



OEG BUILDING MATERIALS - METAL FRAMING MANUFACTURERS

6001 BORDENTOWN AVE, SAYREVILLE, NJ 08872

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PRODUCT
Strut Channel

MEMBER#
158SC12

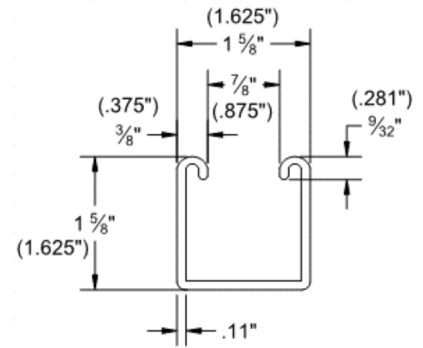
GAUGE
12

PHYSICAL PROPERTIES

Web Depth	1.625
Flange	1.625
Return	0.375
Weight (plf)	1.8761
Area (in ²)	0.5518

GROSS PROPERTIES

Net Area (at 0.56" Hole) (in ²)	0.49485
Moment of Intertia Iy (in ⁴)	0.2348
Section Modulus Sy (in ³)	0.289
Radius of Gyration ry (in)	0.6888
Moment of Intertia Ix (in ⁴)	0.1605
Section Modulus Sx (top) (in ³)	0.1947
Section Modulus Sx (bot) (in ³)	0.20037
Radius of Gyration rx (in)	0.5694



DISCAIMER:

All data, detail and specifications included in herein are intended as a general guide for using OEG Building Materials products. These products should not be used in design or construction without evaluation by a qualified engineer or architect to determine their suitability for a specific use. OEG Building Materials assumes no liability for failure resulting from use or misapplication of computation, details or specifications contained herein. OEG Building Material assumes no liability for damages resulting from improper application or insulation of these products.



BEAM LOADING

Span (in)	Max. Allow Uniform (fully braced) plf	Max. Allow. Uniform Load (lbs.)	Max. Allow. Uniform Load (plf)	Deflection at max load (in)	Max Uniform Load at Deflection (plf)			Max Allowable Moment at Span (lb-ft)
					L/180	L/240	L/360	
18	1889.57	3365.30	2243.60	0.05	2243.6	2243.6	2078.4	631
24	1062.88	2404.00	1202.00	0.09	1202.0	1202.0	876.8	601
36	472.39	1392.00	464.00	0.18	464.0	389.7	259.8	522
48	265.72	904.00	226.00	0.27	219.2	164.4	109.6	452
60	170.06	633.60	126.70	0.38	112.2	84.2	56.1	396
72	118.09	465.30	77.60	0.48	64.9	48.7	32.5	349
84	86.76	357.70	51.10	0.58	40.9	30.7	20.5	313
96	66.43	288.00	36.00	0.70	27.4	20.6	13.7	288
108	52.48	238.20	26.50	0.83	19.2	14.4	9.6	268
120	42.51	200.80	20.10	0.95	14.0	10.5	7.0	251

NOTES:

- Complies with AISI S100-2016.
- Steel Material is A1003 Grade 50.
- Effective Properties incorporate.
- Strength increase from Cold Forming.
- Safety Factor for Beams is 1.67.
- Safety Factor for Columns is 1.80.

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COLUMN LOADING

Span (in)	Max Column Load at Center of Gravity (lb)			
	K=0.65	K=0.80	K=1.0	K=1.2
18	14,365	13,348	11,914	10,492
24	12,874	11,434	9,589	7,952
36	9,810	7,952	5,962	4,689
48	7,228	5,462	4,122	3,346
60	5,350	4,122	3,200	2,637
72	4,249	3,346	2,637	2,177
84	3,551	2,835	2,243	1,840
96	3,068	2,464	1,943	1,577
108	2,708	2,177	1,701	KL/r>200
120	2,425	1,943	KL/r>200	KL/r>200
144	1,997	KL/r>200	KL/r>200	KL/r>200

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