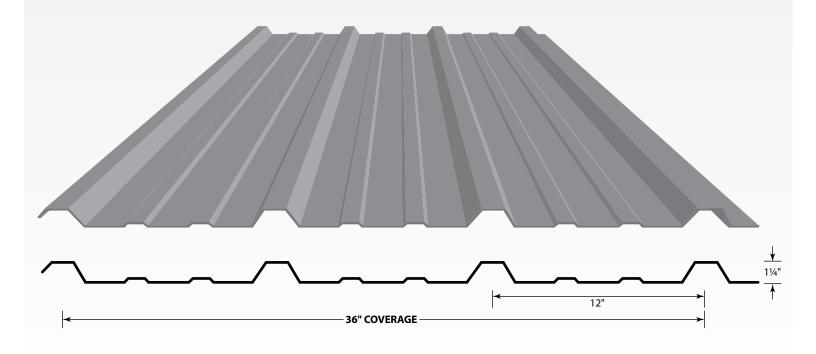


HELPFUL INFORMATION ON PANELS, TRIMS, PURLINS, GUTTERS AND ACCESSORIES





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, 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.

R-Loc is available in Prime 26 gauge with purlin bearing leg; in painted or bare Galvalume[®]. Prime panels feature CentralGuard[®] protection and a lifetime paint warranty. R-Loc is also available in limited colors of Thrifty 26 gauge, no purlin bearing leg, and a 20-year 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.

The minimum roof slope for the 1¼" R-Loc is a ½:12 pitch. This will allow for sufficient drainage of water. For added protection, a sealant tape can be used on the panel laps.



PANEL CODES

PANEL PROFILE R-Loc™ R-Loc™ **TYPE** Prime SMP Thrifty SMP **CODE** RL6(color) RN6(color)TH

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

SECTION PROPERTIES

36" WIDE, R-LOC™ PANEL

| Gauge | Thickness (inches) | Weight (psf) | Yield Stress (ksi)Top in Compression (Positive Bending)Bottom in Compression (Negative Bending) | | | | | | |
|-------|-----------------------|-----------------|--|------------|--------|------------|--------|--------|------------|
| | | | | lxx Sxx Ma | | | lxx | Sxx | Ma |
| | | | | in4/ft | in3/ft | in.kips/ft | in4/ft | in3/ft | in.kips/ft |
| 26 | 0.0185 | 0.881 | 80.0 | 0.0400 | 0.0406 | 1.4590 | 0.0373 | 0.0497 | 1.7847 |

Section properties and allowables are calculated in accordance with 1996 AISI Specifications and 1999 AISI Supplement No. 1. I +/- is for deflection determination. S +/- is for bending determination. Ma is allowable bending moment. All values are for one foot of panel width. These loads are for panel strength. Frames, purlins, fasteners and all supports must be designed to resist all loads imposed on the panel. Allowable outward loads based on stress have been increased by 33.33% for wind uplift. Allowable loads for deflection are based on deflection limitation of span/180 or span/240. For roof panels, self weight of the panel has to be deducted from the allowable inward load to arrive at the actual "live load" carrying capacity of the panel. Minimum bearing length must be checked. Minimum deliverable bare steel thickness should not be less than 0.95 of design thickness.

THEORETICAL ALLOWABLE LIVE & WIND LOADS

SINGLE SPAN CONDITION

| | | 26 Gauge & 80 ksi | | |
|-------------|-------------|-------------------|-------------------|---------|
| Span (feet) | LL (S)(psf) | LL (D) L/180(psf) | LL (D) L/240(psf) | WL(psf) |
| 3 | 108.1 | 108.1 | 97.1 | 175.8 |
| 3.5 | 79.4 | 79.4 | 61.2 | 129.2 |
| 4 | 60.8 | 54.6 | 41.0 | 98.9 |
| 4.5 | 48.0 | 38.4 | 28.8 | 78.1 |
| 5 | 38.9 | 28.0 | 21.0 | 63.3 |
| 6 | 27.0 | 16.2 | 12.1 | 44.0 |
| 7 | 19.9 | 10.2 | 7.6 | 32.3 |
| 8 | 15.2 | 6.8 | 5.1 | 24.7 |

TWO SPAN CONDITION

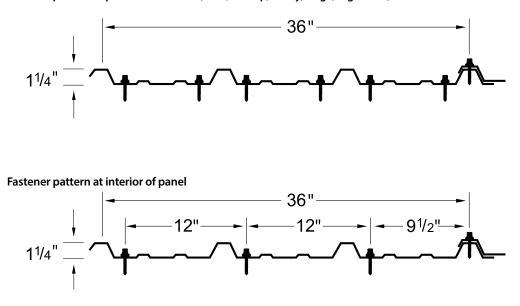
| | | 26 Gauge & 80 ksi | | |
|-------------|-------------|-------------------|-------------------|---------|
| Span (feet) | LL (S)(psf) | LL (D) L/180(psf) | LL (D) L/240(psf) | WL(psf) |
| 3 | 132.2 | 132.2 | 126.5 | 143.7 |
| 3.5 | 97.1 | 97.1 | 79.6 | 105.6 |
| 4 | 74.4 | 71.1 | 53.3 | 80.9 |
| 4.5 | 58.8 | 50.0 | 37.5 | 63.9 |
| 5 | 47.6 | 36.4 | 27.3 | 51.7 |
| 6 | 33.0 | 21.1 | 15.8 | 35.9 |
| 7 | 24.3 | 13.3 | 10.0 | 26.4 |
| 8 | 18.6 | 8.9 | 6.7 | 20.2 |

THREE OR MORE SPAN CONDITION

| | | 26 Gauge & 80 ksi | | |
|-------------|-------------|-------------------|-------------------|---------|
| Span (feet) | LL (S)(psf) | LL (D) L/180(psf) | LL (D) L/240(psf) | WL(psf) |
| 3 | 154.4 | 154.4 | 154.4 | 167.9 |
| 3.5 | 113.5 | 113.5 | 113.5 | 123.4 |
| 4 | 86.9 | 86.9 | 77.3 | 94.5 |
| 4.5 | 68.6 | 68.6 | 54.3 | 74.6 |
| 5 | 55.6 | 52.8 | 39.6 | 60.5 |
| 6 | 38.6 | 30.5 | 22.9 | 42.0 |
| 7 | 28.4 | 19.2 | 14.4 | 30.8 |
| 8 | 21.7 | 12.9 | 9.7 | 23.6 |

Theoretical allowable loads are based on uniform span lengths. LL (5) is allowable live load based on stress limitation. LL (D) is allowable live load based on deflection limitation of L/180 or L/240. WL is allowable wind load and has been increased by 33.33%.

FASTENER SPACING



Fastener pattern at panel termination (Eave, endlap, valley, ridge, high eave)

CARE AND HANDLING

DELIVERY

Deliveries will be made using a 65' tractor/trailer weighing approximately 80,000 lbs. It is imperative that all delivery locations be accessible by a vehicle of this size. Our drivers have the authority to refuse delivery to any location they see as unsafe or inaccessible. The customer is responsible for any charges incurred if truck is detained for any reason. The customer is responsible for unloading all trucks. Any damage that occurs at this point is the customer's responsibility. There must be equipment available to unload the truck. Moffett deliveries require at least one person to assist with unloading.

STAGE

Galvalume[®] steel panels have a good service life when exposed to normal weather conditions; however, to protect the appearance of panels and trims

from damage, there are a few simple precautions that can be taken. The panels are subject to stain when water sits upon, or becomes trapped between the sheets. If the Galvalume® panels are to be stored for any period of time, they should be stored only in a dry place, preferably under a roof. Stand panels on end and fan them out at the bottom to provide air circulation and moisture run off. If space does not allow this, the panels should be separated, blocked off of the floor at least 12 inches to allow air flow, and stored at an incline to encourage drainage. The panels should then be covered, yet still have good air flow through the sheets to prevent condensation. Do not use a plastic cover, as this may cause the panels to sweat or condensation to occur.

CARE AND HANDLING

STORAGE

Failure to follow these steps may result in wet storage stains and premature rusting. The manufacturers warranty will be void at this time, and the manufacturer will not be responsible.

HANDLING

When unloading panels, extreme caution must be employed. Care needs to be used when unloading panels with a forklift. Panel edges and underside paint may become damaged if the forklift driver does not use caution. Once at the job site, care must be taken in order to protect the painted surface. When unbundling the panels, never drag them across the surface of one another. This may cause scratches across the underneath panels. It is recommended that the panels be "rolled" off the top of the bundle to prevent scratching. Never lift panels by the ends, instead lift the panels longitudinally and carry vertically.

Panel edges are very sharp, therefore, safety equipment should be worn by all workers handling the material.

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

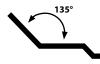
Panels and trim should not be drilled while stacked. This will cause shavings that will become imbedded in the paint surface.

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



CONVERTING PITCH TO DEGREE

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





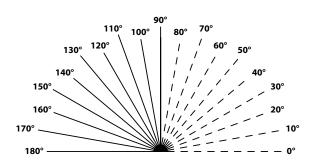
30°

4:12 PITCH

1:12 PITCH 2:12 PITCH 3:12 PITCH

1:12

5:12 PITCH 6:12 PITCH



| 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 РІТСН | 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° |

7:12 PITCH 8:12 PITCH

SINGLE SLOPE PITCHES

Fascia, Eave, Endwall, Tie-In, Gutter

DOUBLE SLOPE PITCHES Hip, Valley

RIDGE CAP

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

10:12 РІТСН

11:12 РІТСН

12:12 PITCH 13:12 PITCH 14:12 PITCH 15:12 PITCH

16:12 PITCH

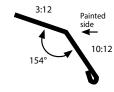
17:12 PITCH 18:12 PITCH

9:12 PITCH

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



| (7 | 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° |
| 12" | 3:12 PITCH | 171° | 175° | | 176° | 171° | 167° | 164° | 160° | 157° | 154° | 152° | 149° | 147° | 145° | 143° | 141° | 139° | 138° |
| RISE OVER | 4:12 PITCH | 166° | 171° | 176° | | 176° | 172° | 168° | 165° | 162° | 159° | 156° | 153° | 151° | 149° | 147° | 145° | 144° | 142° |
| OF | 5:12 PITCH | 162° | 167° | 171° | 176° | | 176° | 172° | 169° | 166° | 163° | 160° | 158° | 155° | 153° | 151° | 149° | 148° | 146° |
| (INCHES | 6:12 PITCH | 158° | 163° | 167° | 172° | 176° | | 176° | 173° | 170° | 167° | 164° | 162° | 159° | 157° | 155° | 153° | 152° | 150° |
| РІТСН | 7:12 PITCH | 155° | 159° | 164° | 168° | 172° | 176° | | 177° | 173° | 170° | 168° | 165° | 163° | 161° | 159° | 157° | 155° | 154° |
| OF PI | 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° |



SQUARE CONVERSIONS

12 x 12

31.169

For 26 ga. panels there are 2 formulas; one for panels measured in inches and one for panels measured in feet. While the actual panel width is 38.5", there will only be 36" of coverage per panel. Squares are figured based on actual width. One square is equal to a panel 31.169 feet long. One square of metal will give you approximately 94.5 square feet of coverage. One square is equal to 14,400 square inches.

EXAMPLE 1:

38.5 (or width in inches) multiplied by length in inches multiplied by # of pieces divided by 14,400

Number of panels = 12 Panel width = 38.5" Panel length = 144" Square inches = 14,400 <u>38.5" x 144" x 12</u> equals 4.62 squares of metal 14,400

EXAMPLE 2:

length in feet *multiplied by* # of pieces *divided by* 31.169

Number of panels = 12 Panel width = 38.5" Panel length = 12' equals 4.62 squares of metal

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" | 10 3/4 |
| 10 | 10 3/8 | 11' 1-7/8" | 10 3-3/4 | 11' 7-1/8" | 11'11" | 12' 3-5/8" |
| 11 | 12' 1/2" | 12' 2" | 12' 4-3/8" | 12' 7-3/4" | 13'0" | 13' 5" |
| 12 | 13' 1/2" | 13' 2-1/8" | 13' 4-3/4" | 13' 8-1/2" | 130 | 14' 6-3/8" |
| 13 | 13 1/2 | 13 2-1/8 | 13 4-3/4 | 13 8-1/2 | 14 1 | 14 0-3/8 |
| 14 | 14 5/8 | 14 2-3/8 | 14 8-1/8 | 15' 9-3/4" | 16'3" | 16' 9-1/4" |
| 15 | 15 5/8 | 15 2-1/2 | 15 5-1/2 | 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" |
| 35 | 35' 1-1/2" | 35' 5-7/8" | 36' 7/8" | 36' 10-5/8" | 37'11" | 39' 1-5/8" |

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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.

EXAMPLE: Universal Ridge Cap, 26 gauge, Rustic UN 6 RR UN6RR Lookup TRIM GAUGE CODE COLOR CODE CODE CODE COLOR

STEP 2:

Then type the number of pieces you need along with the length in feet and inches.



CentralLink order screen

UNIVERSAL RIDGE CAP

TRIM CODE - UN - Girth 24"

| GAUGE COE | DES |
|-----------|-----|
|-----------|-----|

| GAUGE | CODE |
|-------|------|
| 26 | 6 |
| 29 | 9 |

COLOR CODES

| SMP | PANEL GAUGE | TRIM GAUGE | CODE |
|------------------------|----------------|---------------|------|
| Alamo | | 29 | AW |
| Black | | 29 | BK |
| Brilliant | 26 | 29/26 | BI |
| Brown | 26 | 29/26 | BR |
| Burgundy | 26 | 29/26 | BG |
| Burnished Slate | 26 | 29/26 | BS |
| Charcoal | 26 | 29/26 | CH |
| Colony | 26 | 26 | CG |
| Copper Metallic** | 26 | 29/26 | CM |
| Crimson | 26 | 29/26 | CR |
| Desert | 26 | 26 | DS |
| Forest | | 29/26 | DG |
| Fern | 26 | 26 | FN |
| Gallery | 26 | 29/26 | GB |
| Galvalume® | 26 | 29/26 | GL |
| Galvanized | | 29 | ZN |
| Gray | 26 | 29/26 | GA |
| Hawaiian | 26 | 26 | HB |
| Hunter | 26 | 29/26 | GR |
| lvory | | 29 | IV |
| Light Stone | 26 | 29/26 | LS |
| Ocean | | 29 | OB |
| Pewter | | 29 | PG |
| Polar | 26 | 26 | PW |
| Rustic | 26 | 29/26 | RR |
| Tan | 26 | 29/26 | TN |
| Taupe | | 29/26 | TA |

* Longer lead times may apply. ** Copper Metallic is FEVE FEVE = Flourinated Polymer Paint SAystem. Galvalume* is a registered trademark of BIEC International, Inc..

ROOF TRIMS

Unless otherwise noted all angles are 90° or 45°. See page 10 for gauge and color codes.

FORMED RIDGE CAP

RIDGE CAP - Specify pitch.

UNIVERSAL RIDGE CAP UN - Girth 24"

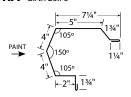
RLFRC36 - Length 3'

Specify pitch up to 4:12. Longer lead times may apply.

Additional pallet charge may apply.

RAKE/GABLE

RAKE **RA** - Girth 20.75"



RAKE PEAK BOX **PBOXF**

26 ga. only.

PAINT

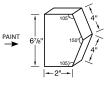
->

Specify pitch.

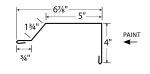
PBBF



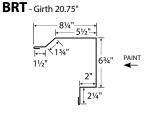
RAKE END CAP **REND** - Left hand shown.

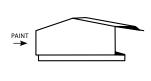


HOUSE RAKE **HR** - Girth 12.5"



BOX RAKE





Specify pitch.

SHORT EAVE

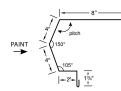
BOX RAKE PEAK BOX

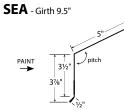
BOX RAKE END CAP BREND - Left hand shown.



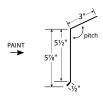
EAVE - Specify pitch.

HIGH-SIDE EAVE





LONG EAVE LEA- Girth 9.5"



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ROOF TRIMS

Unless otherwise noted all angles are 90° or 45°. See page 10 for gauge and color codes.

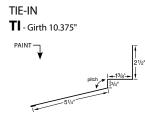
TRANSITION TRIMS - Specify pitch.

PAINT

TRANSITION TT - Girth 12.5"

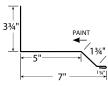






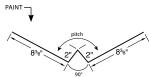


ENDWALL EW - Girth 10.25" SIDEWALL **ST**- Girth 11.75"



VALLEY - Specify pitch. COMMERCIAL VALLEY

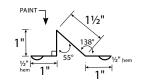
VA - Girth 20.75"



Intended for valley lengths less than 30'. Additional pallet charge will apply.

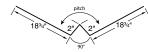
MISC. TRIMS

SNOW GUARD **SG1** - Girth 5.5"



Available in 10'2" only.

EXTENDED VALLEY EVA- Girth 41.5"



Intended for valley lengths greater than 30'. Additional pallet charge will apply.

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.

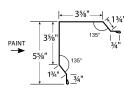
CENTRAL STATES MANUFACTURING, INC.

WALL TRIMS

Unless otherwise noted all angles are 90° or 45°. See page 10 for gauge and color codes.

INSIDE CORNER

OUTSIDE CORNER **OU** - Girth 13.25"



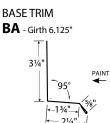
IN - Girth 14.5" $4^{1/4''}$ $4^{1/4''}$ $4^{1/4''}$ $4^{1/4''}$ PAINT $4^{1/4''}$ ZEE TRIM ZE - Girth 5.875" PAINT \downarrow \downarrow \downarrow \downarrow \downarrow



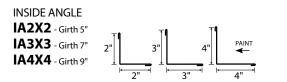
2 1/2" 95° 13/4" PAINT

COMMERCIAL RAT GUARD

RGC - Girth 8.3125"



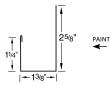
ANGLE TRIMS

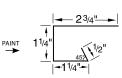


OUTSIDE ANGLE SA2X2 - Girth 5" SA3X3 - Girth 7" SA4X4 - Girth 9" $2^{n} \int_{\frac{1}{2^{n-1}}} 3^{n} \int_{\frac{1}{2^{n-1}}} 4^{n} \int_{\frac{1}{2^{n}}} 4^{n} \int_{\frac{1}{2^{n-1}}} 4^{n} \int_{\frac{1}$

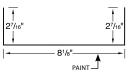
FRAMED OPENING TRIMS

HEAD TRIM **HE** - Girth 5.75" JAMB **JA** - Girth 5.75"

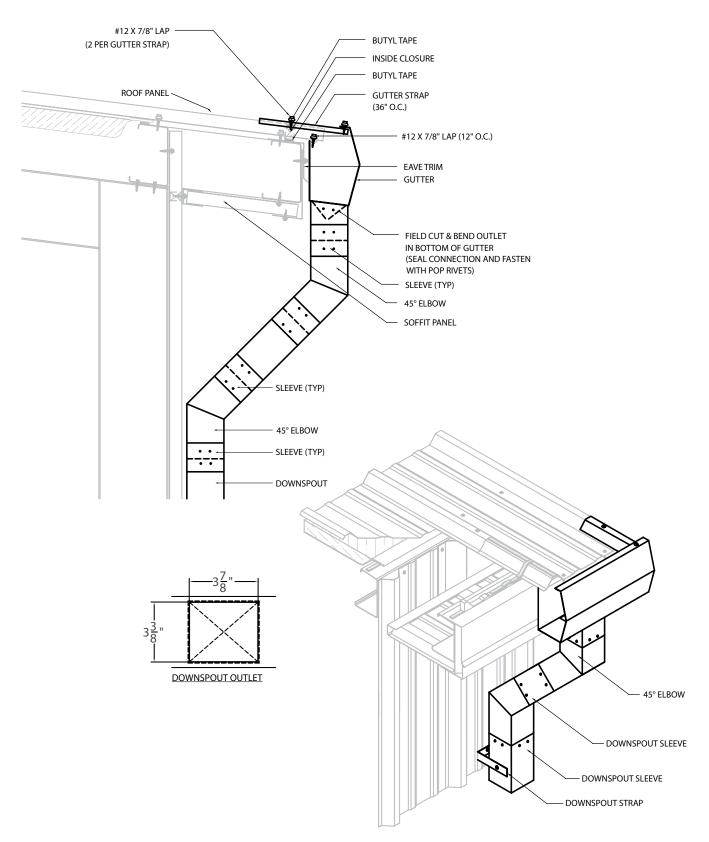




JAMB HEADER JH - Girth 13"



GUTTERS

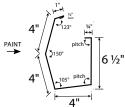


GUTTERS

Unless otherwise noted all angles are 90° or 45°. See page 10 for gauge and color codes.

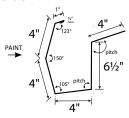
SCULPTURED GUTTERS

HANG-ON 0-4:12 PITCH **RLGU** - Girth 20.75"

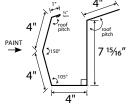


HANG-ON 5:12 PITCH **RLGU5** - Girth 22.1875" roof 7 ¹⁵⁄16″ 4

EAVE 0-4:12 PITCH RLSGU - Girth 24"



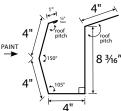
4" EAVE 5:12 PITCH RLSGU5- Girth 25.4375"



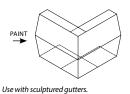
RLGU6 - Girth 22.4375" PAINT 8 3/16" 4 4"

HANG-ON 6:12 PITCH

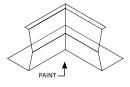
EAVE 6:12 PITCH RLSGU6 - Girth 25.6875"



OUTSIDE CORNER BOX **OCB** - Specify pitch.



INSIDE CORNER BOX ICB - Girth 25.6875"



Use with sculptured gutters.

BOX GUTTERS - Dimension "A" will change depending on chosen pitch.

HANG-ON 11 PAINT 41/5 5¼~

PART # PITCH GIRTH DIM. "A" RLBHG1 1:12 17.625" 4.375" **RLBHG2** 2:12 18.125" 4.875" RLBHG3 3:12 18.5625" 5.3125" RLBHG4 19.063" 4:12 5.8125" RLBHG5 5:12 19.5" 6.25" **RLBHG6** 6:12 20" 6.75"

| BOX EA | AVE | | | I |
|--------|------------|-----|----|---|
| | 41/4" | "A" | 4" | |
| | 51/4 | | - | |

| PART # | PITCH | GIRTH | DIM."A" |
|--------|-------|---------|---------|
| RLBEG1 | 1:12 | 20.875" | 4.375" |
| RLBEG2 | 2:12 | 21.375" | 4.875" |
| RLBEG3 | 3:12 | 21.813" | 5.3125" |
| RLBEG4 | 4:12 | 22.313" | 5.8125" |
| RLBEG5 | 5:12 | 22.75" | 6.25" |
| RLBEG6 | 6:12 | 23.25" | 6.75" |
| | | | |

DOWNSPOUT CONNECTOR

Δ1/a

DSLVE

4

BOX GUTTER END CAP

BGEN - Specify pitch.

DOWNSPOUTS

DOWNSPOUT- Length 16" DS - straight

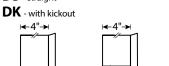
> 3 1/2' →Ĭ

DOWNSPOUT ELBOW

DS

DSE45

DSE90

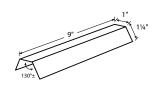


Δ'

DOWNSPOUT STRAP

DSS

GUTTER STRAP RLGS96

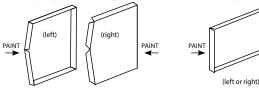


DOWNSPOUT OUTLET DSOUTLET



Specify pitch. 1/2" turndowns.

SCULPTURED GUTTER END CAP GEN - Specify pitch and left or right.



Left or right as you are on the ground looking at the gutter expanse from the eave.

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3 1⁄2"

ACCESSORIES

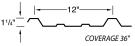
FASTENERS

Fastener color availability may vary by location, contact your sales consultant for details. Order fasteners in increments of 250 pieces.

| ТҮРЕ | PART # | LENGTH | DIAMETER | HEAD | COLOR | #BAG |
|---------------------|--------------|--------|----------|-----------|------------|------|
| METAL/METAL | 114(color)MM | 1 1/4" | #12 | 5/16" Hex | all | 250 |
| METAL/METAL | 2ZMM | 2" | #12 | 5/16" Hex | galvanized | 250 |
| METAL/METAL LAP | 78(color)LAP | 7/8" | #14 | 5/16" Hex | all | 250 |
| | | | | | | |
| ZAC METAL/METAL | 114ZACMM | 1 1/4" | #12 | 5/16" Hex | galvanized | 250 |
| ZAC METAL/METAL LAP | 78ZACLAP | 7/8" | #14 | 5/16" Hex | galvanized | 250 |



SKYLIGHTS For best results, use approved sealant (MRS105KY), Skylight Trim (5K) and washer (118WASHER). Skylights should be predrilled.



Clear Polycarbonate RLSKYPCC12 - Length 12!

Skylight Ridge Cap - Universal

RCPCC10 - Clear Polycarbonate RCPCW10 - White Polycarbonate

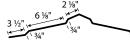
White Polycarbonate RLSKYPCW12 - Length 12!

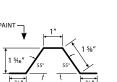
MRS10SKY - 10.3 oz. tube Approved for skylight use.

Skylight Sealant - Clear.



Skylight Washer - White. 118WASHER - 1/8" outside diameter, 1/4" inside diameter 100 per bag.

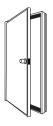




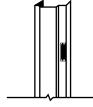


Length 10'6". Width 25".

DOORS & FRAMING PACKAGE - Longer lead times may apply.



DOOR LEAF - Steel door leaf only. 3070DOOR - 3 x 7' 3070DOORW/LITE - 3' x 7' with window. 4070DOOR - 4' x 7'



FRAMING PACKAGE - White. 4X3070JAMB - 4.25" x 3070 4X4070JAMB - 4.25" x 4070 6X3070JAMB - 6.25" x 3070 6X4070JAMB - 6.25" x 4070 8X3070JAMB - 8.25" x 3070 8X4070JAMB - 8.25" x 4070 8X6070JAMB - 8.25" x 6070

Package includes: Jambs, headers, threshold, door lever with keyed lock, hinges, and weather strip kit. Frames are non-reversable. Swing-out only.

ACCESSORIES



PART #

Recommended for R-Loc.

BTL

BTR

BT3/8

BUTYL TAPE

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

WIDTH

3/4"

7/8"

3/8"

THICKNESS

3/32"

3/16"

3/32"

COLOR

clear

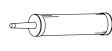
clear, gray, white

call for colors

TOUCH UP PAINT **TP(color)** - SMP, 0.6 oz. bottle w/brush. **12PURSP** - Purlin paint. 12oz. spray.



SEALANT



 PART #
 SIZE

 GEO(color)
 10.3 oz. tube

 MRS10(color)
 10.3 oz. tube

 MRS10CLEAR
 10.3 oz. tube

LENGTH

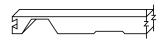
45'

40'

45'

CLOSURES

OUTSIDE CLOSURE RLCLOUT - No Glue. RLCLOUTGLUE - With Glue.



Length - 3'. 100 per box.

GRAYFLEX GRAYFLEX115 - 24-rolls per box. For use with hips and valleys.

n use with hips and valleys.



Length 13'. Width 1". Thickness 1 1/2".

INSIDE CLOSURE RLCLIN - No Glue. RLCLINGLUE - With Glue.



Length - 3'. 100 per box.

UNIVERSAL POLYFOAM **POLYG** - With Glue. 10-rolls per box.



Length 25'. Width 1 1/2". Thickness 1 1/2".

CLOSURE VENT RLCLV



ROLLS PER BOX

24

10

40

Closure is 1 3/8" tall and may require longer screws for installation. Item may vary from sample shown. Length - 3'. 25 rolls per box.

FLEXOVENT FLEXOVENT - (2) 10' rolls per box.



Length 10! Width 3". Thickness 1 1/2".

MASTER PIPE FLASHING - Install in a diamond shape and not parallel to the rib.

Square - Max temperature 250°.



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" **4SMPF** - Pipe size 2.75" to 7"

Silicone - Orange, high temp max 500°.

6SMPF - Pipe size 4.75" to 10"

• **8SMPF** - Pipe size 6.75" to 13.5"

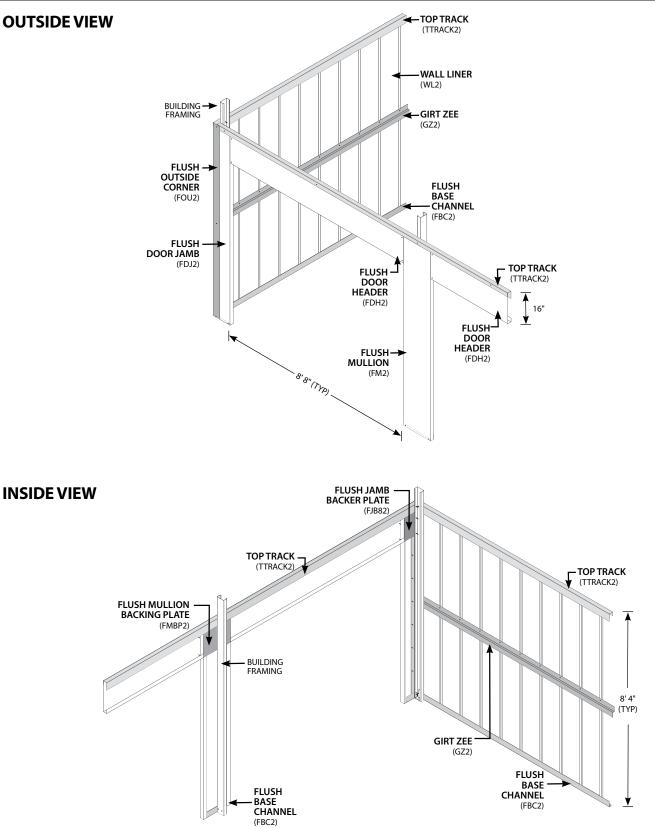
MPF8 - Pipe size 6.75" to 13.5"

Square with zipper - Max temperature 250°.



MPF1ZIP - Pipe size .5" - 4" **MPF2ZIP** - Pipe size 4" - 9.25"

SELF-STORAGE



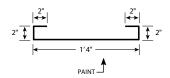
SELF-STORAGE **INTERIOR HALLWAY**

2"

Unless otherwise noted, Pier and Header trims are 22 gauge, and all angles are 90°. Call for available colors and lead times.

FLUSH MULLION BACKING PLATE FLUSH DOOR JAMB





FLUSH INSIDE CORNER FIN2 - Girth 7"



FLUSH OUTSIDE CORNER FOU2- Girth 10"

PAINT -

FMBP2 - Girth 24"

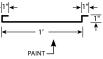


FWL2 - Girth 16"

WALL LINER

PAINT -

FDJ2 - Girth 13"

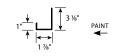


FDH2 - Girth 21"

FLUSH DOOR HEADER



FLUSH BASE CHANNEL FBC2 - Girth 6"



FLUSH JAMB BACKER PLATE 8" FJB82 - Girth 12"



TOP TRACK

FTTRACK2 - Girth 8"

FLUSH JAMB BACKER PLATE 10" FJB102 - Girth 14"

PAINT

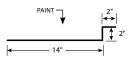
10

GIRT ZEE

FGZ16Z-Girth 6"

Galvanized 16 ga. only.

FLUSH JAMB BACKER PLATE 14" FJB142 - Girth 18"



CHECKERED OUTSIDE CORNER

CHECKERED WAINSCOT PANEL

CKWP8AL - Girth 48"

Aluminum 18 ga. only

CKOUS8AL - Girth 8"

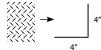
4″ . Aluminum 18 ga. only.

HAT CHANNEL TRIM BURGLAR BAR HATT2GW - Girth 4.8750"



Glossy White, 26 ga. only

CHECKERED INSIDE CORNER CKINS8AL - Girth 8"



Aluminum 18 ga. only.

CHECKERED BASE PLATE CKBP8AL - Girth 12"



FASTENERS

| ТҮРЕ | PART # | LENGTH | DIAMETER | HEAD | COLOR | #BAG |
|-------------------------|-------------------|--------|----------|-----------|-----------------|------|
| METAL/METAL (no washer) | 58(color)MMNW* | 5/8" | #10 | 5/16" Hex | ask for details | 250 |
| METAL/METAL (no washer) | 1ZMMNW | 1" | #12 | 5/16" Hex | galvanized | 250 |
| MASONRY ANCHOR | 11FASTENER | 1 1/4" | 1/4" | Mushroom | galvanized | 100 |

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SECONDARY FRAMING

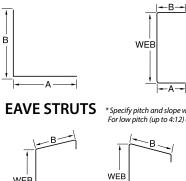
Members can be manufactured to the nearest 1/8" in length from 6'0" to 45'0". For lengths under 6'0" or over 45'0", call your sales consultant.

Central States has met the requirements to earn the accreditation for Cold-Formed Steel Structural

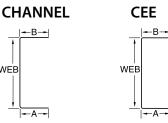


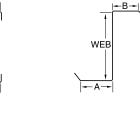
and non-Structural Components Not Requiring Welding For more information, go to www.iasonline.org.

ANGLE

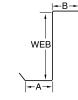


Single Slope Down



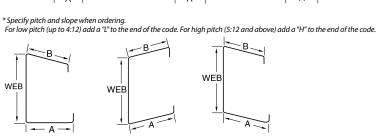


LGSI ZEE



ZEE



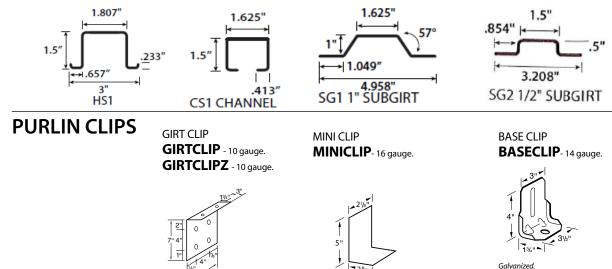


Double Slope Up

Single Slope Up

| HAT CHANNEL | | | | |
|-------------|-----------------|--------------|-------|---------|
| | Subgirt | Part Number | Gauge | Length |
| | HS1 | HS116(COLOR) | 16 | Specify |
| | HS1 | HS120Z | 20 | Specify |
| | CS1Channel | CS122GL | 22 | Specify |
| | CS1Channel | CS118Z | 18 | Specify |
| | SG1 1"Subgirt | SG116(COLOR) | 16 | Specify |
| | SG2 1/2"Subgirt | SG216(COLOR) | 16 | Specify |

Double Slope Down



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SECONDARY FRAMING

GAUGE

16

16

14

16

14

12

16

14

12

16

14

12 14

12

14

12

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12

16

GAUGE

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ITEM CODE

RED OXIDE

Z42516R

Z62516R

Z62514R

Z82516R

Z82514R

Z82512R

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Z83514R

Z83512R

Z102516R

Z102514R

Z102512R

Z10314R

Z10312R

Z122514R

Z122512R

Z123514R

Z123512R

Z12416R

RED OXIDE

Z4216R

Z42516R

Z42514R

Z42512R

Z43516R

Z43514R

Z62516R

Z62514R

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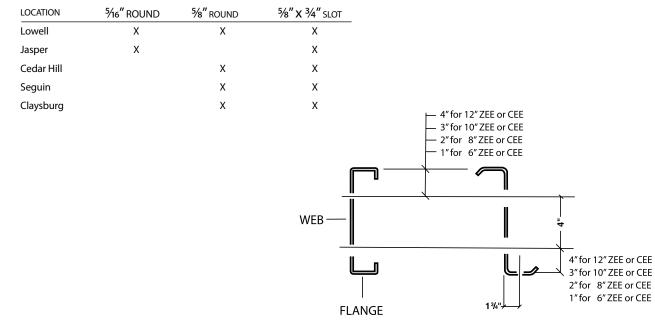
| | | | ITEN CODE | | | |
|--|--|--|--|--|---------------------------------|--|
| TYPE | AxB | GAUGE | ITEM CODE RED OXIDE | ITEM CODE GALVANIZED | TYPE | WEB x A x B |
| Angle | 2.5 x 2.5 | 14 | B2514R | | LGSI ZEE | 4 x 2½ x 2% |
| Angle | 3 x 3 | 16 | B316R | B316Z | LGSI ZEE | 6 x 23/8 x 21/8 |
| Angle | 3 x 3 | 14 | B314R | B314Z | LGSI ZEE | 6 x 2¾ x 2½ |
| Angle | 4 x 2 | 16 | B4216R | B4216Z | LGSI ZEE | 8 x 2¾ x 2½ |
| Angle | 4 x 2 | 14 | B4214R | B4214Z | LGSI ZEE | 8 x 2½ x 2½ |
| Angle | 4 x 3 | 16 | B4316R | | LGSI ZEE | 8 x 2¾ x 2½ |
| | | CAUCE | | | LGSI ZEE | 8 x 3¾ x 3½ |
| TYPE Channel | WEB x A x B 4.25 x 2.35 x 2.35 | GAUGE | RED OXIDE U4216R | GALVANIZED | LGSI ZEE | 8 x 3¾ x 3½ |
| Channel Channel | | 16 16 | | U4216Z | LGSI ZEE | 8 x 3¾ x 3½ |
| Channel | 4.25 x 2.85 x 2.85 | 16 | U42516R | U42516Z | LGSI ZEE | 10 x 2¾ x 2½ |
| Channel | 4.25 x 2.85 x 2.85 | 14 | U42514R | U42514Z | LGSI ZEE | 10 x 2¾ x 2½ |
| Channel | 4.25 x 2.85 x 2.85 | 12 | U42512R | U42512Z | LGSI ZEE | 10 x 2¾ x 2½ |
| Channel | 6.25 x 2.85 x 2.85 | 16 | U62516R | U62516Z | LGSI ZEE | 10 x 2% x 2% |
| Channel | 6.25 x 2.85 x 2.85 | 14 | U62514R | U62514Z | LGSI ZEE | 10 x 2% x 2% |
| Channel | 8.25 x 2.85 x 2.85 | 16 | U82516R | U82516Z | LGSI ZEE | 12 x 2% x 2% |
| Channel | 8.25 x 2.85 x 2.85 | 14 | U82514R | U82514Z | LGSI ZEE | 12 x 2% x 2% |
| Channel | 8.25 x 2.85 x 2.85 | 12 | U82512R | U82512Z | LGSI ZEE | 12 x 3% x 3% |
| TYPE | WEB x A x B | GAUGE | RED OXIDE | GALVANIZED | LGSI ZEE | 12 x 3% x 3% |
| Eave Strut | 6x4x3 | 16 | E64316R* | E64316Z* | LGSI ZEE | 12 x 3% x 3% |
| Eave Strut | 6x4x3 | 14 | E64314R* | E64314Z* | | 12 × 378 × 378 |
| Eave Strut | 6x4x3 | 12 | E64312R* | E64312Z* | TYPE | WEB x A x B |
| Eave Strut | 8x4x3 | 14 | E84314R* | E84314Z* | ZEE | 4 x 2 x 2 |
| Eave Strut | 8x4x3 | 12 | E84312R* | E84312Z* | ZEE | 4 x 2 x 2 4 x 2.5 x 2.5 |
| Eave Strut | 8x5x3 | 14 | E85314R* | E85314Z* | ZEE | 4 x 2.5 x 2.5 |
| Eave Strut | 8x5x3 | 12 | E85312R* | E85312Z* | ZEE | |
| Eave Strut | 8x5x5 | 14 | E85514R* | 2033122 | ZEE | 4 x 2.5 x 2.5 |
| Eave Strut | 10 x 5 x 3 | 14 | E105314R* | | | 4 x 3.5 x 3.5 |
| | up to 4:12) add a "L" to the | | | | ZEE | 4 x 3.5 x 3.5 |
| | (5:12 and above) add a "H | | | | ZEE | 6 x 2.5 x 2.5 |
| TYPE | WEB x A x B | GAUG | E RED OXIDE | GALVANIZED | ZEE | 6 x 2.5 x 2.5 |
| CEE | 4 x 2 x 2 | 16 | C4216R | C4216Z | ZEE | 8 x 2.5 x 2.5 |
| CEE | 4 x 2.5 x 2.5 | 16 | C42516R | C42516Z | ZEE | 8 x 2.5 x 2.5 |
| CEE | 4 x 2.5 x 2.5 | 14 | C42514R | C42514Z | ZEE | 8 x 2.5 x 2.5 |
| CEE | 4 x 2.5 x 2.5 | 12 | C42512R | C42512Z | ZEE | 8 x 3.5 x 3.5 |
| CEE | 4 x 3.5 x 3.5 | 16 | C43516R | C43516Z | ZEE | 8 x 3.5 x 3.5 |
| CEE | 4 x 3.5 x 3.5 | 14 | C43514R | C43514Z | ZEE | 8 x 3.5 x 3.5 |
| CEE | 6 x 2.5 x 2.5 | 16 | C62516R | C62516Z | ZEE | 9 x 3 x 3 |
| CEE | 6 x 2.5 x 2.5 | 14 | C62514R | C62516Z | ZEE | 9 x 3 x 3 |
| CEE | | 14 | | | ZEE | 10 x 2.5 x 2.5 |
| | 8 x 2.5 x 2.5 | | C82516R | C82516Z | ZEE | 10 x 2.5 x 2.5 |
| CEE | 8 x 2.5 x 2.5 | 14 12 | C82514R | C82514Z | ZEE | 10 x 2.5 x 2.5 |
| CEE | | 17 | C82512R | C82512Z | ZEE | 10 x 3.5 x 3.5 |
| | 8 x 2.5 x 2.5 | | 6025160 | 6025167 | 266 | |
| | 8 x 3.5 x 3.5 | 16 | C83516R | C83516Z | ZEE | 10 x 3.5 x 3.5 |
| CEE | 8 x 3.5 x 3.5 8 x 3.5 x 3.5 | 16 14 | C83514R | C83514Z | | |
| CEE CEE | 8 x 3.5 x 3.5 8 x 3.5 x 3.5 8 x 3.5 x 3.5 | 16 14 12 | C83514R C83512R | C83514Z C83512Z | ZEE | 12 x 2.5 x 2.5 |
| CEE CEE CEE | 8 x 3.5 x 3.5 8 x 3.5 x 3.5 8 x 3.5 x 3.5 9 x 3 x 3 | 16 14 12 14 | C83514R C83512R C9314R | C83514Z C83512Z C9314Z | ZEE ZEE | 12 x 2.5 x 2.5 12 x 2.5 x 2.5 |
| CEE CEE CEE CEE | 8 x 3.5 x 3.5 8 x 3.5 x 3.5 8 x 3.5 x 3.5 9 x 3 x 3 9 x 3 x 3 | 16 14 12 14 12 | C83514R C83512R C9314R C9312R | C83514Z C83512Z C9314Z C9312Z | ZEE ZEE ZEE | 12 x 2.5 x 2.5 12 x 2.5 x 2.5 |
| CEE CEE CEE CEE CEE | 8 x 3.5 x 3.5 8 x 3.5 x 3.5 8 x 3.5 x 3.5 9 x 3 x 3 9 x 3 x 3 10 x 2.5 x 2.5 | 16 14 12 14 12 16 | C83514R C83512R C9314R C9312R C102516R | C83514Z C83512Z C9314Z C9312Z C102516Z | ZEE ZEE ZEE ZEE | 12 x 2.5 x 2.5 12 x 2.5 x 2.5 12 x 3.5 x 3.5 |
| CEE CEE CEE CEE CEE CEE | 8 x 3.5 x 3.5 8 x 3.5 x 3.5 8 x 3.5 x 3.5 9 x 3 x 3 9 x 3 x 3 10 x 2.5 x 2.5 10 x 2.5 x 2.5 | 16 14 12 14 12 16 14 | C83514R C83512R C9314R C9312R C102516R C102514R | C83514Z C83512Z C9314Z C9312Z C102516Z C102514Z | ZEE ZEE ZEE ZEE ZEE | 12 x 2.5 x 2.5 12 x 2.5 x 2.5 12 x 3.5 x 3.5 12 x 3.5 x 3.5 |
| CEE CEE CEE CEE CEE CEE CEE | 8 x 3.5 x 3.5 8 x 3.5 x 3.5 8 x 3.5 x 3.5 9 x 3 x 3 9 x 3 x 3 10 x 2.5 x 2.5 | 16 14 12 14 12 16 14 12 | C83514R C83512R C9314R C9312R C102516R C102514R C102512R | C83514Z C83512Z C9314Z C9312Z C102516Z C102514Z C102512Z | ZEE ZEE ZEE ZEE ZEE | 12 x 2.5 x 2.5 12 x 2.5 x 2.5 12 x 3.5 x 3.5 12 x 3.5 x 3.5 |
| CEE CEE CEE CEE CEE CEE CEE CEE | 8 x 3.5 x 3.5 8 x 3.5 x 3.5 9 x 3 x 3 9 x 3 x 3 10 x 2.5 x 2.5 10 x 2.5 x 2.5 10 x 2.5 x 2.5 10 x 3.5 x 3.5 | 16 14 12 14 12 16 14 12 14 | C83514R C83512R C9314R C9312R C102516R C102514R C102512R C103514R | C83514Z C83512Z C9314Z C9312Z C102516Z C102514Z C102512Z C103514Z | ZEE ZEE ZEE ZEE ZEE | 12 x 2.5 x 2.5 12 x 2.5 x 2.5 12 x 3.5 x 3.5 12 x 3.5 x 3.5 |
| CEE CEE CEE CEE CEE CEE CEE CEE CEE | 8 x 3.5 x 3.5 8 x 3.5 x 3.5 9 x 3 x 3 9 x 3 x 3 10 x 2.5 x 2.5 10 x 2.5 x 2.5 10 x 2.5 x 2.5 | 16 14 12 14 12 16 14 12 | C83514R C83512R C9314R C9312R C102516R C102514R C102512R | C83514Z C83512Z C9314Z C9312Z C102516Z C102514Z C102512Z | ZEE ZEE ZEE ZEE ZEE | 12 x 2.5 x 2.5 12 x 2.5 x 2.5 12 x 3.5 x 3.5 12 x 3.5 x 3.5 |
| CEE CEE CEE CEE CEE CEE CEE CEE CEE CEE | 8 x 3.5 x 3.5 8 x 3.5 x 3.5 9 x 3 x 3 9 x 3 x 3 10 x 2.5 x 2.5 10 x 2.5 x 2.5 10 x 2.5 x 2.5 10 x 3.5 x 3.5 | 16 14 12 14 12 16 14 12 14 | C83514R C83512R C9314R C9312R C102516R C102514R C102512R C103514R | C83514Z C83512Z C9314Z C9312Z C102516Z C102514Z C102512Z C103514Z | ZEE ZEE ZEE ZEE ZEE | 12 x 2.5 x 2.5 12 x 2.5 x 2.5 12 x 3.5 x 3.5 12 x 3.5 x 3.5 |
| CEE CEE CEE CEE CEE CEE CEE CEE CEE CEE | 8 x 3.5 x 3.5 8 x 3.5 x 3.5 9 x 3 x 3 9 x 3 x 3 10 x 2.5 x 2.5 10 x 2.5 x 2.5 10 x 2.5 x 2.5 10 x 3.5 x 3.5 | 16 14 12 14 12 16 14 12 14 12 | C83514R C83512R C9314R C9312R C102516R C102514R C102512R C103514R C103514R C103512R | C83514Z C83512Z C9314Z C9312Z C102516Z C102514Z C102512Z C103514Z C103512Z | ZEE ZEE ZEE ZEE ZEE | 12 x 2.5 x 2.5 12 x 2.5 x 2.5 12 x 3.5 x 3.5 12 x 3.5 x 3.5 |
| CEE CEE CEE CEE CEE CEE CEE CEE CEE CEE | $8 \times 3.5 \times 3.5$ $8 \times 3.5 \times 3.5$ $9 \times 3 \times 3$ $9 \times 3 \times 3$ $10 \times 2.5 \times 2.5$ $10 \times 2.5 \times 2.5$ $10 \times 3.5 \times 3.5$ $10 \times 3.5 \times 3.5$ $12 \times 2.5 \times 2.5$ | 16 14 12 14 12 16 14 12 14 12 14 | C83514R C83512R C9314R C9312R C102516R C102514R C102512R C103514R C103512R C103512R C122514R | C83514Z C83512Z C9314Z C9312Z C102516Z C102514Z C102512Z C103514Z C103512Z C122514Z | ZEE ZEE ZEE ZEE ZEE | |
| CEE CEE CEE CEE CEE CEE CEE CEE CEE CEE | $8 \times 3.5 \times 3.5$ $8 \times 3.5 \times 3.5$ $9 \times 3 \times 3$ $9 \times 3 \times 3$ $10 \times 2.5 \times 2.5$ $10 \times 2.5 \times 2.5$ $10 \times 3.5 \times 3.5$ $10 \times 3.5 \times 3.5$ $12 \times 2.5 \times 2.5$ $12 \times 2.5 \times 2.5$ | 16 14 12 14 12 16 14 12 14 12 14 12 | C83514R C83512R C9314R C9312R C102516R C102514R C102512R C103514R C103512R C103512R C122514R C122514R | C83514Z C83512Z C9314Z C9312Z C102516Z C102514Z C102514Z C103514Z C103512Z C122514Z C122514Z C122512Z | ZEE ZEE ZEE ZEE ZEE | 12 x 2.5 x 2.5 12 x 2.5 x 2.5 12 x 3.5 x 3.5 12 x 3.5 x 3.5 |

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STANDARD PUNCH PATTERNS

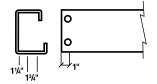
Punch capabilities vary by location. Call for pricing and availability on special punching. Punches cannot be made on secondary framing members shorter than 3". Holes are punched to accommodate 1/2" diameter bolts.

Standard hole sizes:

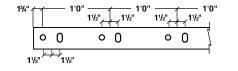


FLANGE PATTERNS - Punches can be placed on either or both ends.

EAVE STRUT FOR 4" LEG **ES4**

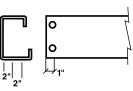


PATTERN D - OPTIONAL FLANGE

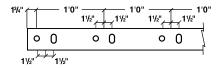


Use with web pattern A.

EAVE STRUT FOR 5" LEG **ES5**

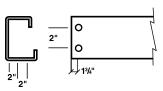


PATTERN E - OPTIONAL FLANGE

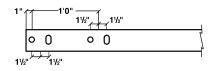


Use with web pattern B.

EAVE STRUT FOR 5" LEG **ES134**



PATTERN F - OPTIONAL FLANGE **PPF**



Use with web pattern C.

STANDARD PUNCH PATTERNS

WEB PATTERNS - Punches can be placed on either or both ends. **END PUNCH** PATTERN H STANDARD WEB END SIMPLE SPAN PUNCH PPEP PPH **PPSS** 2'2' 0 0 0 0 0 0 0 Π. ' **1**3/4" Minimum part length 5' total, 2'6" one end. SHORT LAP PUNCH LONG LAP PUNCH PPSL PPLL 10' 10' 1'4 2'2" 0 0 0 0 0 0 0 0 0 0 0 0 0 0 -4"→ → **1**¾" 13/ Minimum part length 5'6" total, 2'8" one end. Minimum part length 7' total, 3'6" one end.

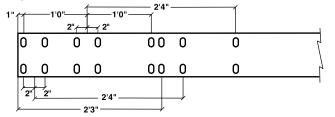
PATTERN A - STANDARD WEB - 9' Minimum length if punched on both ends; 4'6" if punched on one end. **PPA**

| 1 ¾" ⁄ | 1 | — 1'0" | _1 ^{2"} | <u></u> 1'0 2″ر | "2"_2" | -1'0" | 1 | —1'0 |)" | 1 |
|---------------|-------------|--------|------------------|--------------------|--------|-------|---|--------------|-------------|-----|
| | 0 | 0 | 0 | 0 | 000 | 0 | 0 | 0 | 0 | 7 0 |
| | 0 | 0 | 0 | 0 | 000 | 0 | 0 | 0 | 0 | 0 |
| | 2"/ 3¾"/ | 2" | | — 2'4" – | | | | ¦" →∕ | <u>ب</u> 4' | |

PATTERN B - STANDARD WEB - 12'5" Minimum length if punched on both ends; 6'2.5" if punched on one end. **PPB**

| 1 ¾" | 11 | —1' | 0" — | 2" | 1'0"2"/2"/_2 | -1'0" · | 1'0 12"_2"_1 | " | 1'0' | '— | —1' | o"— ≁ 4 | I " | |
|-------------|------------|------------|----------------|------------|--------------|---------|-----------------|-------|------|----|------|------------|------------|----------|
| | 0 | 0 | 00 | 0 | 000 | 0 | 0000 | Ó | 0 | Ó | 0 | 0 | 0 | 7 |
| | 0 | 0 | 00 | | 000 | 0 | 0000 | 0 | | | 0 | 0 | 0 | <u> </u> |
| | 2"/ 3¾" | 2" | ↓ 4 " ; | ⊭ — 2'4 | <u>"</u> | | ⊭ 4 " ⊭ | . ↓ 4 | " 🖌 | ¥ | 4" ≱ | | | I |

PATTERN C - STANDARD WEB - 7' Minimum length if punched on both ends; 3'6" if punched on one end. **PPC**



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