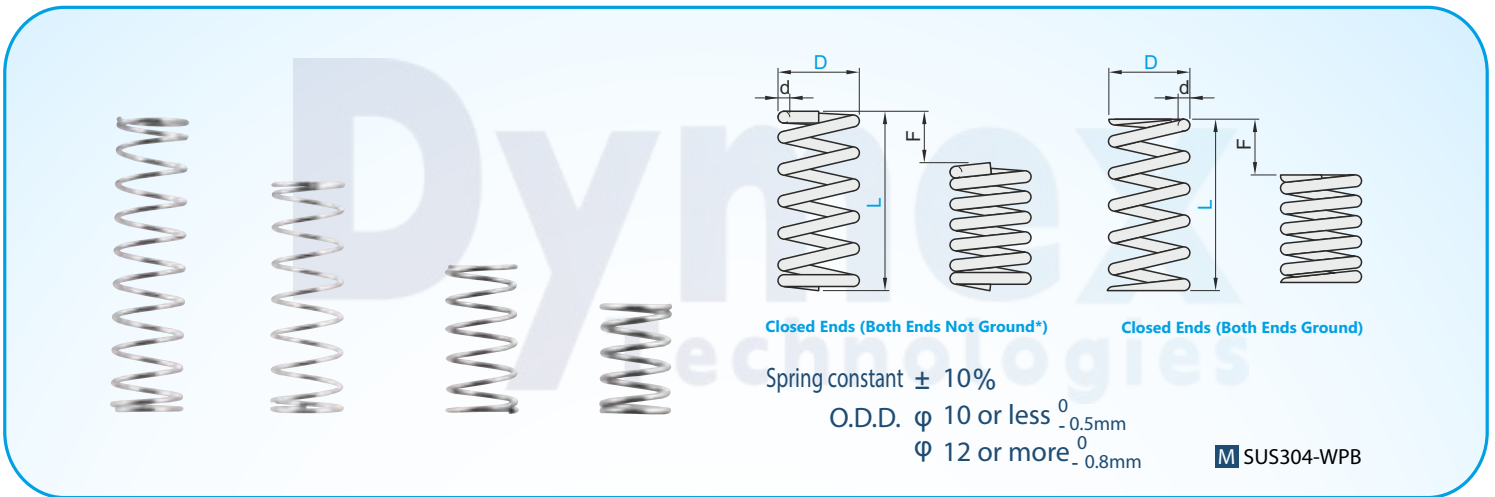


# Round Coil Springs

## O.D. Referenced Stainless Steel - DUH



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

Part No. Type D-L	d	Solid Length	F max.	Load N(kgf) max.	Fa%
DUH4 - 5*	0.45	2.7	1.5	4.4 (0.45)	30
10*	0.5	3.8	3	8.8 (0.9)	
15	0.6	8.1	4.5	13.2 (1.35)	
20	0.65	11.7	6	17.6 (1.8)	
25	0.7	16.8	7.5	22.1 (2.25)	
30	0.7	16.8	9	26.5 (2.7)	
DUH5 - 5*	0.55	3.3	1.5	4.4 (0.45)	30
10	0.6	4.65	3	8.8 (0.9)	
15	0.6	4.65	4.5	13.2 (1.35)	
20	0.75	11.81	6	17.6 (1.8)	
25	0.75	11.81	7.5	22.1 (2.25)	
30	0.8	16	9	26.5 (2.7)	
35	0.85	21.68	10.5	30.9 (3.15)	
40	0.85	21.68	12	35.3 (3.6)	
45	0.9	28.8	13.5	39.7 (4.05)	
DUH6 - 5*	0.65	3.2	1.5	8.8 (0.9)	30
10	0.7	3.9	3	17.7 (1.8)	
15	0.85	7.7	4.5	26.5 (2.7)	
20	0.9	9.7	6	35.3 (3.6)	
25	1.0	15.5	7.5	44.1 (4.5)	
30	1.0	15.5	9	53.0 (5.4)	
35	1.1	24.8	9.8	57.9 (5.9)	
40	1.1	24.8	10	58.8 (6)	
45	1.1	24.8	11.3	66.7 (6.8)	
50	1.2	39.0	10	58.8 (6)	
60	1.2	39.0	14	82.4 (8.4)	
70	1.2	39.0	15	88.3 (9)	
DUH8 - 10	0.9	5.3	3	17.7 (1.8)	30
15	0.9	5.3	4.5	26.5 (2.7)	
20	1.1	11	6	35.3 (3.6)	
25	1.1	11	7.5	44.1 (4.5)	
30	1.2	15.9	9	53.0 (5.4)	
35	1.2	15.9	10.5	61.8 (6.3)	
40	1.3	23.1	12	70.6 (7.2)	
45	1.3	23.1	13.5	79.4 (8.1)	
50	1.4	33.3	15	88.3 (9)	
60	1.4	33.3	18	105.9 (10.8)	
70	1.5	48.0	19	111.8 (11.4)	

Part No. Type D-L	d	Solid Length	F max.	Load N(kgf) max.	Fa%
DUH10 - 10	1.1	6.9	3	17.7 (1.8)	30
15	1.1	6.9	4.5	26.5 (2.7)	
20	1.2	9.3	6	35.3 (3.6)	
25	1.2	9.3	7.5	44.1 (4.5)	
30	1.3	12.7	9	53.0 (5.4)	
35	1.4	17.5	10.5	61.8 (6.3)	
40	1.4	17.5	12	70.6 (7.2)	
45	1.5	23.8	13.5	79.4 (8.1)	
50	1.5	23.8	15	88.3 (9)	
60	1.6	32.4	18	105.9 (10.8)	
70	1.7	44.2	21	123.6 (12.6)	
DUH13 - 15	1.5	9.2	4.5	44.1 (4.5)	30
20	1.5	9.2	6	58.8 (6)	
25	1.5	9.2	7.5	73.5 (7.5)	
30	1.8	18	9	88.3 (9)	
35	1.8	18	10.5	103.0 (10.5)	
40	1.8	18	12	117.7 (12)	
45	1.8	18	13.5	132.4 (13.5)	
50	2.0	28.5	15	147.0 (15)	
60	2.1	36	18	176.5 (18)	
70	2.2	45.1	21	205.9 (21)	
80	2.2	45.1	20	196.1 (20)	

Part No. Type D-L	d	Solid Length	F max.	Load N(kgf) max.	Fa%
DUH16 - 15	1.7	9.6	4.6	44.1 (4.5)	30
20	1.9	14	6	58.8 (6)	
25	1.9	14	7.5	73.5 (7.5)	
30	1.9	14	9	88.3 (9)	
35	1.9	14	10.5	103.0 (10.5)	
40	2.2	25.1	12	117.7 (12)	
45	2.2	25.1	13.5	132.4 (13.5)	
50	2.2	25.1	15	147.1 (15)	
60	2.3	30.5	18	176.5 (18)	
70	2.5	44.7	21	205.9 (21)	
80	2.5	44.7	24	235.4 (24)	
DUH20 - 20	2.3	13.8	7.5	110.8 (11.3)	30
30	2.3	13.8	9	132.4 (13.5)	
35	2.5	18.8	10.5	154.9 (15.8)	
40	2.5	18.8	12	176.5 (18)	
45	2.8	29.4	13.5	199.1 (20.3)	
50	2.8	29.4	15	220.6 (22.5)	
60	3	40.5	18	264.8 (27)	
70	3	40.5	21	308.9 (31.5)	
80	3.2	54.4	24	353.0 (36)	

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">±5%</td></tr> <tr><td>5</td><td>25-30</td></tr> <tr><td>6</td><td>15-20</td></tr> <tr><td>8</td><td>25-50</td></tr> <tr><td>10</td><td>10-20</td></tr> <tr><td>13</td><td>25-50</td></tr> <tr><td>16</td><td>15-30</td></tr> <tr><td>20</td><td>35-50</td></tr> <tr><td></td><td>60, 70, 80</td></tr> <tr><td></td><td>20-30</td></tr> <tr><td></td><td>35-50</td></tr> <tr><td></td><td>60, 70, 80</td></tr> </tbody> </table>	Part Number Type D	L Specify in 5mm Increment	Alterations	Tolerance	Spring Constant Tolerance	4	15-20	LKC	±0.4	±5%	5	25-30	6	15-20	8	25-50	10	10-20	13	25-50	16	15-30	20	35-50		60, 70, 80		20-30		35-50		60, 70, 80
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<ul style="list-style-type: none"> <li>Both ends are ground.</li> <li>For orders larger than indicated quantity, please check with WOS.</li> </ul>																																		

■ 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									
12						N/mm 2.0 (kgf/mm) (0.2)	N/mm 2.9 (kgf/mm) (0.3)		
13		N/mm 0.2 (kgf/mm) (0.02)						N/mm 9.8 (kgf/mm) (1.0)	N/mm 19.6 (kgf/mm) (2.0)
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) x 0.101972 x F (Deflection)**  
**{kgf} = N x 0.101972**

- 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

