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Innovative process optimization and quality control solution implemented at steel producer in the Americas

- **Upgrade of Level 2 automation system for slab caster**
- **All systems operated on a software subscription basis**
- **Virtualized servers ensure rapid scaling of services and shorten IT-related response times**

Brazilian steel producer Gerdau recently implemented a comprehensive process optimization and quality control solution from Primetals Technologies at the continuous slab caster No. 3 in its integrated steel plant in Ouro Branco, Brazil.

The new systems are operated on virtualized servers through a software subscription model. As part of the subscription concept, Primetals Technologies provides regular updates and support for the recently installed systems. Therefore, the process optimization solutions are always up to date. The team from Primetals Technologies has heavily expanded its subscription offers over the past year, and the portfolio of software subscriptions is wide-ranging.

Several expert systems

Gerdau operates three continuous casters at its Ouro Branco site. At continuous caster No. 3, the old Level 2 automation system has now been replaced by CC Optimizer, a process optimization solution from Primetals Technologies. Additionally, several expert systems will control and optimize parts of the plant.

The new solution features, among other things, automated casting speed control, condition monitoring of the secondary cooling system, and early detection of breakouts. A fully integrated quality control system enables automated quality assessments and rapid failure analyses, which are based on production data gained over the long term.

Shortened response times

This project will virtualize all of Gerdau's servers. The necessary hardware, including the operating systems, is managed in a central data center. This solution enables lifecycle management of the server infrastructure, ensures fast scaling of services, and shortens the response time of the IT team.

With a history spanning 121 years, Gerdau is Brazil's largest steel producer as well as one of the leading producers of long steels in the Americas. Gerdau is also one of the world's most prominent suppliers of specialized steels. It has operations in nine countries and produces steel for the agricultural, automotive, construction, distribution, energy, industrial, and mining markets.

Key Facts: Gerdau's new expert systems from Primetals Technologies

- **Speed Expert** calculates the optimal casting speed while considering all possible influencing factors.
- **Nozzle Expert** monitors the condition of the secondary cooling system and detects any clogged nozzles and leaks.
- **Mold Expert** detects and prevents breakouts and analyzes the casting process in the mold.
- **Through-Process Quality Control (TPQC)**, an integrated quality control system, stores relevant production data to do quality assessments and to run failure analyses. In addition, it derives improvement measures from the data and highlights these on preconfigured dashboards. As a result, this system helps to increase process stability and end-product quality.



Part of the Gerdau and Primetals Technologies project team that has implemented a new process optimization and quality control solution at the integrated steel plant in Ouro Branco, Brazil.

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

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