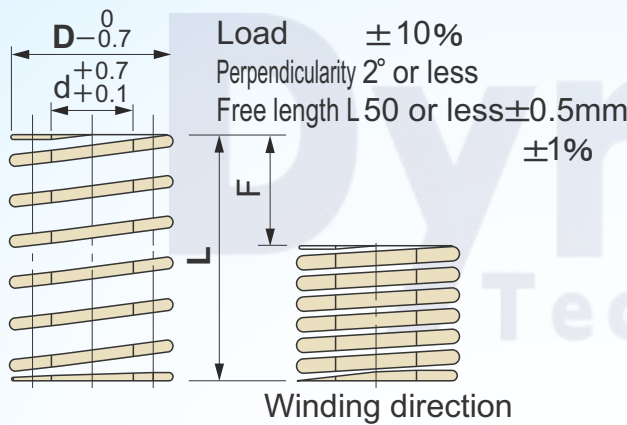


ROUND WIRE COIL SPRINGS
DX-SWB

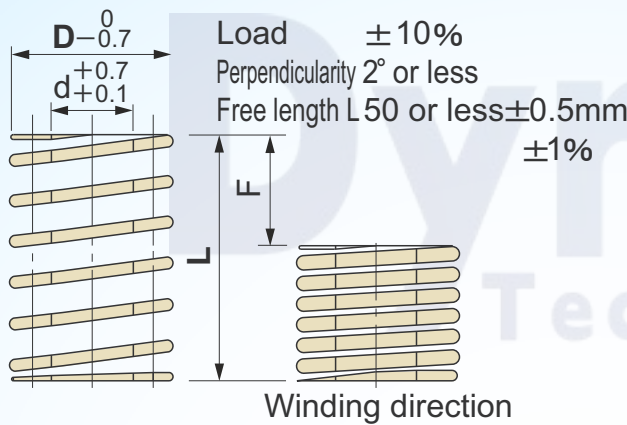


Part Number	D	d	L	Spring Constant	F = L x 16%		F = L x 18%	
					N/mm (kgf/mm)		Fmm Load N(Kgf)	
				Operation Count	1000000		500000	
DX - SWB8 - 10	8	4	10	162.0 (16.5)	1.6		1.8	
15			15	108.0 (11.0)	2.4		2.7	
20			20	80.8 (8.2)	3.2		3.6	
25			25	64.6 (6.6)	4		4.5	
30			30	53.8 (5.5)	4.8		5.4	
35			35	46.1 (4.7)	5.6		6.3	
40			40	40.4 (4.1)	6.4		7.2	
45			45	35.9 (3.7)	7.2	258 (26)	8.1	291 (30)
50			50	32.3 (3.3)	8		9	
55			55	29.4 (3.0)	8.8		9.9	
60			60	26.9 (2.7)	9.6		10.8	
65			65	24.8 (2.5)	10.4		11.7	
70			70	23.1 (2.4)	11.2		12.6	
75			75	21.5 (2.2)	12		13.5	
80			80	20.2 (2.1)	12.8		14.4	
DX - SWB10 - 10	10	5	10	221.0 (22.5)	1.6		1.8	
15			15	147.0 (15.0)	2.4		2.7	
20			20	110.0 (11.2)	3.2		3.6	
25			25	88.2 (9.0)	4		4.5	
30			30	73.5 (7.5)	4.8		5.4	
35			35	63.0 (6.4)	5.6		6.3	
40			40	55.1 (5.6)	6.4		7.2	
45			45	49.0 (5.0)	7.2	353 (36)	8.1	397 (41)
50			50	44.1 (4.5)	8		9	
55			55	40.1 (4.1)	8.8		9.9	
60			60	36.8 (3.7)	9.6		10.8	
65			65	33.9 (3.5)	10.4		11.7	
70			70	31.5 (3.2)	11.2		12.6	
75			75	29.4 (3.0)	12		13.5	
80			80	27.6 (2.8)	12.8		14.4	
90			90	24.5 (2.5)	14.4		16.2	
DX - SWB12 - 20	12	6	20	142.0 (14.5)	3.2		3.6	
25			25	114.0 (11.6)	4		4.5	
30			30	94.8 (9.7)	4.8		5.4	
35			35	81.3 (8.3)	5.6		6.3	
40			40	71.1 (7.3)	6.4		7.2	
45			45	63.2 (6.4)	7.2		8.1	
50			50	56.9 (5.8)	8	455 (46)	9	512 (52)
55			55	51.7 (5.3)	8.8		9.9	
60			60	47.4 (4.8)	9.6		10.8	
65			65	43.8 (4.5)	10.4		11.7	
70			70	40.6 (4.1)	11.2		12.6	
75			75	37.9 (3.9)	12		13.5	
80			80	35.6 (3.6)	12.8		14.4	
90			90	31.6 (3.2)	14.4		16.2	
DX - SWB14 - 20	14	7	20	184.0 (18.8)	3.2		3.6	
25			25	147.0 (15.0)	4		4.5	
30			30	123.0 (12.5)	4.8		5.4	
35			35	105.0 (10.7)	5.6		6.3	
40			40	92.0 (9.4)	6.4		7.2	
45			45	81.8 (8.3)	7.2		8.1	
50			50	73.6 (7.5)	8	589 (60)	9	662 (68)
55			55	66.9 (6.8)	8.8		9.9	
60			60	61.3 (6.3)	9.6		10.8	
65			65	56.6 (5.8)	10.4		11.7	
70			70	52.6 (5.4)	11.2		12.6	
75			75	49.1 (5.0)	12		13.5	
80			80	46.0 (4.7)	12.8		14.4	
90			90	40.9 (4.2)	14.4		16.2	
100			100	36.8 (3.8)	16		18	

Part Number	D	d	L	Spring Constant	F = L x 16%		F = L x 18%	
					N/mm (kgf/mm)		Fmm Load N(Kgf)	
				Operation Count	1000000		500000	
DX - SWB16 - 20	16	8	20	245.0 (25.0)	3.2		3.6	
25			25	196.0 (20.0)	4		4.5	
30			30	163.0 (16.7)	4.8		5.4	
35			35	140.0 (14.3)	5.6		6.3	
40			40	123.0 (12.5)	6.4		7.2	
45			45	109.0 (11.1)	7.2		8.1	
50			50	98.0 (10.0)	8	784 (80)	9	882 (90)
55			55	89.1 (9.1)	8.8		9.9	
60			60	81.7 (8.3)	9.6		10.8	
65			65	75.4 (7.7)	10.4		11.7	
70			70	70.0 (7.1)	11.2		12.6	
75			75	65.3 (6.7)	12		13.5	
80			80	61.3 (6.3)	12.8		14.4	
90			90	54.4 (5.6)	14.4		16.2	
100			100	49.0 (5.0)	16		18	
DX - SWB18 - 20	18	9	20	306.0 (31.2)	3.2		3.6	
25			25	245.0 (25.0)	4		4.5	
30			30	204.0 (20.8)	4.8		5.4	
35			35	175.0 (17.8)	5.6		6.3	
40			40	153.0 (15.6)	6.4		7.2	
45			45	136.0 (13.9)	7.2		8.1	
50			50	123.0 (12.5)	8	980 (100)	9	1103 (113)
55			55	111.0 (11.4)	8.8		9.9	
60			60	102.0 (10.4)	9.6		10.8	
65			65	94.2 (9.6)	10.4		11.7	
70			70	87.5 (8.9)	11.2		12.6	
75			75	81.7 (8.3)	12		13.5	
80			80	76.6 (7.8)	12.8		14.4	
90			90	68.1 (6.9)	14.4		16.2	
100			100	61.3 (6.2)	16		18	
DX - SWB20 - 20	20	10	20	392.0 (40.0)	3.2		3.6	
25			25	314.0 (32.0)	4		4.5	
30			30	261.0 (26.6)	4.8		5.4	
35			35	224.0 (22.8)	5.6		6.3	
40			40	196.0 (20.0)	6.4		7.2	
45			45	174.0 (17.8)	7.2		8.1	
50			50	157.0 (16.0)	8	1254 (128)	9	1411 (144)
55			55	143.0 (14.5)	8.8		9.9	
60			60	131.0 (13.3)	9.6		10.8	
65			65	121.0 (12.3)	10.4		11.7	
70			70	112.0 (11.4)	11.2		12.6	
75			75	105.0 (10.7)	12		13.5	
80			80	98.0 (10.0)	12.8		14.4	
90			90	87.1 (8.9)	14.4		16.2	
100			100	78.4 (8.0)	16		18	
125			125	62.7 (6.4)	20		22.5	
150			150	52.3 (5.3)	24		27	
DX - SWB22 - 25	22	11	25	382.0 (39.0)	4		4.5	
30			30	319.0 (32.5)	4.8		5.4	
35			35	273.0 (27.9)	5.6		6.3	
40			40	239.0 (24.4)	6.4		7.2	
45			45	212.0 (21.7)	7.2		8.1	
50			50	191.0 (19.5)	8	1530 (156)	9	1721 (175)
55			55	174.0 (17.7)	8.8		9.9	
60			60	159.0 (16.2)	9.6		10.8	
65			65	147.0 (15.0)	10.4		11.7	
70			70	137.0 (13.9)	11.2		12.6	
75			75	127.0 (13.0)	12		13.5	
80			80	120.0 (12.2)	12.8		14.4	
90			90	106.0 (10.8)	14.4		16.2	
100			100	95.6 (9.8)	16		18	
125			125	76.5 (7.8)	20		22.5	
150			150	63.7 (6.5)	24		27	



ROUND WIRE COIL SPRINGS
DX-SWB



Part Number	D	d	L	Spring Constant	F = L x 16%		F = L x 18%	
				N/mm (kgf/mm)	Fmm	Load N(Kgf)	Fmm	Load N(Kgf)
Type D - L	Operation Count				1000000		500000	
DX - SWB25 - 25 30 35 40 45 50 55 60 65 70 75 80 90 100 125 150 175	25	12.5	25	481.0 (49.0)	4	1922 (196)	4.5	2162 (220)
			30	400.0 (40.8)	4.8		5.4	
			35	343.0 (35.0)	5.6		6.3	
			40	300.0 (30.6)	6.4		7.2	
			45	267.0 (27.2)	7.2		8.1	
			50	240.0 (24.5)	8		9	
			55	218.0 (22.3)	8.8		9.9	
			60	200.0 (20.4)	9.6		10.8	
			65	185.0 (18.8)	10.4		11.7	
			70	172.0 (17.5)	11.2		12.6	
			75	160.0 (16.3)	12		13.5	
			80	150.0 (15.3)	12.8		14.4	
			90	133.0 (13.6)	14.4		16.2	
			100	120.0 (12.2)	16		18	
			125	96.1 (9.8)	20		22.5	
			150	80.1 (8.2)	24		27	
			175	68.6 (7.0)	28		31.5	
DX - SWH27- 30 35 40 45 50 55 60 65 70 75 80 90 100 125 150 175	27	13.5	30	474.0 (48.3)	4.8	2275 (232)	5.4	2560 (261)
			35	406.0 (41.4)	5.6		6.3	
			40	355.0 (36.2)	6.4		7.2	
			45	316.0 (32.2)	7.2		8.1	
			50	284.0 (29.0)	8		9	
			55	259.0 (26.4)	8.8		9.9	
			60	237.0 (24.2)	9.6		10.8	
			65	219.0 (22.3)	10.4		11.7	
			70	203.0 (20.7)	11.2		12.6	
			75	190.0 (19.3)	12		13.5	
			80	178.0 (18.1)	12.8		14.4	
			90	158.0 (16.1)	14.4		16.2	
			100	142.0 (14.5)	16		18	
			125	114.0 (11.6)	20		22.5	
			150	94.8 (9.7)	24		27	
			175	81.3 (8.3)	28		31.5	
			DX - SWH30 - 25 30 35 40 45 50 55 60 65 70 75 80 90 100 125 150 175 200	30	15		25	
30	588.0 (60.0)	4.8				5.4		
35	504.0 (51.4)	5.6				6.3		
40	441.0 (45.0)	6.4				7.2		
45	392.0 (40.0)	7.2				8.1		
50	353.0 (36.0)	8				9		
55	321.0 (32.7)	8.8				9.9		
60	294.0 (30.0)	9.6				10.8		
65	272.0 (27.7)	10.4				11.7		
70	252.0 (25.7)	11.2				12.6		
75	235.0 (24.0)	12				13.5		
80	221.0 (22.5)	12.8				14.4		
90	196.0 (20.0)	14.4				16.2		
100	177.0 (18.0)	16				18		
125	141.0 (14.4)	20				22.5		
150	118.0 (12.0)	24				27		
175	101.0 (10.3)	28				31.5		
200	88.3 (9.0)	32	36					
DX - SWB35 - 40 45 50 55 60 65 70 75 80 90 100 125 150 175 200	35	17.5	40	600.0 (61.2)	6.4	2878 (293)	7.2	3237 (330)
			45	534.0 (54.4)	7.2		8.1	
			50	480.0 (49.0)	8		9	
			55	437.0 (44.5)	8.8		9.9	
			60	400.0 (40.8)	9.6		10.8	
			65	369.0 (37.7)	10.4		11.7	
			70	343.0 (35.0)	11.2		12.6	
			75	320.0 (32.6)	12		13.5	
			80	300.0 (30.6)	12.8		14.4	
			90	267.0 (27.2)	14.4		16.2	
			100	240.0 (24.5)	16		18	
			125	192.0 (19.6)	20		22.5	
			150	160.0 (16.3)	24		27	
			175	137.0 (14.0)	28		31.5	
			200	120.0 (12.2)	32		36	

Part Number	D	d	L	Spring Constant	F = L x 16%		F = L x 18%		
				N/mm (kgf/mm)	Fmm	Load N(Kgf)	Fmm	Load N(Kgf)	
Type D - L	Operation Count				1000000		500000		
DX - SWH40 - 40	40	20	40	784.0 (79.9)	6.4	5018 (512)	7.2	5645 (576)	
			45	697.0 (71.1)	7.2		8.1		
			50	627.0 (64.0)	8		9		
			55	570.0 (58.1)	8.8		9.9		
			60	523.0 (53.3)	9.6		10.8		
			65	482.0 (49.2)	10.4		11.7		
			70	448.0 (45.7)	11.2		12.6		
			75	418.0 (42.6)	12		13.5		
			80	392.0 (40.0)	12.8		14.4		
			90	348.0 (35.5)	14.4		16.2		
			100	314.0 (32.0)	16		18		
			125	251.0 (25.6)	20		22.5		
			150	209.0 (21.3)	24		27		
			175	179.0 (18.3)	28		31.5		
			200	157.0 (16.0)	32		36		
			225	139.0 (14.2)	36		40.5		
			250	125.0 (12.8)	40		45		
275	114.0 (11.6)	44	49.5						
300	105.0 (10.7)	48	54						
DX - SWH50 - 50	50	25	50	980.0 (100.0)	8	7840 (800)	9	8820 (900)	
			55	891.0 (90.9)	8.8		9.9		
			60	817.0 (83.3)	9.6		10.8		
			65	754.0 (76.9)	10.4		11.7		
			70	700.0 (71.4)	11.2		12.6		
			75	653.0 (66.7)	12		13.5		
			80	613.0 (62.5)	12.8		14.4		
			90	544.0 (55.6)	14.4		16.2		
			100	490.0 (50.0)	16		18		
			125	392.0 (40.0)	20		22.5		
			150	327.0 (33.3)	24		27		
			175	280.0 (28.6)	28		31.5		
			200	245.0 (25.0)	32		36		
			225	218.0 (22.2)	36		40.5		
			250	196.0 (20.0)	40		45		
			275	178.0 (18.2)	44		49.5		
			300	163.0 (16.7)	48		54		
350	140.0 (14.3)	56	63						
DX - SWB60 - 60	60	30	60	1176.0 (120.0)	9.6	11290 (1152)	10.8	12701 (1296)	
			70	1008.0 (102.9)	11.2		12.6		
			80	882.0 (90.0)	12.8		14.4		
			90	784.0 (80.0)	14.4		16.2		
			100	706.0 (72.0)	16		18		
			125	564.0 (57.6)	20		22.5		
			150	470.0 (48.0)	24		27		
			175	403.0 (41.1)	28		31.5		
			200	353.0 (36.0)	32		36		
			225	314.0 (32.0)	36		40.5		
			250	282.0 (28.8)	40		45		
			275	257.0 (26.2)	44		49.5		
			300	235.0 (24.0)	48		54		
			350	202.0 (20.6)	56		63		

● Load calculation method: Load=Spring constant×Deflection
(SI units)N=N/mm×Fmm
kgf=kgf/mm×Fmm
(kgf=N×0.101972)

