



### 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"	5'-0"	5'-6"								
3/4" x 1/8"	9.8	0.321	U	964	617	429	315	241	190	154								
			D	0.099	0.155	0.223	0.304	0.397	0.503	0.621								
			C	964	771	643	551	482	429	386								
3/4" x 3/16"	10.7	0.482	U	1446	926	643	472	362	286	231	191							
			D	0.099	0.155	0.223	0.304	0.397	0.503	0.621	0.751							
			C	1446	1157	964	827	723	643	579	526							
1" x 1/8"	12.7	0.571	U	2679	1714	1190	875	670	529	429	354	298						
			D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629					
			C	1714	1371	1143	980	857	762	686	623	571	527					
1" x 3/16"	13.7	0.857	U	2571	1646	1143	840	643	508	411	340	286	243	210				
			D	0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563	0.670	0.787	0.912				
			C	1714	1371	1143	980	857	762	686	623	571	527					
1-1/4" x 1/8"	19.0	0.893	U	2679	1714	1190	875	670	529	429	354	298	254	219				
			D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629	0.730	0.830			
			C	1714	1371	1143	980	857	762	686	623	571	527	476	431			
1-1/4" x 3/16"	20.5	1.339	U	4018	2571	1786	1312	1004	794	643	531	446	380	328	285	251	193	
			D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629	0.730	0.830	0.953	1.076	
			C	2679	1714	1190	875	670	529	429	354	298	254	219	167	167	167	167
1-1/2" x 1/8"	16.0	0.893	U	2679	1714	1190	875	670	529	429	354	298	254	219	167	167	167	
			D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629	0.730	0.830	0.953	1.076	
			C	1714	1371	1143	980	857	762	686	623	571	527	476	431	388	343	300
1-1/2" x 3/16"	17.2	1.286	U	4018	2571	1786	1312	1004	794	643	531	446	380	328	285	251	193	
			D	0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.360	0.429	0.504	0.584	0.664	0.763	0.862	0.961
			C	2679	1714	1190	875	670	529	429	354	298	254	219	167	167	167	167
1-3/4" x 1/8"	23.9	1.339	U	4018	2571	1786	1312	1004	794	643	531	446	380	328	285	251	193	
			D	0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.360	0.429	0.504	0.584	0.664	0.763	0.862	0.961
			C	2679	1714	1190	875	670	529	429	354	298	254	219	167	167	167	167
1-3/4" x 3/16"	25.8	1.929	U	5786	3703	2571	1889	1446	1143	926	765	643	548	472	406	362	286	
			D	0.050	0.078	0.112	0.152	0.199	0.251	0.310	0.376	0.447	0.524	0.608	0.704	0.811	0.928	1.055
			C	3703	2571	1786	1312	1004	794	643	531	446	380	328	285	251	193	167
2" x 3/16"	30.2	2.625	U	7875	5040	3500	2571	1969	1556	1260	1041	875	746	643	548	472	406	
			D	0.043	0.067	0.096	0.130	0.170	0.215	0.266	0.322	0.383	0.450	0.521	0.608	0.704	0.811	0.928
			C	5040	3500	2571	1969	1556	1260	1041	875	746	643	548	472	406	362	286
2-1/4" x 1/8"	32.7	3.429	U	10286	6583	4571	3359	2571	2032	1646	1360	1143	974	840	746	643	548	
			D	0.037	0.058	0.084	0.114	0.149	0.189	0.233	0.282	0.335	0.393	0.456	0.521	0.608	0.704	0.811
			C	6583	4571	3359	2571	2032	1646	1360	1143	974	840	746	643	548	472	406
2-1/4" x 3/16"	34.6	4.339	U	10286	6583	4571	3359	2571	2032	1646	1360	1143	974	840	746	643	548	
			D	0.037	0.058	0.084	0.114	0.149	0.189	0.233	0.282	0.335	0.393	0.456	0.521	0.608	0.704	0.811
			C	6583	4571	3359	2571	2032	1646	1360	1143	974	840	746	643	548	472	406
2-1/2" x 1/8"	37.1	5.357	U	13018	8331	5786	4251	3254	2571	2083	1721	1446	1232	1063	914	814	746	
			D	0.033	0.052	0.074	0.101	0.132	0.168	0.207	0.250	0.298	0.350	0.406	0.466	0.530	0.607	0.693
			C	8331	5786	4251	3254	2571	2083	1721	1446	1232	1063	914	814	746	643	548
2-1/2" x 3/16"	39.0	4.339	U	16071	10286	7143	5248	4018	3175	2571	2125	1786	1522	1312	1143	1004	794	
			D	0.026	0.041	0.060	0.081	0.106	0.134	0.166	0.200	0.238	0.280	0.324	0.372	0.424	0.481	0.536
			C	10286	7143	5248	4018	3175	2571	2125	1786	1522	1312	1143	1004	794	643	548
2-1/2" x 3/16"	43.4	5.357	U	16071	10286	7143	5248	4018	3175	2571	2125	1786	1522	1312	1143	1004	794	
			D	0.030	0.047	0.067	0.091	0.119	0.151	0.186	0.225	0.268	0.315	0.365	0.424	0.481	0.536	0.591
			C	10286	7143	5248	4018	3175	2571	2125	1786	1522	1312	1143	1004	794	643	548
2-1/2" x 3/16"	45.9	5.357	U	16071	10286	7143	5248	4018	3175	2571	2125	1786	1522	1312	1143	1004	794	
			D	0.024	0.037	0.054	0.073	0.095	0.121	0.149	0.180	0.215	0.252	0.292	0.331	0.372	0.417	0.466
			C	10286	7143	5248	4018	3175	2571	2125	1786	1522	1312	1143	1004	794	643	548
2-1/2" x 3/16"	47.8	5.357	U	16071	10286	7143	5248	4018	3175	2571	2125	1786	1522	1312	1143	1004	794	
			D	0.024	0.037	0.054	0.073	0.095	0.121	0.149	0.180	0.215	0.252	0.292	0.331	0.372	0.417	0.466
			C	10286	7143	5248	4018	3175	2571	2125	1786	1522	1312	1143	1004	794	643	548

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. 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	9/16	1	1 1/16	1 1/8	2 1/16	2 1/4	3 1/16	3 1/2	4 1/16	4 1/2	5 1/16	5 1/4	5 1/2	6 1/16	6 1/4	6 1/2	7 1/16	7 1/4	7 1/2	8	8 1/16	8 1/8	9 1/16	9 1/4	10 1/16	10 1/8	11 1/16	11 1/4	11 1/2	12 1/16	12 1/4
3/16" Bar	5/8	1 1/16	1 1/2	1 5/16	2 1/8	2 1/4	3 1/8	3 1/2	4 1/8	4 1/4	5 1/8	5 1/4	5 1/2	6 1/8	6 1/4	6 1/2	7 1/8	7 1/4	7 1/2	8 1/8	8 1/4	9 1/8	9 1/4	10 1/8	10 1/4	11 1/8	11 1/4	12	12 1/8	12 1/4	
No. of Bars	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57			
1/8" Bar	12 1/16	13 1/16	13 1/8	14 1/16	14 1/4	15 1/16	15 1/4	16 1/16	16 1/4	17 1/16	17 1/4	18 1/16	18 1/4	19 1/16	19 1/4	20 1/16	20 1/4	21 1/16	21 1/4	22 1/16	22 1/4	23 1/16	23 1/4	24 1/16	24 1/4	25 1/16	25 1/4	26 1/16	26 1/4	27 1/16	27 1/4
3/16" Bar	12 1/8	13 1/8	13 1/4	14 1/8	14 1/4	15 1/8	15 1/4	16 1/8	16 1/4	17 1/8	17 1/4	18 1/8	18 1/4	19 1/8	19 1/4	20 1/8	20 1/4	21 1/8	21 1/4	22 1/8	22 1/4	23 1/8	23 1/4	24 1/8	24 1/4	25 1/8	25 1/4	26 1/8	26 1/4	27 1/8	27 1/4
No. of Bars	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83					
1/8" Bar	25 1/16	25 1/4	25 1/2	26 1/16	26 1/4	27 1/16	27 1/4	28 1/16	28 1/4	29 1/16	29 1/4	30 1/16	30 1/4	31 1/16	31 1/4	32 1/16	32 1/4	33 1/16	33 1/4	34 1/16	34 1/4	35 1/16	35 1/4	36 1/16	36 1/4	37 1/16	37 1/4	38 1/16	38 1/4		
3/16" Bar	25 1/8	25 1/4	26	26 1/8	26 1/4	27 1/8	27 1/4	28 1/8	28 1/4	29 1/8	29 1/4	30 1/8	30 1/4	31 1/8	31 1/4	32 1/8	32 1/4	33 1/8	33 1/4	34 1/8	34 1/4	35 1/8	35 1/4	36 1/8	36 1/4	37 1/8	37 1/4	38 1/8	38 1/4		