



LOAD & DEFLECTION TABLE

Bar Size	Approx. weight per sq. ft.	Sec. Mod. Per R. or width	SPAN (Length of Bearing Bar)																	
			2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	8'-0"	9'-0"					
1" x 1/4"	2.45	0.400	U	800	512	356	261	200	158											
			D	0.144	0.225	0.324	0.441	0.576	0.729											
			C	800	640	533	457	400	356											
1-1/4" x 1/4"	2.75	0.625	U	1250	800	556	408	313	247	200	165									
			D	0.115	0.180	0.259	0.353	0.461	0.583	0.720	0.871									
			C	1250	1000	833	714	625	556	500	455									
1-1/2" x 1/4"	3.21	0.900	U	1800	1152	800	588	450	356	288	238	200								
			D	0.092	0.144	0.207	0.282	0.369	0.467	0.576	0.697	0.831	0.991							
			C	1800	1440	1200	1029	900	800	720	655	600	550							
1-3/4" x 1/4"	3.36	1.225	U	2450	1568	1089	800	613	484	392	324	272	232							
			D	0.082	0.129	0.185	0.252	0.329	0.417	0.514	0.622	0.741	0.869	1.008						
			C	2450	1960	1633	1400	1225	1089	980	891	817	754	700						
2" x 1/4"	4.30	1.600	U	3200	2048	1422	1045	800	632	512	423	356	303	261						
			D	0.072	0.113	0.162	0.221	0.288	0.365	0.450	0.545	0.648	0.761	0.882	1.014					
			C	3200	2560	2133	1829	1600	1422	1280	1164	1067	985	914	850					
2-1/4" x 1/4"	4.60	2.025	U	4050	2592	1800	1322	1013	800	648	536	450	383	331	253	200				
			D	0.064	0.100	0.144	0.196	0.256	0.324	0.400	0.484	0.576	0.676	0.784	0.904	1.024	1.166			
			C	4050	3240	2700	2314	2025	1800	1620	1473	1350	1246	1157	1013	900	800			
2-1/2" x 1/4"	5.04	2.500	U	5000	3200	2222	1633	1250	988	800	661	556	473	408	313	247				
			D	0.058	0.090	0.130	0.176	0.230	0.292	0.360	0.436	0.518	0.608	0.706	0.812	0.922	1.050	1.188		
			C	5000	4000	3333	2857	2500	2222	2000	1818	1667	1538	1429	1250	1111	1000			
2-3/4" x 1/4"	5.53	2.500	U	5000	3200	2222	1633	1250	988	800	661	556	473	408	313	247				
			D	0.058	0.090	0.130	0.176	0.230	0.292	0.360	0.436	0.518	0.608	0.706	0.812	0.922	1.050	1.188		
			C	5000	4000	3333	2857	2500	2222	2000	1818	1667	1538	1429	1250	1111	1000			

U = safe uniform load, psf
 C = safe concentrated load, ptw
 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.
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 (SI).

No. of Bars	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1/4" Bar	17 ^{1/16}	2 ^{9/16}	3 ^{5/16}	4 ^{1/4}	5 ^{3/16}	6 ^{1/8}	7 ^{1/16}	8	8 ^{15/16}	9 ^{7/8}	10 ^{13/16}	11 ^{3/4}	12 ^{11/16}	13 ^{5/8}	14 ^{9/16}	15 ^{1/2}	16 ^{7/16}	17 ^{3/8}	18 ^{5/16}
No. of Bars	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
1/4" Bar	19 ^{1/4}	20 ^{3/16}	21 ^{1/8}	22 ^{1/16}	23	23 ^{15/16}	24 ^{7/8}	25 ^{13/16}	26 ^{3/4}	27 ^{11/16}	28 ^{5/8}	29 ^{9/16}	30 ^{1/2}	31 ^{7/16}	32 ^{3/8}	33 ^{5/16}	34 ^{1/4}	35 ^{3/16}	36 ^{1/8}