



METAL FRAMING CHANNEL

Cold Formed Strut

19449 Progress Dr. • Strongsville • OH • 44149 • PH: 440-878-1199

ES500 STANDARD, ES500EH SLOTTED

1-5/8" x 13/16"

14 Gauge

Part No.: ES500 **Weight:** 98lbs /100 Ft.

Part No.: ES500EH **Weight:** 87lbs /100 Ft.

ORDER BY: Part Number, Finish, Length

Material: ASTM A-653 LOW CARBON STEEL

Finish: PL - Plain

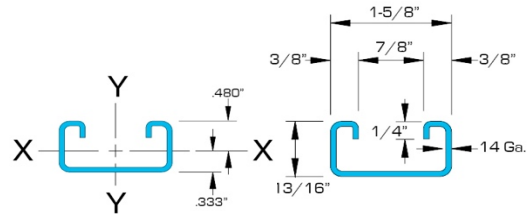
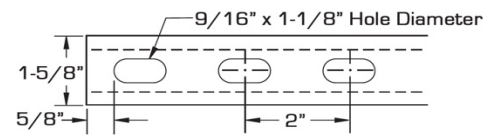
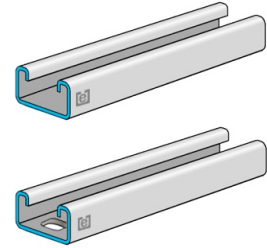
PG90 - Pre-Galvanized Grade 90

PG60 - Pre-Galvanized Grade 60

HG - Hot Dipped Galvanized

Length : 10'

(feet) 20'



ELEMENTS OF SECTION - ES500 & ES500EH

Area of Section	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)
0.290	0.026	0.054	0.298	0.107	0.132	0.609

BEAM LOADING ES500 & ES500EH

Span (inch)	Lateral Bracing Load Reduction Factors	Maximum Allowable Uniform Load (lbs)	Deflection at Uniform Load (lbs)	Uniform Loading Deflection		
				Span/180 (lbs)	Span/240 (lbs)	Span/360 (lbs)
24	1.00	450	0.11	450	420	280
36	0.98	300	0.24	250	190	130
48	0.94	230	0.44	140	110	70
60	0.91	180	0.67	90	70	50
72	0.89	150	0.96	60	50	30
84	0.86	130	1.32	50	30	20
96	0.84	110	1.67	40	30	20
108	0.82	100	2.16	30	20	10
120	0.80	90	2.67	20	20	10

COLUMN LOADING ES500 & ES500EH

Unbraced Height (inches)	Maximum 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.

*Bearing load may govern capacity.

This load table is based on a solid channel section.

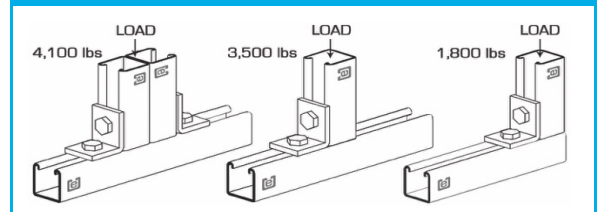
For concentrated load at center of span, divide uniform load by 2 and multiply corresponding deflection by 0.8.

Loads include weight of channel, which must be deducted.

Loads must be multiplied by the applicable unbraced factor located in the blue column in the chart above.

For Pierced Channels, reduce beam load values as follows: ES500EH 15%

BEARING LOADS ES500



Resistance to Slip: 1,000 lbs. per bolt when 1/2" ES NS channel nuts are used. Pull Out Strength: 1,400 lbs. per bolt when 1/2" ES NS channel nuts are used.