

London, March 01, 2022

Hoa Phat expands steel plant in Vietnam with comprehensive production line from Primetals Technologies

- **Installation of fully integrated casting and hot rolling plants, automation systems, and digitalization solutions**
- **Two slab casters and a hot rolling mill increase annual production by 5.6 million metric tons of steel**
- **A quality control system, digital assistants, and a scheduling solution right from the beginning ensure a consistently high level of performance**

Hoa Phat Dung Quat Steel JSC has awarded a major contract to Primetals Technologies for a new production line at the steel plant in Dung Quat, Quang Ngai province in Central Vietnam.

The steel market in Vietnam is one of the world's most expansive and dynamic. With an increase in capacity of 5.6 million metric tons per year, Hoa Phat will be able to address the rapidly increasing demand for steel products in Vietnam. The project consists of two slab casters, one hot rolling mill, modern automation systems, and comprehensive digitalization solutions. A fully integrated quality control system, intelligent digital assistants, and scheduling solutions will ensure high quality, productivity, and flexibility. The start-up is expected for 2024. This contract represents the second major order for casters and hot-strip mills received by Primetals Technologies during the last year.

Fully integrated production route

Primetals Technologies is responsible for the design, engineering, and supply of mechanical equipment, media systems, technology packages, automation technology, and digitalization solutions. The production units are equipped with consistent and modern process control (Level 1) and process optimization systems (Level 2). An integrated scheduling solution provides flexibility related to incoming

Primetals Technologies, Limited

A joint venture of Mitsubishi Heavy Industries and partners
Communications
Head: Gerlinde Djumljija

Chiswick Park, Building 11, 566
Chiswick High Road
W4 5YS London
United Kingdom

orders, changing production conditions, and scheduled maintenance. Business Intelligence dashboards enable operators to make fast and smart decisions. The integrated quality control system “Through-Process Optimization” (TPO) assists Hoa Phat in achieving interconnected operational excellence at each stage of the production chain. The intelligent digital assistant “Asset Life Expert” (ALEX) improves plant availability.

Modern technology

The 2-strand casters that will be supplied by Primetals Technologies are designed as bow-type machines with a radius of nine meters and a metallurgical length of approx. 39 meters. With a rated capacity of six million metric tons, they will produce slabs with a thickness of 230 millimeters and ranging in width from 900 to 1.650 millimeters. Casting speeds will be at 1.1 to 1.66 meters per minute. The integrated process-control and process-optimization system is equipped with modern expert systems and innovative process models to improve product quality and performance.

The hot-strip mill with a rated capacity of 5.5 million metric tons per year will produce coils with a maximum weight of 36 metric tons, thicknesses from 1.2 to 25.4 millimeters, and widths from 900 to 1,650 millimeters. The hot-strip mill comprises one slab-sizing press, two single-stand roughing mills, a seven-stand finishing mill, three down coilers, auxiliary systems, as well as other equipment. Four stands of the finishing mill are equipped with pair cross technology. In pair cross mills, the upper and lower work and back-up rolls are crossed toward each other pairwise, so that the two pairs of rolls form a narrow “X” when viewed from above. This permits optimum adjustment of the roll-gap contour and thus ensures fine control over the strip profile.

Integrated quality control system

The installed integrated quality-control system “Through-Process Optimization” (TPO) will assist Hoa Phat to maximize the quality of their products and processes throughout the entire production chain. Quality data are collected in a data warehouse and can be easily visualized. These data are used to evaluate and control product quality and process performance. In essence, TPO supports the entire organization to continuously grow corporate know-how.

Intelligent digital assistant

Operators and maintenance engineers will be guided and assisted by the intelligent digital assistant “Asset Life Expert” (ALEX) to ensure high availability of the two new slab casters and the new hot-rolling

Primetals Technologies, Limited

A joint venture of Mitsubishi Heavy Industries and partners
Communications
Head: Gerlinde Djumljija

Chiswick Park, Building 11, 566
Chiswick High Road
W4 5YS London
United Kingdom

mill. The centralized expert system for intelligent condition monitoring offers clear status information and recommends intelligent corrective and compensational actions. ALEX digitalizes know-how based on actual plant operation so that operators and maintenance engineers benefit from Primetals Technologies' automation, production process, and metallurgical expertise.

Hoa Phat is the leading industrial manufacturing group in Vietnam. Currently, the group operates in five sectors: Iron and steel (construction steel, hot rolled coil), steel products (including steel pipes, galvanized steel, drawn steel wire, prestressed steel), agriculture, real estate, and home appliances. Steel production is at the heart of the business, composing 90 percent of the revenue. With a capacity of eight million metric tons of crude steel per year, Hoa Phat is the largest steel producer in Southeast Asia.



Contract-signing ceremony with Chairman Duong and other members of Hoa Phat Dung Quat Steel JSC.

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

Contact for journalists:

press@primetals.com

Follow us on Twitter at: twitter.com/primetals

Primetals Technologies, Limited

A joint venture of Mitsubishi Heavy Industries and partners
Communications
Head: Gerlinde Djumlija

Press reference number: PR2022012468en

Chiswick Park, Building 11, 566
Chiswick High Road
W4 5YS London
United Kingdom

Primetals Technologies, Limited, headquartered in London, United Kingdom, is a pioneer and world leader in the fields of engineering, plant building, and the provision of lifecycle services for the metals industry. The company offers a complete technology, product, and services portfolio that includes integrated electrics and automation, digitalization, and environmental solutions. This covers every step of the iron and steel production chain—from the raw materials to the finished product—and includes the latest rolling solutions for the nonferrous metals sector. Primetals Technologies is a joint venture of Mitsubishi Heavy Industries and partners, with around 7,000 employees worldwide. To learn more about Primetals Technologies, visit the company website www.primetals.com.

Primetals Technologies, Limited

A joint venture of Mitsubishi Heavy Industries and partners
Communications
Head: Gerlinde Djumljija

Chiswick Park, Building 11, 566
Chiswick High Road
W4 5YS London
United Kingdom