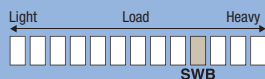
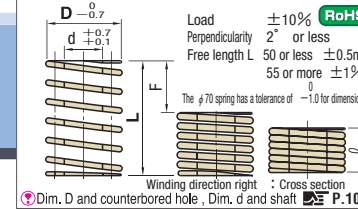


COIL SPRINGS

EXTRA HEAVY LOAD SWB



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The volume discount rate is also applicable to alteration cost. All price & lead time are to be quoted.

D	d	L	Spring constant N/(mm/kgf/mm)	Solid height L/min	F=LX16%	F=LX18%	F=LX20%	Catalog No.	U/Price
6	3	15	59.0 (6.0)	11.6	2.4	2.7	3.0	SWB 6-15	
		20	44.3 (4.5)	15.5	3.2	3.6	4.0	20	
		25	35.4 (3.6)	19.4	4.0	4.5	5.0	25	
		30	29.5 (3.0)	23.2	4.8	5.4	6.0	30	
		35	25.3 (2.6)	27.1	5.6	6.3	7.0	35	
		40	22.1 (2.3)	31.0	6.4	7.2	8.0	40	
		45	19.7 (2.0)	34.8	7.2	8.1	9.0	45	
		50	17.7 (1.8)	38.7	8.0	9.0	10.0	50	
		55	16.1 (1.6)	42.6	8.8	9.9	11.0	55	
		60	14.8 (1.5)	46.4	9.6	10.8	12.0	60	
8	4	10	162 (16.5)	7.7	1.6	1.8	2.0	SWB 8-10	
		15	108 (11.0)	11.6	2.4	2.7	3.0	15	
		20	80.8 (8.2)	15.9	3.2	3.6	4.0	20	
		25	64.6 (6.6)	19.4	4.0	4.5	5.0	25	
		30	53.8 (5.6)	23.2	4.8	5.4	6.0	30	
		35	46.1 (4.7)	27.1	5.6	6.3	7.0	35	
		40	40.4 (4.1)	31.0	6.4	7.2	8.0	40	
		45	35.9 (3.7)	34.8	7.2	8.1	9.0	45	
		50	32.3 (3.3)	38.7	8.0	9.0	10.0	50	
		55	29.4 (3.0)	42.6	8.8	9.9	11.0	55	
10	5	10	221 (22.5)	7.7	1.6	1.8	2.0	SWB10-10	
		15	147 (15.0)	11.6	2.4	2.7	3.0	15	
		20	110 (11.2)	15.5	3.2	3.6	4.0	20	
		25	88.2 (9.0)	19.4	4.0	4.5	5.0	25	
		30	73.5 (7.5)	23.2	4.8	5.4	6.0	30	
		35	63.0 (6.4)	27.1	5.6	6.3	7.0	35	
		40	55.1 (5.6)	31.0	6.4	7.2	8.0	40	
		45	49.0 (5.0)	34.8	7.2	8.1	9.0	45	
		50	44.1 (4.5)	38.7	8.0	9.0	10.0	50	
		55	40.1 (4.1)	42.6	8.8	9.9	11.0	55	
12	6	15	190 (19.3)	11.6	2.4	2.7	3.0	SWB12-15	
		20	142 (14.5)	15.5	3.2	3.6	4.0	20	
		25	114 (11.6)	19.4	4.0	4.5	5.0	25	
		30	94.8 (9.7)	23.2	4.8	5.4	6.0	30	
		35	81.3 (8.3)	27.1	5.6	6.3	7.0	35	
		40	71.1 (7.3)	31.0	6.4	7.2	8.0	40	
		45	63.2 (6.4)	34.8	7.2	8.1	9.0	45	
		50	56.9 (5.8)	38.7	8.0	9.0	10.0	50	
		55	51.7 (5.3)	42.6	8.8	9.9	11.0	55	
		60	47.4 (4.8)	46.4	9.6	10.8	12.0	60	
14	7	20	184 (18.8)	15.5	3.2	3.6	4.0	SWB14-20	
		25	147 (15.0)	19.4	4.0	4.5	5.0	25	
		30	123 (12.5)	23.2	4.8	5.4	6.0	30	
		35	105 (10.7)	27.1	5.6	6.3	7.0	35	
		40	92.0 (9.4)	31.0	6.4	7.2	8.0	40	
		45	81.8 (8.3)	34.8	7.2	8.1	9.0	45	
		50	73.6 (7.5)	38.7	8.0	9.0	10.0	50	
		55	66.9 (6.8)	42.6	8.8	9.9	11.0	55	
		60	61.3 (6.3)	46.4	9.6	10.8	12.0	60	
		65	56.6 (5.8)	50.3	10.4	11.7	13.0	65	

D	d	L	Spring constant N/(mm/kgf/mm)	Solid height L/min	F=LX16%	F=LX18%	F=LX20%	Catalog No.	U/Price
16	8	20	245 (25.0)	15.5	3.2	3.6	4.0	SWB16-20	
		25	196 (20.0)	19.4	4.0	4.5	5.0	25	
		30	163 (16.7)	23.2	4.8	5.4	6.0	30	
		35	140 (14.3)	27.1	5.6	6.3	7.0	35	
		40	123 (12.5)	31.0	6.4	7.2	8.0	40	
		45	109 (11.1)	34.8	7.2	8.1	9.0	45	
		50	98.0 (10.0)	38.7	8.0	9.0	10.0	50	
		55	89.1 (9.1)	42.6	8.8	9.9	11.0	55	
		60	81.7 (8.3)	46.4	9.6	10.8	12.0	60	
		65	75.4 (7.7)	50.3	10.4	11.7	13.0	65	
18	9	20	306 (31.2)	15.5	3.2	3.6	4.0	SWB18-20	
		25	245 (25.0)	19.4	4.0	4.5	5.0	25	
		30	204 (20.8)	23.2	4.8	5.4	6.0	30	
		35	175 (17.8)	27.1	5.6	6.3	7.0	35	
		40	153 (15.6)	31.0	6.4	7.2	8.0	40	
		45	136 (13.9)	34.8	7.2	8.1	9.0	45	
		50	123 (12.5)	38.7	8.0	9.0	10.0	50	
		55	111 (11.4)	42.6	8.8	9.9	11.0	55	
		60	102 (10.4)	46.4	9.6	10.8	12.0	60	
		65	94.2 (9.6)	50.3	10.4	11.7	13.0	65	
20	10	20	392 (40.0)	15.5	3.2	3.6	4.0	SWB20-20	
		25	314 (32.0)	19.4	4.0	4.5	5.0	25	
		30	261 (26.6)	23.2	4.8	5.4	6.0	30	
		35	224 (22.8)	27.1	5.6	6.3	7.0	35	
		40	196 (20.0)	31.0	6.4	7.2	8.0	40	
		45	174 (17.8)	34.8	7.2	8.1	9.0	45	
		50	157 (16.0)	38.7	8.0	9.0	10.0	50	
		55	143 (14.5)	42.6	8.8	9.9	11.0	55	
		60	131 (13.3)	46.4	9.6	10.8	12.0	60	
		65	121 (12.3)	50.3	10.4	11.7	13.0	65	
22	11	25	382 (39.0)	19.4	4.0	4.5	5.0	SWB22-25	
		30	319 (32.5)	23.2	4.8	5.4	6.0	30	
		35	273 (27.9)	27.1	5.6	6.3	7.0	35	
		40	239 (24.4)	31.0	6.4	7.2	8.0	40	
		45	212 (21.7)	34.8	7.2	8.1	9.0	45	
		50	191 (19.5)	38.7	8.0	9.0	10.0	50	
		55	174 (17.7)	42.6	8.8	9.9	11.0	55	
		60	159 (16.2)	46.4	9.6	10.8	12.0	60	
		65	147 (15.0)	50.3	10.4	11.7	13.0	65	
		70	137 (13.9)	54.2	11.2	12.6	14.0	70	

Order **Catalog No.** SWB 20-80

Delivery **SGP Stock** **3** Days

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For area out of Singapore please refer to P.1.

Quantity	1~19	20~49	50~199	200~500
Rate	-	5%	10%	15%

D	d	L	Spring constant N/(mm/kgf/mm)	Solid height L/min	F=LX16%	F=LX18%	F=LX20%	Catalog No.	U/Price
25	12.5	25	461 (49.0)	19.0	4.0	4.5	5.0	SWB25-25	
		30	400 (40.8)	22.8	4.8	5.4	6.0	30	
		35	343 (35.0)	26.6	5.6	6.3	7.0	35	
		40	300 (30.6)	30.4	6.4	7.2	8.0	40	
		45	267 (27.2)	34.2	7.2	8.1	9.0	45	
		50	240 (24.5)	38.0	8.0	9.0	10.0	50	
		55	218 (22.3)	41.8	8.8	9.9	11.0	55	
		60	200 (20.4)	45.6	9.6	10.8	12.0	60	
		65	185 (18.8)	49.4	10.4	11.7	13.0	65	
		70	172 (17.5)	53.2	11.2	12.6	14.0	70	
27	13.5	25	569 (58.0)	19.0	4.0	4.5	5.0	SWB27-25	
		30	474 (48.3)	22.8	4.8	5.4	6.0	30	
		35	406 (41.4)	26.6	5.6	6.3	7.0	35	
		40	355 (36.2)	30.4	6.4	7.2	8.0	40	
		45	316 (32.2)	34.2	7.2	8.1	9.0	45	
		50	284 (29.0)	38.0	8.0	9.0	10.0	50	
		55	259 (26.4)	41.8	8.8	9.9	11.0	55	
		60	237 (24.2)	45.6	9.6	10.8	12.0	60	
		65	219 (22.3)	49.4	10.4	11.7	13.0	65	
		70	203 (20.7)	53.2	11.2	12.6	14.0	70	
30	15	25	706 (72.0)	19.0	4.0	4.5	5.0	SWB30-25	
		30	588 (60.0)	22.8	4.8	5.4	6.0	30	
		35	504 (51.4)	26.6	5.6	6.3	7.0	35	
		40	441 (45.0)	30.4	6.4	7.2	8.0	40	
		45	392 (40.0)	34.2	7.2	8.1	9.0	45	
		50	353 (36.0)	38.0	8.0	9.0	10.0	50	
		55	321 (32.7)	41.8	8.8	9.9	11.0	55	
		60	294 (30.0)	45.6	9.6	10.8	12.0	60	
		65	272 (27.7)	49.4	10.4	11.7	13.0	65	
		70	252 (25.7)	53.2	11.2	12.6	14.0	70	
35	17.5	25	883 (9.0)	15.0	3.2	3.6	4.0	SWB35-40	
		30	800 (80.8)	18.8	4.0	4.5	5.0	30	
		35	730 (73.6)	22.6	4.8	5.4	6.0	35	
		40	667 (66.7)	26.4	5.6	6.3	7.0	40	
		45	613 (61.3)	30.2	6.4	7.2	8.0	45	
		50	567 (56.7)	34.0	7.2	8.1	9.0	50	
		55	528 (52.8)	37.8	8.0	8.9	9.9	55	
		60	494 (49.4)	41.6	8.8	9.9	10.9	60	
		65	464 (46.4)	45.4	9.6	10.7	11.7	65	
		70	437 (43.7)	49.2	10.4	11.5	12.5	70	

SWOSC - V

Load calculation method : N (load) = N/mm (spring constant) X F (deflection)

(International units) N = N/mm X Fmm

kgf = kgf/mm X Fmm

(kgf = N X 0.101972)

The solid height values are reference only. There may be some variations depending on lots.

Product Outline **P.99**

Directions and precautions for coil springs **P.101**

D	d	L	Spring constant N/(mm/kgf/mm)	Solid height L/min	F=LX16%	F=LX18%	F=LX20%	Catalog No.	U/Price
40	20	40	784 (79.9)	31.0	6.4	7.2	8.0	SWB40-40	
		45	697 (71.1)	34.8	7.2	8.1	9.0	45	
		50	627 (64.0)	38.7	8.0	9.0	10.0	50	
		55	570 (58.1)</						