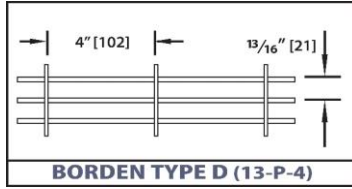




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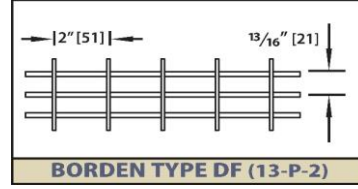
Pressure Locked Grating Steel

LOAD TABLE



BORDEN TYPE D (13-P-4)

Free air % for 1/8" bars: 81.97%
Free air % for 3/16" bars: 74.52%



BORDEN TYPE DF (13-P-2)

Free air % for 1/8" bars: 79.33%
Free air % for 3/16" bars: 72.12%

Size No.	Bearing Bar Size	Weight lbs/sq.ft.	Moment of Inertia	Section Modulus	Maximum span recommended for 1/4" deflection under uniform load of 100 psf. (normal pedestrian traffic)																					
					Span in Inches																					
					24	30	36	42	48	54	60	66	72	78	84	96	108									
1	3/4"x1/8"	5.60	0.0649	0.1731	46	U	519	332	231	170	130	103	83	Table compiled as per ANSI/NAAMM MBG 534-14 F - 18,000 psi E - 29,000,000 psi U - Safe Uniform Load (lbs./sq.ft.) C - Safe Conc. load (lbs./ft. width) D - Deflection in inches												
						Du	0.099	0.155	0.223	0.304	0.397	0.503	0.621													
		C				519	415	346	297	260	231	208														
		Dc				0.079	0.124	0.179	0.243	0.318	0.402	0.497														
2	3/4"x3/16"	8.15	0.0974	0.2596	51	U	779	498	346	254	195	154	125						283	260	240	113	87	68		
						Du	0.099	0.155	0.223	0.304	0.397	0.503	0.621						0.601	0.715	0.839	0.67	0.787	0.912	1.192	1.508
		C				779	623	519	445	389	346	312	283						260	240	113	87	68	396	346	308
		Dc				0.079	0.124	0.179	0.243	0.318	0.402	0.497	0.601						0.715	0.839	0.67	0.787	0.912	1.192	1.508	
3	1"x1/8"	7.68	0.1538	0.3077	57	U	923	591	410	301	231	182	148						122	103	87					
						Du	0.074	0.116	0.168	0.228	0.298	0.377	0.466						0.563	0.67	0.787	0.912	1.192	1.508		
		C				923	738	615	527	462	410	369	336						308	284						
		Dc				0.06	0.093	0.134	0.182	0.238	0.302	0.372	0.451						0.536	0.629						
4	1"x3/16"	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	0.67	0.787	0.912	1.192	1.508							
		C				1385	1108	923	791	692	615	554	503	462	426	396	346	308								
		Dc				0.06	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629	0.73	0.953	1.207								
5	1 1/4"x1/8"	9.28	0.3005	0.4808	67	U	1442	923	641	471	361	285	231	191	160	137	118	90	71							
						Du	0.06	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629	0.73	0.953	1.207							
		C				1442	1154	962	824	721	641	577	524	481	444	412	361	321								
		Dc				0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.36	0.429	0.504	0.584	0.763	0.965								
6	1 1/4"x3/16"	13.26	0.4507	0.7212	74	U	2163	1385	962	706	541	427	346	286	240	205	177	135	107							
						Du	0.06	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629	0.73	0.953	1.207							
		C				2163	1731	1442	1236	1082	962	865	787	721	666	618	541	481								
		Dc				0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.36	0.429	0.504	0.584	0.763	0.965								
7	1 1/2"x1/8"	10.88	0.5192	0.6923	77	U	2077	1329	923	678	519	410	332	275	231	197	170	130	103							
						Du	0.05	0.078	0.112	0.152	0.199	0.251	0.31	0.376	0.447	0.524	0.608	0.794	1.006							
		C				2077	1662	1385	1187	1038	923	831	755	692	639	593	519	462								
		Dc				0.04	0.062	0.089	0.122	0.159	0.201	0.248	0.3	0.358	0.42	0.487	0.636	0.804								
8	1 1/2"x3/16"	15.66	0.7788	1.0385	85	U	3115	1994	1385	1017	779	615	498	412	346	295	254	195	154							
						Du	0.05	0.078	0.112	0.152	0.199	0.251	0.31	0.376	0.447	0.524	0.608	0.794	1.006							
		C				3115	2492	2077	1780	1558	1385	1246	1133	1038	959	890	779	692								
		Dc				0.04	0.062	0.089	0.122	0.159	0.201	0.248	0.3	0.358	0.42	0.487	0.636	0.804								
9	1 3/4"x3/16"	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	0.13	0.17	0.215	0.266	0.322	0.383	0.45	0.521	0.681	0.862							
		C				4240	3392	2827	2423	2120	1885	1696	1542	1413	1305	1212	1060	942								
		Dc				0.034	0.053	0.077	0.104	0.136	0.172	0.213	0.257	0.306	0.36	0.417	0.545	0.689								
10	2"x3/16"	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							
		C				5538	4431	3692	3165	2769	2462	2215	2014	1846	1704	1582	1385	1231								
		Dc				0.03	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"x3/16"	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	0.25	0.298	0.35	0.406	0.53	0.67							
		C				7010	5608	4673	4005	3505	3115	2804	2549	2337	2157	2003	1752	1558								
		Dc				0.026	0.041	0.06	0.081	0.106	0.134	0.166	0.2	0.238	0.28	0.324	0.424	0.536								
12	2 1/2"x3/16"	25.24	3.6058	2.8846	125	U	8654	5538	3846	2826	2163	1709	1385	1144	962	819	706	541	427							
						Du	0.03	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				8654	6923	5769	4945	4327	3846	3462	3147	2885	2663	2473	2163	1923								
		Dc				0.024	0.037	0.054	0.073	0.095	0.121	0.149	0.18	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
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
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
# Bars	15	16	17	18	19	20	21	22	23	24	25	26	27
3/16" Bars	11 9/16	12 3/8	13 3/16	14	14 13/16	15 5/8	16 7/16	17 1/4	18 1/16	18 7/8	19 11/16	20 1/2	21 5/16
1/8" Bars	11 1/2	12 5/16	13 1/8	13 15/16	14 3/4	15 9/16	16 3/8	17 3/16	18	18 13/16	19 5/8	20 7/16	21 1/4
# Bars	28	29	30	31	32	33	34	35	36	37	38	39	40
3/16" Bars	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	31 7/8
1/8" Bars	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	31 13/16
# Bars	41	42	43	44	45								
3/16" Bars	32 11/16	33 1/2	34 5/16	35 1/8	35 15/16								
1/8" Bars	32 5/8	33 7/16	34 1/4	35 1/16	35 7/8								