

# 7 SPACE LOAD TABLES

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

Bar Size, Inches	Ped Span, Inches	Wt.* Lbs. Sq. Ft.	Sec. Prop Sx*, in <sup>3</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	59	13.73	0.482	U	1446	926	643	472	362	286	231	U - Safe uniform load in pounds/sq. ft. C - Safe concentrated load in pounds/ft. grating width D - Deflection in inches Loads and deflections are theoretical and based on a unit stress of 18,000 psi.										
				D	0.099	0.155	0.223	0.304	0.398	0.503	0.620											
				C	1446	1157	964	827	723	643	579											
			0.181	D	0.079	0.124	0.179	0.243	0.318	0.402	0.497											
				U	2571	1646	1143	840	643	508	411	340	286	<table border="1"> <tr> <td colspan="2">% Open Area*</td> </tr> <tr> <td>4" cc</td> <td>52%</td> </tr> <tr> <td>2" cc</td> <td>48%</td> </tr> </table>			% Open Area*		4" cc	52%	2" cc	48%
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4" cc	52%																					
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C	2571	2057	1714	1469	1286	1143	1029	935	857													
1 x 3/16	73	18.09	0.857	U	4018	2571	1786	1312	1004	794	643	531	446	380	328	251						
				D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.450	0.536	0.629	0.730	0.953						
				C	4018	3214	2679	2296	2009	1786	1607	1461	1339	1236	1148	1004						
			0.429	D	0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.360	0.429	0.503	0.584	0.762						
				U	5786	3703	2571	1889	1446	1143	926	765	643	548	472	362						
				D	0.050	0.078	0.112	0.152	0.199	0.251	0.310	0.375	0.447	0.525	0.608	0.795						
1-1/4 x 3/16	86	22.45	1.339	U	7875	5040	3500	2571	1969	1556	1260	1041	875	746	643	492						
				D	0.043	0.067	0.096	0.130	0.170	0.216	0.266	0.322	0.383	0.450	0.521	0.681						
				C	7875	6300	5250	4500	3938	3500	3150	2864	2625	2423	2250	1969						
			0.837	D	0.034	0.053	0.077	0.104	0.136	0.172	0.213	0.258	0.306	0.360	0.417	0.545						
				U	10286	6583	4572	3359	2571	2032	1646	1360	1143	974	840	643						
				D	0.037	0.058	0.084	0.114	0.149	0.189	0.233	0.282	0.335	0.393	0.456	0.596						
2 x 3/16	123	35.59	3.429	C	10286	8229	6857	5878	5143	4572	4114	3740	3429	3165	2939	2571						
				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						
				U	13018	8332	5786	4251	3255	2571	2083	1721	1446	1232	1063	814						
			4.339	D	0.033	0.052	0.074	0.101	0.132	0.168	0.207	0.250	0.298	0.350	0.406	0.530						
				C	13018	10414	8679	7439	6509	5786	5207	4734	4339	4006	3719	3255						
				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						
2-1/4 x 3/16	134	39.92	4.882	U	16072	10286	7143	5248	4018	3175	2571	2125	1786	1522	1312	1004						
				D	0.030	0.047	0.067	0.091	0.119	0.151	0.186	0.225	0.268	0.315	0.365	0.476						
				C	16072	12857	10714	9184	8036	7143	6429	5844	5357	4945	4592	4018						
			5.357	D	0.024	0.037	0.054	0.073	0.095	0.121	0.149	0.180	0.215	0.252	0.292	0.381						
				U	16072	12857	10714	9184	8036	7143	6429	5844	5357	4945	4592	4018						
				D	0.024	0.037	0.054	0.073	0.095	0.121	0.149	0.180	0.215	0.252	0.292	0.381						

\*Based on 27.429 bars/ft. of grating width. Bearing bars 7/16" c.c. Add .6 lbs./sq. ft. for 7-SGCS-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.) - 7-SGCS-4, 7-SGCS-2, 7-DT-4 & 7-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	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 blue.