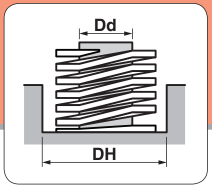
# ISO ばね 重荷重
# TJH HEAVY LOADS ISO 10243

**COIL SPRING**



| Dd (mm) | ばね定数 | 自由長 ×20% 300 万回 | | 自由長 ×25% 150 万回 | | 自由長 ×27.5% 50 万回 | | 自由長 ×30% 20 万回 | | たわみ限界 | Catalog No. | DH (mm) | 自由長 L (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | N/mm (kgf/mm) | たわみ (mm) | 荷重 N {kgf} | たわみ (mm) | 荷重 N {kgf} | たわみ (mm) | 荷重 N {kgf} | たわみ (mm) | 荷重 N {kgf} | (mm) | | | |
| 5 | 26.7 {2.72} | 5.0 | 133 {13.6} | 6.3 | 167 {17} | 6.9 | 183 {18.7} | 7.5 | 200 {20.4} | 8.5 | TJH | 10 | 25 |
| | 20.8 {2.12} | 6.4 | | 8.0 | | 8.8 | | 9.6 | | 10.9 | | | 32 |
| | 17.5 {1.78} | 7.6 | | 9.5 | | 10.5 | | 11.4 | | 13.2 | | | 38 |
| | 15.2 {1.55} | 8.8 | | 11.0 | | 12.1 | | 13.2 | | 15.5 | | | 44 |
| | 13.1 {1.33} | 10.2 | | 12.8 | | 14.0 | | 15.3 | | 18.2 | | | 51 |
| | 10.4 {1.06} | 12.8 | | 16.0 | | 17.6 | | 19.2 | | 23.1 | | | 64 |
| | 8.8 {0.89} | 15.2 | | 19.0 | | 20.9 | | 22.8 | | 27.6 | | | 76 |
| | 7.5 {0.76} | 17.8 | | 22.3 | | 24.5 | | 26.7 | | 32.6 | | | 89 |
| | 6.5 {0.66} | 20.4 | | 25.5 | | 28.1 | | 30.6 | | 37.6 | | | 102 |
| | 2.2 {0.22} | 61.0 | | 76.3 | | 83.9 | | 91.5 | | 114.8 | | | 305 |
| 6.3 | 44.0 {4.48} | 5.0 | 220 {22.4} | 6.3 | 275 {28.1} | 6.9 | 303 {30.9} | 7.5 | 330 {33.7} | 8.2 | | 12.5 | 25 |
| | 34.4 {3.50} | 6.4 | | 8.0 | | 8.8 | | 9.6 | | 10.9 | | | 32 |
| | 28.9 {2.94} | 7.6 | | 9.5 | | 10.5 | | 11.4 | | 13.2 | | | 38 |
| | 25.0 {2.55} | 8.8 | | 11.0 | | 12.1 | | 13.2 | | 15.5 | | | 44 |
| | 21.6 {2.20} | 10.2 | | 12.8 | | 14.0 | | 15.3 | | 17.8 | | | 51 |
| | 17.2 {1.75} | 12.8 | | 16.0 | | 17.6 | | 19.2 | | 22.8 | | | 64 |
| | 14.5 {1.47} | 15.2 | | 19.0 | | 20.9 | | 22.8 | | 27.4 | | | 76 |
| | 12.4 {1.26} | 17.8 | | 22.3 | | 24.5 | | 26.7 | | 32.5 | | | 89 |
| | 10.8 {1.10} | 20.4 | | 25.5 | | 28.1 | | 30.6 | | 37.1 | | | 102 |
| | 9.6 {0.97} | 23.0 | | 28.8 | | 31.6 | | 34.5 | | 42.2 | | | 115 |
| | 3.6 {0.36} | 61.0 | | 76.3 | | 83.9 | | 91.5 | | 114.1 | | | 305 |
| 8 | 80.0 {8.16} | 5.0 | 400 {40.8} | 6.3 | 500 {51} | 6.9 | 550 {56.1} | 7.5 | 600 {61.2} | 8.3 | | 16 | 25 |
| | 62.5 {6.37} | 6.4 | | 8.0 | | 8.8 | | 9.6 | | 10.8 | | | 32 |
| | 52.6 {5.36} | 7.6 | | 9.5 | | 10.5 | | 11.4 | | 13.2 | | | 38 |
| | 45.5 {4.64} | 8.8 | | 11.0 | | 12.1 | | 13.2 | | 15.7 | | | 44 |
| | 39.2 {3.99} | 10.2 | | 12.8 | | 14.0 | | 15.3 | | 17.2 | | | 51 |
| | 31.3 {3.19} | 12.8 | | 16.0 | | 17.6 | | 19.2 | | 22.8 | | | 64 |
| | 26.3 {2.68} | 15.2 | | 19.0 | | 20.9 | | 22.8 | | 27 | | | 76 |
| | 22.5 {2.29} | 17.8 | | 22.3 | | 24.5 | | 26.7 | | 32.3 | | | 89 |
| | 19.6 {1.99} | 20.4 | | 25.5 | | 28.1 | | 30.6 | | 37.2 | | | 102 |
| | 17.4 {1.77} | 23.0 | | 28.8 | | 31.6 | | 34.5 | | 42 | | | 115 |
| | 15.7 {1.60} | 25.4 | | 31.8 | | 34.9 | | 38.1 | | 46.7 | | | 127 |
| | 6.6 {0.67} | 61.0 | | 76.3 | | 83.9 | | 91.5 | | 112.1 | | | 305 |
| 10 | 160.0 {16.32} | 5.0 | 800 {81.6} | 6.3 | 1000 {102} | 6.9 | 1100 {112.2} | 7.5 | 1200 {122.4} | 7.6 | | 20 | 25 |
| | 125.0 {12.75} | 6.4 | | 8.0 | | 8.8 | | 9.6 | | 10.1 | | | 32 |
| | 105.3 {10.74} | 7.6 | | 9.5 | | 10.5 | | 11.4 | | 12.2 | | | 38 |
| | 90.9 {9.27} | 8.8 | | 11.0 | | 12.1 | | 13.2 | | 13.7 | | | 44 |
| | 78.4 {7.99} | 10.2 | | 12.8 | | 14.0 | | 15.3 | | 16.1 | | | 51 |
| | 62.5 {6.37} | 12.8 | | 16.0 | | 17.6 | | 19.2 | | 20.7 | | | 64 |
| | 52.6 {5.36} | 15.2 | | 19.0 | | 20.9 | | 22.8 | | 24.9 | | | 76 |
| | 44.9 {4.57} | 17.8 | | 22.3 | | 24.5 | | 26.7 | | 29.5 | | | 89 |
| | 39.2 {3.99} | 20.4 | | 25.5 | | 28.1 | | 30.6 | | 33.9 | | | 102 |
| | 34.8 {3.54} | 23.0 | | 28.8 | | 31.6 | | 34.5 | | 38.3 | | | 115 |
| | 31.5 {3.21} | 25.4 | | 31.8 | | 34.9 | | 38.1 | | 42.4 | | | 127 |
| | 28.8 {2.93} | 27.8 | | 34.8 | | 38.2 | | 41.7 | | 46.6 | | | 139 |
| | 26.3 {2.68} | 30.4 | | 38.0 | | 41.8 | | 45.6 | | 51 | | | 152 |
| | 22.5 {2.29} | 35.6 | | 44.5 | | 49.0 | | 53.4 | | 59.9 | | | 178 |
| | 19.7 {2.00} | 40.6 | | 50.8 | | 55.8 | | 60.9 | | 68.4 | | | 203 |
| | 13.1 {1.33} | 61.0 | | 76.3 | | 83.9 | | 91.5 | | 103.6 | | | 305 |

**Order**

| Catalog No. | DH | – | L |
|---|---|---|---|
| TJH | 10 | – | 25 |

＊ 1N=0.1daN=0.102kg 1mm=0.0394in.

⚠ たわみ限界について
密着長に近いたわみになります。
参考値になりますのでご注意下さい。

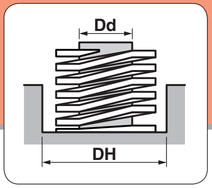
| Dd (mm) | ばね定数 | 自由長 ×20% 300 万回 | | 自由長 ×25% 150 万回 | | 自由長 ×27.5% 50 万回 | | 自由長 ×30% 20 万回 | | たわみ限界 | Catalog No. | DH (mm) | 自由長 L (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | N/mm (kgf/mm) | たわみ (mm) | 荷重 N {kgf} | たわみ (mm) | 荷重 N {kgf} | たわみ (mm) | 荷重 N {kgf} | たわみ (mm) | 荷重 N {kgf} | (mm) | | | |
| 12.5 | 266.7 {27.20} | 5.0 | 1333 {136} | 6.3 | 1667 {170} | 6.9 | 1833 {187} | 7.5 | 2000 {204} | 7.6 | TJH | 25 | 25 |
| | 208.3 {21.24} | 6.4 | | 8.0 | | 8.8 | | 9.6 | | 10.1 | | | 32 |
| | 175.4 {17.89} | 7.6 | | 9.5 | | 10.5 | | 11.4 | | 11.6 | | | 38 |
| | 151.5 {15.45} | 8.8 | | 11.0 | | 12.1 | | 13.2 | | 13.4 | | | 44 |
| | 130.7 {13.33} | 10.2 | | 12.8 | | 14.0 | | 15.3 | | 15.9 | | | 51 |
| | 104.2 {10.62} | 12.8 | | 16.0 | | 17.6 | | 19.2 | | 20.5 | | | 64 |
| | 87.7 {8.94} | 15.2 | | 19.0 | | 20.9 | | 22.8 | | 24.8 | | | 76 |
| | 74.9 {7.63} | 17.8 | | 22.3 | | 24.5 | | 26.7 | | 29.4 | | | 89 |
| | 65.4 {6.67} | 20.4 | | 25.5 | | 28.1 | | 30.6 | | 34.0 | | | 102 |
| | 58.0 {5.91} | 23.0 | | 28.8 | | 31.6 | | 34.5 | | 38.6 | | | 115 |
| | 52.5 {5.35} | 25.4 | | 31.8 | | 34.9 | | 38.1 | | 42.8 | | | 127 |
| | 48.0 {4.89} | 27.8 | | 34.8 | | 38.2 | | 41.7 | | 47.1 | | | 139 |
| | 43.9 {4.47} | 30.4 | | 38.0 | | 41.8 | | 45.6 | | 51.6 | | | 152 |
| | 37.5 {3.82} | 35.6 | | 44.5 | | 49.0 | | 53.4 | | 60.9 | | | 178 |
| | 32.8 {3.34} | 40.6 | | 50.8 | | 55.8 | | 60.9 | | 69.6 | | | 203 |
| | 29.1 {2.96} | 45.8 | | 57.3 | | 63.0 | | 68.7 | | 78.7 | | | 229 |
| | 21.9 {2.23} | 61.0 | | 76.3 | | 83.9 | | 91.5 | | 105.5 | | | 305 |
| 16 | 298.2 {30.41} | 7.6 | 2267 {231.2} | 9.5 | 2833 {289} | 10.5 | 3177 {324.1} | 11.4 | 3400 {346.8} | 12.5 | | 32 | 38 |
| | 257.6 {26.27} | 8.8 | | 11.0 | | 12.1 | | 13.2 | | 14.1 | | | 44 |
| | 222.2 {22.66} | 10.2 | | 12.8 | | 14.0 | | 15.3 | | 17.2 | | | 51 |
| | 177.1 {18.06} | 12.8 | | 16.0 | | 17.6 | | 19.2 | | 21.6 | | | 64 |
| | 149.1 {15.20} | 15.2 | | 19.0 | | 20.9 | | 22.8 | | 26.7 | | | 76 |
| | 127.3 {12.98} | 17.8 | | 22.3 | | 24.5 | | 26.7 | | 30.9 | | | 89 |
| | 111.1 {11.33} | 20.4 | | 25.5 | | 28.1 | | 30.6 | | 32.4 | | | 102 |
| | 98.6 {10.05} | 23.0 | | 28.8 | | 31.6 | | 34.5 | | 36.8 | | | 115 |
| | 89.2 {9.09} | 25.4 | | 31.8 | | 34.9 | | 38.1 | | 40.6 | | | 127 |
| | 81.5 {8.31} | 27.8 | | 34.8 | | 38.2 | | 41.7 | | 44.9 | | | 139 |
| | 74.6 {7.60} | 30.4 | | 38.0 | | 41.8 | | 45.6 | | 49.8 | | | 152 |
| | 63.7 {6.49} | 35.6 | | 44.5 | | 49.0 | | 53.4 | | 56.7 | | | 178 |
| | 55.8 {5.69} | 40.6 | | 50.8 | | 55.8 | | 60.9 | | 66.5 | | | 203 |
| | 49.5 {5.04} | 45.8 | | 57.3 | | 63.0 | | 68.7 | | 75.9 | | | 229 |
| | 44.6 {4.54} | 50.8 | | 63.5 | | 69.9 | | 76.2 | | 84.1 | | | 254 |
| | 37.2 {3.79} | 61.0 | | 76.3 | | 83.9 | | 91.5 | | 100.3 | | | 305 |
| 20 | 326.8 {33.33} | 10.2 | 3333 {340} | 12.8 | 4167 {425} | 14.0 | 4583 {467.5} | 15.3 | 5000 {510} | 15.8 | | 40 | 51 |
| | 260.4 {26.56} | 12.8 | | 16.0 | | 17.6 | | 19.2 | | 19.7 | | | 64 |
| | 219.3 {22.36} | 15.2 | | 19.0 | | 20.9 | | 22.8 | | 24.1 | | | 76 |
| | 187.3 {19.10} | 17.8 | | 22.3 | | 24.5 | | 26.7 | | 29.2 | | | 89 |
| | 163.4 {16.66} | 20.4 | | 25.5 | | 28.1 | | 30.6 | | 34.3 | | | 102 |
| | 144.9 {14.77} | 23.0 | | 28.8 | | 31.6 | | 34.5 | | 39.3 | | | 115 |
| | 131.2 {13.38} | 25.4 | | 31.8 | | 34.9 | | 38.1 | | 44.0 | | | 127 |
| | 119.9 {12.22} | 27.8 | | 34.8 | | 38.2 | | 41.7 | | 48.7 | | | 139 |
| | 109.6 {11.17} | 30.4 | | 38.0 | | 41.8 | | 45.6 | | 54.1 | | | 152 |
| | 93.6 {9.54} | 35.6 | | 44.5 | | 49.0 | | 53.4 | | 63.7 | | | 178 |
| | 82.1 {8.37} | 40.6 | | 50.8 | | 55.8 | | 60.9 | | 73.1 | | | 203 |
| | 72.8 {7.42} | 45.8 | | 57.3 | | 63.0 | | 68.7 | | 83.6 | | | 229 |
| | 65.6 {6.69} | 50.8 | | 63.5 | | 69.9 | | 76.2 | | 92.9 | | | 254 |
| | 54.6 {5.56} | 61.0 | | 76.3 | | 83.9 | | 91.5 | | 113.0 | | | 305 |

Copyright © Sankyo Oilless Industry, Inc. All Rights Reserved.

Copyright © Sankyo Oilless Industry, Inc. All Rights Reserved.

# ISO ばね　重荷重
# TJH HEAVY LOADS　ISO 10243

## COIL SPRING



| Dd (mm) | ばね定数 | 自由長 ×20% 300 万回 | | 自由長 ×25% 150 万回 | | 自由長 ×27.5% 50 万回 | | 自由長 ×30% 20 万回 | | たわみ限界 | Catalog No. | DH (mm) | 自由長 L (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | N/mm {kgf/mm} | たわみ (mm) | 荷重 N {kgf} | たわみ (mm) | 荷重 N {kgf} | たわみ (mm) | 荷重 N {kgf} | たわみ (mm) | 荷重 N {kgf} | (mm) | | | |
| 25 | 390.6 {39.84} | 12.8 | 5000 {510} | 16.0 | 6250 {637.5} | 17.6 | 6875 {701.3} | 19.2 | 7500 {765} | 19.5 | TJH | 50 | 64 |
| | 328.9 {33.54} | 15.2 | | 19.0 | | 20.9 | | 22.8 | | 23.9 | | | 76 |
| | 280.9 {28.65} | 17.8 | | 22.3 | | 24.5 | | 26.7 | | 29.0 | | | 89 |
| | 245.1 {25.00} | 20.4 | | 25.5 | | 28.1 | | 30.6 | | 32.0 | | | 102 |
| | 217.4 {22.17} | 23.0 | | 28.8 | | 31.6 | | 34.5 | | 36.9 | | | 115 |
| | 196.9 {20.08} | 25.4 | | 31.8 | | 34.9 | | 38.1 | | 41.6 | | | 127 |
| | 179.9 {18.34} | 27.8 | | 34.8 | | 38.2 | | 41.7 | | 46.2 | | | 139 |
| | 164.5 {16.77} | 30.4 | | 38.0 | | 41.8 | | 45.6 | | 51.1 | | | 152 |
| | 140.4 {14.32} | 35.6 | | 44.5 | | 49.0 | | 53.4 | | 60.9 | | | 178 |
| | 123.2 {12.56} | 40.6 | | 50.8 | | 55.8 | | 60.9 | | 70.4 | | | 203 |
| | 109.2 {11.13} | 45.8 | | 57.3 | | 63.0 | | 68.7 | | 80.3 | | | 229 |
| | 98.4 {10.03} | 50.8 | | 63.5 | | 69.9 | | 76.2 | | 89.6 | | | 254 |
| | 82.0 {8.36} | 61.0 | | 76.3 | | 83.9 | | 91.5 | | 109.4 | | | 305 |
| 38 | 526.3 {53.68} | 15.2 | 8000 {816} | 19.0 | 10000 {1020} | 20.9 | 11000 {1122} | 22.8 | 12000 {1224} | 23.0 | | 63 | 76 |
| | 449.4 {45.83} | 17.8 | | 22.3 | | 24.5 | | 26.7 | | 27.3 | | | 89 |
| | 392.2 {40.00} | 20.4 | | 25.5 | | 28.1 | | 30.6 | | 31.4 | | | 102 |
| | 347.8 {35.47} | 23.0 | | 28.8 | | 31.6 | | 34.5 | | 36.7 | | | 115 |
| | 315.0 {32.13} | 25.4 | | 31.8 | | 34.9 | | 38.1 | | 39.8 | | | 127 |
| | 263.2 {26.84} | 30.4 | | 38.0 | | 41.8 | | 45.6 | | 49.4 | | | 152 |
| | 224.7 {22.91} | 35.6 | | 44.5 | | 49.0 | | 53.4 | | 57.5 | | | 178 |
| | 197.0 {20.09} | 40.6 | | 50.8 | | 55.8 | | 60.9 | | 68.0 | | | 203 |
| | 174.7 {17.81} | 45.8 | | 57.3 | | 63.0 | | 68.7 | | 74.7 | | | 229 |
| | 157.5 {16.06} | 50.8 | | 63.5 | | 69.9 | | 76.2 | | 83.6 | | | 254 |
| | 131.1 {13.37} | 61.0 | | 76.3 | | 83.9 | | 91.5 | | 102.2 | | | 305 |

☎ **Order**

| Catalog No. | DH | – | L |
|---|---|---|---|
| TJH | 50 | – | 64 |

＊ 1N=0.1daN=0.102kg　1mm=0.0394in.

⚠ たわみ限界について
密着長に近いたわみになります。
参考値になりますのでご注意下さい。

⚠ DH が 63 に限り
30％ストローク時の
耐久回数目安は 10 万回です。

Copyright © Sankyo Oilless Industry, Inc. All Rights Reserved.

Copyright © Sankyo Oilless Industry, Inc. All Rights Reserved.