

SUNZO SPRING TECHNOLOGY

SUNZO

Precision Elastic Solution Provider

Disc Springs | Wave Springs
Belleville Washers | Helical Springs

ENGINEERED IN CHINA • BUILT FOR GLOBAL INDUSTRY • REPORT TIME: 2026



Precision Elastic Components — Beyond Springs

From standard components to engineered elastic solutions.

SUNZO combines manufacturing depth, engineering support and responsive customization to help industrial customers control load, preload, deflection and installation space.

ENGINEERING

Design • Simulation • Optimization

MANUFACTURING

Integrated production & process control

QUALITY

Dimensional • Force • Fatigue • Material testing

GLOBAL SUPPORT

Fast RFQ • Customization • Export-ready communication



Built on manufacturing depth. Driven by engineering.

Selected facts from SUNZO's current company profile.

2006

SUNZO founded in Yangzhou

2014

Sihong production base started operation

2018

Strategic investment from CNNC

2024

Annual output value exceeded RMB 100M

2025

Annual revenue exceeded RMB 120M

1,000+

High-end manufacturing enterprises served

Complete industrial chain from raw materials to finished elastic components, supported by self-developed production lines and an in-house testing capability.

From component supply to engineering solution

One supplier for standard parts, custom parts and elastic-component development.

01 STANDARD COMPONENTS

Disc springs • Wave springs • Belleville washers

02 CUSTOM COMPONENTS

Custom disc springs • Wave springs • Helical springs

03 SPRING DEVICES

Customized spring devices and elastic assemblies

04 STRUCTURAL DESIGN

Flexible-component design • Optimization • Simulation

05 R&D COLLABORATION

Product development • Process innovation • Joint projects

06 TESTING & ANALYSIS

Performance testing • Failure analysis • Verification

Disc Springs

High load. Compact installation. Tunable spring characteristics.



CORE RANGE

- DIN 2093 Disc Springs
- DIN 6796 / Belleville Washers
- Bearing Preload Disc Springs
- Double-Slotted Disc Springs
- High-Torque & Ultra-High-Torque Disc Springs
- Valve Disc Springs & Other Custom Designs

Application value

High load with minimal deformation • Axial preload • Compact packaging • Series / parallel / compound stacking

Forged Disc Springs

A solution path for demanding load, fatigue and durability requirements.



WHY FORGED?

- Designed for demanding applications where material integrity and durability matter.
- Supported by controlled heat-treatment processes and metallographic verification.
- Mechanical-property and fatigue testing can be integrated into product validation.
- Custom geometry and engineering development available for non-standard requirements.

Engineering message: Design → Process → Test → Validate

DIN 6796 Belleville Washers

Elastic preload for bolted joints and fastening systems.

PRELOAD CONTROL



VALUE FOR DISTRIBUTORS & OEMs

- Standardized product for fastening and preload applications.
- Helps compensate dimensional variation and maintain elastic preload.
- Natural fit for fastener distributors, industrial OEMs and automotive supply chains.
- Standard + custom sourcing from one elastic-component partner.

DIN 6796 | PRELOAD | FASTENING | STANDARD PARTS

Wave Springs

Axial preload and controlled force in tight spaces.



CONFIGURATIONS

- Closed / Open Single-Layer
- Partially Overlapping Single-Layer
- Stacking Multiple Layers
- Peak-to-Valley Multi-Layer
- Internally Stacked Multi-Layer
- Supporting-ring configurations

Key advantages

Compact footprint • Lower material usage • Stable axial preload • Adjustable stiffness through geometry and layer count

Helical Springs & Custom Elastic Components

Beyond standard parts — engineered around the customer's application.



CUSTOMIZATION CAPABILITY

- Custom disc spring components
- Helical / coil springs
- Spring devices and damping components
- Special materials and application-specific designs
- Prototype machining and development support
- Drawing-based quotation and technical review

Customer input → Design review → Prototype → Validation → Mass production

Integrated Process Capability

A controlled manufacturing chain supports consistency from material to finished component.



01 Material & forming

02 Turning / grinding

03 Heat treatment

04 Shot peening / surface treatment

05 Automatic screening

06 Final inspection

Measure what matters. Validate what matters.

Quality is built into process control, inspection and performance verification.



TESTING & INSPECTION

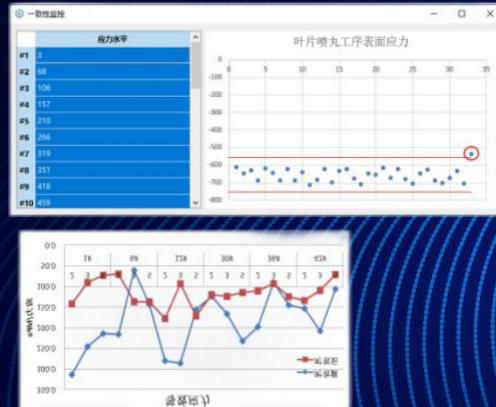
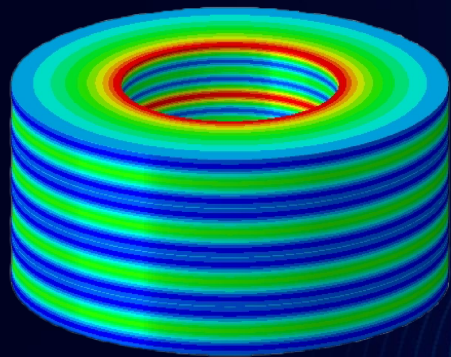
- Dimensional & geometric tolerance inspection
- Force-value characteristic detection
- Material composition & hardness testing
- Metallographic & heat-treatment analysis
- Fatigue, creep and salt-spray testing
- Surface roughness & non-destructive testing

Management systems include ISO 9001, IATF 16949 and ISO 14001, alongside R&D and occupational health & safety systems.

Simulation + Testing + Iteration

Engineering support helps reduce development risk for non-standard and demanding applications.

Technical fields include mechanics, materials, heat treatment, mechanical design, metallurgy, composite materials, lightweight design, failure analysis, numerical simulation and mold design.



DESIGN

Mechanical derivation + engineering calculation



SIMULATE

Finite element analysis + optimization

VALIDATE

Dimensional, material, mechanical & fatigue verification

Elastic Components for High-Value Industrial Systems

From fastening and motion to precision machinery and demanding environments.

FASTENING

Preload • Compensation • Joint reliability



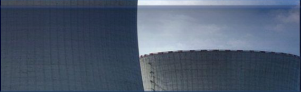
BEARINGS

Axial preload • Limited space • Precision



MACHINE TOOLS

Spindles • Precision mechanisms • Tooling



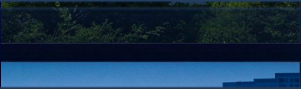
AUTOMOTIVE

Powertrain • Chassis • New energy vehicle systems



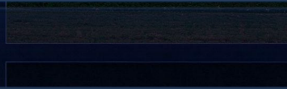
AEROSPACE

High-performance elastic components



VALVES & SEALS

Preload • Sealing support • High-cycle applications



ENERGY

Nuclear • Power transmission • Wind • Hydrogen



PRECISION MACHINERY

Compact force control • Damping • Custom assemblies



Why SUNZO as your elastic-component partner?

A practical sourcing proposition for fastener, industrial and precision-component distributors.

COMPLETE RANGE

Disc springs + DIN 6796 + wave springs + helical springs

CHINA COST ADVANTAGE

Competitive manufacturing base without giving up engineering sup

CUSTOMIZATION

Drawing-based design, prototype and production

RELIABLE LEAD TIME

Integrated manufacturing and process control

TECHNICAL SUPPORT

Application review, simulation and testing

SECOND SOURCE

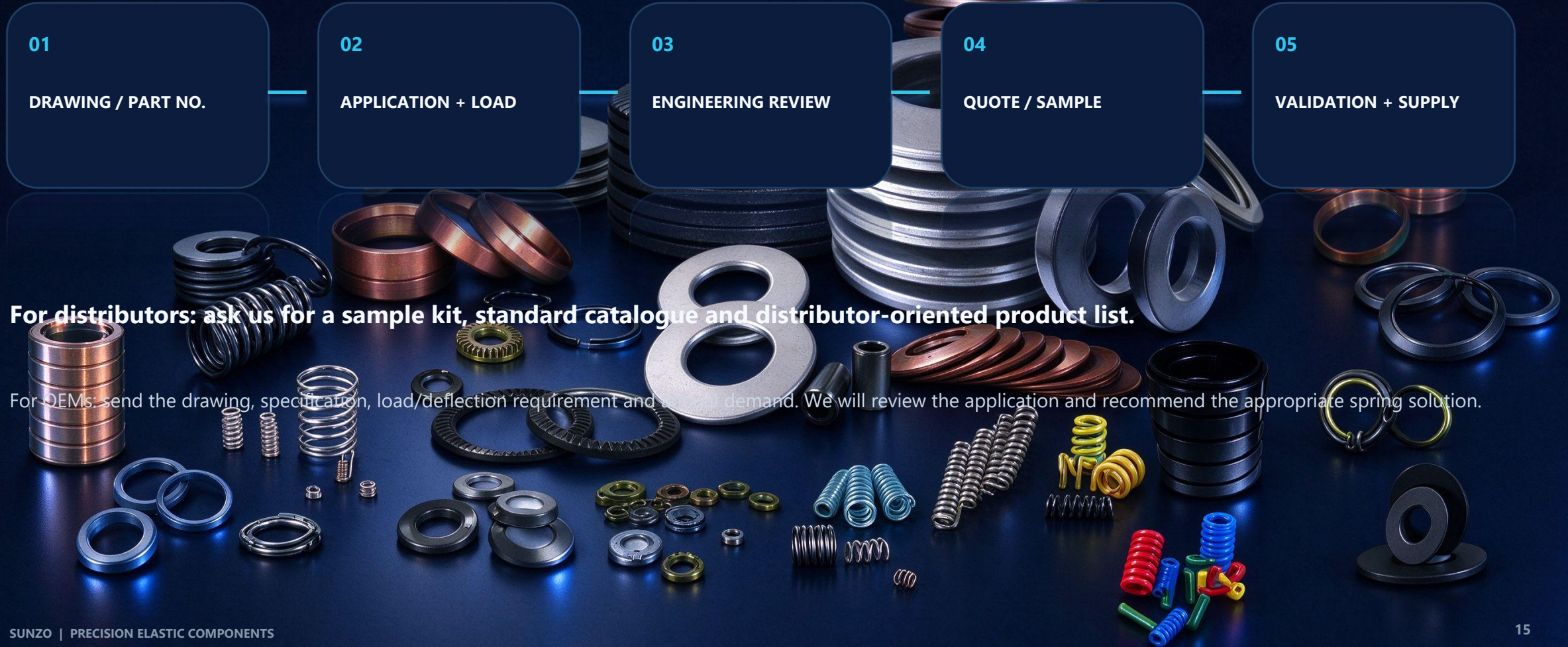
A qualified option for supply continuity and cost optimization

Positioning statement

ENGINEERED IN CHINA. BUILT FOR GLOBAL INDUSTRY.

Send Us Your Drawing

Turn a part number, drawing or application challenge into an engineered elastic solution.



Let's Build the Right Elastic Solution

SUNZO Spring Elasticity Technology

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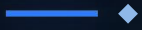
www.sunzosprings.com

Products

Disc Springs • DIN 6796 Belleville Washers
Wave Springs • Helical Springs • Custom Elastic Components

Your China Partner for Precision Elastic Components



A short horizontal blue line followed by a small white diamond shape.

Partner with SUNZO

Harnessing Compact Power,
Empowering Your Performance

ENGINEERED IN CHINA •
BUILT FOR GLOBAL INDUSTRY

