

AI-Enhanced Mold Monitoring

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The quality of continuously cast slabs is strongly influenced by steel grade and casting parameters. The Strand Quality Index (SQI) enables probabilistic prediction of crack formation based on these factors. By integrating the Mold Expert, which calculates depressions in the mold using temperature profiles, the SQI now receives additional event information, significantly improving the accuracy of quality issue forecasts.

Furthermore, we present an innovative approach to determining the meniscus profile using AI-based models trained on temperature data from horizontal optical fibers. This technology drastically reduces investment costs compared to vertical optical fibers, offering a cost-efficient solution for process monitoring.

Combining these methods results in enhanced prediction accuracy and more economical monitoring of the continuous casting process.

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