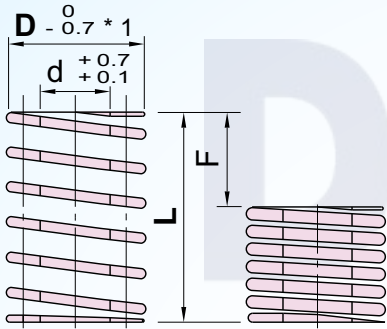


Coil Springs – DSWM



Load $\pm 10\%$
 Perpendicularity 2° or less
 Free length L 50 or less $\pm 0.5\text{mm}$
 55 or more $\pm 1\%$
 Winding Direction : Right

*1 For D70, the D dimension tolerance is $\begin{matrix} 0 \\ -1.0 \end{matrix}$

Part No. Type D-L	D	d	L	Spring Constant N/mm(kgf/mm)		F = L x 25.6%		F = L x 28.8%		F = L x 32%	
				Fmm	Load N(kgf)	Fmm	Load N(kgf)	Fmm	Load N(kgf)		
Operation Count											
				1,000,000	500,000	300,000					
DSWM6 - 15	6	3	15	20.4 (2.08)	3.8	4.3	4.8	79	88	98	(10)
20			20	15.3 (1.56)	5.1	5.8	6.4	(8.0)	(9.0)	(10)	
25			25	12.3 (1.25)	6.4	7.2	8.0				
30			30	10.2 (1.04)	7.7	8.6	9.6				
35			35	8.8 (0.89)	9.0	10.1	11.2				
40			40	7.7 (0.78)	10.2	11.5	12.8				
45			45	6.8 (0.69)	11.5	13.0	14.4				
50			50	6.1 (0.63)	12.8	14.4	16.0				
55			55	5.6 (0.57)	14.1	15.8	17.6				
60			60	5.1 (0.52)	15.4	17.3	19.2				
DSWM8 - 10	8	4	10	42.9 (4.37)	2.6	2.9	3.2				(11)
15			15	28.6 (2.91)	3.8	4.3	4.8				
20			20	21.5 (2.18)	5.1	5.8	6.4				
25			25	17.2 (1.75)	6.4	7.2	8.0				
30			30	14.3 (1.46)	7.7	8.6	9.6				
35			35	12.2 (1.25)	9.0	10.1	11.2				
40			40	10.7 (1.09)	10.2	11.5	12.8				
45			45	9.5 (0.97)	11.5	13.0	14.4				
50			50	8.6 (0.87)	12.8	14.4	16.0				
55			55	7.8 (0.79)	14.1	15.8	17.6				
60	60	7.1 (0.73)	15.4	17.3	19.2						
65	65	6.6 (0.67)	16.6	18.7	20.8						
70	70	6.1 (0.62)	17.9	20.2	22.4						
75	75	5.7 (0.58)	19.2	21.6	24.0						
80	80	5.4 (0.55)	20.5	23.0	25.6						
DSWM10 - 10	10	5	10	61.3 (6.25)	2.6	2.9	3.2	(16)	(18)	(20)	(20)
15			15	40.9 (4.17)	3.8	4.3	4.8				
20			20	30.6 (3.13)	5.1	5.8	6.4				
25			25	24.5 (2.50)	6.4	7.2	8.0				
30			30	20.4 (2.08)	7.7	8.6	9.6				
35			35	17.5 (1.79)	9.0	10.1	11.2				
40			40	15.3 (1.56)	10.2	11.5	12.8				
45			45	13.6 (1.39)	11.5	13.0	14.4				
50			50	12.3 (1.25)	12.8	14.4	16.0				
55			55	11.1 (1.14)	14.1	15.8	17.6				
60	60	10.2 (1.04)	15.4	17.3	19.2						
65	65	9.4 (0.96)	16.6	18.7	20.8						
70	70	8.8 (0.89)	17.9	20.2	22.4						
75	75	8.2 (0.83)	19.2	21.6	24.0						
80	80	7.7 (0.78)	20.5	23.0	25.6						
90	90	6.8 (0.69)	23.0	25.9	28.8						
DSWM12 - 15	12	6	15	59.2 (6.04)	3.8	4.3	4.8	(23)	(26)	(29)	(29)
20			20	44.4 (4.53)	5.1	5.8	6.4				
25			25	35.5 (3.63)	6.4	7.2	8.0				
30			30	29.6 (3.02)	7.7	8.6	9.6				
35			35	25.4 (2.59)	9.0	10.1	11.2				
40			40	22.2 (2.27)	10.2	11.5	12.8				
45			45	19.7 (2.01)	11.5	13.0	14.4				
50			50	17.8 (1.81)	12.8	14.4	16.0				
55			55	16.2 (1.65)	14.1	15.8	17.6				
60			60	14.8 (1.51)	15.4	17.3	19.2				
65	65	13.7 (1.39)	16.6	18.7	20.8						
70	70	12.7 (1.29)	17.9	20.2	22.4						
75	75	11.8 (1.21)	19.2	21.6	24.0						
80	80	11.1 (1.13)	20.5	23.0	25.6						
90	90	9.9 (1.01)	23.0	25.9	28.8						
DSWM14 - 20	14	7	20	59.8 (6.09)	5.1	5.8	6.4	(31)	(35)	(39)	(39)
25			25	47.9 (4.88)	6.4	7.2	8.0				
30			30	39.9 (4.08)	7.7	8.6	9.6				
35			35	34.2 (3.48)	9.0	10.1	11.2				
40			40	29.9 (3.05)	10.2	11.5	12.8				
45			45	26.6 (2.71)	11.5	13.0	14.4				
50			50	23.9 (2.44)	12.8	14.4	16.0				
55			55	21.8 (2.22)	14.1	15.8	17.6				
60			60	19.9 (2.03)	15.4	17.3	19.2				
65			65	18.4 (1.88)	16.6	18.7	20.8				

Part No. Type D-L	D	d	L	Spring Constant N/mm(kgf/mm)		F = L x 25.6%		F = L x 28.8%		F = L x 32%	
				Fmm	Load N(kgf)	Fmm	Load N(kgf)	Fmm	Load N(kgf)		
Operation Count											
				1,000,000	500,000	300,000					
DSWM16 - 20	16	8	20	78.1 (7.97)	5.1	5.8	6.4	400 (41)	450 (46)	500 (51)	(51)
25			25	62.5 (6.38)	6.4	7.2	8.0				
30			30	52.1 (5.31)	7.7	8.6	9.6				
35			35	44.7 (4.55)	9.0	10.1	11.2				
40			40	39.1 (3.98)	10.2	11.5	12.8				
45			45	34.7 (3.54)	11.5	13.0	14.4				
50			50	31.3 (3.19)	12.8	14.4	16.0				
55			55	28.4 (2.90)	14.1	15.8	17.6				
60			60	26.0 (2.66)	15.4	17.3	19.2				
65			65	24.0 (2.45)	16.6	18.7	20.8				
70	70	22.3 (2.28)	17.9	20.2	22.4						
75	75	20.8 (2.13)	19.2	21.6	24.0						
80	80	19.5 (1.99)	20.5	23.0	25.6						
90	90	17.4 (1.77)	23.0	25.9	28.8						
100	100	15.6 (1.59)	25.6	28.8	32.0						
DSWM18 - 20	18	9	20	99.6 (10.2)	5.1	5.8	6.4	510 (52)	574 (59)	637 (65)	(65)
25			25	79.7 (8.13)	6.4	7.2	8.0				
30			30	66.4 (6.77)	7.7	8.6	9.6				
35			35	56.9 (5.80)	9.0	10.1	11.2				
40			40	49.8 (5.08)	10.2	11.5	12.8				
45			45	44.3 (4.51)	11.5	13.0	14.4				
50			50	39.8 (4.06)	12.8	14.4	16.0				
55			55	36.2 (3.69)	14.1	15.8	17.6				
60			60	33.2 (3.39)	15.4	17.3	19.2				
65			65	30.6 (3.13)	16.6	18.7	20.8				
70	70	28.5 (2.90)	17.9	20.2	22.4						
75	75	26.6 (2.71)	19.2	21.6	24.0						
80	80	24.9 (2.54)	20.5	23.0	25.6						
90	90	22.1 (2.26)	23.0	25.9	28.8						
100	100	19.9 (2.03)	25.6	28.8	32.0						
DSWM20 - 20	20	10	20	123 (12.5)	5.1	5.8	6.4	628 (64)	706 (72)	784 (80)	(80)
25			25	98.0 (10.0)	6.4	7.2	8.0				
30			30	81.7 (8.33)	7.7	8.6	9.6				
35			35	70.0 (7.14)	9.0	10.1	11.2				
40			40	61.3 (6.25)	10.2	11.5	12.8				
45			45	54.4 (5.55)	11.5	13.0	14.4				
50			50	49.0 (5.00)	12.8	14.4	16.0				
55			55	44.5 (4.55)	14.1	15.8	17.6				
60			60	40.8 (4.17)	15.4	17.3	19.2				
65			65	37.7 (3.85)	16.6	18.7	20.8				
70	70	35.0 (3.57)	17.9	20.2	22.4						
75	75	32.7 (3.33)	19.2	21.6	24.0						
80	80	30.6 (3.13)	20.5	23.0	25.6						
90	90	27.2 (2.78)	23.0	25.9	28.8						
100	100	24.5 (2.50)	25.6	28.8	32.0						
125	125	19.6 (2.00)	32.0	36.0	40.0						
150	150	16.3 (1.67)	38.4	43.2	48.0						
DSWM22 - 25	22	11	25	119 (12.1)	6.4	7.2	8.0	761 (78)	856 (87)	951 (97)	(97)
30			30	99.1 (10.1)	7.7	8.6	9.6				
35			35	84.9 (8.66)	9.0	10.1	11.2				
40			40	74.3 (7.58)	10.2	11.5	12.8				
45			45	66.1 (6.74)	11.5	13.0	14.4				
50			50	59.5 (6.06)	12.8	14.4	16.0				
55			55	54.0 (5.51)	14.1	15.8	17.6				
60			60	49.5 (5.05)	15.4	17.3	19.2				
65			65	45.7 (4.66)	16.6	18.7	20.8				
70			70	42.5 (4.33)	17.9	20.2	22.4				
75	75	39.6 (4.04)	19.2	21.6	24.0						
80	80	37.2 (3.79)	20.5	23.0	25.6						
90	90	33.0 (3.37)	23.0	25.9	28.8						
100	100	29.7 (3.03)	25.6	28.8	32.0						
150	150	19.8 (2.02)	38.4	43.2	48.0						

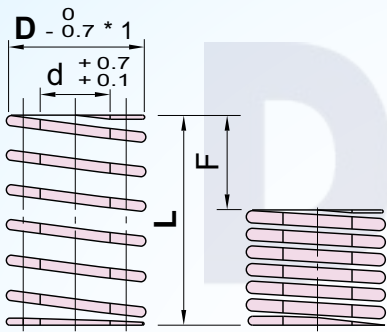
ORDERING GUIDE



DSWM 20 - 80

www.dymextech.com
 india@dymextech.com

Coil Springs – DSWM



Load $\pm 10\%$
 Perpendicularity 2° or less
 Free length L 50 or less $\pm 0.5\text{mm}$
 55 or more $\pm 1\%$
 Winding Direction : Right

*1 For D70, the D dimension tolerance is $0 / -1.0$

Part No. Type D-L	D	d	L	Spring Constant N/mm(kgf/mm)	F = L x 25.6%		F = L x 28.8%		F = L x 32%		
					Fmm	Load N(kgf)	Fmm	Load N(kgf)	Fmm	Load N(kgf)	
Operation Count											
					1,000,000	500,000	300,000				
DSWM25 - 25	25	12.5	25	153 (15.6)	6.4	7.2	8.0	981 (100)	1103 (113)	1225 (125)	
30			30	128 (13.0)	7.7	8.6	9.6				
35			35	109 (11.2)	9.0	10.1	11.2				
40			40	95.7 (9.77)	10.2	11.5	12.8				
45			45	85.1 (8.68)	11.5	13.0	14.4				
50			50	76.6 (7.81)	12.8	14.4	16.0				
55			55	69.6 (7.10)	14.1	15.8	17.6				
60			60	63.8 (6.51)	15.4	17.3	19.2				
65			65	58.9 (6.01)	16.6	18.7	20.8				
70			70	54.7 (5.58)	17.9	20.2	22.4				
75			75	51.0 (5.21)	19.2	21.6	24.0				
80			80	47.9 (4.88)	20.5	23.0	25.6				
90			90	42.5 (4.34)	23.0	25.9	28.8				
100			100	38.3 (3.91)	25.6	28.8	32.0				
125			125	30.6 (3.13)	32.0	36.0	40.0				
150	150	25.5 (2.60)	38.4	43.2	48.0						
175	175	21.9 (2.23)	44.8	50.4	56.0						
DSWM27 - 25	27	13.5	25	179 (18.3)	6.4	7.2	8.0	1445 (117)	1288 (131)	1431 (146)	
30			30	149 (15.2)	7.7	8.6	9.6				
35			35	128 (13.0)	9.0	10.1	11.2				
40			40	112 (11.4)	10.2	11.5	12.8				
45			45	99.4 (10.1)	11.5	13.0	14.4				
50			50	89.4 (9.13)	12.8	14.4	16.0				
55			55	81.3 (8.30)	14.1	15.8	17.6				
60			60	74.5 (7.60)	15.4	17.3	19.2				
65			65	68.8 (7.02)	16.6	18.7	20.8				
70			70	63.9 (6.52)	17.9	20.2	22.4				
75			75	59.6 (6.08)	19.2	21.6	24.0				
80			80	55.9 (5.70)	20.5	23.0	25.6				
90			90	49.7 (5.07)	23.0	25.9	28.8				
100			100	44.7 (4.56)	25.6	28.8	32.0				
125			125	35.8 (3.65)	32.0	36.0	40.0				
150	150	29.8 (3.04)	38.4	43.2	48.0						
175	175	25.6 (2.61)	44.8	50.4	56.0						
DSWM30 - 25	30	15	25	221 (22.5)	6.4	7.2	8.0	1412 (144)	1589 (162)	1765 (180)	
30			30	184 (18.8)	7.7	8.6	9.6				
35			35	158 (16.1)	9.0	10.1	11.2				
40			40	138 (14.1)	10.2	11.5	12.8				
45			45	123 (12.5)	11.5	13.0	14.4				
50			50	110 (11.3)	12.8	14.4	16.0				
55			55	100 (10.2)	14.1	15.8	17.6				
60			60	91.9 (9.38)	15.4	17.3	19.2				
65			65	84.9 (8.65)	16.6	18.7	20.8				
70			70	78.8 (8.04)	17.9	20.2	22.4				
75			75	73.5 (7.50)	19.2	21.6	24.0				
80			80	69.0 (7.03)	20.5	23.0	25.6				
90			90	61.3 (6.25)	23.0	25.9	28.8				
100			100	55.2 (5.63)	25.6	28.8	32.0				
125			125	44.1 (4.50)	32.0	36.0	40.0				
150	150	36.8 (3.75)	38.4	43.2	48.0						
175	175	31.5 (3.21)	44.8	50.4	56.0						
200	200	27.6 (2.81)	51.2	57.6	64.0						
DSWM35 - 40	35	17.5	40	188 (19.1)	10.2	11.5	12.8	1412 (144)	1589 (162)	1765 (180)	
45			45	167 (17.0)	11.5	12.9	14.4				
50			50	150 (15.3)	12.8	14.4	16.0				
55			55	136 (13.9)	14.1	15.8	17.6				
60			60	125 (12.8)	15.4	17.3	19.2				
65			65	115 (11.8)	16.6	18.7	20.8				
70			70	107 (10.9)	17.9	20.2	22.4				
75			75	100 (10.2)	19.2	21.6	24.0				
80			80	93.8 (9.57)	20.5	23.0	25.6				
90			90	83.4 (8.51)	23.0	25.9	28.8				
100			100	75.0 (7.66)	25.6	28.8	32.0				
125			125	60.0 (6.13)	32.0	36.0	40.0				
150			150	50.0 (5.10)	38.4	43.2	48.0				
175			175	42.9 (4.38)	44.8	50.4	56.0				
200			200	37.5 (3.83)	51.2	57.6	64.0				

Part No. Type D-L	D	d	L	Spring Constant N/mm(kgf/mm)	F = L x 25.6%		F = L x 28.8%		F = L x 32%	
					Fmm	Load N(kgf)	Fmm	Load N(kgf)	Fmm	Load N(kgf)
Operation Count										
					1,000,000	500,000	300,000			
DSWM40 - 40	40	20	40	245 (25.0)	10.2	11.5	12.8	2510 (256)	2824 (288)	3138 (320)
45			45	218 (22.2)	11.5	13.0	14.4			
50			50	196 (20.0)	12.8	14.4	16.0			
55			55	178 (18.2)	14.1	15.8	17.6			
60			60	163 (16.7)	15.4	17.3	19.2			
65			65	151 (15.4)	16.6	18.7	20.8			
70			70	140 (14.3)	17.9	20.2	22.4			
75			75	131 (13.3)	19.2	21.6	24.0			
80			80	123 (12.5)	20.5	23.0	25.6			
90			90	109 (11.1)	23.0	25.9	28.8			
100			100	98.1 (10.0)	25.6	28.8	32.0			
125			125	78.5 (8.00)	32.0	36.0	40.0			
150			150	65.4 (6.67)	38.4	43.2	48.0			
175			175	56.0 (5.71)	44.8	50.4	56.0			
200			200	49.0 (5.00)	51.2	57.6	64.0			
DSWM50 - 50	50	25	50	306 (31.2)	12.8	14.4	16.0	3920 (400)	4410 (450)	4900 (500)
55			55	278 (28.4)	14.1	15.8	17.6			
60			60	255 (26.0)	15.4	17.3	19.2			
65			65	236 (24.0)	16.6	18.7	20.8			
70			70	219 (22.3)	17.9	20.2	22.4			
75			75	204 (20.8)	19.2	21.6	24.0			
80			80	191 (19.5)	20.5	23.0	25.6			
90			90	170 (17.3)	23.0	25.9	28.8			
100			100	153 (15.6)	25.6	28.8	32.0			
125			125	123 (12.5)	32.0	36.0	40.0			
150			150	102 (10.4)	38.4	43.2	48.0			
175			175	87.5 (8.92)	44.8	50.4	56.0			
200			200	76.6 (7.81)	51.2	57.6	64.0			
225			225	68.1 (6.94)	57.6	64.8	72.0			
250			250	61.3 (6.25)	64.0	72.0	80.0			
DSWM60 - 60	60	30	60	368 (37.5)	15.4	17.3	19.2	5645 (576)	6350 (648)	7056 (720)
70			70	315 (32.1)	17.9	20.2	22.4			
80			80	276 (28.1)	20.5	23.0	25.6			
90			90	245 (25.0)	23.0	25.9	28.8			
100			100	221 (22.5)	25.6	28.8	32.0			
125			125	176 (18.0)	32.0	36.0	40.0			
150			150	147 (15.0)	38.4	43.2	48.0			
175			175	126 (12.8)	44.8	50.4	56.0			
200			200	110 (11.2)	51.2	57.6	64.0			
225			225	98.0 (10.0)	57.6	64.8	72.0			
250			250	88.2 (8.99)	64.0	72.0	80.0			
275			275	80.2 (8.18)	70.4	79.2	88.0			
300			300	73.5 (7.49)	76.8	86.4	96.0			
350			350	63.0 (6.42)	89.6	100.8	112.0			
DSWM70 - 70			70	38.5	70	372 (37.9)	17.9			
80	80	325 (33.2)			20.5	23.0	25.6			
90	90	289 (29.5)			23.0	25.9	28.8			
100	100	260 (26.5)			25.6	28.8	32.0			
125	125	208 (21.2)			32.0	36.0	40.0			
150	150	174 (17.7)			38.4	43.2	48.0			
175	175	149 (15.2)			44.8	50.4	56.0			
200	200	130 (13.3)			51.2	57.6	64.0			
250	250	104 (10.6)			64.0	72.0	80.0			
300	300	86.8 (8.85)			76.8	86.4	96.0			
350	350	74.4 (7.58)			89.6	100.8	112.0			

● Load calculation method: Load = Spring constant x Deflection

(SI units) $N = N/mm \times Fmm$
 $kgf = kgf/mm \times Fmm$
 $(kgf = N \times 0.101972)$

Alteration	Code	Spec.
	NT	Coating removal Removal of the coil spring coating by shot peening ⚠ Springs with the coating removed are extremely susceptible to corrosion. Handle them with care. Corrosion of the spring will result in early breakage. ⚠ There may be greater variation in the load capacity and other characteristics between lots than with ordinary coated products.

ORDERING GUIDE



(NT)



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