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## Primetals Technologies and Tata Steel Europe complete successful remote commissioning of Level 2 automation for continuous caster CC21

- **A premiere for both companies: the commissioning took place 100 percent online**
- **Level 2 system from Primetals Technologies replaces existing automation solution**
- **Harmonization of the automation on all continuous casters simplifies production processes**
- **The new calculation algorithms and software models potentially take the machine performance to the next level, having improved cooling, speed- and width control**

For the first time in over 50 years of cooperation, Primetals Technologies and Tata Steel Europe have commissioned a Level 2 system for a continuous caster completely online. In mid-July 2019, the new system from Primetals Technologies successfully replaced the existing automation on continuous caster CC21 of Tata Steel Europe in IJmuiden, the Netherlands. At the same time, Primetals Technologies is constructing continuous caster CC23 for Tata Steel Europe in IJmuiden, which will also be equipped with the Level 2 system. This harmonization of the automation solutions will simplify the control and optimization of the production processes. One advantage of the new solution is that the calculation algorithms and software models have additional potential to improve strand cooling, speed- & width control and thus improve production performance and right first time casting.

### **Step-by-step remote commissioning with online support in real time**

In July 2019, Primetals Technologies and Tata Steel Europe successfully completed the entirely remote commissioning of the Level 2 system for continuous caster CC21 in IJmuiden, the Netherlands. The correct coupling to the Level 1 system and the existing IT environment at Tata Steel Europe had previously been tested in several cold-runs with on-site support of Primetals Technologies. All 10 hot-runs and commission were supported on-line, resulting in the successful casting of 140 Heats with a total of 1900 slabs in mid-June 2019.

The experts from Primetals Technologies were continuously connected online to the team from Tata Steel Europe in IJmuiden and their system throughout all the hot runs, and they supported the operator at the plant in real time – a premiere for both companies. This successful commissioning was based on defining all relevant interfaces in detail in advance, and the intensive preparations of the experts of both companies, which was characterized by mutual trust and the highly complementary technical and metallurgical know-how of both sides.

### **Harmonization of the automation solutions**

The Level 2 system from Primetals Technologies replaced an existing automation solution that had been in operation for over 20 years. In addition to replacing the outdated system the main reason behind the modernization was the harmonization of all the caster automation systems (CC21, CC22 and the new CC23) used by Tata Steel Europe in its IJmuiden plant. The new Continuous caster CC23 is currently under construction and will also be equipped with the Level 2 system from Primetals Technologies. Valuable experience has been gained from the commissioning on the CC21 plant and applied to the preparations for the CC23 plant. In particular, the coupling of the solution to the existing IT infrastructure of Tata Steel Europe can now be used again, which will substantially reduce the effort required to commission the new plant.

### **Sophisticated calculation algorithms and software models**

Tata Steel Europe benefits from the new Level 2 solution from Primetals Technologies, especially from the sophisticated calculation algorithms and software models included as standard. Models and simulations are already being used to gradually further improve secondary cooling maintaining a defined surface temperature profile throughout the entire casting sequence. The system also continuously adjusts the width of the strand on the basis of the data calculated in real time, which makes a major contribution towards first time right order fulfillment. Another function calculates the optimal casting speed of the continuous caster on the basis of various parameters – such as temperature distribution, throughput, analysis and scheduling – enabling a stable casting operation to be maintained.



Primetals Technologies and Tata Steel Europe commissioned the Level 2 automation solution on continuous caster CC21 100 percent online. Photo: © Fix Media, the Netherlands.

This press release and a press photo are available at [www.primetals.com/press/](http://www.primetals.com/press/)

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