PRIMETALS TECHNOLOGIES

Press

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VOD Upgrade from Primetals Technologies Enables Acciaieria Arvedi to Produce Electrical Steel

- **Primetals Technologies will upgrade existing vacuum degasser (VD) plants to vacuum oxygen decarburization (VOD) systems, enabling Acciaieria Arvedi to produce electrical steel**
- **Italian steel producer has ambitious plans to expand its portfolio and enter new markets**

Leading Italian steel producer Acciaieria Arvedi has recently tasked Primetals Technologies with an upgrade of its two vacuum degassers (VD) at the steel plant in Cremona, Italy. The project is scheduled to be completed in the second half of 2025.

For the near future, Arvedi has ambitious plans to expand its product portfolio to encompass both electrical and ULC/IF steel grades. Traditionally, these types of steel grades are manufactured through the LD converter (BOF) – ladle furnace (LF) – RH-degasser route. Arvedi plans to pioneer the production of electrical steels with the electric arc furnace (EAF) – LF – VD-OB route, as one of the world's first steel producers to choose this approach.

Enhanced Vacuum Degassing Process

Arvedi will upgrade its VD plants to vacuum oxygen decarburization (VOD) systems capable of handling the vacuum degassing and oxygen blowing process under vacuum conditions for the manufacture of silicon steel. Primetals Technologies will supply key mechanical components, including water-cooled copper-plated ladle covers, oxygen lance systems, gas coolers, vacuum control systems, and waste-gas burners. Experts from Primetals Technologies will also support Arvedi in the development and fine-tuning of the vacuum degassing process steps from the get-go.

Designed to Avoid Skull Formation

The VOD plants, which are tank degassing units equipped with oxygen blowing lances, are designed for handling extra-low-carbon steel grades together with the addition of aluminum and/or silicon during the process. Arvedi's new equipment will feature copper-cladded, water-cooled ladle covers from Primetals Technologies, designed to avoid skull formation. These kind of ladle covers will also reduce the need for maintenance-related work and, in addition, enhance occupational safety at the plant.

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Europe's First Mini-Mill for Flat Products

Acciaieria Arvedi's Cremona plant, in operation since 1992, is Europe's first and the world's second mini-mill for the manufacture of flat-rolled steel. Current plant capacity is at four million tons per year through a process route consisting of EAF, LF, VD, ESP/ISP plants. The Arvedi group is Italy's largest steel producer and is currently active in carbon steel production, which includes top-notch HSLA grades for the automotive industry, and serves the market for stainless steel. The business is mainly focused on European industrial sectors.

Primetals Technologies will upgrade Acciaieria Arvedi's VD plant, enabling the Italian steel producer to produce electrical steel.

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