

Extension Springs



Materials: Most materials and alloys

Wire Sizes: .004" to .750" round (square or rectangular upon request)

Quantity: Any

Typical Applications: Automotive, window components, lawn and garden equipment, and many other OEM applications - unlimited end styles are available.

Premier Extension Spring Design

Rectangular wire springs and extension springs manufactured by MWS are engineered to exact customer specifications.

Some important factors to consider when ordering your custom extension springs:

End Style

Extension Spring Diameter – O.D. maximum, I.D. minimum

Extension Spring Rate – What is the load in pounds per inch required to extend the spring?

Length of inside hooks

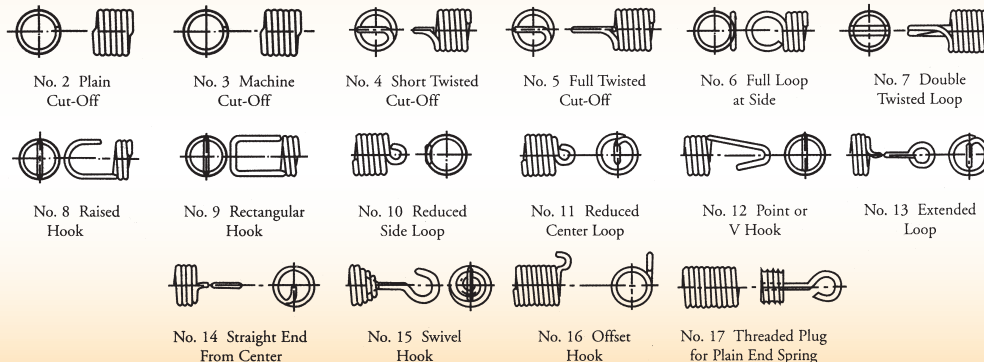
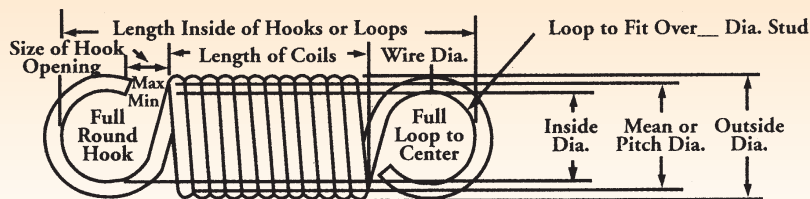
Load fully extended – For a specific application, you will need to know the total load at the maximum extended length

Total number of coils.

Winding direction – **THE DIRECTION OF THE COIL** is right-hand or left-hand winding. Handedness is important in very few applications.

Wire diameter – We can produce an extension spring in diameters from .007" to .625" round, up to .375" square and rectangular to specifications.

Wire material – We can furnish springs in most metals and alloys.



Formlula Index

R = Rate	p = Pitch	d = Diameter of wire
P = Load in Pounds	M = Moment or torque, in lb	Pi = 3.14
S = Stress(uncorrected)	E = Modulus of Elasticity in bending	L = Length
SH = Solid Height	N _a = Active coils	D = Mean diameter of coil
G = Modulus of elasticity in torsion	N _t = Total Coils	S _k = Corrected Stress

Torsional Modulus Elasticity

Steel	11.5 x 10 ⁶	Chrome Silicon	11.5 x 10 ⁶
Phosphor Bronze	6.25 x 10 ⁶	Stainless Steel	10 x 10 ⁶
Chrome Vanadium	11.5 x 10 ⁶	Brass	5.5 x 10 ⁶
<p>Use Compression Rate and Stress Formulas for calculating extension springs. 1.75 x ID = Height of regular hooks (divided by 2 for one end)</p>			

