

Steel Bar Grating

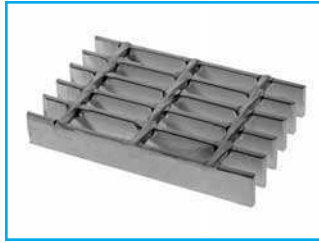
WELDED CLOSE-MESH

11/16" Center to Center of Bearing Bars



11-W-4

Cross Rods 4" C/C

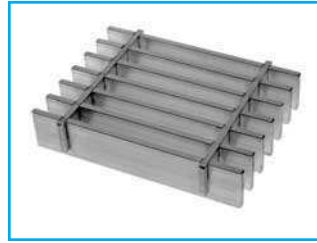


11-W-2

Cross Rods 2" C/C

PRESS-LOCKED CLOSE-MESH

11/16" Center to Center of Bearing Bars



11-P-4

Cross Bars 4" C/C



11-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"	11-4-32	W 6.2	0.205	U 614	393	273	200	153	121	98	
		P 6.6		D 0.099	0.155	0.223	0.304	0.397	0.503	0.621	
	11-2-32	W 6.8		C 614	491	409	351	307	273	245	
		P 7.6		D 0.079	0.124	0.179	0.243	0.318	0.402	0.497	
3/4" x 3/16"	11-4-33	W 9.1	0.307	U 920	589	409	301	230	182	147	
		P 9.9		D 0.099	0.155	0.223	0.304	0.397	0.503	0.621	
	11-2-33	W 9.7		C 920	736	614	526	460	409	368	
		P 11.3		D 0.079	0.124	0.179	0.243	0.318	0.402	0.497	
1" x 1/8"	11-4-42	W 8.1	0.364	U 1091	698	485	356	273	215	175	
		P 8.5		D 0.074	0.116	0.168	0.228	0.298	0.377	0.466	
	11-2-42	W 8.6		C 1091	873	727	623	545	485	436	
		P 9.4		D 0.060	0.093	0.134	0.182	0.238	0.302	0.372	
1" x 3/16"	11-4-43	W 11.9	0.545	U 1636	1047	727	534	409	323	262	
		P 12.7		D 0.074	0.116	0.168	0.228	0.298	0.377	0.466	
	11-2-43	W 12.5		C 1636	1309	1091	935	818	727	655	
		P 14.2		D 0.060	0.093	0.134	0.182	0.238	0.302	0.372	
1-1/4" x 1/8"	11-4-52	W 10.0	0.568	U 1705	1091	758	557	426	337	273	
		P 10.7		D 0.060	0.093	0.134	0.182	0.238	0.302	0.372	
	11-2-52	W 10.5		C 1705	1364	1136	974	852	758	682	
		P 12.0		D 0.048	0.074	0.107	0.146	0.191	0.241	0.298	
1-1/4" x 3/16"	11-4-53	W 14.7	0.852	U 2557	1636	1136	835	639	505	409	
		P 16.0		D 0.060	0.093	0.134	0.182	0.238	0.302	0.372	
	11-2-53	W 15.3		C 2557	2045	1705	1461	1278	1136	1023	
		P 17.9		D 0.048	0.074	0.107	0.146	0.191	0.241	0.298	
1-1/2" x 1/8"	11-4-62	W 11.9	0.818	U 2455	1571	1091	801	614	485	393	
		P 12.6		D 0.050	0.078	0.112	0.152	0.199	0.251	0.310	
	11-2-62	W 12.4		C 2455	1964	1636	1403	1227	1091	982	
		P 13.9		D 0.040	0.062	0.089	0.122	0.159	0.201	0.248	
1-1/2" x 3/16"	11-4-63	W 17.5	1.227	U 3682	2356	1636	1202	920	727	589	
		P 18.8		D 0.050	0.078	0.112	0.152	0.199	0.251	0.310	
	11-2-63	W 18.1		C 3682	2945	2455	2104	1841	1636	1473	
		P 20.7		D 0.040	0.062	0.089	0.122	0.159	0.201	0.248	
1-3/4" x 3/16"	11-4-73	W 20.4	1.670	U 5011	3207	2227	1636	1253	990	802	
		P 21.7		D 0.043	0.067	0.096	0.130	0.170	0.215	0.266	
	11-2-73	W 21.0		C 5011	4009	3341	2864	2506	2227	2005	
		P 23.6		D 0.034	0.053	0.077	0.104	0.136	0.172	0.213	
2" x 3/16"	11-4-83	W 23.2	2.182	U 6545	4189	2909	2137	1636	1293	1047	
		P 24.5		D 0.037	0.058	0.084	0.114	0.149	0.189	0.233	
	11-2-83	W 23.8		C 6545	5236	4364	3740	3273	2909	2618	
		P 26.4		D 0.030	0.047	0.067	0.091	0.119	0.151	0.186	
2-1/4" x 3/16"	11-4-93	W 26.0	2.761	U 8284	5302	3682	2705	2071	1636	1325	
		P 27.3		D 0.033	0.052	0.074	0.101	0.132	0.168	0.207	
	11-2-93	W 26.6		C 8284	6627	5523	4734	4142	3682	3314	
		P 29.2		D 0.026	0.041	0.060	0.081	0.106	0.134	0.166	
2-1/2" x 3/16"	11-4-103	W 28.8	3.409	U 10227	6545	4545	3340	2557	2020	1636	
		P 30.1		D 0.030	0.047	0.067	0.091	0.119	0.151	0.186	
	11-2-103	W 29.4		C 10227	8182	6818	5844	5114	4545	4091	
		P 32.0		D 0.024	0.037	0.054	0.073	0.095	0.121	0.149	

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.

W/P-11 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
1/8" Bar	13 ¹⁵ / ₁₆	1 ¹ / ₂	2 ³ / ₁₆	2 ⁷ / ₈	3 ⁹ / ₁₆	4 ¹ / ₄	4 ¹⁵ / ₁₆	5 ⁵ / ₈	6 ⁵ / ₁₆	7	7 ¹¹ / ₁₆	8 ³ / ₈	9 ¹ / ₁₆	9 ³ / ₄	10 ⁷ / ₁₆	11 ¹ / ₈	11 ¹³ / ₁₆	12 ¹ / ₂	13 ³ / ₁₆
3/16" Bar	7 ⁷ / ₈	1 ⁹ / ₁₆	2 ¹ / ₄	2 ¹⁵ / ₁₆	3 ⁵ / ₈	4 ⁵ / ₁₆	5	5 ¹¹ / ₁₆	6 ³ / ₈	7 ¹ / ₁₆	7 ³ / ₄	8 ⁷ / ₁₆	9 ¹ / ₈	9 ¹³ / ₁₆	10 ¹ / ₂	11 ³ / ₁₆	11 ⁷ / ₈	12 ⁹ / ₁₆	13 ¹ / ₄
No. of Bars	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
1/8" Bar	13 ⁷ / ₈	14 ⁹ / ₁₆	15 ¹ / ₄	15 ¹⁵ / ₁₆	16 ⁵ / ₈	17 ⁵ / ₁₆	18	18 ¹¹ / ₁₆	19 ³ / ₈	20 ¹ / ₁₆	20 ³ / ₄	21 ⁷ / ₁₆	22 ¹ / ₈	22 ¹³ / ₁₆	23 ¹ / ₂	24 ³ / ₁₆	24 ⁷ / ₈	25 ⁹ / ₁₆	26 ¹ / ₄
3/16" Bar	13 ¹⁵ / ₁₆	14 ⁵ / ₈	15 ⁵ / ₁₆	16	16 ¹¹ / ₁₆	17 ³ / ₈	18 ¹ / ₁₆	18 ³ / ₄	19 ⁷ / ₁₆	20 ¹ / ₈	20 ¹³ / ₁₆	21 ¹ / ₂	22 ³ / ₁₆	22 ⁷ / ₈	23 ⁹ / ₁₆	24 ¹ / ₄	24 ¹⁵ / ₁₆	25 ⁵ / ₈	26 ⁵ / ₁₆
No. of Bars	40	41	42	43	44	45	46	47	48	49	50	51	52	53					
1/8" Bar	26 ¹⁵ / ₁₆	27 ⁵ / ₈	28 ⁵ / ₁₆	29	29 ¹¹ / ₁₆	30 ³ / ₈	31 ¹ / ₁₆	31 ³ / ₄	32 ⁷ / ₁₆	33 ¹ / ₈	33 ¹³ / ₁₆	34 ¹ / ₂	35 ³ / ₁₆	35 ⁷ / ₈					
3/16" Bar	27	27 ¹¹ / ₁₆	28 ³ / ₈	29 ¹ / ₁₆	29 ³ / ₄	30 ⁷ / ₁₆	31 ¹ / ₈	31 ¹³ / ₁₆	32 ¹ / ₂	33 ³ / ₁₆	33 ⁷ / ₈	34 ⁹ / ₁₆	35 ¹ / ₄	35 ¹⁵ / ₁₆					