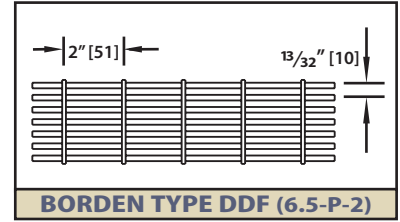
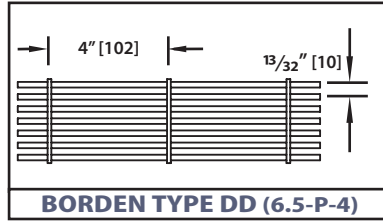


# BORDEN GRATINGS

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## Pressure Locked Grating Aluminum



### LOAD TABLE

Size No.	Bearing Bar Size	Weight (#/ft. <sup>2</sup> )	Moment of Inertia (in. <sup>4</sup> /ft.w.)	Section Modulus (in. <sup>3</sup> /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"	3.47 3.74	0.1298	0.3462	42	U	692	443	308	226	173	137	111	<b>Table in accordance with NAAMM MBG 531-00</b> 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									
						Du	0.192	0.300	0.432	0.588	0.768	0.972	1.200										
						C	692	554	462	396	346	308	277										
						Dc	0.154	0.240	0.346	0.470	0.614	0.778	0.960										
2	3/4" x 3/16"	5.11 5.43	0.1947	0.5192	46	U	1038	665	462	339	260	205	166										
						Du	0.192	0.300	0.432	0.588	0.768	0.972	1.200										
						C	1038	831	692	593	519	462	415										
						Dc	0.154	0.240	0.346	0.470	0.614	0.778	0.960										
3	1" x 1/8"	4.69 5.12	0.3077	0.6154	52	U	1231	788	547	402	308	243	197										
						Du	0.144	0.225	0.324	0.441	0.576	0.729	0.900										
						C	1231	985	821	703	615	547	492										
						Dc	0.115	0.180	0.259	0.353	0.461	0.583	0.720										
4	1" x 3/16"	6.81 7.24	0.4615	0.9231	57	U	1846	1182	821	603	462	365	295										
						Du	0.144	0.225	0.324	0.441	0.576	0.729	0.900										
						C	1846	1477	1231	1055	923	821	738										
						Dc	0.115	0.180	0.259	0.353	0.461	0.583	0.720										
5	1 1/4" x 1/8"	5.76 6.19	0.6010	0.9615	61	U	1923	1231	855	628	481	380	308										
						Du	0.115	0.180	0.259	0.353	0.461	0.583	0.720										
						C	1923	1538	1282	1099	962	855	769										
						Dc	0.092	0.144	0.207	0.282	0.369	0.467	0.576										
6	1 1/4" x 3/16"	8.41 8.84	0.9014	1.4423	68	U	2885	1846	1282	942	721	570	462										
						Du	0.115	0.180	0.259	0.353	0.461	0.583	0.720										
						C	2885	2308	1923	1648	1442	1282	1154										
						Dc	0.092	0.144	0.207	0.282	0.369	0.467	0.576										
7	1 1/2" x 1/8"	6.83 7.26	1.0385	1.3846	70	U	2769	1772	1231	904	692	547	443										
						Du	0.096	0.150	0.216	0.294	0.384	0.486	0.600										
						C	2769	2215	1846	1582	1385	1231	1108										
						Dc	0.077	0.120	0.173	0.235	0.307	0.389	0.480										
8	1 1/2" x 3/16"	10.01 10.44	1.5577	2.0769	77	U	4154	2658	1846	1356	1038	821	665										
						Du	0.096	0.150	0.216	0.294	0.384	0.486	0.600										
						C	4154	3323	2769	2374	2077	1846	1662										
						Dc	0.077	0.120	0.173	0.235	0.307	0.389	0.480										
9	1 3/4" x 3/16"	11.60 12.03	2.4736	2.8269	87	U	5654	3618	2513	1846	1417	1117	905										
						Du	0.082	0.129	0.185	0.252	0.329	0.417	0.514										
						C	5654	4523	3769	3231	2827	2513	2262										
						Dc	0.066	0.103	0.148	0.202	0.263	0.333	0.411										
10	2" x 3/16"	13.20 13.63	3.6923	3.6923	96	U	7385	4726	3282	2411	1846	1459	1182										
						Du	0.072	0.113	0.162	0.221	0.288	0.365	0.450										
						C	7385	5908	4923	4220	3692	3282	2954										
						Dc	0.058	0.090	0.130	0.176	0.230	0.292	0.360										
11	2 1/4" x 3/16"	14.80 15.23	5.2572	4.6731	105	U	9346	5982	4154	3052	2337	1846	1495										
						Du	0.064	0.100	0.144	0.196	0.256	0.324	0.400										
						C	9346	7477	6231	5341	4673	4154	3738										
						Dc	0.051	0.080	0.115	0.157	0.205	0.259	0.320										
12	2 1/2" x 3/16"	16.39 16.82	7.2115	5.7692	114	U	11538	7385	5128	3768	2885	2279	1846										
						Du	0.058	0.090	0.130	0.176	0.230	0.292	0.360										
						C	11538	9231	7692	6593	5769	5128	4615										
						Dc	0.046	0.072	0.104	0.141	0.184	0.233	0.288										

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	20	21	22
3/16" Bars	19/32	1	1 13/32	1 13/16	2 7/32	2 5/8	3 1/32	3 7/16	3 27/32	4 1/4	4 21/32	5 1/16	5 15/32	5 7/8	6 9/32	6 11/16	7 3/32	7 1/2	7 29/32	8 5/16	8 23/32
1/8" Bars	17/32	15/16	1 11/32	1 3/4	2 5/32	2 9/16	2 31/32	3 3/8	3 25/32	4 3/16	4 19/32	5	5 13/32	5 13/16	6 7/32	6 5/8	7 1/32	7 7/16	7 27/32	8 1/4	8 21/32
# Bars	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
3/16" Bars	9 1/8	9 17/32	9 5/16	10 11/32	10 3/4	11 5/32	11 9/16	11 31/32	12 3/8	12 25/32	13 3/16	13 19/32	14	14 13/32	14 13/16	15 5/32	15 5/8	16 1/32	16 7/16	16 27/32	17 1/4
1/8" Bars	9 1/16	9 15/32	9 7/8	10 9/32	10 11/16	11 3/32	11 1/2	11 29/32	12 5/16	12 23/32	13 1/8	13 17/32	14	14 11/32	14 3/4	15 5/32	15 9/16	16 1/32	16 3/8	16 25/32	17 3/16
# Bars	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
3/16" Bars	17 1/32	18 1/16	18 15/32	18 7/8	19 9/32	19 11/16	20 3/32	20 1/2	20 29/32	21 5/16	21 23/32	22 1/8	22 17/32	22 15/16	23 1/32	23 3/4	24 5/32	24 9/16	24 31/32	25 3/8	25 25/32
1/8" Bars	17 19/32	18	18 13/32	18 13/16	19 7/32	19 5/8	20 1/32	20 7/16	20 27/32	21 1/4	21 21/32	22 1/16	22 15/32	22 7/8	23 9/32	23 11/16	24 3/32	24 1/2	24 29/32	25 5/16	25 23/32
# Bars	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85
3/16" Bars	26 3/16	26 19/32	27	27 13/32	27 13/16	28 7/32	28 5/8	29 1/32	29 7/16	29 27/32	30 1/4	30 21/32	31 1/16	31 15/32	31 7/8	32 9/32	32 11/16	33 3/32	33 1/2	33 29/32	34 5/16
1/8" Bars	26 1/8	26 7/32	26 5/16	27 11/32	27 3/4	28 5/32	28 9/16	28 31/32	29 3/8	29 25/32	30 3/16	30 19/32	31	31 13/32	31 13/16	32 7/32	32 5/8	33 1/32	33 7/16	33 27/32	34 1/4
# Bars	86	87	88	89																	
3/16" Bars	34 23/32	35 1/8	35 17/32	35 15/16																	
1/8" Bars	34 21/32	35 1/16	35 15/32	35 7/8																	