

Tata Steel orders for steelworks and CSP plant



Tata Iron & Steel Co. Ltd. (Tata Steel), India, has awarded SMS Demag, a company of the SMS group-Germany, with an order to supply an X-Melt converter meltshop and a CSP plant. The order comprises the supply of the mechanical equipment and the X-Pact electrical and automation systems. Commissioning of the plants is scheduled for the end of 2010.

The contract is part of the "Tata Growth Plan" with which the world's sixth largest steelmaker will expand its production at the Jamshedpur in eastern India step-by-step to 10 million tpy.

The supply for the X-Melt steelworks includes two converter vessels as well as the gear units with pneumatic emergency drive, lance equipment and the converter lining facilities. Each of the two converter vessels will have a tapping volume of max. 170 t of steel. Both vessels together have a nominal annual production of 2.8 million t.

They will be equipped with the maintenance-free lamella suspension technology developed by SMS Demag.

The respective primary exhaust gas systems of the two new converters operate according to the proven "Baumco system", using wet cleaning and the subsequent re-use of the resulting fumes to improve energy efficiency. On the secondary side, dedusting of the environment is effected by means of two electrostatic precipitator units.

The SMS group 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 Non-ferrous metals industry. It consists of the two Business Areas SMS Demag and SMS Meer jointly forming SMS metallurgy. In 2006, some 9,000 employees worldwide generated a turnover of about EUR 2.8 bn.

The CSP plant is rated for an annual capacity of 2.4 million t of hot strip 900 to 1,680 mm wide and 1.0 to 20.0 mm thick. Depending on the requirements of the process and the final product, the slab thickness can be steplessly adjusted in ranges of 50 to 70 mm and 70 to 90 mm.

The CSP plant consists of two vertical bending machines, the two roller-hearth soaking furnaces with swivel ferry, a six-stand rolling mill, a laminar strip cooling section and two downcoilers. A seventh finishing stand and a third coiler may be added at a later stage.

Tata Steel intends to use the CSP plant for focusing on high-grade products. Besides carbon steel, the product mix includes non-grain oriented electrical steel strip, pipe grades and dual-phase steels.

The scope of supply of the X-Pact electrical equipment and automation system for the X-Melt steelworks and for the CSP plant includes the electric drive systems, the basic automation system including visualization system, the technological control systems as well as process models. The entire automation system will be tested and optimized under near-operating conditions using the Plug & Work concept, thus substantially reducing the commissioning phase.

With the new order Tata Steel and SMS Demag continue their trustful cooperation. In 2007, Tata Steel had awarded SMS Demag with a contract for the modernization of its existing hot strip mill in Jamshedpur and for the construction of a new oxygen steelworks with continuous slab caster at the Kalinganagar works.