PRIMETALS TECHNOLOGIES

Press

August 27, 2026

Primetals Technologies Strengthens Long-Term Partnership with JSW Steel Through Two Major Projects in India

- **Primetals Technologies successfully commissions new meltshop with two 350-ton LD converters (BOF) and two 2-strand continuous casters at JVML's Toranagallu plant, Karnataka**
- **First installation in India of a primary dry dedusting system for 350-ton converters, setting a new environmental benchmark for Indian steelmaking**
- **Record lining campaign: More than 6,000 heats achieved during the first campaign of one converter**
- **JSW Steel places order with Primetals Technologies for two 8 MTPA pelletizing plants at its Paradeep facility, featuring advanced digitalization and a proven 816 m² induration furnace**
- **Long-term technology collaboration for continuous improvement of the pelletizing process**

Primetals Technologies has significantly deepened its long-term technology and project partnership with JSW Steel through two major parallel engagements in India: the successful commissioning of a new steelmaking complex at JSW Vijayanagar Metallic Limited's (JVML's) Toranagallu plant in Karnataka and a new order to supply two large pelletizing plants at JSW Steel's Paradeep facility in Odisha. Across both projects, Primetals Technologies is delivering comprehensive plant design, process equipment, automation solutions, and advisory services.

New Meltshop and Continuous Casters in Toranagallu

Primetals Technologies has successfully started up a new melt shop and two continuous casters at JVML's facility in Toranagallu, Karnataka. The scope of supply included two 350-ton LD (BOF) converters, primary dedusting systems, two 350-ton ladle furnaces, secondary dedusting for the entire meltshop, and two 2-strand continuous casters, along with comprehensive Level 1 and Level 2 automation for the converters, ladle furnaces, and casters.

New Benchmark for Steelmaking

The first converter, commissioned in December 2024, achieved an exceptionally fast ramp-up, reaching more than 20 heats per day by the end of the commissioning month. It completed 220 heats in the first three weeks and over 400 heats within the first month of operation. The initial lining campaign reached more than 6,000 heats, setting a new benchmark in steelmaking. Primetals Technologies has received the final acceptance certificate (FAC) for the first converter, ladle furnace No. 1, and caster No. 1.

The second converter, commissioned in August 2025, achieved an even faster ramp-up, reaching more than 20 heats per day by the sixth day after commissioning. Primetals Technologies has also received the FAC for the second converter, ladle furnace No. 2, and caster No. 2.

Primetals Technologies, Limited
A Group Company of Mitsubishi Heavy Industries
Communications

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

First 350-ton Primary Dry Dedusting System in India

This project marks Primetals Technologies' first installation in India of 350-ton converters equipped with an advanced primary dry dedusting system. The system includes a steam-type heat recovery system, a dry electrostatic precipitator (ESP), and low-consumption axial-type ID fans, helping to improve energy efficiency, reduce water consumption, and meet environmental regulations. A gas cleaning plant with a gas recovery system, which significantly increases energy recovery, completes the dedusting solution.

For the LD converter (BOF) plants, Primetals Technologies supplied converter top lances, tilting drives, the Vaicon Stopper slag retention system, valve stands, and a material handling system. Vaicon Stopper minimizes slag carryover during tapping, allowing for shorter production cycles and improved steel quality. The vessel shell is equipped with top-cone water cooling and supported by the Vaicon Lamella suspension system inside an air-cooled trunnion ring, helping to extend equipment life.

Advanced Automation Solution

The automation scope includes the BOF Optimizer process optimization system, which improves hit rates for carbon content and steel temperature, reduces reblow rates, and increases efficiency. The tailor-made Lomas off-gas analysis system works with BOF Optimizer to enable automatic blow-end control and improve carbon hit rates. For the ladle furnaces, the fully automated Melt Expert electrode control system boosts productivity and reduces energy consumption.

Casting a Wide Variety of Steel Grades

The two continuous slab casters, each with two strands, produce slabs with widths ranging from 900 to 1,650 millimeters and thicknesses of 220 or 260 millimeters. They handle steel grades ranging from ultra-low-carbon to high-carbon, including deep-drawing, structural, peritectic, and HSLA grades, as well as microalloyed and low-alloy steels, strip grades, and high-silicon electrical steel.

Technology features include LevCon mold-level stability, DynaFlex mold oscillation, MoldExpert breakout prevention, DynaPhase phase-transformation modeling, and the LiquiRob robotic system for safe operation. Additional features include DynaGap Soft Reduction 3D, the Dynacs 3D cooling model, and Quality Expert for online slab quality assessment.

Two Pelletizing Plants in Paradeep

JSW Steel has placed an order with Primetals Technologies for two 8 MTPA pelletizing plants at its Paradeep facility in Odisha. Primetals Technologies is responsible for complete plant design, engineering services, key process equipment, complete process automation, and advisory services for construction and implementation.

The plant concept is based on a reliable, tried-and-tested 816 m² induration furnace, which will serve as the basis for a standardized pellet plant model for future capacity expansions at Paradeep and other JSW Steel production sites. Together, the two plants will deliver 16 MTPA of pellet production capacity, directly supporting JSW Steel's rapid capacity expansion program.

Continuous Improvements Through Long-Term Collaboration

In close collaboration with JSW Steel's specialists, who operate some of India's best-performing pelletizing plants, Primetals Technologies has developed several technical improvements to be

incorporated into the new plant concept. These improvements will further optimize production capacity, pellet quality, and environmental performance.

The two partners have agreed to continue collaborating on process improvements after the new plants have been commissioned, reflecting a long-term technology partnership built on mutual expertise.

Advanced Digitalization Package for Optimized Process Control

Smart sensors and advanced predictive control models form the core of the Primetals Technologies' digitalization solution for the new pelletizing plants, enabling continuous monitoring of process conditions and transparent evaluation of the production process. The Level 2 automation system features a digital Pelletizing Optimizer, which enables automated adjustments to the green balling process to achieve a uniform pellet size distribution and consistently high pellet quality.

Part of the project team from Primetals Technologies and JVML in front of one of the LD converters.

The first charging at JVML's LD converter (BOF) "H", supplied by Primetals Technologies.

One of the two 2-strand continuous slab casters at JVML in Toranagallu.

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

Contact for journalists:
Björn Westin, Press Officer
bjoern.westin@primetals.com
Mob. +43 664 6150250

Follow us on social media:
linkedin.com/company/primetals
facebook.com/primetals
x.com/primetals
instagram.com/primetals_technologies
YouTube

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.