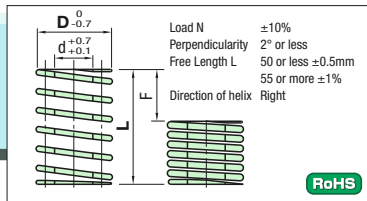


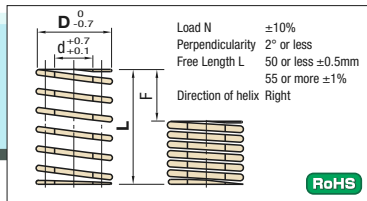
Coil Spring

Heavy Load SWH



Coil Spring

Ultra Heavy Load JIS-SWB



D	d	L	Spring Constant N/mm(kgf/mm)	F=Lx19.2% Fmm Load N(kgf)	F=Lx21.6% Fmm Load N(kgf)	F=Lx24% Fmm Load N(kgf)	Part Number Type D-L	Unit Price
6	3	15	38.1(3.9)	2.9	3.2	3.6	SWH 6- 110 {11} 123 {13} 137 {14}	15
		20	28.5(2.9)	3.8	4.3	4.8		20
		25	22.8(2.3)	4.8	5.4	6.0		25
		30	19.0(1.9)	5.8	6.5	7.2		30
		35	16.3(1.7)	6.7	7.6	8.4		35
		40	14.3(1.5)	7.7	8.6	9.6		40
		45	12.7(1.3)	8.6	9.7	10.8		45
		50	11.4(1.2)	9.6	10.8	12.0		50
		55	10.4(1.1)	10.6	11.9	13.2		55
		60	9.5(1.0)	11.5	13.0	14.4		60
8	4	10	85.8(8.8)	1.9	2.2	2.4	SWH 8- 165 {17} 185 {19} 206 {21}	10
		15	57.2(5.8)	2.9	3.2	3.6		15
		20	42.9(4.4)	3.8	4.3	4.8		20
		25	34.3(3.5)	4.8	5.4	6.0		25
		30	28.6(2.9)	5.8	6.5	7.2		30
		35	24.5(2.5)	6.7	7.5	8.4		35
		40	21.5(2.2)	7.7	8.6	9.6		40
		45	19.1(1.9)	8.6	9.7	10.8		45
		50	17.2(1.8)	9.6	10.8	12.0		50
		55	15.6(1.6)	10.6	11.8	13.2		55
10	5	10	123(12.5)	1.9	2.2	2.4	SWH 10- 235 {24} 265 {27} 294 {30}	10
		15	81.7(8.3)	2.9	3.2	3.6		15
		20	61.3(6.3)	3.8	4.3	4.8		20
		25	49.0(5.0)	4.8	5.4	6.0		25
		30	40.8(4.2)	5.8	6.5	7.2		30
		35	35.0(3.6)	6.7	7.5	8.4		35
		40	30.6(3.1)	7.7	8.6	9.6		40
		45	27.2(2.8)	8.6	9.7	10.8		45
		50	24.5(2.5)	9.6	10.8	12.0		50
		55	22.3(2.3)	10.6	11.8	13.2		55
12	6	10	117(11.9)	2.9	3.2	3.6	SWH 12- 337 {34} 379 {38} 421 {43}	10
		15	87.7(8.9)	3.8	4.3	4.8		15
		20	70.2(7.2)	4.8	5.4	6.0		20
		25	58.5(6.0)	5.8	6.5	7.2		25
		30	50.1(5.1)	6.7	7.5	8.4		30
		35	43.9(4.5)	7.7	8.6	9.6		35
		40	39.0(4.0)	8.6	9.7	10.8		40
		45	35.1(3.6)	9.6	10.8	12.0		45
		50	31.9(3.3)	10.6	11.8	13.2		50
		55	29.2(3.0)	11.5	13.0	14.4		55
14	7	10	120(12.3)	3.8	4.3	4.8	SWH 14- 462 {47} 520 {53} 578 {59}	10
		15	96.3(9.8)	4.8	5.4	6.0		15
		20	80.3(8.2)	5.8	6.5	7.2		20
		25	68.8(7.0)	6.7	7.5	8.4		25
		30	60.2(6.1)	7.7	8.6	9.6		30
		35	53.5(5.5)	8.6	9.7	10.8		35
		40	48.2(4.9)	9.6	10.8	12.0		40
		45	43.8(4.5)	10.6	11.8	13.2		45
		50	40.1(4.1)	11.5	13.0	14.4		50
		55	37.1(3.8)	12.5	14.0	15.6		55

D	d	L	Spring Constant N/mm(kgf/mm)	F=Lx19.2% Fmm Load N(kgf)	F=Lx21.6% Fmm Load N(kgf)	F=Lx24% Fmm Load N(kgf)	Part Number Type D-L	Unit Price
16	8	20	157(16.0)	3.8	4.3	4.8	SWH 16- 604 {62} 680 {69} 755 {77}	20
		25	126(12.8)	4.8	5.4	6.0		25
		30	105(10.7)	5.8	6.5	7.2		30
		35	89.9(9.2)	6.7	7.5	8.4		35
		40	78.6(8.0)	7.7	8.6	9.6		40
		45	69.9(7.1)	8.6	9.7	10.8		45
		50	62.9(6.4)	9.6	10.8	12.0		50
		55	57.2(5.8)	10.6	11.8	13.2		55
		60	52.4(5.3)	11.5	13.0	14.4		60
		65	48.4(4.9)	12.5	14.0	15.6		65
18	9	20	198(20.2)	3.8	4.3	4.8	SWH 18- 761 {78} 856 {87} 951 {97}	20
		25	159(16.2)	4.8	5.4	6.0		25
		30	132(13.5)	5.8	6.5	7.2		30
		35	113(11.5)	6.7	7.5	8.4		35
		40	99.1(10.1)	7.7	8.6	9.6		40
		45	88.1(9.0)	8.6	9.7	10.8		45
		50	79.3(8.1)	9.6	10.8	12.0		50
		55	72.0(7.3)	10.6	11.8	13.2		55
		60	66.0(6.7)	11.5	13.0	14.4		60
		65	61.0(6.2)	12.5	14.0	15.6		65
20	10	20	245(25.0)	3.8	4.3	4.8	SWH 20- 941 {96} 1058 {108} 1176 {120}	20
		25	196(20.0)	4.8	5.4	6.0		25
		30	163(16.7)	5.8	6.5	7.2		30
		35	140(14.3)	6.7	7.5	8.4		35
		40	123(12.5)	7.7	8.6	9.6		40
		45	109(11.1)	8.6	9.7	10.8		45
		50	98.0(10.0)	9.6	10.8	12.0		50
		55	89.1(9.1)	10.6	11.8	13.2		55
		60	81.7(8.3)	11.5	13.0	14.4		60
		65	75.4(7.7)	12.5	14.0	15.6		65
22	11	20	245(25.0)	3.8	4.3	4.8	SWH 22- 1137 {116} 1279 {130} 1421 {145}	20
		25	196(20.0)	4.8	5.4	6.0		25
		30	163(16.7)	5.8	6.5	7.2		30
		35	140(14.3)	6.7	7.5	8.4		35
		40	123(12.5)	7.7	8.6	9.6		40
		45	109(11.1)	8.6	9.7	10.8		45
		50	98.0(10.0)	9.6	10.8	12.0		50
		55	89.1(9.1)	10.6	11.8	13.2		55
		60	81.7(8.3)	11.5	13.0	14.4		60
		65	75.4(7.7)	12.5	14.0	15.6		65
25	12.5	20	245(25.0)	3.8	4.3	4.8	SWH 25- 1466 {150} 1650 {168} 1833 {187}	20
		25	196(20.0)	4.8	5.4	6.0		25
		30	163(16.7)	5.8	6.5	7.2		30
		35	140(14.3)	6.7	7.5	8.4		35
		40	123(12.5)	7.7	8.6	9.6		40
		45	109(11.1)	8.6	9.7	10.8		45
		50	98.0(10.0)	9.6	10.8	12.0		50
		55	89.1(9.1)	10.6	11.8	13.2		55
		60	81.7(8.3)	11.5	13.0	14.4		60
		65	75.4(7.7)	12.5	14.0	15.6		65

D	d	L	Spring Constant		F=Lx16%		F=Lx18%		F=Lx20%		Part Number	Unit Price
			N/mm(kgf/mm)	Fmm	Load N(kgf)	Fmm	Load N(kgf)	Fmm	Load N(kgf)	Type D-L		
6	3	15	59.0(6.0)	2.4	142 {14}	2.7	159 {16}	3.0	177 {18}	SWB 6-	15	
		20	44.3(4.5)	3.2		3.6		4.0		20		
		25	35.4(3.6)	4.0		4.5		5.0		25		
		30	29.5(3.0)	4.8		5.4		6.0		30		
		35	25.3(2.6)	5.6		6.3		7.0		35		
		40	22.1(2.3)	6.4		7.2		8.0		40		
		45	19.7(2.0)	7.2		8.1		9.0		45		
		50	17.7(1.8)	8.0		9.0		10.0		50		
		55	16.1(1.6)	8.8		9.9		11.0		55		
		60	14.8(1.5)	9.6		10.8		12.0		60		
8	4	10	162(16.5)	1.6	258 {26}	1.8	291 {30}	2.0	323 {33}	SWB 8-	10	
		15	108(11.0)	2.4		2.7		3.0		15		
		20	80.8(8.2)	3.2		3.6		4.0		20		
		25	64.6(6.6)	4.0		4.5		5.0		25		
		30	53.8(5.5)	4.8		5.4		6.0		30		
		35	46.1(4.7)	5.6		6.3		7.0		35		
		40	40.4(4.1)	6.4		7.2		8.0		40		
		45	35.9(3.7)	7.2		8.1		9.0		45		
		50	32.3(3.3)	8.0		9.0		10.0		50		
		55	29.4(3.0)	8.8		9.9		11.0		55		
10	5	10	221(22.5)	1.6	353 {36}	1.8	397 {41}	2.0	441 {45}	SWB 10-	10	
		15	147(15.0)	2.4		2.7		3.0		15		
		20	110(11.2)	3.2		3.6		4.0		20		
		25	88.2(9.0)	4.0		4.5		5.0		25		
		30	73.5(7.5)	4.8		5.4		6.0		30		
		35	63.0(6.4)	5.6		6.3		7.0		35		
		40	55.1(5.6)	6.4		7.2		8.0		40		
		45	49.0(5.0)	7.2		8.1		9.0		45		
		50	44.1(4.5)	8.0		9.0		10.0		50		
		55	40.1(4.1)	8.8		9.9		11.0		55		
12	6	10	36.8(3.7)	9.6	455 {46}	10.8	512 {52}	12.0	569 {58}	SWB 12-	10	
		15	33.9(3.5)	10.4		11.7		13.0			15	
		20	31.5(3.2)	11.2		12.6		14.0			20	
		25	29.4(3.0)	12.0		13.5		15.0			25	
		30	27.6(2.8)	12.8		14.4		16.0			30	
		35	24.5(2.5)	14.4		16.2		18.0			35	
		40	19.0(19.3)	2.4		2.7		3.0			40	
		45	14.2(14.5)	3.2		3.6		4.0			45	
		50	11.4(11.6)	4.0		4.5		5.0			50	
		55	9.4(9.7)	4.8		5.4		6.0			55	
14	7	10	81.3(8.3)	5.6	589 {60}	6.3	662 {68}	7.0	736 {75}	SWB 14-	10	
		15	71.1(7.3)	6.4		7.2		8.0			15	
		20	63.2(6.4)	7.2		8.1		9.0			20	
		25	56.9(5.8)	8.0		9.0		10.0			25	
		30	51.7(5.3)	8.8		9.9		11.0			30	
		35	47.4(4.8)	9.6		10.8		12.0			35	
		40	43.8(4.5)	10.4		11.7		13.0			40	
		45	40.6(4.1)	11.2		12.6		14.0			45	
		50	37.9(3.9)	12.0		13.5		15.0			50	
		55	35.6(3.6)	12.8		14.4		16.0			55	
60	31.6(3.2)	14.4	16.2	18.0	60							
16	8	20	184(18.8)	3.2	589 {60}	3.6	662 {68}	4.0	736 {75}	SWB 16-	20	
		25	147(15.0)	4.0		4.5		5.0			25	
		30	123(12.5)	4.8		5.4		6.0			30	
		35	105(10.7)	5.6		6.3		7.0			35	
		40	92.0(9.4)	6.4		7.2		8.0			40	
		45	81.8(8.3)	7.2		8.1		9.0			45	
		50	73.6(7.5)	8.0		9.0		10.0			50	
		55	66.9(6.8)	8.8		9.9		11.0			55	
		60	61.3(6.3)	9.6		10.8		12.0			60	
		65	56.6(5.8)	10.4		11.7		13.0			65	
70	52.6(5.4)	11.2	12.6	14.0	70							
75	49.1(5.0)	12.0	13.5	15.0	75							
80	46.0(4.7)	12.8	14.4	16.0	80							
85	40.9(4.2)	14.4	16.2	18.0	85							
90	36.8(3.8)	16.0	18.0	20.0	90							
Usage Count			1 Million Times500,000 Times300,000 Times									