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Chengdu Changfeng orders EAF Quantum electric arc furnace and ladle furnace from Primetals Technologies

- **Marks the 9th EAF Quantum for China**
- **Electrical energy consumption per metric ton of liquid steel is very low, as are operating costs and CO₂ emissions**
- **Short project duration**

Chinese steel producer Chengdu Changfeng Steel Group Co., Ltd. (Chengdu Changfeng) placed an order with Primetals Technologies to supply an EAF Quantum electric arc furnace and a ladle furnace for its plant in Dujiayan city, Sichuan Province. This marks the 9th EAF Quantum for China. The EAF Quantum furnace is designed to handle scrap steel of vary 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 CO₂ emissions. The twin ladle furnace sets the desired steel grades and the correct casting temperature. The new furnaces are scheduled to be commissioned in early 2020.

Chengdu Changfeng is a medium-sized state-owned enterprise based in Chengdu, Sichuan Province. The company operates three steel branches, one oxygen production company, and one mechanical manufacturing and processing company. For the new EAF Quantum electric arc furnace and the twin ladle furnace, Primetals Technologies will supply the complete mechanical and electrical process equipment and the automation technology. This includes 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.

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.

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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. An integrated dedusting system with modern automatic off gas control fulfills all environmental requirements.



EAF Quantum electric arc furnace 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.

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