



METAL FRAMING CHANNEL

Cold Formed Strut

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

ES210 STANDARD, ES210EH SLOTTED

1-5/8" x 1-5/8"

14 Gauge

Part No.: ES210 **Weight:** 142lbs /100 Ft.

Part No.: ES210EH **Weight:** 137lbs /100 Ft.

ORDER BY: Part Number, Finish, Length

Material: ASTM A-653 LOW CARBON STEEL

Finish: PL - Plain

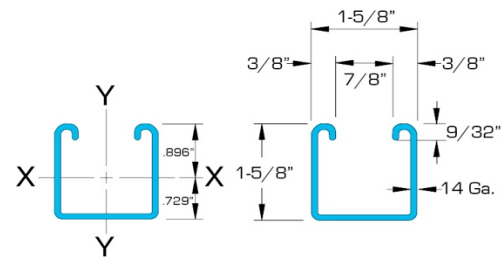
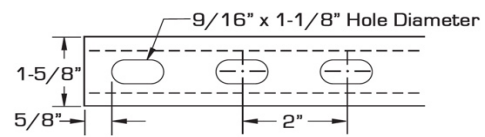
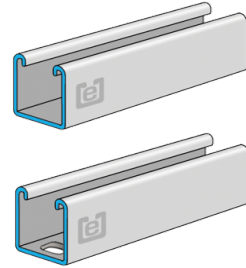
PG90 - Pre-Galvanized Grade 90

PG60 - Pre-Galvanized Grade 60

HG - Hot Dipped Galvanized

Length : 10'

(feet) 20'



ELEMENTS OF SECTION - ES210 & ES210EH						
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)
0.418	0.145	0.162	0.589	0.176	0.217	0.65

BEAM LOADING ES210 & ES210EH						
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	1,350	0.06	1,350	1,350	1,350
36	0.89	900	0.13	900	900	700
48	0.78	680	0.23	680	590	400
60	0.68	540	0.36	510	380	250
72	0.59	450	0.51	350	260	180
84	0.52	390	0.70	260	190	130
96	0.47	340	0.92	200	150	100
108	0.43	300	1.15	160	120	80
120	0.40	270	1.42	130	90	60
144	0.36	230	2.09	90	70	40
168	0.32	190	2.75	60	50	30
192	0.3	170	3.67	50	40	NR
216	0.28	150	4.61	40	30	NR
240	0.26	140	5.90	30	NR	NR

COLUMN LOADING ES210 & ES210EH					
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	2,800	8,040	7,330	6,360	5,430
36	2,410	6,480	5,430	4,190	3,210
48	1,940	4,990	3,830	2,760	2,160
60	1,550	3,740	2,760	2,050	1,640
72	1,290	2,860	2,160	1,640	1,320
84	1,100	2,310	1,780	1,370	1,110
96	950	1,950	1,520	1,180	950
108	840	1,690	1,320	1,030	**
120	760	1,490	1,180	**	**
144	630	1,210	950	**	**

** KL_r > 200

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

*Bearing load may govern capacity.

NR - Not Recommended.

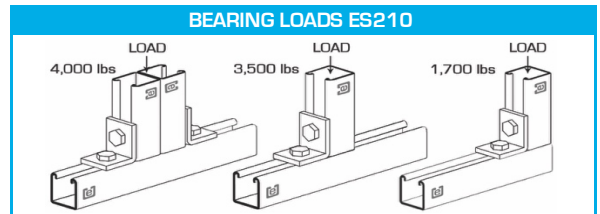
This load table is based on a solid channel section.

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: ES210EH 15%



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.