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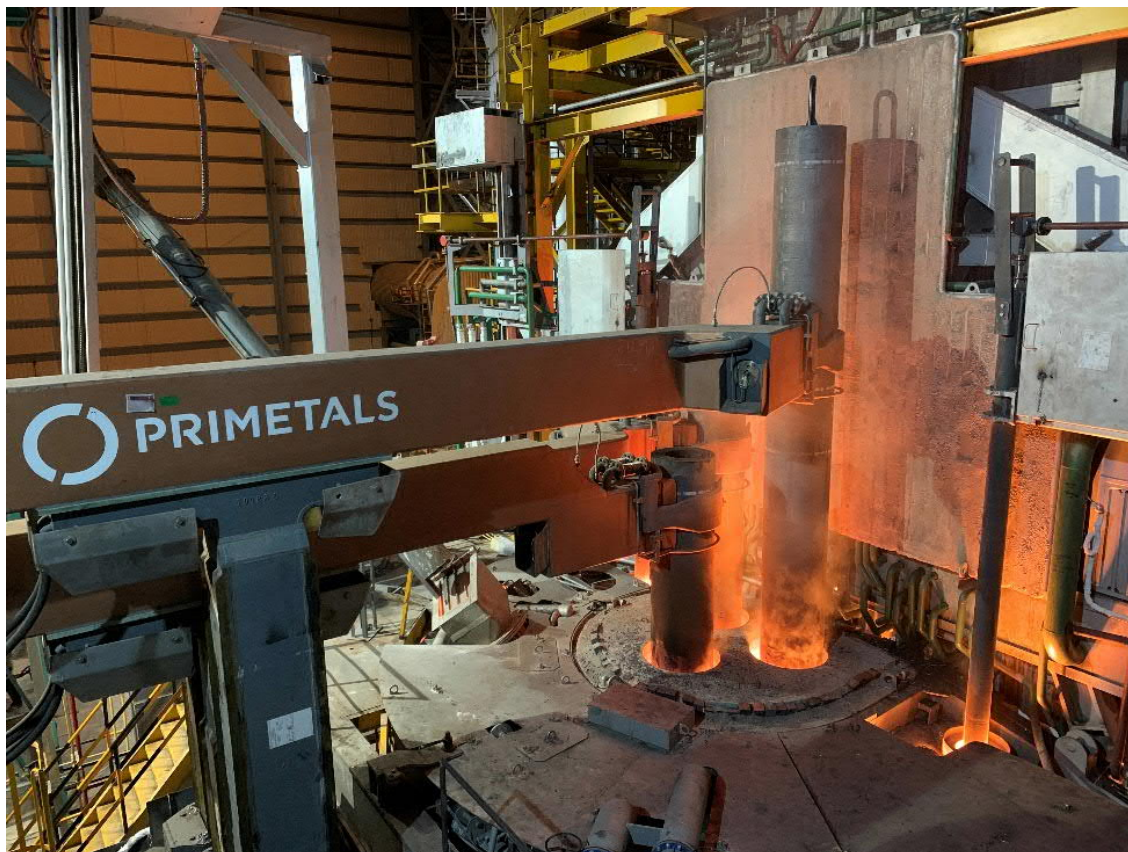
## EAF Quantum electric arc furnace and ladle furnace supplied by Primetals Technologies goes productive at Wuzhou Yongda

- **Marks the first EAF Quantum in continuous operation in China**
- **Electrical energy consumption per metric ton of liquid steel is very low, as are operating costs and CO<sub>2</sub> emissions**
- **Short project duration**
- **Ready for Industry 4.0**

In November 2020, an EAF Quantum electric arc furnace and a ladle furnace supplied by Primetals Technologies went productive at a greenfield project of Wuzhou Yongda Special Steel Co., Ltd. (Wuzhou Yongda) in Wuzhou city, in Guangxi Zhuang Autonomous Region. This marks the first EAF Quantum in continuous operation in China, with another eight to come. The EAF Quantum furnace is designed to handle scrap steel of very varied composition and quality. The electrical energy requirement of the electric arc furnace is extremely low because the scrap is preheated. This reduces both the operating costs and the CO<sub>2</sub> emissions. The twin ladle furnace sets the desired steel grades and the correct casting temperature.

Wuzhou Yongda is a privately owned steelmaker operating in the Guangxi Zhuang Autonomous Region in Southern China. The company produces steel rods, coiled rebar and coiled wire. The EAF Quantum and the twin ladle furnace are part of a greenfield project for the production of stainless steels. For the EAF Quantum electric arc furnace and the twin ladle furnace, Primetals Technologies supplied the complete mechanical and electrical process equipment and the automation technology. This included the automated scrap yard management, the automated charging process, automation of the oxygen injection and sand refilling, as well as the Level 2 automation which makes the plant ready for Industry 4.0. A basic data package for dedusting equipment was also part of the project.

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 all adds up to very short melting cycles. The electricity consumption is considerably lower 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 CO<sub>2</sub> emissions can also be reduced by up to 30 percent per metric ton of crude steel. An integrated dedusting system with modern automatic off gas control fulfills all environmental requirements.



One of the most efficient electric arc furnaces, the EAF Quantum by 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 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](http://www.primetals.com).