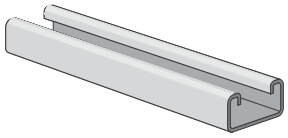
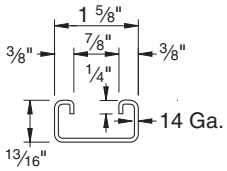
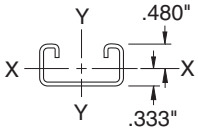
PS 500 – Steel Channel (1⅝" x 13/16" x 14 ga.)



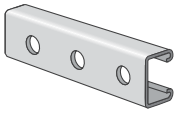


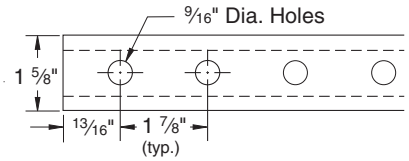


ELEMENTS OF SECTION – PS 500

Weight (lbs./100 ft.)	Area of Section (Inch²)	X-X Axis			Y-Y Axis		
		Moment of Inertia (Inch⁴)	Section Modulus (Inch³)	Radius of Gyration (Inch)	Moment of Inertia (Inch⁴)	Section Modulus (Inch³)	Radius of Gyration (Inch)
98	0.290	0.026	0.054	0.298	0.107	0.132	0.609

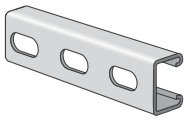
PS 500 H - Channel with Holes

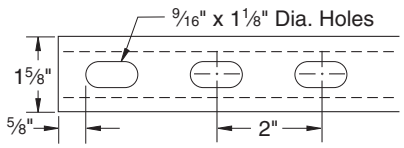




Weight: 87 lbs./100 ft.

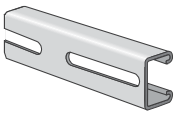
PS 500 EH – Channel with Elongated Holes

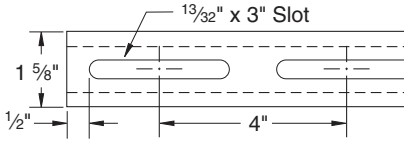




Weight: 87 lbs./100 ft.

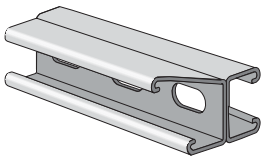
PS 500 S - Channel with Slots

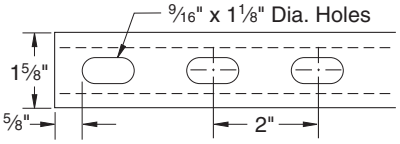




Weight: 87 lbs./100 ft.

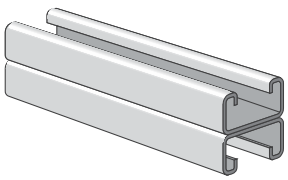
PS 500 2T3 EH – Channel with Elongated Holes

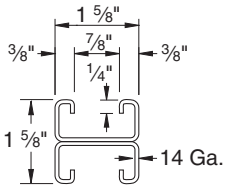


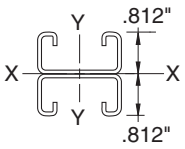


Weight: 174 lbs./100 ft.

PS 500 2T3 – Steel Channel (1⅝" x 1⅝" x 14 ga.)







ELEMENTS OF SECTION – PS 500 2T3

Weight (lbs./100 ft.)	Area of Section (Inch²)	X-X Axis			Y-Y Axis		
		Moment of Inertia (Inch⁴)	Section Modulus (Inch³)	Radius of Gyration (Inch)	Moment of Inertia (Inch⁴)	Section Modulus (Inch³)	Radius of Gyration (Inch)
197	0.579	0.117	0.143	0.449	0.214	0.264	0.608

PS 500 & PS 500 2T3 – 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%

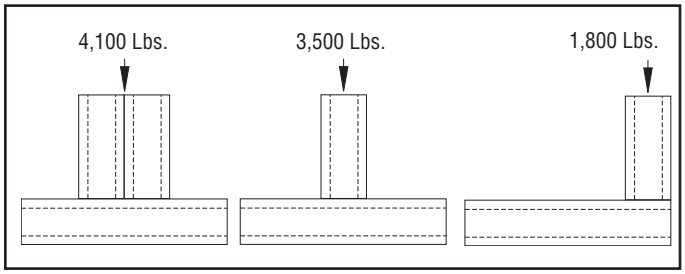
COLUMN LOADING – PS 500

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 ½" PS NS channel nuts are used.

Pull Out Strength – 1,400 lbs. per bolt when ½" PS NS channel nuts are used.

BEAM LOADING – PS 500 2T3

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	1,090 *	0.06	1,090 *	1,090 *	1,090 *
36	800	0.14	800	800	570
48	600	0.25	600	480	320
60	480	0.39	410	310	200
72	400	0.57	280	210	140
84	340	0.76	210	160	100
96	300	1.00	160	120	80
108	270	1.29	130	90	60
120	240	1.57	100	80	50

*Load limited by spot weld shear.

† Bearing load may govern capacity.

For concentrated load at center of span, divide uniform load by 2 and multiply corresponding deflection by 0.8. This load table is based on a solid channel section.

Loads include weight of channel, which must be deducted.

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

COLUMN LOADING – PS 500 2T3

Unbraced Height	Max Allowable Load at Slot Face	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K =1.0	K = 1.2
24	3,240	12,370	11,950	11,370	10,540
36	3,120	11,470	10,540	9,160	7,720
48	2,940	10,090	8,680	6,770	4,980
60	2,680	8,560	6,770	4,590	3,190
72	2,310	7,010	4,980	3,190	2,220
84	1,950	5,530	3,660	2,340	**
96	1,650	4,250	2,800	**	**
108	1,410	3,360	2,220	**	**

** $^{KL}/_{r}$>200

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

For Pierced Channels, reduce beam load values as follows:

PS-500 2T3 EH 15%