TAYLOR METAL PRODUCTS

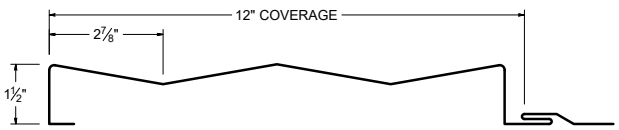
Contour™ Wall Panel System
Impact™ Series Cascade 10
Technical Data Sheet

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

CLIP ATTACHMENT

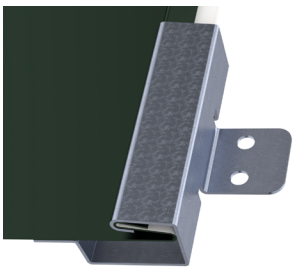


SCREW FLANGE ATTACHMENT

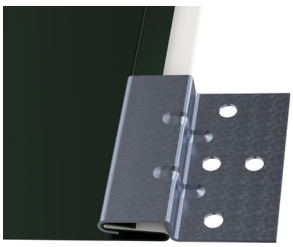


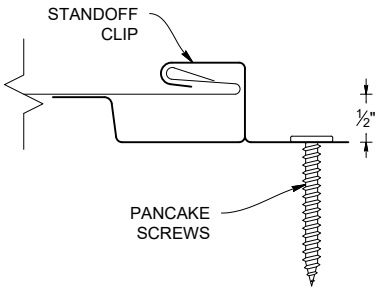
PANEL ATTACHMENT CLIP

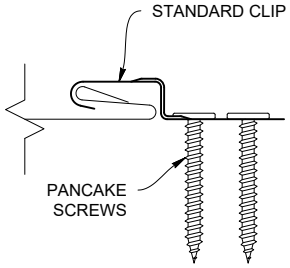
STANDOFF CLIP



STANDARD CLIP







KEY FEATURES

- Manufactured in Salem, OR, Sacramento, CA and Riverside, CA
- 12” panel coverage
- 24 & 22 Tru-Gauge™ steel and .032” & .040” aluminum
- Custom 20 & 18 Tru-Gauge™ steel and .050” & .063” aluminum. These require the use of clips.
- Aluminum 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 (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 10	WIDTH	24 GA STEEL	22 GA STEEL	.032” ALUM	.040” ALUM
THICKNESS		0.0236”	0.0285”	0.032”	0.040”
WEIGHT/LINFT	12”	1.469 LBS	1.677 LBS	0.696 LBS	0.823 LBS
WEIGHT/LSQFT	12”	1.447 LBS	1.677 LBS	0.685 LBS	0.823 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	1.48	0.0778	0.0809	0.1032	0.0886	0.0855	0.0908	155.0	140.6	126.3	111.9	97.5	83.1	68.8	54.4	40.0
12	22	50	1.74	0.0984	0.1016	0.1246	0.1093	0.1061	0.1135	155.0	140.6	126.3	111.9	97.5	83.1	68.8	54.4	40.0
12	20	33	2.12	0.1400	0.1417	0.1562	0.1460	0.1443	0.1562	155.0	140.6	126.3	111.9	97.5	83.1	68.8	54.4	40.0
12	18	33	2.75	0.1870	0.1870	0.2012	0.1870	0.1870	0.2012	155.0	140.6	126.3	111.9	97.5	83.1	68.8	54.4	40.0

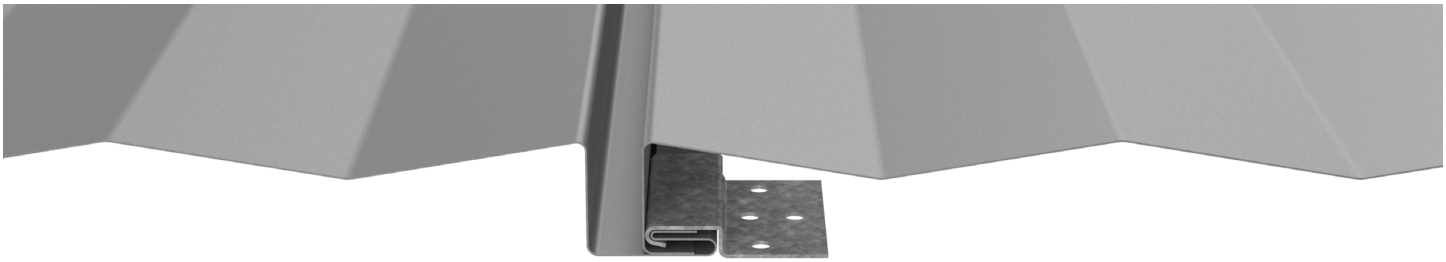
1. Theoretical section properties for steel panels have been calculated per AISI S100 specification for the design of cold-formed steel structural members.
2. Charted Load/Span values are based on ASTM E1592-05 (2017) testing protocol.
3. Allowable uniform loads are based on the ultimate uniform load (per ASTM E1592-05 testing) divided by a 2.00 factor-of-safety.
4. Allowable uniform loads do not consider panel weight (dead load) or clip-to-substrate (structure) fastener connection strength.
5. Deflection limit consideration for positive (downward) loading is limited to a deflection ration of L/180 of the span..where “L” is the span in inches.
6. Allowable uniform loads cannot be increased by 1/3.
7. Minimum recommedned 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	1.48	0.0778	0.0809	0.1032	0.0886	0.0855	0.0908	705.5	352.7	235.2	141.9	90.8	63.1	46.3	35.5	28.0	22.7
12	22	50	1.74	0.0984	0.1016	0.1246	0.1093	0.1061	0.1135	949.1	474.6	315.3	177.3	113.5	78.8	57.9	44.3	35.0	28.4
12	20	33	2.12	0.1400	0.1417	0.1562	0.1460	0.1443	0.1562	891.8	445.9	289.3	162.7	104.1	72.3	53.1	40.7	32.1	26.0
12	18	33	2.75	0.1870	0.1870	0.2012	0.1870	0.1870	0.2012	1424.6	712.3	372.6	209.6	134.1	93.2	68.4	52.4	41.4	33.5

1. 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.
2. Allowable load does not address panel weight, fasteners, connection strength or support material.
3. Allowable load includes web crippling.
4. Load/Span values are based on theoretical computations and not load testing.
5. Deflection is not considered
6. Allowable loads do not include a 1/3 stress increase for wind.
7. The Cascade 10 panel when installed as a three-span condition with spans of 9ft. on-center for steel are 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)

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 11-26