NewTechWood

CANADA

FLUTED SIDING

HORIZONTAL INSTALLATION GUIDE

PROFILES UH61 & UH58

TABLE OF CONTENTS

READ ALL SECTIONS BEFORE YOU START

Prior to installing any composite cladding 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.

Ensure that the delivered product matches the order (color, model, size, quantity, accessories); inspect each piece before installation.
Do not install a product that appears or is believed to be defective.
A defective product will not be covered by the warranty if it is installed.

Stocking

NewTechWood siding boards are a finished product. Boards MUST be stored flat and off the ground prior to installation. NewTechWood recommends storing on pallets.

NewTechWood products MUST be kept dry and stored in a covered area. Material on-site must be covered with a tarp before installation. Moisture saturation before installation may result in swelling, shrinkage or board damage. Do not install saturated boards.

NewTechWood is not responsible for damage caused by improper storage and handling of the NewTechWood 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, respiratory protection, long sleeves, pants, and safety glasses.

Tools

Standard woodworking tools may be used. Begin each project with a new blade. It is recommended that all blades have a carbide tip. Standard stainless steel or acceptable coated deck screws 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 cladding. 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.

READ ALL SECTIONS BEFORE YOU START

Planning

Plan a layout for your cladding before starting it to ensure the best possible looking cladding 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 cladding 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 wall cladding.

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 cladding boards.

Heat and Fire

Excessive heat on the surface of NewTechWood products from external sources such as but not limited to fire or reflection of sunlight from energy efficient window 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 cladding 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 screws that are face fixed should always be NewTechWood coloured stainless steel screws (CS-100).

READ ALL SECTIONS BEFORE YOU START

Predrill

It is recommended to use NewTechWood's #8 pan head colour screw for face fixing the profiles onto the furring strips. When face fixing, it is recommended to predrill the holes slightly larger on the profiles to allow for expansion and contraction response to temperature change, as shown in below diagram.
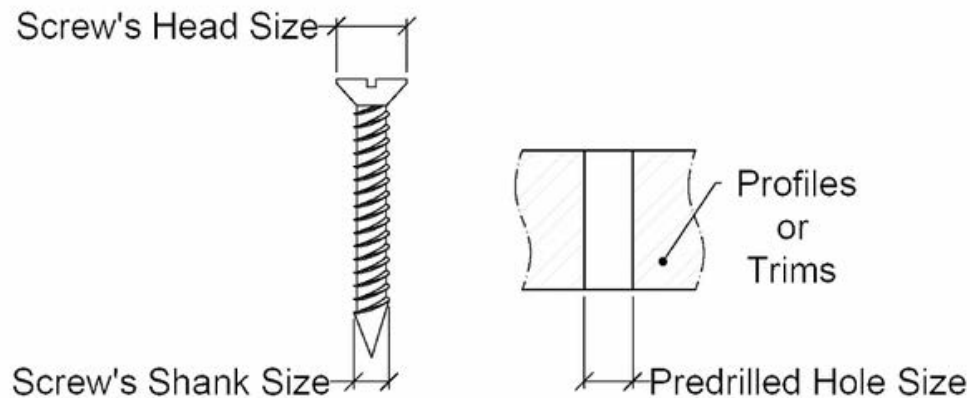
The predrilled hole size should be larger than the screw thread size, from 1/16" (1.5 mm) to 5 /64" (2 mm). Moreover, the predrilled hole size should also be smaller than the screw head size, at least 5/64" (2 mm). A washer can be applied if the predrilled hole size is smaller than the screw head size below 5/64" (2 mm).

Fluted siding

- ## NORWEGIAN SIDING BOARD AND TRIMS

PRODUCT	PURPOSE	PART
UH61	Norwegian siding board. Available in 12 and 16 feet.	
UH50	End trim, used as the first and the last board when exposed. Available in 16 feet.	
UH51	Outside corner trim, used on the outside corners. Available in 16 feet.	

- ## BELGIAN SIDING BOARD AND TRIMS

PRODUCT	PURPOSE	PART
UH58	Belgian siding board. Available in 12 and 16 feet.	
UH59	End trim, used as the first and the last board when exposed. Available in 16 feet.	
UH60	Outside corner trim, used on the outside corners. Available in 16 feet.	

Fluted siding

- NORWEGIAN AND BELGIAN SIDING ACCESSORIES

PRODUCT	PURPOSE	PART
AW02	Siding Starter Bar	
AW08	Siding Clip used at every furring strip to support each board to the strip	
AW24	Double clip designed to secure butt joint	
T7	Rubber Stopper, serves as a spacer to support the final board when clips cannot be installed	
CS	Coloured Screws	

Fluted siding

- SCREWS FOR WOOD FURRING STRIP

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

PRODUCT	PURPOSE	PART
#5 x 1/2" Stainless Steel SS304	Used when locking the board into AW08	
#8 x 1" Stainless Steel SS304 (pan head)	Used when installing the Clip (AW08) and the Rubber Stopper (T7) onto the wood furring strips	
#8 x 11/4" Stainless Steel SS304 (flat head)	Used when fixing the trims onto the wood furring strips	

Table 1

***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.

Fluted siding

- ## SCREWS FOR ALUMINUM FURRING STRIPS

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

PRODUCT	PURPOSE	PART
#5 x 1 /2" Stainless Steel SS304	Used when locking the board into the clip (AW08)	
#8 x 1" Self-tapping Stainless Steel SS410 (pan head)	Used when installing the clip (AW08) and the Rubber Stopper (T7) onto aluminum furring strips	
#8 x 11/4" Self-tapping Stainless Steel SS410 (flat head)	Used when fixing the trims onto the aluminum furring strips	

Table 2

*__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.

Fluted siding

- ## WALL PREPARATION

We recommend for the under construction aluminum or wood furring strips. Each cladding board needs to be supported by furring strips **NO MORE than 16 inches (406 mm)** from center to center. Extra care is required in order to provide sufficient strapping in and around obstacles such as windows, fascia's, soffits, guttering, ventilation points etc.

When used as **SOFFIT or CEILING**, the maximum distance between furring strips, center-to-center is **12 inches (305mm).**
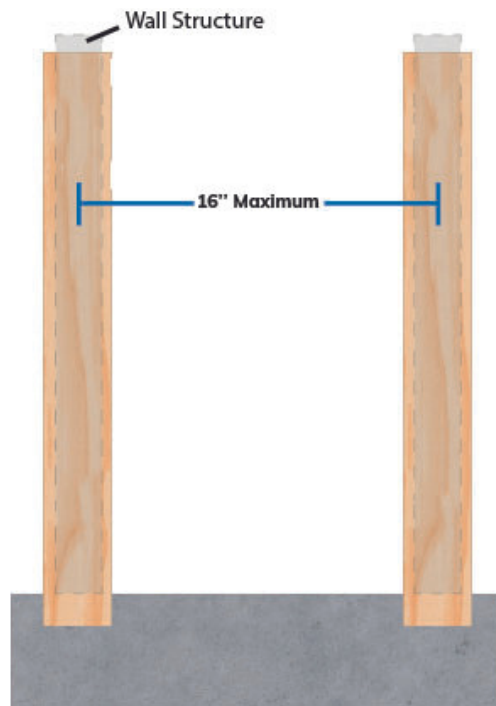
INSTALLATION ON ICF / RIGID INSULATION

For installation on rigid insulation or ICF, double furring is highly recommended to more effectively evacuate heat/moisture that may accumulate between the cladding and the rigid insulation/ICF. It is also recommended to level the strips well with shims or use sufficiently thick aluminum strips to have perfectly straight and leveled strips.

Fluted siding

- 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 boards according to the gapping requirements noted in the following table accommodates for this movement.

Expansion and Contraction table of values for Canada

Installation temperature (°C)	12 feet (3.66 m)	16 feet (4.88 m)
0	3/16 in	1/4 in
5	3/16 in	1/4 in
10	1/8 in	3/16 in
15	1/8 in	3/16 in
20	1/16 in	1/8 in
25	1/16 in	1/16 in
30	3/64 in	1/16 in

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.

Fluted siding

- ## 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 fixed point but only one point** 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 **NOT TO LOCK** any other clips for the same board.

NewTechWood

CANADA
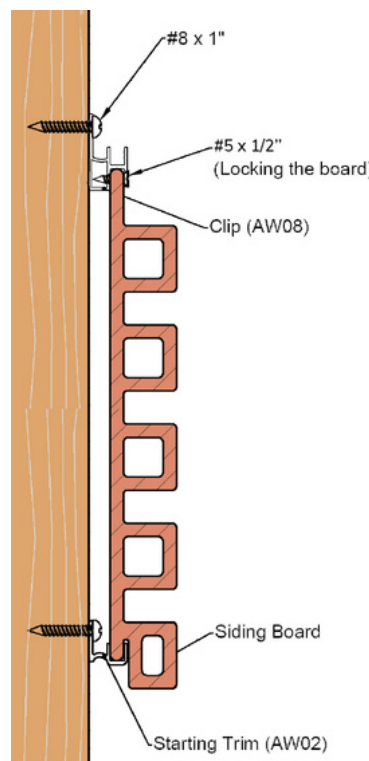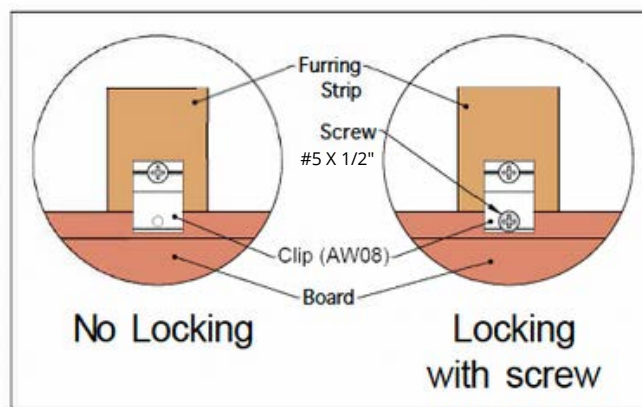
Fluted siding

- ## LOCKING THE SIDING BOARD

When installing horizontally, it is recommended to lock the clip (AW08) at the middle of the board to allow the remaining board to expand and contract freely, as shown in Diagram A1.
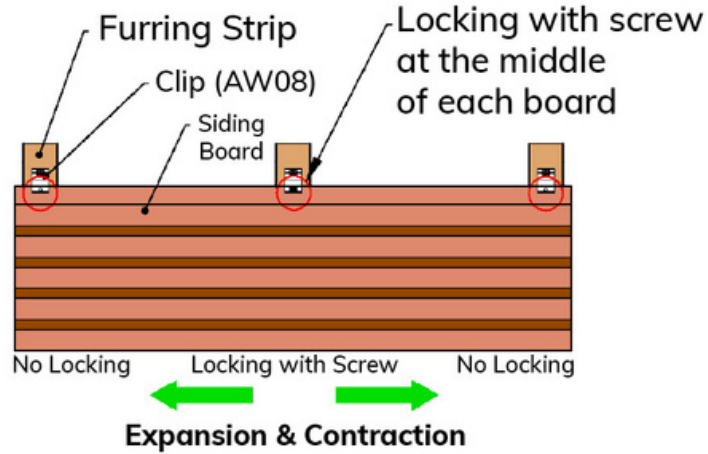
Diagram A1

- **Butt Joint Installation - TWO BOARDS MAXIMUM**
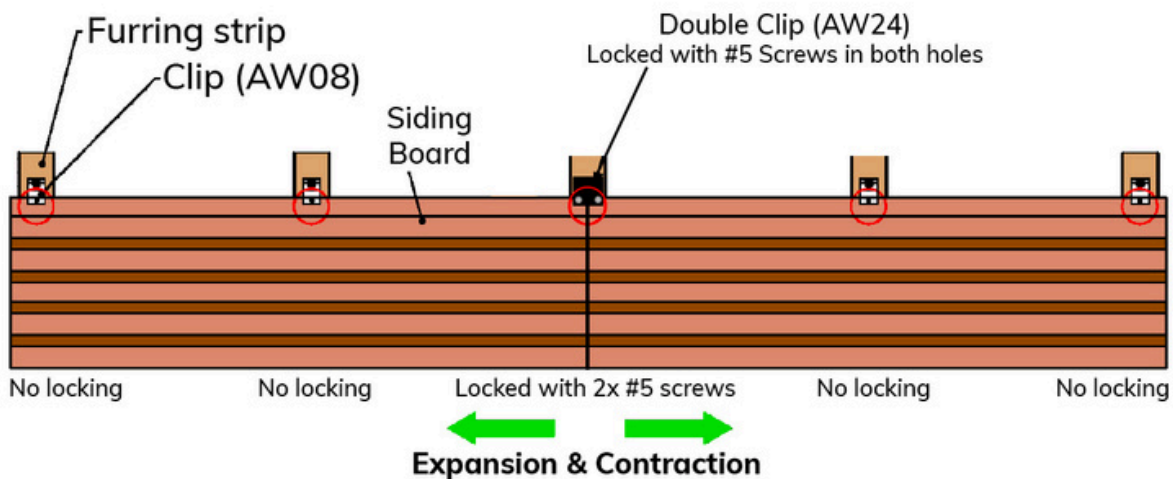
Diagram B1

ALWAYS ALIGN BUTT JOINTS WITH THE CENTER OF A FURRING STRIP

Fluted siding

- LOCKING THE SIDING BOARD – **BUTT JOINTS**

CLIPS
- ■ AW24 Double Clip - **LOCKED**
- ■ AW24 Double Clip - Not Locked
- ■ AW02 - **Starting Bar**
- ■ AW08 - **Not Locked**
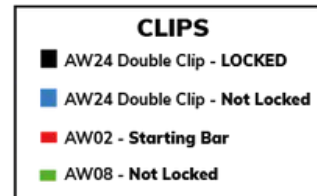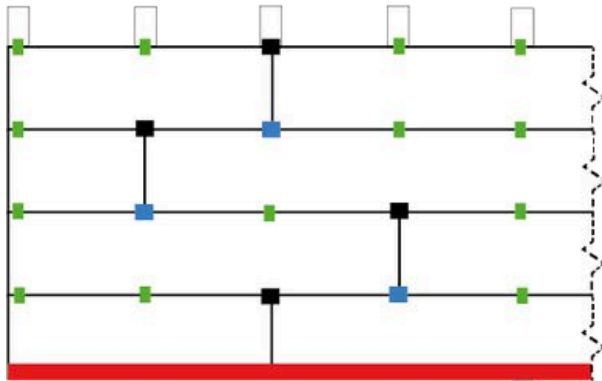
AW24 Double clip
locked with
2 x #5 screws
throught the lip
of the board
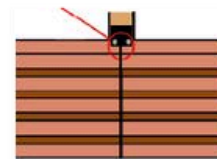
1. **Butt joints must be centered on a furring strip.**
2. **Never make two butt joints or more on the same line.**
3. **Do not lock a clip anywhere else on the board when you installed a locked butt joint.**

Fluted siding

- 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

1 FRAMING

The frame needs to be Level before installing the siding boards. Diagram 1 shows the wall replicating different scenarios potentially occuring 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
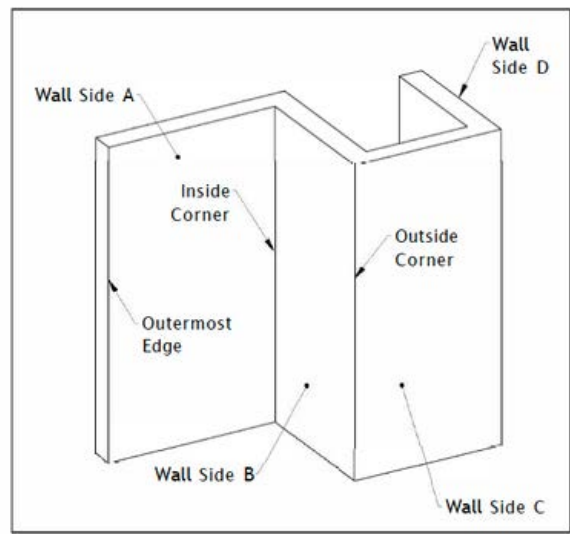
Diagram 1

Fluted siding

- INSTALLATION PROCEDURE

2

Measure and chalk the furring strips according to the span data specified on page 10 of this installation guide, as shown in Diagram 2.
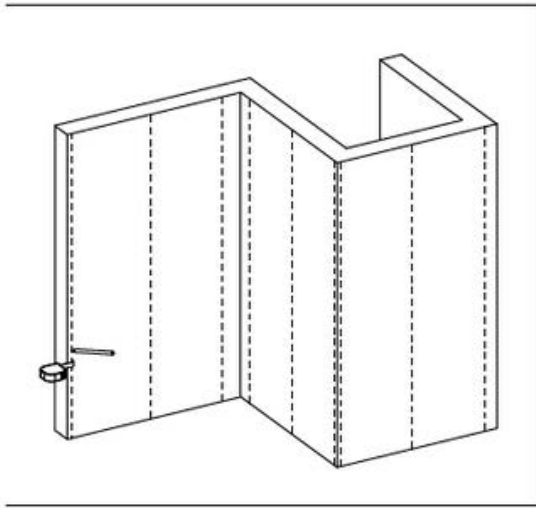
Diagram 2

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. A span of 16'' maximum center-to-center for the furring strips is required to keep the Siding boards from bending.

3

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

Detail 3-2 Detail 3-3 Detail 3-4

Min 19 5/8" (500mm)
Max 39 3/8" (1000mm)
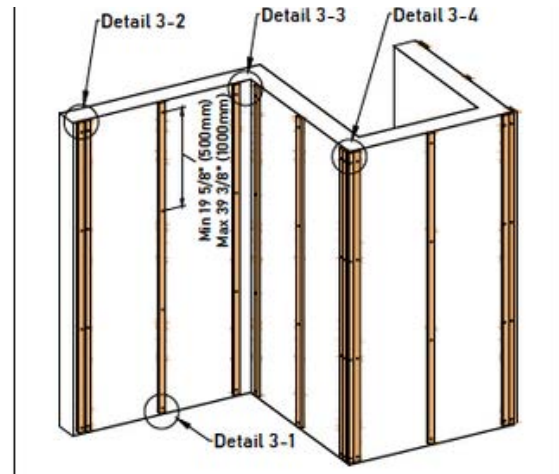
Detail 3-1

Diagram 3

Note:
1. A minimum gap of 3/4" (20mm) needs to be left at the bottom of each furring strip opposite the floor, as shown in Detail 3.1.

Furring Strip

Wall

3/4" (20mm)

Floor
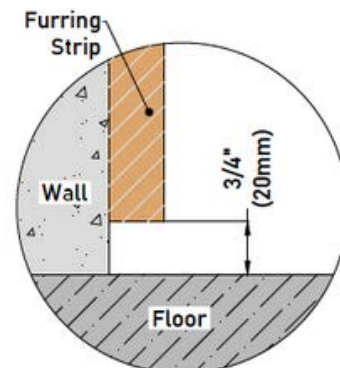
Detail 3-1

Fluted siding

- INSTALLATION PROCEDURE

2. For the Outermost Edge, please install according to Detail 3-2 .
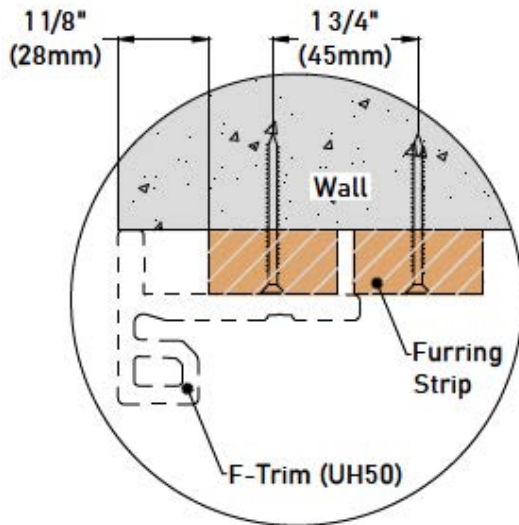
Detail 3-2

3. For the Inside Corner, please install according to Detail 3-3.
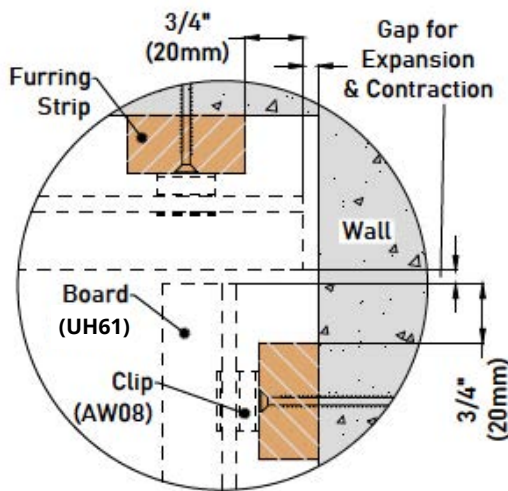
Detail 3-3

4. For the Outside Corner, please install according to Detail 3-4.
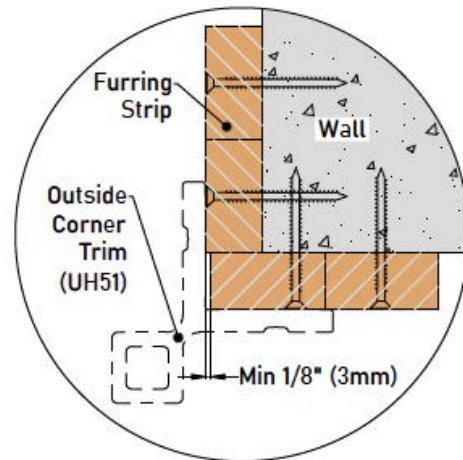
Detail 3-4

4 **TRIM INSTALLATION**

Secure the End Trim (UH50) onto the wall outermost edge joist and the Outside Corner Trim (UH51) onto the wall outside corner joist with screws at least 19 5/8" (500mm) and max to 39 3/8" (1000mm) on center, respectively, as shown in Diagram 4.
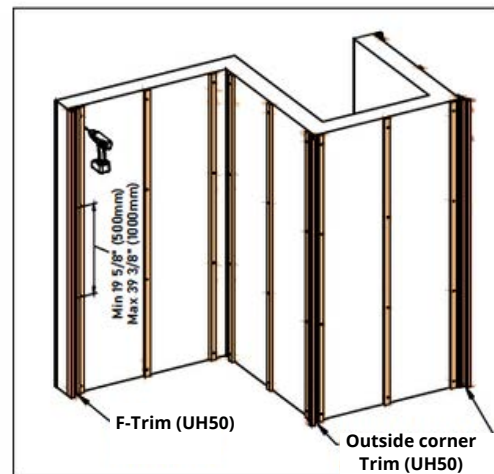
Diagram 4

Fluted siding

- ## INSTALLATION PROCEDURE

5

Install the Starting Trim (AW02) at the end of the joists opposite the floor with screws, as shown in Diagram 5.
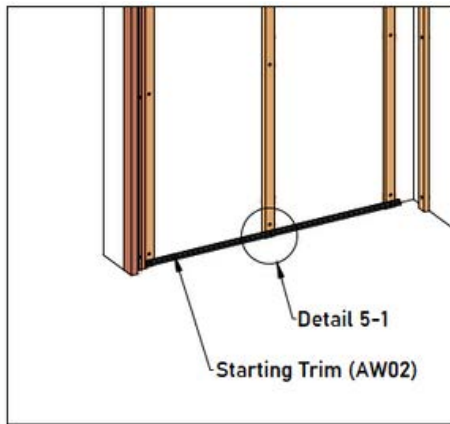
Diagram 5

Note:

1. Outermost Edge
A minimum gap of 3/16" (5mm) needs to be left between the Starting Trim (AW02) and the End Trim (UH50), as shown in Detail 5-1.

2. Inside Corner
A minimum gap of 7/16" (11mm) and 2 1/2" (63mm) needs to be left between the Starting Trim (AW02) and the adjacent wall in the inside corner, as shown in Detail 5-2.

3. Outside Corner
A minimum gap of 3/16" (5mm) needs to be left between the Starting Trim (AW02) and the Outside Corner Trim (UH51), as shown in Detail 5-3.
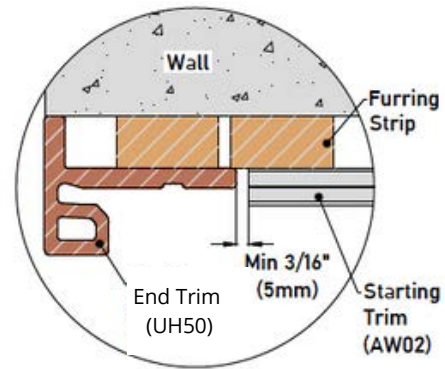
Detail 5-1
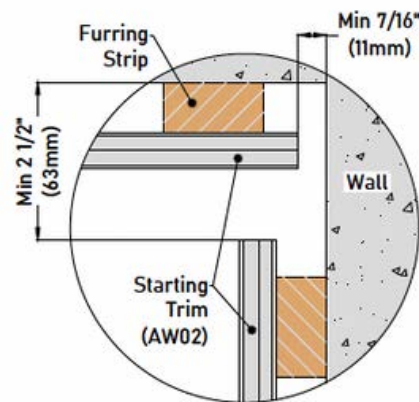
Detail 5-2
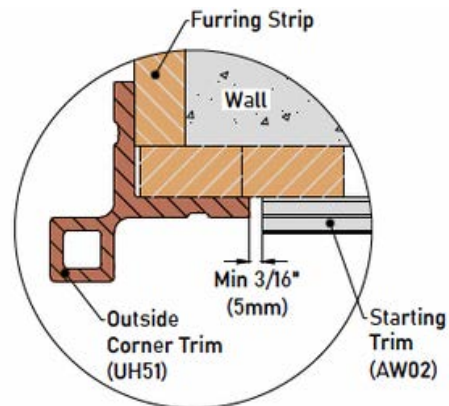
Detail 5-3

Fluted siding

- INSTALLATION PROCEDURE

Note: Fasten the Starting Trim (AW02) with aclearance of 1 3/4" (45mm) above thefloor, as shown in Detail 5-4.
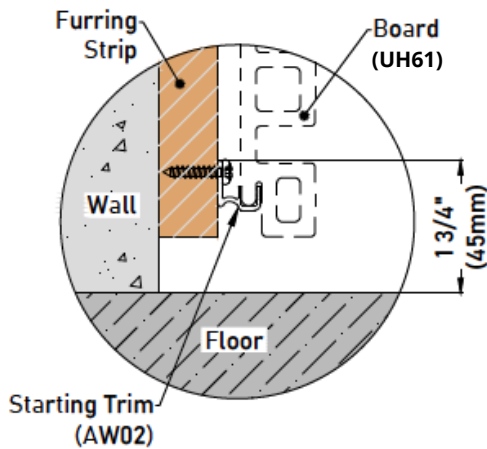
Detail 5-4

6 SIDING BOARD INSTALLATION

Installing the First Course

Put the first fluted Siding Board (UH61 or UH58) over the Starting Trim (AW02) and fasten it onto the furring strip with Clip (AW08), as shown in Diagram 6 and Detail 6-1.
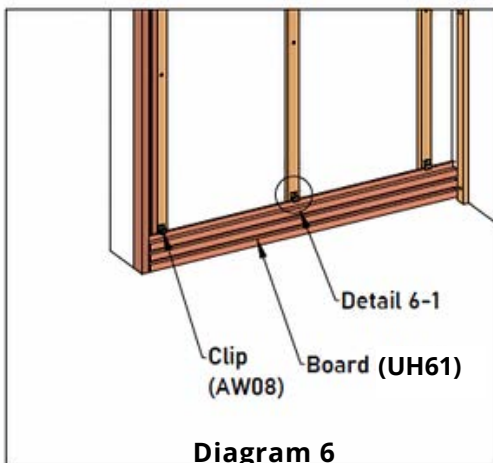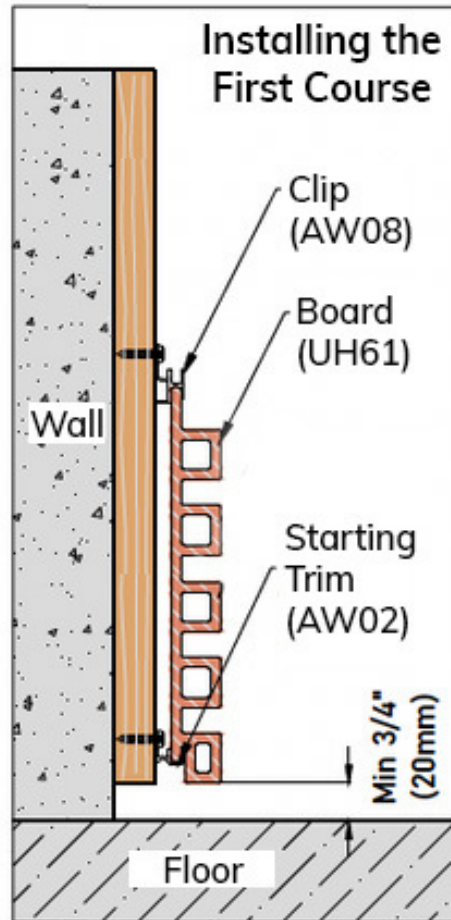

Diagram 6

Note:
The gap between the siding board and the floor should be at least 3/4" (20mm), as shown in Detail 6-1.

Detail 6-1

Fluted siding

● INSTALLATION PROCEDURE

Note:
Since the composite wood must allow for expansion and contraction due to temperature changes, lock the board at one or two adjacent fixed points to enable the remaining board to move freely. When installing horizontally, it is recommended to lock the Clip (AW08) at the middle of each board, as shown in Detail 6-2.

**IT IS IMPORTANT to review page 11, "Locking the Siding Board" of this installation guide for further information**
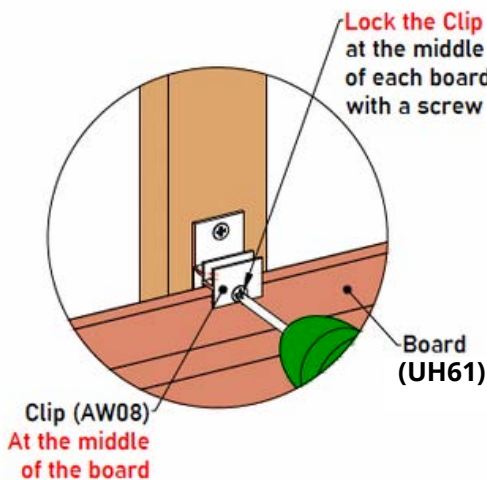
Detail 21-4

Note:
The gaps between the siding board, End Trim (UH50), Outside Corner Trim (UH51), the adjacent wall, and board in the inside corner are vital to avoid warping or buckling. Please select the appropriate gap value according to the Expansion and Contraction Values table on page 10 of this installation guide.
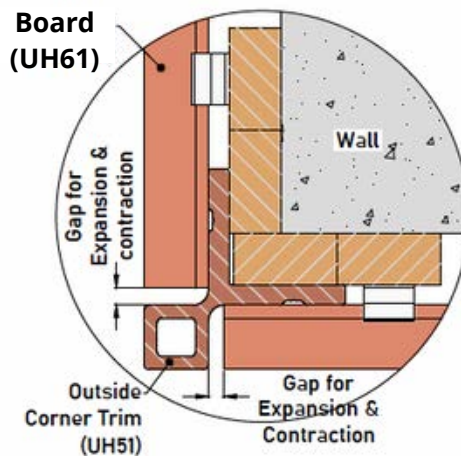
- **Outermost Edge, as shown in Detail 6-3.**
- **Inside Corner, as shown in Detail 6-4.**
- **Outside Corner, as shown in Detail 6-5.**
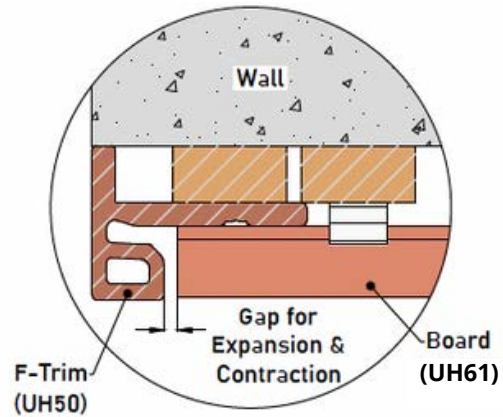
Detail 6-3
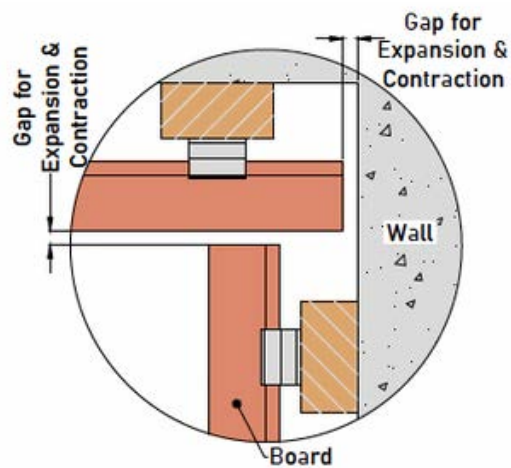
Detail 6-4

Detail 6-5

Fluted siding

- INSTALLATION PROCEDURE

7 **INSTALLING THE SECOND COURSE**

Put the second board over the first board's Clip (AW08) and fasten it onto the furring strip with the Clip (AW08), as shown in Diagram 7, Detail 7-1 , Detail 7-2.
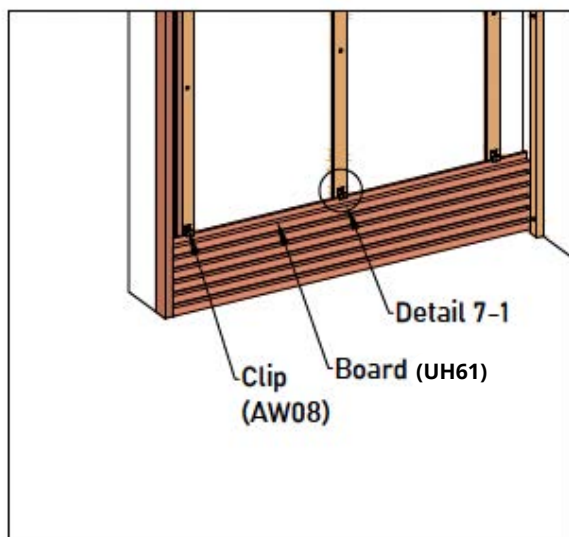

Diagram 7

> **MAKE SURE THAT THE BOARD IS WELL INSERTED IN EVERY CLIP WHEN YOU INSTALL THE SECOND AND FOLLOWING ROWS.**
>
> **IF A CLIP GETS BENT, TAKE THE TIME TO REPLACE IT.**
>
> **MOST CLAIMS OF A WAVY BOARD COMES FROM A BOARD THAT MISSED A CLIP.**

Note:
Since the composite wood must allow for expansion and contraction due to temperature changes, lock the board at one or two adjacent fixed points to enable the remaining board to move freely. When installing horizontally, it is recommended to lock the Clip (AW08) at the middle of each board, as shown in Detail 7-1.
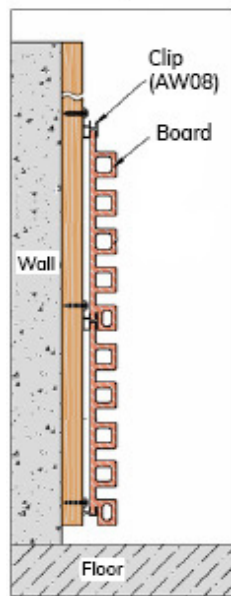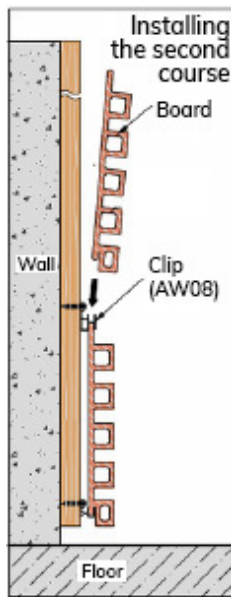
IT IS IMPORTANT to review page 11, "Locking the Siding Board" of this installation guide for further information
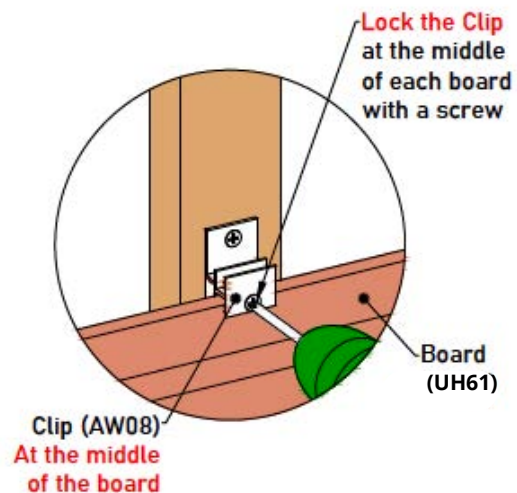
Detail 7-1

Fluted siding

- INSTALLATION PROCEDURE

Detail 7-2

8 **INSTALLING THE LAST BOARD**

When you are at the last board, measure the distance between the top of the furring strip and the Clip (AW08), as shown in Diagram 8 and Detail 8-1.
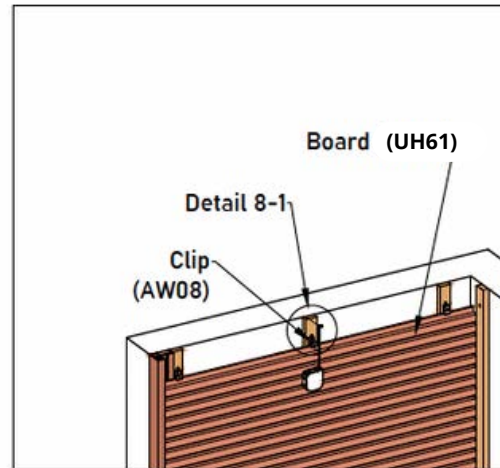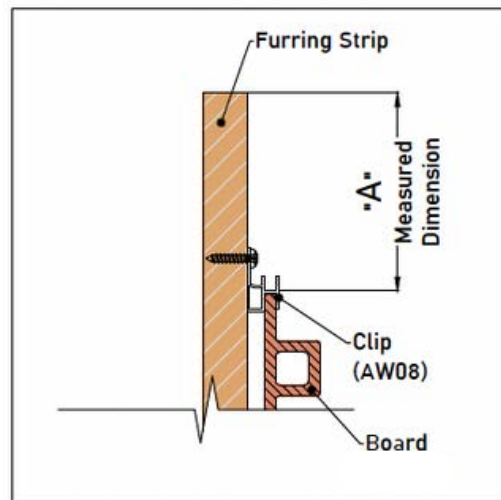

Diagram 8

Diagram 8-1

Fluted siding

- ## INSTALLING THE SIDING BOARDS

9

Cut the board according to the measured dimension and the selected option on how to finish the top, as shown in Diagram 9 and Detail 9-1 .
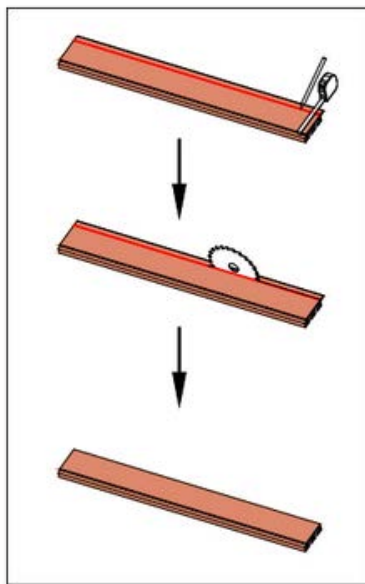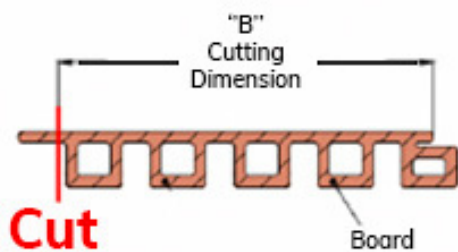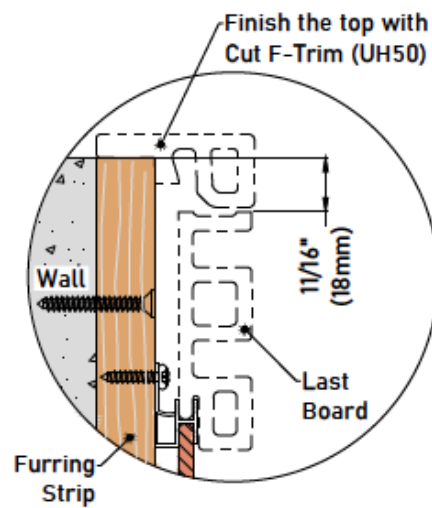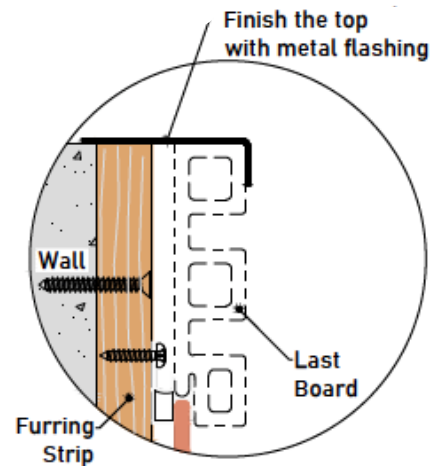
Diagram 9

Detail 9-1

Option 1: Finish the top with cut End Trim (UH50), as shown in Detail 9-2

Cutting Dimension "B" = "A" (measured dimension) - 11/16" (18mm)

Finish the top with Cut F-Trim (UH50)

Wall

11/16" (18mm)

Last Board

Furring Strip

Detail 9-2

Option 2: Finishing the Top with metal flashing, as shown in Detail 9-3.

Finish the top with metal flashing

Wall

Last Board

Furring Strip

Detail 9-3

Fluted siding

- INSTALLING THE SIDING BOARDS

10

Install the Rubber Stopper (T7) onto the furring strip in the Inside Corner to back up the last board, as shown in Diagram 25.
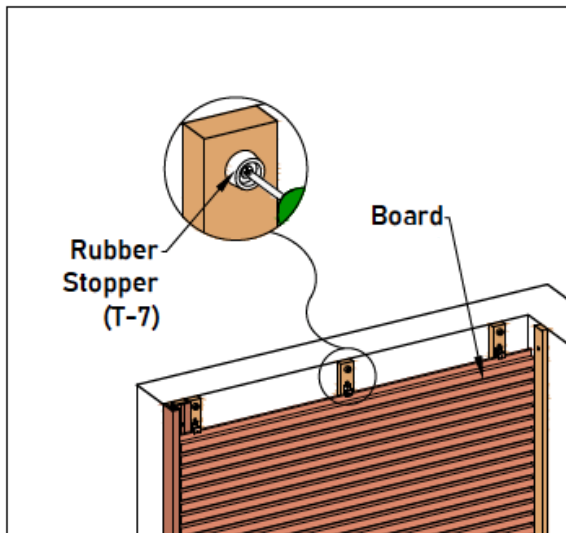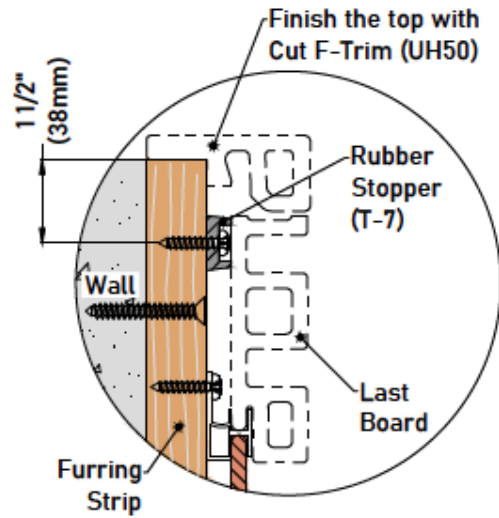

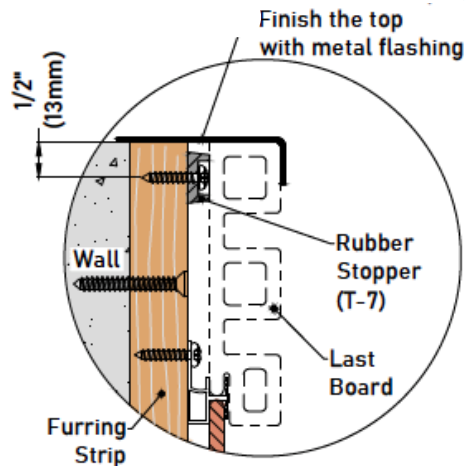**Diagram 10**

Option 1: Finish the top with cut End Trim (UH50):

Install the Rubber Stopper (T7), as shown in Detail 10-1.

Detail 10-1

Option 2: Finishing the Top with Metal Flashing

Install the Rubber Stopper, as shown in Detail 10-2.

Detail 10-2

Fluted siding

- ## INSTALLING THE SIDING BOARDS

11

Put the cut siding board over the Clip (AW08) in place and then face fix it onto each furring strip along the length of the board against the Rubber Stopper (T7), as shown in Diagram 11.
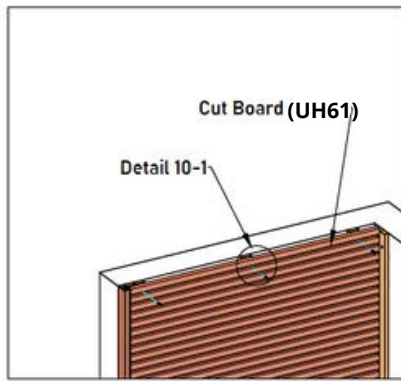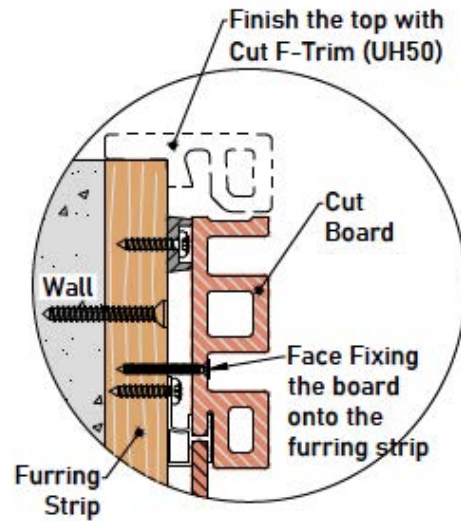

Diagram 11
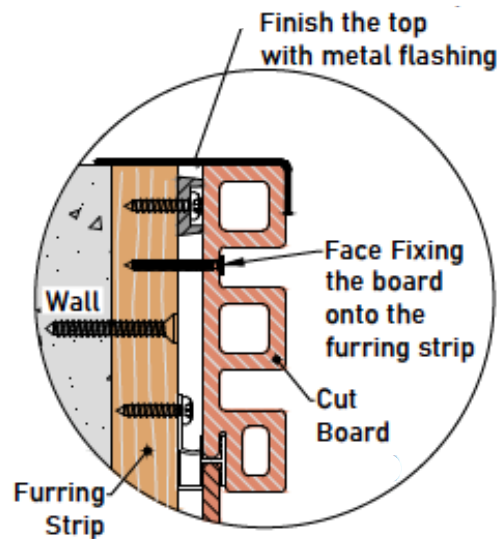
OPTION 1: Finish the top with cut End Trim (UH50)

Install the last board, as shown in Detail 11-1.

Detail 11-1

OPTION 2: Finishing the top with Metal Flashing

Install the last board, as shown in Detail 11-2.

Detail 11-2

Fluted siding

- ## INSTALLING THE SIDING BOARDS

12 **FINISH THE TOP**

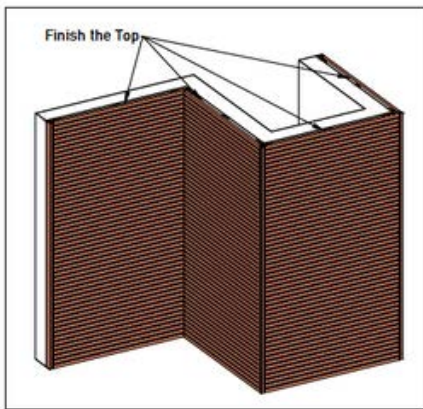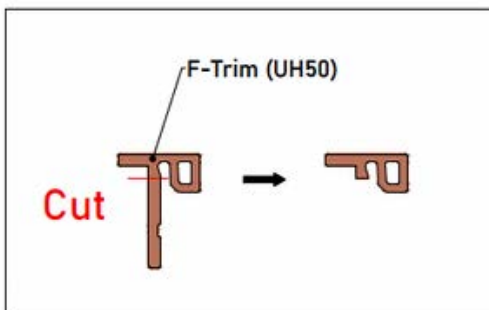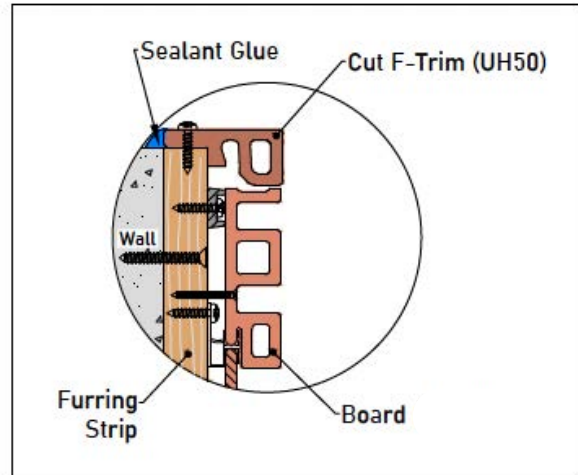There are two options to finish the top of the siding.

Diagram 12

OPTION 1: Using End Trim (UH50)

Cut the End Trim (UH50) to make the centerpiece shorter without interfering with the Rubber Stopper (T7), as shown in Detail 12-1. Then put the cut End Trim (UH50) in place and secure it onto the furring strip with screws, as shown in Detail 12-2.
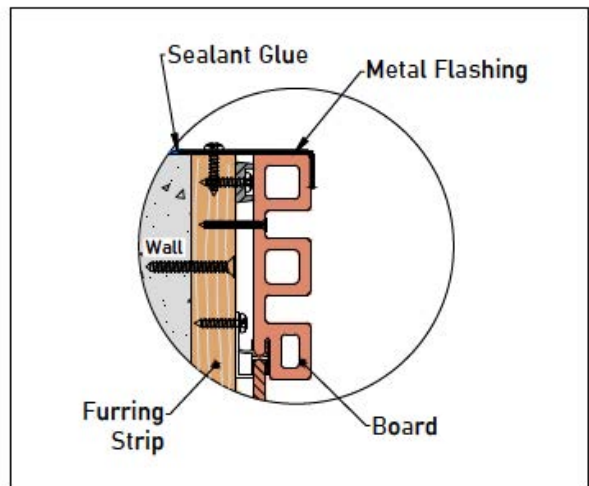

Detail 12-1

Detail 12-2

OPTION 2: Using Metal Flashing

Put a Metal Flashing over the top of the siding and fix it onto the furring strip with screws, as shown in Detail 12-3.

Detail 12-3

FLUTED SIDING
HORIZONTAL INSTALLATION GUIDE

NewTechWood is a registered trademark of NewTechWood Corporation. To obtain a copy of the most current version of this installation guide, visit us online at www.newtechwood.ca

NewTechWood
CANADA