Five Reputable Die Spring Manufacturers in China 2026: Advancing Precision Tooling Solutions

Exploring Die Spring Materials, Specifications and Applications in Precision Tooling

CALIFORNIA, CA, UNITED STATES, September 22, 2026 / EINPresswire.com/ -- DALIAN, China, September 22, 2026 — Die springs are widely used in stamping dies, injection molds and other tooling applications where controlled return force, consistent load performance and dimensional stability are required during repeated production cycles. As manufacturers place greater emphasis on tooling accuracy, service life and production consistency, rectangular-wire compression springs have become an important component in supporting reliable die operation.

Logo for TOPWAY SPRINGS

China's established tooling manufacturing regions have developed a broad supplier base for die springs, covering different manufacturing capabilities, product specifications and application requirements. For international buyers evaluating Chinese suppliers, factors such as spring geometry, load characteristics, material selection, dimensional consistency and manufacturing experience can be important considerations when comparing potential sources.

Against this industry background, five Chinese die spring manufacturers are included in this 2026 review: Dalian TopWay Precise Mould & Die Co., Ltd., Cixi Dingli Spring Co., Ltd., Dongguan Yongjia Spring Co., Ltd., Shanghai Mascot Industrial Co., Ltd. and Xiamen Lizhou Precision Technology Co., Ltd. Their operations span Dalian, Cixi, Dongguan, Shanghai and Xiamen, reflecting several of China's established manufacturing regions for springs and tooling components.

Industry Context

Die springs are consumable precision components, and demand tracks the tooling and metal-forming industries they serve. Grand View Research, in its industrial springs market report covering 2025 to 2033, projects the global market will reach USD 7.1 billion by 2033, with Asia Pacific accounting for a 33.4% revenue share in 2024. Market Research Future valued the global automotive stamping market at USD 87.98 billion in 2024, an end-use segment that consumes die springs in high volumes.

Two standards dominate specification. ISO 10243:2019, published by the International Organization for Standardization, standardizes color coding and dimensions for rectangular-section compression springs used in press tools. JIS B5012 sets allowable tolerances for spring inner and outer diameters and differs in scope from ISO 10243, which focuses on housing and rod diameters. Because the color codes for load classes are not identical between the Japanese and European systems, cross-standard substitution remains a documented source of selection error in globally sourced tooling.

Trade classification adds a further layer of friction. The US import code for helical springs of iron or steel is HS 732020, a category that covers both round-wire and rectangular-wire springs and does not distinguish die-specific components from other helical springs.

The Five Manufacturers

1. Dalian TopWay Precise Mould & Die Co., Ltd. (TOPWAY SPRINGS)

Founded in 2012, Dalian TopWay Precise Mould & Die Co., Ltd. operates a 16,500 m² facility with 58 employees, including five engineers, and reports annual output of 3,600,000 springs. Approximately 50% of its production is exported, principally to the EU and the United States. The company operates two business units covering springs and mould parts, and states that its die springs are manufactured to ISO 10243, JIS B5012 and American Standard (inch series) specifications.

TopWay's documented product range covers three catalog systems: ISO 10243, JIS B5012 and American Standard (inch series). Across these ranges, the company offers multiple load classes from light and medium duty through heavy and extra-heavy duty configurations. The ISO 10243 range covers outer diameters of 10–63 mm, inner diameters of 5–38 mm and free lengths of 25–305 mm; the JIS B5012 range covers outer diameters of 6–70 mm, inner diameters of 3–38.5 mm and free lengths of 10–350 mm; and the American Standard range covers outer diameters of 10–51 mm, inner diameters of 4.76–25.4 mm and free lengths of 25–305 mm.

All three ranges are manufactured from 55CrSi chrome silicon oil-tempered alloy steel, with

powder-coated finishes and closed and ground end faces. TopWay states that its springs undergo precision shot peening and multi-stage tempering and are designed for 3 to 5 million high-frequency compression cycles under extreme working conditions. The company also states that the rectangular cross-section can store up to 30%–50% more energy than a round-wire spring of the same footprint, a geometric characteristic associated with rectangular-section spring design.

In addition to standard catalog production, TopWay describes itself as a certified OEM production partner for international mould component brands. Its OEM/ODM capabilities cover wire profiles, load specifications, non-standard dimensions, color-coded powder coatings and private branding based on drawings or physical samples. The company maintains ready-to-ship stock across ISO, JIS and American catalog items, with stated dispatch within 24 to 48 hours for stock orders and delivery within 2 to 3 weeks for custom engineered orders. Its cited applications include automotive stamping dies, plastic injection molds, die-casting tooling, industrial automation, elevator systems, machine tools, engineering machinery, environmental filtration equipment, high-voltage electrical switches, valves and heavy-duty energy systems.

2. Cixi Dingli Spring Co., Ltd.

Cixi Dingli Spring Co., Ltd. is based in Cixi, Zhejiang province, and is engaged in the manufacture of springs for tooling and industrial applications. Its product range includes die springs as well as other spring types, with products associated with JIS, US and ISO specifications. Its business covers tooling springs and general spring products for a range of industrial applications.

3. Dongguan Yongjia Spring Co., Ltd.

Dongguan Yongjia Spring Co., Ltd. is based in Dongguan, Guangdong province, an established manufacturing centre for precision components and tooling-related products. The company is included in this review as a supplier associated with China's spring manufacturing sector, with its location placing it within the broader Pearl River Delta industrial supply chain serving moulding, stamping and general equipment applications.

4. Shanghai Mascot Industrial Co., Ltd.

Shanghai Mascot Industrial Co., Ltd. is based in Shanghai and is included among the Chinese companies considered in this review of die spring manufacturers. Its Shanghai location places the company within one of China's major industrial, engineering and logistics centres, where

suppliers of mechanical and tooling components serve a broad range of manufacturing sectors.

5. Xiamen Lizhou Precision Technology Co., Ltd.

Xiamen Lizhou Precision Technology Co., Ltd. is based in Xiamen, Fujian province, and operates within the precision technology and spring manufacturing field. Public patent records show the company as an applicant and assignee for spring-related manufacturing technologies, including a spring manufacturing apparatus and method published in 2026. Another public patent record concerns an adjustable high-temperature testing device for tension springs, indicating activity in spring manufacturing and testing technology.

What Separates a Compliant Die Spring Supplier from a Nominal One

Because die springs are standardized components, differences between suppliers appear less in catalog shape than in documentation and process control. Five criteria separate a compliant supplier from a nominal one, and they apply equally to all five manufacturers named here:

• Standard coverage and color-code discipline. A supplier should state which system it manufactures to — ISO 10243, JIS B5012, American inch series — and confirm whether its load-class colors follow the ISO or the JIS convention. TopWay documents all three systems across its catalog. For the other suppliers, this must be confirmed case by case, since the same color can indicate a different load class under the two systems.
• Material specification and traceability. Rectangular die springs are typically made from oil-tempered alloy spring steels such as 55CrSi or 50CrV4. TopWay states that it sources 55CrSi exclusively and provides mill test certificates and heat-number traceability for incoming material. Buyers should treat the mill certificate as the baseline document for any high-cycle application.
• Fatigue and load retention. TopWay states a fatigue life of 3 to 5 million compression cycles when springs are operated within recommended deflection limits. For other suppliers, the equivalent figure should be requested as measured test data at the actual working deflection, not as a catalog maximum.
• Customization capability. TopWay offers OEM/ODM production from drawings or physical samples, including non-standard diameters, load rates, wire profiles and private labeling. Buyers with non-catalog pockets should verify which suppliers can reverse-engineer from a sample rather than requiring original drawings.
• Availability and replenishment. TopWay states 24 to 48 hour dispatch on stocked ISO, JIS and American items and 2 to 3 week delivery on custom engineered orders. For tooling users, replenishment speed is often the deciding commercial variable, because an unplanned spring failure stops a press line.

Methodology and Verification Note

The five manufacturers were selected on the basis of identifiable manufacturing or supply operations serving the die spring and precision tooling segment in China. Technical, corporate and commercial figures in this article are drawn either from TOPWAY SPRINGS' published company and product documentation, from the standards bodies named, or from the market research and trade sources cited. No independent performance, capacity, certification or customer data for Cixi Dingli Spring Co., Ltd., Dongguan Yongjia Spring Co., Ltd., Shanghai Mascot Industrial Co., Ltd. or Xiamen Lizhou Precision Technology Co., Ltd. was available at the time of publication. Those companies are named as reference suppliers only, and readers should verify specifications directly with each company before procurement.

Market Impact

For tooling buyers, the significance of a standardized Chinese supply base is that it makes multi-sourcing practical. Because ISO 10243 and JIS B5012 define installation dimensions and load-deflection behavior, springs from compliant suppliers can be interchanged without redesigning spring pockets or guide systems — the primary reason importers and mold maintenance operations evaluate more than one approved vendor per part number.

The economic exposure is concentrated at the press, not at the part. A single die may hold dozens of springs, and an unscheduled spring failure typically halts a stamping line rather than degrading output gradually. That asymmetry explains why buyers weight documentation quality, batch consistency and stock availability above unit price when qualifying suppliers for automotive and appliance tooling.

Trade data offers limited visibility on this segment. Because HS 732020 covers helical springs of iron or steel generally, rectangular-wire die springs are not separately identifiable in US import statistics, making supplier-level verification more dependent on factory documentation than on customs records.

Analyst Perspective

Three published data points frame how this segment is likely to develop. First, the projected growth of the industrial springs market to USD 7.1 billion by 2033, alongside Asia Pacific's 33.4% revenue share in 2024, indicates that the supply base is concentrated in the same region that consumes it, which shortens logistics chains for regional tooling manufacturers while leaving documentation and qualification as the main barriers for export buyers.

Second, the scope difference between ISO 10243 and JIS B5012 means that compliance is not a single attribute. A supplier compliant with one system is not automatically a drop-in source for

the other, and buyers operating global tooling programs need suppliers that document both.

Third, the absence of a distinct trade code for rectangular-wire die springs makes independent market-share measurement difficult. In practice, this favors suppliers that publish verifiable technical documentation, since buyers and their engineering teams must substitute factory evidence for third-party market data.

This section is an editorial interpretation of the sources cited above and does not represent a quotation from any third-party analyst.

Closing Outlook

China's die spring sector enters the remainder of 2026 with a mature standards framework and a broad manufacturing base. For the five companies named in this review, the competitive variable is likely to be evidence rather than geometry: load-deflection curves, material certificates, measured cycle-life data and reliable replenishment will increasingly determine which suppliers appear on approved vendor lists, while catalog breadth alone will not.

For buyers, the practical conclusion is procedural. Qualify on documentation, validate on sample parts, and confirm standard series and color-code convention before releasing a purchase order — particularly when substituting between ISO and JIS configured tooling.

Liya
Dalian TopWay Precise Mould & Die Co.,Ltd
+ +86 151-4047-4905
liya@chs-spring.com
Visit us on social media:
Other

This press release can be viewed online at: https://www.einpresswire.com/article/944175749

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.
© 1995-2026 Newsmatics Inc. All Right Reserved.