

Aluminum Grating

PRESS-LOCKED CLOSE MESH

13/16" Center to Center of Bearing Bars



13-AP-4
Cross Bars 4" C/C



13-AP-2
Cross Bars 2" C/C

LOAD & DEFLECTION TABLE

Bar Size	Symbol	Approx. Weight psf	Sec. Mod Per Ft. Of Width	SPAN (Length of Bearing Bar)					
				2'-0"	2'-6"	3'-0"	3'-6"		
3/4" x 1/8"	13-4-32	2.0	0.173	U 346	222	154	113		
				D 0.192	0.300	0.432	0.588		
	13-2-32	2.4		C 346	277	231	198		
3/4" x 3/16"	13-4-33	3.0	0.260	U 519	332	231	170	130	
				D 0.192	0.300	0.432	0.588	0.768	
	13-2-33	3.5		C 519	415	346	297	260	
1" x 1/8"	13-4-42	2.6	0.308	U 615	394	274	201	154	
				D 0.144	0.225	0.324	0.441	0.576	
	13-2-42	2.9		C 615	492	410	352	308	
1" x 3/16"	13-4-43	3.9	0.462	U 923	591	410	301	231	182
				D 0.144	0.225	0.324	0.441	0.576	0.729
	13-2-43	4.4		C 923	738	615	527	462	410
1-1/4" x 1/8"	13-4-52	3.3	0.481	U 962	615	427	314	240	190
				D 0.115	0.180	0.259	0.353	0.461	0.583
	13-2-52	3.7		C 962	769	641	549	481	427
1-1/4" x 3/16"	13-4-53	4.9	0.721	U 1442	923	641	471	361	285
				D 0.115	0.180	0.259	0.353	0.461	0.583
	13-2-53	5.6		C 1442	1154	962	824	721	641
1-1/2" x 1/8"	13-4-62	3.8	0.692	U 1385	886	615	452	346	274
				D 0.096	0.150	0.216	0.294	0.384	0.486
	13-2-62	4.3		C 1385	1108	923	791	692	615
1-1/2" x 3/16"	13-4-63	5.7	1.038	U 2077	1329	923	678	519	410
				D 0.096	0.150	0.216	0.294	0.384	0.486
	13-2-63	6.4		C 2077	1662	1385	1187	1038	923
1-3/4" x 3/16"	13-4-73	6.6	1.413	U 2827	1809	1256	923	707	558
				D 0.082	0.129	0.185	0.252	0.329	0.417
	13-2-73	7.3		C 2827	2262	1885	1615	1413	1256
2" x 3/16"	13-4-83	7.4	1.846	U 3692	2363	1641	1206	923	729
				D 0.072	0.113	0.162	0.221	0.288	0.365
	13-2-83	8.1		C 3692	2954	2462	2110	1846	1641
2-1/4" x 3/16"	13-4-93	8.3	2.337	U 4673	2991	2077	1526	1168	923
				D 0.064	0.100	0.144	0.196	0.256	0.324
	13-2-93	8.9		C 4673	3738	3115	2670	2337	2077
2-1/2" x 3/16"	13-4-103	9.1	2.885	U 5769	3692	2564	1884	1442	1140
				D 0.058	0.090	0.130	0.176	0.230	0.292
	13-2-103	9.8		C 5769	4615	3846	3297	2885	2564

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.

AP-13 PANEL WIDTH (inches)

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

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

