

Tension Springs

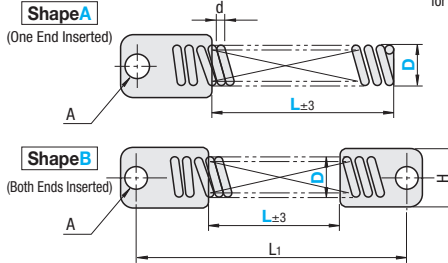
Inserted Hooks



Tension Springs Inserted Hooks

Type	Material		Surface Treatment	
	Springs	Hooks	Springs	Hooks
LWSH	SWP-A	SPCC	Black Oxide	
LUSH	SUS304-WPB	SUS304	-	

- SWP-A comes with SPCC hook, and SUS304-WPB comes with the SUS304 hook.
- Load Formula
Load = Spring Constant x Deflection mm + Initial Tension
- The springs for LWSH and LUSH are different from that for LWS and LUS.



Part Number		D	L 10mm Increment	Wire Dia. dmm	A	H	Max. Deflection %	L ₁	Initial Tension (N)				Standard Spring Constant (N/mm)	
Type	Shape								LWSH	LUSH	LWSH	LUSH	LWSH	LUSH
LWSH LUSH	A	5	200 500	0.6	5	10	70	L+36	1.01	1.32	0.045	0.040		
		6		0.8					2.28	2.96	0.114	0.101		
		8		6	1.0	15		3.04	4.26	0.145	0.128			
		10			1.2			4.31	6.03	0.183	0.163			
		B		12	7	1.6		18	60	L+45	8.72	12.21	0.470	0.415
	14			1.8		10.6	14.84				0.525	0.465		
	16			9	2.0	22	L+51	12.6	17.64	0.593	0.525			
	18				2.3			18.7	26.18	0.850	0.753			

Shape A

D	Unit Price											
	L200~250		L260~300		L310~350		L360~400		L410~450		L460~500	
	LWSH	LUSH	LWSH	LUSH	LWSH	LUSH	LWSH	LUSH	LWSH	LUSH	LWSH	LUSH
5												
6												
8												
10												
12												
14												
16												
18												

Shape B

D	Unit Price											
	L200~250		L260~300		L310~350		L360~400		L410~450		L460~500	
	LWSH	LUSH	LWSH	LUSH	LWSH	LUSH	LWSH	LUSH	LWSH	LUSH	LWSH	LUSH
5												
6												
8												
10												
12												
14												
16												
18												



Ordering Example

Part Number - D - L
LWSHA - 5 - 500

- Standard Spring Constant
Standard spring constant is the value when the L Dimension is 200 on shape B. For other dimensions, use the formula below for calculation.

$$\text{Spring Constant (N/mm)} = \frac{200 \text{ (Reference L Dimension)}}{\text{Configurable L Dimension}} \times \text{Standard Spring Constant}$$

Ex.) LWSHB-8-400
 $0.0725 \text{ (N/mm)} = \frac{200}{400} \times 0.145$
 kgf=Nx0.101972