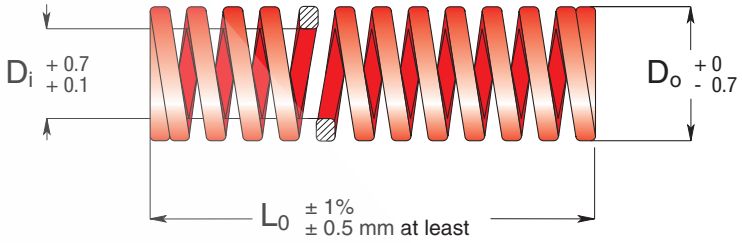
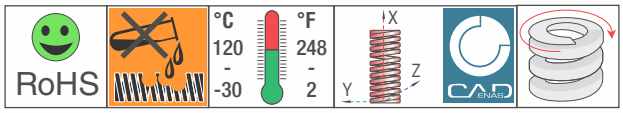
JIS B 5012 - 1986

EN Medium load springs
CN 中型荷载弹簧





Code 型号	D_o Outside Diameter 外径	D_i Inside Diameter 内径	L_0 Free Length 自由长度	R Spring Constant 弹簧定数 ± 10%	A 25.6% L_0 1.000.000 cycles		B 28.8% L_0 500.000 cycles		C 32% L_0 300.000 cycles		E approx. do not use	
	mm	mm	mm	Kgf/mm	mm	Kgf (N)	mm	Kgf (N)	mm	Kgf (N)	mm	Pcs
SM 10 - 020	10	5	20	3.13	5.1	16 (156.9)	5.8	18 (176.5)	6.4	20 (196.1)	7.6	50
SM 10 - 025			25	2.50	6.4		7.2		8.0		9.5	50
SM 10 - 030			30	2.08	7.7		8.6		9.6		11.4	50
SM 10 - 035			35	1.78	9.0		10.1		11.2		13.3	50
SM 10 - 040			40	1.56	10.2		11.5		12.8		15.2	50
SM 10 - 045			45	1.38	11.5		13.0		14.4		17.1	50
SM 10 - 050			50	1.25	12.8		14.4		16.0		19.0	25
SM 10 - 055			55	1.13	14.1		15.8		17.6		20.9	25
SM 10 - 060			60	1.04	15.4		17.3		19.2		22.8	25
SM 10 - 065			65	0.96	16.6		18.7		20.8		24.7	25
SM 10 - 070			70	0.89	17.9		20.2		22.4		26.6	25
SM 10 - 075			75	0.83	19.2		21.6		24.0		28.5	25
SM 10 - 080			80	0.78	20.5		23.0		25.6		30.4	25
SM 12 - 020	12	6	20	4.53	5.1	23 (226)	5.8	26 (255)	6.4	29 (284)	7.6	50
SM 12 - 025			25	3.62	6.4		7.2		8.0		9.5	50
SM 12 - 030			30	3.02	7.7		8.6		9.6		11.4	50
SM 12 - 035			35	2.58	9.0		10.1		11.2		13.3	50
SM 12 - 040			40	2.27	10.2		11.5		12.8		15.2	50
SM 12 - 045			45	2.01	11.5		13.0		14.4		17.1	50
SM 12 - 050			50	1.81	12.8		14.4		16.0		19.0	25
SM 12 - 055			55	1.64	14.1		15.8		17.6		20.9	25
SM 12 - 060			60	1.51	15.4		17.3		19.2		22.8	25
SM 12 - 065			65	1.39	16.6		18.7		20.8		24.7	25
SM 12 - 070			70	1.29	17.9		20.2		22.4		26.6	25
SM 12 - 075			75	1.20	19.2		21.6		24.0		28.5	25
SM 12 - 080			80	1.13	20.5		23.0		25.6		30.4	25
SM 14 - 025	14	7	25	4.87	6.4	31 (304)	7.2	35 (343)	8.0	39 (383)	9.5	50
SM 14 - 030			30	4.06	7.7		8.6		9.6		11.4	50
SM 14 - 035			35	3.48	9.0		10.1		11.2		13.3	50
SM 14 - 040			40	3.04	10.2		11.5		12.8		15.2	50
SM 14 - 045			45	2.70	11.5		13.0		14.4		17.1	25
SM 14 - 050			50	2.43	12.8		14.4		16.0		19.0	25
SM 14 - 055			55	2.21	14.1		15.8		17.6		20.9	25
SM 14 - 060			60	2.03	15.4		17.3		19.2		22.8	25
SM 14 - 065			65	1.87	16.6		18.7		20.8		24.7	25
SM 14 - 070			70	1.74	17.9		20.2		22.4		26.6	25
SM 14 - 075			75	1.62	19.2		21.6		24.0		28.5	25
SM 14 - 080			80	1.52	20.5		23.0		25.6		30.4	20
SM 14 - 090			90	1.35	23.0		25.9		28.8		34.2	20

1 N = 0.1 daN = 0.102 kgf

Load (N) = R (N/mm) x Deflection (mm)

SM 22 - 40 (Series D_o - L_0)

JIS B 5012 - 1986

系列 SERIES SM

Code 型号	D_o Outside Diameter 外径	D_i Inside Diameter 内径	L_0 Free Length 自由长度	R Spring Constant 弹簧定数 ± 10%	A 25.6% L_0 1.000.000 cycles		B 28.8% L_0 500.000 cycles		C 32% L_0 300.000 cycles		E approx. do not use	
	mm	mm	mm	Kgf/mm	mm	Kgf (N)	mm	Kgf (N)	mm	Kgf (N)	mm	Pcs
SM 16 - 025	16	8	25	6.39	6.4	41 (402)	7.2	46 (451)	8.0	51 (500)	9.5	50
SM 16 - 030			30	5.32	7.7		8.6		9.6		11.4	50
SM 16 - 035			35	4.55	9.0		10.1		11.2		13.3	50
SM 16 - 040			40	3.98	10.2		11.5		12.8		15.2	25
SM 16 - 045			45	3.54	11.5		13.0		14.4		17.1	25
SM 16 - 050			50	3.18	12.8		14.4		16.0		19.0	25
SM 16 - 055			55	2.89	14.1		15.8		17.6		20.9	25
SM 16 - 060			60	2.65	15.4		17.3		19.2		22.8	25
SM 16 - 065			65	2.45	16.6		18.7		20.8		24.7	25
SM 16 - 070			70	2.27	17.9		20.2		22.4		26.6	20
SM 16 - 075			75	2.11	19.2		21.6		24.0		28.5	20
SM 16 - 080			80	1.99	20.5		23.0		25.6		30.4	20
SM 16 - 090			90	1.77	23.0		25.9		28.8		34.2	20
SM 16 - 100			100	1.59	25.6		28.8		32.0		38.0	20
SM 18 - 025	18	9	25	8.12	6.4	52 (510)	7.2	58 (569)	8.0	65 (637)	9.5	50
SM 18 - 030			30	6.77	7.7		8.6		9.6		11.4	50
SM 18 - 035			35	5.80	9.0		10.1		11.2		13.3	25
SM 18 - 040			40	5.07	10.2		11.5		12.8		15.2	25
SM 18 - 045			45	4.51	11.5		13.0		14.4		17.1	25
SM 18 - 050			50	4.06	12.8		14.4		16.0		19.0	25
SM 18 - 055			55	3.69	14.1		15.8		17.6		20.9	25
SM 18 - 060			60	3.38	15.4		17.3		19.2		22.8	25
SM 18 - 065			65	3.12	16.6		18.7		20.8		24.7	25
SM 18 - 070			70	2.90	17.9		20.2		22.4		26.6	25
SM 18 - 075			75	2.70	19.2		21.6		24.0		28.5	25
SM 18 - 080			80	2.53	20.5		23.0		25.6		30.4	20
SM 18 - 090			90	2.25	23.0		25.9		28.8		34.2	20
SM 18 - 100			100	2.02	25.6		28.8		32.0		38.0	20
SM 20 - 025	20	10	25	10.00	6.4	64 (628)	7.2	72 (706)	8.0	80 (785)	9.5	50
SM 20 - 030			30	8.33	7.7		8.6		9.6		11.4	50
SM 20 - 035			35	7.14	9.0		10.1		11.2		13.3	25
SM 20 - 040			40	6.25	10.2		11.5		12.8		15.2	25
SM 20 - 045			45	5.55	11.5		13.0		14.4		17.1	25
SM 20 - 050			50	5.00	12.8		14.4		16.0		19.0	25
SM 20 - 055			55	4.54	14.1		15.8		17.6		20.9	25
SM 20 - 060			60	4.16	15.4		17.3		19.2		22.8	25
SM 20 - 065			65	3.84	16.6		18.7		20.8		24.7	25
SM 20 - 070			70	3.57	17.9		20.2		22.4		26.6	25
SM 20 - 075			75	3.33	19.2		21.6		24.0		28.5	25
SM 20 - 080			80	3.12	20.5		23.0		25.6		30.4	20
SM 20 - 090			90	2.77	23.0		25.9		28.8		34.2	20
SM 20 - 100			100	2.50	25.6		28.8		32.0		38.0	20
SM 20 - 125			125	2.00	32.0		36.0		40.0		47.5	10
SM 20 - 150			150	1.67	38.4		43.2		48.0		57.0	10
SM 22 - 025	22	11	25	12.13	6.4	78 (765)	7.2	87 (853)	8.0	97 (951)	9.5	50
SM 22 - 030			30	10.10	7.7		8.6		9.6		11.4	25
SM 22 - 035			35	8.65	9.0		10.1		11.2		13.3	25
SM 22 - 040			40	7.57	10.2		11.5		12.8		15.2	25
SM 22 - 045			45	6.74	11.5		13.0		14.4		17.1	25
SM 22 - 050			50	6.06	12.8		14.4		16.0		19.0	25
SM 22 - 055			55	5.50	14.1		15.8		17.6		20.9	25
SM 22 - 060			60	5.05	15.4		17.3		19.2		22.8	25
SM 22 - 065			65	4.66	16.6		18.7		20.8		24.7	25
SM 22 - 070			70	4.33	17.9		20.2		22.4		26.6	20
SM 22 - 075			75	4.04	19.2		21.6		24.0		28.5	20
SM 22 - 080			80	3.78	20.5		23.0		25.6		30.4	20
SM 22 - 090			90	3.36	23.0		25.9		28.8		34.2	20
SM 22 - 100			100	3.03	25.6		28.8		32.0		38.0	20
SM 22 - 125			125	2.42	32.0		36.0		40.0		47.5	10
SM 22 - 150			150	2.01	38.4		43.2		48.0		57.0	10

1 N = 0.1 daN = 0.102 kgf

Load (N) = R (N/mm) x Deflection (mm)

SM 22 - 40 (Series D_o - L_0)

SM SERIES 系列

JIS B 5012 - 1986

Code 型号	D_o Outside Diameter 外径	D_i Inside Diameter 内径	L_0 Free Length 自由长度	R Spring Constant 弹簧定数 ± 10%	A 25.6% L_0 1.000.000 cycles		B 28.8% L_0 500.000 cycles		C 32% L_0 300.000 cycles		E approx. do not use	
	mm	mm	mm	Kgf/mm	mm	Kgf (N)	mm	Kgf (N)	mm	Kgf (N)	mm	Pcs
SM 25 - 025			25	15.63	6.4		7.2		8.0		9.5	50
SM 25 - 030			30	13.02	7.7		8.6		9.6		11.4	25
SM 25 - 035			35	11.20	9.0		10.0		11.2		13.3	25
SM 25 - 040			40	9.76	10.2		11.5		12.8		15.2	25
SM 25 - 045			45	8.68	11.5		13.0		14.4		17.1	25
SM 25 - 050			50	7.81	12.8		14.4		16.0		19.0	25
SM 25 - 055			55	7.10	14.1		15.8		17.6		20.9	25
SM 25 - 060			60	6.51	15.4		17.3		19.2		22.8	25
SM 25 - 065	25	12.5	65	6.00	16.6	100 (981)	18.7	112 (1,098)	20.8	125 (1,226)	24.7	25
SM 25 - 070			70	5.58	17.9		20.2		22.4		26.6	20
SM 25 - 075			75	5.21	19.2		21.6		24.0		28.5	20
SM 25 - 080			80	4.88	20.5		23.0		25.6		30.4	20
SM 25 - 090			90	4.34	23.0		25.9		28.8		34.2	20
SM 25 - 100			100	3.90	25.6		28.8		32.0		38.0	20
SM 25 - 125			125	3.12	32.0		36.0		40.0		47.5	10
SM 25 - 150			150	2.60	38.4		43.2		48.0		57.0	10
SM 25 - 175			175	2.23	44.8		50.4		56.0		66.5	10
SM 27 - 025			25	18.25	6.4		7.2		8.0		9.5	20
SM 27 - 030			30	15.20	7.7		8.6		9.6		11.4	20
SM 27 - 035			35	13.04	9.0		10.0		11.2		13.3	20
SM 27 - 040			40	11.40	10.2		11.5		12.8		15.2	20
SM 27 - 045			45	10.14	11.5		13.0		14.4		17.1	20
SM 27 - 050			50	9.12	12.8		14.4		16.0		19.0	20
SM 27 - 055			55	8.30	14.1		15.8		17.6		20.9	20
SM 27 - 060			60	7.60	15.4		17.3		19.2		22.8	20
SM 27 - 065	27	13.5	65	7.00	16.6	117 (1,147)	18.7	131 (1,285)	20.8	146 (1,432)	24.7	20
SM 27 - 070			70	6.51	17.9		20.2		22.4		26.6	20
SM 27 - 075			75	6.08	19.2		21.6		24.0		28.5	20
SM 27 - 080			80	5.70	20.5		23.0		25.6		30.4	10
SM 27 - 090			90	5.06	23.0		25.9		28.8		34.2	10
SM 27 - 100			100	4.56	25.6		28.8		32.0		38.0	10
SM 27 - 125			125	3.65	32.0		36.0		40.0		47.5	10
SM 27 - 150			150	3.04	38.4		43.2		48.0		57.0	10
SM 27 - 175			175	2.61	44.8		50.4		56.0		66.5	5
SM 30 - 025			25	22.50	6.4		7.2		8.0		9.5	20
SM 30 - 030			30	18.75	7.7		8.6		9.6		11.4	20
SM 30 - 035			35	16.10	9.0		10.0		11.2		13.3	20
SM 30 - 040			40	14.06	10.2		11.5		12.8		15.2	20
SM 30 - 045			45	12.50	11.5		13.0		14.4		17.1	20
SM 30 - 050			50	11.25	12.8		14.4		16.0		19.0	20
SM 30 - 055			55	10.23	14.1		15.8		17.6		20.9	20
SM 30 - 060			60	9.37	15.4		17.3		19.2		22.8	20
SM 30 - 065	30	15	65	8.65	16.6	144 (1,412)	18.7	161 (1,579)	20.8	180 (1,785)	24.7	20
SM 30 - 070			70	8.03	17.9		20.2		22.4		26.6	20
SM 30 - 075			75	7.50	19.2		21.6		24.0		28.5	20
SM 30 - 080			80	7.03	20.5		23.0		25.6		30.4	10
SM 30 - 090			90	6.25	23.0		25.9		28.8		34.2	10
SM 30 - 100			100	5.62	25.6		28.8		32.0		38.0	10
SM 30 - 125			125	4.50	32.0		36.0		40.0		47.5	10
SM 30 - 150			150	3.75	38.4		43.2		48.0		57.0	10
SM 30 - 175			175	3.21	44.8		50.4		56.0		66.5	5
SM 30 - 200			200	2.81	51.2		57.6		64.0		76.0	5

1 N = 0.1 daN = 0.102 kgf

Load (N) = R (N/mm) x Deflection (mm)

SM 40 - 80 (Series D_o - L_0)

JIS B 5012 - 1986

系列 SERIES SM

Code 型号	D_o Outside Diameter 孔径	D_i Inside Diameter 棒径	L_0 Free Length 自由长度	R Spring Constant 弹簧定数 ± 10%	A 25.6% L_0 1.000.000 cycles		B 28.8% L_0 500.000 cycles		C 32% L_0 300.000 cycles		E approx. do not use	
	mm	mm	mm	Kgf/mm	mm	Kgf (N)	mm	Kgf (N)	mm	Kgf (N)	mm	Pcs
SM 35 - 040	35	17.5	40	19.14	10.2	195 (1,912)	11.5	220 (2,160)	12.8	245 (2,400)	15.2	20
SM 35 - 045			45	17.01	11.5		13.0		14.4		17.1	20
SM 35 - 050			50	15.31	12.8		14.4		16.0		19.0	20
SM 35 - 055			55	13.92	14.0		15.8		17.6		20.9	10
SM 35 - 060			60	12.76	15.4		17.3		19.2		22.8	10
SM 35 - 065			65	11.77	16.6		18.7		20.8		24.7	10
SM 35 - 070			70	10.93	17.9		20.2		22.4		26.6	10
SM 35 - 075			75	10.20	19.2		21.6		24.0		28.5	10
SM 35 - 080			80	9.57	20.5		23.0		25.6		30.4	10
SM 35 - 090			90	8.50	23.0		25.9		28.8		34.2	10
SM 35 - 100			100	7.65	25.6		28.8		32.0		38.0	10
SM 35 - 125			125	6.12	32.0		36.0		40.0		47.5	5
SM 35 - 150			150	5.10	38.4		43.2		48.0		57.0	5
SM 35 - 175			175	4.37	44.8		50.4		56.0		66.5	5
SM 35 - 200			200	3.82	51.2		57.6		64.0		76.0	5
SM 40 - 040	40	20	40	25.02	10.2	256 (2,510)	11.5	288 (2,820)	12.8	320 (3,140)	15.2	20
SM 40 - 045			45	22.19	11.5		13.0		14.4		17.1	20
SM 40 - 050			50	20.00	12.8		14.4		16.0		19.0	20
SM 40 - 055			55	18.15	14.1		15.8		17.6		20.9	20
SM 40 - 060			60	16.60	15.4		17.3		19.2		22.8	10
SM 40 - 065			65	15.36	16.6		18.7		20.8		24.7	10
SM 40 - 070			70	14.28	17.9		20.2		22.4		26.6	10
SM 40 - 075			75	13.31	19.2		21.6		24.0		28.5	10
SM 40 - 080			80	12.50	20.5		23.0		25.6		30.4	10
SM 40 - 090			90	11.11	23.0		25.9		28.8		34.2	10
SM 40 - 100			100	10.00	25.6		28.8		32.0		38.0	10
SM 40 - 125			125	8.00	32.0		36.0		40.0		47.5	5
SM 40 - 150			150	6.66	38.4		43.2		48.0		57.0	5
SM 40 - 175			175	5.71	44.8		50.4		56.0		66.5	5
SM 40 - 200			200	5.00	51.2		57.6		64.0		76.0	5
SM 40 - 250			250	4.00	64.0		72.0		80.0		95.0	2
SM 50 - 050	50	25	50	31.25	12.8	400 (3,920)	14.4	450 (4,410)	16.0	500 (4,900)	19.0	5
SM 50 - 055			55	28.39	14.1		15.8		17.6		20.9	5
SM 50 - 060			60	26.04	15.4		17.3		19.2		22.8	5
SM 50 - 065			65	24.02	16.6		18.7		20.8		24.7	5
SM 50 - 070			70	22.32	17.9		20.2		22.4		26.6	5
SM 50 - 075			75	20.82	19.2		21.6		24.0		28.5	5
SM 50 - 080			80	19.53	20.5		23.0		25.6		30.4	5
SM 50 - 090			90	17.36	23.0		25.9		28.8		34.2	5
SM 50 - 100			100	15.62	25.6		28.8		32.0		38.0	5
SM 50 - 125			125	12.50	32.0		36.0		40.0		47.5	5
SM 50 - 150			150	10.41	38.4		43.2		48.0		57.0	2
SM 50 - 175			175	8.92	44.8		50.4		56.0		66.5	2
SM 50 - 200			200	7.81	51.2		57.6		64.0		76.0	2
SM 50 - 250			250	6.25	64.0		72.0		80.0		95.0	2
SM 50 - 300			300	5.20	76.8		86.4		96.0		114.0	2
SM 60 - 060	60	30	60	37.40	15.4	575 (5,640)	17.3	648 (6,350)	19.2	720 (7,060)	22.8	5
SM 60 - 070			70	32.10	17.9		20.2		22.4		26.6	5
SM 60 - 080			80	28.12	20.5		23.0		25.6		30.4	5
SM 60 - 090			90	25.00	23.0		25.9		28.8		34.2	5
SM 60 - 100			100	22.50	25.6		28.8		32.0		38.0	5
SM 60 - 125			125	18.00	32.0		36.0		40.0		47.5	2
SM 60 - 150			150	15.00	38.4		43.2		48.0		57.0	2
SM 60 - 175			175	12.85	44.8		50.4		56.0		66.5	2
SM 60 - 200			200	11.25	51.2		57.6		64.0		76.0	2
SM 60 - 250			250	9.00	64.0		72.0		80.0		95.0	2
SM 60 - 300			300	7.50	76.8		86.4		96.0		114.0	2

SM
JIS

1 N = 0.1 daN = 0.102 kgf

Load (N) = R (N/mm) x Deflection (mm)

SM 40 - 80 (Series D_o - L_0)