

# Blue Ocean of Industry Leading Players

by Tanya Shih, Fastener World Inc.

產業巨頭談市場藍海



*President De-Bao Lin highly recommends their self-drilling screws popular in Philippines. He is also very active in promoting these products in order to open a channel to the global market.*

## Long Pao's Self-drilling Screws, Popular Among Philippine End-users

Long Pao Fasteners Co., Ltd, a distinguished Taiwanese fastener company in Philippines, has been specialized in production, distribution, and trade of fasteners for over 30 years. It provides a variety of fasteners including chipboard screws, drywall screws, TEK screws, round head screws, flat head screws, nuts, washers, and many other construction fasteners. Above all, self-drilling screws are the most representative product of the company.

Unlike most Taiwanese fastener manufacturers relocating factories to China, President De-Bao Lin of Long Pao accepted one of his friends' advise 30 years ago and decided to establish his factory in Philippines. His main focus on developing the end-user market contributes to high brand awareness and market share of Long Pao's construction fasteners amid the Philippine distributors and wholesalers.

In addition to the insightful market development, President Lin's wealth of experience from his previous career in the engineering division of Chun Zu Machinery as well as his full comprehension on product feature were the drives for him to expand business to Philippines after he had established a factory in Taiwan. His factory in Taiwan built on a net floor area of 2,500 sq. meters mainly produces high value-added construction fasteners while the factory with a net floor area of 3,200 sq. meters in Manila mainly produces standard parts. Fasteners produced in both of these factories are 100% aimed at the Philippine construction fastener market.

Philippines is a growing market. "Fastener production in Philippines isn't very flourishing, and it still depends on import to satisfy market demand. Although its market demand is not as large as those of western countries, it has a population of over 100 million and the consumption level is rising every year, which will further increase the number of readily available houses in the market. All these business opportunities reflects fastener orders," said President Lin.

Having gained a solid base in the Philippine market, Long Pao currently begins to expand its business to different market sectors and is planning to widen distribution networks by establishing local offices or cooperating with agents. Long Pao has also planned to apply for ISO 9001 and CE certification to enhance the competitiveness of its products. Long Pao is truly a company filled with ambition!



## Yi Chun Forms Small Supply Chain Alliance, Connecting Production Lines in Taiwanese Fastener/Hardware Industry

"We may not be a big fastener company but are a professional one offering high quality," said President Richard Cherng affirmatively. Yi Chun has in-house molding ability and is competitive in offering customized service in the fastener and hardware markets. The factory of Yi Chun which



## Special Feature

started as a trader was set up in 2003. After then, the business range of it changed to be 75% for trading and 25% for production. It forms a small supply chain alliance for screws, nuts, rivets, stamped parts, and automotive parts, in which production is consigned to downstream makers after R&D is completed. The factory itself specializes in custom-made "special parts". Overall, Yi Chun, like an all-you-can-find hardware wholesaler, supplies almost 80% of all types of hardware that can be found in Taiwan.

The company has had decades of purchasing experience before entering the manufacturing sector, so it understands why Oppm requirement is so important to clients. The full-range quality management is strictly fulfilled in its factory and some of its cooperating partners also have their own stringent standards for product quality. Yi Chun and its partners take serious responsibility for the quality of finished products, enabling producers and traders to focus on their respective quality and customer relationships. Reasonable and professional production line allocation strengthens Yi Chun's image as a leader in the "supply chain alliance and customization", and thus the company can provide clients with satisfying quality, lead time, and prices.

The smoothly operating Yi Chun successfully attracted several inquiries from manufacturers, traders, and clients. "Birds will come perch, when the tree grows up. With this idea, we wish to share our success with others," said Richard Cherng. "Such a big tree metaphor is the philosophy of Yi Chun's success. Rome was not made in one day, and so is the success for us, which will only come with the accumulation of experience." Your efforts have to go deep and wide. It is not just about rolling out new products for existing clients, but also understanding how to develop new clients and markets.

Realizing the fact that standard products can hardly make Yi Chun really successful in the market, it has recently purchased and added into its production lines the automated cage nut assembly machine and stamping facilities and will aim at the automotive industry with numerous brands by including automotive fasteners into its product range. Yi Chun, already certified by ISO 9001, has also applied for TS 16949 accreditation. Europe, USA, and the rest of markets represent 1/3 of Yi Chun's market deployment respectively, successfully creating a significant visibility of the company. In recent years it has been receiving stable orders from emerging markets like Brazil and Eastern Europe, where it also found in these markets the beginning of fastener business transition to a higher level. Cherng said, "I still need to visit more markets and my goal is to achieve a doubled growth!" This is Yu Chun that creates its own blue ocean.



## Ample Long's Well-known "Rivets, Semi-tubular Rivets, Hollow Rivets, and Drive Rivets" Show High Export Record

Having witnessed the 1st wave of generational shift in Taiwanese fastener industry, Ample Long Industry Co., Ltd has had more than 30 years of experience in manufacturing technology. The rivets, hollow rivets, semi-tubular rivets, drive rivets, male female screws, shoulder rivets, and buttons are sold worldwide with the aid of its professional sales marketing team. It has not only won orders from Europe and USA, but also increased the proportion of products sold to emerging markets such as Brazil, Indonesia, the Middle East, and China.

As of now, Ample Long has 60 sets of manufacturing equipment and 6 sets of continuous mold multi-station automation facilities mainly used



for manufacturing screws under size M10. Production can reach nearly 80 million pieces per month and products can be made of copper, brass, aluminum, iron, and stainless steel wire as per customer's drawing. Most products are for machinery, leather, (hand) tool machine applications.

Division chief Sam Wu, the 2nd generation of the family-owned business, good at marketing said, "Before stepping into sales, training in the production lines has to be done first. With such experience, I have a better understanding of the technical ability and quality advantages of the company and also have a better idea of what is worth investing. The addition of continuous mold and multi-station facilities is our focus of preparation for the upcoming competition." It is not surprising at all that Ample Long have shown such stable growth and it also plans to expand the current factory by the yearend of 2015 and will purchase 4 sets of multi-station facilities in order to increase capacity next year.

"Upgraded equipment enables us to overcome higher technical level and produce screws that need more complex processes. We have the optimal R&D ability for products and can provide OEM and ODM service," added Wu. Speaking of the market, Wu said, "Ample Long cooperates with local importers and exporters for its domestic and foreign sales. As a result, we focus more on increasing our brand awareness as the current marketing strategy and may also widen our market deployment through cooperating with local sales agents."

This interview reveals the reasons for Ample Long's growth and we see its vertical and horizontal expansion in its product range and markets. It is widely believed that after the capacity is increased, the market share of Ample Long's products will further increase.

## H.P. Fasteners

With 19 years of experience in the fastener industry, India-based H.P. Fasteners (P) Ltd is a medium-size manufacturer and trader specialized in special nuts, bolts, screws, and rivets. Its products are generally made in materials such as MS, SS, copper, brass, aluminum and are mostly used in automotive, switch line, and machinery applications. India as one of the most important emerging markets in the world is where its factory is just located, making it able to quick satisfy the demand from local manufacturer, assembly plants, importers, and exporters. "JFL" is a registered trade mark of the company, which has been certified by AN ISO 9001: 2008. The company expects to double the size of the company within 6 months and welcomes cooperation with agents and any other ways to business expansion around the world.



## Dimac Srl

Dimac is a family company established in 1988. Since the early 1990s the automotive industry has been the driving force for the highest technology developments. All automotive companies needed to improve the production processes as well as the overall product quality, growing their business while reducing manufacturing costs. These goals have also been pursued by pushing the fastener manufacturers towards the production of parts with zero defects. Dimac then realized that it was the time and the place for high-tech suppliers in the market to adopt automatic 100% inspection and sorting machines to support the production of automotive fasteners with zero defects.

The first prototype of the rotary table inspection machine MCV1 was a success and was the first time that a high-tech automatic machine made in Italy with Italian design could perform high-speed 100% inspection and sorting of a wide range of

products, with high-precision 360° dimensional controls by high-resolution cameras and inspection of several attributes such as mechanical gauging and NDT controls for crack and heat treatment. Now dimac offers 8 different types of machines, with different feeding systems and inspection stations suitable for a huge range of fastener typologies.

Dimac's average volume is 3.5 million €/year. Its end-user companies are all around the world for automotive, aerospace, industrial, railway, medical and furniture manufacturing applications. Its major markets are Europe, USA, Turkey, and Brazil and customers are mainly automotive fastener manufacturers but also automotive fastener resellers/distributors and importers/exporters. 5% of dimac's machines are sold directly to fastener assemblers and end-users. Dimac's automatic 100% inspection, measuring, and sorting machines (MCV1 and MCV2 models) are TÜV certified.



Dimac estimates to raise cooperation with other partners in emerging markets (especially China and India) in 5 years probably and wishes to find new customers among manufacturing leaders in automotive fastener supply. For the moment dimac sells its machines to some European fastener manufacturers who have plants and joint ventures in China and India. Dimac expects that the MCV (equipped with a user-friendly system, fast, 24/7 usable without additional costs, monitoring the inspection results data, improving line efficiency) could well respond to the automotive needs of emerging markets.

Dimac's policy is to invest in R&D and that's the priority to keep dimac's leadership in the fastener market. Then, for sure, it's also essential to strengthen the reliability of its products by using only top quality components. Last but not least, the goal is to carry on improving dimac's service to satisfy its customers with short-time answers and prompt on-demand online assistance.




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## Acument Global Technologies

Acument Global Technologies' history goes back to 1943 when CAMCAR® Screw Company began making a part for a WWII war plane. In 1953, Textron purchased CAMCAR® renaming it CAMCAR® Textron. In the late 1990's, Textron began acquiring other fastener companies globally and called this group Textron Fastening Systems (TFS). In 2006, TFS was sold to a private equity company who changed the name to Acument Global Technologies. In 2014, Acument was sold to the Italian fastener company Fontana Gruppo out of Italy. Through all the name changes, the company's Intellectual Properties and Licensing activity remained a key strategy, signing licensees for its worldwide known products such as the TORX® and TORX PLUS® drive systems. Along with Acument, the majority of our Licensees are involved in the automotive industry, as well as aerospace and various commercial industries.

AIP's largest licensing activity is with manufacturers of metal fasteners, drive tools, and heading tools for the TORX® and TORX PLUS® systems who sell to OEM's and distributors worldwide.

To control the quality of products sold under our licensed brands, each licensee is required to purchase inspection gages sold from our licensing headquarters located in the USA. Licensees are required to regularly submit samples of their product to AIP for inspection against our specifications. By doing so, we are able to ensure that licensed products sold under our brands are of the highest quality.

AIP also has developed a unique "Master License" program where we look for new, patented products from companies around the world to bring into our product portfolio. The company signs an agreement with AIP granting us the right to license his patents and trademarks to other companies and then sharing the royalty income with the inventor. We can use our experience and licensing network to introduce the product to other companies that can then market the invention to their customers. What we look for is a product that has a technical advantage over other existing products and also has patent coverage in the major industrial markets.

With licensees located around the world, they can respond to any emerging market need very quickly. One of our products in the Master Licensing program, TORX® ttap® fasteners, is beginning to fill the need for good, quality fasteners in the global construction and DIY markets.

AIP's plan for keeping a competitive edge besides our Master Licensing activity also involves the introduction of our own newly designed, and patented, drive system called TORX® Paralobe™, to be introduced globally in late 2015. Finding Master Licensee partners that can fill niche markets will remain an important strategy for AIP. We promote our program and services through trade shows, licensee meetings, publications, and our web site.



## Rivit S.r.l.

Italian Rivit S.r.l. has had over 40 years of experience in production and distribution of fastening systems and related tools for sheet metal working and assembling. The company has been developing a comprehensive range of fasteners for industry (blind rivets, rivet nuts, self-clinching, welding studs, blind bolts, latches, cage nuts, spring clips) and tools for their installation. Nowadays Rivit is well-rooted both in the domestic and international markets, and abroad it operates in over 50 countries. To further develop its projects, Rivit built a large and modern production and design location endowed with an automatic warehouse that provides and supports a state-of-the-art logistic system to ensure speed and efficiency.



Rivit's activity extends from the European to the Asian market, going through the American continent: "our products can be found in 50 different countries. We try to be wherever we think business opportunities and partnerships can be started and are in contact with distributors, retailers, agents and end customers. To keep up with all our customers' needs, we have developed a skilled export department and take much care of the production of our products. Thanks to our high quality standards, Rivit got the UNI EN ISO 9001: 2008 certification. Rivit has always been interested in emerging markets. For this reason the 'Rivit India Fasteners Pvt. Ltd' that allows us to be even more present in the Asian market was founded in 2011."

Rivit developed two divisions: industry-metal and construction-roofing. To industry, Rivit proposes a full range of fasteners and tools for their applications, while the building division avails itself of the Rivit 20-year experience in the field of roofing, metal roofing, and air conditioning. We can say that all Rivit products feature an excellent employability in all emerging countries.

Every year Rivit launches new products on the market, with particular regard to the range of tools, designing new models to meet the market demands. This, of course, requires a large investment in terms of work, design, specialized resources, but on the other hand every time we are rewarded by the success of our products. Moreover, Rivit not only participates in all the most prestigious exhibitions, but also invests in advertising and editorials on specialized magazines to create information and technical culture. Rivit is always looking for new partners, distributors or agents to create industrial synergies with.

## National Machinery

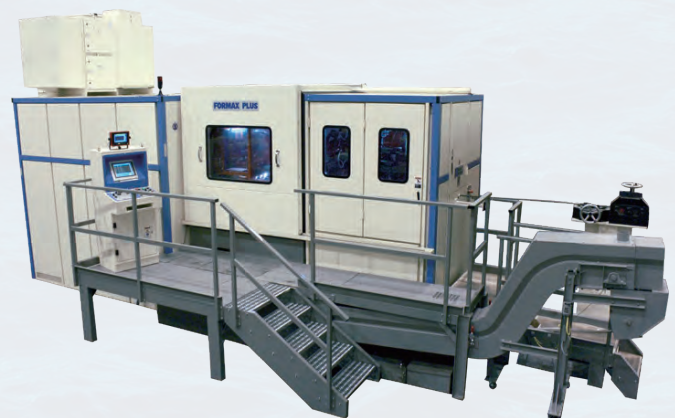
National Machinery started in 1874, so we are pleased to have celebrated our 140 anniversary last year with an Open House to showcase our factory and products. The business started with a simple lathe to cut bolt threads and vise to hammer the head on a fastener. We now specialize in the cold and warm forming market of horizontal formers that are known for high speed, precision and changeover capability. Our machines are used in a wide range of industries such as automotive, aerospace, bearing, industrial and specialty products. Our FORMAX® line of machine comes in a wide variety of diameters and lengths and has the capability to make net-shape parts.

Globally, we participate nearly equally in the Americas, European and Asian markets. Our customers are mix of OEM and Tier manufacturers, both large and small, public and private. We have ISO certification in our three main manufacturing and support plants in the US, Germany and China. Quality is controlled in numerous ways such as material verification, component inspection and machine validation. Global employment is over 600 people.

National has always had a global footprint and continues to expand that into countries with rising manufacturing needs. Some recent examples were the opening of our facility in Suzhou, China and adding servicemen to our Brazil office. We have typically done this on our own to maximize the use of those resources and target our customer base.

Most of our products from developed markets tie directly into emerging markets. We have developed some "simplified" equipment controls to help ease emerging countries into the technology.

We always have an aggressive capital spending plan that focuses on technology and efficiency. Every year we add new patents to our machine and process capabilities. We will continue to look at markets where our customers are growing, so we can grow together. We find it important to offer quality customer support functions in these markets so the equipment runs efficiently.



## KADIMI SPECIAL STEELS



### Kadimi

Kadimi Special Steels is an Indo-Japanese joint venture between Kadimi, JFE Steel, and Nakagawa Steel. It is a subsidiary company of Kadimi. Kadimi Group was established in 1977. It has been involved in providing a large range of industrial products to fastener & automotive companies in India. These products include raw materials, tools, and machinery. Kadimi Special Steels offers high quality CHQ Wires used in the production of automotive fasteners, cold forged components and bearings. It can offer various kinds of wires including low carbon steels, boron steels, alloy steels, bearing steels, and free cutting steels. The current capacity is 84,000 MT/ year.

Our primary market is India. We supply to manufacturers of fasteners, auto components, and bearings. The plant has a capacity of about 7,000 MT per month. Our products have been well received in the market since we started production in May 2015. Our outstanding products are the result of thorough quality management. We are committed to providing customers with excellent quality products through strict quality inspections at various stages of production.

Emerging markets such as Brazil, Iran, and Turkey are particularly attractive to us. Additionally, we also have a keen interest in supplying our products to South East Asia. Potential customers in Iran have various benefits as a result of ease of doing business with India. Similarly, our customers in Thailand, Malaysia, Indonesia and Vietnam enjoy duty free/low duty imports through Free Trade Agreements. A company, which seeks to be our partner in a certain market, must have experience of dealing in related products with the target industry.

Our company is capable of modifying the products according to the needs of customers. Our extensive experience in the field allows us to cater our product according to the requirement of customers. We seek to have long term business relationships with customers, and with this desire we hope to impress them by satisfying their quality needs and meeting delivery times. Furthermore, our state-of-the-art equipment ensures uniformity in production and quality, which at the same time allows us to supply tailored products to customers.

We believe that our product quality and price level deliver a win-win situation for our customers. Not only do they enjoy superior quality at very competitive prices but also cost reductions, reduced tool usage and increased efficiencies. Consistent facilities investment and upgradation will allow us to provide the latest, cutting edge products and technologies to customers.

### Videx Machine Engineering

Videx Machine Engineering is a private company established in 1973 by David Wiesenfeld. The company has been designing and manufacturing machinery for the wire & fastener industries since 1973. The high performance, accuracy, and low maintenance costs of Videx machines attract customers from all over the world and Videx has gradually earned its reputation as a world leader in thread rolling machines, straightening & cutting machines, and machines for special products.

Today, with 45 employees, Videx exports 95% of its machines to leading manufacturers in the USA, Europe, Brazil, Japan, Australia, Asia and South America. The R&D department of Videx employs



9 engineers who are constantly investing in development of new processes and technology. A special emphasis is placed on reducing the change-over time, as well as improving the reliability and durability of the machines.

We started promoting our machinery in the Chinese market and we consider this market to be our most important future market based on the trend we see in the Chinese market to emphasize quality and design rather than low cost.

Our machines are used for automotive, construction, mining, and wind energy. All these 4 major markets are greatly influenced by increasing population and infrastructure investments.

We do work with agents and have over 40 years of experience. We try to keep leading the industry by being “flexible” to satisfy market needs. We are not trying to sell machines to many companies but we do try and sell fewer machines to the market leaders that will help them keep leading the market.



## Carlo Salvi S.p.A

Carlo Salvi S.p.A was founded in 1939 in Italy with the purpose of building mechanical descenders to process iron and stainless steel wire. In the late 40's the production of flat die thread rollers and head slotting machines for screws was started. Soon after, the first single die double blow header for screw blanks also won an immediate success in 1952. Headers for tubular rivets with a capacity of up to 600 pcs/min, 2-die 4-blow formers, and 5&6 die progressive headers for special parts were also introduced in the 70's, 80's, and 90's, respectively. Starting from 2000, it introduced a new-generation of headers with hot forming, quick change systems, linear wire feed and electronic adjustments. With the aim to better serve customers in USA, Canada, and Mexico, Carlo Salvi USA was established in Toledo, Ohio at the end of 90's. After 2010, Carlo Salvi Guangzhou and other branches in UK and Istanbul were also established.



The technical quality of Carlo Salvi was first appreciated in Germany for the ability to produce solid, semi-tubular and fully tubular parts. Moreover, its machines were once adopted to produce copper rivets for the rebuilding of Statue of Liberty in New York. Carlo Salvi's environmental-friendly machines made from high quality materials with advanced treatments are used worldwide not only in the fastener industry but in different fields (e.g., aerospace, automotive, electronics, buildings, nautical, furnishing, luxury accessories, etc.). It has even developed a basic line of machines for emerging markets showing demand for efficiency, reliability, and technology. Carlo Salvi manufacturing is mainly divided into three families: (a) 1-die 2-blow headers for solid, semi-tubular and fully tubular parts. (b) 2-die 4-blow headers for more complex parts. (c) 5&6 dies high precision progressive parts formers. Carlo Salvi's R&D center equipped with 3-D systems and simulation software can offer custom-made solutions not only heading equipment.

Carlo Salvi's headers main features incl. (1) Heading via a soft progressive pressure to produce parts with improved





mechanical properties; (2) Each part to be produced at each revolution of the flywheel. (3) Heading stroke of finishing punch about the half respect to coning punch to achieve better material deformation and tool life. (4) The close cutter allowing better straight cutting quality. (5) The long ram that assures maximum rigidity and alignment during heading. (6) The deep punch housing allowing the use of special tooling. (7) The rotating transmission shaft allowing using cams for special jobs. (8) The machine strength that assures sturdiness, stability, and duration.

Each manufacturing process is carefully studied and machines are tested before leaving premises. One of Carlo Salvi's missions is to assure a high level technical assistance during all the life of machines and excellent after-sale service. Carlo Salvi's distributors are not only for sales support, but for offering after-sale service: skilled technicians, spare parts available on shelves and the ability to provide every component within 24 hours. The team of Carlo Salvi is always at customers' complete disposal to supply detailed information about all of its products.

## Arma Clamps & Clips

Arma Clamps & Clips was founded in 1980 as a molding workshop and only served for mould production during its first years. As this growth went on, the company began clamp and clips production. It manufactures clamps, clips, nuts, and custom work metal fasteners mostly for the automotive and home appliances sectors. Currently 40% of revenue comes from exports. Sector distributions are automotive (40%), home appliance (30%) and 30% for other industries like agriculture, marine, defence and construction.

Our major market currently is automotive. We serve directly to OEMs like Daimler, Fiat and Tier-1 companies of VW, Hyundai and Renault. We plan to move our production line to our new plant of 6,600 m<sup>2</sup> closed area this year. From design in the CAD environment to processing in precise CNC machinery in the CAM environment, we use entirely our own resources and personnel. Therefore, the desired quality is achieved at lower costs in shorter periods. We received the ISO 9001:2000 quality certificate in 2002 and ISO/TS 16949 quality system certificate in 2008. We plan to deal with worldwide distributor companies related to fastener and fixing technology.



We have two products for emerging markets: DIN 3016-1 retaining clamp used for fixing hydraulic pipes, hoses and cables especially in application areas of hose clamps and pipe clamps and the other is DIN 3017-2 hose clamp used also as an alternative to worm drive clamps on high pressure hose fitting applications.

By its qualified technical staff, the company carried out several R&D studies and projects. In clamps division, welding operation of DIN 3017-2 hose clamps was replaced with mechanical riveting system as the inner support part combining operation and this process development was registered as a utility model with the Turkish Patent Institute. In metal clips division, the special fixing spring part manufactured with progressive mold for home appliance industry was adapted to automatic metal forming machine and cost advantage was realized, thereby preventing the import of this part. R&D project supported by TUBITAK (Scientific and Technological Research Council of Turkey) for developing an automation line for the production of DIN 3016-1 and DIN 3017-2 pipe and hose clamps was completed successfully.

Exporting its products to different parts of the world from Europe to South America, Arma Clamps & Clips attends domestic and overseas fairs in order to widen its customer portfolio.

## Best Quality Fasteners

With 40 years of experience in the trade of fasteners (in the name of Rajendra Kumar and Co.), we have started our own manufacturing since 2008. RKC being the parent co. is the main guiding force in the inception of our manufacturing concern BQF (Best Quality Fasteners). We started our co. with manufacturing machine/self-tapping screws. After setting our standards as per the requirement of various customers, we started making nylon insert lock nuts, weld nuts, and hex bolts. With 12 nut formers, 4 bolt formers, 14 headers, we cater to automobile components and electric appliances manufacturers. With a production capacity of 2.5 million pcs per day, we can ensure timely delivery with precise products to our customers.



Our major markets are currently automobile components and electrical appliances. We also have a wide dealer/distributor network across India. With experienced personnel in quality control, we can guarantee unparalleled quality products to our customers. Our Co. is ISO 9001:2008 certified. We would like to start export to various countries, as India is an upcoming manufacturers' hub.

The fastener industry is an industry wherein all kinds of industries can be the prospective customers, be it the emerging sector/market or the pre-established one. The fastener industry in itself is a prerequisite if you consider any kind of sector or market. It is the base provider, be it any kind of industry. Our company has catered to the ever growing automobile and electronic industries, which, as the population increases, inflates the demand for all kinds of products and we are ready to fulfill the increasing demands of customers.



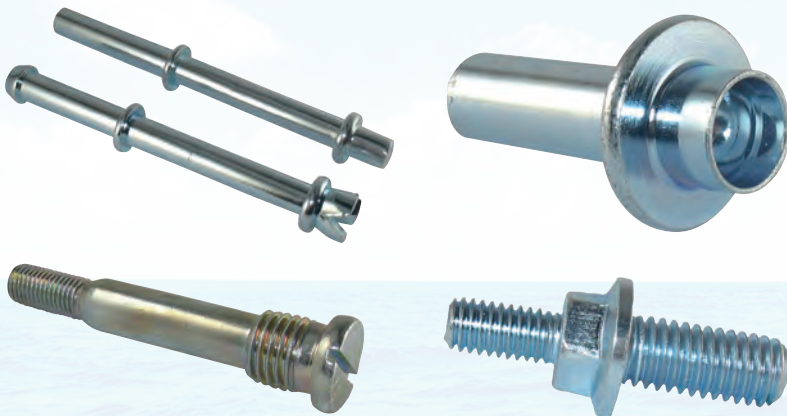
We are planning to buy 6 station machines to develop some new items such as step bolts and special parts. We are also looking forward to getting TS certification. We always participate in fasteners trade shows held in India and we once participated in Taiwan International Fastener Show in 2013. Our strategy would be appointing agents/distributors in different parts of the world to sell our products.



## Birlik Fastener Systems

Birlik Fastener Systems Co. Ltd. established in 1988 as a trading company for screws, bolts, rivets, and similar fastener systems has begun production with the demand of the customers since 1993. Our company, originally starting production in a 120 m<sup>2</sup> area, is now producing in a covered area of 5,000 m<sup>2</sup> and an open area of 10,000 m<sup>2</sup>. With one-die one-blow machines up to 7-die 7-blow transfer machines, secondary forming cold forging presses, and secondary forming metal removing machines, we can achieve the monthly capacity of 50 million pieces in the following range: Ø 1,50 mm-Ø 8 mm/230 mm, Ø 5 mm-Ø 10 mm/100 mm, Ø 5 mm-Ø 12 mm/130 mm, Ø 3,5 mm-Ø 10 mm/300 mm, Ø 12 mm-Ø 24 mm/180 mm, Ø 34 mm/320 mm.

Our current major markets are automotive sub-industry, durable goods, home appliances, furniture, and construction industries. According to customers' demands, our products have been made in iron, steel, copper, aluminium, stainless steel, and brass (MS). In addition, our company cooperates in harmony with demands from all industries and special products.



Our company has been in cooperation with other partners in the automotive sub-industry market. Cooperation initiated with small projects of special parts and it continues with new and more complicated special parts.

In order to keep our competitive edge in the market, we make investment in machinery and personnel to improve our company. In addition to exhibiting at trade shows around the world, we make regular visits to our customers. We may consider working with agents to further develop our own distribution network.

## The KOHLHAGE Group

The KOHLHAGE Group was a family owned company founded in 1929 in Neuenrade, Germany, just an hour away from Düsseldorf, Cologne or Dortmund airports. Under the roof of KOHLHAGE Holding, there are KOHLHAGE Fasteners and KOHLHAGE Automotive, creating an annual turnover of 37.5 million euro.

KOHLHAGE Automotive for manufacturing is specialized in tube sockets, tube assemblies, valve systems, and welded components, mostly made from stainless steel. The development of assemblies from tube, stampings and wire forms is KOHLHAGE Automotive's core business. KOHLHAGE Fasteners for trading with its own R&D and Engineering department is a worldwide appreciated specialist of fastening components and assemblies from weld nuts and plastic molding inserts to all kinds of machined or cold formed special fasteners. The whole company is certified by ISO TS 16949, ISO 9001, and ISO 14001.

Together with KOHLHAGE Shanghai, which was set up in 2007, the relations of the KOHLHAGE Group to Asian supply partners, established back in the 1970's, have been strengthened and developed to a reliable and flexible supply chain ending at the customer's assembly line.

With a share of about 70%, the automotive industry is our major market. Customers are car manufacturers, as well as big global and medium tier players. Besides we are also serving partners specialized in construction, machinery, electronics, green energy, and furniture business. Most of our customers are still located in Germany and Central Europe, but the North American and Chinese markets are catching up rapidly.

One of our main goals for the future is to strengthen our strategical product portfolio for the automotive industry in which we see the key market for us. We see ourselves as a part, service and solution provider for our customers. To keep pace with the world market expectation it is essential to tie tight personal robes with our customers and suppliers, push and prepare our logistic to provide a top and efficient performance and see costumers problem as a challenge and chance for us. ■

