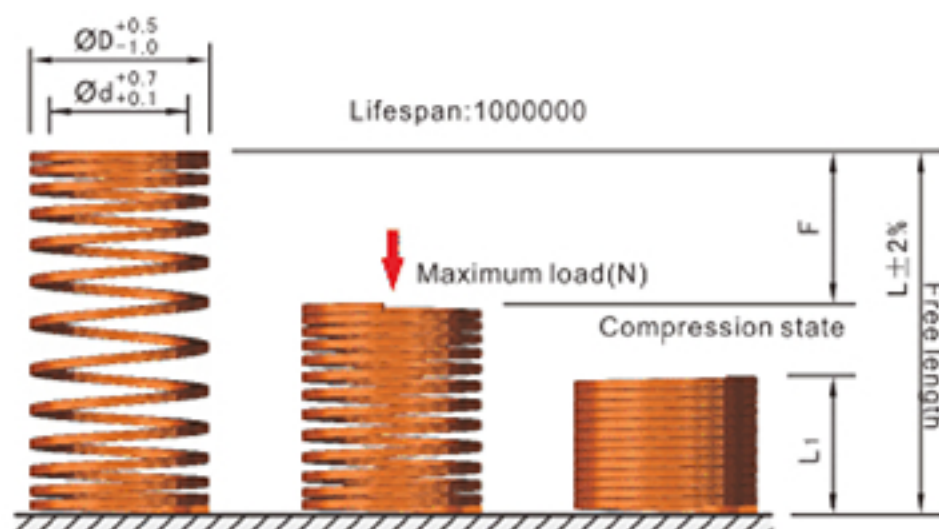


DSWS



Maximum load calculate method:

Maximum load = compression × spring constant

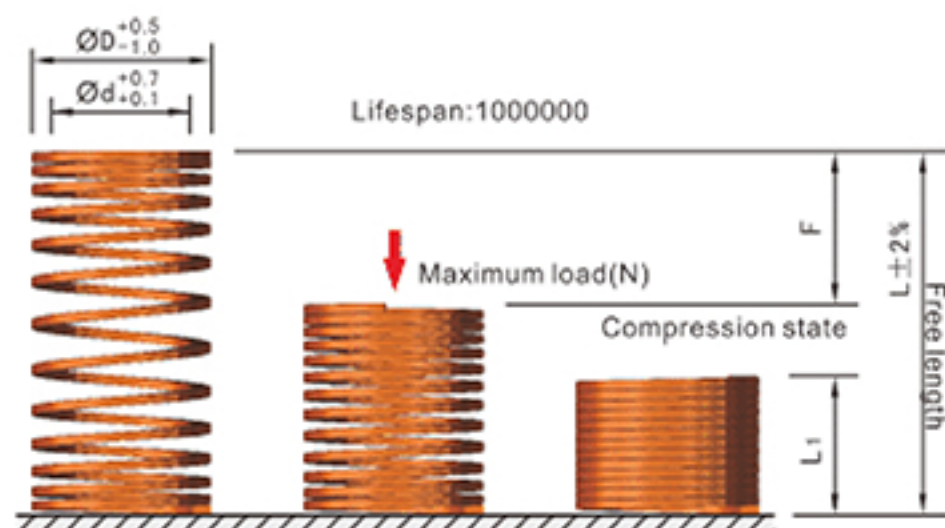
$N = F_{mm} \times N/mm$  (kgf =  $N \times 0.101972$ )

Maximum load Deviation: +20% to -10%

Order DSWS-D-L

| D    | L  | d   | N/mm  | (mm) | F=L×40% |       | @ ¥/P |
|------|----|-----|-------|------|---------|-------|-------|
|      |    |     |       |      | Fmm     | N     |       |
| 10.5 | 20 | 5.5 | 10.9  | 10   | 8       | 86.3  |       |
|      | 25 |     | 8.72  | 12.5 | 10      |       |       |
|      | 30 |     | 7.26  | 15   | 12      |       |       |
|      | 35 |     | 6.23  | 17.5 | 14      |       |       |
|      | 40 |     | 5.45  | 20   | 16      |       |       |
|      | 45 |     | 4.84  | 22.5 | 18      |       |       |
|      | 50 |     | 4.36  | 25   | 20      |       |       |
|      | 55 |     | 3.96  | 27.5 | 22      |       |       |
|      | 60 |     | 3.63  | 30   | 24      |       |       |
|      | 65 |     | 3.35  | 32.5 | 26      |       |       |
|      | 70 |     | 3.11  | 35   | 28      |       |       |
|      | 75 |     | 2.91  | 37.5 | 30      |       |       |
| 12.5 | 80 | 6.5 | 2.72  | 40   | 32      | 121.6 |       |
|      | 20 |     | 15.25 | 10   | 8       |       |       |
|      | 25 |     | 12.2  | 12.5 | 10      |       |       |
|      | 30 |     | 10.17 | 15   | 12      |       |       |
|      | 35 |     | 8.72  | 17.5 | 14      |       |       |
|      | 40 |     | 7.63  | 20   | 16      |       |       |
|      | 45 |     | 6.78  | 22.5 | 18      |       |       |
|      | 50 |     | 6.1   | 25   | 20      |       |       |
|      | 55 |     | 5.55  | 27.5 | 22      |       |       |
|      | 60 |     | 5.08  | 30   | 24      |       |       |
|      | 65 |     | 4.69  | 32.5 | 26      |       |       |
|      | 70 |     | 4.36  | 35   | 28      |       |       |
| 14.5 | 75 | 8.5 | 4.07  | 37.5 | 30      | 196.1 |       |
|      | 80 |     | 3.81  | 40   | 32      |       |       |
|      | 20 |     | 24.51 | 10   | 8       |       |       |
|      | 25 |     | 19.61 | 12.5 | 10      |       |       |
|      | 30 |     | 16.37 | 15   | 12      |       |       |
|      | 35 |     | 14.02 | 17.5 | 14      |       |       |
|      | 40 |     | 12.25 | 20   | 16      |       |       |
|      | 45 |     | 10.88 | 22.5 | 18      |       |       |
|      | 50 |     | 9.8   | 25   | 20      |       |       |
|      | 55 |     | 8.92  | 27.5 | 22      |       |       |
|      | 60 |     | 8.13  | 30   | 24      |       |       |
|      | 65 |     | 7.55  | 32.5 | 26      |       |       |
|      | 70 |     | 6.96  | 35   | 28      |       |       |
|      | 75 |     | 6.57  | 37.5 | 30      |       |       |
|      | 80 |     | 6.17  | 40   | 32      |       |       |
|      | 90 |     | 5.49  | 45   | 36      |       |       |



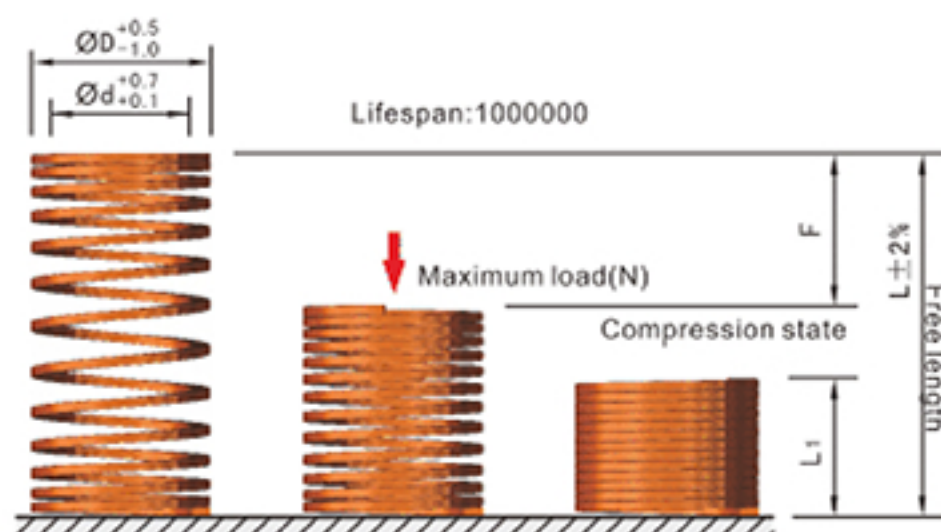


Order DSWS-D-L

| D    | L   | d    | N/mm  | (mm) | F=L×40% |       | @ ¥/P |
|------|-----|------|-------|------|---------|-------|-------|
|      |     |      |       |      | Fmm     | N     |       |
| 14.5 | 100 | 8.5  | 4.9   | 50   | 40      | 196.1 |       |
|      | 125 |      | 3.92  | 62.5 | 50      |       |       |
|      | 150 |      | 3.27  | 75   | 60      |       |       |
| 17   | 25  | 10.5 | 29.41 | 12.5 | 10      | 294.2 |       |
|      | 30  |      | 24.51 | 15   | 12      |       |       |
|      | 35  |      | 20.98 | 17.5 | 14      |       |       |
|      | 40  |      | 18.43 | 20   | 16      |       |       |
|      | 45  |      | 16.37 | 22.5 | 18      |       |       |
|      | 50  |      | 14.7  | 25   | 20      |       |       |
|      | 55  |      | 13.33 | 27.5 | 22      |       |       |
|      | 60  |      | 12.25 | 30   | 24      |       |       |
|      | 65  |      | 11.27 | 32.5 | 26      |       |       |
|      | 70  |      | 10.49 | 35   | 28      |       |       |
|      | 75  |      | 9.8   | 37.5 | 30      |       |       |
|      | 80  |      | 9.21  | 40   | 32      |       |       |
|      | 90  |      | 8.13  | 45   | 36      |       |       |
|      | 100 |      | 7.35  | 50   | 40      |       |       |
|      | 125 |      | 5.88  | 62.5 | 50      |       |       |
| 21   | 150 | 13.5 | 4.9   | 75   | 60      | 421.7 |       |
|      | 30  |      | 35.1  | 15   | 12      |       |       |
|      | 35  |      | 30.1  | 17.5 | 14      |       |       |
|      | 40  |      | 26.37 | 20   | 16      |       |       |
|      | 45  |      | 23.43 | 22.5 | 18      |       |       |
|      | 50  |      | 21.08 | 25   | 20      |       |       |
|      | 55  |      | 19.12 | 27.5 | 22      |       |       |
|      | 60  |      | 17.55 | 30   | 24      |       |       |
|      | 65  |      | 16.18 | 32.5 | 26      |       |       |
|      | 70  |      | 15.1  | 35   | 28      |       |       |
|      | 75  |      | 14.02 | 37.5 | 30      |       |       |
|      | 80  |      | 13.14 | 40   | 32      |       |       |
|      | 90  |      | 11.66 | 45   | 36      |       |       |
|      | 100 |      | 10.59 | 50   | 40      |       |       |
|      | 110 |      | 9.61  | 55   | 44      |       |       |
| 26   | 120 | 16.5 | 8.82  | 60   | 48      | 568.8 |       |
|      | 125 |      | 8.43  | 62.5 | 50      |       |       |
|      | 130 |      | 8.13  | 65   | 52      |       |       |
|      | 140 |      | 7.55  | 70   | 56      |       |       |
|      | 150 |      | 7.06  | 75   | 60      |       |       |
|      | 175 |      | 6.02  | 87.5 | 70      |       |       |
|      | 200 |      | 5.27  | 100  | 80      |       |       |
|      | 30  |      | 47.36 | 15   | 12      |       |       |
|      | 35  |      | 40.59 | 17.5 | 14      |       |       |
|      | 40  |      | 35.59 | 20   | 16      |       |       |
|      | 45  |      | 31.57 | 22.5 | 18      |       |       |
|      | 50  |      | 28.43 | 25   | 20      |       |       |
|      | 55  |      | 25.88 | 27.5 | 22      |       |       |
|      | 60  |      | 23.63 | 30   | 24      |       |       |
|      | 65  |      | 21.86 | 32.5 | 26      |       |       |



DSWS

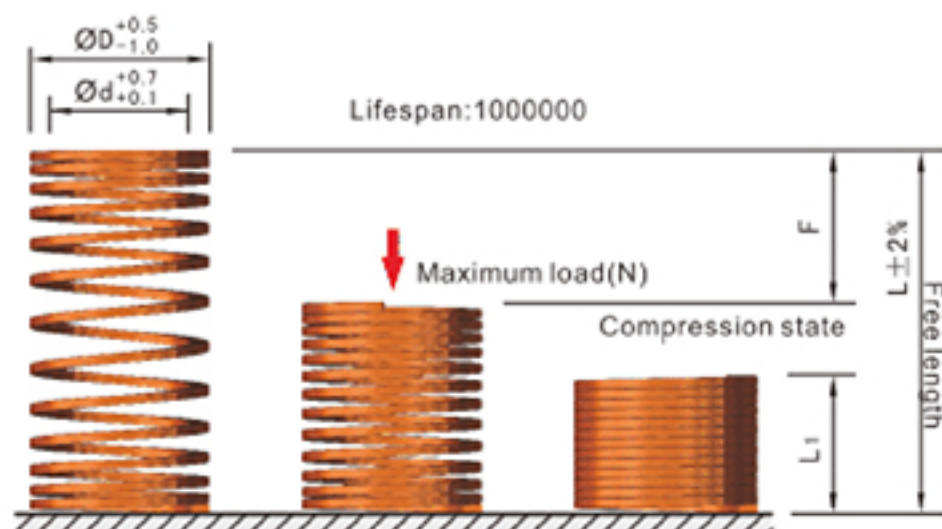


Order DSWS-D-L

| D    | L   | d    | N/mm  | (mm)  | F=L×40% |        | @ ¥ /P |
|------|-----|------|-------|-------|---------|--------|--------|
|      |     |      |       |       | Fmm     | N      |        |
| 26   | 200 | 16.5 | 7.15  | 100   | 80      | 568.8  |        |
|      | 225 |      | 6.32  | 112.5 | 90      |        |        |
|      | 250 |      | 5.69  | 125   | 100     |        |        |
| 31   | 40  | 21   | 49.03 | 20    | 16      | 784.5  |        |
|      | 45  |      | 43.54 | 22.5  | 18      |        |        |
|      | 50  |      | 39.22 | 25    | 20      |        |        |
|      | 55  |      | 35.66 | 27.5  | 22      |        |        |
|      | 60  |      | 32.65 | 30    | 24      |        |        |
|      | 65  |      | 30.17 | 32.5  | 26      |        |        |
|      | 70  |      | 28.04 | 35    | 28      |        |        |
|      | 75  |      | 26.15 | 37.5  | 30      |        |        |
|      | 80  |      | 24.51 | 40    | 32      |        |        |
|      | 90  |      | 21.77 | 45    | 36      |        |        |
|      | 100 |      | 19.61 | 50    | 40      |        |        |
|      | 110 |      | 17.84 | 55    | 44      |        |        |
|      | 120 |      | 16.37 | 60    | 48      |        |        |
|      | 125 |      | 15.69 | 62.5  | 50      |        |        |
|      | 130 |      | 15.1  | 65    | 52      |        |        |
|      | 140 |      | 14.02 | 70    | 56      |        |        |
|      | 150 |      | 13.04 | 75    | 60      |        |        |
| 37   | 160 | 26   | 12.25 | 80    | 64      | 833.6  |        |
|      | 170 |      | 11.57 | 85    | 68      |        |        |
|      | 175 |      | 11.17 | 87.5  | 70      |        |        |
|      | 180 |      | 10.88 | 90    | 72      |        |        |
|      | 190 |      | 10.29 | 95    | 76      |        |        |
|      | 200 |      | 9.8   | 100   | 80      |        |        |
|      | 250 |      | 7.84  | 125   | 100     |        |        |
|      | 300 |      | 6.57  | 150   | 120     |        |        |
|      | 40  |      | 52.07 | 20    | 16      |        |        |
|      | 45  |      | 46.28 | 22.5  | 18      |        |        |
|      | 50  |      | 41.67 | 25    | 20      |        |        |
|      | 55  |      | 37.89 | 27.5  | 22      |        |        |
|      | 60  |      | 34.71 | 30    | 24      |        |        |
|      | 65  |      | 32.06 | 32.5  | 26      |        |        |
|      | 70  |      | 29.81 | 35    | 28      |        |        |
|      | 75  |      | 27.79 | 37.5  | 30      |        |        |
|      | 80  |      | 26.08 | 40    | 32      |        |        |
| 44.5 | 90  | 31   | 23.14 | 45    | 36      | 1000.3 |        |
|      | 100 |      | 20.88 | 50    | 40      |        |        |
|      | 110 |      | 18.92 | 55    | 44      |        |        |
|      | 120 |      | 17.35 | 60    | 48      |        |        |
|      | 125 |      | 16.67 | 62.5  | 50      |        |        |
|      | 130 |      | 15.98 | 65    | 52      |        |        |
|      | 140 |      | 14.9  | 70    | 56      |        |        |
|      | 150 |      | 13.92 | 75    | 60      |        |        |
|      | 160 |      | 13.04 | 80    | 64      |        |        |
|      | 170 |      | 12.25 | 85    | 68      |        |        |
|      | 175 |      | 11.86 | 87.5  | 70      |        |        |
|      | 180 |      | 11.57 | 90    | 72      |        |        |
|      | 190 |      | 10.98 | 95    | 76      |        |        |
|      | 200 |      | 10.39 | 100   | 80      |        |        |
|      | 250 |      | 8.33  | 125   | 100     |        |        |
|      | 300 |      | 6.96  | 150   | 120     |        |        |
|      | 50  |      | 50.01 | 25    | 20      |        |        |
| 44.5 | 60  | 31   | 41.68 | 30    | 24      | 1000.3 |        |
|      | 70  |      | 35.72 | 35    | 28      |        |        |
|      | 80  |      | 31.26 | 40    | 32      |        |        |
|      | 90  |      | 27.79 | 45    | 36      |        |        |
|      | 100 |      | 25.01 | 50    | 40      |        |        |
|      | 110 |      | 22.73 | 55    | 44      |        |        |







DSWS

Order DSWS-D-L

| D    | L   | d  | N/mm  | (mm)  | F=L×40% |        | @ ¥ /P |
|------|-----|----|-------|-------|---------|--------|--------|
|      |     |    |       |       | Fmm     | N      |        |
| 44.5 | 120 | 31 | 20.84 | 60    | 48      | 1000.3 |        |
|      | 130 |    | 19.24 | 65    | 52      |        |        |
|      | 140 |    | 17.86 | 70    | 56      |        |        |
|      | 150 |    | 16.67 | 75    | 60      |        |        |
|      | 160 |    | 15.63 | 80    | 64      |        |        |
|      | 170 |    | 14.71 | 85    | 68      |        |        |
|      | 180 |    | 13.89 | 90    | 72      |        |        |
|      | 190 |    | 13.16 | 95    | 76      |        |        |
|      | 200 |    | 12.5  | 100   | 80      |        |        |
|      | 225 |    | 11.11 | 112.5 | 90      |        |        |
|      | 250 |    | 10    | 125   | 100     |        |        |
|      | 275 |    | 9.09  | 137.5 | 110     |        |        |
| 46   | 300 | 33 | 8.34  | 150   | 120     | 1274.9 |        |
|      | 50  |    | 63.74 | 25    | 20      |        |        |
|      | 60  |    | 53.15 | 30    | 24      |        |        |
|      | 70  |    | 45.5  | 35    | 28      |        |        |
|      | 80  |    | 39.81 | 40    | 32      |        |        |
|      | 90  |    | 35.4  | 45    | 36      |        |        |
|      | 100 |    | 31.87 | 50    | 40      |        |        |
|      | 110 |    | 28.92 | 55    | 44      |        |        |
|      | 120 |    | 26.57 | 60    | 48      |        |        |
|      | 125 |    | 25.49 | 62.5  | 50      |        |        |
|      | 130 |    | 24.51 | 65    | 52      |        |        |
|      | 140 |    | 22.75 | 70    | 56      |        |        |
|      | 150 |    | 21.28 | 75    | 60      |        |        |
|      | 175 |    | 18.24 | 87.5  | 70      |        |        |
|      | 200 |    | 15.98 | 100   | 80      |        |        |
|      | 225 |    | 14.12 | 112.5 | 90      |        |        |
|      | 250 |    | 12.74 | 125   | 100     |        |        |
| 52   | 275 | 37 | 11.57 | 137.5 | 110     | 1569.1 |        |
|      | 300 |    | 10.59 | 150   | 120     |        |        |
|      | 60  |    | 65.38 | 30    | 24      |        |        |
|      | 70  |    | 56.04 | 35    | 28      |        |        |
|      | 80  |    | 49.03 | 40    | 32      |        |        |
|      | 90  |    | 43.58 | 45    | 36      |        |        |
|      | 100 |    | 39.23 | 50    | 40      |        |        |
|      | 110 |    | 35.66 | 55    | 44      |        |        |
|      | 120 |    | 32.69 | 60    | 48      |        |        |
|      | 130 |    | 30.17 | 65    | 52      |        |        |
|      | 140 |    | 28.02 | 70    | 56      |        |        |
|      | 150 |    | 26.15 | 75    | 60      |        |        |
|      | 175 |    | 22.42 | 87.5  | 70      |        |        |
|      | 200 |    | 19.61 | 100   | 80      |        |        |
|      | 225 |    | 17.43 | 112.5 | 90      |        |        |
|      | 250 |    | 15.69 | 125   | 100     |        |        |
|      | 275 |    | 14.26 | 137.5 | 110     |        |        |
|      | 300 |    | 13.08 | 150   | 120     |        |        |

