

U-Bolt Fasteners Manufacturer: Types, Materials & Export Capabilities

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July 21, 2026 · loginxiao@gmail.com

Key Takeaways

098 - Lifting Eye Bolt — GB/T 825 □ DIN 580 (Series 037) — GB/T 825 □ DIN 580

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- U-bolts serve critical roles in pipe support, suspension, and structural clamping across industrial sectors.
- Round, square, and semi-round configurations accommodate different mounting surfaces and load distributions.
- Material selection spans carbon steel to high-strength alloy and stainless grades, with finishes matched to the operating environment.
- A capable fastener exporter provides batch traceability, testing certifications, and compliance with ISO 9001 or IATF 16949.
- Buyers should specify thread type, leg length, material grade, and finish to ensure proper fit and longevity.

Industrial U-Bolt Production for Complex Fastening Requirements

107 - Heavy Hex Socket Head Cap Screw — GB/T 1228 □ ASTM A325 (Series 046) — GB/T 1228 □ ASTM A325

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A reliable supply of [u bolt](#) fasteners is critical for projects that demand secure clamping of pipes, tubes, cables, and structural members. The manufacturer featured here specializes in producing u bolt fastener solutions that address the exacting needs of B2B buyers—from MRO and construction to automotive and heavy equipment. By combining high-strength materials, precision manufacturing, and flexible customization, this supplier helps procurement teams eliminate supply chain friction while meeting rigorous application standards.



► Watch video: <https://www.youtube.com/watch?v=C1WjMmEVhfs>

U Bolts Explained: The Strong and Reliable Fastening Solution Part 1— by TTF POWER on YouTubeU bolts are an essential hardware component widely used in various industries. Named after their distinctive U-shaped form, Uu00a0a0...

Whether the requirement is for a standard carbon steel u bolt or a fully custom stainless assembly with PTFE coating, the focus remains on delivering parts that perform under vibration, temperature extremes, and corrosive exposure.

Core Production Capabilities and Capacity

The production facility operates integrated lines for cold heading, thread rolling, heat treatment, and surface finishing, enabling full in-process control. High-speed thread rollers and multi-station cold formers achieve tight dimensional tolerances for large-scale runs, while CNC-controlled bending equipment allows rapid changeover for custom shapes and non-standard leg lengths. Automated optical sorters and eddy current testing modules are deployed inline to catch defects before parts leave the line.

Available capacity supports both high-volume orders and smaller, specialized batches, with typical annual output reaching millions of pieces. The manufacturer routinely works with property classes 8.8, 10.9, and 12.9 for carbon and alloy steels, and stainless grades A2 and A4, all processed according to internationally recognized material standards.

Product Scope and Customization Breadth

Standard U-bolt configurations cover round bend, square bend, semi-round, and saddle types, with thread sizes commonly ranging from M6 to M30 (and equivalent imperial dimensions). However, the supplier's strength lies in its ability to engineer application-specific fasteners. Custom splined, flattened, or stepped legs, as well as special coatings like hot-dip galvanizing, Geomet®, or zinc-nickel, are frequently provided.

Material options span carbon steel, 304 and 316 stainless, duplex stainless, and high-tensile alloys. Beyond the bolt itself, many buyers source complete assemblies that include nuts, washers, and even clamp blocks, all manufactured to match the exact geometry of the mating component. This level of customization reduces onsite assembly time and ensures consistent performance across large inventories.

Export Experience and Global Market Reach

With a well-established export framework, the manufacturer serves procurement hubs across North America, Europe, the Middle East, and Southeast Asia. Shipments are documented with FOB/CIF terms, full packing lists, and certificates of origin, while compliance with regional standards—such as REACH and RoHS—is managed proactively. Packaging is designed for sea freight durability, with corrosion-inhibiting VCI paper and sealed crating used for long transit times.

Buyers often comment on the smooth handling of international logistics, with dedicated export coordinators who track orders from P.O. to delivery and provide timely updates. This reliability makes the supplier a go-to partner for multinational contractors and distributors requiring consistent quality across borders.

Quality Systems, Compliance and Certifications

A robust quality management system, patterned on ISO 9001 principles, governs every stage from raw material receiving to final inspection. For automotive and demanding industrial clients, advanced quality planning tools (such as PPAP) and full material traceability are standard offerings. Mill test certificates, hardness readings, and dimensional reports accompany each shipment, with optional third-party verification upon request.

Thread conformity is validated against ASME B1.1 or ISO metric reference standards, while mechanical properties align with ISO 898-1 for steel fasteners and ISO 3506 for stainless. Although the supplier does not maintain IATF 16949 certification in its own name, it regularly meets the supplier quality requirements of Tier 1 automotive manufacturers through rigorous process controls and approved subcontractor networks.

Why Procurement Teams Partner with This Supplier

Beyond technical capability, two factors drive long-term sourcing relationships: communication and dependability. Every inquiry receives a detailed technical review, with feedback on manufacturability and lead time within 24–48 hours. Order tracking, change-order flexibility, and dedicated account management give buyers confidence that shipments will arrive as planned.

Traceability is embedded in the workflow: laser-marked batch codes enable full backtracking to the original heat of steel. This is invaluable for sectors where documentation is non-negotiable, such as energy, rail, and heavy machinery. The supplier's investment in automated packaging and labeling also supports seamless receipt into buyer warehouses, saving time and reducing errors at the point of use.

Request a Capability Deck or Custom Quote

To explore how this manufacturer can support your next project with reliable u bolt fasteners, request a capability deck and tailored quote. The sales engineering team is ready to review your drawings, specifications, and application requirements to

propose an optimal solution—whether you need a repeat order of standard U-bolts or a complex custom assembly.

U-Bolt Types, Materials & Selection for Industrial Use

U-bolt fasteners are engineered to secure pipes, tubes, and cylindrical components in industrial piping, automotive suspension, and structural support applications. A clear understanding of available configurations, material grades, and selection criteria enables buyers to specify parts that meet load, environmental, and regulatory demands.

Major U-Bolt Configurations

The most common U-bolt types include **round bend** for standard pipe support, **square bend** for flat surface clamping, **semi-round** for irregular profiles, and **long tangent** for leaf spring assemblies. Round bend U-bolts, often produced to DIN 3570 dimensions, are widely used in plumbing and chemical processing. Square bend variants are preferred in structural frameworks, while long tangent designs suit heavy-duty vehicle suspension. For cable clamping applications, a [Wire Rope Clip \(U-Bolt\) — ISO / DIN \(Series 157\)](#) configuration offers a specialized gripping function.

Material Options for U-Bolt Fasteners

U-bolts are manufactured from **carbon steel** (property classes 4.6, 8.8 per ISO 898-1), **alloy steel** (up to 10.9), and **stainless steel grades A2-70 (304) and A4-80 (316)** for enhanced corrosion resistance. Carbon steel is commonly chosen for general industrial applications, while stainless A4 is specified for marine or chemical environments. High-strength alloy variants serve demanding suspension and heavy machinery roles.

Finishes and Corrosion Protection

Surface treatments extend service life. **Hot-dip galvanizing (HDG)** to ASTM A153 provides robust outdoor protection, **zinc electroplating** to ASTM B633 offers economical indoor resistance, and **plain (as-forged)** or **passivated** finishes are used where subsequent painting or minimal corrosion risk exists. Mechanical galvanizing is an alternative for parts requiring uniform coating without hydrogen embrittlement risk.

Industrial Applications at a Glance

- **Piping and plumbing:** Securing process pipes in oil & gas, power generation, and municipal water systems.
- **Automotive:** Leaf spring attachment on commercial trucks and trailers.
- **Structural:** Anchoring handrails, grating, and cable trays.
- **Marine and offshore:** Corrosion-resistant A4 stainless U-bolts for deck hardware.
- **Rail and infrastructure:** Vibration-resistant clamping in rolling stock and track systems.

Key Facts

- U-bolts are produced in diameters typically from M6 to M64 (or inch equivalents) and can be manufactured to custom lengths and thread sizes.
- Material choices include carbon steel (property class 4.6, 8.8), stainless steel A2/A4, and high-strength alloy steels.

- Common finishes are hot-dip galvanized (HDG) for outdoor use, zinc-plated for general indoor applications, and plain or passivated for stainless.
- Export-ready supplier maintains batch-level traceability with laser marking, full material certifications per ASTM, EN, or ISO standards.
- Customization extends to thread type (coarse, fine, UNF), leg length, plate thickness, and end configurations.

U-Bolt Dimensional and Specification Considerations

When sourcing U-bolt fasteners, buyers evaluate the following comparable attributes as part of their RFQ process:

- **Thread size:** Coarse (UNC) or fine (UNF) threads in imperial; metric coarse and fine series per ISO 68.
- **Material grade:** Carbon steel to property class 8.8 per ISO 898-1, stainless to A2-70 or A4-80, alloy steel to 10.9.
- **Finish:** HDG to ASTM A153, zinc to ASTM B633, or mechanically galvanized.
- **Dimensional tolerance:** Conformity to DIN 3570 or ASME B18.2.1 for U-bolt geometry.
- **Production lead time:** Flexible depending on whether standard or custom; typical lead times accommodate large-volume orders with advance planning.

U-Bolt Fastener Sourcing Overview

Category	Aspect	Details
U-Bolt Configurations	Types	Round bend, square bend, semi-round, long tangent
Materials	Grades	Carbon steel (4.6, 8.8), alloy steel (10.9), stainless steel (A2/A4)
Finishes	Corrosion Protection	HDG, zinc-plated, plain, mechanical galvanizing
Dimensions	Diameter Range	Typical M6–M64 (or inch equivalent)
Standards	Compliance	DIN 3570, ASME B18.2.1, ISO 898-1
Supplier Capabilities	Manufacturing	Cold heading, thread rolling, heat treatment, plating lines
Quality Systems	Certifications	ISO 9001, IATF 16949, PPAP, RoHS/REACH (as applicable)
Export Capabilities	Markets	North America, Europe, Middle East, Asia-Pacific

To discuss your specific U-bolt requirements, request a quote or send your drawings to the engineering team for a tailored proposal.

Frequently Asked Questions

What are the main types of U-bolts?

The primary types include round bend U-bolts for pipes, square bend for flat surfaces, semi-round for irregular profiles, and long tangent for leaf spring assemblies. Each is designed for a specific holding configuration and load.

What materials are U-bolts made from?

Common materials include carbon steel in grades 4.6 to 8.8, alloy steel up to 10.9, and stainless steel such as A2 (304) and A4 (316) for corrosion resistance. Exotic alloys or super duplex may be used for extreme environments.

What are U-bolts used for in industrial applications?

They are widely used to secure pipes in plumbing and petrochemical plants, attach leaf springs in vehicle suspensions, anchor structural components, and hold cable or conduit bundles.

How do I select the right U-bolt for my project?

Consider the pipe outer diameter, required clamping force, environmental exposure, and compliance standards. Then match the U-bolt type, material grade, and finish to the application, and verify thread size and leg length.

What standards apply to U-bolt manufacturing?

Dimensional standards like DIN 3570 and ASME B18.2.1 govern sizing, while material properties follow ISO 898-1 for carbon alloy steel, ASTM A193 for high-temperature, and ISO 3506 for stainless. Many suppliers also comply with PPAP and RoHS/REACH.

Categories [Uncategorized](#)