

Rectangular Spring ▶ Ultra-Light Load Spring (Purple)



Please order according to the diagram

Select the type and parameters in the order of for ordering.

Model (●Code)

BUBC

— D

D30

— L

L150



Discounted Price

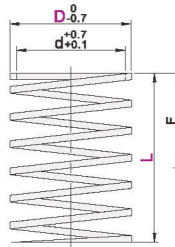
Quantity 1~9 10~

Price 100% Separate Quotation

Price Excluding Tax (Yen)



CAD 2D 3D



Code	Type	Material		Maximum Compression
		International	Equivalent	
BUBC	Ultra-Light Load Type	60Si2CrA	SWOSC-V	L×60%

■ L Dimension Tolerance

L	Tolerance
50 or higher	±0.5
50 Below	±1.0%

- ① Load (+10%)
- ① Straightness Angle (below 2°)
- ① Load (N) = Spring Constant (N/mm) x Compression
- ① Heat Resistance Temperature: 150°C
- ① 1kgf=9.81 N
- ① Compressed Length is for reference, slight variations may occur during manufacturing.
- ① For models labeled "Outside Allowable Range," the maximum compression is 55%. Do not exceed 55% compression.
- ① Spring color and number of coils may vary between production batches, but product performance meets standards and does not affect use!

■ Compression Amount 40%~50%

Model		Wire Diameter d	Spring Constant N/mm	a	Usage Method					
Code	D				1,000,000 times F=Lx40%	500,000 times F=Lx45%	300,000 times F=Lx50%	Load N	Load N	Load N
BUBC	14.5	9	20	18.52	8	8	9.0	10.0		
			25	14.82	10	10	11.3	12.5		
			30	12.35	12	12	13.5	15.0		
			35	10.58	14	14	15.8	17.5		
			40	9.26	16	16	18.0	20.0		
			45	8.23	18	18	20.3	22.5		
			50	7.41	20	20	22.5	25.0		
			55	6.74	22	22	24.8	27.5		
			60	6.17	24	24	27.0	30.0		
			65	5.70	26	26	29.3	32.5		
			70	5.29	28	28	31.5	35.0		
			75	4.94	30	30	33.8	37.5		
			80	4.63	32	32	36.0	40.0		
			90	4.12	36	36	40.5	45.0		
			100	3.70	40	40	45.0	50.0		
BUBC	17	11	125	2.96	50	50	56.3	62.5		
			25	21.80	10	10	11.3	12.5		
			30	18.16	12	12	13.5	15.0		
			35	15.57	14	14	15.8	17.5		
			40	13.62	16	16	18.0	20.0		
			45	12.11	18	18	20.3	22.5		
			50	10.90	20	20	22.5	25.0		
			55	9.91	22	22	24.8	27.5		
			60	9.08	24	24	27.0	30.0		
			65	8.38	26	26	29.3	32.5		
			70	7.78	28	28	31.5	35.0		
			75	7.27	30	30	33.8	37.5		
			80	6.81	32	32	36.0	40.0		
			90	6.05	36	36	40.5	45.0		
			100	5.45	40	40	45.0	50.0		
BUBC	21	13	125	4.36	50	50	56.3	62.5		
			150	3.63	60	60	67.5	75.0		
			30	23.24	12	12	13.5	15.0		
			35	19.92	14	14	15.8	17.5		
			40	17.43	16	16	18.0	20.0		
			45	15.50	18	18	20.3	22.5		
			50	13.95	20	20	22.5	25.0		
			55	12.68	22	22	24.8	27.5		
			60	11.62	24	24	27.0	30.0		
			65	10.73	26	26	29.3	32.5		
			70	9.96	28	28	31.5	35.0		
			75	9.30	30	30	33.8	37.5		
			80	8.72	32	32	36.0	40.0		
			90	7.75	36	36	40.5	45.0		
			100	6.97	40	40	45.0	50.0		
BUBC	26	16.5	125	5.58	50	50	56.3	62.5		
			150	4.65	60	60	67.5	75.0		
			30	34.87	12	12	13.5	15.0		
			35	29.89	14	14	15.8	17.5		
			40	26.15	16	16	18.0	20.0		
			45	23.24	18	18	20.3	22.5		
			50	20.92	20	20	22.5	25.0		
			55	19.02	22	22	24.8	27.5		
			60	17.43	24	24	27.0	30.0		
			65	16.09	26	26	29.3	32.5		
			70	14.94	28	28	31.5	35.0		
			75	13.95	30	30	33.8	37.5		
			80	13.08	32	32	36.0	40.0		
			90	11.62	36	36	40.5	45.0		
			100	10.46	40	40	45.0	50.0		
BUBC	30	19	110	9.51	44	44	49.5	55.0		
			125	8.37	50	50	56.3	62.5		
			150	6.97	60	60	67.5	75.0		
			175	5.98	70	70	78.8	87.5		
			200	5.23	80	80	90.0	100.0		

■ Compression Amount 50%~60%

Model		Wire Diameter d	Spring Constant N/mm	a Coil Length	Usage Method					
Code	D				L	1,000,000 times F=Lx50% Load N	500,000 times F=Lx55% Load N	300,000 times F=Lx60% Load N		
BUBC	6	15	3.6	6.5	7.5	8.3		9		
		20	2.7	8	10	11		12		
		25	2.2	9	12.5	13.8		15		
		30	1.8	11	15	16.5		18		33
		35	1.5	13	17.5	19.3		21		
		40	1.3	15	20	22		24		
	8	15	3.9	5	7.5	8.3		9		
		20	2.9	6.6	10	11		12		
		25	2.3	8	12.5	13.8		15		
		30	1.9	9.3	15	16.5		18		
		35	1.6	10.5	17.5	19.3		21		
		40	1.4	11.8	20	22		24		
		45	1.3	13.1	22.5	24.8		27		
		50	1.2	14.4	25	27.5		30		34
		55	1.0	15.7	27.5	30.3		33		
		60	0.9	16.7	30	33		36		
	10	65	0.8	18.3	32.5	35.8		39		
		70	0.8	19.5	35	38.5		42		
		75	0.7	21	37.5	41.3		45		
		80	0.7	22.2	40	44		48		
		15	6.1	6	7.5	8.3		9		
		20	4.6	7.5	10	11		12		
		25	3.7	9	12.5	13.8		15		
		30	3.0	10.5	15	16.5		18		
		35	2.6	12	17.5	19.3		21		
		40	2.3	13.4	20	22		24		
	12	45	2.0	14.8	22.5	24.8		27		
		50	1.8	16.2	25	27.5		30		54
		55	1.7	17.7	27.5	30.3		33		
		60	1.5	19.1	30	33		36		
		65	1.4	20.6	32.5	35.8		39		
		70	1.3	22	35	38.5		42		
		75	1.2	23.4	37.5	41.3		45		
		80	1.1	24.9	40	44		48		
		90	1.0	27.8	45	49.5		54		
		14	20	5.4	7	10	11		12	
	25		4.3	8	12.5	13.8		15		
	30		3.6	10	15	16.5		18		
	35		3.1	12	17.5	19.3		21		
	40		2.7	14	20	22		24		
	45		2.4	15	22.5	24.8		27		
	50		2.2	16	25	27.5		30		
	55		2.0	17	27.5	30.3		33		
	60		1.8	18	30	33		36		
	65		1.7	20	32.5	35.8		39		
	16	70	1.5	21	35	38.5		42		
		75	1.4	22	37.5	41.3		45		
		80	1.3	24	40	44		48		
90		1.2	27	45	49.5		54			
25		7.8	10.5	12.5	13.8		15			
30		6.5	11	15	16.5		18			
35		5.6	13	17.5	19.3		21			
40		4.9	15	20	22		24			
45		4.4	16.7	22.5	24.8		27			
50		3.9	18	25	27.5		30			
18	55	3.6	20	27.5	30.3		33			
	60	3.3	21.5	30	33		36		122	
	65	3.0	23	32.5	35.8		39			
	70	2.8	24.6	35	38.5		42			
	75	2.6	26.2	37.5	41.3		45			
	80	2.4	28	40	44		48			
	90	2.2	31	45.5	49.5		54			
	100	2.2	34	50	55		60			

Rectangular Spring ▶ Ultra-Light Load Spring (Purple)

Compression Amount 40%~50%

Model			Interleaved d	Spring Constant N/mm	a Cross-Section Fmm	Usage Method					
Code	D	L				1,000,000 times F=Lx40% Load N	500,000 times F=Lx45% Load N	300,000 times F=Lx50% Load N	300,000 times F=Lx50% Load N	300,000 times F=Lx50% Load N	
32		40	21	34.87	16	16	559	18	627.6	20	696.3
		45		30.99	18	18		20.3		22	
		50		27.89	20	20		22.5		25	
		60		23.24	24	24		27		30	
		70		19.92	28	28		31.5		35	
		80		17.43	32	32		36		40	
		90		15.50	36	36		40.5		45	
		100		13.95	40	40		45		50	
		110		12.68	44	44		49.5		55	
		125		11.16	50	50		56.3		62.5	
		150		9.30	60	60		67.5		75	
		175		7.97	70	70		78.8		87.5	
		200		6.97	80	80		90		100	
		250		5.58	100	100		112.5		125	
		300		4.65	120	120		135		150	
BUBC		40	39	45.77	16	16	725.7	18.0	823.8	20.0	912.0
		45		40.68	18	18		20.3		22.5	
		50		36.61	20	20		22.5		25.0	
		60		30.51	24	24		27.0		30.0	
		70		26.15	28	28		31.5		35.0	
		80		22.88	32	32		36.0		40.0	
		90		20.34	36	36		40.5		45.0	
		100		18.31	40	40		45.0		50.0	
		110		16.64	44	44		49.5		55.0	
		125		14.65	50	50		56.3		62.5	
		150		12.20	60	60		67.5		75.0	
		175		10.46	70	70		78.8		87.5	
		200		9.15	80	80		90.0		100.0	
		250		7.32	100	100		112.5		125.0	
		300		6.10	120	120		135.0		150.0	
46		50	32	48.81	20	20	970.9	22.5	1098.0	25.0	1216.0
		60		40.68	24	24		27.0		30.0	
		70		34.87	28	28		31.5		35.0	
		80		30.51	32	32		36.0		40.0	
		90		27.12	36	36		40.5		45.0	
		100		24.41	40	40		45.0		50.0	
		110		22.19	44	44		49.5		55.0	
		125		19.53	50	50		56.3		62.5	
		150		16.27	60	60		67.5		75.0	
		175		13.95	70	70		78.8		87.5	
		200		12.20	80	80		90.0		100.0	
		250		9.76	100	100		112.5		125.0	
		300		8.14	120	120		135.0		150.0	

Compression Amount 50%~60%

Model			Inner Diameter	Spring Constant	a	Usage Method					
Code	D	L	d	N/mm	Compressed Length	F=1,000 times	F=1,500 times	F=1,000 times	F=1,500 times	F=1,000 times	F=1,500 times
		25		9.0	10	12.5		13.8		15	
		30		7.5	11	15		16.5		18	
		35		6.5	12.5	17.5		19.3		21	
		40		5.7	13.9	20		22		24	
		45		5.0	15.3	22.5		24.8		27	
		50		4.5	16.7	25		27.5		30	
		55		4.1	18	27.5		30.3		33	
	16	60	9.5	3.7	19.4	30	113	33	124	36	137
		65		3.5	20.8	32.5		35.8		39	
		70		3.2	22.2	35		38.5		42	
		75		3.0	23.6	37.5		41.3		45	
		80		2.8	25.0	40		44		48	
		90		2.5	27.8	45		49.5		54	
		100		2.3	30.5	50		55		60	
		125		1.8	37.5	62.5		68.8		75	
BUBC		25		10.6	9	12.5		13.8		15	
		30		8.8	10.3	15		16.5		18	
		35		7.5	11.5	17.5		19.3		21	
		40		6.6	12.7	20		22		24	
		45		5.9	14	22.5		24.8		27	
		50		5.3	15.5	25		27.5		30	
		55		4.8	16.5	27.5		30.3		33	
	18	60	11	4.4	18	30	132	33	144	36	157
		65		4.1	19	32.5		35.8		39	
		70		3.8	20.5	35		38.5		42	
		75		3.5	22	37.5		41.3		45	
		80		3.3	23	40		44		48	
		90		2.9	25.5	45		49.5		54	
		100		2.6	29	50		55		60	
		125		2.1	35	62.5		68.8		75	

■ Compression Amount 50%~60%

Model			Interleaved	Spring Constant N/mm	a mm	Usage Method					
Code	D	L				1,000,000 times F=Lx50% Load N	300,000 times F=Lx50% Fmm	1,000,000 times F=Lx50% Load N	300,000 times F=Lx50% Fmm	1,000,000 times F=Lx60% Load N	300,000 times F=Lx60% Load N
20		25	12.5	14.10	9	12.5	13.8	15	176	196	216
		30		11.70	11	15	16.5	18			
		35		10.10	12.5	17.5	19.3	21			
		40		8.80	14	20	22	24			
		45		7.80	15	22.5	24.8	27			
		50		7.00	16.5	25	27.5	30			
		55		6.40	18	27.5	30.3	33			
		60		5.90	19.2	30	33	36			
		65		5.40	20.5	32.5	35.8	39			
		70		4.70	21.7	35	38.5	42			
		75		4.40	23	37.5	41.3	45			
		80		3.90	24.2	40	44	48			
		90		3.50	27	45.5	49.5	54			
		100		5.00	30	50	55	60			
		125		2.80	37	62.5	68.8	75			
	150	2.30	44	75	82.5	90					
22		25	13.5	19.60	10	12.5	13.8	15	245	269	294
		30		16.30	11	15	16.5	18			
		35		14.00	12	17.5	19.3	21			
		40		12.30	14	20	22	24			
		45		10.90	16	22.5	24.8	27			
		50		9.80	18	25	27.5	30			
		55		8.90	20	27.5	30.3	33			
		60		8.20	22	30	33	36			
		65		7.50	24	32.5	35.8	39			
		70		7.00	26	35	38.5	42			
		75		6.50	27	37.5	41.3	45			
		80		6.10	29	40	44	48			
		90		5.40	32	45	49.5	54			
		100		4.90	35	50	55	60			
		125		3.90	42	62.5	68.8	75			
	150	3.30	50	75	82.5	90					
25		25	16	24.19	9	12.5	13.8	Outside Allowable Range			
		30		20.16	10.5	15	16.5	18			
		35		17.28	12.7	17.5	19.3	21			
		40		15.12	14.6	20	22	24			
		45		13.44	16.6	22.5	24.8	27			
		50		12.09	18	25	27.5	30			
		55		11.00	20	27.5	30.3	33			
		60		10.08	21.3	30	33	36			
		65		9.30	22.5	32.5	35.8	39			
		70		8.64	24	35	38.5	42			
		75		8.06	25.3	37.5	41.3	45			
		80		7.56	26.7	40	44	48			
		90		6.72	29.5	45	49.5	54			
		100		6.05	32.2	50	55	60			
		125		4.84	39	62.5	68.8	75			
	150	4.03	45.8	75	82.5	90					
	175	3.46	52.6	87.5	96.3	105					
	200	3.02	59.5	100	110	120					
27		25	17.5	28.11	9	12.5	13.8	Outside Allowable Range			
		30		23.43	11	15	16.5	18			
		35		20.08	13	17.5	19.3	21			
		40		17.57	14.5	20	22	24			
		45		15.62	17	22.5	24.8	27			
		50		14.06	18.5	25	27.5	30			
		55		12.78	20	27.5	30.3	33			
		60		11.71	22	30	33	36			
		65		10.81	23.5	32.5	35.8	39			
		70		10.04	25	35	38.5	42			
		75		9.37	26.5	37.5	41.3	45			
		80		8.79	28	40	44	48			
		90		7.81	30.5	45	49.5	54			
		100		7.03	33.5	50	55	60			
		125		5.62	40.5	62.5	68.8	75			
	150	4.69	48	75	82.5	90					
	175	4.02	55	87.5	96.3	105					
	200	3.51	62	100	110	120					
30		25	20	31.38	9.5	12.5	13.8	Outside Allowable Range			
		30		26.15	11	15	16.5	18			
		35		22.42	13	17.5	19.3	21			
		40		19.61	14.5	20	22	24			
		45		17.43	16.5	22.5	24.8	27			
		50		15.69	18	25	27.5	30			
		55		14.26	19.5	27.5	30.3	33			
		60		13.08	20.8	30	33	36			
		65		12.07	22	32.5	35.8	39			
		70		11.21	23.3	35	38.5	42			
		75		10.46	24.5	37.5	41.3	45			
		80		9.81	25.8	40	44	48			
		90		8.72	28.3	45	49.5	54			
		100		7.85	30.8	50	55	60			
		125		6.28	37	62.5	68.8	75			
	150	5.23	43.5	75	82.5	90					
	175	4.48	50	87.5	96.3	105					
	200	3.92	57	100	110	120					