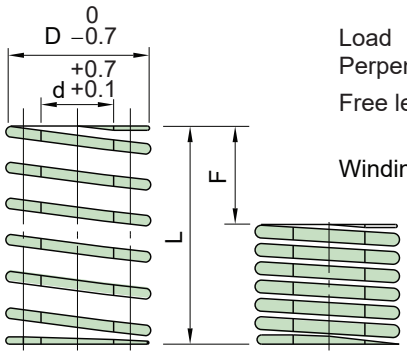

Load : ±10%
Perpendicularity : 2°or less
Free length L : 50 or less ±0.5mm
: 55 or more ±1%
Winding direction : right

Model	Outer Dia D (mm)	Inner Dia d (mm)	Free Length L (mm)	Spring Const (kgf/mm)	0.3 million		0.5 million		1 million	
					Deflection F (mm)	Load kgf(N)	Deflection F (mm)	Load kgf(N)	Deflection F (mm)	Load kgf(N)
TH 8 × 10	8	4	10	8.80	2.4	21	2.2	19	1.9	17
15			15	5.86	3.6		3.2		2.9	
20			20	4.40	4.8		4.3		3.8	
25			25	3.52	6.0		5.4		4.8	
30			30	2.93	7.2		6.5		5.8	
35			35	2.51	8.4		7.6		6.7	
40			40	2.20	9.6		8.6		7.7	
45			45	1.95	10.8		9.7		8.6	
50			50	1.76	12.0		10.8		9.6	
55			55	1.60	13.2		11.9		10.6	
60			60	1.47	14.4		13.0		11.5	
65			65	1.35	15.6		14.0		12.5	
70			70	1.26	16.8		15.1		13.4	
75			75	1.17	18.0		16.2		14.4	
80			80	1.10	19.2		17.3		15.4	
90			90	0.98	21.6		19.4		17.3	
TH 10 × 10	10	5	10	12.27	2.4	30	2.2	27	1.9	24
15			15	8.18	3.6		3.3		2.9	
20			20	6.25	4.8		4.3		3.8	
25			25	5.00	6.0		5.4		4.8	
30			30	4.16	7.2		6.5		5.8	
35			35	3.57	8.4		7.6		6.7	
40			40	3.15	9.6		8.6		7.7	
45			45	2.77	10.8		9.7		8.6	
50			50	2.50	12.0		10.8		9.6	
55			55	2.27	13.2		11.9		10.6	
60			60	2.08	14.4		13.0		11.5	
65			65	1.92	15.6		14.0		12.5	
70			70	1.79	16.8		15.1		13.4	
75			75	1.67	18.0		16.2		14.4	
80			80	1.56	19.2		17.3		15.4	
90			90	1.39	21.6		19.4		17.3	
100			100	1.25	24.0		21.6		19.2	

Model	Outer Dia D (mm)	Inner Dia d (mm)	Free Length L (mm)	Spring Const (kgf/mm)	0.3 million		0.5 million		1 million	
					Deflection F (mm)	Load kgf(N)	Deflection F (mm)	Load kgf(N)	Deflection F (mm)	Load kgf(N)
TH 12 × 20	12	6	20	8.90	4.8	43	4.3	38	3.8	34
25			25	7.10	6.0		5.4		4.8	
30			30	5.97	7.2		6.5		5.8	
35			35	5.11	8.4		7.6		6.7	
40			40	4.47	9.6		8.6		7.7	
45			45	3.98	10.8		9.7		8.6	
50			50	3.58	12.0		10.8		9.6	
55			55	3.25	13.2		11.9		10.6	
60			60	2.98	14.4		13.0		11.5	
65			65	2.74	15.6		14.0		12.5	
70			70	2.54	16.8		15.1		13.4	
75			75	2.37	18.0		16.2		14.4	
80			80	2.21	19.2		17.3		15.4	
90			90	1.98	21.6		19.4		17.3	
100			100	1.78	24.0		21.6		19.2	
TH 14 × 20	14	7	20	12.05	4.8	59	4.4	53	3.8	47
25			25	9.83	6.0		5.4		4.8	
30			30	8.19	7.2		6.5		5.8	
35			35	7.02	8.4		7.6		6.7	
40			40	6.14	9.6		8.6		7.7	
45			45	5.46	10.8		9.7		8.6	
50			50	4.91	12.0		10.8		9.6	
55			55	4.46	13.2		11.9		10.6	
60			60	4.09	14.4		13.0		11.5	
65			65	3.78	15.6		14.0		12.5	
70			70	3.51	16.8		15.1		13.4	
75			75	3.27	18.0		16.2		14.4	
80			80	3.07	19.2		17.3		15.4	
90			90	2.72	21.6		19.4		17.3	
100			100	2.46	24.0		21.6		19.2	
125			125	1.97	30.0		27.0		24.0	
TH 16 × 20	16	8	20	15.68	4.8	77	4.4	69	3.8	62
25			25	12.83	6.0		5.4		4.8	
30			30	10.69	7.2		6.5		5.8	
35			35	9.16	8.4		7.6		6.7	
40			40	8.02	9.6		8.6		7.7	
45			45	7.12	10.8		9.7		8.6	
50			50	6.41	12.0		10.8		9.6	
55			55	5.83	13.2		11.9		10.6	
60			60	5.34	14.4		13.0		11.5	
65			65	4.93	15.6		14.0		12.5	
70			70	4.58	16.8		15.1		13.4	
75			75	4.28	18.0		16.2		14.4	
80			80	4.01	19.2		17.3		15.4	
90			90	3.57	21.6		19.4		17.3	
100			100	3.21	24.0		21.6		19.2	
125			125	2.57	30.0		27.0		24.0	

Model	Outer Dia D (mm)	Inner Dia d (mm)	Free Length L (mm)	Spring Const (kgf/mm)	0.3 million		0.5 million		1 million	
					Deflection F (mm)	Load kgf(N)	Deflection F (mm)	Load kgf(N)	Deflection F (mm)	Load kgf(N)
TH 18 × 20	18	9	20	19.77	4.8	97	4.4	87	3.8	78
25			25	16.16	6.0		5.4		4.8	
30			30	13.47	7.2		6.5		5.8	
35			35	11.54	8.4		7.6		6.7	
40			40	10.10	9.6		8.6		7.7	
45			45	8.98	10.8		9.7		8.6	
50			50	8.08	12.0		10.8		9.6	
55			55	7.34	13.2		11.9		10.6	
60			60	6.73	14.4		13.0		11.5	
65			65	6.21	15.6		14.0		12.5	
70			70	5.77	16.8		15.1		13.4	
75			75	5.39	18.0		16.2		14.4	
80			80	5.05	19.2		17.3		15.4	
90			90	4.50	21.6		19.4		17.3	
100			100	4.04	24.0		21.6		19.2	
125			125	3.23	30.0		27.0		24.0	
TH 20 × 20	20	10	20	24.55	4.8	120	4.4	108	3.7	96
25			25	20.00	6.0		5.4		4.8	
30			30	16.66	7.2		6.5		5.8	
35			35	14.28	8.4		7.6		6.7	
40			40	12.50	9.6		8.6		7.7	
45			45	11.11	10.8		9.7		8.6	
50			50	10.00	12.0		10.8		9.6	
55			55	9.09	13.2		11.9		10.6	
60			60	8.33	14.4		13.0		11.5	
65			65	7.69	15.6		14.0		12.5	
70			70	7.14	16.8		15.1		13.4	
75			75	6.67	18.0		16.2		14.4	
80			80	6.25	19.2		17.3		15.4	
90			90	5.55	21.6		19.4		17.3	
100			100	5.00	24.0		21.6		19.2	
125			125	4.00	30.0		27.0		24.0	
150			150	3.33	36.0		32.4		28.8	
175			175	2.86	42.0		37.8		33.6	
TH 22 × 25	22	11	25	24.16	6.0	145	5.4	130	4.8	116
30			30	20.13	7.2		6.5		5.8	
35			35	17.30	8.4		7.6		6.7	
40			40	15.10	9.6		8.6		7.7	
45			45	13.40	10.8		9.7		8.6	
50			50	12.08	12.0		10.8		9.6	
55			55	10.94	13.2		11.9		10.6	
60			60	10.06	14.4		13.0		11.5	
65			65	9.28	15.6		14.0		12.5	
70			70	8.63	16.8		15.1		13.4	
75			75	8.04	18.0		16.2		14.4	
80			80	7.55	19.2		17.3		15.4	

Model	Outer Dia D (mm)	Inner Dia d (mm)	Free Length L (mm)	Spring Const (kgf/mm)	0.3 million		0.5 million		1 million	
					Deflection F (mm)	Load kgf(N)	Deflection F (mm)	Load kgf(N)	Deflection F (mm)	Load kgf(N)
TH 22 × 90	22	11	90	6.71	21.6	145	19.4	130	17.3	116
100			100	6.04	24.0		21.6		19.2	
125			125	4.83	30.0		27.0		24.0	
150			150	4.02	36.0		32.4		28.8	
175			175	3.45	42.0		37.8		33.6	
TH 25 × 25	25	12.5	25	31.20	6.0	187	5.4	169	4.8	150
30			30	25.97	7.2		6.5		5.8	
35			35	22.38	8.4		7.6		6.7	
40			40	19.47	9.6		8.6		7.7	
45			45	17.40	10.8		9.7		8.6	
50			50	15.58	12.0		10.8		9.6	
55			55	14.20	13.2		11.9		10.6	
60			60	12.98	14.4		13.0		11.5	
65			65	12.00	15.6		14.0		12.5	
70			70	11.13	16.8		15.1		13.4	
75			75	10.40	18.0		16.2		14.4	
80			80	9.73	19.2		17.3		15.4	
90			90	8.65	21.6		19.4		17.3	
100			100	7.79	24.0		21.6		19.2	
125			125	6.23	30.0		27.0		24.0	
150			150	5.20	36.0		32.4		28.8	
175			175	4.46	42.0		37.8		33.6	
200			200	3.90	48.0		43.2		38.4	
TH 27 × 25	27	13.5	25	36.40	6.0	219	5.4	197	4.8	175
30			30	30.41	7.2		6.5		5.8	
35			35	26.20	8.4		7.6		6.7	
40			40	22.81	9.6		8.6		7.7	
45			45	20.30	10.8		9.7		8.6	
50			50	18.25	12.0		10.8		9.6	
55			55	16.50	13.2		11.9		10.6	
60			60	15.20	14.4		13.0		11.5	
65			65	14.00	15.6		14.0		12.5	
70			70	13.03	16.8		15.1		13.4	
75			75	12.10	18.0		16.2		14.4	
80			80	11.40	19.2		17.3		15.4	
90			90	10.13	21.6		19.4		17.3	
100			100	9.12	24.0		21.6		19.2	
125			125	7.30	30.0		27.0		24.0	
150			150	6.08	36.0		32.4		28.8	
175			175	5.21	42.0		37.8		33.6	
200			200	4.56	48.0		43.2		38.4	
TH 30 × 25	30	15	25	45.00	6.0	270	5.4	243	4.8	216
30			30	37.50	7.2		6.5		5.8	
35			35	32.26	8.4		7.6		6.7	
40			40	28.12	9.6		8.6		7.7	
45			45	25.00	10.8		9.7		8.6	

Model	Outer Dia D (mm)	Inner Dia d (mm)	Free Length L (mm)	Spring Const (kgf/mm)	0.3 million		0.5 million		1 million	
					Deflection F (mm)	Load kgf(N)	Deflection F (mm)	Load kgf(N)	Deflection F (mm)	Load kgf(N)
TH 30 × 50	30	15	50	22.50	12.0	270	10.8	243	9.6	216
55			55	20.40	13.2		11.9		10.6	
60			60	18.75	14.4		13.0		11.5	
65			65	17.30	15.6		14.0		12.5	
70			70	16.07	16.8		15.1		13.4	
75			75	15.00	18.0		16.2		14.4	
80			80	14.06	19.2		17.3		15.4	
90			90	12.50	21.6		19.4		17.3	
100			100	11.25	24.0		21.6		19.2	
125			125	9.00	30.0		27.0		24.0	
150			150	7.50	36.0		32.4		28.8	
175			175	6.42	42.0		37.8		33.6	
200			200	5.62	48.0		43.2		38.4	
TH 35 × 35	35	17.5	35	43.68	8.4	367	7.6	330	6.7	293
40			40	38.22	9.6		8.6		7.7	
45			45	33.98	10.8		9.7		8.6	
50			50	30.58	12.0		10.8		9.6	
55			55	27.80	13.2		11.9		10.6	
60			60	25.48	14.4		13.0		11.5	
65			65	23.53	15.6		14.0		12.5	
70			70	21.84	16.8		15.1		13.4	
75			75	20.39	18.0		16.2		14.4	
80			80	19.11	19.2		17.3		15.4	
90			90	16.99	21.6		19.4		17.3	
100			100	15.29	24.0		21.6		19.2	
125			125	12.23	30.0		27.0		24.0	
150			150	10.19	36.0		32.4		28.8	
175			175	8.73	42.0		37.8		33.6	
200			200	7.64	48.0		43.2		38.4	
TH 40 × 40	40	20	40	50.00	9.6	480	8.6	432	7.7	384
45			45	44.44	10.8		9.7		8.6	
50			50	40.00	12.0		10.8		9.6	
55			55	36.36	13.2		11.9		10.6	
60			60	33.33	14.4		13.0		11.5	
65			65	30.77	15.6		14.0		12.5	
70			70	28.57	16.8		15.1		13.4	
75			75	26.67	18.0		16.2		14.4	
80			80	25.00	19.2		17.3		15.4	
90			90	22.22	21.6		19.4		17.3	
100			100	20.00	24.0		21.6		19.2	
125			125	16.00	30.0		27.0		24.0	
150			150	13.33	36.0		32.4		28.8	
175			175	11.42	42.0		37.8		33.6	
200			200	10.00	48.0		43.2		38.4	
225			225	8.89	54.0		48.6		43.2	
250			250	8.00	60.0		54.0		48.0	
275			275	7.27	66.0		59.4		52.8	
300			300	6.67	72.0		64.8		57.6	

Model	Outer Dia D (mm)	Inner Dia d (mm)	Free Length L (mm)	Spring Const (kgf/mm)	0.3 million		0.5 million		1 million	
					Deflection F (mm)	Load kgf(N)	Deflection F (mm)	Load kgf(N)	Deflection F (mm)	Load kgf(N)
TH 50 × 50	50	25	50	62.50	12.0	750	10.8	675	9.6	600
55			55	56.82	13.2		11.9		10.6	
60			60	52.08	14.4		13.0		11.5	
65			65	48.08	15.6		14.0		12.5	
70			70	44.64	16.8		15.1		13.4	
75			75	41.67	18.0		16.2		14.4	
80			80	39.06	19.2		17.3		15.4	
90			90	34.72	21.6		19.4		17.3	
100			100	31.25	24.0		21.6		19.2	
125			125	25.00	30.0		27.0		24.0	
150			150	20.83	36.0		32.4		28.8	
175			175	17.85	42.0		37.8		33.6	
200			200	15.62	48.0		43.2		38.4	
225			225	13.89	54.0		48.6		43.2	
250			250	12.50	60.0		54.0		48.0	
275			275	11.36	66.0		59.4		52.8	
300			300	10.41	72.0		64.8		57.6	
350			350	8.93	84.0		75.6		67.2	
TH 60 × 60	60	30	60	75.00	14.4	1080	13.0	973	11.5	864
70			70	64.28	16.8		15.1		13.4	
80			80	56.25	19.2		17.3		15.4	
90			90	50.00	21.6		19.4		17.3	
100			100	45.00	24.0		21.6		19.2	
125			125	36.00	30.0		27.0		24.0	
150			150	30.00	36.0		32.4		28.8	
175			175	25.71	42.0		37.8		33.6	
200			200	22.50	48.0		43.2		38.4	
225			225	20.00	54.0		48.6		43.2	
250			250	18.00	60.0		54.0		48.0	
275			275	16.36	66.0		59.4		52.8	
300			300	15.00	72.0		64.8		57.6	
350			350	12.86	84.0		75.6		67.2	

Order Example

TYPE	D	L
TH -	D25 -	L100