



D	d	L	Spring constant N/mm kgf/mm	F=LX40% Fmm Load N/kgf	F=LX45% Fmm Load N/kgf	F=LX50% Fmm Load N/kgf	Catalog No.	Base unit price
Operation count				1,000,000	500,000	300,000	Type D-L	1~19 pieces
25	13.5	25	39.2 (4.00)	10.0	11.2	12.5	SWF25-25	
		30	32.7 (3.33)	12.0	13.5	15.0	30	
		35	28.0 (2.86)	14.0	15.7	17.5	35	
		40	24.5 (2.50)	16.0	18.0	20.0	40	
		45	21.8 (2.22)	18.0	20.2	22.5	45	
		50	19.6 (2.00)	20.0	22.5	25.0	50	
		55	17.8 (1.82)	22.0	24.7	27.5	55	
		60	16.3 (1.67)	24.0	27.0	30.0	60	
		65	15.1 (1.54)	26.0	29.2	32.5	65	
		70	14.0 (1.43)	28.0	31.5 (45)	35.0 (50)	70	
		75	13.1 (1.33)	30.0	33.7	37.5	75	
		80	12.3 (1.25)	32.0	36.0	40.0	80	
		90	10.9 (1.11)	36.0	40.5	45.0	90	
		100	9.8 (1.00)	40.0	45.0	50.0	100	
		125	7.8 (0.80)	50.0	56.2	62.5	125	
		150	6.5 (0.67)	60.0	67.5	75.0	150	
		175	5.6 (0.57)	70.0	78.7	87.5	175	
		200	4.9 (0.50)	80.0	90.0	100.0	200	
27	13.5	25	47.1 (4.80)	10.0	11.2	12.5	SWF27-25	
		30	39.2 (4.00)	12.0	13.5	15.0	30	
		35	33.6 (3.43)	14.0	15.7	17.5	35	
		40	29.4 (3.00)	16.0	18.0	20.0	40	
		45	26.2 (2.67)	18.0	20.2	22.5	45	
		50	23.5 (2.40)	20.0	22.5	25.0	50	
		55	21.4 (2.18)	22.0	24.7	27.5	55	
		60	19.6 (2.00)	24.0	27.0	30.0	60	
		65	18.1 (1.85)	26.0	29.2	32.5	65	
		70	16.8 (1.71)	28.0	31.5 (54)	35.0 (60)	70	
		75	15.7 (1.60)	30.0	33.7	37.5	75	
		80	14.7 (1.50)	32.0	36.0	40.0	80	
		90	13.1 (1.33)	36.0	40.5	45.0	90	
		100	11.8 (1.20)	40.0	45.0	50.0	100	
		125	9.4 (0.96)	50.0	56.2	62.5	125	
		150	7.8 (0.80)	60.0	67.5	75.0	150	
		175	6.7 (0.69)	70.0	78.7	87.5	175	
		200	5.9 (0.60)	80.0	90.0	100.0	200	
30	16	25	56.5 (5.76)	10.0	11.2	12.5	SWF30-25	
		30	47.1 (4.80)	12.0	13.5	15.0	30	
		35	40.3 (4.11)	14.0	15.7	17.5	35	
		40	35.3 (3.60)	16.0	18.0	20.0	40	
		45	31.4 (3.20)	18.0	20.2	22.5	45	
		50	28.2 (2.88)	20.0	22.5	25.0	50	
		55	25.7 (2.62)	22.0	24.7	27.5	55	
		60	23.5 (2.40)	24.0	27.0	30.0	60	
		65	21.7 (2.22)	26.0	29.2	32.5	65	
		70	20.2 (2.06)	28.0	31.5 (65)	35.0 (72)	70	
		75	18.8 (1.92)	30.0	33.7	37.5	75	
		80	17.7 (1.80)	32.0	36.0	40.0	80	
		90	15.7 (1.60)	36.0	40.5	45.0	90	
		100	14.1 (1.44)	40.0	45.0	50.0	100	
		125	11.3 (1.15)	50.0	56.2	62.5	125	
		150	9.4 (0.96)	60.0	67.5	75.0	150	
		175	8.1 (0.82)	70.0	78.7	87.5	175	
		200	7.1 (0.72)	80.0	90.0	100.0	200	
35	19	40	48.0 (4.89)	16.0	18.0	20.0	SWF35-40	
		45	42.7 (4.35)	18.0	20.2	22.5	45	
		50	38.4 (3.92)	20.0	22.5	25.0	50	
		55	34.9 (3.56)	22.0	24.7	27.5	55	
		60	32.0 (3.26)	24.0	27.0	30.0	60	
		65	29.5 (3.01)	26.0	29.2	32.5	65	
		70	27.4 (2.80)	28.0	31.5	35.0	70	
		75	25.6 (2.61)	30.0	33.7 (78)	37.5 (96)	75	
		80	24.0 (2.45)	32.0	36.0	40.0	80	
		90	21.3 (2.18)	36.0	40.5	45.0	90	
		100	19.2 (1.96)	40.0	45.0	50.0	100	
		125	15.4 (1.57)	50.0	56.2	62.5	125	
		150	12.8 (1.31)	60.0	67.5	75.0	150	
		175	11.0 (1.12)	70.0	78.7	87.5	175	
		200	9.6 (0.98)	80.0	90.0	100.0	200	

D	d	L	Spring constant N/mm kgf/mm	F=LX40% Fmm Load N/kgf	F=LX45% Fmm Load N/kgf	F=LX50% Fmm Load N/kgf	Catalog No.	Base unit price
Operation count				1,000,000	500,000	300,000	Type D-L	1~19 pieces
40	22	40	62.7 (6.39)	16.0	18.0	20.0	SWF40-40	
		45	55.7 (5.68)	18.0	20.3	22.5	45	
		50	50.2 (5.11)	20.0	22.5	25.0	50	
		55	45.6 (4.65)	22.0	24.8	27.5	55	
		60	41.8 (4.26)	24.0	27.0	30.0	60	
		65	38.6 (3.93)	26.0	29.3	32.5	65	
		70	35.8 (3.65)	28.0	31.5	35.0	70	
		75	33.4 (3.41)	30.0	33.8	37.5	75	
		80	31.4 (3.20)	32.0	36.0	40.0	80	
		90	27.9 (2.84)	36.0	40.5	45.0	90	
		100	25.1 (2.56)	40.0	45.0	50.0	100	
		125	20.1 (2.05)	50.0	56.2	62.5	125	
		150	16.7 (1.70)	60.0	67.5	75.0	150	
		175	14.3 (1.46)	70.0	78.7	87.5	175	
		200	12.5 (1.28)	80.0	90.0	100.0	200	
		225	11.1 (1.14)	90.0	101.3	112.5	225	
		250	10.0 (1.02)	100.0	112.5	125.0	250	
		275	9.1 (0.93)	110.0	123.8	137.5	275	
		300	8.4 (0.85)	120.0	135.0	150.0	300	
50	27.5	50	78.4 (7.99)	20.0	22.5	25.0	SWF50-50	
		55	71.3 (7.27)	22.0	24.8	27.5	55	
		60	65.3 (6.66)	24.0	27.0	30.0	60	
		65	60.3 (6.15)	26.0	29.3	32.5	65	
		70	56.0 (5.71)	28.0	31.5	35.0	70	
		75	52.3 (5.33)	30.0	33.8	37.5	75	
		80	49.0 (5.00)	32.0	36.0	40.0	80	
		90	43.6 (4.44)	36.0	40.5	45.0	90	
		100	39.2 (4.00)	40.0	45.0	50.0	100	
		125	31.4 (3.20)	50.0	56.2	62.5	125	
		150	26.1 (2.66)	60.0	67.5	75.0	150	
		175	22.4 (2.28)	70.0	78.7	87.5	175	
		200	19.6 (2.00)	80.0	90.0	100.0	200	
		225	17.4 (1.78)	90.0	101.3	112.5	225	
		250	15.7 (1.60)	100.0	112.5	125.0	250	
		275	14.3 (1.45)	110.0	123.8	137.5	275	
		300	13.1 (1.33)	120.0	135.0	150.0	300	
60	33	350	11.2 (1.14)	140.0	157.5	175.0	350	
		400	9.8 (1.00)	160.0	180.0	200.0	400	
		450	8.7 (0.89)	180.0	202.5	225.0	450	
		500	7.8 (0.80)	200.0	225.0	250.0	500	
		60	94.0 (9.59)	24.0	27.0	30.0	SWF60-60	
		70	80.6 (8.22)	28.0	31.5	35.0	70	
		80	70.5 (7.19)	32.0	36.0	40.0	80	
		90	62.7 (6.39)	36.0	40.0	45.0	90	
		100	56.4 (5.75)	40.0	45.0	50.0	100	
		125	45.1 (4.60)	50.0	56.2	62.5	125	
		150	37.6 (3.83)	60.0	67.5	75.0	150	
		175	32.2 (3.29)	70.0	78.7	87.5	175	
		200	28.2 (2.88)	80.0	90.0	100.0	200	
		225	25.1 (2.56)	90.0	101.3	112.5	225	
		250	22.6 (2.30)	100.0	112.5	125.0	250	
		275	20.5 (2.09)	110.0	123.8	137.5	275	
70	38.5	300	18.8 (1.92)	120.0	135.0	150.0	300	
		350	16.1 (1.64)	140.0	157.5	175.0	350	
		400	14.1 (1.44)	160.0	180.0	200.0	400	
		450	12.5 (1.28)	180.0	202.5	225.0	450	
		500	11.3 (1.15)	200.0	225.0	250.0	500	
		70	112 (11.4)	28.0	31.5	35.0	SWF70-70	
		80	98.0 (9.99)	32.0	36.0	40.0	80	
		90	87.1 (8.88)	36.0	40.5	45.0	90	
		100	78.4 (7.99)	40.0	45.0	50.0	100	
		125	62.7 (6.40)	50.0	56.3	62.5	125	
		150	52.3 (5.33)	60.0	67.5	75.0	150	
		175	44.8 (4.57)	70.0	78.8	87.5	175	
		200	39.2 (4.00)	80.0	90.0	100.0	200	
		250	31.4 (3.20)	100.0	112.5	125.0	250	
		300	26.1 (2.66)	120.0	135.0	150.0	300	
		350	22.4 (2.28)	140.0	157.5	175.0	350	

- Product guide P.1396
- Load graph P.1432
- Instructions and precautions for the use of coil springs P.1397
- Clearance of D dim. and counterbore hole, and of d dim. and shaft P.1397

Alteration	Code	Spec.	
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