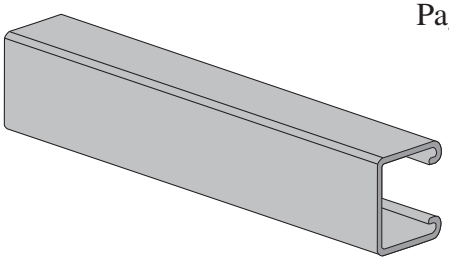
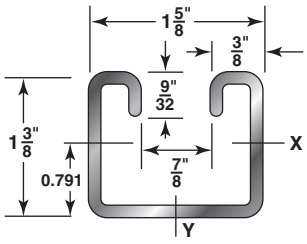
AS-142

1⅜" X 1⅝"
12 Gauge Channel
wt./100 ft. - 176#

Stocked in pre-galvanized, plain & powder coated Supr-Green, in both 10 & 20 ft. lengths. Note: Also available in Stainless Steel 304 & 316 Alloys. Other materials, finishes & lengths are available upon request.





Specifications

GENERAL

Channels are manufactured by a series of forming dies, or rolls, which progressively cold work
the strip steel into the desired channel configuration. This method produces a cross section of uniform dimensions within a tolerance of plus or minus 0.015", on outside dimensions.

LENGTH INFORMATION

Channels are produced and stocked in 10' and 20' lengths with a tolerance of ± ⅛".
Other lengths are available upon request.

LOADING DATA

1. When calculating load at center of span, multiply load from table by 0.5 and deflection by 0.8.
2. When calculating beam and column loads for aluminum, multiply by 33%.

MATERIAL

H-Channels are produced from prime structural steel covered by the following specifications.
(See technical section for additional information)

- ❑ Pre-Galvanized Steel . . . . . .ASTM A-653
- ❑ Plain Steel . . . . . .ASTM A-1011-04-SS
- ❑ Aluminum (Type 6063T6) . . . . . .ASTM B-221
- ❑ Stainless Steel (Type 304 & 316) . .ASTM A-240

Other materials and specifications available on request.

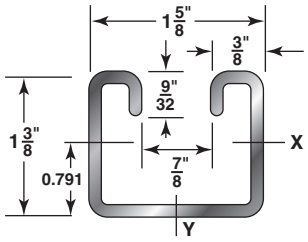
FINISHES

All channels are stocked in pre-galvanized and powder coated Supr-Green. Some sizes are stocked in zinc trivalent chromium, PVC or hot dipped galvanized.

- ❑ Hot Dipped Galvanized. . . . . .ASTM A-123
- ❑ Zinc Trivalent Chromium. . . . . .ASTM B-633-85
- ❑ Powder Coated Supr-Green. . . .ASTM B-117
- ❑ PVC Coating 40 ML Thickness - Available Upon Request

AS-142

1⅜" X 1⅝"
12 Gauge Channel
wt./100 ft. - 176# (Cont.)



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.
AS-142	1.76	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 or Unbraced Height (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					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	3,450	11,080	10,810	10,390	9,940
18	1,770	0.04	1,770	1,770	1,770	2.6	3,310	10,450	9,940	9,220	8,510
24	1,330	0.07	1,330	1,330	1,330	3.5	3,140	9,700	8,980	8,060	7,220
30	1,060	0.10	1,060	1,060	860	4.4	2,960	8,930	8,060	7,030	6,140
36	890	0.15	890	890	600	5.3	2,780	8,170	7,220	6,140	5,260
42	760	0.20	760	660	440	6.2	2,600	7,470	6,480	5,400	4,510
48	670	0.26	670	500	340	7.0	2,430	6,840	5,830	4,750	3,890
60	530	0.41	430	320	220	8.8	2,110	5,760	4,750	3,710	3,010
72	440	0.59	300	220	150	10.6	1,830	4,870	3,890	3,010	2,340
84	380	0.81	220	160	110	12.3	1,600	4,130	3,260	2,470	**
96	330	1.06	170	130	80	14.1	1,410	3,550	2,790	1,890	**
108	300	1.34	130	100	70	15.8	1,230	3,100	2,340	**	**
120	270	1.65	110	80	50	17.6	1,070	2,740	1,890	**	**
144	220	2.38	70	60	40	21.1	**	1,990	**	**	**
168	190	3.23	50	40	30	24.6	**	**	**	**	**
180	180	3.71	50	40	NR	26.4	**	**	**	**	**
192	170	4.22	40	30	NR	28.2	**	**	**	**	**
216	150	5.35	NR	NR	NR	31.7	**	**	**	**	**
240	130	6.60	NR	NR	NR	35.2	**	**	**	**	**

Bearing Load may limit load

NR = Not Recommended

** Not recommended - KL/r exceeds 200

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. 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 holes) by 88%, RS-3/4-MOD (¾ holes) by 85%,
KO by 82%.