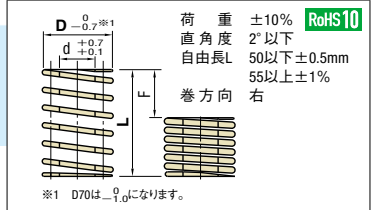
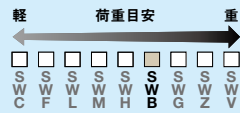


# COIL SPRINGS -SWB-

## コイルスプリング

### -SWB-



D	d	L	ばね定数		F=L×16%		F=L×18%		F=L×20%		型式 Type D-L
			N/mm(kgf/mm)	Fmm	Fmm	Fmm	Fmm	Fmm	Fmm	Fmm	
6	3	15	59.0 { 6.0 }	2.4	2.7	3.0	3.6	4.0	4.5	5.0	SWB6 -15
		20	44.3 { 4.5 }	3.2	3.6	4.0	4.5	5.0	5.4	6.0	20
		25	35.4 { 3.6 }	4.0	4.5	5.0	5.4	6.0	6.3	7.0	25
		30	29.5 { 3.0 }	4.8	5.4	6.0	6.3	7.0	7.2	8.0	30
		35	25.3 { 2.6 }	5.6	6.3	7.0	7.2	8.0	8.1	9.0	35
		40	22.1 { 2.3 }	6.4	7.2	8.0	8.1	9.0	9.0	10.0	40
		45	19.7 { 2.0 }	7.2	8.1	9.0	9.0	10.0	10.0	11.0	45
		50	17.7 { 1.8 }	8.0	9.0	10.0	10.0	11.0	11.0	12.0	50
		55	16.1 { 1.6 }	8.8	9.9	11.0	11.0	12.0	12.0	13.0	55
		60	14.8 { 1.5 }	9.6	10.8	12.0	12.0	13.0	13.0	14.0	60
8	4	10	162 { 16.5 }	1.6	1.8	2.0	2.7	3.0	3.6	4.0	SWB8 -10
		15	108 { 11.0 }	2.4	2.7	3.0	3.6	4.0	4.5	5.0	15
		20	80.8 { 8.2 }	3.2	3.6	4.0	4.5	5.0	5.4	6.0	20
		25	64.6 { 6.6 }	4.0	4.5	5.0	5.4	6.0	6.3	7.0	25
		30	53.8 { 5.5 }	4.8	5.4	6.0	6.3	7.0	7.2	8.0	30
		35	46.1 { 4.7 }	5.6	6.3	7.0	7.2	8.0	8.1	9.0	35
		40	40.4 { 4.1 }	6.4	7.2	8.0	8.1	9.0	9.0	10.0	40
		45	35.9 { 3.7 }	7.2	8.1	9.0	9.0	10.0	10.0	11.0	45
		50	32.3 { 3.3 }	8.0	9.0	10.0	10.0	11.0	11.0	12.0	50
		55	29.4 { 3.0 }	8.8	9.9	11.0	11.0	12.0	12.0	13.0	55
10	5	10	221 { 22.5 }	1.6	1.8	2.0	2.7	3.0	3.6	4.0	SWB10-10
		15	147 { 15.0 }	2.4	2.7	3.0	3.6	4.0	4.5	5.0	15
		20	110 { 11.2 }	3.2	3.6	4.0	4.5	5.0	5.4	6.0	20
		25	88.2 { 9.0 }	4.0	4.5	5.0	5.4	6.0	6.3	7.0	25
		30	73.5 { 7.5 }	4.8	5.4	6.0	6.3	7.0	7.2	8.0	30
		35	63.0 { 6.4 }	5.6	6.3	7.0	7.2	8.0	8.1	9.0	35
		40	55.1 { 5.6 }	6.4	7.2	8.0	8.1	9.0	9.0	10.0	40
		45	49.0 { 5.0 }	7.2	8.1	9.0	9.0	10.0	10.0	11.0	45
		50	44.1 { 4.5 }	8.0	9.0	10.0	10.0	11.0	11.0	12.0	50
		55	40.1 { 4.1 }	8.8	9.9	11.0	11.0	12.0	12.0	13.0	55
12	6	10	190 { 19.3 }	2.4	2.7	3.0	3.6	4.0	4.5	5.0	SWB12-15
		15	142 { 14.5 }	3.2	3.6	4.0	4.5	5.0	5.4	6.0	15
		20	114 { 11.6 }	4.0	4.5	5.0	5.4	6.0	6.3	7.0	20
		25	94.8 { 9.7 }	4.8	5.4	6.0	6.3	7.0	7.2	8.0	25
		30	81.3 { 8.3 }	5.6	6.3	7.0	7.2	8.0	8.1	9.0	30
		35	71.1 { 7.3 }	6.4	7.2	8.0	8.1	9.0	9.0	10.0	35
		40	63.2 { 6.4 }	7.2	8.1	9.0	9.0	10.0	10.0	11.0	40
		45	56.9 { 5.8 }	8.0	9.0	10.0	10.0	11.0	11.0	12.0	45
		50	51.7 { 5.3 }	8.8	9.9	11.0	11.0	12.0	12.0	13.0	50
		55	47.4 { 4.8 }	9.6	10.8	12.0	12.0	13.0	13.0	14.0	55
14	7	10	184 { 18.8 }	3.2	3.6	4.0	4.5	5.0	5.4	6.0	SWB14-20
		15	147 { 15.0 }	4.0	4.5	5.0	5.4	6.0	6.3	7.0	15
		20	123 { 12.5 }	4.8	5.4	6.0	6.3	7.0	7.2	8.0	20
		25	105 { 10.7 }	5.6	6.3	7.0	7.2	8.0	8.1	9.0	25
		30	92.0 { 9.4 }	6.4	7.2	8.0	8.1	9.0	9.0	10.0	30
		35	81.8 { 8.3 }	7.2	8.1	9.0	9.0	10.0	10.0	11.0	35
		40	73.6 { 7.5 }	8.0	9.0	10.0	10.0	11.0	11.0	12.0	40
		45	66.9 { 6.8 }	8.8	9.9	11.0	11.0	12.0	12.0	13.0	45
		50	61.3 { 6.3 }	9.6	10.8	12.0	12.0	13.0	13.0	14.0	50
		55	56.6 { 5.8 }	10.4	11.7	13.0	13.0	14.0	14.0	15.0	55

D	d	L	ばね定数		F=L×16%		F=L×18%		F=L×20%		型式 Type D-L
			N/mm(kgf/mm)	Fmm	Fmm	Fmm	Fmm	Fmm	Fmm	Fmm	
16	8	20	245 { 25.0 }	3.2	3.6	4.0	4.5	5.0	5.4	6.0	SWB16-20
		25	196 { 20.0 }	4.0	4.5	5.0	5.4	6.0	6.3	7.0	25
		30	163 { 16.7 }	4.8	5.4	6.0	6.3	7.0	7.2	8.0	30
		35	140 { 14.3 }	5.6	6.3	7.0	7.2	8.0	8.1	9.0	35
		40	123 { 12.5 }	6.4	7.2	8.0	8.1	9.0	9.0	10.0	40
		45	109 { 11.1 }	7.2	8.1	9.0	9.0	10.0	10.0	11.0	45
		50	98.0 { 10.0 }	8.0	9.0	10.0	10.0	11.0	11.0	12.0	50
		55	89.1 { 9.1 }	8.8	9.9	11.0	11.0	12.0	12.0	13.0	55
		60	81.7 { 8.3 }	9.6	10.8	12.0	12.0	13.0	13.0	14.0	60
		65	75.4 { 7.7 }	10.4	11.7	13.0	13.0	14.0	14.0	15.0	65
18	9	20	306 { 31.2 }	3.2	3.6	4.0	4.5	5.0	5.4	6.0	SWB18-20
		25	245 { 25.0 }	4.0	4.5	5.0	5.4	6.0	6.3	7.0	25
		30	204 { 20.8 }	4.8	5.4	6.0	6.3	7.0	7.2	8.0	30
		35	175 { 17.8 }	5.6	6.3	7.0	7.2	8.0	8.1	9.0	35
		40	153 { 15.6 }	6.4	7.2	8.0	8.1	9.0	9.0	10.0	40
		45	136 { 13.9 }	7.2	8.1	9.0	9.0	10.0	10.0	11.0	45
		50	123 { 12.5 }	8.0	9.0	10.0	10.0	11.0	11.0	12.0	50
		55	111 { 11.4 }	8.8	9.9	11.0	11.0	12.0	12.0	13.0	55
		60	102 { 10.4 }	9.6	10.8	12.0	12.0	13.0	13.0	14.0	60
		65	94.2 { 9.6 }	10.4	11.7	13.0	13.0	14.0	14.0	15.0	65
20	10	20	392 { 40.0 }	3.2	3.6	4.0	4.5	5.0	5.4	6.0	SWB20-20
		25	314 { 32.0 }	4.0	4.5	5.0	5.4	6.0	6.3	7.0	25
		30	261 { 26.6 }	4.8	5.4	6.0	6.3	7.0	7.2	8.0	30
		35	224 { 22.8 }	5.6	6.3	7.0	7.2	8.0	8.1	9.0	35
		40	196 { 20.0 }	6.4	7.2	8.0	8.1	9.0	9.0	10.0	40
		45	174 { 17.8 }	7.2	8.1	9.0	9.0	10.0	10.0	11.0	45
		50	157 { 16.0 }	8.0	9.0	10.0	10.0	11.0	11.0	12.0	50
		55	143 { 14.5 }	8.8	9.9	11.0	11.0	12.0	12.0	13.0	55
		60	131 { 13.3 }	9.6	10.8	12.0	12.0	13.0	13.0	14.0	60
		65	121 { 12.3 }	10.4	11.7	13.0	13.0	14.0	14.0	15.0	65
22	11	20	480 { 49.0 }	4.0	4.5	5.0	5.4	6.0	6.3	7.0	SWB22-25
		25	382 { 39.0 }	4.8	5.4	6.0	6.3	7.0	7.2	8.0	25
		30	319 { 32.5 }	5.6	6.3	7.0	7.2	8.0	8.1	9.0	30
		35	273 { 27.9 }	6.4	7.2	8.0	8.1	9.0	9.0	10.0	35
		40	239 { 24.4 }	7.2	8.1	9.0	9.0	10.0	10.0	11.0	40
		45	212 { 21.7 }	8.0	9.0	10.0	10.0	11.0	11.0	12.0	45
		50	191 { 19.5 }	8.8	9.9	11.0	11.0	12.0	12.0	13.0	50
		55	174 { 17.7 }	9.6	10.8	12.0	12.0	13.0	13.0	14.0	55
		60	159 { 16.2 }	10.4	11.7	13.0	13.0	14.0	14.0	15.0	60
		65	147 { 15.0 }	11.2	12.6	14.0	14.0	15.0	15.0	16.0	65

材質 ばね用オイルテンパー線  
●荷重の算出方法：荷重=ばね定数×タワミ量  
(国際単位) N=N/mm×Fmm  
kgf=kgf/mm×Fmm  
(kgf=N×0.101972)

荷重グラフ P.1532  
コイルスプリング使用上の注意 P.1533

D	d	L	ばね定数		F=L×16%		F=L×18%		F=L×20%		型式 Type D-L
			N/mm(kgf/mm)	Fmm	Fmm	Fmm	Fmm	Fmm	Fmm	Fmm	
25	12.5	25	481 { 49.0 }	4.0	4.5	5.0	5.4	6.0	6.3	7.0	SWB25-25
		30	400 { 40.8 }	4.8	5.4	6.0	6.3	7.0	7.2	8.0	30
		35	343 { 35.0 }	5.6	6.3	7.0	7.2	8.0	8.1	9.0	35
		40	300 { 30.6 }	6.4	7.2	8.0	8.1	9.0	9.0	10.0	40
		45	267 { 27.2 }	7.2	8.1	9.0	9.0	10.0	10.0	11.0	45
		50	240 { 24.5 }	8.0	9.0	10.0	10.0	11.0	11.0	12.0	50
		55	218 { 22.3 }	8.8	9.9	11.0	11.0	12.0	12.0	13.0	55
		60	200 { 20.4 }	9.6	10.8	12.0	12.0	13.0	13.0	14.0	60
		65	185 { 18.8 }	10.4	11.7	13.0	13.0	14.0	14.0	15.0	65
		70	172 { 17.5 }	11.2	12.6	14.0	14.0	15.0	15.0	16.0	70
27	13.5	25	569 { 58.0 }	4.0	4.5	5.0	5.4	6.0	6.3	7.0	SWB27-25
		30	474 { 48.3 }	4.8	5.4	6.0	6.3	7.0	7.2	8.0	30
		35	406 { 41.4 }	5.6	6.3	7.0	7.2	8.0	8.1	9.0	35
		40	355 { 36.2 }	6.4	7.2	8.0	8.1	9.0	9.0	10.0	40
		45	316 { 32.2 }	7.2	8.1	9.0	9.0	10.0	10.0	11.0	45
		50	284 { 29.0 }	8.0	9.0	10.0	10.0	11.0	11.0	12.0	50
		55	259 { 2								