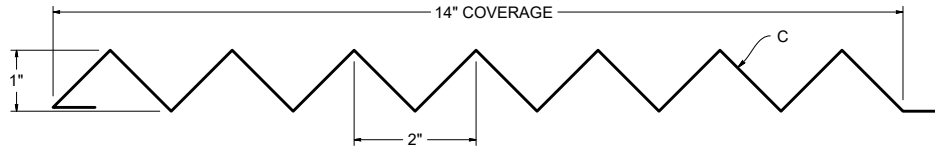


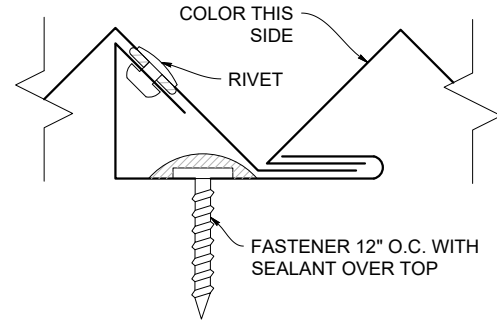
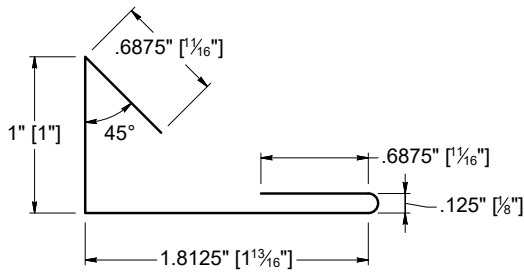


ICC
EVALUATION
SERVICE®

ICC-ES EVALUATION REPORT #5045 with CBC-CRC Supplement (Coming 2024)




PANEL ATTACHMENT CLIP



KEY FEATURES

- 14" panel coverage
- 24 and 22 Tru-Gauge™ and .032" and .040 Aluminum. Screw Flange and Clip attachment available
- Custom 20 & 18 Tru-Gauge™ and .050" and .063" Aluminum. These require the use of high performance clip. (please inquire)
- 4' to 20'10" panel lengths
- Vertical or Horizontal Wall Application
- Acceptable for use as a soffit panel
- Perforated options available (please inquire)

TESTING (Coming 2024)

-  ICC-ESR #5045 with CBC-CRC Supplement
- ASTM E1592 - Negative structural uniform static air pressure
- ASTM A653/A924 - G90 Galvanized
- ASTM A792 - Zinalume/Galvalume AZ-50/55
- ASTM B209 - Aluminum Substrate

WEIGHT CHART

CR-D	TYPE	24 GA STEEL	22 GA STEEL	.032 ALUM
THICKNESS	~22" S.O.	0.0236"	0.0285"	0.032"
WEIGHT/LINFT	CLIP ATTACH	1.765 LBS	2.130 LBS	0.836 LBS
WEIGHT/LSQFT	CLIP ATTACH	1.513 LBS	1.830 LBS	0.717 LBS

STRUCTURAL TESTING ASTM E 1592
Intertek Test Result R0846.09-301-44 R0

NEGATIVE LOAD CHART WITH CLIP ATTACHMENT

SECTION PROPERTIES				ALLOWABLE UNIFORM LOADS, psf For various clip spacings (i.e. span values)														
				Top in Compression			Bottom in Compression			Negative Load								
				I_{xx} in ⁴ /ft.	I_{xx} (eff) in ⁴ /ft.	S_{xx} in ³ /ft	I_{xx} in ⁴ /ft.	I_{xx} (eff) in ⁴ /ft.	S_{xx} in ³ /ft	1'	1.5'	2'	2.5'	3'	3.5'	4'	4.5'	5'
14	24	50	1.67	0.0365	0.0357	0.0705	0.0338	0.0345	0.0671	135.0	126.9	118.8	110.6	102.5	94.4	86.3	78.1	70.0
14	22	50	1.93	0.0407	0.0399	0.0821	0.0382	0.0389	0.0778	135.0	126.9	118.8	110.6	102.5	94.4	86.3	78.1	70.0
14	20	33	2.44	0.0506	0.0503	0.1023	0.0497	0.0499	0.1008	135.0	126.9	118.8	110.6	102.5	94.4	86.3	78.1	70.0
14	18	33	3.05	0.0626	0.0625	0.1261	0.0625	0.0625	0.1257	135.0	126.9	118.8	110.6	102.5	94.4	86.3	78.1	70.0

- Theoretical section properties for steel panels have been calculated per AISI S100 Specification for the Design of Cold-Formed Steel Structural Members.
- I_{xx} (eff) values are "effective" stiffness properties for positive (downward) load induced deflection determination.
- S_{xx} values are to be used for flexural (bending) stress determination.
- Charted Load/Span values are based on ASTM E1592-05 (2017) testing protocol.
- Charted Load/Span values above are based on Allowable Stress Design (ASD).....Load Resistance Factor Design (LRFD) technique not recommended for charted values.
- Charted Allowable Uniform Loads are based on the Ultimate Uniform Load (per ASTM E1592-05 testing) divided by a 2.00 Factor-of-Safety.
- Charted Allowable Uniform Loads do not consider panel weight (Dead Load) or clip-to-substrate (structure) fastener connection strength.
- Clip-to-substrate (structure) fastener specification, evaluation and analysis should be performed by a licensed structural engineer.
- Panel substrate (structure) may include: open-framing, plywood/OSB, or metal deck.
- Charted Allowable Uniform Loads cannot be increased by 1/3.

POSITIVE LOAD CHART WITH CLIP ATTACHMENT

SECTION PROPERTIES				ALLOWABLE UNIFORM LOADS, psf For various clip spacings (i.e. span values)															
				Top in Compression			Bottom in Compression			Positive Load									
				I_{xx} in ⁴ /ft.	I_{xx} (eff) in ⁴ /ft.	S_{xx} in ³ /ft	I_{xx} in ⁴ /ft.	I_{xx} (eff) in ⁴ /ft.	S_{xx} in ³ /ft	1'	2'	3'	4'	5'	6'	7'	8'	9'	10'
14	24	50	1.67	0.0365	0.0357	0.0705	0.0338	0.0345	0.0671	1520.0	419.4	186.4	104.8	67.1	46.6	34.2	26.2	20.7	16.8
14	22	50	1.93	0.0407	0.0399	0.0821	0.0382	0.0389	0.0778	1628.2	486.3	216.1	121.6	77.8	54.0	39.7	30.4	24.0	19.5
14	20	33	2.44	0.0506	0.0503	0.1023	0.0497	0.0499	0.1008	1680.0	420.0	186.7	105.0	67.2	46.7	34.3	26.3	20.7	16.8
14	18	33	3.05	0.0626	0.0625	0.1261	0.0625	0.0625	0.1257	2095.0	523.8	232.8	130.9	83.8	58.2	42.8	32.7	25.9	21.0

- Theoretical section properties for Steel panels have been calculated per 2020 AISI S100 North American Specification for the Design of Cold-Formed Steel Structural Member. I_{xx} and S_{xx} are effective section properties for deflection and bending.
- I_{xx} (eff) values are "effective" stiffness properties for positive (downward) load induced deflection determination.
- Allowable loads for Steel panels are calculated in accordance with 2020 AISI S100 specifications considering bending, shear, combined bending and shear and deflection. Allowable load considers a 3 or more equal span condition.
- S_{xx} values are to be used for flexural (bending) stress determination.
- Allowable load does not address panel weight, fasteners, connection strength or support material.
- Allowable load includes web crippling.
- Load/Span values are based on theoretical computations and not load testing.
- Deflection is not considered.
- Allowable loads do not include a 1/3 stress increase for wind.
- The Zig Zag Panel when installed as a three-span condition with spans of 5 ft. on-center for Steel and 3 ft. on-center for Aluminum are is capable of withstanding the minimum uniform distributed load of 20 psf (0.958 kPa) noted in Table 1607.1 of the IBC and a minimum concentrated load of 300 lbf (1.33 kN).
- When panels are installed over solid or closely fitted deck sheathing, the positive load is limited to the structural capacity of the underlying sheathing.

PANEL ATTACHMENT



Fastener Notes:

- When possible, lap panels away from prevailing wind direction.
- Panel screws should be long enough to penetrate through the bottom of the plywood by 3/8".
- For dimensional lumber, panel screws should penetrate the lumber 1".
- All trim screws used for roof or wall applications should have EPDM sealing washers.
- Clean off working area each day to remove metal particles left from drilling fasteners. These particles, when exposed to moisture, will form rust between metal particles and the panel.