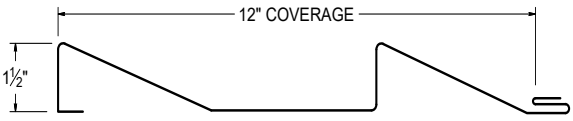
TAYLOR METAL PRODUCTS

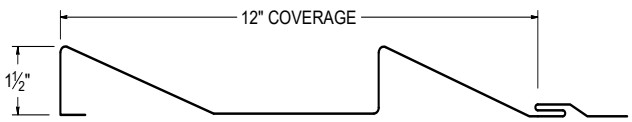
Contour™ Wall Panel System
Impact™ Series Cascade 4
Technical Data Resource

ICC EVALUATION SERVICE® **ICC-ES EVALUATION REPORT #5045 with CBC-CRC Supplement (Coming soon)**

CLIP ATTACHMENT

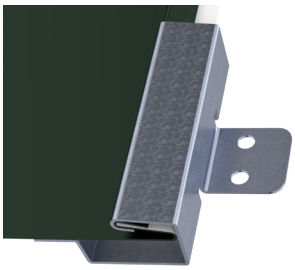


SCREW FLANGE ATTACHMENT

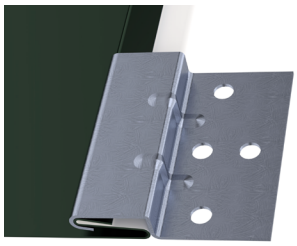


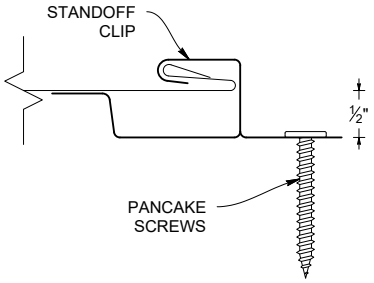
PANEL ATTACHMENT CLIP

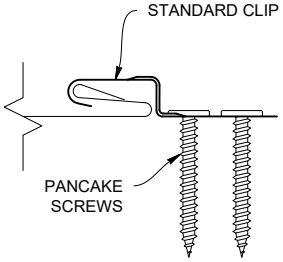
STANDOFF CLIP



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 -- *please inquire*)
- Screw flange is not available in heavier gauges:
  - 22 Tru-Gague™ steel and .040” aluminum
  - Custom 20 & 18 Tru-Gauge™ and .050” & .063” aluminum
- Aluminum recommended withing 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 (Coming soon)
- 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 E331 - Water infiltration (wall)
- ASTM E1592 - Negative structural uniform static air pressure
- ASTM E1646 - Water infiltration (roof)
- ASTM E1680 - Air infiltration (roof)

WEIGHT CHART

CASCADE 4	TYPE	24 GA STEEL	22 GA STEEL	.032 ALUM	.040 ALUM
THICKNESS		0.0236”	0.0285”	0.032”	0.040”
WEIGHT/LINFT	CLIP ATTACH	1.454 LBS	1.696 LBS	0.689 LBS	0.832 LBS
WEIGHT/LSQFT	CLIP ATTACH	1.454 LBS	1.696 LBS	0.689 LBS	0.832 LBS
WEIGHT/LINFT	SCREW FLANGE	1.384LBS	2.059 LBS	0.656 LBS	1.010 LBS
WEIGHT/LSQFT	SCREW FLANGE	1.384 LBS	2.059 LBS	0.656 LBS	1.010 LBS

ASTM E 1680/E283 Air Penetration	ASTM E 1646/E331 Water Penetration
12 PSF<0.01 CFM/ft²-PASS	20.5 PSF - Pass
STRUCTURAL TESTING ASTM E 1592	

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								
Width, in.	Gauge	Yield ksi	Weight psf	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	1.42	0.0594	0.0609	0.0573	0.0644	0.0630	0.0753	105.0	95.6	86.3	76.9	67.5	58.1	48.8	39.4	30.0
12	22	50	1.70	0.0744	0.0759	0.0716	0.0796	0.0781	0.0909	105.0	95.6	86.3	76.9	67.5	58.1	48.8	39.4	30.0
12	20	33	2.07	0.0971	0.0981	0.0958	0.1005	0.0995	0.1131	155.0	140.0	125.0	110.0	95.0	80.0	65.0	50.0	35.0
12	18	33	2.68	0.1390	0.1381	0.1432	0.1360	0.1369	0.1504	155.0	140.0	125.0	110.0	95.0	80.0	65.0	50.0	35.0
12	0.032"	19	0.63	0.1022	0.1022	0.1070	0.1022	0.1022	0.2068	100.0	93.1	86.3	79.4	72.5	65.6	58.8	51.9	45.0
12	0.040"	19	0.78	0.1340	0.1340	0.1412	0.1340	0.1340	0.2767	100.0	93.1	86.3	79.4	72.5	65.6	58.8	51.9	45.0
12	0.050"	19	0.99	0.1650	0.1650	0.1746	0.1650	0.1650	0.3462	110.0	100.0	90.0	80.0	70.0	60.0	50.0	40.0	30.0

1. Theoretical section properties for steel panels have been calculated per AISI S100 Specification for the Design of Cold-Formed Steel Structural Members.
2. Charted Load/Span values are based on ASTM E1592-05 (2017) testing protocol.
3. Charted Allowable Uniform Loads are based on the Ultimate Uniform Load (per ASTM E1592-05 testing) divided by a 2.00 Factor-of-Safety.
4. Charted Allowable Uniform Loads do not consider panel weight (Dead Load) or clip-to-substrate (structure) fastener connection strength.
5. Minimum recommended substrate (structure) recommendations:
   a. Open-framing (i.e purlins) - 16ga. (design thickness = 0.0566")
   b. Plywood/OSB - 15/32" or thicker is recommended to assure an effective degree of fastener thread engagement
   c. 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)									
				Top in Compression			Bottom in Compression			Positive Load									
Width, in.	Gauge	Yield ksi	Weight psf	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	1.42	0.0594	0.0609	0.0573	0.0644	0.0630	0.0753	434.6	217.3	144.9	89.5	57.3	39.8	29.2	22.4	17.7	14.3
12	22	50	1.70	0.0744	0.0759	0.0716	0.0796	0.0781	0.0909	636.4	318.2	198.9	111.9	71.6	49.7	36.5	28.0	22.1	17.9
12	20	33	2.07	0.0971	0.0981	0.0958	0.1005	0.0995	0.1131	650.9	325.5	177.4	99.8	63.9	44.4	32.6	25.0	19.7	16.0
12	18	33	2.68	0.1390	0.1381	0.1432	0.1360	0.1369	0.1504	1141.8	570.9	265.2	149.2	95.5	66.3	48.7	37.3	29.5	23.9
12	0.032"	19	0.63	0.1022	0.1022	0.1070	0.1022	0.1022	0.2068	89.1	44.6	25.3	14.2						
12	0.040"	19	0.78	0.1340	0.1340	0.1412	0.1340	0.1340	0.2767	139.1	69.6	43.8	24.6	15.8	11.0				
12	0.050"	19	0.99	0.1650	0.1650	0.1746	0.1650	0.1650	0.3462	217.3	108.6	67.6	38.0	24.3	16.9	12.4			

1. Theoretical section properties for steel panels have been calculated per AISI S100 specification for the design of cold-formed steel structural members.
2. Theoretical section properties for aluminum panels have been calculated per the latest edition of the aluminum association design manual.
3. Allowable load is calculated in accordance with AISI 2012 specifications considering bending, shear, combined bending and shear and deflection.
4. Allowable loads do not include a 1/3 stress increase for wind.

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.

Rev. Date 10-25