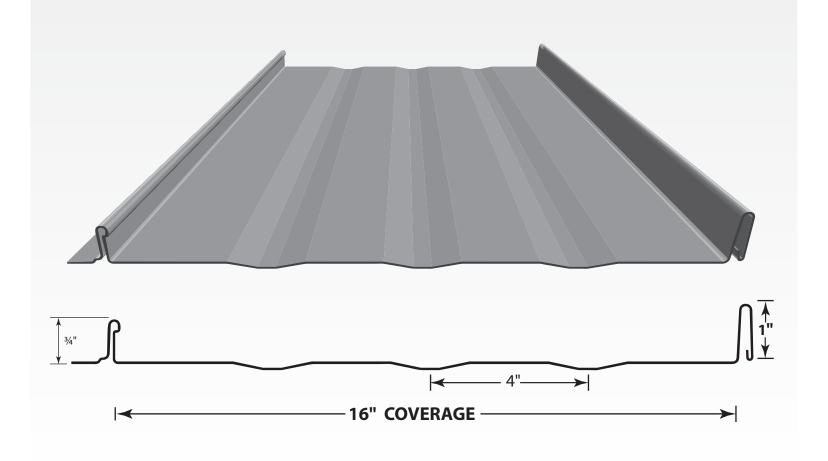
Horizon-LocTM **Product Guide**

HELPFUL INFORMATION ON PANELS, TRIMS, GUTTERS AND ACCESSORIES





We promise to improve your business by accurately providing quality products right when you need them. Every time.

Visit our website for more product information, testing, installation guides, energy ratings, warranties, photo gallery, roofing visualizer, and more.

centralstatesco.com

Information in this catalog may vary by plant location. Please call your salesperson to verify product availability.

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NOTICE: The application and detail drawings in this manual are strictly for illustration purposes and may not be applicable to all building designs or product installations. Projects should conform to local building codes. Central States Manufacturing is not responsible for the performance of the material if it is not installed correctly.

Information contained in this booklet was in effect at the time of publication and is subject to change without notice.

WARRANTIES



WARRANTIES

Warranties are available in paper format and downloadable from our website. After the job is complete, fill out a warranty with your contractor/installer details and the Central States order number. Give the warranty to the building owner to keep for their records. Optional warranty registration is available online.

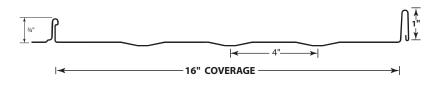
Learn more at centralstatesco.com/warranties

HORIZON-LOC

Horizon-Loc is available in Prime 26 gauge painted or bare Galvalume®. Prime panels feature CentralGuard® protection and a lifetime paint warranty. CentralGuard is our specific combination of everything that goes into making the highest-quality metal panels. Choose CentralGuard for the perfect balance of fade protection, rust blocking, and dent resistance. Bare (unpainted) Galvalume® panels from Central States have an acrylic coating which eliminates using oils during manufacturing and eliminates fingerprinting and foot marking during installation.

Horizon-Loc provides 16" of coverage, and has 1/16" striations to provide strength and reduce the incidence of oil canning in the panel. Horizon-Loc has a 1" tall rib height and the minimum roof slope is 3:12. The minimum pitch will allow for sufficient drainage of water. No load table available.

The Horizon-Loc panel is custom cut to the half-inch, in lengths from 3' to 40'. Longer lengths require additional handling, packaging, and shipping considerations. An extra handling charge may apply to panels over 40'. Horizon-Loc panels should not be endlapped. You must order full-length panels to avoid end laps.



PANEL CODES

PANEL PROFILE	TYPE	CODE
Horizon-Loc	Striated	HI 6(color)

FASTENER SPACING

Follow the chart below using maximum fastener spacing for 16" wide 26 gauge panels with wind loads up to 80 mph. Notice that the slot on the leg may not coincide with the chart.

DECK THICKNESS	SPACING
1/2"	18" o.c.
5/8"	21" o.c.
3/4"	24" o.c.



To follow UL580 testing for a Class 90 rating, fasteners should be spaced at 4.9" on center.

TOOLS & EQUIPMENT

We recommend that the installer have prior experience and knowledge of the listed tools and their uses in working with metal roofing.

- Snips
- Tape Measure
- Electric Metal Shear*
- · Caulking Gun
- Cordless Drill
- Blind Rivet Tool
- Chalk Line
- 6" Hand Seamer
- Hemming/Folding Tool
- Gloves
- Notcher

- *We do not recommend the use of a power circular saw to cut panels. Use of a power saw could:
 - Increase the instance of edge rust.
 - Cause hot metal shavings on panel surface to damage panel finish.

CONCEALED FASTENER TOOLS



Hand Snips



Notcher



Rivet Hole Punch



Riveter Gun



Folding Tools



6" Hand Seamer

DESIGN

CALCULATIONS FOR DETERMINING PANEL LENGTH

Central States pre-cuts each piece according to your order to the nearest $\frac{1}{2}$ " (from 3' to 40'), so you must first figure out exactly how many pieces you'll need and how long each piece must be.

To figure the length of each section, measure from the top edge of the sheathing (where the roofing will end) to the bottom edge and then add 2" so that the roofing extends over the drip edge and allows for 1" hem. If the roof will include a ridge vent, the plywood decking and panels should be held 2" back from the ridge.

Trim and flashing are available to match the color of the roofing. Each type of trim and flashing must be anticipated and included in the order.

PEAK, RIDGE, ENDWALL, HIP

Panels should be started 1" down from edge or peak (length of run minus 1"). If ridge or peak is ventilated, start sheet down 2" from edge or peak. This could vary depending on the type of ventilation being used. Consult the ventilation manufacturer for recommendations.

INSULATION AND VENTILATION

Proper design and installation of ventilation systems are important to prevent condensation and the resulting problems of moisture damage and loss of insulation efficiency.

Condensation occurs when moisture-laden air comes in contact with a surface temperature equal to or below the dew point of the air. This phenomenon creates problems that are not unique with metal buildings; they are common to all types of construction.

In addition to providing resistance to heat transfer, insulation can also protect against condensation forming on cold surfaces, either inside the building or within the wall/roof system cavity. The arrangement of the building's insulation system and vapor retarder is the responsibility of the building designer. These are some basic guidelines to help control condensation in a metal building:

- The insulation should have a vapor retarder face on the "warm" side of the insulation. For most buildings, this means that the vapor retarder is on the inside surface (toward the building's interior).
- The thickness of the insulation must be designed to maintain the temperature of the vapor retarder above the interior dew point, using the worst-case expected outside temperature.
- All perimeter conditions, seams, and penetrations of the vapor retarder must be adequately sealed in order to provide a continuous membrane to resist the passage of water vapor.
- Building ventilation, whether by gravity ridge vent, power-operated fans, or other means, contributes significantly to reduced condensation.
 The movement of air to the outside of the building reduces the interior level of vapor pressure.

On buildings that have an attic space or are being retrofitted with a metal roofing system, proper ventilation needs to be used in order to prevent a buildup of moisture (humidity) in the attic space.



Contact your local building code officials or an engineer on proper ventilation practices for your area.

DELIVERY & PACKAGING

LEAD TIME

Contact your salesperson for lead times. Orders may be shipped LTL, and a charge will be applied to all job site deliveries (call distributor for current job site delivery pricing).

PACKAGING

Horizon-Loc panels are packed in crates to protect them during shipping. A crating charge will be applied to all orders.

RECEIVING

It is the responsibility of the purchasing party to unload material from the delivery truck. The purchaser shall be responsible for providing suitable equipment for unloading of material from the delivery truck.

NOTE: Oil canning in the flat area of the panels is common to the industry and does not affect the integrity of the panel. Therefore, oil canning is not a reason for rejection.

After receiving material, check the condition of the material, and review the shipment against the shipping list to ensure all materials are accounted for. If damages or shortages are discovered, it should be noted on the shipping copy at time of delivery. If material is delivered by common carrier, a claim must be made with the carrier as soon as possible.

If replacement material is required, you must contact Central States Manufacturing or your distributor immediately to place the order.

> Improper loading and unloading of bundles and crates may result in bodily harm and/ or material damage. Central States is not responsible for bodily injuries and/or material damages resulting from improper loading and unloading.



GENERAL HANDLING

Each bundle should be handled carefully to avoid being damaged. Care should be taken to prevent bending of the panel or abrasions to finish. Whenever possible, the bundle should remain crated until it is located in its place of storage. If bundles must be opened, we recommend you re-crate them before lifting. To avoid damage, please lift the bundle at its center of gravity.

Proper care is required in unloading and handling panel bundles in order to prevent panel damage.

- Bundles should remain crated during any handling, and until the individual panels in each crate are ready to be installed.
- Lift each bundle as close as possible to its center of gravity.
- If the panel bundles are to be lifted with a crane, use a spreader bar of appropriate length and nylon band slings. (Do not use wire rope slings, as they will damage the panels.)
- Depending on panel length, some bundles may be lifted by a forklift. When

- using a forklift, the forks should be spread apart to their maximum spacing, and the load must be centered on the forks.
- After panel bundles are opened, individual panels must also be handled carefully to prevent panel buckling or damage to the panel coating. When removing a panel from a bundle, it should never be allowed to slide over another panel.
- To prevent buckling, a panel should never be picked up by its ends. Instead, lift the panel along its longitudinal edge and carry in a vertical (not flat) position three feet in from both edges. For panels over 10' long, two or more people should lift the panel along the same edge.
- Soft gloves must be worn when handling panels.
- Remove the protective strippable film from panels and trim prior to installation. The longer the strippable is left on the material, the harder it will be to remove.



Strippable film on Textured panels and trim must be removed within 30 days of manufacture date. Strippable that is left on for more than 30 days may be hard to peel off and is not a reason for a refund or replacement from the manufacturer.

MECHANICAL HANDLING

FORKLIFT

A forklift may be used for crates up to 20' long. Please make sure the forks are at their maximum separation. Do not transport open bundles. When transporting crates across rough terrain, or over a long distance, some means of supporting the load must be used.

CRANE

A crane should be used when lifting crates with lengths greater than 20'. Please be sure to utilize a spreader bar to ensure the even distribution of the weight to the pick up points. As a rule when lifting panels, no more than 1/3 of the length of the panel should be left unsupported. Canvas or nylon slings should be used to pick up panels. DO NOT use cable or chains because this will damage the panels.

STORAGE

Bare Galvalume and painted panels will provide many years of rust-free service when precautions are taken during storage. If metal is not to be used immediately, store inside a well-ventilated, dry location. Any outdoor storage is at the customer's own risk. At time of delivery, inspect panels for moisture. If moisture has formed, the panels should be unbundled, wiped dry, and allowed to dry completely. Failure to immediately remove the entrapped moisture between the panels will affect the service life of the metal. Under no circumstances should the sheets be stored near, or come in contact with, salt water, fertilizer, wet or green lumber, corrosive chemicals, ash, or fumes generated or released inside the building or by nearby plants, foundries, plating works or kilns.

If panel bundles are stored outside, the following list of requirements should be adhered to:

- The storage area should be reasonably level, and should be located so as to minimize handling of bundles during the construction process.
- Store bundles at least 12" above ground level to allow air circulation beneath the bundle and to prevent rising water from entering the bundle.

- When stored on bare ground, place a waterproof tarp under the bundles to minimize condensation on the panels from moisture in the soil.
- Elevate one end of the bundle slightly to allow moisture runoff from the top of the bundle and from between nested panels. A waterproof cover should be placed over the bundles, with allowance for air circulation under the cover. Never cover the metal with plastic as this will cause condensation to form.
- Inspect stored bundles daily and repair any tears or punctures to your waterproof cover with a compatible waterproof tape.
- Re-cover opened bundles at the end of each day to prevent entry of moisture.
- Do not store in direct sunlight as protective plastic film on panels will adhere to the panel surface.

Never cover the metal with plastic, as this will cause condensation to form.



STORAGE ON ROOF

To facilitate the handling of Horizon-Loc, panel bundles can be lifted and placed on the roof. Bundles need to be placed parallel to the framing members and the slope of the roof. Load capabilities of the structure must be checked prior to placing bundles on the roof.

When lifting packaged panels, make certain they are adequately supported. Panels less than 20' in length can normally be lifted with a forklift; however, when lifting panels in excess of 20', it is recommended that a spreader bar and slings be used. When lifting, no more than ½ of the length of the panel should be left unsupported.

Make a plan for bundle placement by determining how much area a bundle of panels will cover. Bundles should be placed on the roof in accordance with the direction the panel will be installed. Consider where the string line is to run at the eave to set the roof panels by. Roof bundles should not interfere with this string line.

CUTTING AND DRILLING

CUTTING

A portable field shear is the ideal method for cutting panels. Nibblers or a power shear may also be used. Although we do not recommend it, if you decide to cut with a saw, it is very important that the panels be turned upside down during cutting so that hot shavings do not come in contact with the painted surface. Make sure all adjacent panels are covered so that shavings are not imbedded in these panels. If metal shavings become imbedded in the paint surface, they will quickly rust. To avoid this, panels should be thoroughly wiped of all filings on both sides of the panel. Failure to comply with the recommended cutting procedures releases the manufacturer of any responsibility.

DRILLING

Panels and trims should not be drilled while stacked. This will cause shavings that will become imbedded in the paint surface.

INSTALLATION

Install Horizon-Loc over a solid decking with at least 30 lb. felt paper or synthetic underlayment. A synthetic underlayment would be a better choice because it is designed to last the life of the metal and will not break down in 10-15 years.

Follow instructions provided in our Horizon-Loc Installation Guide.



Shavings created by saw cutting or drilling may cause the panel to rust and will void warranties in affected areas.

CLEANING & MAINTENANCE

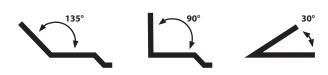
With a little care and attention during service, a pre-painted Galvalume sheet will provide an extended service life. While durable—factory-applied finishes for metal building panels will last many years longer than ordinary paints—panels should be cleaned thoroughly on a routine basis whenever the finish is not washed by rain. Applications where the paint finish is automatically washed by rain, such as roofing, do not require this maintenance.

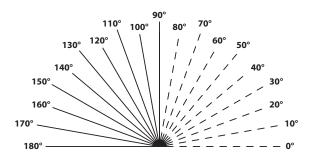
Cleaning restores the appearance of the building, making repainting unnecessary, and maintains a pleasing appearance. Cleaning also removes the buildup of corrosive materials. Applications requiring maintenance cleaning include soffits, siding under eaves, garage doors and the undersides of eave gutters.

In many cases, washing the painted surface with clean water from a garden hose will remove most of the dirt and accumulated deposits. However, if the need to clean or remove deposits from your paint does arise, please download and follow the Sherwin-Williams cleaning and maintenance guide from our website.

CONVERTING PITCH TO DEGREE

Use these charts to calculate degrees when designing custom trim. Please specify pitch when ordering.





SINGLE SLOPE PITCHES

Fascia, Eave, Endwall, Tie-In, Gutter

DOUBLE SLOPE PITCHES

Hip, Valley

RIDGE CAP

1:12 PITCH	2:12 PITCH	3:12 PITCH	4:12 PITCH	5:12 PITCH	6:12 PITCH	7:12 PITCH	8:12 PITCH	9:12 PITCH	10:12 PITCH	11:12 PITCH	12:12 PITCH
94°	99°	104°	108°	112°	116°	120°	123°	126°	129°	132°	135°
173°	167°	160°	154°	148°	143°	138°	134°	130°	126°	123°	120°
170°	161°	152°	143°	135°	127°	120°	113°	106°	100°	95°	90°

TRANSITION TRIM

Find the box that intersects your lower and upper roof pitches.

If the intersection lands in the gray area, select a Lower Transition trim.

Upper Transition Trim





LOWER ROOF PITCH (INCHES OF RISE OVER 12" OF RUN)

		1:12 PITCH	2:12 PITCH	3:12 PITCH	4:12 PITCH	5:12 PITCH	6:12 PITCH	7:12 PITCH	8:12 PITCH	9:12 PITCH	10:12 PITCH	11:12 PITCH	12:12 PITCH	13:12 PITCH	14:12 PITCH	15:12 PITCH	16:12 PITCH	17:12 PITCH	18:12 PITCH
9	1:12 PITCH		175°	171°	166°	162°	158°	155°	151°	148°	145°	142°	140°	137°	135°	133°	132°	130°	128°
OF RUN)	2:12 PITCH	175°		175°	171°	167°	163°	159°	156°	153°	150°	147°	144°	142°	140°	138°	136°	135°	133°
ER 12"	3:12 PITCH	171°	175°		176°	171°	167°	164°	160°	157°	154°	152°	149°	147°	145°	143°	141°	139°	138°
(INCHES OF RISE OVER 12"	4:12 PITCH	166°	171°	176°		176°	172°	168°	165°	162°	159°	156°	153°	151°	149°	147°	145°	144°	142°
SOFR	5:12 PITCH	162°	167°	171°	176°		176°	172°	169°	166°	163°	160°	158°	155°	153°	151°	149°	148°	146°
(INCHE	6:12 PITCH	158°	163°	167°	172°	176°		176°	173°	170°	167°	164°	162°	159°	157°	155°	153°	152°	150°
PITCH	7:12 PITCH	155°	159°	164°	168°	172°	176°		177°	173°	170°	168°	165°	163°	161°	159°	157°	155°	154°
	8:12 PITCH	151°	156°	160°	165°	169°	173°	177°		177°	174°	171°	169°	166°	164°	162°	161°	159°	157°
R ROOF	9:12 PITCH	148°	153°	157°	162°	166°	170°	173°	177°		177°	174°	172°	170°	167°	166°	164°	162°	161°
UPPER	10:12 PITCH	145°	150°	154°	159°	163°	167°	170°	174°	177°		177°	175°	173°	170°	168°	167°	165°	163°
_	11:12 PITCH	142°	147°	152°	156°	160°	164°	168°	171°	174°	177°		178°	175°	173°	171°	169°	168°	166°
	12:12 PITCH	140°	144°	149°	153°	158°	162°	165°	169°	172°	175°	178°		178°	176°	174°	172°	170°	169°

COMMON RAFTER LENGTHS

(PEAK TO SIDEWALL)

Running Feet	1:12 Pitch	2:12 Pitch	3:12 Pitch	4:12 Pitch	5:12 Pitch	6:12 Pitch
1	1' 0"	1' 1/8"	1' 3/8"	1' 5/8"	1'1"	1' 1-3/8"
2	2' 1/8"	2' 3/8"	2' 3/4"	2' 1-1/4"	2'2"	2' 2-7/8"
3	3' 1/8"	3' 1/2"	3' 1-1/8"	3' 2"	3'3"	3' 4-1/4"
4	4' 1/8"	4' 5/8"	4' 1-1/2"	4' 2-5/8"	4'4"	4' 5/8"
5	5' 1/4"	5' 7/8"	5' 1-7/8"	5' 3-1/4"	5'5"	5' 7-1/8"
6	6' 1/4"	6' 1"	6' 2-1/4"	6' 3-7/8"	6'6"	6' 8-1/2"
7	7' 1/4"	7' 1-1/8"	7' 2-5/8"	7' 4-1/2"	7'7"	7' 9-7/8"
8	8' 3/8"	8' 1-3/8"	8'3"	8' 5-1/4"	8'8"	8' 11-3/8"
9	9' 3/8"	9' 1-1/2"	9' 3-3/8"	9' 5-7/8"	9'9"	10' 3/4"
10	10' 3/8"	10' 1-5/8"	10' 3-3/4"	10' 6-1/2"	10'10"	11' 2-1/8"
11	11' 1/2"	11' 1-7/8"	11' 4-1/8"	11' 7-1/8"	11'11"	12' 3-5/8"
12	12' 1/2"	12' 2"	12' 4-3/8"	12' 7-3/4"	13'0"	13' 5"
13	13' 1/2"	13' 2-1/8"	13' 4-3/4"	13' 8-1/2"	14'1"	14' 6-3/8"
14	14' 5/8"	14' 2-3/8"	14' 8-1/8"	14' 9-1/8"	15'2"	15' 7-7/8"
15	15' 5/8"	15' 2-1/2"	15' 5-1/2"	15' 9-3/4"	16'3"	16' 9-1/4"
16	16' 5/8"	16' 2-5/8"	16' 5-7/8"	16' 10-3/8"	17'4"	17' 10-5/8"
17	17' 5/8"	17' 2-7/8"	17' 6-1/4"	17' 11"	18'5"	19' 1/8"
18	18' 3/4"	18' 3"	18' 6-5/8"	18' 11-5/8"	19'6"	20' 1-1/2"
19	19' 3/4"	19' 3-1/8"	19' 7"	20' 3/8"	20'7"	21' 2-7/8"
20	20' 7/8"	20' 3-3/8"	20' 7-3/8"	21' 1"	21'8"	22' 4-3/8"
21	21' 7/8"	21' 3-1/2"	21' 7-3/4"	22' 1-5/8"	22'9"	23' 5-3/4"
22	22' 7/8"	22' 3-5/8"	22' 8-1/8"	23' 2-1/4"	23'10"	24' 7-1/8"
23	23' 1"	23' 3-3/4"	23' 8-1/2"	24' 3"	24'11"	25' 8-5/8"
24	24' 1"	24' 4"	24' 8-7/8"	25' 3-5/8"	26'0"	26' 10"
25	25' 1"	25' 4-1/8"	25' 9-1/4"	26' 4-1/4"	27'1"	27' 11-3/8"
26	26' 1-1/8"	26' 4-1/4"	26' 9-1/2"	27' 5"	28'2"	29' 3/4"
27	27' 1-1/8"	27' 4-1/2"	27' 9-7/8"	28' 5-5/8"	29'3"	30' 2-1/4"
28	28' 1-1/8"	28' 4-3/4"	28' 10-1/4"	29' 6-1/4"	30'4"	31' 3-3/4"
29	29' 1-1/4"	29' 4-7/8"	29' 10-5/8"	30' 6-7/8"	31'5"	32' 5-1/8"
30	30' 1-1/4"	30' 5"	30'11"	31' 7-1/2"	32'6"	33' 6-1/2"
31	31' 1-3/8"	31' 5-1/8"	31' 11-3/8"	32' 8-1/8"	33'7"	34' 7-7/8"
32	32' 1-3/8"	32' 5-1/4"	32' 11-3/4"	33' 8-3/4"	34'8"	35' 9-1/4
33	33' 1-1/2"	33' 5-1/2"	34' 1/8"	34' 9-3/8"	35'9"	36' 10-3/4"
34	34' 1-1/2"	34' 5-3/4"	35' 1/2"	35' 10"	36'10"	38' 1/4"

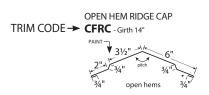
HOW TO ORDER TRIM

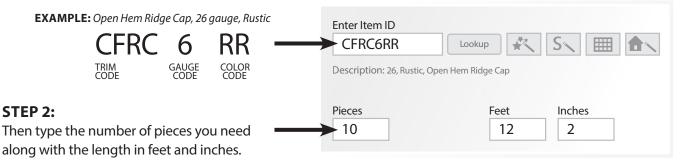
STEP 1:

In CentralLink™, start by entering the Item ID.

Item ID is made of the TRIM CODE, a GAUGE CODE, and a COLOR CODE.

The TRIM CODE can be found with each drawing next to the trim's name. The GAUGE CODE and COLOR CODES are found below.





CODE

BA CE

GT LN MI OX

RM

SI

SE SU CentralLink order screen

GAUGE CODES

GAUGE CODE 26 6

COLOR CODES

SMP	PANEL GAUGE	TRIM GAUGE	CODE	TEXTURE SMP	PANEL GAUGE	TRIM GAUGE
Brilliant	26	26	BI	Basil*	26	26
Brown	26	26	BR	Cream*	26	26
Burgundy	26	26	BG	Granite*	26	26
Burnished Slate	26	26	BS	Linen*	26	26
Charcoal	26	26	CH	Mineral*	26	26
Colony	26	26	CG	Onyx*	26	26
Copper Metallic**	26	26	CM	Roma*	26	26
Crimson	26	26	CR	Sienna*	26	26
Desert	26	26	DS	Suede*	26	26
Fern	26	26	FN	Sumatra*	26	26
Forest	26	26	DG			
Gallery	26	26	GB			
Galvalume®	26	26	GL			
Gray	26	26	GA			
Hawaiian	26	26	HB			
Hunter	26	26	GR			
Light Stone	26	26	LS			
Matte Black**	26	26	MB			
Polar	26	26	PW			
Rustic	26	26	RR			
Tan	26	26	TN			
Taupe	26	26	TA			

^{*} Longer lead times may apply. ** Copper Metallic and Matte Black are Fluropon*. Galvalume* is a registered trademark of BIEC International, Inc..

CONCEALED FASTENER TRIMS

Unless otherwise noted, all trims are 26 gauge, and all angles are 90° or 45°. See page 14 for gauge and color codes.

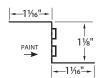
ZEE CLOSURE

HLZC - Girth 3.25"



VENTED ZEE CLOSURE

HLVZC - Girth 3.25"



CLEAT

HLCL - Girth 4.5625"



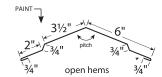
Butyl tape (BTL) recommended.

Butyl tape (BTL) recommended. Vent direction may vary.

RIDGE CAP - Specify pitch. All ridge caps require a zee closure.

OPEN HEM RIDGE CAP

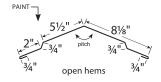
CFRC - Girth 14"



Recommended for 6:12 or less.

OPEN HEM WIDE RIDGE CAP

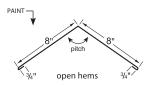
CFWRC - Girth 18"



Recommended for 7:12 or greater.

OPEN HEM FLAT RIDGE CAP

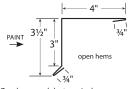
CFFRC - Girth 17.5"



RAKE/EAVE

OPEN HEM RAKE

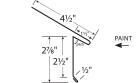
CFRA - Girth 9.25"



Zee closure and cleat required.

DRIP EDGE

RDC - Girth 9.5"

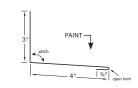


Specify pitch.

TRANSITION TRIMS - Specify pitch.

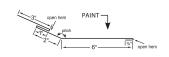
OPEN HEM SIDEWALL/ENDWALL OPEN HEM GAMBREL

CFSI - Girth 7.75"



Zee closure required.

CFGA - Girth 12.75"



Zee closure required.

VALLEY - Specify pitch.

OPEN HEM VALLEY

CFVT - Girth 20.25"



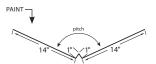
VALLEY

VT1 - Girth 19.75"



Optional valley cleat.

WIDE VALLEY HLWVT - Girth 30"



Use on valleys longer than 30'. Optional valley cleat. Color may vary by location.

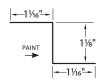
OPEN HEM VALLEY CLEAT HLVC - Girth 5.5"

EXPOSED FASTENER TRIMS

Unless otherwise noted, all trims are 26 gauge, closed hems, and all angles are 90° or 45°. See page 14 for gauge and color codes.

ZEE CLOSURE

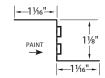
HLZC - Girth 3.25"



Butyl tape recommended.

VENTED ZEE CLOSURE

HLVZC - Girth 3.25"



Butyl tape recommended. Vent direction may vary.

FLAT SHEET

FS6 - 26 gauge. Girth 41.5625"



10 sheets or fewer will be packaged in a roll. Additional pallet charge on orders of 10 or more

 $\label{eq:RIDGE} \textbf{RIDGE CAP} \ \textbf{-} \ \textbf{Specify pitch.} \ \textbf{All ridge caps require a zee closure}.$

RIDGE CAP

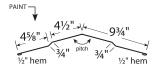
HLRC - Girth 16.5"



Recommended for 6:12 or less.

WIDE RIDGE CAP

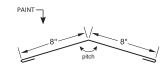
RC2 - Girth 20.75"



Recommended for 7:12 or greater.

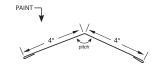
RESIDENTIAL RIDGE CAP

RRCP - Girth 17"



HIP CAP

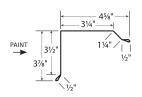
HIP - Girth 9"



RAKE/EAVE

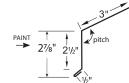
RAKE

HLRRT - Girth 10"



EAVE

RET - Girth 6.5"



Specify pitch.

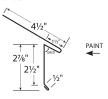
HIGH-SIDE EAVE



See page 12 to convert pitch to degree.

DRIP EDGE

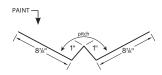
RDC - Girth 9.5"



VALLEY - Specify pitch.

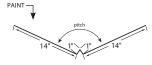
VALLEY

VT1 - Girth 19.75"



WIDE VALLEY

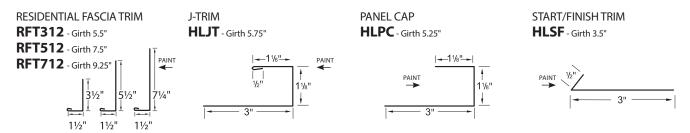
HLWVT - Girth 30"



Use on valleys longer than 30'.

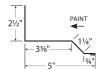
EXPOSED FASTENER TRIMS

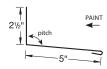
Unless otherwise noted, all trims are 26 gauge, closed hems, and all angles are 90° or 45°. See page 14 for gauge and color codes.



TRANSITION TRIMS - Specify pitch.

SIDEWALL TIE-IN **HLSW** - Girth 8.375" ENDWALL TIE-IN HLEW - Girth 8"





Zee closure required.

Zee closure required.

FASTENERS

Fastener color availability may vary by location, contact your sales consultant for details. Order fasteners in increments of 250 pieces.							
TYPE	PART #	LENGTH	DIAMETER	HEAD	COLOR	#BAG	
LOW PROFILE WAFER HEAD	1WFAST	1"	#10	#2 SQUARE DRIVE	GALVANIZED	250	
LOW PROFILE WAFER HEAD	112WFAST	1 1/2"	#10	#2 SQUARE DRIVE	GALVANIZED	250	
METAL/WOOD	1(color)MW	1"	#10	1/4" HEX	ALL	250	
METAL/WOOD	112(color)MW	1 1/2"	#10	1/4" HEX	ALL	250	
METAL/WOOD	2(color)MW	2"	#10	1/4" HEX	ALL	250	
METAL/WOOD STITCH	34(color)ST	3/4"	#12	1/4" HEX	ALL	250	
METAL/METAL LAP	78(color)LAP	7/8"	#14	5/16" HEX	ALL	250	
POP RIVET	POP(color)		1/8"		ALL	100	

ACCESSORIES

BUTYL TAPE



PART#	LENGTH	WIDTH	THICKNESS	ROLLS PER BOX
BTL Recommended for	45' or Horizon-Loc.	3/4"	3/32"	24
BTR	40'	7/8"	3/16"	10
BT3/8	45'	3/8"	3/32"	40

TOUCH UP PAINT

TP(color) - SMP, 0.6 oz. bottle w/brush.



Install between fastener and exposed edge.
Rolls per box may vary by location and vendor. Check with your sales person for details.

SEALANT



PART#	SIZE	COLOR
GEO(color)	10.3 oz. tube	clear, gray, white
MRS10(color)	10.3 oz. tube	call for colors
MDS10CLEAD	10.2 oz tubo	cloar

CLOSURE

PROFILE RIDGE VENT

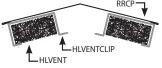
HLVENT - Net free area 31.7 sq.in/ft.



HLVENTCLIP - 25 per box.

OUTSIDE CLOSURE - With adhesive.

HLFCG - 100 per box.







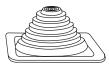
Length - 1". Width - 15.75". Thickness - 1".

$\begin{tabular}{ll} MASTER\ PIPE\ FLASHING\ -\ Install\ in\ a\ diamond\ shape\ and\ not\ parallel\ to\ the\ seam. \end{tabular}$

 $\label{thm:eq:high-temperature} \textit{High-temperature pipe flashings are available}. \textit{Check with your sales person for details}.$

Square - Max temperature 250°.

Length - 100'. Width - 3". Thickness -1.375".



MPF - Pipe size .25" to 5.75"

MPF2 - Pipe size .875" to 4"

MPF4 - Pipe size 2.75" to 7"

MPF6 - Pipe size 4.75" to 10"

MPF8 - Pipe size 6.75" to 13.5"

Square with zipper - Max temperature 250°.

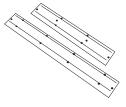


MPF1ZIP - Pipe size .5" - 4"

MPF2ZIP - Pipe size 4" - 9.25"

TOOLS

FOLDING TOOL 18 FOLD - 18" 24 FOLD - 24"



HAND NOTCHER **NOTCHER**



HAND SEAMER **SEAMER** - 6"



RIVET HOLE PUNCH **PUNCH**



RIVET GUN







Right. On Time. Every Time.

${\color{red} central} states {\color{red} mfg.} com$