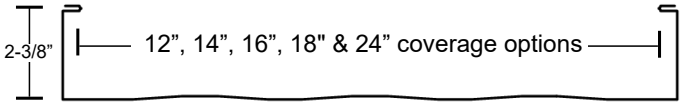
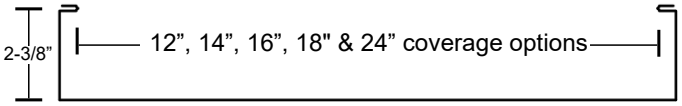
TAYLOR METAL PRODUCTS

MaxRun-238™
Mechanical Seam Panel
Technical Data Resource

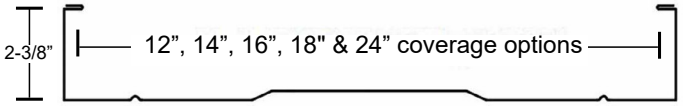
STRIATIONS



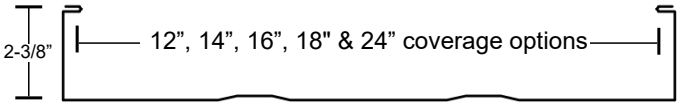
FLAT



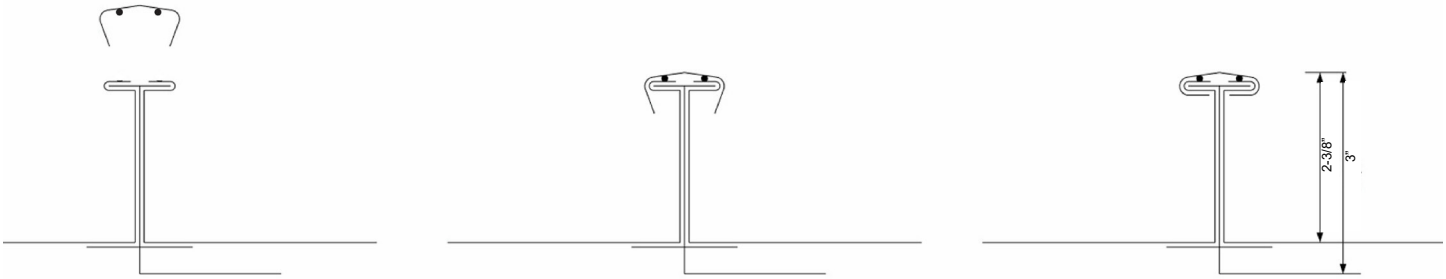
PLATEAU RIB W/ V GROOVE



ACCENT RIBS



2 Accent ribs for 12" & 14” panels
3 Accent ribs for 16", 18” & 24" panels



SEAM ENGAGEMENT | **BEFORE SEAMING** | **AFTER SEAMING**

KEY FEATURES

- 12”, 14”, 16”, 18” & 24” coverage options **Widths are nominal*
- 24 and 22 Tru-Gauge™ and .032” and .040 Aluminum
- Zinc Coil (inquire for thickness)
- Floating system: allows for unlimited expansion and contraction of panels in longer lengths
- 2-3/8” vertical rib, factory notching available **Height is nominal*
- 1/2:12 minimum pitch is recommended (For lower pitches, please inquire)
- Standard panel lengths 1’ to 60’ (For longer length panels, please inquire)
- On-site roll forming available for longer panels
- Factory injected Butyl sealant available
- Clip Relief is not standard, available upon request
- Concealed fastener: fasteners cannot leak
- Weathertightness warranty available (Contact TMP representative for details)
- OverEZee retro-fit system available
- Panel options: Striations, Accent Rib, Flat Pan, Plateau Rib, Plateau Rib w/ Accent Ribs, Plateau Rib w/ V-Grooves, Striations w/ Clip Relief
- Manufactured in Salem OR, Riverside CA & Sacramento CA

TESTING

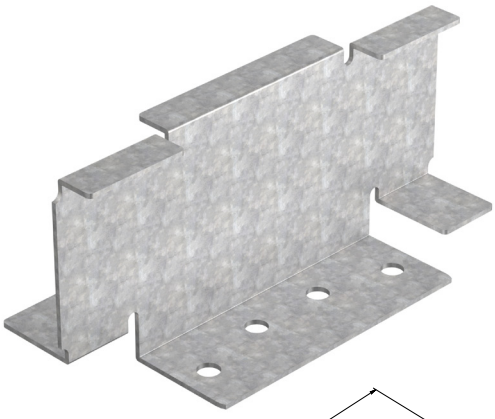
- ICC ES EVALUATION SERVICE® ICC-ESR #5046 with CBC-CRC Supplement *(Coming 2026)*
- UL 580 Class 90 - Wind Uplift
- UL 790 Class A (ASTM E108) - Fire rated
- UL 2218 Class 4 - Impact (hail) rated
- ASTM E1680 - Air infiltration (roof)
- ASTM E1646 - Water infiltration (roof)
- ASTM E1592 - Structural uniform static air pressure (2-3/8” Only)
- ASTM E331 - Water infiltration (wall)
- ASTM E283 - Air infiltration (wall)
- ASTM A653/A924 - G90 Galvanized
- ASTM A792 - ZINCALUME/Galvalume AZ-50/55
- ASTM B209 - Aluminum Substrate
- ASTM E2140 - Standard Test Method for Water Penetration (full immersion)
- ASTM E1514 Standard for Structural Standing steel roof panels systems.

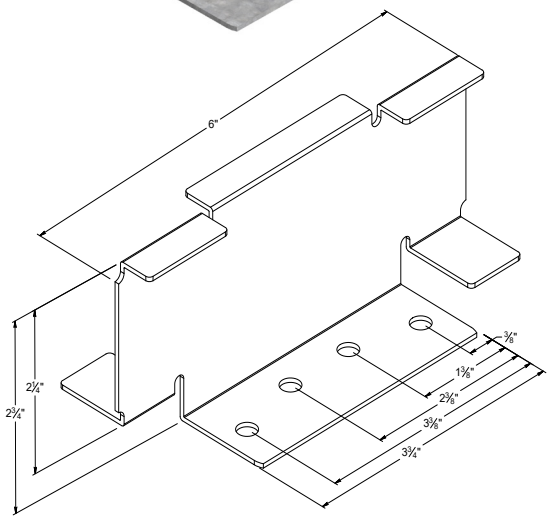
WEIGHT TABLE

MAXRUN 238	WIDTH	24 GA STEEL	22 GA STEEL	.032" ALUM	.040" ALUM
THICKNESS		0.0236"	0.0285	0.032"	0.040"
WEIGHT/LINFT	12"	1.444 LBS	1.744 LBS	0.684 LBS	0.855 LBS
WEIGHT/SQFT	12"	1.444 LBS	1.744 LBS	0.684 LBS	0.855 LBS
WEIGHT/LINFT	14"	1.605 LBS	1.938 LBS	0.760 LBS	0.950 LBS
WEIGHT/SQFT	14"	1.375 LBS	1.661 LBS	0.652 LBS	0.815 LBS
WEIGHT/LINFT	16"	1.765 LBS	2.132 LBS	0.836 LBS	1.045 LBS
WEIGHT/SQFT	16"	1.324 LBS	1.599 LBS	0.627 LBS	0.784 LBS
WEIGHT/LINFT	18"	1.926 LBS	2.325 LBS	0.912 LBS	1.140 LBS
WEIGHT/SQFT	18"	1.284 LBS	1.550 LBS	0.608 LBS	0.760 LBS
WEIGHT/LINFT	24"	2.407 LBS	2.907 LBS	1.140 LBS	1.426 LBS
WEIGHT/SQFT	24"	1.203 LBS	1.453 LBS	0.570 LBS	0.713 LBS

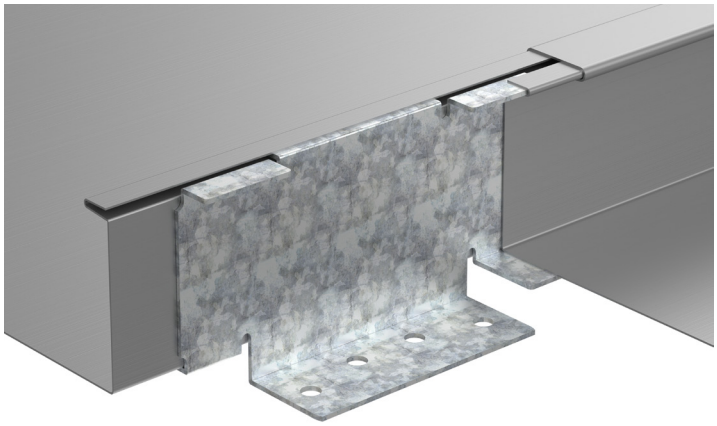
ASTM E 1680/E283 Air Penetration	ASTM E 1646/E331 Water Penetration
25 PSF<0.01 CFM/ft²-PASS	40 PSF - Pass
Force Engineering Test Result 696-0049T-25 A & B	
Force Engineering Test Result 696-0049T-25 C & D	

Panel Clips





STANDARD CLIP:
16GA
STANDARD: GALVANIZED G90 - ASTM A653 (50 KSI)



NEGATIVE LOAD CHART

				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	Ixx in4/ft.	Ixx (eff) in4/ft.	Sxx in3/ft	Ixx in4/ft.	Ixx (eff) in4/ft.	Sxx in3/ft	1'	1.5'	2'	2.5'	3'	3.5'	4'	4.5'	5'
18-5/16	24	50	1.17	0.2070	0.1771	0.0936	0.1040	0.1339	0.0798	143.1	129.8	116.4	103.1	89.8	76.4	63.1	49.7	36.4
18-5/16	22	50	1.37	0.2590	0.2213	0.1180	0.1290	0.1667	0.099	143.1*	129.8*	109.3	99.3	89.3	79.3	69.4	59.4	49.4

* These span test results are from the 24ga. test data. 22ga. Testing was 2' and 5' o/c clip spacing

- Theoretical section properties for steel panels have been calculated per AISI S100 specification for the design of cold-formed steel structural members.
- Charted Load/Span values are based on ASTM E1592-05 (2012) testing protocol.
- Charted Allowable Uniform Loads are based on the Ultimate Uniform Load (per ASTM E1592-05 testing) divided by 2.00 Factor-of-Safety.
- Minimum recommended substrate (structure) recommendations:
  a. Open-framing (i.e.purlins) -16ga (design thickness = 0.0566")
  b. Plywood/OSB - 5/8" (nominal).....This recommend thickness assures an effective degree of fastener thread engagement.
  c. Metal deck - 22 ga. (design thickness = 0.0283")
- Deflection limit consideration for positive (downward) loading is limited to a deflection ratio of L/180 of the span.where "L" is the span in inches.
- Charted allowable uniform loads cannot be increased by 1/3.
- Panel tested using 6" long x 16ga. Clip with two (2) #12-14 HWH self-drilling screws.

POSITIVE LOAD CHART

				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	2'	2.5'	3'	3.5'	4'	4.5'	5'	5.5'	6'
18-5/16	24	50	1.17	0.2070	0.1771	0.0936	0.1040	0.1339	0.0798	130.0	104.0	86.7	74.3	65.0	57.8	52.0	47.3	43.3
18-5/16	22	50	1.37	0.2590	0.2213	0.1180	0.1290	0.1667	0.0990	185.5	148.4	123.6	106.0	92.7	82.4	74.2	67.4	61.8
18-5/16	0.032"	19	0.55	0.3190	0.3190	0.1480	0.3190	0.3190	0.7720	20.0								
18-5/16	0.040"	19	0.65	0.3950	0.3950	0.1830	0.3950	0.3950	0.9530	27.5	20.0							

- Allowable loads for steel panels are calculated in accordance with 2020 AISI specifications considering bending, shear, combined bending and shear deflection. Allowable load considers a 3 or more equal span condition.
- Allowable loads for Aluminum panels are calculated in accordance with the 2020 edition of the Aluminum Association's Design Manual considering bending, shear, combined bending and shear and deflection. Allowable load considers a 3 or more equal span condition.
- Allowable loads do not include a 1/3 stress increase for wind.
- The Maxrun panel when installed as a three-span condition with spans of 5ft. On center for steel and 2.0ft. On-center for aluminum 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 (1.33kN)

PANEL ATTACHMENT