



LOAD & DEFLECTION TABLE

Bar Size	Approx. Weight psf	Sqc. Ft. Per Ft. of Width	SPAN (Length of Bearing Bar)																		
			2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"													
1" x 1/4"	2.00	0.316	U	632	404	281	206	158	125												
			D	0.144	0.225	0.324	0.441	0.576	0.729												
			C	632	505	421	361	316	281												
1-1/4" x 1/4"	2.38	0.493	U	987	632	439	322	247	195	158											
			D	0.115	0.180	0.259	0.353	0.461	0.583	0.720											
			C	987	789	658	564	493	439	395											
1-1/2" x 1/4"	2.74	0.711	U	1421	909	632	464	355	281	227	188										
			D	0.096	0.150	0.216	0.294	0.384	0.486	0.600	0.726										
			C	1421	1137	947	812	711	632	568	517										
1-3/4" x 1/4"	3.09	0.967	U	1934	1238	860	632	484	382	309	256	215	183								
			D	0.082	0.129	0.185	0.252	0.329	0.417	0.514	0.622	0.741	0.869								
			C	1934	1547	1289	1105	967	860	774	703	645	595								
2" x 1/4"	3.49	1.263	U	2526	1617	1123	825	632	499	404	334	281	239	206							
			D	0.072	0.113	0.162	0.221	0.288	0.365	0.450	0.545	0.648	0.761	0.882							
			C	2526	2021	1684	1444	1263	1123	1011	919	842	777	722							
2-1/4" x 1/4"	3.89	1.599	U	3197	2046	1421	1044	799	632	512	423	355	303	261	200						
			D	0.064	0.100	0.144	0.196	0.256	0.324	0.400	0.484	0.576	0.676	0.784	1.024						
			C	3197	2558	2132	1827	1599	1421	1279	1163	1066	984	914	799						
2-1/2" x 1/4"	4.23	1.974	U	3947	2526	1754	1289	987	780	632	522	439	374	322	247	195					
			D	0.058	0.090	0.130	0.176	0.230	0.292	0.360	0.436	0.518	0.608	0.706	0.922	1.166					
			C	3947	3158	2632	2256	1974	1754	1579	1435	1316	1215	1128	987	877					
	4.53		D	0.046	0.072	0.104	0.141	0.184	0.233	0.288	0.348	0.415	0.487	0.564	0.737	0.933					

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