

Aluminum Grating

RECTANGULAR BAR SWAGE-LOCKED

15/16" Center to Center of Bearing Bars



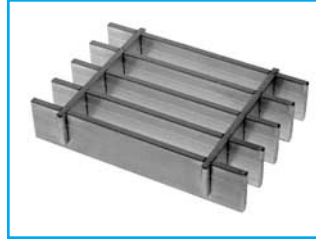
15-SR-4
Cross Rods 4" C/C



15-SR-2
Cross Rods 2" C/C

PRESS-LOCKED

15/16" Center to Center of Bearing Bars



15-AP-4
Cross Bars 4" C/C



15-AP-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) | | | | U | D | C | E | F | | | | | | |
|----------------|----------|-----------------------|---------------------------------|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | | 2'-0" | 2'-6" | 3'-0" | 3'-6" | | | | | | | | | | | |
| 3/4" x 1/8" | 15-4-32 | 1.8 | 0.150 | SR | 300 | 192 | 133 | 98 | | | | | | | | | | |
| | | | | AP | 0.192 | 0.300 | 0.432 | 0.588 | 0.768 | | | | | | | | | |
| | | | | SR | 300 | 240 | 200 | 171 | | | | | | | | | | |
| 3/4" x 3/16" | 15-2-32 | 2.1 | 0.225 | AP | 0.154 | 0.240 | 0.346 | 0.470 | 4'-0" | | | | | | | | | |
| | | | | SR | 450 | 288 | 200 | 147 | 113 | | | | | | | | | |
| | | | | AP | 0.192 | 0.300 | 0.432 | 0.588 | 0.768 | | | | | | | | | |
| 1" x 1/8" | 15-4-42 | 2.3 | 0.267 | SR | 450 | 360 | 300 | 257 | 225 | | | | | | | | | |
| | | | | AP | 0.154 | 0.240 | 0.346 | 0.470 | 0.614 | | | | | | | | | |
| | | | | SR | 533 | 341 | 237 | 174 | 133 | | | | | | | | | |
| 1" x 3/16" | 15-2-42 | 2.6 | 0.400 | AP | 0.115 | 0.180 | 0.259 | 0.353 | 0.461 | 4'-6" | | | | | | | | |
| | | | | SR | 533 | 427 | 356 | 305 | 267 | | | | | | | | | |
| | | | | AP | 0.144 | 0.225 | 0.324 | 0.441 | 0.576 | | | | | | | | | |
| 1-1/4" x 1/8" | 15-4-52 | 2.8 | 0.417 | SR | 800 | 512 | 356 | 261 | 200 | 158 | | | | | | | | |
| | | | | AP | 0.115 | 0.180 | 0.259 | 0.353 | 0.461 | 0.583 | | | | | | | | |
| | | | | SR | 800 | 640 | 533 | 457 | 400 | 356 | | | | | | | | |
| 1-1/4" x 3/16" | 15-2-52 | 3.1 | 0.625 | AP | 0.115 | 0.180 | 0.259 | 0.353 | 0.461 | 0.583 | 5'-0" | | | | | | | |
| | | | | SR | 833 | 667 | 556 | 476 | 417 | 370 | 333 | | | | | | | |
| | | | | AP | 0.092 | 0.144 | 0.207 | 0.282 | 0.369 | 0.467 | 0.576 | 0.697 | 5'-6" | | | | | |
| 1-1/2" x 1/8" | 15-4-62 | 3.3 | 0.600 | SR | 1250 | 800 | 556 | 408 | 313 | 247 | 200 | 165 | | | | | | |
| | | | | AP | 0.115 | 0.180 | 0.259 | 0.353 | 0.461 | 0.583 | 0.720 | 0.871 | | | | | | |
| | | | | SR | 1250 | 1000 | 833 | 714 | 625 | 556 | 500 | 455 | | | | | | |
| 1-1/2" x 3/16" | 15-2-62 | 3.6 | 0.900 | AP | 0.092 | 0.144 | 0.207 | 0.282 | 0.369 | 0.467 | 0.576 | 0.697 | | | | | | |
| | | | | SR | 1200 | 768 | 533 | 392 | 300 | 237 | 192 | 159 | | | | | | |
| | | | | AP | 0.096 | 0.150 | 0.216 | 0.294 | 0.384 | 0.486 | 0.600 | 0.726 | | | | | | |
| 1-3/4" x 1/8" | 15-4-73 | 4.7 | 1.225 | SR | 1800 | 1152 | 800 | 588 | 450 | 356 | 288 | 238 | 200 | | | | | |
| | | | | AP | 0.096 | 0.150 | 0.216 | 0.294 | 0.384 | 0.486 | 0.600 | 0.726 | 0.864 | | | | | |
| | | | | SR | 1800 | 1440 | 1200 | 1029 | 900 | 800 | 720 | 655 | 600 | | | | | |
| 2" x 3/16" | 15-2-73 | 5.8 | 1.600 | AP | 0.077 | 0.120 | 0.173 | 0.235 | 0.307 | 0.389 | 0.480 | 0.581 | 0.691 | 0.819 | | | | |
| | | | | SR | 2450 | 1568 | 1089 | 800 | 613 | 484 | 392 | 324 | 272 | 232 | | | | |
| | | | | AP | 0.082 | 0.129 | 0.185 | 0.252 | 0.329 | 0.417 | 0.514 | 0.622 | 0.741 | 0.869 | | | | |
| 2-1/4" x 1/8" | 15-4-83 | 6.2 | 2.025 | SR | 2450 | 1960 | 1633 | 1400 | 1225 | 1089 | 980 | 891 | 817 | 754 | | | | |
| | | | | AP | 0.066 | 0.103 | 0.148 | 0.202 | 0.263 | 0.333 | 0.411 | 0.498 | 0.592 | 0.695 | 0.791 | | | |
| | | | | SR | 3200 | 2048 | 1422 | 1045 | 800 | 632 | 512 | 423 | 356 | 303 | 261 | | | |
| 2-1/4" x 3/16" | 15-2-83 | 6.5 | 2.500 | AP | 0.072 | 0.113 | 0.162 | 0.221 | 0.288 | 0.365 | 0.450 | 0.545 | 0.648 | 0.761 | 0.882 | | | |
| | | | | SR | 3200 | 2560 | 2133 | 1829 | 1600 | 1422 | 1280 | 1164 | 1067 | 985 | 914 | | | |
| | | | | AP | 0.058 | 0.090 | 0.130 | 0.176 | 0.230 | 0.292 | 0.360 | 0.436 | 0.518 | 0.608 | 0.706 | 0.810 | 0.914 | |
| 2-1/2" x 1/8" | 15-4-103 | 6.9 | 2.025 | SR | 4050 | 2592 | 1800 | 1322 | 1013 | 800 | 648 | 536 | 450 | 383 | 331 | 253 | 200 | |
| | | | | AP | 0.064 | 0.100 | 0.144 | 0.196 | 0.256 | 0.324 | 0.400 | 0.484 | 0.576 | 0.676 | 0.784 | 0.902 | 1.024 | 1.296 |
| | | | | SR | 4050 | 3240 | 2700 | 2314 | 2025 | 1800 | 1620 | 1473 | 1350 | 1246 | 1157 | 1013 | 900 | |
| 2-1/2" x 3/16" | 15-2-103 | 8.0 | 2.500 | AP | 0.051 | 0.080 | 0.115 | 0.157 | 0.205 | 0.259 | 0.320 | 0.387 | 0.461 | 0.541 | 0.627 | 0.819 | 1.037 | |
| | | | | SR | 5000 | 3200 | 2222 | 1633 | 1250 | 988 | 800 | 661 | 556 | 473 | 408 | 313 | 247 | |
| | | | | AP | 0.058 | 0.090 | 0.130 | 0.176 | 0.230 | 0.292 | 0.360 | 0.436 | 0.518 | 0.608 | 0.706 | 0.922 | 1.166 | |
| 2-1/2" x 3/16" | 15-2-103 | 8.7 | 2.500 | SR | 5000 | 4000 | 3333 | 2857 | 2500 | 2222 | 2000 | 1818 | 1667 | 1538 | 1429 | 1250 | 1111 | |
| | | | | AP | 0.046 | 0.072 | 0.104 | 0.141 | 0.184 | 0.233 | 0.288 | 0.348 | 0.415 | 0.487 | 0.564 | 0.737 | 0.933 | |

U = safe uniform load, psf
 C = safe concentrated load, plw
 D = deflection, inches
 E = modulus of elasticity, 10,000,000 psi
 F = fiber stress, 12,000 psi
Material: ASTM B-221, 6063 or 6061
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.
Finish: Mill finish unless otherwise specified.

SR/AP-15 PANEL WIDTH (inches)

Note: Includes 1/4" (1/8" each side) for extended cross rods on swage-locked (SR) and extended cross bars on press-locked (AP).

| 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 | 1 ⁵ / ₁₆ | 2 ¹ / ₄ | 3 ³ / ₁₆ | 4 ¹ / ₈ | 5 ¹ / ₁₆ | 6 | 6 ⁵ / ₁₆ | 7 ⁷ / ₈ | 8 ³ / ₁₆ | 9 ³ / ₄ | 10 ¹¹ / ₁₆ | 11 ⁵ / ₈ | 12 ⁹ / ₁₆ | 13 ¹ / ₂ | 14 ⁷ / ₁₆ | 15 ³ / ₈ | 16 ⁵ / ₁₆ | 17 ¹ / ₄ | 18 ³ / ₁₆ |
| 3/16" Bar | 1 ³ / ₈ | 2 ⁵ / ₁₆ | 3 ¹ / ₄ | 4 ³ / ₁₆ | 5 ¹ / ₈ | 6 ¹ / ₁₆ | 7 | 7 ⁵ / ₁₆ | 8 ⁷ / ₈ | 9 ⁵ / ₁₆ | 10 ³ / ₄ | 11 ¹¹ / ₁₆ | 12 ⁵ / ₈ | 13 ⁹ / ₁₆ | 14 ¹ / ₂ | 15 ⁷ / ₁₆ | 16 ³ / ₈ | 17 ⁵ / ₁₆ | 18 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 | 19 ¹ / ₈ | 20 ¹ / ₁₆ | 21 | 21 ⁵ / ₁₆ | 22 ⁷ / ₈ | 23 ¹³ / ₁₆ | 24 ³ / ₄ | 25 ¹¹ / ₁₆ | 26 ⁵ / ₈ | 27 ⁹ / ₁₆ | 28 ¹ / ₂ | 29 ⁷ / ₁₆ | 30 ³ / ₈ | 31 ⁵ / ₁₆ | 32 ¹ / ₄ | 33 ³ / ₁₆ | 34 ¹ / ₈ | 35 ¹ / ₁₆ | 36 |
| 3/16" Bar | 19 ³ / ₁₆ | 20 ¹ / ₈ | 21 ¹ / ₁₆ | 22 | 22 ⁵ / ₁₆ | 23 ⁷ / ₈ | 24 ³ / ₁₆ | 25 ³ / ₄ | 26 ¹¹ / ₁₆ | 27 ⁵ / ₈ | 28 ⁹ / ₁₆ | 29 ¹ / ₂ | 30 ⁷ / ₁₆ | 31 ³ / ₈ | 32 ⁵ / ₁₆ | 33 ¹ / ₄ | 34 ³ / ₁₆ | 35 ¹ / ₈ | 36 ¹ / ₁₆ |