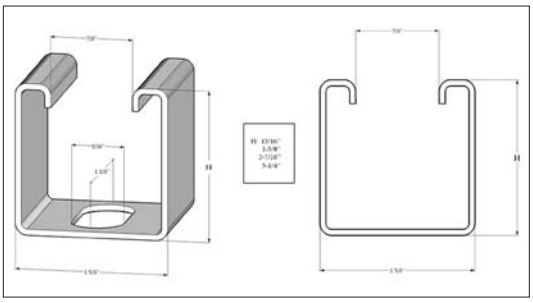
Strut Channel

Product Data Sheet



Description

Elgen Strut Channel is used primarily as a trapeze hanger for commercial construction products. Elgen Strut Channel can also be used for fabrication purposes when structural formed steel is needed.

Standard Construction

Material
Structural Grade 33 - G-60 steel

Slotted Holes
2” apart on center & measure 9/16” x 1 1/8”

Length Information
Strut Channels are produced and stocked in 10 and 20 foot lengths with a tolerance of +/-1/4”.
Other lengths are available upon request.

Loading Data
See attached charts

Features

Alternative method to trapeze angles
Meets SMACNA- refer to SMACNA table 5-4 in the 2005 3rd Edition for load requirements
Meets MFMA-4
Union Made

Optional Construction

Stainless Steel 304
Stainless Steel 316
Aluminum (Type 3003-H14)
PCD
Galvanneal (Paint Grip)

Packaging

Size	GA	Lengths	Bundle (FT)	Weight (LBS)
1-5/8”	12	10 FT	500	805
1-5/8”	12	20 FT	500	780
1-5/8”	14	10 FT	500	610
1-5/8”	14	20 FT	500	600
13/16”	12	10 FT	500	550
13/16”	12	20 FT	1000	1148
13/16”	14	10 FT	500	420
13/16”	14	20 FT	1000	833
3-1/4”	12	10 FT	200	540
3-1/4”	12	20 FT	400	1109
2-7/16”	12	10 FT	300	675
2-7/16”	12	20 FT	600	1334

Guarantee

All Elgen products are guaranteed by Elgen Manufacturing against defective material.

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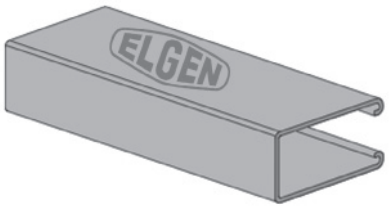
Load Bearing Calculation Table

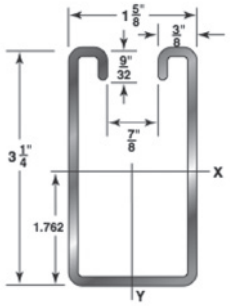
SECTION ELEMENTS			
Item #	Description	Wt./Ft. LBS.	Area of Section Sq.In.
EG0836	3-1/4"x1-5/8" -12 GAUGE- WT./100 FT.- 313#	3.200	0.721

DEFINITIONS	
I	Moment of Inertia
S	Section Modules
r	Radius of Gyration

X-X AXIS		
I in.4	S in3	r in.
1.10	0.63	1.11

Y-Y AXIS		
I in.4	S in3	r in.
0.43	0.53	0.70





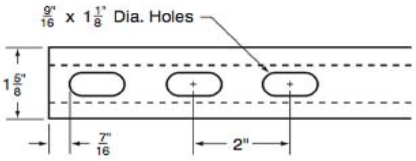
	STATIC BEAN LOAD (X-X AXIS)					
			UNIFORM LOAD AT DEFLECTION			
SPAN / UUNBREACHED HEIGHT (IN.)	MAX ALLOWABLE UNIFORM LOAD (LBS)	DEFLECTION AT UNIFORM LOAD(LBS)	SPAN/180 DEFLECTION (LBS)	SPAN/240 DEFLECTION (LBS)	SPAN/360 DEFLECTION (LBS)	WEIGHT OF CHANNEL (LBS)
12	10,625.49	0.01	10,609.97	10,598.01	10,594.36	3.10
18	7,062.80	0.02	7,062.27	7,068.93	7,081.16	4.70
24	5,296.59	0.03	5,305.31	5,294.13	5,290.19	6.30
30	4,238.46	0.05	4,245.97	4,248.41	4,242.54	7.81
36	3,544.32	0.07	3,544.43	3,543.63	3,538.95	9.41
42	3,027.10	0.09	3,024.39	3,027.76	3,026.99	10.99
48	2,647.81	0.12	2,653.58	2,649.54	2,654.63	12.48
60	2,118.32	0.18	2,123.04	2,116.63	1,916.75	15.69
72	1,771.79	0.26	1,767.76	1,773.20	1,337.38	18.78
84	1,522.51	0.36	1,517.06	1,470.28	980.52	21.92
96	1,330.47	0.47	1,330.65	1,332.12	751.27	24.96
108	1,180.01	0.60	1,179.18	891.50	589.40	28.16
120	1,060.12	0.74	959.76	720.82	479.54	31.35
144	880.12	1.06	669.72	499.16	329.59	37.57
168	759.31	1.44	489.47	369.80	249.86	43.73
180	711.30	1.65	429.69	320.17	210.16	47.08
192	659.79	1.88	379.93	280.13	189.82	50.08
216	588.90	2.38	300.58	219.90	149.96	56.38
240	530.61	2.94	239.54	180.24	120.20	62.59

	COLUMN LOADING DATA				
		MAX COLUMN LOAD APPLIED AT C.G.			
SPAN / UUNBREACHED HEIGHT (IN.)	MAX ALLOWABLE LOAD AT SLOT FACE (LBS)	k=.65 (LBS)	k=0.80 (LBS)	k=1.0 (LBS)	k=1.2 (LBS)
12	6,162.49	19,605.68	19,049.11	18,232.55	17,257.82
18	5,941.47	18,316.34	17,261.88	15,636.03	13,901.67
24	5,639.64	16,701.08	15,091.81	12,758.58	10,579.88
30	5,266.48	14,922.27	12,782.61	10,035.09	7,630.34
36	4,842.23	13,081.12	10,555.20	7,631.62	5,653.64
42	4,361.19	11,231.74	8,551.17	5,904.56	4,443.78
48	3,866.77	9,537.41	6,858.26	4,797.28	3,665.61
60	3,105.19	6,683.46	4,796.55	3,454.93	2,708.50
72	2,573.40	4,985.87	3,653.02	2,707.75	2,167.74
84	2,200.06	3,957.73	2,957.28	2,241.08	1,820.80
96	1,927.95	3,268.23	2,496.88	1,916.90	1,579.88
108	1,729.74	2,802.49	2,166.50	1,686.69	1,390.89
120	1,561.61	2,448.36	1,917.48	1,511.21	**
144	1,320.85	1,979.07	1,578.10	**	**
168	1,148.13	1,668.74	1,340.73	**	**
180	**	1,548.02	**	**	**
192	**	1,448.17	**	**	**
216	**	**	**	**	**
240	**	**	**	**	**

NOTES

1. Beam capacities include strut weight, which must be deducted from listed capacities to derive net capacities.
2. Permissible loads based on uniform loads and simple support. To find capacities of loaded beams at midspan, multiply capacity by 0.50 and deflection by 0.80.
3. Beam capacities shown for strut without holes. Multiply by 0.88 for strut with holes.

Bearing Load may limit load
** We Do Not recommend - KL/r exceeds 200
Minimum material thickness - 0.096" thick



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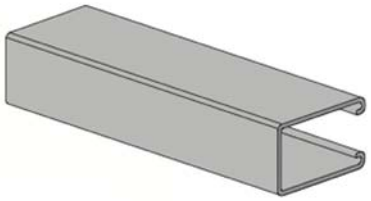
Load Bearing Calculation Table

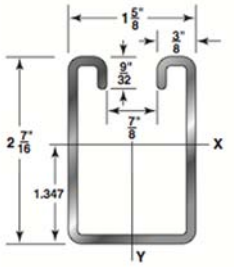
SECTION ELEMENTS			
Item #	Description	Wt./Ft. LBS.	Area of Section Sq.In.
EG0839	2-7/16"X1-5/8 -12 GAUGE - WT./100 FT. -254#	2.54	0.72

DEFINITIONS	
I	Moment of Inertia
S	Section Modules
r	Radius of Gyration

X-X AXIS		
I in.4	S in3	r in.
0.52	0.40	0.85

Y-Y AXIS		
I in.4	S in3	r in.
0.33	0.41	0.68



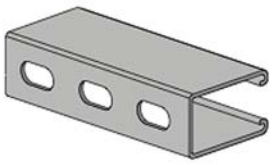


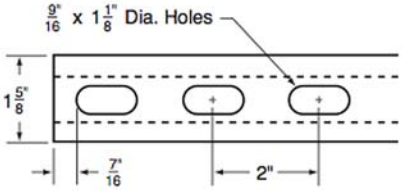
	STATIC BEAN LOAD (X-X AXIS)					
			UNIFORM LOAD AT DEFLECTION			
SPAN / UUNBREACHED HEIGHT (IN.)	MAX ALLOWABLE UNIFORM LOAD (LBS)	DEFLECTION AT UNIFORM LOAD(LBS)	SPAN/180 DEFLECTION (LBS)	SPAN/240 DEFLECTION (LBS)	SPAN/360 DEFLECTION (LBS)	WEIGHT OF CHANNEL (LBS)
12	6,642.75	0.01	6,627.70	6,652.39	6,645.22	2.50
18	4,434.51	0.02	4,429.17	4,430.82	4,422.41	3.81
24	3,314.81	0.04	3,325.85	3,315.98	3,325.70	5.09
30	2,664.85	0.06	2,659.36	2,656.27	2,654.79	6.39
36	2,207.73	0.09	2,208.35	2,211.08	2,207.38	7.59
42	1,902.87	0.12	1,903.04	1,897.60	1,869.10	8.90
48	1,663.09	0.15	1,659.94	1,662.97	1,431.47	10.21
60	1,330.83	0.24	1,331.09	1,329.36	921.43	12.69
72	1,111.80	0.35	1,111.42	958.69	639.13	15.22
84	950.92	0.47	938.74	699.13	470.65	17.79
96	831.12	0.62	720.21	539.72	359.52	20.28
108	738.87	0.78	569.61	419.92	279.57	22.89
120	659.14	0.97	460.30	340.68	229.87	25.35
144	549.01	1.39	319.45	239.76	159.98	30.52
168	469.66	1.89	230.15	180.31	119.97	35.54
180	440.72	2.17	200.30	149.76	99.87	38.05
192	419.79	2.47	179.98	129.80	89.92	40.64
216	369.30	3.13	139.95	109.81	69.92	45.78
240	330.47	3.86	110.01	90.16	59.91	50.74

		COLUMN LOADING DATA			
		MAX COLUMN LOAD APPLIED AT C.G.			
SPAN / UUNBREACHED HEIGHT (IN.)	MAX ALLOWABLE LOAD AT SLOT FACE (LBS)	k=.65 (LBS)	k=0.80 (LBS)	k=1.0 (LBS)	k=1.2 (LBS)
12	5,045.14	15,931.68	15,515.58	14,866.59	14,117.71
18	4,865.22	14,964.31	14,127.55	12,901.01	11,658.58
24	4,631.74	13,727.69	12,509.48	10,788.49	9,163.12
30	4,353.35	12,395.45	10,793.13	8,776.10	7,027.88
36	4,024.83	10,994.89	9,172.82	7,021.08	5,361.73
42	3,694.52	9,631.10	7,667.14	5,597.20	4,326.52
48	3,349.13	8,408.15	6,393.59	4,611.84	3,634.57
60	2,772.08	6,249.24	4,619.47	3,445.39	2,767.07
72	2,360.31	4,788.15	3,623.80	2,771.58	2,260.16
84	2,073.33	3,891.98	3,012.20	2,330.03	1,906.59
96	1,847.84	3,294.94	2,576.80	2,016.76	1,652.36
108	1,667.36	2,862.15	2,263.38	1,769.43	1,438.28
120	1,521.54	2,528.86	2,017.77	1,582.40	**
144	1,290.21	2,073.93	1,651.67	**	**
168	1,111.22	1,750.55	1,379.93	**	**
180	**	1,619.32	**	**	**
192	**	1,508.06	**	**	**
216	**	**	**	**	**
240	**	**	**	**	**

1. Beam capacities include strut weight, which must be deducted from listed capacities to derive net capacities.
2. Permissible loads based on uniform loads and simple support. To find capacities of loaded beams at midspan, multiply capacity by 0.50 and deflection by 0.80.
3. Beam capacities shown for strut without holes. Multiply by 0.88 for strut with holes.

Bearing Load may limit load
** We Do Not recommend - KL/r exceeds 200
Minimum material thickness - 0.096" thick





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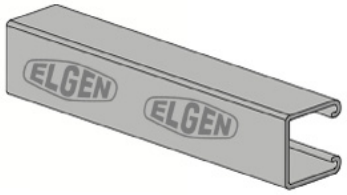
Load Bearing Calculation Table

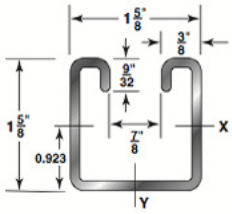
SECTION ELEMENTS			
Item #	Description	Wt./Ft. LBS.	Area of Section Sq.In.
EG0815	1-5/8" X 1-5/8" - 12 GAUGE - WT./100 FT. - 194#	1.94	0.55

DEFINITIONS	
I	Moment of Inertia
S	Section Modules
r	Radius of Gyration

X-X AXIS		
I in.4	S in3	r in.
0.19	0.21	0.58

Y-Y AXIS		
I in.4	S in3	r in.
0.24	0.26	0.65



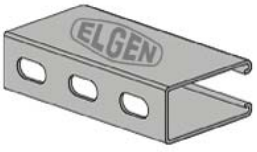


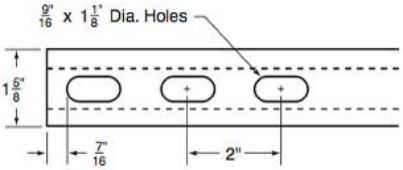
	STATIC BEAN LOAD (X-X AXIS)					
			UNIFORM LOAD AT DEFLECTION			
SPAN / UUNBREACHED HEIGHT (IN.)	MAX ALLOWABLE UNIFORM LOAD (LBS)	DEFLECTION AT UNIFORM LOAD(LBS)	SPAN/180 DEFLECTION (LBS)	SPAN/240 DEFLECTION (LBS)	SPAN/360 DEFLECTION (LBS)	WEIGHT OF CHANNEL (LBS)
12	3,485.92	0.01	3,486.70	3,480.37	3,484.77	1.90
18	2,318.69	0.03	2,318.25	2,319.61	2,315.56	2.89
24	1,739.53	0.06	1,741.64	1,739.14	1,741.24	3.89
30	1,392.05	0.09	1,390.72	1,388.13	1,311.40	4.89
36	1,162.27	0.13	1,157.90	1,161.07	910.62	5.80
42	991.83	0.17	988.12	989.36	669.53	6.81
48	869.33	0.23	871.38	769.64	509.21	7.81
60	700.83	0.35	659.26	489.21	329.85	9.68
72	579.85	0.51	460.41	339.54	230.05	11.59
84	500.73	0.69	340.65	250.48	170.15	13.63
96	429.40	0.90	260.09	189.66	129.86	15.47
108	389.23	1.14	200.32	150.24	100.00	17.48
120	350.34	1.41	159.97	119.89	229.54	19.41
144	289.95	2.03	110.05	90.11	60.11	23.34
168	249.73	2.77	80.14	60.09	40.05	27.16
180	230.44	3.18	69.89	50.00	40.01	29.14
192	220.13	3.60	59.91	50.01	NR	31.01
216	190.04	4.57	50.03	39.93	NR	34.90
240	170.32	5.65	40.05	NR	NR	38.77

		COLUMN LOADING DATA			
		MAX COLUMN LOAD APPLIED AT C.G.			
SPAN / UUNBREACHED HEIGHT (IN.)	MAX ALLOWABLE LOAD AT SLOT FACE (LBS)	k=.65 (LBS)	k=0.80 (LBS)	k=1.0 (LBS)	k=1.2 (LBS)
12	3,857.42	12,232.59	11,955.87	11,477.72	10,939.63
18	3,714.47	11,519.75	10,970.66	10,134.19	9,290.58
24	3,523.55	10,674.99	9,839.70	8,729.14	7,716.94
30	3,330.27	9,778.69	8,755.71	7,469.23	6,372.48
36	3,114.00	8,891.05	7,701.24	6,367.72	5,303.01
42	290.49	8,021.39	6,803.45	5,466.64	4,427.18
48	270.70	7,237.72	6,010.94	4,689.26	3,817.13
60	2,335.92	5,906.60	4,691.40	3,630.06	2,964.65
72	2,039.10	4,836.23	3,806.96	2,961.22	2,399.21
84	1,798.40	4,042.13	3,193.67	2,482.85	1,979.53
96	1,598.42	3,473.32	2,744.82	2,108.86	1,668.35
108	1,437.83	0.05	2,401.44	1,822.39	**
120	1,290.88	2,702.84	2,106.75	**	**
144	1,061.85	217.63	1,667.78	**	**
168	**	1,790.06	**	**	**
180	**	**	**	**	**
192	**	**	**	**	**
216	**	**	**	**	**
240	**	**	**	**	**

1. Beam capacities include strut weight, which must be deducted from listed capacities to derive net capacities.
2. Permissible loads based on uniform loads and simple support. To find capacities of loaded beams at midspan, multiply capacity by 0.50 and deflection by 0.80.
3. Beam capacities shown for strut without holes. Multiply by 0.88 for strut with holes.

Bearing Load may limit load
** We Do Not recommend - KL/r exceeds 200
Minimum material thickness - 0.096" thick





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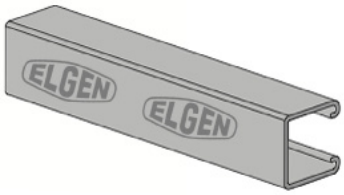
Load Bearing Calculation Table

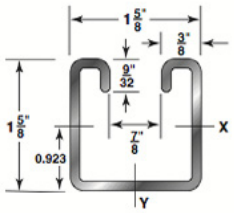
SECTION ELEMENTS			
Item #	Description	Wt./Ft. LBS.	Area of Section Sq.In.
EG0820	1-5/8" X 1-5/8" - 14 GAUGE - WT./100 FT. - 145#	1.45	0.42

DEFINITIONS	
I	Moment of Inertia
S	Section Modules
r	Radius of Gyration

X-X AXIS		
I in.4	S in3	r in.
0.15	0.17	0.58

Y-Y AXIS		
I in.4	S in3	r in.
0.18	0.22	0.66



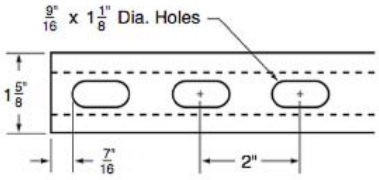


	STATIC BEAN LOAD (X-X AXIS)					
		UNIFORM LOAD AT DEFLECTION				
SPAN / UUNBREACHED HEIGHT (IN.)	MAX ALLOWABLE UNIFORM LOAD (LBS)	DEFLECTION AT UNIFORM LOAD(LBS)	SPAN/180 DEFLECTION (LBS)	SPAN/240 DEFLECTION (LBS)	SPAN/360 DEFLECTION (LBS)	WEIGHT OF CHANNEL (LBS)
12	2,790.31	0.01	2,794.28	2,791.95	2,795.31	1.50
18	1,858.76	0.03	1,861.60	1,859.11	1,856.46	2.20
24	1,401.50	0.06	1,399.95	1,400.08	1,402.61	2.90
30	1,119.03	0.09	1,121.11	1,120.79	1,040.12	3.60
36	929.78	0.13	929.52	930.29	719.46	4.41
42	799.69	0.18	799.49	799.28	530.44	5.10
48	699.50	0.23	699.67	608.91	409.64	5.80
60	560.92	0.36	520.37	390.35	260.42	7.30
72	470.43	0.51	360.09	270.40	180.29	8.69
84	400.72	0.70	270.03	200.00	130.26	10.20
96	349.67	0.91	199.88	150.27	99.86	11.59
108	310.32	1.16	160.31	119.95	80.02	13.10
120	280.40	1.43	129.99	99.82	69.98	14.50
144	230.08	2.06	89.99	69.98	50.03	17.42
168	199.80	2.80	69.88	50.06	30.01	20.29
180	190.18	3.21	60.02	39.93	29.95	21.78
192	170.34	3.66	49.93	40.05	29.98	23.23
216	160.21	4.64	40.07	30.02	NR	26.14
240	140.20	5.71	30.02	NR	NR	29.04

		COLUMN LOADING DATA			
		MAX COLUMN LOAD APPLIED AT C.G.			
SPAN / UUNBREACHED HEIGHT (IN.)	MAX ALLOWABLE LOAD AT SLOT FACE (LBS)	k=.65 (LBS)	k=0.80 (LBS)	k=1.0 (LBS)	k=1.2 (LBS)
12	3,049.52	9,234.22	8,984.95	8,631.09	8,223.28
18	2,927.66	8,707.34	8,238.50	7,542.32	6,824.93
24	2,767.50	8,000.73	7,322.33	6,357.64	5,430.35
30	2,593.96	7,250.89	6,358.42	5,200.75	4,183.89
36	2,393.07	6,472.20	5,417.64	4,182.35	3,213.66
42	2,179.41	5,768.50	4,568.11	3,344.30	2,584.86
48	1,981.41	4,994.01	3,830.65	2,765.49	2,163.64
60	1,622.85	3,733.37	2,758.71	2,048.33	1,642.17
72	1,371.30	2,855.08	2,163.92	1,642.28	1,331.13
84	1,191.59	229.85	1,780.97	1,371.60	1,118.54
96	1,050.11	1,953.38	1,518.98	1,182.20	959.86
108	938.84	1,686.66	1,329.13	1,030.54	**
120	849.44	1,501.13	1,177.69	**	**
144	708.76	1,219.07	959.85	**	**
168	**	1,018.07	**	**	**
180	**	941.26	**	**	**
192	**	**	**	**	**
216	**	**	**	**	**
240	**	**	**	**	**

1. Beam capacities include strut weight, which must be deducted from listed capacities to derive net capacities.
2. Permissible loads based on uniform loads and simple support. To find capacities of loaded beams at midspan, multiply capacity by 0.50 and deflection by 0.80.
3. Beam capacities shown for strut without holes. Multiply by 0.88 for strut with holes.

Bearing Load may limit load
** We Do Not recommend - KL/r exceeds 200
Minimum material thickness - 0.069" thick



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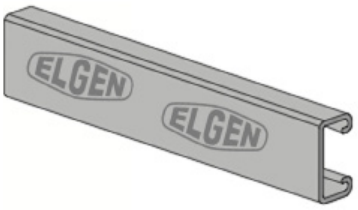
Load Bearing Calculation Table

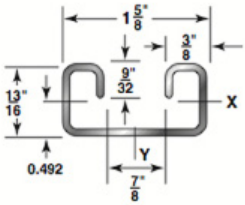
SECTION ELEMENTS			
Item #	Description	Wt./Ft. LBS.	Area of Section Sq.In.
EG0831	13/16" X 1-5/8" - 12 GAUGE - WT./100 FT. - 135#	1.37	0.38

DEFINITIONS	
I	Moment of Inertia
S	Section Modules
r	Radius of Gyration

X-X AXIS		
I in.4	S in3	r in.
0.03	0.07	0.29

Y-Y AXIS		
I in.4	S in3	r in.
0.14	0.17	0.60





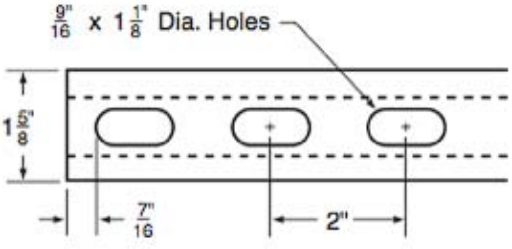
Uniform Load

	STATIC BEAN LOAD (X-X AXIS)					
			UNIFORM LOAD AT DEFLECTION			
SPAN / UUNBREACHED HEIGHT (IN.)	MAX ALLOWABLE UNIFORM LOAD (LBS)	DEFLECTION AT UNIFORM LOAD(LBS)	SPAN/180 DEFLECTION (LBS)	SPAN/240 DEFLECTION (LBS)	SPAN/360 DEFLECTION (LBS)	WEIGHT OF CHANNEL (LBS)
12	1130.74	0.03	1130.89	1129.68	1131.96	1.40
18	751.35	0.06	751.23	749.56	621.06	2.10
24	559.84	0.11	559.07	520.95	349.52	2.70
30	450.10	0.17	450.84	340.57	219.93	3.40
36	380.71	0.24	309.64	230.03	160.31	4.09
42	319.70	0.33	230.31	169.95	109.81	4.81
48	280.31	0.43	169.79	129.99	89.89	5.51
60	229.57	0.67	110.05	80.02	59.98	6.91
72	189.75	0.97	79.94	60.00	40.01	8.20
84	159.93	1.32	60.11	40.00	29.98	9.59
96	140.01	1.72	40.02	30.02	20.04	10.99
108	130.14	2.18	30.02	30.03	19.99	12.39
120	110.19	2.68	30.00	20.00	**	13.70
144	89.98	3.88	20.00	**	**	16.50
168	79.97	5.29	**	**	**	19.18
180	80.04	6.05	**	**	**	20.63
192	69.96	6.90	**	**	**	22.01
216	59.98	8.73	**	**	**	24.72
240	60.05	10.76	**	**	**	27.45

		COLUMN LOADING DATA			
		MAX COLUMN LOAD APPLIED AT C.G.			
SPAN / UUNBREACHED HEIGHT (IN.)	MAX ALLOWABLE LOAD AT SLOT FACE (LBS)	k=.65 (LBS)	k=0.80 (LBS)	k=1.0 (LBS)	k=1.2 (LBS)
12	2414.79	8485.03	8266.12	7989.59	7695.25
18	2271.96	8030.44	7718.11	7086.93	6397.00
24	2089.11	7500.30	6868.91	5894.96	4914.51
30	1879.66	6796.72	5907.12	4677.83	3493.01
36	1680.36	6028.90	4916.29	3505.57	2431.74
42	1472.90	5227.89	3947.62	2568.02	1793.49
48	1277.90	4430.52	3075.38	1967.20	1372.74
60	969.50	2984.64	1966.64	**	**
72	760.99	2068.45	1369.99	**	**
84	**	1518.64	**	**	**
96	**	**	**	**	**
108	**	**	**	**	**
120	**	**	**	**	**
144	**	**	**	**	**
168	**	**	**	**	**
180	**	**	**	**	**
192	**	**	**	**	**
216	**	**	**	**	**
240	**	**	**	**	**

1. Beam capacities include strut weight, which must be deducted from listed capacities to derive net capacities.
2. Permissible loads based on uniform loads and simple support. To find capacities of loaded beams at midspan, multiply capacity by 0.50 and deflection by 0.80.
3. Beam capacities shown for strut without holes. Multiply by 0.88 for strut with holes.

Bearing Load may limit load
** We Do Not recommend - KL/r exceeds 200
Minimum material thickness - 0.096" thick



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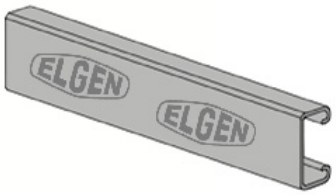
Load Bearing Calculation Table

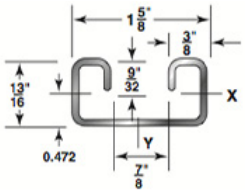
SECTION ELEMENTS			
Item #	Description	Wt./Ft. LBS.	Area of Section Sq.In.
EG0830	13/16" X 1-5/8" - 14 Gauge - wt./100 ft. - 103#	1.03	0.29

DEFINITIONS	
I	Moment of Inertia
S	Section Modules
r	Radius of Gyration

X-X AXIS		
I in.4	S in3	r in.
0.03	0.06	0.30

Y-Y AXIS		
I in.4	S in3	r in.
0.11	0.13	0.61





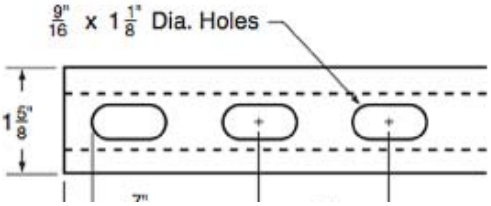
Uniform Load

	STATIC BEAN LOAD (X-X AXIS)					
			UNIFORM LOAD AT DEFLECTION			
SPAN / UUNBREACHED HEIGHT (IN.)	MAX ALLOWABLE UNIFORM LOAD (LBS)	DEFLECTION AT UNIFORM LOAD(LBS)	SPAN/180 DEFLECTION (LBS)	SPAN/240 DEFLECTION (LBS)	SPAN/360 DEFLECTION (LBS)	WEIGHT OF CHANNEL (LBS)
12	971.27	0.03	971.48	968.36	970.76	1.00
18	641.26	0.06	639.61	639.50	51.98	1.50
24	479.16	0.11	479.95	440.01	300.08	2.10
30	389.24	0.17	379.85	280.04	190.23	2.60
36	320.17	0.25	259.55	200.27	129.75	3.10
42	279.68	0.33	189.91	140.24	99.94	3.60
48	239.59	0.44	149.81	110.03	69.88	4.09
60	190.12	0.68	90.14	70.05	50.10	5.20
72	159.97	0.98	69.94	49.91	29.98	6.21
84	139.91	1.34	50.10	40.03	20.02	7.20
96	120.08	1.75	39.97	30.02	20.04	8.21
108	109.78	2.21	29.94	20.00	10.01	9.31
120	99.80	2.73	20.03	20.02	**	10.30
144	79.90	3.93	20.02	**	**	12.42
168	70.02	5.34	**	**	**	14.42
180	60.04	6.12	**	**	**	15.50
192	59.94	6.97	**	**	**	16.52
216	50.06	8.82	**	**	**	18.47
240	50.07	10.93	**	**	**	20.60

		COLUMN LOADING DATA			
		MAX COLUMN LOAD APPLIED AT C.G.			
SPAN / UUNBREACHED HEIGHT (IN.)	MAX ALLOWABLE LOAD AT SLOT FACE (LBS)	k=.65 (LBS)	k=0.80 (LBS)	k=1.0 (LBS)	k=1.2 (LBS)
12	1,010.39	6,496.68	6,347.16	6,099.46	5,819.69
18	1,891.39	6,113.73	5,827.51	5,410.81	5,000.57
24	1,736.60	5,701.02	5,264.36	4,698.08	3,976.83
30	1,591.99	5,232.28	4,696.90	3,792.47	2,933.58
36	1,420.93	4,791.08	3,976.11	2,932.79	2,052.43
42	1,248.48	4,205.04	3,263.63	2,168.88	1,512.40
48	1,088.07	3,617.11	2,601.39	1,661.89	1,149.30
60	829.32	2,521.10	1,659.06	1,061.64	**
72	650.85	1,752.69	1,150.58	**	**
84	**	1,277.52	**	**	**
96	**	**	**	**	**
108	**	**	**	**	**
120	**	**	**	**	**
144	**	**	**	**	**
168	**	**	**	**	**
180	**	**	**	**	**
192	**	**	**	**	**
216	**	**	**	**	**
240	**	**	**	**	**

1. Beam capacities include strut weight, which must be deducted from listed capacities to derive net capacities.
2. Permissible loads based on uniform loads and simple support. To find capacities of loaded beams at midspan, multiply capacity by 0.50 and deflection by 0.80.
3. Beam capacities shown for strut without holes. Multiply by 0.88 for strut with holes.

Bearing Load may limit load
** We Do Not recommend - KL/r exceeds 200
Minimum material thickness - 0.069" thick



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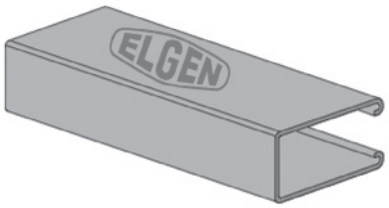
Load Bearing Calculation Table

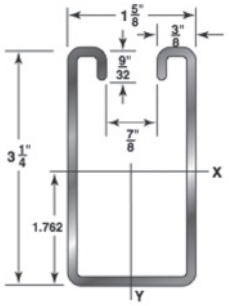
SECTION ELEMENTS			
Item #	Description	Wt./Ft. LBS.	Area of Section Sq.In.
EG0836	3-1/4"x1-5/8" -12 GAUGE- WT./100 FT.- 313#	3.200	0.721

DEFINITIONS	
I	Moment of Inertia
S	Section Modules
r	Radius of Gyration

X-X AXIS		
I in.4	S in3	r in.
1.10	0.63	1.11

Y-Y AXIS		
I in.4	S in3	r in.
0.43	0.53	0.70





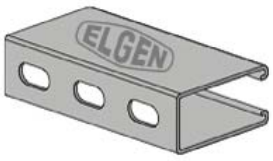
			CONCENTRATED LOAD AT DEFLECTION		
SPAN	MAX. ALLOWABLE CONCENTRATED	DEFLECTION CONCENTRATED LOAD (LBS)	SPAN/180 (LBS)	SPAN/240 (LBS)	SPAN/360 (LBS)
12	5,270.79	0.01	5,267.73	5,282.28	5,284.02
18	3,519.00	0.02	3,513.76	3,514.27	3,523.14
24	2,641.63	0.03	2,635.90	2,637.03	2,640.50
30	2,113.03	0.05	2,107.07	2,107.62	2,110.17
36	1,760.02	0.07	1,759.66	1,757.06	1,758.22
42	1,509.12	0.09	1,504.04	1,508.13	1,507.42
48	1,320.25	0.12	1,319.05	1,319.70	1,320.48
54	1,169.91	0.15	1,170.70	1,171.96	1,169.79
60	1,056.44	0.19	1,053.35	1,053.98	1,056.95
66	958.84	0.23	938.89	938.18	939.50
72	877.26	0.27	867.79	867.73	779.69
78	811.87	0.31	799.26	794.93	663.50
84	755.03	0.36	741.93	737.74	572.05
96	659.82	0.48	601.92	595.75	437.71
108	586.22	0.60	564.67	519.72	328.59
120	528.80	0.74	499.65	421.66	265.76
132	480.46	0.90	465.23	348.17	220.44
144	440.40	1.07	369.35	276.69	184.95
156	406.48	1.26	314.69	235.93	157.26
168	376.40	1.46	270.99	203.04	128.02
180	352.30	1.67	223.04	177.28	112.21
192	329.54	1.90	195.66	146.72	97.93
204	310.42	2.15	163.81	130.15	87.08
216	293.57	2.41	146.02	115.88	73.05
228	278.53	2.69	115.21	91.96	65.04
240	264.24	2.98	103.17	82.95	59.06

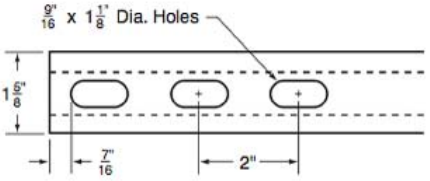
Concentrated Load

NOTES:

1. The Beam capacities shown above include the weight of the strut beam. The Beam weight must be subtracted from these capacities to arrive at the net beam capacity.
2. Long span beams should be supported in such a manner as to prevent rotation and twist.
3. The above chart shows beam capacities for strut without holes. For strut with holes, multiply by 0.88
4. Shaded area represent deflection more than L/180 .

Minimum material thickness - 0.096" thick





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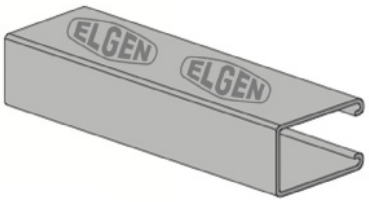
Load Bearing Calculation Table

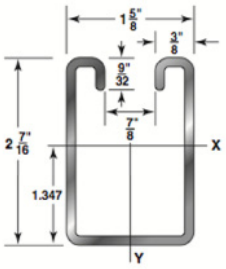
SECTION ELEMENTS			
Item #	Description	Wt./Ft. LBS.	Area of Section Sq.In.
EG0839	2-7/16"X1-5/8 -12 GAUGE - WT./100 FT. -254#	2.54	0.72

DEFINITIONS	
I	Moment of Inertia
S	Section Modules
r	Radius of Gyration

X-X AXIS		
I in.4	S in3	r in.
0.52	0.40	0.85

Y-Y AXIS		
I in.4	S in3	r in.
0.33	0.41	0.68

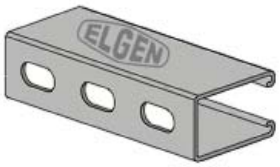


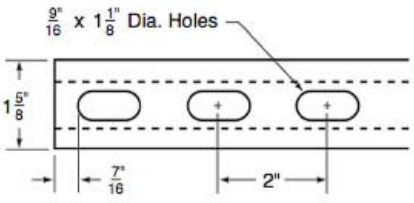


			CONCENTRATED LOAD AT DEFLECTION		
SPAN	MAX. ALLOWABLE CONCENTRATED	DEFLECTION CONCENTRATED LOAD (LBS)	SPAN/180 (LBS)	SPAN/240 (LBS)	SPAN/360 (LBS)
12	329.47	0.01	3,294.79	3,298.97	3,298.07
18	2,199.16	0.02	2,203.95	2,200.18	2,199.08
24	1,649.32	0.04	1,646.95	1,651.98	1,651.66
30	1,322.02	0.06	1,322.25	1,319.34	1,322.22
36	1,098.80	0.09	1,101.25	1,100.38	1,100.15
42	943.44	0.12	944.84	942.61	941.65
48	824.27	0.16	825.82	823.35	825.71
60	659.16	0.24	659.82	659.43	535.56
66	601.03	0.30	599.39	574.31	442.76
72	551.01	0.35	550.51	524.44	371.87
78	507.98	0.41	508.30	475.32	317.28
84	471.85	0.48	460.13	410.04	258.65
96	412.86	0.62	402.29	313.93	197.61
108	367.43	0.79	331.62	235.46	156.75
120	329.87	0.98	267.82	189.91	127.15
132	300.07	1.18	220.87	156.86	99.07
144	274.76	1.40	186.15	132.21	83.08
156	253.80	1.65	149.74	106.19	70.96
168	235.82	1.91	129.14	92.04	57.88
180	219.64	2.19	113.22	80.07	49.96
192	205.85	2.50	98.84	66.07	44.05
204	193.74	2.82	77.87	59.07	33.96
216	183.26	3.16	70.03	52.06	29.95
228	173.80	3.52	61.94	43.95	26.96
240	164.85	3.90	55.97	40.02	25.01

NOTES:

1. The Beam capacities shown above include the weight of the strut beam. The Beam weight must be subtracted from these capacities to arrive at the net beam capacity.
2. Long span beams should be supported in such a manner as to prevent rotation and twist.
3. The above chart shows beam capacities for strut without holes. For strut with holes, multiply by 0.88
4. Shaded area represent deflection more than L/180 .
Minimum material thickness - 0.096" thick





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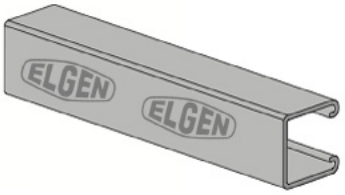
Load Bearing Calculation Table

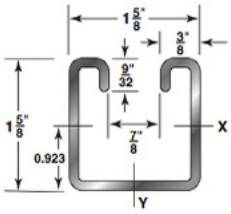
SECTION ELEMENTS			
Item #	Description	Wt./Ft. LBS.	Area of Section Sq.In.
EG0815	1-5/8" X 1-5/8" - 12 GAUGE - WT./100 FT. - 194#	1.94	0.55

DEFINITIONS	
I	Moment of Inertia
S	Section Modules
r	Radius of Gyration

X-X AXIS		
I in.4	S in3	r in.
0.19	0.21	0.58

Y-Y AXIS		
I in.4	S in3	r in.
0.24	0.26	0.65



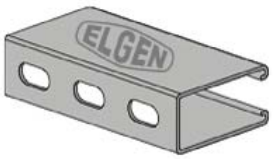


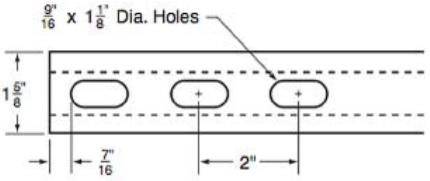
			CONCENTRATED LOAD AT DEFLECTION		
SPAN	MAX. ALLOWABLE CONCENTRATED	DEFLECTION CONCENTRATED LOAD (LBS)	SPAN/180 (LBS)	SPAN/240 (LBS)	SPAN/360 (LBS)
12	1,729.70	0.01	1,731.45	1,731.97	1,732.80
18	1,156.68	0.03	1,155.78	1,156.77	1,157.58
24	865.93	0.06	867.17	867.31	867.33
30	691.97	0.09	694.01	693.18	691.98
36	577.09	0.13	577.40	578.38	533.55
42	495.15	0.18	495.76	495.41	390.53
48	432.24	0.23	433.41	424.31	300.19
54	385.70	0.29	384.35	385.75	236.94
60	346.76	0.36	346.68	287.82	181.74
66	315.49	0.43	314.88	238.20	150.08
72	289.39	0.52	265.64	200.26	126.16
78	267.34	0.60	227.21	160.95	108.21
96	216.97	0.92	150.21	105.84	71.02
108	192.83	1.16	118.23	84.17	53.01
120	172.71	1.43	90.84	68.13	43.00
132	158.05	1.73	74.96	52.94	35.02
144	143.72	2.06	63.10	44.94	28.01
156	132.83	2.42	53.92	38.06	24.01
168	123.89	2.81	45.97	33.03	20.99
180	115.87	3.22	40.07	27.05	17.97
192	108.18	3.66	32.04	23.97	15.98
204	102.17	4.13	28.00	18.00	NR
216	96.17	4.64	24.98	16.02	NR
228	90.84	5.16	22.04	NR	NR
240	86.88	5.72	20.03	NR	NR
240	264.64	3.62	103.64	83.64	59.64

NOTES:

1. The Beam capacities shown above include the weight of the strut beam. The Beam weight must be subtracted from these capacities to arrive at the net beam capacity.
2. Long span beams should be supported in such a manner as to prevent rotation and twist.
3. The above chart shows beam capacities for strut without holes. For strut with holes, multiply by 0.88
4. Shaded area represent deflection more than L/180 .

Minimum material thickness - 0.096" thick





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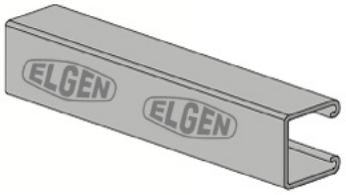
Load Bearing Calculation Table

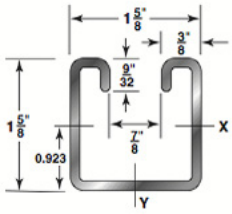
SECTION ELEMENTS			
Item #	Description	Wt./Ft. LBS.	Area of Section Sq.In.
EG0820	1-5/8" X 1-5/8" - 14 GAUGE - WT./100 FT. - 145#	1.45	0.415

DEFINITIONS	
I	Moment of Inertia
S	Section Modules
r	Radius of Gyration

X-X AXIS		
I in.4	S in3	r in.
0.148	0.165	0.184

Y-Y AXIS		
I in.4	S in3	r in.
0.183	0.224	0.662

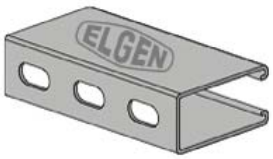


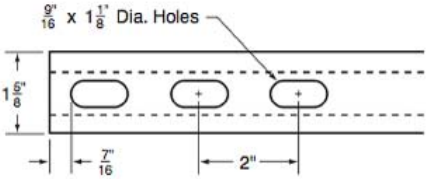


			CONCENTRATED LOAD AT DEFLECTION		
SPAN	MAX. ALLOWABLE CONCENTRATED	DEFLECTION CONCENTRATED LOAD (LBS)	SPAN/180 (LBS)	SPAN/240 (LBS)	SPAN/360 (LBS)
12	1,729.75	0.01	1,730.32	1,735.05	1,734.62
18	1,155.26	0.03	1,155.35	1,153.71	1,157.63
24	867.50	0.06	866.76	866.70	868.72
30	693.01	0.09	692.36	693.89	692.13
36	576.89	0.13	578.98	578.41	531.98
42	494.18	0.18	495.79	495.58	391.30
48	433.80	0.23	433.85	424.20	300.13
54	385.48	0.29	385.45	355.12	237.05
60	347.05	0.36	346.80	288.49	181.95
66	314.41	0.43	314.51	238.15	149.92
72	288.43	0.52	265.51	200.32	126.04
78	267.40	0.60	227.03	161.12	107.87
84	247.60	0.70	196.34	139.17	93.17
96	217.36	0.92	149.96	106.19	71.04
108	193.22	1.16	117.89	84.05	53.03
120	173.09	1.43	90.84	68.04	43.01
132	157.87	1.73	75.03	53.04	34.98
144	143.84	2.06	62.98	45.09	28.05
156	133.23	2.42	53.96	37.93	24.04
168	124.02	2.79	46.05	32.97	20.97
180	116.18	3.22	40.01	27.05	18.03
192	108.15	3.66	31.98	24.01	16.00
204	102.13	4.13	28.03	18.03	NR
216	95.93	4.64	25.03	16.00	NR
228	90.92	5.17	21.96	NR	NR
240	264.64	3.62	103.64	83.64	59.64

NOTES:

1. The Beam capacities shown above include the weight of the strut beam. The Beam weight must be subtracted from these capacities to arrive at the net beam capacity.
2. Long span beams should be supported in such a manner as to prevent rotation and twist.
3. The above chart shows beam capacities for strut without holes. For strut with holes, multiply by 0.88
4. Shaded area represent deflection more than L/180 .
Minimum material thickness - 0.096" thick





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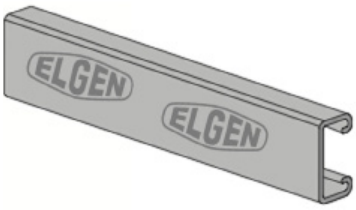
Load Bearing Calculation Table

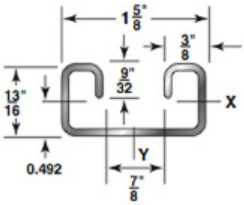
SECTION ELEMENTS			
Item #	Description	Wt./Ft. LBS.	Area of Section Sq.In.
EG0831	13/16" X 1-5/8" - 12 GAUGE - WT./100 FT. - 135#	1.37	0.38

DEFINITIONS	
I	Moment of Inertia
S	Section Modules
r	Radius of Gyration

X-X AXIS		
I in.4	S in3	r in.
0.03	0.07	0.29

Y-Y AXIS		
I in.4	S in3	r in.
0.14	0.17	0.60

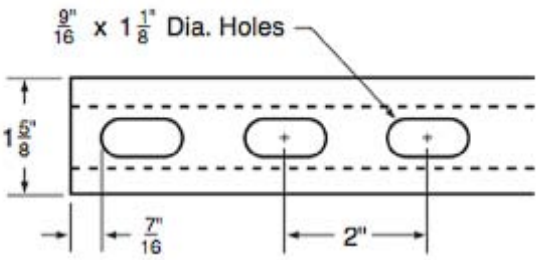




			CONCENTRATED LOAD AT DEFLECTION		
SPAN	MAX. ALLOWABLE CONCENTRATED	DEFLECTION CONCENTRATED LOAD (LBS)	SPAN/180 (LBS)	SPAN/240 (LBS)	SPAN/360 (LBS)
12	558.74	0.03	557.57	558.39	558.41
18	371.50	0.06	372.72	372.13	369.32
24	278.58	0.11	278.76	260.09	229.93
30	222.96	0.17	223.34	195.65	146.99
36	185.89	0.24	181.20	136.16	101.96
42	159.76	0.33	133.20	99.91	75.07
48	140.22	0.43	101.88	77.10	56.89
54	123.83	0.55	81.02	60.06	41.01
60	111.90	0.68	62.08	48.92	32.96
66	102.17	0.82	50.92	40.08	26.95
72	92.85	0.97	38.02	34.03	20.02
78	85.88	1.14	32.96	28.99	17.03
84.000	80.06	1.33	25.98	25.05	15.01
96	69.91	1.73	20.02	18.98	10.98
108	61.93	2.19	16.03	15.02	NR
120	56.08	2.72	12.98	12.00	NR
132	50.98	3.28	NR	NR	NR
144	47.00	3.90	NR	NR	NR
156	43.02	4.58	NR	NR	NR
168	39.96	5.31	NR	NR	NR
180	36.96	6.09	NR	NR	NR
192	35.02	6.92	NR	NR	NR
204	33.05	7.81	NR	NR	NR
216	30.94	8.76	NR	NR	NR
228	28.94	9.77	NR	NR	NR
240	27.97	10.82	NR	NR	NR

NOTES:

1. The Beam capacities shown above include the weight of the strut beam. The Beam weight must be subtracted from these capacities to arrive at the net beam capacity.
2. Long span beams should be supported in such a manner as to prevent rotation and twist.
3. The above chart shows beam capacities for strut without holes. For strut with holes, multiply by 0.88
4. Shaded area represent deflection more than L/180 .
Minimum material thickness - 0.096" thick



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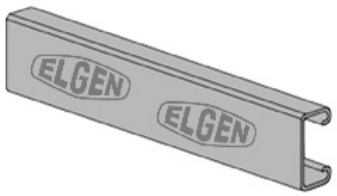
Load Bearing Calculation Table

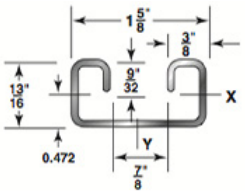
SECTION ELEMENTS			
Item #	Description	Wt./Ft. LBS.	Area of Section Sq.In.
EG0830	13/16" X 1-5/8" - 14 Gauge - wt./100 ft. - 103#	1.03	0.29

DEFINITIONS	
I	Moment of Inertia
S	Section Modules
r	Radius of Gyration

X-X AXIS		
I in.4	S in3	r in.
0.03	0.06	0.30

Y-Y AXIS		
I in.4	S in3	r in.
0.11	0.13	0.61



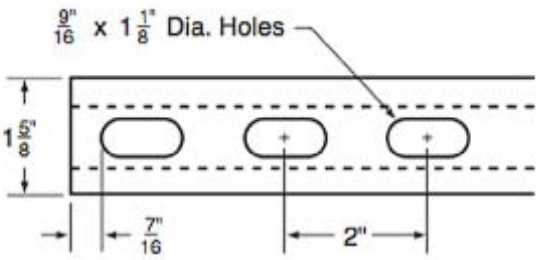


			CONCENTRATED LOAD AT DEFLECTION		
SPAN	MAX. ALLOWABLE CONCENTRATED	DEFLECTION CONCENTRATED LOAD (LBS)	SPAN/180 (LBS)	SPAN/240 (LBS)	SPAN/360 (LBS)
12	1,385.23	0.01	1,381.08	1,383.57	1,381.13
18	920.26	0.03	922.56	921.52	920.40
24	692.40	0.06	692.08	693.02	693.38
30	553.28	0.09	552.05	553.57	519.09
36	461.38	0.13	461.56	449.58	422.06
42	395.27	0.18	395.19	365.43	309.49
48	346.48	0.23	346.04	329.76	237.92
54	306.55	0.29	300.50	282.16	187.77
60	276.70	0.36	270.33	228.26	144.15
66	252.27	0.44	251.01	187.77	119.08
72	231.40	0.52	210.58	149.91	99.97
78	213.40	0.48	459.87	410.08	258.98
96	213.33	0.61	179.98	128.22	85.06
84	198.20	0.71	154.75	110.03	72.89
96	172.74	0.92	112.78	84.01	49.94
108	154.11	1.17	88.92	63.05	40.07
120	138.09	1.44	71.94	51.06	32.00
132	125.89	1.74	60.03	41.99	26.02
144	114.79	2.07	47.01	34.93	18.97
156	106.00	2.43	40.03	26.96	17.03
168	98.90	2.82	34.96	23.04	13.99
180	91.87	3.24	30.01	20.03	NR
192	85.93	3.70	24.96	324.00	NR
204	80.87	4.17	21.99	NR	NR
216	76.97	4.68	15.97	NR	NR
228	72.96	5.21	NR	NR	NR

NOTES:

1. The Beam capacities shown above include the weight of the strut beam. The Beam weight must be subtracted from these capacities to arrive at the net beam capacity.
2. Long span beams should be supported in such a manner as to prevent rotation and twist.
3. The above chart shows beam capacities for strut without holes. For strut with holes, multiply by 0.88
4. Shaded area represent deflection more than L/180 .

Minimum material thickness - 0.069" thick



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