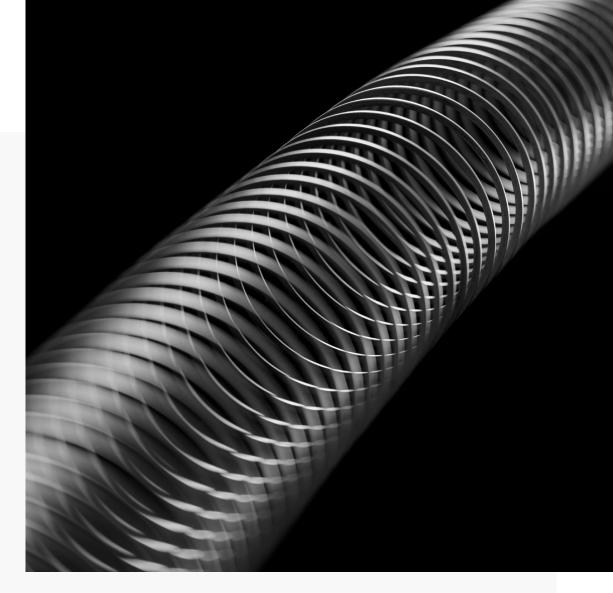
The World's Widest Range of Stock and Custom Engineered Springs





# Where Breadth of Offering Meets Depth of Experience

Springs are one of the most commonly used precision components in manufacturing today. They are fundamental to the performance of everything from getting aircraft into the skies to keeping race cars on the track. If not manufactured to precisely the right tolerances using the optimum materials, they can also be a significant source of failure. While most engineers are familiar with the different types of springs and their uses, the difference between a high-performing spring and an average one is less well known. Yet it is precisely here that greater effectiveness and increased efficiency can be found. It's why MW Components has invested in the systems, technologies, and people that have made us a leading precision spring manufacturer.

#### **Delivery at Any Scale**

MW Components offers one of the world's largest ranges of precision springs. We manufacture both custom-build and stock items at our USA-based manufacturing facilities and can ship to virtually any country worldwide. Whether you need a single prototype for a new product, millions of customdesigned components, or streamlined online ordering for stock items, we can help.

#### **Deep Engineering Expertise**

Our 100+ engineers and specialists have decades of experience designing, manufacturing, and refining the springs found in many of today's leading products.

They partner with our customers, helping accelerate the R&D process from beginning to end. They understand the performance characteristics of different alloys for specific applications. And they work across industries, bringing specific market knowledge to every challenge and absorbing learnings from other markets to deliver new innovations and performance enhancements.

It's why manufacturers around the globe trust us to help with everything from initial spring design, tooling, and prototyping including rapid prototyping, to performance analysis and virtually unlimited production runs.

### **Broad Industry Experience**

MW Components has deep experience across multiple industries, including:

# AerospaceAgricultureAutomotiveConsumer ProductsConstructionEnergy, Oil, and GasHeavy Truck and BusIndustrialMedicalDefenseMotorsportsPower ToolsTransitValves



# Whatever it Takes to Help You Succeed

When you partner with MW Components, you can be sure you'll get the quality, speed, and scale you need.

But that's just the start.

Demanding manufacturers choose us because we've fine-tuned our business to accelerate the entire process of delivering the stock and custom springs they need. This means, no matter how complex the tolerances, how large or small the volume, with MW Components you can be sure you'll get the right spring to the right specification when and where you need it.

#### **Because Quality Matters**

Our locations provide up-to-date rigorous quality management systems, including optional industry-specific certifications which include AS9001, ISO9001, and IATF 16949.

This gives you peace of mind that we have been independently audited and approved by the leading global standards bodies. In fact, across our facilities, we offer REACH, RoHS, and DFAR compliant materials.

Ultimately, this means that when you partner with us, you can focus on what really matters safe in the knowledge that we'll do whatever it takes to help you realize your objectives.



## The Right Spring for Every Application

We offer stock and custom springs to meet virtually any challenge you face.

Know the exact spring you need? If it's one of the 35,000+ designs we hold in stock, we'll typically ship within 24 hours of your order.

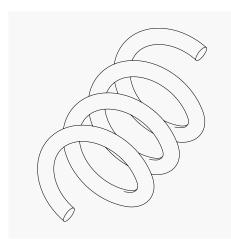
Need something custom-built? We'll help you design, prototype, and test your approach and then offer quick-turn manufacturing from the same facility to almost any volume.

#### **Machined Springs**

We can manufacture to the precise compression, extension, torsion, lateral translation, or lateral bending you require. You can also select multiple starting points and have attachment features as part of the elastic element. This eliminates the need for additional assembly components, saving you time, money, and increasing both reliability and performance.

#### **Coiled Springs**

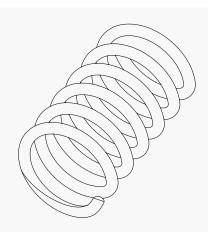
We manufacture a full range of coiled springs in multiple alloys. In addition, we offer a wide variety of finishes and coatings to suit your specific needs.



Compression Springs Torsion Springs Extension Springs Tapered Springs Hot Wound Springs Garter Springs Die Springs
Extension Springs Tapered Springs Hot Wound Springs Garter Springs
Tapered Springs Hot Wound Springs Garter Springs
Hot Wound Springs Garter Springs
Garter Springs
1 0
Die Springs
Die Opinigo
Constant Force Springs
Canted Coil Springs
Cold Wound Springs

#### **Automotive Springs**

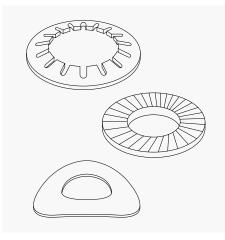
Specific to the automotive sector, we manufacture springs for demanding applications such as engine valves, suspension, and transmission.



Options include:
Leaf Springs
Clutch Springs
Engine Valve Springs
Fuel Injection Springs
Suspension Coils
Throttle and Pedal
Return Springs
Transmission Springs
Brake Springs
(for heavy trucks and semis)
Dual Triple Rate

#### **Belleville Washers and Disc Springs**

We offer a comprehensive range of disc springs made to exacting standards and preset to ensure they will not significantly relax under load over time.



#### **Options include:**

Carbon Composite Disc Springs Belleville Washers

Flange Disc Springs

Flat Washers (SFW)

**Ball Bearing Spring Washers** 

Slotted Disc Springs

**Contact Disc Springs** 

**Curved Spring Washers** 

Serrated Disc Washers

Finger Spring Washers

Wave Spring Washers

#### Point-of-Purchase (POP) Display Solutions

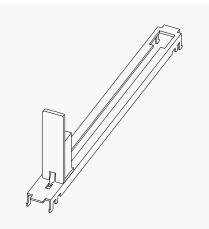
We manufacture over 200 different designs of constant and variable force springs for point-of-purchase displays. These ship in quantities of just a few to millions of units, and with the fastest lead times in the industry.

#### **Flat Springs**

Our flat springs are available in a variety of shapes, sizes, and materials. Using fourslides, punch presses, and laser cutting, we reduce the need for expensive tooling, accelerating turnaround times and making even the smallest runs viable.

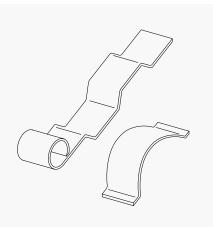
#### **Drawbar Springs**

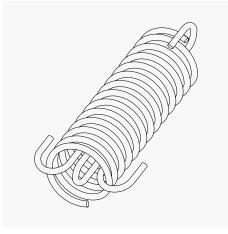
Commonly used in situations where potential overload is a factor, our drawbar springs offer a built-in safety feature that means that should they fracture, they will continue to carry a static load.



#### **Options include:**

- Constant Force Springs
- Variable Force Springs
- Reel Retrievers and Mini-reels
- Slideline Pusher Systems





#### **Spring Energizers**

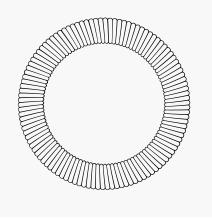
We manufacture precision spring energizers using high-speed milling machinery, loaddeflection testing, laser welding, and 100% laser inspection equipment. Because we've created so many variations of these components, we can offer a broad variety of cross-sections with minimal tooling costs.

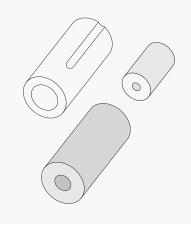
#### **Urethane Springs**

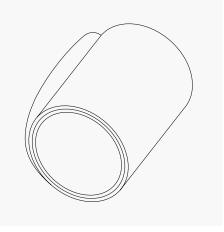
There will always be applications where metal springs are not a viable solution such as those where corrosion, vibration, and magnetism are key factors. In these circumstances, we can offer a comparable urethane alternative in multiple lengths.

#### **Constant Force Springs**

For applications requiring a constant load from motor and power springs to product merchandising units—our constant force springs offer the perfect solution. Available with either standard end fittings or bespoke fittings to your specifications, we can deliver constant force springs in virtually any quantity and with some of the fastest lead times in the industry.







# Achieving the Perfect Result

Our facilities provide unrivalled manufacturing capabilities across coiling, stamping, wire forming, and machining.

We work with a wide range of materials including copper and its alloys, steel (carbon and all grades of stainless), nickel and its alloys, titanium, music wire, and specialty materials such as Elgiloy<sup>®</sup>, Hastelloy<sup>®</sup>, Inconel<sup>®</sup>, A286, and Monel<sup>®</sup> among many others.

And that's just the start. We also offer comprehensive secondary processes and finishes.

#### **Options include:**

Shot Peening
Heat Setting
Cryogenic Setting
Cold Setting
Hardening
Wire Rolling
Tempering
Passivation
Dyeing
Plating
Grinding
Cleanroom Services
Powder Coating
Laser Etching and Engraving
Hardness Testing
Magnetic Particle Inspection
MET Inspection

## Let's Talk

Discover the difference we could make to your success, contact us at Sales@MWComponents.com to schedule a conversation about your needs.



## About MW Components

MW Components is focused on accelerating the entire process of delivering custom, stock, and standard parts to virtually any volume and against demanding deadlines. We work to highly complex tolerances. We help simplify the management of any number of different components. And we take a no-compromise approach to quality. With MW Components, you can be sure you'll get the right part to the right specification when and where you need it.

MW Components. Whatever it takes.

**MWComponents.com**