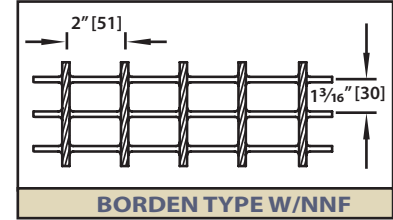
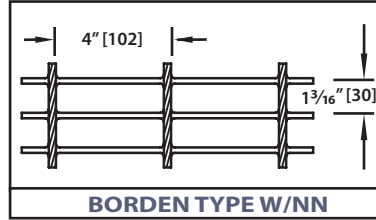


## Welded Grating

### LOAD TABLE



| Size No. | Bearing Bar Size | Weight (#/ft. <sup>2</sup> ) | Moment of Inertia (in. <sup>4</sup> /f.w.) | Section Modulus (in. <sup>3</sup> /f.w.) | Maximum span recommended for 1/4" deflection under uniform load of 100 psf. (normal pedestrian traffic) |      |       |       |       |       |       |       |       |   |       |       |     |  |  |  |  |  |  |  |       |       |       |
|----------|------------------|------------------------------|--|--|---|------|-------|-------|-------|-------|-------|-------|-------|---|-------|-------|-----|--|--|--|--|--|--|--|-------|-------|-------|
|          |                  |                              |  |  | Span in Inches  |      |       |       |       |       |       |       |       |   |       |       |     |  |  |  |  |  |  |  |       |       |       |
|          |                  |                              |  |  | 24  | 30   | 36    | 42    | 48    | 54    | 60    | 66    | 72    | 78  | 84    | 96    | 108 |  |  |  |  |  |  |  |       |       |       |
| 1        | 3/4" x 1/8"      | 9.46                         | 0.1205                                     | 0.3214                                   | 53  | U    | 964   | 617   | 429   | 315   | 241   | 190   | 154   | <b>Table in accordance with NAAMM MBG 531-00</b><br><b>F - 18,000 psi</b><br><b>E - 29,000,000 psi</b><br><br>U - Safe Uniform Load (lbs./sq.ft.)<br>C - Safe Conc. load (lbs./ft. width)<br>D - Deflection in inches |       |       |     |  |  |  |  |  |  |  |       |       |       |
|          |                  | 10.10                        |  |  |   | Du   | 0.099 | 0.155 | 0.223 | 0.304 | 0.397 | 0.503 | 0.621 |   |       |       |     |  |  |  |  |  |  |  |       |       |       |
|          |                  | C                            |  |  |   | 964  | 771   | 643   | 551   | 482   | 429   | 386   |       |   |       |       |     |  |  |  |  |  |  |  |       |       |       |
| 2        | 3/4" x 3/16"     | 5.61                         | 0.0666                                     | 0.1776                                   | 46  | Dc   | 0.079 | 0.124 | 0.179 | 0.243 | 0.318 | 0.402 | 0.497 |   |       |       |     |  |  |  |  |  |  |  | 194   | 178   | 164   |
|          |                  | 6.25                         |  |  |   | U    | 533   | 341   | 237   | 174   | 133   | 105   | 85    |   |       |       |     |  |  |  |  |  |  |  | 0.601 | 0.715 | 0.839 |
|          |                  | C                            |  |  |   | 533  | 426   | 355   | 305   | 266   | 237   | 213   | 184   |   |       |       |     |  |  |  |  |  |  |  | 164   | 140   |       |
| 3        | 1" x 1/8"        | 5.06                         | 0.1053                                     | 0.2105                                   | 51  | Dc   | 0.079 | 0.124 | 0.179 | 0.243 | 0.318 | 0.402 | 0.497 |   |       |       |     |  |  |  |  |  |  |  | 0.601 | 0.715 | 0.839 |
|          |                  | 5.70                         |  |  |   | U    | 632   | 404   | 281   | 206   | 158   | 125   | 101   |   |       |       |     |  |  |  |  |  |  |  | 84    | 70    | 60    |
|          |                  | C                            |  |  |   | 632  | 505   | 421   | 361   | 316   | 281   | 253   | 230   |   |       |       |     |  |  |  |  |  |  |  | 211   | 194   |       |
| 4        | 1" x 3/16"       | 7.27                         | 0.1579                                     | 0.3158                                   | 57  | Dc   | 0.060 | 0.093 | 0.134 | 0.182 | 0.238 | 0.302 | 0.372 |   |       |       |     |  |  |  |  |  |  |  | 0.451 | 0.536 | 0.629 |
|          |                  | 7.90                         |  |  |   | U    | 947   | 606   | 421   | 309   | 237   | 187   | 152   |   |       |       |     |  |  |  |  |  |  |  | 125   | 105   | 90    |
|          |                  | C                            |  |  |   | 947  | 758   | 632   | 541   | 474   | 421   | 379   | 344   |   |       |       |     |  |  |  |  |  |  |  | 316   | 291   |       |
| 5        | 1 1/4" x 1/8"    | 6.17                         | 0.2056                                     | 0.3289                                   | 61  | Dc   | 0.060 | 0.093 | 0.134 | 0.182 | 0.238 | 0.302 | 0.372 |   |       |       |     |  |  |  |  |  |  |  | 0.451 | 0.536 | 0.629 |
|          |                  | 6.81                         |  |  |   | U    | 987   | 632   | 439   | 322   | 247   | 195   | 158   |   |       |       |     |  |  |  |  |  |  |  | 130   | 110   | 93    |
|          |                  | C                            |  |  |   | 987  | 789   | 658   | 564   | 493   | 439   | 395   | 359   |   |       |       |     |  |  |  |  |  |  |  | 329   | 304   |       |
| 6        | 1 1/4" x 3/16"   | 8.92                         | 0.3084                                     | 0.4934                                   | 67  | Dc   | 0.048 | 0.074 | 0.107 | 0.146 | 0.191 | 0.241 | 0.298 | 0.360   | 0.429 | 0.504 |     |  |  |  |  |  |  |  |       |       |       |
|          |                  | 9.56                         |  |  |   | U    | 1480  | 947   | 658   | 483   | 370   | 292   | 237   | 196   | 164   | 140   |     |  |  |  |  |  |  |  |       |       |       |
|          |                  | C                            |  |  |   | 1480 | 1184  | 987   | 846   | 740   | 658   | 592   | 538   | 493   | 455   |       |     |  |  |  |  |  |  |  |       |       |       |
| 7        | 1 1/2" x 1/8"    | 7.28                         | 0.3553                                     | 0.4737                                   | 70  | Dc   | 0.040 | 0.062 | 0.089 | 0.122 | 0.159 | 0.201 | 0.248 | 0.300   | 0.358 | 0.420 |     |  |  |  |  |  |  |  |       |       |       |
|          |                  | 7.92                         |  |  |   | U    | 1421  | 909   | 632   | 464   | 355   | 281   | 227   | 188   | 158   | 135   |     |  |  |  |  |  |  |  |       |       |       |
|          |                  | C                            |  |  |   | 1421 | 1137  | 947   | 812   | 711   | 632   | 568   | 517   | 474   | 437   |       |     |  |  |  |  |  |  |  |       |       |       |
| 8        | 1 1/2" x 3/16"   | 10.58                        | 0.5329                                     | 0.7105                                   | 77  | Dc   | 0.040 | 0.062 | 0.089 | 0.122 | 0.159 | 0.201 | 0.248 | 0.300   | 0.358 | 0.420 |     |  |  |  |  |  |  |  |       |       |       |
|          |                  | 11.22                        |  |  |   | U    | 2132  | 1364  | 947   | 696   | 533   | 421   | 341   | 282   | 237   | 202   |     |  |  |  |  |  |  |  |       |       |       |
|          |                  | C                            |  |  |   | 2132 | 1705  | 1421  | 1218  | 1066  | 947   | 853   | 775   | 711   | 656   |       |     |  |  |  |  |  |  |  |       |       |       |
| 9        | 1 3/4" x 3/16"   | 12.24                        | 0.8462                                     | 0.9671                                   | 87  | Dc   | 0.034 | 0.053 | 0.077 | 0.104 | 0.136 | 0.172 | 0.213 | 0.257   | 0.306 | 0.360 |     |  |  |  |  |  |  |  |       |       |       |
|          |                  | 12.87                        |  |  |   | U    | 2901  | 1857  | 1289  | 947   | 725   | 573   | 464   | 384   | 322   | 275   |     |  |  |  |  |  |  |  |       |       |       |
|          |                  | C                            |  |  |   | 2901 | 2321  | 1934  | 1658  | 1451  | 1289  | 1161  | 1055  | 967   | 893   |       |     |  |  |  |  |  |  |  |       |       |       |
| 10       | 2" x 3/16"       | 13.89                        | 1.2632                                     | 1.2632                                   | 96  | Dc   | 0.030 | 0.047 | 0.067 | 0.091 | 0.119 | 0.151 | 0.186 | 0.225   | 0.268 | 0.315 |     |  |  |  |  |  |  |  |       |       |       |
|          |                  | 14.53                        |  |  |   | U    | 3789  | 2425  | 1684  | 1237  | 947   | 749   | 606   | 501   | 421   | 359   |     |  |  |  |  |  |  |  |       |       |       |
|          |                  | C                            |  |  |   | 3789 | 3032  | 2526  | 2165  | 1895  | 1684  | 1516  | 1378  | 1263  | 1166  |       |     |  |  |  |  |  |  |  |       |       |       |
| 11       | 2 1/4" x 3/16"   | 15.55                        | 1.7985                                     | 1.5987                                   | 105   | Dc   | 0.026 | 0.041 | 0.060 | 0.081 | 0.106 | 0.134 | 0.166 | 0.200   | 0.238 | 0.280 |     |  |  |  |  |  |  |  |       |       |       |
|          |                  | 16.19                        |  |  |   | U    | 4796  | 3069  | 2132  | 1566  | 1199  | 947   | 767   | 634   | 533   | 454   |     |  |  |  |  |  |  |  |       |       |       |
|          |                  | C                            |  |  |   | 4796 | 3837  | 3197  | 2741  | 2398  | 2132  | 1918  | 1744  | 1599  | 1476  |       |     |  |  |  |  |  |  |  |       |       |       |
| 12       | 2 1/2" x 3/16"   | 17.21                        | 2.4671                                     | 1.9737                                   | 113   | Dc   | 0.024 | 0.037 | 0.054 | 0.073 | 0.095 | 0.121 | 0.149 | 0.180   | 0.215 | 0.252 |     |  |  |  |  |  |  |  |       |       |       |
|          |                  | 17.84                        |  |  |   | U    | 5921  | 3789  | 2632  | 1933  | 1406  | 1170  | 947   | 783   | 658   | 561   |     |  |  |  |  |  |  |  |       |       |       |
|          |                  | C                            |  |  |   | 5921 | 4737  | 3947  | 3383  | 2961  | 2632  | 2368  | 2153  | 1974  | 1822  |       |     |  |  |  |  |  |  |  |       |       |       |

All loads and deflections are based on gross sections and nominal sizes of bearing bars. The values listed are for design selection only and are not intended to be "absolute".

Actual load capacity will be affected slightly by variations which can be expected due to material and manufacturing tolerances.

1/4" is considered the maximum deflection which is consistent with pedestrian comfort, but may be exceeded for other application at the discretion of the Engineer.

When serrated gratings are specified, increase the depth of the grating selected from the table by 1/4" to allow for the serrations.

| PANEL WIDTHS (inches) |         |          |          |         |         |         |          |          |          |         |         |         |          |          |          |         |         |
|-----------------------|---------|----------|----------|---------|---------|---------|----------|----------|----------|---------|---------|---------|----------|----------|----------|---------|---------|
| # Bars                | 2       | 3        | 4        | 5       | 6       | 7       | 8        | 9        | 10       | 11      | 12      | 13      | 14       | 15       | 16       | 17      | 18      |
| 3/16" Bars            | 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       | 19 3/16 | 20 3/8  |
| 1/8" Bars             | 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 | 19 1/8  | 20 5/16 |
| # Bars                | 19      | 20       | 21       | 22      | 23      | 24      | 25       | 26       | 27       | 28      | 29      | 30      | 31       | 32       | 33       | 34      |         |
| 3/16" Bars            | 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 | 37       | 38 3/16  | 39 3/8  |         |
| 1/8" Bars             | 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   | 36 15/16 | 38 1/8   | 39 5/16 |         |