

Specifications

GENERAL

H-STRUT 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.

WELDING

Channel combinations of two or more elements are spot welded together to form various multiple combinations, see page 41. The spot welds are spaced two or three inches on centers throughout the length of the multiple channel sections.

LENGTH INFORMATION

H-STRUT Channels are produced and stocked in 10' and 20' lengths with a tolerance of $\pm \frac{1}{8}$ ". 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-STRUT channels are produced from prime structural steel covered by the following specifications.

(See technical section for additional information)

- Pre-Galvanized SteelASTM A-653
- Plain SteelASTM 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 H-STRUT channels are stocked in pre-galvanized and powder coated Supr-Green. Some sizes are stocked in zinc trivalent chromium, PVC or hot dipped galvanized.

(See technical section for additional information)

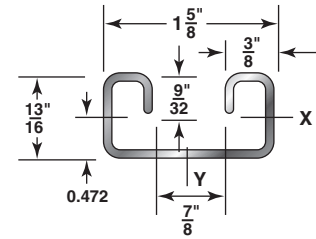
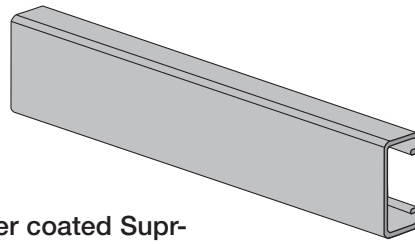
- Hot Dipped GalvanizedASTM A-123
- Zinc Trivalent ChromiumASTM B-633-85
- Powder Coated Supr-Green.ASTM B-117
- PVC Coating 40 ML Thickness - Available Upon Request

CHANNEL

H-164

$1\frac{3}{16}$ " X $1\frac{5}{8}$ "
14 Gauge Channel
 wt./100 ft. - 103#

Channel



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

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-164	1.03	0.294	0.027	0.058	0.303	0.110	0.135	0.612

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

Span or Unbraced Height (In)	Static Beam Load (X-X Axis)							Column Loading Data			
	Max Allowable Uniform Load (Lbs)	Deflection at Uniform Load (In)	Uniform Load at Deflection				Max. Allowable Load at Slot Face (Lbs)	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	970	0.03	970	970	970	1.0	2,010	6,500	6,340	6,090	5,820
18	640	0.06	640	640	520	1.5	1,890	6,120	5,820	5,410	5,010
24	480	0.11	480	440	300	2.1	1,740	5,690	5,270	4,700	3,980
30	390	0.17	380	280	190	2.6	1,590	5,240	4,700	3,800	2,930
36	320	0.25	260	200	130	3.1	1,420	4,790	3,980	2,930	2,050
42	280	0.33	190	140	100	3.6	1,250	4,200	3,270	2,170	1,510
48	240	0.44	150	110	70	4.1	1,090	3,620	2,600	1,660	1,150
60	190	0.68	90	70	50	5.2	830	2,520	1,660	1,060	**
72	160	0.98	70	50	30	6.2	650	1,750	1,150	**	**
84	140	1.34	50	40	20	7.2	**	1,280	**	**	**
96	120	1.75	40	30	20	8.2	**	**	**	**	**
108	110	2.21	30	20	10	9.3	**	**	**	**	**
120	100	2.73	20	20	NR	10.3	**	**	**	**	**
144	80	3.93	20	NR	NR	12.4	**	**	**	**	**
168	70	5.34	NR	NR	NR	14.4	**	**	**	**	**
180	60	6.13	NR	NR	NR	15.5	**	**	**	**	**
192	60	6.98	NR	NR	NR	16.5	**	**	**	**	**
216	50	8.83	NR	NR	NR	18.5	**	**	**	**	**
240	50	10.91	NR	NR	NR	20.6	**	**	**	**	**

Bearing Load may limit load

NR = Not Recommended

** Not recommended - KL/r exceeds 200

Notes

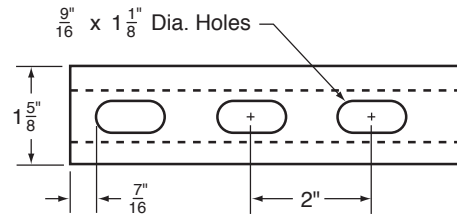
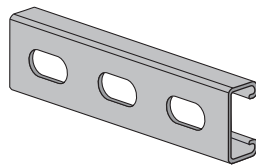
- The beam capacities shown above include the weight of the strut beam. The beam weight must be subtracted from these capacities to arrive at the net beam capacity.
- Allowable beam loads are based on a uniformly loaded, simply supported beam. For capacities of a beam loaded at midspan at a single point, 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 (1/16 holes) by 88%, RS-MOD (3/4 holes) by 85%,
- KO by 82%,

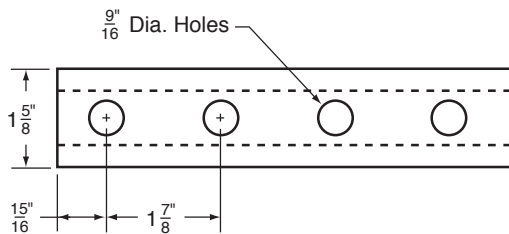
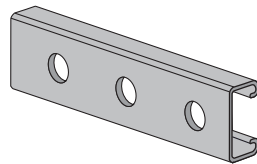
4. Refer to page 52 for reduction factors for unbraced lengths

H-164-OS



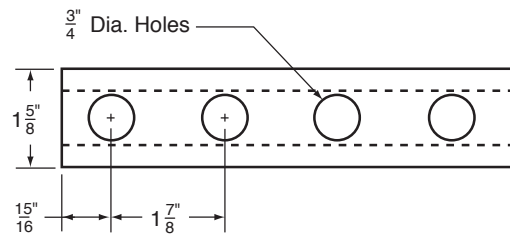
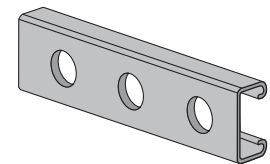
Wt./100 Ft.: 98

H-164-RS



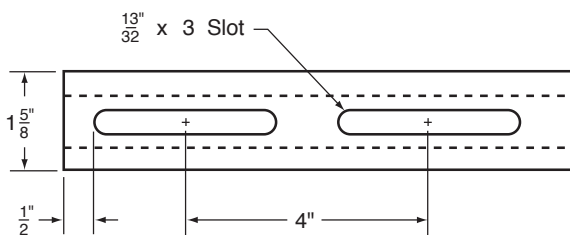
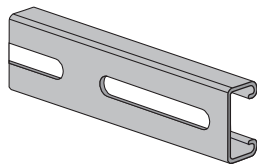
Wt./100 Ft.: 98

H-164-RS-MOD



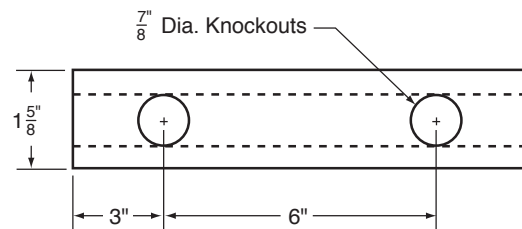
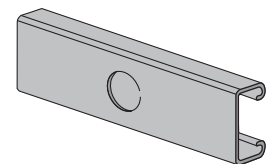
Wt./100 Ft.: 97

H-164-OS3



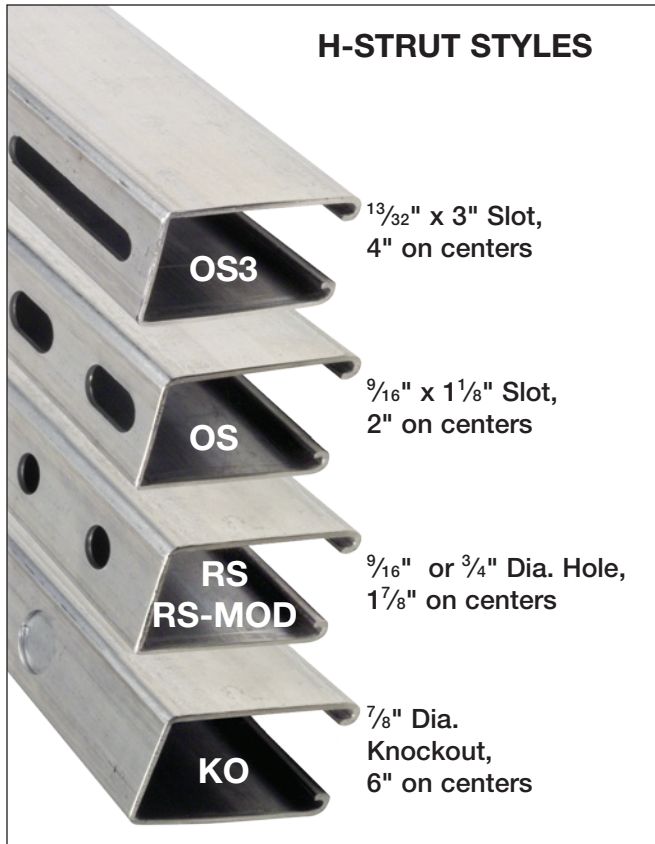
Wt./100 Ft.: 94

H-164-KO



Wt./100 Ft.: 103

H-STRUT CHANNEL FABRICATION DATA



OS CHANNEL

Catalog No.	Gauge	Dimensions	Wt./100 Ft.
H-112-OS	12	$3\frac{1}{4}$ X $1\frac{5}{8}$	308
H-122-OS	12	$2\frac{7}{16}$ X $1\frac{5}{8}$	254
H-132-OS	12	$1\frac{5}{8}$ X $1\frac{5}{8}$	189
H-134-OS	14	$1\frac{5}{8}$ X $1\frac{5}{8}$	140
H-142-OS	12	$1\frac{3}{8}$ X $1\frac{5}{8}$	171
H-152-OS	12	1 X $1\frac{5}{8}$	144
H-162-OS	12	$1\frac{3}{16}$ X $1\frac{5}{8}$	130
H-164-OS	14	$1\frac{3}{16}$ X $1\frac{5}{8}$	98
H-166-G-OS	16	$1\frac{3}{16}$ X $1\frac{5}{8}$	98
H-172-OS	12	$\frac{7}{8}$ X $1\frac{5}{8}$	134

OS3 CHANNEL

Catalog No.	Gauge	Dimensions	Wt./100 Ft.
H-112-OS3	12	$3\frac{1}{4}$ X $1\frac{5}{8}$	298
H-122-OS3	12	$2\frac{7}{16}$ X $1\frac{5}{8}$	239
H-132-OS3	12	$1\frac{5}{8}$ X $1\frac{5}{8}$	179
H-134-OS3	14	$1\frac{5}{8}$ X $1\frac{5}{8}$	130
H-142-OS3	12	$1\frac{3}{8}$ X $1\frac{5}{8}$	161
H-152-OS3	12	1 X $1\frac{5}{8}$	134
H-162-OS3	12	$1\frac{3}{16}$ X $1\frac{5}{8}$	125
H-164-OS3	14	$1\frac{3}{16}$ X $1\frac{5}{8}$	94
H-166-G-OS3	16	$1\frac{3}{16}$ X $1\frac{5}{8}$	94
H-172-OS3	12	$\frac{7}{8}$ X $1\frac{5}{8}$	124

RS $\frac{9}{16}$ CHANNEL

Catalog No.	Gauge	Dimensions	Wt./100 Ft.
H-112-RS	12	$3\frac{1}{4}$ X $1\frac{5}{8}$	308
H-122-RS	12	$2\frac{7}{16}$ X $1\frac{5}{8}$	249
H-132-RS	12	$1\frac{5}{8}$ X $1\frac{5}{8}$	189
H-134-RS	14	$1\frac{5}{8}$ X $1\frac{5}{8}$	140
H-142-RS	12	$1\frac{3}{8}$ X $1\frac{5}{8}$	171
H-152-RS	12	1 X $1\frac{5}{8}$	144
H-162-RS	12	$1\frac{3}{16}$ X $1\frac{5}{8}$	130
H-164-RS	14	$1\frac{3}{16}$ X $1\frac{5}{8}$	98
H-166-G-RS	16	$1\frac{3}{16}$ X $1\frac{5}{8}$	98
H-172-RS	12	$\frac{7}{8}$ X $1\frac{5}{8}$	134

RS-MOD $\frac{3}{4}$ CHANNEL

Catalog No.	Gauge	Dimensions	Wt./100 Ft.
H-112-RS-MOD	12	$3\frac{1}{4}$ X $1\frac{5}{8}$	308
H-122-RS-MOD	12	$2\frac{7}{16}$ X $1\frac{5}{8}$	249
H-132-RS-MOD	12	$1\frac{5}{8}$ X $1\frac{5}{8}$	189
H-134-RS-MOD	14	$1\frac{5}{8}$ X $1\frac{5}{8}$	140
H-142-RS-MOD	12	$1\frac{3}{8}$ X $1\frac{5}{8}$	171
H-152-RS-MOD	12	1 X $1\frac{5}{8}$	144
H-162-RS-MOD	12	$1\frac{3}{16}$ X $1\frac{5}{8}$	130
H-164-RS-MOD	14	$1\frac{3}{16}$ X $1\frac{5}{8}$	98
H-166-G-RS-MOD	16	$1\frac{3}{16}$ X $1\frac{5}{8}$	98
H-172-RS-MOD	12	$\frac{7}{8}$ X $1\frac{5}{8}$	134

KO CHANNEL

Catalog No.	Gauge	Dimensions	Wt./100 Ft.
H-112-KO	12	$3\frac{1}{4}$ X $1\frac{5}{8}$	313
H-122-KO	12	$2\frac{7}{16}$ X $1\frac{5}{8}$	254
H-132-KO	12	$1\frac{5}{8}$ X $1\frac{5}{8}$	194
H-134-KO	14	$1\frac{5}{8}$ X $1\frac{5}{8}$	145
H-142-KO	12	$1\frac{3}{8}$ X $1\frac{5}{8}$	176
H-152-KO	12	1 X $1\frac{5}{8}$	149
H-162-KO	12	$1\frac{3}{16}$ X $1\frac{5}{8}$	135
H-164-KO	14	$1\frac{3}{16}$ X $1\frac{5}{8}$	103
H-166-G-KO	16	$1\frac{3}{16}$ X $1\frac{5}{8}$	103
H-172-KO	12	$\frac{7}{8}$ X $1\frac{5}{8}$	139

Page Notes:

Channel Fabrication Data also available in Stainless Steel, see pages 123 - 132