NewTechWood®

Wall Cladding Installation Guide

NewTechWood®

IMPORTANT NOTE – READ ALL SECTIONS BEFORE YOU START

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

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Prior to installing any composite cladding system, it is recommended that you check with local building codes for any specific 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 this 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. We recommend 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 cladding. If installation does not occur immediately, NewTechWood's products need to be always stored on a flat surface. It should NEVER be put on a surface that is NOT flat.

Planning

Plan a layout for your cladding before starting, to ensure the best possible outcome 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 authority. We recommend drawing out a site plan of your proposed project to minimize errors.

Test pressure washing on a scrap piece of material before using a pressure washer on the wall cladding to ensure 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.

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 conductive 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 25 mm of continuous net free area under the cladding surface is required for adequate ventilation on all cladding, 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 sunlight from energy efficient window products, ie Low-emissivity (Low-E) glass, can potentially affect NewTechWood products. Low-E glass is designed to prevent passive heat gain within a structure and can cause unusual heat build-up on exterior surfaces. This extreme elevation of surface temperatures, which exceeds that of normal exposure, can potentially cause NewTechWood products to melt, sag, warp, discolour, increase expansion/contraction, and accelerate weathering.

Current or potential NewTechWood customers that have concerns about possible damage by Low-E glass should contact the manufacturer of the product containing the Low-E glass for a solution to reduce or eliminate the effects of reflected sunlight.

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 screwing should never be done to the products. An extra joist should be added if a 90-degree angle cannot be driven into the board. All fasteners should be on their own independent joists, and when two boards ends meet each other there must be a sister batten. The end of each board must sit on its own.

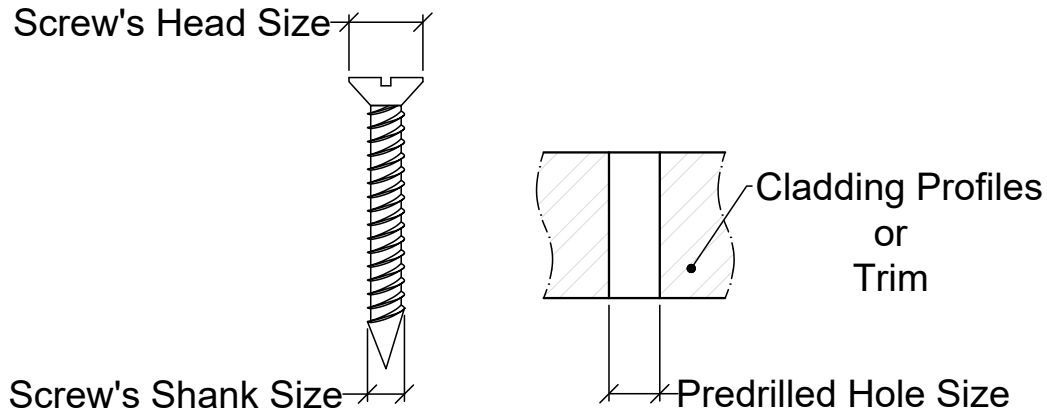
Use white chalk, straight boards, or string lines as templates for straight lines. NEVER USE COLOURED CHALK. Coloured chalk will permanently stain NewTechWood's products and are highly not recommended.

All screws that are face fixed should always be stainless steel. Depending on the screws 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 for a professional finish.

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

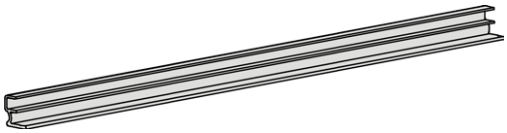
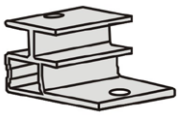
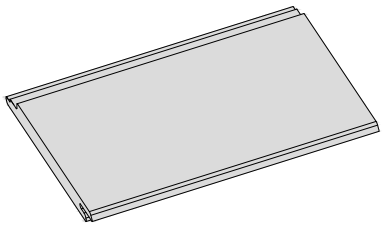
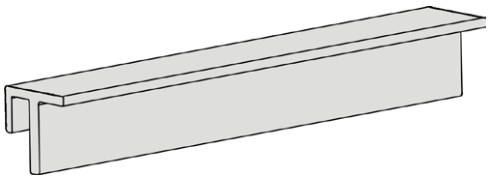
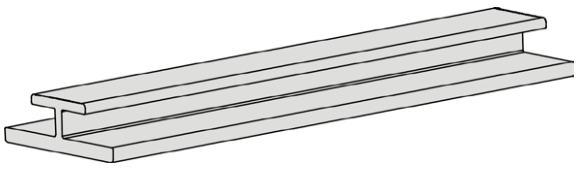
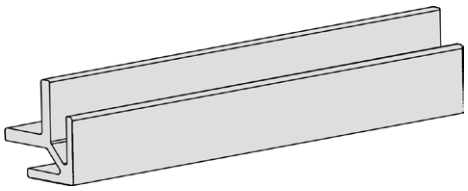
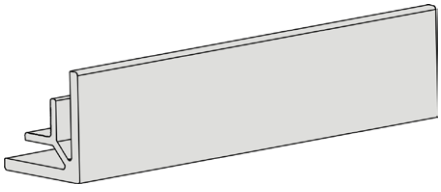
Predrill

When face fixing, it is recommended to predrill the holes slightly larger than the screw's shank size on the cladding profiles and the trims to allow for expansion and contraction response to temperature change as shown in the diagram below.

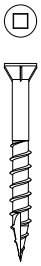


Moreover, the predrilled hole size should also be smaller than the screw head size.

WALL CLADDING PARTS

Product	Purpose	Part
AW-02	Starting Trim, used for the installation of the first board	
AW-08	Clip, used at every batten to fix each board to the batten	
T-7	Used on the last wall cladding board	
US31	Wall Cladding Board (can be used in place of US09, US31)	
ST US44	Aluminium End Trim, used at the windows and the outermost wall edge	
ST US45	Aluminium H Trim, used if there is a break between two boards to cover up the gap	
ST US46	Aluminium Outside Corner Trim, used on the outside corners	
ST US47	Inside Corner Trim, used on the inside corners	

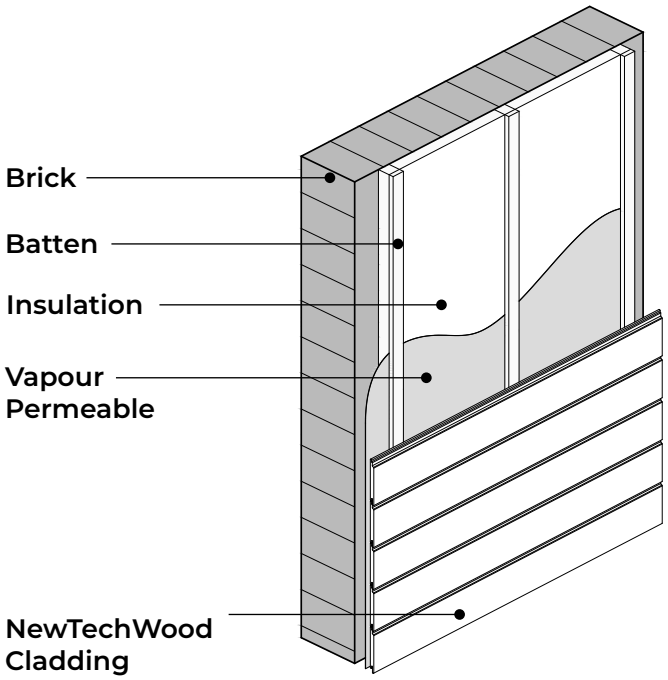
WALL CLADDING SCREWS

Purpose	For TIMBER Battens	For METAL Battens
Used when locking the cladding board into AW08 clip (Screws supplied by NTW and purchased with cladding boards)	 **M3 X 12 SS304 Part code: WJ063**	
Used when installing AW08 clips into battens (Screws not included, sourced/supplied by builder/ installer)	 **8G x 20 SS304 (Pan Head)**	 **8G x 20 SS304 (Pan Head)**
Used when installing trims into timber battens (Screws not included, sourced/ supplied by builder/ installer)	 **8G x 20 SS304 (Flat CSK Head)**	 **8G x 20 SS304 (Flat CSK Head)**
Used for face fixing the first and last cladding boards next to trims	 **8G x 50 SS304 Colour Head Composite Screw** (Supplied by NTW and purchased with cladding boards)	 **8G x 20 SS304 (Flat CSK Head)** (Screws not included, sourced / supplied by builder / installer)

***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

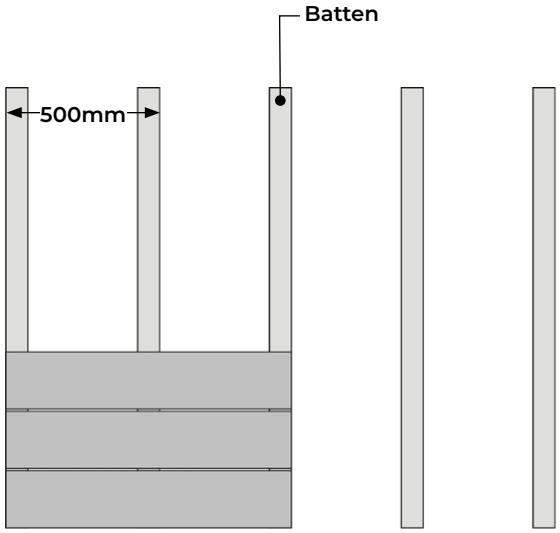
We recommend for the under-construction Metal / Aluminium Top Hat Battens or Pre-primed H3 Timber Battens. Each cladding board needs to be supported by a batten NO MORE than 500 mm on centres. Extra care is required in order to provide sufficient joisting in and around obstacles such as windows, fascia's, 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.



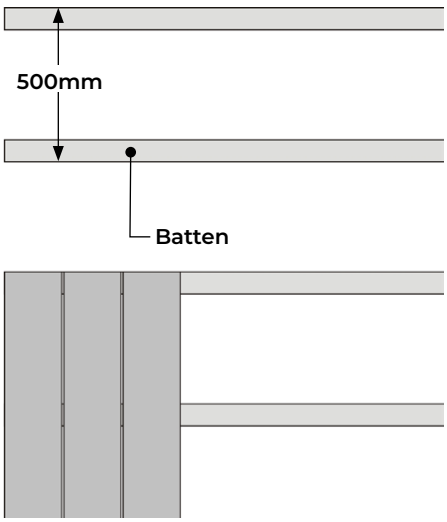
Battens Installation

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. The batten needs to have a minimum thickness of 25mm.

Battens should be fixed into position at a maximum of 500mm on centres using a suitable A4 Stainless Steel countersunk Wood/Masonry screw. All battens need to be flat and levelled against the wall surface - use shims if necessary.



Horizonal Installation



Vertical Installation

Expansion and Contraction Values

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

Installation Temperature (°C)	Length (Metres)								
	1	**2.44**	**2.8**	**3**	**3.66**	**3.9**	**4**	**4.88**	**5.4**
10	11.2	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	11.2	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	2.01	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
45	0.2	0.5	0.6	0.6	0.7	0.8	0.8	1.0	1.1

Gap(mm) To leave Between Boards*

PLEASE NOTE:

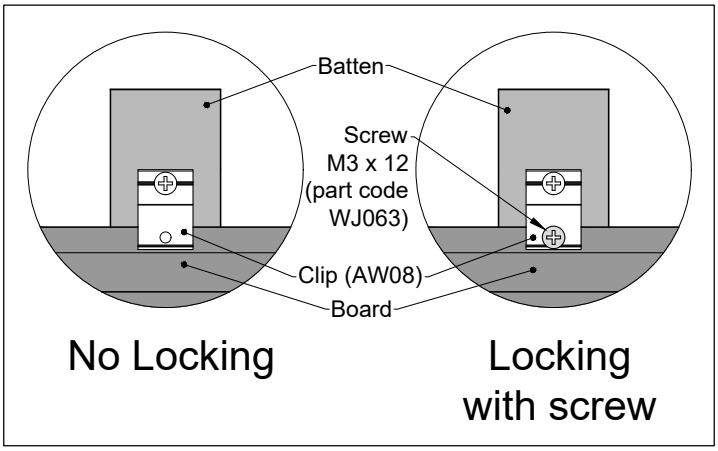
1. **The above table shows the overall gap required. If boards have a gap at each end, then halve the value shown.**
2. **If you are still unsure of what gapping to use, contact the manufacturer and they will give you the correct gapping requirements based on your environment and area.**

Locking the Wall Cladding Board

Every AW - 08 clip comes with a separate hole in the case there is a need to lock the board. The wall cladding boards will expand and contract and to take care of this movement, we must lock the board in one position, **ONLY ONE LOCKING SCREW USED PER BOARD**, and then allow the board to expand and contract readily in the other direction .

You can see how we lock the board in Diagram A, B, and C.

Please Note: DO NOT LOCK EVERY CLIP.
General rule of thumb is every board will only need one locking/ fixation point.



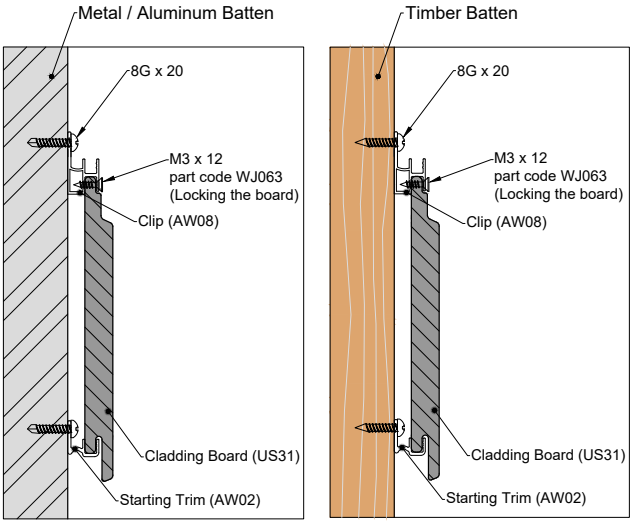


Diagram A

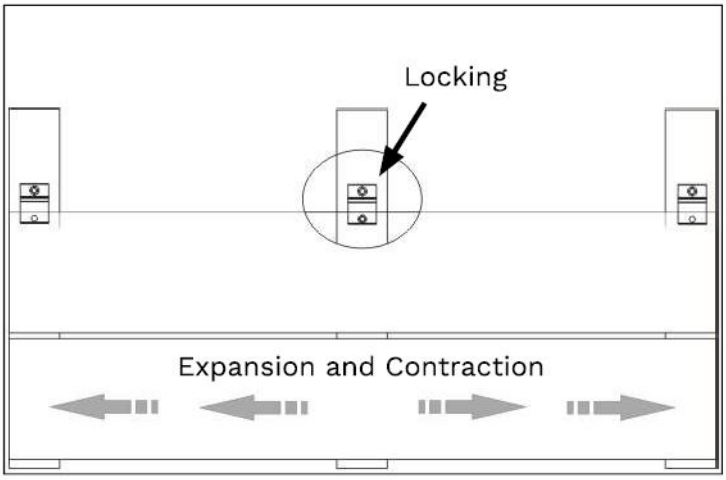


Diagram B

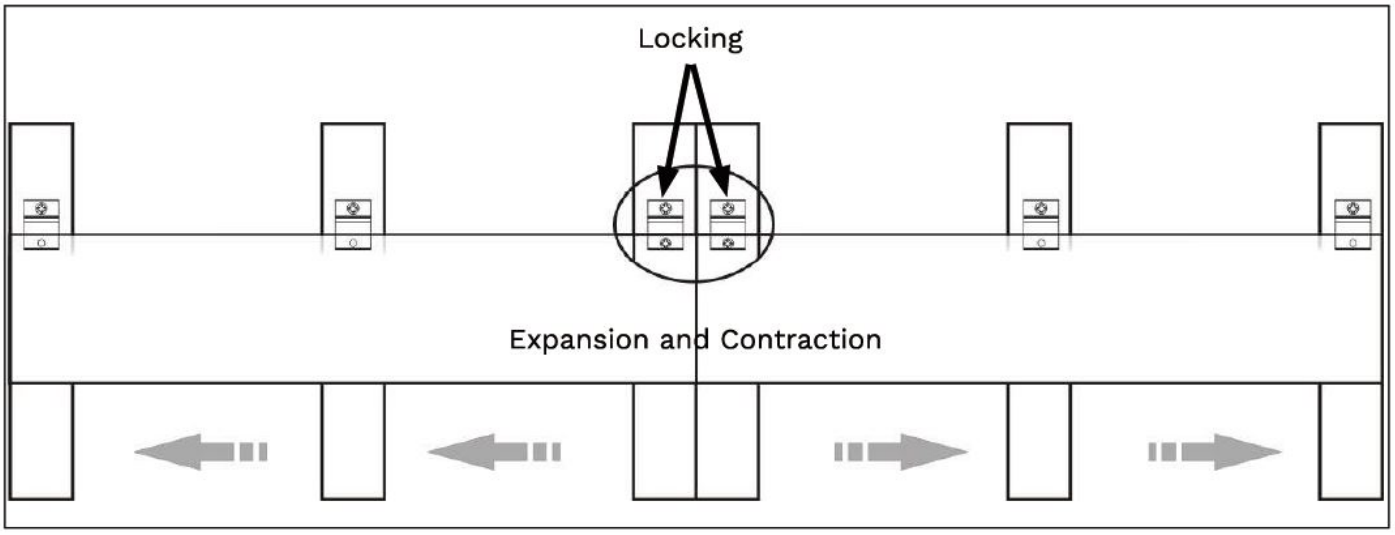


Diagram C

WALL CLADDING - VERTICAL INSTALLATION

Installation Procedure

Step 1: Framing
- Measure and Chalk the Battens
- Battens Installation Step 2: Trim Installation

Step 2: Cladding Board Installation
- Installing the First Trim on the starting point
- Installing the First course
- Installing the Second course
- Continuing the remaining installation
- Installing the Last Cladding Board

1 Framing

The frame needs to be level before installing the cladding boards. **Diagram 1** shows the wall replicating different scenarios potentially occuring when installing the cladding boards.

Wall Side A: Cladding between the End Trim (ST US44) and the Inside Corner Trim (ST US47).
Wall Side B: Cladding between the Inside Corner Trim (ST US47) and the Outside Corner Trim (ST US46).
Wall Side C: Cladding between two Outside Corner Trims (ST US46).
Wall Side D: Cladding between the Outside Corner Trim (ST US46) and the End Trim (ST US44).

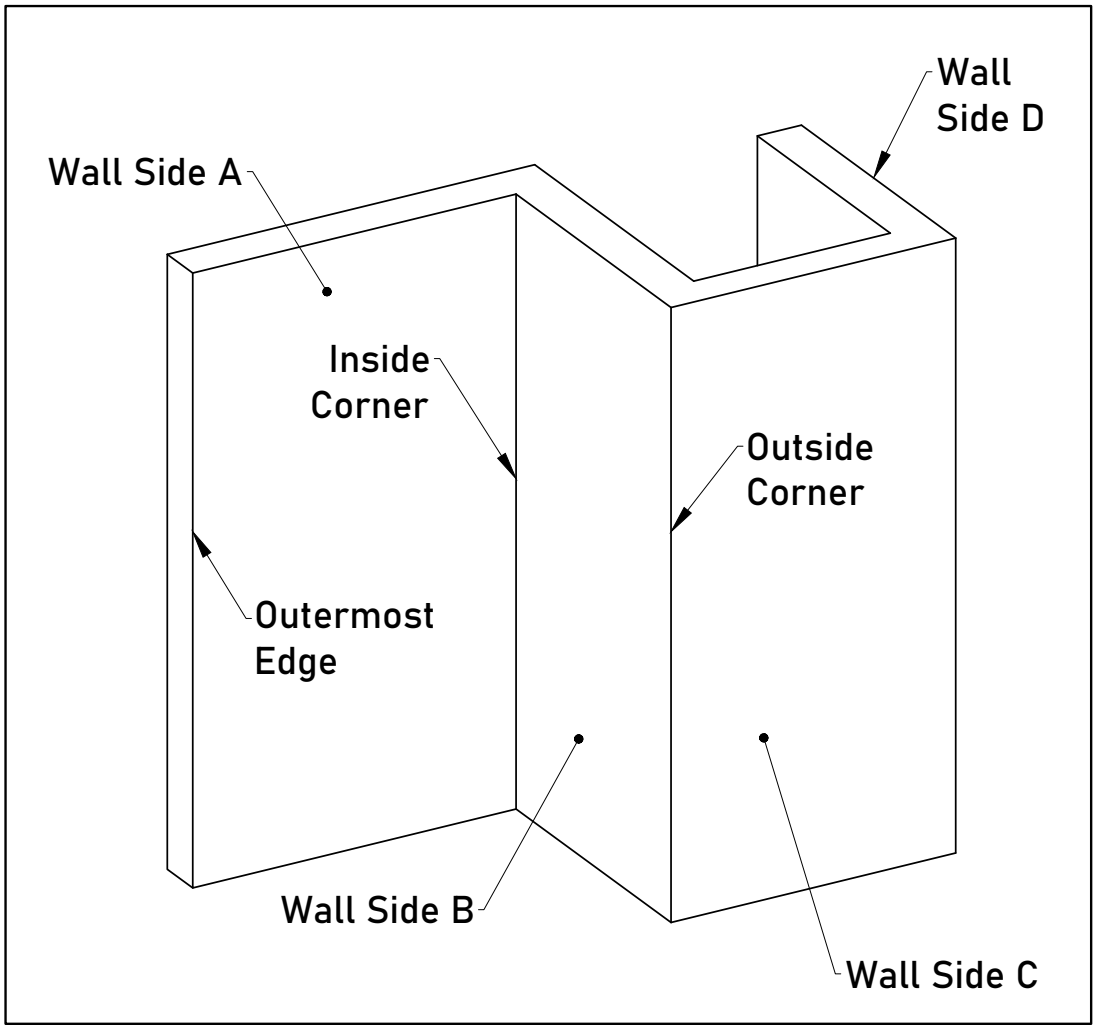


Diagram 1

2 Measure and chalk the battens according to the span data specified on page 12 of this installation guide, as shown in **Diagram 2**.

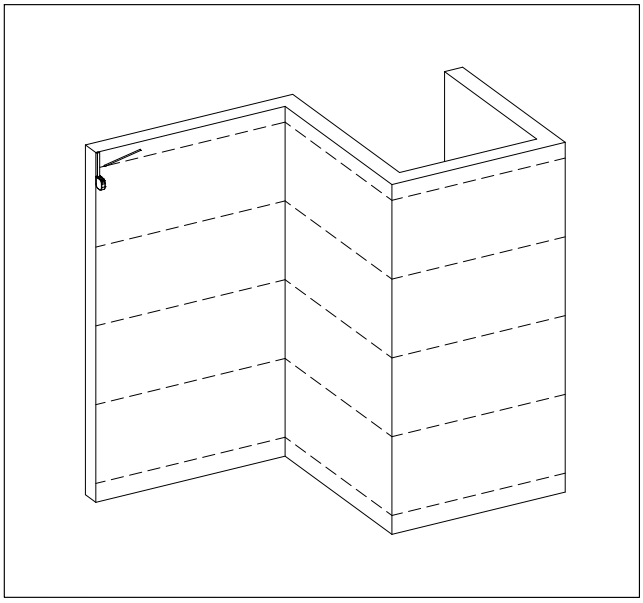


Diagram 2

Please Note:

1. We are using timber battens for this installation. If you are using metal/ aluminium battens, please refer to page 6 of this installation guide for the correct recommended screws.

2. An adequate span between the battens is required to keep the Cladding boards from bending. Please review page 7 of this installation guide to see what span is needed.

3 Fix the battens onto the wall with screws in the distance at least 500mm and max to 1000mm on centre, as shown in **Diagram 3**.

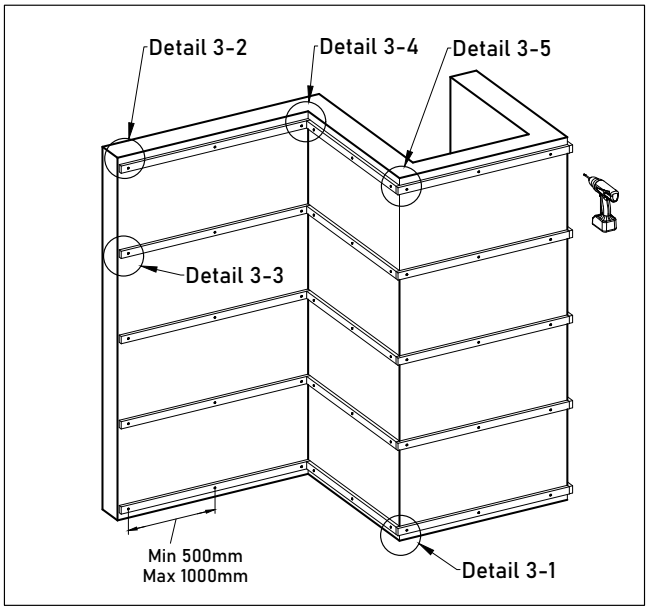
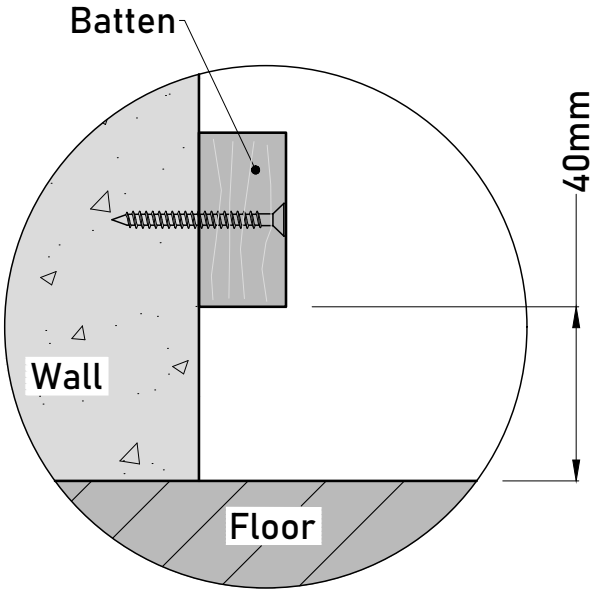


Diagram 3

Please Note:

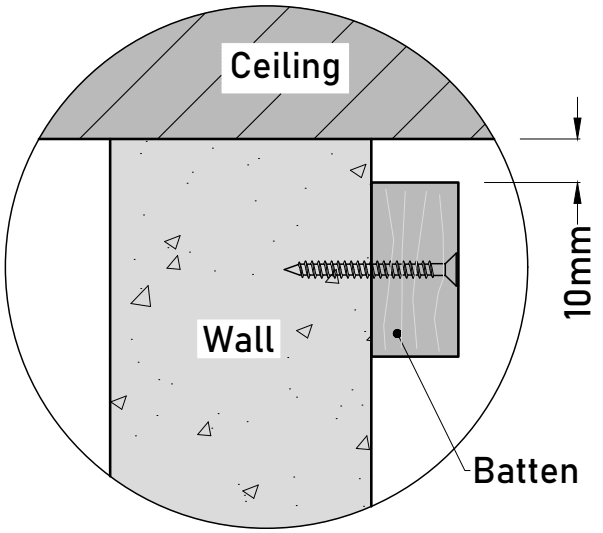
1. A minimum clearance of 40mm needs to be left between the lowest batten and the floor, as shown in **Detail 3-1.**

Detail 3-1



Please Note:

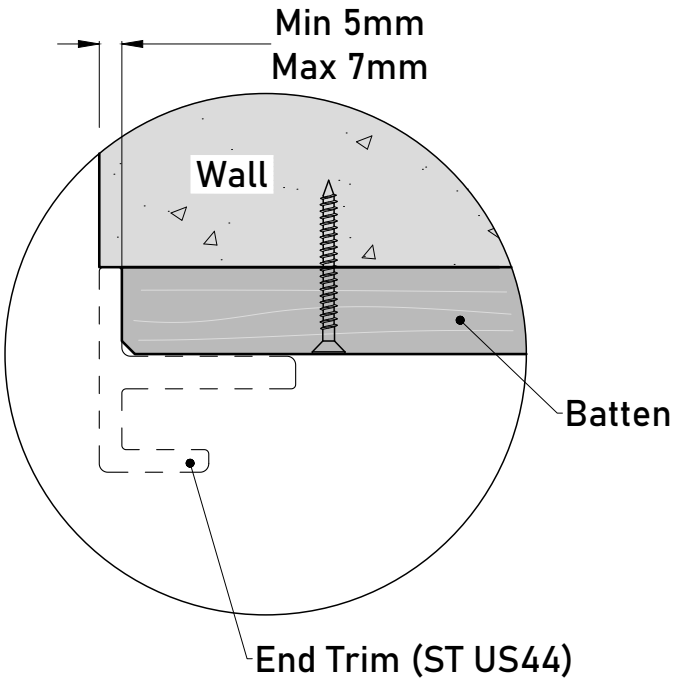
2. A minimum clearance of 10mm needs to be left between the ceiling and the top of the battens, as shown in **Detail 3-2**.



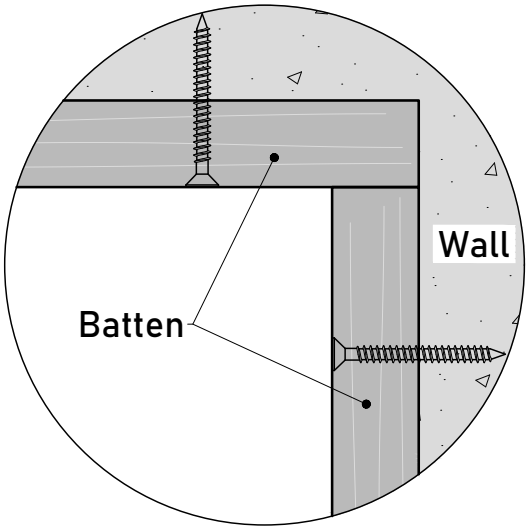
Detail 3-2

Please Note:

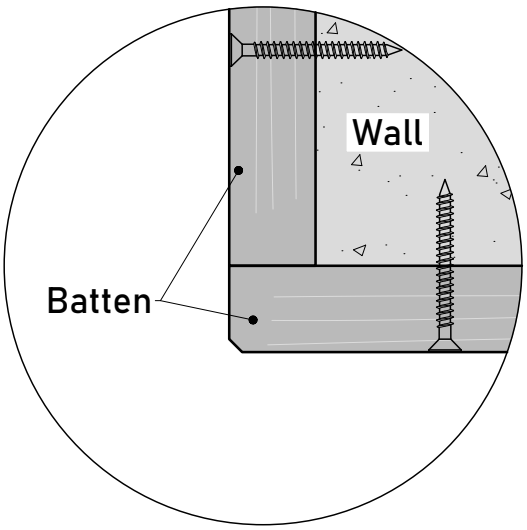
3. For the Outermost Edge (F-Trim ST US44), please install according to **Detail 3-3**.
4. .For the Inside Corner (No trim is needed), please install according to **Detail 3-4**.
5. For the Outside Corner (Outside Corner trim ST US46), please install according to **Detail 3-5**.



Detail 3-3



Detail 3-4



Detail 3-5

4 Cladding Board Installation

It is recommended to start the installation according to **Diagram 4**.

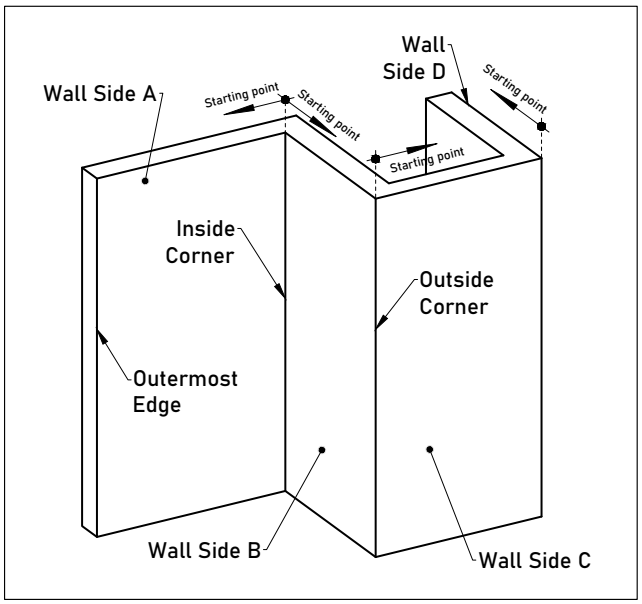


Diagram 4

Please Note:

1. **Wall Side A**: Cladding between the F-Trim (ST US44) and the Inside Corner Trim (ST US47),
   - Start from the Outermost Edge.
2. **Wall Side B**: Cladding between the Inside Corner (ST US47) and the Outside Corner Trim (ST US46),
   - Start from the Outside Corner.
3. **Wall Side C**: Cladding between two Outside Corner Trims (ST US46),
   - Start from one of the Outside Corners.
4. **Wall Side D**: Cladding between the Outside Corner Trim (ST US44) and the F-Trim (ST US44),
   - Start from the Outside Corner.

5

When starting the installation from the inside corner, fasten the Inside Corner Trim (ST US47) onto the wall inside corner battens with screws, as shown in **Diagram 5** and **Detail 5-1**.

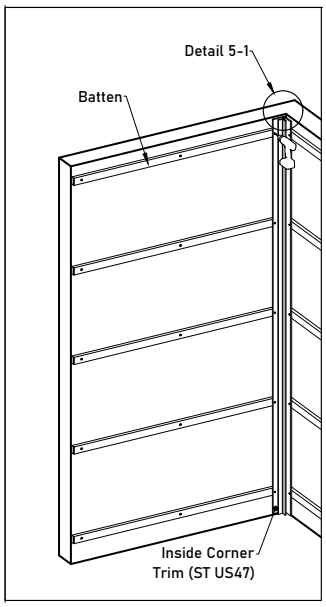
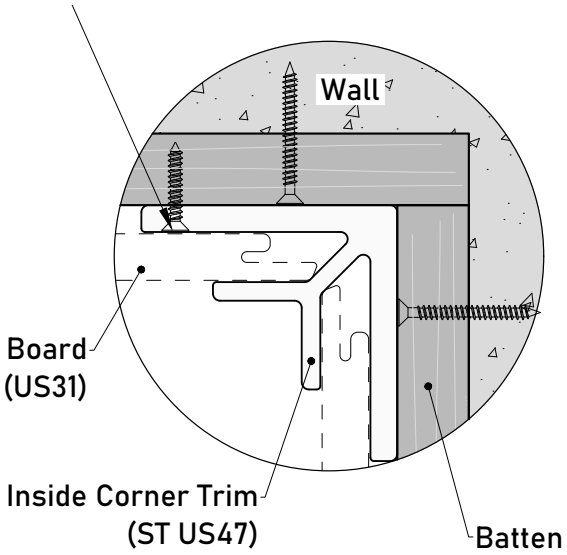


Diagram 5

Fasten the trim onto the batten



Detail 5-1

6 When starting the installation from the outside corner, fasten the Outside Corner Trim (ST US46) onto the wall outside corner battens with screws, as shown in **Diagram 6** and **Detail 6-1**.

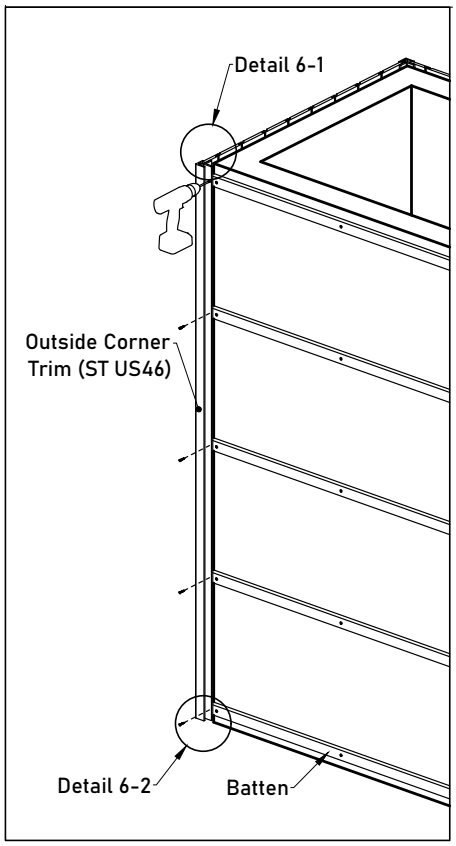
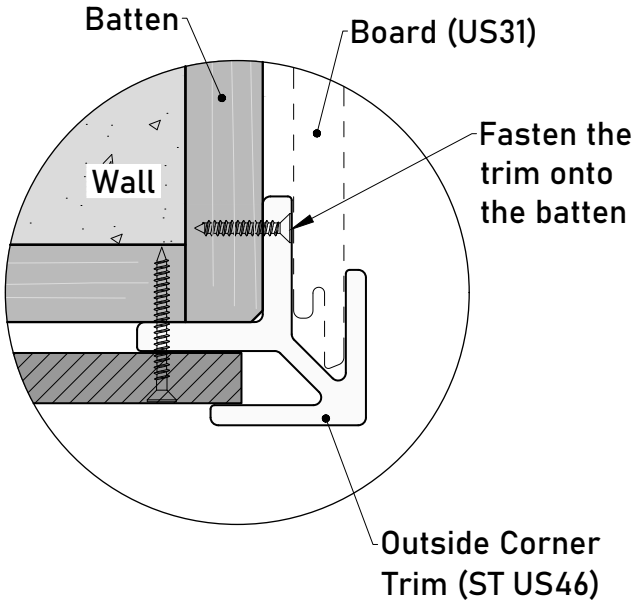


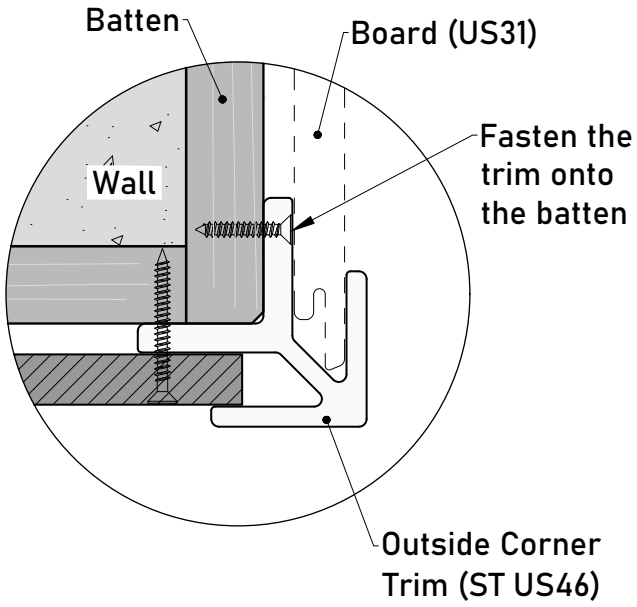
Diagram 6



Detail 6-1

Please Note:

1. A minimum gap of 20mm needs to be left between the bottom of the trims and the floor, as shown in Detail 6-2.



Detail 6-2

7 Installing the First Course

Insert the first cladding board (US31) into the trim, then fasten it to the batten with Clip (AW08), as shown in **Diagram 7**.

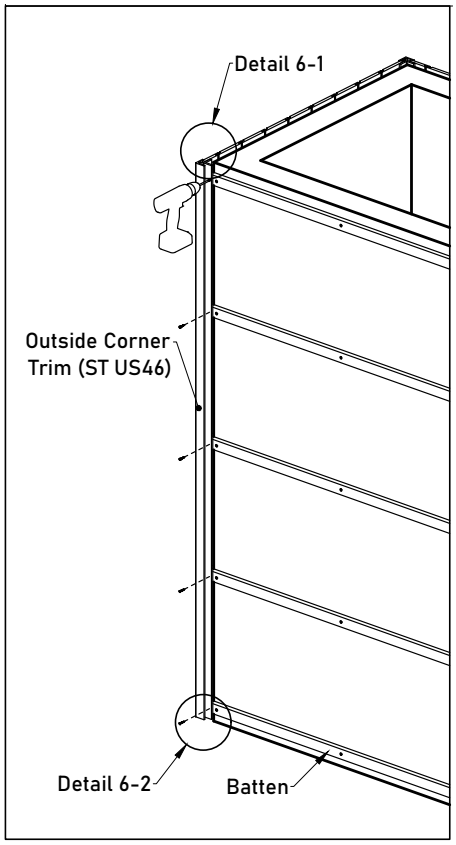
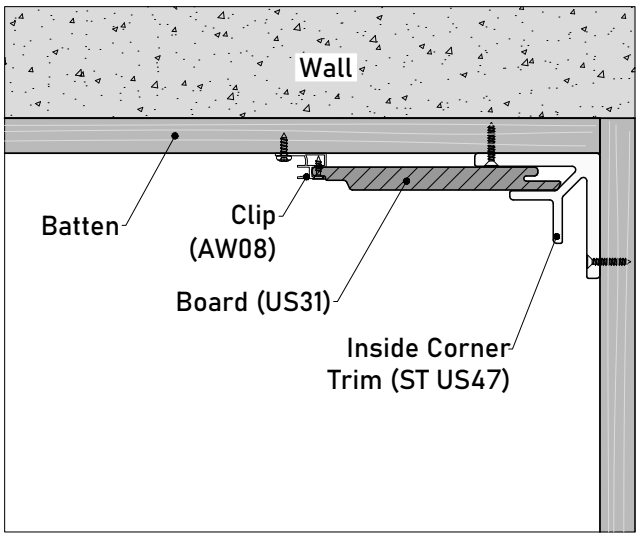


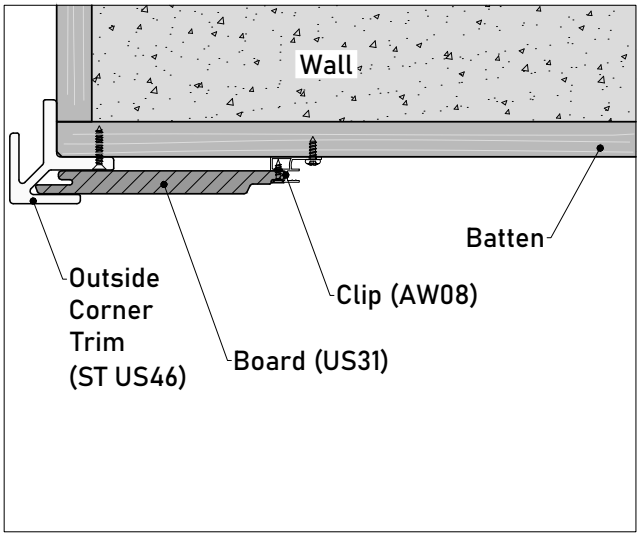
Diagram 7

Inside Corner with the Inside Corner trim (ST US47), as shown in **Detail 7-1**.



Detail 7-1

Outside Corner with the Outside Corner trim (ST US46), as shown in **Detail 7-2**.

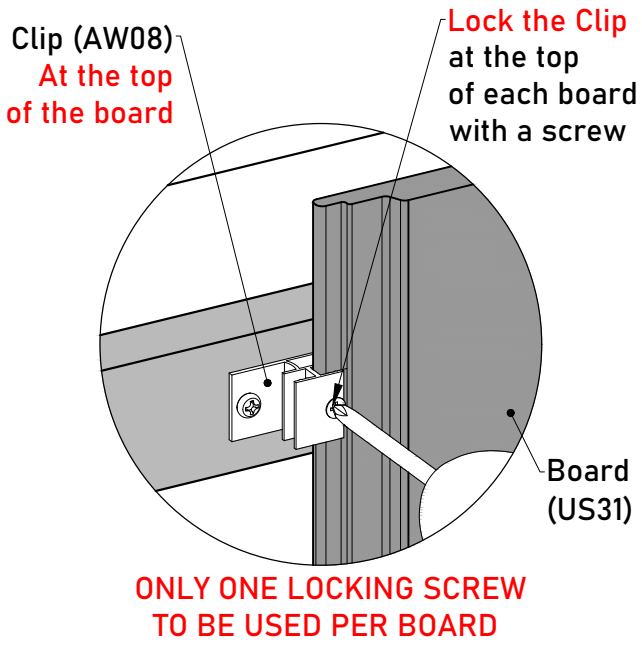


Detail 7-2

Please Note:

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 move freely. When installing vertically, it is required to lock the Clip (AW08) at the top of each board, as shown in Detail 7-3.

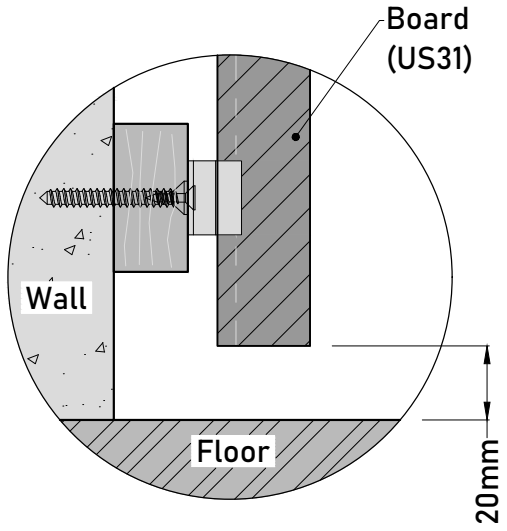
DO NOT LOCK any other Clip (AW08) for the same board.
Please review page 9, "Locking the Wall Cladding Board" of this installation guide for further information.



Detail 7-3

Please Note:

1. **The gap between the cladding board and the floor should be at least 20mm, as shown in Detail 7-4.**



Detail 7-4

8 Installing the Second Course

Put the second cladding board (US31) in place, then fasten it to the batten with Clip (AW08), as shown in Diagram 8.

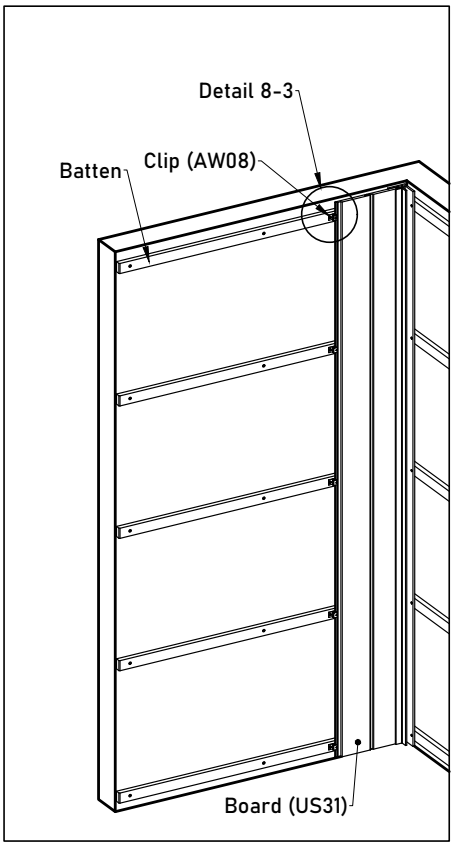
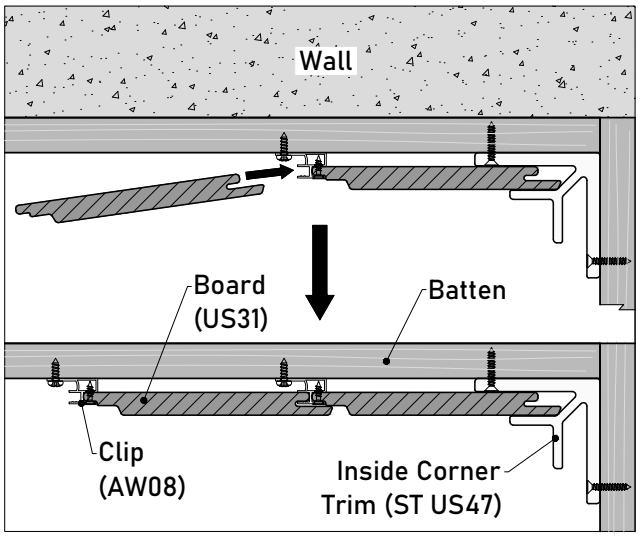


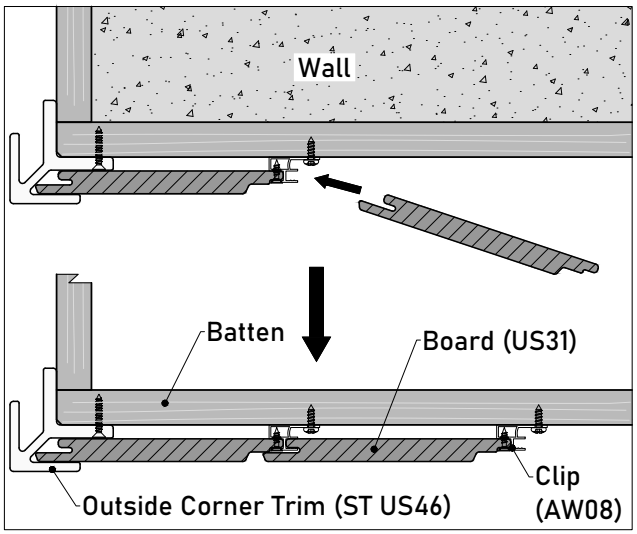
Diagram 8

Inside Corner, as shown in **Detail 8-1**.



Detail 8-1

Outside Corner, as shown in **Detail 8-2**.



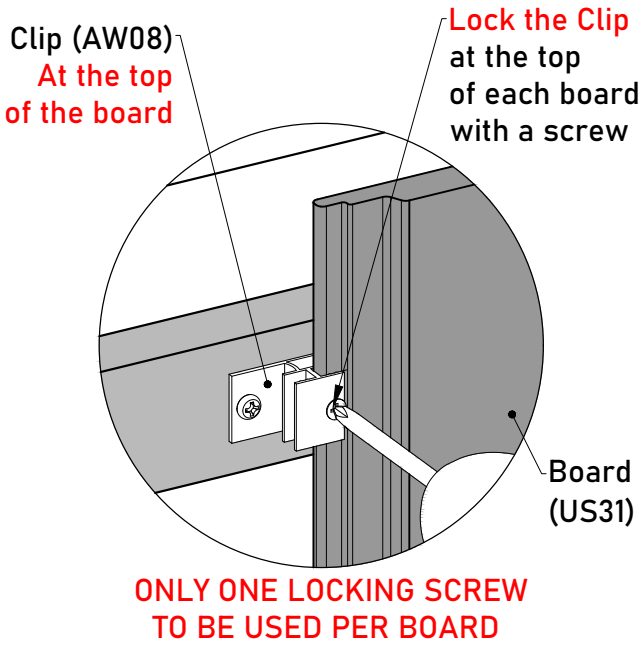
Detail 8-2

Please Note:

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 move freely. When installing vertically, it is required to lock the Clip (AW08) at the top of each board, as shown in Detail 8-3.

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

Please review page 9, "Locking the Wall Cladding Board" of this installation guide for further information.



Detail 8-3

9 Board

When you are at the last board, please measure the distance to obtain the appropriate board's ripping dimension, as shown in **Diagram 9**.

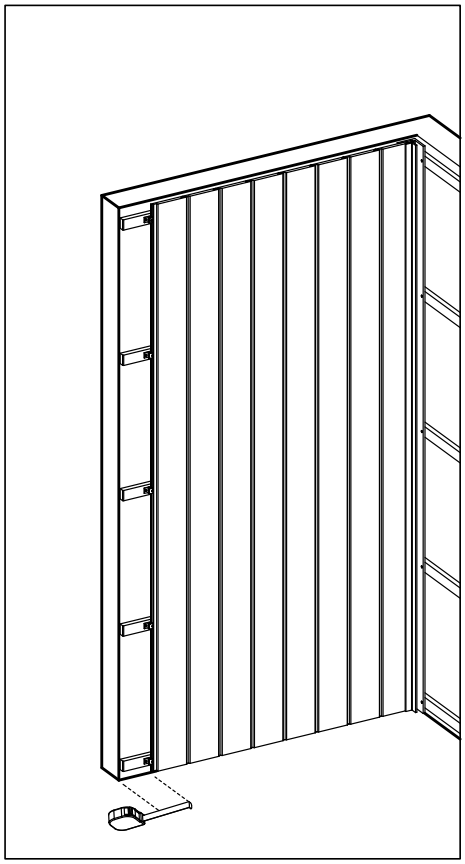
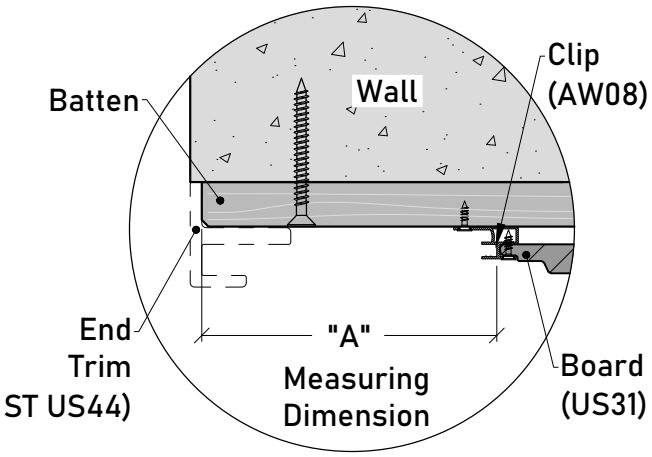


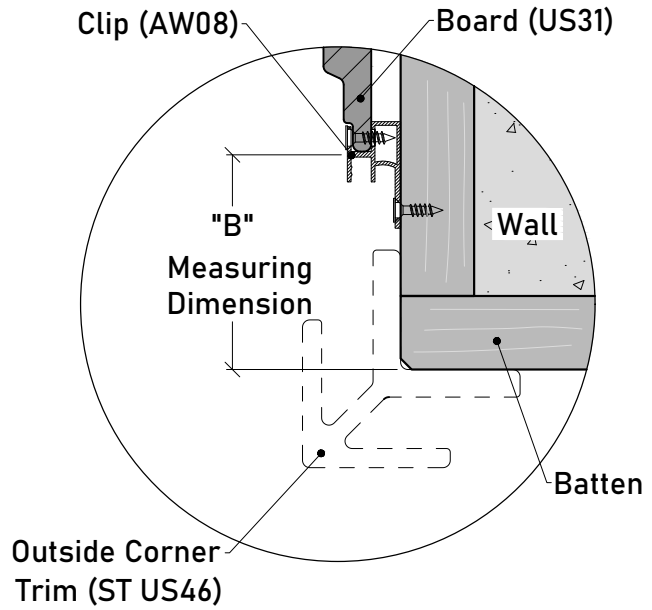
Diagram 9

Outermost Edge with the End Trim (ST US44), as shown in **Detail 9-1**.



Detail 9-1

Outside Corner with the Outside Corner trim (ST US46), as shown in **Detail 9-2**.



Detail 9-2

10 Rip the board according to the measured dimension as shown in **Diagram 10** and **Detail 10-1**.

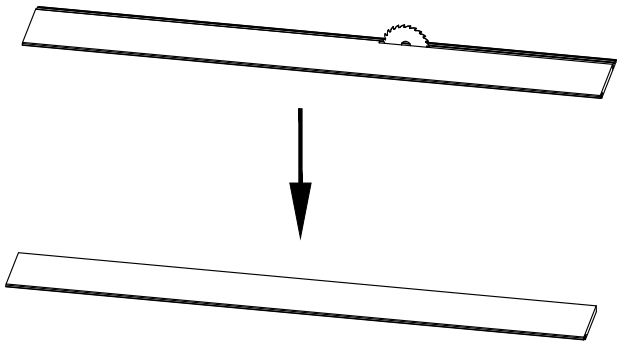
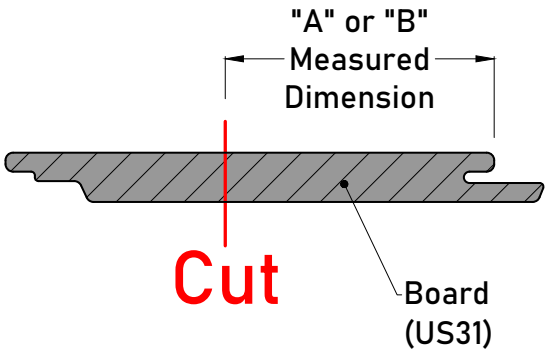


Diagram 10



Detail 10-1

Please Note:

Predrill the ripped cladding board to allow for expansion and contraction before face fixing it onto the batten.

Please review page 4, section "Pre drill" of this installation guide for further information.

11 Put the ripped cladding board in place and put a block under it to guarantee the board is at the same level as the other boards, as shown in **Diagram 11** and **Detail 11-1**.

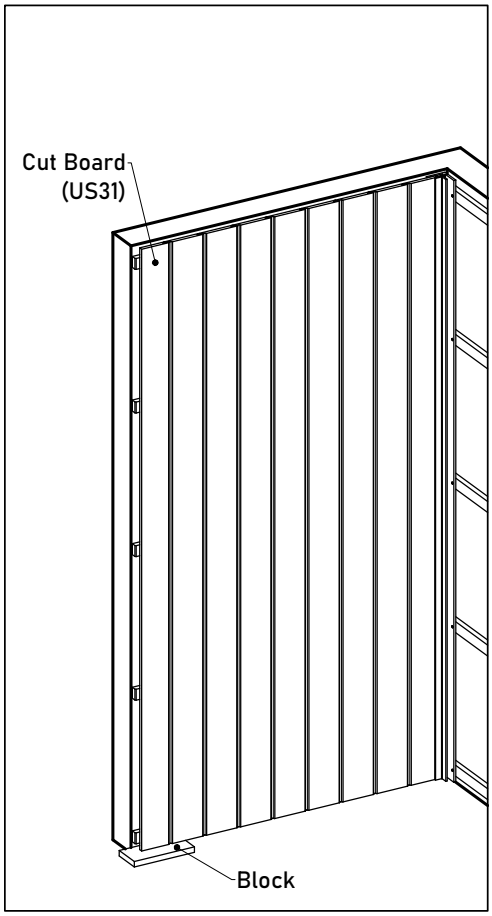
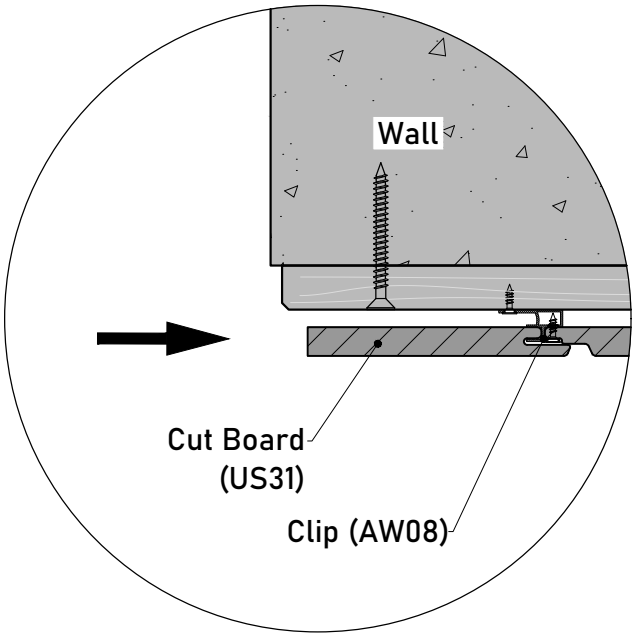


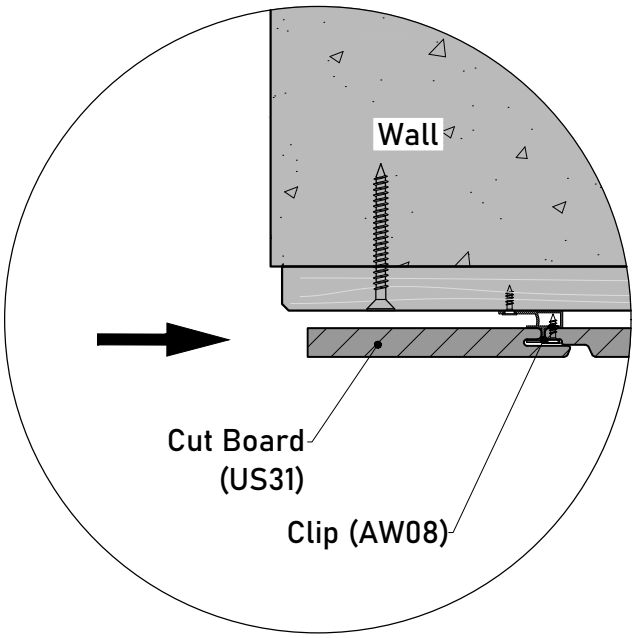
Diagram 11

Outermost Edge with the End Trim (ST US44), as shown in **Detail 11-1**.



Detail 11-1

Outside Corner with the Outside Corner trim (ST US46), as shown in **Detail 11-2**.



Detail 11-2

12 When completing the installation on the outermost edge, insert the End Trim (ST US44) into the last cladding board, as shown in **Diagram 12** and **Detail 12-1**.

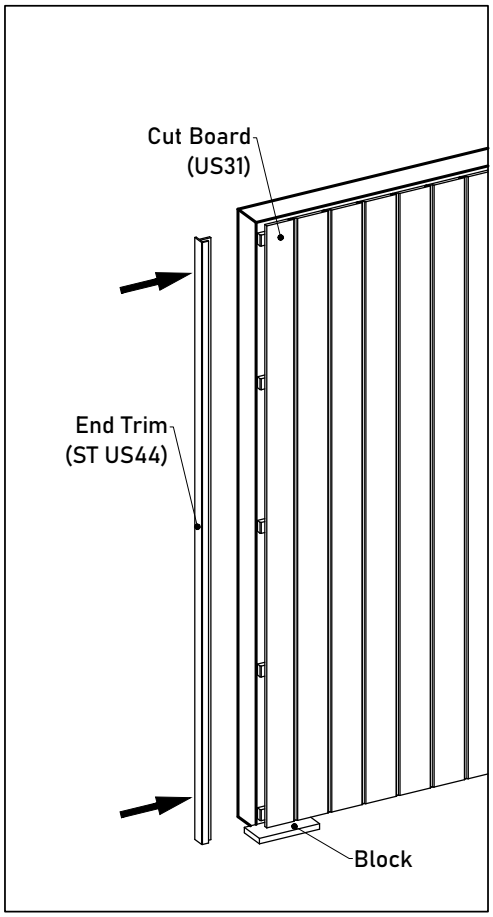
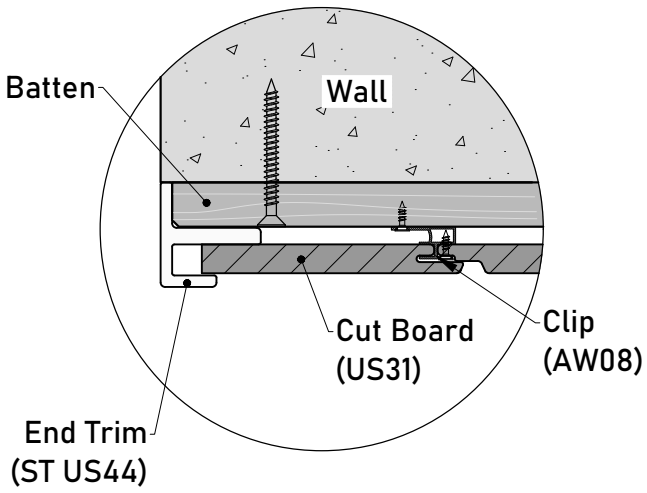


Diagram 12



Detail 12-1

13 When completing the installation on the outside corner, insert the Outside Corner Trim (ST US46) into the last cladding board as shown in **Diagram 13** and **Detail 13-1**.

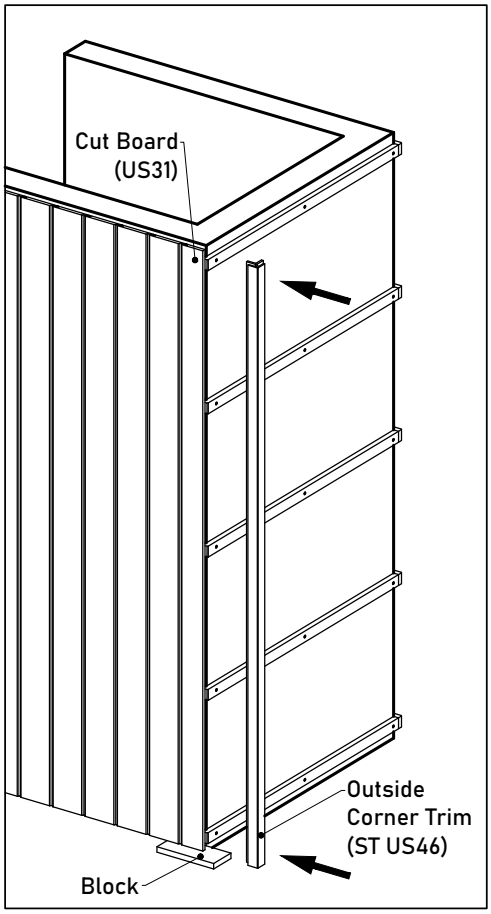
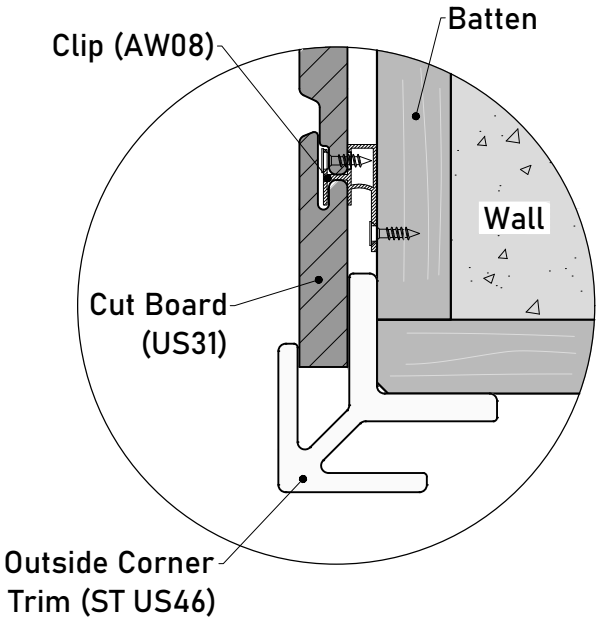


Diagram 13



Detail 13-1

14 Face fix the ripped cladding board together with the trim onto the batten, as shown in **Diagram 14**.

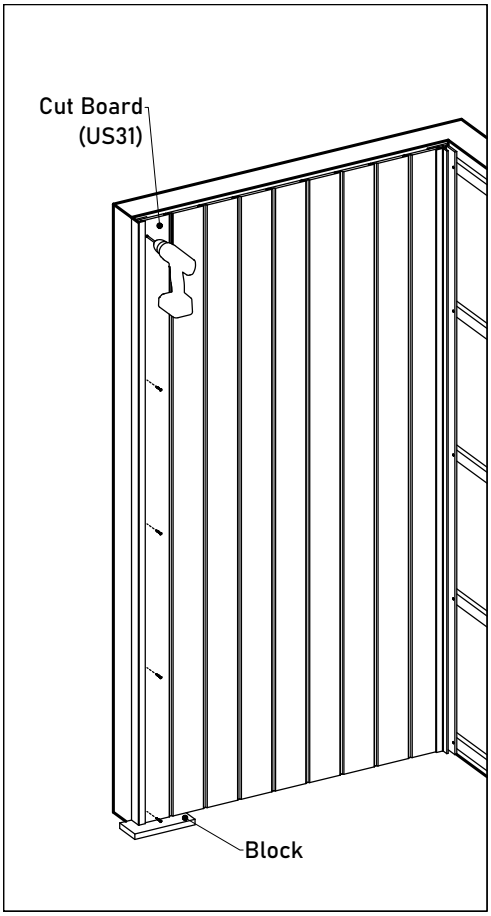


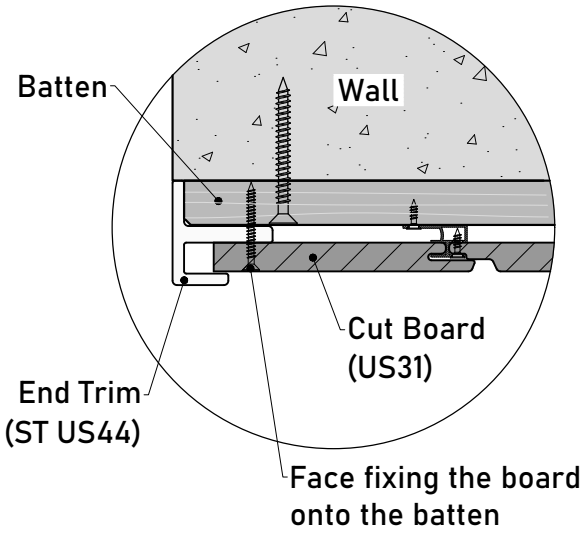
Diagram 14

Please Note:

Pre-drill the ripped cladding board to allow for expansion and contraction before face fixing it onto the batten.

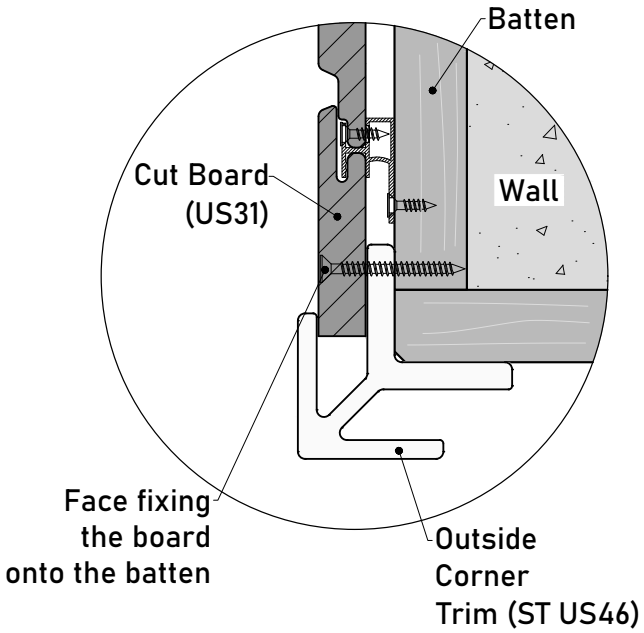
Please review page 4, section "Pre-drill" of this installation guide for further information.

Outermost Edge with the End Trim (ST US44), as shown in **Detail 14-1.**



Detail 14-1

Outside Corner with the Outside Corner trim (ST US46), as shown in **Detail 14-2**.



Detail 14-2

15 Secure the trim onto the batten with screws, as shown in **Diagram 15**.

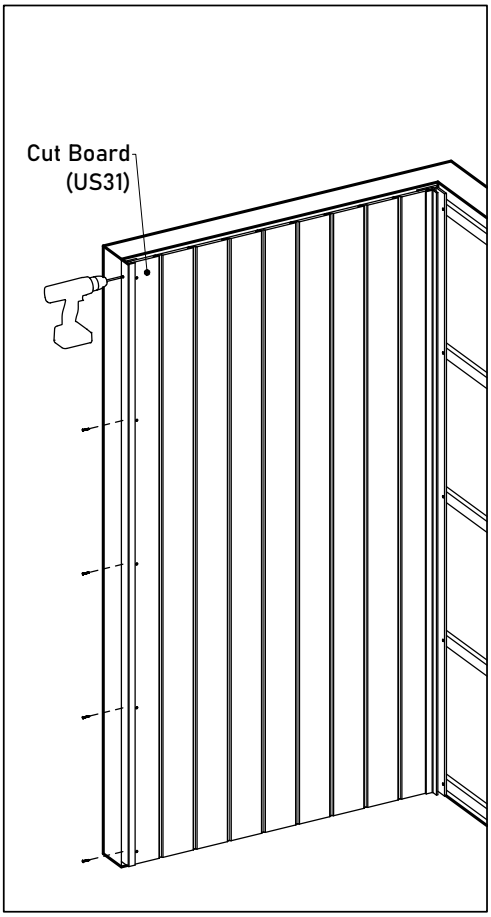
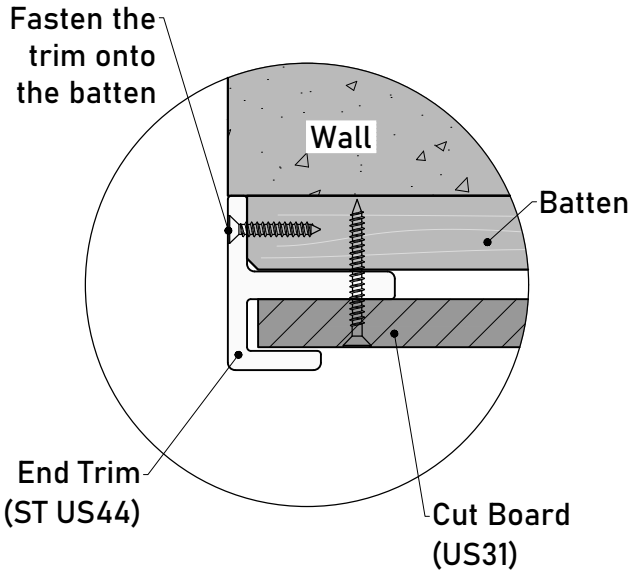


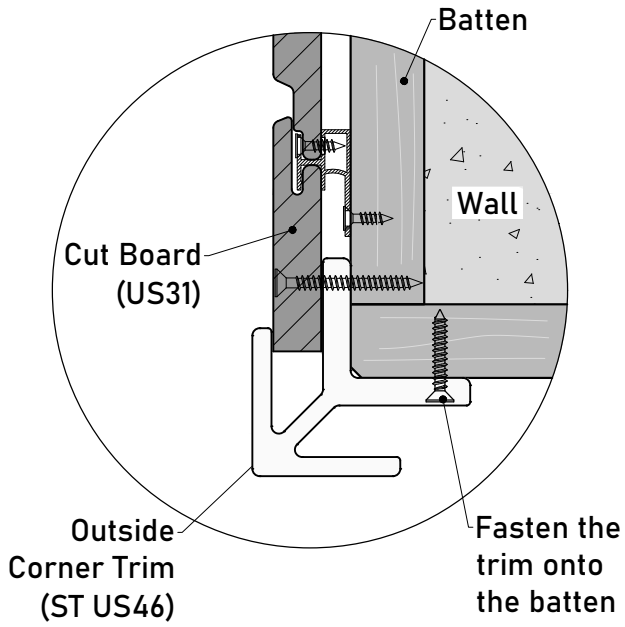
Diagram 15

Outermost Edge with the End Trim (ST US44), as shown in **Detail 15-1**.



Detail 15-1

Outside Corner with the Outside Corner trim (ST US46), as shown in **Detail 15-2**.



Detail 15-2

16 **Diagram 16** presents the final appearance after completing the installation.

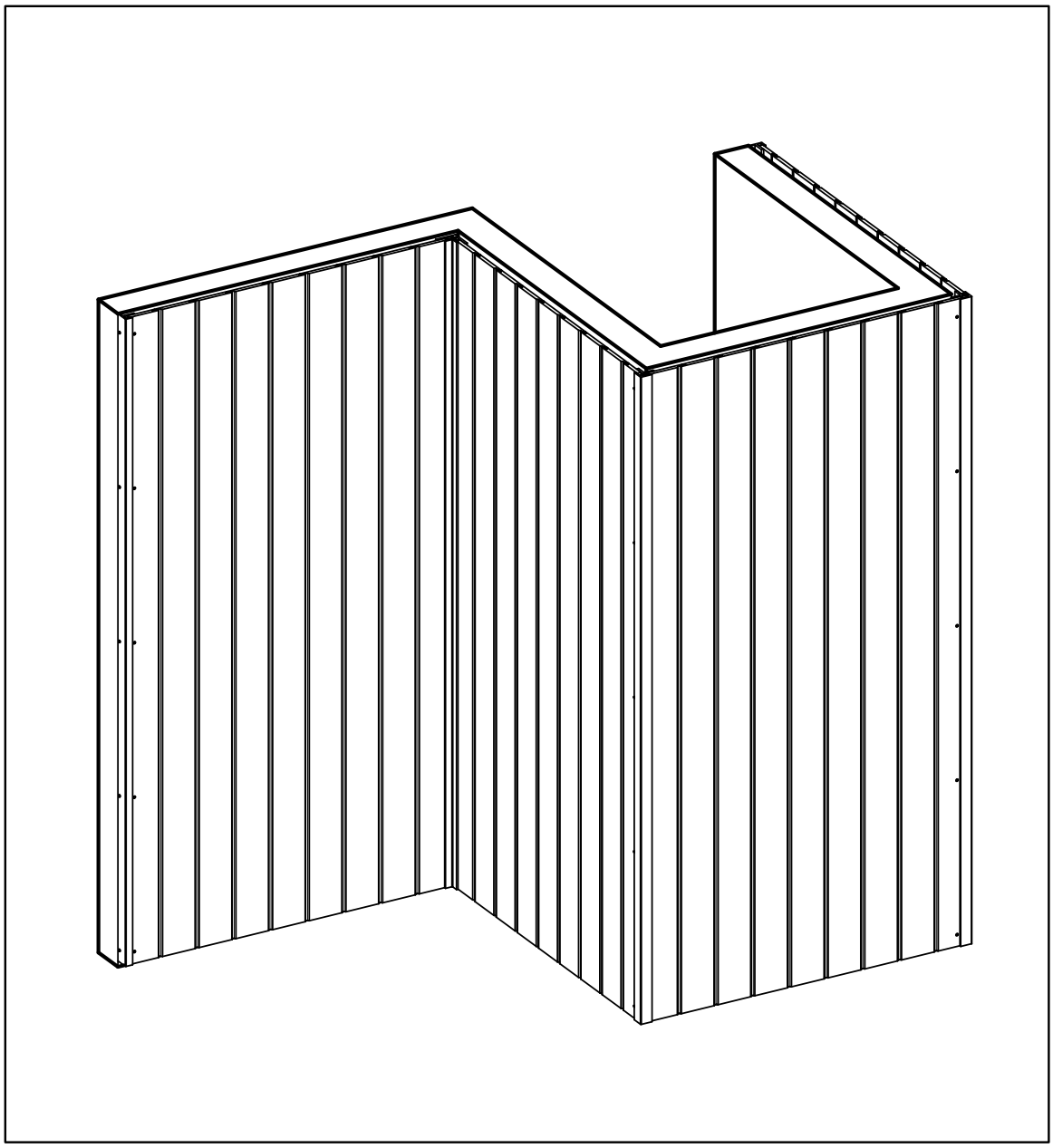


Diagram 16

WALL CLADDING - HORIZONTAL INSTALLATION

Installation Procedure

Step 1: Framing

- Measure and Chalk the Battens
- Battens Installation

Step 2: Installing the First Trim on the starting point

Step 3: Starting Trim Installation

Step 4: Cladding Board Installation

- Installing the First course
- Installing the Second course
- Continuing the remaining installation
- Installing the Last Cladding Board

17 Framing

The frame needs to be level before installing the cladding boards. **Diagram 17** shows the wall replicating different scenarios potentially occuring when installing the cladding boards.

Wall Side A: Cladding between the End Trim (ST US44) and the Inside Corner Trim (ST US47).

Wall Side B: Cladding between the Inside Corner Trim (ST US47) and the Outside Corner Trim (ST US46).

Wall Side C: Cladding between two Outside Corner Trims (ST US46).

Wall Side D: Cladding between the Outside Corner Trim (ST US46) and the End Trim (ST US44).

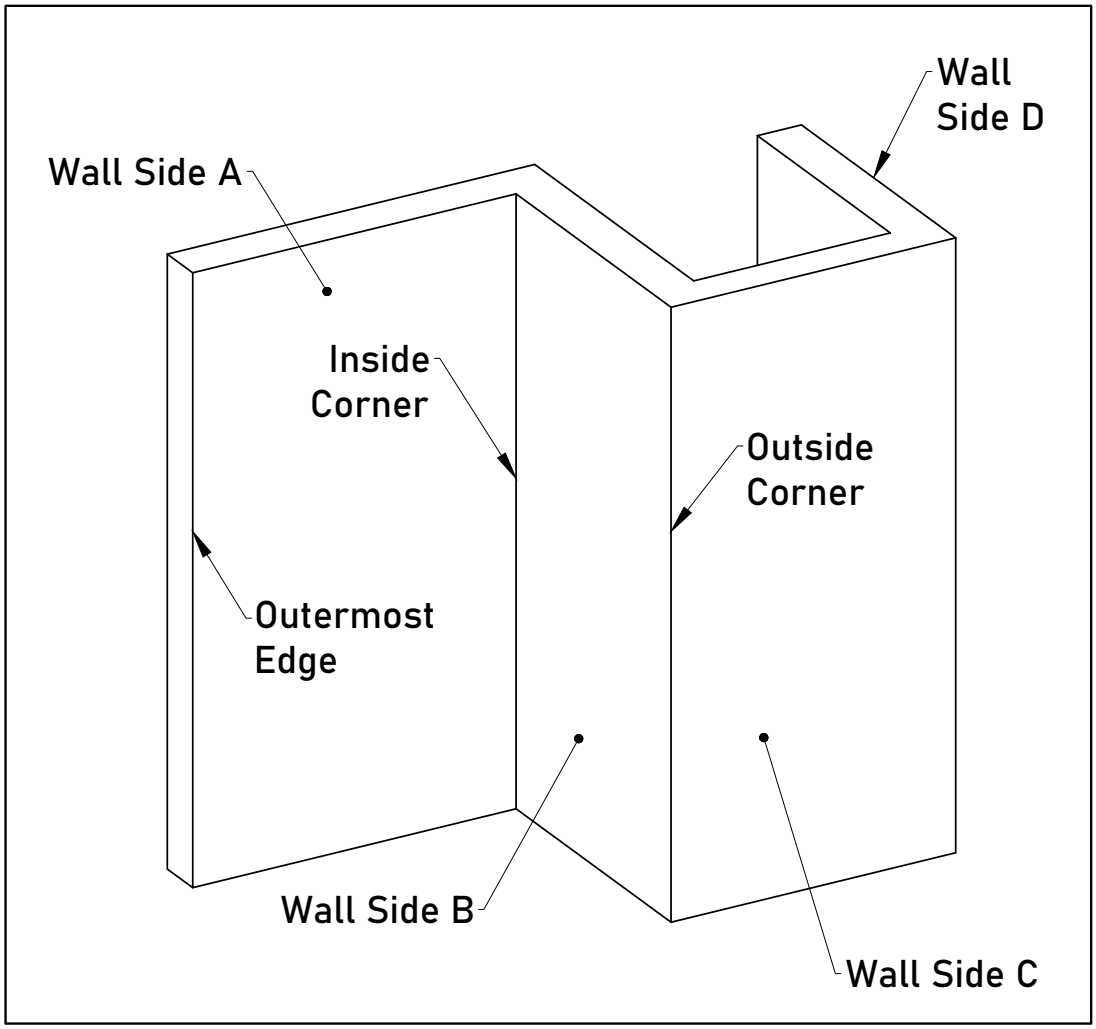


Diagram 17

18 Measure and chalk the battens according to the span data specified on page 10 of this installation guide, as shown in **Diagram 18**.

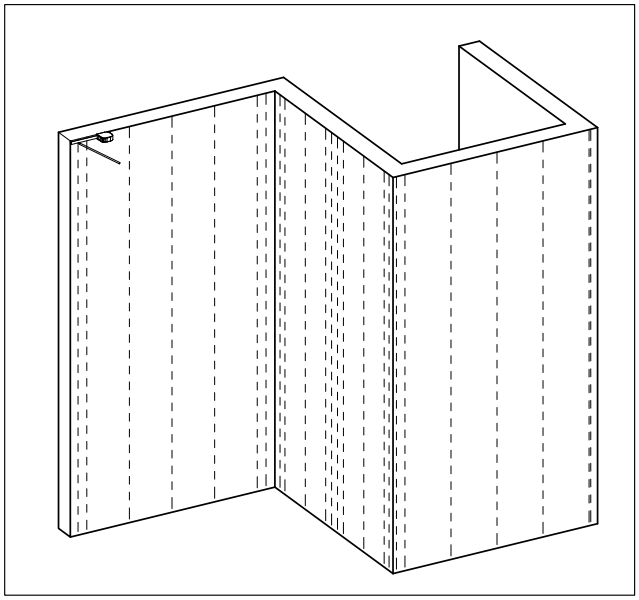


Diagram 18

Please Note:

1. **We are using timber battens for this installation. If you are using metal/ aluminium battens, please refer to page 6 of this installation guide for the correct recommended screws.**
2. **An adequate span between the battens is required to keep the Cladding boards from bending. Please review page 7 of this installation guide to see what span is needed.**

19 Fix the battens onto the wall with screws in the distance at least 500mm and max to 1000mm as shown in **Diagram 19.**

.

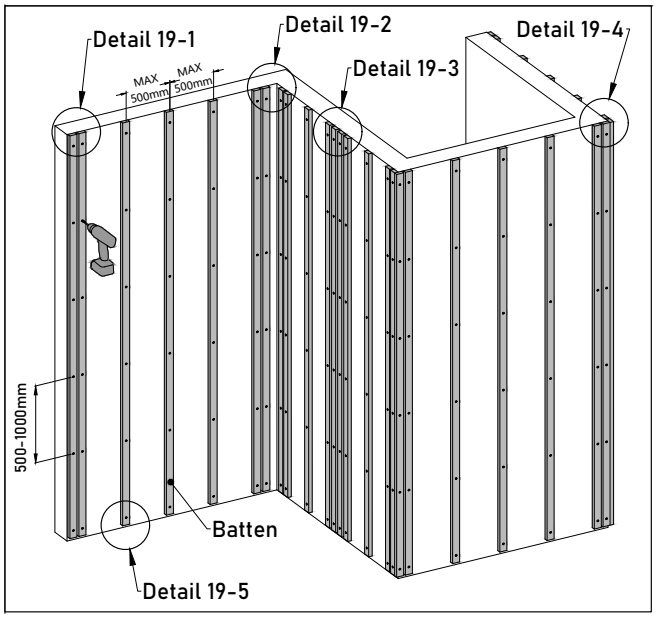
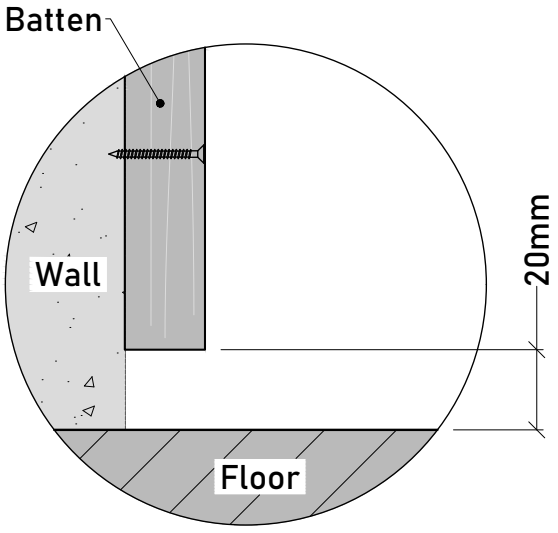


Diagram 19

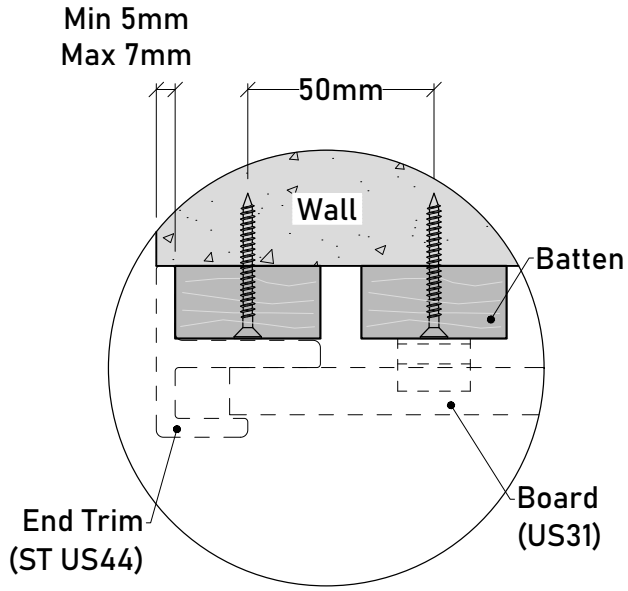
Please Note:

1. **A min gap of 20 mm needs to be left at the bottom of each batten against the floor, as shown in Detail 19-1.**



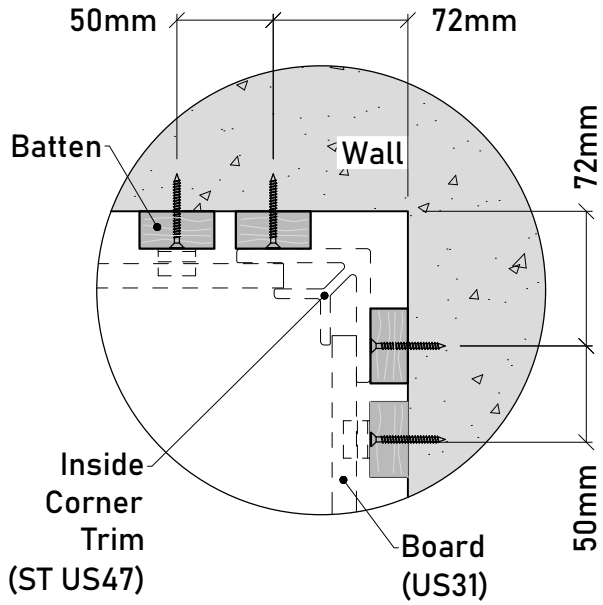
Detail 19-1

2. For the Outermost Edge, please install according to Detail 19-2.



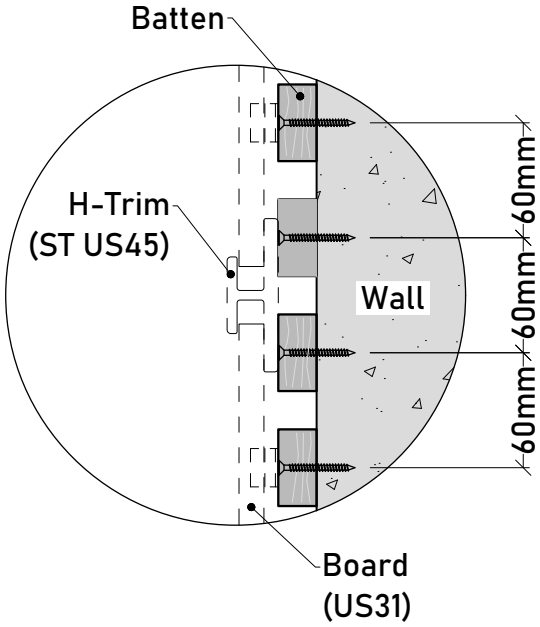
Detail 19-2

3. For the Inside Corner, please install according to Detail 19-3.



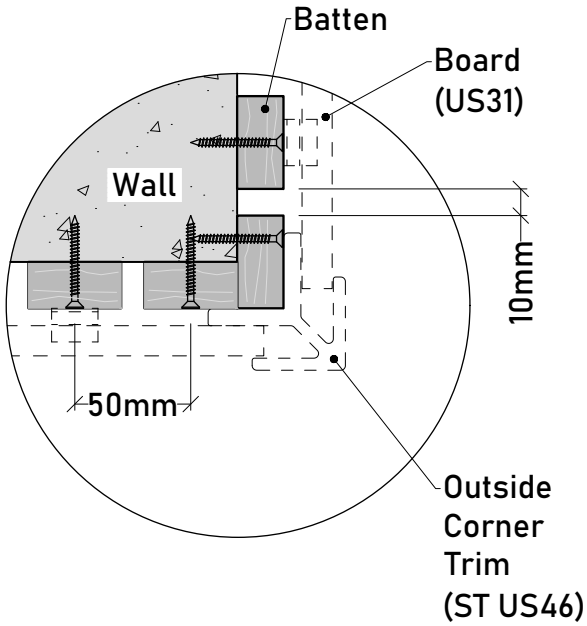
Detail 19-3

4. For the Butt Joint (H-Trim), please install according to Detail 19-4.



Detail 19-4

5. For the Outside Corner, please install according to Detail 19-5.



Detail 19-5

20 Installing the First Trim on the starting point

Start the **cladding board installation** from the starting points, as shown in **Diagram 20**.

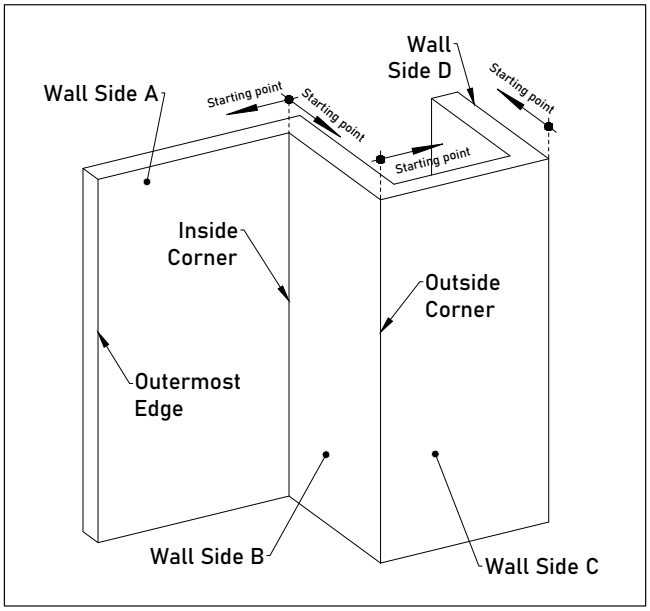
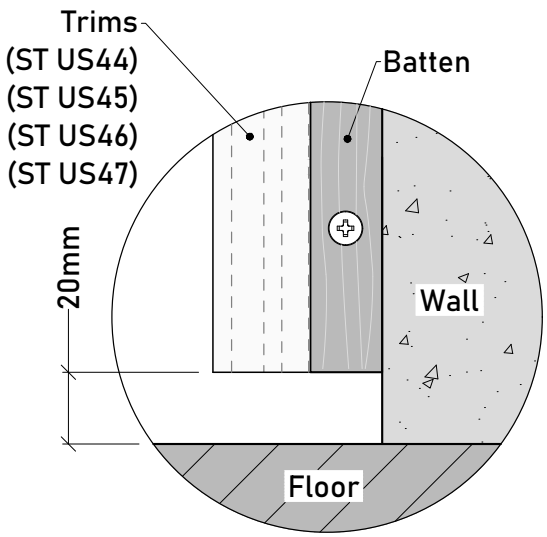


Diagram 20

21

Secure the first trim onto the starting point's battens with screws in the distance at least 500 mm and max 1000 mm.

A min gap of 20 mm needs to be left between the trims and the floor, as shown in **Detail 21-0**.



Detail 21-0

Wall Side A:

Cladding between the End Trim (ST US44) and the Inside Corner Trim (ST US47)

Start the installation from the inside corner, secure the Inside Corner Trim (ST US47) onto the inside corner battens with screws in the distance at least 500mm and max 1000 mm on centre, as shown in **Diagram 21-1** and **Detail 21-1**.

Wall Side B:

Cladding between the Inside Corner Trim (ST US47) and the H-Trim (ST US45)

Start the installation from the inside corner, secure the Inside Corner Trim (ST US47) onto the inside corner battens with screws in the distance at least 500 mm and max 1000 mm on centre, as shown in **Diagram 21-1** and **Detail 21-1**.

Start the **cladding board installation** from the starting points, as shown in **Diagram 20**.

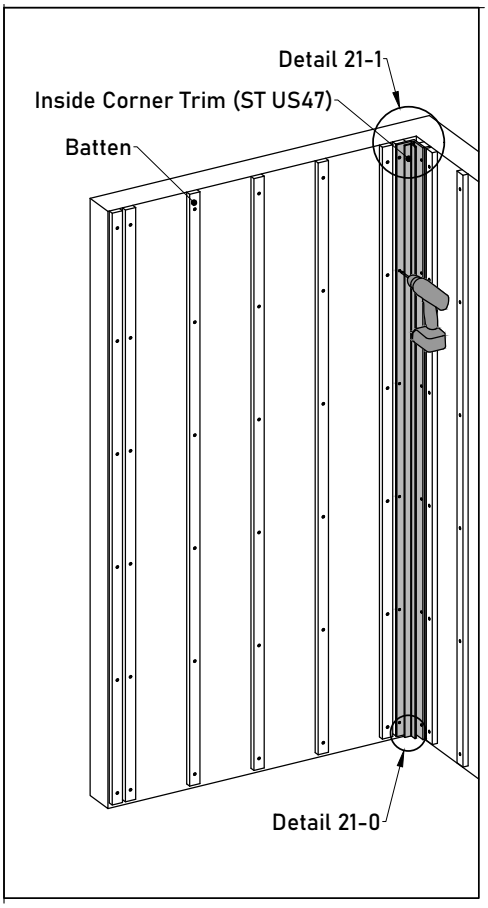
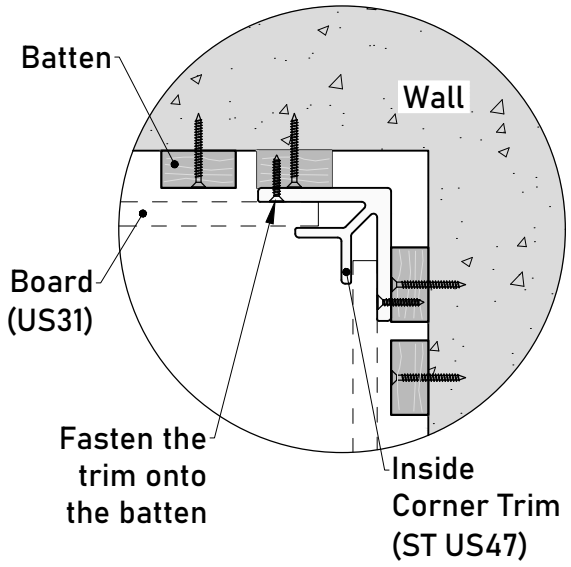


Diagram 21-1



Detail 21-1

Wall Side B:

Cladding between the H-Trim (ST US45) and the Outside Corner Trim (ST US46)

Start the installation from the butt joint, secure the H-Trim (ST US45) onto the butt joint battens with screws in the distance at least 500 mm and max 1000 mm on centre, as shown in **Diagram 21-2** and **Detail 21-2**.

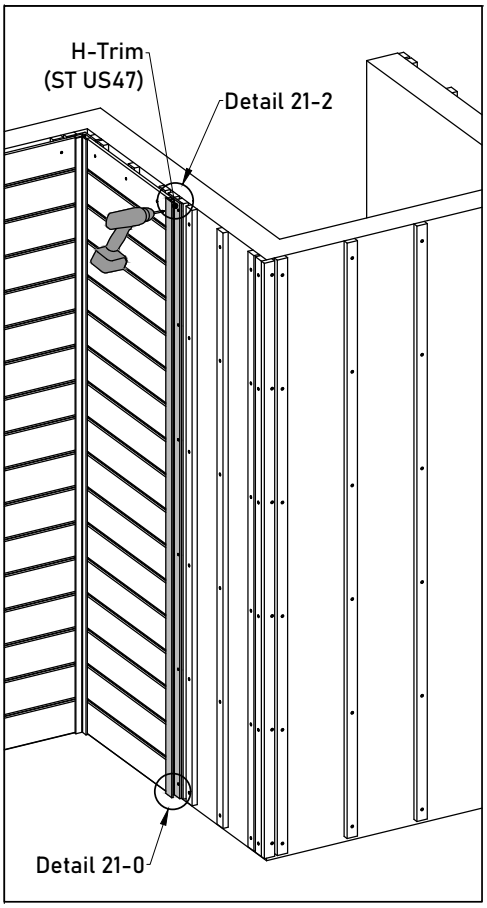
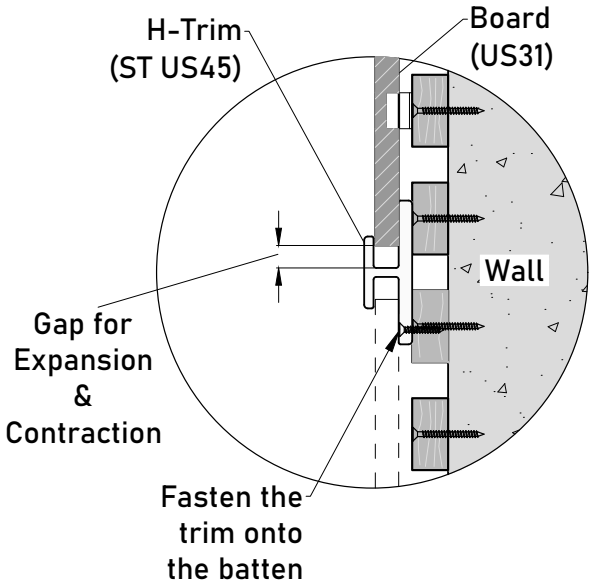


Diagram 21-2



Detail 21-2

Wall Side C:

Cladding between the two Outside Corner Trims (ST US46)

Start the installation from either one of the outside corners, secure the Outside Corner Trim (ST US46) onto the outside corner battens with screws in the distance at least 500mm and max 1000 mm on centre, as shown in **Diagram 21-3** and **Detail 21-3**.

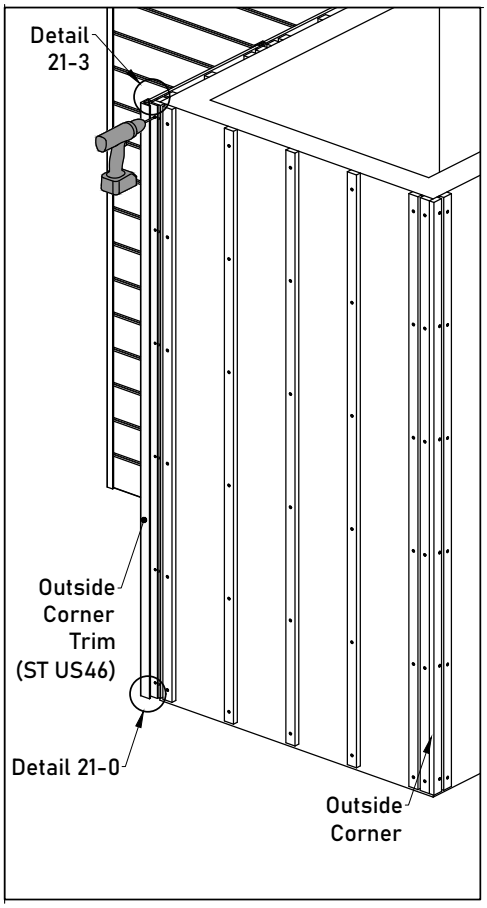
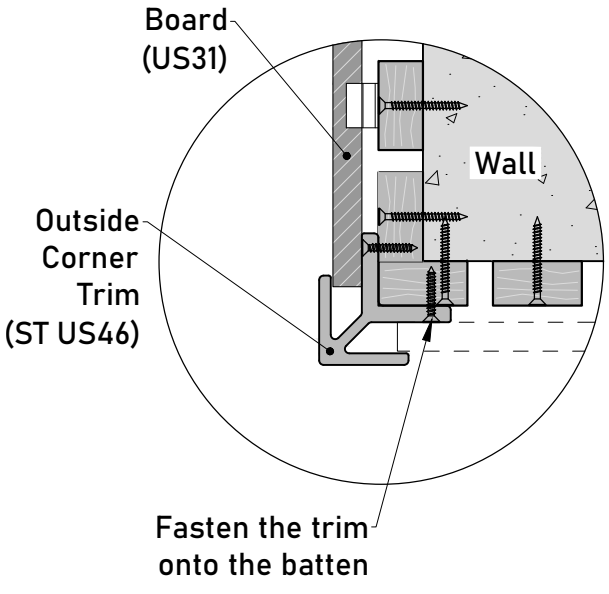


Diagram 21-3



Detail 21-3

Wall Side D:

Cladding between the Outside Corner Trims (ST US46) and the End Trim (ST US44)

Start the installation from the outside corner, secure the Outside Corner Trim (ST US46) onto the outside corner battens with screws in the distance at least 500mm and max 1000 mm on centre, as shown in **Diagram 21-4** and **Detail 21-4**.

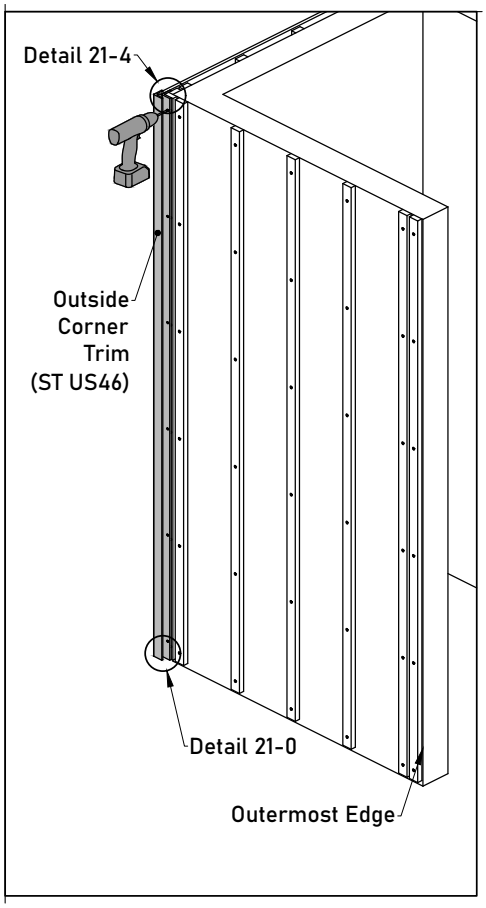
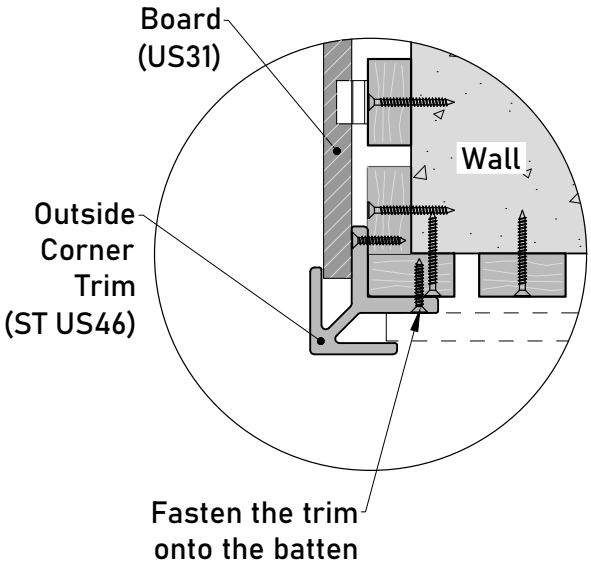


Diagram 21-4



Detail 21-4

22 Starting Trim (AW02) Installation

Install the Starting Trim (AW02) at the bottom end of the battens against the floor with screws, as shown in Diagram 22.

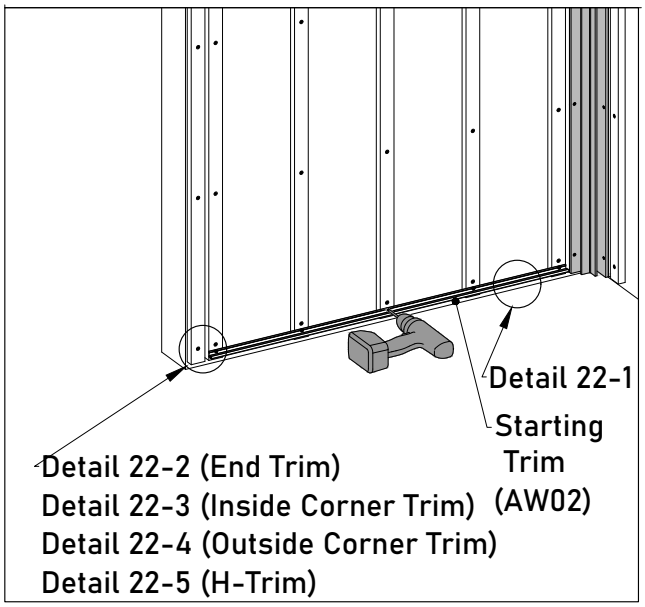
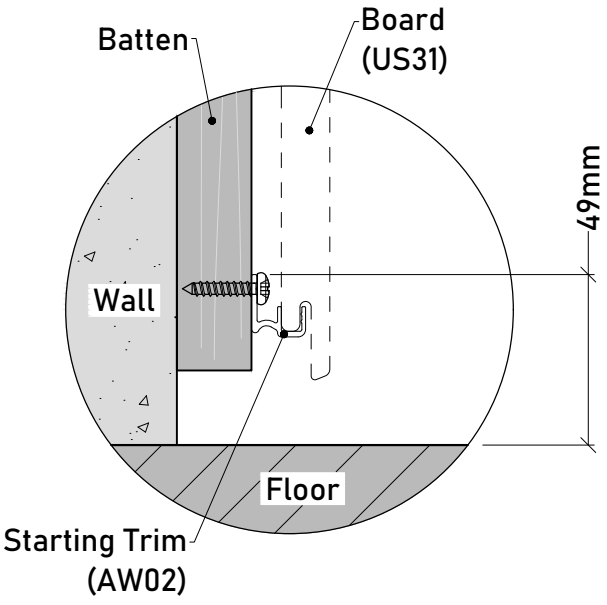


Diagram 22

Please Note:

1. Fasten the Starting trim (AW02) 49 mm against the floor to get a min clearance of 20 mm between the cladding board and the floor, as shown in Detail 22-1.



Detail 22-1

Please Note:

1. Outermost Edge

A min gap of 5 mm needs to be left between the Starting Trim (AW02) and the End Trim (ST US44), as shown in **Detail 22-2**.

2. Inside Corner

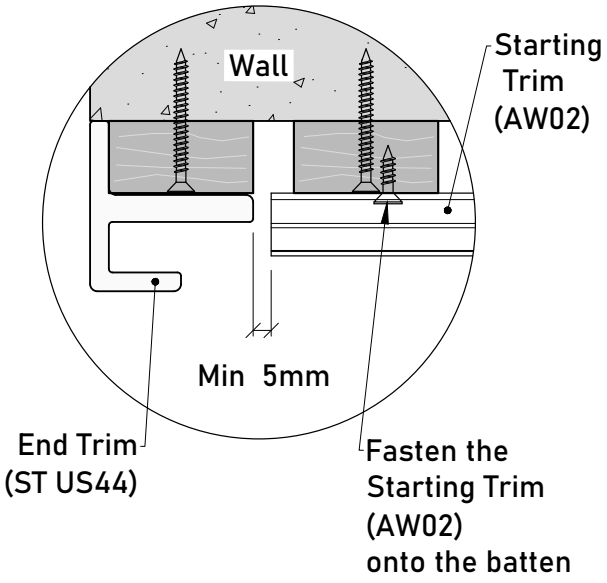
A min gap of 5 mm needs to be left between the Starting Trim (AW02) and the Inside Corner Trim (ST US47), as shown in **Detail 22-3**.

3. Outside Corner

A min gap of 5 mm needs to be left between the Starting Trim (AW02) and the Outside Corner Trim (ST US46), as shown in **Detail 22-4**.

4. Butt Joint

A min gap of 5 mm needs to be left between the Starting Trim (AW02) and the H-Trim (ST US45), as shown in **Detail 22-5**.



Detail 22-2

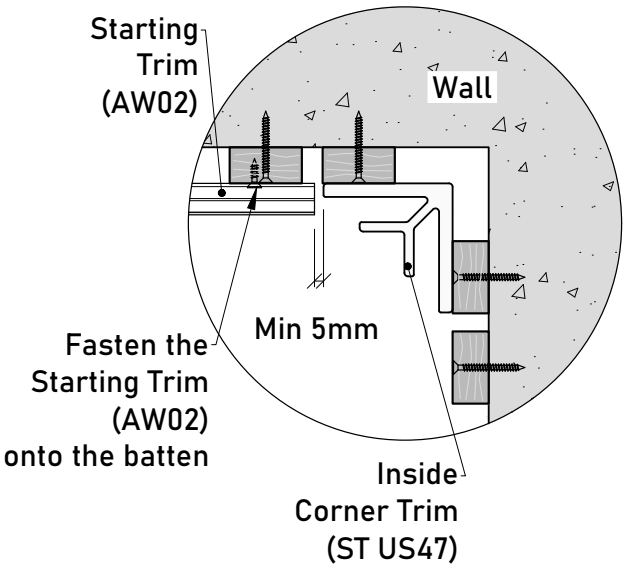


Diagram 22-3

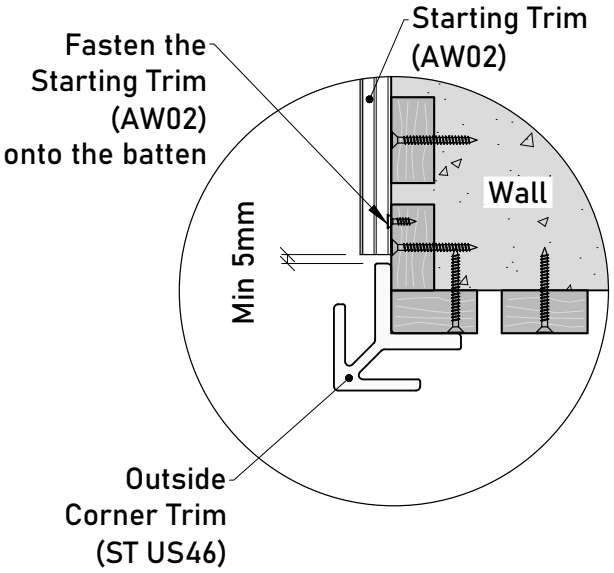
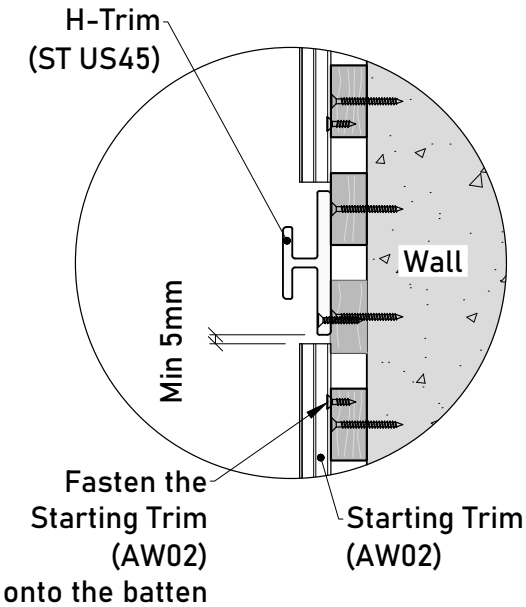


Diagram 21-4



Detail 21-4

CLADDING BOARD INSTALLATION

23 Installing the First Course

Put the first Cladding Board (US31) over the Starting Trim (AW02) and fasten it onto the batten with Clip (AW08). The clearance between the cladding board and the floor should be at least 20 mm, as shown in **Diagram 23** and **Detail 23-1**.

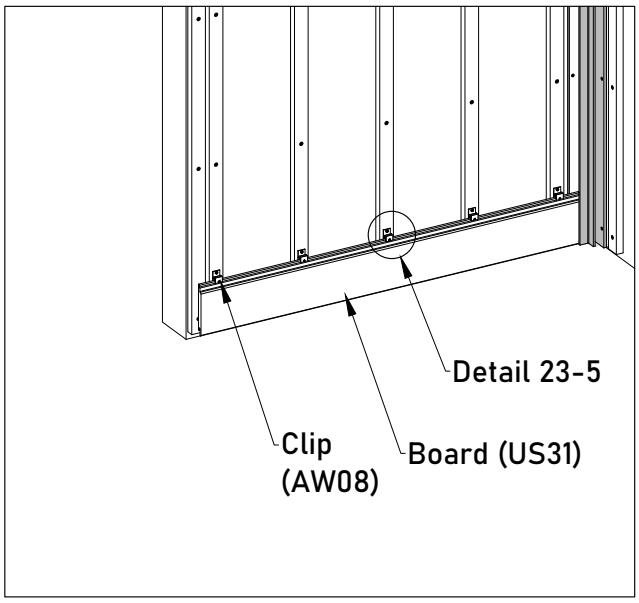
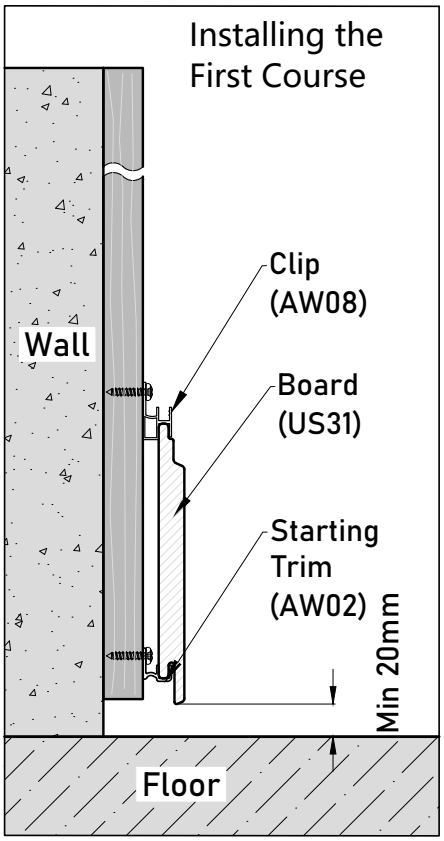


Diagram 23



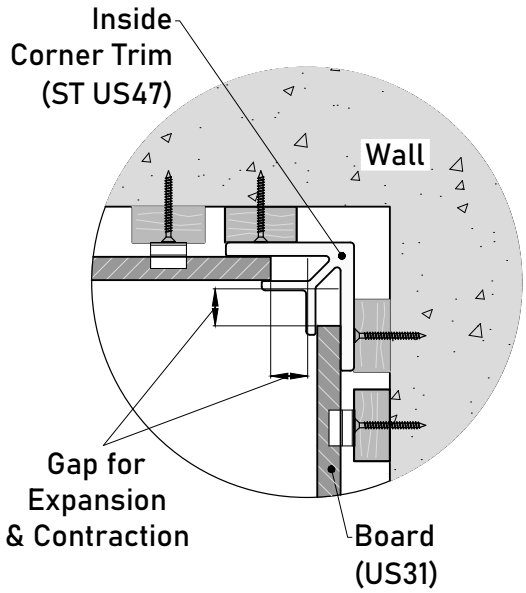
Detail 23-1

Please Note:

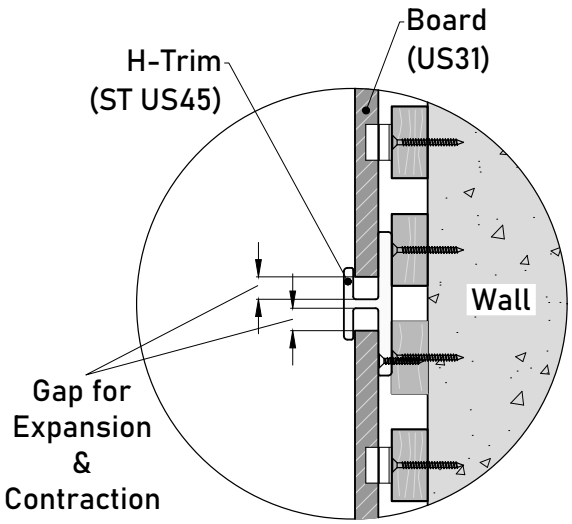
The gap between the Cladding Board, (US31), End Trim (ST US44), H-Trim (ST US45), Outside Corner Trim (ST US46) and the Inside Corner Trim (ST US47) is vital to avoid warping or buckling.

Please select the appropriate gap value according to the **"Expansion and Contraction Values Table"** on **page 8** of this installation guide.

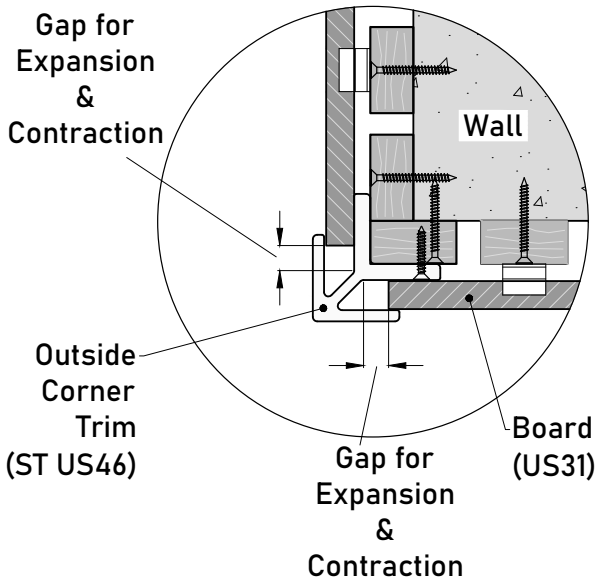
1. Inside Corner, Inside Corner Trim {ST US47), as shown in **Detail 23-2**.
2. Butt Joint, H-Trim {ST US45), as shown in **Detail 23-3**.
3. Outside Corner, Outside Corner Trim {ST US46), as shown in **Detail 23-4**.



Detail 23-2



Detail 23-3



Detail 23-4

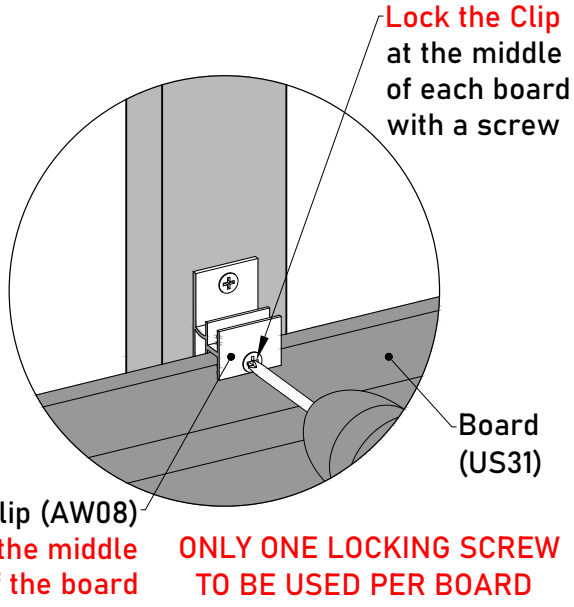
Please note:

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 move freely.

When installing horizontally, it is required to lock the Clip (AW08) at the middle of each board, as shown in Detail 23-5.

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

Please review page 9, "Locking the Wall Cladding Board" of this installation guide for further information.



Detail 23-5

24 Installing the Second Course

Put the second Cladding Board (US31) over the first board's Clip (AW08) and fasten it with the Clip (AW08), as shown in **Diagram 24** and **Detail 24-1**.

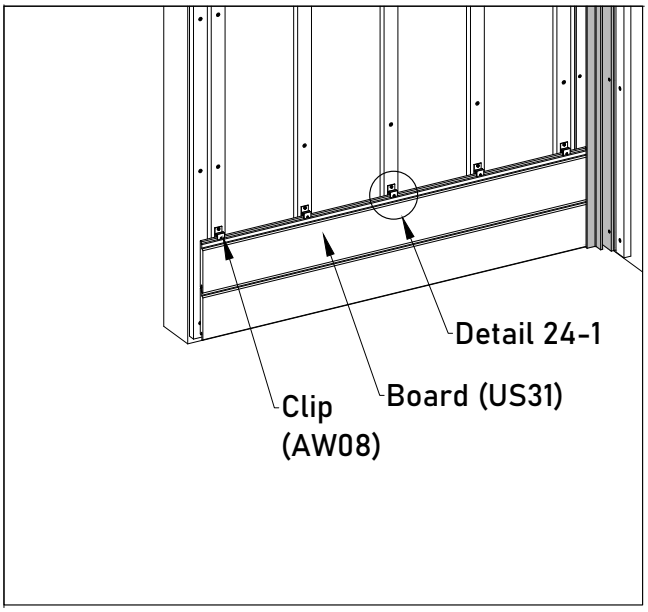
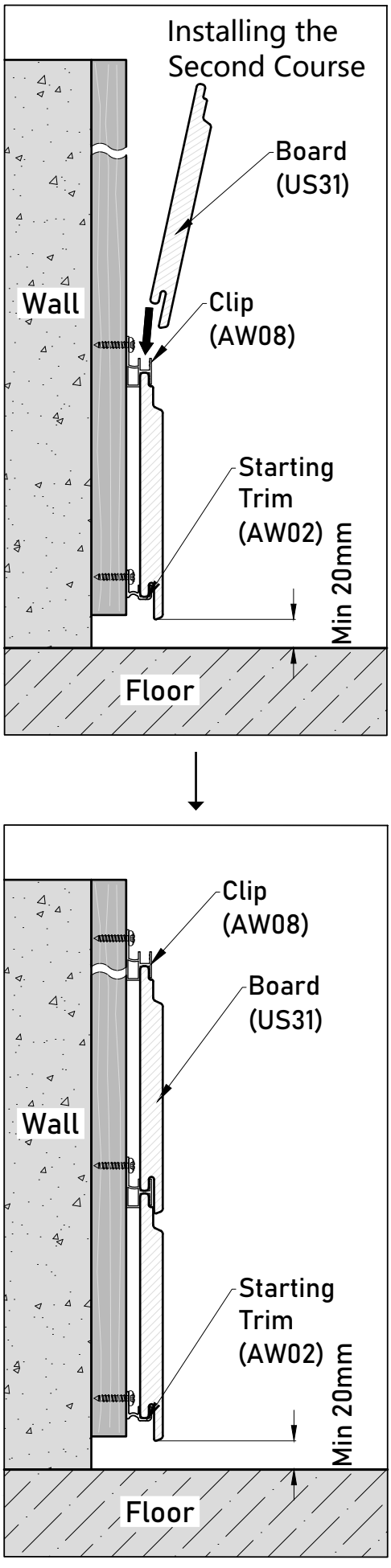


Diagram 24



Detail 24-1

Please Note:

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 move freely.

When installing horizontally, it is required to lock the Clip (AW08) at the middle of each board, as shown in Detail 24-2.

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

Please review page 9, "Locking the Wall Cladding: Board" of this installation guide for further information.

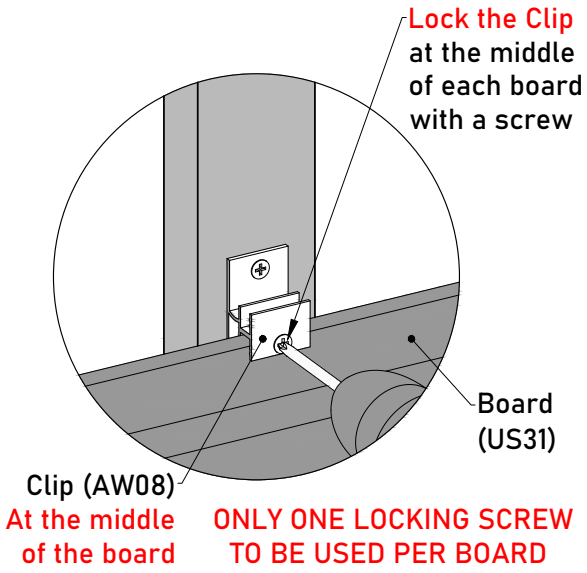


Diagram 24-2

25 Installing the Last Cladding Board

When you are at the last board, measure the distance between the top end of the batten and the Clip (AW08), as shown in **Diagram 25** and **Detail 25-1**.

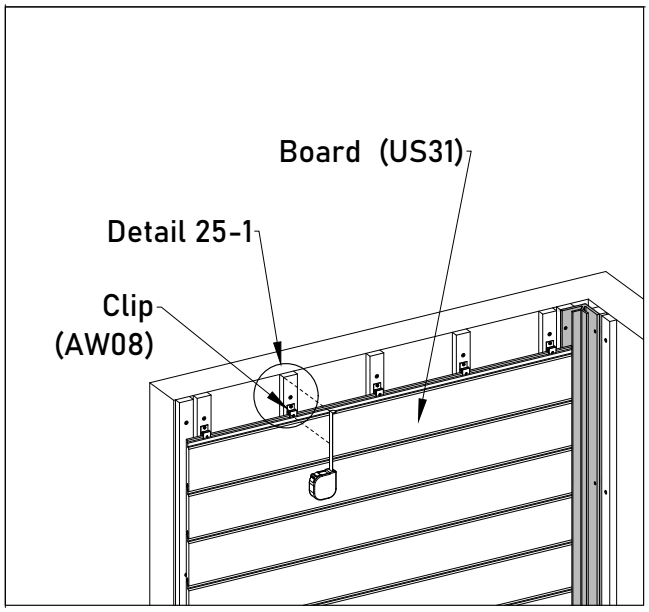
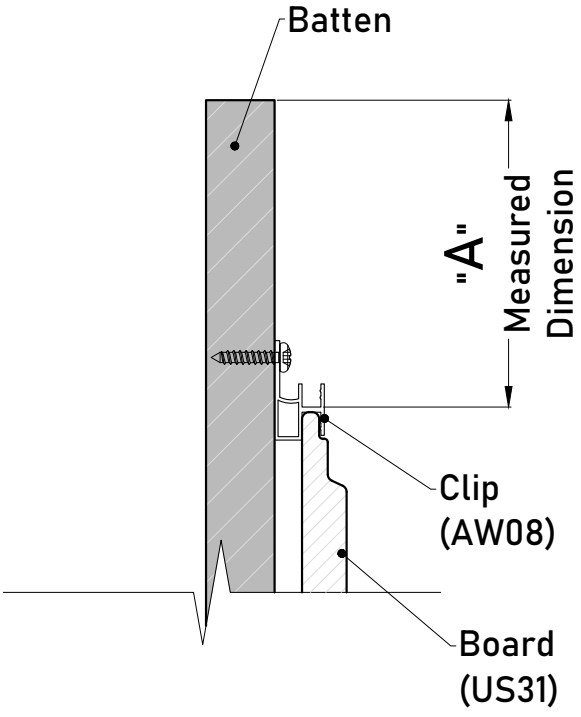


Diagram 25



Detail 25-1

26 Rip the board according to the measured dimension, as shown in **Diagram 26** and **Detail 26-1**.

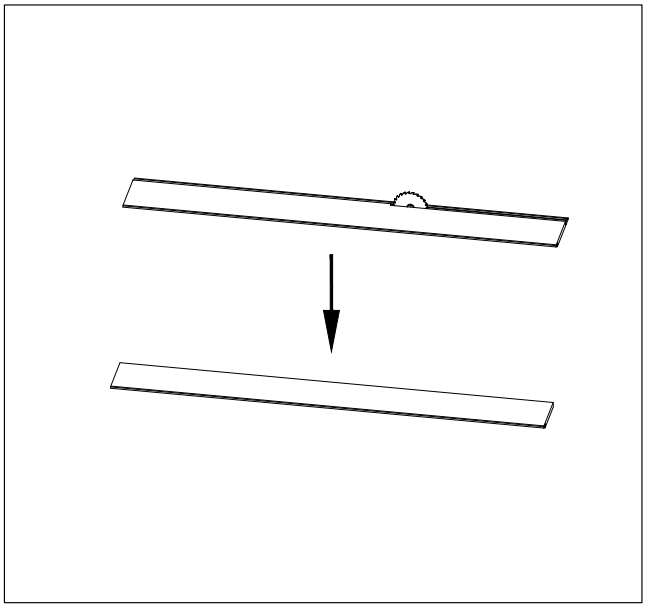
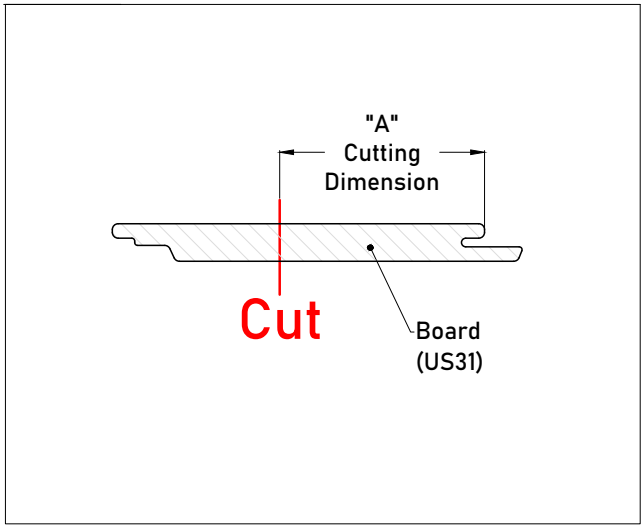


Diagram 26



Detail 26-1

27 Install the Rubber Stopper (T-7) onto each batten with screws, as shown in **Diagram 27** and **Detail 27-1**.

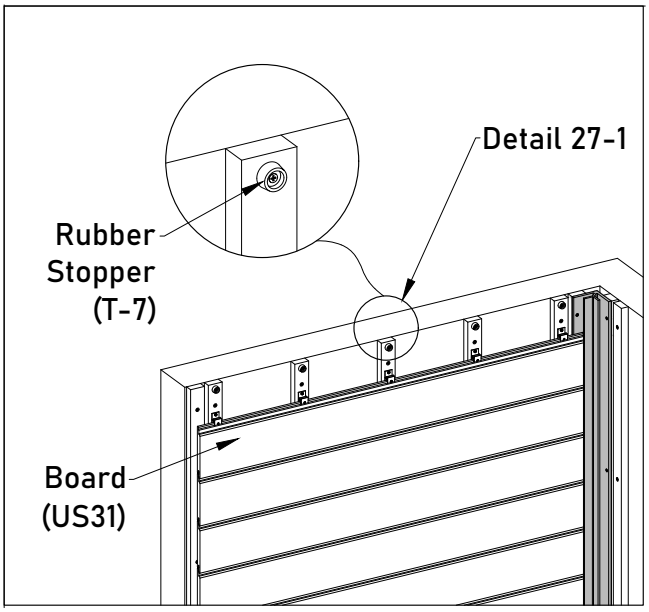
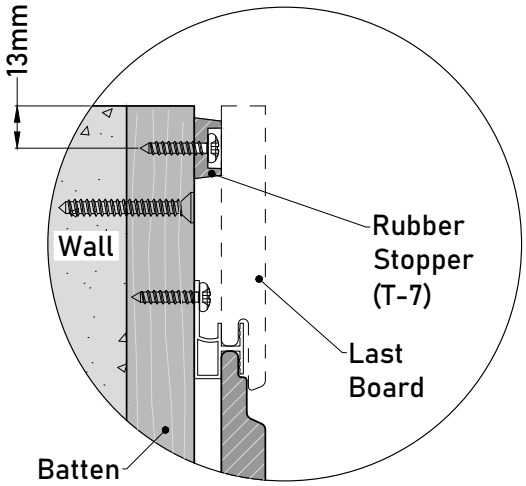


Diagram 27



Detail 27-1

28 Put the ripped cladding board over the Clip (AW08) in place and then face fix it onto each batten along the length of the board against the Rubber Stopper (T-7), as shown in **Diagram 28** and **Detail 28-1**.

Please Note:

Predrill the ripped cladding board to allow for expansion and contraction before face fixing it onto the batten. Please review page 4, section "Predrill" of this installation guide for further information.

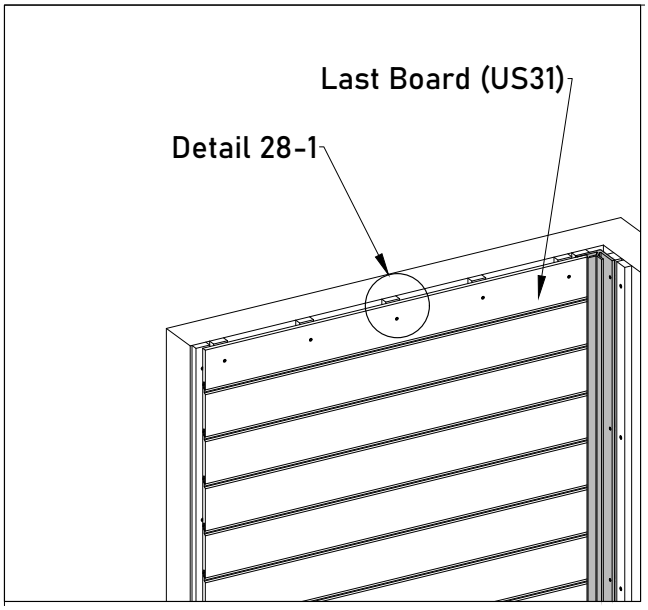
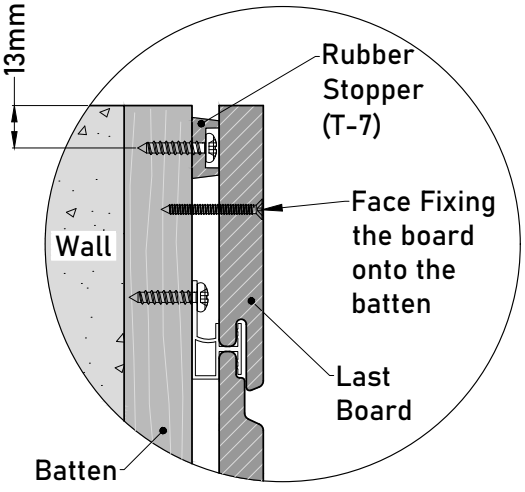


Diagram 28



Detail 28-1

29 Insert the finished trim in place and secure it with screws in the distance at least 500 mm and max 1000 mm on centre.

1. Outermost Edge, End Trim (ST US44) as shown in **Diagram 29-1** and **Detail 29-1**.

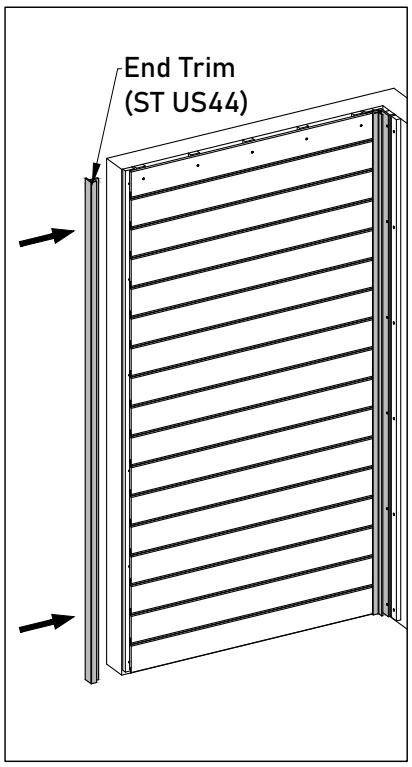
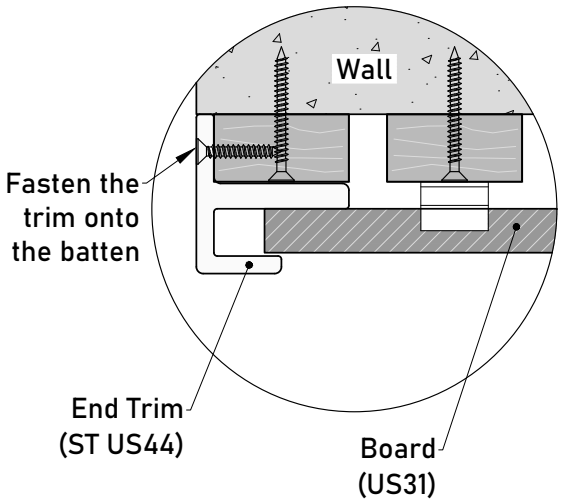


Diagram 29



Detail 29-1

1. Butt Joint, H-Trim (ST US45)
as shown in **Diagram 29-2** and **Detail 29-2**.

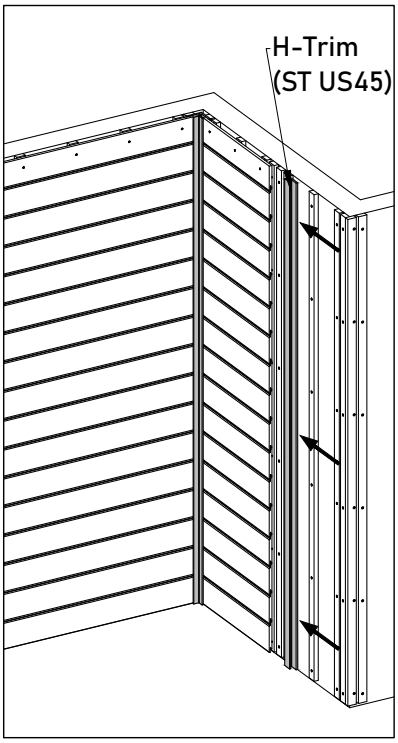
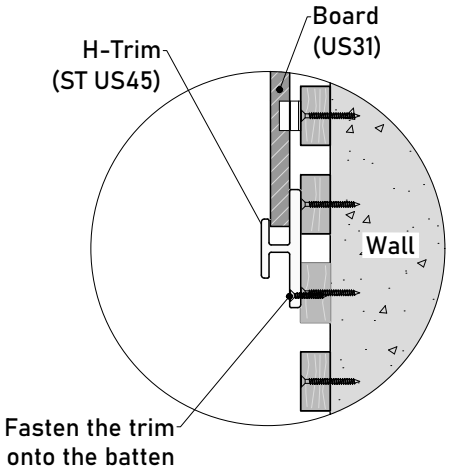


Diagram 29-2



Detail 29-2

2. Outside Corner, Outside Corner Trim (ST US46)
as shown in **Diagram 29-3** and **Detail 29-3**.

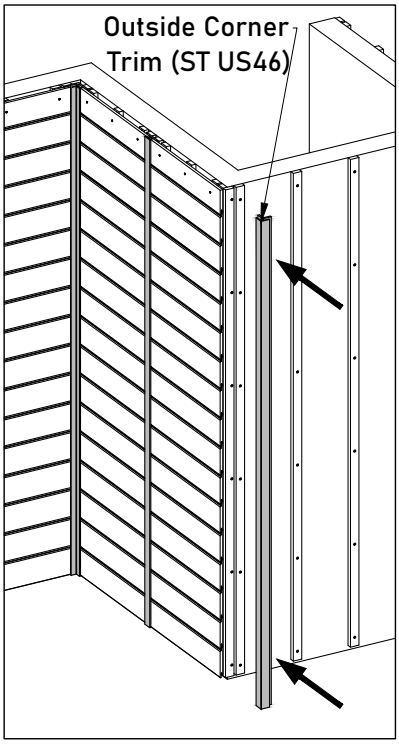
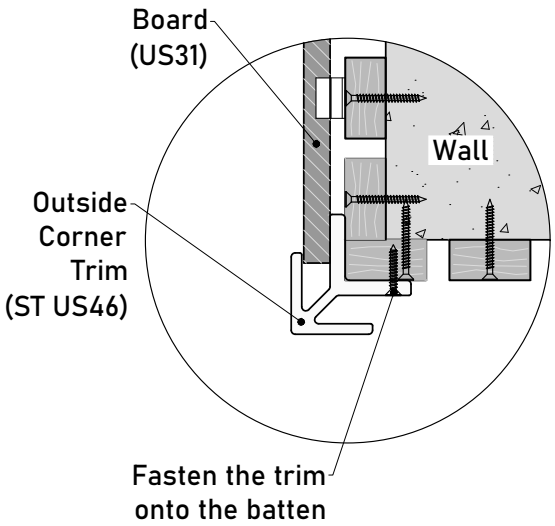


Diagram 29-3



Detail 29-3

30 **Diagram 30** presents the finished appearance after completing the installation.

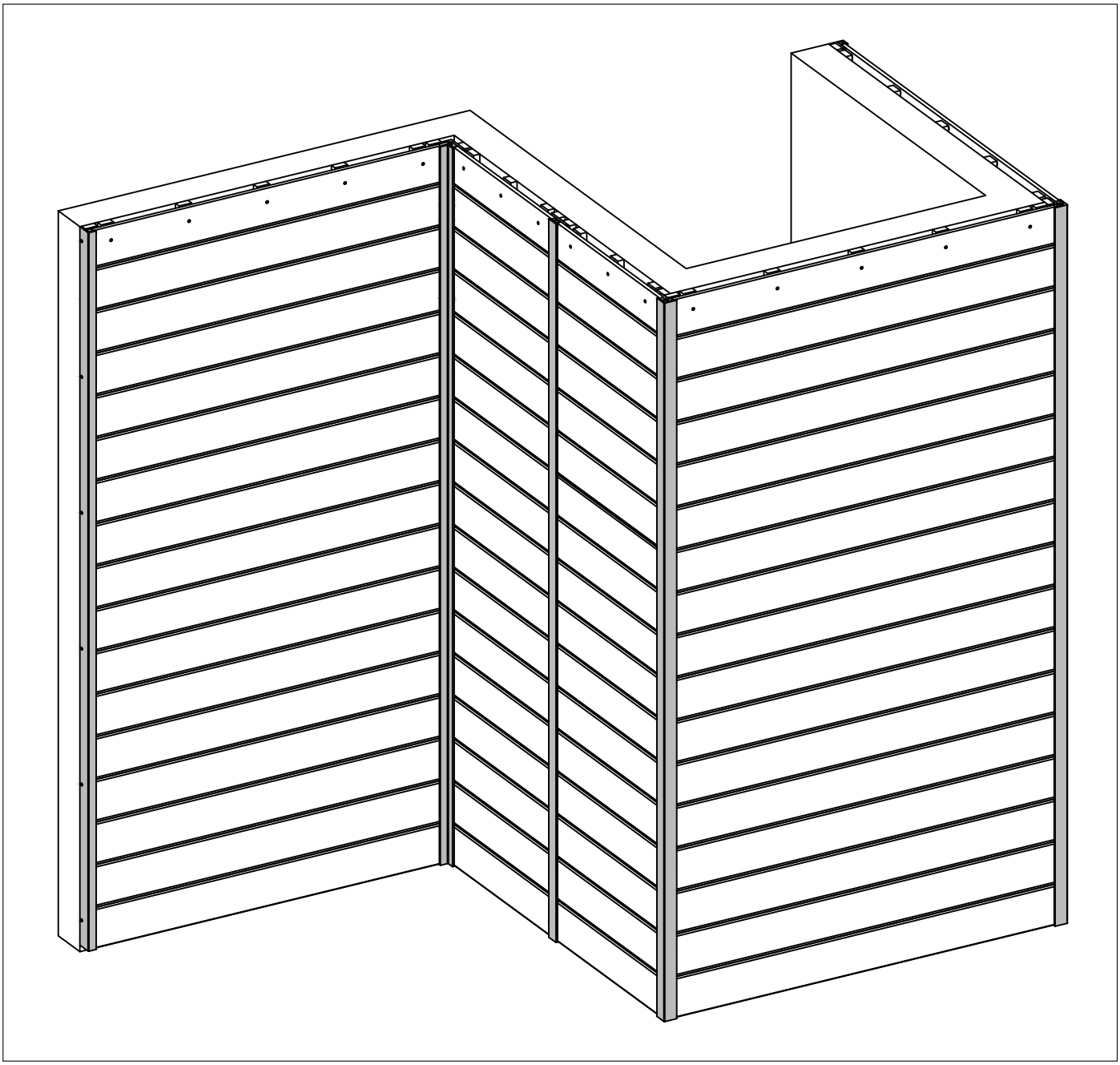


Diagram 30

CLADDING BOARD INSTALLATION

31 Framing

Fix the battens onto the ceiling. It is recommended to apply the batten span of not more than 300mm, as shown in **Diagram 31**.

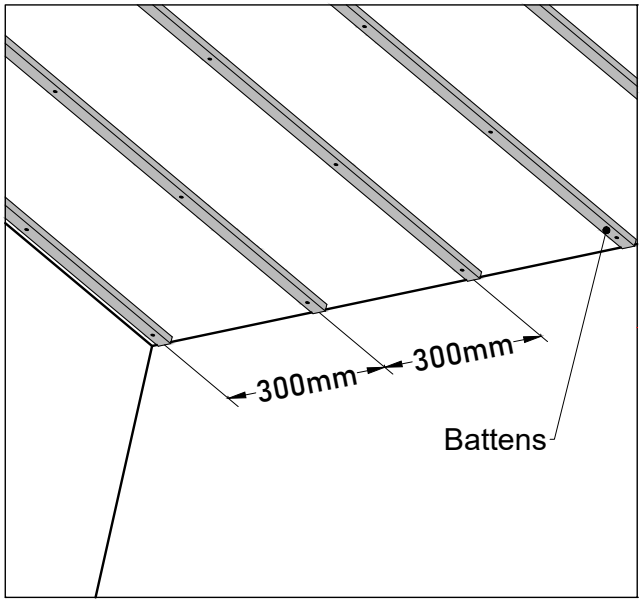


Diagram 31

32

Fasten the Starting Trim (AW02) onto the end of the battens with screws, as shown in **Diagram 32**.

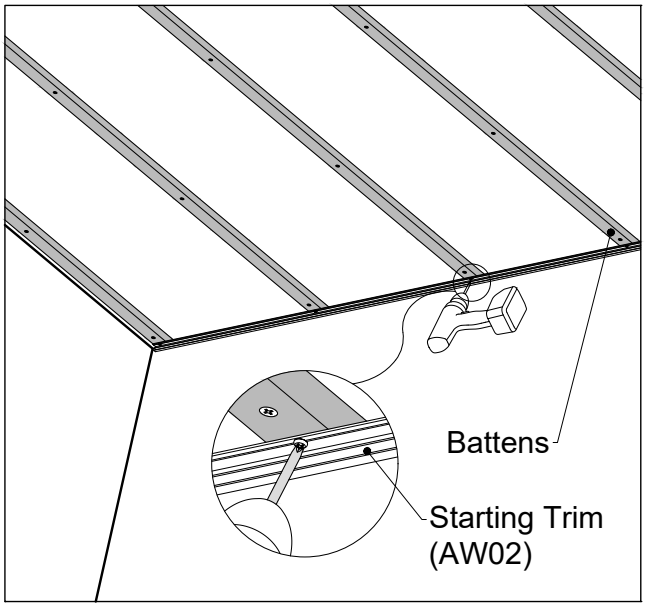


Diagram 32

33 Ceiling board installation

Put the Cladding Board (US31) over the Starting Trim (AW02) and fasten it to the battens with Clip (AW08), as shown in **Diagram 33** and **Diagram 34**.

Note:

1. 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 move freely.

When installing horizontally, it is required to Lock the Clip (AW0B) at the middle of each board, as shown in Detail 34-1.

DO NOT LOCK any other Clip (AW0B) for the same board.

Please review page 9, "Locking the Wall Cladding Board" of this installation guide for further information.

2. The gap between the Cladding Board (US31) and the adjacent walls is vital to avoid warping or buckling, as shown in Detail 34-2. Please select the appropriate gap value according to the Expansion and Contraction Values Table on page 8 of this installation guide.

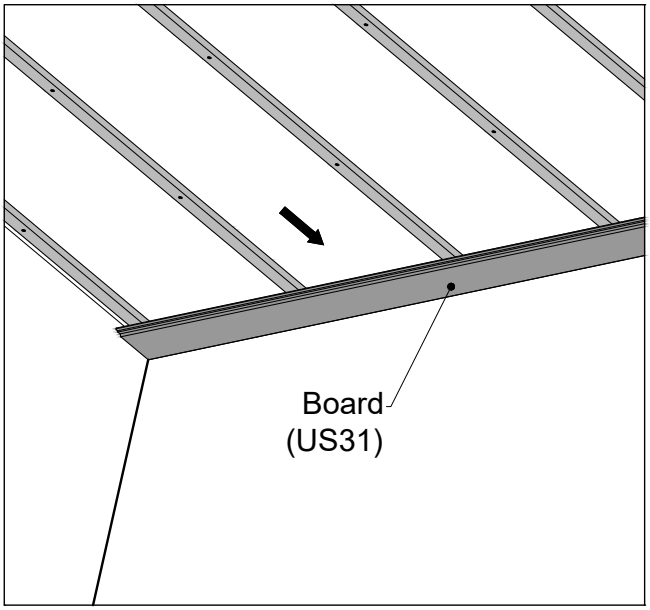


Diagram 33

34

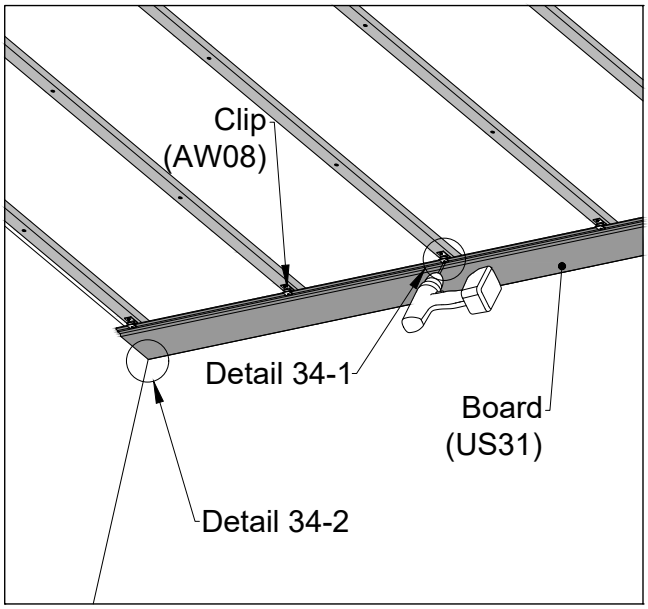
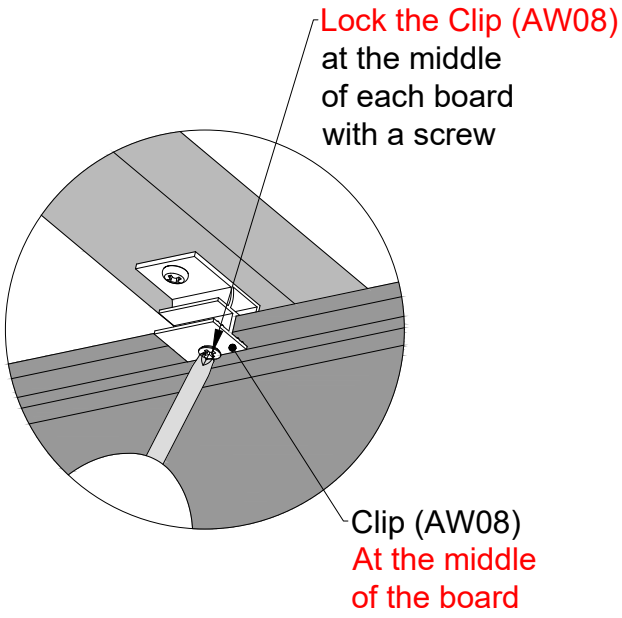
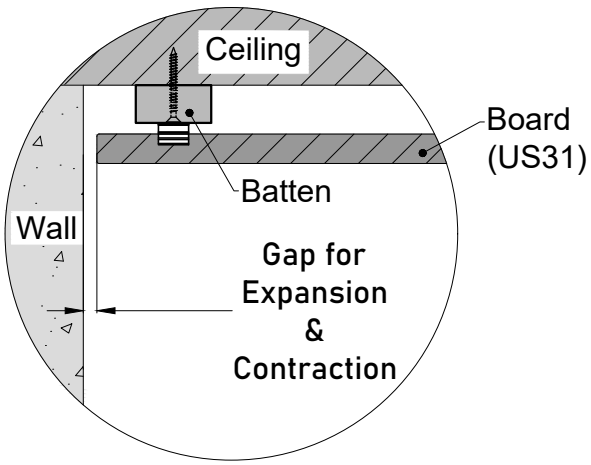


Diagram 34



Detail 34-1



Detail 34-2

35 Put the next Cladding Board (US31) in place and slide it inside the Clip (AW08), as shown in **Diagram 35**. Then fasten it to the battens with Clip (AW08), repeat the same procedure as installation **Step 33**.

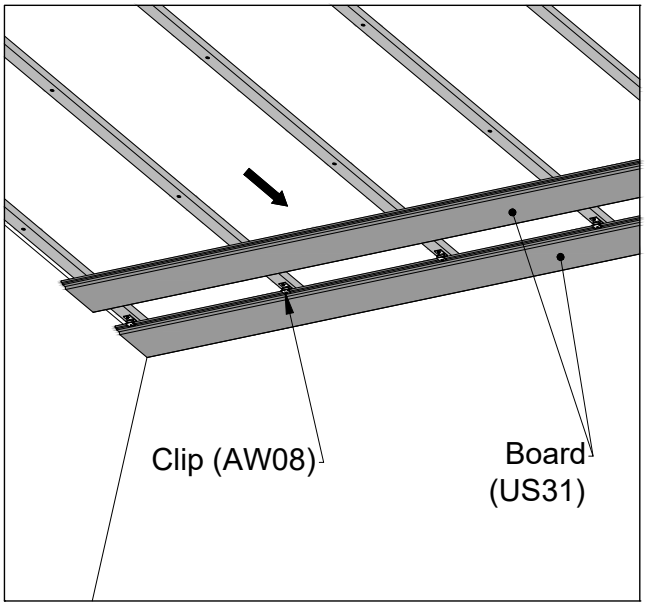
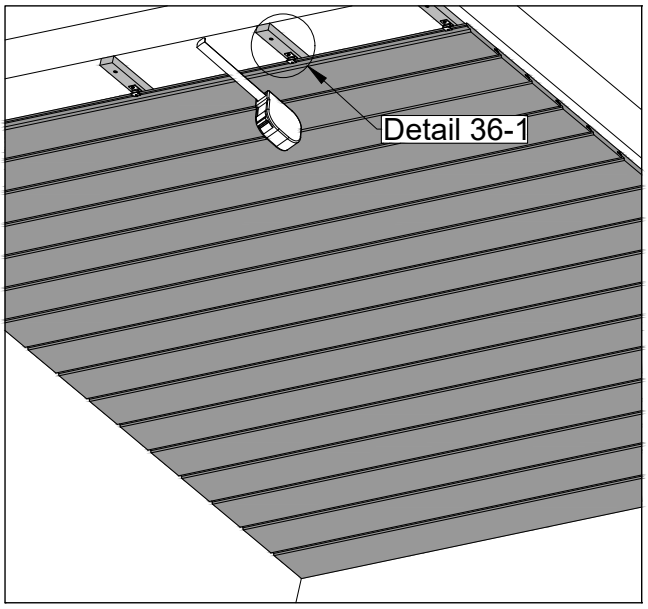
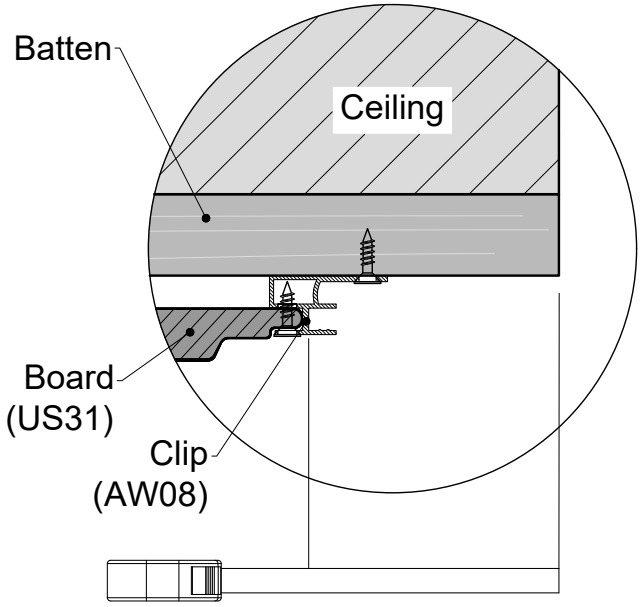


Diagram 35

36 When you are at the Cladding's last board, measure the distance between the end of the battens and the Clip (AW08), as shown in **Diagram 36** and **Detail 36-1**.

Diagram 36





Detail 36-1

37 Rip the Cladding Board (US31) according to the measured length, as shown in **Diagram 37** and **Detail 37-1**

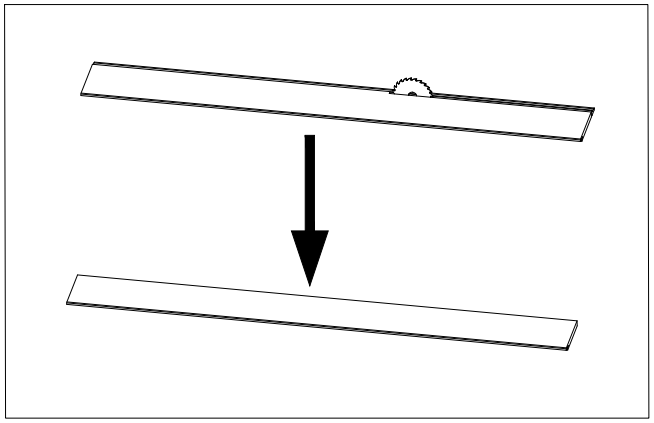
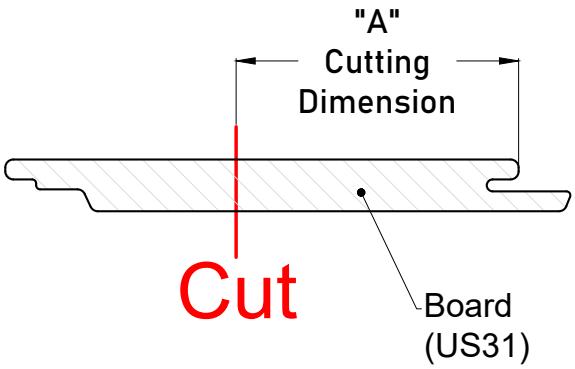


Diagram 37



Detail 37-1

38 Then install the Rubber Stopper (T- 7) onto the battens with screws, as shown in **Diagram 38** and **Detail 38-1**.

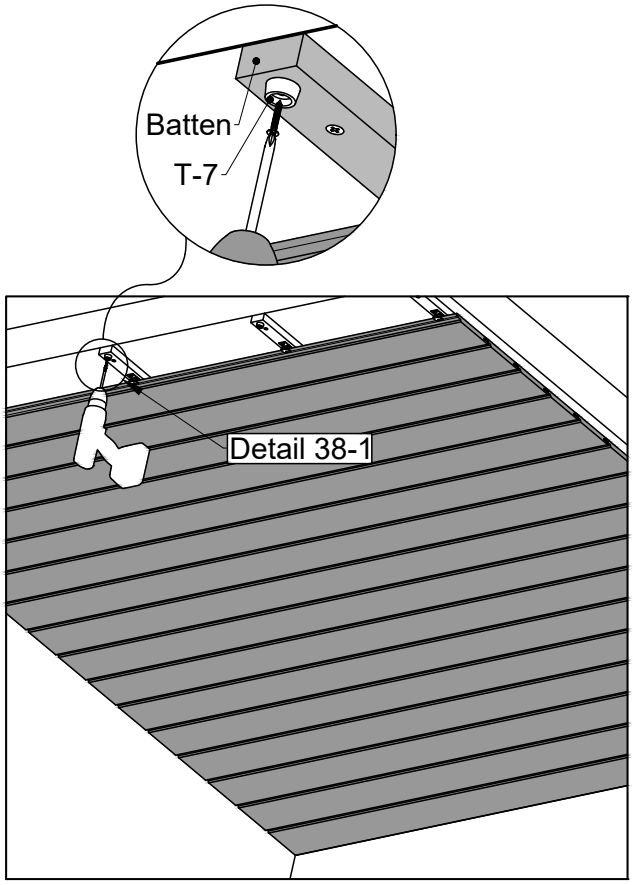
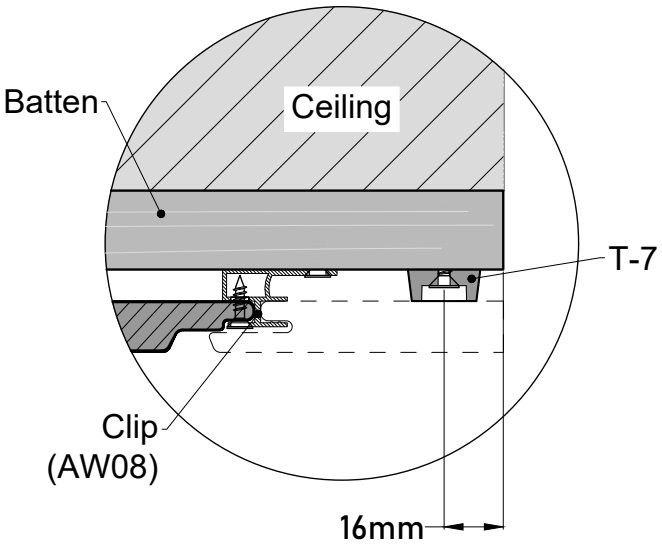


Diagram 38



Detail 38-1

39 Put the ripped Cladding Board (US3 1) over the Clip (AW08) in position and pre-drill the screw holes before installation, as shown in **Diagram 39** and **Detail 39-1**.

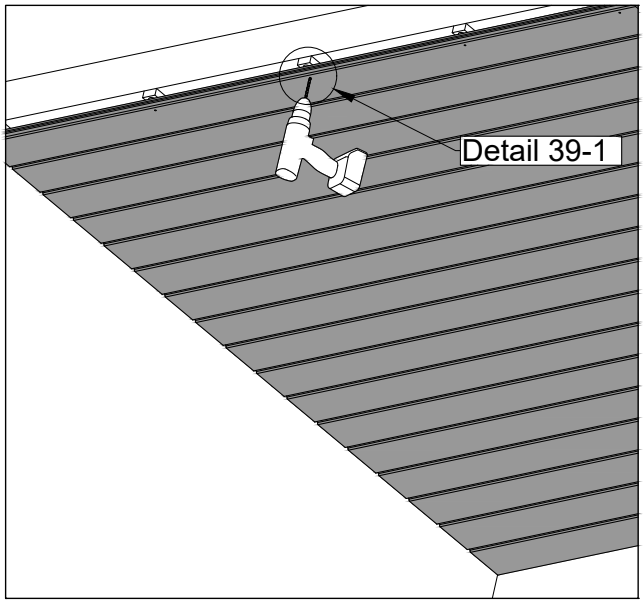
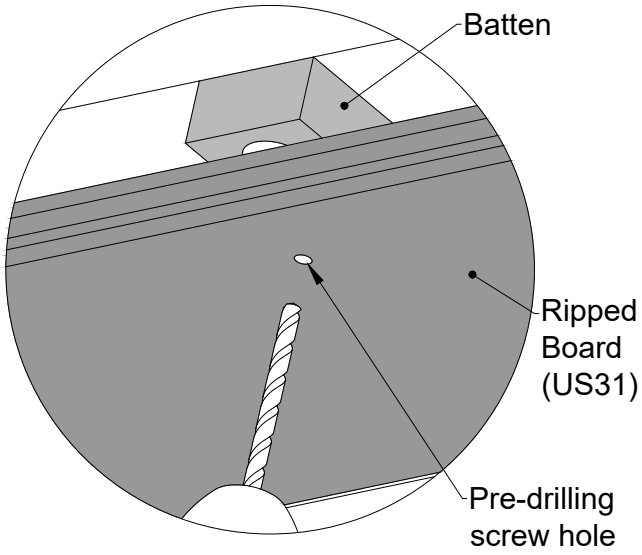


Diagram 39



Detail 39-1

40 Face fix the ripped Cladding Board (US31) onto each batten along the length of the board over the Rubber Stopper (T-7), as shown in **Diagram 40** and **Detail 40-1**.

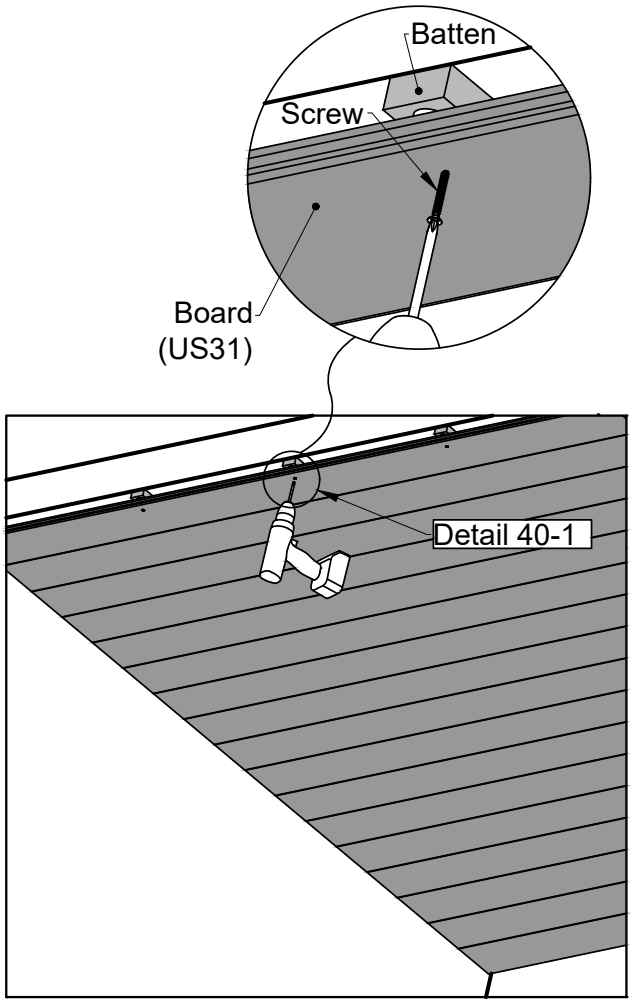
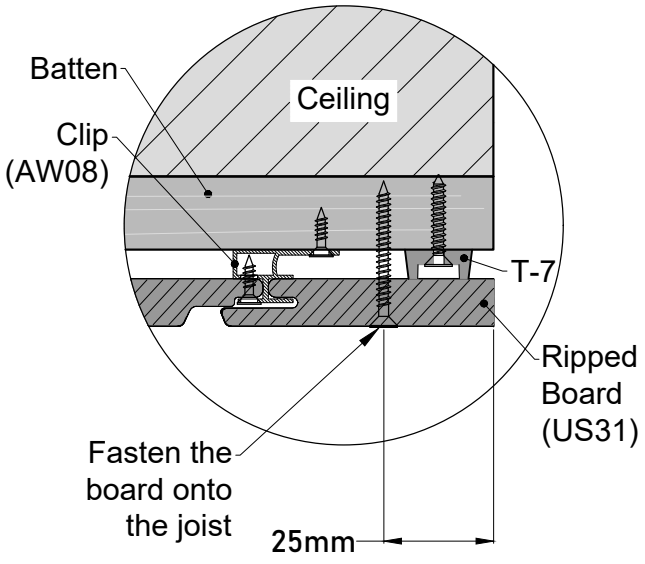


Diagram 40



Detail 40-1

WINDOW REVEALS INSTALLATION

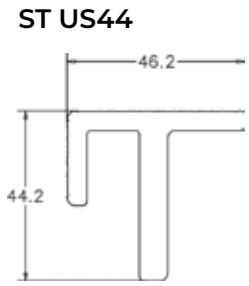
Installation Procedure

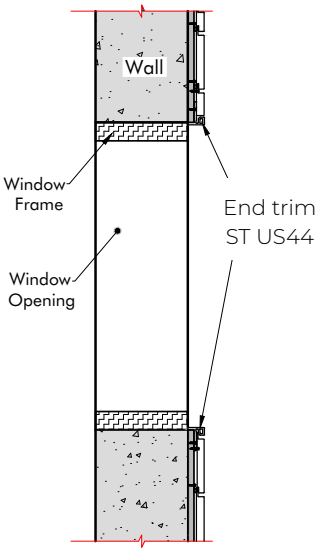
We recommend four window reveals installation options;

Option 1

More Suitable for Shallow Reveals

Use the Aluminum End-Trim (STUS44) to picture frame around the window.
NOTE: The STUS44 will need to have the return removed to allow for the install against the battens for this option.

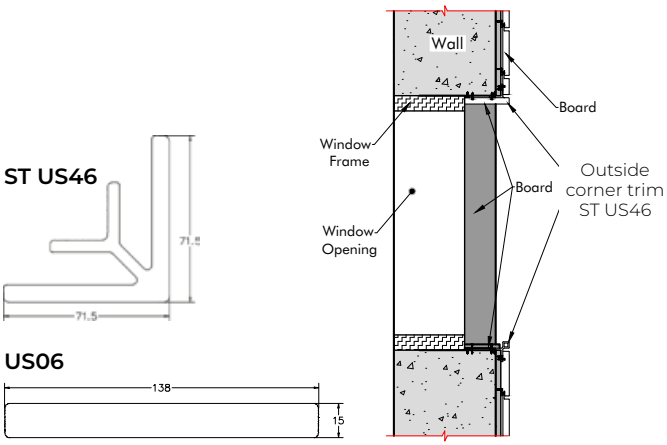




Option 2

More Suitable for Deeper Reveals

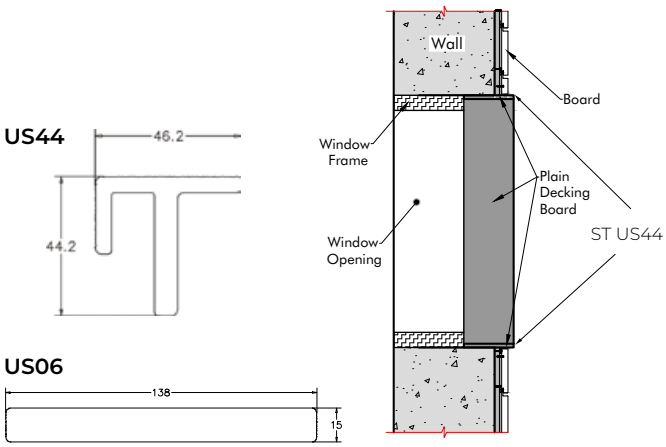
Use the Outside Corner Trim (STUS46) to picture frame around the window and use either the US31 Shadowline cladding board or composite decking board (ie. US06 Fascia board), or a combination of these profiles on the window returns, to achieve a timber look inside the window. A ST US44 can also be used to frame the window before using a solid edge decking board on the reveal to seal to the window frame.



Option 3

More Suitable for Deeper Reveals

Use a composite decking board (ie. US06 Fascia Board) to picture frame around the window, then butt the Shadowline cladding boards against it.



Option 4

More suitable for Butting up to window frames

Another Option is to use a AW02 starting strip which is attached to the battens and then allows the cladding board itself be butting up against the window reveal, with this method of install your cut edges will be exposed and seen.

AW02

To obtain a copy of the most current version of this installation guide,
visit us on line at **www.newtechwood.com.au**

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