

# Aluminum Grating

## RECTANGULAR BAR SWAGE-LOCKED CLOSE MESH

11/16" Center to Center of Bearing Bars



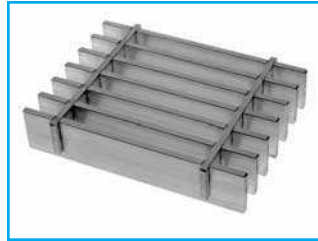
**11-SR-4**  
Cross Rods 4" C/C



**11-SR-2**  
Cross Rods 2" C/C

## PRESS-LOCKED CLOSE MESH

11/16" Center to Center of Bearing Bars



**11-AP-4**  
Cross Bars 4" C/C



**11-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     | E          | F      |
|----------------|----------|--------------------|---------------------------|------------------------------|-------|-------|-------|-------|-------|-------|------------|--------|
|                |          |                    |                           | 2'-0"                        | 2'-6" | 3'-0" | 3'-6" | 4'-0" |       |       |            |        |
| 3/4" x 1/8"    | 11-4-32  | 2.3                | 0.205                     | SR                           | U     | 409   | 262   | 182   | 134   | 102   | 10,000,000 | 12,000 |
|                |          |                    |                           | AP                           | D     | 0.192 | 0.300 | 0.432 | 0.588 | 0.768 |            |        |
|                | 11-2-32  | SR                 | C                         | 409                          | 327   | 273   | 234   | 205   |       |       |            |        |
|                |          | AP                 | D                         | 0.154                        | 0.240 | 0.346 | 0.470 | 0.614 |       |       |            |        |
| 3/4" x 3/16"   | 11-4-33  | 3.3                | 0.307                     | SR                           | U     | 614   | 393   | 273   | 200   | 153   | 10,000,000 | 12,000 |
|                |          |                    |                           | AP                           | D     | 0.192 | 0.300 | 0.432 | 0.588 | 0.768 |            |        |
|                | 11-2-33  | SR                 | C                         | 614                          | 491   | 409   | 351   | 307   |       |       |            |        |
|                |          | AP                 | D                         | 0.154                        | 0.240 | 0.346 | 0.470 | 0.614 |       |       |            |        |
| 1" x 1/8"      | 11-4-42  | 3.0                | 0.364                     | SR                           | U     | 727   | 465   | 323   | 237   | 182   | 10,000,000 | 12,000 |
|                |          |                    |                           | AP                           | D     | 0.144 | 0.225 | 0.324 | 0.441 | 0.576 |            |        |
|                | 11-2-42  | SR                 | C                         | 727                          | 582   | 485   | 416   | 364   |       |       |            |        |
|                |          | AP                 | D                         | 0.115                        | 0.180 | 0.259 | 0.353 | 0.461 |       |       |            |        |
| 1" x 3/16"     | 11-4-43  | 4.3                | 0.545                     | SR                           | U     | 1091  | 698   | 485   | 356   | 273   | 10,000,000 | 12,000 |
|                |          |                    |                           | AP                           | D     | 0.144 | 0.225 | 0.324 | 0.441 | 0.576 |            |        |
|                | 11-2-43  | SR                 | C                         | 1091                         | 873   | 727   | 623   | 545   |       |       |            |        |
|                |          | AP                 | D                         | 0.115                        | 0.180 | 0.259 | 0.353 | 0.461 |       |       |            |        |
| 1-1/4" x 1/8"  | 11-4-52  | 3.6                | 0.568                     | SR                           | U     | 1136  | 727   | 505   | 371   | 284   | 10,000,000 | 12,000 |
|                |          |                    |                           | AP                           | D     | 0.115 | 0.180 | 0.259 | 0.353 | 0.461 |            |        |
|                | 11-2-52  | SR                 | C                         | 1136                         | 909   | 758   | 649   | 568   |       |       |            |        |
|                |          | AP                 | D                         | 0.092                        | 0.144 | 0.207 | 0.282 | 0.369 |       |       |            |        |
| 1-1/4" x 3/16" | 11-4-53  | 5.3                | 0.852                     | SR                           | U     | 1705  | 1091  | 758   | 557   | 426   | 10,000,000 | 12,000 |
|                |          |                    |                           | AP                           | D     | 0.115 | 0.180 | 0.259 | 0.353 | 0.461 |            |        |
|                | 11-2-53  | SR                 | C                         | 1705                         | 1364  | 1136  | 974   | 852   |       |       |            |        |
|                |          | AP                 | D                         | 0.092                        | 0.144 | 0.207 | 0.282 | 0.369 |       |       |            |        |
| 1-1/2" x 1/8"  | 11-4-62  | 4.3                | 0.818                     | SR                           | U     | 1636  | 1047  | 727   | 534   | 409   | 10,000,000 | 12,000 |
|                |          |                    |                           | AP                           | D     | 0.096 | 0.150 | 0.216 | 0.294 | 0.384 |            |        |
|                | 11-2-62  | SR                 | C                         | 1636                         | 1309  | 1091  | 935   | 818   |       |       |            |        |
|                |          | AP                 | D                         | 0.077                        | 0.120 | 0.173 | 0.235 | 0.307 |       |       |            |        |
| 1-1/2" x 3/16" | 11-4-63  | 6.3                | 1.227                     | SR                           | U     | 2455  | 1571  | 1091  | 801   | 614   | 10,000,000 | 12,000 |
|                |          |                    |                           | AP                           | D     | 0.096 | 0.150 | 0.216 | 0.294 | 0.384 |            |        |
|                | 11-2-63  | SR                 | C                         | 2455                         | 1964  | 1636  | 1403  | 1227  |       |       |            |        |
|                |          | AP                 | D                         | 0.077                        | 0.120 | 0.173 | 0.235 | 0.307 |       |       |            |        |
| 1-3/4" x 3/16" | 11-4-73  | 7.3                | 1.670                     | SR                           | U     | 3341  | 2138  | 1485  | 1091  | 835   | 10,000,000 | 12,000 |
|                |          |                    |                           | AP                           | D     | 0.082 | 0.129 | 0.185 | 0.252 | 0.329 |            |        |
|                | 11-2-73  | SR                 | C                         | 3341                         | 2673  | 2227  | 1909  | 1670  |       |       |            |        |
|                |          | AP                 | D                         | 0.066                        | 0.103 | 0.148 | 0.202 | 0.263 |       |       |            |        |
| 2" x 3/16"     | 11-4-83  | 8.3                | 2.182                     | SR                           | U     | 4364  | 2793  | 1939  | 1425  | 1091  | 10,000,000 | 12,000 |
|                |          |                    |                           | AP                           | D     | 0.072 | 0.113 | 0.162 | 0.221 | 0.288 |            |        |
|                | 11-2-83  | SR                 | C                         | 4364                         | 3491  | 2909  | 2494  | 2182  |       |       |            |        |
|                |          | AP                 | D                         | 0.058                        | 0.090 | 0.130 | 0.176 | 0.230 |       |       |            |        |
| 2-1/4" x 3/16" | 11-4-93  | 9.3                | 2.761                     | SR                           | U     | 5523  | 3535  | 2455  | 1803  | 1381  | 10,000,000 | 12,000 |
|                |          |                    |                           | AP                           | D     | 0.064 | 0.100 | 0.144 | 0.196 | 0.256 |            |        |
|                | 11-2-93  | SR                 | C                         | 5523                         | 4418  | 3682  | 3156  | 2761  |       |       |            |        |
|                |          | AP                 | D                         | 0.051                        | 0.080 | 0.115 | 0.157 | 0.205 |       |       |            |        |
| 2-1/2" x 3/16" | 11-4-103 | 10.3               | 3.409                     | SR                           | U     | 6818  | 4364  | 3030  | 2226  | 1705  | 10,000,000 | 12,000 |
|                |          |                    |                           | AP                           | D     | 0.058 | 0.090 | 0.130 | 0.176 | 0.230 |            |        |
|                | 11-2-103 | SR                 | C                         | 6818                         | 5455  | 4545  | 3896  | 3409  |       |       |            |        |
|                |          | AP                 | D                         | 0.046                        | 0.072 | 0.104 | 0.141 | 0.184 |       |       |            |        |

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