

Success Story

Industry Segment: **Steel**

Water Cooling in Steel Rod Manufacture - PC-based SCADA



The Customer

The customer is a leader in manufacture of steel bars, in India.

The Application

In the technology employed by the company in this facility, steel bars are converted into TMT rods through hot forming. The process involves water cooling of the rods, which is very important for the imparting of strength to the iron rods. The crucial issue however is the amount of water that will come into contact with the steel rods. Hence controlling the water flow and its inlet values is crucial to the process.

In order to ensure that the process has received just the right quantity of water, the customer decided to go in for a SCADA solution, that provided documented evidence of water supply at inlet for data logging and quality control.

Speed of the steel movement is 18 m/sec! So, one has to be sure that the water cooling the steel bar is extremely accurate.

The Solution

FCS solution included:

- PC-based SCADA system for data logging
- Operator interface for production data entry
- PLC with high speed inputs

Challenges

- Speed of the steel movement is 18 m/sec! So, one has to be sure that the water cooling the steel bar is extremely accurate.
- Due to increased hardness of the rods after cooling, the cut-to-length operation of the rods needs to be performed just before the water box, without any shifting of the rod so that smooth passage of the rods is enabled. Since all the operations have to be performed on pre-calculated parameters, the actualisation of the planned recipe into the real product has to be perfect!

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- PLC and SCADA Software
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