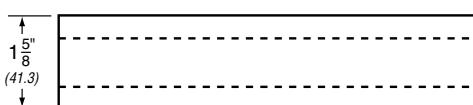


AS 520  PL,  GR,  PG,  Other \_\_\_\_\_

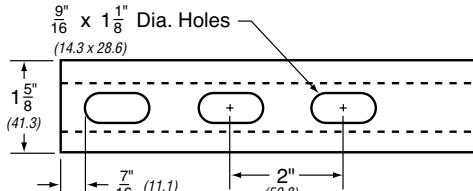
**SOLID**



Wt./100 Ft: 135 Lbs

AS 520EH  PL,  GR,  PG,  Other \_\_\_\_\_

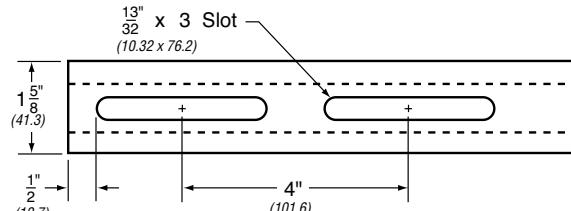
**WITH ELONGATED HOLES**



Wt./100 Ft: 130 Lbs

AS 520S  PL,  GR,  PG,  Other \_\_\_\_\_

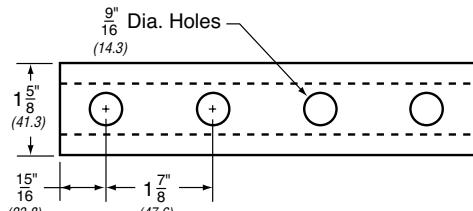
**WITH LONG SLOTS**



Wt./100 Ft: 120 Lbs

AS 520H  PL,  GR,  PG,  Other \_\_\_\_\_

**WITH HOLES**



Wt./100 Ft: 130 Lbs

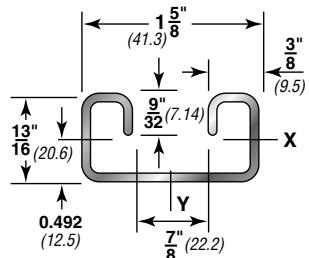
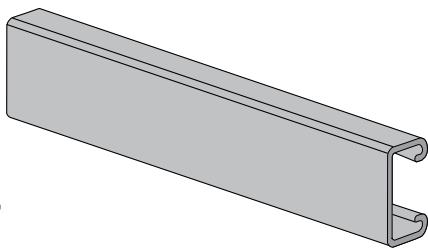
**LEGEND:**

**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.

PROJECT INFORMATION		APPROVAL STAMP
Project:	<input type="checkbox"/> Approved	
Address:	<input type="checkbox"/> Approved as noted	
Contractor:	<input type="checkbox"/> Not approved	
Engineer:	Remarks:	
Submittal Date:		
Notes 1:		
Notes 2:		

**AS 520**
**13/16" X 1 5/8" (20.6 x 41.3mm)**
**12 Gauge Channel • wt./100 ft. - 135#**

Stocked in pre-galvanized, plain & powder coated Supr-Green, in both 10 & 20 ft. lengths. Other materials, finishes & lengths are available upon request.


**PROPERTIES OF SECTION**

Catalog No.	Wt./Ft.		Area of Section		X-X Axis						Y-Y Axis					
	Lbs.	Kg	Sq. In.	Sq. cm	I in <sup>4</sup>	I cm <sup>4</sup>	S in <sup>3</sup>	S cm <sup>3</sup>	r in.	r cm	I in <sup>4</sup>	I cm <sup>4</sup>	S in <sup>3</sup>	S cm <sup>3</sup>	r in.	r cm
<b>AS 520</b>	1.37	2.0	0.384	2.477	0.032	1.332	0.067	1.098	0.289	0.734	0.139	5.786	0.171	2.802	0.602	1.529

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	
12	1,130	0.03	1,130	1,130	1,130	1.4	2,410	8,480	8,280	7,990	7,710	
18	750	0.06	750	750	620	2.1	2,270	8,030	7,710	7,090	6,390	
24	560	0.11	560	520	350	2.7	2,090	7,510	6,860	5,900	4,910	
30	450	0.17	450	340	220	3.4	1,880	6,800	5,900	4,670	3,500	
36	380	0.24	310	230	160	4.1	1,680	6,030	4,910	3,500	2,430	
42	320	0.33	230	170	110	4.8	1,470	5,220	3,950	2,570	1,790	
48	280	0.43	170	130	90	5.5	1,280	4,430	3,080	1,970	1,370	
60	230	0.67	110	80	60	6.9	970	2,980	1,970	**	**	
72	190	0.97	80	60	40	8.2	760	2,070	1,370	**	**	
84	160	1.32	60	40	30	9.6	**	1,520	**	**	**	
96	140	1.72	40	30	20	11.0	**	**	**	**	**	
108	130	2.18	30	30	20	12.4	**	**	**	**	**	
120	110	2.69	30	20	NR	13.7	**	**	**	**	**	
144	90	3.88	20	NR	NR	16.5	**	**	**	**	**	
168	80	5.28	NR	NR	NR	19.2	**	**	**	**	**	
180	80	6.06	NR	NR	NR	20.6	**	**	**	**	**	
192	70	6.89	NR	NR	NR	22.0	**	**	**	**	**	
216	60	8.72	NR	NR	NR	24.7	**	**	**	**	**	
240	60	10.77	NR	NR	NR	27.5	**	**	**	**	**	

# Bearing Load may limit load

\*\* 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:

EH by 88%,  
H (1/16 holes) by 88%,  
KO by 82%.

4. Refer to the Anvil-Strut Catalog for reduction factors for unbraced lengths

## 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	Kn	Kn	
305	5.0	0.8	5.0	5.0	5.0	0.6	10.7	37.7	36.8	35.5	34.3		
457	3.3	1.5	3.3	3.3	2.8	1.0	10.1	35.7	34.3	31.5	28.4		
610	2.5	2.8	2.5	2.3	1.6	1.2	9.3	33.4	30.5	26.2	21.8		
762	2.0	4.3	2.0	1.5	1.0	1.5	8.4	30.2	26.2	20.8	15.6		
914	1.7	6.1	1.4	1.0	0.7	1.9	7.5	26.8	21.8	15.6	10.8		
1,067	1.4	8.4	1.0	0.8	0.5	2.2	6.5	23.2	17.6	11.4	8.0		
1,219	1.2	10.9	0.8	0.6	0.4	2.5	5.7	19.7	13.7	8.8	6.1		
1,524	1.0	17.0	0.5	0.4	0.3	3.1	4.3	13.3	8.8	**	**		
1,829	0.8	24.6	0.4	0.3	0.2	3.7	3.4	9.2	6.1	**	**		
2,134	0.7	33.5	0.3	0.2	0.1	4.4	**	6.8	**	**	**		
2,438	0.6	43.7	0.2	0.1	0.1	5.0	**	**	**	**	**		
2,743	0.6	55.4	0.1	0.1	0.1	5.6	**	**	**	**	**		
3,048	0.5	68.3	0.1	0.1	NR	6.2	**	**	**	**	**		
3,658	0.4	98.6	0.1	NR	NR	7.5	**	**	**	**	**		
4,267	0.4	134.1	NR	NR	NR	8.7	**	**	**	**	**		
4,572	0.4	153.9	NR	NR	NR	9.3	**	**	**	**	**		
4,877	0.3	175.0	NR	NR	NR	10.0	**	**	**	**	**		
5,486	0.3	221.5	NR	NR	NR	11.2	**	**	**	**	**		
6,096	0.3	273.6	NR	NR	NR	12.5	**	**	**	**	**		

## CHANNEL SPECIFICATIONS

### Materials

#### CARBON STEEL

Channels are formed from high-quality, structural grade carbon steel which has been manufactured in accordance with ASTM A-1011-04-SS Grade 33 (hot rolled), or ASTM 366 (cold rolled), with mechanical properties of 33 ksi minimum yield and 52 ksi minimum tensile strength. The precision roll-forming process by which the channels are formed "cold works" the steel, thereby increasing its mechanical properties.

#### STAINLESS STEEL

Channels are formed from chromium-nickel stainless steel sheet manufactured in accordance with ASTM A-240 specification, offered in both AISI Type 304 and 316 material to provide protection in varying corrosive conditions.

#### ALUMINUM

Extruded aluminum channel is produced from 6063-T6 alloy, and fittings are produced from 5052-H32 alloy, both in accordance with ASTM B-221 specifications. Aluminum is suitable for use in various corrosive environments.

### Finishes

#### PRE-GALVANIZED

Hot dip, mill galvanized coating produced through a process of continuously passing the steel through a bath of molten zinc. This process is performed in accordance with ASTM A-653. The thickness of the zinc coating conforms with ASTM G-90 which represents a coating thickness of .90 ounces of zinc per square foot. This coating is applied to the steel master coils prior to slitting and fabrication.

#### HOT DIP GALVANIZED - POST FABRICATION

The finished channel is completely immersed in a bath of molten zinc, resulting in the complete coating of all surfaces of the product, including edges and welds. Strut channels that are hot dip galvanized, have a total coating weight of 3.0 ounces of zinc per square foot in accordance with ASTM A-123 specification. This coating provides superior results in applications calling for prolonged outdoor exposure.

#### SUPR-GREEN POWDER COATING

Strut channels are coated after fabrication with polyester powder finish. This coating is applied using an electrostatic spray process, beginning with cleaning and phosphating, through a bonderite pretreatment process, and ending with oven curing. The resulting finish provides a high quality appearance and durability. Powder Coating is in accordance with ASTM B-117 (standard practice for operating salt spray (fog) apparatus) to 500 hours with less than 1/8" scribe creep.

#### ZINC TRIVALENT CHROMIUM

The finished channel undergoes a multi-step process consisting of electrogalvanizing, in accordance with ASTM B-633-85, followed by an application of zinc trivalent chromium, which provides the distinctive gold coloration of the finish. All surfaces are coated because the process is performed after fabrication.

#### PVC

A corrosive resistant PVC (polyvinyl chloride) coating is applied over the completed strut channel. The coating process consists of surface pretreatment, followed by preheating of the part, which is then passed through a fluidized bed of vinyl plastic powder. The powder melts onto the heated channel forming a smooth coating which undergoes a final heat curing.