



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 • Powder Coating

**Wire sizes from .004" through .625"**

#### Materials:

- Carbon Steels • Alloy Steels
- Stainless Steel 17-7, 301, 302 and 316 • Phosphor Bronze
- Hastelloy • Inconel 600, 718 and x750
- Beryllium Copper • Elgiloy

TABLE 1







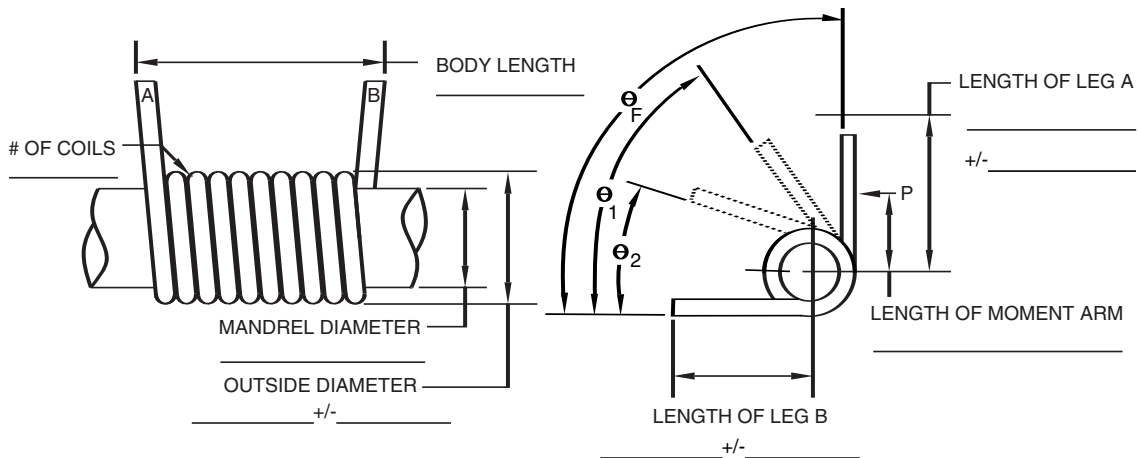
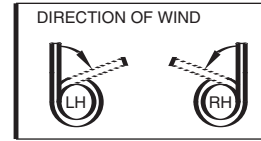
|  |   |  |
|--|---|--|
| I<br><br>Straight Offset Ends | II<br><br>Short Hook Ends      | III<br><br>Double Torsion |
| IV<br><br>Hinge Ends          | V<br><br>Straight Torsion Ends | VI<br><br>Special Ends    |

TABLE 2



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

- MATERIAL \_\_\_\_\_
- WIRE DIAMETER \_\_\_\_\_
- DIRECTION OF WIND      LH      RH      (SEE TABLE 2)
- END STYLE      Ⓐ    I    II    III    IV    V    VI      (SEE
- STYLE OF END      Ⓑ    I    II    III    IV    V    VI      TABLE 1)
- RATE \_\_\_\_\_ +/- \_\_\_\_\_ BETWEEN \_\_\_\_\_ PER TURN (360°)
- TORQUE 1 \_\_\_\_\_ +/- \_\_\_\_\_ AT  $\ominus$  1 \_\_\_\_\_ °
- TORQUE 2 \_\_\_\_\_ +/- \_\_\_\_\_ AT  $\ominus$  2 \_\_\_\_\_ °
- LENGTH OF SPACE AVAILABLE \_\_\_\_\_
- MAXIMUM WOUND POSITION \_\_\_\_\_ ° FROM FREE POSITION.
- $\ominus$  F \_\_\_\_\_ FREE ANGLE OR POSITION
- FINISH \_\_\_\_\_
- FREQUENCY OF ROTATION  
\_\_\_\_\_ CYCLES/SEC. AND  
WORKING RANGE  $\ominus$  \_\_\_\_\_ ° TO  $\ominus$  \_\_\_\_\_ ° DEFLECTION
- OPERATING TEMP. \_\_\_\_\_ °F
- OTHER: \_\_\_\_\_

COMPANY: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_

STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

CONTACT: \_\_\_\_\_

PHONE: \_\_\_\_\_

FAX: \_\_\_\_\_

EMAIL: \_\_\_\_\_

QUANTITIES TO BE QUOTED: \_\_\_\_\_

END USE OR APPLICATION: \_\_\_\_\_