

# COIL SPRING

## 強力ばね TL : 軽荷重

### ●規格仕様

外径 (mm)	内径 (mm)	自由長 (mm)	ばね定数		自由長×32.0% 100万回		自由長×36.0% 50万回		自由長×40.0% 30万回		カタログ No.					
			(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)						
8	4	10	24.53	{2.50}	3.2	78.5 {8.0}	3.6	88.3 {9.0}	4.0	98.1 {10.0}	TL 8 × 10					
		15	16.35	{1.67}	4.8		5.4		6.0							
		20	12.26	{1.25}	6.4		7.2		8.0							
		25	9.81	{1.00}	8.0		9.0		10.0							
		30	8.18	{0.83}	9.6		10.8		12.0							
		35	7.01	{0.71}	11.2		12.6		14.0							
		40	6.13	{0.63}	12.8		14.4		16.0							
		45	5.45	{0.56}	14.4		16.2		18.0							
		50	4.91	{0.50}	16.0		18.0		20.0							
		55	4.46	{0.45}	17.6		19.8		22.0							
		60	4.09	{0.42}	19.2		21.6		24.0							
		65	3.77	{0.38}	20.8		23.4		26.0							
		70	3.50	{0.36}	22.4		25.2		28.0							
		75	3.27	{0.33}	24.0		27.0		30.0							
		80	3.07	{0.31}	25.6		28.8		32.0							
		10	5	20	17.71		{1.81}		6.4		112.8 {11.5}	7.2	127.5 {13.0}	8.0	142.2 {14.5}	TL 10 × 20
25	14.17			{1.44}	8.0	9.0	10.0									
30	11.81			{1.20}	9.6	10.8	12.0									
35	10.12			{1.03}	11.2	12.6	14.0									
40	8.85			{0.90}	12.8	14.4	16.0									
45	7.87			{0.80}	14.4	16.2	18.0									
50	7.08			{0.72}	16.0	18.0	20.0									
55	6.44			{0.66}	17.6	19.8	22.0									
60	5.90			{0.60}	19.2	21.6	24.0									
65	5.45			{0.56}	20.8	23.4	26.0									
70	5.06			{0.52}	22.4	25.2	28.0									
75	4.72			{0.48}	24.0	27.0	30.0									
80	4.43			{0.45}	25.6	28.8	32.0									
90	3.94			{0.40}	28.8	32.4	36.0									
12	6			20	25.88	{2.64}	6.4	166.7 {17.0}	7.2	186.3 {19.0}		8.0		206.0 {21.0}		TL 12 × 20
				25	20.70	{2.11}	8.0		9.0			10.0				
		30	17.25	{1.76}	9.6	10.8	12.0									
		35	14.79	{1.51}	11.2	12.6	14.0									
		40	12.94	{1.32}	12.8	14.4	16.0									
		45	11.50	{1.17}	14.4	16.2	18.0									
		50	10.35	{1.06}	16.0	18.0	20.0									
		55	9.41	{0.96}	17.6	19.8	22.0									
		60	8.63	{0.88}	19.2	21.6	24.0									
		65	7.96	{0.81}	20.8	23.4	26.0									
		70	7.39	{0.75}	22.4	25.2	28.0									
		75	6.90	{0.70}	24.0	27.0	30.0									
		80	6.47	{0.66}	25.6	28.8	32.0									
		90	5.75	{0.59}	28.8	32.4	36.0									
		14	7	25	27.22	{2.78}	8.0		216 {22.0}		9.0	245 {25.0}	10.0		275 {28.0}	TL 14 × 25
				30	22.69	{2.31}	9.6				10.8		12.0			
35	19.44			{1.98}	11.2	12.6	14.0									
40	17.01			{1.73}	12.8	14.4	16.0									
45	15.12			{1.54}	14.4	16.2	18.0									
50	13.61			{1.39}	16.0	18.0	20.0									
55	12.37			{1.26}	17.6	19.8	22.0									
60	11.34			{1.16}	19.2	21.6	24.0									
65	10.47			{1.07}	20.8	23.4	26.0									
70	9.72			{0.99}	22.4	25.2	28.0									
75	9.07			{0.93}	24.0	27.0	30.0									
80	8.51			{0.87}	25.6	28.8	32.0									
90	7.56			{0.77}	28.8	32.4	36.0									
100	6.81			{0.69}	32.0	36.0	40.0									

①：自由長×40.0%を超えるたわみでは使用しないでください。

②：設置の際には、初期圧を掛けてください。

N (ニュートン) = Kgf (キログラム) × 9.80665

荷重 (N) = ばね定数 (N/mm) × たわみ (mm)

## ●規格仕様

外径 (mm)	内径 (mm)	自由長 (mm)	ばね定数		自由長×32.0% 100万回		自由長×36.0% 50万回		自由長×40.0% 30万回		カタログ No.
			(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)	
16	8	25	34.89	{3.56}	8.0	275 {28.0}	9.0	314 {32.0}	10.0	343 {35.0}	TL 16 × 25
		30	29.07	{2.96}	9.6		10.8		12.0		30
		35	24.92	{2.54}	11.2		12.6		14.0		35
		40	21.81	{2.22}	12.8		14.4		16.0		40
		45	19.38	{1.98}	14.4		16.2		18.0		45
		50	17.44	{1.78}	16.0		18.0		20.0		50
		55	15.86	{1.62}	17.6		19.8		22.0		55
		60	14.54	{1.48}	19.2		21.6		24.0		60
		65	13.42	{1.37}	20.8		23.4		26.0		65
		70	12.46	{1.27}	22.4		25.2		28.0		70
		75	11.63	{1.19}	24.0		27.0		30.0		75
		80	10.90	{1.11}	25.6		28.8		32.0		80
		90	9.69	{0.99}	28.8		32.4		36.0		90
		100	8.72	{0.89}	32.0		36.0		40.0		100
125	6.98	{0.71}	40.0	45.0	50.0	125					
18	9	25	42.44	{4.33}	8.0	333 {34.0}	9.0	382 {39.0}	10.0	422 {43.0}	TL 18 × 25
		30	35.37	{3.61}	9.6		10.8		12.0		30
		35	30.32	{3.09}	11.2		12.6		14.0		35
		40	26.53	{2.71}	12.8		14.4		16.0		40
		45	23.58	{2.40}	14.4		16.2		18.0		45
		50	21.22	{2.16}	16.0		18.0		20.0		50
		55	19.29	{1.97}	17.6		19.8		22.0		55
		60	17.69	{1.80}	19.2		21.6		24.0		60
		65	16.32	{1.66}	20.8		23.4		26.0		65
		70	15.16	{1.55}	22.4		25.2		28.0		70
		75	14.15	{1.44}	24.0		27.0		30.0		75
		80	13.26	{1.35}	25.6		28.8		32.0		80
		90	11.79	{1.20}	28.8		32.4		36.0		90
		100	10.61	{1.08}	32.0		36.0		40.0		100
125	8.49	{0.87}	40.0	45.0	50.0	125					
20	10	25	53.44	{5.45}	8.0	422 {43.0}	9.0	481 {49.0}	10.0	530 {54.0}	TL 20 × 25
		30	44.54	{4.54}	9.6		10.8		12.0		30
		35	38.17	{3.89}	11.2		12.6		14.0		35
		40	33.40	{3.41}	12.8		14.4		16.0		40
		45	29.69	{3.03}	14.4		16.2		18.0		45
		50	26.72	{2.72}	16.0		18.0		20.0		50
		55	24.29	{2.48}	17.6		19.8		22.0		55
		60	22.27	{2.27}	19.2		21.6		24.0		60
		65	20.56	{2.10}	20.8		23.4		26.0		65
		70	19.09	{1.95}	22.4		25.2		28.0		70
		75	17.81	{1.82}	24.0		27.0		30.0		75
		80	16.70	{1.70}	25.6		28.8		32.0		80
		90	14.85	{1.51}	28.8		32.4		36.0		90
		100	13.36	{1.36}	32.0		36.0		40.0		100
125	10.69	{1.09}	40.0	45.0	50.0	125					
150	8.91	{0.91}	48.0	54.0	60.0	150					
22	11	25	65.33	{6.66}	8.0	530 {54.0}	9.0	588 {60.0}	10.0	657 {67.0}	TL 22 × 25
		30	54.44	{5.55}	9.6		10.8		12.0		30
		35	46.67	{4.76}	11.2		12.6		14.0		35
		40	40.83	{4.16}	12.8		14.4		16.0		40
		45	36.30	{3.70}	14.4		16.2		18.0		45
		50	32.67	{3.33}	16.0		18.0		20.0		50
		55	29.70	{3.03}	17.6		19.8		22.0		55
		60	27.22	{2.78}	19.2		21.6		24.0		60
		65	25.13	{2.56}	20.8		23.4		26.0		65
		70	23.33	{2.38}	22.4		25.2		28.0		70
		75	21.78	{2.22}	24.0		27.0		30.0		75
		80	20.42	{2.08}	25.6		28.8		32.0		80
		90	18.15	{1.85}	28.8		32.4		36.0		90
		100	16.33	{1.67}	32.0		36.0		40.0		100
125	13.07	{1.33}	40.0	45.0	50.0	125					
150	10.89	{1.11}	48.0	54.0	60.0	150					
25	12.5	25	82.78	{8.44}	8.0	657 {67.0}	9.0	745 {76.0}	10.0	824 {84.0}	TL 25 × 25
		30	68.98	{7.03}	9.6		10.8		12.0		30
		35	59.13	{6.03}	11.2		12.6		14.0		35
		40	51.74	{5.28}	12.8		14.4		16.0		40
		45	45.99	{4.69}	14.4		16.2		18.0		45
		50	41.39	{4.22}	16.0		18.0		20.0		50
		55	37.63	{3.84}	17.6		19.8		22.0		55
		60	34.49	{3.52}	19.2		21.6		24.0		60
		65	31.84	{3.25}	20.8		23.4		26.0		65
		70	29.56	{3.01}	22.4		25.2		28.0		70
		75	27.59	{2.81}	24.0		27.0		30.0		75
		80	25.87	{2.64}	25.6		28.8		32.0		80
		90	22.99	{2.34}	28.8		32.4		36.0		90
		100	20.69	{2.11}	32.0		36.0		40.0		100
125	16.56	{1.69}	40.0	45.0	50.0	125					
150	13.80	{1.41}	48.0	54.0	60.0	150					
175	11.83	{1.21}	56.0	63.0	70.0	175					
200	10.35	{1.06}	64.0	72.0	80.0	200					

①：自由長×40.0%を超えるたわみでは使用しないでください。

②：設置の際には、初期圧を掛けてください。

N (ニュートン) = Kgf (キログラム) × 9.80665  
 荷重 (N) = ばね定数 (N/mm) × たわみ (mm)

# COILSPRING

## 強力ばね TL : 軽荷重

### ●規格仕様

外径 (mm)	内径 (mm)	自由長 (mm)	ばね定数		自由長×32.0% 100万回		自由長×36.0% 50万回		自由長×40.0% 30万回		カタログ No.					
			(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	13.5	25	98.11	{10.00}	8.0	785 {80.0}	9.0	883 {90.0}	10.0	981 {100.0}	TL 27 × 25					
		30	81.76	{8.34}	9.6		10.8		12.0		30					
		35	70.08	{7.15}	11.2		12.6		14.0		35					
		40	61.32	{6.25}	12.8		14.4		16.0		40					
		45	54.51	{5.56}	14.4		16.2		18.0		45					
		50	49.06	{5.00}	16.0		18.0		20.0		50					
		55	44.60	{4.55}	17.6		19.8		22.0		55					
		60	40.88	{4.17}	19.2		21.6		24.0		60					
		65	37.74	{3.85}	20.8		23.4		26.0		65					
		70	35.04	{3.57}	22.4		25.2		28.0		70					
		75	32.70	{3.33}	24.0		27.0		30.0		75					
		80	30.66	{3.13}	25.6		28.8		32.0		80					
		90	27.25	{2.78}	28.8		32.4		36.0		90					
		100	24.53	{2.50}	32.0		36.0		40.0		100					
		125	19.62	{2.00}	40.0		45.0		50.0		125					
		150	16.35	{1.67}	48.0		54.0		60.0		150					
		175	14.02	{1.43}	56.0		63.0		70.0		175					
		200	12.26	{1.25}	64.0		72.0		80.0		200					
		30	15	25	118.78		{12.11}		8.0		951 {97.0}	9.0	1,069 {109.0}	10.0	1,187 {121.0}	TL 30 × 25
				30	98.98		{10.09}		9.6			10.8		12.0		30
35	84.84			{8.65}	11.2	12.6	14.0	35								
40	74.24			{7.57}	12.8	14.4	16.0	40								
45	65.99			{6.73}	14.4	16.2	18.0	45								
50	59.39			{6.06}	16.0	18.0	20.0	50								
55	53.99			{5.51}	17.6	19.8	22.0	55								
60	49.49			{5.05}	19.2	21.6	24.0	60								
65	45.68			{4.66}	20.8	23.4	26.0	65								
70	42.42			{4.33}	22.4	25.2	28.0	70								
75	39.59			{4.04}	24.0	27.0	30.0	75								
80	37.12			{3.78}	25.6	28.8	32.0	80								
90	32.99			{3.36}	28.8	32.4	36.0	90								
100	29.69			{3.03}	32.0	36.0	40.0	100								
125	23.76			{2.42}	40.0	45.0	50.0	125								
150	19.80			{2.02}	48.0	54.0	60.0	150								
175	16.97			{1.73}	56.0	63.0	70.0	175								
200	14.85			{1.51}	64.0	72.0	80.0	200								
35	17.5			40	101.46	{10.35}	12.8	1,295 {132.1}	14.4	1,461 {149.0}		16.0		1,618 {165.0}		TL 35 × 40
				45	90.19	{9.20}	14.4		16.2			18.0				45
		50	81.17	{8.28}	16.0	18.0	20.0		50							
		55	73.79	{7.52}	17.6	19.8	22.0		55							
		60	67.64	{6.90}	19.2	21.6	24.0		60							
		65	62.44	{6.37}	20.8	23.4	26.0		65							
		70	57.98	{5.91}	22.4	25.2	28.0		70							
		75	54.11	{5.52}	24.0	27.0	30.0		75							
		80	50.73	{5.17}	25.6	28.8	32.0		80							
		90	45.09	{4.60}	28.8	32.4	36.0		90							
		100	40.58	{4.14}	32.0	36.0	40.0		100							
		125	32.47	{3.31}	40.0	45.0	50.0		125							
		150	27.06	{2.76}	48.0	54.0	60.0		150							
		175	23.19	{2.36}	56.0	63.0	70.0		175							
200	20.29	{2.07}	64.0	72.0	80.0	200										
40	20	40	132.15	{13.48}	12.8	1,697 {173.0}	14.4	1,903 {194.1}	16.0	2,120 {216.2}	TL 40 × 40					
		45	117.47	{11.98}	14.4		16.2		18.0		45					
		50	105.72	{10.78}	16.0		18.0		20.0		50					
		55	96.11	{9.80}	17.6		19.8		22.0		55					
		60	88.10	{8.98}	19.2		21.6		24.0		60					
		65	81.32	{8.29}	20.8		23.4		26.0		65					
		70	75.52	{7.70}	22.4		25.2		28.0		70					
		75	70.48	{7.19}	24.0		27.0		30.0		75					
		80	66.08	{6.74}	25.6		28.8		32.0		80					
		90	58.73	{5.99}	28.8		32.4		36.0		90					
		100	52.86	{5.39}	32.0		36.0		40.0		100					
		125	42.29	{4.31}	40.0		45.0		50.0		125					
		150	35.24	{3.59}	48.0		54.0		60.0		150					
		175	30.21	{3.08}	56.0		63.0		70.0		175					
		200	26.43	{2.70}	64.0		72.0		80.0		200					
		225	23.49	{2.40}	72.0		81.0		90.0		225					
		250	21.14	{2.16}	80.0		90.0		100.0		250					
		275	19.22	{1.96}	88.0		99.0		110.0		275					
		300	17.62	{1.80}	96.0		108.0		120.0		300					

①：自由長×40.0%を超えるたわみでは使用しないでください。

②：設置の際には、初期圧を掛けてください。

N (ニュートン) = Kgf (キログラム) × 9.80665

荷重 (N) = ばね定数 (N/mm) × たわみ (mm)

●規格仕様

外径 (mm)	内径 (mm)	自由長 (mm)	ばね定数		自由長×32.0% 100万回		自由長×36.0% 50万回		自由長×40.0% 30万回		カタログ No.
			(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)	
50	25	50	165.56	{16.88}	16.0	2,650 {270.2}	18.0	2,980 {303.9}	20.0	3,310 {337.5}	TL 50 × 50
		55	150.51	{15.35}	17.6		19.8		22.0		55
		60	137.96	{14.07}	19.2		21.6		24.0		60
		65	127.35	{12.99}	20.8		23.4		26.0		65
		70	118.25	{12.06}	22.4		25.2		28.0		70
		75	110.37	{11.25}	24.0		27.0		30.0		75
		80	103.47	{10.55}	25.6		28.8		32.0		80
		90	91.98	{9.38}	28.8		32.4		36.0		90
		100	82.78	{8.44}	32.0		36.0		40.0		100
		125	66.22	{6.75}	40.0		45.0		50.0		125
		150	55.19	{5.63}	48.0		54.0		60.0		150
		175	47.30	{4.82}	56.0		63.0		70.0		175
		200	41.39	{4.22}	64.0		72.0		80.0		200
		225	36.79	{3.75}	72.0		81.0		90.0		225
		250	33.11	{3.38}	80.0		90.0		100.0		250
		275	30.10	{3.07}	88.0		99.0		110.0		275
		300	27.59	{2.81}	96.0		108.0		120.0		300
		350	23.65	{2.41}	112.0		126.0		140.0		350
		400	20.69	{2.11}	128.0		144.0		160.0		400
		450	18.40	{1.88}	144.0		162.0		180.0		450
500	16.56	{1.69}	160.0	180.0	200.0	500					
60	30	60	198.61	{20.25}	19.2	3,810 {388.5}	21.6	4,290 {437.5}	24.0	4,770 {486.4}	TL 60 × 60
		70	170.24	{17.36}	22.4		25.2		28.0		70
		80	148.96	{15.19}	25.6		28.8		32.0		80
		90	132.41	{13.50}	28.8		32.4		36.0		90
		100	119.17	{12.15}	32.0		36.0		40.0		100
		125	95.33	{9.72}	40.0		45.0		50.0		125
		150	79.44	{8.10}	48.0		54.0		60.0		150
		175	68.10	{6.94}	56.0		63.0		70.0		175
		200	59.58	{6.08}	64.0		72.0		80.0		200
		225	52.96	{5.40}	72.0		81.0		90.0		225
		250	47.67	{4.86}	80.0		90.0		100.0		250
		275	43.33	{4.42}	88.0		99.0		110.0		275
		300	39.72	{4.05}	96.0		108.0		120.0		300
		350	34.05	{3.47}	112.0		126.0		140.0		350
		400	29.79	{3.04}	128.0		144.0		160.0		400
450	26.48	{2.70}	144.0	162.0	180.0	450					
500	23.83	{2.43}	160.0	180.0	200.0	500					
70	38.5	70	217.86	{22.22}	22.4	4,880 {497.6}	25.2	5,490 {559.8}	28.0	6,100 {622.0}	TL 70 × 70
		80	190.63	{19.44}	25.6		28.8		32.0		80
		90	169.44	{17.28}	28.8		32.4		36.0		90
		100	152.50	{15.55}	32.0		36.0		40.0		100
		125	122.00	{12.44}	40.0		45.0		50.0		125
		150	101.67	{10.37}	48.0		54.0		60.0		150
		175	87.14	{8.89}	56.0		63.0		70.0		175
		200	76.25	{7.78}	64.0		72.0		80.0		200
		225	67.78	{6.91}	72.0		81.0		90.0		225
		250	61.00	{6.22}	80.0		90.0		100.0		250
		275	55.45	{5.65}	88.0		99.0		110.0		275
		300	50.83	{5.18}	96.0		108.0		120.0		300
350	43.57	{4.44}	112.0	126.0	140.0	350					


①：自由長×40.0%を超えるたわみでは使用しないでください。

②：設置の際には、初期圧を掛けてください。

N (ニュートン) = Kgf (キログラム) × 9.80665

荷重 (N) = ばね定数 (N/mm) × たわみ (mm)

 <b>Order 注文例</b>	<b>形式</b>
	例 TL 8 × 10

 <b>Delivery 納期</b>	2日目着 (在庫)
	(又は2日目発送)