TAYLOR METAL PRODUCTS

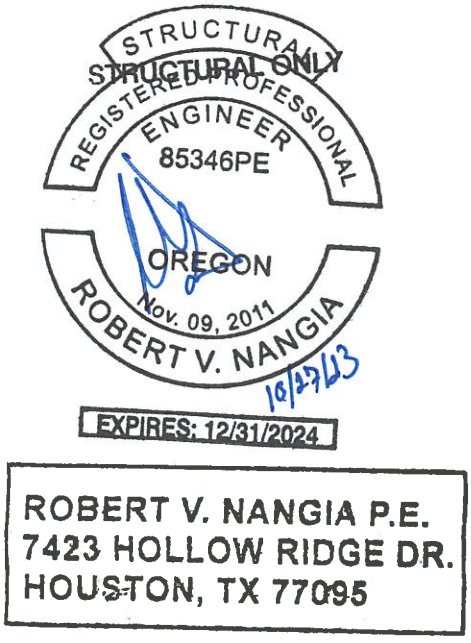
Vertical Series
TMP 10 Delta
Roof & Wall Panel With 2 Screws

				SECTION PROPERTIES						ALLOWABLE UNIFORM LOADS, psf For various fastener 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'
36	24	50	1.28	0.0503	0.0604	0.0700	0.0853	0.0752	0.0795	115.0	105.3	95.6	85.9	76.3	66.6	56.9	47.2	37.5
36	22	50	1.51	0.0633	0.0758	0.0905	0.1067	0.0942	0.0993	125.0	114.1	103.1	92.2	81.3	70.3	59.7	48.4	37.5
36	20	33	1.84	0.0900	0.1026	0.1181	0.1333	0.1207	0.1286	125.0	114.1	103.1	92.2	81.3	70.3	59.7	48.4	37.5
36	18	33	2.39	0.1333	0.1449	0.1563	0.1733	0.1617	0.1663	125.0	114.1	103.1	92.2	81.3	70.3	59.7	48.4	37.5

1. Theoretical section properties for steel panels have been calculated per AISI S100 Specification for the Design of Cold-Formed Steel Structural Members.
2. $I_{xx\ (eff)}$ values are "effective" stiffness properties for positive (downward) load induced deflection determination.
3. S_{xx} values are to be used for flexural (bending) stress determination.
4. Charted Load/Span values are based on ASTM E1592-05 (2017) testing protocol.
5. Charted Load/Span values above are based on Allowable Stress Design (ASD).....Load Resistance Factor Design (LRFD) technique not recommended for charted values.
6. Charted Allowable Uniform Loads are based on the Ultimate Uniform Load (per ASTM E1592-05 testing) divided by a 2.00 Factor-of-Safety.
7. Charted Allowable Uniform Loads do not consider panel weight (Dead Load) or clip-to-substrate (structure) fastener connection strength.
8. Panel-to-substrate (structure) fastener evaluation and analysis should be performed by a licensed structural engineer.
9. Minimum recommended substrate (structure) recommendations:
   a. Open-framing (i.e. purlins) - 16 ga. (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 - 22 ga. (design thickness = 0.0283")
10. 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.
11. Charted Allowable Uniform Loads cannot be increased by 1/3.
12. Tested assembly used two (2) fasteners per connection.

				SECTION PROPERTIES						ALLOWABLE UNIFORM LOADS, psf For various fastener 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'
36	24	50	1.28	0.0503	0.0604	0.0700	0.0853	0.0752	0.0795	554.6	277.3	184.9	109.4	70.0	48.6	35.7	27.3	21.6	17.5
36	22	50	1.51	0.0633	0.0758	0.0905	0.1067	0.0942	0.0993	759.6	379.55	251.39	141.4	90.5	62.9	46.17	35.4	27.9	22.6
36	20	33	1.84	0.0900	0.1026	0.1181	0.1333	0.1207	0.1286	764.6	382.27	216.52	121.8	78.0	54.1	39.8	30.5	24.1	19.5
36	18	33	2.39	0.1333	0.1449	0.1563	0.1733	0.1617	0.1663	1319.1	644.7	286.6	161.2	103.16	71.6	52.63	40.3	31.8	25.8

1. Theoretical section properties for Steel panelshave been calculated per 2020 AISI S100 North American Specification for the Design of Cold-Formed Steel Structural Member. I_{xx} and S_{xx} are effective section properties for deflection and bending.
2. $I_{xx\ (eff)}$ values are "effective" stiffness properties for positive (downward) load induced deflection determination.
3. 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.
4. S_{xx} values are to be used for flexural (bending) stress determination.
5. Allowable load does not address panel weight, fasteners, connection strength or support material.
6. Allowable load includes web crippling.
7. Load/Span values are based on theoretical computations and not load testing.
8. Deflection is not considered.
9. Allowable loads do not include a 1/3 stress increase for wind.



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