

PRESS RELEASE

Düsseldorf, September 20, 2010

Stainless steelmaking in Taiwan with a world first
in environmental concepts

**Fuxin Special Steel orders a stainless steel plant with energy
recovery from SMS Siemag**

Fuxin Special Steel Co. Ltd., Taiwan, has placed an order with SMS Siemag, Germany, for the planning and supply of a steelworks for the production of stainless steel slabs. It will be the first stainless steel plant in the world to utilize the waste heat from the AOD converter and the electric arc furnace.

The new construction project at the Zhangzhou location in the southeast of the Chinese province of Fujian comprises plant and equipment for stainless steelmaking on a scrap basis via the Duplex route, a continuous slab caster and comprehensive environmental technology systems for gas cleaning and energy recovery. The works is designed for a production of 720,000 t of steel per year. Commissioning is scheduled for the end of 2012.

The SMS Siemag supply scope comprises the complete basic and detailed engineering, the supply of mechanical and electrical core components, the X-Pact® electrical and automation package including the process automation (Level 1) and the metallurgical process models (Level 2), all supplied items, and the supervision of erection and commissioning.

The X-Melt[®] steel plant consists of a 160-t EAF with tapping spout, a 180-t AOD-L converter and a 180-t ladle furnace. Converter vessel changing is performed by using the proven changing car concept. This enables the converter vessel to be changed twice as quickly as with the conventional method.

The steel plant will satisfy stringent environmental protection standards through the technology employed. The primary emissions will be extracted via cooled stacks and fed to two bag filter houses. The EAF and the AOD converter are to be provided with enclosures ("dog houses") for efficient capture of the dust-laden secondary emissions. Additional dust produced will be captured at emission points and extracted. The gas cleaning systems are designed for filtering more than 2.3 million cubic meters of air per hour.

The steelworks will be equipped with an innovatory X-e² energy recovery system, utilizing the thermal energy of the hot waste gases from the EAF and AOD in order to produce superheated steam.

The two energy recovery systems supply 36 t of saturated steam per hour. This will be fed into the works' steam network for various technical purposes. The customer will benefit from savings not only in energy but also in CO₂ emissions.

The range of grades produced by the steelworks comprises ferritic, austenitic and martensitic stainless steels, which are processed on the X-Cast[®] continuous caster to provide slabs of thickness 200 or 220 mm. During casting, the width can be set steplessly from 800 to 1,600 mm.

The plant is equipped with Intelligent Slab Casting (ISC[®]) modules. These include the hydraulically powered resonance oscillator, the position-controlled CYBERLINK segments and the metallurgical Dynamic Solidification Control (DSC) process model for control of the secondary cooling. These, together with the electro-magnetic strand stirrer (EMS), a development by SMS Siemag and SMS Elotherm, enable the production of slabs to a very high degree of quality.

The works layout already makes provision for a second expansion stage, allowing production capacity to be doubled.

Fuxin Special Steel Co. Ltd. is part of the Formosa Plastics Group, a private company group with head office in Taipeh, Taiwan.

X-Melt[®] and X-Cast[®] are SMS Siemag trademarks from the Steel-making Plants and Continuous Casting Technology Division. They are a brand name for plants and technologies that set standards for the economical production of high-quality steel products.

X-e² is an SMS Siemag trademark from the Energy and Environmental Technology Specialist Department. It is the brand name for plants and technologies that make efficient use of raw materials and energy in order to achieve a balanced relationship between ecology and economy.

(67 lines with max. 55 letters)

SMS Siemag AG is a company of the SMS group, which is, under the roof of the holding SMS GmbH, a group of companies internationally active in plant construction and mechanical engineering for the steel and nonferrous metals industry. It consists of the two Business Areas SMS Siemag and SMS Meer. In 2009, some 9,000 employees worldwide generated a turnover of EUR 3.9 bn.