

# **TORSION SPRINGS**

**Gestión de Compras** has extensive experience in the design, development and manufacture any kind of torsion springs.

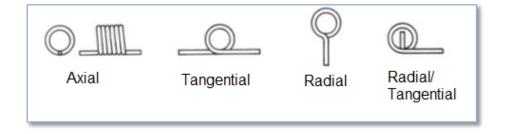
## **PRODUCT:**

Torsion springs are close coiled helical springs designed to resist torque or rotation forces from two directions. Torsion Springs are created for the purpose of storing and releasing angular energy or for the purpose of statically holding a mechanism in place by deflecting the legs about the body centerline axis. Torsion springs are generally mounted around a shaft or arbor, and must be supported at three or more points.

The wind of the torsion springs can be right hand, left hand, or double torsion. Double torsion springs are a type of torque spring that has two coils separated by a space to minimize friction. These types of springs consist of a right-hand and a left-hand coil section connected together and working in parallel. It's important that the torsion spring should always be loaded in a direction that causes its body diameter to decrease. It's because, the residual forming stresses are favorable in this direction.

There are many options for leg configurations so the springs can be attached in different ways. Leg specifications to consider for torsion springs include leg angle, equal leg length and leg end style.

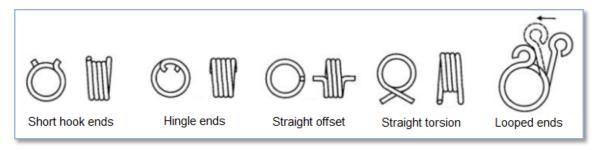
Regarding leg angle exist different types of torsion spring, such as axial, tangential and radial, or a mix of them.



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It is also possible to classify, in relation with the form of this legs, some examples could be straight legs, straight offset legs, short hook ends, hinge ends and special ends, like looped ends.



#### **PRODUCTION:**

**Gestión de Compras** has extensive experience in the design, development and manufacture any kind of torsion springs. We can make any type of torsion spring on a wide range of wire thickness, surface finishing, springs ends, to meet customer specifications.





To particular uses springs need a surface treatment, either to corrosion prevention or to improve surface hardness or wear resistance, as well as reflectance or color. For these reasons we offer different coatings and surface treatments such as:

- Electropolishing.
- Tumbling.
- Shot Peening.
- Electroplating.
- Electroless Plating.
- Chemical Coatings.



### **MATERIALS AND APPLICATIONS:**

Typically, materials used to produce springs according to the use that this will have are:

- Refined steel DIN 17222, DIN 17223, etc.
- Stainless steel (according to DIN 17224).
- Heat resistant steel, such as DIN 17240.
- Copper alloys, such as for example CuSn 8 or CuBe 2.

The previous materials are most common, but other materials may be incorporated in custom applications for example Inconel or Hastelloy, inclusive polymers.



Custom torsion springs are used in many applications and come in a wide variety of materials and finishes. Some products where we can find torsion springs are: hinges, mouse traps, clothes pins, window shades, firearms, doorknobs, etc.

#### **STANDARD AND CERTIFICATES:**

We have the means to ensure our products comply the general regulation and the specific certificated regulations in manufacturing products that requires them.

- ISO 9001 and ISO 14001.
- TS 16949.
- OHSAS 18001.
- DIN 2088, DIN 2194, etc.





## **CONTACT:**

In **Gestión de Compras** work with a wide range of customers from different sectors but have in common the search for products that suit your needs at the best Price and the guaranteed maximum quality. Check with us about any product. We have a qualified staff who will advise you.

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