



### LOAD & DEFLECTION TABLE

Bar Size	Approx. Weight per sq. Ft.	Sec. Mod. of Width	SPAN (Length of Bearing Bar)										
			2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"		
3/4" x 1/8"	0.205	U	6.2	614	393	273	200	153	121	98			
			6.6	D	0.099	0.155	0.223	0.304	0.397	0.503	0.621		
			6.8	C	614	491	409	351	307	273	245		
			7.6	D	0.079	0.124	0.179	0.243	0.318	0.402	0.497		
3/4" x 3/16"	0.307	U	9.1	920	589	409	301	230	182	147			
			9.9	D	0.099	0.155	0.223	0.304	0.397	0.503	0.621		
			9.7	C	920	736	614	526	460	409	368		
			11.3	D	0.079	0.124	0.179	0.243	0.318	0.402	0.497	5'-6"	6'-0"
1" x 1/8"	0.364	U	8.1	1091	698	485	356	273	215	175	144	121	
			8.5	D	0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563	0.670
			8.6	C	1091	873	727	623	545	485	436	397	364
			9.4	D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536
1" x 3/16"	0.545	U	11.9	1636	1047	727	534	409	323	262	216	182	
			12.7	D	0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563	0.670
			12.5	C	1636	1309	1091	935	818	727	655	595	545
			14.2	D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536
1-1/4" x 1/8"	0.568	U	10.0	1705	1091	758	557	426	337	273	225	189	
			10.7	D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536
			10.5	C	1705	1364	1136	974	852	758	682	620	568
			12.0	D	0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.360	0.429
1-1/4" x 3/16"	0.852	U	14.7	2557	1636	1136	835	639	505	409	338	284	
			16.0	D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536
			15.3	C	2557	2045	1705	1461	1278	1136	1023	930	852
			17.9	D	0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.360	0.429
1-1/2" x 1/8"	0.818	U	11.9	2455	1571	1091	801	614	485	393	325	273	
			12.6	D	0.050	0.078	0.112	0.152	0.199	0.251	0.310	0.376	0.447
			12.4	C	2455	1964	1636	1403	1227	1091	982	893	818
			13.9	D	0.040	0.062	0.089	0.122	0.159	0.201	0.248	0.300	0.358
1-1/2" x 3/16"	1.227	U	17.5	3682	2356	1636	1202	920	727	589	487	409	
			18.8	D	0.050	0.078	0.112	0.152	0.199	0.251	0.310	0.376	0.447
			18.1	C	3682	2945	2455	2104	1841	1636	1473	1339	1227
			20.7	D	0.040	0.062	0.089	0.122	0.159	0.201	0.248	0.300	0.358
1-3/4" x 3/16"	1.670	U	20.4	5011	3207	2227	1636	1253	990	802	663	557	
			21.7	D	0.043	0.067	0.096	0.130	0.170	0.215	0.266	0.322	0.383
			21.0	C	5011	4009	3341	2864	2506	2227	2005	1822	1670
			23.6	D	0.034	0.053	0.077	0.104	0.136	0.172	0.213	0.257	0.306
2" x 3/16"	2.182	U	23.2	6545	4189	2909	2137	1636	1293	1047	866	727	
			24.5	D	0.037	0.058	0.084	0.114	0.149	0.189	0.233	0.282	0.335
			23.8	C	6545	5236	4364	3740	3273	2909	2618	2380	2182
			26.4	D	0.030	0.047	0.067	0.091	0.119	0.151	0.186	0.225	0.268
2-1/4" x 3/16"	2.761	U	26.0	8284	5302	3682	2705	2071	1636	1325	1095	920	
			27.3	D	0.033	0.052	0.074	0.101	0.132	0.168	0.207	0.250	0.298
			26.6	C	8284	6627	5523	4734	4142	3682	3314	3012	2761
			29.2	D	0.026	0.041	0.060	0.081	0.106	0.134	0.166	0.200	0.238
2-1/2" x 3/16"	3.409	U	28.8	10227	6545	4545	3340	2557	2020	1636	1352	1136	
			30.1	D	0.030	0.047	0.067	0.091	0.119	0.151	0.186	0.225	0.268
			29.4	C	10227	8182	6818	5844	5114	4545	4091	3719	3409
			32.0	D	0.024	0.037	0.054	0.073	0.095	0.121	0.149	0.180	0.215

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