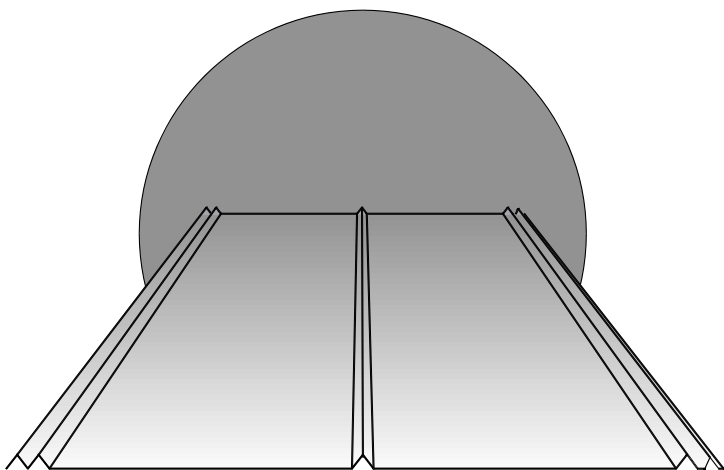




GIBRALTAR
Construction Products

5V-CRIMP PANEL INSTALLATION GUIDE



Custom cut to the inch

Wide variety of colors for both panels and flashings
Complete line of accessories to compliment a building
Technical support staff ready to assist you in any way

800-690-7235

• Single Source Service •

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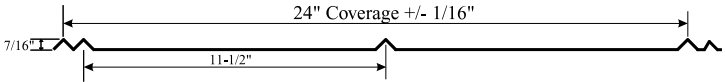
***COMMITTED
TO QUALITY***

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5V PANEL

SPECIFICATIONS:

<u>Finish</u>	<u>Gauge</u>	<u>Min. Thickness</u>	<u>Specifications</u>
Galvanized	Utility	0.0100	ASTM A-653
Galvanized	30	0.0125	ASTM A-653
Galvanized	29	0.0142	ASTM A-653
Painted	29	0.0142	SEMCOAT™
Galvanized	26	0.0187	ASTM A-653
Acrylic Galvalume	26	0.0187	ASTM A-792,
Painted	26	0.0187	SEMCOAT™ Paint System
Acrylic Galvalume	24	0.0236	ASTM A-792, AZ-55



APPLICATIONS:

Building code requirements for metal roofing applications vary per county and project. Please contact your local building and zoning department for pertinent information prior to construction.

ACCESSORIES:

Gibraltar Construction Products manufactures a full line of standard trim and accessory items to compliment your 5V-Crimp project. Custom made trim and accessories are available upon request.

FINISHES:

Gibraltar Construction Products' 5V-Crimp panel is produced in Utility, 30, 29, & 26 gauge G-90 hot-dipped Galvanized mill finish. The AZ-55 Galvalume finish has out-performed the galvanized mill finish in all applications with the exception of animal confinement. The SEMCOAT™ paint system offers optimum exterior protection plus superior resistance to corrosion and ultraviolet radiation. Also, a limited warranty is available for both Acrylic Galvalume and the SEMCOAT™ finishes.

FASTENING SCHEDULE SCREWS

Fastening Schedule for the field of the roof



Fastening Schedule for Eaves, Ridges and Endlaps

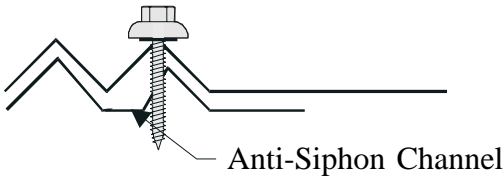


METRO-DADE COUNTY CODE COMPLIANCE and LOCAL CODES:

Gibraltar Construction Products' 26 gauge 5V-Crimp has the product approval of Metro-Dade County and complies with the new d 7-98 Exposure C as adopted in South Florida. Contact our Technical Support Department for a copy of the current Metro-Dade County compliance report if one is required for your purposes. Local building codes address metal roofing in various ways. For other building applications, please contact your local building code organization. Gibraltar Construction Products acts only as the seller of roofing materials and has no control of the application of materials, or the conditions under which they are applied.

A registered engineer or architect of record, for the particular job, assumes the responsibility of detailing the applications. Gibraltar Construction Products provides a technical support telephone number of 1-800-690-7235.

SIDE LAP DETAIL



SAFETY PRECAUTIONS

Metal panels have sharp edges, therefore protective clothing and gloves should be utilized. To prevent eye injury, safety glasses must be worn when drilling or cutting steel panels. Use extreme care when walking on any roofing panel. Proper underlayment is necessary to prevent fall-through. Plywood is recommended on all non-structural panel applications. Gibraltar Construction Products recommends all installers follow the OSHA (Occupational Safety & Health Administration) requirements for all protection (#3146, dated 1995). Steel panels can become slippery when wet. Do not work on steel panels when wet or when weather conditions are not suitable for safe installation.

DELIVERY, HANDLING & STORAGE

Proper care in storing and handling metal panels is essential in providing you with years of service. Panels should be immediately installed! Any panels not immediately installed must be kept dry and stored in an indoor area. Extreme caution should be taken in order to prevent moisture penetration of the stack(s) by rain, snowfall or condensation. Condensation is moisture that accumulates naturally from the change in temperature of the material nested in a stack where adequate ventilation has been restricted. Do not cover metal with plastic, which can create condensation.

(800) 690-7235

5V-CRIMP PANEL

INSTALLATION SPECIFICATIONS

ROOF APPLICATION: Roof slope must be a minimum of 3/12 pitch to ensure proper drainage.

NOTE: In residential applications, Gibraltar Construction Products recommends the use of plywood or OSB deck. In addition we specify a 30# felt be installed in accordance with your local building code to control condensation. If tin tabs are used to secure the 30# felt provide 15 pound felt on top of the 30 pound felt in the same direction as the panels for a separation sheet. (Batten strips on 16" centers attached to a plywood deck are optional). If the building parameters differ from those stated in the fastening schedule, on pages 8 & 9, specific fastening calculations must be computed by an engineer.

Wood Deck: Must be minimum 1/2" structural plywood or OSB (5/8" for Metro-Dade new construction) supported on rafters at a maximum of 24" on-center. **Battens:** 5V-Crimp metal roofing can be separated from the moisture barrier by minimum, nominal 1" x 3" yellow pine battens spaced on maximum 16" centers or according to ASCE calculations where applicable. **CAUTION: Direct contact between pressure treated lumber and metal roofing must be avoided in order to prevent potential corrosion.** The battens must be fastened to the roof deck with minimum #6 screws at 12" on-center or two minimum 8d common or pneumatic nails spaced 8" on-center or one every 4" on-center (or by applicable calculations according to ASCE 7-98 or 1991 NDS Standards.) Battens must be installed to support the entire width and length of ridge, eave, hip, valley, and gable end trims. Battens are optional if re-roofing over shingles. **NOTE:** Re-roofing over shingles without a batten is allowed providing the roof has been checked by a licensed roofing contractor to insure levelness and pull-out integrity.

1. Start at the gable or rake opposite of the prevailing wind on a gable roof, or start at the end or center of a hip roof for uniform appearance. The leading edge should be the pair of inverted V's with the anti-siphon channel.
2. It is imperative that the panels be laid in square to insure proper lapping (many installers pop a chalk line 26" from the gable edge running from the ridge to the eave to use as a guide.) **CAUTION: Do not apply chalk to panels**
3. **SIDE LAP PROCEDURE:** Please see the side lap detail. Pay careful attention that the anti-siphon channel is over lapped by the double inverted V's as shown in the side lap detail.

- 4. END LAP PROCEDURE:** When 28' (Feet) or longer panels are required, Gibraltar Construction Products recommends the customer end lap the panels a minimum of 12" to insure proper drainage. Two strips of butyl sealant tape should be used at the end lap. Fasteners should be on the uphill side of the strips of butyl sealant tape.
- 5. EAVE DETAIL PROCEDURE:** Gibraltar Construction Products recommends the use of an eave flashing with a pre-glued closure strip (inside) which will go between the underside of the roofing panel and the top side of the flashing to avoid water infiltration, fastened on 6" centers.
- 6. RIDGE DETAIL PROCEDURE:** The appropriate ridge cap is placed on top of the pre-glued closure strips (outside) and fastened on 6" centers.
- 7. FASTENERS:** Consult Gibraltar Construction Products on specific recommendations regarding compatible fasteners. Fastener selection is based on the substrate of the specific material chosen for application and the environment in which you are located. (see fastening schedule p. 8-9)

Metal-to-Wood Application: 5V-Crimp panels should be fastened by a minimum of #9 x 1-1/2" compatible fastener.

Metal-to-Metal Application: 5V-Crimp panels should be fastened with a minimum #12 x 1" hex head Tek Screw.

8. FLASHINGS: Eave, gable, valley, hip and ridge flashing must be Gibraltar Construction Products' material.

9. CAULKING: Must be approved by the manufacturer, butyl sealant supplied in tape or gun-grade form.

10. PIPE BOOTS: CAUTION Must not be lead-type boots. (p.14)

TRIMMING AND CUTTING STEEL PANELS:

Whether cutting with the profile (length wise) or across the profile (width wise), it is best to use an electric nibbler, shears or hand tin-snips. It is very important to cut panels one at a time with the finish side of the panel facing down on wood blocks. Care should be taken to ensure that the hot metal particles and filings from cutting and screwing to do not become embedded in the panel.

NOTE: Nibblers can be found at most power tool distributors.

CAUTION: Filings from screw and panel cuttings must be cleaned off the panels after screws have been applied through the panel to avoid rust marks or "bleeding" on the panels. Failure to comply with the above procedures relieves Gibraltar Construction Products of responsibility for any resulting damage to, or deterioration of the finish and voids any paint or finish warranty.

TERMS & CONDITIONS

METAL ROOFING TERMS ARE STANDARD

Job site delivery available

Job site delivery disclaimer must be completed to use this service.

Job estimating and takeoffs available

Please inquire. We offer this at no charge as a value added service. Takeoff disclaimer must be completed to use this service.

Cancellations

Gibraltar Construction Products will honor cancellation prior to manufacturing. Any order which has already been manufactured is the property of the purchaser.

Claims

All claims of shortage, damage, etc. must be made within 48 hours of the date of receipt. Claims must be accompanied by a copy of the bill of lading verified by the shipper which must indicate shortages or damages as received. Gibraltar Construction Products can not honor shortage or damage claims on freight carriers unless the carrier's paperwork is duly noted.

Return Policy

All 5V-Crimp Panel orders are considered "special order products." Special order products can not be returned.

Warranted Products

Gibraltar Construction Products will be happy to provide you with a draft copy of our warranty for Acrylic Galvalume or Semcoat painted products. Failure to request this draft will indicate you accept the contents there in.

Indemnity

All prices and/or designs are subject to change without notice.

Terms of Sale

1/2% 10 net 30 FOB shipping point.

Safety

Gibraltar Construction Products recommends the compliance with the Florida Fall Protection Act. Please contact Gibraltar Construction Products if you have any questions.

Disclaimer

While we make every attempt at accuracy, we are not responsible for typographical or printing errors.

Available Limited Warranties

Acrylic Coated Galvalume	20 Years, 6 Months
Semcoat Paint	25 Years

Glossary Terms

Ridge Cap - This accessory is used at the peak of a two-slope roof. The ridge can be ventilated by using a ridge vent.

Hip Cap - This accessory covers projecting angles formed at the intersection of the two sloping roof planes.

Gable Trim - This accessory is installed on the edge of the roof between the ridge and the eave, holding down the first panel edge and the last panel edge.

Eave Trim - This accessory is used at the eave or gutter edge of the building, and must be installed before any panels.

Valley

This accessory is used to flash the valley formed by intersecting roof planes.

Sidewall - This accessory is used when the roofing panel is installed parallel to a vertical wall.

Endwall - This accessory is used when the upper end of panel butts into a vertical wall.

Slope Transition - This accessory is used where two roofs of different pitch meet; the top section being steeper than the lower section.

Gambrel Condition - This trim is used to transition from a low slope to a steep slope.

Roofing Square

100 Square feet or 10' X 10'

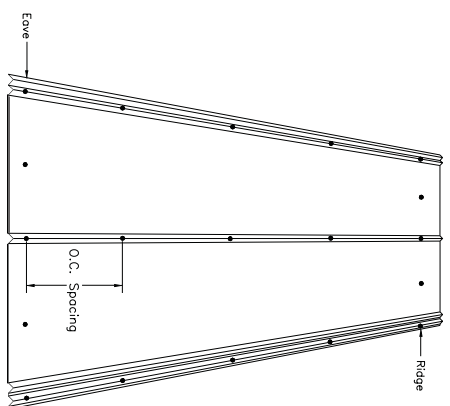
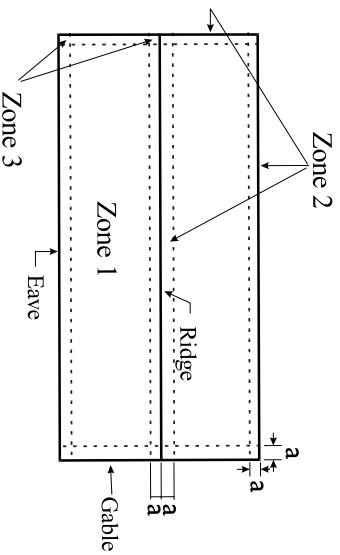
Manufacturers Recommended Alternate Fastening Schedule

		Alternate fastening Schedule On Center Spacing				Wind Speed Zone			
		90		100		110			
Type	Placement To	Fastener Size	On Center Spacing	Trim Areas	On Center Spacing	Trim Areas	On Center Spacing	Trim Areas	
Zone 1	Nail	Wood	10d x 1-3/4"	24"	12"	24"	12"	16"	6"
	Wood Fast Screw	Wood	#9 x 1-1/2"	24"	12"	24"	12"	16"	6"
	Metal Fast Stitch	18 GA Steel and Higher and Lower	#12 x 1"	24"	12"	24"	12"	16"	8"
Nail	Wood	10d x 1-3/4"	12"	6"	10"	5"	8"	4"	
Wood Fast Screw	Wood	#9 x 1-1/2"	24"	12"	24"	12"	16"	8"	
Zone 2 & 3	Metal Fast Stitch	18 GA Steel and Higher and Lower	#12 x 1"	24"	12"	24"	12"	16"	8"

Manufacturers Recommended Metal Roofing Fastening Guide[®]

with $< 35'$ mean roof height - 3/12 to 7/12 pitch for 90, 100, & 110 mph wind speeds

Based on ASCE 7-98 (Supersedes ASCE 7-93)



Note: Dimension **a** is defined as 10% of the minimum width of the building or 40% of the mean height of the roof, whichever is smaller; however, **a** cannot be less than either 4% of the minimum width of the building or 3 feet.

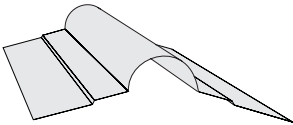
5V-CRIMP PANEL



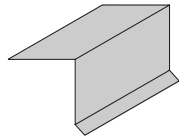
5V-Crimp Inside Closure



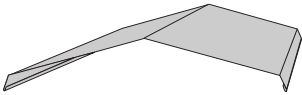
5V-Crimp Outside Closure



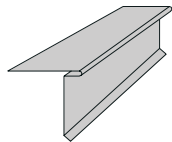
① Ridge/Peak (RC-3)



⑤ Eave Flashing (EF-3)



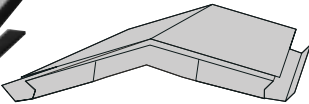
② Ridge/Hip (RC-1)



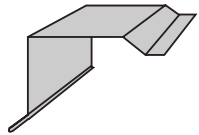
⑥ Eave Drip (ED-1)



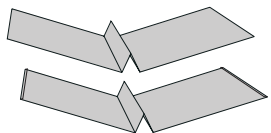
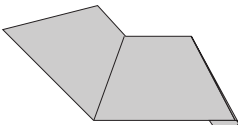
③ Vented Ridge (RC-6) & (PRV4 / VEJTL)



④ Transition Flashing (TF-1)



⑦ Gable /Rake (GR-4)



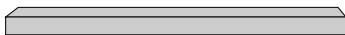
⑧ Preformed Valley (PV-1 & PV-2)

The diagram above represents the most popular t

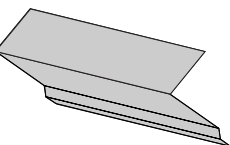
TRIM ACCESSORIES



Side Closure



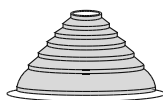
Universal Closure



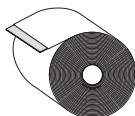
⑨ Sidewall (SW-1)



Butyl Tape



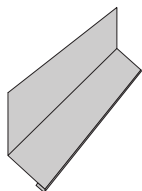
⑫ Pipeboot



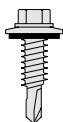
Sealant Tape



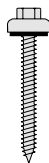
Touch-up Paint



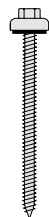
⑩ Endwall (EW-1)



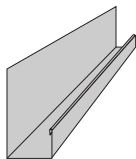
#12x1"x5/16"
Hex Head Tek
Screw



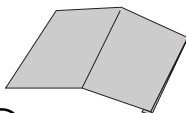
#9x1-1/2"x1/4"
Hex Head
Screw



#9x2-1/2"x1/4"
Hex Head
Screw



⑪ J-Channel (JC-1)



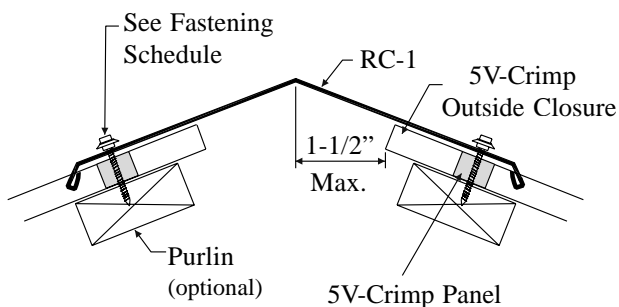
⑬ Gambrel Flashing

Trim accessories for use with 5V-CRIMP Panel.

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RC-1

10'-0" Lengths

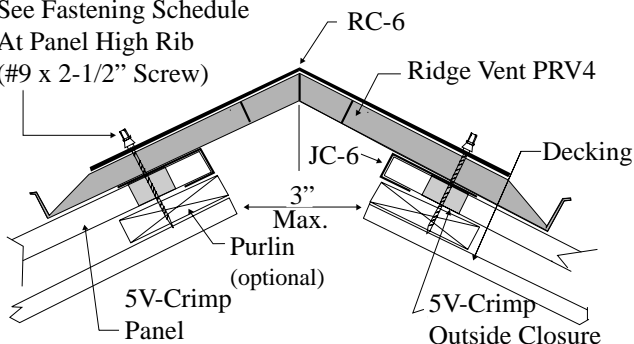


VENTED RIDGE SYSTEMS

PRV-4 DETAIL

4'-0" Lengths

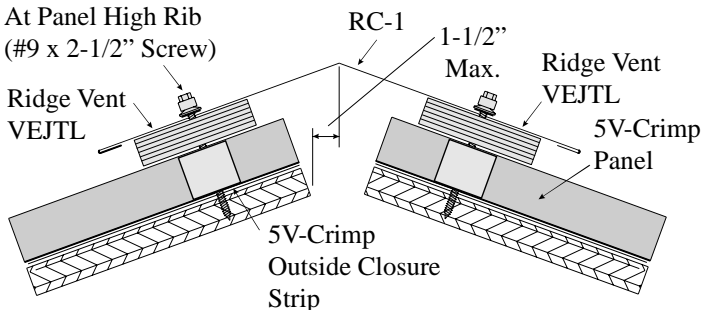
See Fastening Schedule
At Panel High Rib
(#9 x 2-1/2" Screw)



VEJTLL DETAIL

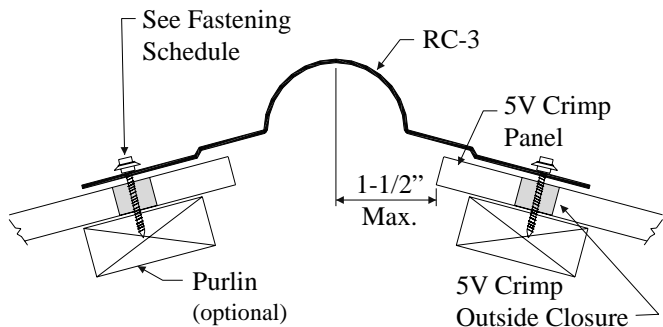
4'-0" Lengths

See Fastening Schedule
At Panel High Rib
(#9 x 2-1/2" Screw)

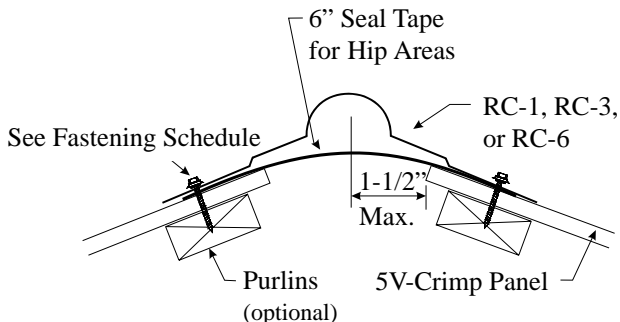


RC-3

10'- 0" Lengths

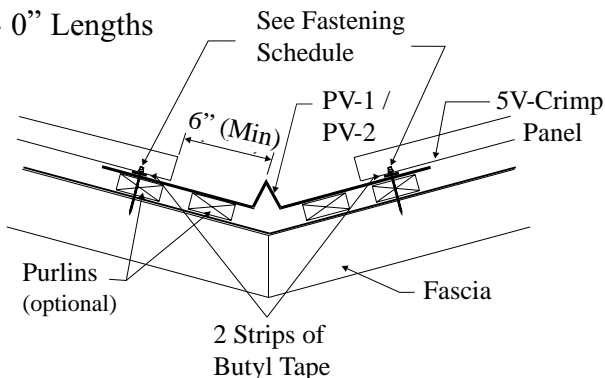


***For hip application opening can be max. 3". Delete the use of universal closure and apply 6" wide sealant tape beneath Ridge cap.**



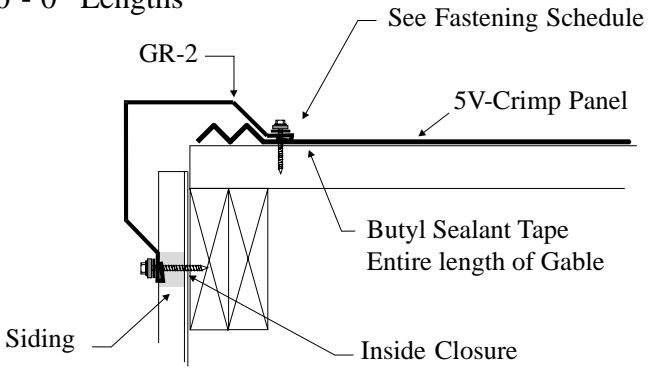
PV-1/PV-2

10'- 0" Lengths



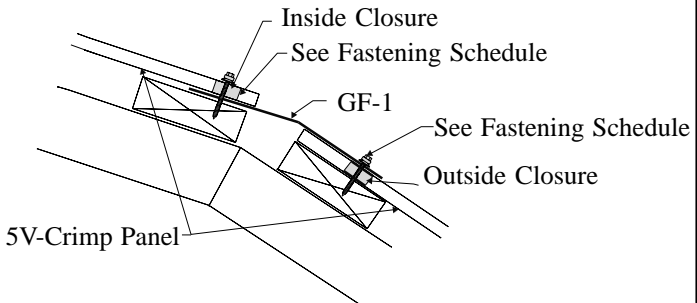
GR-2

10'-0" Lengths



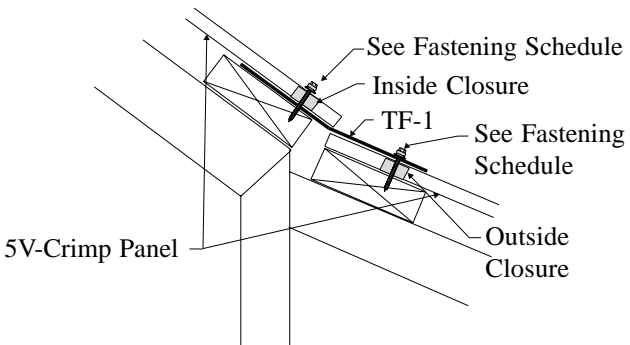
GF-1

10'-0" Lengths



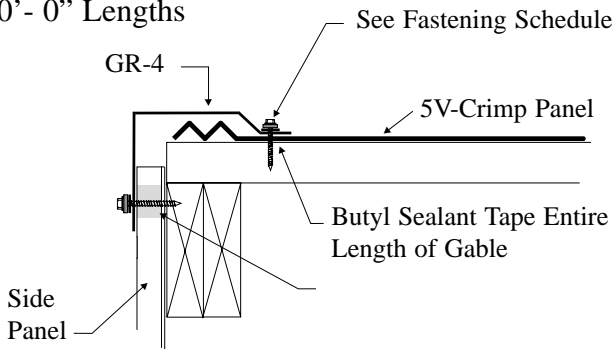
TF-1

10'-0" Lengths



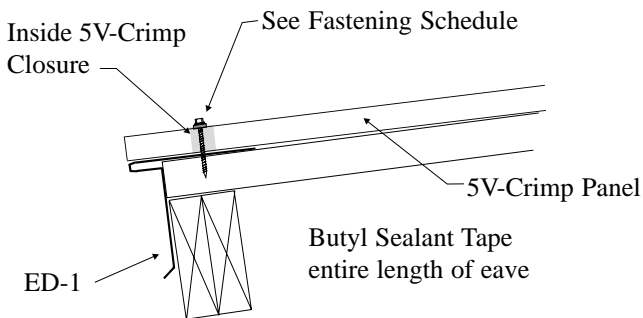
GR-4

10'-0" Lengths



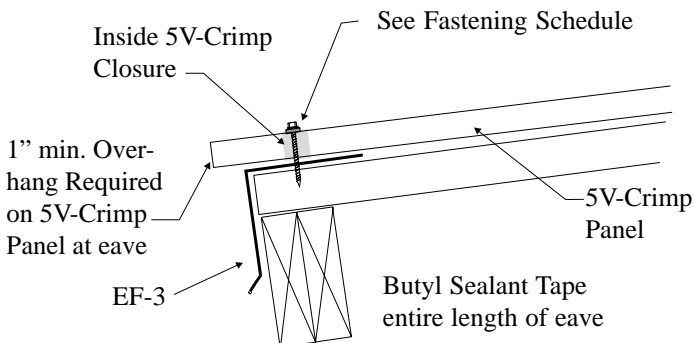
ED-1

10'-0" Lengths



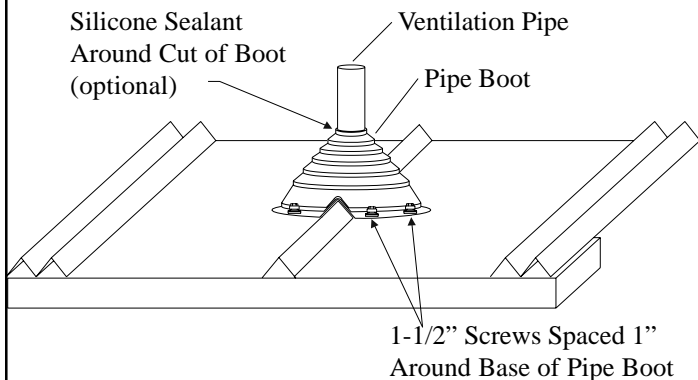
EF-3

10'-0" Lengths



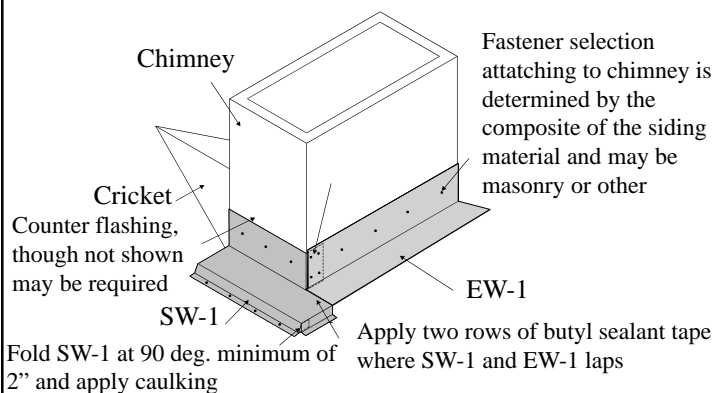
PIPE BOOT DETAIL

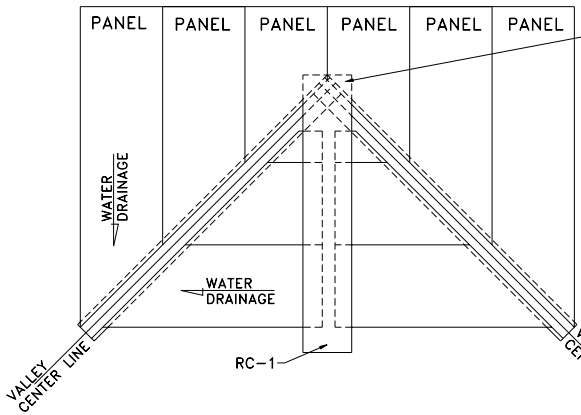
Available OD 1/4" - 26"



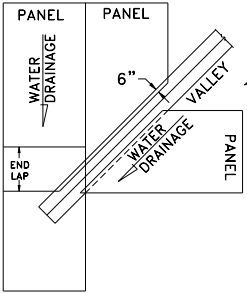
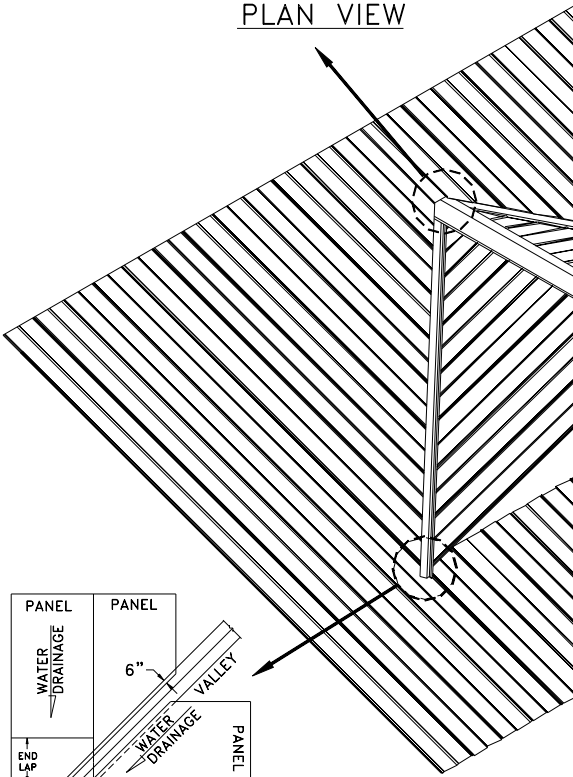
Note: Butyl sealant tape under base of Pipe Boot

CRICKET DETAIL





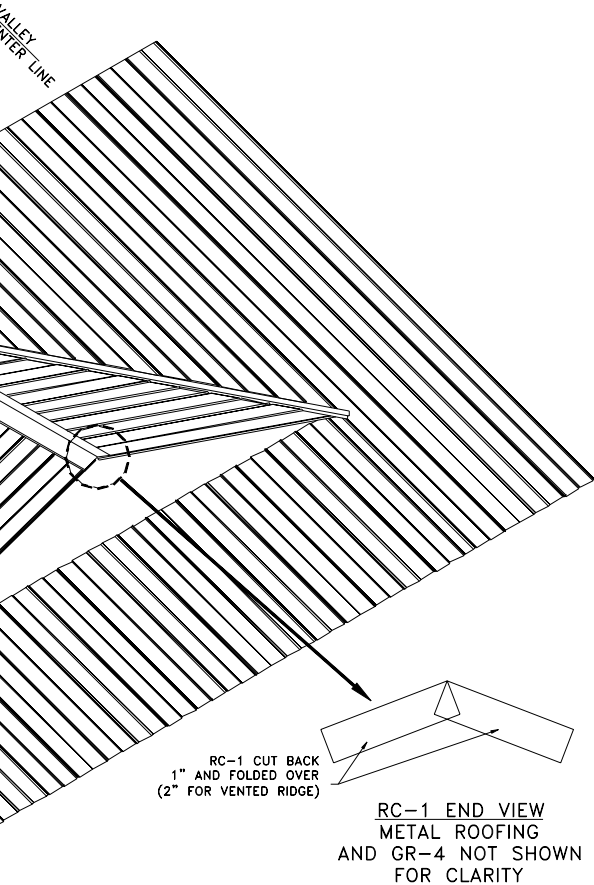
RIDGE-TO-VALLEY
PLAN VIEW



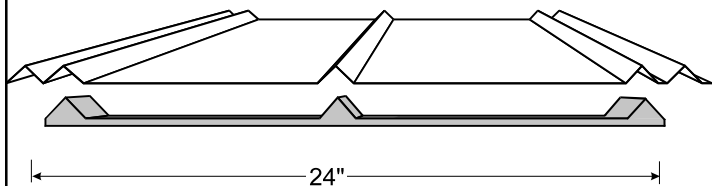
VALLEY PLAN VIEW

Dormer Detail

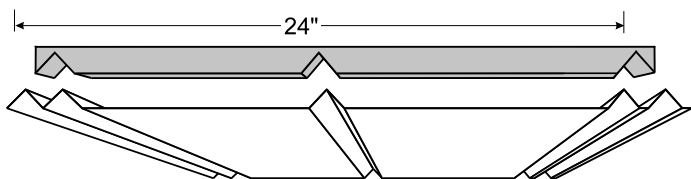
LEFT VALLEY OVER
RIGHT VALLEY
RIDGE CAP TUCKS
UNDER DESCENDING
PANELS



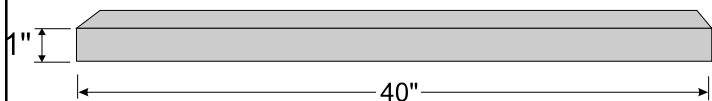
**5V-CRIMP PANEL
INSIDE CLOSURE STRIP
Pre-glued**

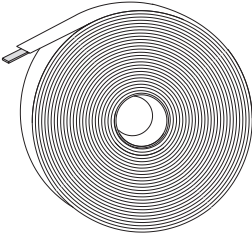


**5V-CRIMP PANEL OUTSIDE
CLOSURE STRIP
Pre-glued**

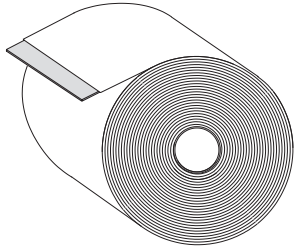


**40" UNIVERSAL CLOSURE STRIP
Also Sold in 50' Roll**



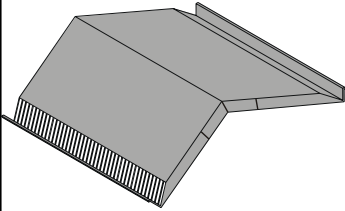


**3/32" x 1/2" x 45'
BUTYL SEALANT
TAPE**



**6"X100' ROLL
SEALANT TAPE**

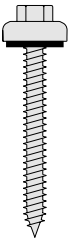
**PRV-4
4'- 0" Lengths**



**VEJTL
8'- 0" Lengths**

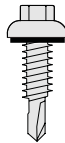


FASTENERS

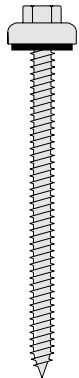


**#9x1-1/2"x1/4"
Hex Head Screw**
Metal-to-Wood

(Painted & Galvalume - 500/bg
Galvanized - 250/bg)



**#12x1"x5/16"
Hex Head Tek Screw**
Metal-to-Metal (500/bg)



**#9x2 1/2"x1/4"
Hex Head Screw**
Metal-to-Wood (150/bg)

Roof Plan Drawing Page

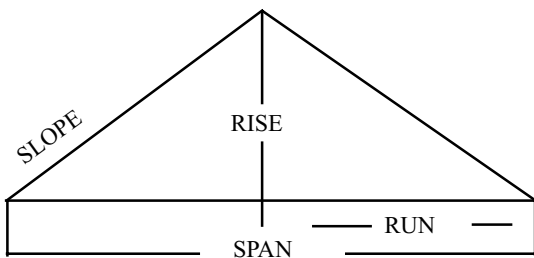
HELPFUL FORMULAS

Rise and Run	Multiply Flat Area By	LF of Hips or Valleys per LF of Common Run	Dec. Fraction of A Foot	
			Inch	Fraction
1 in 12	1.004	1.417	1"	.083
2 in 12	1.014	1.424	2"	.167
3 in 12	1.031	1.436	3"	.250
4 in 12	1.054	1.453	4"	.333
5 in 12	1.083	1.474	5"	.417
6 in 12	1.118	1.500	6"	.500
7 in 12	1.158	1.530	7"	.583
8 in 12	1.202	1.564	8"	.677
9 in 12	1.250	1.600	9"	.750
10 in 12	1.302	1.641	10"	.833
11 in 12	1.357	1.685	11"	.917
12 in 12	1.413	1.732	12"	1.00

Roof Calculator

Pitch = (Rise / 1/2 of Span) x 12

Sloping Length = 1/2 Span x Flat area factor



5V Crimp Order Form

Roof Pitch _____

Panels

Color = _____

_____ pcs. @ _____ ft. _____ in. Gauge _____

_____ pcs. @ _____ ft. _____ in.

_____ pcs. @ _____ ft. _____ in.

_____ pcs. @ _____ ft. _____ in.

_____ pcs. @ _____ ft. _____ in.

_____ pcs. @ _____ ft. _____ in.

_____ pcs. @ _____ ft. _____ in.

_____ pcs. @ _____ ft. _____ in.

_____ pcs. @ _____ ft. _____ in.

_____ pcs. @ _____ ft. _____ in.

_____ pcs. @ _____ ft. _____ in.

_____ pcs. @ _____ ft. _____ in.

_____ pcs. @ _____ ft. _____ in.

Accessories

_____ pcs. of Eave Flashing _____ (Flashing Code)

_____ pcs. of Ridge Flashing _____

_____ pcs. of Gable Flashing _____

_____ pcs. of Sidewall Flashing _____

_____ pcs. of Endwall Flashing _____

_____ pcs. of Valley Flashing _____

_____ pcs. of Hip Flashing _____

_____ pcs. of Transition Flashing _____

_____ pcs. of Gambrel Flashing _____

_____ pcs. of J Channel _____

_____ pcs. of #9 x 1.5" Screws (requires 85/roofing sq.)

_____ pcs. of #9 x 2.5" Screws (requires 40/10' of ridge)

_____ pcs. of Tube Caulk

_____ pcs. of 1/2" x 45' Butyl Sealant Tape

_____ pcs. of Touch Up Paint

_____ pcs. of Ridge Vent (PRV-4 or VEJTL) circle one

_____ Pcs. of 6" x 100' Hip Seal Tape

_____ Pcs. of Pipe Boot

_____ pcs. of Inside Closure Strip

_____ pcs. of Outside Closure Strip

(800) 690-7235

**FOR SALES,
PRICING, AND DELIVERY
INFORMATION CONTACT:**

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(800) 874-0335**

**Technical Support (800) 690-7235
Fax (904) 751-5187**

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