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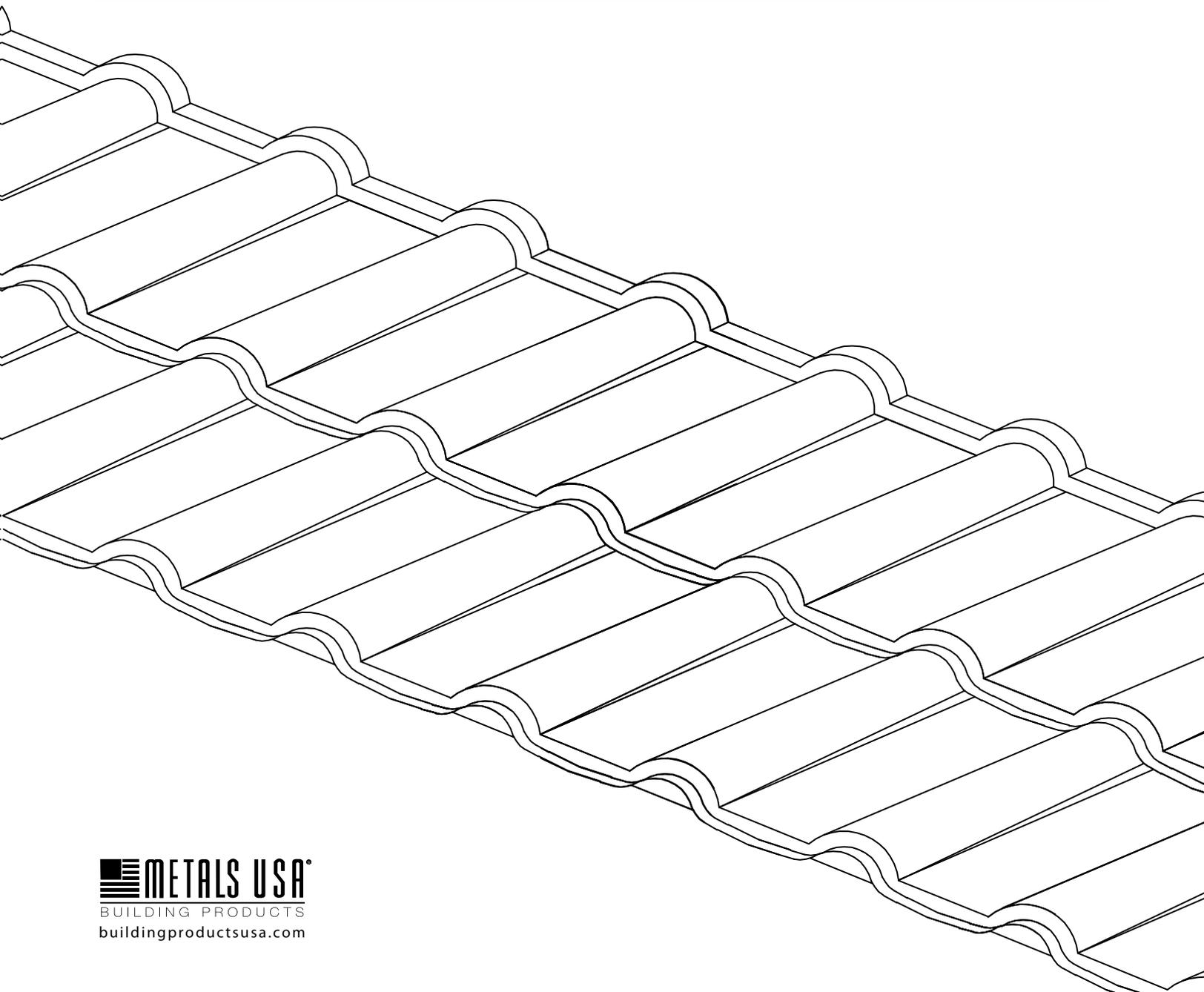
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# Installation Manual

## Talavera Non-Batten

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# Talavera NB Installation Manual

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This Installation Manual is designed as an instructional tool to clearly depict to the contractor, installer, distributor and architect, recommended installation techniques and procedures to confidently estimate and install a Talavera NB (Non-Batten) roofing system by Allmet Roofing Products.

**This manual depicts generally practiced application techniques only, which should not be substituted for local building code specifications. Metals USA Building Products Canada Inc. carries product approval reports for most building code agencies in North America and the UK which should be referenced for specific local requirements (see list).**

These methods have been developed by Allmet Roofing Products as proven acceptable and tested methods of installing Allmet Stone Coated Steel Roofing Products. Allmet Roofing Products does not construe that these are the only methods but again are the tried and true proven techniques that are currently practiced by the majority of trained installers.

This manual emphasizes common roofing practices in use today. If application techniques vary from those illustrated in this manual or if using this manual for applications not covered, please consult the technical department at **1-800-265-9357**.

As Allmet Roofing Products nor Metals USA Building Products Canada Inc. have no control over the installation techniques used, no warranty can be made relating to the installation of Allmet products.

Testing reports for various areas are available which should be analyzed for additional procedures after careful review of this manual.

A careful study of this manual will give a full comprehension of a Talavera NB (Non-Batten) roof installation.

**Allmet assumes no liability for either incorrect installation of its products or personal injury that may occur as a result of installing such products. The installation methods demonstrated in these materials are not the only ways to install Allmet products, but have been developed as a reference guide using acceptable, tested and proven methods for the standard installation of Allmet products. Contractors and installers should at all times use their professional judgment, and modify and tailor such methods where appropriate or necessary to suit each specific installation or any applicable local building codes or ordinances. Due to the fact that Allmet has no control over the actual installation techniques used, no warranty is expressed or implied relating to installation of the product. Allmet's liability with respect to Allmet products is limited exclusively to its standard written limited lifetime warranty.**

**Please Note: It is the responsibility of the installer to adhere to local building codes.**

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# General Information

## Section One



### Storage

Product must be kept covered, well ventilated and dry until installed. If the stacked tiles become wet, they should be immediately separated and dried otherwise staining may occur. Prolonged wetness in the pile could create an electrolytic action which will negatively affect the products effective service life and subject the coating to permanent damage, especially if subjected to freezing weather, which is not covered by the product warranty. Please refer to the MCA minimum performance guidelines for more detailed standard practice information relating to site storage of metal roofing.

### Roof Traffic

The Talavera NB tiles by Allmet are installed from the bottom up. When walking on the installed tile is required, walk on the front edge of the low sections.

### Footwear

When it is required to walk on the Allmet tiles, rubber soled athletic type shoes or similar soft soled footwear is recommended to avoid coating damage and to provide a super grip for safety.

### Roof Pitch

The Allmet tile is designed to be installed from a minimum of 4:12 pitch up to a vertical face in all climates and down to 3:12 pitch in warm weather climates. For slopes under 3:12, the tiles generally act only as a decorative roof covering. In this type of installation please consult our technical department and the local building officials.

### Underlayment

Underlayment is generally required by most building codes. When allowed by the building code, underlayment is not required in re-roofing over existing composition roofs when the existing roof is in acceptable condition to act as the roofs underlayment. **The exception** to this condition will be in areas of extreme weather conditions where the underlayment should be

of a type approved by the local building code and official. When installing over open rafters a self-supporting underlayment is recommended that is equal to "Tri-Flex 30."

### Galvalume™

The Allmet Stone Coated Steel Roof System is produced exclusively from long lasting Galvalume™ Steel. The Galvalume™ coating will react unfavorably if in direct contact with lead or copper in a wet environment. Rain water run-off from copper roofs onto an Allmet Roof should be avoided as it is very aggressive in nature and has a history of attacking the finishes. **Only approved fasteners should be used.** Please consult the technical department for recommendations.

### Pressure Treated Battens

*The use of pressure treated lumber should NOT be used when installing Allmet roofing products, and will void the lifetime limited warranty offered by Allmet on such products. Any questions call our technical department at 1-800-265-9357.*

### Use of Fasteners in Saltwater Areas

*All exposed fasteners used for the installation of Allmet Roofing Products in the state of Florida, on all Caribbean Islands and within ten miles of salt water must be installed using stainless steel fasteners or Allmet's super screws.*

### Severe Weather Conditions

If the area is prone to severe ice, snow, water or wind, additional measures may be required. Please contact the Allmet technical department for more detailed procedures 1-800-265-9357.

### Installation Labor

A minimum two man crew is recommended from start to finish. This will ensure a cost effective, quality installation. A qualified two man crew is generally able to install one square (100ft ) per hour under normal circumstances.

### Bending

The unique Allmet ceramic granular coating is

## **General Information**

### *Definitions*

very dense and some minor cracking of the coating can be expected when bending the product. This tends to be more severe in colder weather and if the radius of the bends are too small. Allmet recommends that where the bends are exposed (valleys, skylights) spray glaze be applied to the bend. In more severe applications ceramic granular should be applied into a coat of spray acrylic then sealed with another coat of acrylic. This method should also be used to repair the coatings where accidental damage has occurred. Touch-up materials are available through your local distributor.

### **Building Codes**

*It is the responsibility of the contractor / installer to check and meet all the requirements of local and national building codes before starting the installation. Pay special attention to the specific ventilation requirements of the building code. Roofs over conditioned space are required to be ventilated.*

### **Scuffing**

Minor scuff marks that show up white will visibly disappear by washing with water. Full protection of the coating is restored with a spot application of spray acrylic.

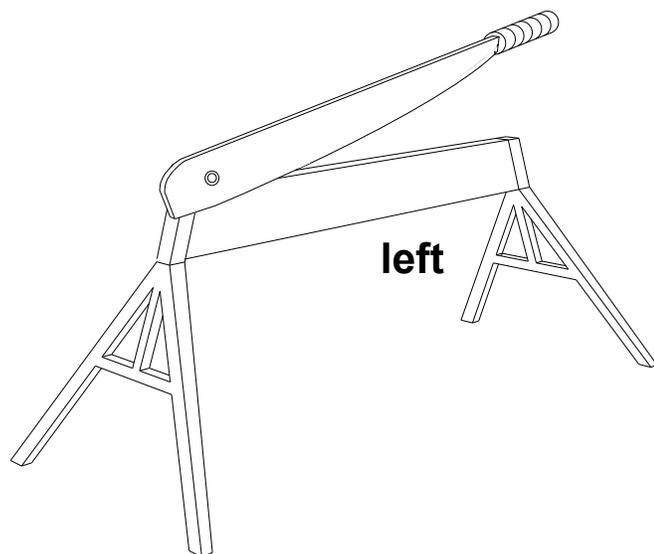
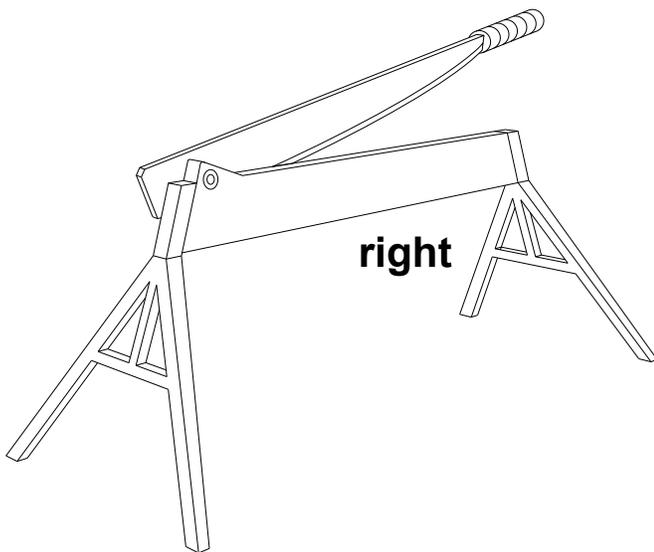
#### True-Cut Shear

This tool is used to cut the Allmet panels both across or length ways. The legs are removable for ease of handling. Comes with a reversible blade.

Weight: 57 lbs. / 27 kg

Part #10-00-50 (R)

Part #10-00-55 (L)



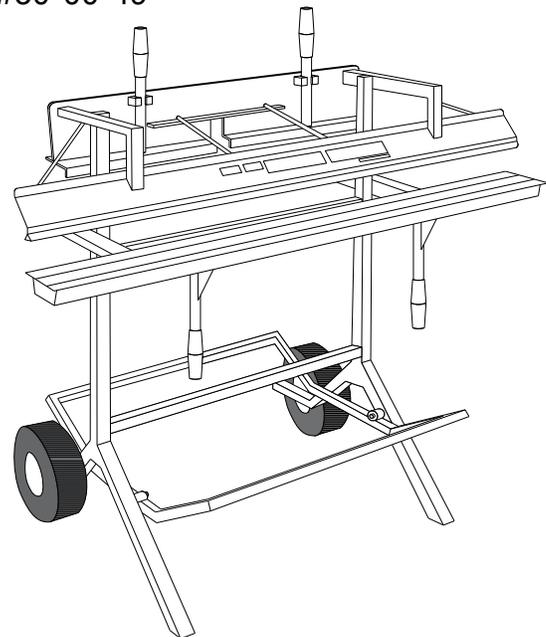
#### Shake break

This universal tool is designed to perform four specific tasks:

1. Half panel bends up or down across the width of a panel for hip, valley, gable and roof to wall terminations.
2. Full panel bends up or down across the width of a panel for ridge, pitch change or roof to wall.
3. Bend flat stock or re-bend existing flashings.
4. Complete a tapered folded return across the width for finished end details.

Weight: 132 lbs. / 60 kg

Part #30-00-49



NOTE: Replacement parts are available for all Allmet tools. Contact Inside Sales.

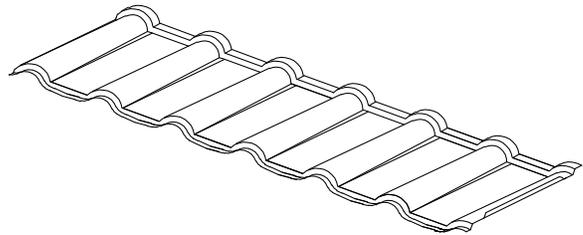
# Talavera NB Installation Manual

## General Information

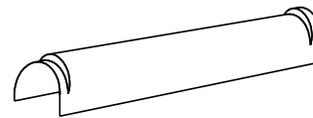
### Panels and Accessories



	Imperial	Metric
<b>Talavera NB Tile</b>		
<b>Part # 47-XX-01</b>		
Overall Length	50 1/2"	1283 mm
Length of Cover	47 1/4"	1200 mm
Width of Cover	15 13/16"	402 mm
Upstand	7/8"	22 mm
Tile Coverage	5.2 ft <sup>2</sup>	0.48 m <sup>2</sup>
Weight	6.0 lbs	2.8 kg



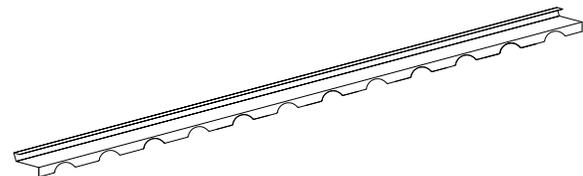
<b>Barrel Cap</b>		
<b>Part # 10-XX-02</b>		
<b>End Disc Part # 10-XX-05</b>		
Overall Length	16 1/2"	420 mm
Length of Cover	15 13/16"	402 mm
Width	5 1/2"	140 mm
Overall Height	3 1/2"	90 mm
Weight	1.2 lbs	0.6 kg



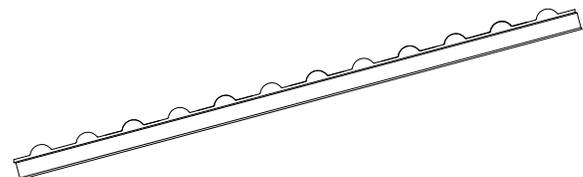
Barrel Cap

End Disc

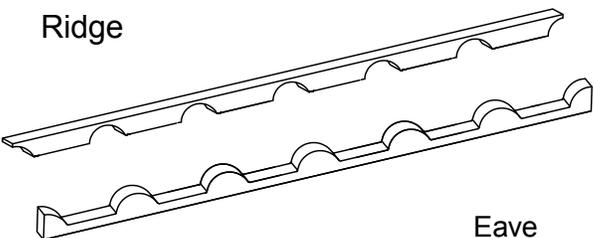
<b>Talavera Wind Soffit</b>		
<b>Part # 46-XX-12</b>		
Overall Length	8'	2443 mm
Length of Cover	7' 10 1/2"	2400 mm
Rear Upstand	1 1/2"	38 mm
Horizontal Width	4"	101 mm
Profile Down Turn	1 5/8"	41 mm
Weight	7.5 lbs	3.4 kg



<b>Talvera Bird Edge 3"</b>		
<b>Part # 46-XX-13</b>		
Overall Length	8'	2443 mm
Profiled Height	1 3/4"	44 mm
Pitched Return	3/4"	19 mm
Kick	1/2"	12 mm
Weight	3.2 lbs	1.5 kg



<b>Talavera Foam Closure</b>		
<b>Ridge Part # 46-00-17</b>		
<b>Eave Part # 46-00-16</b>		
Length	47 1/4"	1200 mm
Width	3/4"	19 mm
Weight	1.4 oz	40 g

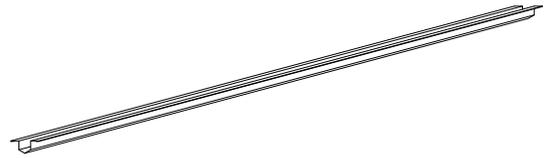


Ridge

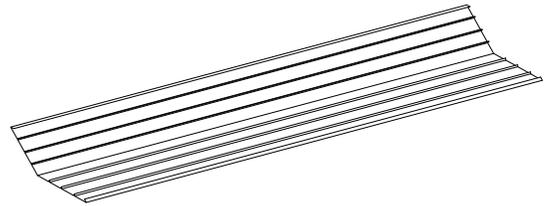
Eave



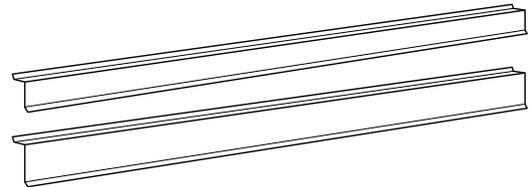
<b>Valley Cover</b>	<b>Imperial</b>	<b>Metric</b>
<b>Part # 46-XX-04</b>		
Overall Length	8'	2443 mm
Length of Cover	7' 8"	2337 mm
Depth	1 5/8"	41 mm
Width	5 3/8"	137 mm
Weight	7 lbs	3.2 kg



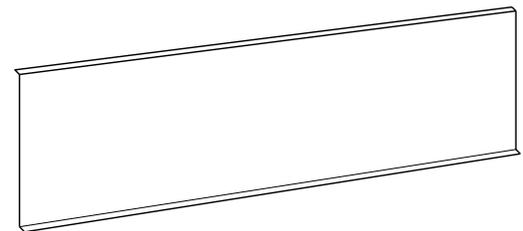
<b>24" Valley</b>		
<b>Part # 46-00-23</b>		
Overall Length	8'	2443 mm
Length of Cover	7' 8"	2337 mm
Width	24"	610 mm
Rigletts	3/8"	10 mm
Return	3/4"	19 mm
Weight	12 lbs	5.4 kg



<b>FGW 3" / 5" (Fascia Gable Wall)</b>		
<b>Part # 20-XX-13 / Part # 20-XX-15</b>		
Overall Length	8'	2443 mm
Length of Cover	7' 8"	2337 mm
Exposed Face	3 1/4" / 5"	83 / 123 mm
Kick	1/2"	12 mm
Return	3/4"	19 mm
Weight	3.6 / 4.4 lbs	1.8 / 2 kg



<b>All Purpose</b>		
<b>Part # 20-XX-08</b>		
Overall Length	4' 4"	1321 mm
Width	17"	432 mm
Left/Right Kick	1/2"	12 mm
Weight	6 lbs	2.8 kg



<b>Stitch Screw</b>		
<b>Part # 46-XX-20</b>		
Long Life Coated		
	#8 x 1/2"	#8 x 12.7 mm
	1/4" Painted Hex Head	6 mm Hex Head



# Talavera NB Installation Manual

## General Information

### Panels and Accessories



**Imperial**  
**Super Screw (Flashing, Trim Fastener)**  
**Part # 10-XX-19**

Long Life Coated (Stainless)

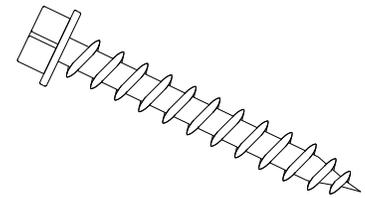
# 10 x 1 1/2"

1/4" Painted Hex Head

**Metric**

# 10 x 38 mm

6 mm Hex Head



**Stainless Steel Screw (Panel Fastener)**  
**Part # 46-XX-22**

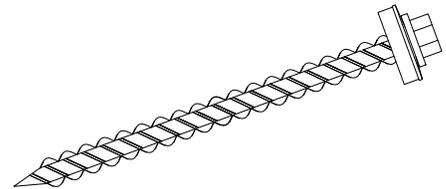
Long Life Coated (Washed)

# 10 x 2 1/2"

1/4" Painted Hex Head

# 10 x 63.5 mm

6 mm Hex Head



**Caulking**

Part # 00-XX-26

Size

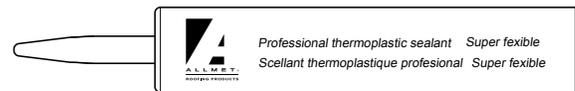
10 oz

284 ml

Weight

1 lbs

0.45 kg



**Coating Repair Kit**

Part # 00-XX-62

Allmet Acrylic

4.2 fl oz

120 ml

1 lbs

0.11 kg

Touch-up Granules

3 lbs

1.36 lbs



**Versa Vent®**

Part # 20-00-55

Length per piece

10'

3.05 m

Width

2"

50.8 mm

Thickness

1"

25 mm

Free Area

17 in2/ft

109.65 cm2/m

Weight per box

9 lbs

4.08 kg

Pieces Per box

10



**Cor-A-Vent®**

Part # V-600T460056

Length per piece

48"

1219 mm

Height

3 1/4"

83 mm

Width

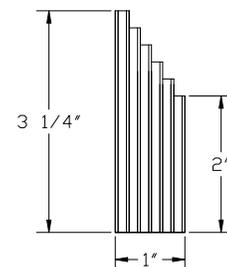
1"

25 mm

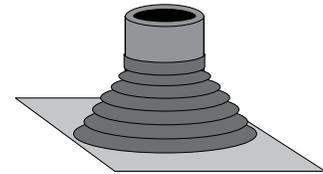
Ventilation

10 in2

NFVA per Ln Ft



### Masterflash Part # 00-00-33



## Allmet Caulking

### Description

High grade rubber-based thermoplastic sealant

### Features

- 25 year life expectancy
- Super flexible (can be applied in winter and summer)
- Excellent weather and UV resistance
- No primer required
- Will not pick up dirt
- Can be painted with latex paints
- Will not freeze

### General Appearance

- Clear in color
- Homogenous paste without lumps
- Easy to extrude

### Limitations

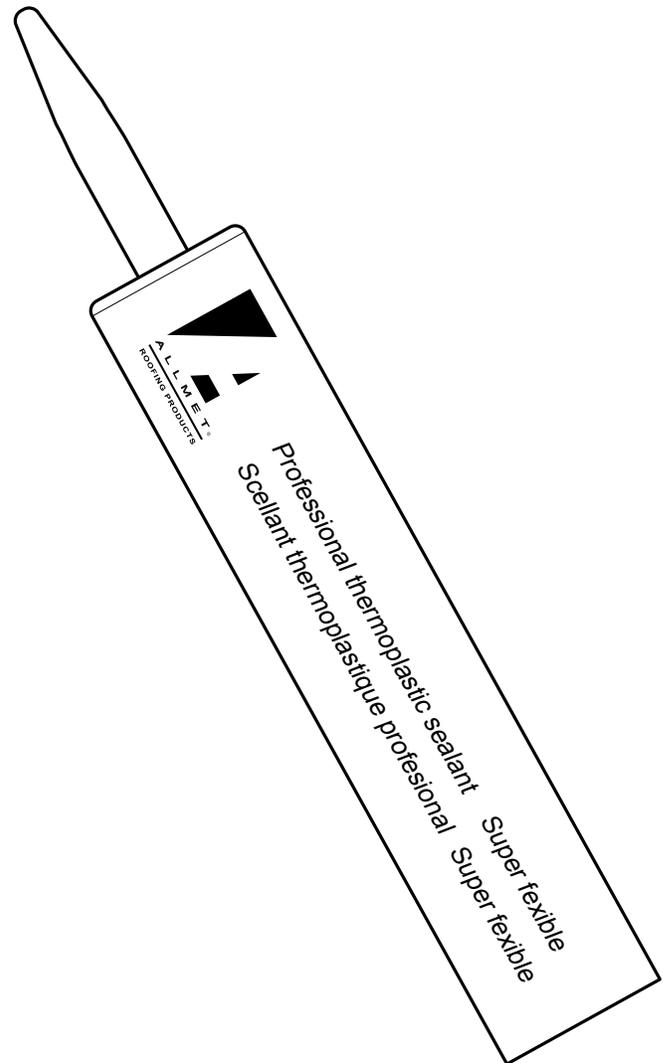
Do not use over asphalt, polystyrene, silicone or oily surfaces

### Storage

Store in a dry place where the temperature is between 50 F (10 C) and 86 F (30 C).

### Guarantee

This product is guaranteed to be of top quality and will give full satisfaction and performance if applied according to the manufacturer's directions for usage. This liability is limited to reimbursement of the purchase price if the product proves defective.



### Excellent Adhesion to Most Substrates

- Steel
- Concrete
- Vinyl
- Aluminum
- Wood
- Fiberglass
- Brick
- Glass

## General Information

### Health and Safety

#### Surface Preparation

- Joint surfaces must be dry and clean, free of dust, soot, asphalt, silicone, loose paint flakes and foreign particles.
- Do not use on materials soluble in solvents such as asphalt, polystyrene, etc.
- Oily metal surfaces should be washed with acetone and dried.
- Clean rusted metal with a metal brush.
- If the depth exceeds 3/8" (10 mm) use a joint backing.

#### Safety Measures

- This product contains flammable solvents.
- Do not smoke when using this product.
- Work in ventilated conditions.
- If the product is used inside, it is important that during use and while the product is curing to ventilate the air towards the exterior (do not recycle air).
- Eliminate all sparks or flame producing sources and all intense heat sources from or near work place.

#### Applications

- Cut cartridge spout at a 90 angle slightly wider than the width of desired joint.
- Pierce the aluminum membrane which seals the cartridge inside the nozzle.
- Apply an even pressure with a caulking gun.
- Fill the joint entirely in depth and width.
- The angle between the gun and the joint must be about 45 degrees.
- Seal the joint and make sure that the sealant exceeds by at least 1/8" (3 mm) the width of the joint opening to be sealed.
- For cleaning use mineral spirit.

#### Coverage: linear feet per cartridge

Depth (in.) 1/4 3/8 1/2 5/8

Width (in.)

1/4	31	20.7	15.5	12.4
3/8	20.7	13.8	10.3	8.3
1/2	15.5	10.3	7.7	6.6

#### Notice

For applications on substrates not specified on this technical data sheet, consult our technical department.

#### Recommended Storage Temperature:

Minimum: 50 F (10 C)

Maximum: 86 F (30 C)

#### Service Temperature:

Minimum: -13 F (25 C)

Maximum: 122 F (50 C)

#### Recommended Minimum Application Temperature:

Surface: -13 F (-25 C)

Product: 50 F (10 C)

#### Recommended Maximum Application Temperature:

Surface: 104 F (40 C)

Product: 86 F (30 C)

#### Approximate Flash Point: 80 F (26 C)

#### Restrictions

- Avoid use where solvents could taint food or other odor sensitive products.
- Do not use on insulating boards which could be affected by solvents.
- Never apply onto substrates having previously received an asphalt or coal tar product (coating, adhesive, etc.)
- Do not apply onto damp or frozen surface.
- Does not withstand traffic.
- Does not withstand immersion.



#### **Caution**

- Make sure joint variation does not exceed product elasticity.
- Make sure that thermal glasses do not present cutting oil on the surface.
- In order to facilitate the application, store product at a fairly warm temperature during the cold season.
- Product drying time depends on temperature and ventilation.
- Drying time increases when temperature decreases.

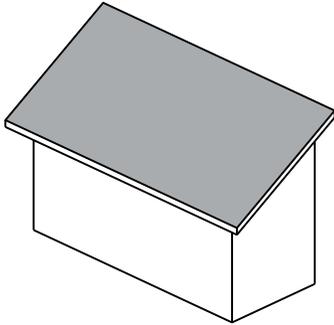
#### **First Aid**

- Eye Contact - This product contains petroleum distillates. If splashing occurs, wash thoroughly with water for at least 15 minutes; contact a physician.
- Skin Contact - Wash with vegetable oil following with soapy water and rinse.
- Ingestion - Contains petroleum distillates, do not induce vomiting. Immediately contact a physician.
- Vapor Incommodation - Sensitive people may be incommodated by solvent vapors when used indoors. Take the person outside and give him some fresh air. If discomfort persists, consult a physician.
- Fire - This product is flammable when applied and burns when dry. Use water or Class A fire extinguishers in case of fire.
- Safety - For more information on safety utilization of product, consult the material safety data sheet (MSDS) before using.

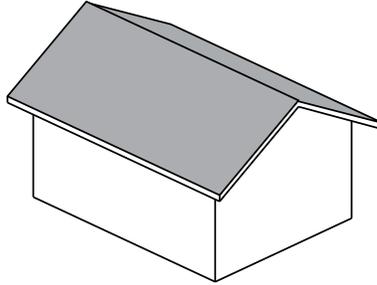
# Estimating

## Section Two

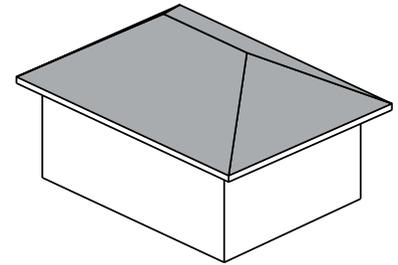
## Five Basic Styles of Roofs



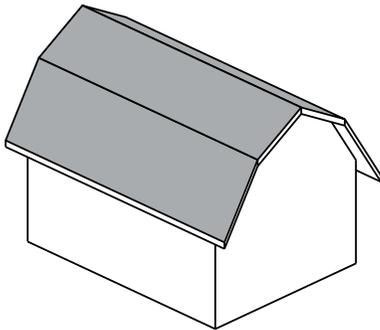
**Shed**



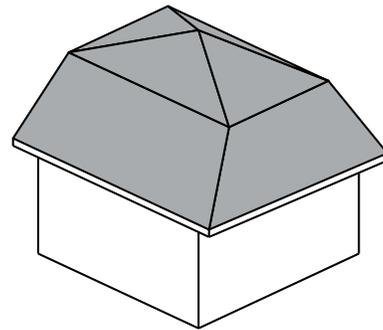
**Gable**



**Hip**

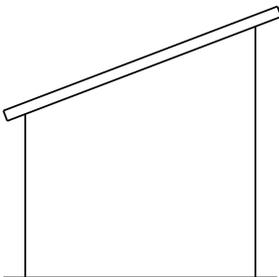


**Gambrel**

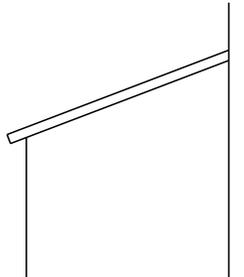


**Mansard**

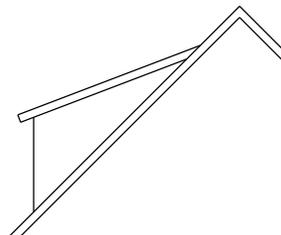
## Four Types of Shed Roofs



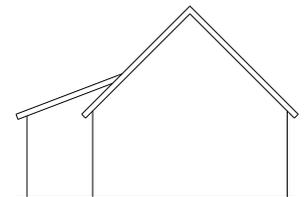
**Indepent  
Building**



**Porch  
Roof**

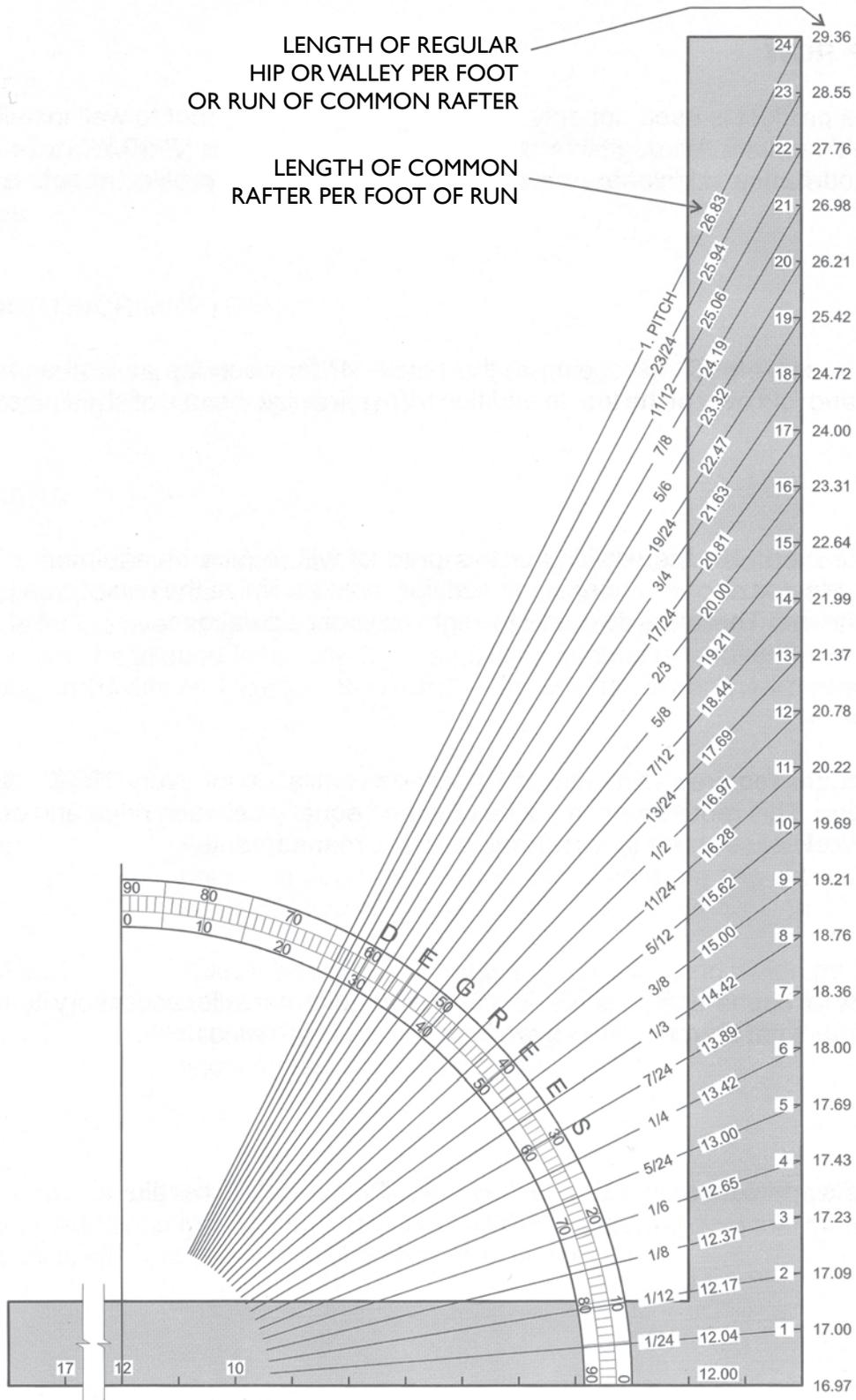


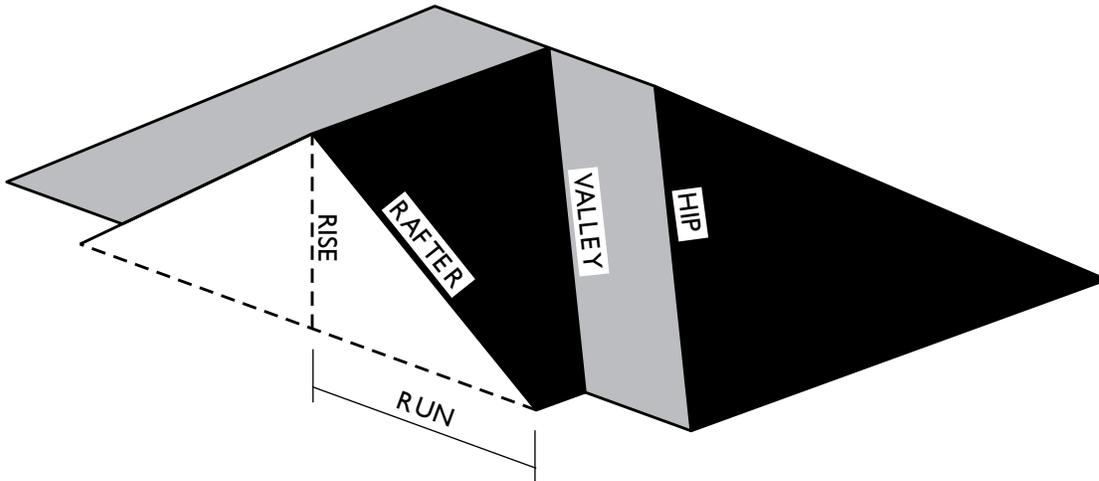
**Shed Dormer  
Roof**



**Lean-To  
Roof**

## Estimating Pitch and Degree Scale





PITCH		$\text{RUN} \times \text{RAFTER FACTOR} = \text{RAFTER LENGTH} \times \text{HIP/VALLEY FACTOR} = \text{HIP/VALLEY LENGTH}$				
? / 12	DEGREES					
1	4.50	RAFTER RUN	1.0035	RAFTER LENGTH	1.42	HIP & VALLEY LENGTH
1 1/2	7		1.0078		1.41	
2	9.50		1.0138		1.408	
2 1/2	11.75		1.0215		1.402	
3	14		1.0310		1.396	
3 1/2	16.25		1.0412		1.39	
4	18.50		1.0541		1.39	
4 1/2	20.50		1.0680		1.38	
5	22.50		1.0833		1.37	
5 1/2	24.50		1.1000		1.36	
6	26.50		1.1180		1.35	
6 1/2	28.25		1.1373		1.34	
7	30.25		1.1577		1.33	
7 1/2	32		1.1793		1.32	
8	33.75		1.2019		1.30	
8 1/2	35.25		1.2255		1.29	
9	37		1.2500		1.28	
9 1/2	38.50		1.2754		1.27	
10	40		1.3017		1.263	
10 1/2	41.25		1.3288		1.25	
11	42.50	1.3566	1.24			
11 1/2	43.75	1.3851	1.23			
12	45	1.4142	1.226			
14	49.50	1.5366	1.195			
16	53.25	1.6666	1.168			
18	56.25	1.8028	1.145			
20	-	1.9440	1.125			

#### RAFTER LENGTH

*IMPERIAL	NUMBER OF COURSES	*METRIC
1' 2 1/8"	1	0.360 m
2' 5 7/8"	2	0.760 m
3' 9 5/8"	3	1.160 m
5' 1 3/8"	4	1.560 m
6' 5 1/8"	5	1.960 m
7' 8 7/8"	6	2.360 m
9' 0 5/8"	7	2.760 m
10' 4 3/8"	8	3.160 m
11' 8 1/8"	9	3.560 m
12' 11 7/8"	10	3.960 m
14' 3 5/8"	11	4.360 m
15' 7 3/8"	12	4.760 m
16' 11 1/8"	13	5.160 m
18' 2 7/8"	14	5.560 m
19' 6 5/8"	15	5.960 m
20' 10 3/8"	16	6.360 m
22' 2 1/8"	17	6.760 m
23' 5 7/8"	18	7.160 m
24' 9 5/8"	19	7.560 m
26' 1 3/8"	20	7.960 m
27' 5 1/8"	21	8.360 m
28' 8 7/8"	22	8.760 m
30' 0 5/8"	23	9.160 m
31' 4 3/8"	24	9.560 m
32' 8 1/8"	25	9.960 m

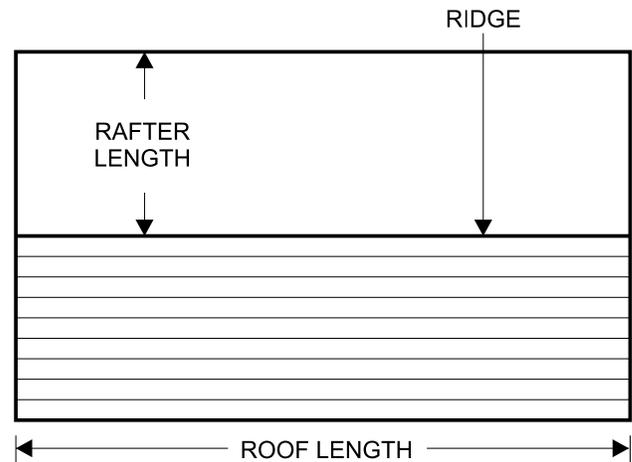
\*NOTE: DIMENSION ALLOWS FOR OVERHANG AND RIDGE BENDS

#### OVERALL ROOF LENGTH

IMPERIAL	NUMBER OF COURSES	METRIC
3' 11 1/4"	1	1.200 m
7' 10 1/2"	2	2.400 m
11' 9 3/4"	3	3.600 m
15' 9"	4	4.800 m
19' 8 1/4"	5	6.000 m
23' 7 1/2"	6	7.200 m
27' 6 3/4"	7	8.400 m
31' 6"	8	9.600 m
35' 5 1/4"	9	10.800 m
39' 4 1/4"	10	12.000 m
43' 3 3/4"	11	13.200 m
47' 3"	12	14.400 m
51' 2 1/4"	13	15.600 m
55' 1 1/2"	14	16.800 m
59' 0 3/4"	15	18.000 m
63' 0"	16	19.200 m
66' 11 1/4"	17	20.400 m
70' 10 1/2"	18	21.600 m
74' 9 3/4"	19	22.800 m
78' 9"	20	24.000 m
82' 8 1/4"	21	25.200 m
86' 7 1/2"	22	26.400 m
90' 6 3/4"	23	27.600 m
94' 6"	24	28.800 m
98' 5 1/4"	25	30.000 m

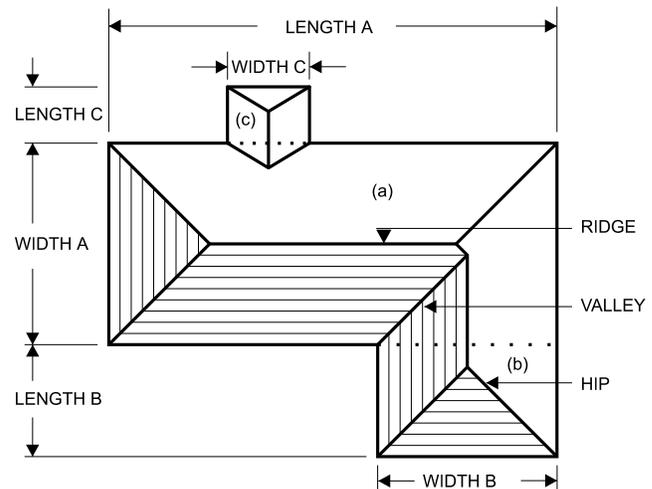
### Gable Roofs

1. Measure rafter length and then from panel coverage table, calculate the number of course panels. Fractional panels are counted as whole panels.
2. Establish roof length and from the panel coverage table, obtain the number of panels required. Fractional panels are counted as half panels or whole panels.
3. Multiply panels (a) by panels (b). This will give you the panels required for one half of the roof. Repeat this procedure and add the two results together for total panels required.



### Hip and Valley Roofs

Break down into rectangle roof segments and estimate as per gable roofs above. To find the additional panels required for Hip and Valley, multiply the total lineal feet of hips or valleys by 0.4 for Imperial and the total lineal meters by 1 to obtain the number of panels to allow for waste.



### Trims

Determine the total length of accessory trim and divide by linear coverage per piece to determine number of pieces required. NOTE: Always allow a wastage factor if there are numerous runs of the same trim.

### Panel Fasteners

Allow 7 per panel. This should cover requirements for accessories. More may be required in high velocity wind zones.

### Hip, Ridge Boards and Miscellaneous Packing Boards

Calculate as per accessory requirements, multiply by two if backer required on both sides of hip or ridge.

### Underlayments

Multiply total panels required by panel coverage to calculate total square meters of feet required.

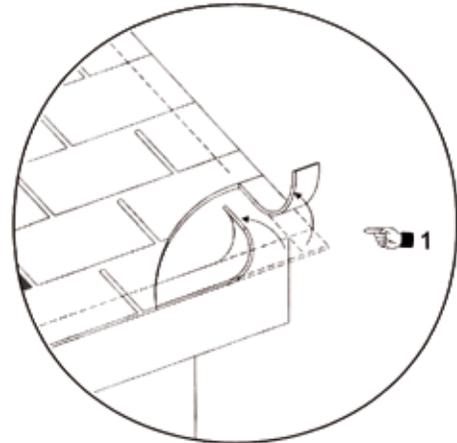
# Installation

## Section Three

### Eaves and Gables Preparation

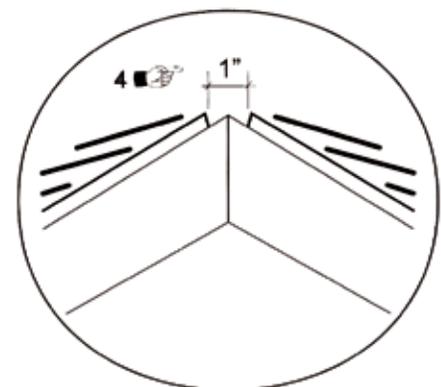
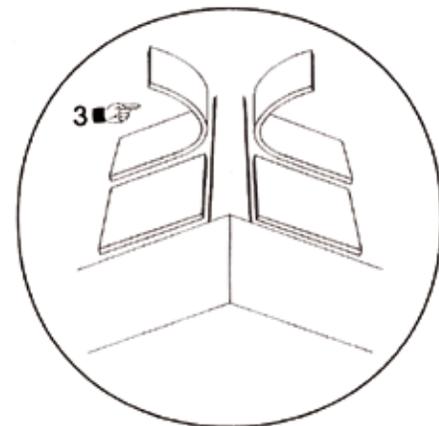
All existing protruding roofing should be removed to a point inside the vertical line of the fascia (note 1). In cases of multiple layers of shingles, it will become necessary to install a filler, shim or thicker starter batten.

Note: If the starter course is not held in the same plane as the balance of the roof the profiles will look distorted. Please ensure proper shimming of the eave batten.



### Hip and Ridge Preparations

Remove any existing hip and ridge caps that protrude above the plane of the roof (note 3). If the attic space is to be ventilated through the ridge, cut back the existing roof materials and decking to provide a minimum 3 1/2" wide slot along the required area (note 4).

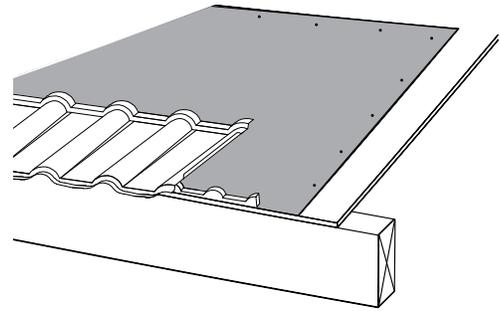


## Installation

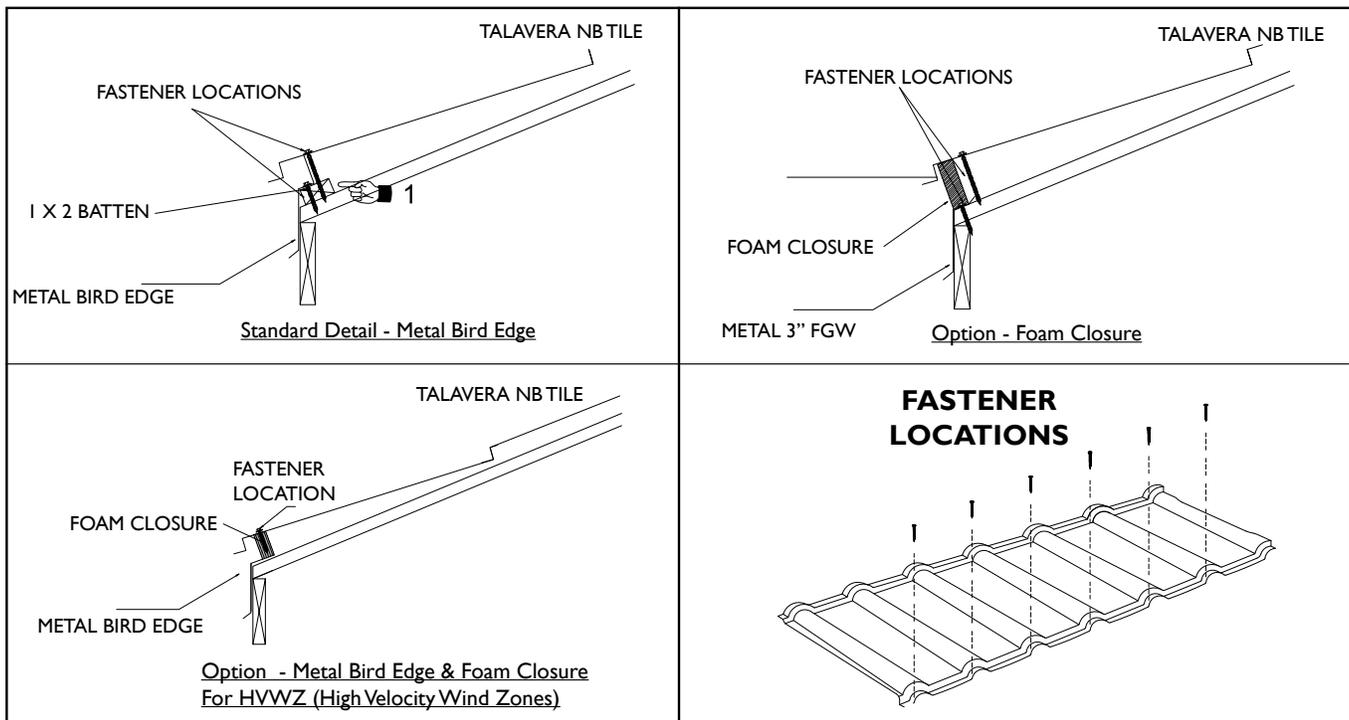
### Eaves and Full Tiles

#### Eave

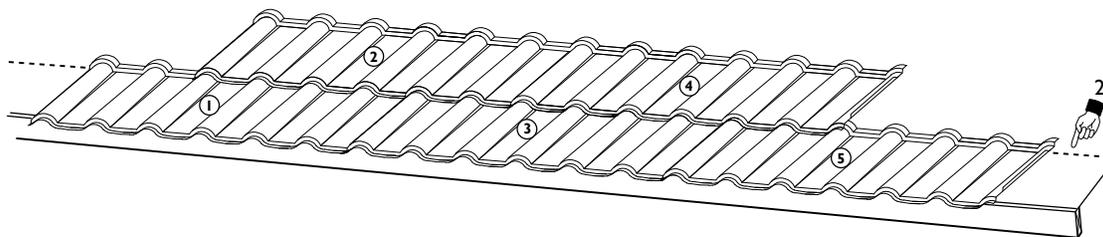
1. Use eave underlay protection as required by code.
2. Install a 1" x 2" batten at eave (see Note #1)
3. Place foam closure strip or bird edge at eave.
4. Align tabs with profiles in tile
5. On re-roof application, tear back existing roofing material



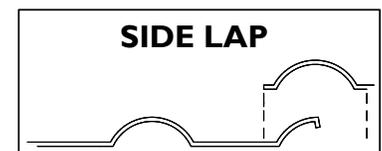
#### Eave Detail



#### Full Tiles



1. Chalk line the first course (see Note #2)
2. Allow for adequate overhang at eaves a minimum 3/4" (19 mm)
3. Lay the first and second courses simultaneously
4. Offset each course 2 or 3 patterns
5. Lap the side of tiles left over right

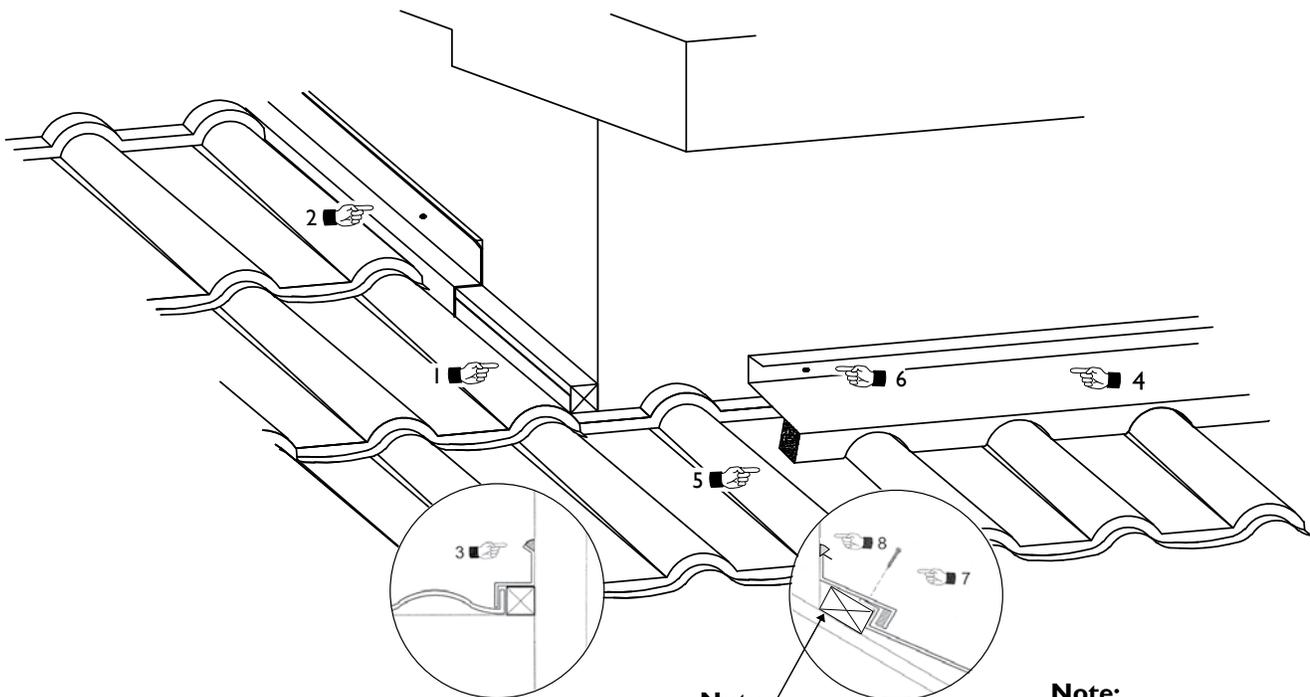


#### Sidewalls

The panels are cut and bent up against the 2" x 2" backer (note 1). Wall flashing is formed from 3" (76 mm) FGW and then fitted over and fastened to the wall (note 2) minimum 2' (610 mm) on center. Corners are lapped to standard sheet metal practices. The top edge (Gum Edge) of the flashing is then caulked as per instructions on the tubes of Allmet Caulking (pg. 11-12) (note 3). This detail is utilized mainly for re-roof applications. Alternately, the panels can be bent up against the wall and sided over.

#### Crosswalls

If the last full panel course is more than 3" (76 mm) away from a vertical wall, then a course of panels is cut and installed. Wind Soffit is then installed over as per (note 4). In severe weather climates, ridge foam should be installed (note 5). Again, it is fastened to the wall (note 6) minimum 2' (610 mm) on center and down through the tile (note 7) at a minimum of 18" (457 mm) on center. The top edge (Gum Edge) is caulked (note 8).



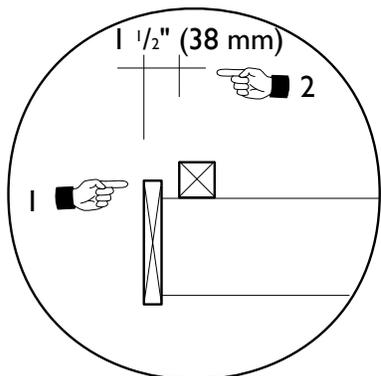
**Note:**  
Short Course may require 1 x 2 batten.

**Note:**  
Ensure that the panel upturns are to the top of the 2 x 2 blocking.

## Installation

### Rake Flashing - Barrel Trim

#### Rake Detail



A batten is placed up the rake, set in 1 1/2" (38 mm) from the fascia (see note 1 and 2).

The barrel cap trim is installed from the bottom up, course for course with the panels. Install the end disk with three screws as shown (note 3). Position the first cap on the rake with the rear portion against the panel flange (note 4). Noting the open distance between the end disk and fascia, notch the cap (note 5) so the barrel trim will fit with the fascia. Install the balance of the caps with the back edge tight to the panel upstand (note 7). This will give a larger gap between the first and second course of caps (note 6). Position caps by rolling so as the exposed edges along with the fascia form a straight line while remaining tight to the panel. Fastening is by a single fastener down through the front flange into the 2 x 2 backer (note 8).

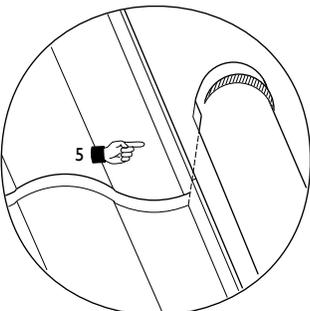
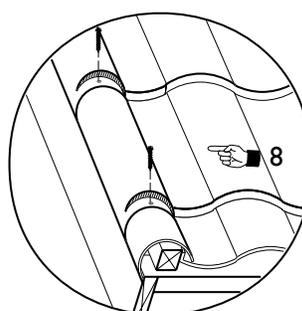
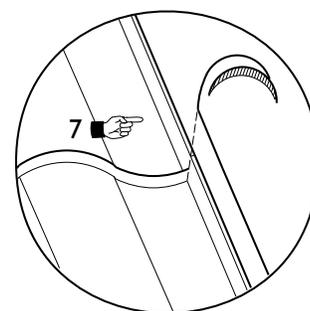
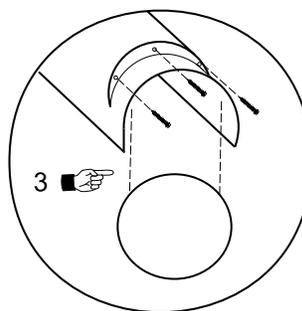
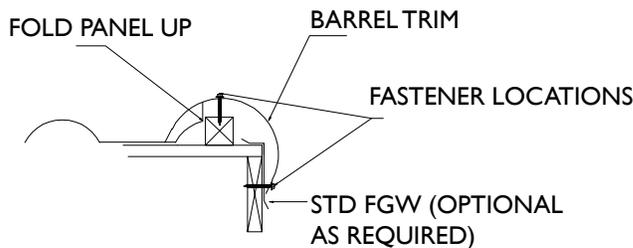
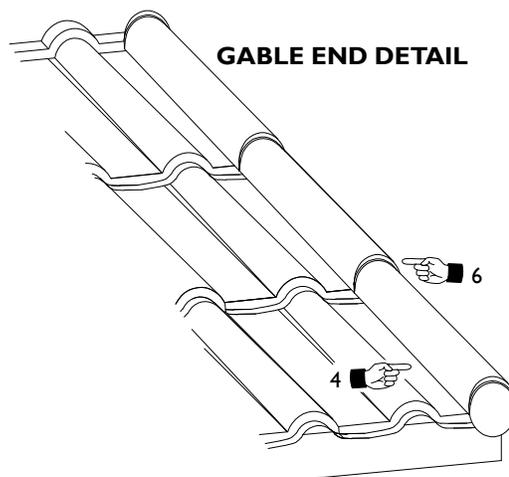
#### Note

When installing the end disk a more pleasing finished product is achieved by snipping the lower flange and flattening flush with the disk, then caulking and chipping the joint.

#### Note

Please ensure that the caps are installed with correct lap. The small flange overlaps the large flange and faces down the roof. Also ensure that the panel upturns are to the top of the 2" x 2" blocking.

Panels that intersect at the rake ends should always be turned up 1 1/2" against the batten.



#### Vented Ridge

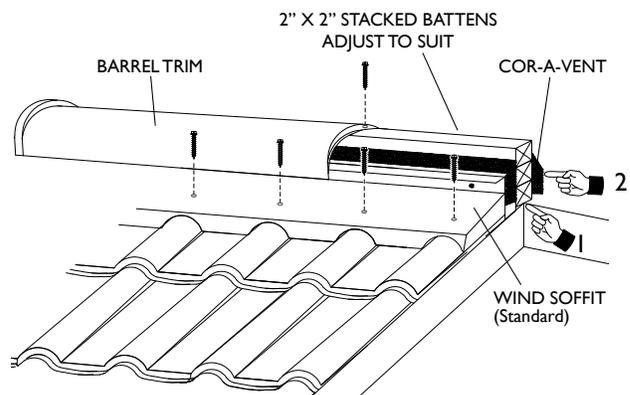
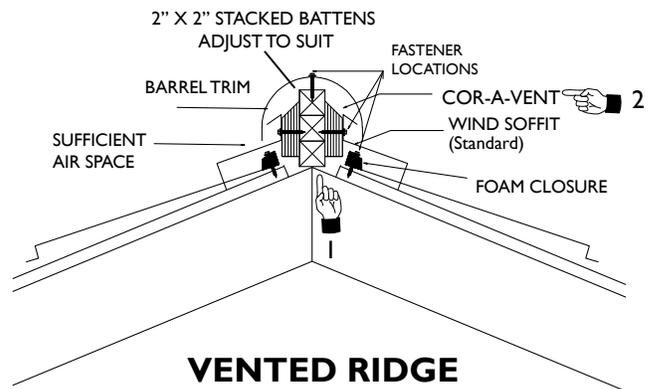
Cut a slot in the deck  $3\frac{1}{2}$ " (89 mm) wide at the ridge. If the roof is constructed with a ridge board, you will have to cut the slot wider. Install ridge board as shown (see note 1). Install COR-A-VENT on both sides of ridge (note 2). The last course of panels is cut off so as to allow 1" (25mm) of free air between sides. After fastening the front of the panel in normal fashion, fasten the top of the panel through the pan into the sheathing at the top. Install foam closure to top of panel. Position the two (2) pieces of wind soffit as shown sealing foam through core-a-vent to wood battens. Secure the vented top row to the panel with screws at the high portions of tile. The barrel cap trims can now be fastened to the stacked battens.

**Note: Short course of panels at Ridge may require 1" x 2".**

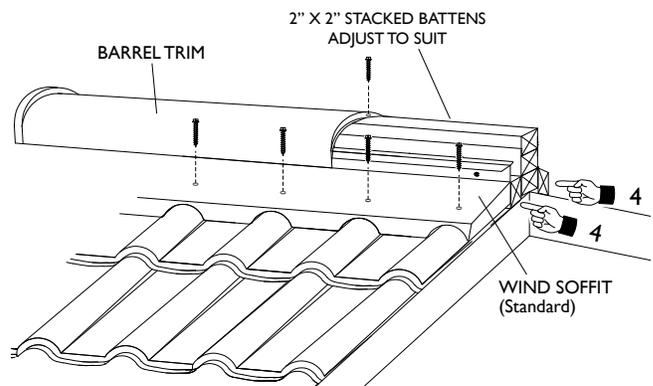
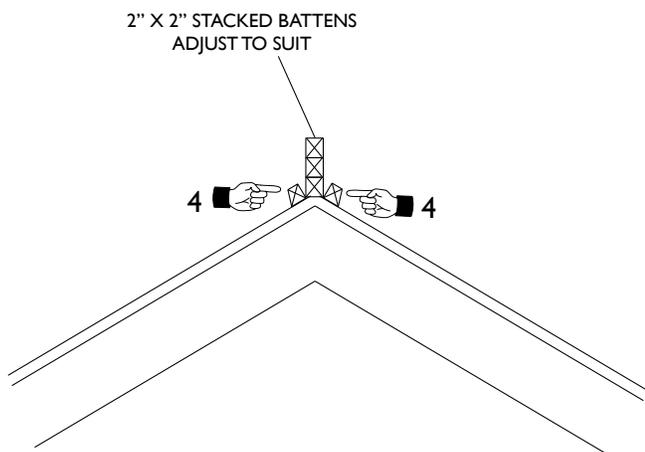
#### Unvented Ridge

A 2" x 2" Backer is centered on the Ridge. A batten is run parallel on each side of the Ridge Backer (note 4). A 2" x 4" ripped center on a 20°+ angle will produce better results for this application (note 3).

**Note: Short course of panels at Ridge may require 1" x 2".**

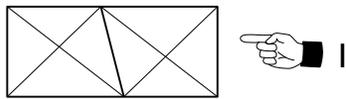
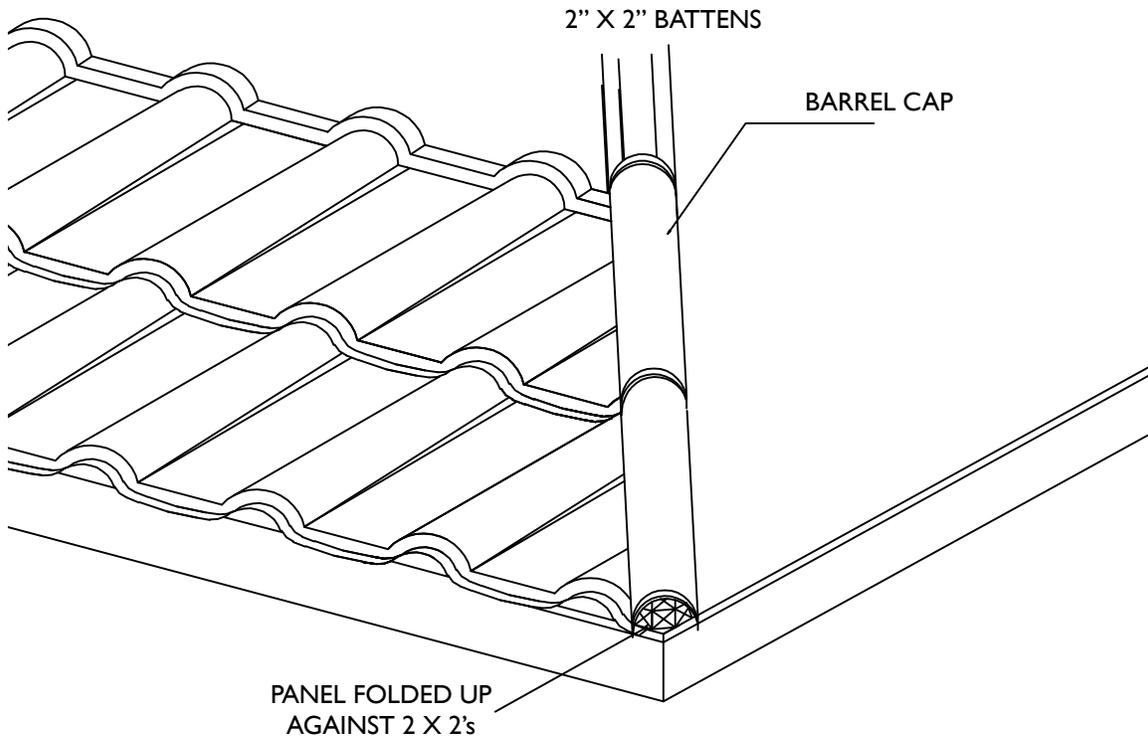


**VENTED RIDGE (Alt. View)**



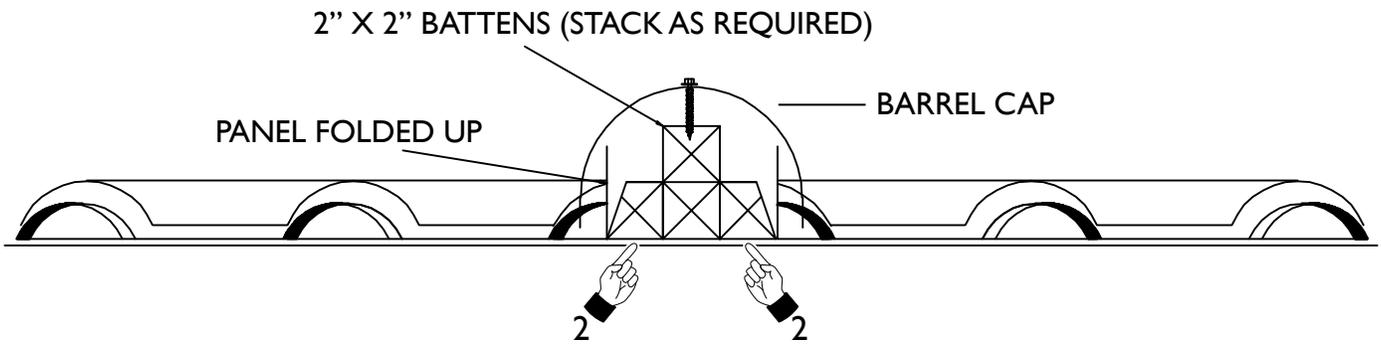
**UNVENTED RIDGE (Alt. View)**

### Direct to Deck Non-Ventilated Hip Detail

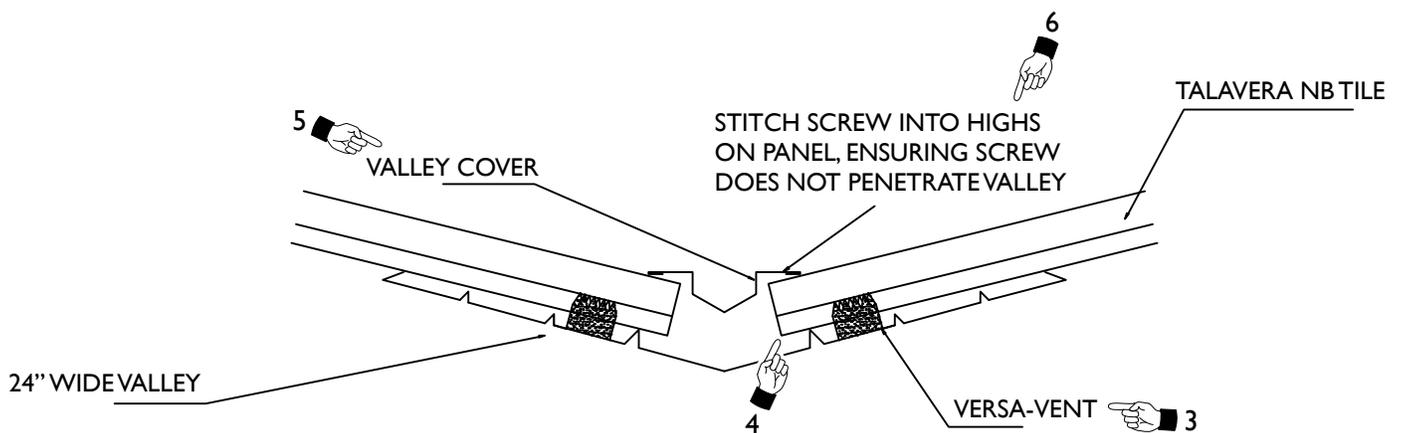
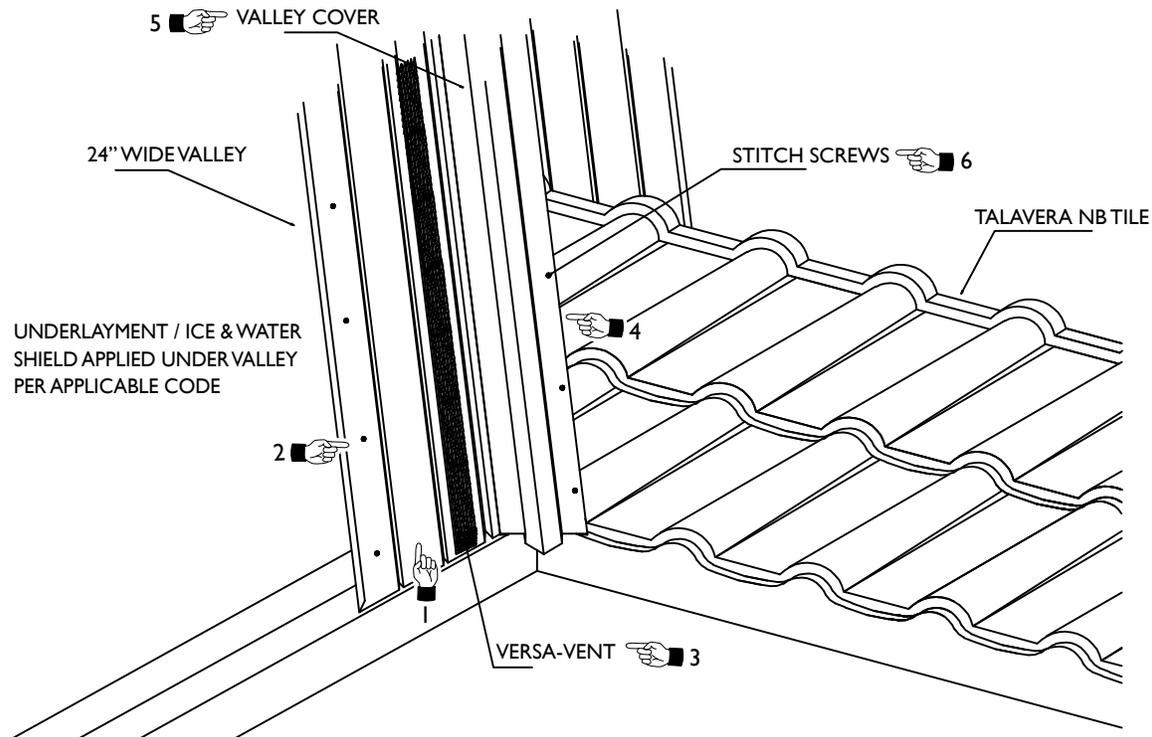


### HIPS

A 2" x 2" Backer is centered on the hip on edge. A batten is run parallel on each side of the ridge backer (note 2). A 2" x 4" ripped center on a 20° ± angle will produce better results for this application (note 1).



### Direct to Deck Valley

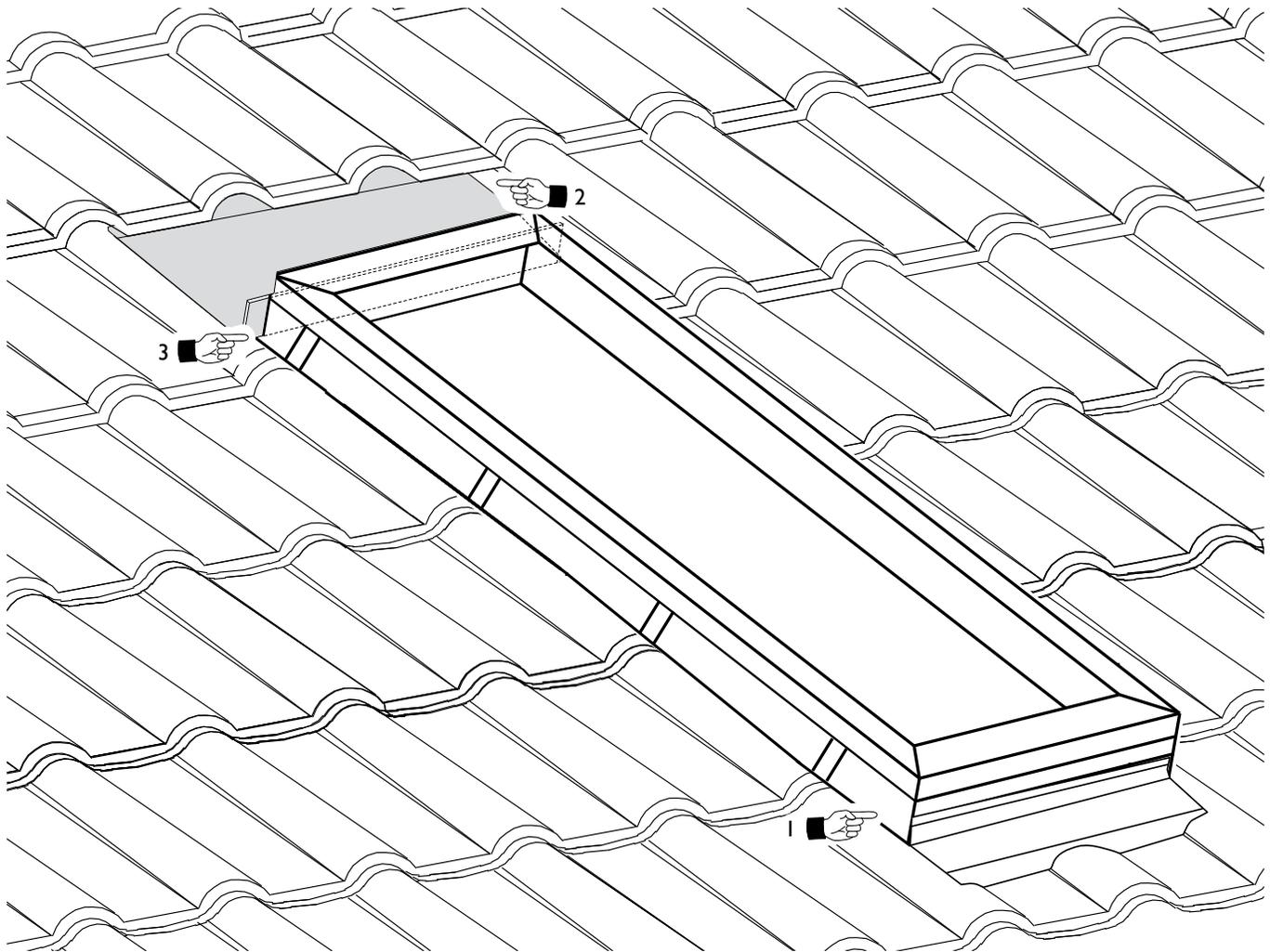


### Versa-Vent (3) in HVHZ

1. Install 24" Valley Flashing centered on the Valley (note 1).
2. Fasten maximum 24" on center (note 2).
3. Install Versa-Vent (note 3).
4. Cut panels into the Valley allowing for the Valley Cover (note 4).
5. Install Valley Cover (note 5).
6. Fasten the Valley Cover at each high point of the panel using #8 x 3/4" Stitch Screw (note 6).

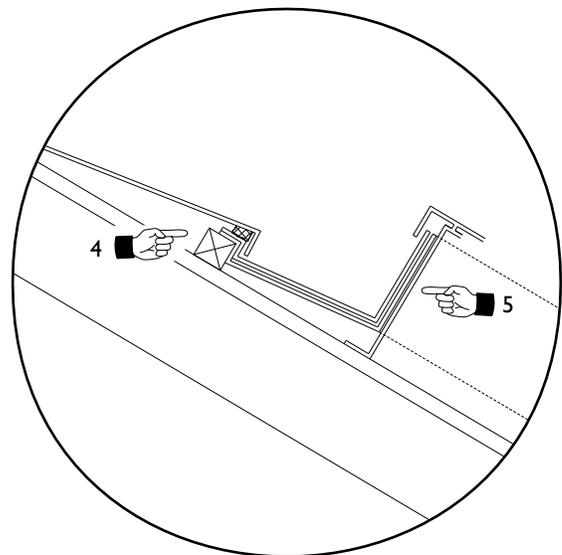
## Installation

### Skylight Flashing - Standard Curb Detail



The panels are bent up against the sides and bottom of the skylight to a sidewall and head wall condition (note 1). They are flashed over with either the skylight flashing or a counter flashing made to fit from all-purpose flashing.

The partial panel directly above the skylight is left out and a pan flashing is formed from an allpurpose flashing with a back shelf similar to a panel and returning up the full height of the skylight (note 2, 5). Carry the pan flashing past each side of the skylight a minimum of 4" and bed the joint with the panels in Allmet caulking (note 3). Cut and fold the protruding corners of the pan flashing around the sides using standard sheet metal practices and seal. Use an Allmet closure strip to seal the top shelf where the panels overlap the top of the pan flashing (note 4).



### Easy 5-Step Installation

- Master Flash can be installed on-site quickly and easily, usually under 10 minutes.
- One-piece construction makes Master Flash easy to handle.
- Bendable base forms seal with any contour, surface irregularities, or roof pitch.
- Seals tightly and dependably with silicone sealant to eliminate costly call backs.
- Pipe opening is easily customized with a sharp knife or scissors for any application.
- Fix flashing to pipe with stainless steel hove clamp where snow load conditions exist.

#### 1. Select and Trim

Choose appropriate Master Flash with opening at least 20 % smaller than pipe diameter. If necessary, trim opening to 20 % smaller than pipe diameter.

#### 2. Slide

Slide Master Flash down over pipe (A non-petroleum based lubricant will ease installation.)

#### 3. Form

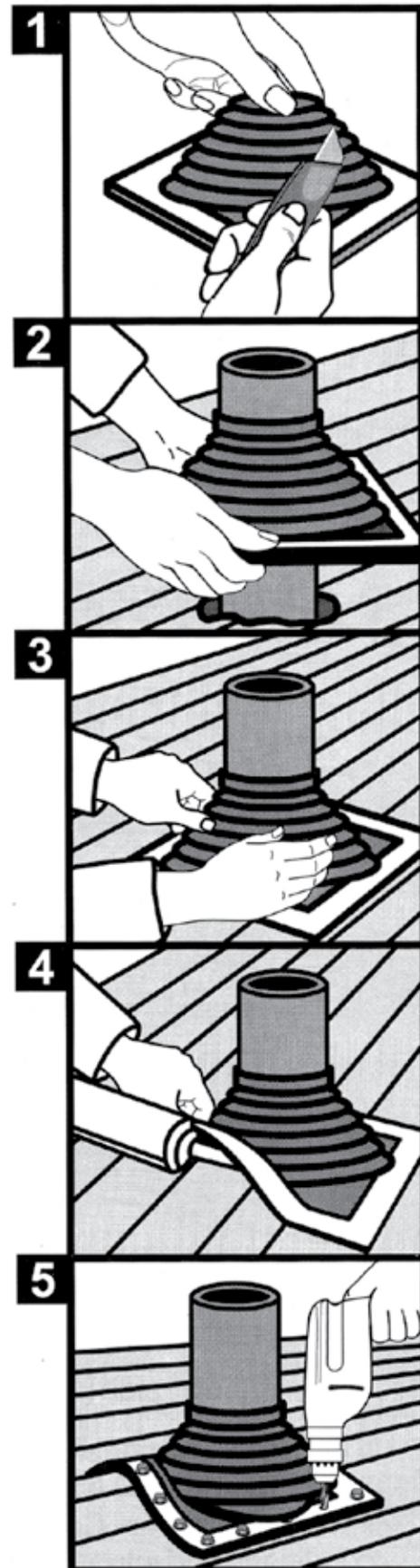
Press the Master Flash down, bending it to conform to roof profile or roof irregularities. A blunt tool will help press flashing into tight roof angles.

#### 4. Seal

Apply silicone sealant between base and roof

#### 5. Fasten

Use the fasteners to complete sealing. For UPC® installation, fastener spacing may not exceed 1 ½" (38 mm).



## Installation

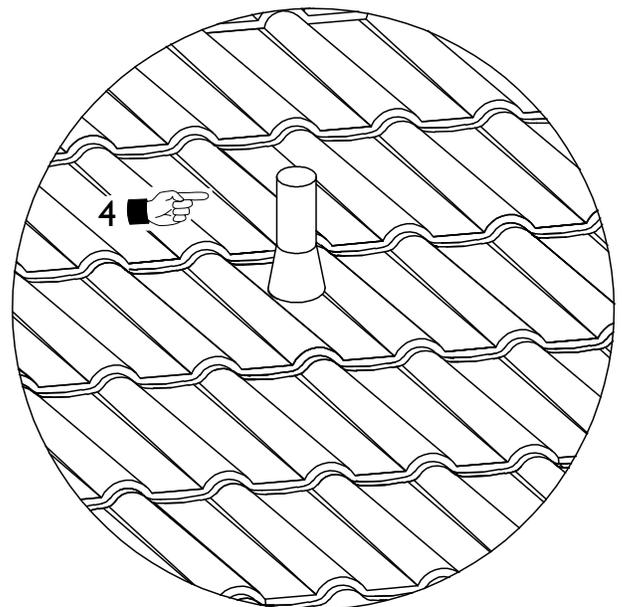
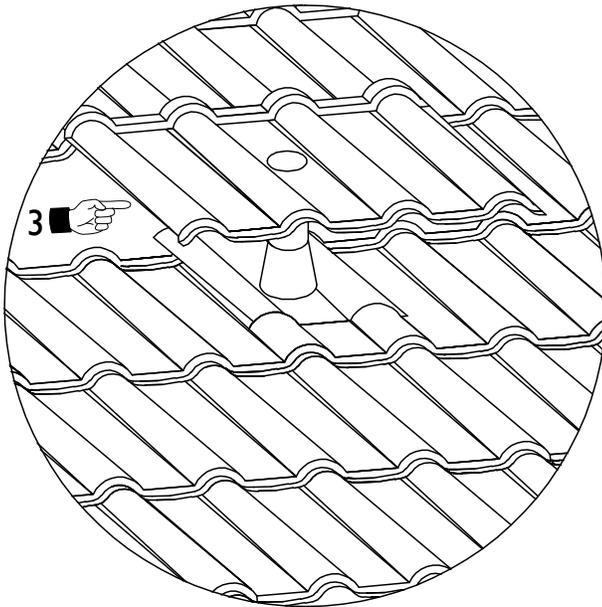
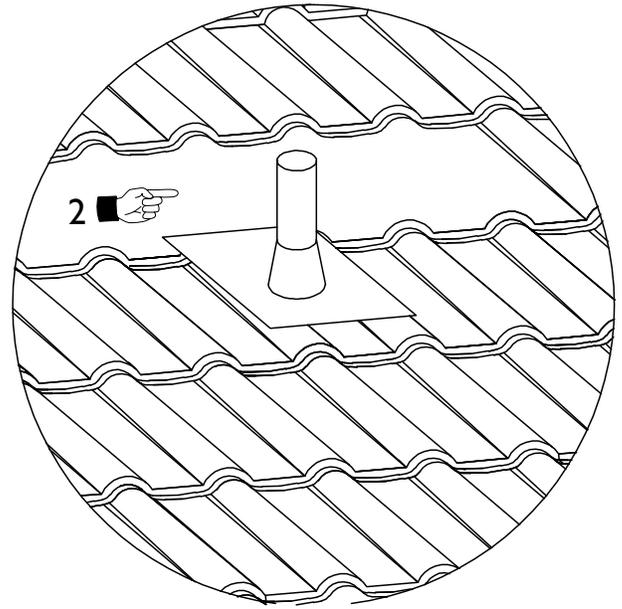
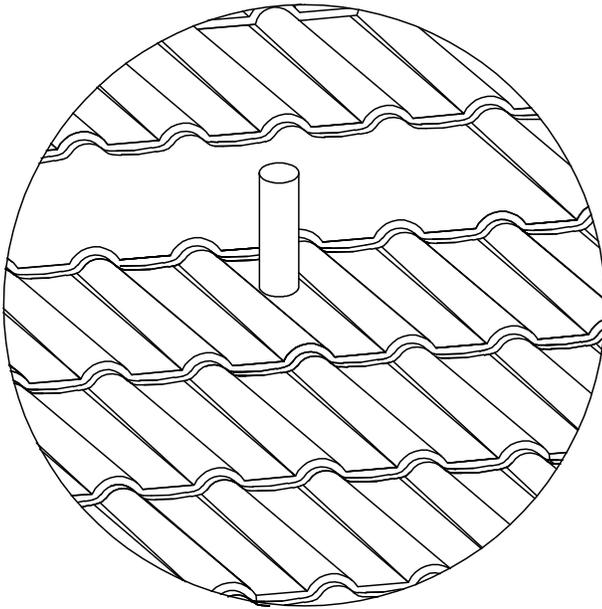
### Jack Flashings

#### Pan Flashings

The panel is cut to fit over the plumbing stack (note 1). A standard Neoprene or Metal Jack Flashing is then placed over (note 2). A short piece of panel is cut with a slightly larger hole to counter flash the Jack Flashing (note 3). The

next course of panel can now be laid through (note 4).

**NOTE:** For aesthetics it is suggested to paint or granular coat the stack (at the installer's option).





When it is necessary to have trades people work over a completed Allmet installation, we recommend that the following precautions be taken.

1. Please review with all trades people the proper procedure for walking on an Allmet roof system as outlined in this installation manual (see pg. 5 - *Roof Traffic*). For additional information specific to your needs, please contact the Allmet technical department.
2. Take dated photographs of the roof condition upon completion of installation and /or prior to having the trade people working over the roof. This is a valuable reference tool in identifying subsequent damage. If damage does occur contact the Allmet technical department to discuss the appropriate repairs to prevent voiding the warranty.
3. The Allmet coating is comprised of stone granules bonded to the steel with acrylics. Latex paints, stucco, and mortar droppings will stain the coating when they come in prolonged contact and if left will create a permanent bond. See page 5.2 (Part 2) for cleaning details. Solvent based paints will attack the coating creating permanent damage. Please contact Allmet's technical department to discuss repair procedures.
4. It is best to construct a work platform over the roof to protect from traffic and spillage as follows;
  - a. For Talavera NB tile, we recommend placing 2" x 2" sleepers vertically in each pan of the tile fastened at the ridge for safety and then laying plywood over as a work area. Fasten the plywood to the 2" x 2" ensuring the fasteners do not penetrate through the strapping into the metal roof.

# Maintenance

## Section Four



### Caulking

We recommend that the caulking be checked for cracking and signs of undo stress every 5 years on any roof system. As caulking is typically utilized at intersections associated with differing roof and wall planes, as well as with mechanical roof protrusions, one must recognize the different expansion rates of these materials to appreciate the stress the caulking must be subjected to which is why we recommend and supply a long life thermal plastic rubber based sealant that is compatible with our roof coating.

### Washing

The Allmet coating in general terms, is comprised of acrylic and ceramic stone that does not support fungi growth. However if you wish to remove any discoloration from airborne pollutants and/or fungus off your roof then we recommend washing it with a mild solution of chlorine (2%) and detergent. This should be applied and rinsed with a low pressure washer. Moderate scrubbing with a soft bristle brush may be used on tougher stains. For stucco and mortar droppings, moisten the area slightly and use moderate pressure with a wooden paddle to try and dislodge. After cleaning the area, it should be dried and inspected for coating damage. Touch up moderate scuffing with the spray acrylic and granular, however, for more severe cases contact the technical department at Allmet. Please note the sections regarding footwear and roof traffic (pg. 5).

### Gutters

When gutters have been installed on the eaves of the roof, ensure that they are below the plane of the roof. Gutters should be cleaned regularly so that the water will drain freely and not back up on or under the Allmet roof system.

### Chimneys

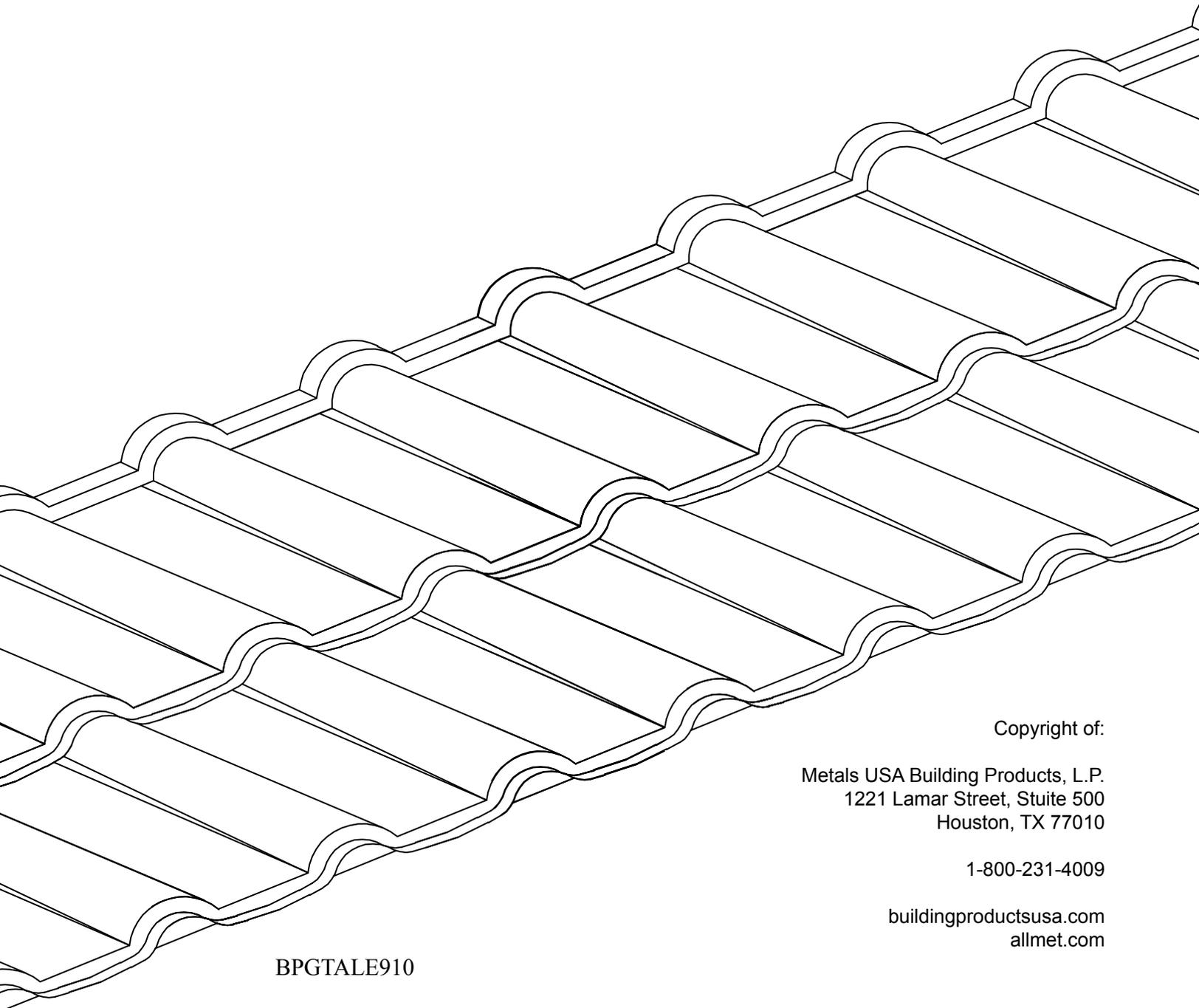
Chimneys typically create the most problems associated with a roof, especially stone or masonry. The warm gases escaping up the flue warm the chimney structure and in cold weath-

er create substantial differential movements especially in 2-3 story homes with basements. As well, the warm masonry tends to absorb winter moisture, which can freeze as the temperature drops causing the masonry to spall and leak behind the flashings. Extra attention should be paid to stone chimneys as some stone is very porous to the point of being sponge like.

Inspect the chimneys for signs of differentiating movement, moisture stains, cracking, spalling and make the proper repairs. The masonry and stone can be sealed taking care to protect the roof surface. Flashing and caulking should be adjusted to compensate for any differential movements.

### Touch-up and Completion

Inspect the roof and touch-up all exposed screws using the provided Coating Repair Kit. Remove all debris from the roof and job-site.



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