

London, April 5, 2017

Primetals Technologies receives FAC for electric steel plant and merchant bar mill supplied to BMM Ispat, India

- **Production capacity is 850,000 metric tons of merchant bar per year**
- **Expands BMM Ispat's capacities for structural steels**

In February, Primetals Technologies received the final acceptance certificates (FACs) for an electric steel plant and a merchant bar mill supplied to the Hospet production site of the Indian steel company BMM Ispat. With the electric steel plant and the bar rolling mill, the company is expanding its production capacities for structural steels. It is designed for the production of a wide range of end products. These include reinforcing steels, round bars, flat and square bars, angles and channel sections. Low and medium-carbon or low-alloy steel grades as well as spring and free cutting steel can be processed. Primetals Technologies had received the orders in 2012, hot commissioning took place in August 2016.

For the electrical steel plant, Primetals Technologies engineered and supplied the mechanical and electrical equipment for an electric arc furnace with a tapping weight of 110 metric tons, a 110-ton ladle furnace, a vacuum degassing plant and the alloying and additive systems. The electric arc furnace is specially designed for the combined charging of direct-reduced iron (DRI) and hot metal. The electric arc furnace, the ladle furnace, the material charging systems and other auxiliaries are equipped with a dedusting system. The scope of supply also included the entire Level 1 automation and process automation (Level 2) systems, furnace transformers and a dynamic compensation system Static Var Compensator (SVC).

For the merchant bar mill, Primetals Technologies supplied the complete mechanical and electrical equipment of the rolling line and the cooling zone as well as systems for bundling and tying up the bars produced. The rolling line includes a six-stand roughing mill in an H-V arrangement including the upstream equipment for loading and unloading the billet heating furnace and also a six-stand intermediate and eight-stand finishing mill, both in an H-V-C arrangement. The stands of the intermediate and finishing mills are equipped with quick-change fixtures, while after the finishing mill

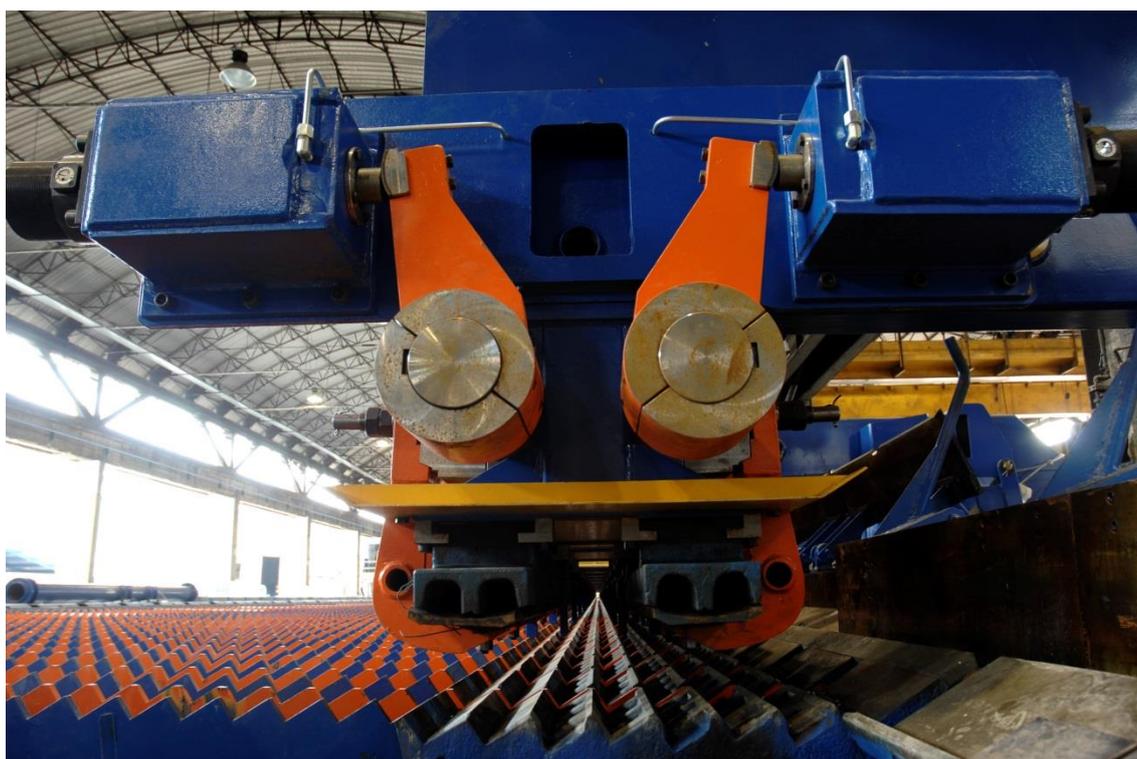
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there is also a quenching system. The finishing mill and the 102-meter-long cooling bed are linked by two delivery systems. One of them is designed as a twin-channel high-speed system and achieves speeds of up to 25 meters per second.

The rolling mill is supplemented by a finishing shop complete with machines for straightening, bundling, stacking and strapping the rolling stock. Diverse shear systems along the rolling line and in the cooling zone rounded off the mechanical equipment. The scope of supply also included the process automation (level 2), mechatronic components, the motor control center and speed-controlled drive systems for the main and secondary drives including all motors. Primetals Technologies was also responsible for supervising installation and commissioning and for training the customer's personnel.

A few years ago, BMM Ispat Ltd., the second largest steel company in the state of Karnataka, India embarked upon a capacity expansion at the existing facilities in Hospet. The electric steel plant and the bar mill are parts of this program. The iron ore used stems from the group company's own mines in the region.



High-speed delivery system of a bar mill from Primetals Technologies

This press release and a press photo are available at

www.primetals.com/press/

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Primetals Technologies, Limited headquartered in London, United Kingdom is a worldwide leading engineering, plant-building and lifecycle services partner for the metals industry. The company offers a complete technology, product and service portfolio that includes integrated electrics, automation and environmental solutions. This covers every step of the iron and steel production chain, extending from the raw materials to the finished product – in addition to the latest rolling solutions for the nonferrous metals sector. Primetals Technologies is a joint venture of Mitsubishi Heavy Industries (MHI) and Siemens. Mitsubishi-Hitachi Metals Machinery (MHMM) - an MHI consolidated group company with equity participation by Hitachi, Ltd. and the IHI Corporation - holds a 51% stake and Siemens a 49% stake in the joint venture. The company employs around 7,000 employees worldwide. Further information is available on the Internet at www.primetals.com.