

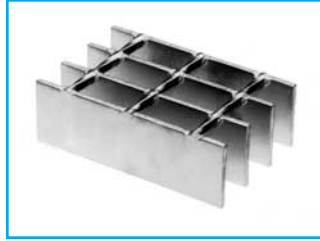
Steel Bar Grating

WELDED

1-3/16" Center to Center of Bearing Bars



19-W-4
Cross Rods 4" C/C



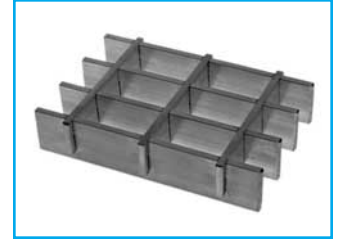
19-W-2
Cross Rods 2" C/C

PRESS-LOCKED

1-3/16" Center to Center of Bearing Bars



19-P-4
Cross Bars 4" C/C



19-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"	5'-6"
3/4" x 1/8"	19-4-32	W 3.9	0.118	U 355	227	158	116	89	70		
	19-2-32	P 4.3		D 0.099	0.155	0.223	0.304	0.397	0.503		
3/4" x 3/16"	19-4-33	W 5.6	0.178	U 533	341	237	174	133	105		
	19-2-33	P 6.4		D 0.099	0.155	0.223	0.304	0.397	0.503		
1" x 1/8"	19-4-42	W 5.0	0.211	U 632	404	281	206	158	125	101	84
	19-2-42	P 5.4		D 0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563
1" x 3/16"	19-4-43	W 5.5	0.316	U 632	505	421	361	316	281	253	230
	19-2-43	P 6.3		D 0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451
1-1/4" x 1/8"	19-4-52	W 7.2	0.329	U 947	606	421	309	237	187	152	125
	19-2-52	P 8.1		D 0.074	0.116	0.168	0.228	0.298	0.377	0.466	0.563
1-1/4" x 3/16"	19-4-53	W 6.1	0.493	U 987	632	439	322	247	195	158	130
	19-2-53	P 6.8		D 0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451
1-1/2" x 1/8"	19-4-62	W 6.6	0.474	U 987	789	658	564	493	439	395	359
	19-2-62	P 8.1		D 0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.360
1-1/2" x 3/16"	19-4-63	W 8.9	0.711	U 1480	947	658	483	370	292	237	196
	19-2-63	P 10.2		D 0.060	0.093	0.134	0.182	0.238	0.302	0.372	0.451
1-3/4" x 3/16"	19-4-73	W 9.5	0.967	U 1480	1184	987	846	740	658	592	538
	19-2-73	P 12.1		D 0.048	0.074	0.107	0.146	0.191	0.241	0.298	0.360
2" x 3/16"	19-4-83	W 7.2	1.263	U 1421	909	632	464	355	281	227	188
	19-2-83	P 7.9		D 0.050	0.078	0.112	0.152	0.199	0.251	0.310	0.376
2-1/4" x 3/16"	19-4-93	W 7.7	1.599	U 1421	1137	947	812	711	632	568	517
	19-2-93	P 9.2		D 0.040	0.062	0.089	0.122	0.159	0.201	0.248	0.300
2-1/2" x 3/16"	19-4-103	W 10.5	1.974	U 2132	1364	947	696	533	421	341	282
	19-2-103	P 11.8		D 0.050	0.078	0.112	0.152	0.199	0.251	0.310	0.376

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-19 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
1/8" Bar	1 ⁵ / ₁₆	2 ¹ / ₂	3 ¹ / ₁₆	4 ⁷ / ₈	6 ¹ / ₁₆	7 ¹ / ₄	8 ⁷ / ₁₆	9 ⁵ / ₈	10 ¹³ / ₁₆	12	13 ³ / ₁₆	14 ³ / ₈	15 ⁹ / ₁₆	16 ³ / ₄	17 ¹⁵ / ₁₆
3/16" Bar	1 ³ / ₈	2 ⁹ / ₁₆	3 ³ / ₄	4 ¹⁵ / ₁₆	6 ¹ / ₈	7 ⁵ / ₁₆	8 ¹ / ₂	9 ¹ / ₁₆	10 ⁷ / ₈	12 ¹ / ₁₆	13 ¹ / ₄	14 ⁷ / ₁₆	15 ⁵ / ₈	16 ¹³ / ₁₆	18
No. of Bars	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1/8" Bar	19 ¹ / ₈	20 ⁵ / ₁₆	21 ¹ / ₂	22 ¹ / ₁₆	23 ⁷ / ₈	25 ¹ / ₁₆	26 ¹ / ₄	27 ¹ / ₁₆	28 ⁵ / ₈	29 ¹³ / ₁₆	31	32 ³ / ₁₆	33 ³ / ₈	34 ⁹ / ₁₆	35 ³ / ₄
3/16" Bar	19 ⁹ / ₁₆	20 ³ / ₈	21 ⁹ / ₁₆	22 ³ / ₄	23 ¹⁵ / ₁₆	25 ¹ / ₈	26 ⁵ / ₁₆	27 ¹ / ₂	28 ¹ / ₁₆	29 ⁷ / ₈	31 ¹ / ₁₆	32 ¹ / ₄	33 ⁷ / ₁₆	34 ⁵ / ₈	35 ¹³ / ₁₆

