PRIMETALS TECHNOLOGIES

Press

London, February 2, 2017

Rizhao Steel issues FAC for continuous pickling line from Primetals Technologies

- **Line processes up to two million metric tons of hot strip per annum**
- **Plant is one of the fastest of its type with a process speed of 400 m/min**

Chinese steel producer Rizhao Steel Group Co., Ltd (Rizhao) issued the Final Acceptance Certificate (FAC) for its continuous pickling line (CPL) supplied by Primetals Technologies. The pickling line is designed to process around two million metric tons of hot strip per year. With a process speed of 400 m/min, it is one of the fastest plants of its type. The pickling line is part of a new cold rolling complex in the city of Rizhao in Shandong Province. It processes not only ductile and forming steels, but also two-phase steels and HSLA grades. Primetals Technologies received the order in November 2013.

The continuous pickling line processes ductile and forming steels of the Japanese grades SPHC, SPHD and SPHE, HSLA (high-strength low-alloy) 330-440 and two-phase steel DP 590 and HSLA 590. The line can pickle hot strip with thicknesses ranging from 0.8 to four millimeters, and widths from 900 to 1,600 millimeters, and handle coils weighing up to 35 metric tons. The strip speed upon entry is 800 meters per minute, the pickling runs at 400 meters per minute, and speeds of up to 520 meters per minute are reached in the exit section.

Primetals Technologies supplied a double coil charging section and double pay-off reels in the entry section. A six-strand strip accumulator accommodates the strip. A scale breaker is installed upstream of the pickling station, which has five flat pickling tanks equipped with an acid recirculating system. Downstream there is a rinsing tank with five compartments with an associated water treatment system and drier. The strip then passes through a skin-pass mill and a tension leveler, followed by a four-strand exit accumulator. The strip is then side-trimmed, before passing through an inspection station, to ensure it has the required surface quality.

Primetals Technologies, Limited
A joint venture of Siemens, Mitsubishi Heavy Industries and Partners
Communications
Head: Heiko Huensch

Chiswick Park, Building 11, 566 Chiswick High Road
W4 5YS London
United Kingdom

Two recoilers with a rotary shear are installed in the exit section. The scope of supply also included two coil discharging cars, a coil transfer car and a walking-beam coil transfer system. Primetals Technologies also supplied the complete electrical and automation equipment.

The project was handled by an open consortium comprising Rizhao, Shanghai Winham Machinery and Equipment Co., Ltd. and Primetals Technologies. Primetals Technologies was responsible for the engineering, supply of key components, monitoring the components produced in China, and supervising construction and commissioning.

Side trimming section of the continuous pickling line from Primetals Technologies at Rizhao Steel Group Co., Ltd in Rizhao, Shandong Province, China

This press release and a press photo are available at
www.primetals.com/press/

Contact for journalists:

Dr. Rainer Schulze: rainer.schulze@primetals.com
Tel: +49 9131 9886-417

Follow us on Twitter: twitter.com/primetals

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.

Primetals Technologies, Limited
A joint venture of Siemens, Mitsubishi Heavy Industries and Partners
Communications
Head: Heiko Huensch

Chiswick Park, Building 11, 566 Chiswick High Road
W4 5YS London
United Kingdom