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STANDING SEAM METAL ROOF PANEL

WESTERN LOCK®

18" WIDE PANEL – LOAD TABLES

WSMR UL Certificate Number: R40094

Issue Date: 7/23/2020

Load Tables extracted from UL report number R14692

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New Tech 675 Snap-On Panel

Width		18.00 in								
Alloy		ASTM A653, G50 (Fy= 50 ksi)								
Gauge		24 (0.024 in)								
=====										
ALLOWABLE STRENGTH DESIGN (ASD)										
Wind Load Factor = 1.0										
ALLOWABLE UNIFORM LOAD (PSF)										
SPAN	DEFLECTION	SPAN LENGTH (Feet)								
		2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00
1	L/180	205	161	131	108	90	77	66	57	50
	L/240	205	161	131	108	90	77	66	57	50
	L/360	205	161	131	108	90	77	66	57	50
2	L/180	205	161	131	108	90	77	66	57	50
	L/240	205	161	131	108	90	77	66	57	50
	L/360	205	161	131	108	90	77	66	57	50
3	L/180	231	184	149	124	104	89	76	66	58
	L/240	231	184	149	124	104	89	76	66	58
	L/360	231	184	149	124	104	89	76	66	58

- Formula's used in Load Tables for FLEXURE and DEFLECTION are:
 One Span - $M_p = .125wl^2$, $M_n = .125wl^2$, $x = .0130wl^4/EI$
 Two Span - $M_p = .125wl^2$, $M_n = .096wl^2$, $x = .0092wl^4/EI$
 Three Span - $M_p = .080wl^2$, $M_n = .107wl^2$, $x = .0069wl^4/EI$
 Modulus of Elasticity (E) = 29,500 ksi
- Allowable uniform loads are determined per the following:
 - Allowable Shear Stress (Fv) [AISI C3.2]
 - Combined Bending and Shear [AISI C3.3]
 - Combined Bending & Web Crippling [AISI C3.5]
- Factors of Safety used to determine uniform loads:
 - Ω (Bending) = 1.67
 - Ω (Shear) = 1.67
 - Ω (Web Crippling) = 1.85
- Allowance has been made for member Dead Weight.
- Minimum panel support bearing length = 2.00 in
- Concentrated load = 150 lb at mid-span, load width = 4 in
 - Simple Span : Max. Span = 5.448 ft (L/180)
 - Two Span : Max. Span = 6.586 ft (L/180)
 - Three Span +: Max. Span = 6.793 ft (L/180)

New Tech 675 Snap-On Panel

Width		18.00 in								
Alloy		ASTM A653, G50 (Fy= 50 ksi)								
Gauge		24 (0.024 in)								
ALLOWABLE STRENGTH DESIGN (ASD)										
Wind Load Factor = 1.0										
ALLOWABLE UNIFORM LOAD (PSF)										
SPAN	DEFLECTION	SPAN LENGTH (Feet)								
		4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25
1	L/180	44	39	35	32	29	26	24	22	20
	L/240	44	39	35	32	29	26	24	22	20
	L/360	44	39	35	30	26	23	20	18	16
2	L/180	44	39	35	32	29	26	24	22	20
	L/240	44	39	35	32	29	26	24	22	20
	L/360	44	39	35	32	29	26	24	22	20
3	L/180	52	46	41	37	33	30	28	25	23
	L/240	52	46	41	37	33	30	28	25	23
	L/360	52	46	41	37	33	30	28	25	23

1. Formula's used in Load Tables for FLEXURE and DEFLECTION are:

One Span - $M_p = .125wl^2$, $M_n = .125wl^2$, $x = .0130wl^4/EI$
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 Three Span - $M_p = .080wl^2$, $M_n = .107wl^2$, $x = .0069wl^4/EI$
 Modulus of Elasticity (E) = 29,500 ksi

2. Allowable uniform loads are determined per the following:

- a) Allowable Shear Stress (Fv) [AISI C3.2]
- b) Combined Bending and Shear [AISI C3.3]
- c) Combined Bending & Web Crippling [AISI C3.5]

3. Factors of Safety used to determine uniform loads:

Ω (Bending) = 1.67
 Ω (Shear) = 1.67
 Ω (Web Crippling) = 1.85

4. Allowance has been made for member Dead Weight.

5. Minimum panel support bearing length = 2.00 in

6. Concentrated load = 150 lb at mid-span, load width = 4 in

Simple Span : Max. Span = 5.448 ft (L/180)
 Two Span : Max. Span = 6.586 ft (L/180)
 Three Span +: Max. Span = 6.793 ft (L/180)

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Alloy	ASTM A653, G50 (Fy= 50 ksi)
Gauge	24 (0.024 in)

ALLOWABLE STRENGTH DESIGN (ASD)
Wind Load Factor = 1.0
ALLOWABLE UNIFORM LOAD (PSF)
SPAN LENGTH (Feet)

SPAN	DEFLECTION	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75
1	L/180	17	16	14	13	12	12	11	10	9
	L/240	17	16	14	13	12	11	10	9	9
	L/360	12	11	10	9	8	7	7	6	6
2	L/180	17	16	14	13	12	12	11	10	9
	L/240	17	16	14	13	12	12	11	10	9
	L/360	17	16	14	13	12	10	10	9	8
3	L/180	20	18	17	16	15	14	13	12	11
	L/240	20	18	17	16	15	14	13	12	11
	L/360	20	18	17	16	15	14	13	12	11

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