

# *Installation Guide*



**MATTERHORN® Standing Seam**

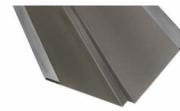
# System Components Placement



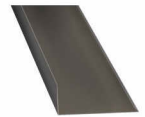
A. Standing Seam Panel



B. Valley Cleat/Sidewall Counter Flashing



C. Valley



D. Sidewall Flashing



E. Endwall Flashing



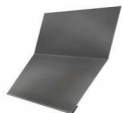
F. C-Closure



G. Hip/Ridge Cap



H. T-Style Drip Edge



i. Transition Flashing



j. Outer Gable



k. 1.5" Z-Flashing

## Accessories

(most available through roofing distributors):

- Screw types:
  - 1 ¼" no. 10 zinc-coated panhead (for installing panels)
  - 1 ¼" no. 10 zinc-coated painted hex-head (for all exposed areas)
- Caulk -- Butyl or urethane caulk/sealant
- Tape – Butyl tape on a roll
- Boots – Flexible base or “witch’s hat” style
- Tools (minimum recommend tools and equipment: Cordless Drill, snips, tape measure, metal shear (we do not recommend the use of a power circular or angle grinder saw to cut panels), caulking gun, chalk line, “Duckbill” locking pliers/hemming tool, gloves, rubber mallet, speed square, felt tipped marker, needle nose pliers and a small flat head screwdriver.

## Storage and Handling

- Storage - Metal building products should be stored in a dry well ventilated space. Never cover materials with non-breathing or plastic tarps. This may cause condensation which will deteriorate the protective coating of the materials.
- General Handling - Carry the roofing panels on edge instead of laying flat.
- Foot Traffic - Wear clean, soft sole, non-marking shoes when walking on installed roofing panels. Only step in areas where the panel is in contact with the roof deck.

# General Installation Guidelines



Watch detailed  
installation videos online at  
[matterhornmetalroofing.com/ss-installation](http://matterhornmetalroofing.com/ss-installation)

## General Installation Guidelines

- Installing Matterhorn® Standing Seam roofing on top of existing shingles is not recommended.
- Matterhorn® Metal Roofing must be installed on a minimum ½" CDX plywood roof deck. Synthetic, temperature-resistant underlayment must be installed prior to the installation of metal roofing products—or refer to local building code. To achieve a Class A fire safety rating, install a ½" Dens Deck.
- Prior to installing the underlayment, clear the roof deck of any debris or protrusions that could puncture the protective membrane. Installing roof panels on uneven surfaces may cause distortion or deflection on the metal surface. Surface wave in the material is not cause for rejection of the product.
- Valleys, as well as eave, rake and drip edges must be installed before the panels. Hip and ridge capping may also be installed before the panels.
- When cutting panels to length, always remove material from the top end of the panel, so that the factory pre-notched end remains intact to allow for proper hemming to the eave and drip edge.
- Circular saws or angle grinders are not recommended to cut steel roofing.
- Always install Matterhorn® Standing Seam panels from right to left, beginning with the far right side of the roof deck. Always fill one column in completely before moving to the next one.
- Be sure each panel is fully engaged to the adjacent panel before fastening it to the deck. A rubber mallet may be required to fully engage the locking feature.
- Fasten the panels to the roof deck using the recommended 1¼" panhead screws every 12" to achieve the required wind uplift resistance.
- Remove the protective film immediately after installing the roofing panel.

## Safety Guidelines

Follow all governmental safety procedures, including, but not limited to, all OSHA guidelines. Always wear safety gloves, safety glasses and fall protection gear when installing Matterhorn® Metal Roofing.

## Estimating

Matterhorn® Standing Seam roofing comes in precut lengths with pre-notched ends, a diagram of the roof is not necessary. Panels will be lap-seamed together in long runs, allowing the installer to disregard trying to

determine the exact length needed. Simply calculate the total square footage of the roof deck to be covered and order the corresponding number of ½ square boxes that would be needed to complete the job. Amount of trim accessories can also be determined using the length and width measurements taken from the roof deck.

## Ventilation

Proper ventilation must be achieved to avoid moisture and heat buildup in the attic space, or between the layers of the building envelope. Consult local building code for NFA (Net Free Area) rating requirements.

- Intake vs. exhaust: To achieve maximum airflow through the attic, the amount of intake at the eave must be less than or equal to the exhaust at the ridge.
- Soffit vents are found on the underside of the eave overhang. This is the primary source for the intake of air to the attic.
- Ridge vents are located at the peak of the roof and are the primary exhaust outlet for accumulated hot, moist air.

Upon completion of the installation, inspect the roof surface for metal shavings or other loose material. Remove by wiping softly with a cloth, being careful not to scratch the painted surface. Remove dirt with a damp rag, using detergent if necessary.

## Maintenance

Remove any and all debris that may accumulate on the roof during its lifespan to keep it moisture free. Tighten any loose fasteners or trim pieces as access allows. Do not attempt to repair or replace any parts of the Matterhorn® roof system without consulting a certified applicator. Repainting the roof should not be necessary through the duration of the warranty.

## Warranty

Register the warranty by mailing the warranty card. This is required to "trigger" any coverage. See the warranty document for details.

## Class A Fire Rating

Matterhorn® tested using Georgia-Pacific 1/2" DensDeck. For a Class A Fire rating, use Georgia-Pacific 1/2" DensDeck. A Class A Fire rating is not applicable if Matterhorn® Standing Seam panels are installed over existing shingles.



# Eave Edge and Rake Edge

## Eave Edge Detail:

- 1) Fasten eave edge to the roof deck with a 1.25" pan head screw. Screw should be centered in the width of the eave edge. *To achieve a 130 MPH wind rating, fasten every 12".*
- 2) Butt adjacent pieces without overlap at the joint and seal the joint with 4" from the underside. Do not overlap the drip edge sections.

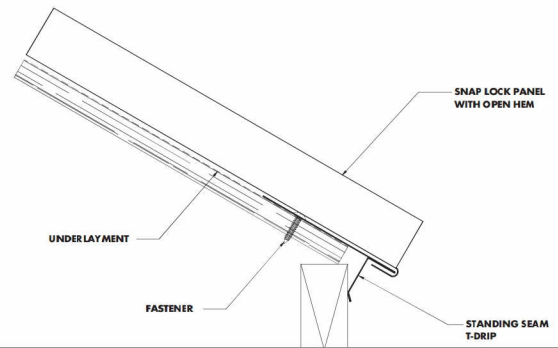
## When using a field cut panel, follow these steps to hem to the eave edge:

- 1) Cut back panel rib on both sides one inch (unless you are using a factory pre-notched end).
- 2) Place the protruding pan into the panel hemming tool. The front edge of the tool should stop at the ribs on both sides.
- 3) While maintaining pressure against the panel ribs, rotate the hemming tool downward as close to 135° as possible.
- 4) Inspect completed hem to insure that the hem is opened and capable of receiving the lip of the eave edge.
- 5) Lay the panel on the roof in alignment with the last one and push up until the hem catches the lip of the eave edge.
- 6) Push down on the rib snapping it into the previous panel.
- 7) Tap the front of the rib with a rubber mallet, moving the panel up the roof until the eave edge lip is all the way in the hem.
- 8) Finish by closing the panel hem around the eave edge with a hand seamer.

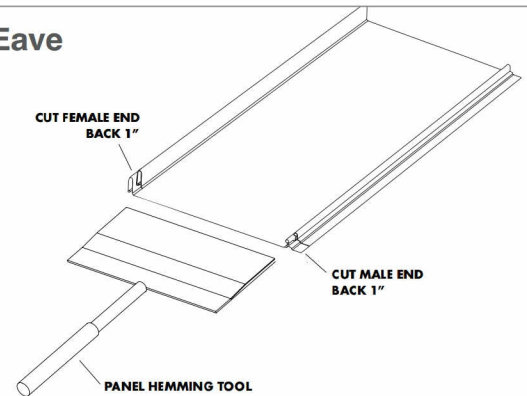
## Rake Edge Option 1:

- 1) Determine the desired width of the panel by measuring from to the outside of the previously installed rake edge across the roof to the last panel rib and add one inch. This additional 1" of material will be bent around the rake edge using a hemming tool or a field brake.
- 2) Before installing the panel, bend the cut edge down and under to about 135°.
- 3) After the panel is snapped into position, squeeze the field created hem to the lip of the eave style drip edge using a hand seamer, so it is tight.

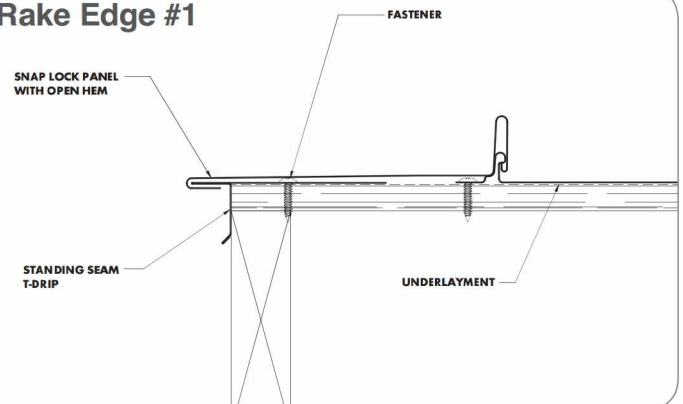
## Eave Edge



## Panel Eave



## Rake Edge #1

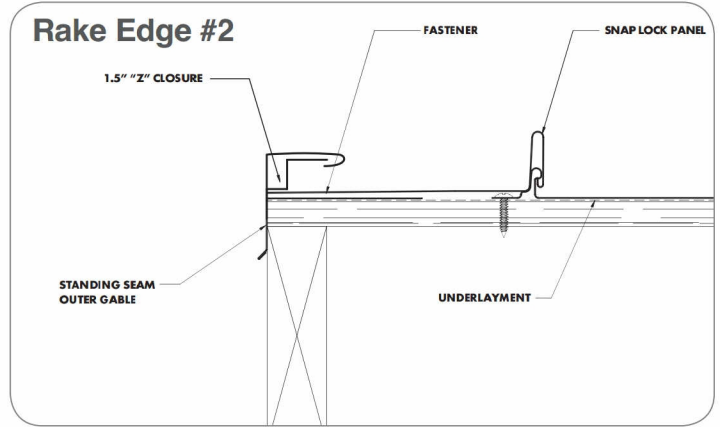




# Rake Edge, Valley, Hip and Ridge

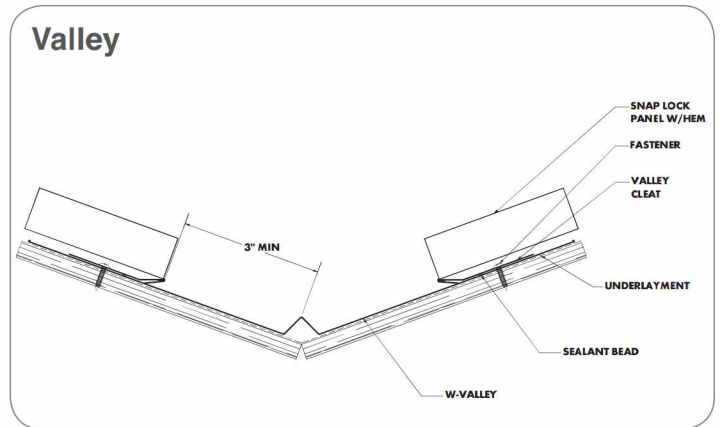
## Rake Edge Option 2:

An alternative to bending the panel in the field is to cut the panel to width-from the last panel rib to the outside of the roof edge. Install a “Z” Closure on the top of the panel and screw down into the deck. The hem of the outer gable will hook onto the lip of the “Z” Closure and fastened into the fascia as needed given weather conditions. Butyl tape or tube sealant is needed between the panel and the “Z” Closure. *To achieve a 130 MPH wind rating, fasten the rake trim every 12” with the panhead screws.*



## Valley Detail:

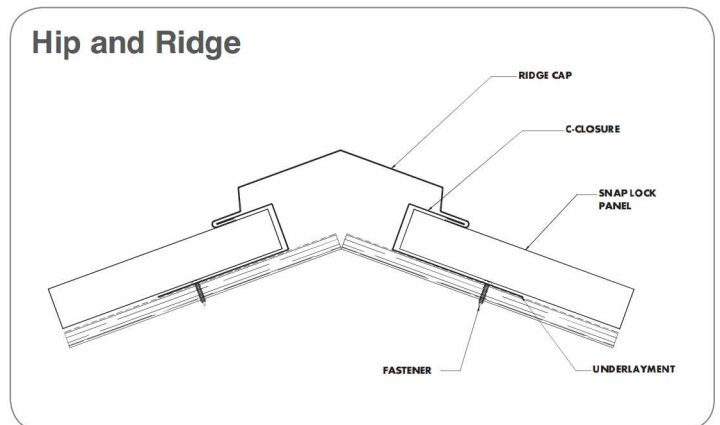
- 1) Place a bead of sealant on the underside of the valley cleat to prevent water penetration behind the bottom edge of the roof panel. Be sure the cleat is fastened uphill from the sealant bead. *To achieve a 130 MPH wind rating, fasten the valley every 12”.*
- 2) Fasten valley cleat with pan head screws 3” from the center ridge of the “W” valley.
- 3) Cut the bottom end of the panels to the valley angle. Leave enough metal (1” maximum) to hem the panel bottom to the valley cleat.
- 4) Overlap the 10’ sections of valley at least 6” and seal with 4” tape or tube sealant. The water lock will have to be cut back to get the upper valley to fit inside the lower piece.



## Hip & Ridge Detail:

Snap ridge is a 3 piece trim system utilizing “C” or “Z” closures at the peak of the roof. The ridge cap is fitted over these closures using the factory hem along both edges.

- 1) Install closures over the roof sheathing and underlayment approximately 1” down from the peak-before the panels are installed. Use a section of ridge cap bent to the roof pitch to properly space the closures.
- 2) Be sure the ventilation opening is not blocked by the closures.
- 3) The hems on the ridge cap should fit over the edge of the closures on both sides of the ridge. The hem dimension may need to be adjusted depending on the roof pitch.
- 4) It is recommended to test your ridge cap for a tight fit before fastening the closure on one side of the ridge.
- 5) “C” Closures and ridge cap can be installed before the panels. This eliminates the need to walk on the finished roof panels. *To achieve a 130 MPH wind rating, fasten the closures every 12”.*



# Sidewall and Endwall

## Sidewall Detail – Option 1:

- 1) Cut roof panel to the width needed to meet the sidewall.
- 2) Install sidewall flashing piece before the panel.
- 3) Install counter flashing over both the panel and the sidewall flashing.
- 4) Fasten the counter flashing to the sidewall, not down into the roof deck. *To achieve a 130 MPH wind rating, fasten the sidewall counter flashing every 12”.*

## Sidewall Detail – Option 2:

- 1) Cut the width of the panel to be wide enough to bend up and behind the siding.
- 2) Bend the cut edge of panel at least 1” up the sidewall, or as much as can be fit behind the siding.
- 3) Install sidewall flashing over the roof panel.
- 4) Fasten the counter flashing into the sidewall, not down to the roof deck. *To achieve a 130 MPH wind rating, fasten every 12”.*
- 5) When needed, overlap sidewall flashing 3” and seal with butyl tape.

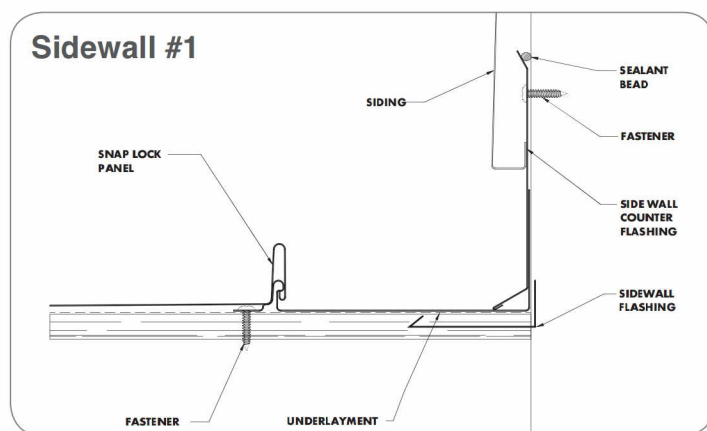
## Vented Endwall with Detail “C” Closure:

- 1) Install “C” closure without covering the ventilation opening in the deck.
- 2) Hook hem of the end wall flashing on the “C” closure and fasten into the end wall.
- 3) Tuck end wall flashing behind siding or seal the top with butyl sealant as needed. *To achieve a 130 MPH wind rating, fasten every 12”.*

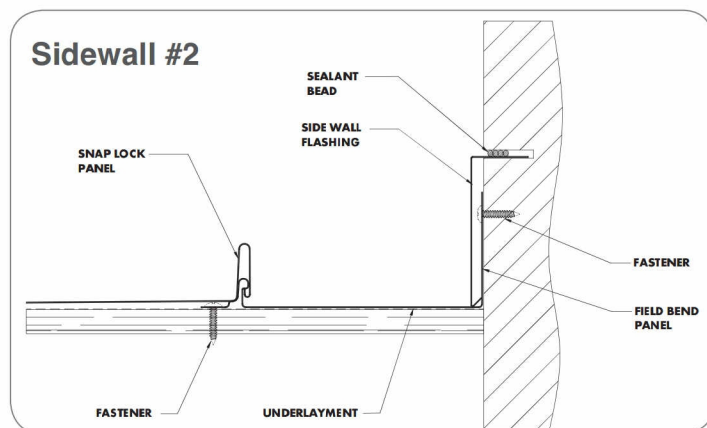
## Endwall Detail with “Z” Closure:

- 1) Fasten the “Z” closure on the roof deck low enough to fit into the hem on the end wall flashing.
- 2) Fasten the end wall flashing into the end wall with the hem hooked into the top of the “Z” closure.
- 3) Lap end wall flashing behind the siding or seal to the end wall as needed. *To achieve a 130 MPH wind rating, fasten every 12”.*

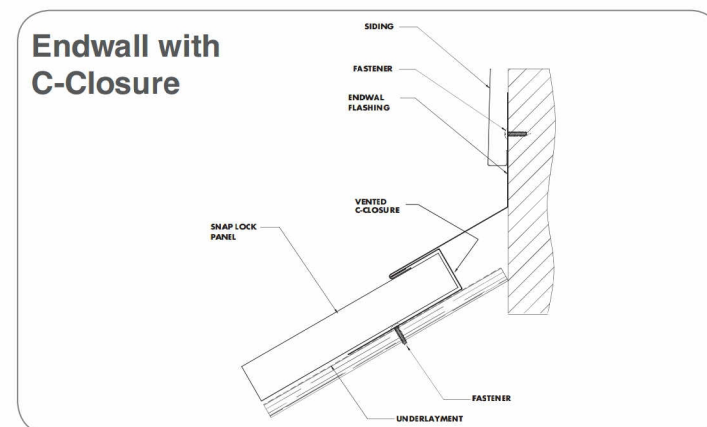
### Sidewall #1



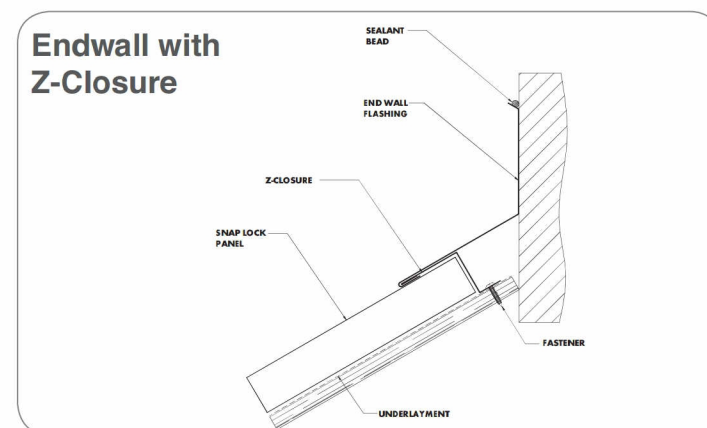
### Sidewall #2



### Endwall with C-Closure



### Endwall with Z-Closure



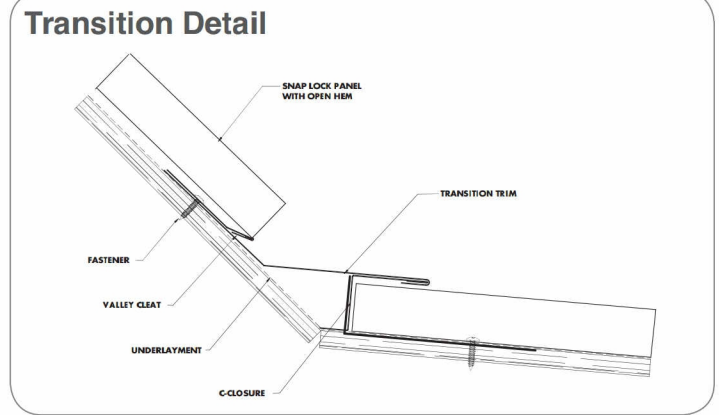
# Transition Detail

## Transition Detail:

- 1) Install the “C” Closure against the transition, with the opening of the closure facing down the roof.

### To achieve a 130 MPH wind rating:

- 2) Install transition trim with the bottom hem over the edge of the “C” Closure, fastening to the upper section of the roof deck.
- 3) Install upper course first over top of the transition trim.
- 4) Then install the lower course under the transition trim, pushing all the way to the back of the “C” Closure before fastening.





For installation assistance call 888-784-0878



[matterhornmetalroofing.com](http://matterhornmetalroofing.com)

