Torsion Springs are helical springs that exert a torque or rotary force. The ends of torsion springs are attached to other components, and when those components rotate around the center of the spring, the spring tries to push them back to their original position. Although the name implies otherwise, torsion springs are subjected to bending stress rather than torsional stress. They can store and release angular energy or statically hold a mechanism in place by deflecting the legs about the body centerline axis.

This type of spring is normally close wound but can have increased pitch to reduce friction between the coils. They offer resistance to twist or rotationally applied force. Depending on the application, torsion springs can be designed to work in a clockwise or counter-clockwise rotation, thus determining the direction of the wind.

Comprehensive Capabilities

Configurations:
- Straight Offset Legs • Short Hook Legs • Hinge Legs
- Straight Torsion Legs • Bent Legs • Double Torsion

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

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.
TABLE 1

<table>
<thead>
<tr>
<th>Style</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Straight Offset Ends</td>
</tr>
<tr>
<td>II</td>
<td>Short Hook Ends</td>
</tr>
<tr>
<td>III</td>
<td>Double Torsion</td>
</tr>
<tr>
<td>IV</td>
<td>Hinge Ends</td>
</tr>
<tr>
<td>V</td>
<td>Straight Torsion Ends</td>
</tr>
<tr>
<td>VI</td>
<td>Special Ends</td>
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</tbody>
</table>

TABLE 2

<table>
<thead>
<tr>
<th>Style</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>LH</td>
</tr>
<tr>
<td>B</td>
<td>RH</td>
</tr>
</tbody>
</table>

INDICATE UNITS OF MEASURE (IN. & LB.), (MM & KG)

1. MATERIAL ________________________________
2. WIRE DIAMETER ________________________________
3. DIRECTION OF WIND LH RH (SEE TABLE 2)
4. END STYLE A I II III IV V VI (SEE TABLE 1)
5. END STYLE B I II III IV V VI (SEE TABLE 1)
6. RATE _______ +/- _______ BETWEEN _______ PER TURN (360˚)
7. TORQUE 1 _______ +/- _______ AT _______ ˚
8. TORQUE 2 _______ +/- _______ AT _______ ˚
9. LENGTH OF SPACE AVAILABLE ________________________________
10. MAXIMUM WOUND POSITION _______ ˚ FROM FREE POSITION.
11. F _______ FREE ANGLE OR POSITION
12. FINISH ________________________________
13. FREQUENCY OF ROTATION ________________________________ CYCLES/SEC. AND WORKING RANGE _______ ˚ TO _______ ˚ DEFLECTION
14. OPERATING TEMP. _______ °F
15. OTHER: ________________________________