

# “Stainless Steel + Construction” Fastener Suppliers

Theme 1- Shining Stainless Steel Fastener Market

Theme 2- A diverse Range of Construction Fasteners



There are numerous fastener companies worldwide, and there are even thousands of fastener companies in Taiwan gathering in certain areas that form a well-established industry cluster. This concentrated supply chain makes it widely recognized as the “Kingdom of Fasteners.” As fasteners can be in various dimensions, materials, and applications, over hundreds or thousands of different fasteners can thus be created through distinct combinations of these variations. It can be a small screw, or a large bolt, a nut designed to be assembled with a screw/bolt, or even a nut/washer.

Some companies are proud of the diverse range of their major products and can supply them in any size or material, while some other companies focus on the specific applications of their products, for example, automotive fasteners (see Automotive Fastener Suppliers in Fastener World Magazine issue #138) or small screws in various materials (see Small Screw Manufacturers in Fastener World Magazine issue #139). Part of the companies may, on the other hand, lay stress on certain properties, like carbon steel fasteners, SS fasteners, bi-metal fasteners, and so on, which naturally become characteristics of their business.

Here we invite specialized fastener manufacturers with their major business focused on products in stainless steel or others for construction application to talk about why these stainless steel manufacturers would like to target SS fasteners with comparatively high costs, high entry barriers, and strict requirement on quality instead of enjoying the already booming carbon steel fastener market, and find out how other construction fastener manufacturers create their own competitiveness and offer related service.

## Shining Stainless Steel Fastener Market

Do “SS Fasteners” belong to high-value products? Let us see what the leading SS nut manufacturer—**Chong Cheng**—would like to say and see how “Bi-metal” fastener manufacturer—**Sheh Kai**—keeps up its pace with the market trend and takes the lead in bi-metal application. And lastly, let us see how **Sun Through**, after focusing on stainless steel fasteners, can find its niche in the development of bi-metal products.

## A Diverse Range of Construction Fasteners

Offering extra service in the manufacturing industry has also gradually influenced the fastener industry, which then becomes the key for fastener companies to creating their characteristics. For offering customers the experience of one-stop shopping, you can see that companies like **Lih Lin**, **Chang Yi**, and **Master United** have been in the process to diversify their products for so long. To impress customers, on the other hand, you must know how **Wattson** and **Hsien Sun** conduct quality control and never stop effort in research and development.



## Leading Bi-metal Screws Maker

# Sheh Kai: Target Products with Potential Niches to Create Possibilities for Bi-Metal Screws

There are not many companies developing and selling bi-metal screws in the world. Sheh Kai Precision Co., Ltd is not only the largest maker and exporter of bi-metal self-drilling screws and bi-metal concrete bolts in Taiwan, but also a leading company in the league of globally renowned suppliers of stainless steel bi-metal self-drilling screws. Immediately after the establishment in 1992, Sheh Kai concentrated on bi-metal products with high entry barriers. Its products for the market are mainly made of composite materials (stainless steel + alloy steel or carbon steel), stainless steel, and high hardened steel. Its monthly export of bi-metal screws reaches 15 million pieces exported to 20 countries in the world and applicable to steel structures and high-strength concrete buildings.

### Focusing on Products with Niche Markets in the Future

#### EU Recognizes Bi-metal Fasteners as Relatively New Products

Sheh Kai can offer bi-metal screws and bolts in different types and specifications including pointed tail, flat tail, drilling tail, and painted head. The products are approved by ISO 9001:2008, ISO14001: 2004, ETA, DIBt, and ICC-ES. General manager Andy Lin says, "Bi-metal screws are still products with niche markets, and of course their market share cannot compare with those of carbon steel and stainless steel fasteners in mass production. With joining technology of two different metals, in-part heat treating technique, heading, and tens of post-processing procedures, bi-metal screws have become products with high unit prices among other fasteners."



General manager Andy Lin says bi-metal screws are products with niche markets in the future.

The rule of thumb is that the lifecycle of a fastener must be longer than those of the main building materials. General manager Lin explains, "Critical or expensive building projects that strictly require anti-corrosion and safety are very likely to adopt bi-metal screws. As more countries or regions, which have stricter building regulations, stipulate laws to require the use of stainless steel products outdoors, we are optimistic for the prospect of bi-metal screws. We focus on products with niche markets in the future."

Accordingly, Sheh Kai targets Europe, the US, and other advanced markets. Its sale in Europe accounts for 70% of total sales. On July 30 this year, the EU re-defined bi-metal self-drilling screws and bi-metal self-tapping screws in its official journal, and recognized bi-metal fasteners as relatively new products in the market. Bi-metal fasteners have the hardness like carbon steel and anti-corrosion like stainless steel, and they do not require a pilot hole to penetrate the steel plate of 25mm thickness (whereas a stainless steel fastener can on average penetrate 3mm at the most). This new definition helps exclude bi-metal screws from the list of anti-dumping tax on stainless steel fasteners. This will not only improve Sheh Kai's sales but also become a huge momentum for the company's R&D on bi-metal fasteners.

### Ongoing Expansion of Bi-metal Application Range

Initially, Sheh Kai's bi-metal screws are mainly applied to steel roofs and corrugated walls. Recently, the company has successfully tapped into the market of high strength concrete constructions (6,000~7,000psi) with the release of "bi-metal bolts" and "high hardened steel bolts". Lin says, "With our profession in developing bi-metals, the company sees the trend and tries to apply bi-metals to other applications such as bi-metal bits used for printed circuit boards. Applications and customers' demands are what its technical development should be based on, and R&D is a non-stop working process."





**Leading  
Stainless  
Steel Nuts  
Manufacturer**

## Chong Cheng: “Making Valuable Nuts Using Multiple Processes to Avoid Competition in Buying Cheaper Wire”

Chong Cheng Fastener Corp. is a leading manufacturer of stainless steel nuts, specializing in developing special and high value added nuts, mainly sold to Europe, the US, and Japan. The 23,140 m<sup>2</sup> plant produces 1,200 tons of nuts monthly (among which stainless steel nuts account for 300 tons), up 20% from last year. In 2014, the company is planning to build 3 more plants in which forming and sorting machines will be placed and used in 2015. This reflects the booming market for nuts, Chong Cheng's formidable competence, and its leading position.

### **Automotive Fasteners ≠ High Value Added Fasteners**

#### **Multiple Processes to Promote Product Value and Helps Avoid “Buying Cheaper Wire” Competition**

Chong Cheng established in 1989 continues to improve its technical ability. It focuses on nut manufacturing and has done really well in differentiating itself from other screw and bolt makers. By acquiring the approval of ISO 9001 and ISO/TS 16949, its high value added nuts can be applied in the construction and automotive industries. Chong Cheng manufactures according to DIN, ISO, and JIS standards. In order to protect the image of its brand, it has successfully registered its trademark in Taiwan, the US, Europe, and China.

Is Chong Cheng going to enhance the development of high value added fasteners by increasing the production of automotive fasteners? President Sandy Yu replies, “Actually, you will see that automotive fasteners do not contribute to high net profit, but if you produce them in a large amount, you will get a fairly reasonable result. The prospect comes from the growing automotive market. Therefore, we are still talking about “making profit by mass production.”

Then, how will Chong Cheng react to the rising price caused by Indonesia's ban on nickel export? Yu says, “Any product is likely to be affected by the fluctuation of wire price, and carbon /stainless steel products are no exception. The only approach to effectively retaining the market share and avoiding fluctuating material cost is to produce more special parts or focus on highly differentiated products.” He adds, “Special parts cannot be made by just using the forming machine. They have to go through multiple processes before they can become high value added products that meet clients' requests.”



△ President Sandy Yu and his team



### **Complete Auxiliary Facilities Create High Value for Nuts**

Chong Cheng keeps steady growth every year. It has 45 forming machines, 120 tapping machines, 25 assembly machines, 11 slotting machines, and 13 full-inspection machines. It has expanded the automatic inventory up to 8,250 stock keeping units, and purchased 8 forming machines, 7 CCD full-inspection machines, profile meters, etc. Inventory expansion and equipment purchase aim to meet clients' demand and fulfill the company's goal in quality control. Chong Cheng expects to offer premium service on every aspect of its products.

As the company continues to grow, Yu says, “Taiwan and India are tough rivals to each other. Chong Cheng does not take pride in its current scale; neither will it fear the future challenges. We have industry leading techniques, flexible order mechanism, systematic manufacturing procedures, and strict quality control. In addition, we continue to create one new product every year. In 2013, our Conical U-Nut was patented for its dual anti-loosening effects.” Correct business strategy successfully helped Chong Cheng take the lead in Taiwanese fastener industry.



## Specialized Maker of Stainless Steel Screws

# Sun Through Targets Highly Technical Bi-metal Screws

Sun Through Industrial Co., Ltd is a 1,983 m<sup>2</sup> plant established in central Taiwan in 2000, specialized in making fasteners including self-drilling screws, chipboard screws, washers, and bi-metal screws. Particularly, "Spiral Self-Drilling Screw" is its main product and a bestseller in Europe.

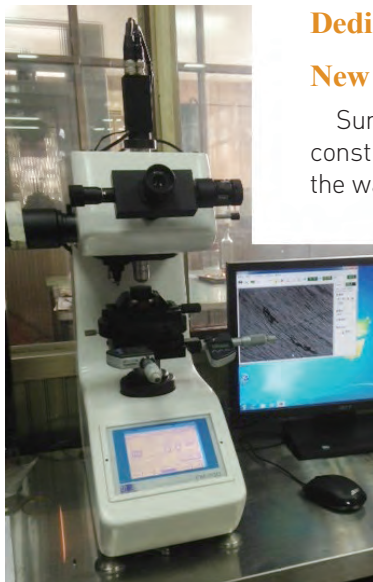
## Dedication to Expertise & Targeting Highly-potential Products

### New Plant Helps Gain Its Market Position

Sun Through has been certified by ISO 9001 for its quality management and CE for construction screws, but the company says such success did not come easily along the way. General manager Andy Wang says, "The fastener industry in central Taiwan

is not relatively concentrated. As stainless steel has higher ductility and hardenability, the manufacturing process requires adjustment, thus resulting in higher production cost. However, stainless steel can create better technical profit. Accordingly, since the very beginning Sun Through has been focusing on stainless steel products for making more earnings."

With full dedication and precise vision, the company has found niches for certain products. In addition to general stainless steel parts, the company successfully developed highly-technical bi-metal screws and has recently started production and sales. Bi-metal screws are applied in fastening building structures with high tapping speed that saves 50% of operating time compared with other brands. Excellent stability works extremely well in fastening super thick (12mm-25mm) iron plates. Currently, this product has been patented in Europe.



Micro-hardness tester



Tapping speed tester

## Patented Products Brings Unthreatened Competence

### Scale Economy Builds Advantages

Sun Through's equipment includes tail-point machines, thread rolling machines, heat treating machines, etc. Wang says, "Nickel is a major factor that influences the stainless steel price. We think that stainless steel price will not fluctuate too much in the short term. We use around 20 tons of A2 and A4 nickel monthly. As the amount is not high, we can usually offer prices similar to the market level to our clients."

In response to global competition in the fastener industry, Wang says, "With a production plant, we are advantageous in developing products quickly and flexibly as per customer's request. We focus on producing our own patented products, and our products are not price-oriented, so we are not threatened by the competition brought by other competitors."

In the future, Sun Through will invest in equipment again to scale up its performance. It will also train its staff to develop new patented products and sustain its advantages. The development of high-value products is an inevitable future for Taiwanese industries. If we ignore it, we will be outpaced by China and Southeast Asia. If we can focus on development of high-value fasteners, Taiwanese fastener industry can continue to thrive for another century.



Torsion tester



## Multiple Overseas Plants & Local Cooperative Agencies



General manager  
Holland Wang of Lih Lin

## Lih Lin's Fasteners Go Worldwide

Lih Lin Enterprises & Industrial Co., Ltd and Diing Sen Fasteners Industrial Co., Ltd acted as a trader and a maker when they were established respectively in Taipei City and Xinzhuang in 1983. They specialize in chipboard screws, construction screws, drywall screws, wood screws, self-drilling screws, machine screws, special screws, etc. Led by general manager Holland Wang, they have reached the scale of 5,000 tons of monthly capacity with 5 domestic and overseas plants.

### Overseas Strategic Plant Deployment for Larger Order Intake Precisely Positioned Plants to Manage Global Sales Routes

Besides the headquarters in Taipei, Xinzhuang plant (in Northern Taiwan), and Kaohsiung plant (in Southern Taiwan), Lih Lin also has overseas plants in Vietnam, China, and Cambodia. Wang says, "Each plant has its historical origin, its market position and functionality. I am in charge of the plants in Taiwan, and the overseas plants are managed by specialized managers. Each plant has its distinct target market and main products. Periodic deployment keeps Lih Lin on steady growth."

To effectively distribute fine products throughout the world, each plant is in charge of its local market; on top of that, Taipei and Kaohsiung plants supply U.S. market. The European market is supplied by the 100 thousand m<sup>2</sup> plant in Vietnam, which shows outstanding production and sales performance with 3,000 tons of small carbon steel screws and 500 tons of stainless steel screws produced monthly, and is the only 100% self-producing plant from wire drawing to packaging of its own.

The plant in China supplies local Chinese market and part of the Japanese market. The "part of" herein means a monthly supply value of USD1 million on order. The plant in Cambodia, established in 2006 and subordinated to the plant in Vietnam, is positioned as a backup plant, and only 20,000 out of 60,000 square meters of the land area is currently used, signifying Lih Lin's enormous and potential capacity for order intake!

### Standard Compliance/Talent Retention/ Quality Surveillance

### Supply Includes Screws, Bolts, and Special Parts; Nuts Supply Will be Next

Lih Lin is certified by ISO 14000, 9001, and CE. All surface treating liquids required by the company have to acquire international authorizations and comply with environmental and quality regulations. Wang says, "Talent retention is a critical factor to maintaining quality. From order receiving to packaging and shipment, all staff should have a good understanding of quality. This is to aggregate technique and experience, and build reputation for fine quality."

According to clients' demand, the company selects wires with the diameter in 0.8mm-12mm and offers fasteners in the length of 3mm-600mm. Wang says, "We make both screws and bolts. Now we have someone contacting us for nut production. In good times, there are people complaining about order shortage, but in bad times there are also people coming out with fully loaded capacity." He briefly depicts and concludes the industry business. With a step-by-step business plan, a good product could always find its place in the vast market.



China plant



Vietnam plant

## Construction Screw Supplier with Heartfelt Service

# Chang Yi Bolt: Concrete Your Believes

The Gangshan District in Taiwan is famous for its "fastener Industry cluster." This district is where thousands of similar fastener companies are located, creating the influence that should not be underestimated. However, it is no easy task for any company to differentiate itself and build reputation in the market. Established in 1987 in the fastener industry cluster, Chang Yi Bolt Co., Ltd produces construction screws in its 4,000 m<sup>2</sup> plant. Products include wood screws exclusively for hard and soft wood, self-tapping and machine screws specifically for iron plates and other building materials, as well as concrete nails and anchor screws for concrete buildings. The company can offer over 5,000 types of construction fasteners in a comprehensive range of sizes to satisfy various clients in the world.



## The Supplier Offering Most Reliable Quality

Product quality is the baseline for client trust. Therefore, founder and general manager Hsin-Teng Chen participates in every step of R&D and manufacturing process, serving clients with QC inspection above international standards. This year he invested NTD 30 million in an automated packaging plant. The plant is approved by ISO 9002, CE 16952, and CE 14566, offering at least 1,000 tons of capacity every month.



△ Chang Yi invested NTD 30 million in an automated packaging plant which has been completed and started operation.

## The Expert Proficient in Inventory Management

Chief of the Control Center, Gin-Shen Liu says, "We are highly flexible and can offer up to 150 tons of products per month to solve clients' urgent orders. If you look into each order closely, there is always a pattern for it. Our service is based on the feedback from the management of clients' orders. When any product is going to be out of stock, we can notify the client to place advanced order" Clearly, Chang Yi is not just a fastener plant but also an expert for your purchase management.

## Moving Forward Carefully to Penetrate Emerging Markets in Middle East

The global financial crisis hit Taiwanese fastener industry and knocked down many companies. However, Chang Yi got through the difficult time. Moreover, it has been growing to this date at a rate of 18-20% annually with expanding business scale. Wilson Chen in the sales department says, "Since the establishment, the company has gained positive reputation and stable foundation in mature markets like Europe and the US. With our persistence in quality and service, the price cutting war in the short term is not our concern. On this premise, the sales department will gradually enhance its development in emerging markets including oil countries in the Middle East."



**80% In-house  
Production +  
20% Global  
Purchase =  
100% Accurate  
Service Range**

## Master United Corp. Heads to Global Fastener Sale with Comprehensive Service



Master United Corp. started business in 1981 as a manufacturer and export trader. It built screw manufacturing plants in Kaohsiung (southern Taiwan). In 2000, it set up its first overseas plant. Now, it has Anjifast Co., Ltd in Zhejiang, Master Great Corp. in Shanghai, and United Industrial Co., Ltd in Binh Duong (Vietnam). These plants produce various wood screws, self-tapping screws, construction screws, furniture screws, chipboard screws, and self-drilling screws. Master United has specialized procuring ability to provide clients with a complete range of products. Through 80% in-house production and 20% purchase of all types of fasteners and assorted parts, the company can provide accurate and "comprehensive" service.

### Accurate Service Covering Global Markets

Master United produces carbon steel and stainless steel DIA. M2-M8 screws in the length of 6mm-250mm according to CE14566, CE14592, ISO 9001, and BSCI standards. Materials like copper and aluminum are available as well upon clients' request.

Anjifast and United Industrial adopt streamlined procedures from production to packaging. Through Master United's marketing network, they sell to the U.S. and Asia where anti-dumping measures are not in force, so the market receptivity is high. To avoid antidumping rates in Europe and Canada, Master United set up United Industrial with a floor area of 20 thousand m<sup>2</sup> in Vietnam in 2008, which is mostly advantageous in DIY packaging and specialized in small screws incl. machine screws, furniture screws, and self-drilling screws. Every month it exports 40 containers of screws, mainly to Europe and Canada.

In such a fierce and competitive environment, Master United sticks with the most competitive price, premium quality, perfect packaging, and on-time delivery to clients, ensuring its position in the market over the past 33 years.

### Customized Service / Stable Quality / Market Recognition

For many years, Master United has been specialized in manufacturing furniture and construction fasteners. With its manufacturing plants, it is possible to customize products as per client's designated specification. It earns clients' trust with its customized service and stable quality. It has frequently exhibited in Las Vegas Fastener Show, International Hardware Fair Cologne, Fastener Fair Stuttgart, fastener shows in Taiwan and other regions, and has received much attention and inquiries to their products.

President Gino Sheu concludes, "The plant in Vietnam has favorable low costs in workforce, electricity, and fares, which brings considerable value and advantages to Master United. As products are directly shipped from Vietnam, concerns about anti-dumping and import taxes are eliminated, providing more advantages in the market for Master United to broaden its product awareness."



## 4 Heat Treating Lines Plus 6,611 sqm Packaging Plant

# Wattson Never Compromises on Quality

Wattson Fastener Group Inc. specializes in manufacturing construction fasteners and has been widely recognized in the industry for over 30 years. It focuses on two major markets- USA (70%) and Europe (30%) and has the monthly fastener capacity of over 1,500 tons. Fasteners supplied are within 13mm-150mm, and mostly in carbon steel, 80% of which are self-drilling screws, wood screws, self-tapping screws, stainless steel screws, drywall screws, furniture screws, and 20% of which are customized screws.



△ Sales manager Bell Lee (2nd from right) and her sales team

per month and offer heat treating service. Heat treatment is a critical factor to ensuring quality from manufacturing to delivery. Through the strict monitoring process in the packaging plant, the company can offer products compliant with the most critical standard that are trusted by customers.

## Introducing Heat Treatment Technology & Controlling Quality Before Shipment in Its Own Packaging Plant

Sales manager Bell Lee said, "Wattson founded in 1982 was originally located in Shulin Dist. of New Taipei City, as the satellite factory of Tycoons Group. Then, by the recommendation of customers, the factory was relocated to the current factory in Gangshan including a manufacturing plant and a packaging plant (each measures 6,611 sqm). The independent production and sales consolidate Wattson's character of being both a manufacturer and a distributor."

In order to control the quality of products, Wattson introduced heat treating facilities in 1995, making it a heat treating plant that can process 2,500 tons of fasteners

per month and offer heat treating service. Heat treatment is a critical factor to ensuring quality from manufacturing to delivery. Through the strict monitoring process in the packaging plant, the company can offer products compliant with the most critical standard that are trusted by customers.

## Creating Business with "Made-in-Taiwan" Products & Getting Updates of Technological Development in Global Exhibitions

Wattson has been certified by various international accreditations like ISO 9001, CE, and EN. It has built widely recognized reputation and consolidated base with so many years of high quality service. The economic recessions like the financial crisis and the European debt crisis did not actually make heavy impacts on Wattson. Wattson even considered these situations as the times for "taking a short break" and conducting "maintenance & repair" of the manufacturing equipment. Although many fastener companies are influenced by the clampdown on electroplating plants in Taiwan, the lead time of Wattson can still be kept within 75 to 90 days, which not only verifies the systematic structure of Wattson, but also signifies the flexible cooperation of Wattson with its associated companies.

Wattson's major customers include local traders, agents, and wholesale centers. Sales specialist Noxy Huang said, "Wattson is a brand. In int'l exhibitions, we even consider "Taiwan" as another brand that can increase our value and achieve market segmentation with other competing markets." Wattson's order book has been scheduled to year 2015. However, Wattson is not complacent, as the development of technology and the market will never stop. As a result, Wattson will be humble to learn continuously in the advent of its next 30 anniversary.



Heat treatment plant. All 4 production lines are launched



## Customized Orders & Diversified R&D in Nuts



## Hsien Sun Industry Hits the World with Nuts

Established in Yongkang (Tainan) in 1973, Hsien Sun Industry Co., Ltd expanded its plant scale to 3,967 m<sup>2</sup> in 2008 with well ventilated surroundings and plenty of light. Additional and upgraded hardware and software are installed in the plant. Working environment is aligned in order to increase production efficiency. Hsien Sun originally started as a bike nuts maker. Nowadays, it has transformed itself into a maker of various nuts like anchor nuts. In addition to its main product-anchor nut, it also covers a wide spectrum of nut products for the construction, automobile, and manufacturing industries. It provides customization of special nuts as per client's demand.

### Anchor Nuts Hit the Market with Technical Advantage

Certified by ISO 9001, Hsien Sun offers fasteners with the diameter of 4mm-50mm, in materials like carbon steel, stainless steel, aluminum, or copper, according to clients' requests. With over 40 years of technical experience, general manager Julia Tsai, the 2<sup>nd</sup> generation, says, "There are few notable special nuts makers in the industry, and Hsien Sun is one of them! Making nuts and anchors is no big deal, but it gets very hard when using a nut former to create anchor nuts and special nuts for construction use. This is the so-called technical entry barrier of the industry." This involves not just forming machines but also the process of tapping and machining. Some nut products even have to overcome barriers and attain very low thickness and conceal slotted holes to become qualified. Hsien Sun is the first maker to cross over such entry barriers.

It has been 15 years since the company transformed from a standard products maker to special parts maker. Currently, up to 70% of its products are for export, while the rest of products are supplied for domestic demand. Its main product, anchor bolts, is a bestseller and accounts for 60% of its export, and the remaining 40% are for customized orders to which the company demonstrates its technical advantage.

### Highlighting Quality; SOP in Production, Inspection, and Packaging

Speaking of the high-price optical sorting machine purchased recently, Tsai says, "This is a necessary investment for enhancing quality inspection." Hsien Sun has 10 nut forming machines, 30 tapping machines, projectors, concentricity gages, depth gages, and so on to ensure product quality. The company fortifies standard operating procedures from nut forming to packaging. In addition to irregular hardware upgrade and technical inheritance (like the use of software), the company used to arrange training programs in accordance with the actual demand of each department and will never overlook the importance of staff training. Therefore, it can ensure all procedures (like production, inspection, and packaging) are operated under the compliance with standards



### Offering Extra Service in Manufacturing and Applying for Patents for Clients

Most products of the company are special (customized) parts, so these products also represent clients' critical techniques. Besides confidential agreements, the company sees the significance of service as the added value of products and is now able to assist clients in patent application for CE approval. The time for offering extra service in manufacturing has come, and Hsien Sun has also taken the initiative.