

軽荷重
TL LIGHT LOADS

COIL SPRING

内径 (mm)	ばね定数		自由長×32% 100万回		自由長×36% 50万回		自由長×40% 30万回		Catalog No.	外径 D (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)				
	24.53	{2.50}	3.2		3.6		4.0				10
	16.35	{1.67}	4.8		5.4		6.0				15
	12.26	{1.25}	6.4		7.2		8.0				20
	9.81	{1.00}	8.0		9.0		10.0				25
	8.18	{0.83}	9.6		10.8		12.0				30
	7.01	{0.71}	11.2		12.6		14.0				35
	6.13	{0.63}	12.8		14.4		16.0				40
4	5.45	{0.56}	14.4	78.5	16.2	88.3	18.0	98.1	8		45
	4.91	{0.50}	16.0	{8.0}	18.0	{9.0}	20.0	{10.0}			50
	4.46	{0.45}	17.6		19.8		22.0				55
	4.09	{0.42}	19.2		21.6		24.0				60
	3.77	{0.38}	20.8		23.4		26.0				65
	3.50	{0.36}	22.4		25.2		28.0				70
	3.27	{0.33}	24.0		27.0		30.0				75
	3.07	{0.31}	25.6		28.8		32.0				80
	17.71	{1.81}	6.4		7.2		8.0				20
	14.17	{1.44}	8.0		9.0		10.0				25
11.81	{1.20}	9.6		10.8		12.0		30			
10.12	{1.03}	11.2		12.6		14.0		35			
8.85	{0.90}	12.8		14.4		16.0		40			
7.87	{0.80}	14.4		16.2		18.0		45			
5	7.08	{0.72}	16.0	112.8	18.0	127.5	20.0	142.2	TL	10	50
	6.44	{0.66}	17.6	{11.5}	19.8	{13.0}	22.0	{14.5}			55
	5.90	{0.60}	19.2		21.6		24.0				60
	5.45	{0.56}	20.8		23.4		26.0				65
	5.06	{0.52}	22.4		25.2		28.0				70
	4.72	{0.48}	24.0		27.0		30.0				75
	4.43	{0.45}	25.6		28.8		32.0				80
	3.94	{0.40}	28.8		32.4		36.0				90
	25.88	{2.64}	6.4		7.2		8.0				20
	20.70	{2.11}	8.0		9.0		10.0				25
17.25	{1.76}	9.6		10.8		12.0		30			
14.79	{1.51}	11.2		12.6		14.0		35			
12.94	{1.32}	12.8		14.4		16.0		40			
11.50	{1.17}	14.4		16.2		18.0		45			
6	10.35	{1.06}	16.0	166.7	18.0	186.3	20.0	206.0	12		50
	9.41	{0.96}	17.6	{17.0}	19.8	{19.0}	22.0	{21.0}			55
	8.63	{0.88}	19.2		21.6		24.0				60
	7.96	{0.81}	20.8		23.4		26.0				65
	7.39	{0.75}	22.4		25.2		28.0				70
	6.90	{0.70}	24.0		27.0		30.0				75
	6.47	{0.66}	25.6		28.8		32.0				80
	5.75	{0.59}	28.8		32.4		36.0				90

⚠ 自由長×40%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

内径 (mm)	ばね定数		自由長×32% 100万回		自由長×36% 50万回		自由長×40% 30万回		Catalog No.	外径 D (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)				
	27.22	{2.78}	8.0		9.0		10.0				25
	22.69	{2.31}	9.6		10.8		12.0				30
	19.44	{1.98}	11.2		12.6		14.0				35
	17.01	{1.73}	12.8		14.4		16.0				40
	15.12	{1.54}	14.4		16.2		18.0				45
	13.61	{1.39}	16.0		18.0		20.0				50
	12.37	{1.26}	17.6		19.8		22.0				55
7	11.34	{1.16}	19.2	216	21.6	245	24.0	275	14		60
	10.47	{1.07}	20.8	{22.0}	23.4	{25.0}	26.0	{28.0}			65
	9.72	{0.99}	22.4		25.2		28.0				70
	9.07	{0.93}	24.0		27.0		30.0				75
	8.51	{0.87}	25.6		28.8		32.0				80
	7.56	{0.77}	28.8		32.4		36.0				90
	6.81	{0.69}	32.0		36.0		40.0				100
	34.89	{3.56}	8.0		9.0		10.0				25
	29.07	{2.96}	9.6		10.8		12.0				30
	24.92	{2.54}	11.2		12.6		14.0				35
21.81	{2.22}	12.8		14.4		16.0		40			
19.38	{1.98}	14.4		16.2		18.0		45			
17.44	{1.78}	16.0		18.0		20.0		50			
15.86	{1.62}	17.6		19.8		22.0		55			
8	14.54	{1.48}	19.2	275	21.6	314	24.0	343	TL	16	60
	13.42	{1.37}	20.8	{28.0}	23.4	{32.0}	26.0	{35.0}			65
	12.46	{1.27}	22.4		25.2		28.0				70
	11.63	{1.19}	24.0		27.0		30.0				75
	10.90	{1.11}	25.6		28.8		32.0				80
	9.69	{0.99}	28.8		32.4		36.0				90
	8.72	{0.89}	32.0		36.0		40.0				100
	6.98	{0.71}	40.0		45.0		50.0				125
	42.44	{4.33}	8.0		9.0		10.0				25
	35.37	{3.61}	9.6		10.8		12.0				30
30.32	{3.09}	11.2		12.6		14.0		35			
26.53	{2.71}	12.8		14.4		16.0		40			
23.58	{2.40}	14.4		16.2		18.0		45			
21.22	{2.16}	16.0		18.0		20.0		50			
9	19.29	{1.97}	17.6	333	19.8	382	22.0	422	18		55
	17.69	{1.80}	19.2	{34.0}	21.6	{39.0}	24.0	{43.0}			60
	16.32	{1.66}	20.8		23.4		26.0				65
	15.16	{1.55}	22.4		25.2		28.0				70
	14.15	{1.44}	24.0		27.0		30.0				75
	13.26	{1.35}	25.6		28.8		32.0				80
	11.79	{1.20}	28.8		32.4		36.0				90
	10.61	{1.08}	32.0		36.0		40.0				100
	8.49	{0.87}	40.0		45.0		50.0				125

⚠ 自由長×40%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)

圧力油潤滑部品

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COIL SPRING

内径 (mm)	ばね定数		自由長×32% 100万回		自由長×36% 50万回		自由長×40% 30万回		Catalog No.	外径 D (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)				
	53.44	{5.45}	8.0		9.0		10.0				25
	44.54	{4.54}	9.6		10.8		12.0				30
	38.17	{3.89}	11.2		12.6		14.0				35
	33.40	{3.41}	12.8		14.4		16.0				40
	29.69	{3.03}	14.4		16.2		18.0				45
	26.72	{2.72}	16.0		18.0		20.0				50
	24.29	{2.48}	17.6		19.8		22.0				55
10	22.27	{2.27}	19.2	422 {43.0}	21.6	481 {49.0}	24.0	530 {54.0}		20	60
	20.56	{2.10}	20.8		23.4		26.0				65
	19.09	{1.95}	22.4		25.2		28.0				70
	17.81	{1.82}	24.0		27.0		30.0				75
	16.70	{1.70}	25.6		28.8		32.0				80
	14.85	{1.51}	28.8		32.4		36.0				90
	13.36	{1.36}	32.0		36.0		40.0				100
	10.69	{1.09}	40.0		45.0		50.0				125
	8.91	{0.91}	48.0		54.0		60.0				150
	65.33	{6.66}	8.0		9.0		10.0		TL		25
	54.44	{5.55}	9.6		10.8		12.0				30
	46.67	{4.76}	11.2		12.6		14.0				35
	40.83	{4.16}	12.8		14.4		16.0				40
	36.30	{3.70}	14.4		16.2		18.0				45
11	32.67	{3.33}	16.0	530 {54.0}	18.0	588 {60.0}	20.0	657 {67.0}		22	50
	29.70	{3.03}	17.6		19.8		22.0				55
	27.22	{2.78}	19.2		21.6		24.0				60
	25.13	{2.56}	20.8		23.4		26.0				65
	23.33	{2.38}	22.4		25.2		28.0				70
	21.78	{2.22}	24.0		27.0		30.0				75
	20.42	{2.08}	25.6		28.8		32.0				80
	18.15	{1.85}	28.8		32.4		36.0				90
	16.33	{1.67}	32.0		36.0		40.0				100
	13.07	{1.33}	40.0		45.0		50.0				125
	10.89	{1.11}	48.0		54.0		60.0				150

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Order -
TL 20 - 25

内径 (mm)	ばね定数		自由長×32% 100万回		自由長×36% 50万回		自由長×40% 30万回		Catalog No.	外径 D (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)				
	82.78	{8.44}	8.0		9.0		10.0				25
	68.98	{7.03}	9.6		10.8		12.0				30
	59.13	{6.03}	11.2		12.6		14.0				35
	51.74	{5.28}	12.8		14.4		16.0				40
	45.99	{4.69}	14.4		16.2		18.0				45
	41.39	{4.22}	16.0		18.0		20.0				50
	37.63	{3.84}	17.6		19.8		22.0				55
12.5	34.49	{3.52}	19.2	657 {67.0}	21.6	745 {76.0}	24.0	824 {84.0}		25	60
	31.84	{3.25}	20.8		23.4		26.0				65
	29.56	{3.01}	22.4		25.2		28.0				70
	27.59	{2.81}	24.0		27.0		30.0				75
	25.87	{2.64}	25.6		28.8		32.0				80
	22.99	{2.34}	28.8		32.4		36.0				90
	20.69	{2.11}	32.0		36.0		40.0				100
	16.56	{1.69}	40.0		45.0		50.0				125
	13.80	{1.41}	48.0		54.0		60.0				150
	11.83	{1.21}	56.0		63.0		70.0				175
	10.35	{1.06}	64.0		72.0		80.0		TL		200
	98.11	{10.00}	8.0		9.0		10.0				25
	81.76	{8.34}	9.6		10.8		12.0				30
	70.08	{7.15}	11.2		12.6		14.0				35
	61.32	{6.25}	12.8		14.4		16.0				40
	54.51	{5.56}	14.4		16.2		18.0				45
	49.06	{5.00}	16.0		18.0		20.0				50
13.5	44.60	{4.55}	17.6	785 {80.0}	19.8	883 {90.0}	22.0	981 {100.0}		27	55
	40.88	{4.17}	19.2		21.6		24.0				60
	37.74	{3.85}	20.8		23.4		26.0				65
	35.04	{3.57}	22.4		25.2		28.0				70
	32.70	{3.33}	24.0		27.0		30.0				75
	30.66	{3.13}	25.6		28.8		32.0				80
	27.25	{2.78}	28.8		32.4		36.0				90
	24.53	{2.50}	32.0		36.0		40.0				100
	19.62	{2.00}	40.0		45.0		50.0				125
	16.35	{1.67}	48.0		54.0		60.0				150
	14.02	{1.43}	56.0		63.0		70.0				175
	12.26	{1.25}	64.0		72.0		80.0				200

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COIL SPRING

内径 (mm)	ばね定数 N/mm(kgf/mm)		自由長×32% 100万回		自由長×36% 50万回		自由長×40% 30万回		Catalog No.	外径 D (mm)	自由長 L (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)					
	118.78	{12.11}	8.0		9.0		10.0				25		
	98.98	{10.09}	9.6		10.8		12.0				30		
	84.84	{8.65}	11.2		12.6		14.0				35		
	74.24	{7.57}	12.8		14.4		16.0				40		
	65.99	{6.73}	14.4		16.2		18.0				45		
	59.39	{6.06}	16.0		18.0		20.0				50		
	53.99	{5.51}	17.6		19.8		22.0				55		
	49.49	{5.05}	19.2		21.6		24.0				60		
15	45.68	{4.66}	20.8	951 {97.0}	23.4	1,069 {109.0}	26.0	1,187 {121.0}	30		65		
	42.42	{4.33}	22.4		25.2		28.0				70		
	39.59	{4.04}	24.0		27.0		30.0						75
	37.12	{3.78}	25.6		28.8		32.0						80
	32.99	{3.36}	28.8		32.4		36.0						90
	29.69	{3.03}	32.0		36.0		40.0						100
	23.76	{2.42}	40.0		45.0		50.0						125
	19.80	{2.02}	48.0		54.0		60.0						150
	16.97	{1.73}	56.0		63.0		70.0						175
	14.85	{1.51}	64.0		72.0		80.0				TL		200
	101.46	{10.35}	12.8		14.4		16.0				40		
	90.19	{9.20}	14.4		16.2		18.0				45		
	81.17	{8.28}	16.0		18.0		20.0				50		
	73.79	{7.52}	17.6		19.8		22.0				55		
	67.64	{6.90}	19.2		21.6		24.0				60		
	62.44	{6.37}	20.8		23.4		26.0				65		
	57.98	{5.91}	22.4		25.2		28.0				70		
17.5	54.11	{5.52}	24.0	1,295 {132.1}	27.0	1,461 {149.0}	30.0	1,618 {165.0}	35		75		
	50.73	{5.17}	25.6		28.8		32.0				80		
	45.09	{4.60}	28.8		32.4		36.0						90
	40.58	{4.14}	32.0		36.0		40.0						100
	32.47	{3.31}	40.0		45.0		50.0						125
	27.06	{2.76}	48.0		54.0		60.0						150
	23.19	{2.36}	56.0		63.0		70.0						175
	20.29	{2.07}	64.0		72.0		80.0						200

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内径 (mm)	ばね定数 N/mm(kgf/mm)		自由長×32% 100万回		自由長×36% 50万回		自由長×40% 30万回		Catalog No.	外径 D (mm)	自由長 L (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)					
	132.15	{13.48}	12.8		14.4		16.0				40		
	117.47	{11.98}	14.4		16.2		18.0				45		
	105.72	{10.78}	16.0		18.0		20.0				50		
	96.11	{9.80}	17.6		19.8		22.0				55		
	88.10	{8.98}	19.2		21.6		24.0				60		
	81.32	{8.29}	20.8		23.4		26.0				65		
	75.52	{7.70}	22.4		25.2		28.0				70		
	70.48	{7.19}	24.0		27.0		30.0				75		
20	66.08	{6.74}	25.6	1,697 {173.0}	28.8	1,903 {194.1}	32.0	2,120 {216.2}	40		80		
	58.73	{5.99}	28.8		32.4		36.0				90		
	52.86	{5.39}	32.0		36.0		40.0						100
	42.29	{4.31}	40.0		45.0		50.0						125
	35.24	{3.59}	48.0		54.0		60.0						150
	30.21	{3.08}	56.0		63.0		70.0						175
	26.43	{2.70}	64.0		72.0		80.0						200
	23.49	{2.40}	72.0		81.0		90.0						225
	21.14	{2.16}	80.0		90.0		100.0						250
	19.22	{1.96}	88.0		99.0		110.0						275
	17.62	{1.80}	96.0		108.0		120.0				300		
	165.56	{16.88}	16.0		18.0		20.0		TL		50		
	150.51	{15.35}	17.6		19.8		22.0				55		
	137.96	{14.07}	19.2		21.6		24.0				60		
	127.35	{12.99}	20.8		23.4		26.0				65		
	118.25	{12.06}	22.4		25.2		28.0				70		
	110.37	{11.25}	24.0		27.0		30.0				75		
	103.47	{10.55}	25.6		28.8		32.0				80		
	91.98	{9.38}	28.8		32.4		36.0				90		
	82.78	{8.44}	32.0		36.0		40.0				100		
25	66.22	{6.75}	40.0	2,650 {270.2}	45.0	2,980 {303.9}	50.0	3,310 {337.5}		50		125	
	55.19	{5.63}	48.0		54.0		60.0		150				
	47.30	{4.82}	56.0		63.0		70.0						175
	41.39	{4.22}	64.0		72.0		80.0						200
	36.79	{3.75}	72.0		81.0		90.0						225
	33.11	{3.38}	80.0		90.0		100.0						250
	30.10	{3.07}	88.0		99.0		110.0						275
	27.59	{2.81}	96.0		108.0		120.0						300
	23.65	{2.41}	112.0		126.0		140.0						350
	20.69	{2.11}	128.0		144.0		160.0						400
	18.40	{1.88}	144.0		162.0		180.0				450		
	16.56	{1.69}	160.0		180.0		200.0				500		

▲ 自由長×40%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)

軽荷重 TL LIGHT LOADS

COIL SPRING

内径 (mm)	ばね定数		自由長×32% 100万回		自由長×36% 50万回		自由長×40% 30万回		Catalog No.	外径 D (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)				
	198.61	{20.25}	19.2		21.6		24.0				60
	170.24	{17.36}	22.4		25.2		28.0				70
	148.96	{15.19}	25.6		28.8		32.0				80
	132.41	{13.50}	28.8		32.4		36.0				90
	119.17	{12.15}	32.0		36.0		40.0				100
	95.33	{9.72}	40.0		45.0		50.0				125
	79.44	{8.10}	48.0		54.0		60.0				150
30	68.10	{6.94}	56.0	3,810 {388.5}	63.0	4,290 {437.5}	70.0	4,770 {486.4}	TL	60	175
	59.58	{6.08}	64.0		72.0		80.0				200
	52.96	{5.40}	72.0		81.0		90.0				225
	47.67	{4.86}	80.0		90.0		100.0				250
	43.33	{4.42}	88.0		99.0		110.0				275
	39.72	{4.05}	96.0		108.0		120.0				300
	34.05	{3.47}	112.0		126.0		140.0				350
	29.79	{3.04}	128.0		144.0		160.0				400
	26.48	{2.70}	144.0		162.0		180.0				450
	23.83	{2.43}	160.0		180.0		200.0				500
	217.86	{22.22}	22.4		25.2		28.0			70	
	190.63	{19.44}	25.6		28.8		32.0			80	
	169.44	{17.28}	28.8		32.4		36.0			90	
	152.50	{15.55}	32.0		36.0		40.0			100	
	122.00	{12.44}	40.0		45.0		50.0			125	
38.5	101.67	{10.37}	48.0	4,880 {497.6}	54.0	5,490 {559.8}	60.0	6,100 {622.0}	TL	70	150
	87.14	{8.89}	56.0		63.0		70.0				175
	76.25	{7.78}	64.0		72.0		80.0				200
	67.78	{6.91}	72.0		81.0		90.0				225
	61.00	{6.22}	80.0		90.0		100.0				250
	55.45	{5.65}	88.0		99.0		110.0				275
	50.83	{5.18}	96.0		108.0		120.0				300
	43.57	{4.44}	112.0		126.0		140.0			350	

⚠ 自由長×40%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. TL D 60 - L 60