New cold rolling mill from Primetals Technologies produces first coil at Tangshan

- Mill produces high-quality cold strip for the automotive industry
- Production capacity is 1.8 million metric tons per annum
- Integrated automation system ensures high availability and output
- Project completed on schedule within just 21 months

The cold rolling mill supplied by Primetals Technologies to Tangshan Iron and Steel Group Co. Ltd., a Chinese steel producer, has now been brought into production and the first coil was rolled in January 2015. The new rolling mill consists of a coupled pickling line-tandem cold mill (PLTCM), a continuous annealing line and a galvanizing line. It was constructed at the Tangshan site in Hebei Province. Each individual plant unit is linked to an integrated automation system. This enables high availability and output to be achieved while maintaining consistently high product quality. The rolling mill has an annual capacity of 1.8 million metric tons of high-strength cold strip and will produce high-quality steels for the Chinese automotive industry, with which Tangshan intends to enter this demanding market. The order was worth more than 100 million euros, and was received by a consortium led by Primetals Technologies in the second quarter of 2013.

Primetals Technologies designed and supplied the mechanical, electrical and process equipment for the cold rolling mill. The PLTCM mill consists of five six-high rolling stands, enabling extremely high-strength steels to be rolled within tight tolerances. SmartCrown rolls and special actuators and control systems ensure that the finished products have the required flatness. The entry thickness of the strip ranges from 1.5 to 6 millimeters, and this is rolled down to a final thickness of between 0.2 and 2.5 millimeters. The line rolls strips with widths ranging from 700 to 1,600 millimeters.
Both the continuous annealing line and the galvanizing line process strip steel with thicknesses from 0.2 to 2.5 millimeters and widths between 700 and 1,600 millimeters. The furnaces for the continuous annealing line were provided by Selas Andritz, Paris, France, and the welding machines were supplied by Hugo Miebach GmbH, Dortmund, Germany.

The PLTCM, annealing and galvanizing lines have a common, integrated automation system, comprising basic (level 1) and process automation (level 2), as well as process models developed specifically for cold rolling mills. This enables all the plant units to be coordinated precisely with one another, which ensures high availability and output, while maintaining consistently high product quality. Primetals Technologies was also responsible for supervising the installation and commissioning of the cold rolling mill.

Tangshan Iron and Steel is part of the Hebei Iron and Steel Group. With an annual production of almost 46 million metric tons in 2013, it is the largest steel producer in China. The Tangshan production site has been in operation for 70 years. In recent years, Primetals Technologies had previously supplied an AOD converter, a vacuum decarburization plant and a continuous galvanizing line to Tangshan, and also coupled the tandem cold rolling mill to the existing pickling line.
Cold rolling mill from Primetals Technologies at Tangshan Iron and Steel Group Co. Ltd.

This press release and a press picture is available at www.primetals.com/press/

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