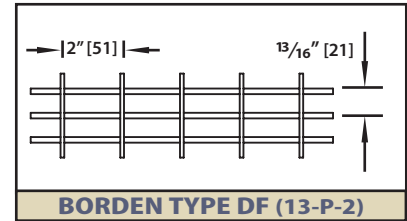
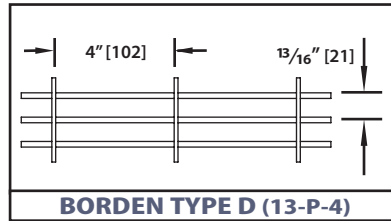




www.bordengratings.com

Pressure Locked Grating Steel



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														Table in accordance with NAAMM MBG 531-00 F - 18,000 psi E - 29,000,000 psi								
					24	30	36	42	48	54	60	66	72	78	84	96	108										
1	3/4" x 1/8"	5.60	0.0649	0.1731	46	U	519	332	231	170	130	103	83	Table in accordance with NAAMM MBG 531-00 F - 18,000 psi E - 29,000,000 psi													
		Du				0.099	0.155	0.223	0.304	0.397	0.503	0.621															
		Dc				0.079	0.124	0.179	0.243	0.318	0.402	0.497															
2	3/4" x 3/16"	8.15	0.0974	0.2596	51	U	779	498	346	254	195	154	125	U - Safe Uniform Load (lbs./sq.ft.) C - Safe Conc. load (lbs./ft. width) D - Deflection in inches f.w. = foot width													
		Du				0.099	0.155	0.223	0.304	0.397	0.503	0.621															
		Dc				0.079	0.124	0.179	0.243	0.318	0.402	0.497															
3	1" x 1/8"	7.68	0.1538	0.3077	57	U	923	591	410	301	231	182	148	283	260	240	113	87	68								
		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									
		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"	10.86	0.2308	0.4615	63	U	1385	886	615	452	346	274	222	183	154	131	113	87	68								
		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									
		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"	9.28	0.3005	0.4808	67	U	1442	923	641	471	361	285	231	191	160	137	118	90	71								
		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									
		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"	13.26	0.4507	0.7212	74	U	2163	1385	962	706	541	427	346	286	240	205	177	135	107								
		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									
		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"	10.88	0.5192	0.6923	77	U	2077	1329	923	678	519	410	332	275	231	197	170	130	103								
		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									
		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"	15.66	0.7788	1.0385	85	U	3115	1994	1385	1017	779	615	498	412	346	295	254	195	154								
		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									
		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"	18.05	1.2368	1.4135	95	U	4240	2714	1885	1385	1060	838	678	561	471	401	346	265	209								
		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									
		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"	20.45	1.8462	1.8462	105	U	5538	3545	2462	1808	1385	1094	886	732	615	524	452	346	274								
		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									
		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"	22.85	2.6286	2.3365	115	U	7010	4486	3115	2289	1752	1385	1122	927	779	664	572	438	346								
		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									
		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"	25.24	3.6058	2.8846	125	U	8654	5538	3846	2826	2163	1709	1385	1144	962	819	706	541	427								
		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									
		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	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	1 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													