

Steel Bar Grating

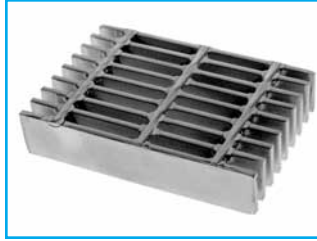
WELDED CLOSE-MESH

1/2" Center to Center of Bearing Bars



8-W-4

Cross Rods 4" C/C

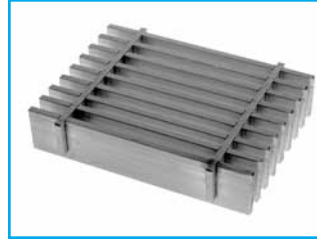


8-W-2

Cross Rods 2" C/C

PRESS-LOCKED CLOSE-MESH

1/2" Center to Center of Bearing Bars



8-P-4

Cross Bars 4" C/C



8-P-2

Cross Bars 2" C/C

LOAD & DEFLECTION TABLE

Bar Size	Symbol	Approx. Weight per sq ft	Sec. Mod Per Ft. Of Width	SPAN (Length of Bearing Bar)											
				2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	6'-0"				
3/4" x 1/8"	8-4-32	W	8.3	0.281	U	844	540	375	276	211	167	135			
					D	0.099	0.155	0.223	0.304	0.397	0.503	0.621			
	8-2-32	W	8.8	0.281	C	844	675	563	482	422	375	338			
					D	0.079	0.124	0.179	0.243	0.318	0.402	0.497	5'-6"		
3/4" x 3/16"	8-4-33	W	12.2	0.422	U	1266	810	563	413	316	250	203	167		
					D	0.099	0.155	0.223	0.304	0.397	0.503	0.621	0.751		
	8-2-33	W	12.8	0.422	C	1266	1013	844	723	633	563	506	460		
					D	0.079	0.124	0.179	0.243	0.318	0.402	0.497	0.601	6'-0"	
1" x 1/8"	8-4-42	W	10.9	0.500	U	1500	960	667	490	375	296	240	198	167	
					D	0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563	0.670	
	8-2-42	W	11.4	0.500	C	1500	1200	1000	857	750	667	600	545	500	
					D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	6'-6"
1" x 3/16"	8-4-43	W	16.0	0.750	U	2250	1440	1000	735	563	444	360	298	250	
					D	0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563	0.670	0.787
	8-2-43	W	16.7	0.750	C	2250	1800	1500	1286	1125	1000	900	818	750	692
					D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	6'-6"
1-1/4" x 1/8"	8-4-52	W	13.4	0.781	U	2344	1500	1042	765	586	463	375	310	260	
					D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629
	8-2-52	W	14.0	0.781	C	2344	1875	1563	1339	1172	1042	938	852	781	721
					D	0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.360	0.429	0.504
1-1/4" x 3/16"	8-4-53	W	19.9	1.172	U	3516	2250	1563	1148	879	694	563	465	391	
					D	0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451	0.536	0.629
	8-2-53	W	20.5	1.172	C	3516	2813	2344	2009	1758	1563	1406	1278	1172	1082
					D	0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.360	0.429	0.504
1-1/2" x 1/8"	8-4-62	W	16.0	1.125	U	3375	2160	1500	1102	844	667	540	446	375	
					D	0.050	0.078	0.112	0.152	0.199	0.251	0.310	0.376	0.447	0.524
	8-2-62	W	16.6	1.125	C	3375	2700	2250	1929	1688	1500	1350	1227	1125	1038
					D	0.040	0.062	0.089	0.122	0.159	0.201	0.248	0.300	0.358	0.420
1-1/2" x 3/16"	8-4-63	W	23.8	1.688	U	5063	3240	2250	1653	1266	1000	810	669	563	
					D	0.050	0.078	0.112	0.152	0.199	0.251	0.310	0.376	0.447	0.524
	8-2-63	W	24.4	1.688	C	5063	4050	3375	2893	2531	2250	2025	1841	1688	1558
					D	0.040	0.062	0.089	0.122	0.159	0.201	0.248	0.300	0.358	0.420
1-3/4" x 3/16"	8-4-73	W	27.6	2.297	U	6891	4410	3063	2250	1723	1361	1103	911	766	
					D	0.043	0.067	0.096	0.130	0.170	0.215	0.266	0.322	0.383	0.450
	8-2-73	W	28.2	2.297	C	6891	5513	4594	3938	3445	3063	2756	2506	2297	2120
					D	0.034	0.053	0.077	0.104	0.136	0.172	0.213	0.257	0.306	0.360
2" x 3/16"	8-4-83	W	31.5	3.000	U	9000	5760	4000	2939	2250	1778	1440	1190	1000	
					D	0.037	0.058	0.084	0.114	0.149	0.189	0.233	0.282	0.335	0.393
	8-2-83	W	32.1	3.000	C	9000	7200	6000	5143	4500	4000	3600	3273	3000	2769
					D	0.030	0.047	0.067	0.091	0.119	0.151	0.186	0.225	0.268	0.315
2-1/4" x 3/16"	8-4-93	W	35.3	3.797	U	11391	7290	5063	3719	2848	2250	1823	1506	1266	
					D	0.033	0.052	0.074	0.101	0.132	0.168	0.207	0.250	0.298	0.350
	8-2-93	W	35.9	3.797	C	11391	9113	7594	6509	5695	5063	4556	4142	3797	3505
					D	0.026	0.041	0.060	0.081	0.106	0.134	0.166	0.200	0.238	0.280
2-1/2" x 3/16"	8-4-103	W	39.2	4.688	U	14063	9000	6250	4592	3516	2778	2250	1860	1563	
					D	0.030	0.047	0.067	0.091	0.119	0.151	0.186	0.225	0.268	0.315
	8-2-103	W	39.8	4.688	C	14063	11250	9375	8036	7031	6250	5625	5114	4688	4327
					D	0.024	0.037	0.054	0.073	0.095	0.121	0.149	0.180	0.215	0.252

U = safe uniform load, psf

C = safe concentrated load, plw

D = deflection, inches

E = modulus of elasticity, 29,000,000 psi

F = fiber stress, 18,000 psi

Material: ASTM A-569 standard

Deflection: Spans and loads to the right of the bold line exceed 1/4" deflection for uniform load of 100 psf which provides safe pedestrian comfort. These can be exceeded for other types of loads with engineer's approval.

Serrated Bars: For serrated grating, the depth of grating required for a specified load is 1/4" deeper than that shown in the table.

General: Loads and deflections are theoretical and based on static loading.

W/P-8 PANEL WIDTH (inches)

Note: P-Press-Locked cross bars typically extend 1/8" each side. W-Welded cross rods may extend 1/8" each side. Panel widths do not include these extensions.

No. of Bars	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
1/8" Bar	5/8	1 1/8	1 5/8	2 1/8	2 5/8	3 1/8	3 5/8	4 1/8	4 5/8	5 1/8	5 5/8	6 1/8	6 5/8	7 1/8	7 5/8	8 1/8	8 5/8	9 1/8	9 5/8	10 1/8	10 5/8	11 1/8	11 5/8	12 1/8	12 5/8	13 1/8	13 5/8	14 1/8	
3/16" Bar	1 1/16	1 3/16	1 5/16	2 1/16	2 3/16	2 5/16	3 1/16	3 3/16	3 5/16	4 1/16	4 3/16	4 5/16	5 1/16	5 3/16	5 5/16	6 1/16	6 3/16	6 5/16	7 1/16	7 3/16	7 5/16	8 1/16	8 3/16	8 5/16	9 1/16	9 3/16	9 5/16	10 1/16	10 3/16
No. of Bars	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	
1/8" Bar	14 5/8	15 1/8	15 5/8	16 1/8	16 5/8	17 1/8	17 5/8	18 1/8	18 5/8	19 1/8	19 5/8	20 1/8	20 5/8	21 1/8	21 5/8	22 1/8	22 5/8	23 1/8	23 5/8	24 1/8	24 5/8	25 1/8	25 5/8	26 1/8	26 5/8	27 1/8	27 5/8	28 1/8	
3/16" Bar	14 11/16	15 3/16	15 7/16	16 1/16	16 5/16	17 1/16	17 5/16	18 1/16	18 5/16	19 1/16	19 5/16	20 1/16	20 5/16	21 1/16	21 5/16	22 1/16	22 5/16	23 1/16	23 5/16	24 1/16	24 5/16	25 1/16	25 5/16	26 1/16	26 5/16	27 1/16	27 5/16	28 1/16	
No. of Bars	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73													
1/8" Bar	28 5/8	29 1/8	29 5/8	30 1/8	30 5/8	31 1/8	31 5/8	32 1/8	32 5/8	33 1/8	33 5/8	34 1/8	34 5/8	35 1/8	35 5/8	36 1/8													
3/16" Bar	28 11/16	29 3/16	29 7/16	30 1/16	30 5/16	31 1/16	31 5/16	32 1/16	32 5/16	33 1/16	33 5/16	34 1/16	34 5/16	35 1/16	35 5/16	36 1/16													