

# COIL SPRING

## 強力ばね TM : 中荷重

### ●規格仕様

外径 (mm)	内径 (mm)	自由長 (mm)	ばね定数		自由長×25.6% 100万回		自由長×28.8% 50万回		自由長×32.0% 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	42.57	{4.34}	2.6	108 {11.0}	2.9	123 {12.5}	3.2	137 {14.0}	TM 8 × 10					
		15	28.38	{2.89}	3.8		4.3		4.8							
		20	21.28	{2.17}	5.1		5.8		6.4							
		25	17.03	{1.74}	6.4		7.2		8.0							
		30	14.19	{1.45}	7.7		8.6		9.6							
		35	12.16	{1.24}	9.0		10.1		11.2							
		40	10.64	{1.09}	10.2		11.5		12.8							
		45	9.46	{0.96}	11.5		13.0		14.4							
		50	8.51	{0.87}	12.8		14.4		16.0							
		55	7.74	{0.79}	14.1		15.8		17.6							
		60	7.09	{0.72}	15.4		17.3		19.2							
		65	6.55	{0.67}	16.6		18.7		20.8							
		70	6.08	{0.62}	17.9		20.2		22.4							
		75	5.68	{0.58}	19.2		21.6		24.0							
		80	5.32	{0.54}	20.5		23.0		25.6							
		10	5	20	30.64		{3.12}		5.1		157 {16.0}	5.8	177 {18.0}	6.4	196 {20.0}	TM 10 × 20
25	24.51			{2.50}	6.4	7.2	8.0									
30	20.43			{2.08}	7.7	8.6	9.6									
35	17.51			{1.79}	9.0	10.1	11.2									
40	15.32			{1.56}	10.2	11.5	12.8									
45	13.62			{1.39}	11.5	13.0	14.4									
50	12.26			{1.25}	12.8	14.4	16.0									
55	11.14			{1.14}	14.1	15.8	17.6									
60	10.21			{1.04}	15.4	17.3	19.2									
65	9.43			{0.96}	16.6	18.7	20.8									
70	8.75			{0.89}	17.9	20.2	22.4									
75	8.17			{0.83}	19.2	21.6	24.0									
80	7.66			{0.78}	20.5	23.0	25.6									
90	6.81			{0.69}	23.0	25.9	28.8									
12	6			20	44.27	{4.51}	5.1	226 {23.0}	5.8	255 {26.0}		6.4		284 {29.0}		TM 12 × 20
				25	35.42	{3.61}	6.4		7.2			8.0				
		30	29.51	{3.01}	7.7	8.6	9.6									
		35	25.30	{2.58}	9.0	10.1	11.2									
		40	22.14	{2.26}	10.2	11.5	12.8									
		45	19.68	{2.01}	11.5	13.0	14.4									
		50	17.71	{1.81}	12.8	14.4	16.0									
		55	16.10	{1.64}	14.1	15.8	17.6									
		60	14.76	{1.50}	15.4	17.3	19.2									
		65	13.62	{1.39}	16.6	18.7	20.8									
		70	12.65	{1.29}	17.9	20.2	22.4									
		75	11.81	{1.20}	19.2	21.6	24.0									
		80	11.07	{1.13}	20.5	23.0	25.6									
		90	9.84	{1.00}	23.0	25.9	28.8									
		14	7	25	47.64	{4.86}	6.4		304 {31.0}		7.2	343 {35.0}	8.0		383 {39.1}	TM 14 × 25
				30	39.70	{4.05}	7.7				8.6		9.6			
35	34.03			{3.47}	9.0	10.1	11.2									
40	29.77			{3.04}	10.2	11.5	12.8									
45	26.47			{2.70}	11.5	13.0	14.4									
50	23.82			{2.43}	12.8	14.4	16.0									
55	21.65			{2.21}	14.1	15.8	17.6									
60	19.85			{2.02}	15.4	17.3	19.2									
65	18.32			{1.87}	16.6	18.7	20.8									
70	17.01			{1.73}	17.9	20.2	22.4									
75	15.88			{1.62}	19.2	21.6	24.0									
80	14.89			{1.52}	20.5	23.0	25.6									
90	13.23			{1.35}	23.0	25.9	28.8									
100	11.91			{1.21}	25.6	28.8	32.0									

①：自由長×32.0%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×25.6% 100万回		自由長×28.8% 50万回		自由長×32.0% 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	62.64	{6.39}	6.4	402 {41.0}	7.2	451 {46.0}	8.0	500 {51.0}	TM 16 × 25
		30	52.20	{5.32}	7.7		8.6		9.6		
		35	44.74	{4.56}	9.0		10.1		11.2		
		40	39.15	{3.99}	10.2		11.5		12.8		
		45	34.80	{3.55}	11.5		13.0		14.4		
		50	31.32	{3.19}	12.8		14.4		16.0		
		55	28.47	{2.90}	14.1		15.8		17.6		
		60	26.10	{2.66}	15.4		17.3		19.2		
		65	24.09	{2.46}	16.6		18.7		20.8		
		70	22.37	{2.28}	17.9		20.2		22.4		
		75	20.88	{2.13}	19.2		21.6		24.0		
		80	19.57	{2.00}	20.5		23.0		25.6		
		90	17.40	{1.77}	23.0		25.9		28.8		
		100	15.66	{1.60}	25.6		28.8		32.0		
		125	12.53	{1.28}	32.0		36.0		40.0		
18	9	25	79.03	{8.06}	6.4	510 {52.0}	7.2	569 {58.0}	8.0	637 {65.0}	TM 18 × 25
		30	65.86	{6.72}	7.7		8.6		9.6		
		35	56.45	{5.76}	9.0		10.1		11.2		
		40	49.39	{5.04}	10.2		11.5		12.8		
		45	43.90	{4.48}	11.5		13.0		14.4		
		50	39.51	{4.03}	12.8		14.4		16.0		
		55	35.92	{3.66}	14.1		15.8		17.6		
		60	32.93	{3.36}	15.4		17.3		19.2		
		65	30.40	{3.10}	16.6		18.7		20.8		
		70	28.22	{2.88}	17.9		20.2		22.4		
		75	26.34	{2.69}	19.2		21.6		24.0		
		80	24.70	{2.52}	20.5		23.0		25.6		
		90	21.95	{2.24}	23.0		25.9		28.8		
		100	19.76	{2.01}	25.6		28.8		32.0		
		125	15.81	{1.61}	32.0		36.0		40.0		
20	10	25	98.06	{10.00}	6.4	628 {64.0}	7.2	706 {72.0}	8.0	785 {80.0}	TM 20 × 25
		30	81.71	{8.33}	7.7		8.6		9.6		
		35	70.04	{7.14}	9.0		10.1		11.2		
		40	61.28	{6.25}	10.2		11.5		12.8		
		45	54.48	{5.55}	11.5		13.0		14.4		
		50	49.03	{5.00}	12.8		14.4		16.0		
		55	44.57	{4.54}	14.1		15.8		17.6		
		60	40.86	{4.17}	15.4		17.3		19.2		
		65	37.71	{3.85}	16.6		18.7		20.8		
		70	35.02	{3.57}	17.9		20.2		22.4		
		75	32.69	{3.33}	19.2		21.6		24.0		
		80	30.64	{3.12}	20.5		23.0		25.6		
		90	27.24	{2.78}	23.0		25.9		28.8		
		100	24.51	{2.50}	25.6		28.8		32.0		
		125	19.61	{2.00}	32.0		36.0		40.0		
150	16.34	{1.67}	38.4	43.2	48.0						
22	11	25	118.47	{12.08}	6.4	765 {78.0}	7.2	853 {87.0}	8.0	951 {97.0}	TM 22 × 25
		30	98.73	{10.07}	7.7		8.6		9.6		
		35	84.62	{8.63}	9.0		10.1		11.2		
		40	74.05	{7.55}	10.2		11.5		12.8		
		45	65.82	{6.71}	11.5		13.0		14.4		
		50	59.24	{6.04}	12.8		14.4		16.0		
		55	53.85	{5.49}	14.1		15.8		17.6		
		60	49.36	{5.03}	15.4		17.3		19.2		
		65	45.57	{4.65}	16.6		18.7		20.8		
		70	42.31	{4.31}	17.9		20.2		22.4		
		75	39.49	{4.03}	19.2		21.6		24.0		
		80	37.02	{3.78}	20.5		23.0		25.6		
		90	32.91	{3.36}	23.0		25.9		28.8		
		100	29.62	{3.02}	25.6		28.8		32.0		
		125	23.69	{2.42}	32.0		36.0		40.0		
150	19.75	{2.01}	38.4	43.2	48.0						
25	12.5	25	152.50	{15.55}	6.4	981 {100.0}	7.2	1,098 {112.0}	8.0	1,226 {125.0}	TM 25 × 25
		30	127.08	{12.96}	7.7		8.6		9.6		
		35	108.93	{11.11}	9.0		10.1		11.2		
		40	95.31	{9.72}	10.2		11.5		12.8		
		45	84.72	{8.64}	11.5		13.0		14.4		
		50	76.25	{7.78}	12.8		14.4		16.0		
		55	69.32	{7.07}	14.1		15.8		17.6		
		60	63.54	{6.48}	15.4		17.3		19.2		
		65	58.65	{5.98}	16.6		18.7		20.8		
		70	54.46	{5.55}	17.9		20.2		22.4		
		75	50.83	{5.18}	19.2		21.6		24.0		
		80	47.66	{4.86}	20.5		23.0		25.6		
		90	42.36	{4.32}	23.0		25.9		28.8		
		100	38.13	{3.89}	25.6		28.8		32.0		
		125	30.50	{3.11}	32.0		36.0		40.0		
150	25.42	{2.59}	38.4	43.2	48.0						
175	21.79	{2.22}	44.8	50.4	56.0						
200	19.06	{1.94}	51.2	57.6	64.0						

①：自由長×32.0%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)

# COIL SPRING

## 強力ばね TM : 中荷重

### ●規格仕様

外径 (mm)	内径 (mm)	自由長 (mm)	ばね定数		自由長×25.6% 100万回		自由長×28.8% 50万回		自由長×32.0% 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	178.47	{18.20}	6.4	1,147 {117.0}	7.2	1,285 {131.0}	8.0	1,432 {146.0}	TM 27 × 25					
		30	148.73	{15.17}	7.7		8.6		9.6							
		35	127.48	{13.00}	9.0		10.1		11.2							
		40	111.55	{11.37}	10.2		11.5		12.8							
		45	99.15	{10.11}	11.5		13.0		14.4							
		50	89.24	{9.10}	12.8		14.4		16.0							
		55	81.12	{8.27}	14.1		15.8		17.6							
		60	74.36	{7.58}	15.4		17.3		19.2							
		65	68.64	{7.00}	16.6		18.7		20.8							
		70	63.74	{6.50}	17.9		20.2		22.4							
		75	59.49	{6.07}	19.2		21.6		24.0							
		80	55.77	{5.69}	20.5		23.0		25.6							
		90	49.58	{5.06}	23.0		25.9		28.8							
		100	44.62	{4.55}	25.6		28.8		32.0							
		125	35.69	{3.64}	32.0		36.0		40.0							
		150	29.75	{3.03}	38.4		43.2		48.0							
		175	25.50	{2.60}	44.8		50.4		56.0							
		200	22.31	{2.27}	51.2		57.6		64.0							
		30	15	25	219.31		{22.36}		6.4		1,412 {144.0}	7.2	1,579 {161.0}	8.0	1,765 {180.0}	TM 30 × 25
				30	182.75		{18.64}		7.7			8.6		9.6		
35	156.65			{15.97}	9.0	10.1	11.2									
40	137.07			{13.98}	10.2	11.5	12.8									
45	121.84			{12.42}	11.5	13.0	14.4									
50	109.65			{11.18}	12.8	14.4	16.0									
55	99.68			{10.16}	14.1	15.8	17.6									
60	91.38			{9.32}	15.4	17.3	19.2									
65	84.35			{8.60}	16.6	18.7	20.8									
70	78.32			{7.99}	17.9	20.2	22.4									
75	73.10			{7.45}	19.2	21.6	24.0									
80	68.53			{6.99}	20.5	23.0	25.6									
90	60.92			{6.21}	23.0	25.9	28.8									
100	54.83			{5.59}	25.6	28.8	32.0									
125	43.86			{4.47}	32.0	36.0	40.0									
150	36.55			{3.73}	38.4	43.2	48.0									
175	31.33			{3.19}	44.8	50.4	56.0									
200	27.41			{2.80}	51.2	57.6	64.0									
35	17.5			40	187.50	{19.12}	10.2	1,912 {195.0}	11.5	2,160 {220.3}		12.8		2,400 {244.7}		TM 35 × 40
				45	166.67	{17.00}	11.5		13.0			14.4				
		50	150.00	{15.30}	12.8	14.4	16.0									
		55	136.36	{13.91}	14.1	15.8	17.6									
		60	125.00	{12.75}	15.4	17.3	19.2									
		65	115.38	{11.77}	16.6	18.7	20.8									
		70	107.14	{10.93}	17.9	20.2	22.4									
		75	100.00	{10.20}	19.2	21.6	24.0									
		80	93.75	{9.56}	20.5	23.0	25.6									
		90	83.33	{8.50}	23.0	25.9	28.8									
		100	75.00	{7.65}	25.6	28.8	32.0									
		125	60.00	{6.12}	32.0	36.0	40.0									
		150	50.00	{5.10}	38.4	43.2	48.0									
		175	42.86	{4.37}	44.8	50.4	56.0									
		200	37.50	{3.82}	51.2	57.6	64.0									
		40	20	40	244.79	{24.96}	10.2		2,510 {256.0}		11.5	2,820 {287.6}	12.8		3,140 {320.2}	TM 40 × 40
				45	217.59	{22.19}	11.5				13.0		14.4			
				50	195.83	{19.97}	12.8				14.4		16.0			
				55	178.03	{18.15}	14.1				15.8		17.6			
				60	163.19	{16.64}	15.4				17.3		19.2			
65	150.64			{15.36}	16.6	18.7	20.8									
70	139.88			{14.26}	17.9	20.2	22.4									
75	130.56			{13.31}	19.2	21.6	24.0									
80	122.40			{12.48}	20.5	23.0	25.6									
90	108.80			{11.09}	23.0	25.9	28.8									
100	97.92			{9.98}	25.6	28.8	32.0									
125	78.33			{7.99}	32.0	36.0	40.0									
150	65.28			{6.66}	38.4	43.2	48.0									
175	55.95			{5.71}	44.8	50.4	56.0									
200	48.96			{4.99}	51.2	57.6	64.0									
225	43.52			{4.44}	57.6	64.8	72.0									
250	39.17			{3.99}	64.0	72.0	80.0									
275	35.61			{3.63}	70.4	79.2	88.0									
300	32.64			{3.33}	76.8	86.4	96.0									

①：自由長×32.0%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×25.6% 100万回		自由長×28.8% 50万回		自由長×32.0% 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	306.25	{31.23}	12.8	3,920 {399.7}	14.4	4,410 {449.7}	16.0	4,900 {499.7}	TM 50 × 50					
		55	278.41	{28.39}	14.1		15.8		17.6		55					
		60	255.21	{26.02}	15.4		17.3		19.2		60					
		65	235.58	{24.02}	16.6		18.7		20.8		65					
		70	218.75	{22.31}	17.9		20.2		22.4		70					
		75	204.17	{20.82}	19.2		21.6		24.0		75					
		80	191.41	{19.52}	20.5		23.0		25.6		80					
		90	170.14	{17.35}	23.0		25.9		28.8		90					
		100	153.13	{15.61}	25.6		28.8		32.0		100					
		125	122.50	{12.49}	32.0		36.0		40.0		125					
		150	102.08	{10.41}	38.4		43.2		48.0		150					
		175	87.50	{8.92}	44.8		50.4		56.0		175					
		200	76.56	{7.81}	51.2		57.6		64.0		200					
		225	68.06	{6.94}	57.6		64.8		72.0		225					
		250	61.25	{6.25}	64.0		72.0		80.0		250					
		275	55.68	{5.68}	70.4		79.2		88.0		275					
		300	51.04	{5.20}	76.8		86.4		96.0		300					
		350	43.75	{4.46}	89.6		100.8		112.0		350					
		60	30	60	367.48		{37.47}		15.4		5,640 {575.1}	17.3	6,350 {647.5}	19.2	7,060 {719.9}	TM 60 × 60
				70	314.98		{32.12}		17.9			20.2		22.4		70
80	275.61			{28.10}	20.5	23.0	25.6	80								
90	244.98			{24.98}	23.0	25.9	28.8	90								
100	220.49			{22.48}	25.6	28.8	32.0	100								
125	176.39			{17.99}	32.0	36.0	40.0	125								
150	146.99			{14.99}	38.4	43.2	48.0	150								
175	125.99			{12.85}	44.8	50.4	56.0	175								
200	110.24			{11.24}	51.2	57.6	64.0	200								
225	97.99			{9.99}	57.6	64.8	72.0	225								
250	88.19			{8.99}	64.0	72.0	80.0	250								
275	80.18			{8.18}	70.4	79.2	88.0	275								
300	73.50			{7.49}	76.8	86.4	96.0	300								
350	63.00			{6.42}	89.6	100.8	112.0	350								
70	38.5			70	379.46	{38.69}	17.9	6,800 {693.4}	20.2	7,650 {780.1}		22.4		8,500 {866.8}		TM 70 × 70
				80	332.03	{33.86}	20.5		23.0			25.6				80
		90	295.14	{30.10}	23.0	25.9	28.8		90							
		100	265.63	{27.09}	25.6	28.8	32.0		100							
		125	212.50	{21.67}	32.0	36.0	40.0		125							
		150	177.08	{18.06}	38.4	43.2	48.0		150							
		175	151.79	{15.48}	44.8	50.4	56.0		175							
		200	132.81	{13.54}	51.2	57.6	64.0		200							
		225	118.06	{12.04}	57.6	64.8	72.0		225							
		250	106.25	{10.83}	64.0	72.0	80.0		250							
		275	96.59	{9.85}	70.4	79.2	88.0		275							
		300	88.54	{9.03}	76.8	86.4	96.0		300							
		350	75.89	{7.74}	89.6	100.8	112.0		350							

①：自由長×32.0%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 <b>TM 8 × 10</b>

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