

10-AP-4 & 10-AP-2 Aluminum Grating

Press-Locked Close Mesh

5/8" Center to Center of Bearing Bars



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



10-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"	4'-0"									
3/4" x 1/8"	10-4-32 10-2-32	2.5 2.9	0.225	U	450	288	200	147	113								
				D	0.192	0.300	0.432	0.588	0.768								
				C	450	360	300	257	225								
3/4" x 3/16"	10-4-33 10-2-33	3.8 4.3	0.338	U	675	432	300	220	169								
				D	0.192	0.300	0.432	0.588	0.768								
				C	675	540	450	386	338								
1" x 1/8"	10-4-42 10-2-42	3.3 3.6	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" x 3/16"	10-4-43 10-2-43	4.9 5.4	0.600	U	1200	768	533	392	300	237	192						
				D	0.144	0.225	0.324	0.441	0.576	0.729	0.900						
				C	1200	960	800	686	600	533	480						
1-1/4" x 1/8"	10-4-52 10-2-52	4.1 4.5	0.625	U	1250	800	556	408	313	247	200	200					
				D	0.115	0.180	0.259	0.353	0.461	0.583	0.720	0.871					
				C	1250	1000	833	714	625	556	556	455					
1-1/4" x 3/16"	10-4-53 10-2-53	6.1 6.8	0.938	U	1875	1200	833	612	469	370	300	248	208				
				D	0.115	0.180	0.259	0.353	0.461	0.583	0.720	0.871	1.037				
				C	1875	1500	1250	1071	938	833	750	682	625				
1-1/2" x 1/8"	10-4-62 10-2-62	4.8 5.3	0.900	U	1800	1152	800	588	450	356	288	238	200				
				D	0.096	0.150	0.216	0.294	0.384	0.486	0.600	0.726	0.864				
				C	1800	1440	1200	1029	900	800	720	655	600				
1-1/2" x 3/16"	10-4-63 10-2-63	7.2 7.9	1.350	U	2700	1728	1200	882	675	533	432	357	300	256			
				D	0.096	0.150	0.216	0.294	0.384	0.486	0.600	0.726	0.864	1.014			
				C	2700	2160	1800	1543	1350	1200	1080	982	900	831			
1-3/4" x 1/8"	10-4-73 10-2-73	8.3 9.0	1.838	U	3675	2352	1633	1200	919	726	588	486	408	348	300	230	
				D	0.082	0.129	0.185	0.252	0.329	0.417	0.514	0.622	0.741	0.869	1.008	1.317	
				C	3675	2940	2450	2100	1838	1633	1470	1336	1225	1131	1050	919	
2" x 3/16"	10-4-83 10-2-83	9.4 10.1	2.400	U	4800	3072	2133	1567	1200	948	768	635	533	454	392	300	237
				D	0.072	0.113	0.162	0.221	0.288	0.365	0.450	0.545	0.648	0.761	0.882	1.152	1.458
				C	4800	3840	3200	2743	2400	2133	1920	1745	1600	1477	1371	1200	1067
2-1/4" x 3/16"	10-4-93 10-2-93	10.5 11.2	3.038	U	6075	3888	2700	1984	1519	1200	972	803	675	575	496	380	300
				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
				C	6075	4860	4050	3471	3038	2700	2430	2209	2025	1869	1736	1519	1350
2-1/2" x 3/16"	10-4-103 10-2-103	11.6 12.3	3.750	U	7500	4800	3333	2449	1875	1481	1200	992	833	710	612	469	370
				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	7500	6000	5000	4286	3750	3333	3000	2727	2500	2308	2143	1857	1667
				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

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.

U= safe uniform load, psf - C= safe concentrated load, p/fw - D= deflection, inches - E= modulus of elasticity, 10,000,000 psi - F= fiber stress, 12,000 psi

AP-10 PANEL WIDTH (inches) Note: Includes 1/4" (1/8" each side) for 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	1 5/8	3 13/16	2 7/8	3 1/2	4 1/8	4 3/4	5 3/8	6	6 5/8	7 1/4	7 7/8	8 1/2	9 1/8	9 3/4	10 3/8	11	11 5/8	12 1/4
3/16" Bar	1 1/16	1 11/16	2 5/16	2 15/16	3 9/16	4 3/16	4 13/16	5 7/16	6 1/16	6 11/16	7 5/16	7 15/16	8 9/16	9 3/16	9 13/16	10 7/16	11 1/16	11 11/16	12 5/16
No. of Bars	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
1/8" Bar	12 7/8	13 1/2	14 1/8	14 3/4	15 3/8	16	16 5/8	17 1/4	17 7/8	18 1/2	19 1/8	19 3/4	20 3/8	21	21 5/8	22 1/4	22 7/8	23 1/2	24 1/8
3/16" Bar	12 15/16	13 9/16	14 3/16	14 13/16	15 7/16	16 1/16	16 11/16	17 5/16	17 15/16	18 9/16	19 3/16	19 13/16	20 7/16	21 1/16	21 11/16	22 5/16	22 15/16	23 9/16	24 3/16
No. of Bars	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58
1/8" Bar	24 3/4	25 3/8	26	26 5/8	27 1/4	27 7/8	28 1/2	29 1/8	29 3/4	30 3/8	31	31 5/8	32 1/4	32 7/8	33 1/2	34 1/8	34 3/4	35 3/8	36
3/16" Bar	24 13/16	25 7/16	26 1/16	26 11/16	27 5/16	27 15/16	28 9/16	29 3/16	29 13/16	30 7/16	31 1/16	31 11/16	32 5/16	32 15/16	33 9/16	34 3/16	34 13/16	35 7/16	36 1/16