

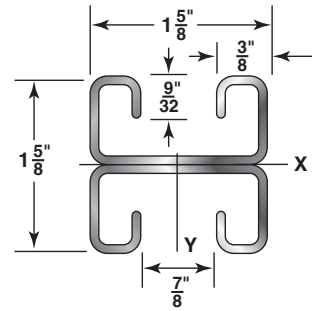
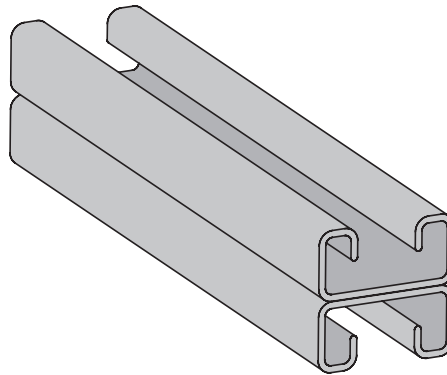
**SH164A**

**Back-to-Back Strut 1 5/8 x 1 5/8**

14 Gauge



SH164OSA Back-to-Back Oblong Slotted Strut is available in pre-galvanized in 10 ft. and 20 ft. lengths. Solid Strut and other materials, finishes and lengths are available upon request.



For SH164OSA, See Note 3

**SECTION PROPERTIES**

FIG. #	WT./FT., LBS.	AREA OF SECTION, SQ. IN.	X-X AXIS			Y-Y AXIS		
			I IN. <sup>4</sup>	S IN. <sup>3</sup>	r IN.	I IN. <sup>4</sup>	S IN. <sup>3</sup>	r IN.
SH164A	2.06	0.589	0.123	0.151	0.457	0.220	0.271	0.611

I = Moment of Inertia      S = Section Modulus      r = Radius of Gyration

SPAN, OR UNBRACED HEIGHT, IN.	STATIC BEAM LOAD (X-X AXIS)						MAX. ALLOWABLE LOAD AT SLOT FACE, LBS.	COLUMN LOADING DATA			
	MAX. ALLOWABLE UNIFORM LOAD, LBS.	DEFLECTION AT UNIFORM LOAD, IN.	UNIFORM LOAD AT DEFLECTION					MAX. COLUMN LOAD APPLIED AT C.G.			
			SPAN/180 DEFLECTION, LBS.	SPAN/240 DEFLECTION, LBS.	SPAN/360 DEFLECTION, LBS.	WEIGHT OF STRUT, LBS.		k=.65 LBS.	k=.80 LBS.	k=1.0 LBS.	k=1.2 LBS.
12	1,090*	0.02	1,090*	1,090*	1,090*	2.1	3,420	13,500	13,380	13,180	12,940
18	1,090*	0.04	1,090*	1,090*	1,090*	3.1	3,340	13,210	12,940	12,510	12,010
24	1,090*	0.06	1,090*	1,090*	1,090*	4.1	3,230	12,810	12,350	11,630	10,810
30	1,010	0.10	1,010	1,010	860	5.2	3,100	12,310	11,630	10,590	9,450
36	850	0.14	850	850	600	6.2	2,950	11,730	10,810	9,450	8,010
42	720	0.19	720	660	440	7.2	2,790	11,080	9,920	8,250	6,590
48	630	0.25	630	500	340	8.2	2,620	10,370	8,970	7,060	5,260
60	510	0.39	430	320	220	10.3	2,280	8,850	7,060	4,850	3,370
72	420	0.57	300	220	150	12.4	1,940	7,300	5,260	3,370	2,340
84	360	0.77	220	160	110	14.4	1,630	5,800	3,860	2,470	**
96	320	1.01	170	130	80	16.5	1,390	4,480	2,960	**	**
108	280	1.27	130	100	70	18.5	1,190	3,540	2,340	**	**
120	250	1.57	110	80	50	20.6	**	2,870	**	**	**
144	210	2.27	70	60	40	24.7	**	**	**	**	**
168	180	3.08	50	40	30	28.8	**	**	**	**	**
180	170	3.54	50	40	NR	30.9	**	**	**	**	**
192	160	4.03	40	NR	NR	33.0	**	**	**	**	**
216	140	5.10	NR	NR	NR	37.1	**	**	**	**	**
240	130	6.29	NR	NR	NR	41.2	**	**	**	**	**

# Bearing Load may limit load  
NR = Not Recommended

\* Load limited by spot weld shear  
\*\* Not Recommended - kL/r exceeds 200

**Notes:**

- The beam capacities shown above include the weight of the strut beam. The beam weight must be subtracted from these capacities to arrive at the net beam capacity.
- Allowable beam loads are based on a uniformly loaded, simply supported beam. For capacities of a beam loaded at midspan at a single point, multiply the beam capacity by 50% and deflection by 80%.
- The above chart shows beam capacities for strut without holes. For oblong slotted strut, multiply by 88%.
- Refer to page 41 for reduction factors for unbraced lengths.
- Refer to page 42 for additional information on allowable loads.