



# METAL FRAMING CHANNEL

## Cold Formed Strut

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

### ES150 STANDARD, ES150EH SLOTTED

1-5/8" x 2-7/16"

12 Gauge

**Part No:** ES150 **Weight:** 247lbs /100 Ft.

**Part No:** ES150EH **Weight:** 242lbs /100 Ft.

**ORDER BY:** Part Number, Finish, Length

**Material:** ASTM A-653 LOW CARBON STEEL

**Finish:** PL - Plain

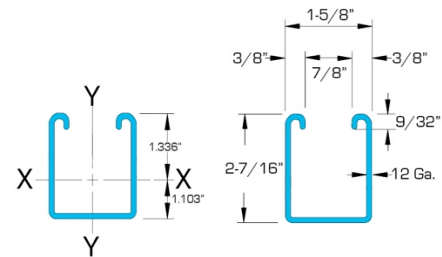
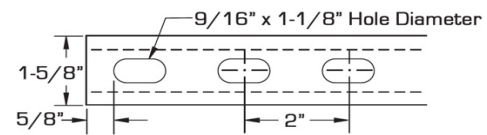
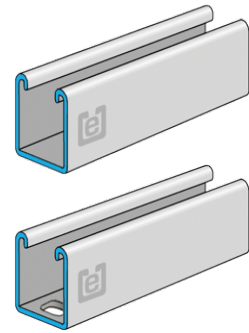
**PG90** - Pre-Galvanized Grade 90

**PG60** - Pre-Galvanized Grade 60

**HG** - Hot Dipped Galvanized

**Length :** 10'

(feet) 20'



#### ELEMENTS OF SECTION - ES150 & ES150EH

Area of Section	X-X Axis			Y-Y Axis		
	Moment of Inertia (Inch <sup>4</sup> )	Section Modulus (Inch <sup>3</sup> )	Radius of Gyration (Inch)	Moment of Inertia (Inch <sup>4</sup> )	Section Modulus (Inch <sup>3</sup> )	Radius of Gyration (Inch)
0.726	0.522	0.390	0.848	0.334	0.411	0.679

#### BEAM LOADING ES150 & ES150EH

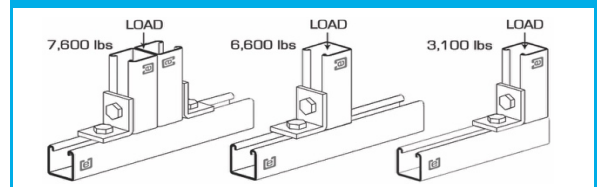
Span (inch)	Lateral Bracing Load Reduction Factors	Maximum Allowable Uniform Load (lbs)	Deflection at Uniform Load (lbs)	Uniform Loading Deflection		
				Span/180 (lbs)	Span/240 (lbs)	Span/360 (lbs)
				24	0.99	3,270
36	0.89	2,180	0.09	2,180	2,180	2,180
48	0.77	1,640	0.15	1,640	1,640	1,420
60	0.67	1,310	0.24	1,310	1,310	910
72	0.58	1,090	0.34	1,090	950	630
84	0.51	940	0.47	930	700	470
96	0.46	820	0.61	710	530	360
108	0.42	730	0.78	560	420	280
120	0.40	650	0.95	460	340	230
144	0.36	550	1.39	320	240	160
168	0.32	470	1.89	230	170	120
192	0.30	410	2.46	180	130	90
216	0.28	360	3.07	140	110	70
240	0.26	330	3.86	110	90	60

#### COLUMN LOADING ES150 & ES150EH

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	4,640	13,840	12,570	10,840	9,190
36	3,970	11,050	9,190	7,030	5,370
48	3,180	8,420	6,390	4,620	3,630
60	2,550	6,250	4,620	3,450	2,780
72	2,120	4,790	3,630	2,780	2,260
84	1,810	3,890	3,010	2,330	1,910
96	1,580	3,290	2,580	2,020	1,650
108	1,400	2,860	2,260	1,770	1,440
120	1,270	2,530	2,020	1,580	**
144	1,060	2,070	1,650	**	**
168	920	1,750	1,380	**	**

\*\* KL<sub>r</sub>>200. Column loads are for allowable axial loads and must be reduced for eccentric loading.

#### BEARING LOADS ES150



Resistance to Slip: 1,500 lbs. per bolt when 1/2" ES NS channel nuts are used. Pull Out Strength: 2,000 lbs. per bolt when 1/2" ES NS channel nuts are used.

\*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: ES150EH 15%