

Specifications

GENERAL

Anvil-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 49. The spot welds are spaced two or three inches on centers throughout the length of the multiple channel sections.

LENGTH INFORMATION

Anvil-Strut Channels are produced and stocked in 10' and 20' lengths with a tolerance of $\pm 1/8"$. 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

Anvil-Strut 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 Anvil-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 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	

LEGEND:

GR: Powder Coated Supr-Green EG: Electro-Galvanized PG: Pre-Galvanized AL: Aluminum HG: Hot Dipped Galvanized PL: Plain SS: Stainless Steel ZTC: Zinc Trivalent Chromium
 Stainless Steel (SS), Zinc Trivalent Chromium (ZTC) and Hot Dipped Galvanized (HG) are specialty finishes. Pricing is located in the Specialty Strut Section of the Anvil-Strut price book.

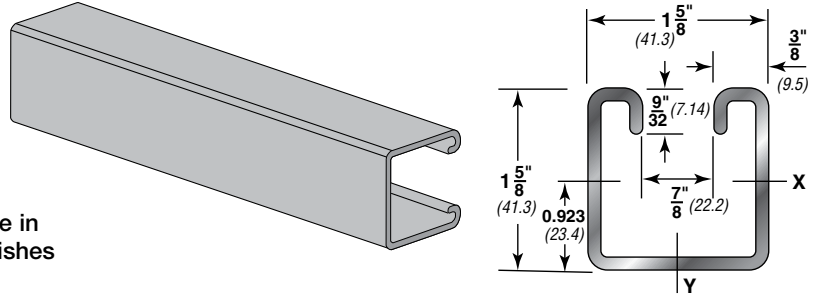
AS 200

1 5/8" X 1 5/8" (41.3 x 41.3mm)

12 Gauge Channel • wt./100 ft. - 194#

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

See pages 24-25, 49 for welded combinations.



PROPERTIES OF SECTION

Catalog No.	Wt./Ft.		Area of Section		X-X Axis						Y-Y Axis					
	Lbs.	Kg	Sq. In.	Sq. CM	I in ⁴	I cm ⁴	S in ³	S cm ³	r in.	r cm	I in ⁴	I cm ⁴	S in ³	S cm ³	r in.	r cm
AS 200	1.94	2.9	0.552	3.561	0.188	7.825	0.208	3.409	0.584	1.483	0.236	9.823	0.290	4.752	0.654	1.661

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

BEAM & COLUMN LOADS

Span or Unbraced Height	Static Beam Load (X-X Axis)						Max. Allowable Load at Slot Face	Column Loading Data					
	Max Allowable Uniform Load	Deflection at Uniform Load	Uniform Load at Deflection					Max. Column Load Applied at C.G.					
			Span/180 Deflection	Span/240 Deflection	Span/360 Deflection	Weight of Channel		k=.65	k=.80	k=1.0	k=1.2		
In	Lbs	In	Lbs	Lbs	Lbs	Lbs	Lbs	Lbs	Lbs	Lbs	Lbs	Lbs	Lbs
12	3,480	0.01	3,480	3,480	3,480	1.9	3,850	12,240	11,940	11,480	10,960		
18	2,320	0.03	2,320	2,320	2,320	2.9	3,710	11,540	10,960	10,130	9,290		
24	1,740	0.06	1,740	1,740	1,740	3.9	3,530	10,690	9,850	8,740	7,710		
30	1,390	0.09	1,390	1,390	1,310	4.9	3,330	9,780	8,740	7,470	6,380		
36	1,160	0.13	1,160	1,160	910	5.8	3,120	8,880	7,710	6,380	5,310		
42	990	0.17	990	990	670	6.8	2,910	8,020	6,800	5,470	4,430		
48	870	0.23	870	770	510	7.8	2,710	7,240	6,000	4,690	3,810		
60	700	0.35	660	490	330	9.7	2,340	5,910	4,690	3,630	2,960		
72	580	0.51	460	340	230	11.6	2,040	4,840	3,810	2,960	2,400		
84	500	0.69	340	250	170	13.6	1,800	4,040	3,200	2,480	1,980		
96	430	0.90	260	190	130	15.5	1,600	3,480	2,750	2,110	1,670		
108	390	1.14	200	150	100	17.5	1,440	3,050	2,400	1,820	**		
120	350	1.41	160	120	80	19.4	1,290	2,700	2,110	**	**		
144	290	2.03	110	90	60	23.3	1,060	2,180	1,670	**	**		
168	250	2.77	80	60	40	27.2	**	1,790	**	**	**		
180	230	3.18	70	50	40	29.1	**	**	**	**	**		
192	220	3.61	60	50	NR	31.0	**	**	**	**	**		
216	190	4.57	50	40	NR	34.9	**	**	**	**	**		
240	170	5.65	40	NR	NR	38.8	**	**	**	**	**		

Bearing Load may limit load

** 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:

- EH by 88%, S by 90%,
- H (1/16 holes) by 88%, H3 (1/16 holes) by 88%
- KO by 82%.

4. Refer to page 50 for reduction factors for unbraced lengths

LEGEND:

GR: Powder Coated Supr-Green **EG:** Electro-Galvanized **PG:** Pre-Galvanized **AL:** Aluminum **HG:** Hot Dipped Galvanized **PL:** Plain **SS:** Stainless Steel **ZTC:** Zinc Trivalent Chromium
 Stainless Steel (**SS**), Zinc Trivalent Chromium (**ZTC**) and Hot Dipped Galvanized (**HG**) are specialty finishes. Pricing is located in the Specialty Strut Section of the Anvil-Strut price book.

BEAM & COLUMN LOADS - METRIC

Span or Unbraced Height	Static Beam Load (X-X Axis)						Max. Allowable Load at Slot Face	Column Loading Data			
	Max Allowable Uniform Load	Deflection at Uniform Load	Uniform Load at Deflection					Max. Column Load Applied at C.G.			
			Span/180 Deflection	Span/240 Deflection	Span/360 Deflection	Weight of Channel		k=.65	k=.80	k=1.0	k=1.2
mm	Kn	mm	Kn	Kn	Kn	Kg	Kn	Kn	Kn	Kn	
305	15.5	0.3	15.5	15.5	15.5	0.9	17.1	54.4	53.1	51.1	48.8
457	10.3	0.8	10.3	10.3	10.3	1.3	16.5	51.3	48.8	45.1	41.3
610	7.7	1.5	7.7	7.7	7.7	1.8	15.7	47.6	43.8	38.9	34.3
762	6.2	2.3	6.2	6.2	5.8	2.2	14.8	43.5	38.9	33.2	28.4
914	5.2	3.3	5.2	5.2	4.0	2.6	13.9	39.5	34.3	28.4	23.6
1,067	4.4	4.3	4.4	4.4	3.0	3.1	12.9	35.7	30.2	24.3	19.7
1,219	3.9	5.8	3.9	3.4	2.3	3.5	12.1	32.2	26.7	20.9	16.9
1,524	3.1	8.9	2.9	2.2	1.5	4.4	10.4	26.3	20.9	16.1	13.2
1,829	2.6	13.0	2.0	1.5	1.0	5.3	9.1	21.5	16.9	13.2	10.7
2,134	2.2	17.5	1.5	1.1	0.8	6.2	8.0	18.0	14.2	11.0	8.8
2,438	1.9	22.9	1.2	0.8	0.6	7.0	7.1	15.5	12.2	9.4	7.4
2,743	1.7	29.0	0.9	0.7	0.4	7.9	6.4	13.6	10.7	8.1	**
3,048	1.6	35.8	0.7	0.5	0.4	8.8	5.7	12.0	9.4	**	**
3,658	1.3	51.6	0.5	0.4	0.3	10.6	4.7	9.7	7.4	**	**
4,267	1.1	70.4	0.4	0.3	0.2	12.3	**	8.0	**	**	**
4,572	1.0	80.8	0.3	0.2	0.2	13.2	**	**	**	**	**
4,877	1.0	91.7	0.3	0.2	**	14.1	**	**	**	**	**
5,486	0.8	116.1	0.2	0.2	**	15.8	**	**	**	**	**
6,096	0.8	143.5	0.2	**	**	17.6	**	**	**	**	**

