

Press

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Hyundai Steel Orders Heavy Plate Mill Equipment from Primetals Technologies to Increase Productivity

- Intermediate cooling unit will be supplied and installed at Hyundai Steel in South Korea
- · Technology will increase mill productivity by reducing overall processing time
- Implementation scheduled for October 2024

Recently, Primetals Technologies received an order from Hyundai Steel for the installation of a new intermediate cooling (IC) technology at its heavy plate mill line located in Dangjin, South Korea. The cooling unit will be installed between the roughing mill stand and the finishing mill stand. This enhancement will substantially increase the mill's productivity, enabling the production of high-quality steel plates tailored to the most demanding markets, including the shipbuilding and oil and gas industries. Primetals Technologies will be responsible for the design, engineering, equipment supply, installation, training, and commissioning of the IC unit, including electrical, automation, and related fluids equipment.

Intermediate cooling technology

The IC unit is 12 meters long and will incorporate side sweep sprays, air blow offs, and cooling stations. Positioned after the roughing mill exit table, this unit employs a total of eight top and eight split-bottom stainless steel cooling headers. The possibility of controlling the number of headers in use and the unit's accurate speed control deliver the desired cooling intensity, which is tailored to each individual product.

The automation systems supplied as part of the technology package include Level 1 and Level 2 automation, ensuring efficient monitoring and control of the water supply to the cooling headers from the overhead tank. The IC technology guarantees precise cooling for the transfer bars as required by the production strategy.

Increased mill productivity

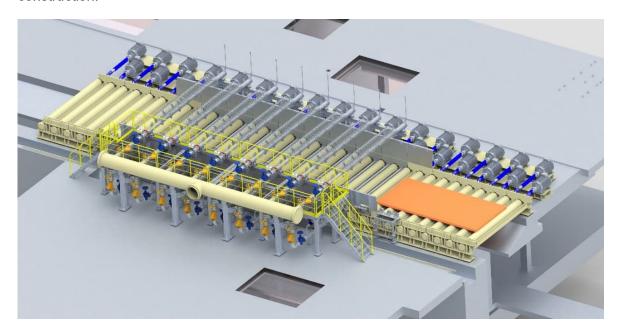
When processing a steel plate on a 2-stand mill, the plate is transferred from the roughing mill stand to the finishing mill stand for the final rolling step. Depending on the process parameters, the transfer time is deliberately extended, creating a pause in the rolling sequence. This pause, known as the hold time, can account for a significant portion of the total production time for a single plate, leading to reduced mill utilization.

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The new cooling system, positioned after the roughing mill, will efficiently decrease the overall hold time of the plates or transfer bars between the stands, thereby reducing the processing duration for a single plate. This enhancement significantly boosts mill productivity.

A global player in steel production

Hyundai Steel is one of the world's leading steel companies, equipped with both blast furnace and electric arc furnace production facilities. Established as Korea's first steelmaker in 1953, the company has championed sustained success by boosting its blast furnace business as a new growth engine alongside its established electric arc furnace-based operation. Its industry-leading product portfolio encompasses steel plates, sheets, structural steel, coils, steel casting products, and H-sections, catering to the most demanding sectors including automotive, shipbuilding, offshore structures, railways, and construction.



A 3D image of Hyundai Steel's intermediate cooling unit from Primetals Technologies.

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

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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 Group Company of Mitsubishi Heavy Industries, with around 7,000 employees worldwide. To learn more about Primetals Technologies, visit the company website www.primetals.com.