BORDEN GRATINGS

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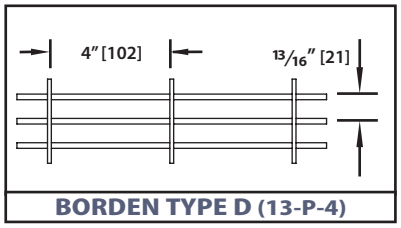
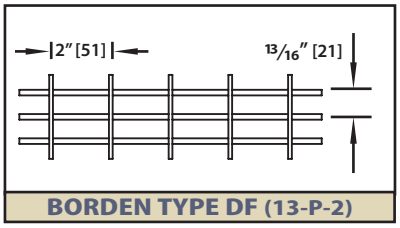
Pressure Locked Grating Aluminum



BORDEN TYPE D (13-P-4)



BORDEN TYPE DF (13-P-2)

LOAD TABLE

Size No.	Bearing Bar Size	Weight (#/ft.²)	Moment of Inertia (in.⁴/f.w.)	Section Modulus (in.³/f.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"	1.89	0.0649	0.1731	35	U 346	222	154	113	87	68	55						
		2.15				Du 0.192	0.300	0.432	0.588	0.768	0.972	1.200						
						C 346	277	231	198	173	154	138						
						Dc 0.154	0.240	0.346	0.470	0.614	0.778	0.960						
2	3/4" x 3/16"	2.74	0.0974	0.2596	39	U 519	332	231	170	130	103	83						
		3.07				Du 0.192	0.300	0.432	0.588	0.768	0.972	1.200						
						C 519	415	346	297	260	231	208						
						Dc 0.154	0.240	0.346	0.470	0.614	0.778	0.960						
3	1" x 1/8"	2.59	0.1538	0.3077	43	U 615	394	274	201	154	122	98	81	68	58			
		3.02				Du 0.144	0.225	0.324	0.441	0.576	0.729	0.900	1.089	1.296	1.521			
						C 615	492	410	352	308	274	246	224	205	189			
						Dc 0.115	0.180	0.259	0.353	0.461	0.583	0.720	0.871	1.037	1.217			
4	1"x 3/16"	3.66	0.2308	0.4615	48	U 923	591	410	301	231	182	148	122	103	87	75	58	46
		4.09				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	2.916
						C 923	738	615	527	462	410	369	336	308	284	264	231	205
						Dc 0.115	0.180	0.259	0.353	0.461	0.583	0.720	0.871	1.037	1.217	1.411	1.843	2.333
5	1 1/4" x 1/8"	3.12	0.3005	0.4808	51	U 962	615	427	314	240	190	154	127	107	91	78	60	47
		3.55				Du 0.115	0.180	0.259	0.353	0.461	0.583	0.720	0.871	1.037	1.217	1.411	1.843	2.333
						C 962	769	641	549	481	427	385	350	321	296	275	240	214
						Dc 0.092	0.144	0.207	0.282	0.369	0.467	0.576	0.697	0.829	0.973	1.129	1.475	1.866
6	1 1/4"x 3/16"	4.47	0.4507	0.7212	57	U 1442	923	641	471	361	285	231	191	160	137	118	90	71
		4.89				Du 0.115	0.180	0.259	0.353	0.461	0.583	0.720	0.871	1.037	1.217	1.411	1.843	2.333
						C 1442	1154	962	824	721	641	577	524	481	444	412	361	321
						Dc 0.092	0.144	0.207	0.282	0.369	0.467	0.576	0.697	0.829	0.973	1.129	1.475	1.866
7	1 1/2"x 1/8"	3.66	0.5192	0.6923	59	U 1385	886	615	452	346	274	222	183	154	131	113	87	68
		4.09				Du 0.096	0.150	0.216	0.294	0.384	0.486	0.600	0.726	0.864	1.014	1.176	1.536	1.944
						C 1385	1108	923	791	692	615	554	503	462	426	396	346	308
						Dc 0.077	0.120	0.173	0.235	0.307	0.389	0.480	0.581	0.691	0.811	0.941	1.229	1.555
8	1 1/2"x 3/16"	5.27	0.7788	1.0385	65	U 2077	1329	923	678	519	410	332	275	231	197	170	130	103
		5.70				Du 0.096	0.150	0.216	0.294	0.384	0.486	0.600	0.726	0.864	1.014	1.176	1.536	1.944
						C 2077	1662	1385	1187	1038	923	831	755	692	639	593	519	462
						Dc 0.077	0.120	0.173	0.235	0.307	0.389	0.480	0.581	0.691	0.811	0.941	1.229	1.555
9	1 3/4"x 3/16"	6.08	1.2368	1.4135	73	U 2827	1809	1256	923	707	558	452	374	314	268	231	177	140
		6.51				Du 0.082	0.129	0.185	0.252	0.329	0.417	0.514	0.622	0.741	0.869	1.008	1.317	1.666
						C 2827	2262	1885	1615	1413	1256	1131	1028	942	870	808	707	628
						Dc 0.066	0.103	0.148	0.202	0.263	0.333	0.411	0.498	0.592	0.695	0.806	1.053	1.333
10	2"x 3/16"	6.89	1.8462	1.8462	81	U 3692	2363	1641	1206	923	729	591	488	410	350	301	231	182
		7.32				Du 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 3692	2954	2462	2110	1846	1641	1477	1343	1231	1136	1055	923	821
						Dc 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
11	2 1/4"x 3/16"	7.69	2.6286	2.3365	88	U 4673	2991	2077	1526	1168	923	748	618	519	442	381	292	231
		8.12				Du 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 4673	3738	3115	2670	2337	2077	1869	1699	1558	1438	1335	1168	1038
						Dc 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
12	2 1/2"x 3/16"	8.50	3.6058	2.8846	95	U 5769	3692	2564	1884	1442	1140	923	763	641	546	471	361	285
		8.93				Du 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 5769	4615	3846	3297	2885	2564	2308	2098	1923	1775	1648	1442	1282
						Dc 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

Table in accordance with NAAMM MBG 531-00

F - 12,000 psi
E - 10,000,000 psi
Alloys 6061 T6 and 6063 T6

U - Safe Uniform Load (lbs./sq.ft.)
C - Safe Conc. load (lbs./ft. width)
D - Deflection in inches
f.w. = foot width

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.

¼" 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 ¼" 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	20
3/16" Bars	1	1 13/16	2 5/8	3 7/16	4 1/4	5 1/16	5 7/8	6 11/16	7 1/2	8 5/16	9 1/8	9 15/16	10 3/4	11 9/16	12 3/8	13 3/16	14	14 13/16	15 5/8
1/8" Bars	15/16	1 3/4	2 9/16	3 3/8	4 3/16	5	5 13/16	6 5/8	7 7/16	8 1/4	9 1/16	9 7/8	10 11/16	11 1/2	12 5/16	13 1/8	13 15/16	14 3/4	15 9/16
# Bars	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
3/16" Bars	16 7/16	17 1/4	18 1/16	18 7/8	19 11/16	20 1/2	21 5/16	22 1/8	22 15/16	23 3/4	24 9/16	25 3/8	26 3/16	27	27 13/16	28 5/8	29 7/16	30 1/4	31 1/16
1/8" Bars	16 3/8	17 3/16	18	18 13/16	19 5/8	20 7/16	21 1/4	22 1/16	22 7/8	23 11/16	24 1/2	25 5/16	26 1/8	26 15/16	27 3/4	28 9/16	29 3/8	30 3/16	31
# Bars	40	41	42	43	44	45													
3/16" Bars	31 7/8	32 11/16	33 1/2	34 5/16	35 1/8	35 15/16													
1/8" Bars	31 13/16	32 5/8	33 7/16	34 1/4	35 1/16	35 7/8													