

## COMPRESSION SPRINGS

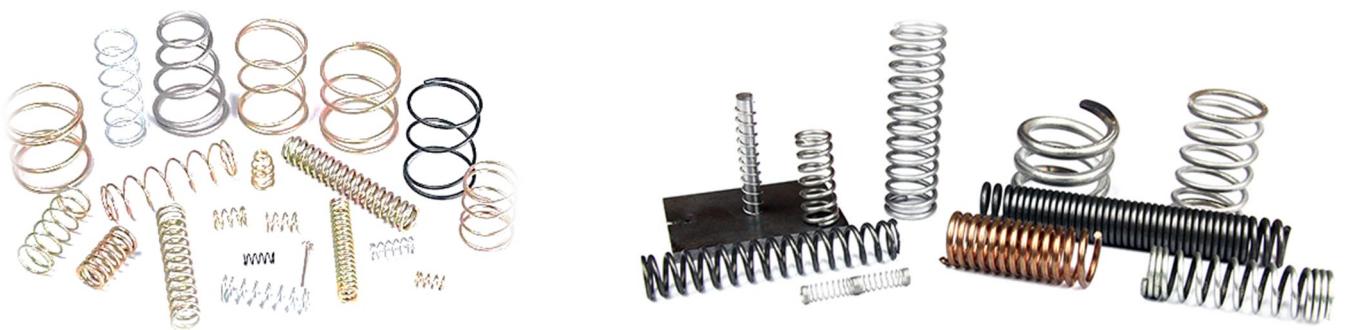
**Gestión de Compras** designs, develops and manufactures any kind of compression springs for multitude sectors and industries.

### **PRODUCT:**

A compression spring, also known as helical compression spring, is a mechanical device in the shape of a helix made from spring wire. These springs are designed and used to resist applied compressive forces or to store energy in the push mode. Compression springs are the most common spring configuration and are found in many applications such as automotive, aerospace and consumer goods.

The most widely used form of compression spring is the straight cylindrical spring made from round wire, although square or rectangular wire is also used. Anyway, many other forms are produced such as conical or tapered, barrel or convex, hourglass or concave, variable pitch.... Compression springs are linear and thus have the same rate per inch throughout the entire spring.

Such configurations are used to reduce solid height, buckling and surging or to produce nonlinear load deflection characteristics. Energy storage is greater for rectangular wire compression springs, also called "die springs", however round wire rates can be increased if springs are nested inside one another. Rectangular wire is used to reduce solid height or increase the space efficiency of the design.



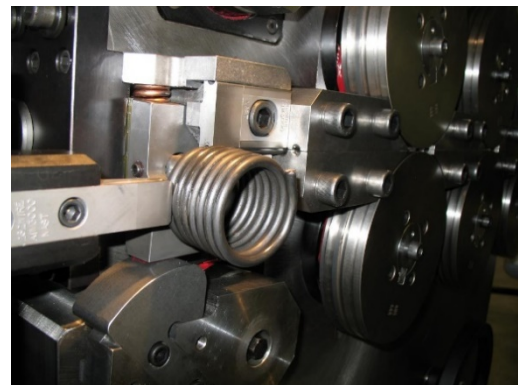
Regarding compression spring ends, they are usually closed and square and these ends can also be closed and ground or have open ends so, the four main end configurations are closed and squared, closed and ground, open and double closed ends. Furthermore, a compression spring can have hooks on one or both ends so as to fasten it to a particular assembly. The ends can also be close wound for a certain number of coils on the ends permitting the spring to remain in a vertical position. Furthermore, compression springs can have dual diameters as well as triple diameters for achieving different assembly situations.

A compression spring can be wound in either a left hand or right-hand direction, similar to a screw type thread. In applications such as one spring operating inside another, it is necessary to coil the springs so that the helices are in opposite directions, right and left. If a spring screws onto a thread, the direction of the helix should match that of the thread.

## **PRODUCTION:**

**Gestión de Compras** offers a complete line of custom compression springs to meet the needs of any industry. We can produce springs according to specific customer requirements because we have the necessary means to produce springs with a wide range of wire diameters, spring forms, materials, surface coatings, etc.

Our suppliers manufacture compression springs cylindrical, conical, concave or convex form, irregular pitch, as well as various combinations of these.



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

Compression springs are very often used in automotive industry, aerospace industry and consumer applications. Some specific applications are: hose assembly, consumer electronics, electrical switches, 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 2095, DIN 2098, 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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