



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

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)
SM 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	
90	1.01	28.8	25.9	23.0						
100	0.91	32.0	28.8	25.6						
SM 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	
90	1.35	28.8	25.9	23.0						
100	1.22	32.0	28.8	25.6						
125	0.97	40.0	36.0	32.0						
SM 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						

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)
SM 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	
SM 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	
SM 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)
SM 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					
SM 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					
SM 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)
SM 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			
SM 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						
SM 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						
SM 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						

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)
SM 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			
SM 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
SM	D40	L300