Fastening the Market with QC

# Taiwan Fasteners En Route to HIGH PRODUCT VALUE

by Tanya Shih, Fastener World Inc.



en years ago, the trend of high product value arose with the boom of car market. At that time screw suppliers all around the world deemed market demand, ideal prices, quality upgrade as indicators for corporate transformation. However, facing the vast fastener market, global corporations are lurking in the shadows for a moment to outflank rivals. Before securing the market with strict quality control, the manufacturers have to face the issue of "High Quality & High Value" in the first place.

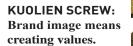
"High Added Value Fasteners" project focuses on high standard and special fastener plants and traders that are most confident in their products. We will take a look at how they define high quality & high value, and how they seek perfect quality, gain reasonable profits, and internalize product quality into their brand images to form a solid base en route to creating high product values.



ABS METAL: Upgrade product value → Gain advantage in price negotiation.

### **FASTENER JAMHER TAIWAN:**

Full-range inspection is not so much as to come up with a way to prevent defective products.





High quality precedes high values.

### VIVEN:

Each company should review its own orientation for future development. This is how you increase the added value.



### Editor's Note:

Statistics show that the global fastener market demand in 2012 was around USD 68 billion, among which automobile fasteners take the highest proportion by over USD 10 million with an estimated 3% to 4% annual growth rate in the next few years. Fasteners applied to emerging industries, such as green energy and aerospace, have a good development prospect. As of now, the global aerospace fastener demand is approximately USD 3.1 billion, and that is an annual growth rate as high as 5% to 6%.





# Fu Hui Screw

### Mastering "Professional Technology, Cost Control, Balanced Supply & Demand Chain"

by Tanya Shih, Fastener World Inc.

u Hui Screw Industry Co., Ltd. is specialized in manufacturing screws, T bolts, and other industrial components, which are applicable to the segments of automobiles, motorcycles, green energy, etc. It's a technology-oriented fastener-manufacturing factory, targeting mainly at sophisticated levels, low tolerance for failure, and high added values.

### Dedicated to Transformation and Sustainability

In 1980's there were only a few fastener factories established in Taiwan and before the time the glorious name "Kingdom of Screw" was the reputation of Gangshan, President Michael Tang founded Fu Hui with his professional techniques based on good market demands.

With the consecutive emergence of fastener factories forming an industrial cluster, Mr. Tang, decided to upgrade the company to reach product differentiation, and turned to the segment of automotive & motorcycle fasteners made of stainless steel and carbon steel. Fu Hui is certified by ISO9001, ISO14001, and ISO/ TS16949. In addition, the factory was expanded to 7603.11 sq. meters with additionally purchased machines like "6-die 6-blow". There are currently 40 employees, 1/3 of whom are R&D and QC staff. We can see that Fu Hui has the main principle of "no orders for standard products, 100%

customization, and insistence on quality over quantity," greatly making the most use of internal talents.

Entering the Green Energy industry in 2005 was the second step of Fu Hui's business transformation, which could be attributed to the opportunities given by customers to develop specialty fasteners and components due to its superior quality and customers' trust. With the trend of sustainability and environmental protection, the future after the transformation will be very promising.

### Squat Lower to Jump Higher

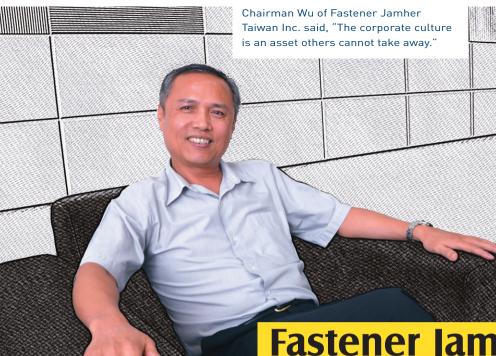
Corporate sustainability is not only a slogan. During the unstable 2008 when the global fastener industry got stuck in mud, Fu Hui was no exception, with a 50% decline in the company. However, Fu Hui never stopped going forward. Recalling those years, Mr. Tang said, "The difficult time should be more valuable, as it is always the time for the company to take a short rest for revival."



In addition to the budgets for routine hardware maintenance & extra purchase and the other NTD250-300 thousand on-the-job training every year, it also applied for subsidies from "Human Resources Upgrade Project" promoted by Bureau of Employment and Vocational Training of Taiwan in 2009, in order to gain more budgets for employees' training programs, including materials of fasteners, mechanical performance, frictional coefficients, and testing skills.

As a result, when the economy turns well, Fu Hui, with nearly 40 years of operation, not only has professional skills and perfect quality, but also shows energetic power and innovative blood for creating a new situation.

The excellent skills of Fu Hui are not limited to any particular industry. It sticks to the belief of "Quality-oriented focus". They produce high quality fasteners for customers with superior skills and actively offer suggestions to customers for cost reduction and achievement of mutual benefits. In the recent year, President Tang established a new subsidiary- Fukung Hardware Co., Ltd., offering customers high value added service professionally and efficiently. To look into the future of the fastener industry, with Fu Hui-Fukung effective integrated resources, they aim for achievements on top quality products and perfect-score services for all customers.





astener Jamher Taiwan Inc. is specialized in manufacturing rivet nuts, weld nuts, flanged nuts, T nuts, sleeves, special nuts and also accepts orders of OEMs. Over 90% of its products are for export to the U.S. and Europe. Products are mostly supplied to car manufacturers. Material range includes carbon steel, stainless steel, aluminum, and copper.

Fastener Jamher Taiwan

Direct In-Process Control to Achieve 0 PPM

by Serena Hsiao, Fastener World Inc.

In addition, Fastener Jamher has passed the audit of German TÜV and has obtained both ISO-9001:2008 and TS 16949:2002. It continues to improve the management system to strengthen its corporal foundation, showing the ambition of entering the automotive fastener market.

### Integrating Technology and Advantages to Be Competitive in the Automotive Fastener Market

Fastener Jamher has been supplying special automotive nuts since its establishment in 1999. Chairman Steve Wu said ordering a variety of products at a small amount recently has been a prevailing market trend. In correspondence to the current changes in orders, Fastener Jamher purchased multi-stage machines (e.g. 7 stages) to develop dies by itself. Further, it recruited a team for strengthening the ability of R&D, which could effectively reduce damages to dies, shorten processes, and achieve specific control on developing costs and lead time.

Wu said that Fastener Jamher produces products as per customer's request and those products are mainly delivered to importers and manufacturers in the U.S. and Europe. He added that, after the floods in Thailand and the big earthquake striking Northeast Japan, many customers of Japanese car manufacturers transferred orders to Taiwan to diversify risks. Besides, he analyzed that the automotive fastener industry in the future will trend towards energy saving and low carbon emission, which means the commonly used carbon steel or stainless steel will be replaced with high-temperatureresistant alloy, thus facilitating the idea of sustainable operation to be widespread.

# **Absolute 0 PPM in Every Process**

"Instead of using the all-purpose sorting machine to complete the final test, it is better to focus on the control of processes and think how to prevent from defective products." Wu's several years of manufacturing experience helped structuralize the corporate culture of Fastener Jamher.

He said that the company aims at achieving the standardization of every process and 0 PPM. When a company has both quality and technology, it can therefore compete with others offering low-price products.

Moreover, the company is devoted to the R&D of products, dragging the competitors far behind. Envisioning the future, Wu thinks both high added value and high quality should be taken into consideration. "The higher entry barrier of an industrial sector, the lesser number of competitors. That is, the added value will be increased." Similar to mountain climbing, the more dangerous the situation is, the more excited Fastener Jamher will be!







# **Kuolien Screw**

## Cautious in Choosing Partners Product Image Can Create Values

by Tanya Shih, Fastener World Inc.

uolien Screw Industrial Co., Ltd. is a fastener manufacturer. General Manager Kevin Kuo said, "Speaking of the manufacture of screws used in home appliances of Japanese brands, precision screws compliant to European regulations, and screws for solar panels, each marks every 10 years of Kuolien Screw's history. All of them exist as a proof of Kuolien Screw's R&D and manufacturing ability. The company continues to accept the crossfield demands for fasteners and is always well-recognized by its clients. The chance to grow with business partners is what drives Kuolien Screw to move forward."

### Insistence on Quality over Quantity Results in Brilliant Expertise and Superiority

Investing NTD8 Million in Buying Specialized Fastener Machines to Replace the Disqualified

Kuolien Screw thinks differently from others. Mr. Kuo is not afraid of the shutdown of machines but getting orders without challenges, insufficient added values, and the extremely diehard in the industry.

The factory spans the area of 13,223 sq. meters with nearly 50 inhouse operating and R&D employees. The factory is also equipped with 40-50 machines for certain purposes. For example, there are 18 sets of machines for screws used on solar

panels. "Remove it if it is disqualified! Such a principle is also applied to the selection of business partners." Kuolien Screw is never complacent to the large amount of orders it has gained, as it is not tied up within the current rules. Although the revenues year over year fluctuate up and down, it still has abundant funds for equipment purchase. In 2012, it even spent NTD17 million (double the record of the previous year) on replacing old machines with new ones.

### After 30 Years of Operation, Neighboring Farms Can Still Produce Organic Vegetables and Fruits

Cooperation Between the Industry and Academia Helps Cultivate Talents for Fastening Technology

Environmental protection cannot be just an issue, as it is more important to focus on how it should be fulfilled. Based on this belief, though Gangshan, Kaohsiung-based Kuolien Screw has started its business for 30 years, it strictly controls the discharge of waste water. Kuo said proudly that those organic vegetables and fruits produced nearby the factory are all proved to be non-polluted.

Going back to school in 2008 for his Master's degree, Kuo thinks that "people cannot always pay attention to increasing their fortunes only. In addition to satisfying customers' demands, they should ask themselves about what they can do for the society?" Cooperation between the industry and academia is a platform for Kuolien Screw to cultivate talents for fastening technology. In every summer or winter vacation, it will offer training programs for students from vocational schools, in hope of making them connected to the industry soon with what they've learned in schools after they graduate, and introducing more talented people into Taiwan fastener industry.

After visiting several automation factories, Kuo, considering the development of the future, thinks that utilizing specialized machines for producing high quality fasteners is not enough and is wondering the possibility of "total customized package for fasteners." Through integrating the idea, the company can automatically simplify the assembly steps of fasteners for customers as well as highlight its industrial competitiveness.





# **ABS-Metal**

by Tanya Shih, Fastener World Inc.

### **Quality of Fasteners Being A Priority** Concern in the Market

eneral Manager Arthur Chiang has been involved in the business of fastener trade for years, providing all-purpose services to customers. Entering the industry as a sales man, he accumulated years of practices before the inception of the company, Therefore, after China provided cheap products, he decided to provide construction screws and automotive screws as the major service range.

### **Competitiveness Can Only Be Attained Through Differentiation**

"Price cutting is not a good idea for long term business," which Mr. Chiang has realized for a long time. This is a reason that ABS-Metal entered the business of construction screws and automotive screws, which will not only make its survival in the price-oriented battlefield, but also avoid the influence of ups-and-downs of prices in emerging markets like China, Latin America, Southeast Asia, and India, and which helps its early preparations to enter Europe and the U.S.

ABS-Metal communicated with local importers to sell its screws in the beginning. When the business structure of the global fastener industry started to change, ABS reduced the involvement in indirect trade and turned to active selling management. The direct investment in factories helped facilitate the flexibility of the company and effectively improved the financial status to achieve the manufacturing quality through a procedure of "Consultation-Supervision-Control," providing a diversified portfolio of services to customers.

### **65% of Volume and 50%** of Value for Construction **Screws Production 35% of Volume and 50%** of Value for Automotive **Screws Production**

We can easily see how the production of construction screws and automotive screws results in different volumes and values according to the grades of fasteners. "Are you going to develop fasteners for another new sector?" Following this question, Chiang expressed his recognition of other sectors.

"Electronic Screw" - a supply chain Taiwanese fastener manufacturers feel difficult to enter. Take Hon Hai and HTC, large tablets and mobile device manufacturers, for example, they have their own fastener manufacturing factories or long term fastener suppliers; "Aerospace Screw"it is not an easy job to develop steels, however, only when they are stably supplied to the market at reasonable prices can Taiwanese manufacturers create their competitiveness in this sector. So our company still focuses on Construction & Auto market. As far as materials are concerned, the demand for stainless steel in the market is shrinking because higher material costs forced users to seek replacements for applications. When replacements were gradually sought out and the mechanical property of stainless steel was not better than the hardness and strength of carbon steel or alloy steel treated with secondary process, even though the cost of stainless steel was much lower, it has lost its popularity in the market as it used to be.



### **Opponents Can Be Opportunities** / **Insufficient Labor is** Not Only a Crisis of the **Fastener Industry**

In the market, having more powerful opponents means more frequent interaction. Take China as example, it is not only an opponent, but also an opportunity. Within the competition, Taiwan can focus on sectors different from those which China wants to get involved, in prevention of the direct competition between each other. As for the bilateral cooperation, Taiwanese high-grade fasteners are what China actually needs. However, 17% of import duty imposed by China inhibits Taiwanese fasteners from displaying the competitiveness.

In addition to existing economic conditions, the lack of labor into the industry is not only a predicament for the fastener industry, but also a crisis for the entire Taiwanese industrial environment. With the gradual transformation in factories, company owners are willing to disclose their techniques and insist on reasonable prices. If the government can carefully propose plans and fulfill them, that will be reciprocal to both sides and Taiwan fastener industry will not need to face the crises directly.





The joining of the young and aggressive generation in Viven continues to boost innovation, highlight service quality, and communicate with customers.

ince its establishment in 1989, Viven Inc. has been positioning itself as "A trading company that owns manufacturing capability." President, Vincent Lue, with over 40 years of experience in the fastener industry, pointed out that Taiwan fastener industry significantly has two major advantages: professional vertical supply chain and quality production material. Being a specialized fastener manufacturer, Viven has targeted at automotive industry since its early years. After Japanese automotive industry entered the US market in 2001, the company decided to further diversify its product application & industry, and thus had the first try in the electronic fasteners segment.

Viven's major customers are Europe-based and US-based fastener manufacturers, who then resell products to the automotive or electronic industry. With the unique opportunities to cooperate with advanced fastener factories in Europe and the US as well as to respond to customers' requests, Viven introduced QC and inspection equipment at the right timing to ensure quality consistency and hoped to grow together with customers at all times.

# "Value" and "Volume" Are Closely Related

Generalizing the fastener industry, Lue, as a senior in the fastener industry, sees that "High value-added fasteners actually exist in many segments." Fasteners are widely used in many industrial products and applications, such as aerospace, automobiles, trains, boats, submarines, electronic devices...etc.

Lue commented that products in every industry can be categorized into core ones and peripheral ones. However, whether a product is highly value added is not merely judged by its manufacturing technique level. "Volume is the key!" said Lue. When there is a substantial demand for a product, many makers will swarm into the research and development and do whatever they can to strive for orders. Regardless the product was once value added, it will eventually fall into a price-cutting game. On the contrary,

# **VIVEN**

### Blue Ocean Strategy Avoiding Competition to Gain Added Value

by Serena Hsiao, Fastener World Inc.

while products with low demand always come with higher cost, an additional value is normally granted as the competition may not be as severe.

Taking Drywall Screw as an example, Lue said that the manufacturing technique required for Drywall Screw was at a higher level and the market demand has been huge. However, when a lot of makers flocked to produce this product in 1998-1999, creating excessive competition, the added value was soon downgraded. Since then, most manufacturing factories had to move to other countries, like China and Vietnam, where the tiny margin could still be sustained with their low labor & land costs. "The added-value of a product is subject to change," said Lue. "Not only the manufacturing technology, but the demand & competition can substantially impact how much a product is valued in the market."

# Define Value Pave the Ways to Highly Added Value

"Profit mainly comes from the logistics rather than the manufacturing capability," Lue pointed out. It is now a critical subject to gain advantages from the logistics. Lue suggested that fastener manufacturers could target on one specific area, and go further & deeper with product diversification to avoid a severe competition. "Locate your own niche and strengths in production. It is what brings the added-value."

"Following with your customers is also an effective way to achieve high added-value." He explained that, although Taiwan fastener industry is playing a key role within the supply chain, Europe, the





US, and Japan are still leading the way in technology, manufacturing, and enduser application development. Hence, there is no niche or advantage for Taiwan to establish our own brand at this time. Instead, he noted, "The next step for the fastener industry is to cooperate with foreign companies or customers." That is, to obtain patents or advanced technology, and with these tools, to enter the demandexisting markets. A licensed product possesses specialty & exclusiveness which make a product more worthwhile in the market. In addition, "how to establish a closer relationship with the customers" is also very important. By working closely & directly with the customers, a company earns the opportunity to understand the end-user applications, obtain the firsthand technology, and maybe figure out an innovative idea to bring more values to a current or future product before any competitors.

Nowadays, most of the fastener products in the industry are made of carbon steel or stainless steel. The future material development would focus on copper alloy, aluminum alloy, and titanium alloy. Besides that, Lue is also positive about the future of miniature screws as such products require a high technical level. "The added-value can be achieved in any way. Fastener makers should consider what matches best with their own capability and strength, evaluate the feasibility, and move forward step by step," said Lue.

# Being a Service Provider to Retain Customers

Envisioning the future, Lue is planning to have his son, Min Lu, overtake the management role of Viven. Min earned his MBA degree from the University of Pittsburgh. He has 10 years of purchasing experience for a fastener manufacturer based in the USA. Different from Vincent's engineering background, Min brings fresh business management and marketing perspective to the company. "The business I worked for always views themselves as a service provider rather than just a product supplier," Min said. "The value of our service (products) relies on our customer's satisfaction. The higher a customer values our service, the more willing a customer will pay a premium for it." For years, Viven has been dedicated to earning customers trust and also successfully turned those trust to a solid and long-term business relationship. Based on this the company creates its own value added product as well as sustainable development.