

The Preferred Global Supplier of Spring Solutions for Fire Dampers

Custom Springs for Fire Dampers

Let Vulcan Spring support the life-sustaining functionality of your industrial HVAC systems and fire dampers with custom springs. We understand that quality and dependability are paramount when it comes to fire and smoke dampers that provide ventilation and prevent the spread of smoke and fire. Verified through extensive testing and measurement, our springs will ensure that your static, dynamic, and combination fire and smoke dampers provide your customers and their buildings with the safety and peace of mind they deserve. The quality and performance of Vulcan springs also increase the chances of a successful UL approval.

How Our Springs Accommodate Fire and Smoke Dampers

- Made with the precision required for optimal function of your product
- Provide strong force or torque output, even in small spaces
- Can accommodate high-volume production
- Can assist with development to ensure optimal design and function prior to manufacturing
- Can provide linear force or rotational torque with a custom spring

Most Common Applications

-  Dynamic Fire Dampers
-  Static Fire Dampers
-  Combination Fire & Smoke Dampers
-  Ceiling Radiation Damper (CRD)



Constant Force Springs

Constant Force Springs or Conforce® Springs can be used to actuate metal curtains within fire dampers, which helps prevent the spread of smoke or fire in ductwork. Conforce Springs provide a consistent and reliable force over the spring's travel length. High force output and small space requirement combined with smooth extension and retraction, counterbalancing, and tensioning capabilities, make them an ideal option for use within fire dampers. Conforce Springs are typically crafted from Type 301 stainless steel and can be custom-made with a variety of desired end details and mounting methods.



Spiral Torsion Springs

Spiral Torsion Springs can be used as an alternative to Conforce Springs to close curtain blades within a fire damper. They are commonly produced from flat steel and are characterized by the symmetric spacing between coils. A Spiral Torsion Spring will exert a rotational torque, usually through 360° rotation or less. The torque curve of a Spiral Torsion Spring is linear to the degree of rotation. Spiral Torsion Springs are crafted from a wide variety of materials and can be created with many desired end details and mounting methods. In addition to fire dampers, they are also used in other applications such as medical devices and healthcare, automotive and transportation, and architectural hardware.



Wire Forms

Wire Forms are used in fire and smoke dampers to close metal curtains and in latching applications. We will work with you to create the ideal solution for mid-to mass-produced wire forms. Our various machines are capable of forming virtually any shape to suit your unique application and performance needs. Other applications that Wire Forms are used in include aerospace and defense, medical devices and healthcare, windows and window shades, and automotive and transportation.

**The product images shown may represent a range of products or be for illustration purposes only and may not be an exact representation of the product. Product attributes will vary based on the design and material specifications required of your application.*



About Vulcan Spring

Vulcan Spring is the preferred global supplier of low- and high-volume spring solutions, headquartered in Telford, Pennsylvania. With innovative machinery, tooling and engineering, we can deliver a spring solution for even the most challenging applications. For industrial or POP displays and beyond, we're equipped for quality, industry-leading spring production and assembly, all while promising to make your experience from concept to delivery as easy as possible.

Contact us with questions or about a custom need. Our responsive and helpful team is standing by.
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