

# 11 SPACE LOAD TABLES

## Light Duty Welded, Light Duty Dove Tail & Light Duty Swaged Carbon Steel

Bar Size, Inches	Ped Span, Inches	Wt. Lbs. Sq. Ft.	Sec. Prop Sx*, in <sup>2</sup> lx*, in <sup>4</sup>	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"	
3/4 x 3/16	53	9.28	0.307	U	920	589	409	301	230	182	U - Safe uniform load in pounds/sq. ft. C - Safe concentrated load in pounds/ft. grating width D - Deflection in inches <b>% Open Area*</b> 4" cc 66% 2" cc 57%					
				D	0.099	0.155	0.223	0.305	0.397	0.503						
			0.115	C	920	736	614	526	460	409						
				D	0.079	0.124	0.179	0.243	0.318	0.402						
1 x 3/16	65	12.16	0.545	U	1636	1047	727	534	409	323	262	216	Loads and deflections are theoretical and based on a unit stress of 18,000 psi.			
				D	0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.562				
			0.273	C	1636	1309	1091	935	818	727	655	595				
				D	0.060	0.093	0.134	0.182	0.238	0.302	0.373	0.451				
1-1/4 x 3/16	77	15.04	0.852	U	2557	1636	1136	835	639	505	409	338	284	242		
				D	0.060	0.093	0.134	0.183	0.238	0.302	0.372	0.450	0.536	0.629		
			0.533	C	2557	2046	1705	1461	1278	1136	1023	930	852	787		
				D	0.048	0.075	0.107	0.146	0.191	0.241	0.298	0.361	0.429	0.504		
1-1/2 x 3/16	89	18.28	1.227	U	3682	2356	1636	1202	920	727	589	487	409	349	301	230
				D	0.050	0.078	0.112	0.152	0.199	0.251	0.310	0.376	0.447	0.525	0.609	0.794
			0.920	C	3682	2946	2455	2104	1841	1636	1473	1339	1227	1133	1052	920
				D	0.040	0.062	0.089	0.122	0.159	0.201	0.248	0.300	0.357	0.420	0.487	0.635
1-3/4 x 3/16	99	21.16	1.670	U	5011	3207	2227	1636	1253	990	802	663	557	474	409	313
				D	0.043	0.066	0.096	0.130	0.170	0.215	0.266	0.322	0.383	0.449	0.521	0.681
			1.462	C	5011	4009	3341	2864	2506	2227	2005	1822	1670	1542	1432	1253
				D	0.034	0.053	0.077	0.104	0.136	0.172	0.213	0.257	0.306	0.360	0.417	0.545
2 x 3/16	110	24.04	2.182	U	6546	4189	2909	2137	1636	1293	1047	866	727	620	534	409
				D	0.037	0.058	0.084	0.114	0.149	0.189	0.233	0.282	0.335	0.394	0.456	0.596
			2.182	C	6546	5237	4364	3740	3273	2909	2618	2380	2182	2014	1870	1636
				D	0.030	0.047	0.067	0.091	0.119	0.151	0.186	0.225	0.268	0.315	0.365	0.477
2-1/4 x 3/16	120	26.74	2.761	U	8284	5302	3682	2705	2071	1636	1325	1095	920	784	676	518
				D	0.033	0.052	0.074	0.101	0.132	0.168	0.207	0.250	0.298	0.350	0.405	0.530
			3.107	C	8284	6627	5523	4734	4142	3682	3314	3012	2761	2549	2367	2071
				D	0.026	0.041	0.060	0.081	0.106	0.134	0.166	0.200	0.238	0.280	0.324	0.424
2-1/2 x 3/16	130	29.62	3.409	U	10228	6546	4546	3340	2557	2020	1636	1352	1136	968	835	639
				D	0.030	0.047	0.067	0.091	0.119	0.151	0.186	0.225	0.268	0.315	0.365	0.477
			4.261	C	10228	8182	6818	5844	5114	4546	4091	3719	3409	3147	2922	2557
				D	0.024	0.037	0.054	0.073	0.095	0.121	0.149	0.180	0.214	0.252	0.292	0.381

\*Based on 17.455 bars/ft. of grating width. Bearing bars 11/16" c.c. Add .8 lbs./sq. ft. for 11-W-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. 3/4" x 3/16" serrated grating is not available.

### Panel Width Chart (in.) - 11-W-4 & 11-W-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	7/8	1-9/16	2-1/4	2-15/16	3-5/8	4-5/16	5	5-11/16	6-3/8	7-1/16	7-3/4	8-7/16	9-1/8	9-13/16	10-1/2
No. of Bars	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
3/16" Bars	11-3/16	11-7/8	12-9/16	13-1/4	13-15/16	14-5/8	15-5/16	16	16-11/16	17-3/8	18-1/16	18-3/4	19-7/16	20-1/8	20-13/16
No. of Bars	32	33	34	35											
3/16" Bars	21-1/2	22-3/16	22-7/8	23-9/16											

\*\*Deduct 1/16" for 1/8" bearing bars. Standard panel widths indicated in blue.

### Panel Width Chart (in.) - 11-SGCS-4, 11-SGCS-2, 11-DT-4 & 11-DT-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	7/8	1-9/16	2-1/4	2-15/16	3-5/8	4-5/16	5	5-11/16	6-3/8	7-1/16	7-3/4	8-7/16	9-1/8	9-13/16	10-1/2
No. of Bars	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
3/16" Bars	11-3/16	11-7/8	12-9/16	13-1/4	13-15/16	14-5/8	15-5/16	16	16-11/16	17-3/8	18-1/16	18-3/4	19-7/16	20-1/8	20-13/16
No. of Bars	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
3/16" Bars	21-1/2	22-3/16	22-7/8	23-9/16	24-1/4	24-15/16	25-5/8	26-5/16	27	27-11/16	28-3/8	29-1/16	29-3/4	30-7/16	31-1/8
No. of Bars	47	48	49	50	51	52	53								
3/16" Bars	31-13/16	32-1/2	33-3/16	33-7/8	34-9/16	35-1/4	35-15/16								

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