



### LOAD & DEFLECTION TABLE

Bar Size	Approx. Weight psf	Sec. Mod Per Ft. Of Width	SPAN (Length of Bearing Bar)											
			2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"						
3/4" x 1/8"	0.118	U	355	227	158	116	89	70						
			D	0.099	0.155	0.223	0.304	0.397	0.503					
			C	355	284	237	203	178	158					
3/4" x 3/16"	0.178	U	533	341	237	174	133	105						
			D	0.099	0.155	0.223	0.304	0.397	0.503					
			C	533	426	355	305	266	237					
1" x 1/8"	0.211	U	632	404	281	206	158	125	101	84				
			D	0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563			
			C	632	505	421	361	316	281	253	230			
1" x 3/16"	0.316	U	947	606	421	309	237	187	152	125				
			D	0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563			
			C	947	758	632	541	474	421	379	344			
1-1/4" x 1/8"	0.329	U	987	632	439	322	247	195	158	130	110	93	81	
			D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629	0.730
			C	987	789	658	564	493	439	395	359	329	304	282
1-1/4" x 3/16"	0.493	U	1480	947	658	483	370	292	237	196	164	140	121	
			D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629	0.730
			C	1480	1184	987	846	740	658	592	538	493	455	423
1-1/2" x 1/8"	0.474	U	1421	909	632	464	355	281	227	188	158	135	116	
			D	0.050	0.078	0.112	0.152	0.199	0.251	0.310	0.376	0.447	0.524	0.608
			C	1421	1137	947	812	711	632	568	517	474	437	406
1-1/2" x 3/16"	0.711	U	2132	1364	947	696	533	421	341	282	237	202	174	
			D	0.050	0.078	0.112	0.152	0.199	0.251	0.310	0.376	0.447	0.524	0.608
			C	2132	1705	1421	1218	1066	947	853	775	711	656	609
1-3/4" x 3/16"	0.967	U	2901	1857	1289	947	725	573	464	384	322	275	237	
			D	0.043	0.067	0.096	0.130	0.170	0.215	0.266	0.322	0.383	0.450	0.521
			C	2901	2321	1934	1658	1451	1289	1161	1055	967	893	829
2" x 3/16"	1.263	U	3789	2425	1684	1237	947	749	606	501	421	359	309	
			D	0.037	0.058	0.084	0.114	0.149	0.189	0.233	0.282	0.335	0.393	0.456
			C	3789	3032	2526	2165	1895	1684	1516	1378	1263	1166	1083
2-1/4" x 3/16"	1.599	U	4796	3069	2132	1566	1199	947	767	634	533	454	392	
			D	0.033	0.052	0.074	0.101	0.132	0.168	0.207	0.250	0.298	0.350	0.406
			C	4796	3837	3197	2741	2398	2132	1918	1744	1599	1476	1370
2-1/2" x 3/16"	1.974	U	5921	3789	2632	1933	1480	1170	947	783	658	561	483	
			D	0.030	0.047	0.067	0.091	0.119	0.151	0.186	0.225	0.268	0.315	0.365
			C	5921	4737	3947	3383	2961	2632	2368	2153	1974	1822	1692

U = safe uniform load, psf  
 C = safe concentrated load, ptw  
 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
1/8" Bar	1 <sup>5</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>2</sub>	3 <sup>11</sup> / <sub>16</sub>	4 <sup>7</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>4</sub>	8 <sup>7</sup> / <sub>16</sub>	9 <sup>5</sup> / <sub>8</sub>	10 <sup>13</sup> / <sub>16</sub>	12	13 <sup>9</sup> / <sub>16</sub>	14 <sup>9</sup> / <sub>8</sub>	15 <sup>9</sup> / <sub>16</sub>	16 <sup>3</sup> / <sub>4</sub>	17 <sup>15</sup> / <sub>16</sub>
3/16" Bar	1 <sup>3</sup> / <sub>8</sub>	2 <sup>9</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>4</sub>	4 <sup>15</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>8</sub>	7 <sup>9</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>2</sub>	9 <sup>11</sup> / <sub>16</sub>	10 <sup>7</sup> / <sub>8</sub>	12 <sup>1</sup> / <sub>16</sub>	13 <sup>1</sup> / <sub>4</sub>	14 <sup>7</sup> / <sub>16</sub>	15 <sup>5</sup> / <sub>8</sub>	16 <sup>13</sup> / <sub>16</sub>	18
No. of Bars	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1/8" Bar	19 <sup>1</sup> / <sub>8</sub>	20 <sup>5</sup> / <sub>16</sub>	21 <sup>1</sup> / <sub>2</sub>	22 <sup>1</sup> / <sub>16</sub>	23 <sup>3</sup> / <sub>8</sub>	25 <sup>1</sup> / <sub>16</sub>	26 <sup>1</sup> / <sub>4</sub>	27 <sup>7</sup> / <sub>16</sub>	28 <sup>5</sup> / <sub>8</sub>	29 <sup>13</sup> / <sub>16</sub>	31	32 <sup>9</sup> / <sub>16</sub>	33 <sup>3</sup> / <sub>8</sub>	34 <sup>9</sup> / <sub>16</sub>	35 <sup>3</sup> / <sub>4</sub>
3/16" Bar	19 <sup>9</sup> / <sub>16</sub>	20 <sup>9</sup> / <sub>8</sub>	21 <sup>9</sup> / <sub>16</sub>	22 <sup>3</sup> / <sub>4</sub>	23 <sup>15</sup> / <sub>16</sub>	25 <sup>1</sup> / <sub>8</sub>	26 <sup>5</sup> / <sub>16</sub>	27 <sup>1</sup> / <sub>2</sub>	28 <sup>11</sup> / <sub>16</sub>	29 <sup>7</sup> / <sub>8</sub>	31 <sup>1</sup> / <sub>16</sub>	32 <sup>1</sup> / <sub>4</sub>	33 <sup>7</sup> / <sub>16</sub>	34 <sup>5</sup> / <sub>8</sub>	35 <sup>13</sup> / <sub>16</sub>