



LOAD & DEFLECTION TABLE

Bar Size	Approx. Weight per Ft. Length	Mod. Per Ft. Cr. Width	SPAN (Length of Bearing Bar)													
			2'-0"	2'-6"	3'-0"	3'-6"										
3/4" x 1/8"	1.8	0.150	U	300	192	133	98									
	1.8		D	0.192	0.300	0.432	0.588									
	2.1		C	300	240	200	171									
	2.1		D	0.154	0.240	0.346	0.470	4'-0"								
3/4" x 3/16"	2.5	0.225	U	450	288	200	147	113								
	2.7		D	0.192	0.300	0.432	0.588	0.768								
	2.8		C	450	360	300	257	225								
	3.2		D	0.154	0.240	0.346	0.470	0.614								
1" x 1/8"	2.3	0.267	U	533	341	237	174	133								
	2.3		D	0.144	0.225	0.324	0.441	0.576								
	2.6		C	533	427	356	305	267								
	2.6		D	0.115	0.180	0.259	0.353	0.461	4'-6"							
1" x 3/16"	3.3	0.400	U	800	512	356	261	200	158							
	3.4		D	0.144	0.225	0.324	0.441	0.576	0.729							
	3.6		C	800	640	533	457	400	356							
	3.9		D	0.115	0.180	0.259	0.353	0.461	0.583	5'-0"						
1-1/4" x 1/8"	2.8	0.417	U	833	533	370	272	208	165	133						
	2.9		D	0.115	0.180	0.259	0.353	0.461	0.583	0.720						
	3.1		C	833	667	556	476	417	370	333						
	3.3		D	0.092	0.144	0.207	0.282	0.369	0.467	0.576	5'-6"					
1-1/4" x 3/16"	4.0	0.625	U	1250	800	556	408	313	247	200	165					
	4.3		D	0.115	0.180	0.259	0.353	0.461	0.583	0.720	0.871					
	4.3		C	1250	1000	833	714	625	556	500	455					
	5.0		D	0.092	0.144	0.207	0.282	0.369	0.467	0.576	0.697					
1-1/2" x 1/8"	3.3	0.600	U	1200	768	533	392	300	237	192	159					
	3.4		D	0.096	0.150	0.216	0.294	0.384	0.486	0.600	0.726					
	3.6		C	1200	960	800	686	600	533	480	436					
	3.8		D	0.077	0.120	0.173	0.235	0.307	0.389	0.480	0.581	6'-0"				
1-1/2" x 3/16"	4.7	0.900	U	1800	1152	800	588	450	356	288	238	200				
	5.1		D	0.096	0.150	0.216	0.294	0.384	0.486	0.600	0.726	0.864				
	5.0		C	1800	1440	1200	1029	900	800	720	655	600				
	5.8		D	0.077	0.120	0.173	0.235	0.307	0.389	0.480	0.581	0.691	6'-6"			
1-3/4" x 3/16"	5.5	1.225	U	2450	1568	1089	800	613	484	392	324	272	232			
	5.8		D	0.082	0.129	0.185	0.252	0.329	0.417	0.514	0.622	0.741	0.869			
	5.8		C	2450	1960	1633	1400	1225	1089	980	891	817	754			
	6.5		D	0.066	0.103	0.148	0.202	0.263	0.333	0.411	0.498	0.592	0.695	7'-0"		
2" x 3/16"	6.2	1.600	U	3200	2048	1422	1045	800	632	512	423	356	303	261		
	6.5		D	0.072	0.113	0.162	0.221	0.288	0.365	0.450	0.545	0.648	0.761	0.882		
	6.5		C	3200	2560	2133	1829	1600	1422	1280	1164	1067	985	914		
	7.2		D	0.058	0.090	0.130	0.176	0.230	0.292	0.360	0.436	0.518	0.608	0.706	8'-0"	9'-0"
2-1/4" x 3/16"	6.9	2.025	U	4050	2592	1800	1322	1013	800	648	536	450	383	331	253	200
	7.3		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	1.296
	7.2		C	4050	3240	2700	2314	2025	1800	1620	1473	1350	1246	1157	1013	900
	8.0		D	0.051	0.080	0.115	0.157	0.205	0.259	0.320	0.387	0.461	0.541	0.627	0.819	1.037
2-1/2" x 3/16"	7.7	2.500	U	5000	3200	2222	1633	1250	988	800	661	556	473	408	313	247
	8.0		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
	8.0		C	5000	4000	3333	2857	2500	2222	2000	1818	1667	1538	1429	1250	1111
	8.7		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.

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.

SR/AP-15 PANEL WIDTH (inches)

Note: Includes 1/4" (1/8" each side) for extended cross rods on swage-locked (SR) and extended cross bars 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 ⁵ / ₁₆	2 ¹ / ₄	3 ³ / ₁₆	4 ¹ / ₈	5 ¹ / ₁₆	6	6 ¹⁵ / ₁₆	7 ⁷ / ₈	8 ¹³ / ₁₆	9 ⁹ / ₄	10 ¹¹ / ₁₆	11 ⁵ / ₈	12 ⁹ / ₁₆	13 ¹ / ₂	14 ⁷ / ₁₆	15 ³ / ₈	16 ⁵ / ₁₆	17 ¹ / ₄	18 ³ / ₁₆
3/16" Bar	1 ³ / ₈	2 ⁵ / ₁₆	3 ¹ / ₄	4 ³ / ₁₆	5 ¹ / ₈	6 ¹ / ₁₆	7	7 ¹⁵ / ₁₆	8 ⁷ / ₈	9 ¹³ / ₁₆	10 ⁹ / ₄	11 ¹¹ / ₁₆	12 ⁵ / ₈	13 ⁹ / ₁₆	14 ¹ / ₂	15 ⁷ / ₁₆	16 ³ / ₈	17 ⁵ / ₁₆	18 ¹ / ₄
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	19 ¹ / ₈	20 ¹ / ₁₆	21	21 ¹⁵ / ₁₆	22 ⁷ / ₈	23 ¹³ / ₁₆	24 ⁹ / ₄	25 ¹¹ / ₁₆	26 ⁵ / ₈	27 ⁹ / ₁₆	28 ¹ / ₂	29 ⁷ / ₁₆	30 ³ / ₈	31 ⁵ / ₁₆	32 ¹ / ₄	33 ³ / ₁₆	34 ¹ / ₈	35 ¹ / ₁₆	36
3/16" Bar	19 ³ / ₁₆	20 ¹ / ₈	21 ¹ / ₁₆	22	22 ¹⁵ / ₁₆	23 ⁷ / ₈	24 ¹³ / ₁₆	25 ⁹ / ₄	26 ¹¹ / ₁₆	27 ⁵ / ₈	28 ⁹ / ₁₆	29 ¹ / ₂	30 ⁷ / ₁₆	31 ³ / ₈	32 ⁵ / ₁₆	33 ¹ / ₄	34 ³ / ₁₆	35 ¹ / ₈	36 ¹ / ₁₆