

SL



使用回数	100万回	50万回	30万回	外径	外径(φ70)	内径	自由長	荷重	直角度
種類				+0	+0	+0.1	自由長50mm以下±0.5mm	±10%	2度以下
SL	自由長X32%	自由長X36%	自由長X40%	-0.7	-1.0	+0.7	自由長55mm以上±1%		

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品番 Catalog No. 番号	外径 Outer-Dia 外径 (mm)	内径 Inner-Dia 内径 (mm)	自由長 Free Length 自由長 (mm)	ばね定数 Spring Constant 弾簧定数 (N/mm) (kgf/mm)		密着長 Min.Length 貼緊長 (mm)	100万回		50万回		30万回	
							たわみ Deflection 弯曲 (mm)	荷重 Load 負荷 (kgf)[N]	たわみ Deflection 弯曲 (mm)	荷重 Load 負荷 (kgf)[N]	たわみ Deflection 弯曲 (mm)	荷重 Load 負荷 (kgf)[N]
SL6-15	6	3	15	13.1	1.33	8.6	4.8	6.4 {63}	5.4	7.2 {71}	6.0	8 {78}
20			20	9.8	1.00	11.5	6.4		7.2		8.0	
25			25	7.8	0.80	14.4	8.0		9.0		10.0	
30			30	6.5	0.67	17.2	9.6		10.8		12.0	
35			35	5.6	0.57	20.1	11.2		12.6		14.0	
40			40	4.9	0.50	23.0	12.8		14.4		16.0	
SL8-10	8	4	10	24.5	2.50	5.4	3.2	8 {78}	3.6	9 {88}	4.0	10 {98}
15			15	16.3	1.67	8.1	4.8		5.4		6.0	
20			20	12.3	1.25	10.8	6.4		7.2		8.0	
25			25	9.8	1.00	13.5	8.0		9.0		10.0	
30			30	8.2	0.83	16.2	9.6		10.8		12.0	
35			35	7.0	0.71	18.9	11.2		12.6		14.0	
40			40	6.1	0.63	21.6	12.8		14.4		16.0	
45			45	5.4	0.56	24.3	14.4		16.2		18.0	
50			50	4.9	0.50	27.0	16.0		18.0		20.0	
55			55	4.5	0.45	29.7	17.6		19.8		22.0	
60			60	4.1	0.42	32.4	19.2		21.6		24.0	
65			65	3.8	0.38	37.3	20.8		23.4		26.0	
70			70	3.5	0.36	40.2	22.4		25.2		28.0	
75			75	3.3	0.33	43.1	24.0		27.0		30.0	
80			80	3.1	0.31	45.9	25.6		28.8		32.0	
SL10-10	10	5	10	34.3	3.50	5.4	3.2	11 {110}	3.6	13 {124}	4.0	14 {137}
15			15	22.9	2.33	8.1	4.8		5.4		6.0	
20			20	17.2	1.75	10.8	6.4		7.2		8.0	
25			25	13.7	1.40	13.5	8.0		9.0		10.0	
30			30	11.4	1.17	16.2	9.6		10.8		12.0	
35			35	9.8	1.00	18.9	11.2		12.6		14.0	
40			40	8.6	0.88	21.6	12.8		14.4		16.0	
45			45	7.6	0.78	24.3	14.4		16.2		18.0	
50			50	6.9	0.70	27.0	16.0		18.0		20.0	
55			55	6.2	0.64	29.7	17.6		19.8		22.0	
60			60	5.7	0.58	32.4	19.2		21.6		24.0	
65			65	5.3	0.54	35.1	20.8		23.4		26.0	
70			70	4.9	0.50	37.8	22.4		25.2		28.0	
75			75	4.6	0.47	40.5	24.0		27.0		30.0	
80			80	4.3	0.44	43.2	25.6		28.8		32.0	
90			90	3.8	0.39	48.6	28.8		32.4		36.0	

品番 Catalog No. 编号	外径 Outer-Dia 外径 (mm)	内径 Inner-Dia 内径 (mm)	自由長 Free Length 自由长 (mm)	ばね定数 Spring Constant 弹簧定数 (N/mm) (kgf/mm)		密着長 Min.Length 贴紧长 (mm)	100万回		50万回		30万回	
							たわみ Deflection 弯曲 (mm)	荷重 Load 负荷 (kgf)(N)	たわみ Deflection 弯曲 (mm)	荷重 Load 负荷 (kgf)(N)	たわみ Deflection 弯曲 (mm)	荷重 Load 负荷 (kgf)(N)
SL12-15	12	6	15	34.3	3.50	8.1	4.8	17 {165}	5.4	19 {185}	6.0	21 {206}
20			20	25.7	2.63	10.8	6.4		7.2		8.0	
25			25	20.6	2.10	13.5	8.0		9.0		10.0	
30			30	17.2	1.75	16.2	9.6		10.8		12.0	
35			35	14.7	1.50	18.9	11.2		12.6		14.0	
40			40	12.9	1.31	21.6	12.8		14.4		16.0	
45			45	11.4	1.17	24.3	14.4		16.2		18.0	
50			50	10.3	1.05	27.0	16.0		18.0		20.0	
55			55	9.4	0.95	29.7	17.6		19.8		22.0	
60			60	8.6	0.88	32.4	19.2		21.6		24.0	
65			65	7.9	0.81	35.1	20.8		23.4		26.0	
70			70	7.4	0.75	37.8	22.4		25.2		28.0	
75			75	6.9	0.70	40.5	24.0		27.0		30.0	
80			80	6.4	0.66	43.2	25.6		28.8		32.0	
90			90	5.7	0.58	48.6	28.8		32.4		36.0	
SL14-20	14	7	20	34.3	3.50	10.8	6.4	22 {220}	7.2	25 {247}	8.0	28 {275}
25			25	27.5	2.80	13.5	8.0		9.0		10.0	
30			30	22.9	2.33	16.2	9.6		10.8		12.0	
35			35	19.6	2.00	18.9	11.2		12.6		14.0	
40			40	17.2	1.75	21.6	12.8		14.4		16.0	
45			45	15.3	1.56	24.3	14.4		16.2		18.0	
50			50	13.7	1.40	27.0	16.0		18.0		20.0	
55			55	12.5	1.27	29.7	17.6		19.8		22.0	
60			60	11.4	1.17	32.4	19.2		21.6		24.0	
65			65	10.6	1.08	35.1	20.8		23.4		26.0	
70			70	9.8	1.00	37.8	22.4		25.2		28.0	
75			75	9.2	0.93	40.5	24.0		27.0		30.0	
80			80	8.6	0.88	43.2	25.6		28.8		32.0	
90			90	7.6	0.78	48.6	28.8		32.4		36.0	
100			100	6.9	0.70	54.0	32.0		36.0		40.0	
SL16-20	16	8	20	42.9	4.38	10.8	6.4	28 {275}	7.2	32 {309}	8.0	35 {343}
25			25	34.3	3.50	13.5	8.0		9.0		10.0	
30			30	28.6	2.92	16.2	9.6		10.8		12.0	
35			35	24.5	2.50	18.9	11.2		12.6		14.0	
40			40	21.5	2.19	21.6	12.8		14.4		16.0	
45			45	19.1	1.94	24.3	14.4		16.2		18.0	
50			50	17.2	1.75	27.0	16.0		18.0		20.0	
55			55	15.6	1.59	29.7	17.6		19.8		22.0	
60			60	14.3	1.46	32.4	19.2		21.6		24.0	
65			65	13.2	1.35	35.1	20.8		23.4		26.0	
70			70	12.3	1.25	37.8	22.4		25.2		28.0	
75			75	11.4	1.17	40.5	24.0		27.0		30.0	
80			80	10.7	1.09	43.2	25.6		28.8		32.0	
90			90	9.5	0.97	48.6	28.8		32.4		36.0	
100			100	8.6	0.88	54.0	32.0		36.0		40.0	
125			125	6.9	0.70	67.5	40.0		45.0		50.0	
SL18-20	18	9	20	52.7	5.38	10.8	6.4	34 {337}	7.2	39 {380}	8.0	43 {422}
25			25	42.2	4.30	13.5	8.0		9.0		10.0	
30			30	35.1	3.58	16.2	9.6		10.8		12.0	
35			35	30.1	3.07	18.9	11.2		12.6		14.0	
40			40	26.4	2.69	21.6	12.8		14.4		16.0	
45			45	23.4	2.39	24.3	14.4		16.2		18.0	
50			50	21.1	2.15	27.0	16.0		18.0		20.0	
55			55	19.2	1.95	29.7	17.6		19.8		22.0	
60			60	17.6	1.79	32.4	19.2		21.6		24.0	
65			65	16.2	1.65	35.1	20.8		23.4		26.0	
70			70	15.1	1.54	37.8	22.4		25.2		28.0	
75			75	14.1	1.43	40.5	24.0		27.0		30.0	
80			80	13.2	1.34	43.2	25.6		28.8		32.0	
90			90	11.7	1.19	48.6	28.8		32.4		36.0	
100			100	10.5	1.08	54.0	32.0		36.0		40.0	
125			125	8.4	0.86	67.5	40.0		45.0		50.0	

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							たわみ Deflection 弯曲 (mm)	荷重 Load 负荷 (kgf)(N)	たわみ Deflection 弯曲 (mm)	荷重 Load 负荷 (kgf)(N)	たわみ Deflection 弯曲 (mm)	荷重 Load 负荷 (kgf)(N)
SL20-20	20	10	20	66.2	6.75	10.8	6.4	43 {424}	7.2	48 {477}	8.0	54 {530}
25			25	53.0	5.40	13.5	8.0		9.0		10.0	
30			30	44.1	4.50	16.2	9.6		10.8		12.0	
35			35	37.8	3.86	18.9	11.2		12.6		14.0	
40			40	33.1	3.38	21.6	12.8		14.4		16.0	
45			45	29.4	3.00	24.3	14.4		16.2		18.0	
50			50	26.5	2.70	27.0	16.0		18.0		20.0	
55			55	24.1	2.45	29.7	17.6		19.8		22.0	
60			60	22.1	2.25	32.4	19.2		21.6		24.0	
65			65	20.4	2.08	35.1	20.8		23.4		26.0	
70			70	18.9	1.93	37.8	22.4		25.2		28.0	
75			75	17.7	1.80	40.5	24.0		27.0		30.0	
80			80	16.5	1.69	43.2	25.6		28.8		32.0	
90			90	14.7	1.50	48.6	28.8		32.4		36.0	
100			100	13.2	1.35	54.0	32.0		36.0		40.0	
125			125	10.6	1.08	67.5	40.0		45.0		50.0	
150			150	8.8	0.90	81.0	48.0		54.0		60.0	
SL22-25	22	11	25	65.7	6.70	13.5	8.0	54 {526}	9.0	60 {591}	10.0	67 {657}
30			30	54.8	5.58	16.2	9.6		10.8		12.0	
35			35	46.9	4.79	18.9	11.2		12.6		14.0	
40			40	41.1	4.19	21.6	12.8		14.4		16.0	
45			45	36.5	3.72	24.3	14.4		16.2		18.0	
50			50	32.9	3.35	27.0	16.0		18.0		20.0	
55			55	29.9	3.05	29.7	17.6		19.8		22.0	
60			60	27.4	2.79	32.4	19.2		21.6		24.0	
65			65	25.3	2.58	35.1	20.8		23.4		26.0	
70			70	23.5	2.39	37.8	22.4		25.2		28.0	
75			75	21.9	2.23	40.5	24.0		27.0		30.0	
80			80	20.5	2.09	43.2	25.6		28.8		32.0	
90			90	18.3	1.86	48.6	28.8		32.4		36.0	
100			100	16.4	1.68	54.0	32.0		36.0		40.0	
125			125	13.1	1.34	67.5	40.0		45.0		50.0	
150			150	11.0	1.12	81.0	48.0		54.0		60.0	
SL25-25	25	12.5	25	82.4	8.40	13.5	8.0	67 {659}	9.0	76 {741}	10.0	84 {824}
30			30	68.6	7.00	16.2	9.6		10.8		12.0	
35			35	58.8	6.00	18.9	11.2		12.6		14.0	
40			40	51.5	5.25	21.6	12.8		14.4		16.0	
45			45	45.8	4.67	24.3	14.4		16.2		18.0	
50			50	41.2	4.20	27.0	16.0		18.0		20.0	
55			55	37.4	3.82	29.7	17.6		19.8		22.0	
60			60	34.3	3.50	32.4	19.2		21.6		24.0	
65			65	31.7	3.23	35.1	20.8		23.4		26.0	
70			70	29.4	3.00	37.8	22.4		25.2		28.0	
75			75	27.5	2.80	40.5	24.0		27.0		30.0	
80			80	25.7	2.63	43.2	25.6		28.8		32.0	
90			90	22.9	2.33	48.6	28.8		32.4		36.0	
100			100	20.6	2.10	54.0	32.0		36.0		40.0	
125			125	16.5	1.68	67.5	40.0		45.0		50.0	
150			150	13.7	1.40	81.0	48.0		54.0		60.0	
175			175	11.8	1.20	94.5	56.0		63.0		70.0	
200			200	10.3	1.05	108.0	64.0		72.0		80.0	

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SL27-25	27	13.5	25	98.1	10.00	13.5	8.0	80 {785}	9.0	90 {883}	10.0	100 {981}
30			30	81.7	8.33	16.2	9.6		10.8		12.0	
35			35	70.0	7.14	18.9	11.2		12.6		14.0	
40			40	61.3	6.25	21.6	12.8		14.4		16.0	
45			45	54.5	5.56	24.3	14.4		16.2		18.0	
50			50	49.0	5.00	27.0	16.0		18.0		20.0	
55			55	44.6	4.55	29.7	17.6		19.8		22.0	
60			60	40.9	4.17	32.4	19.2		21.6		24.0	
65			65	37.7	3.85	35.1	20.8		23.4		26.0	
70			70	35.0	3.57	37.8	22.4		25.2		28.0	
75			75	32.7	3.33	40.5	24.0		27.0		30.0	
80			80	30.6	3.13	43.2	25.6		28.8		32.0	
90			90	27.2	2.78	48.6	28.8		32.4		36.0	
100			100	24.5	2.50	54.0	32.0		36.0		40.0	
125			125	19.6	2.00	67.5	40.0		45.0		50.0	
150			150	16.3	1.67	81.0	48.0		54.0		60.0	
175			175	14.0	1.43	94.5	56.0		63.0		70.0	
200			200	12.3	1.25	108.0	64.0		72.0		80.0	
SL30-25	30	15	25	119.0	12.10	13.5	8.0	97 {949}	9.0	109 {1067}	10.0	121 {1186}
30			30	98.8	10.10	16.2	9.6		10.8		12.0	
35			35	84.7	8.64	18.9	11.2		12.6		14.0	
40			40	74.1	7.56	21.6	12.8		14.4		16.0	
45			45	65.9	6.72	24.3	14.4		16.2		18.0	
50			50	59.3	6.05	27.0	16.0		18.0		20.0	
55			55	53.9	5.50	29.7	17.6		19.8		22.0	
60			60	49.4	5.04	32.4	19.2		21.6		24.0	
65			65	45.6	4.65	35.1	20.8		23.4		26.0	
70			70	42.4	4.32	37.8	22.4		25.2		28.0	
75			75	39.5	4.03	40.5	24.0		27.0		30.0	
80			80	37.1	3.78	43.2	25.6		28.8		32.0	
90			90	32.9	3.36	48.6	28.8		32.4		36.0	
100			100	29.7	3.02	54.0	32.0		36.0		40.0	
125			125	23.7	2.42	67.5	40.0		45.0		50.0	
150			150	19.8	2.02	81.0	48.0		54.0		60.0	
175			175	16.9	1.73	94.5	56.0		63.0		70.0	
200			200	14.8	1.51	108.0	64.0		72.0		80.0	
SL35-40	35	17.5	40	101.0	10.30	21.6	12.8	132 {1294}	14.4	148 {1455}	16.0	165 {1617}
45			45	89.8	9.16	24.3	14.4		16.2		18.0	
50			50	80.9	8.24	27.0	16.0		18.0		20.0	
55			55	73.5	7.49	29.7	17.6		19.8		22.0	
60			60	67.4	6.87	32.4	19.2		21.6		24.0	
65			65	62.2	6.34	35.1	20.8		23.4		26.0	
70			70	57.8	5.89	37.8	22.4		25.2		28.0	
75			75	53.9	5.50	40.5	24.0		27.0		30.0	
80			80	50.5	5.15	43.2	25.6		28.8		32.0	
90			90	44.9	4.58	48.6	28.8		32.4		36.0	
100			100	40.4	4.12	54.0	32.0		36.0		40.0	
125			125	32.3	3.30	67.5	40.0		45.0		50.0	
150			150	27.0	2.75	81.0	48.0		54.0		60.0	
175			175	23.1	2.36	94.5	56.0		63.0		70.0	
200			200	20.2	2.06	108.0	64.0		72.0		80.0	

品番 Catalog No. 编号	外径 Outer-Dia 外径 (mm)	内径 Inner-Dia 内径 (mm)	自由長 Free Length 自由長 (mm)	ばね定数 Spring Constant 弹簧定数 (N/mm) (kgf/mm)		密着長 Min.Length 貼緊長 (mm)	100万回		50万回		30万回	
							たわみ Deflection 弯曲 (mm)	荷重 Load 負荷 (kgf)(N)	たわみ Deflection 弯曲 (mm)	荷重 Load 負荷 (kgf)(N)	たわみ Deflection 弯曲 (mm)	荷重 Load 負荷 (kgf)(N)
SL40-40	40	20	40	132.0	13.50	21.6	12.8	173 {1694}	14.4	194 {1905}	16.0	216 {2117}
45			45	118.0	12.00	24.3	14.4		16.2		18.0	
50			50	106.0	10.80	27.0	16.0		18.0		20.0	
55			55	96.2	9.81	29.7	17.6		19.8		22.0	
60			60	88.2	8.99	32.4	19.2		21.6		24.0	
65			65	81.4	8.30	35.1	20.8		23.4		26.0	
70			70	75.6	7.71	37.8	22.4		25.2		28.0	
75			75	70.6	7.20	40.5	24.0		27.0		30.0	
80			80	66.2	6.75	43.2	25.6		28.8		32.0	
90			90	58.8	6.00	48.6	28.8		32.4		36.0	
100			100	52.9	5.40	54.0	32.0		36.0		40.0	
125			125	42.3	4.32	67.5	40.0		45.0		50.0	
150			150	35.3	3.60	81.0	48.0		54.0		60.0	
175			175	30.2	3.08	94.5	56.0		63.0		70.0	
200			200	26.5	2.70	108.0	64.0		72.0		80.0	
225			225	23.5	2.40	121.5	72.0		81.0		90.0	
250			250	21.2	2.16	135.0	80.0		90.0		100.0	
275			275	19.2	1.96	149.0	88.0		99.0		110.0	
300			300	17.6	1.80	172.2	96.0		108.0		120.0	
SL50-50	50	25	50	166.0	16.90	27.0	16.0	270 {2650}	18.0	304 {2981}	20.0	338 {3312}
55			55	151.0	15.40	29.7	17.6		19.8		22.0	
60			60	138.0	14.10	32.4	19.2		21.6		24.0	
65			65	127.0	13.00	35.1	20.8		23.4		26.0	
70			70	118.0	12.10	37.8	22.4		25.2		28.0	
75			75	110.0	11.30	40.5	24.0		27.0		30.0	
80			80	104.0	10.60	43.2	25.6		28.8		32.0	
90			90	92.0	9.38	48.6	28.8		32.4		36.0	
100			100	82.8	8.44	54.0	32.0		36.0		40.0	
125			125	66.2	6.75	67.5	40.0		45.0		50.0	
150			150	55.2	5.63	81.0	48.0		54.0		60.0	
175			175	47.3	4.82	94.5	56.0		63.0		70.0	
200			200	41.4	4.22	108.0	64.0		72.0		80.0	
225			225	36.8	3.75	122.0	72.0		81.0		90.0	
250			250	33.1	3.38	135.0	80.0		90.0		100.0	
275			275	30.1	3.07	149.0	88.0		99.0		110.0	
300			300	27.6	2.81	172.2	96.0		108.0		120.0	
350			350	23.7	2.41	200.9	112.0		126.0		140.0	
400			400	20.7	2.11	216.0	128.0		144.0		160.0	
450			450	18.4	1.88	243.0	144.0		162.0		180.0	
500			500	16.6	1.69	270.0	160.0		180.0		200.0	
SL60-60	60	30	60	199.0	20.30	32.4	19.2	389 {3816}	21.6	438 {4293}	24.0	486 {4770}
70			70	170.0	17.40	37.8	22.4		25.2		28.0	
80			80	149.0	15.20	43.2	25.6		28.8		32.0	
90			90	133.0	13.50	48.6	28.8		32.4		36.0	
100			100	119.0	12.20	54.0	32.0		36.0		40.0	
125			125	95.4	9.73	67.5	40.0		45.0		50.0	
150			150	79.5	8.11	81.0	48.0		54.0		60.0	
175			175	68.1	6.95	94.5	56.0		63.0		70.0	
200			200	59.6	6.08	108.0	64.0		72.0		80.0	
225			225	53.0	5.40	122.0	72.0		81.0		90.0	
250			250	47.7	4.86	135.0	80.0		90.0		100.0	
275			275	43.4	4.42	149.0	88.0		99.0		110.0	
300			300	39.8	4.05	172.2	96.0		108.0		120.0	
350			350	34.1	3.47	200.9	112.0		126.0		140.0	
400			400	29.8	3.04	216.0	128.0		144.0		160.0	
450			450	26.5	2.70	243.0	144.0		162.0		180.0	
500			500	23.9	2.43	270.0	160.0		180.0		200.0	
SL70-70	70	38.5	70	214.0	21.80	40.2	22.4	488 {4782}	25.2	549 {5380}	28.0	610 {5978}
80			80	187.0	19.00	45.9	25.6		28.8		32.0	
90			90	166.0	16.90	51.7	28.8		32.4		36.0	
100			100	149.0	15.20	57.4	32.0		36.0		40.0	
125			125	120.0	12.20	71.8	40.0		45.0		50.0	
150			150	99.6	10.20	86.1	48.0		54.0		60.0	
175			175	85.4	8.71	100.5	56.0		63.0		70.0	
200			200	74.7	7.62	114.8	64.0		72.0		80.0	
250			250	59.8	6.10	143.5	80.0		90.0		100.0	
300			300	49.8	5.08	172.2	96.0		108.0		120.0	
350			350	42.7	4.35	200.9	112.0		126.0		140.0	