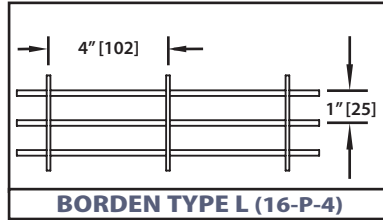




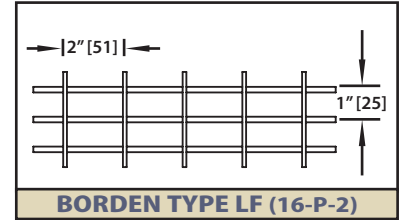
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# Pressure Locked Grating Steel



**BORDEN TYPE L (16-P-4)**

Free air % for 1/8" bars: 84.77%  
Free air % for 3/16" bars: 78.71%



**BORDEN TYPE LF (16-P-2)**

Free air % for 1/8" bars: 82.03%  
Free air % for 3/16" bars: 76.17%

## LOAD TABLE

Size No.	Bearing Bar Size	Weight (#/ft.2)	Moment of Inertia (in. <sup>4</sup> /f.w.)	Section Modulus (in. <sup>3</sup> /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"	4.63 5.42	0.0527	0.1406	43	U	422	270	188	138	105	83	68	56	47	40	34	26	21
						Du	0.099	0.155	0.223	0.304	0.397	0.503	0.621	0.751	0.894	1.049	1.217	1.589	2.011
						C	422	338	281	241	211	188	169	153	141	130	121	105	94
						Dc	0.079	0.124	0.179	0.243	0.318	0.402	0.497	0.601	0.715	0.839	0.973	1.271	1.609
2	3/4" x 3/16"	6.70 7.66	0.0791	0.2109	48	U	633	405	281	207	158	125	101	84	70	60	52	40	31
						Du	0.099	0.155	0.223	0.304	0.397	0.503	0.621	0.751	0.894	1.049	1.217	1.589	2.011
						C	633	506	422	362	316	281	253	230	211	195	181	158	141
						Dc	0.079	0.124	0.179	0.243	0.318	0.402	0.497	0.601	0.715	0.839	0.973	1.271	1.609
3	1" x 1/8"	6.38 7.66	0.1250	0.2500	54	U	750	480	333	245	188	148	120	99	83	71	61	47	37
						Du	0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563	0.670	0.787	0.912	1.192	1.508
						C	750	600	500	429	375	333	300	273	250	231	214	188	167
						Dc	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629	0.730	0.953	1.207
4	1" x 3/16"	8.93 10.21	0.1875	0.3750	59	U	1125	720	500	367	281	222	180	149	125	107	92	70	56
						Du	0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563	0.670	0.787	0.912	1.192	1.508
						C	1125	900	750	643	563	500	450	409	375	346	321	281	250
						Dc	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629	0.730	0.953	1.207
5	1 1/4" x 1/8"	7.66 8.93	0.2441	0.3906	64	U	1172	750	521	383	293	231	188	155	130	111	96	73	58
						Du	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629	0.730	0.953	1.207
						C	1172	938	781	670	586	521	469	426	391	361	335	293	260
						Dc	0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.360	0.429	0.504	0.584	0.763	0.965
6	1 1/4" x 3/16"	10.85 12.12	0.3662	0.5859	70	U	1758	1125	781	574	439	347	281	232	195	166	143	110	87
						Du	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629	0.730	0.953	1.207
						C	1758	1406	1172	1004	879	781	703	639	586	541	502	439	391
						Dc	0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.360	0.429	0.504	0.584	0.763	0.965
7	1 1/2" x 1/8"	8.93 10.21	0.4219	0.5625	73	U	1688	1080	750	551	422	333	270	223	188	160	138	105	83
						Du	0.050	0.078	0.112	0.152	0.199	0.251	0.310	0.376	0.447	0.524	0.608	0.794	1.006
						C	1688	1350	1125	964	844	750	675	614	563	519	482	422	375
						Dc	0.040	0.062	0.089	0.122	0.159	0.201	0.248	0.300	0.358	0.420	0.487	0.636	0.804
8	1 1/2" x 3/16"	12.76 14.04	0.6328	0.8438	81	U	2531	1620	1125	827	633	500	405	335	281	240	207	158	125
						Du	0.050	0.078	0.112	0.152	0.199	0.251	0.310	0.376	0.447	0.524	0.608	0.794	1.006
						C	2531	2025	1688	1446	1266	1125	1013	920	844	779	723	633	563
						Dc	0.040	0.062	0.089	0.122	0.159	0.201	0.248	0.300	0.358	0.420	0.487	0.636	0.804
9	1 3/4" x 3/16"	14.67 15.95	1.0049	1.1484	91	U	3445	2205	1531	1125	861	681	551	456	383	326	281	215	170
						Du	0.043	0.067	0.096	0.130	0.170	0.215	0.266	0.322	0.383	0.450	0.521	0.681	0.862
						C	3445	2756	2297	1969	1723	1531	1378	1253	1148	1060	984	861	766
						Dc	0.034	0.053	0.077	0.104	0.136	0.172	0.213	0.257	0.306	0.360	0.417	0.545	0.689
10	2" x 3/16"	16.59 17.86	1.5000	1.5000	100	U	4500	2880	2000	1469	1125	889	720	595	500	426	367	281	222
						Du	0.037	0.058	0.084	0.114	0.149	0.189	0.233	0.282	0.335	0.393	0.456	0.596	0.754
						C	4500	3600	3000	2571	2250	2000	1800	1636	1500	1385	1286	1125	1000
						Dc	0.030	0.047	0.067	0.091	0.119	0.151	0.186	0.225	0.268	0.315	0.365	0.477	0.603
11	2 1/4" x 3/16"	18.50 19.78	2.1357	1.8984	109	U	5695	3645	2531	1860	1424	1125	911	753	633	539	465	356	281
						Du	0.033	0.052	0.074	0.101	0.132	0.168	0.207	0.250	0.298	0.350	0.406	0.530	0.670
						C	5695	4556	3797	3254	2848	2531	2278	2071	1898	1752	1627	1424	1266
						Dc	0.026	0.041	0.060	0.081	0.106	0.134	0.166	0.200	0.238	0.280	0.324	0.424	0.536
12	2 1/2" x 3/16"	20.42 21.69	2.9297	2.3438	118	U	7031	4500	3125	2296	1758	1389	1125	930	781	666	574	439	347
						Du	0.030	0.047	0.067	0.091	0.119	0.151	0.186	0.225	0.268	0.315	0.365	0.477	0.603
						C	7031	5625	4688	4018	3516	3125	2813	2557	2344	2163	2009	1758	1563
						Dc	0.024	0.037	0.054	0.073	0.095	0.121	0.149	0.180	0.215	0.252	0.292	0.381	0.483

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