COIL SPRING

内径 (mm)	ばね定数 N／mm (kgf／mm)	自由長 ×16% 100万回 たわみ (mm)	荷重 N {kgf}	自由長 ×18% 50万回 たわみ (mm)	荷重 N {kgf}	自由長 ×20% 30万回 たわみ (mm)	荷重 N {kgf}	Catalog No.	外径 D (mm)	自由長 L (mm)
	166.11 {16.94}	1.6		1.8		2.0				10
	110.74 {11.29}	2.4		2.7		3.0				15
	83.06 {8.47}	3.2		3.6		4.0				20
	66.44 {6.78}	4.0		4.5		5.0				25
	55.37 {5.65}	4.8		5.4		6.0				30
	47.46 {4.84}	5.6		6.3		7.0				35
	41.53 {4.23}	6.4	255 {26.0}	7.2	299 {30.5}	8.0	343 {35.0}			40
4	36.91 {3.76}	7.2		8.1		9.0			8	45
	33.22 {3.39}	8.0		9.0		10.0				50
	30.20 {3.08}	8.8		9.9		11.0				55
	27.69 {2.82}	9.6		10.8		12.0				60
	25.56 {2.61}	10.4		11.7		13.0				65
	23.73 {2.42}	11.2		12.6		14.0				70
	22.15 {2.26}	12.0		13.5		15.0				75
	20.76 {2.12}	12.8		14.4		16.0				80
	111.67 {11.39}	3.2		3.6		4.0				20
	89.33 {9.11}	4.0		4.5		5.0				25
	74.44 {7.59}	4.8		5.4		6.0				30
	63.81 {6.51}	5.6		6.3		7.0				35
	55.83 {5.69}	6.4		7.2		8.0				40
	49.63 {5.06}	7.2		8.1		9.0				45
	44.67 {4.55}	8.0	353 {36.0}	9.0	402 {41.0}	10.0	441 {45.0}	TB		50
5	40.61 {4.14}	8.8		9.9		11.0			10	55
	37.22 {3.80}	9.6		10.8		12.0				60
	34.36 {3.50}	10.4		11.7		13.0				65
	31.90 {3.25}	11.2		12.6		14.0				70
	29.78 {3.04}	12.0		13.5		15.0				75
	27.92 {2.85}	12.8		14.4		16.0				80
	24.81 {2.53}	14.4		16.2		18.0				90
	141.67 {14.45}	3.2		3.6		4.0				20
	113.33 {11.56}	4.0		4.5		5.0				25
	94.44 {9.63}	4.8		5.4		6.0				30
	80.95 {8.25}	5.6		6.3		7.0				35
	70.83 {7.22}	6.4		7.2		8.0				40
	62.96 {6.42}	7.2		8.1		9.0				45
6	56.67 {5.78}	8.0	451 {46.0}	9.0	510 {52.0}	10.0	569 {58.0}		12	50
	51.52 {5.25}	8.8		9.9		11.0				55
	47.22 {4.82}	9.6		10.8		12.0				60
	43.59 {4.44}	10.4		11.7		13.0				65
	40.48 {4.13}	11.2		12.6		14.0				70
	37.78 {3.85}	12.0		13.5		15.0				75
	35.42 {3.61}	12.8		14.4		16.0				80
	31.48 {3.21}	14.4		16.2		18.0				90

⚠ 自由長 ×20%を超えるたわみでは使用しないでください。　荷重（N）＝ばね定数（N／mm）× たわみ（mm）

Order

Catalog No.	D	−	L
TB	8	−	10

内径 (mm)	ばね定数 N／mm (kgf／mm)	自由長 ×16% 100万回 たわみ (mm)	荷重 N {kgf}	自由長 ×18% 50万回 たわみ (mm)	荷重 N {kgf}	自由長 ×20% 30万回 たわみ (mm)	荷重 N {kgf}	Catalog No.	外径 D (mm)	自由長 L (mm)
	148.22 {15.11}	4.0		4.5		5.0				25
	123.52 {12.60}	4.8		5.4		6.0				30
	105.87 {10.80}	5.6		6.3		7.0				35
	92.64 {9.45}	6.4		7.2		8.0				40
	82.35 {8.40}	7.2		8.1		9.0				45
	74.11 {7.56}	8.0		9.0		10.0				50
	67.37 {6.87}	8.8	588 {60.0}	9.9	667 {68.0}	11.0	736 {75.1}			55
7	61.76 {6.30}	9.6		10.8		12.0			14	60
	57.01 {5.81}	10.4		11.7		13.0				65
	52.94 {5.40}	11.2		12.6		14.0				70
	49.41 {5.04}	12.0		13.5		15.0				75
	46.32 {4.72}	12.8		14.4		16.0				80
	41.17 {4.20}	14.4		16.2		18.0				90
	37.06 {3.78}	16.0		18.0		20.0				100
	196.22 {20.01}	4.0		4.5		5.0				25
	163.52 {16.67}	4.8		5.4		6.0				30
	140.16 {14.29}	5.6		6.3		7.0				35
	122.64 {12.51}	6.4		7.2		8.0				40
	109.01 {11.12}	7.2		8.1		9.0				45
	98.11 {10.00}	8.0		9.0		10.0				50
	89.19 {9.10}	8.8	785 {80.0}	9.9	883 {90.0}	11.0	981 {100.0}			55
8	81.76 {8.34}	9.6		10.8		12.0		TB	16	60
	75.47 {7.70}	10.4		11.7		13.0				65
	70.08 {7.15}	11.2		12.6		14.0				70
	65.41 {6.67}	12.0		13.5		15.0				75
	61.32 {6.25}	12.8		14.4		16.0				80
	54.51 {5.56}	14.4		16.2		18.0				90
	49.06 {5.00}	16.0		18.0		20.0				100
	39.24 {4.00}	20.0		22.5		25.0				125
	246.22 {25.11}	4.0		4.5		5.0				25
	205.19 {20.92}	4.8		5.4		6.0				30
	175.87 {17.93}	5.6		6.3		7.0				35
	153.89 {15.69}	6.4		7.2		8.0				40
	136.79 {13.95}	7.2		8.1		9.0				45
	123.11 {12.55}	8.0		9.0		10.0				50
	111.92 {11.41}	8.8	981 {100.0}	9.9	1,108 {113.0}	11.0	1,226 {125.0}			55
9	102.59 {10.46}	9.6		10.8		12.0			18	60
	94.70 {9.66}	10.4		11.7		13.0				65
	87.94 {8.97}	11.2		12.6		14.0				70
	82.07 {8.37}	12.0		13.5		15.0				75
	76.94 {7.85}	12.8		14.4		16.0				80
	68.40 {6.97}	14.4		16.2		18.0				90
	61.56 {6.28}	16.0		18.0		20.0				100
	49.24 {5.02}	20.0		22.5		25.0				125

⚠ 自由長 ×20%を超えるたわみでは使用しないでください。　荷重（N）＝ばね定数（N／mm）× たわみ（mm）

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COIL SPRING

内径 (mm)	ばね定数 N／mm {kgf／mm}	自由長 ×16% 100万回 たわみ (mm)	荷重 N {kgf}	自由長 ×18% 50万回 たわみ (mm)	荷重 N {kgf}	自由長 ×20% 30万回 たわみ (mm)	荷重 N {kgf}	Catalog No.	外径 D (mm)	自由長 L (mm)
	313.78 {32.00}	4.0		4.5		5.0				25
	261.48 {26.66}	4.8		5.4		6.0				30
	224.13 {22.85}	5.6		6.3		7.0				35
	196.11 {20.00}	6.4		7.2		8.0				40
	174.32 {17.78}	7.2		8.1		9.0				45
	156.89 {16.00}	8.0		9.0		10.0				50
	142.63 {14.54}	8.8	1,255 {128.0}	9.9	1,412 {144.0}	11.0	1,569 {160.0}			55
10	130.74 {13.33}	9.6		10.8		12.0			20	60
	120.68 {12.31}	10.4		11.7		13.0				65
	112.06 {11.43}	11.2		12.6		14.0				70
	104.59 {10.67}	12.0		13.5		15.0				75
	98.06 {10.00}	12.8		14.4		16.0				80
	87.16 {8.89}	14.4		16.2		18.0				90
	78.44 {8.00}	16.0		18.0		20.0				100
	62.76 {6.40}	20.0		22.5		25.0				125
	52.30 {5.33}	24.0		27.0		30.0				150
	383.56 {39.11}	4.0		4.5		5.0		TB		25
	319.63 {32.59}	4.8		5.4		6.0				30
	273.97 {27.94}	5.6		6.3		7.0				35
	239.72 {24.44}	6.4		7.2		8.0				40
	213.09 {21.73}	7.2		8.1		9.0				45
	191.78 {19.56}	8.0		9.0		10.0				50
	174.34 {17.78}	8.8	1,530 {156.0}	9.9	1,726 {176.0}	11.0	1,912 {195.0}			55
11	159.81 {16.30}	9.6		10.8		12.0			22	60
	147.52 {15.04}	10.4		11.7		13.0				65
	136.98 {13.97}	11.2		12.6		14.0				70
	127.85 {13.04}	12.0		13.5		15.0				75
	119.86 {12.22}	12.8		14.4		16.0				80
	106.54 {10.86}	14.4		16.2		18.0				90
	95.89 {9.78}	16.0		18.0		20.0				100
	76.71 {7.82}	20.0		22.5		25.0				125
	63.93 {6.52}	24.0		27.0		30.0				150

⚠ 自由長 ×20%を超えるたわみでは使用しないでください。　荷重（N）＝ばね定数（N／mm）× たわみ（mm）

Order

Catalog No.	D	–	L
TB	20	–	25

内径 (mm)	ばね定数 N／mm {kgf／mm}	自由長 ×16.0% 100万回 たわみ (mm)	荷重 N {kgf}	自由長 ×18% 50万回 たわみ (mm)	荷重 N {kgf}	自由長 ×20% 30万回 たわみ (mm)	荷重 N {kgf}	Catalog No.	外径 D (mm)	自由長 L (mm)
	482.22 {49.17}	4.0		4.5		5.0				25
	401.85 {40.98}	4.8		5.4		6.0				30
	344.44 {35.12}	5.6		6.3		7.0				35
	301.39 {30.73}	6.4		7.2		8.0				40
	267.90 {27.32}	7.2		8.1		9.0				45
	241.11 {24.59}	8.0		9.0		10.0				50
	219.19 {22.35}	8.8		9.9		11.0				55
	200.93 {20.49}	9.6	1,922 {196.0}	10.8	2,170 {221.3}	12.0	2,400 {244.7}			60
12.5	185.47 {18.91}	10.4		11.7		13.0			25	65
	172.22 {17.56}	11.2		12.6		14.0				70
	160.74 {16.39}	12.0		13.5		15.0				75
	150.69 {15.37}	12.8		14.4		16.0				80
	133.95 {13.66}	14.4		16.2		18.0				90
	120.56 {12.29}	16.0		18.0		20.0				100
	96.44 {9.83}	20.0		22.5		25.0				125
	80.37 {8.20}	24.0		27.0		30.0				150
	68.89 {7.02}	28.0		31.5		35.0				175
	60.28 {6.15}	32.0		36.0		40.0				200
	568.89 {58.01}	4.0		4.5		5.0		TB		25
	474.07 {48.34}	4.8		5.4		6.0				30
	406.35 {41.44}	5.6		6.3		7.0				35
	355.56 {36.26}	6.4		7.2		8.0				40
	316.05 {32.23}	7.2		8.1		9.0				45
	284.44 {29.01}	8.0		9.0		10.0				50
	258.59 {26.37}	8.8		9.9		11.0				55
	237.04 {24.17}	9.6	2,280 {232.5}	10.8	2,560 {261.1}	12.0	2,840 {289.6}			60
13.5	218.80 {22.31}	10.4		11.7		13.0			27	65
	203.17 {20.72}	11.2		12.6		14.0				70
	189.63 {19.34}	12.0		13.5		15.0				75
	177.78 {18.13}	12.8		14.4		16.0				80
	158.02 {16.11}	14.4		16.2		18.0				90
	142.22 {14.50}	16.0		18.0		20.0				100
	113.78 {11.60}	20.0		22.5		25.0				125
	94.81 {9.67}	24.0		27.0		30.0				150
	81.27 {8.29}	28.0		31.5		35.0				175
	71.11 {7.25}	32.0		36.0		40.0				200

⚠ 自由長 ×20%を超えるたわみでは使用しないでください。　荷重（N）＝ばね定数（N／mm）× たわみ（mm）

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COIL SPRING

内径 (mm)	ばね定数 N／mm (kgf／mm)	自由長 ×16% 100万回 たわみ (mm)	荷重 N {kgf}	自由長 ×18% 50万回 たわみ (mm)	荷重 N {kgf}	自由長 ×20% 30万回 たわみ (mm)	荷重 N {kgf}	Catalog No.	外径 D (mm)	自由長 L (mm)
	706.67 {72.06}	4.0		4.5		5.0				25
	588.89 {60.05}	4.8		5.4		6.0				30
	504.76 {51.47}	5.6		6.3		7.0				35
	441.67 {45.04}	6.4		7.2		8.0				40
	392.59 {40.03}	7.2		8.1		9.0				45
	353.33 {36.03}	8.0		9.0		10.0				50
	321.21 {32.75}	8.8		9.9		11.0				55
	294.44 {30.02}	9.6	2,820 {287.6}	10.8	3,180 {324.3}	12.0	3,530 {360.0}			60
15	271.79 {27.72}	10.4		11.7		13.0			30	65
	252.38 {25.74}	11.2		12.6		14.0				70
	235.56 {24.02}	12.0		13.5		15.0				75
	220.83 {22.52}	12.8		14.4		16.0				80
	196.30 {20.02}	14.4		16.2		18.0				90
	176.67 {18.01}	16.0		18.0		20.0				100
	141.33 {14.41}	20.0		22.5		25.0				125
	117.78 {12.01}	24.0		27.0		30.0				150
	100.95 {10.29}	28.0		31.5		35.0		TB		175
	88.33 {9.01}	32.0		36.0		40.0				200
	600.00 {61.18}	6.4		7.2		8.0				40
	533.33 {54.38}	7.2		8.1		9.0				45
	480.00 {48.95}	8.0		9.0		10.0				50
	436.36 {44.50}	8.8		9.9		11.0				55
	400.00 {40.79}	9.6		10.8		12.0				60
	369.23 {37.65}	10.4		11.7		13.0				65
	342.86 {34.96}	11.2	3,840 {391.6}	12.6	4,320 {440.5}	14.0	4,810 {490.5}			70
17.5	320.00 {32.63}	12.0		13.5		15.0			35	75
	300.00 {30.59}	12.8		14.4		16.0				80
	266.67 {27.19}	14.4		16.2		18.0				90
	240.00 {24.47}	16.0		18.0		20.0				100
	192.00 {19.58}	20.0		22.5		25.0				125
	160.00 {16.32}	24.0		27.0		30.0				150
	137.14 {13.98}	28.0		31.5		35.0				175
	120.00 {12.24}	32.0		36.0		40.0				200

⚠ 自由長 ×20%を超えるたわみでは使用しないでください。　荷重（N）＝ばね定数（N／mm）× たわみ（mm）

Order

Catalog No.	D	–	L
TB	30	–	25

内径 (mm)	ばね定数 N／mm (kgf／mm)	自由長 ×16% 100万回 たわみ (mm)	荷重 N {kgf}	自由長 ×18% 50万回 たわみ (mm)	荷重 N {kgf}	自由長 ×20% 30万回 たわみ (mm)	荷重 N {kgf}	Catalog No.	外径 D (mm)	自由長 L (mm)
	784.72 {80.02}	6.4		7.2		8.0				40
	697.53 {71.13}	7.2		8.1		9.0				45
	627.78 {64.02}	8.0		9.0		10.0				50
	570.71 {58.20}	8.8		9.9		11.0				55
	523.15 {53.35}	9.6		10.8		12.0				60
	482.91 {49.24}	10.4		11.7		13.0				65
	448.41 {45.73}	11.2		12.6		14.0				70
	418.52 {42.68}	12.0		13.5		15.0				75
	392.36 {40.01}	12.8		14.4		16.0				80
20	348.77 {35.56}	14.4	5,020 {511.9}	16.2	5,650 {576.1}	18.0	6,280 {640.4}		40	90
	313.89 {32.01}	16.0		18.0		20.0				100
	251.11 {25.61}	20.0		22.5		25.0				125
	209.26 {21.34}	24.0		27.0		30.0				150
	179.37 {18.29}	28.0		31.5		35.0				175
	156.94 {16.00}	32.0		36.0		40.0				200
	139.51 {14.23}	36.0		40.5		45.0				225
	125.56 {12.80}	40.0		45.0		50.0				250
	114.14 {11.64}	44.0		49.5		55.0				275
	104.63 {10.67}	48.0		54.0		60.0		TB		300
	981.11 {100.0}	8.0		9.0		10.0				50
	891.92 {90.95}	8.8		9.9		11.0				55
	817.59 {83.37}	9.6		10.8		12.0				60
	754.70 {76.96}	10.4		11.7		13.0				65
	700.79 {71.46}	11.2		12.6		14.0				70
	654.07 {66.70}	12.0		13.5		15.0				75
	613.19 {62.53}	12.8		14.4		16.0				80
	545.06 {55.58}	14.4		16.2		18.0				90
25	490.56 {50.02}	16.0	7,850 {800.5}	18.0	8,830 {900.4}	20.0	9,810 {1000}		50	100
	392.44 {40.02}	20.0		22.5		25.0				125
	327.04 {33.35}	24.0		27.0		30.0				150
	280.32 {28.58}	28.0		31.5		35.0				175
	245.28 {25.01}	32.0		36.0		40.0				200
	218.02 {22.23}	36.0		40.5		45.0				225
	196.22 {20.01}	40.0		45.0		50.0				250
	178.38 {18.19}	44.0		49.5		55.0				275
	163.52 {16.67}	48.0		54.0		60.0				300
	140.16 {14.29}	56.0		63.0		70.0				350

⚠ 自由長 ×20%を超えるたわみでは使用しないでください。　荷重（N）＝ばね定数（N／mm）× たわみ（mm）

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COIL SPRING

内径 (mm)	ばね定数 N／mm (kgf／mm)	自由長 ×16% 100万回 たわみ (mm)	自由長 ×16% 100万回 荷重 N {kgf}	自由長 ×18% 50万回 たわみ (mm)	自由長 ×18% 50万回 荷重 N {kgf}	自由長 ×20% 30万回 たわみ (mm)	自由長 ×20% 30万回 荷重 N {kgf}	Catalog No.	外径 D (mm)	自由長 L (mm)
	1176.85 {120.0}	9.6		10.8		12.0				60
	1008.73 {102.9}	11.2		12.6		14.0				70
	882.64 {90.00}	12.8		14.4		16.0				80
	784.57 {80.00}	14.4		16.2		18.0				90
	706.11 {72.00}	16.0		18.0		20.0				100
	564.89 {57.60}	20.0	11,300 {1152}	22.5	12,710 {1296}	25.0	14,120 {1440}			125
30	470.74 {48.00}	24.0		27.0		30.0			60	150
	403.49 {41.14}	28.0		31.5		35.0				175
	353.06 {36.00}	32.0		36.0		40.0				200
	313.83 {32.00}	36.0		40.5		45.0				225
	282.44 {28.80}	40.0		45.0		50.0				250
	256.77 {26.18}	44.0		49.5		55.0				275
	235.37 {24.00}	48.0		54.0		60.0				300
	201.75 {20.57}	56.0		63.0		70.0		TB		350
	1285.71 {131.1}	11.2		12.6		14.0				70
	1125.00 {114.7}	12.8		14.4		16.0				80
	1000.00 {102.0}	14.4		16.2		18.0				90
	900.00 {91.77}	16.0		18.0		20.0				100
	720.00 {73.42}	20.0		22.5		25.0				125
	600.00 {61.18}	24.0	14,400 {1468}	27.0	16,200 {1652}	30.0	18,000 {1836}			150
38.5	514.29 {52.44}	28.0		31.5		35.0			70	175
	450.00 {45.89}	32.0		36.0		40.0				200
	400.00 {40.79}	36.0		40.5		45.0				225
	360.00 {36.71}	40.0		45.0		50.0				250
	327.27 {33.37}	44.0		49.5		55.0				275
	300.00 {30.59}	48.0		54.0		60.0				300
	257.14 {26.22}	56.0		63.0		70.0				350

⚠ 自由長 ×20%を超えるたわみでは使用しないでください。　荷重（N）＝ばね定数（N／mm）× たわみ（mm）

Order

Catalog No.	D	–	L
TB	60	–	100

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