Extension springs absorb and store energy as well as create a resistance to a pulling force. It is initial tension that determines how tightly together an extension spring is coiled. This initial tension can be manipulated to achieve the load requirements of a particular application.

Extension springs are often tightly wound in the free (no-load) position and have loops, hooks, eyes, or other interface geometry at the ends to attach to the components they connect. They are frequently used to provide return force to components that extend in the actuated position.

Comprehensive Capabilities

End Configurations:
- Machine (Twist) Loops • Crossover Center Loops
- Side Loops • Extended Hooks • Crossover Center Hooks
- Rectangular Ends • Teardrop Ends • Threaded Inserts

Secondaries:
- Stress Relieve • Heat Treating • Passivation
- Painting • Plating

Wire sizes from .002” through .625”

Materials:
- Carbon Steels • Alloy Steels
- Stainless Steel 17-7, 302, 304 and 316
- Phosphor Bronze
- Hastelloy • Inconel 600, 718 and x750
- Beryllium Copper • Elgiloy®

† Elgiloy is a trademark of Elgiloy Ltd. Partnership.
### Specifications Form

#### Company Information
- **Company:** ____________________________________________
- **Address:** ____________________________________________
- **City:** ________________________________________________
- **State:** ______________________________  **ZIP:** ____________
- **Contact:** ____________________________________________
- **Phone:** ______________________________________________
- **Fax:** __________________________________________________
- **Email:** ________________________________________________

#### Custom Extension Springs
- **Quantities to be quoted:** ________________________________
- **End Use or Application:** ________________________________
- **Indicate Units of Measure (in. & lb.), (mm & kg):**

#### Loop/Hook Specifications
- **Loop Type:**
  - **A** Length +/- Opening
  - **B** Length +/- Opening

#### Table: Recommended Loop Lengths
<table>
<thead>
<tr>
<th>Loop Type</th>
<th>Machine Loops</th>
<th>Crossover</th>
<th>Side Loops</th>
<th>Extended Hooks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MIN</strong></td>
<td>1/2 I.D.</td>
<td>I.D.</td>
<td>I.D.</td>
<td>1.1 x I.D.</td>
</tr>
<tr>
<td><strong>MAX</strong></td>
<td>1.1 x I.D.</td>
<td>I.D.</td>
<td>I.D.</td>
<td>AS REQUIRED</td>
</tr>
</tbody>
</table>

#### Diagram
- **Outside Diameter:** +/-
- **Active Coils:**
  - Loop B
  - Opening
  - Free Length

#### Additional Specifications
- **Material:** ____________________________________________
- **Wire Diameter:** ______________________________________
- **Direction of Wind:** OPT  LH  RH
- **Style of End:**
  - **A** I  II  III  IV
  - **B** I  II  III  IV
  - (See Above)
- **IT** ________________________________________________
- **Rate** +/- BETWEEN &
- **Load 1** +/- @
- **Load 2** +/- @
- **Maximum Extended Length (inside ends) without set**
- **Relative Loop Position:**
  - RANDOM OR
  - ALIGNED AT DEGREES +/- DEGREES
- **Finish** ____________________________________________
- **Frequency of Extension**
  - CYCLES/SEC. AND WORKING RANGE
  - IN. TO IN. OF LENGTH
- **Operating Temp.** _________ °F
- **Other:** _____________________________________________