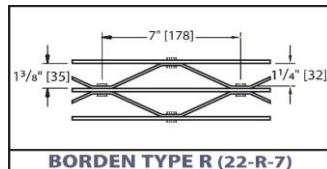




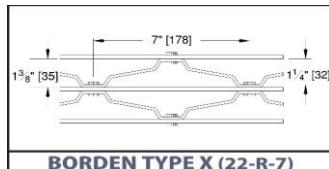
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Riveted Grating  
Steel

LOAD TABLE



BORDEN TYPE R (22-R-7)



BORDEN TYPE X (22-R-7)

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"	5.85	0.0352	0.0938	39	U 281	180	125	92	70	56	45	37	31	27	23	18	14
					Du 0.1	0.16	0.22	0.3	0.4	0.5	0.62	0.75	0.89	1.05	1.22	1.59	2.01	
					C 281	225	188	161	141	125	113	102	94	87	80	70	63	
					Dc 0.08	0.12	0.18	0.24	0.32	0.4	0.5	0.6	0.72	0.84	0.97	1.27	1.61	
2	3/4"x3/16"	6.48	0.0506	0.1350	43	U 405	259	180	132	101	80	65	54	45	38	33	25	20
					Du 0.1	0.16	0.22	0.3	0.4	0.5	0.62	0.75	0.89	1.05	1.22	1.59	2.01	
					C 405	324	270	231	203	180	162	147	135	125	116	101	90	
					Dc 0.08	0.12	0.18	0.24	0.32	0.4	0.5	0.6	0.72	0.84	0.97	1.27	1.61	
3	1"x1/8"	6.70	0.0833	0.1667	49	U 500	320	222	163	125	99	80	66	56	47	41	31	25
					Du 0.07	0.12	0.17	0.23	0.3	0.38	0.47	0.56	0.67	0.79	0.91	1.19	1.51	
					C 500	400	333	286	250	222	200	182	167	154	143	125	111	
					Dc 0.06	0.09	0.13	0.18	0.24	0.3	0.37	0.45	0.54	0.63	0.73	0.95	1.21	
4	1"x3/16"	7.70	0.1200	0.2400	53	U 720	461	320	235	180	142	115	95	80	68	59	45	36
					Du 0.07	0.12	0.17	0.23	0.3	0.38	0.47	0.56	0.67	0.79	0.91	1.19	1.51	
					C 720	576	480	411	360	320	288	262	240	222	206	180	160	
					Dc 0.06	0.09	0.13	0.18	0.24	0.3	0.37	0.45	0.54	0.63	0.73	0.95	1.21	
5	1 1/4"x1/8"	7.55	0.1628	0.2604	57	U 781	500	347	255	195	154	125	103	87	74	64	49	39
					Du 0.06	0.09	0.13	0.18	0.24	0.3	0.37	0.45	0.54	0.63	0.73	0.95	1.21	
					C 781	625	521	446	391	347	313	284	260	240	223	195	174	
					Dc 0.05	0.07	0.11	0.15	0.19	0.24	0.3	0.36	0.43	0.5	0.58	0.76	0.97	
6	1 1/4"x3/16"	8.93	0.2344	0.3750	63	U 1125	720	500	367	281	222	180	149	125	107	92	70	56
					Du 0.06	0.09	0.13	0.18	0.24	0.3	0.37	0.45	0.54	0.63	0.73	0.95	1.21	
					C 1125	900	750	643	563	500	450	409	375	346	321	281	250	
					Dc 0.05	0.07	0.11	0.15	0.19	0.24	0.3	0.36	0.43	0.5	0.58	0.76	0.97	
7	1 1/2"x1/8"	8.40	0.2813	0.3750	66	U 1125	720	500	367	281	222	180	149	125	107	92	70	56
					Du 0.05	0.08	0.11	0.15	0.2	0.25	0.31	0.38	0.45	0.52	0.61	0.79	1.01	
					C 1125	900	750	643	563	500	450	409	375	346	321	281	250	
					Dc 0.04	0.06	0.09	0.12	0.16	0.2	0.25	0.3	0.36	0.42	0.49	0.64	0.8	
8	1 1/2"x3/16"	10.15	0.4050	0.5400	72	U 1620	1037	720	529	405	320	259	214	180	153	132	101	80
					Du 0.05	0.08	0.11	0.15	0.2	0.25	0.31	0.38	0.45	0.52	0.61	0.79	1.01	
					C 1620	1296	1080	926	810	720	648	589	540	498	463	405	360	
					Dc 0.04	0.06	0.09	0.12	0.16	0.2	0.25	0.3	0.36	0.42	0.49	0.64	0.8	
9	1 3/4"x3/16"	11.38	0.6431	0.7350	81	U 2205	1411	980	720	551	436	353	292	245	209	180	138	109
					Du 0.04	0.07	0.1	0.13	0.17	0.22	0.27	0.32	0.38	0.45	0.52	0.68	0.86	
					C 2205	1764	1470	1260	1103	980	882	802	735	678	630	551	490	
					Dc 0.03	0.05	0.08	0.1	0.14	0.17	0.21	0.26	0.31	0.36	0.42	0.54	0.69	
10	2"x3/16"	13.60	0.9600	0.9600	89	U 2880	1843	1280	940	720	569	461	381	320	273	235	180	142
					Du 0.04	0.06	0.08	0.11	0.15	0.19	0.23	0.28	0.34	0.39	0.46	0.6	0.75	
					C 2880	2304	1920	1646	1440	1280	1152	1047	960	886	823	720	640	
					Dc 0.03	0.05	0.07	0.09	0.12	0.15	0.19	0.23	0.27	0.31	0.36	0.48	0.6	
11	2 1/4"x3/16"	14.83	1.3669	1.2150	98	U 3645	2333	1620	1190	911	720	583	482	405	345	298	228	180
					Du 0.03	0.05	0.07	0.1	0.13	0.17	0.21	0.25	0.3	0.35	0.41	0.53	0.67	
					C 3645	2916	2430	2083	1823	1620	1458	1325	1215	1122	1041	911	810	
					Dc 0.03	0.04	0.06	0.08	0.11	0.13	0.17	0.2	0.24	0.28	0.32	0.42	0.54	
12	2 1/2"x3/16"	16.05	1.8750	1.5000	106	U 4500	2880	2000	1469	1125	889	720	595	500	426	367	281	222
					Du 0.03	0.05	0.07	0.09	0.12	0.15	0.19	0.23	0.27	0.31	0.36	0.48	0.6	
					C 4500	3600	3000	2571	2250	2000	1800	1636	1500	1385	1286	1125	1000	
					Dc 0.02	0.04	0.05	0.07	0.1	0.12	0.15	0.18	0.21	0.25	0.29	0.38	0.48	

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"	1 11/16	3 3/16	4 11/16	6 3/16	7 11/16	9 3/16	10 11/16	12 3/16	13 11/16	15 3/16	16 11/16	18 3/16	19 11/16	
1/8"	1 1/2	2 7/8	4 1/4	5 5/8	7	8 3/8	9 3/4	11 1/8	12 1/2	13 7/8	15 1/4	16 5/8	18	
# Bars	15	16	17	18	19	20	21	22	23	24	25	26	27	
3/16"	21 3/16	22 11/16	24 3/16	25 11/16	27 3/16	28 11/16	30 3/16	31 11/16	33 3/16	34 11/16	36 3/16	37 11/16	39 3/16	
1/8"	19 3/8	20 3/4	22 1/8	23 1/2	24 7/8	26 1/4	27 5/8	29	30 3/8	31 3/4	33 1/8	34 1/2	35 7/8	