

## Maximum Iload calculate method:

Maximum Iload=compression×spring constant N=Fmm×N/mm (kgf=N×0.101972)

Maximum Iload Deviation:±10%

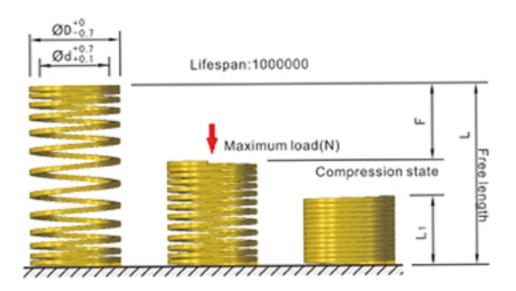
If D=70,Tolerance D:<sup>+0</sup>

If D≤50,Tolerance L±0.5

If D≥55,ToleranceL±1%×L

Order DSWF-D-L

| Order |          |                     |       | /mm (mm)     | F=D      | 40%   | F=L×45% |       | F=L×50% |       |      |
|-------|----------|---------------------|-------|--------------|----------|-------|---------|-------|---------|-------|------|
| D     | L        | d                   | N/mm  |              | Fmm      | N     | Fmm     | N     | Fmm     | N     | @¥/P |
|       | 15       |                     | 7.85  | 7.1          | 6        |       | 6.8     |       | 7.5     |       |      |
|       | 20       |                     | 5.88  | 9.5          | 8        |       | 9       |       | 10      |       |      |
|       | 25       |                     | 4.71  | 11.9         | 10       | 47.4  | 11.3    | 60    | 12.5    | 50.5  |      |
| 6     | 30       | 3                   | 3.92  | 14.2         | 12       | 47.1  | 13.5    | 53    | 15      | 36.5  |      |
|       | 35       |                     | 3.33  | 16.6         | 14       |       | 15.8    |       | 17.5    |       |      |
|       | 40       |                     | 2.94  | 19           | 16       |       | 18      |       | 20      |       |      |
|       | 15       |                     | 10.8  | 6.8          | 6        |       | 6.8     |       | 7.5     |       |      |
|       | 20       |                     | 7.8   | 9            | 8        |       | 9       |       | 10      |       |      |
|       | 25       |                     | 6.28  | 11.3         | 10       |       | 11.2    |       | 12.5    |       |      |
|       | 30       |                     | 5.2   | 13.5         | 12       |       | 13.5    |       | 15      |       |      |
|       | 35       |                     | 4.51  | 15.8         | 14       |       | 15.7    |       | 17.5    | 78.5  |      |
|       | 40       |                     | 3.92  | 18           | 16       |       | 18      | 68.6  | 20      |       |      |
|       | 45       |                     | 3.53  | 20.3         | 18       |       | 20.2    |       | 22.5    |       |      |
| 8     | 50       | 50 <sup>4</sup> 3.7 | 3.14  | 22.5         | 20       | 58.8  | 22.5    |       | 25      |       |      |
|       | 55       |                     | 2.84  | 24.8         | 22       |       | 24.7    |       | 27.5    |       |      |
|       | 60       |                     |       | 27           | 24       |       | 27      |       | 30      |       |      |
|       |          |                     | 2.26  | 30.8         | 26       |       | 29.3    |       | 32.5    |       |      |
|       | 70       |                     | 2.1   | 33.2         | 28       |       | 31.5    |       | 35      |       |      |
|       | 75       |                     | 1.96  | 35.6         | 30       |       | 33.8    |       | 37.5    |       |      |
|       | 80       |                     | 1.84  | 37.9         | 32       |       | 36      |       | 40      |       |      |
|       | 15       |                     | 13.1  | 6.8          | 6        |       | 6.8     |       | 7.5     |       |      |
|       | 20       |                     | 9.8   | 9            | 8        |       | 9       | 88.3  | 10      | 98.1  |      |
|       | 25       |                     | 7.8   | 11.3         | 10       |       | 11.2    |       | 12.5    |       |      |
|       | 30       |                     | 6.9   | 13.5         | 12       |       | 13.5    |       | 15      |       |      |
|       | 35       |                     | 5.9   | 15.8         | 14       |       | 15.7    |       | 17.5    |       |      |
|       | 40       |                     | 4.9   | 18           | 16       |       | 18      |       | 20      |       |      |
|       | 45       |                     | 4.3   | 20.3         | 18       |       | 20.2    |       | 22.5    |       |      |
| 10    | 50       | 5                   | 3.9   | 22.5         | 20       | 78.5  | 22.5    |       | 25      |       |      |
| 10    | 55       |                     | 3.9   | 24.8         | 22       | 70.0  | 24.7    |       | 27.5    |       |      |
|       | 60       |                     |       |              |          |       | 27      |       | 30      |       |      |
|       | 65       |                     | 27 24 |              | 29.3     | 4     | 32.5    |       |         |       |      |
|       | 70       |                     | 2.9   | 29.3<br>31.5 | 26<br>28 |       | 31.5    |       | 35      |       |      |
|       |          |                     | 2.9   |              |          |       |         |       |         |       |      |
|       | 75       |                     |       | 33.8         | 30       |       | 33.7    |       | 37.5    |       |      |
|       | 80       |                     | 2.2   | 36           | 32       |       | 36      |       | 40      |       |      |
|       | 90       |                     | 2.2   | 40.5         | 36       |       | 40.5    |       | 40.5    |       |      |
|       | 20       |                     | 13.7  | 9            | 8        |       | 9       |       | 10      |       |      |
| 40    | 25<br>30 |                     | 10.8  | 11.3         | 10       | 407.0 | 11.2    | 407.5 | 12.5    | 407.0 |      |
| 12    | 30       | 6                   | 8.8   | 13.5         | 12       | 107.9 | 13.5    | 127.5 | 15      | 137.3 |      |
|       | 35       |                     | 7.8   | 15.8         | 14       |       | 15.7    |       | 17.5    |       |      |
|       | 40       |                     | 6.9   | 18           | 16       |       | 18      |       | 20      |       |      |



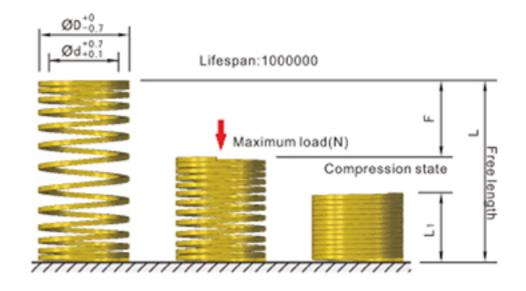


| Order | DSWF-D-L |
|-------|----------|
|-------|----------|

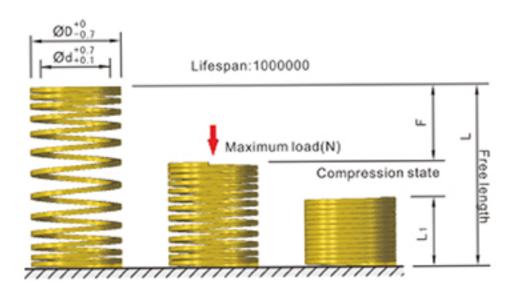
|    | DSWF-D-L  |    |              |      | F=L×40%  |       | F=L  | ×45%  | F=L×50% |                         | l ava |  |
|----|-----------|----|--------------|------|----------|-------|------|-------|---------|-------------------------|-------|--|
| D  | L         | d  | N/mm         | (mm) | Fmm      | N     | Fmm  | N     | Fmm     |                         | @¥/P  |  |
|    | 45        |    |              | 20.3 | 18       | IN.   |      | 17    | 22.5    | 18                      |       |  |
|    | 45        |    | 5.9          | 20.3 | 16       |       | 20.2 |       | 22.5    |                         |       |  |
|    | 50        |    |              | 22.5 | 20       |       | 22.5 |       | 25      |                         |       |  |
|    | 55        |    | 4.9          | 24.8 | 22       |       | 24.7 |       | 27.5    |                         |       |  |
|    | 60        |    | -1.0         | 27   | 24       |       | 27   |       | 30      | 137.3<br>176.5<br>205.9 |       |  |
| 12 | 65        | 6  |              | 29.3 | 26       | 107.9 | 29.2 | 127.5 | 32.5    |                         | 137.3 |  |
|    | 70        |    | 3.9          | 31.5 | 28       |       | 31.5 |       | 35      |                         |       |  |
|    | 75<br>80  |    |              | 33.8 | 30<br>32 |       | 33.7 |       | 37.5    |                         |       |  |
|    | 80        |    | 2.9          | 36   | 32       |       | 36   |       | 40      |                         |       |  |
|    | 90        |    | 3.1          | 40.5 | 36       |       | 40.5 |       | 45      |                         |       |  |
|    | 25        |    | 13.7         | 11.3 | 10       |       | 11.2 |       | 12.5    |                         |       |  |
|    | 30        |    | 11.8         | 13.5 | 12       |       | 13.5 |       | 15      |                         |       |  |
|    | 30<br>35  |    | 9.8          | 15.8 | 12<br>14 |       | 15.7 |       | 17.5    |                         |       |  |
|    | 40        |    | 8.8          | 18   | 16       |       | 18   |       | 20      |                         |       |  |
|    | 45        |    | 7.8          | 20.3 | 18       |       | 20.2 |       | 22.5    |                         |       |  |
|    | 50        |    |              | 22.5 | 20       |       | 22.5 |       | 25      |                         |       |  |
|    | 50        |    | 6.9          | 24.0 | 20       |       | 24.5 |       | 23      |                         |       |  |
| 14 | 55        | 7  |              | 24.8 | 22       | 137.3 | 24.7 | 156.9 | 27.5    | 176.5                   |       |  |
|    | 60        |    | 5.9          | 27   | 24       |       | 27   |       | 30      |                         |       |  |
|    | 65        |    | 0.0          | 29.3 | 26       |       | 29.2 |       | 32.5    |                         |       |  |
|    | 70        |    | 4.9          | 31.5 | 28       |       | 31.5 | 35    |         |                         |       |  |
|    | 75        |    | 4.0          | 33.8 | 30       |       | 33.7 |       | 37.5    |                         |       |  |
|    | 80        |    | 3.9          | 36   | 32       |       | 36   |       | 40      |                         |       |  |
|    | 90        |    | 3.9          | 40.5 | 36       |       | 40.5 |       | 45      |                         |       |  |
|    | 100       |    | 3.5          | 45   | 40       |       | 45   |       | 50      |                         |       |  |
|    | 100<br>25 |    | 16.7         | 11.3 | 10       |       | 11.2 |       | 12.5    |                         |       |  |
|    | 30        |    | 13.7         | 13.5 | 12       |       | 13.5 |       | 15      |                         |       |  |
|    | 35        |    | 11.8         | 15.8 | 14       |       | 15.7 |       | 17.5    |                         |       |  |
|    | 40        |    | 10.8         | 18   | 16       |       | 18   |       | 20      |                         |       |  |
|    | 45        |    | 8.8          | 20.3 | 18       |       | 20.2 |       | 22.5    |                         |       |  |
|    | 40<br>60  |    | 0.0          |      | 20       |       | 20.2 |       | 22.0    |                         |       |  |
|    | 50        |    | 7.8          | 22.5 | 20       |       | 22.5 |       | 25      |                         |       |  |
|    | 55        |    |              | 24.8 | 22       | 400.7 | 24.7 | 400.0 | 27.5    | 205.9                   |       |  |
| 16 | 60        | 8  | 6.9          | 27   | 24       | 166.7 | 27   | 186.3 | 30      |                         |       |  |
|    | 65        |    |              | 29.3 | 26       |       | 29.2 |       | 32.5    |                         |       |  |
|    | 70        |    | 5.9          | 31.5 | 28       |       | 31.5 |       | 35      |                         |       |  |
|    | 75        |    |              | 33.8 | 30       |       | 33.7 |       | 37.5    |                         |       |  |
|    | 80<br>90  |    | 4.9          | 36   | 32       |       | 36   |       | 40      |                         |       |  |
|    | 90        |    | 4.9          | 40.5 | 36       |       | 40.5 |       | 45      |                         |       |  |
|    | 100       |    | 3.9          | 45   | 40       |       | 45   |       | 50      |                         |       |  |
|    | 125       |    | 3.3          | 56.3 | 50       |       | 56.3 |       | 62.5    |                         |       |  |
|    | 25        |    | 20.6         | 11.3 | 10       |       | 11.2 |       | 12.5    |                         |       |  |
|    | 30        |    | 16.7         | 13.5 | 12       |       | 13.5 |       | 15      |                         |       |  |
|    |           |    |              | 15.8 | 14       |       |      |       | 17.5    |                         |       |  |
|    | 35<br>40  |    | 14.7<br>12.7 | 18   | 16       |       | 15.7 |       | 20      |                         |       |  |
|    | 40        |    | 12.7         |      | 10       |       | 18   |       | 20 5    |                         |       |  |
|    | 45        |    | 11.8         | 20.3 | 18       |       | 20.2 |       | 22.5    |                         |       |  |
|    | 50        |    | 9.8          | 22.5 | 20       |       | 22.5 |       | 25      |                         |       |  |
|    | 55        |    | 8.8          | 24.8 | 22<br>24 |       | 24.7 |       | 27.5    |                         |       |  |
| 18 | 60        | 9  |              | 27   | 24       | 205.9 | 27   | 225.6 | 30      | 255                     |       |  |
|    | 65        |    | 7.8          | 29.3 | 26       |       | 29.2 |       | 32.5    |                         |       |  |
|    | 70        |    |              | 31.5 | 28       |       | 31.5 |       | 35      |                         |       |  |
|    | 75        |    | 6.9          | 33.8 | 30       |       | 33.7 |       | 37.5    |                         |       |  |
|    | 80        |    |              | 36   | 32       |       | 36   |       | 40      |                         |       |  |
|    | 90        |    | 5.9          | 40.5 | 36       |       | 40.5 |       | 45      |                         |       |  |
|    | 100       |    | 4.9          | 45   | 40       |       | 45   |       | 50      |                         |       |  |
|    | 125       |    | 3.9          | 56.3 | 50       |       | 56.3 |       | 62.5    |                         |       |  |
|    | 25        |    | 25.5         |      | 10       |       | 11.2 |       | 12.5    |                         |       |  |
|    |           |    |              | 11.3 | 10       |       |      |       |         |                         |       |  |
|    | 30        |    | 21.6         | 13.5 | 12       |       | 13.5 |       | 15      |                         |       |  |
| 20 | 35        | 11 | 18.6         | 15.8 | 14       | 255   | 15.7 | 284.4 | 17.5    | 313.8                   |       |  |
|    | 40        |    | 15.7         | 18   | 16       |       | 18   |       | 20      | 205.9                   |       |  |
|    | 45        |    | 13.7         | 20.3 | 18       |       | 20.2 |       | 22.5    |                         |       |  |
|    | 50        |    | 12.7         | 22.5 | 20       |       | 22.5 |       | 25      |                         |       |  |







|     | DSWF-D-L                       |      |      |       | F=L | ×40%  |      |       | F=L×50% |       | Low |
|-----|--------------------------------|------|------|-------|-----|-------|------|-------|---------|-------|-----|
| D   | L                              | d    | Nimm | (mm)  | Fmm | N     | Fmm  | N     | Fmm     | N     | @¥/ |
|     | 55                             |      | 11.8 | 24.8  | 22  |       | 24.7 |       | 27.5    |       |     |
|     | 60                             |      | 10.8 | 27    | 24  |       | 27   |       | 30      |       |     |
|     | 65                             |      | 9.8  | 29.3  | 26  |       | 29.2 |       | 32.5    | 1     |     |
|     | 70                             |      |      | 31.5  | 28  |       | 31.5 |       | 35      |       |     |
|     | 75                             |      | 8.8  | 33.8  | 30  |       | 33.7 |       | 37.5    |       |     |
| 20  | 80 7.8 36 32<br>90 6.9 40.5 36 | 255  | 36   | 284.4 | 40  | 313.8 |      |       |         |       |     |
|     |                                |      | 6.9  |       |     |       | 40.5 | 1 /   | 45      |       |     |
|     | 100                            |      | 5.9  | 45    | 40  |       | 45   |       | 50      |       |     |
|     | 125                            |      | 4.9  | 56.3  | 50  |       | 56.2 | 1 1   | 62.5    |       |     |
|     | 150                            |      | 3.9  | 67.5  | 60  |       | 67.5 |       | 75      |       |     |
|     | 25                             |      | 31.4 | 11.3  | 10  |       | 11.2 |       | 12.5    |       |     |
|     | 30                             |      | 26.5 | 13.5  | 12  |       | 13.5 |       | 15      |       |     |
|     | 35                             |      | 22.6 | 15.8  | 14  |       | 15.7 |       | 17.5    |       |     |
|     | 40                             | 11   | 19.6 | 18    | 16  |       | 18   |       | 20      |       |     |
|     |                                |      |      |       |     |       | 20.2 |       | 20 5    |       |     |
|     | 45                             |      | 17.7 | 20.3  | 18  |       | 20.2 |       | 22.5    |       |     |
|     | 50                             |      | 15.7 | 22.5  | 20  |       | 22.5 |       | 25      |       |     |
|     | 55                             |      | 14.7 | 24.8  | 22  |       | 24.7 |       | 27.5    |       |     |
| 22  | 60                             |      | 12.7 | 27    | 24  | 313.8 | 27   | 353   | 30      | 392.3 |     |
|     | 65                             |      | 11.8 | 29.3  | 26  |       | 29.2 |       | 32.5    |       |     |
|     | 70                             |      | 10.8 | 31.5  | 28  |       | 31.5 |       | 35      |       |     |
|     | 75                             |      |      | 33.8  | 30  |       | 33.7 |       | 37.5    |       |     |
|     | 80                             |      | 9.8  | 36    | 32  |       | 36   |       | 40      |       |     |
|     | 90                             |      | 8.8  | 40.5  | 36  |       | 40.5 |       | 45      |       |     |
|     | 100                            |      | 7.8  | 45    | 40  |       | 45   |       | 50      |       |     |
|     | 125                            |      | 5.9  | 56.3  | 50  |       | 56.2 |       | 62.5    |       |     |
|     | 150                            |      | 4.9  | 67.5  | 60  |       | 67.5 |       | 75      |       |     |
|     | 25                             |      | 39.2 | 11.3  | 10  |       | 11.2 |       | 12.5    |       |     |
|     | 30                             |      | 32.4 | 13.5  | 12  |       | 13.5 |       | 15      |       |     |
|     | 35                             |      | 28.4 | 15.8  | 14  |       | 15.7 |       | 17.5    |       |     |
|     | 40                             |      | 24.5 | 18    | 16  |       | 18   | 1 1   | 20      |       |     |
|     | 45                             |      | 21.6 | 20.3  | 18  |       | 20.2 |       | 22.5    |       |     |
|     | 50                             |      | 19.6 | 22.5  | 20  |       | 22.5 | 441.3 | 25      |       |     |
|     | 55                             |      | 17.7 | 24.8  | 22  |       | 24.7 |       | 27.5    |       |     |
|     | 60                             |      | 16.7 | 27    | 24  |       | 27   |       | 30      |       |     |
| 25  | 65                             |      | 14.7 | 29.3  | 26  | 392.3 | 29.2 |       | 32.5    | 490.3 |     |
| 2.0 | 70                             |      | 13.7 | 31.5  | 28  | 002.0 | 31.5 |       | 35      |       |     |
|     | 75                             |      | 12.7 | 33.8  | 30  |       | 33.7 |       | 37.5    |       |     |
|     | 80                             |      | 11.8 | 36    | 32  |       | 36   |       | 40      |       |     |
|     | 90                             |      | 10.8 | 40.5  | 36  |       | 40.5 |       | 45      |       |     |
|     | 100                            |      | 9.8  | 45    | 40  |       | 45   |       | 50      |       |     |
|     | 125                            |      | 8.8  | 56.3  | 50  |       | 56.2 |       | 62.5    |       |     |
|     | 150                            |      | 7.8  | 67.5  | 60  |       | 67.5 |       | 75      |       |     |
|     | 175                            | 13.5 | 5.9  | 78.8  | 70  |       | 78.7 |       | 87.5    |       |     |
|     | 200                            |      | 4.9  | 90    | 80  |       | 90   |       | 100     |       |     |
|     | 25                             |      | 47.1 | 11.3  | 10  |       | 11.2 |       | 12.5    |       |     |
|     | 30                             |      | 39.2 | 13.5  | 12  |       | 13.5 |       | 15      |       |     |
|     | 35                             |      | 33.3 | 15.8  | 14  |       | 15.7 |       | 17.5    |       |     |
|     | 40                             |      | 29.4 | 18    | 16  |       | 18   |       | 20      |       |     |
|     | 45                             |      | 26.5 | 20.3  | 18  |       | 20.2 |       | 22.5    |       |     |
|     | 50                             |      | 23.5 | 22.5  | 20  |       | 22.5 |       | 25      |       |     |
|     | 55                             |      | 21.6 | 24.8  | 22  |       | 24.7 |       | 27.5    |       |     |
| 27  | 60                             |      | 19.6 | 27    | 24  | 470.7 | 27   | 529.6 | 30      | 588.4 |     |
|     | 65                             |      | 17.7 | 29.3  | 26  |       | 29.2 |       | 32.5    |       |     |
|     | 70                             |      | 16.7 | 31.5  | 28  |       | 31.5 |       | 35      |       |     |
|     | 75                             |      | 15.7 | 33.8  | 30  |       | 33.7 |       | 37.5    |       |     |
|     | 80                             |      | 14.7 | 36    | 32  |       | 36   |       | 40      |       |     |
|     | 90                             |      | 12.7 | 40.5  | 36  |       | 40.5 |       | 45      |       |     |
|     | 100                            |      | 11.8 | 45    | 40  |       | 45   |       | 50      |       |     |
|     | 125                            |      | 9.8  | 56.3  | 50  |       | 56.2 |       | 62.5    |       |     |



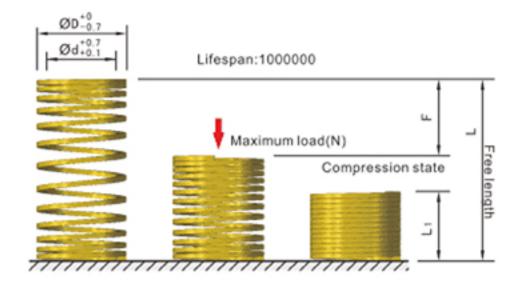


| Order | DSWF-D-L |
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| Order | DSWF-D-L |                |             |       | F-1 | - 100/    | E-1      | - 4EM  | F=L×50%                  |                           |      |
|-------|----------|----------------|-------------|-------|-----|-----------|----------|--------|--------------------------|---------------------------|------|
| D     | l L      | d              |             |       |     | ×40%      |          | ×45%   |                          |                           | @¥/P |
|       |          |                | N/mm        | (mm)  | Fmm | N         | Fmm      | N      | Fmm                      | N                         |      |
|       | 150      |                | 7.8         | 67.5  | 60  |           | 67.5     |        | 75                       |                           |      |
| 27    | 175      | 13.5           | 6.9         | 78.8  | 70  | 470.7     | 78.7     | 529.6  | 87.5                     | 588.4                     |      |
|       | 200      |                | 5.9         | 90    | 80  |           | 90       |        | 100                      |                           |      |
|       | 25       |                | 56.9        | 11.3  | 10  | 11.2 12.5 |          |        |                          |                           |      |
|       | 30       |                | 47.1        | 13.5  | 12  |           | 13.5     |        | 15                       |                           |      |
|       | 35       |                | 40.2        | 15.8  | 14  |           | 15.7     |        | 17.5                     |                           |      |
|       | 40       |                | 35.3        | 18    | 16  |           | 18       |        | 20                       |                           |      |
|       | 45<br>50 |                | 31.4        | 20.3  | 18  |           | 20.2     |        | 22.5                     |                           |      |
|       |          |                | 28.4        | 22.5  | 20  |           | 22.5     |        | 25                       |                           |      |
|       | 55       |                | 25.5        | 24.8  | 22  |           | 24.7     |        | 27.5                     |                           |      |
|       | 60       |                | 23.5        | 27    | 24  |           | 27       |        | 30                       |                           |      |
|       | 65       |                | 21.6        | 29.3  | 26  |           | 29.2     |        | 32.5                     |                           |      |
| 30    | 70       | 16             | 20.6        | 31.5  | 28  | 568.8     | 31.5     | 637.4  | 35                       | 706.1                     |      |
|       |          |                | 18.6        | 33.8  | 30  |           | 33.7     |        | 37.5                     |                           |      |
|       |          | 75<br>80<br>90 |             |       | 32  |           | 36       |        | 40                       |                           |      |
|       | 00       |                | 17.7        | 36    | 32  |           | 40.5     |        | 40                       |                           |      |
|       |          |                | 15.7        | 40.5  | 36  |           | 40.5     |        | 45                       |                           |      |
|       | 100      |                | 13.7        | 45    | 40  |           | 45       |        | 50                       |                           |      |
|       | 125      |                | 11.8        | 56.3  | 50  |           | 56.2     |        | 62.5                     |                           |      |
|       | 150      |                | 9.8         | 67.5  | 60  |           | 67.5     |        | 75                       |                           |      |
|       | 175      |                | 7.8         | 78.8  | 70  |           | 78.7     |        | 87.5                     |                           |      |
|       | 200      |                | 6.9         | 90    | 80  |           | 90<br>18 |        | 100                      |                           |      |
|       | 40       |                | 48.1        | 18    | 16  |           |          |        | 20                       |                           |      |
|       | 45       |                | 42.2        | 20.3  | 18  |           | 20.2     |        | 22.5                     |                           |      |
|       | 50       |                | 38.2        | 22.5  | 20  |           | 22.5     |        | 25                       |                           |      |
|       | 55       |                | 34.3        | 24.8  | 22  |           | 24.7     |        | 27.5                     |                           |      |
|       | 60       |                | 32.3        | 27    | 24  |           | 27       |        | 30                       |                           |      |
|       | 65       |                | 29.4        | 29.3  | 26  |           | 29.2     |        | 32.5                     |                           |      |
|       | 70       |                | 27.5        | 31.5  | 28  |           | 31.5     |        | 35                       |                           |      |
| 35    | 75       | 19             | 25.5        | 33.8  | 30  | 764.9     | 33.7     | 863    | 37.5                     | 961.1                     |      |
|       | 80       | 1.5            | 24.5        | 36    | 32  | 704.0     | 36       | 000    | 40                       |                           |      |
|       | 90       |                | 21.6        | 40.5  | 36  |           | 40.5     |        | 45                       |                           |      |
|       | 100      |                | 19.6        | 45    | 40  |           | 45       |        |                          |                           |      |
|       | 125      |                | 14.7        | 56.3  | 50  |           | 56.2     |        |                          |                           |      |
|       | 150      |                | 12.7        | 67.5  | 60  |           | 67.5     |        |                          |                           |      |
|       | 175      |                |             |       | 70  |           |          |        |                          |                           |      |
|       | 175      |                | 10.8<br>9.8 | 78.8  | 80  |           | 78.7     |        |                          |                           |      |
|       | 200      |                |             | 90    |     |           | 90       |        | 50<br>62.5<br>75<br>87.5 |                           |      |
|       | 40       |                | 62.8        | 18    | 16  |           | 18       |        | 20                       |                           |      |
|       | 45       |                | 55.6        | 21.3  | 18  |           | 20.2     |        | 22.5                     |                           |      |
|       | 50       |                | 50          | 22.5  | 20  |           | 22.5     |        | 25                       |                           |      |
|       | 55       |                | 45.5        | 26.1  | 22  |           | 24.8     |        | 27.5                     |                           |      |
|       | 60       |                | 42.2        | 27    | 24  |           | 27       |        | 30                       |                           |      |
|       | 65       |                | 38.5        | 30.8  | 26  |           | 29.3     |        | 32.5                     |                           |      |
| 172.5 | 70       |                | 36.3        | 31.5  | 28  |           | 31.5     |        | 35                       |                           |      |
| 40    | 75       | 22             | 33.3        | 35.6  | 30  | 1000.3    | 33.8     | 1127.8 | 37.5                     | 1255.3                    |      |
|       | 80       |                | 31.4        | 36    | 32  |           | 36       |        | 40                       |                           |      |
|       | 90       |                | 27.5        | 40.5  | 36  |           | 40.5     |        | 45                       |                           |      |
|       | 100      |                | 25.5        | 45    | 40  |           | 45       |        |                          |                           |      |
|       | 125      |                | 19.6        | 56.3  | 50  |           | 56.2     |        | 50<br>62.5               |                           |      |
|       | 150      | 150<br>175     | 16.7        | 67.5  | 60  |           | 67.5     |        | 75                       |                           |      |
|       |          |                | 14.7        | 78.8  | 70  |           | 78.7     |        | 87.5                     |                           |      |
|       | 200      |                | 12.4        | 90    | 80  |           | 90       |        | 100                      |                           |      |
|       | 225      |                | 11.2        | 101   | 90  |           | 101.3    |        | 112.5                    |                           |      |
|       | 250      |                | 9.8         | 112.5 | 100 |           | 112.5    |        | 125                      |                           |      |
|       | 275      |                | 9.1         | 124   | 110 |           | 123.8    |        | 137.5                    |                           |      |
|       | 300      |                | 8.3         | 142.2 | 120 |           | 135      |        | 150                      |                           |      |
|       | 50       |                | 78.5        |       | 20  |           | 22.5     |        | 25                       |                           |      |
|       |          |                |             | 22.5  |     |           |          |        |                          |                           |      |
| 50    | 55       | 27.5           | 71.3        | 24.8  | 22  | 1569.1    | 24.8     | 1765.2 | 27.5                     | 961.1<br>1255.3<br>1961.3 |      |
|       | 60       |                | 65.7        | 27    | 24  |           | 27       |        | 30                       |                           |      |
|       | 65       |                | 60.3        | 29.3  | 26  |           | 29.3     |        | 32.5                     |                           |      |







| D  |     |      |      |       | F=L×40% |        | F=L×45% |        | F=L×50% |        | 1  |
|----|-----|------|------|-------|---------|--------|---------|--------|---------|--------|----|
| D  | L   | d    | N/mm | (mm)  | Fmm     | N      | Fmm     | N      | Fmm     | N      | @¥ |
|    | 70  |      | 11.8 | 31.5  | 28      |        | 31.5    |        | 35      |        |    |
|    | 75  |      | 10.8 | 33.8  | 30      |        | 33.8    |        | 37.5    |        |    |
|    | 80  |      | 9.8  | 36    | 32      |        | 36      |        | 40      |        |    |
|    | 90  |      | 0.0  | 40.5  | 36      |        | 40.5    |        | 45      |        |    |
|    | 100 | 100  | 8.8  | 45    | 40      |        | 45      |        | 50      |        |    |
|    | 125 |      | 7.8  | 56.3  | 50      |        | 56.2    |        | 62.5    |        |    |
|    | 150 |      | 6.9  | 67.5  | 60      |        | 67.5    |        | 75      |        |    |
|    | 175 |      | 5.9  | 78.8  | 70      |        | 78.7    |        | 87.5    |        |    |
| 50 | 200 | 27.5 | 4.9  | 90    | 80      | 1569.1 | 90      | 1765.2 | 100     | 1961.3 |    |
|    | 225 |      | 3.9  | 101   | 90      |        | 101.3   |        | 112.5   |        |    |
|    | 250 |      | 31.4 | 112.5 | 100     |        | 112.5   |        | 125     |        |    |
|    | 275 |      | 26.5 | 124   | 110     |        | 123.8   |        | 137.5   |        |    |
|    | 300 |      | 22.6 | 135   | 120     |        | 135     |        | 150     |        |    |
|    | 350 |      | 19.6 | 165.9 | 140     |        | 157.5   |        | 175     |        |    |
|    | 400 |      | 17.7 | 189.6 | 160     |        | 180     |        | 200     |        |    |
|    | 450 |      | 15.7 | 213.3 | 180     |        | 202.5   |        | 225     |        |    |
|    | 500 |      | 14.7 | 237   | 200     |        | 225     |        | 250     |        |    |
|    | 60  |      | 12.7 | 27    | 24      |        | 27      |        | 30      |        |    |
|    | 70  |      | 11.8 | 31.5  | 28      |        | 31.5    |        | 35      |        |    |
|    | 80  |      | 40.0 | 36    | 32      | 2255.5 | 36      |        | 40      |        |    |
|    | 90  |      | 10.8 | 40.5  | 36      |        | 40      |        | 45      |        |    |
|    | 100 |      | 9.8  | 45    | 40      |        | 45      |        | 50      |        |    |
|    | 125 |      | 8.8  | 56.3  | 50      |        | 56.2    |        | 62.5    |        |    |
|    | 150 |      | 7.8  | 67.5  | 60      |        | 67.5    |        | 75      |        |    |
| 60 | 175 | 33   | 5.9  | 78.8  | 70      |        | 78.7    | 2539.9 | 87.5    | 2824.3 |    |
|    | 200 |      | 4.9  | 90    | 80      |        | 90      |        | 100     |        |    |
|    | 250 |      | 39.2 | 112.5 | 100     |        | 112.5   |        | 125     |        |    |
|    | 300 |      | 32.4 | 135   | 120     |        | 135     |        | 150     |        |    |
|    | 350 |      | 28.4 | 165.9 | 140     |        | 157.5   |        | 175     |        |    |
|    | 400 |      | 24.5 | 189.6 | 160     |        | 180     |        | 200     |        |    |
|    | 450 |      | 21.6 | 213.3 | 180     |        | 202.5   |        | 225     |        |    |
|    | 500 |      | 19.6 | 237   | 200     |        | 225     |        | 250     |        |    |
|    | 70  |      | 17.7 | 33.2  | 28      |        | 31.5    |        | 35      |        |    |
|    | 80  |      | 16.7 | 37.9  | 32      |        | 36      |        | 40      |        |    |
|    | 90  |      | 14.7 | 42.7  | 36      |        | 40      |        | 45      |        |    |
|    | 100 |      | 13.7 | 47.4  | 40      |        | 45      |        | 50      |        |    |
|    | 125 |      | 12.7 | 59.3  | 50      |        | 56.2    |        | 62.5    |        |    |
| 70 | 150 | 38.5 | 11.8 | 71.1  | 60      | 3138.1 | 67.5    | 3530.4 | 75      | 3922.6 |    |
|    | 175 |      | 10.8 | 83    | 70      |        | 78.7    |        | 87.5    |        |    |
|    | 200 |      | 9.8  | 94.8  | 80      |        | 90      |        | 100     |        |    |
|    | 250 |      | 8.8  | 118.5 | 100     |        | 112.5   |        | 125     |        |    |
|    | 300 |      | 7.8  | 142.2 | 120     |        | 135     |        | 150     |        |    |
|    | 350 |      | 5.9  | 165.9 | 140     |        | 157.5   |        | 175     |        |    |