

New bars evacuation on cooling bed outlet started at Metallurgica Marcora steel plant

In March, after only four weeks of plant shutdown, the rolling mill Metallurgica Marcora based in Cuggiono (Milan, Italy) restarted production rolling on the cooling bed outlet after AIC integrated the automation system and furnished new equipment for finishing and stacking bars.

The Marcora family has been in the industry for nearly 150 years, and it stands as an Italian leading manufacturer of laminates for standard and special profiles, with a two-decade partnership with AIC.

The project timely targets the complete mechanical, hydraulic and electrical cold-shear refurbishment, splitting layers for stacking with the rebuff of unwonted bars and piling up bars with a cutting-edge approach before the intervention of the automatic strapping machine.



Figure 1&2 – Cold-shear and stacking area.

The package holds brand-new auxiliary drives, process and safety automation through Allen Bradley PLC and Safety PLC, that combines the access management through a safety box and set of electrics locks, ensuring an integrated control, reducing wiring time, and streamlining the entire process' coordination.

Furthermore, the deployment of a SCADA system, integrated with AIC's existing one, with a local pulpit, guarantees a successful oversight and improved troubleshooting.



Figure 3 – Team AIC inside the pulpit.

The automated strapping machine, Engen, has been filled in for the execution of all phases of the strapping cycle, assuring an autonomy of up to 1000 replete sequences. The wafting head of the machine allows off-loading the tightness of the strap on the structure with advantages in terms of tension.



Figure 4&5 – Automatic strapping machine and bundles of strapped bars.

Testing, commissioning, and production assistance were all part of the package. AIC overcame project complexity and time constraints through integrated architecture and our team's unwavering care and flexibility during days of cold and hot testing. This step built on the first phase of the project, which was completed last summer and focused on the cold shear area.

AIC Capitanio Tailored Automation is a global system integrator that designs, manufactures and commissions turn-key plants worldwide, providing advanced and tailored automation and mechatronics solutions for the steel industry, with the aim to continuously improve both efficiencies, competitiveness and safety of the production processes. With more than 1500 applications worldwide and more than 45 years of history, AIC can boast a unique experience in both greenfield and revamping projects, especially in meltshops and long products rolling mills.

Metallurgica Marcora is a historic Italian steel company that specializes in hot-rolled steel. It is one of the leading manufacturers of laminates for standard and special profiles. The Cuggiono (MI, Italy) production site has a processing capacity of 6 mm maximum thickness and 2000 mm maximum width, with a covered area of 13,000 square meters - a total area of 24,000.

For more information:



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