

# Non-ferrous Fasteners Market Overview

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The raw material segment in the fastener market is bifurcated into metal and plastic. Rising metal prices together with their increasing demand in other application industries including construction and machinery are expected to affect raw material supply for fasteners. Additionally, the increasing substitution of metal fasteners by plastic and rubber fasteners as well as adhesives especially in the automotive industry is expected to obstruct the growth of the metal industrial fasteners market. However, the irreplaceable ability of metal grade products to provide impact resistance in heavy-duty applications is expected to limit the threat of substitutes.

Increasing demand for cost-effective, lightweight, and corrosion-resistant fasteners from the automobile and aerospace industry is expected to drive the plastics segment to grow at a faster pace in the future. Plastic fasteners market is projected to reach USD5.64 billion by 2025, after growing at a CAGR of 6.1% during 2020-2025. However, the metal segment dominates the industrial fastener market (accounting for about 90% market share) as it generates enormous demand from the industrial machinery and construction sector owing to their outstanding mechanical strength and resistance properties.

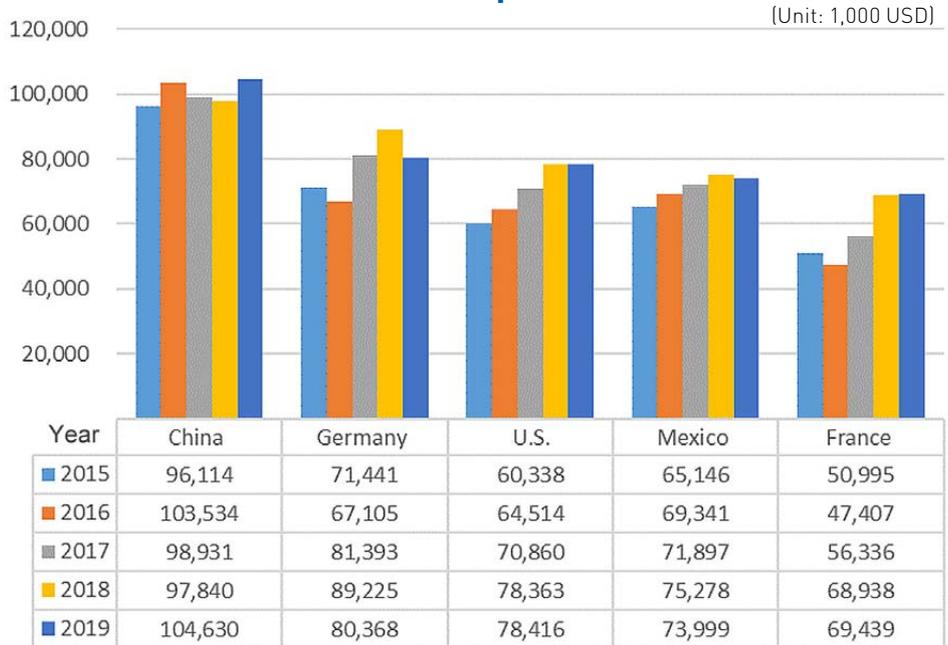
In terms of the plastic fastener types, Rivets & Push-In Clips have seized the largest share in the plastic fasteners market in recent years due to their applications mainly in automobiles, marine, space, oil & gas, and electrical & electronics.

Asia Pacific (APAC) region, has dominated the plastic fastener market share with about 38%, followed by North America and Europe. The growth of industrialization and urbanization in India and China is projected to boost demand and popularity in end-user industries, including electronics and automobiles. These sectors will expand the market for plastic fasteners in the region. The growing number of Asia Pacific customers who are willing to purchase affordable and lightweight vehicles has been a positive contribution to growth in the market.

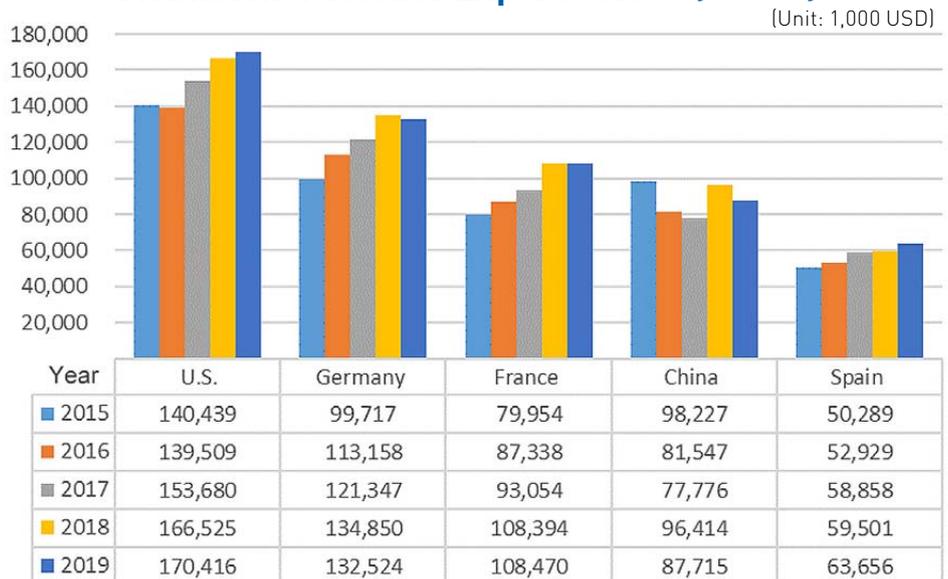
Plastic fasteners are manufactured in various raw materials such as polyamide, nylon, acetal, PVC, and others. Polyamide (PA) is the most common type of plastic fastener which represents the largest share in this market with high strength and high abrasion resistance. Various major automobile manufacturers, for instance, have merged the use of polyamide in their vehicles. Additionally, PA plastic fasteners are progressively penetrating the aircraft interior fastener market as they have the advantages of being lightweight at a substantial strength compared to the metallic counterparts. However, in the aerospace industry, aluminum fasteners are still the most preferred choice for manufacturers because of their numerous advantages, such as higher specific strength to steel, lightweight, and excellent corrosion and heat resistance.

The aluminum fastener is one of the most famous non-ferrous fasteners supported by its fast-growing market. The total global import and export value of aluminum fasteners in 2019 was about 2 billion US dollars. China, Germany, the US, Mexico, and France registered their

**Chart 1. Aluminum Fastener Import Value (by Country)**



**Chart 2. Aluminum Fastener Export Value (by Country)**

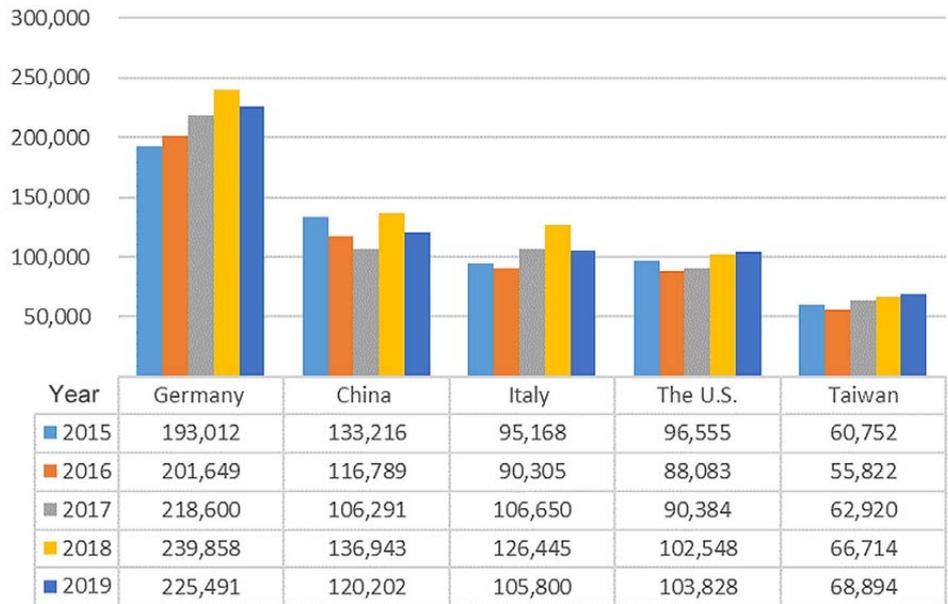


names as the top five destinations for aluminum fasteners in the global market. Interestingly, the US, Germany, France, and China are the major manufacturers and exporters of the aluminum fasteners in the global market. Chart 1 and Chart 2 illustrate the major import and export players in the aluminum fastener market within the last five years.

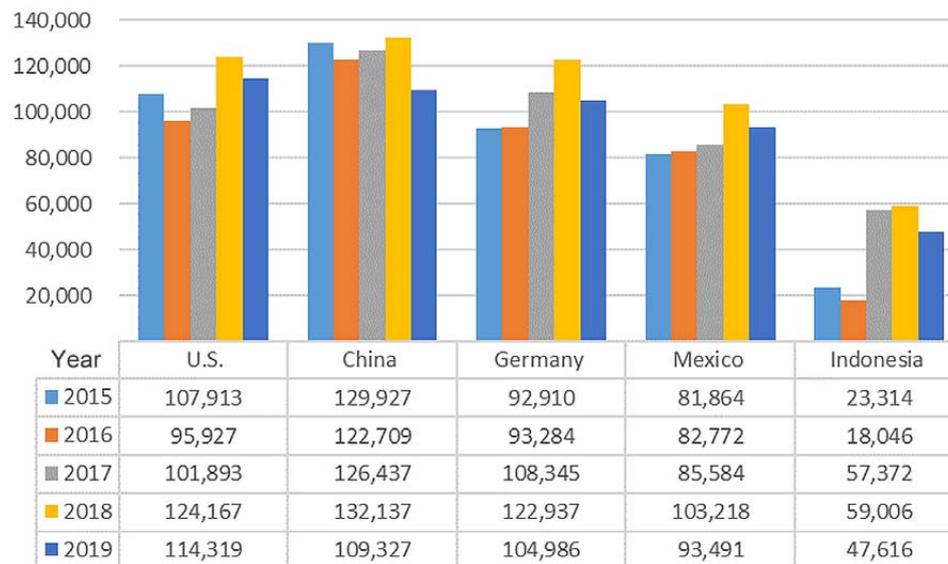
The rise of innovative fastener materials such as Aluminum, Titanium, and Plastic is known as alternatives to traditional all-metal fasteners. The non-ferrous fastener applications are more related to their light-weighting features used in the automotive and aerospace industry. For instance, the aerospace titanium fasteners market is projected to grow by USD777.21 million during 2020-2024 with a CAGR of 6%. The increased investments in industrial automation, motion control & robotics (IR4.0) have significantly affected the steady growth of the non-ferrous fastener market.

As mentioned, a majority of fasteners are made of steel due to its strong mechanical properties. Stainless steel fasteners are mainly used in applications where the primary requirements include high tensile strength, temperature resistance, and corrosion resistance.

**Chart 3. Copper Fastener Export Value (by Country)** (Unit: 1,000 USD)



**Chart 4. Copper Fastener Import Value (by Country)** (Unit: 1,000 USD)



Another type of non-ferrous fasteners which is commonly used in several industries is a copper fastener. In most water applications when conditions change and materials need to hold up in harder, more severe and tremendously corrosive environments, Copper fasteners need to be used. High tensile strength makes copper fasteners perfect for marine use.

The total global import value of copper fasteners in 2019 was about 1.2 billion US dollars and the fastener export registered the value of 1.04 billion US dollars. In this market, last year, Germany, China, Italy, the U.S., and Taiwan had the highest value of export. Chart 3 shows the value of exports for copper fasteners in the last five years shipped from the top five exporters into the global market.

On the other hand, the U.S., China, Germany, Mexico, and Indonesia were the major copper fastener destinations last year. Chart 4 illustrates the major import of aluminum fasteners in the last five years.

Taiwan is the only country in this list, which its name has been recorded as one of the top copper fasteners exporters with a value of about USD69 million but it has only imported about USD2.7 million of copper fasteners in 2019. Other major exporters such as Germany, the U.S. and China are also known as the major importers as well.

In the future, automotive, aerospace, marine, electrical, and electronics will remain the major end-users for the non-ferrous fasteners. Although stainless steel is the most common material used for manufacturing internally threaded fasteners, leading manufacturers in the industry will be focusing more on the R&D initiatives related to the use of raw materials to improve durability, strength, and temperature and pressure resistance. As a result, we will hear more about other (new) materials used in the fastener industry in the future. ■

Sources:

*Plastic Fasteners Market - Industry Analysis, Market Size, Share, Trends, Application Analysis, Growth and Forecast 2020 – 2025, by Industry ARC*  
*Industrial Fasteners Market Size, Share & Trends Analysis Report By Raw Material, By Product By Application, And Segment Forecasts, 2019 – 2025, by Grand View Research*  
*Trade statistics for international business development, ITC*