



‘Learning for changing’ essential to Froch

Froch Enterprise Co., Ltd. from Taiwan describes itself as ‘one of the top manufacturers of stainless tube and pipe in the world’. We travelled to Tou-Liu City where we met with Chairman Mr. P. Y. Chang, Director Mr. C. C. Lin, and Vice President Mr. Andy Lee, who were eager to back this claim up with ample proof of ambition.

By Gert Wijbrans and Esther Aiking-Martensen

Froch Enterprise Co. Ltd. was founded in the 1970s by its current Chairman, Mr. P. Y. Chang. At that time, stainless steel pipe was still a novelty in Taiwan. Nevertheless, this did not discourage Mr. Chang from starting up his business, which has become “the largest stainless steel tube and pipe producer in Taiwan” he says “employing 750 people today.”

The company currently operates three plants, one in Taiwan and two in China, with a combined capacity of 10000 tons per month. All facilities can produce the same high-level products. While the Chinese facilities in Suzhou and Wuxi, which opened their doors

in 2001 and 2007 respectively, focus on the domestic Chinese market the facility in Taiwan mainly targets the Taiwanese and global export markets. Most products are manufactured on demand, although all three facilities maintain a limited stock to comply with emergencies. The Chinese facilities manufacture according to the Chinese standard (GB) whereas in Taiwan, the universal ASTM standard is mostly followed.

Tube, pipe and flat products

Froch’s product range consists mainly of tube and pipe with an outside diameter ranging from 9.5 mm to 2300



Furnace.

mm and a wall thickness between 0.7 mm and 30.0 mm, all up to 12 meters in length. "However," says Mr. Chang, "the company is also moving into flat products, and more specifically into sheet and coil. This strengthens our position in negotiating with suppliers on delivery times and prices. This, in turn will be beneficial to our customers. Additionally, it means that we can become more of a one-stop shop for our customers where they can buy all the stainless steel products necessary for their projects."

Mr. Lin takes over: "For the same reason, we are looking into expanding our range of materials. 95% of what we currently produce is either 304 or 316. The remaining 5% consists of high alloy grades, such as duplex and titanium, and we would like to increase this figure over the coming years. We already have the technical capabilities to do so but now we need to shorten the lead time for these products. Currently there are no manufacturers of these grades in Asia, other than in Japan. If we need to buy the base material from Europe or America, the delivery time will be very long simply



Froch can carry out a number of tests in its own facility, including hydrostatic testing for pipe up to 36" in diameter.

because of the distances between the continents. In turn, this translates into long delivery time to our customers and is obviously our disadvantage. We are now looking at ways to resolve this issue."

Worldwide deliveries combined with local expertise

One important market for Froch is the petrochemical industry, most notably in China. Over the past seven years, the company has won substantial orders for petrochemical complexes that were built in China by international companies who engaged in joint ventures with Chinese counterparts. Froch has gained a reputation as a reliable supplier of quality products at competitive prices to these projects, which are handled from the company's Chinese plants. "This gives us an advantageous position over European or American suppliers who need to add additional costs and time for shipping," Mr. Chang explains. "In addition, our Chinese facilities have also established a good name for themselves for their after sales services and stock deliveries in case of plant modifications during the construction stage of these projects."

Unlike the Chinese facilities which focus on the mainland China market, the Taiwanese plant targets worldwide export to a wide range of industries, varying from oil and gas, mining and power generation to pulp and paper, food and beverage, the pharmaceutical industry, and also maritime. "For this last field, we have almost every approval," Mr. Lee says proudly. In the market of Taiwan, Froch is also a well-known supplier to the electronics industry. The company's impressive lists of projects worldwide includes some big names indeed, such as Inco's Goro project in New Caledonia, Nuclear Power Plant 4 in Taiwan, the Asia Pulp and Paper (APP) Ningbo plant in China, and the BASF petrochemical facility in Nanjing, China. "These projects were all major milestones for us from which we learnt a lot,"



Froch is one of the top manufacturers of stainless tube and pipe in the world.



Mr. Chang says. Today, Froch's products are shipped to 86 countries worldwide, and this list is still growing. "It is always exciting for us when we can add a new country to this list," Mr. Lin says.

Froch's coverage is truly global, from Asia, the Middle East, Australia, and Europe to North and South America. However, the company is fully aware of the importance of having a representative in each region. Mr. Lee explains: "For the benefit of our customers across the globe, we have representatives that specialize in their particular parts of the world. These representatives are knowledgeable with the main industries, the types of products needed and special requirements, if any, in their regions. They form a bridge between the Taiwanese company and the overseas customers.

The after sales services are handled by these representatives as well. They visit the customers in their specific regions, to collect their requirements and also to hear their comments and feedback. "This is very important to us," Mr. Chang stresses: "Our customers are our most important guideline in determining our strategy for the future. Just like a strong R&D department must follow the needs of the customers, or its efforts may render it useless. This has always been the basis on which we try to grow and expand. That is why these visits to our customers are so important to us."

Learning for changing

Listening to, and learning from, its customers is elemental to Froch, as Mr. Chang underlines: "I believe it is what sets us apart from other suppliers, and what makes us the top manufacturer we claim to be." In everything it does, Froch goes out of its way to familiarize itself with the specific needs of the industries it supplies to: "If a customer has a request for pipes that are to be used in a pulp and paper plant, not only do we know that what they need are most likely to be large diameter pipes, with a thin wall, in 316, we also know the specific details we need to pay extra attention to in the manufacturing process. To give another example, for an LNG terminal, not only do we know that we need to produce thick walled pipes in 304, we also know that all material has to be 100% X-ray tested and a low temperature impact test of -196°C , to test for brittleness, needs to be carried out as well, since we are dealing with an explosive gas."



The company is also moving into flat products, and more specifically into sheet and coil. Here stocks ready to be transported to customers.



When asked how Froch obtains all this information, Mr. Chang says that most of the expertise they have gained over the years comes, in fact, from the customers themselves! "Of course we do our own research as well but we try to learn from our customers as much as we possibly can. After all, they are the experts for specific applications and they can tell us best, during the technical negotiations, what is critical to them and what specifications they need. It would be foolish on our part not to benefit from this knowledge and experience."

Mr. Chang adds to this and says that learning, in every aspect, is an essential element for Froch to continue its growth as a company. "Our company engages external professionals in the fields of management or production to conduct regular internal courses in which all the managers are strongly encouraged to participate. We call this 'learning for changing'. We firmly believe that the only way that our company can continue to evolve and prosper, is through educating our people."

Quality and reliability

Apart from a continuous learning process, the other important element of Froch's strategy for business is a constant focus on quality and reliability. "Our customers need to know that they can always rely on products of the best quality, wherever they need them," says Mr. Lee. The products we make are often installed in critical parts of their plants so they need to be 100% reliable. Moreover, our customers need to have confidence that all they need to do is to give us the specifications for a project. With these specifications we will come up with the best possible solution, saving the customers time and, where possible, money, even if this means that we need to recommend using a different, but more economical alternative to what the customer had originally specified.

Punctual delivery is essential as well, according to Mr. Chang: "Prices for stainless steel may vary greatly at any given moment so timely deliveries are not only important to guarantee completion dates of the customers' projects but also to avoid uncertainty of the cargo's value."

Underlining Froch's constant focus on quality, Mr. Lee says that Froch was in fact the first company in Taiwan to be issued ISO 9001 certification. The company also meets the standards of the PED, TÜV, and AD2000 and is the only company in Taiwan certified to supply to nuclear power plants by both Hitachi and Toshiba. "I think this list provides a clear indication of the quality of our products and our production process."

In order to maintain its levels of quality, Froch can carry out a number of tests in its own facility, including hydrostatic testing for pipe up to 36" in diameter and eddy current testing. The company also has three lines for radiographic real-time testing. Customers can view the test results on DVDs so that they can judge for themselves both the quality and the results of the inspections. These digital files are all stored for later reference, should this be necessary. For more specialized testing, such as low temperature impact testing or tests required for the maritime industry, Froch works together with certified laboratories and agencies.

Growth

When asked where he thinks Froch will be in five years from now, Mr. Chang answers that he hopes by then the company would have increased its production quantity and extended its product range and grades even further. To achieve this goal, the company will be opening a new plant in Taiwan soon. In addition, Froch hopes to have established an even stronger global network by forging local partnerships. "Geographically speaking, right now the only region that we do not fully cover is Russia and Eastern Europe but we hope to add countries from this area to our list soon." He concludes: "We already are the largest producers of stainless steel tube and pipe in Taiwan but in five years, I would like to be able to say that we have increased our quantity continuously with the growth of the global market and introduced our quality products to more and more countries in the world." ■



Headquarters at Tou-Liu City.