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EAF Quantum electric arc furnace and ladle furnace supplied by Primetals Technologies started-up at 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**

At Guilin Pinggang Iron and Steel Co., Ltd. (Guilin Pinggang), a Chinese steel producer, an EAF Quantum electric arc furnace with a tapping weight of 120 metric tons and a 120 metric ton twin ladle furnace supplied by Primetals Technologies were started-up in December 2020. The furnaces were set up 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.

Guilin Pinggang is privately owned and located in Pingle near Guilin city in Guangxi Province. The enterprise has an annual production capacity of 1.25 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.



First ladle tapped at new EAF Quantum by Primetals Technologies for Guilin Pinggang, China

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 pioneer and world leader in the fields of engineering, plant building, and the provision of lifecycle services for the metals industry. The company offers a complete technology, product, and services portfolio that includes integrated electrics and automation, digitalization, and environmental solutions. This covers every step of the iron and steel production chain—from the raw materials to the finished product—and includes the latest rolling solutions for the nonferrous metals sector. Primetals Technologies is a joint venture of Mitsubishi Heavy Industries and partners, with around 7,000 employees worldwide. To learn more about Primetals Technologies, visit the company website www.primetals.com.