Metal Sales™

Installation Guide

EM15-1222 SERIES

metalsales.us.com

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. All projects should conform to applicable building codes for that particular area. It is recommended to follow all building regulations and standard industry practices.

Metal Sales Manufacturing Corporation is not responsible for the performance of the wall system if it is not installed in accordance with the suggested instructions referenced in this manual. If there is a conflict between this manual and the actual erection drawings, the erection drawings are to take precedence.

Prior to ordering and installing materials, all dimensions should be verified by field measurements.

Metal Sales reserves the right to modify, without notice, any details, recommendations or suggestions. Any questions you may have regarding proper installation of these Concealed Fastened Wall Panel systems should be directed to your local Metal Sales representative (see pages 2 and 3).

Oil canning is not a cause for rejection. Oil canning can be described as the amount of waviness found in the flat areas of metal panels. Oil canning is an inherent characteristic of light gauge cold formed metal products, particularly those with broad flat areas. There are many factors which may contribute to oil canning that Metal Sales is not able to control. These factors include: misalignment of the support system, over driving of fasteners used on the panels, stress (whether inherent in the panel or induced), thermal expansion and contraction of the panel, improper material handling, width, gauge, length, color of panels and improper installation (reference Metal Construction Association "Oil Canning Position Paper"- Appendix A).

Consult your local Metal Sales Branch for any additional information not outlined in this manual.

This manual is designed to be utilized as a guide when installing a Concealed Fastened Wall Panel system. It is the responsibility of the erector to ensure the safe installation of this product system.

SAFETY

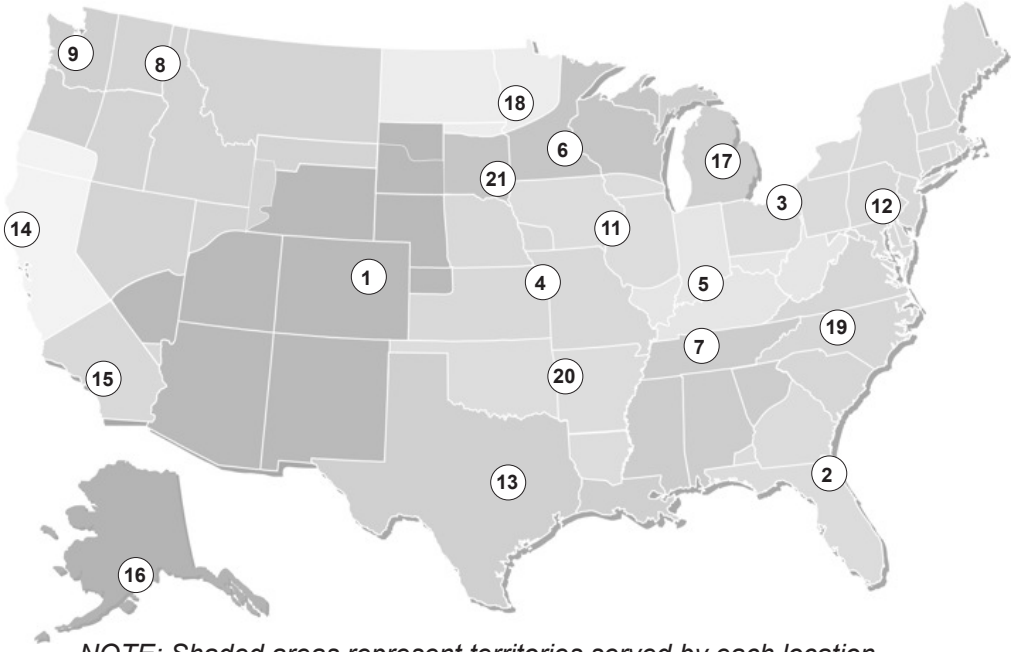
STUDY APPLICABLE OSHA AND OTHER SAFETY REQUIREMENTS BEFORE FOLLOWING THESE INSTRUCTIONS.

The installation of metal wall systems is a dangerous procedure and should be supervised by trained knowledgeable erectors. USE EXTREME CARE WHILE INSTALLING WALL PANELS. It is not possible for Metal Sales to be aware of all the possible job site situations that could cause an unsafe condition to exist. The erector of the wall system is responsible for reading these instructions and determining the safest way to install the wall system.

These instructions are provided only as a guide to show a knowledgeable, trained erector the correct relationship of parts to one another. If following any of the installation steps would endanger a worker, the erector should stop work and decide upon a corrective action.

Fall protection for workers installing wall panels must be provided.

Metal Sales™



NOTE: Shaded areas represent territories served by each location.

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'H' indicates horizontal panels, 'V' indicates vertical panels

Branch Locations

1. DENVER
7990 East I-25 Frontage Road
Longmont, CO 80504
303.702.5440
800.289.7663
800.289.1617 Fax

2. JACKSONVILLE
7110 Stuart Avenue
Jacksonville, FL 32254
904.783.3660
800.394.4419
904.783.9175 Fax
800.413.3292 Fax

3. JEFFERSON
352 East Erie Street
Jefferson, OH 44047
440.576.9070
800.321.5833
440.576.9242 Fax
800.233.5719 Fax

4. INDEPENDENCE
1306 South Powell Road
Independence, MO 64057
816.796.0900
800.747.0012
816.796.0906 Fax

5. SELLERSBURG
7800 Highway 60
Sellersburg, IN 47172
812.246.1866
800.999.7777
812.246.0893 Fax
800.477.9318 Fax

6. ROGERS
22651 Industrial Boulevard
Rogers, MN 55374
763.428.8080
800.328.9316
763.428.8525 Fax
800.938.9119 Fax

7. NASHVILLE
4314 Hurricane Creek Boulevard
Antioch, TN 37013
615.641.7100
800.251.8508
615.641.7118 Fax
800.419.4372 Fax

8. SPOKANE
2727 East Trent Avenue
Spokane, WA 99202
509.536.6000
800.572.6565
509.534.4427 Fax

9. SEATTLE
20213 84th Avenue, South
Kent, WA 98032
253.872.5750
800.431.3470 (Outside WA)
800.742.7900 (Inside WA)
253.872.2008 Fax

11. ROCK ISLAND
8111 West 29th Street
Rock Island, IL 61201
309.787.1200
800.747.1206
309.787.1833 Fax

12. DEER LAKE
29 Pinedale Industrial Road
Orwigsburg, PA 17961
570.366.2020
800.544.2577
570.366.1648 Fax
800.544.2574 Fax

13. TEMPLE
3838 North General Bruce Drive
Temple, TX 76501
254.791.6650
800.543.4415
254.791.6655 Fax
800.543.4473 Fax

14. WOODLAND
1326 Paddock Place
Woodland, CA 95776
530.668.5690
800.759.6019
530.668.0901 Fax

15. FONTANA
14213 Whittram Avenue
Fontana, CA 92335
909.829.8618
800.782.7953
909.829.9083 Fax

16. ANCHORAGE
4637 Old Seward Highway
Anchorage, AK 99503
907.646.7663
866.640.7663
907.646.7664 Fax

17. BAY CITY
5209 Mackinaw Road
Bay City, MI 48706
989.686.5879
888.777.7640
989.686.5870 Fax
888.777.0112 Fax

18. DETROIT LAKES
1435 Egret Avenue
Detroit Lakes, MN 56501
218.847.2988
888.594.1394
218.847.4835 Fax
888.594.1454 Fax

19. MOCKSVILLE
188 Quality Drive
Mocksville, NC 27028
336.751.6381
800.228.6119
336.751.6301 Fax
800.228.7916 Fax

20. FORT SMITH
7510 Ball Road
Fort Smith, AR 72908
479.646.1176
877.452.3915
479.646.5204 Fax

21. SIOUX FALLS
2700 West 3rd Street, Suite 4
Sioux Falls, SD 57104
605.335.2745
888.299.0024

TECHNICAL SUPPORT

TECHNICAL SERVICES
7800 Highway 60
Sellersburg, IN 47172
502.855.4300
800.406.7387
800.944.6884 Fax

General Instructions

Safety Use proper safety gear, safe equipment and safe processes. Safety gear includes gloves, arm guards, safety goggles and fall protection. Safe equipment includes maintained screw gun, saw, snips and folder. Safe processes include being aware of dangers and taking appropriate measures to avoid them.

Material Availability Panels are available in 24 ga, 22 ga and 20 ga steel and 0.032" and 0.040" aluminum. Flashings are available in 24 ga and 22 ga steel and 0.032" aluminum. Only 24 ga panel and flashing materials, in standard colors, are stocked. Custom 24 ga colors, all 22 ga, all 20 ga, all 0.032" and all 0.040" materials are secured per project and require minimum order quantities. Not all materials are available at all producing branches.

Material Receipt Upon receipt of material, confirm all parts have been delivered and that there is no damage. Any shortages should be reported to the Metal Sales contact. Transit damage must be noted on the bill of lading.

Material Storage Material not used right away, should be stored inside, out of the elements. If inside storage is not available, cover the materials with a tarp such that air can circulate. Elevate the crates off the ground and slope so that water will run off.

Handling Transport panels in the crates to the installation site. Adequate support for individual panels every 6' to 8' is necessary. When carrying a panel, grasp the panel by one side and let the other side hang down. Handling panels with care can avoid a cause of oil-canning.

Wall Condition Before installing panels, ensure the wall support material is plumb, square and true. Variance from in-plane should not exceed 1/4" in 10'.

Wall Assembly Cover building envelope sheathing with a moisture barrier, such as peel-and-stick underlayment or synthetic building wrap for resistance to air and water penetration through the wall assembly. Install the moisture barrier horizontally from the bottom upward, overlapping each run over the previous, lower run.

Spacers Spacers with a minimum depth of 1/4" are recommended at clips and trims to hold the wall assembly off of the wall line and allow water to drain. Spacers may be shims, hat channels or furring strips installed to not hold water.

Plan the Work Before installing panels on a wall section, plan for alignment with panels on adjacent wall sections. Consider the locations of wall penetrations and openings and how the panels will align. Decide if the first panel will be a full or partial panel.

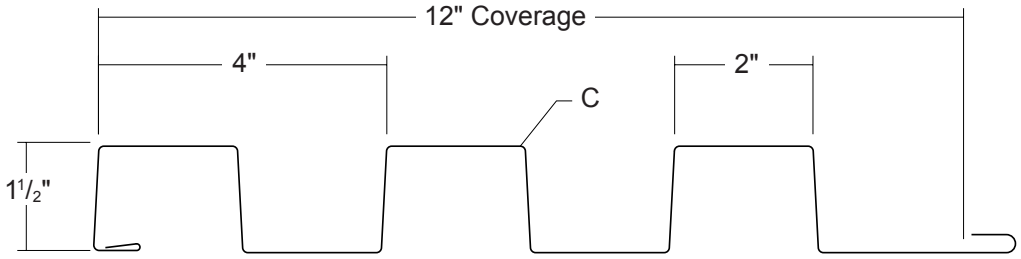
Clip Fasteners Do not overtighten the panel clip fasteners. The fasteners should be brought just to firm contact between the support material, panel and clip. The panel must be capable of sliding along its length after the clips are installed. A clip must be installed within 6" of each end of the panels.

Installation Practice For horizontal panels, start at the bottom of the wall and work up the wall toward the top. Always 'shingle' panels and trims so that water will run down off of one member on to the next. Ensure every surface has adequate slope to permit water to run off and not collect on any surface. When installing panels, give effort to stay on module by checking the coverage of each panel.

Strippable Film Panels and trim are typically provided with strippable film as protection against minor fabrication, transit and handling damage. The strippable film must be removed just before installation. Waiting until after panel installation to remove the strippable film or after significant exposure to sunlight or heat can make removal very difficult.

Cutting Material When panel and trim parts must be cut, Metal Sales recommends the use of shears, such as power shears or double-cut shears. Saw cutting is not reccomended as it tends to damage the paint film near the cut and leave a rough edge that is prone to excessive red rusting on steel panels. When materials are saw-cut, it is recommended to conceal such cuts by the use of hems or cutting the end that will concealed by covering at a lap or by covering with a piece of trim, such as at the ridge.

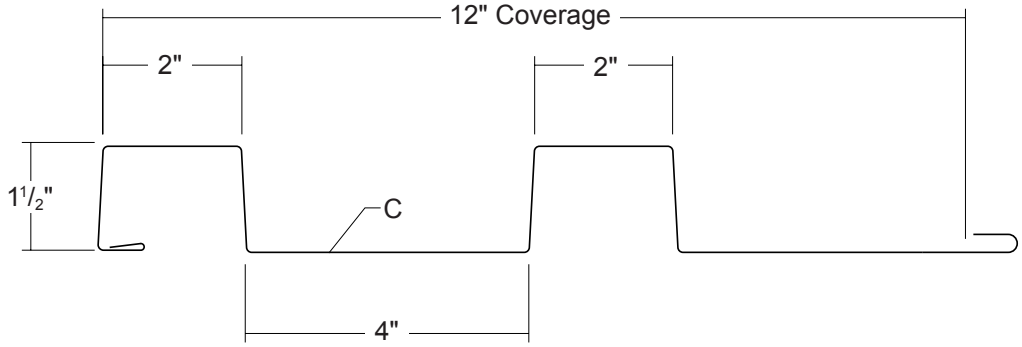
EM15-1222 Box Rib



Panel can be produced in lengths from 6' to 30'. Requires 4" Low Clip (Page 12).

Product No.	Coverage	Description	Thick	Finish
2778141	12"	3 ribs	24 ga	Galvalume® (ACG)
27781XX	12"	3 ribs	24 ga	PVDF
2978141	12"	3 ribs	22 ga	Galvalume® (ACG)
29781XX	12"	3 ribs	22 ga	PVDF
30781XX	12"	3 ribs	20 ga	PVDF
27781XXA	12"	3 ribs	0.032"	PVDF Aluminum
29781XXA	12"	3 ribs	0.040"	PVDF Aluminum

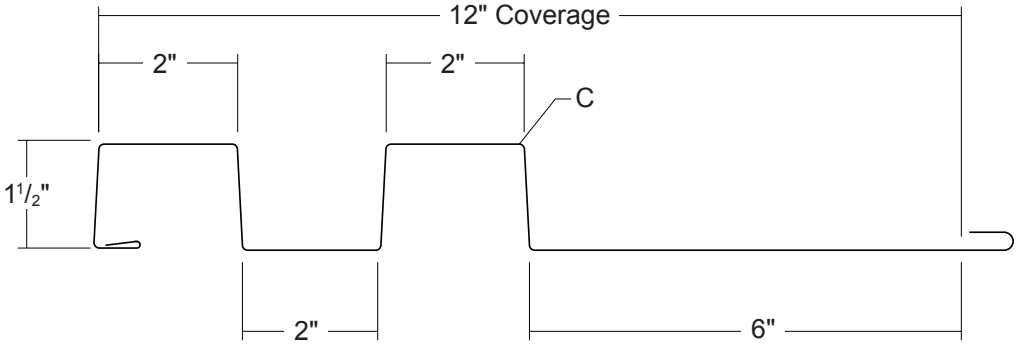
EM15-622 Box Rib



Panel can be produced in lengths from 6' to 30'. Requires 4" Low Clip (Page 12).

Product No.	Coverage	Description	Thick	Finish
2778241	12"	2 ribs	24 ga	Galvalume® (ACG)
27782XX	12"	2 ribs	24 ga	PVDF
2978241	12"	2 ribs	22 ga	Galvalume® (ACG)
29782XX	12"	2 ribs	22 ga	PVDF
30782XX	12"	2 ribs	20 ga	PVDF
27782XXA	12"	2 ribs	0.032"	PVDF Aluminum
29782XXA	12"	2 ribs	0.040"	PVDF Aluminum

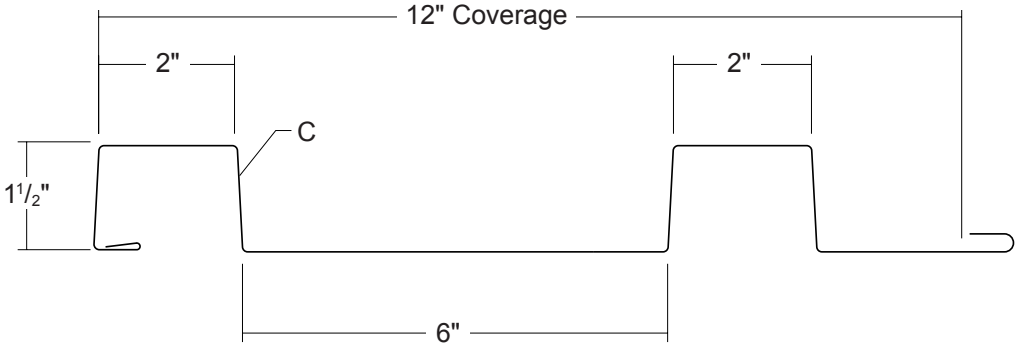
EM15-1262 Box Rib



Panel can be produced in lengths from 6' to 30'. Requires 4" Low Clip (Page 12).

Product No.	Coverage	Description	Thick	Finish
2778841	12"	2 ribs	24 ga	Galvalume® (ACG)
27788XX	12"	2 ribs	24 ga	PVDF Painted
2778941	12"	2 ribs	22 ga	Galvalume® (ACG)
27789XX	12"	2 ribs	22 ga	PVDF
27790XX	12"	2 ribs	20 ga	PVDF
27788XXA	12"	2 ribs	0.032"	PVDF Aluminum
27789XXA	12"	2 ribs	0.040"	PVDF Aluminum

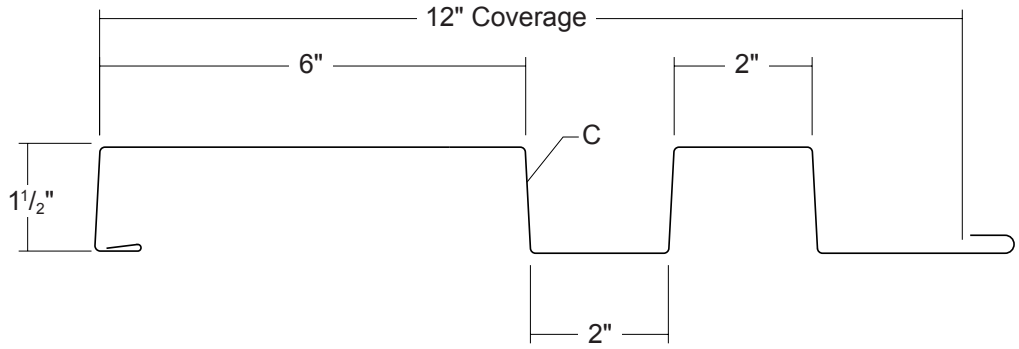
EM15-262 Box Rib



Panel can be produced in lengths from 6' to 30'. Requires 4" Low Clip (Page 12).

Product No.	Coverage	Description	Thick	Finish
2779141	12"	2 ribs	24 ga	Galvalume® (ACG)
27791XX	12"	2 ribs	24 ga	PVDF
2779241	12"	2 ribs	22 ga	Galvalume® (ACG)
27792XX	12"	2 ribs	22 ga	PVDF
27793XX	12"	2 ribs	20 ga	PVDF
27791XXA	12"	2 ribs	0.032"	PVDF Aluminum
27792XXA	12"	2 ribs	0.040"	PVDF Aluminum

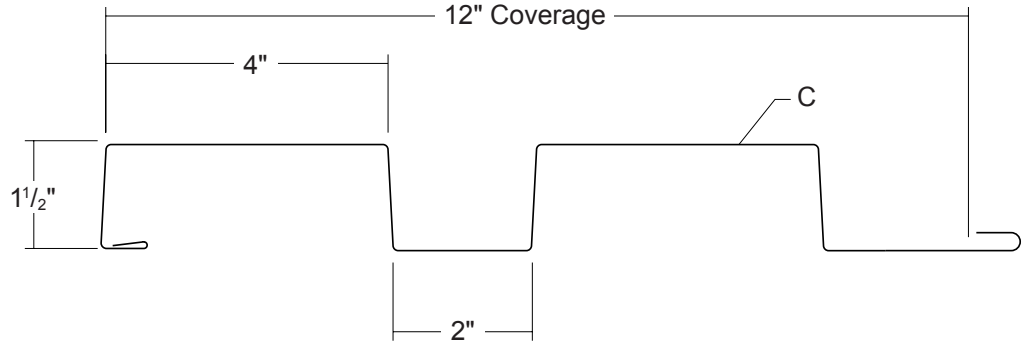
EM15-1226 Box Rib



Panel can be produced in lengths from 6' to 30'.

Product No.	Coverage	Description	Thick	Finish
2779541	12"	2 ribs	24 ga	Galvalume® (ACG)
27795XX	12"	2 ribs	24 ga	PVDF
2779641	12"	2 ribs	22 ga	Galvalume® (ACG)
27796XX	12"	2 ribs	22 ga	PVDF
27797XX	12"	2 ribs	20 ga	PVDF
27795XXA	12"	2 ribs	0.032"	PVDF Aluminum
27796XXA	12"	2 ribs	0.040"	PVDF Aluminum

EM15-1224 Box Rib

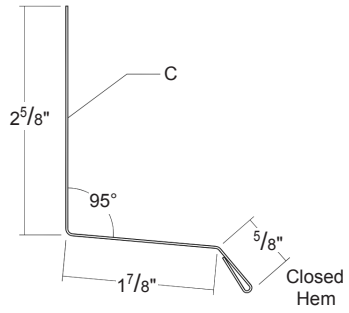


Panel can be produced in lengths from 6' to 30'.

Product No.	Coverage	Description	Thick	Finish
2779841	12"	2 ribs	24 ga	Galvalume® (ACG)
27798XX	12"	2 ribs	24 ga	PVDF
2779941	12"	2 ribs	22 ga	Galvalume® (ACG)
27799XX	12"	2 ribs	22 ga	PVDF
27800XX	12"	2 ribs	20 ga	PVDF
27798XXA	12"	2 ribs	0.032"	PVDF Aluminum
27799XXA	12"	2 ribs	0.040"	PVDF Aluminum

Flashing Profiles

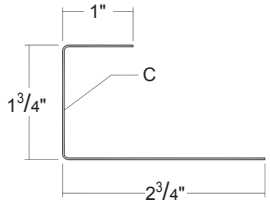
BASE TRIM 1.5"



Product No.	Length	Thick	Finish
5870841	10'-2"	24 ga	Galvalume® (ACG)
58708XX	10'-2"	24 ga	PVDF Painted
6070841	10'-2"	22 ga	Galvalume® (ACG)
60708XX	10'-2"	22 ga	PVDF Painted
58708XXA	10'-2"	0.032"	PVDF Aluminum

Flashing Stretch Out = 5 5/8"

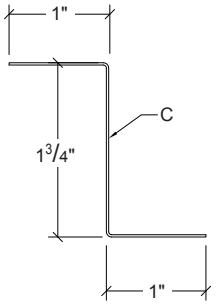
C-CLOSURE 1.5"



Product No.	Length	Thick	Finish
5871241	10'-2"	24 ga	Galvalume® (ACG)
58712XX	10'-2"	24 ga	PVDF Painted
6071241	10'-2"	22 ga	Galvalume® (ACG)
60712XX	10'-2"	22 ga	PVDF Painted
58712XXA	10'-2"	0.032"	PVDF Aluminum

Flashing Stretch Out = 5 1/2"

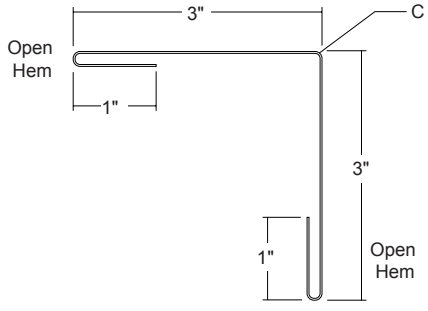
Z-CLOSURE 1.5"



Product No.	Length	Thick	Finish
5872941	10'-2"	24 ga	Galvalume® (ACG)
58729XX	10'-2"	24 ga	PVDF Painted
6072941	10'-2"	22 ga	Galvalume® (ACG)
60729XX	10'-2"	22 ga	PVDF Painted
58729XXA	10'-2"	0.032"	PVDF Aluminum

Flashing Stretch Out = 3 3/4"
This Flashing can be used as an alternate to C-Closure.

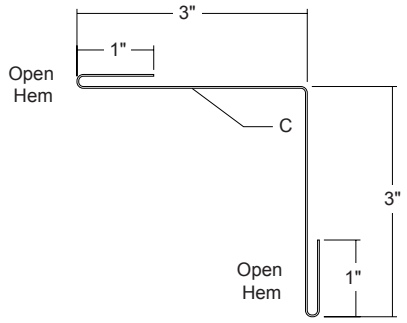
OUTSIDE CORNER



Product No.	Length	Thick	Finish
5872441	10'-2"	24 ga	Galvalume® (ACG)
58724XX	10'-2"	24 ga	PVDF Painted
6072441	10'-2"	22 ga	Galvalume® (ACG)
60724XX	10'-2"	22 ga	PVDF Painted
58724XXA	10'-2"	0.032"	PVDF Aluminum

Flashing Stretch Out = 8 1/8"

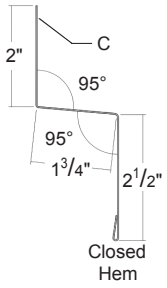
INSIDE CORNER



Product No.	Length	Thick	Finish
5872641	10'-2"	24 ga	Galvalume® (ACG)
58726XX	10'-2"	24 ga	PVDF Painted
6072641	10'-2"	22 ga	Galvalume® (ACG)
60726XX	10'-2"	22 ga	PVDF Painted
58726XXA	10'-2"	0.032"	PVDF Aluminum

Flashing Stretch Out = 8 1/8"

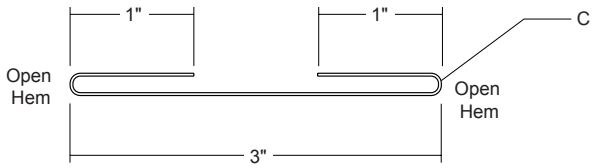
TRANSITION 1.5"



Product No.	Length	Thick	Finish
5873841	10'-2"	24 ga	Galvalume® (ACG)
58738XX	10'-2"	24 ga	PVDF Painted
6073841	10'-2"	22 ga	Galvalume® (ACG)
60738XX	10'-2"	22 ga	PVDF Painted
58738XXA	10'-2"	0.032"	PVDF Aluminum

Flashing Stretch Out = 6 3/4"

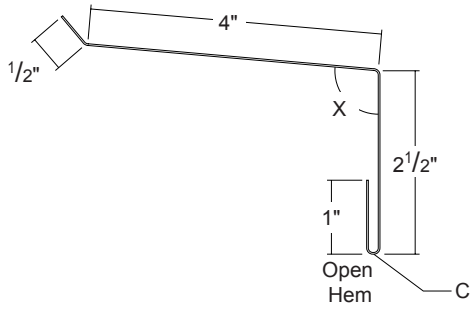
REVEAL



Product No.	Length	Thick	Finish
5874041	10'-2"	24 ga	Galvalume® (ACG)
58740XX	10'-2"	24 ga	PVDF Painted
6074041	10'-2"	22 ga	Galvalume® (ACG)
60740XX	10'-2"	22 ga	PVDF Painted
58740XXA	10'-2"	0.032"	PVDF Aluminum

Flashing Stretch Out = 5 1/8"

SILL/JAMB TRIM



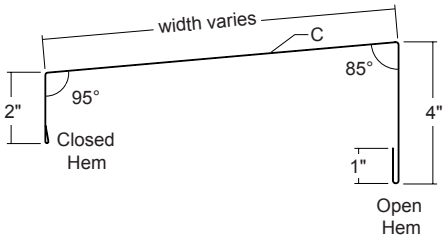
Product No.	Length	Thick	Finish
5871841	10'-2"	24 ga	Galvalume® (ACG)
58718XX	10'-2"	24 ga	PVDF Painted
6071841	10'-2"	22 ga	Galvalume® (ACG)
60718XX	10'-2"	22 ga	PVDF Painted
58718XXA	10'-2"	0.032"	PVDF Aluminum

Flashing Stretch Out = 8"

X= 95° for Sill or 90° for Jamb

Flashing Profiles

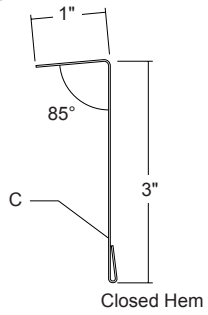
COPING



Width	Product No.	Length	Thick	Finish
8"	58714XX	10'-2"	24 ga	PVDF Painted
10"	58715XX	10'-2"	24 ga	PVDF Painted
12"	58716XX	10'-2"	24 ga	PVDF Painted
8"	60714XX	10'-2"	22 ga	PVDF Painted
10"	60715XX	10'-2"	22 ga	PVDF Painted
12"	60716XX	10'-2"	22 ga	PVDF Painted
8"	58714XXA	10'-2"	0.032"	PVDF Aluminum
10"	58715XXA	10'-2"	0.032"	PVDF Aluminum
12"	58716XXA	10'-2"	0.032"	PVDF Aluminum

Flashing Stretch Out = 15 1/2" for 8" Coping

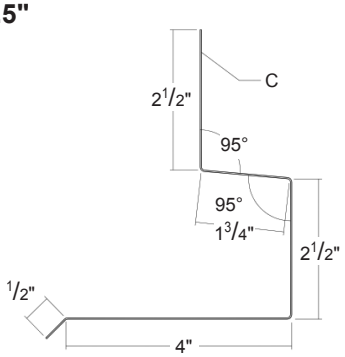
COPING CLEAT



Product No.	Length	Thick	Finish
5873441	10'-2"	24 ga	Galvalume® (ACG)
58734XX	10'-2"	24 ga	PVDF Painted
6073441	10'-2"	22 ga	Galvalume® (ACG)
60734XX	10'-2"	22 ga	PVDF Painted
58734XXA	10'-2"	0.032"	PVDF Aluminum

Flashing Stretch Out = 4 1/2"

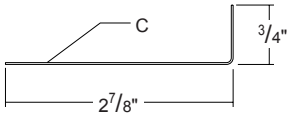
HEAD TRIM 1.5"



Product No.	Length	Thick	Finish
5872241	10'-2"	24 ga	Galvalume® (ACG)
58722XX	10'-2"	24 ga	PVDF Painted
6072241	10'-2"	22 ga	Galvalume® (ACG)
60722XX	10'-2"	22 ga	PVDF Painted
58722XXA	10'-2"	0.032"	PVDF Aluminum

Flashing Stretch Out = 11 1/8"

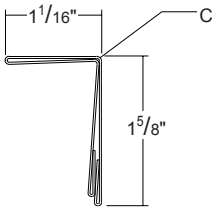
JAMB SUPPORT



Product No.	Length	Thick	Finish
5735241	10'-2"	24 ga	Galvalume® (ACG)
57352XX	10'-2"	24 ga	PVDF Painted
5935441	10'-2"	22 ga	Galvalume® (ACG)
59354XX	10'-2"	22 ga	PVDF Painted
59655XX	10'-2"	0.032"	PVDF Aluminum

Flashing Stretch Out = 3 5/8" See Page 47.

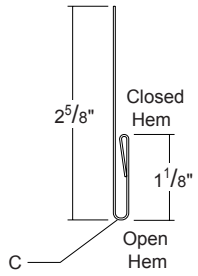
OPENING TRIM 1.5"



Product No.	Length	Thick	Finish
5837741	10'-2"	24 ga	Galvalume® (ACG)
58377XX	10'-2"	24 ga	PVDF Painted
5837841	10'-2"	22 ga	Galvalume® (ACG)
58378XX	10'-2"	22 ga	PVDF Painted
58379XX	10'-2"	0.032"	PVDF Aluminum

Flashing Stretch Out = 6 1/4" See page 47.

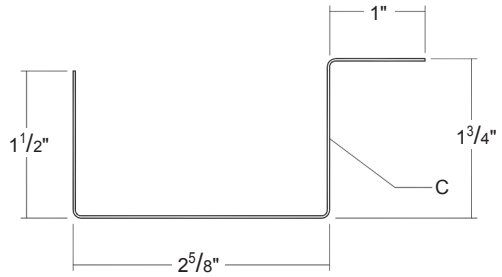
PANEL STARTER



Product No.	Length	Thick	Finish
5872841	10'-2"	24 ga	Galvalume® (ACG)
58728XX	10'-2"	24 ga	PVDF Painted
6072841	10'-2"	22 ga	Galvalume® (ACG)
60728XX	10'-2"	22 ga	PVDF Painted
58728XXA	10'-2"	0.032"	PVDF Aluminum

Flashing Stretch Out = 4 3/8"

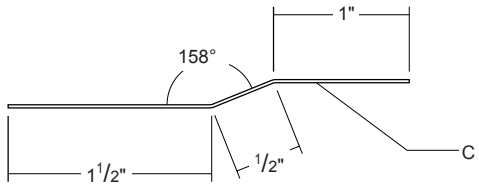
PANEL END CLOSURE 1.5"



Product No.	Length	Thick	Finish
5873241	10'-2"	24 ga	Galvalume® (ACG)
58732XX	10'-2"	24 ga	PVDF Painted
6073241	10'-2"	22 ga	Galvalume® (ACG)
60732XX	10'-2"	22 ga	PVDF Painted
58732XXA	10'-2"	0.032"	PVDF Aluminum

Flashing Stretch Out = 6 7/8"

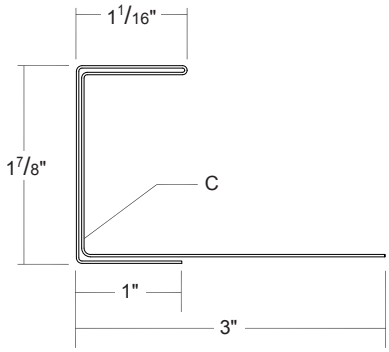
OFFSET CLEAT



Product No.	Length	Thick	Finish
5806499	10'-2"	24 ga	PVDF Painted

Flashing Stretch Out = 3"

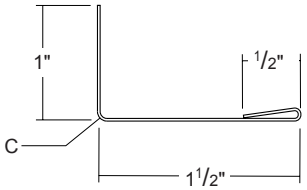
WINDOW CLOSURE 1.5"



Product No.	Length	Thick	Finish
5874441	10'-2"	24 ga	Galvalume® (ACG)
58744XX	10'-2"	24 ga	PVDF Painted
6074441	10'-2"	22 ga	Galvalume® (ACG)
60744XX	10'-2"	22 ga	PVDF Painted
58744XXA	10'-2"	0.032"	PVDF Aluminum

Flashing Stretch Out = 9 7/8"
See page 47.

MITER TRIM



Product No.	Length	Thick	Finish
5865441	10'-2"	24 ga	Galvalume® (ACG)
58654XX	10'-2"	24 ga	PVDF
6065441	10'-2"	22 ga	Galvalume® (ACG)
60654XX	10'-2"	22 ga	PVDF
58654XXA	10'-2"	0.032"	PVDF Aluminum

Flashing Stretch Out = 3"
See pages 33, 41, 44 and 46.

CONCEALED WALL CLIP - 4" LOW

Product No.	Size	WT/100	Finish
4934600	1 3/4" x 4" x 3/8"	16 lbs	G90 Galv
49346F01	1 3/4" x 4" x 3/8"	16 lbs	Stainless

UNIVERSAL CLOSURE

Product No.	Description	WT/Each	Type
6411100	1" x 1 1/2" x 50'	4.00 lbs	Foam
6411199	1" x 1 1/2" x 10'	0.80 lbs	Foam

DOUBLE BEAD TAPE SEALANT

Product No.	Description	WT/Ctn.	Type
6403899	7/8" x 3/16" x 25' 20 Rolls per Carton	40.00 lbs	Butyl

TUBE SEALANT

Product No.	Description	WT/Each	Color
6402800	Acrylic Tube Sealant	3.31 lbs	Clear
64028XX	Tube Sealant	3.31 lbs	Color Match

POP RIVET

Product No.	Description	WT/250	Finish
8240201	1/8" x 3/8" Pop Rivet	0.75 lbs	Bare
82402XX	1/8" x 3/8" Pop Rivet	0.75 lbs	Painted

Used to attach trim to trim or trim to panel.

PANCAKE HEAD WOOD SCREW

Product No.	Description	WT/250	Finish
8243100	#10-12 x 1" Pancake Head Wood Screw	1.90 lbs	Plated

Used to attach trim to wood supports.

PANCAKE HEAD DRILLER

Product No.	Description	WT/250	Finish
8242100	#10-16 x 1" Pancake Head Driller	1.90 lbs	Plated

Used to attach trim or panel clip to steel framing supports.

LOW PROFILE WOOD SCREW

Product No.	Description	WT/250	Finish
8244100	#12-11 x 1 1/2" Low Profile Wood Screw	2.75 lbs	Plated

Used to attach panel clip to wood supports.

WOOD SCREW XL

Product No.	Description	WT/250	Finish
8212300	#10-14 x 1 1/2" Wood Screw XL	3.75 lbs	Plated
82123XX	#10-14 x 1 1/2" Wood Screw XL	3.75 lbs	Painted

Used to attach a vertical panel to wood supports.

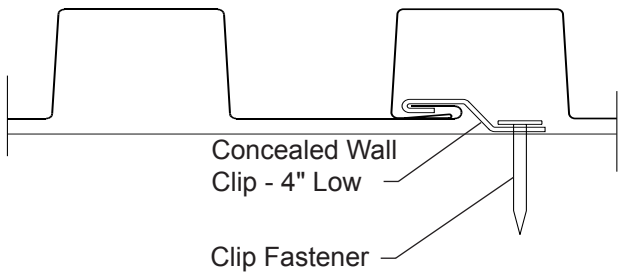
SELF DRILLER XL

Product No.	Description	WT/250	Finish
8235300	#12-14 x 1 1/4" Self Driller XL	3.75 lbs	Plated
82353XX	#12-14 x 1 1/4" Self Driller XL	3.75 lbs	Painted

Used to attach a vertical panel to steel framing supports.

EM15-1222 Box Rib

PANEL ATTACHMENT



FASTENING INFORMATION

- Concealed Wall Clip - 4" Low is $1\frac{3}{4}$" x 4" x $\frac{3}{8}$", from 16 ga, G90 material with 2 fastener holes.
- Clip Fastener(s) should be driven just to contact between fastener head / clip / support. Over-driven fasteners can cause panel distortions.
- Fasteners should extend 1/2" or more past the inside face of the support material for steel and wood sheathing support materials.
- Clip Fasteners:
  - Attaching to Wood:
    - #12-11 x $1\frac{1}{2}$" Low Profile Wood Screw
  - Attaching to Steel:
    - < 18 ga: $\frac{1}{4}$"-13 Deck Screw
    - ≥ 18 ga, ≤ 12 ga: #10-16 Pancake Head Driller
    - > 12 ga: $\frac{1}{4}$"-14 Self Driller, No Washer

INSTALLATION DIRECTION

Horizontally-oriented panels must be installed from the bottom to the top.

Vertically-oriented panels may be installed from the right-to-left or left-to-right.

STEEL SECTION PROPERTIES

ALLOWABLE UNIFORM LOADS, psf For various clip spacings

Ga	Width in	Yield ksi	Weight psf	Top In Compression		Bottom In Compression		Inward Load					Outward Load				
				Ixx in⁴/ft	Sxx in³/ft	Ixx in⁴/ft	Sxx in³/ft	2'	3'	4'	5'	6'	2'	3'	4'	5'	6'
24	12	50	1.74	0.1510	0.1613	0.1555	0.1967	117	60	38	27	21	78	48	34	27	22
22	12	50	2.27	0.2129	0.2355	0.2154	0.2842	117	60	38	27	21	78	48	34	27	22
20	12	33	2.77	0.2900	0.3393	0.2890	0.3631	117	60	38	27	21	78	48	34	27	22

1. Theoretical section properties have been calculated per AISI 2016 'North American Specification for the Design of Cold-Formed Steel Structural Members'. Ixx and Sxx are effective section properties for deflection and bending.
2. Allowable loads are calculated in accordance with AISI 2016 specifications considering bending, shear, combined bending and shear, deflection, load testing on 16 ga girts and load testing of comparable profiles. Panel weight is not considered. Allowable loads do not consider other support conditions, including web crippling, fasteners or support materials.
3. Allowable loads consider the three or more equal spans condition.
4. Deflection consideration is limited by a maximum deflection ratio of L/180 of span.
5. Allowable loads do not include a 1/3 stress increase for wind.

ALUMINUM SECTION PROPERTIES

ALLOWABLE UNIFORM LOADS, psf for various clip spacings

Thick in	Width in	Yield ksi	Weight psf	I in⁴/ft	S_{Top} in³/ft	S_{Bottom} in³/ft	Z in³/ft	Inward Load						Outward Load					
								2'	2.5'	3'	4'	5'	6'	2'	2.5'	3'	4'	5'	6'
0.032	12	17	0.83	0.2750	0.3321	0.4107	0.411	98	63	45	26	17	12	64	44	33	21	15	12
0.040	12	17	1.04	0.3390	0.4085	0.5044	0.509	98	63	45	26	17	12	64	44	33	21	15	12

1. Theoretical section properties have been calculated per 2015 Aluminum Design Manual. I, S and Z are section properties for deflection and bending.
2. Allowable loads are calculated in accordance with 2015 Aluminum Design Manual specifications considering bending, shear, combined bending & shear, deflection, load testing on 16 ga girts and load testing of comparable profiles. Panel weight is not considered. Allowable loads do not consider other support conditions, including web crippling, fasteners or support material.
3. Allowable load considers the three or more equal span case.
4. Deflection consideration is limited by a maximum deflection ratio of L/180 of span.
5. Allowable loads do not include a 1/3 stress increase in uplift.

EM15-1222 on 16 ga Girts

Wall Clip Spacing (feet)

Wind Speed (mph) Exposure Category	20 ft, Mean Roof Height			40 ft, Mean Roof Height			60 ft, Mean Roof Height		
	Thickness	Field -25.1 psf	Edge -31 psf	Thickness	Field -29.1 psf	Edge -35.9 psf	Thickness	Field -31.7 psf	Edge -39.1 psf
100C	24 ga	6.00	6.00	24 ga	6.00	6.00	24 ga	6.00	5.50
	22 ga	6.00	6.00	22 ga	6.00	6.00	22 ga	6.00	5.50
	20 ga	6.00	6.00	20 ga	6.00	6.00	20 ga	6.00	5.50
	0.032"	5.50	4.50	0.032"	5.00	4.00	0.032"	4.50	4.00
	Thickness	Field -30.4 psf	Edge -37.5 psf	Thickness	Field -35.2 psf	Edge -43.4 psf	Thickness	Field -38.3 psf	Edge -47.3 psf
110C	24 ga	6.00	5.50	24 ga	6.00	5.00	24 ga	5.50	4.50
	22 ga	6.00	5.50	22 ga	6.00	5.00	22 ga	5.50	4.50
	20 ga	6.00	5.50	20 ga	6.00	5.00	20 ga	5.50	4.50
	0.032"	5.00	4.00	0.032"	4.50	3.50	0.032"	4.00	3.50
	Thickness	Field -36.2 psf	Edge -44.7 psf	Thickness	Field -41.9 psf	Edge -51.7 psf	Thickness	Field -45.6 psf	Edge -56.3 psf
120C	24 ga	6.00	4.50	24 ga	5.00	4.00	24 ga	4.50	4.00
	22 ga	6.00	4.50	22 ga	5.00	4.00	22 ga	4.50	4.00
	20 ga	6.00	4.50	20 ga	5.00	4.00	20 ga	4.50	4.00
	0.032"	4.00	3.50	0.032"	4.00	3.50	0.032"	3.50	3.00
	Thickness	Field -42.5 psf	Edge -52.4 psf	Thickness	Field -49.1 psf	Edge -60.6 psf	Thickness	Field -53.5 psf	Edge -66 psf
130C	24 ga	5.00	4.00	24 ga	4.50	3.50	24 ga	4.00	3.50
	22 ga	5.00	4.00	22 ga	4.50	3.50	22 ga	4.00	3.50
	20 ga	5.00	4.00	20 ga	4.50	3.50	20 ga	4.00	3.50
	0.032"	4.00	3.00	0.032"	3.50	3.00	0.032"	3.00	3.00
	Thickness	Field -49.2 psf	Edge -60.8 psf	Thickness	Field -57 psf	Edge -70.3 psf	Thickness	Field -62 psf	Edge -76.6 psf
140C	24 ga	4.50	3.50	24 ga	4.00	3.00	24 ga	3.50	3.00
	22 ga	4.50	3.50	22 ga	4.00	3.00	22 ga	3.50	3.00
	20 ga	4.50	3.50	20 ga	4.00	3.00	20 ga	3.50	3.00
	0.032"	3.50	3.00	0.032"	3.00	2.50	0.032"	3.00	2.50
	Thickness	Field -56.5 psf	Edge -69.8 psf	Thickness	Field -65.4 psf	Edge -80.7 psf	Thickness	Field -71.2 psf	Edge -87.9 psf
150C	24 ga	4.00	3.00	24 ga	3.50	2.50	24 ga	3.00	2.50
	22 ga	4.00	3.00	22 ga	3.50	2.50	22 ga	3.00	2.50
	20 ga	4.00	3.00	20 ga	3.50	2.50	20 ga	3.00	2.50
	0.032"	3.00	2.50	0.032"	3.00	2.50	0.032"	2.50	2.50
	Thickness	Field -64.3 psf	Edge -79.4 psf	Thickness	Field -74.4 psf	Edge -91.9 psf	Thickness	Field -81 psf	Edge -100 psf
160C	24 ga	3.50	3.00	24 ga	3.00	2.50	24 ga	2.50	2.00
	22 ga	3.50	3.00	22 ga	3.00	2.50	22 ga	2.50	2.00
	20 ga	3.50	3.00	20 ga	3.00	2.50	20 ga	2.50	2.00
	0.032"	3.00	2.50	0.032"	2.50	2.00	0.032"	2.50	2.00
	Thickness	Field -72.6 psf	Edge -89.6 psf	Thickness	Field -84 psf	Edge -103.7 psf	Thickness	Field -91.5 psf	Edge -112.9 psf
170C	24 ga	3.00	2.50	24 ga	2.50	2.00	24 ga	2.50	2.00
	22 ga	3.00	2.50	22 ga	2.50	2.00	22 ga	2.50	2.00
	20 ga	3.00	2.50	20 ga	2.50	2.00	20 ga	2.50	2.00
	0.032"	2.50	2.50	0.032"	2.50	2.00	0.032"	2.00	2.00

Notes:

1. Allowable spacing is based on capacities determined in AISI 2016, North American Specification for the Design of Cold-Structural Members and ADM 2015, Aluminum Design Manual.

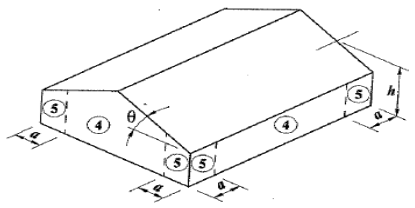
2. Allowable spacing is based on an applied load determined using ASCE 7-16 for the wind speeds and Wind Exposures tabulated. Assumptions include a tributary area of 10 square feet, an Enclosed building, a Topographic Factor of 1.0 and panel bearing length of 2.5 inches.

3. Allowable spacing is determined using IBC 2018 combinations. For wind suction and pressure, the combination is 0.6W. The arrangement is 3 or more equal spans.

4. Testing is the basis for the load carrying capacity.

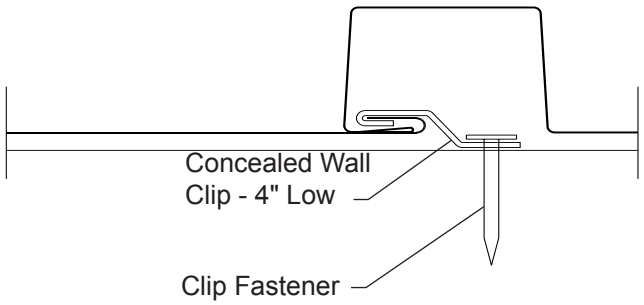
(4) - FIELD
(5) - EDGE

a - LEAST OF 10% MINIMUM BUILDING WIDTH OR 40% OF MEAN ROOF HEIGHT BUT NOT LESS THAN 3'.



EM15-622 Box Rib

PANEL ATTACHMENT



FASTENING INFORMATION

- Concealed Wall Clip - 4" Low is $1\frac{3}{4}$" x 4" x $\frac{3}{8}$", from 16 ga, G90 material with 2 fastener holes.
- Clip Fastener(s) should be driven just to contact between fastener head / clip / support. Over-driven fasteners can cause panel distortions.
- Fasteners should extend 1/2" or more past the inside face of the support material for steel and wood sheathing support materials.
- Clip Fasteners:
  - Attaching to Wood:
    - #12-11 x $1\frac{1}{2}$" Low Profile Wood Screw
  - Attaching to Steel:
    - < 18 ga: $\frac{1}{4}$"-13 Deck Screw
    - ≥ 18 ga, ≤ 12 ga: #10-16 Pancake Head Driller
    - > 12 ga: $\frac{1}{4}$"-14 Self Driller, No Washer

INSTALLATION DIRECTION

Horizontally-oriented panels must be installed from the bottom to the top.

Vertically-oriented panels may be installed from the right-to-left or left-to-right.

STEEL SECTION PROPERTIES

ALLOWABLE UNIFORM LOADS, psf For various clip spacings

Ga	Width in	Yield ksi	Weight psf	Top In Compression		Bottom In Compression		Inward Load					Outward Load				
				Ixx in⁴/ft	Sxx in³/ft	Ixx in⁴/ft	Sxx in³/ft	2'	3'	4'	5'	6'	2'	3'	4'	5'	6'
24	12	50	1.54	0.1241	0.1150	0.1110	0.1473	117	60	38	27	21	78	48	34	27	22
22	12	50	2.01	0.1763	0.1677	0.1560	0.1978	117	60	38	27	21	78	48	34	27	22
20	12	33	2.43	0.2410	0.2385	0.2110	0.2464	117	60	38	27	21	78	48	34	27	22

1. Theoretical section properties have been calculated per AISI 2016 'North American Specification for the Design of Cold-Formed Steel Structural Members'. Ixx and Sxx are effective section properties for deflection and bending.
2. Allowable loads are calculated in accordance with AISI 2016 specifications considering bending, shear, combined bending & shear, deflection and load testing on 16 ga girts of comparable profiles. Panel weight is not considered. Allowable loads do not consider other support conditions, including web crippling, fasteners or support materials.
3. Allowable loads consider the three or more equal spans condition.
4. Deflection consideration is limited by a maximum deflection ratio of L/180 of span.
5. Allowable loads do not include a 1/3 stress increase for wind.

ALUMINUM SECTION PROPERTIES

ALLOWABLE UNIFORM LOADS, psf for various clip spacings

Thick in	Width in	Yield ksi	Weight psf	I in⁴/ft	S_{Top} in³/ft	S_{Bottom} in³/ft	Z in³/ft	Inward Load						Outward Load					
								2'	2.5'	3'	4'	5'	6'	2'	2.5'	3'	4'	5'	6'
0.032	12	17	0.74	0.2320	0.2359	0.4521	0.316	98	63	45	26	17	12	64	44	33	21	15	12
0.040	12	17	0.92	0.2860	0.2905	0.5552	0.391	98	63	45	26	17	12	64	44	33	21	15	12

1. Theoretical section properties have been calculated per 2015 Aluminum Design Manual. I, S and Z are section properties for deflection and bending.
2. Allowable loads are calculated in accordance with 2015 Aluminum Design Manual specifications considering bending, shear, combined bending & shear, deflection and load testing on 16 ga girts of comparable profiles. Panel weight is not considered. Allowable loads do not consider other support conditions, including web crippling, fasteners or support material.
3. Allowable load considers the three or more equal span case.
4. Deflection consideration is limited by a maximum deflection ratio of L/180 of span.
5. Allowable loads do not include a 1/3 stress increase in uplift.

EM15-622 on 16 ga Girts

Wall Clip Spacing (feet)

Wind Speed (mph) Exposure Category	20 ft, Mean Roof Height			40 ft, Mean Roof Height			60 ft, Mean Roof Height		
	Thickness	Field -25.1 psf	Edge -31 psf	Thickness	Field -29.1 psf	Edge -35.9 psf	Thickness	Field -31.7 psf	Edge -39.1 psf
100C	24 ga	6.00	5.50	24 ga	5.50	4.50	24 ga	5.00	4.50
	22 ga	6.00	5.50	22 ga	5.50	4.50	22 ga	5.00	4.50
	20 ga	6.00	5.50	20 ga	5.50	4.50	20 ga	5.00	4.50
	0.032"	5.50	4.50	0.032"	5.00	4.00	0.032"	4.50	3.50
	Thickness	Field -30.4 psf	Edge -37.5 psf	Thickness	Field -35.2 psf	Edge -43.4 psf	Thickness	Field -38.3 psf	Edge -47.3 psf
110C	24 ga	5.50	4.50	24 ga	5.00	4.00	24 ga	4.50	4.00
	22 ga	5.50	4.50	22 ga	5.00	4.00	22 ga	4.50	4.00
	20 ga	5.50	4.50	20 ga	5.00	4.00	20 ga	4.50	4.00
	0.032"	4.50	4.00	0.032"	4.00	3.50	0.032"	4.00	3.00
	Thickness	Field -36.2 psf	Edge -44.7 psf	Thickness	Field -41.9 psf	Edge -51.7 psf	Thickness	Field -45.6 psf	Edge -56.3 psf
120C	24 ga	4.50	4.00	24 ga	4.00	3.50	24 ga	4.00	3.50
	22 ga	4.50	4.00	22 ga	4.00	3.50	22 ga	4.00	3.50
	20 ga	4.50	4.00	20 ga	4.00	3.50	20 ga	4.00	3.50
	0.032"	4.00	3.50	0.032"	3.50	3.00	0.032"	3.00	2.50
	Thickness	Field -42.5 psf	Edge -52.4 psf	Thickness	Field -49.1 psf	Edge -60.6 psf	Thickness	Field -53.5 psf	Edge -66 psf
130C	24 ga	4.00	3.50	24 ga	3.50	3.00	24 ga	3.50	3.00
	22 ga	4.00	3.50	22 ga	3.50	3.00	22 ga	3.50	3.00
	20 ga	4.00	3.50	20 ga	3.50	3.00	20 ga	3.50	3.00
	0.032"	3.50	3.00	0.032"	3.00	2.50	0.032"	3.00	2.50
	Thickness	Field -49.2 psf	Edge -60.8 psf	Thickness	Field -57 psf	Edge -70.3 psf	Thickness	Field -62 psf	Edge -76.6 psf
140C	24 ga	3.50	3.00	24 ga	3.50	3.00	24 ga	3.00	2.50
	22 ga	3.50	3.00	22 ga	3.50	3.00	22 ga	3.00	2.50
	20 ga	3.50	3.00	20 ga	3.50	3.00	20 ga	3.00	2.50
	0.032"	3.00	2.50	0.032"	2.50	2.50	0.032"	2.50	2.00
	Thickness	Field -56.5 psf	Edge -69.8 psf	Thickness	Field -65.4 psf	Edge -80.7 psf	Thickness	Field -71.2 psf	Edge -87.9 psf
150C	24 ga	3.50	3.00	24 ga	3.00	2.50	24 ga	3.00	2.50
	22 ga	3.50	3.00	22 ga	3.00	2.50	22 ga	3.00	2.50
	20 ga	3.50	3.00	20 ga	3.00	2.50	20 ga	3.00	2.50
	0.032"	2.50	2.50	0.032"	2.50	2.00	0.032"	2.00	2.00
	Thickness	Field -64.3 psf	Edge -79.4 psf	Thickness	Field -74.4 psf	Edge -91.9 psf	Thickness	Field -81 psf	Edge -100 psf
160C	24 ga	3.00	2.50	24 ga	2.50	2.50	24 ga	2.50	2.00
	22 ga	3.00	2.50	22 ga	2.50	2.50	22 ga	2.50	2.00
	20 ga	3.00	2.50	20 ga	2.50	2.50	20 ga	2.50	2.00
	0.032"	2.50	2.00	0.032"	2.00	2.00	0.032"	-	-
	Thickness	Field -72.6 psf	Edge -89.6 psf	Thickness	Field -84 psf	Edge -103.7 psf	Thickness	Field -91.5 psf	Edge -112.9 psf
170C	24 ga	2.50	2.50	24 ga	2.50	2.00	24 ga	2.50	2.00
	22 ga	2.50	2.50	22 ga	2.50	2.00	22 ga	2.50	2.00
	20 ga	2.50	2.50	20 ga	2.50	2.00	20 ga	2.50	2.00
	0.032"	2.00	2.00	0.032"	-	-	0.032"	-	-

Notes:

1. Allowable spacing is based on capacities determined in AISI 2016, North American Specification for the Design of Cold-Structural Members and ADM 2015, Aluminum Design Manual.

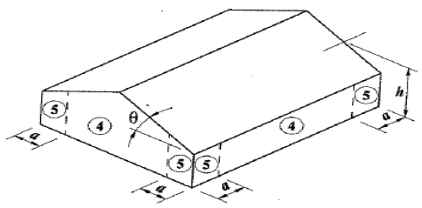
2. Allowable spacing is based on an applied load determined using ASCE 7-16 for the wind speeds and Wind Exposures tabulated. Assumptions include a tributary area of 10 square feet, an Enclosed building, a Topographic Factor of 1.0 and panel bearing length of 2.5 inches.

3. Allowable spacing is determined using IBC 2018 combinations. For wind suction and pressure, the combination is 0.6W. The arrangement is 3 or more equal spans.

4. Testing is the basis for the load carrying capacity.

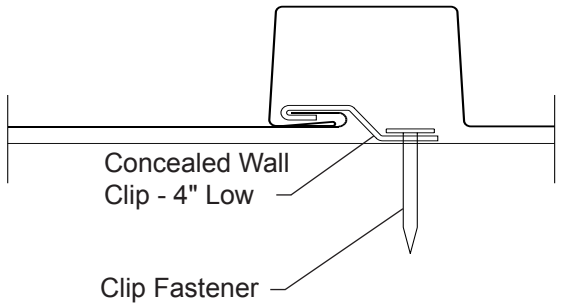
(4) - FIELD
(5) - EDGE

a - LEAST OF 10% MINIMUM BUILDING WIDTH OR 40% OF MEAN ROOF HEIGHT BUT NOT LESS THAN 3'.



EM15-1262 Box Rib

PANEL ATTACHMENT



FASTENING INFORMATION

- Concealed Wall Clip - 4" Low is $1\frac{3}{4}$" x 4" x $\frac{3}{8}$", from 16 ga, G90 material with 2 fastener holes.
- Clip Fastener(s) should be driven just to contact between fastener head / clip / support. Over-driven fasteners can cause panel distortions.
- Fasteners should extend 1/2" or more past the inside face of the support material for steel and wood sheathing support materials.
- Clip Fasteners:
  - Attaching to Wood:
    - #12-11 x $1\frac{1}{2}$" Low Profile Wood Screw
  - Attaching to Steel:
    - < 18 ga: $\frac{1}{4}$"-13 Deck Screw
    - ≥ 18 ga, ≤ 12 ga: #10-16 Pancake Head Driller
    - > 12 ga: $\frac{1}{4}$"-14 Self Driller, No Washer

INSTALLATION DIRECTION

Horizontally-oriented panels must be installed from the bottom to the top.

Vertically-oriented panels may be installed from the right-to-left or left-to-right.

STEEL SECTION PROPERTIES

ALLOWABLE UNIFORM LOADS, psf For various clip spacings

Ga	Width in	Yield ksi	Weight psf	Top In Compression		Bottom In Compression		Inward Load					Outward Load				
				Ixx in⁴/ft	Sxx in³/ft	Ixx in⁴/ft	Sxx in³/ft	2'	3'	4'	5'	6'	2'	3'	4'	5'	6'
24	12	50	1.54	0.1241	0.1150	0.1103	0.1458	117	60	38	27	21	78	48	34	27	22
22	12	50	2.01	0.1763	0.1677	0.1542	0.1970	117	60	38	27	21	78	48	34	27	22
20	12	33	2.43	0.2410	0.2385	0.2060	0.2446	117	60	38	27	210	78	48	34	27	22

1. Theoretical section properties have been calculated per AISI 2016 'North American Specification for the Design of Cold-Formed Steel Structural Members'. Ixx and Sxx are effective section properties for deflection and bending.
2. Allowable loads are calculated in accordance with AISI 2016 specifications considering bending, shear, combined bending & shear, deflection and load testing on 16 ga girts of comparable profiles. Panel weight is not considered. Allowable loads do not consider other support conditions, including web crippling, fasteners or support materials.
3. Allowable loads consider the three or more equal spans condition.
4. Deflection consideration is limited by a maximum deflection ratio of L/180 of span.
5. Allowable loads do not include a 1/3 stress increase for wind.

ALUMINUM SECTION PROPERTIES

ALLOWABLE UNIFORM LOADS, psf for various clip spacings

Thick in	Width in	Yield ksi	Weight psf	I in⁴/ft	S_{Top} in³/ft	S_{Bottom} in³/ft	Z in³/ft	Inward Load						Outward Load					
								2'	2.5'	3'	4'	5'	6'	2'	2.5'	3'	4'	5'	6'
0.032	12	17	0.74	0.2320	0.2359	0.4521	0.316	98	63	45	26	17	12	64	44	33	21	15	12
0.040	12	17	0.92	0.2860	0.2905	0.5552	0.391	98	63	45	26	17	12	64	44	33	21	15	12

1. Theoretical section properties have been calculated per 2015 Aluminum Design Manual. I, S and Z are section properties for deflection and bending.
2. Allowable loads are calculated in accordance with 2015 Aluminum Design Manual specifications considering bending, shear, combined bending & shear, deflection and load testing on 16 ga girts of comparable profiles. Panel weight is not considered. Allowable loads do not consider other support conditions, including web crippling, fasteners or support material.
3. Allowable load considers the three or more equal span case.
4. Deflection consideration is limited by a maximum deflection ratio of L/180 of span.
5. Allowable loads do not include a 1/3 stress increase in uplift.

EM15-1262 on 16 ga Girts

Wall Clip Spacing (feet)

Wind Speed (mph) Exposure Category	20 ft, Mean Roof Height			40 ft, Mean Roof Height			60 ft, Mean Roof Height		
	Thickness	Field -25.1 psf	Edge -31 psf	Thickness	Field -29.1 psf	Edge -35.9 psf	Thickness	Field -31.7 psf	Edge -39.1 psf
100C	24 ga	6.00	5.50	24 ga	5.50	4.50	24 ga	5.00	4.50
	22 ga	6.00	5.50	22 ga	5.50	4.50	22 ga	5.00	4.50
	20 ga	6.00	5.50	20 ga	5.50	4.50	20 ga	5.00	4.50
	0.032"	5.50	4.50	0.032"	5.00	4.00	0.032"	4.50	3.50
110C	Thickness	Field -30.4 psf	Edge -37.5 psf	Thickness	Field -35.2 psf	Edge -43.4 psf	Thickness	Field -38.3 psf	Edge -47.3 psf
	24 ga	5.50	4.50	24 ga	5.00	4.00	24 ga	4.50	4.00
	22 ga	5.50	4.50	22 ga	5.00	4.00	22 ga	4.50	4.00
	20 ga	5.50	4.50	20 ga	5.00	4.00	20 ga	4.50	4.00
	0.032"	4.50	4.00	0.032"	4.00	3.50	0.032"	4.00	3.00
120C	Thickness	Field -36.2 psf	Edge -44.7 psf	Thickness	Field -41.9 psf	Edge -51.7 psf	Thickness	Field -45.6 psf	Edge -56.3 psf
	24 ga	4.50	4.00	24 ga	4.00	3.50	24 ga	4.00	3.50
	22 ga	4.50	4.00	22 ga	4.00	3.50	22 ga	4.00	3.50
	20 ga	4.50	4.00	20 ga	4.00	3.50	20 ga	4.00	3.50
	0.032"	4.00	3.50	0.032"	3.50	3.00	0.032"	3.00	2.50
130C	Thickness	Field -42.5 psf	Edge -52.4 psf	Thickness	Field -49.1 psf	Edge -60.6 psf	Thickness	Field -53.5 psf	Edge -66 psf
	24 ga	4.00	3.50	24 ga	3.50	3.00	24 ga	3.50	3.00
	22 ga	4.00	3.50	22 ga	3.50	3.00	22 ga	3.50	3.00
	20 ga	4.00	3.50	20 ga	3.50	3.00	20 ga	3.50	3.00
	0.032"	3.50	3.00	0.032"	3.00	2.50	0.032"	3.00	2.50
140C	Thickness	Field -49.2 psf	Edge -60.8 psf	Thickness	Field -57 psf	Edge -70.3 psf	Thickness	Field -62 psf	Edge -76.6 psf
	24 ga	3.50	3.00	24 ga	3.50	3.00	24 ga	3.00	2.50
	22 ga	3.50	3.00	22 ga	3.50	3.00	22 ga	3.00	2.50
	20 ga	3.50	3.00	20 ga	3.50	3.00	20 ga	3.00	2.50
	0.032"	3.00	2.50	0.032"	2.50	2.50	0.032"	2.50	2.00
150C	Thickness	Field -56.5 psf	Edge -69.8 psf	Thickness	Field -65.4 psf	Edge -80.7 psf	Thickness	Field -71.2 psf	Edge -87.9 psf
	24 ga	3.50	3.00	24 ga	3.00	2.50	24 ga	3.00	2.50
	22 ga	3.50	3.00	22 ga	3.00	2.50	22 ga	3.00	2.50
	20 ga	3.50	3.00	20 ga	3.00	2.50	20 ga	3.00	2.50
	0.032"	2.50	2.50	0.032"	2.50	2.00	0.032"	2.00	2.00
160C	Thickness	Field -64.3 psf	Edge -79.4 psf	Thickness	Field -74.4 psf	Edge -91.9 psf	Thickness	Field -81 psf	Edge -100 psf
	24 ga	3.00	2.50	24 ga	2.50	2.50	24 ga	2.50	2.00
	22 ga	3.00	2.50	22 ga	2.50	2.50	22 ga	2.50	2.00
	20 ga	3.00	2.50	20 ga	2.50	2.50	20 ga	2.50	2.00
	0.032"	2.50	2.00	0.032"	2.00	2.00	0.032"	-	-
170C	Thickness	Field -72.6 psf	Edge -89.6 psf	Thickness	Field -84 psf	Edge -103.7 psf	Thickness	Field -91.5 psf	Edge -112.9 psf
	24 ga	2.50	2.50	24 ga	2.50	2.00	24 ga	2.50	2.00
	22 ga	2.50	2.50	22 ga	2.50	2.00	22 ga	2.50	2.00
	20 ga	2.50	2.50	20 ga	2.50	2.00	20 ga	2.50	2.00
	0.032"	2.00	2.00	0.032"	-	-	0.032"	-	-

Notes:

1. Allowable spacing is based on capacities determined in AISI 2016, North American Specification for the Design of Cold-Structural Members and ADM 2015, Aluminum Design Manual.

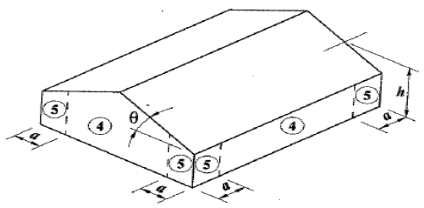
2. Allowable spacing is based on an applied load determined using ASCE 7-16 for the wind speeds and Wind Exposures tabulated. Assumptions include a tributary area of 10 square feet, an Enclosed building, a Topographic Factor of 1.0 and panel bearing length of 2.5 inches.

3. Allowable spacing is determined using IBC 2018 combinations. For wind suction and pressure, the combination is 0.6W. The arrangement is 3 or more equal spans.

4. Testing is the basis for the load carrying capacity.

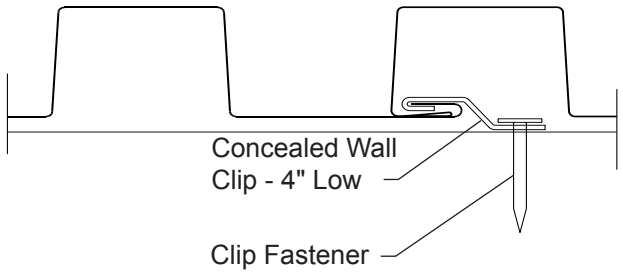
④ - FIELD
⑤ - EDGE

a - LEAST OF 10% MINIMUM BUILDING WIDTH OR 40% OF MEAN ROOF HEIGHT BUT NOT LESS THAN 3'.



EM15-262 Box Rib

PANEL ATTACHMENT



FASTENING INFORMATION

- Concealed Wall Clip - 4" Low is $1^{3}/_{4}$" x 4" x $^{3}/_{8}$", from 16 ga, G90 material with 2 fastener holes.
- Clip Fastener(s) should be driven just to contact between fastener head / clip / support. Over-driven fasteners can cause panel distortions.
- Fasteners should extend 1/2" or more past the inside face of the support material for steel and wood sheathing support materials.
- Clip Fasteners:
  - Attaching to Wood:
    - #12-11 x $1^{1}/_{2}$" Low Profile Wood Screw
  - Attaching to Steel:
    - < 18 ga: $^{1}/_{4}$"-13 Deck Screw
    - ≥ 18 ga, ≤ 12 ga: #10-16 Pancake Head Driller
    - > 12 ga: $^{1}/_{4}$"-14 Self Driller, No Washer

INSTALLATION DIRECTION

Horizontally-oriented panels must be installed from the bottom to the top.

Vertically-oriented panels may be installed from the right-to-left or left-to-right.

STEEL SECTION PROPERTIES

ALLOWABLE UNIFORM LOADS, psf For various clip spacings

Ga	Width in	Yield ksi	Weight psf	Top In Compression		Bottom In Compression		Inward Load					Outward Load				
				Ixx in⁴/ft	Sxx in³/ft	Ixx in⁴/ft	Sxx in³/ft	2'	3'	4'	5'	6'	2'	3'	4'	5'	6'
24	12	50	1.54	0.1241	0.1150	0.1107	0.1468	117	60	38	27	21	78	48	34	27	22
22	12	50	2.01	0.1763	0.1677	0.1553	0.1975	117	60	38	27	21	78	48	34	27	22
20	12	33	2.43	0.2410	0.2385	0.2090	0.2458	117	60	38	27	21	78	48	34	27	22

1. Theoretical section properties have been calculated per AISI 2016 'North American Specification for the Design of Cold-Formed Steel Structural Members'. Ixx and Sxx are effective section properties for deflection and bending.
2. Allowable loads are calculated in accordance with AISI 2016 specifications considering bending, shear, combined bending & shear, deflection and load testing on 16 ga girts of comparable profiles. Panel weight is not considered. Allowable loads do not consider other support conditions, including web crippling, fasteners or support materials.
3. Allowable loads consider the three or more equal spans condition.
4. Deflection consideration is limited by a maximum deflection ratio of L/180 of span.
5. Allowable loads do not include a 1/3 stress increase for wind.

ALUMINUM SECTION PROPERTIES

ALLOWABLE UNIFORM LOADS, psf for various clip spacings

Thick in	Width in	Yield ksi	Weight psf	I in⁴/ft	S_{Top} in³/ft	S_{Bottom} in³/ft	Z in³/ft	Inward Load						Outward Load					
								2'	2.5'	3'	4'	5'	6'	2'	2.5'	3'	4'	5'	6'
0.032	12	17	0.74	0.2320	0.2359	0.4521	0.316	98	63	45	26	17	12	64	44	33	21	15	12
0.040	12	17	0.92	0.2860	0.2905	0.5552	0.391	98	63	45	26	17	12	64	44	33	21	15	12

1. Theoretical section properties have been calculated per 2015 Aluminum Design Manual. I, S and Z are section properties for deflection and bending.
2. Allowable loads are calculated in accordance with 2015 Aluminum Design Manual specifications considering bending, shear, combined bending & shear, deflection and load testing on 16 ga girts of comparable profiles. Panel weight is not considered. Allowable loads do not consider other support conditions, including web crippling, fasteners or support material.
3. Allowable load considers the three or more equal span case.
4. Deflection consideration is limited by a maximum deflection ratio of L/180 of span.
5. Allowable loads do not include a 1/3 stress increase in uplift.

EM15-262 on 16 ga Girts

Wall Clip Spacing (feet)

100C

Thickness	20 ft, Mean Roof Height Field -25.1 psf	20 ft, Mean Roof Height Edge -31 psf	40 ft, Mean Roof Height Field -29.1 psf	40 ft, Mean Roof Height Edge -35.9 psf	60 ft, Mean Roof Height Field -31.7 psf	60 ft, Mean Roof Height Edge -39.1 psf
24 ga	6.00	5.50	5.50	4.50	5.00	4.50
22 ga	6.00	5.50	5.50	4.50	5.00	4.50
20 ga	6.00	5.50	5.50	4.50	5.00	4.50
0.032"	5.50	4.50	5.00	4.00	4.50	3.50

110C

Thickness	Field -30.4 psf	Edge -37.5 psf	Field -35.2 psf	Edge -43.4 psf	Field -38.3 psf	Edge -47.3 psf
24 ga	5.50	4.50	5.00	4.00	4.50	4.00
22 ga	5.50	4.50	5.00	4.00	4.50	4.00
20 ga	5.50	4.50	5.00	4.00	4.50	4.00
0.032"	4.50	4.00	4.00	3.50	4.00	3.00

120C

Thickness	Field -36.2 psf	Edge -44.7 psf	Field -41.9 psf	Edge -51.7 psf	Field -45.6 psf	Edge -56.3 psf
24 ga	4.50	4.00	4.00	3.50	4.00	3.50
22 ga	4.50	4.00	4.00	3.50	4.00	3.50
20 ga	4.50	4.00	4.00	3.50	4.00	3.50
0.032"	4.00	3.50	3.50	3.00	3.00	2.50

130C

Thickness	Field -42.5 psf	Edge -52.4 psf	Field -49.1 psf	Edge -60.6 psf	Field -53.5 psf	Edge -66 psf
24 ga	4.00	3.50	3.50	3.00	3.50	3.00
22 ga	4.00	3.50	3.50	3.00	3.50	3.00
20 ga	4.00	3.50	3.50	3.00	3.50	3.00
0.032"	3.50	3.00	3.00	2.50	3.00	2.50

140C

Thickness	Field -49.2 psf	Edge -60.8 psf	Field -57 psf	Edge -70.3 psf	Field -62 psf	Edge -76.6 psf
24 ga	3.50	3.00	3.50	3.00	3.00	2.50
22 ga	3.50	3.00	3.50	3.00	3.00	2.50
20 ga	3.50	3.00	3.50	3.00	3.00	2.50
0.032"	3.00	2.50	2.50	2.50	2.50	2.00

150C

Thickness	Field -56.5 psf	Edge -69.8 psf	Field -65.4 psf	Edge -80.7 psf	Field -71.2 psf	Edge -87.9 psf
24 ga	3.50	3.00	3.00	2.50	3.00	2.50
22 ga	3.50	3.00	3.00	2.50	3.00	2.50
20 ga	3.50	3.00	3.00	2.50	3.00	2.50
0.032"	2.50	2.50	2.50	2.00	2.00	2.00

160C

Thickness	Field -64.3 psf	Edge -79.4 psf	Field -74.4 psf	Edge -91.9 psf	Field -81 psf	Edge -100 psf
24 ga	3.00	2.50	2.50	2.50	2.50	2.00
22 ga	3.00	2.50	2.50	2.50	2.50	2.00
20 ga	3.00	2.50	2.50	2.50	2.50	2.00
0.032"	2.50	2.00	2.00	2.00	-	-

170C

Thickness	Field -72.6 psf	Edge -89.6 psf	Field -84 psf	Edge -103.7 psf	Field -91.5 psf	Edge -112.9 psf
24 ga	2.50	2.50	2.50	2.00	2.50	2.00
22 ga	2.50	2.50	2.50	2.00	2.50	2.00
20 ga	2.50	2.50	2.50	2.00	2.50	2.00
0.032"	2.00	2.00	-	-	-	-

Notes:

1. Allowable spacing is based on capacities determined in AISI 2016, North American Specification for the Design of Cold-Structural Members and ADM 2015, Aluminum Design Manual.

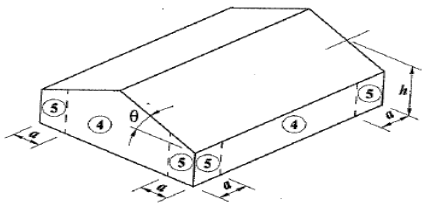
2. Allowable spacing is based on an applied load determined using ASCE 7-16 for the wind speeds and Wind Exposures tabulated. Assumptions include a tributary area of 10 square feet, an Enclosed building, a Topographic Factor of 1.0 and panel bearing length of 2.5 inches.

3. Allowable spacing is determined using IBC 2018 combinations. For wind suction and pressure, the combination is 0.6W. The arrangement is 3 or more equal spans.

4. Testing is the basis for the load carrying capacity.

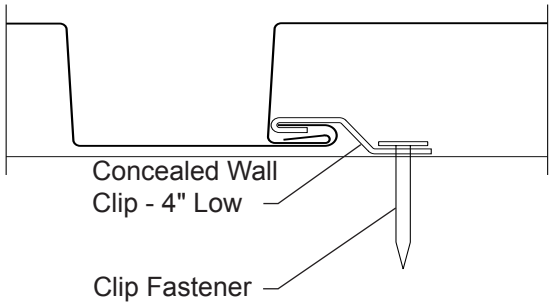
④ - FIELD
⑤ - EDGE

a - LEAST OF 10% MINIMUM BUILDING WIDTH OR 40% OF MEAN ROOF HEIGHT BUT NOT LESS THAN 3'.



EM15-1226 Box Rib

PANEL ATTACHMENT



FASTENING INFORMATION

- Concealed Wall Clip - 4" Low is $1\frac{3}{4}$" x 4" x $\frac{3}{8}$", from 16 ga, G90 material with 2 fastener holes.
- Clip Fastener(s) should be driven just to contact between fastener head / clip / support. Over-driven fasteners can cause panel distortions.
- Fasteners should extend 1/2" or more past the inside face of the support material for steel and wood sheathing support materials.
- Clip Fasteners:
  - Attaching to Wood:
    - #12-11 x $1\frac{1}{2}$" Low Profile Wood Screw
  - Attaching to Steel:
    - < 18 ga: $\frac{1}{4}$"-13 Deck Screw
    - ≥ 18 ga, ≤ 12 ga: #10-16 Pancake Head Driller
    - > 12 ga: $\frac{1}{4}$"-14 Self Driller, No Washer

INSTALLATION DIRECTION

Horizontally-oriented panels must be installed from the bottom to the top.

Vertically-oriented panels may be installed from the right-to-left or left-to-right.

STEEL SECTION PROPERTIES

ALLOWABLE UNIFORM LOADS, psf For various clip spacings

Ga	Width in	Yield ksi	Weight psf	Top In Compression		Bottom In Compression		Inward Load					Outward Load				
				Ixx in⁴/ft	Sxx in³/ft	Ixx in⁴/ft	Sxx in³/ft	2'	3'	4'	5'	6'	2'	3'	4'	5'	6'
24	12	50	1.54	0.1069	0.1114	0.1459	0.1574	117	60	38	27	21	78	48	34	27	22
22	12	50	2.01	0.1523	0.1647	0.2031	0.2266	117	60	38	27	21	78	48	34	27	22
20	12	33	2.43	0.2100	0.2422	0.2690	0.3164	117	60	38	27	21	78	48	34	27	22

1. Theoretical section properties have been calculated per AISI 2016 'North American Specification for the Design of Cold-Formed Steel Structural Members'. Ixx and Sxx are effective section properties for deflection and bending.
2. Allowable loads are calculated in accordance with AISI 2016 specifications considering bending, shear, combined bending & shear, deflection and load testing on 16 ga girts of comparable profiles. Panel weight is not considered. Allowable loads do not consider other support conditions, including web crippling, fasteners or support materials.
3. Allowable loads consider the three or more equal spans condition.
4. Deflection consideration is limited by a maximum deflection ratio of L/180 of span.
5. Allowable loads do not include a 1/3 stress increase for wind.

ALUMINUM SECTION PROPERTIES

ALLOWABLE UNIFORM LOADS, psf for various clip spacings

Thick in	Width in	Yield ksi	Weight psf	I in⁴/ft	S_{Top} in³/ft	S_{Bottom} in³/ft	Z in³/ft	Inward Load						Outward Load					
								2'	2.5'	3'	4'	5'	6'	2'	2.5'	3'	4'	5'	6'
0.032	12	17	0.74	0.2660	0.3836	0.3304	0.392	98	63	45	26	17	12	64	44	33	21	15	12
0.040	12	17	0.92	0.3280	0.4726	0.4062	0.485	98	63	45	26	17	12	64	44	33	21	15	12

1. Theoretical section properties have been calculated per 2015 Aluminum Design Manual. I, S and Z are section properties for deflection and bending.
2. Allowable loads are calculated in accordance with 2015 Aluminum Design Manual specifications considering bending, shear, combined bending & shear, deflection and load testing on 16 ga girts of comparable profiles. Panel weight is not considered. Allowable loads do not consider other support conditions, including web crippling, fasteners or support material.
3. Allowable load considers the three or more equal span case.
4. Deflection consideration is limited by a maximum deflection ratio of L/180 of span.
5. Allowable loads do not include a 1/3 stress increase in uplift.

EM15-1226 on 16 ga Girts

Wall Clip Spacing (feet)

Wind Speed (mph) Exposure Category	20 ft, Mean Roof Height			40 ft, Mean Roof Height			60 ft, Mean Roof Height		
	Thickness	Field -25.1 psf	Edge -31 psf	Thickness	Field -29.1 psf	Edge -35.9 psf	Thickness	Field -31.7 psf	Edge -39.1 psf
100C	24 ga	6.00	5.50	24 ga	5.50	4.50	24 ga	5.00	4.50
	22 ga	6.00	5.50	22 ga	5.50	4.50	22 ga	5.00	4.50
	20 ga	6.00	5.50	20 ga	5.50	4.50	20 ga	5.00	4.50
	0.032"	5.50	4.50	0.032"	5.00	4.00	0.032"	4.50	3.50
110C	Thickness	Field -30.4 psf	Edge -37.5 psf	Thickness	Field -35.2 psf	Edge -43.4 psf	Thickness	Field -38.3 psf	Edge -47.3 psf
	24 ga	5.50	4.50	24 ga	5.00	4.00	24 ga	4.50	4.00
	22 ga	5.50	4.50	22 ga	5.00	4.00	22 ga	4.50	4.00
	20 ga	5.50	4.50	20 ga	5.00	4.00	20 ga	4.50	4.00
	0.032"	4.50	4.00	0.032"	4.00	3.50	0.032"	4.00	3.00
120C	Thickness	Field -36.2 psf	Edge -44.7 psf	Thickness	Field -41.9 psf	Edge -51.7 psf	Thickness	Field -45.6 psf	Edge -56.3 psf
	24 ga	4.50	4.00	24 ga	4.00	3.50	24 ga	4.00	3.50
	22 ga	4.50	4.00	22 ga	4.00	3.50	22 ga	4.00	3.50
	20 ga	4.50	4.00	20 ga	4.00	3.50	20 ga	4.00	3.50
	0.032"	4.00	3.50	0.032"	3.50	3.00	0.032"	3.00	2.50
130C	Thickness	Field -42.5 psf	Edge -52.4 psf	Thickness	Field -49.1 psf	Edge -60.6 psf	Thickness	Field -53.5 psf	Edge -66 psf
	24 ga	4.00	3.50	24 ga	3.50	3.00	24 ga	3.50	3.00
	22 ga	4.00	3.50	22 ga	3.50	3.00	22 ga	3.50	3.00
	20 ga	4.00	3.50	20 ga	3.50	3.00	20 ga	3.50	3.00
	0.032"	3.50	3.00	0.032"	3.00	2.50	0.032"	3.00	2.50
140C	Thickness	Field -49.2 psf	Edge -60.8 psf	Thickness	Field -57 psf	Edge -70.3 psf	Thickness	Field -62 psf	Edge -76.6 psf
	24 ga	3.50	3.00	24 ga	3.50	3.00	24 ga	3.00	2.50
	22 ga	3.50	3.00	22 ga	3.50	3.00	22 ga	3.00	2.50
	20 ga	3.50	3.00	20 ga	3.50	3.00	20 ga	3.00	2.50
	0.032"	3.00	2.50	0.032"	2.50	2.50	0.032"	2.50	2.00
150C	Thickness	Field -56.5 psf	Edge -69.8 psf	Thickness	Field -65.4 psf	Edge -80.7 psf	Thickness	Field -71.2 psf	Edge -87.9 psf
	24 ga	3.50	3.00	24 ga	3.00	2.50	24 ga	3.00	2.50
	22 ga	3.50	3.00	22 ga	3.00	2.50	22 ga	3.00	2.50
	20 ga	3.50	3.00	20 ga	3.00	2.50	20 ga	3.00	2.50
	0.032"	2.50	2.50	0.032"	2.50	2.00	0.032"	2.00	2.00
160C	Thickness	Field -64.3 psf	Edge -79.4 psf	Thickness	Field -74.4 psf	Edge -91.9 psf	Thickness	Field -81 psf	Edge -100 psf
	24 ga	3.00	2.50	24 ga	2.50	2.50	24 ga	2.50	2.00
	22 ga	3.00	2.50	22 ga	2.50	2.50	22 ga	2.50	2.00
	20 ga	3.00	2.50	20 ga	2.50	2.50	20 ga	2.50	2.00
	0.032"	2.50	2.00	0.032"	2.00	2.00	0.032"	-	-
170C	Thickness	Field -72.6 psf	Edge -89.6 psf	Thickness	Field -84 psf	Edge -103.7 psf	Thickness	Field -91.5 psf	Edge -112.9 psf
	24 ga	2.50	2.50	24 ga	2.50	2.00	24 ga	2.50	2.00
	22 ga	2.50	2.50	22 ga	2.50	2.00	22 ga	2.50	2.00
	20 ga	2.50	2.50	20 ga	2.50	2.00	20 ga	2.50	2.00
	0.032"	2.00	2.00	0.032"	-	-	0.032"	-	-

Notes:

1. Allowable spacing is based on capacities determined in AISI 2016, North American Specification for the Design of Cold-Structural Members and ADM 2015, Aluminum Design Manual.

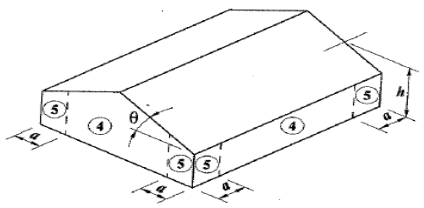
2. Allowable spacing is based on an applied load determined using ASCE 7-16 for the wind speeds and Wind Exposures tabulated. Assumptions include a tributary area of 10 square feet, an Enclosed building, a Topographic Factor of 1.0 and panel bearing length of 2.5 inches.

3. Allowable spacing is determined using IBC 2018 combinations. For wind suction and pressure, the combination is 0.6W. The arrangement is 3 or more equal spans.

4. Testing is the basis for the load carrying capacity.

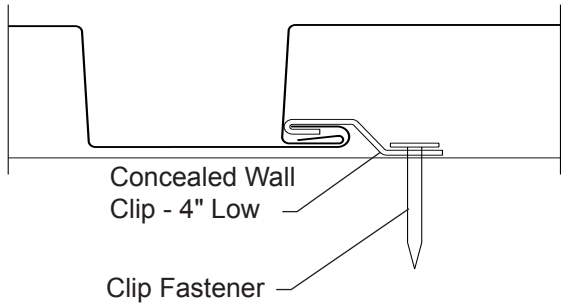
④ - FIELD
⑤ - EDGE

a - LEAST OF 10% MINIMUM BUILDING WIDTH OR 40% OF MEAN ROOF HEIGHT BUT NOT LESS THAN 3'.



EM15-1224 Box Rib

PANEL ATTACHMENT



FASTENING INFORMATION

- Concealed Wall Clip - 4" Low is $1\frac{3}{4}$" x 4" x $\frac{3}{8}$", from 16 ga, G90 material with 2 fastener holes.
- Clip Fastener(s) should be driven just to contact between fastener head / clip / support. Over-driven fasteners can cause panel distortions.
- Fasteners should extend 1/2" or more past the inside face of the support material for steel and wood sheathing support materials.
- Clip Fasteners:
  - Attaching to Wood:
    - #12-11 x $1\frac{1}{2}$" Low Profile Wood Screw
  - Attaching to Steel:
    - < 18 ga: $\frac{1}{4}$"-13 Deck Screw
    - ≥ 18 ga, ≤ 12 ga: #10-16 Pancake Head Driller
    - > 12 ga: $\frac{1}{4}$"-14 Self Driller, No Washer

INSTALLATION DIRECTION

Horizontally-oriented panels must be installed from the bottom to the top.

Vertically-oriented panels may be installed from the right-to-left or left-to-right.

STEEL SECTION PROPERTIES

ALLOWABLE UNIFORM LOADS, psf For various clip spacings

Ga	Width in	Yield ksi	Weight psf	Top In Compression		Bottom In Compression		Inward Load					Outward Load				
				Ixx in⁴/ft	Sxx in³/ft	Ixx in⁴/ft	Sxx in³/ft	2'	3'	4'	5'	6'	2'	3'	4'	5'	6'
24	12	50	1.54	0.1079	0.1127	0.1459	0.1574	117	60	38	27	21	78	48	34	27	22
22	12	50	2.01	0.1543	0.1678	0.2031	0.2266	117	60	38	27	21	78	48	34	27	22
20	12	33	2.43	0.2150	0.2508	0.2690	0.3164	117	60	38	27	21	78	48	34	27	22

1. Theoretical section properties have been calculated per AISI 2016 'North American Specification for the Design of Cold-Formed Steel Structural Members'. Ixx and Sxx are effective section properties for deflection and bending.
2. Allowable loads are calculated in accordance with AISI 2016 specifications considering bending, shear, combined bending & shear, deflection and load testing on 16 ga girts of comparable profiles. Panel weight is not considered. Allowable loads do not consider other support conditions, including web crippling, fasteners or support materials.
3. Allowable loads consider the three or more equal spans condition.
4. Deflection consideration is limited by a maximum deflection ratio of L/180 of span.
5. Allowable loads do not include a 1/3 stress increase for wind.

ALUMINUM SECTION PROPERTIES

ALLOWABLE UNIFORM LOADS, psf for various clip spacings

Thick in	Width in	Yield ksi	Weight psf	I in⁴/ft	S_{Top} in³/ft	S_{Bottom} in³/ft	Z in³/ft	Inward Load						Outward Load					
								2'	2.5'	3'	4'	5'	6'	2'	2.5'	3'	4'	5'	6'
0.032	12	17	0.74	0.2660	0.3836	0.3304	0.392	98	63	45	26	17	12	64	44	33	21	15	12
0.040	12	17	0.92	0.3280	0.4726	0.4062	0.485	98	63	45	26	17	12	64	44	33	21	15	12

1. Theoretical section properties have been calculated per 2015 Aluminum Design Manual. I, S and Z are section properties for deflection and bending.
2. Allowable loads are calculated in accordance with 2015 Aluminum Design Manual specifications considering bending, shear, combined bending & shear, deflection and load testing on 16 ga girts of comparable profiles. Panel weight is not considered. Allowable loads do not consider other support conditions, including web crippling, fasteners or support material.
3. Allowable load considers the three or more equal span case.
4. Deflection consideration is limited by a maximum deflection ratio of L/180 of span.
5. Allowable loads do not include a 1/3 stress increase in uplift.

EM15-1224 on 16 ga Girts

Wall Clip Spacing (feet)

100C

Wind Speed (mph) Exposure Category	20 ft, Mean Roof Height			40 ft, Mean Roof Height			60 ft, Mean Roof Height		
	Thickness	Field -25.1 psf	Edge -31 psf	Thickness	Field -29.1 psf	Edge -35.9 psf	Thickness	Field -31.7 psf	Edge -39.1 psf
100C	24 ga	6.00	5.50	24 ga	5.50	4.50	24 ga	5.00	4.50
	22 ga	6.00	5.50	22 ga	5.50	4.50	22 ga	5.00	4.50
	20 ga	6.00	5.50	20 ga	5.50	4.50	20 ga	5.00	4.50
	0.032"	5.50	4.50	0.032"	5.00	4.00	0.032"	4.50	3.50

110C

	Thickness	Field -30.4 psf	Edge -37.5 psf	Thickness	Field -35.2 psf	Edge -43.4 psf	Thickness	Field -38.3 psf	Edge -47.3 psf
110C	24 ga	5.50	4.50	24 ga	5.00	4.00	24 ga	4.50	4.00
	22 ga	5.50	4.50	22 ga	5.00	4.00	22 ga	4.50	4.00
	20 ga	5.50	4.50	20 ga	5.00	4.00	20 ga	4.50	4.00
	0.032"	4.50	4.00	0.032"	4.00	3.50	0.032"	4.00	3.00

120C

	Thickness	Field -36.2 psf	Edge -44.7 psf	Thickness	Field -41.9 psf	Edge -51.7 psf	Thickness	Field -45.6 psf	Edge -56.3 psf
120C	24 ga	4.50	4.00	24 ga	4.00	3.50	24 ga	4.00	3.50
	22 ga	4.50	4.00	22 ga	4.00	3.50	22 ga	4.00	3.50
	20 ga	4.50	4.00	20 ga	4.00	3.50	20 ga	4.00	3.50
	0.032"	4.00	3.50	0.032"	3.50	3.00	0.032"	3.00	2.50

130C

	Thickness	Field -42.5 psf	Edge -52.4 psf	Thickness	Field -49.1 psf	Edge -60.6 psf	Thickness	Field -53.5 psf	Edge -66 psf
130C	24 ga	4.00	3.50	24 ga	3.50	3.00	24 ga	3.50	3.00
	22 ga	4.00	3.50	22 ga	3.50	3.00	22 ga	3.50	3.00
	20 ga	4.00	3.50	20 ga	3.50	3.00	20 ga	3.50	3.00
	0.032"	3.50	3.00	0.032"	3.00	2.50	0.032"	3.00	2.50

140C

	Thickness	Field -49.2 psf	Edge -60.8 psf	Thickness	Field -57 psf	Edge -70.3 psf	Thickness	Field -62 psf	Edge -76.6 psf
140C	24 ga	3.50	3.00	24 ga	3.50	3.00	24 ga	3.00	2.50
	22 ga	3.50	3.00	22 ga	3.50	3.00	22 ga	3.00	2.50
	20 ga	3.50	3.00	20 ga	3.50	3.00	20 ga	3.00	2.50
	0.032"	3.00	2.50	0.032"	2.50	2.50	0.032"	2.50	2.00

150C

	Thickness	Field -56.5 psf	Edge -69.8 psf	Thickness	Field -65.4 psf	Edge -80.7 psf	Thickness	Field -71.2 psf	Edge -87.9 psf
150C	24 ga	3.50	3.00	24 ga	3.00	2.50	24 ga	3.00	2.50
	22 ga	3.50	3.00	22 ga	3.00	2.50	22 ga	3.00	2.50
	20 ga	3.50	3.00	20 ga	3.00	2.50	20 ga	3.00	2.50
	0.032"	2.50	2.50	0.032"	2.50	2.00	0.032"	2.00	2.00

160C

	Thickness	Field -64.3 psf	Edge -79.4 psf	Thickness	Field -74.4 psf	Edge -91.9 psf	Thickness	Field -81 psf	Edge -100 psf
160C	24 ga	3.00	2.50	24 ga	2.50	2.50	24 ga	2.50	2.00
	22 ga	3.00	2.50	22 ga	2.50	2.50	22 ga	2.50	2.00
	20 ga	3.00	2.50	20 ga	2.50	2.50	20 ga	2.50	2.00
	0.032"	2.50	2.00	0.032"	2.00	2.00	0.032"	-	-

170C

	Thickness	Field -72.6 psf	Edge -89.6 psf	Thickness	Field -84 psf	Edge -103.7 psf	Thickness	Field -91.5 psf	Edge -112.9 psf
170C	24 ga	2.50	2.50	24 ga	2.50	2.00	24 ga	2.50	2.00
	22 ga	2.50	2.50	22 ga	2.50	2.00	22 ga	2.50	2.00
	20 ga	2.50	2.50	20 ga	2.50	2.00	20 ga	2.50	2.00
	0.032"	2.00	2.00	0.032"	-	-	0.032"	-	-

Notes:

1. Allowable spacing is based on capacities determined in AISI 2016, North American Specification for the Design of Cold-Structural Members and ADM 2015, Aluminum Design Manual.

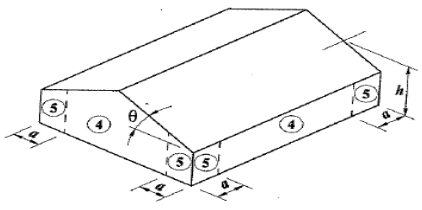
2. Allowable spacing is based on an applied load determined using ASCE 7-16 for the wind speeds and Wind Exposures tabulated. Assumptions include a tributary area of 10 square feet, an Enclosed building, a Topographic Factor of 1.0 and panel bearing length of 2.5 inches.

3. Allowable spacing is determined using IBC 2018 combinations. For wind suction and pressure, the combination is 0.6W. The arrangement is 3 or more equal spans.

4. Testing is the basis for the load carrying capacity.

(4) - FIELD
(5) - EDGE

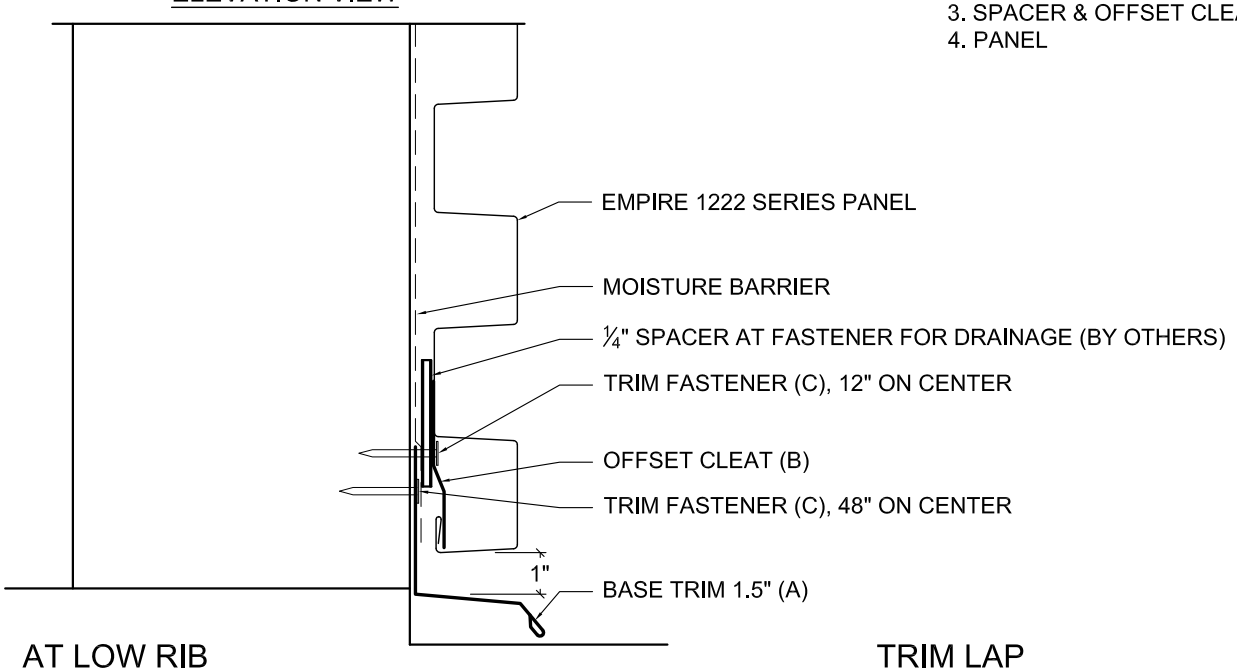
a - LEAST OF 10% MINIMUM BUILDING WIDTH OR 40% OF MEAN ROOF HEIGHT BUT NOT LESS THAN 3'.



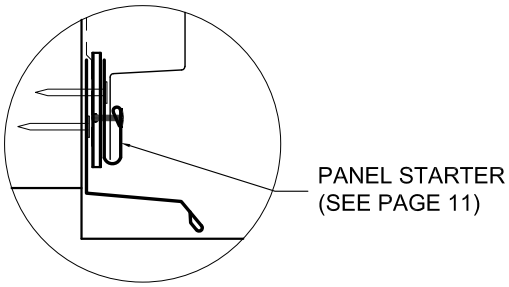
Base - Horizontal Panels

INSTALL ORDER
1. BASE TRIM
2. MOISTURE BARRIER
3. SPACER & OFFSET CLEAT
4. PANEL

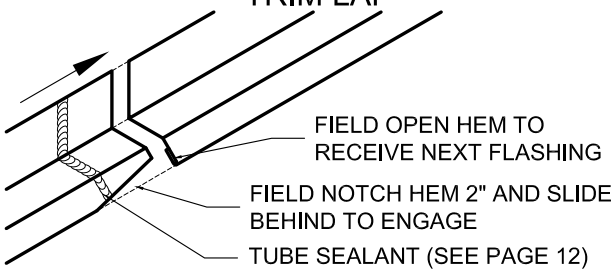
ELEVATION VIEW



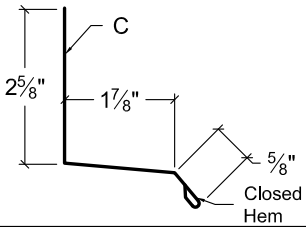
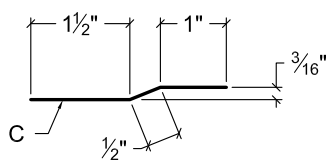
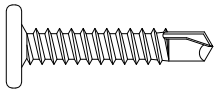
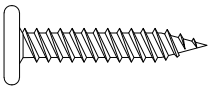
AT LOW RIB



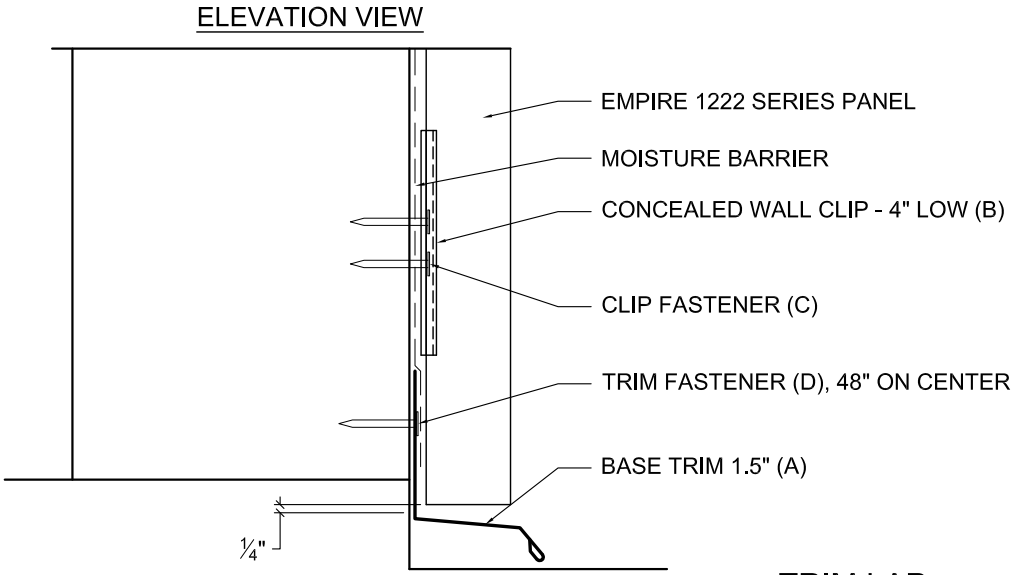
TRIM LAP

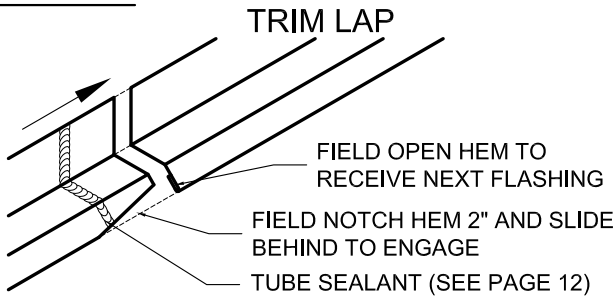


NO FASTENERS THROUGH TRIM LAP

	Part	Description	Product #	Length	Installation Information
(A)		Base Trim 1.5", 24 Ga Base Trim 1.5", 22 Ga Base Trim 1.5", 0.032"	58708XX 60708XX 58708XXA	10'-2"	Install Moisture Barrier over top of Base Trim
(B)		Offset Cleat, 24 Ga	5806499	10'-2"	Install 2" x 2" x ¼" spacer behind Offset Cleat. Hook panel onto 1" leg of Offset Cleat.
(C)		#10-16 x 1" Pancake Head Driller	8242100	1"	For trim attachment to steel framing
(C)		#10-12 x 1"Pancake Head Wood Screw	8243100	1"	For trim attachment to wood sheathing or framing

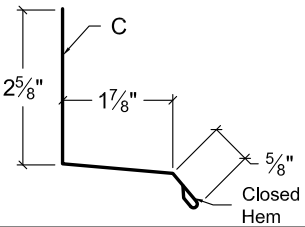
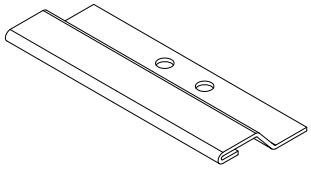
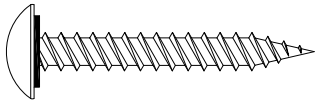
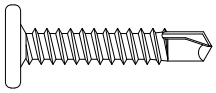
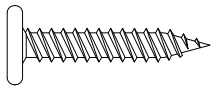
Base - Vertical Panels





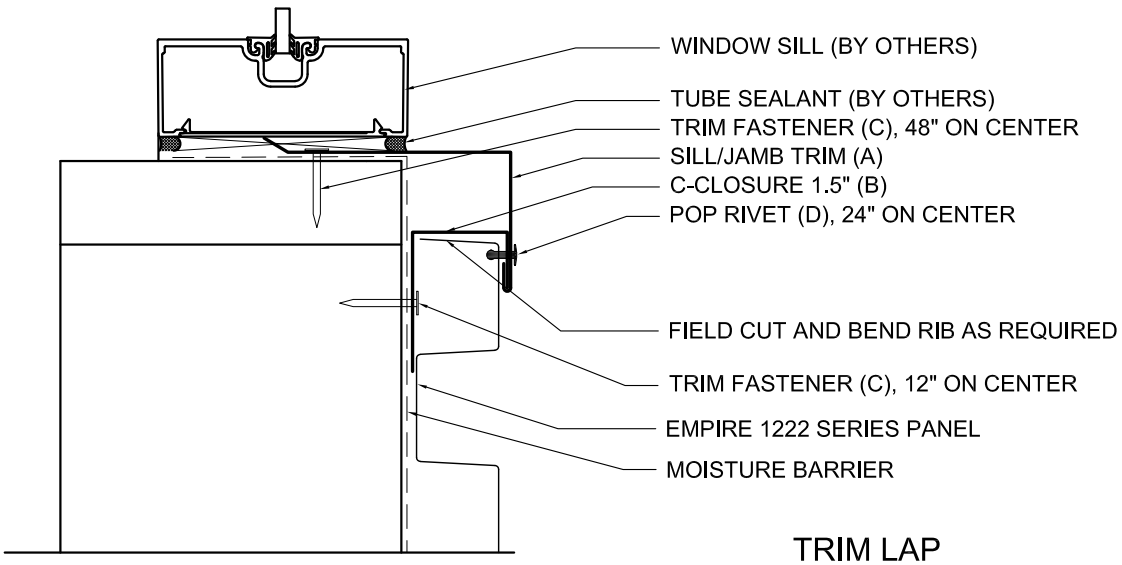
INSTALL ORDER
1. BASE TRIM
2. MOISTURE BARRIER
3. PANEL

NO FASTENERS THROUGH TRIM LAP

	Part	Description	Product #	Length	Installation Information
(A)		Base Trim 1.5", 24 Ga Base Trim 1.5", 22 Ga Base Trim 1.5", 0.032"	58708XX 60708XX 58708XXA	10'-2"	Install Moisture Barrier over top of Base Trim
(B)		Concealed Wall Clip 4" Low 16 Ga Galv	4934600	4"	Install along the length of every panel spaced per design and within 6" of the panel ends.
(C)		#12-11 x 1½" Low Profile Wood Screw	8244100	1½"	For clip attachment to wood sheathing or framing
(C), (D)		#10-16 x 1" Pancake Head Driller	8242100	1"	For clip / trim attachment to steel framing
(D)		#10-12 x 1" Pancake Head Wood Screw	8243100	1"	For trim attachment to wood sheathing or framing

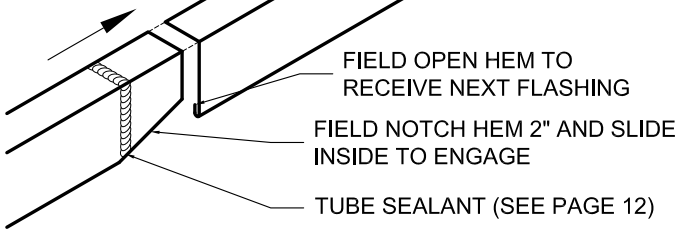
Sill - Horizontal Panels

ELEVATION VIEW

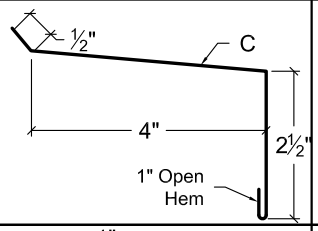
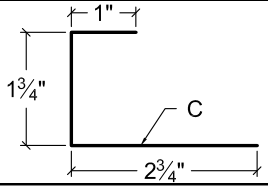
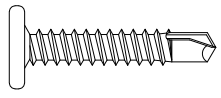
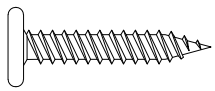
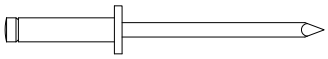


INSTALL ORDER
1. MOISTURE BARRIER
2. C-CLOSURE
3. PANEL
4. SILL/JAMB TRIM
5. WINDOW SILL

TRIM LAP

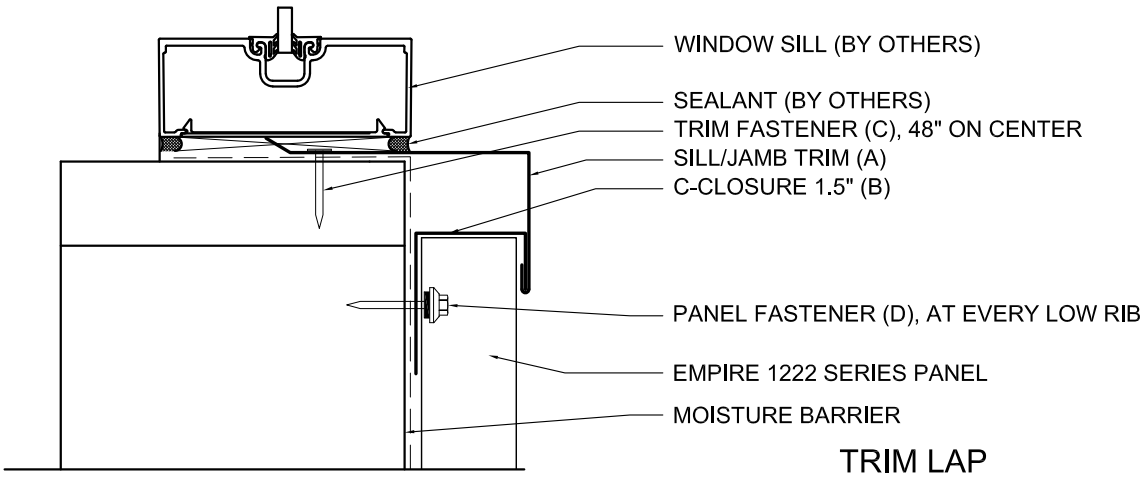


NO FASTENERS THROUGH TRIM LAP

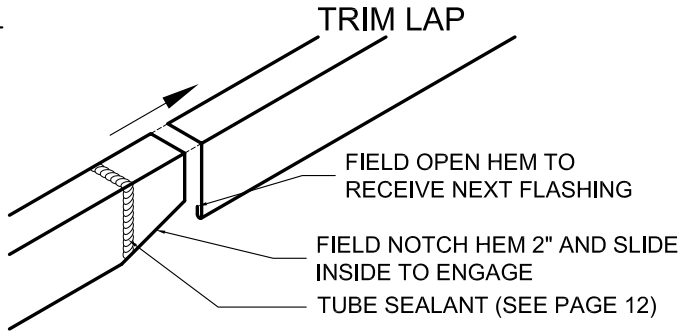
	Part	Description	Product #	Length	Installation Information
(A)		Sill/Jamb Trim, 24 Ga Sill/Jamb Trim, 22 Ga Sill/Jamb Trim, 0.032"	58718XX 60718XX 58718XXA	10'-2"	Hook Sill/Jamb Trim onto C-Closure and fasten in place. Ensure Sill/Jamb Trim is installed with slope to allow for water drainage.
(B)		C-Closure 1.5", 24 Ga C-Closure 1.5", 22 Ga C-Closure 1.5", 0.032"	58712XX 60712XX 58712XXA	10'-2"	Install C-Closure and hook Sill/Jamb Trim over 1" leg.
(C)		#10-16 x 1" Pancake Head Driller	8242100	1"	For trim attachment to steel framing
(C)		#10-12 x 1" Pancake Head Wood Screw	8243100	1"	For trim attachment to wood sheathing or framing
(D)		⅛" x ⅜" Pop Rivet	82402XX		For Sill/Jamb attachment to C-Closure and panel.

Sill - Vertical Panels

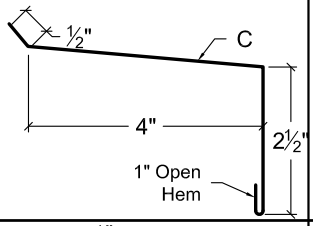
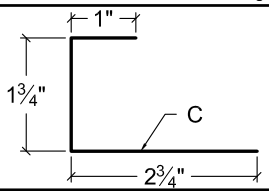
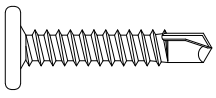
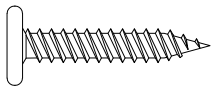
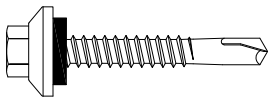
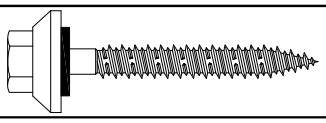
ELEVATION VIEW



INSTALL ORDER
1. MOISTURE BARRIER
2. C-CLOSURE
3. PANEL
4. SILL/JAMB TRIM
5. WINDOW SILL

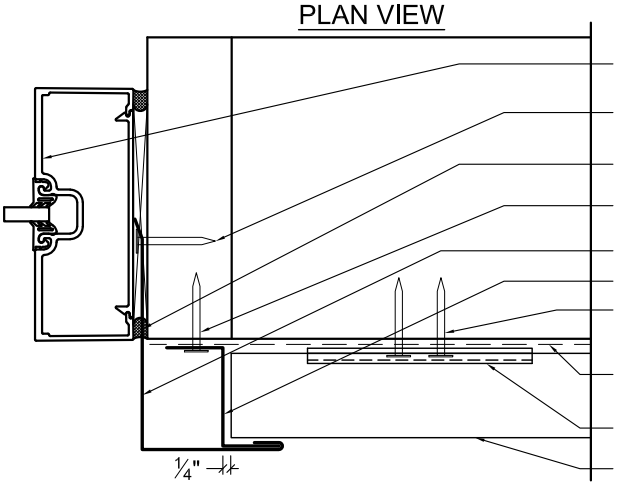


NO FASTENERS THROUGH TRIM LAP

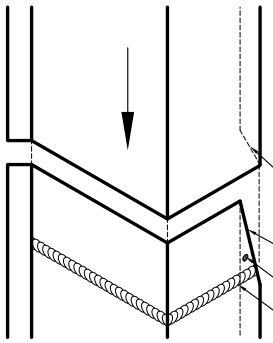
	Part	Description	Product #	Length	Installation Information
(A)		Sill/Jamb Trim, 24 Ga Sill/Jamb Trim, 22 Ga Sill/Jamb Trim, 0.032"	58718XX 60718XX 58718XXA	10'-2"	Hook Sill/Jamb Trim onto C-Closure and fasten in place. Ensure Sill/Jamb Trim is installed with slope to allow for water drainage.
(B)		C-Closure 1.5", 24 Ga C-Closure 1.5", 22 Ga C-Closure 1.5", 0.032"	58712XX 60712XX 58712XXA	10'-2"	Install C-Closure and hook Sill/Jamb Trim over 1" leg.
(C)		#10-16 x 1" Pancake Head Driller	8242100	1"	For trim attachment to steel framing
(C)		#10-12 x 1" Pancake Head Wood Screw	8243100	1"	For trim attachment to wood sheathing or framing
(D)		#12-14 x 1¼" Self Driller XL	82353XX	1¼"	For panel attachment to steel framing
(D)		#10-14 x 1½" Wood Screw XL	82123XX	1½"	For panel attachment to wood sheathing or framing

Jamb - Horizontal Panels

PLAN VIEW



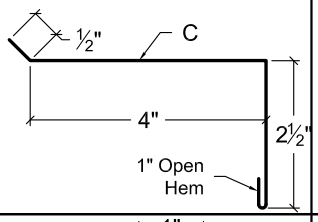
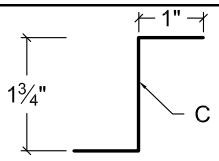
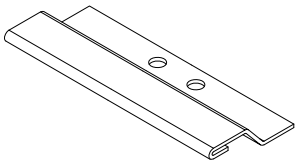
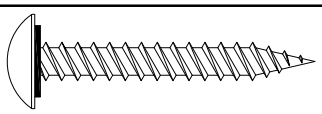
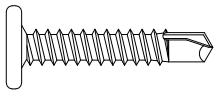
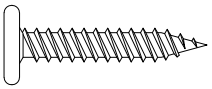
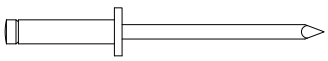
TRIM LAP



NO FASTENERS THROUGH TRIM LAP

FIELD NOTCH HEM AROUND POP RIVET
FIELD NOTCH HEM 2" AND SLIDE BEHIND TO ENGAGE
POP RIVET (F)
TUBE SEALANT (SEE PAGE 12)

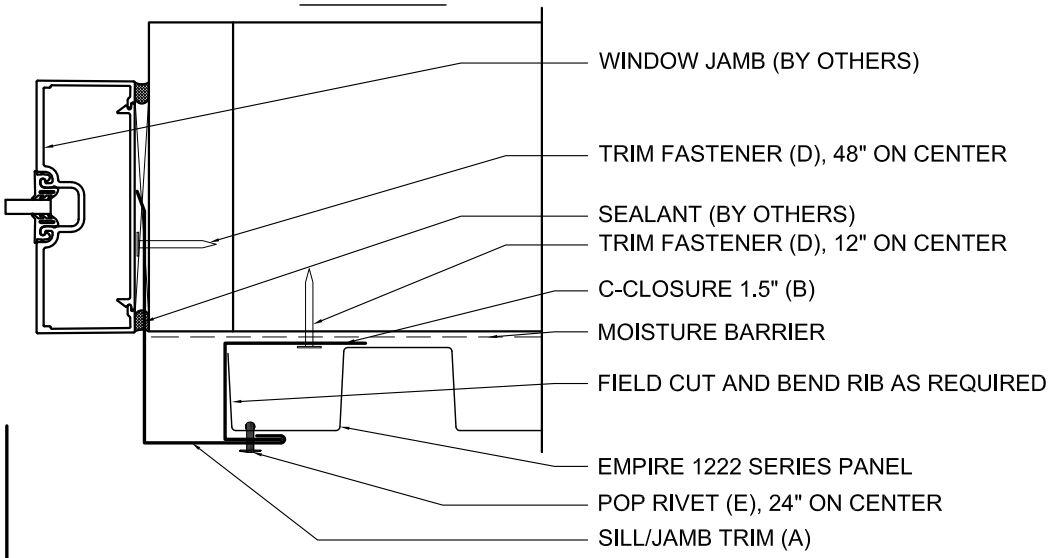
INSTALL ORDER
1. MOISTURE BARRIER
2. PANEL
3. Z-CLOSURE
4. JAMB TRIM
5. WINDOW JAMB

	Part	Description	Product #	Length	Installation Information
(A)		Sill/Jamb Trim, 24 Ga Sill/Jamb Trim, 22 Ga Sill/Jamb Trim, 0.032"	58718XX 60718XX 58718XXA	10'-2"	Hook Sill/Jamb Trim onto Z-Closure and fasten into place.
(B)		Z-Closure 1.5", 24 Ga Z-Closure 1.5", 22 Ga Z-Closure 1.5", 0.032"	58729XX 60729XX 58729XXA	10'-2"	Install Z-Closure and hook Sill/Jamb Trim over 1" leg.
(C)		Concealed Wall Clip 4" Low 16 Ga Galv	4934600	4"	Install along the length of every panel spaced per design and within 6" of the panel ends.
(D)		#12-11 x 1½" Low Profile Wood Screw	8244100	1½"	For clip attachment to wood sheathing or framing
(D), (E)		#10-16 x 1" Pancake Head Driller	8242100	1"	For clip / trim attachment to steel framing
(E)		#10-12 x 1" Pancake Head Wood Screw	8243100	1"	For trim attachment to wood sheathing or framing
(F)		⅛" x ⅜" Pop Rivet	82402XX		For Sill/Jamb Trim attachment to Z-Closure

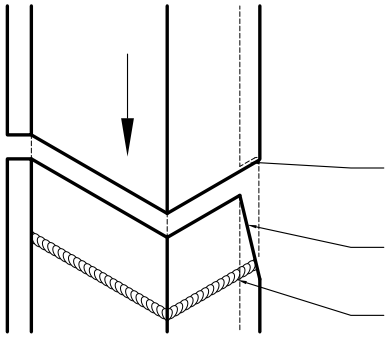
Jamb - Vertical Panels

INSTALL ORDER
1. MOISTURE BARRIER
2. C-CLOSURE
3. PANEL
4. JAMB TRIM
5. WINDOW JAMB

PLAN VIEW



TRIM LAP



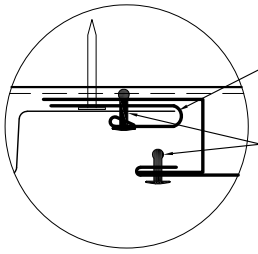
FIELD OPEN HEM TO RECEIVE NEXT FLASHING

FIELD NOTCH HEM 2" AND SLIDE BEHIND TO ENGAGE

TUBE SEALANT (SEE PAGE 12)

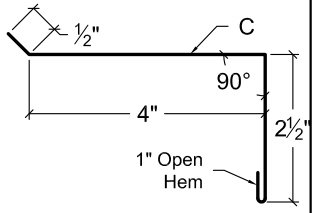
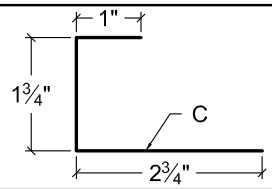
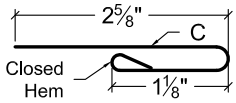
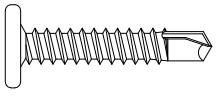
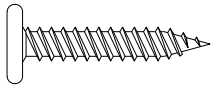
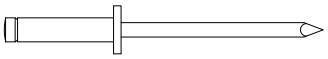
NO FASTENERS THROUGH TRIM LAP

AT LOW RIB



PANEL STARTER (C)

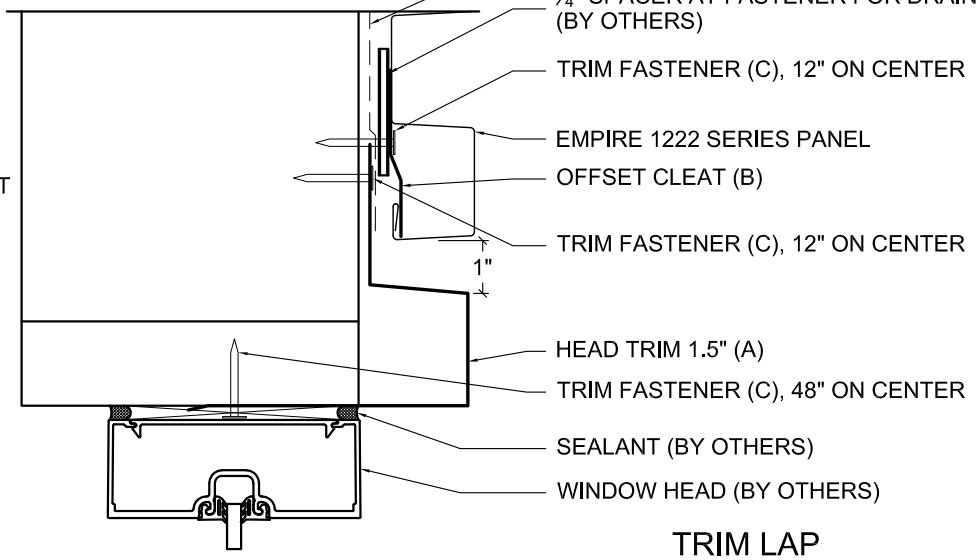
POP RIVET (E) 24" ON CENTER

	Part	Description	Product #	Length	Installation Information
(A)		Sill/Jamb Trim, 24 Ga Sill/Jamb Trim, 22 Ga Sill/Jamb Trim, 0.032"	58718XX 60718XX 58718XXA	10'-2"	Hook Sill/Jamb Trim onto C-Closure and fasten into place.
(B)		C-Closure 1.5", 24 Ga C-Closure 1.5", 22 Ga C-Closure 1.5", 0.032"	58712XX 60712XX 58712XXA	10'-2"	Install C-Closure and hook Sill/Jamb Trim over 1" leg.
(C)		Panel Starter, 24 Ga Panel Starter, 22 Ga Panel Starter, 0.032"	58728XX 60728XX 58728XXA	10'-2"	Fasten to face of C-Closure, slide low rib of panel into open hem.
(D)		#10-16 x 1" Pancake Head Driller	8242100	1"	For trim attachment to steel framing
(D)		#10-12 x 1" Pancake Head Wood Screw	8243100	1"	For trim attachment to wood sheathing or framing
(E)		⅛" x ⅜" Pop Rivet	82402XX		For Sill/Jamb attachment to C-Closure and panel.

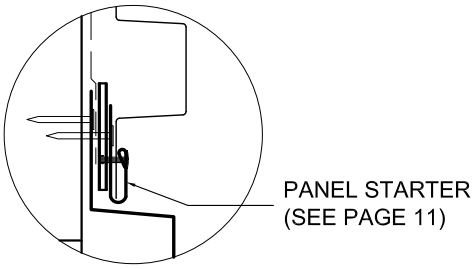
Head - Horizontal Panels

INSTALL ORDER
1. HEAD TRIM
2. MOISTURE BARRIER
2. SPACER & OFFSET CLEAT
3. PANEL
4. WINDOW HEAD

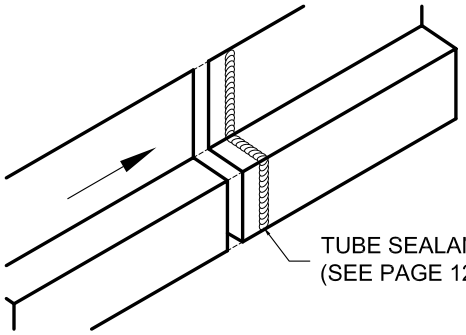
ELEVATION VIEW



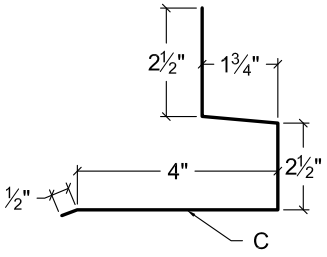
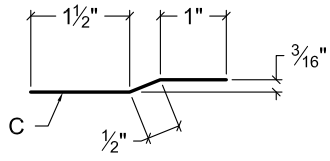
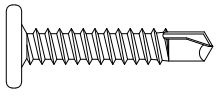
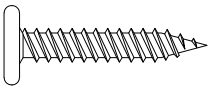
AT LOW RIB



TRIM LAP

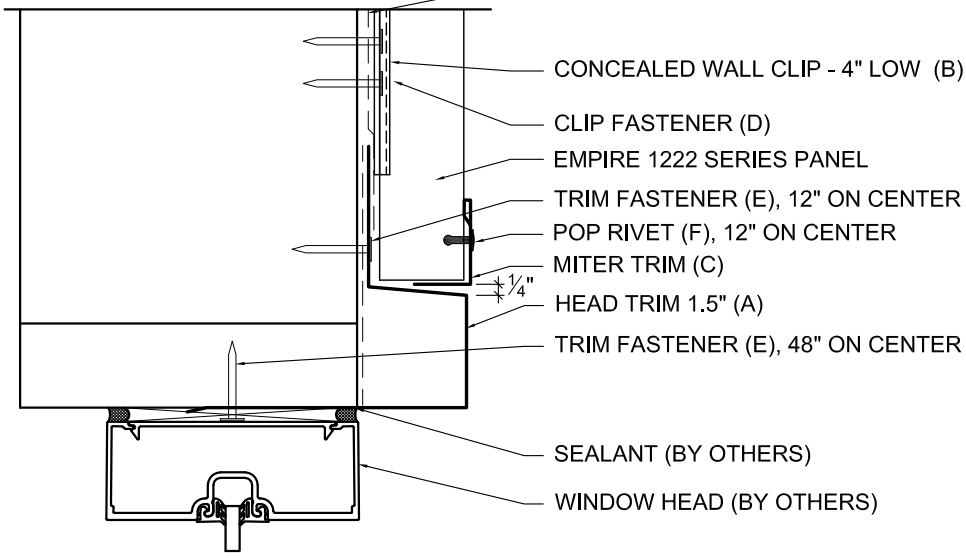


NO FASTENERS THROUGH TRIM LAP

	Part	Description	Product #	Length	Installation Information
(A)		Head Trim 1.5", 24 Ga Head Trim 1.5", 22 Ga Head Trim 1.5", 0.032"	58722XX 60722XX 58722XXA	10'-2"	Install Moisture Barrier over top of Head Trim and fasten in place. Ensure Head Trim is installed with slope to allow for water drainage.
(B)		Offset Cleat, 24 Ga	5806499	10'-2"	Install 2" x 2" x ¼" spacer behind Offset Cleat. Hook panel onto 1" leg of Offset Cleat.
(C)		#10-16 x 1" Pancake Head Driller	8242100	1"	For trim attachment to steel framing
(C)		#10-12 x 1" Pancake Head Wood Screw	8243100	1"	For trim attachment to wood sheathing or framing

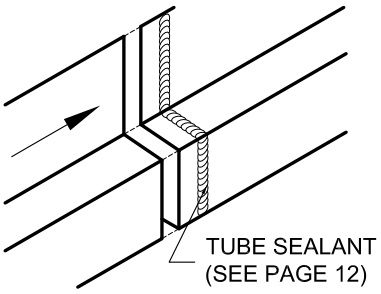
Head - Vertical Panels

ELEVATION VIEW

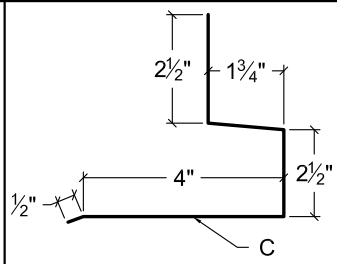
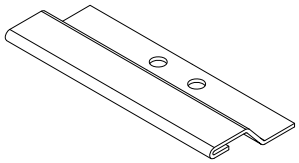
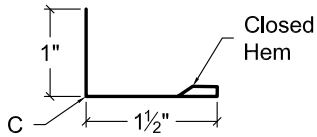
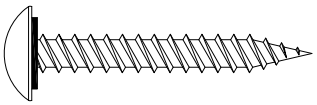
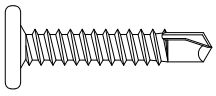
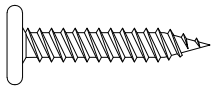
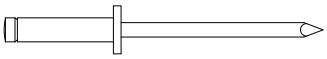


INSTALL ORDER
1. HEAD TRIM
2. MOISTURE BARRIER
3. PANEL
4. WINDOW HEAD

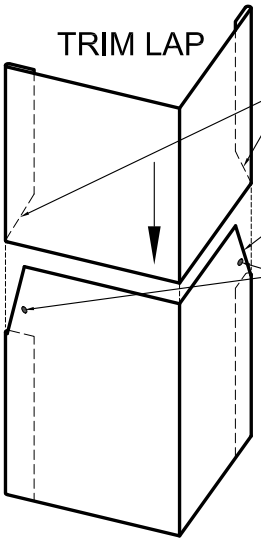
TRIM LAP

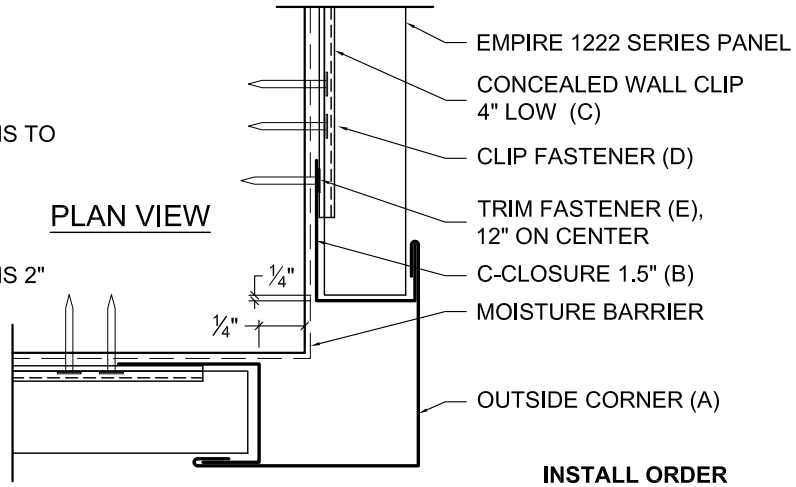


NO FASTENERS
THROUGH TRIM LAP

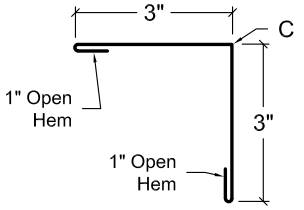
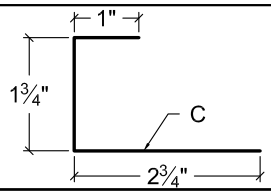
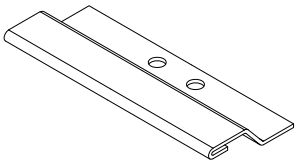
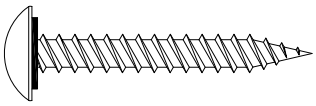
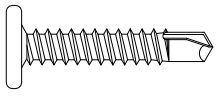
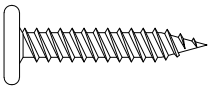
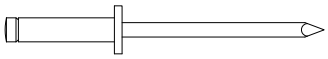
	Part	Description	Product #	Length	Installation Information
(A)		Head Trim 1.5", 24 Ga Head Trim 1.5", 22 Ga Head Trim 1.5", 0.032"	58722XX 60722XX 58722XXA	10'-2"	Install Head Trim and fasten in place with Moisture Barrier over the top of the Head Trim. Ensure Head Trim is installed with slope to allow for water drainage.
(B)		Concealed Wall Clip 4" Low 16 Ga Galv	4934600	4"	Install along the length of every panel spaced per design and within 6" of the panel ends.
(C)		Miter Trim, 24 Ga Miter Trim, 22 Ga Miter Trim, 0.032"	58654XX 60654XX 58654XXA	10'-2"	Install at bottom of panels above header, attach with Pop Rivets.
(D)		#12-11 x 1½" Low Profile Wood Screw	8244100	1½"	For clip attachment to wood sheathing or framing
(D), (E)		#10-16 x 1" Pancake Head Driller	8242100	1"	For clip / trim attachment to steel framing
(E)		#10-12 x 1" Pancake Head Wood Screw	8243100	1"	For trim attachment to wood sheathing or framing
(F)		⅛" x ⅜" Pop Rivet	82402XX		For Sill/Jamb attachment to C-Closure and panel.

Outside Corner - Horiz. Panels

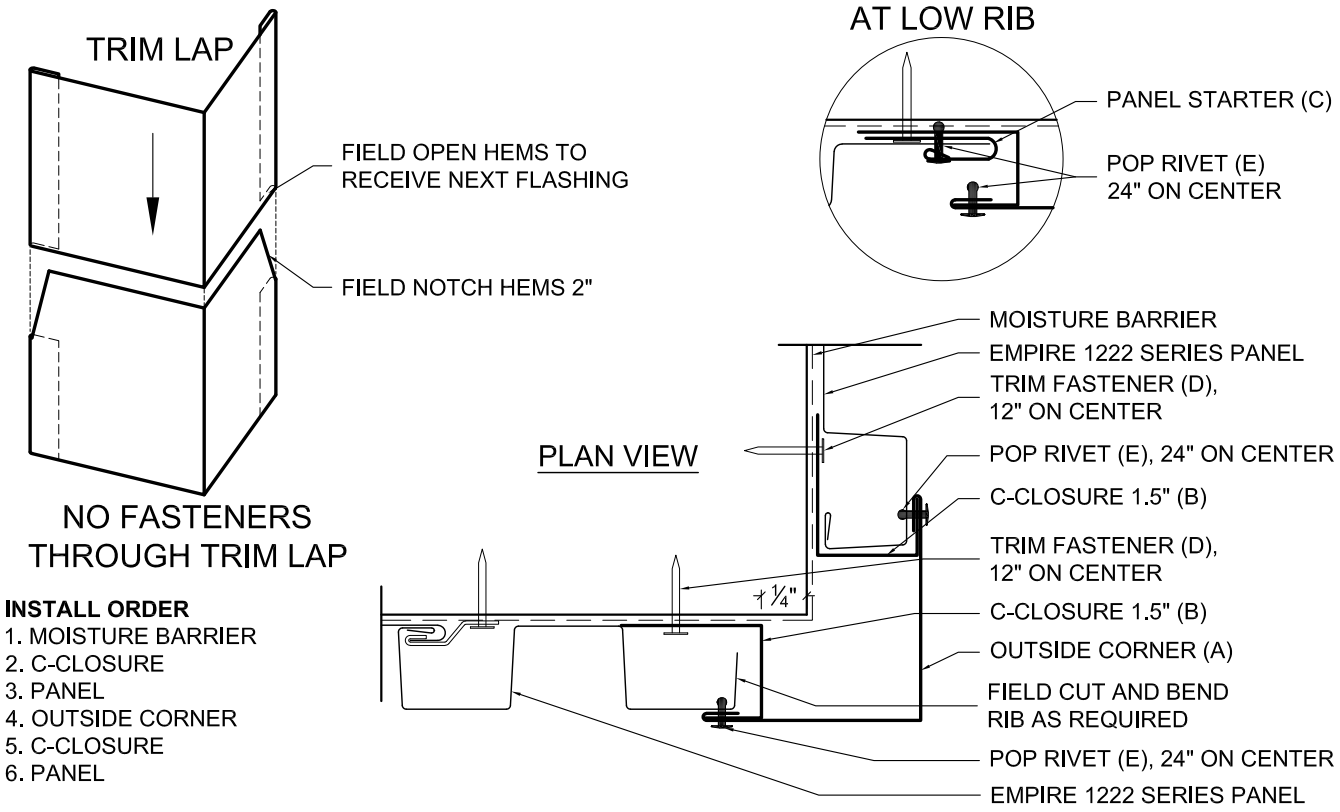




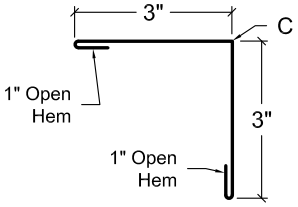
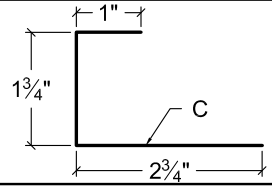
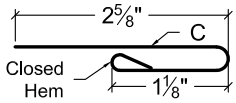
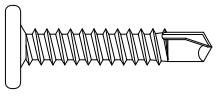
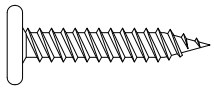
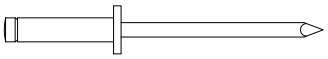
INSTALL ORDER
1. MOISTURE BARRIER
2. C-CLOSURE
3. PANEL
4. OUTSIDE CORNER
5. C-CLOSURE
6. PANEL

	Part	Description	Product #	Length	Installation Information
(A)		Outside Corner, 24 Ga Outside Corner, 22 Ga Outside Corner, 0.032"	58724XX 60724XX 58724XXA	10'-2"	Hook Outside Corner around C-Closure, pull C-Closure into place. Pop Rivet to C-Closures under trim lap.
(B)		C-Closure 1.5", 24 Ga C-Closure 1.5", 22 Ga C-Closure 1.5", 0.032"	58712XX 60712XX 58712XXA	10'-2"	Install C-Closure before panel. An alternate is to use Z-Closure to ease panel installation.
(C)		Concealed Wall Clip 4" Low 16 Ga Galv	4934600	4"	Install along the length of every panel spaced per design and within 6" of the panel ends.
(D)		#12-11 x 1½" Low Profile Wood Screw	8244100	1½"	For clip attachment to wood sheathing or framing
(D), (E)		#10-16 x 1" Pancake Head Driller	8242100	1"	For clip / trim attachment to steel framing
(E)		#10-12 x 1" Pancake Head Wood Screw	8243100	1"	For trim attachment to wood sheathing or framing
(F)		⅛" x ⅜" Pop Rivet	82402XX		For Outside Corner attachment to C-Closures

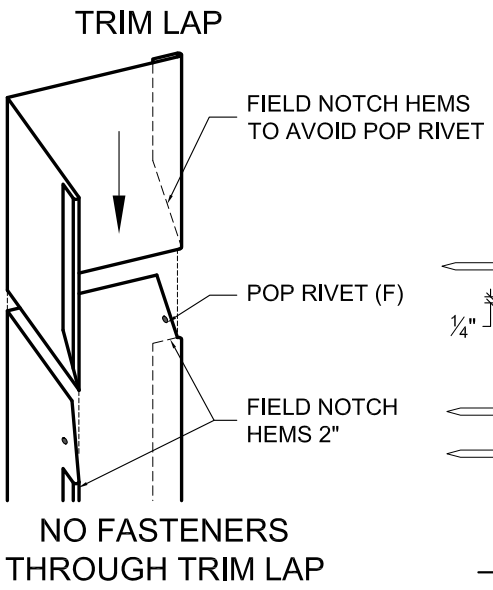
Outside Corner - Vert. Panels

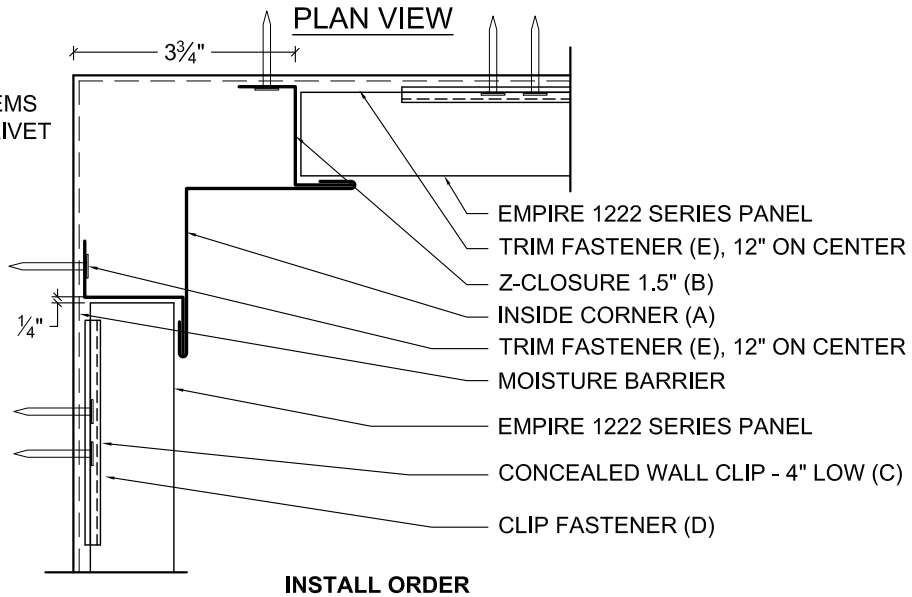


INSTALL ORDER
1. MOISTURE BARRIER
2. C-CLOSURE
3. PANEL
4. OUTSIDE CORNER
5. C-CLOSURE
6. PANEL

	Part	Description	Product #	Length	Installation Information
(A)		Outside Corner, 24 Ga Outside Corner, 22 Ga Outside Corner, 0.032"	58724XX 60724XX 58724XXA	10'-2"	Hook Outside Corner around C-Closures. Pop Rivet to panel and C-Closures.
(B)		C-Closure 1.5", 24 Ga C-Closure 1.5", 22 Ga C-Closure 1.5", 0.032"	58712XX 60712XX 58712XXA	10'-2"	Install C-Closure to start panel.
(C)		Panel Starter, 24 Ga Panel Starter, 22 Ga Panel Starter, 0.032"	58728XX 60728XX 58728XXA	10'-2"	Fasten to face of C-Closure, slide low rib of panel into open hem.
(D)		#10-16 x 1" Pancake Head Driller	8242100	1"	For trim attachment to steel framing
(D)		#10-12 x 1" Pancake Head Wood Screw	8243100	1"	For trim attachment to wood sheathing or framing
(E)		⅛" x ⅜" Pop Rivet	82402XX		For Outside Corner attachment to C-Closures

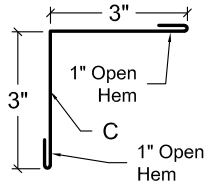
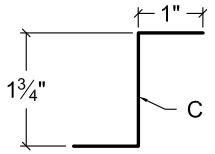
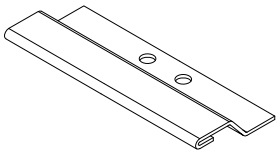
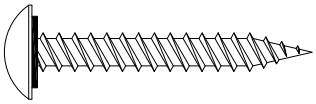
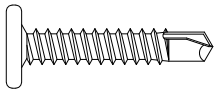
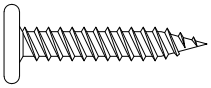
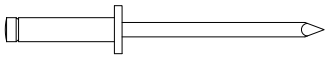
Inside Corner - Horiz. Panels



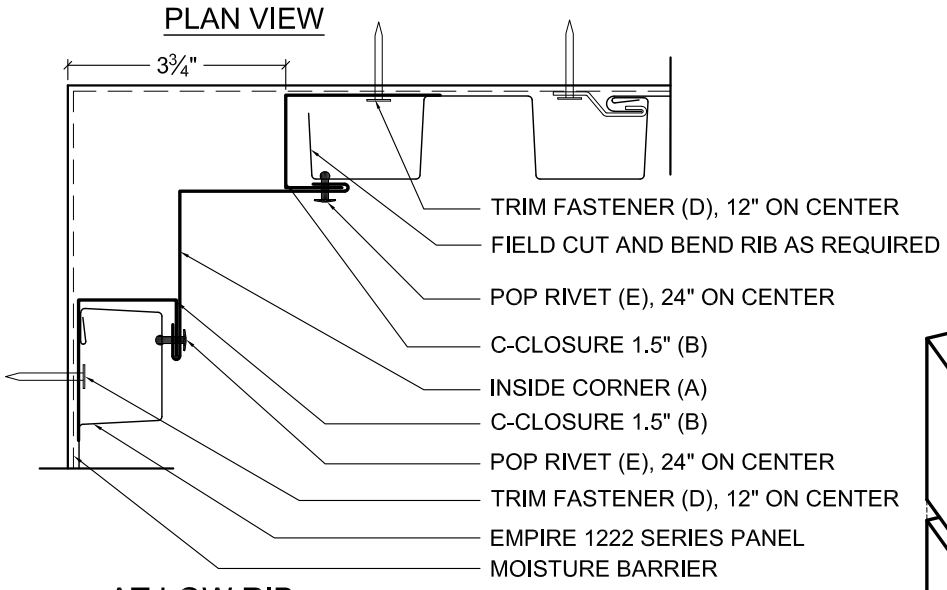


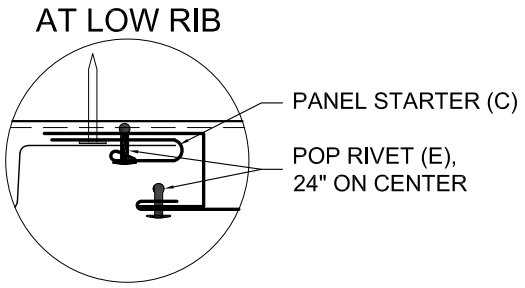
INSTALL ORDER

1. MOISTURE BARRIER
2. Z-CLOSURE
3. PANEL
4. INSIDE CORNER
5. Z-CLOSURE
6. PANEL

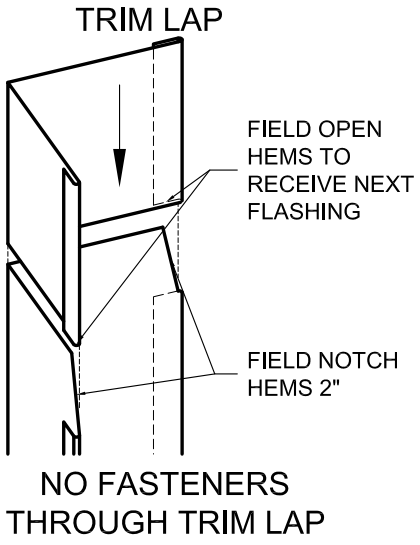
	Part	Description	Product #	Length	Installation Information
(A)		Inside Corner, 24 Ga Inside Corner, 22 Ga Inside Corner, 0.032"	58726XX 60726XX 58726XXA	10'-2"	Hook Inside Corner around Z-Closures into place. Pop Rivet to Z-Closures under trim lap.
(B)		Z-Closure 1.5", 24 Ga Z-Closure 1.5", 22 Ga Z-Closure 1.5", 0.032"	58729XX 60729XX 58729XXA	10'-2"	Install Z-Closure on each side of corner.
(C)		Concealed Wall Clip 4" Low 16 Ga Galv	4934600	4"	Install along the length of every panel spaced per design and within 6" of the panel ends.
(D)		#12-11 x 1½" Low Profile Wood Screw	8244100	1½"	For clip attachment to wood sheathing or framing
(D), (E)		#10-16 x 1" Pancake Head Driller	8242100	1"	For clip / trim attachment to steel framing
(E)		#10-12 x 1" Pancake Head Wood Screw	8243100	1"	For trim attachment to wood sheathing or framing
(F)		⅛" x ⅜" Pop Rivet	82402XX		For Inside Corner attachment to Z-Closures

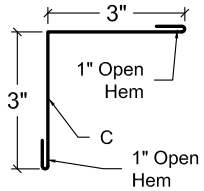
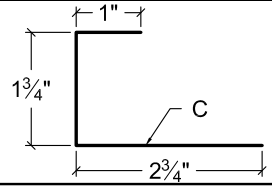
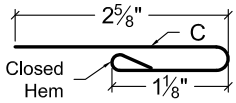
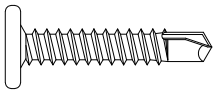
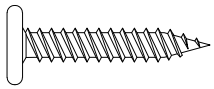
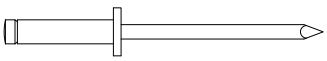
Inside Corner - Vertical Panels



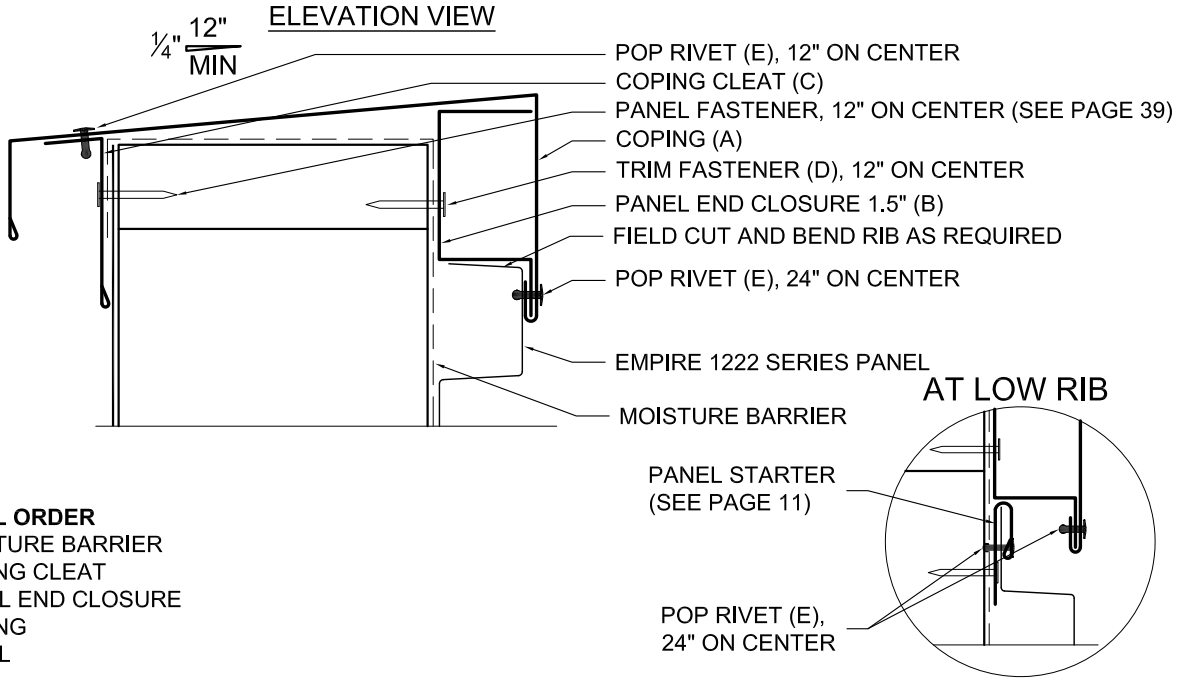


INSTALL ORDER
1. MOISTURE BARRIER
2. C-CLOSURE
3. PANEL
4. INSIDE CORNER
5. C-CLOSURE
6. PANEL

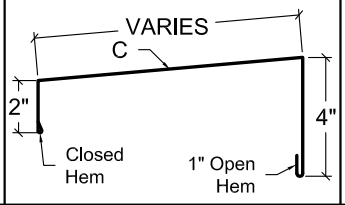
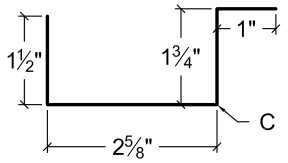
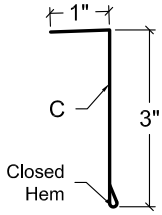
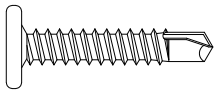
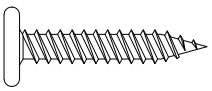
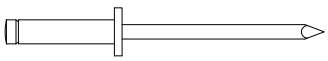


	Part	Description	Product #	Length	Installation Information
(A)		Inside Corner, 24 Ga Inside Corner, 22 Ga Inside Corner, 0.032"	58726XX 60726XX 58726XXA	10'-2"	Hook Intside Corner Trim around C-Closures. Pop Rivet to closure trims and panel 24" on center.
(B)		C-Closure 1.5", 24 Ga C-Closure 1.5", 22 Ga C-Closure 1.5", 0.032"	58712XX 60712XX 58712XXA	10'-2"	Install C-Closure on each side of corner.
(C)		Panel Starter, 24 Ga Panel Starter, 22 Ga Panel Starter, 0.032"	58728XX 60728XX 58728XXA	10'-2"	Fasten to face of C-Closure, slide low rib of panel into open hem.
(D)		#10-16 x 1" Pancake Head Driller	8242100	1"	For trim attachment to steel framing
(D)		#10-12 x 1" Pancake Head Wood Screw	8243100	1"	For trim attachment to wood sheathing or framing
(E)		⅛" x ⅜" Pop Rivet	82402XX		For Inside Corner attachment to C-Closures

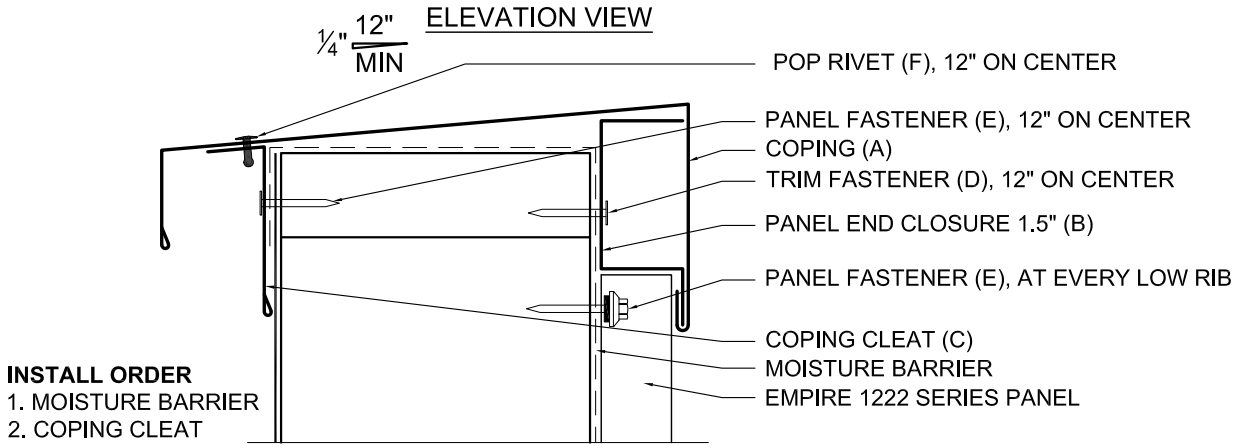
Coping - Horizontal Panels



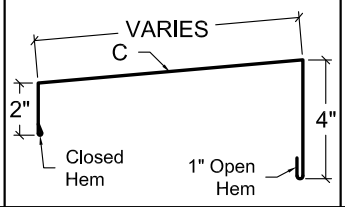
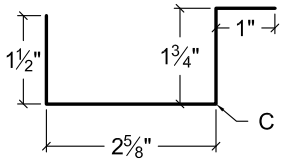
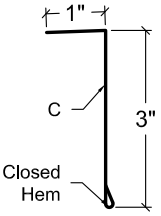
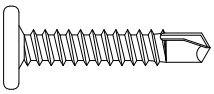
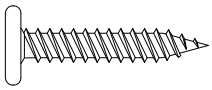
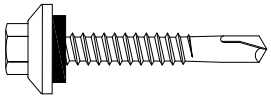
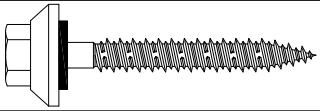
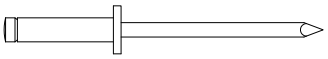
INSTALL ORDER
1. MOISTURE BARRIER
2. COPING CLEAT
3. PANEL END CLOSURE
4. COPING
5. PANEL

	Part	Description	Product #	Length	Installation Information
(A)		Coping 8", 24 Ga Coping 8", 22 Ga Coping 10", 24 Ga Coping 10", 22 Ga Coping 12", 24 Ga Coping 12", 22 Ga	58714XX 60714XX 58715XX 60715XX 58716XX 60716XX	10'-2"	Hook Coping onto Panel End Closure and Pop Rivet to Coping Cleat.
(B)		Panel End Closure 1.5", 24 Ga Panel End Closure 1.5", 22 Ga Panel End Closure 1.5", 0.032"	58732XX 60732XX 58732XXA	10'-2"	Carefully locate Panel End Closure to support Coping.
(C)		Coping Cleat, 24 Ga Coping Cleat, 22 Ga Coping Cleat, 0.032"	58734XX 60734XX 58734XXA	10'-2"	Install Coping Cleat to accept Coping attachment.
(D)		#10-16 x 1" Pancake Head Driller	8242100	1"	For trim attachment to steel framing
(D)		#10-12 x 1" Pancake Head Wood Screw	8243100	1"	For trim attachment to wood sheathing or framing
(E)		⅛" x ⅜" Pop Rivet	82402XX		For trim attachment

Coping - Vertical Panels

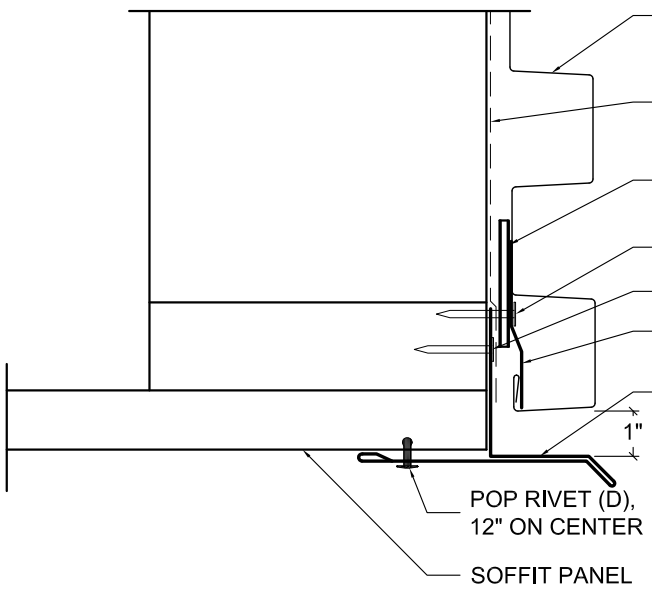


INSTALL ORDER
1. MOISTURE BARRIER
2. COPING CLEAT
3. PANEL
4. PANEL END CLOSURE
5. COPING

	Part	Description	Product #	Length	Installation Information
(A)		Coping 8", 24 Ga Coping 8", 22 Ga Coping 10", 24 Ga Coping 10", 22 Ga Coping 12", 24 Ga Coping 12", 22 Ga	58714XX 60714XX 58715XX 60715XX 58716XX 60716XX	10'-2"	Hook Coping onto Panel End Closure and Pop Rivet to Coping Cleat.
(B)		Panel End Closure 1.5", 24 Ga Panel End Closure 1.5", 22 Ga Panel End Closure 1.5", 0.032"	58732XX 60732XX 58732XXA	10'-2"	Carefully locate Panel End Closure to support Coping.
(C)		Coping Cleat, 24 Ga Coping Cleat, 22 Ga Coping Cleat, 0.032"	58734XX 60734XX 58734XXA	10'-2"	Install Coping Cleat to accept Coping attachment.
(D)		#10-16 x 1" Pancake Head Driller	8242100	1"	For trim attachment to steel framing
(D)		#10-12 x 1" Pancake Head Wood Screw	8243100	1"	For trim attachment to wood sheathing or framing
(E)		#12-14 x 1¼" Self Driller XL	82353XX	1¼"	For panel attachment to steel framing
(E)		#10-14 x 1½" Wood Screw XL	82123XX	1½"	For panel attachment to wood sheathing or framing
(F)		⅛" x ⅜" Pop Rivet	82402XX		For trim attachment

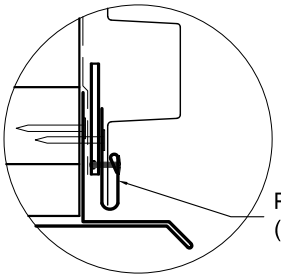
Sill To Soffit - Horiz. Panels

ELEVATION VIEW

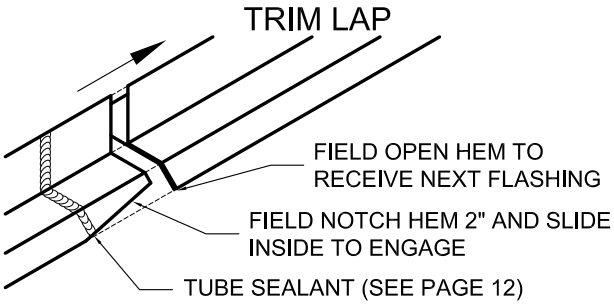


INSTALL ORDER
1. SOFFIT PANEL
2. SILL TO SOFFIT
3. OFFSET CLEAT
4. PANEL

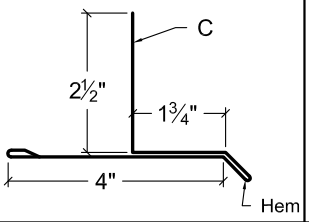
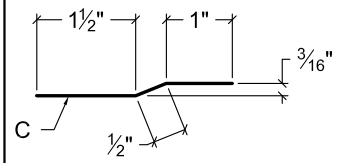
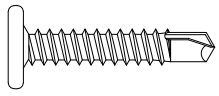
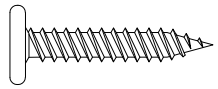
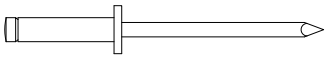
AT LOW RIB



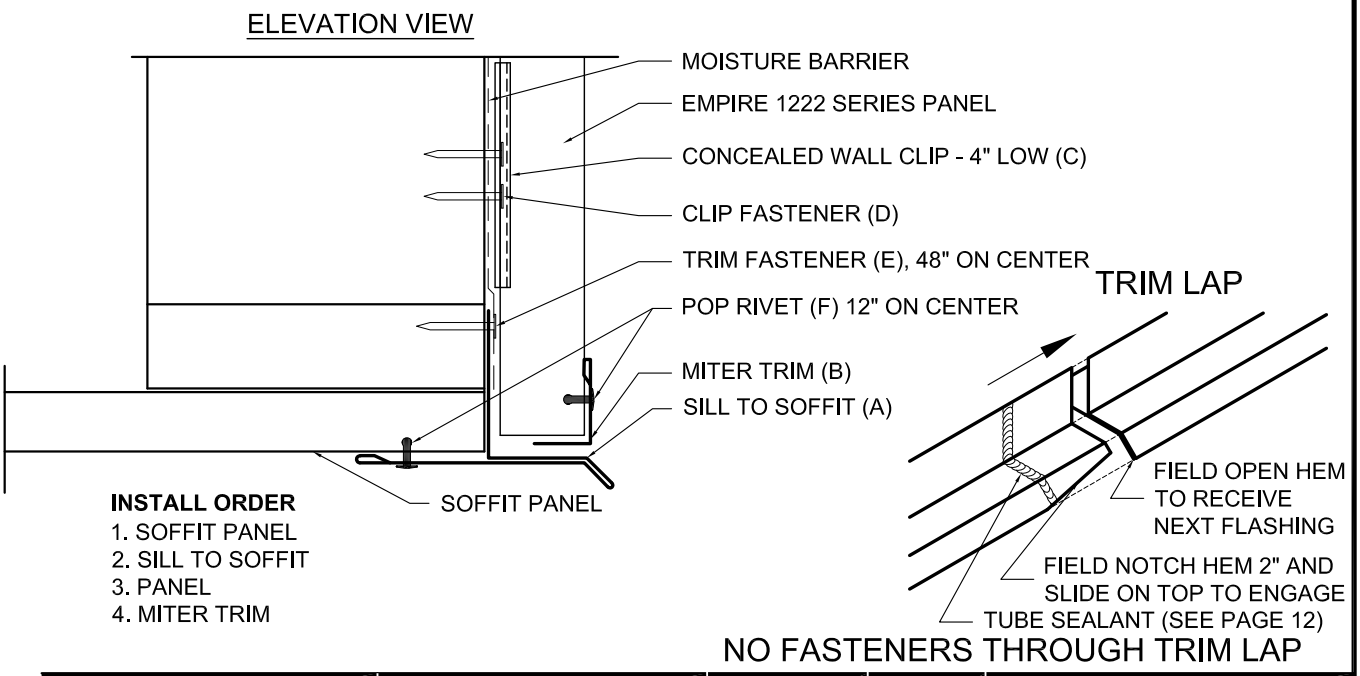
TRIM LAP

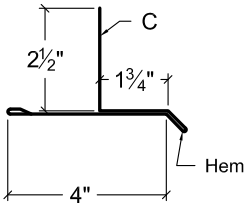
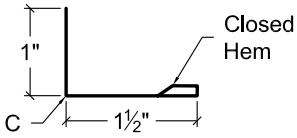
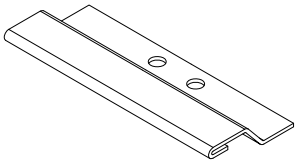
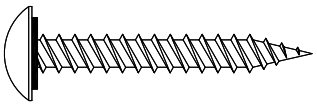
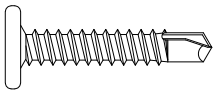
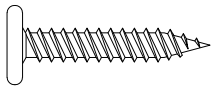
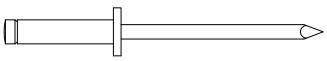


NO FASTENERS THROUGH TRIM LAP

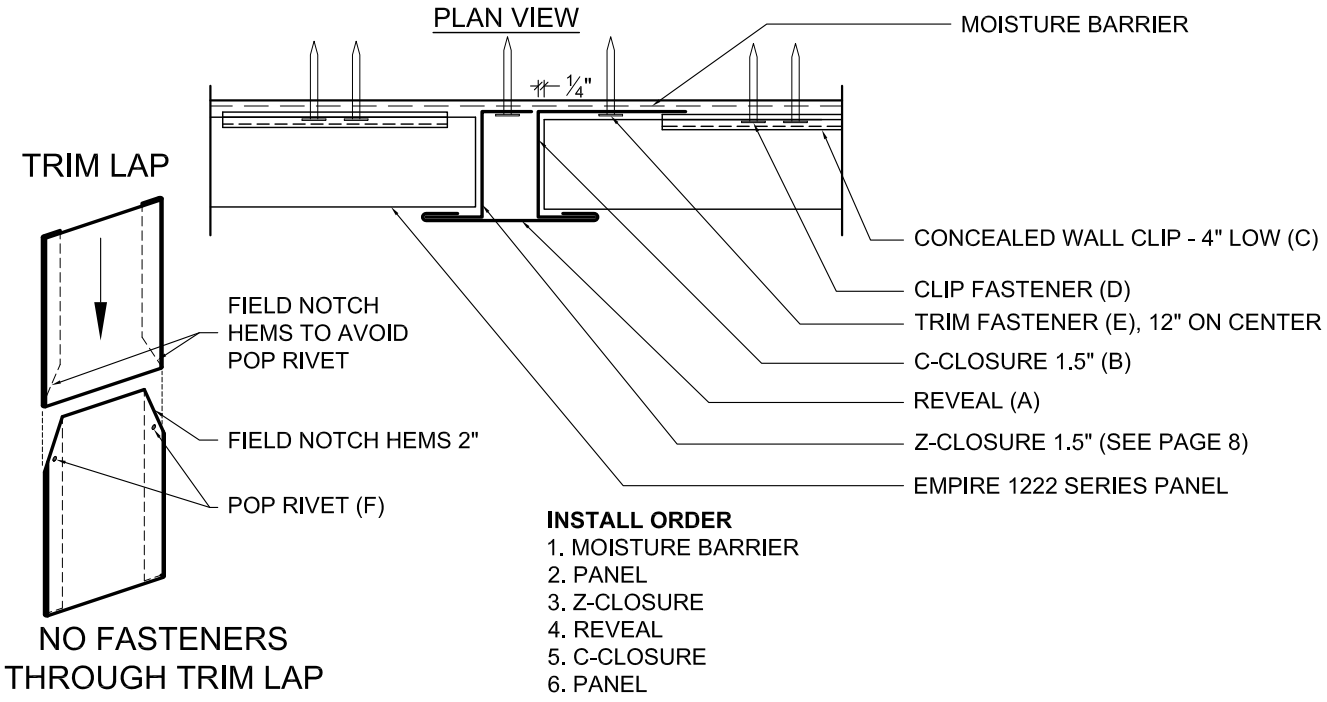
	Part	Description	Product #	Length	Installation Information
(A)		Sill To Soffit, 24 Ga Sill To Soffit, 22 Ga Sill To Soffit, 0.032"	58708XX 60708XX 58708XXA	10'-2"	Attach Sill To Soffit to the wall support with Trim Fastener and attach to soffit panel with Pop Rivet then install panel.
(B)		Offset Cleat, 24 Ga	5806499	10'-2"	Install 2" x 2" x ¼" spacer behind Offset Cleat. Hook panel onto 1" leg of Offset Cleat.
(C)		#10-16 x 1" Pancake Head Driller	8242100	1"	For trim attachment to steel framing
(C)		#10-12 x 1" Pancake Head Wood Screw	8243100	1"	For trim attachment to wood sheathing or framing
(D)		⅛" x ⅜" Pop Rivet	82402XX		For trim attachment to panel

Sill To Soffit - Vertical Panels

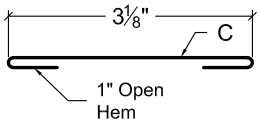
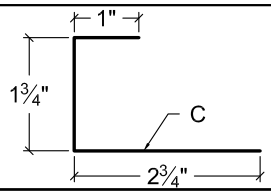
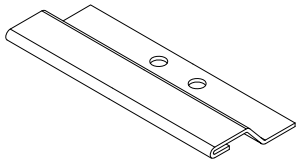
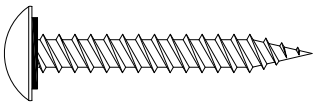
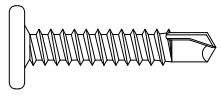
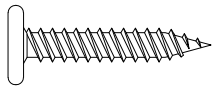
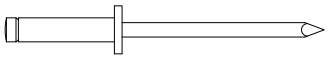


	Part	Description	Product #	Length	Installation Information
(A)		Sill To Soffit, 24 Ga Sill To Soffit, 22 Ga Sill To Soffit, 0.032"	58722XX 60722XX 58722XXA	10'-2"	Attach Sill To Soffit to the wall support with Trim Fastener and attach to soffit panel with Pop Rivet then install panel.
(B)		Miter Trim, 24 Ga Miter Trim, 22 Ga Miter Trim, 0.032"	58654XX 60654XX 58654XXA	10'-2"	Install at bottom of panels above header, attach with Pop Rivets.
(C)		Concealed Wall Clip 4" Low 16 Ga Galv	4934600	4"	Install along the length of every panel spaced per design and within 6" of the panel ends.
(D)		#12-11 x 1½" Low Profile Wood Screw	8244100	1½"	For clip attachment to wood sheathing or framing
(D, E)		#10-16 x 1" Pancake Head Driller	8242100	1"	For clip / trim attachment to steel framing
(E)		#10-12 x 1" Pancake Head Wood Screw	8243100	1"	For trim attachment to wood sheathing or framing
(F)		⅛" x ⅜" Pop Rivet	82402XX		For trim attachment to panel

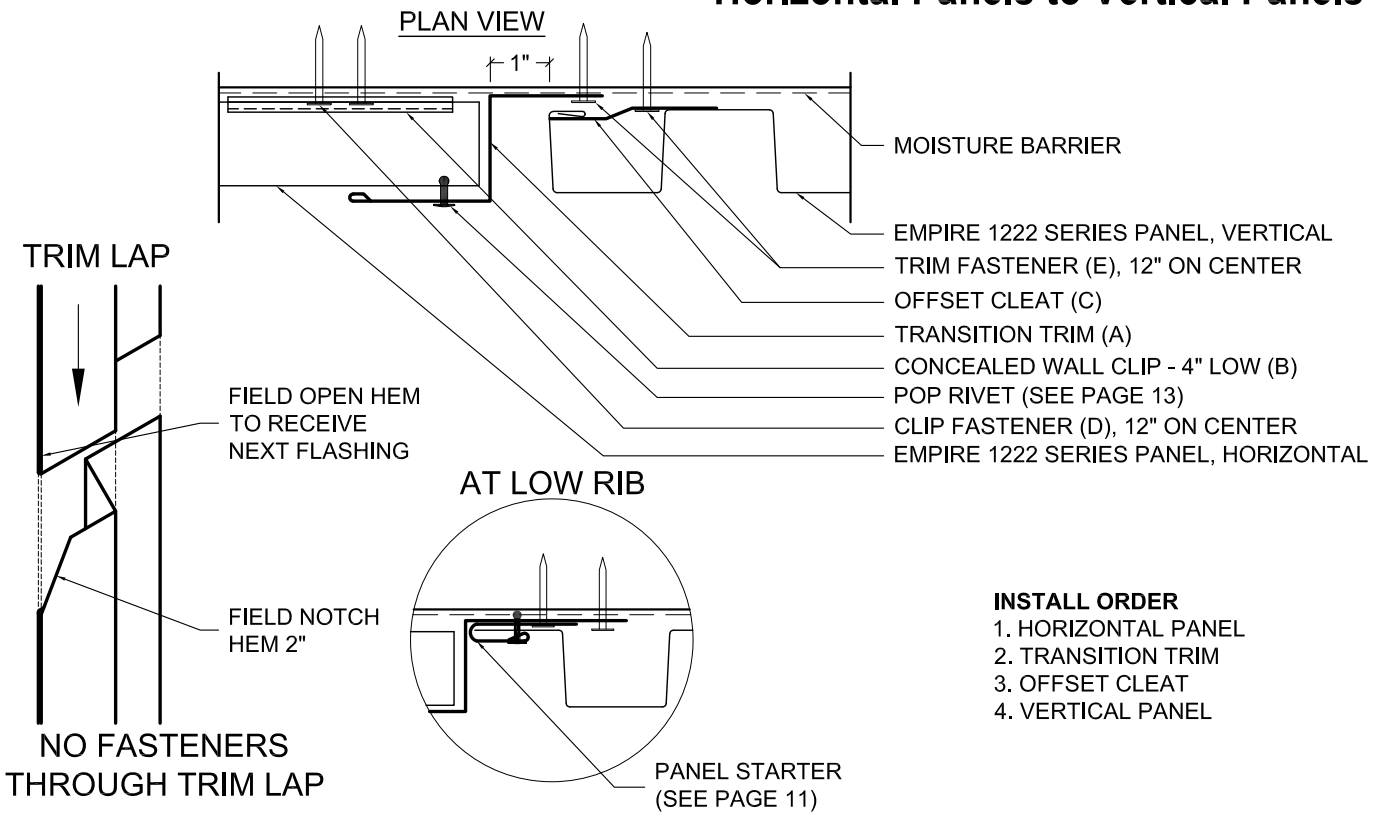
Vertical Transition with Reveal - Horizontal Panels



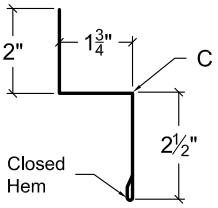
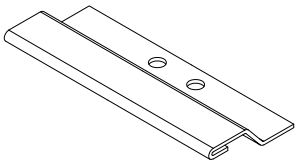
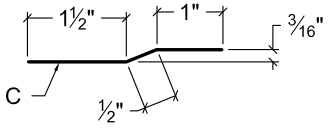
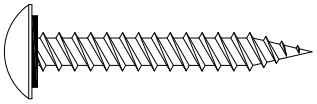
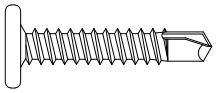
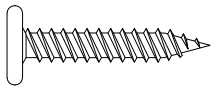
INSTALL ORDER
1. MOISTURE BARRIER
2. PANEL
3. Z-CLOSURE
4. REVEAL
5. C-CLOSURE
6. PANEL

	Part	Description	Product #	Length	Installation Information
(A)		Reveal, 24 Ga Reveal, 22 Ga Reveal, 0.032"	58740XX 60740XX 58740XXA	10'-2"	Hook Reveal on Z-Closure and engage C-Closure. Pop Rivet to Closures at trim lap.
(B)		C-Closure 1.5", 24 Ga C-Closure 1.5", 22 Ga C-Closure 1.5", 0.032"	58712XX 60712XX 58712XXA	10'-2"	Install C-Closure to restrain Reveal. Leave ¼" gap between end of panels and back of C-Closure.
(C)		Concealed Wall Clip 4" Low 16 Ga Galv	4934600	4"	Install along the length of every panel spaced per design and within 6" of the panel ends.
(D)		#12-11 x 1½" Low Profile Wood Screw	8244100	1½"	For clip attachment to wood sheathing or framing
(D), (E)		#10-16 x 1" Pancake Head Driller	8242100	1"	For clip / trim attachment to steel framing
(E)		#10-12 x 1" Pancake Head Wood Screw	8243100	1"	For trim attachment to wood sheathing or framing
(F)		⅛" x ⅜" Pop Rivet	82402XX		For Reveal attachment to Closures at trim lap

Vertical Transition - Horizontal Panels to Vertical Panels

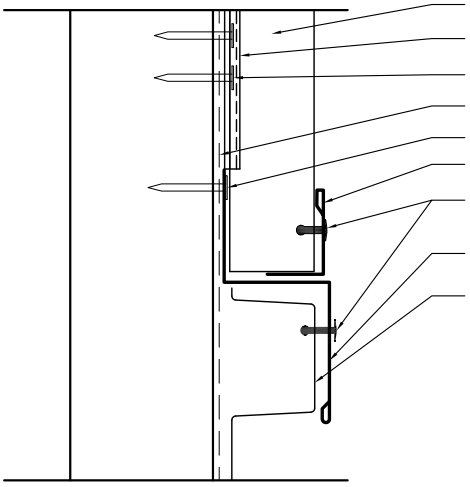


INSTALL ORDER
1. HORIZONTAL PANEL
2. TRANSITION TRIM
3. OFFSET CLEAT
4. VERTICAL PANEL

	Part	Description	Product #	Length	Installation Information
(A)		Transition Trim, 24 Ga Transition Trim, 22 Ga Transition Trim, 0.032"	58738XX 60738XX 58738XXA	10'-2"	Install Transition Trim over Z-Closure and Panel. Attach to Panel with Pop Rivet.
(B)		Concealed Wall Clip 4" Low 16 Ga Galv	4934600	4"	Install along the length of every panel spaced per design and within 6" of the panel ends.
(C)		Offset Cleat, 24 Ga	5806499	10'-2"	Hook panel onto 1" leg of Offset Cleat.
(D)		#12-11 x 1½" Low Profile Wood Screw	8244100	1½"	For clip attachment to wood sheathing or framing
(D), (E)		#10-16 x 1" Pancake Head Driller	8242100	1"	For trim attachment to steel framing
(E)		#10-12 x 1" Pancake Head Wood Screw	8243100	1"	For trim attachment to wood sheathing or framing

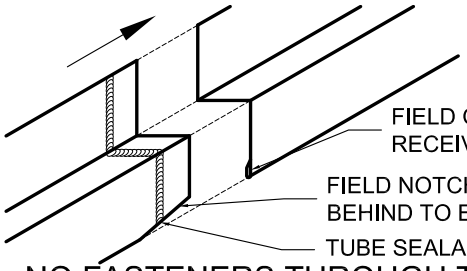
Horizontal Transition - Vertical Panels over Horizontal Panels

ELEVATION VIEW

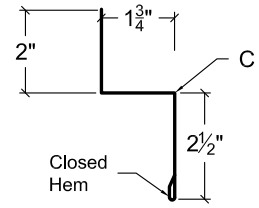
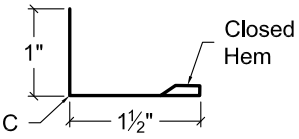
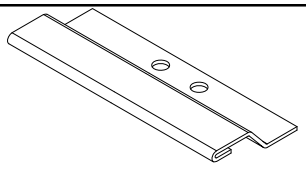
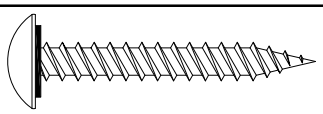
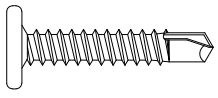
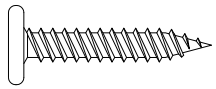
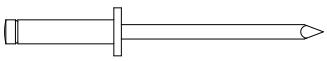


INSTALL ORDER
1. HORIZONTAL PANEL
2. TRANSITION TRIM
3. VERTICAL PANEL
4. MITER TRIM

TRIM LAP

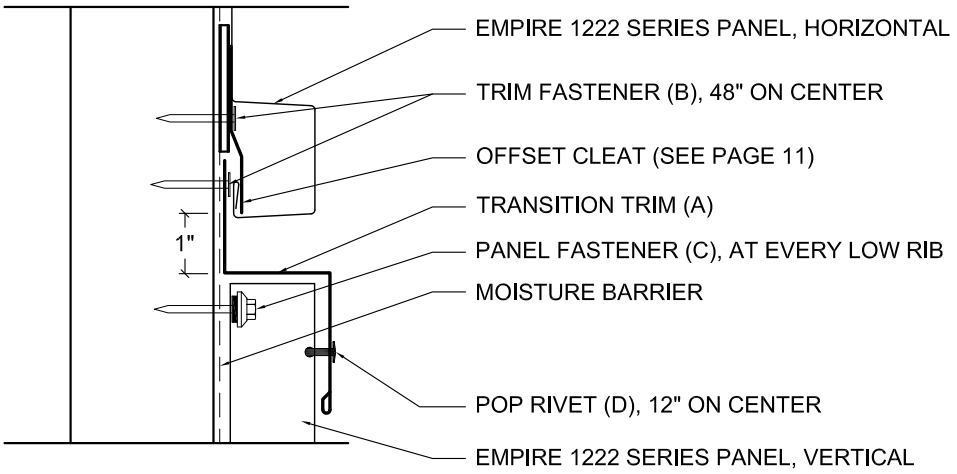


NO FASTENERS THROUGH TRIM LAP

	Part	Description	Product #	Length	Installation Information
(A)		Transition Trim, 24 Ga Transition Trim, 22 Ga Transition Trim, 0.032"	58738XX 60738XX 58738XXA	10'-2"	Install Transition Trim over horizontal panel and attach with Pop Rivet.
(B)		Miter Trim, 24 Ga Miter Trim, 22 Ga Miter Trim, 0.032"	58654XX 60654XX 58654XXA	10'-2"	Install at bottom of panels above header, attach with Pop Rivets.
(C)		Concealed Wall Clip 4" Low 16 Ga Galv	4934600	4"	Install along the length of every panel spaced per design and within 6" of the panel ends.
(D)		#12-11 x 1½" Low Profile Wood Screw	8244100	1½"	For clip attachment to wood sheathing or framing
(D), (E)		#10-16 x 1" Pancake Head Driller	8242100	1"	For trim attachment to steel framing
(E)		#10-12 x 1" Pancake Head Wood Screw	8243100	1"	For trim attachment to wood sheathing or framing
(F)		⅛" x ⅜" Pop Rivet	82402XX		For Trim attachment to Panel

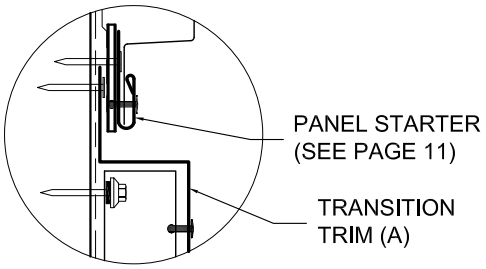
Horizontal Transition - Horizontal Panels over Vert. Panels

ELEVATION VIEW

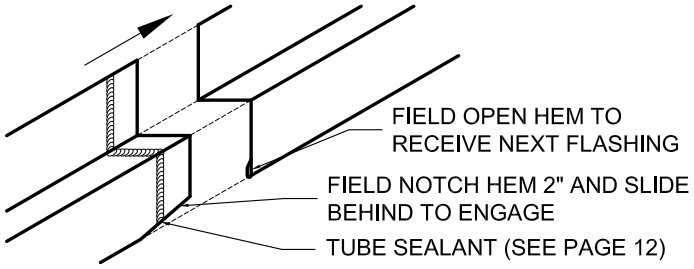


INSTALL ORDER
1. VERTICAL PANEL
2. PANEL FASTENER
3. TRANSITION TRIM
4. OFFSET CLEAT
5. HORIZONTAL PANEL

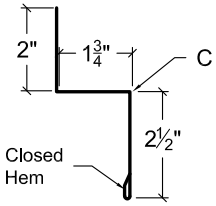
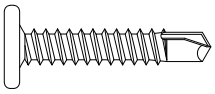
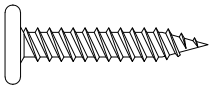
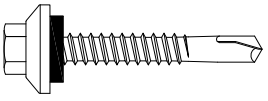
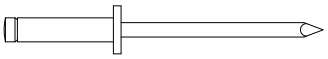
AT LOW RIB



TRIM LAP

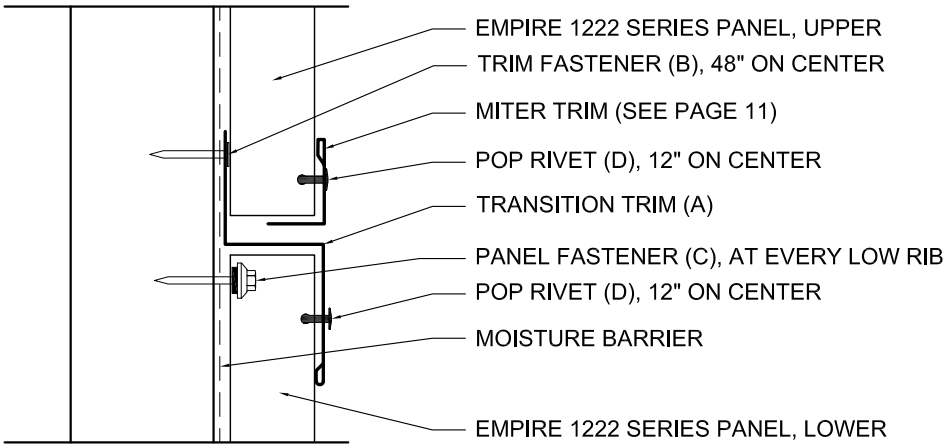


NO FASTENERS THROUGH TRIM LAP

	Part	Description	Product #	Length	Installation Information
(A)		Transition Trim, 24 Ga Transition Trim, 22 Ga Transition Trim, 0.032"	58738XX 60738XX 58738XXA	10'-2"	Install Transition Trim over vertical panel and attach with Pop Rivet.
(B)		#10-16 x 1" Pancake Head Driller	8242100	1"	For trim attachment to steel framing
(B)		#10-12 x 1" Pancake Head Wood Screw	8243100	1"	For trim attachment to wood sheathing or framing
(C)		#12-14 x 1¼" Self Driller XL	82353XX	1¼"	For panel attachment to steel framing
(C)		#10-14 x 1½" Wood Screw XL	82123XX	1½"	For panel attachment to wood sheathing or framing
(D)		⅛" x ⅜" Pop Rivet	82402XX		For Transition Trim attachment to Panel

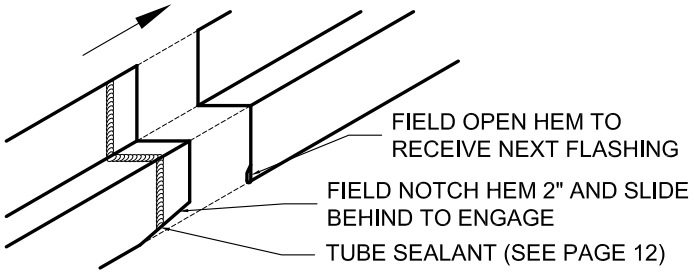
Horizontal Transition - Vertical Panels

ELEVATION VIEW

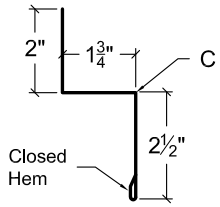
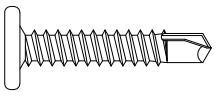
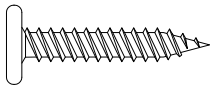
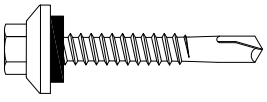
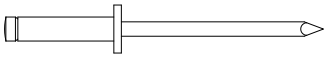


INSTALL ORDER
1. LOWER PANEL
2. TRANSITION TRIM
3. UPPER PANEL
4. MITER TRIM

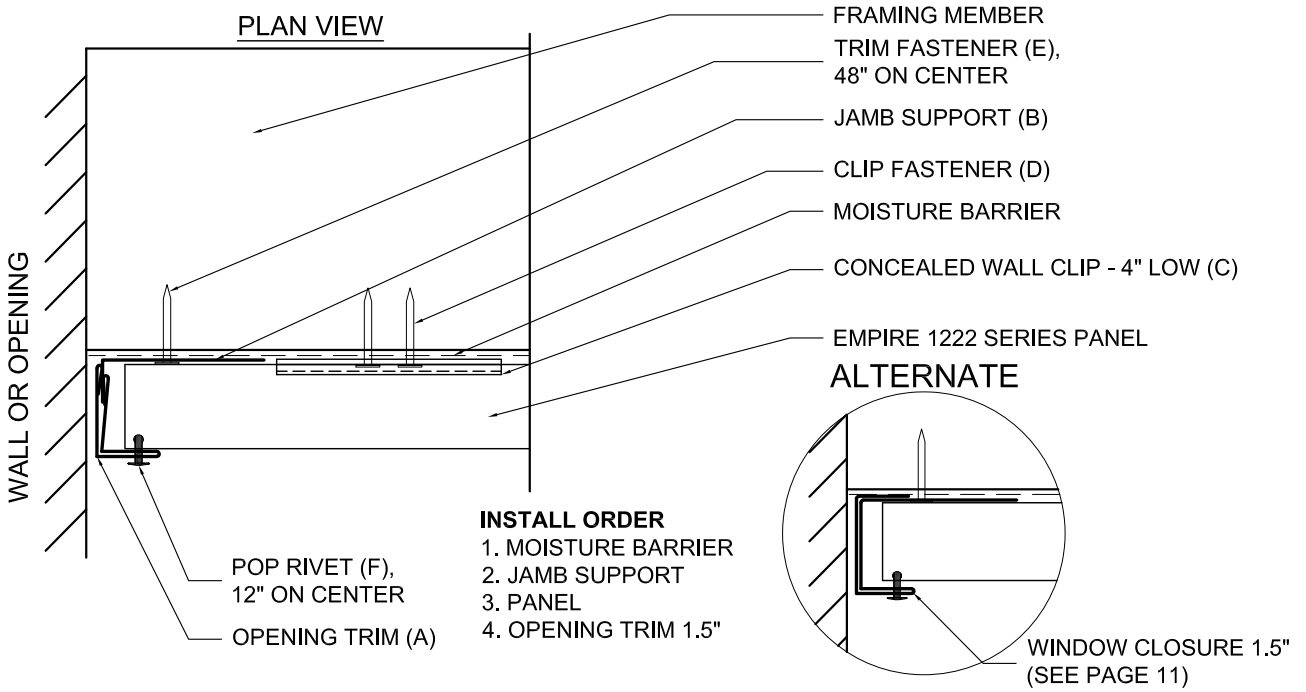
TRIM LAP

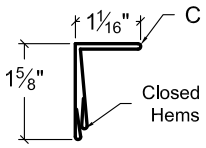
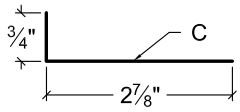
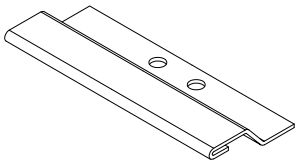
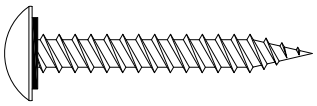
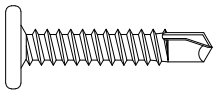
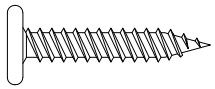
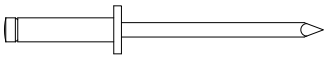


NO FASTENERS THROUGH TRIM LAP

	Part	Description	Product #	Length	Installation Information
(A)		Transition Trim, 24 Ga Transition Trim, 22 Ga Transition Trim, 0.032"	58738XX 60738XX 58738XXA	10'-2"	Install Transition Trim over lower panel and attach with Pop Rivet at Outside Closure.
(B)		#10-16 x 1" Pancake Head Driller	8242100	1"	For trim attachment to steel framing
(B)		#10-12 x 1" Pancake Head Wood Screw	8243100	1"	For trim attachment to wood sheathing or framing
(C)		#12-14 x 1¼" Self Driller XL	82353XX	1¼"	For panel attachment to steel framing
(C)		#10-14 x 1½" Wood Screw XL	82123XX	1½"	For panel attachment to wood sheathing or framing
(D)		⅛" x ⅜" Pop Rivet	82402XX		For trim attachment to panel

Panel End - Horizontal Panels



	Part	Description	Product #	Length	Installation Information
(A)		Opening Trim 1.5", 24 Ga Opening Trim 1.5", 22 Ga Opening Trim 1.5", 0.032"	58377XX 58378XX 58379XX	10'-2"	Engage Opening Trim onto Jamb Support. Attach to panel with Pop Rivets. Sealant may be needed at adjacent wall.
(B)		Jamb Support, 24 Ga Jamb Support, 22 Ga Jamb Support, 0.032"	57352XX 59354XX 59355XX	10'-2"	Jamb Support and Opening Trim can ease the installation of panels as opposed to using C-Closures at both ends of a panel.
(C)		Concealed Wall Clip 4" Low 16 Ga Galv	4934600	4"	Install along the length of every panel spaced per design and within 6" of the panel ends.
(D)		#12-11 x 1½" Low Profile Wood Screw	8244100	1½"	For clip attachment to wood sheathing or framing
(D), (E)		#10-16 x 1" Pancake Head Driller	8242100	1"	For clip / trim attachment to steel framing
(E)		#10-12 x 1" Pancake Head Wood Screw	8243100	1"	For trim attachment to wood sheathing or framing
(F)		1/8" x 3/8" Pop Rivet	82402XX		For trim attachment to panel

Care and Maintenance

Though factory-applied pre-painted finishes are very durable and will last many years, eventually it may be desirable to thoroughly clean or repaint them.

Dirt pickup may cause apparent discoloration of the paint when it has been exposed in some dirt-laden atmospheres for long periods of time. In areas of strong sunlight, slight chalking may cause some change in appearance. A good cleaning will often restore the appearance of these buildings and render repainting unnecessary. An occasional light cleaning will help maintain a good appearance.

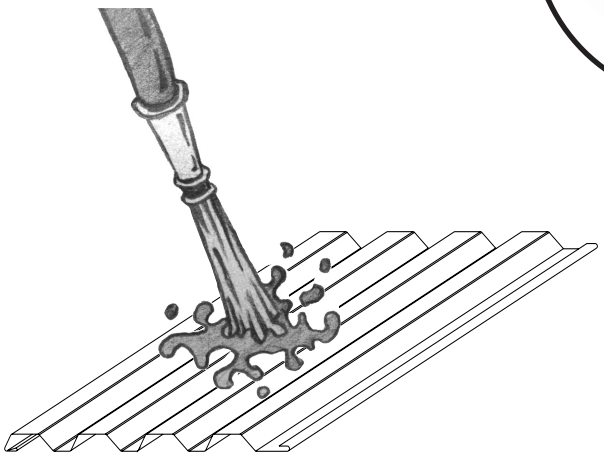
In many cases, simply washing the building with plain water using a hose or pressure sprayer will be adequate. In areas where heavy dirt deposits dull the surface, a cloth or soft bristle brush and solution of water and detergent (1/3 cup of laundry detergent per gallon of water for example) may be used. This should be followed by an adequate rinse of water. Do not use wire brushes, abrasives, or cleaning tools which will scratch the coating surface.

Mildew may occur in areas subject to high humidity but is not normally a problem due to the high inherent mildew resistance of the baked finish that is used. However, mildew can grow on dirt and spore deposits in some cases. To remove mildew along with the dirt, the following solution is recommended.

1/3 cup detergent (Tide® or equivalent)
2/3 cup trisodium phosphate (Solex® or equivalent)
1 quart of 5% sodium hypochlorite solution (Clorox® or equivalent)
3 quarts of water

Strong solvents and abrasive type cleaners should be avoided. Most organic solvents are flammable and toxic and must be handled accordingly. When using a solvent, consult maintenance professionals and label instructions for proper handling and disposal of washings. If required, a mild solvent such as mineral spirits can be used to remove caulking compounds, oil, grease, tars, wax and similar substances. Use a cloth dampened with mineral spirits and apply only to areas which are contaminated. Follow up the use of this mild solvent with detergent cleaning and rinsing.

DO NOT USE A WIRE BRUSH



HOSE OR PRESSURE SPRAY FOR ADEQUATE CLEANING

USE MILD DETERGENT AND WATER FOR HEAVY DIRT DEPOSITS