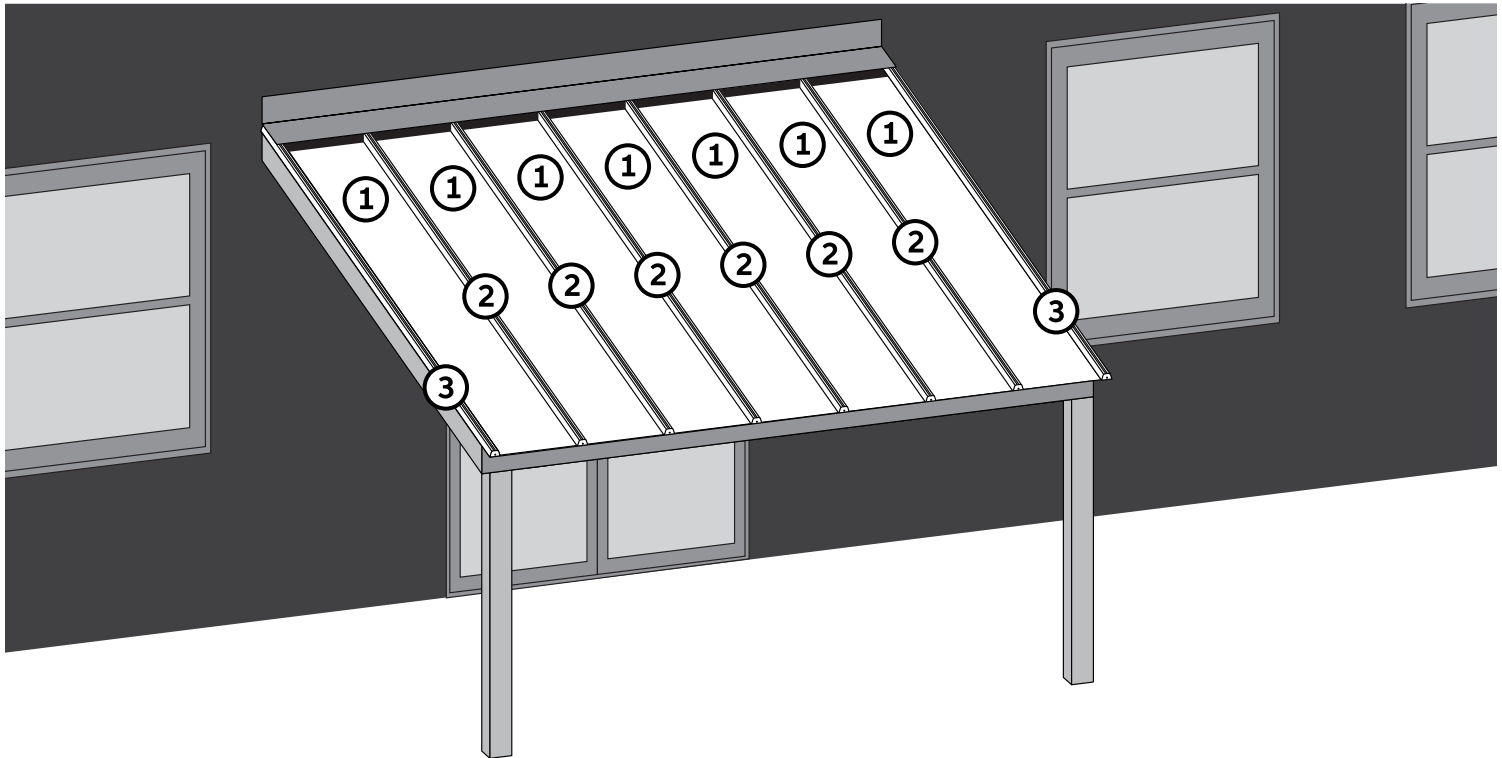# SUNSCAPE® ROOF COVERING SYSTEM INSTALLATION GUIDE

ENGLISH

PALRAM

SUNSCAPE® is a three-part system that is installed on an existing roof structure. Here's how to calculate how many of each part you will need.

(1) SUNSCAPE® Premium Roof Panels
QUANTITY: Width of roof in feet divided by 2

(2) SUNSCAPE® Inner Profile Kits
QUANTITY: Width of roof in feet divided by 2, minus 1

(3) SUNSCAPE® End Profile Kits
QUANTITY: 2 per roof

See numbers on illustration above.

TABLE OF CONTENTS

SYSTEM COMPONENTS

• End Profile Kits

Assembled View

C

B

A

D

E

F

A End Profile Base	**B** End Profile Cap	**C** End Profile Cap Cover

D Profile Closures (top and bottom)	**E** Screws	**F** Panel Gasket
	Fixing Screw for Profile Base	Foam Flashing Strip
	Locking Screw for Profile Cap & Profile Closure	
	Self-Drilling Screw *(for fixing Profile Base to metal rafters or purlins)*	*(SEE PAGE 20)*

* Roof Flashing Not Included – see page 20

SYSTEM COMPONENTS

• Inner Profile Kits

Assembled View

| A | **Inner Profile Base** | B | **Inner Profile Cap** | C | **Inner Profile Cap Cover** |

| D | **Profile Closures (top and bottom)** | E | **Screws** | | **Foam Flashing Strip** |

Fixing Screw for Profile Base

Locking Screw for Profile Cap & Profile Closure

Self-Drilling Screw *(for fixing Profile Base to metal rafters or purlins)*

(SEE PAGE 20)

* Roof Flashing Not Included – see page 20

REQUIRED TOOLS
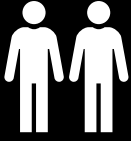
Although the SUNSCAPE® Roof Covering System can be installed by one person, it is much easier to install with a second person to assist.
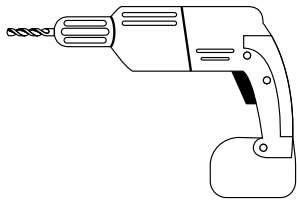
Drill
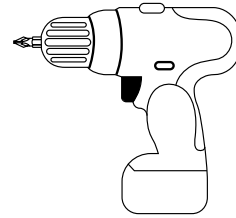
Screw Gun
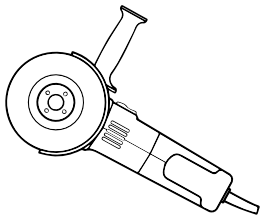
**Angle Grinder
with Cutting Disk for Aluminum**
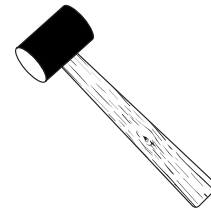
Rubber Mallet
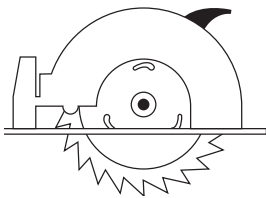
**Circular Saw with
Fine-Tooth Carbide-Tipped Blade**
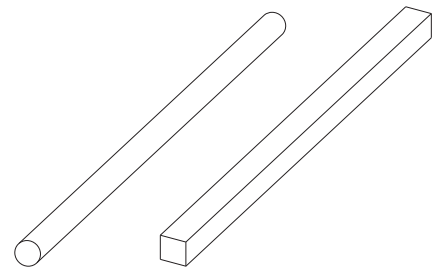
**Profile Spacer Bar
(SEE PAGE 6)**

Hearing Protection

Eye Protection
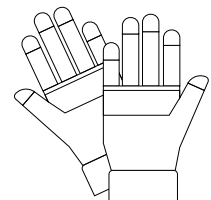
Gloves

IMPORTANT SAFETY NOTICE

⚠️ Always use hearing protection and protective eyewear. Gloves are important, because parts of the SUNSCAPE® Roof Covering System may have sharp edges.

NO
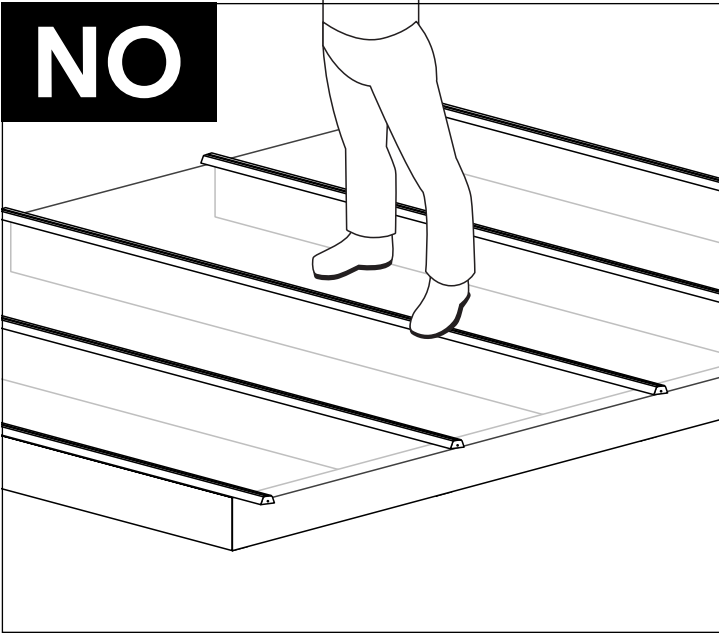
⚠️ **NEVER STEP DIRECTLY ON THE PANELS —** before, during or after installation. Injury and/or damage to the panels could result.

YES
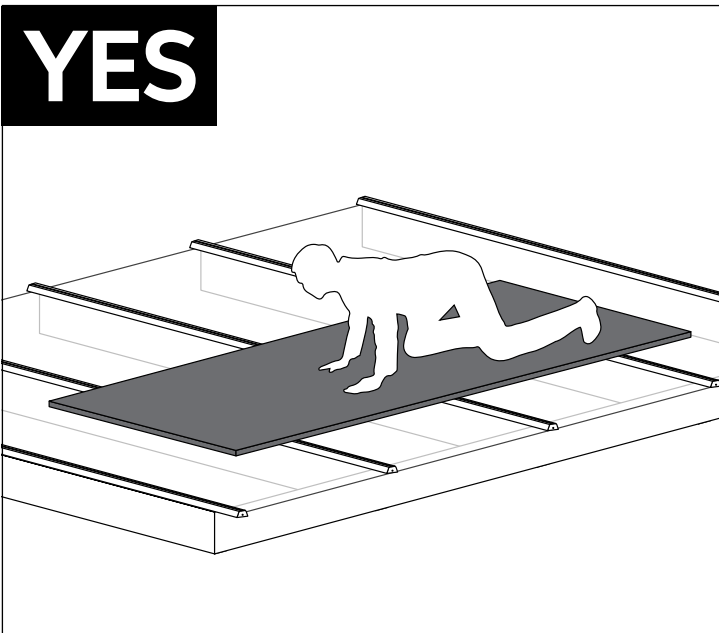
⚠️ If you must access the panel surface during installation, ALWAYS use a slip-resistant crawl board that is fully supported by at least THREE roof structural elements under the panels.

BEFORE INSTALLATION

• Determining Roof Measurements

1a   Measure rafter spacing.

• To install SUNSCAPE® directly on rafters, the inner rafters must be 24" on center.

• If end rafters are less than 24" on center, then the end Roof Panels must be cut to proper width before installation. SEE PAGE 14.

RAFTER SPACING

≤24" 24" 24" 24" ≤24"
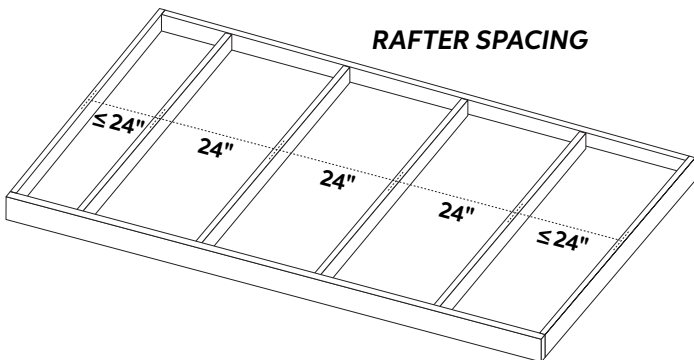
1b   Measure purlin spacing.

• To install SUNSCAPE® directly on purlins, the purlins must be the same distance apart from each other.

• The <u>maximum</u> distance between purlins for SUNSCAPE® is 48".

PURLIN SPACING

≤48" ≤48" ≤48"
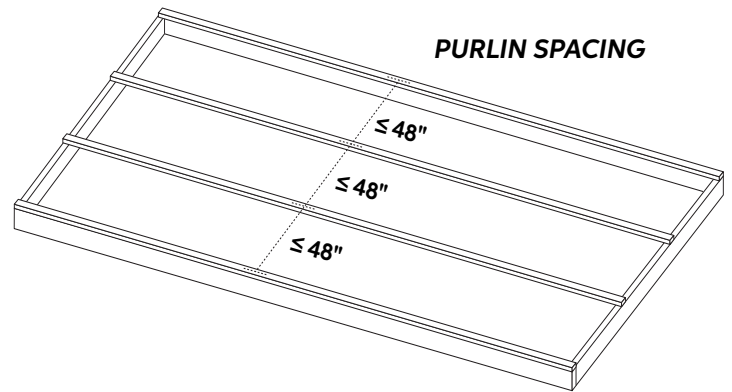
⚠ Ensure that the underlying roof structure is square before starting installation of the SUNSCAPE® Roof Covering System.

💡 **If your rafters are not 24" on center, you have several options.**
- **Add purlins on top of the rafters (simplest option)**
- **Move the rafters so they are 24" on center**
- **Replace the rafters with purlins**

2   Ensure Minimum Roof Pitch.

• Confirm that the roof pitch is at least 0.6/12.

• That's a 6" rise for every 10' run (2.9° or 5% slope).

• This minimum pitch will ensure proper water runoff and help keep the Roof Panels clean.

0.6/12 PITCH   6"

10'
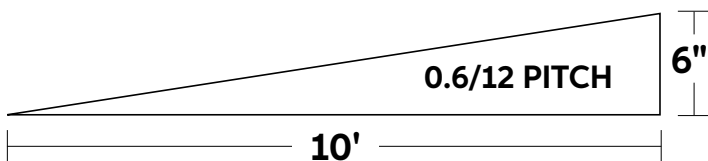
3   Make a Profile Spacer Bar.

• Create a spacer bar as a jig to easily measure the distance between aluminum profiles during installation.

• The spacer bar should be 22-5/8" long.

• Make sure the edges are perfectly square cut.

• Use a dowel, a 1x2, or similar.

• SEE PAGE 10 for spacer bar use.

22-5/8"

PROFILE SPACER BAR
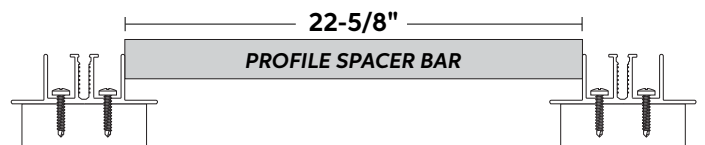
BEFORE INSTALLATION

• Measuring & Cutting Aluminum Profiles

4 **Measure and cut all aluminum Profile Bases, Profile Caps and Profile Cap Covers with an angle grinder to the correct length, if required.**

Here's how to measure the correct length for Profile pieces:

A – Roof overhang (2" min, 8" max)

B – PLUS Length of roof run

EQUALS – Total length of each Profile Base, Profile Cap and Profile Cap Cover

Use an angle grinder to cut each profile component to the exact length required.

• Make sure your cuts are straight (exactly perpendicular to the profile).

• Smooth rough edges with a metal file as needed.

⚠ **Measure twice, cut once!**

⚠ **Always orient the cut edge of each aluminum profile toward the top of the roof.**

CUT EDGE OF PROFILE TOWARD ROOF
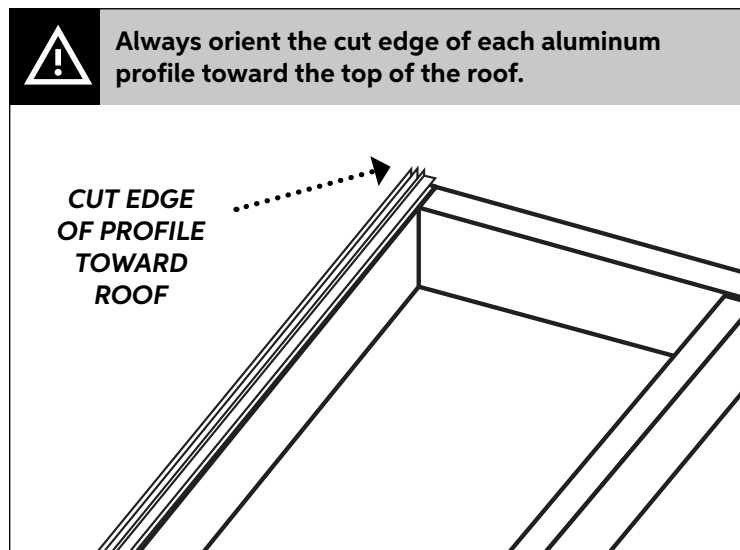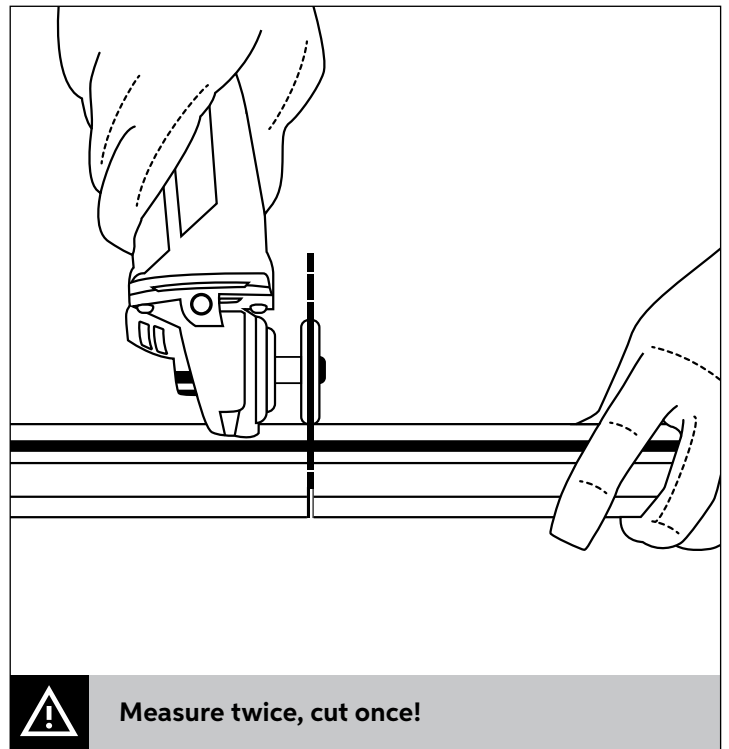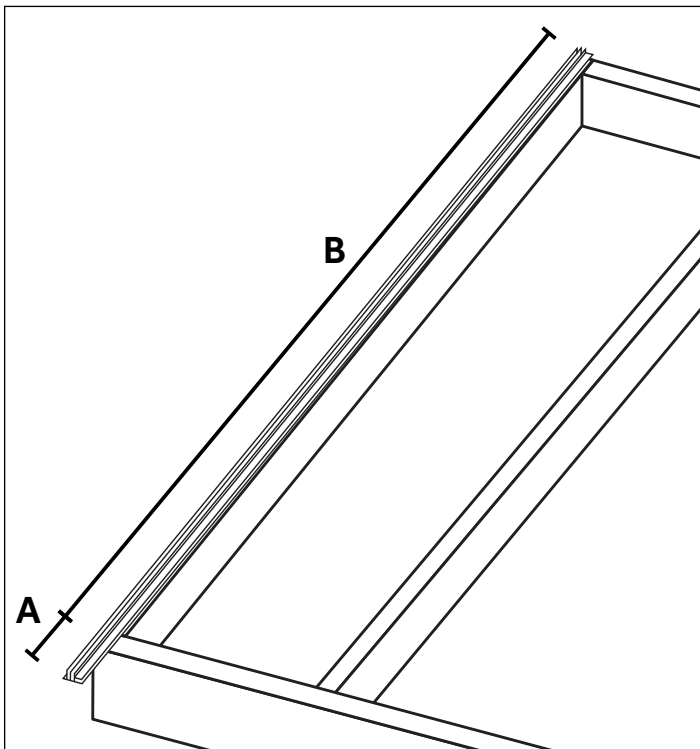
BEFORE INSTALLATION

• Drilling Holes in the Profiles
• Adding Profile Closures

Before drilling holes, place the End Profile Base over a strip of wood.
This will protect the end of the drill bit as it penetrates the End Profile Base.

---

5 Measure, mark and pre-drill 1/4" screw holes in each End Profile Base and Inner Profile Base.

  • Follow the hole spacing guidelines below for rafter or purlin installation to match your roof support structure.

  • Make sure all holes are centered <u>along the notch</u> in the middle of each Profile channel.

End Profile Base

Inner Profile Base

☆ = HOLES/FASTENING POINTS

RAFTER INSTALLATION

WALL

2"

24" max

24" max

24" max

2"

Overhang   2" min

PROFILE
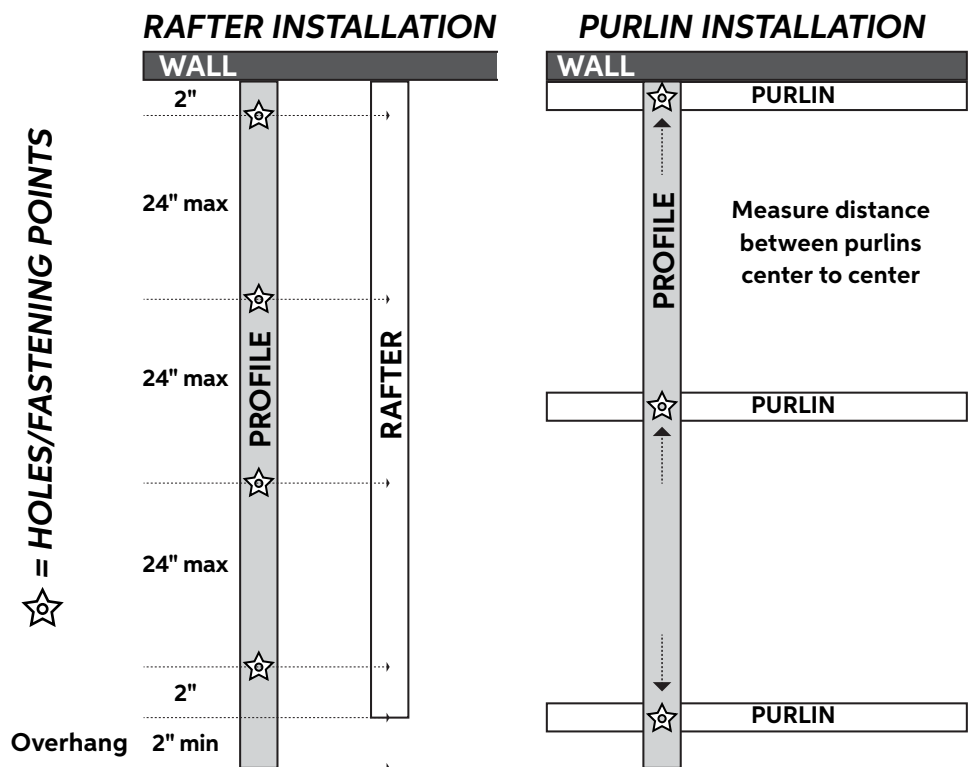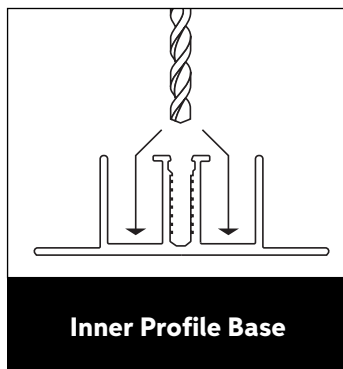
RAFTER

PURLIN INSTALLATION

WALL

PURLIN

Measure distance between purlins center to center

PURLIN

PURLIN

PROFILE

---
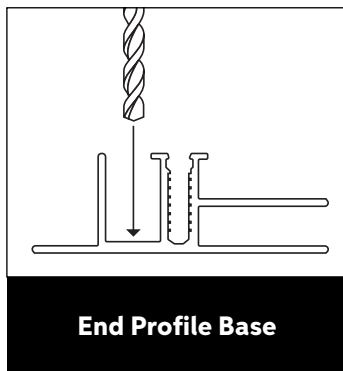
6 Fasten a Profile Closure to the TOP and BOTTOM end of every End Profile Base and Inner Profile Base.

  • The Profile Closure will prevent the Roof Panel from sliding off when the Roof Panel is being installed.

End Profile Closure

Inner Profile Closure
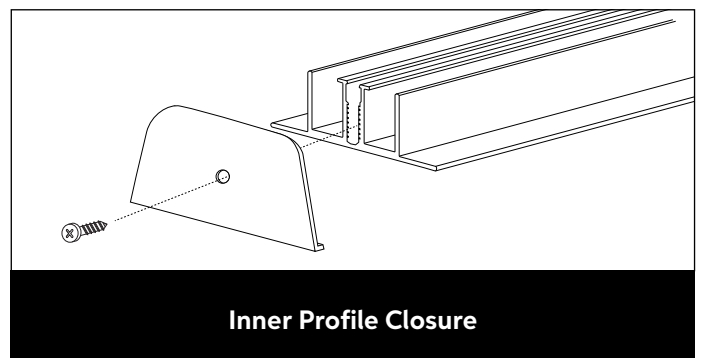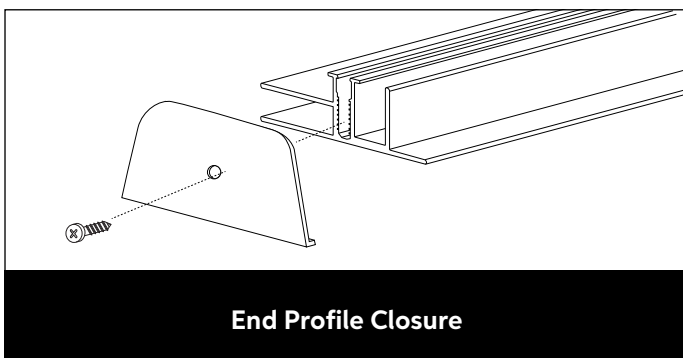
BEFORE INSTALLATION

• Cutting Roof Panels to Length
• Removing the Protective Film

---

7 **Measure and cut all Roof Panels to the correct length, if required.**

• Out of the box, the Roof Panels and Profile parts are already cut to the proper size to fit together.

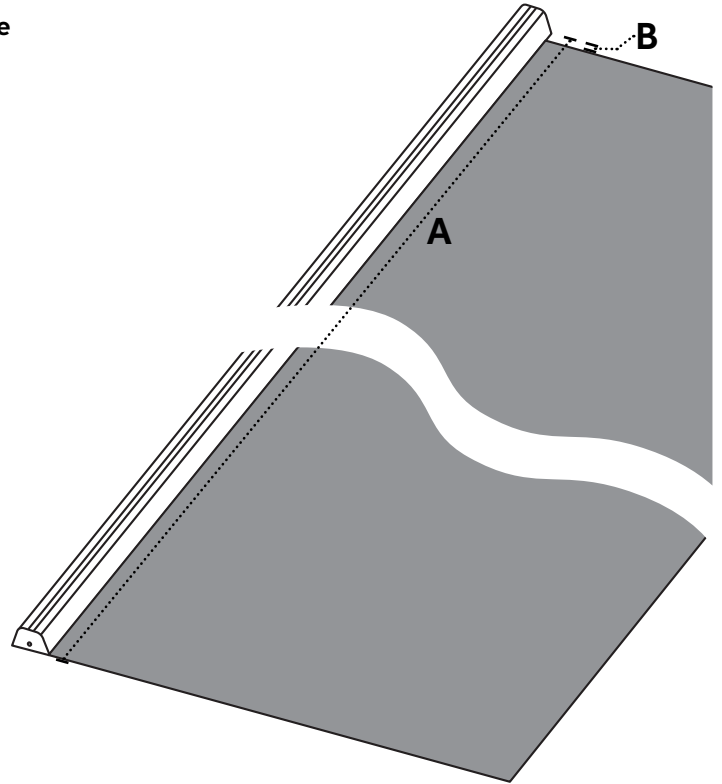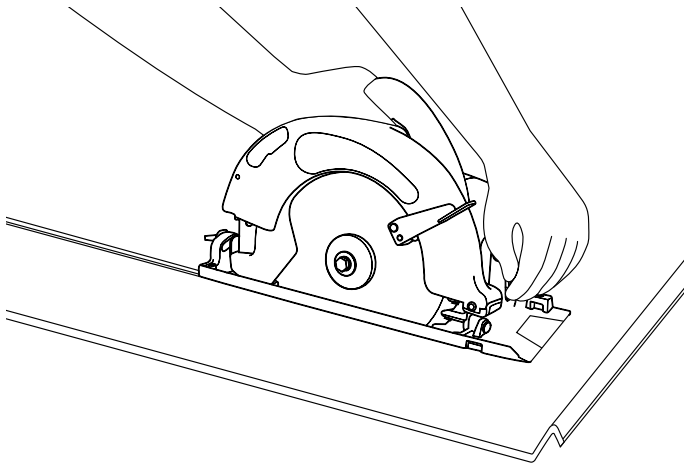• If cutting Roof Panels is required, here's how to measure the proper Roof Panel length:

A – Length of aluminum Profile

B – MINUS 1/8" for every 3' of aluminum Profile

EQUALS – Total length of each Roof Panel

For example, if your aluminum Profile is 9 feet long, then your Roof Panel will be 8 feet, 11-5/8 inch long.
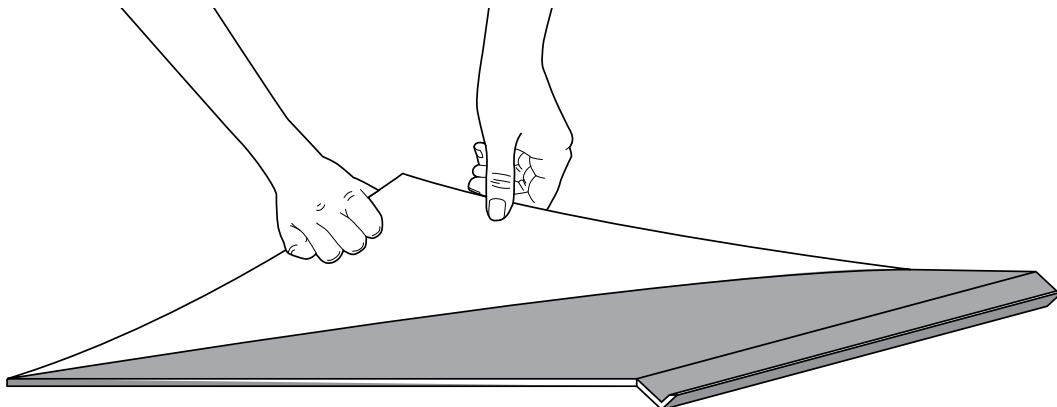
A - B = Roof Panel Length

⚠️ **Roof Panels must be cut shorter than Profiles to allow for panel expansion during hot weather. See the proper calculations above.**

⚠️ **Measure twice, cut once!**

---

8 **Remove the protective film from the BOTTOM of the Roof Panel BEFORE installation.**

• Leave the protective film on TOP of the Roof Panel until AFTER installation. SEE PAGE 13.

INSTALLATION

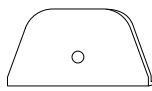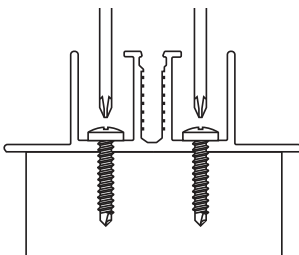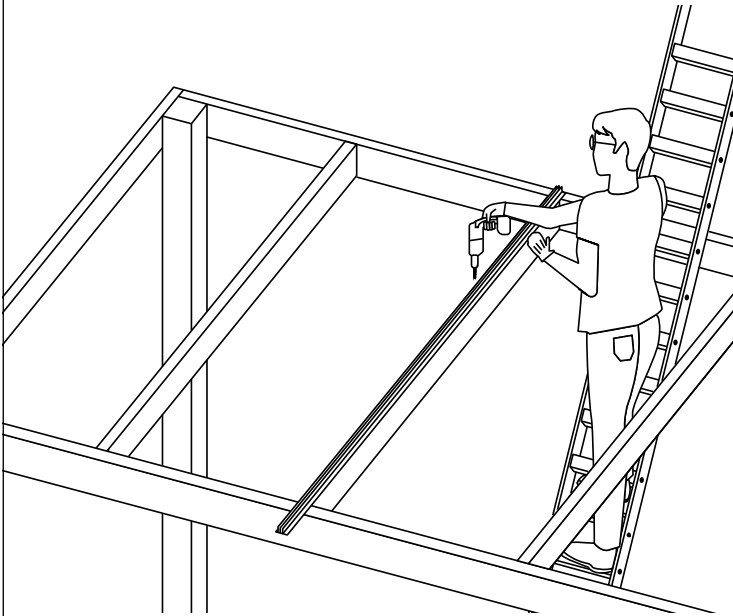## • Installing Inner Profile Bases

⚠ **DO NOT INSTALL MORE THAN TWO INNER PROFILE BASES AT A TIME.** Otherwise, you risk accumulated measurement deviations across the roof.

**1** **Fasten two Inner Profile Bases at or near the center of the roof.**

• Stand between rafters and start at top of roofline.

• Center the profile in the middle of the rafter.

• Fasten screws in pre-drilled holes along the length of the first Inner Profile Base.

• Using the spacer bar at every hole, fasten screws through the pre-drilled holes along the second Inner Profile Base.
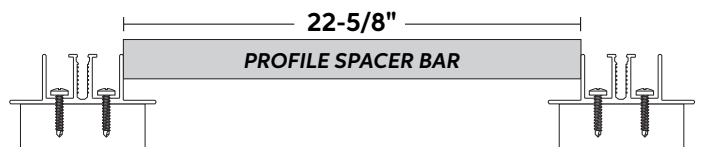
Fasten FIRST Inner Profile Base.

NOTE: PROFILE CLOSURE NOT SHOWN IN DRAWING

Fasten SECOND Inner Profile Base.
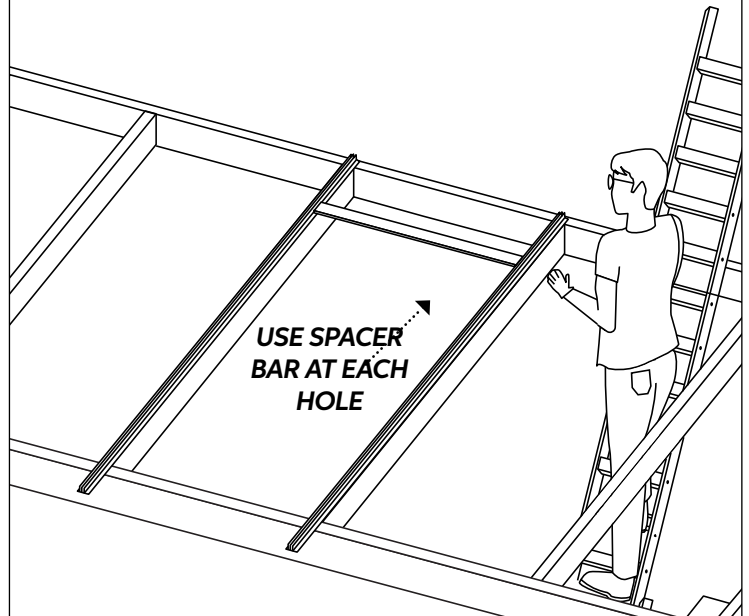
USE SPACER BAR AT EACH HOLE

22-5/8"

PROFILE SPACER BAR

⚠ If your rafters or purlins are made of metal instead of wood, use the included self-drilling screws to attach the Profiles.

⚠ Be sure that the overhang length is exactly the same for all Profile Bases.
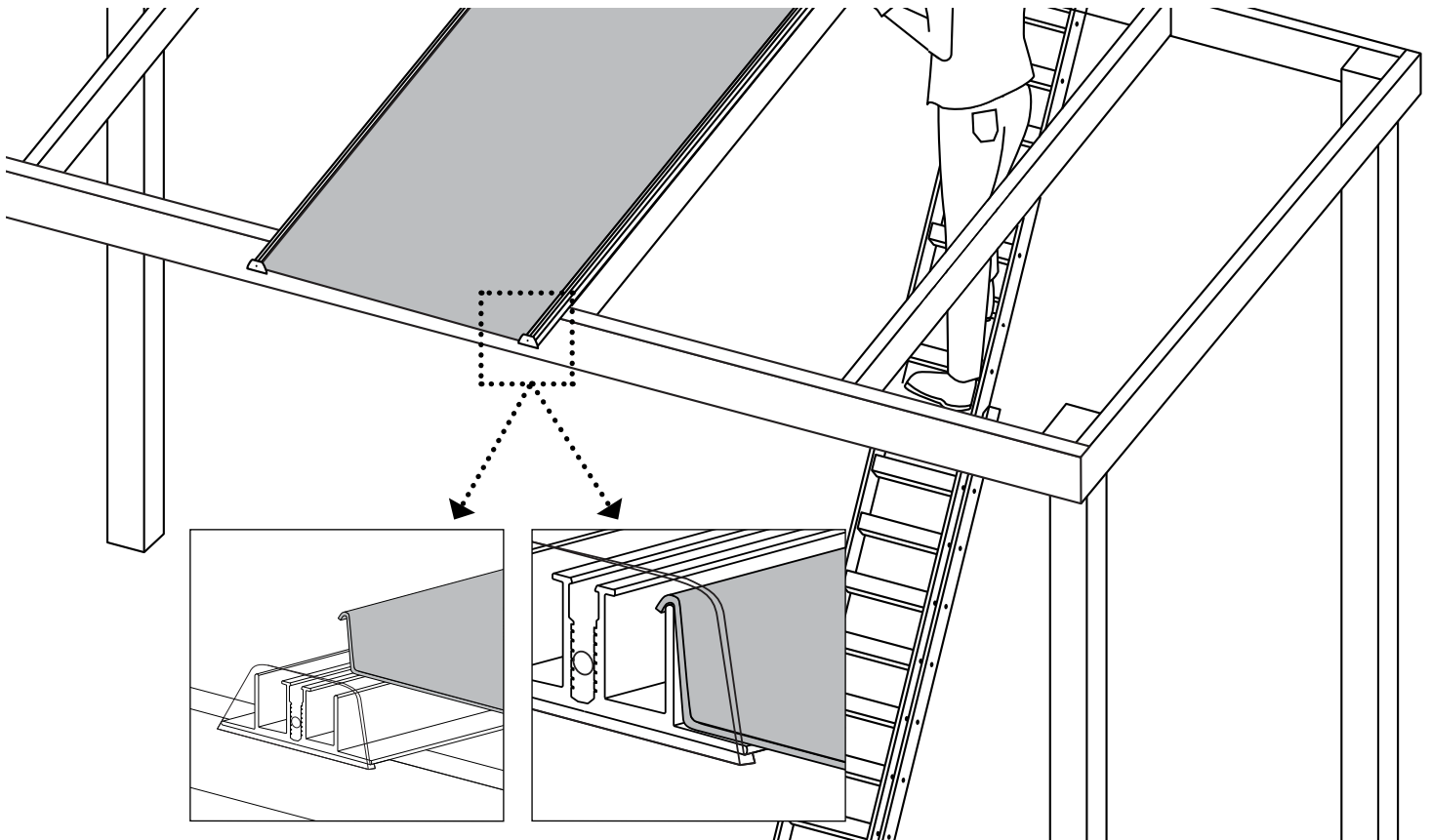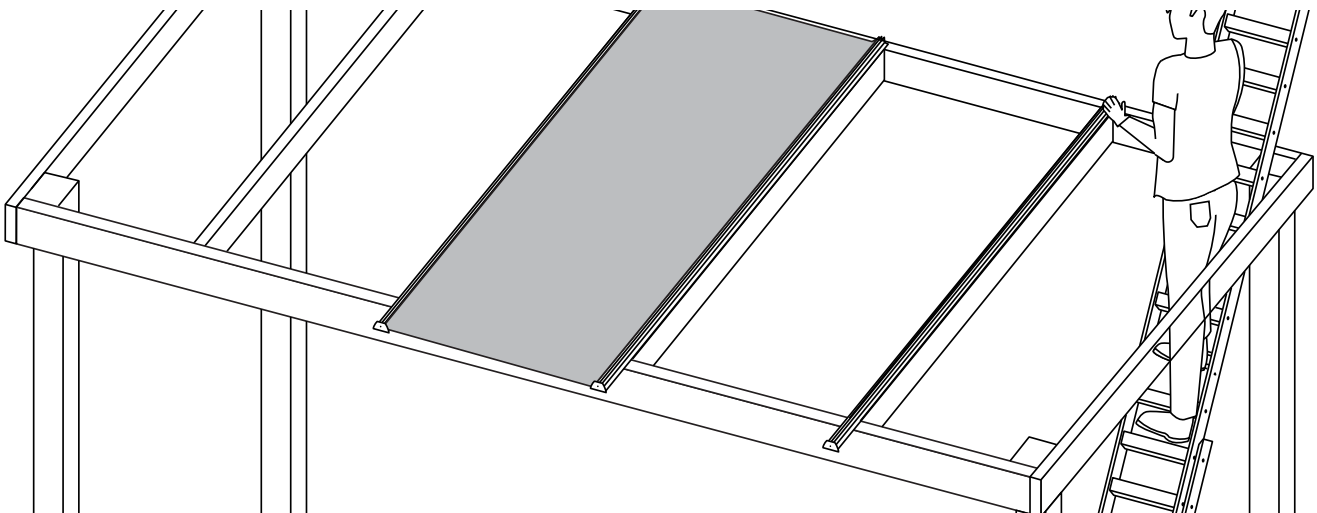
INSTALLATION

• Installing the First Roof Panel

After the first two Inner Profile Bases are attached, it is time to install the first Roof Panel.

2 **Place the first (uncut) Roof Panel between the two installed Inner Profiles Bases.**

• Make sure the raised edges of the Roof Panel are seated along the length of both Inner Profile Bases.

3 **Add the third Inner Profiles Base.**

INSTALLATION

• Installing Inner Profile Caps

⚠️ **Before fastening, align the Inner Profile Cap with end End Closure.**

4 **After two adjacent Roof Panels are in place, install an Inner Profile Cap over the Inner Profile Base between them. This will secure down two adjacent Roof Panel edges.**

• Start fastening the Inner Profile Cap at the bottom of the roof line, and work toward the top.

• Add another Inner Profile Cap in between every two new panels.

Inner Profile Cap

FASTEN THE INNER PROFILE CAP TO THE INNER PROFILE BASE USING THE LOCKING SCREWS
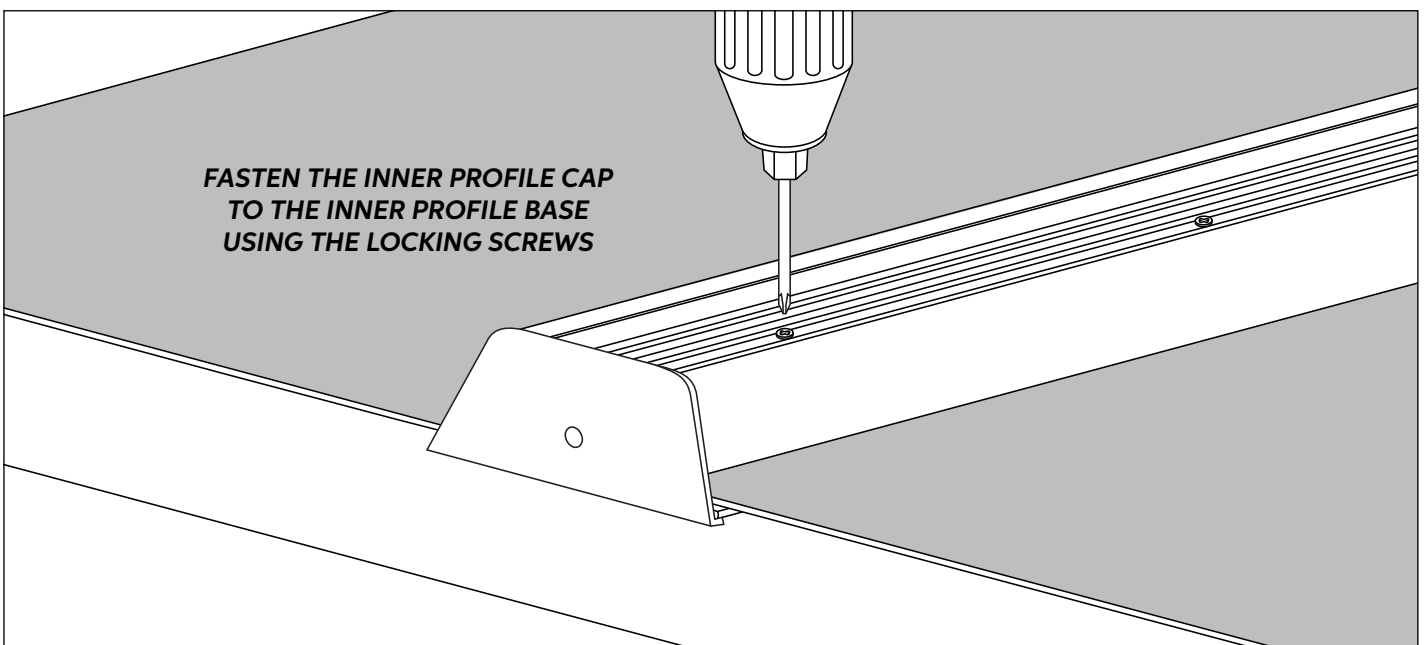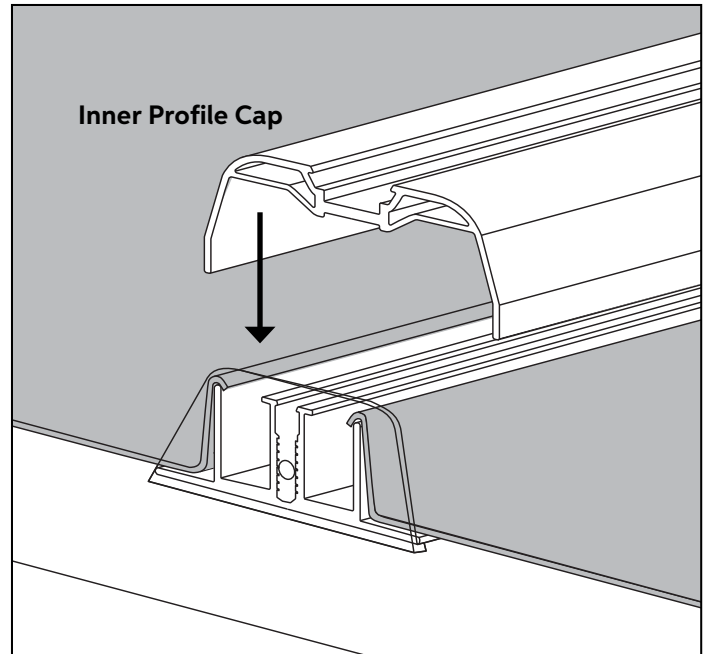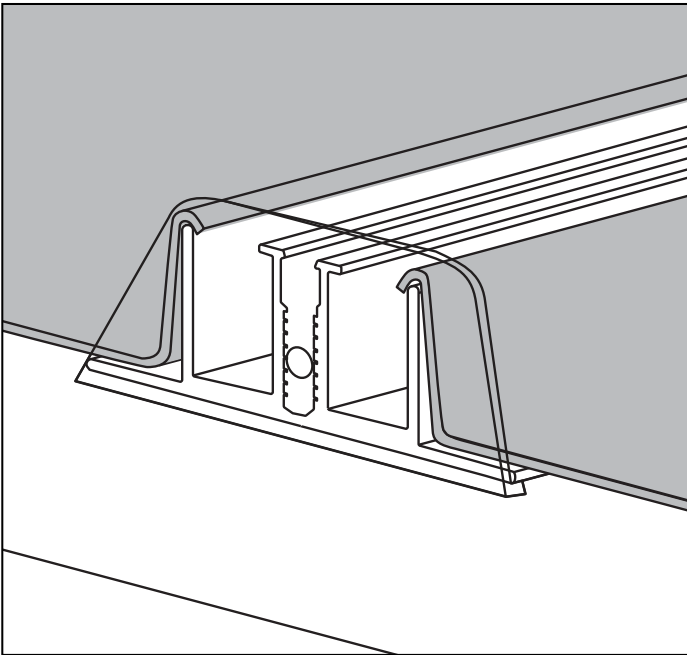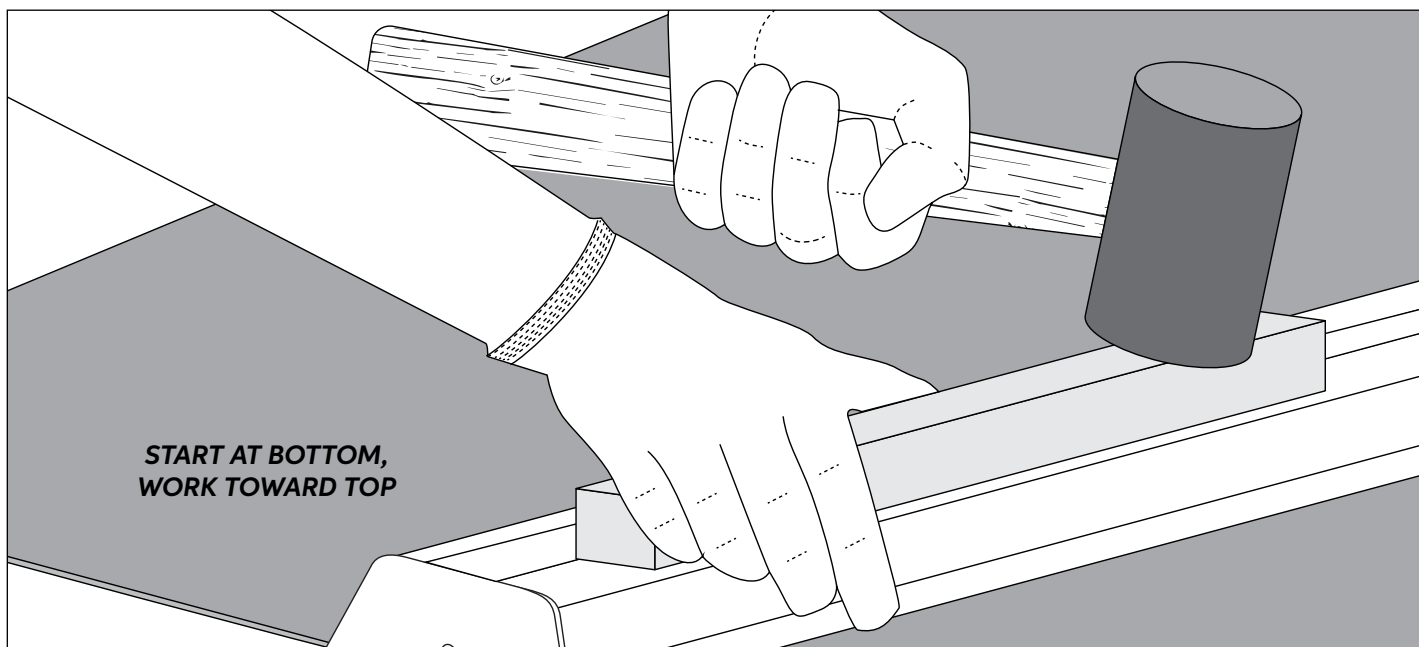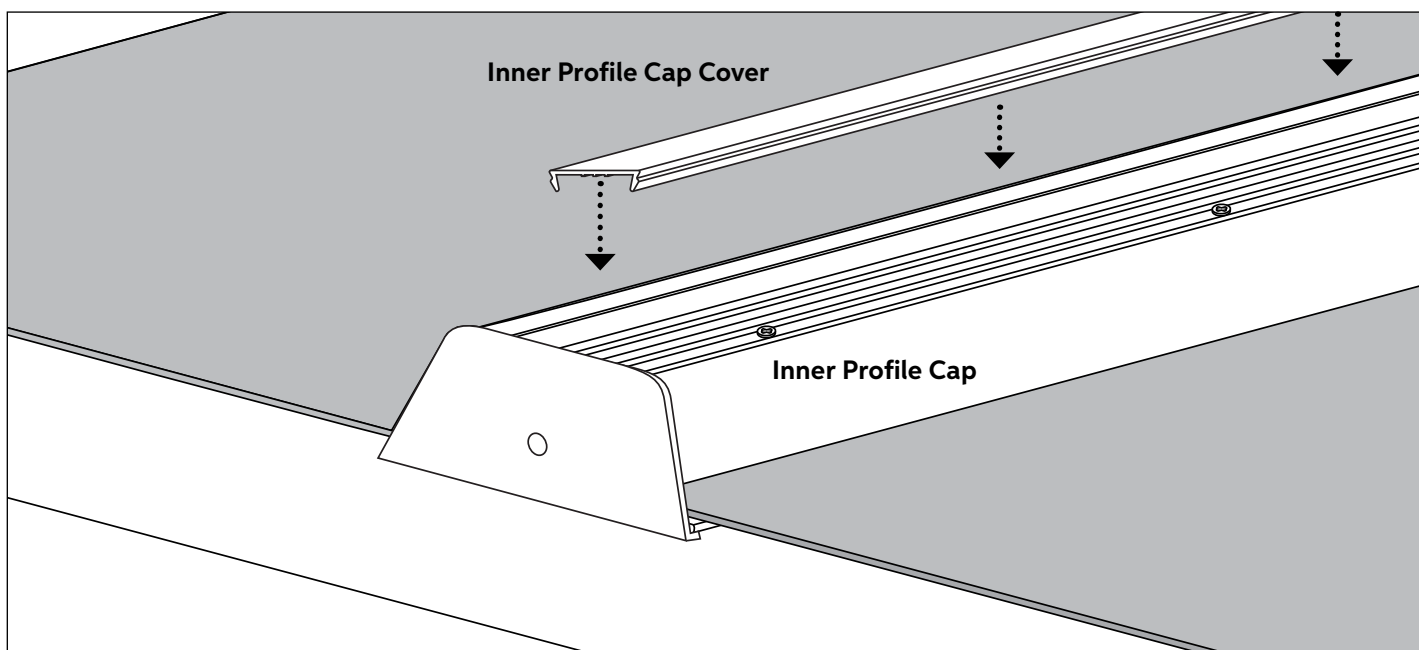
INSTALLATION

• Installing Inner Profile Cap Covers

⚠ **THE INNER PROFILE CAP MUST BE FULLY FASTENED BEFORE ADDING THE CAP COVER. It is very difficult to remove the Inner Profile Cap Cover after installation.**

5 **Install the Inner Profile Cap Cover by GENTLY tapping it into place with a rubber mallet.**

• Use a piece of wood to disperse the impact of the mallet and avoid damage to the Profile pieces.

• Start at the bottom of the roof line and work toward the top.

• Remove the protective film after each Roof Panel is fully installed and secured.

Inner Profile Cap Cover

Inner Profile Cap

START AT BOTTOM, WORK TOWARD TOP

INSTALLATION

• Measuring/Cutting Roof Panels for Left/Right Side of Roof
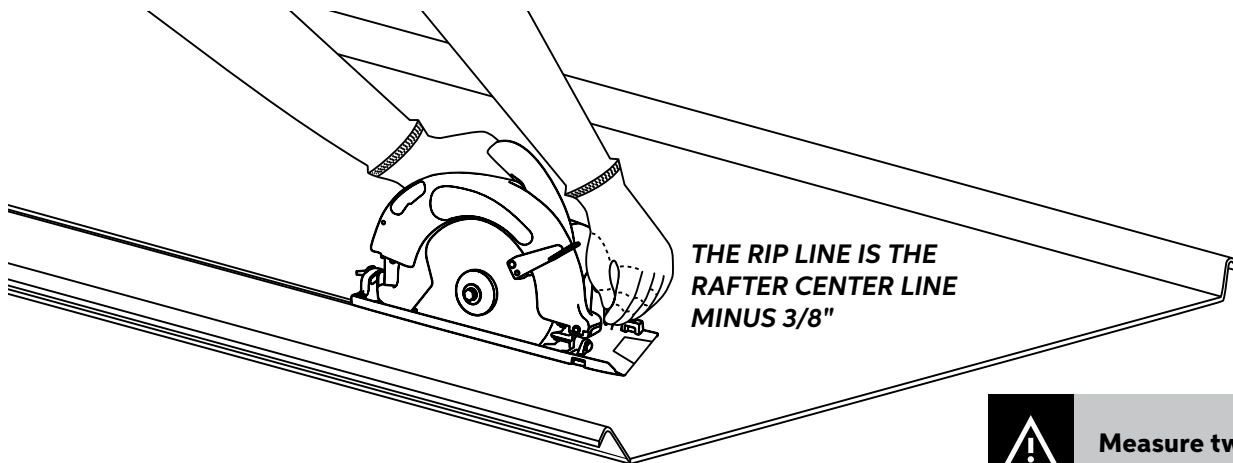
⚠️ **IF YOU <u>DO NOT</u> NEED TO RIP CUT YOUR FINAL TWO ROOF PANELS, SKIP TO PAGE 17.**

You will rip cut the final left and right Roof Panels to fit (if required) BEFORE you install the End Profile Bases. See below.

---

1 Set the uncut end Roof Panel in place. On the Roof Panel, note the center line of the end rafter. Then subtract 3/8" and mark that as your rip line along the Roof Panel.
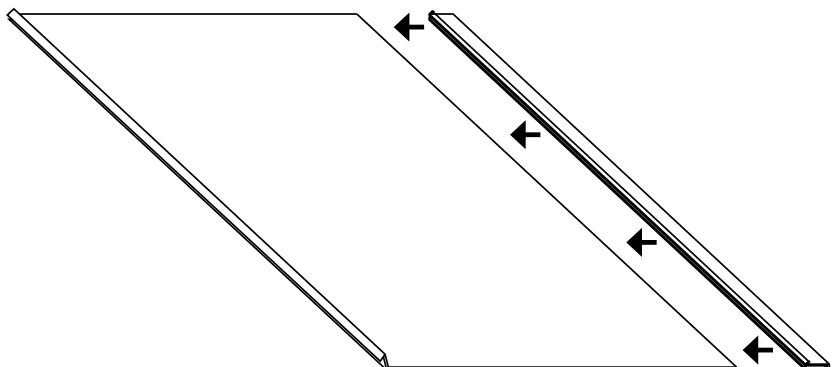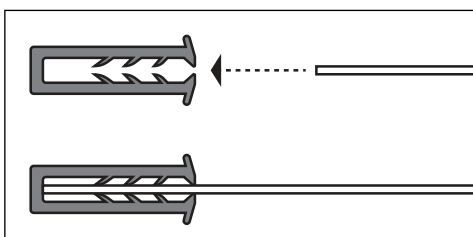
CENTER LINE
MINUS 3/8"

END RAFTER

NOTE: PROFILE CLOSURE NOT SHOWN IN DRAWING

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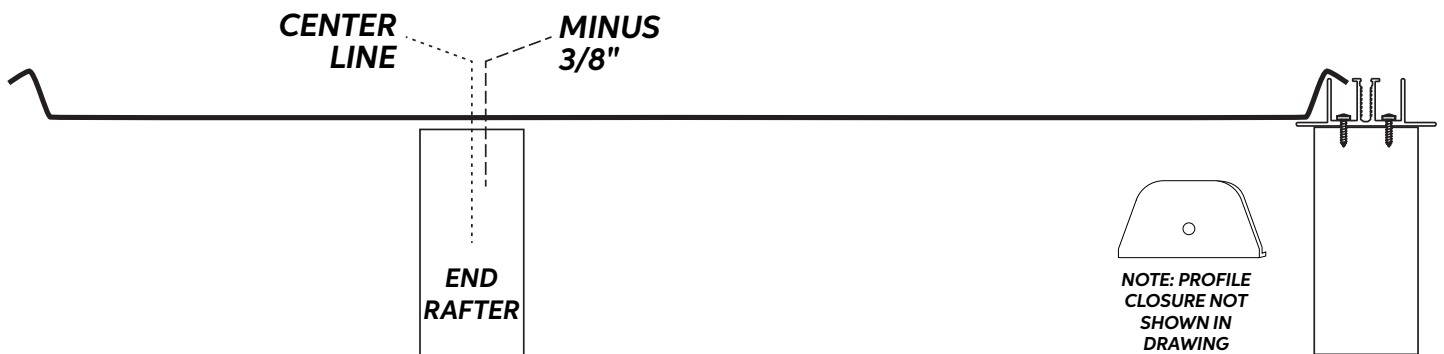
2 Bring the sheet to the ground. Cut the Roof Panel along the rip line.

THE RIP LINE IS THE RAFTER CENTER LINE MINUS 3/8"

⚠️ **Measure twice, cut once!**

---

3 Cut the Panel Gasket to the length of the Roof Panel (if needed). Then add the cut Panel Gasket to the cut edge of the Roof Panel.

INSTALLATION

• Installing End Profile Bases with CUT Roof Panels

**4** **Still on the ground, insert the Panel Gasket and Roof Panel into the End Profile Base.**

• Gently tap the End Profile Base with a rubber mallet to fully seat the Panel Gasket.

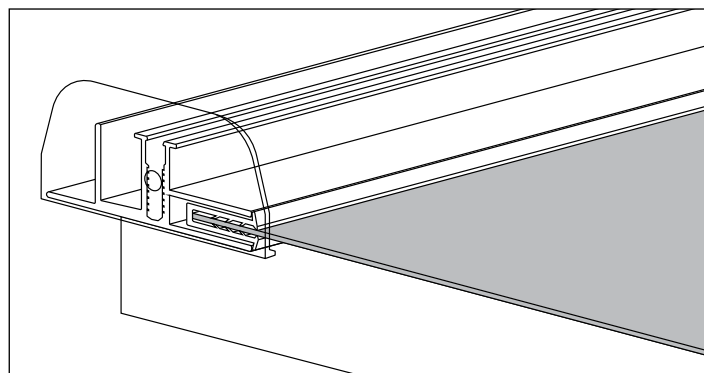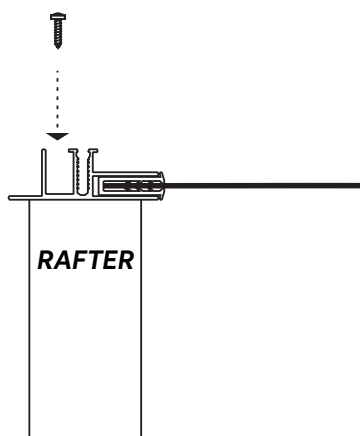• Hammer against a length of wood to prevent damage to the End Profile Base.

The gap behind the Panel Gasket is normal, and helps account for expansion of the Roof Panel.

5 **Bring the entire assembly to the roof and set it in place.**
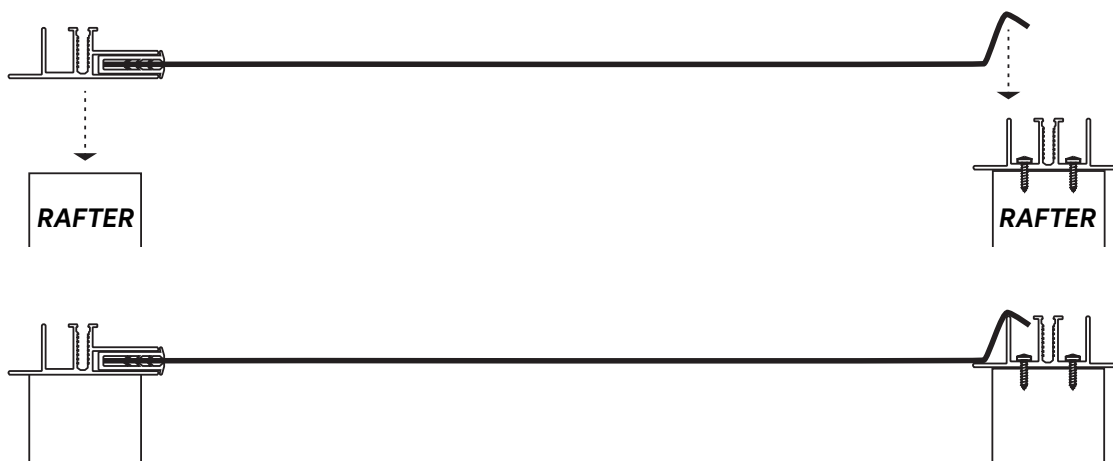
RAFTER

RAFTER

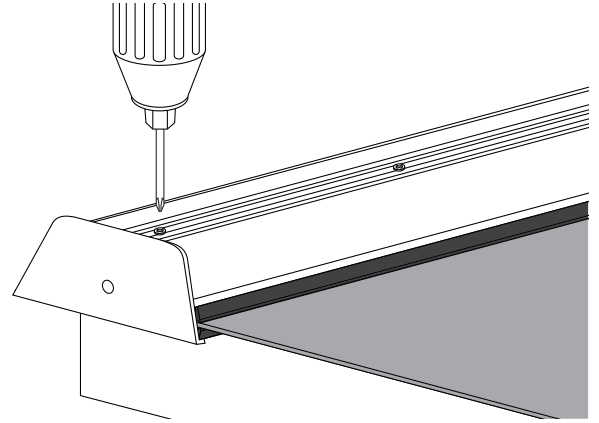**6** **Fasten the End Profile Base to the end rafter through the holes along the length.**
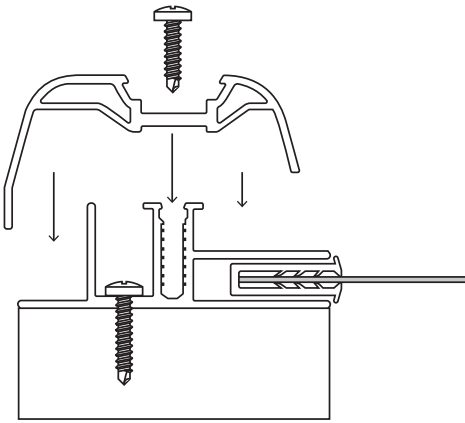
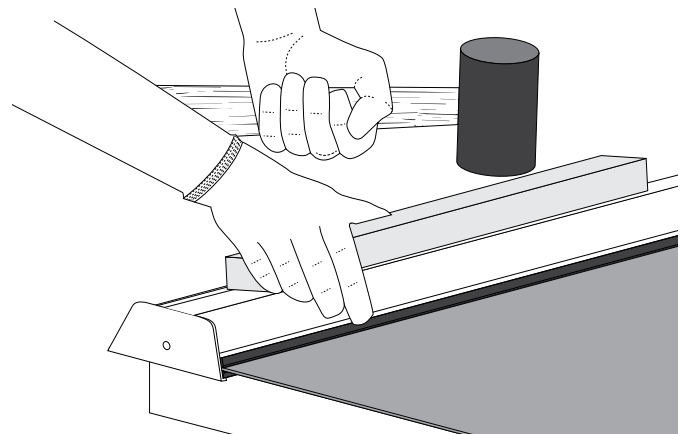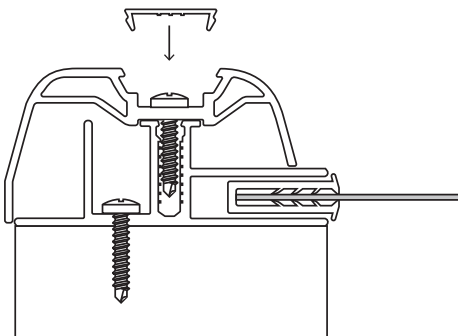*RAFTER*

INSTALLATION

• Installing the End Profile Caps and End Profile Cap Covers with CUT Roof Panels

7 **Install the End Profile Cap on both left and right side End Profile Bases.**

• Start fastening the Inner Profile Cap at the bottom of the roof line, and work toward the top.

8 **Install the End Profile Cap Covers on both left and right End Profile Caps.**

INSTALLATION

• Installing End Profile Bases with UNCUT Roof Panels

⚠ **IF YOU HAVE ALREADY INSTALLED CUT ROOF PANELS, SKIP TO PAGE 19.**
END PROFILE BASES HAVE A DIFFERENT ORIENTATION WHEN USED WITH UNCUT ROOF PANELS.
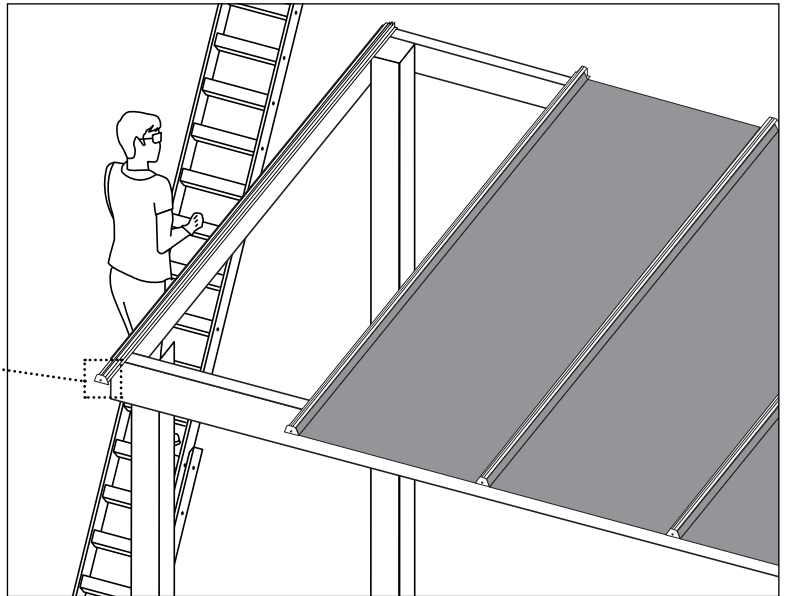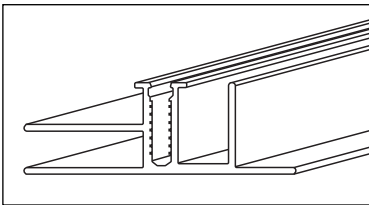
1   **Fasten the <u>first</u> End Profile Base to the <u>left</u> edge of the roof.**

• Be sure the correct edge of the End Profile Base is facing inward toward the roof.

• Center the profile in the middle of the rafter.

• Using the spacer bar at every hole, fasten screws through the pre-drilled holes along the first End Profile Base.
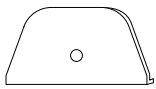
CORRECT PROFILE ORIENTATION

NOTE: PROFILE CLOSURE NOT SHOWN IN DRAWING

2   **Fasten the <u>second</u> End Profile Base to the <u>right</u> edge of the roof.**

• Be sure the correct edge of the End Profile Base is facing inward toward the roof.

• Center the profile in the middle of the rafter.

• Using the spacer bar at every hole, fasten screws through the pre-drilled holes along the second End Profile Base.
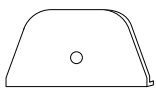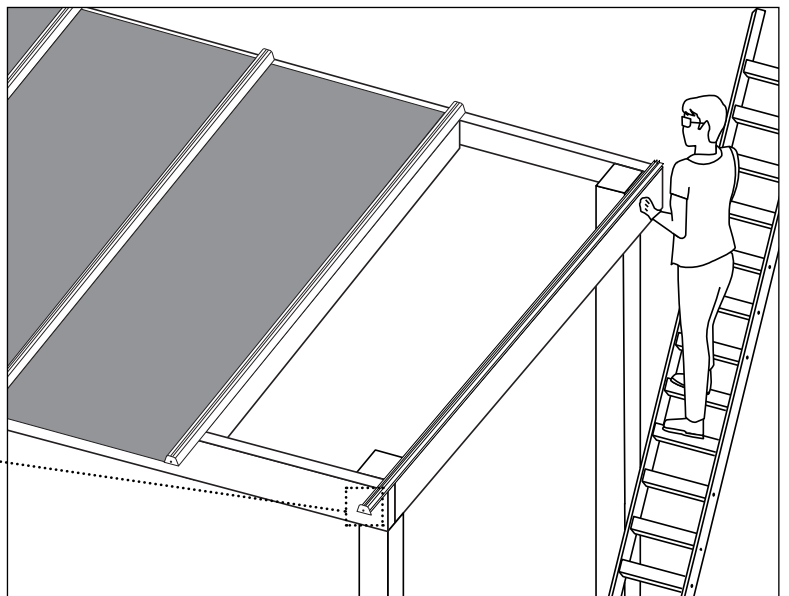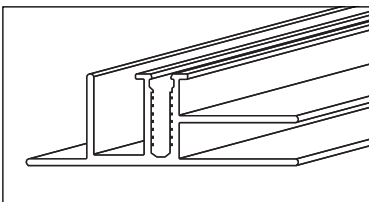
CORRECT PROFILE ORIENTATION

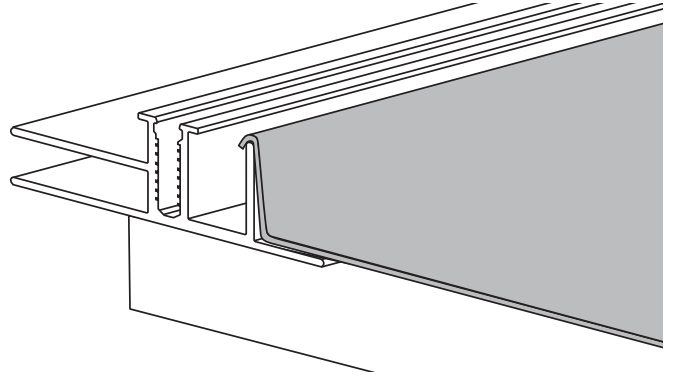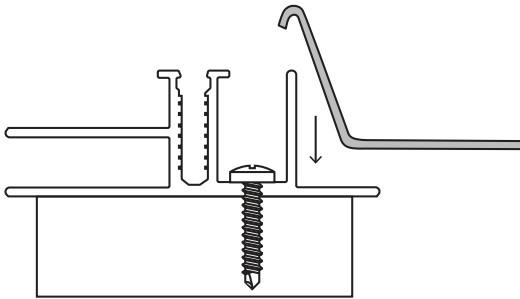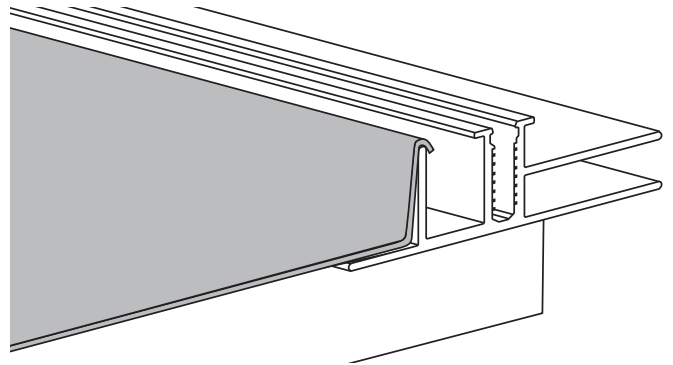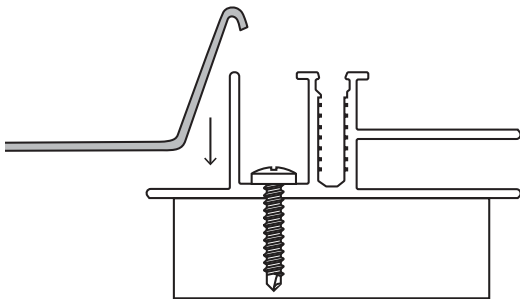*NOTE: PROFILE CLOSURE NOT SHOWN IN DRAWING*

INSTALLATION

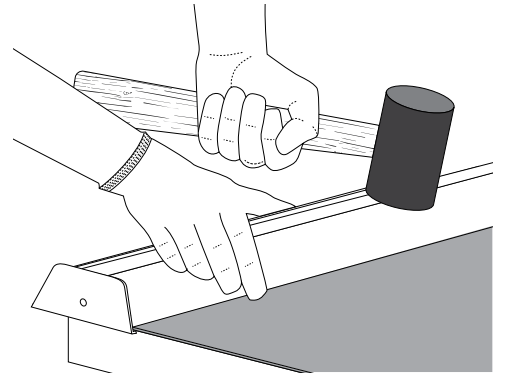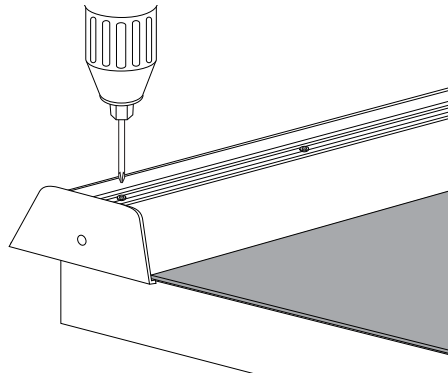## • Installing End UNCUT Roof Panels and Installing End Profile Caps and Cap Covers
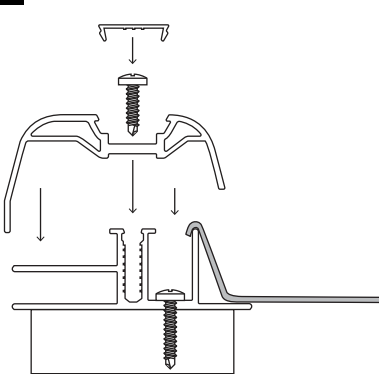
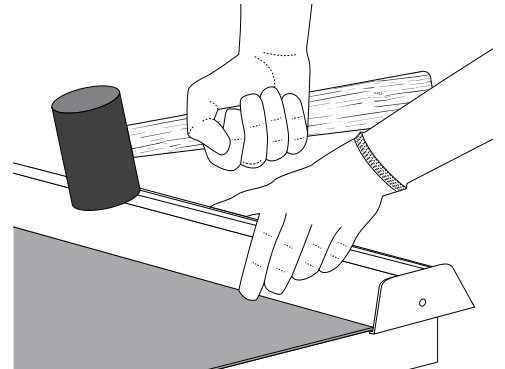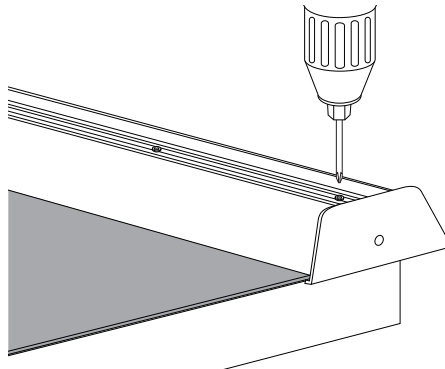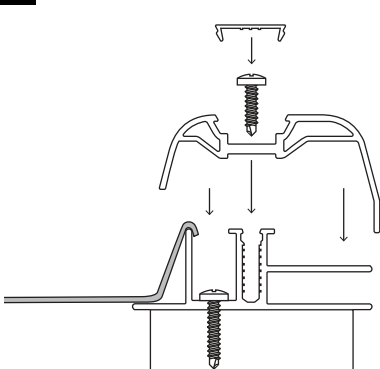**3**   **Insert the LEFT side <u>uncut</u> Roof Panel.**

4   **Insert the RIGHT side <u>uncut</u> Roof Panel.**

5   **Install the left End Profile Cap, and then install the Cap Cover, on left End Profile Base.**
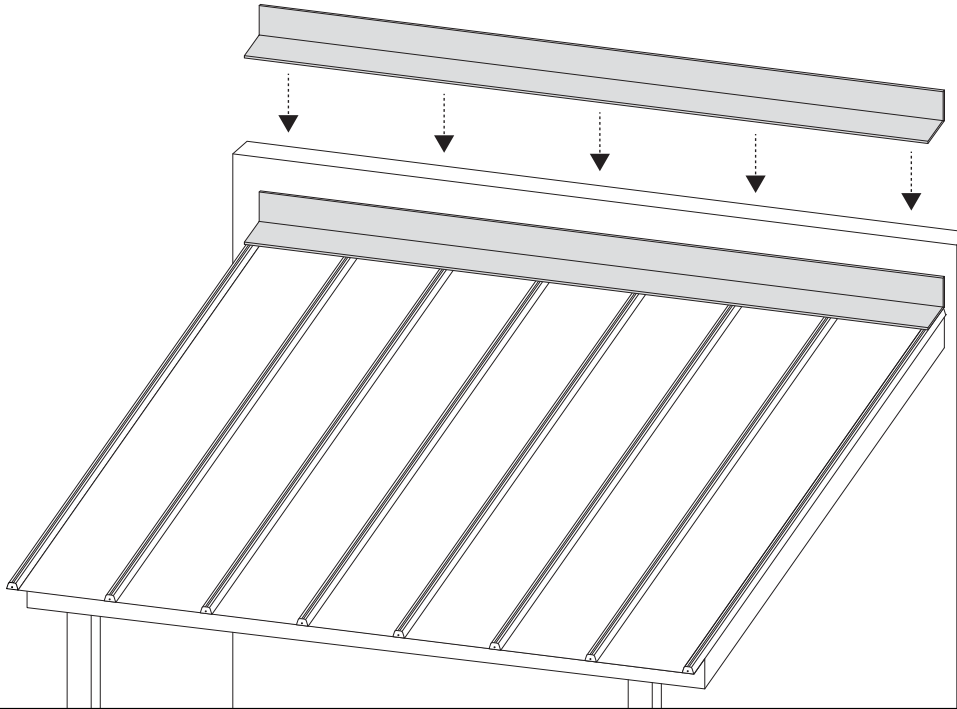

6   **Install the right End Profile Cap, and then install the Cap Cover, on right End Profile Base.**

INSTALLATION

- ## Installing Flashing (not included)
- ## Installing Foam Flashing Strips (included)

**1**   **Install flashing if required by code. Flashing is NOT included in the SUNSCAPE® Kit.**

2   **After flashing is installed, measure, cut and insert Foam Flashing Strips (included in SUNSCAPE® Kit) under the flashing, between each aluminum Profile.**

• Add <u>double-sided outdoor foam tape</u> (not included) to the top of each piece of Foam Flashing Strip before inserting it under the flashing. This will adhere the foam to the underside of the flashing.

• For a snug fit, cut Foam Flashing Strips 1/4" longer than the width between each aluminum profile.

APPLY THE TAPE ONLY TO THE TOP OF THE FOAM FLASHING STRIP.
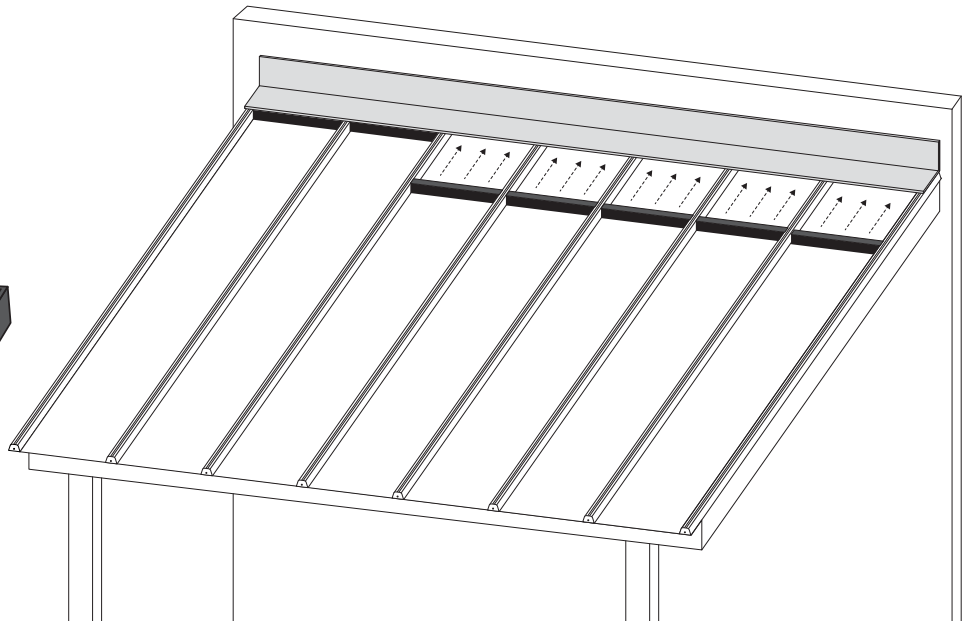
⚠ **DO NOT ADHERE THE FOAM FLASHING STRIP TO THE SUNSCAPE PANEL. Adhesives that are incompatible with polycarbonate will cause the SUNSCAPE® panel to craze and crack.**

• SUNSCAPE® Cleaning Guidelines

SUNSCAPE® Roof Panels are made from high-quality polycarbonate material. To clean them:

• Use a soft, clean sponge or a soft, clean 100% cotton cloth.

• Use lukewarm water and a mild dishwashing detergent.

• Rinse the surfaces with cold water.

• Dry with a soft cotton cloth if desired

• To reduce the appearance of water spots, avoid washing in direct sunlight.

⚠	• Pressure washers are not recommended. • Do not use abrasive or high alkaline cleaners. • Do not use sharp objects, squeegees or razors.

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