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## Power X-HI stainless steel tandem cold mill from Primetals Technologies produces first coil at Beihai Chengde

- Plant capacity is 600,000 tons of cold strip per year
- Designed to produce stainless steels of AISI grade series 200 and 300
- Short cold test phase and first coil produced within three months

In late December 2015, a stainless steel continuous tandem cold mill (TCM) supplied by Primetals Technologies to Beihai Chengde Stainless Steel Co. (Beihai Chengde) produced the first coil at the Beihai plant in the Chinese Guangxi Province. The mill consists of a Power X-HI type, five-stand, continuous tandem cold rolling mill and a heavy laser welder. The rolling mill has a rated capacity of 600,000 tons of cold strip per year, and is designed to produce AISI grades series 200 and 300. The cold test was performed within 17 days and the first coil produced within only three months. The order was placed in the mid-2013. It was the second order for an X-HI and the third order for a continuous TCM for stainless steel that Primetals Technologies had received from China.

Beihai Chengde is active in nickel mining and the production of narrow stainless steel strip. The company intends to use the new cold rolling mill to start producing wide strip. The continuous rolling mill handles hot-rolled, annealed and pickled stainless steel. It is able to achieve exit thicknesses from 0.3 to 3.0 millimeters from entry thicknesses of between 1.0 and 5.0 millimeters. The width of the strip varies between 800 and 1,300 millimeters.

The continuous rolling mill line comprises three main sections, each separated by strip accumulators. The entry section includes a double uncoiler station, each equipped with coil storage facilities, coil loading car and overhung mandrel uncoiler together with coil opening, flattening and shearing equipment. The Primetals Technologies welding machine is of heavy laser type (LW21H) and includes strip centering and strip cutting facilities as well as diagnostic systems.

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The mill section includes five stands of Power X-HI type with associated high tension bridles and rinsing

section to remove emulsion from the strip surface. The rolling speed is 400 meters per minute. The

rolling stands are designed for a flying roll change, so production will not have to be interrupted to

change the work rolls. This increases productivity and reduces output losses.

The exit section comprises exit bridle, inspection station, rotary shear, scrap and sample cutting, two

recoilers, belt wrapper, paper interleaving feeding equipment, spool loading and coil unloading car with

associated coil banding and storage. The strip looper between the rolling line and the exit section

decouples the rolling process from the downstream activities, such as strip inspection and coil shearing.

This means that these are no longer limiting factors on the mill throughput.

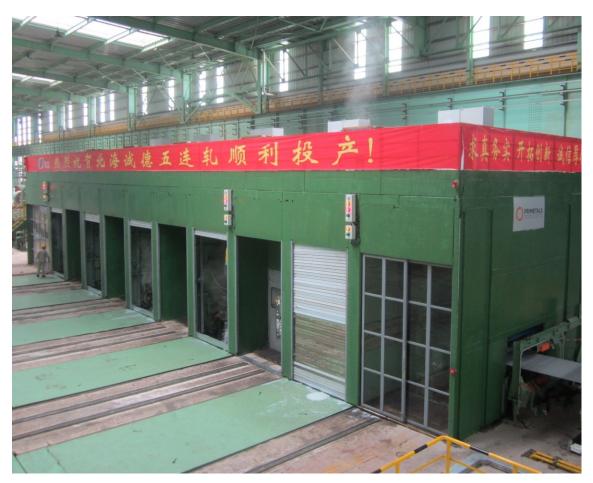
The scope of delivery also included variable-speed Sinamics drives with a total power of 22,000

kilowatts, and the basic (level 1) and process (level 2) automation. A Simatic WinCC-based solution

handles operator control and monitoring tasks. It also enables distributed supervision, and features easy-

to-use diagnostic and alarm functions.

X-HI is a registered trademark of Primetals Technologies in some countries.



5 stand Power X-HI stainless steel tandem cold mill from Primetals Technologies at Beihai Chengde in Guangxi Province, China

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

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