



Phone: +49 211 881-4449
Fax: +49 211 881-4386
Mobile: +49 151 40226502
E-mail: thilo.sagermann@sms-group.com
Thilo Sagermann

PRESS RELEASE

Düsseldorf, April 30, 2013

High precision copper rolling

Ningbo Xingye Copper orders two reversing cold rolling mills from SMS Siemag

Ningbo Xingye Copper has placed an order with SMS Siemag, Germany, for the supply of two reversing cold rolling mills for copper and copper alloys. The company is part of Xingye Copper International Group Ltd., China.

SMS Siemag is erecting a four-high reversing mill at the Ningbo City location, Zhejiang Province. The four-high stand will roll strips in the width range from 420 to 680 mm, with entry thicknesses from 9 to 16 mm. A specialty of the rolling process is that the strip is introduced into the closed roll gap in order to reduce off-gage lengths at the strip head and tail ends.

Tried and tested actuators such as a hydraulic screwdown, positive and negative work roll bending, swivelling rolls and multi-zone cooling ensure close thickness and flatness tolerances. The annual capacity of the reversing cold mill will be approx. 75,000 t. It will commence operation in July 2014.

Only a little later, in October 2014, the 20-roll cold mill, also to be supplied by SMS Siemag, will roll its first strip at the same location at Ningbo Xingye Xintai New Metal Materials Co., Ltd. This plant in split-

block design of size SB23-26" will further process the strips into narrow band.

The strips will be 400 to 660 mm wide and have a maximum entry thickness of 2.5 mm. Rolling is carried out at a maximum rolling speed of 800 meters per minute. Through the actuators hydraulic screwdown, roll crown adjustment of axes A-D and intermediate-roll shifting, the rolling mill can meet all requirements on the strip thickness and flatness tolerances. The minimum final gage will be 0.05 mm.

As the SMS Siemag plants ensure high material utilization with minimal off-gage lengths, the copper will be processed in a highly efficient manner.

For both rolling mills, SMS Siemag is supplying the complete engineering, the mechanical components, X-Pact[®] electrical and automation systems for controlling and monitoring the complete cold rolling process, including all measuring instruments and drive units. In the case of the four-high stand, this includes a customized pass schedule calculation system in addition to a new X-shape flatness measuring system. The calculation system is based on the technological experience gained with other copper rolling mills supplied by SMS Siemag and on knowledge acquired by the in-house research and development department. The 20-roll stand will also be equipped with a level-2 offline model. A multi-plate filter with a very fine filter mesh size, which is also part of the SMS Siemag supply scope, ensures environmentally compatible and resource-efficient cleaning of the rolling oil.

With the two new cold rolling mills, Ningbo Xingye Copper will above all be manufacturing copper strip for the electronics sector. This material is used, for example, in semi-conductor technology.

Important final products are lead frames and semi-finished products to be further processed in LED engineering.

Ningo Xingye Copper places very high demands on strip thickness and flatness tolerances and on the surface quality of the rolled strips. The new cold rolling mills will also roll alloys with extraordinary elements, such as copper beryllium and copper iron, besides copper and copper alloys, such as brass and bronze.

Today, copper is indispensable as a high-tech material. In the recent past, new copper-based alloys have been purposefully developed, mainly for use in electronic applications. For example, the material is an essential constituent of LED lamps, small electrical vehicles, photovoltaic systems and wind turbines and cables for transmission of electrical power.

(63 lines of max. 65 characters per line)



20-roll cold mill.



Copper strip produced on a reversing cold-rolling mill.

SMS Siemag AG is a company of the SMS group which, under the roof of the SMS Holding GmbH, consists of a group of companies internationally active in plant construction and mechanical engineering for the steel and nonferrous metals industry. With more than 13,000 employees, the group generates sales of about EUR 3.5 billion.