



Contribution ID: 21

Type: Oral Presentation - Full Paper will be submitted

## New BOF references, equipment features and relining solutions

*Tuesday 20 May 2025 14:20 (20 minutes)*

Achieving the highest productivity and cost-optimized production is essential for the long-term competitiveness and profitability of integrated BOF steelmaking. To meet these demands, steel plants, particularly in the Americas and Europe, are increasingly focusing on revamps, upgrades, and modernization to ensure maximum productivity, stable output quality, availability, minimized maintenance efforts, and enhanced safety. Meanwhile, in Asia—especially India—a significant number of new BOF plants are being constructed with similar objectives in mind.

This presentation summarizes the latest technological advancements realized in recent BOF revamps and greenfield projects, such as the maintenance-free Vaicon Link suspension system, the robust tilting solution Vaicon Drive, Vaicon Sublance 2.0 and advanced air and water cooling systems designed to extend vessel and trunnion ring lifetime. Additionally, vessel temperature monitoring solutions allow improving both availability and durability of BOF installations.

Converter relining remains a crucial factor in maximizing converter availability and ensuring personnel safety. To enhance the safety, speed, and ergonomics of this process, innovative, customized relining solutions have been developed and implemented. One concept, implemented for two customers in Brazil, involves a rope-suspended top relining platform combined with personnel and brick pallet elevators. Another advanced solution for a European customer, a semi-automatic bottom relining machine with automatic brick depalletizing and transport, showcases how relining ergonomics can be significantly improved, eliminating the need for manual heavy lifting of bricks.

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**Session Classification:** New developments in converter technology

**Track Classification:** New developments in converter technology