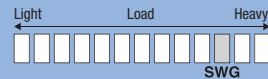
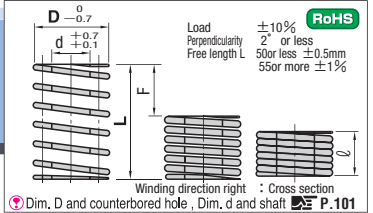


COIL SPRINGS

— SUPER HEAVY LOAD TYPE SWG —



Printed in Red



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

D	d	L	Spring constant N/(mm/kg)/(mm)	Solid height mm	F=LX16% Load N(kgf)	F=LX18% Load N(kgf)	F=LX20% Load N(kgf)	Catalog No.	U/Price
10	5	15	163 (16.7)	11.4	2.4	2.7	3.6	SWG 10-15	
		20	123 (12.5)	15.0	3.2	3.6	4.0	20	
		25	98.1 (10.0)	19.0	4.0	4.5	5.0	25	
		30	81.7 (8.3)	22.8	4.8	5.4	6.0	30	
		35	70.0 (7.1)	26.6	5.6	6.3	7.0	35	
		40	61.3 (6.3)	30.4	6.4	7.2	8.0	40	
		45	54.5 (5.6)	34.2	7.2	8.1	9.0	45	
		50	49.0 (5)	38.0	8.0	9.0	10.0	50	490
		55	44.6 (4.5)	41.8	8.8	9.9	11.0	55	(50)
		60	40.9 (4.2)	45.6	9.6	10.8	12.0	60	
		65	37.7 (3.8)	49.4	10.4	11.7	13.0	65	
		70	35.0 (3.6)	53.2	11.2	12.6	14.0	70	
75	32.7 (3.3)	57.0	12.0	13.5	15.0	75			
80	30.6 (3.1)	60.8	12.8	14.4	16.0	80			
90	27.2 (2.8)	68.4	14.4	16.2	18.0	90			
100	24.5 (2.5)	76.0	16.0	18.0	20.0	100			
12	6	15	245 (25.0)	11.4	2.4	2.7	3.6	SWG 12-15	
		20	184 (18.8)	15.0	3.2	3.6	4.0	20	
		25	147 (15.0)	19.0	4.0	4.5	5.0	25	
		30	123 (12.5)	22.8	4.8	5.4	6.0	30	
		35	105 (10.7)	26.6	5.6	6.3	7.0	35	
		40	91.9 (9.4)	30.4	6.4	7.2	8.0	40	
		45	81.7 (8.3)	34.2	7.2	8.1	9.0	45	
		50	73.5 (7.5)	38.0	8.0	9.0	10.0	50	735
		55	66.9 (6.8)	41.8	8.8	9.9	11.0	55	(75)
		60	61.3 (6.3)	45.6	9.6	10.8	12.0	60	
		65	56.6 (5.8)	49.4	10.4	11.7	13.0	65	
		70	52.5 (5.4)	53.2	11.2	12.6	14.0	70	
75	49.0 (5.0)	57.0	12.0	13.5	15.0	75			
80	46.0 (4.7)	60.8	12.8	14.4	16.0	80			
90	40.9 (4.2)	68.4	14.4	16.2	18.0	90			
100	36.8 (3.8)	76.0	16.0	18.0	20.0	100			
14	7	20	238 (24.3)	15.2	3.2	3.6	4.0	SWG 14-20	
		25	190 (19.4)	19.0	4.0	4.5	5.0	25	
		30	159 (16.2)	22.8	4.8	5.4	6.0	30	
		35	136 (13.9)	26.6	5.6	6.3	7.0	35	
		40	119 (12.1)	30.4	6.4	7.2	8.0	40	
		45	106 (10.8)	34.2	7.2	8.1	9.0	45	
		50	95.1 (9.7)	38.0	8.0	9.0	10.0	50	951
		55	86.5 (8.8)	41.8	8.8	9.9	11.0	55	(97)
		60	79.3 (8.1)	45.6	9.6	10.8	12.0	60	
		65	73.2 (7.5)	49.4	10.4	11.7	13.0	65	
		70	67.9 (6.9)	53.2	11.2	12.6	14.0	70	
		75	63.4 (6.5)	57.0	12.0	13.5	15.0	75	
80	59.5 (6.1)	60.8	12.8	14.4	16.0	80			
90	52.8 (5.4)	68.4	14.4	16.2	18.0	90			
100	47.6 (4.9)	76.0	16.0	18.0	20.0	100			
16	8	20	319 (32.5)	15.2	3.2	3.6	4.0	SWG 16-20	
		25	255 (26.0)	19.0	4.0	4.5	5.0	25	
		30	212 (21.7)	22.8	4.8	5.4	6.0	30	
		35	182 (18.6)	26.6	5.6	6.3	7.0	35	
		40	159 (16.3)	30.4	6.4	7.2	8.0	40	
		45	142 (14.4)	34.2	7.2	8.1	9.0	45	
		50	127 (13.0)	38.0	8.0	9.0	10.0	50	
		55	116 (11.8)	41.8	8.8	9.9	11.0	55	1275
		60	106 (10.8)	45.6	9.6	10.8	12.0	60	(130)
		65	98.1 (10.0)	49.4	10.4	11.7	13.0	65	
		70	91.1 (9.3)	53.2	11.2	12.6	14.0	70	
		75	85.0 (8.7)	57.0	12.0	13.5	15.0	75	
80	79.7 (8.1)	60.8	12.8	14.4	16.0	80			
90	70.8 (7.2)	68.4	14.4	16.2	18.0	90			
100	63.7 (6.5)	76.0	16.0	18.0	20.0	100			
Operation frequency 1X10 ⁶ times 5X10 ⁶ times 3X10 ⁶ times									

D	d	L	Spring constant N/(mm/kg)/(mm)	Solid height mm	F=LX16% Load N(kgf)	F=LX18% Load N(kgf)	F=LX20% Load N(kgf)	Catalog No.	U/Price
18	9	20	392 (40.0)	15.2	3.2	3.6	4.0	SWG 18-20	
		25	314 (32.0)	19.0	4.0	4.5	5.0	25	
		30	262 (26.7)	22.8	4.8	5.4	6.0	30	
		35	224 (22.9)	26.6	5.6	6.3	7.0	35	
		40	196 (20.0)	30.4	6.4	7.2	8.0	40	
		45	174 (17.8)	34.2	7.2	8.1	9.0	45	
		50	157 (16.0)	38.0	8.0	9.0	10.0	50	1569
		55	143 (14.5)	41.8	8.8	9.9	11.0	55	(160)
		60	131 (13.3)	45.6	9.6	10.8	12.0	60	
		65	121 (12.3)	49.4	10.4	11.7	13.0	65	
		70	112 (11.4)	53.2	11.2	12.6	14.0	70	
		75	105 (10.7)	57.0	12.0	13.5	15.0	75	
80	98.1 (10.0)	60.8	12.8	14.4	16.0	80			
90	87.2 (8.9)	68.4	14.4	16.2	18.0	90			
100	78.5 (8.0)	76.0	16.0	18.0	20.0	100			
20	10	20	515 (52.5)	15.2	3.2	3.6	4.0	SWG 20-20	
		25	412 (42.0)	19.0	4.0	4.5	5.0	25	
		30	343 (35.0)	22.8	4.8	5.4	6.0	30	
		35	294 (30.0)	26.6	5.6	6.3	7.0	35	
		40	257 (26.3)	30.4	6.4	7.2	8.0	40	
		45	229 (23.3)	34.2	7.2	8.1	9.0	45	
		50	206 (21.0)	38.0	8.0	9.0	10.0	50	
		55	187 (19.1)	41.8	8.8	9.9	11.0	55	2059
		60	172 (17.5)	45.6	9.6	10.8	12.0	60	(210)
		65	158 (16.2)	49.4	10.4	11.7	13.0	65	
		70	147 (15.0)	53.2	11.2	12.6	14.0	70	
		75	137 (14.0)	57.0	12.0	13.5	15.0	75	
80	129 (13.1)	60.8	12.8	14.4	16.0	80			
90	114 (11.7)	68.4	14.4	16.2	18.0	90			
100	103 (10.5)	76.0	16.0	18.0	20.0	100			
125	82.4 (8.4)	95.0	20.0	22.5	25.0	125			
22	11	20	588 (60.0)	15.2	3.2	3.6	4.0	SWG 22-20	
		25	471 (48.0)	19.0	4.0	4.5	5.0	25	
		30	392 (40.0)	22.8	4.8	5.4	6.0	30	
		35	336 (34.3)	26.6	5.6	6.3	7.0	35	
		40	294 (30.0)	30.4	6.4	7.2	8.0	40	
		45	262 (26.7)	34.2	7.2	8.1	9.0	45	
		50	235 (24.0)	38.0	8.0	9.0	10.0	50	
		55	214 (21.8)	41.8	8.8	9.9	11.0	55	2354
		60	196 (20.0)	45.6	9.6	10.8	12.0	60	(240)
		65	181 (18.5)	49.4	10.4	11.7	13.0	65	
		70	168 (17.1)	53.2	11.2	12.6	14.0	70	
		75	157 (16.0)	57.0	12.0	13.5	15.0	75	
80	147 (15.0)	60.8	12.8	14.4	16.0	80			
90	131 (13.3)	68.4	14.4	16.2	18.0	90			
100	118 (12.0)	76.0	16.0	18.0	20.0	100			
125	94.1 (9.6)	95.0	20.0	22.5	25.0	125			
25	12.5	20	760 (77.5)	15.2	3.2	3.6	4.0	SWG 25-20	
		25	608 (62.0)	19.0	4.0	4.5	5.0	25	
		30	507 (51.7)	22.8	4.8	5.4	6.0	30	
		35	434 (44.3)	26.6	5.6	6.3	7.0	35	
		40	380 (38.8)	30.4	6.4	7.2	8.0	40	
		45	338 (34.4)	34.2	7.2	8.1	9.0	45	
		50	304 (31.0)	38.0	8.0	9.0	10.0	50	
		55	276 (28.2)	41.8	8.8	9.9	11.0	55	3040
		60	253 (25.8)	45.6	9.6	10.8	12.0	60	(310)
		65	234 (23.8)	49.4	10.4	11.7	13.0	65	
		70	217 (22.1)	53.2	11.2	12.6	14.0	70	
		75	203 (20.7)	57.0	12.0	13.5	15.0	75	
80	190 (19.4)	60.8	12.8	14.4	16.0	80			
90	169 (17.2)	68.4	14.4	16.2	18.0	90			
100	152 (15.5)	76.0	16.0	18.0	20.0	100			
125	121.6 (12.4)	95.0	20.0	22.5	25.0	125			
Operation frequency 1X10 ⁶ times 5X10 ⁶ times 3X10 ⁶ times									

D	d	L	Spring constant N/(mm/kg)/(mm)	Solid height mm	F=LX16% Load N(kgf)	F=LX18% Load N(kgf)	F=LX20% Load N(kgf)	Catalog No.	U/Price
27	13.5	20	907 (92.5)	15.2	3.2	3.6	4.0	SWG 27-20	
		25	726 (74.0)	19.0	4.0	4.5	5.0	25	
		30	605 (61.7)	22.8	4.8	5.4	6.0	30	
		35	518 (52.9)	26.6	5.6	6.3	7.0	35	
		40	454 (46.3)	30.4	6.4	7.2	8.0	40	
		45	403 (41.1)	34.2	7.2	8.1	9.0	45	
		50	363 (37.0)	38.0	8.0	9.0	10.0	50	
		55	330 (33.6)	41.8	8.8	9.9	11.0	55	3628
		60	302 (30.8)	45.6	9.6	10.8	12.0	60	
		65	279 (28.5)	49.4	10.4	11.7	13.0	65	(370)
		70	259 (26.4)	53.2	11.2	12.6	14.0	70	
		75	242 (24.7)	57.0	12.0	13.5	15.0	75	