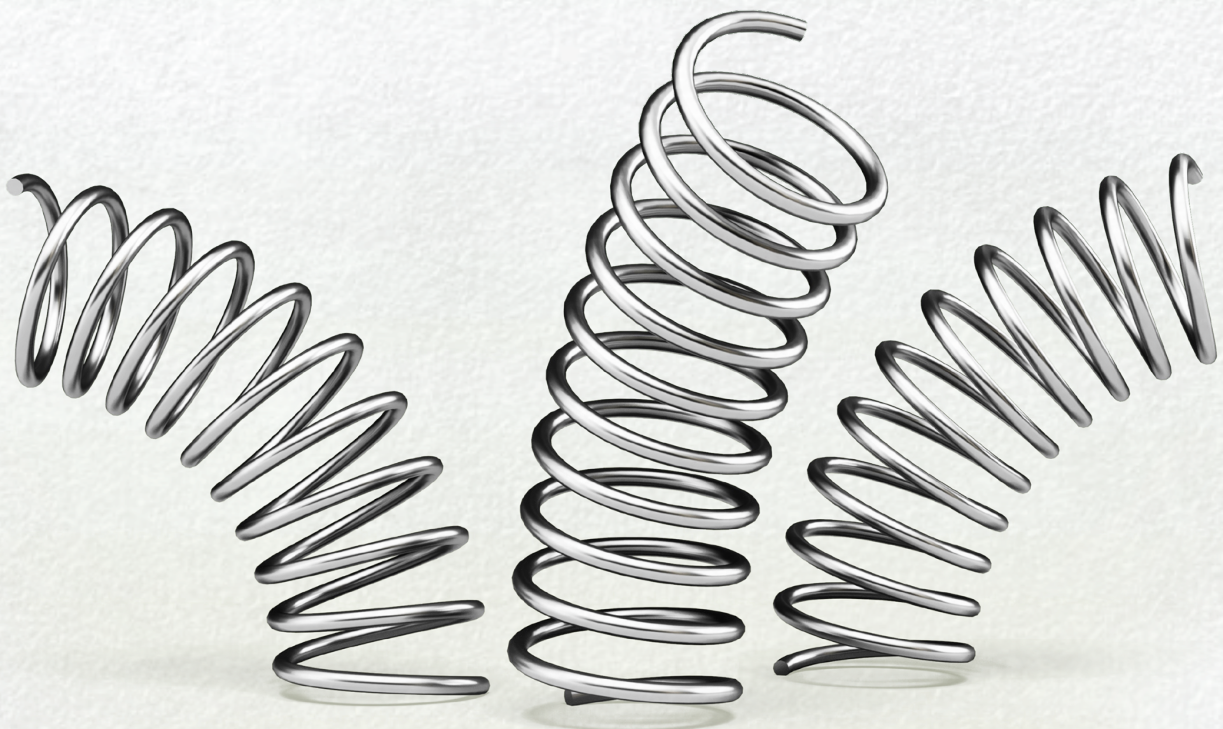


# evo springs

An Evolution Engitech Business



**INDUSTRIAL SPRINGS**

## Compression Springs



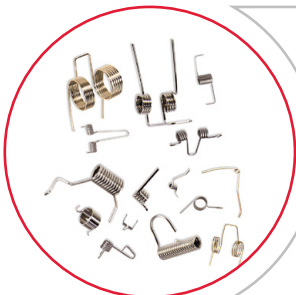
The compression springs are the open-coil helical spring that resists any compression force applied on it axially. Compression springs are usually coiled at a constant diameter, they can also be coiled in other shapes like – conical, barrel, hourglass, or a combination of these shapes. The compression springs are wound over a rod or fitted inside a hole. When a load is applied, the spring gets compressed and pushes back to regain its original shape. These springs offer resistance to linear compressing forces.

## Disc Springs

Disc springs are the angular disc-like springs and these conically designed springs are believed to be the best solutions for many of the engineering problems. Disc springs are also known as washers. These springs are used for the best utilization of space. Disc springs have a high load capacity and by arranging them into stacked columns, variable spring characteristics can be achieved. Disc springs form a very good example of equally combining high force in a small space.



## Torsion Springs



Torsion springs are designed to be twisted rather than extended or compressed. A load is applied to the end of the spring that makes the spring rotate at an angle. The amount of rotation occurring in the spring is dependent upon the load. Torsion springs store and release the angular energy. When twisted this flexible elastic spring stores mechanical energy in it. After getting twisted it exerts torque in the opposite direction, the amount of torque generated is directly proportional to the amount of angle the spring is twisted.

## Tension Springs

Tension springs are also called extension springs. A tension spring in action is comparable with a trampoline. The spring uses the tension created by an outside force to pull the components back together, components to which the spring is attached. The tightly wound coils of the tension spring operate with the force. Tension springs have helical wound coils with a hook, loop, and end coil at its one or both the ends. Based on its end design, the tension springs can be classified in many types.



## Wire Forms Springs



Wire form springs are a type of spring made from a single piece of wire that is bent into a specific shape. For the manufacturing of the wire forms various types of machines and methods are used. It is somewhat easy and been precise work due to the CNC machines.

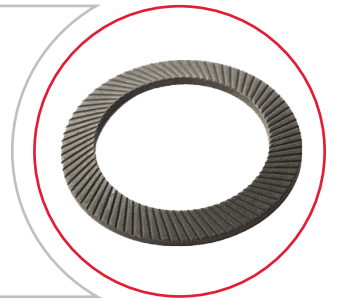
## Spring Washers



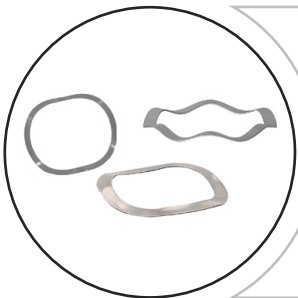
Spring washers, also known as disc springs, are a type of mechanical fastener that is designed to prevent fastener loosening or failure due to vibration, thermal expansion, or other dynamic loads. Spring washers work by applying a spring force to the joint, which helps to maintain a constant tension between the fastener and the substrate.

## Serrated Washers

Serrated washer, also known as a toothed washer or a shockproof washer, is a type of washer that has serrations or teeth on one side. The teeth are designed to grip into the mating surface, providing a locking effect that helps to prevent the washer and the component it is attached to from loosening due to vibrations or other external forces.



## Wave Washers



Wave spring washer or a wavy washer, is a type of spring washer that is characterized by its distinctive wave-like shape. Wave washers are typically used in applications where a cushioning effect and preload force is required, such as in valve assemblies, pumps, and clutches.

## Thread Inserts

Thread insert provide permanent, high-quality, wear-resistant internal threads mainly designed to get installed in drilled holes or molded forms in a simple and quick way. Thread insert, typically made from brass or stainless steel are used in the assembly of many consumer products, automobiles and electronics. Also known as threaded bushing, a fastener element which is inserted into an object to append a threaded hole, it even works as a repair in a stripped threaded hole.



## Circlips



Circlips, also known as snap rings or retaining rings; are essential components for many mechanical applications. They are used to secure components on shafts or in bores, preventing axial movement and holding parts in place.

## Size Range

0.15 mm to 90 mm Wire Diameter

## Spring Materials

- ✓ Stainless Steel
- ✓ Alloy Steel
- ✓ Carbon Steel
- ✓ Inconel X-750
- ✓ Inconel 718
- ✓ Nimonic 90
- ✓ Monel
- ✓ Nimonic
- ✓ Hastelloy
- ✓ Beryllium Copper



## Surface Coatings

- ✓ Mechanical Zinc Plating
- ✓ Zinc Electro Plating
- ✓ Nickel Plating
- ✓ Electroless Nickel Plating
- ✓ Geomet
- ✓ Dacromet Coating
- ✓ Cadmium Plating
- ✓ Powder Coating
- ✓ Epoxy Painting

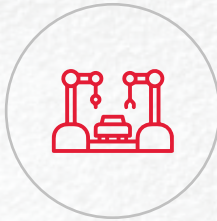
## Applications



Agricultural Machinery



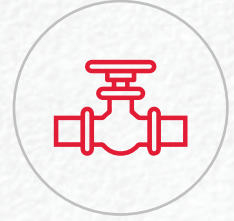
Automobile



Automotive



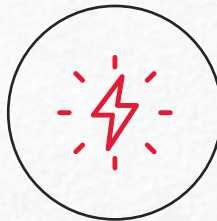
Aeronautical



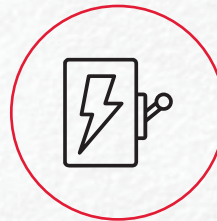
Valves



Oil & Gas



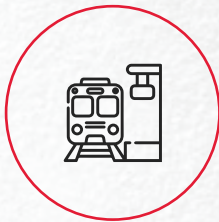
Energy



Electronics



Construction



Railways



Furniture



Medical

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