Primetals Technologies to supply EAF Quantum electric arc furnace and ladle furnace to Guilin Pinggang

- EAF Quantum furnace has a tapping weight of 120 metric tons and can be charged with many different kinds of steel scrap
- Twin ladle furnace has a capacity of 120 metric tons of liquid steel
- Very low electrical energy consumption per metric ton of liquid steel
- Plant concept reduces working costs and CO₂ emissions
- Short project duration

Guilin Pinggang Iron and Steel Co., Ltd. (Guilin Pinggang), a Chinese steel producer, has awarded Primetals Technologies an order to supply an EAF Quantum electric arc furnace with a tapping weight of 120 metric tons and a 120 metric ton twin ladle furnace. The furnaces will be constructed in a new production facility in Pingle near Guilin in Guangxi Province, which is intended to serve the growing market for rebars. The EAF Quantum is designed to handle scrap steel of varying composition and quality. The electrical energy requirement of the electric arc furnace is extremely low because the scrap is preheated. This reduces both the working costs and the CO₂ emissions. The new furnaces are scheduled to be commissioned in the second quarter of 2019.

Guilin Pinggang is privately owned and located in Pingle near Guilin city in Guangxi Province. The enterprise has an annual production capacity of 1.2 million metric tons, and produces rebars, wire and other steel elements for the construction industry. Primetals Technologies will supply the complete mechanical and electrical process equipment for the new EAF Quantum electric arc furnace and the twin ladle furnace. The balance of plant equipment and services will be provided by a local design institute.

The EAF Quantum developed by Primetals Technologies combines proven elements of shaft furnace technology with an innovative scrap charging process, an efficient preheating system, a new tilting concept for the lower shell, and an optimized tapping system. This achieves very short tap-to-tap times. The electric energy consumption is considerably less than that of a conventional electric arc furnace.
Together with the lower consumption of electrodes and oxygen, this gives an overall advantage in the specific conversion cost of around 20 percent. In comparison to conventional electric arc furnaces, total CO₂ emissions can also be reduced by up to 30 percent per metric ton of crude steel.

EAF Quantum electric arc furnace from Primetals Technologies

This press release and a press photo are available at

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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 electric, 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.