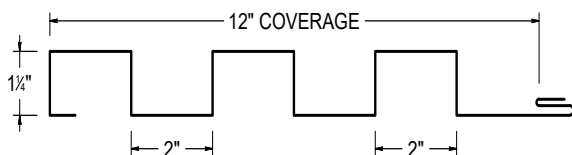




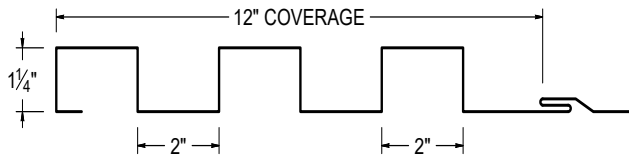
ICC
EVALUATION
SERVICE®

ICC-ES EVALUATION REPORT #5045 with CBC-CRC Supplement

CLIP ATTACHMENT

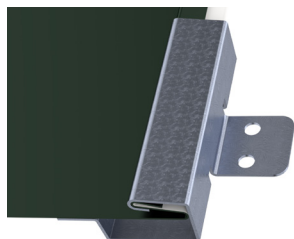


SCREW FLANGE ATTACHMENT

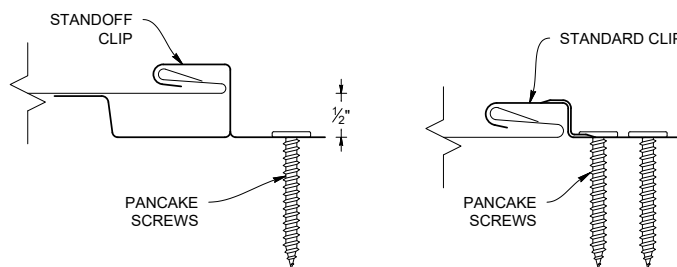
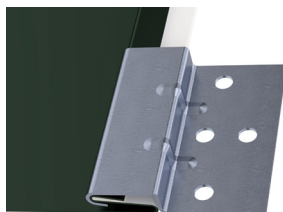


PANEL ATTACHMENT CLIP

STANDOFF CLIP



STANDARD CLIP



KEY FEATURES

- Manufactured in Salem, OR, Sacramento, CA and Riverside, CA
- 12" panel coverage
- 24 Tru-Gauge™ steel and .032" aluminum are standard and attached with high-performance concealed clips (some profiles *may* be available with an integrated screw flange option -- *please inquire*).
- Screw flange is not available in heavier gauges:
 - 22 Tru-Gauge™ steel and .040" aluminum
 - Custom 20 & 18 Tru-Gauge™ steel and .050" & .063" aluminum
- Aluminum is recommended within 1000 ft of salt water (*not required*)
- 3' to 32'9" panel lengths (*Inquire for longer or shorter lengths*)
- Custom profiles available
- Vertical or horizontal wall application
- Acceptable for use as a soffit panel
- Interchangeable panel widths and configurations
- Perforated options available (*please inquire*)

TESTING

-  ICC-ESR #5045 with CBC-CRC Supplement
- ASTM A653/A924 - G-90 Galvanized
- ASTM A792 - ZINCALUME®/Galvalume® AZ-50/55
- ASTM B209 - Aluminum Substrate
- ASTM D6578 - Anti-Graffiti
- ASTM E283 - Air infiltration (wall)
- ASTM E330 - Positive structural uniform static air pressure
- ASTM E331 - Water infiltration (wall)
- ASTM E1592 - Negative structural uniform static air pressure
- ASTM E1646 - Water infiltration (roof)
- ASTM E1680 - Air infiltration (roof)

WEIGHT CHART

IC60-12	TYPE	24 GA STEEL	22 GA STEEL	.032 ALUM	.040 ALUM
THICKNESS		0.0236"	0.0285"	0.032"	0.040"
WEIGHT/LINFT	CLIP ATTACH	1.805 LBS	2.107 LBS	0.855 LBS	1.034 LBS
WEIGHT/LSQFT	CLIP ATTACH	1.805 LBS	2.107 LBS	0.855 LBS	1.034 LBS
WEIGHT/LINFT	SCREW FLANGE	1.905 LBS	2.471 LBS	0.903 LBS	1.212 LBS
WEIGHT/LSQFT	SCREW FLANGE	1.905 LBS	2.471 LBS	0.903 LBS	1.212 LBS

ASTM E 1680/E283 Air Penetration	ASTM E 1646/E331 Water Penetration
12 PSF<0.01 CFM/ft²-PASS	20.5 PSF - Pass
Intertek Test Result L5460.01-901-44 R1	
Intertek Test Result L5461.01-901-44 R1	
STRUCTURAL TESTING ASTM E1592	
Intertek Test Result M1352.01-301-44 R0	

NEGATIVE LOAD CHART WITH CLIP ATTACHMENT

				SECTION PROPERTIES						ALLOWABLE UNIFORM LOADS, psf For various clip spacings (i.e. span values)									
Width, in.	Gauge	Yield ksi	Weight psf	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'	
12	24	50	1.89	0.1064	0.1062	0.1362	0.1056	0.1058	0.1513	150.0	136.6	123.3	110.0	96.6	83.3	70.0			
12	22	50	2.21	0.1323	0.1321	0.1766	0.1316	0.1318	0.1986	219.0	194.1	169.3	144.5	119.6	94.8	70.0			
12	20	33	2.69	0.1804	0.1800	0.2562	0.1790	0.1794	0.2938	219.0	194.1	169.3	144.5	119.6	94.8	70.0			
12	18	33	3.48	0.2460	0.2450	0.3635	0.2410	0.2420	0.4126	219.0	194.1	169.3	144.5	119.6	94.8	70.0			
12	0.032"	19	0.52	0.1802	0.1802	0.2665	0.1802	0.1802	0.3148	110.0	101.6	93.3	85.0	76.6	68.3	60.0			
12	0.040"	19	1.14	0.2210	0.2210	0.3270	0.2210	0.2210	0.3860	110.0	101.6	93.3	85.0	76.6	68.3	60.0			
12	0.050"	19	1.37	0.4180	0.4180	0.5127	0.4180	0.4180	0.6107	180.0	163.8	147.5	131.3	115.0	98.8	82.5	66.3	50.0	
12	0.063"	19	1.72	0.5090	0.5090	0.6248	0.5090	0.5090	0.7423	180.0	163.8	147.5	131.3	115.0	98.8	82.5	66.3	50.0	

- Theoretical section properties for steel panels have been calculated per AISI S100 specification for Design of Cold-Formed Steel Structural Members.
- Charted Load/Span values are based on ASTM E1592-05 (2017) testing protocol.
- Minimum recommended substrate (structure) recommendations:
 - Open-Framing (i.e. girts) - 16ga (design thickness 0.0566")
 - Plywood/OSB-15/32" or thicker is recommended to assure an effective degree of fastener thread engagement.
 - METAL DECK - 22ga (design thickness 0.0283")

POSITIVE LOAD CHART WITH CLIP ATTACHMENT

				SECTION PROPERTIES						ALLOWABLE UNIFORM LOADS, psf For various clip spacings (i.e. span values)									
Width, in.	Gauge	Yield ksi	Weight psf	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'
12	24	50	1.89	0.1064	0.1062	0.1362	0.1056	0.1058	0.1513	1776.4	851.3	378.3	212.8	136.2	94.6	69.5	53.2	42.0	34.1
12	22	50	2.21	0.1323	0.1321	0.1766	0.1316	0.1318	0.1986	1904.6	952.27	490.56	275.9	176.6	122.6	90.1	68.98	54.5	44.2
12	20	33	2.69	0.1804	0.1800	0.2562	0.1790	0.1794	0.2938	1916.4	958.18	474.44	266.9	170.8	118.6	87.14	66.7	52.7	42.7
12	18	33	3.48	0.2460	0.2450	0.3635	0.2410	0.2420	0.4126	3306.4	1514.6	673.2	378.7	242.3	168.3	123.6	94.66	74.8	60.6
12	0.032"	19	1.09	0.2780	0.2780	0.3401	0.2780	0.2780	0.4058	268.2	134.1	89.4	67.1	53.6	41.6	30.5	23.4	18.5	15.0
12	0.040"	19	0.90	0.3410	0.3410	0.4184	0.3410	0.3410	0.4989	416.4	208.2	138.8	104.1	83.3	63.4	46.6	35.7	28.2	22.8
12	0.050"	19	1.37	0.4180	0.4180	0.5127	0.4180	0.4180	0.6107	651.8	325.9	217.3	163.0	127.8	88.8	65.2	49.9	39.5	32.0
12	0.063"	19	1.72	0.5090	0.5090	0.6248	0.5090	0.5090	0.7423	1038.2	519.1	346.1	259.6	171.8	119.3	87.7	67.1	53.0	43.0

- Theoretical section properties for Steel panels have been calculated per 2020 AISI S100 North America Specifications for the Design of Cold-Formed Steel Structural Member.
- 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.
- Allowable load includes web crippling.
- The IC60-12 panel when installed as a three-span condition with spans of 8ft. On-center for steel and 4ft. On-center for Aluminum are capable of withstanding the minimum uniform distributed load of 20psf (0.958 kPa) noted in table 1607.1 of the IBC and a minimum concentrated load of 300lbf (1.33kN)

PANEL ATTACHMENT



Fastener Notes:

- When possible, lap panels away from prevailing wind direction.
- 15/32" OSB: #10 Burr Buster fasteners.
- 15/32" Plywood: #10 GP Fastener. Screws should be long enough to penetrate through the bottom of the plywood by 3/8".
- Dimensional lumber: #10 GP. Screws should penetrate the lumber 1".
- 16ga (or less) Steel furring: #10 or #12 Fastener with DP-1
- All trim screws used for roof or wall applications should have EPDM sealing washers.

Rev. Date 08-26

NEGATIVE LOAD CHART WITH SCREW FLANGE

				SECTION PROPERTIES						ALLOWABLE UNIFORM LOADS, psf For various clip spacings (i.e. span values)						
Width, in.	Gauge	Yield ksi	Weight psf	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'
12	24	50	1.89	0.1137	0.1153	0.1382	0.1191	0.1175	0.1804	177.5	161.2	145.0	128.7	112.5	96.2	80.0
12	22	50	2.21	0.1361	0.1370	0.1757	0.1391	0.1382	0.2805	190.0	176.6	163.3	150.0	136.6	123.3	110.0
12	20	33	2.69	0.1860	0.1868	0.2545	0.1890	0.1881	0.2790	190.0	176.6	163.3	150.0	136.6	123.3	110.0
12	18	33	3.48	0.2550	0.2538	0.3610	0.2510	0.2522	0.3600	190.0	176.6	163.3	150.0	136.6	123.3	110.0
12	0.032"	19	0.52	0.1860	0.2642	0.3492	0.1860	0.1860	0.3414	140.0	122.5	105.0	87.5	70.0	52.5	35.0
12	0.040"	19	1.14	0.2290	0.2290	0.3246	0.2290	0.2290	0.4206	140.0	122.5	105.0	87.5	70.0	52.5	35.0

- Theoretical section properties for still panels have been calculated per AISI S100 Specifications for Design of Cold-Formed Steel Structural Members. Intertek M1352.01-301-44 R0
- Charted Load/Span values are based on ASTM E1592-05, divided by a 2.00 Factor-of-Safety.
- Minimum recommended substrate (structure) recommendations:
 - Open-Framing (i.e. purlins)-16ga (design thickness 0.0566")
 - Plywood/OSB-15/32" or thicker is recommended to assure an effective degree of fastener thread engagement.
 - METAL DECK - 22ga (design thickness 0.0283")

POSITIVE LOAD CHART WITH SCREW FLANGE

				SECTION PROPERTIES						ALLOWABLE UNIFORM LOADS, psf For various clip spacings (i.e. span values)									
Width, in.	Gauge	Yield ksi	Weight psf	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'
12	24	50	1.89	0.1137	0.1153	0.1382	0.1191	0.1175	0.1804	1776.4	863.8	383.9	215.6	138.2	96.0	70.5	54.0	42.7	34.6
12	22	50	2.21	0.1361	0.1370	0.1757	0.1391	0.1382	0.2805	1904.6	952.27	488.1	274.5	175.7	122.0	89.64	68.63	54.2	43.9
12	20	33	2.69	0.1860	0.1868	0.2545	0.1890	0.1881	0.2790	1916.4	958.18	471.3	265.1	169.7	117.8	86.56	66.3	52.4	42.4
12	18	33	3.48	0.2550	0.2538	0.3610	0.2510	0.2522	0.3600	3306.4	1500.0	666.7	375.0	240.0	166.7	122.5	93.8	74.1	60.0
12	0.032"	19	0.52	0.1860	0.2642	0.3492	0.1860	0.1860	0.3414	248.2	124.1	82.7	62.1	49.6	34.5	25.34	19.4	15.3	12.4
12	0.040"	19	1.14	0.2290	0.2290	0.3246	0.2290	0.2290	0.4206	380.9	190.5	127.0	95.2	73.0	50.7	37.26	28.53	22.5	18.3

- Theoretical section properties for Steel panels have been calculated per AISI S100 North America Specifications for the Design of Cold-Formed Steel Structural Member.
- Theoretical section properties for aluminum panels have been calculated per the latest edition of the aluminum association design manual.
- Allowable loads is calculated in accordance with AISI 2012 specifications considering bending , shear, combined bending and shear and deflection. Allowable load considers a 3 or more equal span condition.
- Allowable load does not address web crippling, fasteners, connection strength or support material.

PANEL ATTACHMENT



Fastener Notes:

- When possible, lap panels away from prevailing wind direction.
- 15/32" OSB: #10 Burr Buster fasteners.
- 15/32" Plywood: #10 GP Fastener. Screws should be long enough to penetrate through the bottom of the plywood by 3/8".
- Dimensional lumber: #10 GP. Screws should penetrate the lumber 1".
- 16ga (or less) Steel furring: #10 or #12 Fastener with DP-1
- All trim screws used for roof or wall applications should have EPDM sealing washers.