



LOAD & DEFLECTION TABLE

Bar Size	Approx. Weight per sq ft	Sec. Mod Per Ft. or Width	SPAN (Length of Bearing Bar)				
			2'-0"	2'-6"	3'-0"	3'-6"	4'-0"
3/4" x 1/8"	0.205	U	409	262	182	134	102
		D	0.192	0.300	0.432	0.588	0.768
		C	409	327	273	234	205
		D	0.154	0.240	0.346	0.470	0.614
3/4" x 3/16"	0.307	U	614	393	273	200	153
		D	0.192	0.300	0.432	0.588	0.768
		C	614	491	409	351	307
		D	0.154	0.240	0.346	0.470	0.614
1" x 1/8"	0.364	U	727	465	323	237	182
		D	0.144	0.225	0.324	0.441	0.576
		C	727	582	485	416	364
		D	0.115	0.180	0.259	0.353	0.461
1" x 3/16"	0.545	U	1091	698	485	356	273
		D	0.144	0.225	0.324	0.441	0.576
		C	1091	873	727	623	545
		D	0.115	0.180	0.259	0.353	0.461
1-1/4" x 1/8"	0.568	U	1136	727	505	371	284
		D	0.115	0.180	0.259	0.353	0.461
		C	1136	909	758	649	568
		D	0.092	0.144	0.207	0.282	0.369
1-1/4" x 3/16"	0.852	U	1705	1091	758	557	426
		D	0.115	0.180	0.259	0.353	0.461
		C	1705	1364	1136	974	852
		D	0.092	0.144	0.207	0.282	0.369
1-1/2" x 1/8"	0.818	U	1636	1047	727	534	409
		D	0.096	0.150	0.216	0.294	0.384
		C	1636	1309	1091	935	818
		D	0.077	0.120	0.173	0.235	0.307
1-1/2" x 3/16"	1.227	U	2455	1571	1091	801	614
		D	0.096	0.150	0.216	0.294	0.384
		C	2455	1964	1636	1403	1227
		D	0.077	0.120	0.173	0.235	0.307
1-3/4" x 3/16"	1.670	U	3341	2138	1485	1091	835
		D	0.082	0.129	0.185	0.252	0.329
		C	3341	2673	2227	1909	1670
		D	0.066	0.103	0.148	0.202	0.263
2" x 3/16"	2.182	U	4364	2793	1939	1425	1091
		D	0.072	0.113	0.162	0.221	0.288
		C	4364	3491	2909	2494	2182
		D	0.058	0.090	0.130	0.176	0.230
2-1/4" x 3/16"	2.761	U	5523	3535	2455	1803	1381
		D	0.064	0.100	0.144	0.196	0.256
		C	5523	4418	3682	3156	2761
		D	0.051	0.080	0.115	0.157	0.205
2-1/2" x 3/16"	3.409	U	6818	4364	3030	2226	1705
		D	0.058	0.090	0.130	0.176	0.230
		C	6818	5455	4545	3896	3409
		D	0.046	0.072	0.104	0.141	0.184

U = safe uniform load, psf
 C = safe concentrated load, pfw
 D = deflection, inches
 E = modulus of elasticity, 10,000,000 psi
 F = fiber stress, 12,000 psi
Material: ASTM B-221, 6063 or 6061
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.
Finish: Mill finish unless otherwise specified.

PANEL WIDTH (inches)

Note: Includes 1/4" (1/8" each side) for extended cross rods on swage-locked (SR) and extended cross rods on press-locked (AP).

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