

Press

London, August 14, 2023

Baowu orders additional finishing mill stand for aluminum hot mill line in China

- New aluminum finishing hot mill stand to be supplied as an add-on to the existing three stands F1-F3 previously implemented by Primetals Technologies
- Enables the finishing mill line to increase production capacity, improve plate and strip quality, and expand the product range
- Implementation is scheduled for October 2024

In May 2023, Primetals Technologies received an order from Baowu Aluminium Technology for an additional finishing mill stand for their aluminum hot rolling mill line in Sanmenxia, located in the Henan province of China. The upgrade will change the layout of the current aluminum hot mill finishing line from a 3-stand to a 4-stand design, allowing the plant to achieve excellent product quality and increase production capacity from 300,000 tons to 600,000 tons annually.

Numerous improvements

Primetals Technologies will be responsible for the engineering, supply of equipment, as well as overall supervision of the installation and implementation of the new stand F0, which will be processing aluminum heavy plate and strip.

The project scope will include the supply of work roll bending and shifting equipment, roll coolant spray bars incorporating integral solenoid valves, hydraulic automatic gauge control cylinders, hydraulic equipment, pneumatic controls, and all related fluid systems. The bending of work rolls acts in conjunction with the existing smart crown system ensuring that the strip profile remains constant throughout the process regardless of the rolling load. The integral solenoid valves are designed to apply zone cooling and lubrication to the work rolls, controlling the bulk temperature of the mill and addressing the residual flatness errors during the rolling process. Hydraulic automatic gauge control cylinders are driven by high response servo valves, controlling the thickness of the product being rolled. These cylinders are also used to modify the pass line height, in order to match the size of the roll diameters.

The combination of work roll bending technology, integral solenoid valves, and hydraulic automatic gauge control system allows the producer to reach their key objectives of surface, profile, and flatness quality. As a result, Baowu will be able to supply key markets including automotive, can packaging, and construction applications.

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Successful completion of F1-F3 project

Primetals Technologies was responsible for the engineering, supply of equipment, supervision, training, and commissioning of the aluminum plate mill and F1-F3 stands hot finishing mill, which has a production capacity of 300,000 tons per year. The plant produces heavy plate and hot rolled coils and processes various aluminum alloys.

Baowu has issued the final acceptance certificate (FAC), confirming the successful completion of the project in May 2023.

Leading aluminum producer

Baowu Aluminium Technology, a company of Baowu Group, is a global leader in the steel industry. The company was developed as a scientific and technological enterprise, by joint investments from Baowu steel, Henan Energy, and Sanmenxia municipal government. The main products processed are high grade aluminum plate and strip designed for the automotive, aerospace, military, and rail markets.

Key facts: Baowu's 4-stand hot finishing mill

- The hot mill line will process heavy plate with thicknesses from 1.8 to 200 millimeters
- All aluminum alloys in the 1xxx to 8xxx groups can be processed
- Operator training will be provided on-site during the implementation phase
- All other equipment required for maintenance, AC drives, Level 1 automation, including the controllers of the mill section, are provided as part of the upgrade package



Contract signing on site at Sanmexia, China. From left: Wang Dedong, Manager at OBEI (Baosteel), Michael Brammer, Director at Primetals Technologies in the UK, Grant Shoebridge, Head of

Downstream at Primetals Technologies in the UK, Yoichi Sano, Head of Sales at Primetals Technologies in China.



Baowu Aluminium's current 3-stand finishing mill.

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

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