



# SeAH Steel: “Making the World Beautiful” ... With a focus on quality and expertise

**SeAH Steel is one of South Korea’s leading producers of welded stainless and carbon steel pipes, serving a wide range of industries and with a core focus on LNG, chemical processing, ship building, line pipe, OCTG and structural pipe. The company recently acquired the Italian manufacturer of welded stainless, alloy and clad pipes Inox Tech, and has thereby markedly increased its production capacity and certified approvals. Having set its sights on expanding its global market share, the company is firmly focused on high quality products for the most demanding of applications. Stainless Steel World travelled to Seoul to speak with Mr. Man-gi Hong, Sales Director at the company’s head office, to learn more about SeAH Steel and how it has grown to its current international status.**

*By Gert-Wim Wijbrans & Joanne McIntyre*

SeAH Steel first started business in 1960 under the name Busan Steel Pipe Industry Corp., in 1967 becoming the first Korean company to export welded carbon steel pipes. The company moved into the production of welded stainless steel pipes in 1990, and the name SeAH Steel was adopted in 1996.

While SeAH Steel supplies pipes for a wide range of industries, its core markets are LNG, Chemical plants and ship building. “We are able to supply every link in the chain for these industries,” Mr. Hong explained. “Pipes in industry are like the blood vessels in our body; they are essential to keep processes running.”

“The LNG market is the largest for our stainless steel products. No other material can withstand the  $-163^{\circ}\text{C}$



CEO of SeAH Steel,  
Mr. Howard Lee

temperatures at which liquefied natural gas is stored. Stainless steel can tolerate temperatures as low as  $-196^{\circ}\text{C}$  so it's the perfect material for the LNG industry. However in addition to LNG we also have a strong focus on ship building and chemical processing."

### Acquisition of Inox Tech

In February 2014 SeAH acquired Inox Tech, a renowned Italian producer of high quality welded pipes. The move has further enhanced SeAH's offerings to the offshore and LNG industries.

The combined production capacity of general piping for SeAH and Inox Tech is now around 140,000 tons per year.

"With this acquisition we are maintaining our focus on our core markets of LNG, chemical processing

and shipbuilding with an even more extensive range than before. General piping needs very high technology welding in order to withstand high internal pressures produced in these industries. Inox Tech is a very well-known company which has many certifications. They are very well received by major Western end users, and the merger has greatly expanded our offering of larger diameter welded stainless steel pipes. Inox Tech is a 100% export company, supplying to projects all over the world."

### Preferred LNG project supplier

"With shale gas development, global energy development trend is shifting to the U.S.A. from the Middle East and Australian area recently," Mr. Hong

explained. "The big three of the LNG demand countries - Japan, Korea and China all belong to Far East Asia. Because of development of shale gas in North America, construction of LNG plant for export is expected to increase and the number of LNG terminal in Asia for import is increasing. LNG projects require plenty of welded stainless steel pipes that have large diameters and heavy wall thicknesses for liquefaction and the regasification process. Due to the huge nature of the project, sales record for LNG and the geographical location for easy supply are important. In this respect, SeAH Steel will have many chances to supply to LNG projects as a company with plenty of experience in the North American market in addition to the LNG demand increase in the Asian market. We are the ideal supply partner for highly specified LNG products and cater to every LNG process from offshore and onshore risers and pressure equipment to liquefaction plants, storage and transportation for both industrial and domestic consumers."

While there are several large pipe manufacturers in the Asian market, Korea has a reputation as a high-tech producer of quality stainless steel, and the country has become a favored supplier for technologically demanding projects such as desalination and LNG plants. "SeAH Steel is able to offer high quality at a reasonable price. Inevitably, this is why Korean manufacturers are often selected for large-scale projects."

"An average LNG plant requires around 3,000 ~ 4,000 tons of stainless steel pipes and as the industry has grown we have invested heavily in order to keep up with this pace. For example we supplied 7,000 tons to phase 1 and phase 2 of the Cheniere Energy Sabine Pass shale gas plant project in the USA. Today our capacity has grown to 40,000 tons per annum (Max 100,000 tons) and pipes have been produced with diameters ranging up to 197 inches and wall thicknesses ranging up to 128 mm at SeAH Steel."

"SeAH Steel can be regarded as the 'department store' for the pipe industry with our wide range of carbon and stainless steel pipes and tubes for the OCTG, LNG, chemical and ship building industries. Many other companies have tried to copy us but we have a very high level of manufacturing technology. Money alone cannot buy expertise; you also need a history of experience. With over 54 years of history we are very confident of our position in the market."



A press bending machine at the company's SunCheon Plant for large diameter pipes.

### Shipbuilding

Shipbuilding remains a core market for SeAH Steel. "There are many global shipbuilders in Korea such as Samsung Heavy Industries, Hyundai Heavy Industries and Daewoo. These

must be based on capacity and quality. Having a very strong and trustworthy relationship with your raw material supplier is absolutely essential for stainless steel manufacturers. We have established solid relationships with our

portion of a project, which was difficult as many customers want to place one complete order per project. Therefore we increased both our size range and production capacity, enabling us to supply multiple, complete projects each time. We are able to meet the scheduled delivery times and this keeps our customers coming back."

SeAH Steel's expertise in producing welding pipes dates back over many years and its customers value that expertise. "We are very proud of our welding technology because we are a leading company in this field," Mr. Hong explained. "There are many welded pipe manufacturers in Korea, but the rate of defects varies. SeAH Steel however has a zero defect policy: every pipe we supply is perfect."

The company has extensive in-house testing capabilities.

One of the key factors in maintaining their high quality of welding is the specialized training the company provides for its staff, and its willingness to immediately update processes if a problem occurs. "The high quality of our products is not just a result of our welding technology but also to

## "Our name is the 'Se' and 'Ah' of the Korean expression Sesange translates as 'Making the World Beautiful' - this is our com

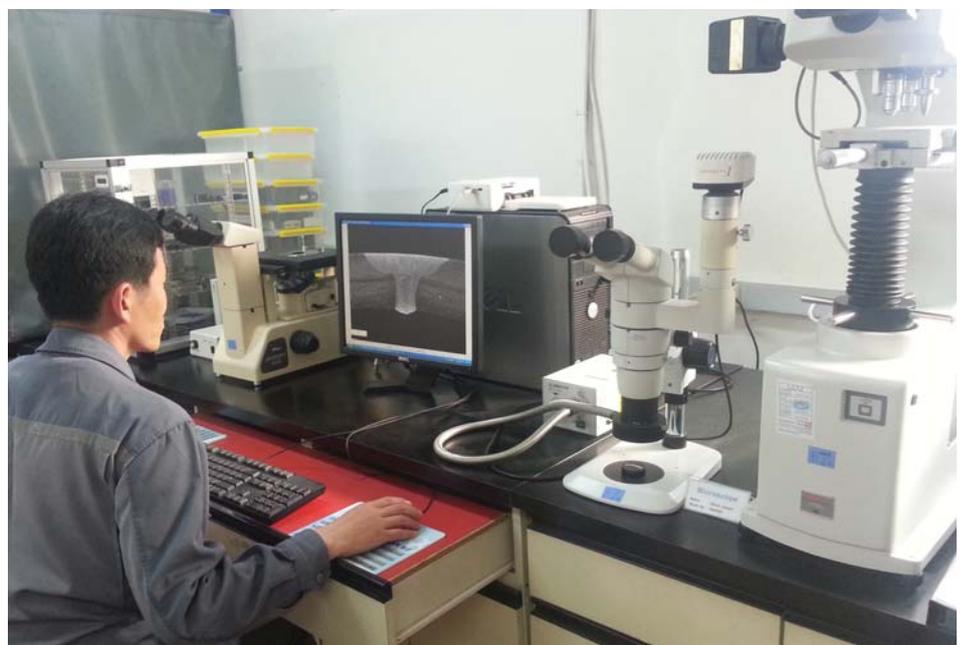
companies make up the largest share of the global shipbuilding industry that requires huge amounts of pipes and tubes which are sourced from the Korean market. This means SeAH's pipes are in effect supplying to most of the shipbuilding industries in the world." In addition to the local market, SeAH Steel is also exporting to Chinese shipbuilders such as Jiangsu Shipbuilding Co., and also to the Japan shipbuilders such as Mitsui Engineering and Shipbuilding. "The Korean shipbuilding industry is geared towards high-tech vessels such as LNG vessels and ice breakers and offshore vessels such as floating LNG (FLNG) and floating storage regasification units (FSRU). Inox Tech exports significant amounts of piping to the ship building industry and now provides much of SeAH Steel's offering for this market."

### Why choose SeAH Steel?

"Price is of course a very important consideration and stainless steel prices are very sensitive at the moment based on nickel price. Any increases in price

partners over the years. Our competitive advantage and large capacity mean that we are able to take on projects of every size. In the past when our capacity was lower we could only supply to a

the extensive tests we carry out such as pressure, bending, radiographic, hydrostatic and eddy current tests. We offer both roll-bending and press-bending facilities. We are a customer



The SeAH stainless steel pipe R&D center in Changwon.

centered company with strong market shares, coupled with wide expertise in overseas sales networking and technology.”

**Looking to the future**

Today carbon steel pipes still makes up about 90% of SeAH Steel’s products, but this will change dramatically in the coming decade. “In the 21<sup>st</sup> century, demand of large diameter pipes with heavy wall thickness is escalating due to an increase in number of gas projects. Also, demand of stainless steel pipes used for LNG vessels and liquefied gas plants is increasing due to the change in trend from ground gas transportation using carbon steel pipes to marine transportation using stainless steel pipes. We are continuing to watch developments in this sector closely.” Now that the company’s capacity and reputation as a global supplier has increased, our sales marketing strategy is also being adjusted. “In the past we focused on projects by country, but that is no longer an efficient strategy for us. Today we focus on projects by industry beyond the geography. This enables our sales teams to work flexibly



Chairman of SeAH group, Mr. Soon-hyung Lee and Sales director, Mr. Man-gi Hong and CEO, Mr. Howard Lee (from left) talking with InOX Tech team manager during the Gastech 2014 exhibition.

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and develop their skills and expertise in dedicated industries. Over 50% of our commercial products – that is, pipes under 16 inches in diameters with small wall thicknesses - are exported to the USA and Japan. At SeAH Steel we appoint sales people who will become friends with our customers. After all, this is a human-based relationship, not just a company concentrating on money alone. Even if we may not have any business affiliation at a given moment, we maintain our relationships for our customers and try to gather important and useful information from them. This enables our sales staff to develop relationships for a long term future.” Mr. Hong has been with the company for decades and seen many changes during this time. - “Our ultimate goals are to become a leading company in the global market, and to supply welded pipes in a wide range of materials to our customers in many industrial value chains. We are currently focusing on obtaining vendor approvals and this will open many doors for us.”



Stainless steel pipe undergoing heat treatment in the company’s Suncheon plant.

**Facts & Figures**

<b>Founded:</b>	1960
<b>Main Products:</b>	Oil pipelines, oil well casings, general-purpose steel tube, mechanical tube, heat exchanger pipes, pipes for high pressure service, steel pipe columns, spiral welded pipes, stainless steel pipes, titanium tubes, hot-dipped galvanized steel sheets and pre-coated metal.
<b>Materials:</b>	Austenitic, super austenitic, duplex, lean duplex, super duplex, and ferritic-martensitic stainless steels, Carbon Steel, Clad, Alloy.
<b>Key markets:</b>	LNG, Petrochemical, Oil & Gas, OCTG, Ship building.
<b>Locations in Korea :</b>	Seoul (Head Office), Changwon, Suncheon, Pohang, Gunsan, Gunsan Pipe Mill No. 2, Pusan, Kwangju, and Daegu.
<b>Locations in other countries :</b>	USA, Japan, China, Vietnam, UAE, Indonesia and Italy (Inox Tech).
<b>Homepage:</b>	www.seah.co.kr/eng
<b>E-mail:</b>	seah.exportss@seah.co.kr
<b>Turnover:</b>	USD 2.2 Billion (2013)