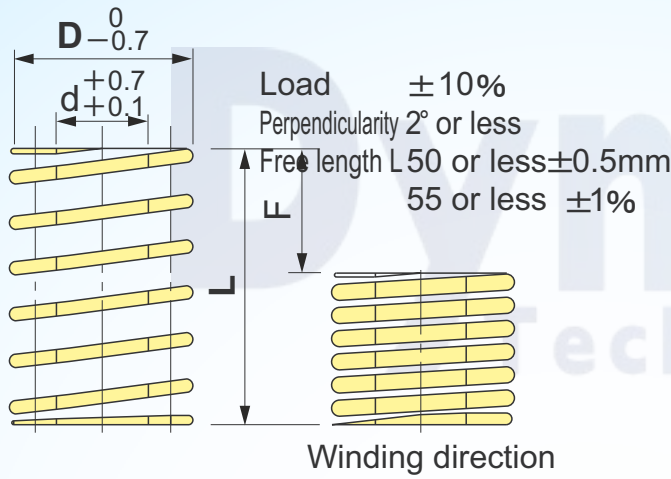


# ROUND WIRE COIL SPRINGS

## DX-SWF



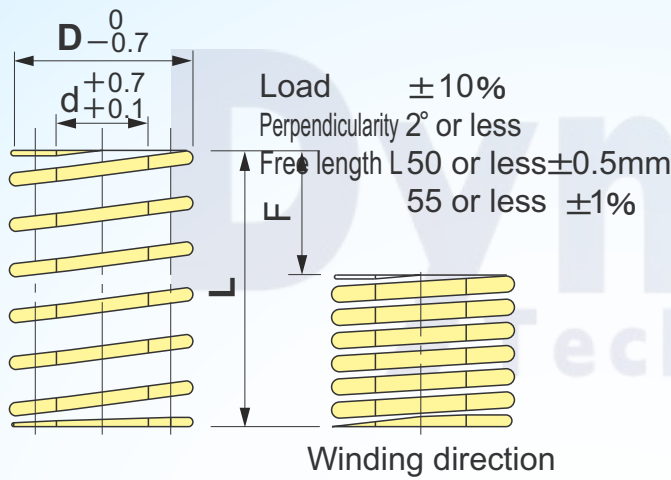
| Part Number         | D          | d  | L           | Spring Constant |      | F = L x 40%     |          | F = L x 45%     |  |
|---------------------|------------|----|-------------|-----------------|------|-----------------|----------|-----------------|--|
|                     |            |    |             | N/mm (kgf/mm)   |      | Fmm Load N(Kgf) |          | Fmm Load N(Kgf) |  |
|                     |            |    |             | Operation Count |      | 1000000         |          | 500000          |  |
| <b>DX - SWF8 -</b>  | 8          | 4  | 10          | 15.7 (1.60)     | 4    | 4.5             | 63 (6.4) | 71 (7.2)        |  |
| 15                  |            |    | 10.5 (1.07) | 6               | 6.8  |                 |          |                 |  |
| 20                  |            |    | 7.8 (0.80)  | 8               | 9    |                 |          |                 |  |
| 25                  |            |    | 6.3 (0.64)  | 10              | 11.2 |                 |          |                 |  |
| 30                  |            |    | 5.2 (0.53)  | 12              | 13.5 |                 |          |                 |  |
| 35                  |            |    | 4.5 (0.46)  | 14              | 15.7 |                 |          |                 |  |
| 40                  |            |    | 3.9 (0.40)  | 16              | 18   |                 |          |                 |  |
| 45                  |            |    | 3.5 (0.36)  | 18              | 20.2 |                 |          |                 |  |
| 50                  |            |    | 3.1 (0.32)  | 20              | 22.5 |                 |          |                 |  |
| 55                  |            |    | 2.9 (0.29)  | 22              | 24.7 |                 |          |                 |  |
| 60                  |            |    | 2.6 (0.27)  | 24              | 27   |                 |          |                 |  |
| 65                  |            |    | 2.4 (0.25)  | 26              | 29.3 |                 |          |                 |  |
| 70                  |            |    | 2.2 (0.23)  | 28              | 31.5 |                 |          |                 |  |
| 75                  | 2.1 (0.21) | 30 | 33.8        |                 |      |                 |          |                 |  |
| 80                  | 2.0 (0.20) | 32 | 36          |                 |      |                 |          |                 |  |
| 80                  | 2.0 (0.20) | 32 | 36          |                 |      |                 |          |                 |  |
| 90                  | 2.2 (0.22) | 36 | 40.5        |                 |      |                 |          |                 |  |
| <b>DX - SWF10 -</b> | 10         | 5  | 10          | 19.6 (2.00)     | 4    | 4.5             | 78 (8.0) | 88 (9.0)        |  |
| 15                  |            |    | 13.1 (1.33) | 6               | 6.8  |                 |          |                 |  |
| 20                  |            |    | 9.8 (1.00)  | 8               | 9    |                 |          |                 |  |
| 25                  |            |    | 7.8 (0.80)  | 10              | 11.2 |                 |          |                 |  |
| 30                  |            |    | 6.5 (0.67)  | 12              | 13.5 |                 |          |                 |  |
| 35                  |            |    | 5.9 (0.57)  | 14              | 15.7 |                 |          |                 |  |
| 40                  |            |    | 4.9 (0.50)  | 16              | 18   |                 |          |                 |  |
| 45                  |            |    | 4.4 (0.44)  | 18              | 20.2 |                 |          |                 |  |
| 50                  |            |    | 3.9 (0.40)  | 20              | 22.5 |                 |          |                 |  |
| 55                  |            |    | 3.6 (0.36)  | 22              | 24.7 |                 |          |                 |  |
| 60                  |            |    | 3.3 (0.33)  | 24              | 27   |                 |          |                 |  |
| 65                  |            |    | 3.0 (0.31)  | 26              | 29.2 |                 |          |                 |  |
| 70                  |            |    | 2.8 (0.29)  | 28              | 31.5 |                 |          |                 |  |
| 75                  | 2.6 (0.27) | 30 | 33.7        |                 |      |                 |          |                 |  |
| 80                  | 2.5 (0.25) | 32 | 36          |                 |      |                 |          |                 |  |
| 90                  | 2.2 (0.22) | 36 | 40.5        |                 |      |                 |          |                 |  |
| <b>DX - SWF12 -</b> | 12         | 6  | 15          | 18.3 (1.87)     | 6    | 6.8             | 110 (11) | 124 (13)        |  |
| 20                  |            |    | 13.7 (1.40) | 8               | 9    |                 |          |                 |  |
| 25                  |            |    | 11.0 (1.12) | 10              | 11.2 |                 |          |                 |  |
| 30                  |            |    | 9.2 (0.93)  | 12              | 13.5 |                 |          |                 |  |
| 35                  |            |    | 7.8 (0.80)  | 14              | 15.7 |                 |          |                 |  |
| 40                  |            |    | 6.9 (0.70)  | 16              | 18   |                 |          |                 |  |
| 45                  |            |    | 6.1 (0.62)  | 18              | 20.2 |                 |          |                 |  |
| 50                  |            |    | 5.5 (0.56)  | 20              | 22.5 |                 |          |                 |  |
| 55                  |            |    | 5.0 (0.51)  | 22              | 24.7 |                 |          |                 |  |
| 60                  |            |    | 4.6 (0.47)  | 24              | 27   |                 |          |                 |  |
| 65                  |            |    | 4.2 (0.43)  | 26              | 29.2 |                 |          |                 |  |
| 70                  |            |    | 3.9 (0.40)  | 28              | 31.5 |                 |          |                 |  |
| 75                  |            |    | 3.7 (0.37)  | 30              | 33.7 |                 |          |                 |  |
| 80                  | 3.4 (0.35) | 32 | 36          |                 |      |                 |          |                 |  |
| 90                  | 3.1 (0.31) | 36 | 40.5        |                 |      |                 |          |                 |  |
| <b>DX - SWF14 -</b> | 14         | 7  | 20          | 17.7 (1.80)     | 8    | 9               | 141 (14) | 159 (16)        |  |
| 25                  |            |    | 14.1 (1.44) | 10              | 11.2 |                 |          |                 |  |
| 30                  |            |    | 11.8 (1.20) | 12              | 13.5 |                 |          |                 |  |
| 35                  |            |    | 10.1 (1.03) | 14              | 15.7 |                 |          |                 |  |
| 40                  |            |    | 8.8 (0.90)  | 16              | 18   |                 |          |                 |  |
| 45                  |            |    | 7.8 (0.80)  | 18              | 20.2 |                 |          |                 |  |
| 50                  |            |    | 7.1 (0.72)  | 20              | 22.5 |                 |          |                 |  |
| 55                  |            |    | 6.4 (0.65)  | 22              | 24.7 |                 |          |                 |  |
| 60                  |            |    | 5.9 (0.60)  | 24              | 27   |                 |          |                 |  |
| 65                  |            |    | 5.4 (0.55)  | 26              | 29.2 |                 |          |                 |  |
| 70                  |            |    | 5.0 (0.51)  | 28              | 31.5 |                 |          |                 |  |
| 75                  |            |    | 4.7 (0.48)  | 30              | 33.7 |                 |          |                 |  |
| 80                  |            |    | 4.4 (0.45)  | 32              | 36   |                 |          |                 |  |
| 90                  | 3.9 (0.40) | 36 | 40.5        |                 |      |                 |          |                 |  |
| 100                 | 3.5 (0.36) | 40 | 45          |                 |      |                 |          |                 |  |

| Part Number         | D          | d  | L           | Spring Constant |      | F = L x 40%     |          | F = L x 45%     |  |
|---------------------|------------|----|-------------|-----------------|------|-----------------|----------|-----------------|--|
|                     |            |    |             | N/mm (kgf/mm)   |      | Fmm Load N(Kgf) |          | Fmm Load N(Kgf) |  |
|                     |            |    |             | Operation Count |      | 1000000         |          | 500000          |  |
| <b>DX - SWF16 -</b> | 16         | 8  | 20          | 20.6 (2.10)     | 8    | 9               | 165 (17) | 185 (19)        |  |
| 25                  |            |    | 16.5 (1.68) | 10              | 11.2 |                 |          |                 |  |
| 30                  |            |    | 13.7 (1.40) | 12              | 13.5 |                 |          |                 |  |
| 35                  |            |    | 11.8 (1.20) | 14              | 15.7 |                 |          |                 |  |
| 40                  |            |    | 10.3 (1.05) | 16              | 18   |                 |          |                 |  |
| 45                  |            |    | 9.2 (0.93)  | 18              | 20.2 |                 |          |                 |  |
| 50                  |            |    | 8.2 (0.84)  | 20              | 22.5 |                 |          |                 |  |
| 55                  |            |    | 7.5 (0.76)  | 22              | 24.7 |                 |          |                 |  |
| 60                  |            |    | 6.9 (0.70)  | 24              | 27   |                 |          |                 |  |
| 65                  |            |    | 6.3 (0.65)  | 26              | 29.2 |                 |          |                 |  |
| 70                  |            |    | 5.9 (0.60)  | 28              | 31.5 |                 |          |                 |  |
| 75                  |            |    | 5.5 (0.56)  | 30              | 33.7 |                 |          |                 |  |
| 80                  |            |    | 5.1 (0.53)  | 32              | 36   |                 |          |                 |  |
| 90                  | 4.6 (0.47) | 36 | 40.5        |                 |      |                 |          |                 |  |
| 100                 | 4.1 (0.42) | 40 | 45          |                 |      |                 |          |                 |  |
| 125                 | 3.3 (0.34) | 50 | 56.3        |                 |      |                 |          |                 |  |
| <b>DX - SWF18 -</b> | 18         | 9  | 20          | 25.5 (2.60)     | 8    | 9               | 204 (21) | 229 (23)        |  |
| 25                  |            |    | 20.4 (2.08) | 10              | 11.2 |                 |          |                 |  |
| 30                  |            |    | 17.0 (1.73) | 12              | 13.5 |                 |          |                 |  |
| 35                  |            |    | 14.6 (1.49) | 14              | 15.7 |                 |          |                 |  |
| 40                  |            |    | 12.7 (1.30) | 16              | 18   |                 |          |                 |  |
| 45                  |            |    | 11.3 (1.16) | 18              | 20.2 |                 |          |                 |  |
| 50                  |            |    | 10.2 (1.04) | 20              | 22.5 |                 |          |                 |  |
| 55                  |            |    | 9.3 (0.95)  | 22              | 24.7 |                 |          |                 |  |
| 60                  |            |    | 8.5 (0.87)  | 24              | 27   |                 |          |                 |  |
| 65                  |            |    | 7.8 (0.80)  | 26              | 29.2 |                 |          |                 |  |
| 70                  |            |    | 7.3 (0.74)  | 28              | 31.5 |                 |          |                 |  |
| 75                  |            |    | 6.8 (0.69)  | 30              | 33.7 |                 |          |                 |  |
| 80                  |            |    | 6.4 (0.65)  | 32              | 36   |                 |          |                 |  |
| 90                  | 5.7 (0.58) | 36 | 40.5        |                 |      |                 |          |                 |  |
| 100                 | 5.1 (0.52) | 40 | 45          |                 |      |                 |          |                 |  |
| 125                 | 4.1 (0.42) | 50 | 56.3        |                 |      |                 |          |                 |  |
| <b>DX - SWF20 -</b> | 20         | 11 | 20          | 31.4 (3.20)     | 8    | 9               | 251 (26) | 282 (29)        |  |
| 25                  |            |    | 25.1 (2.56) | 10              | 11.2 |                 |          |                 |  |
| 30                  |            |    | 20.9 (2.13) | 12              | 13.5 |                 |          |                 |  |
| 35                  |            |    | 17.9 (1.83) | 14              | 15.7 |                 |          |                 |  |
| 40                  |            |    | 15.7 (1.60) | 16              | 18   |                 |          |                 |  |
| 45                  |            |    | 13.9 (1.42) | 18              | 20.2 |                 |          |                 |  |
| 50                  |            |    | 12.6 (1.28) | 20              | 22.5 |                 |          |                 |  |
| 55                  |            |    | 11.4 (1.16) | 22              | 24.7 |                 |          |                 |  |
| 60                  |            |    | 10.5 (1.07) | 24              | 27   |                 |          |                 |  |
| 65                  |            |    | 9.7 (0.98)  | 26              | 29.2 |                 |          |                 |  |
| 70                  |            |    | 9.0 (0.91)  | 28              | 31.5 |                 |          |                 |  |
| 75                  |            |    | 8.4 (0.85)  | 30              | 33.7 |                 |          |                 |  |
| 80                  |            |    | 7.8 (0.80)  | 32              | 36   |                 |          |                 |  |
| 90                  | 7.0 (0.71) | 36 | 40.5        |                 |      |                 |          |                 |  |
| 100                 | 6.3 (0.64) | 40 | 45          |                 |      |                 |          |                 |  |
| 125                 | 5.0 (0.51) | 50 | 56.2        |                 |      |                 |          |                 |  |
| 150                 | 4.2 (0.43) | 60 | 67.5        |                 |      |                 |          |                 |  |
| <b>DX - SWF22 -</b> | 22         | 11 | 25          | 31.4 (3.20)     | 10   | 11.2            | 314 (32) | 353 (36)        |  |
| 30                  |            |    | 26.2 (2.67) | 12              | 13.5 |                 |          |                 |  |
| 35                  |            |    | 22.4 (2.29) | 14              | 15.7 |                 |          |                 |  |
| 40                  |            |    | 19.6 (2.00) | 16              | 18   |                 |          |                 |  |
| 45                  |            |    | 17.4 (1.78) | 18              | 20.2 |                 |          |                 |  |
| 50                  |            |    | 15.7 (1.60) | 20              | 22.5 |                 |          |                 |  |
| 55                  |            |    | 14.3 (1.45) | 22              | 24.7 |                 |          |                 |  |
| 60                  |            |    | 13.1 (1.33) | 24              | 27   |                 |          |                 |  |
| 65                  |            |    | 12.1 (1.23) | 26              | 29.2 |                 |          |                 |  |
| 70                  |            |    | 11.2 (1.14) | 28              | 31.5 |                 |          |                 |  |
| 75                  |            |    | 10.5 (1.07) | 30              | 33.7 |                 |          |                 |  |
| 80                  |            |    | 9.8 (1.00)  | 32              | 36   |                 |          |                 |  |
| 90                  |            |    | 8.7 (0.89)  | 36              | 40.5 |                 |          |                 |  |
| 100                 | 7.8 (0.80) | 40 | 45          |                 |      |                 |          |                 |  |
| 125                 | 6.3 (0.64) | 50 | 56.2        |                 |      |                 |          |                 |  |
| 150                 | 5.2 (0.53) | 60 | 67.5        |                 |      |                 |          |                 |  |



# ROUND WIRE COIL SPRINGS

## DX-SWF



| Part Number | D               | d    | L   | Spring Constant | F = L x 40% |             | F = L x 45% |             |
|-------------|-----------------|------|-----|-----------------|-------------|-------------|-------------|-------------|
|             |                 |      |     | N/mm {kgf/mm}   | Fmm         | Load N(Kgf) | Fmm         | Load N(Kgf) |
| Type D - L  | Operation Count |      |     | 1000000         | 500000      |             |             |             |
| DX - SWF25- | 25              | 13.5 | 25  | 39.2 (4.00)     | 10          |             | 11.2        |             |
|             |                 |      | 30  | 32.7 (3.33)     | 12          |             | 13.5        |             |
|             |                 |      | 35  | 28.0 (2.86)     | 14          |             | 15.7        |             |
|             |                 |      | 40  | 24.5 (2.50)     | 16          |             | 18          |             |
|             |                 |      | 45  | 21.8 (2.22)     | 18          |             | 20.2        |             |
|             |                 |      | 50  | 19.6 (2.00)     | 20          |             | 22.5        |             |
|             |                 |      | 55  | 17.8 (1.82)     | 22          |             | 24.7        |             |
|             |                 |      | 60  | 16.3 (1.67)     | 24          |             | 27          |             |
|             |                 |      | 65  | 15.1 (1.54)     | 26          | 392         | 29.2        | 441         |
|             |                 |      | 70  | 14.0 (1.43)     | 28          | {40}        | 31.5        | {45}        |
|             |                 |      | 75  | 13.1 (1.33)     | 30          |             | 33.7        |             |
|             |                 |      | 80  | 12.3 (1.25)     | 32          |             | 36          |             |
|             |                 |      | 90  | 10.9 (1.11)     | 36          |             | 40.5        |             |
|             |                 |      | 100 | 9.8 (1.00)      | 40          |             | 45          |             |
|             |                 |      | 125 | 7.8 (0.80)      | 50          |             | 56.2        |             |
|             |                 |      | 150 | 6.5 (0.67)      | 60          |             | 67.5        |             |
| 175         | 5.6 (0.57)      | 70   |     | 78.7            |             |             |             |             |
| 200         | 4.9 (0.50)      | 80   |     | 90              |             |             |             |             |
| DX-SWF27-   | 27              | 13.5 | 30  | 39.2 (4.00)     | 12          |             | 13.5        |             |
|             |                 |      | 35  | 33.6 (3.43)     | 14          |             | 15.8        |             |
|             |                 |      | 40  | 29.4 (3.00)     | 16          |             | 18          |             |
|             |                 |      | 45  | 26.2 (2.67)     | 18          |             | 20.3        |             |
|             |                 |      | 50  | 23.5 (2.40)     | 20          |             | 22.5        |             |
|             |                 |      | 55  | 21.4 (2.18)     | 22          |             | 24.8        |             |
|             |                 |      | 60  | 19.6 (2.00)     | 24          |             | 27          |             |
|             |                 |      | 65  | 18.1 (1.85)     | 26          |             | 29.3        |             |
|             |                 |      | 70  | 16.8 (1.71)     | 28          | 471         | 31.5        | 530         |
|             |                 |      | 75  | 15.7 (1.60)     | 30          | {48}        | 33.8        | {54}        |
|             |                 |      | 80  | 14.7 (1.50)     | 32          |             | 36          |             |
|             |                 |      | 90  | 13.1 (1.33)     | 36          |             | 40.5        |             |
|             |                 |      | 100 | 11.8 (1.20)     | 40          |             | 45          |             |
|             |                 |      | 125 | 9.4 (0.96)      | 50          |             | 56.3        |             |
|             |                 |      | 150 | 7.8 (0.80)      | 60          |             | 67.5        |             |
|             |                 |      | 175 | 6.7 (0.69)      | 70          |             | 78.8        |             |
| 200         | 5.9 (0.60)      | 80   |     | 90              |             |             |             |             |
| DX - SWF30- | 36              | 16   | 25  | 56.5 (5.76)     | 10          |             | 11.2        |             |
|             |                 |      | 30  | 47.1 (4.80)     | 12          |             | 13.5        |             |
|             |                 |      | 35  | 40.3 (4.11)     | 14          |             | 15.7        |             |
|             |                 |      | 40  | 35.3 (3.60)     | 16          |             | 18          |             |
|             |                 |      | 45  | 31.4 (3.20)     | 18          |             | 20.2        |             |
|             |                 |      | 50  | 28.2 (2.88)     | 20          |             | 22.5        |             |
|             |                 |      | 55  | 25.7 (2.62)     | 22          |             | 24.7        |             |
|             |                 |      | 60  | 23.5 (2.40)     | 24          |             | 27          |             |
|             |                 |      | 65  | 21.7 (2.22)     | 26          |             | 29.3        |             |
|             |                 |      | 70  | 20.2 (2.06)     | 28          | 656         | 31.5        | 635         |
|             |                 |      | 75  | 18.8 (1.92)     | 30          | {58}        | 33.7        | {65}        |
|             |                 |      | 80  | 17.7 (1.80)     | 32          |             | 36          |             |
|             |                 |      | 90  | 15.7 (1.60)     | 36          |             | 40.5        |             |
|             |                 |      | 100 | 14.1 (1.44)     | 40          |             | 45          |             |
|             |                 |      | 125 | 11.3 (1.15)     | 50          |             | 56.2        |             |
|             |                 |      | 150 | 9.4 (0.96)      | 60          |             | 67.5        |             |
| 175         | 8.1 (0.82)      | 70   |     | 78.7            |             |             |             |             |
| 200         | 7.1 (0.72)      | 80   |     | 90              |             |             |             |             |

| Part Number  | D               | d    | L            | Spring Constant | F = L x 40% |             | F = L x 45% |             |
|--------------|-----------------|------|--------------|-----------------|-------------|-------------|-------------|-------------|
|              |                 |      |              | N/mm {kgf/mm}   | Fmm         | Load N(Kgf) | Fmm         | Load N(Kgf) |
| Type D - L   | Operation Count |      |              | 1000000         | 500000      |             |             |             |
| DX - SWF35 - | 35              | 19   | 40           | 48.0 (4.89)     | 16          |             | 18          |             |
|              |                 |      | 45           | 42.7 (4.35)     | 18          |             | 20.2        |             |
|              |                 |      | 50           | 38.4 (3.92)     | 20          |             | 22.5        |             |
|              |                 |      | 55           | 34.9 (3.56)     | 22          |             | 24.7        |             |
|              |                 |      | 60           | 32.0 (3.26)     | 24          |             | 27          |             |
|              |                 |      | 65           | 29.5 (3.01)     | 26          |             | 29.2        |             |
|              |                 |      | 70           | 27.4 (2.80)     | 28          |             | 31.5        |             |
|              |                 |      | 75           | 25.6 (2.61)     | 30          | 768         | 33.7        | 864         |
|              |                 |      | 80           | 24.0 (2.45)     | 32          | {78}        | 36          | {88}        |
|              |                 |      | 90           | 21.3 (2.18)     | 36          |             | 40.5        |             |
|              |                 |      | 100          | 19.2 (1.96)     | 40          |             | 45          |             |
|              |                 |      | 125          | 15.4 (1.57)     | 50          |             | 56.2        |             |
|              |                 |      | 150          | 12.8 (1.31)     | 60          |             | 67.5        |             |
|              |                 |      | 175          | 11.0 (1.12)     | 70          |             | 78.7        |             |
|              |                 |      | 200          | 9.6 (0.98)      | 80          |             | 90          |             |
|              |                 |      | DX - SWF40 - | 40              | 22          | 40          | 62.7 (6.39) | 16          |
| 45           | 55.7 (5.68)     | 18   |              |                 |             |             | 20.3        |             |
| 50           | 50.2 (5.11)     | 20   |              |                 |             |             | 22.5        |             |
| 55           | 45.6 (4.65)     | 22   |              |                 |             |             | 24.8        |             |
| 60           | 41.8 (4.26)     | 24   |              |                 |             |             | 27          |             |
| 65           | 38.6 (3.93)     | 26   |              |                 |             |             | 29.2        |             |
| 70           | 35.8 (3.65)     | 28   |              |                 |             |             | 31.5        |             |
| 75           | 33.4 (3.41)     | 30   |              |                 |             |             | 33.8        |             |
| 80           | 31.4 (3.20)     | 32   |              |                 |             | 1003        | 36          | 1129        |
| 90           | 27.9 (2.84)     | 36   |              |                 |             | {102}       | 40.5        | {115}       |
| 100          | 25.1 (2.56)     | 40   |              |                 |             |             | 45          |             |
| 125          | 20.1 (2.05)     | 50   |              |                 |             |             | 56.2        |             |
| 150          | 16.7 (1.70)     | 60   |              |                 |             |             | 67.5        |             |
| 175          | 14.3 (1.46)     | 70   |              |                 |             |             | 78.7        |             |
| 200          | 12.5 (1.28)     | 80   |              |                 |             |             | 90          |             |
| 225          | 11.1 (1.14)     | 90   |              |                 |             |             | 101.3       |             |
| 250          | 10.0 (1.02)     | 100  |              | 112.5           |             |             |             |             |
| 275          | 9.1 (0.93)      | 110  |              | 123.8           |             |             |             |             |
| 300          | 8.4 (0.85)      | 120  |              | 135             |             |             |             |             |
| DX - SWL50 - | 50              | 27.5 | 50           | 78.4 (7.99)     | 20          |             | 22.5        |             |
|              |                 |      | 55           | 71.3 (7.27)     | 22          |             | 24.8        |             |
|              |                 |      | 60           | 65.3 (6.66)     | 24          |             | 27          |             |
|              |                 |      | 65           | 60.3 (6.15)     | 26          |             | 29.3        |             |
|              |                 |      | 70           | 56.0 (5.71)     | 28          |             | 31.5        |             |
|              |                 |      | 75           | 52.3 (5.33)     | 30          |             | 33.8        |             |
|              |                 |      | 80           | 49.0 (5.00)     | 32          |             | 36          |             |
|              |                 |      | 90           | 43.6 (4.44)     | 36          |             | 40.5        |             |
|              |                 |      | 100          | 39.2 (4.00)     | 40          |             | 45          |             |
|              |                 |      | 125          | 31.4 (3.20)     | 50          | 1568        | 56.3        | 1764        |
|              |                 |      | 150          | 26.1 (2.66)     | 60          | {160}       | 67.5        | {180}       |
|              |                 |      | 175          | 22.4 (2.28)     | 70          |             | 78.8        |             |
|              |                 |      | 200          | 19.6 (2.00)     | 80          |             | 90          |             |
|              |                 |      | 225          | 17.4 (1.78)     | 90          |             | 101.3       |             |
|              |                 |      | 250          | 15.7 (1.60)     | 100         |             | 112.5       |             |
|              |                 |      | 275          | 14.3 (1.45)     | 110         |             | 123.8       |             |
| 300          | 13.1 (1.33)     | 120  |              | 135             |             |             |             |             |
| 350          | 11.2 (1.14)     | 140  |              | 157.5           |             |             |             |             |
| 400          | 9.8 (1.00)      | 160  |              | 180             |             |             |             |             |
| 450          | 8.7 (0.89)      | 180  |              | 202.5           |             |             |             |             |
| 500          | 7.8 (0.80)      | 200  |              | 225             |             |             |             |             |
| DX - SWF60 - | 60              | 33   | 60           | 94.0 (9.59)     | 24          |             | 27          |             |
|              |                 |      | 70           | 80.6 (8.22)     | 28          |             | 31.5        |             |
|              |                 |      | 80           | 70.5 (7.19)     | 32          |             | 36          |             |
|              |                 |      | 90           | 62.7 (6.39)     | 36          |             | 40.5        |             |
|              |                 |      | 100          | 56.4 (5.75)     | 40          |             | 45          |             |
|              |                 |      | 125          | 45.1 (4.60)     | 50          |             | 56.3        |             |
|              |                 |      | 150          | 37.6 (3.83)     | 60          |             | 67.5        |             |
|              |                 |      | 175          | 32.2 (3.29)     | 70          |             | 78.8        |             |
|              |                 |      | 200          | 28.2 (2.88)     | 80          | 2256        | 90          | 2538        |
|              |                 |      | 225          | 25.1 (2.56)     | 90          | {230}       | 101.3       | {259}       |
|              |                 |      | 250          | 22.6 (2.30)     | 100         |             | 112.5       |             |
|              |                 |      | 275          | 20.5 (2.09)     | 110         |             | 123.8       |             |
|              |                 |      | 300          | 18.8 (1.92)     | 120         |             | 135         |             |
|              |                 |      | 350          | 16.1 (1.64)     | 140         |             | 157.5       |             |
|              |                 |      | 400          | 14.1 (1.44)     | 160         |             | 180         |             |
|              |                 |      | 450          | 12.5 (1.28)     | 180         |             | 202.5       |             |
| 500          | 11.3 (1.15)     | 200  |              | 225             |             |             |             |             |

● Load calculation method: Load = Spring constant x Deflection

(SI units)  $N = N/mm \times Fmm$   
 $kgf = kgf/mm \times Fmm$   
 $(kgf = N \times 0.101972)$

