PRESS RELEASE

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Benxi Steel orders smart slab caster from SMS group

High-quality slabs for high-grade products

First row from left to right: Liu Xiaomeng, SMS Siemag Technology (Beijing) Co., Ltd. / Cong Tiedi, Plant Director Bengang Group Corporation / Zhang Yongshuai, Manager of International Economic & Trading Co. of Benxi Steel Group / Jochen Wans, Vice President Continuous Casting, SMS group Germany / Christoph Stappenbeck, Vice President SMS Siemag Technology (Beijing) Co., Ltd. / In the middle, standing: Zhang Guiyu, Vice General Manager Bengang Steel
Benxi Steel (Bengang Group Corporation), Liaoning Province, China, has placed an order with SMS group (www.sms-group.com) for the supply of a single-strand slab caster to be installed at the steelmaker’s works in Benxi in north-east China.

The new casting plant will be designed for an annual production of up to 1.6 million tons of steel slabs of 230 millimeter thickness and between 1,000 and 1,900 millimeters wide. The caster equipment will be prepared to be extended to a slab thickness of 250 millimeters. Commissioning is scheduled for the end of 2020.

The new caster will produce slabs in high-grade steels, primarily for the automotive industry.

Smart and proven technologies, including various X-Pact® Level 2 process models such as X-Pact® Level Control, X-Pact Width Control und X-Pact® Solid Control, will be implemented to ensure high-quality slab production.

With X-Pact® TechAssist, Benxi Steel will receive a system with which the metallurgical parameters can be managed centrally: This SMS group-developed software supports the caster operator in selecting the optimal process parameters for the steel grade being processed.

Segments 2 to 15 will be equipped with STEC-Roll® technology. Rolls of this technology optimize the casting process and set new standards for efficient maintenance due to their long service lives and the possibility of being re-used.

The Vertical Liquid Bending (VLB) machine will come with an HD moldTC (TC – thermocouples). Special about this mold is that the temperature signals will be digitalized near the mold and transferred to the HD mold server via a high-speed bus. In the newly built maintenance shop, Benxi Steel will measure and align molds and segments using the digital alignment assistant HD LASr (High Definition Laser Aligning System remote), also an SMS group development. HD LASr, which features a three-dimensional laser gage
and an intuitive HMI, provides accurate and reliable logging and meaningful assessment of the measured objects. Perfect alignment of the molds by means of HD LASr [mold], of the segments by HD LASr [segment] and of the strand by HD LASr [strand] is key to the attainment of high slab quality.

SMS group is also going to supply the quality assurance software Product Quality Analyzer. The PQA \(^\text{®}\) system documents, monitors and secures the entire production process in the continuous casting plant.

It supports high-quality production by capturing a great number of quality parameters along the complete production process. All these data will be available as an important data basis for evaluation and optimization purposes.

The X-Pact\(^\text{®}\) process models and digitalization systems such as X-Pact\(^\text{®}\) TechAssist, HD LASr and PQA\(^\text{®}\) will make the new continuous caster smart in the sense of Industrie 4.0.

SMS group’s order scope comprises the complete engineering, supply of the mechatronic and digital components including the X-Pact\(^\text{®}\) electrical and automation systems as well as supervision of installation and commissioning.

Benxi Steel operates an integrated iron and steel works in the Liaoning Province. The steelmaker exports its products – hot and cold-rolled steel products, among others for the automotive and chemical industries – to more than 80 countries in the world.