

Installation guide


for ShadowClad Prime
panel assemblies

Custom cladding



Welcome

Lenmak Exterior Innovations Inc. is one of North America's most advanced manufacturers in exterior architectural solutions, light gauge pre-finished metal panels, and state-of-the-art aluminum and steel cladding, insulated back panels, roofing, and flashing based out of Edmonton, Alberta, Canada.



PREPARATION AND FLASHING INSTALLATION.

Introduction

This instructional guide for ShadowClad is intended for experienced professionals with a background of installing siding, soffit and metal cladding systems. All Lenmak products should always be installed by a professional.



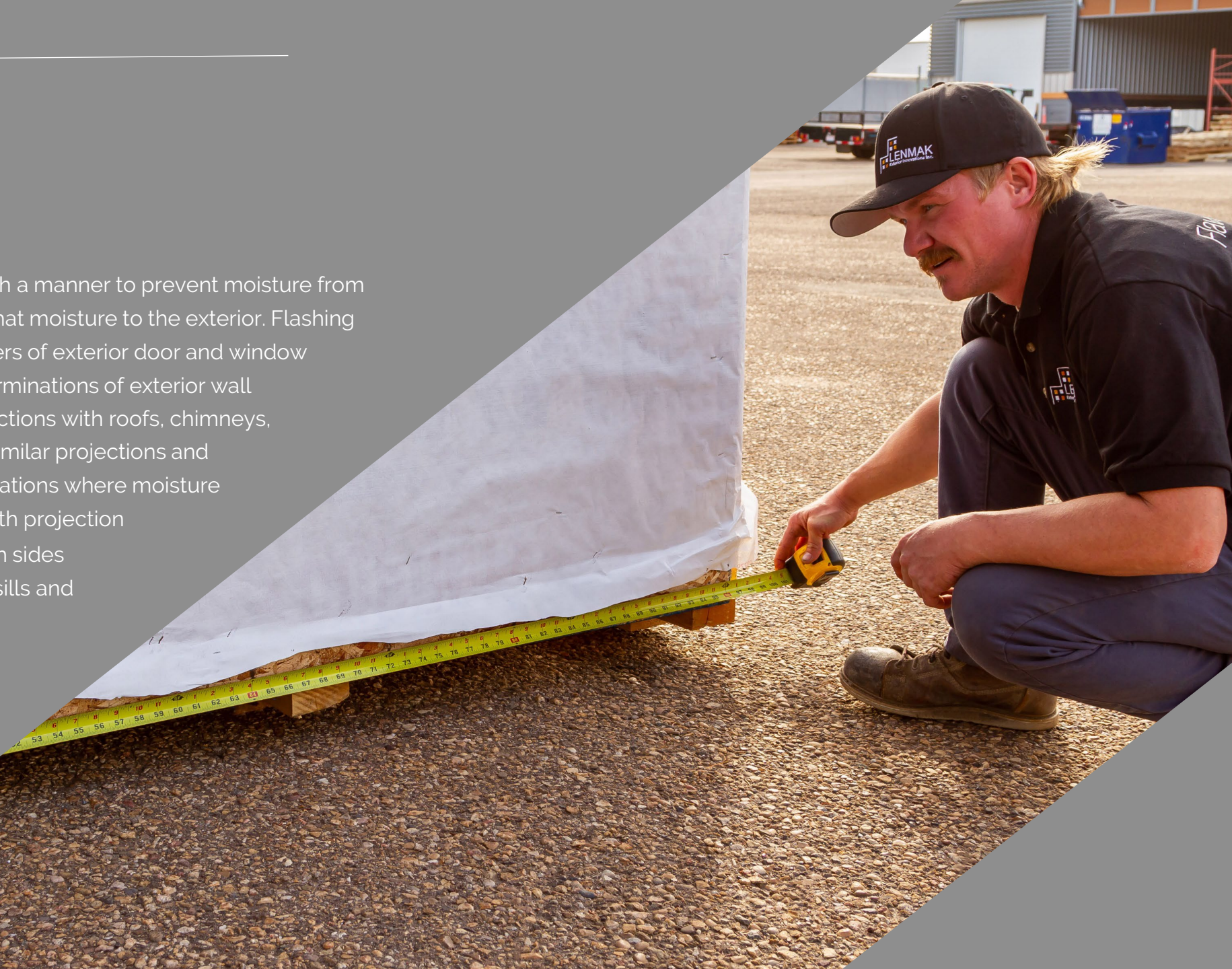
Prior to the installation of ShadowClad, ensure that a water-resistive barrier is installed correctly to the manufacturers' instructions.



Flashing

Flashing shall be installed in such a manner to prevent moisture from entering the wall or to redirect that moisture to the exterior. Flashing shall be installed at the perimeters of exterior door and window assemblies, penetrations and terminations of exterior wall assemblies, exterior wall intersections with roofs, chimneys, porches, decks, balconies and similar projections and at built-in gutters and similar locations where moisture could enter the wall. Flashing with projection flanges shall be installed on both sides and the ends of copings, under sills and continuously above protection trim.

(IBC 2015: 1405.4 Flashing)



1

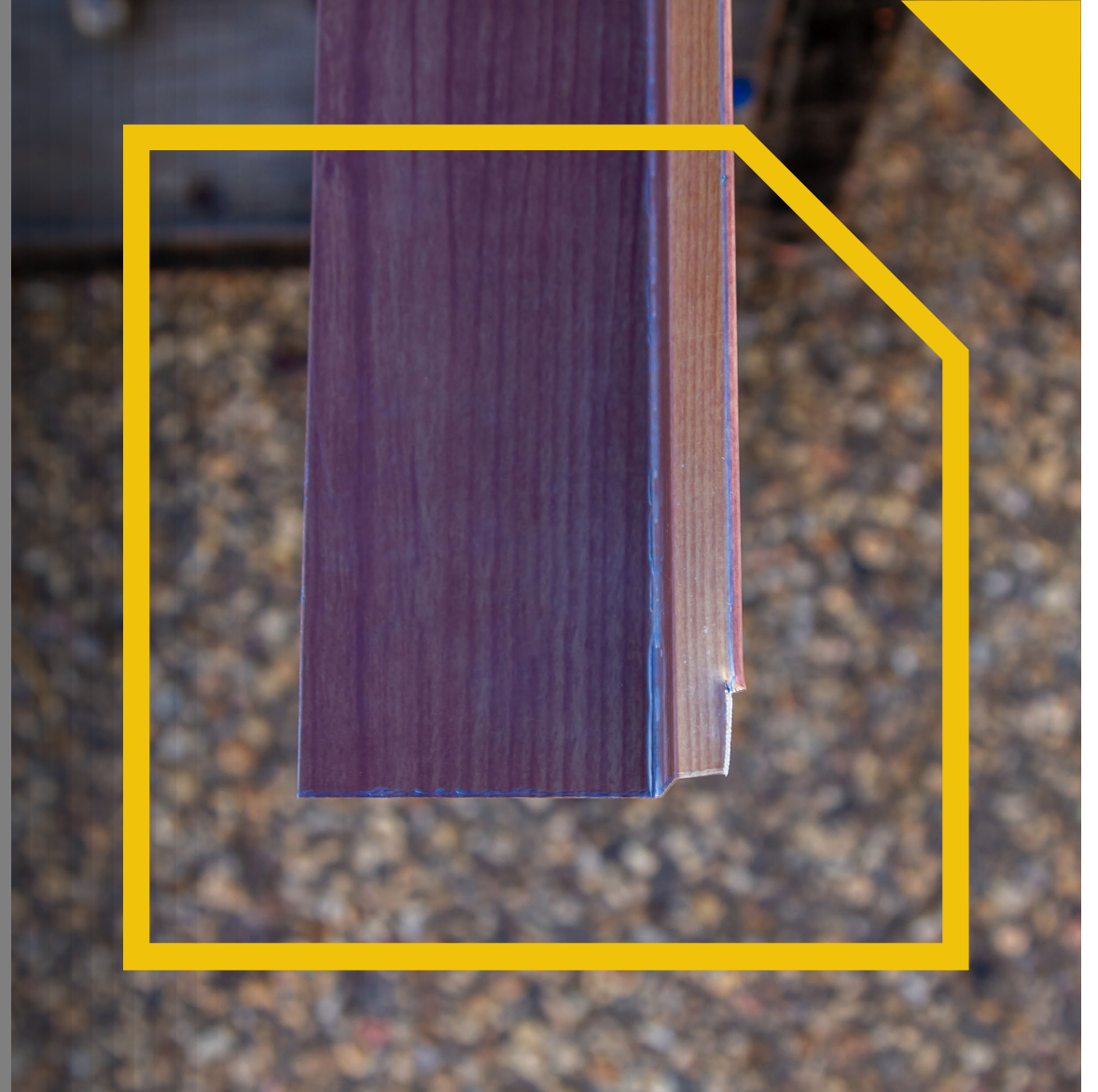


Drip Flashing – Coping.

Prepare the base drip flashing to lap into the next piece by notching the flashing.

Drip Flashing – Coping.

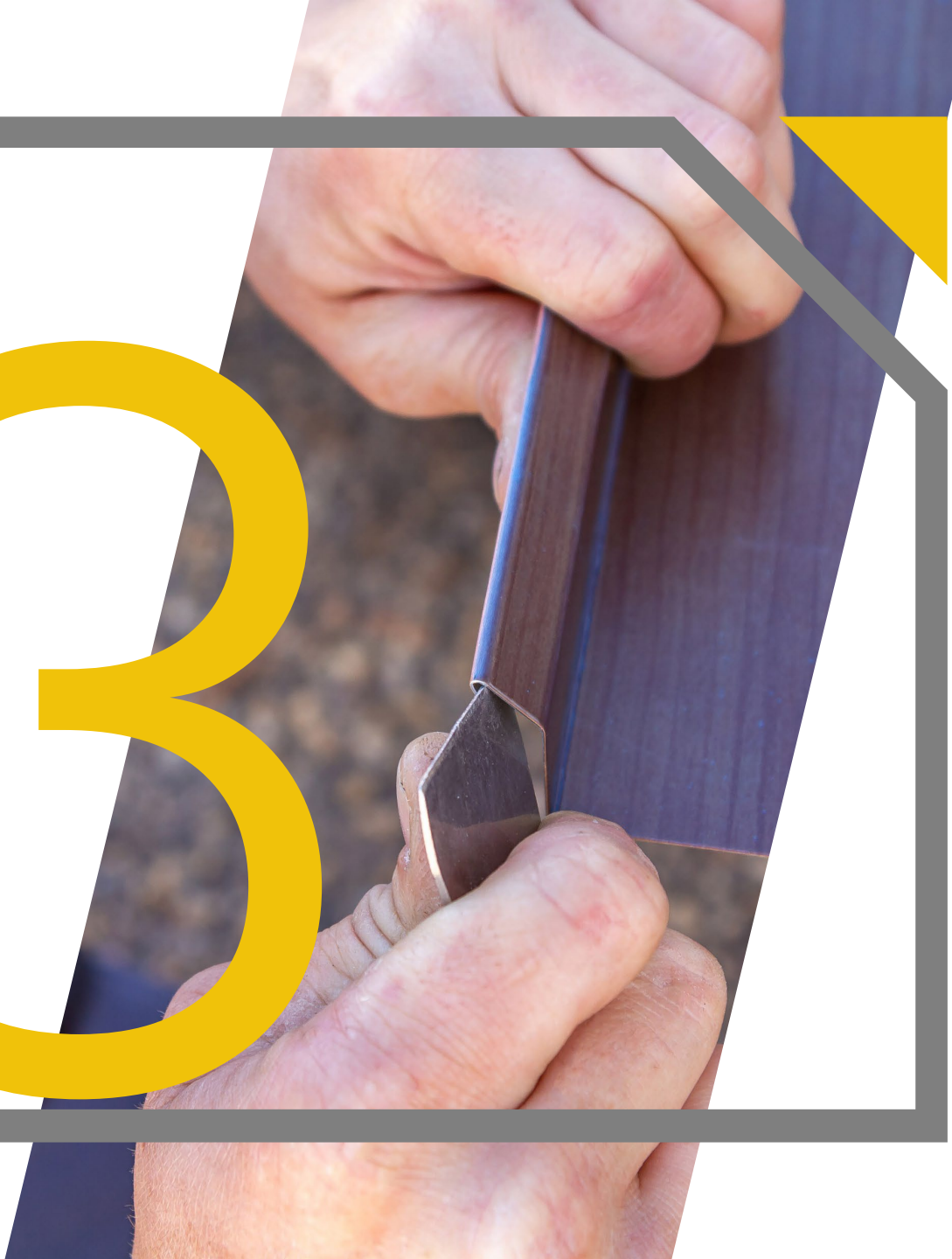
For best practice, use snips or shears to notch the flashing. Abrasive cut off tools should never be used.





Drip Flashing- Lap Joint.

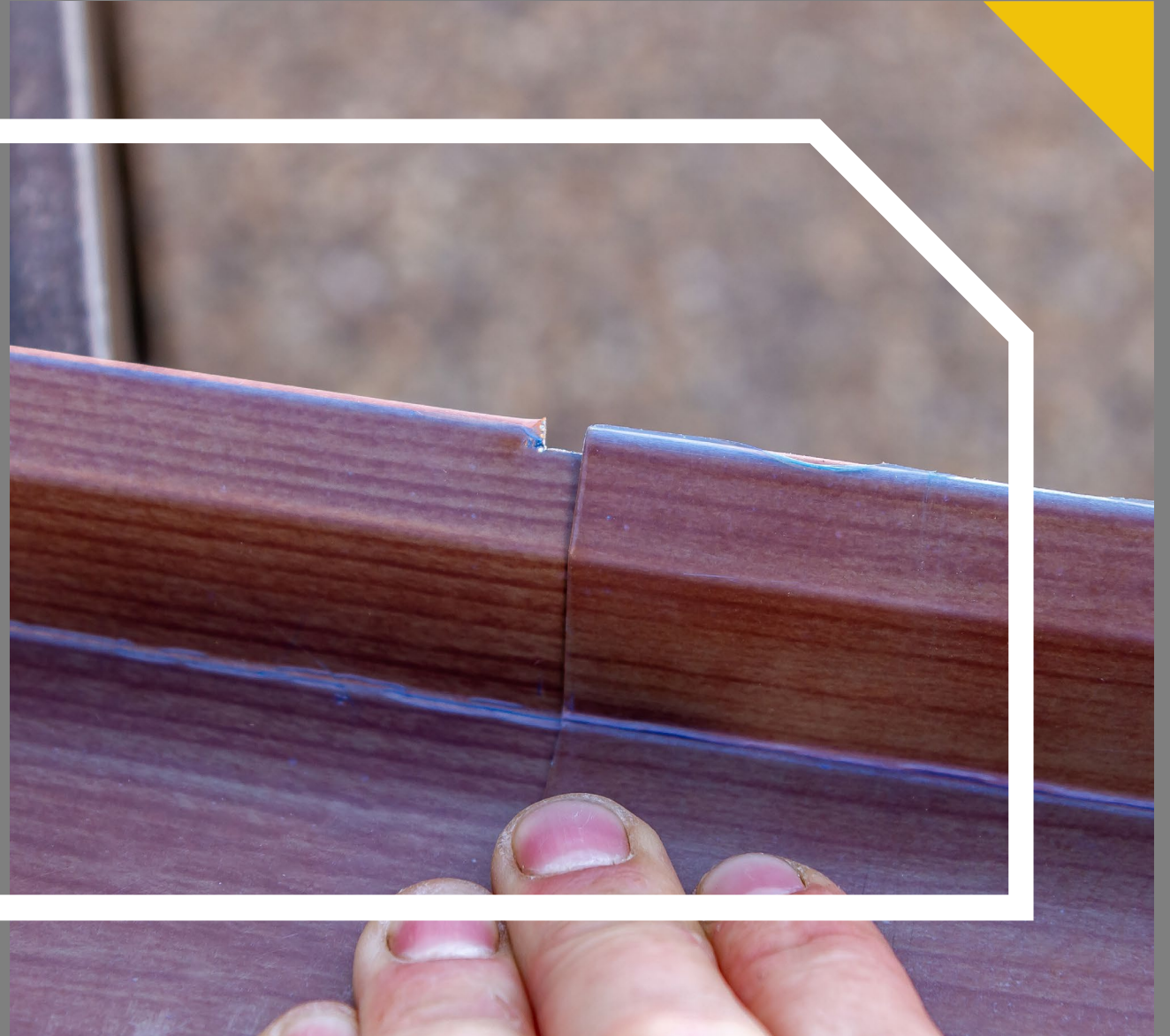
Using a pry tool, open the hem more on the piece to allow it to slide over the trimmed flashing easier.



4

Drip Flashing – Lap Joint.

Slide the notched flashing behind the other drip flashing and into the open hem.





Drip Flashing – Lap Joint.

Using sheet metal pliers, close the open
tight onto the other flashing.

If there is protective film on the
flashing, peel it back before closing
hem with the pliers.



Drip Flashing – Installation.

Secure drip flashing with #8 or larger screws.



Drip Flashing – Corner Transition.

Prep end of drip flashing as previously shown above.





Drip Flashing Corner Transition.

Measure remaining length of the corner including the notch on the previous flashing.



Drip Flashing

Corner TRANSITION

Now take your last measurement and mark out your first line on the nail flange of the drip flashing. Using a speed square, draw a line 45° towards the hem. Draw another 45° line from the hem back towards the nail flange. Then create a line at this end and mark out your centre line.

Drip Flashing

Corner Transition



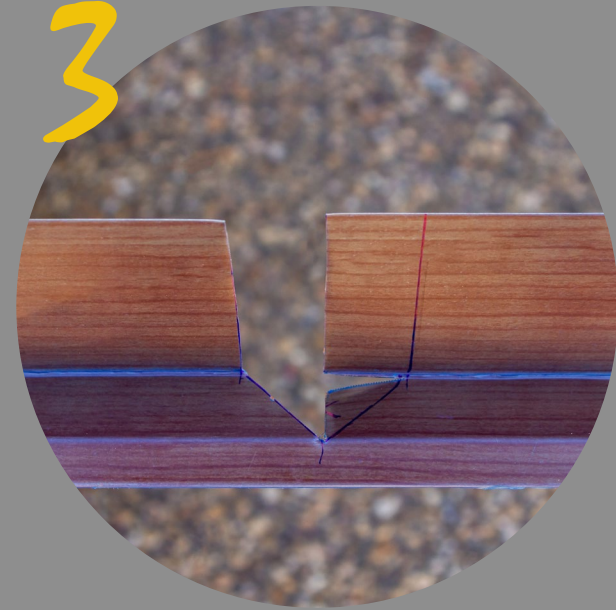
Cut

Cut out one side.



Cut

Cut along 45° line.



Fold

Fold Tabs at remaining lines.



A Step-by-Step Guide to Clamping, Bending, and Securing Drip Flashing



Clamping the Middle Hem

Using sheet metal pliers, clamp down on the hem at your middle mark.



Bending Corner with Squeezed Plier

While squeezing the pliers bend the drip flashing around the corner.



Securing the Nailing Leg

Secure the nailing leg in place with a pancake screw.



Flashing Straightening

Using your sheet metal pliers straighten any uneven parts of the flashing from the corner bend.

DRIP FLASHING

CORNER TRANSITION.

Slide the newly formed corner base drip flashing over your previously notched drip and screw in place. Make sure to lock the hem using sheet metal pliers (as previously shown).





1



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3

DRIP FLASHING

Cover the nailing flange of the
Drip flashing with the existing
Air/Water barrier.



Base Installation

2-piece Corner

Measure

The length from the drip flashing to the underside of the soffit.

Cut

Using snips or a cold cut saw blade. Never use abrasive cut off wheels with metal flashing.



2-PIECE CORNER BASE – INSTALLATION



Secure 2-Piece Corner Base Flashing with screws. Ensure 45° pocket is inline with the corner of the building.



1

Measure and cut 2-piece J-Trim base.

2

Drill a weep hole in bottom of J-Trim base before installing.

3

Secure in place with screws.

LOWER 2PC BASE J -

TRIM INSTALL.

This step is optional depending on the orientation of the ShadowClad panels and if there is a factory edge on the panels at the base of the wall.



Upper 2-piece Base J-Trim Install.

Measure and cut the J-Trim base to length. Any joints in the flashing can be butted together.



A close-up photograph of a window frame with a wood-grain finish. A metal flashing piece is visible at the top corner of the window. The background is a solid yellow color.

WINDOW FLASHING INSTALLATION.



END DAM

UPPER DRIP FLASHING.

1. Measure the width of the window.
2. Cut the drip flashing 2" longer.
3. Notch 1" from the hem on both sides of the drip flashing.
4. Peel back the laminate.

End Dam Prep

Upper Drip Flashing

01

Fold Flat

Using sheet metal pliers, align the front of the pliers to the notch in the hem and fold flat 90 degrees. Using the pliers begin squishing the part of the nailing flange that bent with end dam.



02

Bent and Tap

Squeeze the fold to get it as close to 180 degrees as possible. Using a hammer or mallet, gently tap on the fold to get it to lay completely flat.



INSTALL

UPPER DRIP FLASHING.

Secure the drip flashing above the window and align the end dam with the side of the window.



SECURE THE DRIP FLASHING



ALIGN THE END DAM

SEAL DRIP FLASHING

Install approved vapour barrier over nailing flange of drip flashing and seal with tuck tape.



INSTALL APPROVED VAPOUR BARRIER

INSTALL

Window SIDE FLASHING

Measure the height of the window, add 1" for the end dam and cut the two-piece base using snips.

The base should align with bottom of the window and the top of the end dam. Secure in place with a pancake screw.





UPPER & LOWER WINDOW FLASHING.

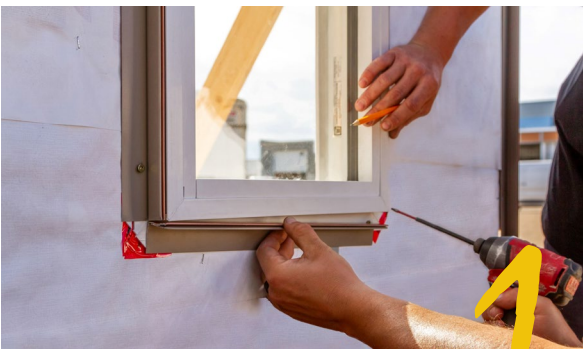
INSTALL

Two-piece Base Flashing.

Measure the distance between the pockets of the two side flashings. Cut the two-piece base flashing to length for above and below the window.



Upper and Lower Window Flashing



Align Lower window flashing (2 piece base) with frame.



Fasten the 2 piece base in place.



Align Upper window flashing with top of the side window flashing.



Secure in place.

Installing Window Detail.



After installing the upper and lower two-piece base flashing, measure the distance for the panel that needs to be notched out for the bottom of the window.



HORIZONTAL PANEL INSTALLATION.

HORIZONTAL

ShadowClad Install

Measure the length of panel from corner base flashing and cut with a none abrasive metal saw or shears .





PANEL INSTALL

For the first row of panels work from the top of the wall down. Screw down the male leg at the top of the panel.



Window Detail Upper Panel.

Prepare and install the panel at the top of window. Depending on how the panel aligns with the top of the window it may need to be notched out.

1. MEASURE HEIGHT OF NOTCH.
2. MEASURE WIDTH OF NOTCH.
3. LEAVE SOME CLEARANCE AROUND THE WINDOW. AS THE TWO-PIECE J WILL COVER CUT.



Window Detail Upper Panel.

When cutting through the female leg of the panel for the notch it's easier to cold cut saw.





WINDOW DETAIL

Using snips cut horizontally down the length of the panel to finish the notch. Save the piece that was notched out, as it will be needed to support the panel during the next step.



INSTALLING

WINDOW DETAILS.

Install the offcut from the notch and use it as a z flashing above the upper window drip flashing and Two Piece J base flashing.

Window Detail



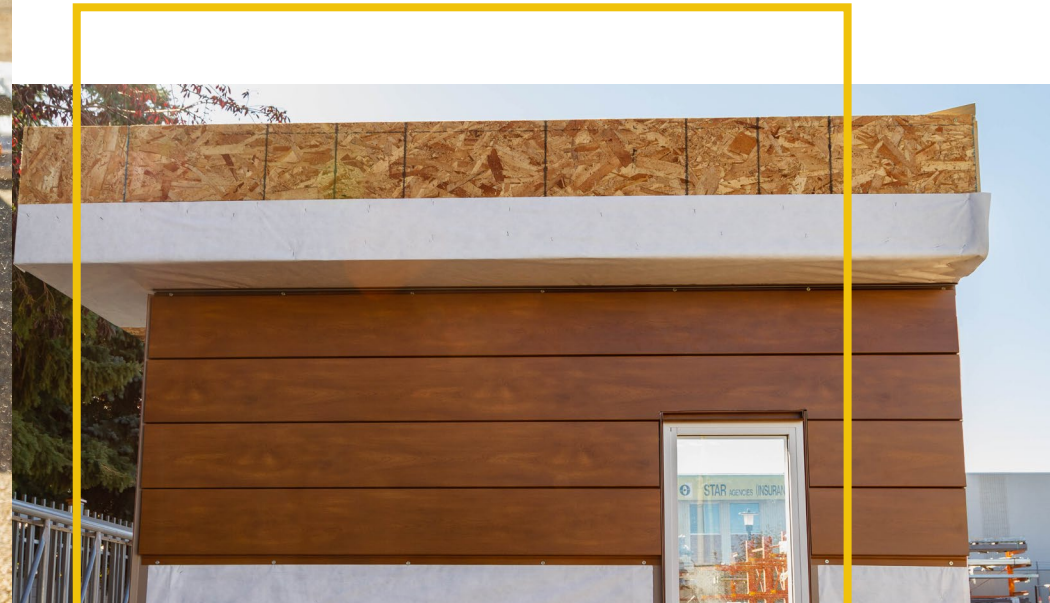
Install the notched panel above the window.
The cut out may supported by a Z-flashing.





PANEL INSTALL HORIZONTAL.

Continue to install panels horizontally down both sides of the window.



Window Caps

Measure and cut out the caps for the window and install from the top down.



Measure the length from each pocket of the upper and lower base flashing. Add two inches to the length of the flashing. Notch 1" from each side of the cap along the back edge. Mitre each end of the cap flashing.



MEASURE AND NOTCH

CAP DETAILS.

Measure the width of the window and add 2" to the length of the cap. Notch the bottom cap as shown in the image so the face can extend 1" past each side of the window.

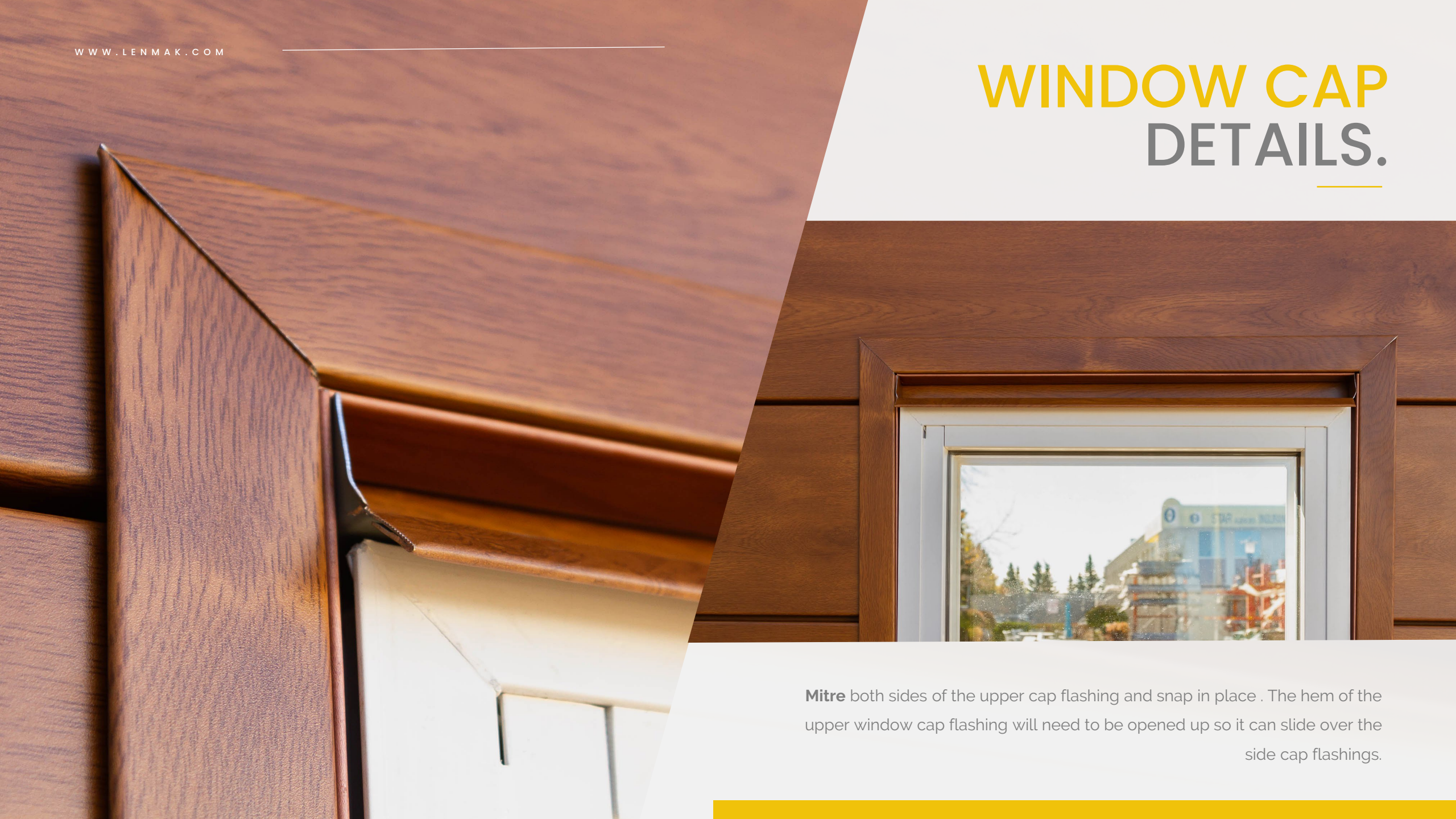




Window Cap Upper Flashing

Repeat the same process as the other caps around the window. Add 2" to the length and notch cap 1" on each end to fit in the pocket. Mitre the bottom face of the side cap flashing.

WINDOW CAP DETAILS.



Mitre both sides of the upper cap flashing and snap in place . The hem of the upper window cap flashing will need to be opened up so it can slide over the side cap flashings.

TWO-PIECE J

TOP FLASHING.

Measure and cut the Two Piece J Top flashing to length. Snap into the Two piece J base and full seat the flashing by tapping on it with a rubber mallet.



INSTALLATION

TWO-PIECE CORNER TOP.

Measure the length of the corner from the top of the upper Two-Piece J trim to the Drip flashing.

Cut to length.



INSTALLATION

TWO-PIECE CORNER TOP.



Align bottom corner of two piece corner cap to bottom of base flashing.



Start to press the corner cap in on bottom corner.



Working your way up corner cap continue to snap in place.



VERTICAL PANEL INSTALLATION.

PREPARATION

FLASHING INSTALLATION.

To install the flashing, refer to the chapter named "Preparation and Flashing Installation" in this guide, and follow the exact same steps and instructions provided starting from page 3.

1. DRIP FLASHING.
2. CORNER TRANSITION.
3. 2-PIECE CORNER AND BASE.





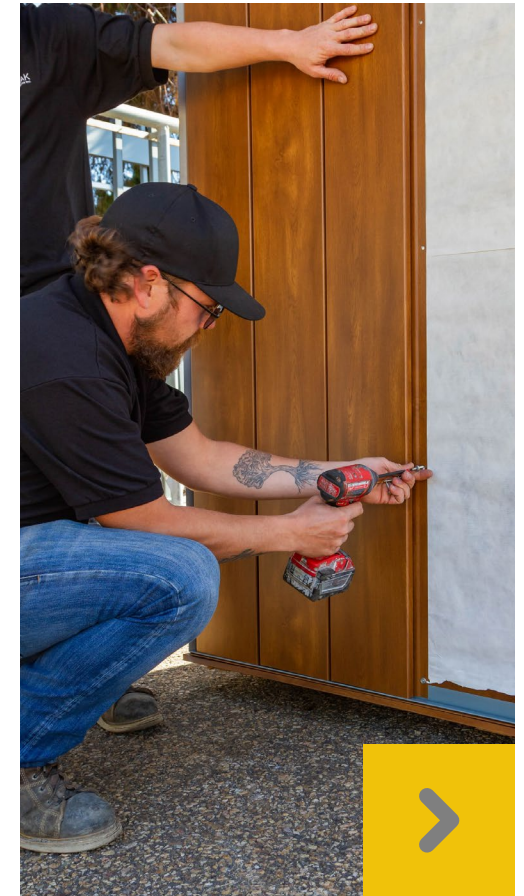
After leveling the first panel secure it in place by screwing in male leg. Then secure the female leg with the pre loaded SlipClip.



Insert the next panel in to the pocket of the Lorem Ipsum previous panel and using shims cut to the correct width of the reveal to maintain the correct gap.



Secure the shimmed panel in place using the preloaded slipclips on the female leg.



Repeat the process for each panel.

ShadowClad Soffit Installation

Measure from corner of wall to the outside corner for the soffit.



Soffit Flashing

Install our Two Piece J base flashing around the inside perimeter of the soffit.



Soffit

FLASHING

Fasten Two-Piece Base flashing using pancake screws. Snip off the overhanging portion of the nailing leg.



MITRE CORNER PREPARATION.

Start with measuring the depth of the soffit before the mitre section. Using a speed square mark out the edge of the wall panel on the soffit.

Measure the run from the outside corner to the marked out line of the wall panel. Save these measurements for the cutting instructions on the next page.



MEASURE LENGTH OF SOFFIT



MARK WALL PANEL LOCATION



LOREM IPSUM DOLOR SIT AMET



FIRST PANEL CUTS.

To start, lock together enough panels to cover the mitre section that are precut to the soffit depth. Markout edge of the wall panel from the previous step and mark the corner of the the soffit. Draw a line from these two points and cut the panels along this line.



Soffit Corner Installation

Save the offcut from the mitred pieces and cut into Z trim. Use these pieces to support cut edges of the soffit panels. Secure in place. Install panel supported by Z trim.

1



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SHADOWCLAD SOFFIT INSTALLATION.



Soffit Installation

Install the remainder of the soffit panels. Use shims to help keep the reveal gap to the correct distance while fastening the panels.

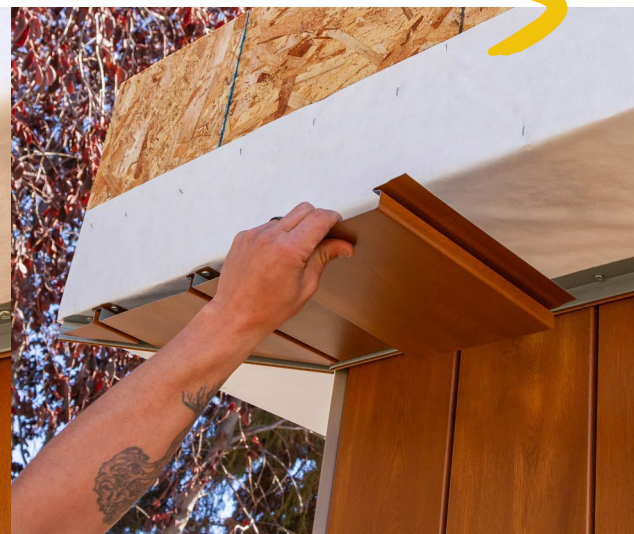
1



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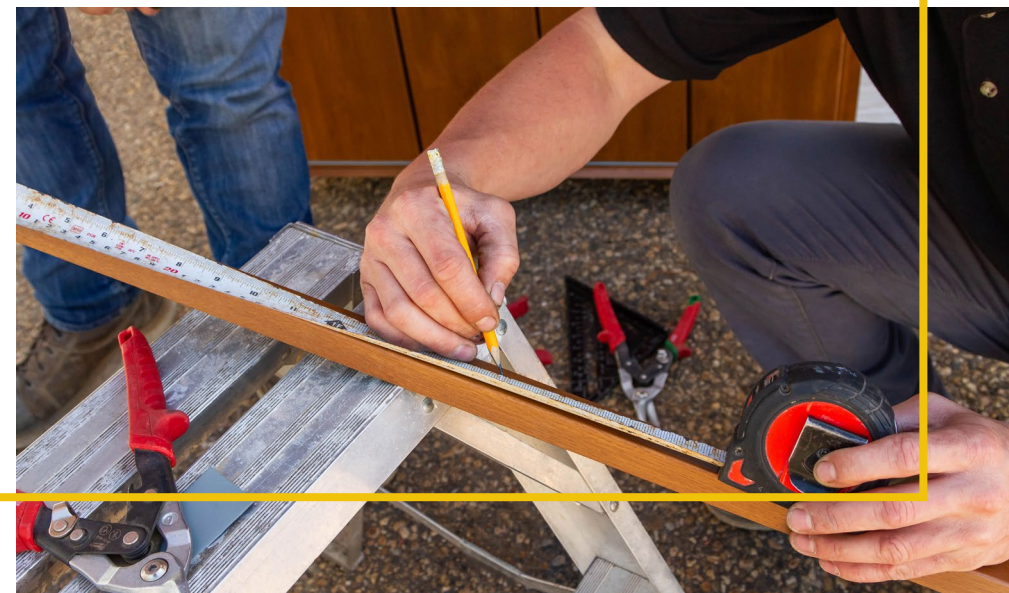
Soffit J-Trim

● Measure

The length of soffit corner base and inside Jtrim base.

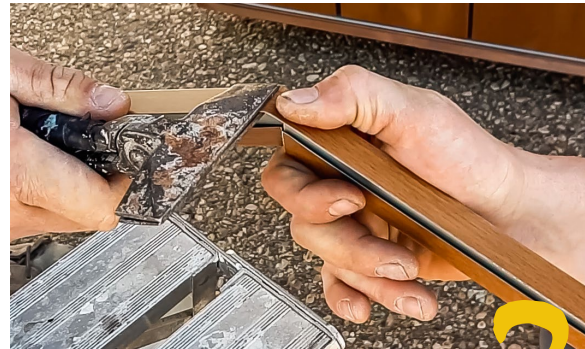
● Mark

The length on the male leg of the J-trim top. Add an extra 1 1/4" to the face of the J-trim top where they meet in the corner.



ShadowClad Soffit Details

Mitre one of two caps to the angle of the corner and open the hem up along the mitre. Trim the other cap to slip inside the mitre at the correct angle. Using sheet metal pliers press the hem back down.



SOFFIT INSTALLATION

SNAP IN PLACE

While keeping both caps
pressed together.



Soffit INSTALLATION

Repeat the process

Continue to install the two-piece J caps in the rest of the two-piece J bases along the soffit.



Drip Flashing

Soffit FASCIA

Measure length of Fascia and mark out a center line on the nail flange of the Soffit/Fascia drip flashing. Using a speed square, draw a line 45° towards the hem. Draw another 45° line from the hem back towards the nail flange. Then create a line at this end and mark out your centre line.



Drip Flashing

Corner Transition



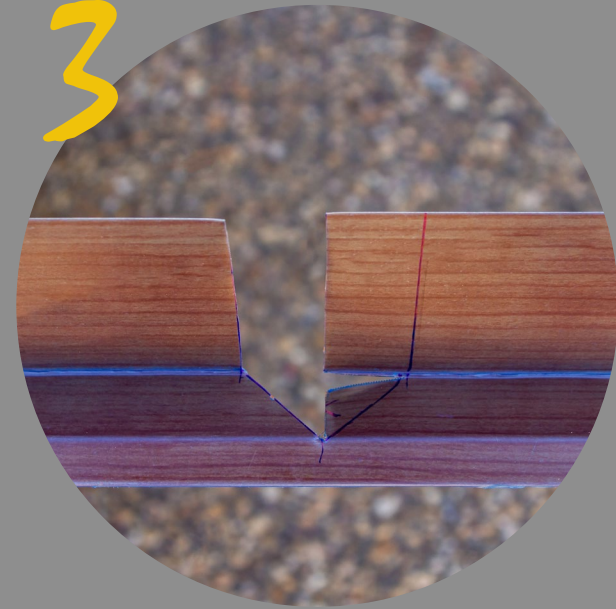
Cut

Cut out one side.



Cut

Cut along 45° line.



Fold

Fold Tabs at remaining lines.

Soffit Fascia Transition

Fasten one side of the flashing with pancake screws. Using pliers grab the edge at the corner point and begin to bend the flashing around the corner. Continue to slowly bend the flashing around the corner. Push the nailing flange tight to the fascia.



ShadowClad Soffit Fascia

After completing the bend and ensuring the bottom of flashing is lapped over self correctly. Fasten the other side to the fascia.



ShadowClad Soffit Fascia



ShadowClad Fascia



Fascia Prep

Install building wrap over the drip edge's nailing leg.

ShadowClad Fascia

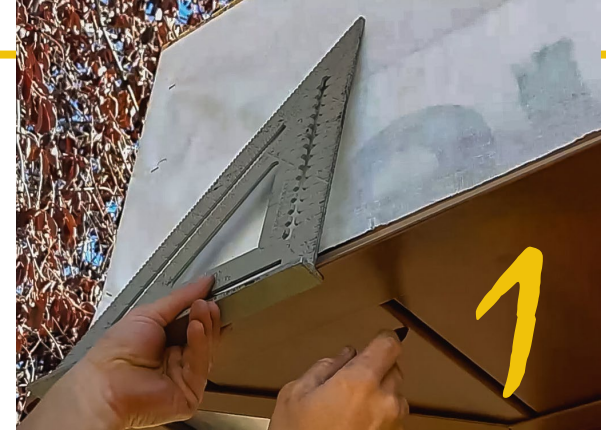
Optional step. Installing two-piece J around the bottom edge of the fascia. Before installing the two piece J base along the drip edge, drill weep holes in the flashing. Install the Two piece base along the perimeter of the drip flashing.



INSTALLATION

ShadowClad Fascia.

Using a speed square mark out both edges of the first full sized panel from the soffit.



Fascia Corner.

Installation

Measure the height of the Fascia from the drip edge to the top of the fascia and cut the Two Piece Corner Flashing to that length.





SHADOWCLAD FASCIA.

Starting Panel Prep

Measure from the two-piece corner flashing to the first panel mark from the previous step. Copy the measurement on the panel face from the female side.





INSTALLATION

SHADOWCLAD FASCIA.

Cut along the mark and save the offcut from the male leg. Install the cut off male leg using it as a z trim to support along the cut of the panel.

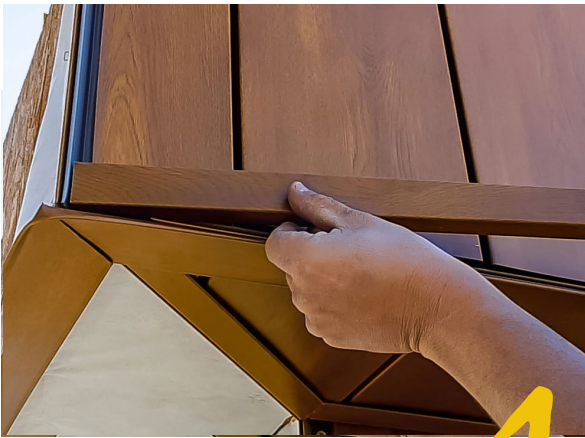
ShadowClad Fascia Installation

Level the cut panel first to begin installing the ShadowClad vertically along the fascia. Use shims in the reveal gaps to maintain the correct distance before fastening each panel.

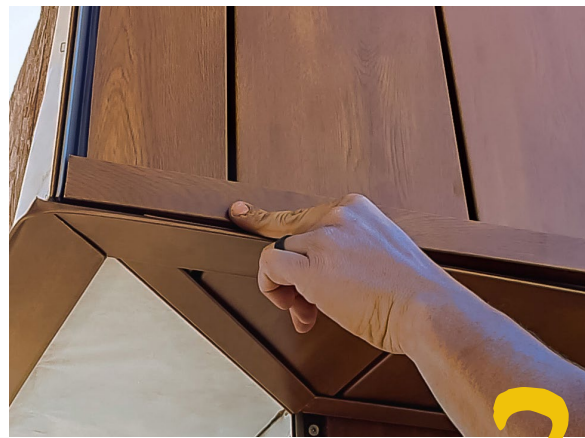


ShadowClad Fascia details

If using the two piece J along the base of the fascia measure the existing base flashing and cut the cap to length. Press the two piece J into the base starting at one side and working your way down. Come back and fully seat the cap with a rubber mallet.



1



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Corner Cap

Finally, install each of your 2 piece corner caps. Start by engaging the Corner Cap in the 2 piece base at one end and work your way along. Once the corner cap is mostly in, use a rubber mallet to fully seat into the base.





ShadowClad

Installation Guide

Get in Touch

We look forward to learning more about your project or custom metal needs.

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