

# Automotive Fastener Market Outlook 2025-2035

2025.09

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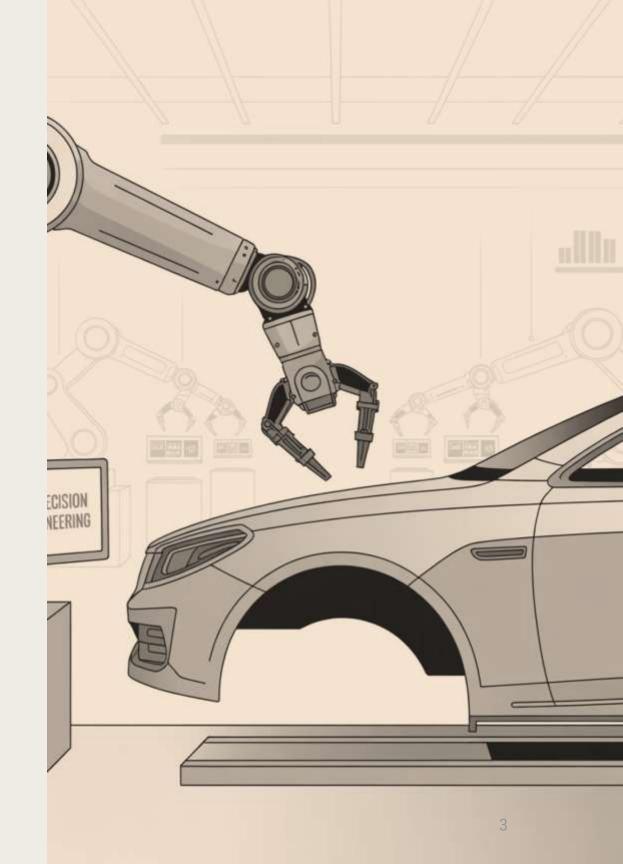
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#### **About the Report**

Methodology, data sources, and research framework

#### **Preface**

Amid the accelerating shift toward electrification, lightweighting, and intelligent transformation in the global automotive industry, automotive fasteners—vital components that safeguard vehicle safety, durability, and assembly efficiency are embracing new growth opportunities. Forecasts indicate that the global automotive fastener market will expand from USD 19.5 billion in 2025 to USD 33.3 billion by 2035, reflecting a compound annual growth rate (CAGR) of 5.5%. This growth is fueled not only by rising automobile production and the expansion of emerging markets, but also by the surging demand for high-performance fastening solutions in electric vehicle platforms, together with the widespread adoption of lightweight materials and smart manufacturing. Over the coming decade, the industry is expected to move toward a new stage of development characterized by higher strength, modularity, and sustainability—driven by material innovation, process advancements, and intelligent applications. This report provides a structured overview of market size, growth drivers, challenges, and key industry developments, offering insights for practitioners, investors, and stakeholders alike.



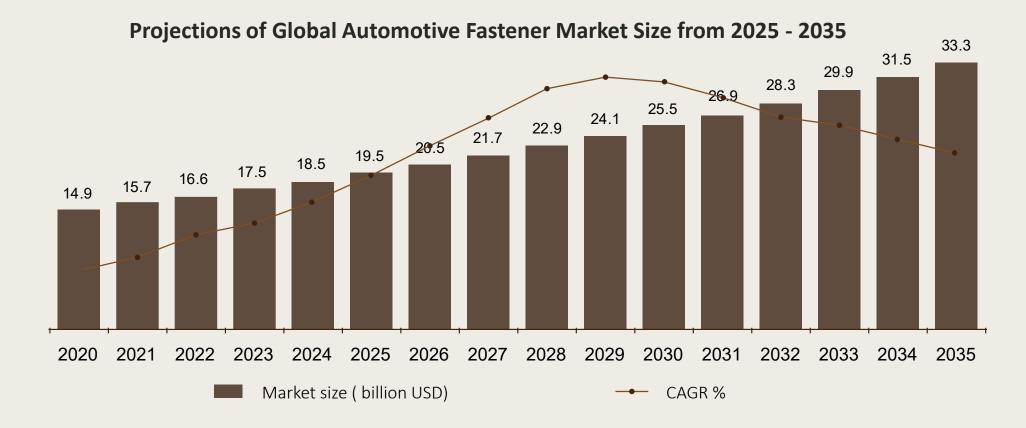


## Automotive Fastener Market Overview

### **Automotive Fastener Market Size & Share Projections 2025-2035**

The global automotive fastener market is projected to reach \$19.5 billion in 2025 and is expected to grow to \$33.3 billion by 2035, representing a compound annual growth rate (CAGR) of 5.5%. This growth trajectory demonstrates a robust and slightly accelerating market trend, primarily driven by widespread adoption of lightweight materials and rising automotive production in emerging markets.

The market exhibits steady momentum with accelerating growth phases coinciding with electric vehicle platform integration and advanced manufacturing automation deployment. Key growth inflection points are expected during 2027-2029 as EV-specific fastening solutions achieve mainstream adoption across global automotive production lines.



### **Core Market Metrics & Industry Positioning Analysis**

\$19.5B

\$33.3B

5.5%

2025 Market Value

Projected market valuation at the beginning of our forecast period

2035 Market Value

Expected market size at the end of the tenyear projection period Compound Annual Growth Rate

Sustained growth rate throughout 2025-2035 forecast period

Automotive fasteners occupy a strategic position across multiple parent markets. Data indicates that automotive applications account for approximately 35-38% of the overall industrial fastener market, highlighting the automotive industry's dominant role as one of the largest fastener consumption sectors, with extensive applications in structural, engine, and body assembly processes.

#### **Market Share Analysis**

Industrial fastener market: 35%-38%

• Body structural systems: 10%-12%

• Lightweight materials market: 6%-8%

Automotive components market: 5%-6%

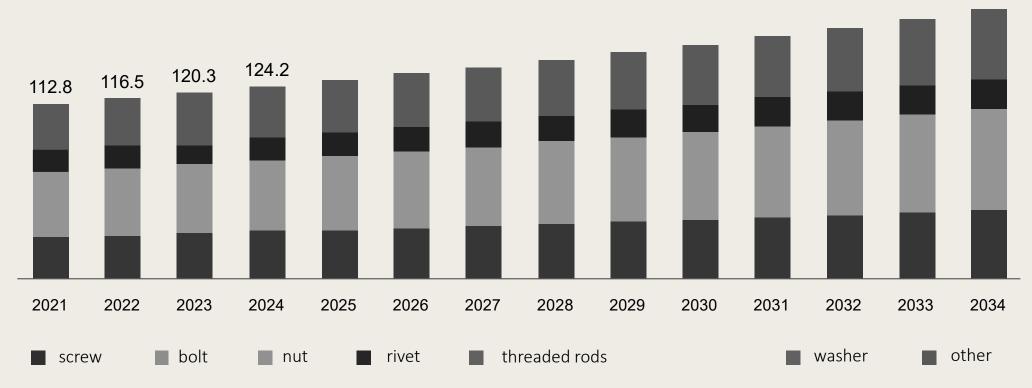
• Aftermarket parts: 3%-4%

Specialty applications: 2%-3%

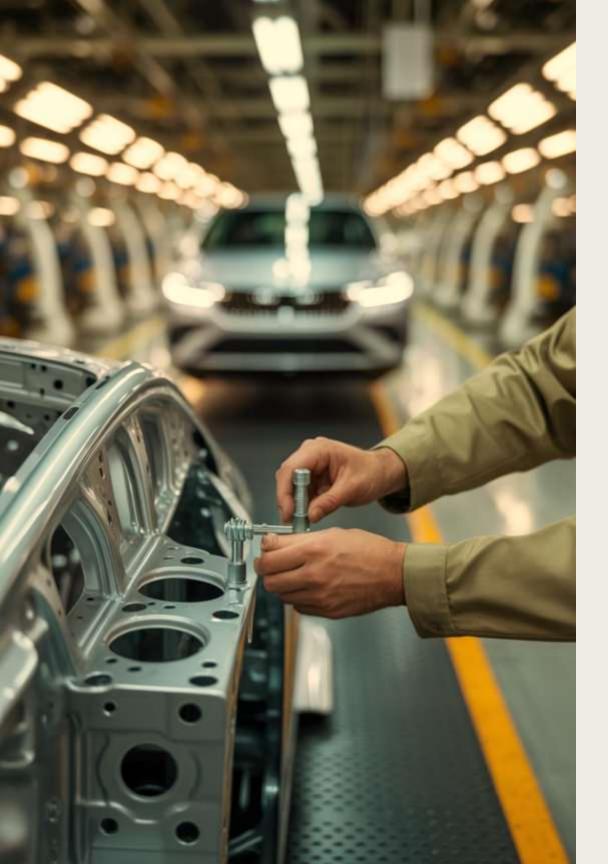
### **Market Growth Trajectory & Category Analysis**

The ten-year growth cycle from 2025 to 2035 will unfold across two distinct development phases. The initial phase (2025-2030) features more robust growth, driven by surging demand for electric vehicle-specific fasteners and widespread lightweight material adoption. The second phase (2030-2035) shows stabilized growth patterns, primarily influenced by technology maturation and standardization processes.

#### **Industrial Fastener Growth Trajectory by Category from 2025 - 2035**



Source: www.gminsights.com



## Three Key Development Drivers for Automotive Fastener Industry

#### **High-Strength Lightweight Solutions**

Developing high-performance fasteners supporting electric vehicle integration and modular platform applications with enhanced strength-to-weight ratios

#### **Precision Engineering & Automation**

Advanced manufacturing technologies improving assembly speed and torque consistency through automated installation systems and real-time quality monitoring

#### **Broader Strategic Partnership**

Deep collaboration with OEMs providing exclusive solutions for emerging vehicle architectures and next-generation platform requirements

Regional capacity expansion remains a priority to reduce supply chain risks and meet localization requirements. Additionally, companies are increasing investments in advanced coating processes and smart fastening technologies to enhance durability and reliability under diverse operating conditions. Product portfolio diversification continues to be crucial for meeting both standard industry needs and specialized application requirements.

## Why is the Automotive Fastener Market Growing Rapidly?

→ Why is the Automotive Fastener Market Growing Rapidly?

Advances in lightweight materials and increasing modular assembly system demands drive market expansion across traditional and emerging automotive markets

Regulatory Pressure Driving Innovation

Fuel efficiency and carbon emission regulations compel OEMs to adopt fasteners meeting weight reduction and recyclability targets while maintaining structural integrity

**Electric Platform Integration** 

Advanced powertrains, electronic systems, and EV platforms demand higher strength, antivibration fastening technologies with enhanced thermal management capabilities

Supply Chain Digital Optimization

Localized production and digitized processes optimize delivery cycles and reduce lead times while improving quality control and traceability

Looking ahead, innovations in coating technology, precision-engineered fastener applications, and smart fastening solutions integrated with onboard diagnostics and condition monitoring systems will become crucial market growth drivers. These technological advances support predictive maintenance and enhanced safety compliance requirements.



## **Technology Development Roadmap and Innovation Opportunities**

2025-2027: Technology Breakthrough Period

Smart fasteners and real-time monitoring technologies begin large-scale application deployment across automotive production lines

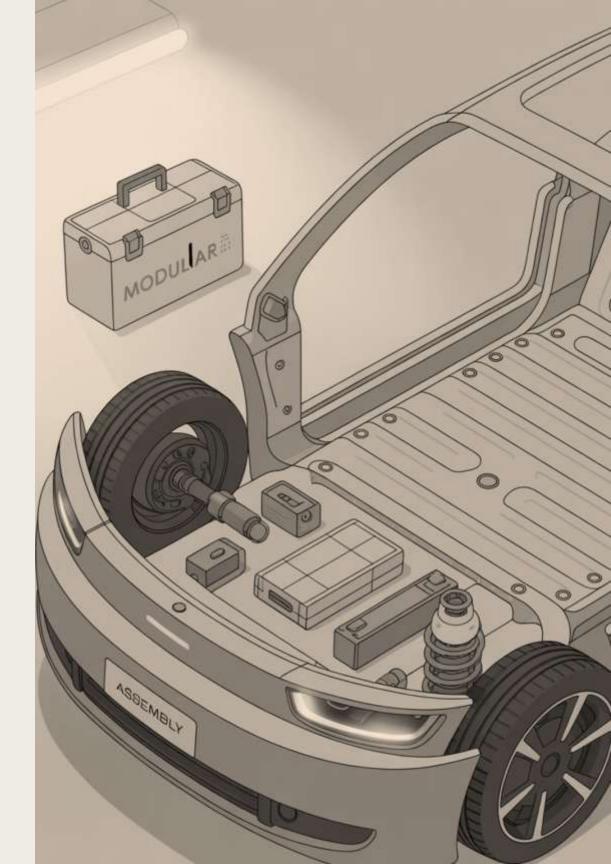
2028-2030: Standardization Integration Period

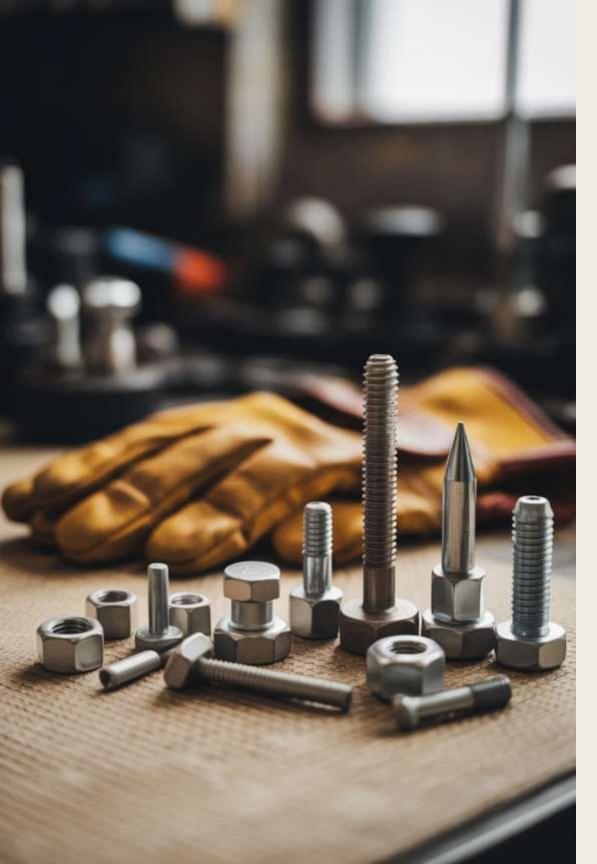
Autonomous vehicle customized fastening systems enter mainstream market adoption with industry-wide compatibility standards

2031-2035: Mature Application Period

Corrosion-resistant coating technologies and predictive maintenance solutions achieve comprehensive market penetration and optimization

These innovations will provide robust support for predictive maintenance and higher-grade safety compliance, driving the industry toward intelligent and sustainable development directions. The integration of IoT sensors and AI-driven analytics will transform fasteners from passive components to active monitoring systems.





## Automotive Fastener Market: Drivers, Constraints & Key Trends

Automotive fasteners are critical components ensuring secure connections across vehicle structural, mechanical, and electronic systems, including bolts, nuts, screws, rivets, and specialized fastening elements designed for high-strength, anti-vibration applications. They are extensively used in body assembly, powertrain integration, interior installation, and electrical modules.

#### **Application Domain Distribution**

- Body assembly systems
- Powertrain integration
- Interior installation modules
- Electrical system connections
- Chassis structural components
- Safety system assemblies

#### **Technology Development Focus**

With growing automotive production, increasing electric vehicle penetration, and rising demand for lightweight yet durable fastening solutions, the importance of automotive fasteners continues to intensify.

To meet evolving industry standards and enhance operational efficiency, manufacturers focus on developing advanced materials, automated installation technologies, and corrosion-resistant coatings.

#### **Market Growth Drivers & Constraint Analysis**

#### **Growth Driving Factors**

Sustained growth in global passenger and commercial vehicle production represents the primary driver of automotive fastener market development. Increasing demand for lightweight vehicles promotes widespread application of high-strength, corrosion-resistant fasteners in body assembly and engine components.

- Enhanced automotive safety and crash performance standards
- Electric vehicle manufacturing expansion driving specialized fastener demand
- Modular platforms promoting flexible fastener development
- Automation technology optimizing installation efficiency

#### **Market Constraint Factors**

Market expansion faces constraints from raw material price volatility, particularly steel and aluminum, directly impacting manufacturing costs and pricing strategies. Cost optimization pressures from automotive OEMs also impose additional pricing constraints on fastener suppliers.

- Raw material price fluctuations affecting manufacturing costs
- Standardization requirements increasing design complexity
- Counterfeit products threatening supply chain security
- Supply chain disruptions and logistics delay risks





## 2 Automotive Fastener Product Category Forecasts

### **Category Classification**

The automotive fastener market can be segmented by capacity type, material type, characteristic type, application type, distribution channels, and geographic regions. This multi-dimensional market segmentation facilitates precise identification of growth opportunities and targeted strategy development across diverse market segments.





#### **By Capacity Type**

Threaded components, nuts, bolts, washers, and non-threaded fasteners across different capacity specifications and load requirements

#### **By Material Type**

Steel, plastic, and alternative materials meeting varying strength, weight, and environmental requirements across applications





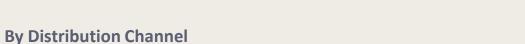
#### **By Characteristic Type**

Non-permanent and permanent fasteners accommodating different assembly needs and maintenance requirements

#### **By Application Type**

Passenger cars (PC), light commercial vehicles (LCV), and heavy commercial vehicles (HCV) applications





Original Equipment Manufacturer (OEM) and aftermarket sales channels with distinct requirements



#### **By Geographic Region**

Coverage across North America, Europe, Asia, and other major automotive manufacturing and consumption markets

#### **Material Technology Development Trends**

#### **Basic Steel Applications**

Widespread use of traditional carbon steel in standard fastening applications, providing reliable strength and cost-effectiveness for conventional automotive assembly processes

#### **Alloy Steel Technology Upgrades**

Continuous advancement in alloy formulations, including high-strength and corrosion-resistant grades, enhancing steel fastener durability under extreme thermal and mechanical stress conditions

#### **Smart Manufacturing Integration**

Steel fasteners' structural stability and uniform threading make them highly suitable for automated production lines, ensuring reliability during high-speed assembly processes

#### **Sustainability-Oriented Development**

Steel's recyclability and compliance with End-of-Life Vehicles (ELV) directives drive continued market penetration in both traditional and new energy vehicle segments





### **Threaded Fastener Segment Insights**

#### **Technical Advantage Analysis**

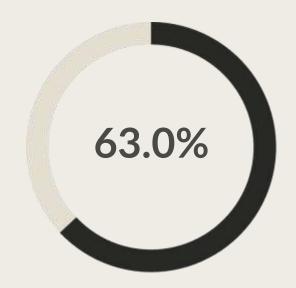
Threaded fasteners provide superior torque retention, reusability, and stable clamping force in high-load applications, further highlighting their value proposition. Their broad applicability across chassis, engine, interior, and transmission systems makes them widely adopted in both internal combustion engine (ICE) and electric vehicle (EV) platforms.

- High compatibility with torque-controlled installation tools
- Enhanced fatigue resistance performance
- Excellent performance in dynamic automotive environments
- Support for maintenance and disassembly flexibility

#### **Market Application Scope**

Threaded design provides greater maintenance and disassembly flexibility, aligning with aftermarket service and repair requirements. This versatility makes them essential for applications requiring periodic maintenance, component replacement, or vehicle modification procedures.

#### Fastener Segment Type Insights: Threaded & Steel Fasteners



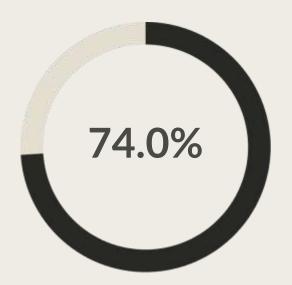
#### **Threaded Fastener Market Share**

Projected revenue share in automotive fastener market by end of 2025

#### **Threaded Fastener Advantages**

By the end of 2025, threaded fasteners will capture 63.0% of total revenue in the automotive fastener market, establishing dominance as the preferred fastener type. Their broad applicability across chassis, engine, interior, and transmission systems enables widespread adoption in both ICE and EV platforms.

- Superior torque retention properties
- Reusability characteristics
- Stable clamping force maintenance
- Enhanced maintenance flexibility



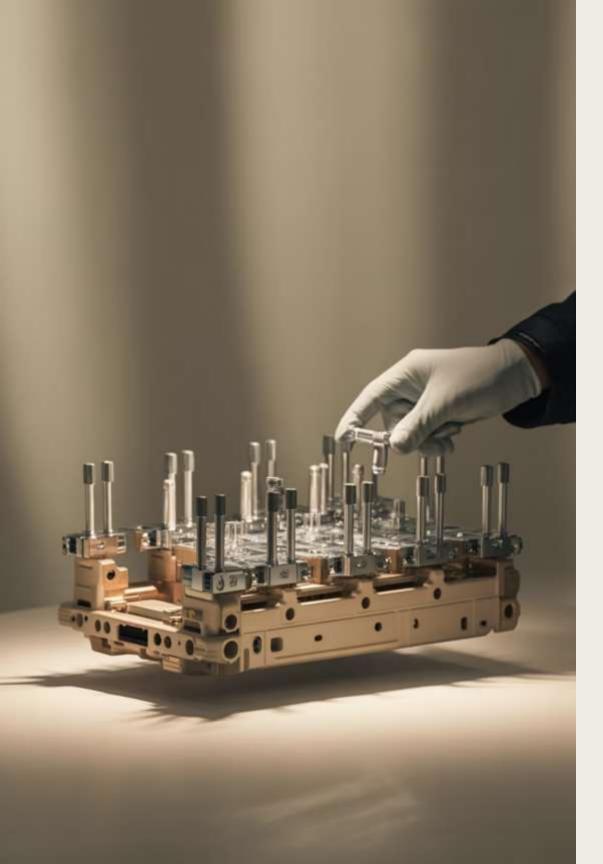
**Steel Fastener Market Share** 

Expected dominance in material type category by end of 2025

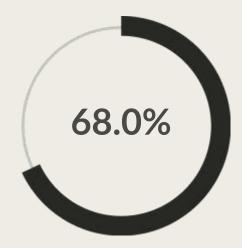
#### **Steel Material Characteristics**

By the end of 2025, steel will occupy 74.0% of material share in the automotive fastener market, making it the preferred base material. Steel's superior tensile strength, cost advantages, and excellent machinability make it the ideal material for high-performance fasteners in safety-critical areas.

- Outstanding tensile strength performance
- Significant cost-effectiveness advantages
- Superior machinability characteristics
- Environmental compliance requirements



#### **Non-Permanent Fastener Type Insights**



**Non-Permanent Fasteners** 

Projected market revenue share by end of 2025

#### **Technical Characteristics & Advantages**

By the end of 2025, non-permanent fasteners will dominate the automotive fastener market, capturing 68.0% of revenue share. Due to their reversibility and support for modular design characteristics, these fasteners prove particularly crucial in areas requiring easy disassembly, maintenance, or replacement operations.

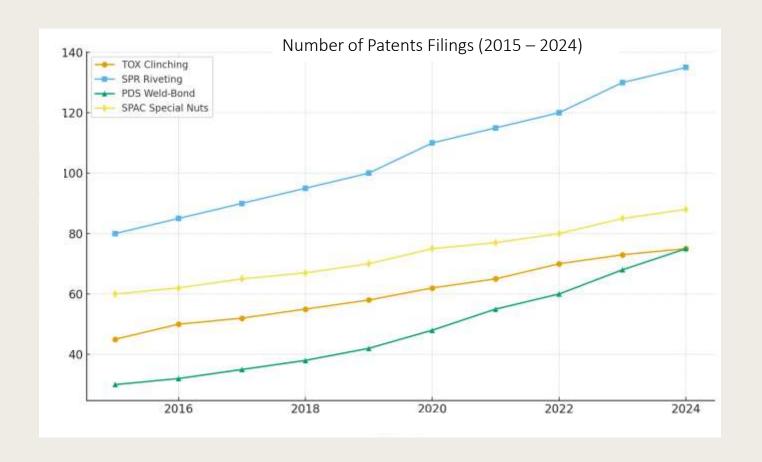
- Supporting lean production and circular economy principles through enhanced reusability & material recovery
- Reducing maintenance complexity and service time requirements across vehicle lifecycles
- Providing operational flexibility in electric vehicle platforms for component upgrades and modifications
- Supporting vehicle personalization needs and platform-specific requirements

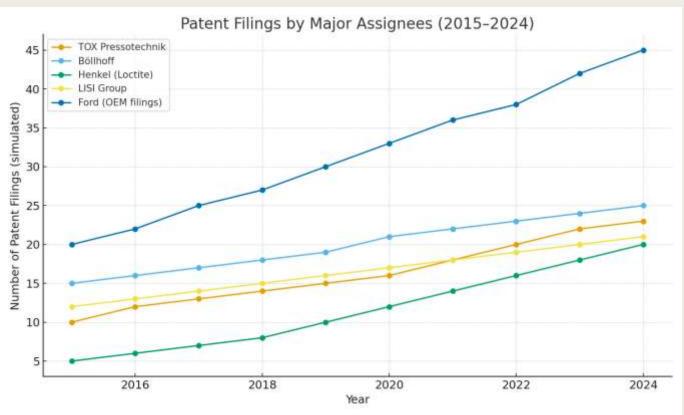
As trends toward vehicle personalization and frequent platform updates continue, fasteners supporting interchangeability without compromising structural integrity become increasingly valuable. Through precision manufacturing technologies, these fasteners ensure joint reliability while allowing future reconfiguration or upgrades. 18

### **Comparisons of Innovative Fastening & Fixing Technologies**

Technology	Applicatio n Scope	Features	Advantages	Disadvantages	Patents
TOX Clinching	Body	Joins by localized plastic deformation without extra fasteners	No welding/screws; works with dissimilar metals; no heat-affected zone	Limited strength; needs specific sheet thickness/ductility; less suitable for ultra-high-strength steel	TOX Pressotechnik, as well as traditional fastener/assembly equipment manufacturers such as Böllhoff, hold patent families and commercial solutions in the field of clinching / Rivclinch.
SPR (Self-Piercing Riveting)	Body	Rivet pierces into sheets to mechanically interlock	Works with aluminum and high-strength steel; no thermal distortion; good fatigue life; can join multiple layers	High equipment cost; added mass; difficult disassembly/repair	Major OEMs / Tier-1 suppliers (e.g., Ford, Audi) have filed patents related to SPR equipment or process improvements; specialized equipment suppliers and fastener manufacturers (such as LISI, Böllhoff, etc.) also hold patents and products in rivets and assembly equipment.
PDS (Welding / Bonding Hybrid / Structural Adhesive + Spot Weld etc.)	Body & Chassis	Combines welding, stamping or adhesive bonding to reinforce structure	High strength; can join dissimilar materials; good rigidity & durability; suited for high-load areas	Process complexity; high capex; tight control required	Large adhesive manufacturers (such as Henkel/Loctite, 3M) own extensive patents in structural adhesives and activation tapes; OEMs and Tier-1 suppliers (through technical documents and patents) also focus on protecting overall weldbond processes and layouts.
SPAC Special Nut / Locking Nut Technologies	Componen t fastening	Special geometry for self-locking, anti- loosening, quick assembly	High assembly efficiency; strong anti-vibration and anti-loosening; reusable	Higher cost; precision required; may fail under extreme loads or temperature/vibration extremes	Traditional fastener giants (LISI, Böllhoff, ARaymond, Nord-Lock, Bulten, ITW Fastener Products, Dayang Industrial) as well as specialized manufacturers and OEMs in the automotive suspension/wheel locking field, also hold patents.

#### **Patents of Innovative Fastening & Fixing Technologies**





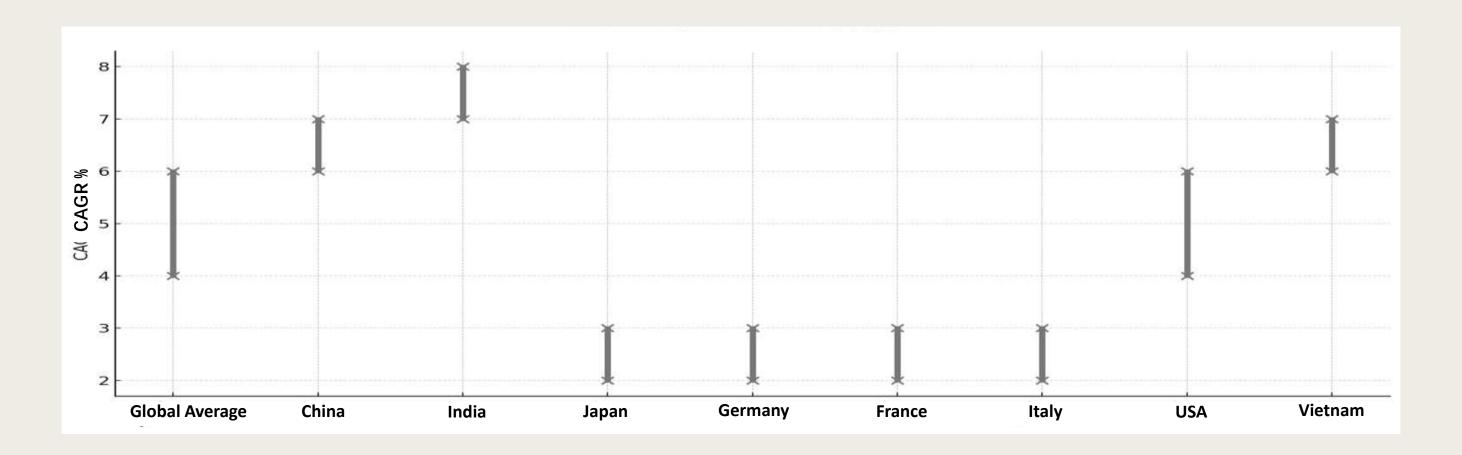


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## Global Automotive Fastener Production Forecasts

#### **Comprehensive Automotive Fastener Market Analysis**

The global automotive fastener market will grow at a 5.5% compound annual growth rate (CAGR), driven primarily by increased automotive production, electrification trends, and rising demand for lightweight fastening solutions. China's market leads growth expectations with a projected 7.4% CAGR, benefiting from large-scale electric vehicle production and comprehensive supply chain capabilities. Asian emerging markets demonstrate stronger growth potential, while mature markets like Japan and Germany maintain relatively stable growth patterns, primarily driven by technological upgrades and high value-added products.



## **Asian Automotive Fasteners Market Performance Forecast**

China

China exhibits robust growth, particularly in plastic and industrial fastener subcategories. The market demonstrates a CAGR exceeding 7%, driven by several key factors including the massive scale of new energy vehicle production, substantial domestic demand, export manufacturing base, and accelerated supply chain localization efforts.

India

India market operates in a rapid expansion phase, particularly excelling in plastic fasteners and wire harness components. The market shows impressive CAGR of approximately 7-8%, primarily driven by increased production of two-wheelers and passenger vehicles, combined with significant localization and expansion manufacturing initiatives.

Japan

As a mature market, Japan demonstrates moderate growth with low to mid-single digit CAGR. The focus remains on high-quality, high-value-added functional fasteners, with strategic expansion into electric vehicle and lightweight component applications.

Vietnam

Vietnam represents a smaller base market but demonstrates higher growth rates than mature markets. Growth is driven by manufacturing industry migration and increased vehicle/component outsourcing, positioning it as a significant Asian growth hotspot.

#### **High-Growth Market Characteristics**

- Rapid automotive production growth
- Rising electric vehicle penetration
- Manufacturing outsourcing influx
- Supportive localization policies

#### **Strategies of mature markets**

- Compete with both quality & technologies
- Value-added products
- Application of intelligence manufacturing
- Upgrade manufacturing capability



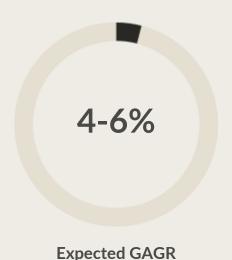


#### North American Automotive Fasteners Market Forecast

#### Overall growth

North American markets, particularly the United States, are featured in multiple reports as fast-growing or stabilizing regions, commonly showing CAGR in the 4-6% range. The market is characterized by a balanced emphasis on lightweight, high-strength functional fasteners alongside robust aftermarket and maintenance demand.

US market growth is primarily driven by several key factors: domestic automotive production recovery and electric vehicle manufacturing expansion; sustained demand for high-strength, lightweight fasteners; and a well-developed aftermarket providing stable replacement demand for fasteners.



#### **Market Characteristics Analysis**

- High degree of automated production
- Strict quality and compliance requirements
- Strong lightweight component demand
- Well-developed aftermarket sector

## **European Automotive Fasteners Manufacturing Regions**

#### **West European Market characteristics**

Major Western European countries including Germany, France, and Italy represent mature markets with annual growth typically in low single digits (approximately 1-4%). These markets are characterized by high quality requirements and are largely driven by domestic and EU-based major OEM and Tier-1 supply chains.

Although European market growth is relatively moderate, it maintains leadership in technological innovation and product quality. With the advancement of EU electrification transition policies, demand for high-end fasteners will continue to grow sustainably.

1-4%
West Europe CAGR

15%
Growth in EV
Automotive
fasteners

#### **01 Traditional Demand Structure Adjustment**

Electrification and lightweighting change demand structure, reducing traditional engine component requirements

#### **02 Emerging Application Growth**

Structural and battery-specific fastener demand increases significantly

#### **03 Intensified Competitive Pressure**

Facing cost pressures and competition from low-cost countries





## **Automotive Fasteners**Competitive Landscape

#### **Global Automotive Fasteners Market Competition**

The automotive fasteners market is shaped by global manufacturers and regional enterprises, providing high-precision fastening solutions for engine components, chassis, body assemblies, and interior applications. Market differentiation primarily manifests in lightweight material applications, corrosion resistance, high fatigue strength, and compliance with automotive safety standards.

#### **Market Leaders**

Wureth, Illinois Tool Works (ITW) remains the market leader with an extensive portfolio of engineering fasteners and innovative connection technologies, specifically designed for lightweight vehicle platforms.

#### **Specialized Suppliers**

Acument Global Technologies focuses on highstrength fasteners for powertrain and safetycritical applications, while ARaymond Network is renowned for quick connection systems.

#### **Regional Strong Players**

Bollhoff Group and Bossard Group maintain leadership in smart inventory and logistics services, while KAMAX emphasizes high-strength bolt technology.

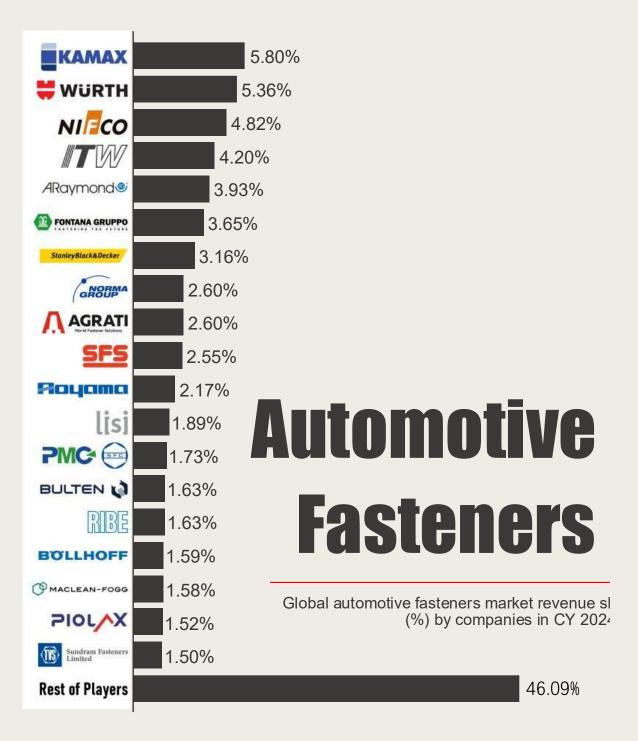
#### **Technology Innovation Focus**

- Lightweight material applications
- Enhanced corrosion resistance
- High fatigue strength design
- Smart fastening systems

#### **Strategic Development Directions**

- Digital supply chain solutions
- Collaboration with EV manufacturers
- Composite material compatible systems
- Modular vehicle architecture adaptation





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## **Top 20 Hold Approximately Half Market Share**

In terms of industry structure, multiple internationally renowned companies play important roles in the global market, including leading companies such as Kamax, Wuerth, ITW (Illinois Tool Works), NIFCO, and ARaymond. Overall, these companies leverage their advantages in technological innovation, global deployment, and supply chain management to jointly drive sustained growth and upgrading of the automotive fasteners industry.

### **Major Company Financial Performance & Development Dynamics**

Company Name	Key Financial Data	Latest Development
Illinois Tool Works (ITW)	Q2 2025 revenue approximately \$4.1 billion; 2024 fiscal year total revenue approximately \$15.9 billion	Q2-2025 achieved record quarterly EPS and profit margins, raised full-year guidance
ARaymond Network	2023 sales approximately \$1.6 billion; approximately 8,500 employees across 25 countries	H1 2025 completed acquisition of Belgium's FACIL, expanding industrial service capabilities
Bossard Group	2024 fiscal year sales €754 million; approximately 3,000 employees across 33 countries	Continues advancing digitalization and smart factory construction, implementing cost control measures
KAMAX Holding	Revenue estimated over €100 million, approximately 3,000 employees, 13 production sites	Advancing global capacity expansion and establishing sustainable carbon neutrality goals
NORMA Group SE	2024 fiscal year group revenue approximately €1.155 billion, down 5.5% year-over-year	Initiated Water Management business unit divestiture process

### **Major Company Financial Performance & Development Dynamics**

Company Name	Key Financial Data	Latest Development
Stanley Black & Decker, Inc.	2024 fiscal year revenue approximately \$15.4 billion, down approximately 3% year-over-year	Group implementing large-scale cost/supply chain initiatives, aerospace fasteners business recovering and addressing tariff/origin adjustments
Sundram Fasteners Limited	Company disclosed 2024 fiscal year group revenue \$6.89 billion, roughly flat compared to previous year	Continues focusing on automotive and construction machinery fasteners market, maintaining dividends and stable operations
TR Fastenings	2024 annual group revenue approximately €23.3 billion	Business strategy focused on "Recover, Rebuild, Resilience"
Würth Group	2024 revenue approximately €20.2 billion, down slightly 0.9% year-over-year, profits declined but remain among group's historically high levels	Despite overall market pressure, maintains large customer base; continues advancing Würth Industrie Service international market localization and service expansion
Böllhoff Group	Group annual report disclosed "hundreds of millions of euros" scale	2024–2025 focus on capacity expansion (Morocco, Turkey new plants), product innovation and sustainability goal verification (SBTi verification)



## About the Report

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#### **About FEF**



2026/03/23-25 | Messe Frankfurt www.fastenerexpo.de

Fastener Expo Frankfurt (FEF) is a fastener industry trade show rooted in Europe, held in Frankfurt, Germany on even-numbered years. The exhibition focuses on the entire fastener value chain—from manufacturing and distribution to end-use applications—bringing together industry leaders from across Europe and beyond.

The event aims to build a platform for East—West industry exchange by moving beyond the traditional country-based booth layout to improve communication efficiency. It also features forums on fastener end-use applications, creating a true closed-loop connection among manufacturers, distributors, and end users, and enabling Asian companies to seamlessly integrate into the European fastener market.

Leveraging Frankfurt's strategic position as Germany's automotive hub, the expo will actively engage in on-the-ground promotion within surrounding automotive industry clusters, attracting a large number of automotive fastener buyers and creating valuable business-matching opportunities.

#### **Highlights of Automotive Fasteners at FEF**





#### Global automotive fastener brands under one roof:

Leading automotive fastener and fastener OEM brands and manufacturers from across Europe, Mainland China, Taiwan, Turkey, and other regions will showcase their latest products.



#### **Automotive Fastening and Fastening Technology Forum:**

Focusing on emerging trends in, the forum will invite technical directors and engineering experts from OEMs, component R&D, product development, and assembly divisions across Germany and Europe to participate.



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