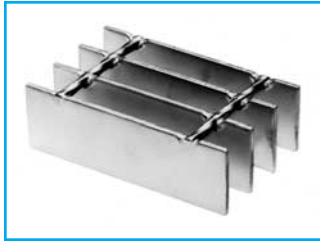


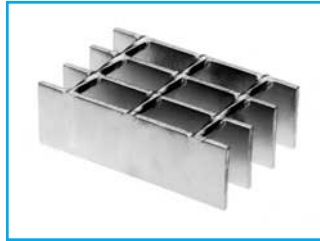
Steel Bar Grating

STAINLESS WELDED

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



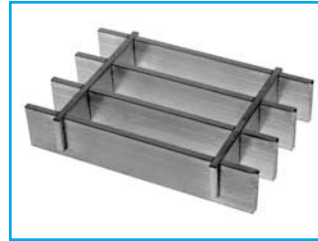
19-S-4
Cross Bars 4" C/C



19-S-2
Cross Bars 2" C/C

STAINLESS PRESS-LOCKED

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



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



19-SP-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	S	3.9	U	395	253	175	129	99	78		
		SP	4.3	D	0.114	0.179	0.257	0.350	0.457	0.579		
	19-2-32	S	4.4	C	395	316	263	226	197	175		
3/4" x 3/16"	19-4-33	SP	5.2	D	0.091	0.143	0.206	0.280	0.366	0.463		
		S	5.6	U	592	379	263	193	148	117		
	19-2-33	SP	6.4	D	0.114	0.179	0.257	0.350	0.457	0.579		
1" x 1/8"	19-4-42	S	6.2	C	592	474	395	338	296	263		
		SP	7.8	D	0.091	0.143	0.206	0.280	0.366	0.463		
	19-2-42	S	5.0	U	702	449	312	229	175	139	112	93
1" x 3/16"	19-4-43	SP	5.4	D	0.086	0.134	0.193	0.263	0.343	0.434	0.536	0.648
		S	5.5	C	702	561	468	401	351	312	281	255
	19-2-43	SP	6.3	D	0.069	0.107	0.154	0.210	0.274	0.347	0.429	0.519
1-1/4" x 1/8"	19-4-52	S	7.2	U	1053	674	468	344	263	208	168	139
		SP	8.1	D	0.086	0.134	0.193	0.263	0.343	0.434	0.536	0.648
	19-2-52	S	7.8	C	1053	842	702	602	526	468	421	383
1-1/4" x 3/16"	19-4-53	SP	9.5	D	0.069	0.107	0.154	0.210	0.274	0.347	0.429	0.519
		S	6.1	U	1096	702	487	358	274	217	175	145
	19-2-53	SP	6.8	D	0.069	0.107	0.154	0.210	0.274	0.347	0.429	0.519
1-1/2" x 1/8"	19-4-62	S	6.6	C	1096	877	731	627	548	487	439	399
		SP	8.1	D	0.055	0.086	0.123	0.168	0.219	0.278	0.343	0.415
	19-2-62	S	8.9	U	1645	1053	731	537	411	325	263	217
1-1/2" x 3/16"	19-4-63	SP	10.2	D	0.069	0.107	0.154	0.210	0.274	0.347	0.429	0.519
		S	9.5	C	1645	1316	1096	940	822	731	658	598
	19-2-63	SP	12.1	D	0.055	0.086	0.123	0.168	0.219	0.278	0.343	0.415
1-3/4" x 1/8"	19-4-73	S	7.2	U	1579	1011	702	516	395	312	253	209
		SP	7.9	D	0.057	0.089	0.129	0.175	0.229	0.289	0.357	0.432
	19-2-73	S	7.7	C	1579	1263	1053	902	789	702	632	574
2" x 3/16"	19-4-83	SP	9.2	D	0.046	0.071	0.103	0.140	0.183	0.231	0.286	0.346
		S	10.5	U	2368	1516	1053	773	592	468	379	313
	19-2-83	SP	11.8	D	0.057	0.089	0.129	0.175	0.229	0.289	0.357	0.432
2-1/4" x 1/8"	19-4-93	S	11.2	C	2368	1895	1579	1353	1184	1053	947	861
		SP	13.8	D	0.046	0.071	0.103	0.140	0.183	0.231	0.286	0.346
	19-2-93	S	12.2	U	3224	2063	1433	1053	806	637	516	426
2-1/4" x 3/16"	19-4-103	SP	13.5	D	0.049	0.077	0.110	0.150	0.196	0.248	0.306	0.370
		S	12.8	C	3224	2579	2149	1842	1612	1433	1289	1172
	19-2-103	SP	15.4	D	0.039	0.061	0.088	0.120	0.157	0.198	0.245	0.296
2-1/2" x 1/8"	19-4-103	S	13.9	U	4211	2695	1871	1375	1053	832	674	557
		SP	15.2	D	0.043	0.067	0.096	0.131	0.171	0.217	0.268	0.324
	19-2-103	S	14.5	C	4211	3368	2807	2406	2105	1871	1684	1531
3/16" Bar	19-4-103	SP	17.1	D	0.034	0.054	0.077	0.105	0.137	0.174	0.214	0.259
		S	15.5	U	5329	3411	2368	1740	1332	1053	853	705
	19-2-103	SP	16.8	D	0.038	0.060	0.086	0.117	0.152	0.193	0.238	0.288
3/16" Bar	19-4-103	S	16.1	C	5329	4263	3553	3045	2664	2368	2132	1938
		SP	18.7	D	0.030	0.048	0.069	0.093	0.122	0.154	0.190	0.230
	19-2-103	S	17.2	U	6579	4211	2924	2148	1645	1300	1053	870
3/16" Bar	19-4-103	SP	18.5	D	0.034	0.054	0.077	0.105	0.137	0.174	0.214	0.259
		S	17.8	C	6579	5263	4386	3759	3289	2924	2632	2392
	19-2-103	SP	20.4	D	0.027	0.043	0.062	0.084	0.110	0.139	0.171	0.207

U = safe uniform load, psf
 C = safe concentrated load, pfw
 D = deflection, inches
 E = modulus of elasticity, 28,000,000 psi
 F = fiber stress, 20,000 psi
Material: ASTM A-167
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.

S/SP-19 PANEL WIDTH (inches)

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 ¹¹ / 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 ¹¹ / 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 ¹¹ / ₁₆	23 ⁷ / ₈	25 ¹ / ₁₆	26 ¹ / ₄	27 ⁷ / 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 ¹¹ / ₁₆	29 ⁷ / ₈	31 ¹ / ₁₆	32 ¹ / ₄	33 ⁷ / ₁₆	34 ⁵ / ₈	35 ¹³ / ₁₆

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

Note: For gratings with other than 1-3/16" bearing bar spacing, proportionate conversion factors apply. This table is for Alloys 304 and 316. For Alloys 304L and 316L, F=16,500 psi and values for U, C and D should be multiplied by .825.