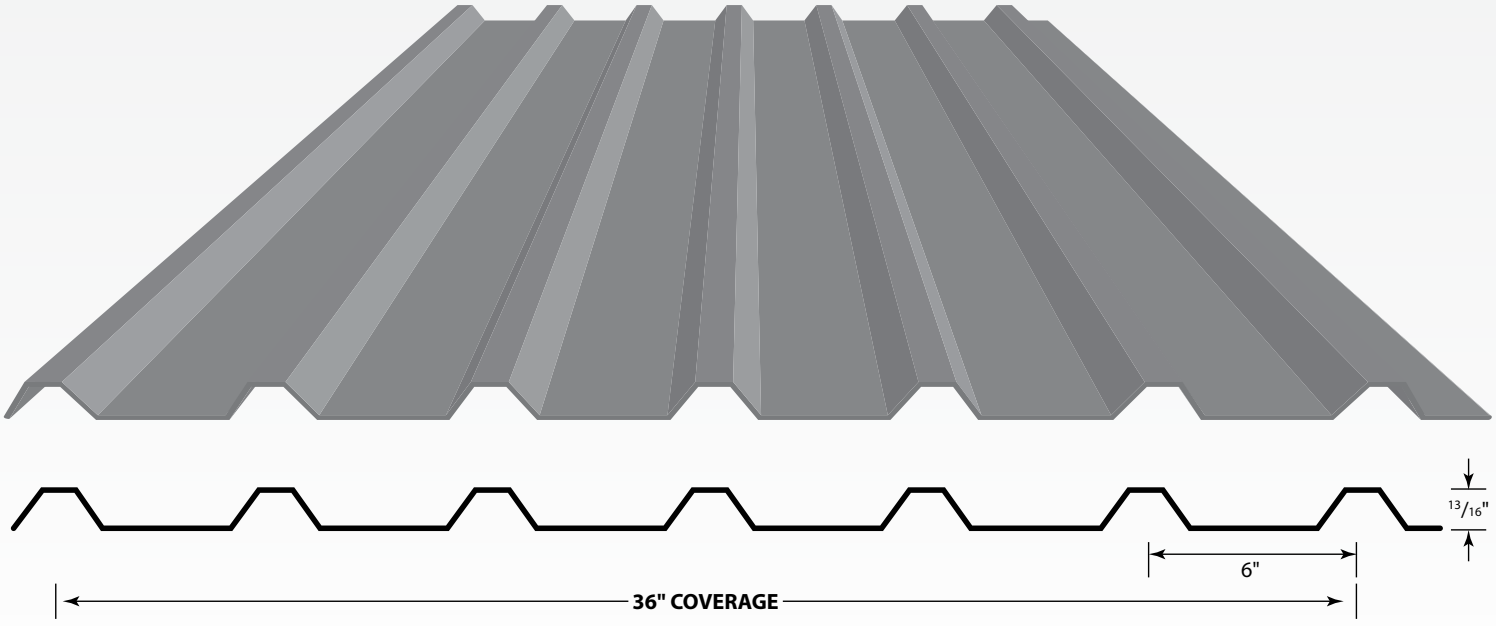
M-Loc™
Product Guide

HELPFUL INFORMATION ON PANELS, TRIMS, GUTTERS AND ACCESSORIES



CENTRAL® STATES MANUFACTURING, INC.
METAL BUILDING COMPONENTS

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.

centralstates**mfg**.com

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

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.*

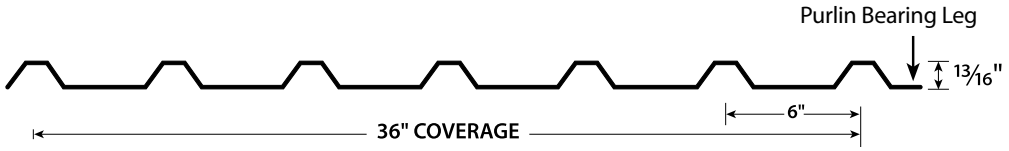
Information contained in this booklet was in effect at the time of publication and is subject to change without notice.

M-LOC™

M-Loc is available in 26 ga. painted and bare Galvalume®. Prime panels come with CentralGuard® protection that includes superior dent resistance, a lifetime limited paint warranty, and a 20-year substrate warranty. Bare (non-painted) panels from Central States have an acrylic coating which eliminates using oils during manufacturing, and eliminates fingerprinting and foot marking during installation. Bare, unpainted Galvalume is not warranted for uniformity in appearance, whether it be color, sheen, or spangle. If the project requires a uniform appearance, please choose a painted product.

Central States' 26 ga. steel is manufactured to meet ASTM A792 specifications for galvalume with a minimum yield of 80,000 PSI. The M-Loc panel also has a Class 4 UL2218 impact resistance rating, a Class A UL790 fire resistance rating, and a Class 90 UL580 uplift resistance rating.

The recommended minimum roof slope for the 13⁄16" M-Loc is a 1:12 pitch. This will allow for sufficient drainage of water. For added protection, a sealant tape can be used on the laps of the panel.



PANEL CODES

PANEL PROFILE	TYPE	CODE
M-Loc™	Prime SMP	ML6(color)
M-Loc™	Thrifty SMP	MN6(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 centralstatesmfg.com/warranties

SECTION PROPERTIES

36" WIDE, M-LOC™ PANEL

Gauge	Thickness (inches)	Weight (psf)	Yield Stress (ksi)	Top in Compression (Positive Bending)			Bottom in Compression (Negative Bending)		
				Ixx	Sxx	Ma	Ixx	Sxx	Ma
				in4/ft	in3/ft	in.kips/ft	in4/ft	in3/ft	in.kips/ft
26	0.0185	0.874	80.0	0.0250	0.0441	1.5857	0.0170	0.0379	1.3617

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	117.5	80.9	60.7	134.1
3.5	86.3	51.0	38.2	98.6
4	66.1	34.1	25.6	75.5
4.5	52.2	24.0	18.0	59.6
5	42.3	17.5	13.1	48.3
6	34.9	13.1	9.9	39.9
7	29.4	10.1	7.6	33.5
8	21.6	6.4	4.8	24.6

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	100.9	100.9	79.0	156.2
3.5	74.1	66.4	49.8	114.8
4	56.7	44.5	33.3	87.9
4.5	44.8	31.2	23.4	69.4
5	36.3	22.8	17.1	56.2
6	30.0	17.1	12.8	46.5
7	25.2	13.2	9.9	39.1
8	18.5	8.3	6.2	28.7

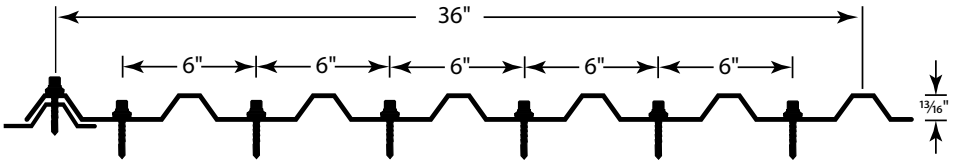
THREE OR MORE SPAN CONDITION

	26 Gauge & 80 ksi			
Span (feet)	LL (S)(psf)	LL (D) L/180(psf)	LL (D) L/240(psf)	WL(psf)
3	117.8	117.8	114.5	182.5
3.5	86.6	86.6	72.1	134.1
4	66.3	64.4	48.3	102.7
4.5	52.4	45.3	33.9	81.1
5	42.4	33.0	24.7	65.7
6	35.1	24.8	18.6	54.3
7	29.5	19.1	14.3	45.6
8	21.6	12.0	9.0	33.5

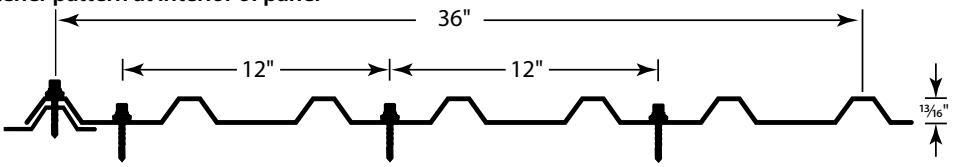
Theoretical allowable loads are based on uniform span lengths. LL (S) is allowable live load based on stress limitation. LL (D) is allowable live load based on deflection limitation of L/180 or L/240. WL is allowable wind load and has been increased by 33.33%.

FASTENER SPACING

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



Fastener pattern at interior of panel



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.

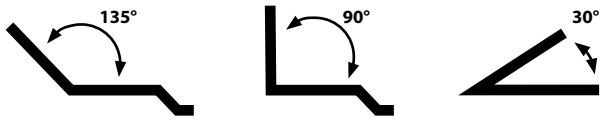
CUTTING
A portable field shear is the ideal method for cutting panels. Nibblers or a power shear may also be used. Although we do not recommend it, if you decide to cut with a saw, it is very important that the panels be turned upside down during cutting so that hot shavings do not come in contact with 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.

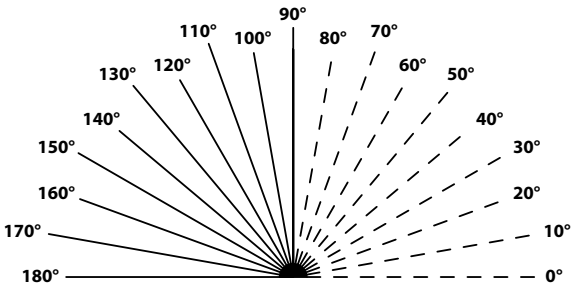
DRILLING
Panels and trim should not be drilled while stacked. This will cause shavings that will become imbedded in the paint surface.

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.





SINGLE SLOPE PITCHES
Fascia, Eave, Endwall, Tie-In, Gutter

DOUBLE SLOPE PITCHES
Hip, Valley

RIDGE CAP

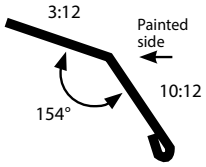
1:12 PITCH	2:12 PITCH	3:12 PITCH	4:12 PITCH	5:12 PITCH	6:12 PITCH	7:12 PITCH	8:12 PITCH	9:12 PITCH	10:12 PITCH	11:12 PITCH	12:12 PITCH
94°	99°	104°	108°	112°	116°	120°	123°	126°	129°	132°	135°
173°	167°	160°	154°	148°	143°	138°	134°	130°	126°	123°	120°
170°	161°	152°	143°	135°	127°	120°	113°	106°	100°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

TRANSITION TRIM

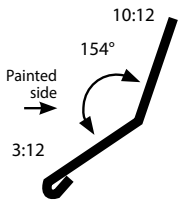
Find the box that intersects your lower and upper roof pitches.

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

Upper Transition Trim



Lower Transition Trim



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

UPPER 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
1:12 PITCH		175°	171°	166°	162°	158°	155°	151°	148°	145°	142°	140°	137°	135°	133°	132°	130°	128°
2:12 PITCH	175°		175°	171°	167°	163°	159°	156°	153°	150°	147°	144°	142°	140°	138°	136°	135°	133°
3:12 PITCH	171°	175°		176°	171°	167°	164°	160°	157°	154°	152°	149°	147°	145°	143°	141°	139°	138°
4:12 PITCH	166°	171°	176°		176°	172°	168°	165°	162°	159°	156°	153°	151°	149°	147°	145°	144°	142°
5:12 PITCH	162°	167°	171°	176°		176°	172°	169°	166°	163°	160°	158°	155°	153°	151°	149°	148°	146°
6:12 PITCH	158°	163°	167°	172°	176°		176°	173°	170°	167°	164°	162°	159°	157°	155°	153°	152°	150°
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°
9:12 PITCH	148°	153°	157°	162°	166°	170°	173°	177°		177°	174°	172°	170°	167°	166°	164°	162°	161°
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

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

$$\frac{38.5" \times 144" \times 12}{14{,}400}$$

equals 4.62 squares of metal

EXAMPLE 2:

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

Number of panels = 12
Panel width = 38.5"
Panel length = 12'

$$\frac{12 \times 12}{31.169}$$

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"	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"
35	35' 1-1/2"	35' 5-7/8"	36' 7/8"	36' 10-5/8"	37'11"	39' 1-5/8"

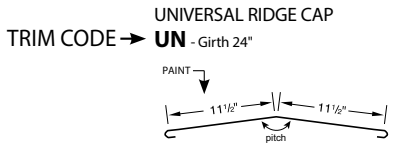
HOW TO ORDER TRIM

STEP 1:

In CentralLink™, start by entering the Item ID.

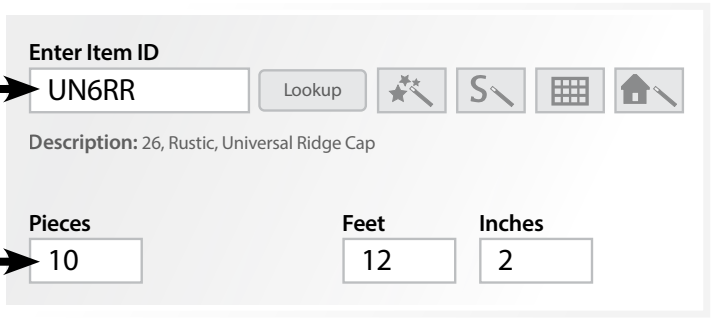
Item ID is made of the **TRIM CODE**, a **GAUGE CODE**, and a **COLOR CODE**.

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 (TRIM CODE) 6 (GAUGE CODE) RR (COLOR CODE)



CentralLink order screen

STEP 2:

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

GAUGE CODES

GAUGE	CODE
26	6
29	9

COLOR CODES

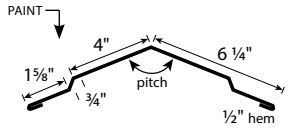
SMP	PANEL GAUGE	TRIM GAUGE	CODE
Alamo		29	AW
Black		29	BK
Brilliant	26	29/26	BI
Brown	26	29/26	BR
Burgundy	26	29/26	BG
Burnished Slate	26	29/26	BS
Charcoal	26	29/26	CH
Colony	26	26	CG
Copper Metallic**	26	29/26	CM
Crimson	26	29/26	CR
Desert	26	26	DS
Forest		29/26	DG
Fern	26	26	FN
Gallery	26	29/26	GB
Galvalume®	26	29/26	GL
Galvanized		29	ZN
Gray	26	29/26	GA
Hawaiian	26	26	HB
Hunter	26	29/26	GR
Ivory		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 Fluropon®.
Galvalume® is a registered trademark of BIEC International, Inc..

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

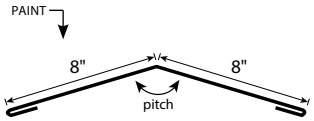
RIDGE CAP - Specify pitch.

RIDGE CAP
RCP - Girth 13.75"



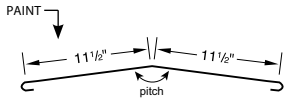
Additional pallet charge may apply.
Recommended for 6:12 or less.

RESIDENTIAL RIDGE CAP
RRCP - Girth 17"



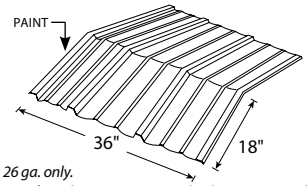
Additional pallet charge may apply.

UNIVERSAL RIDGE CAP
UN - Girth 24"



Additional pallet charge may apply.

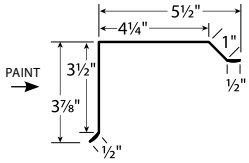
FORMED RIDGE CAP
MLFRC36 - Length 3'



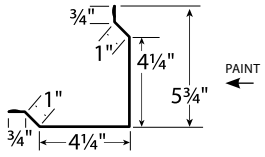
26 ga. only.
Specify pitch up to 5:12. Longer lead times may apply.

RAKE/GABLE

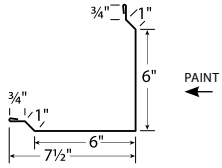
RESIDENTIAL RAKE
RRT - Girth 10.75"



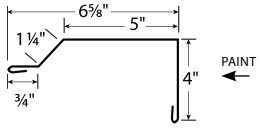
RAKE & CORNER
COR - Girth 13"



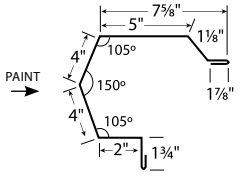
GABLE
GT6 - Girth 16.5"



HOUSE RAKE
MLHR - Girth 12"



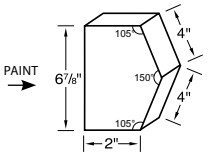
RAKE
MLRA - Girth 20.75"



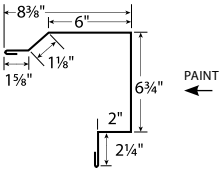
RAKE PEAK BOX
MLPBOXF - 2'6"

Specify pitch.

RAKE END CAP
REND - Left hand shown.



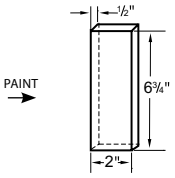
BOX RAKE
MLBRT - Girth 20.75"



BOX RAKE PEAK BOX
MLPBBF - 3'

Specify pitch.

BOX RAKE END CAP
BREND - Left hand shown.

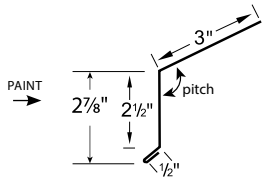


ROOF TRIMS

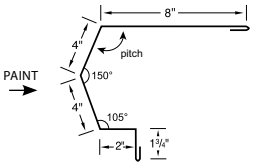
Unless otherwise noted all angles are 90° or 45°. See page 10 for gauge and color codes.

EAVE - Specify pitch.

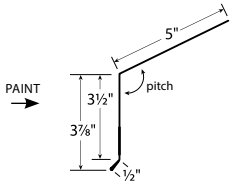
RESIDENTIAL EAVE
RET - Girth 6.5"



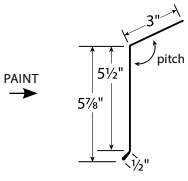
HIGH-SIDE EAVE
HI - Girth 20.75"



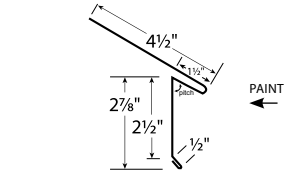
SHORT EAVE
SEA - Girth 9.5"



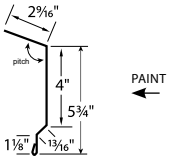
LONG EAVE
LEA- Girth 9.5"



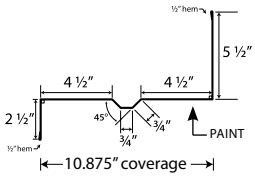
RESIDENTIAL DRIP EDGE
RDC - Girth 9.5"



FASCIA
FT - Girth 9"



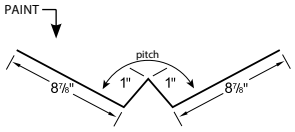
GABLE BASE SOFFIT
GB1 - Girth 20.25"



90° pitch if not specified.

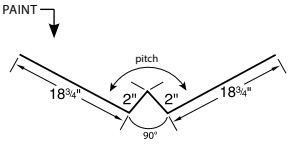
VALLEY - Specify pitch.

VALLEY
VT1 - Girth 19.75"



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

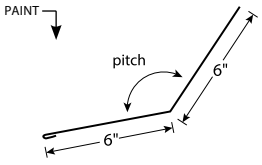
EXTENDED VALLEY
EVA- Girth 41.5"



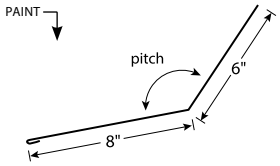
Intended for valley lengths greater than 30'.
Additional pallet charge will apply.

TRANSITION TRIMS - Specify pitch.

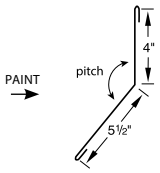
TRANSITION
TT - Girth 12.5"



TRANSITION
GTL2 - Girth 14.5"



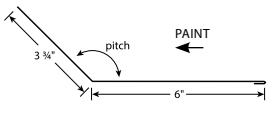
HIGH SIDE PARAPET
HSP - Girth 10.5"



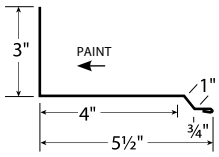
FLAT SHEET
FS9 - 29 gauge. Girth 43"
FS6 - 26 gauge. Girth 41.5625"

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

ENDWALL
EW - Girth 10.25"



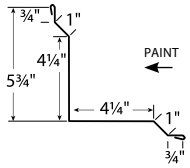
UNIVERSAL SIDEWALL
SF1 - Girth 9.25"



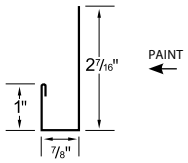
WALL TRIMS

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

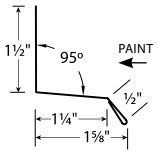
INSIDE CORNER
IC1 - Girth 13"



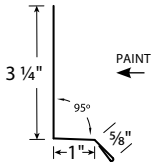
J-TRIM
JT - Girth 4.8125"



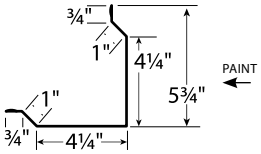
WINDOW DRIP CAP
WC - Girth 3.75"



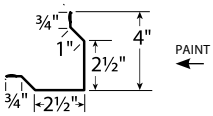
BASE ANGLE
MLBA - Girth 5.375"



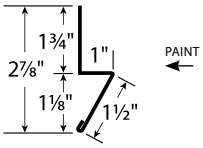
RAKE & CORNER
COR - Girth 13"



MINI CORNER
MCRN - Girth 9.5"

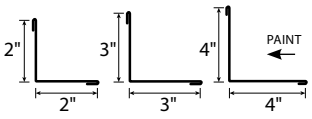


RAT GUARD
RG - Girth 4.75"

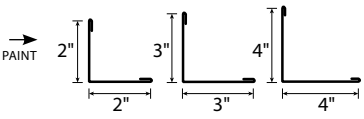


ANGLE TRIMS

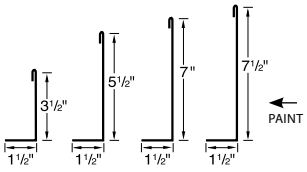
INSIDE ANGLE
IA2X2 - Girth 5"
IA3X3 - Girth 7"
IA4X4 - Girth 9"



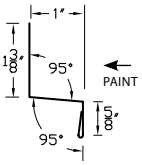
OUTSIDE ANGLE
SA2X2 - Girth 5"
SA3X3 - Girth 7"
SA4X4 - Girth 9"



POST TRIM
SA312 - Girth 5.5"
SA512 - Girth 7.5"
SA7 - Girth 9"
SA712 - Girth 9.5"

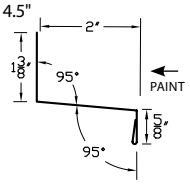


DOUBLE ANGLE
DA1 - Girth 3.5"



Use with wainscot.

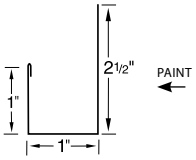
WIDE DOUBLE ANGLE
DA2 - Girth 4.5"



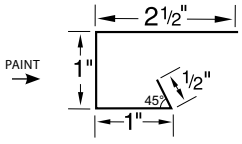
Use with wainscot.

FRAMED OPENING TRIMS

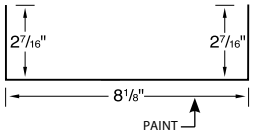
HEAD TRIM
MLHE - Girth 5"



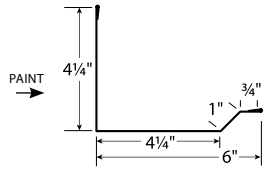
JAMB
MLJA - Girth 5"



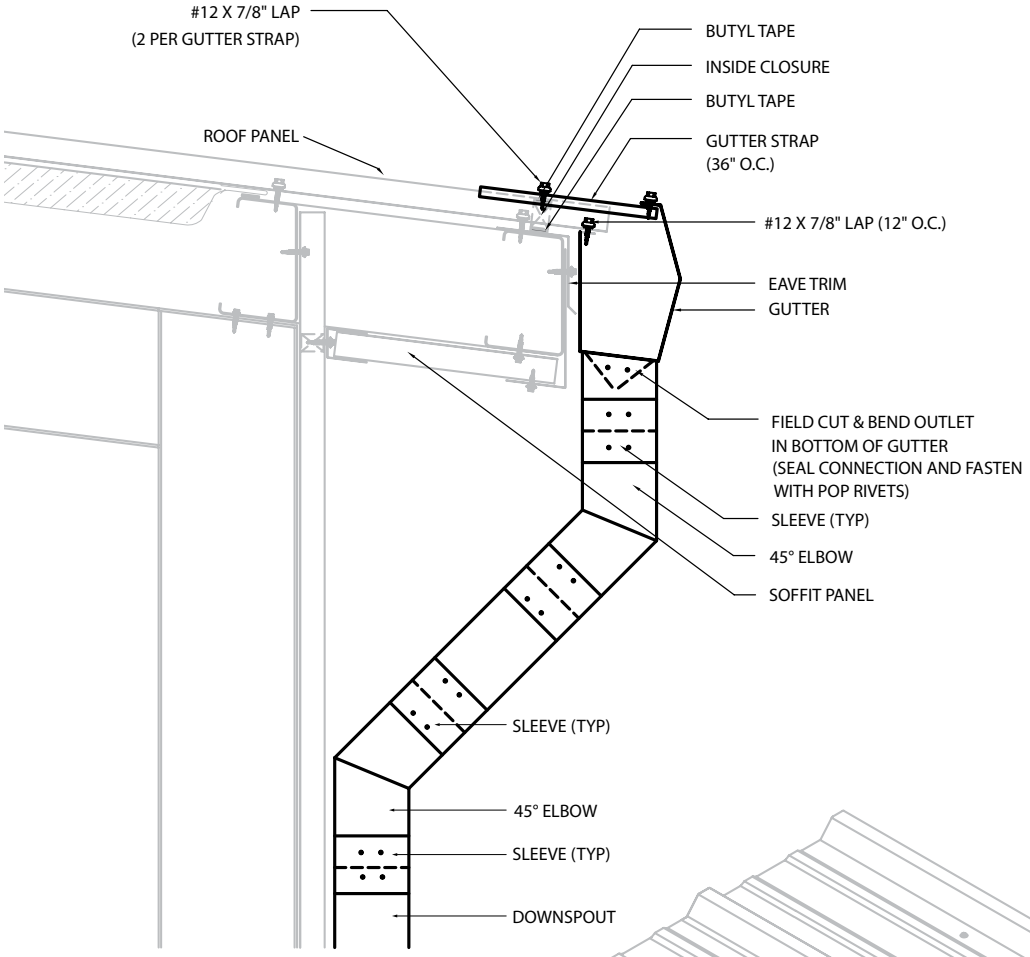
JAMB HEADER
JH - Girth 13"

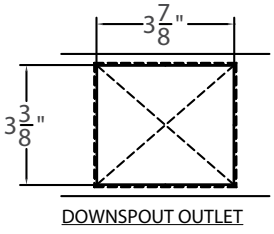


DOOR EDGE
DJ10 - Girth 11.25"

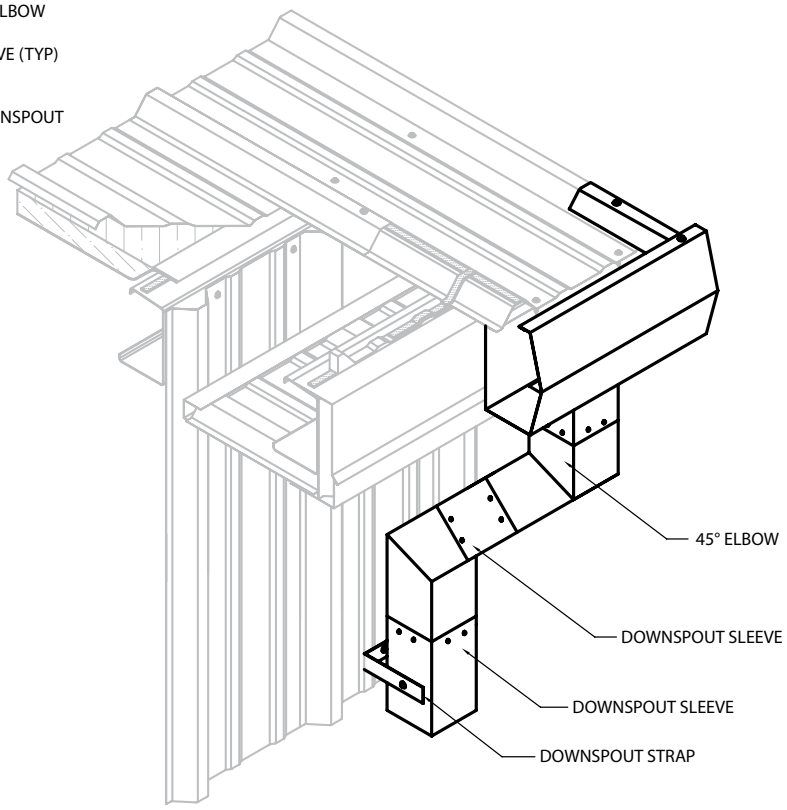


GUTTERS





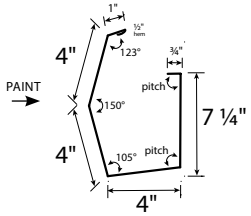
DOWNSPOUT OUTLET



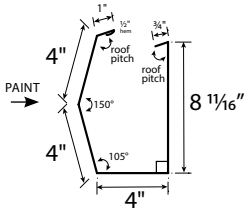
Unless otherwise noted all angles are 90° or 45°. See page 10 for gauge and color codes.

SCULPTURED GUTTERS

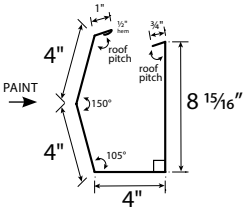
HANG-ON 0-4:12 PITCH
MLGU - Girth 21.50"



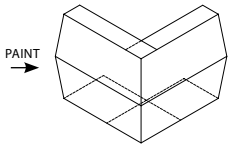
HANG-ON 5:12 PITCH
MLGU5 - Girth 22.9375"



HANG-ON 6:12 PITCH
MLGU6 - Girth 23.1875"

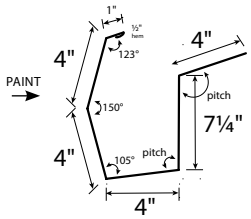


OUTSIDE CORNER BOX
OCB - Specify pitch.

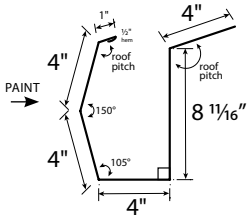


Use with sculptured gutters.

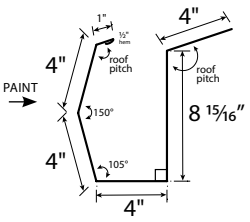
EAVE 0-4:12 PITCH
MLSGU - Girth 24.25"



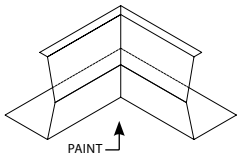
EAVE 5:12 PITCH
MLSGU5- Girth 26.1875"



EAVE 6:12 PITCH
MLSGU6 - Girth 26.4375"



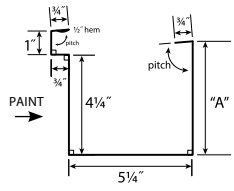
INSIDE CORNER BOX
ICB - Girth 25.6875"



Use with sculptured gutters.

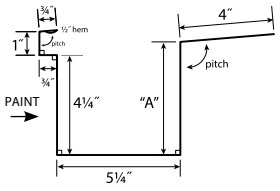
BOX GUTTERS - Dimension "A" will change depending on chosen pitch.

HANG-ON



PART #	PITCH	GIRTH	DIM. "A"
MLBHG1	1:12	18.0625"	4.8125"
MLBHG2	2:12	18.5625"	5.3125"
MLBHG3	3:12	19"	5.75"
MLBHG4	4:12	19.5"	6.25"
MLBHG5	5:12	19.9375"	6.6875"
MLBHG6	6:12	20.4375"	7.1875"

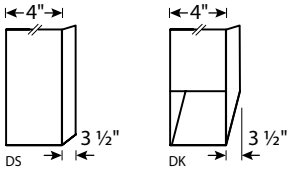
BOX EAVE



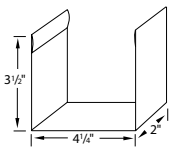
PART #	PITCH	GIRTH	DIM. "A"
MLBEG1	1:12	21.3125"	4.8125"
MLBEG2	2:12	21.8125"	5.3125"
MLBEG3	3:12	22.25	5.75
MLBEG4	4:12	22.75"	6.25"
MLBEG5	5:12	23.1875"	6.6875"
MLBEG6	6:12	23.6875"	7.1875"

DOWNSPOUTS

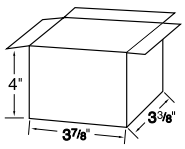
DOWNSPOUT- Length 16"
DS - straight
DK - with kickout



DOWNSPOUT STRAP
DSS

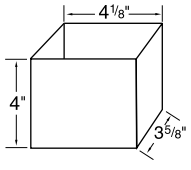


DOWNSPOUT OUTLET
DSOUTLET

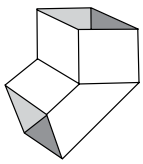


Specify pitch. 1/2" turndowns.

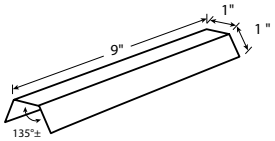
DOWNSPOUT CONNECTOR
DSLVE



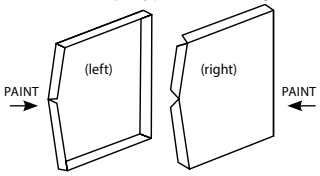
DOWNSPOUT ELBOW
DSE45
DSE90



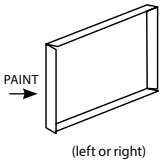
GUTTER STRAP
MLGS96



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



BOX GUTTER END CAP
BGEN - *Specify pitch.*



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

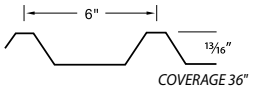
ACCESSORIES

FASTENERS

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

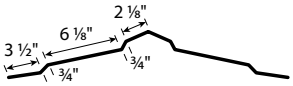
TYPE	PART #	LENGTH	DIAMETER	HEAD	COLOR	#BAG
METAL/METAL	**114(color)MM**	1 1/4"	#12	5/16" Hex	all	250
METAL/METAL	**2ZMM**	2"	#12	5/16" Hex	galvanized	250
METAL/METAL LAP	**78(color)LAP**	7/8"	#14	5/16" Hex	all	250
ZAC METAL/METAL	**114ZACMM**	1 1/4"	#12	5/16" Hex	galvanized	250
ZAC METAL/METAL LAP	**78ZACLAP**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

SKYLIGHTS *For best results, use approved sealant (MRS10SKY), Skylight Trim (MLSK) and washer (118WASHER). Skylights should be predrilled.*



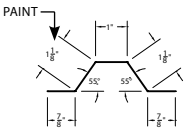
White Fiberglass
MLSKYW12 - Length 12'.

Skylight Sealant - Clear.
MRS10SKY - *10.3 oz. tube*
Approved for skylight use.



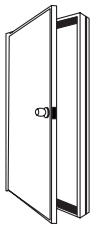
Skylight Ridge Cap - Universal
RCPCC10 - Clear Polycarbonate
RCPCW10 - White Polycarbonate
Length 10'6"". Width 25".

Skylight Washer - White.
118WASHER - *⅛" outside diameter, ¼" inside diameter*
100 per bag.



Skylight Trim
MLSK - Girth 5".

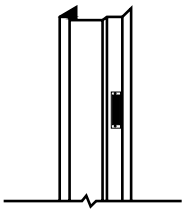
DOORS & FRAMING PACKAGE - Longer lead times may apply.



DOOR SET - *With steel jamb, knob sold separately.*
3068DR - 38" x 81 3/16"
4068DR - 50" x 81 3/16"

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

DOOR KNOB
KNOB

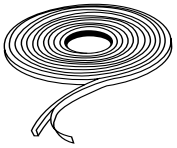


FRAMING PACKAGE - *White.*
4X3070JAMB - 4.25" x 3070
4X4070JAMB - 4.25" x 4070
6X3070JAMB - 6.25" x 3070
6X4070JAMB - 6.25" x 4070
8X3070JAMB - 8.25" x 3070
8X4070JAMB - 8.25" x 4070
8X6070JAMB - 8.25" x 6070

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

ACCESSORIES

BUTYL TAPE



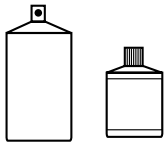
PART #	LENGTH	WIDTH	THICKNESS	ROLLS PER BOX
BTL	45'	3/4"	3/32"	24
Recommended for M-Loc.				
BTR	40'	7/8"	3/16"	10
BT3/8	45'	3/8"	3/32"	40

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

TOUCH UP PAINT

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

12PURSP - Purlin paint. 12 oz. spray.



SEALANT

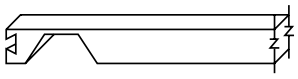
PART #	SIZE	COLOR
GEO(color)	10.3 oz. tube	clear, gray, white
MRS10(color)	10.3 oz. tube	call for colors
MRS10CLEAR	10.3 oz. tube	clear

CLOSURES

OUTSIDE CLOSURE

MLCLOUT - No Glue.

MLCLOUTGLUE - With Glue.

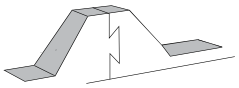


Length - 3'. 100 per box.

INSIDE CLOSURE

MLCLIN - No Glue.

MLCLINGLUE - With Glue.



Length - 3'. 100 per box.

CLOSURE VENT

MLCLV

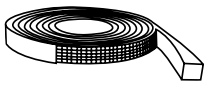
Closure is 1 1/8" tall and may require longer screws for installation. Item may vary from sample shown.

Length - 3'. 25 rolls per box.

GRAYFLEX

GRAYFLEX-6 - 24-rolls per box.

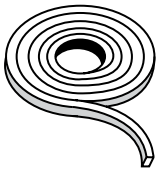
For use with hips and valleys.



Length 20'. Width 1". Thickness 1".

UNIVERSAL POLYFOAM

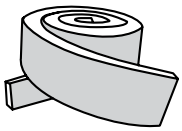
POLYG - With Glue. 10-rolls per box.



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

FLEXOVENT

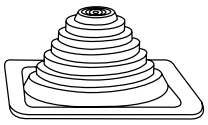
FLEXOVENT - (2) 10' rolls per box.



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"

MPF8 - Pipe size 6.75" to 13.5"

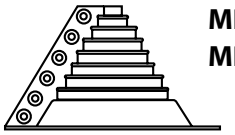
Silicone - Orange, high temp max 500°.

4SMPF - Pipe size 2.75" to 7"

6SMPF - Pipe size 4.75" to 10"

8SMPF - Pipe size 6.75" to 13.5"

Square with zipper - Max temperature 250°.



MPF1ZIP - Pipe size .5" - 4"

MPF2ZIP - Pipe size 4" - 9.25"

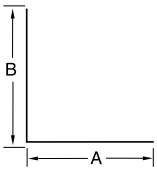
SECONDARY FRAMING

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.

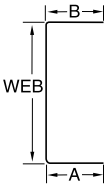
Central States has met the requirements to earn the accreditation for Cold-Formed Steel Structural and non-Structural Components Not Requiring Welding

For more information, go to www.iasonline.org.

ANGLE

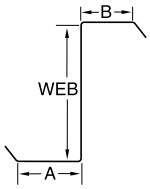


CHANNEL

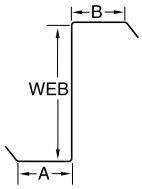


CEE

LGSI ZEE

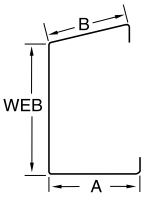


ZEE

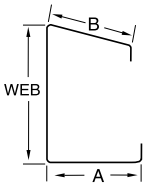


EAVE STRUTS

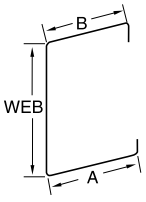
** Specify pitch and slope when ordering.*
For low pitch (up to 4:12) add a "L" to the end of the code. For high pitch (5:12 and above) add a "H" to the end of the code.



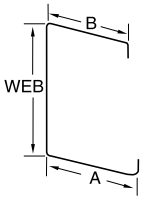
Single Slope Up



Single Slope Down

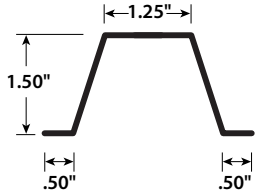


Double Slope Up



Double Slope Down

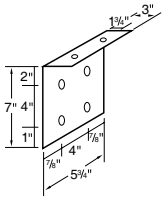
HAT CHANNEL



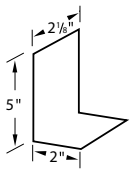
HAT20Z202 - 20'2" length, 20 gauge, galvanized.
HAT20Z - Specify length, 20 gauge, galvanized.
HAT16Z - Specify length, 16 gauge, galvanized.

PURLIN CLIPS

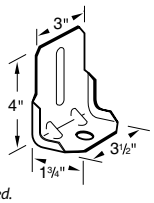
GIRT CLIP
GIRTCLIP - 10 gauge.
GIRTCLIPZ - 10 gauge.



MINI CLIP
MINICLIP- 16 gauge.



BASE CLIP
BASECLIP- 14 gauge.



Galvanized.

SECONDARY FRAMING

TYPE	A x B	GAUGE	ITEM CODE RED OXIDE	ITEM CODE GALVANIZED
Angle	2.5 x 2.5	14	B2514R	
Angle	3 x 3	16	B316R	B316Z
Angle	3 x 3	14	B314R	B314Z
Angle	4 x 2	16	B4216R	B4216Z
Angle	4 x 2	14	B4214R	B4214Z
Angle	4 x 3	16	B4316R	

TYPE	WEB x A x B	GAUGE	RED OXIDE	GALVANIZED
Channel	4.25 x 2.35 x 2.35	16	U4216R	U4216Z
Channel	4.25 x 2.85 x 2.85	16	U42516R	U42516Z
Channel	4.25 x 2.85 x 2.85	14	U42514R	U42514Z
Channel	4.25 x 2.85 x 2.85	12	U42512R	U42512Z
Channel	6.25 x 2.85 x 2.85	16	U62516R	U62516Z
Channel	6.25 x 2.85 x 2.85	14	U62514R	U62514Z
Channel	8.25 x 2.85 x 2.85	16	U82516R	U82516Z
Channel	8.25 x 2.85 x 2.85	14	U82514R	U82514Z
Channel	8.25 x 2.85 x 2.85	12	U82512R	U82512Z

TYPE	WEB x A x B	GAUGE	RED OXIDE	GALVANIZED
Eave Strut	6 x 4 x 3	16	E64316R*	E64316Z*
Eave Strut	6 x 4 x 3	14	E64314R*	E64314Z*
Eave Strut	6 x 4 x 3	12	E64312R*	E64312Z*
Eave Strut	8 x 4 x 3	14	E84314R*	E84314Z*
Eave Strut	8 x 4 x 3	12	E84312R*	E84312Z*
Eave Strut	8 x 5 x 3	14	E85314R*	E85314Z*
Eave Strut	8 x 5 x 3	12	E85312R*	E85312Z*
Eave Strut	8 x 5 x 5	14	E85514R*	
Eave Strut	10 x 5 x 3	14	E105314R*	

**For low pitch (up to 4:12) add a "L" to the end of the code.*
For high pitch (5:12 and above) add a "H" to the end of the code.

TYPE	WEB x A x B	GAUGE	RED OXIDE	GALVANIZED
CEE	4 x 2 x 2	16	C4216R	C4216Z
CEE	4 x 2.5 x 2.5	16	C42516R	C42516Z
CEE	4 x 2.5 x 2.5	14	C42514R	C42514Z
CEE	4 x 2.5 x 2.5	12	C42512R	C42512Z
CEE	4 x 3.5 x 3.5	16	C43516R	C43516Z
CEE	4 x 3.5 x 3.5	14	C43514R	C43514Z
CEE	6 x 2.5 x 2.5	16	C62516R	C62516Z
CEE	6 x 2.5 x 2.5	14	C62514R	C62514Z
CEE	8 x 2.5 x 2.5	16	C82516R	C82516Z
CEE	8 x 2.5 x 2.5	14	C82514R	C82514Z
CEE	8 x 2.5 x 2.5	12	C82512R	C82512Z
CEE	8 x 3.5 x 3.5	16	C83516R	C83516Z
CEE	8 x 3.5 x 3.5	14	C83514R	C83514Z
CEE	8 x 3.5 x 3.5	12	C83512R	C83512Z
CEE	9 x 3 x 3	14	C9314R	C9314Z
CEE	9 x 3 x 3	12	C9312R	C9312Z
CEE	10 x 2.5 x 2.5	16	C102516R	C102516Z
CEE	10 x 2.5 x 2.5	14	C102514R	C102514Z
CEE	10 x 2.5 x 2.5	12	C102512R	C102512Z
CEE	10 x 3.5 x 3.5	14	C103514R	C103514Z
CEE	10 x 3.5 x 3.5	12	C103512R	C103512Z
CEE	12 x 2.5 x 2.5	14	C122514R	C122514Z
CEE	12 x 2.5 x 2.5	12	C122512R	C122512Z
CEE	12 x 3.5 x 3.5	14	C123514R	C123514Z
CEE	12 x 3.5 x 3.5	12	C123512R	C123512Z
CEE	12 x 4 x 4	16	C12416R	C12416Z

TYPE	WEB x A x B	GAUGE	ITEM CODE RED OXIDE	ITEM CODE GALVANIZED
LGSI ZEE	6 x 2⅜ x 2⅛	16	Z62516R	Z62516Z
LGSI ZEE	6 x 2⅜ x 2⅛	14	Z62514R	Z62514Z
LGSI ZEE	8 x 2⅜ x 2⅛	16	Z82516R	Z82516Z
LGSI ZEE	8 x 2⅛ x 2⅛	14	Z82514R	Z82514Z
LGSI ZEE	8 x 2⅜ x 2⅛	12	Z82512R	Z82512Z
LGSI ZEE	8 x 3⅜ x 3⅛	16	Z83516R	Z83516Z
LGSI ZEE	8 x 3⅜ x 3⅛	14	Z83514R	Z83514Z
LGSI ZEE	8 x 3⅜ x 3⅛	12	Z83512R	Z83512Z
LGSI ZEE	10 x 2⅜ x 2⅛	16	Z102516R	Z102516Z
LGSI ZEE	10 x 2⅜ x 2⅛	14	Z102514R	Z102514Z
LGSI ZEE	10 x 2⅜ x 2⅛	12	Z102512R	Z102512Z
LGSI ZEE	10 x 2⅞ x 2⅝	14	Z10314R	Z10314Z
LGSI ZEE	10 x 2⅞ x 2⅝	12	Z10312R	
LGSI ZEE	12 x 2⅜ x 2⅛	14	Z122514R	Z122514Z
LGSI ZEE	12 x 2⅜ x 2⅛	12	Z122512R	Z122512Z
LGSI ZEE	12 x 3⅜ x 3⅛	14	Z123514R	Z123514Z
LGSI ZEE	12 x 3⅜ x 3⅛	12	Z123512R	Z123512Z
LGSI ZEE	12 x 3⅜ x 3⅝	16	Z12416R	Z12416Z

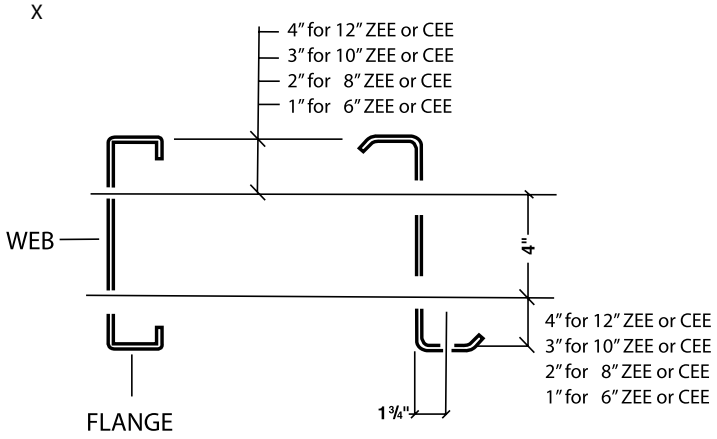
TYPE	WEB x A x B	GAUGE	RED OXIDE	GALVANIZED
ZEE	4 x 2 x 2	16	Z4216R	Z4216Z
ZEE	4 x 2.5 x 2.5	16	Z42516R	Z42516Z
ZEE	4 x 2.5 x 2.5	14	Z42514R	Z42514Z
ZEE	4 x 2.5 x 2.5	12	Z42512R	Z42512Z
ZEE	4 x 3.5 x 3.5	16	Z43516R	Z43516Z
ZEE	4 x 3.5 x 3.5	14	Z43514R	Z43514Z
ZEE	6 x 2.5 x 2.5	16	Z62516R	Z62516Z
ZEE	6 x 2.5 x 2.5	14	Z62514R	Z62514Z
ZEE	8 x 2.5 x 2.5	16	Z82516R	Z82516Z
ZEE	8 x 2.5 x 2.5	14	Z82514R	Z82514Z
ZEE	8 x 2.5 x 2.5	12	Z82512R	Z82512Z
ZEE	8 x 3.5 x 3.5	16	Z83516R	Z83516Z
ZEE	8 x 3.5 x 3.5	14	Z83514R	Z83514Z
ZEE	8 x 3.5 x 3.5	12	Z83512R	Z83512Z
ZEE	9 x 3 x 3	14	Z9314R	Z9314Z
ZEE	9 x 3 x 3	12	Z9312R	Z9312Z
ZEE	10 x 2.5 x 2.5	16	Z102516R	Z102516Z
ZEE	10 x 2.5 x 2.5	14	Z102514R	Z102514Z
ZEE	10 x 2.5 x 2.5	12	Z102512R	Z102512Z
ZEE	10 x 3.5 x 3.5	14	Z103514R	Z103514Z
ZEE	10 x 3.5 x 3.5	12	Z103512R	Z103512Z
ZEE	12 x 2.5 x 2.5	14	Z122514R	Z122514Z
ZEE	12 x 2.5 x 2.5	12	Z122512R	Z122512Z
ZEE	12 x 3.5 x 3.5	14	Z123514R	Z123514Z
ZEE	12 x 3.5 x 3.5	12	Z123512R	Z123512Z
ZEE	12 x 4 x 4	16	Z12416R	Z12416Z

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.

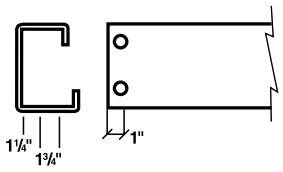
Standard hole sizes:

LOCATION	5/16" ROUND	5/8" ROUND	5/8" X 3/4" SLOT
Lowell	X	X	X
Jasper	X		X
Cedar Hill		X	X
Seguin		X	X
Claysburg		X	X

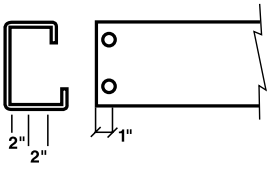


FLANGE PATTERNS - Punches can be placed on either or both ends.

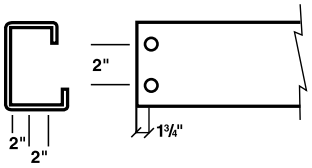
EAVE STRUT FOR 4" LEG
ES4



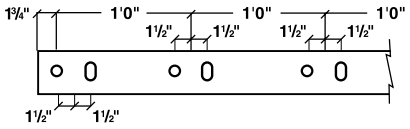
EAVE STRUT FOR 5" LEG
ES5



EAVE STRUT FOR 5" LEG
ES134

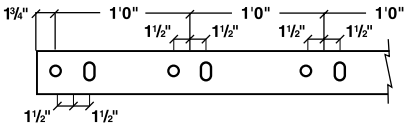


PATTERN D - OPTIONAL FLANGE
PPD



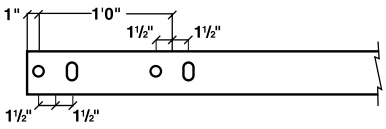
Use with web pattern A.

PATTERN E - OPTIONAL FLANGE
PPE



Use with web pattern B.

PATTERN F - OPTIONAL FLANGE
PPF



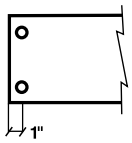
Use with web pattern C.

STANDARD PUNCH PATTERNS

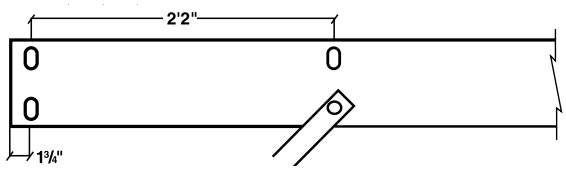
WEB PATTERNS - Punches can be placed on either or both ends.

END PUNCH
PPEP

PATTERN H STANDARD WEB END
PPH

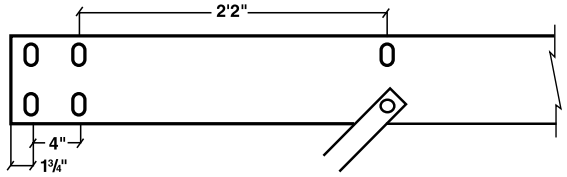


SIMPLE SPAN PUNCH
PPSS



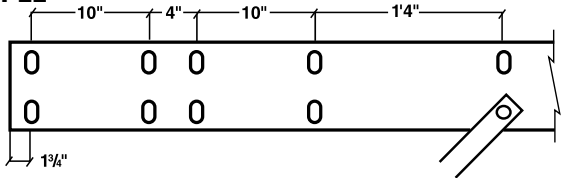
Minimum part length 5' total, 2'6" one end.

SHORT LAP PUNCH
PPSL



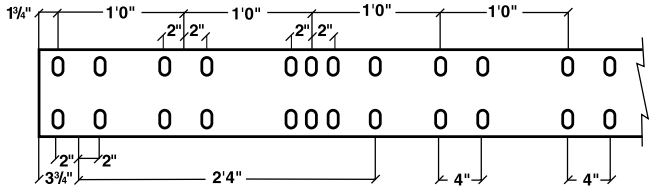
Minimum part length 5'6" total, 2'8" one end.

LONG LAP PUNCH
PPLL

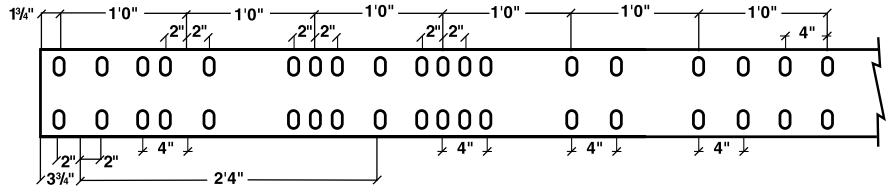


Minimum part length 7' total, 3'6" one end.

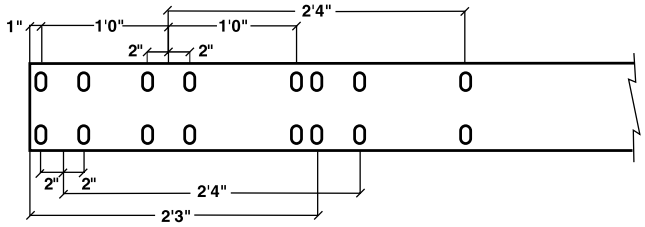
PATTERN A - STANDARD WEB - 9' Minimum length if punched on both ends; 4'6" if punched on one end.
PPA



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



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



NOTES

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