

Steel Bar Grating

WELDED CLOSE-MESH

1/2" Center to Center of Bearing Bars



8-W-4

Cross Rods 4" C/C

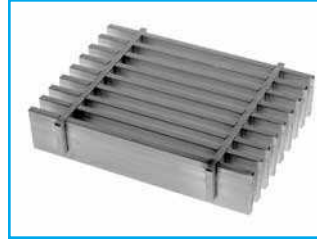


8-W-2

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 psf	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"	
3/4" x 1/8"	8-4-32	W 8.3	0.281	U 844	540	375	276	211	167	135	
		P 8.7		D 0.099	0.155	0.223	0.304	0.397	0.503	0.621	
	8-2-32	W 8.8		C 844	675	563	482	422	375	338	
		P 9.6		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
		P 13.0		D 0.099	0.155	0.223	0.304	0.397	0.503	0.621	0.751
	8-2-33	W 12.8		C 1266	1013	844	723	633	563	506	460
		P 14.4		D 0.079	0.124	0.179	0.243	0.318	0.402	0.497	0.601
1" x 1/8"	8-4-42	W 10.9	0.500	U 1500	960	667	490	375	296	240	198
		P 11.3		D 0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563
	8-2-42	W 11.4		C 1500	1200	1000	857	750	667	600	545
		P 12.2		D 0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451
1" x 3/16"	8-4-43	W 16.0	0.750	U 2250	1440	1000	735	563	444	360	298
		P 16.9		D 0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563
	8-2-43	W 16.7		C 2250	1800	1500	1286	1125	1000	900	818
		P 18.3		D 0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451
1-1/4" x 1/8"	8-4-52	W 13.4	0.781	U 2344	1500	1042	765	586	463	375	310
		P 14.2		D 0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451
	8-2-52	W 14.0		C 2344	1875	1563	1339	1172	1042	938	852
		P 15.4		D 0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.360
1-1/4" x 3/16"	8-4-53	W 19.9	1.172	U 3516	2250	1563	1148	879	694	563	465
		P 21.2		D 0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451
	8-2-53	W 20.5		C 3516	2813	2344	2009	1758	1563	1406	1278
		P 23.1		D 0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.360
1-1/2" x 1/8"	8-4-62	W 16.0	1.125	U 3375	2160	1500	1102	844	667	540	446
		P 16.7		D 0.050	0.078	0.112	0.152	0.199	0.251	0.310	0.376
	8-2-62	W 16.6		C 3375	2700	2250	1929	1688	1500	1350	1227
		P 18.0		D 0.040	0.062	0.089	0.122	0.159	0.201	0.248	0.300
1-1/2" x 3/16"	8-4-63	W 23.8	1.688	U 5063	3240	2250	1653	1266	1000	810	669
		P 25.1		D 0.050	0.078	0.112	0.152	0.199	0.251	0.310	0.376
	8-2-63	W 24.4		C 5063	4050	3375	2893	2531	2250	2025	1841
		P 27.0		D 0.040	0.062	0.089	0.122	0.159	0.201	0.248	0.300
1-3/4" x 3/16"	8-4-73	W 27.6	2.297	U 6891	4410	3063	2250	1723	1361	1103	911
		P 28.9		D 0.043	0.067	0.096	0.130	0.170	0.215	0.266	0.322
	8-2-73	W 28.2		C 6891	5513	4594	3938	3445	3063	2756	2506
		P 30.8		D 0.034	0.053	0.077	0.104	0.136	0.172	0.213	0.257
2" x 3/16"	8-4-83	W 31.5	3.000	U 9000	5760	4000	2939	2250	1778	1440	1190
		P 32.8		D 0.037	0.058	0.084	0.114	0.149	0.189	0.233	0.282
	8-2-83	W 32.1		C 9000	7200	6000	5143	4500	4000	3600	3273
		P 34.7		D 0.030	0.047	0.067	0.091	0.119	0.151	0.186	0.225
2-1/4" x 3/16"	8-4-93	W 35.3	3.797	U 11391	7290	5063	3719	2848	2250	1823	1506
		P 36.6		D 0.033	0.052	0.074	0.101	0.132	0.168	0.207	0.250
	8-2-93	W 35.9		C 11391	9113	7594	6509	5695	5063	4556	4142
		P 38.5		D 0.026	0.041	0.060	0.081	0.106	0.134	0.166	0.200
2-1/2" x 3/16"	8-4-103	W 39.2	4.688	U 14063	9000	6250	4592	3516	2778	2250	1860
		P 40.5		D 0.030	0.047	0.067	0.091	0.119	0.151	0.186	0.225
	8-2-103	W 39.8		C 14063	11250	9375	8036	7031	6250	5625	5114
		P 42.4		D 0.024	0.037	0.054	0.073	0.095	0.121	0.149	0.180

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 11/16	2 1/16	2 11/16	3 1/16	3 11/16	4 1/16	4 11/16	5 1/16	5 11/16	6 1/16	6 11/16	7 1/16	7 11/16	8 1/16	8 11/16	9 1/16	9 11/16	10 1/16	10 11/16	11 1/16	11 11/16	12 1/16	12 11/16	13 1/16	13 11/16	14 1/16
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 11/16	16 3/16	16 11/16	17 3/16	17 11/16	18 3/16	18 11/16	19 3/16	19 11/16	20 3/16	20 11/16	21 3/16	21 11/16	22 3/16	22 11/16	23 3/16	23 11/16	24 3/16	24 11/16	25 3/16	25 11/16	26 3/16	26 11/16	27 3/16	27 11/16	28 3/16
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 11/16	30 3/16	30 11/16	31 3/16	31 11/16	32 3/16	32 11/16	33 3/16	33 11/16	34 3/16	34 11/16	35 3/16	35 11/16	36 3/16												

U = safe uniform load, psf

C = safe concentrated load, pfw

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.