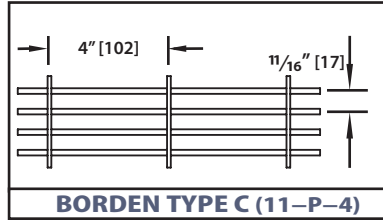




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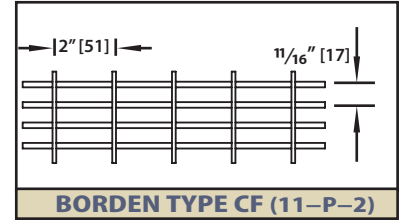
Pressure Locked Grating Aluminum

LOAD TABLE



BORDEN TYPE C (11-P-4)

Free air % for 1/8" bars: 79.26%
Free air % for 3/16" bars: 70.45%



BORDEN TYPE CF (11-P-2)

Free air % for 1/8" bars: 76.70%
Free air % for 3/16" bars: 68.18%

Size No.	Bearing Bar Size	Weight (#/ft. ²)	Moment of Inertia (in. ⁴ /ft.w.)	Section Modulus (in. ³ /ft.w.)	Maximum span recommended for 1/4" deflection under uniform load of 100 psf. (normal pedestrian traffic) in inches																			
					Span in Inches																			
					24	30	36	42	48	54	60	66	72	78	84	96	108							
1	3/4" x 1/8"	2.17 2.44	0.0767	0.2045	36	U	409	262	182	134	102	81	65	Table in accordance with NAAMM MBG 531-09										
						Du	0.192	0.300	0.432	0.588	0.768	0.972	1.200	F - 12,000 psi										
						Dc	0.154	0.240	0.346	0.470	0.614	0.778	0.960	E - 10,000,000 psi										
2	3/4" x 3/16"	3.17 3.50	0.1151	0.3068	40	U	614	393	273	200	153	121	98	Alloys 6061 T6 and 6063 T6										
						Du	0.192	0.300	0.432	0.588	0.768	0.972	1.200	U - Safe Uniform Load (lbs./sq.ft.)										
						Dc	0.154	0.240	0.346	0.470	0.614	0.778	0.960	C - Safe Conc. load (lbs./ft. width)										
3	1" x 1/8"	2.97 3.40	0.1818	0.3636	45	U	727	465	323	237	182	144	116	96	81	69	D - Deflection in inches f.w. = foot width							
						Du	0.144	0.225	0.324	0.441	0.576	0.729	0.900	1.089	1.296	1.521	1.764	2.304	2.844	3.384	3.924			
						Dc	0.115	0.180	0.259	0.353	0.461	0.583	0.720	0.871	1.037	1.217	1.411	1.618	1.836	2.064	2.304			
4	1" x 3/16"	4.23 4.66	0.2727	0.5455	50	U	1091	698	485	356	273	215	175	144	121	103	89	68	54					
						Du	0.144	0.225	0.324	0.441	0.576	0.729	0.900	1.089	1.296	1.521	1.764	2.004	2.244	2.484				
						Dc	0.115	0.180	0.259	0.353	0.461	0.583	0.720	0.871	1.037	1.217	1.411	1.618	1.836	2.064				
5	1 1/4" x 1/8"	3.60 4.03	0.3551	0.5682	53	U	1136	727	505	371	284	224	182	150	126	108	93	71	56					
						Du	0.115	0.180	0.259	0.353	0.461	0.583	0.720	0.871	1.037	1.217	1.411	1.618	1.836	2.064				
						Dc	0.092	0.144	0.207	0.282	0.369	0.467	0.576	0.697	0.829	0.973	1.129	1.296	1.475	1.666				
6	1 1/4" x 3/16"	5.18 5.61	0.5327	0.8523	59	U	1705	1091	758	557	426	337	273	225	189	161	139	107	84					
						Du	0.115	0.180	0.259	0.353	0.461	0.583	0.720	0.871	1.037	1.217	1.411	1.618	1.836	2.064				
						Dc	0.092	0.144	0.207	0.282	0.369	0.467	0.576	0.697	0.829	0.973	1.129	1.296	1.475	1.666				
7	1 1/2" x 1/8"	4.24 4.67	0.6136	0.8182	61	U	1636	1047	727	534	409	323	262	216	182	155	134	102	81					
						Du	0.096	0.150	0.216	0.294	0.384	0.486	0.600	0.726	0.864	1.014	1.176	1.336	1.506	1.686				
						Dc	0.077	0.120	0.173	0.235	0.307	0.389	0.480	0.581	0.691	0.811	0.941	1.081	1.231	1.391				
8	1 1/2" x 3/16"	6.13 6.56	0.9205	1.2273	68	U	2455	1571	1091	801	614	485	393	325	273	232	200	153	121					
						Du	0.096	0.150	0.216	0.294	0.384	0.486	0.600	0.726	0.864	1.014	1.176	1.336	1.506	1.686				
						Dc	0.077	0.120	0.173	0.235	0.307	0.389	0.480	0.581	0.691	0.811	0.941	1.081	1.231	1.391				
9	1 3/4" x 3/16"	7.08 7.51	1.4616	1.6705	76	U	3341	2138	1485	1091	835	660	535	442	371	316	273	209	165					
						Du	0.082	0.129	0.185	0.252	0.329	0.417	0.514	0.622	0.741	0.869	1.008	1.137	1.276	1.425				
						Dc	0.066	0.103	0.148	0.202	0.263	0.333	0.411	0.498	0.592	0.695	0.806	0.925	1.053	1.192				
10	2" x 3/16"	8.03 8.46	2.1818	2.1818	84	U	4364	2793	1939	1425	1091	862	698	577	485	413	356	273	215					
						Du	0.072	0.113	0.162	0.221	0.288	0.365	0.450	0.545	0.648	0.761	0.882	1.012	1.151	1.300				
						Dc	0.058	0.090	0.130	0.176	0.230	0.292	0.360	0.436	0.518	0.608	0.706	0.815	0.934	1.063				
11	2 1/4" x 3/16"	8.98 9.41	3.1065	2.7614	92	U	5523	3535	2455	1803	1381	1091	884	730	614	523	451	345	273					
						Du	0.064	0.100	0.144	0.196	0.256	0.324	0.400	0.484	0.576	0.676	0.784	0.901	1.028	1.165				
						Dc	0.051	0.080	0.115	0.157	0.205	0.259	0.320	0.387	0.461	0.541	0.627	0.719	0.817	0.922				
12	2 1/2" x 3/16"	9.94 10.36	4.2614	3.4091	100	U	6818	4364	3030	2226	1705	1347	1091	902	758	646	557	426	337					
						Du	0.058	0.090	0.130	0.176	0.230	0.292	0.360	0.436	0.518	0.608	0.706	0.815	0.934	1.063				
						Dc	0.046	0.072	0.104	0.141	0.184	0.233	0.288	0.348	0.415	0.487	0.564	0.647	0.737	0.833				

All loads and deflections are based on gross sections and nominal sizes of bearing bars. The values listed are for design selection only and are not intended to be "absolute".

Actual load capacity will be affected slightly by variations which can be expected due to material and manufacturing tolerances.

1/4" is considered the maximum deflection which is consistent with pedestrian comfort, but may be exceeded for other application at the discretion of the Engineer.

When serrated gratings are specified, increase the depth of the grating selected from the table by 1/4" to allow for the serrations.

PANEL WIDTHS (inches)																		
# Bars	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
3/16" Bars	7/8	1 9/16	2 1/4	2 5/16	3 5/8	4 5/16	5	5 11/16	6 3/8	7 1/16	7 3/4	8 7/16	9 1/8	9 13/16	10 1/2	11 3/16	11 7/8	12 9/16
1/8" Bars	1 3/16	1 1/2	2 3/16	2 7/8	3 9/16	4 1/4	4 5/16	5 5/8	6 5/16	7	7 11/16	8 3/8	9 1/16	9 3/4	10 7/16	11 1/8	11 13/16	12 1/2
# Bars	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
3/16" Bars	13 1/4	13 15/16	14 5/8	15 5/16	16	16 11/16	17 3/8	18 1/16	18 3/4	19 7/16	20 1/8	20 13/16	21 1/2	22 3/16	22 7/8	23 9/16	24 1/4	24 5/16
1/8" Bars	13 3/16	13 7/8	14 9/16	15 1/4	15 15/16	16 5/8	17 5/16	18	18 11/16	19 3/8	20 1/16	20 3/4	21 7/16	22 1/8	22 13/16	23 1/2	24 3/16	24 7/8
# Bars	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53		
3/16" Bars	25 5/8	26 7/16	27	27 11/16	28 3/8	29 1/16	29 3/4	30 7/16	31 1/8	31 13/16	32 1/2	33 3/16	33 7/8	34 9/16	35 1/4	35 15/16		
1/8" Bars	25 9/16	26 1/4	26 15/16	27 5/8	28 5/16	29	29 11/16	30 3/8	31 1/16	31 3/4	32 7/16	33 1/8	33 13/16	34 1/2	35 3/16	35 7/8		