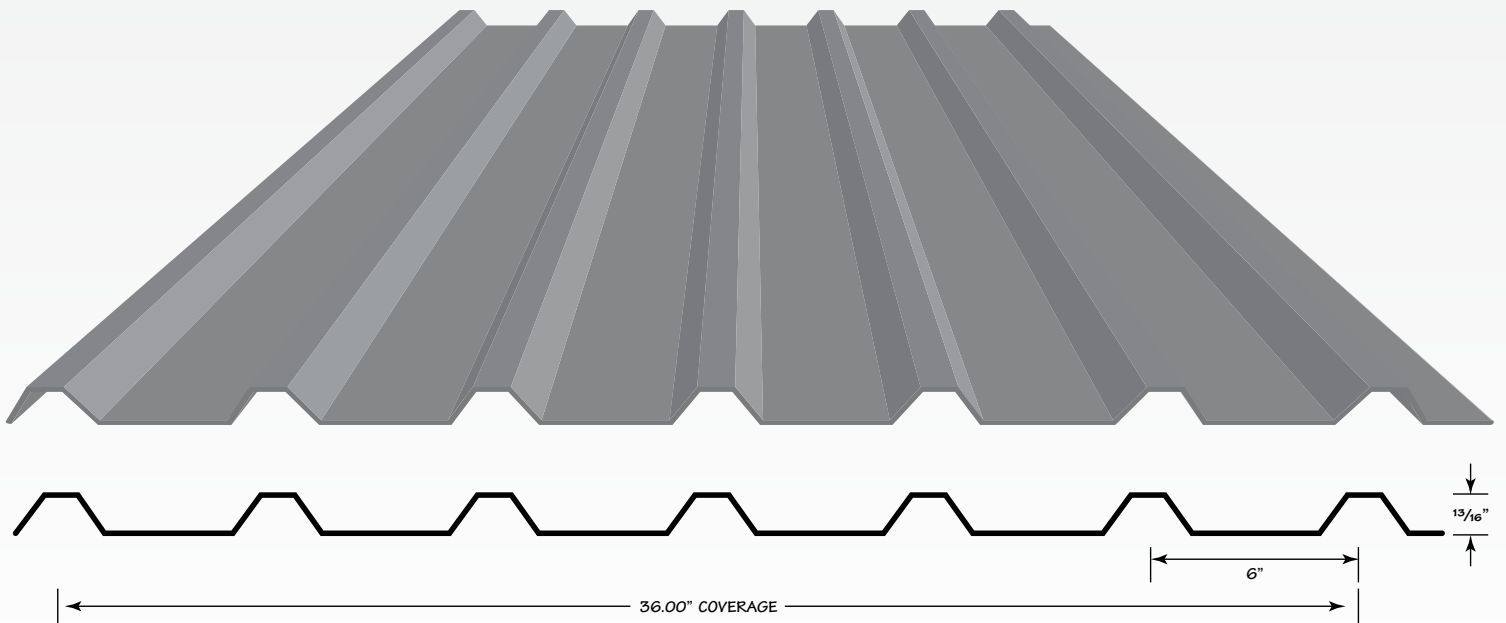


M-LOC™

Product Guide

HELPFUL INFORMATION ON PANELS, TRIMS, GUTTERS AND ACCESSORIES



OUR MISSION

The men and women at Central States Manufacturing, Inc. would like to welcome you.

Central States Manufacturing, Inc. is an employee-owned company that is **committed to excellence** in the manufacturing and the distribution of metal building products. We are **dedicated to personal growth** and to the well being of each team member. We are also dedicated to **increasing the value** of our company.

In appreciation of our customers, we are devoted to **exceeding their expectations**. It is our promise to **maintain total honesty and integrity** with everyone our lives may touch.

With thanksgiving for the blessings we have been given, we are **committed to serving** the communities where we live and work by giving back a portion of our time, talents and profits.



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*Information in the 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.

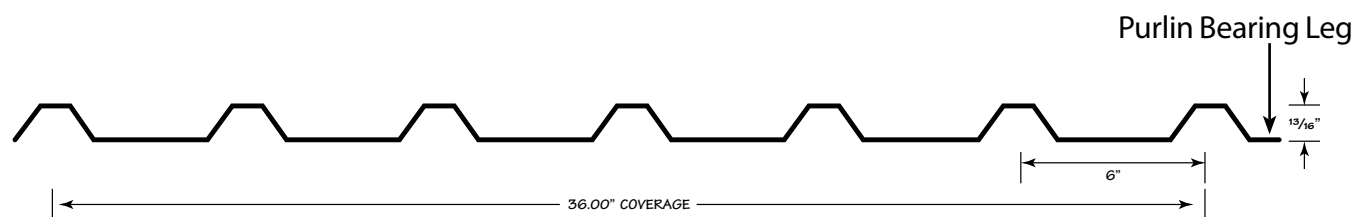
Information contained in this booklet was in effect at the time of publication and is subject to change without notice.

M-LOC™ PRODUCT INFORMATION

M-Loc™ is available in 26ga painted and bare galvalume. Central States uses the CentralGuard® paint system on all Prime painted metals. The paint has a 40 year limited warranty, and Galvalume® substrate has a 20 year limited warranty. Bare (non-painted) metals from Central States will have an acrylic coating. This acrylic coating helps protect the metal during manufacturing and installation. This clear organic treatment applied over the Galvalume® coating is invisible, but provides enhanced performance applicability and retained heat reflectivity. There is no need for oils to be applied during forming. This organic treatment also eliminates fingerprinting and foot marking during installation. Fluropon® paint system also available.

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

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.



Galvalume® is a registered trademark of BIEC International, Inc.

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 either equipment or at least 3 people to unload truck.

CARE AND HANDLING

STAGE

Galvalume steel sheets 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 steel sheets are subject to stain when water sits upon, or becomes trapped between the sheets. If the galvalume sheets 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.

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 jobsite, 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.

CARE AND HANDLING

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.

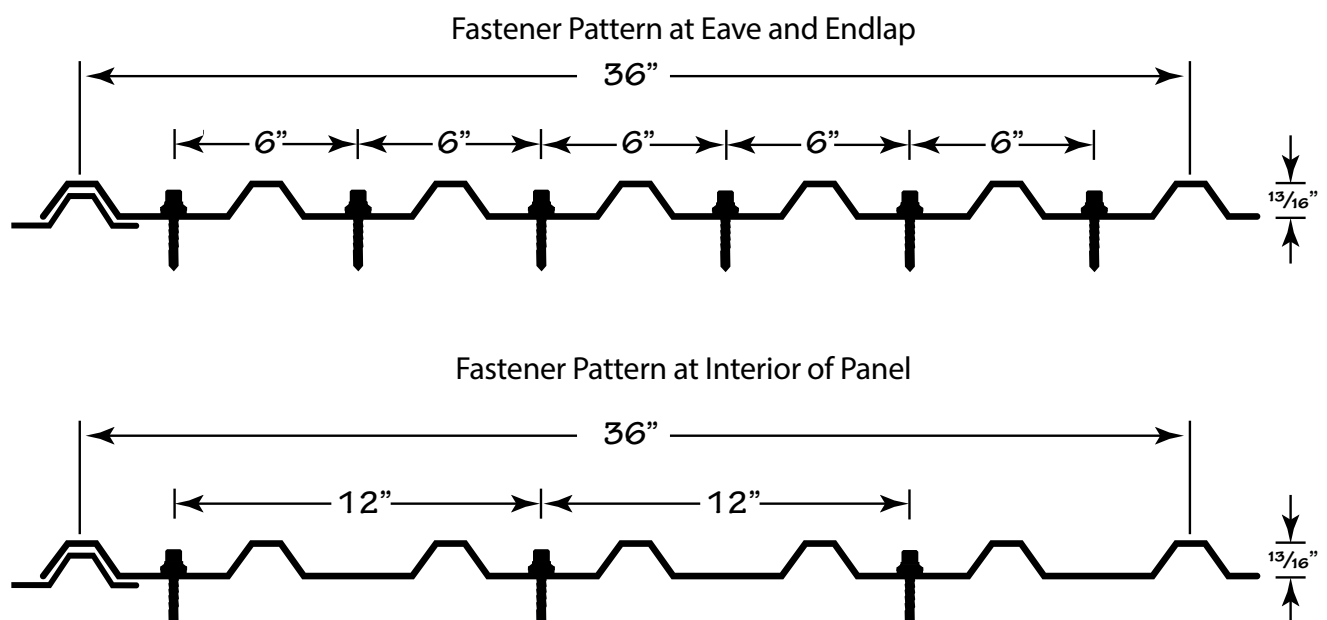
DRILLING

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

INSTALLATION

Follow instructions for UL580 Class 90.

FASTENER SPACING



CONVERSION CHARTS

DECIMAL EQUIVALENTS

1/64	0.0156	17/64	0.2656	33/64	0.5156	49/64	0.7656
1/32	0.0313	9/32	0.2813	17/32	0.5313	25/32	0.7813
3/64	0.0469	19/64	0.2969	35/64	0.5469	51/64	0.7969
1/16	0.0625	5/16	0.3125	9/16	0.5625	13/16	0.8125
5/64	0.0781	21/64	0.3281	37/64	0.5781	53/64	0.8281
3/32	0.0938	11/32	0.3438	19/32	0.5938	27/32	0.8438
7/64	0.1094	23/64	0.3594	39/64	0.6094	55/64	0.8594
1/8	0.1250	3/8	0.3750	5/8	0.6250	7/8	0.8750
9/64	0.1406	25/64	0.3906	41/64	0.6406	57/64	0.8906
5/32	0.1563	13/32	0.4063	21/32	0.6563	29/32	0.9063
11/64	0.1719	27/64	0.4219	43/64	0.6719	59/64	0.9219
3/16	0.1875	7/16	0.4375	11/16	0.6875	15/16	0.9375
13/64	0.2031	29/64	0.4531	45/64	0.7031	61/64	0.9531
7/32	0.2188	15/32	0.4688	23/32	0.7188	31/32	0.9688
15/64	0.2344	31/64	0.4844	47/64	0.7344	63/64	0.9844
1/4	0.2500	1/2	0.5000	3/4	0.7500	1	1.0000

SINGLE SLOPE PITCHES ONLY (FASCIA, EAVE, ENDWALL, GUTTER)

1:12 PITCH	=	94.76 DEGREES
2:12 PITCH	=	99.46 DEGREES
3:12 PITCH	=	104.04 DEGREES
4:12 PITCH	=	108.44 DEGREES
5:12 PITCH	=	112.62 DEGREES
6:12 PITCH	=	116.57 DEGREES
7:12 PITCH	=	120.26 DEGREES
8:12 PITCH	=	123.69 DEGREES
9:12 PITCH	=	126.87 DEGREES
10:12 PITCH	=	129.81 DEGREES
11:12 PITCH	=	132.51 DEGREES
12:12 PITCH	=	135.00 DEGREES

DOUBLE SLOPE PITCHES ONLY (HIP, VALLEY)

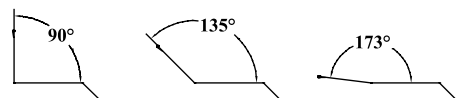
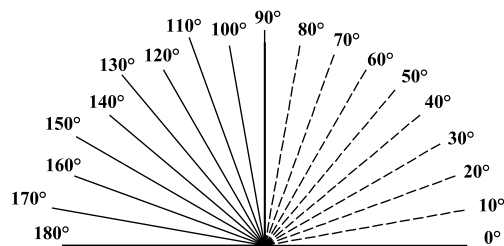
1:12 PITCH	=	173.00 DEGREES
2:12 PITCH	=	167.00 DEGREES
3:12 PITCH	=	160.00 DEGREES
4:12 PITCH	=	154.00 DEGREES
5:12 PITCH	=	148.00 DEGREES
6:12 PITCH	=	143.00 DEGREES
7:12 PITCH	=	138.00 DEGREES
8:12 PITCH	=	134.00 DEGREES
9:12 PITCH	=	130.00 DEGREES
10:12 PITCH	=	126.00 DEGREES
11:12 PITCH	=	123.00 DEGREES
12:12 PITCH	=	120.00 DEGREES

(RIDGECAP)

1:12 PITCH	=	170.00 DEGREES
2:12 PITCH	=	161.00 DEGREES
3:12 PITCH	=	152.00 DEGREES
4:12 PITCH	=	143.00 DEGREES
5:12 PITCH	=	135.00 DEGREES
6:12 PITCH	=	127.00 DEGREES
7:12 PITCH	=	120.00 DEGREES
8:12 PITCH	=	113.00 DEGREES
9:12 PITCH	=	106.00 DEGREES
10:12 PITCH	=	100.00 DEGREES
11:12 PITCH	=	95.00 DEGREES
12:12 PITCH	=	90.00 DEGREES

Effective date July 28, 2005
Subject to change without notice

Degrees of bend Transition Trims



Specify Degrees when ordering

SQUARE CONVERSIONS

For 26ga 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 $\frac{38.5" \times 144" \times 12}{14,400}$ equals 4.62 squares of metal
Panel width = 38.5"
Panel length = 144"
Square inches = 14,400

EXAMPLE 2:

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

Number of panels = 12 $\frac{12 \times 12}{31.169}$ equals 4.62 squares of metal
Panel width = 38.5"
Panel length = 12'
Square inches = 14,400

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"

SECTION PROPERTIES

36" WIDE, CSMI 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

Span (feet)	26 Gauge & 80 ksi			
	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

Span (feet)	26 Gauge & 80 ksi			
	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

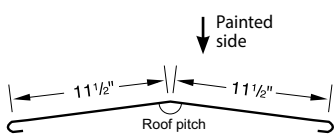
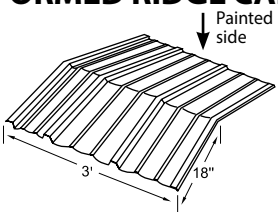
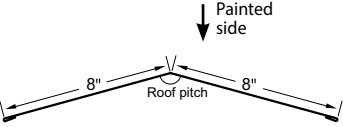
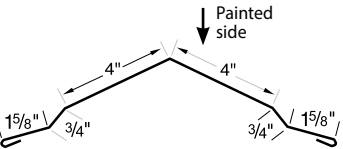
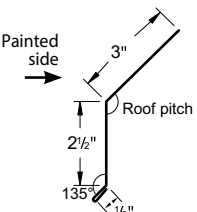
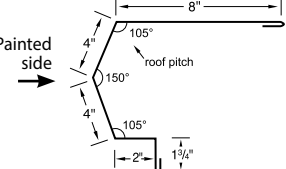
THREE OR MORE SPAN CONDITION

Span (feet)	26 Gauge & 80 ksi			
	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%.

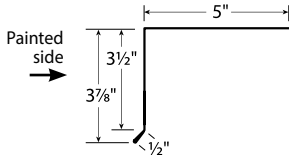
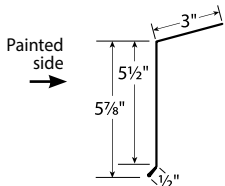
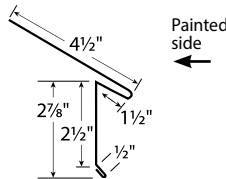
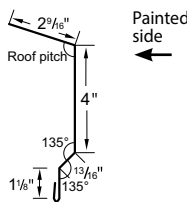
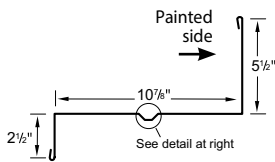
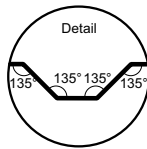
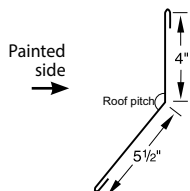
M-LOC™ TRIMS

Orders for trims other than 10'2" in length must be in 9:00 am the day of your cutoff.
All angles are 90° or 45° unless otherwise noted. All trims are 26 gauge unless otherwise specified.

	PART #	LENGTH	GIRTH	NOTES
UNIVERSAL RIDGE CAP 	UN102(color)	10'2"	24"	specify pitch
	UN122(color)	12'2"	24"	additional pallet charge will apply
	UN142(color)	14'2"	24"	
	UN162(color)	16'2"	24"	
	UN182(color)	18'2"	24"	
	UN204(color)	20'4"	24"	
FORMED RIDGE CAP 	MFRCP(color)	3'0"		specify pitch up to 5:12
RESIDENTIAL RIDGE CAP 	MRRC(color)102	10'2"	17"	specify pitch
	MRRC(color)122	12'2"	17"	
	MRRC(color)142	14'2"	17"	
	MRRC(color)162	16'2"	17"	
	MRRC(color)182	18'2"	17"	
	MRRC(color)204	20'4"	17"	
M-RIDGECAP 	MRCP(color)102	10'2"	13.75"	
	MRCP(color)122	12'2"	13.75"	
	MRCP(color)142	14'2"	13.75"	
	MRCP(color)162	16'2"	13.75"	
	MRCP(color)182	18'2"	13.75"	
	MRCP(color)204	20'4"	13.75"	
RESIDENTIAL EAVE 	MRET(color)102	10'2"	6.5"	specify pitch
	MRET(color)122	12'2"	6.5"	
	MRET(color)142	14'2"	6.5"	
	MRET(color)162	16'2"	6.5"	
	MRET(color)182	18'2"	6.5"	
	MRET(color)204	20'4"	6.5"	
HI-SIDE EAVE TRIM 	HI102(color)	10'2"	20.75"	specify pitch
	HI122(color)	12'2"	20.75"	
	HI142(color)	14'2"	20.75"	
	HI162(color)	16'2"	20.75"	
	HI182(color)	18'2"	20.75"	
	HI204(color)	20'4"	20.75"	

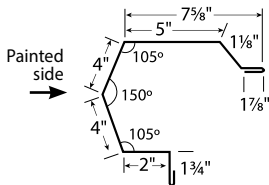
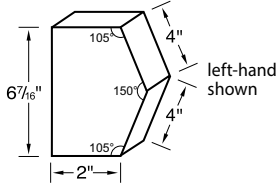
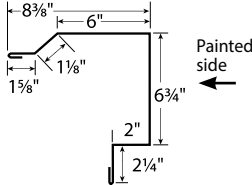

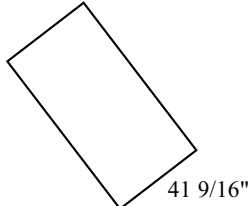
M-LOC™ TRIMS

Orders for trims other than 10'2" in length must be in 9:00 am the day of your cutoff.
All angles are 90° or 45° unless otherwise noted. All trims are 26 gauge unless otherwise specified.

	PART #	LENGTH	GIRTH	NOTES
SHORT EAVE TRIM 	SEA102(color)	10'2"	9.5"	specify pitch
	SEA122(color)	12'2"	9.5"	
	SEA142(color)	14'2"	9.5"	
	SEA162(color)	16'2"	9.5"	
	SEA182(color)	18'2"	9.5"	
	SEA204(color)	20'4"	9.5"	
LONG EAVE TRIM 	LEA102(color)	10'2"	9.5"	specify pitch
	LEA122(color)	12'2"	9.5"	
	LEA142(color)	14'2"	9.5"	
	LEA162(color)	16'2"	9.5"	
	LEA182(color)	18'2"	9.5"	
	LEA204(color)	20'4"	9.5"	
DRIP EDGE 	MRDC(color)102	10'2"	9.5"	specify pitch
	MRDC(color)122	12'2"	9.5"	
	MRDC(color)142	14'2"	9.5"	
	MRDC(color)162	16'2"	9.5"	
	MRDC(color)182	18'2"	9.5"	
	MRDC(color)204	20'4"	9.5"	
FASCIA 	MFT(color)102	10'2"	9"	specify pitch 4:12 standard
	MFT(color)122	12'2"	9"	
	MFT(color)142	14'2"	9"	
	MFT(color)162	16'2"	9"	
	MFT(color)182	18'2"	9"	
	MFT(color)204	20'4"	9"	
GABLE BASE SOFFIT 	MGB1(color)102	10'2"	20.25"	
	MGB1(color)122	12'2"	20.25"	
	MGB1(color)142	14'2"	20.25"	
	MGB1(color)162	16'2"	20.25"	
	MGB1(color)182	18'2"	20.25"	
	MGB1(color)204	20'4"	20.25"	
HIGH SIDE PARAPET TRIM 	HSP102(color)	10'2"	10.5"	specify pitch
	HSP122(color)	12'2"	10.5"	
	HSP142(color)	14'2"	10.5"	
	HSP162(color)	16'2"	10.5"	
	HSP182(color)	18'2"	10.5"	
	HSP204(color)	20'4"	10.5"	

M-LOC™ TRIMS

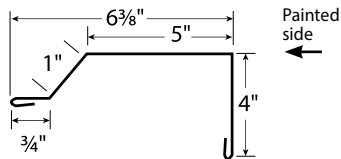
Orders for trims other than 10'2" in length must be in 9:00 am the day of your cutoff.
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	PART #	LENGTH	GIRTH	NOTES
M-RAKE TRIM 	MRA102(color)	10'2"	20.75"	use MPBOXF below for correct peak box
	MRA122(color)	12'2"	20.75"	
	MRA142(color)	14'2"	20.75"	
	MRA162(color)	16'2"	20.75"	
	MRA182(color)	18'2"	20.75"	
	MRA204(color)	20'4"	20.75"	
RAKE TRIM END CAP 	MREND(color)			
M-BOX RAKE TRIM 	MBRT102(color)	10'2"	20.75"	use MPBBF below for correct peak box
	MBRT122(color)	12'2"	20.75"	
	MBRT142(color)	14'2"	20.75"	
	MBRT162(color)	16'2"	20.75"	
	MBRT182(color)	18'2"	20.75"	
	MBRT204(color)	20'4"	20.75"	
PEAK BOX 	MPBOXF(color)	3"		for Rake Trim
	MPBBF(color)	3'		for Box Rake Trim
				specify pitch
FLAT SHEETS 	FS102(color)	10'2"		additional pallet charge will apply
	FS122(color)	12'2"		
	FS142(color)	14'2"		
	FS162(color)	16'2"		
	FS182(color)	18'2"		
	FS204(color)	20'4"		

M-LOC™ TRIMS

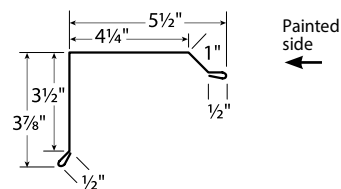
Orders for trims other than 10'2" in length must be in 9:00 am the day of your cutoff.
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HOUSE RAKE TRIM LOW RIB



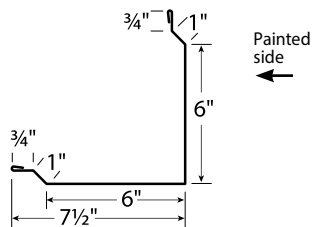
PART #	LENGTH	GIRTH	NOTES
HRAP102(color)	10'2"	11.75"	
HRAP122(color)	12'2"	11.75"	
HRAP142(color)	14'2"	11.75"	
HRAP162(color)	16'2"	11.75"	
HRAP182(color)	18'2"	11.75"	
HRAP204(color)	20'4"	11.75"	

RESIDENTIAL RAKE



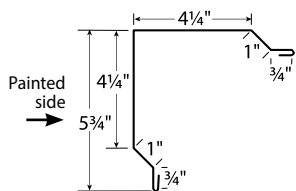
MRRT(color)102	10'2"	10.75"
MRRT(color)122	12'2"	10.75"
MRRT(color)142	14'2"	10.75"
MRRT(color)162	16'2"	10.75"
MRRT(color)182	18'2"	10.75"
MRRT(color)204	20'4"	10.75"

GABLE



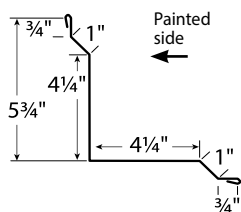
MGT6(color)102	10'2"	16.5"
MGT6(color)122	12'2"	16.5"
MGT6(color)142	14'2"	16.5"
MGT6(color)162	16'2"	16.5"
MGT6(color)182	18'2"	16.5"
MGT6(color)204	20'4"	16.5"

RAKE & CORNER



MCOR(color)102	10'2"	13"
MCOR(color)122	12'2"	13"
MCOR(color)142	14'2"	13"
MCOR(color)162	16'2"	13"
MCOR(color)182	18'2"	13"
MCOR(color)204	20'4"	13"

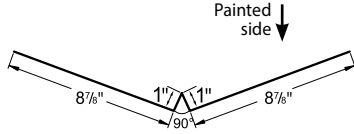
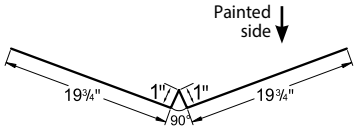
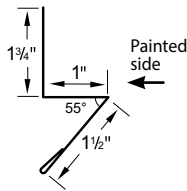
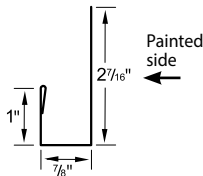
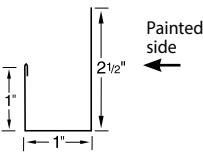
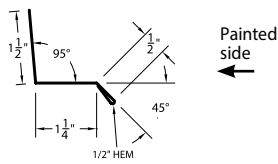
INSIDE CORNER



MIC1(color)102	10'2"	13"
MIC1(color)122	12'2"	13"
MIC1(color)142	14'2"	13"
MIC1(color)162	16'2"	13"
MIC1(color)182	18'2"	13"
MIC1(color)204	20'4"	13"

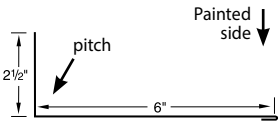
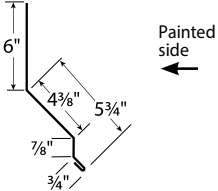
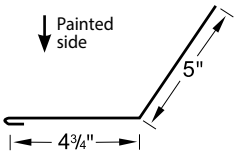
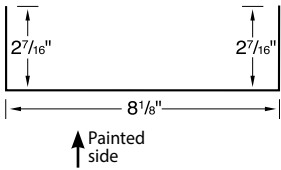
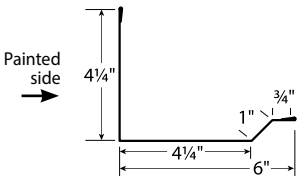
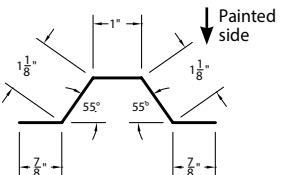
M-LOC™ TRIMS

Orders for trims other than 10'2" in length must be in 9:00 am the day of your cutoff.
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	PART #	LENGTH	GIRTH	NOTES
VALLEY TRIM 	MVT1(color)102	10'2"	19.75"	intended for valley lengths less than 30'
	MVT1(color)122	12'2"	19.75"	
	MVT1(color)142	14'2"	19.75"	specify pitch
	MVT1(color)162	16'2"	19.75"	
	MVT1(color)182	18'2"	19.75"	
	MVT1(color)204	20'4"	19.75"	
EXTENDED VALLEY 	MEVT1(color)102	10'2"	41.5"	intended for valley lengths of 30' or more
	MEVT1(color)122	12'2"	41.5"	
	MEVT1(color)142	14'2"	41.5"	specify pitch
	MEVT1(color)162	16'2"	41.5"	
	MEVT1(color)182	18'2"	41.5"	additional pallet charge will apply
	MEVT1(color)204	20'4"	41.5"	
RAT GUARD 	MRG(color)102	10'2"	4.75"	
	MRG(color)122	12'2"	4.75"	
	MRG(color)142	14'2"	4.75"	
	MRG(color)162	16'2"	4.75"	
	MRG(color)182	18'2"	4.75"	
	MRG(color)204	20'4"	4.75"	
J-TRIM 	MJT(color)102	10'2"	4.81"	
	MJT(color)122	12'2"	4.81"	
	MJT(color)142	14'2"	4.81"	
	MJT(color)162	16'2"	4.81"	
	MJT(color)182	18'2"	4.81"	
	MJT(color)204	20'4"	4.81"	
M-HEAD TRIM 	MHE036(color)	3'6"	5"	MHE123(color) 12'3" 5"
	MHE063(color)	6'3"	5"	MHE143(color) 14'3" 5"
	MHE073(color)	7'3"	5"	MHE163(color) 16'3" 5"
	MHE083(color)	8'3"	5"	MHE183(color) 18'3" 5"
	MHE102(color)	10'2"	5"	MHE204(color) 20'4" 5"
	MHE103(color)	10'3"	5"	
DRIP CAP 	MWC(color)102	10'2"	3.75"	
	MWC(color)122	12'2"	3.75"	
	MWC(color)142	14'2"	3.75"	
	MWC(color)162	16'2"	3.75"	
	MWC(color)182	18'2"	3.75"	
	MWC(color)204	20'4"	3.75"	

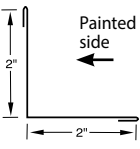
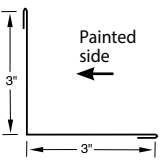
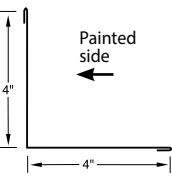
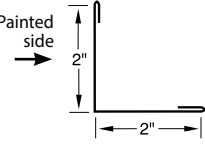
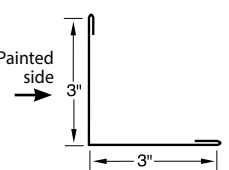
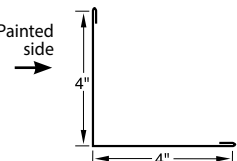
M-LOC™ TRIMS

Orders for trims other than 10'2" in length must be in 9:00 am the day of your cutoff.
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	PART #	LENGTH	GIRTH	NOTES
SEAWALL TRIM 	SI102(color)	10'2"	9"	specify pitch
	SI122(color)	12'2"	9"	
	SI142(color)	14'2"	9"	
	SI162(color)	16'2"	9"	
	SI182(color)	18'2"	9"	
	SI204(color)	20'4"	9"	
UNIVERSAL ENDWALL 	MEF(color)102	10'2"	12.5"	specify pitch 4:12 standard
	MEF(color)122	12'2"	12.5"	
	MEF(color)142	14'2"	12.5"	
	MEF(color)162	16'2"	12.5"	
	MEF(color)182	18'2"	12.5"	
	MEF(color)204	20'4"	12.5"	
GAMBREL TRIM - LOWER 	MGTL(color)102	10'2"	10.25"	specify pitch
	MGTL(color)122	12'2"	10.25"	
	MGTL(color)142	14'2"	10.25"	
	MGTL(color)162	16'2"	10.25"	
	MGTL(color)182	18'2"	10.25"	
	MGTL(color)204	20'4"	10.25"	
JAMB HEADER 	JH102(color)	10'2"	13"	
	JH122(color)	12'2"	13"	
	JH142(color)	14'2"	13"	
	JH162(color)	16'2"	13"	
	JH182(color)	18'2"	13"	
	JH204(color)	20'4"	13"	
DOOR EDGE 	MDJ10(color)102	10'2"	11.25"	
	MDJ10(color)122	12'2"	11.25"	
	MDJ10(color)142	14'2"	11.25"	
	MDJ10(color)162	16'2"	11.25"	
	MDJ10(color)182	18'2"	11.25"	
	MDJ10(color)204	20'4"	11.25"	
SKYLIGHT TRIM 	MSK (color)102	10'2"	5"	
	MSK (color)122	12'2"	5"	
	MSK (color)142	14'2"	5"	
	MSK (color)162	16'2"	5"	
	MSK (color)182	18'2"	5"	
	MSK (color)204	20'4"	5"	

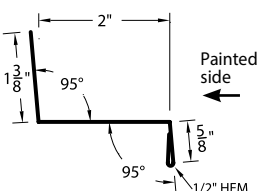
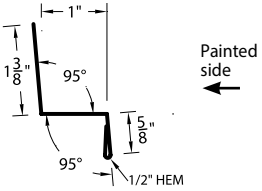
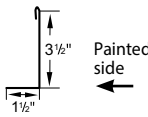
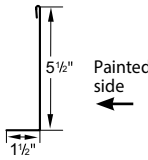
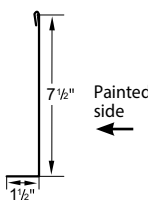
M-LOC™ TRIMS

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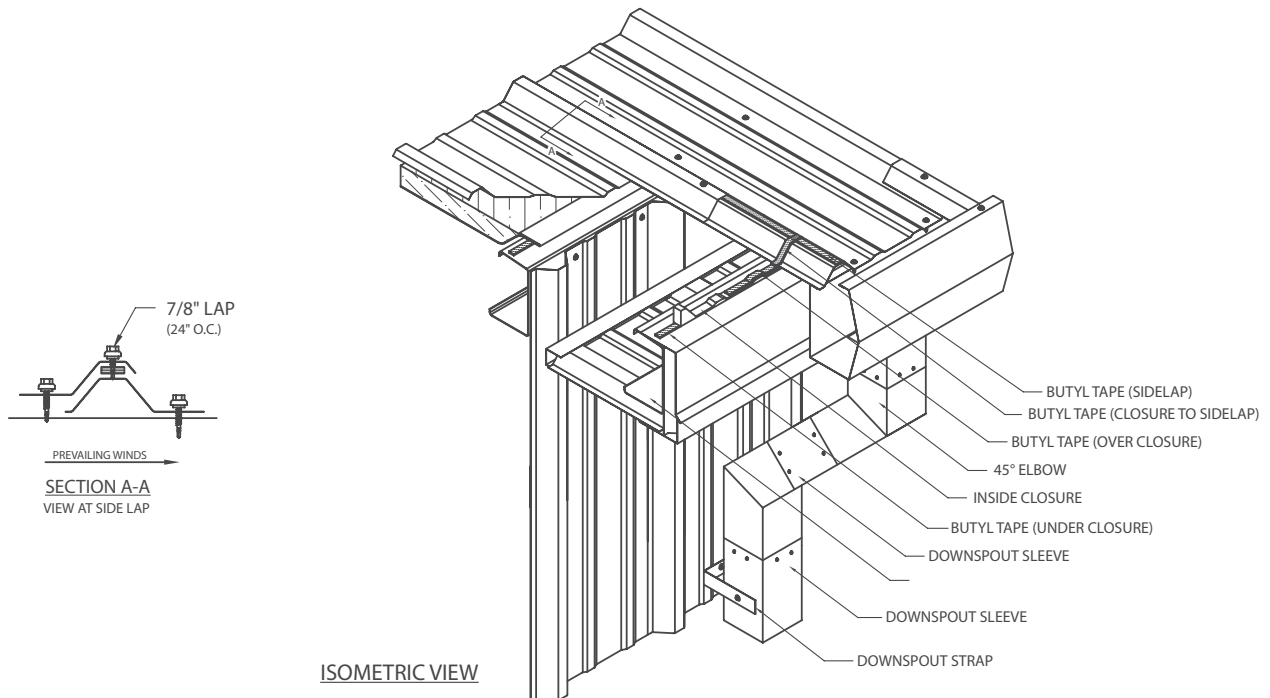
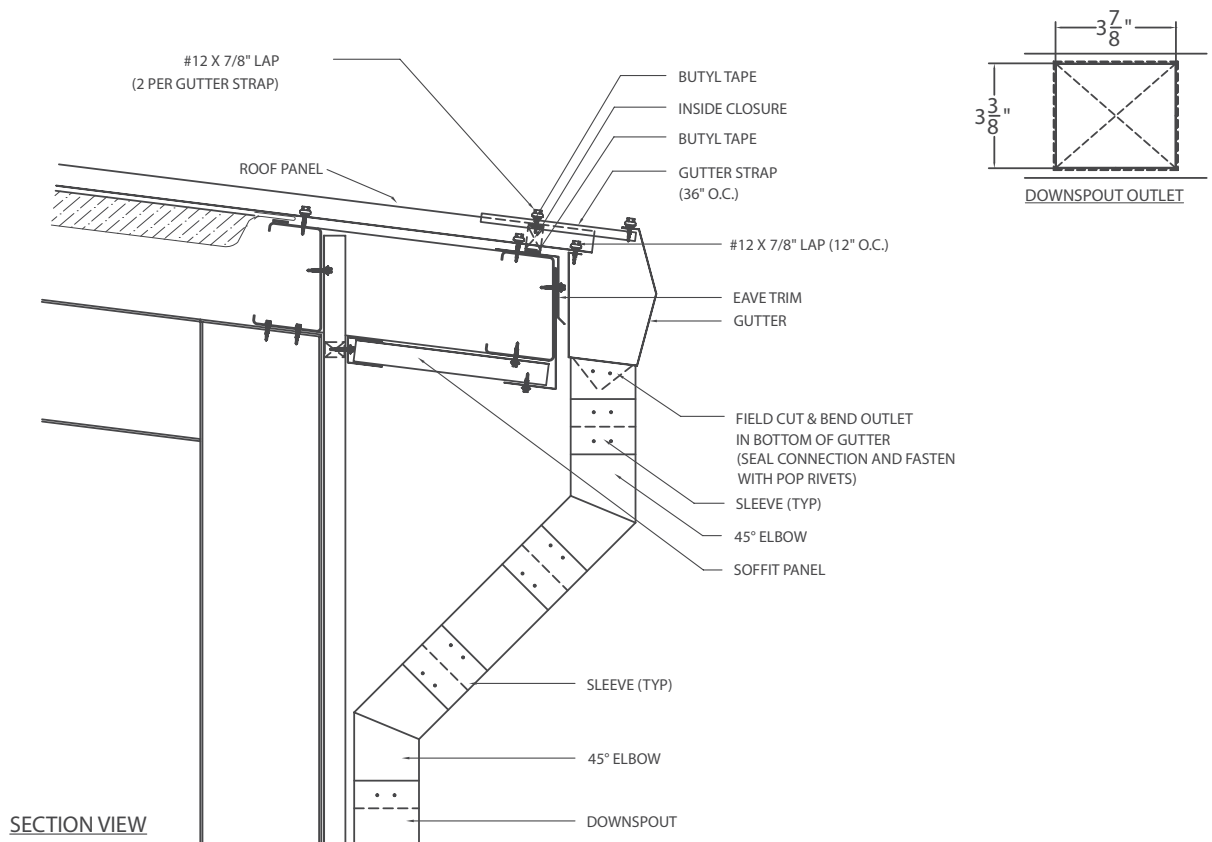
	PART #	LENGTH	GIRTH	NOTES
INSIDE ANGLE 2X2 	IA2102(color)	10'2"	5"	
	IA2122(color)	12'2"	5"	
	IA2142(color)	14'2"	5"	
	IA2162(color)	16'2"	5"	
	IA2182(color)	18'2"	5"	
	IA2204(color)	20'4"	5"	
INSIDE ANGLE 3X3 	IA3102(color)	10'2"	7"	
	IA3122(color)	12'2"	7"	
	IA3142(color)	14'2"	7"	
	IA3162(color)	16'2"	7"	
	IA3182(color)	18'2"	7"	
	IA3204(color)	20'4"	7"	
INSIDE ANGLE 4X4 	IA4102(color)	10'2"	9"	
	IA4122(color)	12'2"	9"	
	IA4142(color)	14'2"	9"	
	IA4162(color)	16'2"	9"	
	IA4182(color)	18'2"	9"	
	IA4204(color)	20'4"	9"	
OUTSIDE ANGLE 2X2 	OA2102(color)	10'2"	5"	
	OA2122(color)	12'2"	5"	
	OA2142(color)	14'2"	5"	
	OA2162(color)	16'2"	5"	
	OA2182(color)	18'2"	5"	
	OA2204(color)	20'4"	5"	
OUTSIDE ANGLE 3X3 	OA3102(color)	10'2"	7"	
	OA3122(color)	12'2"	7"	
	OA3142(color)	14'2"	7"	
	OA3162(color)	16'2"	7"	
	OA3182(color)	18'2"	7"	
	OA3204(color)	20'4"	7"	
OUTSIDE ANGLE 4X4 	OA4102(color)	10'2"	9"	
	OA4122(color)	12'2"	9"	
	OA4142(color)	14'2"	9"	
	OA4162(color)	16'2"	9"	
	OA4182(color)	18'2"	9"	
	OA4204(color)	20'4"	9"	

M-LOC™ TRIMS

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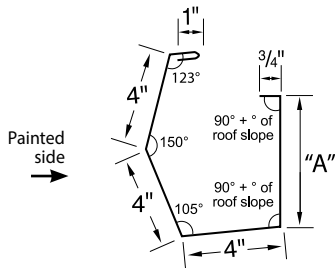
	PART #	LENGTH	GIRTH	NOTES
WIDE DOUBLE ANGLE 	MDA1(color)102	10'2"	4.5"	
	MDA1(color)122	12'2"	4.5"	
	MDA1(color)142	14'2"	4.5"	
	MDA1(color)162	16'2"	4.5"	
	MDA1(color)182	18'2"	4.5"	
	MDA1(color)204	20'4"	4.5"	
DOUBLE ANGLE 	MDAT(color)102	10'2"	3.5"	
	MDAT(color)122	12'2"	3.5"	
	MDAT(color)142	14'2"	3.5"	
	MDAT(color)162	16'2"	3.5"	
	MDAT(color)182	18'2"	3.5"	
	MDAT(color)204	20'4"	3.5"	
1.5 X 3.5 SINGLE ANGLE 	MSA312(color)102	10'2"	5.5"	
	MSA312(color)122	12'2"	5.5"	
	MSA312(color)142	14'2"	5.5"	
	MSA312(color)162	16'2"	5.5"	
	MSA312(color)182	18'2"	5.5"	
	MSA312(color)204	20'4"	5.5"	
1.5 X 5.5 SINGLE ANGLE 	MSA512(color)102	10'2"	7.5"	
	MSA512(color)122	12'2"	7.5"	
	MSA512(color)142	14'2"	7.5"	
	MSA512(color)162	16'2"	7.5"	
	MSA512(color)182	18'2"	7.5"	
	MSA512(color)204	20'4"	7.5"	
1.5 X 7.5 SINGLE ANGLE 	MSA712(color)102	10'2"	9.5"	
	MSA712(color)122	12'2"	9.5"	
	MSA712(color)142	14'2"	9.5"	
	MSA712(color)162	16'2"	9.5"	
	MSA712(color)182	18'2"	9.5"	
	MSA712(color)204	20'4"	9.5"	

GUTTERS

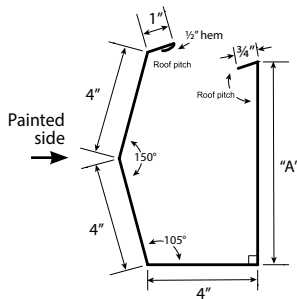


SCULPTURED GUTTERS

SCULPTURED HANG-ON



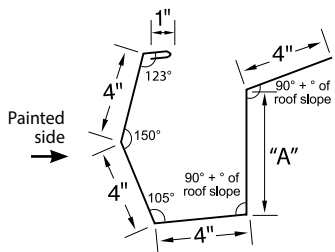
0 - 4:12



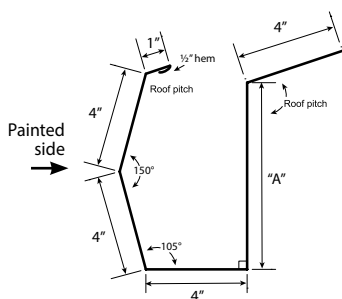
5:12, 6:12

PART #	LENGTH	DIM. "A"	GIRTH	PITCH
MGU102(COLOR)	10'2"	7.25"	21.50"	0-4:12
MGU122(COLOR)	12'2"	7.25"	21.50"	0-4:12
MGU142(COLOR)	14'2"	7.25"	21.50"	0-4:12
MGU162(COLOR)	16'2"	7.25"	21.50"	0-4:12
MGU182(COLOR)	18'2"	7.25"	21.50"	0-4:12
MGU204(COLOR)	20'4"	7.25"	21.50"	0-4:12
MGU5102(color)	10'2"	8.6875"	22.9375"	5:12
MGU5122(color)	12'2"	8.6875"	22.9375"	5:12
MGU5142(color)	14'2"	8.6875"	22.9375"	5:12
MGU5162(color)	16'2"	8.6875"	22.9375"	5:12
MGU5182(color)	18'2"	8.6875"	22.9375"	5:12
MGU5204(color)	20'4"	8.6875"	22.9375"	5:12
MGU6102(color)	10'2"	8.9375"	23.1875"	6:12
MGU6122(color)	12'2"	8.9375"	23.1875"	6:12
MGU6142(color)	14'2"	8.9375"	23.1875"	6:12
MGU6162(color)	16'2"	8.9375"	23.1875"	6:12
MGU6182(color)	18'2"	8.9375"	23.1875"	6:12
MGU6204(color)	20'4"	8.9375"	23.1875"	6:12

SCULPTURED EAVE



0 - 4:12

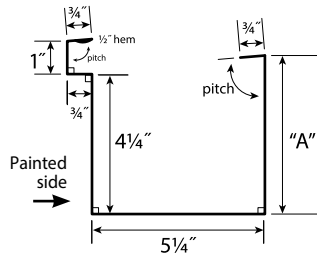


5:12, 6:12

MSGU102(color)	10'2"	7.25"	24.25"	0-4:12
MSGU122(color)	12'2"	7.25"	24.25"	0-4:12
MSGU142(color)	14'2"	7.25"	24.25"	0-4:12
MSGU162(color)	16'2"	7.25"	24.25"	0-4:12
MSGU182(color)	18'2"	7.25"	24.25"	0-4:12
MSGU204(color)	20'4"	7.25"	24.25"	0-4:12
MSGU5102(color)	10'2"	8.6875"	26.1875"	5:12
MSGU5122(color)	12'2"	8.6875"	26.1875"	5:12
MSGU5142(color)	14'2"	8.6875"	26.1875"	5:12
MSGU5162(color)	16'2"	8.6875"	26.1875"	5:12
MSGU5182(color)	18'2"	8.6875"	26.1875"	5:12
MSGU5204(color)	20'4"	8.6875"	26.1875"	5:12
MSGU6102(color)	10'2"	8.9375"	26.4375"	6:12
MSGU6122(color)	12'2"	8.9375"	26.4375"	6:12
MSGU6142(color)	14'2"	8.9375"	26.4375"	6:12
MSGU6162(color)	16'2"	8.9375"	26.4375"	6:12
MSGU6182(color)	18'2"	8.9375"	26.4375"	6:12
MSGU6204(color)	20'4"	8.9375"	26.4375"	6:12

BOX GUTTERS

BOX HANG-ON

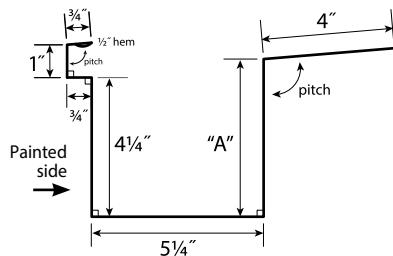


PART #	PITCH	GIRTH	DIM. "A"
MBHG1(LENGTH)(COLOR)	1:12	18.0625"	4.8125"
MBHG2(LENGTH)(COLOR)	2:12	18.5625"	5.3125"
MBHG3(LENGTH)(COLOR)	3:12	19"	5.75"
MBHG4(LENGTH)(COLOR)	4:12	19.5"	6.25"
MBHG5(LENGTH)(COLOR)	5:12	19.9375"	6.6875"
MBHG6(LENGTH)(COLOR)	6:12	20.4375"	7.1875"

Dimension "A" will change depending on chosen pitch.

Available in lengths 10'2" (102), 12'2" (122), 14'2" (142), 16'2" (162), 18'2" (182), 20'4" (204)

BOX EAVE

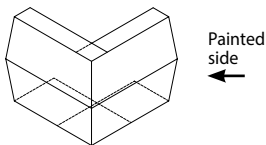


PART #	PITCH	GIRTH	DIM. "A"
MBEG1(LENGTH)(COLOR)	1:12	21.3125"	4.8125"
MBEG2(LENGTH)(COLOR)	2:12	21.8125"	5.3125"
MBEG3(LENGTH)(COLOR)	3:12	22.25"	5.75"
MBEG4(LENGTH)(COLOR)	4:12	22.75"	6.25"
MBEG5(LENGTH)(COLOR)	5:12	23.1875"	6.6875"
MBEG6(LENGTH)(COLOR)	6:12	23.6875"	7.1875"

Dimension "A" will change depending on chosen pitch.

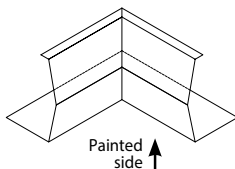
Available in lengths 10'2" (102), 12'2" (122), 14'2" (142), 16'2" (162), 18'2" (182), 20'4" (204)

OUTSIDE CORNER BOX



OCB(color)
specify pitch.

INSIDE CORNER BOX

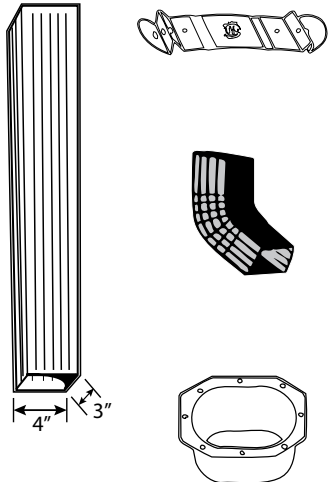


ICB(color)

DOWNSPOUTS

*Available from our Michigan City plant only.

FLUTED



DOWNSPOUT - Fits both K5 AND K6 GUTTERS

K6GDS10(color)	10'0"	Sold separately or 15 per box
K6GDS14(color)*	14'0" KYNAR ONLY	Sold separately or 15 per box

DOWNSPOUT STRAP

K6GSCB(color)	Sold separately or 100 per box
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DOWNSPOUT ELBOW

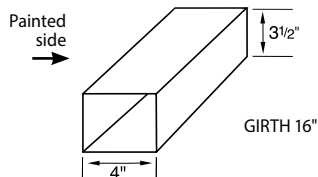
K6GEA(color)	Sold separately or 20 per box
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DOWNSPOUT OUTLET W/FLANGE

K5GOOFZ - Fits inside K5 Gutter	Sold separately or 20 per box
K6GOOFZ* - Fits inside K6 Gutter	Sold separately or 20 per box

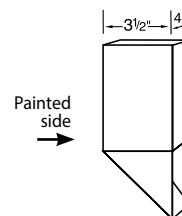
SQUARE

DOWNSPOUT W/O KICKOUT



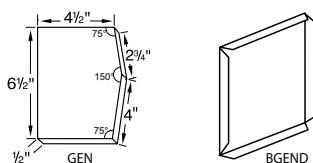
PART #	LENGTH
DS102(color)	10'2"
DS122(color)	12'2"
DS142(color)	14'2"
DS162(color)	16'2"
DS182(color)	18'2"
DS204(color)	20'4"

DOWNSPOUT WITH KICKOUT



PART #	LENGTH
DK102(color)	10'2"
DK122(color)	12'2"
DK142(color)	14'2"
DK162(color)	16'2"
DK182(color)	18'2"
DK204(color)	20'4"

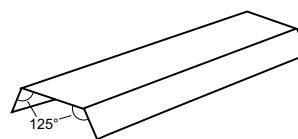
GUTTER END CAP



GEN(color)
specify pitch.
for standard or sculptured gutter.

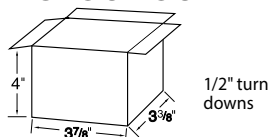
BGEND(color)
for box hang-on or box eave gutter

GUTTER STRAP



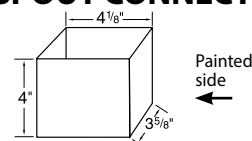
MGS9(color) 9"

DOWNSPOUT OUTLET



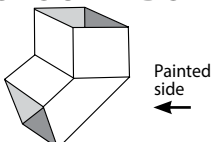
DSOUTLET(color)
specify pitch.

DOWNSPOUT CONNECTOR



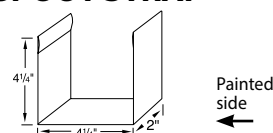
DSLVE(color)

DOWNSPOUT ELBOW



DSE45(color)
DSE90(color)

DOWNSPOUT STRAP

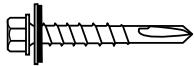


DSS2(color)

ACCESSORIES

METAL/ METAL SCREWS #12

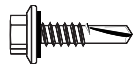
5/16" head



PART #	COLOR	LENGTH	#PER BAG	#PER BOX
34(color)MM	all	3/4"	250	2500
114(color)MM	all	1 1/4"	250	2500
112(color)MM	White, Hunter, Brilliant, Stone, Bare galvanized	1 1/2"	250	2500
2ZMM		2"	250	2000

LAP SCREWS #14

5/16" head

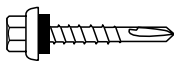


78(color)LAP	all	7/8"	250	2500
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*order in increments of 250pc

ZAC SCREWS/ METAL/METAL SCREWS

5/16" head

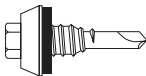


114ZACMM	Bare	1 1/4"	250	2500
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*order in increments of 250pc

ZAC SCREWS/ LAP SCREWS

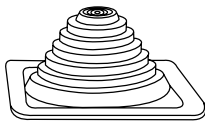
5/16" head



78ZACLAP	Bare	7/8"	250	2500
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*order in increments of 250pc

MASTER PIPE FLASHING

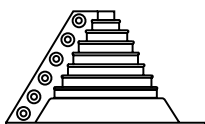


PART #	LENGTH	PART #	LENGTH
MPF	1/4" to 4"	3SMPF	1/4" to 4"
MPF2	1 1/4" to 3"	4SMPF	3" to 6"
MPF4	3" to 6"	6SMPF	5" to 9"
MPF5	4" to 7"	8SMPF	7" to 13"
MPF6	5" to 9"	10SMPF	13" to 26"
MPF7	6" to 11"		
MPF8	7" to 13"		
MPF9	10" to 18"		

MAXIMUM TEMPERATURE 500 DEGREES

MAXIMUM TEMPERATURE 250 DEGREES

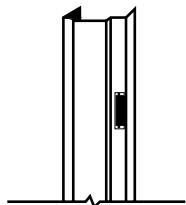
MASTER PIPE FLASHING WITH ZIPPER



MPF1ZIP	1/2" - 4" with zipper
MPF2ZIP	4" - 9 1/4" with zipper

ACCESSORIES

FRAMING PACKAGE



PART #	SIZE	COLOR
4X3070JAMB	4.25" X 3070	White
4X4070JAMB	4.25" X 4070	White
6X3070JAMB	6.25" X 3070	White
6X4070JAMB	6.25" X 4070	White
8X3070JAMB	8.25" X 3070	White
8X4070JAMB	8.25" X 4070	White
8X6070JAMB	8.25" X 6070	White

Package includes: Jamb, headers, threshold, door lever with keyed lock, hinges, and weather strip kit.

NOTE: Frames are non-reversible. Swing-out only.

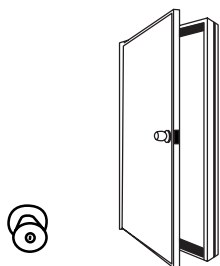
DOOR LEAF



3070DOOR	3070	3' x 7'
3070DOORW/LITE (window)	3070	3' x 7'
4070DOOR	4070	4' x 7'

STEEL DOOR LEAF ONLY

DOOR SET



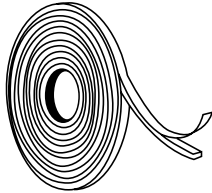
3068DR (Steel Jamb)	3068	39 13/16" x 80 5/8"
4068DR (Aluminum Jamb)	4068	49 13/16" x 80 5/8"

KNOB

KNOBS SOLD SEPARATELY

ACCESSORIES

BUTYL TAPE



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

GRAYFLEX

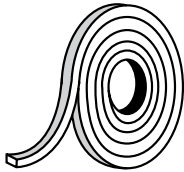


JOINT
SEAL
TAPE

GRAYFLEX-6	20'	1"	1"	24
GRAYFLEX115	15'	1"	1 1/2" expanded size	24

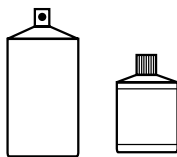
For use with hips and valleys.

UNIVERSAL POLYFOAM



POLYG with adhesive 20 rolls per box	25'	1"	1 1/2"
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TOUCH UP PAINT



PART #	SIZE
4(color)SP	0.6oz bottle with brush
12PURSP	12oz spray can (purlin paint)

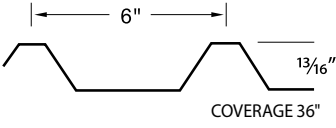
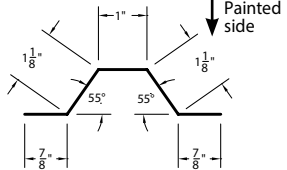
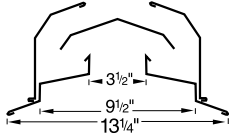

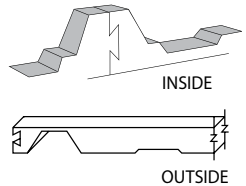
GEOCEL-TRIPOLYMER SEALANT



GEO(color)	10.3oz tube	clear, gray, white
MRS(color)	10.3oz tube	call for colors
MRSCLEAR	10.3oz tube	clear
MRSSKY	10.3oz tube	clear

Approved for skylight use.

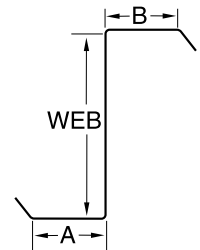
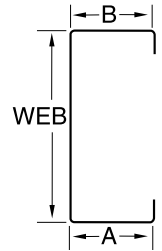
ACCESSORIES

	PART #	COLOR	LENGTH	GIRTH
FIBERGLASS SKYLIGHT 	SKY12M	White	12'	
SKYLIGHT TRIM 	MSK (color)102 MSK (color)122 MSK (color)142 MSK (color)162 MSK (color)182 MSK (color)204		10'2" 12'2" 14'2" 16'2" 18'2" 20'4"	5" 5" 5" 5" 5" 5"
CONTINUOUS RIDGE VENT 	RLW	White	10'	*Constant open damper only
CLOSURE VENT 	CLVMM(Marco)		3'	*25 per box
CLOSURES 	MCLOUTWGLUE(M-loc outside with adhesive) MCLINWGLUE (M-loc inside with adhesive)		3' 3'	*100 per box

SUB-STRUCTURAL STEEL

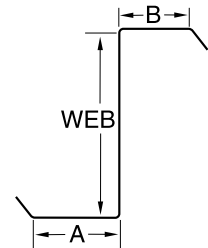
STANDARD CEEs & SYMMETRICAL ZEEs - Secondary Framing Members

WEBxAXB	Gauge	Finish	CEE Product Code	ZEE Product Code
4x2x2	16	Red Oxide	C4216R	Z4216R
4x2.5x2.5	16	Red Oxide/Galvanized	C42516R/C42516Z	Z42516R/Z42516Z
4x2.5x2.5	14	Red Oxide	C42514R	Z42514R
4x3.5x3.5	14	Red Oxide	C43514R	Z43514R
	16	Red Oxide	C43516R	Z43516R
6x2.5x2.5				
6x2.5x2.5	16	Red Oxide	C62516R	Z62516R
	14	Red Oxide	C62514R	Z62514R
8x2.5x2.5				
8x2.5x2.5	16	Red Oxide/Galvanized	C82516R/C82516Z	Z82516R/Z82516Z
8x2.5x2.5	14	Red Oxide/Galvanized	C82514R/C82514Z	Z82514R/Z82514Z
	12	Red Oxide/Galvanized	C82512R/C82512Z	Z82512R/Z82512Z
8x3.5x3.5				
8x3.5x3.5	16	Red Oxide	C83516R	Z83516R
8x3.5x3.5	14	Red Oxide/Galvanized	C83514R/C83514Z	Z83514R/Z83514Z
	12	Red Oxide/Galvanized	C83512R/C83512Z	Z83512R/Z83512Z
9x.3x3				
9x3x3	14	Red Oxide	C9314R	Z9314R
	12	Red Oxide/Galvanized	C9312R/C9312Z	Z9312R/Z9312Z
10x2.5x2.5				
10x2.5x2.5	16	Red Oxide	C102516R	Z102516R
10x2.5x2.5	14	Red Oxide/Galvanized	C102514R/C102514Z	Z102514R/Z102514Z
	12	Red Oxide/Galvanized	C102512R/C102512Z	Z102512R/Z102512Z
10x3.5x3.5				
10x3.5x3.5	14	Red Oxide	C103514R	Z103514R
	12	Red Oxide	C103512R	Z103512R
12x2.5x2.5				
12x2.5x2.5	14	Red Oxide	C122514R	Z122514R
	12	Red Oxide	C122512R	Z122512R
12x3.5x3.5				
12x3.5x3.5	14	Red Oxide/Galvanized	C123514R/C123514Z	Z123514R/Z123514Z
12x4x4	12	Red Oxide/Galvanized	C123512R/C123512Z	Z123512R/Z123512Z
	16	Red Oxide	C12416R	Z12416R



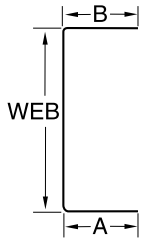
LGSI ZEEs - Secondary Framing Members

WEBxAXB	Gauge	Finish	Product Code
6x2 $\frac{3}{8}$ x2 $\frac{1}{2}$	16	Red Oxide	Z62516R
6x2 $\frac{3}{8}$ x2 $\frac{1}{2}$	14	Red Oxide	Z62514R
8x2 $\frac{3}{8}$ x2 $\frac{1}{2}$	16	Red Oxide/Galvanized	Z82516R/Z82516Z
8x2 $\frac{3}{8}$ x2 $\frac{1}{2}$	14	Red Oxide/Galvanized	Z82514R/Z82514Z
8x2 $\frac{3}{8}$ x2 $\frac{1}{2}$	12	Red Oxide/Galvanized	Z82512R/Z82512Z
8x3 $\frac{3}{8}$ x3 $\frac{1}{2}$	16	Red Oxide	Z83516R
8x3 $\frac{3}{8}$ x3 $\frac{1}{2}$	14	Red Oxide	Z83514R
8x3 $\frac{3}{8}$ x3 $\frac{1}{2}$	12	Red Oxide/Galvanized	Z83512R/Z83512Z
10x2 $\frac{3}{8}$ x2 $\frac{1}{2}$	16	Red Oxide	Z102516R
10x2 $\frac{3}{8}$ x2 $\frac{1}{2}$	14	Red Oxide	Z102514R
10x2 $\frac{3}{8}$ x2 $\frac{1}{2}$	12	Red Oxide/Galvanized	Z102512R/Z102512Z
10x2 $\frac{7}{8}$ x2 $\frac{5}{8}$	14	Red Oxide	Z10314R
10x2 $\frac{7}{8}$ x2 $\frac{5}{8}$	12	Red Oxide	Z10312R
12x2 $\frac{3}{8}$ x2 $\frac{1}{2}$	14	Red Oxide	Z122514R
12x2 $\frac{3}{8}$ x2 $\frac{1}{2}$	12	Red Oxide	Z122512R
12x3 $\frac{3}{8}$ x3 $\frac{1}{2}$	14	Red Oxide	Z123514R
12x3 $\frac{3}{8}$ x3 $\frac{1}{2}$	12	Red Oxide/Galvanized	Z123512R/Z123512Z
12x3 $\frac{3}{8}$ x3 $\frac{1}{2}$	16	Red Oxide	Z12416R



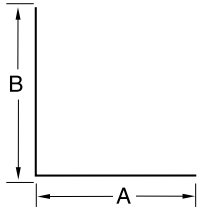
Members can be manufactured to the nearest 1/8" in length from 6'0" to 45'0". For lengths under 6'0" or over 45'0", please call your sales rep.

SUB-STRUCTURAL STEEL



CHANNELS - Secondary Framing Members

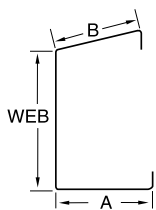
WEBxAxB	Gauge	Finish	Product Code
4.25x2.35x2.35	16	Red Oxide/Galvanized	U4216R
4.25x2.85x2.85	16	Red Oxide/Galvanized	U42516R/ U42516R
4.25x2.85x2.85	14	Red Oxide	U42514R
6.25x2.85x2.85	16	Red Oxide/Galvanized	U62516R/ U62516Z
6.25x2.85x2.85	14	Red Oxide	U62514R
8.25x2.85x2.85	16	Red Oxide/Galvanized	U82516R/U82516Z
8.25x2.85x2.85	14	Red Oxide/Galvanized	U82514R/U82514Z
8.25x2.85x2.85	12	Red Oxide/Galvanized	U82512R/U82512Z



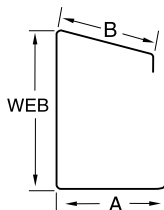
ANGLE - Secondary Framing Members

AxB	Gauge	Finish	Product Code
2.5x2.5	14	Red Oxide	B2514R
3x3	14	Red Oxide	B314R
3x3	16	Red Oxide	B316R
4x2	16	Red Oxide/Galvanized	B4216R/B4216Z
4x2	14	Red Oxide	B4214R
4x3	16	Red Oxide	B4316R

Single Slope Up



Single Slope Down

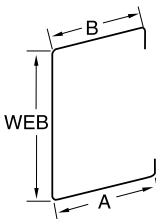


EAVE STRUTS - Secondary Framing Members

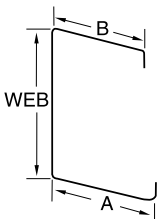
WEBxAxB	Gauge	Finish	Product Code
6x4x3	16	Red Oxide	E64316LR/E64316HR
6x4x3	14	Red Oxide	E64314LR/E64314HR
6x4x3	12	Red Oxide	E64312LR/E64312HR
8x4x3	14	Red Oxide/Galvanized	E84314LR or HR/E84314LZ or HZ
8x4x3	12	Red Oxide/Galvanized	E84312LR or HR/E84312LZ or HZ
8x5x3	12	Red Oxide	E85312LR/E85312HR
8x5x3	14	Red Oxide	E85314LR
8x5x5	14	Red Oxide	E85514LR
10x5x3	14	Red Oxide	E105314LR

Please specify pitch and slope when ordering.

Double Slope Up



Double Slope Down

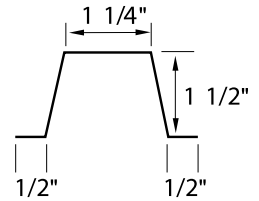


Members can be manufactured to the nearest 1/8" in length from 6'0" to 45'0". For lengths under 6'0" or over 45'0", please call your sales rep.

SUB-STRUCTURAL STEEL

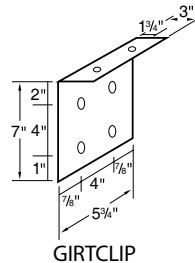
HAT CHANNEL

Gauge	Finish	Length	Product Code
16	Red Oxide	20'0"	HATR
20	Galvanized	20'0"	HATZ

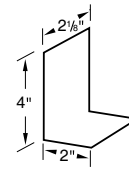


PURLIN CLIPS

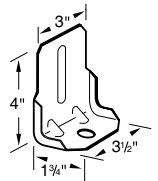
Gauge	Finish	Product Code
10	Red Oxide	GIRTCLIP
16	Red Oxide	MINICLIP
14	Galvanized	BASECLIP



GIRTCLIP



MINICLIP

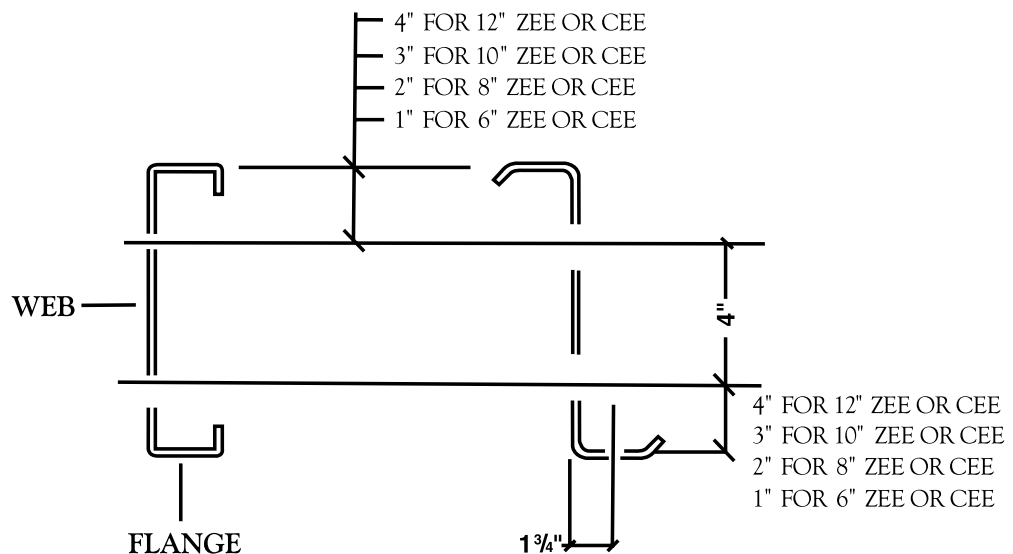


BASECLIP

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", please call your sales rep.

PUNCH PATTERNS

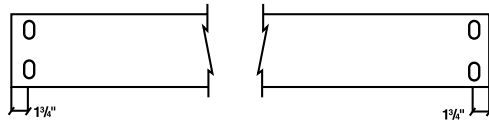
Capabilities vary by location. Call for pricing and availability on special punching. 3" Minimum part length to be punched. CSMI standard hole sizes are 5/8" round and 5/8"x 3/4" slot in Lowell and Cedar Hill. Standard hole size in Jasper is 5/8"x 3/4" slot. Holes are punched to accommodate 1/2" diameter bolts. 5/16" angle punch offered in Lowell and Jasper.



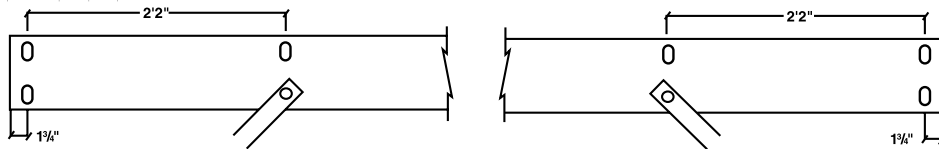
SUB-STRUCTURAL STEEL

STANDARD PUNCH PATTERNS CEES & ZEES

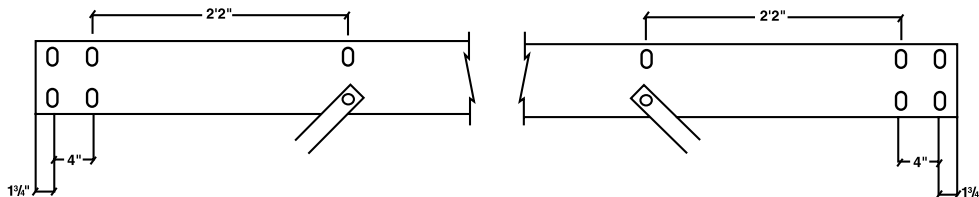
CODE: PPEP
END PUNCH



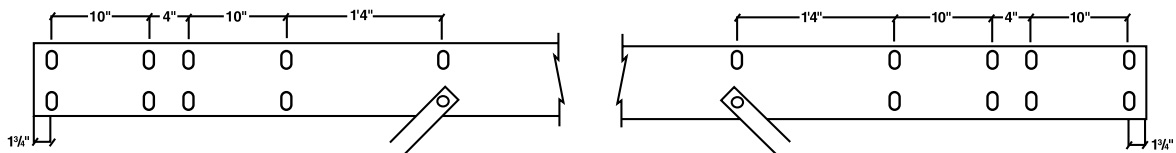
CODE: PPSS
SIMPLE SPAN PUNCH - MINIMUM PART LENGTH 5' TOTAL, 2'6" ONE END



CODE: PPSL
SHORT LAP PUNCH - MINIMUM PART LENGTH 5'6" TOTAL, 2'8" ONE END



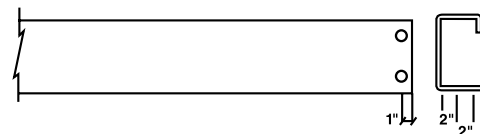
CODE: PPLL
LONG LAP PUNCH - MINIMUM PART LENGTH 7' TOTAL, 3'6" ONE END



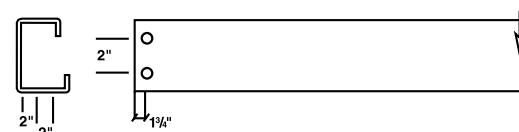
CODE: ES4
EAVE STRUT FOR 4" LEG



CODE: ES5
EAVE STRUT FOR 5" LEG



CODE: ES134
EAVE STRUT FOR 5" LEG



CENTRAL STATES PRIME 40 YEAR LIMITED PAINT WARRANTY

FOR CENTRAL STATES MANUFACTURING (CSM) ROOFING AND SIDING PANELS. **THIS WARRANTY COVERS PRIME MATERIAL ONLY**, PAINTED WITH OUR CENTRALGUARD PAINT SYSTEM. THRIFTY MATERIAL IS COVERED BY A SEPARATE WARRANTY.

CSM warrants that the color-coated finish applied to its steel roofing and siding panels will not, within a period of forty years after installation or forty years and one month after the date of shipment (whichever comes first), crack, check, peel or lose adhesion. This does NOT include minute fracturing, which may occur in proper fabrication of the building parts. Failure due to substrate corrosion is excluded.

CSM also warrants that the color-coated finish applied to its steel roofing and siding panels will not, within a period of thirty years after installation or a period of thirty years and one month after the date of shipment (whichever comes first), chalk or lose color according to the following grids. Additionally, chalk ratings are measured in accordance with the standard procedures specified in ASTM-D-4214-98 method D659. Color (fade) ratings are measured in accordance with the standard procedures specified in ASTM-D-2244-02. Color change shall be measured on an exposed painted surface that has been cleaned of surface soils and chalk, and the corresponding values measured on the original or unexposed painted surface. It is understood that fading or color changes may not be uniform if the surfaces are not equally exposed to the sun and elements.

Sidewall		Roof	
Color	Chalk	Color	Chalk
5	8	7	6

(Exception: Gallery Blue - Sidewall: Color: 8/Chalk: 6, Roof: Color: 10/Chalk: 5).

- 1) **DISCLAIMER OF WARRANTY:** THE EXPRESS WARRANTY STATED HEREIN IS THE EXCLUSIVE WARRANTY APPLICABLE TO CSM PRIME PAINTED MATERIAL ONLY, ROOFING AND SIDING PANELS. CSM MAKES NO WARRANTIES OR GUARANTEES, EITHER EXPRESSED OR IMPLIED, BEYOND THE FACE HEREOF INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. CSM SHALL HAVE NO OTHER LIABILITY WITH RESPECT THERETO. This warranty will apply to those panels refinished or replaced but only for the period of time left on the original warranty. No employee or representative of CSM is authorized to change this limited warranty in any way or grant any other warranty regarding the product.
- 2) **LIMITATION OF LIABILITY:** THE EXCLUSIVE REMEDY FOR ANY AND ALL CLAIMS ARISING FROM THIS LIMITED WARRANTY SHALL BE LIMITED TO CSM REFINISHING OR REPLACING DEFECTIVE PANELS OR REFUNDING THE PURCHASE PRICE OF SUCH PANELS AS CSM SHALL ELECT. CSM SHALL NOT BE LIABLE FOR ANY LOSSES, DAMAGES, OR EXPENSES, WHETHER DIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES. IF OUR CENTRALGUARD™ SILICONIZED POLYESTER COATINGS FAIL TO COMPLY WITH OUR LIMITED WARRANTY, WE WILL PAY FOR THE LABOR AND THE MATERIALS REASONABLY NECESSARY TO REPAINT, REPAIR OR REPLACE, AT OUR OPTION, THE BUILDING PART SHOWING THE FAILURE. CSM'S TOTAL LIABILITY IS EXPRESSLY LIMITED TO THE PURCHASE PRICE OF THE CSM STEEL ROOFING AND SIDING PANELS.
- 3) Claims under this warranty must be made in writing to CSM at the address set forth below within 30 days after the discovery of the defect. The notice to CSM shall include adequate identification of the material involved, nature of the claimed defect, date of the installation, date of shipment and order number. Failure of the claimant to provide such information in the time provided shall be deemed as a waiver of the claimant's rights herein. CSM shall have an additional 30 days to inspect the CSM steel roofing and siding panels before any further action shall be taken.
- 4) CSM does not warrant or guarantee the interior or reversed side finish or preprepared materials used for interior application.
- 5) CSM does not warrant or guarantee claims arising from damage to panels due to exposure to salt and salt water, water spray, corrosive or harmful chemicals (whether solids, liquids or gases), airborne contaminants, hail or other agents of a similar nature.
- 6) CSM does not warrant or guarantee claims arising from the following:
 - a) Damage or defects caused by acts of God, falling objects, external forces, explosion, fire, riots, civil commotion, acts of war, excessive radiation, or other similar or dissimilar occurrences beyond CSM's control.
 - b) Minor hairline cracking of the paint finish.
 - c) Defects or damages to the painted steel roofing and siding panels caused by handling, shipping, transit, processing, storage or installation; damage due to failure of the substrate.
 - d) Damage caused by moisture or other contamination prior to installation.
 - e) Steel shavings or minute iron particles from sawing sparks that come in contact with the painted surface.
 - f) Non-vertical panels that don't have an adequate degree of pitch so as not to allow any free standing or accumulation of standing water.
 - g) Stored or installed in a way that allows for contact with animals or animal waste.
 - h) Deterioration to the panels caused directly or indirectly by panel contact with fasteners. The selection of suitable fasteners rests solely with the buyer.
 - i) Weather uniformity under non-uniform conditions.
 - j) Unusual harmful fumes, chemically aggressive environment, foreign substances in the atmosphere, standing water or direct salt spray.
 - k) Damage due to green, wet or treated lumber.
- 7) The warranty applies to panels installed in the continental United States, Alaska, and Canada.
- 8) CSM extends this warranty solely to the buyer. This warranty is not transferable and non-assignable. Further, it is applicable only to the original owner of any structure where the material is installed.



CORPORATE OFFICE
302 JANE PLACE - LOWELL, AR 72745
800-356-2733

Congratulations.

You are now covered by one of the best limited paint warranties in the business. Please fill this out for your records and keep it for your files.

Central States Order Number*
or Project Number

Contractor/Installer Name _____ Date _____

Owner's Name _____

Structure's Address _____

City _____ State _____

*Order Number can be found on the Material Package label and the Order Verification paperwork.

3 PRIMEWARRANTY131126

CENTRAL STATES 20 YEAR AZ50 SUBSTRATE WARRANTY

Central States Manufacturing (CSM) warrants that steel sheets coated with hot-dipped aluminum-zinc alloy AZ50 or Galvalume® AZ50 and sold for use as painted steel roofing and siding panels, if erected in the United States, WILL NOT rupture, fail structurally or perforate within a period of twenty (20) years after shipment due to exposure to normal atmospheric corrosion.

This warranty DOES NOT APPLY to sheets exposed at any time to corrosive or aggressive atmospheric conditions, including but not limited to:

- Areas subject to salt water marine atmospheres or to constant spraying of either salt or fresh water.
- Areas subject to fallout or exposure to corrosive chemicals, fumes, ash, cement dust or animal waste.
- Areas subject to water run-off from lead or copper flashings or areas in metallic contact with lead or copper.
- Conditions/circumstances where corrosive fumes or condensates are generated or released inside the building.

This warranty DOES NOT APPLY in the event of:

- Mechanical, chemical or other damage sustained during shipment, storage, erection, or after erection.
- Failure to provide free drainage of water, including internal condensation from overlaps and all other surfaces of the sheets or panels.
- Failure to remove debris from overlaps and all other surfaces of the sheets or panels.
- Damage caused to the metallic coating by improper scouring or cleaning procedures.
- Deterioration of the panels caused by contact with green or wet lumber, or storage stain caused by water damage or condensation.
- Presence of damp insulation or other corrosive materials in contact with or close proximity to the panel.
- Deterioration to the panels caused directly or indirectly by panel contact with concrete, asphalt, gravel, dirt, mulch, or any corrosive material.
- Deterioration of the panels caused directly or indirectly by panel contact with fasteners. Selection of suitable long-lasting fasteners to be used with Galvalume roofing and siding panels rests solely with the Buyer.
- A degree of bending less than 2T for sheet gauges up to 0.030 in. and degree of bending less than 4T for sheet gauges 0.031 in. and thicker.
- Slopes of roof or sections of the roof flatter than 1/4:12.

This warranty shall be subject to the stipulations, limitations and conditions hereinafter set forth.

The remedy for any claims on steel roofing and siding panels shall be at the discretion of Central States Manufacturing and shall be limited to refinishing or replacing the defective panels.

CENTRAL STATES MANUFACTURING SHALL NOT BE LIABLE FOR ANY LOSSES, DAMAGES OR EXPENSES WHETHER DIRECT, INCIDENTAL OR CONSEQUENTIAL, CAUSED BY OR RESULTING FROM THE USE OF DEFECTIVE OR NON-CONFORMING STEEL ROOFING AND SIDING PANELS OR FOR ANY OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES. CENTRAL STATES MANUFACTURING'S TOTAL LIABILITY IS EXPRESSLY LIMITED TO THE PURCHASE PRICE OF THE STEEL ROOFING AND SIDING PANELS PROVIDED BY CENTRAL STATES MANUFACTURING.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation or exclusion may not apply in your state. This warranty provides specific legal rights and other rights which vary from state to state that may apply.

Central States Manufacturing's liability for breach of this warranty shall be limited exclusively to the cost of either repairing non-conforming, rupturing, perforating or structurally failing panels, or at CSM's sole option, of furnishing FOB Buyer's plant sufficient sheet product to enable Buyer to fabricate replacement panels for the non-conforming, rupturing, perforating or structurally failing panels. CSM shall not in any event be liable for the cost of labor expended by others on any non-conforming, rupturing, perforating or structurally failing sheet or for any special, indirect, or consequential loss of profits or any other incidental, general, special or compensatory damages to anyone by reason of the fact that such panels shall have been non-conforming, rupturing, perforating, or structurally failing.

Claims under this warranty must be made in writing to Central States Manufacturing at the address set forth below within 30 days after discovery of the defect. CSM shall have an additional 30 days to inspect the steel roofing and siding panels before any further action shall be taken. Adequate identification of material involved in the claim, including date of installation, order number, invoice number and date of shipment must be established by the Buyer.

Buyer shall exercise diligence in inspection of sheets as received from CSM so as to mitigate repair or replacement. CSM extends this warranty solely to the original owner of any structure where the material is installed. This warranty is not transferable and non-assignable. CSM reserves the right to terminate this warranty at any time (except as to orders already accepted) upon the giving of written notice thereof.

The Law of the State of Arkansas shall govern the rights and duties of the parties under this agreement and jurisdiction and venue is fixed in Benton County, Arkansas.

CENTRAL STATES MANUFACTURING MAKES NO GUARANTEES, EITHER EXPRESSED OR IMPLIED BEYOND THE FACE HEREOF, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF FITNESS AND MERCHANTABILITY, AND SHALL HAVE NO OTHER LIABILITY WITH RESPECT THERETO.



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Contractor/Installer Name _____ Date _____

Owner's Name _____

Structure's Address _____

City _____ State _____

*Order Number can be found on the Material Package label and the Order Verification paperwork.

E AZ50WARRANTY131126

NOTES

[illegible]



www.centralstatesmfg.com