ends of the boards and fix them using the cladding clips.



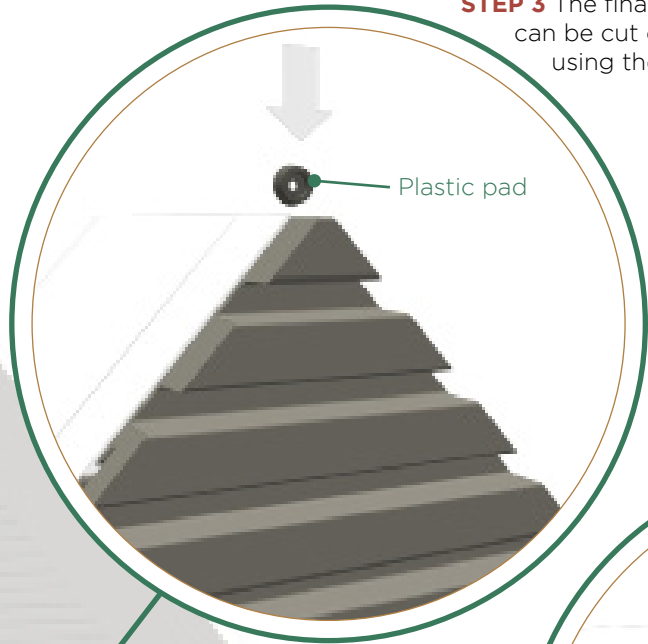
STEP 2 The boards can be cut down to align with the angle of the gable.



Make sure you allow for an expansion gap between the end of the board to any adjoining roof elements. Refer to the expansion gap table for distances.

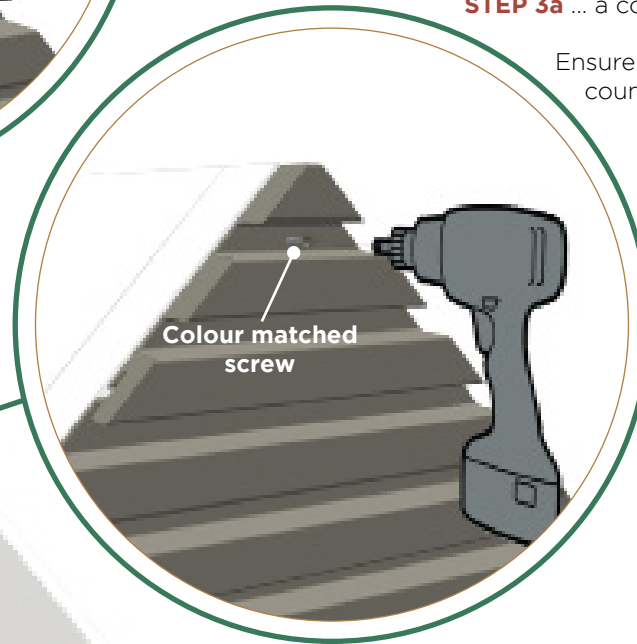


STEP 3 The final cladding board piece can be cut down to size and fixed using the plastic pad and...



STEP 3a ... a colour-coded screw.

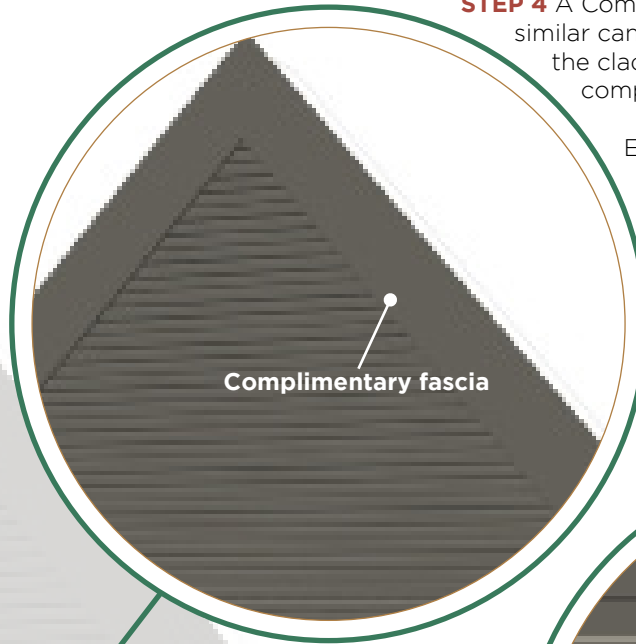
Ensure you pre-drill and countersink for best results.





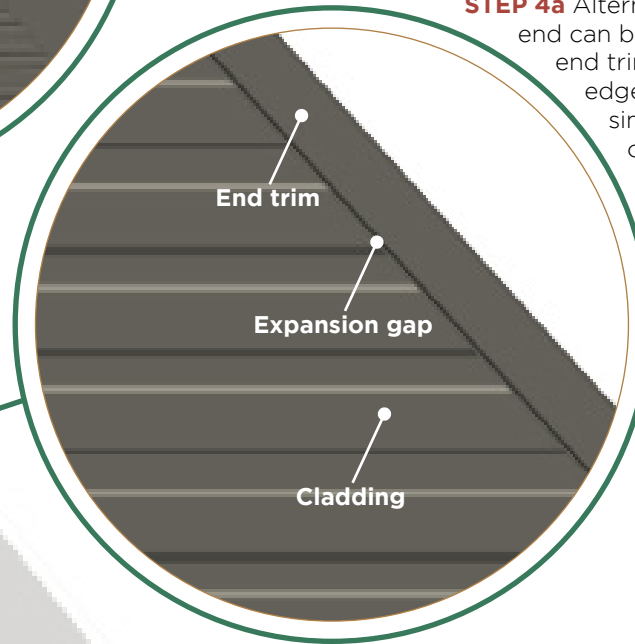
STEP 4 A Complimentary fascia or similar can then be fixed through the cladding boards to complete the facade profile.

Ensure you pre-drill and countersink for best results.



STEP 4a Alternatively, the gable end can be installed with an end trim to the outside edge of the boards similar to the cladding process on page 8.

Ensure you leave a gap for expansion please refer to the expansion gap table.



Installation complete.