

QIYI Fastener: Precision Custom Fasteners & Expert Roll Pin Size Guidance for Global Industries

QIYI Fastener delivers custom fasteners, standard components and expert guidance on roll pin sizes for construction, machinery and automotive sectors.

YUEQING, ZHEJIANG, CHINA, July 21, 2026 /EINPresswire.com/ -- Across construction, machinery manufacturing, electronics assembly and new energy automotive production, high-precision fasteners serve as the foundational connection components that directly determine structural reliability, equipment lifespan and operational safety. As global supply chains increasingly prioritize consistent quality, standard compliance and custom engineering support, [QIYI Fastener](#) has established itself as a trusted manufacturing partner for clients worldwide, delivering both off-the-shelf standard fasteners and tailored custom solutions.

1.About QIYI Fastener: Factory-Direct Precision Fastener Manufacturing

Yueqing Qiyi Fastener Co., Ltd. is a specialized fastener manufacturer operating a 3,000㎡ in-house production facility with over 20 years of accumulated industry expertise. The company employs more than 30 professional technicians and offers over 200 product types, serving 10+ core application industries globally.



qiyi-fastener :a trusted manufacturer and supplier of high-quality fasteners



custom-fasteners

Its core product portfolio covers bolts, nuts, screws, washers and custom-engineered fastening components, all manufactured to comply with leading international standards including ISO, DIN and ANSI. Rigorous end-to-end quality control ensures consistent dimensional accuracy, material performance and fatigue reliability across every batch.

These fasteners are deployed across a wide range of high-demand sectors:

Construction: As core structural connection components for building frameworks, curtain walls and industrial facilities

Machinery: Securing critical parts including gears, bearings, housings and support structures

Electronics: Fixing PCB boards, chip modules, enclosures, connectors and heat dissipation components

New energy: Fastening battery packs, motor systems and electronic control units in electric vehicles

QIYI Fastener differentiates itself through six core service advantages:

Technical guidance: Professional engineers provide free fastener solution design and installation support

Quality assurance: Full compliance with ISO, DIN and ANSI international standards

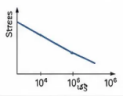
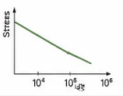
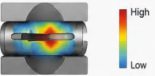
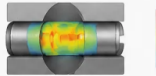
Fast delivery: 12-hour dispatch guarantee for commonly used standard specifications

Private customization: Full support for custom fastener development with free solution planning

Free samples: Complimentary samples available for all regular standard products

2.Customer-first support: Full-cycle issue resolution, with a company-wide culture of prioritizing customer satisfaction

Slotted (Roll Pin) vs. Coiled (Spring Pin) Comparison

Parameter	Slotted (Roll Pin)	Coiled (Spring Pin)
Fatigue cycles 10^4-10^5   10^5-10^6  		
Stress distribution Localized at gap  Distributed across layers 		
Vibration stability Medium  High 		
Failure mode Crack propagation  Gradual plastic deformation 		
Typical applications Light assemblies, hinges  Gearboxes, motor shafts, joints 		
Relative cost Low \$ Moderate-High \$ \$		

Note: Performance may vary depending on material, design, and application conditions.

roll-pin-sizes



T-nut-with-spring-leaf

[Custom Fasteners](#): Tailored Solutions for Specialized Project Requirements
Beyond comprehensive standard product lines, QIYI Fastener's strongest competitive capability lies in its Custom Fasteners engineering service, designed to solve non-standard fastening challenges for specialized industrial applications.

The company's custom product portfolio covers multiple functional categories to fit aluminum profile framing, industrial automation, equipment cabinetry and specialty assembly systems:

Profile fastening systems: Including hammer nuts, spring ball T-nuts, spring leaf T-nuts and T-bolts, available in custom slot widths, thread pitches and spring parameters to match all major aluminum profile series



Right Angle Bracket RB-36-50-40

Structural connection components: Including concealed 3-way corner connectors, pivot joints and T-slot bars, customizable for specific load ratings, dimensions and material grades

Functional hardware accessories: Including hidden pull handles, nylon ball catches, flange mount caster base plates and aluminum base plates, engineered to meet custom equipment cabinet and automation assembly requirements

All custom projects follow a structured development workflow: client requirement submission → engineering feasibility assessment → prototype production and validation → mass manufacturing. The in-house engineering team works directly with clients to refine designs, optimize material selection and ensure final products perfectly match project specifications. This capability has made QIYI a trusted supplier for custom fastening projects in the automotive, robotics and new energy industries.

3. Understanding [Roll Pin Sizes](#): Engineering-Guide Selection for Reliable Performance

For precision assemblies including gearboxes, motor shafts, robotic joints and indexing systems, selecting the correct Roll Pin Sizes is critical to ensuring connection stability, vibration resistance and long-term fatigue life. Improper sizing is one of the most common causes of premature fastener failure, fretting wear and unexpected downtime.

Roll pins (also known as elastic pins) are cylindrical interference fasteners that create retention force through radial spring deformation after installation. They fall into two primary categories, each with standardized size systems:

Slotted roll pins: Standardized under ISO 8750 and DIN 1481, with nominal diameters ranging from 1.5mm to 20mm. Their simple slotted design delivers cost-effective fastening for light-to-medium load applications.

Coiled spring pins: Standardized under ISO 8748 and ISO 8752, with the same diameter range but multi-layer coiled construction for superior fatigue performance.

Three core sizing principles ensure reliable performance:

Interference fit tolerance: Optimal interference ranges from 0.01mm to 0.03mm, adjusted based on base material. Aluminum housings require tighter tolerance control to avoid deformation, while cast iron housings carry risk of cracking if interference is excessive.

Size-to-performance correlation: Larger diameter and thicker wall pins deliver higher shear strength but require greater insertion force. Light-duty hinge assemblies typically use smaller slotted pins, while high-vibration motor shaft and gearbox applications require larger coiled spring pins for extended fatigue life.

Application-specific sizing: Under cyclic vibration conditions, coiled spring pins deliver 10x the fatigue life of slotted pins of the same outer diameter, making them the preferred choice for dynamic load scenarios even at a slightly higher unit cost.

QIYI Fastener manufactures approximately 12 million elastic pins annually using advanced cold-forming equipment, automated heat-treatment ovens and digital CMM inspection stations. Its engineering team supports clients with full sizing guidance, including material selection, interference fit calculation and failure analysis. In one real-world case, an electric vehicle manufacturer switched from standard slotted pins to QIYI-recommended coiled pins with optimized sizing, resulting in a 70% reduction in component failure rates and a 40% drop in warranty claims.

4.Frequently Asked Questions

Q: Is QIYI Fastener a direct manufacturer or a trading company?

A: QIYI Fastener (Yueqing Qiyi Fastener Co., Ltd.) is an original fastener manufacturer with its own 3,000㎡ production facility, in-house R&D team and complete quality inspection systems. We produce both standard fasteners and custom components directly, ensuring factory-direct pricing and full end-to-end quality control over every product.

Q: What types of custom fasteners does QIYI Fastener support?

A: We support full custom fastener solutions including T-bolts, hammer nuts, spring-loaded T-

nuts, pivot joints, corner connectors, base plates and other specialized fastening components. Customization covers dimensions, materials, surface treatments and performance parameters to fit specific project requirements. Our engineering team provides free solution design based on your drawings or application needs.

Q: What standard sizes are available for roll pins?

A: Our roll pin portfolio covers both slotted roll pins and coiled spring pins in full standard sizes, with nominal diameters ranging from 1.5mm to 20mm and customizable lengths. All products comply with ISO 8750, ISO 8752 and DIN 1481 international standards, with strict tolerance control for interference fit. We also provide custom-sized roll pins for special application scenarios.

Q: How do I choose the correct roll pin size for my application?

A: The optimal roll pin size depends on your bore diameter, load requirement, vibration level and base material. As a general rule, select a pin with 0.01–0.03mm interference fit relative to the bore. For light-load, low-vibration scenarios, slotted roll pins are a cost-effective choice; for high-vibration, high-cycle applications such as motor shafts and gearboxes, coiled spring pins with higher fatigue resistance are recommended. Our technical team can provide free sizing guidance based on your specific working conditions.

Q: Do you offer free samples and what is your minimum order quantity?

A: Yes, we provide free samples of regular standard fasteners for quality evaluation. For international bulk orders, we do have a minimum order quantity requirement. If you need smaller quantities for resale or trial use, please contact our sales team for available options.

Q: What is QIYI Fastener's quality and warranty policy?

A: All our products comply with ISO, DIN and ANSI international standards, with rigorous in-process and final quality inspection. We warrant our products against material and workmanship defects. It is our company culture to address and resolve all customer issues to full satisfaction, whether within the warranty period or not.

5. Final Thoughts

While fasteners are often considered small, low-profile components, their quality and suitability directly determine the long-term reliability, safety and maintenance cost of industrial equipment and construction projects. Partnering with an experienced, vertically integrated manufacturer ensures consistent product quality, responsive technical support and cost-effective custom solutions.

With over 20 years of industry expertise, a comprehensive standard product portfolio, mature custom engineering capabilities and a customer-first service philosophy, QIYI Fastener delivers reliable fastening solutions for clients across construction, machinery, electronics and new energy automotive industries worldwide. Whether you are sourcing standard fasteners in bulk, developing custom components for a specialized project, or seeking expert guidance on roll pin

sizes and selection, the QIYI team provides end-to-end support from initial consultation through after-sales service.

To explore the full product catalog, download technical specifications or request a customized quote, visit the official website or contact the international sales team today.

Qiyi Fastener

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