



## Compression Spring Basic Features

A compression spring is an open-coil helical spring that offers resistance to a compressive force applied axially. Compression Springs are the most common metal spring configuration and are in fact one of the most efficient energy storage devices available. Other than the common cylindrical shape, many shapes are utilized, including conical, barrel and hourglass. Generally, these coil springs are either placed over a rod or fitted inside a hole. When you put a load on a compression coil spring, making it shorter, it pushes back against the load and tries to get back to its original length.

Compression springs are found in a wide variety of applications ranging from automotive engines and large stamping presses, e.g. die springs, to major appliances and lawn mowers to medical devices, cell phones, electronics and sensitive instrumentation devices. Cone shape metal springs are generally used in applications requiring low solid height and increased resistance to surging.

A coil 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.

Total number of coils is counted from tip to tip. Springs with closed ends or with closed and ground ends have one inactive coil at each end. Springs with open ends are considered to have virtually no inactive coil. Springs with open ends ground are considered to have about one-half inactive coil at each end.

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