

The major bar producer in India chooses AIC India and its Rolling Mill Automation & Control System (RACS) for the rolling mill modernization.

One of the leading steel producers in the Indian market contracted AIC to upgrade their existing control system with an aim to improve productivity & yield of the rolling mill by improving the operational stability and consistency of their shear control systems. The following objectives were achieved:

- Improved cut to cut accuracies for both crop and divide shears. Crop shears achieved the cut length accuracy of +/- 10 mm and divide shears - +/- 100 mm due to improved speed calibration.
- Optimization algorithm resulting in no cobbles due to undershoot, leading to improved mill utilization and overall yield improvement due to short length redistribution.
- Reduced billet gap enabling greater productivity due to improved cycle times.
- Less stress on shears due to optimized and calculated position control. The load is taken by the shears while the cutting has been reduced. This increases the life cycle of the equipment involved in the cutting process as the wear and tear on the equipment are considerably reduced (the reduced wear of blades and reduced risk due to braking).

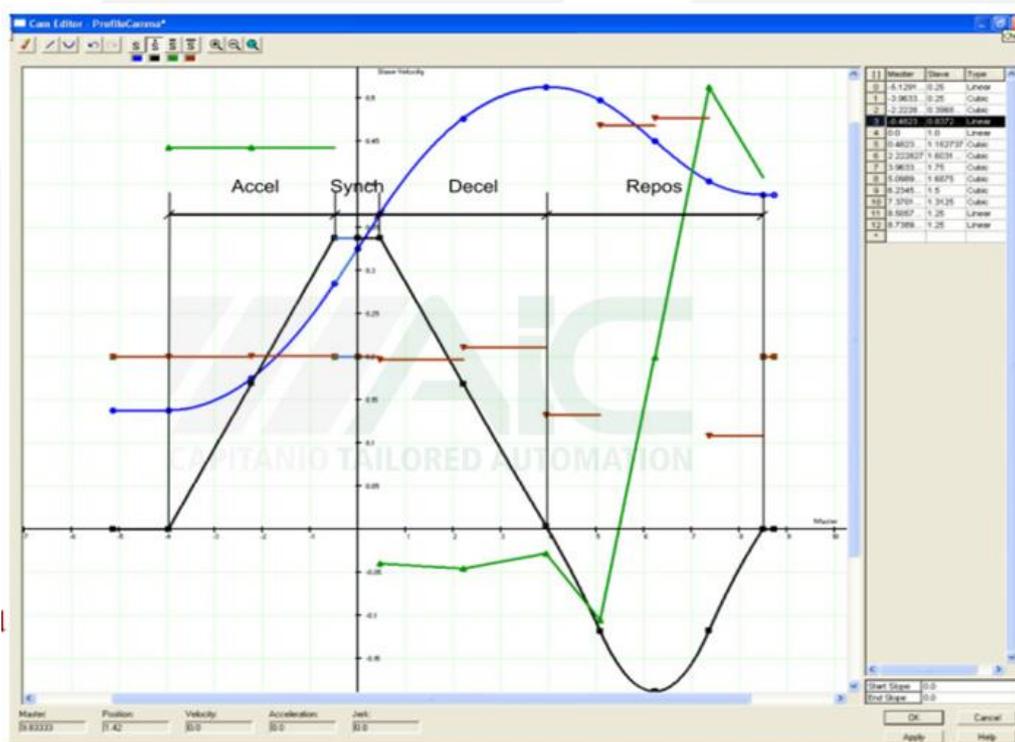
The upgraded automation of the shears allowed to significantly reduce downtime, reduce cobbles & downgrades, minimize cycle time of equipment. The various automation functions were covered in the scope of supply. For instance, Shear and Auxiliary devices control:

- Control of shear knives position has a fundamental importance to guarantee cutting precision, for this reason cutting control system is equipped with Motion control Hardware that are dedicated to control these functions.
- Axes control is the heart of the control system. It controls the position of the shear knives to assure precision and repeatability of the cut length.
- Apron control / Twin Channel.
- Tail Braking pinch rolls.
- Rake control.

As a result, the advanced control system improves rolling mill's performance and efficiency exploiting the capabilities of motion control hardware and software. The control system supports operations and maintenance personnel. These cost-effective solutions are the driving force in the current market scenario as they help in a short-term return on investment.

AIC Automazioni Industriali Capitano sites:

- Italy (Headquarters, Engineering & Workshops)
- United States of America (Sales & Service)
- India (Sales, Engineering & Service)
- Brazil (Sales, Engineering & Service)



Cut cycle control (reference only)

AIC is a global system integrator providing advanced and tailored automation and robotic 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 more than 40 years of history, AIC can boast a unique experience in both greenfield and revamping projects in meltshops and long products rolling mills.

This press release is available at
- <http://www.aicnet.it/rassegna-stampa/>

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