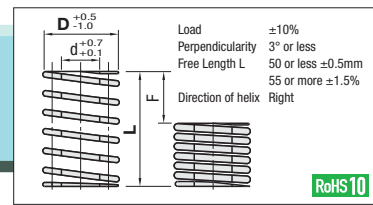


# Coil Spring

## For Ultra Deflection SWU



D	d	L	Spring Constant N/mm(kgf/mm)	F=Lx60% Fmm	Load N(kgf)	Part Number Type D-L	Unit Price
10.5	6.0	15	7.63(0.78)	9.0		SWU10.5-15	20
		20	5.72(0.58)	12.0			25
		25	4.58(0.47)	15.0			30
		30	3.81(0.39)	18.0			35
		35	3.27(0.33)	21.0			40
		40	2.86(0.29)	24.0			45
		45	2.54(0.26)	27.0	68.6		50
		50	2.29(0.23)	30.0	(7.0)		55
		55	2.08(0.21)	33.0			60
		60	1.91(0.19)	36.0			65
		65	1.76(0.18)	39.0			70
		70	1.63(0.17)	42.0			75
75	1.53(0.16)	45.0		80			
80	1.43(0.15)	48.0					
12.5	7.0	15	8.72(0.89)	9.0		SWU12.5-15	20
		20	6.54(0.67)	12.0			25
		25	5.23(0.53)	15.0			30
		30	4.36(0.44)	18.0			35
		35	3.74(0.38)	21.0			40
		40	3.27(0.33)	24.0			45
		45	2.91(0.30)	27.0	78.5		50
		50	2.62(0.27)	30.0	(8.0)		55
		55	2.38(0.24)	33.0			60
		60	2.18(0.22)	36.0			65
		65	2.01(0.21)	39.0			70
		70	1.87(0.19)	42.0			75
75	1.74(0.18)	45.0		80			
80	1.63(0.17)	48.0		90			
90	1.45(0.15)	54.0		100			
100	1.31(0.13)	60.0					
14.5	8.5	15	10.90(1.11)	9.0		SWU14.5-15	20
		20	8.17(0.83)	12.0			25
		25	6.54(0.67)	15.0			30
		30	5.45(0.56)	18.0			35
		35	4.67(0.48)	21.0			40
		40	4.09(0.42)	24.0			45
		45	3.63(0.37)	27.0			50
		50	3.27(0.33)	30.0			55
		55	2.97(0.30)	33.0			60
		60	2.72(0.28)	36.0	98.1		65
		65	2.51(0.26)	39.0	(10.0)		70
		70	2.33(0.24)	42.0			75
75	2.18(0.22)	45.0		80			
80	2.04(0.21)	48.0		90			
90	1.82(0.19)	54.0		100			
100	1.63(0.17)	60.0					
110	1.49(0.15)	66.0					
120	1.36(0.14)	72.0					
125	1.31(0.13)	75.0					
150	1.09(0.11)	90.0					
17	10.5	20	12.26(1.25)	12.0		SWU17-20	25
		25	9.81(1.00)	15.0			30
		30	8.17(0.83)	18.0			35
		35	7.00(0.71)	21.0			40
		40	6.13(0.63)	24.0			45
		45	5.45(0.56)	27.0			50
		50	4.90(0.50)	30.0			55
		55	4.46(0.45)	33.0			60
		60	4.09(0.42)	36.0	147.1		65
		65	3.77(0.38)	39.0	(15.0)		70
		70	3.50(0.36)	42.0			75
		75	3.27(0.33)	45.0			80
80	3.06(0.31)	48.0		90			
90	2.72(0.28)	54.0		100			
100	2.45(0.25)	60.0		110			
110	2.23(0.23)	66.0		120			
120	2.04(0.21)	72.0		125			
125	1.96(0.20)	75.0		150			
150	1.63(0.17)	90.0					
175	1.40(0.14)	105.0					

D	d	L	Spring Constant N/mm(kgf/mm)	F=Lx60% Fmm	Load N(kgf)	Part Number Type D-L	Unit Price
21	13.5	25	15.04(1.53)	15.0		SWU21-25	30
		30	12.53(1.28)	18.0			35
		35	10.74(1.10)	21.0			40
		40	9.40(0.96)	24.0			45
		45	8.35(0.85)	27.0			50
		50	7.52(0.77)	30.0			55
		55	6.83(0.70)	33.0	225.6		60
		60	6.27(0.64)	36.0	(23.0)		65
		65	5.78(0.59)	39.0			70
		70	5.37(0.55)	42.0			75
		75	5.01(0.51)	45.0			80
		80	4.70(0.48)	48.0			90
90	4.18(0.43)	54.0		100			
100	3.76(0.38)	60.0					
110	3.42(0.35)	66.0					
120	3.13(0.32)	72.0					
125	3.01(0.31)	75.0					
130	2.89(0.29)	78.0					
140	2.69(0.27)	84.0					
150	2.51(0.26)	90.0					
175	2.15(0.22)	105.0					
200	1.88(0.19)	120.0					
26	16.5	30	16.34(1.67)	18.0		SWU26-30	35
		35	14.01(1.43)	21.0			40
		40	12.26(1.25)	24.0			45
		45	10.90(1.11)	27.0			50
		50	9.81(1.00)	30.0			55
		55	8.92(0.91)	33.0			60
		60	8.17(0.83)	36.0			65
		65	7.54(0.77)	39.0			70
		70	7.00(0.71)	42.0			75
		75	6.54(0.67)	45.0	294.2		80
		80	6.13(0.63)	48.0	(30.0)		90
		90	5.45(0.56)	54.0			100
100	4.90(0.50)	60.0		110			
110	4.46(0.45)	66.0		120			
120	4.09(0.42)	72.0		125			
125	3.92(0.40)	75.0		130			
130	3.77(0.38)	78.0		140			
140	3.50(0.36)	84.0		150			
150	3.27(0.33)	90.0		175			
175	2.80(0.29)	105.0		200			
200	2.45(0.25)	120.0		225			
225	2.18(0.22)	135.0		250			
250	1.96(0.20)	150.0					
31	21	35	17.75(1.81)	21.0		SWU31-35	40
		40	15.53(1.58)	24.0			45
		45	13.80(1.41)	27.0			50
		50	12.42(1.27)	30.0			55
		55	11.29(1.15)	33.0			60
		60	10.35(1.06)	36.0			65
		65	9.56(0.97)	39.0			70
		70	8.87(0.90)	42.0			75
		75	8.28(0.84)	45.0			80
		80	7.76(0.79)	48.0			90
		90	6.90(0.70)	54.0			100
		100	6.21(0.63)	60.0			110
110	5.65(0.58)	66.0	372.7	120			
120	5.18(0.53)	72.0	(38.0)	125			
125	4.97(0.51)	75.0		130			
130	4.78(0.49)	78.0		140			
140	4.44(0.45)	84.0		150			
150	4.14(0.42)	90.0		160			
160	3.88(0.40)	96.0		170			
170	3.65(0.37)	102.0		175			
175	3.55(0.36)	105.0		180			
180	3.45(0.35)	108.0		190			
190	3.27(0.33)	114.0		200			
200	3.11(0.32)	120.0		250			
250	2.48(0.25)	150.0					
300	2.07(0.21)	180.0					

D	d	L	Spring Constant N/mm(kgf/mm)	F=Lx60% Fmm	Load N(kgf)	Part Number Type D-L	Unit Price
37	26	40	19.20(1.96)	24.0		SWU37-40	45
		45	17.07(1.74)	27.0			50
		50	15.36(1.57)	30.0			55
		55	13.97(1.42)	33.0			60
		60	12.80(1.31)	36.0			65
		65	11.82(1.21)	39.0			70
		70	10.97(1.12)	42.0			75
		75	10.24(1.04)	45.0			80
		80	9.60(0.98)	48.0			90
		90	8.54(0.87)	54.0			100
		100	7.68(0.78)	60.0	460.9		110
		110	6.98(0.71)	66.0	(47.0)		120
120	6.40(0.65)	72.0		130			
130	5.91(0.60)	78.0		140			
140	5.49(0.56)	84.0		150			
150	5.12(0.52)	90.0		160			
160	4.80(0.49)	96.0		170			
170	4.52(0.46)	102.0		180			
180	4.27(0.44)	108.0		190			
190	4.04(0.41)	114.0		200			
200	3.84(0.39)	120.0		225			
225	3.41(0.35)	135.0		250			
250	3.07(0.31)	150.0		275			
275	2.79(0.28)	165.0		300			
300	2.56(0.26)	180.0					
43	31	50	19.61(2.00)	30.0		SWU43-50	60
		60	16.34(1.67)	36.0			70
		70	14.01(1.43)	42.0			80
		80	12.26(1.25)	48.0			90
		90	10.90(1.11)	54.0			100
		100	9.81(1.00)	60.0			110
		110	8.92(0.91)	66.0			120
		120	8.17(0.83)	72.0			130
		130	7.54(0.77)	78.0			140
		140	7.00(0.71)	84.0	588.4		150
		150	6.54(0.67)	90.0	(60.0)		160
		160	6.13(0.63)	96.0			170
170	5.77(0.59)	102.0		180			
180	5.45(0.56)	108.0		190			
190	5.16(0.53)	114.0		200			
200	4.90(0.50)	120.0		225			
225	4.36(0.44)	135.0		250			
250	3.92(0.40)	150.0		275			
275	3.57(0.36)	165.0		300			
300	3.27(0.33)	180.0					

Material: Oil tempered wires for springs  
 • Load calculation method = Spring constant x Deflection  
 (Int'l Unit) N=N/mmxFmm  
 kgf=kgf/mmxFmm  
 (kgf=Nx0.101972)

Usage count: 1 Million Times (Lx65% is 300,000 Times)  
 How to use coil springs, and precautions **P.328**  
 About D dimension and back facing hole, and D dimension and shaft, see **P.1881**.

Ordering Example **Part Number**  
**SWU17-40**