



### LOAD & DEFLECTION TABLE

Bar Size	Approx. Weight psf	Sec. Mod Per Ft. Dr Width	SPAN (Length of Bearing Bar)																		
			2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	6'-0"											
3/4" x 1/8"	8.3	0.281	U	844	540	375	276	211	167	135											
	8.7		D	0.099	0.155	0.223	0.304	0.397	0.503	0.621											
	8.8		C	844	675	563	482	422	375	338											
	9.6		D	0.079	0.124	0.179	0.243	0.318	0.402	0.497											
3/4" x 3/16"	12.2	0.422	U	1266	810	563	413	316	250	203	167										
	13.0		D	0.099	0.155	0.223	0.304	0.397	0.503	0.621	0.751										
	12.8		C	1266	1013	844	723	633	563	506	460										
	14.4		D	0.079	0.124	0.179	0.243	0.318	0.402	0.497	0.601										
1" x 1/8"	10.9	0.500	U	1500	960	667	490	375	296	240	198	167									
	11.3		D	0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563	0.670									
	11.4		C	1500	1200	1000	857	750	667	600	545	500									
	12.2		D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536									
1" x 3/16"	16.0	0.750	U	2250	1440	1000	735	563	444	360	298	250	213								
	16.9		D	0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563	0.670	0.787								
	16.7		C	2250	1800	1500	1288	1125	1000	900	818	750	692								
	18.3		D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629								
1-1/4" x 1/8"	13.4	0.781	U	2344	1500	1042	765	586	463	375	310	260	222	191							
	14.2		D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629	0.730							
	14.0		C	2344	1875	1563	1339	1172	1042	938	852	781	721	670							
	15.4		D	0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.360	0.429	0.504	0.584							
1-1/4" x 3/16"	19.9	1.172	U	3516	2250	1563	1148	879	694	563	465	391	333	287	220	174					
	21.2		D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629	0.730	0.953	1.207					
	20.5		C	3516	2813	2344	2009	1758	1563	1406	1278	1172	1082	1004	879	781					
	23.1		D	0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.360	0.429	0.504	0.584	0.763	0.965					
1-1/2" x 1/8"	16.0	1.125	U	3375	2160	1500	1102	844	667	540	446	375	320	276	211	167					
	16.7		D	0.050	0.078	0.112	0.152	0.199	0.251	0.310	0.376	0.447	0.524	0.608	0.794	1.006					
	16.6		C	3375	2700	2250	1929	1688	1500	1350	1227	1125	1038	964	844	750					
	18.0		D	0.040	0.062	0.089	0.122	0.159	0.201	0.248	0.300	0.358	0.420	0.487	0.636	0.804					
1-1/2" x 3/16"	23.8	1.688	U	5063	3240	2250	1653	1266	1000	810	669	563	479	413	316	250					
	25.1		D	0.050	0.078	0.112	0.152	0.199	0.251	0.310	0.376	0.447	0.524	0.608	0.794	1.006					
	24.4		C	5063	4050	3375	2893	2531	2250	2025	1841	1688	1558	1446	1266	1125					
	27.0		D	0.040	0.062	0.089	0.122	0.159	0.201	0.248	0.300	0.358	0.420	0.487	0.636	0.804					
1-3/4" x 3/16"	27.6	2.297	U	6891	4410	3063	2250	1723	1361	1103	911	766	652	563	431	340					
	28.9		D	0.043	0.067	0.096	0.130	0.170	0.215	0.266	0.322	0.383	0.450	0.521	0.681	0.862					
	28.2		C	6891	5513	4594	3938	3445	3063	2756	2506	2297	2120	1969	1723	1531					
	30.8		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	0.689					
2" x 3/16"	31.5	3.000	U	9000	5760	4000	2939	2250	1778	1440	1190	1000	852	735	563	444					
	32.8		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	0.754					
	32.1		C	9000	7200	6000	5143	4500	4000	3600	3273	3000	2769	2571	2250	2000					
	34.7		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	0.603					
2-1/4" x 3/16"	35.3	3.797	U	11391	7290	5063	3719	2848	2250	1823	1506	1266	1078	930	712	563					
	36.6		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	0.670					
	35.9		C	11391	9113	7594	6509	5695	5063	4556	4142	3797	3505	3254	2848	2531					
	38.5		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	0.536					
2-1/2" x 3/16"	39.2	4.688	U	14063	9000	6250	4592	3516	2778	2250	1860	1563	1331	1148	879	694					
	40.5		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	0.603					
	39.8		C	14063	11250	9375	8036	7031	6250	5625	5114	4688	4327	4018	3516	3125					
	42.4		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	0.483					

U = safe uniform load, psf  
 C = safe concentrated load, pfw  
 D = deflection, inches  
 E = modulus of elasticity, 29,000,000 psi  
 F = fiber stress, 18,000 psi

**Material:** ASTM A-569 standard

**Deflection:** Spans and loads to the right of the bold line exceed 1/4" deflection for uniform load of 100 psf which provides safe pedestrian comfort. These can be exceeded for other types of loads with engineer's approval.

**Serrated Bars:** For serrated grating, the depth of grating required for a specified load is 1/4" deeper than that shown in the table.

**General:** Loads and deflections are theoretical and based on static loading.

### PANEL WIDTH (inches)

Note: P-Press-Locked cross bars typically extend 1/8" each side. W-Welded cross rods may extend 1/8" each side. Panel widths do not include these extensions.

No. of Bars	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29																																																																																																																																																																					
1/8" Bar	5/8	1 1/8	1 3/8	1 7/8	2 1/8	2 3/8	2 7/8	3 1/8	3 3/8	3 7/8	4 1/8	4 3/8	4 7/8	5 1/8	5 3/8	5 7/8	6 1/8	6 3/8	6 7/8	7 1/8	7 3/8	7 7/8	8 1/8	8 3/8	8 7/8	9 1/8	9 3/8	9 7/8	10 1/8	10 3/8	10 7/8	11 1/8	11 3/8	11 7/8	12 1/8	12 3/8	12 7/8	13 1/8	13 3/8	13 7/8	14 1/8																																																																																																																																																								
3/16" Bar	1 1/16	1 3/16	1 5/16	1 7/16	1 9/16	1 11/16	1 13/16	1 15/16	1 17/16	1 19/16	1 21/16	1 23/16	1 25/16	1 27/16	1 29/16	1 31/16	1 33/16	1 35/16	1 37/16	1 39/16	1 41/16	1 43/16	1 45/16	1 47/16	1 49/16	1 51/16	1 53/16	1 55/16	1 57/16	1 59/16	1 61/16	1 63/16	1 65/16	1 67/16	1 69/16	1 71/16	1 73/16	1 75/16	1 77/16	1 79/16	1 81/16	1 83/16	1 85/16	1 87/16	1 89/16	1 91/16	1 93/16	1 95/16	1 97/16	1 99/16	2 1/16	2 3/16	2 5/16	2 7/16	2 9/16	2 11/16	2 13/16	2 15/16	2 17/16	2 19/16	2 21/16	2 23/16	2 25/16	2 27/16	2 29/16	2 31/16	2 33/16	2 35/16	2 37/16	2 39/16	2 41/16	2 43/16	2 45/16	2 47/16	2 49/16	2 51/16	2 53/16	2 55/16	2 57/16	2 59/16	2 61/16	2 63/16	2 65/16	2 67/16	2 69/16	2 71/16	2 73/16	2 75/16	2 77/16	2 79/16	2 81/16	2 83/16	2 85/16	2 87/16	2 89/16	2 91/16	2 93/16	2 95/16	2 97/16	2 99/16	3 1/16	3 3/16	3 5/16	3 7/16	3 9/16	3 11/16	3 13/16	3 15/16	3 17/16	3 19/16	3 21/16	3 23/16	3 25/16	3 27/16	3 29/16	3 31/16	3 33/16	3 35/16	3 37/16	3 39/16	3 41/16	3 43/16	3 45/16	3 47/16	3 49/16	3 51/16	3 53/16	3 55/16	3 57/16	3 59/16	3 61/16	3 63/16	3 65/16	3 67/16	3 69/16	3 71/16	3 73/16	3 75/16	3 77/16	3 79/16	3 81/16	3 83/16	3 85/16	3 87/16	3 89/16	3 91/16	3 93/16	3 95/16	3 97/16	3 99/16	4 1/16	4 3/16	4 5/16	4 7/16	4 9/16	4 11/16	4 13/16	4 15/16	4 17/16	4 19/16	4 21/16	4 23/16	4 25/16	4 27/16	4 29/16	4 31/16	4 33/16	4 35/16	4 37/16	4 39/16	4 41/16	4 43/16	4 45/16	4 47/16	4 49/16	4 51/16	4 53/16	4 55/16	4 57/16	4 59/16	4 61/16	4 63/16	4 65/16	4 67/16	4 69/16	4 71/16	4 73/16	4 75/16	4 77/16	4 79/16	4 81/16	4 83/16	4 85