

# Market Watch: The Aerospace Fastener Market in China

## 市场观察：中国航太紧固件市场

### Introduction (The Soaring Aerospace Industry)

China's aerospace industry has been soaring to new heights, and it's not just about expanding commercial aviation. The country has made significant strides in developing its aerospace capabilities, including the production of military aircraft, satellites, and space exploration missions. As China continues to assert itself as a major player in the global aerospace sector, the demand for aerospace fasteners has never been higher. For example:

- 1. Commercial Aircraft Manufacturing:** China's aerospace industry has witnessed significant growth in commercial aircraft manufacturing. Companies like COMAC (Commercial Aircraft Corporation of China) have developed and produced advanced commercial aircraft models such as the C919, which aim at competing with established global players like Boeing and Airbus. **China's commercial aircraft market was growing rapidly, with the market size projected to be around US\$1.2 trillion by 2035, driven by the production and sale of commercial aircraft like the COMAC C919.**
- 2. Space Exploration:** China has made remarkable strides in space exploration. The successful missions of Chang'e lunar landers and the Tianzhou-2 cargo spacecraft demonstrate China's growing capabilities in space technology and exploration. China's space exploration sector has been steadily increasing its budget and activities. **In 2023, China allocated approximately US\$12 billion to its space program.**
- 3. Satellite Technology:** China has become a key player in the global satellite industry. It has launched a wide range of satellites for various purposes, including communication, navigation, Earth observation, and scientific research. **China's satellite industry is substantial, with an**

**estimated market size of over US\$25 billion.** This includes the production and launch of various types of satellites for communication, navigation, Earth observation, and other purposes.

- 4. Military Aerospace:** China's aerospace industry extends to military applications, with the development of advanced fighter jets like the J-20 and J-31. These aircraft showcase China's efforts to modernize its military capabilities. **The market size for China's military aerospace industry is not publicly disclosed, but it is a significant part of the country's overall defence budget, which was approximately US\$230 billion in 2023.**
- 5. Commercial Space Sector:** China's commercial space sector, including launch services and satellite technology, has seen substantial growth. **The exact market size can vary from year to year, but is estimated to be in billions of dollars.**

In a simple word China is the 2nd main players in the aerospace industry after USA, therefore; China's aerospace industry has demonstrated a commitment to global cooperation through its active participation in prestigious ventures like the International Space Station (ISS) and strategic partnerships with various countries for space missions. Beyond its contributions to international space endeavours, China's aerospace industry plays a pivotal role in shaping the nation's economy. This impact is multifaceted, fostering job creation, spurring technological advancements, and facilitating lucrative export opportunities. Consequently, China's economic trajectory is significantly bolstered. Remarkably, China's aerospace industry has now emerged as a formidable global competitor, challenging the established giants in the sector. This newfound competitive spirit has injected fresh vitality into the aerospace domain, fostering heightened innovation and driving unprecedented competition within the industry.



## A Key Component: Aerospace Fasteners

Aerospace fasteners are often-overlooked but critical components of any aircraft or spacecraft. These small, yet essential, pieces of hardware hold together the various components and structures of an aerospace vehicle. They are subjected to extreme conditions, including high temperatures, vibrations, and forces, making their reliability and performance paramount. **The global aerospace fasteners market size was valued at US\$ 5.3 billion in 2022 and is projected to grow from US\$6.09 billion in 2023 to US\$9.88 billion in 2030, at a CAGR of 7.16%.**

The aerospace fastener market in China has been expanding rapidly. While precise figures can be hard to come by, **industry experts estimate that China's market is more than 8% of this number (in 2023 it is more than US\$ 480 million) and the market has been growing at an annual rate of approximately 10%.**

## Conclusion

**Several key factors are driving the growth of the aerospace fastener market in China:**

- 1. Rapid Expansion of Civil Aviation:** China's domestic aviation market is one of the fastest-growing in the world. With a rising middle class and increased air travel, airlines are expanding their fleets, creating a continuous demand for aircraft and aerospace fasteners.
- 2. Space Exploration:** China's ambitious space programs, including missions to the moon and Mars, have boosted the demand for specialized aerospace fasteners designed for spacecraft. These missions require fasteners that can withstand the harsh conditions of space.
- 3. Defence Modernization:** China's ongoing efforts to modernize its military have led to increased production of military aircraft and equipment. This, in turn, has driven up the demand for aerospace fasteners used in military applications.
- 4. Technological Advancements:** Chinese aerospace manufacturers are investing heavily in research and development to produce more advanced and lightweight aircraft and spacecraft. This requires innovative aerospace fasteners that can meet the stringent performance criteria.
- 5. Global Trade and Partnerships:** China's aerospace industry has been actively seeking international partnerships and collaboration. This has opened up new opportunities for Chinese aerospace fastener manufacturers to enter the global market.

While the aerospace fastener market in China is poised for significant growth, it also faces some challenges:

- 1. Quality and Certification:** The aerospace industry demands the highest levels of quality and safety. Chinese fastener manufacturers must adhere to stringent international standards and obtain necessary certifications to compete in the global market.
- 2. Competition:** The global aerospace fastener market is highly competitive, with established players from Europe and the United States. Chinese companies must differentiate themselves through quality, innovation, and cost-effectiveness.
- 3. Supply Chain Disruptions:** As seen during the COVID-19 pandemic, disruptions in the supply chain can have a significant impact on aerospace manufacturing. Ensuring a resilient supply chain is crucial.
- 4. Intellectual Property:** Developing advanced aerospace fasteners often involves cutting-edge technology and intellectual property considerations. Protecting IP and avoiding infringement are essential.



With all these challenges and opportunities, it must be said that **the aerospace fastener market in China is on a steady ascent, driven by a confluence of factors including a booming civil aviation industry, space exploration ambitions, and technological advancements.** While challenges such as competition and quality control persist, Chinese aerospace fastener companies are poised for growth as they innovate and expand their global footprint. As the aerospace industry continues to evolve, China's role as a major player in this sector is set to solidify, making it an exciting market to watch.

