

# INSTALL GUIDE











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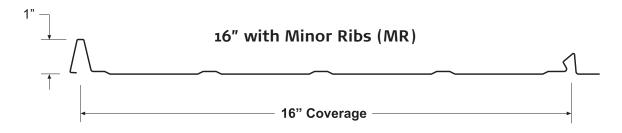
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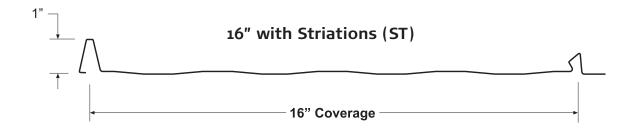


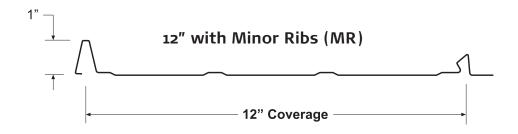


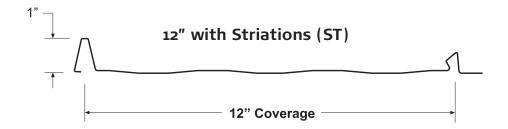
# **GENERAL PANEL INFORMATION**

- · Minimum recommended slope for Pro-Lock is 3:12.
- · Recommended substrate is 1/2" plywood with synthetic underlayment
- · Oil canning in the flat area of the panels is common to the industry and shall not be a cause for panel rejection.
- · Minimum panel length is 5' and maximum panel length is 35'
- · Special conditions must be met to use Pro-Lock for wall applications.













# STORAGE INSTRUCTIONS

Always check the shipment upon delivery. Check for damage and check material quantities against the shipping list. Note any damaged material or shortages at the time of delivery and notify your supplier within 24 hours.

Store the panels and other materials in a dry, well-ventilated area away from traffic. Elevate one end of the bundle (no more than 2') so that any moisture accumulated during shipping can run off. Be sure to allow air to circulate freely around the bundles to avoid additional moisture build-up. Never store materials in direct contact with the ground.

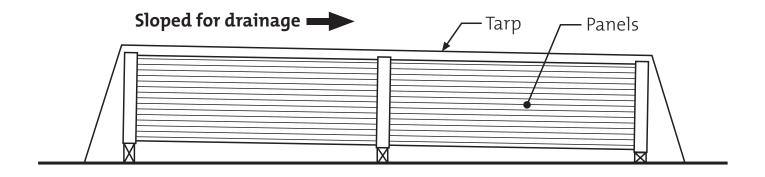
Avoid storing this metal near alkaline materials such as fertilizer, cement, lime, salt, etc. These instructions apply to aluminum or steel, as well as painted or unpainted product.

Some products may have a peel off plastic film over the painted surface. This film was factory applied to prevent damage to the finish that may occur during manufacturing or shipping. If this film is present, avoid exposure of the "peel-coated" parts to sunlight and remove the "peel-coat" prior to installation.

Do not slide panels or accessories across one another.

OUTDOOR STORAGE OF PANELS IS AT THE CUSTOMER'S OWN RISK!

# **OUTDOOR STORAGE PROCEDURE**





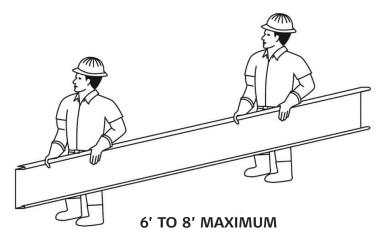


# **GENERAL HANDLING INSTRUCTIONS**

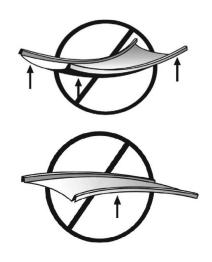
Crates should be handled carefully to avoid being damaged. Precautions should be taken to prevent bending of the panel or abrasion to the finish. The following steps are highly recommended:

- 1. Leave crate(s) intact during handling and until the individual panels are ready to be installed. Do not lift crates by the banding.
- 2. Lift crates at the center of gravity point.
- 3. When using a crane, use spreader bars and nylon band slings. The use of wire rope slings WILL damage the panels.
- 4. When using a forklift, spread the forks to their maximum spacing and centre the load to prevent scratching on the next panel.
- 5. Individual panels should be handled carefully to prevent buckling or damage to the finish. When removing from the crate panels should never be allowed to slide over each other but rather "rolled" out of the crate in order to minimize any damage.
- 6. Wear soft gloves when handling panels.

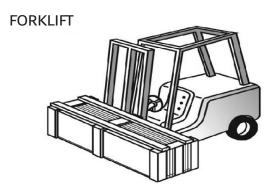
#### **CORRECT MANUAL HANDLING**



#### INCORRECT HANDLING



#### LIFTING PANELS UNDER 20'



LIFTING PANELS OVER 20'

CRANE AND SPREADER BAR



WARNING: Never allow the panels to come in contact with any dissimilar metal including but not limited to: copper, lead, graphite,mortar or cement. Failure to adhere to this requirement will cause the panels to rapidly deteriorate due to galvanic corrosion and will void all warranties. Common abuses of this requirement include: lead hats for plumbing vents, copper lightning rods and/or cable, copper trim, existing copper gutter that drains water onto the roof. Do NOT use graphite or lead pencils on panels. We recommend the use of a felt tip marker.





# **SAFETY**

The following guide is not intended as a substitute for experience. The installation of metal roof systems is a dangerous procedure that should be undertaken with extreme care by an appropriately trained erector.

It is not possible for DOMTEK Building Products to be aware of all possible job site situations that could cause an unsafe condition to arise. It is the sole responsibility of the erector of the roof system to:

- Read and apply the information in this guide.
- Observe all local building codes and workplace health and safety codes.
- Observe all local, provincial and federal safety regulations.
- Use sound judgment in determining the safest way to install the roofing system.

If any of the above is not possible for any reason, installation should not be attempted.

#### PROTECTIVE EQUIPMENT

Protective Equipment may include, but is not limited to:

- Eye Protection: Safety glasses should be worn due to the potential for metal shards to be produced and to become airborne when drilling or cutting metal panels and trims.
- Hand Protection: Kevlar-coated gloves should be worn when handling to reduce the risk of abrasion / laceration when handling metal roofing products.
- Other personal protective equipment may be required, such as hard hats, protective clothing, non-slip shoes, or a harness.

#### **FALL PROTECTION**

- When walking or standing on a metal roof, keep feet on the flat portion of the panel and avoid stepping on the rib.
- If you must walk on installed Pro-Lock panels, take great care and wear non-slip shoes.
- Metal roofs can become slippery and should not be walked on when wet, or covered in frost or snow.
- Never step on unsecured panels.





# **ROOF PREPARATION**

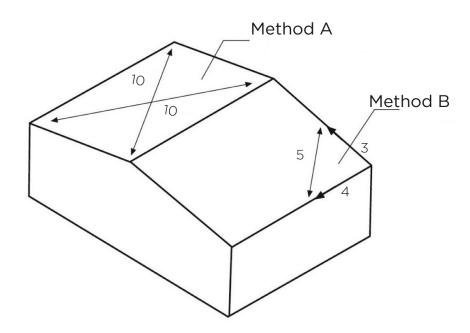
Prior to starting installation, the substrate and framing should be inspected to ensure that all supporting members are straight, level and plumb to avoid any panel distortion. The substrate should also be free of all debris and smooth to avoid puncturing the roof cladding. All substructures must be designed to meet the local code requirements. Check with the local municipality for the guidelines applicable to your project.

Where being installed as a roofing panel, the minimum roof pitch this product can be installed on is 3/12. A minimum of 1/2" plywood decking (or per the local building code, whichever is greater) or solid substrate with an approved synthetic underlayment should be used. Typically a #10 x 1" zinc-coated pancake fastener is used on the under lap in the fastening flange every 12" to 18" in the centre of the slot to allow for contraction and expansion of the panels. The screw should be snug but do not over tighten.

Prior to installing panels, review the method of installation for eave and valley flashings (as shown on page 10-11) as they are required to be installed prior to the panels. All panels should be installed plumb, straight and square to the eave. To check for roof squareness, several methods can be used. Here are two examples of how the installer can check:

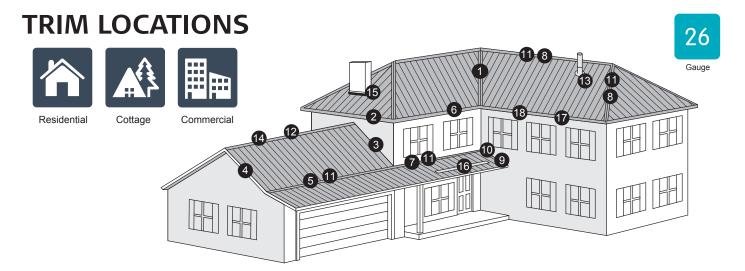
**Method A**: Measure diagonally from the corner of the eave to the corner of the ridge on one slope of the roof. Repeat this on the opposite eave and ridge. If these numbers correspond then the roof is square. See the diagram below.

**Method B:** Measure and mark into the roof 4' from the edge of the eave, then measure and mark 3' up the gable. Next, measure from the 4' mark to the 3' mark, this should measure 5'. This means the roof is square. See the diagram below.

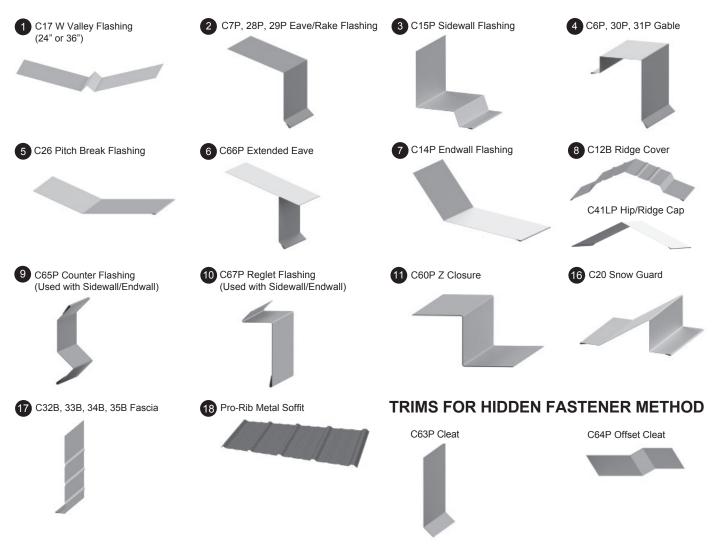








#### TRIMS AND FLASHING FOR HIDDEN OR EXPOSED FASTENER APPLICATIONS



NOTE: ALL TRIMS ARE 26 GAUGE.





# **ACCESSORIES**

#### **FASTENERS**

Pancake Fastener



HWH Type 17 HiLo Fastener



"Robertson" #2 Driver Bit (6")



Hex Head Nut Setter (1/4" x 2-9/16")



#### **RECOMMENDED TOOLS**

Malco Folding Tool (18")



Malco Hand Seamers



Freud Diablo Blade



Aviation Snips (By Others)



Cordless Driver Drill (By Others)



Turbo Shears



#### **ACCESSORIES**





13 Dektite Pipe Flashing



14 Pro-Lock Vented Closure



15 9" Dekstrip



**Butyl Tape** 



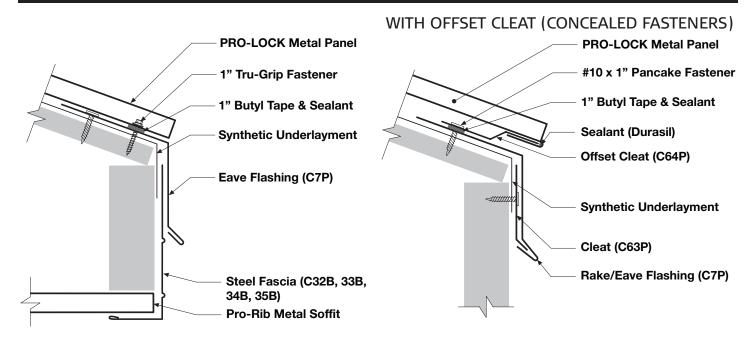
Sealant (Durasil)







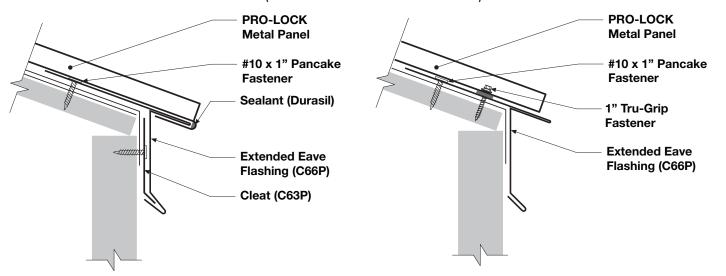
# STEP 1 - INSTALLING EAVE FLASHINGS (EXPOSED OR CONCEALED FASTENERS)



Warning: Do NOT use graphite or lead pencils on panels. We recommend the use of a felt tip marker. Notes:

- Synthetic underlayment must be installed prior to beginning installation.
- To avoid panel distortion, use a properly aligned and uniform substructure.
- All cleat and eave flashings must be installed prior to panel installation.
- Position cleat on wall at the appropriate distance from roof-line.
  Make sure cleat allows for proper eave attachment.
- 2. Attach cleat to wall with  $\#10 \times 1"$  pancake fastener, 12" o.c.
- 3. Install eave flashing by inserting the open hem of the eave  $% \left\{ 1\right\} =\left\{ 1\right\} =\left\{$
- flashing onto the bottom leg of the cleat and rest the eave flashing against the substrate.
- 4. Fasten Eave flashing to substrate with #10 x 1" pancake fastner, 48" o.c. to hold the eave flashing in place during installation.

#### WITH EXTENDED EAVE FLASHING (WITH AND WITHOUT CLEAT)

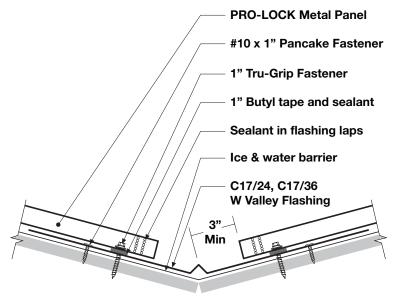


Note: Attach extended eave flashing with #10 x 1" Tru-Grip fastener.





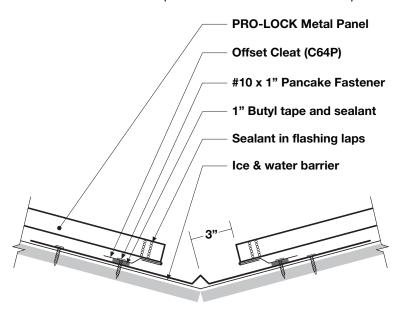
#### STEP 2 - INSTALLING VALLEY FLASHING (CONCEALED OR EXPOSED FASTENERS)



Note: Eave flashings must be installed before valley flashings. All valley flashings must be installed prior to panel installation. If two or more valley flashings are required, valley flashing must be installed working from eave to peak. It is recommended that ice and water barrier be installed under valley flashing for added moisture protection.

- Begin placing the valley flashings at the eave leaving a 1" overhang, fastening with #10 x 1" pancake fasteners 24" o.c. Overlap valley trims by a minimum of 6", seal overlaps.
- 2. Parallel to the valley, place a row of 1" butyl tape approximately 1" from the end of where the panel will sit on the valley flashing, for the entire length of the valley.
- 3. Field cut the panels according to your roof pitch and place onto the roof and into the valley. Leave at least 3" from the centre of the valley to the start of the panel.
- 4. After panels are cut and installed, place #10 x 1" Tru-Grip fasteners approximately 1" from the edge of the panel where it meets the valley flashing, making sure that the fastener penetrates the previously applied 1" butyl tape. This needs to be done for the full length of the valley.
- 5. Seal panel ends with sealant.

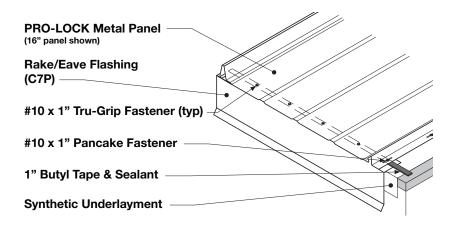
#### WITH OFFSET CLEAT (CONCEALED FASTENERS)

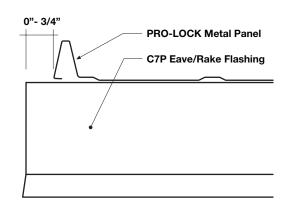






#### **STEP 3** - INSTALLING FIRST PANEL (EXPOSED FASTENERS)

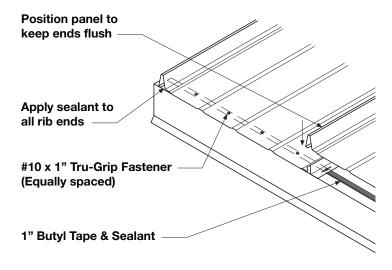




#### Notes:

- Synthetic underlayment, eave and valley flashings must be installed prior to beginning panel installation.
- Apply a row of 1" butyl tape sealant on the top leg of the eave flashing.
- Install the first panel so that the panel end has proper overhang, making sure that panel is square to the eave/rake and gable.It is critical that the first panel be straight and square with the building as it controls alignment of the following roof panels.
- 3. Fasten panel to substrate with a #10 x 1" pancake fastener in center of the fastening slots on nailing flange. Fastener spacing must be designed to meet local building codes. It is important that the fastener be placed in the center of the slot. Do not overtighten screws.

## **STEP 4** - INSTALLING SECOND PANEL (EXPOSED FASTENERS)

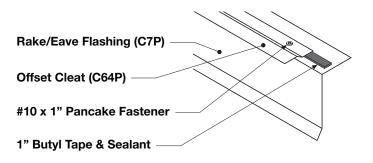


- Snap second panel in place making sure panel ends are aligned.
  Snap panel in place working from one end to the other.
- 2. Fasten to substrate with a #10 x 1" pancake fastener in the center of the fastening slot on nailing flange. Fastener spacing must be designed to meet local building codes (12" to 18" is recommended.
- 4. Continue with previous step until installation is complete. It is important that the fastener is in the center of the fastening slot, and make sure not to overtighten the screws.
- Once installation is complete, fill each lower end of panel rib with Tube Sealant, and clean any debris and excess sealant before continuing to next area.



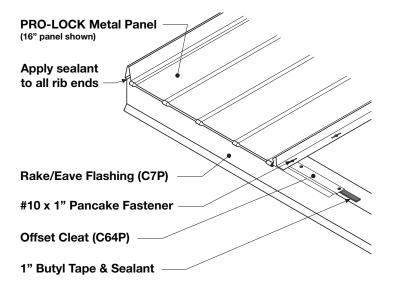


## STEP 3 - INSTALLING FIRST PANEL (CONCEALED FASTENERS WITH CLEAT)

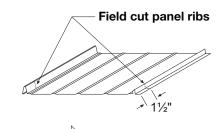


#### Notes:

- Synthetic underlayment, eave, valley flashings and offset cleat flashing must be installed prior to beginning panel installation.
- 1. Install eave flashing and valley flashing as shown on pages 10-11.
- 2. Apply a row of butyl tape sealant on the bottom leg of the offset cleat and align on substrate.
- 3. Fasten offset cleat to substrate with a #10 x 1" pancake fastener through top of eave flashing and into substrate, 12" o.c. Make sure offset cleat is lined up to properly accommodate hemmed panel.
- 4. Field cut and hem the Pro-Lock panel as shown to the right.
- Apply a single bead of sealant inside the open hem of the Pro-Lock panel.



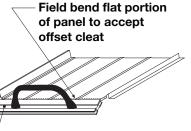
#### HEMMING DETAIL





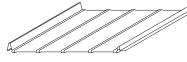


Cut corners of panel at 45° angle

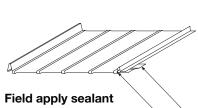














in hem and slide onto pre-installed Offset Cleat

Offset Cleat (C64P)

- 6. Install first panel so that eave has proper overhang, making sure that the panel is square to the eave/rake and gable. Slide the panel toward the peak of the roof engaging the panel with the offset cleat. Offset cleat must be fully engaged into the panel. Additional overhang must be considered if using wall panels. It is critical that the first panel be straight and square with the building as it controls alignment of the following roof panels.
- 7. Fasten panel to substrate with a #10 x 1" pancake fastener in the **center of the fastening slot** on nailing flange of panel. Fastener spacing must be designed to meet local building codes. (It is important that the fastener be placed in the center of the fastening slot and make sure not to overtighten screws.)



along eave

(16" panel shown)

Cleat (C63P) -

(C66P)

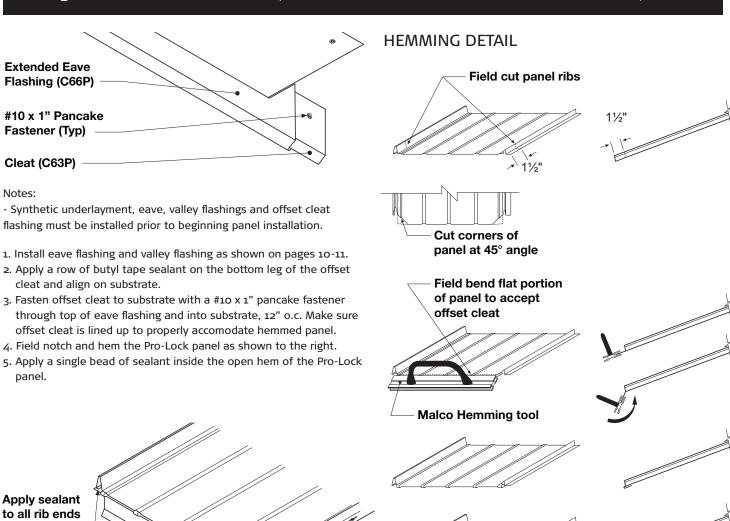
**PRO-LOCK Metal Panel** 

**Extended Eave Flashing** 

#10 x 1" Pancake Fastener



#### STEP 3 - INSTALLING FIRST PANEL (CONCEALED FASTENERS WITH EXTENDED EAVE)



6. Install first panel so that eave has proper overhang making sure that the panel is square to the eave/rake and gable. Slide the panel toward the peak of the roof engaging the panel with the offset cleat. Offset cleat must be fully engaged into the panel. Additional overhang must be considered if using wall panels. It is critical that the first panel be straight and square with the building as it controls alignment of the following roof panels.

Field apply sealant in

hem and slide onto preinstalled Extended Eave

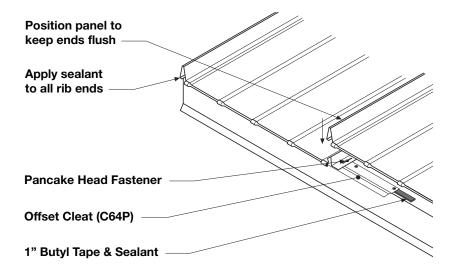
Extended Eave (C66P)

7. Fasten panel to substrate with a #10 x 1" pancake fastener in the **center of the fastening slot** on the nailing flange of panel. Fastener spacing must be designed to meet local building codes. (It is important that the fastener be placed in the center of the fastening slot and make sure not to overtighten screws.)



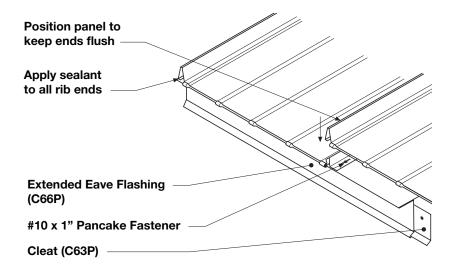


#### **STEP 4** - INSTALLING SECOND PANEL (CONCEALED FASTENERS)



- Field cut and hem the Pro-Lock panel as shown on page 14. Apply a single bead of sealant inside the open hem of the Pro-Lock panel.
- 2. Install second panel so that the eave has proper overhang making sure that panel is square to the eave/rake and gable. Slide the panel toward the peak of the roof engaging the panel into the offset cleat. Additional overhang must be considered if using wall panels. Make sure all panels are properly locked in place.
- Begin locking the panels together working from eave to peak.
- 4. Repeat steps 2 and 3 for remaining panels.
- Once installation is complete fill end of panel rib with sealant. Also clean any debris or excess sealant before continuing to the next area.

# STEP 4 - INSTALLING SECOND PANEL (CONCEALED FASTENERS WITH EXTENDED EAVE)

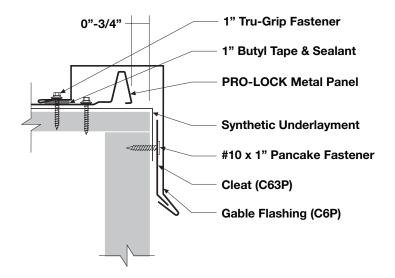


- Field cut and hem the Pro-Lock panel as shown on page 14. Apply a single bead of sealant inside the open hem of the Pro-Lock panel.
- 2. Install second panel so that the eave has proper overhang making sure that panel is square to the eave/rake and gable. Slide the panel toward the peak of the roof engaging the panel into the extended eave. Make sure all panels are properly locked in place.
- 3. Begin locking the panels together working from eave to peak.
- 4. Repeat steps 2 and 3 for remaining panels.
- Once installation is complete fill end of panel rib with sealant. Also clean any debris or excess sealant before continuing to the next area.



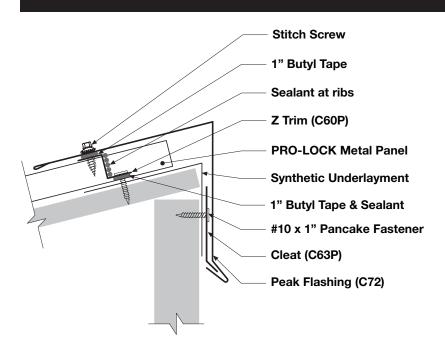


#### **INSTALLING GABLE FLASHING**



- 1. Roof panel must be installed before gable flashing.
- 2. Position and install cleat to wall with #10 x 1" pancake fastener, 12" o.c. Make sure cleat installation allows for proper gable attachment.
- 3. Install gable by sliding the open hem onto the cleat and then attach to the Pro-Lock panel with #10 x 1" Tru-Grip fastener, 12" o.c.

#### **INSTALLING PEAK FLASHING**

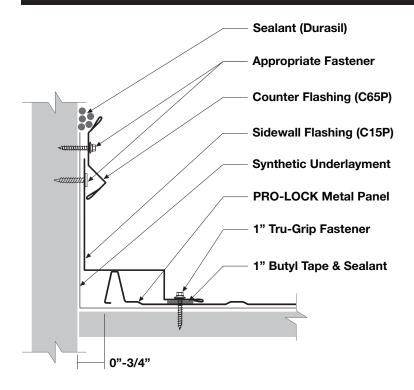


- Once panels have been installed, field cut the Z-closure to fit between the panel ribs.
- 2. Place a row of tape sealant across panel and over each panel rib approximately 2" from panel end. Before proceeding make sure Z-closure placement will accommodate peak cover.
- 3. Install field cut Z-closure.
- 4. Fasten Z-closure through panel with #10 x 1" pancake fasteners (4 per panel).
- Apply a row of tape sealant across top leg of Z-closure filling any gaps or openings around panel ribs.
- Position and install cleat to the wall with the appropriate fastener, 12" o.c. Make sure cleat allows for proper peak attachment.
- 7. Install peak flashing by sliding the open hem onto the cleat and then attach to the Z-closure.



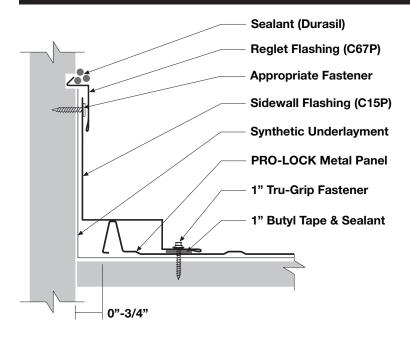


#### INSTALLING SIDEWALL FLASHING WITH COUNTER



- Apply a row of butyl tape sealant to the flat part of the panel as shown.
- 2. Install sidewall flashing and attach with #10 x 1" Tru-Grip fasteners.
- 3. Install counter flashing, and fasten to parapet wall with appropriate fastener 12" o.c. Seal counter flashing to parapet wall with sealant.

### INSTALLING SIDEWALL FLASHING WITH REGLET

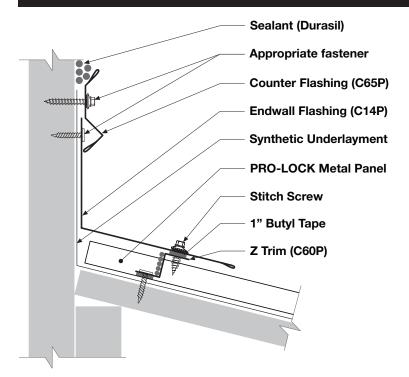


- 1. Apply a row of butyl tape sealant to the flat part of the panel as shown.
- 2. Install sidewall flashing and attach with #10 x 1" Tru-Grip fasteners.
- Install reglet flashing and seal flashing to parapet wall with sealant.



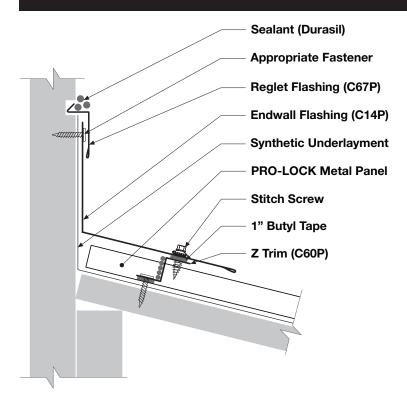


#### INSTALLING ENDWALL FLASHING WITH COUNTER



- Once Pro-Lock panels have been installed, cut the 1" Z-Closure to fit between the panel ribs.
- Place a row of 1" butyl tape across panel approximately 2" from panel end. Before proceeding make sure 1" Z-closure position will accomodate endwall flashing.
- 3. Install field cut 1" Z-closure.
- Fasten 1" Z-closure through panel with #10-1" pancake fasteners, 4 per panel.
- 5. Apply a bead of Durasil sealant across top leg of 1" Z-Closure filling any gaps or openings around panel ribs. Position and install endwall flashing to 1" Zclosure with stitch screws, 3 per panel.
- Fasten vertical leg of endwall flashing to the parapet wall with the appropriate fastener, 12" o.c.
- 7. Install counter flashing, and fasten to parapet wall with appropriate fastener, 12" o.c. Seal counter flashing to parapet wall with Durasil sealant.

#### INSTALLING ENDWALL FLASHING WITH REGLET

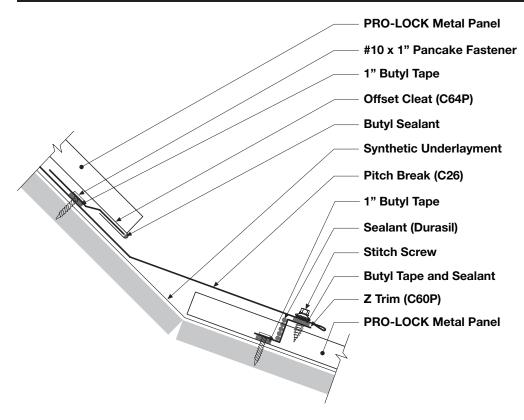


- Once Pro-Lock panels have been installed, cut the "Z-Closure to fit between the panel ribs.
- Place a row of 1" butyl tape across panel approximately 2" from panel end. Before proceeding make sure 1" Z-closure position will accomodate endwall flashing.
- 3. Install field cut 1" Z-closure.
- 4. Fasten 1" Z-closure through panel with #10-1" pancake fasteners, 4 per panel.
- 5. Apply a bead of Durasil sealant across top leg of 1" Z-Closure filling any gaps or openings around panel ribs. Position and install endwall flashing to 1" Z-closure with stitch screws, 3 per panel.
- 6. Fasten vertical leg of endwall flashing to the parapet wall with the appropriate fastener, 12" o.c.
- 7. Install reglet in field cut groove in the parapet wall. Seal reglet to parapet wall with Durasil sealant.



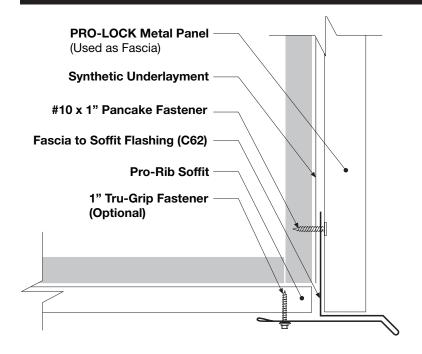


#### INSTALLING PITCH BREAK FLASHING (SLOPE CHANGE)



- Once lower panels have been installed, field cut the Z-Closure to fit between the panel ribs.
- Place a 1" strip of butyl tape across panel approximately 2" from panel end. Make sure Z-closure placement will accomodate pitch break flashing.
- 3. Install field cut Z-closure as shown in drawing.
- 4. Fasten Z-closure through panel with #10 x 1" Tru-Grip fastener or #10 x 1" pancake fastener.
- 5. Apply a row of butyl tape across top leg of Z-closure filling any gaps or openings around ribs with Durasil sealant.
- 6. Install pitch break flashing as shown with colour matched stitch screws.
- Position and install offset cleat onto
  butyl tape with #10 x 1" pancake fastener no more than 12" o.c.
- 8. Field cut and hem Pro-Lock panels as shown on page 13. Apply a single bead of sealant inside the open hem of the Pro-Lock panel.
- Install Pro-Lock panels as described on page 13.

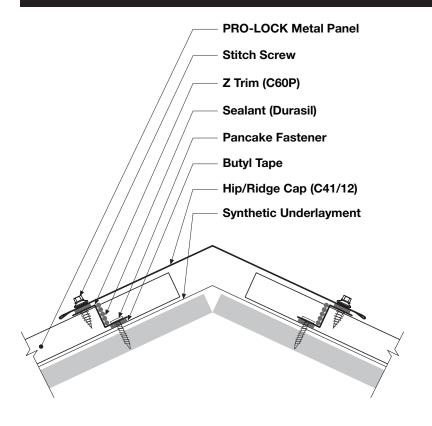
#### INSTALLING SILL TO SOFFIT FLASHING





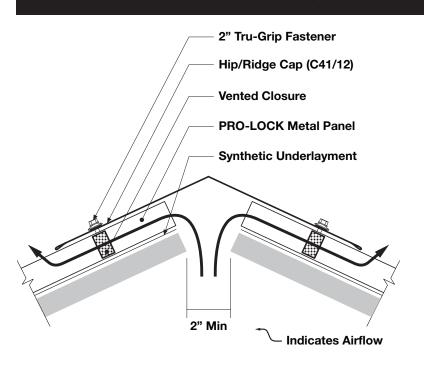


#### INSTALLING HIP/RIDGE CAP FLASHING (NON-VENTED)



- Once Pro-Lock panels have been installed, field cut the Z closure to fit between panel ribs.
- 2. Place a 1" strip of butyl tape across panel approximately 3" down from ridge (for C41/12).
- 3. Install field cut Z-closure as shown.
- Fasten Z-closure through panel with Tru-Grip or pancake head fastener.
- Apply a strip of butyl tape across top leg of Z-closure and fill any gaps or openings with sealant (Durasil).
- 6. Install ridge/hip cap flashing as shown with colour matched stitch screws.

# INSTALLING HIP/RIDGE CAP FLASHING (WITH VENTED CLOSURE)



- 1. Ensure that a 2" opening has been provided for the entire ridge including overhangs.
- Once Pro-Lock panels have been installed, position vented closures as shown in drawing. Closure will cover three panels on 12" Pro-Lock and two panels on 16" Pro-Lock.
- 3. Install Hip/Ridge Cap (C41/12) as shown.