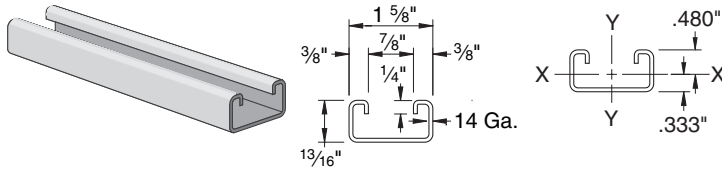


PS 500 – Steel Channel (1 5/8" x 13/16" x 14 ga.)



ELEMENTS OF SECTION – PS 500

Weight (lbs./100 ft.)	Area of Section (Inch ²)	X-X Axis			Y-Y Axis		
		Moment of Inertia (Inch ⁴)	Section Modulus (Inch ³)	Radius of Gyration (Inch)	Moment of Inertia (Inch ⁴)	Section Modulus (Inch ³)	Radius of Gyration (Inch)
98	0.290	0.026	0.054	0.298	0.107	0.132	0.609

MATERIALS:

Plain and painted green channels are formed from structural quality strip steel which conforms to the requirements of ASTM A-1011 SS Grade 33. Pre-galvanized channel conforms to the requirements of ASTM A-653 Grade 33.

STANDARD LENGTHS:

Stock lengths are 10 and 20 feet. Special lengths are available upon request.

STANDARD FINISHES:

All channels are available in:

- Perma Green III (GR)
- Pre-galvanized (PG), conforming to ASTM A653 G90
- Hot-dipped galvanized (HG), conforming to ASTM A123
- Plain (PL)

Project: _____

Approval Stamp:

Architect / Engineer: _____

Date: _____ Phone: _____

Contractor: _____

Address: _____

Notes 1: _____

Notes 2: _____

PS 500 – Load Data

BEAM LOADING – PS 500

Span (in)	Max Allowable Uniform Load (lb)	Defl. at Uniform Load (in)	Uniform Loading at Deflection		
			Span/180 (lbs)	Span/240 (lbs)	Span/360 (lbs)
24	450	0.11	450	420	280
36	300	0.24	250	190	130
48	230	0.44	140	110	70
60	180	0.67	90	70	50
72	150	0.96	60	50	30
84	130	1.32	50	30	20
96	110	1.67	40	30	20
108	100	2.16	30	20	10
120	90	2.67	20	20	10

* Bearing load may govern capacity.

This load table is based on a solid channel section.

For concentrated load at center of span, divide uniform load by 2 and multiply corresponding deflection by 0.8.

Loads include weight of channel, which must be deducted.

Loads must be multiplied by the applicable unbraced factor from page 42.

For Pierced Channels, reduce beam load values as follows:

PS-500-EH	15%
PS-500-S	15%
PS-500-H	10%

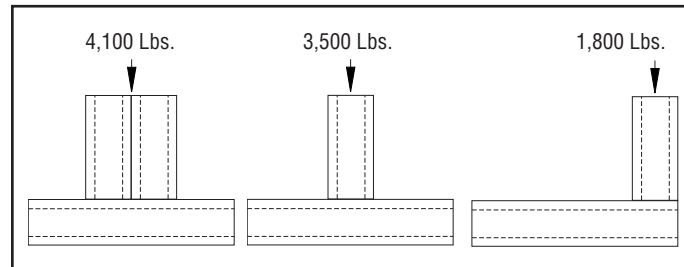
COLUMN LOADING – PS 500

Unbraced Height (in)	Max. Allowable Load at Slot Face (lbs)	Maximum Column Load Applied at C.G.			
		K = 0.65 (lbs)	K = 0.80 (lbs)	K = 1.0 (lbs)	K = 1.2 (lbs)
24	1,840	5,610	5,210	4,570	3,850
36	1,640	4,660	3,850	2,800	1,960
48	1,310	3,490	2,480	1,590	1,100
60	1,000	2,400	1,590	**	**
72	770	1,670	1,100	**	**

** $KL/r > 200$

Column loads are for allowable axial loads and must be reduced for eccentric loading.

PS500 – Crush Loads



Resistance to Slip – 1,000 lbs. per bolt when 1/2" PS NS channel nuts are used.

Pull Out Strength – 1,400 lbs. per bolt when 1/2" PS NS channel nuts are used.

Type of Load	Safe Factor to Yield Strength	Safety Factor to Ultimate Strength
Beam Loads	1.67	2.0
Column Loads	1.80	2.2