

CHANNEL

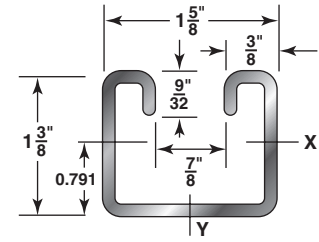
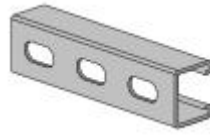
Channels

H-142-OS

1³/₈" X 1⁵/₈"

12 Gauge Channel

wt./100 ft. - 171#



Pre-Galvanized Finish

SECTION PROPERTIES

Catalog No.	Wt./Ft. Lbs.	Area of Section Sq. In.	X-X Axis			Y-Y Axis		
			I in ⁴	S in ³	r in.	I in ⁴	S in ³	r in.
H-142	1.71	0.500	0.123	0.159	0.496	0.206	0.253	0.642

I = Moment of Inertia S = Section Modulus r = Radius of Gyration

Span (In)	Static Beam Load (X-X Axis)							Max. Allowable Load at Slot Face (Lbs)	Column Loading Data			
	Max Allowable Uniform Load (Lbs)	Deflection at Uniform Load (In)	Uniform Load at Deflection				Unbraced Height (In)		Max. Column Load Applied at C.G.			
			Span/180 Deflection (Lbs)	Span/240 Deflection (Lbs)	Span/360 Deflection (Lbs)	Weight of Channel (Lbs)			k=.65 (Lbs)	k=.80 (Lbs)	k=1.0 (Lbs)	k=1.2 (Lbs)
12	2,660	0.02	2,660	2,660	2,660	1.8	12	3,450	11,080	10,810	10,390	9,940
18	1,770	0.04	1,770	1,770	1,770	2.6	18	3,310	10,450	9,940	9,220	8,510
24	1,330	0.07	1,330	1,330	1,330	3.5	24	3,140	9,700	8,980	8,060	7,220
30	1,060	0.10	1,060	1,060	860	4.4	30	2,960	8,930	8,060	7,030	6,140
36	890	0.15	890	890	600	5.3	36	2,780	8,170	7,220	6,140	5,260
42	760	0.20	760	660	440	6.2	42	2,600	7,470	6,480	5,400	4,510
48	670	0.26	670	500	340	7.0	48	2,430	6,840	5,830	4,750	3,890
60	530	0.41	430	320	220	8.8	60	2,110	5,760	4,750	3,710	3,010
72	440	0.59	300	220	150	10.6	72	1,830	4,870	3,890	3,010	2,340
84	380	0.81	220	160	110	12.3	84	1,600	4,130	3,260	2,470	**
96	330	1.06	170	130	80	14.1	96	1,410	3,550	2,790	1,890	**
108	300	1.34	130	100	70	15.8	108	1,230	3,100	2,340	**	**
120	270	1.65	110	80	50	17.6	120	1,070	2,740	1,890	**	**
144	220	2.38	70	60	40	21.1	144	**	1,990	**	**	**
168	190	3.23	50	40	30	24.6	168	**	**	**	**	**
180	180	3.71	50	40	NR	26.4	180	**	**	**	**	**
192	170	4.22	40	30	NR	28.2	192	**	**	**	**	**
216	150	5.35	NR	NR	NR	31.7	216	**	**	**	**	**
240	130	6.60	NR	NR	NR	35.2	240	**	**	**	**	**

NR = Not Recommended

** Not recommended - KL/r exceeds 200

NOTES

- 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.
- Allowable beam loads are based on a uniformly loaded, simply supported beam. For capacities of a beam loaded at midspan at a single point, multiply the beam capacity by 50% and deflection by 80%.

3. The above chart shows beam capacities for strut without holes. For strut with holes, multiply by the following:

- OS by 88%, OS3 by 90%,
 RS ⁹/₁₆ by 88%, RS-MOD ³/₄ by 85%,
 KO by 82% .

4. Refer to page 50 for reduction factors for unbraced lengths
 # Bearing Load may limit load