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Henan Yaxin orders two EAF Quantum electric arc furnaces from Primetals Technologies

- **Electric arc furnaces feature a tap weight of maximum 120 tons**
- **EAF Quantum furnaces support the transition to more environmentally-friendly steel production**
- **Lower electrical energy requirement per metric ton of liquid steel**
- **Plant concept reduces operating costs and CO₂ emissions**
- **Short project execution time**

The Chinese steel producer Henan Yaxin Steel Group Co., Ltd. (Henan Yaxin) has placed an order at Primetals Technologies for two EAF Quantum electric arc furnaces with a tapping weight of maximum 120 metric tons each. The new production plant into which Henan Yaxin are to integrate these arc furnaces will expedite a transition of the existing induction furnace production and converter steelmaking to a more environmentally-compatible electrosteel process. An extremely low requirement of electrical energy, which also contributes to a reduction in both operating costs and CO₂ emissions, is greatly significant in this regard. Commissioning of both new furnaces is already scheduled for the first quarter of 2019.

The privately-owned concern Henan Yaxin operates integrated and compact steelmaking plants in five provinces and cities in China, and can produce approximately more than ten million metric tons of steel each year. Primetals Technologies will supply the entire mechanical and electrical process equipment for both new EAF Quantum electric arc furnaces. "Balance of plant" equipment and services will be provided by a local design institute.

Developed by Primetals Technologies, the EAF Quantum combines proven elements of shaft furnace technology with an innovative scrap feeding process, efficient preheating system, new tipping concept for the lower shell, and an optimized tap system to attain significantly reduced tap-to-tap times. The electrical energy requirement is considerably less than that of a conventional electric arc furnace. In

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conjunction with reduced consumption of electrodes and oxygen, a cumulative benefit of around 20 percent is achieved for respective conversion costs. Overall, reductions of up to 30 percent of CO₂ emissions per metric ton of crude steel can be attained when compared to conventional arc furnaces.



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.