

INSTALLATION GUIDE

FOR RESIDENTIAL METAL ROOFING

 **PRO-Rib**
Metal Roofing and Cladding

 **LO-Rib**
Metal Roofing and Cladding

 **TUFF-Rib**
Metal Roofing and Cladding



 **DOMTEK**
BUILDING PRODUCTS



***Residential Installation Guide
for
Pro-Rib / Lo-Rib / Tuff-Rib***

	Page
Safety	2
Storage Instructions	3
Installation, Storage and Handling	4
Roof Preparation	5
Roof Pitch	6
Fasteners	7
Rake / Eave Flashing	8
Start Panel	9
Fastener Location	10
Building Trims & Flashings	11
Trim Drawings	12
Trim Drawings	13
Trim Drawings	14
Trim Drawings	15
Trim Drawings - Steel Fascia	16
Valley Conditions	17
Hip Conditions	18
Gable Trim	19
Ridge Cap	20
Ridge Vent	21
Skylight / Chimney	22
Cricket	23
Vent Pipe / Flexible Flashing	24
Prow Flashing	25
Pitch Break Flashing	26
Gambrel Flashing	27
Snow Guards	28

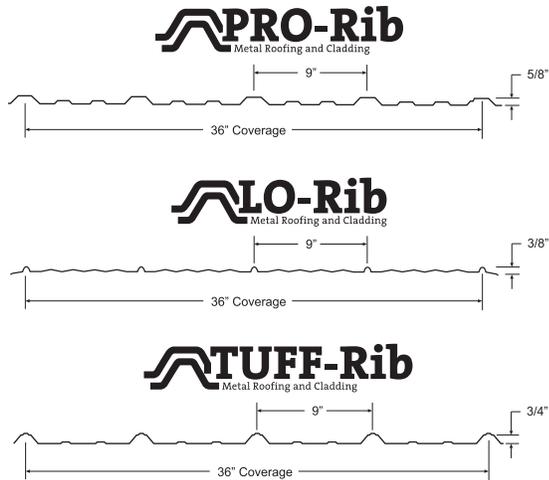


SAFETY

These instructions are provided only as a guide to show a knowledgeable, trained erector the correct parts placement one to another. If following any of the installation steps would endanger a worker, the erector should stop work and decide upon a corrective action.

The installation of metal roof systems is a dangerous procedure and should be supervised by a trained knowledgeable erector.

USE EXTREME CARE WHILE INSTALLING ROOF PANELS. It is not possible for DOMTEK Inc. to be aware of all the possible job site situations that could cause an unsafe condition to exist. The erector of the roof system is responsible for reading these instructions and determining the safest way to install the roof system based on local building codes and workplace health and safety codes. If failure to use these or not get information pertaining to the proper procedures detailed by the local government, person or persons should not attempt this job.

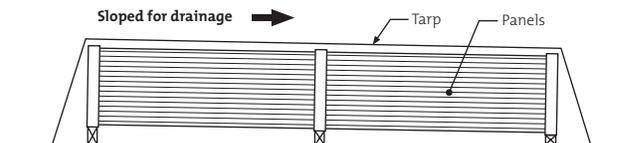


STORAGE INSTRUCTIONS

- 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.
- The preferred method of storage is indoors in a well-ventilated, dry location.
- 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 sloped to allow for drainage. See illustration.

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

OUTDOOR STORAGE PROCEDURE



Storage and Handling

INSTALLATION AND STORAGE INSTRUCTIONS FOR METAL ROOFING AND SIDING PRODUCTS

STORAGE INSTRUCTIONS

If metal is not to be used immediately, store roofing and siding panels in a dry area. Moisture from rain or condensation trapped between sheets may cause "waterstain". Inspect all panels for moisture, if moisture has formed the panels should be unbundled wiped dry and allowed to dry completely before stacking panels for storage. **(Extended storage of panels in a bundle is not recommended and may Void Warranty)**

If material must be stored outside, protect with canvas or waterproof paper. If plastic is used, **DO NOT** cover air tight.

Should panels become wet, separate them by putting dividers between each sheet and elevate one end 8" or stand sheets on end against a wall and fan them out to allow air circulation.

Avoid storing this metal near alkaline materials such as fertilizer, cement, lime, salt, etc.

These instructions apply to aluminum or steel, painted or unpainted product.

INSTALLATION

Do not fasten top sheet of roofing at ridge until ridge cap is applied - then fasten through both the ridge cap **AND** the sheet.

Overlap sheet ends by at least 12" - lay sheets one by one from eave to ridge before starting new row. Overlapping sheet should be supported by a purlin.

Do not secure all fasteners on panel until sheet has been laid and squared, to ensure an even application of all sheets.

Start roof steel application at end of roof farthest from prevailing winds and overlap next rows of sheeting over those already applied.

Extend ends of roof sheets approximately 1" to 2" past finished sidewall fascia and soffit.

Over-driving of fasteners can cause distortion of roofing profiles and thus make proper overlapping impossible - under-driving can cause leaks and undue wear on sheet of steel.

Do not fasten open side rib before starting new row. Fastener must secure both underlap and overlap ribs in one operation.

Roof purlin spacing varies with gauge of steel, profiles of roofing used, snowloads and pitch of roof. It is important that the applicator make himself aware of all criteria pertaining to the installation of a roofing system.

As a general rule for estimating purposes, 100 screws is sufficient for the application of one hundred square feet of roof steel.

IMPORTANT NOTICE:

If you use a saw to cut steel or aluminum, the following precautions must be taken:

- (a) Use a high-speed circular saw with a steel carbide blade made for cutting metal. Nibblers, shears or snips should also be used.
- (b) Cut sheets away from bundles and installed material so that hot filings do not damage painted surfaces.
- (c) Use shears to remove burrs from sheets, particularly where they have been cut at an angle.
- (d) Prepainted material must be sawed on the wrong side, i.e., with the prepainted side to the floor.
- (e) NOTE: When fastening Galvalume Roofing or Siding, fasteners must have Neoprene Washers.

Residential Guide for Pro-Rib/ Lo-Rib / Tuff-Rib Roof Preparation

New Roof Construction

Pro-Rib, Lo-Rib and Tuff-Rib may be applied over Plywood, OSB (7/16" min.) or support members on 2 ft. centres. Always check with local building codes prior to any installations.



PRO - RIB



LO - RIB



TUFF - RIB

Existing Roof Retrofit

Pro-Rib, Lo-Rib and Tuff-Rib may be applied over most existing composition, fiberglass and asphalt shingles (maximum 2 layers thickness). Trim shingles flush with eave line so that the desired trim will fit properly. Check roof to make sure there are no nails or screws protruding through the roof or wood substrate. This could damage panels if not taken care of first. Inspection of roof substrate is very important, check for structural damage such as bowing or sagging rafters and warped or loose purlins or solid decking. If roof is to be strapped make sure roof is square and flat, shim as necessary. Reroof applications over existing roofing may be subject to local code restrictions and the customer is advised to check with local officials for specific information.

Underlayment

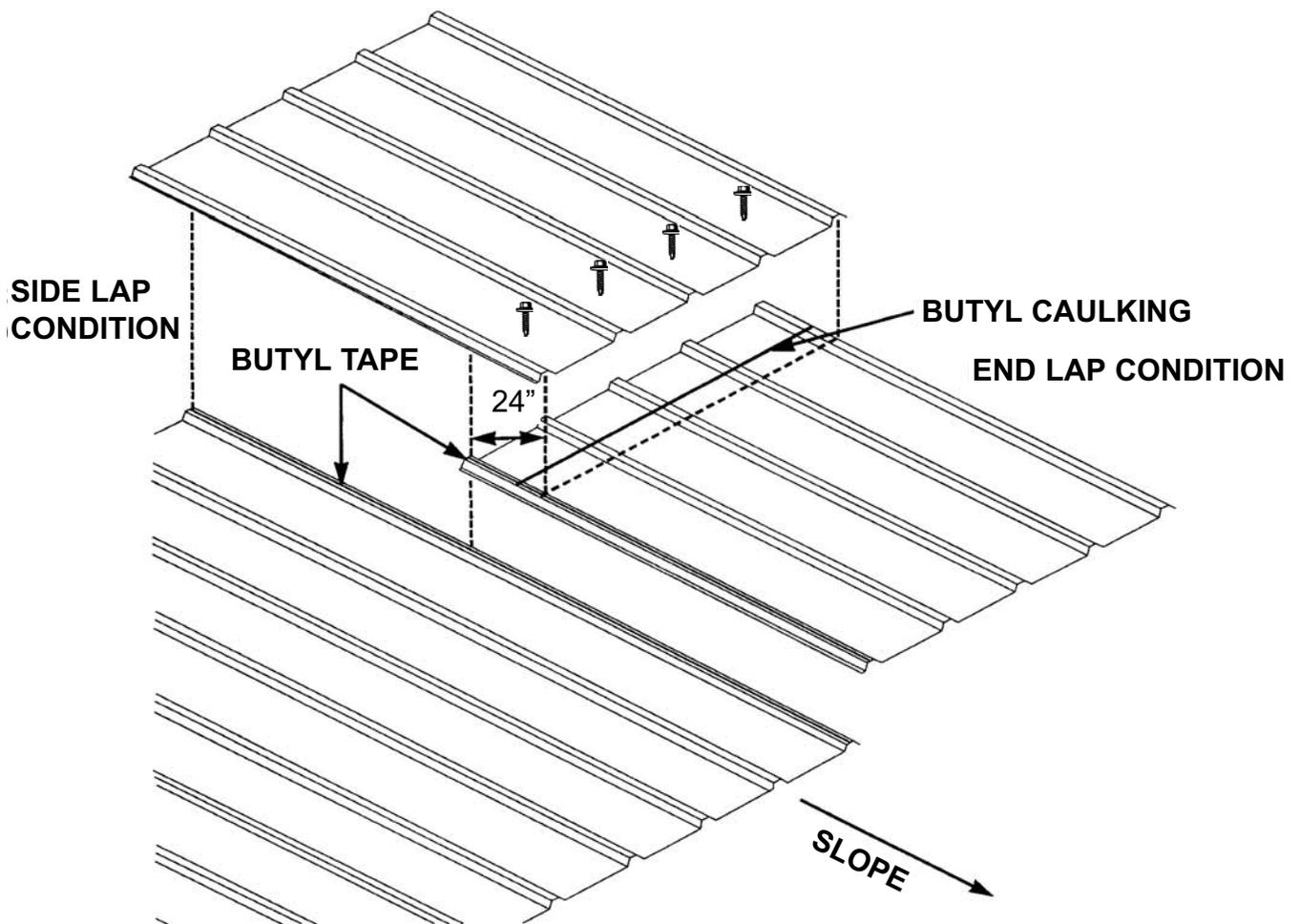
Underlayment should be used on both new and retrofit roofing. The entire roof deck or existing roofing, should be covered with a synthetic underlayment, following manufacturer procedures. Ice & Water Shield should be used on areas where water build up may occur. Ex: Chimneys, valleys or eaves.

Residential Guide for Pro-Rib / Lo-Rib / Tuff-Rib Roof Pitch Requirements

Roof Pitch

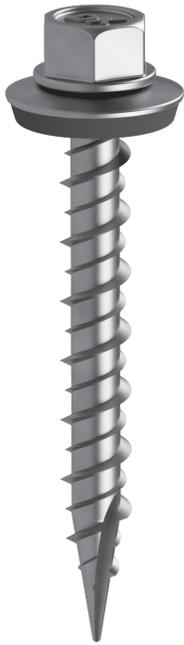
Recommended minimum roof slope for Pro-Rib, Lo-Rib and Tuff-Rib is 2:12. If roof slope is below 4:12 butyl caulking must be applied at any end lap conditions and butyl tape at all side lap conditions.

Note: When end lapping sheets it is important to install panel fasteners above the caulking. Overlapped sheets must rest on top of a purlin.



Residential Guide for Pro-Rib / Lo-Rib / Tuff-Rib Panel Fasteners

Fastener Types



TruGrip Panel Fastener
1/4" hex head with
washer.
Used to attach panel
and trim to dimensional
lumber.



Stitch Screw
1/4" hex head with
washer.
Used on all overlaps
and trim to panel.

Fastener Depths

CORRECT
Sealing material slightly visible at
edge of metal washer. Assembly
is weathertight.



TOO LOOSE
Sealing material not visible.
Not enough compression to
seal properly.



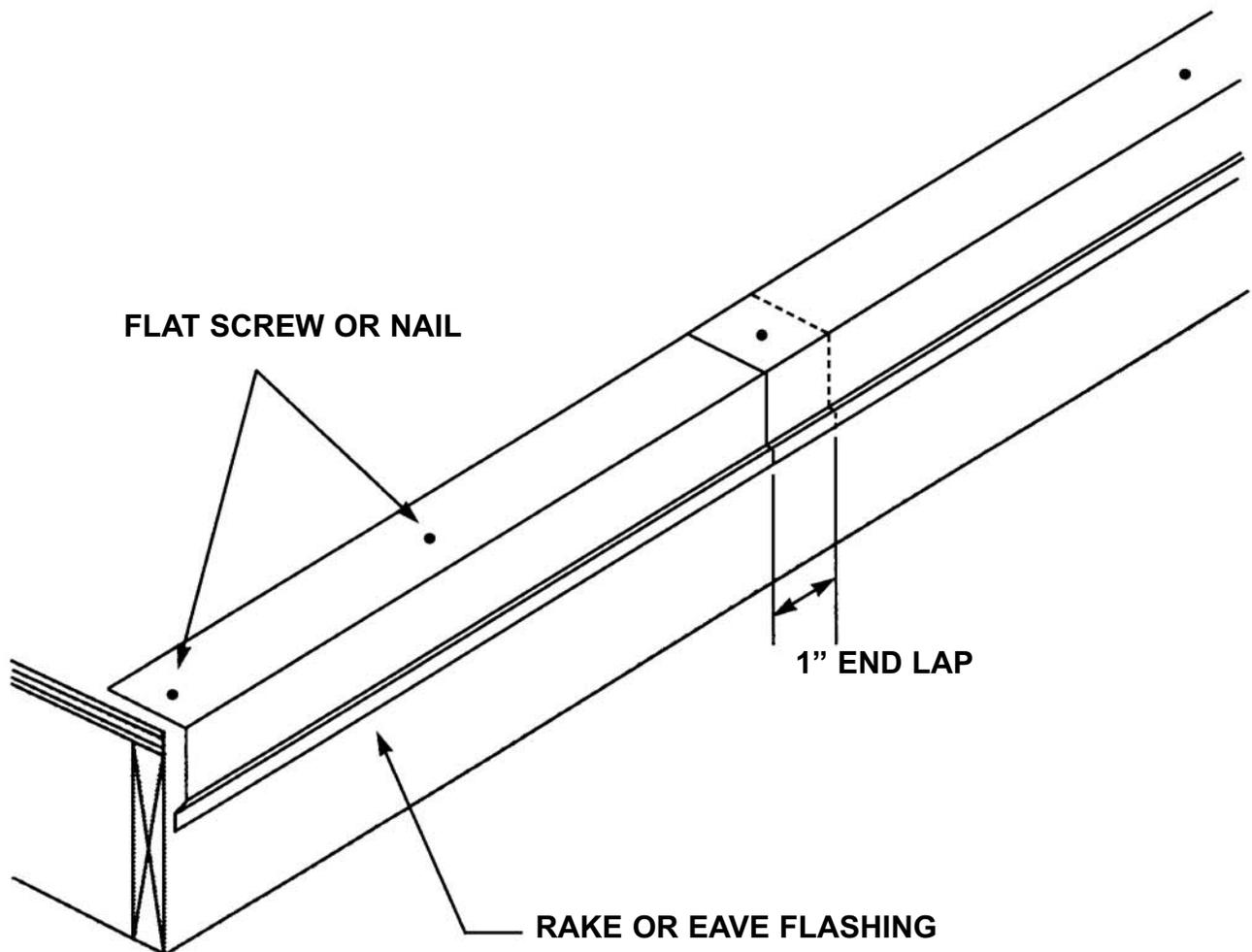
TOO TIGHT
Metal washer deformed. Sealing
material extruded beyond edge
of washer.



Residential Guide for Pro-Rib / Lo-Rib / Tuff-Rib Roof Preparation

Rake or Eave Flashing

Use flat screw or small nail to temporarily hold rake/eave flashing in place. Flashing must be straight and end lapped a minimum 1". The use of a string line may be helpful.

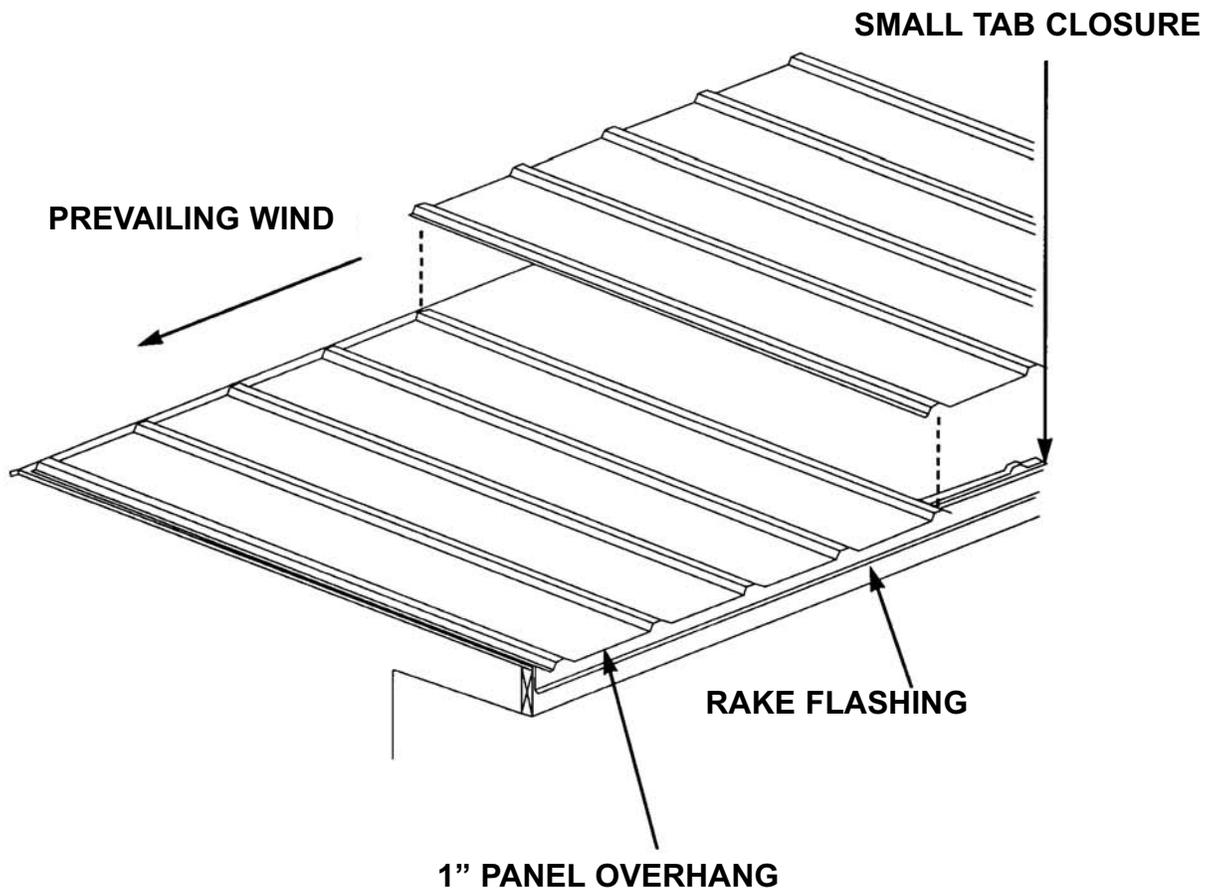


Residential Guide for Pro-Rib / Lo-Rib / Tuff-Rib General Roof Applications

Starting Panel

Starting at the gable end away from the prevailing wind. The side lap seams should face away from the prevailing wind driven rain in order to provide a more secure seal against moisture penetration. Set first panel square to assure straight and proper alignment, this first sheet will effect alignment of the entire row of panels. Allow panel to overhang eave approximately 1 inch. Small tab closures should be placed under the panel at the eave as the panels are installed.

Refer to Page 10 for fastener locations.

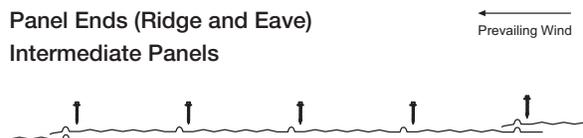
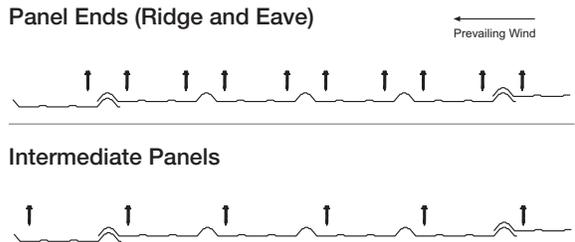
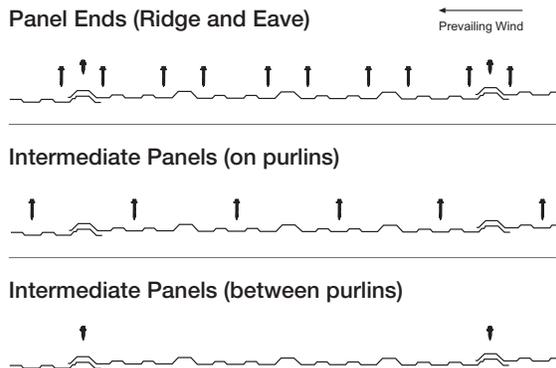


Residential Guide for Pro-Rib / Lo-Rib / Tuff-Rib General Roof Applications

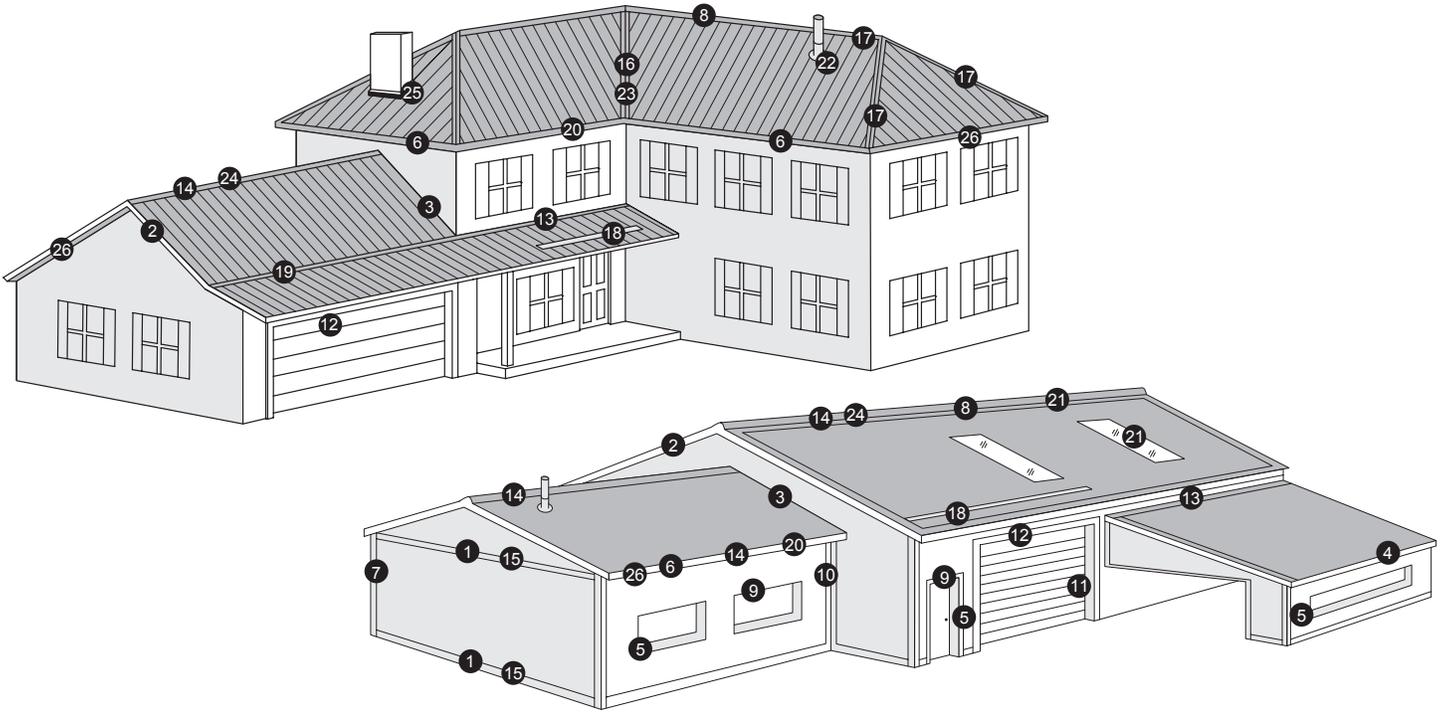
Fastener Location and Side Lap Detail

Panel fasteners (washered screws) should be located in the flat of the panel. The first row of panel fasteners should be located along the eave so that the fastener penetrates the panels, the eave flashing and the sub roofing. The second row should be placed 2 ft. up-slope from the first row with each additional row being placed 2 ft. up-slope until the ridge is reached.

Note: Stitch screws are to be located at panel overlap between roof purlins.



Trims & Flashings



1 A2 Base Divider



2 A6, 30, 31 Gable Flashing



3 A15 Sidewall Flashing



4 A9 Eave Flashing



5 A1 J Trim



6 A7, 28, 29, Rake Flashing



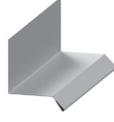
7 A4 Outside Corner



8 A12 Ridge Cover



9 A3 Drip Flashing



10 A5 Inside Corner



11 A11 Door Jamb Flashing



12 A10 Header Trim



13 A14 Endwall Flashing



14 Large or Small Tab Closure



15 A19 Box Base



16 A17 W Valley Flashing



17 A41 12" LP Ridge Cover



18 A20 Snow Guard



19 A26 Pitch Break Flashing



20 A32B, 33B, 34B, 35B Steel Fascia



21 Coverlite Polycarbonate Panels or Ridge Cap



22 Dektite Pipe Flashing



23 Hip & Valley Closure



24 Vented Closure



25 9" Dekstrip



26 Pro-Rib Metal Soffit



Butyl Tape & Caulking



Type 17 HiLo Fasteners



Tru-Grip OSW Fasteners

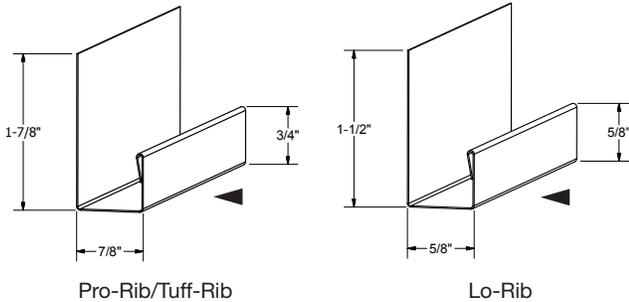


For use with Coverlite Panels

Residential Guide for Pro-Rib / Lo-Rib / Tuff-Rib Residential Trims & Flashings

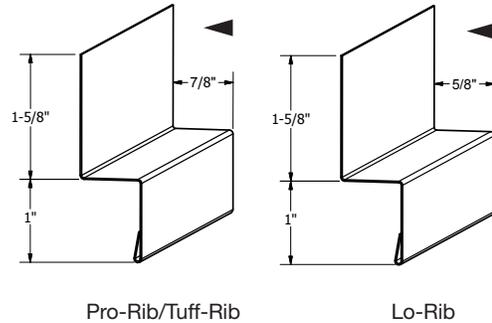
A1 J Trim

· Available in 10'6" and 12'6" lengths



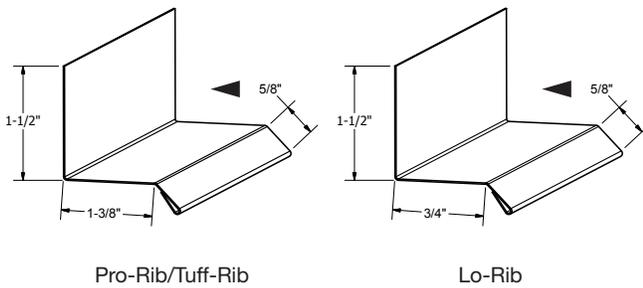
A2 Base Divider

· Available in 10'6" and 12'6" lengths



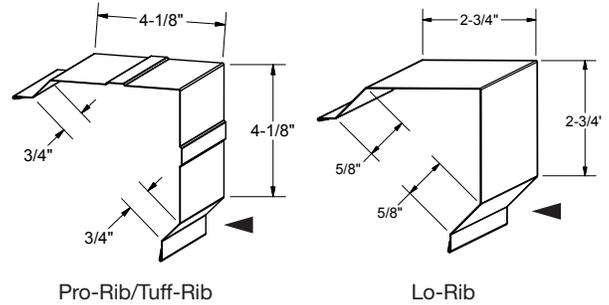
A3 Drip Flashing

· Available in 10'6" and 12'6" lengths



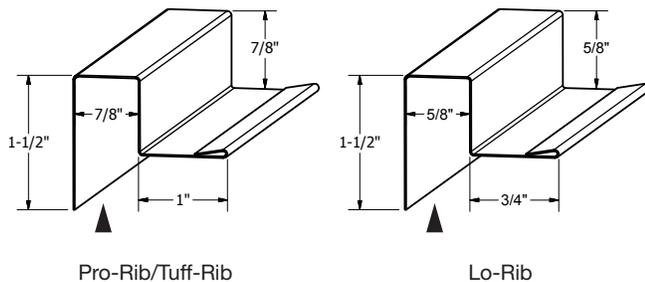
A4B/A4LR Outside Corner

· Available in 10'6", 12'6", 14'6" and 16'6" lengths



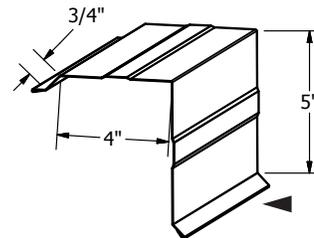
A5 Inside Corner

· Available in 10'6", 12'6", 14'6" and 16'6" lengths



A6B Gable Flashing

· Available in 10'6", 12'6", 14'6" and 16'6" lengths

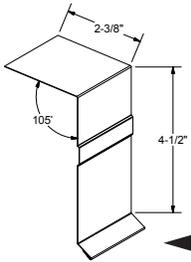


▶ Indicates painted side

Residential Guide for Pro-Rib / Lo-Rib / Tuff-Rib Residential Trims & Flashings

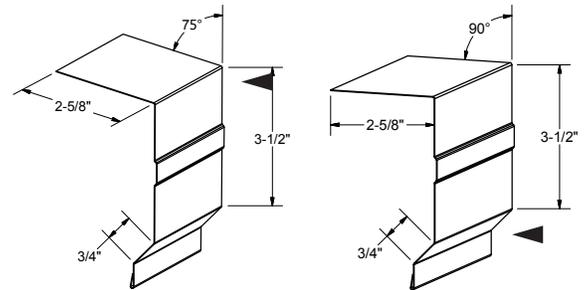
A7B Rake Trim

· Available in 10'6", 12'6", 14'6" and 16'6" lengths



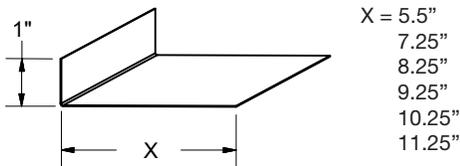
A9B Eave Flashing

· Available in 10'6", 12'6", 14'6" and 16'6" lengths



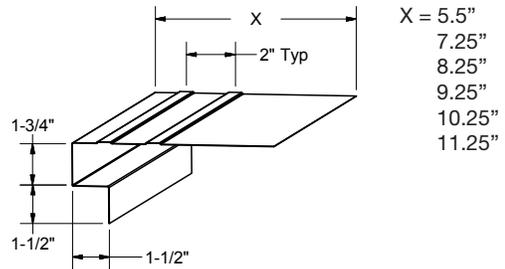
A10 Header Trim

· Available in 10'6", 12'6", 14'6" and 16'6" lengths



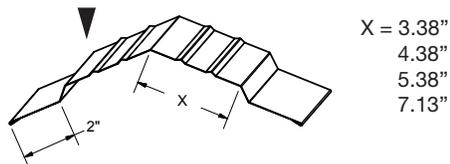
A11B Door Jamb Flashing

· Available in 10'6", 12'6", 14'6" and 16'6" lengths



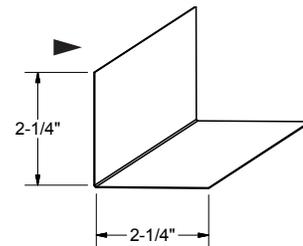
A12B 12", 14", 16" & 20" Ridge Cover

· Available in 10'6", 12'6", 14'6" and 16'6" lengths



A13 Universal Flashing

· Available in 10'6", 12'6", 14'6" and 16'6" lengths

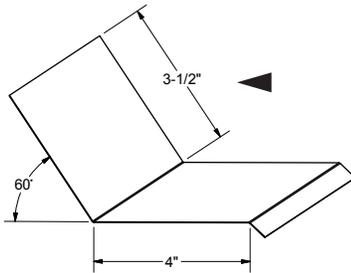


▶ Indicates painted side

Residential Guide for Pro-Rib / Lo-Rib / Tuff-Rib Residential Trims & Flashings

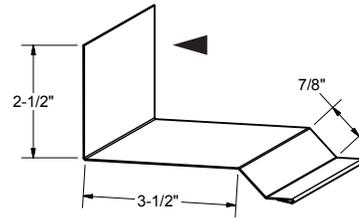
A14 Endwall Flashing

· Available in 10'6", 12'6", 14'6" and 16'6" lengths



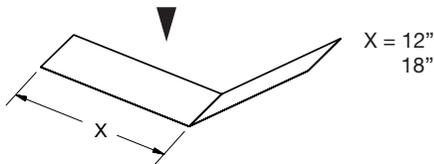
A15 Sidewall Flashing

· Available in 10'6", 12'6", 14'6" and 16'6" lengths



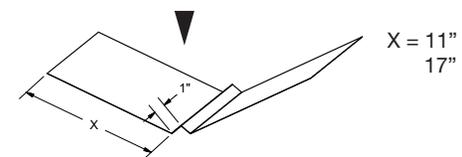
A16 24" & 36" Valley Flashing

· Available in 10'6" and 12'6" lengths



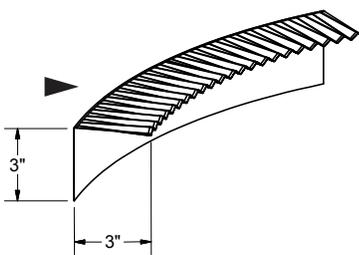
A17 Valley Flashing

· Available in 10'6" and 12'6" lengths



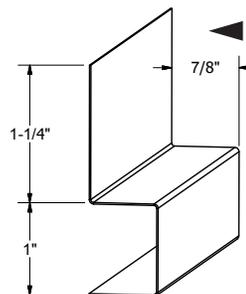
A18 Arch Trim

· Available in 10'6" length



A19 Box Base

· Available in 10'6", 12'6", 14'6" and 16'6" lengths

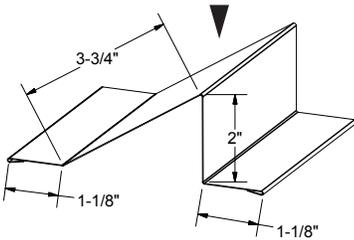


▶ Indicates painted side

Residential Guide for Pro-Rib / Lo-Rib / Tuff-Rib Residential Trims & Flashings

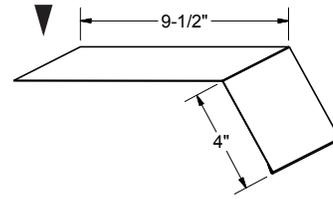
A20 Snow Guard

· Available in 10'6", 12'6", 14'6" and 16'6" lengths



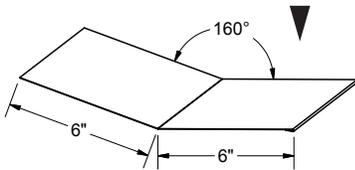
A25 Gambrel Roof Flashing

· Available in 10'6", 12'6", 14'6" and 16'6" lengths



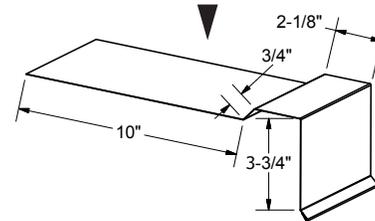
A26 Pitch Break Flashing

· Available in 10'6", 12'6", 14'6" and 16'6" lengths



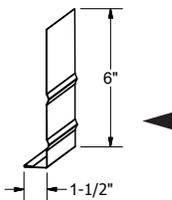
A27 Prow Flashing

· Available in 10'6", 12'6", 14'6" and 16'6" lengths



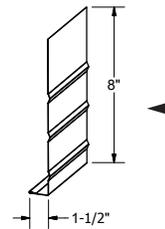
A32B 6" Steel Fascia

· Available in 10'6", 12'6", 14'6" and 16'6" lengths



A32B 8" Steel Fascia

· Available in 10'6", 12'6", 14'6" and 16'6" lengths

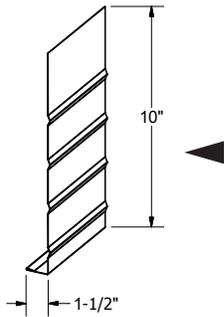


▶ Indicates painted side

***Residential Guide for Pro-Rib / Lo-Rib / Tuff-Rib
Residential Trims & Flashings***

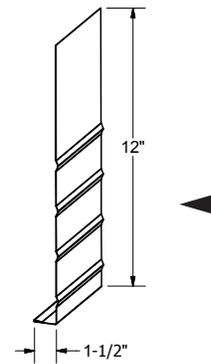
A34B 10" Steel Fascia

· Available in 10'6", 12'6", 14'6" and 16'6" lengths



A35B 12" Steel Fascia

· Available in 10'6", 12'6", 14'6" and 16'6" lengths



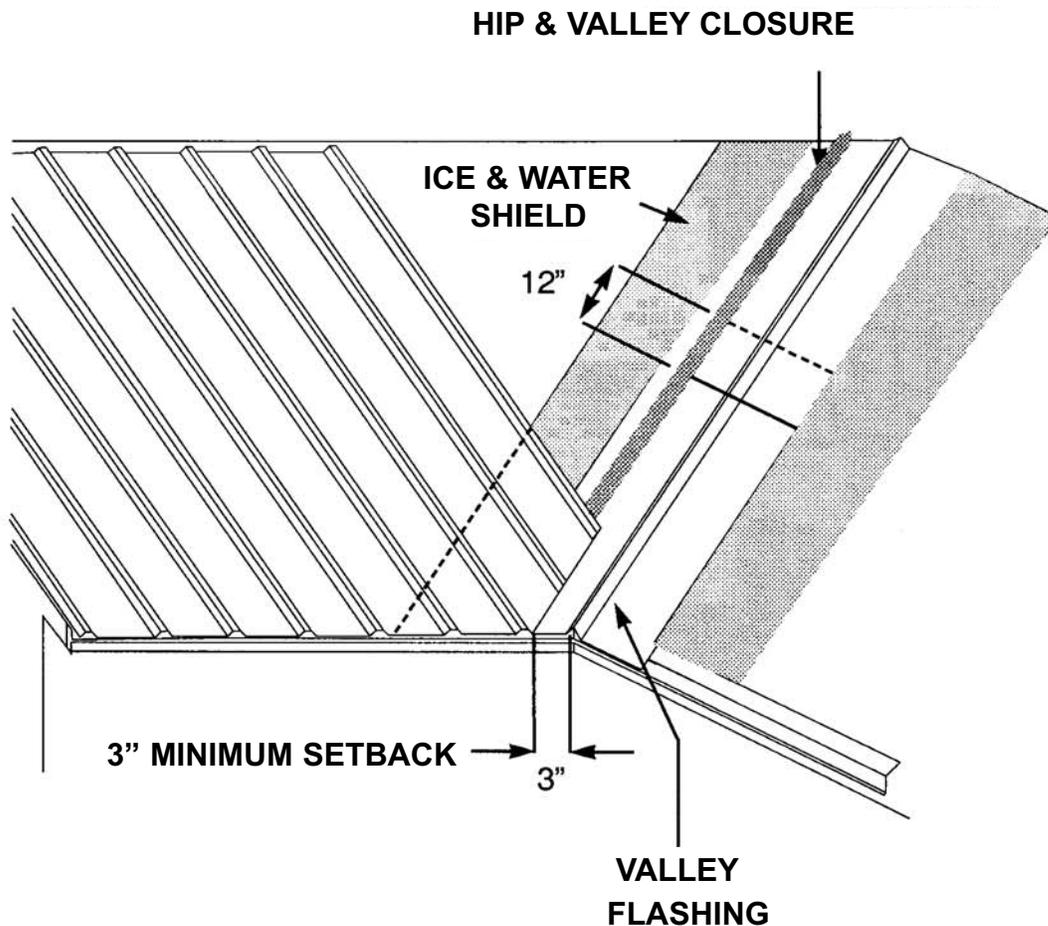
▶ Indicates painted side

Residential Guide for Pro-Rib / Lo-Rib / Tuff-Rib

General Roof Applications

6. Valley Conditions

Apply 24" or 36" Valley flashing over Ice & Water Shield and work towards ridge. Temporarily secure flashing in place with small nails or flat screws. End lap flashing a minimum of 12 inches and use butyl caulk at overlap. Cut roof panels on angle as necessary. Hip & Valley closure should be placed under roof panels. Install fasteners 3 inches on centre on both sides of "W" Valley flashing through panel and closure. (*It is recommended that a solid substrate be used underneath the Valley Flashing prior to installation.*)

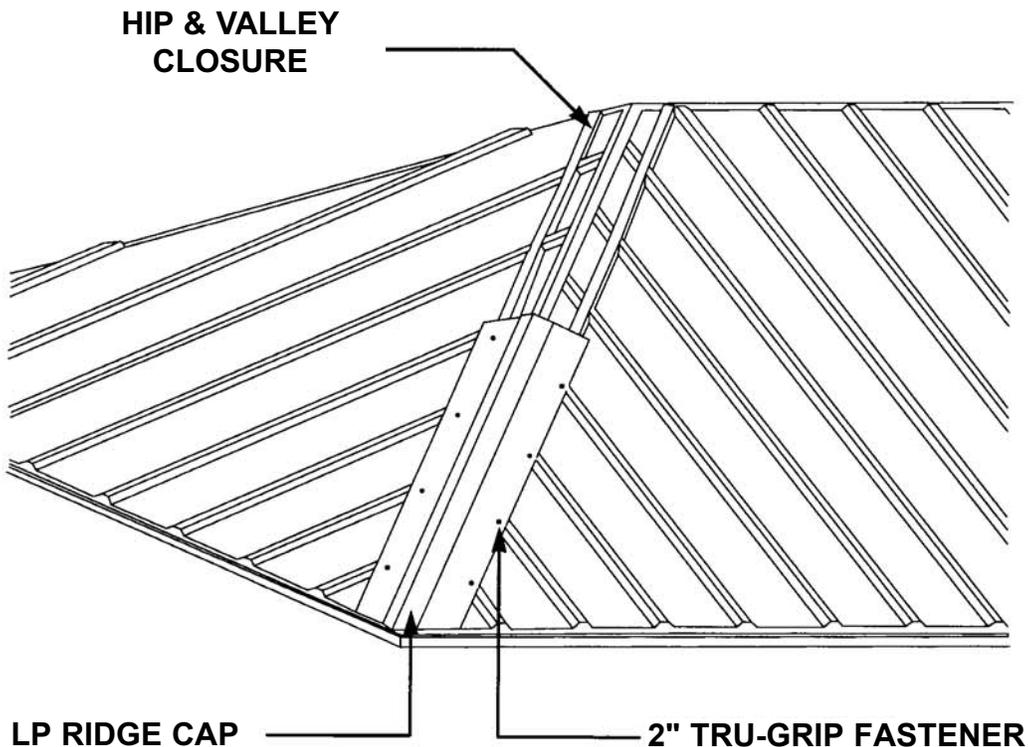


Residential Guide for Pro-Rib /Lo-Rib / Tuff-Rib

General Roof Applications

7. Hip Conditions

Always start LP Ridge Cap at eave and work towards ridge. End lap LP Ridge Cap a min. of 6 inches. Cut roof panels on angle as necessary. Hip & Valley closure should be placed between LP Ridge Cap and roof panels. Attach LP Ridge Cap to roof panel rib using a 2" Tru-Grip fastener at each panel rib.

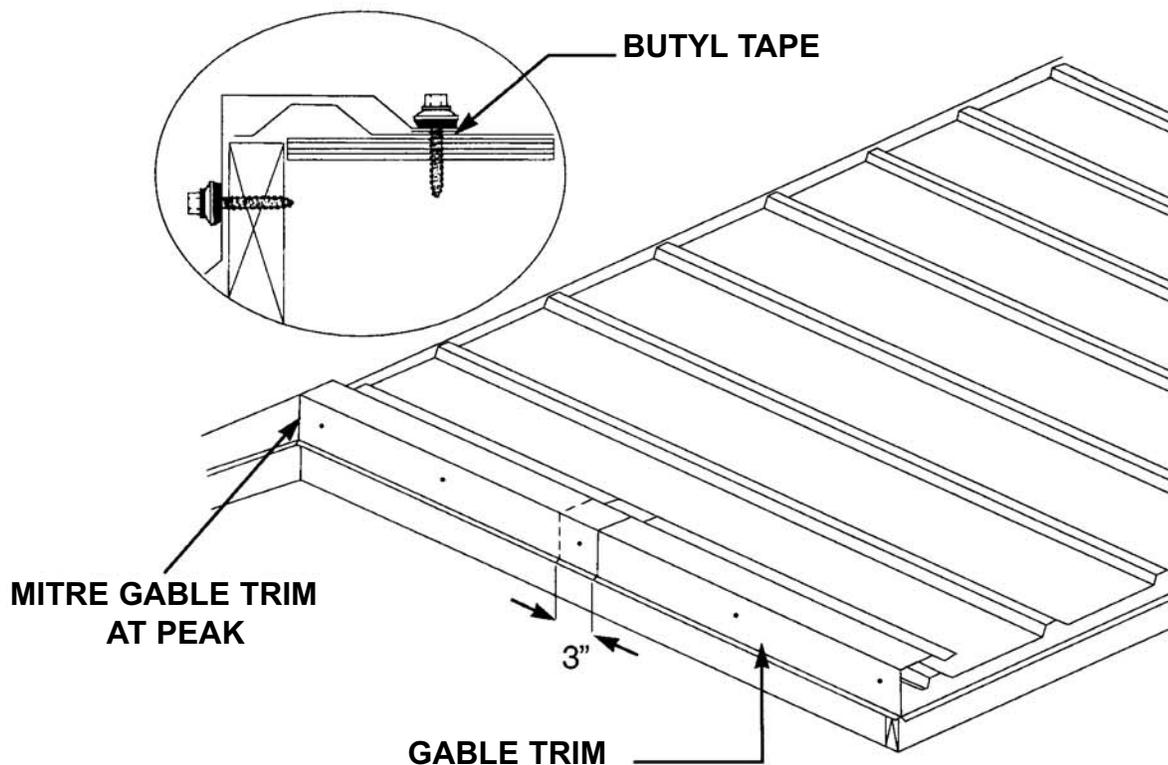


Residential Guide for Pro-Rib / Lo-Rib / Tuff-Rib

General Roof Applications

8. Gable Trim

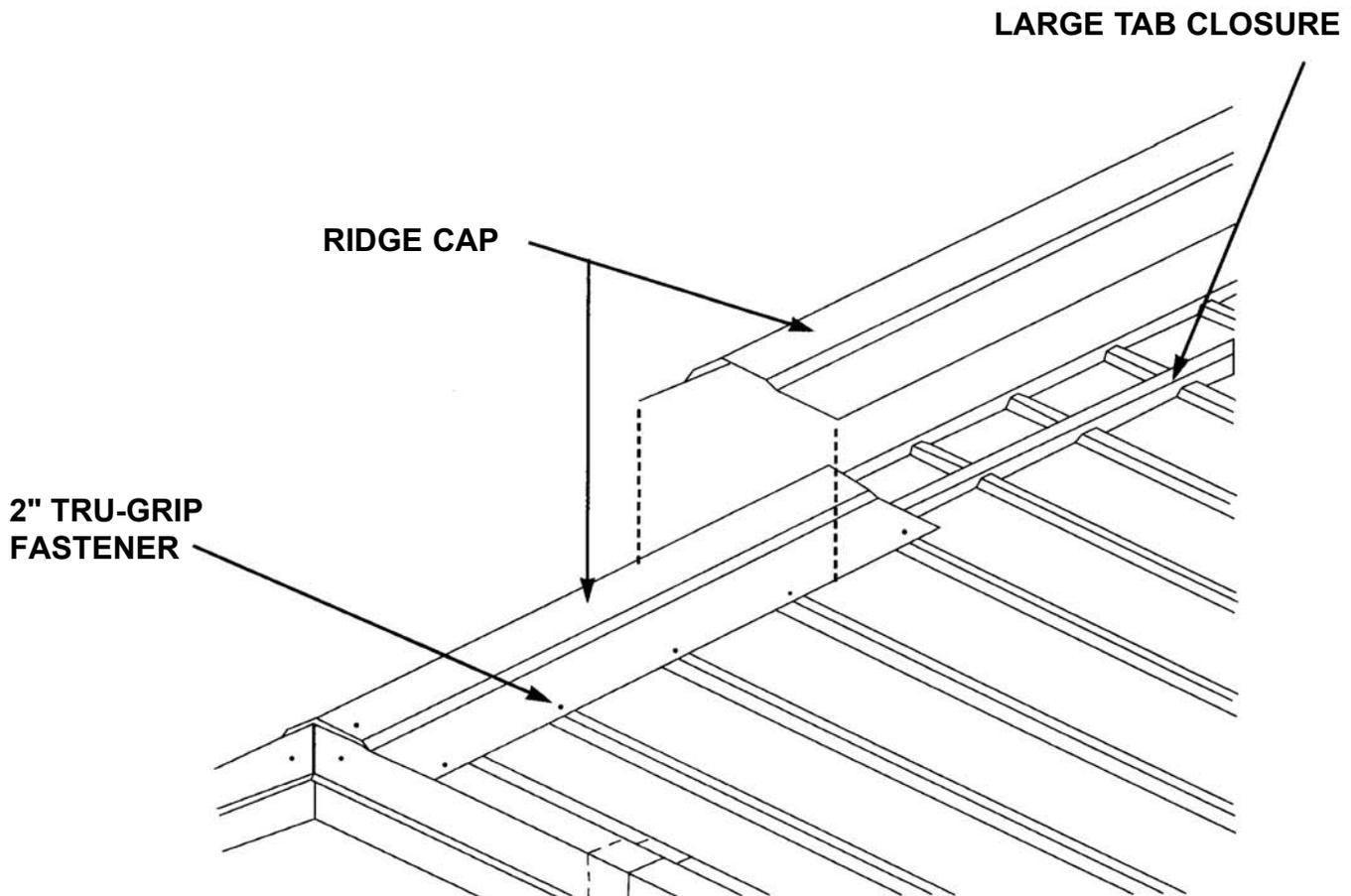
Always start Gable Trim at eave and work towards ridge. End lap Gable Trim a min. of 3 inches. A bead of Butyl Tape or caulk should be placed between the Gable Trim and the roof panel. Attach the Gable Trim to the roof panel with panel fasteners located 12 inches apart. Miter Gable Trim at peak of roof as required. Attach Gable Trim to fascia board with panel fasteners as necessary.



Residential Guide for Pro-Rib / Lo-Rib / Tuff-Rib General Roof Applications

9. Ridge Cap

Ridge cap should be end lapped 6 inches. Place large tab foam closures between Ridge Cap and roof panels. Attach Ridge Cap to rib of roof panel with 2" Tru-Grip fasteners along both sides of Ridge Cap.

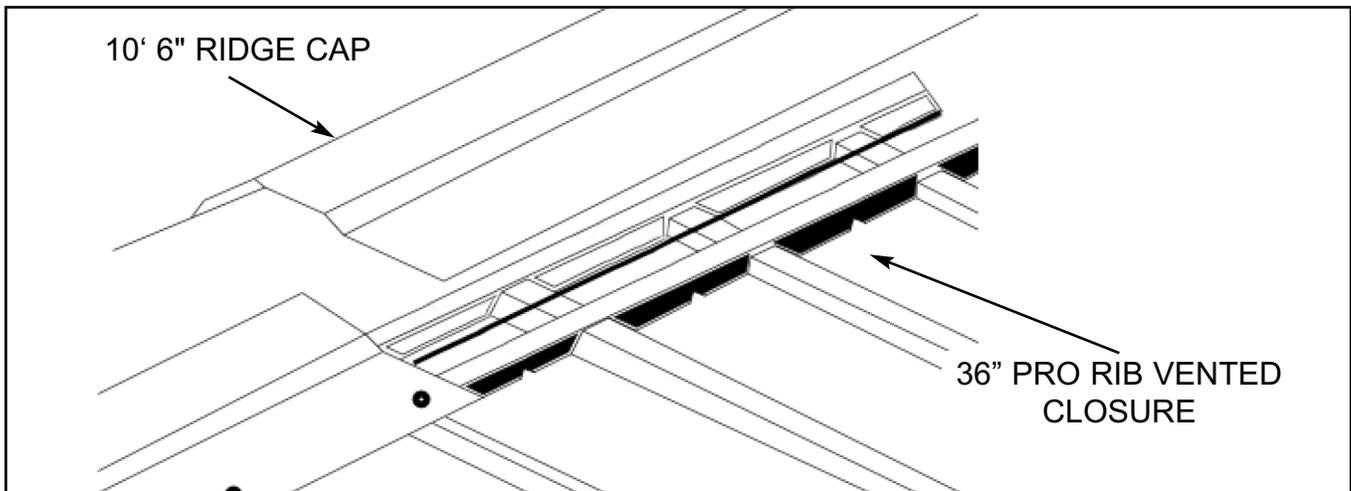


Residential Guide for Pro-Rib / Lo-Rib / Tuff-Rib General Roof Applications

10. Vented Closure and Ridge Vent

Pro Rib Vented Closure provides 9 sq. in. of net free air per lineal foot of ridge. A minimum opening of 2" at the ridge is required. Easily installed by placing closure vent at end of sheet at ridge. Fasten down ridge cap and you are done.

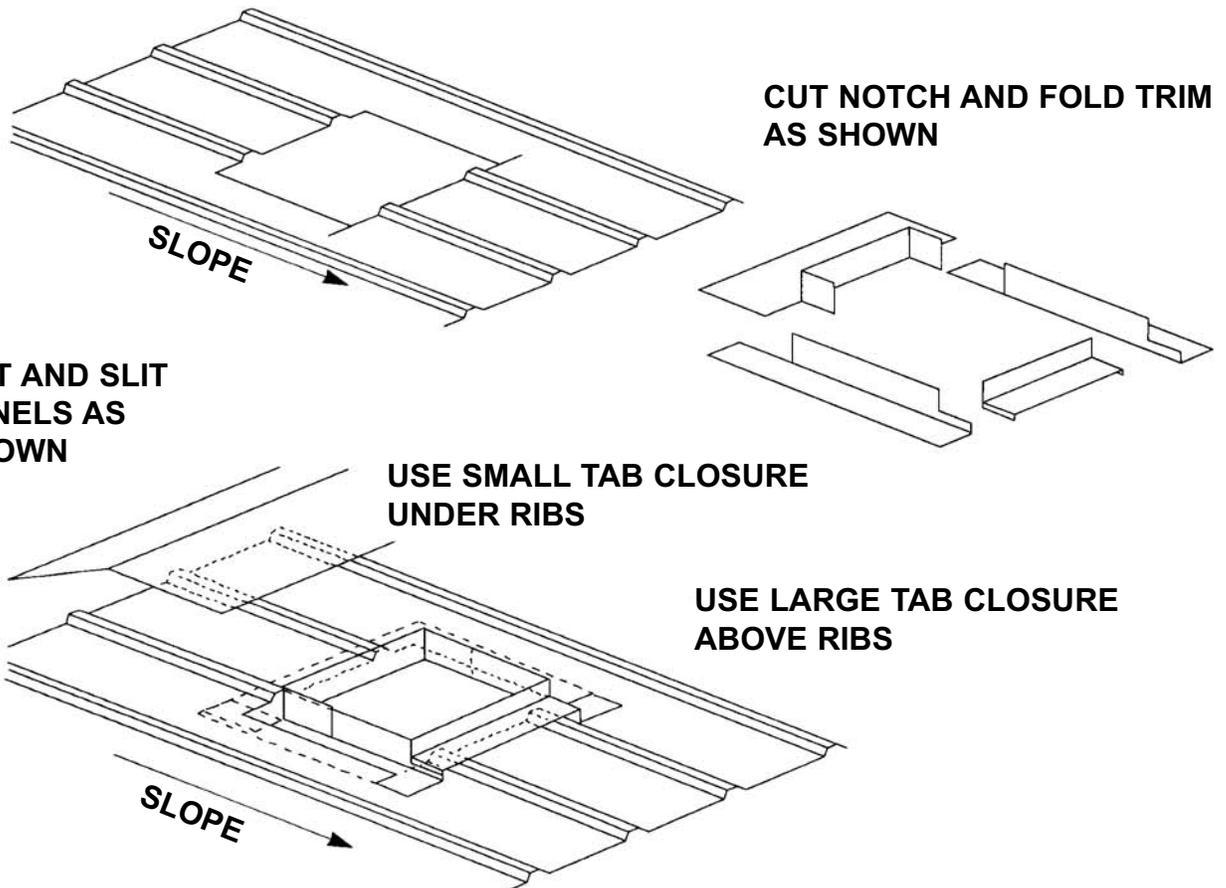
All ridge vents must be used in conjunction with balanced soffit ventilation.



Residential Guide for Pro-Rib / Lo-Rib / Tuff-Rib ***General Roof Applications***

11. SKYLIGHT / CHIMNEY

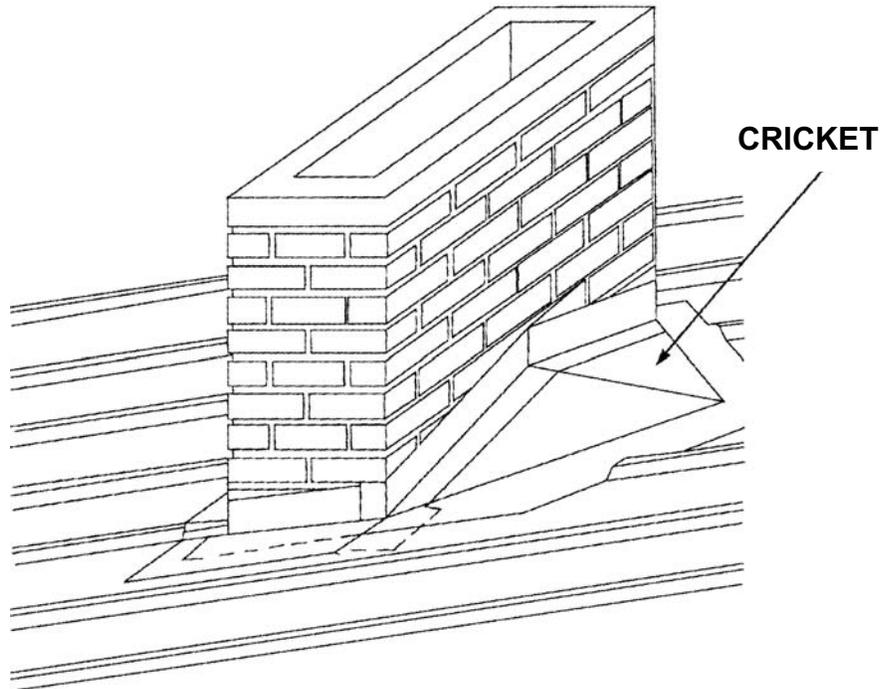
Cut opening in roof panel 4 inches wider and 5 inches longer than skylight or chimney. At bottom of opening slit panels or cut and end lap roof panels. Cut, notch and bend skylight trim from flat stock as required (see example). Locate face of skylight 3 inches down from end of roof panel. Use foam closure and Butyl Tape or caulk to seal between roof panel and skylight trim.



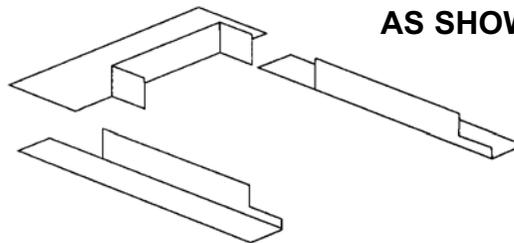
Residential Guide for Pro-Rib / Lo-Rib / Tuff-Rib ***General Roof Applications***

12. CRICKET

It is recommended that Cricket be built up slope of large chimneys to prevent snow build up and water ponding. Cover the Cricket with roll valley or flatstock and flash chimney with skylight trim or universal sidewall trim and universal endwall flashing.



**CUT NOTCH AND FOLD TRIM
AS SHOWN**

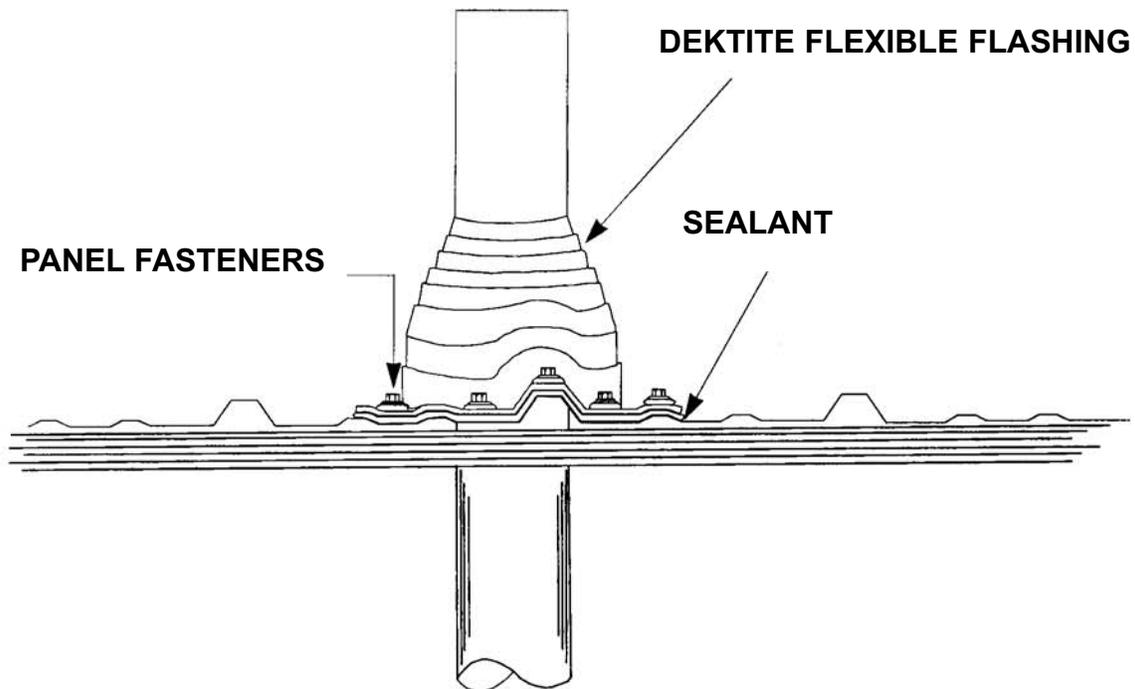


Residential Guide for Pro-Rib / Lo-Rib / Tuff-Rib

General Roof Applications

13. Vent Pipe / Flexible Flashing

A Dektite pipe flashing may be used to flash around vent pipe. Cut a hole in the roof panel slightly larger than the vent pipe. Form the base of the Dektite to the ribs of the roof panel. Apply a bead of silicone caulk between the base of the Dektite and the roof panel. Attach the Dektite to the roof panel using panel fasteners through the base ring, about every 1". Apply a bead of butyl caulk around the top of the flashing where it meets the pipe. For extreme pitch or surface irregularity, select next larger size.

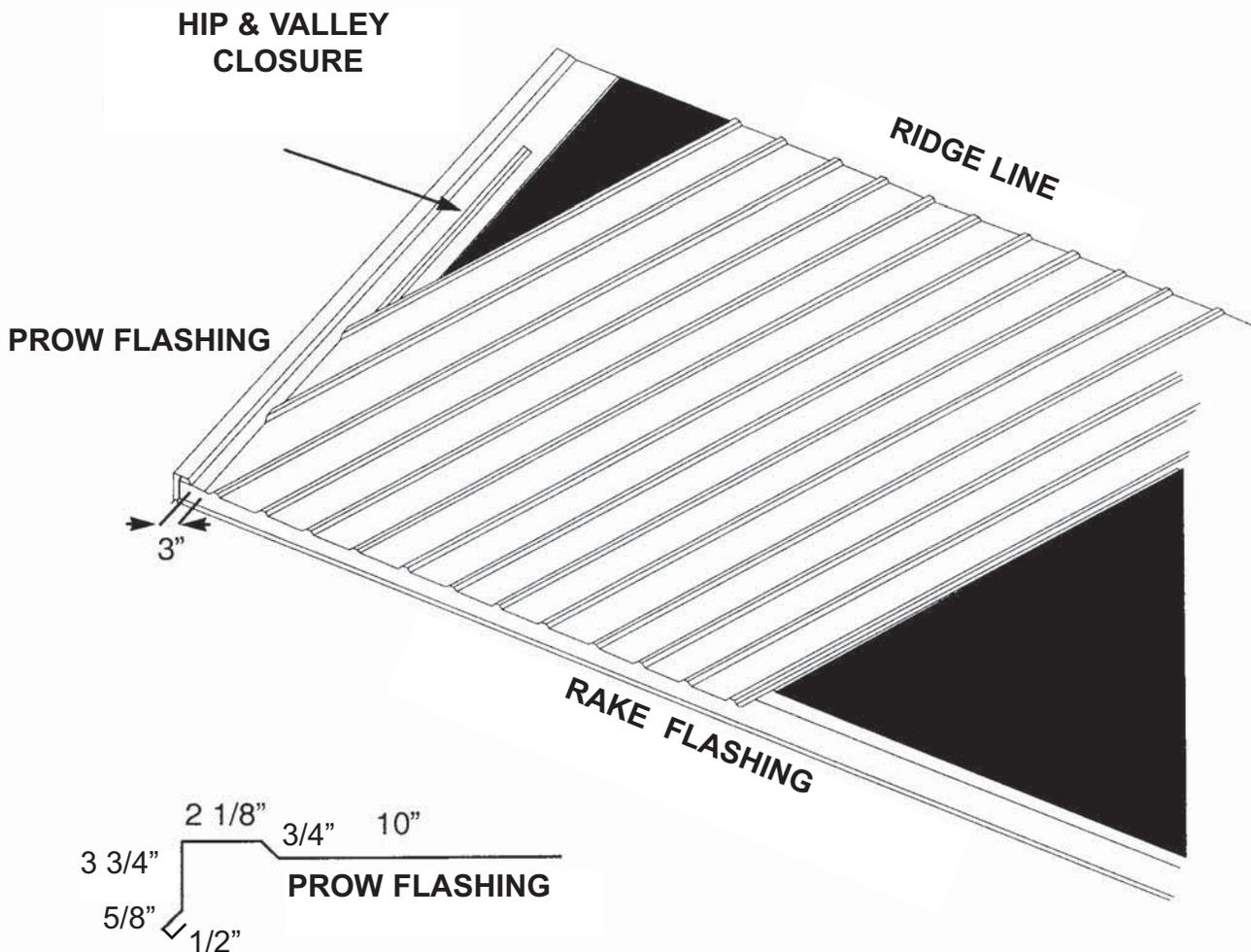


Residential Guide for Pro-Rib / Lo-Rib / Tuff-Rib

General Roof Applications

14. Prow Flashing

Install Prow Flashing to overlap rake flashing. Roof panels should be cut back 3" from the rise in the Prow Flashing along the angle of the prow. Use Hip & Valley closure with a bead of caulk or Butyl Tape to seal between the Prow Flashing and roof panels. Lap panels to the Prow Flashing a minimum of 5". Place fasteners between the ribs of the panel along the angle of the prow to ensure a tight seal.

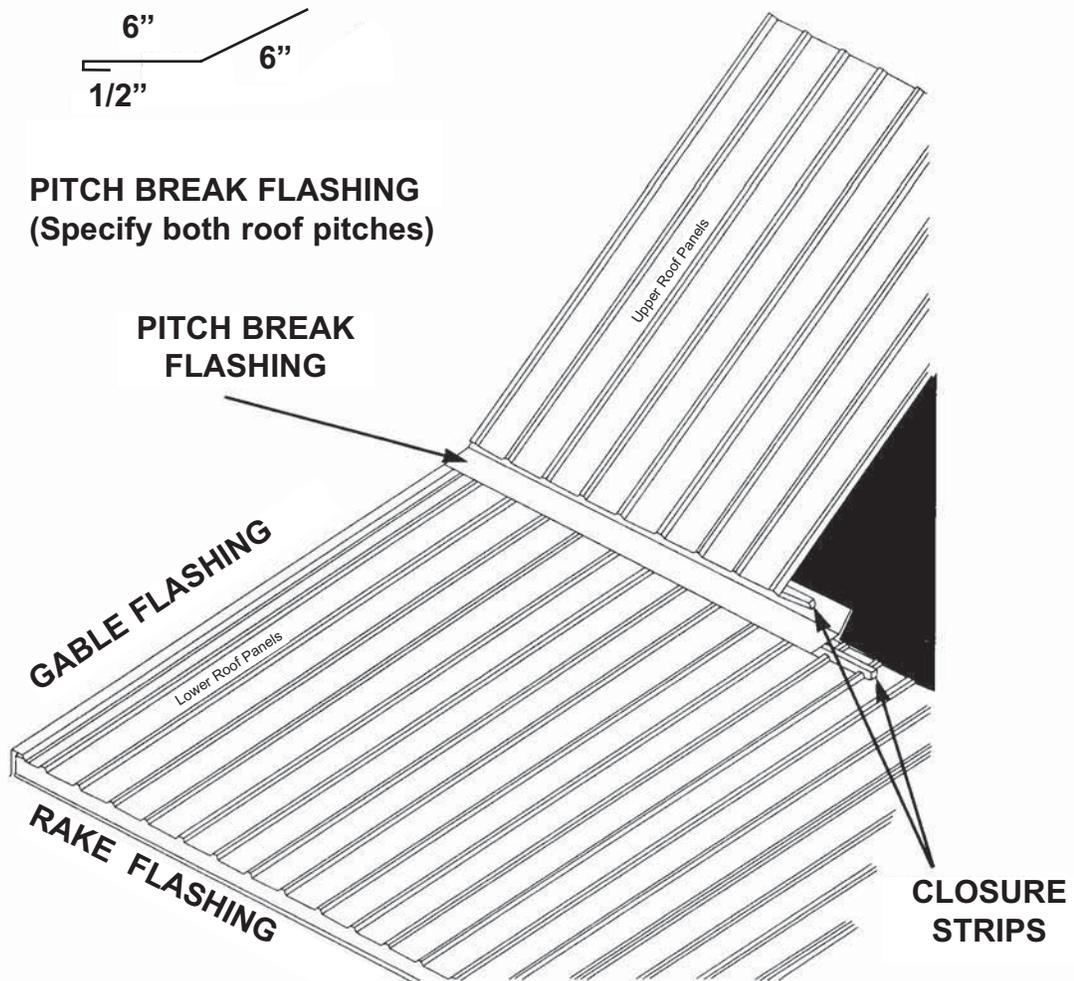


Residential Guide for Pro-Rib / Lo-Rib / Tuff-Rib

General Roof Applications

15. Pitch Break Flashing

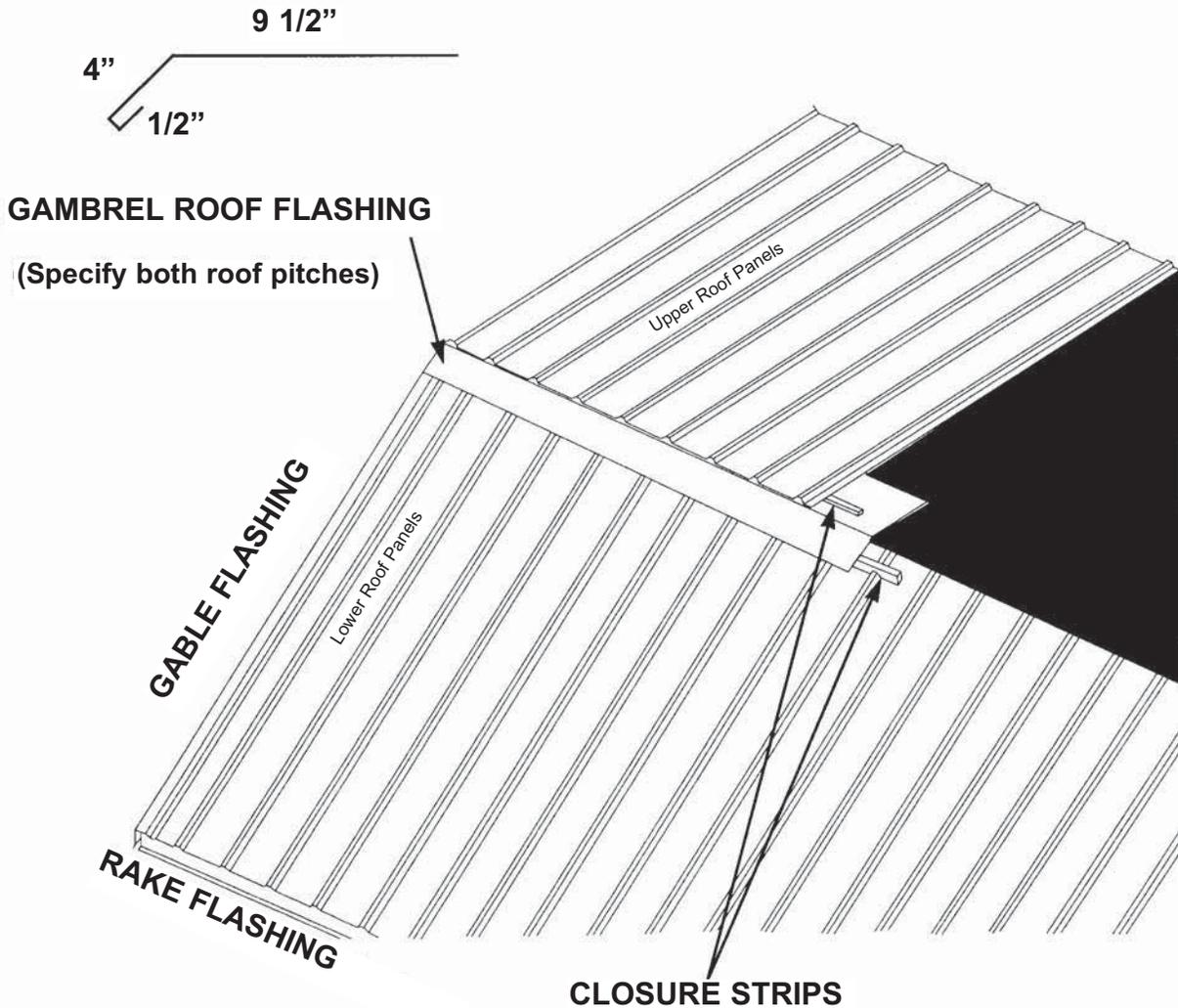
Pitch Break Flashing should be used when roof panels change pitch. Place the pitch break flashing over the lower roof panels. Large tab closures should be placed between the lower roof panels and the pitch break flashing. Use stitch screws to attach the pitch break flashing to the ribs of the lower roof panels. Install the upper roof panels over the pitch break flashing placing small tab closures between the two.



Residential Guide for Pro-Rib / Lo-Rib / Tuff-Rib General Roof Applications

16. Gambrel Roof Flashing

Gambrel Roof Flashing should be used when roof panels change pitch. Place the gambrel roof flashing over the lower roof panels. Large tab closures should be placed between the lower roof panels and the gambrel roof flashing. Use stitch screws to attach the gambrel roof flashing to the ribs of the lower roof panels. Install the upper roof panels over the gambrel roof flashing placing small tab closures between the two. Attach the bottom edge of the upper roof with panel fasteners similar to the eave installation.



Residential Guide for Pro-Rib / Lo-Rib / Tuff-Rib

General Roof Applications

17. **Colour Matched Snow Guards - 10' 6" Standard length.**
Attach to roof through ribs of panels on both up hill and down hill legs of *snow guard*. Fasteners should be a minimum of 2" length to penetrate sub roofing. It is recommended that a spot of caulk or butyl tape be placed between the snow guard and the rib at the fastener location.

Note: Snow Guards must be placed inside the outside wall edges.

