Installation Instructions · SNAP-TITE, & SNAP-TITE, 1.5

Rider: The details and written instructions described in this manual are suggested installation methods to ensure a quality application of our products, and should be considered as a guideline only. METAL Roofing & Siding EXPERTS® recognizes that installation techniques can vary based upon installer, building codes and geographical preferences, and that there are other acceptable ways to install our products.

(GENERAL INFORMATION)

Thank you for choosing the METAL Roofing & Siding EXPERTS SNAP-TITE / SNAP-TITE 1.5 panel (herein referred to as SNAP-TITE) for your project. At METAL Roofing & Siding EXPERTS we are dedicated to providing the highest quality product and service.

These installation instructions are to assist you in the installation of your metal package and to give you a general understanding of our $SNAP-TITE_{\scriptsize @}$ profiles. This booklet contains proven methods of installation but is not intended to cover all instances, designs or building codes. Every project is unique and thus may require revisions to compensate. The installer must allow for expansion and contraction tolerances for this roofing system. The project owner must ensure that this product & installation method meets all of your local building codes.

 ${\sf SNAP-TITE}_{\it B}$ is an economical concealed fastener roofing and siding panel that is ideal for both residential and commercial applications. Where installed as roofing the minimum roof pitch these panels can be installed at is a 3/12 Pitch. Both profiles of this panel can be installed in both roofing and siding applications. The siding application provides a "Board & Batten" appearance offering an alternative to traditional horizontal or vertical siding options.

This panel is offered in 8 different profiles, 29, 26 and 24 gauge steel, and depending on your profile preference, there are up to 38 colours to choose from with our outstanding 40 Year Paint Warranty. With the flexibility of our product you will have an opportunity to select the panel gauge and colour that is just right for you.

All the necessary trims and accessories required for your project are also available and outlined in this manual. We have listed our Standard Trims, but are not limited to these. Where customized trims are required we can build to suit your project.

With every installation, some oil canning is a natural occurrence in the flat portion of the panel which does not affect the performance of the panel and is therefore not cause for rejection.

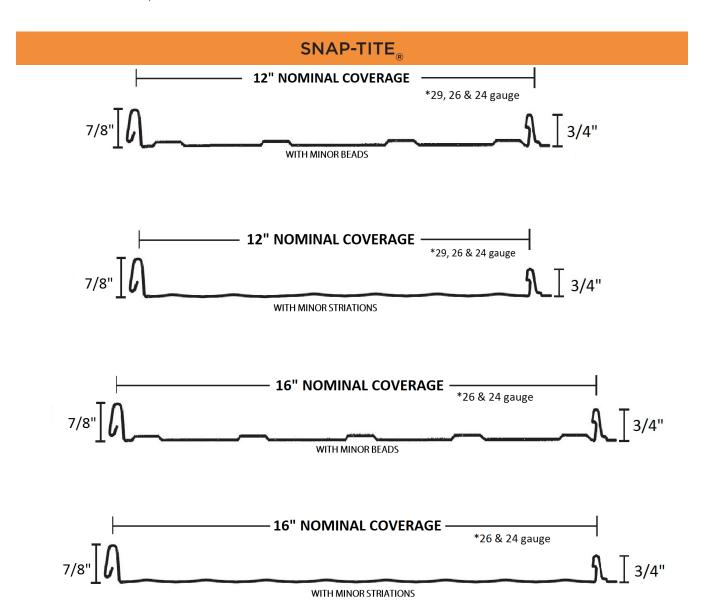
Thank you for choosing METAL Roofing & Siding EXPERTS, SNAP-TITE, profile.



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(PANEL SPECIFICATIONS - SNAP-TITE $_{\tiny{(\!R)}}$)

 ${\sf SNAP-TITE}_{\it \&}$ panels are manufactured from our industry leading 40 year paint warranty finished product. The overlap, or major rib height of this profile is 7/8". The panel can be run in a width of 12" or 16" and provides flexibility depending on your preference of the minors being run in beads or striations. All four options are illustrated below.



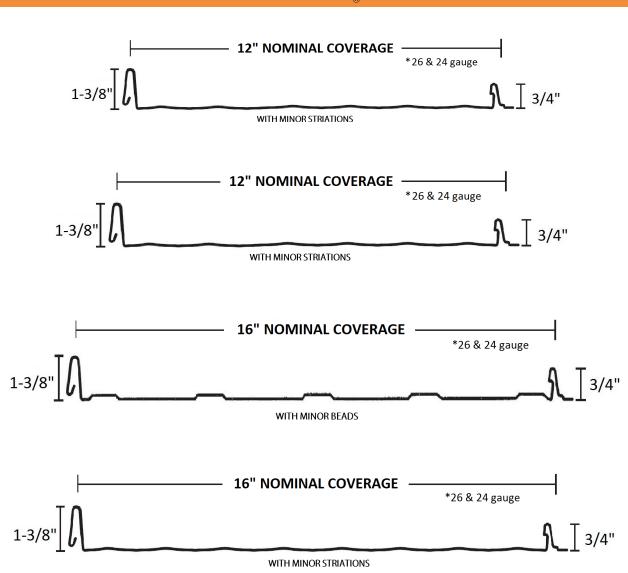
^{*} Please see our colour chart for colour availability in 29 and 26 gauge steel. Call for 24 gauge colours.

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(PANEL SPECIFICATIONS - SNAP-TITE_® 1.5)

 ${\sf SNAP-TITE}_{\it \&}$ 1.5 panels are manufactured from our industry leading 40 year paint warranty finished product. The overlap, or major rib height of this profile is 1-3/8". The panel can be run in a width of 12" or 16" and provides flexibility depending on your preference of the minors being run in beads or striations. All four options are illustrated below.





^{*} Please see our colour chart for colour availability in 29 and 26 gauge steel. Call for 24 gauge colours.

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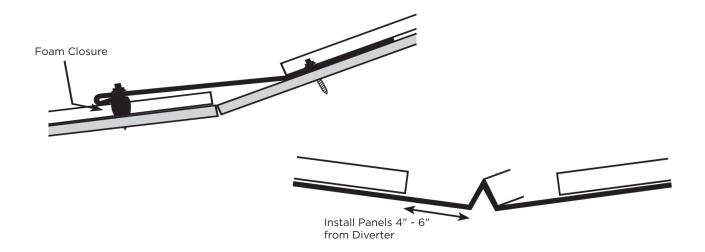
(ORDERING ROOFING OR SIDING PANELS)

METAL Roofing & Siding EXPERTS $_{\odot}$ has state of the art software to take the dimensions of your building and turn it into a comprehensive quotation and cut list for the most detailed of projects. It is critical however, prior to ordering panels, to measure and verify all lengths required for your project.

 $SNAP-TITE_{\text{\tiny ®}}$ panels can be ordered in lengths starting at 1'0" and as long as 40'0". These panels cannot be stacked thus crating is necessary to protect the panels in shipment. Also to be noted, a mechanical means of off loading the truck will be required.

To avoid having to make any unnecessary cuts at the job site, check and double check that the panels ordered are the correct length for your requirements and that the quantities are correct. In roofing applications, where a venting ridge is being used panels should be 2" short of the ridge. At the eave however, the panel should extend 1" past the eave.

Panels being used on the upper side of a transition or valley application should be ordered a little shorter to accommodate installation. Standard and expanding foam closures are often used in the appropriate locations to assure a good seal is established and maintained. See the General Installation Information section for further details.





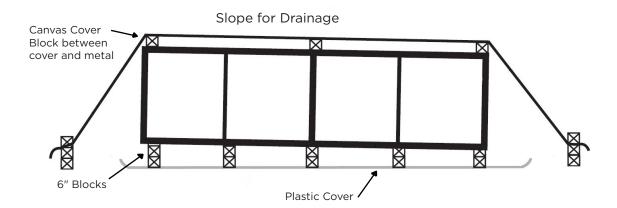
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(STORAGE & HANDLING)

METAL Roofing & Siding EXPERTS $_{\text{@}}$ SNAP-TITE $_{\text{@}}$ panels and trim paint finishes are formulated to withstand severe weather conditions. If however, installation of the metal is delayed, the preferred method of storage is indoors in a well ventilated dry location. Any outdoor storage of panels or trims is at the risk of the customer. Please inspect all panels and trims at time of delivery. If moisture is present, all panels should be uncrated, wiped and allowed to dry completely. Failure to remove entrapped moisture between the sheeting immediately will affect the service life of the metal and potentially void the warranty. It is not recommended to store the bundled panels for an extended period of time. Avoid the contact of the following items with the metal at all costs; salt, water, corrosive chemicals, ash, industrial plant fumes generated or released nearby, foundries, plating works, kilns, fertilizer and wet or green lumber. Please see our warranty for other conditions for your consideration.

Where there is no alternative but to store panel bundles outside, they must be elevated off the ground, with ground cover and cover sheet tarps, and a slope to allow for drainage. See the below diagram as a point of reference. Panels and trims left wet WILL result in damage. Be sure to store material that is not going to be installed immediately in a dry location. Wet material should be re-stacked and air-dried if installation is not immediate.

Any outdoor storage of panels is at the customer's own risk!



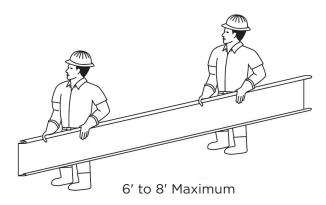
Installation Instructions · SNAP-TITE, & SNAP-TITE, 1.5

(GENERAL HANDLING)

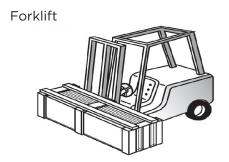
Crates should be handled carefully to avoid being damaged. Precautions should be taken to prevent bending of the panel or abrasion to the finish. The following steps are highly recommended:

- 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. Where 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 it should never be allowed to slide over another panel but rather "rolled" out of the crate in order to minimize any damage.
- 6. Wear soft gloves when handling panels

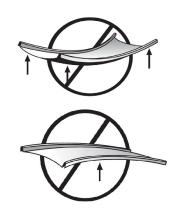
Correct Manual Handling



For Panels Under 20'



Incorrect Handling



For Panel over 20'

Crane





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(SAFETY)

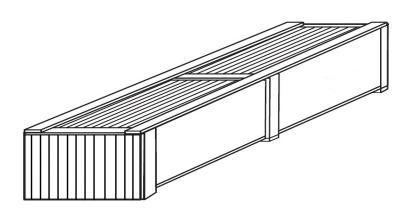
All local, provincial, and federal safety regulations set out by OH&S must be followed when working on any construction project.

If you must walk on the installed SNAP-TITE_® panel take great care and wear non slip shoes. Metal roofs can become slippery and should not be walked on when they are wet, covered in frost and or snow. When walking or standing on a metal roof keep your feet on the flat portion and not on the rib.

Since metal roofing is sharp, cut resistant gloves should be worn when handling. When drilling or cutting metal panels and trims there is the potential for metal shards to be produced and to become airborne therefore, safety glasses should also be worn.

(PACKAGING)

To protect the $SNAP-TITE_{\odot}$ panel(s), each order is prepared in our waterproof paper and then crated similar to the below illustration. Please note the maximum number of panels per crate is 50. Dependent on lengths and quantities, some orders may be subject to crating charges. This will be determined on an order by order basis and advised at time of Order Acknowledgment.





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(ACCESSORIES, TOOLS & EQUIPMENT)

Part	Description	Part	Description
	#10 x 1- ½" Woodgrip Screw		Magnetic Nut Drivers
	#12 x 3/4" Woodgrip Stitch Screw		Snips
	#10 x 1" Pancake Head Screw		Tape Measure
	Roof Boot Flashing Fits pipes from 1-1/4" to 18" in diameter		Hemming Tool (*Used in hidden fastener trim applications)
	Butyl Tape Sealant 3/32" x 3/8" - 45' Roll	TRAITE CO.	Chalk Line
	Acrylic Tab Foam Closure- 6m Roll		Pop Rivet Setter (*Used in hidden fastener trim applications)
	Universal Tab Foam Closure 1"x1" - 50' Roll or 1-1/2" x 1-1/2" - 50' Roll		Electric Shear
METAL ROOF	Tube Metal Roof Sealant - Clear Also stocked: Black, Brown, Green, Grey & White		Cordless Screw Gun/ Drill
	Caulking Gun		

^{*} The use of a circular saw or an abrasive cut off wheel is not recommended. The power saw can leave a burred edge and the hot sparks can burn the paint leaving it susceptible to rust.



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(GENERAL INSTALLATION INFORMATION)

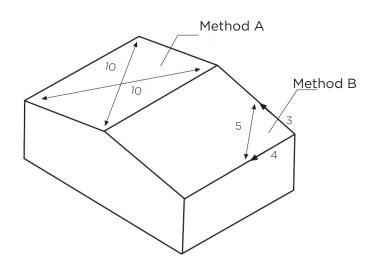
It is recommended that the installer review the installation instructions and become familiar with all aspects of the process before beginning the project. Prior to starting installation, the substrate and framing should be inspected to ensure that all supporting members are straight, level and plumb 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 either an approved synthetic underlayment or minimum 15lb felt is recommended. Typically a $#10 \times 1$ " Woodgrip pancake head screw 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 trims to be installed and their method of installation as some trims 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.



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Some field cutting and fitting of panels and trims will be required by the installer. Minor field corrections are to be expected and are a normal aspect of any project installation.

When applying sealants, ensure the surface is clean and dry to ensure the best adherence and seal is achieved with each trim and flashing application.

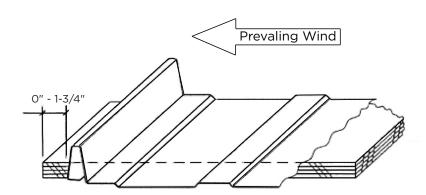
It is important to note that oil canning in the flat area of the SNAP-TITE $_{\tiny \circledR}$ panels is a common occurrence and does not affect the overall integrity of the panels. Therefore oil canning is not a reason for rejection. Distortion in the panel caused by; handling, an uneven substrate, ripples or laps in the underlayment, construction debris or extreme temperature changes are not a cause for rejection of the material.

(ROOF PANEL INSTALLATION)

When installing SNAP-TITE_® panels, the first panel should be installed at the gable end of the roof opposite to the prevailing rain bearing wind (this will ensure that wind driven rain will not penetrate the lap).

For the best results a synthetic underlayment over the solid roof deck should be used to repel any moisture from the roof deck and will reduce or eliminate any potential issues with condensation.

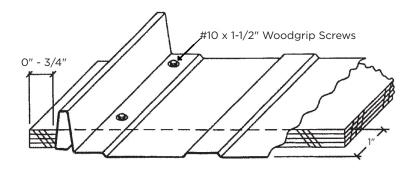
- 1. After checking to ensure that the roof deck is adequate and the proper underlayment is installed, snap a chalk line within 1-3/4" in from the gable edge that is plumb and square as illustrated below.
- 2. Align the female edge of the first panel with the chalk line leaving a 1" overhang at the eave.



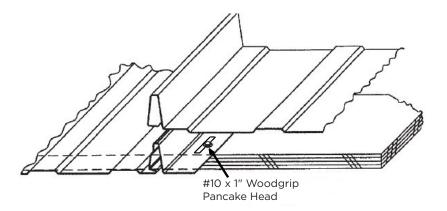
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- 3. At the ridge the sheet should be perpendicular to the ridge for trim attachment.
- 4. Check the panel alignment to ensure it is plumb and square. If it is correct, fasten the panel to the roof deck along the gable edge (Overlap edge) of the panel with #10 x 1-½" colored Woodgrip screw every 2' on centre. Then screw the panel down along the under lap in the fastening flange with #10 x 1" Woodgrip Pancake Head Screw every 12" to 18" in the centre of the flange provided.

NOTE: To avoid panel distortion and allow for maximum expansion and contraction of the panel they should be snug. Do not overdrive the Woodgrip Pancake Head Screws when fastening panels to the solid deck.



5. Align the next panel over lap edge with the starter panel's under lap edge. Ensure that the panels are flush. The panel should extend the eave by no more than 1".



- 6. Lightly compress and snap the panel from the eave to the ridge. Check that the panel has remained flush at the eave.
- 7. Once the panel is snapped into place, fasten the panel with #10 x 1" Woodgrip Pancake Head Screws along the under lap edge every 12" to 18".
- 8. Continue to apply panels as in steps 5 through 8.

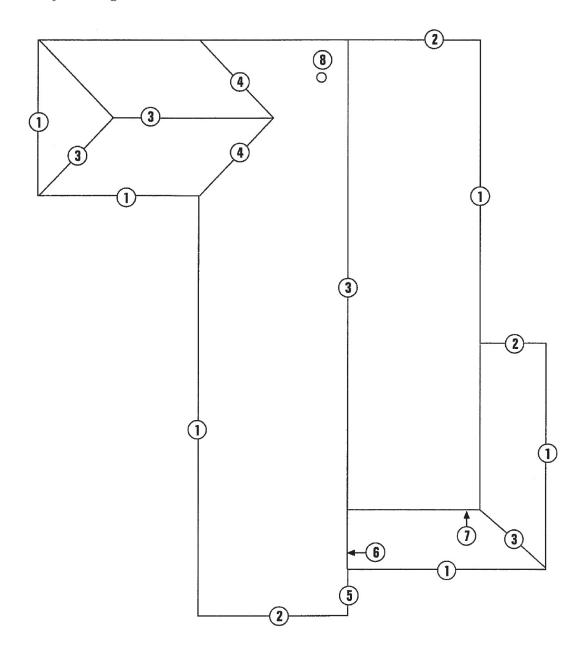


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(TRIM LOCATION CHART)

- Eave Flashing
- 2. Gable Flashing
- 3. Ridge Cap/Hip Flashing & Z-Bar
- 4. Valley Flashing

- 5. Peak Cap Flashing
- 6. Sidewall Flashing
- 7. Endwall Flashing
- 8. Roof Boot

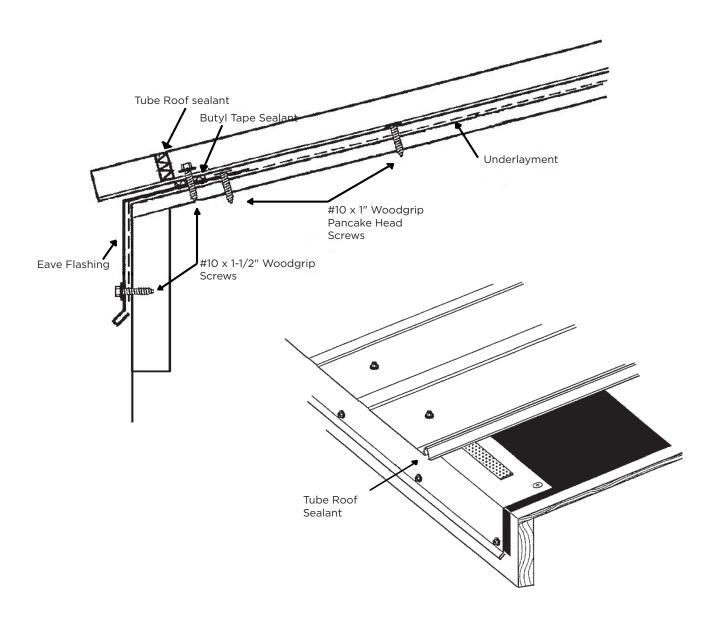


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(EAVE FLASHING)

Note: The Eave Flashing must be installed prior to the installation of the panels.

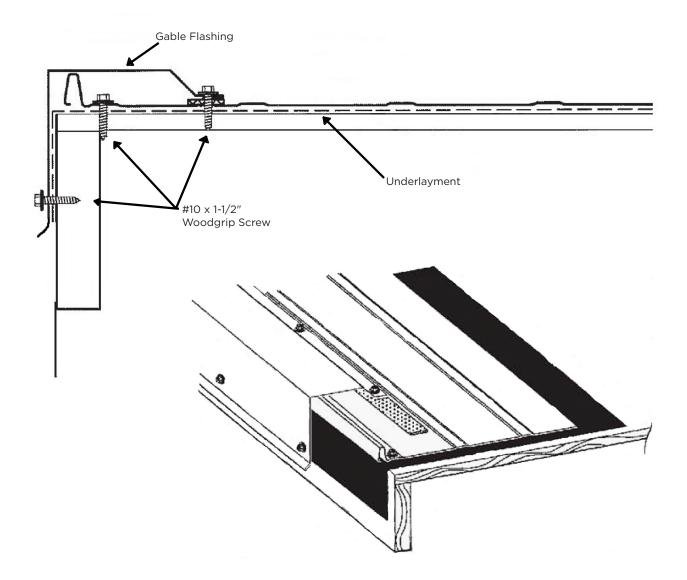
- 1. Attach the eave trim to the building prior to panels with roofing nails or wafer screws.
- 2. Place a row of Butyl Tape Sealant on the top portion of the eave flashing.
- 3. Install the SNAP-TITE $_{\odot}$ panel, with a 1" overhang, and fasten at the eave with #10 x 1- ½" Woodgrip screws between the minors in the flat of the panel to ensure a good seal as illustrated below.



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(GABLE FLASHING)

- 1. Place roof panel(s) as per the installation instructions.
- 2. Place a row of Butyl Tape Sealant from the eave to the ridge where the gable trim will sit as illustrated below. This will ensure a good seal.
- 3. Place the gable trim on top of the panel so that it is flush with the face of the fascia.
- 4. Fasten the gable flashing down with #10 \times 1- $\frac{1}{2}$ " Woodgrip screws every 12" through the already applied Butyl Tape Sealant, panel and into the roof deck as illustrated below.
- 5. Place the same fasteners in the face of the trim attaching to the fascia.



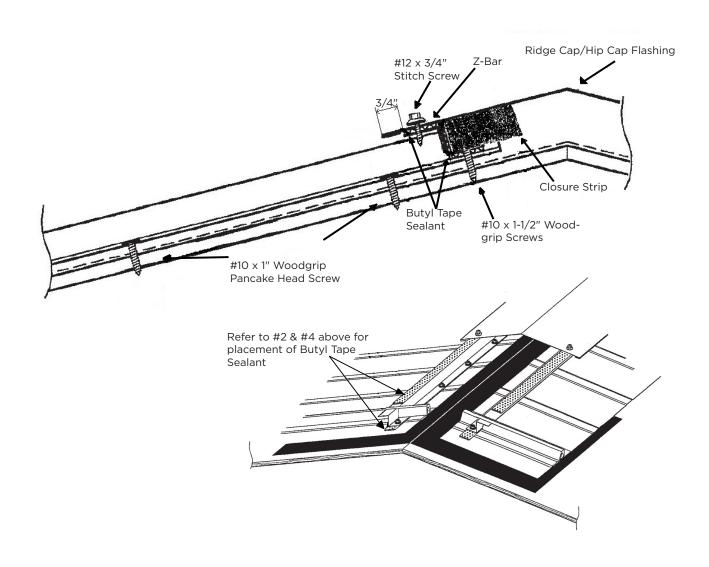


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(RIDGE CAP/HIP FLASHING & Z-BAR - STANDARD AND VENTED)

Note: The Gable Flashing must be installed prior to installing the Ridge Cap.

- 1. Panels should end parallel to the ridge. Where venting at the ridge, ensure the panels are 2" short of the ridge to allow for air flow.
- 2. Cut the Z-Bar (Vented or Non-Vented) into lengths that will fit between the ribs of the panel. Apply a row of Butyl Tape Sealant to the bottom of the Z-Bar to seal it to the panel. Fasten through the Z-Bar, panel and substrate with #10 x 1- $\frac{1}{2}$ " Woodgrip screws setback as illustrated below.
- 3. Install the Closure Strip (Vented or Non-Vented) behind of the Z-Bar as illustrated below.
- 4. Put a row of Butyl Tape Sealant on top of the Z-Bar. Place the ridge cap on top of the Z-Bar.
- 5. Fasten the ridge cap to the Z-Bar using $#12 \times 3/4$ " stitch screws as illustrated below.



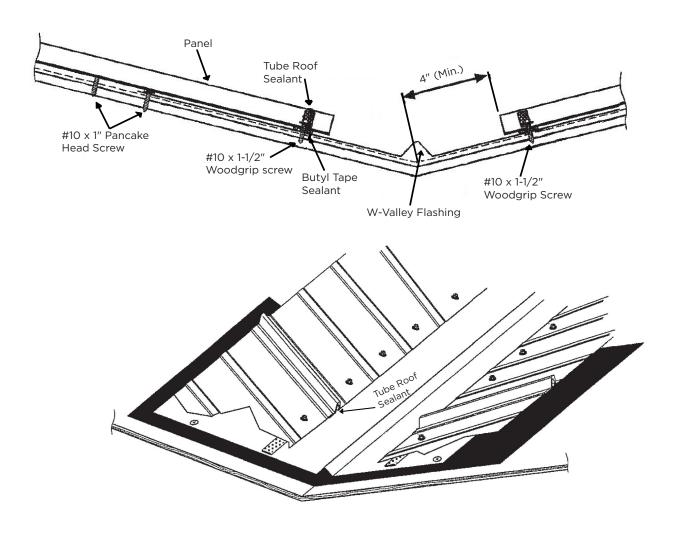


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(VALLEY FLASHING)

Note: The Valley Flashing must be installed prior to the installation of the panels.

- 1. Place an additional layer of roofing membrane in the valley with 18" on each side of centre.
- 2. Begin placing the valley trims at the eave leaving a 1" overhang, fastening with #10 \times 1" pancake head screws. Tube Roof Sealant and end-lap valley trims by a minimum of 6".
- 3. Parallel to the valley, place a row of Butyl Tape Sealant approximately 1" from the end of where the panel will sit on the valley flashing, for the entire length of the valley.
- 4. Field cut the panels in accordance to your roof pitch and place onto the roof and into the valley. Leave at least 4" from the centre of the valley to the start of the panel.
- 5. After panels are cut and installed, place $\#10 \times 1- \frac{1}{2}$ " Woodgrip screws approximately 1" from the edge of the panel where it meets the valley flashing, making sure that the fastener penetrates the previously applied Butyl Tape Sealant. This needs to be done for the full length of the valley. See below for fastener placement.
- 6. Seal panel ends (the major rib) with Tube Roof Sealant as illustrated below.

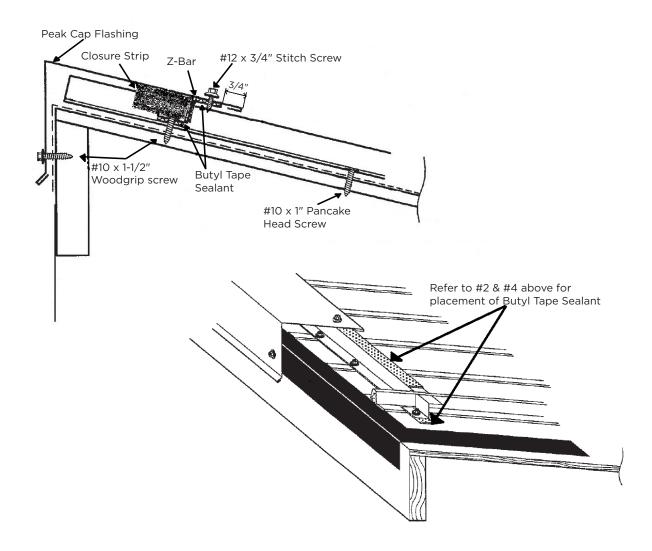


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(PEAK CAP FLASHING)

Note: The Gable Flashing is to be installed prior to the Peak Cap Flashing.

- 1. Panels at the peak should be parallel to the edge with no overhang.
- 2. Cut the Z-Bar (Vented or Non-Vented) into lengths that will fit between the ribs of the panel. Apply a row of Butyl Tape Sealant to the bottom of the Z-Bar to seal it to the panel. Fasten through the Z-Bar, panel and substrate with #10 x 1- ½" Woodgrip screws setback as illustrated below.
- 3. Install the Closure Strip (Vented or Non-Vented) behind of the Z-Bar as illustrated below.
- 4. Put a row of Butyl Tape Sealant on top of the Z-Bar. Place the Peak Cap on top of the Z-Bar and fasten with $\#12 \times 3/4$ " Woodgrip Stitch Screw every 12" as illustrated below.
- 5. Fasten the face of the Peak Cap flashing with $#10 \times 1-1/2"$ Woodgrip screws into the fascia every 12".

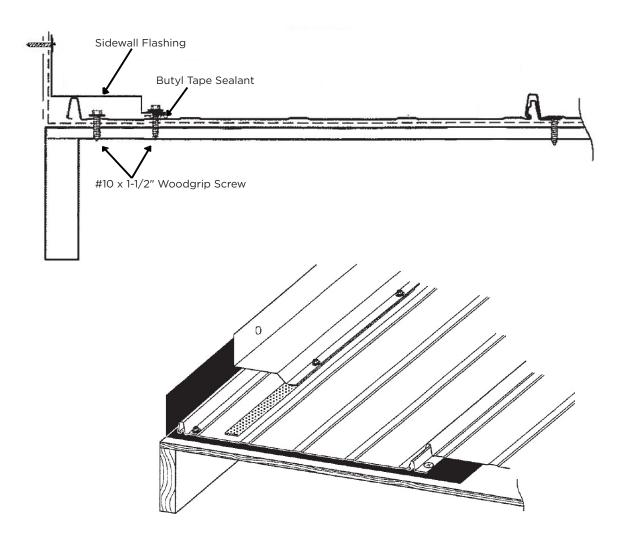




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(SIDEWALL FLASHING)

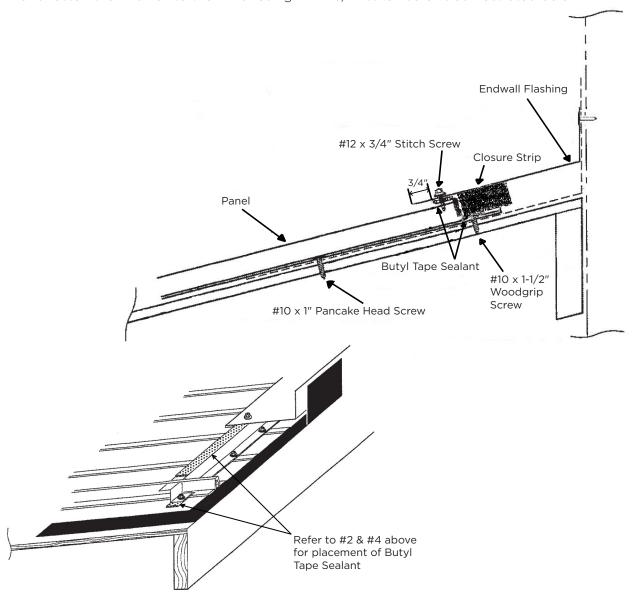
- 1. Place Butyl Tape Sealant along the length of the panel where the Sidewall Flashing will meet to provide a good seal as illustrated below.
- 2. The Sidewall Flashing should be installed under the wall covering and over the roofing panel. Attach the trim to the wall with a galvanized roofing nail.
- 3. Attach the trim to the panel with #10 \times 1- $\frac{1}{2}$ " Woodgrip screws making sure to screw through the previously applied Butyl Tape Sealant.



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(ENDWALL FLASHING)

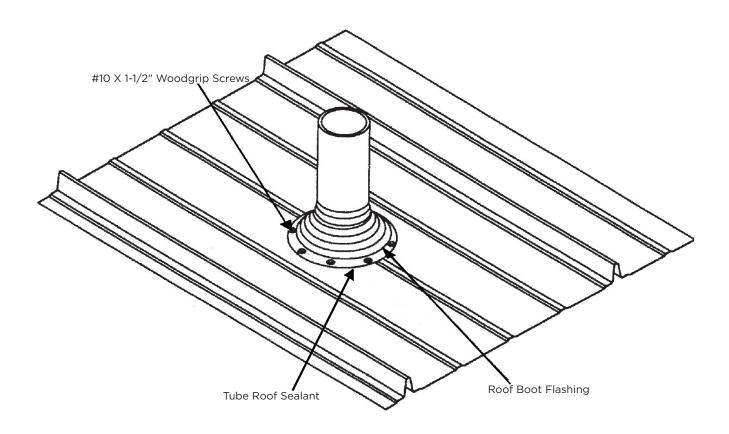
- 1. Panels should end parallel to the high side of the wall.
- 2. Cut and attach the Z-Bar to fit between the ribs of the panel, placing a row of Butyl Tape Sealant to seal the Z-Bar to the panel, and attach it to the panels through the substrate with #10 \times 1- $\frac{1}{2}$ " Woodgrip screws setback as illustrated below.
- 3. Install the Closure Strip (Vented or Non-Vented) behind of the Z-Bar as illustrated below.
- 4. The Endwall Flashing should be installed under the wall covering and over the roofing panel. Attach the trim the wall with a galvanized roofing nail.
- 5. Put a row of Butyl Tape Sealant on top of the Z-Bar. Place the Endwall on top of the Z-Bar and fasten the Endwall to the Z-Bar using #12 x 3/4" stitch screws as illustrated below.



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(VENT FLASHING)

- 1. Cut the pliable Roof Boot Flashing to the appropriate pipe diameter as indicated on the sleeve.
- 2. Slide the Roof Boot Flashing over the pipe.
- 3. Seal between the base and roof panel with a tube of Roof Sealant.
- 4. Adjust the Roof Boot to fit the contours of the panel.
- 5. Fasten the Roof Boot to the roof with #10 x 1- ½" Woodgrip screws.



Thank you for choosing METAL Roofing & Siding ${\rm EXPERTS_{\tiny @}}$ and our ${\rm SNAP-TITE_{\tiny @}}$ profile.

For additional information about our products or questions that may arise from the review of this manual please contact us at 1-888-2METAL4 (1-888-263-8254).

We hope you enjoy your roof for many years to come!



Material & Installation CheckList

(MATERIALS CHECK LIST)	
Strapping	
Underlay/Ice & Water Shield	
Roofing/Siding Panels (prepare a cut list)	
All required Trims	`
☐ Fasteners (stitch screws necessary for low slope app ☐ Closures)
Ridge Cap Vented Closures	
End Closures (for ridge cap)	
Butyl Tape Sealant & Caulking	
Insulation	
Roof Boots	
Nooi Boots	
(INSTALLATION TOOLS CHECK LIST)	
Chalk Line	
Pencil or Scratch Tool	
Utility Knife	
String Line	
25' Measuring Tape	
Screw Gun w/appropriate Hex Head Sockets	
Hex Driver(s)	
Vice Grips - Standard & Duckbill	
Snips - Right, Left & Centering cuts	
Caulking Gun & Caulk	
Hammer	
Drill & Bits (to pre-drill holes)	
(NICE TO HAVE)	
Power Shears	
(01)	
(SAFETY CHECK LIST)	
Gloves	
Ear Plugs	
Safety Vest	
Safety Harness & Tie Down	
Soft Sole Footwear	
Head Cover	
Sunscreen	
Safety Glasses - Sunglasses	



Packaging & Storage

PACKAGING: Roofing, siding and trims are packaged using protective packaging to help protect the goods in shipping and handling. See "Storage Instructions" to help ensure the goods are stored correctly before installation.

The customer should take whatever steps necessary to ensure the goods remain dry after delivery. Roofing and siding sheets are protected with wood battens on or near each end and down the length of the panel to ensure safe shipment. Additional wood skids will be used when deemed appropriate by Metal Experts® for that order. Additional crating charges may apply to specific orders. This kind of protection helps ensure the goods are not damaged during shipping, handling and storage.

STORAGE INSTRUCTIONS: If metal and siding panels are not to be used immediately the panels should be stored in a dry place. The panels should be unbundled and stood on end indoors, if possible. It is very important to store the panels in a dry, well ventilated area. If the product cannot be stored indoors, elevate one end of the bundle 8" to allow any moisture to run off while being stored. DO NOT store panels in direct contact with the ground. Make sure to put some type of a block under the bundles when set on the ground. Ensure there is good airflow around the entire bundle to avoid moisture build up. Avoid storing panels near alkaline materials such as fertilizer, cement, lime, salt, etc. Moisture trapped between the panels will cause paint to bubble and white rust to form on unpainted panels. METAL EXPERTS® assumes no liability for panels that are not properly stored.

PANEL CUTTING: When cutting painted panels, ensure the metal particles and fragments do not end up on the painted surface. Metal particles on painted surfaces will result in rusting and pitting in that area. We suggest that the panel be turned upside down and all cutting be done looking at the backside of the material. Installers should be certain to wipe away any debris from the material after cuts to prevent this problem. Panels should be cut in an area where the metal particles do not end up on other panels or building material. **Failure to remove metal particles from the panel(s) may result in a voided warranty**.

WHITE RUST/OXIDATION: White rust on bare galvalume metal is the result of zinc oxidation in the absence of oxygen. This occurs in coil or bundles of sheet metal that are nested and absorb moisture from humidity in the air or direct rainfall. The oxidation appears as a white chalky build-up on the surface of the metal. This can be stopped by applying a vinegar solution or light oil, such as WD-40.