PRIMETALS TECHNOLOGIES

Press

London, November 04, 2024

Feralpi Benefits from Increased Productivity After Remarkably Swift Revamp of 6-Strand Billet Caster

- **Primetals Technologies receives final acceptance certificate for revamp of billet caster**
- **Caster fully implemented during exceptionally short shutdown period of six weeks**
- **Retractable oscillators result in increased productivity**
- **Optimization of LevCon parameters leads to a 34 percent increase in mold level stability**

Italian steel producer Feralpi Siderurgica, part of Feralpi Group, has granted the final acceptance certificate (FAC) to Primetals Technologies for a revamp of its 6-strand billet caster at the steel plant in Lonato del Garda, Italy. The revamped caster was implemented within just six weeks during the planned summer shutdown of 2023. The project took only 12 months from contract signing to the first cast – usually, similar projects take at least 1.5 years until completion.

The extraordinarily swift implementation was achieved through tailored design features specific to Feralpi's needs, along with close collaboration and knowledge sharing between Feralpi's and Primetals Technologies' technicians. Primetals Technologies engineered the caster bow as a single piece for all six strands and preassembled the equipment before transportation to Feralpi's location. Moreover, the molds and retractable oscillators were designed and built as a single unit, contributing to a smooth on-site implementation.

Mold Changes During Casting Sequences

Primetals Technologies installed retractable oscillators as part of the revamp, resulting in increased productivity. For conventional billet caster designs, changing a mold requires a complete production stop on all strands. However, the retractable oscillators are mounted on mobile carriages, allowing each oscillator to be detached individually for mold changes. This configuration allows operators to exchange molds on one strand while keeping the other strands operational.

Improved Center Quality of Billets

Primetals Technologies' scope of supply included key mechanical equipment such as the caster bow, retractable oscillators, strand guiding units, drive adoption of the withdrawal strand unit (WSU), and a pinch roll. The comprehensive electrics and automation solution for the mold/oscillator, including the LevCon Autostart function, and implementation services, rounds off the scope.

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

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

Increased Mold Level Stability

As part of the project, Primetals Technologies' automation experts collaborated with Feralpi engineers to identify optimization areas that could enhance production performance. The evaluation revealed that response times for the withdrawal drives could be improved. The team implemented a new set of LevCon parameters based on a numerical optimization approach.

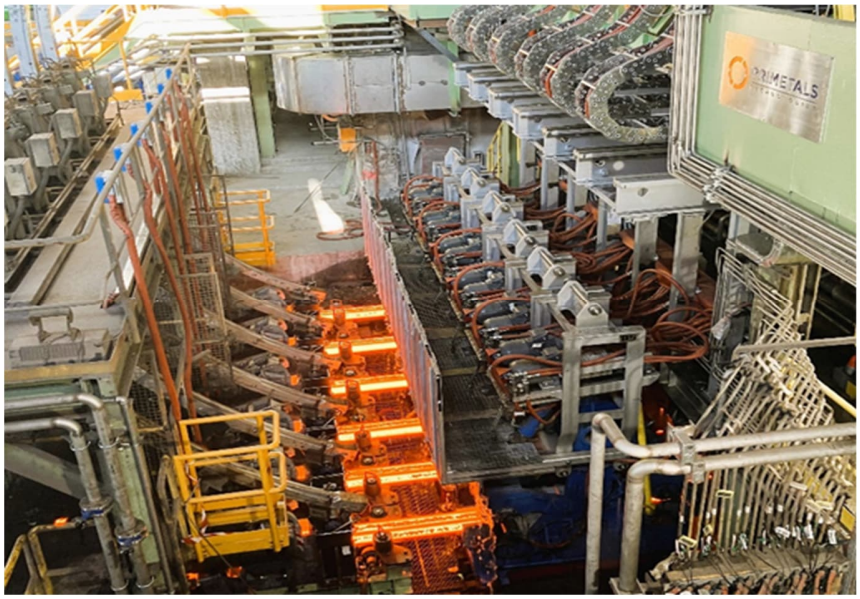
The new state-of-the-art LevCon function for open stream casting enables improved mold level control, resulting in an average 34 percent improvement for the standard deviation of the mold level, i.e. the value indicating mold level stability. Feralpi has expressed satisfaction with the project, noting that the new technology has set a new standard for precise mold-level control. LevCon's Autostart function has also become part of Feralpi's ongoing operations, minimizing the risk of breakouts.

Feralpi Group, which controls several international companies, is a leading supplier to the European construction industry with an annual production capacity of 2.45 million tons. Known for its commitment to circular economy initiatives, Feralpi produces 98.6% of its steel using recycled and recovered materials or by-products. The group operates several subsidiaries in Italy and has production and sales locations in Europe and North Africa. Founded in 1968, Feralpi Siderurgica is the oldest company in the Feralpi Group and is a key European supplier of reinforcing steel, wire rod, reinforcement meshes, and related products.

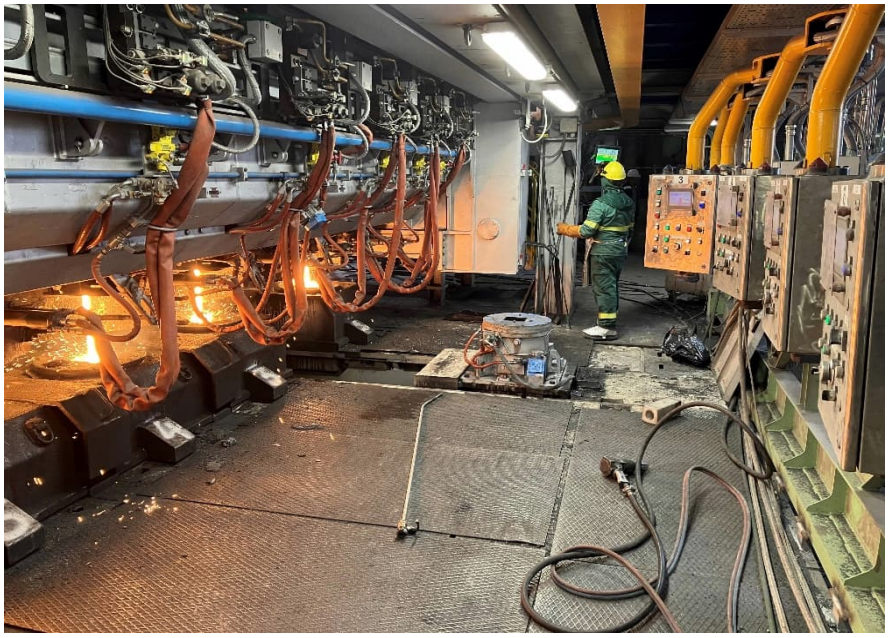
Key facts: 6-strand billet caster at Feralpi Lonato

Dimension of billets: 140 to 160 millimeters

Casting speed: up to 3.25 meters per minute



The revamped 6-strand billet caster from Primetals Technologies at Italian steel producer Feralpi's site in Lonato del Garda, Italy.



Retractable oscillators from Primetals Technologies allow for the exchange of molds during casting sequences, resulting in increased productivity.

Primetals Technologies designed the 6-strand billet caster bow in one piece to ensure a minimized shutdown period.

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

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

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

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
twitter.com/primetals

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