NATIONAL PIPE HANGER CORPORATION



## Back-to-Back Strut 41/8 x 15/8

12 Gauge



SH122OSA 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 SH122OSA, See Note 3



## **SECTION PROPERTIES**

FIG. #	WT./FT.,	AREA OF Section, Sq. In.	X-X AXIS			Y-Y AXIS			
	LBS.		I IN. <sup>4</sup>	S IN. <sup>3</sup>	r IN.	I IN. <sup>4</sup>	S IN. <sup>3</sup>	r IN.	
SH122A	5.08	1.439	2.832	1.162	1.403	0.667	0.820	0.681	

= Moment of Inertia S = Section Modulus r = Radius of Gyration											
SPAN.	STATIC BEAM LOAD (X-X AXIS)						MAX.	COLUMN LOADING DATA			
OR UNBRACED HEIGHT, IN. LOAD,	MAX. Allowable	DEFLECTION At Uniform Load, IN.	UNIFORM LOAD AT DEFLECTION SPAN/180 SPAN/240 SPAN/360 WEIGHT OF			ALLOWABLE LOAD AT	MAX. COLUMN LOAD APPLIED AT C.G.				
	UNIFORM LOAD, LBS.		DEFLECTION, LBS.	DEFLECTION, LBS.	DEFLECTION, LBS.	STRUT, LBS.	LBS.	k=.65 LBS.	k=.80 LBS.	k=1.0 LBS.	k=1.2 LBS.
12	5,220*	0.01	5,220*	5,220*	5,220*	5.1	8,800	33,310	33,180	32,950	32,680
18	5,220*	0.01	5,220*	5,220*	5,220*	7.6	8,750	32,980	32,680	32,190	31,600
24	5,220*	0.02	5,220*	5,220*	5,220*	10.2	8,680	32,530	32,000	31,150	30,140
30	5,220*	0.03	5,220*	5,220*	5,220*	12.7	8,590	31,950	31,150	29,860	28,360
36	5,220*	0.05	5,220*	5,220*	5,220*	15.2	8,480	31,270	30,140	28,360	26,330
42	5,220*	0.06	5,220*	5,220*	5,220*	17.8	8,350	30,470	28,980	26,680	24,120
48	4,870	0.08	4,870	4,870	4,870	20.3	8,200	29,580	27,710	24,870	21,790
60	3,900	0.13	3,900	3,900	3,900	25.4	7,860	27,540	24,870	21,010	17,090
72	3,250	0.19	3,250	3,250	3,250	30.5	7,440	25,240	21,790	17,090	12,670
84	2,780	0.26	2,780	2,780	2,530	35.6	6,960	22,770	18,650	13,390	9,310
96	2,440	0.34	2,440	2,440	1,930	40.6	6,420	20,220	15,570	10,270	7,130
108	2,160	0.43	2,160	2,160	1,530	45.7	5,820	17,670	12,670	8,110	5,630
120	1,950	0.52	1,950	1,860	1,240	50.8	5,230	15,200	10,270	6,570	**
144	1,620	0.76	1,620	1,290	860	61.0	4,230	10,800	7,130	**	**
168	1,390	1.03	1,260	950	630	71.1	3,470	7,930	5,240	**	**
180	1,300	1.18	1,100	830	550	76.2	**	6,910	**	**	**
192	1,220	1.34	970	730	480	81.3	**	6,070	**	**	**
216	1,080	1.70	760	570	380	91.4	**	**	**	**	**
240	970	2.10	620	460	310	101.6	**	**	**	**	**

# Bearing Load may limit load

\*\* Not Recommended - kL/r exceeds 200

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\* Load limited by spot weld shear

## Notes:

Strut

1. 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. 3. The above chart shows beam capacities for strut without holes. For oblong slotted strut, multiply by 88%.

2. 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%.

- 4. Refer to page 41 for reduction factors for unbraced lengths.
- 5. Refer to page 42 for additional information on allowable loads.

