BORDEN GRATINGS
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Pressure Locked Grating Aluminum

LOAD TABLE

BORDEN TYPE L (16-P-4) — 4" [102], 1" [25]

BORDEN TYPE LF (16-P-2) — 2" [51], 1" [25]

Maximum span recommended for ¼" deflection under uniform load of 100 psf. (normal pedestrian traffic) in inches
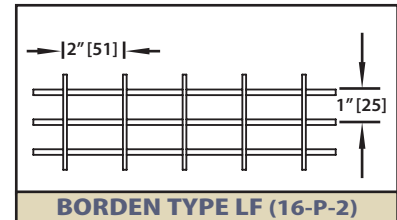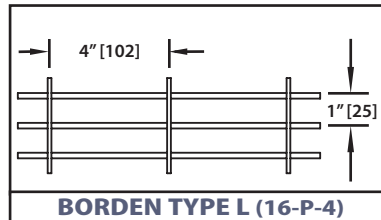
Size No.	Bearing Bar Size	Weight (#/ft.²)	Moment of Inertia (in.⁴/f.w.)	Section Modulus (in.³/f.w.)		Row	24	30	36	42	48	54	60	66	72	78	84	96	108
1	¾"×⅛"	1.56 / 1.83	0.0527	0.1406	33	U	281	180	125	92	70	56	45	37	31	27	23	18	14
						Du	0.192	0.300	0.432	0.588	0.768	0.972	1.200	1.452	1.728	2.028	2.352	3.072	3.888
						C	281	225	188	161	141	125	113	102	94	87	80	70	63
						Dc	0.154	0.240	0.346	0.470	0.614	0.778	0.960	1.162	1.382	1.622	1.882	2.458	3.110
2	¾"×³⁄₁₆"	2.26 / 2.58	0.0791	0.2109	37	U	422	270	188	138	105	83	68	56	47	40	34	26	21
						Du	0.192	0.300	0.432	0.588	0.768	0.972	1.200	1.452	1.728	2.028	2.352	3.072	3.888
						C	422	338	281	241	211	188	169	153	141	130	121	105	94
						Dc	0.154	0.240	0.346	0.470	0.614	0.778	0.960	1.162	1.382	1.622	1.882	2.458	3.110
3	1"×⅛"	2.15 / 2.58	0.1250	0.2500	41	U	500	320	222	163	125	99	80	66	56	47	41	31	25
						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	500	400	333	286	250	222	200	182	167	154	143	125	111
						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
4	1"×³⁄₁₆"	3.01 / 3.44	0.1875	0.3750	46	U	750	480	333	245	188	148	120	99	83	71	61	47	37
						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	750	600	500	429	375	333	300	273	250	231	214	188	167
						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	1¼"×⅛"	2.58 / 3.01	0.2441	0.3906	49	U	781	500	347	255	195	154	125	103	87	74	64	49	39
						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	781	625	521	446	391	347	313	284	260	240	223	195	174
						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	1¼"×³⁄₁₆"	3.65 / 4.08	0.3662	0.5859	54	U	1172	750	521	383	293	231	188	155	130	111	96	73	58
						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	1172	938	781	670	586	521	469	426	391	361	335	293	260
						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	1½"×⅛"	3.01 / 3.44	0.4219	0.5625	56	U	1125	720	500	367	281	222	180	149	125	107	92	70	56
						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	1125	900	750	643	563	500	450	409	375	346	321	281	250
						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	1½"×³⁄₁₆"	4.30 / 4.73	0.6328	0.8438	62	U	1688	1080	750	551	422	333	270	223	188	160	138	105	83
						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	1688	1350	1125	964	844	750	675	614	563	519	482	422	375
						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	1¾"×³⁄₁₆"	4.94 / 5.37	1.0049	1.1484	69	U	2297	1470	1021	750	574	454	368	304	255	217	188	144	113
						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	2297	1838	1531	1313	1148	1021	919	835	766	707	656	574	510
						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"×³⁄₁₆"	5.59 / 6.02	1.5000	1.5000	77	U	3000	1920	1333	980	750	593	480	397	333	284	245	188	148
						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	3000	2400	2000	1714	1500	1333	1200	1091	1000	923	857	750	667
						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	2¼"×³⁄₁₆"	6.23 / 6.66	2.1357	1.8984	84	U	3797	2430	1688	1240	949	750	608	502	422	359	310	237	188
						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	3797	3038	2531	2170	1898	1688	1519	1381	1266	1168	1085	949	844
						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	2½"×³⁄₁₆"	6.88 / 7.30	2.9297	2.3438	91	U	4688	3000	2083	1531	1172	926	750	620	521	444	383	293	231
						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	4688	3750	3125	2679	2344	2083	1875	1705	1563	1442	1339	1172	1042
						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

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	1³⁄₁₆	2³⁄₁₆	3³⁄₁₆	4³⁄₁₆	5³⁄₁₆	6³⁄₁₆	7³⁄₁₆	8³⁄₁₆	9³⁄₁₆	10³⁄₁₆	11³⁄₁₆	12³⁄₁₆	13³⁄₁₆	14³⁄₁₆	15³⁄₁₆	16³⁄₁₆	17³⁄₁₆	18³⁄₁₆	19³⁄₁₆
⅛" Bars	1⅛	2⅛	3⅛	4⅛	5⅛	6⅛	7⅛	8⅛	9⅛	10⅛	11⅛	12⅛	13⅛	14⅛	15⅛	16⅛	17⅛	18⅛	19⅛
# Bars	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36			
³⁄₁₆" Bars	20³⁄₁₆	21³⁄₁₆	22³⁄₁₆	23³⁄₁₆	24³⁄₁₆	25³⁄₁₆	26³⁄₁₆	27³⁄₁₆	28³⁄₁₆	29³⁄₁₆	30³⁄₁₆	31³⁄₁₆	32³⁄₁₆	33³⁄₁₆	34³⁄₁₆	35³⁄₁₆			
⅛" Bars	20⅛	21⅛	22⅛	23⅛	24⅛	25⅛	26⅛	27⅛	28⅛	29⅛	30⅛	31⅛	32⅛	33⅛	34⅛	35⅛			