FB Fasteners

Precision Fasteners for Every Industry

Company Profile

Manufacturing Precision
Fasteners, Bolts & Nuts
Proudly Since 1980

DURABLE COLD HEADING FASTENERS

www.fbbolts.com

Chairman Message

As Chairman of **FB Fasteners,** I am thrilled to reflect on our 45-year journey of growth and excellence. Since our establishment in 1980, we have transformed from a small unit, one cold heading machine, into a prominent leader in high-tensile fasteners. Our commitment to quality and innovation has earned us the trust of major OEMs and allowed us to contribute to key national projects. This has further enhanced our capabilities and market reach, enabling us to represent international brands with even greater technical support and professionalism. Thank you for your unwavering support. Together, we look forward to a future of continued success and collaboration.

M. Faisal Shahzad
Chairman,
FB Fasteners
FShahzad

About us

FB Fasteners is an emerging name in the automotive and engineering sector in Pakistan. It has been in the field since 1980. FB Fasteners' style and reputation, with its superior technical expertise and workmanship are well known amongst the engineering sectors.

FB Fasteners, was formed way back in 1980 with one cold heading machine. It is catering the needs of renowned OEMs and its vendors in the country. This all has come true during the last 45 years of its operation.

Its focus on "total customer satisfaction" has fully geared up to satisfy the customers and is trying hard to exceed their expectations. It is also a representing company of international repute for sales and marketing with all technical backups.

Our Commitment to Quality

At FB Fasteners, quality is at the core of everything we do. Our manufacturing processes are governed by stringent quality control measures, ensuring that every product we deliver meets the highest industry standards. We are dedicated to providing our customers with fasteners that not only meet but exceed their expectations in terms of performance and durability.

Mission

We would always struggle to serve our valued customers with products that reflect the art of excellence in terms of quality and reliability. We would always give priority to customer satisfaction, which is the only qualification to make achievements

Vision

We would create an environment of leadership at the workplace in order to promote a built-in class of eagerness and creativeness. We would promote the trend of continuing efforts to minimize product costs without compromising on quality.

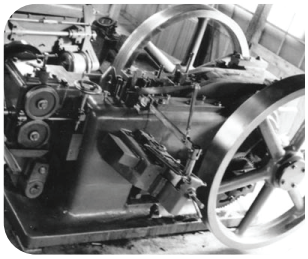
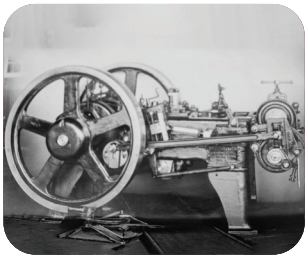
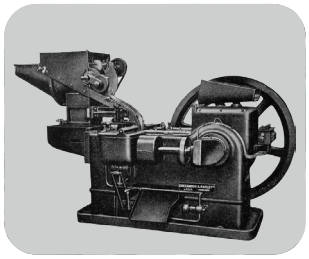
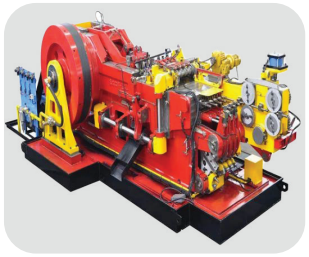
COMPANY HISTORY

Foundation (1980-1990)
Established in 1980 by Muhammad Afzal in Lyallpur, **FB Fasteners** started with a small workshop, quickly gaining a reputation for highquality fasteners.

Growth and Technology (1990-2000)
The 1990s brought expansion and advanced machinery, including cold heading and heat treatment, enhancing production and product range.

Global Expansion and New Leadership (2000 - 2010)
In the early 2000s, the company expanded internationally and, in 2010, Muhammad Faisal Shahzad joined as COO, modernizing operations and diversifying products.

Innovation and Growth (2010-Present)
Under Faisal Shahzad's leadership as CEO, **FB Fasteners** adopted advanced technologies and lean practices, becoming a leading global fastener manufacturer.

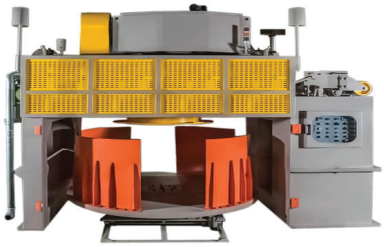





Manufacturing Capabilities

At FB Fasteners, we pride ourselves on utilizing advanced manufacturing technologies and processes to ensure precision, quality, and efficiency. Our commitment to innovation and continuous improvement allows us tomeet the exacting demands of global industries.

State-of-the-Art Machinery

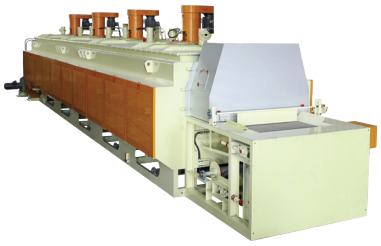
We are equipped with cutting-edge machinery that enables us to produce a wide range of fasteners with high accuracy and consistency, ensuring timely delivery and exceptional product performance. Our key machinery includes:



Wire Drawing Machines: In-house wire drawing capabilities to control material quality and size precision.

Multi-stationBoltFormers: High-speed automatic cold heading machines for precision bolt manufacturing, with capacities ranging from M6 to M16 in diameter and up to 160mm in length.

Flat Thread Rolling Machines: Ensures consistent and accurate threading for bolts across various sizes and standards.



Heat Treatment Furnaces: Capable of quenching, tempering, and carburizing, allowing us to provide a wide range of mechanical properties for our products

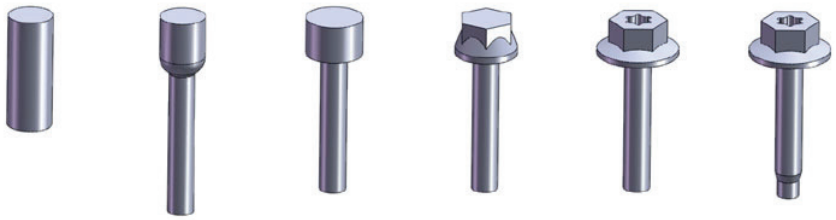
Surface Treatment Expertise Hot-Dip Galvanizing (HDG): Superior corrosion resistance for harsh environments. Zinc Electroplating: Excellent rust protection with a bright finish. Black Phosphate Coating: Improved wear resistance with a sleek, dark appearance.

Precision Engineering & Customization

We offer customized fastener solutions tailored to meet the specific requirements of our clients. Our engineers work closely with customers to understand their unique needs and deliver products that meet the highest standards of performance.

Customization Options: We can accommodate specific designs, dimensions, and materials for bespoke fastener solutions.

Strict Tolerances: Our advanced equipment allows us to produce fasteners with strict dimensional tolerances to meet the most challenging application requirements.



Innovation & Technology

PLC-Controlled Machines: For enhanced precision and efficiency in the production process, ensuring that every batch meets the same high standards.

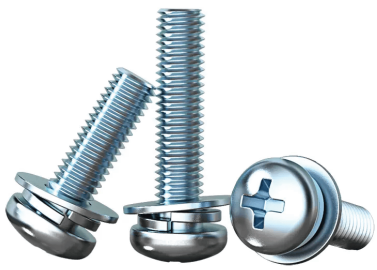
Continuous Improvement: Our team is committed to innovation and regularly updates our processes and machinery to stay at the forefront of the fastener manufacturing industry.

Production Volume & Flexibility

Annual Production Capacity: 1,000 tons of fasteners across various sizes and materials.

Speed & Efficiency: With an average production speed of up to 120 pieces per minute, our operations are designed to handle both small and large batch orders, ensuring quick turnaround times without compromising on quality.

Materials Expertise: We work with a variety of materials, including carbon steel, alloy steel, stainless steel, and more, to cater to diverse industry needs.



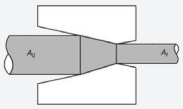
Production Process

RAW MATERIAL SELECTION

The process begins with the selection of high-quality raw materials, typically steel wire rods. These rods are chosen based on the specific requirements of the fasteners.

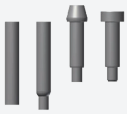
WIRE DRAWING

The selected steel wire rods are then drawn through a series of dies to reduce their diameter to the required size.



COLD HEADING

In the cold heading process, the wire is cut into specific lengths and formed into the desired shape using high-speed, multi-station cold heading machines.



THREAD ROLLING

Thread rolling is a critical step where the threads are formed on the shank of the fasteners. Using advanced German and Japanese thread rolling machines, the blank fasteners are rolled between two dies to create the threads.

HEAT TREATMENT

The formed fasteners undergo heat treatment to enhance their mechanical properties. This step involves:

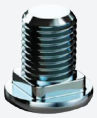
Hardening: Fasteners are heated in atmosphere-controlled furnaces to a high temperature and then rapidly cooled (quenched).

Tempering: The hardened fasteners are reheated in precision electric-controlled tempering furnaces to a lower temperature to reduce brittleness and improve toughness

SURFACE TREATMENT

Surface treatment processes are applied to improve the fasteners' corrosion resistance and aesthetic appearance. Common treatments include:

Zinc Plating
Phosphate Coating
Other Coatings



QUALITY CONTROL

Quality is paramount at FB Fasteners. Rigorous testing and inspection are carried out at each stage of production to ensure compliance with industry standards and customer specifications. This includes:

Dimensional Checks
Tensile Testing
Visual Inspection

PACKAGING

Once the fasteners pass all quality control checks, they are cleaned, dried, and packaged.

SHIPPING

The final step is shipping the products to customers. We ensure timely and secure delivery, leveraging our well-integrated logistics network to reach clients efficiently.

Standards, and Grades

Bolt Grades and Standards

We manufacture bolts in compliance with these international standards:

- **ASTM, AISI, SAE, ISO, DIN, JIS**

Metric Bolt Grades:

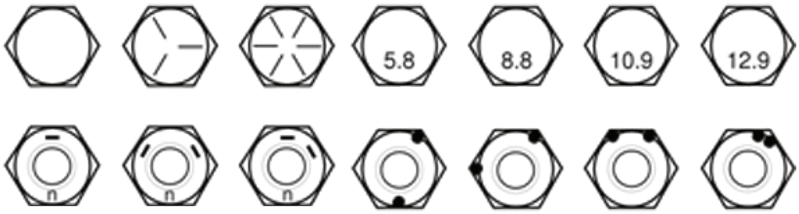
- **4.8, 5.8, 6.8:** General-purpose to medium-strength applications.
- **8.8, 10.9, 12.9:** High-tensile grades for demanding industrial applications.

SAE Bolt Grades:

- **Grade 2, 5, 8:** For general use, automotive, and heavy-duty applications.

Stainless Steel Bolt Grades:

- **A2-70, A2-80:** General corrosion resistance.
- **A4-70, A4-80:** Superior resistance for marine and highly corrosive environments



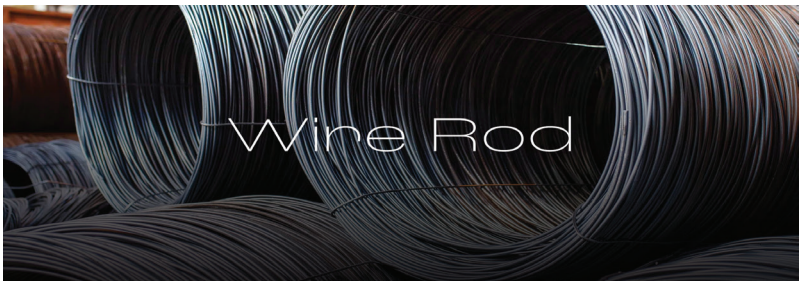
Raw Material Wire Rod Grades

Carbon and Alloy Steel:

- **10B21, 10B33:** Boron steel for high-strength fasteners.
- **SWRCH35K, SWRCH22A:** Carbon steel for general applications.
- **SCM435, 40Cr:** Alloy steel for high-stress environments.
- **Q195, 1018:** Low carbon steel for lower-strength applications.

Stainless Steel:

- **304, 304L:** General corrosion resistance.
- **316, 316L:** Marine-grade for chloride-rich environments.
- **321:** High-temperature resistant.
- **410, 430:** Heat and corrosion-resistant for industrial use.



PRODUCT CATEGORIES WITH STANDARDS

Weld Bolts

Size Range: M6–M16, lengths 12–150 mm (others on request).

DIN Standards: DIN 34817, DIN 34818

ISO Standards: ISO 13918

ASTM Standards: ASTM A108, ASTM A29, ASTM A307 (Grade A – general use)

SAE Standards: SAE J429 (Grade 2, 5, 8)

Hex Bolts

Size Range: M6 to M16, with lengths up to 160mm

DIN Standards: DIN 931, DIN 933

ISO Standards: ISO 4014, ISO 4017

ASTM Standards: ASTM A307 (Grade A & B for general use), ASTM A325 (Structural bolts), ASTM A490 (High strength)

SAE Standards: SAE J429 (Grade 2, 5, 8)

Flange Bolts

Size Range: M6 to M16, with lengths up to 160mm

DIN Standards: DIN 6921

ISO Standards: ISO 4162

ASTM Standards: ASTM F568M (Metric flange bolts), ASTM A193 (B7 bolts for high temperature)

AISI Standards: AISI 304, AISI 316 (Stainless steel grades)

Carriage Bolts

Size Range: M6 to M16, with lengths up to 160mm

DIN Standards: DIN 603

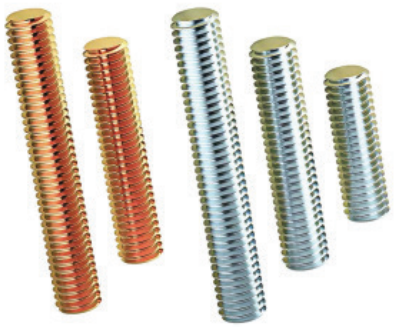
ISO Standards: ISO 8677

ASTM Standards: ASTM A307 (General use)

SAE Standards: SAE J429 (Grade 2)

PRODUCT CATEGORIES WITH STANDARDS

Studs



Size Range: M6 to M16, with lengths up to 160mm

DIN Standards: DIN 975, DIN 976

ISO Standards: ISO 898-1

ASTM Standards: ASTM A193 (Grade B7)

SAE Standards: SAE J429 (Grade 5 and 8 for high strength studs)

Hex Cap Screws

Size Range: M6 to M16, with lengths up to 160mm

DIN Standards: DIN 912

ISO Standards: ISO 4762

ASTM Standards: ASTM A574

SAE Standards: SAE J429 (Grade 5 & 8)

Square Bolts

Size Range: M6 to M16, with lengths up to 160mm

DIN Standards: DIN 479 (Square head bolts)

ISO Standards: ISO 4034, ISO 4032

ASTM Standards: ASTM A307 (Grade A & B for general use)

SAE Standards: SAE J429 (Grade 2, 5, 8)

Custom Fasteners

Tailored to meet unique specifications, our custom fasteners are engineered for specialized applications across diverse industries. Each fastener is crafted with precision, strength, and durability, ensuring reliable performance in demanding environments. Whether for industrial, construction, or specialized projects, our solutions deliver unmatched quality and consistency.

Quality Control at FB Fasteners

At FB Fasteners, we pride ourselves on delivering top-quality fasteners that meet stringent international standards. Our comprehensive quality control process is designed to ensure reliability, performance, and durability in every bolt we manufacture. With advanced testing equipment and adherence to ISO, DIN, and BS standards, we guarantee the excellence of our products.

Dimensional Inspection
Tools Used: Digital calipers, micrometers, thread gauges (Go/No-Go), optical comparators.
Standards: ISO 4759-1, DIN 267, BS 3692
Purpose: Ensures bolts meet precise tolerances for dimensions such as diameter, length, and thread pitch.

Thread Inspection
Tools Used: Thread ring gauges, thread plug gauges.
Standards: ISO 965-1, DIN 13-1, BS 3643
Purpose: Verifies proper threading to ensure compatibility and avoid issues with fitting.

Tensile Strength Test
Tools Used: Universal testing machines (UTM).
Standards: ISO 898-1, DIN EN ISO 6892-1
Purpose: Measures the maximum tensile load a bolt can endure before breaking.

Hardness Testing
Tools Used: Rockwell hardness testers (HRB, HRC scales).
Standards: ISO 6508, DIN 50103, BS EN ISO 6508
Purpose: Ensures the bolt meets the required hardness for its intended use.

Torque Testing
Tools Used: Digital torque wrenches, torque testing machines.
Standards: ISO 16047
Purpose: Verifies that the bolt can handle the required torque load without failure during installation.

Coating Thickness Measurement
Tools Used: Coating thickness gauges (magnetic induction, eddy current).
Standards: ISO 2178, ISO 2360
Purpose: Measures coating thickness to ensure corrosion protection and adherence to industry standards.

Salt Spray Testing
Tools Used: Salt spray test chambers.
Standards: ISO 9227, ASTM B117
Purpose: Evaluates corrosion resistance, essential for bolts used in outdoor or harsh environments.

Bend Test
Tools Used: Bend testing machines.
Standards: ISO 7438
Purpose: Determines the bolt's ductility by checking if it can bend to a specified angle without cracking or failing.

UV Crack Detection (Fluorescent Penetrant Test)
Tools Used: UV crack detection system.
Standards: ISO 3452-1, ASTM E1417
Purpose: Detects surface and subsurface cracks using fluorescent dye under UV light to identify micro-cracks that could lead to failure.

Impact Testing
Tools Used: Charpy or Izod impact testing machines.
Standards: ISO 148-1, ASTM E23
Purpose: Assesses the bolt's toughness and ability to absorb impact without fracturing.

Fatigue Testing
Tools Used: Fatigue testing machines.
Standards: ISO 3800
Purpose: Evaluates the bolt's durability under cyclic loading to predict its service life in repetitive stress environments.

Visual Inspection
Tools Used: Optical comparators, magnifiers.
Standards: ISO 3269
Purpose: Identifies surface defects such as cracks, burrs, or rust that may affect performance.

Proof Load Test
Tools Used: Load testing equipment.
Standards: ISO 898-1, BS 3692
Purpose: Ensures the bolt can withstand a specific load without permanent deformation.

Hydrogen Embrittlement Testing
Tools Used: Specialized chambers.
Standards: ISO 10587, ASTM F519
Purpose: Detects the susceptibility of bolts to hydrogen embrittlement, crucial for high-strength bolts that have been plated.

Elongation Testing
Tools Used: Universal testing machines (UTM).
Standards: ISO 6892-1
Purpose: Measures elongation at fracture, ensuring compliance with ductility requirements.

Yield Strength Testing
Tools Used: Universal testing machines (UTM).
Standards: ISO 898-1, DIN EN ISO 6892-1
Purpose: Determines the yield point at which the bolt begins to deform plastically.

Torsion Test
Tools Used: Torsion testing machines.
Standards: ISO 898-7
Purpose: Measures the resistance of the bolt to twisting forces, ensuring it can endure torsional loads without failure.

Non-Destructive Testing (NDT)
Tools Used: Magnetic particle inspection, ultrasonic testing.
Standards: ISO 9712, ASTM E1444
Purpose: Detects internal or surface cracks and flaws without damaging the bolt.

Hardness Testing (Brinell/Vickers)
Tools Used: Brinell or Vickers hardness testers.
Standards: ISO 6506, ISO 6507
Purpose: Measures surface hardness, especially for larger bolts or those requiring specific surface treatments.

Shear Strength Testing
Tools Used: Shear testing machines.
Standards: ISO 898-1
Purpose: Measures the bolt's ability to resist shearing forces, critical for bolts used in structural applications.

Industries We Serve

FB Fasteners proudly caters to a diverse range of industries by supplying high-quality fasteners that meet the specific requirements of each sector. Our extensive experience and versatile production capabilities enable us to serve:

Automotive Industry: Offering high-strength, reliable fasteners for critical automotive applications, including engines, transmissions, and chassis.

Agricultural Equipment: Providing durable, corrosion- resistant fasteners for tractors, harvesting machinery, and other agricultural equipment.

Energy & Renewable Energy: Supplying fasteners for solar panels, wind turbines, and energy infrastructure, ensuring stability and long-lasting performance in challenging environments.

Construction & Infrastructure: Delivering high-tensile fasteners used in large-scale construction projects, from bridges and buildings to heavy machinery.

Industrial Manufacturing: Producing bolts and fasteners designed for precision and high performance in manufacturing machinery, equipment assembly, and other industrial applications.

Certifications & Standards

At FB Fasteners, we are committed to maintaining the highest quality standards through continuous improvement and adherence to international certifications. Our accreditations and certifications ensure that our products are trusted worldwide:

GSP+: Pakistan is a beneficiary of the EU's GSP+ scheme. This provides duty-free access for a wide range of our fastener products to EU markets, making FB Fasteners a cost-competitive and reliable partner for European buyers.

SECP: Registered under the Securities & Exchange Commission of Pakistan (SECP), ensuring legal compliance and corporate transparency

EDB: Accredited by the Engineering Development Board (EDB), which ensures our adherence to the highest engineering and manufacturing standards

LCCI: Certified by the Lahore Chamber of Commerce & Industry (LCCI), reinforcing our commitment to quality and industry best practices.

PAAPAM: As a member of the Pakistan Association of Automotive Parts & Accessories Manufacturers (PAAPAM), we uphold the highest standards of manufacturing for the automotive sector.

Additionally, our fasteners comply with international standards such as ISO, DIN, and ASTM, ensuring our products meet global specifications for mechanical properties, coatings, and durability.

FB Fasteners

Precision Fasteners for Every Industry

MAJOR CLIENTS

HYUNDAI

MASSEY FERGUSON

NEW HOLLAND AGRICULTURE

GWM

AGTL

MTL Millat Tractor Limited

Connect with Us

Stay updated on the latest developments and innovations at FB Fasteners by following us on our social media channels:

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Twitter: twitter.com/fbfasteners

FB Fasteners is more than just a supplier — we are your trusted partner in delivering excellence.

FB Fasteners - Fastening the Future

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