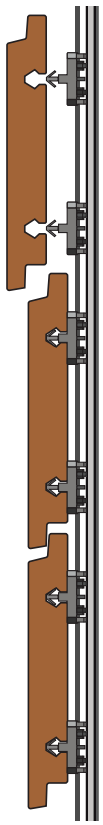
Natural wood
Made to last

Installation Guide

Click-in Cladding™ System (CCS)



Please read in full prior to using Click-in Cladding™ System, and if you have any questions, e-mail: info@kebony.us or call: +1 833.795.8660

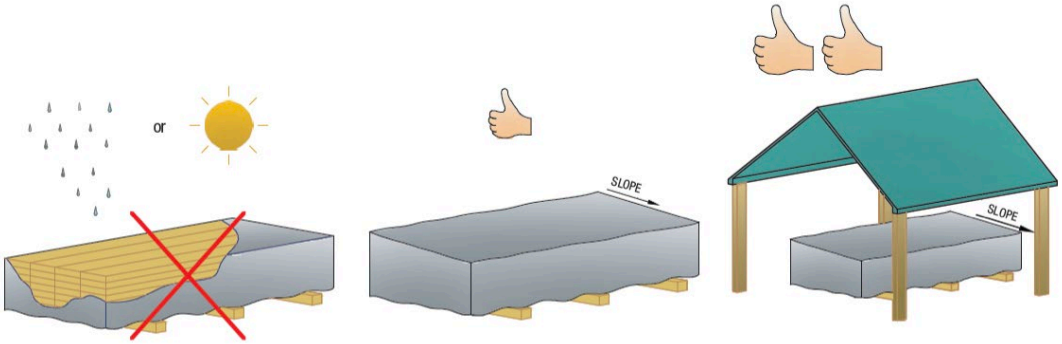
www.kebony.us

@kebonyusa

Guidelines

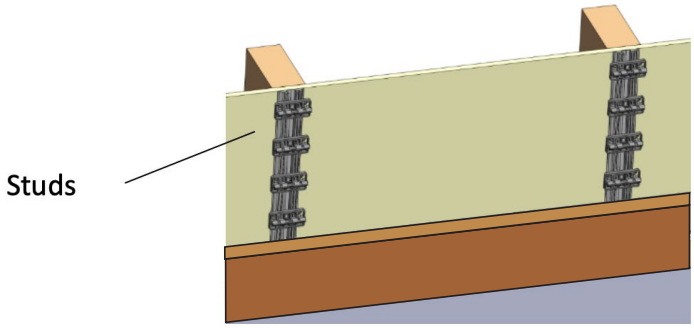
Transportation & Storage

- When transported, the rails should be secured in their original packaging and should be stored indoors or in a covered environment before installation
- Kebony boards can be stored outdoors in their packaging for short periods of time
- No heavy objects should be stored on top of the rails to avoid possible damage and/or bending of the rails



Applications

- The rails can be used for horizontal and vertical cladding
- The rails should only be placed onto a flat, even, and hard surface
- Only use compatible wood cladding as specified by Kebony
- For wooden houses and timber homes: the rails should be secured where the studs are located



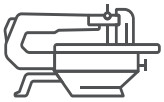
SAFETY GUIDELINES

- Wear protective clothing and safety equipment such as safety glasses, gloves, long sleeves, and a mask, particularly when cutting aluminum
- The installer is responsible for identifying and following all building codes and construction safety practices
- Grad™ nor Kebony accept any liability or responsibility for the improper installation of this product
- The Click-in Cladding™ System may not be suitable for every application, and it is the sole responsibility of the installer to be sure that rails and cladding are fit for the intended use. Because all installations are unique, it is also the installer's responsibility to determine specific requirements for each cladding application
- Grad™ and Kebony recommend that all applications be reviewed by a licensed architect, engineer or local building official before installation

YOUR CHECKLIST

- The wall should be straight, levelled, and undamaged
- Each rail must be fixed onto a flat and hard surface (stud or wall) using appropriate fasteners. Fasteners shall be selected by the customer to be suitable for the surface onto which the rails are secured
- It is the customer's responsibility to verify they have the right rails to match the boards they want to use and to make sure the rails they intend to use meet all their requirements
- Only Kebony cladding boards that have been grooved to Grad's specifications can be used with Grad™ Mini Rail
- The building design should address the need to protect against water getting behind the wood. For example, roof overhangs, flashing, etc.
- Installers must make sure that there are flashing and weather barriers, that they are installed in compliance with local codes, and that the installation meets manufacturer requirements especially in the following proper locations:
    - Openings (e.g. doors and windows)
    - Wall/ceiling junction
    - Chimneys
    - Transition between another type of cladding surface

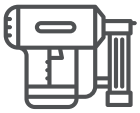
RECOMMENDED TOOLS & EQUIPMENT



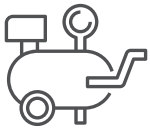
Scroll saw

Miter saw

Saw blade
suitable for cutting aluminum



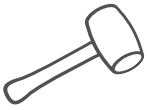
Pneumatic nailer or electric drill



Compressor with adequate capacity to supply air for pneumatic tools

Manual Level

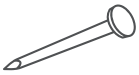
Laser Level



Rubber Mallet

Hammer

Pliers



304 or 316 Stainless Steel ring-shanked nails (for pneumatic nailer) or screws

PPE including goggles and gloves

Disclaimer

Although this installation guide was designed with as much care as possible, in accordance with current practices for installing wood cladding, we are not liable for any errors or omissions that may arise from the use of this guide. All users of this guide fully assume all risks and responsibilities associated with it.

This guide presents the best manufacturer installation practices. However, it is the installer's duty and responsibility to take all available documentation and professional best practices into account prior to completing work to ensure proper installation and the validity of the product warranties.

The technical drawings in this guide do not show all construction details to meet requirements of codes and standards.

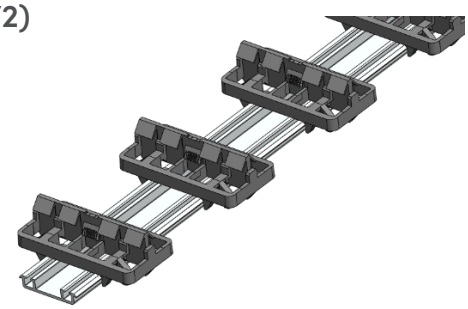
Finally, do not hesitate to contact Kebony should you have any questions arise regarding specific applications of the Click-in Cladding™ System that are not covered in this guide.

Main products

Grad™ Mini Rail

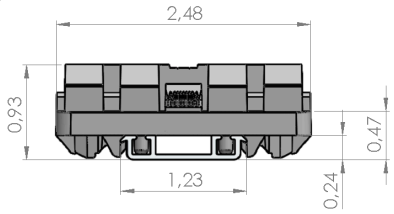
Grad™ Mini Rail (#G2171)
1x6 w/Narrow Gap (5⁄32″)
Dimensions:
1890 x 63 x 23.5mm
74.4″ x 2.5″ x 0.93″

Grad™ Mini Rail (#G2172)
1x6 w/Wide Gap (17⁄64″)
Dimensions:
1932 x 63 x 23.5 mm
76.1″ x 2.5″ x 0.93″



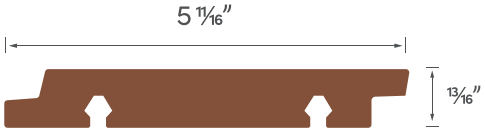
Grad™ Mini Rail (#G2173)
1x8 w/Narrow Gap (¼″)
Dimensions:
1818 x 63 x 23.5 mm
71.6″ x 2.5″ x 0.93″

Grad™ Mini Rail (#G2174)
1x8 w/Wide Gap (⅜″)
Dimensions:
1848 x 63 x 23.5 mm
72.8″ x 2.5″ x 0.93″



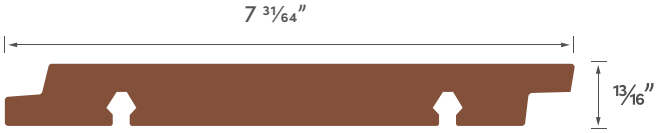
Kebony Cladding Boards

1x6 Clear Cladding Board (#2682)



Lengths: 10’, 12’, 14’, 16’

1x8 Clear Cladding Board (#2683)

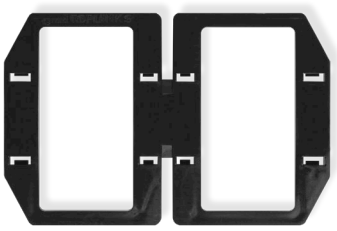


Lengths: 10’, 12’, 14’, 16’

Accessories

Spacing Template

One included in each box



Riser Support

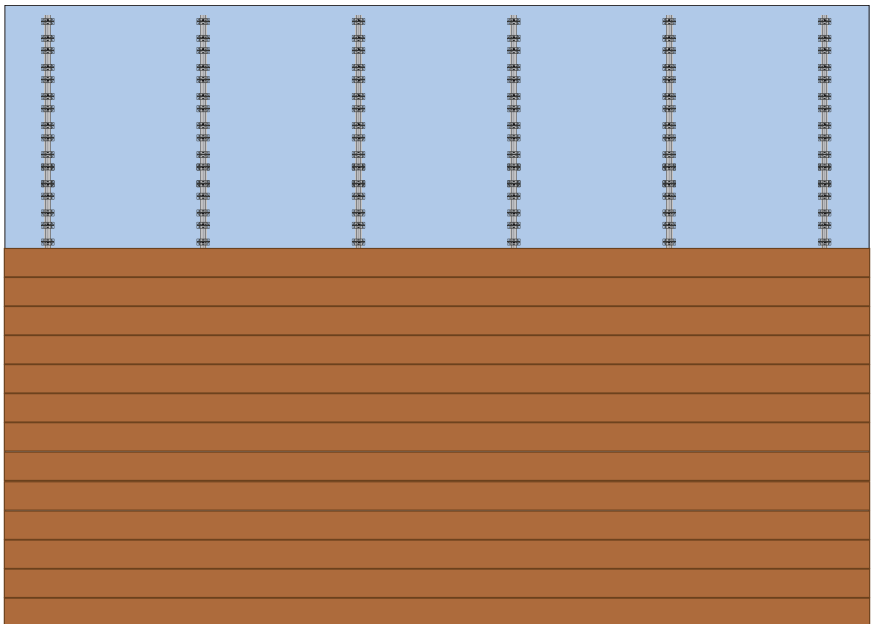
Sold separately

Unboxing the rails

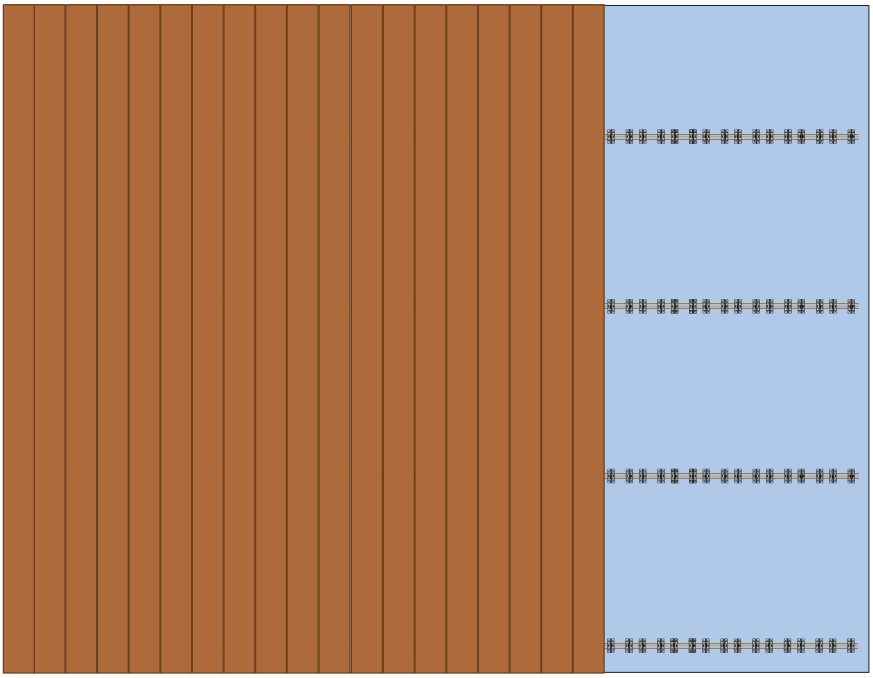
Each box contains 24 rails. There is one spacing template supplied per box. The spacing template will be secured to one of the rails. Take care to identify it, remove it and set it aside in a safe place as you will need it for the installation.

Standard Configurations

For horizontal CCS installations, the rails must be placed vertically



For vertical CCS installations, the rails must be placed horizontally



Coverage

GRAD™ MINI RAIL (NARROW OR WIDE GAP)

24 rails per Box

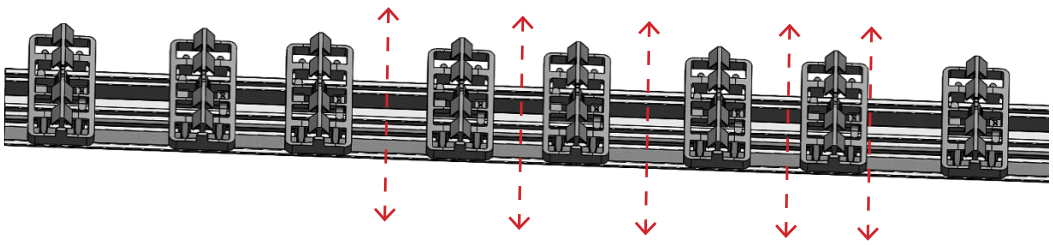
Coverage: 190 sf/box (16" OC spacing), 285 sf/box (24" OC spacing)

1X6 CLEAR CLADDING BOARD

1 SF = 2.2 LF

Tips: how and where to cut the rails

1. The rails may be cut to length.
2. Cut the rails to match the required length using an appropriate saw blade.
3. Always cut the rails in between two pairs of clips, making sure there are enough clips to attach the boards properly.
4. If there is a clip where the cut needs to be, remove the clip with pliers. **DO NOT CUT THROUGH THE CLIPS.**

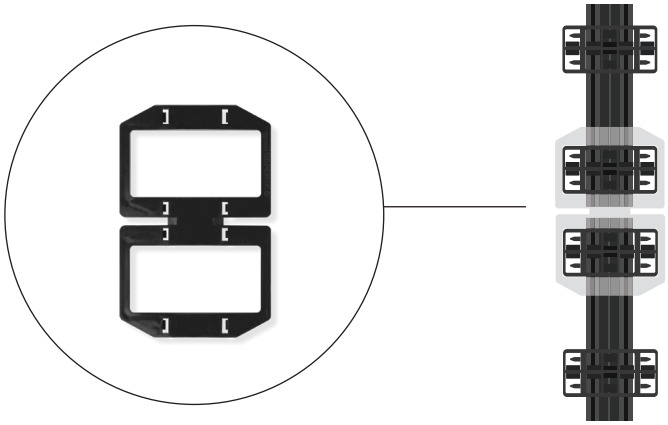


Tips: how to position one rail after another with the Spacing Template

Because of the natural expansion of aluminum, it is important to leave a gap between two inline rails.

The Spacing Template helps to quickly align the rails, and ensures that the correct distance is maintained between the clips.

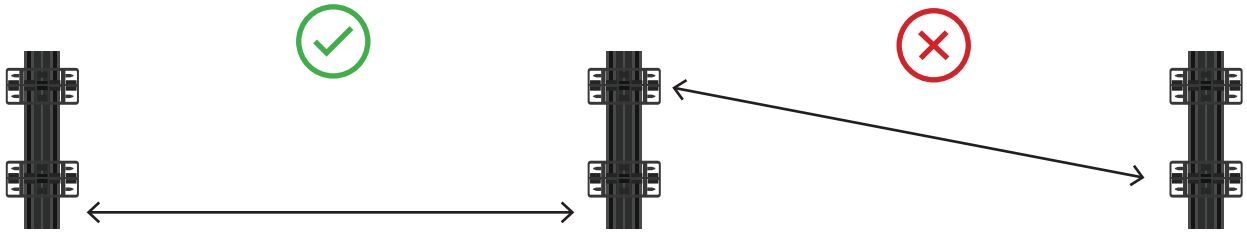
The Spacing Template should not be fixed with screws or other fasteners. Simply use the Spacing Template as a temporary guide to position the rails properly. Once the rail location is secured in place, remove the Spacing Template and move onto the next pair of rails and align them with the same Spacing Template.



1. Do not secure the Spacing Template with screws or other fasteners.
2. Make sure the first rail is properly fastened and correctly oriented horizontally or vertically (as required).
3. Place the second rail inline after the first one.
4. Position with the Spacing Template as indicated below.
5. Use a level to make sure the second rail is straight and secure it to the wall.
6. Remove the Spacing Template, and re-use it for all inline rails.

Tips: how to measure rail spans

Rail spans are measured between the center of each rail, e.g. with a 24" cc span:

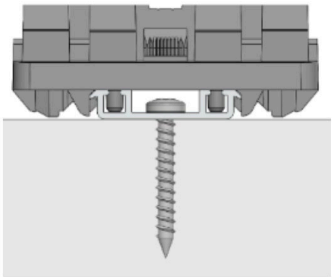


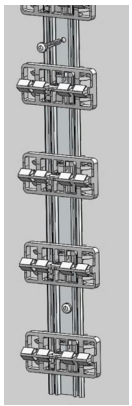
Grad™ Mini Rail: Securing the rails

In order to facilitate the positioning of the rails:

- Make sure the rail is levelled
- Use 2 fasteners to initially secure the rail into its position. We suggest that these initial fasteners be placed far apart
- Complete rail installation with additional fasteners at 10-17 inch intervals
    - o With screws: There is no need to pre-drill the rails provided that you use stainless steel (304 or 316) self-tapping screws suitable for aluminum
    - o With Nail Gun: Use stainless steel (304 or 316) ring-shanked nails

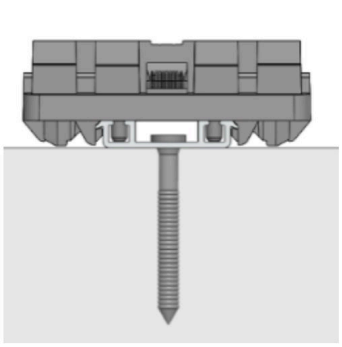
1. Using a drill

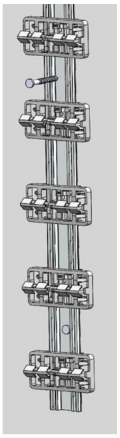




Use 304 or 316 stainless steel fasteners.

2. With a pneumatic nail gun





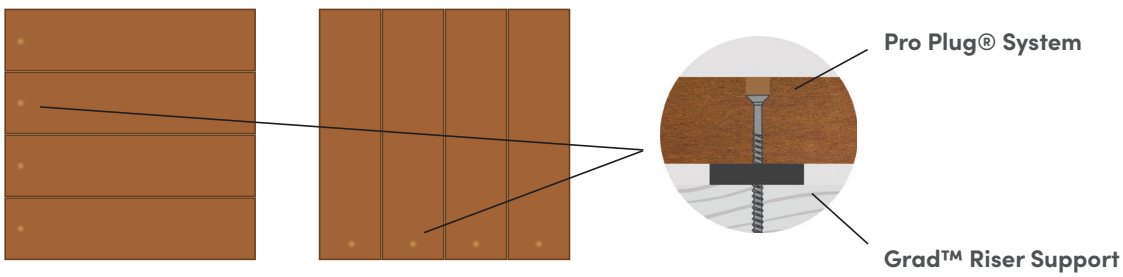
Use 304 or 316 stainless steel ring-shanked nails.

Installing Set Screws into boards

Although unlikely, to help ensure that the boards do not shift it's important to install a set screw for the boards. This is typically done by face fastening towards the end of the board. We recommended the use of the Pro Plug® System together with a Grad™ Riser Support.

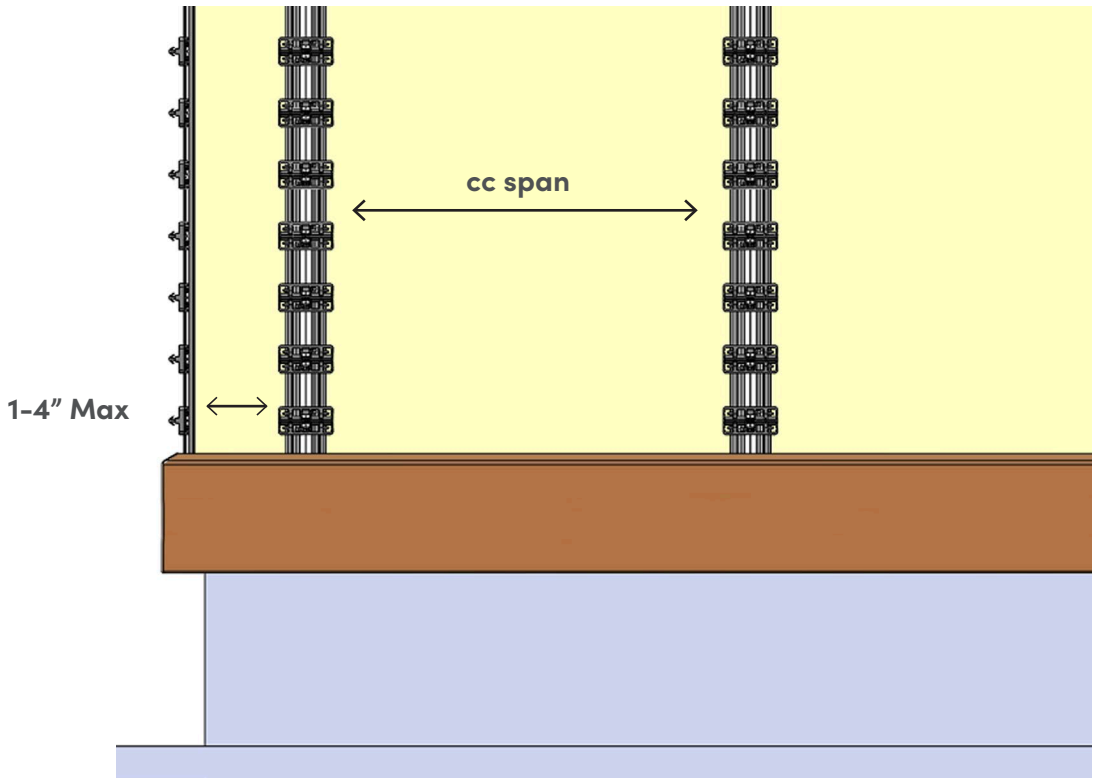
- **In a horizontal orientation, the set screw can be placed at either end of each board.**
- **In a vertical orientation, one set screw at the bottom of the bottom board is sufficient, even for an inline multi-board run.**

Position the set screws at least ⅘" (20 mm) from the side of the board and at least 1" (25 mm) from the end of the board.

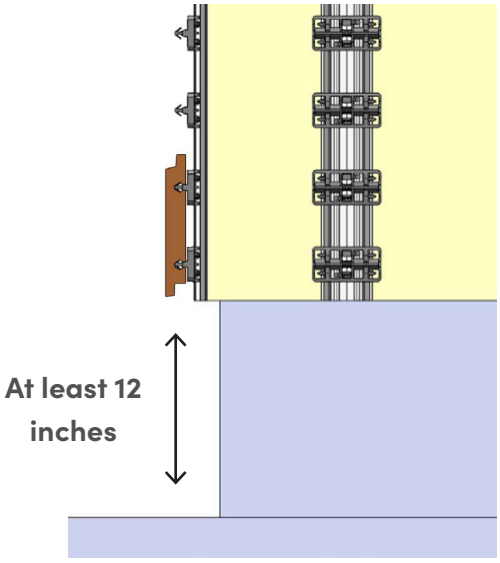


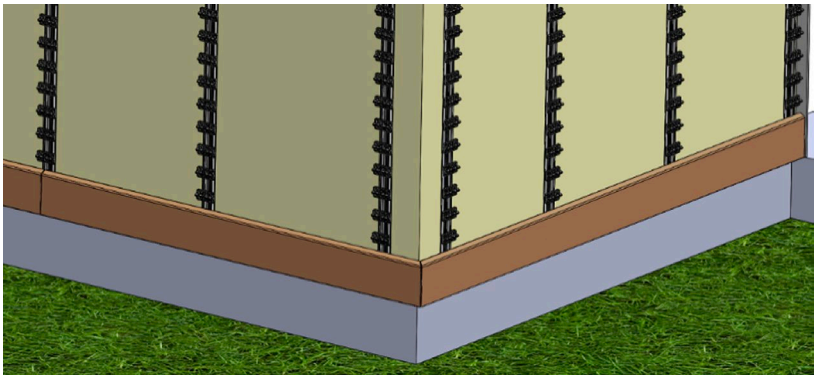
Horizontal Cladding

1. All rails are symmetrical and it does not matter which end you start with.
2. The rails do not need to be pre-drilled if using a pneumatic nail gun or stainless steel self-tapping screws.
3. Measure the wall height: Use full-length rails whenever possible and only cut the rails to length when necessary using the appropriate tools.
4. Always cut the rails between two clips when possible. Do not cut through the clips. Remove the clip(s) with pliers and then cut the aluminum rail.
5. With a laser level or a string, set a reference line along the wall to ensure the clips are aligned.
6. Kebony boards should be placed 12" above grade.
7. Starting at one end of the wall, position the first rail at a maximum of 4" away from the end of the wall.
8. Install rails directly onto studs.



9. Use a manual level to ensure the rail is positioned straight onto the wall.
10. Secure the first rail.
11. Do not exceed a 24 inch rail span.
12. Install the other rails, ensuring that the clips are aligned. They should be perpendicular to the reference line and parallel with the other rails.

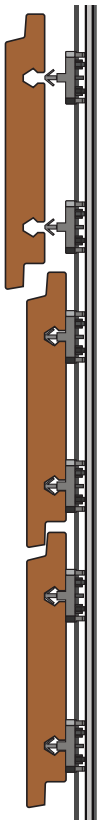




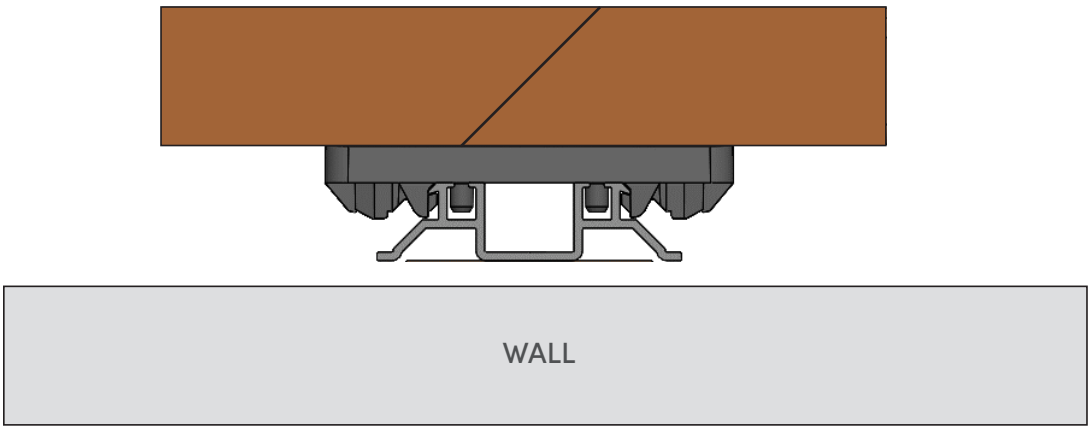
Installing the boards

1. Install the first row of cladding by pressing the first board gently onto the rail clips at the bottom of the wall – the cut edge should be at the right place on the wall extremity. You can also use a rubber mallet, but hand pressure is typically adequate. If your cladding has a more delicate finish such as Shou Sugi Ban, we recommend using hand pressure.

   Note: Boards with a double groove need to be snapped onto two clips. Narrow boards that only have a single groove need to be snapped onto one clip only.
2. Complete the row with the other boards as needed.
3. Move your way across the wall until reaching the other wall extremity.
4. Start the second row above the first one using the next set of clips.
5. Two board ends must meet each other halfway across one clip. Typically a scarf joint is used for such applications.



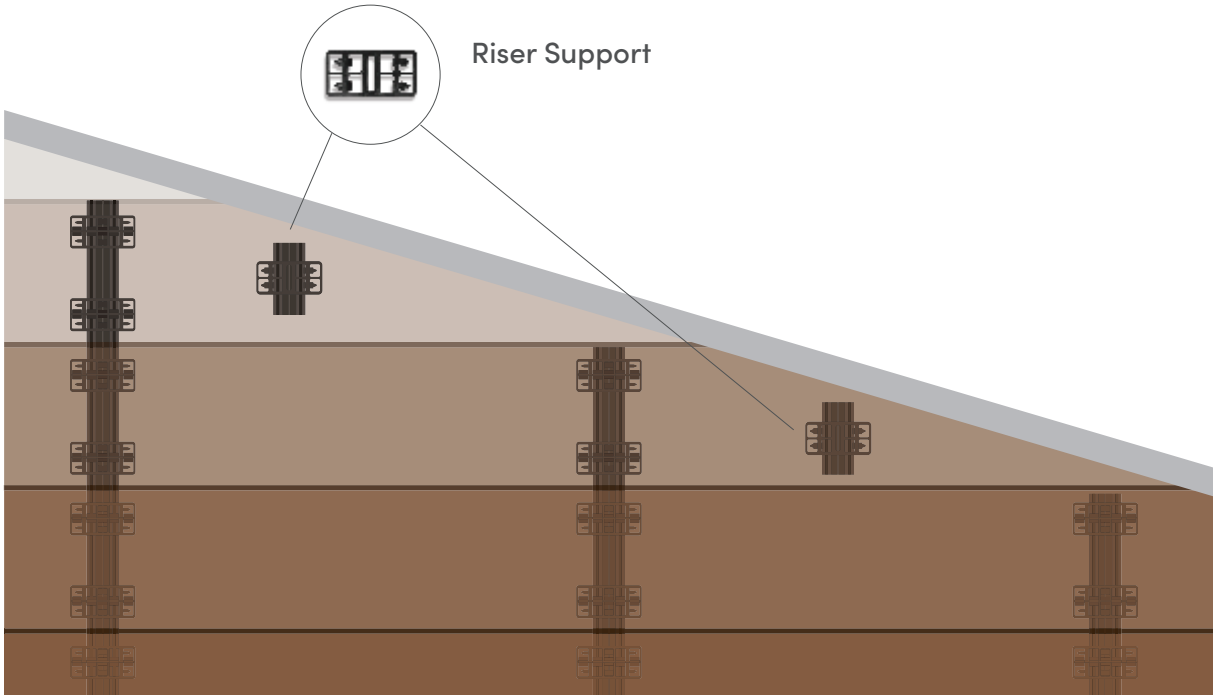
6. If the board ends do not end on a stud, you will have to take a small section of rail (often a piece of fall-off and locate it at the junction of the two board ends. As mentioned above, it is critical that the two ends meet each other halfway across the clip.
7. The boards at the scarf joint should be snugly butted up against each other with no gap required.



Dealing with gabled ends

When installed in gabled areas, there will be sections where a rail with standard clips will not fit. In such a situation, a Riser Support must be used. Simply snap a Riser Support onto the rail. (Note: you may need to first remove the standard clips(s) with pliers). Once installed and the board is put in place, you will need to secure the board to the Riser Support through the face of the board with a screw. We recommend that you use the Kebony Pro Plug System to ensure that the fastener is hidden.

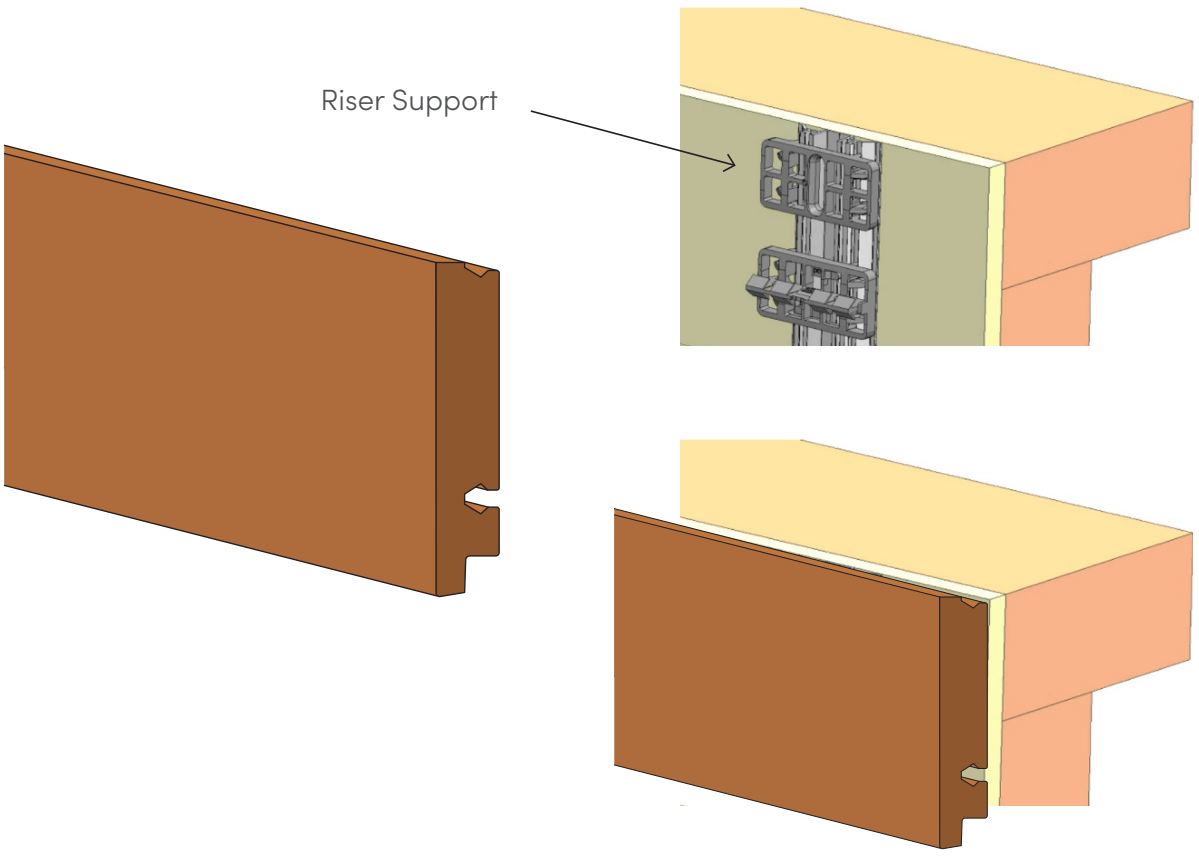
If you encounter a situation where there is no rail but yet you need a Riser Support in that location, please do the following. Take a small section of rail (often found in your fall-off pile) and cut it to size. Clip your Riser Support in place. Then locate that small section of rail where it needs to be for proper support of the board and secure the rail to the wall. Install the board and secure the Riser Support through the face of the board as stated above.



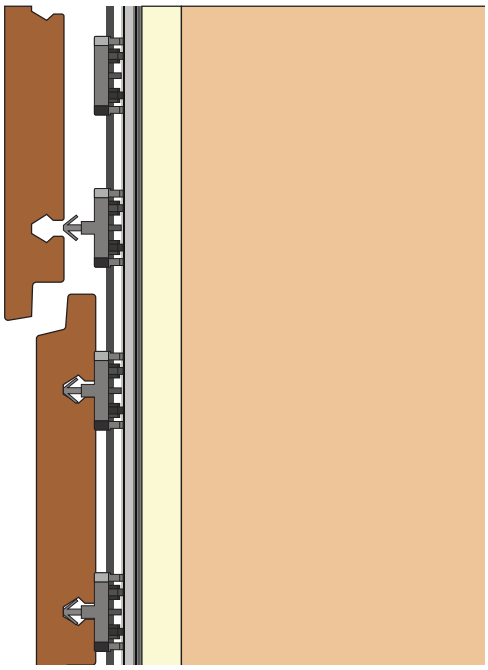
Horizontal Cladding

Ripped Boards Cut to Fit

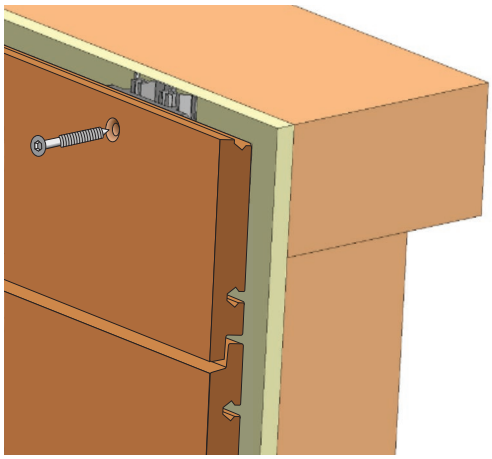
1. When the wall cannot be finished with a full-face board, such as is common with top boards, they need to be ripped to fit. In such a case there may be none or only one usable groove left.
2. To secure this board properly, remove the full clip from the rail where there is no longer a groove. Then clip one Riser Support onto the rail.



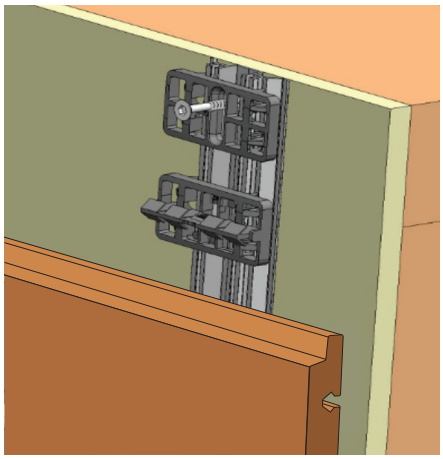
3. Snap the board on top of the clip as described if there is one groove. If the case of no grooves, use only the Riser Support.



4. Secure the board by fixing it with a screw through the face of the board and the slot in the Riser Support. Use Kebony Pro Plugs to ensure that the fastener is hidden. Repeat as needed on every rail.



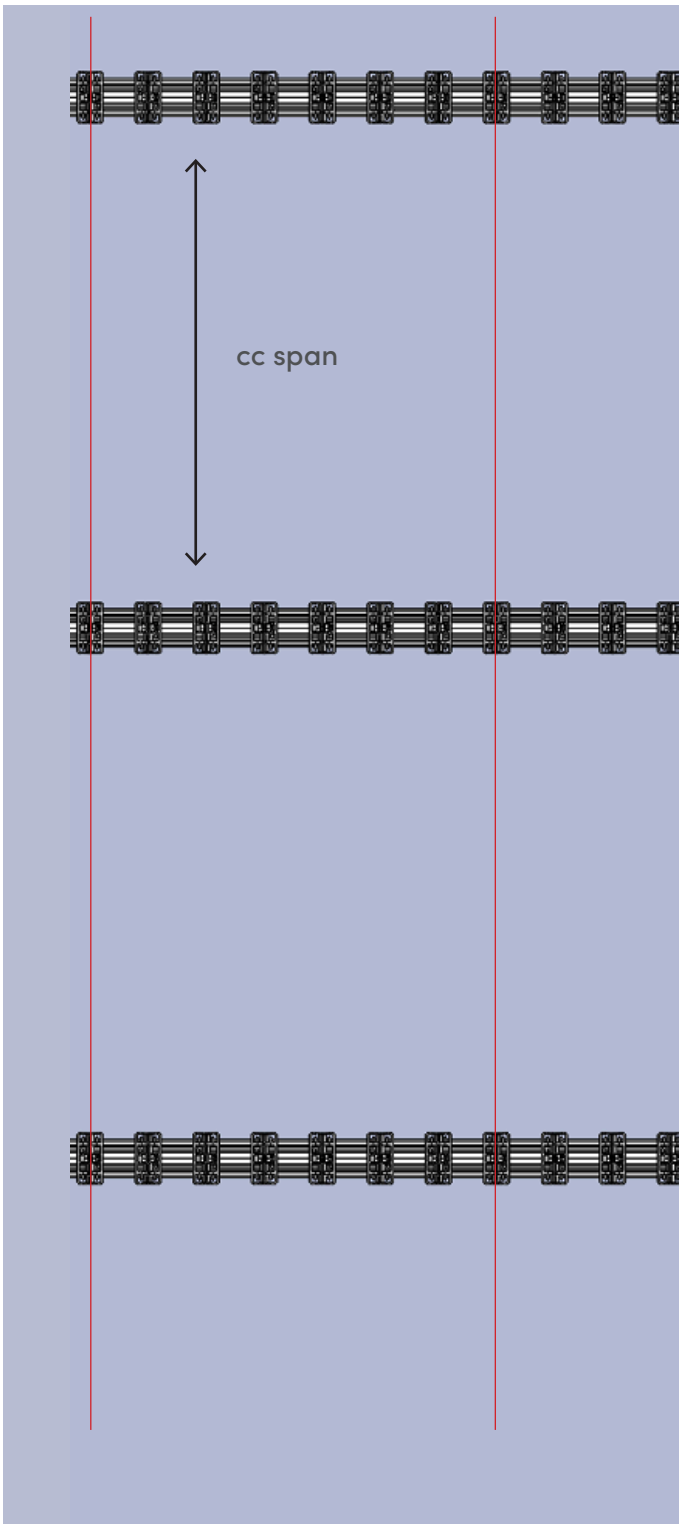
See-through view



Vertical Cladding

1. All rails are symmetrical and it does not matter which end you start with
2. The rails do not need to be pre-drilled if using a pneumatic nail gun or stainless steel self-tapping screws.
3. Measure the wall width: Use full-length rails whenever possible and only cut the rails to length when necessary using the appropriate tools.
4. Always cut the rails between two clips when possible. Do not cut through the clips. Remove the clip(s) with pliers and then cut the aluminum rail.
5. With a laser level or a string, set a reference line along the wall to ensure the clips are aligned.
6. Starting at one edge of the wall, position the first rail such that the edge of the board will end up positioned where you want it relative to the end of the wall.
7. Start at the edge of the wall and make your way across, ensuring that you secure the rails into the studs and also every 10-17 inches.
8. Do not exceed 24" spans.
9. Position the first rail at a maximum of 4in away from the wall bottom of the wall.
10. Use a manual level to ensure the rail is positioned correctly onto the wall.
11. Secure the first rail with appropriate fasteners.
12. Install the other rails, ensuring that you use the Spacing Template. The rails should be perpendicular to the reference line and parallel with the other rails, with the distance between rails not exceeding 24".
13. Kebony boards should be placed 12" above grade.

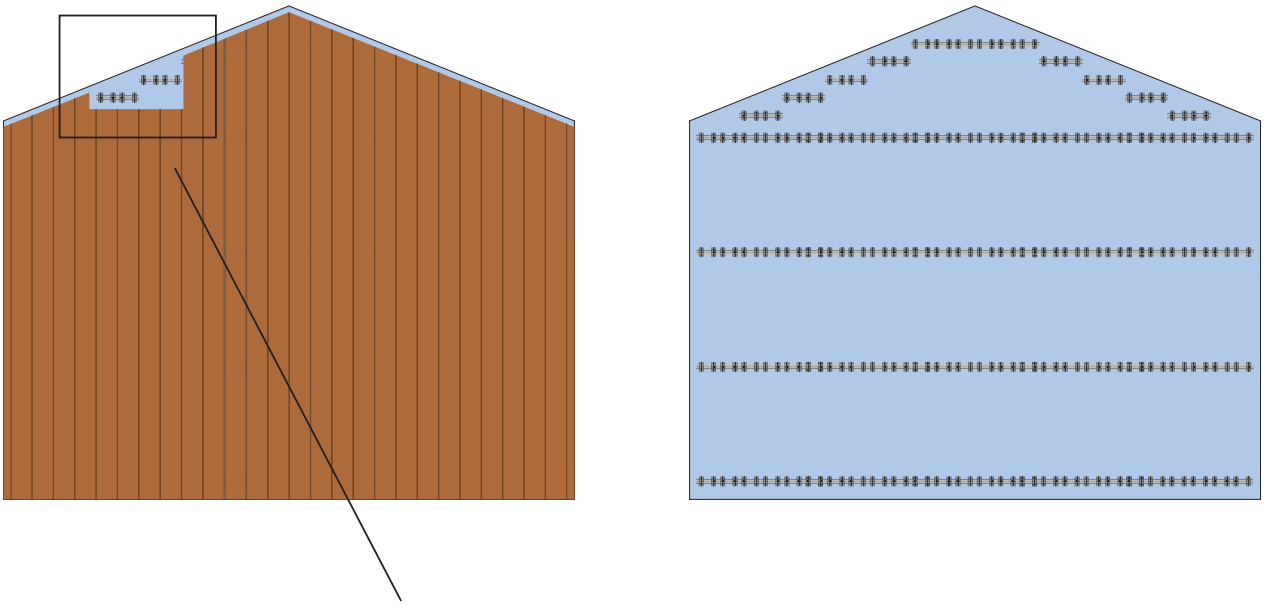
4 inches max ⟷

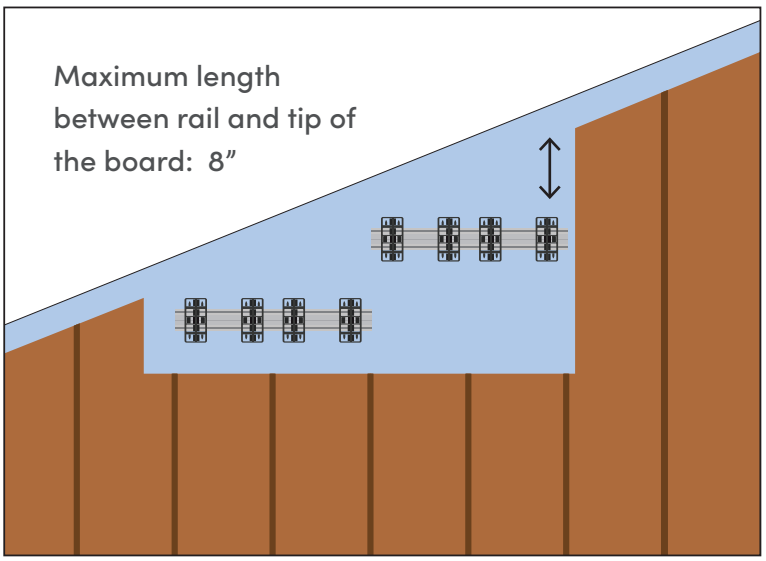


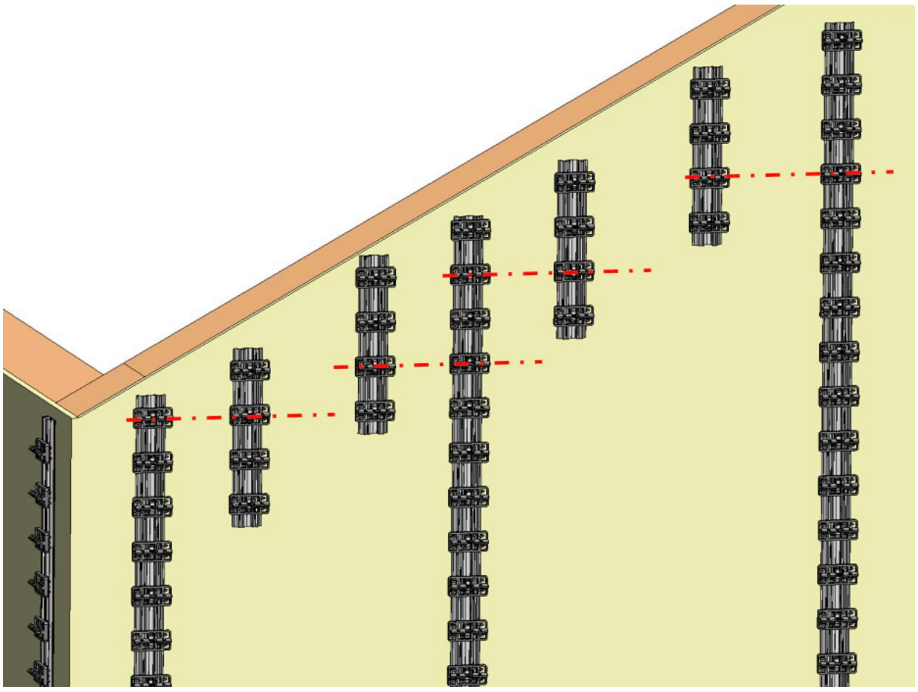
Vertical Cladding

ANGLE TOP RAFTER

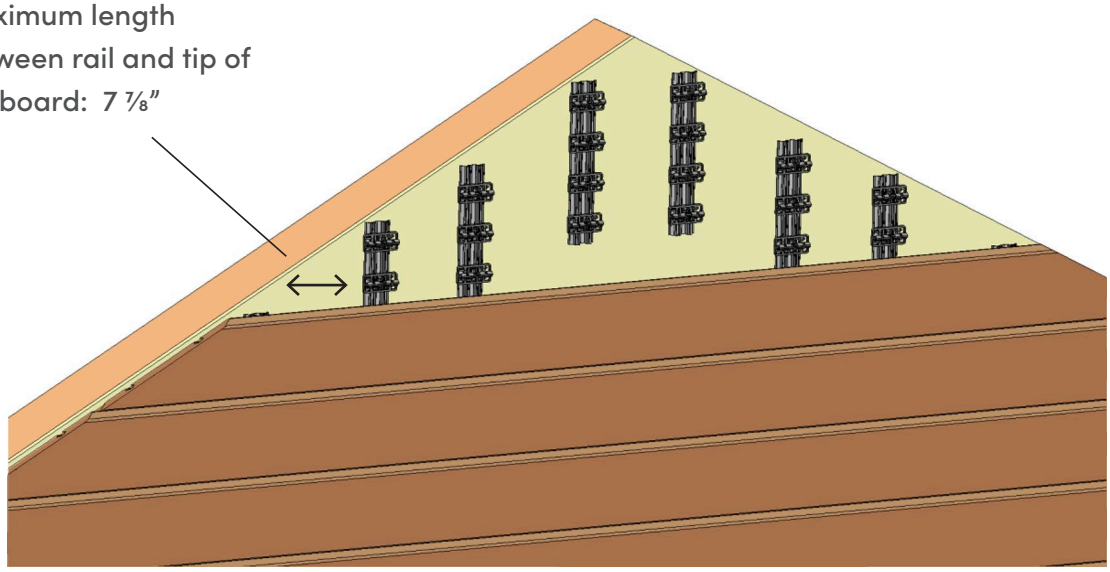
Where full lengths of rails cannot be used, cut pieces of the rails and place them in different locations where they need to offer support for the boards being placed vertically.







Maximum length between rail and tip of the board: 7 ⅞”



Removing a Board

Use a circular saw set to 5/16" depth (no more than that).

Run the saw lengthwise along the board on top of the clips. There are two lines of clips per board (two grooves).

Once the board has these two lengthwise cuts in it, the board can easily be snapped/broken by hand and then the pieces removed.