



## TECHNICAL BULLETIN

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No. 07-210-06

### Mega-Rib Bare & Painted



SECTION PROPERTIES						TOP IN COMPRESSION			BOTTOM IN COMPRESSION		
GAUGE	FY (ksi)	WEIGHT (psf)	V <sub>a</sub> (kip/ft.)	P <sub>a_end</sub> (lbs/ft.)	P <sub>a_int</sub> (lbs/ft.)	I <sub>x</sub> (in. <sup>4</sup> /ft.)	S <sub>e</sub> (in. <sup>3</sup> /ft.)	M <sub>a</sub> (kip-in./ft.)	I <sub>x</sub> (in. <sup>4</sup> /ft.)	S <sub>e</sub> (in. <sup>3</sup> /ft.)	M <sub>a</sub> (kip-in./ft.)
18	50.0	2.39	3.5010	986.86	1865.79	0.2300	0.3150	9.1370	0.2400	0.2950	8.8300

1. Section properties are calculated in accordance with the 2007 AISI North American Specification for the Design of Cold-Formed Steel Structural Members.
2. V<sub>a</sub> is the allowable shear.
3. P<sub>a</sub> is the allowable load for web crippling on end & interior supports.
4. I<sub>x</sub> is for deflection determination.
5. S<sub>e</sub> is for bending.
6. M<sub>a</sub> is the allowable bending moment.
7. All values are for one foot of panel width.

### Allowable Uniform Loads (PSF)

Span Type	Load Type	Span in Feet															
		3.50	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.00	10.50	11.00
Single	Positive Wind	497	380	300	243	201	169	144	124	108	95	84	75	67	60	55	50
	Negative Wind	480	367	290	235	194	163	139	120	104	91	81	72	65	58	53	48
	Live	497	380	300	243	201	169	144	124	108	95	84	75	67	60	55	50
	Deflection (L/180)	468	314	220	160	120	93	73	58	47	39	32	27	23	20	17	15
	Deflection (L/240)	351	235	165	120	90	69	54	43	35	29	24	20	17	15	13	11
2 Span	Positive Wind	460	355	283	230	191	161	137	118	103	91	80	72	64	58	53	48
	Negative Wind	474	367	292	238	197	166	142	122	107	94	83	74	67	60	54	50
	Live	460	355	283	230	191	161	137	118	103	91	80	72	64	58	53	48
	Deflection (L/180)	500	500	500	395	297	229	180	144	117	96	80	67	57	49	42	37
	Deflection (L/240)	500	500	407	296	223	171	135	108	87	72	60	50	43	37	32	27
3 Span	Positive Wind	500	438	349	285	237	200	170	147	129	113	100	89	80	73	66	60
	Negative Wind	500	452	361	294	244	206	176	152	133	117	104	93	83	75	68	62
	Live	500	438	349	285	237	200	170	147	129	113	100	89	80	73	66	60
	Deflection (L/180)	500	500	425	310	232	179	141	113	91	75	63	53	45	38	33	29
	Deflection (L/240)	500	454	319	232	174	134	105	84	68	56	47	39	33	29	25	21
4 Span	Positive Wind	500	411	327	267	221	187	159	138	120	106	94	84	75	68	61	56
	Negative Wind	500	424	338	276	229	193	165	142	124	109	97	86	78	70	64	58
	Live	500	411	327	267	221	187	159	138	120	106	94	84	75	68	61	56
	Deflection (L/180)	500	500	451	329	247	190	149	119	97	80	67	56	47	41	35	30
	Deflection (L/240)	500	482	338	246	185	142	112	89	73	60	50	42	35	30	26	23

Notes:

1. Allowable uniform loads are based upon equal span lengths.
2. Positive Wind is wind pressure and is **NOT** increased by 33 1/3 %.
3. Negative Wind is wind suction or uplift and is **NOT** increased by 33 1/3%.
4. Live is the allowable live or snow load.
5. Deflection (L/180) is the allowable load that limits the panel's deflection to L/180 while under positive or live load.
6. Deflection (L/240) is the allowable load that limits the panel's deflection to L/240 while under positive or live load.
7. The weight of the panel has **NOT** been deducted from the allowable loads.
8. Positive Wind, Negative Wind, and Live Load values are limited to combined shear & bending using Eq. C3.3.1-1 of the AISI Specification.
9. Positive Wind and Live Load values are limited by web crippling using a bearing length of 2".
10. Web crippling values are determined using a ratio of the uniform load **actually** supported by the top flanges of the section.

CORPORATE OFFICE  
SHREVEPORT, LOUISIANA