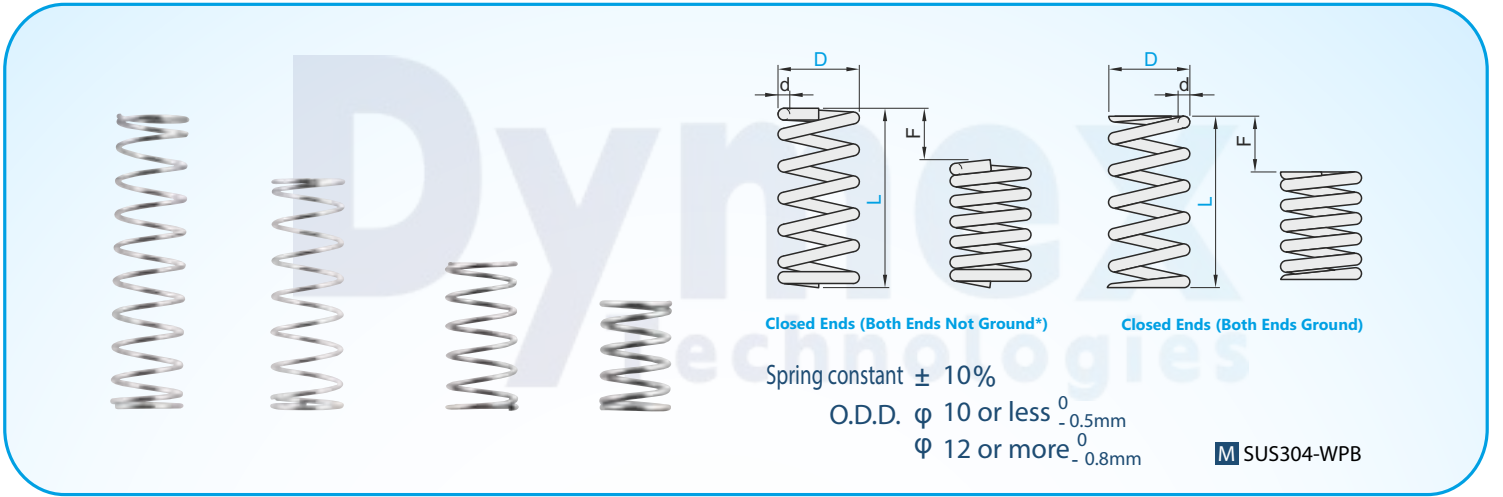


Round Coil Springs

O.D. Referenced Stainless Steel - DUM



● **DUM : Fmax (Allowable Deflection) = LxFa%**

Part No. Type D-L	d	Solid Length	F max.	Load N(kgf) max.	Fa%
DUM4 - 5*	0.4	2.2	1.75	3.4 (0.35)	35
10*	0.5	4.9	3.5	6.8 (0.7)	
15	0.55	7.5	5.25	10.3 (1.05)	
20	0.6	11.1	7	13.7 (1.4)	
25	0.6	11.1	8.75	17.2 (1.75)	
30	0.65	16.3	10.5	20.6 (2.1)	
DUM5 - 5*	0.45	2.25	1.75	3.4 (0.35)	35
10*	0.5	3.13	3.5	6.8 (0.7)	
15*	0.65	8.45	5.25	10.3 (1.05)	
20	0.65	8.45	7	13.7 (1.4)	
25	0.7	11.9	8.75	17.2 (1.75)	
30	0.7	11.9	10.5	20.6 (2.1)	
35	0.75	16.5	12.25	24 (2.45)	
40	0.8	23.2	14	27.5 (2.8)	
45	0.8	23.2	15.75	30.9 (3.15)	
50	0.85	31.45	17.5	34.3 (3.5)	
DUM6 - 5*	0.55	2.7	1.7	4.9 (0.5)	35
10	0.7	5.6	3.5	10.8 (1.1)	
15	0.75	7.4	5.2	15.7 (1.6)	
20	0.75	7.4	7	20.6 (2.1)	
25	0.85	12.8	8.7	25.5 (2.6)	
30	0.85	12.8	10.5	31.4 (3.2)	
35	0.9	16.7	12.2	36.3 (3.7)	
40	0.9	16.8	14	41.2 (4.2)	
45	1.0	27.8	15.8	46.1 (4.7)	
50	1.0	28.0	17.5	52 (5.3)	
60	1.0	28.0	18	53 (5.4)	
70	1.1	46.2	20	58.8 (6)	
DUM8 - 10	0.85	6.4	3.5	10.8 (1.1)	35
15	0.9	7.9	5.2	15.7 (1.6)	
20	0.9	7.9	7	20.6 (2.1)	
25	0.9	7.9	8.7	25.5 (2.6)	
30	1.0	12.0	10.5	31.4 (3.2)	
35	1.0	12.0	12.2	36.3 (3.7)	
40	1.1	18.7	14	41.2 (4.2)	
45	1.1	18.7	15.8	46.1 (4.7)	
50	1.1	18.7	17.5	52 (5.3)	
60	1.2	28.2	21	61.8 (6.3)	
70	1.3	42.0	24.5	72.6 (7.4)	

Part No. Type D-L	d	Solid Length	F max.	Load N(kgf) max.	Fa%
DUM10 - 10	0.9	5.2	3.5	10.8 (1.1)	35
15	1.0	7.3	5.2	15.7 (1.6)	
20	1.0	7.3	7	20.6 (2.1)	
25	1.1	10.5	8.7	25.5 (2.6)	
30	1.1	10.5	10.5	31.4 (3.2)	
35	1.2	15	12.2	36.3 (3.7)	
40	1.2	15	14	41.2 (4.2)	
45	1.3	21.8	15.8	46.1 (4.7)	
50	1.3	21.8	17.5	52 (5.3)	
60	1.4	30.8	21	61.8 (6.3)	
70	1.4	30.8	24.5	72.6 (7.4)	
DUM13 - 15	1.2	8.4	5.2	15.7 (1.6)	35
20	1.3	11.1	7	20.6 (2.1)	
25	1.3	11.1	8.7	25.5 (2.6)	
30	1.4	15.1	10.5	31.4 (3.2)	
35	1.4	15.1	12.2	36.3 (3.7)	
40	1.4	15.1	14	41.2 (4.2)	
45	1.4	15.1	15.8	46.1 (4.7)	
50	1.4	15.1	17.5	52 (5.3)	
60	1.6	27.2	21	61.8 (6.3)	
70	1.6	27.2	24.5	72.6 (7.4)	
80	1.7	36.2	28	82.4 (8.4)	

Part No. Type D-L	d	Solid Length	F max.	Load N(kgf) max.	Fa%
DUM16 - 15	1.4	9.6	5.2	15.7 (1.6)	35
20	1.5	12.4	7	20.6 (2.1)	
25	1.5	12.4	8.7	25.5 (2.6)	
30	1.5	12.4	10.5	31.4 (3.2)	
35	1.6	15.6	12.2	36.3 (3.7)	
40	1.6	15.6	14	41.2 (4.2)	
45	1.7	20.4	15.8	46.1 (4.7)	
50	1.7	20.4	17.5	52 (5.3)	
60	1.8	26.1	21	61.8 (6.3)	
70	1.8	26.1	24.5	72.6 (7.4)	
80	1.8	26.1	28	82.4 (8.4)	
DUM20 - 20	1.8	11.3	7	34.3 (3.5)	35
25	1.9	13.3	8.8	43.1 (4.4)	
30	1.9	13.3	10.5	52 (5.3)	
35	2	16	12.3	59.8 (6.1)	
40	2	16	14	68.6 (7)	
45	2.2	23.7	15.8	77.5 (7.9)	
50	2.2	23.7	17.5	86.3 (8.8)	
60	2.2	23.7	21	103 (10.5)	
70	2.4	34.8	24.5	120.6 (12.3)	
80	2.4	34.8	28	137.3 (14)	

Alterations	Code	Spec.																																								
	LKC	Changes length and spring constant tolerance. (Refer to the table below)																																								
		<table border="1"> <thead> <tr> <th>Part Number Type D</th> <th>L Specify in 5mm Increment</th> <th>Alterations</th> <th>Tolerance</th> <th>Spring Constant Tolerance</th> </tr> </thead> <tbody> <tr><td>4</td><td>15-20</td><td rowspan="10">LKC</td><td>± 0.4</td><td rowspan="10">$\pm 5\%$</td></tr> <tr><td>5</td><td>25-30</td><td>± 0.5</td></tr> <tr><td>6</td><td>15-20</td><td>± 0.4</td></tr> <tr><td>8</td><td>25-50</td><td>± 0.5</td></tr> <tr><td>10</td><td>10-20</td><td>± 0.4</td></tr> <tr><td>13</td><td>25-50</td><td>± 0.5</td></tr> <tr><td>16</td><td>35-50</td><td>± 0.5</td></tr> <tr><td>20</td><td>60, 70, 80</td><td>± 0.8</td></tr> <tr><td></td><td>20-30</td><td>± 0.5</td></tr> <tr><td></td><td>35-50</td><td>± 0.5</td></tr> <tr><td></td><td>60, 70, 80</td><td>± 0.8</td></tr> </tbody> </table>	Part Number Type D	L Specify in 5mm Increment	Alterations	Tolerance	Spring Constant Tolerance	4	15-20	LKC	± 0.4	$\pm 5\%$	5	25-30	± 0.5	6	15-20	± 0.4	8	25-50	± 0.5	10	10-20	± 0.4	13	25-50	± 0.5	16	35-50	± 0.5	20	60, 70, 80	± 0.8		20-30	± 0.5		35-50	± 0.5		60, 70, 80	± 0.8
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<ul style="list-style-type: none"> Both ends are ground. For orders larger than indicated quantity, please check with WOS. 																																										

■ Spring constant ● D12 is applicable to DUV, DUY, DUR, DUF, DUL and DUBB Types only. D14 is applicable to DUBB Type only.

Type	DUV	DUY	DUR	DUF	DUL	DUTT	DUM	DUH	DUBB
2		0.05(0.005)	0.2(0.02)	0.3(0.03)	0.5(0.05)				
3									
4	N/mm 0.05 (kgf/mm) (0.005)	N/mm 0.098 (kgf/mm) (0.01)				N/mm 1.5 (kgf/mm) (0.15)	2.0(0.2)	2.9(0.3)	4.9(0.5)
5									
6									
8			N/mm 0.29 (kgf/mm) (0.03)	N/mm 0.49 (kgf/mm) (0.05)	N/mm 0.98 (kgf/mm) (0.1)			N/mm 5.9 (kgf/mm) (0.6)	N/mm 9.8 (kgf/mm) (1.0)
10						N/mm 2.0 (kgf/mm) (0.2)	N/mm 2.9 (kgf/mm) (0.3)		
12								N/mm 9.8 (kgf/mm) (1.0)	N/mm 19.6 (kgf/mm) (2.0)
13		N/mm 0.2 (kgf/mm) (0.02)							
14									
16									
18									
20		0.3(0.03)	0.5(0.05)	0.98(0.1)	2.9(0.3)	3.9(0.4)	4.9(0.5)	14.7(1.5)	29.4(3.0)
Fmax.	F=Lx70%	F=LxFa%	F=LxFa%	F=Lx45%	F=Lx40%	F=LxFa%	F=LxFa%	F=LxFa%	F=LxFa%

- kgf (Load)=N/mm (Spring Constant) x0.101972xF (Deflection) (kgf)=Nx0.101972
- For Types marked with*, both ends are not ground.
- The values of solid length are for reference only. There may be some variations depending on the lot.
- Usage Count: 1 Million Times

