



Mega-Rib

Bare & Painted



SECTION PROPERTIES						TOP IN COMPRESSION			BOTTOM IN COMPRESSION		
GAUGE	FY (ksi)	WEIGHT (psf)	V _a (kip/ft.)	P _{a_end} (lbs/ft.)	P _{a_int} (lbs/ft.)	I _x (in. ⁴ /ft.)	S _e (in. ³ /ft.)	M _a (kip-in/ft.)	I _x (in. ⁴ /ft.)	S _e (in. ³ /ft.)	M _a (kip-in/ft.)
18	50.0	2.39	3.5017	1105.85	1747.97	0.2333	0.3150	9.1400	0.2400	0.2950	8.8333

- Section properties are calculated in accordance with the 2016 AISI North American Specification for the Design of Cold-Formed Steel Structural Members.
- V_a is the allowable shear.
- P_a is the allowable load for web crippling on end & interior supports.
- I_x is for deflection determination.
- S_e is for bending.
- M_a is the allowable bending moment.
- 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	368	290	235	194	163	139	120	104	92	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)	475	318	223	163	122	94	74	59	48	39	33	27	23	20	17	15
	Deflection (L/240)	356	239	167	122	91	70	55	44	36	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	475	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	398	299	230	181	145	118	97	81	68	58	49	43	37
	Deflection (L/240)	500	500	410	298	224	173	136	108	88	72	60	51	43	37	32	28
3 Span	Positive Wind	500	438	350	285	237	200	171	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	350	285	237	200	171	147	129	113	100	89	80	73	66	60
	Deflection (L/180)	500	500	428	312	234	180	142	113	92	76	63	53	45	39	33	29
	Deflection (L/240)	500	457	321	234	175	135	106	85	69	57	47	40	34	29	25	21
4 Span	Positive Wind	326	285	253	228	207	187	159	138	120	106	94	84	75	68	61	56
	Negative Wind	326	285	253	228	207	190	165	142	124	109	97	86	78	70	64	58
	Live	326	285	253	228	207	187	159	138	120	106	94	84	75	68	61	56
	Deflection (L/180)	500	500	454	331	249	191	150	120	98	80	67	56	48	41	35	31
	Deflection (L/240)	500	485	341	248	186	143	113	90	73	60	50	42	36	31	26	23

Notes:

- Allowable uniform loads are based upon equal span lengths.
- Live is the allowable live or snow load.
- Deflection (L/180) is the allowable load that limits the panel's deflection to L/180 while under positive or live load.
- Deflection (L/240) is the allowable load that limits the panel's deflection to L/240 while under positive or live load.
- The weight of the panel has **NOT** been deducted from the allowable loads.
- Positive Wind, Negative Wind, and Live Load values are limited to combined shear & bending using Eq. H2-1 of the AISI Specification.
- Positive Wind and Live Load values are limited by web crippling using a bearing length of 2".
- Web crippling values are determined using a ratio of the uniform load **actually** supported by the top flanges of the section.
- Load Tables are limited to a maximum allowable load of 500 psf.
- Web crippling values are the more conservative value whether from analytical calculation or testing.