SECTION 7

Engineering Data

Mill certification physical/mechanical properties, specification and engineering data for G-STRUT® Standard carbon steel channel are as follows:

PRODUCT(S) PROFILE TYPES	MIN. YIELD STRENGTH	MIN. TENSILE STRENGTH	MIN. ELONGATION
ALL 1-5/8 industry standard strut profiles in sizes inclusive from 13/16" through 3-1/4"	42,700 33,500	45,000	20%

G-STRUT® Metal Framing Channel is interchangeable with industry-standard 1-5/8" strut profiles.

G-STRUT® is cold roll-formed, structural grade carbon steel.

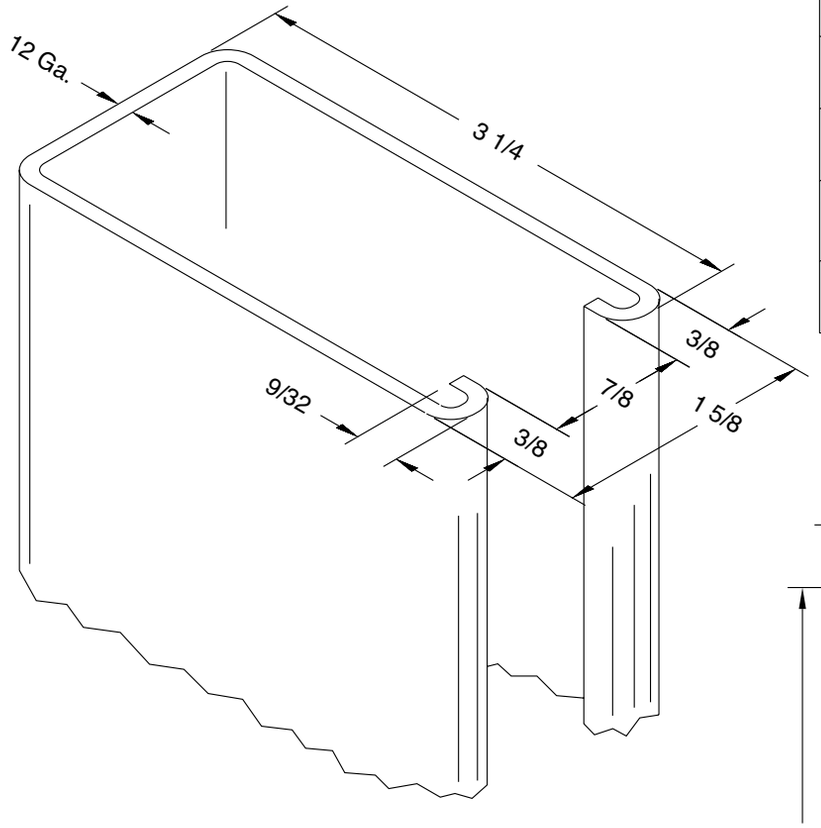
G-STRUT® conforms to ASTM 1011 for hot rolled steel, ASTM 653 for continuous pre-galvanized steel, and ASTM 123 for HDG hot dip after-fabrication galvanized.

Standard finishes include pre-galvanized (G-90 coating weight), painted, galvannealed, pickle & oil plain, and hot dip galvanized.

Painted (Channel Green Standard) available in polyester urethane powder coat finish or electro deposition cathodic epoxy e-coating.

Special Channel finishes or substrates include: aluminum, yellow zinc electrocoat, fiberglass, PVC coated, custom colors, stainless steel (grade 304 or 316).

Engineering/Load factors (see following pages by channel part number)



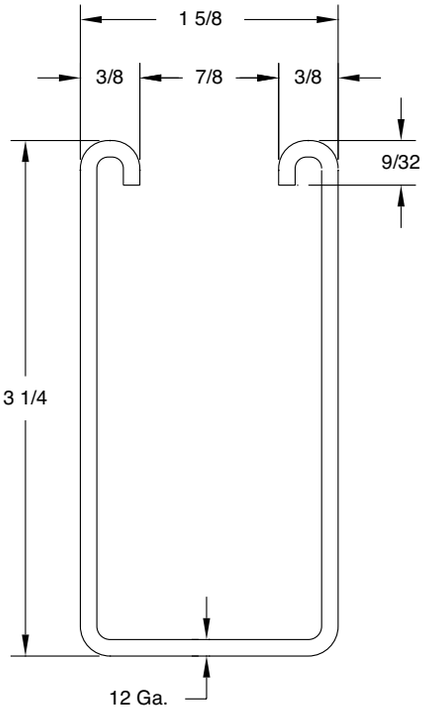
G812OS [Oval-Slot]
9/16" x 1-1/8" – 2" ON CTR

G812LS [Long-Slot]
13/32" x 3" – 4" ON CTR

G812H [Holes]
9/16" DIAM. – 1-7/8" ON CTR

G812A [Back-to-Back]
WELDED

G812KO [Knock-Out]
7/8" DIAM. – 6" ON CTR



ITEM	QNT'Y	DESCRIPTION	MATERIAL
			ROLLFORM TOLERANCES
SCALE	FULL	CHK'D BY	LENGTH ± 0.125"
DWN BY	IDI 02-02-02	APP'D BY	ALL OTHER DIMENSIONS ± 0.020"

G-STRUT CHANNEL, PART # G812

CAD FILENAME:
G812

LAST PLOT DATE:
02-02-02

GREGORY STRUT PRODUCTS
Division of Gregory Industries
4100 13th Street SW; Canton, OH 44710
PH: 330-477-4800 FX: 330-477-0626

REF. No.

DRWG No.
G812

ENGINEERING DATA

G-STRUT® Channel – G812

1-5/8" x 3-1/4" (1.625" x 3.25")
12 gauge (0.102" thick)

Elements of Section

Strut Section	Weight/ Foot lbs.	Area of Section $in.^2$	X-X Axis			Y-Y Axis		
			Moment of Inertia $in.^4$	Section Modulus $in.^3$	Radius of Gyration in.	Moment of Inertia $in.^4$	Section Modulus $in.^3$	Radius of Gyration in.
G812	3.040	0.894	1.089	0.624	1.104	0.432	0.532	0.695
G812A	6.080	1.788	6.222	1.914	1.865	0.863	1.063	0.695

Beam & Column Loads

Strut Section Number	Beam Span or Column Height	Maximum Column Load	Total Uniform Load at 25,000 PSI	Deflection at 25,000 PSI	Uniform Load at 1/240 Span Deflection
	in.	lbs.	lbs.	in.	lbs.
G812	24	11230	5240	0.10	5240
	30	9950	4190	0.13	4190
	36	8840	3490	0.15	3490
	42	6870	3000	0.18	3000
	48	6280	2620	0.20	2620
	60	4400	2100	0.25	2100
	72	3440	1750	0.34	1750
	84	2820	1500	0.36	1460
	96	2420	1310	0.47	1120
	108	2140	1170	0.60	880
	120	1940	1050	0.73	720
G812A	24	30000	6980	0.10	6980
	30	29800	6980	0.13	6980
	36	29300	6980	0.15	6980
	42	28360	6000	0.18	6000
	48	26140	5240	0.20	5240
	60	22000	4200	0.25	4200
	72	18500	4260	0.38	3320
	84	16190	3650	0.40	3230
	96	14690	3200	0.46	2870
	108	13660	2840	0.56	2270
	120	12930	2550	0.70	1840

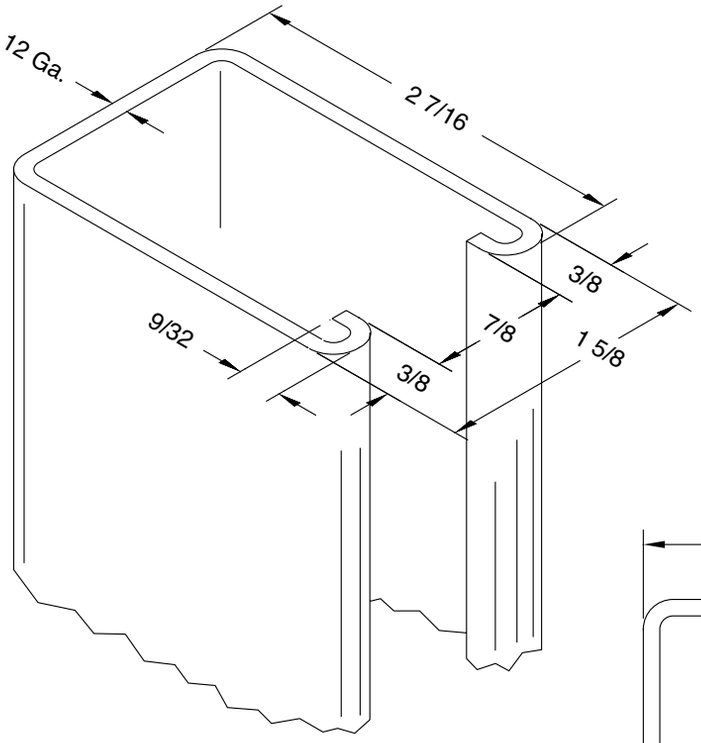
For perforated channels, reduce total beam load values as follows:

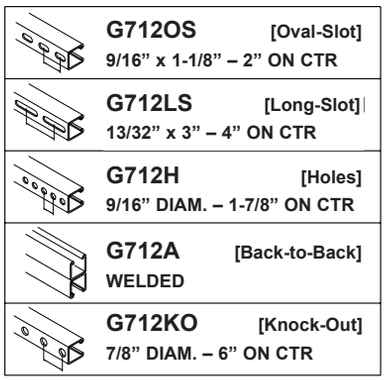
G812	OS	20%
G812	LS	33%
G812	H	12%
G812	KO	5%

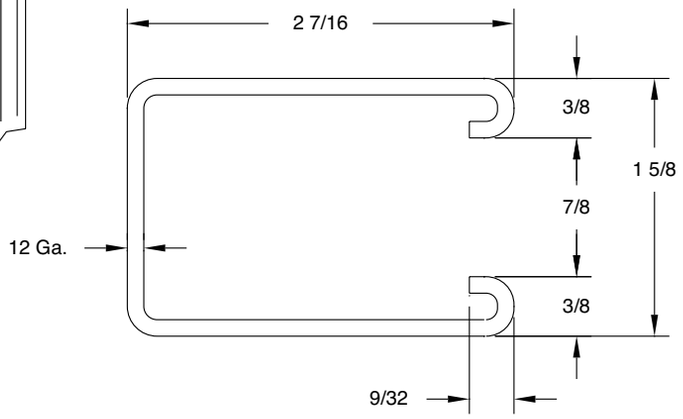
E = 29000; Fy = 42700; K = 0.8

BEAM LOADS: Loads listed are distributed uniformly. For loads concentrated at center of span, multiply uniform load by 0.5 and deflection by 0.8. Where deflection is not a factor, use stress of 25,000 PSI. When deflection is a factor, use deflection of 1/240 span.

COLUMN LOADS: Column loads are for allowable axial loads for the unsupported heights listed (including a K value of 0.80). Column loads must be reduced for eccentric loading.







ITEM	QNT'Y	DESCRIPTION	MATERIAL
			ROLLFORM TOLERANCES
SCALE	FULL	CHK'D BY	LENGTH ± 0.125"
DWN BY	IDI 02-02-02	APP'D BY	ALL OTHER DIMENSIONS ± 0.020"

G-STRUT CHANNEL, PART # G712

CAD FILENAME: G712

LAST PLOT DATE: 02-02-02

GREGORY STRUT PRODUCTS
Division of Gregory Industries
4100 13th Street SW; Canton, OH 44710
PH: 330-477-4800 FX: 330-477-0626

REF. No.

DRWG No. G712

ENGINEERING DATA

G-STRUT® Channel – G712

1-5/8" x 2-7/16" (1.625" x 2.4375")
12 gauge (0.102" thick)

Elements of Section

Strut Section	Weight/ Foot lbs.	Area of Section $in.^2$	X-X Axis			Y-Y Axis		
			Moment of Inertia $in.^4$	Section Modulus $in.^3$	Radius of Gyration in.	Moment of Inertia $in.^4$	Section Modulus $in.^3$	Radius of Gyration in.
G712	2.392	0.703	0.503	0.376	0.846	0.326	0.401	0.681
G712A	4.920	1.447	2.801	1.149	1.392	0.666	0.820	0.679

Beam & Column Loads

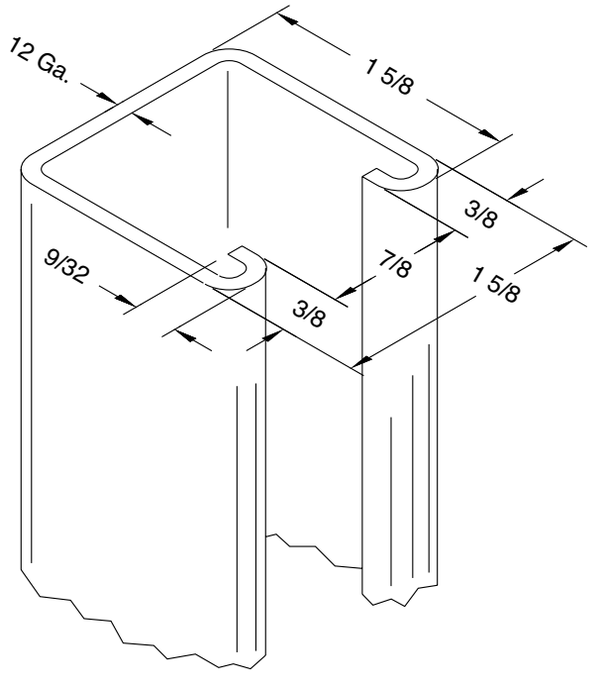
Strut Section Number	Beam Span or Column Height	Maximum Column Load	Total Uniform Load at 25,000 PSI	Deflection at 25,000 PSI	Uniform Load at 1/240 Span Deflection
	in.	lbs.	lbs.	in.	lbs.
G712	12	15280	6260	0.01	-
	18	15010	4170	0.02	-
	24	14710	3130	0.03	-
	30	14370	2500	0.06	-
	36	14010	2080	0.08	-
	42	13620	1790	0.11	-
	48	13200	1560	0.15	-
	54	12760	1390	0.19	-
	60	12290	1250	0.24	-
	66	11800	1130	0.28	1070
	72	11290	1040	0.34	900
	84	6330	890	0.47	660
	96	9000	780	0.61	500
	108	7700	690	0.77	400
	120	6330	620	0.95	320
G712A	24	28400	4600	0.10	4600
	30	27000	4600	0.13	4600
	36	25580	4340	0.15	4340
	42	24230	3720	0.18	3720
	48	22980	3260	0.20	3260
	60	20840	3230	0.25	3230
	72	19180	3220	0.34	3230
	84	17910	2760	0.30	3230
	96	16930	2420	0.34	2870
	108	13570	2150	0.43	2270
	120	10990	1930	0.53	1840

For perforated channels, reduce total beam load values as follows:

G712	OS	20%
G712	LS	33%
G712	H	12%
G712	KO	5%

E = 29000; Fy = 42700; K = 0.8

BEAM LOADS: Loads listed are distributed uniformly. For loads concentrated at center of span, multiply uniform load by 0.5 and deflection by 0.8. Where deflection is not a factor, use stress of 25,000 PSI. When deflection is a factor, use deflection of 1/240 span.
COLUMN LOADS: Column loads are for allowable axial loads for the unsupported heights listed (including a K value of 0.80). Column loads must be reduced for eccentric loading.



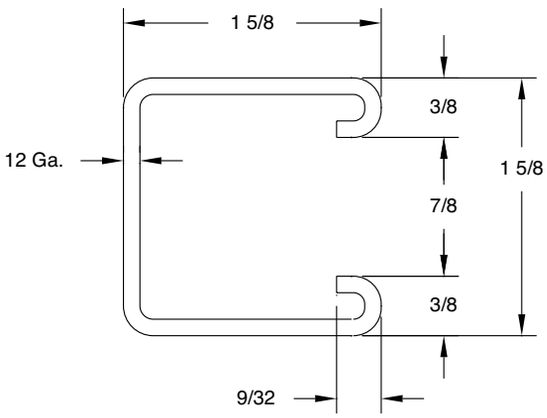
G582OS [Oval-Slot]
9/16" x 1-18" – 2" ON CTR

G582LS [Long-Slot]
13/32" x 3" – 4" ON CTR

G582H [Holes]
9/16" DIAM. – 1-7/8" ON CTR

G582A [Back-to-Back]
WELDED

G582KO [Knock-Out]
7/8" DIAM. – 6" ON CTR



ITEM	QNT'Y	DESCRIPTION	MATERIAL
			ROLLFORM TOLERANCES
SCALE	FULL	CHK'D BY	LENGTH ± 0.125"
DWN BY	IDI 02-02-02	APP'D BY	ALL OTHER DIMENSIONS ± 0.020"

G-STRUT CHANNEL, PART # G582

CAD FILENAME:
G582

LAST PLOT DATE:
02-02-02

GREGORY STRUT PRODUCTS
Division of Gregory Industries
4100 13th Street SW; Canton, OH 44710
PH: 330-477-4800 FX: 330-477-0626

REF. No.

DRWG No.
G582

ENGINEERING DATA

G-STRUT® Channel – G582

1-5/8" x 1-5/8" (1.625" x 1.625")
12 gauge (0.102" thick)

Elements of Section

Strut Section No.	Weight/ Foot lbs.	Area of Section in.^{2}	X-X Axis			Y-Y Axis		
			Moment of Inertia in.^{4}	Section Modulus in.^{3}	Radius of Gyration in.	Moment of Inertia in.^{4}	Section Modulus in.^{3}	Radius of Gyration in.
G582	1.827	0.537	0.178	0.194	0.576	0.230	0.283	0.654
G582-A	3.760	1.105	0.925	0.569	0.915	0.469	0.577	0.651

Beam & Column Loads

Strut Section Number	Beam Span or Column Height	Maximum Column Load	Total Uniform Load at 25,000 PSI	Deflection at 25,000 PSI	Uniform Load at 1/240 Span Deflection
	in.	lbs.	lbs.	in.	lbs.
G582	12	10960	3230	0.01	-
	18	10630	2150	0.03	-
	24	10250	1610	0.05	-
	30	9830	1290	0.08	-
	36	9370	1070	0.12	-
	42	8870	920	0.17	-
	48	8330	800	0.22	710
	54	7750	710	0.28	560
	60	7140	640	0.34	450
	66	6490	580	0.42	370
	72	5790	530	0.49	310
	84	4360	460	0.68	230
	96	3340	400	0.89	170
	108	2640	350	1.11	140
	120	2140	320	1.39	110
G582A	24	21880	3360	0.10	3360
	30	21100	2680	0.13	3360
	36	20400	2240	0.15	3360
	42	19810	2170	0.18	2170
	48	19320	2170	0.20	2170
	60	18590	1920	0.25	1920
	72	17590	1600	0.34	1690
	84	14970	1370	0.46	1240
	96	12080	1200	0.60	950
	108	9540	1070	0.75	750
	120	7730	960	0.93	610

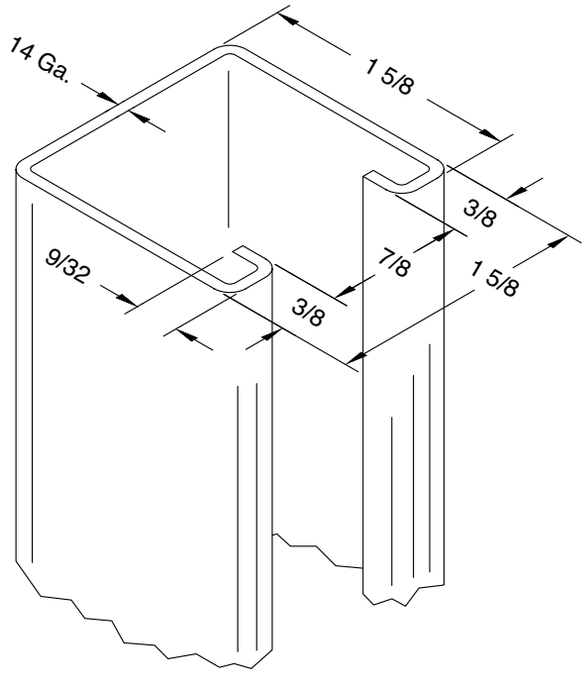
For perforated channels, reduce total beam load values as follows:

G582	OS	21%
G582	LS	34%
G582	H	13%
G582	KO	5%

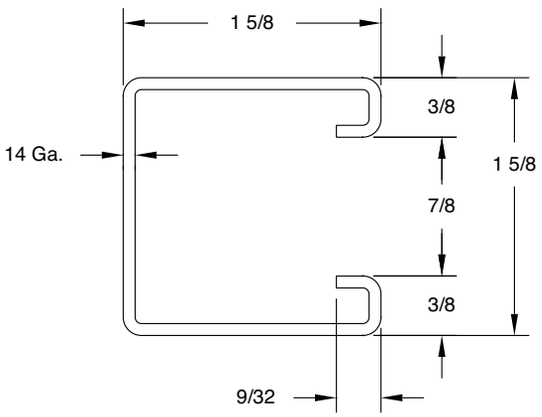
E = 29000; Fy = 42700; K = 0.8

BEAM LOADS: Loads listed are distributed uniformly. For loads concentrated at center of span, multiply uniform load by 0.5 and deflection by 0.8. Where deflection is not a factor, use stress of 25,000 PSI. When deflection is a factor, use deflection of 1/240 span.

COLUMN LOADS: Column loads are for allowable axial loads for the unsupported heights listed (including a K value of 0.80). Column loads must be reduced for eccentric loading.



	**G584OS** [Oval-Slot]	**9/16" x 1-1/8" – 2" ON CTR**
	**G584LS** [Long-Slot]	**13/32" x 3" – 4" ON CTR**
	**G584H** [Holes]	**9/16" DIAM. – 1-7/8" ON CTR**
	**G584A** [Back-to-Back]	**WELDED**
	**G584KO** [Knock-Out]	**7/8" DIAM. – 6" ON CTR**



ITEM	QNT'Y	DESCRIPTION	MATERIAL
			ROLLFORM TOLERANCES
SCALE FULL		CHK'D BY	LENGTH ± 0.125
DWN BY IDI	02-02-02	APP'D BY	ALL OTHER DIMENSIONS ± 0.020"

G-STRUT CHANNEL, PART # G584

CAD FILENAME:
G584

LAST PLOT DATE:
02-02-02

GREGORY STRUT PRODUCTS
Division of Gregory Industries
4100 13th Street SW; Canton, OH 44710
PH: 330-477-4800 FX: 330-477-0626

REF. No.

DRWG No.

G584

ENGINEERING DATA

G-STRUT® Channel – G584

1-5/8" x 1-5/8" (1.625" x 1.625")
14 gauge (0.077" thick)

Elements of Section

Strut Section No.	Weight/ Foot lbs.	Area of Section $in.^2$	X-X Axis			Y-Y Axis		
			Moment of Inertia $in.^4$	Section Modulus $in.^3$	Radius of Gyration in.	Moment of Inertia $in.^4$	Section Modulus $in.^3$	Radius of Gyration in.
G584	1.429	0.42	0.146	0.16	0.59	0.184	0.226	0.662
G584A	2.800	0.824	0.722	0.444	0.936	0.361	0.444	0.661

Beam & Column Loads

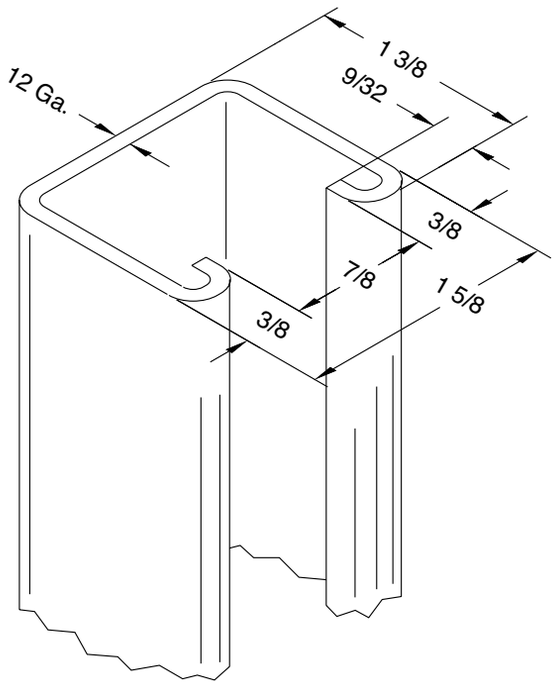
Strut Section Number	Beam Span or Column Height	Maximum Column Load	Total Uniform Load at 25,000 PSI	Deflection at 25,000 PSI	Uniform Load at 1/240 Span Deflection
	in.	lbs.	lbs.	in.	lbs.
G584	12	8630	2660	0.01	-
	18	8370	1770	0.03	-
	24	8090	1330	0.05	-
	30	7760	1060	0.08	-
	36	7410	880	0.12	-
	42	7030	760	0.17	-
	48	6620	660	0.22	580
	54	6190	590	0.28	460
	60	5720	530	0.35	370
	66	5230	480	0.42	310
	72	4710	440	0.5	260
	84	3590	380	0.69	190
	96	2750	330	0.89	140
	108	2170	290	1.12	110
	120	1760	260	1.38	90
G584A	24	16250	2700	0.10	2700
	30	15350	2160	0.13	2160
	36	14640	1800	0.15	1800
	42	13850	1540	0.18	1540
	48	13100	1360	0.20	1360
	60	11800	1250	0.25	1250
	72	10770	1250	0.34	1250
	84	9880	1070	0.39	970
	96	8090	940	0.51	740
	108	6390	830	0.63	590
	120	5170	750	0.80	470

For perforated channels, reduce total beam load values as follows:

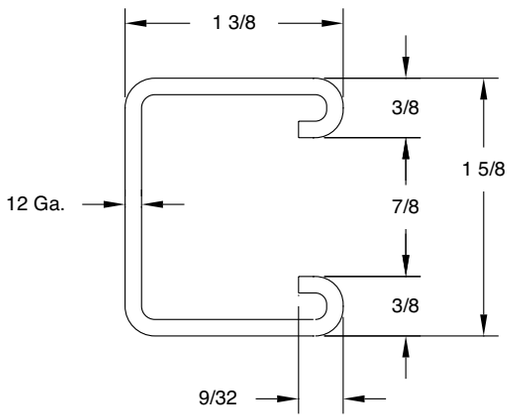
G584	OS	21%
G584	LS	34%
G584	H	13%
G584	KO	5%

E = 29000; Fy = 42700; K = 0.8

BEAM LOADS: Loads listed are distributed uniformly. For loads concentrated at center of span, multiply uniform load by 0.5 and deflection by 0.8. Where deflection is not a factor, use stress of 25,000 PSI. When deflection is a factor, use deflection of 1/240 span.
COLUMN LOADS: Column loads are for allowable axial loads for the unsupported heights listed (including a K value of 0.80). Column loads must be reduced for eccentric loading.



G382OS [Oval-Slot]	**9/16" x 1-1/8" – 2" ON CTR**
G382LS [Long-Slot]	**13/32" x 3" – 4" ON CTR**
G382H [Holes]	**9/16" DIAM. – 1-7/8" ON CTR**
G382A [Back-to-Back]	**WELDED**
G382KO [Knock-Out]	**7/8" DIAM. – 6" ON CTR**



ITEM	QNT'Y	DESCRIPTION	MATERIAL
			ROLLFORM TOLERANCES
SCALE	FULL	CHK'D BY	LENGTH ± 0.125"
DWN BY	IDI 02-02-02	APP'D BY	ALL OTHER DIMENSIONS ± 0.020"

G-STRUT CHANNEL, PART # G382

CAD FILENAME: G382

LAST PLOT DATE: 02-02-02

GREGORY STRUT PRODUCTS
Division of Gregory Industries
4100 13th Street SW; Canton, OH 44710
PH: 330-477-4800 FX: 330-477-0626

REF. No.

DRWG No. G382

ENGINEERING DATA

G-STRUT® Channel – G382

1-5/8" x 1-3/8" (1.625" x 1.375")
12 gauge (0.102" thick)

Elements of Section

Strut Section	Weight/ Foot lbs.	Area of Section $in.^2$	X-X Axis			Y-Y Axis		
			Moment of Inertia $in.^4$	Section Modulus $in.^3$	Radius of Gyration in.	Moment of Inertia $in.^4$	Section Modulus $in.^3$	Radius of Gyration in.
G382	1.654	0.486	0.116	0.147	0.489	0.2	0.246	0.642
G382A	-	-	-	-	-	-	-	-

Beam & Column Loads

Strut Section Number	Beam Span or Column Inches	Maximum Column Load	Total Uniform Load at 25,000 PSI	Deflection at 25,000 PSI	Uniform Load at 1/240 Span Deflection
	in.	lbs.	lbs.	in.	lbs.
G382	12	9620	2450	0.01	-
	18	9250	1630	0.03	-
	24	8820	1220	0.06	-
	30	8340	980	0.10	-
	36	7820	810	0.14	-
	42	7250	700	0.20	610
	48	6630	610	0.26	460
	54	5970	540	0.32	360
	60	5260	490	0.40	290
	66	4490	440	0.48	240
	72	3780	400	0.57	200
	84	1680	350	0.80	150
	96	2120	300	1.02	110
	108	1680	270	1.31	90
	120	1680	240	1.60	70
G382A	24	19860	2250	0.10	2250
	30	19260	2250	0.13	2250
	36	18760	1830	0.15	1830
	42	18350	1830	0.18	1830
	48	18030	1800	0.20	1800
	60	17550	1440	0.30	1440
	72	15670	1200	0.34	1070
	84	13220	1030	0.46	790
	96	10530	900	0.60	600
	108	8320	800	0.75	480
	120	6740	720	0.93	390

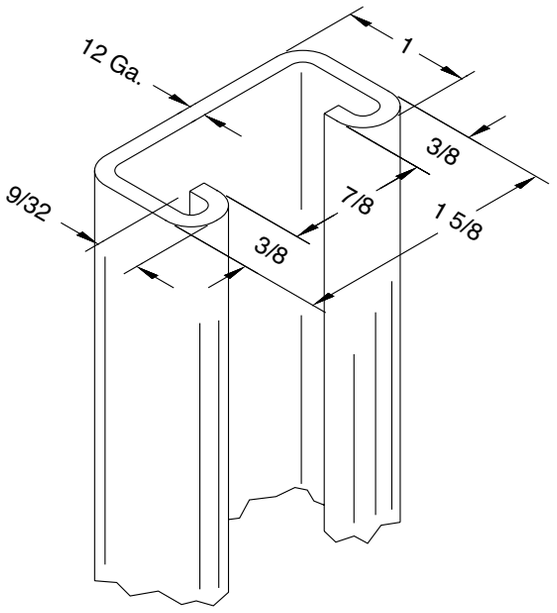
For perforated channels, reduce total beam load values as follows:

G382	OS	21%
G382	LS	34%
G382	H	13%
G382	KO	6%

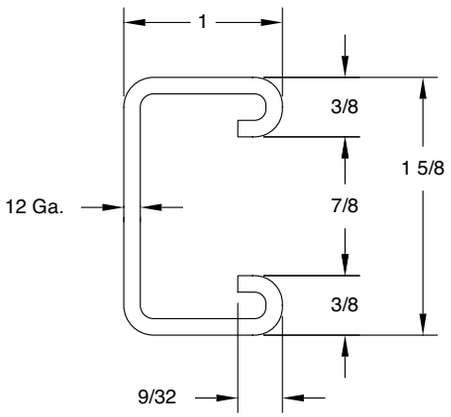
E = 29000; Fy = 42700; K = 0.8

BEAM LOADS: Loads listed are distributed uniformly. For loads concentrated at center of span, multiply uniform load by 0.5 and deflection by 0.8. Where deflection is not a factor, use stress of 25,000 PSI. When deflection is a factor, use deflection of 1/240 span.

COLUMN LOADS: Column loads are for allowable axial loads for the unsupported heights listed (including a K value of 0.80). Column loads must be reduced for eccentric loading.



G102OS [Oval-Slot]	**9/16" x 1-1/8" – 2" ON CTR**
G102LS [Long-Slot]	**13/32" x 3" – 4" ON CTR**
G102H [Holes]	**9/16" DIAM. – 1-7/8" ON CTR**
G102A [Back-to-Back]	**WELDED**
G102KO [Knock-Out]	**7/8" DIAM. – 6" ON CTR**



ITEM	QNT'Y	DESCRIPTION	MATERIAL
			ROLLFORM TOLERANCES
SCALE FULL		CHK'D BY	LENGTH ± 0.125"
DWN BY IDI	02-02-02	APP'D BY	ALL OTHER DIMENSIONS ± 0.020"

G-STRUT CHANNEL, PART #G102

CAD FILENAME: G102

LAST PLOT DATE: 02-02-02

GREGORY STRUT PRODUCTS
Division of Gregory Industries
4100 13th Street SW; Canton, OH 44710
PH: 330-477-4800 FX: 330-477-0626

REF. No.

DRWG No. G102

ENGINEERING DATA

G-STRUT® Channel – G102

1-5/8" x 1" (1.625" x 1.00")
12 gauge (0.102" thick)

Elements of Section

Strut Section	Weight/ Foot lbs.	Area of Section in.^{2}	X-X Axis			Y-Y Axis		
			Moment of Inertia in.^{4}	Section Modulus in.^{3}	Radius of Gyration in.	Moment of Inertia in.^{4}	Section Modulus in.^{3}	Radius of Gyration in.
G102	1.395	0.41	0.051	0.087	0.353	0.156	0.192	0.617
G102A	2.860	0.843	0.250	0.250	0.545	0.317	0.390	0.613

Beam & Column Loads

Strut Section Number	Beam Span or Column Height	Maximum Column Load Load	Total Uniform Load at 25,000 PSI	Deflection at 25,000 PSI	Uniform Load at 1/240 Span Deflection
	in.	lbs.	lbs.	in.	lbs.
G102	12	7530	1450	0.02	-
	18	7060	960	0.04	-
	24	6520	720	0.08	-
	30	5910	580	0.13	520
	36	5220	480	0.19	360
	42	4460	410	0.26	260
	48	3630	360	0.35	200
	54	2870	320	0.44	160
	60	2320	290	0.55	130
	66	1920	260	0.65	100
	72	1610	240	0.78	90
	84	1380	200	1.04	60
	96	0	180	1.4	50
	108	0	160	1.77	40
	120	0	140	2.12	30
G102A	24	16780	1500	0.10	1500
	30	16450	1309	0.13	1309
	36	16200	1309	0.15	1309
	42	15950	1200	0.18	1200
	48	15170	1050	0.20	1025
	60	13300	840	0.35	600
	72	11030	700	0.46	455
	84	8410	600	0.63	335
	96	6440	525	0.82	255
	108	5090	470	1.06	200
	120	4120	420	1.28	165

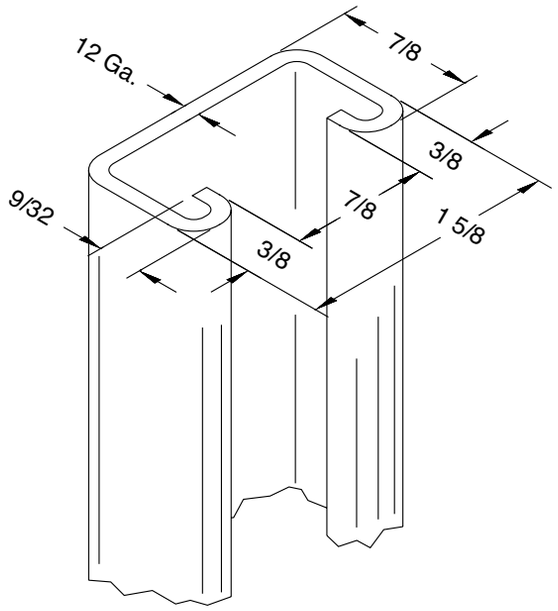
For perforated channels, reduce total beam load values as follows:

G102	OS	22%
G102	LS	35%
G102	H	13%
G102	KO	6%

E = 29000; Fy = 42700; K = 0.8

BEAM LOADS: Loads listed are distributed uniformly. For loads concentrated at center of span, multiply uniform load by 0.5 and deflection by 0.8. Where deflection is not a factor, use stress of 25,000 PSI. When deflection is a factor, use deflection of 1/240 span.

COLUMN LOADS: Column loads are for allowable axial loads for the unsupported heights listed (including a K value of 0.80). Column loads must be reduced for eccentric loading.



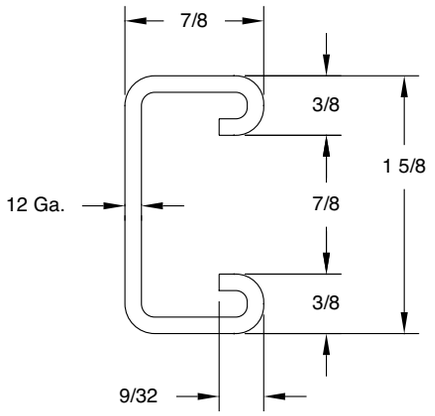
G782OS [Oval-Slot] ɔt]
9/16" x 1-1/8" – 2" ON CTR

G782LS [Long-Slot] ɔt]
13/32" x 3" – 4" ON CTR

G782H [Holes] s]
9/16" DIAM. – 1-7/8" ON CTR

G782A [Back-to-Back] k]
WELDED

G782KO [Knock-Out] ıt]
7/8" DIAM. – 6" ON CTR



ITEM	QNT'Y	DESCRIPTION	MATERIAL
			ROLLFORM TOLERANCES
SCALE	FULL	CHK'D BY	LENGTH ± 0.125"
DWN BY	IDI 02-02-02	APP'D BY	ALL OTHER DIMENSIONS ± 0.020"

G-STRUT CHANNEL, PART ;G782

CAD FILENAME:
G782

LAST PLOT DATE:
02-02-02

GREGORY STRUT PRODUCTS
Division of Gregory Industries
4100 13th Street SW; Canton, OH 44710
PH: 330-477-4800 FX: 330-477-0626

REF. No.

DRWG No.
G782

ENGINEERING DATA

G-STRUT® Channel – G782

1-5/8" x 7/8" (1.625" x 0.875")
12 gauge (0.102" thick)

Elements of Section

Strut Section	Weight/ Foot lbs.	Area of Section in.^{2}	X-X Axis			Y-Y Axis		
			Moment of Inertia in.^{4}	Section Modulus in.^{3}	Radius of Gyration in.	Moment of Inertia in.^{4}	Section Modulus in.^{3}	Radius of Gyration in.
G782	1.350	0.400	0.037	0.073	0.305	0.146	0.180	0.603
G782A	2.700	0.800	0.183	0.208	0.475	0.294	0.361	0.603

Beam & Column Loads

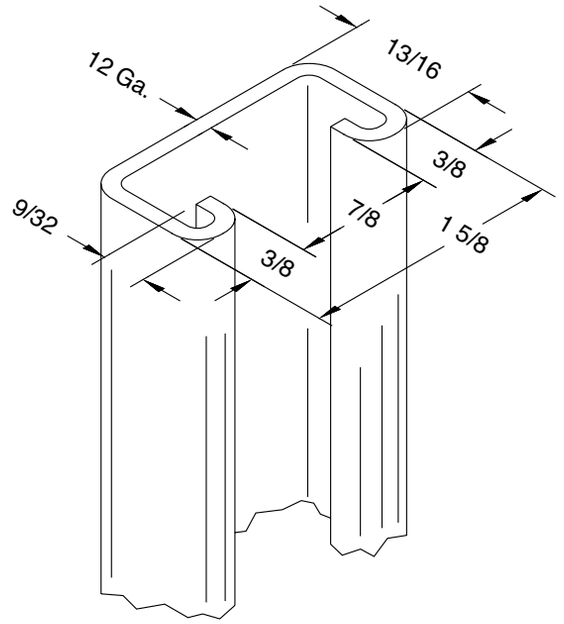
Strut Section Number	Beam Span or Column Height	Maximum Column Load	Total Uniform Load at 25,000 PSI	Deflection at 25,000 PSI	Uniform Load at 1/240 Span Deflection
	in.	lbs.	lbs.	in.	lbs.
G782	24	7500	630	0.10	630
	30	6800	495	0.18	360
	36	6000	420	0.22	290
	42	5000	360	0.29	225
	48	3900	315	0.38	165
	60	2500	250	0.57	110
	72	1700	210	0.84	75
	84	0	180	1.05	60
	96	0	155	1.38	45
	108	0	140	1.80	35
	120	0	125	2.50	25
G782A	24	16500	1300	0.10	1300
	30	16000	1300	0.13	1300
	36	15250	1155	0.15	1150
	42	14300	985	0.18	995
	48	13500	865	0.23	745
	60	11200	690	0.37	470
	72	8300	575	0.53	325
	84	6100	495	1.16	150
	96	4600	430	0.93	185
	108	3700	385	1.20	145
	120	0	345	1.38	125

For perforated channels, reduce total beam load values as follows:

G782	OS	22%
G782	LS	35%
G782	H	14%
G782	KO	6%

E = 29000; Fy = 42700; K = 0.8

BEAM LOADS: Loads listed are distributed uniformly. For loads concentrated at center of span, multiply uniform load by 0.5 and deflection by 0.8. Where deflection is not a factor, use stress of 25,000 PSI. When deflection is a factor, use deflection of 1/240 span.
COLUMN LOADS: Column loads are for allowable axial loads for the unsupported heights listed (including a K value of 0.80). Column loads must be reduced for eccentric loading.



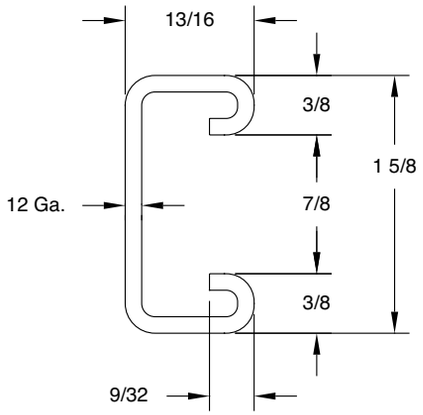
G132OS [Oval-Slot] **9/16" x 1-1/8" – 2" ON CTR**

G132LS [Long-Slot] **13/32" x 3" – 4" ON CTR**

G132H [Holes] **9/16" DIAM. – 1-7/8" ON CTR**

G132A [Back-to-Back] **WELDED**

G132KO [Knock-Out] **7/8" DIAM. – 6" ON CTR**



ITEM	QNT'Y	DESCRIPTION	MATERIAL
			ROLLFORM TOLERANCES
SCALE	FULL	CHK'D BY	LENGTH ± 0.125"
DWN BY	IDI 02-02-02	APP'D BY	ALL OTHER DIMENSIONS ± 0.020"

G-STRUT CHANNEL, PART #G132

CAD FILENAME: G132

LAST PLOT DATE: 02-02-02

GREGORY STRUT PRODUCTS
Division of Gregory Industries
4100 13th Street SW; Canton, OH 44710
PH: 330-477-4800 FX: 330-477-0626

REF. No.

DRWG No. G132

ENGINEERING DATA

G-STRUT® Channel – G132

1-5/8" x 13/16" (1.625" x 0.8125")
12 gauge (0.102" thick)

Elements of Section

Strut Section No.	Weight/ Foot lbs.	Area of Section $in.^2$	X-X Axis			Y-Y Axis		
			Moment of Inertia $in.^4$	Section Modulus $in.^3$	Radius of Gyration in.	Moment of Inertia $in.^4$	Section Modulus $in.^3$	Radius of Gyration in.
G132	1.262	0.371	0.029	0.06	0.28	0.134	0.165	0.601
G132A	2.64	0.750	0.145	0.180	0.435	0.280	0.345	0.600

Beam & Column Loads

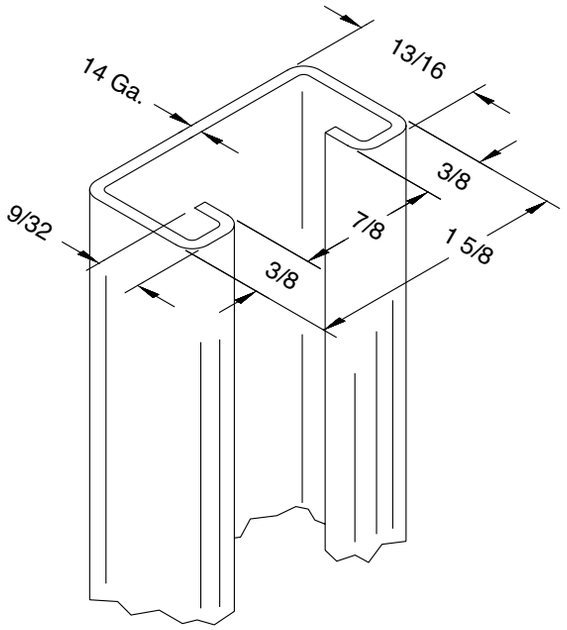
Strut Section Number	Beam Span or Column Height	Maximum Column Load	Total Uniform Load at 25,000 PSI	Deflection at 25,000 PSI	Uniform Load at 1/240 Span Deflection
	in.	lbs.	lbs.	in.	lbs.
G132	12	6430	1000	0.02	-
	18	5860	660	0.05	-
	24	5180	500	0.1	-
	30	4410	400	0.16	290
	36	3530	330	0.23	200
	42	2630	280	0.32	150
	48	2020	250	0.42	110
	54	1590	220	0.53	90
	60	1290	200	0.66	70
	66	1060	180	0.8	60
	72	0	160	0.92	50
	84	0	140	1.28	30
	96	0	120	1.64	20
	108	0	110	2.14	20
	120	0	100	2.67	10
G132A	24	15287	1200	0.10	1200
	30	14673	1150	0.12	1200
	36	13910	990	0.15	980
	42	13009	825	0.19	765
	48	11969	695	0.24	590
	60	9473	600	0.29	375
	72	6740	490	0.41	265
	84	4952	425	0.54	195
	96	3791	375	0.68	150
	108	2995	330	0.82	115
	120	–	300	1.00	95

For perforated channels, reduce total beam load values as follows:

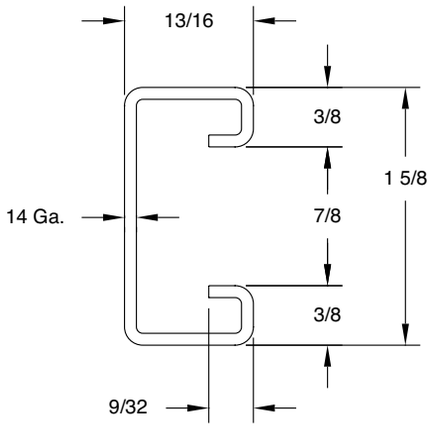
G132	OS	22%
G132	LS	35%
G132	H	14%
G132	KO	6%

E = 29000; Fy = 42700; K = 0.8

BEAM LOADS: Loads listed are distributed uniformly. For loads concentrated at center of span, multiply uniform load by 0.5 and deflection by 0.8. Where deflection is not a factor, use stress of 25,000 PSI. When deflection is a factor, use deflection of 1/240 span.
COLUMN LOADS: Column loads are for allowable axial loads for the unsupported heights listed (including a K value of 0.80). Column loads must be reduced for eccentric loading.



G134OS [Oval-Slot]	**9/16" x 1-1/8" – 2" ON CTR**
G134LS [Long-Slot]	**13/32" x 3" – 4" ON CTR**
G134H [Holes]	**9/16" DIAM. – 1-7/8" ON CTR**
G134A [Back-to-Back]	**WELDED**
G134KO [Knock-Out]	**7/8" DIAM. – 6" ON CTR**



ITEM	QNT'Y	DESCRIPTION	MATERIAL
			ROLLFORM TOLERANCES
SCALE FULL		CHK'D BY	LENGTH ± 0.125"
DWN BY IDI	02-02-02	APP'D BY	ALL OTHER DIMENSIONS ± 0.020"

G-STRUT CHANNEL, PART G134

CAD FILENAME: G134

LAST PLOT DATE: 02-02-02

GREGORY STRUT PRODUCTS
Division of Gregory Industries
4100 13th Street SW; Canton, OH 44710
PH: 330-477-4800 FX: 330-477-0626

REF. No.

DRWG No. G134

ENGINEERING DATA

G-STRUT® Channel – G134

1-5/8" x 13/16" (1.625" x 0.8125")
14 gauge (0.077" thick)

Elements of Section

Strut Section No.	Weight/ Foot lbs.	Area of Section $in.^2$	X-X Axis			Y-Y Axis		
			Moment of Inertia $in.^4$	Section Modulus $in.^3$	Radius of Gyration in.	Moment of Inertia $in.^4$	Section Modulus $in.^3$	Radius of Gyration in.
G134	1.000	0.294	0.025	0.052	0.292	0.109	0.134	0.609
G134A	1.980	0.581	0.117	0.144	0.449	0.214	0.263	0.607

Beam & Column Loads

Strut Section Number	Beam Span or Column Height	Maximum Column Load Load	Total Uniform Load at 25,000 PSI	Deflection at 25,000 PSI	Uniform Load at 1/240 Span Deflection
	in.	lbs.	lbs.	in.	lbs.
G134	12	5220	860	0.02	-
	18	4800	570	0.05	-
	24	4300	430	0.1	-
	30	3730	340	0.16	250
	36	3090	280	0.23	170
	42	2380	240	0.31	130
	48	1820	210	0.41	100
	54	1440	190	0.53	70
	60	1170	170	0.65	60
	66	960	150	0.77	50
	72	940	140	0.93	40
	84	0	120	1.27	30
	96	0	100	1.58	20
	108	0	90	2.03	10
	120	0	80	2.48	10
G134A	24	10350	900	0.10	900
	30	9440	720	0.13	720
	36	9440	612	0.15	612
	42	8850	612	0.18	612
	48	8170	610	0.25	480
	60	6540	490	0.40	310
	72	4700	410	0.59	210
	84	3450	350	0.77	160
	96	2640	300	1.00	120
	108	2080	270	1.22	100
	120	0	240	1.50	80

For perforated channels, reduce total beam load values as follows:

G134	OS	22%
G134	LS	35%
G134	H	14%
G134	KO	6%

E = 29000; Fy = 42700; K = 0.8

BEAM LOADS: Loads listed are distributed uniformly. For loads concentrated at center of span, multiply uniform load by 0.5 and deflection by 0.8. Where deflection is not a factor, use stress of 25,000 PSI. When deflection is a factor, use deflection of 1/240 span.
COLUMN LOADS: Column loads are for allowable axial loads for the unsupported heights listed (including a K value of 0.80). Column loads must be reduced for eccentric loading.