

## Rectangular Wire Construction



\* Note: 1 daN = 1.0197 Kg (Force)

| Outer Diam.<br>(mm)<br>A | Inner Diam.<br>(mm)<br>B | Wire Size<br>(mm) | Free Length<br>(mm)<br>C | Catalog Number | Spring *Rate<br>kgf/mm | LOAD-DEFLECTION TABLE |                 |                  |                 |                  |                 |
|--------------------------|--------------------------|-------------------|--------------------------|----------------|------------------------|-----------------------|-----------------|------------------|-----------------|------------------|-----------------|
|                          |                          |                   |                          |                |                        | 0.3 million           |                 | 0.5 million      |                 | 1 million        |                 |
|                          |                          |                   |                          |                |                        | Deflection<br>mm      | Load<br>kgf (N) | Deflection<br>mm | Load<br>kgf (N) | Deflection<br>mm | Load<br>kgf (N) |
| 10                       | 5                        | 2.1 x 2.1         | 20                       | 95-1020        | 11.25                  | 4.0                   | 45<br>(441.2)   | 3.6              | 40.5<br>(397.1) | 3.2              | 36<br>(353.0)   |
|                          |                          |                   | 25                       | 95-1025        | 9.00                   | 5.0                   |                 | 4.5              |                 | 4.0              |                 |
|                          |                          |                   | 30                       | 95-1030        | 7.50                   | 6.0                   |                 | 5.4              |                 | 4.8              |                 |
|                          |                          |                   | 35                       | 95-1035        | 6.43                   | 7.0                   |                 | 6.3              |                 | 5.6              |                 |
|                          |                          |                   | 40                       | 95-1040        | 5.63                   | 8.0                   |                 | 7.2              |                 | 6.4              |                 |
|                          |                          |                   | 45                       | 95-1045        | 5.00                   | 9.0                   |                 | 8.1              |                 | 7.2              |                 |
|                          |                          |                   | 50                       | 95-1050        | 4.50                   | 10.0                  |                 | 9.0              |                 | 8.0              |                 |
|                          |                          |                   | 55                       | 95-1055        | 4.09                   | 11.0                  |                 | 9.9              |                 | 8.8              |                 |
|                          |                          |                   | 60                       | 95-1060        | 3.75                   | 12.0                  |                 | 10.8             |                 | 9.6              |                 |
|                          |                          |                   | 65                       | 95-1065        | 3.47                   | 13.0                  |                 | 11.7             |                 | 10.4             |                 |
|                          |                          |                   | 70                       | 95-1070        | 3.21                   | 14.0                  |                 | 12.6             |                 | 11.2             |                 |
|                          |                          |                   | 75                       | 95-1075        | 3.00                   | 15.0                  |                 | 13.5             |                 | 12.0             |                 |
|                          |                          |                   | 80                       | 95-1080        | 2.82                   | 16.0                  |                 | 14.4             |                 | 12.8             |                 |
| 12                       | 6                        | 2.7 x 2.5         | 20                       | 95-1220        | 14.50                  | 4.0                   | 58<br>(568.6)   | 3.6              | 52<br>(509.8)   | 3.2              | 46.4<br>(454.9) |
|                          |                          |                   | 25                       | 95-1225        | 11.60                  | 5.0                   |                 | 4.5              |                 | 4.0              |                 |
|                          |                          |                   | 30                       | 95-1230        | 9.67                   | 6.0                   |                 | 5.4              |                 | 4.8              |                 |
|                          |                          |                   | 35                       | 95-1235        | 8.29                   | 7.0                   |                 | 6.3              |                 | 5.6              |                 |
|                          |                          |                   | 40                       | 95-1240        | 7.25                   | 8.0                   |                 | 7.2              |                 | 6.4              |                 |
|                          |                          |                   | 45                       | 95-1245        | 6.44                   | 9.0                   |                 | 8.1              |                 | 7.2              |                 |
|                          |                          |                   | 50                       | 95-1250        | 5.80                   | 10.0                  |                 | 9.0              |                 | 8.0              |                 |
|                          |                          |                   | 55                       | 95-1255        | 5.27                   | 11.0                  |                 | 9.9              |                 | 8.8              |                 |
|                          |                          |                   | 60                       | 95-1260        | 4.83                   | 12.0                  |                 | 10.8             |                 | 9.6              |                 |
|                          |                          |                   | 65                       | 95-1265        | 4.44                   | 13.0                  |                 | 11.7             |                 | 10.4             |                 |
|                          |                          |                   | 70                       | 95-1270        | 4.13                   | 14.0                  |                 | 12.6             |                 | 11.2             |                 |
|                          |                          |                   | 75                       | 95-1275        | 3.85                   | 15.0                  |                 | 13.5             |                 | 12.0             |                 |
|                          |                          |                   | 80                       | 95-1280        | 3.61                   | 16.0                  |                 | 14.4             |                 | 12.8             |                 |
| 14                       | 7                        | 3.3 x 2.8         | 25                       | 95-1425        | 15.00                  | 5.0                   | 75<br>(735.3)   | 4.5              | 67.5<br>(661.8) | 4.0              | 60<br>(588.3)   |
|                          |                          |                   | 30                       | 95-1430        | 12.50                  | 6.0                   |                 | 5.4              |                 | 4.8              |                 |
|                          |                          |                   | 35                       | 95-1435        | 10.72                  | 7.0                   |                 | 6.3              |                 | 5.6              |                 |
|                          |                          |                   | 40                       | 95-1440        | 9.38                   | 8.0                   |                 | 7.2              |                 | 6.4              |                 |
|                          |                          |                   | 45                       | 95-1445        | 8.34                   | 9.0                   |                 | 8.1              |                 | 7.2              |                 |
|                          |                          |                   | 50                       | 95-1450        | 7.50                   | 10.0                  |                 | 9.0              |                 | 8.0              |                 |
|                          |                          |                   | 55                       | 95-1455        | 6.82                   | 11.0                  |                 | 9.9              |                 | 8.8              |                 |
|                          |                          |                   | 60                       | 95-1460        | 6.25                   | 12.0                  |                 | 10.8             |                 | 9.6              |                 |
|                          |                          |                   | 65                       | 95-1465        | 5.77                   | 13.0                  |                 | 11.7             |                 | 10.4             |                 |
|                          |                          |                   | 70                       | 95-1470        | 5.36                   | 14.0                  |                 | 12.6             |                 | 11.2             |                 |
|                          |                          |                   | 75                       | 95-1475        | 5.00                   | 15.0                  |                 | 13.5             |                 | 12.0             |                 |
|                          |                          |                   | 80                       | 95-1480        | 4.69                   | 16.0                  |                 | 14.4             |                 | 12.8             |                 |
|                          |                          |                   | 90                       | 95-1490        | 4.17                   | 18.0                  |                 | 16.2             |                 | 14.4             |                 |
| 16                       | 8                        | 3.6 x 3.0         | 25                       | 95-1625        | 20.00                  | 5.0                   | 100<br>(981.0)  | 4.5              | 90<br>(883.0)   | 4.0              | 80<br>(785.0)   |
|                          |                          |                   | 30                       | 95-1630        | 16.67                  | 6.0                   |                 | 5.4              |                 | 4.8              |                 |
|                          |                          |                   | 35                       | 95-1635        | 14.29                  | 7.0                   |                 | 6.3              |                 | 5.6              |                 |
|                          |                          |                   | 40                       | 95-1640        | 12.50                  | 8.0                   |                 | 7.2              |                 | 6.4              |                 |
|                          |                          |                   | 45                       | 95-1645        | 11.11                  | 9.0                   |                 | 8.1              |                 | 7.2              |                 |
|                          |                          |                   | 50                       | 95-1650        | 10.00                  | 10.0                  |                 | 9.0              |                 | 8.0              |                 |
|                          |                          |                   | 55                       | 95-1655        | 9.09                   | 11.0                  |                 | 9.9              |                 | 8.8              |                 |
|                          |                          |                   | 60                       | 95-1660        | 8.34                   | 12.0                  |                 | 10.8             |                 | 9.6              |                 |
|                          |                          |                   | 65                       | 95-1665        | 7.69                   | 13.0                  |                 | 11.7             |                 | 10.4             |                 |
|                          |                          |                   | 70                       | 95-1670        | 7.14                   | 14.0                  |                 | 12.6             |                 | 11.2             |                 |
|                          |                          |                   | 75                       | 95-1675        | 6.67                   | 15.0                  |                 | 13.5             |                 | 12.0             |                 |
|                          |                          |                   | 80                       | 95-1680        | 6.25                   | 16.0                  |                 | 14.4             |                 | 12.8             |                 |
|                          |                          |                   | 90                       | 95-1690        | 5.56                   | 18.0                  |                 | 16.2             |                 | 14.4             |                 |
|                          |                          |                   | 100                      | 95-16100       | 5.00                   | 20.0                  |                 | 18.0             |                 | 16.0             |                 |

# JIS Extra-heavy load springs

\* Note: 1 daN = 1.0197 Kg (Force)

| Outer<br>Diam.<br>(mm)<br>A | Inner<br>Diam.<br>(mm)<br>B | Wire<br>Size<br>(mm) | Free<br>Length<br>(mm)<br>C | Catalog<br>Number | Spring<br>*Rate<br>kgf/mm | LOAD-DEFLECTION TABLE |                 |                  |                 |                  |                 |
|-----------------------------|-----------------------------|----------------------|-----------------------------|-------------------|---------------------------|-----------------------|-----------------|------------------|-----------------|------------------|-----------------|
|                             |                             |                      |                             |                   |                           | 0.3 million           |                 | 0.5 million      |                 | 1 million        |                 |
|                             |                             |                      |                             |                   |                           | Deflection<br>mm      | Load<br>kgf (N) | Deflection<br>mm | Load<br>kgf (N) | Deflection<br>mm | Load<br>kgf (N) |
| 18                          | 9                           | 4.1 x 3.5            | 25                          | 95-1825           | 25.00                     | 5.0                   | 125<br>(1226.0) | 4.5              | 113<br>(1108.0) | 4.0              | 100<br>(981.0)  |
|                             |                             |                      | 30                          | 95-1830           | 20.84                     | 6.0                   |                 | 5.4              |                 | 4.8              |                 |
|                             |                             |                      | 35                          | 95-1835           | 17.86                     | 7.0                   |                 | 6.3              |                 | 5.6              |                 |
|                             |                             |                      | 40                          | 95-1840           | 15.63                     | 8.0                   |                 | 7.2              |                 | 6.4              |                 |
|                             |                             |                      | 45                          | 95-1845           | 13.89                     | 9.0                   |                 | 8.1              |                 | 7.2              |                 |
|                             |                             |                      | 50                          | 95-1850           | 12.50                     | 10.0                  |                 | 9.0              |                 | 8.0              |                 |
|                             |                             |                      | 55                          | 95-1855           | 11.37                     | 11.0                  |                 | 9.9              |                 | 8.8              |                 |
|                             |                             |                      | 60                          | 95-1860           | 10.42                     | 12.0                  |                 | 10.8             |                 | 9.6              |                 |
|                             |                             |                      | 65                          | 95-1865           | 9.62                      | 13.0                  |                 | 11.7             |                 | 10.4             |                 |
|                             |                             |                      | 70                          | 95-1870           | 8.93                      | 14.0                  |                 | 12.6             |                 | 11.2             |                 |
|                             |                             |                      | 75                          | 95-1875           | 8.34                      | 15.0                  |                 | 13.5             |                 | 12.0             |                 |
|                             |                             |                      | 80                          | 95-1880           | 7.82                      | 16.0                  |                 | 14.4             |                 | 12.8             |                 |
|                             |                             |                      | 90                          | 95-1890           | 6.95                      | 18.0                  |                 | 16.2             |                 | 14.4             |                 |
|                             |                             |                      | 100                         | 95-18100          | 6.26                      | 20.0                  |                 | 18.0             |                 | 16.0             |                 |
| 20                          | 10                          | 4.7 x 3.7            | 25                          | 95-2025           | 32.00                     | 5.0                   | 160<br>(1569.1) | 4.5              | 144<br>(1412.2) | 4.0              | 128<br>(1255.3) |
|                             |                             |                      | 30                          | 95-2030           | 26.67                     | 6.0                   |                 | 5.4              |                 | 4.8              |                 |
|                             |                             |                      | 35                          | 95-2035           | 22.86                     | 7.0                   |                 | 6.3              |                 | 5.6              |                 |
|                             |                             |                      | 40                          | 95-2040           | 20.00                     | 8.0                   |                 | 7.2              |                 | 6.4              |                 |
|                             |                             |                      | 45                          | 95-2045           | 17.78                     | 9.0                   |                 | 8.1              |                 | 7.2              |                 |
|                             |                             |                      | 50                          | 95-2050           | 16.00                     | 10.0                  |                 | 9.0              |                 | 8.0              |                 |
|                             |                             |                      | 55                          | 95-2055           | 14.55                     | 11.0                  |                 | 9.9              |                 | 8.8              |                 |
|                             |                             |                      | 60                          | 95-2060           | 13.33                     | 12.0                  |                 | 10.8             |                 | 9.6              |                 |
|                             |                             |                      | 65                          | 95-2065           | 12.31                     | 13.0                  |                 | 11.7             |                 | 10.4             |                 |
|                             |                             |                      | 70                          | 95-2070           | 11.43                     | 14.0                  |                 | 12.6             |                 | 11.2             |                 |
|                             |                             |                      | 75                          | 95-2075           | 10.67                     | 15.0                  |                 | 13.5             |                 | 12.0             |                 |
|                             |                             |                      | 80                          | 95-2080           | 10.00                     | 16.0                  |                 | 14.4             |                 | 12.8             |                 |
|                             |                             |                      | 90                          | 95-2090           | 8.89                      | 18.0                  |                 | 16.2             |                 | 14.4             |                 |
|                             |                             |                      | 100                         | 95-20100          | 8.00                      | 20.0                  |                 | 18.0             |                 | 16.0             |                 |
|                             |                             |                      | 125                         | 95-20125          | 6.40                      | 25.0                  |                 | 22.5             |                 | 20.0             |                 |
|                             |                             |                      | 150                         | 95-20150          | 5.33                      | 30.0                  |                 | 27.0             |                 | 24.0             |                 |
| 22                          | 11                          | 5.2 x 4.2            | 25                          | 95-2225           | 39.00                     | 5.0                   | 195<br>(1912.0) | 4.5              | 176<br>(1726.0) | 4.0              | 156<br>(1530.0) |
|                             |                             |                      | 30                          | 95-2230           | 32.50                     | 6.0                   |                 | 5.4              |                 | 4.8              |                 |
|                             |                             |                      | 35                          | 95-2235           | 27.86                     | 7.0                   |                 | 6.3              |                 | 5.6              |                 |
|                             |                             |                      | 40                          | 95-2240           | 24.38                     | 8.0                   |                 | 7.2              |                 | 6.4              |                 |
|                             |                             |                      | 45                          | 95-2245           | 21.67                     | 9.0                   |                 | 8.1              |                 | 7.2              |                 |
|                             |                             |                      | 50                          | 95-2250           | 19.50                     | 10.0                  |                 | 9.0              |                 | 8.0              |                 |
|                             |                             |                      | 55                          | 95-2255           | 17.73                     | 11.0                  |                 | 9.9              |                 | 8.8              |                 |
|                             |                             |                      | 60                          | 95-2260           | 16.25                     | 12.0                  |                 | 10.8             |                 | 9.6              |                 |
|                             |                             |                      | 65                          | 95-2265           | 15.00                     | 13.0                  |                 | 11.7             |                 | 10.4             |                 |
|                             |                             |                      | 70                          | 95-2270           | 13.93                     | 14.0                  |                 | 12.6             |                 | 11.2             |                 |
|                             |                             |                      | 75                          | 95-2275           | 13.00                     | 15.0                  |                 | 13.5             |                 | 12.0             |                 |
|                             |                             |                      | 80                          | 95-2280           | 12.19                     | 16.0                  |                 | 14.4             |                 | 12.8             |                 |
|                             |                             |                      | 90                          | 95-2290           | 10.83                     | 18.0                  |                 | 16.2             |                 | 14.4             |                 |
|                             |                             |                      | 100                         | 95-22100          | 9.75                      | 20.0                  |                 | 18.0             |                 | 16.0             |                 |
|                             |                             |                      | 125                         | 95-22125          | 7.80                      | 25.0                  |                 | 22.5             |                 | 20.0             |                 |
|                             |                             |                      | 150                         | 95-22150          | 6.50                      | 30.0                  |                 | 27.0             |                 | 24.0             |                 |

## Rectangular Wire Construction



\* Note: 1 daN = 1.0197 Kg (Force)

| Outer Diam.<br>(mm)<br>A | Inner Diam.<br>(mm)<br>B | Wire Size<br>(mm) | Free Length<br>(mm)<br>C | Catalog Number | Spring *Rate<br>kgf/mm | LOAD-DEFLECTION TABLE |                 |                  |                 |                  |                 |
|--------------------------|--------------------------|-------------------|--------------------------|----------------|------------------------|-----------------------|-----------------|------------------|-----------------|------------------|-----------------|
|                          |                          |                   |                          |                |                        | 0.3 million           |                 | 0.5 million      |                 | 1 million        |                 |
|                          |                          |                   |                          |                |                        | Deflection<br>mm      | Load<br>kgf (N) | Deflection<br>mm | Load<br>kgf (N) | Deflection<br>mm | Load<br>kgf (N) |
| 25                       | 12.5                     | 5.8 x 4.6         | 25                       | 95-2525        | 49.00                  | 5.0                   | 245<br>(2402.6) | 4.5              | 221<br>(2167.3) | 4.0              | 196<br>(1922.1) |
|                          |                          |                   | 30                       | 95-2530        | 40.80                  | 6.0                   |                 | 5.4              |                 | 4.8              |                 |
|                          |                          |                   | 35                       | 95-2535        | 35.00                  | 7.0                   |                 | 6.3              |                 | 5.6              |                 |
|                          |                          |                   | 40                       | 95-2540        | 30.60                  | 8.0                   |                 | 7.2              |                 | 6.4              |                 |
|                          |                          |                   | 45                       | 95-2545        | 27.20                  | 9.0                   |                 | 8.1              |                 | 7.2              |                 |
|                          |                          |                   | 50                       | 95-2550        | 24.50                  | 10.0                  |                 | 9.0              |                 | 8.0              |                 |
|                          |                          |                   | 55                       | 95-2555        | 22.30                  | 11.0                  |                 | 9.9              |                 | 8.8              |                 |
|                          |                          |                   | 60                       | 95-2560        | 20.40                  | 12.0                  |                 | 10.8             |                 | 9.6              |                 |
|                          |                          |                   | 65                       | 95-2565        | 18.80                  | 13.0                  |                 | 11.7             |                 | 10.4             |                 |
|                          |                          |                   | 70                       | 95-2570        | 17.50                  | 14.0                  |                 | 12.6             |                 | 11.2             |                 |
|                          |                          |                   | 75                       | 95-2575        | 16.30                  | 15.0                  |                 | 13.5             |                 | 12.0             |                 |
|                          |                          |                   | 80                       | 95-2580        | 15.30                  | 16.0                  |                 | 14.4             |                 | 12.8             |                 |
|                          |                          |                   | 90                       | 95-2590        | 13.60                  | 18.0                  |                 | 16.2             |                 | 14.4             |                 |
|                          |                          |                   | 100                      | 95-25100       | 12.30                  | 20.0                  |                 | 18.0             |                 | 16.0             |                 |
|                          |                          |                   | 125                      | 95-25125       | 9.80                   | 25.0                  |                 | 22.5             |                 | 20.0             |                 |
|                          |                          |                   | 150                      | 95-25150       | 8.17                   | 30.0                  |                 | 27.0             |                 | 24.0             |                 |
|                          |                          |                   | 175                      | 95-25175       | 7.00                   | 35.0                  |                 | 31.5             |                 | 28.0             |                 |
| 27                       | 13.5                     | 6.4 x 5.0         | 25                       | 95-2725        | 58.00                  | 5.0                   | 290<br>(2844.0) | 4.5              | 261<br>(2560.0) | 4.0              | 232<br>(2275.0) |
|                          |                          |                   | 30                       | 95-2530        | 48.33                  | 6.0                   |                 | 5.4              |                 | 4.8              |                 |
|                          |                          |                   | 35                       | 95-2735        | 41.43                  | 7.0                   |                 | 6.3              |                 | 5.6              |                 |
|                          |                          |                   | 40                       | 95-2740        | 36.25                  | 8.0                   |                 | 7.2              |                 | 6.4              |                 |
|                          |                          |                   | 45                       | 95-2745        | 32.22                  | 9.0                   |                 | 8.1              |                 | 7.2              |                 |
|                          |                          |                   | 50                       | 95-2750        | 29.00                  | 10.0                  |                 | 9.0              |                 | 8.0              |                 |
|                          |                          |                   | 55                       | 95-2755        | 26.36                  | 11.0                  |                 | 9.9              |                 | 8.8              |                 |
|                          |                          |                   | 60                       | 95-2760        | 24.17                  | 12.0                  |                 | 10.8             |                 | 9.6              |                 |
|                          |                          |                   | 65                       | 95-2765        | 22.31                  | 13.0                  |                 | 11.7             |                 | 10.4             |                 |
|                          |                          |                   | 70                       | 95-2770        | 20.71                  | 14.0                  |                 | 12.6             |                 | 11.2             |                 |
|                          |                          |                   | 75                       | 95-2775        | 19.33                  | 15.0                  |                 | 13.5             |                 | 12.0             |                 |
|                          |                          |                   | 80                       | 95-2780        | 18.13                  | 16.0                  |                 | 14.4             |                 | 12.8             |                 |
|                          |                          |                   | 90                       | 95-2790        | 16.11                  | 18.0                  |                 | 16.2             |                 | 14.4             |                 |
|                          |                          |                   | 100                      | 95-27100       | 14.50                  | 20.0                  |                 | 18.0             |                 | 16.0             |                 |
|                          |                          |                   | 125                      | 95-27125       | 11.60                  | 25.0                  |                 | 22.5             |                 | 20.0             |                 |
|                          |                          |                   | 150                      | 95-27150       | 9.67                   | 30.0                  |                 | 27.0             |                 | 24.0             |                 |
|                          |                          |                   | 175                      | 95-27175       | 8.28                   | 35.0                  |                 | 31.5             |                 | 28.0             |                 |
| 30                       | 15                       | 7.1 x 5.3         | 25                       | 95-3025        | 72.00                  | 5.0                   | 360<br>(3530.4) | 4.5              | 324<br>(3177.4) | 4.0              | 288<br>(2824.3) |
|                          |                          |                   | 30                       | 95-3030        | 60.00                  | 6.0                   |                 | 5.4              |                 | 4.8              |                 |
|                          |                          |                   | 35                       | 95-3035        | 51.43                  | 7.0                   |                 | 6.3              |                 | 5.6              |                 |
|                          |                          |                   | 40                       | 95-3040        | 45.00                  | 8.0                   |                 | 7.2              |                 | 6.4              |                 |
|                          |                          |                   | 45                       | 95-3045        | 40.00                  | 9.0                   |                 | 8.1              |                 | 7.2              |                 |
|                          |                          |                   | 50                       | 95-3050        | 36.00                  | 10.0                  |                 | 9.0              |                 | 8.0              |                 |
|                          |                          |                   | 55                       | 95-3055        | 32.72                  | 11.0                  |                 | 9.9              |                 | 8.8              |                 |
|                          |                          |                   | 60                       | 95-3060        | 30.00                  | 12.0                  |                 | 10.8             |                 | 9.6              |                 |
|                          |                          |                   | 65                       | 95-3065        | 27.69                  | 13.0                  |                 | 11.7             |                 | 10.4             |                 |
|                          |                          |                   | 70                       | 95-3070        | 25.71                  | 14.0                  |                 | 12.6             |                 | 11.2             |                 |
|                          |                          |                   | 75                       | 95-3075        | 24.00                  | 15.0                  |                 | 13.5             |                 | 12.0             |                 |
|                          |                          |                   | 80                       | 95-3080        | 22.50                  | 16.0                  |                 | 14.4             |                 | 12.8             |                 |
|                          |                          |                   | 90                       | 95-3090        | 20.00                  | 18.0                  |                 | 16.2             |                 | 14.4             |                 |
|                          |                          |                   | 100                      | 95-30100       | 18.00                  | 20.0                  |                 | 18.0             |                 | 16.0             |                 |
|                          |                          |                   | 125                      | 95-30125       | 14.40                  | 25.0                  |                 | 22.5             |                 | 20.0             |                 |
|                          |                          |                   | 150                      | 95-30150       | 12.00                  | 30.0                  |                 | 27.0             |                 | 24.0             |                 |
|                          |                          |                   | 175                      | 95-30175       | 10.28                  | 35.0                  |                 | 31.5             |                 | 28.0             |                 |
|                          |                          |                   | 200                      | 95-30200       | 9.00                   | 40.0                  |                 | 36.0             |                 | 32.0             |                 |

# JIS Extra-heavy load springs

\* Note: 1 daN = 1.0197 Kg (Force)

| Outer<br>Diam.<br>(mm)<br>A | Inner<br>Diam.<br>(mm)<br>B | Wire<br>Size<br>(mm) | Free<br>Length<br>(mm)<br>C | Catalog<br>Number | Spring<br>*Rate<br>kgf/mm | LOAD-DEFLECTION TABLE |                   |                  |                   |                  |                   |
|-----------------------------|-----------------------------|----------------------|-----------------------------|-------------------|---------------------------|-----------------------|-------------------|------------------|-------------------|------------------|-------------------|
|                             |                             |                      |                             |                   |                           | 0.3 million           |                   | 0.5 million      |                   | 1 million        |                   |
|                             |                             |                      |                             |                   |                           | Deflection<br>mm      | Load<br>kgf (N)   | Deflection<br>mm | Load<br>kgf (N)   | Deflection<br>mm | Load<br>kgf (N)   |
| 35                          | 17.5                        | 8.3 x 6.6            | 40                          | 95-3540           | 61.25                     | 8.0                   | 490<br>(4805.3)   | 7.2              | 441<br>(4324.7)   | 6.4              | 392<br>(3844.2)   |
|                             |                             |                      | 45                          | 95-3545           | 54.44                     | 9.0                   |                   | 8.1              |                   | 7.2              |                   |
|                             |                             |                      | 50                          | 95-3550           | 49.00                     | 10.0                  |                   | 9.0              |                   | 8.0              |                   |
|                             |                             |                      | 55                          | 95-3555           | 44.54                     | 11.0                  |                   | 9.9              |                   | 8.8              |                   |
|                             |                             |                      | 60                          | 95-3560           | 40.83                     | 12.0                  |                   | 10.8             |                   | 9.6              |                   |
|                             |                             |                      | 65                          | 95-3565           | 37.69                     | 13.0                  |                   | 11.7             |                   | 10.4             |                   |
|                             |                             |                      | 70                          | 95-3570           | 35.00                     | 14.0                  |                   | 12.6             |                   | 11.2             |                   |
|                             |                             |                      | 75                          | 95-3575           | 32.67                     | 15.0                  |                   | 13.5             |                   | 12.0             |                   |
|                             |                             |                      | 80                          | 95-3580           | 30.62                     | 16.0                  |                   | 14.4             |                   | 12.8             |                   |
|                             |                             |                      | 90                          | 95-3590           | 27.22                     | 18.0                  |                   | 16.2             |                   | 14.4             |                   |
|                             |                             |                      | 100                         | 95-35100          | 24.50                     | 20.0                  |                   | 18.0             |                   | 16.0             |                   |
|                             |                             |                      | 125                         | 95-35125          | 19.60                     | 25.0                  |                   | 22.5             |                   | 20.0             |                   |
|                             |                             |                      | 150                         | 95-35150          | 16.33                     | 30.0                  |                   | 27.0             |                   | 24.0             |                   |
|                             |                             |                      | 175                         | 95-35175          | 14.00                     | 35.0                  |                   | 31.5             |                   | 28.0             |                   |
|                             |                             |                      | 200                         | 95-35200          | 12.25                     | 40.0                  |                   | 36.0             |                   | 32.0             |                   |
| 40                          | 20                          | 9.8 x 7.5            | 40                          | 95-4040           | 80.00                     | 8.0                   | 640<br>(6276.3)   | 7.2              | 576<br>(5648.6)   | 6.4              | 512<br>(5021.0)   |
|                             |                             |                      | 50                          | 95-4050           | 64.00                     | 10.0                  |                   | 9.0              |                   | 8.0              |                   |
|                             |                             |                      | 60                          | 95-4060           | 53.33                     | 12.0                  |                   | 10.8             |                   | 9.6              |                   |
|                             |                             |                      | 70                          | 95-4070           | 45.71                     | 14.0                  |                   | 12.6             |                   | 11.2             |                   |
|                             |                             |                      | 80                          | 95-4080           | 40.00                     | 16.0                  |                   | 14.4             |                   | 12.8             |                   |
|                             |                             |                      | 90                          | 95-4090           | 35.55                     | 18.0                  |                   | 16.2             |                   | 14.4             |                   |
|                             |                             |                      | 100                         | 95-40100          | 32.00                     | 20.0                  |                   | 18.0             |                   | 16.0             |                   |
|                             |                             |                      | 125                         | 95-40125          | 25.60                     | 25.0                  |                   | 22.5             |                   | 20.0             |                   |
|                             |                             |                      | 150                         | 95-40150          | 21.33                     | 30.0                  |                   | 27.0             |                   | 24.0             |                   |
|                             |                             |                      | 175                         | 95-40175          | 18.28                     | 35.0                  |                   | 31.5             |                   | 28.0             |                   |
|                             |                             |                      | 200                         | 95-40200          | 16.00                     | 40.0                  |                   | 36.0             |                   | 32.0             |                   |
|                             |                             |                      | 250                         | 95-40250          | 12.80                     | 50.0                  |                   | 45.0             |                   | 40.0             |                   |
| 50                          | 25                          | 12.0 x 8.8           | 50                          | 95-5050           | 100.00                    | 10.0                  | 1000<br>(9806.7)  | 9.0              | 900<br>(8826.0)   | 8.0              | 800<br>(7845.3)   |
|                             |                             |                      | 60                          | 95-5060           | 83.33                     | 12.0                  |                   | 10.8             |                   | 9.6              |                   |
|                             |                             |                      | 70                          | 95-5070           | 71.42                     | 14.0                  |                   | 12.6             |                   | 11.2             |                   |
|                             |                             |                      | 80                          | 95-5080           | 62.50                     | 16.0                  |                   | 14.4             |                   | 12.8             |                   |
|                             |                             |                      | 90                          | 95-5090           | 55.55                     | 18.0                  |                   | 16.2             |                   | 14.4             |                   |
|                             |                             |                      | 100                         | 95-50100          | 50.00                     | 20.0                  |                   | 18.0             |                   | 16.0             |                   |
|                             |                             |                      | 125                         | 95-50125          | 40.00                     | 25.0                  |                   | 22.5             |                   | 20.0             |                   |
|                             |                             |                      | 150                         | 95-50150          | 33.33                     | 30.0                  |                   | 27.0             |                   | 24.0             |                   |
|                             |                             |                      | 175                         | 95-50175          | 28.57                     | 35.0                  |                   | 31.5             |                   | 28.0             |                   |
|                             |                             |                      | 200                         | 95-50200          | 25.00                     | 40.0                  |                   | 36.0             |                   | 32.0             |                   |
|                             |                             |                      | 250                         | 95-50250          | 20.00                     | 50.0                  |                   | 45.0             |                   | 40.0             |                   |
|                             |                             |                      | 300                         | 95-50300          | 16.66                     | 60.0                  |                   | 54.0             |                   | 48.0             |                   |
| 60                          | 30                          | 14.8 X 10.5          | 60                          | 95-6060           | 120.00                    | 12.0                  | 1440<br>(14121.6) | 10.8             | 1296<br>(12709.4) | 9.6              | 1152<br>(11297.3) |
|                             |                             |                      | 70                          | 95-6070           | 102.86                    | 14.0                  |                   | 12.6             |                   | 11.2             |                   |
|                             |                             |                      | 80                          | 95-6080           | 90.00                     | 16.0                  |                   | 14.4             |                   | 12.8             |                   |
|                             |                             |                      | 90                          | 95-6090           | 80.00                     | 18.0                  |                   | 16.2             |                   | 14.4             |                   |
|                             |                             |                      | 100                         | 95-60100          | 72.00                     | 20.0                  |                   | 18.0             |                   | 16.0             |                   |
|                             |                             |                      | 125                         | 95-60125          | 57.60                     | 25.0                  |                   | 22.5             |                   | 20.0             |                   |
|                             |                             |                      | 150                         | 95-60150          | 48.00                     | 30.0                  |                   | 27.0             |                   | 24.0             |                   |
|                             |                             |                      | 175                         | 95-60175          | 41.14                     | 35.0                  |                   | 31.5             |                   | 28.0             |                   |
|                             |                             |                      | 200                         | 95-60200          | 36.00                     | 40.0                  |                   | 36.0             |                   | 32.0             |                   |
|                             |                             |                      | 250                         | 95-60250          | 28.80                     | 50.0                  |                   | 45.0             |                   | 40.0             |                   |
|                             |                             |                      | 300                         | 95-60300          | 24.00                     | 60.0                  |                   | 54.0             |                   | 48.0             |                   |