

## EM AVP Panel

SECTION PROPERTIES								
			NEGATIVE BENDING			POSITIVE BENDING		
PANEL	Fy	WEIGHT	Ixe	Sxe	Maxo	Ixe	Sxe	Maxo
GAUGE	(KSI)	(PSF)	(IN.4/FT.)	(IN.3/FT.)	(KIP-IN.)	(IN.4/FT.)	(IN.3/FT.)	(KIP-IN.)
29	60*	0.75	0.0186	0.0301	1.0812	0.017100145	0.0291	1.0472
26	60*	0.94	0.0262	0.0424	1.5242	0.024714175	0.0436	1.5676
24	50	1.14	0.0326	0.0528	1.5813	0.033633013	0.0553	1.6567
22	50	1.44	0.0420	0.0678	2.0289	0.043330524	0.0706	2.1143

\*Fy is 80-ksi reduced to 60-ksi in accordance with the 2012 edition of the North American Specification For Design of Cold-Formed Steel Structural Members- A2.3.2.

### NOTES:

- 1) All calculations for the properties of EM AVP panels are calculated in accordance with the 2012 edition of the North American Specification For Design Of Cold-Formed Steel Structural Members.
- 2) Ixe is for deflection determination.
- 3) Sxe is for bending.
- 4) Maxo is allowable bending moment.
- 5) All values are for one foot of panel width.
- 6) This material is subject to change without notice. Please contact Exceptional® Metals at 1-800-248-0280 for most current data.

The Engineering data contained herein is for the expressed use of customers and design professionals. Along with this data, it is recommended that the design professional have a copy of the most current version of the North American Specification for the Design of Cold-Formed Steel Structural Members published by the American Iron and Steel Institute to facilitate design. This Specification contains the design criteria for cold-formed steel components. Along with the Specification, the designer should reference the most current building code applicable to the project jobsite in order to determine environmental loads. If further information or guidance regarding cold-formed design practices is desired, please contact Exceptional Metals.

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## EM AVP Panel

ALLOWABLE UNIFORM LOADS IN POUNDS PER SQUARE FOOT

29 Gauge (0.0133"), Fy = 60 ksi, Fu = 61.5 ksi								
SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		3.0	4.0	5.0	6.0	7.0	8.0	9.0
1-SPAN	Negative Wind Load	80.09	45.05	28.83	20.02	14.71	11.26	8.90
	Live Load/Deflection	77.59	43.64	27.93	19.40	14.25	10.91	8.62
2-SPAN	Negative Wind Load	71.40	41.58	27.06	18.97	14.02	10.77	8.54
	Live Load/Deflection	42.6	31.85	25.48	19.56	14.46	11.11	8.81
3-SPAN	Negative Wind Load	86.38	50.95	33.38	23.49	17.40	13.40	10.62
	Live Load/Deflection	48.25	36.19	28.95	24.13	17.94	13.81	10.96
4-SPAN	Negative Wind Load	81.54	47.88	31.30	22.00	16.28	12.53	9.93
	Live Load/Deflection	46.44	34.83	27.87	22.67	16.78	12.92	10.24
26 Gauge (0.0181"), Fy = 60 ksi, Fu = 61.5 ksi								
SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		3.0	4.0	5.0	6.0	7.0	8.0	9.0
1-SPAN	Negative Wind Load	112.91	63.51	40.65	28.23	20.74	15.88	12.55
	Live Load/Deflection	116.22	65.37	41.84	29.05	21.35	16.34	12.71
2-SPAN	Negative Wind Load	110.26	63.42	41.03	28.66	21.13	16.22	12.83
	Live Load/Deflection	77.50	58.12	39.90	27.86	20.54	15.76	12.47
3-SPAN	Negative Wind Load	134.89	78.27	50.86	35.61	26.30	20.20	16.00
	Live Load/Deflection	88.06	66.05	49.48	34.64	25.57	19.64	15.55
4-SPAN	Negative Wind Load	126.85	73.38	47.61	33.31	24.58	18.88	14.95
	Live Load/Deflection	84.76	63.57	46.31	32.39	23.90	18.35	14.53
24 Gauge (0.0223"), Fy = 50 ksi, Fu = 60 ksi								
SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		3.0	4.0	5.0	6.0	7.0	8.0	9.0
1-SPAN	Negative Wind Load	117.14	65.89	42.17	29.28	21.51	16.47	13.02
	Live Load/Deflection	122.64	68.98	44.15	30.66	22.53	17.25	13.63
2-SPAN	Negative Wind Load	117.44	67.29	43.45	30.32	22.34	17.14	13.56
	Live Load/Deflection	96.36	64.41	41.56	28.99	21.35	16.38	12.96
3-SPAN	Negative Wind Load	144.19	83.23	53.94	37.71	27.83	21.36	16.91
	Live Load/Deflection	109.50	79.74	51.62	36.07	26.60	20.42	16.16
4-SPAN	Negative Wind Load	135.42	77.97	50.46	35.26	26.00	19.96	15.80
	Live Load/Deflection	105.39	74.67	48.28	33.72	24.86	19.08	15.10
22 Gauge (0.0286"), Fy = 50 ksi, Fu = 60 ksi								
SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		3.0	4.0	5.0	6.0	7.0	8.0	9.0
1-SPAN	Negative Wind Load	150.29	84.54	54.10	37.57	27.60	21.13	16.70
	Live Load/Deflection	156.61	88.10	56.38	39.15	28.77	22.02	17.40
2-SPAN	Negative Wind Load	149.98	85.94	55.49	38.72	28.53	21.89	17.31
	Live Load/Deflection	144.40	82.63	53.31	37.19	27.40	21.01	16.62
3-SPAN	Negative Wind Load	184.15	106.30	68.88	48.16	35.54	27.28	21.60
	Live Load/Deflection	175.54	102.28	66.22	46.28	34.13	26.20	20.74
4-SPAN	Negative Wind Load	172.95	99.58	64.45	45.03	33.21	25.49	20.17
	Live Load/Deflection	166.66	95.79	61.94	43.26	31.89	24.47	19.37

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NOTES:

- 1) Strength calculations based on the 2012 AISI Standard North American Specification for the Design of Cold-Formed Steel Structural Members.
- 2) Allowable loads are applicable for uniform loading and spans without overhangs.
- 3) LIVE LOAD/DEFLECTION LOAD capacities are for those loads that push the panel against its supports. The applicable limit states are flexure, shear, combined shear and flexure, web crippling at end and interior supports, and a deflection limit of  $L/60$  under 10-year wind loading.
- 4) NEGATIVE WIND LOAD capacities are for those loads that pull the panel away from its supports. The applicable limit states are flexure, shear, combined shear and flexure, and a deflection limit of  $L/60$  under 10-year wind loading.
- 5) Panel pullover and screw pullout capacity must be checked separately using the screws employed for each particular application when utilizing this load chart.
- 6) Effective yield strength has been determined in accordance with section A2.3.2 of the 2012 NAS specification.
- 7) The use of any accessories other than those provided by the manufacturer may damage panels, void all warranties and will void all engineering data.
- 8) This material is subject to change without notice. Please contact Exceptional® Metals at 1-800-248-0280 for the most current data.

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