



KEY FEATURES

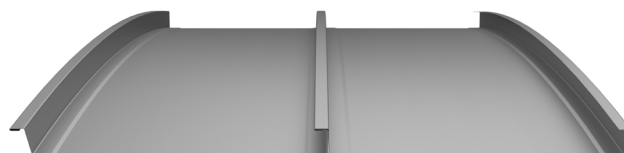
- Manufactured in Sacramento, CA, Riverside, CA, and Salem, OR
- 12" to 18" coverage options
- 2" Mechanical seam rib, 90°: Factory notching available
- 24 & 22 Tru-Gauge™, .032" & .040" Aluminum, 16 & 20 oz Copper, 22 gauge Rusteel Plus™ (A606)
- Floating clip system: allows for expansion & contraction of panels in longer lengths
- Aluminum recommended within 1000ft of salt water (not required)
- Minimum radius:
24 ga Steel: 16.33 feet
Copper: 9.83 feet
Aluminum: 9.83 feet
- Panel options: Striations, Accent Ribs, and Flat Pan
- Weathertightness warrantly available*
- 1/2:12 minimum pitch recommended*
- 4' to 60' un-notched panel lengths*
1' to 60' notched panel lengths*
- Onsite roll forming available for long lengths
(notching is not available for site-rolled panels)
- Structural panel that will span up to 5'
- Concealed fasteners: fasteners cannot leak
- Retro-fit systems available
-  - Code compliance UL Evaluation Report UL ER 25913-01
- UL Construction No. 90, 176, 180, 238, 238 A-C, 435, 435 A, 437, 449, 451, 452, 487, 506, & 506 A-C
- UL 580 Class 90 Wind Uplift, UL 790 Class A Fire rated and UL 2218 Class 4 Impact (hail) rated
- Dade PA 201-94 Class 90 Impact, 140 MPH Wind Uplift
- FM Global - 1-20 (solid deck) & 1-75 (open purlins) tested and approved
- ASTM E-1592 - Structural uniform static air pressure
ASTM 1646 - Water infiltration
ASTM 2140 - Water infiltration
ASTM 1680 - Air infiltration

*Please inquire for more information

PANEL PROFILES

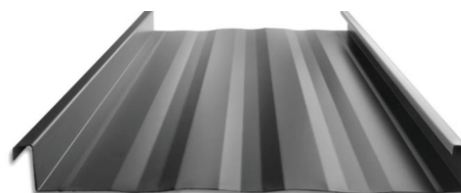
*Clip relief is **required** for MS-150™ and MS-200™ curved panels

*Sealant is not available for curved panels



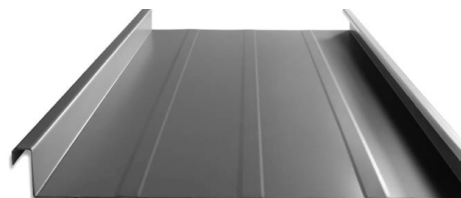
CURVED

12" to 18" coverage options



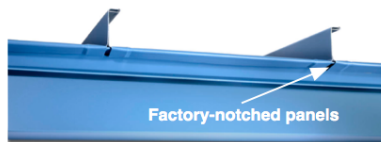
STRIATIONS

Best choice to help mitigate oil canning



ACCENT RIBS

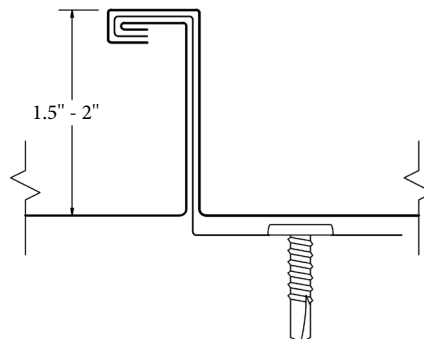
2 Accent ribs for 12" to 14-5/8" panel
3 Accent ribs for 16" & 18" panel



Factory-notched panels

- Prevents crowning
- No visible screws required
- Sharp, professional appearance

90° SEAM DETAIL

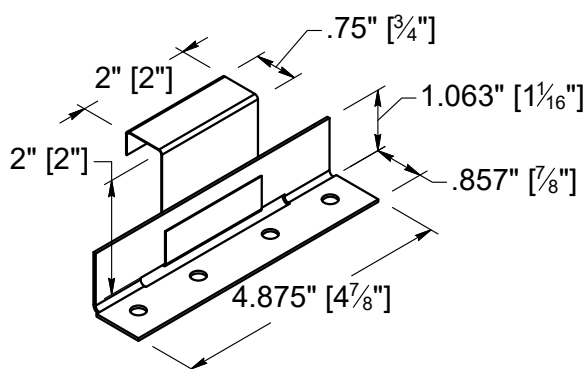


WEIGHT TABLE

MS-200	WEIGHT	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	1.774 LBS	0.696 LBS	0.870 LBS
WEIGHT/SQFT	12"	1.469 LBS	1.774 LBS	0.696 LBS	0.870 LBS
WEIGHT/LINFT	14"	1.630 LBS	1.968 LBS	0.772 LBS	0.965 LBS
WEIGHT/SQFT	14"	1.397 LBS	1.687 LBS	0.662 LBS	0.827 LBS
WEIGHT/LINFT	16"	1.790 LBS	2.162 LBS	0.848 LBS	1.060 LBS
WEIGHT/SQFT	16"	1.343 LBS	1.621 LBS	0.636 LBS	0.795 LBS
WEIGHT/LINFT	18"	1.951 LBS	2.356 LBS	0.924 LBS	1.155 LBS
WEIGHT/SQFT	18"	1.300 LBS	1.570 LBS	0.616 LBS	0.770 LBS

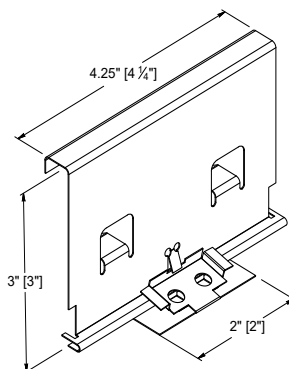
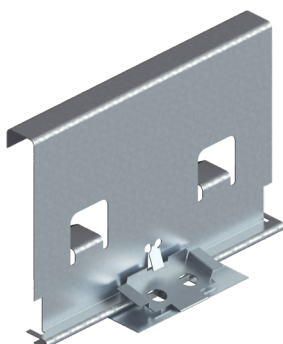
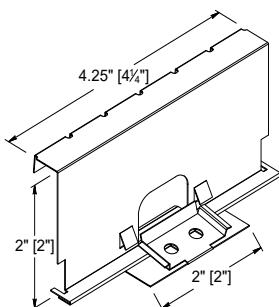
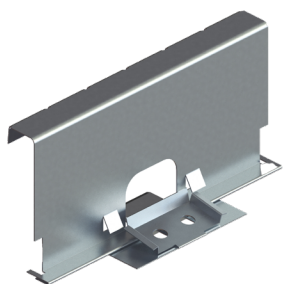
ASTM E 1680/E283 Air Penetration	ASTM E 1646/E331 Water Penetration
25 PSF<0.01 CFM/ft ² -PASS	40 PSF - Pass
Force Engineering Test Result 696-0081T-21A-H	
Force Engineering Test Result 696-0003T-20A-D	
Force Engineering Test Result 696-0003T-20E-H	
Force Engineering Test Result 696-0003T-20I,J	
Intertek Test Result M0874.01-901-44	

Panel Clips



STANDARD CLIP: For UL rated non-engineered and solid deck applications

Accommodates for 1/2" of thermal movement in both directions.



STANDOFF CLIP: For engineered and open framing applications

Accommodates for 1-1/4" of thermal movement in both directions.

Clip Spacing

Panel clip spacing is based on structural design loads, engineered spanning capability of the panels and substrate.

Clips are fabricated from Grade 50 G90 base steel. The upper portion of the clip is 22ga thick, with a base of 16ga.

Floating clips will accommodate 1/2" and 1-1/4" of movement in both directions. This will allow the panel to easily expand and contract with thermal changes. Contact TMP rep. for applications requiring allowances for more movement.

Fasteners

All fasteners into steel and plywood must extend at least 3 full threads beyond the material. When attaching to dimensional lumber, 1" embedment is required.

90° Seam

OSB: #10 Burr Buster
Plywood and Dimensional Lumber: #10 Screw
16ga (or less) Steel deck: #10 or #12 Screw with DP-1

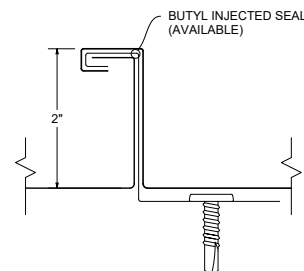
FM (Factory Mutual)

All fasteners #14

SINGLE LOCK NEGATIVE LOAD CHART

90° SEAM (SINGLE FOLD)

				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'
18	24	50	1.33	0.2350	0.2100	0.1350	0.1478	0.1731	0.1488	59.9	53.4	46.9	40.4	33.8	27.3	20.8
18	22	50	1.67	0.2868	0.2560	0.1623	0.1821	0.2125	0.1824	98.9	88.1	77.2	66.4	55.5	44.7	33.8
18	0.032"	19	0.62	0.2070	0.2070	0.1220	0.2070	0.2070	0.5696	36.4	32.5	28.6	24.7	20.8	16.9	13.0
18	0.040"	19	0.76	0.2560	0.2560	0.1510	0.2560	0.2560	0.7010	46.9	42.6	38.2	33.4	29.5	25.2	20.8



- Charted Load/Span values are based on ASTM E1592-02 / ASTM E1592-05 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:
 - o Open-framing (i.e.purlins) -16ga (design thickness=0.0566")
 - o Plywood/OSB - 15/32" or thicker is recommend to assure an effective degree of fastener thread engagement.
 - o Metal deck - 22 ga. (design thickness=0.0283")

SINGLE LOCK POSITIVE LOAD CHART

90° SEAM (SINGLE FOLD)

				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.	2'	2.5'	3'	3.5	4'	4.5'	5'	5.5'	6'	8'
12	24	50	1.47	0.2350	0.2100	0.1350	0.1478	0.1731	0.1488	276.4	221.1	184.2	157.9	138.2	122.8	110.6	100.5	92.1	52.7
12	22	50	1.875	0.2868	0.2560	0.1623	0.1821	0.2125	0.1824	400.3	320.4	267.0	228.8	200.2	178.0	160.2	134.1	112.7	63.4
12	0.032"	19	0.83	0.3290	0.3290	0.2102	0.3290	0.3290	0.6599	50.5	37.3	25.9	19.0	14.6	11.5	9.3	7.7	6.5	3.6
12	0.040"	19	1.01	0.4050	0.4050	0.2582	0.4050	0.4050	0.8133	74.1	57.5	39.9	29.3	22.5	17.7	14.4	11.9	10.0	5.6
16	24	50	1.36	0.1850	0.1640	0.1020	0.1110	0.1325	0.1100	207.3	165.8	138.2	118.4	103.6	92.1	82.9	75.4	69.1	39.8
16	22	50	1.71	0.2320	0.2050	0.1220	0.1380	0.1653	0.1394	300.5	240.4	200.3	171.7	150.2	133.5	120.2	100.8	84.7	47.7
16	0.032"	19	0.76	0.2660	0.2660	0.1610	0.2660	0.2660	0.6450	33.2	21.3	14.8	10.8	8.3	6.6	5.3	4.4	3.7	2.1
16	0.040"	19	0.92	0.3270	0.3270	0.1980	0.3270	0.3270	0.7940	51.6	33.0	22.9	16.8	12.9	10.2	8.3	6.8	5.7	3.2
18	24	50	1.28	0.1670	0.1470	0.0900	0.0990	0.1187	0.0970	184.1	147.3	122.7	105.2	92.1	81.8	73.6	66.9	61.4	35.2
18	22	50	1.61	0.2090	0.1840	0.1080	0.1220	0.1472	0.1236	266.8	213.5	177.9	152.5	133.4	118.6	106.7	89.3	75.0	42.2
18	0.032"	19	0.74	0.2420	0.2420	0.1430	0.2420	0.2420	0.6370	26.2	16.8	11.7	8.6	6.6	5.2	4.2	3.5	2.9	1.6
18	0.040"	19	0.90	0.2970	0.2970	0.1764	0.2970	0.2970	0.7840	40.8	26.1	18.1	13.3	10.2	8.1	6.5	5.4	4.5	2.6

- 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.
- The Versa-Span Panel when installed as a three-span condition with spans of 5 ft. on-center for Steel and 3.0 ft.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 (1.33 kN).
- When panels are installed over solid or closely fitted deck sheathing, the capacity is limited to the capacity of the underlying sheathing.