

Chinese New Energy Car Marks the Fastest Growth Amid Stabilized Chinese Industrial Economy in 2021



The data released on January 17 this year by National Bureau of Statistics of China shows that last year China's manufacturing industry grew 5.8% over the previous year and that the average growth for the respective past two years was 6.1%. In December 2021, the country's manufacturing industry grew 4.3% and this was the third month in succession with an upward recovery. High-tech manufacturing industry and equipment manufacturing industry grew 18.2% and 12.9% respectively.

The export delivery at high water mark drives the production of industrial products. The industrial sector has returned to the pre-pandemic level, but the recovery is imbalanced. Some mid and downstream companies are still dealing with supply shortages, lack of critical components/materials, logistics cost pressures, and regional power cuts. China's manufacturing for 2022 is expected to stay within a stable growth range of 5.5% to 6.0%.

The highlight of China's manufacturing industry in 2021 was the explosive new energy car growth with 3-digit consecutive growth. The data by China Association of Automobile Manufacturers shows that new energy car sales grew 1.6 times in 2021, taking up 13.4% of the market share, up 8 percentage points over the first half of 2021. Besides new energy cars, the automotive industry on the whole ditched the negative growth of -7.1% and grew 3.4% in December last year, ending the 7-month consecutive drop.

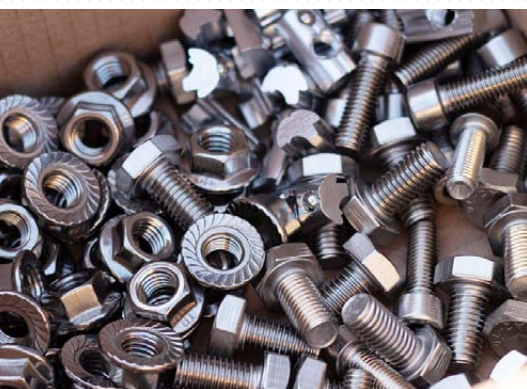
Industry Update



China's 2021 GDP Grows 8.1%

National Bureau of Statistics of China reveals that China's 2021 GDP reached RMB 114.367 trillion, up 8.1% year over year. Q1 grew 18.3%, Q2 grew 7.9%, Q3 grew 4.9% and Q4 grew 4%.

Calculated in USD, China's national domestic GDP was USD 17.7 trillion in 2021 and was ranked second in the world. According to IMF's forecast, U.S. economy grew about USD 2 trillion in 2021, but China grew USD 1 trillion more than the U.S and will reduce the gap with the U.S. economic scale. The GDP gap between the U.S. and China was USD 6.2 trillion in 2020, and by 2021 that gap shrank by around USD 1 trillion. China's total GDP is likely to reach 77.3% of U.S. total GDP.



Japan's Fastener Export Shows Recovery in 2021

Ministry of Finance (Japan) released the export figures of bolts, nuts and other fasteners for 2021. The export volume for the 12 months of 2021 was 343.411 thousand tons, up 23.9% from 2020; the export value was JPY 320.876 billion, up 26.3%. The export volume and price both returned to the level before the pandemic outbreak, revealing an upward trend.

The fastener price index ramped up in 2021 compared to 2020. According to Bank of Japan, in average price index, the growth rates were 79% for iron ore, 61% for copper, 39% for nickel, 2% for bolts and nuts, and 3% for screws. Around half of the items have shown increased price indexes recently.

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An Insight into Trends in the Fastener Industry 2022

As we move into another exciting year for the fastener industry, Lars Holm, Managing Director of Swedish specialist stainless steel fastener maker BUMAX gives us his insights into what he sees as the three most important industry trends in 2022.

1. The growing importance of sustainability

Many industries are facing greater demands for sustainability and circularity – including product Life Cycle Assessments (LCAs) and Environmental Product Declarations (EPDs). Stainless steel is highly recyclable, which means that stainless steel fasteners can be a more sustainable material option than carbon steel in many applications. There will be increasing pressure from customers, partners, owners and society as a whole on companies, products and projects to be as sustainable as possible and that includes using fastener raw materials that are as 'green' and long-lasting as possible.

As industries better understand LCA costs, long-term value and sustainability, we anticipate new market opportunities and a growing demand for stainless steel materials. The fact is that premium stainless steel fasteners last longer, and require less maintenance and replacement, which also boost their sustainability profile. Therefore, I anticipate a shift from standard to premium fasteners and specifically from carbon to stainless steel fasteners.

2. Continued innovation

A great deal has happened with premium stainless steel fasteners in recent years in terms of new properties and capabilities, and I expect this to continue in 2022 as new products are developed to meet even more demanding fastener applications. We see new fasteners that are stronger and more corrosion resistant for a wide range of industry segments.

3. Continued market instability

Unfortunately, economic instability, supply chain issues and uncertainty look likely to continue well into 2022, largely due to the ongoing effects of the Covid-19 pandemic. We will continue to see supply chain pricing pressures in the form of higher steel and logistics costs and the challenge for industry actors is to curb these effects. Some will handle it better than others. Winners will be fastener manufacturers with longstanding relationships with their suppliers, their own production facilities and with large stocks of products ready for shipping to customers. It is likely that market prices will continue to rise further during 2022.

Lars Holm is Managing Director for BUMAX, a Sweden-based world-leading specialist manufacturer of premium stainless steel fasteners. Holm has a decade-long background from the global logistics, manufacturing, adhesive and tooling industries.

Fastener Manufacturers Report Over NT\$10 Billion Revenue as Fastener Orders Surge

Since 2021 Taiwanese fastener industry has felt the strongly growing demand for fasteners from U.S. and European clients. Although the lack of containers and port congestion remain unsolved, sales and unit prices of their exports still showed a significant growth. Last year, the entire export volume and value of Taiwanese fastener industry both reached a new high. According to the database of Taiwan Customs, Taiwan exported nearly 1.7 million tons of fasteners to the world (roughly up 18% from 2020); if calculated by value, it exported around US\$5.55 bn worth of fasteners to the world (up around 34% from 2020).

Many leading export-oriented Taiwanese fastener companies (e.g., BBI, Boltun, Chun Yu, Tycoons, and so on) reported that their annual revenues were over NT\$ 10 bn in 2021. Among these companies, BBI even achieved the record of over NT\$20 bn. According to several leading fastener companies, due to the strong and growing demand for fasteners from automotive, construction, and many other industries in the U.S., Europe, and Asia, as well as fully booked capacities, and the expectation of a better situation regarding the port congestion issue in Q2 2022, the outlook for 2022 is very likely to turn really well.



EV Trend Now Sweeps into Japanese Fastener R&D Market

Poised to take over Tesla, the newcomer Lucid emerged as a surprise and topped the market with its title for creating a battery of 520 mileage. The EV trend is sweeping the Japanese components manufacturers like a tsunami and it doesn't exclude fastener-related companies.

The white-hot EV market has forced a change in Japanese fasteners. While a fuel vehicle uses 30,000 components, an EV only requires half of the total amount. To reduce power consumption, EVs must be lightweight to reduce vehicle weight, which means manufacturers must use lightweight resin instead of iron as the material for automotive components.

The same lightweight requirement goes for fasteners. Each 0.5 grams saved on a single screw will reduce over 1 kilogram for an EV's total weight. Currently there are some Japanese fastener manufacturers who have developed aluminum screws weighing one-third of iron screws. With nearly the same contractibility as resin when exposed to heat, aluminum screws work well with resin automotive components. Some Japanese manufacturers have even developed CFRP fasteners. Additionally, some have developed titanium screws for use on EVs that can rebound like a spring and hence are resistant to vibration and loosening, but the problem lies in the cost which is 30 times higher than that of iron screws as well as the difficulty in processing titanium screws.

Besides screws, screwdrivers will have to be re-designed to drive screws into small electronic components on EVs. EVs require fastening fasteners in a very confined space; and therefore, a combination of fastening screws with adhesives and thermal welding emerges on the market to prevent screws from loosening.



Bossard's Sales Financial Year and Fourth Quarter 2021

BOSSARD
Proven Productivity

Thanks to further market share gains in a strong economic environment, the Bossard Group recorded sales of CHF 995.1 million in 2021 (prior year: CHF 812.8 million). This corresponds to organic growth of 21.1 percent, with currency effects and acquisitions having a positive impact. All regions performed well in the fourth quarter, even though the high basis effect of the prior year was clearly felt in America. The Bossard Group's fourth quarter sales increased by 17.9 percent to CHF 250.8 million (prior year: CHF 212.8 million).

The growth of the Bossard Group that began with the broad-based economic upturn in the fourth quarter of 2020 continued into the fourth quarter of 2021. At the same time, Europe and Asia recorded impressive double-digit growth rates. The rising COVID-19 infection rates in various market regions continued to foster uncertainty. Simultaneously strong global demand continued to strain the situation on the procurement market, resulting in further price increases and longer delivery times. Bossard will release its complete annual report 2021 on March 2, 2022.

Companies Development



Japanese Public Company Torq to Launch the Industry's Largest Fastener Distribution Center in April

Torq used to go by the name of Kobayashi Metals Limited. The company is building the industry's largest fastener distribution center set to span 9,917 square meters in Taisho Ward of Osaka. With an investment of JPN 4 billion, this is the largest spending in the company's history. The new center is equipped with the latest equipment and is expected to be inaugurated in April 2022. The volume of shipment will be two times that of the existing center, and the productivity will be over three times. The company is planning to increase stock from 35 thousand items to 100 thousand items, which is expected to drive up 2023 revenue by JPY 1 billion.

Furthermore, Torq is developing an e-commerce system scheduled to be launched across Japan this April, which will improve production efficiency by over 30% in 2023. It will tap into the B2C market through online sales.



Tong Ming Enterprise's 12-month Revenue in 2021 Increases

Stainless steel manufacturer Tong Ming reported that its consolidated revenue in December 2021 was NTD 1.432 billion, a record high at a monthly growth of 10% and annual growth of 36.21%. The Q4 2021 revenue broke records at NTD 3.942 billion, a quarterly growth of 8.8%. The 12-month revenue in 2021 was NTD 13.272 billion, an annual growth of 44.49%. Both Q4 2021 and full-year revenues set a new high. Focusing on the Chinese market, Tong Ming expects that China will continue with building infrastructure this year and the company will increase the capacity to hit a new record.



The Chinese government plans to invest RMB 10-17.5 trillion in 5G, IIoT, data center, AI, and EV chargers. To grasp the opportunity, Tong Ming is working on a new plant in Zhejiang Province and expects the annual capacity of the new plant to reach 80 thousand tons in 3 to 5 years. Tong Ming's current annual capacity is 120 thousand tons. The future total capacity is estimated to increase by 100 thousand tons. The new plant will mainly manufacture small screws and nuts and will be put into operation in Q4 2022.

Trifast Invests to Increase Its European Manufacturing Capacity

International fastener specialist TR VIC spa, part of the Trifast plc group of companies, has once again benefited from a significant investment at its manufacturing site in central Italy. In expanding the TR Viterie Italia Centrale (TR VIC spa) site in Fossato Di Vico in Umbria, Trifast is further increasing its capacity to meet the growing European white goods market. They have experienced unprecedented demand, which has been fuelled by the increase in consumer driven home improvements during Covid that shows no signs of abating.



The investment is largely focused on securing new machinery at the site, all locally sourced from Italian manufacturers, and this will increase the production capacity by some 33%. It builds on an earlier move back in January 2021 to implement additional multi-station cold forming machinery in their heading section. This will result in their ability to produce an additional 500 million pieces annually over the next 12 months. The site is focused on being 'Industry 4.0 compliant' creating a greener and more

efficient workspace, providing a modern, fresh and diverse environment. The work is to be completed in two phases in 2022 and 2023 which includes extending the manufacturing footprint on the site.

Andrew Nuttall, European Managing Director of TR Fastenings, said: "The order book has increased dramatically over the past two years. As more people work from home, they are investing in their domestic appliances and not spending so much on holidays etc and instead enhancing their home environment. This means that the demand for white goods has significantly increased. Our major customers want to see shorter and more agile supply chains. The lead times out of Asia have increased significantly during Covid and freight costs and container issues have meant that we had to react and onshore more product. This investment strategy allows us to better meet our customer needs, now and for the future."

The investment has been well received locally, creating new jobs and this has piqued the interest with local Government and the Media giving us the recognition that we are an important manufacturing company in this key area of Italy. We are proud of the fact that we have chosen Italian companies to supply the new machinery." The TR VIC site serves 24 countries around the world and the site will also have capacity to serve more Health & Home and Light & Heavy Vehicle sectors. TR VIC is a member of the European Fastener Distributor Association (EFDA) and has IATF 16949 accreditation.

Southco Launches Die Center in Shenzhen



Southco is a world-leading engineering hardware solution provider supplying various fasteners, quick-release fasteners, inserts and other accessories applied in the automotive, aerospace, transportation, engineering, machinery, construction and medical industries.

The Southco Die Center in Shenzhen has become operational since November 30, 2021. The opening ceremony was hosted by the director of Southco Asia Pacific. The center was planned and prepared at the start of 2021 and began a trial launch in July. Currently having 1,100 square meters of land area, 22 sets of equipment and 34 employees, the new die center will focus on designing and manufacturing zinc/aluminum cast dies, punch dies, injection mold dies and overmolding dies.

Shanghai University Successfully Develops the World's First Grade 19.8 Bolt



After more than a year of trial and error, a team working on high performance steel at Shanghai University of Material Science and Engineering worked with 7 other collaborators, and successfully developed the world's first Grade 19.8 ultra-high strength bolt dubbed as the world's strongest fastener. By optimizing the material and heat treatment, the Grade 19.8 bolt achieves a tensile strength of 1900~2070MPa under room temperature. A shear test compliant to GJB 3376-1998 standard reveals the bolt's shear at 115KN. A room temperature tensile fatigue strength test compliant to GJB 3376-1998 and GJB715.30A-2002 standards reveals that the bolt didn't break during the test and didn't crack on the bolt's surface and threads after its removal. This newly-developed ultra-high strength bolt can meet requirements with its combined performance.





South Korean Hyodong Machine President Receives Gold Tower Industry Medal

Ministry of Trade, Industry and Energy and Korea Machinery Industry Promotion Association held the 2021 Digital Transformation Fair Online & Onsite from October 19 to 22, 2021.

Vice Minister Park Jin-gyu of S. Korea's Ministry of Trade, Industry and Energy said machinery has been the second largest export industry of South Korea since 2015. This industry gains importance by introducing advanced technology in response to trade protectionism, digital transformation and carbon neutrality initiatives.

President of Hyodong Machine was honored with the "Gold Tower Industry Medal" during the event. His effort in developing large forging and forming machines and dedication to smart manufacturing leads the technological development of the South Korean machine industry. He is recognized as one of the characters to have revolutionized and secured the international competitiveness of the South Korean machine industry.

NORMA Group Starts Production Cooperation with Italian Water Management Company

NORMA Group has entered into a strategic partnership with SAB S.p.A ("SAB"), an Italian specialist in joining technology for drinking water, irrigation and drainage. SAB now produces high-quality NORMA PN 16 compression fittings certified for drinking water applications for NORMA Group. Further products are to follow. In addition, the agreement reached stipulates that NORMA Group and SAB will jointly develop new products. With this cooperation, NORMA Group is strengthening its water management business in Europe and, in particular, further expanding its position in the field of drinking water applications.

"SAB has a proven record of outstanding product expertise," says Dr. Michael Schneider, CEO of NORMA Group. "With this cooperation, we gain additional production resources and can serve our customers in Europe better and faster with water management solutions. Efficient use of the scarce resource of water is becoming increasingly important, which is why we are consistently expanding our water management business in all regions."



TriMas Acquires TFI Aerospace

TriMas Corporation and TriMas Aerospace have successfully completed the acquisition of TFI Aerospace based in Orangeville, Ontario Canada. Located near Toronto, Canada, TFI is a leading manufacturer and supplier of specialty fasteners used in a variety of applications for aerospace and other industrial end markets. TFI previously operated as a private, family-owned company, and has generated approximately \$6 million in revenue over the past year.

This acquisition will further expand TriMas Aerospace's fastener product lines with the addition of complimentary niche products that have an exciting growth trajectory resulting from TFI's new program wins and overall market recovery. TriMas also anticipates TFI's customers will benefit from the added innovation and manufacturing depth offered by TriMas Aerospace, while TriMas Aerospace's customers will enjoy additional product offerings.

TFI Aerospace will continue to operate as an independent manufacturing site at its current location in Canada, led by VP General Manager, Thomas Squires, who along with his father Ted have been building and leading that business for several years leading up to this point. TriMas Aerospace president John Schaefer and some other key TriMas Aerospace senior leaders will be working closely with Thomas and the rest of the TFI team to integrate the business into TriMas Aerospace over the coming months. While relatively small in size compared to some of their other sites and businesses, TFI has some exciting growth opportunities in the next few years that they look forward to supporting.



MW Industries Expands Threaded Fastener Products Through Acquisition of Ideal Fasteners

MW Industries, a leading provider of precision components, announced the acquisition of Ideal Fasteners, a global manufacturer of threaded fasteners.

The acquisition of Ideal Fasteners closed on December 10, 2021 and expands MW Industries' existing US-based manufacturing locations to provide precision components for worldwide distribution. The combined company will offer an increased selection of stock, standard, and custom socket caps, button sockets, flat socket caps, and other threaded fasteners along with a wide variety of highly engineered metal and plastic components.

"Ideal Fasteners is the perfect addition to the MW Industries family. At a time when customers want components faster than ever before, businesses need to be able to quickly source a variety of parts from a single provider. Ideal Fasteners allows us to offer a greater breadth of products so we can provide the diversity of products customers need. We are excited to integrate the Ideal Fasteners product lines into our portfolio," said Simon Newman, CEO of MW Industries.



MW Industries



TSLG Receives Growth Enterprise Prize in Jiangsu Province, China

The 20th China (Suzhou) Electronic Manufacturer Expo held the "Purple Apex Award" ceremony on November 19, 2021. It is the only provincial-level award that Taiwanese enterprises in China can be eligible to receive.

TSLG was honored with the growth enterprise award. The company provides professional engineering consultation and production management. It established a technical center in China and a CNAS-certified anti-loosening inspection center to provide high quality product applications and quality verification service. It was also nominated into the pre-applied anti-loosening standard committee to formulate standards with top players of the industry.

Hong Kong Screw & Fastener Council's New Chairman in Office

The Council held a member assembly on December 13, 2021 to elect the new board of directors. The new chairman is Mr. Ping-Fai Tsui, who will lead all other directors on council affairs and continue interaction and collaboration with other commerce associations and organizations. □



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Hong Kong Screw & Fastener Council