

## **AIC replaced the ABB AC450 PLC with AB PLC**

AIC was awarded by **Feralpi Siderurgica** for the task of replacing the ABB AC450 PLC with an Allen Bradley PLC at mill 2 located in Lonato, Italy.

The goal of this project was to replace the obsolete mill control with a state-of-the-art solution. The scope of supply included, the replacement of all the ABB AC450 PLCs and HMI.

The replacement of the ABB AC450 was a big concern for our customer due to the complexity of the system, the difficult to integrate it into the modern solution and technologies, the lack of resources for assistance and troubleshooting and the expensiveness of the replacement parts. These factors are very good reasons to upgrade the control system but some of them were also a reason to don't do it. The complexity of the system, the lack of knowledge, the dependency from ABB and the factor that is a robust system was delaying the customers decision to move forward with the upgrade. This is something very common with all mills that have ABB AC450 or MP200 system controls but delaying the upgrade it will just make the decision tougher and the complexity bigger. Having the right resources this upgrade can be done seamless leaving the customer with a state-of-the-art solution that will benefit the customer process control, maintenance and capacity to improve.

The process of upgrading the control system was done in three stages:

- Stage 1
  - o Replace speed control for the roughing mill.
  - o Replace of the shear control.
  - o Introduction of the new Wonderware HMI. This coexisted with the existing ABB HMI until all the conversion was completed
- Stage 2
  - o Replace the speed control of the rest of the mill.
  - o Replace of the control of the remaining shears.
  - o Continue the movement of functions from the existing HMI to the new one.
- Stage 3
  - o Replacement of the remaining functions of the ABB system control including interlocks management, stand movements and auxiliary controls.
  - o Complete the replacement of the existing HMI leaving only the new Wonderware HMI.

After every stage the customer was able to resume production since day one.

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AIC is a global system integrator providing advanced and tailored automation solutions for the steel industry, with the aim to continuously improve both efficiency, competitiveness and safety of the production processes. With more than 1000 applications worldwide and over 40 years of history, AIC can boast a unique experience in both greenfield and revamping projects in long products rolling mills and continuous casting machines.

Founded in 1968, Cascade Steel Rolling Mills is a state-of-the-art steel manufacturing facility that takes recycled metal and turns it into high-quality finished steel products. Located in McMinnville, OR (near Portland), the electric arc furnace (EAF) mini-mill produces a wide range of hot rolled products such as reinforcing bar (rebar), coiled reinforcing bar, wire rod, merchant bar and other specialty products.

This press release is available at

- <http://www.aicnet.it/rassegna-stampa/>

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