

The COVID-19 pandemic had a significant impact on the global economy, and the Chinese construction fastener market was not immune to this impact. However, with the rollout of vaccines and the gradual reopening of Chinese economy, the construction fastener market in China is poised to recover and grow.

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## **Chinese Infrastructure Projects and Its Relation to Construction Fasteners**

One of the key drivers of the Chinese construction fastener market is the country's massive infrastructure development projects. Chinese government has announced plans to spend trillions of dollars on infrastructure (buildings, bridges, tunnels, and other infrastructure projects) over the next few years, which will create a huge demand for construction fasteners. Additionally, the increasing urbanization in China, coupled with rising disposable incomes, is expected to drive demand for housing, which will further fuel the construction fastener market. Some of the projects that improve the numbers in the construction fastener sector are:

**Belt and Road Initiative:** This is a massive infrastructure project that aims to connect Asia, Europe, and Africa through a network of roads, railways, ports, and other infrastructure. The Chinese government has already committed over US\$1 trillion to this project, and it is expected to continue for many years.

**High-speed Rail:** China has the world's largest high-speed rail network, with over 22,000 miles of track. The government plans to continue expanding this network, with a target of 30,000 miles of high-speed rail by 2025.

**Urbanization:** China's urbanization rate is expected to reach 70% by 2030, which will require significant investments in urban infrastructure such as transportation, housing, and utilities.

**Renewable Energy:** China is the world's largest producer of renewable energy, and the government plans to continue investing in this sector. In 2020, the government announced a plan to invest over US\$360 billion in renewable energy by 2025. (The construction of 5G infrastructure often involves the installation of small cell sites on utility poles, streetlights, and

other existing infrastructure. This requires specialized fasteners that can securely attach small cells to the existing infrastructure without damaging it.)

**5G Network:** China is also investing heavily in 5G networks, with a target of providing 5G coverage to all urban areas by 2025. This will require significant investments in infrastructure such as base stations, fibre optic cables, and data centres. (The construction of 5G infrastructure requires a variety of construction fasteners that support the installation of 5G equipment. These fasteners are used in the installation of antennas, base stations, and other equipment that make up the 5G network.)

**Airport Expansion:** China has the world's largest aviation market and plans to expand its airport network significantly. The government has announced plans to build new airports and expand existing ones, with a goal of having 450 airports by 2035.

**Rural Infrastructure:** Chinese government is also investing in infrastructure projects in rural areas, such as building new roads, bridges, and water supply systems. This is aimed at improving living standards and reducing poverty in these areas. Chinese government plans to invest CNY 1.2 trillion (approximately USD 183 billion) in rural infrastructure over the next three years.

## The Chinese Consume Smart Fasteners in Their Construction Projects

Another trend that is expected to drive the Chinese construction fastener market is the growing adoption of smart fasteners. As the demand for safer and more durable structures increases, smart fasteners are likely to become more widely adopted. Chinese government has been promoting the use of smart fasteners in various infrastructure projects as a way to improve the efficiency and safety of these structures. Smart fasteners are designed to provide realtime monitoring of the performance of structures they are installed in, by measuring factors such as stress, temperature, vibration, and strain. Chinese government has recognized the potential benefits of using smart fasteners in various infrastructure projects, including bridges, tunnels, highways, railways, and buildings. The use of smart fasteners can help to detect potential problems early, prevent structural failure or damage, and reduce maintenance costs over the long term. In recent years, Chinese government has been investing in the research and development of smart fasteners and promoting their use in infrastructure projects. For example, the government has launched a Smart Fasteners Industrial Technology Innovation Strategic Alliance to coordinate research and development efforts in this area. In addition, Chinese government has included the use of smart fasteners in several key infrastructure projects, including Hong Kong-Zhuhai-Macao Bridge and Beijing-Shanghai High-Speed Railway. As the use of smart fasteners becomes more widespread in China, it is expected that this technology will play an increasingly important role in the country's infrastructure development plans. According to a recent report by Grand View Research, the global smart fasteners market was valued at USD 187.4 million in 2019 and is expected to reach USD 414.2 million by 2027, growing at a CAGR of 10.4% from 2020 to 2027. China is the fastest growing country in the world in this sector.

## **E-commerce and Its Effect on Chinese Consumption of Construction Fasteners**

The COVID-19 pandemic has also accelerated the adoption of e-commerce in the Chinese construction fastener market. Online

sales platforms have become increasingly popular, providing customers with greater convenience and access to a wider range of products. This trend is expected to continue post-pandemic, with more companies embracing e-commerce as a key channel for sales. According to a report by Technavio, the market size of online sales of industrial fasteners in China was estimated to be USD 1 billion in 2022 and is expected to grow at a compound annual growth rate (CAGR) of approximately 10% between 2023 and 2027. This suggests that a significant portion of fastener trade is now taking place online in China.

## **Conclusion**

In conclusion, the Chinese construction fastener market is expected to recover and grow after the pandemic, driven by massive infrastructure development projects, increasing urbanization, rising disposable incomes, and the adoption of smart fasteners. The trend towards e-commerce is also expected to continue, providing customers with greater convenience and access to a wider range of products. According to these changes, the future of construction fasteners in China looks promising, with the market expected to experience steady growth over the coming years. According to a report by QYResearch, the construction fastener market in China was valued at approximately USD 11.0 billion in 2022 and is expected to reach USD 12.8 billion by the end of 2027, growing at a CAGR of 3.1% between 2022 and 2027.

