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## Chinese Steel Producer Orders Extensive Automation Solution to Improve Accuracy and Product Quality

- **Primetals Technologies to upgrade automation systems at hot-strip mill**
- **Shadow mode ensures smooth switchover to new system and a minimized shutdown period**
- **Advanced control system for more precise calculation of values at final rolling and coiling stages**

Chinese steel producer Shougang Qianan has recently chosen Primetals Technologies for a comprehensive upgrade of the automation systems at its hot-strip mill in Qianan, Hebei province. The new systems are scheduled to be in operation by May 2025.

### Improved accuracy during rolling

Numerous references across the globe and the fact that Primetals Technologies continually refines the technology are two of the main reasons behind Shougang Qianan's choice of supplier. The process optimization system (Level 2) from Primetals Technologies will allow the Chinese producer to meet and exceed the requirements of demanding applications like electrical steel and strip for the automotive industry. It enables more accurate control of strip temperature, profile, and thickness during the rolling process.

### Shadow mode for smooth system exchange

Primetals Technologies will supply and implement a new state-of-the-art Level 2 automation system and upgrade specific functions of the Level 1 automation system. Switching to the new systems will be a smooth and swift process, thanks to a so-called shadow mode. The team from Primetals Technologies will connect the new system to the mill environment while the current system is still in operation. This approach ensures that the implementation team receives valuable configuration settings and insights related to the production process before the shutdown itself takes place. Moreover, self-learning neural networks, i.e. the process models, leverage the process data, further ensuring a safe changeover to the upgraded Level 2 system.

### Optimized rolling speed and temperature

A part of the Level 2 automation system, the Comprehensive Temperature Control (CTC) model optimizes rolling speed and temperature, which results in improved plant performance. The model uses temperature values from a measuring point located after the roughing mill to predict rolling temperatures. It controls the speed of the finishing mill with an optimized speed diagram – a database of settings for achieving the correct speed in a vast array of production conditions.

Shougang Qianan is a subsidiary of the Shougang Group. Its portfolio comprises the complete range of cold and hot-rolled steel products, including electrical steel, automotive, pipeline, and sheets for the home appliance industry, as well as value-added services.



Shougang Qianan has chosen Primetals Technologies for a comprehensive automation upgrade of its hot-strip mill in Qianan, Hebei province, China.

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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 [primetals.com](https://www.primetals.com).