



European Siding System Vertical Installation Guide

v20231115US



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NOTE: Click on the heading to enter the section directly

IMPORTANT Note:
Read All Sections Before You Start

For the most up to date information, please visit our website @ www.newtechwood.com

Prior to installing any composite siding system, it is recommended that you check with local building codes for any special requirements or restrictions. The diagrams and instructions outlined in this guide are for illustration purposes only and are not meant or implied to replace a licensed professional. Any construction or use of NewTechWood must be in accordance with all local zoning and/or building codes. The consumer assumes all risks and liability associated with the construction and use of this product.

Safety

When dealing with any type of construction project, it is necessary to wear appropriate safety equipment to avoid any risk of injuries. NewTechWood recommends, but is not limited to the following safety equipment, when handling, cutting, and installing NewTechWood: gloves, a respiratory protection, long sleeves, pants, and safety glasses.

Tools

Standard woodworking tools may be used. It is recommended that all blades have a carbide tip. Standard stainless steel or acceptable coated deck screws and nails are recommended.

Environment

A clean, smooth, flat, and strong surface is needed to install NewTechWood's products correctly. Please check with local building codes before ever installing any type of siding. If installation does not occur immediately, NewTechWood's products need to be put on a flat surface at all times. It should NEVER be put on a surface that is NOT flat.

Planning

Plan a layout for your siding before starting it to ensure the best possible looking siding for your project. Building codes and zoning ordinances generally apply to permanent structures, meaning anything that is anchored to the ground or attached to the house. So nearly every kind of siding requires permits and inspections from a local building department. We recommend drawing out a site plan of your proposed project that you intend to do to minimize errors and make your perfect Siding.

Pressure wash on a scrap piece of material before using a pressure washer on the profiles to make sure that your settings will not damage the Ultrashield coating.

Construction

NewTechWood UltraShield is NOT intended for use as columns, support posts, beams, joist stringers, support against a force, or other primary load-bearing members. NewTechWood must be supported by a code-compliant substructure. While NewTechWood products are great for retrofits, NewTechWood's products CANNOT be installed on existing siding boards.

Static

Static can also be more prevalent in areas that are of higher altitude because the humidity is lower. For these areas, be careful of using conducive objects such as metal railing and chairs as static shocks might occur more often. A potential way to lower the amount of static shocks occurring is to apply Staticide (www.aclstaticide.com) on your deck or use anti-static mats before doorways.

Ventilation

NewTechWood products CANNOT be directly installed onto a flat surface. It must be installed onto a substructure, so there is adequate and unobstructed air flow under the cladding to prevent excessive water absorption. A minimum of 1" (25mm) of continuous net free area under the siding surface is required for adequate ventilation on all siding, so air can circulate between adjacent members to promote drainage and drying.

Heat and Fire

Excessive heat on the surface of NewTechWood products from external sources such as but not limited to fire or reflection of focussing sunlight from some optical objects can potentially harm NewTechWood products. This extreme elevation of surface temperatures, which exceeds that of normal exposure, can possibly cause NewTechWood products to melt, sag, warp, discolor, increase expansion/contraction, and accelerate weathering.

Fasteners

When fastening NewTechWood's products all screws that are face fastened should always be driven in at a 90 degree angle to the siding surface. Toe nailing/screwing should never be done to the products. An extra furring strip should be added if a 90 degree angle cannot be driven into the board. All fasteners should be on their own independent furring strips, when two boards ends meet each other there must be a sister furring strip. The end of each board must sit on its own furring strip.

Use white chalk, straight boards, or string lines as templates for straight lines. NEVER USE COLORED CHALK. Colored chalk will permanently stain NewTechWood's products and are highly not recommended.

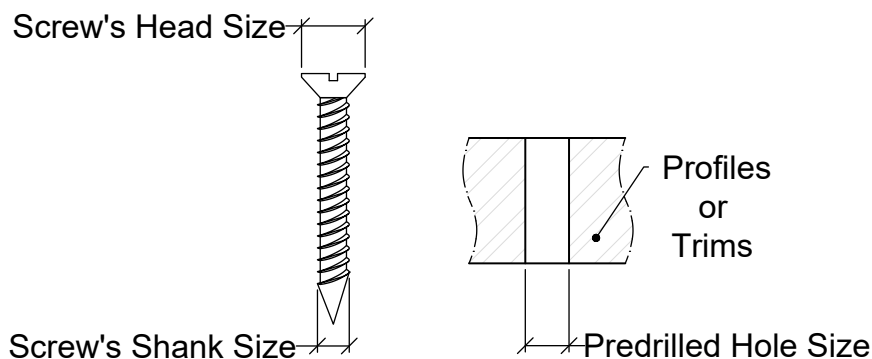
All nails/screws that are face fixed should always be stainless steel. Depending on the screws that you use when face fixing, there could be potential bulging or mushrooming. It is recommended to take care of these mushrooms/bulges by taking a rubber mallet and patting them down to give your siding a better look.

When choosing which screws/nails to use, always check first with your local home centers and hardware stores to see if they have screws that are engineered specifically for composite wood. These screws/nails will always work and give NewTechWood's products the best looking outcome, using other screws/nails that are not recommended for composite could potentially damage/harm the cladding. If you are unsure which screw/nail to use, contact your manufacturer for more information.

Predrill




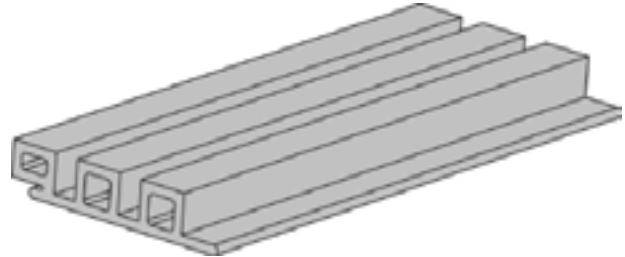
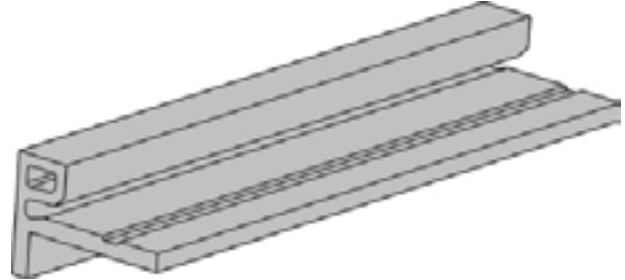
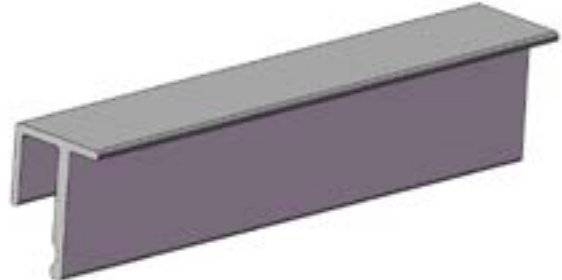
It is recommended to use the #8 pan head screw for face fixing the profiles and the trims onto the furring strip.

When face fixing, it is recommended to predrill the holes slightly larger on the profiles and the trims to allow for expansion and contraction response to temperature change, as shown in below diagram,

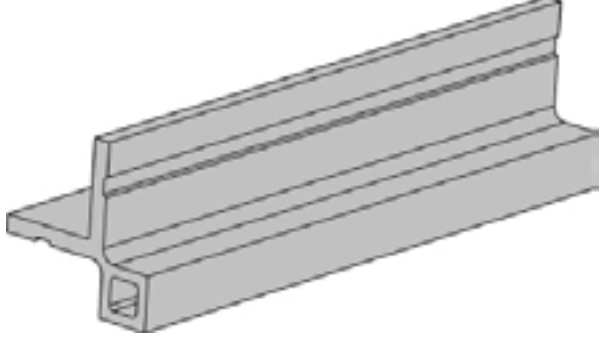
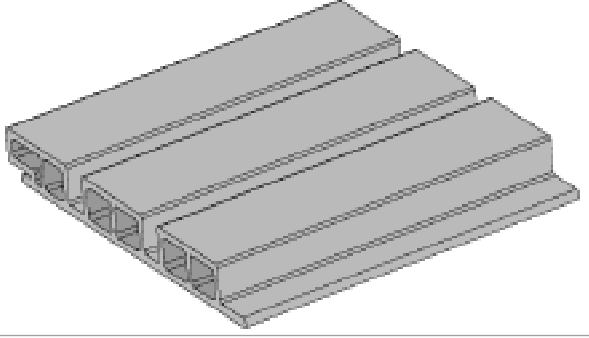
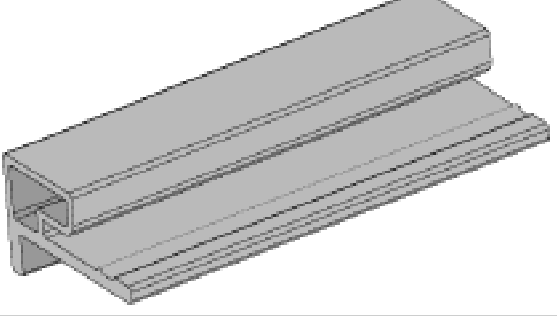
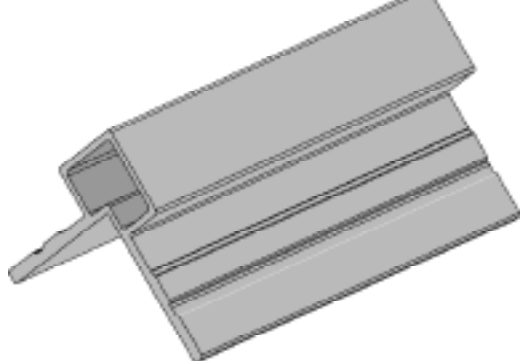


The predrilled hole size should be larger than the screw thread size, from 1/16" (1.5 mm) to 5/64" (2 mm). Moreover, the predrilled hole size should also be smaller than the screw head size, at least 5/64" (2 mm). A washer can be applied if the predrilled hole size is smaller than the screw head size below 5/64" (2 mm).

European Siding Parts


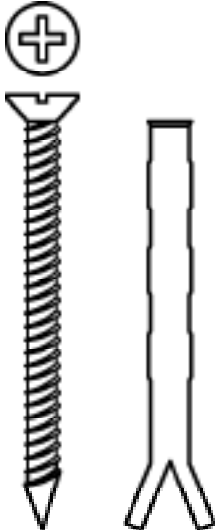


Product	Purpose	Part
AW-02	Used for the installation of the first board	
AW-08	Used at every furring strip to fix each board onto the furring strip	
T-7	Used on the supporting for the last board	
UH46	European Siding Board	
UH50	F-Trim, used for the UH46 installation on the outermost edge	
US73	F-Trim, used for the UH46 installation on the outermost edge	

European Siding Parts

Product	Purpose	Part
UH51	Outside Corner Trim, used for the UH46 installation on the outside corners	
UH58	European Siding Board	
UH59	F-Trim, used for the UH58 installation on the outermost edge	
UH60	Outside Corner Trim, used for the UH58 installation on the outside corners	


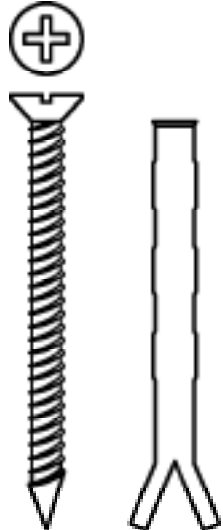


European Siding Screws (For Wood Furring Strips)

The table below shows the screws recommended to use for the installation, but not included.

Product	Purpose	Part
#5 x 1 1/4" Stainless Steel SS304	Used when locking the board into the Clip (AW08)	
#8 x 3" Stainless Steel SS304 **depends on the thickness of your joists	Used when installing the furring strip onto the wall	
#8 x 1" Stainless Steel SS304 (Pan Head)	Used when installing the Clip (AW08) and the Rubber Stopper (T-7) onto the wood furring strips	
#8 x 1 1/4" Stainless Steel SS304 (Flat Head)	Used when face fixing the boards and the trims onto the wood strips	

European Siding Screws (For Aluminum Strips)

The table below shows the screws recommended to use for the installation, but not included.

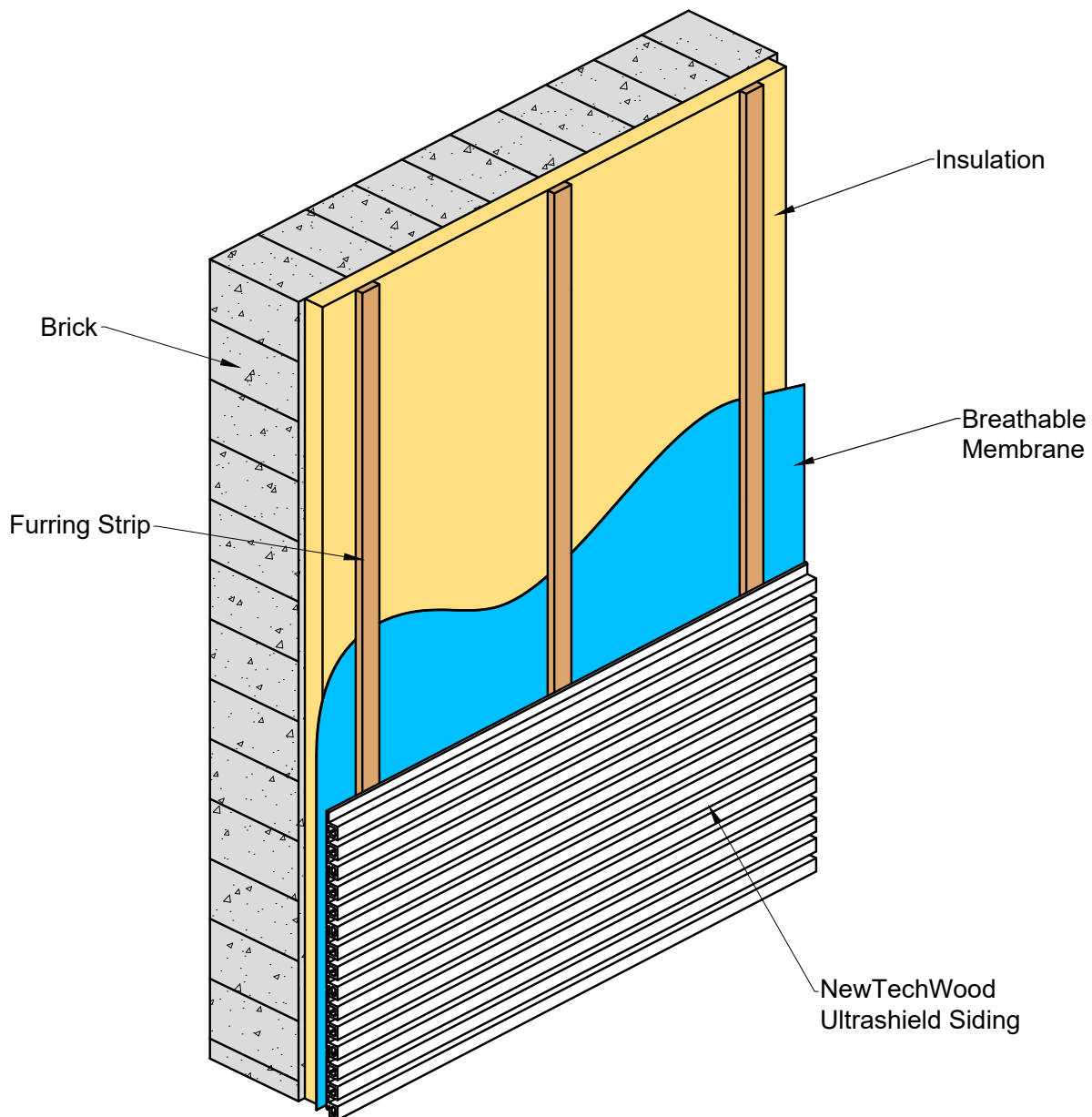
Product	Purpose	Part
#5 x 1 1/4" Stainless Steel SS304	Used when locking the board into the Clip (AW08)	
#8 x 3" Stainless Steel SS304 **depends on the thickness of your joists	Used when installing the furring strip onto the wall	
#8 x 1" Stainless Steel SS410 (Pan Head)	Used when installing the Clip (AW08) and the Rubber Stopper (T-7) onto the aluminum furring strips	
#8 x 1 1/4" Stainless Steel SS410 (Flat Head)	Use when face fixing the boards and the trims onto the aluminum strips	

*Note: All screws are based on our recommendation and if the installation requires something different than what is shown, a professional should be consulted before installing.

The following installation guide will use the above screw sizes.

Under Construction

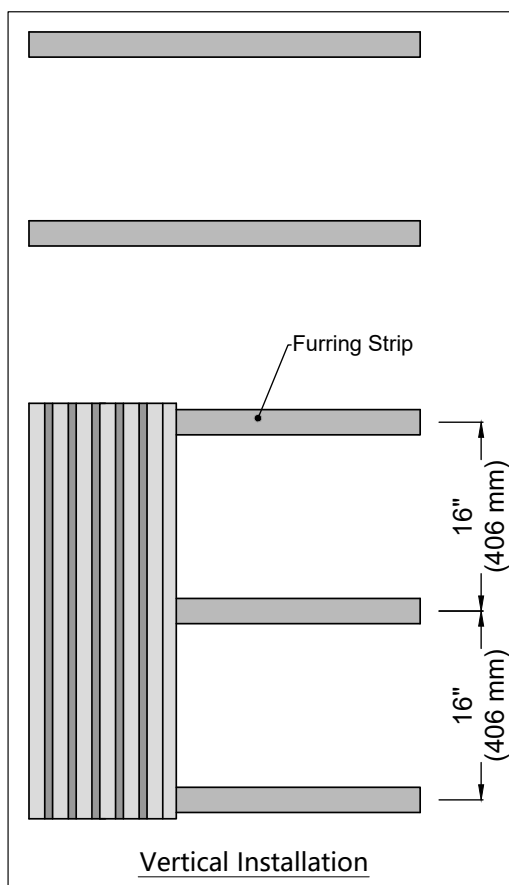
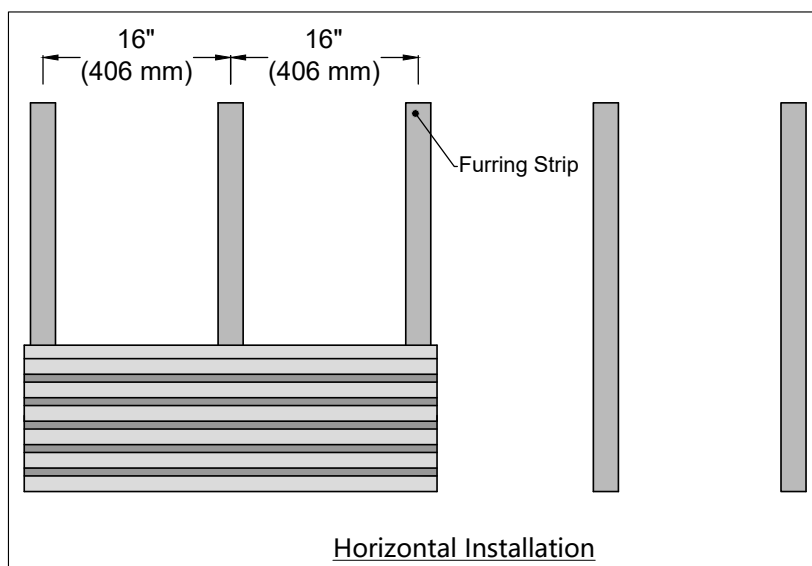
We recommend for the under construction aluminum or pressure treated wood furring strips. Each siding board needs to be supported by a furring strip NO MORE than 16" (406mm) from center to center. Extra care is required in order to provide sufficient joisting in and around obstacles such as windows, fascia's, soffits, guttering, ventilation points etc. Below is an example of the layers that would occur in a typical installation, but a licensed professional should always be consulted prior to any installation.



Furring Strips 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 furring strips. The furring strip needs to have a minimum thickness of 1" (25mm).

Wood furring strips should be fixed into position at a maximum of 16" (406mm) centers using a suitable A4 Stainless Steel Countersunk Wood/Masonry screw. All furring strips needs to be flat and leveled against the wall surface use shims if necessary.



Expansion and Contraction Values

NewTechWood siding boards will experience expansion and contraction with changes in temperature. Expansion and contraction are most significant where extreme temperature changes occur. Fastening the deck planks according to the gapping requirements noted in the following table accommodates for this movement.

Expansion and Contraction table of values for North America, Canada, Australia and Asia

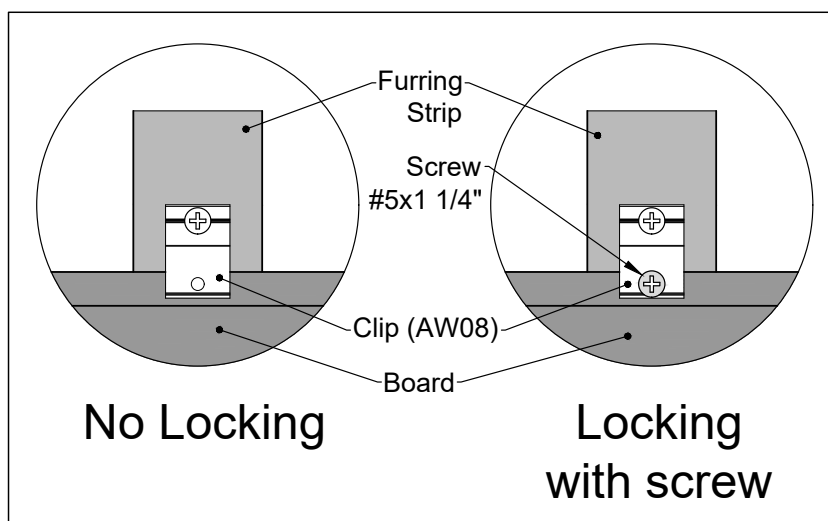
Installation Temperature (Farhenheit)	Length (Feet)									
	3	8	9	10	12	13	16	18		
	32	1/16	2/16	2/16	3/16	3/16	4/16	4/16	5/16	Gap (in)
	41	1/16	2/16	2/16	2/16	3/16	3/16	4/16	4/16	
	50	1/16	2/16	2/16	2/16	2/16	3/16	3/16	3/16	
	59	1/16	1/16	1/16	2/16	2/16	2/16	2/16	3/16	
	68	3/64	1/16	1/16	1/16	1/16	2/16	2/16	2/16	
	77	3/64	1/16	1/16	1/16	1/16	1/16	1/16	1/16	
	86	3/64	3/64	3/64	3/64	3/64	1/16	1/16	1/16	

Note: If you are still unsure of what gapping to use, contact the manufacturer and they will give you the correct gapping requirements based on your environment and area.

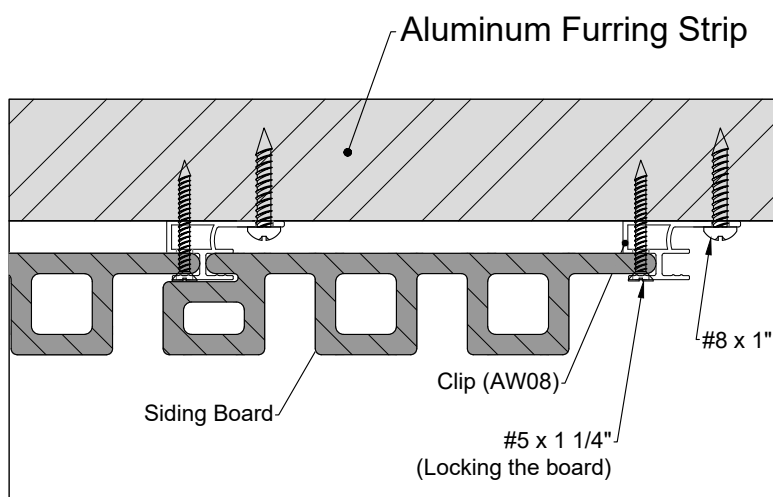
Locking the Siding Board

Since the composite wood must allow for expansion and contraction due to temperature change, the board must be locked at one or two adjacent fixed points to allow the remaining board to expand and contract freely. In the case there is a need to lock the board, Clip (AW08) comes with a separate hole.

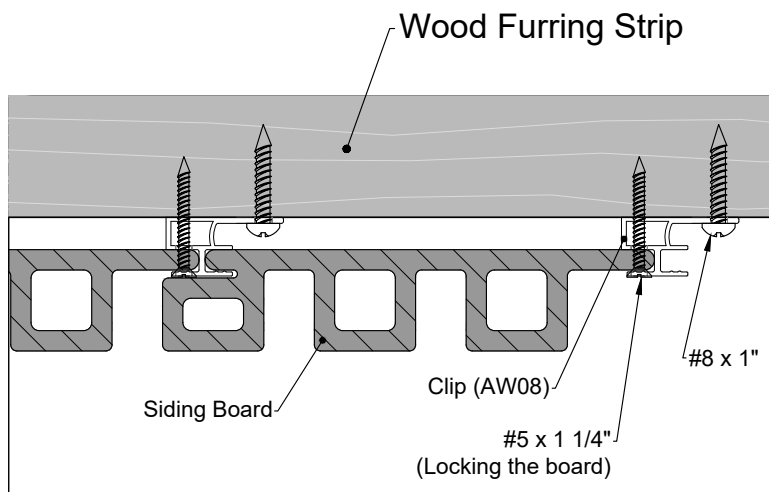
It is important that **DO NOT LOCK** any other clips for the same board.



- Vertical Installation - Aluminum Furring Strip



- Vertical Installation - Wood Furring Strip



When installing vertically, it is required to lock the Clip (AW08) at the top of the board to allow the remaining board to expand and contract freely.

Note:

1. When the board's length is below 78 3/4" (2m), it is only to lock the first clip (AW08) at the top of the board, as shown in **Diagram A1**.
2. When the board's length is equal to or longer than 78 3/4" (2m), it is required to lock the first and second clip (AW08) counted from the top of the board, as shown in **Diagram A2**.

DO NOT LOCK any other Clips (AW08) for the same board.

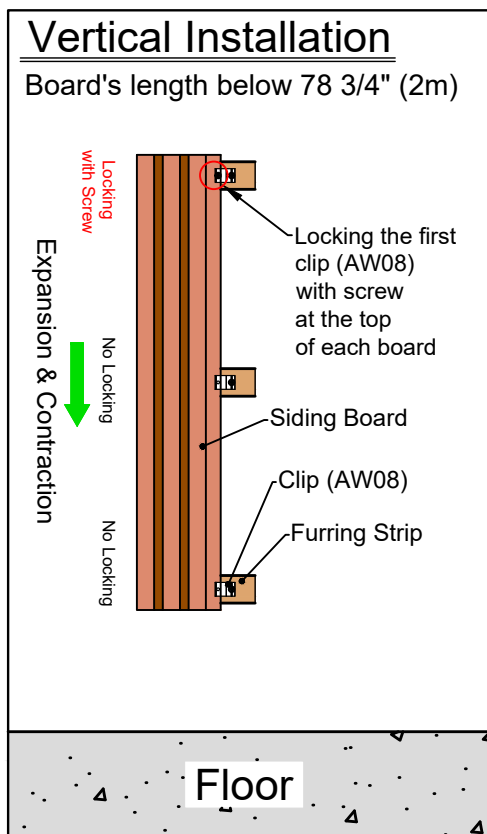


Diagram A1

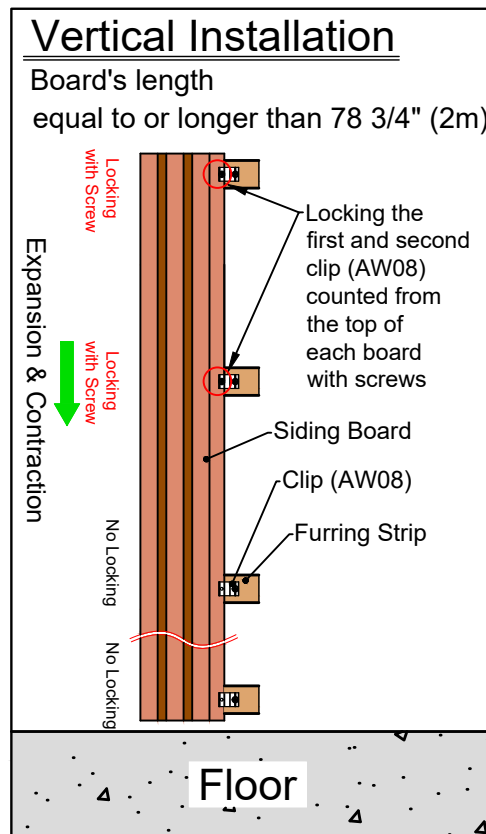


Diagram A2

European Siding System Vertical Installation

Installation Procedure

Step 1: Framing

- Measure and Chalk the Furring Strips
- Furring Strips Installation

Step 2: Trim Installation

Step 3: Siding Board Installation

- Installing the First course
- Installing the Second course
- Continuing the remaining installation
- Installing the Last board

Step 4: Finish the Top

16 Framing

The frame needs to be level before installing the siding boards. **Diagram 16** shows the wall replicating different scenarios potentially occurring when installing the siding boards.

Wall Side A: Wall between the Outermost Edge and the Inside Corner

Wall Side B: Wall between the Inside Corner and the Outside Corner

Wall Side C: Wall between two Outside Corners

Wall Side D: Wall between the Outside Corner and the Outermost Edge

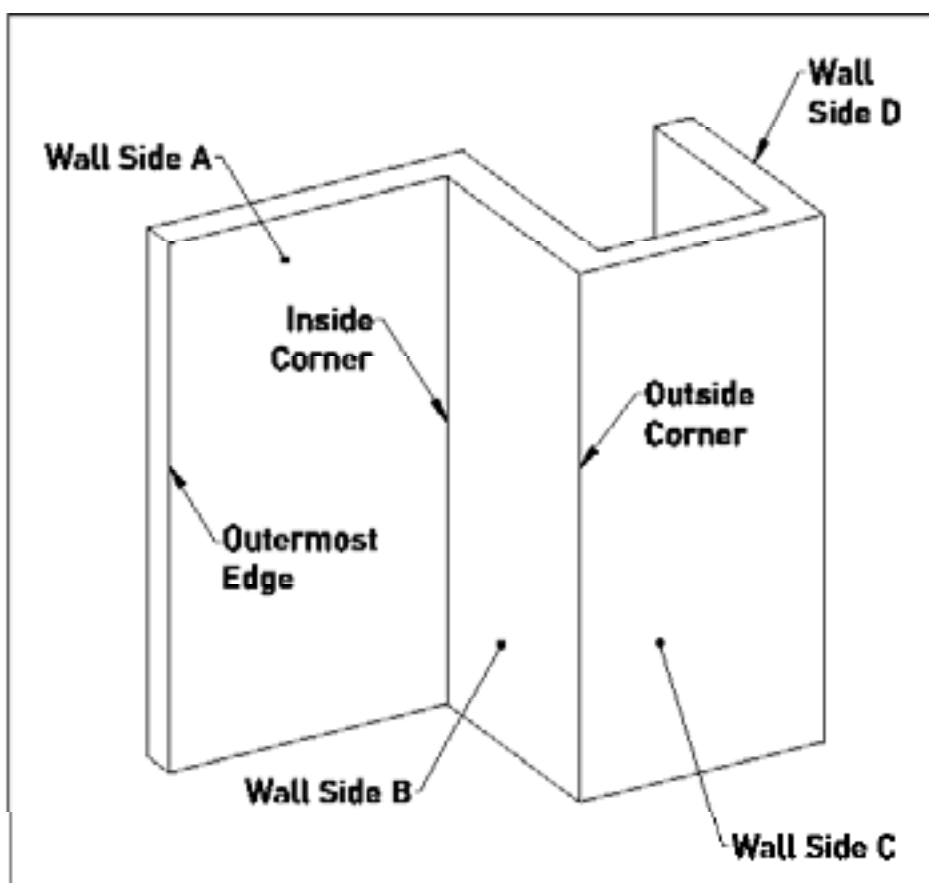


Diagram 16

- 17** Measure and chalk the furring strips according to the span data specified on **page 10** of this installation guide, as shown in **Diagram 17**.

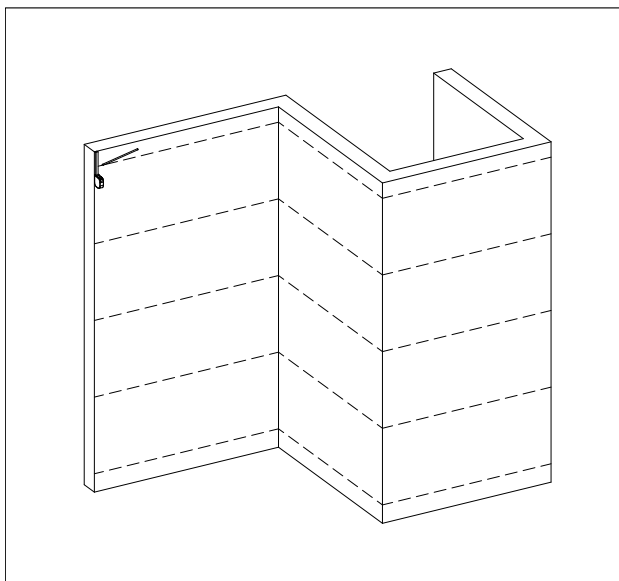


Diagram 17

Note:

1. We are using wood furring strips for this installation. If you are using aluminum furring strips, please refer to **page 9** of this installation guide for the correct recommended screws.

2. An adequate span between the furring strips is required to keep the Siding boards from bending. Please review **page 11** of this installation guide to see what span is needed.

- 18** Fix the furring strips onto the wall that you intend to install with screws in distance at least 19 5/8" (500mm) and max to 39 3/8" (1000mm) on center, as shown in **Diagram 18**.

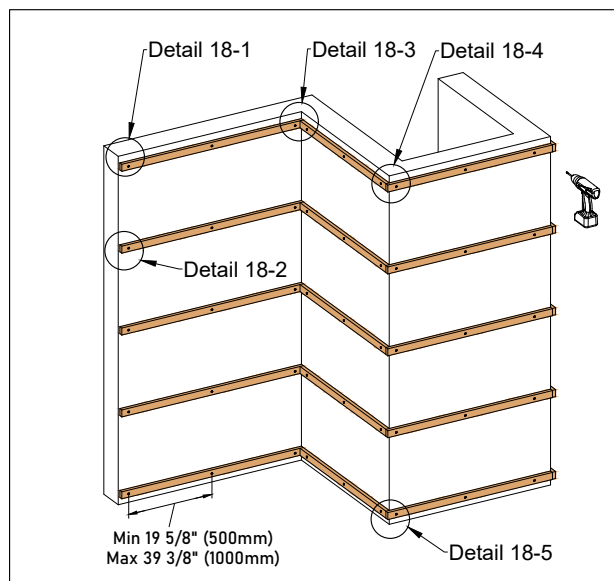
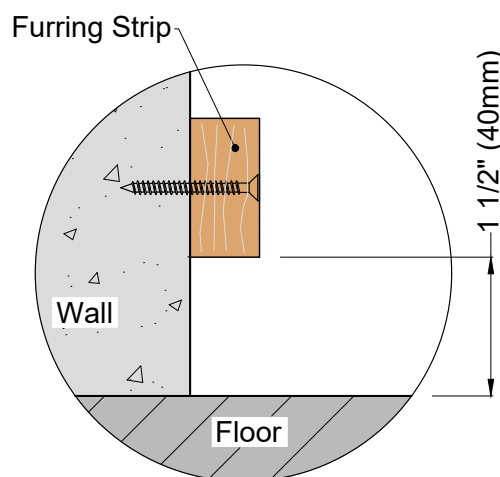


Diagram 18

Note:

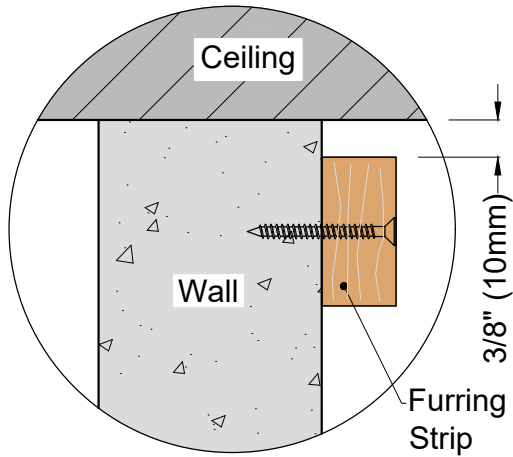
1. A minimum gap of 1 1/2" (40mm) needs to be left at the bottom of each furring strip opposite the floor, as shown in **Detail 18-1**.



Detail 18-1

Note:

2. A minimum gap of 3/8" (10mm) needs to be left between the Ceiling and the furring strip's end, as shown in *Detail 18-2*.



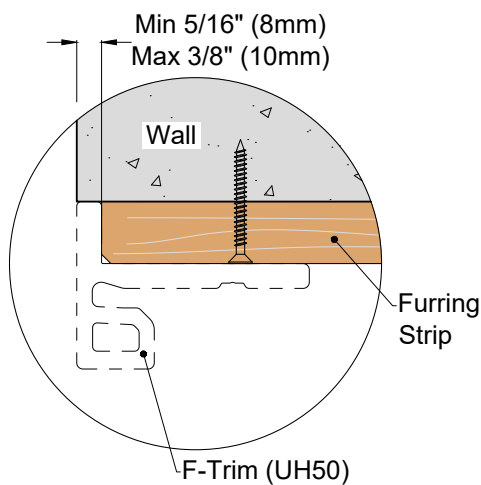
Detail 18-2

Note:

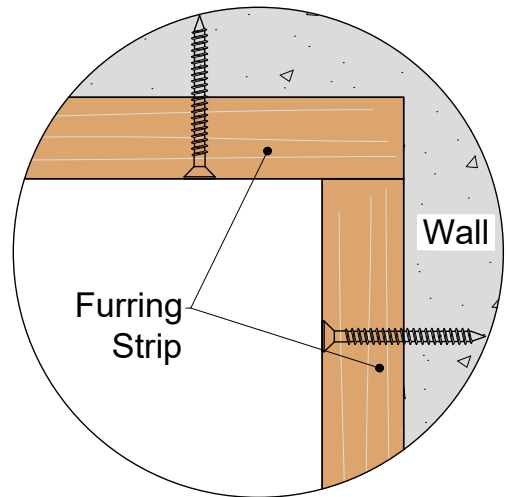
3. For the Outermost Edge, please install according to *Detail 18-3*.

4. For the Inside Corner, please install according to *Detail 18-4*.

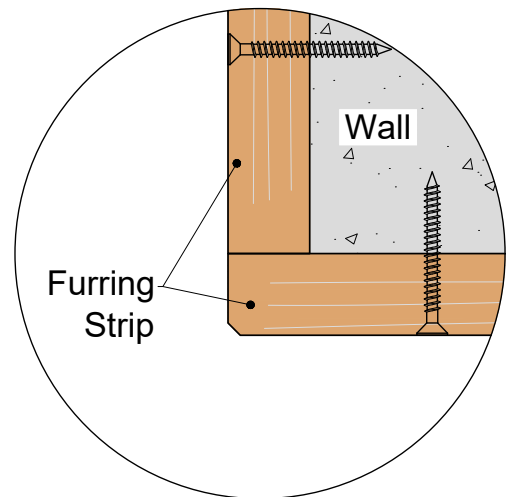
5. For the Outside Corner, please install according to *Detail 18-5*.



Detail 18-3



Detail 18-4



Detail 18-5

19 Trim Installation

Secure the F-Trim (UH50/US73) onto the wall outermost edge furring strip and the Outside Corner Trim (UH51) onto the wall outside corner furring strip with screws in distance at least 19 5/8" (500mm) and max to 39 3/8" (1000mm) on center, respectively, as shown in **Diagram 19**.

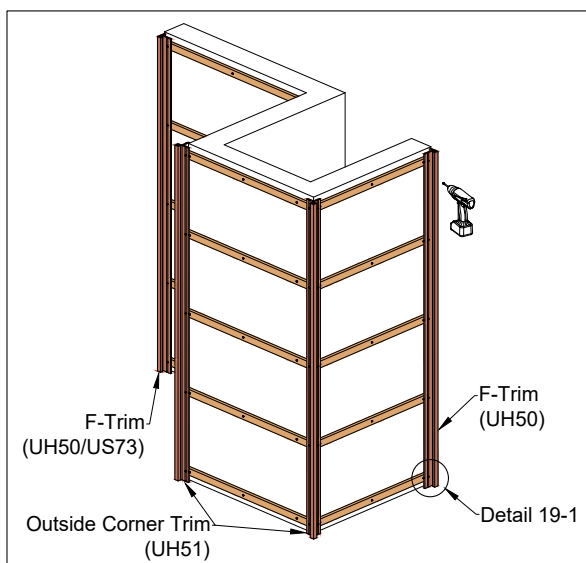
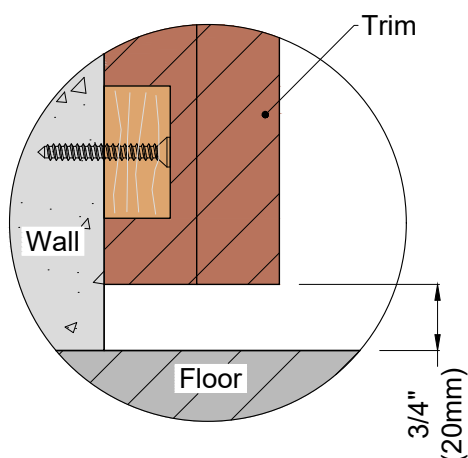


Diagram 19

Note:

A minimum gap of 1 3/4" (20mm) needs to be left between the bottom of trims and the floor, as shown in **Detail 19-1**.



Detail 19-1

20 Siding Board Installation

Installing the First course

Start the installation according to the **Diagram 20**.

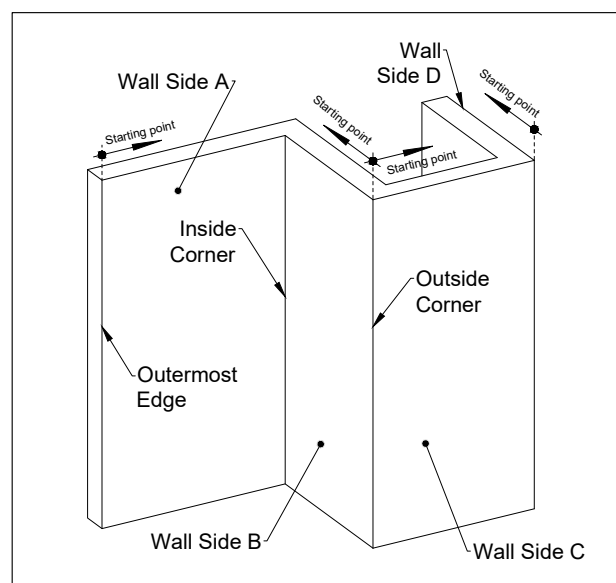


Diagram 20

Note:

1. Wall between the Outermost Edge and the Inside Corner:
- Start from the Outermost Edge.
2. Wall between the Inside Corner and the Outside Corner:
- Start from the Outside Corner.
3. Wall between two Outside Corners:
- Start from one of the Outside Corners.
4. Wall between the Outside Corner and the Outermost Edge:
- Start from the Outside Corner.

- 21** Put the first European Siding Board (UH46) in place over the trims, then face fix it the side next to the F-Trim (UH50/US73) onto the furring strip with screws, and fasten it's another side onto the furring strip with Clip (AW08), as shown in **Diagram 21**, Outermost edge **Detail 21-1** and Outside Corner **Detail 21-2**.

Note:

Pre-drill the face fixing holes on the first board before installation to allow for expansion and contraction. Please review [page 5, "Predrill"](#), of this installation guide for further information.

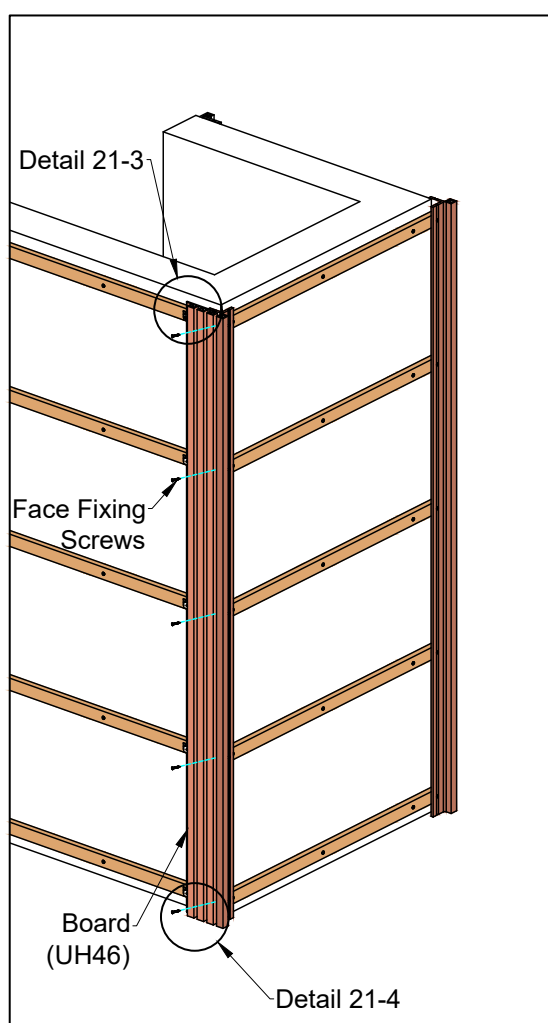
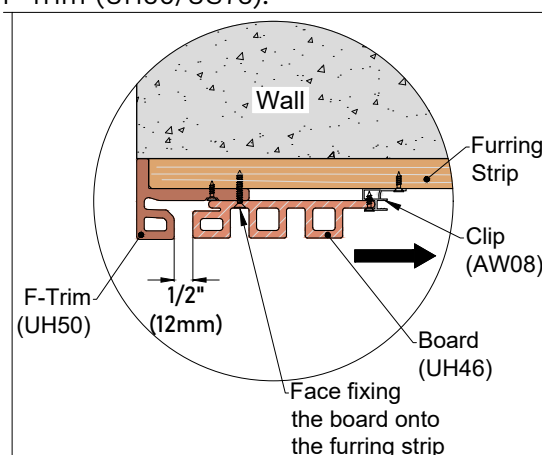
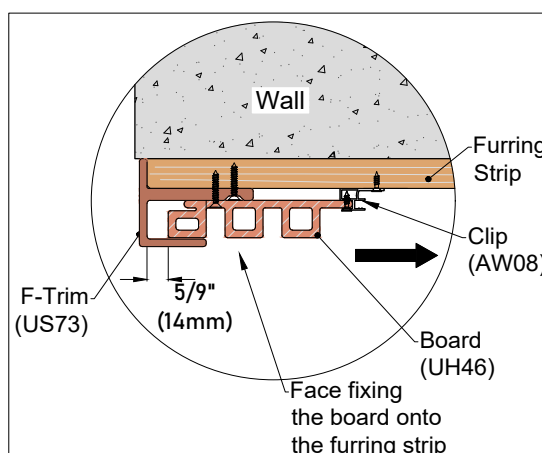


Diagram 21

Detail 21-1 and 21-2 shows the first board installation on the **Outermost Edge** with F-Trim (UH50/US73).

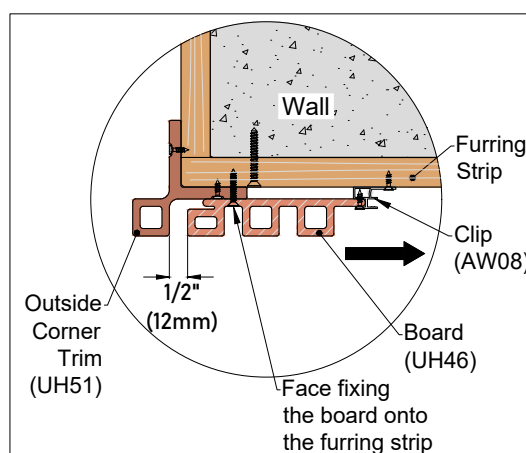


Detail 21-1



Detail 21-2

Detail 21-3 shows the first board installation on the **Outside Corner** with Outside Corner Trim (UH51).

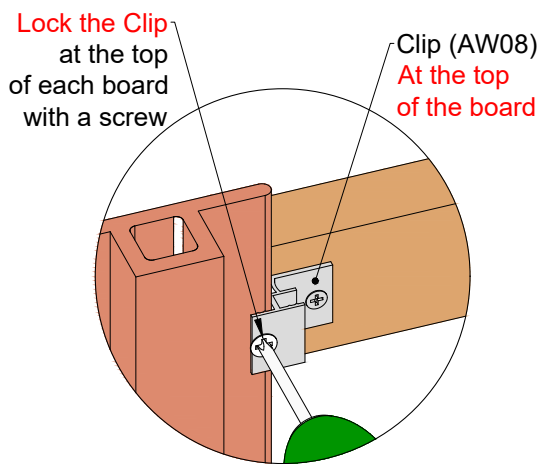


Detail 21-3

Note:

Since the composite wood must allow for expansion and contraction due to temperature change, lock the board **at one or two adjacent fixed points** to enable the remaining board to move freely. When installing vertically, it is required to **lock the Clip (AW08) at the top of each board**, as shown in *Detail 21-4*.

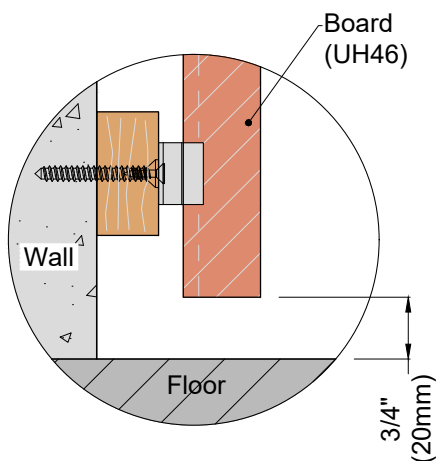
IT IS IMPORTANT to review *page 13*, "*Locking the Siding Board*" of this installation guide for further information.



Detail 21-4

Note:

1. Allow a gap at least 3/4" (20mm) between the floor and the siding board, as shown in *Detail 21-5*.



Detail 21-5

22 Installing the Second course

Put the second board over the first board's Clip (AW08) and fasten it's another side onto the furring strip with the Clip (AW08), as shown in *Diagram 22*, *Detail 22-1*, Outermost Edge *Detail 22-2* and Outside Corner *Detail 22-3*.

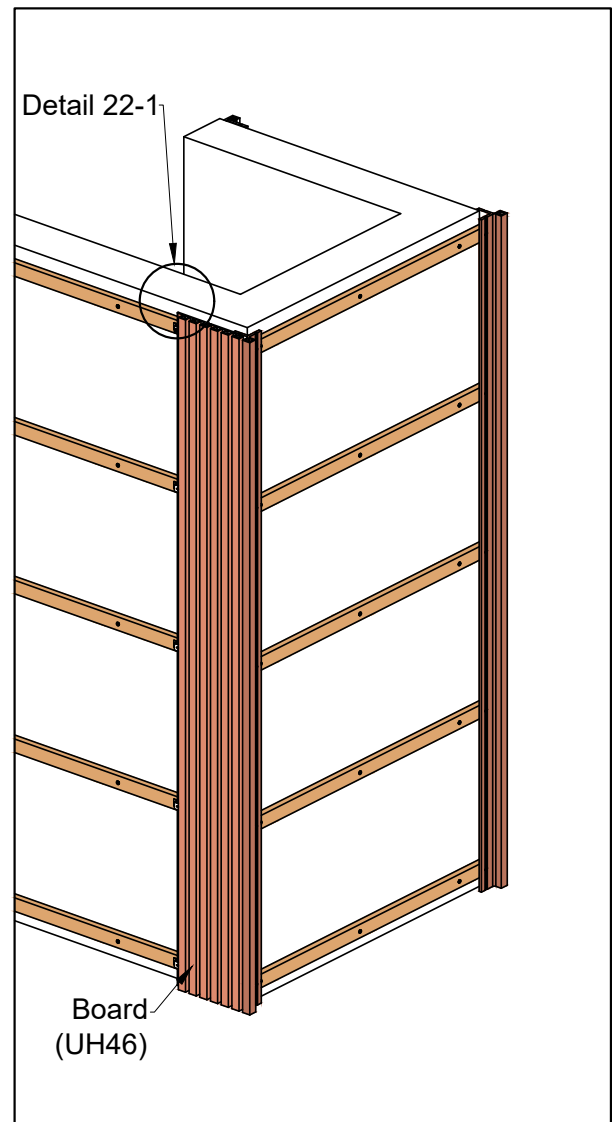
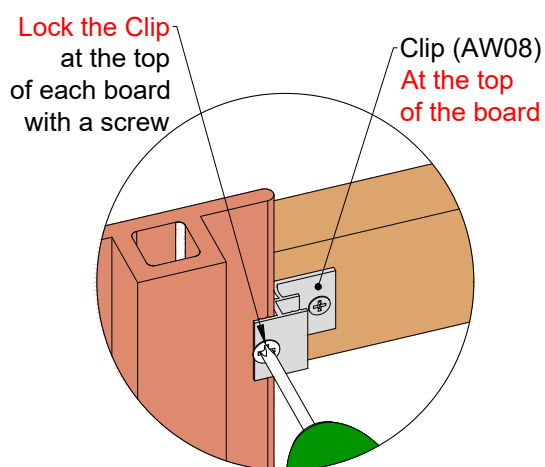


Diagram 22

Note:

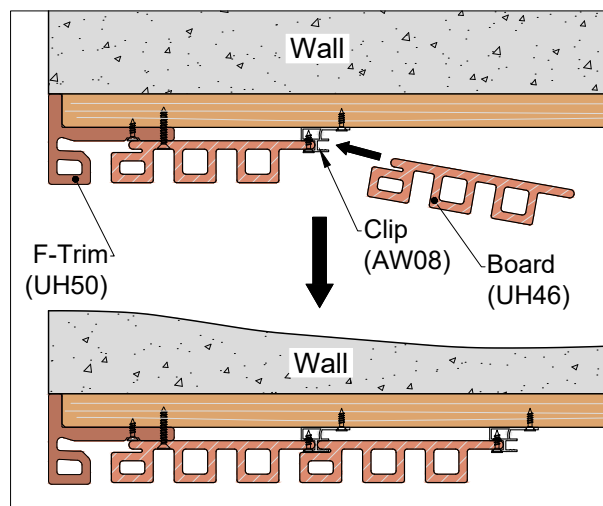
Since the composite wood must allow for expansion and contraction due to temperature change, lock the board **at one or two adjacent fixed points** to enable the remaining board to move freely. When installing vertically, it is required to **lock the Clip (AW08) at the top of each board**, as shown in *Detail 22-1*.

IT IS IMPORTANT to review *page 13, "Locking the Siding Board"* of this installation guide for further information.

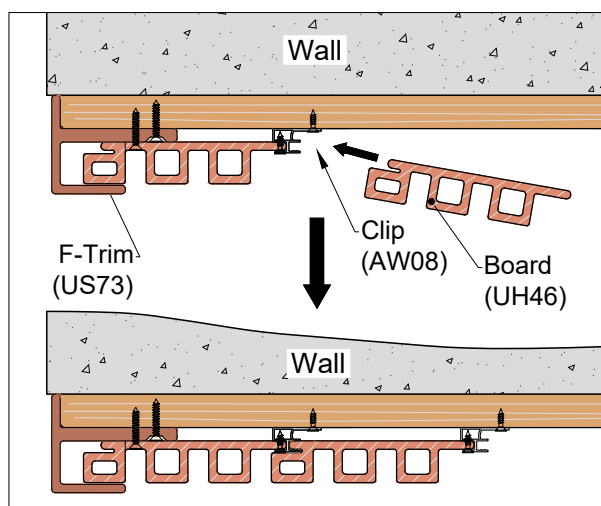


Detail 22-1

Outermost Edge with F-Trim (UH50/US73), as shown in *Detail 22-2 and 22-3*.

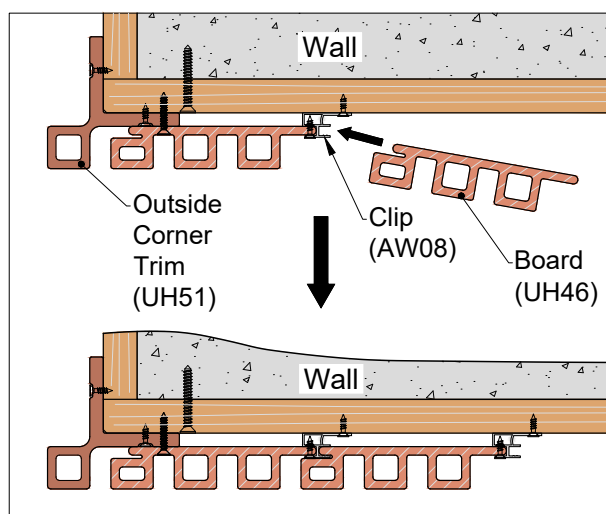


Detail 22-2



Detail 22-3

Outside Corner with Outside Corner Trim (UH51), as shown in *Detail 22-4*.



Detail 22-4

23 Installing the Last board

When you are at the last board, measure the distance between the trim or the adjacent installed siding board and the Clip (AW08) to obtain the appropriate board's cutting dimension, as shown in **Diagram 23**.

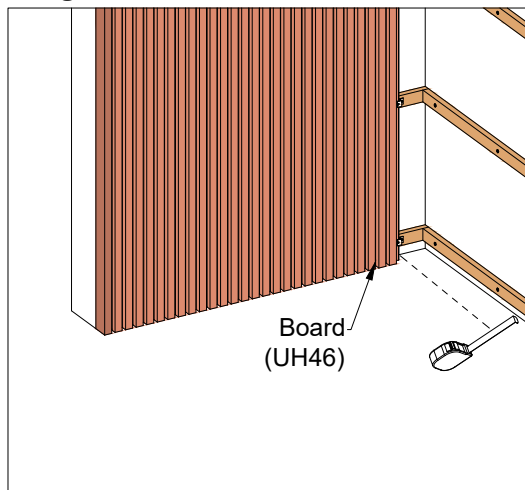
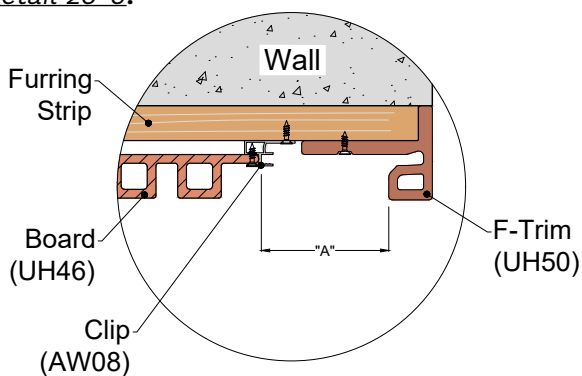


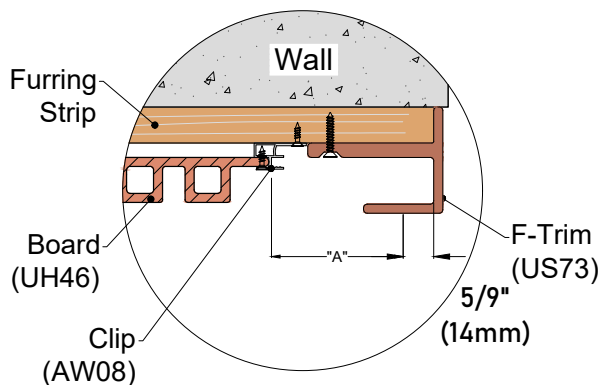
Diagram 23

Note:

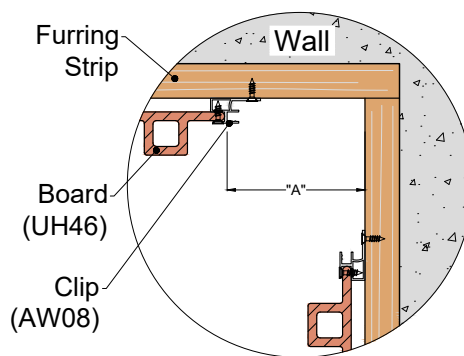
1. Outermost Edge with F-Trim (UH50/US73), as shown in *Detail 23-1 and 23-2*.
2. Outside Corner with Outside Corner Trim (UH51), as shown in *Detail 23-3*.
3. Inside Corner, as shown in *Detail 23-4 and Detail 23-5*.



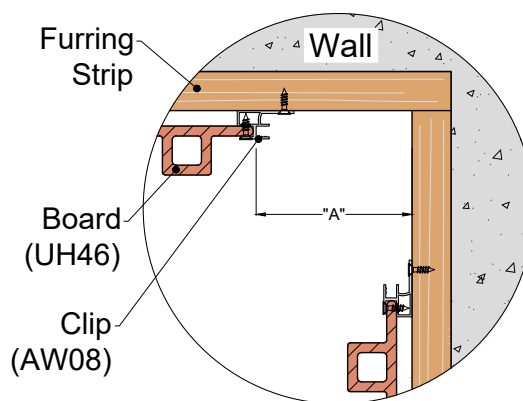
Detail 23-1



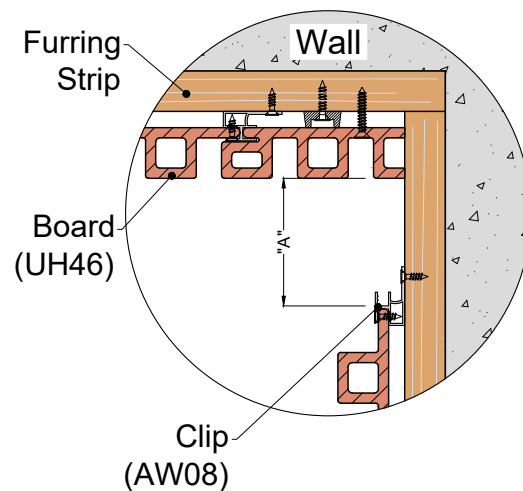
Detail 23-2



Detail 23-3



Detail 23-4



Detail 23-5

- 24** Cut the board according to the measured dimension, as shown in **Diagram 24** and **Detail 24-1**.

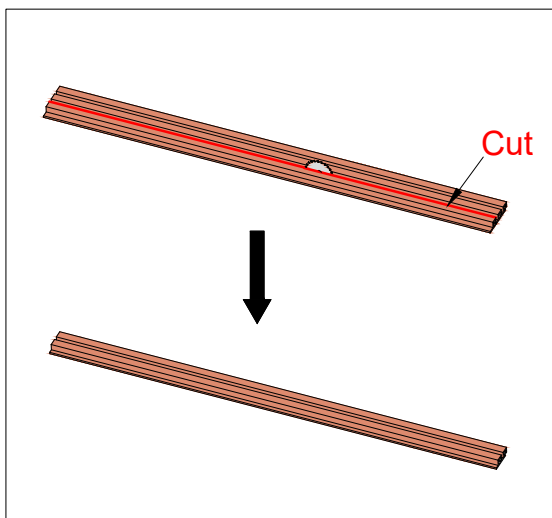
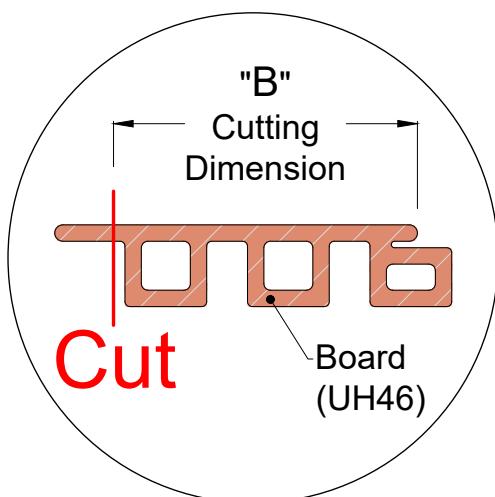


Diagram 24



Detail 24-1

Cutting dimension "B" = "A" (measured dimension)

- 25** Install the Rubber Stopper (T-7) onto the furring strip in the **Inside Corner** to back up the last board, as shown in **Diagram 25**.

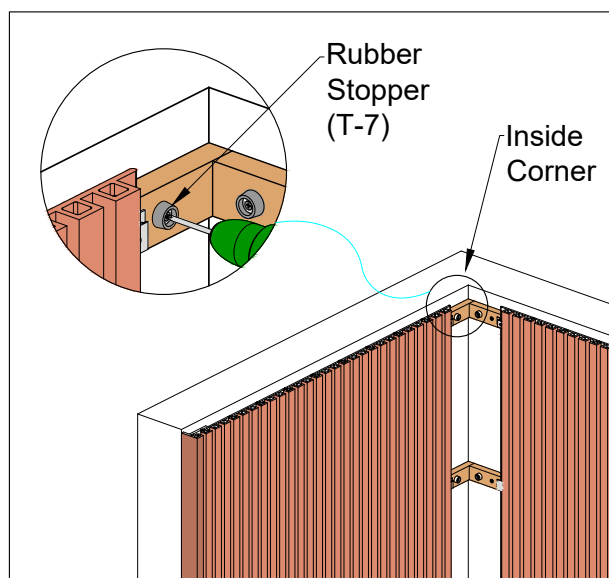


Diagram 25

- 26** Put the cut siding board over the Clip (AW08) in place and then face fix it onto the furring strip with screws, as shown in **Diagram 26**.

Note:

Pre-drill the face fixing holes on the last board before installation to allow for expansion and contraction. Please review page 5, "Predrill", of this installation guide for further information.

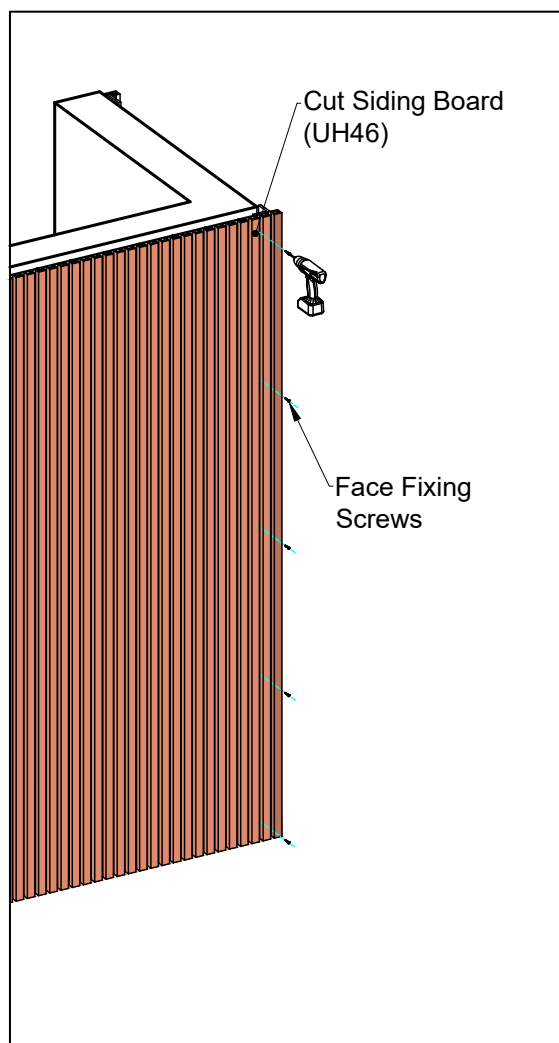
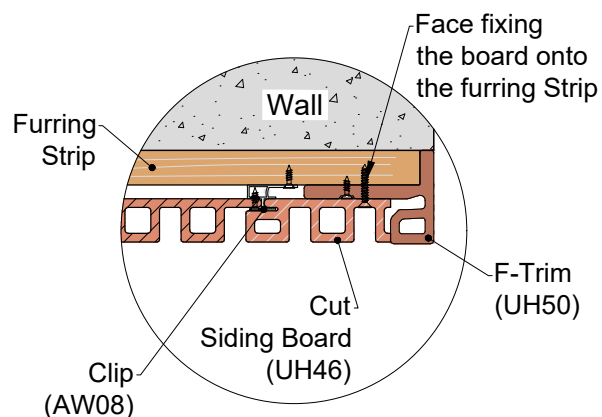
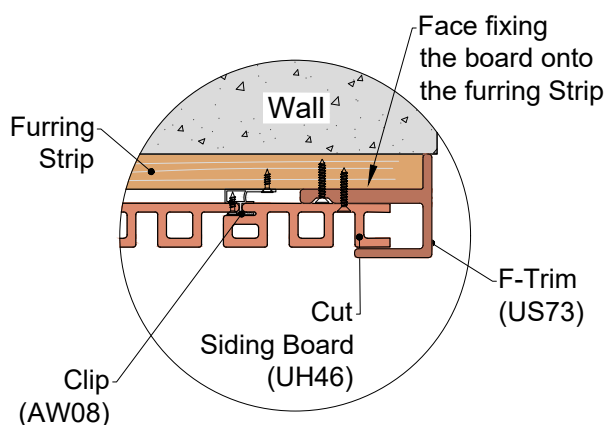


Diagram 26

Detail 26-1 and 26-2 shows the last board installation on the **Outermost Edge** with F-Trim (UH50)/US73).

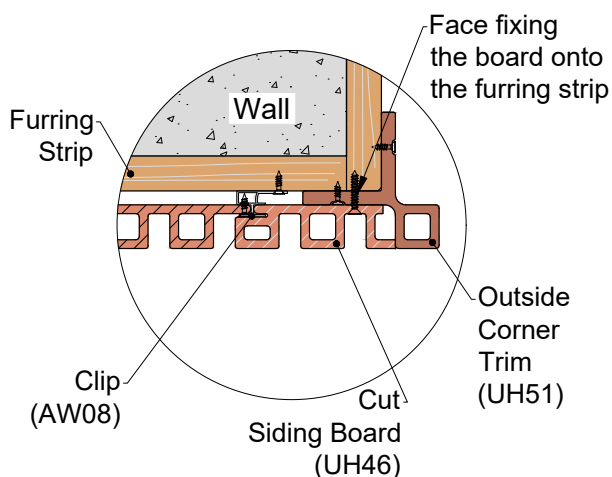


Detail 26-1



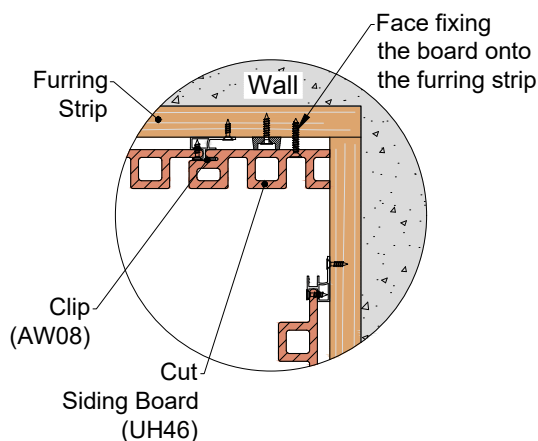
Detail 26-2

Detail 26-3 shows the last board installation on the **Outside Corner** with Outside Corner Trim (UH51).

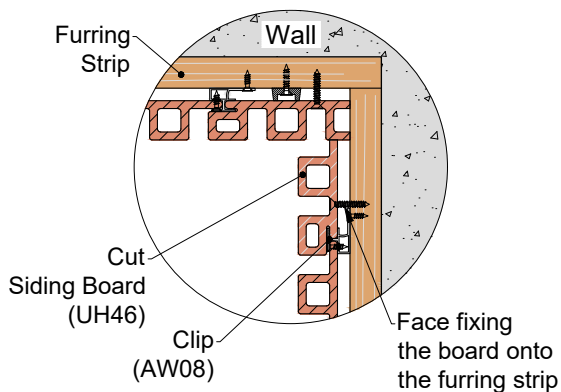


Detail 26-3

Detail 26-4 and **Detail 26-5** show the last board installation in the **Inside Corner**.



Detail 26-4



Detail 26-5

27 Finish the Top

It is recommended below two options to finish the top of the siding.

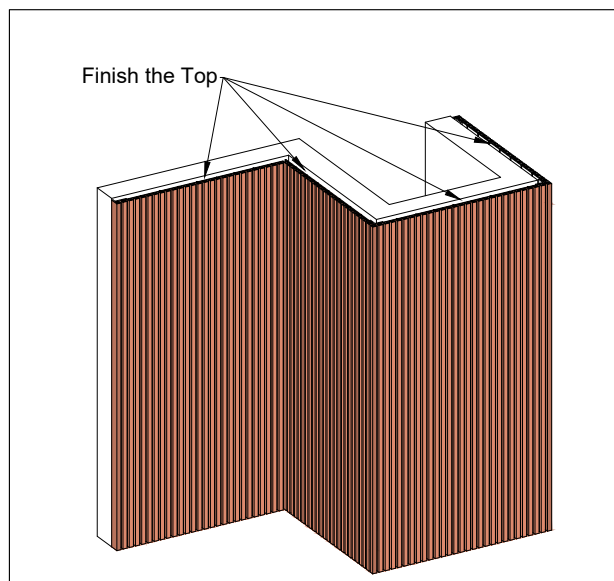
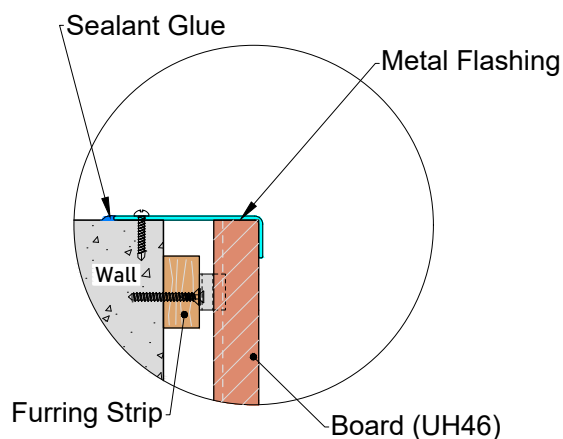


Diagram 27

Option 1 Using Metal Flashing:

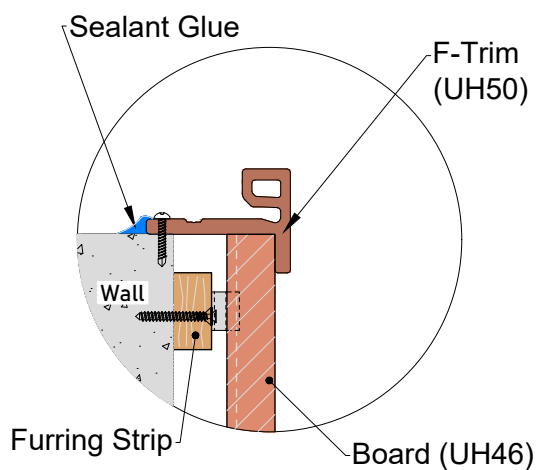
Put metal flashing against the top of the siding along the length of the installed siding boards and secure it onto the wall with screws, as shown in **Detail 27-1**.



Detail 27-1

Option 2 Using F-Trim (UH50):

Put F-Trim (UH50) against the top of the siding along the length of the installed siding boards and secure it onto the wall with screws, as shown in **Detail 27-2**.



Detail 27-2



European Siding System Vertical Installation Guide

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