



The team at Changshu Walsin continually use the feedback that is received from their customers to further improve the quality of their products.

Changshu Walsin:

Aiming to be one of the most reliable and preferred suppliers in the high-end market

With the completion of its recent extension projects and with its enhanced R&D power, Changshu Walsin Specialty Steel Co. Ltd. has become one of the leading stainless steel seamless tube and pipe manufacturers in China. 2010 was a particularly fruitful year, especially with regard to local Chinese end-user markets. Stainless Steel World first reported on the company at length in the July/August 2009 edition of the magazine. At the beginning of 2011 we once again had the honor to visit their production base, and got a close insight into the company through talks with Mr. Chih-Hui Xue, General Manager of Changshu Walsin; Mr. Dennis H. Sung, Senior General Manager of Walsin's Seamless Pipe Business Unit and Dr. Steven Y. Liang, President of the Business Group. Like all progressive forward-looking companies, they continue to invest and plan for future developments.

By **HUANG Juan**

New products

With the taking into operation of the new 36MN extruder production line and the other assorted processing lines, Changshu Walsin has increased its yearly production capacity for seamless stainless steel tubes and pipes to 50,000 tons in 2010. However, more than just by expanding its capacity, the

company has been recently placing great emphasis on the development of new products in order to strengthen its market competitiveness. This is shown, for example, by the launch in 2010 of the use of Super Duplex S32750 and Super 304 (STM30432) alloys in seamless tubes and pipes, which are used in ultra-supercritical boilers in

power stations. Mr. Xue takes up the story: "These products have already been mass produced for some of our Chinese domestic clients like the Harbin Boiler Company Ltd. and the China Huaneng Group. Additionally, the Super Duplex 2507 seamless pipes that have been produced in China by Walsin have already been supplied to the rather

famous domestic Chinese project, Tianjin, a multi-million ton ethane project owned by Sinopec and CNOOC. Walsin was, moreover, the first company that produced these products in China and as such broke China's longtime import dependency on duplex seamless pipes and tubes".

Ongoing R&D investments

"Instead of expanding further in just quantity production, Walsin, today, concentrates more on producing high-end and added-value products", says Mr. Xue. "Moreover, nickel-based, titanium and Hastelloy alloys will continue to be the products on which we will concentrate our R&D projects within the company during the coming years".

And in order to support these new product developments, several million US dollars has been invested in R&D to strengthen personnel and facilities. An example of the investments is the newly purchased scanning electron microscope. A piece of equipment that is not often seen in use by our Chinese competitors", adds Mr. Xue.

In addition, plans for a new R&D center

with a machine tool center, supported by the Walsin Lihua Group, the mother group in Taiwan of Changshu Walsin, have already been carried out within the company".

Apart from products developments, Walsin also pays close attention to quality and cost control for its customers. Mr. Xue explains: "With the aid of the new machine tool center, we plan to achieve full self-design and manufacture in our production facilities in 2011. We believe that this will also help us with optimizing the precision of our products and in production costs".

Optimized manufacture and quality management

During the visit to the company, the Stainless Steel World staff was greatly impressed by the orderly arranged and clean workshops and by the highly trained personnel. All these aspects have been constant areas of focus for the management at Changshu Walsin during the past two years.

"We have concentrated our new focus on such areas as lean manufacturing quality management, technical improvement and automation, and the

optimization of production planning", says Dr. Steven Y. Liang, President of the Business Group.

"Some examples of the advantages that have resulted from the optimized manufacturing management system have utilized methods like Experimental Design, MSA (Measurement System Analyses), and Finite Element Analyses, etc. Moreover, the new cost control system, which we started working with since 2010 has helped us to reduce the costs of raw material procurement for the company by between 15–20%. This has naturally also strengthened our product competitiveness. In addition, by using a more automated flexible production planning system we have managed to shorten our original production planning times by 50%. Further, production lead times will be shortened by 25–30% and output could possibly be increased by as much as 20–30%".

When the topic specifically moved to quality management, Mr. Dennis Sung (who has thirty years experience in this field of work and is responsible for Changshu Walsin's quality assurance



The main office building of Changshu Walsin in Changshu City, China.

(QA) system), proudly explained about the full process quality control system that has been implemented within the company. "We start with reviewing and summarizing our customers' technical requirements", he says "and make sure that all these requirements – from material selection right through to product inspection – are all well matched with mill practices and then arranged into our quality control charts for implementation. Basically, to ensure quality, a first-piece inspection is carried out before normal mass production, which is followed by a periodical quality check during in-process production stages. Finally, 100% inspection, including NDE and PMI, is performed for every piece of final products. All processes are focused on producing the quality pipes and tubes in Changshu Walsin".

Education

Apart from these measures, Walsin utilizes a personnel certification system to guarantee that all the operators at its mills qualify for their posts. Only those who pass the written, oral and onsite operational examinations are granted a certificate to work with Changshu Walsin.

Employees also attend the company's quarterly performance assessment programs, which allow us to continually make improvements internally. Our staff also use the feedback that we receive from our customers to further improve the quality of our products", continues Mr. Sung.

Opinions on anti-dumping

In connection with current anti-dumping regulations which have been initiated against imports from Chinese companies producing seamless pipes and tubes by European countries, Mr. Xue has this to say: "It's unfair for countries to take such actions against Chinese companies by drawing up their own laws and regulations. At the end of the day we all want to ensure that the products reaching the market are brought there at reasonable price levels. Walsin conducts its production and transactions very strictly in line with not only the laws and regulations in China but also all around the world. We hope that the manufacturers in Europe and America will continue to treat producers and suppliers from China rationally and equally with unified standards. We also hope that European users will further be able to obtain good quality products at a reasonable price".



Changshu Walsin have invested heavily in testing equipment, a fact that separates them from many of their competitors. Here are seen creep testing equipment, above, and a scanning electron microscope, below.



By implementing this advanced management system, Walsin has gained various accreditations including those for ISO9001, PED, API, and the China Nuclear Grade License, etc.

Growing market

Walking through the well organized and neatly laid out mills and talking about the investments that are taking place, it is apparent that Changshu Walsin is very much a company on the move. We pose this thought to Mr. Xue: "Walsin has achieved a significant share in the seamless stainless steel tube and pipes market, especially in the high-end markets", states Mr. Xue. "In 2009 and 2010, we captured a 50% market share for supplying seamless steel pipes and tubes to the China nuclear power generation industry. We have, moreover, established stable cooperations with end-users like the China National Nuclear Corporation, SNPTC, and



Above: The new cold rolling line. Below: The warehouse where pipes and tubes are stored before being shipped to customers.



No priority between quality and safety

Walsin attaches the highest priority to safety and quality at all times. Emphasizing Walsin's Management philosophy, Mr. Dennis Sung says: "No priority is given to either one of the words, they both form an integral part of what Walsin represents".

increase sales directly to end users". At present the company is very much involved in sales to the European and American end-user markets. However, the end-user market for petrochemicals and (nuclear) power generation in the Middle East, India and Korea are also key market areas for them.

"We believe that with our growing R&D strength and our good reputation in the marketplace, our oversea end-user market will expand rapidly in the coming years", he concludes.

Future prospect

For the future, Walsin plans to maintain and continue to develop stable, long-term relationships with its customers while making concentrated efforts on becoming a preferred supplier for all its existing end-user clients. At the end of the interview, Mr. Xue explained his prognosis for the company. "In the next two years, Walsin will continue to make progress in its strategy of developing high-end and high-value-added products, and in expanding its global market share. We aim to become one of the most reliable and preferable suppliers of stainless seamless tubes and pipes in the world".

CGNPC. What's more, we are now making rapid progress in attaining accreditation of ASME Section III, which will enable us to supply oversea nuclear power markets".

Because of its excellent reputation in the petrochemical industry, Walsin has been able to establish strategic cooperations with end users like SINOPEC, and long-term cooperative relationships with CNOOC, CNPC, Shell, ExxonMobil, and BP. In the marine industry, Walsin has also become one of the key suppliers, especially for LNG tankers.

"When looking at the geographical marketplace, we clearly see that sales

from the domestic market have increased to 50% of the total sales of the company", says Mr. Xue. "These sales are almost always made directly with end users in the nuclear power and petrochemical industries. The other 50% of our sales come from export markets, and here again we hope to

Facts and figures

Name:	Changshu Walsin Specialty Steel Co., Ltd
Founded:	1998
Products:	seamless steel tube and pipes in stainless steel, duplex and super-duplex, nickel-based, and titanium alloys
Application industries:	petrochemicals, oil & gas, Ing, (nuclear) power generation
Employees:	1500