# THE GLOBAL FASTENER MARKET

compiled by Fastener World .

In recent years, China continues to spare no effort to catch up with the industrial development trend of the whole world, and its economy is growing rapidly. With the cross-border economic cooperating initiative of "One Belt, One Road", China's development in the future will definitely draw the attention of more people. In order not to be eliminated from the market in all these reforms, many fastener companies not only try their best when facing fierce competition, but also eye on expanding business to the global fastener market. Also, China has dominated the Asian fastener market since 2013 and it may, sooner or later, dominate the whole global fastener market.

In this special feature, we invite some companies, which have successfully expanded their business to the global fastener market, to share their endeavors and achievements.

### Combining Unique Manufacturing Technique with Strict Quality Control to Become a Professional Fastener Manufacturer Yuyao Biaoer Trading Co., Ltd.

Yuyao Gao Zhong Ya Fastener Factory Plant No. 2, also known as Yuyao Biaoer Trading Co., Ltd., was established in 1993 and is specialized in the production of high-temperature and high-pressure resistant fasteners. Over the past 8 years, Yuyao Biaoer has been dedicated to the production and R&D of ball-type parts and gradually making its sales network more complete. Yuyao has been certified to ISO 9001: 2000. GB798 eyelet bolts, DIN444 eye bolt and related ball type hardware Youyao Biaoer currently manufactures have been always the first choice of domestic and foreign companies purchasing fasteners and the top components supplier for international brands.

Main products of Yuyao Biaoer include:

(1) Eyelet bolts (GB798, also called well-engineered eye bolts) and eyebolts (DIN444), which have very smooth ball-shape appearances and high precision threads. They can greatly increase the quality of clients' products when used as accessories (available in stock).

(2) Various non-standard ball-shape hardware with shanks, applicable to various food processing machines, textile machines, medical devices and mini trucks.

(3) Industrial door hinges & assortments (available in stock).

Products are available in materials like iron, copper and stainless steel and the specifications are in the range of M5-M100. In terms of the volume of products, as many clients of Yuyao Biaoer from different industries continuously place medium to small batch orders, the company has had various non-standard parts in stock, which can shorten the time needed for manufacturing and make the product development cycle of clients shorter, thus saving the time and cost for R&D.

The business profile of Yuyao Biaoer includes products applied to elevators, ship machinery, electric facilities, pharmaceuticals and food processing machines. Recently, its business has been also expanded to the turned parts for robotic arms.



Due to the trend of industrial automation and the declining number of employees, Yuyao Biaoer has planned to set up a new warehouse. In addition, due to the change in the number of employees, changes have appeared in the proportion of client categories. Originally, the proportion was 70% for end users and 30% for distributors. However, the current proportion for end users has been on a gradual decline, whereas the proportion for distributors is increasing. Yuyao Biaoer mainly focuses its business on export. Germany takes 60% of its export and the rest of proportion is shared by USA and other markets. In the future, the company will also plan to expand business to other emerging markets in S. America and continue to release excellent quality products to a wide range of clients.

General manager of Yuyao Biaoer, Mr. Lifei Ruan said, "Facing the competition in the global fastener market and challenges from our competitors that are also leading players in the market, Yuyao Biaoer respects them and wishes them all the best. At the same time, we will strive to establish our own high quality factory management system to offer stable quality, shorten the manufacturing time and build up a coshared inventory system with our competitors and clients. In the area of ball-type hardware with shanks (similar to eyebolts), Yuyao Biaoer looks forward to going further with more successful results."

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## Maintaining Good Quality and Offering the Best Service K&H AUTO PARTS CO., LTD.

The development of rivet nuts in China was first initiated in the 1980s and is still ongoing. Due to the ease of use and stable performance of rivet nuts, the application of rivet nuts in recent years has become wider than before. However, the techniques and standards used by each Chinese rivet nut manufacturer differ. Compared to Taiwan and Europe, the difference can be still observed in the production lines of Chinese manufacturers.

With the passion for equipment, molds & dies and manufacturing techniques, more than 10 years of rivet nut manufacturing experience and the knowledge of the global market, K&H Auto parts Co., Ltd. was officially established in 2014, which is a joint venture of Haining R-BEST Hardware Co., Ltd. and Dongguan Guanhong Hardware Co., Ltd. It produces mainly carbon steel, stainless steel, copper and aluminum rivet nuts, self-clinching nuts and self-clinching studs. In addition to being applied to motor vehicles, K&H products are also widely used in products and peripherals for wind power, railways, elevators, electricity distribution, air-conditioning, furniture, construction and mechanical & electrical products. K&H anticipates to become a company that is able to provide clients with the service of rivet nut development, manufacturing and distribution. Its products are not only sold to the domestic Chinese market, but also exported to Europe, Japan, S. Korea, etc.

#### **Improving Techniques and Strengthening the Competitive Edge**

Quality determines whether a company's business can sustain or not. K&H even considers quality to be the most important part of its products, as a result it conducts very strict examination on every manufacturing process. Every batch of products K&H delivers to its clients will be tested by accredited laboratories with detailed testing reports and all tested samples will be kept for at least 1



year in case any quality issue may be reported in the future. Although K&H is a manufacturer, it hopes to become a serviceoriented company that offers clients more professional knowledge, as well as to design more practical products for clients and provide better aftersales service.

K&H products are mainly sold to Europe. However, with the continuously improving manufacturing level in the domestic



market, more technique info sharing in the industry, and the dropping product prices, the keen competition in the market has become more significant in recent years. However, K&H sticks to the principle of "reducing cost without lowering quality and giving more benefits back to clients." The next step of K&H is to develop new markets, particularly those emerging markets in S. America, Latin America and Africa.

K&H has been recently dedicated to improving its manufacturing techniques, elevating employees' skills, increasing manufacturing efficiency and lowering the management cost. It hopes to gain more favorable competitive edge in the market through these improvements. Moreover, K&H has also recently taken a huge leap forward in the R&D of new technology. With 2 years of remodeling, K&H has completed the cold forging of stainless steel and has developed the new R-type thread, which can achieve tight fastening without changing the thread condition of the mating bolt, which can be reused for many times, and which can change the force bearing point of threads on the bolt. If compared to U.S. DTFLOCK fastener threads, the new thread type is more convenient, more durable and offers better locking results. This R-type has been patented in China, Japan, S. Korea and the EU.

# Trying the Best to Create the Highest Added Value for Clients

With the management philosophy of "Quality First. Honesty. Customer First. Sincere Service" and high quality products & well-managed service that win the trust of new and existing clients, K&H has the vision to "satisfy all rivet nut demand and manufacture rivet nuts that help clients make a fortune." In the development of globalization that brings both opportunities and challenges, K&H will definitely continue to make progress and all the employees of K&H will make their effort to make K&H a specialized company.

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#### **Client-oriented; Creating High Value for Clients**

# Dongguan City Aoyi Hardware Co., Ltd.

#### **Production Scale**

Aoyi Hardware (formerly Jia Sheng Hardware (H.K.) Limited) was established on April 1st, 2009. It has 45 headers, 10 multi-stage cold forging machines, 50 threading machines and peripheral lathing/ drilling/milling machines, as well as advanced quality inspection equipment and professional quality control staff. The main peripheral inspection equipment includes 6 computerized optical sorting machines, 1 optical coating thickness instrument, 2 tensile strength testers, 2 Vickers hardness (HV) gauges, and 2 Rockwell hardness (HRC/HRB/HRA) gauges. The company adopts de-embrittlement testing devices (including freezing test), head rupture testing devices, and other inspection equipment and methods including torque test, 2D test, concentricity test, metallographic test and water boiling test to ensure that every product is finished with strict quality control. With the addition of new equipment, Aoyi's annual production and revenue both continue to growth year after year. Up to 2016, its annual production has neared 1.5 trillion pieces and the annual revenue reached RMB 50 million.

#### **Production Range**

Aoyi produces various screws (made of copper, aluminum, stainless steel, low/medium/high carbon steel and alloy steel), high strength screws (compliant with ISO/DIN/GB standards at grades 4.8, 6.8, 8.8, 12.9), high strength screws compliant with ASME/ ANSI standards at grades 5 and 8, nuts, springs, automotive parts, CNC parts, etc. Most of these products are high strength fasteners for motor vehicles and precision fasteners that are widely applied to cars, sporting equipment (treadmills, roller skates, scooters), bikes, mountain bikes, selfbalancing scooters, precision electronics (smart phones, digital cameras, PC radiators), electronics



(printers, fax machines, switches, household appliances), electrical and mechanical products (motors, power distribution boxes), lighting (LED), toys, speakers, grills, etc.



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#### **Quality Assurance**

Aoyi's products completely comply with REACH requirements. The company is able to provide PPAP/MSDS/5M/8D reports. Aoyi has been certified to ISO9001:2008, ISO1401:2004, and ISO/TS16949:2009, and expanded investment and development in the automotive industry. It collaborates with many worldly renowned companies including SIEMENS, WÜRTH, Hasegawa, SANYO, and THE HOME DEPOT. Currently, 50% of Aoyi's sales are for the domestic market and the other 50% are for the overseas market. The overseas sales are mostly contributed by the U.S., Europe and Japan. In the future, the company will continue to develop these markets.

#### **Clients' Success Can Bring You to Your Achievement**

The core value of Aoyi is to stay true to people. It treats clients, employees and the society with honesty, fully satisfies any client's demand with a quick response, and continuously creates value for clients, all of which are a direction Aoyi will continue to move toward. As far as Aoyi is concerned, clients' success can bring it to the achievement, too.

#### To Continuously Satisfy Clients' Demand with High Quality and Punctual Delivery

Aoyi has a very professional and capable team for technical development, production, quality control, marketing and aftersales service, so it can offer high quality products and quick delivery that can help maintain stable, healthy, continuous and quick development. To play a leading role in offering the best solutions to the world market is the mission statement of Aoyi, so Aoyi always dedicates itself to obtaining more technology and seeking progress, and continues to provide service for clients from every industry segment. In the near future, Aoyi hopes to strengthen business collaboration with more clients and related industries and work with them together to create a better and prosperous future for all.

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[For more information, see P.101]

# Excellent Fastener Company in Hebei Province of China Handan Jinggong Construction Anchor Manufactory Co., Ltd.

Handan Jinggong Construction Anchor Manufactory (HJCAM) is located in Handan City, the largest hub of standard parts in China, adjacent to Jingguang Railway on the east side and near Beijing - Shenzhen Highway. It has geographic advantage and convenient traffic. It specializes in construction anchors, and is a technical company integrating scientific research, development, production, sales and service. It has been gaining strength over the past decade. So far it has had a large factory area spanning 8,400 square meters, and has set up a branch in Yongnian. It mainly produces fasteners, and is also a large private trading company in Handan dedicating to developing overseas markets.

The whole company has fully implemented the ISO9000 quality management system, and has passed the requirement of ISO9001:2008. Therefore, it currently focuses on collaboration with ETA-certified clients. It also has a high quality and complete quality control system as well as advanced production and inspection equipment. Workshop production is mostly done by multi-stage headers. The equipment inspects product properties like tensile strength, hardness, coating thickness, and metallographic characteristics, and is applied to construction anchors and fasteners. Meanwhile, the advanced equipment guarantees the company's annual capacity at as high as 1,500 tons that are sold across the world. The sale proportions in domestic and overseas markets are: 15% for the domestic market, 10% for Australia, 20% for Europe, 10% for South Korea, 8% for the Americas, 4% for Russia, 30% for Southeast Asia, and 3% for other regions. Furthermore, over the years the company has had a long collaboration with many worldlyrenowned partners such as FISHER, INDEX, ICON, MACSIM, FIFTH ELEMENT, and TRUTEK. It has a promise on top reputation, and quality first, and is a highly professional and credible fastener maker/seller. In the meantime, it is gearing toward specialization and conglomeration with the support and care of its vast range of clients.

#### Providing High-Value & Low-Price Products Through Profession and Experience

HJCAM's main products are chemical anchors, expansion bolts and fasteners. Profession is the reason that the company can outstand in the current ever-competitive international society. Through years of experience, it has successfully developed many dies for its products to ensure a complete range of specifications. It strictly follows the national steel standards to ensure rapid and legitimate sourcing of steel. It strictly controls the whole manufacturing process and quality, providing clients with reliable products. It innovates and adopts advanced equipment to reduce production costs, ensuring that the products with high value and low price have a firm foothold in the market. What is the most convincing about HJCAM is



that the products are quality insured by Peoples Insurance Company of China, and that they have passed the quality inspection of National Building Engineering Quality Supervision and Inspection Center for many times. It was respectively certified as the "Benchmark Company in Hebei Province", "Technological Company in Hebei", and "Company of Certified Product Quality in Hebei".

Ever since inception, HJCAM has been sticking to the spirit of "Innovation, Technology and Continuous Development". It actively copes with the challenges in the international market based on its principle of "Earnest Service". It calmly faces the increasingly fierce competition, adopts advanced technology and equipment, and through the course of growth it has made a reliable impression on clients with its high quality, low price and perfect after-sale service.

#### **Grand Goal & Non-stop Endeavors**

The era is progressing, and the global fastener market is continuously changing as well. In the future, HJCAM will steadily expand its current markets, and actively develop markets in other developing countries, hoping that someday its name will be seen on high-rise around the world and that it can proudly say "The world needs HJCAM". This is the goal that HJCAM strives for.

HJCAM will continue to expand its market in its future development. The first target is to increase the production scale. In the second half of the year the company will make an investment and produce concrete bolts and threaded rods. By the end of this year, 3 electroplating lines will consecutively become operational, further reducing production costs and increasing product competitiveness in the international market.

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## Designated Special Parts Expert Zhengbang Super Alloy Ltd.



Zhengbang Super Alloy Ltd. was established in 2007. General manager Mr. Jack Liu has been working in the special fastener industry since 2005. Initially, he helped customers look for European and American custom machined products and nickel-based super-alloy fasteners suppliers. Within a few years, the manager has accumulated a lot of valuable experience. After the company was established, Zhengbang actively expands the international market and establishes a cooperative relationship with many oil, energy, gas industry customers. With good services and high-quality products gaining customers' trust, the business grew quickly. In 2008, Sugian Zhengbang Machinery Co., Ltd. was set up, focusing on non-standard hardware and high/low temperature alloy fastener production and research and development. It understands a variety of special materials, production technology and product performance. The company specializes in small and fine parts. Sizes from # 4-40 / M3 to 6 "/ M150 can be customized, meeting the special needs for customers. Some of the nickel-based alloy fasteners have been imprinted with the company name "ZB" and are widely used in oil, gas, marine, energy, aerospace and other special areas.

At present, Zhengbang's business is divided into largescale hot forged components, precision machining parts, high/low temperature alloy fasteners and customized hexagonal head, hexagonal flange head, twelve-point head bolts, nuts, stamping assembly and so on. The company's products are all customized, whose materials and precision requirements are much higher than other general fasteners. Such as the aerospace fasteners UNEF, UNJF. The main / S32760, A286 / ASTM A453 GR660, Inconel718/625/601, Monel 400 / K500, Hastelloy C276 / C22,1.4529,254SMO, ASTM A193 GR B16 / B8M, urea grade stainless steel 725LN, titanium alloy, pure tungsten, pure zirconium and so on. Zhengbang keeps exploring the integration of effective resources, no matter how special the products are, or how much amount customers need. Zhengbang can provide reasonable prices and high quality products for them. These features have won customers' deep trust.

The managing philosophy of Zhengbang is customer first, and the company wins the market through its low-price and high-quality products. The strength of Zhengbang is that whatever others aren't willing or don't dare to do, they will do it. Mr. Liu mentioned, there was once a customer from the Netherlands, demanding Inconel 718 alloy, 12 points flange bolts and matching flange nuts. At that time, few companies were able to develop such a type of high quality product made of the special material and head at a competitive price. Despite the difficulties, Zhengbang wasn't frightened. Through repeated research and approach, the product was finally presented. What's more, the price was 60% lower than the customer had expected, making the customer satisfied.

Mr. Liu said that of course the business won't always be that smooth. Zhengbang also encountered many difficulties, and yet they never hold back. They make efforts when facing different problems. With teamwork and sharp insight, Zhengbang keeps improving and never stops. Zhengbang devotes to cooperating with Europe and America. Also, they are trying hard to expand their market in Northern Europe and Southeast Asia, hoping that in the near future, Zhengbang can get higher market share in these areas.

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