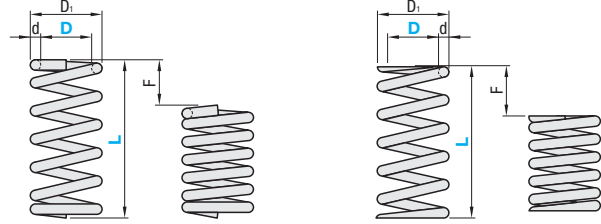


# Round Coil Springs

I.D. Referenced

VUR  
VUF  
VUL  
VUM



Closed Ends (Both Ends Not Ground\*) Closed Ends (Both Ends Ground)

I.D. Di  $\pm 0.8$  or Less  $+0.6mm$   $+0.1mm$  Free Length L 50 or Less  $\pm 1mm$   
 $\geq 10$  or More  $+0.8mm$   $+0.1mm$  60 or More  $\pm 2mm$



Material SUS304-WPB Spring Constant  $\pm 10\%$

**VUR:**Fmax. (Allowable Deflection) = Lx60% Spring Constant 0.29N/mm {0.03kgf/mm} **VUF:**Fmax. (Allowable Deflection) = Lx45% Spring Constant 0.49N/mm {0.05kgf/mm}

VUR: Fmax. (Allowable Deflection) = Lx60% Spring Constant 0.29N/mm {0.03kgf/mm}										VUF: Fmax. (Allowable Deflection) = Lx45% Spring Constant 0.49N/mm {0.05kgf/mm}																	
Part Number		O.D. D1	Wire Dia d	F max.	N(kgf) max.	Reference			Unit Price		Volume Discount Rate		Part Number		O.D. D1	Wire Dia d	F max.	N(kgf) max.	Reference			Unit Price		Volume Discount Rate			
Type D	L					Pitch	Solid Length	Total Coils	1-3 pcs	4-9	10-19	20-100	Type D	L					Pitch	Solid Length	Total Coils	1-3 pcs	4-9	10-19	20-100		
VUR 5	15	5.9	0.45	9	2.65(0.27)	1.7	5.0	10					VUF 5	15*	6.0	0.50	6.8	3.33(0.34)	2.3	4.3	7.5						
	20	12	3.53(0.36)	2.2	5.0	10								20*	9.0	4.41(0.45)	3.1	4.3	7.5								
	25	15	4.41(0.45)	1.9	7.5	14								30	11.3	5.49(0.56)	2.1	8.4	13								
	30	18	5.29(0.54)	2.3	9.6	16.5								35	15.8	7.64(0.78)	2.5	10.4	12								
	35	21	6.17(0.63)	2.3	13.8	22								40	18.0	8.82(0.90)	1.9	16.1	22								

\*The values of solid length are for reference only. There may be some variations depending on the lot.  
 \*Both ends are not ground for all sizes.  
 \*Usage Count: 1 Million Times

**VUL:**Fmax. (Allowable Deflection) = Lx40% Spring Constant 0.98N/mm{0.10kgf/mm} **VUM:**Fmax. (Allowable Deflection) = Lx35% Spring Constant 2.94N/mm{0.30kgf/mm}

VUL: Fmax. (Allowable Deflection) = Lx40% Spring Constant 0.98N/mm{0.10kgf/mm}												VUM: Fmax. (Allowable Deflection) = Lx35% Spring Constant 2.94N/mm{0.30kgf/mm}													
Part Number		O.D. D1	Wire Dia d	F max.	N(kgf) max.	Reference			Unit Price		Volume Discount Rate		Part Number		O.D. D1	Wire Dia d	F max.	N(kgf) max.	Reference			Unit Price		Volume Discount Rate	
Type D	L					Pitch	Solid Length	Total Coils	1-3 pcs	4-9	10-19	20-100	Type D	L					Pitch	Solid Length	Total Coils	1-3 pcs	4-9	10-19	20-100
VUL 5	15	6.2	0.60	6	5.88(0.60)	2.5	4.8	7					VUM 5	15	6.6	0.80	5.3	15.39(1.57)	2.3	6.8	7.5				
	20	8	7.84(0.80)	3.3	4.8	7						20		6.8	0.90	7.0	20.58(2.10)	1.8	11.7	12					
	25	10	9.80(1.00)	2.3	9.1	12						25		7.0	1.00	10.5	30.87(3.15)	2.4	14.5	13.5					
	30	12	11.76(1.20)	2.7	16.0	19						30		7.2	1.10	12.3	35.97(3.67)	2.8	22.0	19					
	35	14	13.72(1.40)	3.2	19.6	20						35		7.4	1.20	14.0	41.16(4.20)	3.2	25.0	22					

\*The values of solid length are for reference only. There may be some variations depending on the lot.  
 \*Both ends are ground for all sizes.  
 \*Usage Count: 1 Million Times

Ordering Example: Part Number - L  
**VUR10 - 40**

**Spring Constant**

Type	VUR	VUF	VUL	VUM
5				
6	N/mm 0.29	N/mm 0.49	N/mm 0.98	N/mm 2.94
8	{kgf/mm} {0.03}	{kgf/mm} {0.05}	{kgf/mm} {0.10}	{kgf/mm} {0.30}
10				
12				
16				
Fmax.	F=Lx60%	F=Lx45%	F=Lx40%	F=Lx35%