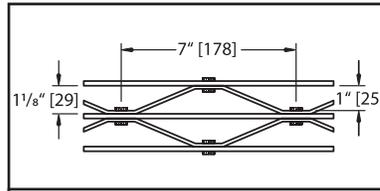


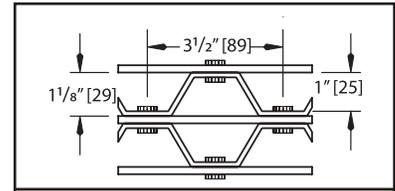
BORDEN GRATINGS

www.bordengratings.com

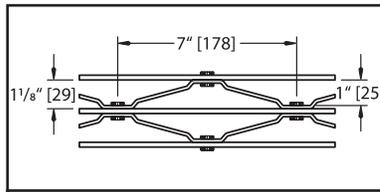
Riveted Grating Aluminum



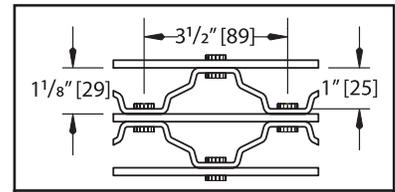
BORDEN TYPE A (18-R-7)



BORDEN TYPE E (18-R-3.5)



BORDEN TYPE K (18-R-7)



BORDEN TYPE U (18-R-3.5)

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																		
					24	30	36	42	48	54	60	66	72	78	84	96	108						
1	3/4" x 1/8"	2.14	0.0422	0.1125	31	U	225	144	100	73	56	44	36	Table in accordance with NAAMM MBG 531-00 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									
		2.27				Du	0.192	0.300	0.432	0.588	0.768	0.972	1.200										
		C				225	180	150	129	113	100	90											
		Dc				0.154	0.240	0.346	0.470	0.614	0.778	0.960											
2	3/4" x 3/16"	2.41	0.0603	0.1607	34	U	321	206	143	105	80	63	51										
		2.68				Du	0.192	0.300	0.432	0.588	0.768	0.972	1.200										
		C				321	257	214	184	161	143	129											
		Dc				0.154	0.240	0.346	0.470	0.614	0.778	0.960											
3	1" x 1/8"	2.49	0.1000	0.2000	39	U	400	256	178	131	100	79	64										
		2.62				Du	0.144	0.225	0.324	0.441	0.576	0.729	0.900										
		C				400	320	267	229	200	178	160											
		Dc				0.115	0.180	0.259	0.353	0.461	0.583	0.720											
4	1" x 3/16"	2.90	0.1429	0.2857	43	U	571	366	254	187	143	113	91										
		3.17				Du	0.144	0.225	0.324	0.441	0.576	0.729	0.900										
		C				571	457	381	327	286	254	229	208										
		Dc				0.115	0.180	0.259	0.353	0.461	0.583	0.720											
5	1 1/4" x 1/8"	2.83	0.1953	0.3125	46	U	625	400	278	204	156	123	100										
		2.96				Du	0.115	0.180	0.259	0.353	0.461	0.583	0.720										
		C				625	500	417	357	313	278	250	227										
		Dc				0.092	0.144	0.207	0.282	0.369	0.467	0.576											
6	1 1/4" x 3/16"	3.40	0.2790	0.4464	50	U	893	571	397	292	223	176	143										
		3.67				Du	0.115	0.180	0.259	0.353	0.461	0.583	0.720										
		C				893	714	595	510	446	397	357	325										
		Dc				0.092	0.144	0.207	0.282	0.369	0.467	0.576											
7	1 1/2" x 1/8"	3.17	0.3375	0.4500	53	U	900	576	400	294	225	178	144										
		3.30				Du	0.096	0.150	0.216	0.294	0.384	0.486	0.600										
		C				900	720	600	514	450	400	360	327										
		Dc				0.077	0.120	0.173	0.235	0.307	0.389	0.480											
8	1 1/2" x 3/16"	3.89	0.4821	0.6429	58	U	1286	823	571	420	321	254	206										
		4.16				Du	0.096	0.150	0.216	0.294	0.384	0.486	0.600										
		C				1286	1029	857	735	643	571	514	468										
		Dc				0.077	0.120	0.173	0.235	0.307	0.389	0.480											
9	1 3/4" x 3/16"	4.38	0.7656	0.8750	65	U	1750	1120	778	571	438	346	280										
		4.65				Du	0.082	0.129	0.185	0.252	0.329	0.417	0.514										
		C				1750	1400	1167	1000	875	778	700	636										
		Dc				0.066	0.103	0.148	0.202	0.263	0.333	0.411											
10	2" x 3/16"	5.21	1.1429	1.1429	72	U	2286	1463	1016	746	571	451	366										
		5.55				Du	0.072	0.113	0.162	0.221	0.288	0.365	0.450										
		C				2286	1829	1524	1306	1143	1016	914	831										
		Dc				0.058	0.090	0.130	0.176	0.230	0.292	0.360											
11	2 1/4" x 3/16"	5.70	1.6272	1.4464	78	U	2893	1851	1286	945	723	571	463										
		6.04				Du	0.064	0.100	0.144	0.196	0.256	0.324	0.400										
		C				2893	2314	1929	1653	1446	1286	1157	1052										
		Dc				0.051	0.080	0.115	0.157	0.205	0.259	0.320											
12	2 1/2" x 3/16"	6.19	2.2321	1.7857	85	U	3571	2286	1587	1166	893	705	571										
		6.53				Du	0.058	0.090	0.130	0.176	0.230	0.292	0.360										
		C				3571	2857	2381	2041	1786	1587	1429	1299										
		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.

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