

11 SPACE LOAD TABLES

| Bar Size, Inches | Ped Span, Inches | Wt.* Lbs. Sq. Ft. | Sec. Prop Sx*, in ³ lx*, in ⁴ | Clear Span | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|------------------|-------------------|---|------------|--------|--------|--------|--------|--------|--------|---|--------|--------|---|--------|-------|---|---|--|-------|---|--|---|--|--|--|--|--|
| | | | | 2'- 0" | 2'- 6" | 3'- 0" | 3'- 6" | 4'- 0" | 4'- 6" | 5'- 0" | 5'- 6" | 6'- 0" | 6'- 6" | 7'- 0" | 8'- 0" | | | | | | | | | | | | | |
| 1 x 3/16 I-Bar | 50 | 4.13 | 0.545 | U | 1091 | 698 | 485 | 356 | 273 | 215 | U - Safe uniform load in pounds/sq. ft. C - Safe concentrated load in pounds/ft. grating width D - Deflection in inches Loads and deflections given in this table are theoretical, and are based on a unit stress of 12,000 psi. | | | | | | | | | | | | | | | | | |
| | | | | D | 0.144 | 0.225 | 0.324 | 0.441 | 0.577 | 0.727 | | | | | | | | | | | | | | | | | | |
| | | 3.18 | 0.273 | C | 1091 | 873 | 727 | 623 | 545 | 485 | | | | | | | | | | | | | | | | | | |
| | | | | D | 0.115 | 0.180 | 0.259 | 0.353 | 0.460 | 0.583 | | | | | | | | | | | | | | | | | | |
| 1-1/4 x 3/16 I-Bar | 59 | 5.13 | 0.852 | U | 1705 | 1091 | 758 | 557 | 426 | 337 | | | | | | | 273 | U - Safe uniform load in pounds/sq. ft. C - Safe concentrated load in pounds/ft. grating width D - Deflection in inches Loads and deflections given in this table are theoretical, and are based on a unit stress of 12,000 psi. | | | | | | | | | | |
| | | | | D | 0.115 | 0.180 | 0.259 | 0.353 | 0.461 | 0.584 | | | | | | | 0.721 | | | | | | | | | | | |
| | | 3.79 | 0.533 | C | 1705 | 1364 | 1136 | 974 | 852 | 758 | | | | | | | 682 | | | | | | | | | | | |
| | | | | D | 0.092 | 0.144 | 0.207 | 0.282 | 0.369 | 0.467 | | | | | | | 0.576 | | | | | | | | | | | |
| 1-1/2 x 3/16 I-Bar | 68 | 6.21 | 1.227 | U | 2455 | 1571 | 1091 | 802 | 614 | 485 | 393 | 325 | 273 | U - Safe uniform load in pounds/sq. ft. C - Safe concentrated load in pounds/ft. grating width D - Deflection in inches Loads and deflections given in this table are theoretical, and are based on a unit stress of 12,000 psi. | | | | | | | | | | | | | | |
| | | | | D | 0.096 | 0.150 | 0.216 | 0.294 | 0.384 | 0.486 | 0.600 | 0.727 | 0.865 | | | | | | | | | | | | | | | |
| | | 4.42 | 0.920 | C | 2455 | 1964 | 1636 | 1403 | 1227 | 1091 | 982 | 893 | 818 | | | | | | | | | | | | | | | |
| | | | | D | 0.077 | 0.120 | 0.173 | 0.235 | 0.307 | 0.389 | 0.480 | 0.581 | 0.691 | | | | | | | | | | | | | | | |
| 1-3/4 x 3/16 I-Bar | 76 | 7.18 | 1.670 | U | 3341 | 2138 | 1485 | 1091 | 835 | 660 | 535 | 442 | 371 | | | | | | | 316 | U - Safe uniform load in pounds/sq. ft. C - Safe concentrated load in pounds/ft. grating width D - Deflection in inches Loads and deflections given in this table are theoretical, and are based on a unit stress of 12,000 psi. | | | | | | | |
| | | | | D | 0.082 | 0.129 | 0.185 | 0.252 | 0.329 | 0.417 | 0.515 | 0.623 | 0.740 | | | | | | | 0.868 | | | | | | | | |
| | | 5.03 | 1.462 | C | 3341 | 2673 | 2227 | 1909 | 1670 | 1485 | 1336 | 1215 | 1114 | | | | | | | 1028 | | | | | | | | |
| | | | | D | 0.066 | 0.103 | 0.148 | 0.202 | 0.263 | 0.333 | 0.411 | 0.498 | 0.593 | | | | | | | 0.695 | | | | | | | | |
| 2 x 3/16 I-Bar | 84 | 8.14 | 2.182 | U | 4364 | 2793 | 1939 | 1425 | 1091 | 862 | 698 | 577 | 485 | 413 | 356 | 273 | U - Safe uniform load in pounds/sq. ft. C - Safe concentrated load in pounds/ft. grating width D - Deflection in inches Loads and deflections given in this table are theoretical, and are based on a unit stress of 12,000 psi. | | | | | | | | | | | |
| | | | | D | 0.072 | 0.113 | 0.162 | 0.221 | 0.288 | 0.365 | 0.450 | 0.544 | 0.648 | 0.760 | 0.881 | 1.153 | | | | | | | | | | | | |
| | | 5.67 | 2.182 | C | 4364 | 3491 | 2909 | 2494 | 2182 | 1939 | 1746 | 1587 | 1455 | 1343 | 1247 | 1091 | | | | | | | | | | | | |
| | | | | D | 0.058 | 0.090 | 0.130 | 0.176 | 0.230 | 0.292 | 0.360 | 0.436 | 0.519 | 0.609 | 0.706 | 0.922 | | | | | | | | | | | | |
| 2-1/4 x 3/16 I-Bar | 92 | 9.10 | 2.761 | U | 5523 | 3535 | 2455 | 1803 | 1381 | 1091 | 884 | 730 | 614 | 523 | 451 | 345 | | | | | | | U - Safe uniform load in pounds/sq. ft. C - Safe concentrated load in pounds/ft. grating width D - Deflection in inches Loads and deflections given in this table are theoretical, and are based on a unit stress of 12,000 psi. | | | | | |
| | | | | D | 0.064 | 0.100 | 0.144 | 0.196 | 0.256 | 0.324 | 0.400 | 0.484 | 0.576 | 0.676 | 0.784 | 1.023 | | | | | | | | | | | | |
| | | 6.23 | 3.107 | C | 5523 | 4418 | 3682 | 3156 | 2761 | 2455 | 2209 | 2008 | 1841 | 1699 | 1578 | 1381 | | | | | | | | | | | | |
| | | | | D | 0.051 | 0.080 | 0.115 | 0.157 | 0.205 | 0.259 | 0.320 | 0.387 | 0.461 | 0.541 | 0.627 | 0.819 | | | | | | | | | | | | |
| 2-1/2 x 3/16 I-Bar | 100 | 10.06 | 3.409 | U | 6818 | 4364 | 3030 | 2226 | 1705 | 1347 | 1091 | 902 | 758 | 646 | 557 | 426 | U - Safe uniform load in pounds/sq. ft. C - Safe concentrated load in pounds/ft. grating width D - Deflection in inches Loads and deflections given in this table are theoretical, and are based on a unit stress of 12,000 psi. | | | | | | | | | | | |
| | | | | D | 0.058 | 0.090 | 0.130 | 0.176 | 0.230 | 0.292 | 0.360 | 0.436 | 0.519 | 0.609 | 0.706 | 0.921 | | | | | | | | | | | | |
| | | 6.91 | 4.261 | C | 6818 | 5455 | 4546 | 3896 | 3409 | 3030 | 2727 | 2479 | 2273 | 2098 | 1948 | 1705 | | | | | | | | | | | | |
| | | | | D | 0.046 | 0.072 | 0.104 | 0.141 | 0.184 | 0.233 | 0.288 | 0.348 | 0.415 | 0.487 | 0.564 | 0.737 | | | | | | | | | | | | |

*Based on 17.455 bars/ft. of grating width. Bearing bars 11/16" c.c. Add .4 lbs./sq. ft. for 11-SGF-2, 1/8" bearing bars available by inquiry. Note: Grating for spans to the left of the heavy line have a deflection less than 1/4" for uniform loads of 100 lbs./sq. ft. This is the maximum deflection to afford pedestrian comfort and can be exceeded for other types of load at the discretion of the engineer. The actual Ped (pedestrian) Span under this condition is shown above for each size of grating. When serrated grating is specified, the depth of grating required for a specific load will be 1/4" greater than that shown in these tables.

Panel Width Chart (in.) - 11-SGF-4, 11-SGF-2, 11-SGLi-4, 11-SGLi-2, 11-SG-4, 11-SG-2, 11-ADT-4 & 11-ADT-2
 Dimensions Are Out-to-Out of Bearing Bars**

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

**Add 1/4" for extended cross bars. Deduct 1/16" for 1/8" bearing bars. Standard panel widths indicated in teal.

Panel Width Chart (in.) - 11-SGI-4 & 11-SGI-2 Dimensions Are Out-to-Out of Bearing Bars**

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

**Bar thickness is 1/4" at top and bottom. Add 1/4" for extended cross bars. Standard panel widths indicated in teal.