



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)
TM 8 × 10	8	4	10	4.34	3.2	14	2.9	12.5	2.6	11
15			15	2.89	4.8		4.3		3.8	
20			20	2.17	6.4		5.8		5.1	
25			25	1.74	8.0		7.2		6.4	
30			30	1.45	9.6		8.6		7.7	
35			35	1.24	11.2		10.1		9.0	
40			40	1.09	12.8		11.5		10.2	
45			45	0.97	14.4		13.0		11.5	
50			50	0.87	16.0		14.4		12.8	
55			55	0.79	17.6		15.8		14.1	
60			60	0.72	19.2		17.3		15.4	
65			65	0.67	20.8		18.7		16.6	
70			70	0.62	22.4		20.2		17.9	
75			75	0.58	24.0		21.6		19.2	
80	80	0.54	25.6	23.0	20.5					
90	90	0.48	28.8	25.9	23.0					
TM 10 × 10	10	5	10	6.21	3.2	20	2.9	18	2.6	16
15			15	4.09	4.8		4.4		3.8	
20			20	3.13	6.4		5.8		5.1	
25			25	2.50	8.0		7.2		6.4	
30			30	2.08	9.6		8.6		7.7	
35			35	1.78	11.2		10.1		9.0	
40			40	1.56	12.8		11.5		10.2	
45			45	1.38	14.4		13.0		11.5	
50			50	1.25	16.0		14.4		12.8	
55			55	1.13	17.6		15.8		14.1	
60			60	1.04	19.2		17.3		15.4	
65			65	0.96	20.8		18.7		16.6	
70			70	0.89	22.4		20.2		17.9	
75			75	0.83	24.0		21.6		19.2	
80	80	0.78	25.6	23.0	20.5					
90	90	0.70	28.8	25.9	23.0					
100	100	0.63	32.0	28.8	25.6					

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					Deflection F (mm)	Load kgf(N)	Deflection F (mm)	Load kgf(N)	Deflection F (mm)	Load kgf(N)
TM 12 × 20	12	6	20	4.53	6.4	29	5.8	26	5.1	23
			25	3.62	8.0		7.2		6.4	
			30	3.02	9.6		8.6		7.7	
			35	2.58	11.2		10.1		9.0	
			40	2.27	12.8		11.5		10.2	
			45	2.01	14.4		13.0		11.5	
			50	1.81	16.0		14.4		12.8	
			55	1.64	17.6		15.8		14.1	
			60	1.51	19.2		17.3		15.4	
			65	1.39	20.8		18.7		16.6	
			70	1.29	22.4		20.2		17.9	
			75	1.20	24.0		21.6		19.2	
			80	1.13	25.6		23.0		20.5	
TM 14 × 20	14	7	20	6.03	6.4	39	5.8	35	5.1	31
			25	4.87	8.0		7.2		6.4	
			30	4.06	9.6		8.6		7.7	
			35	3.48	11.2		10.1		9.0	
			40	3.04	12.8		11.5		10.2	
			45	2.70	14.4		13.0		11.5	
			50	2.43	16.0		14.4		12.8	
			55	2.21	17.6		15.8		14.1	
			60	2.03	19.2		17.3		15.4	
			65	1.87	20.8		18.7		16.6	
			70	1.74	22.4		20.2		17.9	
			75	1.62	24.0		21.6		19.2	
			80	1.52	25.6		23.0		20.5	
TM 16 × 20	16	8	20	7.93	6.4	51	5.8	46	5.1	41
			25	6.39	8.0		7.2		6.4	
			30	5.32	9.6		8.6		7.7	
			35	4.55	11.2		10.1		9.0	
			40	3.98	12.8		11.5		10.2	
			45	3.54	14.4		13.0		11.5	
			50	3.18	16.0		14.4		12.8	
			55	2.89	17.6		15.8		14.1	
			60	2.65	19.2		17.3		15.4	
			65	2.45	20.8		18.7		16.6	
			70	2.27	22.4		20.2		17.9	
			75	2.11	24.0		21.6		19.2	
			80	1.99	25.6		23.0		20.5	
90	1.77	28.8	25.9	23.0						
100	1.59	32.0	28.8	25.6						
125	1.28	40.0	36.0	32.0						

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					Deflection F (mm)	Load kgf(N)	Deflection F (mm)	Load kgf(N)	Deflection F (mm)	Load kgf(N)
TM 18 × 20	18	9	20	10.00	6.4	65	5.8	58	5.1	52
			25	8.12	8.0		7.2		6.4	
			30	6.77	9.6		8.6		7.7	
			35	5.80	11.2		10.1		9.0	
			40	5.07	12.8		11.5		10.2	
			45	4.51	14.4		13.0		11.5	
			50	4.06	16.0		14.4		12.8	
			55	3.69	17.6		15.8		14.1	
			60	3.38	19.2		17.3		15.4	
			65	3.12	20.8		18.7		16.6	
			70	2.90	22.4		20.2		17.9	
			75	2.70	24.0		21.6		19.2	
			80	2.53	25.6		23.0		20.5	
			90	2.25	28.8		25.9		23.0	
			100	2.02	32.0		28.8		25.6	
TM 20 × 20	20	10	20	12.41	6.4	80	5.8	72	5.1	64
			25	10.00	8.0		7.2		6.4	
			30	8.33	9.6		8.6		7.7	
			35	7.14	11.2		10.1		9.0	
			40	6.25	12.8		11.5		10.2	
			45	5.55	14.4		13.0		11.5	
			50	5.00	16.0		14.4		12.8	
			55	4.54	17.6		15.8		14.1	
			60	4.16	19.2		17.3		15.4	
			65	3.84	20.8		18.7		16.6	
			70	3.57	22.4		20.2		17.9	
			75	3.33	24.0		21.6		19.2	
			80	3.12	25.6		23.0		20.5	
			90	2.77	28.8		25.9		23.0	
			100	2.50	32.0		28.8		25.6	
TM 22 × 25	22	11	25	12.13	8.0	97	7.2	87	6.4	78
			30	10.10	9.6		8.6		7.7	
			35	8.65	11.2		10.1		9.0	
			40	7.57	12.8		11.5		10.2	
			45	6.74	14.4		13.0		11.5	
			50	6.06	16.0		14.4		12.8	
			55	5.50	17.6		15.8		14.1	
			60	5.05	19.2		17.3		15.4	
			65	4.66	20.8		18.7		16.6	
			70	4.33	22.4		20.2		17.9	
			75	4.04	24.0		21.6		19.2	
			80	3.78	25.6		23.0		20.5	
			90	3.36	28.8		25.9		23.0	
			100	3.03	32.0		28.8		25.6	
			125	2.42	40.0		36.0		32.0	
150	2.01	48.0	43.2	38.4						
175	1.73	56.0	50.4	44.8						

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)
TM 25 × 25	25	12.5	25	15.63	8.0	125	7.2	112	6.4	100
30			30	13.02	9.6		8.6		7.7	
35			35	11.20	11.2		10.1		9.0	
40			40	9.76	12.8		11.5		10.2	
45			45	8.68	14.4		13.0		11.5	
50			50	7.81	16.0		14.4		12.8	
55			55	7.10	17.6		15.8		14.1	
60			60	6.51	19.2		17.3		15.4	
65			65	6.00	20.8		18.7		16.6	
70			70	5.58	22.4		20.2		17.9	
75			75	5.21	24.0		21.6		19.2	
80			80	4.88	25.6		23.0		20.5	
90			90	4.34	28.8		25.9		23.0	
100			100	3.90	32.0		28.8		25.6	
125			125	3.12	40.0		36.0		32.0	
150			150	2.60	48.0		43.2		38.4	
175			175	2.23	56.0		50.4		44.8	
200	200	1.95	64.0	57.6	51.2					
TM 27 × 25	27	13.5	25	18.25	8.0	146	7.2	131	6.4	117
30			30	15.20	9.6		8.6		7.7	
35			35	13.04	11.2		10.1		9.0	
40			40	11.40	12.8		11.5		10.2	
45			45	10.14	14.4		13.0		11.5	
50			50	9.12	16.0		14.4		12.8	
55			55	8.30	17.6		15.8		14.1	
60			60	7.60	19.2		17.3		15.4	
65			65	7.00	20.8		18.7		16.6	
70			70	6.51	22.4		20.2		17.9	
75			75	6.08	24.0		21.6		19.2	
80			80	5.70	25.6		23.0		20.5	
90			90	5.06	28.8		25.9		23.0	
100			100	4.56	32.0		28.8		25.6	
125			125	3.65	40.0		36.0		32.0	
150			150	3.04	48.0		43.2		38.4	
175			175	2.61	56.0		50.4		44.8	
200	200	2.28	64.0	57.6	51.2					
TM 30 × 25	30	15	25	22.50	8.0	180	7.2	161	6.4	144
30			30	18.75	9.6		8.6		7.7	
35			35	16.10	11.2		10.1		9.0	
40			40	14.06	12.8		11.5		10.2	
45			45	12.50	14.4		13.0		11.5	
50			50	11.25	16.0		14.4		12.8	
55			55	10.23	17.6		15.8		14.1	
60			60	9.37	19.2		17.3		15.4	
65			65	8.65	20.8		18.7		16.6	
70			70	8.03	22.4		20.2		17.9	
75			75	7.50	24.0		21.6		19.2	
80			80	7.03	25.6		23.0		20.5	
90			90	6.25	28.8		25.9		23.0	
100			100	5.62	32.0		28.8		25.6	
125			125	4.50	40.0		36.0		32.0	

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)
TM 30 × 150	30	15	150	3.75	48.0	180	43.2	161	38.4	144
175			3.21	56.0	50.4		44.8			
200			2.81	64.0	57.6		51.2			
TM 35 × 35	35	17.5	35	21.87	11.2	245	10.1	220	9.0	195
40			19.14	12.8	11.5		10.2			
45			17.01	14.4	13.0		11.5			
50			15.31	16.0	14.4		12.8			
55			13.92	17.6	15.8		14.1			
60			12.76	19.2	17.3		15.4			
65			11.77	20.8	18.7		16.6			
75			10.93	22.4	20.2		17.9			
70			10.20	24.0	21.6		19.2			
80			9.57	25.6	23.0		20.5			
90			8.50	28.8	25.9		23.0			
100			7.65	32.0	28.8		25.6			
125			6.12	40.0	36.0		32.0			
150			5.10	48.0	43.2		38.4			
175			4.37	56.0	50.4		44.8			
200	3.82	64.0	57.6	51.2						
TM 40 × 40	40	20	40	25.02	12.8	320	11.5	288	10.2	256
45			22.26	14.4	13.0		11.5			
50			20.00	16.0	14.4		12.8			
55			18.15	17.6	15.8		14.1			
60			16.60	19.2	17.3		15.4			
65			15.40	20.8	18.7		16.6			
70			14.28	22.4	20.2		17.9			
75			13.34	24.0	21.6		19.2			
80			12.50	25.6	23.0		20.5			
90			11.11	28.8	25.9		23.0			
100			10.00	32.0	28.8		25.6			
125			8.00	40.0	36.0		32.0			
150			6.66	48.0	43.2		38.4			
175			5.71	56.0	50.4		44.8			
200			5.00	64.0	57.6		51.2			
225	4.44	72.0	64.8	57.6						
250	4.00	80.0	72.0	64.0						
275	3.64	88.0	79.2	70.4						
300	3.33	96.0	86.4	76.8						
TM 50 × 50	50	25	50	31.25	16.0	500	14.4	450	12.8	400
55			28.41	17.6	15.8		14.1			
60			26.04	19.2	17.3		15.4			
65			24.04	20.8	18.7		16.6			
70			22.32	22.4	20.2		17.9			
75			20.83	24.0	21.6		19.2			
80			19.53	25.6	23.0		20.5			
90			17.36	28.8	25.9		23.0			
100			15.62	32.0	28.8		25.6			
125			12.50	40.0	36.0		32.0			
150			10.41	48.0	43.2		38.4			
175	8.92	56.0	50.4	44.8						
200	7.81	64.0	64.0	51.2						

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					Deflection F (mm)	Load kgf(N)	Deflection F (mm)	Load kgf(N)	Deflection F (mm)	Load kgf(N)
TM 50 × 225	50	25	225	6.94	72.0	500	64.8	450	57.6	400
250			6.25	80.0	72.0		64.0			
275			5.68	88.0	79.2		70.4			
300			5.20	96.0	86.4		76.8			
350			4.46	112.0	100.8		89.6			
TM 60 × 60	60	30	60	37.40	19.2	720	17.3	648	15.4	575
70			32.10	22.4	20.2		17.9			
80			28.12	25.6	23.0		20.5			
90			25.00	28.8	25.9		23.0			
100			22.50	32.0	28.8		25.6			
125			18.00	40.0	36.0		32.0			
150			15.00	48.0	43.2		38.4			
175			12.85	56.0	50.4		44.8			
200			11.25	64.0	57.6		51.2			
225			10.00	72.0	64.8		57.6			
250			9.00	80.0	72.0		64.0			
275			8.18	88.0	79.2		70.4			
300			7.50	96.0	86.4		76.8			
350			6.43	112.0	100.8		89.6			



Order Example

TYPE	D	L
TM	D40	L300