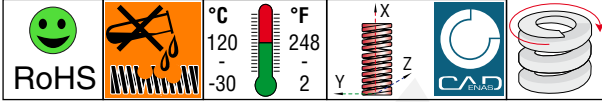
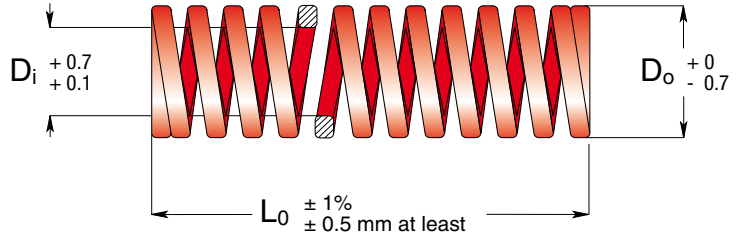


SM SERIES 系列

EN Medium load springs
CN 中型荷载弹簧



Code 型号	Do Outside Diameter 外径	Di Inside Diameter 内径	L0 Free Length 自由长度	R Spring Constant 弹簧定数 ± 10%	A 25.6% L0 1.000.000 cycles	B 28.8% L0 500.000 cycles	C 32% L0 300.000 cycles	E do not use approx.	Pcs
	mm	mm	mm	Kgf/mm	mm Kgf (N)	mm Kgf (N)	mm Kgf (N)	mm	
SM 10 - 020	10	5	20	3.13	5.1	5.8	6.4	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	5.8	6.4	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	7.2	8.0	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		

Special Springs 34 102 kgf 1 N = 0.1 kgf (10 N = 1 kgf) x Deflection (mm) = Load (N) = R (N/mm) x Deflection (mm) (Series D2) LSM 22 - 40 (Series 33) (L0)

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 Kgf (N)	B 28.8% L ₀ 500.000 cycles Kgf (N)	C 32% L ₀ 300.000 cycles Kgf (N)	E do not use approx.	Pcs
	mm	mm	mm	Kgf/mm	mm	mm	mm	mm	
SM 16 - 025	16	8	25	6.39	6.4	7.2	8.0	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	7.2	8.0	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	7.2	8.0	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	7.2	8.0	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		

SM
JIS

1 N = 0.1 daN = 0.102 kgf

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



SM 22 - 40 (Series D₀ - L₀)

Special Springs **35**

SM SERIES 系列

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	Pcs
	mm	mm	mm	Kgf/mm	mm Kgf (N)	mm Kgf (N)	mm Kgf (N)	mm	
SM 25 - 025	25	12.5	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			65	6.00	16.6	18.7	20.8	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	27	13.5	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			65	7.00	16.6	18.7	20.8	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	30	15	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			65	8.65	16.6	18.7	20.8	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		

Special Springs **36**

1 N = 0.1 daN = 0.102 kgf

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



SM 40 - 80 (Series) [D₀] - [L₀]

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	A 25.6% L ₀ 1.000.000 cycles ± 10% Kgf/mm	B 28.8% L ₀ 500.000 cycles Kgf (N)	C 32% L ₀ 300.000 cycles Kgf (N)	E do not use approx. mm	Pcs
SM 35 - 040	35	17.5	40	19.14	10.2	11.5	12.8	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	11.5	12.8
SM 40 - 050	50	20.00			12.8	14.4	16.0	19.0	20
SM 40 - 060	60	16.60			15.4	17.3	19.2	22.8	10
SM 40 - 070	70	14.28			17.9	20.2	22.4	26.6	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	14.4	16.0	19.0	5
SM 50 - 060			60	26.04	15.4	17.3	19.2	22.8	5
SM 50 - 070			70	22.32	17.9	20.2	22.4	26.6	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	17.3	19.2	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 D₀ - L₀)

Special Springs **37**