

19 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 ³ lx*, in*	Clear Span													
				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	46	5.43	0.178	U	533	341	237	174	133								
				D	0.099	0.155	0.224	0.304	0.397								
			0.067	C	533	426	355	305	266								
1 x 1/8	51	4.88	0.211	U	632	404	281	206	158	125							
				D	0.075	0.116	0.168	0.228	0.298	0.378							
			0.105	C	632	505	421	361	316	281							
1 x 3/16	57	7.04	0.316	U	947	606	421	309	237	187	152						
				D	0.074	0.116	0.168	0.228	0.298	0.377	0.467						
			0.158	C	947	758	632	541	474	421	379						
1-1/4 x 1/8	61	5.96	0.329	U	987	632	439	322	247	195	158	130					
				D	0.060	0.093	0.134	0.182	0.239	0.302	0.373	0.449					
			0.206	C	987	789	658	564	493	439	395	359					
1-1/4 x 3/16	67	8.64	0.493	U	1480	947	658	483	370	292	237	196	164				
				D	0.060	0.093	0.134	0.182	0.238	0.301	0.373	0.451	0.535				
			0.308	C	1480	1184	987	846	740	658	592	538	493				
1-1/2 x 1/8	70	7.04	0.474	U	1421	909	632	464	355	281	227	188	158				
				D	0.050	0.078	0.112	0.152	0.198	0.252	0.310	0.376	0.447				
			0.355	C	1421	1137	947	812	711	632	568	517	474				
1-1/2 x 3/16	77	10.25	0.711	U	2132	1364	947	696	533	421	341	282	237	202			
				D	0.050	0.078	0.112	0.152	0.199	0.251	0.310	0.376	0.447	0.525			
			0.533	C	2132	1705	1421	1218	1066	947	853	775	711	656			
1-3/4 x 3/16	87	11.87	0.967	U	2901	1857	1289	947	725	573	464	384	322	275	237	181	
				D	0.043	0.067	0.096	0.130	0.170	0.215	0.266	0.322	0.383	0.450	0.522	0.680	
			0.846	C	2901	2321	1934	1658	1451	1289	1160	1055	967	893	829	725	
2 x 3/16	96	13.48	1.263	U	3789	2425	1684	1237	947	749	606	501	421	359	309	237	
				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	
			1.263	C	3789	3032	2526	2165	1895	1684	1516	1378	1263	1166	1083	947	
2-1/4 x 3/16	105	15.08	1.599	U	4796	3069	2132	1566	1199	947	767	634	533	454	392	300	
				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	
			1.798	C	4796	3837	3197	2741	2398	2132	1918	1744	1599	1476	1370	1199	
2-1/2 x 3/16	113	16.70	1.974	U	5921	3789	2632	1933	1480	1170	947	783	658	561	483	370	
				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	
			2.467	C	5921	4737	3947	3383	2960	2632	2368	2153	1974	1822	1692	1480	
				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 - 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 based on a unit stress of 18,000 psi.

*Based on 10.105 bars/ft. of grating width. Bearing bars 1-3/16" c.c. Add .6 lbs./sq. ft. for 19-SGCS-2. 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.) - 19-W-4, 19-W-2, 19-DT-4, 19-DT-2, 19-SGCS-4 & 19-SGCS-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	1-3/8	2-9/16	3-3/4	4-15/16	6-1/8	7-5/16	8-1/2	9-11/16	10-7/8	12-1/16	13-1/4	14-7/16	15-5/8	16-13/16	18
No. of Bars	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
3/16" Bars	19-3/16	20-3/8	21-9/16	22-3/4	23-15/16	25-1/8	26-5/16	27-1/2	28-11/16	29-7/8	31-1/16	32-1/4	33-7/16	34-5/8	35-13/16

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