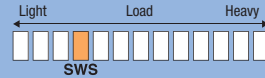
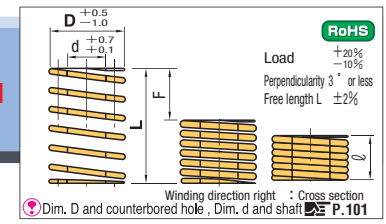


COIL SPRINGS

MIDDLE DEFLECTION SWS



Printed in Red



D	d	L	Spring constant N/mm(kgf/mm)	Solid height ℓ min	F=L×40% Fmm Load (N/kip)	Catalog No. Type D-L	U/Price Qty: 1~19
10.5	5.5	20	10.90 [1.11]	10.0	8.0	SWS10.5-20	20
		25	8.72 [0.89]	12.5	10.0		25
		30	7.27 [0.74]	15.0	12.0		30
		35	6.23 [0.64]	17.5	14.0		35
		40	5.45 [0.56]	20.0	16.0		40
		45	4.84 [0.49]	22.5	18.0		45
		50	4.36 [0.44]	25.0	20.0		50
		55	3.96 [0.40]	27.5	22.0		55
		60	3.63 [0.37]	30.0	24.0		60
		65	3.35 [0.34]	32.5	26.0		65
		70	3.11 [0.32]	35.0	28.0		70
		75	2.91 [0.30]	37.5	30.0		75
80	2.73 [0.28]	40.0	32.0	80			
12.5	6.5	20	15.25 [1.56]	10.0	8.0	SWS12.5-20	20
		25	12.20 [1.24]	12.5	10.0		25
		30	10.17 [1.04]	15.0	12.0		30
		35	8.71 [0.89]	17.5	14.0		35
		40	7.63 [0.78]	20.0	16.0		40
		45	6.78 [0.69]	22.5	18.0		45
		50	6.10 [0.62]	25.0	20.0		50
		55	5.55 [0.57]	27.5	22.0		55
		60	5.08 [0.52]	30.0	24.0		60
		65	4.69 [0.48]	32.5	26.0		65
		70	4.36 [0.44]	35.0	28.0		70
		75	4.07 [0.41]	37.5	30.0		75
80	3.81 [0.39]	40.0	32.0	80			
14.5	8.5	20	24.50 [2.50]	10.0	8.0	SWS14.5-20	20
		25	19.61 [2.00]	12.5	10.0		25
		30	16.33 [1.67]	15.0	12.0		30
		35	14.00 [1.43]	17.5	14.0		35
		40	12.25 [1.25]	20.0	16.0		40
		45	10.89 [1.11]	22.5	18.0		45
		50	9.80 [1.00]	25.0	20.0		50
		55	8.91 [0.91]	27.5	22.0		55
		60	8.17 [0.83]	30.0	24.0		60
		65	7.54 [0.77]	32.5	26.0		65
		70	7.00 [0.71]	35.0	28.0		70
		75	6.53 [0.67]	37.5	30.0		75
80	6.13 [0.62]	40.0	32.0	80			
90	5.44 [0.56]	45.0	36.0	90			
100	4.90 [0.50]	50.0	40.0	100			
125	3.92 [0.40]	62.5	50.0	125			
150	3.27 [0.33]	75.0	60.0	150			

D	d	L	Spring constant N/mm(kgf/mm)	Solid height ℓ min	F=L×40% Fmm Load (N/kip)	Catalog No. Type D-L	U/Price Qty: 1~19
17	10.5	25	29.42 [3.00]	12.5	10.0	SWS 17-25	25
		30	24.52 [2.50]	15.0	12.0		30
		35	21.01 [2.14]	17.5	14.0		35
		40	18.39 [1.88]	20.0	16.0		40
		45	16.34 [1.67]	22.5	18.0		45
		50	14.71 [1.50]	25.0	20.0		50
		55	13.37 [1.36]	27.5	22.0		55
		60	12.26 [1.25]	30.0	24.0		60
		65	11.32 [1.15]	32.5	26.0		65
		70	10.51 [1.07]	35.0	28.0		70
		75	9.81 [1.00]	37.5	30.0		75
		80	9.19 [0.94]	40.0	32.0		80
90	8.17 [0.83]	45.0	36.0	90			
100	7.35 [0.75]	50.0	40.0	100			
125	5.88 [0.60]	62.5	50.0	125			
150	4.90 [0.50]	75.0	60.0	150			
21	13.5	30	35.17 [3.59]	15.0	12.0	SWS 21-30	30
		35	30.14 [3.07]	17.5	14.0		35
		40	26.38 [2.69]	20.0	16.0		40
		45	23.44 [2.39]	22.5	18.0		45
		50	21.10 [2.15]	25.0	20.0		50
		55	19.18 [1.96]	27.5	22.0		55
		60	17.58 [1.79]	30.0	24.0		60
		65	16.23 [1.66]	32.5	26.0		65
		70	15.07 [1.54]	35.0	28.0		70
		75	14.07 [1.43]	37.5	30.0		75
		80	13.19 [1.34]	40.0	32.0		80
		90	11.72 [1.20]	45.0	36.0		90
100	10.55 [1.08]	50.0	40.0	100			
110	9.59 [0.98]	55.0	44.0	110			
120	8.79 [0.90]	60.0	48.0	120			
125	8.44 [0.86]	62.5	50.0	125			
130	8.12 [0.83]	65.0	52.0	130			
140	7.54 [0.77]	70.0	56.0	140			
150	7.03 [0.72]	75.0	60.0	150			
175	6.03 [0.61]	87.5	70.0	175			
200	5.28 [0.54]	100.0	80.0	200			
26	16.5	30	47.42 [4.84]	15.0	12.0	SWS 26-30	30
		35	40.64 [4.14]	17.5	14.0		35
		40	35.56 [3.63]	20.0	16.0		40
		45	31.61 [3.22]	22.5	18.0		45
		50	28.45 [2.90]	25.0	20.0		50
		55	25.86 [2.64]	27.5	22.0		55
		60	23.71 [2.42]	30.0	24.0		60
		65	21.88 [2.23]	32.5	26.0		65
		70	20.32 [2.07]	35.0	28.0		70
		75	18.97 [1.93]	37.5	30.0		75
		80	17.78 [1.81]	40.0	32.0		80
		90	15.81 [1.61]	45.0	36.0		90
100	14.23 [1.45]	50.0	40.0	100			
110	12.93 [1.32]	55.0	44.0	110			
120	11.85 [1.21]	60.0	48.0	120			
125	11.38 [1.16]	62.5	50.0	125			
130	10.94 [1.12]	65.0	52.0	130			
140	10.16 [1.04]	70.0	56.0	140			
150	9.48 [0.97]	75.0	60.0	150			
175	8.13 [0.83]	87.5	70.0	175			
200	7.11 [0.73]	100.0	80.0	200			
225	6.32 [0.64]	112.5	90.0	225			
250	5.69 [0.58]	125.0	100.0	250			

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=L×40% Fmm Load (N/kip)	Catalog No. Type D-L	U/Price Qty: 1~19
31	21	40	49.00 [5.00]	20.0	16.0	SWS 31-40	40
		45	43.56 [4.44]	22.5	18.0		45
		50	39.20 [4.00]	25.0	20.0		50
		55	35.64 [3.63]	27.5	22.0		55
		60	32.67 [3.33]	30.0	24.0		60
		65	30.15 [3.07]	32.5	26.0		65
		70	28.00 [2.86]	35.0	28.0		70
		75	26.13 [2.66]	37.5	30.0		75
		80	24.50 [2.50]	40.0	32.0		80
		90	21.78 [2.22]	45.0	36.0		90
		100	19.60 [2.00]	50.0	40.0		100
		110	17.82 [1.82]	55.0	44.0		110
120	16.33 [1.67]	60.0	48.0	120			
125	15.68 [1.60]	62.5	50.0	125			
130	15.08 [1.54]	65.0	52.0	130			
140	14.00 [1.43]	70.0	56.0	140			
150	13.07 [1.33]	75.0	60.0	150			
160	12.25 [1.25]	80.0	64.0	160			
170	11.53 [1.18]	85.0	68.0	170			
175	11.20 [1.14]	87.5	70.0	175			
180	10.89 [1.11]	90.0	72.0	180			
190	10.32 [1.05]	95.0	76.0	190			
200	9.80 [1.00]	100.0	80.0	200			
250	7.84 [0.80]	125.0	100.0	250			
300	6.53 [0.67]	150.0	120.0	300			
37	26	40	52.13 [5.32]	20.0	16.0	SWS 37-40	40
		45	46.33 [4.72]	22.5	18.0		45
		50	41.70 [4.25]	25.0	20.0		50
		55	37.91 [3.87]	27.5	22.0		55
		60	34.75 [3.54]	30.0	24.0		60
		65	32.08 [3.27]	32.5	26.0		65
		70	29.79 [3.04]	35.0	28.0		70
		75	27.80 [2.83]	37.5	30.0		75
		80	26.06 [2.66]	40.0	32.0		80
		90	23.17 [2.36]	45.0	36.0		90
		100	20.85 [2.13]	50.0	40.0		100
		110	18.95 [1.93]	55.0	44.0		110
120	17.38 [1.77]	60.0	48.0	120			
125	16.68 [1.70]	62.5	50.0	125			
130	16.04 [1.64]	65.0	52.0	130			
140	14.89 [1.52]	70.0	56.0	140			
150	13.90 [1.42]	75.0	60.0	150			
160	13.03 [1.33]	80.0	64.0	160			
170	12.26 [1.25]	85.0	68.0	170			
175	11.91 [1.21]	87.5	70.0	175			
180	11.58 [1.18]	90.0	72.0	180			
190	10.97 [1.12]	95.0	76.0	190			
200	10.43 [1.06]	100.0	80.0	200			
250	8.34 [0.85]	125.0	100.0	250			
300	6.95 [0.71]	150.0	120.0	300			

D	d	L	Spring constant N/mm(kgf/mm)	Solid height ℓ min	F=L×40% Fmm Load (N/kip)	Catalog No. Type D-L	U/Price Qty: 1~19
44.5	31	50	50.15 [5.11]	25.0	20.0	SWS 44.5-50	50
		60	41.79 [4.26]	30.0	24.0		60
		70	35.82 [3.65]	35.0	28.0		70
		80	31.34 [3.20]	40.0	32.0		80
		90	27.86 [2.84]	45.0	36.0		90
		100	25.08 [2.56]	50.0	40.0		100
		110	22.80 [2.32]	55.0	44.0		110
		120	20.90 [2.13]	60.0	48.0		120
		130	19.29 [1.97]	65.0	52.0		130
		140	17.91 [1.83]	70.0	56.0		140
		150	16.72 [1.70]	75.0	60.0		150
		160	15.67 [1.60]	80.0	64.0		160
170	14.75 [1.50]	85.0	68.0	170			
180	13.93 [1.42]	90.0	72.0	180			
190	13.20 [1.35]	95.0	76.0	190			
200	12.54 [1.28]	100.0	80.0	200			
225	11.14 [1.14]	112.5	90.0	225			
250	10.03 [1.02]	125.0	100.0	250			
275	9.12 [0.93]	137.5	110.0	275			
300	8.36 [0.85]	150.0	120.0	300			
46	33	50	63.74 [6.50]	25.0	20.0	SWS 46-50	50
		60	53.12 [5.42]	30.0	24.0		60
		70	45.53 [4.64]	35.0	28.0		70
		80	39.84 [4.06]	40.0	32.0		80
		90	35.41 [3.61]	45.0	36.0		90
		100	31.87 [3.25]	50.0	40.0		100
		110	28.97 [2.95]	55.0	44.0		110
		120	26.56 [2.71]	60.0	48.0		120
		125	25.50 [2.60]	62.5	50.0		125
		130	24.52 [2.50]	65.0	52.0		130
		140	22.77 [2.32]	70			