Primetals Technologies to implement process optimization system for RH plant at Salzgitter Flachstahl

- RH plant with two treatment lines will be equipped with state-of-the-art Level 2 process optimization system
- Dynamic process models, such as degassing and decarburization models, ensure optimal process control
- Modular automation system enables the production of steels with highest quality requirements

Salzgitter Flachstahl GmbH, a German steel producer, has commissioned Primetals Technologies to supply and implement a Level 2 process optimization system for a twin RH degassing plant and its two downstream treatment stations. The use of cost-optimized charge control and modern, dynamic process models will minimize the consumption of alloying elements, and support the production of the desired steel grade. A system for recording all relevant process data, variable evaluation options and optimized temperature control are further features of this comprehensive automation system. The new Level 2 process optimization system will be integrated into the existing SMIS (secondary metallurgical information system) automation environment, which was also supplied by Primetals Technologies a few years ago. The new system is scheduled to come on stream in April 2017.

Salzgitter Flachstahl GmbH (SZFG) is the largest steelmaking subsidiary of the Salzgitter Corporation. It runs one of the world's most modern iron and steel works at the Salzgitter site. The company produced around 4.2 million metric tons of crude steel in 2015. The most important consumers of its flat products are vehicle manufacturers and their suppliers, pipe and large-diameter pipe manufacturers, cold rolling mills and the construction industry.

Level 2 process optimization systems from Primetals Technologies have been in successful use on the scrap station, the three 220 metric ton converters, and the secondary metallurgy - which consists of three VD (vacuum degassing) plants, two twin ladle furnaces and one ladle furnace, at Salzgitter.
Flachstahl since 2007. Primetals Technologies has supported the company for many years under a maintenance service agreement.

The order covers the engineering, documentation, training and commissioning of a Level 2 process optimization system specifically adapted for Salzgitter's existing plant configuration and automation environment. The RH process optimization system to be installed will monitor and optimize the vacuum treatment system in RH plants, and thus ensure maximum efficiency, quality and productivity of this treatment stage. This modular automation solution allows the production of steels that meet the highest quality requirements. The RH optimization system is used all over the world for the production of the widest range of steel grades, such as micro-alloyed special steel, ULC steel and other special steels. Dynamic process models, such as degassing, decarburization, calcium and cleanliness models, make sure that the desired steel grade is produced cost-effectively. The cyclic predictive calculation determines the most important steel and slag parameters (temperature, analysis and weight) throughout the entire treatment. This enables fast and flexible adjustments to meet changed process situations.

Salzgitter Flachstahl GmbH works site (Photo courtesy of Salzgitter Flachstahl)

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

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