

## Wujin: World-class supplier of stainless steel and

Founded in 1970 in Jiangsu province, China, Jiangsu Wujin Stainless Steel Pipe Group Co., Ltd. (Wujin) is an important national high-tech company. With a 700,000-square-meter facility and employing 1,400 workers, it is one of the largest stainless steel tube, pipe, fitting and flange manufacturers in the world. Fast and reliable, Wujin is constantly investing in new innovations and technologies to ensure that its clients can rely on its high performance and corrosion resistant products.

The *Stainless Steel World Americas* team travelled to Jiangsu province to meet with Wujin's CEO, Mr. James Shen, Assistant General Manager, Mr. Zhang Xianjiang, and International Business Manager, Mr. Larry Jiang, to learn firsthand how the company has become such a principal manufacturer of stainless steel products in the Chinese market and its plans to succeed in the North American market.

By Lu Ye (LuLu) and Candace Allison

At face value, Wujin is yet another shining example of a successful Chinese national enterprise. Over the past four decades, Wujin has never stopped finding ways to improve as a company, whether it is investing in the latest technology or bettering delivery times. Mr. Zhang explained, "We provide high quality products to various industries and we have a very good reputation of outstanding achievement in the domestic market. This makes us confident that we can do the same in the American market."

### Quality first

"Quality first' is a core value of Wujin, which means we cater to customers who have strict requirements in terms of quality," described Mr. Jiang. "Wujin may not be competitive in those common steel grades, like 316L and 304L, because with these grades the customers are always price sensitive. But, when it comes to higher steel grades, like TP321/321H and TP347/347H, S31803/32205 we have obvious advantages, because the customers choose the mill that is well-equipped to ensure quality."

Wujin offers a complete product range. Its welded pipes (O.D.15mm-2200mm\*WT0.5mm-80mm), seamless pipes (O.D 6mm-762mm\*WT0.5mm-70mm) and fittings are capable of handling the strict requirements of the petrochemical, chemical, coal chemical, LNG, nuclear power, boiler, offshore engineering, shipbuilding and desalination industries.

"In order to ensure quality, we do many tests on our products before they leave the factory and are delivered to the client. For every order, we perform positive material identification (PMI), ultrasonic testing (UT), electromagnetic testing (ET), surface testing and dimension measurement.

Quality is important for a manufacturer, so we commit ourselves to supplying our clients with the most reliable products," maintained Mr. Jiang.

To create these superior materials, Wujin has stuck to the highest quality requirements and as a result, has been selected by China Petroleum & Chemical Corporation (Sinopec) as one of its 'Golden Suppliers.' This is a great achievement as Wujin is only one of two companies in China to hold this title. Wujin has also been recognized as a qualified supplier by Saudi Basic Industries Corporation (SABIC), Bharat Heavy Electricals Ltd. (BHEL), KNM Group Berhad (KNM), Engineers India Ltd. (EIL), SASOL, Kuwait Oil Company (KOC) and Kuwait Oil National Petroleum Company (KNPC). Based on its outstanding product quality and service, Wujin is also a 'Strategic Supplier' for China National Petroleum (CNPC), China National Offshore Oil Corporation (CNOOC), Dongfang Boiler Group, Shanghai Boiler Works Ltd. and Haerbin Boiler, Ltd. and The Babcock & Wilcox Company.

### Equipment investments

"Wujin is a key manufacturer in the Chinese market of heavy wall thickness pipe. With constant investments in equipment upgrades, Wujin has many references of substitution of imported products in the domestic market. We are now able to supply 762mm O.D\*70mm WT seamless pipe, because we invested in a  $\Phi$ 720mm Hot Piercing Machine, which is the largest piercer in the world. Before this, we only had a 8000 T capacity and now our capacity for heavy wall thickness pipe will be upgraded to 15000 T per year," stated Mr. Zhang.

He continued, "We have also invested in a  $\Phi$ 720mm cold rolling mill, which will go



into operation in October 2014. We have already received an order for Shenhua's coal chemical project, which was designed by Shanghai Zhongyi Engineering company (SZPE AMEC), for oxygen pipeline with 20Mpa pressure, ASTM A 312 TP304L 610\*26\*11000MM. An oxygen pipeline requires a very high standard of surface roughness, internal quality and density; now we can handle that kind of requirement because we have the needed equipment."

### Past projects

Speaking of materials like tubes and pipes, Mr. Zhang told us that Wujin focuses on super austenite stainless steel, duplex and nickel alloys. In recent years, the company has developed seamless duplex stainless steel pipeline (NDVOSF), which gives the business a technical edge over competing companies. For nickel alloys, Wujin has also invested time and money to successfully develop N08825 large-sized pipe serviced in residual oil hydrogenation unit (ODmax508mm\*WTmax42m\*Lmax12m). In terms of duplex, Wujin also offers quality products for a good value. "We supplied a 282T S32750 and a 252T S32205 seamless tube for an EO/EG reactor in Shanghai for Sinopec, which

was designed by SEG. (Previously, these tubes were imported.) We also supplied 590T seamless and welded tube in BASF-YPS IPS Phase II project in China, which was designed by Fluor. These past projects show that we have ability to meet stringent requirements in the worldwide market," said Mr. Jiang.

Mr. Zhang shared with us that Wujin has also invested in its own R&D center, which provides ultrasonic defect detection, eddy current flaw detection, direct-reading spectrometer services, material testing machines, impact testing machines, hydrostatic testing machines and an X-ray flaw detector to name only a few. "These tests can help us to ensure the quality of our products." Mr. Jiang added, "As one of the key principles of sustainable development, we have concentrated on R&D for new, high-end products in order to target a niche market and enhance our competitive power in the world market."

### Competitive, high-level service

Since Wujin serves the high-end market, quality service is very important. The company offers competitive quality, delivery and products. "We are the



The x-ray flaw detection machine.



A 50 MPa hydraulic testing machine.



## nickel-based pipes, tubes, fittings and flanges



A PT test on a NO8825 large heavy wall seamless pipe.



Natural gas tank type heat treatment furnace.



The 711 automatic welding unit.

company who can provide various stainless steel and nickel-based alloy products including seamless tubes and pipes, welded tubes and pipes as well as fittings. The cost-advantage is based on China's rich natural stock and our excellent human resources. To be exact, Wujin's philosophy is to provide the best quality products and services at a reasonable price," explains Mr. Jiang. He further stated, "And Wujin's 24 hours, seven days a week 'seamless' service model, plus our on-time delivery commitment, help to provide products within the best time-frames and with the most reasonable prices. Wujin endeavors to keep these

commitments even though it is sometimes difficult. For example, we specifically stock pierced billets or semi-finished products so that the delivery time for the customer can be reduced. We think about what customers want and need. This is our business concept, we consider everything from our customers' point-of-view."

### American market strategy

"Our ambition in the American market is to become a trusted and relied upon manufacturer that clients know they can depend on and choose over competing brands," said Mr. Zhang. "And from the

material perspective, super austenite and nickel alloys will be the main strategic materials in that market. Heavy wall thickness pipe will be the main strategic products in American market.

He added, "Similar to the domestic market, Wujin will concentrate on the energy industry. Wujin has a very high market share and reputation in the refining, petrochemical, coal and chemical industries in China, because it is a first-class brand. In the past 10 years in China, most tube and pipe manufacturers in the power industry have relied upon importing their products. But now Wujin has replaced many of the import products in the power industry, like super heaters and reheaters of the main engine of thermal power generating units. We have also supplied our products to the new ultra supercritical

units of Guohua power. Wujin has an absolute advantage in the Chinese thermal power industry."

Wujin is very confident with its products and its ability to break into the American market. "For the whole American market, Wujin may still be a stranger, but we hope American clients will get to know Wujin better and rely upon our products. We welcome American clients visiting our plant site to investigate Wujin's production and testing equipment, quality assurance system, HSE, environmental protection and social responsibility. We also have social responsibility authentication, SA8000, which is not common in China. Wujin is prepared to meet the demanding requirements of the global user," concluded Mr. Zhang.

All photos: Wujin



A rolling machine.

### Jiangsu Wujin at a glance

<b>Company Name:</b>	Jiangsu Wujin Stainless Steel Pipe Group Co., Ltd.
<b>Established:</b>	1970
<b>Employees:</b>	1,400
<b>Headquarters:</b>	700,000-square-meter facility in Jiangsu province
<b>Main products:</b>	Tubes and pipes in austenitic, duplex, super duplex and nickel alloys
<b>Specific products:</b>	
<i>Seamless tubes and pipes:</i>	O.D. from 6mm to 762mm, W.T. from 0.5mm to 70mm
<i>Welded tubes and pipes:</i>	O.D from 15mm to 2200mm, W.T. from 0.5 to 80mm
<i>Fittings and flanges:</i>	SMLS Fitting: DN≤600, WLD Fitting: DN≤1000, Flange: DN≤1000
<b>Main applications:</b>	Petrochemical, chemical, coal chemical, LNG, nuclear power generation, boiler, offshore engineering, shipbuilding and sea water desalination
<b>Website:</b>	<a href="http://en.wjss.com.cn/">http://en.wjss.com.cn/</a>