

7 SPACE LOAD TABLES

Bar Size, Inches	Ped Span, Inches	Wt.* Lbs. Sq. Ft.	Sec. Prop Sx*, in ³ Ix*, in ⁴	ClearSpan												
				2'- 0"	2'- 6"	3'- 0"	3'- 6"	4'- 0"	4'- 6"	5'- 0"	5'- 6"	6'- 0"	6'- 6"	7'- 0"	8'- 0"	
1 x 3/16	56	6.30	0.857	U	1714	1097	762	560	429	339	274	U - Safe uniform load in pounds/sq. ft. C - Safe concentrated load in pounds/ft. grating width D - Deflection in inches Loads and deflections given in this table are theoretical, and are based on a unit stress of 12,000 psi.				
				D	0.144	0.225	0.324	0.441	0.577	0.730	0.899					
I-Bar		4.79	0.429	C	1714	1371	1143	980	857	762	686					
				D	0.115	0.180	0.259	0.353	0.461	0.583	0.720					
1-1/4 x 3/16	66	7.78	1.339	U	2679	1714	1190	875	670	529	429	354	298			
				D	0.115	0.180	0.259	0.353	0.461	0.583	0.721	0.871	1.038			
I-Bar		5.75	0.837	C	2679	2143	1786	1531	1339	1190	1071	974	893			
				D	0.092	0.144	0.207	0.282	0.369	0.466	0.576	0.697	0.830			
1-1/2 x 3/16	76	9.28	1.929	U	3857	2469	1714	1259	964	762	617	510	429	365		
				D	0.096	0.150	0.216	0.294	0.384	0.486	0.600	0.726	0.865	1.014		
I-Bar		6.74	1.446	C	3857	3086	2571	2204	1929	1714	1543	1403	1286	1187		
				D	0.077	0.120	0.173	0.235	0.307	0.389	0.480	0.581	0.691	0.811		
1-3/4 x 3/16	85	10.80	2.625	U	5250	3360	2333	1714	1313	1037	840	694	583	497	429	328
				D	0.082	0.129	0.185	0.252	0.329	0.417	0.514	0.622	0.740	0.869	1.009	1.316
I-Bar		7.70	2.297	C	5250	4200	3500	3000	2625	2333	2100	1909	1750	1615	1500	1313
				D	0.066	0.103	0.148	0.202	0.263	0.333	0.411	0.498	0.592	0.695	0.806	1.054
2 x 3/16	94	12.32	3.429	U	6857	4389	3048	2239	1714	1355	1097	907	762	649	560	429
				D	0.072	0.113	0.162	0.220	0.288	0.365	0.450	0.545	0.648	0.760	0.882	1.153
I-Bar		8.71	3.429	C	6857	5486	4572	3918	3429	3048	2743	2494	2286	2110	1959	1714
				D	0.058	0.090	0.130	0.176	0.230	0.292	0.360	0.436	0.518	0.608	0.706	0.921
2-1/4 x 3/16	103	13.83	4.339	U	8679	5554	3857	2834	2170	1714	1389	1148	964	822	708	542
				D	0.064	0.100	0.144	0.196	0.256	0.324	0.400	0.484	0.576	0.676	0.783	1.023
I-Bar		9.59	4.882	C	8679	6943	5786	4959	4339	3857	3471	3156	2893	2670	2480	2170
				D	0.051	0.080	0.115	0.157	0.205	0.259	0.320	0.387	0.461	0.541	0.627	0.819
2-1/2 x 3/16	111	15.33	5.357	U	10714	6857	4762	3499	2679	2116	1714	1417	1190	1014	875	670
				D	0.058	0.090	0.130	0.176	0.230	0.292	0.360	0.436	0.518	0.608	0.706	0.922
I-Bar		10.66	6.697	C	10714	8572	7143	6123	5357	4762	4286	3896	3571	3297	3061	2679
				D	0.046	0.072	0.104	0.141	0.184	0.233	0.288	0.348	0.415	0.487	0.564	0.737

*Based on 27.429 bars/ft. of grating width. Bearing bars 7/16" c.c. Add .3 lbs./sq. ft. for 7-SG-2, 1/8" bearing bars available by inquiry. Note: Grating for spans to the left of the heavy line have a deflection less than 1/4" for uniform loads of 100 lbs./sq. ft. This is the maximum deflection to afford pedestrian comfort and can be exceeded for other types of load at the discretion of the engineer. The actual Ped (pedestrian) Span under this condition is shown above for each size of grating. When serrated grating is specified, the depth of grating required for a specific load will be 1/4" greater than that shown in these tables.

Panel Width Chart (in.) - 7-SG-4, 7-SG-2, 7-SGLi-4, 7-SGLi-2, 7-SGF-4, 7-SGF-2, 7-ADT-4 & 7-ADT-2 Dimensions Are Out-to-Out of Bearing Bars**

No. of Bars	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
3/16" Bars	5/8	1-1/16	1-1/2	1-15/16	2-3/8	2-13/16	3-1/4	3-11/16	4-1/8	4-9/16	5	5-7/16	5-7/8	6-5/16	6-3/4
No. of Bars	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
3/16" Bars	7-3/16	7-5/8	8-1/16	8-1/2	8-15/16	9-3/8	9-13/16	10-1/4	10-11/16	11-1/8	11-9/16	12	12-7/16	12-7/8	13-5/16
No. of Bars	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
3/16" Bars	13-3/4	14-3/16	14-5/8	15-1/16	15-1/2	15-15/16	16-3/8	16-13/16	17-1/4	17-11/16	18-1/8	18-9/16	19	19-7/16	19-7/8
No. of Bars	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
3/16" Bars	20-5/16	20-3/4	21-3/16	21-5/8	22-1/16	22-1/2	22-15/16	23-3/8	23-13/16	24-1/4	24-11/16	25-1/8	25-9/16	26	26-7/16
No. of Bars	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76
3/16" Bars	26-7/8	27-5/16	27-3/4	28-3/16	28-5/8	29-1/16	29-1/2	29-15/16	30-3/8	30-13/16	31-1/4	31-11/16	32-1/8	32-9/16	33
No. of Bars	77	78	79	80	81	82	83								
3/16" Bars	33-7/16	33-7/8	34-5/16	34-3/4	35-3/16	35-5/8	36-1/16								

**Add 1/4" for extended cross bars. Deduct 1/16" for 1/8" bearing bars. Standard panel widths indicated in teal.

Panel Width Chart (in.) - 7-SGI-4 & 7-SGI-2 Dimensions Are Out-to-Out of Bearing Bars**

No. of Bars	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1/4" Flange	11/16	1-1/8	1-9/16	2	2-7/16	2-7/8	3-5/16	3-3/4	4-3/16	4-5/8	5-1/16	5-1/2	5-15/16	6-3/8	6-13/16
No. of Bars	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1/4" Flange	7-1/4	7-11/16	8-1/8	8-9/16	9	9-7/16	9-7/8	10-5/16	10-3/4	11-3/16	11-5/8	12-1/16	12-1/2	12-15/16	13-3/8
No. of Bars	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
1/4" Flange	13-13/16	14-1/4	14-11/16	15-1/8	15-9/16	16	16-7/16	16-7/8	17-5/16	17-3/4	18-3/16	18-5/8	19-1/16	19-1/2	19-15/16
No. of Bars	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
1/4" Flange	20-3/8	20-13/16	21-1/4	21-11/16	22-1/8	22-9/16	23	23-7/16	23-7/8	24-5/16	24-3/4	25-3/16	25-5/8	26-1/16	26-1/2
No. of Bars	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76
1/4" Flange	26-15/16	27-3/8	27-13/16	28-1/4	28-11/16	29-1/8	29-9/16	30	30-7/16	30-7/8	31-5/16	31-3/4	32-3/16	32-5/8	33-1/16
No. of Bars	77	78	79	80	81	82	83								
1/4" Flange	33-1/2	33-15/16	34-3/8	34-13/16	35-1/4	35-11/16	36-1/8								

**Bar thickness is 1/4" at top and bottom. Add 1/4" for extended cross bars. Standard panel widths indicated in teal.